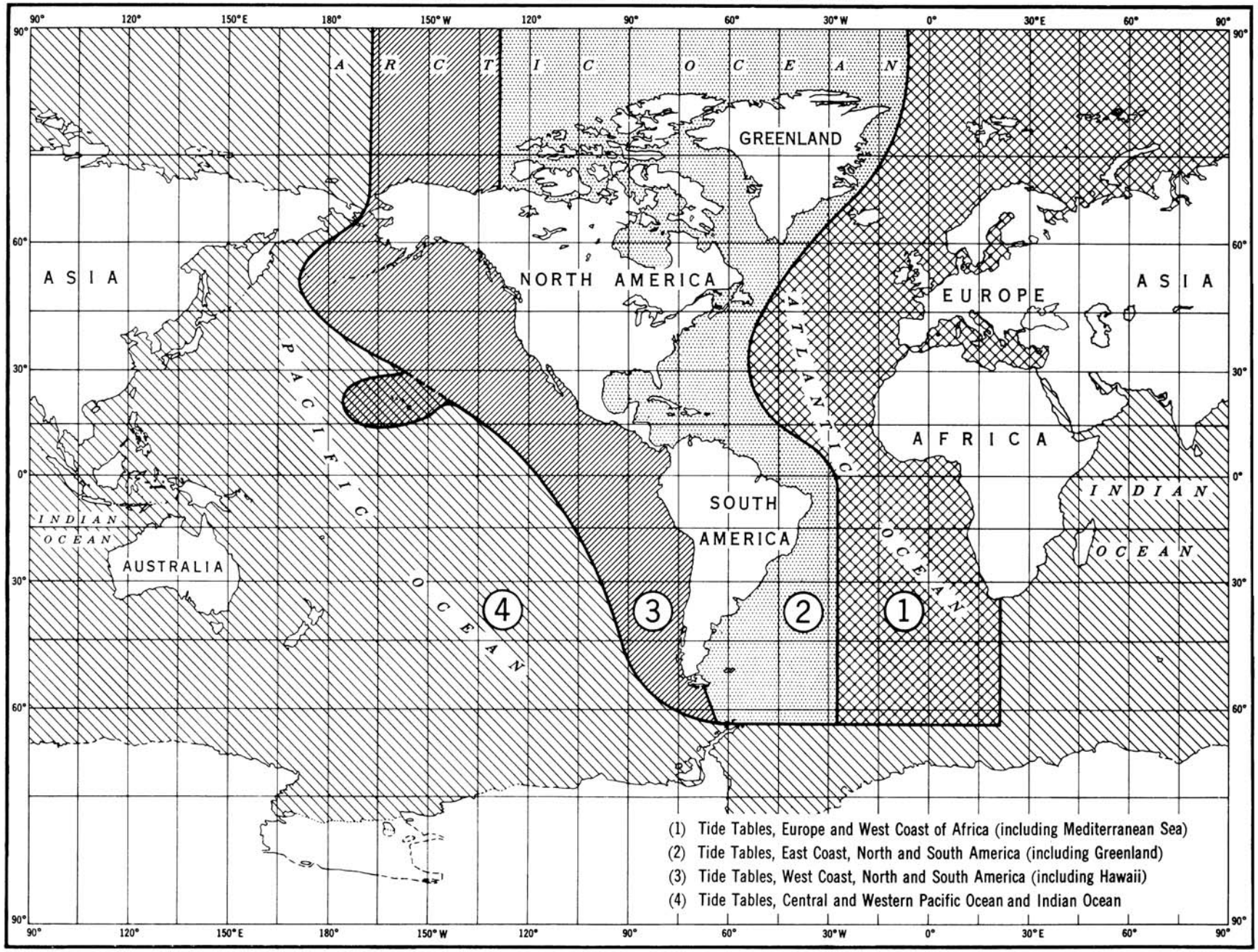
Tide Tables 2010 HIGH AND LOW WATER PREDICTIONS

West Coast of North and South America

Including the Hawaiian Islands

Tide Tables 2010 – West Coast of North and South America including the Hawaiian Islands

INDEX OF TIDE TABLE COVERAGE



SOURCES OF ADDITIONAL INFORMATION

THE NATIONAL OCEAN SERVICE IS NO LONGER PRINTING AND DISTRIBUTING THE TIDE AND TIDAL CURRENT TABLES

Tide and Tidal current data continue to be updated, generated and published by the NOAA/National Ocean Service; however, the printing and distribution in book-form is now done by private companies working from information provided by NOS.

NOS now offers two new vehicles for obtaining predictions. First, the complete set of Tables as camera-ready page-images will be available on CD-ROM. The CD-ROM vehicle is primarily intended for use by private printers who wish to print in book-form the full set of Tables for distribution to resellers and the general public. Second, for domestic tide reference stations, limited predictions are available on the NOS, Center for Operational Oceanographic Products and Services (CO-OPS), web site, (http://tidesandcurrents.noaa.gov/).

In addition to predictions, the web site provides updated information on the status of the Tables as they are finalized each year. Notices concerning the most recent Table updates and publication cut-off dates are included.

For the names of companies printing and distributing the Tables, please call or write to:

National Ocean Service
Products and Services Division, N/OPS3
1305 East-West Highway
Silver Spring, MD 20910
301-713-2815, fax 301-713-4500

PUBLICATIONS:

United States Coast Pilots and Nautical Charts may be ordered from:

FAA, National Aeronautical Charting Office
Distribution Division, AJW-3550
10201 Good Luck Road
Glenn Dale, MD 20769-9700
(301) 436-8301
(800) 638-8972 toll free, U.S. Only
http://www.naco.faa.gov/

A list of authorized sales agents is published in the Nautical Chart Catalogs or may be obtained on request from the National Ocean Service. The publications may also be purchased across-the-counter at the NOAA, Distribution Branch office listed above.

TECHNICAL ASSISTANCE:

Technical questions relating to ***tide and current predictions***, as well as requests for ***special predictions***, should be addressed to:

National Ocean Service
Products and Services Division, N/OPS3
1305 East-West Highway
Silver Spring, MD 20910
(301) 713-2815

SOURCES OF ADDITIONAL INFORMATION

Technical questions relating to ***actual tide observations, tidal datums, and other information necessary*** for ***engineering projects*** should be addressed to:

National Ocean Service
Products and Services Division, N/OPS3
1305 East-West Highway
Silver Spring, MD 20910
(301) 713-2877

Technical questions relating to *other publications and nautical charts* should be addressed to:

National Ocean Service
Customer Affairs Branch
1315 East-West Highway.
Silver Spring, MD 20910
(301) 713-2729

WEBSITES

Center for Operational Oceanographic Products and Services
(PORTS® * Predictions * Observations * Bench Marks * Tides Online * Great Lakes Online)

http://tidesandcurrents.noaa.gov

Coastal Services Center - http://www.csc.noaa.gov

Marine Chart Division - http://www..nauticalcharts.noaa.gov

Ocean Predictions Center - http://www.opc.ncep.noaa.gov

National Centers for Environmental Predictions - http://www.ncep.noaa.gov

National Climatic Data Center - http://www.ncdc.noaa.gov

National Data Buoy Center - http://www.ndbc.noaa.gov

National Geodetic Survey - http://www.ngs.noaa.gov

National Geophysical Data Center - http://www.ngdc.noaa.gov

National Ocean Service - http://www.nos.noaa.gov

National Oceanic and Atmospheric Administration - http://www.noaa.gov

National Oceanographic Data Center - http://www.nodc.noaa.gov

National Weather Service - http://www.nws.noaa.gov

U.S. Coast Guard - http://www.uscg.mil

U.S. Geological Survey - http://www.usgs.gov

U.S. Naval Observatory - http://www.usno.navy.mil

U.S. Naval Oceanographic Office - https://oceanography.navy.mil

CORRECTIONS:

Corrections to this publication, after the date of printing, may appear in the Notice to Mariners. They may also appear in the Local Notice to Mariners, published weekly, by the various United States Coast Guard Districts.

Tide Tables 2010 HIGH AND LOW WATER PREDICTIONS

West Coast of North and South America

Including the Hawaiian Islands

Issued 2009

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IMPORTANT NOTICES

For the most part, tide predictions for U.S. reference stations are based upon analyses of tide observations for periods of at least one year. Since the extremes of meteorological conditions have been excluded from the analyses and predictions, the predicted tidal heights should be considered as those expected under average weather conditions. During times when weather conditions differ from what is considered average for the area, the mariner must take note of the corresponding differences between predicted levels and those actually observed. Generally, prolonged onshore winds or a low barometric pressure can produce higher levels than predicted, while the opposite can result in lower levels than those predicted.

Exclusive of weather conditions, the astronomical tide is subject to range variations which should be noted. Decreased ranges may be expected near the times when the Moon is in apogee (apogean tides) or in quadrature (neap tides), and increased ranges may be expected when the Moon is in perigee (perigean tides) or in a new or full position (spring tides). A larger diurnal range may also result when the Moon is in its maximum declination (tropic tides). The actual range will depend upon the extent to which combinations of these positions reinforce or detract one from the other. The effect of these astronomical lineups is included in the predictions and may be apparent upon inspection.

The mariner may be kept aware of the times of these astronomical events by referring to the astronomical data listed in this book. He should realize, however, that there is generally a time lag from a few hours to several days from the time of the astronomical event to the time of the resultant tide. During times of storm surges or when extreme weather conditions are imminent, the mariner should closely follow local weather forecasts as they relate to the effects upon the tide levels.

DAYLIGHT-SAVING TIME IS NOT USED IN THIS PUBLICATION. All daily tide predictions and predictions compiled by the use of Table 2 data are based on the standard time meridian indicated for each location. Predicted times may be converted to daylight-saving times, where necessary, by adding 1 hour to these data. In converting times from the Astronomical Data on the inside back cover, it should be remembered that daylight saving time is based on a meridian 15° east of the normal standard meridian for a particular place.

NOS, in partnership with other agencies and institutions, has established a series of Physical Oceanographic Real Time Systems (PORTS®) in selected areas. These PORTS® sites provide constantly updated information on tide and tidal current conditions, water temperature, and weather conditions. This information is updated every six minutes. PORTS® sites are currently in operation at several major harbors with future sites to be added. The information is accessible through a computer data connection or by a voice response system at the following numbers:

PORTS® SITES	VOICE ACCESS	INTERNET ACCESS
CHERRY POINT	888-817-7794	www.tidesandcurrents.noaa.gov
CHESAPEAKE BAY	866-CH-PORTS (866-247-6787)	“
DELAWARE RIVER & BAY	866-30-PORTS (866-307-6787)	“
GULFPORT	888-257-1858	“
HOUSTON/GALVESTON	866-HG-PORTS (866-447-6787)	“
LAKE CHARLES	888-817-7692	“
LOS ANGELES/LONG BEACH		“
LOWER COLUMBIA RIVER	888-53-PORTS (888-537-6787)	“
MOBILE BAY	877-84-PORTS (877-847-6787)	“
NARRAGANSETT BAY	866-75-PORTS (866-757-6787)	“
NEW HAVEN	888-80-PORTS (888-807-6787)	“
NEW YORK/NEW JERSEY	866-21-PORTS (866-217-6787)	“
PASCAGOULA	888-257-1857	“
PORT OF ANCHORAGE	866-AK-PORTS (866-257-6787)	“
SABINE NECHES	888-257-1859	“
SAN FRANCISCO BAY	866-SB-PORTS (866-727-6787)	“
SOO LOCKS	301-713-9596	“
TACOMA	888-60-PORTS (888-607-6787)	“
TAMPA BAY	866-TB-PORTS (866-827-6787)	“

PUBLISHED CAUTIONARY NOTICES

Published in Local Notice to Mariners and United States Coast Pilot Notices

THE NARROWS, PUGET SOUND, WASHINGTON

Tidal current speeds at The Narrows, Puget Sound, Washington have been reported by the U.S. Coast Guard and other reliable sources as being significantly higher than predicted. Until such time as new tidal current data can be collected to update predictions at this location, extreme caution should be used while navigating the area.

Issued October 1, 2008

CHANGES TO 2004 AND FUTURE EDITIONS OF THE NOS TIDE TABLES

The National Ocean Service's, Center for Operational Oceanographic Products and Services (CO-OPS) is continuing to work on updating tidal data for the 1983-2001 Tidal Epoch. The updated information will begin to appear in the 2004 edition of the published Tide Tables and is expected to be completed for the 2005 Tide Tables. In conjunction with the 1983-2001 Tidal Epoch update, CO-OPS has started a comprehensive review of the secondary stations listed in the published Tide Tables. As a result of this review, there will be numerous changes to the stations listed in the "Table 2 - Tidal Differences and Other Constants" pages of the published Tide Tables and in the CO-OPS web products. These changes will include the addition of new stations, removal of obsolete stations, and updating information for other existing stations. These changes will begin to appear in the 2004 edition of the published Tide Tables and are expected to continue for several years.

Tables in which U.S. stations will be affected by the 1983-2001 Epoch and Table 2 station review include:

- Tide Tables - East Coast of North and South America, Including Greenland
- Tide Tables - West Coast of North and South America, Including the Hawaii Islands
- Tide Tables - Central and Western Pacific Ocean and Indian Ocean

Issued October 1, 2003

TIDAL CURRENT PREDICTIONS INSIDE U.S. ESTUARIES

At present there are several U.S. estuaries with operational Physical Oceanographic Real Time Systems (PORTS) installed. PORTS systems are presently being installed in several additional estuaries. Over the next ten years there are projected to be twenty or more additional systems installed. In the past, the tidal current reference station has always been located at the entrance to each estuary. All tidal current secondary stations both inside and outside (along the coast) have been referred to the reference station at the entrance to the estuary. This will no longer be the case in estuaries with an operational PORTS system.

Estuaries with an operational PORTS system will have at least two reference stations. One will be the historic station at the entrance to the estuary. All secondary stations along the coast will continue to be referred to this station. The second tidal current reference station will be the primary PORTS station within the estuary. All secondary locations within the estuary itself will be referred to this location. Depending on the circulation dynamics of the estuary, daily tidal current predictions may be provided for one or more additional stations within the estuary.

(Issued October 1, 1999)

IMPORTANT NOTICES

CHIGNIK, ALASKA

The US Army Corps of Engineers (USACOE) is planning the construction of a Small Boat Harbor in Chignik, AK. The construction will include dredging and the construction of a breakwater. Official published Tide and Tidal Current predictions will be degraded once the project begins. Tidal Currents will be effected the most. From the beginning of the project until a resurvey of the area can be completed, Tide and Tidal Current predictions should be used with caution. Tidal Current predictions should be used only with extreme caution. Therefore, until such time as a resurvey of the area is conducted, the National Oceanic and Atmospheric Administration, National Ocean Service will be unable to provide the accurate Tide and Tidal Current predictions necessary for marine safety and navigation in this area.

(Issued May 30, 1997)

NEPTUNE BEACH, WASHINGTON

Pudget Sound Pilots report that observed tidal currents in the vicinity of Neptune Beach, WA deviate significantly from official published predictions. Reliable sources report that the observed velocities are close to double the predicted values and that the times are up to 1 hour earlier than predicted. Extreme caution should be exercised in this vicinity by all vessels especially tankers passing through the area approaching oil refineries. Funding for a resurvey of the area and/or the installation of a real-time monitoring system is not presently available. Therefore, until such time as real-time system is installed or a resurvey of the area conducted, the National Oceanic and Atmospheric Administration, National Ocean Service will be unable to provide the accurate Tidal Current predictions necessary for marine safety and navigation in this area.

(Issued May 30, 1997)

KUSKOKWIM BAY AND RIVER, ALASKA

The National Ocean Service's (NOS) official published time and height corrections for this area (Table 2 in the Tide Tables West Coast of North and South America) in recent years have been based on the daily predictions for Nushagak Bay, AK, the nearest NOS reference station. These published values, however, do not provide the most accurate corrections. The shape of the tide curves varies considerably along the Alaskan coast. The previously published corrections based on Matarani, Peru, provide more accurate results for this area because the shape of the tide curves closely match. The corrections based on Matarani are:

Location Name	**Position**		**Differences**			
	Lat. N ° ′	Long. W ° ′	Time High h. m.	Time Low h. m.	Height High ft.	Height Low ft.
Goodnews Bay entrance	59 03	161 49	+0 59	+0 51	*2.83	*2.00
Carter Spit	59 19	161 57	+1 19	+1 24	*3.63	*2.33
Eek Channel, off Quinhagak	59 45	162 15	+2 39	+3 05	*4.25	*1.67
Warehouse Creek entrance	59 56	162 05	+3 05	+3 50	*4.38	*1.67
Kuskokwak Creek entrance	60 02	162 10	+3 53	+4 40	*4.21	*1.67
Popokamute	60 04	162 25	+4 12	+5 05	*3.67	*1.67
Apokak Creek entrance	60 08	162 10	+4 13	+5 10	*4.13	*1.67
Bethel	60 48	161 45	+8 51	+11 11	+0.3	+0.1

(Issued May 30, 1997)

IMPORTANT NOTICES

GRAYS HARBOR, WASHINGTON

Tidal Currents in Grays Harbor have been significantly altered by dredging and construction activities. Tidal predictions for the Tidal Reference Station at Aberdeen have been updated to reflect these changes. Tidal Current predictions for this area should be considered questionable and potentially dangerous to rely upon. Funding for a real-time system to monitor the Tidal Currents or a resurvey of this area is not available at this time. Therefore, until such time as a real-time system is installed or a resurvey of the area conducted, the National Oceanic and Atmospheric Administration, National Ocean Service will be unable to provide accurate Tidal Current predictions necessary for marine safety and navigation in this area.

(Issued June 5, 1996)

SAN DIEGO, CALIFORNIA

The US Army Corps of Engineers (COE) is planning a dredging project for the US Navy in the area of the North Island Naval Base in San Diego Harbor. This project calls for both deepening and widening the channel to accommodate larger naval vessels. Such actions in the past in other areas have resulted in dramatic changes in the observed Tidal Currents of those areas. Once dredging operations commence, the Tidal Current predictions for this region should be considered questionable and potentially dangerous to rely upon. Tidal predictions will also be affected but to a lesser degree. Funding for a real-time system to monitor the Tidal Currents during the project and a resurvey of the area after COE operations are complete are presently not available. Therefore, once COE operations begin and until such time as a real-time system is installed or a resurvey of the area conducted, the National Oceanic and Atmospheric Administration, National Ocean Service will be unable to provide accurate Tidal Current predictions necessary for marine safety and navigation in this area.

(Issued June 5, 1996)

INTRODUCTION

Tide tables for the use of mariners have been published by the National Ocean Service (formerly the Coast and Geodetic Survey) since 1853. For a number of years these tables appeared as appendixes to the annual reports of the Superintendent of the Survey, and consisted of detailed instructions for enabling the mariner to make his own prediction of tides as the occasion arose.

The first tables to give predictions for each day were those for the year 1867. They gave the times and heights of high waters only and were published in two separate parts, one for the Atlantic coast and the other for the Pacific coast of the United States. Together they contained daily predictions for 19 stations and tidal differences for 124 stations. A few years later predictions for the low waters were also included, and for the year 1896 the tables were extended to include the entire maritime world, with full predictions for 70 ports and tidal differences for about 3,000 stations.

The tidal tables are now issued in four volumes, as follows: *Europe and West Coast of Africa (Including the Mediterranean Sea); East Coast of North and South America (Including Greenland); West Coast of North and South America (Including the Hawaiian Islands); Central and Western Pacific Ocean and Indian Ocean.* Together, they contain daily predictions for 270 reference ports and differences and other constants for about 6,530 stations.

This edition of the Tide Tables, *West Coast of North and South America*, contains full daily predictions for 61 reference ports and differences and other constants for more than 1,285 stations in North America, South America, and the Hawaiian Islands. It also contains a table for obtaining the approximate height of the tide at any time, a table of local mean time of sunrise and sunset for every 5th day of the year for different latitudes, a table for the reduction of local mean time to standard time, a table of moonrise and moonset for 6 places, a table of the Greenwich mean time of the Moon's phases, apogee, perigee, greatest north and south and zero declination, and the time of the solar equinoxes and solstices, and a glossary of terms.

Up to and including the tide tables for the year 1884, all the tide predictions were computed by means of auxiliary tables and curves constructed from the results of tide observations at the different ports. From 1885 to 1911, inclusively, the predictions were generally made by means of the Ferrel tide-predicting machine. From 1912 to 1965, inclusively, they were made by means of the Coast and Geodetic Survey tide-predicting machine No. 2. Since 1966, predictions have been made by electronic computer.

The information presented in *Table 4 - Local mean time of sunrise and sunset and in Table 6 - Moonrise and moonset* is computed by the National Ocean Service using the Interactive Computer Ephemeris Program provided by the United States Naval Observatory.

In the preparation of these tables all available observations were used. In some cases, however, the observations were insufficient for obtaining final results. As further information becomes available it will be included in subsequent editions. All persons using these tables are invited to send information or suggestions for increasing their usefulness to the National Ocean Service, Products and Services Division, 1305 East-West Highway, N/OPS3, Silver Spring, Maryland 20910, U.S.A.

In accordance with cooperative arrangements between the National Ocean Service and the authorities listed below, predictions for the following stations appear in this issue:

Canadian Hydrographic Service.— Victoria and Vancouver, B.C..

Servicio Hidrografico y Oceanografico de la Armada, Chile.—Antofagasta, Cabo de Hornos, Puerto Montt, Punta Arenas, and Valparaiso.

LIST OF REFERENCE STATIONS

Name of station	Page	Datum below mean sea-level	Updated	Data Series
Aberdeen, Washington	120	5.56	1994	one year beginning 6/1/1982
Anchorage, Alaska	176	16.04	1970	363 days beginning 5/3/1968
Antofagasta, Chile	20	2.62		
Arena Cove, California	96	3.15	2003	4 years (1993-1996)
Astoria, Oregon	112	4.39	2005	5 years (1999-2003)
Balboa, Panama	52	8.43		
Buenaventura, Columbia	48	6.48		
Cabo de Hornos, Chile	4	4.43		
Callao, Peru	28	1.69		
Charleston, Oregon	108	4.08	2003	5 years (1996-2000)
Cherry Point, Washington	136	5.26	1998	12 years (1981-1993)
Cordova, Alaska	160	6.70	2007	5 years (2000-2004)
Crescent City, California	104	3.75	2007	4 years (2001-2004)
Guayaquil, Ecuador	36	6.35		
Guaymas, Mexico	68	1.52		
Hilo, Hawaii Island, Hawaii	240	1.19	2002	5 years (1994-1998)
Honolulu, Hawaii	228	0.85	2003	5 years (1996-2000)
Humboldt Bay, California	100	3.74	2007	5 years (2000-2004)
Johnston Island	244	1.07	2002	5 years (1994-1998)
Juneau, Alaska	152	8.53	2007	5 years (2000-2004)
Kahului, Maui Island, Hawaii	236	1.16	2002	5 years (1994-1998)
Ketchikan, Alaska	148	8.04	2007	5 years (2000-2004)
Kodiak, Alaska	180	4.48	1994	6 years (1985-1989,1991)
La Union, El Salvador	60	5.10		
La Libertad, Ecuador	40	3.50		
Los Angeles, California	76	2.84	2007	5 years (2000-2004)
Massacre Bay, Alaska	196	1.94	1985	369 days beginning 6/121943
Matarani, Peru	24	1.36		
Moku O Loe, Oahu Island, Hawaii	232	1.07	2002	4 years (1993-1996)
Monterey, California	84	2.88	2003	4 years (1993-1996)
Nawiliwili, Kauai Island, Hawaii	224	0.85	2002	4 years (1993-1996)
Neah Bay, Washington	124	4.30	2007	5 years (2000-2004)
Nikiski, Alaska	172	11.21	2007	5 years (2000-2004)
Nome, Alaska	212	0.84	2001	2 years (1993,1998)
Nushagak Bay, Alaska	204	10.35	1985	29 days beginning 8/2/1909
Port Chicago, California	92	2.55	1998	4 years (1993-1996)
Port Moller, Bristol Bay, Alaska	200	5.84	2009	1 year (10/2006-9/2007)
Port San Luis, California	80	2.83	2003	5 years (1996-2000)
Port Townsend, Washington	128	4.69	2007	5 years (2000-2004)
Prudhoe Bay, Alaska	216	4.50	1998	4 years (1989-1995)
Puerto Montt, Chile	12	11.81		
Punta Arenas, Chile	8	4.00		
Puntarenas, Costa Rica	56	4.57		
St. Michael, Alaska	208	1.95	1985	145 days (1891, 1898,1899)
Salina Cruz, Mexico	64	1.93		

LIST OF REFERENCE STATIONS Cont.

Name of station	Page	Datum below mean sea-level	Updated	Data Series
San Cristobal, Ecuador	44	3.06		
San Diego, California	72	2.94	2004	5 years (1997-2001)
San Francisco, California	88	3.13	1999	5 years (191-1995)
Sand Island, Midway Islands	220	0.65	2002	5 years (1994-1998)
Sand Point, Alaska	184	3.84	1999	4 years (1993-1996)
Seattle, Washington	132	6.63	2007	5 years (2000-2004)
Seldovia, Alaska	168	9.50	1999	365 days beginning 2/1/1996
Sitka, Alaska	156	5.25	2007	5 years (2000-2004)
Sweeper Cove, Alaska	192	2.22	1990	4 years (1982-1985)
Talara, Peru	32	2.59		
Toke Point, Washington	116	4.79	2005	5 years (1998-2002)
Unalaska, Alaska	188	2.19	2007	5 years (2000-2004)
Valdez, Alaska	164	6.43	2007	5 years (2000-2004)
Valparaiso, Chile	16	2.99		
Vancouver, British Columbia	144	10.0		
Victoria, Bristish Columbia	140	6.1		

*Datum below mean river level.

**New Reference Station.

Each datum figure above represents the difference in elevation between the local mean sea (or river) level and the reference level from which the predicted heights in table 1 were calculated.

Local mean sea level datum should not be confused with the National Geodetic Vertical Datum which is the datum of the geodetic level net of the United States. Relationships between geodetic and local tidal datums are published in connection with the tidal benchmark data of the National Ocean Service.

TABLE 1.—DAILY TIDE PREDICTIONS

EXPLANATION OF TABLE

This table contains the predicted times and heights of the high and low waters for each day of the year at a number of places which are designated as *reference stations*. By using tidal differences from table 2, one can calculate the approximate times and heights of the tide at many other places which are called *subordinate stations*. Instructions on the use of the tidal differences are found in the explanation of table 2.

High water is the maximum height reached by each rising tide, and low water is the minimum height reached by each falling tide. High and low waters can be selected from the predictions by the comparison of consecutive heights. Because of diurnal inequality at certain places, however, there may be a difference of only a few tenths of a foot between one high water and low water of a day, but a marked difference in height between the other high water and low water. Therefore, in using theTide Tables it is essential, to note carefully the heights as well as the times of the tides.

Time.— The kind of time used for the predictions at each reference station is indicated by the time meridian at the bottom of each page. **Daylight-saving time is not used in this publication**. If daylight-saving time is required, add one (1) hour to the predicted time.

Datum.— The datum from which the predicted heights are recorded is the same as that used for the nautical charts of the locality. The datum for the Pacific coast of the United States (including Hawaii and Alaska) is the mean of the lower of the two low waters of each day. For foreign coasts a datum approximating to mean low water springs, Indian spring low water, or the lowest possible low water is generally used. The depression of the datum below mean sea level (MSL) for each of the reference stations of this volume is given on the preceding page.

Depth of water.— The nautical charts published by the United States and other maritime nations show the depth of the water as referred to a low water datum corresponding to that from which the predicted tidal heights are recorded. To find the actual depth of water at any time, the height of the tide should be added to the charted depth. If the height of the tide is negative—that is, if there is a minus sign (—) before the tabular height—the height should be subtracted from the charted depth. For any time between high and low water, the height of the tide may be estimated from the heights of the preceding and the following tides, or table 3 may be used. The reference stations in table 1 contain the heights in centimeters as well as in feet.

Variation in sea level.— Changes in winds and barometric conditions cause variations in sea level from day to day. In general, with onshore winds or a low barometer the heights of both the high and low waters will be higher than predicted, while with offshore winds or a high barometer they will be lower. There are also seasonal variations in sea level, but these variations have been included in the predictions for each station. At ocean stations the seasonal variation in sea level is usually less than half a foot.

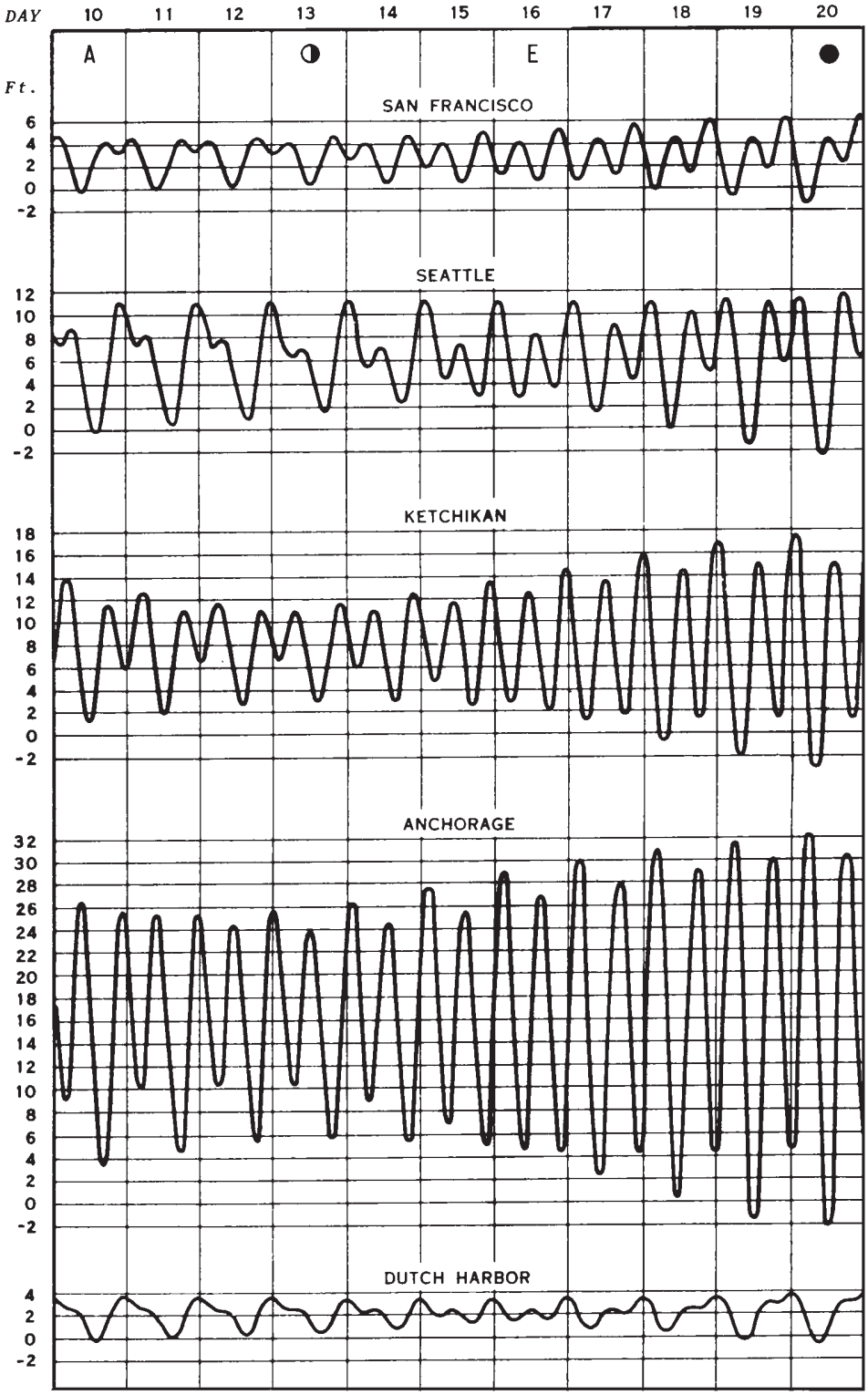
At stations on tidal rivers the average seasonal variation in river level due to freshets and droughts may be considerably more than a foot. The predictions for these stations include an allowance for this seasonal variation representing average freshet and drought conditions. Unusual freshets or droughts, however, will cause the tides to be higher or lower, respectively, than predicted.

Number of tides.— There are usually two high and two low waters in a day. Tides follow the Moon more closely than they do the Sun, and the lunar or tidal day is about 50 minutes longer than the solar day. This causes the tide to occur later each day, and a tide that has occurred near the end of one calendar day will be followed by a corresponding tide that may skip the next day and occur in the early morning of the third day. Thus, on certain days of each month only a single high or a single low water occurs. At some stations, during portions of each month, the tide becomes diurnal—that is, only one high and one low water will occur during the period of a lunar day.

Relation of tide to current.— In using these tables of tide predictions bear in mind that they give the times and heights of high and low waters and not the times of turning of the current or slack water. For stations on the outer coast there is usually a small difference between the time of high or low water and the beginning of ebb or flood current, but for places in narrow channels, landlocked harbors, or on tidal rivers, the time of slack water may differ by several hours from the time of high or low water stand. The relation of the times of high and low water to the turning of the current depends upon a number of factors, so no simple or general rule can be given. For the predicted time of slack water, and other current data, reference should be made to the Tidal Current Tables prepared by the National Ocean Service, for the Atlantic and the Pacific coast of North America and Asia.

Typical tide curves.— The variations in the tide from day to day and from place to place are illustrated on the opposite page by the tide curves for representative ports along the Pacific coast of the United States. Note that one of the chief characteristics of the tide in this region is diurnal inequality, i.e., the difference in heights of successive high waters or low waters. The largest inequality is in the low waters although at Seattle there is also considerable difference between the two high waters on certain days. The importance of this inequality at Seattle is brought out by the curve which shows that, at times, the two high waters of a day differ by more than 4 feet and the two low waters differ by more than 8 feet. At Ketchikan and Anchorage the inequality is less pronounced because of the large range of tide. In these localities the principal variations in the tide follow the changes in the Moon's phase and distance. The tide at Anchorage is one of the largest in the world. At Unalaska and Dutch Harbor the tide is such that it is semidiurnal around the times the Moon is on the Equator but becomes diurnal around the times of maximum north or south declination of the Moon.

TYPICAL TIDE CURVES FOR UNITED STATES PORTS



A discussion of these curves is given on the preceding page.

Lunar data: A - Moon in apogee
◑ - last quarter
E - Moon on Equator
● - new Moon

Cabo de Hornos, Chile, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0358	8.2	251
	1101	0.9	27
	1710	5.6	171
	2222	2.8	85
2 Sa	0451	8.4	256
	1151	0.8	23
	1800	5.8	176
	2319	2.6	80
3 Su	0545	8.4	256
	1240	0.8	23
	1851	6.0	183
4 M	0018	2.5	77
	0640	8.2	250
	1329	0.9	28
	1941	6.2	190
5 Tu	0119	2.4	74
	0736	7.8	238
	1417	1.2	37
	2031	6.5	198
6 W	0222	2.4	73
	0835	7.3	222
	1505	1.6	48
	2123	6.7	205
7 Th ◑	0329	2.3	71
	0936	6.7	204
	1553	2.0	61
	2215	7.0	212
8 F	0438	2.2	68
	1041	6.2	188
	1643	2.4	74
	2308	7.1	217
9 Sa	0548	2.1	65
	1149	5.7	175
	1734	2.8	85
10 Su	0001	7.2	220
	0655	2.0	61
	1257	5.4	166
	1826	3.1	93
11 M	0054	7.3	223
	0757	1.9	57
	1403	5.3	162
	1919	3.2	99
12 Tu	0146	7.3	224
	0853	1.8	54
	1501	5.3	161
	2010	3.3	102
13 W	0235	7.4	225
	0943	1.7	52
	1552	5.3	161
	2058	3.4	104
14 Th	0321	7.4	225
	1027	1.7	51
	1637	5.3	162
	2144	3.4	104
15 F ●	0404	7.3	224
	1108	1.7	51
	1718	5.4	164
	2227	3.4	104

	Time	Height	
	h m	ft	cm
16 Sa	0446	7.3	222
	1146	1.7	53
	1756	5.4	166
	2309	3.4	104
17 Su	0525	7.2	218
	1221	1.8	56
	1833	5.5	168
	2350	3.4	104
18 M	0604	7.0	213
	1255	2.0	60
	1908	5.6	171
19 Tu	0033	3.4	104
	0643	6.7	205
	1327	2.2	66
	1944	5.7	174
20 W	0117	3.4	103
	0723	6.5	197
	1359	2.4	72
	2019	5.8	178
21 Th	0204	3.3	102
	0805	6.1	187
	1430	2.6	79
	2055	6.0	184
22 F	0255	3.3	100
	0852	5.8	177
	1502	2.8	85
	2133	6.2	190
23 Sa ◐	0350	3.1	95
	0945	5.5	168
	1538	3.0	91
	2215	6.5	197
24 Su	0451	2.9	88
	1046	5.3	161
	1620	3.1	95
	2302	6.8	206
25 M	0553	2.6	80
	1151	5.2	157
	1709	3.2	98
	2354	7.1	217
26 Tu	0656	2.3	69
	1256	5.1	156
	1806	3.2	98
27 W	0050	7.5	228
	0755	1.9	57
	1359	5.2	158
	1906	3.1	96
28 Th	0146	7.9	240
	0852	1.5	46
	1457	5.4	164
	2007	3.0	91
29 F	0243	8.2	249
	0945	1.2	36
	1551	5.6	171
	2107	2.8	84
30 Sa ○	0339	8.4	256
	1036	1.0	31
	1643	5.9	180
	2208	2.5	77
31 Su	0435	8.4	257
	1125	1.0	29
	1733	6.2	189
	2308	2.3	71

February

	Time	Height	
	h m	ft	cm
1 M	0531	8.3	253
	1213	1.1	33
	1822	6.5	199
2 Tu	0008	2.2	66
	0627	7.9	242
	1300	1.3	40
	1911	6.8	208
3 W	0110	2.1	63
	0724	7.4	227
	1346	1.7	51
	2000	7.1	215
4 Th	0213	2.0	61
	0823	6.9	211
	1433	2.1	64
	2051	7.2	220
5 F ◑	0317	2.0	61
	0924	6.4	194
	1522	2.5	77
	2143	7.3	222
6 Sa	0423	2.0	61
	1029	5.9	180
	1612	2.9	88
	2237	7.3	222
7 Su	0530	2.0	62
	1135	5.5	169
	1705	3.2	97
	2332	7.3	222
8 M	0634	2.0	62
	1241	5.4	164
	1759	3.4	103
9 Tu	0026	7.3	221
	0734	2.0	61
	1342	5.3	162
	1854	3.5	106
10 W	0119	7.3	221
	0827	2.0	61
	1435	5.3	162
	1946	3.5	106
11 Th	0209	7.3	221
	0914	2.0	60
	1522	5.4	164
	2034	3.4	105
12 F	0255	7.2	220
	0956	2.0	61
	1603	5.5	167
	2120	3.4	104
13 Sa ●	0339	7.2	219
	1034	2.0	62
	1641	5.6	170
	2204	3.3	101
14 Su	0420	7.1	216
	1109	2.1	64
	1717	5.7	174
	2247	3.3	100
15 M	0500	7.0	212
	1142	2.2	67
	1751	5.8	178
	2330	3.2	98

	Time	Height	
	h m	ft	cm
16 Tu	0540	6.8	206
	1214	2.4	72
	1825	6.0	182
17 W	0013	3.2	97
	0620	6.5	198
	1244	2.6	78
	1859	6.1	186
18 Th	0057	3.1	95
	0701	6.2	189
	1314	2.8	85
	1933	6.3	191
19 F	0143	3.1	93
	0746	5.9	180
	1345	3.0	91
	2009	6.4	196
20 Sa	0233	2.9	89
	0834	5.6	171
	1418	3.1	96
	2049	6.6	202
21 Su ◐	0328	2.8	85
	0929	5.4	164
	1457	3.3	101
	2135	6.8	208
22 M	0428	2.6	79
	1030	5.2	159
	1545	3.4	103
	2228	7.1	216
23 Tu	0530	2.4	72
	1134	5.2	158
	1642	3.4	103
	2326	7.4	225
24 W	0632	2.1	63
	1237	5.2	160
	1745	3.3	100
25 Th	0026	7.7	235
	0731	1.8	54
	1336	5.4	165
	1850	3.1	94
26 F	0126	8.0	243
	0826	1.5	46
	1431	5.7	174
	1954	2.8	86
27 Sa	0225	8.2	249
	0917	1.3	41
	1523	6.1	185
	2057	2.5	77
28 Su ○	0323	8.2	251
	1007	1.3	40
	1612	6.4	196
	2157	2.2	67

March

	Time	Height	
	h m	ft	cm
1 M	0419	8.1	248
	1054	1.4	43
	1701	6.8	208
	2258	1.9	59
2 Tu	0516	7.8	239
	1140	1.6	49
	1749	7.2	218
	2357	1.8	54
3 W	0613	7.4	227
	1226	1.9	59
	1837	7.3	224
4 Th	0057	1.7	52
	0710	7.0	212
	1312	2.3	71
	1926	7.5	228
5 F	0158	1.7	53
	0810	6.5	197
	1400	2.7	83
	2017	7.4	227
6 Sa	0300	1.8	55
	0911	6.0	184
	1450	3.1	93
	2110	7.4	225
7 Su ◑	0403	1.9	59
	1015	5.7	174
	1543	3.3	102
	2205	7.3	221
8 M	0506	2.0	62
	1119	5.5	168
	1638	3.5	108
	2301	7.2	218
9 Tu	0607	2.1	65
	1220	5.4	165
	1735	3.6	110
	2357	7.1	216
10 W	0703	2.2	67
	1314	5.4	165
	1830	3.6	110
11 Th	0050	7.1	215
	0752	2.2	67
	1402	5.5	168
	1923	3.5	108
12 F	0140	7.0	214
	0836	2.2	68
	1444	5.6	171
	2011	3.4	104
13 Sa	0226	7.0	213
	0915	2.3	69
	1522	5.8	176
	2058	3.3	100
14 Su	0310	6.9	211
	0950	2.3	71
	1558	6.0	182
	2143	3.1	96
15 M ●	0353	6.8	207
	1024	2.4	74
	1632	6.1	187
	2226	3.0	92

	Time	Height	
	h m	ft	cm
16 Tu	0435	6.6	202
	1056	2.6	79
	1706	6.3	193
	2309	2.9	88
17 W	0516	6.4	196
	1127	2.8	84
	1740	6.5	197
	2352	2.8	85
18 Th	0559	6.2	188
	1158	3.0	90
	1813	6.6	201
19 F	0037	2.7	83
	0643	5.9	180
	1229	3.2	97
	1849	6.7	205
20 Sa	0124	2.6	80
	0731	5.7	173
	1302	3.3	102
	1928	6.9	209
21 Su	0215	2.5	77
	0823	5.5	167
	1341	3.5	106
	2013	7.0	213
22 M	0311	2.4	74
	0920	5.3	162
	1427	3.5	108
	2106	7.2	218
23 Tu ◐	0410	2.3	70
	1021	5.2	160
	1524	3.6	109
	2204	7.3	223
24 W	0512	2.1	65
	1122	5.3	162
	1629	3.5	106
	2306	7.5	229
25 Th	0611	1.9	59
	1221	5.5	168
	1738	3.3	100
26 F	0009	7.7	234
	0706	1.8	54
	1316	5.8	178
	1845	3.0	91
27 Sa	0111	7.8	238
	0758	1.6	50
	1407	6.2	190
	1949	2.6	79
28 Su	0211	7.8	239
	0847	1.6	50
	1455	6.7	204
	2051	2.2	67
29 M ○	0309	7.7	236
	0934	1.7	53
	1543	7.1	216
	2150	1.8	56
30 Tu	0406	7.5	229
	1020	1.9	59
	1629	7.4	227
	2248	1.6	49
31 W	0502	7.2	219
	1105	2.2	67
	1716	7.6	233
	2345	1.5	45

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Cabo de Hornos, Chile, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0559	6.8	208
	1150	2.6	78
	1803	7.7	236
2 F	0042	1.5	45
	0656	6.4	196
	1236	2.9	88
	1852	7.7	234
3 Sa	0139	1.6	48
	0754	6.1	185
	1325	3.2	98
	1942	7.5	229
4 Su	0238	1.8	54
	0854	5.8	176
	1416	3.5	107
	2035	7.3	223
5 M	0337	2.0	60
	0955	5.6	170
	1511	3.7	113
	2130	7.1	217
6 Tu ◑	0436	2.1	65
	1055	5.5	167
	1609	3.8	116
	2226	7.0	212
7 W	0532	2.3	69
	1151	5.5	167
	1708	3.8	116
	2322	6.8	208
8 Th	0624	2.3	71
	1241	5.6	170
	1805	3.7	113
9 F	0016	6.8	206
	0710	2.4	73
	1324	5.7	175
	1859	3.5	108
10 Sa	0107	6.7	204
	0750	2.5	75
	1403	5.9	181
	1949	3.3	102
11 Su	0155	6.6	202
	0827	2.5	77
	1439	6.2	188
	2036	3.1	94
12 M	0241	6.5	199
	0902	2.6	79
	1514	6.4	196
	2121	2.9	87
13 Tu	0326	6.4	195
	0935	2.7	83
	1548	6.7	203
	2205	2.7	81
14 W ●	0410	6.3	191
	1007	2.9	88
	1622	6.8	208
	2248	2.5	75
15 Th	0454	6.1	185
	1040	3.1	93
	1657	7.0	213
	2332	2.3	71

	Time	Height	
	h m	ft	cm
16 F	0540	5.9	179
	1113	3.2	98
	1733	7.1	217
17 Sa	0018	2.2	67
	0627	5.7	174
	1148	3.4	103
	1812	7.3	221
18 Su	0106	2.1	65
	0717	5.5	168
	1227	3.5	107
	1857	7.3	223
19 M	0158	2.1	63
	0811	5.4	164
	1313	3.6	109
	1947	7.4	225
20 Tu	0254	2.0	62
	0909	5.3	162
	1408	3.6	111
	2044	7.4	226
21 W ◐	0353	2.0	60
	1009	5.4	164
	1514	3.6	109
	2146	7.4	226
22 Th	0451	1.9	58
	1108	5.6	171
	1626	3.4	105
	2251	7.4	226
23 F	0547	1.9	57
	1203	5.9	181
	1737	3.1	96
	2356	7.4	225
24 Sa	0640	1.8	56
	1254	6.4	194
	1845	2.8	84
25 Su	0059	7.3	223
	0729	1.9	58
	1343	6.8	208
	1948	2.3	70
26 M	0200	7.2	220
	0817	2.0	61
	1430	7.3	222
	2048	1.9	57
27 Tu	0259	7.0	214
	0902	2.2	67
	1516	7.6	233
	2145	1.5	47
28 W ○	0355	6.8	207
	0947	2.4	74
	1601	7.9	240
	2239	1.3	41
29 Th	0451	6.5	199
	1031	2.7	82
	1647	7.9	242
	2332	1.3	39
30 F	0545	6.2	190
	1116	3.0	91
	1733	7.9	240

May

	Time	Height	
	h m	ft	cm
1 Sa	0025	1.4	42
	0639	6.0	182
	1202	3.2	99
	1819	7.7	235
2 Su	0117	1.5	47
	0734	5.7	175
	1249	3.5	107
	1908	7.4	227
3 M	0211	1.8	54
	0829	5.5	169
	1339	3.7	113
	1958	7.2	219
4 Tu	0304	2.0	61
	0925	5.4	166
	1433	3.9	118
	2050	6.9	211
5 W	0358	2.2	67
	1021	5.4	166
	1532	3.9	120
	2145	6.7	204
6 Th ◑	0449	2.4	72
	1113	5.5	168
	1634	3.9	119
	2241	6.5	198
7 F	0536	2.5	76
	1200	5.7	173
	1735	3.7	114
	2337	6.3	193
8 Sa	0620	2.6	78
	1241	5.9	180
	1832	3.5	107
9 Su	0031	6.2	190
	0700	2.7	81
	1320	6.2	189
	1925	3.2	98
10 M	0123	6.1	187
	0737	2.8	84
	1356	6.5	198
	2014	2.9	88
11 Tu	0212	6.0	184
	0812	2.9	87
	1432	6.8	207
	2100	2.6	78
12 W	0300	5.9	181
	0847	3.0	90
	1507	7.1	215
	2144	2.3	69
13 Th ●	0347	5.9	179
	0923	3.1	93
	1544	7.3	223
	2228	2.0	61
14 F	0434	5.8	176
	0959	3.1	96
	1622	7.5	229
	2312	1.8	55
15 Sa	0521	5.7	173
	1036	3.2	98
	1702	7.6	233
	2359	1.7	51

	Time	Height	
	h m	ft	cm
16 Su	0609	5.6	170
	1117	3.3	101
	1746	7.7	236
17 M	0048	1.6	49
	0700	5.5	167
	1203	3.4	103
	1835	7.8	237
18 Tu	0140	1.6	49
	0754	5.4	166
	1256	3.4	104
	1928	7.7	234
19 W	0235	1.6	50
	0851	5.5	167
	1358	3.4	105
	2027	7.5	230
20 Th ◐	0330	1.7	52
	0948	5.7	173
	1508	3.4	103
	2131	7.3	224
21 F	0426	1.8	55
	1045	6.0	182
	1623	3.2	97
	2237	7.1	216
22 Sa	0519	1.9	59
	1140	6.4	194
	1736	2.9	87
	2345	6.9	209
23 Su	0611	2.1	63
	1231	6.8	208
	1845	2.4	74
24 M	0050	6.7	203
	0701	2.2	68
	1320	7.3	221
	1948	2.0	60
25 Tu	0153	6.5	197
	0748	2.4	74
	1407	7.6	233
	2046	1.6	49
26 W	0252	6.3	192
	0835	2.6	79
	1453	7.9	240
	2139	1.3	41
27 Th ○	0348	6.1	187
	0920	2.8	85
	1539	8.0	244
	2230	1.2	37
28 F	0440	6.0	182
	1004	3.0	91
	1623	8.0	243
	2319	1.2	38
29 Sa	0530	5.8	178
	1048	3.1	96
	1707	7.8	239
30 Su	0006	1.3	41
	0619	5.7	173
	1132	3.3	102
	1751	7.6	233
31 M	0053	1.5	47
	0708	5.5	169
	1216	3.5	107
	1836	7.3	224

June

	Time	Height	
	h m	ft	cm
1 Tu	0139	1.8	54
	0756	5.4	165
	1303	3.7	112
	1921	7.1	215
2 W	0225	2.0	62
	0845	5.4	164
	1354	3.8	116
	2009	6.7	205
3 Th	0311	2.3	69
	0935	5.4	165
	1451	3.9	118
	2100	6.4	196
4 F ◑	0356	2.5	75
	1023	5.5	169
	1554	3.8	117
	2155	6.1	187
5 Sa	0440	2.6	80
	1109	5.7	175
	1658	3.7	113
	2253	5.9	179
6 Su	0523	2.8	85
	1152	6.0	183
	1801	3.4	105
	2352	5.7	174
7 M	0604	2.9	88
	1233	6.3	192
	1857	3.1	94
8 Tu	0049	5.6	170
	0644	3.0	91
	1312	6.7	203
	1948	2.7	82
9 W	0144	5.5	169
	0724	3.1	93
	1351	7.0	213
	2036	2.3	70
10 Th	0236	5.5	169
	0804	3.1	94
	1431	7.3	224
	2122	1.9	58
11 F	0325	5.5	169
	0845	3.1	94
	1512	7.6	233
	2207	1.6	48
12 Sa ●	0413	5.5	169
	0927	3.1	93
	1555	7.9	241
	2253	1.3	41
13 Su	0500	5.6	170
	1011	3.0	92
	1640	8.1	247
	2340	1.2	37
14 M	0549	5.6	170
	1058	3.0	91
	1728	8.2	249
15 Tu	0028	1.1	35
	0638	5.6	171
	1149	3.0	91
	1819	8.1	246

	Time	Height	
	h m	ft	cm
16 W	0118	1.2	37
	0730	5.7	173
	1247	3.0	91
	1913	7.8	239
17 Th	0209	1.4	42
	0824	5.8	178
	1351	3.0	91
	2012	7.5	228
18 F	0301	1.6	49
	0919	6.1	185
	1502	2.9	89
	2116	7.1	215
19 Sa ◐	0354	1.9	57
	1015	6.4	195
	1617	2.8	84
	2224	6.6	201
20 Su	0447	2.1	65
	1111	6.8	206
	1731	2.5	75
	2335	6.2	190
21 M	0541	2.4	73
	1205	7.1	217
	1841	2.1	64
22 Tu	0044	6.0	182
	0633	2.6	80
	1257	7.4	227
	1945	1.7	53
23 W	0149	5.8	178
	0724	2.8	85
	1347	7.7	234
	2041	1.5	45
24 Th	0248	5.7	175
	0814	2.9	88
	1435	7.8	238
	2133	1.3	39
25 F	0340	5.7	174
	0900	3.0	91
	1521	7.9	240
	2220	1.2	38
26 Sa ○	0428	5.6	172
	0945	3.1	93
	1605	7.8	238
	2304	1.3	39
27 Su	0513	5.6	171
	1028	3.1	96
	1647	7.7	234
	2346	1.4	43
28 M	0555	5.5	169
	1109	3.2	98
	1728	7.5	228
29 Tu	0026	1.6	49
	0637	5.5	167
	1150	3.3	102
	1808	7.2	220
30 W	0105	1.8	55
	0718	5.4	166
	1233	3.4	105
	1849	6.9	210

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Cabo de Hornos, Chile, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0143	2.0	62
	0759	5.5	167
	1320	3.5	108
	1931	6.5	199
2 F	0221	2.3	70
	0842	5.5	168
	1412	3.6	110
	2017	6.2	188
3 Sa	0258	2.6	78
	0925	5.6	172
	1510	3.6	110
	2108	5.8	176
4 Su ◑	0337	2.8	85
	1009	5.8	177
	1615	3.5	107
	2207	5.4	166
5 M	0419	3.0	91
	1054	6.0	184
	1721	3.3	100
	2311	5.2	160
6 Tu	0503	3.1	96
	1140	6.3	193
	1823	2.9	89
7 W	0015	5.1	156
	0549	3.2	98
	1226	6.7	203
	1919	2.5	77
8 Th	0116	5.1	156
	0638	3.2	98
	1313	7.1	215
	2011	2.1	63
9 F	0212	5.2	159
	0726	3.1	96
	1400	7.5	228
	2059	1.7	51
10 Sa	0303	5.3	163
	0815	3.0	91
	1447	7.8	239
	2146	1.3	39
11 Su ●	0351	5.5	167
	0904	2.8	86
	1535	8.2	249
	2232	1.0	31
12 M	0438	5.6	172
	0954	2.7	81
	1623	8.3	254
	2319	0.9	27
13 Tu	0525	5.8	177
	1046	2.5	77
	1713	8.3	254
14 W	0005	0.9	27
	0612	6.0	182
	1141	2.4	74
	1805	8.1	248
15 Th	0052	1.0	32
	0701	6.2	188
	1240	2.4	72
	1900	7.7	236

	Time	Height	
	h m	ft	cm
16 F	0139	1.3	40
	0752	6.4	194
	1343	2.4	72
	1959	7.2	220
17 Sa	0228	1.7	51
	0845	6.6	201
	1452	2.3	71
	2102	6.6	202
18 Su ◐	0319	2.1	64
	0941	6.8	207
	1605	2.2	68
	2211	6.1	186
19 M	0413	2.5	75
	1039	7.0	213
	1720	2.1	64
	2324	5.7	174
20 Tu	0510	2.8	85
	1137	7.2	219
	1831	1.9	57
21 W	0037	5.5	167
	0608	3.0	91
	1234	7.3	223
	1936	1.7	51
22 Th	0143	5.4	165
	0705	3.1	94
	1329	7.4	227
	2032	1.5	46
23 F	0240	5.4	166
	0758	3.1	94
	1419	7.5	229
	2121	1.4	43
24 Sa	0329	5.5	167
	0846	3.1	93
	1506	7.5	230
	2205	1.4	42
25 Su ○	0412	5.5	169
	0931	3.0	92
	1549	7.5	229
	2244	1.4	44
26 M	0451	5.6	170
	1012	3.0	91
	1629	7.4	225
	2321	1.5	47
27 Tu	0528	5.6	171
	1052	3.0	92
	1708	7.2	220
	2355	1.7	51
28 W	0603	5.6	172
	1132	3.1	93
	1745	7.0	212
29 Th	0028	1.9	57
	0638	5.7	173
	1212	3.1	94
	1823	6.7	203
30 F	0100	2.1	65
	0714	5.7	175
	1254	3.1	96
	1902	6.3	192
31 Sa	0131	2.4	73
	0749	5.8	176
	1341	3.2	97
	1944	5.9	180

August

	Time	Height	
	h m	ft	cm
1 Su	0202	2.7	81
	0827	5.9	179
	1433	3.2	97
	2031	5.5	168
2 M	0235	2.9	89
	0908	6.0	182
	1532	3.1	95
	2127	5.2	158
3 Tu ◑	0313	3.1	96
	0954	6.1	187
	1637	3.0	91
	2232	4.9	150
4 W	0358	3.3	100
	1045	6.4	194
	1744	2.7	83
	2341	4.8	147
5 Th	0453	3.3	102
	1140	6.7	203
	1846	2.4	72
6 F	0047	4.9	149
	0554	3.3	101
	1236	7.1	215
	1942	1.9	59
7 Sa	0146	5.1	154
	0654	3.1	95
	1331	7.5	228
	2034	1.5	47
8 Su	0238	5.3	161
	0752	2.9	87
	1425	7.9	240
	2122	1.2	36
9 M ●	0327	5.6	170
	0848	2.6	78
	1517	8.1	248
	2208	1.0	29
10 Tu	0413	5.9	179
	0943	2.2	68
	1609	8.3	252
	2254	0.9	26
11 W	0459	6.2	190
	1038	2.0	60
	1701	8.2	249
	2338	0.9	28
12 Th	0545	6.5	199
	1134	1.8	54
	1754	7.9	240
13 F	0023	1.1	35
	0632	6.8	207
	1232	1.7	51
	1848	7.4	225
14 Sa	0108	1.5	46
	0720	7.0	213
	1334	1.7	51
	1946	6.8	208
15 Su	0155	1.9	59
	0811	7.1	216
	1439	1.7	53
	2049	6.2	189

	Time	Height	
	h m	ft	cm
16 M ◐	0245	2.4	73
	0906	7.1	217
	1548	1.8	55
	2157	5.7	174
17 Tu	0339	2.8	85
	1005	7.1	216
	1700	1.8	56
	2310	5.4	164
18 W	0439	3.1	94
	1106	7.1	215
	1812	1.8	55
19 Th	0023	5.2	159
	0543	3.2	99
	1208	7.1	215
	1917	1.7	53
20 F	0130	5.2	160
	0645	3.2	99
	1307	7.1	215
	2013	1.7	51
21 Sa	0224	5.3	162
	0742	3.2	97
	1400	7.1	216
	2101	1.6	50
22 Su	0310	5.4	166
	0832	3.1	93
	1448	7.1	217
	2141	1.6	50
23 M	0348	5.6	170
	0917	2.9	89
	1530	7.1	216
	2217	1.7	51
24 Tu ○	0423	5.7	174
	0959	2.8	86
	1610	7.0	213
	2250	1.8	54
25 W	0456	5.8	178
	1038	2.8	84
	1648	6.8	208
	2321	1.9	58
26 Th	0529	5.9	181
	1117	2.7	82
	1726	6.6	201
	2350	2.1	64
27 F	0600	6.0	184
	1156	2.7	81
	1803	6.3	192
28 Sa	0019	2.3	71
	0632	6.1	187
	1236	2.7	81
	1841	6.0	182
29 Su	0047	2.6	79
	0704	6.2	188
	1319	2.7	81
	1922	5.6	172
30 M	0114	2.8	86
	0738	6.2	190
	1405	2.7	81
	2007	5.3	162
31 Tu	0144	3.1	93
	0816	6.3	192
	1458	2.7	81
	2100	5.0	153

September

	Time	Height	
	h m	ft	cm
1 W ◑	0219	3.2	98
	0902	6.4	195
	1559	2.6	79
	2202	4.8	147
2 Th	0306	3.3	102
	0957	6.5	199
	1705	2.4	74
	2311	4.7	144
3 F	0408	3.4	104
	1059	6.8	206
	1811	2.2	66
4 Sa	0018	4.8	147
	0520	3.3	101
	1203	7.0	214
	1911	1.8	56
5 Su	0118	5.1	155
	0631	3.1	94
	1305	7.3	224
	2004	1.5	46
6 M	0211	5.4	166
	0736	2.7	82
	1404	7.6	233
	2054	1.2	38
7 Tu	0300	5.9	179
	0837	2.3	69
	1500	7.8	239
	2140	1.1	34
8 W	0346	6.3	193
	0935	1.8	56
	1555	7.8	239
	2225	1.1	34
9 Th	0431	6.8	207
	1032	1.4	44
	1649	7.7	234
	2309	1.2	38
10 F	0517	7.2	218
	1128	1.2	36
	1743	7.3	224
	2353	1.5	47
11 Sa	0603	7.4	226
	1224	1.1	33
	1838	6.9	210
12 Su	0037	1.9	58
	0650	7.5	229
	1322	1.1	34
	1935	6.4	195
13 M	0124	2.3	70
	0740	7.4	227
	1423	1.3	39
	2035	5.9	180
14 Tu	0213	2.7	82
	0833	7.3	222
	1526	1.5	46
	2140	5.5	168
15 W ◐	0307	3.1	93
	0931	7.1	216
	1633	1.7	52
	2249	5.2	160

	Time	Height	
	h m	ft	cm
16 Th	0409	3.3	100
	1032	6.9	209
	1741	1.8	56
	2359	5.2	157
17 F	0515	3.4	104
	1136	6.7	205
	1845	1.9	59
18 Sa	0102	5.2	158
	0621	3.4	103
	1237	6.6	202
	1940	1.9	59
19 Su	0155	5.3	163
	0721	3.2	99
	1333	6.6	202
	2026	1.9	59
20 M	0238	5.5	168
	0814	3.1	93
	1423	6.6	201
	2106	2.0	60
21 Tu	0315	5.7	175
	0900	2.9	87
	1507	6.6	200
	2140	2.0	62
22 W	0349	5.9	181
	0943	2.7	81
	1549	6.5	197
	2212	2.1	65
23 Th ○	0421	6.1	187
	1024	2.5	75
	1629	6.3	193
	2243	2.3	69
24 F	0452	6.3	193
	1104	2.3	71
	1709	6.1	187
	2312	2.4	74
25 Sa	0523	6.5	197
	1142	2.2	68
	1748	5.9	181
	2341	2.6	80
26 Su	0555	6.6	200
	1222	2.2	66
	1828	5.7	173
27 M	0009	2.8	86
	0627	6.6	202
	1302	2.1	65
	1909	5.4	165
28 Tu	0037	3.0	92
	0701	6.7	203
	1346	2.1	65
	1954	5.2	158
29 W	0109	3.1	96
	0740	6.7	204
	1436	2.2	66
	2044	5.0	152
30 Th ◑	0147	3.3	100
	0827	6.8	206
	1532	2.1	65
	2142	4.9	148

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Cabo de Hornos, Chile, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0237	3.3	102
	0923	6.8	207
	1633	2.1	63
	2245	4.9	148
2 Sa	0344	3.3	102
	1027	6.9	209
	1736	2.0	60
	2349	5.0	153
3 Su	0500	3.2	99
	1135	7.0	212
	1835	1.8	55
4 M	0048	5.3	163
	0615	3.0	90
	1241	7.1	216
	1930	1.6	50
5 Tu	0141	5.8	177
	0725	2.5	76
	1345	7.2	219
	2021	1.5	47
6 W	0231	6.3	193
	0829	2.0	61
	1446	7.2	220
	2108	1.5	47
7 Th ●	0318	6.9	209
	0929	1.5	45
	1544	7.2	218
	2154	1.6	49
8 F	0404	7.3	223
	1026	1.1	33
	1640	7.0	213
	2239	1.8	54
9 Sa	0450	7.6	233
	1121	0.8	25
	1735	6.7	205
	2324	2.0	62
10 Su	0537	7.8	238
	1215	0.7	22
	1829	6.4	195
11 M	0010	2.3	71
	0624	7.8	238
	1310	0.8	25
	1924	6.0	184
12 Tu	0056	2.6	80
	0713	7.6	233
	1405	1.0	32
	2021	5.7	174
13 W	0146	2.9	89
	0804	7.3	224
	1502	1.3	41
	2119	5.4	166
14 Th ◐	0239	3.2	97
	0858	7.0	214
	1601	1.6	50
	2220	5.3	161
15 F	0338	3.4	103
	0956	6.7	205
	1701	1.9	58
	2322	5.2	159

	Time	Height	
	h m	ft	cm
16 Sa	0442	3.5	106
	1056	6.4	196
	1758	2.1	64
17 Su	0020	5.3	161
	0548	3.5	106
	1157	6.3	191
	1851	2.2	67
18 M	0110	5.4	166
	0651	3.3	101
	1255	6.1	187
	1936	2.3	70
19 Tu	0154	5.7	173
	0748	3.1	94
	1349	6.0	184
	2017	2.4	72
20 W	0232	5.9	181
	0838	2.8	85
	1439	6.0	182
	2053	2.5	75
21 Th	0307	6.2	189
	0924	2.5	77
	1525	5.9	180
	2128	2.6	78
22 F ○	0341	6.5	197
	1007	2.3	69
	1609	5.8	177
	2201	2.7	81
23 Sa	0415	6.7	203
	1047	2.0	62
	1652	5.7	174
	2233	2.8	85
24 Su	0448	6.8	208
	1127	1.9	57
	1734	5.6	170
	2305	2.9	89
25 M	0522	7.0	212
	1207	1.7	53
	1816	5.4	166
	2337	3.0	92
26 Tu	0558	7.1	215
	1249	1.7	51
	1859	5.3	162
27 W	0010	3.1	95
	0636	7.1	217
	1333	1.7	51
	1944	5.2	158
28 Th	0048	3.2	97
	0718	7.2	218
	1420	1.7	51
	2033	5.1	155
29 F	0133	3.2	99
	0807	7.1	217
	1512	1.7	52
	2127	5.1	155
30 Sa ◑	0229	3.3	100
	0903	7.1	215
	1607	1.7	53
	2223	5.2	159
31 Su	0336	3.2	98
	1005	6.9	211
	1703	1.8	54
	2321	5.5	167

November

	Time	Height	
	h m	ft	cm
1 M	0451	3.1	93
	1113	6.8	208
	1759	1.8	55
2 Tu	0017	5.9	179
	0607	2.7	83
	1221	6.7	204
	1853	1.9	57
3 W	0110	6.4	194
	0718	2.3	69
	1329	6.6	201
	1945	1.9	59
4 Th	0201	6.9	209
	0823	1.7	53
	1433	6.5	198
	2035	2.1	63
5 F	0251	7.3	223
	0923	1.3	39
	1534	6.4	195
	2123	2.2	67
6 Sa ●	0339	7.7	234
	1020	0.9	28
	1631	6.3	192
	2211	2.3	71
7 Su	0426	7.9	241
	1113	0.7	22
	1726	6.1	187
	2258	2.5	77
8 M	0514	8.0	243
	1205	0.7	21
	1819	6.0	182
	2345	2.7	82
9 Tu	0601	7.9	240
	1256	0.8	25
	1911	5.8	177
10 W	0033	2.9	88
	0649	7.6	233
	1346	1.0	32
	2003	5.6	171
11 Th	0121	3.1	94
	0737	7.3	223
	1436	1.3	41
	2054	5.5	167
12 F	0212	3.3	100
	0827	7.0	212
	1526	1.7	51
	2146	5.4	165
13 Sa ◐	0307	3.4	104
	0919	6.6	201
	1616	2.0	60
	2238	5.4	165
14 Su	0407	3.5	107
	1013	6.3	191
	1704	2.2	67
	2329	5.5	168
15 M	0510	3.5	106
	1110	5.9	181
	1750	2.4	74

	Time	Height	
	h m	ft	cm
16 Tu	0016	5.7	173
	0614	3.3	101
	1209	5.7	174
	1835	2.6	79
17 W	0100	5.9	180
	0715	3.1	94
	1308	5.5	169
	1917	2.8	84
18 Th	0141	6.2	188
	0809	2.8	84
	1404	5.4	166
	1957	2.9	87
19 F	0220	6.5	197
	0858	2.4	74
	1456	5.4	165
	2036	3.0	90
20 Sa	0258	6.7	205
	0944	2.1	65
	1546	5.4	164
	2115	3.0	92
21 Su ○	0336	7.0	212
	1027	1.8	56
	1632	5.4	164
	2152	3.1	94
22 M	0415	7.2	219
	1109	1.6	49
	1717	5.3	163
	2230	3.1	95
23 Tu	0454	7.3	224
	1151	1.4	44
	1801	5.3	163
	2309	3.1	95
24 W	0534	7.5	228
	1234	1.3	41
	1845	5.3	163
	2351	3.1	95
25 Th	0617	7.5	230
	1318	1.3	40
	1930	5.3	163
26 F	0036	3.1	95
	0704	7.5	229
	1404	1.3	41
	2018	5.4	165
27 Sa	0128	3.1	94
	0754	7.4	226
	1452	1.4	43
	2108	5.5	169
28 Su ◑	0228	3.1	93
	0850	7.2	219
	1541	1.6	48
	2200	5.8	176
29 M	0336	3.0	90
	0951	6.9	209
	1632	1.8	54
	2254	6.1	186
30 Tu	0448	2.8	84
	1057	6.5	199
	1724	2.0	60
	2348	6.5	198

December

	Time	Height	
	h m	ft	cm
1 W	0601	2.4	74
	1207	6.2	190
	1817	2.2	67
2 Th	0041	6.9	210
	0711	2.0	62
	1316	6.0	183
	1910	2.4	73
3 F	0134	7.3	222
	0817	1.6	49
	1423	5.9	179
	2003	2.6	78
4 Sa	0226	7.6	232
	0917	1.2	38
	1525	5.8	177
	2055	2.7	82
5 Su ●	0317	7.8	239
	1012	1.0	30
	1623	5.8	176
	2146	2.8	85
6 M	0406	7.9	242
	1104	0.9	27
	1716	5.7	175
	2235	2.9	88
7 Tu	0454	7.9	241
	1152	0.9	28
	1806	5.7	174
	2324	3.0	90
8 W	0541	7.8	237
	1239	1.0	32
	1854	5.7	173
9 Th	0011	3.1	94
	0627	7.5	229
	1324	1.2	38
	1940	5.6	171
10 F	0058	3.2	97
	0712	7.2	220
	1407	1.5	46
	2025	5.6	171
11 Sa	0147	3.3	101
	0757	6.9	209
	1449	1.8	55
	2109	5.6	171
12 Su	0238	3.4	104
	0843	6.5	198
	1530	2.1	63
	2153	5.7	173
13 M ◐	0333	3.4	105
	0932	6.1	186
	1610	2.4	72
	2237	5.8	177
14 Tu	0432	3.4	104
	1026	5.7	175
	1650	2.6	80
	2321	6.0	182
15 W	0534	3.2	99
	1123	5.4	166
	1731	2.9	87

	Time	Height	
	h m	ft	cm
16 Th	0004	6.2	188
	0635	3.0	92
	1224	5.2	159
	1814	3.0	92
17 F	0048	6.4	196
	0733	2.7	83
	1325	5.1	156
	1857	3.1	96
18 Sa	0131	6.7	204
	0825	2.4	73
	1423	5.1	155
	1942	3.2	98
19 Su	0215	7.0	212
	0914	2.1	63
	1516	5.1	156
	2028	3.2	99
20 M	0259	7.3	221
	1000	1.8	54
	1605	5.2	158
	2113	3.2	97
21 Tu ○	0343	7.5	229
	1045	1.5	46
	1652	5.3	161
	2159	3.1	95
22 W	0428	7.7	235
	1129	1.3	39
	1738	5.4	165
	2246	3.1	93
23 Th	0514	7.8	239
	1213	1.1	35
	1823	5.5	169
	2335	3.0	90
24 F	0601	7.9	240
	1258	1.1	35
	1909	5.7	174
25 Sa	0028	2.9	87
	0651	7.8	237
	1343	1.2	37
	1956	5.9	180
26 Su	0125	2.8	84
	0744	7.5	229
	1428	1.4	42
	2045	6.2	188
27 M	0227	2.7	81
	0841	7.1	217
	1515	1.6	50
	2135	6.5	197
28 Tu ◑	0334	2.6	78
	0942	6.7	203
	1603	1.9	59
	2227	6.8	206
29 W	0444	2.4	72
	1048	6.2	190
	1654	2.3	69
	2321	7.1	215
30 Th	0555	2.1	64
	1157	5.9	179
	1747	2.6	78
31 F	0016	7.3	223
	0704	1.8	56
	1307	5.6	172
	1842	2.8	85

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Punta Arenas, Chile, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0120	7.5	230
	0756	3.6	110
	1012	4.3	131
	1900	1.0	32
2 Sa	0208	7.8	237
	0840	3.4	104
	1104	4.5	137
	1250	4.2	128
	1335*	4.2	129
3 Su	0253	7.9	240
	0921	3.1	96
	1158	4.7	144
	1324	4.5	138
	1430*	4.6	140
4 M	0334	7.8	238
	1001	2.8	86
	1522	5.1	154
	2142	1.1	35
5 Tu	0412	7.7	234
	1039	2.4	74
	1612	5.5	167
	2228	1.5	45
6 W	0448	7.4	226
	1117	2.0	62
	1703	5.8	178
	2315	1.9	59
7 Th ◑	0524	7.1	215
	1156	1.7	53
	1756	6.0	183
8 F	0003	2.5	76
	0600	6.6	200
	1238	1.6	49
	1857	6.0	183
9 Sa	0058	3.1	95
	0632	5.9	181
	1324	1.6	48
	2012	6.0	182
10 Su	0207	3.7	113
	0642	5.3	161
	1415	1.6	49
	2141	6.1	186
11 M	0407	4.0	123
	0655	4.7	144
	1525	1.6	49
	2255	6.4	196
12 Tu	0530	3.9	118
	0731	4.3	131
	1656	1.5	46
	2352	6.7	205
13 W	0625	3.5	108
	0820	4.0	122
	1020	3.7	114
	1131	3.8	117
	1753	1.3	41
14 Th	0039	6.9	211
	0708	3.2	99
	0921	3.8	117
	1045	3.7	114
	1223*	3.9	120
15 F ●	0118	7.0	214
	0745	3.0	91
	1302	4.2	129
	1919	1.1	34

	Time	Height	
	h m	ft	cm
16 Sa	0152	7.1	215
	0818	2.8	84
	1336	4.6	140
	1953	1.0	32
17 Su	0222	7.1	216
	0846	2.5	77
	1407	5.0	151
	2023	1.0	32
18 M	0250	7.2	218
	0912	2.4	72
	1438	5.3	161
	2050	1.1	34
19 Tu	0317	7.2	218
	0937	2.2	67
	1509	5.5	169
	2117	1.2	38
20 W	0344	7.1	217
	1002	2.0	62
	1542	5.7	175
	2143	1.5	46
21 Th	0409	7.0	213
	1027	1.8	55
	1617	5.8	178
	2209	1.9	57
22 F	0429	6.8	206
	1053	1.6	49
	1658	5.9	180
	2235	2.4	72
23 Sa ◐	0429	6.4	196
	1121	1.5	45
	1751	5.8	178
	2306	3.0	91
24 Su	0434	6.0	184
	1152	1.5	45
	1858	5.8	176
25 M	0033	3.6	111
	0458	5.6	170
	1236	1.5	47
	2018	5.8	177
26 Tu	0218	4.2	127
	0527	5.1	154
	1348	1.6	50
	2141	6.0	182
27 W	0409	4.3	132
	0601	4.6	139
	1453	1.6	49
	2300	6.3	193
28 Th	0605	4.1	126
	0700	4.1	126
	1548	1.5	46
29 F	0012	6.8	206
	0702	3.8	115
	0852	4.0	123
	1744	1.4	44
30 Sa ○	0108	7.2	218
	0742	3.4	105
	0955	4.2	128
	1141	3.9	119
	1245*	4.0	121
31 Su	0154	7.4	226
	0820	3.1	95
	1053	4.5	136
	1208	4.3	132
	1345*	4.6	140

February

	Time	Height	
	h m	ft	cm
1 M	0236	7.5	229
	0857	2.7	82
	1159	4.8	147
	1227	4.8	146
	1435*	5.3	161
2 Tu	0313	7.4	227
	0934	2.3	70
	1520	5.9	181
	2139	1.4	43
3 W	0348	7.3	222
	1009	1.9	57
	1603	6.4	196
	2220	1.8	54
4 Th	0420	7.1	216
	1044	1.5	47
	1645	6.7	204
	2259	2.2	68
5 F ◑	0448	6.8	208
	1116	1.3	40
	1728	6.7	204
	2336	2.8	84
6 Sa	0511	6.4	196
	1147	1.2	38
	1816	6.5	198
7 Su	0014	3.4	103
	0524	5.9	180
	1216	1.3	40
	1917	6.2	188
8 M	0058	4.0	122
	0536	5.4	164
	1246	1.5	46
	2102	6.0	182
9 Tu	0344	4.5	136
	0605	4.8	147
	1326	1.7	53
	2231	6.1	186
10 W	0518	4.1	125
	0648	4.3	131
	1416	2.0	61
	1547	2.1	65
	1628*	2.1	64
11 Th	0610	3.7	112
	0749	3.9	119
	1001	3.6	109
	1126	3.7	114
	1740	1.9	59
12 F	0024	6.5	198
	0650	3.3	100
	0915	3.8	115
	1007	3.8	115
	1218*	4.1	126
13 Sa ●	0103	6.6	201
	0724	3.0	90
	1256	4.7	142
	1909	1.6	49
14 Su	0133	6.7	205
	0753	2.7	82
	1326	5.2	157
	1943	1.5	45
15 M	0159	6.9	209
	0819	2.5	75
	1355	5.6	171
	2013	1.4	44

	Time	Height	
	h m	ft	cm
16 Tu	0225	7.0	213
	0843	2.2	68
	1426	6.0	182
	2041	1.5	46
17 W	0252	7.0	214
	0907	2.0	60
	1459	6.3	191
	2109	1.7	51
18 Th	0319	6.9	211
	0931	1.7	53
	1532	6.5	197
	2138	1.9	58
19 F	0342	6.7	204
	0953	1.5	45
	1606	6.6	200
	2207	2.2	68
20 Sa	0349	6.4	194
	1011	1.2	38
	1643	6.6	200
	2237	2.6	80
21 Su ◐	0327	6.2	188
	1021	1.0	32
	1728	6.5	197
	2313	3.1	93
22 M	0352	5.8	178
	1037	1.0	31
	1824	6.2	189
23 Tu	0017	3.6	109
	0422	5.4	165
	1111	1.1	34
	1936	6.0	183
24 W	0147	4.0	123
	0455	4.9	150
	1201	1.4	42
	2102	5.9	180
25 Th	0336	4.2	129
	0530	4.4	134
	1347	1.6	50
	2232	6.1	185
26 F	0557	3.9	120
	0712	3.9	120
	1508	1.8	54
	2352	6.4	196
27 Sa	0638	3.5	106
	0850	3.9	120
	1033	3.7	114
	1140	3.8	116
	1758	1.8	54
28 Su ○	0047	6.7	205
	0715	3.0	92
	0955	4.2	129
	1048	4.2	127
	1250*	4.6	140

March

	Time	Height	
	h m	ft	cm
1 M	0132	6.9	210
	0752	2.6	78
	1340	5.5	168
	1958	1.4	44
2 Tu	0212	6.9	211
	0828	2.1	65
	1425	6.3	192
	2043	1.5	47
3 W	0249	6.9	209
	0904	1.7	53
	1506	6.9	210
	2125	1.8	54
4 Th	0321	6.7	205
	0938	1.4	43
	1545	7.2	220
	2203	2.1	65
5 F	0348	6.6	200
	1009	1.1	35
	1622	7.3	222
	2238	2.6	78
6 Sa	0409	6.4	194
	1034	1.0	31
	1659	7.1	217
	2309	3.0	92
7 Su ◑	0424	6.1	186
	1054	1.0	31
	1737	6.8	208
	2338	3.5	107
8 M	0438	5.7	174
	1117	1.2	36
	1821	6.4	195
9 Tu	0009	4.0	121
	0500	5.2	159
	1150	1.5	47
	1922	5.9	180
10 W	0054	4.4	134
	0226	4.5	136
	0323	4.4	135
	0534	4.7	143
	1235*	2.0	62
11 Th	0454	4.0	123
	0625	4.2	128
	1335	2.6	78
	1533	2.8	86
	1605*	2.8	85
12 F	0544	3.6	110
	0745	3.9	118
	0923	3.8	115
	1119	4.0	123
	1453*	3.0	90
13 Sa	0621	3.2	98
	1207	4.7	142
	1811	2.4	73
14 Su	0036	6.2	190
	0653	2.9	88
	1241	5.2	160
	1851	2.2	68
15 M ●	0103	6.4	195
	0720	2.6	80
	1309	5.8	177
	1924	2.2	66

	Time	Height	
	h m	ft	cm
16 Tu	0126	6.6	200
	0745	2.3	71
	1337	6.3	191
	1955	2.1	65
17 W	0152	6.6	202
	0809	2.1	63
	1409	6.7	204
	2026	2.2	67
18 Th	0221	6.6	200
	0833	1.8	55
	1444	7.0	212
	2059	2.4	72
19 F	0249	6.3	193
	0856	1.5	47
	1519	7.1	217
	2132	2.6	78
20 Sa	0312	6.0	183
	0914	1.3	39
	1554	7.2	218
	2204	2.8	85
21 Su	0210	5.8	178
	0915	1.0	31
	1631	7.1	216
	2237	3.0	92
22 M	0241	5.8	177
	0926	0.8	23
	1711	6.9	209
	2316	3.3	100
23 Tu ◐	0318	5.6	170
	1000	0.7	22
	1802	6.6	201
24 W	0012	3.6	109
	0356	5.2	159
	1042	0.9	28
	1907	6.3	191
25 Th	0133	3.8	116
	0438	4.7	144
	1138	1.3	41
	2028	6.0	184
26 F	0312	3.8	117
	0539	4.2	127
	1318	1.9	57
	2158	6.0	182
27 Sa	0503	3.5	106
	0746	3.9	120
	1554	2.3	70
	2320	6.1	185
28 Su	0600	3.0	91
	1141	4.6	139
	1756	2.2	66
29 M ○	0018	6.2	189
	0641	2.5	76
	1238	5.5	169
	1856	2.0	60
30 Tu	0104	6.2	190
	0720	2.0	62
	1325	6.4	196
	1944	1.9	57
31 W	0144	6.2	189
	0757	1.6	50
	1407	7.1	216
	2027	2.0	61

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
* See page 248 for the remaining tides on this day.

Punta Arenas, Chile, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0220	6.1	186
	0833	1.3	40
	1447	7.5	228
	2107	2.2	68
2 F	0249	6.0	183
	0905	1.0	31
	1524	7.6	232
	2143	2.6	78
3 Sa	0312	5.9	180
	0931	0.9	26
	1558	7.5	230
	2216	2.9	87
4 Su	0328	5.8	177
	0949	0.8	24
	1631	7.4	225
	2245	3.1	96
5 M	0346	5.6	172
	1009	0.9	26
	1703	7.1	216
	2314	3.4	103
6 Tu ◑	0412	5.3	163
	1038	1.2	36
	1740	6.7	203
	2348	3.6	111
7 W	0446	5.0	152
	1116	1.7	51
	1824	6.1	187
8 Th	0035	3.9	119
	0529	4.6	139
	1204	2.4	72
	1928	5.6	172
9 F	0404	3.8	116
	0633	4.2	129
	1309	3.0	92
	2214	5.6	171
10 Sa	0458	3.4	105
	1051	4.5	137
	1649	3.2	99
	2309	5.7	175
11 Su	0539	3.1	94
	1141	5.2	157
	1742	3.1	95
	2348	5.9	179
12 M	0612	2.8	84
	1216	5.8	176
	1824	3.0	92
13 Tu	0016	6.0	183
	0639	2.4	74
	1246	6.3	193
	1900	3.0	90
14 W ●	0043	6.1	185
	0704	2.1	64
	1316	6.9	209
	1935	2.9	89
15 Th	0114	6.0	184
	0730	1.8	56
	1351	7.3	221
	2012	2.9	89

	Time	Height	
	h m	ft	cm
16 F	0147	5.8	178
	0757	1.6	49
	1428	7.5	229
	2050	3.0	92
17 Sa	0219	5.5	169
	0822	1.4	42
	1506	7.6	232
	2128	3.1	95
18 Su	0050	5.3	162
	0200	5.2	159
	0242	5.2	160
	0834	1.1	35
	1545*	7.5	230
19 M	0126	5.4	165
	0824	0.9	26
	1624	7.4	225
	2243	3.3	102
20 Tu	0207	5.4	165
	0857	0.7	20
	1706	7.2	219
	2326	3.4	104
21 W ◐	0253	5.3	161
	0941	0.7	22
	1754	6.9	210
22 Th	0022	3.4	104
	0343	4.9	150
	1033	1.1	33
	1851	6.6	201
23 F	0130	3.4	103
	0450	4.5	136
	1141	1.7	52
	2000	6.2	190
24 Sa	0247	3.2	97
	0654	4.2	127
	1341	2.4	72
	2119	5.9	180
25 Su	0411	2.9	87
	1007	4.6	139
	1615	2.7	83
	2240	5.7	173
26 M	0517	2.4	74
	1124	5.4	165
	1743	2.6	79
	2343	5.6	170
27 Tu	0605	2.0	60
	1218	6.3	192
	1840	2.5	75
28 W ○	0031	5.4	166
	0647	1.6	48
	1304	7.0	212
	1927	2.4	74
29 Th	0112	5.3	163
	0725	1.2	38
	1347	7.4	226
	2009	2.6	78
30 F	0146	5.2	160
	0800	1.0	29
	1426	7.6	232
	2048	2.7	83

May

	Time	Height	
	h m	ft	cm
1 Sa	0213	5.2	158
	0829	0.8	23
	1502	7.6	232
	2124	2.9	88
2 Su	0232	5.2	158
	0850	0.7	20
	1535	7.5	230
	2157	3.0	90
3 M	0250	5.2	159
	0907	0.7	21
	1605	7.4	225
	2227	3.0	91
4 Tu	0321	5.2	158
	0936	0.9	27
	1636	7.2	218
	2258	3.0	92
5 W	0359	5.1	154
	1013	1.2	38
	1711	6.8	208
	2333	3.1	95
6 Th ◑	0441	4.9	149
	1054	1.8	55
	1751	6.4	195
7 F	0018	3.2	99
	0533	4.7	143
	1143	2.5	75
	1839	6.0	182
8 Sa	0124	3.3	102
	0644	4.5	138
	1246	3.1	96
	1941	5.7	173
9 Su	0341	3.2	97
	0951	4.8	145
	1415	3.7	113
	2111	5.5	168
10 M	0431	2.9	87
	1052	5.4	164
	1651	3.8	116
	2216	5.5	167
11 Tu	0508	2.5	76
	1137	6.0	184
	1746	3.7	114
	2303	5.5	167
12 W	0541	2.2	66
	1214	6.7	203
	1832	3.6	110
	2348	5.4	165
13 Th ●	0613	1.8	56
	1251	7.2	219
	1916	3.5	106
14 F	0031	5.2	160
	0646	1.6	48
	1331	7.6	231
	1959	3.4	103
15 Sa	0113	5.0	153
	0721	1.4	42
	1412	7.8	238
	2042	3.3	102
	2335	4.8	146

	Time	Height	
	h m	ft	cm
16 Su	0041	4.7	143
	0150	4.8	146
	0753	1.2	36
	1455	7.8	239
	2125	3.4	103
17 M	0012	4.9	150
	0153	4.7	142
	0218	4.7	142
	0800	1.0	30
	1538*	7.8	237
18 Tu	0056	5.0	153
	0802	0.8	24
	1620	7.6	233
	2250	3.3	101
19 W	0146	5.1	154
	0847	0.8	24
	1702	7.4	227
	2334	3.1	95
20 Th ◐	0242	4.9	150
	0942	1.0	31
	1746	7.2	219
21 F	0021	2.9	87
	0433	4.7	144
	1051	1.5	46
	1834	6.8	208
22 Sa	0114	2.6	79
	0636	4.7	143
	1232	2.2	66
	1929	6.3	193
23 Su	0214	2.4	72
	0816	4.9	149
	1413	2.7	83
	2034	5.8	176
24 M	0320	2.1	65
	0949	5.4	164
	1600	3.1	93
	2151	5.3	161
25 Tu	0430	1.8	56
	1101	6.0	184
	1725	3.0	92
	2301	4.9	150
26 W	0527	1.5	46
	1156	6.7	203
	1822	3.0	90
	2355	4.7	143
27 Th ○	0614	1.2	36
	1244	7.1	216
	1910	2.9	89
	2145	4.3	130
	2249	4.2	128
28 F	0038	4.5	138
	0655	0.9	28
	1327	7.3	223
	1953	3.0	90
	2231*	4.3	132
29 Sa	0113	4.5	136
	0730	0.8	23
	1407	7.4	226
	2033	2.9	89
	2332	4.4	134
30 Su	0018	4.4	134
	0141	4.5	137
	0759	0.7	20
	1443	7.4	226
	2110	2.9	87
31 M	0202	4.6	140
	0817	0.7	20
	1515	7.3	223
	2143	2.8	84

June

	Time	Height	
	h m	ft	cm
1 Tu	0232	4.8	145
	0843	0.8	23
	1545	7.2	219
	2212	2.6	80
2 W	0311	4.9	149
	0919	1.0	30
	1615	7.1	215
	2241	2.6	78
3 Th	0352	5.0	152
	0958	1.3	40
	1647	6.9	209
	2313	2.5	77
4 F ◑	0436	5.0	152
	1037	1.8	54
	1722	6.6	201
	2351	2.5	77
5 Sa	0526	5.0	151
	1120	2.4	72
	1759	6.3	192
6 Su	0037	2.5	76
	0631	4.9	150
	1213	3.0	92
	1841	6.0	182
7 M	0133	2.4	74
	0805	5.1	154
	1328	3.7	112
	1930	5.6	171
8 Tu	0232	2.3	69
	0939	5.5	167
	1506	4.1	125
	2025	5.3	161
9 W	0329	2.0	62
	1042	6.0	184
	1653	4.1	126
	2124	5.0	151
10 Th	0420	1.8	54
	1135	6.6	202
	1803	4.0	121
	2229	4.7	142
11 F	0508	1.5	47
	1224	7.2	218
	1859	3.7	114
	2336	4.4	135
12 Sa ●	0556	1.3	41
	1312	7.5	229
	1948	3.5	108
	2222	4.4	133
	2343	4.3	130
13 Su	0033	4.3	131
	0644	1.1	35
	1359	7.7	236
	2034	3.4	105
	2301	4.5	136
14 M	0040	4.2	129
	0124	4.2	129
	0734	1.0	30
	1445	7.8	239
	2117*	3.3	101
15 Tu	0132	4.3	131
	0210	4.3	132
	0823	0.9	28
	1528	7.8	238
	2159	3.1	95

	Time	Height	
	h m	ft	cm
16 W	0037	4.8	145
	0749	1.0	29
	0820	1.0	29
	0909	0.9	28
	1609*	7.7	235
17 Th	0136	4.8	147
	0245	4.7	144
	0346	4.8	145
	0955	1.1	33
	1648*	7.5	230
18 F	0440	5.1	154
	1046	1.4	43
	1726	7.3	221
19 Sa ◐	0000	2.1	63
	0539	5.3	162
	1142	1.9	57
	1806	6.8	208
20 Su	0044	1.7	53
	0644	5.5	167
	1245	2.4	73
	1849	6.3	191
21 M	0133	1.5	47
	0758	5.6	172
	1356	3.0	90
	1935	5.6	171
22 Tu	0229	1.4	44
	0922	5.9	180
	1532	3.4	103
	2019	4.9	150
23 W	0335	1.3	41
	1036	6.3	191
	1704	3.4	105
	1950	4.4	135
24 Th	0446	1.2	36
	1135	6.6	202
	1806	3.3	101
	2023	4.1	126
	2206*	3.9	120
25 F	0543	1.0	29
	1226	6.9	211
	1856	3.1	96
	2108	4.0	121
	2251	3.8	115
26 Sa ○	0008	3.9	118
	0630	0.8	25
	1311	7.1	215
	1939	3.0	91
	2203*	3.9	120
27 Su	0051	3.9	119
	0711	0.7	22
	1351	7.1	216
	2019	2.8	85
28 M	0128	4.1	125
	0747	0.7	22
	1427	7.1	215
	2055	2.6	78
29 Tu	0201	4.4	133
	0817	0.8	24
	1458	7.0	214
	2126	2.4	73
30 W	0234	4.7	143
	0844	0.9	27
	1527	7.0	213
	2153	2.2	67

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
* See page 248 for the remaining tides on this day.

Punta Arenas, Chile, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0310	5.0	151
	0916	1.0	32
	1555	6.9	211
	2218	2.0	62
2 F	0347	5.2	158
	0949	1.3	39
	1623	6.9	209
	2246	1.9	58
3 Sa	0427	5.3	162
	1022	1.7	51
	1652	6.7	204
	2318	1.7	53
4 Su ◑	0512	5.3	163
	1058	2.2	67
	1719	6.4	196
	2355	1.6	50
5 M	0607	5.4	164
	1142	2.8	86
	1743	6.0	184
6 Tu	0039	1.6	48
	0715	5.4	165
	1251	3.5	106
	1745	5.6	170
7 W	0131	1.5	47
	0834	5.6	171
	1416	4.0	121
	1800	5.1	154
8 Th	0225	1.5	45
	0947	5.9	181
	1553	4.2	127
	1834	4.6	139
9 F	0318	1.4	43
	1056	6.4	194
	1740	4.0	123
	2002	4.2	127
10 Sa	0409	1.3	40
	1200	6.8	207
	1852	3.7	114
	2103	4.0	123
11 Su ●	0458	1.2	36
	1257	7.2	219
	1938	3.5	106
	2151	4.1	124
12 M	0611	1.1	33
	1346	7.4	227
	2019	3.2	99
	2239	4.3	130
13 Tu	0025	3.9	120
	0116	4.0	121
	0557	1.1	33
	0614	1.1	33
	0737*	1.0	30
14 W	0059	4.2	129
	0214	4.4	133
	0834	1.0	30
	1511	7.6	232
	2138	2.6	80
15 Th	0028	4.7	142
	0127	4.6	140
	0305	4.9	148
	0923	1.1	33
	1549*	7.5	229

	Time	Height	
	h m	ft	cm
16 F	0353	5.4	164
	1009	1.3	40
	1624	7.3	223
	2252	1.7	52
17 Sa	0440	5.8	177
	1053	1.7	51
	1658	7.0	214
	2329	1.3	40
18 Su ◐	0529	6.1	185
	1137	2.1	64
	1730	6.6	202
19 M	0007	1.1	33
	0623	6.1	187
	1225	2.7	81
	1759	6.1	185
20 Tu	0047	1.0	30
	0728	6.1	185
	1323	3.2	99
	1818	5.4	166
21 W	0131	1.0	30
	0852	6.0	183
	1459	3.8	115
	1831	4.8	147
22 Th	0217	1.1	33
	1013	6.2	188
	1648	3.7	114
	1901	4.3	131
23 F	0356	1.2	36
	1118	6.4	194
	1753	3.5	106
	1945	3.9	119
24 Sa	0520	1.1	34
	1211	6.6	200
	1842	3.1	95
	2043	3.6	111
	2233*	3.4	104
25 Su ○	0615	1.0	31
	1256	6.7	203
	1924	2.8	85
	2158	3.6	110
	2255	3.6	109
26 M	0044	3.8	117
	0701	1.0	29
	1335	6.7	204
	2001	2.5	77
27 Tu	0124	4.2	129
	0741	0.9	28
	1409	6.7	205
	2033	2.3	69
28 W	0157	4.7	143
	0815	0.9	28
	1437	6.8	206
	2101	2.0	62
29 Th	0228	5.1	155
	0842	1.0	30
	1503	6.8	207
	2125	1.8	56
30 F	0301	5.4	165
	0909	1.1	34
	1529	6.8	208
	2148	1.6	48
31 Sa	0336	5.6	172
	0937	1.3	41
	1556	6.8	206
	2214	1.3	41

August

	Time	Height	
	h m	ft	cm
1 Su	0413	5.8	177
	1008	1.7	52
	1620	6.6	200
	2242	1.1	34
2 M	0454	5.9	179
	1042	2.2	66
	1635	6.2	190
	2312	1.0	30
3 Tu ◑	0542	5.9	179
	1124	2.7	82
	1622	5.8	178
	2346	1.0	29
4 W	0638	5.8	176
	1225	3.2	99
	1641	5.4	165
5 Th	0030	1.0	32
	0746	5.7	175
	1343	3.7	113
	1709	4.9	149
6 F	0129	1.1	35
	0902	5.8	177
	1511	4.0	121
	1740	4.4	133
7 Sa	0229	1.2	37
	1021	6.0	184
	1738	3.9	119
	1822	3.9	119
8 Su	0323	1.2	38
	1140	6.4	195
	1843	3.5	108
	2040	3.8	116
9 M ●	0414	1.2	38
	1240	6.8	207
	1919	3.2	97
	2136	3.9	120
	2325	3.7	112
10 Tu	0011	3.7	113
	0632	1.2	38
	1327	7.1	215
	1955	2.9	87
	2229*	4.2	128
11 W	0121	4.3	131
	0737	1.1	34
	1409	7.2	219
	2033	2.5	75
	2328	4.5	138
12 Th	0010	4.5	137
	0212	5.0	152
	0829	1.1	35
	1448	7.2	218
	2110	2.0	61
13 F	0258	5.7	173
	0916	1.3	39
	1525	7.0	214
	2146	1.5	47
14 Sa	0342	6.2	190
	0959	1.6	48
	1557	6.8	208
	2221	1.1	35
15 Su	0425	6.6	200
	1039	2.0	60
	1626	6.6	201
	2255	0.9	26

	Time	Height	
	h m	ft	cm
16 M ◐	0508	6.6	202
	1117	2.4	74
	1649	6.3	191
	2326	0.7	21
17 Tu	0554	6.5	197
	1156	3.0	91
	1706	5.8	177
	2356	0.7	22
18 W	0651	6.2	188
	1241	3.5	108
	1720	5.2	160
19 Th	0027	0.9	27
	0820	5.9	179
	1427	4.0	123
	1744	4.7	142
20 F	0106	1.2	36
	0952	5.9	179
	1637	3.8	117
	1822	4.1	125
21 Sa	0155	1.5	47
	1100	6.0	182
	1739	3.4	104
	1919	3.6	111
	2141*	3.3	101
22 Su	0257	1.8	56
	0325	1.8	56
	0508	1.6	49
	1155	6.1	187
	1824*	3.0	91
23 M	0605	1.5	45
	1240	6.2	190
	1901	2.6	80
24 Tu ○	0039	4.3	132
	0650	1.3	41
	1316	6.3	192
	1935	2.3	71
25 W	0114	4.9	148
	0729	1.3	39
	1346	6.4	195
	2005	2.1	63
26 Th	0144	5.3	162
	0802	1.3	39
	1410	6.5	198
	2030	1.8	55
27 F	0213	5.7	174
	0829	1.4	42
	1434	6.6	200
	2051	1.6	48
28 Sa	0245	6.0	184
	0856	1.5	46
	1500	6.5	199
	2113	1.3	39
29 Su	0319	6.3	191
	0925	1.7	52
	1526	6.4	194
	2137	1.0	31
30 M	0356	6.4	195
	0956	2.0	61
	1546	6.1	185
	2201	0.8	24
31 Tu	0434	6.4	195
	1030	2.3	71
	1508	5.8	177
	2220	0.7	20

September

	Time	Height	
	h m	ft	cm
1 W ◑	0515	6.3	192
	1110	2.7	82
	1531	5.6	170
	2235	0.6	19
2 Th	0605	6.1	186
	1204	3.1	95
	1603	5.2	158
	2304	0.8	23
3 F	0707	5.9	179
	1315	3.5	107
	1638	4.7	143
4 Sa	0003	1.0	31
	0822	5.7	175
	1441	3.7	114
	1716	4.2	127
5 Su	0142	1.3	39
	0947	5.8	177
	1705	3.6	111
	1919	3.7	114
6 M	0251	1.4	44
	1114	6.1	185
	1809	3.2	97
	2037	3.8	115
7 Tu	0451	1.6	50
	1215	6.4	194
	1847	2.8	84
	2139	4.0	122
	2221	4.0	122
8 W ●	0019	4.3	131
	0634	1.5	46
	1302	6.5	199
	1924	2.3	71
9 Th	0112	5.2	158
	0730	1.4	42
	1343	6.6	201
	2002	1.9	57
10 F	0159	6.0	183
	0818	1.4	43
	1422	6.5	199
	2039	1.4	44
11 Sa	0243	6.7	203
	0901	1.6	49
	1457	6.4	195
	2115	1.0	32
12 Su	0324	7.0	214
	0942	1.9	58
	1528	6.2	190
	2148	0.8	23
13 M	0404	7.1	217
	1020	2.3	71
	1551	6.0	184
	2217	0.6	18
14 Tu	0443	7.0	213
	1055	2.8	84
	1606	5.8	177
	2240	0.6	18
15 W ◐	0523	6.7	204
	1128	3.2	97
	1622	5.5	167
	2303	0.7	22

	Time	Height	
	h m	ft	cm
16 Th	0608	6.3	191
	1204	3.6	109
	1646	5.0	152
	2336	1.1	33
17 F	0720	5.8	177
	1320	3.9	120
	1720	4.5	136
18 Sa	0021	1.6	49
	0921	5.6	171
	1612	3.7	112
	1809	3.9	120
19 Su	0122	2.2	67
	1032	5.6	172
	1710	3.2	98
	1941	3.6	110
	2043*	3.6	109
20 M	0453	2.2	68
	1129	5.8	176
	1754	2.8	86
	2344	4.5	137
21 Tu	0549	2.0	62
	1214	5.9	180
	1831	2.5	75
22 W	0026	5.1	156
	0634	1.9	59
	1248	6.0	183
	1903	2.2	66
23 Th ○	0059	5.6	172
	0711	1.9	57
	1314	6.1	186
	1930	1.9	58
24 F	0127	6.1	185
	0744	1.9	58
	1336	6.2	188
	1953	1.7	51
25 Sa	0155	6.5	197
	0814	2.0	61
	1401	6.1	187
	2014	1.4	43
26 Su	0227	6.8	206
	0844	2.1	65
	1429	6.0	182
	2037	1.1	35
27 M	0302	6.9	211
	0916	2.3	69
	1456	5.7	174
	2059	1.0	29
28 Tu	0338	7.0	212
	0949	2.5	75
	1351	5.4	166
	1447	5.4	165
	1507*	5.4	165
29 W	0416	6.9	209
	1024	2.7	81
	1417	5.4	165
	2113	0.6	17
30 Th ◑	0456	6.7	203
	1102	2.9	88
	1454	5.3	161
	2140	0.5	16

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
* See page 248 for the remaining tides on this day.

Punta Arenas, Chile, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0541	6.4	194
	1152	3.1	95
	1535	5.0	152
	2224	0.7	22
2 Sa	0638	6.1	185
	1259	3.3	102
	1620	4.5	138
	2321	1.1	34
3 Su	0747	5.8	178
	1421	3.4	105
	1734	4.0	122
4 M	0103	1.6	49
	0910	5.7	174
	1610	3.2	99
	1932	3.8	117
5 Tu	0241	2.0	61
	1038	5.7	175
	1726	2.8	84
	2303	4.3	131
6 W	0517	2.1	65
	1143	5.8	178
	1811	2.3	70
7 Th ●	0007	5.2	160
	0626	1.9	58
	1232	5.9	179
	1851	1.8	56
8 F	0056	6.2	188
	0717	1.8	55
	1315	5.8	178
	1930	1.4	43
9 Sa	0141	6.9	210
	0802	1.8	56
	1353	5.8	176
	2007	1.0	31
10 Su	0223	7.3	223
	0845	2.1	63
	1427	5.7	173
	2043	0.8	23
11 M	0304	7.5	228
	0924	2.4	72
	1455	5.5	169
	2113	0.6	18
12 Tu	0342	7.4	226
	1001	2.7	81
	1511	5.4	166
	2135	0.5	16
13 W	0417	7.2	219
	1034	2.9	89
	1525	5.3	163
	2152	0.6	19
14 Th ◐	0451	6.9	209
	1106	3.1	95
	1553	5.1	156
	2221	0.9	28
15 F	0527	6.5	197
	1141	3.3	101
	1632	4.8	146
	2301	1.4	44

	Time	Height	
	h m	ft	cm
16 Sa	0612	6.0	182
	1239	3.5	107
	1720	4.4	134
	2352	2.1	65
17 Su	0819	5.5	168
	1522	3.4	104
	1834	4.1	124
18 M	0105	2.8	86
	0943	5.4	165
	1624	3.1	94
	2223	4.5	137
19 Tu	0424	2.9	89
	1043	5.5	167
	1711	2.7	83
	2321	5.2	157
20 W	0523	2.8	86
	1130	5.5	169
	1750	2.4	72
21 Th	0004	5.8	176
	0610	2.8	84
	1205	5.6	171
	1822	2.1	63
22 F ○	0038	6.3	193
	0650	2.7	83
	1230	5.7	173
	1849	1.8	54
23 Sa	0107	6.8	206
	0725	2.7	82
	1256	5.6	172
	1912	1.5	46
24 Su	0136	7.2	218
	0759	2.7	82
	1326	5.5	169
	1936	1.3	39
25 M	0210	7.4	225
	0834	2.7	82
	1359	5.3	162
	2002	1.1	33
26 Tu	0247	7.5	228
	0911	2.8	84
	1242	5.0	151
	1308	4.9	150
	1431*	5.1	154
27 W	0326	7.4	226
	0949	2.9	87
	1305	5.1	154
	2023	0.8	24
28 Th	0405	7.3	221
	1027	3.0	91
	1344	5.1	155
	2035	0.6	19
29 F	0446	7.0	214
	1108	3.1	93
	1428	5.0	153
	2115	0.7	20
30 Sa ◑	0529	6.7	205
	1156	3.1	94
	1518	4.8	146
	2205	1.0	29
31 Su	0618	6.4	196
	1254	3.1	93
	1626	4.4	134
	2309	1.5	47

November

	Time	Height	
	h m	ft	cm
1 M	0717	6.1	185
	1402	2.9	89
	1827	4.2	127
2 Tu	0055	2.2	67
	0829	5.7	174
	1521	2.7	82
	2119	4.4	135
3 W	0316	2.7	81
	0954	5.4	165
	1638	2.3	70
	2250	5.2	159
4 Th	0510	2.7	81
	1106	5.2	160
	1733	1.9	57
	2349	6.1	185
5 F	0613	2.5	75
	1200	5.2	157
	1818	1.4	44
6 Sa ●	0037	6.8	208
	0702	2.4	72
	1244	5.1	154
	1859	1.1	33
7 Su	0122	7.3	223
	0747	2.4	74
	1323	5.0	152
	1938	0.8	23
8 M	0204	7.5	230
	0829	2.6	78
	1357	4.9	150
	2012	0.6	18
9 Tu	0245	7.6	231
	0908	2.7	82
	1422	4.9	149
	2039	0.6	17
10 W	0322	7.4	227
	0946	2.8	85
	1435	4.9	150
	2052	0.6	19
11 Th	0355	7.3	221
	1019	2.9	87
	1500	5.0	151
	2116	0.8	25
12 F	0424	7.0	213
	1050	2.9	87
	1540	4.9	150
	2154	1.2	36
13 Sa ◐	0456	6.7	203
	1123	2.9	88
	1627	4.8	146
	2238	1.7	53
14 Su	0534	6.3	191
	1208	3.0	91
	1723	4.6	141
	2329	2.4	74
15 M	0621	5.8	178
	1324	3.1	93
	1843	4.5	137

	Time	Height	
	h m	ft	cm
16 Tu	0038	3.1	96
	0723	5.5	167
	1507	2.9	89
	2130	4.8	147
17 W	0316	3.6	111
	0857	5.2	160
	1604	2.7	81
	2238	5.4	165
18 Th	0437	3.7	114
	0959	5.2	157
	1649	2.3	71
	2330	6.0	184
19 F	0538	3.7	112
	1045	5.1	156
	1724	2.0	61
20 Sa	0010	6.6	202
	0627	3.5	108
	1127	5.1	155
	1754	1.7	52
21 Su ○	0043	7.1	217
	0708	3.3	102
	1209	5.0	153
	1825	1.4	43
22 M	0117	7.5	229
	0747	3.2	97
	1252	4.9	150
	1900	1.2	37
23 Tu	0155	7.7	236
	0827	3.1	94
	1333	4.8	145
	1935	1.0	32
24 W	0235	7.8	238
	0907	3.1	93
	1159	4.7	142
	1303	4.6	139
	1411*	4.7	142
25 Th	0317	7.7	236
	0947	3.1	93
	1236	4.8	147
	1956	0.9	26
26 F	0358	7.6	232
	1027	3.0	92
	1321	4.9	150
	2018	0.8	25
27 Sa	0438	7.4	225
	1108	2.9	89
	1414	4.9	149
	2106	1.0	31
28 Su ◑	0517	7.1	217
	1151	2.7	83
	1527	4.8	145
	2204	1.4	43
29 M	0558	6.8	207
	1238	2.5	76
	1752	4.8	145
	2321	2.0	62
30 Tu	0643	6.3	192
	1331	2.3	69
	1928	4.9	149

December

	Time	Height	
	h m	ft	cm
1 W	0117	2.7	82
	0738	5.7	175
	1433	2.1	63
	2106	5.2	160
2 Th	0310	3.1	96
	0853	5.2	158
	1546	1.8	56
	2228	5.9	179
3 F	0452	3.2	97
	1020	4.8	145
	1654	1.5	46
	2328	6.5	198
4 Sa	0556	3.0	92
	0843	4.2	128
	0920	4.2	128
	1124	4.5	138
	1747	1.1	35
5 Su ●	0019	7.0	213
	0647	2.9	89
	0918	4.1	125
	1019	4.0	123
	1214*	4.4	134
6 M	0106	7.3	223
	0733	2.9	88
	1003	4.1	125
	1110	4.0	123
	1256*	4.3	132
7 Tu	0149	7.4	227
	0816	2.9	87
	1333	4.4	133
	1951	0.6	18
8 W	0229	7.4	227
	0856	2.8	85
	1404	4.5	137
	2021	0.7	20
9 Th	0306	7.3	223
	0933	2.7	82
	1429	4.7	142
	2039	0.8	25
10 F	0337	7.2	218
	1006	2.6	79
	1459	4.9	148
	2104	1.0	32
11 Sa	0405	7.0	213
	1033	2.5	76
	1539	5.0	153
	2142	1.4	42
12 Su	0432	6.8	208
	1100	2.4	74
	1624	5.1	155
	2223	1.8	56
13 M ◐	0504	6.6	200
	1134	2.4	74
	1715	5.1	155
	2307	2.5	75
14 Tu	0540	6.3	191
	1217	2.4	74
	1818	5.0	153
	2359	3.1	96
15 W	0618	5.9	180
	1310	2.4	74
	1950	5.1	155

	Time	Height	
	h m	ft	cm
16 Th	0112	3.8	117
	0702	5.5	168
	1408	2.3	71
	2123	5.4	166
17 F	0251	4.3	131
	0753	5.1	156
	1504	2.1	65
	2234	5.9	181
18 Sa	0445	4.4	133
	0851	4.8	147
	1557	1.9	59
	2333	6.5	199
19 Su	0611	4.1	125
	0957	4.6	139
	1647	1.7	52
20 M	0020	7.0	214
	0701	3.8	115
	1113	4.4	135
	1737	1.5	45
21 Tu ○	0102	7.4	227
	0740	3.5	107
	1219	4.4	133
	1830	1.3	39
22 W	0144	7.7	235
	0818	3.3	101
	1054	4.3	132
	1153	4.3	131
	1313*	4.4	134
23 Th	0226	7.8	239
	0857	3.2	98
	1130	4.5	138
	1248	4.4	133
	1400*	4.5	137
24 F	0307	7.8	239
	0935	3.1	93
	1215	4.8	145
	1337	4.6	139
	1445*	4.7	142
25 Sa	0346	7.7	236
	1014	2.9	87
	1308	5.0	151
	1419	4.8	147
	1529*	4.9	150
26 Su	0423	7.6	231
	1052	2.5	77
	1615	5.2	159
	2220	1.5	45
27 M	0457	7.3	223
	1129	2.2	66
	1705	5.4	166
	2303	1.9	58
28 Tu ◑	0531	6.9	211
	1208	1.9	57
	1802	5.6	171
	2358	2.4	74
29 W	0604	6.4	196
	1252	1.7	51
	1912	5.7	174
30 Th	0106	3.0	92
	0635	5.8	177
	1343	1.6	48
	2038	5.8	177
31 F	0240	3.5	108
	0652	5.1	156
	1448	1.5	46
	2203	6.1	187

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
* See page 248 for the remaining tides on this day.

Puerto Montt, Chile, 2010

Times and Heights of High and Low Waters

January

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 F	0132	22.5 687	**16** Sa	0213	21.2 646
	0801	2.7 82		0837	4.5 137
	1408	20.3 620		1438	19.0 579
	2009	3.7 114		2033	5.8 178
2 Sa	0220	23.2 706	**17** Su	0241	20.8 634
	0848	2.2 67		0905	4.9 149
	1454	20.7 632		1506	18.7 570
	2057	3.4 103		2102	6.2 190
3 Su	0307	23.1 705	**18** M	0309	20.2 615
	0933	2.2 68		0932	5.5 167
	1539	20.7 630		1534	18.2 556
	2143	3.5 107		2131	6.8 206
4 M	0353	22.5 685	**19** Tu	0336	19.3 589
	1018	2.8 86		0958	6.2 188
	1624	20.2 617		1601	17.7 540
	2230	4.1 126		2200	7.4 225
5 Tu	0439	21.3 648	**20** W	0402	18.4 561
	1102	3.8 117		1024	6.9 210
	1711	19.5 593		1628	17.2 524
	2319	5.2 158		2230	8.1 246
6 W	0527	19.6 598	**21** Th	0429	17.5 533
	1148	5.2 157		1050	7.6 231
	1803	18.5 565		1658	16.7 510
				2303	8.7 265
7 Th ◑	0015	6.5 197	**22** F	0500	16.6 507
	0622	17.8 544		1120	8.2 251
	1242	6.6 200		1735	16.4 500
	1906	17.7 539		2344	9.3 284
8 F	0126	7.6 232	**23** Sa ◐	0540	15.8 481
	0733	16.3 497		1201	8.9 270
	1350	7.8 237		1827	16.1 492
	2023	17.2 525			
9 Sa	0257	8.1 247	**24** Su	0044	9.8 300
	0904	15.6 475		0643	15.0 456
	1515	8.3 253		1302	9.5 289
	2146	17.5 534		1943	16.1 492
10 Su	0427	7.6 231	**25** M	0216	10.0 305
	1032	15.9 485		0824	14.6 444
	1635	8.0 244		1437	9.7 297
	2257	18.4 561		2115	16.7 510
11 M	0533	6.5 199	**26** Tu	0406	9.2 279
	1138	16.8 513		1014	15.2 463
	1735	7.3 221		1616	9.0 275
	2352	19.5 593		2240	18.1 553
12 Tu	0622	5.5 168	**27** W	0525	7.4 225
	1226	17.8 543		1132	16.7 509
	1821	6.5 198		1730	7.5 228
				2347	20.1 612
13 W	0035	20.4 621	**28** Th	0623	5.3 161
	0702	4.8 145		1229	18.5 564
	1304	18.5 565		1827	5.6 172
	1859	6.0 182			
14 Th	0111	21.0 640	**29** F	0041	22.0 670
	0737	4.4 133		0711	3.4 103
	1338	19.0 578		1317	20.1 614
	1933	5.7 173		1917	4.0 121
15 F ●	0143	21.3 648	**30** Sa ○	0129	23.5 717
	0808	4.3 131		0756	2.0 60
	1409	19.1 583		1401	21.4 651
	2003	5.6 172		2003	2.8 84
			31 Su	0213	24.3 740
				0837	1.3 39
				1442	22.0 670
				2046	2.2 68

February

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 M	0254	24.2 737	**16** Tu	0247	20.7 630
	0916	1.3 40		0905	4.6 140
	1522	22.0 670		1508	19.3 588
	2128	2.5 75		2110	5.6 172
2 Tu	0334	23.3 709	**17** W	0312	19.8 605
	0954	2.1 64		0928	5.2 160
	1601	21.4 651		1532	18.9 576
	2209	3.4 104		2137	6.2 190
3 W	0414	21.6 659	**18** Th	0337	18.9 577
	1032	3.4 105		0951	6.0 182
	1641	20.3 619		1556	18.4 562
	2253	4.9 149		2204	6.9 211
4 Th	0455	19.6 596	**19** F	0401	18.0 548
	1111	5.2 157		1014	6.8 206
	1726	19.0 578		1621	18.0 548
	2342	6.6 202		2234	7.7 234
5 F ◑	0544	17.4 529	**20** Sa	0428	17.0 518
	1156	7.0 214		1040	7.6 232
	1823	17.6 536		1653	17.5 532
				2311	8.6 261
6 Sa	0049	8.3 252	**21** Su ◐	0504	15.9 486
	0652	15.4 469		1116	8.6 261
	1300	8.7 266		1741	16.8 512
	1946	16.6 507			
7 Su	0234	9.1 278	**22** M	0007	9.5 290
	0841	14.4 440		0604	14.8 450
	1446	9.6 293		1215	9.7 295
	2128	16.7 510		1903	16.2 494
8 M	0423	8.4 256	**23** Tu	0153	10.1 308
	1030	15.0 458		0809	14.0 428
	1626	9.1 277		1414	10.3 315
	2248	17.8 543		2102	16.5 504
9 Tu	0528	7.1 215	**24** W	0409	9.1 277
	1134	16.3 498		1021	15.1 460
	1727	8.0 244		1617	9.2 281
	2341	19.1 583		2238	18.3 557
10 W	0613	5.8 176	**25** Th	0523	6.9 210
	1217	17.6 535		1130	17.2 523
	1810	6.9 211		1728	7.1 216
				2341	20.5 626
11 Th	0021	20.2 617	**26** F	0613	4.6 139
	0648	4.8 145		1220	19.3 588
	1251	18.5 565		1820	4.8 147
	1845	6.0 184			
12 F	0055	21.1 642	**27** Sa	0031	22.6 689
	0720	4.1 126		0657	2.6 79
	1321	19.2 585		1302	21.1 644
	1917	5.4 166		1905	3.0 90
13 Sa ●	0125	21.5 655	**28** Su ○	0115	24.0 732
	0748	3.8 117		0737	1.3 40
	1350	19.6 596		1342	22.4 682
	1946	5.1 156		1947	1.8 54
14 Su	0154	21.5 656			
	0815	3.8 117			
	1417	19.7 600			
	2015	5.1 154			
15 M	0221	21.2 647			
	0840	4.1 125			
	1443	19.6 597			
	2043	5.2 159			

March

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 M	0155	24.5 748	**16** Tu	0153	20.9 638
	0815	0.8 25		0806	3.7 112
	1420	22.9 698		1410	20.5 625
	2028	1.4 43		2017	4.1 125
2 Tu	0234	24.1 736	**17** W	0220	20.5 625
	0851	1.1 35		0830	4.0 123
	1457	22.7 692		1435	20.4 622
	2107	1.9 59		2046	4.4 133
3 W	0312	22.9 698	**18** Th	0247	19.8 605
	0926	2.2 68		0855	4.6 140
	1533	21.9 667		1500	20.1 614
	2146	3.1 95		2114	4.9 149
4 Th	0349	21.1 644	**19** F	0314	19.0 579
	1001	3.8 115		0920	5.4 164
	1610	20.6 628		1526	19.7 600
	2227	4.8 145		2144	5.6 171
5 F	0428	19.1 581	**20** Sa	0343	18.0 549
	1037	5.6 171		0947	6.3 192
	1651	19.1 581		1556	19.1 581
	2313	6.6 201		2218	6.5 199
6 Sa	0514	16.9 516	**21** Su	0416	16.9 515
	1119	7.5 230		1019	7.3 224
	1744	17.5 533		1633	18.2 556
				2302	7.6 232
7 Su ◑	0015	8.3 253	**22** M	0501	15.7 479
	0621	15.1 460		1102	8.6 261
	1219	9.3 284		1727	17.3 526
	1903	16.2 495			
8 M	0159	9.3 283	**23** Tu ◐	0007	8.7 264
	0813	14.2 433		0618	14.6 446
	1412	10.3 313		1217	9.7 297
	2053	16.1 491		1857	16.5 503
9 Tu	0353	8.7 265	**24** W	0158	9.1 276
	1006	14.9 454		0824	14.5 442
	1603	9.6 294		1423	9.9 303
	2219	17.1 520		2053	17.0 517
10 W	0459	7.3 224	**25** Th	0350	7.9 240
	1108	16.2 495		1007	16.0 488
	1704	8.4 255		1607	8.4 255
	2313	18.3 559		2220	18.7 569
11 Th	0542	6.0 184	**26** F	0457	5.9 179
	1149	17.5 534		1107	18.1 552
	1745	7.1 217		1710	6.1 186
	2353	19.5 594		2320	20.7 630
12 F	0617	5.0 152	**27** Sa	0546	3.9 119
	1222	18.6 567		1154	20.1 614
	1820	6.0 183		1800	4.0 121
13 Sa	0027	20.3 620	**28** Su	0008	22.3 681
	0647	4.2 129		0629	2.3 71
	1251	19.4 592		1236	21.8 663
	1851	5.1 156		1845	2.4 72
14 Su	0057	20.9 637	**29** M ○	0052	23.3 711
	0715	3.8 115		0709	1.4 44
	1318	20.0 610		1316	22.8 694
	1921	4.5 137		1927	1.5 45
15 M ●	0125	21.1 642	**30** Tu	0133	23.5 717
	0741	3.6 110		0747	1.3 40
	1344	20.4 621		1353	23.1 703
	1949	4.2 127		2007	1.4 43
			31 W	0212	22.9 699
				0823	1.9 58
				1430	22.7 691
				2046	2.0 62

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Puerto Montt, Chile, 2010

Times and Heights of High and Low Waters

April

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Th	0249	21.8 663	**16** F	0222	19.5 593
	0858	3.1 93		0823	4.4 134
	1506	21.8 664		1431	21.1 644
	2124	3.2 98		2054	3.8 117
2 F	0327	20.2 616	**17** Sa	0256	18.8 573
	0932	4.6 139		0855	5.1 156
	1542	20.5 625		1504	20.7 630
	2204	4.7 144		2131	4.5 137
3 Sa	0407	18.5 564	**18** Su	0333	17.9 546
	1008	6.2 190		0931	6.0 184
	1621	19.0 580		1542	19.9 607
	2248	6.3 193		2213	5.4 164
4 Su	0453	16.8 513	**19** M	0417	17.0 517
	1049	7.9 241		1014	7.1 217
	1708	17.6 535		1629	19.0 578
	2343	7.8 238		2306	6.4 195
5 M	0554	15.4 469	**20** Tu	0515	16.0 489
	1146	9.4 287		1111	8.2 249
	1815	16.3 496		1731	18.0 549
6 Tu ◑	0106	8.8 268	**21** W ◐	0016	7.2 219
	0727	14.6 445		0635	15.5 472
	1321	10.3 315		1231	8.9 271
	1950	15.7 479		1856	17.4 530
7 W	0249	8.7 266	**22** Th	0145	7.3 224
	0911	14.9 455		0809	15.8 483
	1514	10.0 305		1411	8.7 264
	2123	16.1 492		2028	17.7 539
8 Th	0404	7.8 239	**23** F	0310	6.6 200
	1019	16.0 489		0930	17.1 522
	1622	8.9 270		1537	7.3 223
	2226	17.1 521		2147	18.7 571
9 F	0453	6.8 206	**24** Sa	0417	5.3 161
	1104	17.2 525		1031	18.8 572
	1708	7.5 230		1642	5.6 170
	2311	18.1 551		2249	20.0 610
10 Sa	0530	5.7 175	**25** Su	0510	4.0 121
	1139	18.3 559		1122	20.4 621
	1744	6.3 193		1735	4.0 121
	2347	18.9 577		2340	21.1 642
11 Su	0602	5.0 151	**26** M	0557	3.0 92
	1209	19.3 588		1207	21.6 659
	1817	5.2 160		1822	2.8 85
12 M	0019	19.6 596	**27** Tu	0027	21.6 659
	0630	4.3 132		0639	2.6 78
	1237	20.1 613		1249	22.3 681
	1847	4.4 133		1906	2.2 67
13 Tu	0050	19.9 608	**28** W ○	0110	21.7 660
	0658	3.9 120		0719	2.6 80
	1304	20.7 632		1328	22.5 686
	1917	3.7 114		1948	2.2 68
14 W ●	0120	20.1 612	**29** Th	0151	21.2 647
	0725	3.8 116		0757	3.2 98
	1332	21.2 645		1406	22.1 675
	1948	3.4 105		2027	2.8 85
15 Th	0150	19.9 607	**30** F	0230	20.4 622
	0754	4.0 121		0833	4.2 127
	1401	21.3 649		1442	21.4 652
	2020	3.4 105		2106	3.7 113

May

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Sa	0308	19.4 590	**16** Su	0243	18.8 573
	0908	5.3 162		0840	4.9 149
	1518	20.4 621		1452	21.5 655
	2144	4.9 148		2123	3.7 113
2 Su	0348	18.2 555	**17** M	0328	18.3 558
	0944	6.6 201		0925	5.5 169
	1555	19.2 585		1538	20.9 637
	2225	6.0 184		2211	4.3 131
3 M	0431	17.1 520	**18** Tu	0419	17.7 541
	1024	7.9 240		1016	6.3 191
	1637	18.0 548		1630	20.1 612
	2312	7.2 219		2306	5.0 152
4 Tu	0523	16.0 487	**19** W	0517	17.3 526
	1113	9.1 276		1115	7.0 212
	1729	16.8 513		1730	19.2 586
5 W	0012	8.1 247	**20** Th ◐	0007	5.6 170
	0631	15.2 464		0623	17.0 518
	1221	9.9 303		1224	7.4 226
	1839	15.9 486		1838	18.5 564
6 Th ◑	0129	8.5 260	**21** F	0115	5.9 180
	0755	15.1 461		0736	17.2 524
	1353	10.1 309		1342	7.4 226
	2003	15.6 476		1954	18.2 554
7 F	0247	8.3 253	**22** Sa	0226	5.9 179
	0910	15.7 478		0848	17.8 544
	1517	9.5 290		1500	6.9 209
	2118	15.9 486		2108	18.3 557
8 Sa	0346	7.7 234	**23** Su	0333	5.5 167
	1004	16.6 506		0953	18.8 574
	1614	8.4 257		1611	5.9 181
	2213	16.6 506		2215	18.7 570
9 Su	0431	6.9 211	**24** M	0433	5.0 151
	1044	17.7 538		1050	19.9 607
	1657	7.3 221		1711	4.9 149
	2256	17.3 528		2314	19.2 585
10 M	0507	6.1 186	**25** Tu	0527	4.5 136
	1118	18.7 570		1141	20.8 635
	1733	6.1 186		1804	4.1 124
	2333	18.0 550			
11 Tu	0540	5.4 164	**26** W	0006	19.6 598
	1150	19.8 602		0614	4.2 127
	1808	5.0 153		1228	21.5 654
				1851	3.6 109
12 W	0008	18.6 568	**27** Th ○	0053	19.8 604
	0612	4.8 146		0657	4.2 127
	1222	20.6 629		1310	21.7 662
	1842	4.1 126		1934	3.5 106
13 Th ●	0044	19.1 581	**28** F	0136	19.8 602
	0645	4.4 134		0737	4.5 136
	1256	21.4 651		1349	21.6 658
	1919	3.5 108		2014	3.7 114
14 F	0121	19.2 586	**29** Sa	0215	19.4 592
	0721	4.3 130		0814	5.0 153
	1331	21.8 663		1425	21.2 645
	1958	3.2 99		2051	4.3 131
15 Sa	0200	19.1 583	**30** Su	0252	18.9 576
	0759	4.5 136		0848	5.7 175
	1410	21.8 665		1459	20.5 625
	2039	3.3 101		2126	5.1 154
			31 M	0328	18.2 556
				0923	6.6 201
				1533	19.7 600
				2202	5.8 178

June

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Tu	0406	17.5 532	**16** W	0410	19.2 586
	0959	7.5 228		1011	4.8 147
	1609	18.7 571		1623	21.4 653
	2241	6.7 204		2252	3.7 113
2 W	0448	16.7 508	**17** Th	0501	18.9 576
	1039	8.4 256		1104	5.4 165
	1650	17.7 540		1715	20.4 622
	2325	7.5 228		2343	4.4 135
3 Th	0537	16.0 487	**18** F	0556	18.5 563
	1128	9.2 281		1202	6.1 186
	1738	16.7 509		1811	19.2 585
4 F ◑	0016	8.1 247	**19** Sa ◐	0039	5.3 161
	0638	15.5 473		0658	18.1 553
	1229	9.8 298		1308	6.8 207
	1839	15.9 485		1917	18.0 550
5 Sa	0116	8.5 258	**20** Su	0141	6.0 184
	0745	15.6 474		0807	18.0 550
	1343	9.9 301		1425	7.2 218
	1949	15.5 473		2031	17.3 526
6 Su	0219	8.5 258	**21** M	0252	6.5 199
	0847	16.0 489		0919	18.4 560
	1456	9.4 287		1546	6.9 211
	2056	15.6 476		2149	17.1 521
7 M	0315	8.1 246	**22** Tu	0403	6.5 199
	0938	16.9 514		1026	19.1 582
	1554	8.5 260		1657	6.2 189
	2153	16.1 490		2259	17.5 532
8 Tu	0403	7.4 227	**23** W	0506	6.2 188
	1021	17.9 546		1126	19.9 608
	1643	7.4 227		1756	5.3 163
	2242	16.8 511		2357	18.1 552
9 W	0447	6.7 204	**24** Th	0559	5.7 173
	1103	19.1 581		1216	20.7 632
	1728	6.2 190		1844	4.7 142
	2328	17.5 534			
10 Th	0530	5.9 181	**25** F	0044	18.7 570
	1145	20.2 617		0644	5.3 163
	1812	5.1 155		1259	21.3 649
				1926	4.3 130
11 F	0013	18.2 556	**26** Sa ○	0125	19.1 582
	0614	5.2 160		0723	5.2 159
	1228	21.3 648		1336	21.5 655
	1857	4.1 125		2003	4.2 129
12 Sa ●	0100	18.8 574	**27** Su	0202	19.2 584
	0659	4.7 144		0758	5.3 163
	1312	22.0 672		1410	21.4 652
	1942	3.4 103		2036	4.5 137
13 Su	0146	19.3 587	**28** M	0235	19.0 579
	0745	4.4 134		0831	5.7 174
	1358	22.5 685		1441	21.0 640
	2029	3.0 90		2108	4.9 150
14 M	0234	19.5 593	**29** Tu	0307	18.6 568
	0832	4.3 131		0902	6.2 190
	1445	22.5 686		1512	20.3 620
	2116	2.9 88		2138	5.5 168
15 Tu	0322	19.4 592	**30** W	0339	18.1 551
	0921	4.5 136		0934	6.9 210
	1533	22.2 676		1543	19.5 595
	2204	3.1 96		2209	6.2 189

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Puerto Montt, Chile, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0413	17.5	533
	1008	7.6	232
	1616	18.5	565
	2242	7.0	212
2 F	0449	16.8	513
	1046	8.4	255
	1651	17.5	533
	2318	7.7	234
3 Sa	0531	16.3	497
	1129	9.1	277
	1733	16.5	504
4 Su ◑	0000	8.3	253
	0621	16.0	487
	1221	9.6	292
	1824	15.7	480
5 M	0049	8.8	267
	0719	16.0	487
	1327	9.8	298
	1930	15.3	465
6 Tu	0149	8.9	272
	0822	16.4	500
	1441	9.5	289
	2044	15.3	466
7 W	0255	8.7	265
	0924	17.2	525
	1554	8.6	263
	2156	15.8	483
8 Th	0401	8.1	246
	1023	18.4	561
	1657	7.3	224
	2259	16.8	511
9 F	0501	7.1	216
	1119	19.8	604
	1753	5.8	178
	2356	17.9	546
10 Sa	0556	5.9	181
	1212	21.3	648
	1844	4.3	132
11 Su ●	0048	19.1	582
	0648	4.8	146
	1302	22.5	687
	1932	3.1	93
12 M	0137	20.1	613
	0737	3.8	116
	1350	23.4	714
	2018	2.2	67
13 Tu	0223	20.8	634
	0825	3.1	96
	1436	23.7	723
	2103	1.8	56
14 W	0308	21.1	643
	0911	3.0	91
	1521	23.4	712
	2145	2.1	63
15 Th	0351	21.0	639
	0957	3.3	102
	1605	22.4	682
	2228	2.8	86

	Time	Height	
	h m	ft	cm
16 F	0436	20.4	623
	1045	4.2	129
	1651	20.9	636
	2312	4.0	122
17 Sa	0524	19.6	597
	1136	5.5	167
	1741	19.1	581
18 Su ◐	0000	5.4	166
	0620	18.6	568
	1237	6.8	208
	1843	17.3	526
19 M	0058	6.9	210
	0729	17.9	545
	1358	7.8	238
	2004	15.9	486
20 Tu	0216	7.9	242
	0852	17.7	540
	1534	7.8	239
	2139	15.7	480
21 W	0345	8.1	246
	1014	18.3	559
	1654	7.0	212
	2258	16.5	504
22 Th	0458	7.4	226
	1118	19.4	592
	1752	5.8	176
	2354	17.6	537
23 F	0552	6.5	199
	1207	20.5	625
	1836	4.9	148
24 Sa	0037	18.6	567
	0634	5.8	176
	1246	21.3	649
	1913	4.2	129
25 Su ○	0113	19.3	587
	0710	5.3	162
	1321	21.7	661
	1945	4.0	121
26 M	0145	19.6	597
	0742	5.2	157
	1351	21.8	663
	2015	4.1	124
27 Tu	0215	19.6	598
	0813	5.2	159
	1420	21.4	653
	2043	4.4	134
28 W	0243	19.4	591
	0842	5.5	169
	1449	20.8	635
	2110	4.9	149
29 Th	0311	19.0	579
	0911	6.0	184
	1516	20.0	610
	2136	5.6	170
30 F	0340	18.5	564
	0941	6.7	204
	1544	19.0	580
	2203	6.4	194
31 Sa	0408	17.9	546
	1012	7.4	227
	1613	17.9	547
	2231	7.2	218

August

	Time	Height	
	h m	ft	cm
1 Su	0439	17.4	529
	1046	8.2	250
	1645	16.9	516
	2301	8.0	243
2 M	0515	16.9	514
	1127	9.0	273
	1724	16.0	487
	2340	8.7	265
3 Tu ◑	0604	16.5	503
	1222	9.5	291
	1822	15.2	462
4 W	0037	9.4	285
	0713	16.4	499
	1343	9.8	298
	1951	14.7	449
5 Th	0159	9.6	294
	0838	16.8	513
	1522	9.2	279
	2132	15.2	464
6 F	0334	9.1	277
	0959	18.0	549
	1643	7.6	233
	2250	16.6	506
7 Sa	0450	7.7	235
	1106	19.8	603
	1743	5.7	173
	2349	18.3	559
8 Su	0549	5.9	179
	1202	21.7	661
	1833	3.7	113
9 M ●	0038	20.0	611
	0640	4.1	124
	1251	23.3	710
	1918	2.1	65
10 Tu	0123	21.5	655
	0727	2.6	80
	1337	24.3	741
	2000	1.1	35
11 W	0205	22.4	682
	0812	1.8	55
	1420	24.5	748
	2041	0.9	27
12 Th	0246	22.7	691
	0855	1.7	52
	1501	23.9	727
	2120	1.4	43
13 F	0326	22.3	680
	0938	2.4	72
	1542	22.4	684
	2159	2.6	78
14 Sa	0407	21.4	653
	1022	3.6	111
	1625	20.5	625
	2238	4.2	128
15 Su	0451	20.1	614
	1110	5.3	162
	1712	18.3	559
	2322	6.1	185

	Time	Height	
	h m	ft	cm
16 M ◐	0544	18.7	570
	1210	7.1	216
	1814	16.3	496
17 Tu	0020	7.9	241
	0656	17.5	532
	1338	8.3	253
	1948	15.0	456
18 W	0150	9.2	279
	0832	17.1	520
	1528	8.2	249
	2138	15.2	463
19 Th	0338	9.0	275
	1002	17.8	543
	1646	7.0	213
	2254	16.4	501
20 F	0450	7.9	242
	1104	19.1	582
	1737	5.6	172
	2342	17.8	543
21 Sa	0539	6.7	204
	1149	20.3	618
	1816	4.5	138
22 Su	0020	19.0	578
	0617	5.6	172
	1226	21.2	646
	1849	3.8	116
23 M	0052	19.8	602
	0651	4.9	150
	1258	21.7	661
	1919	3.4	105
24 Tu ○	0121	20.2	617
	0722	4.5	138
	1327	21.8	664
	1947	3.4	104
25 W	0149	20.4	622
	0751	4.4	134
	1356	21.5	656
	2013	3.7	112
26 Th	0215	20.3	620
	0819	4.6	139
	1423	20.9	638
	2038	4.2	127
27 F	0241	20.0	611
	0847	5.0	152
	1450	20.1	613
	2102	4.9	148
28 Sa	0307	19.6	597
	0916	5.6	172
	1516	19.1	583
	2127	5.7	174
29 Su	0332	19.0	579
	0945	6.4	196
	1542	18.0	550
	2152	6.6	202
30 M	0359	18.4	560
	1016	7.3	222
	1611	17.0	518
	2219	7.6	231
31 Tu	0431	17.7	540
	1053	8.2	250
	1648	15.9	486
	2255	8.6	261

September

	Time	Height	
	h m	ft	cm
1 W ◑	0516	17.1	520
	1147	9.1	276
	1748	14.9	455
	2353	9.5	291
2 Th	0631	16.5	503
	1316	9.5	291
	1933	14.4	439
3 F	0133	10.1	308
	0814	16.7	509
	1511	8.9	270
	2129	15.2	464
4 Sa	0327	9.3	282
	0947	18.1	551
	1632	7.0	213
	2243	17.1	521
5 Su	0443	7.3	222
	1055	20.1	613
	1727	4.8	146
	2335	19.2	585
6 M	0538	5.0	153
	1148	22.2	676
	1814	2.8	85
7 Tu	0020	21.1	644
	0626	3.0	91
	1234	23.8	724
	1856	1.3	39
8 W ●	0102	22.6	689
	0710	1.5	46
	1318	24.5	748
	1937	0.5	16
9 Th	0142	23.4	714
	0753	0.9	26
	1359	24.4	745
	2015	0.6	18
10 F	0221	23.5	716
	0834	1.0	32
	1439	23.5	715
	2053	1.4	44
11 Sa	0300	22.8	696
	0916	2.0	62
	1519	21.8	664
	2130	2.9	89
12 Su	0339	21.7	660
	0959	3.6	109
	1601	19.8	603
	2208	4.8	145
13 M	0421	20.1	612
	1046	5.4	165
	1648	17.7	538
	2252	6.7	205
14 Tu	0513	18.4	561
	1146	7.2	220
	1752	15.7	480
	2351	8.6	261
15 W ◐	0626	17.0	518
	1315	8.4	256
	1931	14.7	449

	Time	Height	
	h m	ft	cm
16 Th	0129	9.7	295
	0807	16.5	503
	1504	8.2	250
	2120	15.2	463
17 F	0320	9.3	283
	0937	17.3	526
	1618	7.0	214
	2229	16.5	503
18 Sa	0429	8.0	245
	1038	18.5	563
	1707	5.7	174
	2315	17.9	545
19 Su	0515	6.6	202
	1122	19.7	599
	1744	4.6	139
	2350	19.1	581
20 M	0552	5.4	166
	1157	20.5	626
	1817	3.8	115
21 Tu	0021	20.0	609
	0625	4.6	139
	1229	21.1	643
	1846	3.3	101
22 W	0050	20.6	627
	0655	3.9	120
	1259	21.3	649
	1913	3.1	96
23 Th ○	0117	20.9	638
	0724	3.6	111
	1328	21.1	644
	1939	3.3	101
24 F	0144	21.0	640
	0753	3.7	112
	1356	20.7	630
	2005	3.7	114
25 Sa	0210	20.8	634
	0822	4.0	122
	1423	19.9	608
	2030	4.4	134
26 Su	0236	20.4	622
	0851	4.6	141
	1451	19.0	580
	2056	5.2	160
27 M	0302	19.8	604
	0921	5.4	166
	1520	18.0	549
	2123	6.2	189
28 Tu	0332	19.1	582
	0955	6.4	195
	1553	16.9	516
	2155	7.3	222
29 W	0407	18.3	557
	1036	7.4	226
	1636	15.8	483
	2237	8.4	256
30 Th ◑	0458	17.4	529
	1136	8.4	255
	1745	14.9	454
	2345	9.4	287

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Puerto Montt, Chile, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0619	16.7	508
	1309	8.8	267
	1933	14.7	449
2 Sa	0132	9.6	293
	0803	17.0	517
	1454	7.9	242
	2113	15.9	484
3 Su	0315	8.4	256
	0931	18.4	560
	1608	6.2	188
	2220	17.8	542
4 M	0425	6.3	192
	1035	20.3	618
	1702	4.2	128
	2311	19.8	605
5 Tu	0518	4.1	126
	1127	22.0	672
	1749	2.5	76
	2356	21.6	658
6 W	0606	2.3	71
	1213	23.3	710
	1831	1.4	42
7 Th ●	0038	22.8	696
	0650	1.2	36
	1257	23.8	724
	1912	1.0	29
8 F	0118	23.4	713
	0733	0.9	26
	1338	23.4	714
	1951	1.3	39
9 Sa	0158	23.2	708
	0815	1.3	40
	1419	22.4	683
	2029	2.3	69
10 Su	0236	22.4	684
	0856	2.4	73
	1500	20.9	638
	2107	3.7	112
11 M	0316	21.2	646
	0938	3.9	119
	1542	19.2	585
	2146	5.3	163
12 Tu	0357	19.7	599
	1024	5.6	170
	1629	17.5	533
	2230	7.1	215
13 W	0447	18.1	551
	1120	7.2	218
	1729	16.0	487
	2328	8.6	262
14 Th ◐	0554	16.7	510
	1238	8.3	252
	1854	15.1	459
15 F	0055	9.5	291
	0725	16.1	491
	1415	8.4	256
	2032	15.2	464

	Time	Height	
	h m	ft	cm
16 Sa	0239	9.3	284
	0855	16.5	502
	1532	7.6	231
	2145	16.2	494
17 Su	0351	8.2	251
	1000	17.4	530
	1625	6.5	198
	2234	17.4	531
18 M	0441	7.0	212
	1047	18.4	561
	1706	5.5	167
	2312	18.5	565
19 Tu	0520	5.7	175
	1125	19.3	587
	1739	4.7	142
	2344	19.5	594
20 W	0554	4.7	144
	1158	19.9	606
	1809	4.1	125
21 Th	0014	20.2	617
	0625	4.0	121
	1229	20.2	616
	1837	3.8	115
22 F ○	0043	20.8	633
	0655	3.5	107
	1259	20.3	618
	1905	3.7	113
23 Sa	0111	21.1	642
	0726	3.3	102
	1329	20.1	612
	1933	3.9	119
24 Su	0139	21.1	642
	0757	3.5	107
	1400	19.6	597
	2003	4.4	134
25 M	0209	20.8	634
	0830	4.0	122
	1432	18.9	577
	2034	5.1	154
26 Tu	0241	20.3	619
	0905	4.7	144
	1507	18.1	551
	2108	5.9	181
27 W	0317	19.6	597
	0944	5.6	171
	1548	17.2	524
	2149	6.9	210
28 Th	0401	18.7	571
	1033	6.5	199
	1639	16.3	497
	2241	7.8	238
29 F	0459	17.8	544
	1136	7.3	223
	1749	15.7	479
	2353	8.4	257
30 Sa ◑	0616	17.3	528
	1257	7.6	232
	1917	15.8	481
31 Su	0122	8.4	255
	0744	17.5	534
	1422	7.1	215
	2040	16.7	509

November

	Time	Height	
	h m	ft	cm
1 M	0249	7.3	223
	0904	18.5	563
	1534	5.9	179
	2146	18.2	554
2 Tu	0358	5.7	175
	1009	19.8	602
	1632	4.5	138
	2241	19.8	602
3 W	0455	4.1	125
	1105	21.0	639
	1722	3.4	103
	2330	21.1	644
4 Th	0546	2.8	85
	1154	21.8	664
	1808	2.6	80
5 F	0016	22.1	673
	0634	2.0	62
	1240	22.1	673
	1852	2.4	74
6 Sa ●	0059	22.5	685
	0718	1.9	57
	1324	21.9	666
	1933	2.7	83
7 Su	0141	22.3	680
	0801	2.3	70
	1406	21.2	645
	2013	3.5	106
8 M	0221	21.7	660
	0843	3.2	98
	1447	20.2	615
	2051	4.5	138
9 Tu	0300	20.6	629
	0923	4.4	134
	1528	19.0	579
	2131	5.8	176
10 W	0341	19.5	593
	1006	5.7	174
	1611	17.8	542
	2213	7.0	214
11 Th	0425	18.2	554
	1053	7.0	212
	1701	16.6	507
	2303	8.2	250
12 F	0519	17.0	518
	1152	8.0	244
	1805	15.7	479
13 Sa ◐	0008	9.1	277
	0628	16.1	491
	1307	8.6	261
	1924	15.4	468
14 Su	0133	9.4	286
	0751	15.8	482
	1426	8.5	258
	2042	15.7	479
15 M	0255	8.9	271
	0906	16.1	492
	1530	7.9	240
	2142	16.5	504

	Time	Height	
	h m	ft	cm
16 Tu	0356	7.9	242
	1003	16.8	512
	1618	7.1	217
	2227	17.5	532
17 W	0441	6.9	209
	1047	17.5	534
	1657	6.4	195
	2303	18.4	561
18 Th	0519	5.9	179
	1124	18.2	554
	1730	5.7	175
	2336	19.3	588
19 F	0554	5.0	153
	1159	18.7	570
	1802	5.2	158
20 Sa	0008	20.0	611
	0627	4.3	132
	1232	19.1	581
	1834	4.8	147
21 Su ○	0041	20.6	629
	0702	3.9	118
	1307	19.3	587
	1908	4.7	142
22 M	0115	21.0	640
	0738	3.7	113
	1343	19.2	585
	1943	4.7	144
23 Tu	0152	21.1	642
	0817	3.8	116
	1422	19.0	578
	2022	5.0	153
24 W	0231	20.8	635
	0858	4.2	127
	1503	18.5	565
	2104	5.4	166
25 Th	0315	20.4	621
	0943	4.7	143
	1549	18.1	551
	2151	6.0	183
26 F	0403	19.7	601
	1032	5.3	163
	1641	17.6	535
	2245	6.5	199
27 Sa	0458	19.0	580
	1128	5.9	181
	1740	17.2	524
	2347	7.0	212
28 Su ◑	0602	18.4	560
	1232	6.4	194
	1848	17.1	521
29 M	0058	7.1	217
	0714	18.0	548
	1342	6.5	199
	2000	17.4	530
30 Tu	0215	6.9	209
	0830	18.0	548
	1454	6.3	192
	2111	18.1	552

December

	Time	Height	
	h m	ft	cm
1 W	0330	6.2	188
	0942	18.4	561
	1601	5.8	176
	2215	19.1	582
2 Th	0437	5.2	159
	1046	19.0	580
	1700	5.1	156
	2312	20.1	613
3 F	0536	4.3	130
	1143	19.7	600
	1753	4.6	139
4 Sa	0004	21.0	639
	0628	3.5	108
	1234	20.2	615
	1841	4.2	128
5 Su ●	0051	21.5	655
	0715	3.3	100
	1319	20.3	620
	1924	4.2	127
6 M	0134	21.6	658
	0757	3.4	104
	1401	20.2	616
	2004	4.5	137
7 Tu	0214	21.3	650
	0837	3.9	119
	1440	19.8	602
	2042	5.1	155
8 W	0251	20.7	631
	0914	4.7	143
	1517	19.1	582
	2118	5.8	178
9 Th	0327	19.8	605
	0951	5.6	170
	1554	18.2	556
	2155	6.8	206
10 F	0404	18.9	575
	1029	6.6	200
	1633	17.4	529
	2234	7.7	234
11 Sa	0443	17.8	542
	1110	7.5	228
	1718	16.5	502
	2320	8.6	262
12 Su	0531	16.7	508
	1200	8.3	254
	1815	15.8	481
13 M ◐	0018	9.3	284
	0631	15.7	480
	1300	8.9	272
	1923	15.5	471
14 Tu	0132	9.6	294
	0746	15.2	464
	1409	9.1	278
	2033	15.6	477
15 W	0251	9.4	286
	0900	15.2	464
	1513	8.9	272
	2131	16.3	496

	Time	Height	
	h m	ft	cm
16 Th	0354	8.7	265
	1000	15.6	477
	1605	8.4	256
	2218	17.1	522
17 F	0444	7.8	237
	1048	16.3	496
	1649	7.7	236
	2300	18.1	552
18 Sa	0526	6.8	206
	1130	17.0	519
	1729	7.0	212
	2340	19.2	584
19 Su	0607	5.8	176
	1211	17.8	542
	1809	6.2	189
20 M	0020	20.2	615
	0647	4.8	147
	1253	18.5	563
	1851	5.5	168
21 Tu ○	0102	21.0	641
	0729	4.1	124
	1335	19.1	581
	1933	5.0	151
22 W	0144	21.6	659
	0812	3.5	108
	1417	19.4	592
	2017	4.6	140
23 Th	0228	21.9	667
	0855	3.3	101
	1501	19.6	597
	2102	4.5	136
24 F	0313	21.8	664
	0939	3.4	104
	1545	19.5	595
	2149	4.6	140
25 Sa	0358	21.3	649
	1024	3.8	116
	1631	19.3	587
	2237	5.0	153
26 Su	0446	20.4	622
	1110	4.5	138
	1720	18.8	573
	2330	5.7	173
27 M	0538	19.3	587
	1201	5.4	166
	1817	18.2	556
28 Tu ◑	0030	6.5	198
	0639	18.0	549
	1300	6.4	196
	1923	17.8	543
29 W	0143	7.2	220
	0754	17.0	517
	1412	7.2	219
	2040	17.7	541
30 Th	0310	7.3	224
	0920	16.6	506
	1534	7.4	225
	2159	18.3	557
31 F	0434	6.7	204
	1041	17.0	519
	1649	6.9	211
	2308	19.3	588

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Valparaiso, Chile, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0459	0.6	19
	1044	4.0	123
	1620	1.0	31
	2258	6.3	193
2 Sa	0543	0.5	14
	1131	4.2	127
	1712	0.9	27
	2345	6.3	193
3 Su	0628	0.4	13
	1219	4.3	130
	1804	0.9	27
4 M	0032	6.1	186
	0714	0.5	16
	1310	4.4	133
	1857	1.0	31
5 Tu	0120	5.7	175
	0801	0.7	21
	1403	4.4	134
	1953	1.3	40
6 W	0209	5.2	159
	0849	1.0	29
	1502	4.4	134
	2056	1.7	51
7 Th ◑	0302	4.6	141
	0939	1.2	37
	1607	4.5	136
	2212	2.0	60
8 F	0402	4.1	124
	1033	1.4	44
	1715	4.6	139
	2342	2.1	65
9 Sa	0517	3.6	111
	1130	1.6	50
	1822	4.7	143
10 Su	0110	2.0	62
	0641	3.4	104
	1230	1.8	54
	1923	4.9	150
11 M	0220	1.8	55
	0755	3.4	103
	1327	1.8	54
	2016	5.1	156
12 Tu	0311	1.5	46
	0851	3.5	106
	1418	1.7	52
	2102	5.3	162
13 W	0352	1.3	40
	0935	3.6	109
	1503	1.6	48
	2142	5.5	167
14 Th	0428	1.1	35
	1011	3.7	112
	1543	1.5	45
	2218	5.5	169
15 F ●	0501	1.0	32
	1044	3.8	115
	1620	1.4	42
	2252	5.5	169

	Time	Height	
	h m	ft	cm
16 Sa	0532	1.0	32
	1116	3.8	116
	1655	1.3	41
	2324	5.5	167
17 Su	0602	1.1	33
	1147	3.8	117
	1729	1.4	42
	2354	5.3	162
18 M	0631	1.1	35
	1219	3.8	117
	1802	1.5	46
19 Tu	0025	5.1	156
	0701	1.2	38
	1254	3.8	117
	1838	1.6	50
20 W	0057	4.8	147
	0731	1.4	42
	1331	3.9	118
	1917	1.8	56
21 Th	0131	4.5	137
	0803	1.5	47
	1415	3.9	119
	2005	2.1	64
22 F	0209	4.1	126
	0839	1.7	52
	1507	4.0	121
	2108	2.3	71
23 Sa ◐	0256	3.7	114
	0921	1.8	56
	1610	4.1	125
	2241	2.4	74
24 Su	0403	3.4	104
	1014	2.0	60
	1719	4.3	132
25 M	0022	2.3	70
	0533	3.2	97
	1118	2.0	61
	1827	4.6	141
26 Tu	0138	2.0	60
	0659	3.2	98
	1227	1.9	58
	1928	5.0	153
27 W	0232	1.5	47
	0805	3.4	104
	1330	1.7	52
	2021	5.5	167
28 Th	0317	1.1	34
	0858	3.7	112
	1428	1.4	42
	2111	5.9	179
29 F	0358	0.8	23
	0944	4.0	122
	1521	1.0	32
	2157	6.2	189
30 Sa ○	0438	0.5	14
	1028	4.3	132
	1611	0.8	23
	2242	6.4	195
31 Su	0519	0.3	9
	1112	4.6	140
	1701	0.6	18
	2327	6.3	193

February

	Time	Height	
	h m	ft	cm
1 M	0600	0.3	9
	1156	4.8	146
	1751	0.6	18
2 Tu	0010	6.1	185
	0641	0.4	12
	1242	4.9	149
	1841	0.8	25
3 W	0054	5.6	170
	0722	0.7	20
	1331	4.9	149
	1935	1.2	36
4 Th	0139	5.0	151
	0805	1.0	30
	1424	4.8	146
	2036	1.6	50
5 F ◑	0228	4.3	131
	0850	1.4	42
	1525	4.7	142
	2152	2.0	61
6 Sa	0328	3.7	112
	0944	1.7	53
	1636	4.6	140
	2329	2.2	66
7 Su	0456	3.3	100
	1050	2.0	61
	1753	4.6	140
8 M	0105	2.1	63
	0641	3.2	97
	1206	2.1	64
	1905	4.8	145
9 Tu	0212	1.8	55
	0756	3.3	101
	1315	2.0	61
	2002	5.0	151
10 W	0258	1.5	47
	0844	3.5	107
	1409	1.8	56
	2047	5.2	157
11 Th	0333	1.3	41
	0920	3.7	112
	1453	1.6	50
	2125	5.3	162
12 F	0404	1.2	37
	0951	3.9	118
	1531	1.4	44
	2159	5.4	165
13 Sa ●	0433	1.1	34
	1021	4.0	122
	1606	1.3	40
	2230	5.4	166
14 Su	0500	1.0	32
	1049	4.1	126
	1638	1.2	38
	2259	5.3	163
15 M	0526	1.0	32
	1118	4.2	129
	1711	1.2	38
	2328	5.2	159

	Time	Height	
	h m	ft	cm
16 Tu	0551	1.1	34
	1148	4.3	131
	1744	1.3	40
	2357	5.0	152
17 W	0617	1.2	36
	1219	4.4	133
	1819	1.4	44
18 Th	0027	4.7	143
	0644	1.3	40
	1253	4.4	134
	1858	1.6	50
19 F	0059	4.3	132
	0712	1.5	45
	1332	4.4	134
	1944	1.9	57
20 Sa	0136	3.9	120
	0744	1.7	51
	1418	4.4	133
	2045	2.1	65
21 Su ◐	0221	3.5	107
	0822	1.9	57
	1517	4.4	133
	2216	2.3	69
22 M	0332	3.1	96
	0918	2.1	63
	1633	4.4	134
23 Tu	0002	2.1	65
	0520	3.0	91
	1039	2.1	65
	1754	4.6	140
24 W	0119	1.8	55
	0654	3.1	96
	1207	2.0	62
	1905	5.0	151
25 Th	0211	1.4	43
	0755	3.5	107
	1319	1.7	52
	2003	5.4	164
26 F	0253	1.0	30
	0842	3.9	119
	1418	1.3	40
	2052	5.8	176
27 Sa	0332	0.6	19
	0924	4.4	133
	1510	0.9	27
	2138	6.1	185
28 Su ○	0410	0.4	11
	1006	4.8	145
	1559	0.6	18
	2221	6.1	187

March

	Time	Height	
	h m	ft	cm
1 M	0448	0.3	8
	1047	5.1	155
	1647	0.5	14
	2303	6.0	183
2 Tu	0525	0.3	9
	1130	5.3	162
	1736	0.5	16
	2345	5.6	172
3 W	0603	0.5	14
	1213	5.4	164
	1825	0.8	24
4 Th	0027	5.1	155
	0641	0.8	24
	1259	5.3	161
	1918	1.1	35
5 F	0111	4.5	136
	0721	1.2	36
	1348	5.1	155
	2018	1.6	48
6 Sa	0200	3.9	118
	0804	1.6	49
	1444	4.8	147
	2133	1.9	59
7 Su ◑	0305	3.4	103
	0858	2.0	60
	1553	4.6	139
	2307	2.1	64
8 M	0447	3.1	95
	1013	2.3	69
	1716	4.5	136
9 Tu	0040	2.0	61
	0634	3.1	96
	1143	2.3	70
	1834	4.5	138
10 W	0143	1.8	55
	0739	3.4	103
	1258	2.2	66
	1935	4.7	143
11 Th	0226	1.6	49
	0821	3.6	111
	1353	1.9	59
	2021	4.9	149
12 F	0259	1.4	43
	0854	3.9	118
	1436	1.7	52
	2058	5.1	154
13 Sa	0328	1.3	39
	0923	4.1	125
	1513	1.5	45
	2131	5.1	156
14 Su	0355	1.2	36
	0951	4.3	132
	1547	1.3	40
	2201	5.2	157
15 M ●	0420	1.1	34
	1019	4.5	138
	1620	1.2	37
	2230	5.1	155

	Time	Height	
	h m	ft	cm
16 Tu	0444	1.1	33
	1048	4.7	144
	1654	1.2	36
	2300	4.9	150
17 W	0509	1.1	34
	1117	4.9	148
	1728	1.2	36
	2330	4.7	144
18 Th	0535	1.2	36
	1149	4.9	150
	1805	1.3	39
19 F	0002	4.4	134
	0602	1.3	40
	1223	4.9	150
	1847	1.4	44
20 Sa	0037	4.0	123
	0631	1.5	45
	1301	4.9	148
	1936	1.6	50
21 Su	0117	3.6	111
	0704	1.7	52
	1346	4.8	145
	2039	1.9	57
22 M	0210	3.3	100
	0747	1.9	59
	1445	4.6	140
	2205	2.0	60
23 Tu ◐	0334	3.0	92
	0852	2.1	65
	1603	4.5	138
	2338	1.9	57
24 W	0523	3.1	93
	1025	2.2	67
	1728	4.6	141
25 Th	0049	1.6	48
	0642	3.3	102
	1158	2.0	62
	1841	4.9	149
26 F	0139	1.2	38
	0735	3.8	115
	1310	1.7	51
	1939	5.2	158
27 Sa	0221	0.9	27
	0819	4.3	130
	1407	1.2	38
	2029	5.5	167
28 Su	0259	0.6	19
	0901	4.8	145
	1458	0.9	27
	2114	5.6	171
29 M ○	0336	0.4	13
	0942	5.2	158
	1547	0.6	19
	2157	5.6	170
30 Tu	0413	0.4	12
	1023	5.5	168
	1635	0.5	16
	2240	5.3	163
31 W	0449	0.5	15
	1104	5.7	173
	1723	0.6	18
	2322	5.0	151

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Valparaiso, Chile, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0526	0.7	22	16 F	0457	1.2	38
	1146	5.7	174		1123	5.4	165
	1813	0.8	25		1756	1.1	35
					2343	4.1	124
2 F	0005	4.5	137	17 Sa	0528	1.3	41
	0603	1.0	31		1200	5.4	164
	1229	5.5	169		1841	1.2	38
	1905	1.1	34				
3 Sa	0050	4.0	122	18 Su	0024	3.8	115
	0642	1.4	43		0603	1.5	46
	1315	5.2	160		1241	5.2	160
	2002	1.5	45		1934	1.4	42
4 Su	0141	3.6	109	19 M	0113	3.5	106
	0725	1.8	54		0644	1.7	52
	1406	4.9	149		1330	5.1	155
	2110	1.8	54		2037	1.5	47
5 M	0249	3.2	99	20 Tu	0216	3.2	98
	0820	2.1	65		0739	1.9	59
	1509	4.6	139		1430	4.9	148
	2230	1.9	59		2150	1.6	49
6 Tu ◑	0426	3.1	95	21 W ◐	0341	3.1	96
	0936	2.4	72		0852	2.1	64
	1625	4.4	133		1543	4.7	143
	2352	1.9	59		2305	1.5	47
7 W	0601	3.2	98	22 Th	0508	3.3	101
	1106	2.4	74		1021	2.1	65
	1745	4.3	132		1701	4.7	142
8 Th	0055	1.8	55	23 F	0008	1.4	42
	0703	3.5	106		0615	3.7	112
	1227	2.3	70		1146	2.0	60
	1851	4.4	134		1811	4.8	145
9 F	0140	1.6	50	24 Sa	0100	1.1	35
	0745	3.7	114		0708	4.1	126
	1326	2.1	64		1257	1.7	51
	1941	4.5	138		1911	4.9	148
10 Sa	0214	1.5	46	25 Su	0143	0.9	28
	0819	4.1	124		0754	4.6	140
	1412	1.8	56		1356	1.3	41
	2021	4.6	141		2003	5.0	151
11 Su	0243	1.4	43	26 M	0223	0.8	23
	0850	4.4	133		0838	5.1	155
	1451	1.6	49		1449	1.0	32
	2056	4.7	143		2050	4.9	150
12 M	0310	1.3	40	27 Tu	0301	0.7	21
	0919	4.7	142		0920	5.5	167
	1527	1.4	43		1539	0.8	25
	2129	4.7	143		2136	4.8	146
13 Tu	0335	1.2	37	28 W ○	0339	0.7	21
	0948	4.9	150		1001	5.7	175
	1603	1.2	38		1627	0.7	22
	2200	4.6	141		2220	4.6	139
14 W ●	0401	1.2	36	29 Th	0416	0.8	25
	1018	5.2	157		1042	5.9	179
	1638	1.1	35		1716	0.7	22
	2233	4.5	138		2305	4.3	131
15 Th	0428	1.2	36	30 F	0454	1.0	31
	1049	5.3	162		1123	5.8	177
	1716	1.1	34		1804	0.9	26
	2307	4.3	132		2350	4.0	121

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0532	1.3	39	16 Su	0507	1.3	41
	1205	5.6	171		1145	5.7	175
	1853	1.0	32		1837	1.0	30
2 Su	0036	3.7	113	17 M	0020	3.7	112
	0613	1.5	47		0551	1.4	44
	1249	5.3	162		1231	5.6	171
	1944	1.3	40		1928	1.1	33
3 M	0127	3.4	105	18 Tu	0113	3.5	108
	0658	1.8	56		0642	1.6	48
	1335	5.0	151		1322	5.4	164
	2040	1.5	47		2024	1.2	36
4 Tu	0227	3.3	100	19 W	0215	3.5	106
	0749	2.1	64		0742	1.7	53
	1427	4.6	141		1419	5.1	156
	2142	1.7	53		2125	1.2	38
5 W	0343	3.2	97	20 Th ◐	0325	3.5	108
	0853	2.3	71		0851	1.9	58
	1529	4.4	133		1523	4.9	148
	2249	1.8	55		2226	1.3	39
6 Th ◑	0505	3.3	100	21 F	0437	3.7	114
	1012	2.5	75		1008	2.0	60
	1638	4.2	128		1631	4.7	142
	2350	1.8	55		2324	1.2	38
7 F	0611	3.5	107	22 Sa	0543	4.0	123
	1137	2.5	75		1129	1.9	59
	1747	4.1	126		1738	4.5	137
8 Sa	0039	1.7	53	23 Su	0017	1.1	35
	0659	3.8	116		0640	4.4	135
	1248	2.3	70		1244	1.8	54
	1846	4.1	126		1842	4.4	133
9 Su	0118	1.6	50	24 M	0105	1.1	33
	0738	4.2	127		0731	4.9	148
	1342	2.1	63		1348	1.5	47
	1935	4.2	127		1940	4.3	130
10 M	0151	1.6	48	25 Tu	0148	1.0	32
	0812	4.5	138		0818	5.2	160
	1427	1.8	55		1445	1.3	39
	2017	4.2	128		2033	4.2	127
11 Tu	0221	1.5	45	26 W	0230	1.0	32
	0845	4.9	149		0902	5.5	169
	1508	1.6	48		1537	1.0	32
	2055	4.2	128		2123	4.1	124
12 W	0250	1.4	42	27 Th ○	0311	1.1	33
	0917	5.2	158		0945	5.8	176
	1546	1.3	41		1625	0.9	28
	2132	4.2	127		2210	4.0	121
13 Th ●	0321	1.3	40	28 F	0352	1.1	35
	0951	5.5	167		1026	5.8	178
	1626	1.1	35		1711	0.9	26
	2210	4.1	125		2255	3.9	118
14 F	0353	1.3	39	29 Sa	0432	1.2	38
	1026	5.7	173		1107	5.8	176
	1706	1.0	31		1755	0.9	27
	2250	4.0	122		2339	3.7	114
15 Sa	0428	1.3	39	30 Su	0513	1.4	42
	1104	5.7	175		1147	5.6	171
	1750	1.0	29		1838	1.0	31
	2333	3.8	117				
				31 M	0021	3.6	110
					0554	1.5	47
					1227	5.4	164
					1920	1.2	36

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0105	3.5	107	16 W	0102	3.9	120
	0636	1.7	53		0640	1.3	39
	1308	5.1	154		1311	5.7	173
	2004	1.4	42		2000	0.9	26
2 W	0153	3.4	104	17 Th	0156	4.0	121
	0720	2.0	60		0737	1.4	43
	1350	4.8	145		1402	5.3	163
	2051	1.5	47		2052	1.0	30
3 Th	0249	3.3	102	18 F	0257	4.0	123
	0809	2.2	67		0839	1.6	50
	1436	4.5	136		1457	5.0	151
	2142	1.7	52		2145	1.1	34
4 F ◑	0354	3.4	104	19 Sa ◐	0402	4.2	127
	0910	2.4	73		0950	1.9	57
	1529	4.2	127		1557	4.5	138
	2234	1.8	55		2239	1.2	37
5 Sa	0501	3.6	109	20 Su	0509	4.4	133
	1030	2.5	77		1112	2.0	61
	1631	4.0	121		1705	4.1	126
	2325	1.8	56		2334	1.3	40
6 Su	0559	3.8	117	21 M	0612	4.7	142
	1157	2.5	75		1236	1.9	59
	1739	3.8	116		1817	3.8	117
7 M	0011	1.8	55	22 Tu	0028	1.4	43
	0648	4.2	128		0711	5.0	151
	1308	2.3	69		1349	1.7	53
	1842	3.7	114		1927	3.7	112
8 Tu	0053	1.8	54	23 W	0120	1.4	44
	0731	4.6	139		0804	5.2	159
	1403	2.0	61		1449	1.5	45
	1937	3.7	114		2028	3.6	111
9 W	0131	1.7	51	24 Th	0209	1.4	44
	0811	5.0	151		0851	5.5	167
	1450	1.7	52		1539	1.2	37
	2025	3.8	115		2121	3.7	112
10 Th	0209	1.6	48	25 F	0255	1.4	43
	0849	5.3	162		0935	5.6	172
	1533	1.4	43		1623	1.0	31
	2110	3.8	116		2206	3.7	113
11 F	0247	1.5	45	26 Sa ○	0339	1.3	41
	0928	5.6	171		1016	5.7	175
	1614	1.1	34		1702	0.9	28
	2154	3.8	117		2246	3.7	114
12 Sa ●	0327	1.3	41	27 Su	0420	1.3	40
	1008	5.9	179		1054	5.7	174
	1656	0.9	28		1740	0.9	28
	2238	3.9	118		2324	3.7	114
13 Su	0411	1.2	38	28 M	0500	1.3	41
	1051	6.0	183		1131	5.6	171
	1739	0.8	23		1816	1.0	30
	2324	3.9	119				
14 M	0457	1.2	37	29 Tu	0000	3.7	114
	1135	6.0	184		0537	1.4	43
	1824	0.7	22		1206	5.4	165
					1851	1.1	34
15 Tu	0011	3.9	119	30 W	0037	3.7	112
	0547	1.2	37		0614	1.5	47
	1222	5.9	181		1240	5.2	157
	1911	0.8	23		1925	1.2	38

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Valparaiso, Chile, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0115	3.6	111
	0652	1.7	53
	1315	4.9	148
	2000	1.4	43
2 F	0157	3.6	110
	0732	2.0	60
	1351	4.5	138
	2037	1.6	48
3 Sa	0245	3.6	111
	0820	2.2	68
	1432	4.2	128
	2118	1.7	53
4 Su ◑	0343	3.7	114
	0926	2.4	74
	1522	3.9	118
	2204	1.9	57
5 M	0447	3.9	119
	1058	2.5	77
	1628	3.6	109
	2255	1.9	59
6 Tu	0550	4.2	127
	1231	2.4	73
	1747	3.4	104
	2349	2.0	60
7 W	0647	4.5	138
	1341	2.1	65
	1901	3.4	103
8 Th	0043	1.9	58
	0738	4.9	149
	1434	1.8	54
	2003	3.4	105
9 F	0134	1.7	53
	0825	5.3	161
	1519	1.4	43
	2054	3.6	110
10 Sa	0223	1.5	47
	0909	5.6	172
	1600	1.0	32
	2141	3.8	115
11 Su ●	0312	1.3	40
	0953	6.0	182
	1640	0.8	23
	2225	4.0	122
12 M	0400	1.1	33
	1037	6.2	188
	1721	0.6	17
	2308	4.2	128
13 Tu	0449	0.9	28
	1122	6.3	191
	1802	0.5	14
	2353	4.4	133
14 W	0539	0.8	25
	1206	6.1	187
	1845	0.5	15
15 Th	0040	4.5	136
	0630	0.9	28
	1252	5.8	178
	1929	0.6	19

	Time	Height	
	h m	ft	cm
16 F	0130	4.5	138
	0723	1.1	34
	1339	5.4	164
	2014	0.8	25
17 Sa	0225	4.6	139
	0822	1.5	45
	1428	4.8	146
	2102	1.1	33
18 Su ◐	0326	4.6	139
	0932	1.8	56
	1525	4.2	128
	2154	1.3	41
19 M	0434	4.6	141
	1059	2.1	63
	1637	3.7	113
	2253	1.6	49
20 Tu	0546	4.7	144
	1234	2.0	62
	1805	3.4	104
	2358	1.7	53
21 W	0654	4.9	149
	1353	1.8	55
	1928	3.3	102
22 Th	0102	1.8	54
	0754	5.1	156
	1450	1.5	47
	2031	3.4	105
23 F	0159	1.7	52
	0843	5.3	162
	1534	1.3	39
	2118	3.6	110
24 Sa	0248	1.5	47
	0926	5.5	167
	1611	1.1	34
	2156	3.7	114
25 Su ○	0331	1.4	43
	1004	5.6	170
	1644	1.0	30
	2230	3.9	118
26 M	0409	1.3	39
	1038	5.6	171
	1716	1.0	29
	2302	3.9	120
27 Tu	0445	1.2	38
	1111	5.5	169
	1746	1.0	30
	2333	4.0	122
28 W	0519	1.3	39
	1142	5.4	164
	1814	1.1	33
29 Th	0005	4.0	122
	0552	1.4	42
	1212	5.1	156
	1843	1.2	36
30 F	0037	4.0	122
	0627	1.5	47
	1242	4.9	148
	1911	1.3	41
31 Sa	0112	4.0	122
	0703	1.8	54
	1313	4.5	137
	1940	1.5	46

August

	Time	Height	
	h m	ft	cm
1 Su	0151	4.0	122
	0747	2.0	61
	1348	4.1	126
	2012	1.7	52
2 M	0239	4.0	123
	0843	2.3	69
	1431	3.7	114
	2050	1.9	57
3 Tu ◑	0337	4.1	125
	1009	2.4	74
	1532	3.4	103
	2141	2.0	62
4 W	0448	4.2	129
	1157	2.4	73
	1704	3.1	95
	2248	2.1	65
5 Th	0602	4.5	136
	1321	2.1	64
	1840	3.1	96
6 F	0002	2.1	63
	0707	4.8	146
	1416	1.7	52
	1949	3.3	101
7 Sa	0110	1.9	57
	0802	5.2	159
	1459	1.3	40
	2040	3.6	110
8 Su	0208	1.6	48
	0851	5.6	171
	1537	0.9	28
	2123	4.0	121
9 M ●	0300	1.2	37
	0935	6.0	182
	1615	0.6	19
	2205	4.3	132
10 Tu	0349	0.9	26
	1019	6.2	189
	1653	0.4	12
	2247	4.7	142
11 W	0437	0.6	19
	1102	6.3	191
	1732	0.3	9
	2330	4.9	149
12 Th	0526	0.6	17
	1145	6.1	185
	1812	0.4	11
13 F	0014	5.1	154
	0616	0.7	20
	1228	5.7	173
	1852	0.6	17
14 Sa	0101	5.1	156
	0708	1.0	30
	1313	5.1	156
	1934	0.9	26
15 Su	0153	5.0	153
	0807	1.4	42
	1401	4.5	136
	2020	1.2	37

	Time	Height	
	h m	ft	cm
16 M ◐	0251	4.9	149
	0918	1.8	55
	1459	3.8	117
	2112	1.6	48
17 Tu	0359	4.8	145
	1049	2.0	62
	1621	3.4	103
	2217	1.9	58
18 W	0517	4.7	142
	1227	2.0	61
	1807	3.2	98
	2336	2.1	63
19 Th	0635	4.8	145
	1344	1.8	54
	1931	3.3	101
20 F	0052	2.0	61
	0739	4.9	150
	1435	1.5	47
	2024	3.5	108
21 Sa	0152	1.8	56
	0829	5.1	156
	1513	1.3	41
	2103	3.7	114
22 Su	0239	1.6	49
	0909	5.3	161
	1545	1.2	36
	2135	3.9	120
23 M	0318	1.4	43
	0944	5.4	164
	1615	1.1	33
	2206	4.1	126
24 Tu ○	0354	1.2	38
	1015	5.4	164
	1642	1.0	31
	2235	4.3	130
25 W	0428	1.2	36
	1045	5.3	162
	1708	1.0	32
	2304	4.4	133
26 Th	0501	1.2	37
	1114	5.2	157
	1734	1.1	33
	2333	4.5	136
27 F	0533	1.3	39
	1142	4.9	150
	1758	1.2	36
28 Sa	0003	4.5	137
	0607	1.4	43
	1212	4.6	141
	1824	1.3	40
29 Su	0035	4.5	137
	0644	1.6	48
	1242	4.3	131
	1850	1.5	45
30 M	0110	4.5	136
	0726	1.8	55
	1317	3.9	119
	1920	1.7	51
31 Tu	0152	4.4	135
	0821	2.0	62
	1359	3.5	107
	1955	1.9	58

September

	Time	Height	
	h m	ft	cm
1 W ◑	0245	4.4	133
	0942	2.2	68
	1503	3.1	96
	2045	2.1	64
2 Th	0357	4.3	132
	1128	2.2	67
	1647	3.0	91
	2203	2.2	68
3 F	0520	4.4	135
	1253	1.9	59
	1829	3.1	94
	2336	2.2	67
4 Sa	0636	4.7	144
	1347	1.6	48
	1933	3.4	104
5 Su	0054	1.9	58
	0737	5.1	155
	1429	1.2	36
	2019	3.8	117
6 M	0155	1.5	46
	0827	5.5	167
	1506	0.8	25
	2100	4.3	131
7 Tu	0247	1.1	33
	0912	5.8	177
	1543	0.5	16
	2141	4.8	145
8 W	0336	0.7	22
	0956	6.0	182
	1620	0.3	10
	2222	5.2	157
9 Th	0424	0.5	15
	1038	5.9	181
	1658	0.3	9
	2304	5.4	166
10 F	0512	0.5	14
	1121	5.6	172
	1736	0.4	12
	2348	5.6	170
11 Sa	0602	0.6	18
	1204	5.2	158
	1815	0.7	20
12 Su	0034	5.6	170
	0656	0.9	28
	1250	4.6	141
	1856	1.0	31
13 M	0122	5.4	164
	0755	1.3	40
	1340	4.0	123
	1941	1.4	43
14 Tu	0217	5.1	155
	0905	1.7	51
	1443	3.5	107
	2035	1.8	56
15 W ◐	0323	4.8	146
	1030	1.9	58
	1615	3.2	98
	2147	2.1	65

	Time	Height	
	h m	ft	cm
16 Th	0442	4.6	139
	1202	1.9	58
	1800	3.2	98
	2315	2.3	69
17 F	0604	4.6	139
	1313	1.8	54
	1913	3.4	104
18 Sa	0035	2.2	66
	0710	4.7	142
	1401	1.6	48
	2000	3.7	112
19 Su	0135	1.9	59
	0801	4.8	147
	1438	1.4	43
	2036	3.9	120
20 M	0222	1.7	52
	0841	4.9	150
	1509	1.3	39
	2107	4.2	128
21 Tu	0301	1.5	46
	0915	5.0	153
	1537	1.2	36
	2137	4.4	135
22 W	0337	1.3	41
	0947	5.0	152
	1602	1.1	35
	2205	4.6	141
23 Th ○	0410	1.2	38
	1016	4.9	150
	1627	1.1	35
	2234	4.8	146
24 F	0444	1.2	36
	1046	4.8	146
	1651	1.1	35
	2302	4.9	150
25 Sa	0517	1.2	37
	1115	4.6	139
	1716	1.2	38
	2332	5.0	152
26 Su	0553	1.3	39
	1147	4.3	131
	1742	1.3	41
27 M	0005	5.0	152
	0632	1.4	43
	1220	4.0	122
	1810	1.5	46
28 Tu	0040	4.9	150
	0717	1.6	48
	1259	3.6	111
	1842	1.7	52
29 W	0122	4.8	146
	0813	1.8	54
	1348	3.3	101
	1921	1.9	59
30 Th ◑	0214	4.6	141
	0929	1.9	59
	1501	3.1	93
	2018	2.1	65

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Valparaiso, Chile, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0324	4.5	137
	1057	1.9	58
	1644	3.0	92
	2145	2.3	69
2 Sa	0446	4.5	137
	1213	1.7	52
	1809	3.3	100
	2320	2.2	66
3 Su	0604	4.7	142
	1307	1.4	42
	1907	3.7	112
4 M	0038	1.9	57
	0707	4.9	150
	1351	1.1	33
	1952	4.2	127
5 Tu	0140	1.5	45
	0759	5.2	158
	1430	0.8	24
	2034	4.7	143
6 W	0233	1.1	33
	0846	5.4	164
	1508	0.6	17
	2116	5.2	158
7 Th ●	0323	0.8	23
	0931	5.4	165
	1545	0.4	13
	2158	5.6	170
8 F	0412	0.6	17
	1015	5.3	161
	1623	0.5	14
	2241	5.8	178
9 Sa	0502	0.5	15
	1100	5.0	152
	1702	0.6	18
	2324	5.9	181
10 Su	0553	0.6	19
	1145	4.6	139
	1742	0.9	27
11 M	0009	5.8	178
	0646	0.9	27
	1233	4.1	126
	1824	1.2	37
12 Tu	0056	5.5	169
	0743	1.2	36
	1327	3.7	113
	1910	1.6	49
13 W	0147	5.2	158
	0846	1.5	46
	1432	3.4	103
	2006	2.0	60
14 Th ◐	0247	4.8	146
	0959	1.7	52
	1556	3.2	99
	2116	2.2	68
15 F	0358	4.5	137
	1115	1.8	55
	1727	3.3	101
	2240	2.4	72

	Time	Height	
	h m	ft	cm
16 Sa	0514	4.4	133
	1222	1.7	53
	1835	3.5	107
17 Su	0002	2.3	70
	0623	4.4	133
	1313	1.6	50
	1923	3.8	116
18 M	0107	2.1	64
	0719	4.4	135
	1352	1.5	47
	2002	4.1	125
19 Tu	0158	1.9	58
	0803	4.5	137
	1424	1.4	44
	2035	4.4	134
20 W	0240	1.7	51
	0841	4.5	138
	1452	1.4	42
	2105	4.7	143
21 Th	0318	1.5	45
	0915	4.5	137
	1518	1.3	40
	2135	5.0	151
22 F ○	0354	1.3	41
	0947	4.5	136
	1545	1.3	39
	2205	5.2	157
23 Sa	0429	1.2	37
	1020	4.3	132
	1611	1.3	39
	2235	5.3	162
24 Su	0505	1.2	36
	1053	4.2	128
	1639	1.3	40
	2308	5.4	164
25 M	0543	1.1	35
	1129	4.0	121
	1710	1.4	43
	2343	5.4	164
26 Tu	0625	1.2	37
	1208	3.7	114
	1744	1.5	47
27 W	0021	5.3	161
	0713	1.3	41
	1254	3.5	106
	1823	1.7	52
28 Th	0106	5.1	155
	0808	1.5	45
	1350	3.3	100
	1912	1.9	58
29 F	0159	4.9	149
	0913	1.6	48
	1502	3.2	97
	2017	2.1	63
30 Sa ◑	0304	4.7	143
	1023	1.6	48
	1625	3.3	100
	2137	2.2	66
31 Su	0417	4.6	140
	1128	1.4	44
	1738	3.6	109
	2303	2.1	64

November

	Time	Height	
	h m	ft	cm
1 M	0529	4.6	140
	1222	1.3	39
	1835	4.0	122
2 Tu	0021	1.8	56
	0633	4.7	142
	1309	1.0	32
	1924	4.5	137
3 W	0125	1.5	47
	0730	4.7	144
	1352	0.9	27
	2010	5.0	152
4 Th	0222	1.2	37
	0821	4.8	145
	1433	0.8	23
	2054	5.4	166
5 F	0315	0.9	28
	0910	4.7	143
	1513	0.7	21
	2138	5.8	177
6 Sa ●	0406	0.7	22
	0958	4.5	138
	1553	0.8	23
	2221	6.0	183
7 Su	0456	0.6	19
	1046	4.3	132
	1634	0.9	27
	2305	6.0	184
8 M	0546	0.7	21
	1133	4.1	125
	1716	1.1	34
	2349	5.9	179
9 Tu	0636	0.8	25
	1222	3.8	117
	1801	1.4	42
10 W	0034	5.6	171
	0727	1.0	32
	1313	3.6	110
	1848	1.6	50
11 Th	0121	5.2	159
	0820	1.3	40
	1410	3.4	105
	1939	1.9	59
12 F	0211	4.9	148
	0917	1.5	47
	1517	3.3	102
	2039	2.2	66
13 Sa ◐	0308	4.5	138
	1018	1.7	51
	1632	3.4	104
	2150	2.4	72
14 Su	0411	4.3	130
	1118	1.7	53
	1741	3.6	109
	2311	2.4	74
15 M	0519	4.1	125
	1211	1.7	53
	1836	3.8	117

	Time	Height	
	h m	ft	cm
16 Tu	0028	2.3	71
	0622	4.0	123
	1255	1.7	52
	1920	4.2	127
17 W	0128	2.1	65
	0716	4.0	122
	1331	1.6	50
	1958	4.5	137
18 Th	0217	1.9	58
	0802	4.0	123
	1404	1.6	48
	2032	4.8	147
19 F	0300	1.7	51
	0843	4.0	122
	1435	1.5	46
	2105	5.1	156
20 Sa	0338	1.4	44
	0921	4.0	122
	1505	1.4	44
	2138	5.4	164
21 Su ○	0416	1.3	39
	0958	4.0	121
	1538	1.4	43
	2213	5.6	170
22 M	0455	1.1	34
	1037	3.9	119
	1612	1.4	42
	2249	5.7	173
23 Tu	0535	1.0	31
	1117	3.8	116
	1650	1.4	43
	2328	5.7	173
24 W	0618	1.0	31
	1201	3.7	113
	1732	1.4	44
25 Th	0011	5.6	170
	0704	1.0	32
	1249	3.6	110
	1819	1.5	47
26 F	0057	5.4	165
	0755	1.1	35
	1344	3.5	108
	1913	1.7	51
27 Sa	0148	5.2	158
	0849	1.2	37
	1446	3.6	109
	2015	1.8	56
28 Su ◑	0245	4.9	150
	0945	1.3	39
	1554	3.7	113
	2125	1.9	59
29 M	0347	4.7	142
	1042	1.3	39
	1701	4.0	121
	2244	2.0	61
30 Tu	0453	4.4	135
	1137	1.2	38
	1803	4.3	132

December

	Time	Height	
	h m	ft	cm
1 W	0004	1.9	58
	0600	4.3	130
	1228	1.2	36
	1858	4.8	145
2 Th	0116	1.7	51
	0705	4.2	127
	1316	1.1	34
	1949	5.2	158
3 F	0219	1.4	43
	0804	4.1	125
	1403	1.1	33
	2037	5.5	169
4 Sa	0314	1.1	34
	0859	4.0	123
	1448	1.0	32
	2124	5.8	177
5 Su ●	0405	0.9	27
	0950	4.0	122
	1532	1.1	33
	2208	6.0	182
6 M	0452	0.8	23
	1038	3.9	120
	1616	1.1	35
	2251	6.0	182
7 Tu	0537	0.7	22
	1123	3.9	118
	1700	1.2	37
	2333	5.8	178
8 W	0621	0.8	25
	1207	3.8	115
	1744	1.3	41
9 Th	0015	5.6	171
	0703	1.0	30
	1251	3.7	112
	1827	1.5	47
10 F	0055	5.3	161
	0746	1.2	36
	1336	3.6	110
	1911	1.8	54
11 Sa	0136	4.9	150
	0830	1.4	43
	1427	3.5	108
	1958	2.0	62
12 Su	0219	4.6	140
	0916	1.6	48
	1526	3.5	108
	2054	2.3	70
13 M ◐	0307	4.2	129
	1005	1.7	53
	1631	3.6	111
	2206	2.5	75
14 Tu	0404	3.9	120
	1056	1.8	56
	1734	3.8	117
	2334	2.5	76
15 W	0511	3.7	114
	1146	1.9	57
	1829	4.1	126

	Time	Height	
	h m	ft	cm
16 Th	0053	2.4	72
	0621	3.6	110
	1232	1.9	57
	1916	4.5	136
17 F	0154	2.1	64
	0722	3.6	109
	1314	1.8	55
	1958	4.8	147
18 Sa	0242	1.8	56
	0813	3.6	110
	1354	1.7	52
	2038	5.2	157
19 Su	0324	1.5	47
	0859	3.7	112
	1433	1.6	49
	2116	5.4	166
20 M	0404	1.3	39
	0942	3.7	114
	1513	1.5	45
	2155	5.7	174
21 Tu ○	0443	1.0	32
	1024	3.8	116
	1555	1.3	41
	2235	5.9	179
22 W	0522	0.9	27
	1106	3.9	118
	1639	1.2	38
	2316	5.9	181
23 Th	0603	0.8	24
	1149	3.9	120
	1726	1.2	37
24 F	0000	5.9	179
	0646	0.8	23
	1235	4.0	121
	1815	1.2	37
25 Sa	0045	5.7	174
	0730	0.8	25
	1325	4.0	123
	1907	1.3	41
26 Su	0132	5.4	165
	0817	1.0	29
	1419	4.1	125
	2004	1.5	47
27 M	0222	5.0	153
	0906	1.1	33
	1520	4.2	128
	2109	1.8	54
28 Tu ◑	0317	4.6	140
	0958	1.2	37
	1626	4.4	133
	2227	2.0	60
29 W	0421	4.2	127
	1053	1.3	40
	1733	4.6	140
	2354	2.0	61
30 Th	0534	3.8	116
	1151	1.4	43
	1837	4.9	149
31 F	0116	1.8	55
	0651	3.6	111
	1248	1.4	44
	1935	5.2	158

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Antofagasta, Chile, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0409	1.1	35
	0943	3.5	108
	1514	1.2	38
	2200	5.6	171
2 Sa	0453	1.0	31
	1032	3.7	113
	1605	1.2	37
	2249	5.6	172
3 Su	0538	1.0	30
	1122	3.8	117
	1658	1.3	39
	2337	5.6	170
4 M	0624	1.0	30
	1215	4.0	121
	1752	1.4	44
5 Tu	0026	5.3	162
	0710	1.1	33
	1310	4.1	124
	1852	1.7	51
6 W	0115	4.9	150
	0757	1.2	37
	1409	4.1	126
	1959	2.0	60
7 Th ◑	0207	4.4	135
	0846	1.4	43
	1513	4.2	129
	2119	2.2	66
8 F	0306	3.9	119
	0938	1.6	48
	1621	4.4	133
	2249	2.2	68
9 Sa	0419	3.4	105
	1035	1.7	51
	1728	4.5	137
10 Su	0019	2.1	64
	0543	3.2	97
	1134	1.7	53
	1828	4.7	143
11 M	0130	1.9	57
	0658	3.1	95
	1232	1.7	53
	1920	4.8	147
12 Tu	0222	1.7	51
	0756	3.2	97
	1325	1.7	51
	2006	5.0	151
13 W	0304	1.5	45
	0841	3.3	100
	1412	1.6	49
	2048	5.0	153
14 Th	0339	1.4	42
	0919	3.4	103
	1453	1.5	47
	2126	5.1	155
15 F ●	0413	1.3	40
	0955	3.4	105
	1531	1.5	47
	2203	5.1	155

	Time	Height	
	h m	ft	cm
16 Sa	0446	1.3	40
	1030	3.5	107
	1607	1.6	49
	2239	5.0	153
17 Su	0518	1.3	41
	1104	3.6	109
	1642	1.7	52
	2313	4.9	150
18 M	0549	1.4	43
	1139	3.6	110
	1717	1.9	57
	2346	4.7	144
19 Tu	0620	1.5	46
	1216	3.6	111
	1754	2.0	62
20 W	0018	4.5	137
	0651	1.6	49
	1255	3.7	112
	1836	2.2	68
21 Th	0050	4.2	129
	0722	1.7	52
	1338	3.7	114
	1926	2.4	74
22 F	0124	3.9	119
	0754	1.8	56
	1426	3.8	116
	2030	2.6	78
23 Sa ◐	0204	3.6	110
	0830	1.9	59
	1521	3.9	120
	2153	2.6	80
24 Su	0259	3.3	101
	0915	2.0	61
	1624	4.1	125
	2329	2.5	77
25 M	0420	3.1	94
	1010	2.0	62
	1728	4.3	132
26 Tu	0045	2.3	70
	0550	3.1	93
	1114	2.0	61
	1828	4.6	141
27 W	0141	2.0	61
	0700	3.1	96
	1220	1.9	57
	1922	5.0	152
28 Th	0226	1.7	52
	0753	3.4	103
	1320	1.7	51
	2012	5.3	162
29 F	0308	1.4	44
	0841	3.6	111
	1414	1.4	43
	2100	5.6	170
30 Sa ○	0349	1.2	37
	0927	3.9	119
	1506	1.2	37
	2147	5.8	176
31 Su	0429	1.0	32
	1013	4.2	127
	1556	1.1	34
	2232	5.8	176

February

	Time	Height	
	h m	ft	cm
1 M	0510	1.0	29
	1100	4.4	133
	1647	1.2	36
	2317	5.6	170
2 Tu	0551	1.0	30
	1148	4.5	137
	1740	1.3	41
3 W	0002	5.2	159
	0632	1.1	34
	1239	4.6	139
	1838	1.6	50
4 Th	0048	4.7	144
	0715	1.3	41
	1334	4.6	139
	1943	2.0	60
5 F ◑	0138	4.1	126
	0801	1.6	48
	1435	4.5	138
	2102	2.2	67
6 Sa	0238	3.6	110
	0854	1.8	56
	1545	4.5	137
	2238	2.3	70
7 Su	0401	3.2	98
	1000	2.0	61
	1701	4.5	137
8 M	0013	2.2	67
	0543	3.1	94
	1113	2.1	63
	1809	4.6	140
9 Tu	0121	2.0	61
	0658	3.1	96
	1220	2.0	61
	1904	4.7	144
10 W	0207	1.8	55
	0747	3.3	100
	1315	1.9	57
	1950	4.8	147
11 Th	0243	1.6	50
	0825	3.4	105
	1400	1.7	53
	2030	4.9	150
12 F	0315	1.5	46
	0858	3.6	109
	1440	1.6	49
	2107	5.0	152
13 Sa ●	0345	1.4	43
	0930	3.7	113
	1516	1.6	48
	2141	5.0	152
14 Su	0414	1.4	42
	1002	3.8	116
	1551	1.6	48
	2214	4.9	150
15 M	0442	1.3	41
	1033	3.9	118
	1625	1.6	49
	2245	4.8	146

	Time	Height	
	h m	ft	cm
16 Tu	0510	1.4	42
	1105	3.9	120
	1659	1.7	52
	2316	4.6	140
17 W	0536	1.4	44
	1138	4.0	122
	1735	1.9	57
	2345	4.3	132
18 Th	0601	1.5	47
	1212	4.0	123
	1815	2.0	62
19 F	0015	4.0	122
	0628	1.6	50
	1250	4.1	124
	1901	2.2	67
20 Sa	0047	3.7	113
	0656	1.8	54
	1332	4.1	124
	1958	2.4	72
21 Su ◐	0124	3.4	103
	0731	1.9	59
	1424	4.1	124
	2120	2.4	74
22 M	0219	3.1	94
	0819	2.1	63
	1531	4.1	125
	2306	2.4	72
23 Tu	0358	2.9	88
	0928	2.1	65
	1653	4.3	130
24 W	0026	2.1	65
	0545	2.9	89
	1054	2.1	63
	1806	4.5	138
25 Th	0119	1.8	56
	0650	3.1	96
	1210	1.9	57
	1904	4.8	147
26 F	0202	1.5	47
	0739	3.5	106
	1311	1.5	47
	1954	5.2	157
27 Sa	0241	1.2	38
	0822	3.8	116
	1405	1.2	38
	2041	5.3	163
28 Su ○	0319	1.0	30
	0905	4.1	126
	1455	1.0	31
	2125	5.4	165

March

	Time	Height	
	h m	ft	cm
1 M	0357	0.8	25
	0949	4.4	135
	1545	0.9	28
	2209	5.3	162
2 Tu	0435	0.8	23
	1035	4.7	142
	1636	1.0	30
	2252	5.0	153
3 W	0513	0.8	25
	1122	4.8	145
	1729	1.1	35
	2337	4.6	140
4 Th	0552	1.0	31
	1210	4.8	145
	1827	1.4	43
5 F	0023	4.1	124
	0633	1.3	39
	1302	4.7	142
	1930	1.7	52
6 Sa	0114	3.6	109
	0718	1.6	48
	1359	4.5	137
	2046	1.9	59
7 Su ◑	0217	3.1	96
	0812	1.9	57
	1507	4.3	132
	2219	2.0	62
8 M	0351	2.9	88
	0925	2.0	62
	1626	4.3	130
	2348	2.0	60
9 Tu	0538	2.9	88
	1049	2.1	64
	1738	4.3	130
10 W	0050	1.8	56
	0643	3.0	92
	1159	2.0	61
	1835	4.4	133
11 Th	0133	1.7	51
	0726	3.2	98
	1254	1.8	56
	1920	4.4	135
12 F	0207	1.5	46
	0800	3.4	104
	1340	1.7	51
	2000	4.5	137
13 Sa	0237	1.4	42
	0831	3.6	109
	1420	1.5	47
	2036	4.6	139
14 Su	0306	1.2	38
	0901	3.7	114
	1457	1.4	44
	2110	4.5	138
15 M ●	0333	1.2	36
	0931	3.9	119
	1532	1.4	42
	2142	4.4	135

	Time	Height	
	h m	ft	cm
16 Tu	0359	1.1	34
	1001	4.0	123
	1607	1.4	42
	2213	4.3	130
17 W	0424	1.1	35
	1032	4.1	126
	1643	1.4	43
	2243	4.1	124
18 Th	0448	1.2	36
	1104	4.2	129
	1720	1.5	46
	2314	3.8	116
19 F	0513	1.3	39
	1138	4.3	130
	1801	1.6	50
	2346	3.5	107
20 Sa	0540	1.4	43
	1215	4.2	129
	1849	1.8	54
21 Su	0022	3.2	98
	0611	1.6	48
	1258	4.2	127
	1949	1.9	58
22 M	0109	3.0	90
	0651	1.7	53
	1351	4.1	125
	2111	2.0	61
23 Tu ◐	0218	2.7	83
	0748	1.9	58
	1500	4.0	123
	2245	1.9	58
24 W	0408	2.7	81
	0911	2.0	61
	1626	4.1	125
	2355	1.7	51
25 Th	0538	2.8	86
	1044	1.9	57
	1740	4.3	131
26 F	0045	1.4	43
	0633	3.1	96
	1159	1.6	50
	1838	4.5	137
27 Sa	0127	1.1	35
	0718	3.5	107
	1259	1.3	40
	1927	4.7	142
28 Su	0205	0.9	27
	0800	3.9	118
	1353	1.0	32
	2013	4.7	143
29 M ○	0243	0.7	20
	0843	4.2	129
	1445	0.8	25
	2058	4.6	141
30 Tu	0320	0.6	17
	0927	4.5	138
	1536	0.8	23
	2143	4.4	134
31 W	0357	0.5	16
	1011	4.7	144
	1629	0.8	23
	2228	4.1	125

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Antofagasta, Chile, 2010

Times and Heights of High and Low Waters

April

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Th	0435	0.7 20	16 F	0402	0.9 28
	1057	4.8 146		1034	4.4 134
	1722	0.9 27		1709	1.2 36
	2315	3.7 113		2248	3.2 98
2 F	0514	0.9 26	17 Sa	0432	1.0 31
	1144	4.7 144		1111	4.4 135
	1818	1.1 33		1754	1.2 38
				2328	3.0 92
3 Sa	0003	3.3 101	18 Su	0505	1.1 35
	0555	1.1 35		1152	4.4 133
	1233	4.6 139		1846	1.3 41
	1919	1.3 40			
4 Su	0056	3.0 90	19 M	0014	2.8 86
	0639	1.4 44		0544	1.3 41
	1327	4.3 132		1239	4.3 130
	2027	1.5 46		1948	1.4 44
5 M	0201	2.7 82	20 Tu	0112	2.7 81
	0733	1.7 52		0634	1.5 47
	1428	4.1 125		1335	4.2 127
	2145	1.6 50		2100	1.4 44
6 Tu ◑	0334	2.6 78	21 W ◐	0230	2.6 78
	0845	1.9 59		0741	1.7 52
	1540	3.9 120		1443	4.1 124
	2300	1.6 50		2213	1.4 42
7 W	0512	2.7 81	22 Th	0402	2.7 81
	1011	2.0 61		0906	1.8 54
	1650	3.9 118		1558	4.0 123
	2359	1.5 47		2314	1.2 37
8 Th	0613	2.9 87	23 F	0514	2.9 88
	1125	1.9 59		1032	1.7 51
	1748	3.9 119		1706	4.0 123
9 F	0043	1.4 43	24 Sa	0003	1.0 31
	0655	3.1 93		0608	3.2 99
	1224	1.8 55		1145	1.5 45
	1836	3.9 120		1804	4.0 123
10 Sa	0118	1.3 39	25 Su	0046	0.8 25
	0728	3.3 101		0654	3.6 110
	1313	1.6 50		1248	1.2 37
	1918	3.9 120		1856	4.0 122
11 Su	0148	1.1 35	26 M	0126	0.6 19
	0759	3.5 108		0738	4.0 122
	1356	1.5 45		1345	1.0 30
	1956	3.9 120		1946	3.9 119
12 M	0217	1.0 31	27 Tu	0204	0.5 15
	0828	3.8 115		0822	4.4 133
	1435	1.3 40		1440	0.8 24
	2031	3.9 118		2034	3.7 113
13 Tu	0244	0.9 28	28 W ○	0243	0.5 14
	0858	4.0 121		0906	4.6 140
	1513	1.2 37		1533	0.7 21
	2105	3.8 115		2122	3.5 107
14 W ●	0310	0.9 27	29 Th	0322	0.5 15
	0928	4.2 127		0950	4.7 144
	1550	1.1 35		1625	0.7 20
	2139	3.6 110		2210	3.3 100
15 Th	0335	0.9 27	30 F	0402	0.6 19
	1000	4.3 131		1035	4.8 145
	1629	1.1 35		1717	0.7 21
	2212	3.4 104		2258	3.0 92

May

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Sa	0443	0.8 25	16 Su	0404	0.9 28
	1121	4.7 142		1052	4.7 142
	1808	0.8 25		1747	1.0 30
	2348	2.8 86		2318	2.9 88
2 Su	0524	1.0 32	17 M	0447	1.0 32
	1208	4.5 136		1138	4.6 141
	1901	1.0 31		1839	1.0 32
3 M	0040	2.6 80	18 Tu	0011	2.8 86
	0608	1.3 41		0535	1.2 37
	1257	4.2 129		1228	4.5 138
	1958	1.2 36		1935	1.1 33
4 Tu	0139	2.5 76	19 W	0112	2.8 85
	0658	1.6 49		0632	1.4 43
	1349	4.0 122		1323	4.4 134
	2058	1.3 40		2035	1.1 33
5 W	0256	2.5 75	20 Th ◐	0222	2.8 86
	0800	1.8 56		0740	1.6 48
	1448	3.8 116		1423	4.2 129
	2200	1.4 42		2134	1.1 33
6 Th ◑	0422	2.6 78	21 F	0335	3.0 91
	0920	2.0 60		0857	1.6 50
	1550	3.6 111		1527	4.0 123
	2254	1.3 41		2229	1.0 31
7 F	0527	2.8 84	22 Sa	0442	3.2 98
	1039	2.0 60		1017	1.6 50
	1650	3.5 108		1630	3.8 117
	2340	1.3 39		2318	0.9 28
8 Sa	0613	3.0 92	23 Su	0539	3.5 108
	1146	1.9 58		1134	1.5 47
	1743	3.5 107		1732	3.6 110
9 Su	0018	1.2 36	24 M	0004	0.8 25
	0649	3.3 101		0630	3.9 119
	1242	1.7 53		1243	1.3 41
	1829	3.4 105		1830	3.4 104
10 M	0051	1.0 32	25 Tu	0048	0.7 22
	0721	3.6 109		0718	4.2 129
	1330	1.5 47		1345	1.1 35
	1912	3.4 103		1926	3.2 99
11 Tu	0122	1.0 29	26 W	0131	0.7 21
	0752	3.8 117		0804	4.5 137
	1413	1.4 42		1442	0.9 28
	1952	3.3 101		2019	3.1 95
12 W	0152	0.9 27	27 Th ○	0214	0.7 20
	0823	4.1 125		0849	4.7 143
	1454	1.2 37		1533	0.8 24
	2030	3.2 98		2110	3.0 92
13 Th ●	0221	0.9 26	28 F	0257	0.7 21
	0856	4.3 132		0934	4.8 145
	1535	1.1 33		1621	0.7 21
	2108	3.1 96		2159	2.9 89
14 F	0252	0.8 25	29 Sa	0340	0.8 24
	0931	4.5 138		1018	4.8 145
	1616	1.0 31		1707	0.7 22
	2148	3.1 93		2245	2.9 87
15 Sa	0326	0.9 26	30 Su	0421	1.0 29
	1010	4.6 141		1102	4.7 142
	1700	1.0 30		1752	0.8 25
	2231	3.0 90		2331	2.8 85
			31 M	0502	1.1 35
				1145	4.5 138
				1836	1.0 29

June

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Tu	0017	2.7 83	16 W	0000	3.2 99
	0543	1.3 41		0531	1.1 35
	1228	4.3 132		1215	5.0 151
	1921	1.1 34		1909	1.0 29
2 W	0107	2.7 82	17 Th	0056	3.3 101
	0628	1.6 49		0628	1.3 41
	1311	4.1 125		1306	4.7 144
	2007	1.2 38		1959	1.0 30
3 Th	0205	2.7 82	18 F	0156	3.4 104
	0720	1.8 56		0731	1.5 47
	1358	3.9 118		1358	4.4 135
	2055	1.3 41		2050	1.0 32
4 F ◑	0313	2.8 84	19 Sa ◐	0301	3.5 108
	0826	2.0 62		0844	1.7 52
	1448	3.6 111		1455	4.0 123
	2144	1.4 42		2142	1.1 33
5 Sa	0420	2.9 89	20 Su	0407	3.7 114
	0945	2.1 65		1005	1.8 55
	1544	3.4 105		1558	3.6 111
	2229	1.3 41		2234	1.1 34
6 Su	0515	3.2 97	21 M	0511	4.0 121
	1101	2.1 64		1129	1.8 54
	1642	3.3 100		1707	3.3 101
	2311	1.3 40		2326	1.1 35
7 M	0559	3.4 105	22 Tu	0609	4.2 129
	1207	2.0 60		1246	1.6 48
	1737	3.1 96		1817	3.1 94
	2350	1.2 38			
8 Tu	0637	3.7 114	23 W	0018	1.1 34
	1304	1.8 54		0702	4.5 136
	1829	3.1 94		1350	1.3 41
				1921	3.0 91
9 W	0026	1.2 36	24 Th	0109	1.1 33
	0713	4.0 123		0751	4.7 142
	1353	1.6 48		1443	1.1 35
	1917	3.0 92		2017	3.0 91
10 Th	0103	1.1 34	25 F	0158	1.0 32
	0750	4.3 132		0837	4.8 146
	1437	1.3 41		1529	1.0 30
	2002	3.0 92		2105	3.0 92
11 F	0140	1.0 32	26 Sa	0244	1.0 31
	0828	4.6 140		0921	4.9 148
	1520	1.2 36		1610	0.9 28
	2046	3.0 92	○	2148	3.1 93
12 Sa	0221	1.0 31	27 Su	0326	1.0 32
	0909	4.8 146		1003	4.9 148
	1603	1.0 32		1649	0.9 28
●	2132	3.1 93		2228	3.1 94
13 Su	0304	1.0 30	28 M	0406	1.1 34
	0953	5.0 151		1043	4.8 146
	1647	1.0 29		1726	1.0 29
	2218	3.1 95		2308	3.1 94
14 M	0350	1.0 30	29 Tu	0444	1.2 38
	1039	5.1 154		1121	4.7 142
	1733	0.9 28		1803	1.0 32
	2308	3.2 97		2348	3.1 94
15 Tu	0439	1.0 32	30 W	0522	1.4 44
	1126	5.1 154		1158	4.5 137
	1820	0.9 28		1840	1.2 36

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Antofagasta, Chile, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0029	3.1	94
	0602	1.7	51
	1235	4.3	130
	1916	1.3	40
2 F	0115	3.1	95
	0646	1.9	58
	1312	4.0	122
	1954	1.4	43
3 Sa	0206	3.2	97
	0741	2.1	64
	1353	3.7	113
	2033	1.5	46
4 Su ◑	0303	3.3	100
	0850	2.3	69
	1440	3.4	105
	2115	1.5	47
5 M	0403	3.4	105
	1012	2.3	70
	1537	3.2	97
	2200	1.6	48
6 Tu	0459	3.6	111
	1132	2.2	67
	1645	3.0	92
	2246	1.6	49
7 W	0550	3.9	119
	1240	2.0	61
	1752	2.9	89
	2334	1.5	47
8 Th	0636	4.2	128
	1334	1.8	54
	1852	3.0	90
9 F	0024	1.5	45
	0721	4.5	138
	1421	1.5	47
	1943	3.0	92
10 Sa	0113	1.3	41
	0806	4.8	147
	1503	1.3	40
	2031	3.2	97
11 Su ●	0202	1.2	36
	0852	5.1	155
	1545	1.1	34
	2116	3.4	103
12 M	0251	1.0	32
	0938	5.3	161
	1626	1.0	29
	2202	3.5	108
13 Tu	0340	1.0	29
	1024	5.4	165
	1708	0.9	26
	2250	3.7	114
14 W	0430	1.0	29
	1109	5.4	164
	1751	0.8	25
	2339	3.9	118
15 Th	0522	1.1	33
	1155	5.2	158
	1835	0.9	27

	Time	Height	
	h m	ft	cm
16 F	0031	4.0	121
	0617	1.3	39
	1242	4.9	148
	1920	1.0	30
17 Sa	0127	4.0	123
	0719	1.5	47
	1331	4.4	134
	2006	1.1	34
18 Su ◐	0227	4.1	125
	0831	1.8	55
	1426	3.9	118
	2057	1.3	40
19 M	0333	4.2	127
	0957	1.9	59
	1533	3.4	103
	2154	1.4	44
20 Tu	0444	4.3	130
	1129	1.9	58
	1657	3.1	93
	2258	1.5	46
21 W	0551	4.4	135
	1250	1.7	52
	1820	3.0	90
22 Th	0002	1.5	46
	0650	4.6	139
	1350	1.5	45
	1925	3.0	91
23 F	0100	1.4	43
	0741	4.7	143
	1435	1.3	40
	2013	3.1	95
24 Sa	0150	1.3	40
	0826	4.8	146
	1514	1.1	35
	2054	3.2	99
25 Su ○	0234	1.2	37
	0906	4.9	148
	1549	1.1	33
	2130	3.3	102
26 M	0314	1.2	36
	0944	4.9	148
	1622	1.0	32
	2205	3.4	104
27 Tu	0351	1.2	37
	1020	4.8	147
	1654	1.0	32
	2240	3.5	106
28 W	0427	1.3	40
	1054	4.7	143
	1725	1.1	34
	2315	3.5	107
29 Th	0502	1.4	44
	1127	4.5	137
	1756	1.2	37
	2351	3.5	108
30 F	0539	1.6	50
	1200	4.3	130
	1826	1.3	40
31 Sa	0030	3.5	108
	0620	1.8	56
	1232	4.0	121
	1856	1.4	44

August

	Time	Height	
	h m	ft	cm
1 Su	0111	3.6	109
	0707	2.0	62
	1306	3.6	111
	1929	1.5	47
2 M	0157	3.6	110
	0807	2.2	67
	1346	3.3	102
	2005	1.7	51
3 Tu ◑	0251	3.7	112
	0926	2.3	70
	1439	3.1	93
	2051	1.8	54
4 W	0356	3.8	115
	1100	2.2	68
	1559	2.9	87
	2148	1.8	56
5 Th	0504	4.0	121
	1219	2.0	62
	1730	2.8	85
	2254	1.8	55
6 F	0605	4.2	129
	1315	1.8	55
	1838	2.9	89
7 Sa	0000	1.7	51
	0659	4.6	139
	1400	1.5	46
	1930	3.1	96
8 Su	0058	1.4	44
	0748	4.9	149
	1440	1.2	38
	2014	3.4	104
9 M ●	0151	1.2	36
	0834	5.2	158
	1519	1.0	30
	2057	3.7	113
10 Tu	0240	0.9	28
	0918	5.4	164
	1557	0.8	25
	2141	4.0	121
11 W	0329	0.8	24
	1002	5.4	166
	1636	0.7	21
	2227	4.2	128
12 Th	0418	0.8	24
	1046	5.3	162
	1716	0.7	20
	2314	4.4	133
13 F	0510	0.9	28
	1130	5.0	152
	1757	0.8	23
14 Sa	0004	4.5	136
	0605	1.1	35
	1216	4.6	139
	1839	1.0	29
15 Su	0057	4.5	136
	0707	1.4	44
	1306	4.0	122
	1924	1.2	36

	Time	Height	
	h m	ft	cm
16 M ◐	0155	4.4	134
	0820	1.7	52
	1403	3.4	105
	2017	1.4	44
17 Tu	0302	4.3	132
	0950	1.9	57
	1521	3.1	93
	2122	1.6	50
18 W	0419	4.3	130
	1126	1.8	56
	1702	2.9	87
	2240	1.7	53
19 Th	0534	4.3	132
	1241	1.6	50
	1825	2.9	89
	2353	1.7	51
20 F	0635	4.4	135
	1333	1.5	45
	1919	3.1	94
21 Sa	0051	1.5	46
	0724	4.5	138
	1413	1.3	40
	1959	3.2	99
22 Su	0140	1.3	41
	0807	4.6	141
	1447	1.2	36
	2034	3.4	104
23 M	0221	1.2	37
	0844	4.7	142
	1518	1.0	32
	2106	3.5	108
24 Tu ○	0259	1.1	35
	0919	4.7	142
	1547	1.0	30
	2138	3.7	112
25 W	0334	1.1	35
	0952	4.6	139
	1616	1.0	30
	2210	3.7	114
26 Th	0409	1.2	36
	1025	4.4	135
	1644	1.0	30
	2243	3.8	116
27 F	0444	1.3	39
	1056	4.2	128
	1710	1.1	33
	2315	3.8	117
28 Sa	0520	1.4	43
	1127	3.9	120
	1737	1.2	36
	2350	3.9	118
29 Su	0559	1.6	48
	1157	3.6	111
	1803	1.3	40
30 M	0026	3.8	117
	0644	1.8	54
	1230	3.3	102
	1832	1.5	45
31 Tu	0107	3.8	116
	0740	1.9	59
	1309	3.0	92
	1908	1.6	50

September

	Time	Height	
	h m	ft	cm
1 W ◑	0157	3.8	115
	0855	2.0	62
	1406	2.8	84
	1956	1.8	55
2 Th	0302	3.8	115
	1034	2.0	61
	1541	2.6	80
	2106	1.9	58
3 F	0423	3.9	118
	1154	1.8	55
	1724	2.7	82
	2232	1.8	56
4 Sa	0538	4.1	125
	1248	1.5	47
	1826	2.9	89
	2346	1.6	49
5 Su	0636	4.4	134
	1330	1.3	39
	1912	3.2	98
6 M	0046	1.3	40
	0725	4.7	143
	1408	1.0	30
	1954	3.6	109
7 Tu	0138	1.0	30
	0810	4.9	150
	1445	0.7	22
	2035	3.9	120
8 W	0228	0.7	22
	0854	5.0	153
	1523	0.5	16
	2118	4.3	130
9 Th	0317	0.6	17
	0937	5.0	152
	1600	0.4	13
	2202	4.5	138
10 F	0407	0.6	17
	1021	4.8	145
	1639	0.5	14
	2249	4.7	143
11 Sa	0500	0.7	21
	1106	4.4	133
	1718	0.6	18
	2337	4.7	144
12 Su	0556	0.9	27
	1154	3.9	119
	1800	0.9	26
13 M	0029	4.6	141
	0658	1.2	36
	1247	3.4	104
	1846	1.2	36
14 Tu	0125	4.4	135
	0811	1.4	43
	1350	3.0	91
	1942	1.5	45
15 W ◐	0231	4.2	129
	0936	1.6	48
	1518	2.7	83
	2056	1.7	52

	Time	Height	
	h m	ft	cm
16 Th	0350	4.1	124
	1104	1.6	48
	1704	2.7	82
	2223	1.8	54
17 F	0506	4.0	123
	1212	1.4	44
	1814	2.9	88
	2338	1.7	51
18 Sa	0608	4.1	124
	1300	1.3	40
	1900	3.1	94
19 Su	0036	1.5	46
	0656	4.1	126
	1337	1.2	36
	1937	3.3	100
20 M	0123	1.3	41
	0737	4.2	128
	1409	1.0	31
	2009	3.5	106
21 Tu	0204	1.2	36
	0814	4.2	128
	1438	0.9	28
	2039	3.7	112
22 W	0242	1.1	33
	0849	4.2	127
	1507	0.8	25
	2110	3.8	117
23 Th ○	0318	1.0	31
	0922	4.1	124
	1534	0.8	24
	2140	3.9	120
24 F	0353	1.0	30
	0954	3.9	119
	1600	0.8	25
	2211	4.0	123
25 Sa	0429	1.0	31
	1026	3.7	113
	1625	0.9	27
	2242	4.1	124
26 Su	0506	1.1	34
	1058	3.4	105
	1651	1.0	31
	2316	4.1	124
27 M	0546	1.2	38
	1131	3.2	97
	1718	1.2	36
	2352	4.0	123
28 Tu	0631	1.4	43
	1209	2.9	89
	1749	1.3	41
29 W	0033	3.9	120
	0727	1.5	47
	1255	2.7	82
	1828	1.5	47
30 Th ◑	0123	3.8	117
	0840	1.6	50
	1403	2.5	77
	1924	1.7	53

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Antofagasta, Chile, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0228	3.7	114
	1007	1.6	49
	1544	2.5	76
	2047	1.8	56
2 Sa	0350	3.8	115
	1118	1.4	44
	1712	2.7	82
	2219	1.7	53
3 Su	0506	3.9	119
	1210	1.2	37
	1806	3.0	91
	2334	1.5	45
4 M	0606	4.1	125
	1252	1.0	29
	1850	3.4	103
5 Tu	0034	1.2	36
	0656	4.3	131
	1331	0.7	21
	1931	3.8	115
6 W	0127	0.9	26
	0743	4.4	133
	1408	0.5	14
	2013	4.2	127
7 Th ●	0218	0.6	18
	0828	4.3	132
	1446	0.3	10
	2055	4.5	138
8 F	0309	0.4	13
	0914	4.2	128
	1524	0.3	9
	2140	4.8	145
9 Sa	0401	0.4	12
	1000	3.9	120
	1603	0.4	11
	2226	4.9	148
10 Su	0455	0.5	14
	1049	3.6	110
	1644	0.6	17
	2314	4.8	146
11 M	0550	0.7	20
	1140	3.2	99
	1728	0.9	26
12 Tu	0004	4.6	141
	0650	0.9	26
	1236	2.9	89
	1816	1.2	36
13 W	0058	4.4	133
	0755	1.1	33
	1342	2.7	82
	1914	1.5	45
14 Th ◐	0200	4.1	125
	0908	1.3	39
	1509	2.6	79
	2029	1.7	52
15 F	0311	3.9	118
	1022	1.3	40
	1642	2.7	81
	2156	1.8	55

	Time	Height	
	h m	ft	cm
16 Sa	0424	3.7	114
	1124	1.3	39
	1747	2.9	87
	2312	1.7	53
17 Su	0526	3.7	113
	1211	1.2	37
	1832	3.1	95
18 M	0012	1.6	49
	0616	3.7	113
	1249	1.1	33
	1908	3.3	102
19 Tu	0102	1.4	44
	0700	3.7	112
	1322	1.0	29
	1940	3.6	110
20 W	0146	1.2	38
	0739	3.7	112
	1353	0.9	26
	2010	3.8	117
21 Th	0226	1.1	33
	0816	3.6	110
	1421	0.8	24
	2040	4.0	122
22 F ○	0303	1.0	30
	0852	3.5	107
	1449	0.8	24
	2110	4.2	127
23 Sa	0340	0.9	28
	0926	3.4	103
	1516	0.8	24
	2141	4.3	131
24 Su	0417	0.9	27
	1001	3.2	98
	1543	0.9	27
	2214	4.3	132
25 M	0456	0.9	28
	1037	3.1	93
	1613	1.0	30
	2249	4.3	132
26 Tu	0538	1.0	31
	1116	2.9	88
	1645	1.1	35
	2328	4.3	130
27 W	0625	1.1	34
	1201	2.8	84
	1723	1.3	41
28 Th	0012	4.2	127
	0719	1.2	37
	1257	2.6	80
	1812	1.5	47
29 F	0104	4.0	123
	0824	1.3	39
	1408	2.6	79
	1916	1.7	52
30 Sa ◑	0206	3.9	119
	0932	1.3	39
	1532	2.7	82
	2038	1.8	55
31 Su	0318	3.8	117
	1034	1.2	36
	1644	2.9	89
	2205	1.7	52

November

	Time	Height	
	h m	ft	cm
1 M	0429	3.8	116
	1125	1.0	31
	1738	3.3	100
	2319	1.5	46
2 Tu	0531	3.8	117
	1210	0.8	25
	1825	3.7	112
3 W	0023	1.2	38
	0626	3.8	116
	1251	0.7	20
	1909	4.1	124
4 Th	0120	1.0	29
	0717	3.7	114
	1331	0.5	16
	1952	4.5	136
5 F	0215	0.7	22
	0807	3.6	111
	1411	0.5	14
	2036	4.8	145
6 Sa ●	0308	0.5	16
	0858	3.5	106
	1453	0.5	14
	2122	4.9	150
7 Su	0400	0.4	13
	0948	3.3	101
	1536	0.6	17
	2208	5.0	152
8 M	0452	0.5	14
	1039	3.1	96
	1620	0.8	23
	2255	4.9	149
9 Tu	0544	0.6	17
	1131	3.0	91
	1705	1.0	31
	2344	4.7	143
10 W	0637	0.8	23
	1226	2.8	86
	1754	1.3	39
11 Th	0034	4.4	135
	0731	1.0	29
	1327	2.7	83
	1849	1.6	48
12 F	0127	4.1	126
	0829	1.1	35
	1439	2.7	83
	1955	1.8	56
13 Sa ◐	0225	3.9	118
	0927	1.3	39
	1558	2.8	86
	2115	2.0	60
14 Su	0328	3.6	111
	1023	1.3	40
	1704	3.0	92
	2234	2.0	61
15 M	0430	3.5	107
	1111	1.3	39
	1754	3.3	100
	2342	1.9	58

	Time	Height	
	h m	ft	cm
16 Tu	0526	3.4	104
	1153	1.2	37
	1833	3.5	108
17 W	0039	1.7	53
	0617	3.3	102
	1230	1.1	35
	1906	3.8	116
18 Th	0127	1.5	47
	0702	3.3	100
	1303	1.1	33
	1938	4.1	124
19 F	0210	1.3	41
	0745	3.2	98
	1335	1.0	32
	2010	4.3	131
20 Sa	0250	1.2	36
	0824	3.2	97
	1406	1.0	31
	2042	4.5	136
21 Su ○	0329	1.0	32
	0903	3.1	95
	1438	1.0	32
	2116	4.6	141
22 M	0408	1.0	30
	0942	3.1	93
	1511	1.1	33
	2153	4.7	143
23 Tu	0447	1.0	29
	1023	3.0	92
	1548	1.1	35
	2232	4.7	144
24 W	0530	1.0	30
	1107	3.0	91
	1629	1.3	39
	2315	4.7	143
25 Th	0615	1.0	32
	1156	3.0	91
	1715	1.4	44
26 F	0001	4.6	140
	0705	1.1	34
	1252	3.0	91
	1808	1.6	49
27 Sa	0051	4.5	136
	0758	1.1	35
	1354	3.1	93
	1912	1.8	54
28 Su ◑	0146	4.3	130
	0854	1.2	36
	1501	3.2	98
	2026	1.9	57
29 M	0247	4.1	124
	0948	1.1	35
	1607	3.4	105
	2146	1.9	57
30 Tu	0351	3.8	117
	1039	1.1	34
	1707	3.8	115
	2305	1.8	54

December

	Time	Height	
	h m	ft	cm
1 W	0456	3.6	111
	1127	1.0	32
	1800	4.1	125
2 Th	0017	1.6	48
	0600	3.4	105
	1214	1.0	30
	1849	4.5	136
3 F	0122	1.3	40
	0701	3.3	101
	1300	0.9	28
	1937	4.8	145
4 Sa	0219	1.0	32
	0758	3.2	98
	1347	0.9	27
	2023	5.0	152
5 Su ●	0312	0.8	25
	0852	3.2	97
	1434	0.9	28
	2110	5.1	156
6 M	0401	0.7	22
	0944	3.2	97
	1520	1.0	29
	2156	5.1	156
7 Tu	0447	0.7	21
	1032	3.2	97
	1606	1.1	33
	2242	5.1	154
8 W	0532	0.8	23
	1120	3.1	96
	1651	1.3	39
	2327	4.9	149
9 Th	0616	0.9	28
	1207	3.1	95
	1736	1.5	46
10 F	0011	4.7	142
	0700	1.1	33
	1257	3.1	94
	1823	1.8	54
11 Sa	0055	4.4	133
	0744	1.3	39
	1353	3.1	95
	1918	2.0	62
12 Su	0140	4.1	124
	0830	1.4	43
	1455	3.2	97
	2024	2.2	68
13 M ◐	0229	3.8	116
	0917	1.5	46
	1601	3.3	101
	2142	2.4	72
14 Tu	0325	3.5	108
	1004	1.6	48
	1700	3.5	107
	2301	2.3	71
15 W	0427	3.3	102
	1049	1.6	48
	1748	3.8	115

	Time	Height	
	h m	ft	cm
16 Th	0010	2.2	67
	0528	3.2	97
	1132	1.6	48
	1828	4.0	123
17 F	0107	2.0	60
	0625	3.1	95
	1212	1.5	47
	1905	4.3	131
18 Sa	0155	1.8	54
	0716	3.1	95
	1251	1.5	46
	1942	4.6	139
19 Su	0237	1.6	48
	0801	3.1	95
	1330	1.5	45
	2019	4.8	145
20 M	0317	1.4	42
	0844	3.2	97
	1410	1.4	43
	2057	5.0	151
21 Tu ○	0355	1.3	39
	0926	3.2	99
	1452	1.4	42
	2138	5.1	156
22 W	0434	1.2	36
	1009	3.3	102
	1535	1.4	42
	2220	5.2	159
23 Th	0515	1.1	34
	1054	3.5	106
	1621	1.4	42
	2304	5.2	159
24 F	0557	1.1	34
	1141	3.6	109
	1710	1.5	45
	2350	5.2	157
25 Sa	0641	1.1	35
	1232	3.7	112
	1803	1.6	50
26 Su	0036	5.0	151
	0726	1.2	36
	1327	3.8	115
	1902	1.8	55
27 M	0124	4.7	142
	0814	1.3	39
	1426	3.9	119
	2010	2.0	61
28 Tu ◑	0217	4.3	131
	0903	1.3	41
	1530	4.1	124
	2129	2.1	65
29 W	0317	3.9	118
	0955	1.4	43
	1635	4.3	130
	2256	2.1	64
30 Th	0429	3.5	107
	1050	1.5	45
	1738	4.5	137
31 F	0019	1.9	59
	0547	3.3	100
	1147	1.5	45
	1835	4.8	145

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Matarani, Peru, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0248	−0.1	−3
	0810	1.7	52
	1341	−0.2	−6
	2038	3.9	119
2 Sa	0331	−0.2	−6
	0901	1.8	55
	1432	−0.2	−6
	2123	3.9	119
3 Su	0414	−0.3	−9
	0953	2.0	61
	1524	−0.1	−3
	2208	3.8	116
4 M	0458	−0.3	−9
	1047	2.1	64
	1619	0.0	0
	2255	3.5	107
5 Tu	0543	−0.3	−9
	1144	2.2	67
	1718	0.3	9
	2343	3.1	94
6 W	0628	−0.2	−6
	1246	2.3	70
	1826	0.5	15
7 Th ◑	0034	2.7	82
	0716	−0.1	−3
	1353	2.4	73
	1946	0.8	24
8 F	0131	2.2	67
	0807	0.0	0
	1504	2.6	79
	2121	0.9	27
9 Sa	0237	1.9	58
	0900	0.1	3
	1612	2.8	85
	2255	0.8	24
10 Su	0354	1.6	49
	0956	0.1	3
	1713	3.0	91
11 M	0011	0.6	18
	0509	1.5	46
	1051	0.2	6
	1806	3.1	94
12 Tu	0108	0.4	12
	0613	1.5	46
	1142	0.2	6
	1852	3.3	101
13 W	0152	0.3	9
	0703	1.5	46
	1229	0.1	3
	1932	3.4	104
14 Th	0229	0.2	6
	0746	1.6	49
	1311	0.1	3
	2008	3.4	104
15 F ●	0302	0.1	3
	0825	1.7	52
	1351	0.1	3
	2042	3.4	104

	Time	Height	
	h m	ft	cm
16 Sa	0332	0.1	3
	0902	1.7	52
	1428	0.1	3
	2115	3.3	101
17 Su	0403	0.1	3
	0939	1.8	55
	1505	0.2	6
	2146	3.2	98
18 M	0432	0.1	3
	1016	1.9	58
	1542	0.3	9
	2216	3.0	91
19 Tu	0502	0.1	3
	1054	1.9	58
	1620	0.5	15
	2246	2.8	85
20 W	0530	0.2	6
	1134	1.9	58
	1700	0.7	21
	2315	2.5	76
21 Th	0559	0.3	9
	1217	2.0	61
	1748	0.9	27
	2346	2.2	67
22 F	0628	0.3	9
	1308	2.0	61
	1850	1.1	34
23 Sa ◐	0021	1.9	58
	0701	0.4	12
	1407	2.2	67
	2018	1.2	37
24 Su	0108	1.6	49
	0744	0.4	12
	1513	2.4	73
	2203	1.1	34
25 M	0223	1.4	43
	0839	0.4	12
	1616	2.6	79
	2325	0.9	27
26 Tu	0355	1.3	40
	0944	0.3	9
	1712	3.0	91
27 W	0020	0.6	18
	0513	1.4	43
	1047	0.2	6
	1803	3.3	101
28 Th	0103	0.3	9
	0614	1.5	46
	1146	0.0	0
	1849	3.6	110
29 F	0143	0.0	0
	0707	1.8	55
	1241	−0.2	−6
	1934	3.8	116
30 Sa ○	0222	−0.2	−6
	0756	2.0	61
	1334	−0.3	−9
	2019	3.9	119
31 Su	0301	−0.4	−12
	0844	2.2	67
	1425	−0.3	−9
	2102	3.8	116

February

	Time	Height	
	h m	ft	cm
1 M	0340	−0.4	−12
	0932	2.4	73
	1517	−0.3	−9
	2146	3.6	110
2 Tu	0420	−0.4	−12
	1022	2.5	76
	1611	−0.1	−3
	2230	3.2	98
3 W	0501	−0.4	−12
	1114	2.6	79
	1709	0.2	6
	2316	2.8	85
4 Th	0544	−0.2	−6
	1212	2.7	82
	1815	0.5	15
5 F ◑	0006	2.4	73
	0629	0.0	0
	1316	2.7	82
	1935	0.7	21
6 Sa	0103	1.9	58
	0721	0.2	6
	1429	2.7	82
	2114	0.8	24
7 Su	0218	1.6	49
	0821	0.3	9
	1545	2.7	82
	2254	0.7	21
8 M	0350	1.4	43
	0930	0.4	12
	1654	2.9	88
9 Tu	0006	0.6	18
	0511	1.4	43
	1036	0.4	12
	1749	3.0	91
10 W	0054	0.4	12
	0610	1.5	46
	1132	0.3	9
	1834	3.1	94
11 Th	0130	0.3	9
	0653	1.6	49
	1219	0.2	6
	1911	3.2	98
12 F	0200	0.2	6
	0729	1.8	55
	1300	0.2	6
	1944	3.2	98
13 Sa ●	0226	0.1	3
	0802	1.9	58
	1338	0.1	3
	2015	3.2	98
14 Su	0252	0.1	3
	0835	2.0	61
	1414	0.1	3
	2045	3.1	94
15 M	0318	0.0	0
	0907	2.1	64
	1450	0.2	6
	2114	3.0	91

	Time	Height	
	h m	ft	cm
16 Tu	0344	0.0	0
	0940	2.2	67
	1526	0.3	9
	2143	2.8	85
17 W	0410	0.1	3
	1014	2.3	70
	1604	0.4	12
	2212	2.6	79
18 Th	0435	0.2	6
	1050	2.3	70
	1644	0.6	18
	2240	2.3	70
19 F	0500	0.3	9
	1129	2.3	70
	1732	0.8	24
	2310	2.0	61
20 Sa	0527	0.4	12
	1215	2.3	70
	1833	0.9	27
	2346	1.7	52
21 Su ◐	0601	0.4	12
	1314	2.4	73
	2001	1.0	30
22 M	0039	1.4	43
	0648	0.5	15
	1427	2.5	76
	2148	0.9	27
23 Tu	0210	1.3	40
	0758	0.5	15
	1541	2.7	82
	2304	0.7	21
24 W	0354	1.3	40
	0920	0.5	15
	1644	2.9	88
	2353	0.5	15
25 Th	0508	1.5	46
	1034	0.3	9
	1738	3.2	98
26 F	0033	0.2	6
	0603	1.7	52
	1137	0.1	3
	1826	3.4	104
27 Sa	0110	−0.1	−3
	0652	2.1	64
	1234	−0.1	−3
	1911	3.5	107
28 Su ○	0147	−0.3	−9
	0738	2.4	73
	1326	−0.3	−9
	1955	3.5	107

March

	Time	Height	
	h m	ft	cm
1 M	0224	−0.4	−12
	0823	2.7	82
	1418	−0.3	−9
	2039	3.4	104
2 Tu	0302	−0.5	−15
	0909	2.9	88
	1510	−0.3	−9
	2122	3.2	98
3 W	0340	−0.4	−12
	0956	3.0	91
	1604	−0.1	−3
	2207	2.8	85
4 Th	0420	−0.3	−9
	1046	3.0	91
	1702	0.1	3
	2253	2.4	73
5 F	0501	−0.1	−3
	1140	3.0	91
	1807	0.4	12
	2345	2.0	61
6 Sa	0546	0.1	3
	1241	2.8	85
	1927	0.6	18
7 Su ◑	0048	1.6	49
	0639	0.4	12
	1352	2.7	82
	2103	0.7	21
8 M	0213	1.4	43
	0746	0.5	15
	1511	2.7	82
	2232	0.6	18
9 Tu	0350	1.4	43
	0906	0.6	18
	1622	2.7	82
	2335	0.5	15
10 W	0503	1.5	46
	1019	0.6	18
	1718	2.8	85
11 Th	0017	0.4	12
	0553	1.6	49
	1117	0.5	15
	1802	2.9	88
12 F	0048	0.3	9
	0630	1.8	55
	1203	0.4	12
	1838	2.9	88
13 Sa	0115	0.2	6
	0702	2.0	61
	1243	0.3	9
	1910	2.9	88
14 Su	0139	0.1	3
	0733	2.2	67
	1321	0.2	6
	1940	2.9	88
15 M ●	0203	0.1	3
	0803	2.4	73
	1358	0.2	6
	2011	2.8	85

	Time	Height	
	h m	ft	cm
16 Tu	0228	0.0	0
	0835	2.5	76
	1435	0.2	6
	2041	2.6	79
17 W	0253	0.0	0
	0907	2.6	79
	1513	0.2	6
	2112	2.4	73
18 Th	0319	0.1	3
	0940	2.7	82
	1554	0.3	9
	2143	2.2	67
19 F	0345	0.2	6
	1016	2.7	82
	1638	0.5	15
	2216	2.0	61
20 Sa	0412	0.3	9
	1056	2.7	82
	1730	0.6	18
	2253	1.7	52
21 Su	0442	0.4	12
	1143	2.7	82
	1835	0.7	21
	2340	1.5	46
22 M	0521	0.5	15
	1241	2.6	79
	1958	0.8	24
23 Tu ◐	0051	1.3	40
	0618	0.6	18
	1352	2.6	79
	2123	0.7	21
24 W	0230	1.3	40
	0739	0.6	18
	1506	2.7	82
	2227	0.5	15
25 Th	0356	1.4	43
	0909	0.6	18
	1611	2.9	88
	2314	0.3	9
26 F	0458	1.7	52
	1026	0.4	12
	1707	3.0	91
	2354	0.0	0
27 Sa	0548	2.1	64
	1130	0.2	6
	1757	3.1	94
28 Su	0031	−0.2	−6
	0634	2.5	76
	1227	0.0	0
	1844	3.1	94
29 M ○	0108	−0.3	−9
	0718	2.8	85
	1321	−0.1	−3
	1930	3.0	91
30 Tu	0145	−0.4	−12
	0802	3.1	94
	1413	−0.2	−6
	2015	2.8	85
31 W	0223	−0.4	−12
	0847	3.3	101
	1506	−0.2	−6
	2100	2.6	79

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Matarani, Peru, 2010

Times and Heights of High and Low Waters

April

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 Th	0301	−0.3 / −9	16 F	0233	0.1 / 3
	0933	3.4 / 104		0914	3.1 / 94
	1601	−0.1 / −3		1550	0.3 / 9
	2147	2.3 / 70		2123	1.9 / 58
2 F	0341	−0.2 / −6	17 Sa	0304	0.2 / 6
	1021	3.3 / 101		0952	3.1 / 94
	1659	0.1 / 3		1639	0.3 / 9
	2237	2.0 / 61		2204	1.7 / 52
3 Sa	0422	0.1 / 3	18 Su	0338	0.3 / 9
	1113	3.2 / 98		1036	3.1 / 94
	1803	0.3 / 9		1735	0.4 / 12
	2333	1.7 / 52		2253	1.5 / 46
4 Su	0508	0.3 / 9	19 M	0416	0.4 / 12
	1210	3.0 / 91		1125	3.0 / 91
	1917	0.4 / 12		1837	0.4 / 12
				2354	1.4 / 43
5 M	0041	1.5 / 46	20 Tu	0505	0.5 / 15
	0602	0.5 / 15		1221	2.9 / 88
	1315	2.8 / 85		1944	0.4 / 12
	2037	0.5 / 15			
6 Tu ◑	0207	1.4 / 43	21 W ◐	0111	1.3 / 40
	0711	0.7 / 21		0610	0.6 / 18
	1425	2.7 / 82		1325	2.8 / 85
	2149	0.5 / 15		2048	0.4 / 12
7 W	0333	1.4 / 43	22 Th	0234	1.5 / 46
	0833	0.8 / 24		0733	0.7 / 21
	1532	2.6 / 79		1431	2.8 / 85
	2243	0.4 / 12		2142	0.2 / 6
8 Th	0437	1.6 / 49	23 F	0344	1.7 / 52
	0948	0.8 / 24		0900	0.7 / 21
	1628	2.6 / 79		1534	2.8 / 85
	2322	0.4 / 12		2229	0.1 / 3
9 F	0521	1.8 / 55	24 Sa	0441	2.1 / 64
	1049	0.7 / 21		1017	0.6 / 18
	1713	2.6 / 79		1632	2.7 / 82
	2353	0.3 / 9		2310	−0.1 / −3
10 Sa	0557	2.0 / 61	25 Su	0530	2.4 / 73
	1138	0.6 / 18		1124	0.4 / 12
	1751	2.5 / 76		1726	2.7 / 82
				2350	−0.2 / −6
11 Su	0019	0.2 / 6	26 M	0616	2.8 / 85
	0629	2.3 / 70		1224	0.2 / 6
	1221	0.5 / 15		1817	2.6 / 79
	1826	2.5 / 76			
12 M	0044	0.1 / 3	27 Tu	0029	−0.3 / −9
	0700	2.5 / 76		0700	3.2 / 98
	1302	0.4 / 12		1320	0.1 / 3
	1900	2.4 / 73		1906	2.4 / 73
13 Tu	0110	0.1 / 3	28 W ○	0107	−0.3 / −9
	0731	2.7 / 82		0744	3.4 / 104
	1342	0.3 / 9		1414	0.0 / 0
	1934	2.3 / 70		1954	2.2 / 67
14 W ●	0137	0.0 / 0	29 Th	0147	−0.3 / −9
	0804	2.9 / 88		0829	3.5 / 107
	1423	0.2 / 6		1507	0.0 / 0
	2008	2.2 / 67		2043	2.0 / 61
15 Th	0204	0.0 / 0	30 F	0227	−0.2 / −6
	0838	3.0 / 91		0914	3.5 / 107
	1505	0.2 / 6		1601	0.0 / 0
	2044	2.0 / 61		2133	1.8 / 55

May

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 Sa	0308	0.0 / 0	16 Su	0236	0.1 / 3
	1001	3.5 / 107		0936	3.4 / 104
	1657	0.1 / 3		1637	0.1 / 3
	2226	1.6 / 49		2159	1.5 / 46
2 Su	0352	0.2 / 6	17 M	0319	0.2 / 6
	1050	3.3 / 101		1022	3.4 / 104
	1755	0.2 / 6		1728	0.1 / 3
	2324	1.5 / 46		2254	1.5 / 46
3 M	0438	0.4 / 12	18 Tu	0406	0.3 / 9
	1142	3.1 / 94		1110	3.3 / 101
	1856	0.3 / 9		1822	0.1 / 3
				2357	1.5 / 46
4 Tu	0030	1.4 / 43	19 W	0502	0.4 / 12
	0531	0.6 / 18		1202	3.2 / 98
	1236	2.9 / 88		1916	0.1 / 3
	1957	0.3 / 9			
5 W ◑	0143	1.4 / 43	20 Th ◐	0105	1.6 / 49
	0634	0.8 / 24		0609	0.6 / 18
	1333	2.7 / 82		1258	3.0 / 91
	2052	0.4 / 12		2008	0.0 / 0
6 Th	0254	1.5 / 46	21 F	0216	1.8 / 55
	0747	0.9 / 27		0727	0.7 / 21
	1429	2.5 / 76		1357	2.8 / 85
	2139	0.3 / 9		2057	0.0 / 0
7 F	0354	1.7 / 52	22 Sa	0321	2.0 / 61
	0902	0.9 / 27		0850	0.8 / 24
	1521	2.4 / 73		1457	2.6 / 79
	2216	0.3 / 9		2144	−0.1 / −3
8 Sa	0440	1.9 / 58	23 Su	0419	2.4 / 73
	1009	0.9 / 27		1010	0.7 / 21
	1609	2.3 / 70		1558	2.4 / 73
	2248	0.3 / 9		2228	−0.1 / −3
9 Su	0518	2.2 / 67	24 M	0511	2.7 / 82
	1107	0.8 / 24		1123	0.6 / 18
	1653	2.2 / 67		1657	2.2 / 67
	2317	0.2 / 6		2311	−0.2 / −6
10 M	0552	2.4 / 73	25 Tu	0600	3.1 / 94
	1158	0.7 / 21		1227	0.4 / 12
	1735	2.1 / 64		1754	2.0 / 61
	2346	0.1 / 3		2354	−0.2 / −6
11 Tu	0626	2.7 / 82	26 W	0646	3.3 / 101
	1244	0.5 / 15		1325	0.2 / 6
	1816	2.0 / 61		1848	1.9 / 58
12 W	0016	0.1 / 3	27 Th ○	0036	−0.2 / −6
	0700	2.9 / 88		0732	3.5 / 107
	1329	0.4 / 12		1419	0.1 / 3
	1857	1.9 / 58		1941	1.8 / 55
13 Th ●	0048	0.0 / 0	28 F	0119	−0.1 / −3
	0736	3.1 / 94		0816	3.6 / 110
	1414	0.3 / 9		1510	0.1 / 3
	1939	1.8 / 55		2032	1.7 / 52
14 F	0122	0.0 / 0	29 Sa	0202	0.0 / 0
	0814	3.3 / 101		0901	3.6 / 110
	1500	0.2 / 6		1559	0.0 / 0
	2023	1.7 / 52		2123	1.6 / 49
15 Sa	0158	0.0 / 0	30 Su	0245	0.1 / 3
	0854	3.4 / 104		0945	3.5 / 107
	1547	0.2 / 6		1648	0.1 / 3
	2109	1.6 / 49		2214	1.5 / 46
			31 M	0329	0.2 / 6
				1029	3.4 / 104
				1735	0.1 / 3
				2307	1.5 / 46

June

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 Tu	0415	0.4 / 12	16 W	0401	0.1 / 3
	1112	3.2 / 98		1052	3.5 / 107
	1822	0.2 / 6		1752	−0.2 / −6
				2340	1.8 / 55
2 W	0002	1.5 / 46	17 Th	0459	0.3 / 9
	0503	0.6 / 18		1140	3.3 / 101
	1156	2.9 / 88		1838	−0.2 / −6
	1907	0.2 / 6			
3 Th	0101	1.6 / 49	18 F ◐	0042	1.9 / 58
	0556	0.8 / 24		0603	0.5 / 15
	1239	2.7 / 82		1230	3.0 / 91
	1950	0.3 / 9		1925	−0.1 / −3
4 F ◑	0201	1.6 / 49	19 Sa	0147	2.1 / 64
	0657	1.0 / 30		0717	0.7 / 21
	1323	2.5 / 76		1325	2.6 / 79
	2029	0.3 / 9		2013	−0.1 / −3
5 Sa	0258	1.8 / 55	20 Su	0253	2.4 / 73
	0807	1.1 / 34		0841	0.8 / 24
	1409	2.2 / 67		1424	2.3 / 70
	2105	0.3 / 9		2101	−0.1 / −3
6 Su	0348	2.0 / 61	21 M	0356	2.6 / 79
	0922	1.1 / 34		1009	0.8 / 24
	1457	2.0 / 61		1529	2.0 / 61
	2140	0.3 / 9		2150	−0.1 / −3
7 M	0433	2.2 / 67	22 Tu	0454	2.9 / 88
	1033	1.0 / 30		1129	0.7 / 21
	1549	1.9 / 58		1637	1.7 / 52
	2214	0.2 / 6		2240	0.0 / 0
8 Tu	0513	2.5 / 76	23 W	0548	3.2 / 98
	1136	0.9 / 27		1236	0.5 / 15
	1642	1.7 / 52		1743	1.6 / 49
	2249	0.2 / 6		2329	0.0 / 0
9 W	0553	2.8 / 85	24 Th	0637	3.4 / 104
	1230	0.7 / 21		1333	0.3 / 9
	1734	1.6 / 49		1842	1.6 / 49
	2327	0.1 / 3			
10 Th	0632	3.1 / 94	25 F	0016	0.0 / 0
	1319	0.5 / 15		0723	3.5 / 107
	1826	1.6 / 49		1421	0.2 / 6
				1935	1.5 / 46
11 F	0007	0.1 / 3	26 Sa ○	0102	0.0 / 0
	0712	3.3 / 101		0806	3.6 / 110
	1405	0.3 / 9		1505	0.1 / 3
	1916	1.6 / 49		2024	1.6 / 49
12 Sa ●	0050	0.0 / 0	27 Su	0147	0.0 / 0
	0754	3.5 / 107		0847	3.5 / 107
	1450	0.2 / 6		1546	0.1 / 3
	2006	1.6 / 49		2109	1.6 / 49
13 Su	0134	0.0 / 0	28 M	0230	0.1 / 3
	0836	3.6 / 110		0926	3.5 / 107
	1535	0.0 / 0		1624	0.0 / 0
	2056	1.6 / 49		2154	1.6 / 49
14 M	0220	0.0 / 0	29 Tu	0312	0.2 / 6
	0920	3.7 / 113		1003	3.3 / 101
	1620	−0.1 / −3		1701	0.1 / 3
	2148	1.6 / 49		2238	1.7 / 52
15 Tu	0309	0.0 / 0	30 W	0353	0.4 / 12
	1005	3.6 / 110		1039	3.1 / 94
	1706	−0.1 / −3		1737	0.1 / 3
	2242	1.7 / 52		2323	1.7 / 52

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Matarani, Peru, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0436	0.5	15
	1114	2.9	88
	1812	0.2	6
2 F	0010	1.7	52
	0521	0.7	21
	1149	2.6	79
	1846	0.2	6
3 Sa	0100	1.8	55
	0612	0.9	27
	1224	2.4	73
	1919	0.3	9
4 Su ◑	0153	1.9	58
	0716	1.1	34
	1302	2.1	64
	1953	0.3	9
5 M	0248	2.1	64
	0835	1.2	37
	1348	1.8	55
	2030	0.4	12
6 Tu	0343	2.3	70
	1002	1.1	34
	1446	1.6	49
	2112	0.3	9
7 W	0434	2.5	76
	1120	1.0	30
	1556	1.5	46
	2159	0.3	9
8 Th	0521	2.8	85
	1219	0.7	21
	1704	1.4	43
	2249	0.2	6
9 F	0607	3.1	94
	1306	0.5	15
	1804	1.5	46
	2339	0.1	3
10 Sa	0651	3.4	104
	1349	0.3	9
	1859	1.5	46
11 Su ●	0030	0.0	0
	0734	3.6	110
	1430	0.1	3
	1949	1.7	52
12 M	0120	−0.1	−3
	0817	3.8	116
	1510	−0.1	−3
	2039	1.8	55
13 Tu	0210	−0.2	−6
	0901	3.8	116
	1550	−0.2	−6
	2128	2.0	61
14 W	0301	−0.1	−3
	0944	3.7	113
	1631	−0.3	−9
	2220	2.1	64
15 Th	0354	0.0	0
	1029	3.5	107
	1713	−0.3	−9
	2313	2.2	67

	Time	Height	
	h m	ft	cm
16 F	0451	0.2	6
	1115	3.2	98
	1756	−0.3	−9
17 Sa	0011	2.4	73
	0555	0.4	12
	1203	2.8	85
	1842	−0.2	−6
18 Su ◐	0114	2.5	76
	0709	0.7	21
	1257	2.3	70
	1930	−0.1	−3
19 M	0222	2.6	79
	0837	0.8	24
	1400	1.9	58
	2023	0.0	0
20 Tu	0332	2.8	85
	1013	0.8	24
	1515	1.6	49
	2121	0.1	3
21 W	0438	3.0	91
	1137	0.6	18
	1635	1.5	46
	2220	0.2	6
22 Th	0537	3.1	94
	1240	0.4	12
	1745	1.5	46
	2317	0.2	6
23 F	0627	3.3	101
	1329	0.3	9
	1842	1.5	46
24 Sa	0008	0.1	3
	0711	3.4	104
	1409	0.2	6
	1928	1.6	49
25 Su ○	0054	0.1	3
	0751	3.4	104
	1444	0.1	3
	2009	1.7	52
26 M	0137	0.1	3
	0827	3.4	104
	1515	0.1	3
	2047	1.8	55
27 Tu	0216	0.1	3
	0900	3.3	101
	1546	0.0	0
	2124	1.9	58
28 W	0255	0.2	6
	0933	3.2	98
	1616	0.1	3
	2201	1.9	58
29 Th	0333	0.3	9
	1004	3.0	91
	1645	0.1	3
	2239	2.0	61
30 F	0412	0.5	15
	1034	2.8	85
	1714	0.2	6
	2319	2.0	61
31 Sa	0453	0.7	21
	1104	2.5	76
	1742	0.3	9

August

	Time	Height	
	h m	ft	cm
1 Su	0001	2.0	61
	0540	0.8	24
	1135	2.2	67
	1811	0.3	9
2 M ◑	0049	2.1	64
	0639	1.0	30
	1209	1.9	58
	1844	0.4	12
3 Tu	0146	2.2	67
	0800	1.1	34
	1253	1.6	49
	1923	0.5	15
4 W	0250	2.3	70
	0942	1.1	34
	1402	1.4	43
	2016	0.5	15
5 Th	0354	2.5	76
	1106	0.9	27
	1532	1.3	40
	2120	0.4	12
6 F	0451	2.8	85
	1201	0.7	21
	1651	1.4	43
	2224	0.3	9
7 Sa	0541	3.1	94
	1242	0.4	12
	1751	1.5	46
	2323	0.1	3
8 Su	0627	3.4	104
	1320	0.2	6
	1843	1.7	52
9 M ●	0017	−0.1	−3
	0711	3.6	110
	1357	−0.1	−3
	1930	2.0	61
10 Tu	0110	−0.2	−6
	0754	3.7	113
	1434	−0.2	−6
	2017	2.2	67
11 W	0201	−0.3	−9
	0837	3.7	113
	1512	−0.4	−12
	2104	2.4	73
12 Th	0253	−0.3	−9
	0920	3.5	107
	1551	−0.4	−12
	2153	2.6	79
13 F	0346	−0.1	−3
	1004	3.2	98
	1631	−0.4	−12
	2244	2.7	82
14 Sa	0443	0.1	3
	1050	2.8	85
	1713	−0.3	−9
	2340	2.8	85
15 Su	0547	0.3	9
	1140	2.4	73
	1758	−0.1	−3

	Time	Height	
	h m	ft	cm
16 M ◐	0041	2.8	85
	0703	0.6	18
	1237	2.0	61
	1849	0.1	3
17 Tu	0151	2.8	85
	0836	0.7	21
	1350	1.6	49
	1950	0.3	9
18 W	0308	2.8	85
	1013	0.7	21
	1519	1.4	43
	2100	0.4	12
19 Th	0420	2.9	88
	1131	0.5	15
	1644	1.4	43
	2210	0.4	12
20 F	0520	3.0	91
	1225	0.4	12
	1747	1.5	46
	2311	0.3	9
21 Sa	0610	3.1	94
	1305	0.3	9
	1833	1.7	52
22 Su	0001	0.2	6
	0651	3.2	98
	1337	0.2	6
	1911	1.8	55
23 M	0045	0.2	6
	0726	3.2	98
	1406	0.1	3
	1946	2.0	61
24 Tu ○	0124	0.1	3
	0758	3.1	94
	1432	0.1	3
	2018	2.1	64
25 W	0201	0.1	3
	0829	3.0	91
	1458	0.0	0
	2051	2.2	67
26 Th	0238	0.2	6
	0858	2.9	88
	1524	0.1	3
	2124	2.3	70
27 F	0315	0.3	9
	0928	2.7	82
	1550	0.1	3
	2158	2.4	73
28 Sa	0353	0.4	12
	0958	2.5	76
	1616	0.2	6
	2234	2.4	73
29 Su	0434	0.6	18
	1028	2.2	67
	1642	0.3	9
	2312	2.4	73
30 M	0522	0.7	21
	1059	1.9	58
	1709	0.4	12
	2357	2.3	70
31 Tu	0622	0.9	27
	1135	1.6	49
	1741	0.5	15

September

	Time	Height	
	h m	ft	cm
1 W ◑	0053	2.3	70
	0746	1.0	30
	1227	1.4	43
	1825	0.6	18
2 Th	0202	2.4	73
	0927	0.9	27
	1355	1.3	40
	1932	0.6	18
3 F	0315	2.6	79
	1041	0.8	24
	1535	1.3	40
	2054	0.6	18
4 Sa	0418	2.8	85
	1129	0.5	15
	1645	1.5	46
	2208	0.4	12
5 Su	0511	3.0	91
	1206	0.3	9
	1738	1.7	52
	2311	0.2	6
6 M	0558	3.2	98
	1242	0.0	0
	1825	2.1	64
7 Tu	0008	0.0	0
	0643	3.4	104
	1317	−0.2	−6
	1910	2.4	73
8 W	0101	−0.2	−6
	0727	3.4	104
	1354	−0.3	−9
	1955	2.7	82
9 Th	0153	−0.3	−9
	0810	3.3	101
	1431	−0.4	−12
	2040	3.0	91
10 F	0245	−0.3	−9
	0854	3.1	94
	1509	−0.4	−12
	2127	3.1	94
11 Sa	0339	−0.2	−6
	0940	2.8	85
	1549	−0.3	−9
	2217	3.2	98
12 Su	0438	0.0	0
	1028	2.4	73
	1631	−0.2	−6
	2311	3.1	94
13 M	0543	0.3	9
	1122	2.0	61
	1718	0.1	3
14 Tu	0011	3.0	91
	0700	0.4	12
	1227	1.7	52
	1812	0.3	9
15 W ◐	0121	2.9	88
	0830	0.5	15
	1351	1.4	43
	1920	0.5	15

	Time	Height	
	h m	ft	cm
16 Th	0238	2.8	85
	0957	0.5	15
	1526	1.4	43
	2041	0.6	18
17 F	0351	2.8	85
	1103	0.4	12
	1641	1.5	46
	2157	0.6	18
18 Sa	0451	2.8	85
	1149	0.3	9
	1733	1.7	52
	2259	0.5	15
19 Su	0539	2.9	88
	1224	0.2	6
	1813	1.9	58
	2348	0.4	12
20 M	0618	2.9	88
	1253	0.2	6
	1846	2.1	64
21 Tu	0030	0.3	9
	0651	2.8	85
	1318	0.1	3
	1917	2.3	70
22 W	0108	0.2	6
	0722	2.8	85
	1342	0.1	3
	1947	2.5	76
23 Th ○	0146	0.2	6
	0753	2.7	82
	1407	0.0	0
	2018	2.6	79
24 F	0223	0.2	6
	0823	2.5	76
	1432	0.1	3
	2050	2.7	82
25 Sa	0301	0.3	9
	0855	2.3	70
	1458	0.1	3
	2123	2.7	82
26 Su	0342	0.4	12
	0927	2.1	64
	1524	0.2	6
	2158	2.7	82
27 M	0426	0.5	15
	1001	1.9	58
	1551	0.3	9
	2237	2.7	82
28 Tu	0517	0.6	18
	1038	1.6	49
	1620	0.4	12
	2322	2.6	79
29 W	0621	0.7	21
	1125	1.4	43
	1656	0.6	18
30 Th ◑	0017	2.6	79
	0740	0.8	24
	1235	1.3	40
	1748	0.7	21

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Matarani, Peru, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0123	2.6	79
	0900	0.7	21
	1411	1.2	37
	1907	0.7	21
2 Sa	0235	2.6	79
	1000	0.5	15
	1534	1.4	43
	2037	0.7	21
3 Su	0339	2.8	85
	1045	0.3	9
	1634	1.7	52
	2156	0.5	15
4 M	0435	2.9	88
	1123	0.1	3
	1722	2.0	61
	2302	0.3	9
5 Tu	0526	3.0	91
	1200	−0.1	−3
	1806	2.4	73
6 W	0000	0.1	3
	0613	3.0	91
	1236	−0.3	−9
	1850	2.8	85
7 Th ●	0054	−0.1	−3
	0659	2.9	88
	1313	−0.4	−12
	1934	3.2	98
8 F	0148	−0.2	−6
	0745	2.8	85
	1351	−0.4	−12
	2019	3.4	104
9 Sa	0241	−0.2	−6
	0832	2.5	76
	1431	−0.4	−12
	2105	3.5	107
10 Su	0336	−0.1	−3
	0920	2.2	67
	1512	−0.2	−6
	2154	3.5	107
11 M	0435	0.0	0
	1012	2.0	61
	1555	0.0	0
	2247	3.4	104
12 Tu	0540	0.2	6
	1111	1.7	52
	1643	0.2	6
	2344	3.2	98
13 W	0652	0.3	9
	1221	1.5	46
	1739	0.5	15
14 Th ◐	0049	3.0	91
	0809	0.4	12
	1347	1.4	43
	1850	0.7	21
15 F	0158	2.8	85
	0921	0.4	12
	1512	1.5	46
	2012	0.8	24

	Time	Height	
	h m	ft	cm
16 Sa	0306	2.7	82
	1017	0.3	9
	1618	1.7	52
	2130	0.8	24
17 Su	0404	2.6	79
	1059	0.3	9
	1706	1.9	58
	2234	0.7	21
18 M	0452	2.5	76
	1132	0.2	6
	1744	2.1	64
	2326	0.6	18
19 Tu	0533	2.5	76
	1200	0.2	6
	1816	2.3	70
20 W	0011	0.5	15
	0609	2.4	73
	1225	0.1	3
	1847	2.6	79
21 Th	0052	0.4	12
	0643	2.3	70
	1251	0.1	3
	1917	2.8	85
22 F ○	0132	0.3	9
	0716	2.2	67
	1317	0.0	0
	1949	2.9	88
23 Sa	0212	0.3	9
	0751	2.1	64
	1345	0.1	3
	2022	3.0	91
24 Su	0253	0.3	9
	0827	1.9	58
	1413	0.1	3
	2057	3.1	94
25 M	0337	0.3	9
	0905	1.8	55
	1443	0.2	6
	2135	3.1	94
26 Tu	0425	0.4	12
	0946	1.6	49
	1515	0.3	9
	2215	3.0	91
27 W	0517	0.4	12
	1033	1.4	43
	1551	0.4	12
	2301	3.0	91
28 Th	0616	0.5	15
	1131	1.3	40
	1635	0.5	15
	2353	2.9	88
29 F	0719	0.4	12
	1244	1.3	40
	1735	0.7	21
30 Sa ◑	0052	2.8	85
	0819	0.4	12
	1405	1.4	43
	1854	0.8	24
31 Su	0155	2.7	82
	0912	0.3	9
	1516	1.6	49
	2023	0.8	24

November

	Time	Height	
	h m	ft	cm
1 M	0258	2.7	82
	0957	0.1	3
	1613	2.0	61
	2144	0.7	21
2 Tu	0357	2.6	79
	1038	0.0	0
	1702	2.4	73
	2254	0.5	15
3 W	0452	2.6	79
	1118	−0.2	−6
	1748	2.8	85
	2356	0.3	9
4 Th	0544	2.5	76
	1157	−0.3	−9
	1833	3.2	98
5 F ●	0054	0.1	3
	0635	2.3	70
	1237	−0.4	−12
	1918	3.5	107
6 Sa	0149	0.0	0
	0726	2.2	67
	1318	−0.4	−12
	2003	3.6	110
7 Su	0243	−0.1	−3
	0816	2.0	61
	1400	−0.3	−9
	2050	3.7	113
8 M	0337	−0.1	−3
	0908	1.8	55
	1443	−0.1	−3
	2138	3.7	113
9 Tu	0433	0.0	0
	1002	1.7	52
	1528	0.0	0
	2227	3.5	107
10 W	0531	0.1	3
	1101	1.5	46
	1617	0.3	9
	2319	3.3	101
11 Th	0631	0.2	6
	1207	1.5	46
	1711	0.5	15
12 F	0013	3.0	91
	0731	0.2	6
	1320	1.5	46
	1814	0.7	21
13 Sa ◐	0110	2.8	85
	0828	0.3	9
	1433	1.6	49
	1928	0.9	27
14 Su	0207	2.6	79
	0917	0.3	9
	1536	1.8	55
	2046	1.0	30
15 M	0301	2.4	73
	0957	0.3	9
	1627	2.0	61
	2157	0.9	27

	Time	Height	
	h m	ft	cm
16 Tu	0351	2.2	67
	1031	0.2	6
	1707	2.2	67
	2259	0.9	27
17 W	0437	2.1	64
	1102	0.2	6
	1743	2.5	76
	2351	0.7	21
18 Th	0520	2.0	61
	1131	0.1	3
	1816	2.7	82
19 F	0038	0.6	18
	0602	1.9	58
	1201	0.1	3
	1850	2.9	88
20 Sa	0122	0.5	15
	0643	1.8	55
	1232	0.1	3
	1924	3.1	94
21 Su ○	0205	0.4	12
	0725	1.7	52
	1306	0.1	3
	2000	3.3	101
22 M	0248	0.3	9
	0807	1.7	52
	1341	0.1	3
	2038	3.4	104
23 Tu	0332	0.2	6
	0851	1.6	49
	1417	0.1	3
	2118	3.4	104
24 W	0418	0.2	6
	0938	1.5	46
	1457	0.2	6
	2200	3.4	104
25 Th	0506	0.2	6
	1029	1.5	46
	1541	0.3	9
	2244	3.3	101
26 F	0555	0.2	6
	1126	1.5	46
	1631	0.4	12
	2331	3.2	98
27 Sa	0644	0.1	3
	1230	1.5	46
	1731	0.6	18
28 Su ◑	0022	3.0	91
	0734	0.1	3
	1338	1.7	52
	1844	0.8	24
29 M	0117	2.8	85
	0822	0.0	0
	1446	2.0	61
	2008	0.8	24
30 Tu	0217	2.5	76
	0909	0.0	0
	1547	2.3	70
	2134	0.8	24

December

	Time	Height	
	h m	ft	cm
1 W	0319	2.3	70
	0954	−0.1	−3
	1642	2.7	82
	2252	0.7	21
2 Th	0422	2.1	64
	1039	−0.1	−3
	1733	3.0	91
3 F	0000	0.5	15
	0523	2.0	61
	1124	−0.2	−6
	1821	3.3	101
4 Sa	0101	0.3	9
	0621	1.8	55
	1209	−0.2	−6
	1908	3.6	110
5 Su ●	0156	0.1	3
	0716	1.8	55
	1255	−0.2	−6
	1954	3.7	113
6 M	0247	0.0	0
	0809	1.7	52
	1340	−0.2	−6
	2039	3.8	116
7 Tu	0336	−0.1	−3
	0900	1.7	52
	1425	−0.1	−3
	2124	3.7	113
8 W	0424	−0.1	−3
	0951	1.6	49
	1511	0.1	3
	2208	3.5	107
9 Th	0511	0.0	0
	1043	1.6	49
	1557	0.3	9
	2252	3.3	101
10 F	0557	0.1	3
	1137	1.6	49
	1645	0.5	15
	2335	3.1	94
11 Sa	0642	0.1	3
	1235	1.6	49
	1737	0.7	21
12 Su	0018	2.8	85
	0725	0.2	6
	1335	1.7	52
	1837	0.9	27
13 M ◐	0102	2.5	76
	0807	0.3	9
	1437	1.8	55
	1948	1.1	34
14 Tu	0147	2.2	67
	0846	0.3	9
	1533	2.0	61
	2108	1.1	34
15 W	0238	2.0	61
	0923	0.3	9
	1623	2.2	67
	2227	1.1	34

	Time	Height	
	h m	ft	cm
16 Th	0333	1.8	55
	1000	0.3	9
	1706	2.5	76
	2334	0.9	27
17 F	0430	1.6	49
	1037	0.3	9
	1746	2.7	82
18 Sa	0028	0.7	21
	0525	1.6	49
	1116	0.2	6
	1824	3.0	91
19 Su	0115	0.6	18
	0617	1.5	46
	1156	0.1	3
	1903	3.2	98
20 M	0157	0.4	12
	0705	1.5	46
	1237	0.1	3
	1942	3.4	104
21 Tu ○	0238	0.2	6
	0752	1.6	49
	1320	0.0	0
	2021	3.6	110
22 W	0318	0.1	3
	0838	1.6	49
	1403	0.0	0
	2101	3.6	110
23 Th	0358	0.0	0
	0925	1.7	52
	1448	0.0	0
	2142	3.6	110
24 F	0439	−0.1	−3
	1013	1.7	52
	1535	0.1	3
	2225	3.5	107
25 Sa	0521	−0.1	−3
	1106	1.8	55
	1627	0.3	9
	2308	3.3	101
26 Su	0603	−0.1	−3
	1202	1.9	58
	1725	0.5	15
	2354	3.0	91
27 M ◑	0647	−0.1	−3
	1304	2.1	64
	1834	0.7	21
28 Tu	0044	2.6	79
	0733	−0.1	−3
	1411	2.3	70
	1956	0.8	24
29 W	0142	2.3	70
	0822	0.0	0
	1519	2.5	76
	2129	0.9	27
30 Th	0248	1.9	58
	0914	0.0	0
	1623	2.8	85
	2258	0.7	21
31 F	0403	1.7	52
	1008	0.0	0
	1721	3.1	94

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Callao, Peru, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0024	0.9	27
	0519	2.1	64
	1127	−0.1	−3
	1836	3.7	113
2 Sa	0111	0.8	24
	0613	2.1	64
	1216	−0.1	−3
	1921	3.7	113
3 Su	0159	0.7	21
	0710	2.1	64
	1306	0.1	3
	2006	3.6	110
4 M	0247	0.6	18
	0810	2.1	64
	1358	0.3	9
	2052	3.4	104
5 Tu	0338	0.6	18
	0915	2.1	64
	1454	0.6	18
	2139	3.2	98
6 W	0430	0.6	18
	1029	2.2	67
	1559	1.0	30
	2228	2.9	88
7 Th ◑	0524	0.5	15
	1153	2.3	70
	1720	1.3	40
	2321	2.6	79
8 F	0620	0.5	15
	1318	2.4	73
	1859	1.5	46
9 Sa	0021	2.3	70
	0716	0.5	15
	1434	2.7	82
	2041	1.5	46
10 Su	0126	2.1	64
	0809	0.4	12
	1534	2.9	88
	2202	1.4	43
11 M	0231	1.9	58
	0858	0.4	12
	1623	3.1	94
	2300	1.3	40
12 Tu	0328	1.9	58
	0943	0.4	12
	1704	3.2	98
	2345	1.2	37
13 W	0416	1.9	58
	1023	0.3	9
	1741	3.3	101
14 Th	0021	1.2	37
	0458	1.9	58
	1100	0.3	9
	1814	3.3	101
15 F ●	0053	1.1	34
	0536	1.9	58
	1135	0.4	12
	1845	3.3	101

	Time	Height	
	h m	ft	cm
16 Sa	0124	1.1	34
	0613	1.9	58
	1208	0.4	12
	1914	3.2	98
17 Su	0153	1.1	34
	0649	1.9	58
	1239	0.5	15
	1942	3.1	94
18 M	0221	1.1	34
	0725	1.9	58
	1310	0.7	21
	2007	3.0	91
19 Tu	0248	1.1	34
	0802	1.9	58
	1339	0.9	27
	2030	2.8	85
20 W	0314	1.0	30
	0843	1.9	58
	1410	1.1	34
	2051	2.7	82
21 Th	0341	1.0	30
	0932	2.0	61
	1446	1.3	40
	2112	2.5	76
22 F	0410	1.0	30
	1034	2.0	61
	1534	1.5	46
	2137	2.4	73
23 Sa ◐	0448	0.9	27
	1154	2.1	64
	1655	1.7	52
	2212	2.2	67
24 Su	0538	0.8	24
	1319	2.3	70
	1859	1.8	55
	2312	2.1	64
25 M	0638	0.7	21
	1426	2.6	79
	2046	1.7	52
26 Tu	0042	2.0	61
	0742	0.5	15
	1519	2.9	88
	2150	1.5	46
27 W	0209	2.0	61
	0842	0.3	9
	1606	3.3	101
	2237	1.3	40
28 Th	0320	2.1	64
	0937	0.2	6
	1650	3.5	107
	2320	1.1	34
29 F	0421	2.2	67
	1030	0.0	0
	1733	3.7	113
30 Sa ○	0002	0.8	24
	0516	2.4	73
	1120	0.0	0
	1815	3.8	116
31 Su	0044	0.7	21
	0609	2.5	76
	1210	0.0	0
	1857	3.8	116

February

	Time	Height	
	h m	ft	cm
1 M	0126	0.5	15
	0703	2.6	79
	1259	0.2	6
	1939	3.6	110
2 Tu	0209	0.5	15
	0758	2.6	79
	1350	0.5	15
	2021	3.4	104
3 W	0254	0.5	15
	0857	2.6	79
	1445	0.8	24
	2104	3.0	91
4 Th	0341	0.5	15
	1003	2.6	79
	1548	1.2	37
	2149	2.7	82
5 F ◑	0432	0.6	18
	1121	2.6	79
	1711	1.5	46
	2239	2.3	70
6 Sa	0530	0.7	21
	1250	2.6	79
	1905	1.6	49
	2345	2.1	64
7 Su	0636	0.8	24
	1415	2.8	85
	2101	1.6	49
8 M	0112	1.9	58
	0743	0.8	24
	1520	2.9	88
	2213	1.4	43
9 Tu	0233	1.8	55
	0842	0.7	21
	1608	3.1	94
	2256	1.3	40
10 W	0332	1.9	58
	0931	0.7	21
	1646	3.2	98
	2328	1.2	37
11 Th	0416	2.0	61
	1012	0.6	18
	1718	3.2	98
	2354	1.2	37
12 F	0453	2.1	64
	1048	0.6	18
	1747	3.3	101
13 Sa ●	0018	1.1	34
	0527	2.2	67
	1122	0.6	18
	1813	3.3	101
14 Su	0041	1.0	30
	0600	2.3	70
	1154	0.6	18
	1838	3.2	98
15 M	0104	1.0	30
	0632	2.3	70
	1225	0.7	21
	1902	3.1	94

	Time	Height	
	h m	ft	cm
16 Tu	0126	1.0	30
	0704	2.4	73
	1255	0.8	24
	1924	2.9	88
17 W	0148	1.0	30
	0738	2.4	73
	1326	1.0	30
	1944	2.8	85
18 Th	0210	0.9	27
	0813	2.4	73
	1358	1.2	37
	2003	2.6	79
19 F	0232	0.9	27
	0855	2.4	73
	1434	1.4	43
	2021	2.4	73
20 Sa	0300	0.9	27
	0947	2.4	73
	1524	1.6	49
	2043	2.3	70
21 Su ◐	0338	0.9	27
	1100	2.4	73
	1646	1.8	55
	2115	2.1	64
22 M	0434	0.9	27
	1231	2.6	79
	1905	1.9	58
	2225	2.0	61
23 Tu	0551	0.9	27
	1352	2.8	85
	2045	1.7	52
24 W	0032	1.9	58
	0714	0.7	21
	1451	3.0	91
	2134	1.4	43
25 Th	0212	2.0	61
	0826	0.6	18
	1540	3.3	101
	2214	1.2	37
26 F	0321	2.2	67
	0926	0.4	12
	1624	3.5	107
	2253	0.9	27
27 Sa	0419	2.5	76
	1021	0.3	9
	1706	3.7	113
	2331	0.7	21
28 Su ○	0511	2.7	82
	1112	0.2	6
	1747	3.7	113

March

	Time	Height	
	h m	ft	cm
1 M	0010	0.5	15
	0601	2.9	88
	1202	0.3	9
	1828	3.6	110
2 Tu	0049	0.4	12
	0651	3.0	91
	1252	0.5	15
	1908	3.4	104
3 W	0129	0.4	12
	0742	3.1	94
	1343	0.7	21
	1948	3.1	94
4 Th	0210	0.4	12
	0836	3.0	91
	1439	1.0	30
	2029	2.7	82
5 F	0253	0.6	18
	0937	2.9	88
	1544	1.3	40
	2112	2.4	73
6 Sa	0340	0.7	21
	1048	2.8	85
	1713	1.6	49
	2203	2.1	64
7 Su ◑	0437	0.9	27
	1215	2.8	85
	1919	1.6	49
	2322	1.9	58
8 M	0550	1.0	30
	1342	2.8	85
	2103	1.5	46
9 Tu	0116	1.8	55
	0712	1.1	34
	1448	2.9	88
	2155	1.4	43
10 W	0238	1.9	58
	0820	1.0	30
	1535	3.0	91
	2226	1.3	40
11 Th	0330	2.0	61
	0911	1.0	30
	1611	3.1	94
	2250	1.2	37
12 F	0407	2.2	67
	0953	0.9	27
	1640	3.1	94
	2310	1.1	34
13 Sa	0439	2.3	70
	1029	0.8	24
	1706	3.1	94
	2330	1.0	30
14 Su	0510	2.5	76
	1103	0.8	24
	1731	3.1	94
	2351	0.9	27
15 M ●	0541	2.6	79
	1136	0.8	24
	1755	3.0	91

	Time	Height	
	h m	ft	cm
16 Tu	0012	0.9	27
	0612	2.7	82
	1209	0.9	27
	1818	2.9	88
17 W	0033	0.8	24
	0644	2.8	85
	1243	1.0	30
	1841	2.8	85
18 Th	0055	0.8	24
	0717	2.8	85
	1318	1.2	37
	1902	2.6	79
19 F	0117	0.8	24
	0753	2.8	85
	1356	1.4	43
	1923	2.4	73
20 Sa	0142	0.8	24
	0834	2.8	85
	1440	1.5	46
	1945	2.3	70
21 Su	0213	0.8	24
	0926	2.8	85
	1542	1.7	52
	2012	2.1	64
22 M	0254	0.9	27
	1034	2.8	85
	1719	1.8	55
	2058	2.0	61
23 Tu ◐	0354	1.0	30
	1157	2.8	85
	1917	1.7	52
	2245	1.8	55
24 W	0522	1.0	30
	1315	2.9	88
	2023	1.5	46
25 Th	0056	1.9	58
	0655	1.0	30
	1416	3.1	94
	2105	1.2	37
26 F	0220	2.1	64
	0812	0.8	24
	1507	3.3	101
	2143	1.0	30
27 Sa	0322	2.5	76
	0915	0.7	21
	1552	3.4	104
	2220	0.7	21
28 Su	0414	2.8	85
	1011	0.6	18
	1634	3.4	104
	2257	0.5	15
29 M ○	0503	3.1	94
	1104	0.6	18
	1715	3.4	104
	2334	0.3	9
30 Tu	0551	3.3	101
	1155	0.6	18
	1755	3.2	98
31 W	0012	0.3	9
	0639	3.4	104
	1247	0.8	24
	1836	3.0	91

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Callao, Peru, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0050	0.3	9
	0727	3.4	104
	1340	1.0	30
	1916	2.7	82
2 F	0129	0.4	12
	0818	3.3	101
	1439	1.2	37
	1957	2.4	73
3 Sa	0209	0.6	18
	0914	3.2	98
	1548	1.4	43
	2041	2.1	64
4 Su	0253	0.8	24
	1019	3.0	91
	1720	1.6	49
	2137	1.9	58
5 M	0345	1.0	30
	1134	2.9	88
	1912	1.5	46
	2313	1.7	52
6 Tu ◑	0456	1.2	37
	1251	2.9	88
	2030	1.4	43
7 W	0112	1.8	55
	0624	1.3	40
	1354	2.9	88
	2111	1.3	40
8 Th	0227	1.9	58
	0740	1.3	40
	1441	2.9	88
	2137	1.2	37
9 F	0312	2.1	64
	0837	1.3	40
	1516	2.9	88
	2158	1.1	34
10 Sa	0346	2.3	70
	0922	1.2	37
	1546	2.9	88
	2217	1.0	30
11 Su	0417	2.5	76
	1002	1.1	34
	1613	2.9	88
	2237	0.9	27
12 M	0447	2.7	82
	1040	1.1	34
	1640	2.8	85
	2258	0.8	24
13 Tu	0518	2.9	88
	1117	1.1	34
	1706	2.7	82
	2321	0.7	21
14 W ●	0550	3.0	91
	1155	1.1	34
	1733	2.6	79
	2345	0.6	18
15 Th	0624	3.1	94
	1235	1.2	37
	1800	2.5	76

	Time	Height	
	h m	ft	cm
16 F	0011	0.6	18
	0700	3.2	98
	1317	1.3	40
	1827	2.4	73
17 Sa	0038	0.6	18
	0740	3.2	98
	1404	1.4	43
	1856	2.2	67
18 Su	0110	0.6	18
	0825	3.2	98
	1500	1.5	46
	1929	2.1	64
19 M	0147	0.7	21
	0917	3.1	94
	1611	1.6	49
	2016	1.9	58
20 Tu	0235	0.8	24
	1020	3.1	94
	1737	1.6	49
	2134	1.8	55
21 W ◐	0340	1.0	30
	1129	3.1	94
	1852	1.4	43
	2329	1.8	55
22 Th	0507	1.1	34
	1236	3.1	94
	1946	1.2	37
23 F	0110	2.0	61
	0639	1.1	34
	1336	3.1	94
	2028	1.0	30
24 Sa	0221	2.3	70
	0758	1.1	34
	1428	3.1	94
	2107	0.7	21
25 Su	0318	2.7	82
	0905	1.0	30
	1515	3.1	94
	2145	0.5	15
26 M	0408	3.0	91
	1005	1.0	30
	1559	3.0	91
	2223	0.3	9
27 Tu	0456	3.3	101
	1100	1.0	30
	1642	2.9	88
	2300	0.2	6
28 W ○	0542	3.5	107
	1154	1.0	30
	1724	2.7	82
	2338	0.2	6
29 Th	0629	3.6	110
	1248	1.1	34
	1805	2.5	76
30 F	0016	0.3	9
	0716	3.6	110
	1343	1.2	37
	1847	2.3	70

May

	Time	Height	
	h m	ft	cm
1 Sa	0055	0.4	12
	0804	3.5	107
	1443	1.3	40
	1930	2.1	64
2 Su	0134	0.6	18
	0855	3.3	101
	1551	1.4	43
	2018	1.9	58
3 M	0215	0.8	24
	0950	3.2	98
	1710	1.4	43
	2120	1.7	52
4 Tu	0301	1.1	34
	1048	3.0	91
	1830	1.4	43
	2251	1.7	52
5 W ◑	0358	1.3	40
	1147	2.9	88
	1930	1.3	40
6 Th	0037	1.7	52
	0514	1.4	43
	1241	2.8	85
	2008	1.2	37
7 F	0152	1.9	58
	0635	1.5	46
	1326	2.7	82
	2034	1.1	34
8 Sa	0240	2.1	64
	0744	1.5	46
	1404	2.7	82
	2056	1.0	30
9 Su	0316	2.3	70
	0841	1.5	46
	1438	2.6	79
	2118	0.9	27
10 M	0349	2.6	79
	0930	1.4	43
	1511	2.6	79
	2141	0.7	21
11 Tu	0421	2.8	85
	1016	1.4	43
	1543	2.5	76
	2207	0.6	18
12 W	0455	3.0	91
	1100	1.3	40
	1616	2.4	73
	2235	0.5	15
13 Th ●	0530	3.2	98
	1145	1.3	40
	1650	2.4	73
	2305	0.4	12
14 F	0608	3.4	104
	1231	1.3	40
	1725	2.3	70
	2338	0.4	12
15 Sa	0648	3.4	104
	1319	1.3	40
	1803	2.2	67

	Time	Height	
	h m	ft	cm
16 Su	0014	0.4	12
	0731	3.5	107
	1411	1.4	43
	1846	2.0	61
17 M	0054	0.5	15
	0818	3.5	107
	1509	1.4	43
	1937	1.9	58
18 Tu	0139	0.6	18
	0908	3.4	104
	1611	1.3	40
	2042	1.8	55
19 W	0233	0.7	21
	1003	3.3	101
	1715	1.2	37
	2206	1.8	55
20 Th ◐	0338	0.9	27
	1100	3.2	98
	1813	1.1	34
	2340	1.9	58
21 F	0458	1.1	34
	1158	3.1	94
	1904	0.9	27
22 Sa	0105	2.2	67
	0624	1.3	40
	1254	3.0	91
	1950	0.7	21
23 Su	0214	2.5	76
	0747	1.3	40
	1348	2.9	88
	2032	0.5	15
24 M	0312	2.8	85
	0900	1.3	40
	1438	2.7	82
	2113	0.3	9
25 Tu	0403	3.1	94
	1006	1.3	40
	1527	2.6	79
	2153	0.2	6
26 W	0451	3.4	104
	1105	1.2	37
	1613	2.4	73
	2232	0.2	6
27 Th ○	0537	3.5	107
	1201	1.2	37
	1658	2.3	70
	2312	0.2	6
28 F	0622	3.6	110
	1255	1.2	37
	1742	2.2	67
	2351	0.3	9
29 Sa	0706	3.6	110
	1348	1.2	37
	1827	2.0	61
30 Su	0030	0.4	12
	0750	3.5	107
	1442	1.3	40
	1912	1.9	58
31 M	0109	0.6	18
	0834	3.4	104
	1537	1.3	40
	2001	1.8	55

June

	Time	Height	
	h m	ft	cm
1 Tu	0147	0.8	24
	0917	3.2	98
	1633	1.3	40
	2058	1.7	52
2 W	0227	1.0	30
	1000	3.0	91
	1726	1.3	40
	2208	1.7	52
3 Th	0310	1.2	37
	1041	2.9	88
	1812	1.2	37
	2331	1.7	52
4 F ◑	0404	1.4	43
	1120	2.7	82
	1849	1.1	34
5 Sa	0051	1.9	58
	0514	1.6	49
	1159	2.6	79
	1920	1.0	30
6 Su	0152	2.1	64
	0635	1.7	52
	1239	2.5	76
	1947	0.9	27
7 M	0238	2.3	70
	0752	1.7	52
	1319	2.4	73
	2016	0.8	24
8 Tu	0317	2.5	76
	0858	1.6	49
	1402	2.3	70
	2047	0.6	18
9 W	0354	2.8	85
	0956	1.6	49
	1446	2.2	67
	2120	0.5	15
10 Th	0432	3.1	94
	1047	1.5	46
	1531	2.2	67
	2157	0.3	9
11 F	0511	3.3	101
	1136	1.4	43
	1617	2.1	64
	2236	0.2	6
12 Sa ●	0552	3.5	107
	1224	1.3	40
	1704	2.1	64
	2318	0.2	6
13 Su	0635	3.6	110
	1312	1.2	37
	1754	2.1	64
14 M	0002	0.2	6
	0718	3.6	110
	1401	1.1	34
	1847	2.0	61
15 Tu	0048	0.3	9
	0804	3.6	110
	1452	1.0	30
	1945	2.0	61

	Time	Height	
	h m	ft	cm
16 W	0138	0.4	12
	0850	3.5	107
	1544	1.0	30
	2051	2.0	61
17 Th	0232	0.6	18
	0938	3.4	104
	1637	0.9	27
	2206	2.0	61
18 F ◐	0334	0.9	27
	1028	3.2	98
	1729	0.7	21
	2328	2.1	64
19 Sa	0448	1.2	37
	1120	3.0	91
	1821	0.6	18
20 Su	0050	2.3	70
	0614	1.4	43
	1215	2.7	82
	1911	0.5	15
21 M	0203	2.6	79
	0744	1.5	46
	1312	2.5	76
	2000	0.4	12
22 Tu	0306	2.9	88
	0907	1.5	46
	1409	2.3	70
	2046	0.3	9
23 W	0400	3.1	94
	1018	1.4	43
	1504	2.2	67
	2131	0.2	6
24 Th	0448	3.3	101
	1118	1.3	40
	1556	2.1	64
	2214	0.2	6
25 F	0532	3.4	104
	1210	1.2	37
	1645	2.0	61
	2255	0.2	6
26 Sa ○	0614	3.5	107
	1256	1.2	37
	1731	1.9	58
	2335	0.3	9
27 Su	0654	3.5	107
	1339	1.2	37
	1815	1.9	58
28 M	0013	0.4	12
	0731	3.4	104
	1420	1.2	37
	1858	1.9	58
29 Tu	0050	0.5	15
	0806	3.3	101
	1459	1.1	34
	1942	1.8	55
30 W	0125	0.7	21
	0839	3.1	94
	1537	1.1	34
	2028	1.8	55

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Callao, Peru, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0159	0.9	27	**16** F	0227	0.6	18
	0910	3.0	91		0908	3.2	98
	1613	1.1	34		1553	0.5	15
	2120	1.8	55		2150	2.3	70
2 F	0234	1.1	34	**17** Sa	0328	0.9	27
	0938	2.8	85		0954	2.9	88
	1647	1.1	34		1643	0.5	15
	2220	1.8	55		2306	2.3	70
3 Sa	0314	1.3	40	**18** Su	0440	1.2	37
	1006	2.6	79		1044	2.6	79
	1720	1.0	30		1738	0.5	15
	2330	1.9	58	◐			
4 Su	0407	1.5	46	**19** M	0029	2.5	76
	1035	2.4	73		0612	1.4	43
	1754	1.0	30		1141	2.3	70
◑					1835	0.5	15
5 M	0045	2.0	61	**20** Tu	0150	2.6	79
	0524	1.7	52		0756	1.5	46
	1110	2.3	70		1246	2.1	64
	1831	0.9	27		1932	0.4	12
6 Tu	0150	2.2	67	**21** W	0258	2.9	88
	0703	1.8	55		0927	1.4	43
	1156	2.2	67		1357	1.9	58
	1912	0.7	21		2028	0.4	12
7 W	0242	2.5	76	**22** Th	0354	3.0	91
	0834	1.7	52		1033	1.3	40
	1255	2.1	64		1502	1.9	58
	1957	0.6	18		2119	0.3	9
8 Th	0327	2.8	85	**23** F	0441	3.2	98
	0942	1.6	49		1123	1.2	37
	1359	2.0	61		1557	1.8	55
	2043	0.4	12		2204	0.3	9
9 F	0410	3.0	91	**24** Sa	0522	3.3	101
	1035	1.4	43		1202	1.1	34
	1502	2.0	61		1644	1.9	58
	2130	0.2	6		2246	0.3	9
10 Sa	0451	3.3	101	**25** Su	0558	3.3	101
	1122	1.3	40		1237	1.0	30
	1600	2.0	61		1726	1.9	58
	2218	0.1	3	○	2324	0.3	9
11 Su	0533	3.5	107	**26** M	0631	3.3	101
	1206	1.1	34		1308	1.0	30
	1655	2.1	64		1804	1.9	58
●	2306	0.0	0		2359	0.4	12
12 M	0615	3.6	110	**27** Tu	0701	3.2	98
	1249	0.9	27		1337	1.0	30
	1750	2.1	64		1842	2.0	61
	2354	0.0	0				
13 Tu	0658	3.7	113	**28** W	0033	0.5	15
	1333	0.8	24		0729	3.1	94
	1845	2.2	67		1406	0.9	27
					1919	2.0	61
14 W	0042	0.1	3	**29** Th	0105	0.6	18
	0740	3.6	110		0755	2.9	88
	1418	0.7	21		1433	0.9	27
	1942	2.2	67		1956	2.0	61
15 Th	0133	0.3	9	**30** F	0136	0.8	24
	0824	3.5	107		0819	2.7	82
	1504	0.6	18		1459	0.9	27
	2043	2.2	67		2037	1.9	58
				31 Sa	0208	1.0	30
					0841	2.6	79
					1525	0.9	27
					2122	1.9	58

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0243	1.2	37	**16** M	0439	1.2	37
	0901	2.4	73		1012	2.2	67
	1553	0.9	27		1653	0.5	15
	2219	2.0	61	◐			
2 M	0327	1.4	43	**17** Tu	0005	2.5	76
	0921	2.2	67		0623	1.4	43
	1627	0.9	27		1116	1.9	58
◑	2331	2.0	61		1759	0.5	15
3 Tu	0437	1.6	49	**18** W	0132	2.6	79
	0949	2.1	64		0817	1.3	40
	1712	0.8	24		1242	1.7	52
					1910	0.6	18
4 W	0054	2.2	67	**19** Th	0244	2.8	85
	0635	1.7	52		0937	1.2	37
	1038	1.9	58		1408	1.7	52
	1810	0.7	21		2015	0.5	15
5 Th	0204	2.4	73	**20** F	0339	2.9	88
	0829	1.6	49		1028	1.1	34
	1205	1.8	55		1513	1.7	52
	1914	0.6	18		2110	0.5	15
6 F	0258	2.7	82	**21** Sa	0422	3.0	91
	0933	1.5	46		1104	1.0	30
	1339	1.8	55		1601	1.8	55
	2016	0.4	12		2155	0.4	12
7 Sa	0344	3.0	91	**22** Su	0458	3.0	91
	1017	1.2	37		1133	0.9	27
	1453	1.9	58		1640	1.9	58
	2112	0.2	6		2234	0.4	12
8 Su	0426	3.2	98	**23** M	0528	3.0	91
	1057	1.0	30		1159	0.8	24
	1555	2.0	61		1715	2.0	61
	2205	0.0	0		2309	0.4	12
9 M	0508	3.4	104	**24** Tu	0556	3.0	91
	1136	0.8	24		1222	0.8	24
	1650	2.2	67		1748	2.1	64
●	2255	−0.1	−3	○	2342	0.4	12
10 Tu	0549	3.5	107	**25** W	0622	2.9	88
	1216	0.6	18		1245	0.7	21
	1743	2.4	73		1821	2.2	67
	2345	−0.1	−3				
11 W	0630	3.5	107	**26** Th	0015	0.5	15
	1256	0.4	12		0646	2.8	85
	1835	2.5	76		1308	0.7	21
					1854	2.2	67
12 Th	0034	0.1	3	**27** F	0046	0.7	21
	0711	3.4	104		0709	2.6	79
	1338	0.3	9		1330	0.7	21
	1929	2.5	76		1927	2.2	67
13 F	0126	0.3	9	**28** Sa	0118	0.8	24
	0752	3.2	98		0729	2.5	76
	1421	0.3	9		1352	0.7	21
	2026	2.6	79		2002	2.2	67
14 Sa	0220	0.6	18	**29** Su	0151	1.0	30
	0835	2.9	88		0748	2.3	70
	1507	0.3	9		1414	0.7	21
	2129	2.5	76		2042	2.2	67
15 Su	0322	0.9	27	**30** M	0227	1.2	37
	0921	2.6	79		0804	2.1	64
	1556	0.4	12		1439	0.7	21
	2241	2.5	76		2130	2.2	67
				31 Tu	0314	1.4	43
					0822	1.9	58
					1512	0.7	21
					2236	2.2	67

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0432	1.6	49	**16** Th	0104	2.6	79
	0846	1.8	55		0821	1.1	34
	1602	0.7	21		1255	1.5	46
◑					1844	0.7	21
2 Th	0003	2.2	67	**17** F	0215	2.7	82
	0651	1.6	49		0921	1.0	30
	0944	1.7	52		1420	1.6	49
	1716	0.7	21		1957	0.7	21
3 F	0124	2.4	73	**18** Sa	0307	2.7	82
	0828	1.4	43		0959	0.9	27
	1158	1.6	49		1515	1.7	52
	1842	0.6	18		2053	0.6	18
4 Sa	0224	2.7	82	**19** Su	0347	2.8	85
	0912	1.2	37		1027	0.8	24
	1344	1.7	52		1554	1.9	58
	1956	0.5	15		2138	0.6	18
5 Su	0312	2.9	88	**20** M	0419	2.8	85
	0948	1.0	30		1050	0.7	21
	1455	1.9	58		1628	2.0	61
	2058	0.3	9		2216	0.6	18
6 M	0355	3.1	94	**21** Tu	0446	2.7	82
	1024	0.7	21		1111	0.6	18
	1552	2.2	67		1659	2.2	67
	2153	0.1	3		2250	0.6	18
7 Tu	0436	3.2	98	**22** W	0512	2.7	82
	1100	0.4	12		1131	0.5	15
	1643	2.4	73		1729	2.3	70
	2245	0.0	0		2324	0.6	18
8 W	0517	3.3	101	**23** Th	0536	2.6	79
	1138	0.2	6		1152	0.5	15
	1733	2.7	82		1759	2.4	73
●	2335	0.1	3	○	2358	0.7	21
9 Th	0557	3.2	98	**24** F	0559	2.5	76
	1217	0.1	3		1213	0.5	15
	1823	2.8	85		1831	2.5	76
10 F	0026	0.2	6	**25** Sa	0032	0.8	24
	0638	3.0	91		0622	2.3	70
	1257	0.0	0		1235	0.4	12
	1914	2.9	88		1903	2.5	76
11 Sa	0119	0.4	12	**26** Su	0107	0.9	27
	0719	2.8	85		0643	2.1	64
	1339	0.0	0		1256	0.5	15
	2008	2.9	88		1938	2.5	76
12 Su	0216	0.7	21	**27** M	0145	1.1	34
	0802	2.5	76		0702	2.0	61
	1422	0.2	6		1319	0.5	15
	2108	2.8	85		2017	2.5	76
13 M	0322	0.9	27	**28** Tu	0229	1.2	37
	0848	2.1	64		0721	1.8	55
	1510	0.3	9		1346	0.5	15
	2217	2.7	82		2105	2.4	73
14 Tu	0447	1.2	37	**29** W	0329	1.4	43
	0944	1.8	55		0742	1.7	52
	1608	0.5	15		1422	0.6	18
	2339	2.6	79		2207	2.4	73
15 W	0640	1.2	37	**30** Th	0505	1.4	43
	1106	1.6	49		0817	1.5	46
	1721	0.7	21		1516	0.7	21
◐				◑	2325	2.4	73

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Callao, Peru, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0703	1.3	40
	0959	1.4	43
	1639	0.7	21
2 Sa	0041	2.5	76
	0801	1.2	37
	1224	1.5	46
	1816	0.7	21
3 Su	0143	2.7	82
	0838	0.9	27
	1353	1.7	52
	1938	0.6	18
4 M	0233	2.8	85
	0913	0.6	18
	1454	2.0	61
	2044	0.5	15
5 Tu	0318	2.9	88
	0948	0.4	12
	1546	2.4	73
	2142	0.4	12
6 W	0401	3.0	91
	1025	0.1	3
	1635	2.7	82
	2235	0.3	9
7 Th ●	0442	2.9	88
	1102	−0.1	−3
	1723	3.0	91
	2328	0.3	9
8 F	0524	2.8	85
	1141	−0.2	−6
	1811	3.1	94
9 Sa	0021	0.4	12
	0605	2.6	79
	1220	−0.2	−6
	1901	3.2	98
10 Su	0116	0.6	18
	0648	2.3	70
	1301	−0.1	−3
	1953	3.1	94
11 M	0216	0.8	24
	0732	2.1	64
	1343	0.1	3
	2049	3.0	91
12 Tu	0326	1.0	30
	0821	1.8	55
	1429	0.3	9
	2153	2.8	85
13 W	0454	1.1	34
	0924	1.5	46
	1524	0.6	18
	2306	2.7	82
14 Th ◐	0636	1.1	34
	1101	1.4	43
	1635	0.8	24
15 F	0022	2.6	79
	0756	1.0	30
	1255	1.4	43
	1803	0.9	27

	Time	Height	
	h m	ft	cm
16 Sa	0127	2.6	79
	0844	0.8	24
	1412	1.6	49
	1922	0.9	27
17 Su	0217	2.6	79
	0916	0.7	21
	1501	1.8	55
	2023	0.9	27
18 M	0256	2.5	76
	0940	0.6	18
	1537	2.0	61
	2110	0.9	27
19 Tu	0327	2.5	76
	1000	0.5	15
	1608	2.2	67
	2151	0.8	24
20 W	0355	2.5	76
	1020	0.4	12
	1638	2.4	73
	2229	0.8	24
21 Th	0421	2.4	73
	1041	0.4	12
	1708	2.5	76
	2307	0.8	24
22 F ○	0447	2.3	70
	1103	0.3	9
	1739	2.7	82
	2344	0.9	27
23 Sa	0514	2.2	67
	1127	0.2	6
	1812	2.8	85
24 Su	0023	0.9	27
	0540	2.1	64
	1151	0.2	6
	1846	2.8	85
25 M	0105	1.0	30
	0605	1.9	58
	1217	0.3	9
	1923	2.8	85
26 Tu	0150	1.1	34
	0631	1.8	55
	1245	0.3	9
	2005	2.8	85
27 W	0243	1.2	37
	0700	1.6	49
	1319	0.4	12
	2053	2.7	82
28 Th	0351	1.3	40
	0740	1.5	46
	1400	0.5	15
	2149	2.7	82
29 F	0512	1.2	37
	0848	1.4	43
	1458	0.6	18
	2253	2.7	82
30 Sa ◑	0625	1.1	34
	1044	1.4	43
	1619	0.8	24
	2358	2.7	82
31 Su	0716	0.9	27
	1234	1.6	49
	1755	0.9	27

November

	Time	Height	
	h m	ft	cm
1 M	0058	2.7	82
	0757	0.6	18
	1351	1.9	58
	1920	0.8	24
2 Tu	0151	2.7	82
	0836	0.4	12
	1449	2.3	70
	2032	0.8	24
3 W	0239	2.7	82
	0913	0.1	3
	1540	2.6	79
	2134	0.7	21
4 Th	0325	2.6	79
	0952	−0.1	−3
	1629	3.0	91
	2232	0.7	21
5 F ●	0410	2.5	76
	1031	−0.2	−6
	1716	3.2	98
	2327	0.7	21
6 Sa	0454	2.4	73
	1110	−0.3	−9
	1803	3.3	101
7 Su	0022	0.7	21
	0538	2.2	67
	1151	−0.2	−6
	1851	3.4	104
8 M	0119	0.8	24
	0623	2.0	61
	1231	−0.1	−3
	1941	3.3	101
9 Tu	0219	0.9	27
	0709	1.8	55
	1313	0.1	3
	2032	3.2	98
10 W	0326	1.0	30
	0801	1.6	49
	1357	0.4	12
	2127	3.0	91
11 Th	0441	1.0	30
	0906	1.4	43
	1446	0.6	18
	2225	2.8	85
12 F	0559	1.0	30
	1035	1.4	43
	1544	0.9	27
	2325	2.7	82
13 Sa ◐	0703	0.9	27
	1220	1.4	43
	1658	1.1	34
14 Su	0020	2.5	76
	0748	0.8	24
	1341	1.6	49
	1821	1.2	37
15 M	0108	2.4	73
	0819	0.7	21
	1434	1.8	55
	1934	1.2	37

	Time	Height	
	h m	ft	cm
16 Tu	0148	2.4	73
	0844	0.6	18
	1512	2.0	61
	2034	1.2	37
17 W	0223	2.3	70
	0906	0.5	15
	1545	2.3	70
	2125	1.2	37
18 Th	0256	2.2	67
	0929	0.4	12
	1616	2.5	76
	2210	1.2	37
19 F	0328	2.1	64
	0954	0.3	9
	1648	2.7	82
	2253	1.1	34
20 Sa	0400	2.1	64
	1021	0.2	6
	1721	2.9	88
	2336	1.1	34
21 Su ○	0433	2.0	61
	1050	0.1	3
	1756	3.0	91
22 M	0020	1.1	34
	0507	1.9	58
	1121	0.1	3
	1833	3.1	94
23 Tu	0105	1.1	34
	0543	1.8	55
	1154	0.1	3
	1913	3.1	94
24 W	0153	1.1	34
	0621	1.7	52
	1231	0.2	6
	1955	3.1	94
25 Th	0245	1.1	34
	0706	1.6	49
	1311	0.3	9
	2040	3.1	94
26 F	0341	1.1	34
	0803	1.6	49
	1358	0.4	12
	2129	3.0	91
27 Sa	0439	1.0	30
	0919	1.5	46
	1455	0.6	18
	2221	2.9	88
28 Su ◑	0536	0.9	27
	1052	1.6	49
	1608	0.9	27
	2316	2.8	85
29 M	0627	0.7	21
	1224	1.8	55
	1736	1.0	30
30 Tu	0013	2.7	82
	0715	0.5	15
	1340	2.1	64
	1906	1.1	34

December

	Time	Height	
	h m	ft	cm
1 W	0108	2.6	79
	0759	0.3	9
	1442	2.5	76
	2026	1.1	34
2 Th	0203	2.4	73
	0842	0.1	3
	1536	2.8	85
	2137	1.1	34
3 F	0255	2.3	70
	0925	−0.1	−3
	1625	3.1	94
	2239	1.0	30
4 Sa	0345	2.2	67
	1007	−0.1	−3
	1713	3.3	101
	2336	1.0	30
5 Su ●	0434	2.1	64
	1049	−0.2	−6
	1759	3.5	107
6 M	0030	0.9	27
	0521	2.0	61
	1131	−0.1	−3
	1844	3.5	107
7 Tu	0123	0.9	27
	0608	1.9	58
	1213	0.0	0
	1929	3.4	104
8 W	0215	1.0	30
	0656	1.8	55
	1254	0.2	6
	2013	3.3	101
9 Th	0309	1.0	30
	0746	1.6	49
	1334	0.4	12
	2057	3.1	94
10 F	0402	1.0	30
	0842	1.6	49
	1415	0.7	21
	2139	2.9	88
11 Sa	0456	1.0	30
	0948	1.5	46
	1458	0.9	27
	2220	2.7	82
12 Su	0546	1.0	30
	1109	1.5	46
	1548	1.2	37
	2300	2.5	76
13 M ◐	0629	0.9	27
	1236	1.7	52
	1656	1.4	43
	2340	2.4	73
14 Tu	0705	0.8	24
	1348	1.8	55
	1822	1.5	46
15 W	0021	2.2	67
	0737	0.7	21
	1439	2.1	64
	1948	1.6	49

	Time	Height	
	h m	ft	cm
16 Th	0104	2.1	64
	0807	0.6	18
	1518	2.3	70
	2100	1.5	46
17 F	0149	2.0	61
	0838	0.5	15
	1553	2.6	79
	2157	1.4	43
18 Sa	0234	2.0	61
	0911	0.4	12
	1628	2.8	85
	2245	1.3	40
19 Su	0319	1.9	58
	0946	0.2	6
	1704	3.0	91
	2330	1.2	37
20 M	0404	1.9	58
	1024	0.1	3
	1740	3.2	98
21 Tu ○	0012	1.1	34
	0449	1.9	58
	1102	0.1	3
	1819	3.4	104
22 W	0054	1.1	34
	0535	1.9	58
	1143	0.1	3
	1858	3.4	104
23 Th	0137	1.0	30
	0623	1.9	58
	1225	0.1	3
	1938	3.4	104
24 F	0222	0.9	27
	0715	1.9	58
	1310	0.2	6
	2020	3.4	104
25 Sa	0308	0.9	27
	0813	1.9	58
	1359	0.4	12
	2103	3.2	98
26 Su	0356	0.8	24
	0920	1.9	58
	1454	0.7	21
	2148	3.0	91
27 M ◑	0446	0.7	21
	1037	2.0	61
	1600	1.0	30
	2237	2.8	85
28 Tu	0538	0.6	18
	1203	2.1	64
	1723	1.3	40
	2331	2.6	79
29 W	0631	0.5	15
	1325	2.4	73
	1901	1.4	43
30 Th	0030	2.4	73
	0724	0.3	9
	1435	2.7	82
	2035	1.4	43
31 F	0134	2.2	67
	0816	0.2	6
	1534	3.0	91
	2153	1.3	40

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Talara, Peru, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0345	5.1	155
	1006	−0.8	−24
	1636	5.7	174
	2241	0.3	9
2 Sa	0434	5.3	162
	1053	−0.9	−27
	1721	5.9	180
	2329	0.1	3
3 Su	0524	5.3	162
	1139	−0.9	−27
	1806	6.0	183
4 M	0017	0.1	3
	0613	5.2	158
	1226	−0.6	−18
	1852	5.9	180
5 Tu	0106	0.1	3
	0705	5.0	152
	1314	−0.3	−9
	1939	5.6	171
6 W	0158	0.2	6
	0759	4.7	143
	1405	0.2	6
	2029	5.3	162
7 Th ◑	0253	0.4	12
	0900	4.4	134
	1501	0.7	21
	2123	4.9	149
8 F	0355	0.6	18
	1010	4.1	125
	1606	1.2	37
	2223	4.6	140
9 Sa	0503	0.7	21
	1129	4.0	122
	1721	1.6	49
	2330	4.3	131
10 Su	0613	0.7	21
	1248	4.1	125
	1840	1.7	52
11 M	0037	4.2	128
	0717	0.6	18
	1355	4.3	131
	1950	1.7	52
12 Tu	0139	4.2	128
	0811	0.4	12
	1448	4.5	137
	2046	1.5	46
13 W	0231	4.3	131
	0856	0.2	6
	1531	4.8	146
	2131	1.3	40
14 Th	0315	4.4	134
	0936	0.1	3
	1608	5.0	152
	2210	1.1	34
15 F ●	0355	4.5	137
	1011	0.0	0
	1640	5.2	158
	2245	1.0	30

	Time	Height	
	h m	ft	cm
16 Sa	0431	4.6	140
	1044	0.0	0
	1711	5.3	162
	2318	0.9	27
17 Su	0505	4.6	140
	1115	0.0	0
	1741	5.3	162
	2349	0.8	24
18 M	0538	4.6	140
	1146	0.2	6
	1810	5.2	158
19 Tu	0021	0.8	24
	0611	4.5	137
	1216	0.4	12
	1839	5.1	155
20 W	0052	0.8	24
	0645	4.3	131
	1246	0.6	18
	1908	5.0	152
21 Th	0126	0.9	27
	0721	4.2	128
	1319	0.9	27
	1940	4.8	146
22 F	0202	1.0	30
	0802	4.0	122
	1356	1.2	37
	2016	4.6	140
23 Sa ◐	0246	1.0	30
	0854	3.8	116
	1443	1.5	46
	2101	4.4	134
24 Su	0341	1.1	34
	1002	3.7	113
	1547	1.8	55
	2201	4.2	128
25 M	0450	1.0	30
	1126	3.8	116
	1713	2.0	61
	2317	4.1	125
26 Tu	0606	0.8	24
	1247	4.1	125
	1841	1.8	55
27 W	0036	4.3	131
	0714	0.5	15
	1353	4.6	140
	1952	1.4	43
28 Th	0145	4.6	140
	0813	0.0	0
	1446	5.1	155
	2050	0.9	27
29 F	0243	5.0	152
	0905	−0.4	−12
	1534	5.6	171
	2140	0.5	15
30 Sa ○	0335	5.4	165
	0953	−0.7	−21
	1618	6.0	183
	2226	0.1	3
31 Su	0424	5.6	171
	1038	−0.9	−27
	1702	6.3	192
	2312	−0.2	−6

February

	Time	Height	
	h m	ft	cm
1 M	0511	5.7	174
	1123	−0.8	−24
	1744	6.3	192
	2356	−0.3	−9
2 Tu	0558	5.7	174
	1208	−0.6	−18
	1827	6.1	186
3 W	0041	−0.2	−6
	0646	5.4	165
	1252	−0.2	−6
	1910	5.8	177
4 Th	0128	0.0	0
	0735	5.1	155
	1339	0.4	12
	1954	5.3	162
5 F ◑	0218	0.3	9
	0830	4.6	140
	1430	1.0	30
	2043	4.8	146
6 Sa	0314	0.7	21
	0935	4.2	128
	1530	1.6	49
	2140	4.4	134
7 Su	0422	1.0	30
	1057	3.9	119
	1651	2.0	61
	2253	4.0	122
8 M	0541	1.1	34
	1229	3.9	119
	1826	2.1	64
9 Tu	0016	3.9	119
	0656	1.0	30
	1343	4.2	128
	1944	1.9	58
10 W	0128	4.0	122
	0755	0.8	24
	1434	4.5	137
	2038	1.6	49
11 Th	0222	4.2	128
	0841	0.6	18
	1513	4.8	146
	2118	1.3	40
12 F	0304	4.4	134
	0918	0.4	12
	1545	5.0	152
	2151	1.0	30
13 Sa ●	0341	4.6	140
	0951	0.3	9
	1615	5.3	162
	2222	0.8	24
14 Su	0414	4.8	146
	1022	0.2	6
	1642	5.4	165
	2251	0.6	18
15 M	0446	4.9	149
	1051	0.2	6
	1710	5.4	165
	2320	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0516	4.9	149
	1120	0.2	6
	1736	5.4	165
	2348	0.5	15
17 W	0547	4.8	146
	1149	0.4	12
	1803	5.3	162
18 Th	0017	0.5	15
	0618	4.7	143
	1218	0.6	18
	1830	5.1	155
19 F	0047	0.6	18
	0652	4.6	140
	1249	0.9	27
	1900	4.9	149
20 Sa	0121	0.7	21
	0730	4.4	134
	1325	1.2	37
	1935	4.7	143
21 Su ◐	0202	0.8	24
	0819	4.1	125
	1411	1.6	49
	2019	4.4	134
22 M	0256	1.0	30
	0925	4.0	122
	1517	1.9	58
	2122	4.1	125
23 Tu	0409	1.1	34
	1053	3.9	119
	1651	2.0	61
	2250	4.0	122
24 W	0536	1.0	30
	1222	4.2	128
	1827	1.8	55
25 Th	0021	4.2	128
	0653	0.6	18
	1331	4.7	143
	1938	1.3	40
26 F	0133	4.6	140
	0755	0.2	6
	1425	5.3	162
	2033	0.7	21
27 Sa	0232	5.1	155
	0848	−0.2	−6
	1511	5.8	177
	2121	0.2	6
28 Su ○	0323	5.5	168
	0935	−0.6	−18
	1555	6.1	186
	2206	−0.2	−6

March

	Time	Height	
	h m	ft	cm
1 M	0410	5.8	177
	1020	−0.7	−21
	1637	6.3	192
	2249	−0.5	−15
2 Tu	0455	5.9	180
	1103	−0.6	−18
	1718	6.3	192
	2331	−0.6	−18
3 W	0540	5.9	180
	1146	−0.4	−12
	1758	6.0	183
4 Th	0014	−0.4	−12
	0625	5.6	171
	1229	0.1	3
	1839	5.7	174
5 F	0057	−0.1	−3
	0712	5.2	158
	1314	0.6	18
	1921	5.2	158
6 Sa	0143	0.3	9
	0803	4.7	143
	1402	1.2	37
	2006	4.6	140
7 Su ◑	0235	0.7	21
	0904	4.2	128
	1502	1.8	55
	2102	4.1	125
8 M	0340	1.1	34
	1024	3.9	119
	1626	2.1	64
	2218	3.7	113
9 Tu	0502	1.4	43
	1157	3.9	119
	1808	2.1	64
	2353	3.6	110
10 W	0624	1.3	40
	1311	4.1	125
	1924	1.9	58
11 Th	0109	3.8	116
	0726	1.1	34
	1401	4.4	134
	2013	1.5	46
12 F	0203	4.0	122
	0812	0.9	27
	1438	4.7	143
	2050	1.2	37
13 Sa	0243	4.3	131
	0849	0.7	21
	1510	5.0	152
	2121	0.9	27
14 Su	0318	4.6	140
	0922	0.5	15
	1539	5.2	158
	2150	0.6	18
15 M ●	0350	4.8	146
	0953	0.4	12
	1606	5.3	162
	2218	0.4	12

	Time	Height	
	h m	ft	cm
16 Tu	0421	5.0	152
	1023	0.3	9
	1634	5.4	165
	2246	0.2	6
17 W	0452	5.1	155
	1053	0.4	12
	1701	5.4	165
	2315	0.2	6
18 Th	0523	5.1	155
	1123	0.5	15
	1729	5.3	162
	2344	0.2	6
19 F	0556	5.0	152
	1155	0.7	21
	1758	5.1	155
20 Sa	0016	0.3	9
	0631	4.8	146
	1229	1.0	30
	1830	4.9	149
21 Su	0052	0.4	12
	0712	4.6	140
	1309	1.3	40
	1909	4.6	140
22 M	0135	0.6	18
	0803	4.4	134
	1401	1.6	49
	1958	4.3	131
23 Tu ◐	0232	0.9	27
	0910	4.2	128
	1513	1.8	55
	2109	4.0	122
24 W	0347	1.0	30
	1034	4.2	128
	1646	1.8	55
	2241	3.9	119
25 Th	0514	1.0	30
	1157	4.4	134
	1813	1.5	46
26 F	0010	4.2	128
	0631	0.7	21
	1303	4.9	149
	1919	1.0	30
27 Sa	0120	4.6	140
	0734	0.3	9
	1357	5.3	162
	2012	0.4	12
28 Su	0217	5.1	155
	0827	0.0	0
	1444	5.7	174
	2059	−0.1	−3
29 M ○	0307	5.5	168
	0914	−0.2	−6
	1527	5.9	180
	2142	−0.5	−15
30 Tu	0353	5.8	177
	0959	−0.3	−9
	1609	6.0	183
	2224	−0.7	−21
31 W	0437	5.9	180
	1043	−0.2	−6
	1649	5.9	180
	2306	−0.7	−21

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Talara, Peru, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0521	5.8	177
	1125	0.0	0
	1729	5.7	174
	2347	−0.5	−15
2 F	0605	5.5	168
	1208	0.4	12
	1809	5.3	162
3 Sa	0029	−0.2	−6
	0651	5.1	155
	1253	0.9	27
	1851	4.8	146
4 Su	0113	0.3	9
	0740	4.7	143
	1342	1.4	43
	1936	4.3	131
5 M	0201	0.7	21
	0837	4.3	131
	1442	1.8	55
	2031	3.9	119
6 Tu ◑	0300	1.1	34
	0947	4.1	125
	1602	2.0	61
	2145	3.5	107
7 W	0413	1.4	43
	1107	4.0	122
	1732	2.0	61
	2317	3.4	104
8 Th	0532	1.5	46
	1217	4.1	125
	1842	1.7	52
9 F	0033	3.6	110
	0638	1.4	43
	1309	4.3	131
	1931	1.4	43
10 Sa	0128	3.9	119
	0728	1.2	37
	1349	4.6	140
	2009	1.0	30
11 Su	0210	4.2	128
	0809	1.0	30
	1423	4.8	146
	2041	0.7	21
12 M	0247	4.5	137
	0845	0.8	24
	1455	5.0	152
	2112	0.4	12
13 Tu	0321	4.8	146
	0920	0.7	21
	1526	5.1	155
	2142	0.2	6
14 W ●	0354	5.0	152
	0953	0.6	18
	1556	5.2	158
	2213	0.0	0
15 Th	0428	5.1	155
	1027	0.6	18
	1627	5.2	158
	2245	−0.1	−3

	Time	Height	
	h m	ft	cm
16 F	0502	5.1	155
	1101	0.7	21
	1659	5.1	155
	2318	−0.1	−3
17 Sa	0539	5.1	155
	1138	0.9	27
	1734	4.9	149
	2354	0.0	0
18 Su	0619	5.0	152
	1219	1.1	34
	1813	4.7	143
19 M	0035	0.2	6
	0705	4.8	146
	1307	1.3	40
	1859	4.4	134
20 Tu	0123	0.4	12
	0759	4.7	143
	1405	1.5	46
	1956	4.2	128
21 W ◐	0222	0.6	18
	0903	4.5	137
	1517	1.5	46
	2109	4.0	122
22 Th	0333	0.8	24
	1016	4.5	137
	1638	1.4	43
	2235	4.0	122
23 F	0452	0.9	27
	1128	4.7	143
	1752	1.1	34
	2355	4.2	128
24 Sa	0605	0.8	24
	1231	4.9	149
	1854	0.6	18
25 Su	0102	4.6	140
	0708	0.5	15
	1325	5.2	158
	1947	0.2	6
26 M	0159	5.0	152
	0803	0.4	12
	1414	5.4	165
	2034	−0.2	−6
27 Tu	0250	5.3	162
	0853	0.2	6
	1459	5.6	171
	2119	−0.5	−15
28 W ○	0337	5.5	168
	0939	0.2	6
	1542	5.6	171
	2201	−0.6	−18
29 Th	0422	5.6	171
	1024	0.3	9
	1623	5.4	165
	2243	−0.6	−18
30 F	0506	5.5	168
	1108	0.5	15
	1704	5.2	158
	2324	−0.4	−12

May

	Time	Height	
	h m	ft	cm
1 Sa	0550	5.3	162
	1152	0.8	24
	1745	4.9	149
2 Su	0005	−0.1	−3
	0634	5.1	155
	1237	1.1	34
	1827	4.5	137
3 M	0047	0.2	6
	0721	4.8	146
	1327	1.4	43
	1912	4.1	125
4 Tu	0132	0.6	18
	0811	4.5	137
	1423	1.6	49
	2005	3.8	116
5 W ◑	0222	1.0	30
	0907	4.3	131
	1528	1.7	52
	2109	3.5	107
6 Th	0321	1.3	40
	1008	4.2	128
	1638	1.7	52
	2225	3.4	104
7 F	0427	1.5	46
	1108	4.2	128
	1742	1.5	46
	2338	3.5	107
8 Sa	0532	1.5	46
	1201	4.3	131
	1834	1.3	40
9 Su	0038	3.7	113
	0629	1.4	43
	1247	4.4	134
	1917	1.0	30
10 M	0127	4.0	122
	0718	1.3	40
	1328	4.6	140
	1955	0.6	18
11 Tu	0210	4.3	131
	0803	1.2	37
	1407	4.7	143
	2031	0.3	9
12 W	0249	4.6	140
	0844	1.0	30
	1443	4.8	146
	2107	0.1	3
13 Th ●	0328	4.9	149
	0924	0.9	27
	1520	4.9	149
	2142	−0.1	−3
14 F	0406	5.1	155
	1004	0.9	27
	1558	5.0	152
	2220	−0.3	−9
15 Sa	0446	5.2	158
	1045	0.8	24
	1637	4.9	149
	2259	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Su	0528	5.3	162
	1129	0.9	27
	1719	4.8	146
	2341	−0.3	−9
17 M	0612	5.2	158
	1216	0.9	27
	1806	4.7	143
18 Tu	0026	−0.1	−3
	0700	5.2	158
	1308	1.0	30
	1857	4.5	137
19 W	0117	0.1	3
	0753	5.0	152
	1406	1.1	34
	1957	4.3	131
20 Th ◐	0213	0.4	12
	0850	4.9	149
	1510	1.1	34
	2105	4.1	125
21 F	0317	0.6	18
	0952	4.9	149
	1618	0.9	27
	2220	4.1	125
22 Sa	0427	0.8	24
	1056	4.9	149
	1725	0.7	21
	2334	4.2	128
23 Su	0536	0.9	27
	1157	4.9	149
	1827	0.4	12
24 M	0042	4.5	137
	0641	0.9	27
	1253	5.0	152
	1922	0.1	3
25 Tu	0142	4.7	143
	0741	0.8	24
	1345	5.1	155
	2012	−0.2	−6
26 W	0236	5.0	152
	0834	0.8	24
	1434	5.1	155
	2059	−0.3	−9
27 Th ○	0325	5.2	158
	0924	0.8	24
	1519	5.1	155
	2143	−0.4	−12
28 F	0411	5.3	162
	1011	0.8	24
	1603	5.0	152
	2225	−0.4	−12
29 Sa	0455	5.3	162
	1056	0.9	27
	1645	4.8	146
	2306	−0.3	−9
30 Su	0537	5.2	158
	1140	1.0	30
	1726	4.6	140
	2345	−0.1	−3
31 M	0618	5.1	155
	1224	1.1	34
	1808	4.3	131

June

	Time	Height	
	h m	ft	cm
1 Tu	0025	0.2	6
	0659	4.9	149
	1309	1.2	37
	1851	4.1	125
2 W	0105	0.5	15
	0741	4.7	143
	1355	1.3	40
	1938	3.8	116
3 Th	0147	0.8	24
	0824	4.6	140
	1445	1.4	43
	2029	3.6	110
4 F ◑	0232	1.1	34
	0909	4.4	134
	1538	1.4	43
	2127	3.5	107
5 Sa	0323	1.3	40
	0958	4.3	131
	1634	1.3	40
	2232	3.5	107
6 Su	0420	1.5	46
	1048	4.3	131
	1728	1.2	37
	2337	3.6	110
7 M	0521	1.6	49
	1139	4.3	131
	1819	1.0	30
8 Tu	0037	3.8	116
	0621	1.6	49
	1229	4.3	131
	1906	0.7	21
9 W	0130	4.1	125
	0718	1.5	46
	1318	4.4	134
	1951	0.4	12
10 Th	0218	4.4	134
	0810	1.3	40
	1405	4.6	140
	2034	0.1	3
11 F	0304	4.7	143
	0859	1.2	37
	1451	4.7	143
	2117	−0.2	−6
12 Sa ●	0348	5.0	152
	0946	1.0	30
	1537	4.8	146
	2200	−0.4	−12
13 Su	0432	5.3	162
	1033	0.8	24
	1623	4.9	149
	2245	−0.5	−15
14 M	0516	5.5	168
	1121	0.7	21
	1711	4.9	149
	2330	−0.5	−15
15 Tu	0601	5.6	171
	1209	0.6	18
	1800	4.9	149

	Time	Height	
	h m	ft	cm
16 W	0017	−0.4	−12
	0648	5.5	168
	1300	0.5	15
	1852	4.7	143
17 Th	0106	−0.2	−6
	0737	5.4	165
	1353	0.5	15
	1949	4.6	140
18 F ◐	0159	0.1	3
	0828	5.3	162
	1450	0.6	18
	2050	4.4	134
19 Sa	0256	0.5	15
	0923	5.1	155
	1551	0.6	18
	2158	4.2	128
20 Su	0359	0.8	24
	1022	4.9	149
	1655	0.5	15
	2310	4.2	128
21 M	0507	1.1	34
	1123	4.7	143
	1759	0.4	12
22 Tu	0023	4.3	131
	0618	1.2	37
	1224	4.6	140
	1900	0.2	6
23 W	0129	4.4	134
	0724	1.3	40
	1322	4.6	140
	1955	0.1	3
24 Th	0227	4.7	143
	0824	1.2	37
	1416	4.6	140
	2045	−0.1	−3
25 F	0318	4.9	149
	0916	1.2	37
	1505	4.6	140
	2130	−0.2	−6
26 Sa ○	0403	5.0	152
	1003	1.1	34
	1550	4.6	140
	2211	−0.2	−6
27 Su	0443	5.1	155
	1046	1.0	30
	1631	4.6	140
	2250	−0.2	−6
28 M	0521	5.1	155
	1126	0.9	27
	1711	4.5	137
	2326	0.0	0
29 Tu	0557	5.1	155
	1204	0.9	27
	1750	4.4	134
30 W	0001	0.1	3
	0631	5.0	152
	1242	1.0	30
	1828	4.2	128

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Talara, Peru, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0036	0.3	9	**16** F	0049	−0.4	−12
	0705	4.9	149		0712	5.7	174
	1320	1.0	30		1329	0.0	0
	1907	4.0	122		1931	4.9	149
2 F	0111	0.6	18	**17** Sa	0138	0.0	0
	0740	4.8	146		0800	5.4	165
	1359	1.1	34		1422	0.2	6
	1948	3.8	116		2028	4.6	140
3 Sa	0147	0.9	27	**18** Su	0231	0.4	12
	0815	4.6	140		0851	5.0	152
	1441	1.1	34		1519	0.3	9
	2034	3.7	113	◐	2132	4.3	131
4 Su	0228	1.2	37	**19** M	0331	0.9	27
	0854	4.4	134		0948	4.7	143
	1527	1.1	34		1623	0.5	15
◑	2128	3.5	107		2246	4.1	125
5 M	0316	1.5	46	**20** Tu	0442	1.3	40
	0939	4.3	131		1052	4.4	134
	1620	1.1	34		1733	0.5	15
	2232	3.5	107				
6 Tu	0415	1.7	52	**21** W	0007	4.0	122
	1032	4.1	125		0601	1.6	49
	1718	1.0	30		1202	4.2	128
	2344	3.6	110		1842	0.5	15
7 W	0525	1.8	55	**22** Th	0121	4.2	128
	1132	4.1	125		0718	1.6	49
	1818	0.8	24		1309	4.1	125
					1943	0.3	9
8 Th	0052	3.9	119	**23** F	0222	4.4	134
	0638	1.7	52		0821	1.4	43
	1235	4.2	128		1408	4.2	128
	1915	0.5	15		2035	0.2	6
9 F	0151	4.3	131	**24** Sa	0310	4.7	143
	0743	1.5	46		0911	1.2	37
	1335	4.4	134		1457	4.3	131
	2008	0.1	3		2118	0.0	0
10 Sa	0243	4.7	143	**25** Su	0350	4.9	149
	0840	1.2	37		0953	1.0	30
	1430	4.6	140		1540	4.4	134
	2057	−0.2	−6	○	2156	−0.1	−3
11 Su	0330	5.1	155	**26** M	0425	5.0	152
	0931	0.8	24		1030	0.8	24
	1522	4.9	149		1618	4.5	137
●	2144	−0.6	−18		2231	−0.1	−3
12 M	0415	5.5	168	**27** Tu	0457	5.1	155
	1019	0.5	15		1104	0.7	21
	1612	5.1	155		1654	4.5	137
	2230	−0.8	−24		2303	−0.1	−3
13 Tu	0459	5.7	174	**28** W	0528	5.2	158
	1106	0.2	6		1137	0.6	18
	1700	5.2	158		1728	4.5	137
	2316	−0.8	−24		2334	0.1	3
14 W	0543	5.9	180	**29** Th	0557	5.1	155
	1153	0.1	3		1208	0.6	18
	1749	5.2	158		1801	4.4	134
15 Th	0002	−0.7	−21	**30** F	0005	0.2	6
	0627	5.8	177		0626	5.0	152
	1240	0.0	0		1240	0.6	18
	1839	5.1	155		1835	4.3	131
				31 Sa	0036	0.5	15
					0655	4.8	146
					1313	0.7	21
					1910	4.1	125

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0107	0.8	24	**16** M	0206	0.6	18
	0726	4.6	140		0818	4.8	146
	1348	0.8	24		1446	0.2	6
	1949	3.9	119	◐	2106	4.2	128
2 M	0142	1.1	34	**17** Tu	0306	1.1	34
	0800	4.4	134		0914	4.3	131
	1428	0.9	27		1551	0.6	18
◑	2036	3.7	113		2224	3.9	119
3 Tu	0225	1.4	43	**18** W	0422	1.5	46
	0841	4.2	128		1025	3.9	119
	1518	1.0	30		1708	0.7	21
	2138	3.5	107		2353	3.8	116
4 W	0323	1.7	52	**19** Th	0554	1.7	52
	0934	4.0	122		1148	3.7	113
	1622	1.0	30		1826	0.7	21
	2257	3.5	107				
5 Th	0442	1.9	58	**20** F	0111	4.0	122
	1046	3.8	116		0715	1.6	49
	1736	0.8	24		1303	3.8	116
					1930	0.6	18
6 F	0019	3.8	116	**21** Sa	0208	4.3	131
	0611	1.8	55		0814	1.3	40
	1206	3.9	119		1401	4.0	122
	1846	0.5	15		2020	0.4	12
7 Sa	0127	4.2	128	**22** Su	0251	4.6	140
	0725	1.4	43		0858	1.0	30
	1317	4.2	128		1447	4.2	128
	1946	0.1	3		2100	0.2	6
8 Su	0221	4.7	143	**23** M	0326	4.8	146
	0824	1.0	30		0933	0.7	21
	1417	4.6	140		1525	4.4	134
	2039	−0.3	−9		2134	0.0	0
9 M	0308	5.2	158	**24** Tu	0356	5.0	152
	0914	0.5	15		1005	0.5	15
	1509	5.0	152		1559	4.5	137
●	2127	−0.7	−21	○	2206	0.0	0
10 Tu	0352	5.6	171	**25** W	0425	5.1	155
	1000	0.0	0		1034	0.3	9
	1558	5.3	162		1631	4.6	140
	2213	−0.9	−27		2236	0.0	0
11 W	0435	5.9	180	**26** Th	0453	5.1	155
	1045	−0.3	−9		1103	0.2	6
	1646	5.5	168		1702	4.6	140
	2258	−1.0	−30		2305	0.0	0
12 Th	0518	6.0	183	**27** F	0520	5.1	155
	1129	−0.5	−15		1132	0.2	6
	1732	5.5	168		1733	4.6	140
	2342	−0.8	−24		2334	0.2	6
13 F	0600	5.9	180	**28** Sa	0547	5.0	152
	1214	−0.5	−15		1201	0.2	6
	1820	5.4	165		1804	4.4	134
14 Sa	0027	−0.5	−15	**29** Su	0003	0.4	12
	0643	5.7	174		0614	4.8	146
	1301	−0.4	−12		1231	0.3	9
	1910	5.1	155		1837	4.3	131
15 Su	0114	0.0	0	**30** M	0034	0.7	21
	0729	5.3	162		0642	4.5	137
	1350	−0.1	−3		1303	0.4	12
	2004	4.6	140		1914	4.1	125
				31 Tu	0109	1.0	30
					0715	4.3	131
					1342	0.6	18
					2000	3.8	116

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0152	1.4	43	**16** Th	0407	1.6	49
	0756	4.0	122		1001	3.5	107
	1431	0.8	24		1638	0.9	27
◑	2101	3.6	110		2329	3.8	116
2 Th	0252	1.7	52	**17** F	0544	1.6	49
	0854	3.7	113		1133	3.4	104
	1539	0.9	27		1800	0.9	27
	2224	3.6	110				
3 F	0421	1.8	55	**18** Sa	0044	3.9	119
	1018	3.6	110		0701	1.4	43
	1703	0.8	24		1250	3.5	107
	2351	3.8	116		1905	0.8	24
4 Sa	0557	1.6	49	**19** Su	0138	4.2	128
	1150	3.7	113		0752	1.1	34
	1822	0.5	15		1345	3.8	116
					1953	0.6	18
5 Su	0101	4.3	131	**20** M	0217	4.4	134
	0709	1.1	34		0831	0.7	21
	1304	4.1	125		1427	4.0	122
	1925	0.1	3		2032	0.4	12
6 M	0155	4.8	146	**21** Tu	0250	4.7	143
	0805	0.6	18		0903	0.4	12
	1403	4.6	140		1502	4.3	131
	2019	−0.3	−9		2105	0.2	6
7 Tu	0242	5.3	162	**22** W	0320	4.8	146
	0853	0.0	0		0932	0.2	6
	1454	5.1	155		1535	4.5	137
	2107	−0.7	−21		2136	0.1	3
8 W	0326	5.7	174	**23** Th	0348	4.9	149
	0937	−0.5	−15		1001	0.0	0
	1542	5.4	165		1606	4.6	140
●	2152	−0.9	−27	○	2207	0.1	3
9 Th	0408	5.9	180	**24** F	0415	5.0	152
	1020	−0.8	−24		1029	−0.1	−3
	1628	5.6	171		1636	4.7	143
	2236	−0.9	−27		2236	0.2	6
10 F	0449	5.9	180	**25** Sa	0442	4.9	149
	1103	−1.0	−30		1057	−0.2	−6
	1713	5.6	171		1707	4.7	143
	2320	−0.7	−21		2306	0.3	9
11 Sa	0531	5.8	177	**26** Su	0510	4.8	146
	1147	−0.9	−27		1126	−0.1	−3
	1800	5.4	165		1739	4.6	140
					2337	0.5	15
12 Su	0005	−0.3	−9	**27** M	0538	4.6	140
	0613	5.4	165		1157	0.0	0
	1232	−0.6	−18		1814	4.4	134
	1848	5.1	155				
13 M	0052	0.2	6	**28** Tu	0010	0.8	24
	0658	5.0	152		0609	4.4	134
	1319	−0.3	−9		1231	0.1	3
	1941	4.6	140		1852	4.2	128
14 Tu	0143	0.7	21	**29** W	0049	1.1	34
	0746	4.4	134		0645	4.1	125
	1413	0.2	6		1311	0.3	9
	2042	4.2	128		1940	4.0	122
15 W	0245	1.3	40	**30** Th	0137	1.3	40
	0844	3.9	119		0731	3.8	116
	1518	0.6	18		1403	0.6	18
◐	2200	3.8	116	◑	2042	3.8	116

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Talara, Peru, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0245	1.6	49
	0836	3.5	107
	1512	0.8	24
	2201	3.8	116
2 Sa	0414	1.6	49
	1006	3.4	104
	1637	0.8	24
	2323	4.0	122
3 Su	0541	1.3	40
	1137	3.7	113
	1756	0.5	15
4 M	0030	4.4	134
	0648	0.7	21
	1249	4.1	125
	1901	0.2	6
5 Tu	0125	4.8	146
	0741	0.2	6
	1347	4.6	140
	1956	−0.2	−6
6 W	0213	5.2	158
	0829	−0.4	−12
	1438	5.1	155
	2045	−0.5	−15
7 Th ●	0257	5.5	168
	0913	−0.8	−24
	1525	5.4	165
	2131	−0.6	−18
8 F	0340	5.7	174
	0956	−1.1	−34
	1611	5.6	171
	2216	−0.6	−18
9 Sa	0422	5.7	174
	1039	−1.2	−37
	1656	5.6	171
	2300	−0.4	−12
10 Su	0504	5.4	165
	1122	−1.0	−30
	1742	5.4	165
	2345	0.0	0
11 M	0546	5.1	155
	1206	−0.7	−21
	1829	5.0	152
12 Tu	0033	0.4	12
	0630	4.6	140
	1252	−0.3	−9
	1921	4.6	140
13 W	0125	0.9	27
	0719	4.1	125
	1343	0.2	6
	2019	4.2	128
14 Th ◐	0227	1.3	40
	0816	3.6	110
	1443	0.6	18
	2129	3.9	119
15 F	0346	1.5	46
	0932	3.3	101
	1556	0.9	27
	2247	3.8	116

	Time	Height	
	h m	ft	cm
16 Sa	0514	1.5	46
	1101	3.2	98
	1714	1.1	34
	2356	3.9	119
17 Su	0624	1.3	40
	1218	3.3	101
	1820	1.0	30
18 M	0049	4.1	125
	0714	0.9	27
	1314	3.6	110
	1912	0.9	27
19 Tu	0131	4.3	131
	0753	0.6	18
	1357	3.9	119
	1953	0.7	21
20 W	0206	4.5	137
	0826	0.3	9
	1433	4.2	128
	2030	0.6	18
21 Th	0238	4.6	140
	0857	0.0	0
	1507	4.4	134
	2104	0.5	15
22 F ○	0308	4.7	143
	0927	−0.2	−6
	1540	4.6	140
	2137	0.4	12
23 Sa	0338	4.8	146
	0957	−0.3	−9
	1613	4.7	143
	2210	0.4	12
24 Su	0409	4.7	143
	1027	−0.4	−12
	1647	4.7	143
	2244	0.5	15
25 M	0440	4.6	140
	1059	−0.4	−12
	1722	4.7	143
	2320	0.7	21
26 Tu	0513	4.5	137
	1133	−0.3	−9
	1800	4.6	140
	2358	0.8	24
27 W	0549	4.3	131
	1211	−0.1	−3
	1842	4.5	137
28 Th	0043	1.0	30
	0631	4.0	122
	1255	0.1	3
	1931	4.3	131
29 F	0137	1.2	37
	0724	3.8	116
	1348	0.4	12
	2030	4.2	128
30 Sa ◑	0244	1.3	40
	0832	3.6	110
	1455	0.6	18
	2139	4.2	128
31 Su	0401	1.2	37
	0955	3.6	110
	1611	0.7	21
	2250	4.3	131

November

	Time	Height	
	h m	ft	cm
1 M	0517	0.9	27
	1118	3.8	116
	1727	0.6	18
	2355	4.5	137
2 Tu	0621	0.4	12
	1229	4.1	125
	1834	0.4	12
3 W	0052	4.8	146
	0716	0.0	0
	1329	4.6	140
	1931	0.2	6
4 Th	0143	5.1	155
	0805	−0.5	−15
	1421	5.0	152
	2023	0.0	0
5 F ●	0230	5.3	162
	0851	−0.8	−24
	1510	5.3	162
	2112	−0.1	−3
6 Sa	0315	5.3	162
	0936	−1.0	−30
	1557	5.4	165
	2159	0.0	0
7 Su	0358	5.3	162
	1019	−1.0	−30
	1643	5.4	165
	2245	0.1	3
8 M	0442	5.1	155
	1102	−0.9	−27
	1729	5.3	162
	2331	0.4	12
9 Tu	0525	4.8	146
	1145	−0.6	−18
	1815	5.0	152
10 W	0019	0.7	21
	0609	4.4	134
	1229	−0.3	−9
	1903	4.7	143
11 Th	0110	1.0	30
	0656	4.0	122
	1315	0.2	6
	1954	4.4	134
12 F	0206	1.2	37
	0750	3.6	110
	1406	0.6	18
	2049	4.2	128
13 Sa ◐	0310	1.4	43
	0853	3.3	101
	1504	0.9	27
	2148	4.0	122
14 Su	0420	1.4	43
	1008	3.2	98
	1609	1.2	37
	2249	4.0	122
15 M	0525	1.2	37
	1123	3.2	98
	1715	1.3	40
	2344	4.0	122

	Time	Height	
	h m	ft	cm
16 Tu	0620	1.0	30
	1226	3.4	104
	1814	1.3	40
17 W	0032	4.1	125
	0705	0.7	21
	1317	3.7	113
	1905	1.2	37
18 Th	0114	4.3	131
	0743	0.4	12
	1400	4.0	122
	1950	1.1	34
19 F	0153	4.4	134
	0819	0.2	6
	1439	4.3	131
	2032	0.9	27
20 Sa	0229	4.5	137
	0854	−0.1	−3
	1517	4.5	137
	2111	0.8	24
21 Su ○	0305	4.6	140
	0929	−0.3	−9
	1554	4.7	143
	2150	0.8	24
22 M	0342	4.6	140
	1004	−0.4	−12
	1631	4.9	149
	2229	0.8	24
23 Tu	0419	4.6	140
	1040	−0.5	−15
	1710	5.0	152
	2310	0.8	24
24 W	0458	4.6	140
	1119	−0.4	−12
	1751	5.0	152
	2353	0.8	24
25 Th	0541	4.4	134
	1201	−0.3	−9
	1834	4.9	149
26 F	0041	0.8	24
	0628	4.3	131
	1247	−0.1	−3
	1922	4.9	149
27 Sa	0133	0.9	27
	0722	4.1	125
	1338	0.1	3
	2014	4.8	146
28 Su ◑	0232	0.9	27
	0825	3.9	119
	1437	0.4	12
	2113	4.7	143
29 M	0338	0.8	24
	0937	3.9	119
	1544	0.6	18
	2215	4.6	140
30 Tu	0445	0.6	18
	1053	3.9	119
	1655	0.8	24
	2318	4.6	140

December

	Time	Height	
	h m	ft	cm
1 W	0551	0.4	12
	1206	4.2	128
	1805	0.8	24
2 Th	0019	4.7	143
	0650	0.0	0
	1312	4.5	137
	1909	0.7	21
3 F	0115	4.8	146
	0745	−0.3	−9
	1409	4.8	146
	2007	0.7	21
4 Sa	0208	4.9	149
	0834	−0.5	−15
	1501	5.0	152
	2100	0.6	18
5 Su ●	0256	5.0	152
	0921	−0.7	−21
	1550	5.2	158
	2150	0.6	18
6 M	0343	5.0	152
	1005	−0.7	−21
	1635	5.3	162
	2237	0.6	18
7 Tu	0427	4.8	146
	1048	−0.6	−18
	1718	5.3	162
	2322	0.6	18
8 W	0510	4.7	143
	1129	−0.5	−15
	1800	5.2	158
9 Th	0006	0.8	24
	0553	4.4	134
	1209	−0.2	−6
	1842	5.0	152
10 F	0051	0.9	27
	0636	4.2	128
	1249	0.2	6
	1922	4.8	146
11 Sa	0136	1.0	30
	0721	3.9	119
	1329	0.5	15
	2004	4.6	140
12 Su	0224	1.2	37
	0810	3.6	110
	1412	0.9	27
	2048	4.4	134
13 M ◐	0316	1.2	37
	0906	3.4	104
	1501	1.2	37
	2135	4.2	128
14 Tu	0411	1.2	37
	1010	3.3	101
	1557	1.5	46
	2226	4.1	125
15 W	0509	1.2	37
	1120	3.4	104
	1700	1.6	49
	2320	4.0	122

	Time	Height	
	h m	ft	cm
16 Th	0605	1.0	30
	1226	3.5	107
	1806	1.7	52
17 F	0014	4.1	125
	0655	0.8	24
	1323	3.8	116
	1907	1.6	49
18 Sa	0105	4.2	128
	0741	0.5	15
	1412	4.1	125
	2001	1.5	46
19 Su	0153	4.3	131
	0824	0.2	6
	1456	4.5	137
	2049	1.3	40
20 M	0239	4.5	137
	0905	−0.1	−3
	1537	4.8	146
	2135	1.0	30
21 Tu ○	0323	4.6	140
	0946	−0.3	−9
	1617	5.1	155
	2218	0.8	24
22 W	0406	4.8	146
	1027	−0.5	−15
	1658	5.4	165
	2301	0.7	21
23 Th	0450	4.8	146
	1108	−0.6	−18
	1739	5.5	168
	2345	0.5	15
24 F	0535	4.9	149
	1151	−0.5	−15
	1821	5.5	168
25 Sa	0030	0.5	15
	0623	4.8	146
	1236	−0.3	−9
	1905	5.5	168
26 Su	0119	0.5	15
	0714	4.6	140
	1324	0.0	0
	1952	5.3	162
27 M ◑	0211	0.5	15
	0810	4.4	134
	1416	0.3	9
	2043	5.1	155
28 Tu	0308	0.5	15
	0913	4.2	128
	1515	0.7	21
	2139	4.9	149
29 W	0412	0.6	18
	1026	4.1	125
	1623	1.1	34
	2242	4.7	143
30 Th	0520	0.5	15
	1144	4.1	125
	1739	1.3	40
	2349	4.5	137
31 F	0628	0.4	12
	1259	4.3	131
	1854	1.4	43

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Guayaquil, Ecuador, 2010

Times and Heights of High and Low Waters

January

	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height		Time	Height
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm
1 F	0209	0.9 27	**16** Sa	0236	1.0 30	**1** M	0323	−0.4 −12	**16** Tu	0330	0.8 24	**1** M	0213	−0.6 −18	**16** Tu	0222	0.6 18
	0733	11.7 357		0804	11.1 338		0854	12.7 387		0850	11.5 351		0750	12.7 387		0749	11.4 347
	1429	−0.1 −3		1454	0.3 9		1542	−0.9 −27		1544	0.7 21		1434	−1.0 −30		1440	0.7 21
	2006	12.3 375		2030	11.6 354		2119	13.3 405		2108	12.1 369		2014	13.3 405		2006	11.9 363
2 Sa	0257	0.5 15	**17** Su	0318	1.0 30	**2** Tu	0408	−0.5 −15	**17** W	0405	1.0 30	**2** Tu	0259	−0.9 −27	**17** W	0301	0.7 21
	0822	12.0 366		0840	11.2 341		0937	12.8 390		0922	11.7 357		0834	12.9 393		0823	11.6 354
	1516	−0.4 −12		1533	0.5 15		1626	−0.7 −21		1616	1.1 34		1519	−1.0 −30		1517	0.9 27
	2053	12.7 387		2104	11.8 360		2201	13.3 405		2139	12.2 372		2057	13.3 405		2039	12.0 366
3 Su	0344	0.3 9	**18** M	0357	1.1 34	**3** W	0453	−0.4 −12	**18** Th	0437	1.2 37	**3** W	0344	−0.8 −24	**18** Th	0337	0.9 27
	0909	12.3 375		0914	11.3 344		1021	12.7 387		0954	11.8 360		0917	12.9 393		0856	11.7 357
	1602	−0.5 −15		1610	0.8 24		1711	−0.3 −9		1642	1.4 43		1603	−0.6 −18		1551	1.3 40
	2138	13.0 396		2136	12.0 366		2243	13.1 399		2211	12.3 375		2137	13.2 402		2111	12.1 369
4 M	0430	0.2 6	**19** Tu	0434	1.3 40	**4** Th	0538	0.0 0	**19** F	0502	1.5 46	**4** Th	0428	−0.5 −15	**19** F	0409	1.2 37
	0955	12.4 378		0948	11.5 351		1105	12.3 375		1029	11.8 360		0958	12.7 387		0930	11.8 360
	1648	−0.4 −12		1644	1.1 34		1758	0.3 9		1649	1.7 52		1648	−0.1 −3		1621	1.6 49
	2222	13.1 399		2209	12.2 372		2327	12.6 384		2247	12.2 372		2217	12.8 390		2144	12.1 369
5 Tu	0517	0.2 6	**20** W	0508	1.5 46	**5** F ◑	0627	0.5 15	**20** Sa	0511	1.7 52	**5** F	0512	0.0 0	**20** Sa	0435	1.4 43
	1041	12.3 375		1022	11.6 354		1151	11.8 360		1109	11.7 357		1040	12.3 375		1006	11.9 363
	1735	−0.1 −3		1713	1.4 43		1849	1.0 30		1709	2.0 61		1733	0.6 18		1638	1.9 58
	2308	12.9 393		2243	12.2 372					2328	11.9 363		2258	12.3 375		2220	12.0 366
6 W	0605	0.3 9	**21** Th	0540	1.7 52	**6** Sa	0013	12.0 366	**21** Su ◐	0540	1.9 58	**6** Sa	0559	0.6 18	**21** Su	0448	1.6 49
	1128	12.1 369		1059	11.6 354		0719	1.0 30		1156	11.4 347		1123	11.8 360		1046	11.8 360
	1824	0.4 12		1731	1.7 52		1241	11.2 341		1753	2.4 73		1823	1.4 43		1657	2.2 67
	2355	12.6 384		2320	12.2 372		1944	1.7 52					2342	11.6 354		2303	11.7 357
7 Th ◑	0656	0.6 18	**22** F	0609	1.8 55	**7** Su	0104	11.3 344	**22** M	0017	11.5 351	**7** Su ◑	0649	1.2 37	**22** M	0521	1.8 55
	1219	11.7 357		1140	11.4 347		0817	1.4 43		0641	2.2 67		1211	11.2 341		1135	11.5 351
	1917	0.9 27		1748	2.0 61		1338	10.6 323		1254	11.0 335		1917	2.0 61		1753	2.5 76
							2045	2.2 67		1953	3.0 91					2356	11.3 344
8 F	0045	12.1 369	**23** Sa ◐	0002	11.9 363	**8** M	0202	10.7 326	**23** Tu	0119	11.0 335	**8** M	0031	11.0 335	**23** Tu ◐	0648	2.1 64
	0751	0.9 27		0645	2.1 64		0917	1.7 52		0846	2.4 73		0746	1.7 52		1235	11.2 341
	1313	11.2 341		1228	11.1 338		1441	10.2 311		1404	10.6 323		1305	10.6 323		1949	2.8 85
	2015	1.4 43		1832	2.5 76		2147	2.4 73		2126	2.9 88		2016	2.4 73			
9 Sa	0139	11.6 354	**24** Su	0052	11.5 351	**9** Tu	0306	10.2 311	**24** W	0233	10.6 323	**9** Tu	0128	10.4 317	**24** W	0100	10.9 332
	0848	1.1 34		0802	2.3 70		1017	1.6 49		1001	2.1 64		0845	2.0 61		0823	2.2 67
	1413	10.8 329		1326	10.8 329		1550	10.0 305		1520	10.6 323		1406	10.2 311		1344	10.9 332
	2115	1.7 52		2031	2.9 88		2248	2.2 67		2236	2.4 73		2118	2.5 76		2105	2.5 76
10 Su	0238	11.1 338	**25** M	0151	11.1 338	**10** W	0414	10.1 308	**25** Th	0350	10.6 323	**10** W	0232	10.0 305	**25** Th	0214	10.6 323
	0948	1.2 37		0920	2.3 70		1116	1.3 40		1105	1.4 43		0946	1.9 58		0935	1.8 55
	1517	10.5 320		1433	10.5 320		1658	10.2 311		1634	11.0 335		1513	10.1 308		1458	11.0 335
	2216	1.9 58		2153	2.9 88		2345	1.9 58		2338	1.6 49		2218	2.3 70		2212	1.9 58
11 M	0341	10.7 326	**26** Tu	0300	10.7 326	**11** Th	0518	10.2 311	**26** F	0502	11.0 335	**11** Th	0339	9.9 302	**26** F	0330	10.7 326
	1046	1.1 34		1028	2.0 61		1210	0.9 27		1203	0.6 18		1044	1.7 52		1039	1.2 37
	1623	10.4 317		1546	10.4 317		1758	10.7 326		1741	11.6 354		1620	10.3 314		1610	11.3 344
	2315	1.8 55		2301	2.6 79								2315	1.9 58		2312	1.1 34
12 Tu	0445	10.6 323	**27** W	0413	10.6 323	**12** F	0038	1.4 43	**27** Sa	0034	0.7 21	**12** F	0445	10.1 308	**27** Sa	0440	11.2 341
	1143	0.8 24		1130	1.4 43		0615	10.5 320		0605	11.6 354		1139	1.2 37		1137	0.5 15
	1728	10.5 320		1657	10.8 329		1300	0.6 18		1257	−0.2 −6		1720	10.7 326		1715	11.9 363
							1847	11.1 338		1838	12.3 375						
13 W	0011	1.6 49	**28** Th	0001	1.9 58	**13** Sa ●	0126	1.0 30	**28** Su ○	0125	−0.1 −3	**13** Sa	0008	1.3 40	**28** Su	0008	0.3 9
	0545	10.6 323		0521	10.9 332		0701	10.9 332		0700	12.2 372		0542	10.5 320		0543	11.8 360
	1236	0.6 18		1227	0.7 21		1346	0.4 12		1347	−0.8 −24		1229	0.9 27		1231	−0.2 −6
	1825	10.8 329		1802	11.4 347		1928	11.5 351		1929	12.9 393		1811	11.1 338		1812	12.5 381
14 Th	0103	1.3 40	**29** F	0057	1.1 34	**14** Su	0210	0.8 24				**14** Su	0056	0.9 27	**29** M ○	0059	−0.4 −12
	0639	10.7 326		0623	11.4 347		0741	11.2 341					0631	10.9 332		0638	12.3 375
	1325	0.4 12		1320	0.0 0		1428	0.3 9					1316	0.6 18		1322	−0.6 −18
	1914	11.1 338		1900	12.1 369		2004	11.7 357					1854	11.5 351		1903	12.9 393
15 F ●	0152	1.1 34	**30** Sa ○	0148	0.4 12	**15** M	0252	0.7 21				**15** M ●	0141	0.6 18	**30** Tu	0148	−0.9 −27
	0724	10.9 332		0718	12.0 366		0817	11.4 347					0712	11.2 341		0728	12.7 387
	1411	0.3 9		1409	−0.6 −18		1507	0.5 15					1359	0.5 15		1410	−0.8 −24
	1954	11.4 347		1950	12.7 387		2037	12.0 366					1932	11.7 357		1949	13.0 396
			31 Su	0237	−0.1 −3										**31** W	0235	−1.0 −30
				0808	12.4 378											0813	12.8 390
				1456	−0.9 −27											1456	−0.6 −18
				2036	13.1 399											2032	12.9 393

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
Seasonal variations in sea level have not been included in these predictions.

Guayaquil, Ecuador, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0320	−0.8	−24
	0855	12.7	387
	1541	−0.2	−6
	2112	12.7	387
2 F	0404	−0.4	−12
	0936	12.4	378
	1626	0.4	12
	2151	12.2	372
3 Sa	0448	0.2	6
	1016	12.0	366
	1712	1.0	30
	2232	11.8	360
4 Su	0533	0.8	24
	1059	11.6	354
	1800	1.7	52
	2314	11.2	341
5 M	0622	1.4	43
	1144	11.2	341
	1851	2.2	67
6 Tu ◑	0002	10.7	326
	0715	1.8	55
	1235	10.8	329
	1948	2.4	73
7 W	0056	10.3	314
	0813	2.0	61
	1332	10.5	320
	2046	2.5	76
8 Th	0157	10.0	305
	0911	2.1	64
	1434	10.4	317
	2144	2.2	67
9 F	0301	10.0	305
	1008	1.9	58
	1536	10.5	320
	2240	1.8	55
10 Sa	0404	10.1	308
	1103	1.5	46
	1635	10.8	329
	2333	1.3	40
11 Su	0502	10.5	320
	1155	1.2	37
	1727	11.1	338
12 M	0022	0.9	27
	0553	10.8	329
	1243	1.0	30
	1814	11.4	347
13 Tu	0108	0.7	21
	0638	11.1	338
	1328	1.0	30
	1856	11.6	354
14 W ●	0152	0.6	18
	0719	11.4	347
	1411	1.1	34
	1934	11.7	357
15 Th	0233	0.7	21
	0757	11.5	351
	1452	1.3	40
	2010	11.7	357

	Time	Height	
	h m	ft	cm
16 F	0311	0.9	27
	0833	11.6	354
	1530	1.6	49
	2046	11.7	357
17 Sa	0348	1.1	34
	0910	11.8	360
	1608	1.8	55
	2122	11.7	357
18 Su	0422	1.3	40
	0950	11.8	360
	1646	2.1	64
	2203	11.6	354
19 M	0459	1.5	46
	1034	11.8	360
	1731	2.2	67
	2250	11.5	351
20 Tu	0548	1.7	52
	1125	11.7	357
	1831	2.3	70
	2345	11.2	341
21 W ◐	0654	1.8	55
	1223	11.5	351
	1937	2.2	67
22 Th	0048	11.0	335
	0803	1.7	52
	1328	11.4	347
	2043	1.9	58
23 F	0157	10.8	329
	0909	1.5	46
	1436	11.5	351
	2145	1.4	43
24 Sa	0307	11.0	335
	1011	1.0	30
	1542	11.7	357
	2244	0.7	21
25 Su	0415	11.3	344
	1109	0.5	15
	1645	12.0	366
	2340	0.1	3
26 M	0517	11.7	357
	1204	0.1	3
	1743	12.3	375
27 Tu	0033	−0.4	−12
	0614	12.1	369
	1257	−0.1	−3
	1836	12.5	381
28 W ○	0123	−0.7	−21
	0705	12.3	375
	1347	−0.2	−6
	1923	12.5	381
29 Th	0211	−0.7	−21
	0751	12.4	378
	1434	0.0	0
	2007	12.3	375
30 F	0257	−0.5	−15
	0835	12.2	372
	1521	0.4	12
	2048	12.0	366

May

	Time	Height	
	h m	ft	cm
1 Sa	0342	−0.1	−3
	0916	12.0	366
	1606	0.9	27
	2128	11.6	354
2 Su	0426	0.4	12
	0956	11.8	360
	1651	1.4	43
	2208	11.3	344
3 M	0510	0.9	27
	1036	11.5	351
	1738	1.8	55
	2250	11.0	335
4 Tu	0556	1.3	40
	1119	11.3	344
	1826	2.1	64
	2335	10.7	326
5 W ◑	0645	1.7	52
	1206	11.1	338
	1917	2.2	67
6 Th	0025	10.5	320
	0737	1.9	58
	1257	11.0	335
	2011	2.2	67
7 F	0120	10.3	314
	0832	2.0	61
	1352	10.9	332
	2106	2.0	61
8 Sa	0219	10.2	311
	0928	2.0	61
	1449	10.9	332
	2201	1.8	55
9 Su	0319	10.3	314
	1023	1.9	58
	1546	11.0	335
	2255	1.4	43
10 M	0417	10.5	320
	1117	1.7	52
	1641	11.1	338
	2346	1.1	34
11 Tu	0511	10.7	326
	1208	1.6	49
	1731	11.2	341
12 W	0035	0.9	27
	0602	10.9	332
	1257	1.5	46
	1819	11.3	344
13 Th ●	0121	0.8	24
	0648	11.2	341
	1344	1.5	46
	1903	11.4	347
14 F	0206	0.8	24
	0732	11.4	347
	1429	1.6	49
	1945	11.4	347
15 Sa	0249	0.9	27
	0814	11.6	354
	1513	1.7	52
	2026	11.4	347

	Time	Height	
	h m	ft	cm
16 Su	0330	0.9	27
	0856	11.7	357
	1556	1.8	55
	2108	11.5	351
17 M	0412	1.0	30
	0939	11.9	363
	1641	1.8	55
	2153	11.5	351
18 Tu	0456	1.1	34
	1026	12.0	366
	1729	1.8	55
	2242	11.5	351
19 W	0546	1.1	34
	1116	12.1	369
	1822	1.7	52
	2336	11.4	347
20 Th ◐	0641	1.2	37
	1210	12.0	366
	1919	1.5	46
21 F	0035	11.3	344
	0741	1.2	37
	1309	12.0	366
	2018	1.3	40
22 Sa	0137	11.2	341
	0842	1.1	34
	1410	11.9	363
	2117	0.9	27
23 Su	0242	11.2	341
	0942	1.0	30
	1513	11.9	363
	2216	0.5	15
24 M	0347	11.3	344
	1041	0.8	24
	1614	11.9	363
	2312	0.2	6
25 Tu	0449	11.4	347
	1138	0.6	18
	1713	11.9	363
26 W	0007	−0.1	−3
	0549	11.6	354
	1232	0.5	15
	1808	11.9	363
27 Th ○	0059	−0.3	−9
	0643	11.8	360
	1324	0.5	15
	1859	11.8	360
28 F	0148	−0.3	−9
	0732	11.8	360
	1414	0.6	18
	1945	11.6	354
29 Sa	0236	−0.2	−6
	0816	11.8	360
	1501	0.9	27
	2028	11.4	347
30 Su	0321	0.1	3
	0857	11.7	357
	1547	1.1	34
	2108	11.2	341
31 M	0405	0.5	15
	0936	11.6	354
	1631	1.4	43
	2147	11.1	338

June

	Time	Height	
	h m	ft	cm
1 Tu	0447	0.9	27
	1015	11.6	354
	1714	1.7	52
	2226	11.0	335
2 W	0529	1.2	37
	1054	11.6	354
	1758	1.8	55
	2308	10.9	332
3 Th	0613	1.5	46
	1136	11.6	354
	1844	1.9	58
	2353	10.8	329
4 F ◑	0659	1.8	55
	1221	11.5	351
	1933	2.0	61
5 Sa	0042	10.7	326
	0749	2.0	61
	1309	11.4	347
	2025	2.0	61
6 Su	0135	10.6	323
	0844	2.2	67
	1402	11.3	344
	2119	1.9	58
7 M	0232	10.5	320
	0941	2.3	70
	1457	11.1	338
	2214	1.7	52
8 Tu	0331	10.4	317
	1038	2.3	70
	1554	11.0	335
	2309	1.5	46
9 W	0429	10.5	320
	1134	2.2	67
	1650	11.0	335
10 Th	0002	1.3	40
	0526	10.7	326
	1227	2.0	61
	1744	11.0	335
11 F	0053	1.0	30
	0620	11.0	335
	1319	1.8	55
	1836	11.1	338
12 Sa ●	0142	0.8	24
	0710	11.3	344
	1408	1.7	52
	1924	11.2	341
13 Su	0228	0.7	21
	0758	11.6	354
	1455	1.5	46
	2011	11.4	347
14 M	0313	0.5	15
	0844	12.0	366
	1541	1.3	40
	2058	11.6	354
15 Tu	0358	0.4	12
	0929	12.3	375
	1627	1.1	34
	2144	11.8	360

	Time	Height	
	h m	ft	cm
16 W	0443	0.4	12
	1015	12.5	381
	1714	1.0	30
	2232	11.8	360
17 Th	0531	0.5	15
	1102	12.6	384
	1803	0.9	27
	2322	11.8	360
18 F ◐	0621	0.6	18
	1152	12.5	381
	1856	0.9	27
19 Sa	0016	11.7	357
	0716	0.8	24
	1246	12.4	378
	1951	0.8	24
20 Su	0113	11.5	351
	0814	1.0	30
	1342	12.1	369
	2049	0.8	24
21 M	0214	11.2	341
	0914	1.2	37
	1441	11.8	360
	2147	0.7	21
22 Tu	0317	11.1	338
	1014	1.3	40
	1543	11.5	351
	2246	0.5	15
23 W	0422	11.0	335
	1113	1.2	37
	1644	11.3	344
	2342	0.3	9
24 Th	0524	11.1	338
	1209	1.1	34
	1743	11.2	341
25 F	0036	0.2	6
	0623	11.2	341
	1303	1.0	30
	1838	11.2	341
26 Sa ○	0127	0.1	3
	0714	11.4	347
	1353	1.0	30
	1926	11.1	338
27 Su	0215	0.1	3
	0759	11.5	351
	1441	1.0	30
	2009	11.1	338
28 M	0259	0.2	6
	0839	11.6	354
	1525	1.1	34
	2048	11.1	338
29 Tu	0342	0.4	12
	0915	11.7	357
	1607	1.2	37
	2125	11.1	338
30 W	0422	0.7	21
	0950	11.8	360
	1648	1.4	43
	2202	11.2	341

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
Seasonal variations in sea level have not been included in these predictions.

Guayaquil, Ecuador, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0501	1.0	30
	1026	11.9	363
	1727	1.6	49
	2239	11.2	341
2 F	0539	1.3	40
	1103	11.9	363
	1807	1.7	52
	2318	11.2	341
3 Sa	0617	1.7	52
	1142	11.9	363
	1850	1.8	55
4 Su ◑	0002	11.1	338
	0659	2.0	61
	1226	11.8	360
	1938	2.0	61
5 M	0050	10.9	332
	0752	2.4	73
	1315	11.5	351
	2033	2.1	64
6 Tu	0145	10.6	323
	0855	2.6	79
	1409	11.2	341
	2133	2.1	64
7 W	0246	10.4	317
	0959	2.7	82
	1510	10.9	332
	2234	1.9	58
8 Th	0350	10.4	317
	1102	2.6	79
	1613	10.7	326
	2332	1.6	49
9 F	0454	10.5	320
	1200	2.3	70
	1715	10.8	329
10 Sa	0027	1.2	37
	0555	10.9	332
	1255	1.8	55
	1814	11.0	335
11 Su ●	0119	0.7	21
	0651	11.4	347
	1347	1.3	40
	1908	11.4	347
12 M	0207	0.3	9
	0742	11.9	363
	1435	0.9	27
	1958	11.7	357
13 Tu	0254	0.0	0
	0829	12.4	378
	1522	0.6	18
	2045	12.0	366
14 W	0339	−0.2	−6
	0914	12.8	390
	1607	0.3	9
	2131	12.3	375
15 Th	0424	−0.2	−6
	0958	13.0	396
	1653	0.2	6
	2216	12.3	375

	Time	Height	
	h m	ft	cm
16 F	0510	−0.1	−3
	1043	13.0	396
	1740	0.3	9
	2303	12.2	372
17 Sa	0558	0.3	9
	1129	12.8	390
	1829	0.5	15
	2353	12.0	366
18 Su ◐	0650	0.7	21
	1219	12.4	378
	1923	0.7	21
19 M	0046	11.5	351
	0746	1.2	37
	1312	11.9	363
	2020	0.9	27
20 Tu	0144	11.1	338
	0846	1.6	49
	1410	11.4	347
	2120	1.1	34
21 W	0247	10.7	326
	0948	1.8	55
	1513	10.9	332
	2220	1.0	30
22 Th	0354	10.5	320
	1049	1.7	52
	1618	10.7	326
	2318	0.8	24
23 F	0501	10.6	323
	1147	1.5	46
	1721	10.7	326
24 Sa	0013	0.5	15
	0602	10.9	332
	1241	1.3	40
	1818	10.8	329
25 Su ○	0104	0.3	9
	0654	11.2	341
	1331	1.0	30
	1907	11.0	335
26 M	0151	0.2	6
	0738	11.5	351
	1417	0.9	27
	1949	11.1	338
27 Tu	0235	0.2	6
	0816	11.7	357
	1500	0.8	24
	2026	11.2	341
28 W	0316	0.3	9
	0850	11.8	360
	1540	0.9	27
	2101	11.3	344
29 Th	0355	0.6	18
	0922	12.0	366
	1618	1.1	34
	2135	11.4	347
30 F	0431	1.0	30
	0955	12.1	369
	1654	1.3	40
	2208	11.5	351
31 Sa	0504	1.3	40
	1028	12.1	369
	1729	1.6	49
	2244	11.5	351

August

	Time	Height	
	h m	ft	cm
1 Su	0532	1.7	52
	1104	12.1	369
	1801	1.8	55
	2323	11.4	347
2 M ◑	0549	2.1	64
	1144	11.9	363
	1838	2.1	64
3 Tu	0008	11.1	338
	0619	2.5	76
	1230	11.5	351
	1938	2.3	70
4 W	0102	10.8	329
	0803	2.9	88
	1326	11.0	335
	2052	2.4	73
5 Th	0206	10.5	320
	0925	3.0	91
	1431	10.7	326
	2201	2.2	67
6 F	0316	10.3	314
	1034	2.8	85
	1542	10.5	320
	2304	1.8	55
7 Sa	0427	10.6	323
	1136	2.2	67
	1651	10.7	326
8 Su	0002	1.1	34
	0532	11.1	338
	1232	1.5	46
	1755	11.1	338
9 M ●	0055	0.4	12
	0631	11.8	360
	1323	0.8	24
	1851	11.7	357
10 Tu	0145	−0.2	−6
	0723	12.4	378
	1412	0.2	6
	1941	12.2	372
11 W	0232	−0.6	−18
	0810	12.9	393
	1458	−0.2	−6
	2028	12.6	384
12 Th	0317	−0.7	−21
	0854	13.2	402
	1543	−0.4	−12
	2113	12.8	390
13 F	0402	−0.6	−18
	0937	13.3	405
	1628	−0.3	−9
	2156	12.7	387
14 Sa	0447	−0.3	−9
	1019	13.1	399
	1714	−0.1	−3
	2241	12.5	381
15 Su	0534	0.2	6
	1103	12.7	387
	1802	0.3	9
	2328	12.0	366

	Time	Height	
	h m	ft	cm
16 M ◐	0625	0.9	27
	1150	12.1	369
	1855	0.8	24
17 Tu	0018	11.5	351
	0720	1.5	46
	1241	11.5	351
	1952	1.2	37
18 W	0115	10.9	332
	0821	2.0	61
	1339	10.9	332
	2052	1.5	46
19 Th	0218	10.4	317
	0923	2.2	67
	1443	10.4	317
	2153	1.5	46
20 F	0326	10.3	314
	1024	2.0	61
	1551	10.2	311
	2252	1.2	37
21 Sa	0434	10.4	317
	1122	1.7	52
	1657	10.4	317
	2347	0.8	24
22 Su	0536	10.8	329
	1216	1.2	37
	1754	10.7	326
23 M	0038	0.5	15
	0627	11.2	341
	1305	0.8	24
	1843	11.0	335
24 Tu ○	0125	0.3	9
	0710	11.6	354
	1350	0.6	18
	1924	11.2	341
25 W	0208	0.2	6
	0747	11.8	360
	1432	0.5	15
	2001	11.4	347
26 Th	0249	0.4	12
	0820	11.9	363
	1511	0.6	18
	2034	11.5	351
27 F	0327	0.7	21
	0852	12.0	366
	1548	0.9	27
	2107	11.6	354
28 Sa	0401	1.1	34
	0923	12.1	369
	1622	1.2	37
	2139	11.7	357
29 Su	0432	1.5	46
	0954	12.1	369
	1651	1.5	46
	2212	11.7	357
30 M	0450	1.9	58
	1028	12.0	366
	1706	1.8	55
	2250	11.5	351
31 Tu	0454	2.2	67
	1107	11.7	357
	1720	2.0	61
	2334	11.3	344

September

	Time	Height	
	h m	ft	cm
1 W ◑	0530	2.6	79
	1153	11.4	347
	1808	2.3	70
2 Th	0028	10.9	332
	0641	3.0	91
	1252	10.9	332
	2016	2.6	79
3 F	0135	10.6	323
	0858	3.1	94
	1403	10.5	320
	2132	2.3	70
4 Sa	0249	10.5	320
	1009	2.6	79
	1518	10.4	317
	2237	1.7	52
5 Su	0402	10.8	329
	1110	1.9	58
	1630	10.8	329
	2336	1.0	30
6 M	0509	11.4	347
	1207	1.0	30
	1734	11.4	347
7 Tu	0030	0.2	6
	0607	12.1	369
	1258	0.2	6
	1831	12.1	369
8 W	0120	−0.4	−12
	0659	12.8	390
	1347	−0.5	−15
	1922	12.6	384
9 Th	0208	−0.8	−24
	0747	13.2	402
	1434	−0.8	−24
	2008	12.9	393
10 F	0254	−0.9	−27
	0830	13.3	405
	1519	−0.8	−24
	2052	13.0	396
11 Sa	0339	−0.6	−18
	0913	13.2	402
	1604	−0.6	−18
	2135	12.8	390
12 Su	0425	−0.1	−3
	0954	12.9	393
	1649	−0.1	−3
	2218	12.4	378
13 M	0512	0.5	15
	1037	12.3	375
	1737	0.4	12
	2303	11.9	363
14 Tu	0602	1.2	37
	1122	11.7	357
	1828	1.0	30
	2352	11.3	344
15 W ◐	0656	1.8	55
	1212	11.0	335
	1924	1.5	46

	Time	Height	
	h m	ft	cm
16 Th	0046	10.8	329
	0755	2.2	67
	1309	10.5	320
	2024	1.8	55
17 F	0147	10.4	317
	0856	2.3	70
	1413	10.1	308
	2124	1.8	55
18 Sa	0253	10.3	314
	0956	2.1	64
	1520	10.0	305
	2222	1.5	46
19 Su	0359	10.4	317
	1053	1.7	52
	1625	10.2	311
	2317	1.1	34
20 M	0459	10.8	329
	1146	1.2	37
	1723	10.6	323
21 Tu	0008	0.7	21
	0551	11.2	341
	1234	0.7	21
	1812	11.0	335
22 W	0055	0.5	15
	0635	11.6	354
	1320	0.4	12
	1854	11.3	344
23 Th ○	0139	0.4	12
	0713	11.8	360
	1402	0.4	12
	1932	11.5	351
24 F	0220	0.6	18
	0748	11.9	363
	1442	0.5	15
	2007	11.6	354
25 Sa	0259	0.9	27
	0821	11.9	363
	1519	0.8	24
	2040	11.6	354
26 Su	0335	1.4	43
	0853	11.9	363
	1553	1.2	37
	2112	11.7	357
27 M	0407	1.8	55
	0925	11.8	360
	1622	1.5	46
	2147	11.7	357
28 Tu	0431	2.2	67
	0959	11.7	357
	1633	1.8	55
	2225	11.6	354
29 W	0436	2.4	73
	1039	11.5	351
	1651	2.0	61
	2311	11.4	347
30 Th ◑	0517	2.7	82
	1128	11.2	341
	1745	2.3	70

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
Seasonal variations in sea level have not been included in these predictions.

Guayaquil, Ecuador, 2010

Times and Heights of High and Low Waters

October

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 F	0006	11.1 338	**16** Sa	0115	10.6 323
	0716	2.9 88		0826	2.3 70
	1229	10.8 329		1339	10.0 305
	1950	2.4 73		2050	1.9 58
2 Sa	0113	10.9 332	**17** Su	0215	10.5 320
	0836	2.8 85		0923	2.1 64
	1341	10.5 320		1442	10.0 305
	2104	2.1 64		2147	1.8 55
3 Su	0225	10.9 332	**18** M	0316	10.6 323
	0943	2.2 67		1019	1.7 52
	1456	10.6 323		1545	10.2 311
	2209	1.6 49		2242	1.5 46
4 M	0336	11.2 341	**19** Tu	0414	10.9 332
	1044	1.4 43		1111	1.2 37
	1607	11.0 335		1642	10.5 320
	2309	0.8 24		2333	1.2 37
5 Tu	0442	11.8 360	**20** W	0507	11.2 341
	1140	0.5 15		1201	0.8 24
	1711	11.6 354		1734	10.9 332
6 W	0003	0.1 3	**21** Th	0022	1.0 30
	0541	12.4 378		0555	11.4 347
	1232	−0.2 −6		1248	0.5 15
	1808	12.2 372		1820	11.2 341
7 Th ●	0055	−0.4 −12	**22** F ○	0109	0.9 27
	0634	12.8 390		0637	11.6 354
	1322	−0.8 −24		1332	0.5 15
	1900	12.7 387		1902	11.3 344
8 F	0144	−0.7 −21	**23** Sa	0152	1.1 34
	0722	13.1 399		0716	11.6 354
	1409	−1.0 −30		1414	0.6 18
	1947	12.9 393		1940	11.5 351
9 Sa	0232	−0.6 −18	**24** Su	0234	1.3 40
	0807	13.0 396		0752	11.6 354
	1455	−0.9 −27		1453	0.8 24
	2032	12.9 393		2016	11.5 351
10 Su	0318	−0.3 −9	**25** M	0313	1.6 49
	0849	12.8 390		0827	11.5 351
	1541	−0.6 −18		1531	1.1 34
	2115	12.6 384		2052	11.6 354
11 M	0404	0.2 6	**26** Tu	0351	2.0 61
	0931	12.4 378		0903	11.5 351
	1626	−0.1 −3		1605	1.4 43
	2157	12.2 372		2129	11.6 354
12 Tu	0451	0.8 24	**27** W	0428	2.2 67
	1013	11.9 363		0940	11.4 347
	1713	0.5 15		1637	1.6 49
	2241	11.8 360		2210	11.7 357
13 W	0540	1.4 43	**28** Th	0507	2.4 73
	1057	11.3 344		1024	11.3 344
	1803	1.1 34		1714	1.8 55
	2327	11.3 344		2257	11.6 354
14 Th ◐	0633	1.9 58	**29** F	0600	2.5 76
	1145	10.8 329		1115	11.1 338
	1856	1.6 49		1816	1.9 58
				2352	11.5 351
15 F	0018	10.9 332	**30** Sa ◑	0705	2.5 76
	0728	2.2 67		1215	10.9 332
	1239	10.3 314		1928	2.0 61
	1952	1.9 58			
			31 Su	0054	11.4 347
				0812	2.2 67
				1322	10.8 329
				2036	1.8 55

November

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 M	0201	11.4 347	**16** Tu	0228	10.9 332
	0915	1.7 52		0940	1.8 55
	1432	10.9 332		1458	10.2 311
	2140	1.4 43		2202	1.9 58
2 Tu	0308	11.6 354	**17** W	0325	11.0 335
	1015	1.0 30		1034	1.5 46
	1541	11.2 341		1556	10.4 317
	2240	0.9 27		2256	1.8 55
3 W	0412	11.9 363	**18** Th	0420	11.0 335
	1112	0.3 9		1126	1.2 37
	1645	11.6 354		1652	10.6 323
	2337	0.4 12		2348	1.6 49
4 Th	0512	12.3 375	**19** F	0512	11.1 338
	1206	−0.3 −9		1215	0.9 27
	1744	12.0 366		1744	10.8 329
5 F ●	0030	0.0 0	**20** Sa	0038	1.6 49
	0607	12.5 381		0601	11.2 341
	1257	−0.7 −21		1303	0.8 24
	1838	12.4 378		1832	11.0 335
6 Sa	0122	−0.2 −6	**21** Su ○	0126	1.6 49
	0658	12.6 384		0646	11.2 341
	1347	−0.8 −24		1348	0.8 24
	1928	12.5 381		1916	11.2 341
7 Su	0211	−0.1 −3	**22** M	0211	1.6 49
	0745	12.5 381		0728	11.3 344
	1434	−0.7 −21		1431	0.9 27
	2014	12.5 381		1957	11.4 347
8 M	0259	0.2 6	**23** Tu	0255	1.8 55
	0829	12.2 372		0808	11.3 344
	1520	−0.4 −12		1513	1.0 30
	2057	12.3 375		2037	11.6 354
9 Tu	0346	0.6 18	**24** W	0337	1.9 58
	0911	11.9 363		0848	11.3 344
	1606	0.0 0		1553	1.1 34
	2139	12.0 366		2118	11.8 360
10 W	0432	1.0 30	**25** Th	0420	1.9 58
	0952	11.5 351		0930	11.4 347
	1651	0.5 15		1633	1.2 37
	2221	11.8 360		2201	12.0 366
11 Th	0519	1.5 46	**26** F	0504	1.9 58
	1034	11.1 338		1015	11.4 347
	1737	1.0 30		1716	1.2 37
	2304	11.5 351		2247	12.1 369
12 F	0607	1.8 55	**27** Sa	0552	1.8 55
	1119	10.8 329		1105	11.4 347
	1826	1.5 46		1807	1.3 40
	2349	11.3 344		2338	12.1 369
13 Sa ◐	0658	2.0 61	**28** Su ◑	0646	1.7 52
	1208	10.5 320		1200	11.3 344
	1917	1.8 55		1905	1.4 43
14 Su	0039	11.1 338	**29** M	0034	12.0 366
	0751	2.1 64		0745	1.5 46
	1301	10.3 314		1301	11.2 341
	2011	1.9 58		2007	1.4 43
15 M	0132	11.0 335	**30** Tu	0134	11.9 363
	0845	2.0 61		0846	1.3 40
	1358	10.2 311		1406	11.1 338
	2106	2.0 61		2110	1.3 40

December

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 W	0237	11.8 360	**16** Th	0233	11.0 335
	0946	0.9 27		0953	1.9 58
	1512	11.2 341		1507	10.3 314
	2211	1.1 34		2217	2.4 73
2 Th	0341	11.8 360	**17** F	0331	10.8 329
	1044	0.4 12		1049	1.7 52
	1617	11.3 344		1608	10.3 314
	2311	0.9 27		2314	2.4 73
3 F	0443	11.8 360	**18** Sa	0429	10.7 326
	1141	0.0 0		1143	1.5 46
	1720	11.6 354		1707	10.4 317
4 Sa	0007	0.6 18	**19** Su	0009	2.2 67
	0542	11.9 363		0526	10.7 326
	1235	−0.3 −9		1235	1.2 37
	1819	11.8 360		1803	10.7 326
5 Su ●	0101	0.5 15	**20** M	0101	2.0 61
	0637	11.9 363		0619	10.9 332
	1326	−0.5 −15		1324	0.9 27
	1912	12.0 366		1854	11.0 335
6 M	0152	0.4 12	**21** Tu ○	0150	1.7 52
	0726	11.8 360		0707	11.0 335
	1415	−0.5 −15		1411	0.7 21
	1959	12.0 366		1941	11.4 347
7 Tu	0241	0.5 15	**22** W	0237	1.5 46
	0812	11.7 357		0753	11.3 344
	1501	−0.3 −9		1455	0.6 18
	2042	12.0 366		2024	11.8 360
8 W	0328	0.7 21	**23** Th	0321	1.3 40
	0853	11.5 351		0837	11.5 351
	1546	0.0 0		1537	0.5 15
	2122	11.9 363		2107	12.2 372
9 Th	0412	1.0 30	**24** F	0404	1.2 37
	0933	11.3 344		0921	11.7 357
	1629	0.4 12		1619	0.4 12
	2200	11.9 363		2150	12.5 381
10 F	0456	1.3 40	**25** Sa	0448	1.1 34
	1012	11.2 341		1005	11.9 363
	1711	0.8 24		1702	0.5 15
	2239	11.8 360		2234	12.7 387
11 Sa	0539	1.5 46	**26** Su	0534	1.0 30
	1052	11.1 338		1052	12.0 366
	1754	1.2 37		1749	0.6 18
	2319	11.7 357		2321	12.7 387
12 Su	0624	1.7 52	**27** M ◑	0623	1.0 30
	1135	10.9 332		1143	11.8 360
	1838	1.6 49		1841	0.9 27
13 M ◐	0001	11.6 354	**28** Tu	0011	12.5 381
	0711	1.9 58		0717	1.0 30
	1221	10.8 329		1237	11.6 354
	1927	1.9 58		1939	1.1 34
14 Tu	0048	11.5 351	**29** W	0106	12.2 372
	0802	1.9 58		0816	1.0 30
	1312	10.6 323		1337	11.3 344
	2021	2.2 67		2041	1.4 43
15 W	0138	11.3 344	**30** Th	0206	11.8 360
	0856	2.0 61		0917	1.0 30
	1408	10.4 317		1442	11.0 335
	2118	2.4 73		2144	1.5 46
			31 F	0310	11.4 347
				1018	0.8 24
				1550	10.9 332
				2246	1.4 43

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
Seasonal variations in sea level have not been included in these predictions.

La Libertad, Ecuador, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0344	6.9	210
	1004	−0.6	−18
	1628	7.4	226
	2234	0.4	12
2 Sa	0434	7.1	216
	1051	−0.8	−24
	1715	7.7	235
	2323	0.1	3
3 Su	0524	7.2	219
	1138	−0.8	−24
	1801	7.8	238
4 M	0012	0.0	0
	0614	7.1	216
	1226	−0.6	−18
	1849	7.7	235
5 Tu	0103	0.1	3
	0706	6.8	207
	1316	−0.2	−6
	1938	7.4	226
6 W	0155	0.3	9
	0800	6.5	198
	1408	0.4	12
	2029	7.0	213
7 Th ◑	0251	0.6	18
	0859	6.0	183
	1504	0.9	27
	2124	6.6	201
8 F	0352	0.8	24
	1006	5.7	174
	1607	1.5	46
	2225	6.1	186
9 Sa	0458	1.0	30
	1119	5.4	165
	1717	1.9	58
	2330	5.9	180
10 Su	0607	1.1	34
	1234	5.4	165
	1831	2.1	64
11 M	0036	5.7	174
	0711	1.0	30
	1340	5.6	171
	1938	2.0	61
12 Tu	0137	5.7	174
	0805	0.8	24
	1434	5.9	180
	2034	1.9	58
13 W	0228	5.8	177
	0852	0.7	21
	1519	6.2	189
	2120	1.7	52
14 Th	0313	6.0	183
	0932	0.5	15
	1557	6.4	195
	2200	1.4	43
15 F ●	0353	6.1	186
	1008	0.4	12
	1632	6.6	201
	2236	1.2	37

	Time	Height	
	h m	ft	cm
16 Sa	0429	6.2	189
	1042	0.3	9
	1704	6.8	207
	2311	1.1	34
17 Su	0505	6.2	189
	1115	0.3	9
	1736	6.9	210
	2344	1.0	30
18 M	0539	6.2	189
	1147	0.4	12
	1808	6.8	207
19 Tu	0018	1.0	30
	0614	6.1	186
	1219	0.6	18
	1839	6.7	204
20 W	0052	1.0	30
	0649	5.9	180
	1252	0.9	27
	1911	6.6	201
21 Th	0127	1.2	37
	0726	5.7	174
	1327	1.2	37
	1945	6.3	192
22 F	0205	1.3	40
	0807	5.5	168
	1405	1.6	49
	2023	6.1	186
23 Sa ◐	0249	1.4	43
	0856	5.2	158
	1451	1.9	58
	2109	5.8	177
24 Su	0342	1.5	46
	0958	5.1	155
	1551	2.2	67
	2207	5.7	174
25 M	0447	1.5	46
	1113	5.1	155
	1707	2.4	73
	2318	5.6	171
26 Tu	0558	1.3	40
	1230	5.4	165
	1828	2.2	67
27 W	0032	5.8	177
	0706	0.9	27
	1337	6.0	183
	1939	1.8	55
28 Th	0140	6.1	186
	0806	0.4	12
	1434	6.6	201
	2039	1.2	37
29 F	0239	6.6	201
	0900	−0.1	−3
	1524	7.2	219
	2131	0.6	18
30 Sa ○	0333	7.1	216
	0949	−0.5	−15
	1611	7.7	235
	2221	0.1	3
31 Su	0423	7.4	226
	1037	−0.8	−24
	1657	8.0	244
	2308	−0.2	−6

February

	Time	Height	
	h m	ft	cm
1 M	0511	7.6	232
	1123	−0.8	−24
	1742	8.1	247
	2354	−0.3	−9
2 Tu	0559	7.5	229
	1209	−0.6	−18
	1826	8.0	244
3 W	0041	−0.3	−9
	0647	7.3	223
	1255	−0.2	−6
	1911	7.7	235
4 Th	0129	0.0	0
	0737	6.8	207
	1342	0.4	12
	1958	7.2	219
5 F ◑	0220	0.4	12
	0831	6.3	192
	1434	1.1	34
	2049	6.6	201
6 Sa	0315	0.9	27
	0932	5.8	177
	1532	1.8	55
	2146	6.0	183
7 Su	0420	1.3	40
	1045	5.4	165
	1644	2.3	70
	2253	5.5	168
8 M	0532	1.5	46
	1207	5.3	162
	1807	2.5	76
9 Tu	0009	5.3	162
	0645	1.5	46
	1321	5.4	165
	1923	2.4	73
10 W	0118	5.4	165
	0745	1.4	43
	1417	5.8	177
	2021	2.1	64
11 Th	0214	5.6	171
	0833	1.1	34
	1500	6.1	186
	2105	1.8	55
12 F	0259	5.8	177
	0912	0.9	27
	1536	6.4	195
	2142	1.5	46
13 Sa ●	0337	6.1	186
	0947	0.7	21
	1608	6.7	204
	2215	1.1	34
14 Su	0412	6.3	192
	1020	0.5	15
	1638	6.9	210
	2247	0.9	27
15 M	0445	6.4	195
	1051	0.4	12
	1708	7.1	216
	2318	0.7	21

	Time	Height	
	h m	ft	cm
16 Tu	0518	6.5	198
	1122	0.5	15
	1737	7.1	216
	2349	0.7	21
17 W	0550	6.5	198
	1153	0.6	18
	1807	7.0	213
18 Th	0020	0.7	21
	0623	6.3	192
	1224	0.8	24
	1837	6.8	207
19 F	0052	0.8	24
	0657	6.1	186
	1257	1.2	37
	1909	6.6	201
20 Sa	0128	1.0	30
	0736	5.9	180
	1334	1.5	46
	1945	6.3	192
21 Su ◐	0209	1.2	37
	0822	5.6	171
	1419	1.9	58
	2030	6.0	183
22 M	0300	1.4	43
	0921	5.4	165
	1518	2.2	67
	2129	5.7	174
23 Tu	0407	1.5	46
	1038	5.3	162
	1639	2.4	73
	2247	5.5	168
24 W	0526	1.5	46
	1202	5.5	168
	1808	2.2	67
25 Th	0012	5.7	174
	0642	1.1	34
	1315	6.1	186
	1923	1.7	52
26 F	0125	6.1	186
	0747	0.6	18
	1413	6.7	204
	2023	1.1	34
27 Sa	0226	6.7	204
	0842	0.1	3
	1504	7.3	223
	2115	0.4	12
28 Su ○	0319	7.2	219
	0932	−0.4	−12
	1550	7.8	238
	2202	−0.2	−6

March

	Time	Height	
	h m	ft	cm
1 M	0408	7.6	232
	1019	−0.6	−18
	1635	8.1	247
	2248	−0.5	−15
2 Tu	0455	7.8	238
	1103	−0.6	−18
	1718	8.2	250
	2332	−0.6	−18
3 W	0541	7.7	235
	1148	−0.4	−12
	1800	8.0	244
4 Th	0016	−0.5	−15
	0626	7.4	226
	1232	0.0	0
	1843	7.6	232
5 F	0101	−0.1	−3
	0713	6.9	210
	1317	0.6	18
	1927	7.0	213
6 Sa	0148	0.4	12
	0804	6.4	195
	1405	1.3	40
	2014	6.4	195
7 Su ◑	0239	0.9	27
	0900	5.8	177
	1501	2.0	61
	2108	5.7	174
8 M	0339	1.4	43
	1009	5.4	165
	1612	2.5	76
	2216	5.2	158
9 Tu	0451	1.8	55
	1131	5.2	158
	1739	2.6	79
	2338	5.0	152
10 W	0609	1.9	58
	1248	5.3	162
	1859	2.5	76
11 Th	0054	5.1	155
	0714	1.7	52
	1345	5.6	171
	1956	2.1	64
12 F	0151	5.3	162
	0803	1.4	43
	1428	6.0	183
	2039	1.7	52
13 Sa	0236	5.7	174
	0844	1.2	37
	1503	6.3	192
	2114	1.3	40
14 Su	0313	6.0	183
	0919	0.9	27
	1535	6.7	204
	2146	0.9	27
15 M ●	0348	6.3	192
	0952	0.7	21
	1605	6.9	210
	2217	0.6	18

	Time	Height	
	h m	ft	cm
16 Tu	0420	6.5	198
	1023	0.6	18
	1635	7.0	213
	2248	0.4	12
17 W	0453	6.6	201
	1055	0.6	18
	1705	7.1	216
	2318	0.3	9
18 Th	0525	6.6	201
	1127	0.7	21
	1735	7.0	213
	2350	0.3	9
19 F	0559	6.6	201
	1159	0.9	27
	1806	6.8	207
20 Sa	0023	0.4	12
	0635	6.4	195
	1234	1.1	34
	1840	6.6	201
21 Su	0100	0.6	18
	0715	6.1	186
	1314	1.5	46
	1919	6.2	189
22 M	0142	0.9	27
	0803	5.9	180
	1403	1.8	55
	2007	5.9	180
23 Tu ◐	0235	1.2	37
	0903	5.6	171
	1506	2.1	64
	2111	5.5	168
24 W	0343	1.4	43
	1018	5.5	168
	1628	2.2	67
	2233	5.4	165
25 Th	0503	1.4	43
	1139	5.7	174
	1754	1.9	58
	2359	5.6	171
26 F	0621	1.1	34
	1250	6.2	189
	1906	1.4	43
27 Sa	0111	6.0	183
	0726	0.7	21
	1349	6.7	204
	2004	0.7	21
28 Su	0211	6.6	201
	0822	0.2	6
	1440	7.3	223
	2055	0.1	3
29 M ○	0303	7.1	216
	0912	−0.1	−3
	1526	7.7	235
	2141	−0.4	−12
30 Tu	0351	7.4	226
	0958	−0.3	−9
	1610	7.9	241
	2225	−0.7	−21
31 W	0437	7.6	232
	1042	−0.3	−9
	1652	7.8	238
	2308	−0.7	−21

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

La Libertad, Ecuador, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0521	7.5	229
	1126	0.0	0
	1734	7.6	232
	2351	−0.5	−15
2 F	0606	7.2	219
	1209	0.4	12
	1815	7.2	219
3 Sa	0034	−0.2	−6
	0651	6.8	207
	1254	0.9	27
	1858	6.6	201
4 Su	0118	0.3	9
	0739	6.3	192
	1341	1.4	43
	1943	6.0	183
5 M	0206	0.9	27
	0831	5.8	177
	1435	2.0	61
	2035	5.4	165
6 Tu ◑	0300	1.4	43
	0933	5.4	165
	1542	2.4	73
	2139	5.0	152
7 W	0405	1.8	55
	1046	5.2	158
	1702	2.5	76
	2258	4.7	143
8 Th	0519	1.9	58
	1157	5.3	162
	1818	2.3	70
9 F	0014	4.8	146
	0626	1.9	58
	1255	5.5	168
	1915	2.0	61
10 Sa	0115	5.1	155
	0720	1.6	49
	1341	5.8	177
	1959	1.5	46
11 Su	0202	5.4	165
	0804	1.4	43
	1419	6.1	186
	2036	1.1	34
12 M	0241	5.8	177
	0842	1.1	34
	1454	6.4	195
	2110	0.7	21
13 Tu	0318	6.1	186
	0918	0.9	27
	1527	6.6	201
	2143	0.4	12
14 W ●	0352	6.4	195
	0953	0.8	24
	1559	6.8	207
	2216	0.1	3
15 Th	0427	6.6	201
	1027	0.7	21
	1632	6.8	207
	2249	0.0	0

	Time	Height	
	h m	ft	cm
16 F	0502	6.6	201
	1103	0.7	21
	1706	6.8	207
	2324	0.0	0
17 Sa	0539	6.6	201
	1140	0.9	27
	1742	6.6	201
18 Su	0000	0.1	3
	0619	6.5	198
	1220	1.1	34
	1821	6.4	195
19 M	0041	0.2	6
	0703	6.3	192
	1305	1.3	40
	1905	6.1	186
20 Tu	0128	0.5	15
	0754	6.1	186
	1359	1.6	49
	1959	5.7	174
21 W ◐	0223	0.8	24
	0854	5.9	180
	1505	1.7	52
	2106	5.5	168
22 Th	0329	1.1	34
	1004	5.8	177
	1622	1.7	52
	2225	5.4	165
23 F	0444	1.1	34
	1117	6.0	183
	1738	1.4	43
	2344	5.5	168
24 Sa	0558	1.0	30
	1223	6.3	192
	1845	0.9	27
25 Su	0054	5.9	180
	0703	0.8	24
	1322	6.6	201
	1942	0.4	12
26 M	0154	6.3	192
	0759	0.5	15
	1413	7.0	213
	2033	−0.1	−3
27 Tu	0246	6.7	204
	0850	0.3	9
	1500	7.2	219
	2119	−0.5	−15
28 W ○	0334	7.0	213
	0937	0.2	6
	1544	7.3	223
	2203	−0.6	−18
29 Th	0419	7.1	216
	1022	0.2	6
	1627	7.2	219
	2246	−0.6	−18
30 F	0504	7.1	216
	1106	0.4	12
	1709	7.0	213
	2328	−0.5	−15

May

	Time	Height	
	h m	ft	cm
1 Sa	0547	6.9	210
	1149	0.7	21
	1750	6.6	201
2 Su	0009	−0.2	−6
	0631	6.6	201
	1234	1.0	30
	1832	6.2	189
3 M	0051	0.3	9
	0716	6.2	189
	1320	1.4	43
	1917	5.7	174
4 Tu	0136	0.7	21
	0804	5.9	180
	1412	1.8	55
	2006	5.2	158
5 W ◑	0224	1.2	37
	0857	5.6	171
	1510	2.0	61
	2103	4.9	149
6 Th	0319	1.5	46
	0955	5.4	165
	1616	2.1	64
	2210	4.6	140
7 F	0421	1.8	55
	1056	5.3	162
	1723	2.0	61
	2321	4.6	140
8 Sa	0524	1.8	55
	1153	5.4	165
	1821	1.7	52
9 Su	0024	4.8	146
	0623	1.7	52
	1244	5.6	171
	1910	1.4	43
10 M	0117	5.1	155
	0714	1.6	49
	1328	5.8	177
	1952	1.0	30
11 Tu	0202	5.5	168
	0759	1.4	43
	1408	6.1	186
	2030	0.6	18
12 W	0244	5.8	177
	0841	1.2	37
	1446	6.3	192
	2108	0.2	6
13 Th ●	0323	6.1	186
	0921	1.0	30
	1524	6.5	198
	2145	0.0	0
14 F	0402	6.4	195
	1001	0.8	24
	1603	6.6	201
	2223	−0.2	−6
15 Sa	0442	6.6	201
	1042	0.8	24
	1642	6.6	201
	2302	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Su	0524	6.7	204
	1125	0.8	24
	1724	6.5	198
	2344	−0.3	−9
17 M	0608	6.6	201
	1211	0.9	27
	1810	6.3	192
18 Tu	0029	−0.1	−3
	0655	6.6	201
	1301	1.0	30
	1900	6.1	186
19 W	0119	0.1	3
	0746	6.4	195
	1357	1.1	34
	1956	5.8	177
20 Th ◐	0214	0.4	12
	0844	6.3	192
	1500	1.2	37
	2101	5.6	171
21 F	0316	0.7	21
	0946	6.2	189
	1608	1.1	34
	2212	5.4	165
22 Sa	0423	0.9	27
	1051	6.2	189
	1716	0.9	27
	2326	5.5	168
23 Su	0532	1.0	30
	1154	6.2	189
	1821	0.6	18
24 M	0034	5.7	174
	0637	0.9	27
	1253	6.4	195
	1919	0.3	9
25 Tu	0135	6.0	183
	0737	0.8	24
	1347	6.5	198
	2012	0.0	0
26 W	0230	6.3	192
	0830	0.7	21
	1436	6.6	201
	2100	−0.3	−9
27 Th ○	0319	6.5	198
	0919	0.7	21
	1522	6.7	204
	2144	−0.4	−12
28 F	0405	6.6	201
	1006	0.7	21
	1606	6.6	201
	2227	−0.4	−12
29 Sa	0449	6.6	201
	1050	0.8	24
	1648	6.4	195
	2308	−0.3	−9
30 Su	0531	6.6	201
	1133	0.9	27
	1729	6.2	189
	2348	−0.1	−3
31 M	0612	6.4	195
	1216	1.1	34
	1811	5.9	180

June

	Time	Height	
	h m	ft	cm
1 Tu	0027	0.2	6
	0653	6.2	189
	1259	1.3	40
	1853	5.6	171
2 W	0108	0.5	15
	0735	6.0	183
	1345	1.4	43
	1937	5.2	158
3 Th	0150	0.9	27
	0819	5.8	177
	1434	1.6	49
	2026	4.9	149
4 F ◑	0235	1.2	37
	0905	5.6	171
	1526	1.7	52
	2121	4.7	143
5 Sa	0325	1.5	46
	0955	5.5	168
	1622	1.7	52
	2222	4.6	140
6 Su	0421	1.7	52
	1048	5.4	165
	1719	1.6	49
	2325	4.7	143
7 M	0520	1.8	55
	1141	5.4	165
	1813	1.3	40
8 Tu	0025	4.8	146
	0618	1.8	55
	1232	5.6	171
	1903	1.0	30
9 W	0119	5.1	155
	0713	1.6	49
	1321	5.7	174
	1950	0.6	18
10 Th	0209	5.5	168
	0804	1.4	43
	1408	6.0	183
	2034	0.3	9
11 F	0255	5.9	180
	0852	1.2	37
	1453	6.2	189
	2117	−0.1	−3
12 Sa ●	0340	6.3	192
	0939	0.9	27
	1539	6.4	195
	2201	−0.4	−12
13 Su	0424	6.6	201
	1026	0.7	21
	1625	6.5	198
	2245	−0.6	−18
14 M	0509	6.8	207
	1113	0.5	15
	1712	6.6	201
	2331	−0.6	−18
15 Tu	0555	7.0	213
	1202	0.4	12
	1801	6.5	198

	Time	Height	
	h m	ft	cm
16 W	0018	−0.5	−15
	0643	7.0	213
	1253	0.4	12
	1852	6.3	192
17 Th	0107	−0.3	−9
	0733	6.8	207
	1346	0.5	15
	1947	6.1	186
18 F ◐	0200	0.0	0
	0826	6.7	204
	1444	0.6	18
	2047	5.8	177
19 Sa	0257	0.4	12
	0922	6.4	195
	1545	0.7	21
	2153	5.6	171
20 Su	0359	0.8	24
	1022	6.2	189
	1650	0.7	21
	2303	5.5	168
21 M	0506	1.1	34
	1125	6.1	186
	1755	0.6	18
22 Tu	0013	5.5	168
	0613	1.3	40
	1227	6.0	183
	1857	0.4	12
23 W	0119	5.6	171
	0717	1.3	40
	1325	6.0	183
	1953	0.2	6
24 Th	0217	5.8	177
	0815	1.2	37
	1418	6.1	186
	2044	0.1	3
25 F	0308	6.1	186
	0907	1.1	34
	1506	6.1	186
	2129	−0.1	−3
26 Sa ○	0353	6.2	189
	0953	1.0	30
	1550	6.1	186
	2211	−0.1	−3
27 Su	0434	6.4	195
	1036	1.0	30
	1632	6.1	186
	2250	−0.1	−3
28 M	0513	6.4	195
	1117	0.9	27
	1711	6.0	183
	2327	0.0	0
29 Tu	0550	6.4	195
	1156	0.9	27
	1750	5.9	180
30 W	0003	0.1	3
	0626	6.4	195
	1234	1.0	30
	1829	5.7	174

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

La Libertad, Ecuador, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0039	0.4	12
	0703	6.2	189
	1313	1.1	34
	1908	5.5	168
2 F	0116	0.7	21
	0739	6.0	183
	1354	1.2	37
	1949	5.2	158
3 Sa	0154	1.0	30
	0818	5.8	177
	1437	1.3	40
	2034	5.0	152
4 Su ◑	0235	1.3	40
	0859	5.6	171
	1524	1.4	43
	2125	4.8	146
5 M	0323	1.6	49
	0946	5.5	168
	1617	1.4	43
	2225	4.7	143
6 Tu	0419	1.8	55
	1039	5.4	165
	1715	1.4	43
	2331	4.7	143
7 W	0523	1.9	58
	1138	5.4	165
	1814	1.1	34
8 Th	0036	5.0	152
	0630	1.9	58
	1238	5.5	168
	1911	0.8	24
9 F	0136	5.4	165
	0732	1.6	49
	1336	5.8	177
	2005	0.4	12
10 Sa	0230	5.8	177
	0829	1.3	40
	1430	6.1	186
	2055	−0.1	−3
11 Su ●	0319	6.3	192
	0921	0.8	24
	1521	6.4	195
	2142	−0.5	−15
12 M	0406	6.8	207
	1011	0.4	12
	1611	6.7	204
	2229	−0.7	−21
13 Tu	0452	7.2	219
	1059	0.1	3
	1700	6.9	210
	2316	−0.9	−27
14 W	0538	7.4	226
	1147	−0.1	−3
	1749	6.9	210
15 Th	0003	−0.8	−24
	0624	7.4	226
	1236	−0.1	−3
	1839	6.8	207

	Time	Height	
	h m	ft	cm
16 F	0051	−0.6	−18
	0711	7.2	219
	1326	0.0	0
	1931	6.5	198
17 Sa	0141	−0.1	−3
	0801	7.0	213
	1420	0.2	6
	2027	6.1	186
18 Su ◐	0234	0.4	12
	0854	6.6	201
	1517	0.4	12
	2129	5.7	174
19 M	0333	0.9	27
	0952	6.2	189
	1621	0.7	21
	2238	5.4	165
20 Tu	0440	1.4	43
	1056	5.8	177
	1729	0.8	24
	2353	5.3	162
21 W	0553	1.6	49
	1204	5.6	171
	1837	0.8	24
22 Th	0104	5.4	165
	0704	1.7	52
	1308	5.6	171
	1938	0.7	21
23 F	0206	5.6	171
	0806	1.6	49
	1406	5.7	174
	2031	0.5	15
24 Sa	0256	5.8	177
	0858	1.4	43
	1455	5.8	177
	2115	0.3	9
25 Su ○	0339	6.1	186
	0941	1.2	37
	1538	5.9	180
	2154	0.2	6
26 M	0416	6.3	192
	1020	1.0	30
	1616	6.0	183
	2230	0.1	3
27 Tu	0450	6.5	198
	1056	0.8	24
	1652	6.1	186
	2304	0.1	3
28 W	0523	6.5	198
	1130	0.7	21
	1728	6.0	183
	2337	0.2	6
29 Th	0555	6.5	198
	1204	0.7	21
	1802	6.0	183
30 F	0009	0.3	9
	0627	6.4	195
	1238	0.7	21
	1837	5.8	177
31 Sa	0042	0.6	18
	0659	6.3	192
	1313	0.9	27
	1913	5.6	171

August

	Time	Height	
	h m	ft	cm
1 Su	0116	0.9	27
	0733	6.0	183
	1350	1.0	30
	1953	5.3	162
2 M ◑	0153	1.2	37
	0809	5.8	177
	1431	1.2	37
	2038	5.0	152
3 Tu	0236	1.6	49
	0852	5.5	168
	1521	1.3	40
	2133	4.8	146
4 W	0329	1.9	58
	0945	5.3	162
	1621	1.4	43
	2242	4.8	146
5 Th	0439	2.1	64
	1051	5.2	158
	1730	1.3	40
	2358	5.0	152
6 F	0557	2.0	61
	1204	5.3	162
	1839	1.0	30
7 Sa	0108	5.4	165
	0709	1.7	52
	1313	5.6	171
	1940	0.5	15
8 Su	0206	5.9	180
	0811	1.2	37
	1413	6.1	186
	2034	0.0	0
9 M ●	0257	6.5	198
	0904	0.6	18
	1506	6.6	201
	2124	−0.5	−15
10 Tu	0345	7.1	216
	0953	0.1	3
	1556	7.0	213
	2211	−0.8	−24
11 W	0430	7.5	229
	1040	−0.4	−12
	1645	7.3	223
	2257	−1.0	−30
12 Th	0515	7.7	235
	1126	−0.6	−18
	1732	7.3	223
	2343	−0.9	−27
13 F	0600	7.7	235
	1213	−0.6	−18
	1821	7.2	219
14 Sa	0030	−0.6	−18
	0645	7.4	226
	1301	−0.4	−12
	1910	6.8	207
15 Su	0118	−0.1	−3
	0733	7.0	213
	1352	−0.1	−3
	2004	6.3	192

	Time	Height	
	h m	ft	cm
16 M ◐	0210	0.5	15
	0824	6.5	198
	1447	0.4	12
	2103	5.8	177
17 Tu	0308	1.2	37
	0921	5.9	180
	1550	0.8	24
	2212	5.4	165
18 W	0417	1.7	52
	1028	5.5	168
	1702	1.1	34
	2332	5.2	158
19 Th	0537	2.0	61
	1144	5.2	158
	1817	1.2	37
20 F	0049	5.2	158
	0654	1.9	58
	1256	5.2	158
	1922	1.0	30
21 Sa	0150	5.5	168
	0756	1.7	52
	1355	5.4	165
	2014	0.8	24
22 Su	0238	5.8	177
	0844	1.4	43
	1442	5.6	171
	2056	0.6	18
23 M	0316	6.1	186
	0923	1.1	34
	1521	5.9	180
	2132	0.4	12
24 Tu ○	0350	6.3	192
	0957	0.8	24
	1557	6.1	186
	2205	0.3	9
25 W	0421	6.5	198
	1029	0.6	18
	1630	6.2	189
	2237	0.2	6
26 Th	0451	6.6	201
	1100	0.4	12
	1703	6.3	192
	2308	0.2	6
27 F	0521	6.6	201
	1131	0.4	12
	1735	6.2	189
	2339	0.4	12
28 Sa	0551	6.5	198
	1203	0.4	12
	1808	6.1	186
29 Su	0010	0.6	18
	0621	6.4	195
	1235	0.5	15
	1842	5.9	180
30 M	0043	0.9	27
	0653	6.1	186
	1309	0.7	21
	1919	5.6	171
31 Tu	0119	1.2	37
	0728	5.8	177
	1348	1.0	30
	2002	5.3	162

September

	Time	Height	
	h m	ft	cm
1 W ◑	0201	1.6	49
	0810	5.5	168
	1436	1.2	37
	2056	5.1	155
2 Th	0256	1.9	58
	0905	5.2	158
	1538	1.4	43
	2207	4.9	149
3 F	0410	2.1	64
	1019	5.0	152
	1655	1.4	43
	2328	5.1	155
4 Sa	0536	2.0	61
	1143	5.2	158
	1812	1.1	34
5 Su	0042	5.5	168
	0652	1.5	46
	1257	5.6	171
	1918	0.6	18
6 M	0142	6.1	186
	0753	0.9	27
	1358	6.2	189
	2014	0.1	3
7 Tu	0234	6.7	204
	0845	0.2	6
	1451	6.7	204
	2104	−0.4	−12
8 W	0321	7.3	223
	0932	−0.4	−12
	1540	7.2	219
	2151	−0.8	−24
9 Th	0405	7.6	232
	1018	−0.8	−24
	1627	7.5	229
	2237	−0.9	−27
10 F	0449	7.8	238
	1103	−1.0	−30
	1714	7.5	229
	2322	−0.8	−24
11 Sa	0533	7.7	235
	1148	−0.9	−27
	1800	7.3	223
12 Su	0008	−0.4	−12
	0618	7.4	226
	1234	−0.6	−18
	1848	6.9	210
13 M	0055	0.1	3
	0704	6.8	207
	1323	−0.1	−3
	1940	6.4	195
14 Tu	0145	0.8	24
	0754	6.2	189
	1416	0.4	12
	2037	5.8	177
15 W ◐	0243	1.4	43
	0851	5.6	171
	1517	1.0	30
	2145	5.4	165

	Time	Height	
	h m	ft	cm
16 Th	0354	1.9	58
	1000	5.1	155
	1630	1.4	43
	2305	5.1	155
17 F	0518	2.1	64
	1122	4.9	149
	1748	1.5	46
18 Sa	0022	5.2	158
	0636	1.9	58
	1238	4.9	149
	1855	1.4	43
19 Su	0122	5.4	165
	0735	1.6	49
	1336	5.2	158
	1947	1.2	37
20 M	0207	5.7	174
	0819	1.3	40
	1421	5.5	168
	2028	0.9	27
21 Tu	0244	6.0	183
	0855	0.9	27
	1458	5.8	177
	2103	0.7	21
22 W	0316	6.3	192
	0928	0.6	18
	1532	6.1	186
	2136	0.5	15
23 Th ○	0346	6.5	198
	0958	0.3	9
	1605	6.3	192
	2208	0.4	12
24 F	0416	6.6	201
	1029	0.1	3
	1637	6.4	195
	2239	0.4	12
25 Sa	0446	6.6	201
	1059	0.1	3
	1709	6.4	195
	2311	0.5	15
26 Su	0516	6.5	198
	1130	0.1	3
	1742	6.3	192
	2343	0.7	21
27 M	0547	6.3	192
	1203	0.2	6
	1816	6.1	186
28 Tu	0017	1.0	30
	0620	6.1	186
	1238	0.5	15
	1854	5.9	180
29 W	0055	1.3	40
	0657	5.8	177
	1318	0.7	21
	1939	5.6	171
30 Th ◑	0141	1.6	49
	0743	5.4	165
	1407	1.0	30
	2034	5.3	162

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

La Libertad, Ecuador, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0240	1.9	58
	0843	5.1	155
	1510	1.3	40
	2144	5.2	158
2 Sa	0357	2.0	61
	1001	5.0	152
	1628	1.3	40
	2303	5.3	162
3 Su	0521	1.7	52
	1127	5.1	155
	1747	1.1	34
4 M	0015	5.7	174
	0633	1.2	37
	1241	5.6	171
	1854	0.7	21
5 Tu	0115	6.3	192
	0732	0.6	18
	1341	6.2	189
	1952	0.2	6
6 W	0207	6.8	207
	0824	−0.1	−3
	1434	6.8	207
	2042	−0.2	−6
7 Th ●	0255	7.3	223
	0911	−0.6	−18
	1523	7.2	219
	2130	−0.5	−15
8 F	0340	7.5	229
	0956	−1.0	−30
	1609	7.4	226
	2216	−0.5	−15
9 Sa	0424	7.6	232
	1040	−1.1	−34
	1655	7.5	229
	2301	−0.4	−12
10 Su	0508	7.4	226
	1124	−1.0	−30
	1741	7.3	223
	2347	−0.1	−3
11 M	0552	7.1	216
	1209	−0.6	−18
	1828	6.9	210
12 Tu	0034	0.4	12
	0637	6.5	198
	1256	−0.1	−3
	1917	6.4	195
13 W	0124	1.0	30
	0726	5.9	180
	1345	0.5	15
	2012	5.9	180
14 Th ◐	0221	1.5	46
	0821	5.3	162
	1442	1.0	30
	2114	5.4	165
15 F	0329	1.9	58
	0928	4.9	149
	1549	1.5	46
	2225	5.2	158

	Time	Height	
	h m	ft	cm
16 Sa	0447	2.0	61
	1047	4.6	140
	1703	1.7	52
	2337	5.2	158
17 Su	0601	1.9	58
	1203	4.7	143
	1811	1.6	49
18 M	0036	5.4	165
	0659	1.6	49
	1303	4.9	149
	1905	1.5	46
19 Tu	0123	5.6	171
	0743	1.2	37
	1350	5.3	162
	1950	1.3	40
20 W	0202	5.9	180
	0820	0.8	24
	1429	5.6	171
	2028	1.0	30
21 Th	0237	6.1	186
	0854	0.5	15
	1504	5.9	180
	2104	0.8	24
22 F ○	0309	6.3	192
	0926	0.2	6
	1538	6.2	189
	2138	0.7	21
23 Sa	0342	6.4	195
	0958	0.0	0
	1612	6.4	195
	2212	0.7	21
24 Su	0414	6.5	198
	1030	−0.1	−3
	1646	6.4	195
	2246	0.7	21
25 M	0447	6.4	195
	1103	−0.1	−3
	1721	6.4	195
	2322	0.8	24
26 Tu	0521	6.3	192
	1138	0.0	0
	1758	6.3	192
27 W	0000	1.0	30
	0558	6.1	186
	1216	0.2	6
	1839	6.1	186
28 Th	0043	1.2	37
	0640	5.8	177
	1259	0.4	12
	1926	5.9	180
29 F	0133	1.4	43
	0730	5.5	168
	1350	0.8	24
	2021	5.7	174
30 Sa ◑	0233	1.6	49
	0833	5.2	158
	1452	1.0	30
	2126	5.6	171
31 Su	0346	1.6	49
	0949	5.1	155
	1605	1.2	37
	2237	5.7	174

November

	Time	Height	
	h m	ft	cm
1 M	0502	1.4	43
	1109	5.2	158
	1720	1.1	34
	2346	6.0	183
2 Tu	0610	0.9	27
	1221	5.6	171
	1829	0.9	27
3 W	0047	6.3	192
	0710	0.3	9
	1323	6.1	186
	1928	0.5	15
4 Th	0141	6.7	204
	0802	−0.2	−6
	1417	6.6	201
	2021	0.2	6
5 F ●	0230	7.0	213
	0850	−0.6	−18
	1507	7.0	213
	2111	0.1	3
6 Sa	0317	7.2	219
	0936	−0.9	−27
	1554	7.2	219
	2158	0.0	0
7 Su	0402	7.2	219
	1020	−1.0	−30
	1640	7.2	219
	2244	0.1	3
8 M	0446	7.0	213
	1104	−0.8	−24
	1725	7.1	216
	2330	0.3	9
9 Tu	0530	6.7	204
	1148	−0.5	−15
	1810	6.8	207
10 W	0016	0.7	21
	0614	6.3	192
	1232	−0.1	−3
	1857	6.5	198
11 Th	0104	1.1	34
	0701	5.8	177
	1317	0.4	12
	1945	6.1	186
12 F	0157	1.4	43
	0752	5.3	162
	1406	0.9	27
	2038	5.7	174
13 Sa ◐	0255	1.7	52
	0850	4.9	149
	1501	1.4	43
	2135	5.4	165
14 Su	0400	1.8	55
	0958	4.6	140
	1603	1.7	52
	2236	5.3	162
15 M	0506	1.8	55
	1109	4.6	140
	1708	1.9	58
	2334	5.3	162

	Time	Height	
	h m	ft	cm
16 Tu	0606	1.6	49
	1214	4.7	143
	1809	1.8	55
17 W	0027	5.5	168
	0656	1.3	40
	1307	5.0	152
	1902	1.7	52
18 Th	0112	5.7	174
	0738	0.9	27
	1353	5.4	165
	1948	1.5	46
19 F	0153	5.9	180
	0817	0.6	18
	1433	5.7	174
	2029	1.3	40
20 Sa	0232	6.1	186
	0853	0.3	9
	1512	6.0	183
	2109	1.1	34
21 Su ○	0309	6.2	189
	0929	0.0	0
	1549	6.3	192
	2148	1.0	30
22 M	0346	6.3	192
	1005	−0.2	−6
	1627	6.5	198
	2227	0.9	27
23 Tu	0424	6.4	195
	1043	−0.2	−6
	1705	6.6	201
	2307	0.9	27
24 W	0504	6.3	192
	1122	−0.2	−6
	1746	6.6	201
	2350	0.9	27
25 Th	0546	6.2	189
	1203	−0.1	−3
	1829	6.6	201
26 F	0036	1.0	30
	0632	6.0	183
	1248	0.1	3
	1915	6.5	198
27 Sa	0127	1.1	34
	0724	5.8	177
	1339	0.4	12
	2007	6.3	192
28 Su ◑	0224	1.1	34
	0824	5.5	168
	1436	0.8	24
	2105	6.2	189
29 M	0328	1.1	34
	0932	5.4	165
	1541	1.0	30
	2209	6.1	186
30 Tu	0436	1.0	30
	1046	5.4	165
	1652	1.2	37
	2314	6.1	186

December

	Time	Height	
	h m	ft	cm
1 W	0544	0.8	24
	1159	5.6	171
	1801	1.2	37
2 Th	0017	6.3	192
	0646	0.4	12
	1305	5.9	180
	1906	1.0	30
3 F	0115	6.5	198
	0742	0.0	0
	1403	6.3	192
	2004	0.9	27
4 Sa	0209	6.6	201
	0833	−0.3	−9
	1455	6.6	201
	2057	0.7	21
5 Su ●	0259	6.7	204
	0921	−0.5	−15
	1543	6.9	210
	2146	0.6	18
6 M	0345	6.8	207
	1005	−0.6	−18
	1629	7.0	213
	2232	0.6	18
7 Tu	0430	6.7	204
	1048	−0.5	−15
	1712	7.0	213
	2317	0.7	21
8 W	0513	6.5	198
	1129	−0.3	−9
	1754	6.8	207
9 Th	0000	0.8	24
	0556	6.2	189
	1210	0.0	0
	1835	6.6	201
10 F	0044	1.0	30
	0638	5.9	180
	1250	0.4	12
	1916	6.4	195
11 Sa	0129	1.3	40
	0723	5.5	168
	1332	0.8	24
	1959	6.1	186
12 Su	0216	1.5	46
	0810	5.2	158
	1415	1.3	40
	2043	5.8	177
13 M ◐	0306	1.6	49
	0903	4.9	149
	1503	1.6	49
	2131	5.6	171
14 Tu	0401	1.7	52
	1003	4.7	143
	1558	1.9	58
	2224	5.5	168
15 W	0459	1.7	52
	1109	4.7	143
	1700	2.1	64
	2319	5.4	165

	Time	Height	
	h m	ft	cm
16 Th	0557	1.5	46
	1213	4.8	146
	1803	2.2	67
17 F	0014	5.5	168
	0650	1.3	40
	1311	5.1	155
	1902	2.0	61
18 Sa	0106	5.6	171
	0737	0.9	27
	1401	5.5	168
	1955	1.8	55
19 Su	0154	5.8	177
	0822	0.6	18
	1446	5.9	180
	2043	1.6	49
20 M	0240	6.1	186
	0904	0.2	6
	1528	6.3	192
	2128	1.3	40
21 Tu ○	0324	6.3	192
	0945	−0.1	−3
	1609	6.7	204
	2212	1.0	30
22 W	0408	6.5	198
	1026	−0.3	−9
	1650	7.0	213
	2255	0.8	24
23 Th	0452	6.6	201
	1108	−0.4	−12
	1732	7.1	216
	2339	0.6	18
24 F	0537	6.6	201
	1151	−0.3	−9
	1815	7.2	219
25 Sa	0025	0.5	15
	0624	6.5	198
	1237	−0.2	−6
	1901	7.1	216
26 Su	0114	0.5	15
	0715	6.3	192
	1325	0.1	3
	1949	7.0	213
27 M ◑	0207	0.6	18
	0810	6.1	186
	1418	0.5	15
	2041	6.7	204
28 Tu	0304	0.7	21
	0912	5.8	177
	1517	1.0	30
	2139	6.5	198
29 W	0407	0.8	24
	1021	5.6	171
	1623	1.4	43
	2242	6.2	189
30 Th	0515	0.8	24
	1135	5.6	171
	1735	1.6	49
	2349	6.1	186
31 F	0623	0.7	21
	1248	5.8	177
	1847	1.6	49

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

San Cristobal, Galapagos Island, Ecuador, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0333	6.2	189
	0952	−0.6	−18
	1613	6.5	198
	2220	0.1	3
2 Sa	0423	6.4	195
	1040	−0.8	−24
	1700	6.7	204
	2309	−0.1	−3
3 Su	0512	6.5	198
	1127	−0.8	−24
	1748	6.8	207
	2359	−0.1	−3
4 M	0602	6.3	192
	1215	−0.6	−18
	1836	6.7	204
5 Tu	0049	0.0	0
	0653	6.1	186
	1304	−0.3	−9
	1925	6.5	198
6 W	0141	0.2	6
	0746	5.7	174
	1355	0.2	6
	2017	6.2	189
7 Th ◑	0237	0.5	15
	0844	5.3	162
	1451	0.7	21
	2113	5.8	177
8 F	0338	0.8	24
	0948	5.0	152
	1552	1.1	34
	2214	5.4	165
9 Sa	0444	1.0	30
	1100	4.7	143
	1702	1.5	46
	2319	5.2	158
10 Su	0553	1.0	30
	1214	4.7	143
	1814	1.6	49
11 M	0025	5.1	155
	0657	0.9	27
	1321	4.9	149
	1920	1.6	49
12 Tu	0125	5.1	155
	0752	0.8	24
	1416	5.1	155
	2015	1.5	46
13 W	0216	5.2	158
	0839	0.6	18
	1501	5.3	162
	2102	1.3	40
14 Th	0300	5.3	162
	0919	0.4	12
	1540	5.6	171
	2143	1.1	34
15 F ●	0340	5.5	168
	0956	0.3	9
	1616	5.8	177
	2219	0.9	27

	Time	Height	
	h m	ft	cm
16 Sa	0417	5.5	168
	1030	0.2	6
	1649	5.9	180
	2254	0.8	24
17 Su	0452	5.6	171
	1103	0.2	6
	1722	5.9	180
	2328	0.8	24
18 M	0526	5.5	168
	1135	0.3	9
	1753	5.9	180
19 Tu	0002	0.8	24
	0600	5.4	165
	1207	0.4	12
	1825	5.8	177
20 W	0036	0.9	27
	0634	5.2	158
	1239	0.7	21
	1857	5.7	174
21 Th	0111	1.0	30
	0710	5.0	152
	1313	0.9	27
	1932	5.5	168
22 F	0149	1.1	34
	0750	4.8	146
	1351	1.2	37
	2011	5.3	162
23 Sa ◐	0233	1.2	37
	0838	4.6	140
	1438	1.5	46
	2058	5.1	155
24 Su	0328	1.3	40
	0939	4.5	137
	1538	1.7	52
	2158	5.0	152
25 M	0434	1.3	40
	1053	4.5	137
	1653	1.8	55
	2310	5.0	152
26 Tu	0547	1.1	34
	1211	4.7	143
	1812	1.7	52
27 W	0024	5.2	158
	0655	0.8	24
	1319	5.2	158
	1923	1.3	40
28 Th	0130	5.5	168
	0755	0.3	9
	1417	5.7	174
	2023	0.8	24
29 F	0228	5.9	180
	0848	−0.2	−6
	1508	6.3	192
	2116	0.3	9
30 Sa ○	0321	6.3	192
	0937	−0.6	−18
	1556	6.7	204
	2205	−0.1	−3
31 Su	0410	6.6	201
	1024	−0.8	−24
	1642	7.0	213
	2253	−0.4	−12

February

	Time	Height	
	h m	ft	cm
1 M	0458	6.7	204
	1110	−0.9	−27
	1728	7.1	216
	2340	−0.5	−15
2 Tu	0545	6.7	204
	1156	−0.7	−21
	1813	7.0	213
3 W	0026	−0.3	−9
	0633	6.4	195
	1241	−0.3	−9
	1858	6.7	204
4 Th	0114	0.0	0
	0722	6.0	183
	1329	0.2	6
	1946	6.2	189
5 F ◑	0205	0.4	12
	0815	5.5	168
	1420	0.8	24
	2037	5.7	174
6 Sa	0301	0.8	24
	0915	5.0	152
	1519	1.4	43
	2135	5.2	158
7 Su	0406	1.2	37
	1026	4.6	140
	1629	1.8	55
	2245	4.8	146
8 M	0520	1.4	43
	1147	4.5	137
	1751	2.0	61
9 Tu	0000	4.7	143
	0632	1.3	40
	1301	4.7	143
	1905	1.9	58
10 W	0108	4.7	143
	0732	1.1	34
	1358	4.9	149
	2002	1.7	52
11 Th	0201	4.9	149
	0820	0.9	27
	1442	5.2	158
	2047	1.4	43
12 F	0245	5.2	158
	0859	0.7	21
	1518	5.5	168
	2124	1.1	34
13 Sa ●	0323	5.4	165
	0934	0.4	12
	1551	5.8	177
	2158	0.8	24
14 Su	0357	5.6	171
	1007	0.3	9
	1622	6.0	183
	2230	0.6	18
15 M	0430	5.7	174
	1038	0.2	6
	1652	6.1	186
	2301	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0503	5.7	174
	1109	0.3	9
	1722	6.1	186
	2332	0.5	15
17 W	0535	5.7	174
	1139	0.4	12
	1752	6.0	183
18 Th	0004	0.5	15
	0607	5.5	168
	1210	0.6	18
	1823	5.9	180
19 F	0037	0.6	18
	0641	5.3	162
	1243	0.8	24
	1856	5.7	174
20 Sa	0112	0.8	24
	0719	5.1	155
	1320	1.1	34
	1933	5.4	165
21 Su ◐	0155	1.0	30
	0805	4.9	149
	1406	1.4	43
	2021	5.1	155
22 M	0248	1.2	37
	0905	4.7	143
	1507	1.7	52
	2123	4.9	149
23 Tu	0356	1.3	40
	1021	4.6	140
	1628	1.8	55
	2242	4.8	146
24 W	0516	1.2	37
	1145	4.8	146
	1754	1.6	49
25 Th	0005	5.0	152
	0632	0.9	27
	1258	5.3	162
	1908	1.2	37
26 F	0115	5.4	165
	0735	0.4	12
	1357	5.8	177
	2008	0.6	18
27 Sa	0214	5.9	180
	0829	−0.1	−3
	1448	6.4	195
	2059	0.0	0
28 Su ○	0306	6.4	195
	0918	−0.5	−15
	1535	6.9	210
	2147	−0.4	−12

March

	Time	Height	
	h m	ft	cm
1 M	0354	6.7	204
	1005	−0.7	−21
	1620	7.1	216
	2232	−0.6	−18
2 Tu	0440	6.8	207
	1049	−0.7	−21
	1703	7.1	216
	2317	−0.7	−21
3 W	0525	6.7	204
	1133	−0.6	−18
	1747	7.0	213
4 Th	0001	−0.5	−15
	0611	6.5	198
	1218	−0.2	−6
	1830	6.6	201
5 F	0046	−0.1	−3
	0657	6.0	183
	1303	0.4	12
	1915	6.1	186
6 Sa	0133	0.3	9
	0747	5.5	168
	1352	1.0	30
	2003	5.5	168
7 Su ◑	0225	0.8	24
	0843	5.0	152
	1448	1.5	46
	2059	4.9	149
8 M	0326	1.3	40
	0952	4.6	140
	1559	1.9	58
	2208	4.5	137
9 Tu	0440	1.6	49
	1113	4.5	137
	1724	2.1	64
	2330	4.4	134
10 W	0557	1.6	49
	1229	4.6	140
	1841	1.9	58
11 Th	0042	4.5	137
	0701	1.4	43
	1326	4.9	149
	1937	1.6	49
12 F	0137	4.7	143
	0749	1.2	37
	1409	5.2	158
	2020	1.3	40
13 Sa	0221	5.0	152
	0829	0.9	27
	1445	5.5	168
	2055	0.9	27
14 Su	0258	5.3	162
	0904	0.6	18
	1518	5.8	177
	2128	0.6	18
15 M ●	0332	5.6	171
	0937	0.5	15
	1549	6.0	183
	2200	0.4	12

	Time	Height	
	h m	ft	cm
16 Tu	0405	5.7	174
	1009	0.4	12
	1619	6.1	186
	2231	0.2	6
17 W	0437	5.8	177
	1040	0.4	12
	1650	6.1	186
	2302	0.2	6
18 Th	0510	5.8	177
	1112	0.4	12
	1720	6.1	186
	2334	0.2	6
19 F	0543	5.7	174
	1145	0.6	18
	1753	5.9	180
20 Sa	0008	0.3	9
	0619	5.6	171
	1221	0.8	24
	1828	5.7	174
21 Su	0046	0.5	15
	0659	5.3	162
	1301	1.1	34
	1909	5.4	165
22 M	0130	0.8	24
	0747	5.1	155
	1352	1.4	43
	2000	5.1	155
23 Tu ◐	0225	1.0	30
	0848	4.9	149
	1457	1.6	49
	2106	4.8	146
24 W	0334	1.2	37
	1004	4.8	146
	1618	1.7	52
	2228	4.8	146
25 Th	0454	1.2	37
	1124	5.0	152
	1741	1.4	43
	2350	5.0	152
26 F	0609	0.9	27
	1234	5.5	168
	1851	0.9	27
27 Sa	0100	5.4	165
	0713	0.5	15
	1333	6.0	183
	1949	0.4	12
28 Su	0157	5.9	180
	0808	0.1	3
	1424	6.4	195
	2039	−0.1	−3
29 M ○	0248	6.3	192
	0857	−0.2	−6
	1510	6.8	207
	2126	−0.5	−15
30 Tu	0336	6.6	201
	0943	−0.4	−12
	1555	6.9	210
	2210	−0.7	−21
31 W	0421	6.7	204
	1027	−0.4	−12
	1638	6.9	210
	2253	−0.7	−21

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

San Cristobal, Galapagos Island, Ecuador, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0505	6.6	201
	1111	−0.2	−6
	1720	6.7	204
	2336	−0.5	−15
2 F	0549	6.3	192
	1155	0.2	6
	1802	6.3	192
3 Sa	0019	−0.1	−3
	0635	5.9	180
	1240	0.6	18
	1846	5.8	177
4 Su	0104	0.3	9
	0722	5.5	168
	1328	1.1	34
	1932	5.2	158
5 M	0152	0.8	24
	0816	5.1	155
	1423	1.6	49
	2026	4.7	143
6 Tu ◑	0248	1.3	40
	0918	4.7	143
	1530	1.9	58
	2132	4.4	134
7 W	0355	1.6	49
	1030	4.6	140
	1648	2.0	61
	2249	4.2	128
8 Th	0507	1.7	52
	1140	4.6	140
	1800	1.9	58
9 F	0002	4.3	131
	0612	1.6	49
	1237	4.8	146
	1856	1.6	49
10 Sa	0059	4.6	140
	0704	1.4	43
	1323	5.1	155
	1940	1.2	37
11 Su	0145	4.9	149
	0748	1.1	34
	1402	5.4	165
	2018	0.9	27
12 M	0224	5.2	158
	0826	0.9	27
	1437	5.7	174
	2053	0.6	18
13 Tu	0301	5.5	168
	0902	0.7	21
	1511	5.9	180
	2126	0.3	9
14 W ●	0336	5.7	174
	0937	0.6	18
	1544	6.0	183
	2200	0.1	3
15 Th	0411	5.8	177
	1012	0.5	15
	1618	6.1	186
	2234	0.0	0

	Time	Height	
	h m	ft	cm
16 F	0446	5.9	180
	1048	0.6	18
	1653	6.0	183
	2309	0.0	0
17 Sa	0524	5.8	177
	1126	0.7	21
	1730	5.9	180
	2347	0.1	3
18 Su	0604	5.7	174
	1207	0.8	24
	1811	5.7	174
19 M	0029	0.3	9
	0649	5.6	171
	1254	1.1	34
	1857	5.4	165
20 Tu	0117	0.6	18
	0740	5.4	165
	1349	1.3	40
	1953	5.1	155
21 W ◐	0213	0.8	24
	0841	5.3	162
	1455	1.4	43
	2100	4.9	149
22 Th	0320	1.0	30
	0951	5.2	158
	1611	1.4	43
	2217	4.8	146
23 F	0434	1.0	30
	1102	5.4	165
	1725	1.1	34
	2333	5.0	152
24 Sa	0545	0.9	27
	1208	5.6	171
	1830	0.7	21
25 Su	0040	5.3	162
	0648	0.6	18
	1306	6.0	183
	1927	0.3	9
26 M	0138	5.7	174
	0744	0.4	12
	1358	6.3	192
	2017	−0.1	−3
27 Tu	0230	6.0	183
	0834	0.2	6
	1445	6.5	198
	2104	−0.4	−12
28 W ○	0317	6.3	192
	0921	0.1	3
	1530	6.5	198
	2148	−0.5	−15
29 Th	0403	6.3	192
	1007	0.1	3
	1613	6.5	198
	2231	−0.5	−15
30 F	0447	6.3	192
	1051	0.3	9
	1656	6.2	189
	2313	−0.3	−9

May

	Time	Height	
	h m	ft	cm
1 Sa	0531	6.1	186
	1135	0.6	18
	1738	5.9	180
	2355	0.0	0
2 Su	0615	5.8	177
	1220	0.9	27
	1821	5.5	168
3 M	0038	0.4	12
	0701	5.5	168
	1307	1.2	37
	1906	5.1	155
4 Tu	0123	0.8	24
	0749	5.2	158
	1359	1.6	49
	1956	4.7	143
5 W ◑	0212	1.1	34
	0842	5.0	152
	1457	1.8	55
	2053	4.4	134
6 Th	0308	1.4	43
	0940	4.8	146
	1601	1.9	58
	2159	4.2	128
7 F	0409	1.6	49
	1040	4.8	146
	1706	1.8	55
	2307	4.3	131
8 Sa	0510	1.7	52
	1136	4.9	149
	1802	1.5	46
9 Su	0007	4.4	134
	0607	1.6	49
	1226	5.1	155
	1851	1.3	40
10 M	0059	4.7	143
	0657	1.4	43
	1310	5.3	162
	1934	0.9	27
11 Tu	0144	5.0	152
	0742	1.2	37
	1351	5.5	168
	2013	0.6	18
12 W	0226	5.3	162
	0824	1.0	30
	1431	5.7	174
	2052	0.3	9
13 Th ●	0306	5.5	168
	0905	0.9	27
	1510	5.9	180
	2130	0.1	3
14 F	0346	5.8	177
	0946	0.7	21
	1550	6.0	183
	2209	−0.1	−3
15 Sa	0427	5.9	180
	1028	0.7	21
	1631	6.0	183
	2250	−0.1	−3

	Time	Height	
	h m	ft	cm
16 Su	0509	6.0	183
	1112	0.7	21
	1714	5.9	180
	2332	−0.1	−3
17 M	0553	6.0	183
	1159	0.7	21
	1800	5.8	177
18 Tu	0018	0.1	3
	0641	5.9	180
	1250	0.8	24
	1851	5.5	168
19 W	0108	0.3	9
	0734	5.8	177
	1346	1.0	30
	1948	5.3	162
20 Th ◐	0204	0.5	15
	0831	5.7	174
	1449	1.0	30
	2052	5.1	155
21 F	0305	0.7	21
	0933	5.6	171
	1555	1.0	30
	2201	5.0	152
22 Sa	0411	0.9	27
	1037	5.6	171
	1703	0.9	27
	2312	5.1	155
23 Su	0518	0.9	27
	1140	5.7	174
	1806	0.6	18
24 M	0018	5.2	158
	0622	0.9	27
	1239	5.9	180
	1904	0.4	12
25 Tu	0118	5.5	168
	0720	0.8	24
	1332	6.0	183
	1956	0.1	3
26 W	0212	5.7	174
	0814	0.7	21
	1422	6.1	186
	2044	−0.1	−3
27 Th ○	0302	5.9	180
	0903	0.6	18
	1509	6.1	186
	2129	−0.2	−6
28 F	0348	6.0	183
	0950	0.7	21
	1553	6.0	183
	2212	−0.1	−3
29 Sa	0432	6.0	183
	1035	0.7	21
	1636	5.9	180
	2254	0.0	0
30 Su	0515	5.9	180
	1119	0.9	27
	1717	5.7	174
	2334	0.1	3
31 M	0557	5.8	177
	1202	1.0	30
	1759	5.4	165

June

	Time	Height	
	h m	ft	cm
1 Tu	0015	0.4	12
	0639	5.6	171
	1246	1.2	37
	1842	5.1	155
2 W	0055	0.7	21
	0721	5.4	165
	1331	1.4	43
	1926	4.8	146
3 Th	0137	1.0	30
	0805	5.3	162
	1419	1.5	46
	2014	4.6	140
4 F ◑	0223	1.2	37
	0851	5.1	155
	1511	1.6	49
	2108	4.4	134
5 Sa	0312	1.5	46
	0940	5.0	152
	1606	1.6	49
	2206	4.3	131
6 Su	0406	1.6	49
	1032	5.0	152
	1701	1.5	46
	2307	4.3	131
7 M	0503	1.7	52
	1124	5.0	152
	1755	1.3	40
8 Tu	0006	4.5	137
	0601	1.7	52
	1216	5.1	155
	1846	1.0	30
9 W	0101	4.7	143
	0656	1.5	46
	1306	5.3	162
	1934	0.7	21
10 Th	0151	5.1	155
	0747	1.3	40
	1354	5.5	168
	2019	0.4	12
11 F	0238	5.4	165
	0836	1.1	34
	1441	5.8	177
	2104	0.1	3
12 Sa ●	0324	5.7	174
	0924	0.8	24
	1527	5.9	180
	2148	−0.1	−3
13 Su	0409	6.0	183
	1012	0.6	18
	1614	6.0	183
	2233	−0.3	−9
14 M	0455	6.2	189
	1100	0.5	15
	1702	6.1	186
	2319	−0.3	−9
15 Tu	0541	6.4	195
	1149	0.4	12
	1751	6.0	183

	Time	Height	
	h m	ft	cm
16 W	0007	−0.3	−9
	0629	6.4	195
	1241	0.4	12
	1842	5.9	180
17 Th	0056	−0.1	−3
	0720	6.3	192
	1334	0.5	15
	1937	5.6	171
18 F ◐	0148	0.2	6
	0813	6.1	186
	1431	0.6	18
	2036	5.4	165
19 Sa	0245	0.5	15
	0909	5.9	180
	1532	0.7	21
	2140	5.2	158
20 Su	0346	0.8	24
	1009	5.7	174
	1636	0.7	21
	2248	5.0	152
21 M	0451	1.1	34
	1111	5.6	171
	1741	0.7	21
	2356	5.0	152
22 Tu	0558	1.2	37
	1213	5.6	171
	1842	0.6	18
23 W	0101	5.2	158
	0701	1.2	37
	1311	5.6	171
	1939	0.4	12
24 Th	0159	5.3	162
	0759	1.2	37
	1405	5.6	171
	2029	0.3	9
25 F	0250	5.5	168
	0851	1.1	34
	1453	5.6	171
	2115	0.2	6
26 Sa ○	0336	5.7	174
	0938	1.0	30
	1538	5.6	171
	2157	0.1	3
27 Su	0418	5.8	177
	1021	0.9	27
	1619	5.6	171
	2236	0.1	3
28 M	0458	5.9	180
	1102	0.9	27
	1659	5.5	168
	2314	0.2	6
29 Tu	0535	5.8	177
	1141	0.9	27
	1738	5.4	165
	2350	0.3	9
30 W	0612	5.8	177
	1220	1.0	30
	1816	5.2	158

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

San Cristobal, Galapagos Island, Ecuador, 2010

Times and Heights of High and Low Waters

July

	Time	Height		Time	Height		Time	Height		Time	Height
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm
1 Th	0026	0.5 15	**16** F	0038	−0.4 −12	**1** Su	0101	0.9 27	**16** M	0155	0.4 12
	0648	5.7 174		0658	6.6 201		0718	5.4 165		0811	5.8 177
	1259	1.1 34		1313	0.0 0		1335	1.0 30		1434	0.4 12
	1855	5.0 152		1918	5.9 180		1937	4.8 146	◐	2048	5.1 155
2 F	0102	0.8 24	**17** Sa	0128	0.0 0	**2** M	0138	1.1 34	**17** Tu	0254	1.0 30
	0725	5.5 168		0748	6.3 192		0755	5.2 158		0909	5.3 162
	1339	1.2 37		1407	0.2 6		1416	1.2 37		1537	0.8 24
	1935	4.8 146		2014	5.6 171	◑	2021	4.5 137		2157	4.8 146
3 Sa	0140	1.0 30	**18** Su	0221	0.4 12	**3** Tu	0220	1.4 43	**18** W	0403	1.4 43
	0803	5.3 162		0841	6.0 183		0838	5.0 152		1017	4.9 149
	1421	1.3 40		1504	0.5 15		1506	1.3 40		1649	1.1 34
	2019	4.6 140	◐	2114	5.2 158		2117	4.4 134		2316	4.6 140
4 Su	0221	1.3 40	**19** M	0319	0.9 27	**4** W	0315	1.7 52	**19** Th	0522	1.7 52
	0844	5.2 158		0940	5.6 171		0933	4.8 146		1133	4.7 143
	1508	1.4 43		1607	0.7 21		1607	1.3 40		1803	1.1 34
◑	2109	4.4 134		2222	4.9 149		2226	4.3 131			
5 M	0308	1.5 46	**20** Tu	0426	1.3 40	**5** Th	0424	1.8 55	**20** F	0032	4.7 143
	0931	5.0 152		1044	5.3 162		1041	4.7 143		0639	1.6 49
	1600	1.4 43		1716	0.9 27		1717	1.2 37		1243	4.7 143
	2207	4.3 131		2336	4.8 146		2342	4.5 137		1908	1.0 30
6 Tu	0403	1.7 52	**21** W	0538	1.5 46	**6** F	0543	1.7 52	**21** Sa	0133	4.9 149
	1024	4.9 149		1151	5.1 155		1154	4.9 149		0740	1.4 43
	1659	1.4 43		1823	0.9 27		1826	0.9 27		1341	4.8 146
	2312	4.4 134								1959	0.7 21
7 W	0507	1.8 55	**22** Th	0047	4.9 149	**7** Sa	0051	4.9 149	**22** Su	0221	5.2 158
	1124	5.0 152		0649	1.5 46		0655	1.4 43		0827	1.1 34
	1759	1.2 37		1256	5.1 155		1302	5.2 158		1427	5.0 152
				1924	0.7 21		1927	0.5 15		2041	0.5 15
8 Th	0018	4.6 140	**23** F	0148	5.0 152	**8** Su	0150	5.4 165	**23** M	0259	5.4 165
	0614	1.7 52		0750	1.4 43		0756	0.9 27		0906	0.9 27
	1225	5.1 155		1353	5.2 158		1401	5.6 171		1506	5.3 162
	1857	0.9 27		2016	0.6 18		2021	0.0 0		2117	0.3 9
9 F	0118	4.9 149	**24** Sa	0239	5.3 162	**9** M	0242	5.9 180	**24** Tu	0333	5.6 171
	0717	1.4 43		0842	1.2 37		0849	0.4 12		0941	0.6 18
	1324	5.3 162		1442	5.3 162		1454	6.0 183		1542	5.4 165
	1951	0.5 15		2101	0.4 12	●	2110	−0.4 −12	○	2150	0.2 6
10 Sa	0213	5.3 162	**25** Su	0322	5.5 168	**10** Tu	0329	6.4 195	**25** W	0405	5.8 177
	0814	1.1 34		0926	1.0 30		0939	−0.1 −3		1014	0.4 12
	1418	5.6 171		1524	5.4 165		1544	6.3 192		1615	5.5 168
	2042	0.1 3	○	2140	0.3 9		2158	−0.7 −21		2222	0.2 6
11 Su	0303	5.8 177	**26** M	0400	5.7 174	**11** W	0415	6.8 207	**26** Th	0436	5.9 180
	0907	0.7 21		1005	0.9 27		1026	−0.4 −12		1045	0.3 9
	1510	5.9 180		1603	5.5 168		1632	6.5 198		1648	5.6 171
●	2130	−0.3 −9		2216	0.2 6		2244	−0.9 −27		2253	0.2 6
12 M	0351	6.2 189	**27** Tu	0435	5.8 177	**12** Th	0501	6.9 210	**27** F	0506	5.9 180
	0957	0.3 9		1041	0.7 21		1113	−0.6 −18		1116	0.3 9
	1600	6.2 189		1639	5.5 168		1719	6.6 201		1720	5.5 168
	2217	−0.5 −15		2250	0.2 6		2329	−0.8 −24		2324	0.3 9
13 Tu	0437	6.5 198	**28** W	0508	5.9 180	**13** F	0546	6.9 210	**28** Sa	0536	5.8 177
	1045	0.1 3		1115	0.7 21		1200	−0.6 −18		1148	0.4 12
	1649	6.3 192		1714	5.5 168		1807	6.4 195		1752	5.4 165
	2303	−0.6 −18		2323	0.2 6					2355	0.5 15
14 W	0523	6.7 204	**29** Th	0540	5.9 180	**14** Sa	0016	−0.5 −15	**29** Su	0606	5.6 171
	1134	−0.1 −3		1149	0.7 21		0632	6.7 204		1220	0.5 15
	1737	6.3 192		1748	5.4 165		1248	−0.3 −9		1826	5.2 158
	2350	−0.6 −18		2355	0.4 12		1856	6.1 186			
15 Th	0610	6.7 204	**30** F	0612	5.8 177	**15** Su	0104	−0.1 −3	**30** M	0027	0.8 24
	1223	−0.1 −3		1223	0.7 21		0720	6.3 192		0638	5.4 165
	1827	6.2 189		1823	5.2 158		1338	0.0 0		1255	0.7 21
							1949	5.6 171		1903	4.9 149
			31 Sa	0028	0.6 18				**31** Tu	0103	1.1 34
				0644	5.6 171					0714	5.1 155
				1258	0.8 24					1335	0.9 27
				1858	5.0 152					1946	4.7 143

September

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 W	0146	1.4 43	**16** Th	0341	1.6 49
	0758	4.9 149		0950	4.5 137
	1424	1.1 34		1618	1.2 37
◑	2041	4.4 134		2250	4.5 137
2 Th	0243	1.6 49	**17** F	0504	1.7 52
	0856	4.6 140		1110	4.3 131
	1528	1.2 37		1735	1.3 40
	2153	4.4 134			
3 F	0359	1.7 52	**18** Sa	0006	4.6 140
	1012	4.5 137		0620	1.6 49
	1645	1.2 37		1223	4.4 134
	2314	4.5 137		1840	1.1 34
4 Sa	0524	1.6 49	**19** Su	0105	4.8 146
	1134	4.7 143		0718	1.3 40
	1800	0.9 27		1320	4.6 140
				1930	0.9 27
5 Su	0027	4.9 149	**20** M	0150	5.1 155
	0638	1.2 37		0802	1.0 30
	1245	5.0 152		1404	4.9 149
	1904	0.5 15		2011	0.7 21
6 M	0126	5.5 168	**21** Tu	0227	5.3 162
	0738	0.6 18		0838	0.7 21
	1345	5.5 168		1442	5.1 155
	1959	0.0 0		2047	0.5 15
7 Tu	0218	6.0 183	**22** W	0259	5.6 171
	0830	0.0 0		0911	0.4 12
	1437	6.0 183		1516	5.3 162
	2049	−0.5 −15		2120	0.3 9
8 W	0305	6.5 198	**23** Th	0331	5.7 174
	0918	−0.5 −15		0943	0.2 6
	1526	6.4 195		1548	5.5 168
●	2136	−0.8 −24	○	2152	0.3 9
9 Th	0351	6.8 207	**24** F	0401	5.8 177
	1004	−0.8 −24		1014	0.1 3
	1613	6.6 201		1621	5.6 171
	2222	−0.9 −27		2223	0.3 9
10 F	0435	7.0 213	**25** Sa	0431	5.8 177
	1049	−0.9 −27		1045	0.0 0
	1659	6.6 201		1653	5.6 171
	2307	−0.8 −24		2255	0.4 12
11 Sa	0519	6.8 207	**26** Su	0502	5.8 177
	1135	−0.8 −24		1116	0.1 3
	1745	6.4 195		1726	5.4 165
	2353	−0.5 −15		2327	0.5 15
12 Su	0604	6.5 198	**27** M	0533	5.6 171
	1221	−0.5 −15		1149	0.2 6
	1833	6.0 183		1801	5.3 162
13 M	0040	0.0 0	**28** Tu	0002	0.8 24
	0651	6.0 183		0607	5.4 165
	1310	−0.1 −3		1225	0.4 12
	1925	5.6 171		1839	5.1 155
14 Tu	0131	0.6 18	**29** W	0040	1.0 30
	0742	5.5 168		0646	5.1 155
	1403	0.4 12		1306	0.7 21
	2022	5.1 155		1925	4.8 146
15 W	0230	1.1 34	**30** Th	0128	1.3 40
	0839	4.9 149		0733	4.8 146
	1505	0.9 27		1357	0.9 27
◐	2131	4.7 143	◑	2021	4.6 140

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

San Cristobal, Galapagos Island, Ecuador, 2010

Times and Heights of High and Low Waters

October

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0229	1.5	46	**16** Sa	0433	1.7	52
	0835	4.5	137		1034	4.1	125
	1502	1.1	34		1650	1.4	43
	2132	4.6	140		2322	4.6	140
2 Sa	0346	1.6	49	**17** Su	0544	1.6	49
	0954	4.4	134		1147	4.2	128
	1619	1.1	34		1755	1.3	40
	2251	4.7	143				
3 Su	0509	1.3	40	**18** M	0020	4.7	143
	1117	4.6	140		0641	1.3	40
	1735	0.9	27		1245	4.4	134
					1848	1.2	37
4 M	0001	5.1	155	**19** Tu	0106	5.0	152
	0619	0.9	27		0725	1.0	30
	1227	5.0	152		1331	4.7	143
	1840	0.5	15		1932	1.0	30
5 Tu	0101	5.6	171	**20** W	0145	5.2	158
	0718	0.3	9		0803	0.7	21
	1327	5.5	168		1410	4.9	149
	1936	0.0	0		2010	0.8	24
6 W	0152	6.1	186	**21** Th	0220	5.4	165
	0809	−0.2	−6		0837	0.4	12
	1419	6.0	183		1446	5.2	158
	2026	−0.3	−9		2046	0.6	18
7 Th ●	0240	6.5	198	**22** F ○	0254	5.6	171
	0856	−0.7	−21		0910	0.1	3
	1507	6.3	192		1521	5.4	165
	2114	−0.6	−18		2121	0.5	15
8 F	0326	6.7	204	**23** Sa	0327	5.7	174
	0942	−0.9	−27		0943	0.0	0
	1554	6.5	198		1555	5.5	168
	2200	−0.6	−18		2155	0.5	15
9 Sa	0410	6.8	207	**24** Su	0400	5.8	177
	1026	−1.0	−30		1016	−0.1	−3
	1640	6.5	198		1630	5.6	171
	2245	−0.5	−15		2230	0.5	15
10 Su	0454	6.6	201	**25** M	0433	5.7	174
	1111	−0.9	−27		1051	−0.1	−3
	1726	6.3	192		1706	5.6	171
	2331	−0.2	−6		2306	0.6	18
11 M	0539	6.2	189	**26** Tu	0509	5.6	171
	1156	−0.5	−15		1127	0.0	0
	1813	6.0	183		1744	5.5	168
					2345	0.8	24
12 Tu	0019	0.3	9	**27** W	0547	5.4	165
	0625	5.8	177		1206	0.2	6
	1243	−0.1	−3		1826	5.3	162
	1903	5.5	168				
13 W	0109	0.8	24	**28** Th	0029	1.0	30
	0714	5.2	158		0631	5.1	155
	1334	0.4	12		1250	0.4	12
	1958	5.1	155		1913	5.2	158
14 Th ◐	0207	1.2	37	**29** F	0121	1.2	37
	0810	4.7	143		0722	4.9	149
	1431	0.9	27		1342	0.7	21
	2101	4.7	143		2010	5.0	152
15 F	0315	1.6	49	**30** Sa ◑	0222	1.3	40
	0917	4.3	131		0825	4.6	140
	1538	1.2	37		1444	0.9	27
	2212	4.6	140		2115	5.0	152
				31 Su	0335	1.3	40
					0939	4.5	137
					1555	0.9	27
					2226	5.1	155

November

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0449	1.1	34	**16** Tu	0548	1.4	43
	1056	4.7	143		1154	4.2	128
	1707	0.8	24		1752	1.5	46
	2333	5.4	165				
2 Tu	0557	0.7	21	**17** W	0011	4.9	149
	1206	5.0	152		0638	1.1	34
	1813	0.6	18		1247	4.4	134
					1843	1.4	43
3 W	0033	5.7	174	**18** Th	0057	5.1	155
	0655	0.2	6		0722	0.8	24
	1307	5.4	165		1333	4.7	143
	1912	0.3	9		1929	1.2	37
4 Th	0127	6.0	183	**19** F	0138	5.3	162
	0748	−0.2	−6		0801	0.5	15
	1400	5.8	177		1414	5.0	152
	2005	0.1	3		2011	1.0	30
5 F ●	0216	6.3	192	**20** Sa	0217	5.5	168
	0836	−0.6	−18		0839	0.3	9
	1450	6.1	186		1454	5.3	162
	2054	−0.1	−3		2051	0.9	27
6 Sa	0303	6.4	195	**21** Su ○	0255	5.6	171
	0922	−0.8	−24		0916	0.0	0
	1538	6.3	192		1532	5.5	168
	2142	−0.1	−3		2131	0.8	24
7 Su	0348	6.4	195	**22** M	0333	5.7	174
	1007	−0.8	−24		0953	−0.1	−3
	1624	6.3	192		1611	5.7	174
	2228	0.0	0		2211	0.7	21
8 M	0433	6.3	192	**23** Tu	0412	5.7	174
	1051	−0.7	−21		1031	−0.2	−6
	1709	6.2	189		1650	5.8	177
	2314	0.2	6		2252	0.6	18
9 Tu	0517	6.0	183	**24** W	0453	5.7	174
	1135	−0.4	−12		1111	−0.2	−6
	1755	5.9	180		1732	5.8	177
					2336	0.7	21
10 W	0001	0.5	15	**25** Th	0536	5.6	171
	0602	5.6	171		1153	−0.1	−3
	1220	0.0	0		1816	5.8	177
	1843	5.6	171				
11 Th	0050	0.9	27	**26** F	0023	0.7	21
	0649	5.1	155		0623	5.4	165
	1306	0.4	12		1239	0.1	3
	1932	5.3	162		1903	5.7	174
12 F	0142	1.2	37	**27** Sa	0114	0.8	24
	0740	4.7	143		0715	5.2	158
	1356	0.8	24		1330	0.4	12
	2025	5.0	152		1956	5.6	171
13 Sa ◐	0241	1.5	46	**28** Su ◑	0212	0.9	27
	0838	4.4	134		0814	5.0	152
	1451	1.2	37		1427	0.6	18
	2123	4.8	146		2055	5.5	168
14 Su	0345	1.6	49	**29** M	0316	0.9	27
	0943	4.1	125		0920	4.8	146
	1551	1.4	43		1530	0.8	24
	2223	4.7	143		2158	5.5	168
15 M	0450	1.6	49	**30** Tu	0423	0.9	27
	1051	4.1	125		1032	4.8	146
	1654	1.5	46		1638	0.9	27
	2320	4.7	143		2302	5.5	168

December

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0530	0.6	18	**16** Th	0540	1.4	43
	1142	5.0	152		1152	4.3	131
	1746	0.9	27		1745	1.8	55
2 Th	0005	5.7	174	**17** F	0001	4.9	149
	0632	0.4	12		0634	1.2	37
	1247	5.2	158		1250	4.5	137
	1849	0.8	24		1843	1.7	52
3 F	0103	5.8	177	**18** Sa	0053	5.0	152
	0728	0.1	3		0723	0.9	27
	1345	5.5	168		1341	4.8	146
	1947	0.6	18		1936	1.5	46
4 Sa	0156	6.0	183	**19** Su	0141	5.2	158
	0820	−0.2	−6		0808	0.5	15
	1438	5.8	177		1427	5.2	158
	2040	0.5	15		2025	1.2	37
5 Su ●	0246	6.1	186	**20** M	0228	5.5	168
	0907	−0.4	−12		0851	0.2	6
	1526	6.0	183		1511	5.5	168
	2129	0.4	12		2111	0.9	27
6 M	0333	6.1	186	**21** Tu ○	0312	5.7	174
	0952	−0.4	−12		0933	0.0	0
	1612	6.1	186		1553	5.8	177
	2216	0.4	12		2155	0.7	21
7 Tu	0417	6.0	183	**22** W	0356	5.9	180
	1036	−0.4	−12		1015	−0.3	−9
	1656	6.1	186		1636	6.1	186
	2301	0.5	15		2240	0.5	15
8 W	0501	5.8	177	**23** Th	0441	6.0	183
	1117	−0.2	−6		1057	−0.4	−12
	1739	6.0	183		1718	6.3	192
	2345	0.7	21		2325	0.4	12
9 Th	0543	5.6	171	**24** F	0526	6.0	183
	1158	0.0	0		1141	−0.3	−9
	1821	5.8	177		1802	6.3	192
10 F	0029	0.9	27	**25** Sa	0012	0.3	9
	0626	5.3	162		0613	5.9	180
	1239	0.3	9		1226	−0.2	−6
	1903	5.6	171		1848	6.3	192
11 Sa	0113	1.1	34	**26** Su	0101	0.4	12
	0709	4.9	149		0703	5.7	174
	1320	0.7	21		1314	0.0	0
	1946	5.3	162		1937	6.2	189
12 Su	0200	1.3	40	**27** M	0154	0.5	15
	0756	4.6	140		0757	5.4	165
	1404	1.0	30		1406	0.4	12
	2031	5.1	155	◑	2030	5.9	180
13 M ◐	0250	1.4	43	**28** Tu	0251	0.6	18
	0847	4.4	134		0857	5.2	158
	1451	1.4	43		1504	0.7	21
	2119	4.9	149		2128	5.7	174
14 Tu	0344	1.5	46	**29** W	0354	0.7	21
	0945	4.2	128		1005	5.0	152
	1544	1.6	49		1610	1.0	30
	2211	4.8	146		2232	5.5	168
15 W	0442	1.5	46	**30** Th	0502	0.8	24
	1048	4.2	128		1118	4.9	149
	1644	1.7	52		1720	1.2	37
	2306	4.8	146		2338	5.4	165
				31 F	0610	0.7	21
					1229	5.0	152
					1831	1.2	37

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Buenaventura, Colombia, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0409	13.1	399
	1011	−0.8	−24
	1643	13.3	405
	2235	0.0	0
2 Sa	0458	13.6	415
	1059	−1.3	−40
	1730	13.9	424
	2325	−0.4	−12
3 Su	0547	13.7	418
	1147	−1.4	−43
	1817	14.1	430
4 M	0013	−0.6	−18
	0635	13.6	415
	1234	−1.3	−40
	1905	14.0	427
5 Tu	0103	−0.5	−15
	0725	13.2	402
	1322	−0.8	−24
	1954	13.6	415
6 W	0152	−0.1	−3
	0816	12.5	381
	1411	−0.1	−3
	2045	13.0	396
7 Th ◑	0244	0.5	15
	0911	11.7	357
	1502	0.8	24
	2139	12.3	375
8 F	0339	1.1	34
	1011	11.0	335
	1557	1.7	52
	2238	11.6	354
9 Sa	0439	1.7	52
	1116	10.4	317
	1657	2.5	76
	2341	11.1	338
10 Su	0543	2.1	64
	1223	10.1	308
	1803	2.9	88
11 M	0044	10.9	332
	0649	2.1	64
	1327	10.2	311
	1910	3.1	94
12 Tu	0145	10.9	332
	0752	2.0	61
	1425	10.5	320
	2012	2.9	88
13 W	0239	11.1	338
	0845	1.6	49
	1515	11.0	335
	2104	2.5	76
14 Th	0327	11.3	344
	0929	1.2	37
	1600	11.4	347
	2149	2.1	64
15 F ●	0411	11.5	351
	1009	0.9	27
	1641	11.8	360
	2228	1.7	52

	Time	Height	
	h m	ft	cm
16 Sa	0451	11.7	357
	1045	0.6	18
	1718	12.0	366
	2306	1.4	43
17 Su	0528	11.7	357
	1120	0.4	12
	1754	12.1	369
	2342	1.2	37
18 M	0603	11.6	354
	1155	0.4	12
	1827	12.1	369
19 Tu	0017	1.1	34
	0637	11.4	347
	1229	0.6	18
	1859	11.9	363
20 W	0053	1.2	37
	0710	11.1	338
	1303	0.8	24
	1931	11.6	354
21 Th	0129	1.3	40
	0744	10.7	326
	1339	1.2	37
	2004	11.3	344
22 F	0208	1.5	46
	0821	10.2	311
	1417	1.6	49
	2042	11.0	335
23 Sa ◐	0251	1.7	52
	0906	9.8	299
	1502	2.1	64
	2128	10.6	323
24 Su	0342	2.0	61
	1003	9.5	290
	1556	2.5	76
	2227	10.3	314
25 M	0442	2.1	64
	1114	9.3	283
	1702	2.7	82
	2338	10.3	314
26 Tu	0550	2.0	61
	1232	9.7	296
	1815	2.6	79
27 W	0053	10.6	323
	0659	1.5	46
	1342	10.4	317
	1926	2.1	64
28 Th	0201	11.3	344
	0803	0.7	21
	1442	11.4	347
	2030	1.2	37
29 F	0300	12.1	369
	0901	−0.2	−6
	1536	12.5	381
	2127	0.2	6
30 Sa ○	0353	13.0	396
	0954	−1.1	−34
	1625	13.4	408
	2220	−0.6	−18
31 Su	0444	13.6	415
	1043	−1.7	−52
	1713	14.1	430
	2309	−1.2	−37

February

	Time	Height	
	h m	ft	cm
1 M	0532	13.9	424
	1130	−1.9	−58
	1759	14.4	439
	2357	−1.5	−46
2 Tu	0619	13.8	421
	1216	−1.8	−55
	1844	14.3	436
3 W	0043	−1.3	−40
	0706	13.4	408
	1301	−1.3	−40
	1930	13.8	421
4 Th	0130	−0.9	−27
	0754	12.6	384
	1347	−0.5	−15
	2017	13.0	396
5 F ◑	0218	−0.1	−3
	0844	11.7	357
	1434	0.5	15
	2108	12.1	369
6 Sa	0308	0.8	24
	0940	10.7	326
	1525	1.6	49
	2203	11.1	338
7 Su	0403	1.6	49
	1042	9.9	302
	1621	2.6	79
	2306	10.3	314
8 M	0504	2.2	67
	1151	9.4	287
	1727	3.2	98
9 Tu	0013	9.9	302
	0613	2.5	76
	1259	9.4	287
	1839	3.4	104
10 W	0118	9.9	302
	0722	2.4	73
	1401	9.8	299
	1949	3.2	98
11 Th	0216	10.1	308
	0821	2.0	61
	1453	10.4	317
	2046	2.6	79
12 F	0306	10.5	320
	0907	1.5	46
	1537	11.0	335
	2130	2.0	61
13 Sa ●	0350	11.0	335
	0946	1.0	30
	1617	11.5	351
	2208	1.5	46
14 Su	0430	11.3	344
	1022	0.6	18
	1654	11.9	363
	2243	1.0	30
15 M	0506	11.6	354
	1056	0.3	9
	1727	12.1	369
	2318	0.6	18

	Time	Height	
	h m	ft	cm
16 Tu	0540	11.6	354
	1130	0.2	6
	1759	12.2	372
	2352	0.4	12
17 W	0613	11.5	351
	1203	0.2	6
	1829	12.0	366
18 Th	0026	0.4	12
	0644	11.3	344
	1236	0.4	12
	1859	11.8	360
19 F	0100	0.5	15
	0716	10.9	332
	1310	0.7	21
	1931	11.5	351
20 Sa	0137	0.7	21
	0752	10.5	320
	1348	1.1	34
	2007	11.1	338
21 Su ◐	0218	1.0	30
	0834	10.1	308
	1431	1.6	49
	2052	10.7	326
22 M	0308	1.4	43
	0928	9.7	296
	1525	2.1	64
	2150	10.2	311
23 Tu	0408	1.7	52
	1040	9.4	287
	1633	2.5	76
	2306	10.0	305
24 W	0518	1.8	55
	1202	9.6	293
	1750	2.4	73
25 Th	0029	10.2	311
	0632	1.4	43
	1317	10.4	317
	1905	1.9	58
26 F	0141	11.0	335
	0740	0.7	21
	1420	11.4	347
	2012	0.9	27
27 Sa	0242	11.9	363
	0841	−0.2	−6
	1515	12.6	384
	2110	−0.1	−3
28 Su ○	0337	12.8	390
	0934	−1.1	−34
	1605	13.5	411
	2202	−1.1	−34

March

	Time	Height	
	h m	ft	cm
1 M	0426	13.5	411
	1023	−1.7	−52
	1652	14.2	433
	2251	−1.7	−52
2 Tu	0514	13.8	421
	1110	−1.9	−58
	1737	14.4	439
	2336	−1.9	−58
3 W	0559	13.8	421
	1154	−1.8	−55
	1821	14.2	433
4 Th	0021	−1.7	−52
	0645	13.3	405
	1238	−1.2	−37
	1905	13.7	418
5 F	0105	−1.1	−34
	0730	12.6	384
	1321	−0.4	−12
	1949	12.8	390
6 Sa	0149	−0.3	−9
	0818	11.6	354
	1406	0.6	18
	2036	11.7	357
7 Su ◑	0236	0.7	21
	0909	10.6	323
	1454	1.7	52
	2128	10.7	326
8 M	0327	1.6	49
	1008	9.7	296
	1548	2.7	82
	2229	9.8	299
9 Tu	0424	2.4	73
	1115	9.2	280
	1651	3.4	104
	2338	9.3	283
10 W	0531	2.8	85
	1225	9.1	277
	1804	3.6	110
11 Th	0047	9.2	280
	0641	2.8	85
	1328	9.5	290
	1917	3.3	101
12 F	0148	9.6	293
	0744	2.4	73
	1421	10.1	308
	2016	2.7	82
13 Sa	0239	10.1	308
	0834	1.9	58
	1507	10.8	329
	2101	2.0	61
14 Su	0324	10.7	326
	0915	1.3	40
	1547	11.4	347
	2140	1.3	40
15 M ●	0404	11.1	338
	0952	0.8	24
	1623	11.8	360
	2216	0.7	21

	Time	Height	
	h m	ft	cm
16 Tu	0440	11.5	351
	1028	0.5	15
	1657	12.1	369
	2250	0.3	9
17 W	0515	11.7	357
	1102	0.3	9
	1729	12.2	372
	2325	0.0	0
18 Th	0548	11.7	357
	1136	0.2	6
	1800	12.2	372
	2359	−0.1	−3
19 F	0620	11.5	351
	1211	0.4	12
	1832	12.0	366
20 Sa	0035	0.0	0
	0654	11.3	344
	1247	0.6	18
	1905	11.7	357
21 Su	0113	0.2	6
	0731	10.9	332
	1326	1.0	30
	1944	11.3	344
22 M	0155	0.6	18
	0815	10.5	320
	1412	1.5	46
	2031	10.8	329
23 Tu ◐	0245	1.1	34
	0911	10.1	308
	1508	2.0	61
	2132	10.3	314
24 W	0345	1.5	46
	1021	9.9	302
	1616	2.3	70
	2249	10.1	308
25 Th	0455	1.7	52
	1140	10.1	308
	1732	2.2	67
26 F	0010	10.3	314
	0608	1.5	46
	1254	10.8	329
	1846	1.6	49
27 Sa	0122	11.0	335
	0717	0.9	27
	1357	11.8	360
	1953	0.7	21
28 Su	0223	11.8	360
	0818	0.1	3
	1452	12.8	390
	2050	−0.2	−6
29 M ○	0317	12.7	387
	0912	−0.6	−18
	1542	13.6	415
	2142	−1.0	−30
30 Tu	0407	13.3	405
	1001	−1.1	−34
	1628	14.1	430
	2229	−1.5	−46
31 W	0454	13.6	415
	1047	−1.2	−37
	1713	14.2	433
	2314	−1.7	−52

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Buenaventura, Colombia, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0539	13.5	411
	1131	−1.1	−34
	1757	13.9	424
	2357	−1.4	−43
2 F	0623	13.1	399
	1214	−0.5	−15
	1839	13.3	405
3 Sa	0039	−0.9	−27
	0707	12.4	378
	1256	0.2	6
	1922	12.5	381
4 Su	0122	−0.1	−3
	0753	11.6	354
	1339	1.1	34
	2007	11.5	351
5 M	0206	0.8	24
	0841	10.8	329
	1426	2.0	61
	2056	10.5	320
6 Tu ◑	0253	1.7	52
	0935	10.0	305
	1517	2.8	85
	2153	9.7	296
7 W	0346	2.5	76
	1038	9.5	290
	1617	3.4	104
	2300	9.2	280
8 Th	0446	2.9	88
	1144	9.4	287
	1724	3.6	110
9 F	0008	9.1	277
	0552	3.1	94
	1246	9.7	296
	1832	3.4	104
10 Sa	0110	9.4	287
	0654	2.9	88
	1340	10.2	311
	1932	2.8	85
11 Su	0204	9.9	302
	0749	2.4	73
	1427	10.8	329
	2022	2.1	64
12 M	0250	10.5	320
	0835	1.9	58
	1509	11.4	347
	2104	1.4	43
13 Tu	0332	11.0	335
	0917	1.4	43
	1548	11.9	363
	2143	0.8	24
14 W ●	0411	11.5	351
	0956	1.0	30
	1624	12.2	372
	2220	0.3	9
15 Th	0448	11.8	360
	1033	0.7	21
	1659	12.4	378
	2257	0.0	0

	Time	Height	
	h m	ft	cm
16 F	0524	11.9	363
	1111	0.6	18
	1733	12.5	381
	2335	−0.2	−6
17 Sa	0600	11.9	363
	1149	0.6	18
	1809	12.3	375
18 Su	0013	−0.1	−3
	0637	11.8	360
	1229	0.8	24
	1847	12.1	369
19 M	0054	0.1	3
	0719	11.6	354
	1313	1.1	34
	1931	11.7	357
20 Tu	0140	0.4	12
	0807	11.3	344
	1402	1.5	46
	2022	11.2	341
21 W ◐	0231	0.9	27
	0903	11.0	335
	1500	1.9	58
	2124	10.7	326
22 Th	0330	1.3	40
	1009	10.8	329
	1606	2.1	64
	2237	10.5	320
23 F	0436	1.6	49
	1121	11.0	335
	1716	2.0	61
	2352	10.7	326
24 Sa	0545	1.6	49
	1229	11.5	351
	1826	1.6	49
25 Su	0101	11.2	341
	0652	1.2	37
	1331	12.2	372
	1931	0.9	27
26 M	0202	11.8	360
	0753	0.8	24
	1427	12.9	393
	2029	0.1	3
27 Tu	0256	12.5	381
	0848	0.3	9
	1517	13.5	411
	2120	−0.5	−15
28 W ○	0347	13.0	396
	0938	0.0	0
	1605	13.8	421
	2207	−0.8	−24
29 Th	0434	13.2	402
	1024	−0.1	−3
	1650	13.8	421
	2251	−0.9	−27
30 F	0519	13.2	402
	1108	0.1	3
	1733	13.5	411
	2334	−0.7	−21

May

	Time	Height	
	h m	ft	cm
1 Sa	0603	12.9	393
	1151	0.5	15
	1816	13.0	396
2 Su	0015	−0.2	−6
	0646	12.4	378
	1233	1.0	30
	1858	12.3	375
3 M	0056	0.4	12
	0729	11.8	360
	1315	1.7	52
	1941	11.5	351
4 Tu	0138	1.1	34
	0815	11.2	341
	1400	2.3	70
	2027	10.7	326
5 W ◑	0222	1.8	55
	0903	10.6	323
	1448	2.9	88
	2118	10.0	305
6 Th	0309	2.4	73
	0957	10.2	311
	1542	3.3	101
	2217	9.5	290
7 F	0403	2.9	88
	1056	10.0	305
	1641	3.5	107
	2321	9.3	283
8 Sa	0501	3.2	98
	1155	10.1	308
	1743	3.4	104
9 Su	0023	9.4	287
	0601	3.2	98
	1251	10.4	317
	1842	3.0	91
10 M	0120	9.8	299
	0658	2.9	88
	1341	10.9	332
	1936	2.4	73
11 Tu	0211	10.4	317
	0750	2.5	76
	1428	11.4	347
	2024	1.8	55
12 W	0257	10.9	332
	0837	2.1	64
	1510	11.9	363
	2108	1.1	34
13 Th ●	0340	11.4	347
	0922	1.6	49
	1551	12.3	375
	2150	0.6	18
14 F	0421	11.9	363
	1005	1.3	40
	1631	12.6	384
	2232	0.1	3
15 Sa	0501	12.2	372
	1048	1.0	30
	1711	12.8	390
	2313	−0.1	−3

	Time	Height	
	h m	ft	cm
16 Su	0542	12.4	378
	1131	0.9	27
	1752	12.8	390
	2356	−0.2	−6
17 M	0625	12.5	381
	1216	0.9	27
	1836	12.6	384
18 Tu	0040	−0.1	−3
	0710	12.4	378
	1303	1.1	34
	1923	12.3	375
19 W	0128	0.3	9
	0759	12.2	372
	1355	1.3	40
	2016	11.9	363
20 Th ◐	0219	0.7	21
	0854	12.0	366
	1451	1.6	49
	2116	11.4	347
21 F	0316	1.1	34
	0955	11.9	363
	1552	1.8	55
	2222	11.1	338
22 Sa	0417	1.5	46
	1059	11.9	363
	1658	1.8	55
	2331	11.1	338
23 Su	0521	1.7	52
	1204	12.0	366
	1804	1.6	49
24 M	0038	11.3	344
	0625	1.8	55
	1305	12.4	378
	1907	1.3	40
25 Tu	0139	11.7	357
	0727	1.6	49
	1402	12.7	387
	2006	0.8	24
26 W	0236	12.1	369
	0824	1.4	43
	1454	13.0	396
	2058	0.4	12
27 Th ○	0327	12.5	381
	0915	1.2	37
	1543	13.2	402
	2146	0.1	3
28 F	0415	12.7	387
	1003	1.1	34
	1629	13.2	402
	2230	0.1	3
29 Sa	0500	12.8	390
	1047	1.2	37
	1712	13.0	396
	2312	0.1	3
30 Su	0544	12.7	387
	1130	1.3	40
	1754	12.7	387
	2352	0.4	12
31 M	0626	12.4	378
	1211	1.6	49
	1835	12.2	372

June

	Time	Height	
	h m	ft	cm
1 Tu	0031	0.8	24
	0707	12.1	369
	1252	2.0	61
	1916	11.6	354
2 W	0111	1.2	37
	0748	11.7	357
	1334	2.4	73
	1958	11.0	335
3 Th	0151	1.7	52
	0830	11.3	344
	1419	2.7	82
	2042	10.5	320
4 F ◑	0234	2.2	67
	0916	10.9	332
	1506	3.0	91
	2132	10.0	305
5 Sa	0321	2.7	82
	1005	10.6	323
	1557	3.2	98
	2228	9.7	296
6 Su	0412	3.0	91
	1059	10.5	320
	1653	3.3	101
	2328	9.6	293
7 M	0508	3.2	98
	1155	10.6	323
	1751	3.1	94
8 Tu	0029	9.7	296
	0606	3.2	98
	1251	10.9	332
	1848	2.7	82
9 W	0127	10.1	308
	0704	3.0	91
	1343	11.3	344
	1943	2.1	64
10 Th	0220	10.7	326
	0758	2.6	79
	1433	11.8	360
	2033	1.4	43
11 F	0309	11.3	344
	0850	2.1	64
	1520	12.3	375
	2122	0.8	24
12 Sa ●	0355	12.0	366
	0940	1.6	49
	1606	12.8	390
	2208	0.2	6
13 Su	0441	12.6	384
	1028	1.1	34
	1652	13.1	399
	2254	−0.2	−6
14 M	0525	13.0	396
	1115	0.8	24
	1738	13.3	405
	2340	−0.4	−12
15 Tu	0611	13.3	405
	1203	0.6	18
	1825	13.2	402

	Time	Height	
	h m	ft	cm
16 W	0027	−0.4	−12
	0658	13.4	408
	1252	0.6	18
	1914	13.0	396
17 Th	0115	−0.2	−6
	0747	13.3	405
	1343	0.7	21
	2006	12.6	384
18 F ◐	0205	0.3	9
	0839	13.0	396
	1437	1.0	30
	2102	12.1	369
19 Sa	0258	0.8	24
	0935	12.7	387
	1534	1.4	43
	2203	11.6	354
20 Su	0354	1.4	43
	1034	12.4	378
	1635	1.7	52
	2308	11.2	341
21 M	0455	1.9	58
	1137	12.1	369
	1738	1.8	55
22 Tu	0014	11.1	338
	0558	2.3	70
	1239	12.1	369
	1842	1.8	55
23 W	0117	11.2	341
	0702	2.4	73
	1338	12.2	372
	1944	1.6	49
24 Th	0216	11.5	351
	0802	2.3	70
	1433	12.3	375
	2039	1.3	40
25 F	0309	11.8	360
	0856	2.2	67
	1524	12.5	381
	2128	1.0	30
26 Sa ○	0358	12.1	369
	0945	2.0	61
	1610	12.6	384
	2212	0.8	24
27 Su	0443	12.4	378
	1029	1.8	55
	1654	12.5	381
	2252	0.7	21
28 M	0524	12.5	381
	1111	1.8	55
	1734	12.4	378
	2330	0.7	21
29 Tu	0604	12.4	378
	1150	1.8	55
	1813	12.1	369
30 W	0007	0.9	27
	0642	12.3	375
	1229	1.9	58
	1851	11.8	360

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Buenaventura, Colombia, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0044	1.1	34
	0719	12.0	366
	1307	2.0	61
	1928	11.3	344
2 F	0121	1.5	46
	0755	11.7	357
	1347	2.3	70
	2007	10.9	332
3 Sa	0200	1.9	58
	0833	11.4	347
	1429	2.5	76
	2048	10.4	317
4 Su ◑	0240	2.3	70
	0914	11.1	338
	1514	2.8	85
	2135	10.0	305
5 M	0326	2.7	82
	1002	10.8	329
	1605	2.9	88
	2231	9.7	296
6 Tu	0418	3.1	94
	1057	10.6	323
	1702	3.0	91
	2335	9.6	293
7 W	0517	3.3	101
	1158	10.7	326
	1802	2.8	85
8 Th	0042	9.9	302
	0621	3.2	98
	1301	11.0	335
	1904	2.3	70
9 F	0144	10.5	320
	0723	2.8	85
	1400	11.5	351
	2002	1.6	49
10 Sa	0240	11.2	341
	0823	2.2	67
	1455	12.2	372
	2056	0.9	27
11 Su ●	0332	12.1	369
	0918	1.5	46
	1546	12.8	390
	2147	0.1	3
12 M	0420	12.9	393
	1010	0.8	24
	1635	13.4	408
	2236	−0.5	−15
13 Tu	0507	13.6	415
	1100	0.2	6
	1723	13.8	421
	2323	−0.9	−27
14 W	0554	14.0	427
	1148	−0.2	−6
	1811	13.8	421
15 Th	0010	−0.9	−27
	0640	14.1	430
	1237	−0.2	−6
	1859	13.6	415

	Time	Height	
	h m	ft	cm
16 F	0057	−0.7	−21
	0728	14.0	427
	1326	0.0	0
	1949	13.2	402
17 Sa	0146	−0.2	−6
	0817	13.6	415
	1417	0.4	12
	2042	12.5	381
18 Su ◐	0236	0.5	15
	0910	13.0	396
	1510	1.0	30
	2139	11.8	360
19 M	0329	1.4	43
	1007	12.3	375
	1608	1.6	49
	2242	11.1	338
20 Tu	0427	2.2	67
	1109	11.8	360
	1710	2.1	64
	2349	10.7	326
21 W	0531	2.8	85
	1214	11.4	347
	1816	2.3	70
22 Th	0055	10.6	323
	0638	3.1	94
	1317	11.4	347
	1922	2.2	67
23 F	0157	10.9	332
	0743	3.0	91
	1415	11.5	351
	2021	2.0	61
24 Sa	0251	11.2	341
	0841	2.7	82
	1506	11.7	357
	2111	1.6	49
25 Su ○	0339	11.7	357
	0930	2.3	70
	1553	12.0	366
	2153	1.3	40
26 M	0423	12.1	369
	1012	2.0	61
	1635	12.2	372
	2231	1.0	30
27 Tu	0502	12.3	375
	1050	1.7	52
	1713	12.2	372
	2307	0.8	24
28 W	0539	12.5	381
	1127	1.5	46
	1750	12.1	369
	2342	0.8	24
29 Th	0613	12.4	378
	1202	1.4	43
	1825	11.9	363
30 F	0016	0.9	27
	0647	12.3	375
	1238	1.5	46
	1858	11.6	354
31 Sa	0050	1.2	37
	0719	12.0	366
	1314	1.6	49
	1932	11.2	341

August

	Time	Height	
	h m	ft	cm
1 Su	0126	1.5	46
	0752	11.6	354
	1352	1.9	58
	2008	10.7	326
2 M ◑	0203	2.0	61
	0828	11.3	344
	1433	2.2	67
	2049	10.3	314
3 Tu	0245	2.4	73
	0911	10.9	332
	1520	2.5	76
	2140	9.8	299
4 W	0335	2.9	88
	1004	10.5	320
	1617	2.7	82
	2246	9.6	293
5 Th	0436	3.2	98
	1111	10.4	317
	1721	2.7	82
6 F	0001	9.8	299
	0545	3.2	98
	1225	10.6	323
	1829	2.3	70
7 Sa	0112	10.3	314
	0655	2.8	85
	1333	11.2	341
	1934	1.7	52
8 Su	0214	11.2	341
	0800	2.0	61
	1433	12.0	366
	2033	0.8	24
9 M ●	0309	12.3	375
	0859	1.1	34
	1527	12.9	393
	2127	−0.1	−3
10 Tu	0359	13.3	405
	0952	0.1	3
	1618	13.7	418
	2217	−0.8	−24
11 W	0446	14.1	430
	1042	−0.6	−18
	1706	14.1	430
	2304	−1.3	−40
12 Th	0532	14.5	442
	1130	−1.0	−30
	1753	14.3	436
	2350	−1.4	−43
13 F	0618	14.6	445
	1217	−1.0	−30
	1840	14.0	427
14 Sa	0036	−1.1	−34
	0704	14.3	436
	1304	−0.7	−21
	1928	13.4	408
15 Su	0123	−0.4	−12
	0752	13.7	418
	1352	−0.1	−3
	2018	12.6	384

	Time	Height	
	h m	ft	cm
16 M ◐	0211	0.5	15
	0843	12.9	393
	1443	0.8	24
	2113	11.7	357
17 Tu	0302	1.5	46
	0939	11.9	363
	1538	1.7	52
	2215	10.8	329
18 W	0359	2.5	76
	1041	11.1	338
	1639	2.4	73
	2323	10.3	314
19 Th	0504	3.2	98
	1149	10.7	326
	1748	2.8	85
20 F	0032	10.1	308
	0615	3.5	107
	1255	10.6	323
	1858	2.8	85
21 Sa	0135	10.4	317
	0726	3.3	101
	1355	10.8	329
	2000	2.5	76
22 Su	0230	10.9	332
	0825	2.9	88
	1447	11.2	341
	2049	2.0	61
23 M	0316	11.4	347
	0911	2.4	73
	1532	11.6	354
	2130	1.6	49
24 Tu ○	0358	11.9	363
	0950	1.8	55
	1612	11.9	363
	2206	1.2	37
25 W	0435	12.3	375
	1026	1.4	43
	1650	12.1	369
	2240	0.9	27
26 Th	0510	12.5	381
	1100	1.1	34
	1725	12.2	372
	2314	0.8	24
27 F	0543	12.5	381
	1134	0.9	27
	1758	12.0	366
	2347	0.8	24
28 Sa	0614	12.4	378
	1208	0.9	27
	1829	11.8	360
29 Su	0020	1.0	30
	0644	12.1	369
	1242	1.1	34
	1901	11.4	347
30 M	0054	1.3	40
	0715	11.8	360
	1318	1.3	40
	1935	11.0	335
31 Tu	0130	1.7	52
	0750	11.3	344
	1358	1.7	52
	2014	10.5	320

September

	Time	Height	
	h m	ft	cm
1 W ◑	0212	2.2	67
	0831	10.9	332
	1444	2.1	64
	2104	10.1	308
2 Th	0302	2.7	82
	0926	10.5	320
	1540	2.4	73
	2210	9.8	299
3 F	0405	3.0	91
	1037	10.2	311
	1648	2.6	79
	2329	9.9	302
4 Sa	0519	3.0	91
	1159	10.4	317
	1801	2.3	70
5 Su	0045	10.5	320
	0633	2.5	76
	1312	11.1	338
	1909	1.7	52
6 M	0149	11.5	351
	0740	1.6	49
	1414	12.0	366
	2011	0.7	21
7 Tu	0245	12.6	384
	0840	0.6	18
	1508	13.0	396
	2105	−0.2	−6
8 W	0336	13.6	415
	0932	−0.4	−12
	1559	13.8	421
●	2155	−0.9	−27
9 Th	0423	14.4	439
	1022	−1.1	−34
	1646	14.3	436
	2243	−1.3	−40
10 F	0509	14.8	451
	1108	−1.5	−46
	1733	14.4	439
	2328	−1.3	−40
11 Sa	0554	14.8	451
	1154	−1.4	−43
	1819	14.1	430
12 Su	0014	−0.9	−27
	0640	14.3	436
	1240	−1.0	−30
	1906	13.5	411
13 M	0059	−0.2	−6
	0726	13.5	411
	1326	−0.2	−6
	1954	12.6	384
14 Tu	0146	0.7	21
	0815	12.5	381
	1414	0.8	24
	2047	11.6	354
15 W ◐	0236	1.8	55
	0909	11.5	351
	1507	1.8	55
	2147	10.7	326

	Time	Height	
	h m	ft	cm
16 Th	0331	2.8	85
	1012	10.6	323
	1606	2.6	79
	2254	10.1	308
17 F	0436	3.5	107
	1121	10.1	308
	1713	3.1	94
18 Sa	0003	10.0	305
	0548	3.7	113
	1229	10.0	305
	1824	3.2	98
19 Su	0106	10.2	311
	0700	3.5	107
	1330	10.3	314
	1927	2.9	88
20 M	0200	10.7	326
	0759	3.0	91
	1421	10.8	329
	2017	2.4	73
21 Tu	0246	11.3	344
	0844	2.3	70
	1506	11.3	344
	2059	1.9	58
22 W	0327	11.8	360
	0922	1.7	52
	1546	11.7	357
	2135	1.5	46
23 Th ○	0404	12.3	375
	0957	1.2	37
	1623	12.0	366
	2211	1.1	34
24 F	0439	12.5	381
	1032	0.8	24
	1658	12.2	372
	2245	1.0	30
25 Sa	0511	12.6	384
	1106	0.6	18
	1731	12.2	372
	2319	0.9	27
26 Su	0543	12.5	381
	1140	0.6	18
	1803	12.0	366
	2353	1.1	34
27 M	0613	12.2	372
	1214	0.7	21
	1836	11.7	357
28 Tu	0028	1.4	43
	0646	11.9	363
	1251	1.0	30
	1911	11.3	344
29 W	0106	1.7	52
	0722	11.5	351
	1331	1.3	40
	1952	10.9	332
30 Th ◑	0149	2.2	67
	0806	11.0	335
	1418	1.8	55
	2042	10.5	320

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Buenaventura, Colombia, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0242	2.6	79
	0903	10.5	320
	1515	2.2	67
	2148	10.3	314
2 Sa	0347	2.9	88
	1016	10.3	314
	1622	2.4	73
	2305	10.4	317
3 Su	0500	2.8	85
	1138	10.4	317
	1735	2.3	70
4 M	0020	11.0	335
	0613	2.3	70
	1251	11.1	338
	1844	1.7	52
5 Tu	0124	11.9	363
	0720	1.4	43
	1353	12.0	366
	1947	0.9	27
6 W	0220	12.9	393
	0819	0.3	9
	1448	13.0	396
	2042	0.1	3
7 Th ●	0312	13.8	421
	0912	−0.6	−18
	1539	13.8	421
	2133	−0.5	−15
8 F	0400	14.5	442
	1000	−1.2	−37
	1627	14.2	433
	2220	−0.8	−24
9 Sa	0446	14.7	448
	1047	−1.5	−46
	1713	14.3	436
	2306	−0.8	−24
10 Su	0531	14.6	445
	1132	−1.3	−40
	1759	14.0	427
	2351	−0.4	−12
11 M	0616	14.1	430
	1216	−0.8	−24
	1844	13.4	408
12 Tu	0036	0.3	9
	0701	13.2	402
	1301	0.0	0
	1932	12.6	384
13 W	0121	1.2	37
	0749	12.2	372
	1346	0.9	27
	2022	11.7	357
14 Th ◐	0210	2.1	64
	0840	11.2	341
	1435	1.9	58
	2117	10.9	332
15 F	0303	2.9	88
	0939	10.4	317
	1530	2.7	82
	2219	10.3	314

	Time	Height	
	h m	ft	cm
16 Sa	0403	3.6	110
	1045	9.8	299
	1631	3.3	101
	2325	10.1	308
17 Su	0511	3.8	116
	1153	9.7	296
	1736	3.5	107
18 M	0026	10.3	314
	0619	3.6	110
	1254	9.9	302
	1839	3.3	101
19 Tu	0121	10.7	326
	0718	3.1	94
	1348	10.4	317
	1933	2.9	88
20 W	0209	11.2	341
	0806	2.5	76
	1434	10.9	332
	2019	2.5	76
21 Th	0251	11.7	357
	0847	1.8	55
	1516	11.5	351
	2100	2.0	61
22 F ○	0330	12.1	369
	0926	1.2	37
	1555	11.9	363
	2139	1.6	49
23 Sa	0407	12.4	378
	1002	0.8	24
	1632	12.1	369
	2216	1.4	43
24 Su	0441	12.6	384
	1038	0.5	15
	1707	12.2	372
	2253	1.3	40
25 M	0515	12.5	381
	1115	0.4	12
	1742	12.2	372
	2330	1.3	40
26 Tu	0549	12.4	378
	1152	0.5	15
	1817	12.0	366
27 W	0008	1.4	43
	0625	12.1	369
	1230	0.7	21
	1856	11.8	360
28 Th	0050	1.7	52
	0705	11.7	357
	1313	1.0	30
	1939	11.5	351
29 F	0136	2.0	61
	0753	11.3	344
	1401	1.4	43
	2031	11.2	341
30 Sa ◑	0230	2.3	70
	0851	10.9	332
	1457	1.8	55
	2133	11.1	338
31 Su	0333	2.5	76
	1001	10.6	323
	1601	2.1	64
	2243	11.1	338

November

	Time	Height	
	h m	ft	cm
1 M	0442	2.4	73
	1117	10.7	326
	1710	2.1	64
	2354	11.5	351
2 Tu	0552	2.0	61
	1228	11.2	341
	1818	1.8	55
3 W	0058	12.2	372
	0658	1.3	40
	1331	11.9	363
	1921	1.3	40
4 Th	0155	13.0	396
	0757	0.5	15
	1428	12.7	387
	2018	0.7	21
5 F ●	0248	13.6	415
	0851	−0.3	−9
	1520	13.3	405
	2111	0.3	9
6 Sa	0337	14.1	430
	0940	−0.8	−24
	1608	13.7	418
	2200	0.0	0
7 Su	0424	14.2	433
	1027	−1.0	−30
	1655	13.8	421
	2246	0.1	3
8 M	0510	14.1	430
	1111	−0.8	−24
	1740	13.7	418
	2331	0.3	9
9 Tu	0554	13.6	415
	1154	−0.4	−12
	1825	13.2	402
10 W	0015	0.8	24
	0639	12.9	393
	1237	0.2	6
	1910	12.6	384
11 Th	0059	1.5	46
	0724	12.1	369
	1320	1.0	30
	1957	11.9	363
12 F	0145	2.2	67
	0811	11.2	341
	1405	1.8	55
	2046	11.3	344
13 Sa ◐	0234	2.8	85
	0903	10.4	317
	1452	2.5	76
	2139	10.7	326
14 Su	0327	3.3	101
	1002	9.8	299
	1545	3.1	94
	2237	10.4	317
15 M	0425	3.6	110
	1105	9.6	293
	1643	3.5	107
	2336	10.4	317

	Time	Height	
	h m	ft	cm
16 Tu	0526	3.5	107
	1208	9.6	293
	1743	3.5	107
17 W	0032	10.6	323
	0626	3.2	98
	1305	9.9	302
	1841	3.4	104
18 Th	0124	10.9	332
	0720	2.7	82
	1357	10.4	317
	1934	3.0	91
19 F	0211	11.3	344
	0808	2.1	64
	1443	11.0	335
	2022	2.6	79
20 Sa	0254	11.8	360
	0852	1.5	46
	1526	11.5	351
	2107	2.2	67
21 Su ○	0335	12.2	372
	0933	0.9	27
	1606	11.9	363
	2149	1.8	55
22 M	0414	12.4	378
	1013	0.5	15
	1645	12.2	372
	2230	1.5	46
23 Tu	0453	12.6	384
	1053	0.2	6
	1724	12.4	378
	2312	1.3	40
24 W	0532	12.6	384
	1134	0.1	3
	1803	12.5	381
	2354	1.2	37
25 Th	0612	12.4	378
	1216	0.2	6
	1845	12.5	381
26 F	0039	1.3	40
	0656	12.2	372
	1300	0.4	12
	1930	12.3	375
27 Sa	0127	1.4	43
	0745	11.8	360
	1348	0.8	24
	2020	12.1	369
28 Su ◑	0219	1.6	49
	0841	11.4	347
	1441	1.2	37
	2117	11.9	363
29 M	0318	1.8	55
	0944	11.1	338
	1540	1.6	49
	2220	11.8	360
30 Tu	0421	1.9	58
	1054	10.9	332
	1644	1.9	58
	2326	11.9	363

December

	Time	Height	
	h m	ft	cm
1 W	0527	1.7	52
	1203	11.1	338
	1750	2.0	61
2 Th	0030	12.2	372
	0633	1.4	43
	1309	11.5	351
	1855	1.8	55
3 F	0131	12.6	384
	0735	0.8	24
	1408	12.0	366
	1956	1.5	46
4 Sa	0227	13.0	396
	0831	0.3	9
	1502	12.6	384
	2051	1.2	37
5 Su ●	0318	13.3	405
	0922	−0.1	−3
	1553	13.0	396
	2142	0.9	27
6 M	0407	13.4	408
	1009	−0.3	−9
	1640	13.2	402
	2229	0.8	24
7 Tu	0453	13.3	405
	1053	−0.3	−9
	1724	13.2	402
	2314	0.9	27
8 W	0537	13.0	396
	1135	−0.1	−3
	1807	13.0	396
	2356	1.1	34
9 Th	0619	12.5	381
	1215	0.3	9
	1849	12.6	384
10 F	0038	1.5	46
	0701	12.0	366
	1255	0.8	24
	1931	12.1	369
11 Sa	0120	1.9	58
	0743	11.3	344
	1335	1.4	43
	2012	11.6	354
12 Su	0203	2.3	70
	0827	10.6	323
	1416	2.0	61
	2056	11.1	338
13 M ◐	0248	2.7	82
	0915	10.0	305
	1501	2.5	76
	2144	10.7	326
14 Tu	0338	3.0	91
	1009	9.6	293
	1550	3.0	91
	2236	10.4	317
15 W	0432	3.2	98
	1110	9.4	287
	1646	3.4	104
	2334	10.3	314

	Time	Height	
	h m	ft	cm
16 Th	0530	3.1	94
	1213	9.4	287
	1745	3.5	107
17 F	0032	10.4	317
	0629	2.8	85
	1313	9.7	296
	1845	3.4	104
18 Sa	0127	10.7	326
	0725	2.3	70
	1407	10.3	314
	1942	3.0	91
19 Su	0218	11.2	341
	0817	1.7	52
	1456	10.9	332
	2035	2.5	76
20 M	0306	11.6	354
	0905	1.0	30
	1542	11.5	351
	2124	1.9	58
21 Tu ○	0351	12.1	369
	0951	0.4	12
	1625	12.2	372
	2211	1.3	40
22 W	0434	12.5	381
	1035	−0.1	−3
	1707	12.7	387
	2256	0.9	27
23 Th	0518	12.8	390
	1118	−0.4	−12
	1749	13.0	396
	2341	0.5	15
24 F	0601	12.9	393
	1202	−0.5	−15
	1832	13.2	402
25 Sa	0027	0.3	9
	0647	12.7	387
	1247	−0.4	−12
	1917	13.2	402
26 Su	0115	0.4	12
	0735	12.4	378
	1334	−0.1	−3
	2005	13.0	396
27 M ◑	0205	0.6	18
	0827	12.0	366
	1424	0.4	12
	2057	12.6	384
28 Tu	0259	0.9	27
	0924	11.4	347
	1518	1.0	30
	2154	12.2	372
29 W	0357	1.2	37
	1029	11.0	335
	1617	1.7	52
	2257	11.9	363
30 Th	0501	1.5	46
	1137	10.8	329
	1722	2.1	64
31 F	0003	11.7	357
	0607	1.5	46
	1246	10.8	329
	1829	2.3	70

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Balboa, Panama, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0337	16.5	503
	1004	−1.1	−34
	1614	16.4	500
	2227	−0.2	−6
2 Sa	0430	17.0	518
	1050	−1.7	−52
	1705	17.0	518
	2314	−0.8	−24
3 Su	0522	17.2	524
	1135	−1.9	−58
	1755	17.4	530
4 M	0001	−0.9	−27
	0613	17.2	524
	1222	−1.6	−49
	1844	17.4	530
5 Tu	0051	−0.6	−18
	0704	16.7	509
	1310	−0.9	−27
	1932	17.0	518
6 W	0143	0.0	0
	0754	15.9	485
	1402	0.1	3
	2022	16.3	497
7 Th ◑	0238	0.8	24
	0847	14.8	451
	1457	1.2	37
	2115	15.3	466
8 F	0337	1.6	49
	0947	13.7	418
	1555	2.3	70
	2216	14.4	439
9 Sa	0438	2.2	67
	1056	12.9	393
	1656	3.2	98
	2323	13.7	418
10 Su	0543	2.7	82
	1208	12.5	381
	1802	3.7	113
11 M	0031	13.4	408
	0649	2.7	82
	1314	12.6	384
	1909	3.8	116
12 Tu	0130	13.4	408
	0750	2.4	73
	1411	13.0	396
	2010	3.5	107
13 W	0222	13.6	415
	0842	1.9	58
	1459	13.4	408
	2100	2.9	88
14 Th	0308	13.9	424
	0926	1.3	40
	1543	13.9	424
	2143	2.3	70
15 F ●	0350	14.1	430
	1004	0.8	24
	1623	14.3	436
	2221	1.8	55

	Time	Height	
	h m	ft	cm
16 Sa	0430	14.4	439
	1040	0.4	12
	1700	14.7	448
	2257	1.4	43
17 Su	0507	14.5	442
	1114	0.3	9
	1734	14.9	454
	2332	1.2	37
18 M	0542	14.5	442
	1148	0.4	12
	1807	15.0	457
19 Tu	0008	1.3	40
	0616	14.3	436
	1223	0.8	24
	1839	14.9	454
20 W	0044	1.5	46
	0648	13.9	424
	1258	1.3	40
	1910	14.6	445
21 Th	0122	1.9	58
	0721	13.5	411
	1335	2.0	61
	1942	14.2	433
22 F	0202	2.4	73
	0756	13.0	396
	1415	2.7	82
	2018	13.8	421
23 Sa ◐	0248	2.8	85
	0837	12.4	378
	1501	3.3	101
	2101	13.3	405
24 Su	0340	3.1	94
	0931	11.8	360
	1556	3.8	116
	2159	12.9	393
25 M	0440	3.2	98
	1042	11.6	354
	1702	4.0	122
	2311	12.8	390
26 Tu	0548	3.0	91
	1202	11.9	363
	1815	3.8	116
27 W	0025	13.3	405
	0658	2.3	70
	1311	12.8	390
	1927	2.9	88
28 Th	0130	14.1	430
	0802	1.1	34
	1411	14.0	427
	2030	1.6	49
29 F	0228	15.1	460
	0858	−0.2	−6
	1506	15.3	466
	2123	0.2	6
30 Sa ○	0323	16.1	491
	0947	−1.5	−46
	1558	16.4	500
	2212	−1.1	−34
31 Su	0416	16.9	515
	1033	−2.3	−70
	1648	17.3	527
	2258	−1.9	−58

February

	Time	Height	
	h m	ft	cm
1 M	0508	17.3	527
	1118	−2.7	−82
	1737	17.7	539
	2344	−2.2	−67
2 Tu	0557	17.3	527
	1202	−2.4	−73
	1824	17.7	539
3 W	0030	−1.9	−58
	0645	16.8	512
	1248	−1.7	−52
	1909	17.2	524
4 Th	0118	−1.1	−34
	0732	15.9	485
	1336	−0.5	−15
	1955	16.2	494
5 F ◑	0210	0.0	0
	0821	14.7	448
	1427	0.8	24
	2044	15.0	457
6 Sa	0304	1.1	34
	0915	13.4	408
	1522	2.2	67
	2138	13.7	418
7 Su	0404	2.2	67
	1019	12.2	372
	1623	3.4	104
	2245	12.6	384
8 M	0508	2.9	88
	1137	11.6	354
	1731	4.1	125
9 Tu	0002	12.1	369
	0618	3.2	98
	1252	11.6	354
	1843	4.2	128
10 W	0110	12.1	369
	0725	3.0	91
	1352	12.1	369
	1949	3.8	116
11 Th	0206	12.5	381
	0820	2.4	73
	1441	12.7	387
	2042	3.1	94
12 F	0252	13.0	396
	0905	1.6	49
	1522	13.4	408
	2124	2.2	67
13 Sa ●	0332	13.5	411
	0943	0.9	27
	1558	14.0	427
	2201	1.4	43
14 Su	0409	13.9	424
	1018	0.3	9
	1633	14.5	442
	2236	0.8	24
15 M	0444	14.3	436
	1051	0.0	0
	1705	14.9	454
	2309	0.4	12

	Time	Height	
	h m	ft	cm
16 Tu	0517	14.4	439
	1123	0.0	0
	1737	15.1	460
	2342	0.3	9
17 W	0549	14.4	439
	1156	0.2	6
	1807	15.1	460
18 Th	0016	0.4	12
	0621	14.2	433
	1229	0.7	21
	1837	14.9	454
19 F	0051	0.8	24
	0653	13.8	421
	1303	1.3	40
	1909	14.5	442
20 Sa	0129	1.3	40
	0727	13.3	405
	1342	2.0	61
	1944	14.0	427
21 Su ◐	0212	1.9	58
	0806	12.7	387
	1427	2.7	82
	2026	13.4	408
22 M	0303	2.4	73
	0857	12.1	369
	1523	3.4	104
	2122	12.8	390
23 Tu	0405	2.8	85
	1006	11.7	357
	1632	3.7	113
	2238	12.5	381
24 W	0516	2.8	85
	1133	11.8	360
	1750	3.5	107
25 Th	0002	12.8	390
	0631	2.2	67
	1250	12.7	387
	1906	2.6	79
26 F	0114	13.7	418
	0739	1.1	34
	1353	14.0	427
	2011	1.2	37
27 Sa	0214	14.8	451
	0837	−0.2	−6
	1447	15.4	469
	2106	−0.4	−12
28 Su ○	0308	15.9	485
	0928	−1.5	−46
	1538	16.6	506
	2154	−1.7	−52

March

	Time	Height	
	h m	ft	cm
1 M	0400	16.7	509
	1014	−2.3	−70
	1627	17.4	530
	2240	−2.5	−76
2 Tu	0450	17.2	524
	1058	−2.7	−82
	1714	17.7	539
	2324	−2.7	−82
3 W	0537	17.1	521
	1141	−2.4	−73
	1759	17.6	536
4 Th	0008	−2.4	−73
	0624	16.7	509
	1224	−1.6	−49
	1844	17.0	518
5 F	0053	−1.5	−46
	0709	15.7	479
	1309	−0.4	−12
	1928	15.9	485
6 Sa	0140	−0.3	−9
	0755	14.5	442
	1357	1.0	30
	2013	14.6	445
7 Su ◑	0232	1.1	34
	0845	13.2	402
	1451	2.4	73
	2103	13.2	402
8 M	0329	2.3	70
	0944	12.0	366
	1551	3.6	110
	2207	12.0	366
9 Tu	0432	3.2	98
	1100	11.3	344
	1659	4.4	134
	2327	11.3	344
10 W	0541	3.6	110
	1220	11.3	344
	1812	4.5	137
11 Th	0043	11.4	347
	0650	3.5	107
	1323	11.8	360
	1920	4.0	122
12 F	0141	11.9	363
	0748	2.9	88
	1410	12.5	381
	2015	3.2	98
13 Sa	0226	12.5	381
	0835	2.1	64
	1449	13.3	405
	2058	2.2	67
14 Su	0305	13.2	402
	0915	1.4	43
	1525	14.0	427
	2135	1.2	37
15 M ●	0341	13.8	421
	0950	0.7	21
	1558	14.6	445
	2209	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0415	14.2	433
	1024	0.2	6
	1631	15.0	457
	2243	0.0	0
17 W	0449	14.5	442
	1056	0.1	3
	1703	15.3	466
	2316	−0.3	−9
18 Th	0522	14.6	445
	1129	0.2	6
	1735	15.3	466
	2349	−0.2	−6
19 F	0555	14.5	442
	1203	0.5	15
	1808	15.2	463
20 Sa	0024	0.1	3
	0629	14.2	433
	1238	1.1	34
	1842	14.9	454
21 Su	0103	0.7	21
	0706	13.8	421
	1319	1.8	55
	1921	14.3	436
22 M	0147	1.4	43
	0748	13.2	402
	1407	2.5	76
	2006	13.7	418
23 Tu ◐	0240	2.0	61
	0840	12.7	387
	1506	3.2	98
	2104	13.0	396
24 W	0343	2.5	76
	0950	12.2	372
	1617	3.4	104
	2221	12.5	381
25 Th	0454	2.6	79
	1114	12.4	378
	1733	3.2	98
	2346	12.8	390
26 F	0607	2.2	67
	1231	13.3	405
	1846	2.3	70
27 Sa	0058	13.7	418
	0715	1.3	40
	1332	14.5	442
	1951	1.0	30
28 Su	0157	14.8	451
	0814	0.2	6
	1425	15.7	479
	2046	−0.4	−12
29 M ○	0250	15.8	482
	0906	−0.8	−24
	1515	16.7	509
	2134	−1.6	−49
30 Tu	0341	16.5	503
	0952	−1.6	−49
	1602	17.3	527
	2219	−2.3	−70
31 W	0429	16.8	512
	1036	−1.8	−55
	1649	17.5	533
	2302	−2.4	−73

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Balboa, Panama, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0516	16.8	512
	1118	−1.6	−49
	1734	17.2	524
	2344	−2.0	−61
2 F	0602	16.3	497
	1200	−0.8	−24
	1818	16.5	503
3 Sa	0027	−1.1	−34
	0647	15.5	472
	1244	0.3	9
	1901	15.5	472
4 Su	0112	0.1	3
	0732	14.5	442
	1330	1.6	49
	1945	14.3	436
5 M	0201	1.4	43
	0819	13.4	408
	1422	2.9	88
	2032	13.0	396
6 Tu ◑	0255	2.6	79
	0912	12.4	378
	1521	3.9	119
	2129	11.9	363
7 W	0355	3.5	107
	1019	11.7	357
	1626	4.5	137
	2243	11.3	344
8 Th	0459	3.9	119
	1134	11.6	354
	1734	4.6	140
9 F	0001	11.2	341
	0604	4.0	122
	1238	12.0	366
	1839	4.2	128
10 Sa	0102	11.7	357
	0704	3.6	110
	1327	12.7	387
	1935	3.5	107
11 Su	0149	12.4	378
	0755	2.9	88
	1407	13.4	408
	2022	2.5	76
12 M	0229	13.1	399
	0838	2.2	67
	1443	14.1	430
	2102	1.6	49
13 Tu	0305	13.7	418
	0917	1.5	46
	1518	14.8	451
	2139	0.7	21
14 W ●	0341	14.2	433
	0953	1.0	30
	1553	15.2	463
	2214	0.1	3
15 Th	0418	14.6	445
	1029	0.7	21
	1628	15.6	475
	2249	−0.3	−9

	Time	Height	
	h m	ft	cm
16 F	0454	14.9	454
	1104	0.6	18
	1705	15.7	479
	2325	−0.3	−9
17 Sa	0532	14.9	454
	1141	0.8	24
	1743	15.6	475
18 Su	0003	−0.1	−3
	0612	14.8	451
	1220	1.2	37
	1824	15.3	466
19 M	0044	0.4	12
	0654	14.5	442
	1304	1.8	55
	1908	14.8	451
20 Tu	0131	1.1	34
	0741	14.1	430
	1357	2.4	73
	1958	14.2	433
21 W ◐	0225	1.7	52
	0835	13.7	418
	1458	2.9	88
	2057	13.5	411
22 Th	0328	2.2	67
	0941	13.4	408
	1606	3.1	94
	2211	13.1	399
23 F	0435	2.5	76
	1057	13.5	411
	1716	2.8	85
	2330	13.3	405
24 Sa	0543	2.3	70
	1208	14.2	433
	1825	2.1	64
25 Su	0039	13.9	424
	0649	1.8	55
	1309	15.0	457
	1928	1.1	34
26 M	0138	14.8	451
	0749	1.1	34
	1402	15.9	485
	2024	0.1	3
27 Tu	0231	15.5	472
	0842	0.3	9
	1451	16.6	506
	2113	−0.8	−24
28 W ○	0320	16.0	488
	0930	−0.2	−6
	1538	16.9	515
	2158	−1.3	−40
29 Th	0409	16.2	494
	1014	−0.4	−12
	1624	16.9	515
	2241	−1.4	−43
30 F	0456	16.2	494
	1057	−0.1	−3
	1710	16.6	506
	2323	−1.0	−30

May

	Time	Height	
	h m	ft	cm
1 Sa	0542	15.9	485
	1139	0.4	12
	1754	16.0	488
2 Su	0004	−0.3	−9
	0627	15.3	466
	1221	1.3	40
	1838	15.2	463
3 M	0047	0.6	18
	0711	14.6	445
	1306	2.3	70
	1920	14.3	436
4 Tu	0133	1.7	52
	0755	13.9	424
	1356	3.2	98
	2005	13.3	405
5 W ◑	0223	2.7	82
	0842	13.2	402
	1451	4.0	122
	2054	12.4	378
6 Th	0317	3.5	107
	0936	12.6	384
	1549	4.5	137
	2154	11.7	357
7 F	0414	4.0	122
	1038	12.3	375
	1650	4.6	140
	2304	11.5	351
8 Sa	0512	4.2	128
	1140	12.5	381
	1750	4.4	134
9 Su	0009	11.7	357
	0610	4.2	128
	1233	13.0	396
	1846	3.8	116
10 M	0101	12.3	375
	0705	3.8	116
	1318	13.6	415
	1938	3.1	94
11 Tu	0146	12.9	393
	0755	3.2	98
	1358	14.3	436
	2024	2.2	67
12 W	0227	13.6	415
	0840	2.6	79
	1437	14.9	454
	2106	1.3	40
13 Th ●	0306	14.2	433
	0922	2.0	61
	1516	15.4	469
	2146	0.5	15
14 F	0347	14.7	448
	1002	1.5	46
	1557	15.8	482
	2225	0.0	0
15 Sa	0430	15.2	463
	1042	1.1	34
	1640	16.0	488
	2304	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Su	0514	15.4	469
	1123	1.1	34
	1725	16.1	491
	2346	−0.2	−6
17 M	0559	15.5	472
	1206	1.2	37
	1812	15.9	485
18 Tu	0030	0.1	3
	0646	15.5	472
	1254	1.6	49
	1901	15.5	472
19 W	0118	0.6	18
	0735	15.3	466
	1348	2.0	61
	1953	15.0	457
20 Th ◐	0213	1.3	40
	0829	15.0	457
	1448	2.3	70
	2051	14.4	439
21 F	0312	1.8	55
	0929	14.7	448
	1552	2.5	76
	2157	13.9	424
22 Sa	0414	2.2	67
	1036	14.6	445
	1656	2.4	73
	2309	13.8	421
23 Su	0518	2.4	73
	1143	14.9	454
	1801	2.1	64
24 M	0017	14.1	430
	0621	2.4	73
	1244	15.3	466
	1904	1.6	49
25 Tu	0118	14.5	442
	0722	2.1	64
	1338	15.7	479
	2001	1.0	30
26 W	0212	15.0	457
	0819	1.7	52
	1428	16.1	491
	2053	0.4	12
27 Th ○	0302	15.3	466
	0909	1.4	43
	1516	16.2	494
	2139	0.0	0
28 F	0351	15.5	472
	0955	1.2	37
	1603	16.1	491
	2222	−0.2	−6
29 Sa	0439	15.6	475
	1038	1.2	37
	1649	15.9	485
	2303	0.0	0
30 Su	0524	15.5	472
	1120	1.5	46
	1734	15.5	472
	2343	0.4	12
31 M	0608	15.3	466
	1201	2.0	61
	1816	15.0	457

June

	Time	Height	
	h m	ft	cm
1 Tu	0024	1.0	30
	0650	14.9	454
	1244	2.6	79
	1857	14.4	439
2 W	0106	1.8	55
	0730	14.5	442
	1329	3.2	98
	1938	13.7	418
3 Th	0150	2.5	76
	0810	14.0	427
	1418	3.8	116
	2020	13.1	399
4 F ◑	0238	3.3	101
	0853	13.6	415
	1509	4.2	128
	2107	12.4	378
5 Sa	0328	3.9	119
	0942	13.2	402
	1603	4.4	134
	2202	12.0	366
6 Su	0420	4.3	131
	1036	13.1	399
	1658	4.4	134
	2305	11.9	363
7 M	0514	4.5	137
	1132	13.2	402
	1754	4.1	125
8 Tu	0006	12.1	369
	0611	4.4	134
	1225	13.6	415
	1850	3.6	110
9 W	0100	12.7	387
	0708	4.1	125
	1313	14.2	433
	1944	2.8	85
10 Th	0148	13.3	405
	0802	3.5	107
	1359	14.8	451
	2033	1.9	58
11 F	0234	14.1	430
	0852	2.7	82
	1444	15.4	469
	2119	1.0	30
12 Sa ●	0321	14.8	451
	0938	1.9	58
	1531	16.0	488
	2203	0.2	6
13 Su	0409	15.5	472
	1023	1.3	40
	1620	16.4	500
	2246	−0.4	−12
14 M	0458	16.0	488
	1107	0.8	24
	1711	16.6	506
	2330	−0.6	−18
15 Tu	0547	16.4	500
	1153	0.6	18
	1801	16.7	509

	Time	Height	
	h m	ft	cm
16 W	0015	−0.5	−15
	0636	16.6	506
	1242	0.8	24
	1852	16.4	500
17 Th	0104	−0.1	−3
	0725	16.6	506
	1335	1.1	34
	1943	16.0	488
18 F ◐	0156	0.6	18
	0815	16.3	497
	1431	1.5	46
	2038	15.3	466
19 Sa	0252	1.3	40
	0910	15.8	482
	1531	1.9	58
	2138	14.6	445
20 Su	0350	2.0	61
	1010	15.3	466
	1633	2.2	67
	2245	14.0	427
21 M	0451	2.6	79
	1116	15.0	457
	1736	2.3	70
	2354	13.8	421
22 Tu	0554	3.0	91
	1219	14.9	454
	1839	2.3	70
23 W	0058	13.9	424
	0658	3.1	94
	1318	15.0	457
	1940	2.0	61
24 Th	0156	14.2	433
	0758	3.0	91
	1411	15.2	463
	2035	1.5	46
25 F	0248	14.5	442
	0852	2.6	79
	1500	15.3	466
	2123	1.1	34
26 Sa ○	0337	14.8	451
	0939	2.3	70
	1547	15.3	466
	2205	0.8	24
27 Su	0423	15.0	457
	1022	2.0	61
	1632	15.3	466
	2245	0.6	18
28 M	0507	15.2	463
	1102	2.0	61
	1715	15.2	463
	2323	0.7	21
29 Tu	0547	15.3	466
	1141	2.0	61
	1755	15.0	457
30 W	0000	1.0	30
	0625	15.2	463
	1220	2.3	70
	1832	14.6	445

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Balboa, Panama, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0038	1.5	46
	0701	15.0	457
	1300	2.7	82
	1909	14.2	433
2 F	0117	2.1	64
	0736	14.7	448
	1342	3.1	94
	1945	13.7	418
3 Sa	0158	2.8	85
	0811	14.3	436
	1427	3.6	110
	2023	13.1	399
4 Su ◑	0242	3.5	107
	0850	13.9	424
	1515	3.9	119
	2107	12.5	381
5 M	0330	4.1	125
	0935	13.5	411
	1607	4.1	125
	2201	12.1	369
6 Tu	0421	4.5	137
	1030	13.3	405
	1702	4.1	125
	2307	12.0	366
7 W	0519	4.7	143
	1131	13.4	408
	1802	3.9	119
8 Th	0013	12.3	375
	0622	4.5	137
	1232	13.8	421
	1904	3.2	98
9 F	0113	13.0	396
	0727	3.9	119
	1327	14.5	442
	2003	2.3	70
10 Sa	0206	13.9	424
	0825	3.0	91
	1420	15.3	466
	2055	1.2	37
11 Su ●	0258	14.9	454
	0917	1.9	58
	1512	16.1	491
	2143	0.1	3
12 M	0349	15.9	485
	1005	0.8	24
	1604	16.7	509
	2228	−0.8	−24
13 Tu	0440	16.7	509
	1051	0.0	0
	1656	17.2	524
	2313	−1.2	−37
14 W	0530	17.3	527
	1138	−0.4	−12
	1747	17.4	530
	2358	−1.3	−40
15 Th	0618	17.6	536
	1225	−0.4	−12
	1837	17.2	524

	Time	Height	
	h m	ft	cm
16 F	0045	−0.9	−27
	0706	17.5	533
	1315	0.0	0
	1927	16.7	509
17 Sa	0135	−0.1	−3
	0755	17.0	518
	1409	0.6	18
	2018	15.8	482
18 Su ◐	0228	0.9	27
	0846	16.3	497
	1506	1.4	43
	2114	14.8	451
19 M	0324	2.0	61
	0942	15.3	466
	1606	2.1	64
	2218	13.8	421
20 Tu	0424	2.9	88
	1047	14.6	445
	1709	2.7	82
	2330	13.3	405
21 W	0529	3.7	113
	1157	14.1	430
	1815	3.0	91
22 Th	0041	13.2	402
	0636	4.0	122
	1302	14.1	430
	1921	2.8	85
23 F	0143	13.4	408
	0742	3.8	116
	1358	14.2	433
	2018	2.4	73
24 Sa	0236	13.9	424
	0838	3.3	101
	1448	14.5	442
	2106	1.9	58
25 Su ○	0323	14.3	436
	0924	2.8	85
	1533	14.7	448
	2148	1.3	40
26 M	0405	14.8	451
	1005	2.2	67
	1615	14.9	454
	2225	1.0	30
27 Tu	0444	15.1	460
	1042	1.8	55
	1653	15.0	457
	2300	0.8	24
28 W	0520	15.4	469
	1118	1.6	49
	1730	15.0	457
	2335	0.9	27
29 Th	0554	15.5	472
	1153	1.7	52
	1804	14.9	454
30 F	0009	1.2	37
	0627	15.4	469
	1229	1.9	58
	1837	14.6	445
31 Sa	0044	1.7	52
	0658	15.1	460
	1307	2.3	70
	1910	14.1	430

August

	Time	Height	
	h m	ft	cm
1 Su	0121	2.4	73
	0730	14.7	448
	1346	2.9	88
	1943	13.6	415
2 M ◑	0200	3.1	94
	0804	14.3	436
	1430	3.4	104
	2022	13.0	396
3 Tu	0244	3.8	116
	0844	13.8	421
	1520	3.8	116
	2109	12.4	378
4 W	0336	4.4	134
	0936	13.3	405
	1617	4.1	125
	2213	12.0	366
5 Th	0437	4.8	146
	1043	13.1	399
	1721	4.0	122
	2332	12.1	369
6 F	0546	4.7	143
	1157	13.4	408
	1830	3.5	107
7 Sa	0044	12.9	393
	0658	4.0	122
	1303	14.2	433
	1935	2.5	76
8 Su	0144	14.0	427
	0802	2.8	85
	1402	15.2	463
	2032	1.2	37
9 M ●	0238	15.2	463
	0858	1.4	43
	1456	16.2	494
	2122	−0.1	−3
10 Tu	0329	16.4	500
	0947	0.1	3
	1548	17.1	521
	2209	−1.1	−34
11 W	0419	17.4	530
	1033	−0.9	−27
	1639	17.7	539
	2253	−1.7	−52
12 Th	0508	18.1	552
	1118	−1.4	−43
	1729	17.9	546
	2338	−1.8	−55
13 F	0556	18.3	558
	1204	−1.4	−43
	1818	17.7	539
14 Sa	0023	−1.3	−40
	0643	18.0	549
	1252	−0.8	−24
	1906	17.0	518
15 Su	0110	−0.3	−9
	0730	17.3	527
	1342	0.1	3
	1956	16.0	488

	Time	Height	
	h m	ft	cm
16 M ◐	0201	0.9	27
	0819	16.2	494
	1437	1.3	40
	2049	14.7	448
17 Tu	0257	2.3	70
	0913	15.0	457
	1537	2.4	73
	2151	13.6	415
18 W	0358	3.4	104
	1019	13.9	424
	1642	3.2	98
	2306	12.8	390
19 Th	0505	4.3	131
	1135	13.2	402
	1751	3.6	110
20 F	0024	12.7	387
	0617	4.5	137
	1247	13.2	402
	1859	3.5	107
21 Sa	0128	13.0	396
	0725	4.3	131
	1346	13.5	411
	1958	3.1	94
22 Su	0219	13.6	415
	0821	3.6	110
	1434	13.9	424
	2046	2.4	73
23 M	0302	14.2	433
	0905	2.9	88
	1515	14.4	439
	2126	1.8	55
24 Tu ○	0339	14.8	451
	0944	2.1	64
	1552	14.8	451
	2201	1.2	37
25 W	0414	15.3	466
	1019	1.5	46
	1627	15.0	457
	2235	0.9	27
26 Th	0447	15.6	475
	1052	1.2	37
	1701	15.2	463
	2307	0.8	24
27 F	0519	15.7	479
	1126	1.1	34
	1734	15.1	460
	2340	1.1	34
28 Sa	0551	15.7	479
	1159	1.3	40
	1805	14.9	454
29 Su	0013	1.5	46
	0621	15.4	469
	1233	1.7	52
	1837	14.5	442
30 M	0047	2.2	67
	0653	15.1	460
	1310	2.2	67
	1910	14.0	427
31 Tu	0124	3.0	91
	0726	14.5	442
	1352	2.9	88
	1947	13.4	408

September

	Time	Height	
	h m	ft	cm
1 W ◑	0207	3.7	113
	0806	14.0	427
	1441	3.5	107
	2034	12.8	390
2 Th	0301	4.4	134
	0857	13.4	408
	1540	3.9	119
	2137	12.3	375
3 F	0407	4.7	143
	1008	13.0	396
	1648	4.0	122
	2301	12.3	375
4 Sa	0521	4.6	140
	1132	13.2	402
	1801	3.5	107
5 Su	0020	13.1	399
	0635	3.8	116
	1245	14.0	427
	1909	2.6	79
6 M	0123	14.4	439
	0741	2.5	76
	1345	15.2	463
	2008	1.2	37
7 Tu	0217	15.8	482
	0837	1.0	30
	1439	16.4	500
	2100	−0.1	−3
8 W	0307	17.0	518
	0927	−0.5	−15
	1529	17.4	530
●	2147	−1.1	−34
9 Th	0355	18.0	549
	1013	−1.5	−46
	1619	18.0	549
	2232	−1.7	−52
10 F	0443	18.5	564
	1057	−2.0	−61
	1708	18.1	552
	2315	−1.7	−52
11 Sa	0530	18.5	564
	1142	−1.8	−55
	1756	17.8	543
	2359	−1.1	−34
12 Su	0617	18.1	552
	1227	−1.1	−34
	1844	17.1	521
13 M	0045	−0.1	−3
	0704	17.1	521
	1316	0.1	3
	1932	16.0	488
14 Tu	0135	1.3	40
	0752	15.9	485
	1408	1.4	43
	2024	14.7	448
15 W ◐	0230	2.7	82
	0845	14.5	442
	1507	2.7	82
	2124	13.5	411

	Time	Height	
	h m	ft	cm
16 Th	0332	4.0	122
	0949	13.3	405
	1612	3.7	113
	2238	12.6	384
17 F	0441	4.7	143
	1109	12.6	384
	1721	4.2	128
	2358	12.5	381
18 Sa	0553	4.9	149
	1226	12.6	384
	1829	4.1	125
19 Su	0103	13.0	396
	0700	4.5	137
	1325	13.0	396
	1928	3.7	113
20 M	0152	13.6	415
	0755	3.8	116
	1410	13.6	415
	2017	3.0	91
21 Tu	0231	14.3	436
	0839	2.9	88
	1449	14.2	433
	2057	2.3	70
22 W	0306	14.9	454
	0917	2.1	64
	1524	14.7	448
	2133	1.7	52
23 Th ○	0339	15.4	469
	0952	1.4	43
	1557	15.1	460
	2207	1.3	40
24 F	0411	15.8	482
	1025	0.9	27
	1631	15.3	466
	2239	1.1	34
25 Sa	0443	15.9	485
	1058	0.7	21
	1703	15.3	466
	2312	1.3	40
26 Su	0515	15.9	485
	1131	0.8	24
	1736	15.2	463
	2345	1.6	49
27 M	0548	15.7	479
	1205	1.2	37
	1810	14.9	454
28 Tu	0020	2.2	67
	0622	15.3	466
	1242	1.8	55
	1846	14.4	439
29 W	0058	2.9	88
	0659	14.8	451
	1323	2.5	76
	1926	13.9	424
30 Th ◑	0143	3.7	113
	0742	14.2	433
	1413	3.2	98
	2014	13.4	408

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Balboa, Panama, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0240	4.3	131
	0836	13.6	415
	1514	3.7	113
	2117	12.9	393
2 Sa	0349	4.5	137
	0948	13.1	399
	1623	3.8	116
	2238	13.0	396
3 Su	0502	4.3	131
	1113	13.3	405
	1735	3.5	107
	2357	13.8	421
4 M	0614	3.4	104
	1227	14.1	430
	1843	2.6	79
5 Tu	0101	15.0	457
	0719	2.2	67
	1327	15.3	466
	1943	1.5	46
6 W	0154	16.3	497
	0816	0.7	21
	1420	16.4	500
	2037	0.4	12
7 Th ●	0243	17.4	530
	0906	−0.6	−18
	1510	17.3	527
	2125	−0.6	−18
8 F	0331	18.1	552
	0952	−1.5	−46
	1559	17.8	543
	2210	−1.0	−30
9 Sa	0418	18.4	561
	1036	−1.8	−55
	1647	17.9	546
	2254	−1.0	−30
10 Su	0506	18.3	558
	1120	−1.6	−49
	1735	17.5	533
	2337	−0.4	−12
11 M	0553	17.7	539
	1204	−0.8	−24
	1823	16.8	512
12 Tu	0022	0.6	18
	0639	16.7	509
	1250	0.3	9
	1911	15.9	485
13 W	0110	1.9	58
	0727	15.5	472
	1340	1.7	52
	2001	14.7	448
14 Th ◐	0204	3.2	98
	0818	14.2	433
	1436	2.9	88
	2056	13.7	418
15 F	0304	4.3	131
	0917	13.1	399
	1538	3.9	119
	2203	12.9	393

	Time	Height	
	h m	ft	cm
16 Sa	0411	4.9	149
	1031	12.4	378
	1643	4.5	137
	2317	12.7	387
17 Su	0518	5.1	155
	1148	12.3	375
	1747	4.6	140
18 M	0022	13.0	396
	0622	4.7	143
	1249	12.6	384
	1846	4.3	131
19 Tu	0112	13.6	415
	0718	4.1	125
	1336	13.2	402
	1937	3.8	116
20 W	0152	14.2	433
	0805	3.2	98
	1416	13.8	421
	2021	3.1	94
21 Th	0228	14.8	451
	0845	2.3	70
	1451	14.4	439
	2101	2.5	76
22 F ○	0302	15.4	469
	0922	1.6	49
	1526	14.9	454
	2137	2.0	61
23 Sa	0335	15.8	482
	0957	1.0	30
	1601	15.2	463
	2212	1.7	52
24 Su	0409	16.0	488
	1032	0.7	21
	1636	15.4	469
	2247	1.6	49
25 M	0445	16.1	491
	1107	0.6	18
	1712	15.4	469
	2322	1.8	55
26 Tu	0521	15.9	485
	1143	0.9	27
	1750	15.2	463
27 W	0000	2.2	67
	0600	15.6	475
	1221	1.3	40
	1830	15.0	457
28 Th	0041	2.7	82
	0642	15.2	463
	1305	1.9	58
	1914	14.6	445
29 F	0129	3.3	101
	0730	14.6	445
	1355	2.6	79
	2005	14.2	433
30 Sa ◑	0227	3.7	113
	0825	14.0	427
	1455	3.1	94
	2105	13.9	424
31 Su	0334	3.9	119
	0934	13.6	415
	1601	3.4	104
	2217	13.9	424

November

	Time	Height	
	h m	ft	cm
1 M	0443	3.7	113
	1052	13.6	415
	1709	3.2	98
	2331	14.5	442
2 Tu	0551	3.0	91
	1206	14.2	433
	1815	2.7	82
3 W	0036	15.4	469
	0655	2.0	61
	1307	15.1	460
	1917	2.0	61
4 Th	0131	16.3	497
	0753	0.9	27
	1401	16.0	488
	2013	1.1	34
5 F ●	0221	17.1	521
	0845	−0.1	−3
	1452	16.7	509
	2103	0.4	12
6 Sa	0309	17.6	536
	0933	−0.9	−27
	1541	17.1	521
	2150	0.0	0
7 Su	0357	17.8	543
	1017	−1.2	−37
	1629	17.2	524
	2235	0.0	0
8 M	0444	17.6	536
	1101	−1.0	−30
	1718	16.9	515
	2318	0.5	15
9 Tu	0532	17.0	518
	1144	−0.4	−12
	1805	16.4	500
10 W	0002	1.2	37
	0618	16.2	494
	1227	0.6	18
	1852	15.8	482
11 Th	0048	2.2	67
	0704	15.2	463
	1314	1.7	52
	1938	15.0	457
12 F	0138	3.2	98
	0751	14.2	433
	1404	2.8	85
	2026	14.1	430
13 Sa ◐	0233	4.1	125
	0842	13.2	402
	1459	3.7	113
	2120	13.4	408
14 Su	0332	4.6	140
	0941	12.4	378
	1556	4.4	134
	2220	13.0	396
15 M	0433	4.9	149
	1050	12.0	366
	1655	4.7	143
	2323	13.0	396

	Time	Height	
	h m	ft	cm
16 Tu	0533	4.7	143
	1156	12.2	372
	1753	4.7	143
17 W	0019	13.3	405
	0630	4.3	131
	1251	12.6	384
	1848	4.4	134
18 Th	0105	13.8	421
	0722	3.6	110
	1336	13.2	402
	1939	3.9	119
19 F	0146	14.4	439
	0809	2.8	85
	1416	13.8	421
	2025	3.3	101
20 Sa	0224	14.9	454
	0851	2.0	61
	1454	14.3	436
	2107	2.7	82
21 Su ○	0301	15.4	469
	0930	1.2	37
	1533	14.8	451
	2147	2.2	67
22 M	0340	15.8	482
	1009	0.7	21
	1613	15.2	463
	2226	1.8	55
23 Tu	0420	16.0	488
	1046	0.4	12
	1654	15.5	472
	2305	1.7	52
24 W	0503	16.0	488
	1125	0.3	9
	1737	15.6	475
	2345	1.7	52
25 Th	0547	15.9	485
	1206	0.6	18
	1821	15.7	479
26 F	0029	1.9	58
	0634	15.6	475
	1251	1.0	30
	1907	15.5	472
27 Sa	0119	2.3	70
	0723	15.2	463
	1341	1.6	49
	1956	15.3	466
28 Su ◑	0215	2.6	79
	0816	14.7	448
	1437	2.1	64
	2051	15.0	457
29 M	0316	2.8	85
	0918	14.1	430
	1538	2.6	79
	2154	14.8	451
30 Tu	0420	2.8	85
	1028	13.9	424
	1641	2.8	85
	2303	14.8	451

December

	Time	Height	
	h m	ft	cm
1 W	0525	2.5	76
	1141	14.0	427
	1746	2.8	85
2 Th	0009	15.2	463
	0630	2.0	61
	1246	14.5	442
	1850	2.5	76
3 F	0108	15.7	479
	0731	1.3	40
	1343	15.1	460
	1950	2.0	61
4 Sa	0201	16.2	494
	0827	0.6	18
	1436	15.6	475
	2045	1.5	46
5 Su ●	0252	16.5	503
	0916	0.0	0
	1527	16.0	488
	2134	1.1	34
6 M	0341	16.6	506
	1002	−0.4	−12
	1616	16.1	491
	2219	0.9	27
7 Tu	0429	16.5	503
	1044	−0.4	−12
	1704	16.2	494
	2302	1.0	30
8 W	0515	16.1	491
	1126	−0.1	−3
	1749	16.0	488
	2345	1.4	43
9 Th	0600	15.6	475
	1206	0.5	15
	1832	15.6	475
10 F	0027	1.9	58
	0642	15.0	457
	1248	1.2	37
	1913	15.1	460
11 Sa	0112	2.6	79
	0724	14.2	433
	1332	2.1	64
	1954	14.6	445
12 Su	0159	3.3	101
	0805	13.4	408
	1418	3.0	91
	2035	13.9	424
13 M ◐	0249	3.8	116
	0850	12.7	387
	1507	3.7	113
	2121	13.4	408
14 Tu	0342	4.2	128
	0943	12.0	366
	1559	4.3	131
	2214	13.0	396
15 W	0438	4.4	134
	1046	11.7	357
	1654	4.7	143
	2312	12.9	393

	Time	Height	
	h m	ft	cm
16 Th	0535	4.3	131
	1151	11.8	360
	1752	4.7	143
17 F	0009	13.1	399
	0632	3.9	119
	1249	12.2	372
	1851	4.5	137
18 Sa	0100	13.5	411
	0728	3.2	98
	1338	12.8	390
	1947	4.0	122
19 Su	0147	14.1	430
	0819	2.3	70
	1424	13.5	411
	2038	3.2	98
20 M	0231	14.7	448
	0905	1.4	43
	1508	14.3	436
	2124	2.4	73
21 Tu ○	0316	15.3	466
	0947	0.5	15
	1553	15.0	457
	2207	1.6	49
22 W	0402	15.8	482
	1028	−0.1	−3
	1638	15.6	475
	2249	0.9	27
23 Th	0449	16.1	491
	1109	−0.5	−15
	1723	16.1	491
	2332	0.6	18
24 F	0537	16.3	497
	1152	−0.6	−18
	1809	16.4	500
25 Sa	0017	0.5	15
	0624	16.2	494
	1236	−0.4	−12
	1855	16.5	503
26 Su	0105	0.6	18
	0713	15.9	485
	1324	0.2	6
	1942	16.2	494
27 M ◑	0157	1.0	30
	0803	15.3	466
	1416	0.9	27
	2032	15.8	482
28 Tu	0254	1.4	43
	0859	14.5	442
	1513	1.7	52
	2128	15.2	463
29 W	0355	1.8	55
	1002	13.8	421
	1614	2.3	70
	2232	14.7	448
30 Th	0458	2.1	64
	1114	13.4	408
	1718	2.8	85
	2342	14.5	442
31 F	0604	2.1	64
	1225	13.4	408
	1825	3.0	91

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Puntarenas, Costa Rica, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0237	9.6	293
	0852	−0.5	−15
	1511	9.2	280
	2111	0.0	0
2 Sa	0327	9.9	302
	0940	−0.8	−24
	1600	9.7	296
	2202	−0.3	−9
3 Su	0417	10.0	305
	1028	−1.0	−30
	1649	10.0	305
	2253	−0.5	−15
4 M	0507	9.9	302
	1116	−1.0	−30
	1738	10.1	308
	2344	−0.4	−12
5 Tu	0557	9.6	293
	1204	−0.7	−21
	1828	10.0	305
6 W	0037	−0.2	−6
	0649	9.2	280
	1254	−0.3	−9
	1920	9.7	296
7 Th ◑	0131	0.2	6
	0744	8.6	262
	1346	0.3	9
	2015	9.2	280
8 F	0229	0.7	21
	0843	8.0	244
	1443	0.9	27
	2113	8.7	265
9 Sa	0332	1.1	34
	0947	7.5	229
	1544	1.5	46
	2215	8.3	253
10 Su	0439	1.4	43
	1055	7.2	219
	1650	1.9	58
	2319	8.1	247
11 M	0546	1.4	43
	1202	7.1	216
	1757	2.0	61
12 Tu	0020	8.0	244
	0647	1.3	40
	1302	7.3	223
	1858	1.9	58
13 W	0115	8.1	247
	0739	1.1	34
	1354	7.6	232
	1951	1.8	55
14 Th	0203	8.3	253
	0823	0.8	24
	1439	7.9	241
	2036	1.5	46
15 F ●	0247	8.4	256
	0902	0.6	18
	1519	8.2	250
	2117	1.3	40

	Time	Height	
	h m	ft	cm
16 Sa	0326	8.6	262
	0938	0.4	12
	1557	8.5	259
	2155	1.0	30
17 Su	0404	8.6	262
	1013	0.3	9
	1632	8.7	265
	2231	0.9	27
18 M	0441	8.6	262
	1047	0.3	9
	1707	8.7	265
	2307	0.8	24
19 Tu	0517	8.4	256
	1120	0.4	12
	1741	8.7	265
	2343	0.9	27
20 W	0553	8.2	250
	1153	0.6	18
	1816	8.6	262
21 Th	0020	1.0	30
	0629	7.8	238
	1228	0.9	27
	1852	8.4	256
22 F	0059	1.2	37
	0708	7.5	229
	1305	1.2	37
	1931	8.2	250
23 Sa ◐	0142	1.4	43
	0752	7.1	216
	1347	1.5	46
	2016	8.0	244
24 Su	0232	1.6	49
	0843	6.8	207
	1437	1.8	55
	2109	7.8	238
25 M	0330	1.7	52
	0946	6.7	204
	1538	1.9	58
	2213	7.8	238
26 Tu	0435	1.6	49
	1056	6.8	207
	1648	1.9	58
	2321	7.9	241
27 W	0543	1.3	40
	1205	7.2	219
	1759	1.5	46
28 Th	0026	8.3	253
	0645	0.7	21
	1307	7.9	241
	1904	0.9	27
29 F	0126	8.9	271
	0742	0.1	3
	1402	8.7	265
	2003	0.3	9
30 Sa ○	0221	9.4	287
	0834	−0.6	−18
	1453	9.5	290
	2057	−0.4	−12
31 Su	0312	9.9	302
	0923	−1.1	−34
	1542	10.1	308
	2148	−0.8	−24

February

	Time	Height	
	h m	ft	cm
1 M	0401	10.1	308
	1010	−1.3	−40
	1629	10.4	317
	2237	−1.0	−30
2 Tu	0449	10.1	308
	1056	−1.3	−40
	1717	10.5	320
	2325	−1.0	−30
3 W	0537	9.8	299
	1142	−1.1	−34
	1804	10.2	311
4 Th	0014	−0.6	−18
	0626	9.2	280
	1229	−0.5	−15
	1853	9.7	296
5 F ◑	0105	−0.1	−3
	0718	8.6	262
	1318	0.2	6
	1944	9.1	277
6 Sa	0158	0.5	15
	0813	7.8	238
	1411	1.0	30
	2040	8.4	256
7 Su	0258	1.1	34
	0916	7.2	219
	1512	1.7	52
	2142	7.8	238
8 M	0405	1.6	49
	1026	6.8	207
	1621	2.2	67
	2251	7.4	226
9 Tu	0518	1.7	52
	1138	6.7	204
	1736	2.3	70
	2357	7.3	223
10 W	0624	1.6	49
	1242	6.9	210
	1843	2.2	67
11 Th	0056	7.5	229
	0718	1.3	40
	1335	7.3	223
	1936	1.8	55
12 F	0145	7.7	235
	0802	1.0	30
	1418	7.7	235
	2019	1.4	43
13 Sa ●	0228	8.0	244
	0840	0.6	18
	1456	8.2	250
	2057	1.0	30
14 Su	0306	8.3	253
	0914	0.4	12
	1531	8.5	259
	2133	0.7	21
15 M	0342	8.5	259
	0947	0.2	6
	1604	8.8	268
	2207	0.4	12

	Time	Height	
	h m	ft	cm
16 Tu	0417	8.5	259
	1018	0.1	3
	1637	8.9	271
	2240	0.3	9
17 W	0451	8.5	259
	1050	0.1	3
	1709	8.9	271
	2314	0.3	9
18 Th	0524	8.3	253
	1122	0.3	9
	1742	8.8	268
	2349	0.4	12
19 F	0559	8.0	244
	1155	0.5	15
	1816	8.6	262
20 Sa	0026	0.6	18
	0636	7.6	232
	1232	0.9	27
	1854	8.3	253
21 Su ◐	0107	0.9	27
	0718	7.2	219
	1314	1.2	37
	1939	8.0	244
22 M	0156	1.2	37
	0809	6.9	210
	1405	1.5	46
	2034	7.7	235
23 Tu	0254	1.5	46
	0913	6.7	204
	1509	1.8	55
	2142	7.5	229
24 W	0402	1.5	46
	1028	6.8	207
	1625	1.7	52
	2257	7.6	232
25 Th	0515	1.2	37
	1141	7.3	223
	1741	1.4	43
26 F	0007	8.0	244
	0622	0.7	21
	1245	8.0	244
	1849	0.7	21
27 Sa	0109	8.6	262
	0721	0.0	0
	1342	8.9	271
	1948	−0.1	−3
28 Su ○	0204	9.2	280
	0813	−0.6	−18
	1432	9.6	293
	2041	−0.7	−21

March

	Time	Height	
	h m	ft	cm
1 M	0255	9.7	296
	0902	−1.1	−34
	1520	10.2	311
	2130	−1.2	−37
2 Tu	0343	9.9	302
	0948	−1.4	−43
	1607	10.5	320
	2217	−1.4	−43
3 W	0429	9.9	302
	1033	−1.4	−43
	1652	10.4	317
	2303	−1.3	−40
4 Th	0516	9.6	293
	1118	−1.0	−30
	1738	10.1	308
	2349	−0.9	−27
5 F	0603	9.1	277
	1204	−0.4	−12
	1825	9.5	290
6 Sa	0037	−0.3	−9
	0652	8.4	256
	1251	0.3	9
	1914	8.7	265
7 Su ◑	0128	0.4	12
	0745	7.7	235
	1342	1.1	34
	2008	8.0	244
8 M	0224	1.1	34
	0846	7.0	213
	1442	1.8	55
	2109	7.3	223
9 Tu	0329	1.6	49
	0956	6.6	201
	1553	2.3	70
	2219	6.9	210
10 W	0442	1.9	58
	1108	6.6	201
	1710	2.4	73
	2329	6.8	207
11 Th	0550	1.8	55
	1212	6.8	207
	1818	2.2	67
12 F	0029	7.0	213
	0646	1.5	46
	1304	7.2	219
	1910	1.7	52
13 Sa	0119	7.4	226
	0730	1.2	37
	1346	7.7	235
	1952	1.3	40
14 Su	0201	7.7	235
	0807	0.8	24
	1423	8.1	247
	2029	0.8	24
15 M ●	0239	8.0	244
	0842	0.5	15
	1458	8.5	259
	2104	0.4	12

	Time	Height	
	h m	ft	cm
16 Tu	0315	8.3	253
	0915	0.3	9
	1531	8.8	268
	2138	0.1	3
17 W	0349	8.4	256
	0947	0.1	3
	1604	9.0	274
	2211	−0.1	−3
18 Th	0423	8.4	256
	1019	0.1	3
	1637	9.0	274
	2246	−0.1	−3
19 F	0458	8.3	253
	1053	0.2	6
	1711	8.9	271
	2321	0.0	0
20 Sa	0534	8.0	244
	1129	0.4	12
	1747	8.7	265
21 Su	0000	0.2	6
	0612	7.7	235
	1208	0.7	21
	1828	8.4	256
22 M	0042	0.6	18
	0657	7.4	226
	1254	1.0	30
	1916	8.0	244
23 Tu ◐	0132	0.9	27
	0750	7.2	219
	1349	1.4	43
	2014	7.6	232
24 W	0231	1.2	37
	0855	7.0	213
	1456	1.6	49
	2124	7.4	226
25 Th	0339	1.3	40
	1008	7.2	219
	1612	1.5	46
	2239	7.5	229
26 F	0451	1.1	34
	1120	7.6	232
	1727	1.1	34
	2349	7.8	238
27 Sa	0558	0.6	18
	1223	8.3	253
	1833	0.4	12
28 Su	0051	8.4	256
	0657	0.1	3
	1319	9.0	274
	1930	−0.3	−9
29 M ○	0145	8.9	271
	0750	−0.5	−15
	1409	9.7	296
	2021	−0.8	−24
30 Tu	0235	9.3	283
	0838	−0.9	−27
	1457	10.1	308
	2109	−1.2	−37
31 W	0322	9.5	290
	0924	−1.0	−30
	1543	10.3	314
	2155	−1.3	−40

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Puntarenas, Costa Rica, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0408	9.5	290
	1009	−0.9	−27
	1627	10.1	308
	2240	−1.1	−34
2 F	0454	9.3	283
	1054	−0.6	−18
	1712	9.7	296
	2325	−0.7	−21
3 Sa	0540	8.8	268
	1139	0.0	0
	1758	9.1	277
4 Su	0011	−0.2	−6
	0628	8.2	250
	1226	0.6	18
	1846	8.4	256
5 M	0059	0.5	15
	0720	7.6	232
	1317	1.3	40
	1938	7.7	235
6 Tu ◑	0151	1.1	34
	0818	7.1	216
	1415	1.9	58
	2036	7.1	216
7 W	0251	1.6	49
	0922	6.8	207
	1522	2.3	70
	2143	6.7	204
8 Th	0357	1.9	58
	1028	6.7	204
	1634	2.3	70
	2250	6.6	201
9 F	0502	1.9	58
	1129	6.9	210
	1739	2.1	64
	2351	6.8	207
10 Sa	0558	1.7	52
	1220	7.3	223
	1831	1.7	52
11 Su	0042	7.1	216
	0645	1.4	43
	1304	7.7	235
	1915	1.2	37
12 M	0126	7.4	226
	0725	1.1	34
	1343	8.1	247
	1954	0.7	21
13 Tu	0206	7.8	238
	0803	0.8	24
	1420	8.5	259
	2031	0.3	9
14 W ●	0243	8.1	247
	0838	0.6	18
	1455	8.8	268
	2106	0.0	0
15 Th	0320	8.3	253
	0914	0.4	12
	1531	9.1	277
	2143	−0.2	−6

	Time	Height	
	h m	ft	cm
16 F	0357	8.3	253
	0950	0.3	9
	1607	9.1	277
	2220	−0.3	−9
17 Sa	0434	8.3	253
	1028	0.3	9
	1645	9.0	274
	2258	−0.2	−6
18 Su	0514	8.2	250
	1109	0.5	15
	1726	8.8	268
	2340	0.0	0
19 M	0557	8.1	247
	1153	0.7	21
	1811	8.5	259
20 Tu	0025	0.3	9
	0645	7.9	241
	1244	0.9	27
	1903	8.1	247
21 W ◐	0117	0.6	18
	0741	7.7	235
	1342	1.2	37
	2003	7.8	238
22 Th	0215	0.9	27
	0844	7.7	235
	1449	1.3	40
	2111	7.5	229
23 F	0320	1.0	30
	0951	7.8	238
	1601	1.2	37
	2222	7.6	232
24 Sa	0428	1.0	30
	1058	8.2	250
	1711	0.9	27
	2329	7.8	238
25 Su	0533	0.7	21
	1159	8.7	265
	1814	0.4	12
26 M	0030	8.2	250
	0631	0.3	9
	1254	9.2	280
	1910	−0.1	−3
27 Tu	0124	8.6	262
	0725	0.0	0
	1345	9.6	293
	2001	−0.5	−15
28 W ○	0215	8.9	271
	0814	−0.2	−6
	1433	9.8	299
	2049	−0.8	−24
29 Th	0303	9.1	277
	0902	−0.3	−9
	1519	9.9	302
	2134	−0.8	−24
30 F	0349	9.1	277
	0947	−0.2	−6
	1604	9.7	296
	2219	−0.7	−21

May

	Time	Height	
	h m	ft	cm
1 Sa	0435	8.9	271
	1033	0.1	3
	1649	9.3	283
	2302	−0.4	−12
2 Su	0521	8.6	262
	1118	0.5	15
	1734	8.8	268
	2347	0.1	3
3 M	0608	8.2	250
	1204	1.0	30
	1820	8.3	253
4 Tu	0032	0.6	18
	0656	7.8	238
	1254	1.5	46
	1909	7.7	235
5 W ◑	0120	1.1	34
	0748	7.5	229
	1347	1.9	58
	2003	7.2	219
6 Th	0212	1.5	46
	0844	7.2	219
	1446	2.2	67
	2101	6.8	207
7 F	0307	1.8	55
	0941	7.2	219
	1548	2.2	67
	2203	6.7	204
8 Sa	0404	2.0	61
	1037	7.2	219
	1648	2.1	64
	2302	6.7	204
9 Su	0459	1.9	58
	1128	7.5	229
	1742	1.8	55
	2356	6.9	210
10 M	0550	1.8	55
	1215	7.8	238
	1830	1.4	43
11 Tu	0044	7.2	219
	0636	1.6	49
	1258	8.2	250
	1914	0.9	27
12 W	0128	7.5	229
	0719	1.3	40
	1339	8.6	262
	1955	0.5	15
13 Th ●	0210	7.9	241
	0801	1.0	30
	1420	8.9	271
	2035	0.2	6
14 F	0251	8.2	250
	0842	0.8	24
	1501	9.1	277
	2116	−0.1	−3
15 Sa	0332	8.4	256
	0925	0.6	18
	1542	9.3	283
	2157	−0.2	−6

	Time	Height	
	h m	ft	cm
16 Su	0414	8.6	262
	1009	0.5	15
	1626	9.3	283
	2240	−0.3	−9
17 M	0458	8.6	262
	1055	0.5	15
	1711	9.1	277
	2325	−0.2	−6
18 Tu	0545	8.7	265
	1144	0.6	18
	1800	8.9	271
19 W	0012	0.1	3
	0636	8.6	262
	1238	0.7	21
	1854	8.5	259
20 Th ◐	0104	0.3	9
	0730	8.6	262
	1336	0.9	27
	1952	8.2	250
21 F	0200	0.6	18
	0829	8.5	259
	1439	1.0	30
	2055	7.9	241
22 Sa	0300	0.8	24
	0931	8.6	262
	1545	1.0	30
	2201	7.8	238
23 Su	0403	0.9	27
	1033	8.7	265
	1651	0.9	27
	2306	7.8	238
24 M	0506	0.9	27
	1133	8.9	271
	1753	0.6	18
25 Tu	0007	8.0	244
	0606	0.9	27
	1230	9.1	277
	1850	0.3	9
26 W	0104	8.2	250
	0701	0.7	21
	1323	9.3	283
	1942	0.1	3
27 Th ○	0157	8.5	259
	0754	0.6	18
	1412	9.4	287
	2031	−0.1	−3
28 F	0246	8.6	262
	0843	0.6	18
	1459	9.4	287
	2116	−0.2	−6
29 Sa	0333	8.7	265
	0929	0.7	21
	1544	9.3	283
	2200	−0.1	−3
30 Su	0418	8.7	265
	1015	0.8	24
	1628	9.0	274
	2242	0.1	3
31 M	0503	8.6	262
	1059	1.0	30
	1712	8.7	265
	2324	0.3	9

June

	Time	Height	
	h m	ft	cm
1 Tu	0547	8.4	256
	1144	1.3	40
	1756	8.3	253
2 W	0006	0.6	18
	0631	8.2	250
	1229	1.6	49
	1841	7.9	241
3 Th	0048	1.0	30
	0716	8.0	244
	1316	1.8	55
	1928	7.5	229
4 F ◑	0132	1.4	43
	0803	7.8	238
	1406	2.0	61
	2018	7.2	219
5 Sa	0218	1.7	52
	0851	7.7	235
	1458	2.1	64
	2111	6.9	210
6 Su	0307	2.0	61
	0941	7.7	235
	1553	2.1	64
	2207	6.8	207
7 M	0359	2.1	64
	1032	7.7	235
	1648	1.9	58
	2303	6.8	207
8 Tu	0452	2.1	64
	1123	7.9	241
	1741	1.6	49
	2357	7.0	213
9 W	0544	2.0	61
	1212	8.2	250
	1832	1.3	40
10 Th	0048	7.3	223
	0636	1.7	52
	1300	8.6	262
	1919	0.9	27
11 F	0137	7.7	235
	0726	1.4	43
	1348	8.9	271
	2006	0.4	12
12 Sa ●	0224	8.2	250
	0815	1.0	30
	1435	9.2	280
	2051	0.1	3
13 Su	0310	8.6	262
	0904	0.7	21
	1522	9.5	290
	2137	−0.2	−6
14 M	0356	9.0	274
	0953	0.4	12
	1609	9.6	293
	2223	−0.4	−12
15 Tu	0443	9.3	283
	1043	0.3	9
	1658	9.5	290
	2309	−0.4	−12

	Time	Height	
	h m	ft	cm
16 W	0531	9.4	287
	1134	0.2	6
	1748	9.4	287
	2358	−0.3	−9
17 Th	0621	9.5	290
	1227	0.3	9
	1841	9.1	277
18 F ◐	0048	0.0	0
	0714	9.4	287
	1323	0.5	15
	1936	8.7	265
19 Sa	0141	0.3	9
	0809	9.3	283
	1421	0.7	21
	2035	8.3	253
20 Su	0237	0.7	21
	0907	9.1	277
	1523	0.9	27
	2138	8.0	244
21 M	0337	1.1	34
	1008	8.9	271
	1627	1.0	30
	2242	7.8	238
22 Tu	0440	1.3	40
	1109	8.8	268
	1731	1.0	30
	2346	7.7	235
23 W	0542	1.5	46
	1208	8.8	268
	1832	0.9	27
24 Th	0047	7.9	241
	0643	1.5	46
	1304	8.8	268
	1926	0.7	21
25 F	0142	8.1	247
	0738	1.4	43
	1355	8.9	271
	2016	0.6	18
26 Sa ○	0232	8.3	253
	0829	1.3	40
	1443	8.9	271
	2101	0.4	12
27 Su	0319	8.5	259
	0915	1.2	37
	1528	8.9	271
	2143	0.3	9
28 M	0402	8.6	262
	0959	1.2	37
	1610	8.9	271
	2222	0.3	9
29 Tu	0442	8.7	265
	1040	1.2	37
	1651	8.7	265
	2300	0.4	12
30 W	0522	8.7	265
	1121	1.2	37
	1731	8.5	259
	2337	0.6	18

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Puntarenas, Costa Rica, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0601	8.6	262	**16** F	0601	10.2	311
	1201	1.4	43		1210	−0.2	−6
	1811	8.2	250		1822	9.5	290
2 F	0015	0.9	27	**17** Sa	0027	−0.4	−12
	0640	8.5	259		0651	10.0	305
	1242	1.5	46		1302	0.1	3
	1852	7.9	241		1915	9.0	274
3 Sa	0053	1.2	37	**18** Su	0118	0.1	3
	0720	8.3	253		0744	9.6	293
	1325	1.7	52		1358	0.5	15
	1935	7.5	229	◐	2011	8.4	256
4 Su	0132	1.5	46	**19** M	0212	0.7	21
	0802	8.1	247		0841	9.2	280
	1410	1.9	58		1458	0.9	27
◑	2021	7.1	216		2113	7.9	241
5 M	0215	1.9	58	**20** Tu	0311	1.3	40
	0847	8.0	244		0941	8.7	265
	1500	2.0	61		1602	1.3	40
	2113	6.9	210		2219	7.5	229
6 Tu	0303	2.1	64	**21** W	0416	1.7	52
	0937	7.9	241		1046	8.4	256
	1555	2.0	61		1710	1.4	43
	2210	6.8	207		2328	7.4	226
7 W	0358	2.2	67	**22** Th	0524	2.0	61
	1032	7.9	241		1150	8.3	253
	1653	1.9	58		1815	1.4	43
	2311	6.9	210				
8 Th	0457	2.2	67	**23** F	0033	7.5	229
	1129	8.1	247		0630	2.0	61
	1751	1.6	49		1249	8.3	253
					1913	1.2	37
9 F	0011	7.2	219	**24** Sa	0129	7.8	238
	0559	2.0	61		0728	1.8	55
	1226	8.4	256		1342	8.4	256
	1847	1.1	34		2002	1.0	30
10 Sa	0107	7.7	235	**25** Su	0218	8.1	247
	0658	1.6	49		0818	1.6	49
	1321	8.8	268		1428	8.6	262
	1939	0.6	18	○	2044	0.7	21
11 Su	0159	8.3	253	**26** M	0301	8.4	256
	0754	1.1	34		0901	1.4	43
	1413	9.3	283		1510	8.7	265
●	2029	0.1	3		2123	0.5	15
12 M	0248	8.9	271	**27** Tu	0340	8.7	265
	0847	0.5	15		0940	1.2	37
	1504	9.6	293		1550	8.8	268
	2117	−0.4	−12		2158	0.4	12
13 Tu	0337	9.5	290	**28** W	0417	8.9	271
	0938	0.1	3		1018	1.0	30
	1553	9.9	302		1627	8.7	265
	2204	−0.7	−21		2233	0.4	12
14 W	0424	9.9	302	**29** Th	0453	8.9	271
	1028	−0.2	−6		1054	0.9	27
	1642	10.0	305		1703	8.6	262
	2251	−0.8	−24		2306	0.5	15
15 Th	0512	10.2	311	**30** F	0527	8.9	271
	1119	−0.3	−9		1130	1.0	30
	1732	9.8	299		1740	8.4	256
	2338	−0.7	−21		2340	0.7	21
				31 Sa	0602	8.8	268
					1207	1.1	34
					1817	8.1	247

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0014	1.0	30	**16** M	0052	0.1	3
	0638	8.6	262		0717	9.6	293
	1245	1.3	40		1331	0.4	12
	1855	7.7	235	◐	1946	8.4	256
2 M	0051	1.4	43	**17** Tu	0146	0.8	24
	0716	8.3	253		0813	8.9	271
	1326	1.6	49		1430	1.0	30
◑	1937	7.3	223		2048	7.7	235
3 Tu	0131	1.7	52	**18** W	0246	1.5	46
	0758	8.1	247		0915	8.3	253
	1413	1.8	55		1536	1.5	46
	2025	7.0	213		2157	7.3	223
4 W	0217	2.0	61	**19** Th	0355	2.1	64
	0848	7.9	241		1023	7.9	241
	1507	1.9	58		1648	1.7	52
	2124	6.8	207		2310	7.1	216
5 Th	0314	2.2	67	**20** F	0510	2.3	70
	0948	7.8	238		1132	7.7	235
	1610	1.9	58		1757	1.7	52
	2231	6.8	207				
6 F	0421	2.2	67	**21** Sa	0016	7.3	223
	1054	7.8	238		0619	2.2	67
	1715	1.7	52		1234	7.8	238
	2338	7.1	216		1855	1.5	46
7 Sa	0531	2.0	61	**22** Su	0112	7.6	232
	1200	8.2	250		0716	1.9	58
	1818	1.2	37		1325	8.0	244
					1942	1.2	37
8 Su	0040	7.8	238	**23** M	0158	8.0	244
	0637	1.5	46		0802	1.6	49
	1300	8.7	265		1410	8.2	250
	1915	0.6	18		2021	0.9	27
9 M	0136	8.5	259	**24** Tu	0237	8.4	256
	0736	0.8	24		0841	1.2	37
	1355	9.2	280		1449	8.5	259
●	2007	0.0	0	○	2057	0.6	18
10 Tu	0227	9.3	283	**25** W	0313	8.7	265
	0830	0.1	3		0917	0.9	27
	1446	9.7	296		1526	8.6	262
	2056	−0.6	−18		2130	0.5	15
11 W	0315	10.0	305	**26** Th	0347	9.0	274
	0921	−0.5	−15		0951	0.6	18
	1535	10.1	308		1601	8.7	265
	2143	−1.0	−30		2202	0.4	12
12 Th	0402	10.5	320	**27** F	0420	9.1	277
	1010	−0.8	−24		1024	0.5	15
	1623	10.2	311		1635	8.6	262
	2229	−1.1	−34		2234	0.5	15
13 F	0449	10.7	326	**28** Sa	0452	9.1	277
	1058	−0.9	−27		1058	0.5	15
	1711	10.0	305		1709	8.4	256
	2316	−0.9	−27		2306	0.6	18
14 Sa	0537	10.5	320	**29** Su	0525	8.9	271
	1147	−0.7	−21		1133	0.7	21
	1800	9.6	293		1744	8.1	247
					2339	0.9	27
15 Su	0003	−0.5	−15	**30** M	0600	8.7	265
	0626	10.2	311		1209	0.9	27
	1238	−0.2	−6		1820	7.8	238
	1851	9.0	274				
				31 Tu	0015	1.2	37
					0637	8.4	256
					1249	1.2	37
					1901	7.4	226

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0055	1.6	49	**16** Th	0222	1.8	55
	0719	8.1	247		0848	7.8	238
	1335	1.5	46		1507	1.6	49
◑	1949	7.0	213		2133	7.2	219
2 Th	0144	1.9	58	**17** F	0334	2.2	67
	0811	7.7	235		0958	7.4	226
	1430	1.8	55		1619	1.9	58
	2049	6.8	207		2246	7.1	216
3 F	0244	2.1	64	**18** Sa	0451	2.4	73
	0915	7.5	229		1109	7.2	219
	1535	1.9	58		1728	1.9	58
	2200	6.9	210		2351	7.3	223
4 Sa	0357	2.1	64	**19** Su	0600	2.2	67
	1028	7.6	232		1210	7.4	226
	1645	1.7	52		1826	1.7	52
	2312	7.3	223				
5 Su	0512	1.8	55	**20** M	0044	7.6	232
	1138	7.9	241		0653	1.8	55
	1752	1.2	37		1301	7.6	232
					1911	1.4	43
6 M	0016	8.0	244	**21** Tu	0127	8.0	244
	0620	1.1	34		0736	1.4	43
	1240	8.5	259		1344	7.9	241
	1851	0.5	15		1950	1.1	34
7 Tu	0112	8.8	268	**22** W	0205	8.4	256
	0719	0.4	12		0813	1.0	30
	1336	9.1	277		1422	8.2	250
	1943	−0.1	−3		2024	0.8	24
8 W	0203	9.6	293	**23** Th	0240	8.7	265
	0811	−0.4	−12		0848	0.6	18
	1426	9.7	296		1458	8.4	256
●	2032	−0.7	−21	○	2057	0.6	18
9 Th	0251	10.3	314	**24** F	0313	9.0	274
	0901	−0.9	−27		0921	0.3	9
	1515	10.0	305		1533	8.5	259
	2119	−1.1	−34		2129	0.5	15
10 F	0338	10.7	326	**25** Sa	0346	9.1	277
	0949	−1.2	−37		0954	0.2	6
	1602	10.1	308		1607	8.5	259
	2205	−1.1	−34		2202	0.5	15
11 Sa	0424	10.8	329	**26** Su	0419	9.1	277
	1036	−1.2	−37		1028	0.2	6
	1649	10.0	305		1641	8.4	256
	2251	−0.9	−27		2235	0.6	18
12 Su	0511	10.5	320	**27** M	0453	9.0	274
	1123	−0.9	−27		1103	0.3	9
	1737	9.5	290		1716	8.2	250
	2338	−0.4	−12		2310	0.9	27
13 M	0559	10.0	305	**28** Tu	0528	8.8	268
	1212	−0.3	−9		1140	0.6	18
	1828	8.9	271		1754	7.9	241
					2348	1.1	34
14 Tu	0028	0.3	9	**29** W	0607	8.4	256
	0650	9.3	283		1221	0.9	27
	1304	0.3	9		1836	7.5	229
◐	1922	8.2	250				
15 W	0121	1.0	30	**30** Th	0032	1.5	46
	0745	8.5	259		0652	8.0	244
	1401	1.0	30		1308	1.2	37
	2024	7.6	232	◑	1927	7.3	223

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Puntarenas, Costa Rica, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0124	1.8	55
	0747	7.7	235
	1403	1.5	46
	2028	7.1	216
2 Sa	0228	2.0	61
	0854	7.4	226
	1508	1.6	49
	2138	7.3	223
3 Su	0341	1.9	58
	1007	7.5	229
	1618	1.5	46
	2248	7.7	235
4 M	0456	1.5	46
	1118	7.8	238
	1725	1.1	34
	2351	8.4	256
5 Tu	0602	0.8	24
	1220	8.3	253
	1825	0.5	15
6 W	0048	9.1	277
	0659	0.1	3
	1315	8.9	271
	1918	−0.1	−3
7 Th ●	0139	9.8	299
	0752	−0.5	−15
	1406	9.4	287
	2008	−0.5	−15
8 F	0227	10.3	314
	0840	−1.0	−30
	1454	9.8	299
	2056	−0.8	−24
9 Sa	0314	10.6	323
	0927	−1.2	−37
	1541	9.8	299
	2142	−0.8	−24
10 Su	0400	10.6	323
	1014	−1.1	−34
	1629	9.7	296
	2229	−0.6	−18
11 M	0447	10.2	311
	1100	−0.8	−24
	1716	9.3	283
	2316	−0.1	−3
12 Tu	0534	9.7	296
	1148	−0.3	−9
	1806	8.8	268
13 W	0005	0.6	18
	0624	8.9	271
	1238	0.4	12
	1900	8.2	250
14 Th ◐	0058	1.3	40
	0718	8.2	250
	1332	1.0	30
	1958	7.6	232
15 F	0158	1.9	58
	0818	7.5	229
	1433	1.6	49
	2103	7.3	223

	Time	Height	
	h m	ft	cm
16 Sa	0307	2.3	70
	0925	7.1	216
	1539	1.9	58
	2210	7.2	219
17 Su	0419	2.4	73
	1033	6.9	210
	1644	2.0	61
	2311	7.3	223
18 M	0524	2.2	67
	1134	7.0	213
	1741	1.9	58
19 Tu	0003	7.6	232
	0617	1.8	55
	1226	7.3	223
	1829	1.7	52
20 W	0048	8.0	244
	0701	1.4	43
	1311	7.6	232
	1910	1.4	43
21 Th	0127	8.3	253
	0740	1.0	30
	1351	7.9	241
	1947	1.1	34
22 F ○	0203	8.7	265
	0816	0.6	18
	1428	8.2	250
	2022	0.9	27
23 Sa	0239	9.0	274
	0851	0.3	9
	1504	8.3	253
	2057	0.8	24
24 Su	0314	9.1	277
	0926	0.1	3
	1540	8.4	256
	2133	0.7	21
25 M	0349	9.2	280
	1002	0.1	3
	1617	8.4	256
	2209	0.7	21
26 Tu	0426	9.1	277
	1039	0.1	3
	1655	8.3	253
	2248	0.9	27
27 W	0505	8.9	271
	1118	0.3	9
	1736	8.1	247
	2331	1.1	34
28 Th	0548	8.6	262
	1201	0.6	18
	1821	8.0	244
29 F	0018	1.3	40
	0636	8.2	250
	1249	0.9	27
	1913	7.8	238
30 Sa ◑	0113	1.5	46
	0732	7.8	238
	1344	1.2	37
	2012	7.8	238
31 Su	0217	1.6	49
	0837	7.6	232
	1446	1.3	40
	2117	7.9	241

November

	Time	Height	
	h m	ft	cm
1 M	0326	1.5	46
	0946	7.6	232
	1552	1.3	40
	2223	8.2	250
2 Tu	0436	1.2	37
	1055	7.8	238
	1657	1.0	30
	2325	8.7	265
3 W	0541	0.7	21
	1157	8.2	250
	1758	0.7	21
4 Th	0022	9.3	283
	0639	0.2	6
	1254	8.6	262
	1853	0.3	9
5 F ●	0115	9.7	296
	0732	−0.3	−9
	1346	9.0	274
	1945	0.0	0
6 Sa	0205	10.1	308
	0821	−0.7	−21
	1436	9.3	283
	2035	−0.2	−6
7 Su	0253	10.2	311
	0909	−0.8	−24
	1524	9.4	287
	2123	−0.2	−6
8 M	0340	10.1	308
	0955	−0.8	−24
	1611	9.3	283
	2210	0.0	0
9 Tu	0426	9.8	299
	1041	−0.5	−15
	1659	9.1	277
	2257	0.4	12
10 W	0513	9.3	283
	1126	−0.1	−3
	1747	8.7	265
	2346	0.9	27
11 Th	0601	8.7	265
	1213	0.4	12
	1837	8.3	253
12 F	0036	1.4	43
	0651	8.1	247
	1302	0.9	27
	1930	7.9	241
13 Sa ◐	0131	1.8	55
	0745	7.5	229
	1354	1.4	43
	2025	7.6	232
14 Su	0229	2.2	67
	0843	7.1	216
	1449	1.8	55
	2123	7.5	229
15 M	0332	2.3	70
	0945	6.9	210
	1547	2.1	64
	2220	7.5	229

	Time	Height	
	h m	ft	cm
16 Tu	0433	2.2	67
	1045	6.8	207
	1643	2.1	64
	2312	7.6	232
17 W	0529	2.0	61
	1141	7.0	213
	1735	2.0	61
18 Th	0000	7.9	241
	0618	1.6	49
	1230	7.2	219
	1822	1.9	58
19 F	0044	8.2	250
	0701	1.2	37
	1315	7.5	229
	1905	1.6	49
20 Sa	0125	8.5	259
	0742	0.8	24
	1357	7.8	238
	1947	1.4	43
21 Su ○	0205	8.8	268
	0821	0.5	15
	1437	8.1	247
	2027	1.1	34
22 M	0245	9.1	277
	0900	0.2	6
	1517	8.3	253
	2108	0.9	27
23 Tu	0325	9.2	280
	0940	0.0	0
	1557	8.5	259
	2150	0.8	24
24 W	0406	9.2	280
	1020	0.0	0
	1638	8.6	262
	2233	0.7	21
25 Th	0449	9.1	277
	1102	0.0	0
	1722	8.7	265
	2320	0.8	24
26 F	0535	8.9	271
	1146	0.2	6
	1809	8.7	265
27 Sa	0009	0.9	27
	0624	8.6	262
	1234	0.4	12
	1859	8.6	262
28 Su ◑	0103	1.0	30
	0718	8.3	253
	1326	0.7	21
	1954	8.6	262
29 M	0203	1.1	34
	0818	8.0	244
	1423	0.9	27
	2054	8.6	262
30 Tu	0307	1.2	37
	0923	7.8	238
	1524	1.1	34
	2156	8.7	265

December

	Time	Height	
	h m	ft	cm
1 W	0413	1.1	34
	1029	7.8	238
	1628	1.1	34
	2259	8.9	271
2 Th	0518	0.8	24
	1134	7.9	241
	1731	1.0	30
	2358	9.1	277
3 F	0619	0.5	15
	1234	8.2	250
	1831	0.8	24
4 Sa	0054	9.4	287
	0715	0.2	6
	1330	8.5	259
	1927	0.7	21
5 Su ●	0147	9.6	293
	0806	−0.1	−3
	1422	8.8	268
	2019	0.5	15
6 M	0237	9.6	293
	0854	−0.3	−9
	1511	9.0	274
	2109	0.5	15
7 Tu	0324	9.6	293
	0940	−0.3	−9
	1558	9.0	274
	2156	0.5	15
8 W	0410	9.4	287
	1024	−0.2	−6
	1643	9.0	274
	2242	0.7	21
9 Th	0454	9.1	277
	1106	0.0	0
	1728	8.8	268
	2327	1.0	30
10 F	0538	8.7	265
	1148	0.3	9
	1812	8.6	262
11 Sa	0012	1.3	40
	0623	8.2	250
	1230	0.7	21
	1857	8.3	253
12 Su	0059	1.6	49
	0709	7.8	238
	1314	1.2	37
	1943	8.1	247
13 M ◐	0147	1.9	58
	0758	7.3	223
	1359	1.6	49
	2031	7.8	238
14 Tu	0239	2.1	64
	0851	7.0	213
	1447	1.9	58
	2121	7.7	235
15 W	0334	2.2	67
	0948	6.7	204
	1539	2.2	67
	2214	7.6	232

	Time	Height	
	h m	ft	cm
16 Th	0431	2.1	64
	1046	6.7	204
	1634	2.3	70
	2306	7.7	235
17 F	0527	1.9	58
	1143	6.8	207
	1729	2.2	67
	2358	7.9	241
18 Sa	0619	1.6	49
	1237	7.1	216
	1822	2.0	61
19 Su	0047	8.2	250
	0708	1.2	37
	1325	7.4	226
	1913	1.7	52
20 M	0135	8.6	262
	0753	0.7	21
	1411	7.9	241
	2001	1.3	40
21 Tu ○	0220	8.9	271
	0837	0.3	9
	1455	8.3	253
	2048	0.9	27
22 W	0305	9.2	280
	0920	0.0	0
	1538	8.8	268
	2134	0.6	18
23 Th	0350	9.4	287
	1002	−0.3	−9
	1622	9.1	277
	2221	0.3	9
24 F	0435	9.4	287
	1046	−0.4	−12
	1707	9.4	287
	2308	0.2	6
25 Sa	0522	9.3	283
	1130	−0.4	−12
	1753	9.5	290
	2357	0.2	6
26 Su	0610	9.1	277
	1217	−0.2	−6
	1841	9.4	287
27 M ◑	0049	0.3	9
	0701	8.7	265
	1306	0.1	3
	1933	9.3	283
28 Tu	0144	0.6	18
	0757	8.3	253
	1359	0.5	15
	2029	9.1	277
29 W	0243	0.8	24
	0858	7.9	241
	1457	0.9	27
	2129	8.8	268
30 Th	0348	1.0	30
	1003	7.6	232
	1601	1.2	37
	2233	8.7	265
31 F	0455	1.0	30
	1112	7.5	229
	1708	1.4	43
	2337	8.7	265

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

La Union, El Salvador, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0255	10.4	317
	0859	−0.6	−18
	1532	9.7	296
	2120	−0.1	−3
2 Sa	0348	10.7	326
	0948	−1.1	−34
	1624	10.2	311
	2211	−0.5	−15
3 Su	0439	10.8	329
	1035	−1.3	−40
	1714	10.6	323
	2302	−0.7	−21
4 M	0530	10.7	326
	1123	−1.2	−37
	1804	10.7	326
	2352	−0.6	−18
5 Tu	0619	10.3	314
	1210	−0.9	−27
	1853	10.6	323
6 W	0044	−0.3	−9
	0709	9.8	299
	1259	−0.4	−12
	1943	10.3	314
7 Th ◑	0136	0.2	6
	0801	9.1	277
	1349	0.3	9
	2035	9.9	302
8 F	0232	0.7	21
	0855	8.5	259
	1443	1.0	30
	2130	9.4	287
9 Sa	0332	1.2	37
	0954	7.9	241
	1542	1.6	49
	2229	9.0	274
10 Su	0437	1.6	49
	1100	7.5	229
	1648	2.1	64
	2331	8.7	265
11 M	0544	1.7	52
	1211	7.3	223
	1757	2.2	67
12 Tu	0033	8.6	262
	0645	1.6	49
	1320	7.5	229
	1859	2.2	67
13 W	0131	8.6	262
	0738	1.4	43
	1417	7.7	235
	1954	2.0	61
14 Th	0221	8.7	265
	0824	1.1	34
	1503	8.1	247
	2040	1.7	52
15 F ●	0304	8.9	271
	0905	0.8	24
	1542	8.5	259
	2122	1.4	43

	Time	Height	
	h m	ft	cm
16 Sa	0342	9.1	277
	0942	0.6	18
	1617	8.8	268
	2201	1.2	37
17 Su	0419	9.1	277
	1017	0.5	15
	1651	9.0	274
	2237	1.0	30
18 M	0454	9.1	277
	1050	0.5	15
	1724	9.1	277
	2313	0.9	27
19 Tu	0529	9.0	274
	1123	0.5	15
	1757	9.2	280
	2349	1.0	30
20 W	0604	8.8	268
	1157	0.7	21
	1831	9.1	277
21 Th	0025	1.1	34
	0640	8.5	259
	1231	0.9	27
	1907	9.1	277
22 F	0104	1.2	37
	0719	8.2	250
	1309	1.1	34
	1946	9.0	274
23 Sa ◐	0147	1.4	43
	0801	7.8	238
	1351	1.4	43
	2030	8.8	268
24 Su	0236	1.6	49
	0849	7.5	229
	1441	1.7	52
	2122	8.7	265
25 M	0332	1.7	52
	0947	7.4	226
	1540	1.9	58
	2221	8.7	265
26 Tu	0436	1.6	49
	1053	7.4	226
	1650	1.9	58
	2326	8.9	271
27 W	0543	1.3	40
	1205	7.7	235
	1802	1.6	49
28 Th	0034	9.2	280
	0647	0.7	21
	1316	8.4	256
	1910	1.0	30
29 F	0139	9.7	296
	0746	0.0	0
	1420	9.2	280
	2010	0.2	6
30 Sa ○	0238	10.2	311
	0839	−0.7	−21
	1516	10.0	305
	2105	−0.4	−12
31 Su	0333	10.5	320
	0929	−1.2	−37
	1607	10.6	323
	2157	−0.9	−27

February

	Time	Height	
	h m	ft	cm
1 M	0424	10.7	326
	1017	−1.5	−46
	1656	11.0	335
	2246	−1.2	−37
2 Tu	0513	10.7	326
	1104	−1.5	−46
	1744	11.1	338
	2335	−1.1	−34
3 W	0600	10.3	314
	1150	−1.2	−37
	1831	10.9	332
4 Th	0023	−0.7	−21
	0647	9.8	299
	1236	−0.6	−18
	1918	10.5	320
5 F ◑	0112	−0.1	−3
	0735	9.1	277
	1323	0.2	6
	2006	9.9	302
6 Sa	0203	0.6	18
	0825	8.3	253
	1413	1.0	30
	2056	9.2	280
7 Su	0258	1.3	40
	0920	7.7	235
	1509	1.8	55
	2152	8.6	262
8 M	0400	1.8	55
	1025	7.1	216
	1615	2.4	73
	2254	8.1	247
9 Tu	0510	2.1	64
	1141	7.0	213
	1730	2.6	79
10 W	0001	7.9	241
	0618	2.1	64
	1256	7.1	216
	1840	2.5	76
11 Th	0104	8.0	244
	0715	1.8	55
	1355	7.5	229
	1936	2.2	67
12 F	0157	8.2	250
	0802	1.4	43
	1440	7.9	241
	2023	1.8	55
13 Sa ●	0241	8.5	259
	0842	1.1	34
	1518	8.4	256
	2103	1.3	40
14 Su	0320	8.8	268
	0918	0.7	21
	1552	8.8	268
	2139	1.0	30
15 M	0355	9.0	274
	0951	0.5	15
	1624	9.2	280
	2214	0.7	21

	Time	Height	
	h m	ft	cm
16 Tu	0430	9.0	274
	1023	0.4	12
	1656	9.4	287
	2248	0.5	15
17 W	0504	9.0	274
	1055	0.4	12
	1728	9.5	290
	2322	0.5	15
18 Th	0538	8.8	268
	1128	0.4	12
	1801	9.5	290
	2357	0.5	15
19 F	0613	8.6	262
	1202	0.6	18
	1836	9.4	287
20 Sa	0035	0.6	18
	0649	8.3	253
	1240	0.8	24
	1914	9.2	280
21 Su ◐	0117	0.9	27
	0731	7.9	241
	1323	1.1	34
	1958	9.0	274
22 M	0204	1.1	34
	0819	7.7	235
	1413	1.4	43
	2050	8.8	268
23 Tu	0259	1.3	40
	0918	7.5	229
	1514	1.7	52
	2152	8.6	262
24 W	0403	1.4	43
	1027	7.5	229
	1626	1.8	55
	2301	8.6	262
25 Th	0513	1.2	37
	1144	7.9	241
	1742	1.5	46
26 F	0012	8.9	271
	0622	0.7	21
	1257	8.6	262
	1853	0.8	24
27 Sa	0120	9.3	283
	0723	0.0	0
	1401	9.4	287
	1954	0.0	0
28 Su ○	0220	9.8	299
	0818	−0.6	−18
	1456	10.2	311
	2049	−0.7	−21

March

	Time	Height	
	h m	ft	cm
1 M	0315	10.3	314
	0908	−1.1	−34
	1547	10.9	332
	2140	−1.2	−37
2 Tu	0405	10.5	320
	0956	−1.4	−43
	1634	11.2	341
	2227	−1.4	−43
3 W	0452	10.4	317
	1042	−1.4	−43
	1720	11.2	341
	2314	−1.3	−40
4 Th	0538	10.1	308
	1127	−1.0	−30
	1805	10.9	332
5 F	0000	−0.9	−27
	0623	9.6	293
	1211	−0.5	−15
	1849	10.4	317
6 Sa	0045	−0.2	−6
	0709	8.9	271
	1257	0.3	9
	1934	9.7	296
7 Su ◑	0133	0.5	15
	0756	8.2	250
	1345	1.2	37
	2022	8.9	271
8 M	0224	1.3	40
	0848	7.5	229
	1438	2.0	61
	2114	8.2	250
9 Tu	0321	1.9	58
	0950	7.1	216
	1542	2.6	79
	2214	7.7	235
10 W	0428	2.3	70
	1103	6.9	210
	1658	2.8	85
	2320	7.5	229
11 Th	0540	2.3	70
	1218	7.0	213
	1812	2.7	82
12 F	0026	7.5	229
	0641	2.1	64
	1318	7.4	226
	1910	2.3	70
13 Sa	0122	7.8	238
	0730	1.7	52
	1404	7.9	241
	1956	1.8	55
14 Su	0208	8.1	247
	0810	1.3	40
	1442	8.5	259
	2036	1.3	40
15 M ●	0249	8.5	259
	0846	0.9	27
	1517	8.9	271
	2112	0.8	24

	Time	Height	
	h m	ft	cm
16 Tu	0327	8.7	265
	0920	0.6	18
	1551	9.3	283
	2146	0.4	12
17 W	0403	8.9	271
	0953	0.4	12
	1624	9.6	293
	2221	0.2	6
18 Th	0438	8.9	271
	1026	0.3	9
	1658	9.7	296
	2255	0.1	3
19 F	0513	8.8	268
	1101	0.3	9
	1733	9.7	296
	2332	0.1	3
20 Sa	0549	8.6	262
	1138	0.4	12
	1809	9.6	293
21 Su	0011	0.2	6
	0628	8.4	256
	1218	0.6	18
	1850	9.4	287
22 M	0053	0.4	12
	0711	8.1	247
	1303	0.9	27
	1936	9.1	277
23 Tu ◐	0141	0.7	21
	0802	7.9	241
	1356	1.3	40
	2030	8.8	268
24 W	0236	1.0	30
	0903	7.8	238
	1459	1.6	49
	2133	8.5	259
25 Th	0339	1.2	37
	1013	7.9	241
	1611	1.6	49
	2242	8.5	259
26 F	0448	1.1	34
	1127	8.3	253
	1727	1.3	40
	2353	8.7	265
27 Sa	0557	0.7	21
	1237	8.9	271
	1837	0.7	21
28 Su	0100	9.0	274
	0659	0.2	6
	1339	9.7	296
	1937	0.0	0
29 M ○	0200	9.5	290
	0755	−0.4	−12
	1434	10.4	317
	2030	−0.7	−21
30 Tu	0254	9.8	299
	0845	−0.8	−24
	1523	10.8	329
	2120	−1.1	−34
31 W	0344	10.0	305
	0933	−1.0	−30
	1610	11.1	338
	2206	−1.2	−37

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

La Union, El Salvador, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0431	9.9	302
	1019	−0.9	−27
	1655	11.0	335
	2251	−1.1	−34
2 F	0516	9.7	296
	1103	−0.6	−18
	1738	10.6	323
	2335	−0.7	−21
3 Sa	0600	9.3	283
	1147	0.0	0
	1821	10.1	308
4 Su	0019	−0.1	−3
	0645	8.7	265
	1232	0.7	21
	1904	9.4	287
5 M	0103	0.6	18
	0731	8.1	247
	1318	1.4	43
	1949	8.7	265
6 Tu ◑	0151	1.3	40
	0820	7.6	232
	1409	2.1	64
	2038	8.1	247
7 W	0242	1.8	55
	0917	7.3	223
	1509	2.6	79
	2133	7.6	232
8 Th	0342	2.2	67
	1020	7.1	216
	1619	2.8	85
	2234	7.4	226
9 F	0448	2.4	73
	1126	7.2	219
	1732	2.7	82
	2336	7.3	223
10 Sa	0551	2.3	70
	1224	7.6	232
	1831	2.3	70
11 Su	0034	7.5	229
	0644	2.0	61
	1314	8.1	247
	1920	1.8	55
12 M	0126	7.8	238
	0728	1.6	49
	1357	8.6	262
	2001	1.3	40
13 Tu	0211	8.2	250
	0807	1.2	37
	1436	9.1	277
	2039	0.8	24
14 W ●	0253	8.4	256
	0844	0.9	27
	1514	9.5	290
	2116	0.4	12
15 Th	0333	8.7	265
	0921	0.6	18
	1551	9.8	299
	2153	0.0	0

	Time	Height	
	h m	ft	cm
16 F	0412	8.8	268
	0958	0.4	12
	1629	10.0	305
	2230	−0.1	−3
17 Sa	0451	8.8	268
	1037	0.4	12
	1708	10.0	305
	2309	−0.2	−6
18 Su	0531	8.7	265
	1118	0.4	12
	1749	9.9	302
	2351	−0.1	−3
19 M	0614	8.6	262
	1202	0.6	18
	1833	9.6	293
20 Tu	0035	0.1	3
	0702	8.5	259
	1251	0.9	27
	1922	9.3	283
21 W ◐	0124	0.4	12
	0756	8.4	256
	1346	1.2	37
	2018	8.9	271
22 Th	0218	0.7	21
	0856	8.4	256
	1449	1.4	43
	2119	8.6	262
23 F	0319	0.9	27
	1002	8.5	259
	1559	1.4	43
	2225	8.5	259
24 Sa	0425	1.0	30
	1110	8.8	268
	1711	1.2	37
	2333	8.5	259
25 Su	0532	0.8	24
	1215	9.3	283
	1818	0.7	21
26 M	0039	8.7	265
	0634	0.4	12
	1315	9.8	299
	1917	0.2	6
27 Tu	0139	9.0	274
	0730	0.1	3
	1410	10.3	314
	2010	−0.3	−9
28 W ○	0233	9.3	283
	0822	−0.2	−6
	1459	10.6	323
	2059	−0.6	−18
29 Th	0324	9.4	287
	0910	−0.3	−9
	1546	10.7	326
	2145	−0.7	−21
30 F	0411	9.4	287
	0956	−0.2	−6
	1630	10.6	323
	2229	−0.6	−18

May

	Time	Height	
	h m	ft	cm
1 Sa	0456	9.2	280
	1041	0.1	3
	1713	10.2	311
	2311	−0.3	−9
2 Su	0540	9.0	274
	1124	0.5	15
	1754	9.8	299
	2354	0.2	6
3 M	0623	8.6	262
	1208	1.0	30
	1836	9.2	280
4 Tu	0036	0.7	21
	0707	8.3	253
	1253	1.6	49
	1918	8.7	265
5 W ◑	0119	1.2	37
	0754	7.9	241
	1341	2.1	64
	2004	8.2	250
6 Th	0205	1.7	52
	0843	7.7	235
	1435	2.5	76
	2053	7.8	238
7 F	0256	2.1	64
	0936	7.6	232
	1535	2.7	82
	2147	7.5	229
8 Sa	0352	2.3	70
	1032	7.7	235
	1639	2.7	82
	2244	7.4	226
9 Su	0450	2.3	70
	1126	7.9	241
	1740	2.4	73
	2341	7.5	229
10 M	0546	2.2	67
	1218	8.3	253
	1833	2.0	61
11 Tu	0036	7.6	232
	0636	1.9	58
	1307	8.8	268
	1919	1.5	46
12 W	0127	7.9	241
	0723	1.6	49
	1353	9.2	280
	2003	1.0	30
13 Th ●	0216	8.2	250
	0806	1.2	37
	1437	9.7	296
	2044	0.5	15
14 F	0302	8.5	259
	0850	0.9	27
	1520	10.0	305
	2125	0.1	3
15 Sa	0347	8.8	268
	0933	0.6	18
	1604	10.2	311
	2207	−0.2	−6

	Time	Height	
	h m	ft	cm
16 Su	0432	8.9	271
	1017	0.4	12
	1648	10.3	314
	2249	−0.3	−9
17 M	0518	9.1	277
	1103	0.4	12
	1734	10.2	311
	2334	−0.3	−9
18 Tu	0606	9.1	277
	1151	0.5	15
	1822	9.9	302
19 W	0020	−0.1	−3
	0656	9.1	277
	1242	0.7	21
	1913	9.6	293
20 Th ◐	0109	0.1	3
	0750	9.1	277
	1338	0.9	27
	2007	9.2	280
21 F	0202	0.4	12
	0847	9.2	280
	1438	1.1	34
	2105	8.8	268
22 Sa	0300	0.7	21
	0948	9.2	280
	1544	1.3	40
	2207	8.6	262
23 Su	0402	0.9	27
	1050	9.4	287
	1652	1.2	37
	2311	8.4	256
24 M	0506	1.0	30
	1152	9.6	293
	1757	1.0	30
25 Tu	0015	8.4	256
	0609	0.9	27
	1251	9.8	299
	1856	0.7	21
26 W	0117	8.5	259
	0707	0.8	24
	1346	10.0	305
	1950	0.4	12
27 Th ○	0214	8.7	265
	0800	0.6	18
	1437	10.2	311
	2039	0.1	3
28 F	0307	8.8	268
	0849	0.6	18
	1524	10.2	311
	2124	0.0	0
29 Sa	0355	8.9	271
	0936	0.6	18
	1608	10.1	308
	2208	0.1	3
30 Su	0439	8.9	271
	1020	0.8	24
	1650	9.9	302
	2249	0.2	6
31 M	0522	8.9	271
	1104	1.0	30
	1730	9.6	293
	2329	0.5	15

June

	Time	Height	
	h m	ft	cm
1 Tu	0603	8.7	265
	1146	1.3	40
	1809	9.2	280
2 W	0009	0.8	24
	0643	8.6	262
	1229	1.7	52
	1849	8.9	271
3 Th	0049	1.1	34
	0725	8.4	256
	1312	2.0	61
	1931	8.5	259
4 F ◑	0130	1.5	46
	0808	8.3	253
	1359	2.3	70
	2015	8.1	247
5 Sa	0213	1.8	55
	0854	8.2	250
	1449	2.5	76
	2103	7.8	238
6 Su	0300	2.1	64
	0942	8.2	250
	1544	2.6	79
	2154	7.6	232
7 M	0351	2.3	70
	1033	8.3	253
	1643	2.5	76
	2249	7.5	229
8 Tu	0447	2.3	70
	1126	8.6	262
	1740	2.2	67
	2346	7.5	229
9 W	0543	2.1	64
	1219	8.9	271
	1835	1.7	52
10 Th	0043	7.8	238
	0639	1.8	55
	1312	9.3	283
	1925	1.2	37
11 F	0139	8.1	247
	0731	1.4	43
	1403	9.8	299
	2013	0.7	21
12 Sa ●	0233	8.5	259
	0822	1.0	30
	1453	10.1	308
	2100	0.2	6
13 Su	0325	8.9	271
	0911	0.6	18
	1542	10.4	317
	2145	−0.2	−6
14 M	0415	9.3	283
	1000	0.3	9
	1631	10.6	323
	2231	−0.5	−15
15 Tu	0505	9.7	296
	1050	0.1	3
	1720	10.5	320
	2317	−0.6	−18

	Time	Height	
	h m	ft	cm
16 W	0555	9.9	302
	1140	0.1	3
	1810	10.4	317
17 Th	0005	−0.5	−15
	0645	10.0	305
	1231	0.3	9
	1900	10.0	305
18 F ◐	0053	−0.2	−6
	0737	10.0	305
	1325	0.5	15
	1952	9.6	293
19 Sa	0145	0.2	6
	0831	9.9	302
	1423	0.9	27
	2047	9.1	277
20 Su	0239	0.6	18
	0928	9.7	296
	1524	1.2	37
	2145	8.6	262
21 M	0338	1.0	30
	1027	9.6	293
	1629	1.4	43
	2247	8.3	253
22 Tu	0441	1.3	40
	1127	9.5	290
	1734	1.4	43
	2353	8.1	247
23 W	0545	1.5	46
	1228	9.5	290
	1835	1.3	40
24 Th	0058	8.1	247
	0646	1.5	46
	1326	9.6	293
	1931	1.1	34
25 F	0200	8.2	250
	0742	1.4	43
	1418	9.6	293
	2021	0.9	27
26 Sa ○	0254	8.4	256
	0832	1.3	40
	1506	9.7	296
	2106	0.7	21
27 Su	0341	8.6	262
	0919	1.2	37
	1549	9.7	296
	2148	0.6	18
28 M	0423	8.8	268
	1002	1.2	37
	1628	9.7	296
	2227	0.6	18
29 Tu	0502	8.9	271
	1043	1.2	37
	1706	9.5	290
	2305	0.6	18
30 W	0539	9.0	274
	1123	1.3	40
	1743	9.3	283
	2342	0.8	24

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

La Union, El Salvador, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0616	8.9	271
	1202	1.5	46
	1820	9.1	277
2 F	0018	1.0	30
	0653	8.9	271
	1241	1.7	52
	1858	8.7	265
3 Sa	0054	1.3	40
	0731	8.8	268
	1322	2.0	61
	1938	8.4	256
4 Su ◑	0133	1.6	49
	0812	8.7	265
	1407	2.2	67
	2021	8.0	244
5 M	0214	1.9	58
	0857	8.6	262
	1455	2.3	70
	2109	7.7	235
6 Tu	0302	2.1	64
	0946	8.6	262
	1550	2.4	73
	2202	7.6	232
7 W	0356	2.3	70
	1039	8.7	265
	1650	2.3	70
	2300	7.5	229
8 Th	0457	2.2	67
	1137	9.0	274
	1752	1.9	58
9 F	0003	7.7	235
	0601	2.0	61
	1236	9.3	283
	1850	1.4	43
10 Sa	0107	8.1	247
	0702	1.5	46
	1334	9.7	296
	1945	0.8	24
11 Su ●	0208	8.6	262
	0800	1.0	30
	1430	10.2	311
	2036	0.2	6
12 M	0305	9.3	283
	0854	0.4	12
	1523	10.6	323
	2125	−0.3	−9
13 Tu	0358	9.9	302
	0945	−0.1	−3
	1615	10.8	329
	2212	−0.7	−21
14 W	0448	10.4	317
	1036	−0.4	−12
	1704	10.9	332
	2259	−0.9	−27
15 Th	0538	10.7	326
	1125	−0.4	−12
	1753	10.7	326
	2346	−0.8	−24

	Time	Height	
	h m	ft	cm
16 F	0627	10.8	329
	1216	−0.2	−6
	1843	10.3	314
17 Sa	0034	−0.5	−15
	0717	10.6	323
	1307	0.1	3
	1933	9.8	299
18 Su ◐	0123	0.0	0
	0809	10.3	314
	1401	0.6	18
	2025	9.2	280
19 M	0216	0.6	18
	0903	9.9	302
	1459	1.2	37
	2121	8.5	259
20 Tu	0313	1.2	37
	1001	9.5	290
	1602	1.6	49
	2223	8.0	244
21 W	0416	1.8	55
	1102	9.2	280
	1709	1.9	58
	2332	7.7	235
22 Th	0523	2.1	64
	1206	9.0	274
	1815	1.9	58
23 F	0043	7.7	235
	0629	2.1	64
	1308	9.0	274
	1913	1.7	52
24 Sa	0147	7.9	241
	0728	2.0	61
	1402	9.1	277
	2004	1.5	46
25 Su ○	0240	8.2	250
	0818	1.7	52
	1448	9.3	283
	2048	1.2	37
26 M	0324	8.5	259
	0903	1.5	46
	1529	9.4	287
	2127	0.9	27
27 Tu	0402	8.8	268
	0943	1.3	40
	1606	9.5	290
	2204	0.8	24
28 W	0437	9.1	277
	1021	1.1	34
	1641	9.5	290
	2239	0.7	21
29 Th	0510	9.2	280
	1058	1.1	34
	1715	9.4	287
	2312	0.8	24
30 F	0544	9.3	283
	1134	1.2	37
	1750	9.2	280
	2346	0.9	27
31 Sa	0618	9.2	280
	1210	1.3	40
	1826	8.9	271

August

	Time	Height	
	h m	ft	cm
1 Su	0020	1.1	34
	0654	9.1	277
	1248	1.5	46
	1903	8.6	262
2 M ◑	0056	1.4	43
	0732	9.0	274
	1328	1.8	55
	1943	8.2	250
3 Tu	0136	1.7	52
	0815	8.9	271
	1414	2.0	61
	2028	7.9	241
4 W	0222	1.9	58
	0904	8.8	268
	1507	2.2	67
	2121	7.6	232
5 Th	0316	2.1	64
	1000	8.7	265
	1607	2.2	67
	2223	7.6	232
6 F	0421	2.2	67
	1102	8.8	268
	1713	2.0	61
	2331	7.8	238
7 Sa	0532	2.0	61
	1207	9.2	280
	1818	1.5	46
8 Su	0041	8.2	250
	0640	1.4	43
	1311	9.6	293
	1918	0.8	24
9 M ●	0146	9.0	274
	0741	0.7	21
	1410	10.1	308
	2012	0.1	3
10 Tu	0244	9.7	296
	0837	0.0	0
	1505	10.6	323
	2103	−0.5	−15
11 W	0337	10.5	320
	0929	−0.5	−15
	1556	10.9	332
	2151	−1.0	−30
12 Th	0427	11.0	335
	1018	−0.9	−27
	1645	11.0	335
	2238	−1.1	−34
13 F	0516	11.2	341
	1107	−0.9	−27
	1733	10.8	329
	2325	−1.0	−30
14 Sa	0604	11.2	341
	1155	−0.7	−21
	1821	10.4	317
15 Su	0012	−0.6	−18
	0653	10.9	332
	1245	−0.2	−6
	1910	9.8	299

	Time	Height	
	h m	ft	cm
16 M ◐	0100	0.0	0
	0743	10.3	314
	1336	0.5	15
	2001	9.1	277
17 Tu	0151	0.8	24
	0835	9.7	296
	1431	1.2	37
	2056	8.4	256
18 W	0247	1.5	46
	0933	9.1	277
	1532	1.9	58
	2159	7.8	238
19 Th	0351	2.1	64
	1036	8.6	262
	1641	2.3	70
	2311	7.5	229
20 F	0504	2.5	76
	1143	8.4	256
	1751	2.3	70
21 Sa	0026	7.5	229
	0615	2.5	76
	1247	8.4	256
	1853	2.1	64
22 Su	0129	7.8	238
	0714	2.2	67
	1341	8.6	262
	1943	1.8	55
23 M	0218	8.2	250
	0802	1.8	55
	1426	8.8	268
	2025	1.5	46
24 Tu ○	0258	8.6	262
	0843	1.5	46
	1505	9.1	277
	2103	1.2	37
25 W	0333	8.9	271
	0921	1.1	34
	1540	9.3	283
	2137	0.9	27
26 Th	0406	9.2	280
	0956	0.9	27
	1614	9.4	287
	2210	0.8	24
27 F	0438	9.4	287
	1031	0.8	24
	1648	9.3	283
	2242	0.8	24
28 Sa	0510	9.5	290
	1105	0.8	24
	1721	9.2	280
	2314	0.8	24
29 Su	0544	9.5	290
	1139	0.9	27
	1756	8.9	271
	2348	1.0	30
30 M	0619	9.4	287
	1216	1.1	34
	1832	8.6	262
31 Tu	0024	1.2	37
	0657	9.2	280
	1255	1.3	40
	1911	8.3	253

September

	Time	Height	
	h m	ft	cm
1 W ◑	0104	1.5	46
	0740	8.9	271
	1340	1.6	49
	1956	7.9	241
2 Th	0152	1.8	55
	0830	8.7	265
	1432	1.9	58
	2051	7.7	235
3 F	0249	2.0	61
	0929	8.6	262
	1533	2.0	61
	2156	7.7	235
4 Sa	0357	2.1	64
	1035	8.6	262
	1641	1.9	58
	2308	8.0	244
5 Su	0511	1.8	55
	1144	8.9	271
	1750	1.4	43
6 M	0020	8.6	262
	0621	1.2	37
	1250	9.4	287
	1853	0.8	24
7 Tu	0125	9.3	283
	0724	0.4	12
	1350	9.9	302
	1949	0.1	3
8 W	0222	10.2	311
	0819	−0.4	−12
	1445	10.4	317
	2040	−0.6	−18
9 Th	0314	10.9	332
	0910	−0.9	−27
	1536	10.8	329
	2129	−1.0	−30
10 F	0404	11.3	344
	0959	−1.3	−40
	1624	10.9	332
	2216	−1.1	−34
11 Sa	0451	11.4	347
	1046	−1.2	−37
	1712	10.7	326
	2302	−1.0	−30
12 Su	0539	11.2	341
	1133	−0.9	−27
	1759	10.2	311
	2349	−0.5	−15
13 M	0626	10.8	329
	1220	−0.3	−9
	1847	9.6	293
14 Tu ◐	0036	0.2	6
	0714	10.1	308
	1309	0.5	15
	1936	8.9	271
15 W	0126	1.0	30
	0806	9.4	287
	1401	1.3	40
	2031	8.2	250

	Time	Height	
	h m	ft	cm
16 Th	0222	1.8	55
	0902	8.7	265
	1459	2.0	61
	2133	7.7	235
17 F	0326	2.4	73
	1004	8.1	247
	1606	2.4	73
	2244	7.4	226
18 Sa	0441	2.7	82
	1111	7.9	241
	1719	2.6	79
	2356	7.5	229
19 Su	0554	2.6	79
	1216	7.9	241
	1823	2.4	73
20 M	0056	7.8	238
	0652	2.3	70
	1310	8.1	247
	1914	2.1	64
21 Tu	0143	8.2	250
	0738	1.8	55
	1355	8.4	256
	1955	1.7	52
22 W	0222	8.6	262
	0818	1.4	43
	1434	8.7	265
	2032	1.4	43
23 Th ○	0257	9.0	274
	0854	1.0	30
	1511	9.0	274
	2106	1.1	34
24 F	0331	9.4	287
	0928	0.6	18
	1546	9.1	277
	2139	0.9	27
25 Sa	0404	9.6	293
	1002	0.5	15
	1620	9.2	280
	2211	0.8	24
26 Su	0438	9.7	296
	1036	0.4	12
	1655	9.1	277
	2245	0.8	24
27 M	0513	9.7	296
	1112	0.5	15
	1730	8.9	271
	2321	0.9	27
28 Tu	0549	9.5	290
	1149	0.6	18
	1807	8.6	262
	2359	1.1	34
29 W	0629	9.3	283
	1229	0.9	27
	1848	8.3	253
30 Th ◑	0042	1.3	40
	0713	9.0	274
	1314	1.2	37
	1936	8.1	247

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

La Union, El Salvador, 2010

Times and Heights of High and Low Waters

October

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0132	1.6	49	**16** Sa	0257	2.5	76
	0805	8.7	265		0925	7.9	241
	1406	1.5	46		1523	2.4	73
	2033	8.0	244		2206	7.6	232
2 Sa	0231	1.8	55	**17** Su	0407	2.7	82
	0906	8.5	259		1027	7.6	232
	1506	1.7	52		1631	2.6	79
	2139	8.1	247		2309	7.6	232
3 Su	0340	1.9	58	**18** M	0518	2.6	79
	1013	8.5	259		1129	7.5	229
	1613	1.6	49		1736	2.6	79
	2250	8.4	256				
4 M	0454	1.6	49	**19** Tu	0007	7.8	238
	1123	8.7	265		0617	2.3	70
	1722	1.3	40		1225	7.7	235
	2359	9.0	274		1830	2.3	70
5 Tu	0604	0.9	27	**20** W	0056	8.2	250
	1229	9.1	277		0705	1.9	58
	1827	0.7	21		1314	8.0	244
					1915	2.0	61
6 W	0102	9.7	296	**21** Th	0138	8.6	262
	0705	0.2	6		0745	1.4	43
	1329	9.6	293		1358	8.3	253
	1924	0.1	3		1954	1.6	49
7 Th ●	0158	10.4	317	**22** F ○	0217	9.1	277
	0800	−0.5	−15		0823	0.9	27
	1424	10.0	305		1438	8.6	262
	2017	−0.4	−12		2031	1.3	40
8 F	0250	11.0	335	**23** Sa	0255	9.4	287
	0850	−1.0	−30		0859	0.6	18
	1515	10.3	314		1517	8.8	268
	2106	−0.8	−24		2107	1.1	34
9 Sa	0340	11.3	344	**24** Su	0332	9.7	296
	0938	−1.3	−40		0934	0.3	9
	1604	10.4	317		1554	8.9	271
	2154	−0.8	−24		2143	0.9	27
10 Su	0427	11.3	344	**25** M	0409	9.8	299
	1024	−1.2	−37		1011	0.2	6
	1651	10.3	314		1632	8.9	271
	2240	−0.6	−18		2220	0.8	24
11 M	0513	11.0	335	**26** Tu	0447	9.8	299
	1110	−0.8	−24		1048	0.2	6
	1738	9.9	302		1711	8.9	271
	2327	−0.1	−3		2259	0.8	24
12 Tu	0600	10.4	317	**27** W	0527	9.7	296
	1156	−0.3	−9		1127	0.3	9
	1825	9.4	287		1751	8.8	268
					2341	0.9	27
13 W	0013	0.5	15	**28** Th	0609	9.4	287
	0646	9.8	299		1209	0.5	15
	1242	0.5	15		1836	8.7	265
	1914	8.8	268				
14 Th ◐	0102	1.2	37	**29** F	0027	1.1	34
	0735	9.0	274		0656	9.1	277
	1330	1.2	37		1255	0.7	21
	2006	8.2	250		1925	8.6	262
15 F	0156	1.9	58	**30** Sa	0119	1.3	40
	0828	8.4	256		0749	8.8	268
	1423	1.9	58		1346	1.0	30
	2103	7.8	238	◑	2022	8.5	259
				31 Su	0218	1.5	46
					0848	8.5	259
					1444	1.2	37
					2125	8.6	262

November

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0325	1.5	46	**16** Tu	0424	2.6	79
	0953	8.4	256		1032	7.4	226
	1548	1.3	40		1632	2.6	79
	2231	8.9	271		2308	8.0	244
2 Tu	0435	1.3	40	**17** W	0526	2.4	73
	1100	8.5	259		1129	7.4	226
	1655	1.2	37		1731	2.6	79
	2337	9.3	283				
3 W	0544	0.8	24	**18** Th	0000	8.2	250
	1206	8.8	268		0619	2.0	61
	1800	0.9	27		1225	7.6	232
					1824	2.3	70
4 Th	0038	9.9	302	**19** F	0049	8.6	262
	0645	0.2	6		0706	1.6	49
	1308	9.1	277		1316	7.8	238
	1900	0.4	12		1911	2.0	61
5 F ●	0135	10.4	317	**20** Sa	0135	9.0	274
	0740	−0.3	−9		0748	1.1	34
	1405	9.5	290		1404	8.2	250
	1954	0.0	0		1954	1.7	52
6 Sa	0228	10.7	326	**21** Su ○	0219	9.4	287
	0831	−0.7	−21		0828	0.7	21
	1457	9.7	296		1448	8.5	259
	2045	−0.2	−6		2036	1.3	40
7 Su	0318	10.9	332	**22** M	0302	9.7	296
	0919	−0.9	−27		0908	0.3	9
	1547	9.8	299		1531	8.7	265
	2134	−0.2	−6		2117	1.0	30
8 M	0405	10.8	329	**23** Tu	0344	9.9	302
	1004	−0.8	−24		0947	0.0	0
	1634	9.8	299		1614	9.0	274
	2220	−0.1	−3		2200	0.8	24
9 Tu	0451	10.5	320	**24** W	0427	9.9	302
	1049	−0.6	−18		1027	−0.1	−3
	1721	9.6	293		1657	9.1	277
	2307	0.3	9		2243	0.6	18
10 W	0536	10.1	308	**25** Th	0510	9.9	302
	1132	−0.1	−3		1109	−0.1	−3
	1806	9.2	280		1741	9.2	280
	2352	0.8	24		2328	0.6	18
11 Th	0620	9.5	290	**26** F	0556	9.7	296
	1216	0.5	15		1153	0.0	0
	1851	8.8	268		1827	9.3	283
12 F	0039	1.3	40	**27** Sa	0017	0.7	21
	0705	8.9	271		0644	9.4	287
	1300	1.1	34		1239	0.2	6
	1938	8.5	259		1917	9.3	283
13 Sa ◐	0128	1.9	58	**28** Su ◑	0109	0.8	24
	0751	8.3	253		0735	9.1	277
	1347	1.6	49		1329	0.5	15
	2027	8.1	247		2010	9.3	283
14 Su	0222	2.3	70	**29** M	0206	1.0	30
	0841	7.8	238		0831	8.7	265
	1437	2.1	64		1423	0.8	24
	2119	7.9	241		2108	9.3	283
15 M	0321	2.6	79	**30** Tu	0308	1.1	34
	0935	7.5	229		0932	8.5	259
	1533	2.5	76		1523	1.0	30
	2213	7.9	241		2209	9.4	287

December

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0414	1.1	34	**16** Th	0424	2.4	73
	1036	8.3	253		1032	7.2	219
	1628	1.2	37		1626	2.6	79
	2312	9.5	290		2304	8.3	253
2 Th	0521	0.9	27	**17** F	0523	2.2	67
	1142	8.3	253		1131	7.2	219
	1734	1.1	34		1726	2.6	79
					2358	8.5	259
3 F	0015	9.7	296	**18** Sa	0619	1.9	58
	0624	0.6	18		1231	7.4	226
	1248	8.5	259		1824	2.3	70
	1837	0.9	27				
4 Sa	0114	10.0	305	**19** Su	0053	8.8	268
	0721	0.2	6		0710	1.4	43
	1349	8.8	268		1328	7.8	238
	1935	0.7	21		1918	1.9	58
5 Su ●	0209	10.2	311	**20** M	0145	9.2	280
	0813	−0.1	−3		0757	0.9	27
	1444	9.1	277		1421	8.2	250
	2028	0.5	15		2008	1.4	43
6 M	0300	10.3	314	**21** Tu ○	0235	9.6	293
	0901	−0.3	−9		0842	0.4	12
	1535	9.3	283		1510	8.7	265
	2117	0.4	12		2056	1.0	30
7 Tu	0348	10.2	311	**22** W	0323	9.9	302
	0946	−0.3	−9		0925	−0.1	−3
	1622	9.4	287		1557	9.2	280
	2204	0.4	12		2143	0.5	15
8 W	0432	10.0	305	**23** Th	0410	10.1	308
	1029	−0.2	−6		1009	−0.4	−12
	1706	9.3	283		1643	9.6	293
	2249	0.6	18		2229	0.2	6
9 Th	0514	9.7	296	**24** F	0456	10.2	311
	1111	0.0	0		1052	−0.6	−18
	1747	9.2	280		1729	9.9	302
	2332	0.9	27		2316	0.0	0
10 F	0555	9.4	287	**25** Sa	0543	10.1	308
	1151	0.4	12		1137	−0.6	−18
	1828	9.0	274		1815	10.1	308
11 Sa	0015	1.2	37	**26** Su	0005	0.0	0
	0635	8.9	271		0630	9.8	299
	1231	0.8	24		1222	−0.4	−12
	1908	8.8	268		1903	10.1	308
12 Su	0059	1.6	49	**27** M	0056	0.2	6
	0716	8.5	259		0720	9.4	287
	1311	1.3	40		1311	−0.1	−3
	1949	8.6	262	◑	1954	10.0	305
13 M ◐	0144	1.9	58	**28** Tu	0149	0.4	12
	0759	8.0	244		0812	9.0	274
	1353	1.7	52		1402	0.4	12
	2032	8.4	256		2048	9.8	299
14 Tu	0233	2.2	67	**29** W	0247	0.7	21
	0845	7.6	232		0909	8.5	259
	1438	2.1	64		1459	0.9	27
	2119	8.2	250		2145	9.6	293
15 W	0326	2.4	73	**30** Th	0350	1.0	30
	0936	7.3	223		1011	8.1	247
	1529	2.4	73		1602	1.3	40
	2210	8.2	250		2247	9.4	287
				31 F	0457	1.1	34
					1120	7.9	241
					1709	1.5	46
					2352	9.3	283

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Salina Cruz, Mexico, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0224	4.0	122
	0859	−0.4	−12
	1454	2.9	88
	2048	−0.4	−12
2 Sa	0317	4.1	125
	0947	−0.6	−18
	1550	3.2	98
	2148	−0.5	−15
3 Su	0409	4.1	125
	1035	−0.8	−24
	1644	3.5	107
	2246	−0.6	−18
4 M	0500	4.0	122
	1122	−0.9	−27
	1737	3.7	113
	2343	−0.6	−18
5 Tu	0551	3.8	116
	1209	−1.0	−30
	1830	3.9	119
6 W	0040	−0.5	−15
	0642	3.6	110
	1257	−0.9	−27
	1924	4.0	122
7 Th ◑	0138	−0.3	−9
	0733	3.3	101
	1345	−0.8	−24
	2017	4.0	122
8 F	0236	−0.2	−6
	0826	3.0	91
	1435	−0.6	−18
	2112	3.9	119
9 Sa	0337	0.0	0
	0922	2.7	82
	1526	−0.4	−12
	2209	3.8	116
10 Su	0439	0.1	3
	1021	2.5	76
	1621	−0.2	−6
	2306	3.7	113
11 M	0541	0.2	6
	1123	2.3	70
	1717	0.0	0
12 Tu	0003	3.6	110
	0642	0.2	6
	1226	2.3	70
	1816	0.1	3
13 W	0058	3.5	107
	0737	0.2	6
	1326	2.3	70
	1913	0.2	6
14 Th	0149	3.5	107
	0827	0.1	3
	1421	2.4	73
	2008	0.2	6
15 F ●	0237	3.5	107
	0912	0.0	0
	1510	2.6	79
	2058	0.2	6

	Time	Height	
	h m	ft	cm
16 Sa	0322	3.5	107
	0952	−0.1	−3
	1555	2.7	82
	2146	0.1	3
17 Su	0404	3.4	104
	1030	−0.2	−6
	1636	2.9	88
	2231	0.1	3
18 M	0444	3.4	104
	1106	−0.2	−6
	1716	3.0	91
	2315	0.1	3
19 Tu	0522	3.3	101
	1140	−0.3	−9
	1754	3.2	98
	2358	0.1	3
20 W	0600	3.1	94
	1212	−0.2	−6
	1832	3.3	101
21 Th	0040	0.1	3
	0636	2.9	88
	1244	−0.2	−6
	1909	3.4	104
22 F	0123	0.2	6
	0712	2.8	85
	1316	−0.2	−6
	1948	3.5	107
23 Sa ◐	0207	0.3	9
	0748	2.6	79
	1350	−0.1	−3
	2029	3.5	107
24 Su	0254	0.4	12
	0829	2.4	73
	1429	−0.1	−3
	2115	3.6	110
25 M	0345	0.4	12
	0915	2.3	70
	1514	−0.1	−3
	2205	3.6	110
26 Tu	0440	0.4	12
	1011	2.3	70
	1609	−0.1	−3
	2301	3.6	110
27 W	0538	0.3	9
	1114	2.3	70
	1712	−0.1	−3
28 Th	0001	3.7	113
	0637	0.2	6
	1223	2.5	76
	1820	−0.1	−3
29 F	0101	3.8	116
	0734	−0.1	−3
	1330	2.8	85
	1929	−0.2	−6
30 Sa ○	0200	3.8	116
	0829	−0.3	−9
	1432	3.2	98
	2035	−0.4	−12
31 Su	0257	3.9	119
	0920	−0.6	−18
	1531	3.5	107
	2137	−0.5	−15

February

	Time	Height	
	h m	ft	cm
1 M	0351	3.9	119
	1010	−0.8	−24
	1626	3.9	119
	2236	−0.6	−18
2 Tu	0443	3.9	119
	1059	−1.0	−30
	1719	4.1	125
	2332	−0.6	−18
3 W	0534	3.7	113
	1146	−1.0	−30
	1811	4.3	131
4 Th	0026	−0.5	−15
	0624	3.6	110
	1234	−1.0	−30
	1902	4.3	131
5 F ◑	0120	−0.4	−12
	0714	3.3	101
	1322	−0.8	−24
	1954	4.2	128
6 Sa	0214	−0.2	−6
	0804	3.1	94
	1410	−0.6	−18
	2045	4.0	122
7 Su	0310	0.0	0
	0857	2.8	85
	1500	−0.3	−9
	2139	3.8	116
8 M	0407	0.2	6
	0953	2.6	79
	1552	0.0	0
	2234	3.5	107
9 Tu	0507	0.3	9
	1053	2.4	73
	1649	0.2	6
	2331	3.4	104
10 W	0608	0.4	12
	1156	2.3	70
	1749	0.4	12
11 Th	0028	3.3	101
	0705	0.4	12
	1258	2.4	73
	1850	0.4	12
12 F	0122	3.2	98
	0756	0.3	9
	1355	2.5	76
	1947	0.4	12
13 Sa ●	0212	3.2	98
	0841	0.2	6
	1444	2.7	82
	2040	0.3	9
14 Su	0258	3.3	101
	0921	0.1	3
	1528	2.9	88
	2128	0.2	6
15 M	0341	3.3	101
	0958	0.0	0
	1608	3.1	94
	2213	0.1	3

	Time	Height	
	h m	ft	cm
16 Tu	0421	3.2	98
	1033	−0.1	−3
	1647	3.3	101
	2256	0.0	0
17 W	0459	3.2	98
	1106	−0.1	−3
	1724	3.5	107
	2337	0.0	0
18 Th	0535	3.1	94
	1139	−0.2	−6
	1801	3.6	110
19 F	0018	0.0	0
	0610	2.9	88
	1210	−0.2	−6
	1838	3.7	113
20 Sa	0058	0.1	3
	0645	2.8	85
	1243	−0.2	−6
	1916	3.8	116
21 Su ◐	0139	0.2	6
	0721	2.7	82
	1319	−0.2	−6
	1957	3.8	116
22 M	0222	0.3	9
	0800	2.6	79
	1359	−0.1	−3
	2041	3.7	113
23 Tu	0309	0.4	12
	0847	2.5	76
	1448	−0.1	−3
	2132	3.7	113
24 W	0402	0.4	12
	0944	2.5	76
	1546	0.0	0
	2229	3.6	110
25 Th	0500	0.3	9
	1049	2.6	79
	1653	0.0	0
	2332	3.6	110
26 F	0601	0.2	6
	1200	2.9	88
	1807	0.0	0
27 Sa	0036	3.5	107
	0701	0.0	0
	1309	3.2	98
	1919	−0.1	−3
28 Su ○	0139	3.6	110
	0758	−0.2	−6
	1413	3.6	110
	2026	−0.3	−9

March

	Time	Height	
	h m	ft	cm
1 M	0238	3.7	113
	0852	−0.5	−15
	1512	3.9	119
	2127	−0.4	−12
2 Tu	0333	3.7	113
	0944	−0.7	−21
	1606	4.2	128
	2223	−0.6	−18
3 W	0425	3.7	113
	1033	−0.8	−24
	1658	4.4	134
	2317	−0.6	−18
4 Th	0516	3.7	113
	1122	−0.9	−27
	1748	4.5	137
5 F	0008	−0.5	−15
	0605	3.6	110
	1209	−0.8	−24
	1837	4.4	134
6 Sa	0058	−0.4	−12
	0653	3.4	104
	1256	−0.6	−18
	1926	4.2	128
7 Su ◑	0149	−0.2	−6
	0742	3.2	98
	1344	−0.3	−9
	2015	4.0	122
8 M	0240	0.0	0
	0832	2.9	88
	1432	0.0	0
	2105	3.7	113
9 Tu	0332	0.3	9
	0925	2.7	82
	1524	0.2	6
	2158	3.4	104
10 W	0428	0.4	12
	1023	2.6	79
	1621	0.5	15
	2253	3.2	98
11 Th	0525	0.6	18
	1124	2.5	76
	1723	0.6	18
	2352	3.1	94
12 F	0622	0.6	18
	1225	2.6	79
	1826	0.6	18
13 Sa	0049	3.0	91
	0713	0.5	15
	1321	2.7	82
	1925	0.6	18
14 Su	0142	3.0	91
	0759	0.4	12
	1410	3.0	91
	2019	0.4	12
15 M ●	0230	3.1	94
	0841	0.3	9
	1454	3.2	98
	2107	0.3	9

	Time	Height	
	h m	ft	cm
16 Tu	0313	3.1	94
	0919	0.2	6
	1535	3.5	107
	2152	0.1	3
17 W	0354	3.1	94
	0955	0.1	3
	1614	3.7	113
	2235	0.0	0
18 Th	0432	3.1	94
	1029	0.0	0
	1652	3.9	119
	2315	0.0	0
19 F	0509	3.0	91
	1103	−0.1	−3
	1730	4.0	122
	2355	0.0	0
20 Sa	0545	3.0	91
	1138	−0.1	−3
	1808	4.1	125
21 Su	0034	0.0	0
	0621	2.9	88
	1215	−0.1	−3
	1847	4.1	125
22 M	0114	0.1	3
	0659	2.9	88
	1254	−0.1	−3
	1929	4.0	122
23 Tu ◐	0156	0.2	6
	0742	2.9	88
	1340	0.0	0
	2014	3.8	116
24 W	0241	0.3	9
	0832	2.9	88
	1433	0.1	3
	2106	3.7	113
25 Th	0332	0.3	9
	0930	2.9	88
	1535	0.2	6
	2204	3.5	107
26 F	0428	0.3	9
	1036	3.1	94
	1646	0.3	9
	2308	3.4	104
27 Sa	0529	0.2	6
	1145	3.3	101
	1800	0.2	6
28 Su	0014	3.3	101
	0630	0.1	3
	1252	3.6	110
	1912	0.1	3
29 M ○	0118	3.4	104
	0729	−0.1	−3
	1354	4.0	122
	2016	−0.1	−3
30 Tu	0218	3.4	104
	0824	−0.3	−9
	1451	4.3	131
	2115	−0.3	−9
31 W	0313	3.5	107
	0917	−0.5	−15
	1545	4.5	137
	2208	−0.4	−12

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Salina Cruz, Mexico, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0406	3.6	110
	1007	−0.6	−18
	1635	4.6	140
	2259	−0.4	−12
2 F	0456	3.6	110
	1056	−0.6	−18
	1723	4.6	140
	2347	−0.4	−12
3 Sa	0544	3.5	107
	1143	−0.4	−12
	1810	4.5	137
4 Su	0035	−0.3	−9
	0632	3.4	104
	1230	−0.2	−6
	1856	4.2	128
5 M	0121	−0.1	−3
	0719	3.3	101
	1317	0.0	0
	1942	4.0	122
6 Tu ◑	0208	0.1	3
	0808	3.1	94
	1405	0.3	9
	2029	3.7	113
7 W	0256	0.3	9
	0859	2.9	88
	1457	0.5	15
	2119	3.4	104
8 Th	0346	0.5	15
	0953	2.9	88
	1553	0.7	21
	2212	3.2	98
9 F	0438	0.6	18
	1050	2.8	85
	1654	0.8	24
	2309	3.0	91
10 Sa	0530	0.7	21
	1147	2.9	88
	1758	0.8	24
11 Su	0007	2.9	88
	0621	0.7	21
	1241	3.1	94
	1858	0.7	21
12 M	0102	2.9	88
	0708	0.6	18
	1330	3.3	101
	1953	0.6	18
13 Tu	0153	2.9	88
	0751	0.5	15
	1415	3.6	110
	2042	0.4	12
14 W ●	0239	3.0	91
	0832	0.4	12
	1458	3.9	119
	2127	0.2	6
15 Th	0321	3.0	91
	0911	0.3	9
	1539	4.1	125
	2210	0.1	3

	Time	Height	
	h m	ft	cm
16 F	0402	3.0	91
	0950	0.2	6
	1619	4.3	131
	2251	0.0	0
17 Sa	0441	3.1	94
	1029	0.1	3
	1659	4.4	134
	2331	0.0	0
18 Su	0520	3.1	94
	1110	0.0	0
	1740	4.4	134
19 M	0010	0.1	3
	0601	3.1	94
	1152	0.1	3
	1822	4.3	131
20 Tu	0051	0.1	3
	0644	3.2	98
	1239	0.1	3
	1906	4.1	125
21 W ◐	0133	0.2	6
	0732	3.3	101
	1330	0.2	6
	1954	3.9	119
22 Th	0219	0.2	6
	0825	3.3	101
	1428	0.4	12
	2046	3.7	113
23 F	0309	0.2	6
	0924	3.5	107
	1533	0.5	15
	2144	3.5	107
24 Sa	0403	0.2	6
	1028	3.6	110
	1644	0.5	15
	2247	3.3	101
25 Su	0502	0.2	6
	1133	3.8	116
	1755	0.5	15
	2353	3.2	98
26 M	0601	0.1	3
	1236	4.1	125
	1903	0.3	9
27 Tu	0057	3.2	98
	0700	0.0	0
	1335	4.4	134
	2004	0.2	6
28 W ○	0157	3.3	101
	0756	−0.1	−3
	1430	4.6	140
	2100	0.0	0
29 Th	0253	3.4	104
	0850	−0.2	−6
	1522	4.7	143
	2151	−0.1	−3
30 F	0345	3.5	107
	0941	−0.2	−6
	1611	4.7	143
	2239	−0.1	−3

May

	Time	Height	
	h m	ft	cm
1 Sa	0435	3.5	107
	1030	−0.1	−3
	1657	4.6	140
	2326	−0.1	−3
2 Su	0523	3.5	107
	1118	0.0	0
	1742	4.5	137
3 M	0010	0.0	0
	0610	3.5	107
	1204	0.2	6
	1827	4.3	131
4 Tu	0054	0.1	3
	0657	3.4	104
	1251	0.4	12
	1910	4.0	122
5 W ◑	0137	0.3	9
	0744	3.3	101
	1339	0.6	18
	1955	3.7	113
6 Th	0221	0.4	12
	0832	3.2	98
	1429	0.8	24
	2041	3.5	107
7 F	0305	0.6	18
	0922	3.2	98
	1524	1.0	30
	2130	3.2	98
8 Sa	0350	0.7	21
	1013	3.3	101
	1623	1.1	34
	2222	3.1	94
9 Su	0436	0.8	24
	1106	3.4	104
	1724	1.0	30
	2318	2.9	88
10 M	0523	0.8	24
	1157	3.5	107
	1824	1.0	30
11 Tu	0014	2.9	88
	0610	0.8	24
	1247	3.8	116
	1920	0.8	24
12 W	0107	2.9	88
	0657	0.7	21
	1334	4.0	122
	2010	0.6	18
13 Th ●	0156	2.9	88
	0742	0.6	18
	1420	4.3	131
	2057	0.5	15
14 F	0243	3.0	91
	0828	0.5	15
	1504	4.5	137
	2141	0.3	9
15 Sa	0328	3.1	94
	0913	0.3	9
	1548	4.6	140
	2223	0.2	6

	Time	Height	
	h m	ft	cm
16 Su	0413	3.2	98
	0959	0.3	9
	1632	4.7	143
	2305	0.1	3
17 M	0458	3.4	104
	1047	0.2	6
	1716	4.6	140
	2347	0.1	3
18 Tu	0544	3.5	107
	1137	0.3	9
	1801	4.5	137
19 W	0029	0.1	3
	0632	3.7	113
	1229	0.3	9
	1848	4.3	131
20 Th ◐	0113	0.1	3
	0724	3.8	116
	1325	0.4	12
	1938	4.1	125
21 F	0159	0.2	6
	0818	3.9	119
	1426	0.6	18
	2030	3.8	116
22 Sa	0249	0.2	6
	0916	4.1	125
	1530	0.7	21
	2127	3.6	110
23 Su	0342	0.2	6
	1017	4.2	128
	1638	0.7	21
	2228	3.4	104
24 M	0438	0.3	9
	1118	4.3	131
	1746	0.7	21
	2332	3.3	101
25 Tu	0536	0.3	9
	1218	4.5	137
	1850	0.6	18
26 W	0035	3.2	98
	0634	0.3	9
	1316	4.6	140
	1949	0.5	15
27 Th ○	0135	3.3	101
	0730	0.3	9
	1409	4.7	143
	2043	0.4	12
28 F	0232	3.4	104
	0825	0.3	9
	1500	4.7	143
	2133	0.3	9
29 Sa	0325	3.4	104
	0916	0.3	9
	1547	4.7	143
	2219	0.2	6
30 Su	0415	3.5	107
	1006	0.4	12
	1633	4.6	140
	2303	0.2	6
31 M	0503	3.6	110
	1054	0.5	15
	1716	4.5	137
	2346	0.3	9

June

	Time	Height	
	h m	ft	cm
1 Tu	0549	3.6	110
	1141	0.6	18
	1759	4.3	131
2 W	0027	0.3	9
	0634	3.6	110
	1227	0.8	24
	1841	4.1	125
3 Th	0107	0.5	15
	0718	3.6	110
	1314	0.9	27
	1922	3.9	119
4 F ◑	0146	0.6	18
	0803	3.6	110
	1402	1.1	34
	2005	3.6	110
5 Sa	0225	0.7	21
	0848	3.6	110
	1453	1.2	37
	2049	3.4	104
6 Su	0304	0.8	24
	0934	3.7	113
	1548	1.2	37
	2136	3.2	98
7 M	0345	0.9	27
	1022	3.8	116
	1646	1.3	40
	2226	3.0	91
8 Tu	0428	0.9	27
	1112	4.0	122
	1744	1.2	37
	2320	2.9	88
9 W	0515	0.9	27
	1202	4.2	128
	1840	1.1	34
10 Th	0015	2.9	88
	0604	0.8	24
	1252	4.4	134
	1933	0.9	27
11 F	0110	3.0	91
	0656	0.7	21
	1342	4.6	140
	2022	0.8	24
12 Sa ●	0203	3.1	94
	0749	0.6	18
	1431	4.7	143
	2109	0.6	18
13 Su	0255	3.3	101
	0843	0.5	15
	1519	4.8	146
	2154	0.4	12
14 M	0346	3.5	107
	0936	0.4	12
	1607	4.9	149
	2238	0.3	9
15 Tu	0436	3.8	116
	1031	0.4	12
	1655	4.8	146
	2323	0.2	6

	Time	Height	
	h m	ft	cm
16 W	0527	4.0	122
	1126	0.4	12
	1743	4.7	143
17 Th	0007	0.1	3
	0619	4.2	128
	1222	0.5	15
	1832	4.5	137
18 F ◐	0053	0.1	3
	0712	4.4	134
	1319	0.6	18
	1922	4.2	128
19 Sa	0140	0.1	3
	0807	4.5	137
	1419	0.7	21
	2015	4.0	122
20 Su	0229	0.2	6
	0903	4.6	140
	1521	0.8	24
	2110	3.7	113
21 M	0321	0.3	9
	1001	4.6	140
	1625	0.9	27
	2209	3.5	107
22 Tu	0415	0.4	12
	1100	4.6	140
	1730	1.0	30
	2310	3.4	104
23 W	0512	0.5	15
	1158	4.7	143
	1832	0.9	27
24 Th	0013	3.3	101
	0610	0.6	18
	1255	4.7	143
	1931	0.9	27
25 F	0114	3.3	101
	0707	0.6	18
	1348	4.7	143
	2024	0.8	24
26 Sa ○	0212	3.4	104
	0803	0.7	21
	1439	4.6	140
	2113	0.7	21
27 Su	0305	3.5	107
	0855	0.7	21
	1526	4.6	140
	2158	0.6	18
28 M	0355	3.6	110
	0945	0.8	24
	1610	4.6	140
	2240	0.6	18
29 Tu	0442	3.7	113
	1033	0.8	24
	1652	4.5	137
	2320	0.5	15
30 W	0526	3.8	116
	1119	0.9	27
	1733	4.3	131
	2358	0.6	18

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Salina Cruz, Mexico, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0608	3.9	119
	1204	1.0	30
	1813	4.2	128
2 F	0035	0.6	18
	0649	3.9	119
	1249	1.1	34
	1852	4.0	122
3 Sa	0110	0.7	21
	0730	4.0	122
	1334	1.2	37
	1931	3.8	116
4 Su ◑	0145	0.8	24
	0811	4.0	122
	1421	1.3	40
	2011	3.5	107
5 M	0220	0.8	24
	0854	4.1	125
	1511	1.3	40
	2052	3.3	101
6 Tu	0258	0.9	27
	0939	4.2	128
	1604	1.4	43
	2138	3.2	98
7 W	0339	0.9	27
	1028	4.3	131
	1700	1.4	43
	2229	3.1	94
8 Th	0427	0.9	27
	1119	4.4	134
	1756	1.3	40
	2325	3.1	94
9 F	0520	0.8	24
	1213	4.5	137
	1852	1.2	37
10 Sa	0026	3.1	94
	0619	0.8	24
	1307	4.6	140
	1945	1.0	30
11 Su ●	0126	3.3	101
	0720	0.7	21
	1401	4.8	146
	2035	0.8	24
12 M	0225	3.6	110
	0820	0.6	18
	1454	4.8	146
	2123	0.5	15
13 Tu	0321	3.9	119
	0920	0.5	15
	1545	4.9	149
	2210	0.3	9
14 W	0416	4.2	128
	1018	0.4	12
	1636	4.8	146
	2257	0.1	3
15 Th	0510	4.5	137
	1115	0.4	12
	1726	4.7	143
	2344	0.0	0

	Time	Height	
	h m	ft	cm
16 F	0603	4.7	143
	1212	0.4	12
	1816	4.6	140
17 Sa	0031	0.0	0
	0656	4.9	149
	1308	0.5	15
	1906	4.3	131
18 Su ◐	0119	0.0	0
	0749	4.9	149
	1405	0.7	21
	1957	4.1	125
19 M	0208	0.1	3
	0844	4.9	149
	1504	0.8	24
	2051	3.8	116
20 Tu	0259	0.3	9
	0940	4.8	146
	1605	1.0	30
	2148	3.6	110
21 W	0353	0.5	15
	1037	4.7	143
	1707	1.1	34
	2248	3.4	104
22 Th	0450	0.7	21
	1136	4.5	137
	1809	1.1	34
	2351	3.3	101
23 F	0549	0.8	24
	1233	4.5	137
	1908	1.1	34
24 Sa	0053	3.3	101
	0648	0.9	27
	1328	4.4	134
	2002	1.0	30
25 Su ○	0152	3.4	104
	0745	1.0	30
	1418	4.4	134
	2050	0.9	27
26 M	0245	3.5	107
	0839	1.0	30
	1505	4.4	134
	2133	0.8	24
27 Tu	0333	3.6	110
	0928	0.9	27
	1549	4.3	131
	2214	0.8	24
28 W	0417	3.8	116
	1015	0.9	27
	1630	4.3	131
	2251	0.7	21
29 Th	0459	3.9	119
	1059	0.9	27
	1709	4.2	128
	2327	0.7	21
30 F	0538	4.0	122
	1142	0.9	27
	1747	4.1	125
31 Sa	0001	0.7	21
	0617	4.1	125
	1224	1.0	30
	1824	3.9	119

August

	Time	Height	
	h m	ft	cm
1 Su	0034	0.7	21
	0655	4.2	128
	1307	1.0	30
	1900	3.7	113
2 M ◑	0107	0.7	21
	0734	4.2	128
	1350	1.1	34
	1936	3.5	107
3 Tu	0140	0.8	24
	0815	4.3	131
	1435	1.2	37
	2014	3.4	104
4 W	0217	0.8	24
	0858	4.3	131
	1523	1.3	40
	2057	3.2	98
5 Th	0259	0.8	24
	0946	4.3	131
	1615	1.3	40
	2147	3.2	98
6 F	0349	0.8	24
	1039	4.3	131
	1711	1.3	40
	2246	3.2	98
7 Sa	0448	0.8	24
	1137	4.4	134
	1809	1.2	37
	2351	3.3	101
8 Su	0553	0.8	24
	1236	4.4	134
	1906	1.0	30
9 M ●	0057	3.5	107
	0701	0.7	21
	1334	4.5	137
	2000	0.7	21
10 Tu	0200	3.9	119
	0806	0.5	15
	1431	4.6	140
	2052	0.5	15
11 W	0259	4.2	128
	0908	0.4	12
	1525	4.6	140
	2142	0.2	6
12 Th	0355	4.6	140
	1007	0.2	6
	1617	4.6	140
	2231	0.0	0
13 F	0449	4.9	149
	1103	0.2	6
	1708	4.6	140
	2319	−0.1	−3
14 Sa	0542	5.0	152
	1157	0.2	6
	1758	4.4	134
15 Su	0007	−0.2	−6
	0634	5.1	155
	1251	0.3	9
	1847	4.2	128

	Time	Height	
	h m	ft	cm
16 M ◐	0056	−0.1	−3
	0726	5.0	152
	1345	0.5	15
	1938	4.0	122
17 Tu	0146	0.1	3
	0819	4.8	146
	1441	0.7	21
	2031	3.8	116
18 W	0237	0.3	9
	0913	4.6	140
	1538	0.9	27
	2126	3.5	107
19 Th	0331	0.6	18
	1010	4.4	134
	1638	1.0	30
	2226	3.3	101
20 F	0429	0.8	24
	1109	4.2	128
	1739	1.1	34
	2329	3.2	98
21 Sa	0530	0.9	27
	1208	4.0	122
	1838	1.1	34
22 Su	0032	3.2	98
	0632	1.0	30
	1304	4.0	122
	1932	1.1	34
23 M	0130	3.3	101
	0730	1.0	30
	1356	3.9	119
	2020	1.0	30
24 Tu ○	0221	3.5	107
	0823	0.9	27
	1443	3.9	119
	2102	0.9	27
25 W	0307	3.6	110
	0911	0.8	24
	1526	4.0	122
	2141	0.8	24
26 Th	0349	3.8	116
	0956	0.7	21
	1606	3.9	119
	2217	0.7	21
27 F	0428	4.0	122
	1039	0.7	21
	1645	3.9	119
	2252	0.6	18
28 Sa	0506	4.1	125
	1120	0.6	18
	1721	3.8	116
	2325	0.6	18
29 Su	0543	4.2	128
	1200	0.7	21
	1757	3.7	113
	2357	0.6	18
30 M	0620	4.3	131
	1240	0.7	21
	1831	3.5	107
31 Tu	0030	0.6	18
	0658	4.3	131
	1320	0.8	24
	1906	3.4	104

September

	Time	Height	
	h m	ft	cm
1 W ◑	0105	0.6	18
	0738	4.3	131
	1401	0.9	27
	1944	3.3	101
2 Th	0144	0.6	18
	0821	4.2	128
	1446	1.0	30
	2027	3.2	98
3 F	0229	0.6	18
	0909	4.1	125
	1535	1.1	34
	2118	3.2	98
4 Sa	0324	0.7	21
	1004	4.0	122
	1630	1.0	30
	2219	3.2	98
5 Su	0428	0.7	21
	1105	4.0	122
	1729	0.9	27
	2327	3.4	104
6 M	0538	0.6	18
	1208	4.0	122
	1828	0.7	21
7 Tu	0035	3.7	113
	0649	0.5	15
	1310	4.0	122
	1926	0.5	15
8 W	0139	4.0	122
	0756	0.3	9
	1409	4.1	125
●	2021	0.2	6
9 Th	0239	4.4	134
	0857	0.1	3
	1505	4.2	128
	2113	−0.1	−3
10 F	0334	4.7	143
	0954	−0.1	−3
	1557	4.2	128
	2204	−0.3	−9
11 Sa	0427	4.9	149
	1048	−0.2	−6
	1648	4.2	128
	2254	−0.4	−12
12 Su	0519	5.0	152
	1140	−0.1	−3
	1738	4.1	125
	2343	−0.3	−9
13 M	0609	5.0	152
	1231	0.0	0
	1828	4.0	122
14 Tu ◐	0032	−0.2	−6
	0659	4.8	146
	1322	0.1	3
	1918	3.8	116
15 W	0122	0.0	0
	0750	4.5	137
	1413	0.4	12
	2010	3.6	110

	Time	Height	
	h m	ft	cm
16 Th	0214	0.3	9
	0843	4.2	128
	1507	0.6	18
	2104	3.3	101
17 F	0308	0.5	15
	0938	3.9	119
	1603	0.8	24
	2202	3.2	98
18 Sa	0407	0.7	21
	1036	3.6	110
	1702	0.9	27
	2304	3.1	94
19 Su	0511	0.9	27
	1136	3.5	107
	1759	0.9	27
20 M	0005	3.1	94
	0614	0.9	27
	1235	3.4	104
	1853	0.9	27
21 Tu	0101	3.2	98
	0712	0.8	24
	1328	3.4	104
	1941	0.8	24
22 W	0151	3.4	104
	0805	0.7	21
	1416	3.4	104
	2023	0.7	21
23 Th ○	0235	3.6	110
	0852	0.6	18
	1459	3.4	104
	2102	0.6	18
24 F	0316	3.8	116
	0935	0.4	12
	1540	3.4	104
	2138	0.5	15
25 Sa	0355	4.0	122
	1017	0.3	9
	1618	3.4	104
	2214	0.4	12
26 Su	0433	4.1	125
	1057	0.2	6
	1654	3.4	104
	2248	0.3	9
27 M	0510	4.2	128
	1135	0.3	9
	1730	3.3	101
	2323	0.3	9
28 Tu	0548	4.2	128
	1214	0.3	9
	1805	3.2	98
	2358	0.3	9
29 W	0626	4.2	128
	1252	0.4	12
	1842	3.1	94
30 Th ◑	0037	0.3	9
	0706	4.1	125
	1332	0.5	15
	1922	3.1	94

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Salina Cruz, Mexico, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0120	0.3	9
	0750	3.9	119
	1414	0.6	18
	2008	3.1	94
2 Sa	0210	0.4	12
	0839	3.7	113
	1502	0.6	18
	2102	3.2	98
3 Su	0310	0.5	15
	0935	3.6	110
	1555	0.6	18
	2204	3.3	101
4 M	0418	0.5	15
	1037	3.4	104
	1654	0.5	15
	2311	3.5	107
5 Tu	0531	0.4	12
	1143	3.4	104
	1754	0.3	9
6 W	0018	3.8	116
	0641	0.3	9
	1247	3.4	104
	1854	0.1	3
7 Th ●	0120	4.1	125
	0746	0.0	0
	1348	3.5	107
	1951	−0.1	−3
8 F	0218	4.4	134
	0845	−0.2	−6
	1444	3.6	110
	2045	−0.3	−9
9 Sa	0313	4.7	143
	0939	−0.4	−12
	1538	3.7	113
	2138	−0.5	−15
10 Su	0404	4.8	146
	1030	−0.5	−15
	1629	3.7	113
	2228	−0.5	−15
11 M	0455	4.8	146
	1120	−0.5	−15
	1719	3.7	113
	2318	−0.4	−12
12 Tu	0543	4.6	140
	1208	−0.4	−12
	1808	3.6	110
13 W	0008	−0.3	−9
	0632	4.4	134
	1256	−0.2	−6
	1858	3.5	107
14 Th ◐	0058	−0.1	−3
	0720	4.1	125
	1345	0.0	0
	1948	3.3	101
15 F	0150	0.2	6
	0810	3.7	113
	1434	0.2	6
	2041	3.1	94

	Time	Height	
	h m	ft	cm
16 Sa	0244	0.4	12
	0902	3.4	104
	1525	0.4	12
	2136	3.0	91
17 Su	0343	0.6	18
	0958	3.1	94
	1618	0.6	18
	2234	3.0	91
18 M	0445	0.7	21
	1056	2.9	88
	1711	0.7	21
	2331	3.0	91
19 Tu	0548	0.7	21
	1155	2.8	85
	1803	0.7	21
20 W	0024	3.1	94
	0647	0.6	18
	1250	2.8	85
	1851	0.6	18
21 Th	0113	3.3	101
	0740	0.5	15
	1341	2.8	85
	1935	0.5	15
22 F ○	0158	3.5	107
	0827	0.3	9
	1426	2.8	85
	2016	0.4	12
23 Sa	0240	3.7	113
	0911	0.1	3
	1508	2.9	88
	2056	0.3	9
24 Su	0320	3.9	119
	0952	0.0	0
	1548	2.9	88
	2134	0.2	6
25 M	0400	4.0	122
	1032	−0.1	−3
	1627	2.9	88
	2213	0.1	3
26 Tu	0439	4.1	125
	1111	−0.1	−3
	1705	2.9	88
	2252	0.0	0
27 W	0519	4.1	125
	1149	−0.1	−3
	1743	3.0	91
	2333	0.0	0
28 Th	0559	4.0	122
	1227	−0.1	−3
	1824	3.0	91
29 F	0018	0.0	0
	0641	3.8	116
	1307	0.0	0
	1908	3.1	94
30 Sa ◑	0106	0.1	3
	0726	3.6	110
	1349	0.0	0
	1957	3.1	94
31 Su	0201	0.2	6
	0816	3.4	104
	1436	0.1	3
	2052	3.3	101

November

	Time	Height	
	h m	ft	cm
1 M	0304	0.3	9
	0912	3.1	94
	1527	0.1	3
	2153	3.4	104
2 Tu	0413	0.3	9
	1013	3.0	91
	1624	0.0	0
	2257	3.6	110
3 W	0523	0.2	6
	1119	2.9	88
	1724	−0.1	−3
4 Th	0001	3.8	116
	0631	0.1	3
	1224	2.9	88
	1824	−0.2	−6
5 F ●	0101	4.1	125
	0734	−0.1	−3
	1326	2.9	88
	1923	−0.3	−9
6 Sa	0158	4.3	131
	0831	−0.3	−9
	1424	3.1	94
	2019	−0.5	−15
7 Su	0252	4.4	134
	0923	−0.5	−15
	1518	3.2	98
	2113	−0.5	−15
8 M	0342	4.5	137
	1013	−0.6	−18
	1610	3.3	101
	2205	−0.5	−15
9 Tu	0431	4.4	134
	1100	−0.6	−18
	1700	3.3	101
	2256	−0.4	−12
10 W	0519	4.2	128
	1146	−0.6	−18
	1749	3.3	101
	2346	−0.3	−9
11 Th	0605	4.0	122
	1231	−0.4	−12
	1838	3.2	98
12 F	0035	−0.1	−3
	0651	3.7	113
	1316	−0.3	−9
	1926	3.1	94
13 Sa ◐	0126	0.1	3
	0737	3.4	104
	1400	−0.1	−3
	2015	3.0	91
14 Su	0218	0.3	9
	0825	3.1	94
	1445	0.1	3
	2106	3.0	91
15 M	0313	0.5	15
	0915	2.8	85
	1531	0.2	6
	2157	3.0	91

	Time	Height	
	h m	ft	cm
16 Tu	0413	0.6	18
	1009	2.6	79
	1618	0.4	12
	2249	3.0	91
17 W	0513	0.6	18
	1105	2.4	73
	1706	0.4	12
	2341	3.1	94
18 Th	0612	0.5	15
	1202	2.3	70
	1754	0.4	12
19 F	0030	3.3	101
	0707	0.3	9
	1255	2.3	70
	1841	0.3	9
20 Sa	0117	3.5	107
	0756	0.2	6
	1345	2.4	73
	1927	0.2	6
21 Su ○	0202	3.7	113
	0842	0.0	0
	1432	2.4	73
	2012	0.1	3
22 M	0246	3.8	116
	0925	−0.2	−6
	1515	2.5	76
	2057	0.0	0
23 Tu	0329	3.9	119
	1006	−0.3	−9
	1558	2.7	82
	2142	−0.1	−3
24 W	0411	4.0	122
	1045	−0.4	−12
	1641	2.8	85
	2228	−0.2	−6
25 Th	0454	3.9	119
	1125	−0.4	−12
	1724	2.9	88
	2316	−0.2	−6
26 F	0537	3.8	116
	1204	−0.4	−12
	1809	3.1	94
27 Sa	0006	−0.2	−6
	0622	3.6	110
	1245	−0.4	−12
	1857	3.2	98
28 Su ◑	0059	−0.1	−3
	0708	3.4	104
	1328	−0.4	−12
	1948	3.4	104
29 M	0157	0.0	0
	0758	3.2	98
	1414	−0.4	−12
	2043	3.5	107
30 Tu	0259	0.1	3
	0853	2.9	88
	1504	−0.4	−12
	2141	3.6	110

December

	Time	Height	
	h m	ft	cm
1 W	0405	0.1	3
	0952	2.7	82
	1559	−0.3	−9
	2241	3.8	116
2 Th	0512	0.1	3
	1056	2.6	79
	1657	−0.3	−9
	2342	3.9	119
3 F	0618	0.0	0
	1201	2.5	76
	1758	−0.3	−9
4 Sa	0042	4.0	122
	0719	−0.2	−6
	1305	2.6	79
	1858	−0.4	−12
5 Su ●	0138	4.1	125
	0815	−0.3	−9
	1405	2.7	82
	1956	−0.4	−12
6 M	0232	4.1	125
	0906	−0.4	−12
	1501	2.8	85
	2052	−0.4	−12
7 Tu	0322	4.1	125
	0955	−0.5	−15
	1553	3.0	91
	2145	−0.4	−12
8 W	0410	4.0	122
	1040	−0.6	−18
	1643	3.1	94
	2236	−0.3	−9
9 Th	0456	3.9	119
	1124	−0.6	−18
	1731	3.1	94
	2326	−0.2	−6
10 F	0540	3.7	113
	1206	−0.5	−15
	1817	3.1	94
11 Sa	0014	0.0	0
	0624	3.4	104
	1247	−0.4	−12
	1902	3.1	94
12 Su	0102	0.1	3
	0706	3.2	98
	1326	−0.3	−9
	1946	3.1	94
13 M ◐	0150	0.2	6
	0749	2.9	88
	1406	−0.1	−3
	2031	3.1	94
14 Tu	0241	0.4	12
	0833	2.7	82
	1445	0.0	0
	2117	3.1	94
15 W	0334	0.5	15
	0920	2.4	73
	1526	0.1	3
	2204	3.1	94

	Time	Height	
	h m	ft	cm
16 Th	0431	0.5	15
	1011	2.2	67
	1609	0.2	6
	2253	3.2	98
17 F	0529	0.4	12
	1105	2.1	64
	1656	0.2	6
	2343	3.3	101
18 Sa	0625	0.4	12
	1202	2.1	64
	1746	0.2	6
19 Su	0034	3.5	107
	0719	0.2	6
	1257	2.1	64
	1838	0.1	3
20 M	0123	3.6	110
	0807	0.0	0
	1351	2.2	67
	1932	0.0	0
21 Tu ○	0212	3.7	113
	0853	−0.1	−3
	1441	2.4	73
	2025	−0.1	−3
22 W	0300	3.8	116
	0936	−0.3	−9
	1530	2.7	82
	2118	−0.2	−6
23 Th	0346	3.9	119
	1018	−0.5	−15
	1618	2.9	88
	2211	−0.3	−9
24 F	0432	3.9	119
	1059	−0.6	−18
	1706	3.2	98
	2304	−0.3	−9
25 Sa	0519	3.7	113
	1141	−0.7	−21
	1754	3.4	104
	2358	−0.3	−9
26 Su	0605	3.6	110
	1224	−0.7	−21
	1844	3.6	110
27 M ◑	0052	−0.3	−9
	0653	3.4	104
	1308	−0.7	−21
	1935	3.8	116
28 Tu	0149	−0.2	−6
	0743	3.1	94
	1354	−0.7	−21
	2029	3.8	116
29 W	0248	−0.1	−3
	0836	2.9	88
	1444	−0.6	−18
	2124	3.9	119
30 Th	0350	0.0	0
	0933	2.6	79
	1537	−0.5	−15
	2223	3.9	119
31 F	0455	0.1	3
	1034	2.5	76
	1634	−0.4	−12
	2322	3.9	119

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.

Guaymas, Mexico, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0039	2.3	70
	0351	2.0	61
	0833	2.5	76
	1657	−1.9	−58
2 Sa	0117	2.2	67
	0440	1.8	55
	0908	2.3	70
	1733	−1.5	−46
3 Su	0154	2.0	61
	0537	1.7	52
	0935	1.9	58
	1806	−1.0	−30
4 M	0227	1.9	58
	0656	1.4	43
	0935	1.5	46
	1829	−0.4	−12
5 Tu	0256	1.8	55
	1835	0.2	6
6 W	0320	1.8	55
	1318	0.3	9
7 Th ◑	0338	1.8	55
	1327	−0.2	−6
8 F	0342	1.8	55
	1349	−0.7	−21
9 Sa	0038	2.0	61
	1414	−1.0	−30
10 Su	0052	2.1	64
	1438	−1.2	−37
11 M	0122	2.1	64
	1500	−1.3	−40
12 Tu	0638	2.1	64
	1522	−1.4	−43
	2352	1.9	58
13 W	0159	1.8	55
	0721	2.2	67
	1543	−1.4	−43
	2354	1.9	58
14 Th	0236	1.7	52
	0756	2.2	67
	1604	−1.4	−43
15 F ●	0008	1.8	55
	0311	1.6	49
	0825	2.2	67
	1626	−1.3	−40

	Time	Height	
	h m	ft	cm
16 Sa	0027	1.8	55
	0346	1.4	43
	0850	2.1	64
	1647	−1.1	−34
17 Su	0047	1.7	52
	0422	1.3	40
	0911	1.9	58
	1707	−0.8	−24
18 M	0104	1.6	49
	0501	1.2	37
	0932	1.7	52
	1725	−0.5	−15
19 Tu	0114	1.6	49
	0545	1.0	30
	0955	1.4	43
	1739	−0.2	−6
20 W	0107	1.5	46
	0640	0.8	24
	1020	1.1	34
	1744	0.1	3
21 Th	0041	1.6	49
	0755	0.6	18
	1045	0.7	21
	1635	0.4	12
22 F	0030	1.7	52
	1345	0.2	6
23 Sa ◐	0038	1.9	58
	1241	−0.2	−6
24 Su	0057	2.0	61
	1300	−0.7	−21
25 M	0126	2.0	61
	1334	−1.2	−37
	2246	2.1	64
26 Tu	0057	2.0	61
	0433	2.1	64
	1412	−1.6	−49
	2236	2.2	67
27 W	0205	2.0	61
	0631	2.2	67
	1450	−1.9	−58
	2254	2.3	70
28 Th	0243	1.8	55
	0733	2.4	73
	1527	−2.0	−61
	2318	2.2	67
29 F ○	0320	1.6	49
	0826	2.4	73
	1604	−1.9	−58
	2344	2.2	67
30 Sa	0400	1.4	43
	0916	2.3	70
	1637	−1.5	−46
31 Su	0008	2.0	61
	0443	1.1	34
	1005	2.0	61
	1707	−1.0	−30

February

	Time	Height	
	h m	ft	cm
1 M	0030	1.9	58
	0529	0.8	24
	1055	1.6	49
	1729	−0.4	−12
2 Tu	0047	1.8	55
	0623	0.5	15
	1157	1.1	34
	1738	0.2	6
3 W	0052	1.8	55
	0732	0.3	9
	1424	0.7	21
	1705	0.6	18
4 Th	0019	1.8	55
	1135	0.1	3
	2322	2.0	61
5 F ◑	1245	−0.3	−9
	2313	2.1	64
6 Sa	1327	−0.7	−21
	2321	2.2	67
7 Su	1400	−0.9	−27
	2333	2.2	67
8 M	1428	−1.0	−30
	2331	2.1	64
9 Tu	1449	−1.1	−34
	2302	2.0	61
10 W	0356	1.7	52
	0707	1.9	58
	1508	−1.1	−34
	2250	1.9	58
11 Th	0302	1.6	49
	0750	2.0	61
	1524	−1.1	−34
	2253	1.8	55
12 F	0300	1.3	40
	0825	2.0	61
	1540	−1.0	−30
	2303	1.8	55
13 Sa ●	0320	1.1	34
	0857	2.0	61
	1558	−0.9	−27
	2315	1.8	55
14 Su	0348	0.9	27
	0927	1.9	58
	1615	−0.7	−21
	2325	1.7	52
15 M	0418	0.7	21
	0954	1.8	55
	1632	−0.4	−12
	2329	1.7	52

	Time	Height	
	h m	ft	cm
16 Tu	0450	0.5	15
	1022	1.5	46
	1647	−0.1	−3
	2322	1.7	52
17 W	0525	0.3	9
	1051	1.3	40
	1658	0.2	6
	2309	1.8	55
18 Th	0607	0.2	6
	1126	1.0	30
	1651	0.6	18
	2303	1.9	58
19 F	0702	0.1	3
	2308	2.1	64
20 Sa	0825	0.0	0
	2319	2.2	67
21 Su ◐	1050	−0.3	−9
	2328	2.2	67
22 M	1225	−0.7	−21
	2301	2.2	67
23 Tu	1313	−1.1	−34
	2152	2.3	70
24 W	1354	−1.4	−43
	2152	2.3	70
25 Th	0245	1.7	52
	0656	2.1	64
	1431	−1.5	−46
	2206	2.3	70
26 F	0252	1.4	43
	0757	2.2	67
	1506	−1.4	−43
	2223	2.2	67
27 Sa	0319	1.0	30
	0852	2.2	67
	1539	−1.1	−34
	2241	2.1	64
28 Su ○	0353	0.6	18
	0946	2.1	64
	1608	−0.7	−21
	2257	2.1	64

March

	Time	Height	
	h m	ft	cm
1 M	0430	0.2	6
	1040	1.9	58
	1631	−0.1	−3
	2308	2.0	61
2 Tu	0510	−0.1	−3
	1141	1.6	49
	1645	0.4	12
	2309	2.0	61
3 W	0552	−0.2	−6
	1302	1.2	37
	1640	0.9	27
	2248	2.1	64
4 Th	0641	−0.2	−6
	2218	2.2	67
5 F	0747	−0.2	−6
	2209	2.3	70
6 Sa	1131	−0.2	−6
	2215	2.4	73
7 Su ◑	1247	−0.4	−12
	2225	2.4	73
8 M	1329	−0.5	−15
	2227	2.3	70
9 Tu	1359	−0.6	−18
	2208	2.1	64
10 W	0406	1.5	46
	0628	1.6	49
	1420	−0.6	−18
	2148	2.0	61
11 Th	0334	1.4	43
	0720	1.7	52
	1435	−0.6	−18
	2143	1.9	58
12 F	0301	1.2	37
	0801	1.8	55
	1448	−0.5	−15
	2148	1.9	58
13 Sa	0256	0.9	27
	0838	1.9	58
	1503	−0.4	−12
	2156	1.9	58
14 Su	0311	0.6	18
	0914	1.9	58
	1519	−0.2	−6
	2203	1.9	58
15 M ●	0335	0.3	9
	0951	1.8	55
	1537	0.1	3
	2207	2.0	61

	Time	Height	
	h m	ft	cm
16 Tu	0403	0.0	0
	1029	1.7	52
	1555	0.4	12
	2205	2.0	61
17 W	0433	−0.2	−6
	1112	1.6	49
	1610	0.7	21
	2157	2.1	64
18 Th	0507	−0.3	−9
	1210	1.4	43
	1617	1.0	30
	2154	2.2	67
19 F	0547	−0.4	−12
	2158	2.3	70
20 Sa	0638	−0.4	−12
	2208	2.4	73
21 Su	0750	−0.4	−12
	2216	2.5	76
22 M	0941	−0.4	−12
	2208	2.5	76
23 Tu ◐	1133	−0.6	−18
	2108	2.4	73
24 W	1236	−0.8	−24
	2049	2.4	73
25 Th	0325	1.6	49
	0559	1.7	52
	1322	−0.8	−24
	2055	2.4	73
26 F	0242	1.2	37
	0718	1.9	58
	1400	−0.7	−21
	2106	2.3	70
27 Sa	0247	0.8	24
	0819	2.0	61
	1434	−0.4	−12
	2120	2.3	70
28 Su	0310	0.3	9
	0916	2.1	64
	1504	0.0	0
	2133	2.3	70
29 M ○	0341	−0.2	−6
	1013	2.0	61
	1529	0.5	15
	2143	2.3	70
30 Tu	0414	−0.5	−15
	1112	1.9	58
	1547	0.9	27
	2147	2.3	70
31 W	0450	−0.7	−21
	1221	1.7	52
	1554	1.3	40
	2138	2.4	73

Time meridian 105° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Guaymas, Mexico, 2010

Times and Heights of High and Low Waters

April

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Th	0528 2120	−0.7 −21 2.5 76	16 F	0457 2058	−0.7 −21 2.7 82
2 F	0609 2113	−0.6 −18 2.6 79	17 Sa	0540 2108	−0.8 −24 2.8 85
3 Sa	0658 2117	−0.4 −12 2.6 79	18 Su	0631 2117	−0.7 −21 2.8 85
4 Su	0809 2126	−0.2 −6 2.6 79	19 M	0735 2116	−0.6 −18 2.7 82
5 M	1113 2131	−0.1 −3 2.5 76	20 Tu	0858 2018	−0.4 −12 2.6 79
6 Tu ◑	1225 2115	−0.1 −3 2.3 70	21 W ◐	1029 1940	−0.3 −9 2.6 79
7 W	1301 2045	0.0 0 2.2 67	22 Th	1141 1941	−0.1 −3 2.5 76
8 Th	0339 0625 1323 2034	1.3 40 1.4 43 0.0 0 2.1 64	23 F	0247 0627 1234 1950	1.2 37 1.5 46 0.1 3 2.5 76
9 F	0309 0720 1339 2034	1.1 34 1.6 49 0.2 6 2.1 64	24 Sa	0228 0744 1315 2001	0.7 21 1.7 52 0.5 15 2.5 76
10 Sa	0242 0806 1354 2039	0.8 24 1.7 52 0.3 9 2.1 64	25 Su	0237 0849 1349 2013	0.2 6 1.9 58 0.8 24 2.6 79
11 Su	0239 0849 1412 2045	0.5 15 1.8 55 0.5 15 2.2 67	26 M	0300 0949 1416 2024	−0.3 −9 2.1 64 1.2 37 2.6 79
12 M	0255 0931 1433 2050	0.1 3 1.9 58 0.7 21 2.2 67	27 Tu	0329 1048 1438 2030	−0.7 −21 2.1 64 1.6 49 2.7 82
13 Tu	0319 1016 1455 2052	−0.2 −6 1.9 58 1.0 30 2.3 70	28 W ○	0401 1152 1453 2031	−0.9 −27 2.1 64 1.9 58 2.8 85
14 W ●	0348 1106 1516 2051	−0.5 −15 1.9 58 1.2 37 2.4 73	29 Th	0435 2025	−0.9 −27 2.8 85
15 Th	0420 1207 1533 2053	−0.7 −21 1.8 55 1.5 46 2.5 76	30 F	0511 2023	−0.9 −27 2.9 88

May

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Sa	0548 2029	−0.7 −21 2.9 88	16 Su	0539 2037	−0.9 −27 3.1 94
2 Su	0629 2039	−0.4 −12 2.8 85	17 M	0627 2042	−0.8 −24 3.0 91
3 M	0716 2047	−0.2 −6 2.7 82	18 Tu	0719 1941	−0.5 −15 2.8 85
4 Tu	0814 2037	0.1 3 2.5 76	19 W	0816 1811	−0.1 −3 2.7 82
5 W ◑	0925 1942	0.4 12 2.4 73	20 Th ◐	0917 1817	0.3 9 2.7 82
6 Th	1036 1920	0.6 18 2.3 70	21 F	0253 0504 1018 1828	1.3 40 1.4 43 0.8 24 2.7 82
7 F	0322 0612 1126 1917	1.2 37 1.3 40 0.8 24 2.3 70	22 Sa	0214 0711 1113 1841	0.9 27 1.6 49 1.2 37 2.7 82
8 Sa	0246 0724 1203 1921	1.0 30 1.5 46 1.0 30 2.3 70	23 Su	0214 0836 1200 1853	0.4 12 1.9 58 1.6 49 2.8 85
9 Su	0219 0819 1236 1926	0.6 18 1.7 52 1.2 37 2.4 73	24 M	0230 0946 1236 1905	−0.1 −3 2.2 67 2.0 61 2.9 88
10 M	0219 0908 1308 1932	0.2 6 1.9 58 1.4 43 2.5 76	25 Tu	0254 1047 1305 1916	−0.5 −15 2.4 73 2.3 70 3.0 91
11 Tu	0237 0957 1340 1939	−0.1 −3 2.1 64 1.6 49 2.7 82	26 W	0322 1926	−0.7 −21 3.1 94
12 W	0304 1048 1412 1946	−0.5 −15 2.2 67 1.8 55 2.8 85	27 Th ○	0353 1934	−0.8 −24 3.2 98
13 Th ●	0337 1146 1441 1956	−0.8 −24 2.3 70 2.1 64 2.9 88	28 F	0425 1944	−0.8 −24 3.2 98
14 F	0414 1255 1504 2009	−0.9 −27 2.4 73 2.3 70 3.0 91	29 Sa	0458 1957	−0.7 −21 3.2 98
15 Sa	0454 2023	−1.0 −30 3.1 94	30 Su	0532 2011	−0.5 −15 3.1 94
			31 M	0605 2026	−0.3 −9 3.0 91

June

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Tu	0638 2034	0.0 0 2.8 85	16 W	0654 1604	0.0 0 2.9 88
2 W	0710 1837	0.3 9 2.6 79	17 Th	0729 1629	0.5 15 2.9 88
3 Th	0741 1748	0.6 18 2.5 76	18 F ◐	0756 1650	1.1 34 2.9 88
4 F ◑	0812 1749	1.0 30 2.5 76	19 Sa	0145 1709	1.2 37 2.9 88
5 Sa	0312 0613 0847 1753	1.3 40 1.4 43 1.3 40 2.6 79	20 Su	0146 1725	0.7 21 3.0 91
6 Su	0224 1759	1.0 30 2.7 82	21 M	0203 1741	0.3 9 3.1 94
7 M	0154 1806	0.7 21 2.8 85	22 Tu	0227 1800	−0.1 −3 3.3 101
8 Tu	0159 0953 1148 1819	0.2 6 2.3 70 2.2 67 3.0 91	23 W	0253 1824	−0.3 −9 3.4 104
9 W	0222 1035 1247 1838	−0.2 −6 2.5 76 2.4 73 3.1 94	24 Th	0321 1853	−0.5 −15 3.4 104
10 Th	0254 1119 1337 1903	−0.5 −15 2.7 82 2.6 79 3.3 101	25 F	0349 1923	−0.5 −15 3.5 107
11 F	0331 1207 1423 1930	−0.8 −24 2.9 88 2.8 85 3.4 104	26 Sa ○	0417 1950	−0.5 −15 3.4 104
12 Sa ●	0411 1300 1505 1958	−0.9 −27 3.0 91 2.9 88 3.5 107	27 Su	0444 2013	−0.3 −9 3.4 104
13 Su	0452 1355 1550 2024	−0.9 −27 3.0 91 2.9 88 3.4 104	28 M	0511 2034	−0.1 −3 3.2 98
14 M	0533 2045	−0.8 −24 3.3 101	29 Tu	0536 1437 1642 2053	0.1 3 2.8 85 2.7 82 3.1 94
15 Tu	0615 1531 1808 2052	−0.5 −15 3.0 91 2.9 88 3.0 91	30 W	0559 1503 1742 2111	0.4 12 2.7 82 2.6 79 2.8 85

Time meridian 105° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Guaymas, Mexico, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0619	0.7	21
	1524	2.7	82
	1901	2.5	76
	2125	2.6	79
2 F	0635	1.1	34
	1538	2.7	82
3 Sa	0638	1.4	43
	1542	2.7	82
4 Su ◑	0250	1.5	46
	1531	2.8	85
5 M	0153	1.2	37
	1521	2.9	88
6 Tu	0125	0.8	24
	1602	3.1	94
7 W	0140	0.4	12
	1706	3.3	101
8 Th	0210	0.0	0
	1804	3.5	107
9 F	0246	−0.4	−12
	1115	3.2	98
	1340	3.1	94
	1856	3.6	110
10 Sa	0324	−0.6	−18
	1144	3.3	101
	1436	3.1	94
	1943	3.7	113
11 Su ●	0402	−0.7	−21
	1217	3.3	101
	1526	3.0	91
	2028	3.7	113
12 M	0440	−0.6	−18
	1250	3.3	101
	1616	2.9	88
	2111	3.6	110
13 Tu	0517	−0.3	−9
	1323	3.2	98
	1710	2.7	82
	2152	3.3	101
14 W	0550	0.2	6
	1353	3.1	94
	1815	2.5	76
	2230	2.8	85
15 Th	0618	0.7	21
	1419	3.0	91
	1943	2.2	67
	2250	2.3	70

	Time	Height	
	h m	ft	cm
16 F	0633	1.4	43
	1441	3.0	91
17 Sa	0020	1.8	55
	1455	3.0	91
18 Su ◐	0046	1.2	37
	1424	3.1	94
19 M	0119	0.8	24
	1233	3.3	101
20 Tu	0152	0.4	12
	1240	3.4	104
21 W	0223	0.2	6
	1307	3.4	104
22 Th	0250	0.0	0
	1828	3.4	104
23 F	0315	0.0	0
	1917	3.5	107
24 Sa	0338	0.0	0
	1146	3.2	98
	1420	3.1	94
	1957	3.5	107
25 Su ○	0359	0.0	0
	1155	3.1	94
	1457	2.9	88
	2030	3.5	107
26 M	0420	0.2	6
	1211	3.1	94
	1533	2.7	82
	2058	3.4	104
27 Tu	0441	0.4	12
	1228	3.0	91
	1610	2.6	79
	2122	3.3	101
28 W	0500	0.6	18
	1245	2.9	88
	1648	2.4	73
	2143	3.1	94
29 Th	0518	0.9	27
	1255	2.9	88
	1728	2.3	70
	2203	2.8	85
30 F	0532	1.3	40
	1249	2.9	88
	1816	2.1	64
	2226	2.5	76
31 Sa	0538	1.6	49
	1220	2.9	88
	1918	2.0	61
	2250	2.2	67

August

	Time	Height	
	h m	ft	cm
1 Su	0508	1.9	58
	1205	3.1	94
	2052	1.7	52
	2311	1.8	55
2 M ◑	0149	1.7	52
	1213	3.2	98
3 Tu	0042	1.4	43
	1235	3.3	101
4 W	0046	1.0	30
	1308	3.4	104
5 Th	0118	0.5	15
	1457	3.4	104
6 F	0154	0.1	3
	1020	3.4	104
	1321	3.3	101
	1814	3.5	107
7 Sa	0230	−0.2	−6
	1031	3.5	107
	1409	3.1	94
	1918	3.7	113
8 Su	0307	−0.3	−9
	1052	3.5	107
	1450	2.9	88
	2012	3.8	116
9 M ●	0344	−0.3	−9
	1116	3.5	107
	1531	2.6	79
	2103	3.8	116
10 Tu	0418	0.0	0
	1139	3.4	104
	1615	2.3	70
	2155	3.6	110
11 W	0450	0.5	15
	1201	3.3	101
	1701	2.0	61
	2250	3.2	98
12 Th	0516	1.0	30
	1218	3.2	98
	1751	1.8	55
	2357	2.8	85
13 F	0532	1.6	49
	1225	3.1	94
	1851	1.6	49
14 Sa	0153	2.4	73
	0523	2.1	64
	1201	3.2	98
	2020	1.4	43
15 Su	1105	3.3	101
	2340	1.2	37

	Time	Height	
	h m	ft	cm
16 M ◐	1050	3.5	107
17 Tu	0049	0.8	24
	1056	3.6	110
18 W	0134	0.6	18
	1107	3.6	110
19 Th	0208	0.4	12
	1105	3.5	107
20 F	0235	0.4	12
	1041	3.3	101
	1538	3.1	94
	1900	3.3	101
21 Sa	0256	0.4	12
	1029	3.2	98
	1451	2.9	88
	1943	3.4	104
22 Su	0313	0.4	12
	1031	3.2	98
	1445	2.6	79
	2021	3.4	104
23 M	0329	0.6	18
	1040	3.1	94
	1504	2.4	73
	2055	3.4	104
24 Tu ○	0345	0.7	21
	1051	3.1	94
	1530	2.1	64
	2127	3.3	101
25 W	0402	0.9	27
	1101	3.0	91
	1559	1.9	58
	2157	3.1	94
26 Th	0419	1.2	37
	1104	3.0	91
	1630	1.7	52
	2226	2.9	88
27 F	0434	1.5	46
	1055	3.0	91
	1703	1.6	49
	2256	2.7	82
28 Sa	0445	1.8	55
	1039	3.1	94
	1741	1.5	46
	2331	2.4	73
29 Su	0442	2.0	61
	1034	3.2	98
	1829	1.4	43
30 M	1040	3.3	101
	1939	1.4	43
31 Tu	1053	3.4	104
	2140	1.2	37

September

	Time	Height	
	h m	ft	cm
1 W ◑	1106	3.5	107
	2351	0.9	27
2 Th	1050	3.4	104
3 F	0046	0.5	15
	0924	3.4	104
4 Sa	0127	0.2	6
	0922	3.4	104
	1412	2.9	88
	1838	3.3	101
5 Su	0205	0.1	3
	0934	3.4	104
	1421	2.6	79
	1939	3.5	107
6 M	0241	0.1	3
	0951	3.4	104
	1449	2.1	64
	2035	3.5	107
7 Tu	0315	0.4	12
	1009	3.3	101
	1524	1.7	52
	2129	3.5	107
8 W ●	0347	0.8	24
	1025	3.3	101
	1602	1.3	40
	2226	3.3	101
9 Th	0414	1.3	40
	1037	3.2	98
	1643	1.0	30
	2329	3.0	91
10 F	0433	1.8	55
	1039	3.2	98
	1726	0.8	24
11 Sa	0051	2.7	82
	0437	2.3	70
	1020	3.3	101
	1815	0.8	24
12 Su	0949	3.4	104
	1916	0.8	24
13 M	0938	3.5	107
	2124	0.9	27
14 Tu ◐	0941	3.6	110
15 W	0004	0.8	24
	0949	3.6	110

	Time	Height	
	h m	ft	cm
16 Th	0059	0.7	21
	0949	3.4	104
17 F	0136	0.6	18
	0932	3.2	98
	1538	2.5	76
	1822	2.7	82
18 Sa	0201	0.6	18
	0918	3.1	94
	1514	2.4	73
	1914	2.8	85
19 Su	0219	0.7	21
	0915	3.0	91
	1447	2.2	67
	1955	2.9	88
20 M	0232	0.8	24
	0920	3.0	91
	1441	1.9	58
	2033	3.0	91
21 Tu	0246	1.0	30
	0927	3.0	91
	1454	1.5	46
	2110	3.0	91
22 W	0302	1.2	37
	0934	3.0	91
	1516	1.2	37
	2146	2.9	88
23 Th ○	0319	1.4	43
	0937	3.0	91
	1543	1.0	30
	2225	2.8	85
24 F	0336	1.6	49
	0932	3.0	91
	1611	0.8	24
	2308	2.7	82
25 Sa	0351	1.9	58
	0924	3.1	94
	1643	0.7	21
26 Su	0004	2.5	76
	0359	2.1	64
	0922	3.2	98
	1720	0.6	18
27 M	0928	3.3	101
	1805	0.6	18
28 Tu	0939	3.4	104
	1908	0.7	21
29 W	0949	3.4	104
	2044	0.7	21
30 Th ◑	0942	3.3	101
	2242	0.6	18

Time meridian 105° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Guaymas, Mexico, 2010

Times and Heights of High and Low Waters

October

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 F	0833	3.2 / 98	**16** Sa	0039	0.7 / 21
	2358	0.4 / 12		0811	2.8 / 85
				1514	1.7 / 52
				1824	2.0 / 61
2 Sa	0815	3.2 / 98	**17** Su	0105	0.8 / 24
	1509	2.4 / 73		0805	2.7 / 82
	1737	2.5 / 76		1453	1.5 / 46
				1919	2.1 / 64
3 Su	0049	0.3 / 9	**18** M	0122	1.0 / 30
	0821	3.2 / 98		0806	2.7 / 82
	1414	2.0 / 61		1433	1.3 / 40
	1858	2.7 / 82		2004	2.3 / 70
4 M	0130	0.4 / 12	**19** Tu	0136	1.1 / 34
	0833	3.2 / 98		0811	2.7 / 82
	1418	1.5 / 46		1428	0.9 / 27
	2000	2.9 / 88		2046	2.4 / 73
5 Tu	0207	0.7 / 21	**20** W	0153	1.3 / 40
	0847	3.1 / 94		0817	2.7 / 82
	1442	1.0 / 30		1440	0.5 / 15
	2058	3.0 / 91		2127	2.4 / 73
6 W	0239	1.0 / 30	**21** Th	0212	1.5 / 46
	0900	3.1 / 94		0821	2.8 / 85
	1513	0.5 / 15		1502	0.2 / 6
	2156	3.0 / 91		2210	2.4 / 73
7 Th ●	0308	1.5 / 46	**22** F ○	0234	1.7 / 52
	0910	3.1 / 94		0821	2.8 / 85
	1548	0.1 / 3		1528	0.0 / 0
	2257	2.9 / 88		2257	2.4 / 73
8 F	0330	1.9 / 58	**23** Sa	0255	1.9 / 58
	0915	3.2 / 98		0820	2.9 / 88
	1626	−0.1 / −3		1558	−0.2 / −6
				2354	2.4 / 73
9 Sa	0008	2.7 / 82	**24** Su	0312	2.1 / 64
	0343	2.3 / 70		0823	3.0 / 91
	0907	3.2 / 98		1633	−0.3 / −9
	1705	−0.2 / −6			
10 Su	0851	3.3 / 101	**25** M	0116	2.3 / 70
	1748	−0.1 / −3		0318	2.2 / 67
				0831	3.1 / 94
				1712	−0.3 / −9
11 M	0842	3.4 / 104	**26** Tu	0843	3.1 / 94
	1838	0.2 / 6		1757	−0.3 / −9
12 Tu	0844	3.4 / 104	**27** W	0855	3.1 / 94
	1944	0.4 / 12		1854	−0.1 / −3
13 W	0850	3.3 / 101	**28** Th	0857	3.0 / 91
	2210	0.6 / 18		2006	0.0 / 0
14 Th ◐	0850	3.2 / 98	**29** F	0752	2.9 / 88
	2353	0.6 / 18		2132	0.2 / 6
15 F	0832	3.0 / 91	**30** Sa ◑	0706	2.8 / 85
				2254	0.3 / 9
			31 Su	0708	2.8 / 85
				1432	1.4 / 43
				1806	1.7 / 52
				2356	0.6 / 18

November

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0718	2.8 / 85	**16** Tu	0658	2.3 / 70
	1403	0.9 / 27		1418	0.4 / 12
	1927	2.0 / 61		2028	1.6 / 49
2 Tu	0044	0.9 / 27	**17** W	0015	1.3 / 40
	0730	2.8 / 85		0703	2.3 / 70
	1411	0.4 / 12		1414	0.0 / 0
	2032	2.2 / 67		2113	1.8 / 55
3 W	0123	1.2 / 37	**18** Th	0048	1.5 / 46
	0742	2.8 / 85		0709	2.4 / 73
	1434	−0.2 / −6		1427	−0.3 / −9
	2133	2.4 / 73		2156	2.0 / 61
4 Th	0156	1.6 / 49	**19** F	0121	1.6 / 49
	0753	2.9 / 88		0714	2.5 / 76
	1505	−0.6 / −18		1450	−0.7 / −21
	2233	2.5 / 76		2241	2.1 / 64
5 F ●	0223	1.9 / 58	**20** Sa	0152	1.8 / 55
	0801	2.9 / 88		0722	2.6 / 79
	1538	−0.9 / −27		1520	−0.9 / −27
	2336	2.5 / 76		2331	2.2 / 67
6 Sa	0242	2.2 / 67	**21** Su ○	0223	1.9 / 58
	0805	3.0 / 91		0734	2.7 / 82
	1614	−1.0 / −30		1553	−1.1 / −34
7 Su	0802	3.0 / 91	**22** M	0029	2.2 / 67
	1652	−1.0 / −30		0249	2.1 / 64
				0749	2.8 / 85
				1630	−1.2 / −37
8 M	0801	3.1 / 94	**23** Tu	0807	2.8 / 85
	1730	−0.8 / −24		1710	−1.1 / −34
9 Tu	0806	3.0 / 91	**24** W	0824	2.8 / 85
	1810	−0.5 / −15		1753	−1.0 / −30
10 W	0813	2.9 / 88	**25** Th	0836	2.7 / 82
	1854	−0.2 / −6		1839	−0.8 / −24
11 Th	0816	2.8 / 85	**26** F	0823	2.4 / 73
	1943	0.1 / 3		1929	−0.4 / −12
12 F	0756	2.6 / 79	**27** Sa	0532	2.3 / 70
	2043	0.4 / 12		2022	0.0 / 0
13 Sa ◐	0707	2.4 / 73	**28** Su ◑	0542	2.3 / 70
	2154	0.7 / 21		2122	0.5 / 15
14 Su	0653	2.3 / 70	**29** M	0556	2.3 / 70
	1501	1.0 / 30		1358	0.5 / 15
	1825	1.2 / 37		1858	1.1 / 34
	2256	0.9 / 27		2226	0.9 / 27
15 M	0653	2.3 / 70	**30** Tu	0610	2.3 / 70
	1437	0.8 / 24		1352	0.0 / 0
	1936	1.4 / 43		2029	1.5 / 46
	2340	1.1 / 34		2329	1.4 / 43

December

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 W	0623	2.4 / 73	**16** Th	0543	2.0 / 61
	1407	−0.6 / −18		1401	−0.5 / −15
	2137	1.8 / 55			
2 Th	0022	1.7 / 52	**17** F	0556	2.1 / 64
	0638	2.5 / 76		1417	−0.9 / −27
	1432	−1.1 / −34			
	2234	2.1 / 64			
3 F	0102	2.0 / 61	**18** Sa	0619	2.3 / 70
	0652	2.6 / 79		1443	−1.2 / −37
	1502	−1.4 / −43		2307	2.0 / 61
	2326	2.2 / 67			
4 Sa	0134	2.1 / 64	**19** Su	0129	1.9 / 58
	0706	2.7 / 82		0648	2.4 / 73
	1535	−1.5 / −46		1515	−1.5 / −46
				2342	2.1 / 64
5 Su ●	0721	2.7 / 82	**20** M	0217	1.9 / 58
	1608	−1.5 / −46		0719	2.5 / 76
				1550	−1.7 / −52
6 M	0735	2.7 / 82	**21** Tu ○	0022	2.1 / 64
	1642	−1.4 / −43		0300	2.0 / 61
				0750	2.6 / 79
				1627	−1.7 / −52
7 Tu	0749	2.6 / 79	**22** W	0105	2.1 / 64
	1714	−1.2 / −37		0344	2.0 / 61
				0820	2.5 / 76
				1705	−1.6 / −49
8 W	0803	2.5 / 76	**23** Th	0149	2.1 / 64
	1745	−1.0 / −30		0433	1.9 / 58
				0848	2.4 / 73
				1741	−1.4 / −43
9 Th	0815	2.3 / 70	**24** F	0230	2.0 / 61
	1814	−0.6 / −18		0535	1.8 / 55
				0909	2.1 / 64
				1816	−1.0 / −30
10 F	0821	2.1 / 64	**25** Sa	0307	2.0 / 61
	1840	−0.3 / −9		0707	1.6 / 49
				0910	1.7 / 52
				1847	−0.4 / −12
11 Sa	0516	1.9 / 58	**26** Su	0337	1.9 / 58
	1902	0.1 / 3		1909	0.1 / 3
12 Su	0514	1.8 / 55	**27** M ◑	0402	1.9 / 58
	1914	0.4 / 12		1337	0.4 / 12
13 M ◐	0521	1.8 / 55	**28** Tu	0423	1.9 / 58
	1455	0.5 / 15		1325	−0.2 / −6
14 Tu	0529	1.8 / 55	**29** W	0441	1.9 / 58
	1425	0.2 / 6		1341	−0.7 / −21
15 W	0535	1.9 / 58	**30** Th	0459	2.1 / 64
	1404	−0.1 / −3		1407	−1.1 / −34
			31 F	0526	2.2 / 67
				1435	−1.4 / −43

Time meridian 105° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

San Diego, California, 2010

Times and Heights of High and Low Waters

January

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 F	0232	1.7 / 52	**16** Sa	0302	1.8 / 55
	0847	7.5 / 229		0910	6.1 / 186
	1556	−1.9 / −58		1607	−0.6 / −18
	2223	4.5 / 137		2228	4.3 / 131
2 Sa	0323	1.6 / 49	**17** Su	0336	1.8 / 55
	0934	7.2 / 219		0940	5.8 / 177
	1637	−1.6 / −49		1633	−0.4 / −12
	2306	4.7 / 143		2256	4.3 / 131
3 Su	0417	1.6 / 49	**18** M	0412	1.8 / 55
	1022	6.6 / 201		1010	5.4 / 165
	1719	−1.2 / −37		1658	−0.1 / −3
	2352	4.8 / 146		2325	4.4 / 134
4 M	0517	1.6 / 49	**19** Tu	0452	1.9 / 58
	1114	5.8 / 177		1041	4.8 / 146
	1802	−0.6 / −18		1723	0.4 / 12
				2356	4.5 / 137
5 Tu	0041	5.0 / 152	**20** W	0539	2.0 / 61
	0627	1.7 / 52		1115	4.2 / 128
	1213	4.9 / 149		1747	0.8 / 24
	1846	0.2 / 6			
6 W	0134	5.2 / 158	**21** Th	0031	4.5 / 137
	0751	1.6 / 49		0642	2.0 / 61
	1326	3.9 / 119		1200	3.5 / 107
	1935	0.9 / 27		1810	1.3 / 40
7 Th ◑	0232	5.3 / 162	**22** F	0113	4.7 / 143
	0929	1.3 / 40		0809	1.9 / 58
	1505	3.2 / 98		1321	2.8 / 85
	2031	1.6 / 49		1836	1.8 / 55
8 F	0334	5.5 / 168	**23** Sa ◐	0209	4.8 / 146
	1101	0.8 / 24		0954	1.4 / 43
	1705	3.0 / 91		1551	2.5 / 76
	2137	2.1 / 64		1922	2.2 / 67
9 Sa	0433	5.7 / 174	**24** Su	0317	5.1 / 155
	1209	0.2 / 6		1117	0.7 / 21
	1841	3.2 / 98		1807	2.8 / 85
	2248	2.3 / 70		2117	2.6 / 79
10 Su	0527	5.9 / 180	**25** M	0424	5.5 / 168
	1300	−0.3 / −9		1213	0.0 / 0
	1938	3.5 / 107		1900	3.2 / 98
	2349	2.4 / 73		2251	2.5 / 76
11 M	0615	6.1 / 186	**26** Tu	0525	6.1 / 186
	1340	−0.7 / −21		1257	−0.8 / −24
	2017	3.7 / 113		1935	3.6 / 110
				2357	2.2 / 67
12 Tu	0039	2.3 / 70	**27** W	0618	6.6 / 201
	0656	6.2 / 189		1338	−1.4 / −43
	1414	−0.8 / −24		2008	4.0 / 122
	2046	3.9 / 119			
13 W	0120	2.2 / 67	**28** Th	0052	1.8 / 55
	0733	6.3 / 192		0707	7.1 / 216
	1444	−0.9 / −27		1416	−1.8 / −55
	2112	4.0 / 122		2041	4.4 / 134
14 Th ●	0156	2.1 / 64	**29** F ○	0142	1.4 / 43
	0807	6.3 / 192		0754	7.3 / 223
	1513	−0.9 / −27		1454	−1.9 / −58
	2136	4.1 / 125		2116	4.8 / 146
15 F	0229	1.9 / 58	**30** Sa	0230	1.0 / 30
	0839	6.3 / 192		0840	7.3 / 223
	1540	−0.8 / −24		1532	−1.8 / −55
	2202	4.2 / 128		2151	5.1 / 155
			31 Su	0319	0.7 / 21
				0926	6.9 / 210
				1609	−1.5 / −46
				2229	5.3 / 162

February

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0410	0.6 / 18	**16** Tu	0356	1.0 / 30
	1013	6.3 / 192		0954	5.1 / 155
	1645	−0.9 / −27		1615	0.2 / 6
	2308	5.5 / 168		2232	4.9 / 149
2 Tu	0505	0.6 / 18	**17** W	0432	1.0 / 30
	1102	5.4 / 165		1026	4.5 / 137
	1721	−0.2 / −6		1635	0.6 / 18
	2350	5.5 / 168		2257	5.0 / 152
3 W	0606	0.8 / 24	**18** Th	0514	1.1 / 34
	1157	4.4 / 134		1101	3.9 / 119
	1758	0.6 / 18		1653	1.1 / 34
				2326	5.0 / 152
4 Th	0037	5.4 / 165	**19** F	0607	1.2 / 37
	0721	0.9 / 27		1147	3.3 / 101
	1307	3.4 / 104		1709	1.5 / 46
	1838	1.4 / 43			
5 F ◑	0133	5.3 / 162	**20** Sa	0003	5.0 / 152
	0856	0.9 / 27		0723	1.2 / 37
	1457	2.8 / 85		1309	2.6 / 79
	1929	2.1 / 64		1722	2.0 / 61
6 Sa	0242	5.1 / 155	**21** Su ◐	0058	4.9 / 149
	1042	0.6 / 18		0908	1.0 / 30
	1750	2.9 / 88			
	2057	2.6 / 79			
7 Su	0400	5.1 / 155	**22** M	0223	5.0 / 152
	1158	0.2 / 6		1046	0.5 / 15
	1904	3.3 / 101		1843	2.9 / 88
	2241	2.7 / 82		2050	2.8 / 85
8 M	0510	5.3 / 162	**23** Tu	0355	5.2 / 158
	1248	−0.2 / −6		1148	−0.2 / −6
	1939	3.6 / 110		1848	3.3 / 101
	2353	2.5 / 76		2248	2.6 / 79
9 Tu	0605	5.5 / 168	**24** W	0508	5.7 / 174
	1325	−0.5 / −15		1234	−0.8 / −24
	2003	3.8 / 116		1912	3.8 / 116
				2355	2.0 / 61
10 W	0040	2.2 / 67	**25** Th	0606	6.3 / 192
	0648	5.8 / 177		1314	−1.2 / −37
	1355	−0.6 / −18		1940	4.4 / 134
	2023	4.0 / 122			
11 Th	0117	1.9 / 58	**26** F	0049	1.4 / 43
	0723	5.9 / 180		0658	6.7 / 204
	1421	−0.7 / −21		1351	−1.5 / −46
	2042	4.2 / 128		2010	4.9 / 149
12 F	0149	1.6 / 49	**27** Sa	0137	0.7 / 21
	0755	6.0 / 183		0745	6.8 / 207
	1445	−0.7 / −21		1426	−1.5 / −46
	2101	4.4 / 134		2042	5.4 / 165
13 Sa ●	0220	1.4 / 43	**28** Su ○	0224	0.2 / 6
	0826	5.9 / 180		0831	6.7 / 204
	1508	−0.6 / −18		1501	−1.3 / −40
	2122	4.6 / 140		2115	5.7 / 174
14 Su	0251	1.2 / 37			
	0855	5.8 / 177			
	1531	−0.5 / −15			
	2144	4.7 / 143			
15 M	0323	1.0 / 30			
	0924	5.5 / 168			
	1553	−0.2 / −6			
	2208	4.9 / 149			

March

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0311	−0.2 / −6	**16** Tu	0307	0.3 / 9
	0917	6.2 / 189		0911	5.0 / 152
	1535	−0.8 / −24		1512	0.4 / 12
	2150	6.0 / 183		2123	5.4 / 165
2 Tu	0359	−0.3 / −9	**17** W	0341	0.2 / 6
	1003	5.6 / 171		0944	4.6 / 140
	1608	−0.2 / −6		1533	0.7 / 21
	2226	6.0 / 183		2147	5.5 / 168
3 W	0450	−0.2 / −6	**18** Th	0417	0.1 / 3
	1052	4.7 / 143		1021	4.1 / 125
	1641	0.5 / 15		1553	1.1 / 34
	2304	5.9 / 180		2212	5.5 / 168
4 Th	0545	0.0 / 0	**19** F	0459	0.2 / 6
	1147	3.9 / 119		1103	3.6 / 110
	1713	1.2 / 37		1612	1.5 / 46
	2346	5.6 / 171		2242	5.5 / 168
5 F	0651	0.4 / 12	**20** Sa	0551	0.4 / 12
	1258	3.1 / 94		1200	3.1 / 94
	1746	1.9 / 58		1630	1.9 / 58
				2321	5.3 / 162
6 Sa	0036	5.2 / 158	**21** Su	0702	0.5 / 15
	0817	0.6 / 18		1336	2.7 / 82
	1505	2.7 / 82		1648	2.3 / 70
	1829	2.5 / 76			
7 Su ◑	0148	4.8 / 146	**22** M	0018	5.1 / 155
	1004	0.6 / 18		0835	0.5 / 15
	1811	3.0 / 91			
	2033	2.9 / 88			
8 M	0322	4.6 / 140	**23** Tu ◐	0150	4.9 / 149
	1126	0.3 / 9		1006	0.2 / 6
	1847	3.4 / 104		1745	3.2 / 98
	2243	2.8 / 85		2112	2.9 / 88
9 Tu	0447	4.7 / 143	**24** W	0331	5.0 / 152
	1217	0.1 / 3		1111	−0.2 / −6
	1909	3.7 / 113		1807	3.7 / 113
	2350	2.4 / 73		2249	2.4 / 73
10 W	0546	5.0 / 152	**25** Th	0451	5.3 / 162
	1252	−0.1 / −3		1159	−0.6 / −18
	1927	4.0 / 122		1834	4.3 / 131
				2353	1.6 / 49
11 Th	0031	2.0 / 61	**26** F	0553	5.7 / 174
	0629	5.2 / 158		1239	−0.8 / −24
	1320	−0.2 / −6		1903	4.9 / 149
	1943	4.2 / 128			
12 F	0104	1.5 / 46	**27** Sa	0044	0.8 / 24
	0705	5.4 / 165		0647	5.9 / 180
	1344	−0.3 / −9		1316	−0.8 / −24
	2000	4.5 / 137		1934	5.5 / 168
13 Sa	0135	1.1 / 34	**28** Su	0132	0.0 / 0
	0737	5.4 / 165		0736	5.9 / 180
	1406	−0.2 / −6		1351	−0.6 / −18
	2018	4.8 / 146		2006	6.0 / 183
14 Su	0205	0.8 / 24	**29** M ○	0217	−0.5 / −15
	0808	5.4 / 165		0823	5.7 / 174
	1428	−0.1 / −3		1425	−0.3 / −9
	2038	5.1 / 155		2039	6.4 / 195
15 M ●	0236	0.5 / 15	**30** Tu	0302	−0.9 / −27
	0839	5.2 / 158		0910	5.3 / 162
	1450	0.1 / 3		1459	0.1 / 3
	2100	5.3 / 162		2113	6.5 / 198
			31 W	0348	−1.0 / −30
				0957	4.8 / 146
				1532	0.7 / 21
				2147	6.4 / 195

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

San Diego, California, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0435	−0.8	−24
	1047	4.2	128
	1604	1.3	40
	2224	6.1	186
2 F	0526	−0.5	−15
	1143	3.6	110
	1636	1.8	55
	2303	5.7	174
3 Sa	0624	−0.1	−3
	1256	3.1	94
	1710	2.4	73
	2349	5.1	155
4 Su	0737	0.3	9
	1459	3.0	91
	1801	2.8	85
5 M	0055	4.6	140
	0905	0.6	18
	1723	3.3	101
	2015	3.1	94
6 Tu ◑	0229	4.3	131
	1026	0.5	15
	1757	3.6	110
	2222	2.8	85
7 W	0402	4.2	128
	1121	0.4	12
	1818	3.9	119
	2329	2.3	70
8 Th	0509	4.4	134
	1159	0.4	12
	1835	4.2	128
9 F	0010	1.8	55
	0558	4.6	140
	1229	0.3	9
	1852	4.6	140
10 Sa	0044	1.3	40
	0639	4.7	143
	1255	0.4	12
	1911	4.9	149
11 Su	0116	0.8	24
	0716	4.7	143
	1319	0.5	15
	1932	5.3	162
12 M	0148	0.3	9
	0751	4.7	143
	1343	0.6	18
	1954	5.6	171
13 Tu	0220	−0.1	−3
	0826	4.6	140
	1408	0.8	24
	2018	5.8	177
14 W ●	0254	−0.4	−12
	0903	4.4	134
	1432	1.1	34
	2044	6.0	183
15 Th	0329	−0.5	−15
	0942	4.1	125
	1457	1.4	43
	2111	6.1	186

	Time	Height	
	h m	ft	cm
16 F	0409	−0.6	−18
	1026	3.8	116
	1523	1.7	52
	2142	6.1	186
17 Sa	0453	−0.5	−15
	1117	3.5	107
	1550	2.0	61
	2219	5.9	180
18 Su	0546	−0.3	−9
	1223	3.2	98
	1622	2.4	73
	2304	5.6	171
19 M	0651	−0.1	−3
	1353	3.1	94
	1714	2.7	82
20 Tu	0006	5.3	162
	0806	0.0	0
	1533	3.3	101
	1916	2.9	88
21 W ◐	0133	4.9	149
	0921	0.0	0
	1636	3.8	116
	2120	2.7	82
22 Th	0309	4.8	146
	1023	−0.1	−3
	1716	4.3	131
	2245	2.0	61
23 F	0431	4.8	146
	1114	−0.1	−3
	1751	4.9	149
	2347	1.1	34
24 Sa	0539	4.9	149
	1158	0.0	0
	1825	5.6	171
25 Su	0039	0.3	9
	0638	4.9	149
	1237	0.2	6
	1858	6.1	186
26 M	0127	−0.4	−12
	0731	4.9	149
	1314	0.4	12
	1932	6.5	198
27 Tu	0211	−1.0	−30
	0820	4.7	143
	1350	0.8	24
	2006	6.7	204
28 W ○	0255	−1.2	−37
	0909	4.5	137
	1425	1.1	34
	2041	6.7	204
29 Th	0339	−1.3	−40
	0957	4.2	128
	1500	1.5	46
	2117	6.6	201
30 F	0423	−1.1	−34
	1047	3.9	119
	1536	1.9	58
	2153	6.2	189

May

	Time	Height	
	h m	ft	cm
1 Sa	0510	−0.7	−21
	1142	3.6	110
	1612	2.3	70
	2232	5.7	174
2 Su	0600	−0.3	−9
	1246	3.4	104
	1654	2.6	79
	2316	5.2	158
3 M	0657	0.1	3
	1408	3.3	101
	1756	2.9	88
4 Tu	0010	4.7	143
	0800	0.4	12
	1538	3.5	107
	1937	3.1	94
5 W ◑	0125	4.2	128
	0905	0.7	21
	1633	3.8	116
	2128	2.9	88
6 Th	0253	3.9	119
	1001	0.8	24
	1705	4.1	125
	2248	2.4	73
7 F	0412	3.8	116
	1046	0.9	27
	1731	4.5	137
	2339	1.8	55
8 Sa	0516	3.9	119
	1123	1.0	30
	1754	4.9	149
9 Su	0019	1.2	37
	0609	3.9	119
	1155	1.1	34
	1819	5.3	162
10 M	0055	0.6	18
	0655	4.0	122
	1226	1.2	37
	1845	5.7	174
11 Tu	0130	0.0	0
	0737	4.0	122
	1256	1.4	43
	1912	6.0	183
12 W	0205	−0.4	−12
	0819	4.0	122
	1327	1.5	46
	1942	6.3	192
13 Th ●	0242	−0.8	−24
	0901	4.0	122
	1358	1.7	52
	2014	6.5	198
14 F	0321	−1.0	−30
	0945	3.9	119
	1431	1.9	58
	2049	6.6	201
15 Sa	0403	−1.1	−34
	1033	3.8	116
	1507	2.1	64
	2128	6.6	201

	Time	Height	
	h m	ft	cm
16 Su	0449	−1.1	−34
	1126	3.7	113
	1549	2.3	70
	2211	6.3	192
17 M	0540	−0.9	−27
	1225	3.6	110
	1642	2.5	76
	2302	6.0	183
18 Tu	0635	−0.6	−18
	1332	3.7	113
	1757	2.7	82
19 W	0003	5.4	165
	0734	−0.3	−9
	1438	4.0	122
	1933	2.7	82
20 Th ◐	0119	4.9	149
	0834	0.0	0
	1536	4.4	134
	2112	2.3	70
21 F	0247	4.4	134
	0932	0.3	9
	1625	5.0	152
	2236	1.6	49
22 Sa	0413	4.1	125
	1025	0.6	18
	1708	5.5	168
	2342	0.8	24
23 Su	0530	4.1	125
	1114	0.9	27
	1748	6.1	186
24 M	0036	0.0	0
	0637	4.0	122
	1159	1.2	37
	1826	6.5	198
25 Tu	0124	−0.6	−18
	0735	4.1	125
	1241	1.4	43
	1904	6.7	204
26 W	0208	−1.1	−34
	0826	4.1	125
	1321	1.7	52
	1941	6.8	207
27 Th ○	0250	−1.2	−37
	0914	4.0	122
	1401	1.9	58
	2019	6.8	207
28 F	0331	−1.2	−37
	0959	4.0	122
	1439	2.1	64
	2056	6.6	201
29 Sa	0411	−1.1	−34
	1043	3.9	119
	1518	2.3	70
	2133	6.3	192
30 Su	0452	−0.8	−24
	1129	3.8	116
	1558	2.5	76
	2211	5.9	180
31 M	0533	−0.4	−12
	1217	3.7	113
	1643	2.7	82
	2251	5.4	165

June

	Time	Height	
	h m	ft	cm
1 Tu	0616	−0.1	−3
	1308	3.7	113
	1738	2.8	85
	2334	4.9	149
2 W	0700	0.3	9
	1401	3.8	116
	1850	2.9	88
3 Th	0026	4.3	131
	0746	0.7	21
	1453	4.0	122
	2019	2.8	85
4 F ◑	0135	3.8	116
	0833	1.0	30
	1538	4.3	131
	2149	2.4	73
5 Sa	0301	3.5	107
	0920	1.3	40
	1617	4.7	143
	2259	1.9	58
6 Su	0426	3.3	101
	1006	1.6	49
	1652	5.1	155
	2351	1.2	37
7 M	0540	3.3	101
	1050	1.8	55
	1727	5.5	168
8 Tu	0034	0.6	18
	0640	3.4	104
	1132	2.0	61
	1802	5.9	180
9 W	0113	−0.1	−3
	0731	3.6	110
	1213	2.0	61
	1838	6.3	192
10 Th	0152	−0.6	−18
	0816	3.8	116
	1254	2.1	64
	1915	6.7	204
11 F	0231	−1.1	−34
	0859	3.9	119
	1336	2.1	64
	1955	6.9	210
12 Sa ●	0312	−1.3	−40
	0942	4.0	122
	1419	2.1	64
	2037	7.1	216
13 Su	0354	−1.5	−46
	1026	4.1	125
	1505	2.1	64
	2121	7.0	213
14 M	0438	−1.4	−43
	1112	4.2	128
	1556	2.2	67
	2208	6.7	204
15 Tu	0522	−1.2	−37
	1201	4.3	131
	1654	2.2	67
	2259	6.2	189

	Time	Height	
	h m	ft	cm
16 W	0609	−0.8	−24
	1252	4.5	137
	1804	2.3	70
	2356	5.5	168
17 Th	0657	−0.3	−9
	1346	4.8	146
	1926	2.2	67
18 F ◐	0105	4.7	143
	0747	0.3	9
	1441	5.1	155
	2056	1.8	55
19 Sa	0228	4.0	122
	0840	0.9	27
	1536	5.5	168
	2224	1.2	37
20 Su	0403	3.5	107
	0936	1.4	43
	1628	5.9	180
	2337	0.5	15
21 M	0535	3.4	104
	1033	1.8	55
	1717	6.2	189
22 Tu	0035	−0.1	−3
	0652	3.6	110
	1129	2.0	61
	1803	6.5	198
23 W	0124	−0.6	−18
	0750	3.7	113
	1220	2.2	67
	1846	6.6	201
24 Th	0206	−0.9	−27
	0836	3.9	119
	1307	2.3	70
	1927	6.7	204
25 F	0245	−1.0	−30
	0915	4.0	122
	1349	2.3	70
	2006	6.7	204
26 Sa ○	0321	−1.0	−30
	0951	4.0	122
	1429	2.3	70
	2043	6.5	198
27 Su	0355	−0.9	−27
	1024	4.1	125
	1507	2.3	70
	2118	6.3	192
28 M	0428	−0.7	−21
	1058	4.1	125
	1546	2.3	70
	2153	6.0	183
29 Tu	0500	−0.4	−12
	1132	4.1	125
	1626	2.4	73
	2227	5.6	171
30 W	0532	0.0	0
	1208	4.2	128
	1712	2.5	76
	2303	5.1	155

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

San Diego, California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0604	0.4	12
	1246	4.3	131
	1806	2.6	79
	2342	4.5	137
2 F	0636	0.8	24
	1326	4.4	134
	1915	2.5	76
3 Sa	0033	3.9	119
	0710	1.3	40
	1411	4.6	140
	2041	2.3	70
4 Su ◑	0150	3.3	101
	0748	1.7	52
	1458	4.8	146
	2210	1.9	58
5 M	0338	2.9	88
	0838	2.1	64
	1548	5.2	158
	2321	1.3	40
6 Tu	0525	3.0	91
	0940	2.4	73
	1638	5.5	168
7 W	0013	0.6	18
	0639	3.2	98
	1045	2.5	76
	1726	6.0	183
8 Th	0057	−0.1	−3
	0729	3.5	107
	1144	2.5	76
	1813	6.5	198
9 F	0137	−0.7	−21
	0809	3.8	116
	1236	2.3	70
	1858	6.9	210
10 Sa	0217	−1.2	−37
	0846	4.1	125
	1325	2.1	64
	1943	7.3	223
11 Su ●	0256	−1.5	−46
	0923	4.4	134
	1413	1.9	58
	2028	7.4	226
12 M	0336	−1.6	−49
	1001	4.6	140
	1502	1.7	52
	2114	7.3	223
13 Tu	0415	−1.4	−43
	1041	4.8	146
	1554	1.6	49
	2201	6.9	210
14 W	0455	−1.1	−34
	1122	5.1	155
	1651	1.5	46
	2251	6.2	189
15 Th	0535	−0.5	−15
	1207	5.3	162
	1754	1.5	46
	2346	5.3	162

	Time	Height	
	h m	ft	cm
16 F	0616	0.2	6
	1256	5.5	168
	1909	1.5	46
17 Sa	0051	4.4	134
	0700	0.9	27
	1349	5.6	171
	2036	1.4	43
18 Su ◐	0217	3.6	110
	0750	1.6	49
	1449	5.7	174
	2211	1.0	30
19 M	0410	3.2	98
	0853	2.2	67
	1553	5.9	180
	2332	0.4	12
20 Tu	0603	3.3	101
	1008	2.5	76
	1655	6.1	186
21 W	0032	−0.1	−3
	0713	3.6	110
	1120	2.6	79
	1750	6.3	192
22 Th	0119	−0.4	−12
	0758	3.9	119
	1218	2.6	79
	1838	6.4	195
23 F	0157	−0.6	−18
	0831	4.1	125
	1305	2.4	73
	1919	6.5	198
24 Sa	0230	−0.7	−21
	0858	4.2	128
	1345	2.2	67
	1956	6.5	198
25 Su ○	0300	−0.7	−21
	0923	4.4	134
	1420	2.1	64
	2030	6.5	198
26 M	0328	−0.5	−15
	0948	4.5	137
	1455	2.0	61
	2102	6.3	192
27 Tu	0355	−0.3	−9
	1014	4.6	140
	1529	1.9	58
	2133	6.0	183
28 W	0421	−0.1	−3
	1040	4.7	143
	1605	1.9	58
	2204	5.6	171
29 Th	0446	0.3	9
	1108	4.8	146
	1644	1.9	58
	2236	5.1	155
30 F	0510	0.7	21
	1138	4.8	146
	1729	2.0	61
	2311	4.5	137
31 Sa	0533	1.2	37
	1210	4.9	149
	1824	2.1	64
	2354	3.8	116

August

	Time	Height	
	h m	ft	cm
1 Su	0555	1.7	52
	1248	4.9	149
	1940	2.0	61
2 M ◑	0103	3.2	98
	0616	2.1	64
	1338	5.0	152
	2117	1.8	55
3 Tu	0314	2.8	85
	0647	2.5	76
	1444	5.2	158
	2248	1.3	40
4 W	0547	3.0	91
	0832	2.9	88
	1556	5.5	168
	2350	0.6	18
5 Th	0645	3.4	104
	1022	2.9	88
	1700	6.0	183
6 F	0036	−0.1	−3
	0716	3.8	116
	1133	2.7	82
	1755	6.5	198
7 Sa	0116	−0.6	−18
	0746	4.2	128
	1229	2.3	70
	1845	7.0	213
8 Su	0154	−1.1	−34
	0818	4.6	140
	1319	1.8	55
	1932	7.3	223
9 M ●	0231	−1.3	−40
	0850	5.0	152
	1407	1.3	40
	2018	7.4	226
10 Tu	0307	−1.3	−40
	0925	5.4	165
	1455	1.0	30
	2104	7.2	219
11 W	0343	−1.0	−30
	1001	5.7	174
	1546	0.8	24
	2151	6.6	201
12 Th	0420	−0.5	−15
	1039	5.9	180
	1639	0.7	21
	2241	5.8	177
13 F	0456	0.2	6
	1120	6.0	183
	1739	0.8	24
	2336	4.9	149
14 Sa	0533	0.9	27
	1206	6.0	183
	1848	0.9	27
15 Su	0043	4.0	122
	0614	1.7	52
	1259	5.8	177
	2013	1.0	30

	Time	Height	
	h m	ft	cm
16 M ◐	0219	3.4	104
	0705	2.4	73
	1405	5.7	174
	2153	0.8	24
17 Tu	0446	3.3	101
	0827	2.9	88
	1524	5.6	171
	2318	0.5	15
18 W	0624	3.6	110
	1010	3.0	91
	1640	5.7	174
19 Th	0017	0.1	3
	0708	4.0	122
	1129	2.8	85
	1741	5.9	180
20 F	0100	−0.1	−3
	0738	4.2	128
	1222	2.5	76
	1829	6.1	186
21 Sa	0134	−0.2	−6
	0802	4.5	137
	1302	2.2	67
	1908	6.2	189
22 Su	0203	−0.2	−6
	0822	4.6	140
	1336	1.9	58
	1942	6.3	192
23 M	0228	−0.2	−6
	0842	4.8	146
	1408	1.6	49
	2014	6.2	189
24 Tu ○	0251	0.0	0
	0903	5.0	152
	1439	1.4	43
	2044	6.0	183
25 W	0314	0.2	6
	0925	5.2	158
	1511	1.3	40
	2114	5.7	174
26 Th	0336	0.4	12
	0948	5.3	162
	1544	1.2	37
	2145	5.3	162
27 F	0358	0.8	24
	1012	5.4	165
	1620	1.3	40
	2217	4.8	146
28 Sa	0418	1.2	37
	1037	5.4	165
	1700	1.3	40
	2253	4.3	131
29 Su	0436	1.7	52
	1104	5.4	165
	1749	1.5	46
	2339	3.7	113
30 M	0451	2.1	64
	1138	5.3	162
	1857	1.6	49
31 Tu	0056	3.1	94
	0503	2.5	76
	1228	5.2	158
	2033	1.5	46

September

	Time	Height	
	h m	ft	cm
1 W ◑	1348	5.2	158
	2212	1.1	34
2 Th	1523	5.4	165
	2318	0.5	15
3 F	0624	3.7	113
	1022	3.1	94
	1639	5.8	177
4 Sa	0006	0.0	0
	0645	4.2	128
	1130	2.5	76
	1739	6.3	192
5 Su	0045	−0.5	−15
	0712	4.7	143
	1224	1.9	58
	1831	6.8	207
6 M	0122	−0.7	−21
	0741	5.2	158
	1312	1.2	37
	1920	7.0	213
7 Tu	0158	−0.8	−24
	0813	5.8	177
	1359	0.6	18
	2007	6.9	210
8 W	0232	−0.6	−18
	0846	6.2	189
	1446	0.1	3
	2054	6.6	201
9 Th	0307	−0.2	−6
	0920	6.5	198
	1535	−0.1	−3
	2141	6.0	183
10 F	0341	0.3	9
	0957	6.6	201
	1626	−0.1	−3
	2232	5.3	162
11 Sa	0416	1.0	30
	1036	6.6	201
	1721	0.1	3
	2330	4.5	137
12 Su	0452	1.7	52
	1119	6.3	192
	1826	0.4	12
13 M	0042	3.8	116
	0532	2.4	73
	1212	5.9	180
	1947	0.7	21
14 Tu ◐	0234	3.4	104
	0629	3.0	91
	1322	5.4	165
	2123	0.8	24
15 W	0508	3.6	110
	0822	3.3	101
	1453	5.2	158
	2248	0.6	18

	Time	Height	
	h m	ft	cm
16 Th	0605	4.0	122
	1021	3.2	98
	1620	5.2	158
	2345	0.4	12
17 F	0637	4.3	131
	1131	2.8	85
	1724	5.4	165
18 Sa	0026	0.3	9
	0700	4.6	140
	1216	2.3	70
	1811	5.6	171
19 Su	0057	0.3	9
	0720	4.9	149
	1251	1.9	58
	1850	5.7	174
20 M	0122	0.3	9
	0738	5.1	155
	1322	1.5	46
	1923	5.7	174
21 Tu	0146	0.4	12
	0757	5.4	165
	1352	1.1	34
	1955	5.6	171
22 W	0208	0.6	18
	0817	5.6	171
	1422	0.8	24
	2026	5.5	168
23 Th ○	0230	0.8	24
	0839	5.8	177
	1453	0.6	18
	2058	5.2	158
24 F	0251	1.1	34
	0901	5.9	180
	1526	0.5	15
	2132	4.9	149
25 Sa	0312	1.4	43
	0924	6.0	183
	1601	0.5	15
	2208	4.4	134
26 Su	0332	1.8	55
	0949	5.9	180
	1641	0.6	18
	2251	4.0	122
27 M	0350	2.2	67
	1017	5.8	177
	1730	0.8	24
	2347	3.5	107
28 Tu	0406	2.5	76
	1052	5.6	171
	1835	1.0	30
29 W	0119	3.2	98
	0421	2.9	88
	1144	5.4	165
	2001	1.0	30
30 Th ◑	1310	5.2	158
	2130	0.8	24

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

San Diego, California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0519	3.7	113
	0843	3.4	104
	1455	5.2	158
	2236	0.4	12
2 Sa	0539	4.2	128
	1023	2.9	88
	1618	5.5	168
	2326	0.1	3
3 Su	0604	4.7	143
	1126	2.2	67
	1723	5.8	177
4 M	0007	−0.1	−3
	0633	5.4	165
	1218	1.3	40
	1818	6.1	186
5 Tu	0044	−0.1	−3
	0703	6.0	183
	1306	0.5	15
	1909	6.1	186
6 W	0120	0.0	0
	0735	6.5	198
	1352	−0.2	−6
	1958	6.0	183
7 Th ●	0155	0.3	9
	0809	6.9	210
	1438	−0.6	−18
	2047	5.7	174
8 F	0230	0.7	21
	0844	7.1	216
	1524	−0.8	−24
	2136	5.2	158
9 Sa	0305	1.2	37
	0920	7.1	216
	1613	−0.7	−21
	2229	4.7	143
10 Su	0340	1.8	55
	0959	6.8	207
	1705	−0.4	−12
	2328	4.1	125
11 M	0417	2.3	70
	1041	6.4	195
	1804	0.0	0
12 Tu	0043	3.7	113
	0500	2.9	88
	1131	5.8	177
	1915	0.4	12
13 W	0233	3.6	110
	0607	3.3	101
	1238	5.2	158
	2037	0.7	21
14 Th ◐	0432	3.9	119
	0810	3.5	107
	1409	4.8	146
	2155	0.8	24
15 F	0521	4.2	128
	1008	3.2	98
	1541	4.7	143
	2253	0.7	21

	Time	Height	
	h m	ft	cm
16 Sa	0550	4.5	137
	1115	2.6	79
	1651	4.8	146
	2334	0.7	21
17 Su	0612	4.8	146
	1158	2.1	64
	1743	4.9	149
18 M	0006	0.8	24
	0631	5.2	158
	1233	1.6	49
	1825	4.9	149
19 Tu	0033	0.9	27
	0651	5.5	168
	1305	1.1	34
	1903	4.9	149
20 W	0058	1.0	30
	0712	5.8	177
	1336	0.6	18
	1938	4.9	149
21 Th	0122	1.2	37
	0734	6.1	186
	1407	0.3	9
	2014	4.8	146
22 F ○	0146	1.4	43
	0757	6.3	192
	1439	0.0	0
	2050	4.6	140
23 Sa	0210	1.7	52
	0822	6.4	195
	1513	−0.1	−3
	2128	4.4	134
24 Su	0234	1.9	58
	0849	6.4	195
	1550	−0.2	−6
	2210	4.1	125
25 M	0258	2.2	67
	0918	6.4	195
	1632	−0.1	−3
	2259	3.8	116
26 Tu	0323	2.5	76
	0952	6.2	189
	1722	0.1	3
27 W	0002	3.5	107
	0352	2.8	85
	1033	5.9	180
	1821	0.3	9
28 Th	0126	3.5	107
	0437	3.1	94
	1128	5.6	171
	1931	0.4	12
29 F	0303	3.7	113
	0631	3.4	104
	1249	5.2	158
	2043	0.4	12
30 Sa ◑	0406	4.1	125
	0846	3.2	98
	1427	4.9	149
	2146	0.4	12
31 Su	0446	4.7	143
	1016	2.5	76
	1555	4.9	149
	2239	0.4	12

November

	Time	Height	
	h m	ft	cm
1 M	0520	5.3	162
	1120	1.6	49
	1707	5.0	152
	2324	0.5	15
2 Tu	0554	5.9	180
	1213	0.7	21
	1809	5.1	155
3 W	0005	0.6	18
	0628	6.5	198
	1301	−0.1	−3
	1904	5.1	155
4 Th	0043	0.9	27
	0703	7.0	213
	1347	−0.7	−21
	1956	5.0	152
5 F ●	0121	1.1	34
	0739	7.3	223
	1432	−1.1	−34
	2047	4.8	146
6 Sa	0159	1.5	46
	0816	7.4	226
	1517	−1.2	−37
	2137	4.6	140
7 Su	0236	1.8	55
	0854	7.2	219
	1603	−1.1	−34
	2228	4.3	131
8 M	0315	2.2	67
	0933	6.9	210
	1650	−0.8	−24
	2324	4.0	122
9 Tu	0355	2.6	79
	1014	6.4	195
	1742	−0.3	−9
10 W	0029	3.8	116
	0443	2.9	88
	1100	5.8	177
	1838	0.1	3
11 Th	0147	3.8	116
	0549	3.2	98
	1155	5.1	155
	1939	0.5	15
12 F	0310	3.9	119
	0727	3.4	104
	1307	4.6	140
	2042	0.8	24
13 Sa ◐	0409	4.2	128
	0918	3.1	94
	1435	4.2	128
	2138	1.0	30
14 Su	0446	4.5	137
	1041	2.6	79
	1557	4.0	122
	2225	1.2	37
15 M	0513	4.9	149
	1133	2.0	61
	1705	4.0	122
	2303	1.3	40

	Time	Height	
	h m	ft	cm
16 Tu	0538	5.3	162
	1213	1.4	43
	1800	4.0	122
	2337	1.5	46
17 W	0603	5.6	171
	1248	0.8	24
	1846	4.1	125
18 Th	0008	1.6	49
	0629	6.0	183
	1321	0.3	9
	1928	4.1	125
19 F	0039	1.8	55
	0656	6.3	192
	1354	−0.1	−3
	2008	4.1	125
20 Sa	0109	1.9	58
	0725	6.5	198
	1428	−0.5	−15
	2048	4.1	125
21 Su ○	0139	2.1	64
	0756	6.7	204
	1505	−0.7	−21
	2129	4.1	125
22 M	0211	2.2	67
	0829	6.8	207
	1544	−0.8	−24
	2213	4.0	122
23 Tu	0244	2.4	73
	0904	6.7	204
	1626	−0.8	−24
	2301	3.9	119
24 W	0323	2.5	76
	0944	6.5	198
	1712	−0.6	−18
	2356	3.8	116
25 Th	0410	2.7	82
	1030	6.2	189
	1802	−0.4	−12
26 F	0057	3.9	119
	0516	2.9	88
	1124	5.7	174
	1856	−0.1	−3
27 Sa	0200	4.1	125
	0648	3.0	91
	1234	5.1	155
	1954	0.2	6
28 Su ◑	0259	4.5	137
	0831	2.7	82
	1401	4.5	137
	2052	0.5	15
29 M	0350	5.1	155
	1002	2.0	61
	1533	4.2	128
	2147	0.9	27
30 Tu	0436	5.6	171
	1113	1.1	34
	1658	4.0	122
	2239	1.2	37

December

	Time	Height	
	h m	ft	cm
1 W	0518	6.2	189
	1211	0.2	6
	1810	4.1	125
	2328	1.4	43
2 Th	0559	6.7	204
	1301	−0.5	−15
	1912	4.1	125
3 F	0013	1.6	49
	0639	7.0	213
	1346	−1.1	−34
	2005	4.2	128
4 Sa	0057	1.8	55
	0719	7.2	219
	1430	−1.3	−40
	2054	4.2	128
5 Su ●	0140	2.0	61
	0759	7.2	219
	1511	−1.4	−43
	2139	4.2	128
6 M	0221	2.1	64
	0838	7.0	213
	1553	−1.3	−40
	2223	4.1	125
7 Tu	0302	2.3	70
	0917	6.7	204
	1634	−1.0	−30
	2308	4.1	125
8 W	0344	2.5	76
	0956	6.3	192
	1715	−0.6	−18
	2354	4.0	122
9 Th	0430	2.6	79
	1036	5.7	174
	1756	−0.2	−6
10 F	0043	4.0	122
	0523	2.8	85
	1118	5.1	155
	1838	0.3	9
11 Sa	0135	4.0	122
	0632	2.9	88
	1207	4.5	137
	1922	0.7	21
12 Su	0228	4.2	128
	0800	2.9	88
	1313	3.9	119
	2008	1.2	37
13 M ◐	0317	4.4	134
	0938	2.5	76
	1442	3.4	104
	2057	1.5	46
14 Tu	0400	4.7	143
	1057	2.0	61
	1618	3.2	98
	2146	1.8	55
15 W	0439	5.1	155
	1150	1.3	40
	1740	3.2	98
	2234	2.0	61

	Time	Height	
	h m	ft	cm
16 Th	0515	5.5	168
	1231	0.7	21
	1841	3.4	104
	2319	2.2	67
17 F	0550	5.9	180
	1308	0.1	3
	1928	3.6	110
18 Sa	0002	2.2	67
	0626	6.2	189
	1343	−0.4	−12
	2009	3.7	113
19 Su	0042	2.2	67
	0702	6.6	201
	1419	−0.9	−27
	2047	3.9	119
20 M	0122	2.2	67
	0740	6.8	207
	1456	−1.2	−37
	2124	4.0	122
21 Tu ○	0202	2.1	64
	0819	7.0	213
	1533	−1.4	−43
	2203	4.1	125
22 W	0244	2.1	64
	0859	7.0	213
	1613	−1.3	−40
	2244	4.2	128
23 Th	0330	2.1	64
	0942	6.8	207
	1653	−1.2	−37
	2327	4.3	131
24 F	0422	2.1	64
	1027	6.3	192
	1735	−0.8	−24
25 Sa	0014	4.5	137
	0524	2.2	67
	1119	5.6	171
	1818	−0.3	−9
26 Su	0104	4.7	143
	0640	2.1	64
	1220	4.8	146
	1905	0.2	6
27 M ◑	0158	5.0	152
	0810	1.9	58
	1339	4.0	122
	1956	0.9	27
28 Tu	0255	5.4	165
	0945	1.4	43
	1520	3.4	104
	2054	1.4	43
29 W	0352	5.7	174
	1108	0.6	18
	1705	3.2	98
	2158	1.8	55
30 Th	0447	6.1	186
	1212	−0.1	−3
	1831	3.4	104
	2301	2.1	64
31 F	0539	6.4	195
	1303	−0.7	−21
	1932	3.7	113
	2359	2.2	67

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Los Angeles (Outer Harbor), California, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0231	1.9	58
	0846	7.1	216
	1600	−1.7	−52
	2232	4.2	128
2 Sa	0322	1.8	55
	0933	6.8	207
	1642	−1.5	−46
	2315	4.4	134
3 Su	0418	1.7	52
	1022	6.3	192
	1724	−1.1	−34
4 M	0000	4.6	140
	0521	1.7	52
	1115	5.5	168
	1806	−0.5	−15
5 Tu	0049	4.8	146
	0634	1.7	52
	1215	4.6	140
	1850	0.2	6
6 W	0142	5.0	152
	0801	1.6	49
	1331	3.7	113
	1938	0.9	27
7 Th ◑	0239	5.1	155
	0938	1.2	37
	1515	3.1	94
	2033	1.6	49
8 F	0338	5.3	162
	1105	0.7	21
	1714	2.9	88
	2139	2.1	64
9 Sa	0436	5.5	168
	1211	0.1	3
	1844	3.1	94
	2249	2.4	73
10 Su	0529	5.7	174
	1302	−0.3	−9
	1942	3.4	104
	2350	2.4	73
11 M	0616	5.8	177
	1343	−0.6	−18
	2023	3.6	110
12 Tu	0040	2.4	73
	0657	5.9	180
	1419	−0.8	−24
	2055	3.7	113
13 W	0121	2.3	70
	0733	6.0	183
	1450	−0.8	−24
	2122	3.8	116
14 Th ●	0156	2.2	67
	0807	6.0	183
	1519	−0.8	−24
	2148	3.8	116
15 F	0230	2.1	64
	0839	5.9	180
	1546	−0.7	−21
	2213	3.9	119

	Time	Height	
	h m	ft	cm
16 Sa	0303	2.0	61
	0909	5.7	174
	1613	−0.5	−15
	2239	4.0	122
17 Su	0338	1.9	58
	0940	5.4	165
	1638	−0.3	−9
	2306	4.1	125
18 M	0415	1.9	58
	1011	5.0	152
	1703	0.1	3
	2334	4.2	128
19 Tu	0457	2.0	61
	1044	4.5	137
	1728	0.5	15
20 W	0005	4.3	131
	0548	2.0	61
	1121	3.9	119
	1751	0.9	27
21 Th	0039	4.3	131
	0654	2.0	61
	1210	3.3	101
	1816	1.4	43
22 F	0121	4.5	137
	0827	1.8	55
	1334	2.6	79
	1844	1.8	55
23 Sa ◐	0214	4.6	140
	1013	1.3	40
	1622	2.4	73
	1930	2.2	67
24 Su	0318	4.9	149
	1128	0.7	21
	1826	2.7	82
	2108	2.5	76
25 M	0424	5.3	162
	1220	−0.1	−3
	1912	3.0	91
	2244	2.5	76
26 Tu	0523	5.8	177
	1303	−0.7	−21
	1945	3.4	104
	2353	2.3	70
27 W	0616	6.3	192
	1342	−1.3	−40
	2016	3.8	116
28 Th	0049	1.9	58
	0706	6.7	204
	1421	−1.6	−49
	2048	4.1	125
29 F ○	0140	1.5	46
	0753	6.9	210
	1458	−1.8	−55
	2122	4.4	134
30 Sa	0230	1.2	37
	0840	6.9	210
	1535	−1.6	−49
	2157	4.8	146
31 Su	0320	0.9	27
	0927	6.5	198
	1612	−1.3	−40
	2234	5.0	152

February

	Time	Height	
	h m	ft	cm
1 M	0413	0.8	24
	1014	5.9	180
	1648	−0.8	−24
	2314	5.2	158
2 Tu	0509	0.8	24
	1105	5.0	152
	1725	−0.1	−3
	2356	5.2	158
3 W	0613	0.8	24
	1202	4.1	125
	1801	0.7	21
4 Th	0042	5.2	158
	0731	0.9	27
	1317	3.2	98
	1840	1.4	43
5 F ◑	0138	5.1	155
	0907	0.8	24
	1515	2.7	82
	1930	2.1	64
6 Sa	0246	5.0	152
	1045	0.5	15
	1746	2.8	85
	2057	2.6	79
7 Su	0403	5.0	152
	1158	0.1	3
	1903	3.2	98
	2244	2.7	82
8 M	0511	5.1	155
	1249	−0.2	−6
	1941	3.4	104
	2355	2.5	76
9 Tu	0606	5.3	162
	1328	−0.5	−15
	2009	3.6	110
10 W	0043	2.3	70
	0649	5.5	168
	1359	−0.6	−18
	2031	3.8	116
11 Th	0120	2.0	61
	0725	5.6	171
	1427	−0.6	−18
	2051	3.9	119
12 F	0152	1.7	52
	0757	5.6	171
	1451	−0.6	−18
	2110	4.1	125
13 Sa ●	0222	1.5	46
	0827	5.6	171
	1514	−0.5	−15
	2131	4.3	131
14 Su	0253	1.3	40
	0856	5.4	165
	1536	−0.3	−9
	2152	4.4	134
15 M	0326	1.2	37
	0926	5.1	155
	1557	0.0	0
	2214	4.5	137

	Time	Height	
	h m	ft	cm
16 Tu	0400	1.1	34
	0957	4.7	143
	1618	0.3	9
	2238	4.6	140
17 W	0438	1.1	34
	1030	4.2	128
	1639	0.7	21
	2303	4.7	143
18 Th	0522	1.1	34
	1109	3.6	110
	1658	1.2	37
	2333	4.7	143
19 F	0618	1.2	37
	1159	3.0	91
	1716	1.6	49
20 Sa	0011	4.7	143
	0737	1.2	37
	1328	2.5	76
	1732	2.0	61
21 Su ◐	0105	4.7	143
	0925	0.9	27
22 M	0225	4.8	146
	1056	0.4	12
23 Tu	0353	5.1	155
	1154	−0.2	−6
	1855	3.2	98
	2244	2.6	79
24 W	0506	5.5	168
	1238	−0.7	−21
	1919	3.6	110
	2354	2.1	64
25 Th	0605	6.0	183
	1317	−1.1	−34
	1946	4.1	125
26 F	0049	1.5	46
	0657	6.3	192
	1354	−1.3	−40
	2015	4.6	140
27 Sa	0138	0.9	27
	0746	6.4	195
	1429	−1.3	−40
	2046	5.0	152
28 Su ○	0226	0.4	12
	0832	6.3	192
	1503	−1.1	−34
	2119	5.4	165

March

	Time	Height	
	h m	ft	cm
1 M	0314	0.0	0
	0919	5.8	177
	1537	−0.6	−18
	2153	5.6	171
2 Tu	0403	−0.2	−6
	1007	5.2	158
	1610	−0.1	−3
	2229	5.7	174
3 W	0455	−0.1	−3
	1057	4.5	137
	1643	0.6	18
	2307	5.6	171
4 Th	0552	0.1	3
	1155	3.7	113
	1716	1.3	40
	2349	5.3	162
5 F	0700	0.3	9
	1312	3.0	91
	1750	1.9	58
6 Sa	0040	5.0	152
	0828	0.5	15
	1527	2.7	82
	1831	2.5	76
7 Su ◑	0150	4.6	140
	1009	0.5	15
	1802	3.0	91
	2036	2.9	88
8 M	0325	4.4	134
	1126	0.3	9
	1846	3.3	101
	2249	2.8	85
9 Tu	0448	4.5	137
	1217	0.0	0
	1912	3.6	110
	2354	2.4	73
10 W	0547	4.7	143
	1255	−0.1	−3
	1932	3.8	116
11 Th	0036	2.0	61
	0632	4.9	149
	1325	−0.2	−6
	1950	4.0	122
12 F	0109	1.6	49
	0708	5.1	155
	1350	−0.2	−6
	2008	4.2	128
13 Sa	0140	1.3	40
	0741	5.1	155
	1412	−0.1	−3
	2025	4.5	137
14 Su	0210	0.9	27
	0812	5.0	152
	1433	0.0	0
	2044	4.7	143
15 M ●	0240	0.6	18
	0843	4.9	149
	1454	0.2	6
	2104	4.9	149

	Time	Height	
	h m	ft	cm
16 Tu	0312	0.4	12
	0915	4.6	140
	1515	0.5	15
	2126	5.1	155
17 W	0346	0.3	9
	0950	4.3	131
	1536	0.8	24
	2150	5.2	158
18 Th	0424	0.2	6
	1028	3.8	116
	1557	1.2	37
	2217	5.2	158
19 F	0507	0.3	9
	1113	3.3	101
	1617	1.6	49
	2248	5.2	158
20 Sa	0601	0.4	12
	1214	2.8	85
	1638	2.0	61
	2328	5.1	155
21 Su	0714	0.5	15
	1405	2.5	76
	1657	2.4	73
22 M	0025	4.9	149
	0848	0.4	12
23 Tu ◐	0151	4.7	143
	1014	0.1	3
	1750	3.1	94
	2110	2.8	85
24 W	0330	4.8	146
	1116	−0.2	−6
	1813	3.6	110
	2251	2.3	70
25 Th	0450	5.1	155
	1202	−0.5	−15
	1840	4.1	125
	2355	1.6	49
26 F	0553	5.4	165
	1242	−0.7	−21
	1908	4.6	140
27 Sa	0047	0.9	27
	0648	5.5	168
	1319	−0.7	−21
	1938	5.2	158
28 Su	0134	0.2	6
	0738	5.5	168
	1354	−0.5	−15
	2009	5.6	171
29 M ○	0221	−0.4	−12
	0826	5.3	162
	1427	−0.2	−6
	2041	6.0	183
30 Tu	0306	−0.7	−21
	0914	5.0	152
	1500	0.3	9
	2114	6.1	186
31 W	0352	−0.9	−27
	1003	4.5	137
	1533	0.8	24
	2149	6.0	183

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Los Angeles (Outer Harbor), California, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0441	−0.8	−24
	1055	3.9	119
	1606	1.4	43
	2225	5.8	177
2 F	0533	−0.5	−15
	1155	3.4	104
	1638	1.9	58
	2305	5.4	165
3 Sa	0633	−0.1	−3
	1314	3.0	91
	1713	2.4	73
	2351	4.9	149
4 Su	0747	0.3	9
	1519	2.9	88
	1803	2.8	85
5 M	0055	4.4	134
	0913	0.4	12
	1715	3.2	98
	2024	3.0	91
6 Tu ◑	0230	4.1	125
	1029	0.4	12
	1756	3.5	107
	2232	2.8	85
7 W	0404	4.0	122
	1124	0.4	12
	1821	3.8	116
	2335	2.3	70
8 Th	0512	4.2	128
	1203	0.4	12
	1841	4.0	122
9 F	0017	1.8	55
	0602	4.3	131
	1234	0.4	12
	1859	4.3	131
10 Sa	0051	1.3	40
	0644	4.4	134
	1300	0.5	15
	1918	4.6	140
11 Su	0123	0.9	27
	0721	4.4	134
	1323	0.6	18
	1937	4.9	149
12 M	0154	0.4	12
	0757	4.4	134
	1346	0.7	21
	1957	5.2	158
13 Tu	0226	0.1	3
	0833	4.2	128
	1410	0.9	27
	2020	5.5	168
14 W ●	0300	−0.2	−6
	0910	4.1	125
	1434	1.2	37
	2045	5.6	171
15 Th	0336	−0.4	−12
	0951	3.8	116
	1458	1.5	46
	2113	5.7	174

	Time	Height	
	h m	ft	cm
16 F	0415	−0.5	−15
	1036	3.5	107
	1525	1.8	55
	2145	5.7	174
17 Sa	0501	−0.4	−12
	1130	3.2	98
	1553	2.1	64
	2222	5.6	171
18 Su	0555	−0.3	−9
	1242	3.0	91
	1628	2.4	73
	2309	5.4	165
19 M	0700	−0.1	−3
	1420	3.0	91
	1723	2.7	82
20 Tu	0010	5.0	152
	0815	−0.1	−3
	1553	3.2	98
	1918	2.9	88
21 W ◐	0133	4.7	143
	0927	−0.1	−3
	1645	3.6	110
	2125	2.6	79
22 Th	0309	4.5	137
	1027	−0.1	−3
	1722	4.1	125
	2250	2.0	61
23 F	0432	4.5	137
	1117	−0.1	−3
	1755	4.7	143
	2352	1.2	37
24 Sa	0542	4.6	140
	1200	0.1	3
	1828	5.3	162
25 Su	0044	0.4	12
	0641	4.6	140
	1239	0.3	9
	1900	5.8	177
26 M	0131	−0.3	−9
	0735	4.6	140
	1316	0.5	15
	1933	6.1	186
27 Tu	0216	−0.9	−27
	0826	4.4	134
	1351	0.9	27
	2007	6.3	192
28 W ○	0300	−1.1	−34
	0916	4.2	128
	1426	1.2	37
	2042	6.4	195
29 Th	0344	−1.2	−37
	1006	3.9	119
	1501	1.6	49
	2117	6.2	189
30 F	0429	−1.0	−30
	1058	3.7	113
	1536	2.0	61
	2153	5.9	180

May

	Time	Height	
	h m	ft	cm
1 Sa	0516	−0.7	−21
	1156	3.4	104
	1612	2.3	70
	2232	5.5	168
2 Su	0608	−0.3	−9
	1305	3.2	98
	1655	2.6	79
	2316	5.0	152
3 M	0705	0.0	0
	1430	3.2	98
	1756	2.9	88
4 Tu	0009	4.5	137
	0809	0.4	12
	1550	3.4	104
	1946	3.0	91
5 W ◑	0122	4.0	122
	0912	0.6	18
	1641	3.7	113
	2145	2.8	85
6 Th	0254	3.7	113
	1007	0.7	21
	1714	3.9	119
	2300	2.3	70
7 F	0417	3.6	110
	1051	0.9	27
	1739	4.3	131
	2350	1.8	55
8 Sa	0523	3.6	110
	1127	1.0	30
	1801	4.6	140
9 Su	0029	1.2	37
	0617	3.6	110
	1159	1.2	37
	1824	5.0	152
10 M	0104	0.6	18
	0703	3.7	113
	1228	1.3	40
	1848	5.3	162
11 Tu	0138	0.1	3
	0747	3.7	113
	1257	1.5	46
	1914	5.7	174
12 W	0212	−0.4	−12
	0829	3.7	113
	1326	1.6	49
	1942	5.9	180
13 Th ●	0249	−0.7	−21
	0912	3.7	113
	1357	1.8	55
	2014	6.1	186
14 F	0328	−0.9	−27
	0957	3.6	110
	1431	2.0	61
	2049	6.2	189
15 Sa	0410	−1.0	−30
	1046	3.5	107
	1507	2.2	67
	2128	6.2	189

	Time	Height	
	h m	ft	cm
16 Su	0456	−1.0	−30
	1140	3.4	104
	1550	2.3	70
	2212	6.0	183
17 M	0547	−0.9	−27
	1242	3.4	104
	1644	2.5	76
	2303	5.7	174
18 Tu	0641	−0.6	−18
	1348	3.6	110
	1759	2.7	82
19 W	0004	5.2	158
	0740	−0.3	−9
	1451	3.9	119
	1938	2.6	79
20 Th ◐	0120	4.6	140
	0839	0.0	0
	1545	4.3	131
	2120	2.2	67
21 F	0248	4.2	128
	0935	0.3	9
	1631	4.8	146
	2243	1.5	46
22 Sa	0417	3.9	119
	1027	0.6	18
	1712	5.3	162
	2348	0.7	21
23 Su	0536	3.8	116
	1115	0.9	27
	1750	5.8	177
24 M	0041	0.0	0
	0643	3.8	116
	1159	1.2	37
	1828	6.1	186
25 Tu	0129	−0.6	−18
	0742	3.8	116
	1241	1.5	46
	1905	6.4	195
26 W	0213	−1.0	−30
	0835	3.8	116
	1321	1.8	55
	1942	6.5	198
27 Th ○	0256	−1.2	−37
	0924	3.8	116
	1400	2.0	61
	2018	6.4	195
28 F	0337	−1.2	−37
	1010	3.7	113
	1439	2.1	64
	2055	6.2	189
29 Sa	0417	−1.0	−30
	1056	3.7	113
	1517	2.3	70
	2132	5.9	180
30 Su	0458	−0.8	−24
	1143	3.6	110
	1558	2.5	76
	2210	5.6	171
31 M	0540	−0.4	−12
	1233	3.5	107
	1643	2.7	82
	2249	5.1	155

June

	Time	Height	
	h m	ft	cm
1 Tu	0623	−0.1	−3
	1326	3.6	110
	1740	2.8	85
	2333	4.6	140
2 W	0707	0.3	9
	1420	3.7	113
	1857	2.9	88
3 Th	0024	4.1	125
	0752	0.7	21
	1509	3.9	119
	2035	2.7	82
4 F ◑	0134	3.6	110
	0837	1.0	30
	1551	4.2	128
	2208	2.3	70
5 Sa	0304	3.2	98
	0922	1.3	40
	1626	4.5	137
	2315	1.8	55
6 Su	0437	3.1	94
	1006	1.6	49
	1658	4.8	146
7 M	0004	1.2	37
	0553	3.1	94
	1049	1.8	55
	1730	5.2	158
8 Tu	0044	0.5	15
	0654	3.2	98
	1130	2.0	61
	1803	5.6	171
9 W	0122	−0.1	−3
	0745	3.3	101
	1211	2.1	64
	1838	6.0	183
10 Th	0200	−0.6	−18
	0830	3.5	107
	1251	2.2	67
	1915	6.3	192
11 F	0238	−1.0	−30
	0912	3.6	110
	1333	2.2	67
	1954	6.6	201
12 Sa ●	0318	−1.3	−40
	0955	3.7	113
	1417	2.2	67
	2036	6.7	204
13 Su	0400	−1.4	−43
	1038	3.8	116
	1503	2.2	67
	2120	6.6	201
14 M	0443	−1.4	−43
	1124	3.9	119
	1556	2.2	67
	2208	6.4	195
15 Tu	0528	−1.1	−34
	1212	4.0	122
	1656	2.3	70
	2259	5.9	180

	Time	Height	
	h m	ft	cm
16 W	0614	−0.8	−24
	1303	4.3	131
	1807	2.3	70
	2357	5.2	158
17 Th	0701	−0.3	−9
	1356	4.5	137
	1933	2.1	64
18 F ◐	0106	4.4	134
	0750	0.3	9
	1449	4.9	149
	2106	1.7	52
19 Sa	0232	3.7	113
	0842	0.8	24
	1541	5.3	162
	2232	1.1	34
20 Su	0411	3.3	101
	0937	1.4	43
	1631	5.6	171
	2343	0.4	12
21 M	0544	3.3	101
	1033	1.8	55
	1719	5.9	180
22 Tu	0040	−0.2	−6
	0700	3.4	104
	1129	2.1	64
	1804	6.2	189
23 W	0128	−0.6	−18
	0758	3.5	107
	1220	2.2	67
	1847	6.3	192
24 Th	0211	−0.9	−27
	0845	3.7	113
	1306	2.3	70
	1927	6.4	195
25 F	0250	−1.0	−30
	0926	3.8	116
	1349	2.3	70
	2006	6.3	192
26 Sa ○	0326	−1.0	−30
	1002	3.8	116
	1428	2.3	70
	2042	6.2	189
27 Su	0401	−0.9	−27
	1036	3.8	116
	1507	2.3	70
	2117	6.0	183
28 M	0434	−0.6	−18
	1110	3.9	119
	1546	2.4	73
	2152	5.7	174
29 Tu	0506	−0.4	−12
	1144	3.9	119
	1627	2.4	73
	2226	5.3	162
30 W	0538	0.0	0
	1220	4.0	122
	1715	2.5	76
	2302	4.8	146

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Los Angeles (Outer Harbor), California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0609	0.4	12
	1257	4.1	125
	1812	2.5	76
	2343	4.2	128
2 F	0640	0.8	24
	1337	4.2	128
	1926	2.5	76
3 Sa	0034	3.6	110
	0712	1.3	40
	1420	4.4	134
	2059	2.3	70
4 Su ◑	0153	3.0	91
	0748	1.7	52
	1505	4.6	140
	2230	1.8	55
5 M	0354	2.7	82
	0834	2.1	64
	1552	4.9	149
	2336	1.2	37
6 Tu	0548	2.8	85
	0934	2.4	73
	1639	5.3	162
7 W	0024	0.5	15
	0658	3.0	91
	1039	2.5	76
	1726	5.7	174
8 Th	0106	−0.1	−3
	0744	3.3	101
	1139	2.5	76
	1812	6.2	189
9 F	0145	−0.7	−21
	0822	3.6	110
	1232	2.4	73
	1857	6.6	201
10 Sa	0223	−1.1	−34
	0857	3.8	116
	1322	2.2	67
	1942	6.9	210
11 Su ●	0302	−1.4	−43
	0933	4.1	125
	1411	2.0	61
	2027	7.0	213
12 M	0340	−1.5	−46
	1010	4.3	131
	1502	1.8	55
	2113	6.9	210
13 Tu	0419	−1.3	−40
	1049	4.5	137
	1555	1.7	52
	2201	6.5	198
14 W	0459	−1.0	−30
	1130	4.8	146
	1653	1.6	49
	2251	5.8	177
15 Th	0538	−0.5	−15
	1214	5.0	152
	1759	1.6	49
	2347	5.0	152

	Time	Height	
	h m	ft	cm
16 F	0619	0.2	6
	1302	5.2	158
	1916	1.5	46
17 Sa	0055	4.1	125
	0702	0.9	27
	1355	5.4	165
	2046	1.3	40
18 Su ◐	0225	3.4	104
	0751	1.6	49
	1454	5.5	168
	2219	0.9	27
19 M	0423	3.1	94
	0853	2.1	64
	1556	5.6	171
	2336	0.3	9
20 Tu	0609	3.2	98
	1009	2.5	76
	1657	5.8	177
21 W	0035	−0.1	−3
	0718	3.5	107
	1121	2.6	79
	1751	6.0	183
22 Th	0122	−0.4	−12
	0804	3.7	113
	1220	2.6	79
	1839	6.1	186
23 F	0201	−0.6	−18
	0838	3.9	119
	1307	2.4	73
	1920	6.2	189
24 Sa	0236	−0.7	−21
	0907	4.0	122
	1346	2.3	70
	1957	6.2	189
25 Su ○	0306	−0.6	−18
	0933	4.1	125
	1422	2.1	64
	2030	6.1	186
26 M	0334	−0.5	−15
	0958	4.2	128
	1456	2.0	61
	2102	5.9	180
27 Tu	0400	−0.3	−9
	1023	4.3	131
	1531	2.0	61
	2133	5.6	171
28 W	0426	0.0	0
	1049	4.4	134
	1608	2.0	61
	2205	5.2	158
29 Th	0450	0.3	9
	1116	4.5	137
	1648	2.0	61
	2238	4.7	143
30 F	0513	0.7	21
	1144	4.5	137
	1735	2.0	61
	2314	4.2	128
31 Sa	0536	1.2	37
	1216	4.6	140
	1834	2.0	61

August

	Time	Height	
	h m	ft	cm
1 Su	0000	3.5	107
	0558	1.6	49
	1254	4.7	143
	1954	2.0	61
2 M ◑	0112	3.0	91
	0622	2.1	64
	1343	4.8	146
	2138	1.7	52
3 Tu	0345	2.6	79
	0653	2.5	76
	1447	4.9	149
	2305	1.1	34
4 W	0619	2.9	88
	0822	2.8	85
	1556	5.3	162
5 Th	0000	0.5	15
	0701	3.2	98
	1015	2.9	88
	1659	5.7	174
6 F	0044	−0.1	−3
	0729	3.5	107
	1130	2.7	82
	1754	6.2	189
7 Sa	0122	−0.6	−18
	0757	3.9	119
	1227	2.3	70
	1844	6.6	201
8 Su	0159	−1.0	−30
	0826	4.3	131
	1318	1.9	58
	1931	6.9	210
9 M ●	0235	−1.2	−37
	0857	4.6	140
	1407	1.5	46
	2018	7.0	213
10 Tu	0311	−1.1	−34
	0931	5.0	152
	1456	1.1	34
	2104	6.7	204
11 W	0347	−0.9	−27
	1006	5.3	162
	1548	0.9	27
	2152	6.2	189
12 Th	0423	−0.4	−12
	1044	5.6	171
	1643	0.8	24
	2243	5.5	168
13 F	0459	0.2	6
	1124	5.7	174
	1744	0.8	24
	2339	4.6	140
14 Sa	0536	0.9	27
	1210	5.7	174
	1855	0.9	27
15 Su	0050	3.8	116
	0616	1.7	52
	1303	5.6	171
	2023	0.9	27

	Time	Height	
	h m	ft	cm
16 M ◐	0233	3.2	98
	0705	2.3	70
	1409	5.4	165
	2200	0.7	21
17 Tu	0453	3.2	98
	0826	2.8	85
	1527	5.4	165
	2321	0.4	12
18 W	0625	3.5	107
	1014	3.0	91
	1642	5.4	165
19 Th	0019	0.1	3
	0711	3.8	116
	1133	2.8	85
	1743	5.6	171
20 F	0103	−0.1	−3
	0743	4.0	122
	1226	2.5	76
	1831	5.8	177
21 Sa	0139	−0.2	−6
	0809	4.2	128
	1306	2.2	67
	1910	5.9	180
22 Su	0208	−0.2	−6
	0831	4.4	134
	1340	2.0	61
	1944	5.9	180
23 M	0234	−0.1	−3
	0851	4.5	137
	1411	1.7	52
	2016	5.8	177
24 Tu ○	0257	0.0	0
	0911	4.7	143
	1442	1.5	46
	2046	5.6	171
25 W	0319	0.2	6
	0932	4.8	146
	1514	1.4	43
	2116	5.3	162
26 Th	0340	0.5	15
	0954	5.0	152
	1548	1.3	40
	2147	5.0	152
27 F	0401	0.9	27
	1017	5.0	152
	1625	1.3	40
	2221	4.5	137
28 Sa	0421	1.3	40
	1042	5.1	155
	1706	1.4	43
	2259	4.0	122
29 Su	0440	1.7	52
	1110	5.1	155
	1758	1.5	46
	2348	3.4	104
30 M	0457	2.1	64
	1145	5.0	152
	1910	1.5	46
31 Tu	0112	2.9	88
	0510	2.5	76
	1235	5.0	152
	2051	1.4	43

September

	Time	Height	
	h m	ft	cm
1 W ◑	1351	5.0	152
	2226	1.0	30
2 Th	1523	5.2	158
	2327	0.5	15
3 F	0635	3.6	110
	1020	3.0	91
	1639	5.6	171
4 Sa	0012	0.0	0
	0655	4.0	122
	1131	2.5	76
	1739	6.0	183
5 Su	0050	−0.4	−12
	0719	4.4	134
	1224	1.9	58
	1832	6.4	195
6 M	0126	−0.6	−18
	0747	4.9	149
	1313	1.3	40
	1920	6.6	201
7 Tu	0201	−0.7	−21
	0817	5.4	165
	1401	0.7	21
	2008	6.5	198
8 W	0235	−0.5	−15
	0849	5.8	177
	1448	0.3	9
	2055	6.2	189
9 Th	0309	−0.1	−3
	0923	6.1	186
	1538	0.0	0
	2144	5.6	171
10 F	0343	0.4	12
	0959	6.3	192
	1630	0.0	0
	2236	5.0	152
11 Sa	0418	1.1	34
	1038	6.2	189
	1727	0.1	3
	2336	4.2	128
12 Su	0454	1.7	52
	1121	6.0	183
	1833	0.4	12
13 M	0053	3.6	110
	0533	2.4	73
	1213	5.6	171
	1956	0.6	18
14 Tu ◐	0251	3.3	101
	0628	2.9	88
	1323	5.2	158
	2130	0.7	21
15 W	0505	3.5	107
	0826	3.2	98
	1456	5.0	152
	2250	0.5	15

	Time	Height	
	h m	ft	cm
16 Th	0606	3.9	119
	1027	3.1	94
	1623	5.0	152
	2347	0.4	12
17 F	0640	4.2	128
	1136	2.7	82
	1727	5.2	158
18 Sa	0029	0.3	9
	0705	4.4	134
	1221	2.3	70
	1815	5.3	162
19 Su	0102	0.3	9
	0727	4.6	140
	1256	1.9	58
	1853	5.4	165
20 M	0128	0.4	12
	0746	4.8	146
	1327	1.5	46
	1927	5.4	165
21 Tu	0151	0.5	15
	0804	5.0	152
	1357	1.2	37
	1959	5.3	162
22 W	0213	0.7	21
	0823	5.2	158
	1427	0.9	27
	2031	5.1	155
23 Th ○	0233	0.9	27
	0842	5.4	165
	1458	0.7	21
	2103	4.9	149
24 F	0254	1.2	37
	0904	5.5	168
	1531	0.6	18
	2137	4.5	137
25 Sa	0314	1.5	46
	0927	5.6	171
	1607	0.6	18
	2215	4.1	125
26 Su	0334	1.9	58
	0952	5.6	171
	1648	0.7	21
	2300	3.7	113
27 M	0354	2.2	67
	1022	5.5	168
	1739	0.8	24
28 Tu	0001	3.3	101
	0412	2.6	79
	1059	5.4	165
	1846	0.9	27
29 W	0151	3.0	91
	0425	2.9	88
	1151	5.2	158
	2014	0.9	27
30 Th ◑	1313	5.0	152
	2141	0.7	21

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Los Angeles (Outer Harbor), California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0530	3.6	110
	0842	3.4	104
	1454	5.0	152
	2244	0.4	12
2 Sa	0548	4.0	122
	1026	2.9	88
	1618	5.2	158
	2331	0.1	3
3 Su	0612	4.5	137
	1130	2.2	67
	1724	5.5	168
4 M	0011	0.0	0
	0638	5.1	155
	1221	1.4	43
	1820	5.7	174
5 Tu	0047	0.0	0
	0707	5.6	171
	1309	0.6	18
	1911	5.8	177
6 W	0122	0.1	3
	0738	6.1	186
	1355	0.0	0
	2001	5.6	171
7 Th ●	0157	0.4	12
	0811	6.5	198
	1441	−0.5	−15
	2050	5.3	162
8 F	0231	0.8	24
	0845	6.7	204
	1528	−0.7	−21
	2141	4.9	149
9 Sa	0306	1.3	40
	0921	6.7	204
	1617	−0.7	−21
	2235	4.4	134
10 Su	0341	1.8	55
	1000	6.5	198
	1711	−0.4	−12
	2338	3.9	119
11 M	0418	2.3	70
	1042	6.1	186
	1811	0.0	0
12 Tu	0057	3.6	110
	0501	2.8	85
	1131	5.5	168
	1923	0.4	12
13 W	0249	3.5	107
	0607	3.2	98
	1237	5.0	152
	2045	0.6	18
14 Th ◐	0431	3.8	116
	0821	3.4	104
	1410	4.6	140
	2200	0.7	21
15 F	0522	4.1	125
	1017	3.1	94
	1545	4.5	137
	2257	0.7	21

	Time	Height	
	h m	ft	cm
16 Sa	0554	4.4	134
	1122	2.6	79
	1655	4.5	137
	2339	0.7	21
17 Su	0618	4.6	140
	1205	2.1	64
	1748	4.6	140
18 M	0012	0.8	24
	0638	4.9	149
	1240	1.6	49
	1831	4.6	140
19 Tu	0039	1.0	30
	0657	5.2	158
	1312	1.1	34
	1909	4.6	140
20 W	0103	1.1	34
	0717	5.5	168
	1342	0.7	21
	1945	4.6	140
21 Th	0125	1.3	40
	0737	5.7	174
	1413	0.4	12
	2021	4.5	137
22 F ○	0148	1.5	46
	0759	5.9	180
	1445	0.1	3
	2057	4.3	131
23 Sa	0211	1.8	55
	0823	6.0	183
	1519	0.0	0
	2137	4.1	125
24 Su	0235	2.0	61
	0850	6.1	186
	1557	−0.1	−3
	2220	3.8	116
25 M	0259	2.3	70
	0920	6.0	183
	1639	0.0	0
	2313	3.6	110
26 Tu	0326	2.6	79
	0955	5.9	180
	1730	0.1	3
27 W	0021	3.4	104
	0357	2.9	88
	1037	5.7	174
	1830	0.3	9
28 Th	0157	3.3	101
	0445	3.1	94
	1133	5.3	162
	1940	0.4	12
29 F	0330	3.6	110
	0635	3.4	104
	1251	5.0	152
	2051	0.4	12
30 Sa ◑	0419	4.0	122
	0852	3.1	94
	1427	4.7	143
	2152	0.4	12
31 Su	0454	4.5	137
	1022	2.5	76
	1557	4.7	143
	2242	0.4	12

November

	Time	Height	
	h m	ft	cm
1 M	0526	5.1	155
	1125	1.6	49
	1710	4.7	143
	2326	0.5	15
2 Tu	0558	5.6	171
	1218	0.8	24
	1813	4.8	146
3 W	0006	0.7	21
	0630	6.2	189
	1305	0.0	0
	1909	4.8	146
4 Th	0044	1.0	30
	0704	6.6	201
	1351	−0.6	−18
	2002	4.7	143
5 F ●	0121	1.3	40
	0739	6.9	210
	1436	−1.0	−30
	2053	4.5	137
6 Sa	0158	1.6	49
	0816	7.0	213
	1521	−1.1	−34
	2144	4.3	131
7 Su	0236	1.9	58
	0853	6.9	210
	1608	−1.0	−30
	2238	4.1	125
8 M	0314	2.3	70
	0932	6.5	198
	1656	−0.7	−21
	2336	3.8	116
9 Tu	0355	2.6	79
	1014	6.1	186
	1748	−0.3	−9
10 W	0044	3.7	113
	0443	2.9	88
	1100	5.5	168
	1845	0.1	3
11 Th	0204	3.7	113
	0550	3.2	98
	1154	4.9	149
	1947	0.5	15
12 F	0322	3.9	119
	0738	3.3	101
	1307	4.4	134
	2050	0.8	24
13 Sa ◐	0416	4.1	125
	0934	3.0	91
	1438	4.0	122
	2145	1.0	30
14 Su	0453	4.4	134
	1052	2.5	76
	1604	3.8	116
	2231	1.2	37
15 M	0521	4.7	143
	1142	2.0	61
	1713	3.8	116
	2309	1.4	43

	Time	Height	
	h m	ft	cm
16 Tu	0545	5.0	152
	1222	1.4	43
	1809	3.8	116
	2341	1.6	49
17 W	0608	5.3	162
	1256	0.8	24
	1856	3.8	116
18 Th	0010	1.7	52
	0632	5.7	174
	1329	0.4	12
	1939	3.9	119
19 F	0039	1.9	58
	0657	5.9	180
	1401	−0.1	−3
	2019	3.9	119
20 Sa	0108	2.0	61
	0725	6.2	189
	1435	−0.4	−12
	2100	3.9	119
21 Su ○	0138	2.2	67
	0755	6.3	192
	1511	−0.6	−18
	2141	3.8	116
22 M	0209	2.3	70
	0828	6.4	195
	1550	−0.7	−21
	2226	3.7	113
23 Tu	0243	2.5	76
	0905	6.4	195
	1633	−0.7	−21
	2316	3.6	110
24 W	0323	2.6	79
	0945	6.2	189
	1719	−0.6	−18
25 Th	0013	3.6	110
	0412	2.8	85
	1031	5.9	180
	1809	−0.4	−12
26 F	0114	3.7	113
	0519	2.9	88
	1126	5.4	165
	1903	−0.1	−3
27 Sa	0216	4.0	122
	0653	2.9	88
	1235	4.8	146
	1959	0.2	6
28 Su ◑	0311	4.4	134
	0840	2.6	79
	1403	4.3	131
	2055	0.6	18
29 M	0358	4.9	149
	1011	1.9	58
	1538	4.0	122
	2149	0.9	27
30 Tu	0440	5.4	165
	1120	1.1	34
	1704	3.8	116
	2240	1.2	37

December

	Time	Height	
	h m	ft	cm
1 W	0520	5.9	180
	1216	0.2	6
	1817	3.9	119
	2328	1.5	46
2 Th	0600	6.4	195
	1305	−0.5	−15
	1918	3.9	119
3 F	0013	1.7	52
	0639	6.7	204
	1351	−1.0	−30
	2013	4.0	122
4 Sa	0056	1.9	58
	0719	6.9	210
	1434	−1.2	−37
	2102	4.0	122
5 Su ●	0138	2.1	64
	0758	6.9	210
	1516	−1.3	−40
	2148	4.0	122
6 M	0220	2.2	67
	0837	6.7	204
	1558	−1.2	−37
	2234	3.9	119
7 Tu	0301	2.4	73
	0916	6.4	195
	1639	−0.9	−27
	2320	3.9	119
8 W	0344	2.5	76
	0955	6.0	183
	1721	−0.5	−15
9 Th	0008	3.8	116
	0430	2.7	82
	1035	5.5	168
	1802	−0.1	−3
10 F	0059	3.8	116
	0526	2.8	85
	1118	4.9	149
	1845	0.3	9
11 Sa	0152	3.9	119
	0639	2.9	88
	1207	4.3	131
	1928	0.8	24
12 Su	0244	4.1	125
	0817	2.8	85
	1313	3.7	113
	2013	1.2	37
13 M ◐	0330	4.3	131
	0958	2.4	73
	1448	3.2	98
	2100	1.5	46
14 Tu	0409	4.6	140
	1111	1.9	58
	1632	3.0	91
	2147	1.9	58
15 W	0445	4.9	149
	1201	1.3	40
	1755	3.1	94
	2234	2.1	64

	Time	Height	
	h m	ft	cm
16 Th	0518	5.2	158
	1241	0.7	21
	1855	3.2	98
	2317	2.2	67
17 F	0552	5.6	171
	1316	0.1	3
	1942	3.4	104
	2359	2.3	70
18 Sa	0626	5.9	180
	1351	−0.4	−12
	2022	3.5	107
19 Su	0039	2.3	70
	0701	6.2	189
	1426	−0.8	−24
	2100	3.7	113
20 M	0118	2.3	70
	0739	6.5	198
	1502	−1.1	−34
	2137	3.8	116
21 Tu ○	0159	2.3	70
	0817	6.6	201
	1539	−1.2	−37
	2215	3.8	116
22 W	0242	2.2	67
	0858	6.6	201
	1618	−1.2	−37
	2255	3.9	119
23 Th	0329	2.2	67
	0942	6.4	195
	1659	−1.1	−34
	2338	4.1	125
24 F	0424	2.2	67
	1028	6.0	183
	1740	−0.7	−21
25 Sa	0024	4.3	131
	0528	2.2	67
	1120	5.3	162
	1823	−0.3	−9
26 Su	0114	4.5	137
	0646	2.2	67
	1223	4.5	137
	1909	0.3	9
27 M ◑	0206	4.8	146
	0820	1.9	58
	1344	3.8	116
	1958	0.9	27
28 Tu	0301	5.2	158
	0955	1.3	40
	1528	3.2	98
	2055	1.4	43
29 W	0356	5.5	168
	1114	0.6	18
	1715	3.1	94
	2157	1.9	58
30 Th	0449	5.9	180
	1216	−0.1	−3
	1838	3.3	101
	2300	2.1	64
31 F	0539	6.2	189
	1306	−0.7	−21
	1938	3.5	107
	2358	2.2	67

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port San Luis, California, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0312	2.3	70
	0924	6.8	207
	1647	−1.7	−52
	2329	4.2	128
2 Sa	0408	2.2	67
	1014	6.6	201
	1729	−1.5	−46
3 Su	0012	4.4	134
	0508	2.1	64
	1106	6.0	183
	1812	−1.1	−34
4 M	0057	4.7	143
	0616	2.0	61
	1202	5.3	162
	1855	−0.5	−15
5 Tu	0143	4.9	149
	0732	1.8	55
	1307	4.5	137
	1940	0.2	6
6 W	0233	5.2	158
	0858	1.6	49
	1427	3.7	113
	2026	1.0	30
7 Th ◑	0324	5.4	165
	1027	1.1	34
	1609	3.2	98
	2118	1.6	49
8 F	0417	5.6	171
	1145	0.6	18
	1759	3.1	94
	2218	2.2	67
9 Sa	0510	5.7	174
	1248	0.0	0
	1927	3.2	98
	2322	2.5	76
10 Su	0600	5.8	177
	1339	−0.4	−12
	2029	3.5	107
11 M	0023	2.7	82
	0647	5.9	180
	1423	−0.6	−18
	2114	3.6	110
12 Tu	0115	2.7	82
	0729	5.9	180
	1501	−0.7	−21
	2149	3.7	113
13 W	0159	2.7	82
	0808	5.9	180
	1534	−0.8	−24
	2220	3.8	116
14 Th ●	0238	2.6	79
	0844	5.9	180
	1605	−0.7	−21
	2247	3.9	119
15 F	0315	2.5	76
	0918	5.8	177
	1634	−0.6	−18
	2314	3.9	119

	Time	Height	
	h m	ft	cm
16 Sa	0352	2.4	73
	0951	5.6	171
	1702	−0.4	−12
	2341	4.0	122
17 Su	0430	2.3	70
	1024	5.3	162
	1729	−0.2	−6
18 M	0009	4.1	125
	0512	2.3	70
	1059	4.9	149
	1756	0.2	6
19 Tu	0038	4.2	128
	0600	2.3	70
	1137	4.4	134
	1822	0.6	18
20 W	0108	4.4	134
	0657	2.2	67
	1221	3.9	119
	1848	1.0	30
21 Th	0141	4.5	137
	0806	2.0	61
	1321	3.3	101
	1915	1.5	46
22 F	0219	4.7	143
	0929	1.7	52
	1453	2.8	85
	1947	2.0	61
23 Sa ◐	0305	4.9	149
	1052	1.2	37
	1703	2.7	82
	2032	2.4	73
24 Su	0358	5.2	158
	1158	0.6	18
	1852	2.9	88
	2146	2.7	82
25 M	0455	5.5	168
	1252	−0.1	−3
	1950	3.2	98
	2309	2.8	85
26 Tu	0552	5.9	180
	1338	−0.7	−21
	2029	3.5	107
27 W	0020	2.6	79
	0647	6.3	192
	1421	−1.2	−37
	2104	3.8	116
28 Th	0121	2.4	73
	0738	6.6	201
	1502	−1.5	−46
	2139	4.1	125
29 F ○	0217	2.1	64
	0829	6.8	207
	1542	−1.6	−49
	2214	4.4	134
30 Sa	0311	1.7	52
	0919	6.6	201
	1621	−1.4	−43
	2250	4.7	143
31 Su	0406	1.4	43
	1009	6.3	192
	1700	−1.1	−34
	2328	5.0	152

February

	Time	Height	
	h m	ft	cm
1 M	0503	1.2	37
	1101	5.6	171
	1738	−0.5	−15
2 Tu	0008	5.2	158
	0605	1.1	34
	1157	4.9	149
	1816	0.2	6
3 W	0050	5.4	165
	0713	1.0	30
	1301	4.1	125
	1856	0.9	27
4 Th	0137	5.4	165
	0830	0.9	27
	1423	3.4	104
	1939	1.6	49
5 F ◑	0229	5.4	165
	0957	0.7	21
	1615	3.0	91
	2032	2.3	70
6 Sa	0330	5.3	162
	1120	0.4	12
	1815	3.1	94
	2147	2.7	82
7 Su	0436	5.3	162
	1228	0.1	3
	1934	3.3	101
	2313	2.8	85
8 M	0538	5.3	162
	1321	−0.2	−6
	2020	3.6	110
9 Tu	0023	2.8	85
	0633	5.4	165
	1404	−0.4	−12
	2053	3.7	113
10 W	0115	2.6	79
	0718	5.5	168
	1439	−0.4	−12
	2119	3.8	116
11 Th	0156	2.4	73
	0758	5.5	168
	1509	−0.5	−15
	2142	3.9	119
12 F	0232	2.2	67
	0833	5.5	168
	1536	−0.4	−12
	2204	4.0	122
13 Sa ●	0306	1.9	58
	0906	5.4	165
	1600	−0.3	−9
	2225	4.2	128
14 Su	0341	1.8	55
	0939	5.2	158
	1624	0.0	0
	2247	4.3	131
15 M	0417	1.6	49
	1012	4.9	149
	1647	0.2	6
	2310	4.5	137

	Time	Height	
	h m	ft	cm
16 Tu	0456	1.5	46
	1048	4.6	140
	1710	0.6	18
	2335	4.6	140
17 W	0538	1.4	43
	1127	4.1	125
	1733	1.0	30
18 Th	0001	4.7	143
	0627	1.3	40
	1214	3.6	110
	1756	1.5	46
19 F	0032	4.8	146
	0727	1.2	37
	1317	3.1	94
	1820	1.9	58
20 Sa	0111	4.9	149
	0842	1.1	34
	1454	2.7	82
	1848	2.3	70
21 Su ◐	0202	5.0	152
	1008	0.7	21
	1719	2.7	82
	1936	2.6	79
22 M	0309	5.1	155
	1124	0.3	9
	1850	3.0	91
	2125	2.9	88
23 Tu	0424	5.3	162
	1223	−0.3	−9
	1929	3.3	101
	2309	2.8	85
24 W	0533	5.6	171
	1311	−0.7	−21
	1959	3.7	113
25 Th	0023	2.4	73
	0635	5.9	180
	1354	−1.0	−30
	2030	4.0	122
26 F	0123	1.9	58
	0730	6.1	186
	1434	−1.2	−37
	2101	4.4	134
27 Sa	0217	1.4	43
	0823	6.2	189
	1512	−1.1	−34
	2134	4.9	149
28 Su ○	0309	0.8	24
	0914	6.0	183
	1549	−0.8	−24
	2207	5.2	158

March

	Time	Height	
	h m	ft	cm
1 M	0401	0.4	12
	1005	5.6	171
	1625	−0.3	−9
	2243	5.5	168
2 Tu	0454	0.2	6
	1058	5.0	152
	1701	0.3	9
	2320	5.6	171
3 W	0550	0.1	3
	1156	4.3	131
	1737	1.0	30
4 Th	0000	5.6	171
	0651	0.1	3
	1302	3.7	113
	1815	1.6	49
5 F	0044	5.4	165
	0800	0.3	9
	1426	3.2	98
	1858	2.2	67
6 Sa	0136	5.2	158
	0920	0.3	9
	1621	3.0	91
	1957	2.7	82
7 Su ◑	0241	4.9	149
	1042	0.3	9
	1809	3.2	98
	2134	2.9	88
8 M	0358	4.7	143
	1153	0.2	6
	1908	3.4	104
	2313	2.8	85
9 Tu	0512	4.7	143
	1247	0.0	0
	1945	3.6	110
10 W	0020	2.6	79
	0612	4.8	146
	1328	−0.1	−3
	2012	3.8	116
11 Th	0107	2.2	67
	0700	4.9	149
	1402	−0.1	−3
	2034	3.9	119
12 F	0146	1.9	58
	0741	4.9	149
	1430	0.0	0
	2054	4.1	125
13 Sa	0221	1.6	49
	0818	4.9	149
	1455	0.1	3
	2113	4.3	131
14 Su	0254	1.3	40
	0853	4.8	146
	1518	0.3	9
	2133	4.5	137
15 M ●	0328	1.0	30
	0928	4.6	140
	1540	0.5	15
	2154	4.7	143

	Time	Height	
	h m	ft	cm
16 Tu	0403	0.7	21
	1005	4.4	134
	1603	0.8	24
	2216	4.9	149
17 W	0441	0.5	15
	1045	4.1	125
	1627	1.2	37
	2241	5.0	152
18 Th	0522	0.4	12
	1130	3.7	113
	1650	1.6	49
	2309	5.1	155
19 F	0608	0.3	9
	1223	3.4	104
	1716	1.9	58
	2342	5.1	155
20 Sa	0704	0.3	9
	1334	3.0	91
	1744	2.3	70
21 Su	0024	5.1	155
	0813	0.3	9
	1517	2.8	85
	1822	2.6	79
22 M	0120	5.0	152
	0931	0.1	3
	1711	3.0	91
	1942	2.9	88
23 Tu ◐	0236	4.9	149
	1044	−0.1	−3
	1811	3.3	101
	2146	2.8	85
24 W	0400	4.9	149
	1145	−0.4	−12
	1847	3.6	110
	2320	2.5	76
25 Th	0518	5.1	155
	1235	−0.6	−18
	1918	4.0	122
26 F	0028	1.9	58
	0624	5.2	158
	1318	−0.6	−18
	1949	4.5	137
27 Sa	0125	1.2	37
	0724	5.3	162
	1358	−0.5	−15
	2020	5.0	152
28 Su	0217	0.5	15
	0819	5.2	158
	1435	−0.2	−6
	2052	5.4	165
29 M ○	0306	−0.1	−3
	0913	5.0	152
	1512	0.2	6
	2126	5.7	174
30 Tu	0355	−0.5	−15
	1006	4.7	143
	1548	0.7	21
	2200	5.9	180
31 W	0444	−0.7	−21
	1101	4.3	131
	1624	1.2	37
	2237	5.8	177

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port San Luis, California, 2010

Times and Heights of High and Low Waters

April

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 Th	0535	−0.7 / −21	**16** F	0510	−0.5 / −15
	1200	3.8 / 116		1141	3.5 / 107
	1701	1.7 / 52		1616	2.1 / 64
	2316	5.7 / 174		2232	5.5 / 168
2 F	0630	−0.5 / −15	**17** Sa	0557	−0.6 / −18
	1307	3.5 / 107		1241	3.2 / 98
	1741	2.2 / 67		1650	2.3 / 70
	2358	5.3 / 162		2311	5.4 / 165
3 Sa	0730	−0.3 / −9	**18** Su	0651	−0.5 / −15
	1428	3.2 / 98		1353	3.1 / 94
	1828	2.6 / 79		1732	2.6 / 79
				2359	5.2 / 158
4 Su	0048	4.9 / 149	**19** M	0752	−0.5 / −15
	0839	0.0 / 0		1516	3.2 / 98
	1606	3.2 / 98		1837	2.8 / 85
	1937	2.8 / 85			
5 M	0151	4.5 / 137	**20** Tu	0059	4.9 / 149
	0952	0.1 / 3		0858	−0.4 / −12
	1729	3.3 / 101		1628	3.4 / 104
	2122	2.9 / 88		2017	2.8 / 85
6 Tu ◑	0310	4.2 / 128	**21** W ◐	0215	4.7 / 143
	1059	0.2 / 6		1003	−0.4 / −12
	1819	3.5 / 107		1719	3.7 / 113
	2258	2.7 / 82		2203	2.6 / 79
7 W	0430	4.1 / 125	**22** Th	0342	4.4 / 134
	1153	0.2 / 6		1100	−0.3 / −9
	1852	3.7 / 113		1758	4.1 / 125
				2326	2.0 / 61
8 Th	0003	2.3 / 70	**23** F	0504	4.3 / 131
	0537	4.1 / 125		1151	−0.2 / −6
	1235	0.3 / 9		1833	4.6 / 140
	1918	3.9 / 119			
9 F	0050	1.9 / 58	**24** Sa	0031	1.2 / 37
	0632	4.1 / 125		0617	4.3 / 131
	1309	0.4 / 12		1236	0.1 / 3
	1939	4.1 / 125		1906	5.1 / 155
10 Sa	0129	1.4 / 43	**25** Su	0126	0.4 / 12
	0719	4.1 / 125		0722	4.3 / 131
	1337	0.5 / 15		1317	0.4 / 12
	1959	4.4 / 134		1940	5.5 / 168
11 Su	0205	1.0 / 30	**26** M	0216	−0.3 / −9
	0801	4.1 / 125		0822	4.2 / 128
	1403	0.7 / 21		1356	0.8 / 24
	2019	4.7 / 143		2014	5.8 / 177
12 M	0239	0.6 / 18	**27** Tu	0303	−0.8 / −24
	0842	4.1 / 125		0919	4.1 / 125
	1428	1.0 / 30		1435	1.2 / 37
	2041	4.9 / 149		2049	6.0 / 183
13 Tu	0314	0.2 / 6	**28** W ○	0349	−1.1 / −34
	0923	4.0 / 122		1014	3.9 / 119
	1453	1.2 / 37		1513	1.6 / 49
	2104	5.2 / 158		2125	6.1 / 186
14 W ●	0350	−0.1 / −3	**29** Th	0435	−1.2 / −37
	1005	3.8 / 116		1109	3.8 / 116
	1519	1.5 / 46		1551	1.9 / 58
	2130	5.3 / 162		2202	5.9 / 180
15 Th	0428	−0.4 / −12	**30** F	0522	−1.2 / −37
	1050	3.7 / 113		1206	3.6 / 110
	1547	1.8 / 55		1631	2.2 / 67
	2159	5.4 / 165		2241	5.6 / 171

May

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 Sa	0610	−0.9 / −27	**16** Su	0547	−1.2 / −37
	1308	3.4 / 104		1245	3.4 / 104
	1715	2.5 / 76		1642	2.5 / 76
	2322	5.2 / 158		2256	5.7 / 174
2 Su	0702	−0.6 / −18	**17** M	0637	−1.2 / −37
	1415	3.4 / 104		1345	3.5 / 107
	1807	2.7 / 82		1741	2.7 / 82
				2348	5.4 / 165
3 M	0009	4.8 / 146	**18** Tu	0730	−1.0 / −30
	0757	−0.3 / −9		1444	3.6 / 110
	1527	3.4 / 104		1858	2.7 / 82
	1918	2.9 / 88			
4 Tu	0104	4.4 / 134	**19** W	0049	5.0 / 152
	0855	0.0 / 0		0825	−0.7 / −21
	1629	3.5 / 107		1539	3.9 / 119
	2051	2.8 / 85		2032	2.6 / 79
5 W ◑	0212	4.0 / 122	**20** Th ◐	0202	4.4 / 134
	0950	0.2 / 6		0919	−0.4 / −12
	1714	3.7 / 113		1626	4.3 / 131
	2224	2.6 / 79		2206	2.1 / 64
6 Th	0330	3.7 / 113	**21** F	0328	4.0 / 122
	1041	0.5 / 15		1012	0.0 / 0
	1748	3.9 / 119		1709	4.7 / 143
	2334	2.2 / 67		2325	1.4 / 43
7 F	0447	3.5 / 107	**22** Sa	0456	3.7 / 113
	1124	0.7 / 21		1103	0.5 / 15
	1815	4.2 / 128		1749	5.2 / 158
8 Sa	0026	1.6 / 49	**23** Su	0030	0.6 / 18
	0555	3.4 / 104		0618	3.5 / 107
	1200	0.9 / 27		1150	0.9 / 27
	1839	4.5 / 137		1827	5.6 / 171
9 Su	0108	1.1 / 34	**24** M	0125	−0.1 / −3
	0654	3.4 / 104		0730	3.5 / 107
	1233	1.2 / 37		1236	1.3 / 40
	1902	4.8 / 146		1905	5.9 / 180
10 M	0146	0.6 / 18	**25** Tu	0214	−0.7 / −21
	0746	3.4 / 104		0834	3.6 / 110
	1304	1.4 / 43		1320	1.7 / 52
	1926	5.1 / 155		1942	6.1 / 186
11 Tu	0222	0.1 / 3	**26** W	0300	−1.1 / −34
	0835	3.5 / 107		0932	3.6 / 110
	1335	1.6 / 49		1403	2.0 / 61
	1953	5.4 / 165		2020	6.2 / 189
12 W	0259	−0.4 / −12	**27** Th ○	0343	−1.3 / −40
	0922	3.5 / 107		1024	3.6 / 110
	1406	1.9 / 58		1445	2.2 / 67
	2022	5.6 / 171		2059	6.1 / 186
13 Th ●	0337	−0.8 / −24	**28** F	0426	−1.3 / −40
	1009	3.5 / 107		1114	3.6 / 110
	1439	2.1 / 64		1527	2.4 / 73
	2054	5.8 / 177		2137	5.9 / 180
14 F	0417	−1.0 / −30	**29** Sa	0508	−1.2 / −37
	1058	3.5 / 107		1203	3.6 / 110
	1515	2.2 / 67		1610	2.6 / 79
	2131	5.9 / 180		2216	5.7 / 174
15 Sa	0500	−1.2 / −37	**30** Su	0550	−1.0 / −30
	1150	3.4 / 104		1252	3.6 / 110
	1555	2.4 / 73		1655	2.7 / 82
	2211	5.9 / 180		2256	5.3 / 162
			31 M	0632	−0.7 / −21
				1342	3.6 / 110
				1747	2.8 / 85
				2338	4.9 / 149

June

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 Tu	0715	−0.4 / −12	**16** W	0702	−1.0 / −30
	1431	3.6 / 110		1359	4.3 / 131
	1850	2.8 / 85		1903	2.4 / 73
2 W	0024	4.4 / 134	**17** Th	0042	4.9 / 149
	0757	0.0 / 0		0748	−0.5 / −15
	1517	3.8 / 116		1447	4.6 / 140
	2007	2.8 / 85		2028	2.1 / 64
3 Th	0118	4.0 / 122	**18** F ◐	0154	4.2 / 128
	0840	0.4 / 12		0836	0.1 / 3
	1559	3.9 / 119		1535	5.0 / 152
	2133	2.5 / 76		2157	1.6 / 49
4 F ◑	0226	3.5 / 107	**19** Sa	0320	3.6 / 110
	0921	0.8 / 24		0925	0.7 / 21
	1634	4.2 / 128		1622	5.3 / 162
	2251	2.1 / 64		2317	1.0 / 30
5 Sa	0349	3.1 / 94	**20** Su	0457	3.2 / 98
	1002	1.1 / 34		1016	1.3 / 40
	1706	4.5 / 137		1709	5.7 / 174
	2353	1.6 / 49			
6 Su	0515	3.0 / 91	**21** M	0025	0.3 / 9
	1042	1.5 / 46		0630	3.2 / 98
	1736	4.8 / 146		1110	1.8 / 55
				1754	5.9 / 180
7 M	0042	1.0 / 30	**22** Tu	0121	−0.3 / −9
	0633	3.0 / 91		0748	3.3 / 101
	1122	1.8 / 55		1204	2.2 / 67
	1806	5.1 / 155		1839	6.1 / 186
8 Tu	0124	0.4 / 12	**23** W	0210	−0.7 / −21
	0738	3.1 / 94		0851	3.5 / 107
	1202	2.1 / 64		1257	2.4 / 73
	1838	5.5 / 168		1922	6.2 / 189
9 W	0204	−0.2 / −6	**24** Th	0254	−1.0 / −30
	0833	3.2 / 98		0941	3.6 / 110
	1244	2.2 / 67		1345	2.6 / 79
	1913	5.8 / 177		2003	6.2 / 189
10 Th	0243	−0.7 / −21	**25** F	0335	−1.1 / −34
	0922	3.4 / 104		1024	3.7 / 113
	1326	2.4 / 73		1431	2.6 / 79
	1951	6.1 / 186		2043	6.1 / 186
11 F	0323	−1.1 / −34	**26** Sa ○	0413	−1.1 / −34
	1008	3.5 / 107		1103	3.7 / 113
	1410	2.4 / 73		1514	2.6 / 79
	2031	6.3 / 192		2121	6.0 / 183
12 Sa ●	0404	−1.4 / −43	**27** Su	0449	−0.9 / −27
	1052	3.6 / 110		1140	3.8 / 116
	1456	2.5 / 76		1556	2.6 / 79
	2114	6.4 / 195		2159	5.7 / 174
13 Su	0447	−1.5 / −46	**28** M	0524	−0.7 / −21
	1138	3.7 / 113		1215	3.8 / 116
	1547	2.5 / 76		1639	2.6 / 79
	2200	6.3 / 192		2236	5.4 / 165
14 M	0531	−1.5 / −46	**29** Tu	0558	−0.4 / −12
	1224	3.8 / 116		1251	3.9 / 119
	1643	2.5 / 76		1725	2.6 / 79
	2249	6.1 / 186		2313	5.0 / 152
15 Tu	0616	−1.3 / −40	**30** W	0630	−0.1 / −3
	1311	4.0 / 122		1326	4.0 / 122
	1748	2.5 / 76		1818	2.6 / 79
	2342	5.6 / 171		2353	4.6 / 140

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port San Luis, California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0702	0.3	9
	1402	4.1	125
	1921	2.6	79
2 F	0039	4.0	122
	0734	0.7	21
	1438	4.3	131
	2035	2.4	73
3 Sa	0137	3.5	107
	0806	1.2	37
	1515	4.5	137
	2157	2.1	64
4 Su ◑	0258	3.1	94
	0841	1.6	49
	1553	4.7	143
	2311	1.6	49
5 M	0443	2.8	85
	0922	2.0	61
	1633	5.0	152
6 Tu	0010	1.0	30
	0623	2.9	88
	1012	2.4	73
	1715	5.4	165
7 W	0059	0.4	12
	0737	3.0	91
	1109	2.6	79
	1759	5.7	174
8 Th	0143	−0.2	−6
	0829	3.3	101
	1207	2.7	82
	1844	6.1	186
9 F	0224	−0.7	−21
	0911	3.5	107
	1303	2.6	79
	1930	6.4	195
10 Sa	0305	−1.1	−34
	0949	3.7	113
	1356	2.5	76
	2017	6.7	204
11 Su ●	0346	−1.4	−43
	1027	3.9	119
	1449	2.4	73
	2104	6.7	204
12 M	0426	−1.5	−46
	1105	4.2	128
	1544	2.2	67
	2153	6.6	201
13 Tu	0506	−1.3	−40
	1144	4.4	134
	1642	2.0	61
	2243	6.2	189
14 W	0547	−1.0	−30
	1225	4.7	143
	1745	1.9	58
	2337	5.5	168
15 Th	0628	−0.4	−12
	1309	5.0	152
	1855	1.7	52

	Time	Height	
	h m	ft	cm
16 F	0038	4.8	146
	0710	0.2	6
	1355	5.3	162
	2014	1.5	46
17 Sa	0151	4.0	122
	0753	0.9	27
	1445	5.5	168
	2139	1.2	37
18 Su ◐	0323	3.4	104
	0842	1.6	49
	1538	5.7	174
	2302	0.7	21
19 M	0512	3.2	98
	0939	2.2	67
	1634	5.8	177
20 Tu	0013	0.2	6
	0650	3.3	101
	1046	2.6	79
	1730	5.9	180
21 W	0111	−0.2	−6
	0801	3.5	107
	1154	2.8	85
	1822	6.0	183
22 Th	0200	−0.5	−15
	0851	3.7	113
	1253	2.8	85
	1911	6.1	186
23 F	0242	−0.6	−18
	0929	3.8	116
	1343	2.7	82
	1954	6.1	186
24 Sa	0319	−0.6	−18
	1001	3.9	119
	1426	2.6	79
	2033	6.0	183
25 Su ○	0352	−0.6	−18
	1030	4.0	122
	1505	2.5	76
	2109	5.9	180
26 M	0422	−0.4	−12
	1058	4.1	125
	1543	2.4	73
	2144	5.7	174
27 Tu	0450	−0.2	−6
	1124	4.2	128
	1622	2.3	70
	2218	5.4	165
28 W	0517	0.1	3
	1151	4.3	131
	1703	2.3	70
	2253	5.0	152
29 Th	0543	0.4	12
	1218	4.4	134
	1749	2.2	67
	2332	4.6	140
30 F	0609	0.8	24
	1247	4.5	137
	1842	2.2	67
31 Sa	0015	4.1	125
	0634	1.3	40
	1319	4.7	143
	1944	2.0	61

August

	Time	Height	
	h m	ft	cm
1 Su	0111	3.5	107
	0701	1.8	55
	1356	4.8	146
	2100	1.8	55
2 M ◑	0233	3.1	94
	0730	2.2	67
	1440	4.9	149
	2222	1.5	46
3 Tu	0433	2.9	88
	0810	2.6	79
	1533	5.2	158
	2333	1.0	30
4 W	0628	3.0	91
	0917	2.9	88
	1631	5.4	165
5 Th	0030	0.4	12
	0730	3.3	101
	1042	2.9	88
	1729	5.8	177
6 F	0117	−0.1	−3
	0808	3.5	107
	1155	2.8	85
	1824	6.2	189
7 Sa	0159	−0.6	−18
	0841	3.8	116
	1257	2.6	79
	1916	6.5	198
8 Su	0239	−0.9	−27
	0913	4.1	125
	1352	2.2	67
	2006	6.7	204
9 M ●	0318	−1.1	−34
	0947	4.5	137
	1446	1.9	58
	2056	6.7	204
10 Tu	0356	−1.0	−30
	1021	4.8	146
	1540	1.5	46
	2146	6.4	195
11 W	0434	−0.7	−21
	1058	5.1	155
	1636	1.2	37
	2238	5.9	180
12 Th	0512	−0.2	−6
	1136	5.4	165
	1736	1.0	30
	2334	5.2	158
13 F	0550	0.4	12
	1218	5.6	171
	1841	0.9	27
14 Sa	0038	4.5	137
	0630	1.1	34
	1303	5.7	174
	1953	0.8	24
15 Su	0155	3.8	116
	0714	1.8	55
	1355	5.7	174
	2115	0.7	21

	Time	Height	
	h m	ft	cm
16 M ◐	0336	3.4	104
	0807	2.4	73
	1455	5.6	171
	2239	0.5	15
17 Tu	0529	3.4	104
	0920	2.8	85
	1603	5.6	171
	2352	0.3	9
18 W	0654	3.6	110
	1047	3.0	91
	1711	5.6	171
19 Th	0051	0.0	0
	0747	3.8	116
	1201	2.9	88
	1811	5.7	174
20 F	0138	−0.1	−3
	0825	4.0	122
	1257	2.7	82
	1901	5.7	174
21 Sa	0217	−0.2	−6
	0855	4.1	125
	1341	2.5	76
	1944	5.7	174
22 Su	0250	−0.1	−3
	0920	4.2	128
	1420	2.3	70
	2021	5.7	174
23 M	0319	0.0	0
	0943	4.3	131
	1455	2.0	61
	2056	5.6	171
24 Tu ○	0344	0.2	6
	1005	4.5	137
	1530	1.9	58
	2130	5.4	165
25 W	0408	0.4	12
	1027	4.6	140
	1605	1.7	52
	2204	5.1	155
26 Th	0431	0.7	21
	1049	4.8	146
	1643	1.6	49
	2240	4.8	146
27 F	0454	1.1	34
	1113	4.9	149
	1724	1.5	46
	2320	4.3	131
28 Sa	0517	1.5	46
	1139	4.9	149
	1810	1.5	46
29 Su	0007	3.9	119
	0541	1.9	58
	1209	5.0	152
	1906	1.4	43
30 M	0107	3.5	107
	0605	2.3	70
	1246	5.0	152
	2015	1.3	40
31 Tu	0238	3.1	94
	0634	2.7	82
	1335	5.0	152
	2136	1.1	34

September

	Time	Height	
	h m	ft	cm
1 W ◑	0450	3.1	94
	0721	3.0	91
	1440	5.1	155
	2253	0.8	24
2 Th	0621	3.3	101
	0904	3.2	98
	1555	5.3	162
	2354	0.3	9
3 F	0701	3.6	110
	1045	3.1	94
	1706	5.6	171
4 Sa	0043	−0.1	−3
	0731	3.9	119
	1158	2.7	82
	1808	5.9	180
5 Su	0126	−0.4	−12
	0800	4.3	131
	1257	2.2	67
	1904	6.2	189
6 M	0205	−0.5	−15
	0831	4.7	143
	1351	1.6	49
	1958	6.2	189
7 Tu	0243	−0.5	−15
	0902	5.1	155
	1443	1.1	34
	2050	6.1	186
8 W	0320	−0.2	−6
	0936	5.5	168
	1535	0.6	18
●	2142	5.8	177
9 Th	0356	0.2	6
	1011	5.8	177
	1628	0.3	9
	2236	5.3	162
10 F	0433	0.8	24
	1049	6.0	183
	1723	0.1	3
	2335	4.7	143
11 Sa	0511	1.4	43
	1129	6.0	183
	1823	0.1	3
12 Su	0042	4.2	128
	0552	2.0	61
	1215	5.9	180
	1930	0.2	6
13 M	0204	3.7	113
	0640	2.5	76
	1308	5.6	171
	2046	0.3	9
14 Tu ◐	0347	3.6	110
	0745	3.0	91
	1414	5.3	162
	2207	0.4	12
15 W	0526	3.7	113
	0920	3.2	98
	1532	5.1	155
	2319	0.3	9

	Time	Height	
	h m	ft	cm
16 Th	0630	3.9	119
	1055	3.0	91
	1649	5.0	152
17 F	0017	0.3	9
	0712	4.1	125
	1203	2.7	82
	1753	5.1	155
18 Sa	0102	0.3	9
	0743	4.3	131
	1253	2.4	73
	1845	5.1	155
19 Su	0138	0.3	9
	0809	4.4	134
	1333	2.0	61
	1928	5.1	155
20 M	0208	0.4	12
	0831	4.6	140
	1409	1.7	52
	2006	5.1	155
21 Tu	0234	0.6	18
	0851	4.7	143
	1442	1.4	43
	2043	5.0	152
22 W	0258	0.9	27
	0911	4.9	149
	1516	1.1	34
	2119	4.8	146
23 Th ○	0321	1.1	34
	0931	5.1	155
	1550	0.9	27
	2156	4.6	140
24 F	0344	1.4	43
	0953	5.2	158
	1626	0.7	21
	2236	4.3	131
25 Sa	0407	1.8	55
	1017	5.3	162
	1705	0.7	21
	2320	4.0	122
26 Su	0430	2.1	64
	1044	5.3	162
	1749	0.6	18
27 M	0013	3.7	113
	0455	2.5	76
	1116	5.3	162
	1841	0.6	18
28 Tu	0122	3.4	104
	0523	2.8	85
	1156	5.2	158
	1945	0.6	18
29 W	0259	3.3	101
	0601	3.0	91
	1249	5.1	155
	2059	0.6	18
30 Th ◑	0446	3.4	104
	0720	3.3	101
	1401	5.0	152
	2211	0.4	12

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port San Luis, California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0543	3.6	110
	0922	3.2	98
	1526	5.0	152
	2312	0.1	3
2 Sa	0617	4.0	122
	1055	2.8	85
	1646	5.1	155
3 Su	0002	0.0	0
	0647	4.4	134
	1202	2.2	67
	1755	5.3	162
4 M	0045	−0.1	−3
	0717	4.8	146
	1258	1.5	46
	1856	5.4	165
5 Tu	0125	0.1	3
	0747	5.3	162
	1350	0.8	24
	1953	5.4	165
6 W	0203	0.3	9
	0820	5.8	177
	1440	0.1	3
	2048	5.2	158
7 Th ●	0241	0.7	21
	0854	6.2	189
	1529	−0.4	−12
	2143	5.0	152
8 F	0318	1.1	34
	0930	6.4	195
	1619	−0.7	−21
	2240	4.6	140
9 Sa	0356	1.6	49
	1008	6.4	195
	1711	−0.7	−21
	2340	4.3	131
10 Su	0436	2.1	64
	1048	6.2	189
	1806	−0.6	−18
11 M	0048	3.9	119
	0520	2.6	79
	1133	5.9	180
	1906	−0.3	−9
12 Tu	0208	3.7	113
	0613	2.9	88
	1226	5.4	165
	2013	0.0	0
13 W	0338	3.7	113
	0730	3.2	98
	1330	5.0	152
	2124	0.2	6
14 Th ◐	0455	3.9	119
	0913	3.2	98
	1450	4.6	140
	2230	0.4	12
15 F	0548	4.1	125
	1046	2.9	88
	1612	4.4	134
	2326	0.5	15

	Time	Height	
	h m	ft	cm
16 Sa	0625	4.3	131
	1151	2.5	76
	1722	4.4	134
17 Su	0010	0.6	18
	0653	4.5	137
	1240	2.0	61
	1819	4.3	131
18 M	0046	0.8	24
	0717	4.7	143
	1320	1.6	49
	1908	4.3	131
19 Tu	0116	1.0	30
	0738	4.9	149
	1355	1.1	34
	1952	4.3	131
20 W	0143	1.2	37
	0759	5.1	155
	1428	0.7	21
	2033	4.2	128
21 Th	0208	1.5	46
	0820	5.3	162
	1502	0.4	12
	2113	4.1	125
22 F ○	0232	1.8	55
	0843	5.5	168
	1536	0.1	3
	2155	4.0	122
23 Sa	0258	2.0	61
	0908	5.7	174
	1612	−0.1	−3
	2239	3.9	119
24 Su	0324	2.3	70
	0936	5.7	174
	1651	−0.2	−6
	2328	3.7	113
25 M	0353	2.5	76
	1007	5.7	174
	1736	−0.2	−6
26 Tu	0025	3.6	110
	0425	2.8	85
	1044	5.6	171
	1826	−0.2	−6
27 W	0134	3.5	107
	0505	3.0	91
	1128	5.4	165
	1923	−0.1	−3
28 Th	0253	3.5	107
	0606	3.2	98
	1223	5.2	158
	2025	0.0	0
29 F	0401	3.7	113
	0744	3.2	98
	1336	4.9	149
	2127	0.0	0
30 Sa ◑	0450	4.0	122
	0933	3.0	91
	1502	4.6	140
	2224	0.1	3
31 Su	0527	4.4	134
	1058	2.4	73
	1628	4.5	137
	2315	0.3	9

November

	Time	Height	
	h m	ft	cm
1 M	0601	4.9	149
	1204	1.6	49
	1745	4.4	134
2 Tu	0000	0.5	15
	0634	5.4	165
	1259	0.8	24
	1854	4.4	134
3 W	0043	0.8	24
	0708	5.9	180
	1349	0.0	0
	1956	4.4	134
4 Th	0124	1.2	37
	0743	6.3	192
	1437	−0.6	−18
	2055	4.3	131
5 F ●	0204	1.6	49
	0819	6.5	198
	1524	−1.1	−34
	2151	4.2	128
6 Sa	0244	1.9	58
	0857	6.6	201
	1611	−1.2	−37
	2248	4.1	125
7 Su	0325	2.3	70
	0937	6.5	198
	1659	−1.2	−37
	2346	4.0	122
8 M	0408	2.6	79
	1018	6.2	189
	1749	−1.0	−30
9 Tu	0047	3.9	119
	0456	2.8	85
	1102	5.8	177
	1841	−0.6	−18
10 W	0153	3.8	116
	0553	3.0	91
	1151	5.3	162
	1935	−0.3	−9
11 Th	0301	3.8	116
	0707	3.2	98
	1247	4.8	146
	2032	0.1	3
12 F	0402	4.0	122
	0841	3.1	94
	1355	4.3	131
	2127	0.4	12
13 Sa ◐	0450	4.1	125
	1014	2.8	85
	1515	3.9	119
	2218	0.7	21
14 Su	0527	4.4	134
	1125	2.3	70
	1636	3.7	113
	2302	1.0	30
15 M	0556	4.6	140
	1219	1.8	55
	1747	3.6	110
	2341	1.3	40

	Time	Height	
	h m	ft	cm
16 Tu	0621	4.9	149
	1301	1.3	40
	1848	3.6	110
17 W	0015	1.6	49
	0645	5.1	155
	1338	0.7	21
	1941	3.6	110
18 Th	0046	1.8	55
	0710	5.4	165
	1413	0.3	9
	2029	3.6	110
19 F	0117	2.1	64
	0736	5.7	174
	1448	−0.1	−3
	2114	3.7	113
20 Sa	0148	2.3	70
	0804	5.9	180
	1523	−0.5	−15
	2159	3.7	113
21 Su ○	0220	2.4	73
	0835	6.0	183
	1601	−0.7	−21
	2244	3.7	113
22 M	0254	2.6	79
	0909	6.1	186
	1641	−0.9	−27
	2331	3.7	113
23 Tu	0332	2.7	82
	0947	6.1	186
	1724	−0.9	−27
24 W	0022	3.7	113
	0415	2.8	85
	1029	5.9	180
	1810	−0.8	−24
25 Th	0117	3.7	113
	0510	2.9	88
	1116	5.6	171
	1858	−0.7	−21
26 F	0213	3.9	119
	0621	3.0	91
	1212	5.2	158
	1949	−0.4	−12
27 Sa	0305	4.1	125
	0752	2.9	88
	1320	4.7	143
	2041	−0.1	−3
28 Su ◑	0353	4.5	137
	0929	2.5	76
	1444	4.1	125
	2133	0.3	9
29 M	0436	4.9	149
	1053	1.8	55
	1617	3.8	116
	2225	0.8	24
30 Tu	0516	5.4	165
	1201	1.0	30
	1746	3.6	110
	2315	1.2	37

December

	Time	Height	
	h m	ft	cm
1 W	0556	5.9	180
	1258	0.1	3
	1904	3.6	110
2 Th	0003	1.6	49
	0635	6.2	189
	1349	−0.5	−15
	2011	3.7	113
3 F	0050	2.0	61
	0715	6.5	198
	1436	−1.0	−30
	2109	3.8	116
4 Sa	0137	2.2	67
	0756	6.6	201
	1521	−1.3	−40
	2202	3.9	119
5 Su ●	0222	2.4	73
	0837	6.6	201
	1604	−1.4	−43
	2252	3.9	119
6 M	0307	2.6	79
	0918	6.4	195
	1647	−1.3	−40
	2340	3.9	119
7 Tu	0353	2.7	82
	0959	6.1	186
	1730	−1.1	−34
8 W	0027	3.9	119
	0440	2.8	85
	1040	5.7	174
	1812	−0.7	−21
9 Th	0116	3.9	119
	0533	2.9	88
	1123	5.2	158
	1854	−0.3	−9
10 F	0204	3.9	119
	0635	2.9	88
	1209	4.7	143
	1935	0.1	3
11 Sa	0251	4.1	125
	0751	2.9	88
	1302	4.1	125
	2017	0.5	15
12 Su	0334	4.2	128
	0918	2.7	82
	1409	3.6	110
	2058	1.0	30
13 M ◐	0413	4.4	134
	1042	2.2	67
	1536	3.2	98
	2140	1.4	43
14 Tu	0448	4.7	143
	1147	1.7	52
	1711	3.0	91
	2222	1.8	55
15 W	0521	4.9	149
	1237	1.1	34
	1834	3.0	91
	2305	2.1	64

	Time	Height	
	h m	ft	cm
16 Th	0553	5.2	158
	1319	0.6	18
	1940	3.1	94
	2348	2.4	73
17 F	0626	5.5	168
	1356	0.0	0
	2032	3.3	101
18 Sa	0031	2.5	76
	0700	5.8	177
	1433	−0.4	−12
	2116	3.5	107
19 Su	0113	2.6	79
	0736	6.1	186
	1510	−0.8	−24
	2156	3.6	110
20 M	0155	2.6	79
	0815	6.3	192
	1547	−1.1	−34
	2235	3.7	113
21 Tu ○	0239	2.6	79
	0855	6.4	195
	1626	−1.3	−40
	2314	3.8	116
22 W	0325	2.6	79
	0937	6.4	195
	1706	−1.3	−40
	2355	3.9	119
23 Th	0417	2.5	76
	1022	6.1	186
	1747	−1.1	−34
24 F	0038	4.1	125
	0516	2.5	76
	1111	5.7	174
	1829	−0.8	−24
25 Sa	0122	4.4	134
	0624	2.4	73
	1206	5.1	155
	1912	−0.4	−12
26 Su	0208	4.6	140
	0745	2.2	67
	1312	4.4	134
	1956	0.2	6
27 M ◑	0255	5.0	152
	0914	1.8	55
	1435	3.7	113
	2044	0.9	27
28 Tu	0344	5.3	162
	1041	1.2	37
	1618	3.2	98
	2136	1.5	46
29 W	0433	5.7	174
	1154	0.5	15
	1801	3.1	94
	2233	2.0	61
30 Th	0523	6.0	183
	1255	−0.2	−6
	1926	3.3	101
	2334	2.3	70
31 F	0612	6.2	189
	1347	−0.7	−21
	2030	3.5	107

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Monterey, California, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0339	2.5	76
	0949	6.8	207
	1714	−1.6	−49
2 Sa	0000	4.3	131
	0437	2.4	73
	1040	6.5	198
	1757	−1.4	−43
3 Su	0042	4.5	137
	0538	2.3	70
	1133	6.0	183
	1839	−0.9	−27
4 M	0126	4.8	146
	0646	2.1	64
	1230	5.3	162
	1922	−0.4	−12
5 Tu	0211	5.0	152
	0802	1.9	58
	1335	4.5	137
	2006	0.3	9
6 W	0258	5.3	162
	0924	1.6	49
	1455	3.7	113
	2051	1.0	30
7 Th ◑	0347	5.5	168
	1048	1.1	34
	1633	3.2	98
	2141	1.7	52
8 F	0437	5.6	171
	1204	0.5	15
	1820	3.1	94
	2237	2.2	67
9 Sa	0528	5.7	174
	1308	0.1	3
	1950	3.3	101
	2339	2.6	79
10 Su	0618	5.8	177
	1400	−0.3	−9
	2056	3.5	107
11 M	0041	2.8	85
	0705	5.9	180
	1445	−0.6	−18
	2144	3.7	113
12 Tu	0136	2.9	88
	0748	5.9	180
	1524	−0.7	−21
	2222	3.8	116
13 W	0223	2.9	88
	0829	5.9	180
	1600	−0.7	−21
	2253	3.9	119
14 Th ●	0304	2.8	85
	0906	5.8	177
	1632	−0.6	−18
	2322	3.9	119
15 F	0343	2.7	82
	0942	5.7	174
	1702	−0.5	−15
	2350	4.0	122

	Time	Height	
	h m	ft	cm
16 Sa	0422	2.6	79
	1016	5.5	168
	1731	−0.3	−9
17 Su	0017	4.1	125
	0503	2.6	79
	1051	5.2	158
	1759	0.0	0
18 M	0044	4.2	128
	0548	2.5	76
	1128	4.8	146
	1826	0.3	9
19 Tu	0112	4.3	131
	0638	2.4	73
	1208	4.3	131
	1852	0.7	21
20 W	0142	4.5	137
	0736	2.3	70
	1255	3.8	116
	1919	1.1	34
21 Th	0214	4.6	140
	0844	2.0	61
	1358	3.3	101
	1947	1.6	49
22 F	0250	4.8	146
	1002	1.7	52
	1529	2.9	88
	2019	2.0	61
23 Sa ◐	0333	5.0	152
	1117	1.2	37
	1731	2.7	82
	2102	2.4	73
24 Su	0422	5.3	162
	1221	0.5	15
	1916	2.9	88
	2208	2.7	82
25 M	0517	5.6	171
	1314	−0.1	−3
	2017	3.2	98
	2328	2.9	88
26 Tu	0613	6.0	183
	1402	−0.6	−18
	2058	3.5	107
27 W	0040	2.8	85
	0707	6.3	192
	1446	−1.1	−34
	2134	3.8	116
28 Th	0143	2.6	79
	0800	6.6	201
	1528	−1.4	−43
	2209	4.1	125
29 F ○	0241	2.3	70
	0852	6.7	204
	1608	−1.4	−43
	2244	4.4	134
30 Sa	0337	2.0	61
	0943	6.6	201
	1648	−1.3	−40
	2320	4.7	143
31 Su	0434	1.7	52
	1035	6.2	189
	1727	−0.9	−27
	2358	5.0	152

February

	Time	Height	
	h m	ft	cm
1 M	0533	1.4	43
	1128	5.6	171
	1806	−0.4	−12
2 Tu	0037	5.3	162
	0635	1.2	37
	1226	4.9	149
	1845	0.3	9
3 W	0119	5.4	165
	0743	1.0	30
	1332	4.1	125
	1924	1.0	30
4 Th	0204	5.5	168
	0858	0.9	27
	1453	3.5	107
	2007	1.7	52
5 F ◑	0255	5.5	168
	1019	0.6	18
	1638	3.1	94
	2058	2.3	70
6 Sa	0351	5.4	165
	1138	0.4	12
	1831	3.1	94
	2206	2.7	82
7 Su	0453	5.4	165
	1246	0.1	3
	1954	3.4	104
	2327	2.9	88
8 M	0553	5.4	165
	1340	−0.2	−6
	2045	3.6	110
9 Tu	0039	2.9	88
	0649	5.4	165
	1425	−0.3	−9
	2121	3.8	116
10 W	0135	2.8	85
	0736	5.5	168
	1502	−0.4	−12
	2150	3.9	119
11 Th	0219	2.6	79
	0818	5.5	168
	1534	−0.3	−9
	2214	4.0	122
12 F	0258	2.4	73
	0856	5.5	168
	1603	−0.3	−9
	2237	4.1	125
13 Sa ●	0335	2.2	67
	0931	5.4	165
	1629	−0.1	−3
	2259	4.2	128
14 Su	0412	2.0	61
	1006	5.2	158
	1654	0.1	3
	2321	4.4	134
15 M	0450	1.8	55
	1041	4.9	149
	1718	0.4	12
	2345	4.5	137

	Time	Height	
	h m	ft	cm
16 Tu	0530	1.7	52
	1119	4.5	137
	1742	0.8	24
17 W	0009	4.6	140
	0615	1.5	46
	1201	4.1	125
	1805	1.1	34
18 Th	0036	4.8	146
	0705	1.4	43
	1251	3.6	110
	1829	1.6	49
19 F	0107	4.9	149
	0804	1.2	37
	1356	3.2	98
	1855	2.0	61
20 Sa	0144	5.0	152
	0915	1.0	30
	1531	2.8	85
	1925	2.4	73
21 Su ◐	0233	5.1	155
	1033	0.7	21
	1737	2.8	85
	2013	2.7	82
22 M	0334	5.2	158
	1144	0.3	9
	1908	3.1	94
	2146	2.9	88
23 Tu	0444	5.4	165
	1244	−0.2	−6
	1952	3.4	104
	2325	2.9	88
24 W	0552	5.7	174
	1334	−0.6	−18
	2026	3.7	113
25 Th	0041	2.6	79
	0654	5.9	180
	1418	−0.9	−27
	2057	4.0	122
26 F	0145	2.1	64
	0752	6.1	186
	1459	−1.0	−30
	2129	4.4	134
27 Sa	0241	1.6	49
	0846	6.1	186
	1538	−0.9	−27
	2202	4.8	146
28 Su ○	0336	1.1	34
	0939	5.9	180
	1616	−0.6	−18
	2236	5.2	158

March

	Time	Height	
	h m	ft	cm
1 M	0429	0.7	21
	1033	5.5	168
	1653	−0.1	−3
	2312	5.5	168
2 Tu	0524	0.4	12
	1128	4.9	149
	1729	0.5	15
	2349	5.6	171
3 W	0621	0.2	6
	1226	4.3	131
	1807	1.1	34
4 Th	0029	5.6	171
	0721	0.2	6
	1334	3.8	116
	1846	1.7	52
5 F	0113	5.5	168
	0828	0.2	6
	1456	3.3	101
	1929	2.2	67
6 Sa	0203	5.3	162
	0943	0.3	9
	1640	3.2	98
	2027	2.7	82
7 Su ◑	0304	5.0	152
	1100	0.2	6
	1823	3.3	101
	2152	2.9	88
8 M	0414	4.8	146
	1209	0.2	6
	1928	3.5	107
	2326	2.9	88
9 Tu	0526	4.8	146
	1305	0.1	3
	2009	3.7	113
10 W	0037	2.7	82
	0628	4.8	146
	1349	0.0	0
	2038	3.8	116
11 Th	0128	2.5	76
	0719	4.9	149
	1425	0.1	3
	2102	4.0	122
12 F	0210	2.1	64
	0803	4.9	149
	1455	0.1	3
	2124	4.1	125
13 Sa	0248	1.8	55
	0842	4.9	149
	1522	0.3	9
	2144	4.3	131
14 Su	0324	1.5	46
	0920	4.8	146
	1547	0.5	15
	2204	4.5	137
15 M ●	0359	1.2	37
	0958	4.6	140
	1611	0.7	21
	2226	4.7	143

	Time	Height	
	h m	ft	cm
16 Tu	0436	0.9	27
	1037	4.3	131
	1635	1.0	30
	2249	4.9	149
17 W	0515	0.7	21
	1119	4.1	125
	1659	1.3	40
	2314	5.0	152
18 Th	0556	0.5	15
	1206	3.7	113
	1724	1.7	52
	2342	5.1	155
19 F	0644	0.4	12
	1301	3.4	104
	1750	2.1	64
20 Sa	0015	5.1	155
	0739	0.3	9
	1412	3.1	94
	1820	2.4	73
21 Su	0057	5.1	155
	0844	0.2	6
	1547	3.0	91
	1901	2.7	82
22 M	0151	5.1	155
	0956	0.1	3
	1727	3.1	94
	2016	2.9	88
23 Tu ◐	0301	5.0	152
	1105	−0.1	−3
	1829	3.3	101
	2204	2.9	88
24 W	0420	5.0	152
	1206	−0.3	−9
	1909	3.7	113
	2337	2.6	79
25 Th	0536	5.1	155
	1257	−0.4	−12
	1942	4.0	122
26 F	0048	2.0	61
	0645	5.2	158
	1342	−0.4	−12
	2013	4.5	137
27 Sa	0148	1.4	43
	0746	5.2	158
	1423	−0.3	−9
	2046	4.9	149
28 Su	0242	0.7	21
	0844	5.2	158
	1501	0.0	0
	2119	5.3	162
29 M ○	0333	0.1	3
	0940	4.9	149
	1539	0.4	12
	2153	5.6	171
30 Tu	0423	−0.3	−9
	1035	4.6	140
	1616	0.8	24
	2228	5.8	177
31 W	0514	−0.6	−18
	1132	4.3	131
	1653	1.3	40
	2305	5.8	177

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Monterey, California, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0605	−0.6	−18
	1232	3.9	119
	1731	1.8	55
	2344	5.6	171
2 F	0659	−0.5	−15
	1339	3.6	110
	1812	2.3	70
3 Sa	0027	5.4	165
	0758	−0.3	−9
	1457	3.4	104
	1901	2.6	79
4 Su	0116	5.0	152
	0903	−0.1	−3
	1627	3.3	101
	2008	2.9	88
5 M	0215	4.6	140
	1012	0.1	3
	1746	3.4	104
	2142	3.0	91
6 Tu ◑	0328	4.3	131
	1116	0.2	6
	1839	3.6	110
	2315	2.8	85
7 W	0446	4.2	128
	1211	0.3	9
	1915	3.8	116
8 Th	0023	2.5	76
	0555	4.1	125
	1256	0.4	12
	1943	4.0	122
9 F	0114	2.1	64
	0653	4.1	125
	1332	0.5	15
	2006	4.2	128
10 Sa	0156	1.6	49
	0743	4.1	125
	1403	0.7	21
	2027	4.4	134
11 Su	0233	1.2	37
	0828	4.1	125
	1431	0.9	27
	2048	4.7	143
12 M	0309	0.7	21
	0911	4.0	122
	1457	1.1	34
	2110	4.9	149
13 Tu	0345	0.3	9
	0954	3.9	119
	1524	1.4	43
	2134	5.1	155
14 W ●	0422	0.0	0
	1039	3.8	116
	1551	1.6	49
	2200	5.3	162
15 Th	0500	−0.3	−9
	1126	3.7	113
	1619	1.9	58
	2229	5.4	165

	Time	Height	
	h m	ft	cm
16 F	0542	−0.4	−12
	1218	3.5	107
	1649	2.2	67
	2303	5.4	165
17 Sa	0629	−0.5	−15
	1317	3.3	101
	1724	2.5	76
	2342	5.4	165
18 Su	0722	−0.5	−15
	1427	3.2	98
	1807	2.7	82
19 M	0029	5.3	162
	0820	−0.5	−15
	1543	3.3	101
	1911	2.9	88
20 Tu	0127	5.0	152
	0923	−0.4	−12
	1649	3.5	107
	2043	2.9	88
21 W ◐	0240	4.8	146
	1025	−0.3	−9
	1739	3.8	116
	2223	2.6	79
22 Th	0403	4.6	140
	1122	−0.2	−6
	1819	4.1	125
	2346	2.1	64
23 F	0524	4.4	134
	1213	0.0	0
	1855	4.6	140
24 Sa	0052	1.3	40
	0639	4.3	131
	1258	0.2	6
	1930	5.0	152
25 Su	0149	0.6	18
	0746	4.3	131
	1341	0.6	18
	2004	5.4	165
26 M	0241	−0.1	−3
	0848	4.2	128
	1421	0.9	27
	2039	5.8	177
27 Tu	0330	−0.7	−21
	0947	4.1	125
	1501	1.3	40
	2114	6.0	183
28 W ○	0417	−1.0	−30
	1044	3.9	119
	1540	1.7	52
	2151	6.0	183
29 Th	0503	−1.2	−37
	1140	3.8	116
	1620	2.1	64
	2228	5.9	180
30 F	0550	−1.1	−34
	1238	3.7	113
	1701	2.4	73
	2308	5.6	171

May

	Time	Height	
	h m	ft	cm
1 Sa	0638	−0.9	−27
	1339	3.5	107
	1746	2.6	79
	2349	5.3	162
2 Su	0729	−0.6	−18
	1445	3.5	107
	1839	2.8	85
3 M	0036	4.9	149
	0823	−0.3	−9
	1552	3.5	107
	1949	3.0	91
4 Tu	0129	4.4	134
	0918	0.0	0
	1651	3.6	110
	2117	2.9	88
5 W ◑	0235	4.0	122
	1012	0.3	9
	1737	3.8	116
	2246	2.7	82
6 Th	0351	3.7	113
	1102	0.5	15
	1811	4.0	122
	2357	2.3	70
7 F	0508	3.5	107
	1146	0.8	24
	1840	4.2	128
8 Sa	0051	1.8	55
	0619	3.4	104
	1224	1.0	30
	1905	4.5	137
9 Su	0136	1.2	37
	0720	3.4	104
	1259	1.3	40
	1929	4.7	143
10 M	0215	0.7	21
	0816	3.4	104
	1331	1.5	46
	1954	5.0	152
11 Tu	0252	0.1	3
	0907	3.5	107
	1403	1.8	55
	2021	5.3	162
12 W	0329	−0.3	−9
	0955	3.5	107
	1436	2.0	61
	2050	5.5	168
13 Th ●	0407	−0.7	−21
	1044	3.5	107
	1509	2.2	67
	2122	5.7	174
14 F	0447	−1.0	−30
	1133	3.5	107
	1546	2.4	73
	2159	5.8	177
15 Sa	0530	−1.2	−37
	1225	3.5	107
	1626	2.5	76
	2239	5.8	177

	Time	Height	
	h m	ft	cm
16 Su	0616	−1.2	−37
	1319	3.5	107
	1713	2.7	82
	2324	5.7	174
17 M	0706	−1.1	−34
	1416	3.6	110
	1812	2.8	85
18 Tu	0016	5.4	165
	0757	−0.9	−27
	1511	3.7	113
	1928	2.8	85
19 W	0116	5.0	152
	0850	−0.7	−21
	1603	4.0	122
	2057	2.6	79
20 Th ◐	0227	4.5	137
	0943	−0.3	−9
	1649	4.4	134
	2227	2.1	64
21 F	0350	4.0	122
	1035	0.1	3
	1731	4.8	146
	2347	1.5	46
22 Sa	0518	3.7	113
	1125	0.6	18
	1811	5.2	158
23 Su	0052	0.7	21
	0641	3.5	107
	1213	1.0	30
	1849	5.6	171
24 M	0149	0.0	0
	0756	3.5	107
	1259	1.4	43
	1928	5.9	180
25 Tu	0239	−0.6	−18
	0902	3.5	107
	1344	1.8	55
	2006	6.0	183
26 W	0325	−1.0	−30
	1001	3.6	110
	1428	2.1	64
	2044	6.1	186
27 Th ○	0410	−1.3	−40
	1055	3.6	110
	1511	2.4	73
	2123	6.0	183
28 F	0453	−1.3	−40
	1146	3.6	110
	1555	2.5	76
	2202	5.9	180
29 Sa	0535	−1.2	−37
	1236	3.7	113
	1639	2.7	82
	2241	5.6	171
30 Su	0617	−1.0	−30
	1325	3.7	113
	1726	2.8	85
	2322	5.3	162
31 M	0659	−0.7	−21
	1413	3.7	113
	1819	2.9	88

June

	Time	Height	
	h m	ft	cm
1 Tu	0004	4.9	149
	0741	−0.3	−9
	1501	3.7	113
	1922	2.9	88
2 W	0051	4.4	134
	0824	0.0	0
	1545	3.9	119
	2039	2.8	85
3 Th	0145	4.0	122
	0905	0.4	12
	1625	4.0	122
	2202	2.6	79
4 F ◑	0253	3.5	107
	0946	0.8	24
	1700	4.2	128
	2319	2.1	64
5 Sa	0415	3.1	94
	1027	1.2	37
	1731	4.5	137
6 Su	0020	1.6	49
	0542	3.0	91
	1107	1.5	46
	1801	4.8	146
7 M	0110	1.0	30
	0701	2.9	88
	1148	1.8	55
	1832	5.1	155
8 Tu	0152	0.4	12
	0809	3.0	91
	1229	2.1	64
	1904	5.4	165
9 W	0232	−0.2	−6
	0905	3.2	98
	1311	2.3	70
	1939	5.7	174
10 Th	0311	−0.7	−21
	0955	3.3	101
	1354	2.5	76
	2017	6.0	183
11 F	0351	−1.1	−34
	1042	3.5	107
	1438	2.5	76
	2057	6.2	189
12 Sa ●	0433	−1.4	−43
	1126	3.6	110
	1525	2.6	79
	2140	6.3	192
13 Su	0515	−1.5	−46
	1211	3.7	113
	1616	2.6	79
	2226	6.2	189
14 M	0559	−1.5	−46
	1256	3.9	119
	1712	2.6	79
	2315	6.0	183
15 Tu	0644	−1.3	−40
	1341	4.1	125
	1817	2.5	76

	Time	Height	
	h m	ft	cm
16 W	0009	5.5	168
	0729	−0.9	−27
	1427	4.3	131
	1932	2.4	73
17 Th	0109	4.9	149
	0815	−0.4	−12
	1513	4.6	140
	2055	2.1	64
18 F ◐	0220	4.2	128
	0901	0.1	3
	1559	5.0	152
	2220	1.6	49
19 Sa	0345	3.6	110
	0949	0.7	21
	1645	5.3	162
	2339	0.9	27
20 Su	0520	3.2	98
	1039	1.3	40
	1730	5.6	171
21 M	0046	0.3	9
	0653	3.1	94
	1131	1.8	55
	1815	5.9	180
22 Tu	0144	−0.3	−9
	0813	3.2	98
	1225	2.2	67
	1900	6.0	183
23 W	0234	−0.7	−21
	0918	3.4	104
	1318	2.5	76
	1943	6.1	186
24 Th	0319	−1.0	−30
	1011	3.6	110
	1409	2.6	79
	2025	6.1	186
25 F	0400	−1.1	−34
	1056	3.7	113
	1456	2.7	82
	2106	6.0	183
26 Sa ○	0439	−1.1	−34
	1136	3.8	116
	1540	2.7	82
	2145	5.9	180
27 Su	0516	−0.9	−27
	1213	3.8	116
	1624	2.8	85
	2223	5.6	171
28 M	0552	−0.7	−21
	1249	3.9	119
	1709	2.8	85
	2301	5.3	162
29 Tu	0626	−0.4	−12
	1324	3.9	119
	1757	2.7	82
	2340	4.9	149
30 W	0659	−0.1	−3
	1359	4.0	122
	1852	2.7	82

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Monterey, California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0021	4.5	137
	0731	0.3	9
	1433	4.2	128
	1956	2.6	79
2 F	0109	4.0	122
	0803	0.7	21
	1508	4.3	131
	2110	2.4	73
3 Sa	0209	3.5	107
	0835	1.2	37
	1543	4.5	137
	2228	2.0	61
4 Su ◑	0330	3.0	91
	0910	1.6	49
	1620	4.7	143
	2338	1.5	46
5 M	0512	2.8	85
	0949	2.0	61
	1659	5.0	152
6 Tu	0036	0.9	27
	0651	2.8	85
	1038	2.3	70
	1740	5.3	162
7 W	0125	0.3	9
	0806	3.0	91
	1133	2.6	79
	1823	5.7	174
8 Th	0209	−0.2	−6
	0900	3.2	98
	1231	2.7	82
	1908	6.0	183
9 F	0251	−0.7	−21
	0943	3.5	107
	1327	2.7	82
	1954	6.3	192
10 Sa	0332	−1.1	−34
	1021	3.7	113
	1422	2.6	79
	2041	6.5	198
11 Su ●	0413	−1.4	−43
	1059	3.9	119
	1516	2.5	76
	2129	6.6	201
12 M	0454	−1.4	−43
	1136	4.1	125
	1611	2.3	70
	2218	6.5	198
13 Tu	0534	−1.3	−40
	1215	4.4	134
	1710	2.1	64
	2310	6.1	186
14 W	0615	−0.9	−27
	1255	4.7	143
	1814	2.0	61
15 Th	0005	5.5	168
	0656	−0.4	−12
	1337	5.0	152
	1924	1.7	52

	Time	Height	
	h m	ft	cm
16 F	0106	4.7	143
	0737	0.2	6
	1422	5.3	162
	2041	1.4	43
17 Sa	0219	4.0	122
	0821	0.9	27
	1510	5.5	168
	2203	1.1	34
18 Su ◐	0348	3.4	104
	0908	1.6	49
	1601	5.7	174
	2323	0.6	18
19 M	0533	3.2	98
	1002	2.1	64
	1654	5.8	177
20 Tu	0033	0.1	3
	0711	3.2	98
	1105	2.5	76
	1749	5.9	180
21 W	0132	−0.2	−6
	0824	3.4	104
	1212	2.8	85
	1841	5.9	180
22 Th	0222	−0.5	−15
	0918	3.6	110
	1313	2.8	85
	1930	5.9	180
23 F	0305	−0.6	−18
	0958	3.8	116
	1405	2.8	85
	2015	5.9	180
24 Sa	0344	−0.6	−18
	1033	3.9	119
	1451	2.7	82
	2055	5.9	180
25 Su ○	0418	−0.6	−18
	1103	4.0	122
	1532	2.6	79
	2133	5.8	177
26 M	0450	−0.4	−12
	1131	4.1	125
	1612	2.5	76
	2209	5.6	171
27 Tu	0519	−0.2	−6
	1158	4.2	128
	1653	2.4	73
	2245	5.3	162
28 W	0546	0.1	3
	1224	4.3	131
	1736	2.3	70
	2322	4.9	149
29 Th	0613	0.5	15
	1252	4.4	134
	1824	2.3	70
30 F	0002	4.4	134
	0640	0.9	27
	1321	4.5	137
	1918	2.1	64
31 Sa	0048	3.9	119
	0706	1.3	40
	1352	4.6	140
	2020	2.0	61

August

	Time	Height	
	h m	ft	cm
1 Su	0147	3.5	107
	0733	1.7	52
	1428	4.8	146
	2133	1.7	52
2 M ◑	0308	3.0	91
	0803	2.1	64
	1510	4.9	149
	2249	1.4	43
3 Tu	0501	2.9	88
	0843	2.5	76
	1559	5.1	155
	2357	0.9	27
4 W	0650	3.0	91
	0944	2.8	85
	1654	5.4	165
5 Th	0053	0.3	9
	0756	3.2	98
	1103	2.9	88
	1751	5.7	174
6 F	0141	−0.2	−6
	0837	3.5	107
	1216	2.9	88
	1846	6.1	186
7 Sa	0225	−0.6	−18
	0911	3.8	116
	1319	2.7	82
	1939	6.4	195
8 Su	0306	−0.9	−27
	0943	4.0	122
	1417	2.4	73
	2030	6.6	201
9 M ●	0345	−1.0	−30
	1017	4.4	134
	1512	2.0	61
	2121	6.5	198
10 Tu	0424	−0.9	−27
	1051	4.7	143
	1608	1.7	52
	2213	6.3	192
11 W	0502	−0.6	−18
	1127	5.0	152
	1705	1.3	40
	2306	5.8	177
12 Th	0540	−0.1	−3
	1205	5.3	162
	1805	1.1	34
13 F	0003	5.2	158
	0619	0.5	15
	1246	5.6	171
	1910	0.9	27
14 Sa	0107	4.5	137
	0700	1.1	34
	1331	5.7	174
	2021	0.8	24
15 Su	0224	3.8	116
	0743	1.8	55
	1421	5.7	174
	2138	0.6	18

	Time	Height	
	h m	ft	cm
16 M ◐	0359	3.4	104
	0835	2.3	70
	1518	5.6	171
	2258	0.4	12
17 Tu	0545	3.4	104
	0942	2.8	85
	1622	5.6	171
18 W	0010	0.2	6
	0712	3.6	110
	1103	3.0	91
	1728	5.5	168
19 Th	0110	0.0	0
	0810	3.8	116
	1218	2.9	88
	1828	5.6	171
20 F	0159	−0.1	−3
	0851	3.9	119
	1317	2.8	85
	1920	5.6	171
21 Sa	0241	−0.1	−3
	0923	4.1	125
	1405	2.6	79
	2005	5.6	171
22 Su	0315	−0.1	−3
	0951	4.2	128
	1446	2.4	73
	2045	5.6	171
23 M	0346	0.1	3
	1015	4.3	131
	1523	2.2	67
	2122	5.4	165
24 Tu ○	0413	0.3	9
	1037	4.4	134
	1600	2.0	61
	2158	5.2	158
25 W	0438	0.5	15
	1059	4.5	137
	1637	1.8	55
	2234	5.0	152
26 Th	0503	0.8	24
	1122	4.7	143
	1717	1.7	52
	2312	4.6	140
27 F	0527	1.2	37
	1147	4.8	146
	1759	1.5	46
	2354	4.2	128
28 Sa	0551	1.5	46
	1213	4.9	149
	1846	1.4	43
29 Su	0043	3.8	116
	0615	1.9	58
	1243	4.9	149
	1941	1.4	43
30 M	0145	3.4	104
	0641	2.3	70
	1320	5.0	152
	2047	1.2	37
31 Tu	0312	3.2	98
	0712	2.7	82
	1407	5.0	152
	2202	1.0	30

September

	Time	Height	
	h m	ft	cm
1 W ◑	0508	3.1	94
	0800	3.0	91
	1507	5.1	155
	2314	0.7	21
2 Th	0638	3.3	101
	0928	3.1	94
	1617	5.3	162
3 F	0015	0.3	9
	0724	3.6	110
	1103	3.1	94
	1726	5.6	171
4 Sa	0106	−0.1	−3
	0757	3.8	116
	1218	2.8	85
	1829	5.8	177
5 Su	0150	−0.3	−9
	0827	4.2	128
	1320	2.3	70
	1927	6.1	186
6 M	0231	−0.4	−12
	0858	4.6	140
	1416	1.8	55
	2022	6.1	186
7 Tu	0310	−0.4	−12
	0930	5.0	152
	1509	1.2	37
	2116	6.0	183
8 W ●	0348	−0.1	−3
	1004	5.4	165
	1603	0.7	21
	2210	5.7	174
9 Th	0425	0.3	9
	1040	5.7	174
	1657	0.3	9
	2306	5.2	158
10 F	0503	0.8	24
	1117	5.9	180
	1753	0.1	3
11 Sa	0006	4.7	143
	0542	1.4	43
	1158	6.0	183
	1852	0.1	3
12 Su	0113	4.2	128
	0624	2.0	61
	1243	5.8	177
	1957	0.1	3
13 M	0232	3.8	116
	0711	2.5	76
	1335	5.6	171
	2109	0.2	6
14 Tu ◐	0406	3.6	110
	0813	2.9	88
	1437	5.3	162
	2224	0.3	9
15 W	0540	3.7	113
	0939	3.1	94
	1549	5.1	155
	2335	0.3	9

	Time	Height	
	h m	ft	cm
16 Th	0648	3.9	119
	1109	3.1	94
	1704	5.0	152
17 F	0035	0.3	9
	0734	4.1	125
	1221	2.8	85
	1810	5.0	152
18 Sa	0123	0.3	9
	0808	4.2	128
	1315	2.5	76
	1905	5.0	152
19 Su	0202	0.4	12
	0836	4.4	134
	1358	2.2	67
	1951	5.0	152
20 M	0234	0.5	15
	0859	4.5	137
	1436	1.8	55
	2033	5.0	152
21 Tu	0303	0.7	21
	0920	4.7	143
	1512	1.5	46
	2112	4.9	149
22 W	0328	1.0	30
	0941	4.8	146
	1547	1.2	37
	2150	4.7	143
23 Th ○	0352	1.2	37
	1002	5.0	152
	1622	1.0	30
	2229	4.5	137
24 F	0416	1.5	46
	1025	5.1	155
	1659	0.8	24
	2311	4.2	128
25 Sa	0440	1.9	58
	1050	5.2	158
	1739	0.7	21
	2357	4.0	122
26 Su	0505	2.2	67
	1117	5.2	158
	1823	0.6	18
27 M	0051	3.7	113
	0532	2.5	76
	1149	5.2	158
	1915	0.6	18
28 Tu	0159	3.5	107
	0602	2.8	85
	1229	5.2	158
	2015	0.5	15
29 W	0327	3.4	104
	0643	3.1	94
	1320	5.1	155
	2123	0.5	15
30 Th ◑	0459	3.4	104
	0756	3.2	98
	1428	5.1	155
	2232	0.3	9

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Monterey, California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0600	3.7	113
	0942	3.2	98
	1547	5.0	152
	2332	0.2	6
2 Sa	0638	4.0	122
	1113	2.9	88
	1706	5.1	155
3 Su	0024	0.1	3
	0710	4.3	131
	1223	2.3	70
	1816	5.2	158
4 M	0109	0.1	3
	0741	4.7	143
	1322	1.6	49
	1920	5.3	162
5 Tu	0151	0.2	6
	0813	5.2	158
	1415	0.9	27
	2019	5.3	162
6 W	0230	0.5	15
	0846	5.6	171
	1506	0.2	6
	2116	5.1	155
7 Th ●	0308	0.8	24
	0920	6.0	183
	1557	−0.3	−9
	2213	4.9	149
8 F	0347	1.3	40
	0957	6.2	189
	1647	−0.6	−18
	2311	4.6	140
9 Sa	0426	1.7	52
	1035	6.3	192
	1739	−0.7	−21
10 Su	0012	4.3	131
	0507	2.2	67
	1116	6.1	186
	1834	−0.6	−18
11 M	0119	4.0	122
	0552	2.6	79
	1201	5.8	177
	1932	−0.4	−12
12 Tu	0234	3.8	116
	0647	3.0	91
	1253	5.4	165
	2036	−0.1	−3
13 W	0357	3.8	116
	0759	3.2	98
	1354	5.0	152
	2143	0.2	6
14 Th ◐	0511	3.9	119
	0933	3.2	98
	1508	4.7	143
	2247	0.4	12
15 F	0606	4.1	125
	1103	3.0	91
	1628	4.4	134
	2344	0.5	15

	Time	Height	
	h m	ft	cm
16 Sa	0646	4.3	131
	1212	2.6	79
	1740	4.3	131
17 Su	0031	0.7	21
	0717	4.5	137
	1303	2.2	67
	1841	4.3	131
18 M	0109	0.9	27
	0742	4.6	140
	1346	1.7	52
	1934	4.3	131
19 Tu	0142	1.1	34
	0805	4.8	146
	1423	1.3	40
	2020	4.2	128
20 W	0210	1.4	43
	0826	5.0	152
	1458	0.8	24
	2104	4.2	128
21 Th	0237	1.7	52
	0849	5.2	158
	1533	0.5	15
	2147	4.1	125
22 F ○	0304	1.9	58
	0912	5.4	165
	1608	0.2	6
	2231	4.0	122
23 Sa	0330	2.2	67
	0938	5.5	168
	1644	0.0	0
	2317	3.9	119
24 Su	0358	2.4	73
	1006	5.6	171
	1724	−0.2	−6
25 M	0007	3.8	116
	0428	2.7	82
	1038	5.6	171
	1807	−0.2	−6
26 Tu	0103	3.7	113
	0502	2.9	88
	1114	5.6	171
	1856	−0.2	−6
27 W	0208	3.6	110
	0544	3.1	94
	1158	5.4	165
	1951	−0.1	−3
28 Th	0318	3.6	110
	0644	3.2	98
	1253	5.2	158
	2049	−0.1	−3
29 F	0421	3.8	116
	0814	3.3	101
	1402	4.9	149
	2149	0.1	3
30 Sa ◑	0509	4.1	125
	0953	3.0	91
	1524	4.7	143
	2245	0.2	6
31 Su	0548	4.4	134
	1118	2.4	73
	1649	4.5	137
	2336	0.4	12

November

	Time	Height	
	h m	ft	cm
1 M	0623	4.9	149
	1225	1.7	52
	1808	4.4	134
2 Tu	0023	0.7	21
	0657	5.3	162
	1323	0.9	27
	1919	4.4	134
3 W	0107	1.0	30
	0731	5.8	177
	1415	0.1	3
	2024	4.3	131
4 Th	0149	1.4	43
	0807	6.2	189
	1504	−0.6	−18
	2124	4.3	131
5 F ●	0230	1.7	52
	0844	6.4	195
	1551	−1.0	−30
	2222	4.2	128
6 Sa	0312	2.1	64
	0923	6.5	198
	1639	−1.2	−37
	2320	4.2	128
7 Su	0355	2.4	73
	1003	6.4	195
	1727	−1.2	−37
8 M	0018	4.1	125
	0440	2.7	82
	1045	6.1	186
	1816	−1.0	−30
9 Tu	0118	4.0	122
	0529	2.9	88
	1129	5.8	177
	1906	−0.7	−21
10 W	0221	3.9	119
	0626	3.1	94
	1217	5.3	162
	1959	−0.3	−9
11 Th	0324	4.0	122
	0739	3.2	98
	1312	4.8	146
	2054	0.1	3
12 F	0422	4.1	125
	0907	3.1	94
	1418	4.3	131
	2147	0.5	15
13 Sa ◐	0510	4.2	128
	1036	2.9	88
	1536	3.9	119
	2238	0.8	24
14 Su	0547	4.4	134
	1148	2.4	73
	1657	3.7	113
	2323	1.1	34
15 M	0618	4.6	140
	1243	1.9	58
	1811	3.6	110

	Time	Height	
	h m	ft	cm
16 Tu	0003	1.4	43
	0645	4.9	149
	1328	1.3	40
	1916	3.5	107
17 W	0039	1.7	52
	0710	5.1	155
	1406	0.8	24
	2012	3.6	110
18 Th	0112	2.0	61
	0736	5.4	165
	1442	0.3	9
	2103	3.6	110
19 F	0145	2.2	67
	0802	5.6	171
	1518	−0.1	−3
	2150	3.7	113
20 Sa	0217	2.4	73
	0831	5.8	177
	1554	−0.4	−12
	2236	3.7	113
21 Su ○	0251	2.6	79
	0903	5.9	180
	1631	−0.7	−21
	2321	3.8	116
22 M	0326	2.8	85
	0937	6.0	183
	1711	−0.8	−24
23 Tu	0009	3.8	116
	0405	2.9	88
	1015	6.0	183
	1753	−0.9	−27
24 W	0058	3.8	116
	0449	3.0	91
	1057	5.9	180
	1838	−0.8	−24
25 Th	0150	3.9	119
	0544	3.1	94
	1145	5.6	171
	1926	−0.6	−18
26 F	0241	4.0	122
	0655	3.1	94
	1240	5.2	158
	2015	−0.4	−12
27 Sa	0330	4.2	128
	0821	2.9	88
	1347	4.7	143
	2105	0.0	0
28 Su ◑	0415	4.6	140
	0952	2.5	76
	1509	4.2	128
	2156	0.4	12
29 M	0456	5.0	152
	1115	1.8	55
	1640	3.8	116
	2246	0.9	27
30 Tu	0537	5.4	165
	1223	1.0	30
	1809	3.6	110
	2336	1.4	43

December

	Time	Height	
	h m	ft	cm
1 W	0617	5.8	177
	1321	0.2	6
	1929	3.6	110
2 Th	0025	1.8	55
	0657	6.2	189
	1413	−0.5	−15
	2039	3.7	113
3 F	0113	2.1	64
	0737	6.4	195
	1501	−1.0	−30
	2139	3.8	116
4 Sa	0201	2.4	73
	0818	6.5	198
	1546	−1.3	−40
	2234	3.9	119
5 Su ●	0248	2.6	79
	0900	6.5	198
	1630	−1.4	−43
	2324	4.0	122
6 M	0335	2.8	85
	0942	6.3	192
	1714	−1.3	−40
7 Tu	0012	4.0	122
	0422	2.9	88
	1024	6.1	186
	1756	−1.0	−30
8 W	0100	4.0	122
	0512	3.0	91
	1106	5.7	174
	1838	−0.7	−21
9 Th	0147	4.1	125
	0606	3.0	91
	1149	5.2	158
	1920	−0.3	−9
10 F	0233	4.1	125
	0710	3.0	91
	1236	4.7	143
	2001	0.1	3
11 Sa	0318	4.2	128
	0824	2.9	88
	1329	4.2	128
	2042	0.6	18
12 Su	0359	4.4	134
	0948	2.7	82
	1437	3.6	110
	2122	1.1	34
13 M ◐	0436	4.5	137
	1108	2.3	70
	1603	3.2	98
	2203	1.5	46
14 Tu	0511	4.8	146
	1212	1.7	52
	1738	3.0	91
	2245	1.9	58
15 W	0543	5.0	152
	1303	1.1	34
	1903	3.0	91
	2328	2.2	67

	Time	Height	
	h m	ft	cm
16 Th	0616	5.3	162
	1345	0.6	18
	2011	3.2	98
17 F	0012	2.5	76
	0649	5.5	168
	1424	0.1	3
	2105	3.3	101
18 Sa	0056	2.7	82
	0724	5.8	177
	1501	−0.4	−12
	2151	3.5	107
19 Su	0139	2.8	85
	0801	6.0	183
	1538	−0.8	−24
	2231	3.7	113
20 M	0223	2.8	85
	0840	6.2	189
	1616	−1.0	−30
	2311	3.8	116
21 Tu ○	0308	2.8	85
	0920	6.3	192
	1655	−1.2	−37
	2350	3.9	119
22 W	0355	2.8	85
	1003	6.3	192
	1735	−1.2	−37
23 Th	0029	4.1	125
	0448	2.8	85
	1049	6.1	186
	1815	−1.1	−34
24 F	0110	4.2	128
	0547	2.7	82
	1139	5.7	174
	1857	−0.7	−21
25 Sa	0152	4.5	137
	0656	2.5	76
	1235	5.1	155
	1939	−0.3	−9
26 Su	0235	4.8	146
	0815	2.3	70
	1341	4.4	134
	2023	0.3	9
27 M ◑	0320	5.1	155
	0940	1.8	55
	1503	3.8	116
	2109	0.9	27
28 Tu	0406	5.4	165
	1103	1.2	37
	1642	3.3	101
	2158	1.5	46
29 W	0454	5.7	174
	1215	0.5	15
	1823	3.2	98
	2253	2.0	61
30 Th	0542	6.0	183
	1316	−0.2	−6
	1950	3.3	101
	2353	2.4	73
31 F	0631	6.2	189
	1409	−0.7	−21
	2057	3.6	110

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

San Francisco (Golden Gate), California, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0030	5.1	155
	0456	2.8	85
	1104	7.1	216
	1756	−1.6	−49
2 Sa	0111	5.3	162
	0550	2.6	79
	1156	6.9	210
	1840	−1.4	−43
3 Su	0152	5.5	168
	0648	2.3	70
	1250	6.4	195
	1925	−0.9	−27
4 M	0234	5.7	174
	0750	2.1	64
	1348	5.8	177
	2010	−0.3	−9
5 Tu	0318	5.9	180
	0859	1.8	55
	1452	5.1	155
	2057	0.4	12
6 W	0403	6.0	183
	1012	1.5	46
	1608	4.4	134
	2148	1.2	37
7 Th ◑	0450	6.2	189
	1127	1.0	30
	1740	4.0	122
	2245	1.9	58
8 F	0540	6.2	189
	1238	0.6	18
	1919	3.9	119
	2348	2.4	73
9 Sa	0631	6.3	192
	1342	0.1	3
	2044	4.1	125
10 Su	0054	2.8	85
	0722	6.3	192
	1436	−0.2	−6
	2149	4.4	134
11 M	0157	3.0	91
	0811	6.3	192
	1523	−0.4	−12
	2239	4.6	140
12 Tu	0252	3.1	94
	0857	6.3	192
	1603	−0.5	−15
	2321	4.8	146
13 W	0340	3.1	94
	0940	6.3	192
	1639	−0.6	−18
	2357	4.8	146
14 Th ●	0423	3.0	91
	1019	6.2	189
	1712	−0.5	−15
15 F	0028	4.9	149
	0503	2.9	88
	1056	6.1	186
	1743	−0.4	−12

	Time	Height	
	h m	ft	cm
16 Sa	0057	4.9	149
	0541	2.8	85
	1132	5.9	180
	1813	−0.2	−6
17 Su	0123	5.0	152
	0619	2.7	82
	1209	5.6	171
	1843	0.0	0
18 M	0148	5.1	155
	0659	2.6	79
	1247	5.3	162
	1913	0.3	9
19 Tu	0214	5.2	158
	0742	2.4	73
	1329	4.9	149
	1943	0.7	21
20 W	0243	5.3	162
	0832	2.2	67
	1418	4.4	134
	2016	1.2	37
21 Th	0315	5.4	165
	0928	2.0	61
	1519	3.9	119
	2052	1.8	55
22 F	0351	5.5	168
	1032	1.6	49
	1642	3.5	107
	2135	2.3	70
23 Sa ◐	0434	5.7	174
	1140	1.2	37
	1831	3.5	107
	2232	2.8	85
24 Su	0524	5.9	180
	1245	0.6	18
	2010	3.7	113
	2345	3.1	94
25 M	0620	6.1	186
	1343	0.0	0
	2116	4.1	125
26 Tu	0058	3.2	98
	0718	6.4	195
	1436	−0.5	−15
	2203	4.4	134
27 W	0203	3.1	94
	0816	6.7	204
	1524	−1.0	−30
	2244	4.8	146
28 Th	0301	2.9	88
	0912	7.0	213
	1609	−1.3	−40
	2321	5.1	155
29 F ○	0355	2.5	76
	1005	7.1	216
	1652	−1.3	−40
	2358	5.4	165
30 Sa	0447	2.1	64
	1058	7.0	213
	1734	−1.2	−37
31 Su	0034	5.7	174
	0540	1.8	55
	1151	6.7	204
	1815	−0.8	−24

February

	Time	Height	
	h m	ft	cm
1 M	0111	5.9	180
	0635	1.4	43
	1245	6.2	189
	1857	−0.3	−9
2 Tu	0150	6.1	186
	0732	1.2	37
	1342	5.5	168
	1939	0.4	12
3 W	0230	6.2	189
	0833	1.0	30
	1447	4.9	149
	2023	1.1	34
4 Th	0313	6.2	189
	0939	0.8	24
	1603	4.2	128
	2113	1.9	58
5 F ◑	0400	6.1	186
	1052	0.7	21
	1737	3.9	119
	2213	2.5	76
6 Sa	0453	6.0	183
	1206	0.5	15
	1919	3.9	119
	2326	3.0	91
7 Su	0552	5.9	180
	1315	0.3	9
	2038	4.2	128
8 M	0044	3.1	94
	0653	5.9	180
	1414	0.1	3
	2134	4.5	137
9 Tu	0151	3.1	94
	0751	5.9	180
	1503	0.0	0
	2217	4.7	143
10 W	0246	3.0	91
	0842	5.9	180
	1543	−0.1	−3
	2252	4.8	146
11 Th	0332	2.8	85
	0927	6.0	183
	1617	−0.1	−3
	2321	4.9	149
12 F	0411	2.6	79
	1007	5.9	180
	1647	−0.1	−3
	2347	5.0	152
13 Sa ●	0448	2.4	73
	1045	5.8	177
	1715	0.0	0
14 Su	0010	5.1	155
	0522	2.1	64
	1122	5.7	174
	1742	0.2	6
15 M	0031	5.2	158
	0556	1.9	58
	1159	5.4	165
	1809	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0054	5.3	162
	0632	1.7	52
	1238	5.1	155
	1836	0.9	27
17 W	0118	5.4	165
	0710	1.5	46
	1321	4.7	143
	1905	1.3	40
18 Th	0146	5.5	168
	0753	1.3	40
	1411	4.3	131
	1936	1.7	52
19 F	0218	5.6	171
	0843	1.1	34
	1513	3.9	119
	2011	2.2	67
20 Sa	0256	5.6	171
	0942	0.9	27
	1637	3.6	110
	2056	2.7	82
21 Su ◐	0343	5.7	174
	1052	0.7	21
	1824	3.6	110
	2201	3.1	94
22 M	0442	5.8	177
	1205	0.4	12
	1953	3.9	119
	2328	3.3	101
23 Tu	0549	5.9	180
	1311	0.0	0
	2050	4.2	128
24 W	0050	3.2	98
	0658	6.1	186
	1409	−0.4	−12
	2132	4.6	140
25 Th	0157	2.8	85
	0804	6.4	195
	1459	−0.7	−21
	2209	5.0	152
26 F	0254	2.3	70
	0904	6.6	201
	1544	−0.8	−24
	2243	5.4	165
27 Sa	0347	1.7	52
	1000	6.6	201
	1626	−0.7	−21
	2318	5.7	174
28 Su ○	0438	1.2	37
	1055	6.5	198
	1707	−0.4	−12
	2352	6.0	183

March

	Time	Height	
	h m	ft	cm
1 M	0528	0.7	21
	1149	6.2	189
	1747	0.0	0
2 Tu	0027	6.2	189
	0618	0.3	9
	1243	5.7	174
	1827	0.6	18
3 W	0104	6.3	192
	0710	0.1	3
	1341	5.2	158
	1908	1.2	37
4 Th	0142	6.3	192
	0805	0.1	3
	1445	4.6	140
	1953	1.9	58
5 F	0224	6.1	186
	0904	0.2	6
	1600	4.2	128
	2045	2.5	76
6 Sa	0312	5.9	180
	1011	0.3	9
	1730	4.0	122
	2152	2.9	88
7 Su ◑	0407	5.6	171
	1123	0.4	12
	1902	4.1	125
	2315	3.1	94
8 M	0512	5.4	165
	1235	0.4	12
	2011	4.3	131
9 Tu	0036	3.1	94
	0622	5.3	162
	1337	0.4	12
	2100	4.5	137
10 W	0141	2.9	88
	0726	5.3	162
	1426	0.3	9
	2138	4.7	143
11 Th	0233	2.6	79
	0822	5.4	165
	1507	0.3	9
	2208	4.8	146
12 F	0316	2.2	67
	0911	5.4	165
	1540	0.3	9
	2233	5.0	152
13 Sa	0354	1.9	58
	0954	5.4	165
	1611	0.4	12
	2255	5.1	155
14 Su	0428	1.6	49
	1035	5.3	162
	1639	0.6	18
	2316	5.3	162
15 M ●	0501	1.2	37
	1115	5.2	158
	1706	0.9	27
	2338	5.4	165

	Time	Height	
	h m	ft	cm
16 Tu	0533	0.9	27
	1155	5.0	152
	1733	1.2	37
17 W	0002	5.5	168
	0607	0.6	18
	1238	4.8	146
	1802	1.5	46
18 Th	0028	5.6	171
	0643	0.4	12
	1324	4.5	137
	1832	1.9	58
19 F	0058	5.7	174
	0725	0.3	9
	1417	4.2	128
	1906	2.3	70
20 Sa	0133	5.7	174
	0813	0.2	6
	1522	3.9	119
	1947	2.7	82
21 Su	0215	5.7	174
	0910	0.1	3
	1642	3.8	116
	2041	3.0	91
22 M	0308	5.6	171
	1017	0.1	3
	1809	3.9	119
	2159	3.2	98
23 Tu ◐	0413	5.5	168
	1129	0.0	0
	1918	4.1	125
	2330	3.1	94
24 W	0528	5.5	168
	1237	−0.1	−3
	2009	4.5	137
25 Th	0049	2.7	82
	0644	5.6	171
	1335	−0.2	−6
	2049	4.9	149
26 F	0153	2.1	64
	0755	5.7	174
	1426	−0.3	−9
	2126	5.3	162
27 Sa	0248	1.4	43
	0859	5.8	177
	1512	−0.1	−3
	2201	5.7	174
28 Su	0339	0.7	21
	0959	5.8	177
	1554	0.1	3
	2235	6.0	183
29 M ○	0428	0.1	3
	1056	5.6	171
	1636	0.5	15
	2310	6.2	189
30 Tu	0515	−0.4	−12
	1151	5.4	165
	1716	1.0	30
	2345	6.4	195
31 W	0601	−0.7	−21
	1247	5.1	155
	1758	1.5	46

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

San Francisco (Golden Gate), California, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0021	6.3	192
	0649	−0.7	−21
	1344	4.8	146
	1841	2.0	61
2 F	0059	6.2	189
	0738	−0.6	−18
	1445	4.5	137
	1929	2.4	73
3 Sa	0141	5.9	180
	0831	−0.4	−12
	1554	4.2	128
	2025	2.8	85
4 Su	0228	5.5	168
	0930	−0.1	−3
	1711	4.1	125
	2137	3.1	94
5 M	0324	5.1	155
	1034	0.2	6
	1826	4.2	128
	2301	3.1	94
6 Tu ◑	0429	4.8	146
	1141	0.4	12
	1925	4.3	131
7 W	0019	2.9	88
	0542	4.6	140
	1241	0.5	15
	2009	4.5	137
8 Th	0121	2.5	76
	0653	4.6	140
	1332	0.6	18
	2043	4.7	143
9 F	0212	2.1	64
	0756	4.6	140
	1415	0.7	21
	2111	4.9	149
10 Sa	0254	1.6	49
	0851	4.6	140
	1451	0.9	27
	2135	5.1	155
11 Su	0332	1.2	37
	0940	4.7	143
	1525	1.0	30
	2158	5.3	162
12 M	0406	0.7	21
	1027	4.7	143
	1556	1.3	40
	2221	5.5	168
13 Tu	0438	0.3	9
	1111	4.6	140
	1627	1.6	49
	2247	5.6	171
14 W ●	0511	−0.1	−3
	1156	4.6	140
	1658	1.8	55
	2315	5.8	177
15 Th	0545	−0.4	−12
	1243	4.5	137
	1731	2.1	64
	2346	5.8	177

	Time	Height	
	h m	ft	cm
16 F	0623	−0.6	−18
	1333	4.3	131
	1807	2.4	73
17 Sa	0021	5.9	180
	0706	−0.7	−21
	1427	4.2	128
	1848	2.7	82
18 Su	0101	5.8	177
	0754	−0.7	−21
	1528	4.1	125
	1938	2.9	88
19 M	0149	5.7	174
	0849	−0.6	−18
	1634	4.1	125
	2044	3.1	94
20 Tu	0247	5.4	165
	0951	−0.5	−15
	1738	4.3	131
	2208	3.0	91
21 W ◐	0355	5.2	158
	1056	−0.3	−9
	1834	4.6	140
	2333	2.7	82
22 Th	0513	5.0	152
	1159	−0.1	−3
	1922	4.9	149
23 F	0046	2.1	64
	0634	4.8	146
	1256	0.1	3
	2003	5.3	162
24 Sa	0147	1.3	40
	0751	4.8	146
	1348	0.4	12
	2041	5.7	174
25 Su	0241	0.5	15
	0900	4.8	146
	1436	0.7	21
	2118	6.0	183
26 M	0331	−0.2	−6
	1004	4.9	149
	1521	1.1	34
	2154	6.2	189
27 Tu	0417	−0.8	−24
	1103	4.9	149
	1605	1.5	46
	2230	6.4	195
28 W ○	0502	−1.1	−34
	1158	4.8	146
	1648	1.9	58
	2307	6.4	195
29 Th	0545	−1.3	−40
	1252	4.7	143
	1733	2.2	67
	2344	6.2	189
30 F	0629	−1.2	−37
	1346	4.6	140
	1819	2.5	76

May

	Time	Height	
	h m	ft	cm
1 Sa	0023	6.0	183
	0714	−1.0	−30
	1441	4.4	134
	1909	2.8	85
2 Su	0105	5.6	171
	0801	−0.7	−21
	1539	4.3	131
	2007	3.0	91
3 M	0152	5.3	162
	0852	−0.4	−12
	1637	4.3	131
	2116	3.0	91
4 Tu	0244	4.9	149
	0945	0.0	0
	1733	4.3	131
	2234	2.9	88
5 W ◑	0344	4.5	137
	1041	0.3	9
	1822	4.4	134
	2348	2.6	79
6 Th	0453	4.1	125
	1136	0.6	18
	1902	4.6	140
7 F	0050	2.2	67
	0609	3.9	119
	1226	0.9	27
	1935	4.8	146
8 Sa	0142	1.7	52
	0723	3.9	119
	1312	1.2	37
	2004	5.0	152
9 Su	0226	1.1	34
	0829	3.9	119
	1354	1.4	43
	2032	5.3	162
10 M	0304	0.6	18
	0928	4.0	122
	1433	1.7	52
	2100	5.5	168
11 Tu	0340	0.1	3
	1022	4.1	125
	1511	2.0	61
	2130	5.7	174
12 W	0414	−0.4	−12
	1111	4.2	128
	1548	2.2	67
	2202	5.9	180
13 Th ●	0450	−0.8	−24
	1159	4.3	131
	1626	2.4	73
	2237	6.1	186
14 F	0527	−1.1	−34
	1246	4.4	134
	1705	2.6	79
	2315	6.1	186
15 Sa	0608	−1.3	−40
	1335	4.4	134
	1749	2.8	85
	2357	6.1	186

	Time	Height	
	h m	ft	cm
16 Su	0652	−1.4	−43
	1425	4.4	134
	1839	2.9	88
17 M	0043	6.0	183
	0740	−1.3	−40
	1516	4.5	137
	1937	2.9	88
18 Tu	0136	5.7	174
	0832	−1.1	−34
	1609	4.6	140
	2048	2.8	85
19 W	0235	5.4	165
	0926	−0.7	−21
	1700	4.8	146
	2207	2.5	76
20 Th ◐	0344	4.9	149
	1023	−0.3	−9
	1748	5.1	155
	2326	2.0	61
21 F	0503	4.5	137
	1119	0.2	6
	1834	5.5	168
22 Sa	0037	1.3	40
	0629	4.2	128
	1215	0.7	21
	1917	5.8	177
23 Su	0138	0.6	18
	0753	4.1	125
	1309	1.1	34
	1959	6.1	186
24 M	0233	−0.1	−3
	0908	4.2	128
	1401	1.6	49
	2039	6.3	192
25 Tu	0322	−0.7	−21
	1014	4.3	131
	1451	2.0	61
	2119	6.4	195
26 W	0407	−1.1	−34
	1112	4.5	137
	1540	2.3	70
	2158	6.4	195
27 Th ○	0450	−1.3	−40
	1205	4.6	140
	1627	2.6	79
	2238	6.3	192
28 F	0531	−1.4	−43
	1254	4.6	140
	1714	2.7	82
	2317	6.1	186
29 Sa	0612	−1.3	−40
	1341	4.6	140
	1802	2.9	88
	2357	5.9	180
30 Su	0653	−1.1	−34
	1426	4.5	137
	1851	2.9	88
31 M	0038	5.6	171
	0734	−0.8	−24
	1509	4.5	137
	1945	3.0	91

June

	Time	Height	
	h m	ft	cm
1 Tu	0122	5.2	158
	0816	−0.4	−12
	1551	4.5	137
	2046	2.9	88
2 W	0209	4.8	146
	0859	−0.1	−3
	1632	4.6	140
	2153	2.8	85
3 Th	0302	4.4	134
	0943	0.4	12
	1710	4.7	143
	2302	2.5	76
4 F ◑	0405	3.9	119
	1029	0.8	24
	1745	4.9	149
5 Sa	0006	2.0	61
	0521	3.6	110
	1117	1.2	37
	1820	5.1	155
6 Su	0102	1.5	46
	0647	3.4	104
	1205	1.7	52
	1855	5.3	162
7 M	0150	0.9	27
	0810	3.5	107
	1253	2.0	61
	1930	5.6	171
8 Tu	0232	0.3	9
	0920	3.7	113
	1341	2.3	70
	2007	5.8	177
9 W	0312	−0.2	−6
	1018	3.9	119
	1428	2.6	79
	2046	6.1	186
10 Th	0351	−0.7	−21
	1108	4.2	128
	1513	2.8	85
	2127	6.3	192
11 F	0430	−1.2	−37
	1154	4.4	134
	1559	2.8	85
	2210	6.5	198
12 Sa ●	0511	−1.5	−46
	1237	4.5	137
	1646	2.9	88
	2255	6.6	201
13 Su	0554	−1.6	−49
	1320	4.7	143
	1737	2.8	85
	2343	6.5	198
14 M	0638	−1.6	−49
	1404	4.8	146
	1831	2.7	82
15 Tu	0033	6.3	192
	0723	−1.4	−43
	1447	5.0	152
	1932	2.6	79

	Time	Height	
	h m	ft	cm
16 W	0128	5.9	180
	0810	−1.0	−30
	1531	5.2	158
	2041	2.3	70
17 Th	0228	5.3	162
	0859	−0.5	−15
	1616	5.5	168
	2155	2.0	61
18 F ◐	0337	4.7	143
	0949	0.1	3
	1702	5.7	174
	2310	1.4	43
19 Sa	0458	4.1	125
	1042	0.8	24
	1748	6.0	183
20 Su	0021	0.8	24
	0630	3.8	116
	1138	1.4	43
	1835	6.2	189
21 M	0125	0.2	6
	0801	3.8	116
	1237	2.0	61
	1921	6.3	192
22 Tu	0222	−0.4	−12
	0919	4.0	122
	1336	2.4	73
	2008	6.4	195
23 W	0312	−0.8	−24
	1022	4.3	131
	1432	2.7	82
	2053	6.4	195
24 Th	0358	−1.0	−30
	1115	4.5	137
	1525	2.8	85
	2137	6.4	195
25 F	0439	−1.1	−34
	1200	4.6	140
	1615	2.9	88
	2219	6.3	192
26 Sa ○	0518	−1.1	−34
	1242	4.7	143
	1701	2.9	88
	2259	6.1	186
27 Su	0555	−1.0	−30
	1319	4.7	143
	1746	2.9	88
	2338	5.9	180
28 M	0630	−0.8	−24
	1354	4.7	143
	1830	2.9	88
29 Tu	0017	5.6	171
	0705	−0.5	−15
	1426	4.8	146
	1917	2.8	85
30 W	0057	5.3	162
	0740	−0.2	−6
	1457	4.8	146
	2008	2.7	82

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

San Francisco (Golden Gate), California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0141	4.9	149
	0815	0.2	6
	1527	4.9	149
	2104	2.5	76
2 F	0229	4.4	134
	0851	0.7	21
	1559	5.1	155
	2205	2.3	70
3 Sa	0327	3.9	119
	0929	1.2	37
	1633	5.2	158
	2309	1.9	58
4 Su ◑	0441	3.5	107
	1012	1.7	52
	1711	5.4	165
5 M	0010	1.4	43
	0616	3.3	101
	1101	2.2	67
	1752	5.6	171
6 Tu	0106	0.9	27
	0755	3.4	104
	1158	2.6	79
	1837	5.8	177
7 W	0156	0.3	9
	0911	3.7	113
	1258	2.9	88
	1925	6.1	186
8 Th	0243	−0.2	−6
	1007	4.0	122
	1355	3.0	91
	2014	6.4	195
9 F	0327	−0.7	−21
	1052	4.3	131
	1449	3.0	91
	2103	6.6	201
10 Sa	0410	−1.1	−34
	1133	4.6	140
	1541	2.9	88
	2153	6.8	207
11 Su ●	0453	−1.4	−43
	1211	4.8	146
	1633	2.7	82
	2243	6.9	210
12 M	0535	−1.5	−46
	1249	5.1	155
	1725	2.5	76
	2334	6.8	207
13 Tu	0618	−1.3	−40
	1328	5.3	162
	1821	2.2	67
14 W	0026	6.4	195
	0700	−1.0	−30
	1407	5.6	171
	1920	1.9	58
15 Th	0122	5.9	180
	0744	−0.5	−15
	1447	5.8	177
	2024	1.6	49

	Time	Height	
	h m	ft	cm
16 F	0224	5.2	158
	0829	0.2	6
	1530	6.0	183
	2133	1.3	40
17 Sa	0334	4.6	140
	0917	0.9	27
	1616	6.2	189
	2246	0.9	27
18 Su ◐	0458	4.0	122
	1010	1.6	49
	1705	6.3	192
	2358	0.5	15
19 M	0636	3.8	116
	1111	2.3	70
	1757	6.3	192
20 Tu	0107	0.1	3
	0808	4.0	122
	1219	2.7	82
	1852	6.3	192
21 W	0207	−0.2	−6
	0920	4.2	128
	1326	2.9	88
	1946	6.3	192
22 Th	0259	−0.4	−12
	1015	4.5	137
	1426	3.0	91
	2037	6.3	192
23 F	0345	−0.5	−15
	1100	4.7	143
	1519	3.0	91
	2123	6.3	192
24 Sa	0424	−0.6	−18
	1138	4.8	146
	1606	2.9	88
	2206	6.2	189
25 Su ○	0459	−0.5	−15
	1212	4.9	149
	1648	2.8	85
	2246	6.1	186
26 M	0531	−0.4	−12
	1241	4.9	149
	1728	2.6	79
	2324	5.9	180
27 Tu	0602	−0.2	−6
	1308	5.0	152
	1807	2.5	76
28 W	0001	5.6	171
	0632	0.1	3
	1333	5.1	155
	1847	2.4	73
29 Th	0040	5.3	162
	0701	0.4	12
	1358	5.2	158
	1929	2.2	67
30 F	0121	4.9	149
	0732	0.8	24
	1425	5.3	162
	2016	2.1	64
31 Sa	0208	4.4	134
	0803	1.3	40
	1455	5.4	165
	2108	1.9	58

August

	Time	Height	
	h m	ft	cm
1 Su	0305	4.0	122
	0838	1.8	55
	1530	5.5	168
	2208	1.6	49
2 M ◑	0419	3.6	110
	0918	2.3	70
	1611	5.6	171
	2313	1.3	40
3 Tu	0559	3.5	107
	1010	2.8	85
	1700	5.7	174
4 W	0019	0.8	24
	0743	3.6	110
	1119	3.1	94
	1755	5.9	180
5 Th	0119	0.4	12
	0854	3.9	119
	1232	3.2	98
	1853	6.2	189
6 F	0213	−0.1	−3
	0942	4.3	131
	1338	3.2	98
	1951	6.5	198
7 Sa	0301	−0.6	−18
	1021	4.6	140
	1436	2.9	88
	2047	6.7	204
8 Su	0346	−0.9	−27
	1058	4.9	149
	1529	2.6	79
	2142	6.9	210
9 M ●	0429	−1.0	−30
	1133	5.2	158
	1621	2.2	67
	2235	6.9	210
10 Tu	0510	−0.9	−27
	1208	5.6	171
	1713	1.7	52
	2328	6.7	204
11 W	0551	−0.7	−21
	1244	5.9	180
	1807	1.3	40
12 Th	0022	6.3	192
	0632	−0.2	−6
	1321	6.1	186
	1902	1.0	30
13 F	0119	5.7	174
	0714	0.4	12
	1401	6.3	192
	2002	0.8	24
14 Sa	0222	5.1	155
	0758	1.1	34
	1444	6.3	192
	2106	0.6	18
15 Su	0335	4.5	137
	0848	1.8	55
	1531	6.3	192
	2216	0.5	15

	Time	Height	
	h m	ft	cm
16 M ◐	0502	4.2	128
	0946	2.4	73
	1624	6.2	189
	2329	0.4	12
17 Tu	0638	4.1	125
	1058	2.9	88
	1724	6.1	186
18 W	0041	0.3	9
	0801	4.3	131
	1215	3.1	94
	1827	6.0	183
19 Th	0145	0.1	3
	0903	4.5	137
	1325	3.1	94
	1928	6.0	183
20 F	0238	0.0	0
	0949	4.7	143
	1423	2.9	88
	2023	6.0	183
21 Sa	0321	0.0	0
	1028	4.9	149
	1512	2.7	82
	2111	6.0	183
22 Su	0358	0.0	0
	1100	5.0	152
	1554	2.5	76
	2155	6.0	183
23 M	0430	0.1	3
	1127	5.1	155
	1632	2.3	70
	2234	5.9	180
24 Tu ○	0459	0.3	9
	1151	5.2	158
	1707	2.0	61
	2312	5.7	174
25 W	0527	0.5	15
	1213	5.2	158
	1742	1.8	55
	2350	5.4	165
26 Th	0555	0.8	24
	1235	5.3	162
	1817	1.6	49
27 F	0029	5.1	155
	0623	1.2	37
	1259	5.4	165
	1854	1.5	46
28 Sa	0112	4.8	146
	0651	1.6	49
	1326	5.5	168
	1935	1.3	40
29 Su	0200	4.4	134
	0722	2.0	61
	1358	5.6	171
	2022	1.2	37
30 M	0259	4.1	125
	0757	2.4	73
	1435	5.6	171
	2118	1.1	34
31 Tu	0416	3.8	116
	0840	2.9	88
	1521	5.6	171
	2223	0.9	27

September

	Time	Height	
	h m	ft	cm
1 W ◑	0553	3.8	116
	0942	3.2	98
	1617	5.7	174
	2334	0.7	21
2 Th	0722	3.9	119
	1105	3.4	104
	1722	5.8	177
3 F	0042	0.3	9
	0820	4.3	131
	1225	3.3	101
	1830	6.0	183
4 Sa	0140	0.0	0
	0903	4.6	140
	1331	2.9	88
	1936	6.2	189
5 Su	0230	−0.3	−9
	0939	4.9	149
	1428	2.4	73
	2037	6.4	195
6 M	0315	−0.4	−12
	1014	5.3	162
	1520	1.8	55
	2134	6.5	198
7 Tu	0358	−0.4	−12
	1048	5.7	174
	1610	1.2	37
	2230	6.5	198
8 W	0439	−0.1	−3
	1122	6.0	183
	1700	0.7	21
	2325	6.2	189
9 Th	0519	0.3	9
	1158	6.3	192
	1751	0.2	6
10 F	0021	5.9	180
	0601	0.8	24
	1235	6.5	198
	1843	0.0	0
11 Sa	0120	5.4	165
	0644	1.4	43
	1315	6.5	198
	1937	−0.1	−3
12 Su	0224	4.9	149
	0730	2.0	61
	1359	6.4	195
	2037	0.0	0
13 M	0337	4.6	140
	0824	2.6	79
	1448	6.1	186
	2142	0.1	3
14 Tu ◐	0500	4.4	134
	0932	3.0	91
	1545	5.9	180
	2254	0.3	9
15 W	0626	4.4	134
	1054	3.2	98
	1651	5.6	171

	Time	Height	
	h m	ft	cm
16 Th	0005	0.4	12
	0736	4.6	140
	1214	3.1	94
	1801	5.5	168
17 F	0109	0.4	12
	0829	4.8	146
	1321	2.8	85
	1908	5.5	168
18 Sa	0201	0.4	12
	0909	4.9	149
	1414	2.5	76
	2006	5.5	168
19 Su	0244	0.5	15
	0942	5.1	155
	1459	2.2	67
	2057	5.5	168
20 M	0320	0.6	18
	1010	5.2	158
	1537	1.8	55
	2142	5.5	168
21 Tu	0351	0.8	24
	1033	5.3	162
	1613	1.5	46
	2224	5.4	165
22 W	0420	1.0	30
	1055	5.4	165
	1646	1.2	37
	2305	5.2	158
23 Th ○	0449	1.3	40
	1116	5.5	168
	1718	0.9	27
	2345	5.0	152
24 F	0517	1.6	49
	1139	5.6	171
	1751	0.7	21
25 Sa	0027	4.8	146
	0545	1.9	58
	1205	5.7	174
	1826	0.5	15
26 Su	0113	4.6	140
	0616	2.3	70
	1235	5.7	174
	1905	0.4	12
27 M	0205	4.4	134
	0649	2.6	79
	1309	5.7	174
	1950	0.4	12
28 Tu	0306	4.2	128
	0728	3.0	91
	1351	5.6	171
	2043	0.4	12
29 W	0420	4.0	122
	0821	3.3	101
	1442	5.6	171
	2147	0.4	12
30 Th ◑	0540	4.1	125
	0937	3.4	104
	1545	5.5	168
	2256	0.3	9

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

San Francisco (Golden Gate), California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0647	4.3	131
	1106	3.3	101
	1658	5.5	168
2 Sa	0003	0.2	6
	0737	4.6	140
	1223	2.9	88
	1813	5.5	168
3 Su	0102	0.1	3
	0817	5.0	152
	1326	2.3	70
	1924	5.6	171
4 M	0153	0.1	3
	0853	5.4	165
	1420	1.6	49
	2030	5.8	177
5 Tu	0240	0.2	6
	0928	5.8	177
	1511	0.8	24
	2132	5.8	177
6 W	0323	0.5	15
	1003	6.2	189
	1600	0.2	6
	2230	5.7	174
7 Th ●	0406	0.8	24
	1038	6.5	198
	1647	−0.4	−12
	2328	5.6	171
8 F	0448	1.3	40
	1114	6.6	201
	1735	−0.7	−21
9 Sa	0025	5.4	165
	0531	1.8	55
	1153	6.6	201
	1823	−0.9	−27
10 Su	0124	5.1	155
	0617	2.2	67
	1234	6.5	198
	1914	−0.8	−24
11 M	0226	4.8	146
	0707	2.7	82
	1318	6.2	189
	2008	−0.5	−15
12 Tu	0333	4.6	140
	0806	3.0	91
	1409	5.8	177
	2107	−0.2	−6
13 W	0446	4.5	137
	0920	3.2	98
	1507	5.4	165
	2212	0.2	6
14 Th ◐	0556	4.6	140
	1044	3.2	98
	1614	5.1	155
	2318	0.4	12
15 F	0655	4.7	143
	1202	2.9	88
	1726	4.9	149

	Time	Height	
	h m	ft	cm
16 Sa	0018	0.6	18
	0741	4.9	149
	1305	2.5	76
	1838	4.8	146
17 Su	0110	0.8	24
	0817	5.0	152
	1356	2.1	64
	1942	4.7	143
18 M	0153	1.0	30
	0847	5.2	158
	1439	1.6	49
	2039	4.8	146
19 Tu	0231	1.2	37
	0913	5.4	165
	1517	1.2	37
	2130	4.8	146
20 W	0306	1.4	43
	0936	5.5	168
	1551	0.8	24
	2217	4.8	146
21 Th	0338	1.7	52
	1000	5.7	174
	1623	0.4	12
	2301	4.7	143
22 F ○	0409	2.0	61
	1025	5.8	177
	1655	0.1	3
	2346	4.7	143
23 Sa	0440	2.3	70
	1052	5.9	180
	1728	−0.2	−6
24 Su	0031	4.6	140
	0513	2.5	76
	1122	5.9	180
	1804	−0.3	−9
25 M	0119	4.5	137
	0547	2.8	85
	1157	5.9	180
	1844	−0.4	−12
26 Tu	0211	4.4	134
	0626	3.0	91
	1236	5.9	180
	1929	−0.4	−12
27 W	0308	4.4	134
	0714	3.2	98
	1322	5.7	174
	2021	−0.3	−9
28 Th	0409	4.4	134
	0817	3.4	104
	1417	5.5	168
	2119	−0.2	−6
29 F	0509	4.5	137
	0938	3.3	101
	1523	5.3	162
	2221	0.0	0
30 Sa ◑	0603	4.8	146
	1103	3.0	91
	1639	5.1	155
	2323	0.2	6
31 Su	0648	5.1	155
	1217	2.4	73
	1800	4.9	149

November

	Time	Height	
	h m	ft	cm
1 M	0021	0.4	12
	0729	5.5	168
	1319	1.6	49
	1918	4.9	149
2 Tu	0114	0.7	21
	0808	5.9	180
	1413	0.7	21
	2031	4.9	149
3 W	0203	1.0	30
	0845	6.3	192
	1502	0.0	0
	2137	5.0	152
4 Th	0250	1.4	43
	0922	6.6	201
	1550	−0.7	−21
	2238	5.1	155
5 F ●	0336	1.8	55
	1000	6.7	204
	1636	−1.1	−34
	2335	5.1	155
6 Sa	0421	2.2	67
	1039	6.8	207
	1721	−1.3	−40
7 Su	0031	5.0	152
	0507	2.5	76
	1119	6.7	204
	1806	−1.3	−40
8 M	0125	4.9	149
	0556	2.8	85
	1201	6.4	195
	1853	−1.1	−34
9 Tu	0221	4.8	146
	0648	3.0	91
	1246	6.1	186
	1941	−0.7	−21
10 W	0317	4.7	143
	0748	3.2	98
	1335	5.6	171
	2032	−0.3	−9
11 Th	0414	4.7	143
	0858	3.2	98
	1429	5.2	158
	2126	0.1	3
12 F	0509	4.7	143
	1017	3.1	94
	1530	4.7	143
	2221	0.5	15
13 Sa ◐	0558	4.8	146
	1132	2.8	85
	1641	4.4	134
	2316	0.8	24
14 Su	0639	5.0	152
	1236	2.3	70
	1757	4.1	125
15 M	0007	1.2	37
	0714	5.2	158
	1329	1.8	55
	1913	4.0	122

	Time	Height	
	h m	ft	cm
16 Tu	0054	1.5	46
	0744	5.4	165
	1413	1.2	37
	2021	4.1	125
17 W	0137	1.8	55
	0812	5.6	171
	1452	0.7	21
	2121	4.2	128
18 Th	0217	2.1	64
	0841	5.8	177
	1528	0.2	6
	2213	4.3	131
19 F	0256	2.4	73
	0911	6.0	183
	1601	−0.2	−6
	2301	4.4	134
20 Sa	0333	2.6	79
	0942	6.1	186
	1635	−0.5	−15
	2347	4.5	137
21 Su ○	0409	2.8	85
	1016	6.2	189
	1710	−0.8	−24
22 M	0031	4.6	140
	0447	3.0	91
	1053	6.3	192
	1748	−0.9	−27
23 Tu	0117	4.6	140
	0528	3.1	94
	1133	6.3	192
	1829	−1.0	−30
24 W	0203	4.6	140
	0614	3.2	98
	1217	6.1	186
	1913	−0.9	−27
25 Th	0251	4.7	143
	0709	3.2	98
	1306	5.9	180
	2001	−0.7	−21
26 F	0339	4.8	146
	0814	3.1	94
	1403	5.5	168
	2052	−0.4	−12
27 Sa	0427	5.0	152
	0931	2.9	88
	1509	5.1	155
	2146	0.0	0
28 Su ◑	0514	5.3	162
	1051	2.4	73
	1626	4.6	140
	2242	0.5	15
29 M	0559	5.6	171
	1204	1.7	52
	1752	4.3	131
	2339	1.0	30
30 Tu	0643	6.0	183
	1308	0.9	27
	1920	4.2	128

December

	Time	Height	
	h m	ft	cm
1 W	0035	1.5	46
	0726	6.3	192
	1404	0.1	3
	2040	4.3	131
2 Th	0130	1.9	58
	0808	6.6	201
	1454	−0.6	−18
	2148	4.5	137
3 F	0223	2.3	70
	0850	6.8	207
	1541	−1.0	−30
	2248	4.7	143
4 Sa	0314	2.6	79
	0933	6.8	207
	1626	−1.3	−40
	2341	4.9	149
5 Su ●	0404	2.8	85
	1015	6.8	207
	1709	−1.4	−43
6 M	0031	4.9	149
	0452	2.9	88
	1057	6.6	201
	1752	−1.3	−40
7 Tu	0117	4.9	149
	0541	3.0	91
	1140	6.3	192
	1833	−1.1	−34
8 W	0202	4.9	149
	0632	3.1	94
	1223	6.0	183
	1915	−0.7	−21
9 Th	0246	4.9	149
	0726	3.1	94
	1307	5.6	171
	1957	−0.3	−9
10 F	0328	4.9	149
	0826	3.0	91
	1355	5.1	155
	2040	0.1	3
11 Sa	0409	4.9	149
	0932	2.9	88
	1448	4.6	140
	2123	0.6	18
12 Su	0447	5.0	152
	1043	2.6	79
	1552	4.1	125
	2209	1.1	34
13 M ◐	0524	5.1	155
	1150	2.2	67
	1710	3.7	113
	2258	1.6	49
14 Tu	0600	5.3	162
	1249	1.7	52
	1840	3.6	110
	2348	2.0	61
15 W	0636	5.5	168
	1339	1.1	34
	2006	3.6	110

	Time	Height	
	h m	ft	cm
16 Th	0040	2.4	73
	0713	5.7	174
	1422	0.6	18
	2115	3.9	119
17 F	0130	2.7	82
	0751	5.9	180
	1502	0.1	3
	2211	4.1	125
18 Sa	0217	2.9	88
	0830	6.1	186
	1539	−0.4	−12
	2257	4.4	134
19 Su	0302	3.0	91
	0911	6.4	195
	1616	−0.8	−24
	2339	4.6	140
20 M	0346	3.1	94
	0952	6.5	198
	1654	−1.1	−34
21 Tu ○	0019	4.7	143
	0430	3.1	94
	1035	6.6	201
	1733	−1.2	−37
22 W	0058	4.9	149
	0516	3.0	91
	1120	6.6	201
	1813	−1.2	−37
23 Th	0137	5.0	152
	0606	2.9	88
	1208	6.4	195
	1855	−1.1	−34
24 F	0217	5.2	158
	0701	2.7	82
	1259	6.1	186
	1939	−0.8	−24
25 Sa	0258	5.4	165
	0804	2.5	76
	1355	5.5	168
	2024	−0.3	−9
26 Su	0341	5.6	171
	0914	2.2	67
	1501	4.9	149
	2112	0.4	12
27 M ◑	0425	5.8	177
	1029	1.7	52
	1619	4.3	131
	2204	1.0	30
28 Tu	0511	6.1	186
	1144	1.1	34
	1753	4.0	122
	2301	1.7	52
29 W	0559	6.3	192
	1252	0.4	12
	1930	3.9	119
30 Th	0004	2.2	67
	0649	6.5	198
	1353	−0.2	−6
	2052	4.2	128
31 F	0107	2.6	79
	0740	6.6	201
	1446	−0.6	−18
	2157	4.5	137

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Chicago, Suisun Bay, California, 2010

Times and Heights of High and Low Waters

January

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0301	4.2	128	**16** Sa	0325	4.4	134
	0755	2.0	61		0837	2.1	64
	1330	5.9	180		1354	4.9	149
	2121	−0.8	−24		2127	−0.1	−3
2 Sa	0344	4.3	131	**17** Su	0356	4.4	134
	0852	1.7	52		0918	1.9	58
	1424	5.7	174		1433	4.7	143
	2202	−0.8	−24		2150	0.0	0
3 Su	0426	4.4	134	**18** M	0423	4.3	131
	0950	1.4	43		0959	1.7	52
	1521	5.3	162		1513	4.5	137
	2241	−0.6	−18		2210	0.2	6
4 M	0508	4.5	137	**19** Tu	0445	4.4	134
	1050	1.2	37		1041	1.6	49
	1620	4.8	146		1557	4.1	125
	2321	−0.3	−9		2234	0.4	12
5 Tu	0551	4.6	140	**20** W	0505	4.5	137
	1154	1.0	30		1128	1.4	43
	1727	4.2	128		1648	3.7	113
					2303	0.6	18
6 W	0002	0.0	0	**21** Th	0529	4.6	140
	0636	4.8	146		1224	1.3	40
	1304	0.8	24		1753	3.3	101
	1844	3.7	113		2339	1.0	30
7 Th ◑	0046	0.5	15	**22** F	0602	4.8	146
	0724	4.9	149		1333	1.1	34
	1419	0.6	18		1926	3.0	91
	2008	3.4	104				
8 F	0136	1.0	30	**23** Sa ◐	0023	1.4	43
	0814	5.0	152		0644	4.9	149
	1533	0.3	9		1452	0.9	27
	2128	3.3	101		2105	3.0	91
9 Sa	0233	1.4	43	**24** Su	0117	1.8	55
	0906	5.1	155		0736	5.1	155
	1640	0.0	0		1606	0.6	18
	2240	3.5	107		2224	3.2	98
10 Su	0335	1.8	55	**25** M	0224	2.2	67
	0955	5.2	158		0835	5.3	162
	1738	−0.2	−6		1709	0.2	6
	2342	3.8	116		2327	3.5	107
11 M	0436	2.1	64	**26** Tu	0337	2.4	73
	1042	5.2	158		0938	5.5	168
	1829	−0.3	−9		1802	−0.1	−3
12 Tu	0036	4.0	122	**27** W	0019	3.8	116
	0532	2.2	67		0449	2.3	70
	1125	5.2	158		1039	5.7	174
	1914	−0.4	−12		1849	−0.4	−12
13 W	0124	4.2	128	**28** Th	0106	4.1	125
	0624	2.3	70		0553	2.2	67
	1204	5.2	158		1138	5.9	180
	1954	−0.3	−9		1933	−0.5	−15
14 Th ●	0208	4.4	134	**29** F ○	0148	4.3	131
	0712	2.3	70		0652	1.9	58
	1241	5.2	158		1234	6.0	183
	2030	−0.2	−6		2014	−0.6	−18
15 F	0248	4.4	134	**30** Sa	0228	4.5	137
	0756	2.2	67		0748	1.6	49
	1318	5.1	155		1329	5.9	180
	2101	−0.2	−6		2052	−0.5	−15
				31 Su	0306	4.7	143
					0843	1.2	37
					1423	5.6	171
					2129	−0.4	−12

February

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0343	4.8	146	**16** Tu	0322	4.7	143
	0938	1.0	30		0937	1.2	37
	1518	5.2	158		1508	4.4	134
	2205	−0.1	−3		2127	0.6	18
2 Tu	0420	5.0	152	**17** W	0337	4.8	146
	1035	0.8	24		1015	1.1	34
	1616	4.7	143		1552	4.1	125
	2242	0.2	6		2152	0.9	27
3 W	0459	5.1	155	**18** Th	0358	5.0	152
	1135	0.6	18		1056	1.0	30
	1721	4.2	128		1643	3.8	116
	2320	0.7	21		2224	1.1	34
4 Th	0540	5.1	155	**19** F	0427	5.1	155
	1242	0.6	18		1145	0.9	27
	1835	3.8	116		1749	3.4	104
					2302	1.5	46
5 F ◑	0003	1.1	34	**20** Sa	0505	5.2	158
	0626	5.1	155		1249	0.9	27
	1355	0.5	15		1920	3.2	98
	1957	3.5	107		2350	1.9	58
6 Sa	0056	1.6	49	**21** Su ◐	0553	5.2	158
	0720	5.0	152		1413	0.8	24
	1510	0.4	12		2051	3.2	98
	2116	3.6	110				
7 Su	0202	2.0	61	**22** M	0052	2.2	67
	0822	4.9	149		0652	5.1	155
	1620	0.2	6		1535	0.6	18
	2226	3.8	116		2205	3.5	107
8 M	0316	2.3	70	**23** Tu	0210	2.4	73
	0926	4.9	149		0804	5.1	155
	1718	0.1	3		1640	0.2	6
	2325	4.0	122		2303	3.7	113
9 Tu	0425	2.3	70	**24** W	0334	2.3	70
	1024	4.9	149		0922	5.2	158
	1808	−0.1	−3		1734	−0.1	−3
					2351	4.0	122
10 W	0015	4.3	131	**25** Th	0447	2.0	61
	0525	2.2	67		1033	5.4	165
	1114	5.0	152		1820	−0.3	−9
	1850	−0.1	−3				
11 Th	0059	4.5	137	**26** F	0033	4.3	131
	0616	2.1	64		0550	1.7	52
	1158	5.0	152		1136	5.5	168
	1926	−0.1	−3		1902	−0.3	−9
12 F	0138	4.5	137	**27** Sa	0111	4.5	137
	0701	1.9	58		0647	1.3	40
	1237	5.0	152		1233	5.5	168
	1958	0.0	0		1940	−0.3	−9
13 Sa ●	0212	4.6	140	**28** Su ○	0148	4.8	146
	0743	1.8	55		0740	0.9	27
	1314	4.9	149		1327	5.4	165
	2024	0.2	6		2017	−0.1	−3
14 Su	0241	4.6	140				
	0822	1.6	49				
	1351	4.8	146				
	2047	0.3	9				
15 M	0305	4.6	140				
	0900	1.4	43				
	1428	4.6	140				
	2106	0.5	15				

March

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0222	5.0	152	**16** Tu	0206	4.8	146
	0833	0.6	18		0843	0.7	21
	1421	5.2	158		1428	4.2	128
	2052	0.2	6		2023	0.9	27
2 Tu	0256	5.2	158	**17** W	0221	5.0	152
	0925	0.3	9		0918	0.6	18
	1516	4.9	149		1511	4.1	125
	2127	0.5	15		2048	1.1	34
3 W	0330	5.3	162	**18** Th	0241	5.2	158
	1019	0.2	6		0955	0.5	15
	1614	4.5	137		1557	3.9	119
	2203	0.9	27		2119	1.4	43
4 Th	0404	5.3	162	**19** F	0309	5.3	162
	1115	0.3	9		1034	0.4	12
	1717	4.1	125		1652	3.7	113
	2243	1.3	40		2156	1.6	49
5 F	0442	5.2	158	**20** Sa	0345	5.4	165
	1216	0.3	9		1121	0.4	12
	1828	3.8	116		1759	3.5	107
	2330	1.7	52		2240	1.9	58
6 Sa	0525	5.0	152	**21** Su	0428	5.3	162
	1325	0.4	12		1223	0.4	12
	1944	3.7	113		1918	3.4	104
					2336	2.1	64
7 Su ◑	0028	2.1	64	**22** M	0520	5.1	155
	0619	4.8	146		1341	0.4	12
	1438	0.4	12		2034	3.4	104
	2058	3.7	113				
8 M	0142	2.3	70	**23** Tu ◐	0047	2.2	67
	0732	4.5	137		0626	4.9	149
	1547	0.3	9		1458	0.2	6
	2203	3.9	119		2139	3.6	110
9 Tu	0302	2.3	70	**24** W	0214	2.2	67
	0854	4.4	134		0748	4.7	143
	1645	0.2	6		1603	0.0	0
	2258	4.1	125		2231	3.8	116
10 W	0413	2.1	64	**25** Th	0337	1.9	58
	1004	4.4	134		0916	4.7	143
	1733	0.1	3		1657	−0.1	−3
	2344	4.3	131		2316	4.1	125
11 Th	0512	1.8	55	**26** F	0446	1.4	43
	1059	4.4	134		1030	4.7	143
	1813	0.1	3		1742	−0.2	−6
					2355	4.4	134
12 F	0023	4.5	137	**27** Sa	0546	0.9	27
	0602	1.6	49		1133	4.8	146
	1146	4.5	137		1823	−0.1	−3
	1846	0.2	6				
13 Sa	0057	4.6	140	**28** Su	0031	4.7	143
	0646	1.3	40		0641	0.4	12
	1228	4.5	137		1231	4.8	146
	1915	0.3	9		1901	0.1	3
14 Su	0126	4.6	140	**29** M ○	0104	5.0	152
	0727	1.1	34		0733	0.1	3
	1308	4.4	134		1326	4.7	143
	1939	0.5	15		1937	0.4	12
15 M ●	0150	4.7	143	**30** Tu	0137	5.2	158
	0806	0.9	27		0823	−0.2	−6
	1348	4.3	131		1420	4.6	140
	2001	0.7	21		2013	0.8	24
				31 W	0209	5.4	165
					0913	−0.3	−9
					1515	4.4	134
					2050	1.1	34

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Chicago, Suisun Bay, California, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0241	5.4	165
	1003	−0.3	−9
	1613	4.2	128
	2130	1.5	46
2 F	0315	5.4	165
	1055	−0.2	−6
	1714	4.0	122
	2214	1.8	55
3 Sa	0351	5.1	155
	1150	0.0	0
	1818	3.8	116
	2306	2.0	61
4 Su	0434	4.8	146
	1250	0.1	3
	1926	3.8	116
5 M	0008	2.2	67
	0526	4.4	134
	1355	0.2	6
	2031	3.8	116
6 Tu ◑	0124	2.2	67
	0638	4.0	122
	1459	0.2	6
	2129	3.9	119
7 W	0243	2.1	64
	0813	3.8	116
	1555	0.2	6
	2220	4.1	125
8 Th	0353	1.7	52
	0933	3.7	113
	1641	0.2	6
	2302	4.2	128
9 F	0452	1.3	40
	1035	3.7	113
	1720	0.3	9
	2338	4.4	134
10 Sa	0543	0.9	27
	1127	3.8	116
	1753	0.5	15
11 Su	0009	4.5	137
	0628	0.6	18
	1214	3.8	116
	1821	0.7	21
12 M	0033	4.7	143
	0709	0.4	12
	1300	3.9	119
	1847	0.9	27
13 Tu	0051	4.8	146
	0749	0.2	6
	1345	3.9	119
	1913	1.2	37
14 W ●	0108	5.0	152
	0827	0.0	0
	1430	3.8	116
	1942	1.4	43
15 Th	0129	5.3	162
	0904	−0.1	−3
	1517	3.8	116
	2016	1.6	49

	Time	Height	
	h m	ft	cm
16 F	0158	5.4	165
	0942	−0.2	−6
	1608	3.7	113
	2055	1.8	55
17 Sa	0234	5.5	168
	1024	−0.2	−6
	1703	3.6	110
	2140	1.9	58
18 Su	0316	5.4	165
	1112	−0.2	−6
	1803	3.6	110
	2233	2.0	61
19 M	0405	5.2	158
	1208	−0.2	−6
	1907	3.5	107
	2337	2.0	61
20 Tu	0502	4.8	146
	1313	−0.2	−6
	2009	3.6	110
21 W ◐	0054	1.9	58
	0613	4.4	134
	1418	−0.2	−6
	2104	3.8	116
22 Th	0217	1.7	52
	0741	4.1	125
	1518	−0.2	−6
	2153	4.0	122
23 F	0335	1.2	37
	0911	4.0	122
	1610	−0.1	−3
	2236	4.3	131
24 Sa	0442	0.7	21
	1026	4.0	122
	1656	0.1	3
	2314	4.7	143
25 Su	0541	0.2	6
	1130	4.0	122
	1739	0.3	9
	2349	5.0	152
26 M	0635	−0.3	−9
	1229	4.1	125
	1818	0.7	21
27 Tu	0023	5.2	158
	0726	−0.5	−15
	1325	4.1	125
	1858	1.0	30
28 W ○	0055	5.4	165
	0815	−0.6	−18
	1420	4.1	125
	1938	1.4	43
29 Th	0127	5.5	168
	0903	−0.7	−21
	1515	4.0	122
	2020	1.7	52
30 F	0200	5.4	165
	0950	−0.6	−18
	1611	4.0	122
	2105	1.9	58

May

	Time	Height	
	h m	ft	cm
1 Sa	0235	5.2	158
	1036	−0.5	−15
	1706	3.9	119
	2154	2.1	64
2 Su	0313	5.0	152
	1123	−0.3	−9
	1802	3.9	119
	2248	2.1	64
3 M	0357	4.6	140
	1212	−0.2	−6
	1859	3.8	116
	2350	2.1	64
4 Tu	0448	4.1	125
	1303	0.0	0
	1954	3.8	116
5 W ◑	0100	2.0	61
	0553	3.7	113
	1355	0.1	3
	2046	3.9	119
6 Th	0214	1.8	55
	0721	3.3	101
	1444	0.2	6
	2131	4.0	122
7 F	0324	1.4	43
	0851	3.1	94
	1529	0.4	12
	2211	4.2	128
8 Sa	0426	0.9	27
	1004	3.1	94
	1609	0.6	18
	2244	4.3	131
9 Su	0519	0.5	15
	1104	3.2	98
	1645	0.8	24
	2311	4.6	140
10 M	0606	0.2	6
	1159	3.3	101
	1718	1.1	34
	2333	4.8	146
11 Tu	0650	−0.1	−3
	1250	3.4	104
	1752	1.4	43
	2354	5.1	155
12 W	0732	−0.3	−9
	1341	3.5	107
	1828	1.7	52
13 Th ●	0019	5.3	162
	0812	−0.4	−12
	1430	3.7	113
	1908	1.9	58
14 F	0051	5.5	168
	0853	−0.5	−15
	1519	3.7	113
	1952	2.0	61
15 Sa	0129	5.6	171
	0934	−0.6	−18
	1609	3.8	116
	2041	2.1	64

	Time	Height	
	h m	ft	cm
16 Su	0213	5.6	171
	1017	−0.7	−21
	1659	3.8	116
	2135	2.0	61
17 M	0301	5.4	165
	1102	−0.7	−21
	1750	3.8	116
	2234	1.9	58
18 Tu	0354	5.1	155
	1151	−0.6	−18
	1842	3.8	116
	2340	1.8	55
19 W	0455	4.6	140
	1242	−0.5	−15
	1934	3.9	119
20 Th ◐	0054	1.5	46
	0609	4.1	125
	1335	−0.4	−12
	2024	4.1	125
21 F	0213	1.2	37
	0737	3.7	113
	1428	−0.1	−3
	2111	4.4	134
22 Sa	0327	0.7	21
	0905	3.5	107
	1520	0.2	6
	2154	4.7	143
23 Su	0435	0.2	6
	1021	3.4	104
	1608	0.5	15
	2234	5.0	152
24 M	0535	−0.3	−9
	1127	3.5	107
	1655	0.9	27
	2311	5.3	162
25 Tu	0629	−0.6	−18
	1228	3.6	110
	1740	1.3	40
	2346	5.4	165
26 W	0720	−0.7	−21
	1325	3.8	116
	1826	1.6	49
27 Th ○	0020	5.5	168
	0807	−0.8	−24
	1419	3.9	119
	1913	1.9	58
28 F	0055	5.5	168
	0852	−0.7	−21
	1511	4.0	122
	2001	2.1	64
29 Sa	0130	5.3	162
	0935	−0.7	−21
	1601	4.1	125
	2049	2.2	67
30 Su	0208	5.1	155
	1016	−0.6	−18
	1650	4.0	122
	2139	2.2	67
31 M	0248	4.9	149
	1054	−0.4	−12
	1737	4.0	122
	2231	2.1	64

June

	Time	Height	
	h m	ft	cm
1 Tu	0332	4.5	137
	1130	−0.3	−9
	1822	4.0	122
	2327	2.0	61
2 W	0421	4.1	125
	1206	−0.2	−6
	1907	3.9	119
3 Th	0028	1.8	55
	0518	3.6	110
	1242	0.0	0
	1950	4.0	122
4 F ◑	0136	1.6	49
	0633	3.1	94
	1321	0.3	9
	2029	4.1	125
5 Sa	0246	1.2	37
	0806	2.9	88
	1401	0.6	18
	2105	4.3	131
6 Su	0352	0.8	24
	0930	2.8	85
	1444	0.9	27
	2136	4.5	137
7 M	0451	0.4	12
	1041	2.9	88
	1529	1.3	40
	2204	4.8	146
8 Tu	0543	0.1	3
	1143	3.1	94
	1615	1.6	49
	2233	5.1	155
9 W	0630	−0.2	−6
	1239	3.3	101
	1702	1.9	58
	2305	5.4	165
10 Th	0714	−0.4	−12
	1332	3.5	107
	1752	2.2	67
	2343	5.6	171
11 F	0757	−0.6	−18
	1422	3.7	113
	1844	2.3	70
12 Sa ●	0026	5.8	177
	0840	−0.7	−21
	1509	3.9	119
	1939	2.2	67
13 Su	0112	5.8	177
	0921	−0.8	−24
	1554	4.0	122
	2034	2.1	64
14 M	0202	5.7	174
	1003	−0.9	−27
	1638	4.0	122
	2132	1.9	58
15 Tu	0255	5.4	165
	1044	−0.9	−27
	1722	4.1	125
	2232	1.7	52

	Time	Height	
	h m	ft	cm
16 W	0352	5.0	152
	1125	−0.7	−21
	1806	4.2	128
	2336	1.4	43
17 Th	0454	4.5	137
	1208	−0.5	−15
	1852	4.4	134
18 F ◐	0046	1.1	34
	0608	3.9	119
	1253	−0.2	−6
	1938	4.6	140
19 Sa	0201	0.8	24
	0733	3.5	107
	1341	0.2	6
	2025	4.8	146
20 Su	0316	0.4	12
	0859	3.3	101
	1432	0.7	21
	2112	5.1	155
21 M	0425	0.0	0
	1016	3.3	101
	1526	1.1	34
	2156	5.3	162
22 Tu	0527	−0.3	−9
	1123	3.4	104
	1621	1.5	46
	2239	5.4	165
23 W	0621	−0.5	−15
	1224	3.7	113
	1715	1.9	58
	2320	5.5	168
24 Th	0711	−0.6	−18
	1319	3.9	119
	1809	2.1	64
	2359	5.5	168
25 F	0756	−0.6	−18
	1410	4.1	125
	1900	2.3	70
26 Sa ○	0036	5.4	165
	0838	−0.6	−18
	1457	4.2	128
	1950	2.3	70
27 Su	0114	5.3	162
	0916	−0.5	−15
	1541	4.2	128
	2037	2.3	70
28 M	0153	5.1	155
	0950	−0.4	−12
	1622	4.2	128
	2124	2.2	67
29 Tu	0233	4.8	146
	1019	−0.3	−9
	1659	4.2	128
	2211	2.0	61
30 W	0316	4.5	137
	1046	−0.2	−6
	1734	4.2	128
	2300	1.9	58

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Chicago, Suisun Bay, California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0401	4.1	125
	1111	0.0	0
	1806	4.2	128
	2353	1.7	52
2 F	0453	3.7	113
	1138	0.2	6
	1836	4.3	131
3 Sa	0053	1.5	46
	0558	3.2	98
	1210	0.6	18
	1906	4.4	134
4 Su ◑	0202	1.2	37
	0727	2.9	88
	1249	1.0	30
	1938	4.6	140
5 M	0313	1.0	30
	0901	2.8	85
	1335	1.4	43
	2015	4.8	146
6 Tu	0419	0.6	18
	1020	2.9	88
	1429	1.8	55
	2057	5.1	155
7 W	0517	0.3	9
	1126	3.2	98
	1528	2.1	64
	2143	5.4	165
8 Th	0608	0.0	0
	1223	3.5	107
	1630	2.3	70
	2231	5.7	174
9 F	0654	−0.3	−9
	1314	3.7	113
	1732	2.4	73
	2321	5.8	177
10 Sa	0738	−0.5	−15
	1400	3.9	119
	1832	2.3	70
11 Su ●	0013	6.0	183
	0820	−0.6	−18
	1443	4.1	125
	1930	2.1	64
12 M	0106	5.9	180
	0900	−0.7	−21
	1524	4.3	131
	2027	1.9	58
13 Tu	0159	5.8	177
	0938	−0.7	−21
	1603	4.4	134
	2124	1.6	49
14 W	0254	5.5	168
	1016	−0.6	−18
	1642	4.6	140
	2223	1.3	40
15 Th	0352	5.0	152
	1053	−0.4	−12
	1722	4.7	143
	2325	1.1	34

	Time	Height	
	h m	ft	cm
16 F	0455	4.5	137
	1132	−0.1	−3
	1803	4.9	149
17 Sa	0032	0.8	24
	0607	3.9	119
	1213	0.4	12
	1849	5.1	155
18 Su ◐	0145	0.6	18
	0730	3.5	107
	1300	0.9	27
	1938	5.2	158
19 M	0300	0.4	12
	0853	3.4	104
	1355	1.3	40
	2031	5.3	162
20 Tu	0411	0.1	3
	1009	3.4	104
	1458	1.7	52
	2125	5.3	162
21 W	0514	−0.1	−3
	1115	3.7	113
	1603	2.0	61
	2216	5.4	165
22 Th	0608	−0.3	−9
	1212	4.0	122
	1705	2.2	67
	2304	5.4	165
23 F	0655	−0.4	−12
	1303	4.2	128
	1801	2.3	70
	2349	5.4	165
24 Sa	0737	−0.3	−9
	1349	4.3	131
	1853	2.2	67
25 Su ○	0029	5.3	162
	0815	−0.3	−9
	1430	4.4	134
	1940	2.2	67
26 M	0108	5.2	158
	0847	−0.2	−6
	1508	4.4	134
	2024	2.1	64
27 Tu	0146	5.0	152
	0915	−0.1	−3
	1541	4.4	134
	2107	1.9	58
28 W	0225	4.8	146
	0939	0.1	3
	1609	4.4	134
	2148	1.7	52
29 Th	0305	4.5	137
	1000	0.2	6
	1632	4.5	137
	2231	1.6	49
30 F	0349	4.2	128
	1022	0.4	12
	1651	4.5	137
	2317	1.4	43
31 Sa	0438	3.8	116
	1048	0.7	21
	1712	4.7	143

August

	Time	Height	
	h m	ft	cm
1 Su	0009	1.3	40
	0540	3.4	104
	1121	1.0	30
	1741	4.8	146
2 M ◑	0113	1.2	37
	0705	3.1	94
	1202	1.4	43
	1820	5.0	152
3 Tu	0228	1.0	30
	0840	3.0	91
	1252	1.8	55
	1909	5.1	155
4 W	0343	0.8	24
	1000	3.2	98
	1354	2.2	67
	2007	5.3	162
5 Th	0447	0.4	12
	1104	3.4	104
	1505	2.4	73
	2109	5.4	165
6 F	0540	0.1	3
	1158	3.7	113
	1617	2.4	73
	2212	5.6	171
7 Sa	0627	−0.2	−6
	1244	3.9	119
	1723	2.2	67
	2311	5.8	177
8 Su	0710	−0.4	−12
	1326	4.1	125
	1824	2.0	61
9 M ●	0008	5.9	180
	0750	−0.5	−15
	1405	4.4	134
	1921	1.7	52
10 Tu	0103	5.8	177
	0828	−0.4	−12
	1442	4.6	140
	2017	1.3	40
11 W	0158	5.6	171
	0905	−0.3	−9
	1518	4.8	146
	2113	1.0	30
12 Th	0254	5.3	162
	0941	−0.1	−3
	1554	5.0	152
	2210	0.8	24
13 F	0352	4.8	146
	1017	0.2	6
	1631	5.2	158
	2310	0.6	18
14 Sa	0455	4.4	134
	1056	0.6	18
	1711	5.3	162
15 Su	0014	0.5	15
	0607	3.9	119
	1139	1.0	30
	1756	5.3	162

	Time	Height	
	h m	ft	cm
16 M ◐	0125	0.5	15
	0725	3.6	110
	1230	1.5	46
	1850	5.2	158
17 Tu	0239	0.4	12
	0844	3.6	110
	1332	1.9	58
	1952	5.1	155
18 W	0350	0.2	6
	0956	3.7	113
	1444	2.1	64
	2058	5.0	152
19 Th	0452	0.1	3
	1057	4.0	122
	1556	2.2	67
	2201	5.0	152
20 F	0544	−0.1	−3
	1149	4.2	128
	1659	2.1	64
	2255	5.0	152
21 Sa	0629	−0.1	−3
	1235	4.4	134
	1754	2.0	61
	2342	5.0	152
22 Su	0707	−0.1	−3
	1316	4.5	137
	1842	1.8	55
23 M	0024	5.0	152
	0741	0.0	0
	1352	4.5	137
	1927	1.7	52
24 Tu ○	0103	4.8	146
	0809	0.2	6
	1423	4.5	137
	2008	1.5	46
25 W	0141	4.7	143
	0833	0.4	12
	1449	4.6	140
	2048	1.4	43
26 Th	0220	4.5	137
	0854	0.6	18
	1507	4.6	140
	2126	1.2	37
27 F	0301	4.3	131
	0914	0.8	24
	1522	4.7	143
	2204	1.1	34
28 Sa	0344	4.0	122
	0938	1.0	30
	1541	4.9	149
	2245	1.0	30
29 Su	0435	3.7	113
	1009	1.2	37
	1608	5.1	155
	2331	0.9	27
30 M	0538	3.5	107
	1046	1.5	46
	1644	5.1	155
31 Tu	0030	0.9	27
	0659	3.3	101
	1132	1.9	58
	1729	5.1	155

September

	Time	Height	
	h m	ft	cm
1 W ◑	0145	0.8	24
	0825	3.2	98
	1229	2.1	64
	1825	5.1	155
2 Th	0303	0.6	18
	0937	3.4	104
	1341	2.3	70
	1934	5.1	155
3 F	0410	0.4	12
	1036	3.6	110
	1500	2.3	70
	2049	5.1	155
4 Sa	0505	0.1	3
	1124	3.8	116
	1614	2.0	61
	2202	5.2	158
5 Su	0552	−0.1	−3
	1206	4.1	125
	1719	1.7	52
	2306	5.4	165
6 M	0634	−0.2	−6
	1244	4.3	131
	1817	1.3	40
7 Tu	0005	5.4	165
	0713	−0.2	−6
	1320	4.6	140
	1913	0.9	27
8 W ●	0101	5.3	162
	0750	0.0	0
	1354	4.9	149
	2007	0.6	18
9 Th	0156	5.1	155
	0826	0.2	6
	1428	5.1	155
	2101	0.3	9
10 F	0253	4.8	146
	0903	0.5	15
	1503	5.3	162
	2156	0.2	6
11 Sa	0352	4.5	137
	0941	0.9	27
	1540	5.4	165
	2253	0.1	3
12 Su	0456	4.2	128
	1024	1.2	37
	1620	5.3	162
	2354	0.2	6
13 M	0605	3.9	119
	1112	1.6	49
	1706	5.2	158
14 Tu ◐	0100	0.2	6
	0717	3.8	116
	1210	1.9	58
	1802	4.9	149
15 W	0211	0.3	9
	0829	3.8	116
	1319	2.1	64
	1913	4.6	140

	Time	Height	
	h m	ft	cm
16 Th	0318	0.2	6
	0933	3.9	119
	1435	2.1	64
	2032	4.5	137
17 F	0418	0.1	3
	1029	4.1	125
	1547	1.9	58
	2142	4.4	134
18 Sa	0508	0.0	0
	1117	4.3	131
	1648	1.6	49
	2240	4.4	134
19 Su	0550	0.0	0
	1158	4.4	134
	1741	1.4	43
	2329	4.4	134
20 M	0625	0.1	3
	1235	4.5	137
	1828	1.1	34
21 Tu	0013	4.4	134
	0656	0.3	9
	1305	4.5	137
	1911	0.9	27
22 W	0055	4.3	131
	0722	0.6	18
	1330	4.6	140
	1951	0.8	24
23 Th ○	0137	4.2	128
	0745	0.8	24
	1348	4.7	143
	2030	0.7	21
24 F	0219	4.1	125
	0807	1.1	34
	1403	4.8	146
	2107	0.6	18
25 Sa	0302	3.9	119
	0832	1.3	40
	1421	5.0	152
	2143	0.5	15
26 Su	0350	3.8	116
	0903	1.5	46
	1449	5.2	158
	2222	0.4	12
27 M	0443	3.6	110
	0940	1.7	52
	1523	5.2	158
	2306	0.4	12
28 Tu	0545	3.5	107
	1024	1.9	58
	1605	5.2	158
29 W	0001	0.4	12
	0656	3.4	104
	1117	2.1	64
	1656	5.0	152
30 Th ◑	0110	0.4	12
	0806	3.4	104
	1223	2.1	64
	1758	4.8	146

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Chicago, Suisun Bay, California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0223	0.2	6
	0909	3.5	107
	1341	2.1	64
	1914	4.6	140
2 Sa	0327	0.1	3
	1001	3.7	113
	1501	1.8	55
	2039	4.5	137
3 Su	0421	−0.1	−3
	1045	3.9	119
	1612	1.4	43
	2156	4.6	140
4 M	0508	−0.1	−3
	1124	4.2	128
	1714	0.9	27
	2302	4.6	140
5 Tu	0550	0.0	0
	1200	4.6	140
	1811	0.4	12
6 W	0002	4.7	143
	0629	0.2	6
	1234	4.9	149
	1905	0.1	3
7 Th ●	0059	4.6	140
	0708	0.5	15
	1307	5.2	158
	1958	−0.2	−6
8 F	0156	4.5	137
	0746	0.8	24
	1341	5.4	165
	2050	−0.3	−9
9 Sa	0253	4.3	131
	0827	1.1	34
	1416	5.5	168
	2143	−0.4	−12
10 Su	0352	4.2	128
	0910	1.4	43
	1454	5.4	165
	2236	−0.3	−9
11 M	0454	4.0	122
	0958	1.7	52
	1535	5.2	158
	2332	−0.2	−6
12 Tu	0557	3.9	119
	1052	1.9	58
	1622	4.9	149
13 W	0031	−0.1	−3
	0701	3.8	116
	1154	2.0	61
	1718	4.5	137
14 Th ◐	0133	0.0	0
	0804	3.8	116
	1305	2.0	61
	1832	4.1	125
15 F	0234	0.1	3
	0902	3.9	119
	1420	1.8	55
	1958	3.8	116

	Time	Height	
	h m	ft	cm
16 Sa	0329	0.1	3
	0953	4.1	125
	1529	1.5	46
	2114	3.7	113
17 Su	0416	0.1	3
	1037	4.2	128
	1630	1.1	34
	2217	3.7	113
18 M	0457	0.2	6
	1115	4.3	131
	1723	0.8	24
	2310	3.7	113
19 Tu	0531	0.4	12
	1147	4.5	137
	1810	0.5	15
	2359	3.7	113
20 W	0601	0.7	21
	1213	4.6	140
	1853	0.3	9
21 Th	0046	3.8	116
	0628	1.0	30
	1233	4.7	143
	1934	0.1	3
22 F ○	0132	3.7	113
	0655	1.3	40
	1249	4.9	149
	2013	0.0	0
23 Sa	0219	3.7	113
	0724	1.6	49
	1309	5.1	155
	2051	0.0	0
24 Su	0307	3.7	113
	0758	1.8	55
	1337	5.2	158
	2129	−0.1	−3
25 M	0356	3.7	113
	0837	1.9	58
	1412	5.3	162
	2209	−0.1	−3
26 Tu	0448	3.6	110
	0922	2.0	61
	1454	5.3	162
	2253	−0.1	−3
27 W	0543	3.5	107
	1013	2.0	61
	1541	5.1	155
	2343	−0.2	−6
28 Th	0641	3.5	107
	1113	2.0	61
	1636	4.8	146
29 F	0040	−0.2	−6
	0739	3.5	107
	1223	1.9	58
	1742	4.4	134
30 Sa ◑	0141	−0.2	−6
	0832	3.6	110
	1341	1.6	49
	1903	4.1	125
31 Su	0239	−0.2	−6
	0920	3.9	119
	1458	1.2	37
	2032	3.9	119

November

	Time	Height	
	h m	ft	cm
1 M	0332	−0.1	−3
	1003	4.2	128
	1607	0.7	21
	2151	3.9	119
2 Tu	0420	0.1	3
	1041	4.5	137
	1709	0.2	6
	2259	3.9	119
3 W	0504	0.3	9
	1117	4.9	149
	1806	−0.2	−6
4 Th	0001	4.0	122
	0546	0.7	21
	1152	5.2	158
	1859	−0.5	−15
5 F ●	0059	4.0	122
	0629	1.0	30
	1226	5.4	165
	1951	−0.7	−21
6 Sa	0157	4.0	122
	0712	1.4	43
	1302	5.5	168
	2041	−0.7	−21
7 Su	0253	4.0	122
	0758	1.6	49
	1339	5.5	168
	2131	−0.7	−21
8 M	0349	4.0	122
	0847	1.8	55
	1419	5.3	162
	2219	−0.6	−18
9 Tu	0445	4.0	122
	0939	2.0	61
	1502	5.0	152
	2308	−0.4	−12
10 W	0540	4.0	122
	1035	2.0	61
	1549	4.7	143
	2357	−0.3	−9
11 Th	0635	3.9	119
	1136	1.9	58
	1643	4.2	128
12 F	0046	−0.1	−3
	0729	3.9	119
	1242	1.8	55
	1750	3.8	116
13 Sa ◐	0135	0.0	0
	0820	3.9	119
	1353	1.6	49
	1913	3.4	104
14 Su	0223	0.2	6
	0906	4.0	122
	1502	1.2	37
	2036	3.2	98
15 M	0308	0.4	12
	0947	4.2	128
	1605	0.8	24
	2148	3.1	94

	Time	Height	
	h m	ft	cm
16 Tu	0348	0.6	18
	1022	4.3	131
	1700	0.4	12
	2249	3.2	98
17 W	0426	0.9	27
	1052	4.5	137
	1749	0.1	3
	2345	3.3	101
18 Th	0500	1.2	37
	1115	4.7	143
	1835	−0.1	−3
19 F	0037	3.4	104
	0535	1.5	46
	1136	5.0	152
	1917	−0.2	−6
20 Sa	0127	3.5	107
	0611	1.8	55
	1200	5.2	158
	1958	−0.3	−9
21 Su ○	0216	3.6	110
	0651	2.0	61
	1231	5.4	165
	2038	−0.4	−12
22 M	0304	3.7	113
	0735	2.1	64
	1308	5.5	168
	2117	−0.5	−15
23 Tu	0351	3.7	113
	0823	2.2	67
	1351	5.5	168
	2157	−0.5	−15
24 W	0438	3.8	116
	0914	2.1	64
	1438	5.3	162
	2239	−0.6	−18
25 Th	0525	3.7	113
	1010	1.9	58
	1530	5.0	152
	2323	−0.6	−18
26 F	0612	3.8	116
	1111	1.8	55
	1628	4.7	143
27 Sa	0009	−0.5	−15
	0700	3.8	116
	1220	1.5	46
	1735	4.2	128
28 Su ◑	0058	−0.3	−9
	0748	4.0	122
	1334	1.2	37
	1857	3.7	113
29 M	0149	−0.1	−3
	0834	4.3	131
	1450	0.8	24
	2026	3.5	107
30 Tu	0241	0.2	6
	0918	4.6	140
	1600	0.3	9
	2147	3.4	104

December

	Time	Height	
	h m	ft	cm
1 W	0332	0.6	18
	1000	4.9	149
	1704	−0.2	−6
	2258	3.5	107
2 Th	0422	0.9	27
	1040	5.2	158
	1801	−0.5	−15
3 F	0001	3.7	113
	0511	1.3	40
	1119	5.4	165
	1854	−0.7	−21
4 Sa	0100	3.8	116
	0601	1.6	49
	1157	5.6	171
	1944	−0.8	−24
5 Su ●	0155	4.0	122
	0651	1.9	58
	1236	5.6	171
	2032	−0.8	−24
6 M	0248	4.1	125
	0742	2.0	61
	1316	5.5	168
	2117	−0.7	−21
7 Tu	0338	4.1	125
	0833	2.1	64
	1358	5.3	162
	2159	−0.6	−18
8 W	0426	4.1	125
	0925	2.1	64
	1441	5.0	152
	2238	−0.4	−12
9 Th	0512	4.1	125
	1017	2.0	61
	1527	4.6	140
	2316	−0.3	−9
10 F	0557	4.1	125
	1112	1.8	55
	1616	4.2	128
	2351	−0.1	−3
11 Sa	0641	4.0	122
	1210	1.7	52
	1714	3.7	113
12 Su	0026	0.1	3
	0723	4.0	122
	1315	1.5	46
	1826	3.3	101
13 M ◐	0103	0.4	12
	0804	4.1	125
	1424	1.2	37
	1954	3.0	91
14 Tu	0143	0.7	21
	0841	4.2	128
	1532	0.8	24
	2117	2.9	88
15 W	0227	1.1	34
	0915	4.4	134
	1633	0.5	15
	2228	3.0	91

	Time	Height	
	h m	ft	cm
16 Th	0313	1.5	46
	0946	4.7	143
	1727	0.2	6
	2331	3.2	98
17 F	0401	1.8	55
	1016	5.0	152
	1815	−0.1	−3
18 Sa	0026	3.4	104
	0451	2.1	64
	1049	5.2	158
	1900	−0.3	−9
19 Su	0117	3.6	110
	0541	2.3	70
	1126	5.5	168
	1942	−0.4	−12
20 M	0205	3.8	116
	0631	2.3	70
	1208	5.6	171
	2022	−0.5	−15
21 Tu ○	0249	3.9	119
	0723	2.3	70
	1254	5.7	174
	2101	−0.6	−18
22 W	0331	4.0	122
	0815	2.1	64
	1342	5.6	171
	2139	−0.7	−21
23 Th	0412	4.1	125
	0908	1.9	58
	1433	5.4	165
	2217	−0.7	−21
24 F	0451	4.1	125
	1004	1.7	52
	1527	5.1	155
	2255	−0.6	−18
25 Sa	0531	4.2	128
	1103	1.4	43
	1625	4.6	140
	2334	−0.4	−12
26 Su	0613	4.4	134
	1209	1.2	37
	1732	4.1	125
27 M ◑	0017	−0.1	−3
	0657	4.5	137
	1321	0.9	27
	1854	3.6	110
28 Tu	0103	0.3	9
	0744	4.8	146
	1438	0.6	18
	2023	3.3	101
29 W	0155	0.8	24
	0833	5.0	152
	1551	0.2	6
	2145	3.3	101
30 Th	0252	1.2	37
	0922	5.2	158
	1657	−0.2	−6
	2257	3.5	107
31 F	0353	1.6	49
	1010	5.4	165
	1755	−0.4	−12
	2359	3.8	116

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Arena Cove, California, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0424	3.0	91
	1025	7.5	229
	1742	−1.5	−46
2 Sa	0028	5.3	162
	0520	2.8	85
	1116	7.2	219
	1825	−1.2	−37
3 Su	0109	5.6	171
	0620	2.6	79
	1210	6.8	207
	1908	−0.8	−24
4 M	0152	5.8	177
	0724	2.4	73
	1307	6.1	186
	1952	−0.2	−6
5 Tu	0236	6.1	186
	0833	2.1	64
	1411	5.3	162
	2036	0.6	18
6 W	0322	6.2	189
	0949	1.8	55
	1527	4.6	140
	2122	1.4	43
7 Th ◑	0410	6.4	195
	1107	1.3	40
	1657	4.1	125
	2212	2.1	64
8 F	0500	6.5	198
	1221	0.9	27
	1837	3.9	119
	2309	2.7	82
9 Sa	0552	6.5	198
	1325	0.4	12
	2007	4.0	122
10 Su	0013	3.1	94
	0643	6.6	201
	1421	0.0	0
	2115	4.3	131
11 M	0117	3.4	104
	0733	6.6	201
	1508	−0.2	−6
	2205	4.5	137
12 Tu	0215	3.4	104
	0819	6.6	201
	1549	−0.4	−12
	2245	4.7	143
13 W	0304	3.4	104
	0902	6.6	201
	1626	−0.4	−12
	2318	4.8	146
14 Th ●	0348	3.3	101
	0941	6.5	198
	1700	−0.3	−9
	2348	4.9	149
15 F	0428	3.2	98
	1019	6.4	195
	1731	−0.2	−6

	Time	Height	
	h m	ft	cm
16 Sa	0017	5.0	152
	0508	3.1	94
	1055	6.2	189
	1801	0.0	0
17 Su	0045	5.1	155
	0548	3.0	91
	1132	6.0	183
	1830	0.2	6
18 M	0113	5.2	158
	0632	2.9	88
	1209	5.6	171
	1858	0.6	18
19 Tu	0141	5.3	162
	0718	2.7	82
	1251	5.1	155
	1926	1.0	30
20 W	0210	5.5	168
	0811	2.5	76
	1338	4.6	140
	1954	1.5	46
21 Th	0241	5.6	171
	0911	2.3	70
	1438	4.1	125
	2025	2.0	61
22 F	0317	5.7	174
	1018	2.0	61
	1558	3.7	113
	2100	2.5	76
23 Sa ◐	0358	5.9	180
	1128	1.5	46
	1740	3.6	110
	2145	2.9	88
24 Su	0446	6.1	186
	1234	0.9	27
	1920	3.7	113
	2250	3.3	101
25 M	0542	6.4	195
	1332	0.3	9
	2030	4.0	122
26 Tu	0006	3.4	104
	0640	6.7	204
	1423	−0.3	−9
	2119	4.4	134
27 W	0119	3.4	104
	0737	7.1	216
	1510	−0.8	−24
	2159	4.7	143
28 Th	0223	3.1	94
	0832	7.3	223
	1555	−1.1	−34
	2237	5.1	155
29 F ○	0322	2.8	85
	0926	7.5	229
	1637	−1.2	−37
	2314	5.4	165
30 Sa	0418	2.4	73
	1019	7.4	226
	1718	−1.0	−30
	2351	5.8	177
31 Su	0514	2.0	61
	1111	7.0	213
	1758	−0.7	−21

February

	Time	Height	
	h m	ft	cm
1 M	0029	6.1	186
	0611	1.7	52
	1206	6.5	198
	1838	−0.1	−3
2 Tu	0108	6.3	192
	0710	1.4	43
	1303	5.8	177
	1918	0.6	18
3 W	0149	6.5	198
	0813	1.2	37
	1406	5.1	155
	1959	1.3	40
4 Th	0233	6.5	198
	0922	1.1	34
	1521	4.4	134
	2043	2.1	64
5 F ◑	0321	6.4	195
	1035	0.9	27
	1652	4.0	122
	2134	2.7	82
6 Sa	0415	6.3	192
	1151	0.7	21
	1836	3.9	119
	2238	3.2	98
7 Su	0515	6.2	189
	1300	0.5	15
	2003	4.1	125
	2356	3.5	107
8 M	0617	6.1	186
	1359	0.3	9
	2102	4.3	131
9 Tu	0109	3.5	107
	0715	6.1	186
	1447	0.1	3
	2143	4.5	137
10 W	0209	3.3	101
	0806	6.2	189
	1527	0.0	0
	2215	4.7	143
11 Th	0256	3.1	94
	0850	6.2	189
	1602	0.0	0
	2242	4.9	149
12 F	0338	2.9	88
	0930	6.2	189
	1632	0.1	3
	2307	5.0	152
13 Sa ●	0416	2.7	82
	1008	6.1	186
	1700	0.2	6
	2331	5.2	158
14 Su	0453	2.4	73
	1044	5.9	180
	1727	0.4	12
	2355	5.3	162
15 M	0531	2.2	67
	1121	5.7	174
	1753	0.7	21

	Time	Height	
	h m	ft	cm
16 Tu	0019	5.5	168
	0611	2.0	61
	1200	5.3	162
	1818	1.1	34
17 W	0044	5.6	171
	0653	1.8	55
	1242	4.9	149
	1844	1.5	46
18 Th	0111	5.7	174
	0739	1.6	49
	1331	4.5	137
	1911	1.9	58
19 F	0141	5.8	177
	0832	1.4	43
	1431	4.1	125
	1941	2.4	73
20 Sa	0218	5.8	177
	0934	1.2	37
	1549	3.7	113
	2017	2.8	85
21 Su ◐	0303	5.9	180
	1045	1.0	30
	1730	3.6	110
	2108	3.2	98
22 M	0401	6.0	183
	1157	0.6	18
	1903	3.8	116
	2228	3.4	104
23 Tu	0509	6.2	189
	1301	0.1	3
	2004	4.1	125
	2358	3.4	104
24 W	0619	6.4	195
	1355	−0.3	−9
	2047	4.5	137
25 Th	0116	3.0	91
	0724	6.6	201
	1443	−0.6	−18
	2123	4.9	149
26 F	0221	2.6	79
	0824	6.8	207
	1527	−0.7	−21
	2159	5.3	162
27 Sa	0319	2.0	61
	0920	6.8	207
	1608	−0.6	−18
	2234	5.8	177
28 Su ○	0413	1.4	43
	1015	6.7	204
	1648	−0.4	−12
	2309	6.1	186

March

	Time	Height	
	h m	ft	cm
1 M	0506	0.9	27
	1109	6.3	192
	1727	0.1	3
	2346	6.4	195
2 Tu	0559	0.5	15
	1204	5.8	177
	1806	0.7	21
3 W	0023	6.5	198
	0653	0.3	9
	1301	5.3	162
	1845	1.3	40
4 Th	0103	6.5	198
	0750	0.2	6
	1404	4.7	143
	1926	1.9	58
5 F	0146	6.4	195
	0851	0.3	9
	1517	4.2	128
	2011	2.5	76
6 Sa	0234	6.1	186
	0959	0.4	12
	1644	4.0	122
	2106	3.0	91
7 Su ◑	0330	5.8	177
	1112	0.5	15
	1819	3.9	119
	2221	3.3	101
8 M	0437	5.5	168
	1222	0.5	15
	1934	4.1	125
	2348	3.3	101
9 Tu	0548	5.4	165
	1322	0.4	12
	2024	4.3	131
10 W	0102	3.2	98
	0653	5.4	165
	1411	0.4	12
	2100	4.5	137
11 Th	0159	2.9	88
	0748	5.4	165
	1451	0.4	12
	2129	4.7	143
12 F	0244	2.5	76
	0835	5.5	168
	1524	0.4	12
	2153	4.9	149
13 Sa	0324	2.1	64
	0917	5.5	168
	1553	0.5	15
	2216	5.1	155
14 Su	0401	1.8	55
	0957	5.4	165
	1621	0.7	21
	2238	5.3	162
15 M ●	0437	1.4	43
	1036	5.3	162
	1647	0.9	27
	2301	5.4	165

	Time	Height	
	h m	ft	cm
16 Tu	0513	1.1	34
	1115	5.1	155
	1713	1.2	37
	2325	5.6	171
17 W	0551	0.8	24
	1157	4.8	146
	1740	1.6	49
	2351	5.7	174
18 Th	0631	0.6	18
	1243	4.5	137
	1808	1.9	58
19 F	0020	5.8	177
	0715	0.4	12
	1335	4.2	128
	1838	2.3	70
20 Sa	0053	5.8	177
	0805	0.3	9
	1437	3.9	119
	1912	2.6	79
21 Su	0134	5.8	177
	0904	0.3	9
	1553	3.7	113
	1957	2.9	88
22 M	0225	5.7	174
	1011	0.2	6
	1719	3.7	113
	2105	3.2	98
23 Tu ◐	0330	5.7	174
	1120	0.1	3
	1832	3.9	119
	2236	3.2	98
24 W	0446	5.6	171
	1224	−0.1	−3
	1923	4.3	131
25 Th	0006	2.9	88
	0604	5.7	174
	1320	−0.2	−6
	2004	4.7	143
26 F	0119	2.3	70
	0715	5.7	174
	1408	−0.3	−9
	2041	5.1	155
27 Sa	0221	1.6	49
	0819	5.8	177
	1453	−0.1	−3
	2116	5.6	171
28 Su	0316	0.8	24
	0918	5.8	177
	1534	0.1	3
	2151	6.0	183
29 M ○	0407	0.2	6
	1015	5.6	171
	1614	0.5	15
	2227	6.3	192
30 Tu	0457	−0.3	−9
	1110	5.4	165
	1654	0.9	27
	2304	6.5	198
31 W	0546	−0.6	−18
	1205	5.0	152
	1733	1.4	43
	2341	6.5	198

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Arena Cove, California, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0635	−0.7	−21
	1302	4.7	143
	1814	1.9	58
2 F	0021	6.3	192
	0727	−0.6	−18
	1403	4.3	131
	1857	2.4	73
3 Sa	0103	6.0	183
	0822	−0.4	−12
	1511	4.1	125
	1946	2.7	82
4 Su	0151	5.6	171
	0921	−0.1	−3
	1627	3.9	119
	2047	3.0	91
5 M	0247	5.2	158
	1026	0.2	6
	1743	3.9	119
	2207	3.1	94
6 Tu ◑	0354	4.9	149
	1131	0.4	12
	1845	4.1	125
	2333	3.0	91
7 W	0508	4.6	140
	1229	0.5	15
	1930	4.2	128
8 Th	0045	2.7	82
	0619	4.5	137
	1318	0.6	18
	2004	4.4	134
9 F	0140	2.2	67
	0721	4.5	137
	1358	0.7	21
	2032	4.7	143
10 Sa	0226	1.8	55
	0814	4.6	140
	1433	0.8	24
	2057	4.9	149
11 Su	0305	1.3	40
	0901	4.6	140
	1504	1.0	30
	2120	5.1	155
12 M	0342	0.8	24
	0946	4.5	137
	1534	1.2	37
	2145	5.4	165
13 Tu	0418	0.3	9
	1030	4.5	137
	1603	1.5	46
	2210	5.6	171
14 W ●	0454	−0.1	−3
	1114	4.4	134
	1633	1.8	55
	2237	5.8	177
15 Th	0532	−0.4	−12
	1159	4.3	131
	1704	2.0	61
	2308	5.9	180

	Time	Height	
	h m	ft	cm
16 F	0613	−0.6	−18
	1248	4.2	128
	1737	2.3	70
	2342	5.9	180
17 Sa	0658	−0.7	−21
	1342	4.0	122
	1815	2.5	76
18 Su	0021	5.9	180
	0748	−0.7	−21
	1442	3.9	119
	1900	2.8	85
19 M	0107	5.7	174
	0843	−0.6	−18
	1549	3.9	119
	2000	2.9	88
20 Tu	0203	5.5	168
	0943	−0.5	−15
	1654	4.0	122
	2120	2.9	88
21 W ◐	0312	5.2	158
	1044	−0.4	−12
	1751	4.2	128
	2250	2.7	82
22 Th	0431	5.0	152
	1143	−0.2	−6
	1838	4.6	140
23 F	0012	2.1	64
	0553	4.8	146
	1237	0.0	0
	1919	5.0	152
24 Sa	0121	1.4	43
	0709	4.7	143
	1327	0.3	9
	1958	5.5	168
25 Su	0219	0.6	18
	0818	4.7	143
	1413	0.6	18
	2035	5.9	180
26 M	0311	−0.2	−6
	0921	4.7	143
	1457	1.0	30
	2112	6.2	189
27 Tu	0400	−0.8	−24
	1020	4.6	140
	1540	1.3	40
	2149	6.4	195
28 W ○	0447	−1.2	−37
	1115	4.5	137
	1622	1.7	52
	2227	6.4	195
29 Th	0533	−1.4	−43
	1209	4.4	134
	1704	2.1	64
	2306	6.3	192
30 F	0618	−1.3	−40
	1303	4.3	131
	1748	2.4	73
	2346	6.0	183

May

	Time	Height	
	h m	ft	cm
1 Sa	0705	−1.1	−34
	1359	4.1	125
	1834	2.6	79
2 Su	0028	5.7	174
	0754	−0.8	−24
	1456	4.0	122
	1926	2.8	85
3 M	0114	5.3	162
	0844	−0.5	−15
	1556	4.0	122
	2028	2.9	88
4 Tu	0206	4.8	146
	0937	−0.1	−3
	1654	4.0	122
	2143	2.9	88
5 W ◑	0307	4.4	134
	1030	0.2	6
	1744	4.1	125
	2304	2.7	82
6 Th	0419	4.1	125
	1122	0.5	15
	1826	4.3	131
7 F	0016	2.3	70
	0534	3.8	116
	1209	0.8	24
	1900	4.6	140
8 Sa	0114	1.8	55
	0646	3.7	113
	1251	1.1	34
	1929	4.8	146
9 Su	0201	1.2	37
	0750	3.7	113
	1330	1.3	40
	1957	5.1	155
10 M	0242	0.6	18
	0846	3.8	116
	1406	1.6	49
	2025	5.4	165
11 Tu	0320	0.1	3
	0938	3.9	119
	1442	1.8	55
	2054	5.6	171
12 W	0358	−0.5	−15
	1026	4.0	122
	1518	2.0	61
	2125	5.9	180
13 Th ●	0436	−0.9	−27
	1113	4.0	122
	1554	2.2	67
	2159	6.1	186
14 F	0516	−1.2	−37
	1201	4.1	125
	1633	2.4	73
	2236	6.2	189
15 Sa	0559	−1.4	−43
	1249	4.1	125
	1715	2.5	76
	2317	6.2	189

	Time	Height	
	h m	ft	cm
16 Su	0644	−1.5	−46
	1340	4.1	125
	1803	2.7	82
17 M	0002	6.1	186
	0732	−1.4	−43
	1433	4.1	125
	1900	2.7	82
18 Tu	0053	5.8	177
	0822	−1.2	−37
	1526	4.3	131
	2008	2.7	82
19 W	0152	5.4	165
	0914	−0.8	−24
	1618	4.5	137
	2129	2.5	76
20 Th ◐	0301	4.9	149
	1007	−0.4	−12
	1707	4.8	146
	2253	2.0	61
21 F	0421	4.4	134
	1100	0.0	0
	1753	5.2	158
22 Sa	0010	1.4	43
	0547	4.0	122
	1153	0.5	15
	1836	5.6	171
23 Su	0117	0.6	18
	0710	3.9	119
	1244	1.0	30
	1917	5.9	180
24 M	0214	−0.2	−6
	0824	3.9	119
	1334	1.5	46
	1958	6.2	189
25 Tu	0305	−0.8	−24
	0930	4.0	122
	1422	1.8	55
	2038	6.4	195
26 W	0352	−1.2	−37
	1028	4.1	125
	1510	2.1	64
	2119	6.4	195
27 Th ○	0437	−1.5	−46
	1121	4.2	128
	1556	2.4	73
	2159	6.4	195
28 F	0520	−1.5	−46
	1210	4.2	128
	1641	2.5	76
	2239	6.2	189
29 Sa	0602	−1.4	−43
	1257	4.2	128
	1726	2.7	82
	2320	5.9	180
30 Su	0644	−1.2	−37
	1343	4.2	128
	1813	2.7	82
31 M	0001	5.6	171
	0726	−0.9	−27
	1429	4.2	128
	1904	2.8	85

June

	Time	Height	
	h m	ft	cm
1 Tu	0044	5.2	158
	0807	−0.5	−15
	1514	4.2	128
	2002	2.8	85
2 W	0131	4.8	146
	0848	−0.1	−3
	1557	4.3	131
	2109	2.7	82
3 Th	0224	4.3	131
	0930	0.3	9
	1638	4.4	134
	2223	2.5	76
4 F ◑	0328	3.8	116
	1011	0.7	21
	1716	4.6	140
	2335	2.1	64
5 Sa	0445	3.5	107
	1053	1.1	34
	1751	4.8	146
6 Su	0037	1.6	49
	0607	3.3	101
	1137	1.5	46
	1825	5.1	155
7 M	0129	0.9	27
	0726	3.3	101
	1221	1.9	58
	1859	5.4	165
8 Tu	0214	0.3	9
	0833	3.4	104
	1306	2.2	67
	1934	5.7	174
9 W	0256	−0.3	−9
	0930	3.6	110
	1352	2.4	73
	2011	6.0	183
10 Th	0337	−0.8	−24
	1020	3.8	116
	1437	2.5	76
	2050	6.3	192
11 F	0418	−1.3	−40
	1107	4.0	122
	1523	2.6	79
	2132	6.5	198
12 Sa ●	0500	−1.6	−49
	1151	4.1	125
	1611	2.6	79
	2216	6.6	201
13 Su	0543	−1.7	−52
	1235	4.3	131
	1702	2.6	79
	2303	6.6	201
14 M	0627	−1.7	−52
	1319	4.4	134
	1757	2.5	76
	2353	6.4	195
15 Tu	0711	−1.5	−46
	1404	4.6	140
	1859	2.4	73

	Time	Height	
	h m	ft	cm
16 W	0046	5.9	180
	0757	−1.1	−34
	1449	4.9	149
	2008	2.3	70
17 Th	0146	5.3	162
	0842	−0.6	−18
	1535	5.2	158
	2124	1.9	58
18 F ◐	0255	4.6	140
	0929	0.0	0
	1622	5.5	168
	2243	1.4	43
19 Sa	0416	4.0	122
	1018	0.7	21
	1709	5.8	177
	2359	0.8	24
20 Su	0546	3.6	110
	1110	1.3	40
	1756	6.0	183
21 M	0106	0.2	6
	0716	3.5	107
	1206	1.9	58
	1843	6.2	189
22 Tu	0205	−0.4	−12
	0835	3.7	113
	1302	2.3	70
	1929	6.4	195
23 W	0257	−0.8	−24
	0940	3.9	119
	1358	2.6	79
	2015	6.4	195
24 Th	0343	−1.1	−34
	1033	4.0	122
	1451	2.7	82
	2059	6.4	195
25 F	0426	−1.2	−37
	1118	4.2	128
	1539	2.8	85
	2141	6.3	192
26 Sa ○	0506	−1.2	−37
	1158	4.3	131
	1625	2.8	85
	2222	6.2	189
27 Su	0544	−1.1	−34
	1236	4.3	131
	1709	2.7	82
	2302	6.0	183
28 M	0620	−0.9	−27
	1312	4.4	134
	1754	2.7	82
	2341	5.7	174
29 Tu	0654	−0.6	−18
	1346	4.5	137
	1841	2.7	82
30 W	0021	5.3	162
	0728	−0.2	−6
	1421	4.6	140
	1932	2.6	79

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Arena Cove, California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0103	4.9	149
	0801	0.2	6
	1455	4.7	143
	2030	2.5	76
2 F	0151	4.4	134
	0833	0.7	21
	1530	4.8	146
	2135	2.3	70
3 Sa	0249	3.8	116
	0907	1.1	34
	1605	5.0	152
	2243	1.9	58
4 Su ◑	0403	3.4	104
	0944	1.6	49
	1643	5.2	158
	2351	1.5	46
5 M	0533	3.2	98
	1026	2.1	64
	1723	5.4	165
6 Tu	0050	0.9	27
	0705	3.2	98
	1116	2.4	73
	1806	5.7	174
7 W	0143	0.3	9
	0821	3.4	104
	1214	2.7	82
	1851	6.0	183
8 Th	0230	−0.3	−9
	0918	3.7	113
	1313	2.8	85
	1939	6.3	192
9 F	0315	−0.8	−24
	1004	3.9	119
	1410	2.8	85
	2027	6.7	204
10 Sa	0358	−1.2	−37
	1045	4.2	128
	1504	2.7	82
	2115	6.9	210
11 Su ●	0440	−1.5	−46
	1125	4.5	137
	1559	2.5	76
	2204	7.0	213
12 M	0522	−1.6	−49
	1203	4.7	143
	1654	2.3	70
	2255	6.9	210
13 Tu	0604	−1.5	−46
	1243	5.0	152
	1751	2.1	64
	2347	6.5	198
14 W	0645	−1.1	−34
	1323	5.3	162
	1852	1.8	55
15 Th	0042	5.9	180
	0727	−0.6	−18
	1405	5.6	171
	1957	1.6	49

	Time	Height	
	h m	ft	cm
16 F	0143	5.2	158
	0809	0.1	3
	1449	5.8	177
	2108	1.3	40
17 Sa	0253	4.5	137
	0853	0.8	24
	1536	6.0	183
	2224	0.9	27
18 Su ◐	0415	3.9	119
	0942	1.6	49
	1626	6.1	186
	2339	0.5	15
19 M	0551	3.6	110
	1037	2.2	67
	1720	6.2	189
20 Tu	0050	0.1	3
	0724	3.6	110
	1140	2.6	79
	1815	6.2	189
21 W	0151	−0.2	−6
	0840	3.8	116
	1248	2.9	88
	1910	6.3	192
22 Th	0244	−0.5	−15
	0936	4.1	125
	1350	2.9	88
	2001	6.3	192
23 F	0330	−0.6	−18
	1020	4.2	128
	1444	2.9	88
	2047	6.3	192
24 Sa	0410	−0.7	−21
	1056	4.4	134
	1531	2.8	85
	2130	6.2	189
25 Su ○	0446	−0.6	−18
	1128	4.5	137
	1613	2.7	82
	2210	6.1	186
26 M	0519	−0.5	−15
	1158	4.6	140
	1654	2.5	76
	2248	6.0	183
27 Tu	0549	−0.3	−9
	1226	4.7	143
	1735	2.4	73
	2325	5.7	174
28 W	0618	0.0	0
	1254	4.8	146
	1817	2.3	70
29 Th	0003	5.3	162
	0647	0.4	12
	1322	4.9	149
	1902	2.2	67
30 F	0044	4.9	149
	0715	0.8	24
	1351	5.1	155
	1952	2.0	61
31 Sa	0130	4.4	134
	0743	1.3	40
	1422	5.2	158
	2047	1.9	58

August

	Time	Height	
	h m	ft	cm
1 Su	0226	4.0	122
	0813	1.7	52
	1456	5.3	162
	2151	1.7	52
2 M ◑	0338	3.6	110
	0847	2.2	67
	1537	5.4	165
	2300	1.3	40
3 Tu	0510	3.3	101
	0930	2.6	79
	1625	5.5	168
4 W	0008	0.9	27
	0648	3.4	104
	1029	2.9	88
	1720	5.8	177
5 Th	0109	0.4	12
	0803	3.6	110
	1143	3.1	94
	1818	6.1	186
6 F	0201	−0.1	−3
	0853	3.9	119
	1254	3.0	91
	1916	6.4	195
7 Sa	0248	−0.6	−18
	0933	4.2	128
	1358	2.8	85
	2011	6.8	207
8 Su	0332	−0.9	−27
	1010	4.6	140
	1456	2.4	73
	2104	7.0	213
9 M ●	0414	−1.1	−34
	1045	4.9	149
	1551	2.0	61
	2156	7.0	213
10 Tu	0454	−1.0	−30
	1122	5.3	162
	1646	1.6	49
	2249	6.8	207
11 W	0534	−0.7	−21
	1159	5.7	174
	1742	1.2	37
	2343	6.3	192
12 Th	0613	−0.3	−9
	1237	6.0	183
	1840	0.9	27
13 F	0040	5.7	174
	0654	0.4	12
	1318	6.2	189
	1941	0.7	21
14 Sa	0142	5.1	155
	0735	1.0	30
	1402	6.2	189
	2046	0.6	18
15 Su	0253	4.4	134
	0820	1.7	52
	1450	6.2	189
	2157	0.5	15

	Time	Height	
	h m	ft	cm
16 M ◐	0417	4.0	122
	0913	2.3	70
	1545	6.1	186
	2312	0.4	12
17 Tu	0553	3.8	116
	1017	2.8	85
	1647	6.0	183
18 W	0025	0.2	6
	0720	3.9	119
	1134	3.1	94
	1753	5.9	180
19 Th	0129	0.1	3
	0824	4.1	125
	1248	3.1	94
	1855	5.9	180
20 F	0222	0.0	0
	0911	4.3	131
	1350	2.9	88
	1950	5.9	180
21 Sa	0306	−0.1	−3
	0947	4.5	137
	1440	2.7	82
	2038	6.0	183
22 Su	0343	−0.1	−3
	1017	4.6	140
	1522	2.4	73
	2120	5.9	180
23 M	0416	0.1	3
	1044	4.8	146
	1601	2.2	67
	2159	5.8	177
24 Tu ○	0445	0.2	6
	1108	4.9	149
	1639	2.0	61
	2236	5.7	174
25 W	0512	0.5	15
	1132	5.1	155
	1716	1.7	52
	2314	5.4	165
26 Th	0538	0.8	24
	1156	5.2	158
	1754	1.6	49
	2352	5.1	155
27 F	0604	1.1	34
	1222	5.3	162
	1835	1.4	43
28 Sa	0034	4.8	146
	0631	1.5	46
	1249	5.4	165
	1919	1.3	40
29 Su	0121	4.4	134
	0659	1.9	58
	1319	5.4	165
	2008	1.2	37
30 M	0218	4.0	122
	0729	2.3	70
	1354	5.4	165
	2107	1.1	34
31 Tu	0330	3.7	113
	0805	2.7	82
	1439	5.5	168
	2215	0.9	27

September

	Time	Height	
	h m	ft	cm
1 W ◑	0501	3.6	110
	0856	3.0	91
	1536	5.5	168
	2326	0.7	21
2 Th	0630	3.7	113
	1011	3.2	98
	1643	5.7	174
3 F	0031	0.3	9
	0732	3.9	119
	1137	3.1	94
	1754	5.9	180
4 Sa	0127	0.0	0
	0815	4.3	131
	1252	2.8	85
	1859	6.2	189
5 Su	0215	−0.3	−9
	0852	4.6	140
	1355	2.3	70
	2000	6.4	195
6 M	0259	−0.5	−15
	0927	5.1	155
	1452	1.7	52
	2057	6.5	198
7 Tu	0341	−0.4	−12
	1001	5.5	168
	1545	1.1	34
	2152	6.4	195
8 W	0420	−0.2	−6
	1037	5.9	180
	1638	0.6	18
	2246	6.2	189
9 Th	0500	0.2	6
	1113	6.3	192
	1731	0.1	3
	2342	5.8	177
10 F	0540	0.7	21
	1152	6.5	198
	1824	−0.1	−3
11 Sa	0040	5.3	162
	0621	1.3	40
	1233	6.5	198
	1921	−0.2	−6
12 Su	0143	4.8	146
	0704	1.9	58
	1317	6.3	192
	2021	−0.1	−3
13 M	0253	4.4	134
	0753	2.5	76
	1407	6.1	186
	2127	0.1	3
14 Tu ◐	0415	4.2	128
	0853	2.9	88
	1505	5.8	177
	2239	0.2	6
15 W	0542	4.1	125
	1009	3.1	94
	1614	5.5	168
	2350	0.3	9

	Time	Height	
	h m	ft	cm
16 Th	0656	4.2	128
	1134	3.1	94
	1728	5.3	162
17 F	0053	0.4	12
	0750	4.4	134
	1247	2.9	88
	1837	5.3	162
18 Sa	0145	0.4	12
	0829	4.6	140
	1344	2.6	79
	1935	5.3	162
19 Su	0228	0.5	15
	0901	4.7	143
	1430	2.2	67
	2024	5.4	165
20 M	0304	0.6	18
	0928	4.9	149
	1510	1.8	55
	2108	5.3	162
21 Tu	0334	0.8	24
	0952	5.1	155
	1547	1.5	46
	2148	5.3	162
22 W	0402	1.0	30
	1014	5.3	162
	1622	1.1	34
	2228	5.1	155
23 Th ○	0429	1.2	37
	1038	5.4	165
	1657	0.9	27
	2307	5.0	152
24 F	0456	1.5	46
	1102	5.5	168
	1733	0.6	18
	2348	4.8	146
25 Sa	0523	1.9	58
	1127	5.6	171
	1811	0.5	15
26 Su	0033	4.5	137
	0551	2.2	67
	1156	5.6	171
	1853	0.4	12
27 M	0122	4.3	131
	0622	2.5	76
	1228	5.6	171
	1940	0.4	12
28 Tu	0221	4.0	122
	0656	2.8	85
	1307	5.6	171
	2036	0.4	12
29 W	0331	3.9	119
	0741	3.1	94
	1356	5.5	168
	2139	0.4	12
30 Th ◑	0451	3.9	119
	0847	3.3	101
	1459	5.4	165
	2246	0.3	9

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Arena Cove, California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0600	4.0	122
	1015	3.2	98
	1615	5.4	165
	2350	0.2	6
2 Sa	0651	4.3	131
	1142	2.9	88
	1734	5.4	165
3 Su	0046	0.1	3
	0731	4.7	143
	1254	2.3	70
	1847	5.5	168
4 M	0136	0.1	3
	0807	5.2	158
	1354	1.6	49
	1953	5.6	171
5 Tu	0221	0.2	6
	0843	5.7	174
	1448	0.8	24
	2053	5.7	174
6 W	0303	0.5	15
	0918	6.1	186
	1539	0.1	3
	2151	5.6	171
7 Th ●	0344	0.8	24
	0954	6.5	198
	1629	−0.5	−15
	2248	5.5	168
8 F	0425	1.2	37
	1032	6.7	204
	1719	−0.9	−27
	2344	5.3	162
9 Sa	0507	1.7	52
	1111	6.7	204
	1809	−1.0	−30
10 Su	0042	5.0	152
	0550	2.2	67
	1153	6.6	201
	1901	−0.9	−27
11 M	0143	4.7	143
	0637	2.6	79
	1238	6.3	192
	1956	−0.6	−18
12 Tu	0249	4.5	137
	0731	2.9	88
	1328	5.9	180
	2055	−0.2	−6
13 W	0401	4.3	131
	0837	3.1	94
	1426	5.4	165
	2159	0.1	3
14 Th ◐	0513	4.3	131
	0958	3.2	98
	1536	5.0	152
	2303	0.4	12
15 F	0614	4.5	137
	1123	3.0	91
	1653	4.7	143

	Time	Height	
	h m	ft	cm
16 Sa	0002	0.6	18
	0701	4.6	140
	1234	2.7	82
	1807	4.6	140
17 Su	0053	0.8	24
	0738	4.8	146
	1330	2.2	67
	1911	4.6	140
18 M	0136	1.0	30
	0807	5.0	152
	1415	1.7	52
	2006	4.6	140
19 Tu	0212	1.3	40
	0833	5.2	158
	1454	1.2	37
	2055	4.6	140
20 W	0245	1.5	46
	0858	5.4	165
	1530	0.8	24
	2140	4.6	140
21 Th	0315	1.7	52
	0922	5.6	171
	1604	0.4	12
	2223	4.6	140
22 F ○	0344	2.0	61
	0948	5.8	177
	1639	0.0	0
	2305	4.6	140
23 Sa	0414	2.3	70
	1015	5.9	180
	1715	−0.2	−6
	2349	4.5	137
24 Su	0445	2.5	76
	1044	6.0	183
	1753	−0.4	−12
25 M	0035	4.4	134
	0518	2.8	85
	1117	6.0	183
	1835	−0.4	−12
26 Tu	0126	4.3	131
	0555	3.0	91
	1154	6.0	183
	1921	−0.4	−12
27 W	0222	4.2	128
	0639	3.2	98
	1237	5.8	177
	2013	−0.3	−9
28 Th	0323	4.2	128
	0737	3.3	101
	1330	5.6	171
	2109	−0.1	−3
29 F	0424	4.3	131
	0853	3.3	101
	1436	5.3	162
	2208	0.0	0
30 Sa ◑	0518	4.6	140
	1022	3.0	91
	1555	5.0	152
	2306	0.2	6
31 Su	0604	4.9	149
	1144	2.5	76
	1719	4.8	146

November

	Time	Height	
	h m	ft	cm
1 M	0000	0.5	15
	0645	5.4	165
	1253	1.7	52
	1839	4.8	146
2 Tu	0051	0.8	24
	0724	5.8	177
	1351	0.8	24
	1951	4.8	146
3 W	0139	1.1	34
	0801	6.3	192
	1444	0.0	0
	2057	4.9	149
4 Th	0225	1.5	46
	0839	6.7	204
	1533	−0.7	−21
	2157	4.9	149
5 F ●	0310	1.8	55
	0918	6.9	210
	1621	−1.2	−37
	2254	4.9	149
6 Sa	0354	2.2	67
	0958	7.0	213
	1708	−1.4	−43
	2348	4.9	149
7 Su	0440	2.5	76
	1039	6.9	210
	1754	−1.4	−43
8 M	0043	4.8	146
	0526	2.8	85
	1122	6.6	201
	1842	−1.1	−34
9 Tu	0138	4.7	143
	0616	3.0	91
	1207	6.2	189
	1931	−0.8	−24
10 W	0234	4.6	140
	0712	3.2	98
	1255	5.8	177
	2021	−0.4	−12
11 Th	0332	4.6	140
	0817	3.3	101
	1348	5.3	162
	2113	0.1	3
12 F	0428	4.6	140
	0933	3.2	98
	1451	4.8	146
	2206	0.5	15
13 Sa ◐	0519	4.7	143
	1055	2.9	88
	1605	4.4	134
	2257	0.9	27
14 Su	0601	4.9	149
	1207	2.5	76
	1724	4.1	125
	2345	1.3	40
15 M	0637	5.1	155
	1305	2.0	61
	1840	4.0	122

	Time	Height	
	h m	ft	cm
16 Tu	0030	1.7	52
	0708	5.4	165
	1352	1.4	43
	1946	4.0	122
17 W	0110	2.0	61
	0737	5.6	171
	1432	0.9	27
	2043	4.1	125
18 Th	0148	2.2	67
	0806	5.8	177
	1509	0.4	12
	2134	4.2	128
19 F	0225	2.5	76
	0835	6.0	183
	1545	−0.1	−3
	2220	4.3	131
20 Sa	0301	2.7	82
	0906	6.2	189
	1622	−0.5	−15
	2305	4.4	134
21 Su ○	0337	2.9	88
	0939	6.4	195
	1659	−0.7	−21
	2348	4.5	137
22 M	0415	3.0	91
	1014	6.5	198
	1739	−0.9	−27
23 Tu	0033	4.5	137
	0456	3.1	94
	1053	6.5	198
	1820	−0.9	−27
24 W	0119	4.6	140
	0541	3.2	98
	1135	6.4	195
	1904	−0.9	−27
25 Th	0207	4.6	140
	0634	3.2	98
	1223	6.1	186
	1951	−0.6	−18
26 F	0256	4.8	146
	0739	3.2	98
	1318	5.8	177
	2039	−0.3	−9
27 Sa	0344	5.0	152
	0855	3.0	91
	1423	5.3	162
	2129	0.1	3
28 Su ◑	0431	5.3	162
	1018	2.6	79
	1542	4.7	143
	2220	0.6	18
29 M	0517	5.6	171
	1138	1.9	58
	1710	4.3	131
	2313	1.1	34
30 Tu	0600	6.1	186
	1247	1.1	34
	1838	4.2	128

December

	Time	Height	
	h m	ft	cm
1 W	0006	1.6	49
	0643	6.4	195
	1346	0.3	9
	1958	4.2	128
2 Th	0059	2.1	64
	0726	6.8	207
	1439	−0.4	−12
	2107	4.4	134
3 F	0152	2.4	73
	0809	7.0	213
	1527	−1.0	−30
	2207	4.6	140
4 Sa	0243	2.7	82
	0852	7.1	216
	1613	−1.3	−40
	2300	4.7	143
5 Su ●	0333	2.9	88
	0935	7.1	216
	1657	−1.4	−43
	2349	4.8	146
6 M	0421	3.0	91
	1018	6.9	210
	1741	−1.3	−40
7 Tu	0035	4.9	149
	0509	3.1	94
	1101	6.7	204
	1823	−1.0	−30
8 W	0121	4.9	149
	0559	3.2	98
	1144	6.3	192
	1904	−0.6	−18
9 Th	0205	4.9	149
	0651	3.2	98
	1229	5.8	177
	1945	−0.2	−6
10 F	0249	4.9	149
	0749	3.2	98
	1316	5.3	162
	2026	0.3	9
11 Sa	0332	5.0	152
	0856	3.1	94
	1409	4.8	146
	2106	0.8	24
12 Su	0413	5.1	155
	1009	2.9	88
	1513	4.2	128
	2146	1.3	40
13 M ◐	0452	5.3	162
	1122	2.5	76
	1632	3.8	116
	2228	1.8	55
14 Tu	0529	5.4	165
	1227	2.0	61
	1802	3.6	110
	2313	2.3	70
15 W	0605	5.6	171
	1320	1.4	43
	1925	3.7	113

	Time	Height	
	h m	ft	cm
16 Th	0000	2.6	79
	0641	5.9	180
	1406	0.8	24
	2034	3.8	116
17 F	0049	2.9	88
	0717	6.1	186
	1446	0.3	9
	2129	4.1	125
18 Sa	0137	3.1	94
	0755	6.4	195
	1525	−0.2	−6
	2215	4.3	131
19 Su	0223	3.2	98
	0834	6.6	201
	1604	−0.6	−18
	2257	4.5	137
20 M	0309	3.3	101
	0914	6.8	207
	1643	−0.9	−27
	2336	4.7	143
21 Tu ○	0355	3.2	98
	0956	7.0	213
	1722	−1.1	−34
22 W	0015	4.8	146
	0443	3.2	98
	1040	7.0	213
	1802	−1.1	−34
23 Th	0054	5.0	152
	0534	3.1	94
	1127	6.8	207
	1843	−0.9	−27
24 F	0135	5.2	158
	0631	2.9	88
	1217	6.4	195
	1925	−0.6	−18
25 Sa	0216	5.4	165
	0735	2.7	82
	1313	5.8	177
	2007	−0.1	−3
26 Su	0258	5.7	174
	0847	2.4	73
	1418	5.2	158
	2051	0.5	15
27 M ◑	0343	6.0	183
	1004	2.0	61
	1536	4.5	137
	2138	1.2	37
28 Tu	0429	6.3	192
	1122	1.4	43
	1708	4.1	125
	2229	1.9	58
29 W	0518	6.6	201
	1234	0.7	21
	1845	3.9	119
	2326	2.5	76
30 Th	0608	6.8	207
	1336	0.1	3
	2011	4.1	125
31 F	0029	2.9	88
	0658	6.9	210
	1431	−0.4	−12
	2119	4.4	134

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Humboldt Bay, California, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0029	6.0	183
	0516	3.1	94
	1119	8.6	262
	1822	−1.8	−55
2 Sa	0111	6.3	192
	0610	2.8	85
	1210	8.4	256
	1905	−1.6	−49
3 Su	0153	6.6	201
	0706	2.5	76
	1303	7.9	241
	1948	−1.2	−37
4 M	0236	6.8	207
	0806	2.3	70
	1358	7.2	219
	2032	−0.5	−15
5 Tu	0320	7.1	216
	0909	2.1	64
	1459	6.3	192
	2116	0.3	9
6 W	0405	7.3	223
	1018	1.8	55
	1608	5.5	168
	2202	1.2	37
7 Th ◑	0453	7.4	226
	1131	1.5	46
	1727	4.9	149
	2253	2.1	64
8 F	0542	7.5	229
	1244	1.1	34
	1858	4.6	140
	2350	2.8	85
9 Sa	0634	7.5	229
	1351	0.6	18
	2032	4.7	143
10 Su	0055	3.4	104
	0727	7.5	229
	1450	0.2	6
	2149	4.9	149
11 M	0200	3.6	110
	0819	7.5	229
	1539	−0.1	−3
	2243	5.2	158
12 Tu	0259	3.7	113
	0907	7.5	229
	1622	−0.3	−9
	2325	5.4	165
13 W	0350	3.6	110
	0952	7.5	229
	1701	−0.4	−12
	2359	5.6	171
14 Th ●	0436	3.5	107
	1033	7.5	229
	1736	−0.5	−15
15 F	0029	5.7	174
	0517	3.3	101
	1111	7.4	226
	1809	−0.4	−12

	Time	Height	
	h m	ft	cm
16 Sa	0057	5.8	177
	0557	3.1	94
	1148	7.2	219
	1840	−0.3	−9
17 Su	0126	6.0	183
	0637	3.0	91
	1225	6.9	210
	1910	0.0	0
18 M	0154	6.1	186
	0717	2.9	88
	1302	6.5	198
	1939	0.4	12
19 Tu	0223	6.2	189
	0800	2.7	82
	1342	6.0	183
	2007	0.8	24
20 W	0253	6.4	195
	0848	2.6	79
	1427	5.5	168
	2036	1.4	43
21 Th	0324	6.5	198
	0941	2.3	70
	1522	5.0	152
	2106	2.0	61
22 F	0359	6.7	204
	1042	2.1	64
	1631	4.5	137
	2141	2.6	79
23 Sa ◐	0440	6.9	210
	1149	1.6	49
	1757	4.3	131
	2227	3.1	94
24 Su	0529	7.1	216
	1257	1.1	34
	1931	4.3	131
	2334	3.5	107
25 M	0627	7.3	223
	1400	0.4	12
	2053	4.6	140
26 Tu	0056	3.7	113
	0728	7.6	232
	1456	−0.2	−6
	2153	5.0	152
27 W	0211	3.6	110
	0828	8.0	244
	1547	−0.8	−24
	2239	5.5	168
28 Th	0315	3.3	101
	0925	8.3	253
	1633	−1.3	−40
	2321	5.9	180
29 F ○	0413	2.9	88
	1019	8.5	259
	1717	−1.5	−46
30 Sa	0000	6.3	192
	0508	2.3	70
	1112	8.4	256
	1759	−1.5	−46
31 Su	0038	6.7	204
	0602	1.9	58
	1205	8.1	247
	1840	−1.1	−34

February

	Time	Height	
	h m	ft	cm
1 M	0117	7.1	216
	0656	1.5	46
	1257	7.6	232
	1921	−0.5	−15
2 Tu	0156	7.4	226
	0751	1.2	37
	1352	6.9	210
	2001	0.2	6
3 W	0237	7.5	229
	0849	1.0	30
	1451	6.1	186
	2042	1.1	34
4 Th	0320	7.5	229
	0951	1.0	30
	1556	5.3	162
	2126	2.0	61
5 F ◑	0406	7.4	226
	1058	1.0	30
	1713	4.8	146
	2216	2.7	82
6 Sa	0457	7.3	223
	1210	0.9	27
	1847	4.5	137
	2318	3.4	104
7 Su	0555	7.1	216
	1322	0.7	21
	2026	4.6	140
8 M	0032	3.7	113
	0657	7.0	213
	1426	0.5	15
	2137	4.9	149
9 Tu	0146	3.8	116
	0757	6.9	210
	1518	0.3	9
	2224	5.2	158
10 W	0249	3.6	110
	0851	7.0	213
	1601	0.1	3
	2257	5.4	165
11 Th	0340	3.3	101
	0938	7.0	213
	1637	0.0	0
	2325	5.6	171
12 F	0423	3.0	91
	1020	7.0	213
	1710	0.0	0
	2351	5.8	177
13 Sa ●	0503	2.7	82
	1059	7.0	213
	1740	0.0	0
14 Su	0015	6.0	183
	0540	2.4	73
	1137	6.8	207
	1808	0.2	6
15 M	0041	6.2	189
	0618	2.1	64
	1214	6.6	201
	1836	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0106	6.4	195
	0655	1.9	58
	1252	6.3	192
	1903	0.9	27
17 W	0132	6.5	198
	0735	1.7	52
	1332	5.9	180
	1930	1.4	43
18 Th	0159	6.7	204
	0817	1.5	46
	1417	5.4	165
	1957	1.9	58
19 F	0228	6.8	207
	0905	1.4	43
	1511	5.0	152
	2027	2.4	73
20 Sa	0303	6.8	207
	1001	1.2	37
	1617	4.6	140
	2103	2.9	88
21 Su ◐	0347	6.9	210
	1107	1.0	30
	1741	4.3	131
	2152	3.3	101
22 M	0444	6.9	210
	1219	0.7	21
	1912	4.3	131
	2311	3.6	110
23 Tu	0553	7.0	213
	1328	0.3	9
	2029	4.6	140
24 W	0045	3.6	110
	0706	7.2	219
	1428	−0.2	−6
	2123	5.1	155
25 Th	0204	3.2	98
	0814	7.5	229
	1520	−0.6	−18
	2206	5.6	171
26 F	0309	2.6	79
	0915	7.7	235
	1607	−0.9	−27
	2245	6.1	186
27 Sa	0406	1.9	58
	1013	7.8	238
	1650	−0.9	−27
	2322	6.7	204
28 Su ○	0500	1.2	37
	1107	7.7	235
	1731	−0.7	−21
	2359	7.1	216

March

	Time	Height	
	h m	ft	cm
1 M	0551	0.6	18
	1200	7.4	226
	1811	−0.2	−6
2 Tu	0036	7.5	229
	0642	0.2	6
	1253	6.9	210
	1851	0.4	12
3 W	0114	7.6	232
	0733	0.0	0
	1347	6.4	195
	1931	1.1	34
4 Th	0153	7.6	232
	0825	0.0	0
	1443	5.8	177
	2012	1.8	55
5 F	0235	7.4	226
	0921	0.2	6
	1546	5.2	158
	2056	2.5	76
6 Sa	0321	7.1	216
	1022	0.5	15
	1659	4.7	143
	2148	3.1	94
7 Su ◑	0414	6.7	204
	1130	0.7	21
	1826	4.6	140
	2255	3.5	107
8 M	0516	6.4	195
	1242	0.8	24
	1956	4.6	140
9 Tu	0017	3.6	110
	0625	6.2	189
	1348	0.7	21
	2059	4.8	146
10 W	0134	3.5	107
	0732	6.1	186
	1442	0.6	18
	2140	5.1	155
11 Th	0235	3.1	94
	0830	6.2	189
	1525	0.5	15
	2211	5.3	162
12 F	0324	2.7	82
	0920	6.3	192
	1601	0.4	12
	2237	5.6	171
13 Sa	0406	2.2	67
	1004	6.3	192
	1633	0.5	15
	2301	5.9	180
14 Su	0444	1.7	52
	1046	6.3	192
	1703	0.6	18
	2326	6.2	189
15 M ●	0521	1.3	40
	1125	6.2	189
	1731	0.9	27
	2351	6.4	195

	Time	Height	
	h m	ft	cm
16 Tu	0557	1.0	30
	1205	6.1	186
	1800	1.2	37
17 W	0017	6.6	201
	0633	0.7	21
	1246	5.9	180
	1828	1.5	46
18 Th	0043	6.8	207
	0711	0.4	12
	1329	5.6	171
	1857	2.0	61
19 F	0111	6.8	207
	0753	0.3	9
	1416	5.2	158
	1927	2.4	73
20 Sa	0143	6.9	210
	0839	0.2	6
	1511	4.9	149
	2002	2.8	85
21 Su	0221	6.8	207
	0933	0.2	6
	1616	4.6	140
	2046	3.1	94
22 M	0310	6.7	204
	1036	0.3	9
	1732	4.4	134
	2149	3.4	104
23 Tu ◐	0415	6.6	201
	1146	0.2	6
	1849	4.6	140
	2317	3.4	104
24 W	0532	6.5	198
	1253	0.0	0
	1953	4.9	149
25 Th	0047	3.1	94
	0651	6.5	198
	1354	−0.2	−6
	2043	5.4	165
26 F	0201	2.5	76
	0803	6.6	201
	1447	−0.3	−9
	2126	5.9	180
27 Sa	0304	1.6	49
	0908	6.7	204
	1534	−0.2	−6
	2204	6.5	198
28 Su	0359	0.8	24
	1008	6.8	207
	1618	0.0	0
	2242	7.0	213
29 M ○	0449	0.0	0
	1104	6.7	204
	1700	0.3	9
	2319	7.4	226
30 Tu	0538	−0.6	−18
	1157	6.5	198
	1740	0.8	24
	2356	7.6	232
31 W	0625	−0.9	−27
	1250	6.2	189
	1821	1.4	43

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Humboldt Bay, California, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0034	7.6	232
	0713	−0.9	−27
	1343	5.9	180
	1902	1.9	58
2 F	0113	7.4	226
	0801	−0.8	−24
	1437	5.5	168
	1945	2.4	73
3 Sa	0154	7.1	216
	0851	−0.4	−12
	1536	5.1	155
	2032	2.9	88
4 Su	0240	6.6	201
	0946	0.0	0
	1641	4.8	146
	2128	3.2	98
5 M	0333	6.2	189
	1047	0.4	12
	1753	4.6	140
	2237	3.4	104
6 Tu ◑	0436	5.7	174
	1151	0.6	18
	1903	4.7	143
	2358	3.4	104
7 W	0546	5.4	165
	1254	0.8	24
	1959	4.9	149
8 Th	0114	3.0	91
	0656	5.3	162
	1348	0.9	27
	2039	5.1	155
9 F	0214	2.5	76
	0800	5.3	162
	1433	0.9	27
	2110	5.4	165
10 Sa	0302	2.0	61
	0856	5.4	165
	1511	1.0	30
	2139	5.8	177
11 Su	0344	1.4	43
	0945	5.4	165
	1546	1.2	37
	2207	6.1	186
12 M	0422	0.8	24
	1031	5.5	168
	1619	1.4	43
	2234	6.4	195
13 Tu	0459	0.3	9
	1115	5.5	168
	1651	1.6	49
	2302	6.7	204
14 W ●	0535	−0.1	−3
	1159	5.5	168
	1723	1.9	58
	2330	6.9	210
15 Th	0612	−0.5	−15
	1243	5.4	165
	1756	2.2	67

	Time	Height	
	h m	ft	cm
16 F	0000	7.0	213
	0652	−0.7	−21
	1329	5.3	162
	1830	2.5	76
17 Sa	0033	7.0	213
	0734	−0.8	−24
	1418	5.1	155
	1908	2.8	85
18 Su	0111	7.0	213
	0822	−0.8	−24
	1513	4.9	149
	1952	3.0	91
19 M	0156	6.8	207
	0914	−0.6	−18
	1613	4.8	146
	2048	3.2	98
20 Tu	0252	6.5	198
	1012	−0.5	−15
	1717	4.8	146
	2201	3.2	98
21 W ◐	0400	6.2	189
	1114	−0.3	−9
	1819	5.0	152
	2326	2.9	88
22 Th	0519	5.9	180
	1216	−0.1	−3
	1913	5.4	165
23 F	0048	2.4	73
	0639	5.7	174
	1314	0.1	3
	2000	5.9	180
24 Sa	0157	1.5	46
	0755	5.6	171
	1408	0.4	12
	2043	6.5	198
25 Su	0257	0.6	18
	0904	5.7	174
	1457	0.7	21
	2123	7.0	213
26 M	0349	−0.2	−6
	1006	5.7	174
	1543	1.1	34
	2202	7.3	223
27 Tu	0438	−0.9	−27
	1104	5.8	177
	1628	1.4	43
	2241	7.6	232
28 W ○	0524	−1.3	−40
	1158	5.7	174
	1711	1.8	55
	2319	7.6	232
29 Th	0609	−1.5	−46
	1249	5.6	171
	1754	2.2	67
	2358	7.5	229
30 F	0653	−1.4	−43
	1339	5.5	168
	1838	2.5	76

May

	Time	Height	
	h m	ft	cm
1 Sa	0038	7.2	219
	0738	−1.2	−37
	1429	5.3	162
	1923	2.8	85
2 Su	0120	6.8	207
	0824	−0.8	−24
	1521	5.1	155
	2012	3.1	94
3 M	0205	6.3	192
	0912	−0.4	−12
	1615	4.9	149
	2108	3.2	98
4 Tu	0255	5.8	177
	1003	0.1	3
	1711	4.9	149
	2215	3.2	98
5 W ◑	0354	5.3	162
	1056	0.5	15
	1804	4.9	149
	2329	3.0	91
6 Th	0500	4.9	149
	1149	0.8	24
	1850	5.1	155
7 F	0042	2.6	79
	0612	4.6	140
	1240	1.1	34
	1930	5.4	165
8 Sa	0143	2.1	64
	0722	4.5	137
	1327	1.4	43
	2006	5.7	174
9 Su	0233	1.4	43
	0827	4.6	140
	1411	1.6	49
	2039	6.1	186
10 M	0316	0.8	24
	0925	4.7	143
	1452	1.9	58
	2111	6.4	195
11 Tu	0356	0.1	3
	1018	4.9	149
	1531	2.2	67
	2144	6.7	204
12 W	0435	−0.4	−12
	1106	5.0	152
	1609	2.4	73
	2217	7.0	213
13 Th ●	0514	−0.9	−27
	1153	5.2	158
	1648	2.6	79
	2252	7.2	219
14 F	0554	−1.3	−40
	1240	5.2	158
	1728	2.7	82
	2329	7.3	223
15 Sa	0636	−1.5	−46
	1327	5.2	158
	1810	2.8	85

	Time	Height	
	h m	ft	cm
16 Su	0010	7.3	223
	0720	−1.6	−49
	1415	5.2	158
	1857	2.9	88
17 M	0055	7.2	219
	0806	−1.5	−46
	1506	5.2	158
	1950	3.0	91
18 Tu	0145	6.9	210
	0856	−1.2	−37
	1558	5.3	162
	2054	2.9	88
19 W	0244	6.4	195
	0948	−0.8	−24
	1651	5.5	168
	2207	2.7	82
20 Th ◐	0352	5.9	180
	1042	−0.4	−12
	1742	5.8	177
	2326	2.3	70
21 F	0509	5.3	162
	1137	0.2	6
	1831	6.2	189
22 Sa	0041	1.6	49
	0630	5.0	152
	1232	0.7	21
	1918	6.6	201
23 Su	0148	0.8	24
	0750	4.8	146
	1327	1.2	37
	2002	7.0	213
24 M	0247	−0.1	−3
	0904	4.9	149
	1420	1.7	52
	2045	7.3	223
25 Tu	0339	−0.7	−21
	1010	5.0	152
	1511	2.1	64
	2128	7.5	229
26 W	0426	−1.2	−37
	1108	5.2	158
	1600	2.4	73
	2209	7.6	232
27 Th ○	0511	−1.5	−46
	1200	5.3	162
	1647	2.6	79
	2251	7.5	229
28 F	0554	−1.6	−49
	1247	5.3	162
	1733	2.8	85
	2332	7.3	223
29 Sa	0636	−1.5	−46
	1332	5.3	162
	1818	2.9	88
30 Su	0013	7.0	213
	0717	−1.2	−37
	1415	5.3	162
	1904	3.0	91
31 M	0054	6.7	204
	0758	−0.9	−27
	1458	5.2	158
	1952	3.1	94

June

	Time	Height	
	h m	ft	cm
1 Tu	0137	6.2	189
	0839	−0.5	−15
	1540	5.2	158
	2044	3.1	94
2 W	0223	5.7	174
	0920	0.0	0
	1622	5.2	158
	2144	3.0	91
3 Th	0315	5.2	158
	1001	0.4	12
	1704	5.3	162
	2250	2.8	85
4 F ◑	0415	4.7	143
	1044	0.9	27
	1744	5.5	168
	2358	2.4	73
5 Sa	0525	4.3	131
	1129	1.4	43
	1824	5.8	177
6 Su	0101	1.8	55
	0640	4.1	125
	1216	1.9	58
	1902	6.1	186
7 M	0156	1.2	37
	0756	4.1	125
	1305	2.3	70
	1941	6.4	195
8 Tu	0244	0.5	15
	0904	4.3	131
	1355	2.6	79
	2020	6.8	207
9 W	0328	−0.2	−6
	1004	4.6	140
	1444	2.9	88
	2100	7.1	216
10 Th	0411	−0.8	−24
	1057	4.8	146
	1532	3.0	91
	2141	7.4	226
11 F	0453	−1.3	−40
	1144	5.1	155
	1620	3.0	91
	2224	7.6	232
12 Sa ●	0536	−1.7	−52
	1229	5.3	162
	1708	2.9	88
	2309	7.7	235
13 Su	0619	−1.9	−58
	1314	5.4	165
	1757	2.9	88
	2357	7.7	235
14 M	0703	−1.9	−58
	1358	5.6	171
	1850	2.7	82
15 Tu	0046	7.4	226
	0748	−1.7	−52
	1443	5.8	177
	1947	2.6	79

	Time	Height	
	h m	ft	cm
16 W	0140	7.0	213
	0833	−1.3	−40
	1528	6.0	183
	2051	2.3	70
17 Th	0239	6.3	192
	0920	−0.7	−21
	1614	6.3	192
	2200	2.0	61
18 F ◐	0346	5.6	171
	1008	0.0	0
	1701	6.6	201
	2313	1.6	49
19 Sa	0500	5.0	152
	1058	0.8	24
	1749	6.9	210
20 Su	0026	1.0	30
	0623	4.6	140
	1152	1.5	46
	1838	7.1	216
21 M	0134	0.3	9
	0749	4.4	134
	1250	2.2	67
	1926	7.3	223
22 Tu	0234	−0.3	−9
	0909	4.6	140
	1349	2.6	79
	2015	7.4	226
23 W	0327	−0.7	−21
	1016	4.8	146
	1447	2.9	88
	2102	7.5	229
24 Th	0414	−1.0	−30
	1111	5.0	152
	1541	3.0	91
	2148	7.5	229
25 F	0458	−1.2	−37
	1156	5.2	158
	1630	3.1	94
	2232	7.4	226
26 Sa ○	0539	−1.2	−37
	1236	5.3	162
	1717	3.0	91
	2314	7.2	219
27 Su	0617	−1.1	−34
	1313	5.4	165
	1801	3.0	91
	2354	7.0	213
28 M	0654	−0.9	−27
	1348	5.4	165
	1844	2.9	88
29 Tu	0034	6.7	204
	0729	−0.6	−18
	1421	5.5	168
	1929	2.8	85
30 W	0114	6.2	189
	0803	−0.3	−9
	1455	5.6	171
	2017	2.8	85

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Humboldt Bay, California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0156	5.8	177
	0837	0.2	6
	1529	5.7	174
	2108	2.6	79
2 F	0243	5.2	158
	0910	0.7	21
	1604	5.8	177
	2206	2.4	73
3 Sa	0338	4.7	143
	0944	1.3	40
	1640	6.0	183
	2308	2.1	64
4 Su ◑	0444	4.3	131
	1022	1.9	58
	1719	6.2	189
5 M	0012	1.7	52
	0603	4.0	122
	1106	2.4	73
	1802	6.4	195
6 Tu	0113	1.1	34
	0726	4.0	122
	1201	2.9	88
	1847	6.7	204
7 W	0209	0.5	15
	0845	4.2	128
	1304	3.2	98
	1936	7.0	213
8 Th	0300	−0.2	−6
	0949	4.5	137
	1407	3.3	101
	2026	7.3	223
9 F	0347	−0.8	−24
	1040	4.9	149
	1506	3.2	98
	2117	7.7	235
10 Sa	0433	−1.3	−40
	1125	5.2	158
	1601	3.0	91
	2207	7.9	241
11 Su ●	0516	−1.7	−52
	1206	5.5	168
	1654	2.7	82
	2258	8.0	244
12 M	0559	−1.8	−55
	1247	5.8	177
	1747	2.4	73
	2348	7.9	241
13 Tu	0642	−1.7	−52
	1327	6.1	186
	1841	2.1	64
14 W	0040	7.6	232
	0724	−1.4	−43
	1408	6.4	195
	1938	1.8	55
15 Th	0135	7.0	213
	0806	−0.8	−24
	1449	6.7	204
	2038	1.5	46

	Time	Height	
	h m	ft	cm
16 F	0234	6.3	192
	0849	0.0	0
	1533	7.0	213
	2143	1.2	37
17 Sa	0339	5.5	168
	0934	0.8	24
	1619	7.1	216
	2252	0.9	27
18 Su ◐	0454	4.9	149
	1023	1.7	52
	1708	7.2	219
19 M	0004	0.6	18
	0619	4.5	137
	1119	2.4	73
	1801	7.2	219
20 Tu	0114	0.3	9
	0750	4.4	134
	1224	3.0	91
	1857	7.2	219
21 W	0217	−0.1	−3
	0913	4.6	140
	1332	3.2	98
	1953	7.2	219
22 Th	0312	−0.4	−12
	1014	4.9	149
	1435	3.3	101
	2046	7.2	219
23 F	0400	−0.5	−15
	1100	5.2	158
	1531	3.2	98
	2135	7.2	219
24 Sa	0442	−0.7	−21
	1137	5.3	162
	1619	3.0	91
	2219	7.2	219
25 Su ○	0519	−0.7	−21
	1209	5.5	168
	1703	2.8	85
	2300	7.1	216
26 M	0553	−0.6	−18
	1239	5.6	171
	1744	2.6	79
	2339	6.9	210
27 Tu	0625	−0.4	−12
	1307	5.7	174
	1825	2.5	76
28 W	0017	6.6	201
	0656	−0.1	−3
	1335	5.8	177
	1905	2.3	70
29 Th	0056	6.2	189
	0725	0.3	9
	1403	6.0	183
	1947	2.2	67
30 F	0136	5.8	177
	0754	0.8	24
	1433	6.1	186
	2032	2.0	61
31 Sa	0221	5.3	162
	0823	1.3	40
	1503	6.2	189
	2122	1.9	58

August

	Time	Height	
	h m	ft	cm
1 Su	0312	4.8	146
	0852	1.9	58
	1537	6.3	192
	2218	1.7	52
2 M ◑	0416	4.4	134
	0926	2.4	73
	1617	6.4	195
	2322	1.4	43
3 Tu	0535	4.1	125
	1008	2.9	88
	1705	6.5	198
4 W	0029	1.0	30
	0703	4.1	125
	1111	3.3	101
	1801	6.7	204
5 Th	0133	0.5	15
	0824	4.3	131
	1231	3.5	107
	1902	7.0	213
6 F	0230	−0.1	−3
	0926	4.7	143
	1347	3.4	104
	2003	7.3	223
7 Sa	0321	−0.6	−18
	1012	5.1	155
	1451	3.1	94
	2101	7.7	235
8 Su	0408	−1.1	−34
	1053	5.5	168
	1549	2.6	79
	2156	7.9	241
9 M ●	0452	−1.3	−40
	1131	6.0	183
	1643	2.1	64
	2249	8.0	244
10 Tu	0534	−1.3	−40
	1209	6.4	195
	1736	1.5	46
	2342	7.8	238
11 W	0614	−1.0	−30
	1247	6.8	207
	1829	1.0	30
12 Th	0035	7.4	226
	0655	−0.5	−15
	1326	7.1	216
	1923	0.7	21
13 F	0130	6.8	207
	0736	0.1	3
	1406	7.4	226
	2020	0.5	15
14 Sa	0229	6.1	186
	0818	0.9	27
	1449	7.4	226
	2120	0.4	12
15 Su	0333	5.4	165
	0903	1.8	55
	1536	7.4	226
	2225	0.4	12

	Time	Height	
	h m	ft	cm
16 M ◐	0447	4.9	149
	0954	2.5	76
	1628	7.2	219
	2335	0.5	15
17 Tu	0614	4.6	140
	1056	3.1	94
	1727	7.0	213
18 W	0047	0.4	12
	0746	4.7	143
	1211	3.4	104
	1832	6.8	207
19 Th	0154	0.3	9
	0900	4.9	149
	1326	3.5	107
	1935	6.7	204
20 F	0250	0.1	3
	0952	5.1	155
	1431	3.3	101
	2033	6.8	207
21 Sa	0337	0.0	0
	1030	5.3	162
	1523	2.9	88
	2123	6.8	207
22 Su	0416	0.0	0
	1100	5.5	168
	1608	2.6	79
	2207	6.8	207
23 M	0450	0.0	0
	1127	5.7	174
	1649	2.3	70
	2248	6.7	204
24 Tu ○	0522	0.1	3
	1153	5.9	180
	1727	2.0	61
	2326	6.6	201
25 W	0551	0.4	12
	1218	6.1	186
	1804	1.7	52
26 Th	0004	6.4	195
	0619	0.7	21
	1243	6.3	192
	1841	1.5	46
27 F	0043	6.1	186
	0646	1.1	34
	1309	6.4	195
	1919	1.3	40
28 Sa	0123	5.7	174
	0714	1.6	49
	1336	6.5	198
	1959	1.2	37
29 Su	0208	5.3	162
	0741	2.1	64
	1405	6.5	198
	2044	1.1	34
30 M	0259	4.9	149
	0811	2.5	76
	1438	6.5	198
	2137	1.1	34
31 Tu	0402	4.6	140
	0846	3.0	91
	1520	6.5	198
	2238	1.0	30

September

	Time	Height	
	h m	ft	cm
1 W ◑	0519	4.4	134
	0934	3.4	104
	1615	6.5	198
	2348	0.8	24
2 Th	0644	4.4	134
	1050	3.6	110
	1724	6.6	201
3 F	0056	0.5	15
	0758	4.6	140
	1222	3.6	110
	1838	6.8	207
4 Sa	0157	0.0	0
	0852	5.0	152
	1340	3.2	98
	1946	7.0	213
5 Su	0250	−0.3	−9
	0935	5.5	168
	1444	2.6	79
	2049	7.3	223
6 M	0337	−0.6	−18
	1013	6.0	183
	1541	1.8	55
	2147	7.5	229
7 Tu	0421	−0.6	−18
	1050	6.6	201
	1634	1.0	30
	2242	7.5	229
8 W	0502	−0.4	−12
	1127	7.1	216
	1725	0.4	12
●	2337	7.3	223
9 Th	0543	0.0	0
	1204	7.5	229
	1815	−0.1	−3
10 F	0031	6.9	210
	0624	0.6	18
	1243	7.7	235
	1906	−0.4	−12
11 Sa	0126	6.5	198
	0705	1.2	37
	1323	7.7	235
	1958	−0.4	−12
12 Su	0224	5.9	180
	0748	1.9	58
	1406	7.6	232
	2054	−0.3	−9
13 M	0327	5.4	165
	0836	2.6	79
	1454	7.2	219
	2154	0.0	0
14 Tu ◐	0439	5.0	152
	0931	3.1	94
	1549	6.8	207
	2301	0.3	9
15 W	0601	4.9	149
	1041	3.5	107
	1653	6.4	195

	Time	Height	
	h m	ft	cm
16 Th	0011	0.5	15
	0723	4.9	149
	1204	3.6	110
	1805	6.2	189
17 F	0118	0.6	18
	0826	5.1	155
	1321	3.3	101
	1914	6.1	186
18 Sa	0215	0.6	18
	0911	5.4	165
	1422	2.9	88
	2015	6.1	186
19 Su	0301	0.6	18
	0944	5.6	171
	1512	2.4	73
	2107	6.2	189
20 M	0339	0.6	18
	1012	5.8	177
	1553	2.0	61
	2152	6.2	189
21 Tu	0412	0.8	24
	1037	6.1	186
	1631	1.5	46
	2234	6.2	189
22 W	0442	1.0	30
	1102	6.3	192
	1707	1.1	34
	2314	6.1	186
23 Th ○	0512	1.2	37
	1127	6.5	198
	1742	0.8	24
	2354	6.0	183
24 F	0540	1.6	49
	1153	6.7	204
	1817	0.5	15
25 Sa	0035	5.8	177
	0609	2.0	61
	1219	6.8	207
	1854	0.4	12
26 Su	0117	5.6	171
	0638	2.4	73
	1246	6.8	207
	1933	0.3	9
27 M	0203	5.3	162
	0708	2.8	85
	1315	6.8	207
	2016	0.3	9
28 Tu	0256	5.0	152
	0742	3.1	94
	1351	6.7	204
	2107	0.3	9
29 W	0358	4.8	146
	0824	3.4	104
	1437	6.6	201
	2206	0.4	12
30 Th ◑	0509	4.7	143
	0926	3.7	113
	1540	6.4	195
	2312	0.4	12

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Humboldt Bay, California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0622	4.8	146
	1053	3.7	113
	1658	6.3	192
2 Sa	0018	0.3	9
	0723	5.1	155
	1222	3.3	101
	1819	6.3	192
3 Su	0119	0.2	6
	0811	5.6	171
	1336	2.7	82
	1933	6.4	195
4 M	0213	0.1	3
	0853	6.1	186
	1438	1.8	55
	2040	6.6	201
5 Tu	0301	0.2	6
	0931	6.7	204
	1533	0.8	24
	2141	6.7	204
6 W	0346	0.4	12
	1009	7.3	223
	1624	0.0	0
	2239	6.7	204
7 Th ●	0429	0.7	21
	1046	7.7	235
	1712	−0.7	−21
	2334	6.6	201
8 F	0511	1.2	37
	1124	8.0	244
	1800	−1.1	−34
9 Sa	0029	6.4	195
	0554	1.7	52
	1204	8.1	247
	1848	−1.2	−37
10 Su	0123	6.1	186
	0637	2.2	67
	1244	7.9	241
	1937	−1.1	−34
11 M	0219	5.8	177
	0723	2.7	82
	1328	7.5	229
	2028	−0.7	−21
12 Tu	0319	5.5	168
	0813	3.2	98
	1416	7.0	213
	2123	−0.2	−6
13 W	0424	5.2	158
	0913	3.5	107
	1511	6.5	198
	2223	0.2	6
14 Th ◐	0534	5.2	158
	1026	3.6	110
	1616	6.0	183
	2326	0.6	18
15 F	0641	5.2	158
	1149	3.5	107
	1728	5.6	171

	Time	Height	
	h m	ft	cm
16 Sa	0028	0.9	27
	0735	5.4	165
	1305	3.1	94
	1841	5.4	165
17 Su	0123	1.1	34
	0816	5.6	171
	1405	2.6	79
	1947	5.4	165
18 M	0209	1.2	37
	0849	5.9	180
	1452	2.0	61
	2045	5.4	165
19 Tu	0249	1.4	43
	0917	6.2	189
	1533	1.4	43
	2135	5.5	168
20 W	0325	1.6	49
	0945	6.5	198
	1610	0.8	24
	2221	5.6	171
21 Th	0359	1.9	58
	1012	6.8	207
	1646	0.4	12
	2305	5.6	171
22 F ○	0431	2.2	67
	1040	7.0	213
	1721	0.0	0
	2348	5.6	171
23 Sa	0503	2.5	76
	1108	7.1	216
	1756	−0.3	−9
24 Su	0030	5.6	171
	0535	2.8	85
	1137	7.2	219
	1833	−0.5	−15
25 M	0115	5.5	168
	0609	3.0	91
	1208	7.2	219
	1913	−0.5	−15
26 Tu	0202	5.4	165
	0645	3.3	101
	1243	7.1	216
	1957	−0.5	−15
27 W	0254	5.2	158
	0727	3.5	107
	1324	7.0	213
	2046	−0.4	−12
28 Th	0351	5.1	155
	0821	3.6	110
	1415	6.7	204
	2140	−0.2	−6
29 F	0451	5.2	158
	0932	3.7	113
	1521	6.3	192
	2238	0.1	3
30 Sa ◑	0549	5.4	165
	1056	3.4	104
	1640	6.0	183
	2338	0.3	9
31 Su	0641	5.8	177
	1219	2.8	85
	1803	5.7	174

November

	Time	Height	
	h m	ft	cm
1 M	0037	0.6	18
	0728	6.3	192
	1330	2.0	61
	1923	5.7	174
2 Tu	0131	0.8	24
	0810	6.9	210
	1431	1.0	30
	2035	5.7	174
3 W	0223	1.2	37
	0851	7.4	226
	1524	0.0	0
	2140	5.9	180
4 Th	0311	1.6	49
	0931	7.9	241
	1613	−0.8	−24
	2240	6.0	183
5 F ●	0357	1.9	58
	1011	8.2	250
	1700	−1.3	−40
	2336	6.1	186
6 Sa	0443	2.3	70
	1051	8.3	253
	1746	−1.6	−49
7 Su	0029	6.0	183
	0529	2.6	79
	1132	8.2	250
	1832	−1.5	−46
8 M	0120	5.9	180
	0615	3.0	91
	1214	7.9	241
	1917	−1.3	−40
9 Tu	0212	5.8	177
	0702	3.2	98
	1258	7.4	226
	2004	−0.9	−27
10 W	0304	5.6	171
	0754	3.4	104
	1345	6.9	210
	2052	−0.4	−12
11 Th	0359	5.5	168
	0853	3.6	110
	1436	6.3	192
	2142	0.1	3
12 F	0453	5.5	168
	1001	3.6	110
	1534	5.7	174
	2234	0.6	18
13 Sa ◐	0545	5.6	171
	1118	3.4	104
	1642	5.2	158
	2326	1.1	34
14 Su	0632	5.7	174
	1232	3.0	91
	1756	4.9	149
15 M	0017	1.5	46
	0712	6.0	183
	1334	2.4	73
	1909	4.7	143

	Time	Height	
	h m	ft	cm
16 Tu	0105	1.9	58
	0748	6.3	192
	1425	1.7	52
	2017	4.8	146
17 W	0150	2.2	67
	0821	6.6	201
	1508	1.1	34
	2118	4.9	149
18 Th	0232	2.5	76
	0853	6.9	210
	1546	0.5	15
	2210	5.1	155
19 F	0312	2.8	85
	0926	7.2	219
	1623	−0.1	−3
	2258	5.3	162
20 Sa	0351	3.0	91
	0958	7.4	226
	1700	−0.5	−15
	2343	5.4	165
21 Su ○	0430	3.2	98
	1032	7.6	232
	1738	−0.8	−24
22 M	0026	5.5	168
	0508	3.3	101
	1108	7.7	235
	1817	−1.0	−30
23 Tu	0110	5.6	171
	0549	3.4	104
	1146	7.7	235
	1858	−1.1	−34
24 W	0155	5.6	171
	0633	3.5	107
	1227	7.5	229
	1941	−1.0	−30
25 Th	0242	5.6	171
	0723	3.5	107
	1313	7.2	219
	2026	−0.8	−24
26 F	0331	5.7	174
	0822	3.5	107
	1407	6.8	207
	2114	−0.5	−15
27 Sa	0420	5.9	180
	0933	3.3	101
	1512	6.2	189
	2205	0.0	0
28 Su ◑	0509	6.2	189
	1050	2.9	88
	1627	5.7	174
	2258	0.6	18
29 M	0557	6.6	201
	1208	2.2	67
	1751	5.2	158
	2353	1.2	37
30 Tu	0644	7.1	216
	1319	1.3	40
	1916	5.0	152

December

	Time	Height	
	h m	ft	cm
1 W	0049	1.8	55
	0730	7.5	229
	1420	0.4	12
	2035	5.1	155
2 Th	0145	2.3	70
	0815	7.9	241
	1514	−0.4	−12
	2146	5.3	162
3 F	0240	2.6	79
	0900	8.2	250
	1603	−1.0	−30
	2246	5.6	171
4 Sa	0332	2.9	88
	0944	8.3	253
	1650	−1.3	−40
	2340	5.8	177
5 Su ●	0422	3.1	94
	1028	8.3	253
	1734	−1.5	−46
6 M	0028	5.9	180
	0511	3.2	98
	1111	8.1	247
	1817	−1.4	−43
7 Tu	0113	5.9	180
	0558	3.3	101
	1154	7.8	238
	1859	−1.2	−37
8 W	0156	5.9	180
	0646	3.4	104
	1237	7.4	226
	1940	−0.8	−24
9 Th	0239	5.9	180
	0735	3.4	104
	1320	6.9	210
	2020	−0.3	−9
10 F	0321	5.8	177
	0828	3.4	104
	1405	6.3	192
	2100	0.2	6
11 Sa	0402	5.9	180
	0927	3.4	104
	1456	5.7	174
	2140	0.8	24
12 Su	0443	6.0	183
	1033	3.2	98
	1555	5.1	155
	2221	1.4	43
13 M ◐	0524	6.1	186
	1143	2.8	85
	1705	4.6	140
	2304	1.9	58
14 Tu	0604	6.3	192
	1249	2.3	70
	1824	4.4	134
	2351	2.5	76
15 W	0644	6.6	201
	1347	1.7	52
	1946	4.3	131

	Time	Height	
	h m	ft	cm
16 Th	0042	2.9	88
	0724	6.9	210
	1436	1.0	30
	2059	4.5	137
17 F	0135	3.3	101
	0804	7.2	219
	1519	0.4	12
	2200	4.8	146
18 Sa	0227	3.5	107
	0845	7.4	226
	1600	−0.2	−6
	2250	5.1	155
19 Su	0316	3.6	110
	0926	7.7	235
	1641	−0.7	−21
	2333	5.4	165
20 M	0403	3.6	110
	1007	7.9	241
	1720	−1.0	−30
21 Tu ○	0015	5.6	171
	0449	3.5	107
	1050	8.1	247
	1801	−1.3	−40
22 W	0055	5.8	177
	0536	3.4	104
	1134	8.0	244
	1841	−1.4	−43
23 Th	0135	6.0	183
	0626	3.2	98
	1220	7.9	241
	1922	−1.2	−37
24 F	0216	6.2	189
	0719	3.0	91
	1310	7.5	229
	2004	−0.9	−27
25 Sa	0258	6.4	195
	0818	2.8	85
	1405	6.9	210
	2047	−0.3	−9
26 Su	0341	6.7	204
	0924	2.5	76
	1507	6.1	186
	2131	0.4	12
27 M ◑	0426	7.0	213
	1035	2.1	64
	1619	5.4	165
	2219	1.2	37
28 Tu	0513	7.3	223
	1149	1.5	46
	1743	4.9	149
	2312	1.9	58
29 W	0602	7.6	232
	1301	0.9	27
	1913	4.7	143
30 Th	0011	2.6	79
	0654	7.8	238
	1406	0.2	6
	2041	4.8	146
31 F	0115	3.1	94
	0746	8.0	244
	1503	−0.3	−9
	2154	5.1	155

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Crescent City, California, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0013	6.3	192
	0510	3.1	94
	1106	8.6	262
	1813	−1.8	−55
2 Sa	0055	6.6	201
	0604	2.8	85
	1157	8.4	256
	1857	−1.6	−49
3 Su	0137	6.9	210
	0701	2.5	76
	1250	7.9	241
	1940	−1.1	−34
4 M	0220	7.1	216
	0800	2.2	67
	1346	7.2	219
	2024	−0.4	−12
5 Tu	0304	7.3	223
	0904	2.0	61
	1448	6.4	195
	2108	0.5	15
6 W	0349	7.4	226
	1014	1.7	52
	1558	5.6	171
	2155	1.4	43
7 Th ◑	0437	7.5	229
	1127	1.4	43
	1722	5.0	152
	2246	2.3	70
8 F	0528	7.5	229
	1240	1.0	30
	1856	4.8	146
	2345	3.0	91
9 Sa	0622	7.5	229
	1347	0.6	18
	2025	4.9	149
10 Su	0053	3.5	107
	0716	7.4	226
	1446	0.2	6
	2135	5.2	158
11 M	0200	3.8	116
	0809	7.4	226
	1535	−0.1	−3
	2227	5.5	168
12 Tu	0300	3.8	116
	0858	7.5	229
	1619	−0.3	−9
	2308	5.7	174
13 W	0351	3.7	113
	0943	7.5	229
	1657	−0.4	−12
	2343	5.8	177
14 Th ●	0435	3.5	107
	1023	7.4	226
	1731	−0.4	−12
15 F	0014	6.0	183
	0515	3.3	101
	1101	7.3	223
	1803	−0.4	−12

	Time	Height	
	h m	ft	cm
16 Sa	0044	6.1	186
	0553	3.2	98
	1138	7.2	219
	1834	−0.2	−6
17 Su	0113	6.2	189
	0632	3.0	91
	1214	6.9	210
	1903	0.0	0
18 M	0141	6.3	192
	0712	2.8	85
	1252	6.5	198
	1931	0.4	12
19 Tu	0209	6.4	195
	0754	2.7	82
	1332	6.1	186
	2000	0.9	27
20 W	0238	6.5	198
	0841	2.5	76
	1417	5.6	171
	2029	1.5	46
21 Th	0308	6.6	201
	0933	2.3	70
	1511	5.1	155
	2100	2.1	64
22 F	0343	6.7	204
	1034	2.1	64
	1621	4.6	140
	2137	2.7	82
23 Sa ◐	0424	6.9	210
	1141	1.7	52
	1751	4.4	134
	2224	3.2	98
24 Su	0513	7.0	213
	1250	1.1	34
	1928	4.5	137
	2330	3.7	113
25 M	0612	7.3	223
	1354	0.5	15
	2046	4.8	146
26 Tu	0050	3.8	116
	0714	7.6	232
	1450	−0.2	−6
	2141	5.3	162
27 W	0205	3.7	113
	0815	7.9	241
	1540	−0.8	−24
	2225	5.7	174
28 Th	0309	3.4	104
	0912	8.3	253
	1626	−1.3	−40
	2306	6.2	189
29 F ○	0408	2.9	88
	1007	8.5	259
	1710	−1.5	−46
	2344	6.6	201
30 Sa	0502	2.4	73
	1100	8.4	256
	1752	−1.4	−43
31 Su	0022	7.0	213
	0556	1.8	55
	1152	8.2	250
	1833	−1.1	−34

February

	Time	Height	
	h m	ft	cm
1 M	0101	7.4	226
	0649	1.4	43
	1245	7.7	235
	1913	−0.5	−15
2 Tu	0140	7.6	232
	0744	1.1	34
	1340	7.0	213
	1953	0.3	9
3 W	0221	7.7	235
	0842	1.0	30
	1440	6.2	189
	2035	1.2	37
4 Th	0304	7.7	235
	0945	0.9	27
	1547	5.5	168
	2119	2.1	64
5 F ◑	0350	7.5	229
	1053	0.9	27
	1708	4.9	149
	2209	2.9	88
6 Sa	0443	7.2	219
	1207	0.9	27
	1844	4.7	143
	2313	3.5	107
7 Su	0543	7.0	213
	1320	0.7	21
	2015	4.9	149
8 M	0032	3.8	116
	0648	6.9	210
	1423	0.5	15
	2122	5.1	155
9 Tu	0150	3.9	119
	0751	6.9	210
	1515	0.3	9
	2207	5.4	165
10 W	0252	3.7	113
	0845	6.9	210
	1558	0.1	3
	2243	5.6	171
11 Th	0341	3.4	104
	0931	7.0	213
	1634	0.0	0
	2312	5.8	177
12 F	0422	3.0	91
	1012	7.0	213
	1706	0.0	0
	2338	6.0	183
13 Sa ●	0500	2.7	82
	1050	7.0	213
	1735	0.0	0
14 Su	0003	6.2	189
	0536	2.4	73
	1127	6.9	210
	1802	0.2	6
15 M	0028	6.4	195
	0612	2.1	64
	1203	6.6	201
	1829	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0052	6.6	201
	0648	1.8	55
	1241	6.3	192
	1855	0.9	27
17 W	0117	6.7	204
	0727	1.6	49
	1321	6.0	183
	1922	1.4	43
18 Th	0144	6.8	207
	0808	1.5	46
	1405	5.5	168
	1950	1.9	58
19 F	0214	6.9	210
	0855	1.4	43
	1458	5.1	155
	2021	2.5	76
20 Sa	0249	6.9	210
	0951	1.3	40
	1604	4.7	143
	2059	3.0	91
21 Su ◐	0332	6.9	210
	1058	1.1	34
	1731	4.4	134
	2150	3.4	104
22 M	0429	6.9	210
	1212	0.8	24
	1907	4.5	137
	2307	3.7	113
23 Tu	0538	7.0	213
	1322	0.3	9
	2020	4.9	149
24 W	0039	3.7	113
	0653	7.1	216
	1423	−0.2	−6
	2112	5.3	162
25 Th	0159	3.3	101
	0802	7.4	226
	1515	−0.6	−18
	2153	5.9	180
26 F	0304	2.7	82
	0904	7.7	235
	1601	−0.9	−27
	2231	6.4	195
27 Sa	0401	1.9	58
	1001	7.8	238
	1643	−0.9	−27
	2308	6.9	210
28 Su ○	0454	1.2	37
	1055	7.8	238
	1724	−0.7	−21
	2344	7.4	226

March

	Time	Height	
	h m	ft	cm
1 M	0544	0.6	18
	1148	7.5	229
	1804	−0.2	−6
2 Tu	0021	7.7	235
	0634	0.1	3
	1241	7.1	216
	1843	0.4	12
3 W	0059	7.8	238
	0725	−0.1	−3
	1335	6.5	198
	1923	1.1	34
4 Th	0138	7.8	238
	0817	0.0	0
	1432	5.9	180
	2004	1.9	58
5 F	0219	7.5	229
	0913	0.2	6
	1536	5.3	162
	2049	2.6	79
6 Sa	0305	7.1	216
	1016	0.5	15
	1652	4.9	149
	2142	3.2	98
7 Su ◑	0359	6.7	204
	1127	0.7	21
	1821	4.7	143
	2252	3.6	110
8 M	0504	6.3	192
	1241	0.8	24
	1946	4.8	146
9 Tu	0020	3.7	113
	0618	6.1	186
	1347	0.7	21
	2046	5.0	152
10 W	0139	3.5	107
	0728	6.1	186
	1441	0.6	18
	2128	5.3	162
11 Th	0239	3.1	94
	0827	6.1	186
	1523	0.5	15
	2159	5.5	168
12 F	0325	2.7	82
	0916	6.2	189
	1558	0.4	12
	2226	5.8	177
13 Sa	0405	2.2	67
	0958	6.3	192
	1629	0.5	15
	2251	6.1	186
14 Su	0441	1.7	52
	1038	6.3	192
	1658	0.6	18
	2314	6.3	192
15 M ●	0515	1.3	40
	1116	6.3	192
	1725	0.8	24
	2338	6.6	201

	Time	Height	
	h m	ft	cm
16 Tu	0550	0.9	27
	1154	6.2	189
	1753	1.2	37
17 W	0003	6.7	204
	0625	0.6	18
	1234	6.0	183
	1820	1.5	46
18 Th	0029	6.9	210
	0702	0.4	12
	1316	5.7	174
	1849	2.0	61
19 F	0057	6.9	210
	0743	0.3	9
	1402	5.4	165
	1921	2.4	73
20 Sa	0130	6.9	210
	0829	0.3	9
	1456	5.0	152
	1957	2.8	85
21 Su	0209	6.9	210
	0923	0.3	9
	1601	4.7	143
	2042	3.2	98
22 M	0258	6.7	204
	1027	0.3	9
	1721	4.6	140
	2145	3.5	107
23 Tu ◐	0401	6.5	198
	1139	0.2	6
	1841	4.7	143
	2312	3.5	107
24 W	0518	6.4	195
	1248	0.1	3
	1944	5.1	155
25 Th	0043	3.2	98
	0639	6.4	195
	1349	−0.1	−3
	2032	5.6	171
26 F	0158	2.5	76
	0753	6.6	201
	1442	−0.3	−9
	2113	6.1	186
27 Sa	0300	1.6	49
	0858	6.7	204
	1528	−0.2	−6
	2151	6.7	204
28 Su	0353	0.7	21
	0958	6.8	207
	1612	0.0	0
	2228	7.2	219
29 M ○	0443	−0.1	−3
	1053	6.8	207
	1653	0.3	9
	2304	7.6	232
30 Tu	0531	−0.6	−18
	1146	6.7	204
	1734	0.8	24
	2341	7.8	238
31 W	0618	−1.0	−30
	1238	6.4	195
	1814	1.4	43

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Crescent City, California, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0019	7.7	235
	0704	−1.0	−30
	1330	6.1	186
	1855	1.9	58
2 F	0058	7.5	229
	0753	−0.8	−24
	1425	5.6	171
	1939	2.5	76
3 Sa	0140	7.1	216
	0844	−0.4	−12
	1524	5.2	158
	2026	2.9	88
4 Su	0225	6.6	201
	0940	0.0	0
	1632	4.9	149
	2123	3.3	101
5 M	0318	6.1	186
	1043	0.4	12
	1747	4.8	146
	2236	3.5	107
6 Tu ◑	0423	5.6	171
	1150	0.7	21
	1857	4.8	146
7 W	0002	3.4	104
	0539	5.3	162
	1253	0.8	24
	1951	5.0	152
8 Th	0118	3.0	91
	0655	5.2	158
	1347	0.9	27
	2031	5.3	162
9 F	0216	2.5	76
	0759	5.3	162
	1431	0.9	27
	2103	5.5	168
10 Sa	0302	1.9	58
	0853	5.4	165
	1509	1.0	30
	2131	5.9	180
11 Su	0341	1.3	40
	0941	5.5	168
	1542	1.2	37
	2156	6.2	189
12 M	0417	0.8	24
	1024	5.6	171
	1613	1.4	43
	2222	6.5	198
13 Tu	0452	0.3	9
	1106	5.6	171
	1644	1.6	49
	2249	6.7	204
14 W ●	0527	−0.2	−6
	1147	5.7	174
	1716	1.9	58
	2317	6.9	210
15 Th	0603	−0.5	−15
	1230	5.6	171
	1748	2.2	67
	2347	7.0	213

	Time	Height	
	h m	ft	cm
16 F	0642	−0.7	−21
	1314	5.5	168
	1823	2.5	76
17 Sa	0021	7.1	216
	0725	−0.8	−24
	1403	5.3	162
	1901	2.8	85
18 Su	0100	7.0	213
	0812	−0.7	−21
	1457	5.1	155
	1946	3.0	91
19 M	0145	6.8	207
	0905	−0.6	−18
	1559	4.9	149
	2043	3.2	98
20 Tu	0239	6.5	198
	1004	−0.4	−12
	1705	5.0	152
	2157	3.2	98
21 W ◐	0346	6.1	186
	1107	−0.2	−6
	1808	5.2	158
	2323	3.0	91
22 Th	0506	5.8	177
	1210	0.0	0
	1902	5.6	171
23 F	0046	2.3	70
	0629	5.6	171
	1309	0.2	6
	1949	6.1	186
24 Sa	0155	1.5	46
	0747	5.6	171
	1402	0.4	12
	2031	6.6	201
25 Su	0253	0.6	18
	0856	5.7	174
	1452	0.7	21
	2110	7.0	213
26 M	0344	−0.3	−9
	0957	5.9	180
	1538	1.1	34
	2149	7.4	226
27 Tu	0432	−1.0	−30
	1053	5.9	180
	1622	1.5	46
	2227	7.6	232
28 W ○	0517	−1.4	−43
	1145	5.9	180
	1706	1.8	55
	2306	7.7	235
29 Th	0602	−1.6	−49
	1236	5.9	180
	1749	2.2	67
	2345	7.5	229
30 F	0646	−1.5	−46
	1325	5.7	174
	1832	2.5	76

May

	Time	Height	
	h m	ft	cm
1 Sa	0025	7.2	219
	0731	−1.2	−37
	1416	5.5	168
	1917	2.8	85
2 Su	0107	6.8	207
	0817	−0.8	−24
	1509	5.2	158
	2007	3.1	94
3 M	0152	6.3	192
	0906	−0.4	−12
	1605	5.1	155
	2104	3.2	98
4 Tu	0242	5.7	174
	0958	0.1	3
	1703	5.0	152
	2213	3.2	98
5 W ◑	0341	5.2	158
	1052	0.5	15
	1758	5.0	152
	2331	3.0	91
6 Th	0452	4.8	146
	1146	0.8	24
	1846	5.2	158
7 F	0043	2.6	79
	0609	4.6	140
	1237	1.1	34
	1925	5.4	165
8 Sa	0143	2.0	61
	0722	4.5	137
	1324	1.4	43
	1959	5.7	174
9 Su	0231	1.4	43
	0826	4.6	140
	1407	1.7	52
	2030	6.1	186
10 M	0312	0.7	21
	0921	4.8	146
	1446	1.9	58
	2100	6.4	195
11 Tu	0350	0.1	3
	1011	5.0	152
	1525	2.2	67
	2131	6.7	204
12 W	0428	−0.5	−15
	1057	5.2	158
	1603	2.4	73
	2204	7.0	213
13 Th ●	0506	−0.9	−27
	1141	5.3	162
	1641	2.6	79
	2239	7.2	219
14 F	0545	−1.3	−40
	1225	5.4	165
	1721	2.7	82
	2316	7.3	223
15 Sa	0627	−1.5	−46
	1311	5.4	165
	1803	2.8	85
	2357	7.3	223

	Time	Height	
	h m	ft	cm
16 Su	0711	−1.6	−49
	1359	5.4	165
	1850	2.9	88
17 M	0042	7.2	219
	0758	−1.5	−46
	1450	5.4	165
	1945	2.9	88
18 Tu	0133	6.8	207
	0847	−1.2	−37
	1543	5.4	165
	2048	2.9	88
19 W	0231	6.3	192
	0939	−0.8	−24
	1636	5.6	171
	2203	2.7	82
20 Th ◐	0338	5.8	177
	1034	−0.3	−9
	1729	5.9	180
	2323	2.2	67
21 F	0457	5.3	162
	1130	0.2	6
	1818	6.2	189
22 Sa	0039	1.5	46
	0622	4.9	149
	1226	0.8	24
	1905	6.6	201
23 Su	0145	0.7	21
	0744	4.9	149
	1321	1.3	40
	1950	7.0	213
24 M	0243	−0.1	−3
	0857	5.0	152
	1415	1.8	55
	2033	7.3	223
25 Tu	0334	−0.8	−24
	1000	5.2	158
	1506	2.2	67
	2115	7.5	229
26 W	0421	−1.3	−40
	1056	5.4	165
	1556	2.4	73
	2157	7.6	232
27 Th ○	0505	−1.6	−49
	1146	5.5	168
	1643	2.7	82
	2238	7.5	229
28 F	0548	−1.6	−49
	1233	5.6	171
	1728	2.8	85
	2319	7.3	223
29 Sa	0629	−1.5	−46
	1317	5.5	168
	1813	2.9	88
30 Su	0000	7.0	213
	0711	−1.2	−37
	1401	5.5	168
	1859	3.0	91
31 M	0042	6.6	201
	0752	−0.9	−27
	1445	5.4	165
	1947	3.0	91

June

	Time	Height	
	h m	ft	cm
1 Tu	0124	6.2	189
	0832	−0.5	−15
	1529	5.3	162
	2041	3.0	91
2 W	0210	5.7	174
	0913	0.0	0
	1613	5.3	162
	2141	3.0	91
3 Th	0302	5.1	155
	0955	0.5	15
	1655	5.4	165
	2248	2.7	82
4 F ◑	0404	4.6	140
	1037	1.0	30
	1736	5.6	171
	2357	2.3	70
5 Sa	0518	4.2	128
	1122	1.5	46
	1814	5.8	177
6 Su	0059	1.8	55
	0639	4.1	125
	1209	1.9	58
	1852	6.1	186
7 M	0152	1.1	34
	0756	4.1	125
	1258	2.4	73
	1929	6.4	195
8 Tu	0239	0.5	15
	0902	4.4	134
	1348	2.7	82
	2007	6.7	204
9 W	0322	−0.2	−6
	0957	4.7	143
	1437	2.9	88
	2047	7.0	213
10 Th	0404	−0.8	−24
	1046	5.0	152
	1525	3.0	91
	2128	7.4	226
11 F	0446	−1.3	−40
	1131	5.2	158
	1613	3.0	91
	2212	7.6	232
12 Sa ●	0528	−1.7	−52
	1215	5.4	165
	1701	2.9	88
	2257	7.7	235
13 Su	0611	−1.9	−58
	1258	5.6	171
	1750	2.8	85
	2344	7.7	235
14 M	0655	−1.9	−58
	1342	5.8	177
	1844	2.7	82
15 Tu	0034	7.4	226
	0740	−1.7	−52
	1427	6.0	183
	1942	2.5	76

	Time	Height	
	h m	ft	cm
16 W	0127	6.9	210
	0825	−1.3	−40
	1513	6.2	189
	2046	2.3	70
17 Th	0226	6.3	192
	0912	−0.7	−21
	1559	6.4	195
	2156	1.9	58
18 F ◐	0333	5.6	171
	1000	0.0	0
	1647	6.6	201
	2310	1.5	46
19 Sa	0450	5.0	152
	1051	0.8	24
	1735	6.9	210
20 Su	0023	0.9	27
	0617	4.6	140
	1145	1.6	49
	1825	7.1	216
21 M	0130	0.2	6
	0744	4.5	137
	1244	2.3	70
	1914	7.3	223
22 Tu	0230	−0.3	−9
	0901	4.7	143
	1345	2.7	82
	2003	7.4	226
23 W	0323	−0.8	−24
	1004	5.0	152
	1444	3.0	91
	2051	7.4	226
24 Th	0410	−1.1	−34
	1057	5.2	158
	1538	3.1	94
	2137	7.4	226
25 F	0454	−1.2	−37
	1141	5.4	165
	1628	3.1	94
	2221	7.3	223
26 Sa ○	0534	−1.3	−40
	1221	5.5	168
	1714	3.0	91
	2303	7.2	219
27 Su	0612	−1.2	−37
	1259	5.6	171
	1757	2.9	88
	2343	6.9	210
28 M	0648	−1.0	−30
	1334	5.6	171
	1840	2.9	88
29 Tu	0022	6.6	201
	0723	−0.7	−21
	1409	5.7	174
	1925	2.8	85
30 W	0102	6.2	189
	0757	−0.3	−9
	1443	5.7	174
	2012	2.7	82

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Crescent City, California, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0144	5.7	174
	0830	0.2	6
	1517	5.8	177
	2103	2.6	79
2 F	0231	5.2	158
	0903	0.7	21
	1551	5.9	180
	2200	2.4	73
3 Sa	0326	4.7	143
	0937	1.3	40
	1627	6.0	183
	2303	2.1	64
4 Su ◑	0434	4.2	128
	1015	1.9	58
	1705	6.2	189
5 M	0007	1.6	49
	0558	4.0	122
	1059	2.5	76
	1747	6.4	195
6 Tu	0108	1.1	34
	0726	4.0	122
	1154	2.9	88
	1833	6.6	201
7 W	0204	0.5	15
	0842	4.3	131
	1256	3.2	98
	1923	6.9	210
8 Th	0254	−0.2	−6
	0941	4.6	140
	1359	3.3	101
	2013	7.3	223
9 F	0341	−0.8	−24
	1029	5.0	152
	1458	3.2	98
	2104	7.6	232
10 Sa	0426	−1.3	−40
	1111	5.4	165
	1553	3.0	91
	2155	7.9	241
11 Su ●	0509	−1.7	−52
	1152	5.7	174
	1647	2.7	82
	2245	8.0	244
12 M	0552	−1.9	−58
	1231	6.0	183
	1740	2.4	73
	2335	7.9	241
13 Tu	0634	−1.8	−55
	1311	6.4	195
	1835	2.0	61
14 W	0027	7.6	232
	0716	−1.4	−43
	1352	6.7	204
	1932	1.7	52
15 Th	0122	7.0	213
	0758	−0.8	−24
	1433	6.9	210
	2032	1.4	43

	Time	Height	
	h m	ft	cm
16 F	0221	6.3	192
	0841	0.0	0
	1517	7.1	216
	2137	1.1	34
17 Sa	0327	5.5	168
	0926	0.8	24
	1603	7.2	219
	2247	0.8	24
18 Su ◐	0444	4.9	149
	1015	1.7	52
	1653	7.2	219
	2359	0.5	15
19 M	0613	4.5	137
	1112	2.5	76
	1748	7.2	219
20 Tu	0110	0.2	6
	0744	4.5	137
	1219	3.0	91
	1845	7.1	216
21 W	0214	−0.1	−3
	0901	4.8	146
	1330	3.3	101
	1943	7.1	216
22 Th	0310	−0.4	−12
	1000	5.1	155
	1435	3.4	104
	2037	7.1	216
23 F	0357	−0.6	−18
	1045	5.3	162
	1531	3.2	98
	2126	7.1	216
24 Sa	0439	−0.7	−21
	1123	5.5	168
	1618	3.0	91
	2210	7.1	216
25 Su ○	0516	−0.7	−21
	1156	5.6	171
	1701	2.8	85
	2251	7.0	213
26 M	0549	−0.6	−18
	1226	5.8	177
	1741	2.6	79
	2329	6.8	207
27 Tu	0620	−0.5	−15
	1255	5.9	180
	1820	2.4	73
28 W	0007	6.6	201
	0650	−0.2	−6
	1323	6.0	183
	1859	2.3	70
29 Th	0045	6.2	189
	0719	0.2	6
	1351	6.1	186
	1941	2.1	64
30 F	0125	5.8	177
	0747	0.7	21
	1419	6.2	189
	2025	2.0	61
31 Sa	0209	5.3	162
	0816	1.3	40
	1449	6.3	192
	2114	1.8	55

August

	Time	Height	
	h m	ft	cm
1 Su	0300	4.9	149
	0846	1.9	58
	1522	6.3	192
	2210	1.7	52
2 M ◑	0404	4.4	134
	0921	2.5	76
	1601	6.4	195
	2314	1.4	43
3 Tu	0526	4.2	128
	1005	3.0	91
	1649	6.5	198
4 W	0022	1.1	34
	0700	4.2	128
	1106	3.4	104
	1746	6.7	204
5 Th	0128	0.5	15
	0820	4.4	134
	1223	3.5	107
	1849	6.9	210
6 F	0225	−0.1	−3
	0917	4.8	146
	1339	3.4	104
	1950	7.3	223
7 Sa	0316	−0.6	−18
	1001	5.2	158
	1444	3.1	94
	2049	7.6	232
8 Su	0402	−1.1	−34
	1040	5.7	174
	1542	2.6	79
	2144	7.9	241
9 M ●	0445	−1.4	−43
	1117	6.1	186
	1637	2.0	61
	2237	8.0	244
10 Tu	0527	−1.4	−43
	1154	6.6	201
	1729	1.5	46
	2329	7.8	238
11 W	0607	−1.1	−34
	1232	7.0	213
	1822	1.0	30
12 Th	0022	7.5	229
	0647	−0.6	−18
	1310	7.3	223
	1916	0.6	18
13 F	0117	6.9	210
	0728	0.1	3
	1351	7.5	229
	2012	0.4	12
14 Sa	0216	6.2	189
	0810	0.9	27
	1433	7.5	229
	2113	0.3	9
15 Su	0321	5.5	168
	0855	1.8	55
	1520	7.4	226
	2218	0.4	12

	Time	Height	
	h m	ft	cm
16 M ◐	0438	5.0	152
	0947	2.5	76
	1613	7.1	216
	2330	0.4	12
17 Tu	0607	4.7	143
	1050	3.1	94
	1714	6.9	210
18 W	0044	0.4	12
	0736	4.8	146
	1209	3.5	107
	1822	6.7	204
19 Th	0152	0.2	6
	0847	5.0	152
	1328	3.5	107
	1928	6.6	201
20 F	0249	0.1	3
	0938	5.2	158
	1433	3.3	101
	2027	6.7	204
21 Sa	0335	0.0	0
	1016	5.5	168
	1524	2.9	88
	2117	6.7	204
22 Su	0414	−0.1	−3
	1048	5.7	174
	1607	2.6	79
	2200	6.7	204
23 M	0448	−0.1	−3
	1116	5.9	180
	1646	2.3	70
	2239	6.7	204
24 Tu ○	0518	0.1	3
	1142	6.0	183
	1722	1.9	58
	2317	6.6	201
25 W	0546	0.3	9
	1207	6.2	189
	1757	1.7	52
	2354	6.4	195
26 Th	0613	0.6	18
	1231	6.4	195
	1833	1.4	43
27 F	0031	6.1	186
	0640	1.0	30
	1256	6.5	198
	1910	1.3	40
28 Sa	0111	5.8	177
	0707	1.5	46
	1323	6.5	198
	1950	1.2	37
29 Su	0155	5.4	165
	0735	2.0	61
	1352	6.5	198
	2035	1.1	34
30 M	0245	5.0	152
	0806	2.5	76
	1425	6.5	198
	2127	1.1	34
31 Tu	0347	4.6	140
	0843	3.0	91
	1507	6.5	198
	2230	1.0	30

September

	Time	Height	
	h m	ft	cm
1 W	0507	4.4	134
	0932	3.4	104
	1601	6.5	198
◑	2341	0.8	24
2 Th	0638	4.4	134
	1045	3.6	110
	1710	6.5	198
3 F	0051	0.5	15
	0751	4.7	143
	1214	3.6	110
	1824	6.7	204
4 Sa	0153	0.0	0
	0842	5.1	155
	1333	3.2	98
	1935	6.9	210
5 Su	0245	−0.4	−12
	0923	5.6	171
	1438	2.6	79
	2038	7.2	219
6 M	0332	−0.6	−18
	1001	6.2	189
	1534	1.8	55
	2136	7.5	229
7 Tu	0415	−0.7	−21
	1037	6.7	204
	1627	1.0	30
	2231	7.5	229
8 W	0456	−0.5	−15
	1113	7.2	219
	1717	0.3	9
●	2324	7.4	226
9 Th	0536	−0.1	−3
	1150	7.6	232
	1807	−0.2	−6
10 F	0018	7.1	216
	0617	0.5	15
	1228	7.8	238
	1858	−0.5	−15
11 Sa	0113	6.6	201
	0658	1.2	37
	1308	7.8	238
	1950	−0.5	−15
12 Su	0211	6.1	186
	0741	1.9	58
	1351	7.6	232
	2046	−0.3	−9
13 M	0315	5.6	171
	0829	2.6	79
	1439	7.2	219
	2148	0.0	0
14 Tu ◐	0428	5.2	158
	0926	3.1	94
	1534	6.8	207
	2257	0.3	9
15 W	0552	5.0	152
	1038	3.5	107
	1641	6.3	192

	Time	Height	
	h m	ft	cm
16 Th	0010	0.5	15
	0712	5.0	152
	1205	3.5	107
	1757	6.1	186
17 F	0118	0.6	18
	0814	5.2	158
	1324	3.3	101
	1910	6.0	183
18 Sa	0214	0.6	18
	0859	5.4	165
	1424	2.9	88
	2012	6.0	183
19 Su	0300	0.6	18
	0934	5.7	174
	1512	2.4	73
	2103	6.1	186
20 M	0337	0.6	18
	1002	5.9	180
	1551	1.9	58
	2147	6.2	189
21 Tu	0409	0.7	21
	1028	6.2	189
	1627	1.5	46
	2227	6.2	189
22 W	0439	0.9	27
	1052	6.4	195
	1701	1.1	34
	2306	6.2	189
23 Th ○	0507	1.2	37
	1116	6.6	201
	1735	0.7	21
	2344	6.1	186
24 F	0534	1.5	46
	1140	6.7	204
	1809	0.5	15
25 Sa	0023	5.9	180
	0602	1.9	58
	1206	6.8	207
	1844	0.3	9
26 Su	0104	5.7	174
	0631	2.3	70
	1234	6.8	207
	1923	0.3	9
27 M	0148	5.4	165
	0702	2.7	82
	1305	6.8	207
	2006	0.3	9
28 Tu	0240	5.1	155
	0738	3.1	94
	1342	6.7	204
	2057	0.4	12
29 W	0342	4.9	149
	0821	3.4	104
	1428	6.5	198
	2157	0.5	15
30 Th ◑	0456	4.8	146
	0923	3.6	110
	1528	6.3	192
	2305	0.4	12

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Crescent City, California, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0612	4.9	149
	1048	3.7	113
	1644	6.2	189
2 Sa	0013	0.3	9
	0713	5.2	158
	1217	3.3	101
	1807	6.2	189
3 Su	0114	0.2	6
	0800	5.7	174
	1332	2.6	79
	1923	6.3	192
4 M	0208	0.1	3
	0841	6.2	189
	1433	1.7	52
	2030	6.6	201
5 Tu	0256	0.2	6
	0919	6.8	207
	1526	0.8	24
	2131	6.7	204
6 W	0340	0.4	12
	0956	7.4	226
	1616	−0.1	−3
	2228	6.8	207
7 Th ●	0423	0.7	21
	1033	7.8	238
	1704	−0.8	−24
	2322	6.8	207
8 F	0505	1.1	34
	1111	8.1	247
	1752	−1.2	−37
9 Sa	0015	6.6	201
	0547	1.7	52
	1150	8.1	247
	1839	−1.3	−40
10 Su	0109	6.4	195
	0631	2.2	67
	1231	7.9	241
	1929	−1.1	−34
11 M	0205	6.0	183
	0717	2.7	82
	1315	7.5	229
	2020	−0.7	−21
12 Tu	0305	5.7	174
	0808	3.1	94
	1403	7.0	213
	2117	−0.2	−6
13 W	0412	5.4	165
	0909	3.4	104
	1458	6.4	195
	2219	0.3	9
14 Th ◐	0524	5.3	162
	1025	3.6	110
	1605	5.9	180
	2324	0.6	18
15 F	0631	5.3	162
	1151	3.4	104
	1723	5.5	168

	Time	Height	
	h m	ft	cm
16 Sa	0028	0.9	27
	0726	5.5	168
	1307	3.0	91
	1840	5.3	162
17 Su	0123	1.1	34
	0807	5.7	174
	1405	2.5	76
	1947	5.3	162
18 M	0209	1.2	37
	0841	6.0	183
	1451	1.9	58
	2043	5.4	165
19 Tu	0248	1.4	43
	0909	6.2	189
	1530	1.3	40
	2131	5.5	168
20 W	0322	1.6	49
	0935	6.5	198
	1605	0.8	24
	2215	5.7	174
21 Th	0354	1.9	58
	1001	6.8	207
	1639	0.4	12
	2256	5.7	174
22 F ○	0426	2.2	67
	1028	7.0	213
	1712	0.0	0
	2337	5.8	177
23 Sa	0457	2.4	73
	1055	7.1	216
	1747	−0.3	−9
24 Su	0018	5.8	177
	0529	2.7	82
	1125	7.2	219
	1824	−0.4	−12
25 M	0100	5.7	174
	0603	3.0	91
	1157	7.2	219
	1903	−0.5	−15
26 Tu	0146	5.5	168
	0640	3.2	98
	1234	7.1	216
	1947	−0.4	−12
27 W	0237	5.4	165
	0723	3.4	104
	1316	6.9	210
	2037	−0.3	−9
28 Th	0335	5.3	162
	0817	3.6	110
	1406	6.6	201
	2131	−0.1	−3
29 F	0436	5.3	162
	0928	3.6	110
	1510	6.2	189
	2231	0.1	3
30 Sa ◑	0536	5.5	168
	1053	3.4	104
	1627	5.9	180
	2332	0.4	12
31 Su	0629	5.9	180
	1216	2.8	85
	1753	5.7	174

November

	Time	Height	
	h m	ft	cm
1 M	0031	0.6	18
	0716	6.4	195
	1326	1.9	58
	1915	5.7	174
2 Tu	0126	0.9	27
	0758	6.9	210
	1425	0.9	27
	2027	5.8	177
3 W	0217	1.2	37
	0838	7.5	229
	1517	0.0	0
	2131	6.0	183
4 Th	0305	1.6	49
	0918	7.9	241
	1606	−0.8	−24
	2229	6.2	189
5 F ●	0352	2.0	61
	0958	8.2	250
	1652	−1.3	−40
	2323	6.3	192
6 Sa	0438	2.3	70
	1038	8.3	253
	1738	−1.6	−49
7 Su	0015	6.3	192
	0523	2.6	79
	1120	8.2	250
	1824	−1.5	−46
8 M	0105	6.2	189
	0609	2.9	88
	1202	7.9	241
	1910	−1.3	−40
9 Tu	0157	6.0	183
	0658	3.2	98
	1246	7.4	226
	1957	−0.8	−24
10 W	0250	5.8	177
	0750	3.4	104
	1333	6.9	210
	2046	−0.3	−9
11 Th	0345	5.7	174
	0850	3.5	107
	1424	6.2	189
	2137	0.2	6
12 F	0442	5.6	171
	1000	3.5	107
	1524	5.6	171
	2230	0.7	21
13 Sa ◐	0536	5.7	174
	1119	3.3	101
	1635	5.1	155
	2323	1.2	37
14 Su	0624	5.8	177
	1233	2.9	88
	1755	4.8	146
15 M	0015	1.6	49
	0705	6.0	183
	1333	2.3	70
	1912	4.7	143

	Time	Height	
	h m	ft	cm
16 Tu	0103	2.0	61
	0740	6.3	192
	1422	1.7	52
	2018	4.8	146
17 W	0147	2.3	70
	0812	6.6	201
	1503	1.0	30
	2115	5.0	152
18 Th	0228	2.6	79
	0843	6.9	210
	1540	0.5	15
	2204	5.3	162
19 F	0308	2.8	85
	0914	7.1	216
	1616	0.0	0
	2249	5.5	168
20 Sa	0346	3.0	91
	0946	7.4	226
	1652	−0.5	−15
	2331	5.6	171
21 Su ○	0423	3.2	98
	1020	7.6	232
	1729	−0.8	−24
22 M	0012	5.7	174
	0502	3.3	101
	1056	7.7	235
	1808	−1.0	−30
23 Tu	0055	5.8	177
	0543	3.4	104
	1134	7.7	235
	1849	−1.0	−30
24 W	0139	5.8	177
	0627	3.5	107
	1217	7.5	229
	1932	−1.0	−30
25 Th	0226	5.8	177
	0718	3.5	107
	1303	7.2	219
	2018	−0.7	−21
26 F	0314	5.9	180
	0818	3.4	104
	1357	6.8	207
	2106	−0.4	−12
27 Sa	0404	6.1	186
	0928	3.2	98
	1500	6.2	189
	2157	0.1	3
28 Su ◑	0454	6.3	192
	1047	2.8	85
	1616	5.6	171
	2250	0.7	21
29 M	0543	6.7	204
	1205	2.1	64
	1743	5.2	158
	2346	1.3	40
30 Tu	0630	7.1	216
	1314	1.3	40
	1910	5.1	155

December

	Time	Height	
	h m	ft	cm
1 W	0043	1.9	58
	0717	7.5	229
	1414	0.4	12
	2028	5.3	162
2 Th	0140	2.4	73
	0802	7.9	241
	1508	−0.4	−12
	2136	5.6	171
3 F	0235	2.7	82
	0847	8.1	247
	1557	−1.0	−30
	2233	5.8	177
4 Sa	0328	3.0	91
	0932	8.3	253
	1643	−1.3	−40
	2325	6.0	183
5 Su ●	0418	3.2	98
	1016	8.3	253
	1727	−1.5	−46
6 M	0012	6.1	186
	0507	3.2	98
	1059	8.1	247
	1810	−1.4	−43
7 Tu	0057	6.2	189
	0554	3.3	101
	1142	7.8	238
	1852	−1.1	−34
8 W	0141	6.1	186
	0642	3.3	101
	1225	7.4	226
	1933	−0.7	−21
9 Th	0224	6.1	186
	0731	3.4	104
	1309	6.9	210
	2013	−0.3	−9
10 F	0307	6.0	183
	0825	3.4	104
	1355	6.3	192
	2053	0.3	9
11 Sa	0350	6.0	183
	0925	3.3	101
	1446	5.7	174
	2133	0.9	27
12 Su	0432	6.1	186
	1031	3.1	94
	1547	5.1	155
	2215	1.5	46
13 M ◐	0514	6.2	189
	1141	2.8	85
	1701	4.6	140
	2258	2.1	64
14 Tu	0554	6.4	195
	1246	2.3	70
	1827	4.4	134
	2345	2.6	79
15 W	0633	6.6	201
	1342	1.7	52
	1949	4.5	137

	Time	Height	
	h m	ft	cm
16 Th	0037	3.1	94
	0712	6.8	207
	1430	1.0	30
	2058	4.7	143
17 F	0130	3.4	104
	0752	7.1	216
	1513	0.4	12
	2153	5.0	152
18 Sa	0222	3.6	110
	0832	7.4	226
	1554	−0.1	−3
	2239	5.4	165
19 Su	0310	3.6	110
	0913	7.7	235
	1633	−0.6	−18
	2320	5.6	171
20 M	0357	3.6	110
	0955	7.9	241
	1713	−1.0	−30
21 Tu ○	0000	5.9	180
	0443	3.5	107
	1038	8.0	244
	1752	−1.2	−37
22 W	0039	6.1	186
	0530	3.4	104
	1122	8.1	247
	1833	−1.3	−40
23 Th	0119	6.2	189
	0620	3.2	98
	1209	7.9	241
	1914	−1.2	−37
24 F	0159	6.4	195
	0713	3.0	91
	1258	7.5	229
	1956	−0.8	−24
25 Sa	0241	6.7	204
	0813	2.8	85
	1353	6.9	210
	2038	−0.3	−9
26 Su	0324	6.9	210
	0918	2.4	73
	1455	6.2	189
	2123	0.5	15
27 M ◑	0409	7.1	216
	1030	2.0	61
	1609	5.5	168
	2211	1.3	40
28 Tu	0457	7.4	226
	1144	1.5	46
	1736	5.0	152
	2304	2.1	64
29 W	0547	7.6	232
	1256	0.8	24
	1909	4.9	149
30 Th	0005	2.8	85
	0640	7.8	238
	1401	0.2	6
	2033	5.1	155
31 F	0111	3.3	101
	0733	7.9	241
	1458	−0.3	−9
	2142	5.4	165

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Charleston, Oregon, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0042	7.2	219
	0545	3.1	94
	1145	9.5	290
	1841	−1.9	−58
2 Sa	0125	7.5	229
	0638	2.8	85
	1236	9.2	280
	1925	−1.7	−52
3 Su	0207	7.7	235
	0732	2.5	76
	1328	8.8	268
	2009	−1.2	−37
4 M	0251	8.0	244
	0830	2.2	67
	1423	8.0	244
	2052	−0.5	−15
5 Tu	0335	8.1	247
	0931	2.0	61
	1523	7.2	219
	2137	0.4	12
6 W	0421	8.2	250
	1037	1.7	52
	1630	6.3	192
	2224	1.4	43
7 Th ◑	0509	8.3	253
	1148	1.5	46
	1748	5.7	174
	2317	2.3	70
8 F	0601	8.2	250
	1300	1.1	34
	1916	5.4	165
9 Sa	0017	3.1	94
	0655	8.2	250
	1408	0.7	21
	2044	5.4	165
10 Su	0125	3.7	113
	0750	8.2	250
	1508	0.4	12
	2157	5.7	174
11 M	0232	3.9	119
	0845	8.2	250
	1559	0.0	0
	2251	6.1	186
12 Tu	0332	3.9	119
	0935	8.2	250
	1643	−0.2	−6
	2334	6.3	192
13 W	0423	3.8	116
	1020	8.2	250
	1722	−0.3	−9
14 Th ●	0009	6.5	198
	0507	3.6	110
	1101	8.2	250
	1758	−0.4	−12
15 F	0041	6.7	204
	0547	3.4	104
	1140	8.1	247
	1830	−0.4	−12

	Time	Height	
	h m	ft	cm
16 Sa	0111	6.8	207
	0625	3.1	94
	1217	8.0	244
	1902	−0.2	−6
17 Su	0140	6.9	210
	0703	3.0	91
	1253	7.7	235
	1931	0.0	0
18 M	0209	7.0	213
	0742	2.8	85
	1329	7.3	223
	2000	0.4	12
19 Tu	0238	7.1	216
	0822	2.7	82
	1408	6.9	210
	2029	0.9	27
20 W	0308	7.2	219
	0906	2.5	76
	1452	6.3	192
	2058	1.5	46
21 Th	0340	7.3	223
	0956	2.4	73
	1543	5.8	177
	2130	2.1	64
22 F	0415	7.4	226
	1054	2.1	64
	1648	5.3	162
	2207	2.8	85
23 Sa ◐	0456	7.6	232
	1200	1.8	55
	1811	5.0	152
	2256	3.4	104
24 Su	0547	7.7	235
	1310	1.3	40
	1943	5.0	152
25 M	0005	3.9	119
	0647	7.9	241
	1416	0.6	18
	2104	5.4	165
26 Tu	0127	4.0	122
	0751	8.2	250
	1514	−0.1	−3
	2205	5.9	180
27 W	0242	3.9	119
	0853	8.6	262
	1606	−0.8	−24
	2253	6.4	195
28 Th	0346	3.5	107
	0951	9.0	274
	1654	−1.3	−40
	2336	6.9	210
29 F ○	0443	2.9	88
	1046	9.2	280
	1738	−1.6	−49
30 Sa	0016	7.4	226
	0536	2.3	70
	1138	9.3	283
	1821	−1.6	−49
31 Su	0055	7.9	241
	0629	1.7	52
	1230	9.0	274
	1902	−1.2	−37

February

	Time	Height	
	h m	ft	cm
1 M	0134	8.3	253
	0721	1.3	40
	1322	8.5	259
	1943	−0.6	−18
2 Tu	0214	8.5	259
	0814	1.0	30
	1415	7.8	238
	2023	0.2	6
3 W	0254	8.6	262
	0909	0.9	27
	1512	7.0	213
	2105	1.1	34
4 Th	0337	8.5	259
	1008	0.9	27
	1616	6.2	189
	2149	2.1	64
5 F ◑	0424	8.3	253
	1114	1.0	30
	1730	5.6	171
	2240	3.0	91
6 Sa	0516	8.0	244
	1225	1.0	30
	1858	5.3	162
	2343	3.6	110
7 Su	0615	7.7	235
	1338	0.9	27
	2031	5.3	162
8 M	0101	4.0	122
	0720	7.5	229
	1444	0.7	21
	2143	5.6	171
9 Tu	0218	4.0	122
	0824	7.5	229
	1539	0.5	15
	2232	6.0	183
10 W	0321	3.8	116
	0919	7.6	232
	1623	0.3	9
	2308	6.2	189
11 Th	0411	3.4	104
	1007	7.7	235
	1700	0.1	3
	2339	6.5	198
12 F	0453	3.1	94
	1049	7.8	238
	1733	0.0	0
13 Sa ●	0007	6.7	204
	0531	2.7	82
	1127	7.8	238
	1803	0.0	0
14 Su	0033	7.0	213
	0607	2.3	70
	1204	7.7	235
	1832	0.2	6
15 M	0059	7.2	219
	0643	2.0	61
	1240	7.5	229
	1859	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0125	7.4	226
	0718	1.8	55
	1317	7.2	219
	1926	0.9	27
17 W	0151	7.5	229
	0755	1.6	49
	1355	6.8	207
	1953	1.4	43
18 Th	0218	7.6	232
	0835	1.4	43
	1438	6.4	195
	2022	2.0	61
19 F	0247	7.6	232
	0920	1.4	43
	1527	5.9	180
	2053	2.5	76
20 Sa	0322	7.6	232
	1013	1.3	40
	1629	5.4	165
	2130	3.1	94
21 Su ◐	0405	7.6	232
	1117	1.2	37
	1749	5.1	155
	2222	3.6	110
22 M	0502	7.6	232
	1231	1.0	30
	1920	5.1	155
	2340	4.0	122
23 Tu	0613	7.6	232
	1344	0.5	15
	2040	5.4	165
24 W	0113	3.9	119
	0729	7.8	238
	1447	0.0	0
	2137	6.0	183
25 Th	0233	3.5	107
	0839	8.1	247
	1541	−0.5	−15
	2223	6.6	201
26 F	0338	2.8	85
	0942	8.4	256
	1629	−0.9	−27
	2303	7.2	219
27 Sa	0435	1.9	58
	1039	8.7	265
	1713	−0.9	−27
	2342	7.8	238
28 Su ○	0526	1.1	34
	1133	8.7	265
	1755	−0.8	−24

March

	Time	Height	
	h m	ft	cm
1 M	0019	8.3	253
	0616	0.4	12
	1224	8.5	259
	1835	−0.3	−9
2 Tu	0057	8.6	262
	0705	0.0	0
	1316	8.0	244
	1915	0.3	9
3 W	0134	8.8	268
	0754	−0.2	−6
	1408	7.5	229
	1955	1.1	34
4 Th	0214	8.7	265
	0844	−0.1	−3
	1502	6.8	207
	2036	1.9	58
5 F	0255	8.4	256
	0938	0.2	6
	1601	6.1	186
	2120	2.7	82
6 Sa	0340	8.0	244
	1037	0.6	18
	1710	5.6	171
	2212	3.4	104
7 Su ◑	0433	7.5	229
	1144	0.9	27
	1832	5.3	162
	2320	3.8	116
8 M	0536	7.1	216
	1258	1.1	34
	1959	5.4	165
9 Tu	0044	4.0	122
	0649	6.8	207
	1407	1.1	34
	2106	5.6	171
10 W	0204	3.8	116
	0759	6.8	207
	1504	0.9	27
	2152	5.9	180
11 Th	0305	3.3	101
	0859	6.9	210
	1549	0.7	21
	2226	6.2	189
12 F	0353	2.8	85
	0949	7.0	213
	1626	0.6	18
	2255	6.5	198
13 Sa	0434	2.3	70
	1033	7.1	216
	1658	0.6	18
	2321	6.9	210
14 Su	0511	1.8	55
	1113	7.2	219
	1728	0.7	21
	2347	7.2	219
15 M ●	0546	1.3	40
	1151	7.2	219
	1757	0.9	27

	Time	Height	
	h m	ft	cm
16 Tu	0013	7.4	226
	0620	0.9	27
	1229	7.1	216
	1825	1.2	37
17 W	0039	7.6	232
	0654	0.6	18
	1307	6.9	210
	1853	1.6	49
18 Th	0105	7.8	238
	0730	0.4	12
	1348	6.7	204
	1922	2.1	64
19 F	0133	7.8	238
	0810	0.3	9
	1432	6.3	192
	1953	2.5	76
20 Sa	0205	7.8	238
	0854	0.3	9
	1523	5.9	180
	2029	3.0	91
21 Su	0243	7.7	235
	0946	0.4	12
	1624	5.5	168
	2113	3.4	104
22 M	0331	7.5	229
	1048	0.5	15
	1738	5.3	162
	2215	3.7	113
23 Tu ◐	0434	7.3	223
	1158	0.5	15
	1858	5.4	165
	2342	3.8	116
24 W	0553	7.1	216
	1310	0.3	9
	2007	5.8	177
25 Th	0114	3.4	104
	0715	7.2	219
	1414	0.1	3
	2100	6.3	192
26 F	0230	2.7	82
	0829	7.3	223
	1510	0.0	0
	2145	7.0	213
27 Sa	0331	1.8	55
	0935	7.6	232
	1558	−0.1	−3
	2225	7.6	232
28 Su	0425	0.8	24
	1033	7.7	235
	1643	0.1	3
	2304	8.2	250
29 M ○	0514	−0.1	−3
	1128	7.8	238
	1725	0.4	12
	2341	8.6	262
30 Tu	0601	−0.7	−21
	1220	7.7	235
	1806	0.9	27
31 W	0019	8.8	268
	0647	−1.0	−30
	1310	7.4	226
	1847	1.4	43

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Charleston, Oregon, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0056	8.8	268	**16** F	0025	8.0	244
	0733	−1.0	−30		0710	−0.7	−21
	1400	7.0	213		1344	6.5	198
	1928	2.0	61		1857	2.7	82
2 F	0135	8.5	259	**17** Sa	0058	8.0	244
	0819	−0.8	−24		0751	−0.7	−21
	1452	6.6	201		1430	6.2	189
	2010	2.6	79		1935	3.0	91
3 Sa	0216	8.1	247	**18** Su	0136	7.9	241
	0908	−0.3	−9		0836	−0.7	−21
	1547	6.1	186		1522	6.0	183
	2057	3.1	94		2018	3.2	98
4 Su	0301	7.5	229	**19** M	0220	7.7	235
	1001	0.2	6		0928	−0.5	−15
	1649	5.7	174		1621	5.8	177
	2151	3.5	107		2113	3.4	104
5 M	0353	7.0	213	**20** Tu	0314	7.3	223
	1101	0.7	21		1026	−0.2	−6
	1759	5.5	168		1725	5.8	177
	2300	3.8	116		2225	3.5	107
6 Tu ◑	0456	6.4	195	**21** W ◐	0421	6.9	210
	1207	1.0	30		1129	0.0	0
	1910	5.5	168		1830	6.0	183
					2351	3.2	98
7 W	0023	3.7	113	**22** Th	0541	6.5	198
	0610	6.1	186		1234	0.2	6
	1313	1.2	37		1928	6.4	195
	2010	5.7	174				
8 Th	0140	3.4	104	**23** F	0113	2.6	79
	0724	6.0	183		0704	6.4	195
	1410	1.2	37		1336	0.4	12
	2054	6.0	183		2019	6.9	210
9 F	0240	2.8	85	**24** Sa	0223	1.7	52
	0829	6.0	183		0821	6.4	195
	1458	1.2	37		1432	0.6	18
	2130	6.3	192		2104	7.5	229
10 Sa	0328	2.2	67	**25** Su	0322	0.7	21
	0924	6.2	189		0929	6.6	201
	1537	1.3	40		1523	0.9	27
	2201	6.7	204		2146	8.0	244
11 Su	0409	1.5	46	**26** M	0413	−0.2	−6
	1012	6.4	195		1030	6.7	204
	1613	1.4	43		1610	1.2	37
	2229	7.0	213		2226	8.4	256
12 M	0446	0.9	27	**27** Tu	0501	−1.0	−30
	1056	6.5	198		1125	6.9	210
	1646	1.6	49		1655	1.6	49
	2258	7.4	226		2305	8.6	262
13 Tu	0521	0.3	9	**28** W ○	0546	−1.4	−43
	1138	6.6	201		1217	6.9	210
	1718	1.8	55		1739	2.0	61
	2326	7.7	235		2344	8.7	265
14 W ●	0556	−0.1	−3	**29** Th	0630	−1.6	−49
	1219	6.7	204		1306	6.8	207
	1750	2.1	64		1822	2.3	70
	2355	7.9	241				
15 Th	0632	−0.5	−15	**30** F	0023	8.5	259
	1300	6.6	201		0713	−1.5	−46
	1823	2.4	73		1354	6.6	201
					1905	2.7	82

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0103	8.1	247	**16** Su	0035	8.2	250
	0757	−1.2	−37		0737	−1.6	−49
	1442	6.4	195		1426	6.3	192
	1949	3.0	91		1924	3.0	91
2 Su	0144	7.7	235	**17** M	0120	8.0	244
	0842	−0.7	−21		0823	−1.5	−46
	1531	6.1	186		1515	6.2	189
	2037	3.2	98		2017	3.1	94
3 M	0229	7.1	216	**18** Tu	0209	7.6	232
	0929	−0.2	−6		0912	−1.2	−37
	1624	5.8	177		1608	6.3	192
	2132	3.4	104		2118	3.0	91
4 Tu	0318	6.6	201	**19** W	0307	7.1	216
	1019	0.3	9		1004	−0.8	−24
	1719	5.7	174		1702	6.4	195
	2237	3.5	107		2230	2.8	85
5 W ◑	0416	6.0	183	**20** Th ◐	0414	6.5	198
	1113	0.8	24		1059	−0.2	−6
	1814	5.7	174		1755	6.6	201
	2351	3.3	101		2348	2.4	73
6 Th	0524	5.6	171	**21** F	0532	6.0	183
	1209	1.1	34		1156	0.4	12
	1905	5.9	180		1847	7.0	213
7 F	0103	2.9	88	**22** Sa	0104	1.6	49
	0638	5.3	162		0654	5.6	171
	1303	1.4	43		1255	0.9	27
	1948	6.2	189		1937	7.4	226
8 Sa	0204	2.3	70	**23** Su	0211	0.8	24
	0749	5.2	158		0814	5.6	171
	1353	1.7	52		1352	1.5	46
	2027	6.5	198		2024	7.8	238
9 Su	0254	1.6	49	**24** M	0309	−0.1	−3
	0853	5.4	165		0927	5.7	174
	1438	1.9	58		1448	1.9	58
	2102	6.9	210		2109	8.2	250
10 M	0338	0.9	27	**25** Tu	0401	−0.8	−24
	0949	5.6	171		1030	5.9	180
	1520	2.2	67		1540	2.3	70
	2135	7.2	219		2153	8.4	256
11 Tu	0417	0.2	6	**26** W	0448	−1.4	−43
	1039	5.8	177		1125	6.2	189
	1600	2.4	73		1630	2.5	76
	2208	7.6	232		2235	8.4	256
12 W	0455	−0.4	−12	**27** Th ○	0532	−1.6	−49
	1125	6.1	186		1215	6.3	192
	1639	2.5	76		1717	2.7	82
	2242	7.9	241		2317	8.3	253
13 Th ●	0533	−0.9	−27	**28** F	0615	−1.7	−52
	1210	6.2	189		1301	6.3	192
	1717	2.7	82		1802	2.9	88
	2317	8.1	247		2358	8.1	247
14 F	0613	−1.3	−40	**29** Sa	0656	−1.6	−49
	1254	6.3	192		1344	6.3	192
	1757	2.8	85		1846	3.0	91
	2355	8.2	250				
15 Sa	0654	−1.5	−46	**30** Su	0039	7.8	238
	1339	6.3	192		0736	−1.3	−40
	1838	2.9	88		1426	6.2	189
					1931	3.0	91
				31 M	0120	7.4	226
					0817	−0.9	−27
					1508	6.1	186
					2018	3.1	94

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0202	6.9	210	**16** W	0204	7.6	232
	0857	−0.5	−15		0852	−1.5	−46
	1551	6.0	183		1541	6.9	210
	2109	3.1	94		2115	2.2	67
2 W	0247	6.3	192	**17** Th	0302	6.9	210
	0938	0.0	0		0938	−0.8	−24
	1634	6.0	183		1628	7.1	216
	2206	3.0	91		2222	1.8	55
3 Th	0339	5.8	177	**18** F ◐	0408	6.2	189
	1020	0.5	15		1027	−0.1	−3
	1717	6.0	183		1717	7.3	223
	2310	2.8	85		2334	1.4	43
4 F ◑	0438	5.2	158	**19** Sa	0523	5.5	168
	1104	1.1	34		1119	0.8	24
	1759	6.2	189		1806	7.5	229
5 Sa	0016	2.4	73	**20** Su	0046	0.8	24
	0548	4.8	146		0645	5.1	155
	1150	1.6	49		1216	1.6	49
	1841	6.4	195		1857	7.7	235
6 Su	0118	1.9	58	**21** M	0153	0.2	6
	0704	4.7	143		0810	5.0	152
	1240	2.1	64		1317	2.2	67
	1922	6.7	204		1948	7.9	241
7 M	0214	1.2	37	**22** Tu	0254	−0.4	−12
	0818	4.7	143		0927	5.2	158
	1332	2.5	76		1418	2.7	82
	2003	7.0	213		2039	8.0	244
8 Tu	0303	0.5	15	**23** W	0347	−0.9	−27
	0925	5.0	152		1031	5.5	168
	1424	2.8	85		1518	2.9	88
	2043	7.4	226		2128	8.0	244
9 W	0347	−0.2	−6	**24** Th	0436	−1.3	−40
	1022	5.3	162		1124	5.8	177
	1514	3.0	91		1612	3.0	91
	2125	7.7	235		2215	8.0	244
10 Th	0430	−0.9	−27	**25** F	0519	−1.4	−43
	1112	5.6	171		1209	6.0	183
	1603	3.0	91		1702	3.0	91
	2207	8.0	244		2259	7.9	241
11 F	0513	−1.4	−43	**26** Sa ○	0600	−1.5	−46
	1158	5.9	180		1249	6.1	186
	1650	3.0	91		1747	2.9	88
	2250	8.3	253		2341	7.8	238
12 Sa ●	0555	−1.9	−58	**27** Su	0638	−1.4	−43
	1242	6.2	189		1326	6.1	186
	1737	2.9	88		1830	2.8	85
	2335	8.4	256				
13 Su	0638	−2.1	−64	**28** M	0021	7.5	229
	1326	6.3	192		0715	−1.2	−37
	1826	2.8	85		1401	6.2	189
					1913	2.7	82
14 M	0022	8.4	256	**29** Tu	0100	7.2	219
	0722	−2.1	−64		0750	−0.9	−27
	1410	6.5	198		1435	6.2	189
	1917	2.6	79		1955	2.6	79
15 Tu	0111	8.1	247	**30** W	0140	6.8	207
	0806	−1.9	−58		0823	−0.5	−15
	1455	6.7	204		1509	6.2	189
	2013	2.4	73		2041	2.5	76

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Charleston, Oregon, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0221	6.3	192
	0857	0.0	0
	1544	6.3	192
	2129	2.4	73
2 F	0307	5.7	174
	0930	0.6	18
	1619	6.4	195
	2223	2.2	67
3 Sa	0400	5.2	158
	1005	1.2	37
	1656	6.5	198
	2323	2.0	61
4 Su ◑	0504	4.7	143
	1044	1.8	55
	1735	6.6	201
5 M	0026	1.6	49
	0621	4.4	134
	1131	2.4	73
	1819	6.8	207
6 Tu	0128	1.0	30
	0744	4.4	134
	1228	2.9	88
	1908	7.1	216
7 W	0225	0.4	12
	0900	4.7	143
	1333	3.2	98
	1959	7.4	226
8 Th	0318	−0.3	−9
	1003	5.0	152
	1437	3.3	101
	2051	7.7	235
9 F	0406	−1.0	−30
	1054	5.5	168
	1536	3.2	98
	2142	8.1	247
10 Sa	0452	−1.6	−49
	1139	5.9	180
	1631	2.9	88
	2233	8.4	256
11 Su ●	0537	−2.0	−61
	1221	6.3	192
	1723	2.5	76
	2323	8.5	259
12 M	0620	−2.2	−67
	1302	6.6	201
	1815	2.1	64
13 Tu	0014	8.4	256
	0702	−2.2	−67
	1342	7.0	213
	1908	1.7	52
14 W	0105	8.1	247
	0744	−1.8	−55
	1423	7.3	223
	2003	1.3	40
15 Th	0159	7.5	229
	0826	−1.2	−37
	1505	7.5	229
	2101	1.1	34

	Time	Height	
	h m	ft	cm
16 F	0256	6.8	207
	0910	−0.4	−12
	1549	7.7	235
	2203	0.8	24
17 Sa	0400	6.0	183
	0955	0.6	18
	1636	7.8	238
	2310	0.6	18
18 Su ◐	0513	5.3	162
	1045	1.5	46
	1726	7.7	235
19 M	0021	0.3	9
	0636	4.9	149
	1143	2.3	70
	1820	7.7	235
20 Tu	0131	0.0	0
	0805	4.8	146
	1250	2.9	88
	1918	7.6	232
21 W	0236	−0.3	−9
	0924	5.1	155
	1401	3.2	98
	2017	7.6	232
22 Th	0333	−0.6	−18
	1025	5.4	165
	1507	3.2	98
	2112	7.6	232
23 F	0422	−0.8	−24
	1112	5.7	174
	1603	3.1	94
	2202	7.6	232
24 Sa	0504	−1.0	−30
	1150	5.9	180
	1651	2.8	85
	2247	7.6	232
25 Su ○	0542	−1.0	−30
	1224	6.1	186
	1733	2.6	79
	2328	7.5	229
26 M	0616	−0.9	−27
	1255	6.2	189
	1813	2.3	70
27 Tu	0006	7.3	223
	0648	−0.8	−24
	1324	6.4	195
	1852	2.1	64
28 W	0044	7.0	213
	0718	−0.5	−15
	1353	6.5	198
	1930	1.9	58
29 Th	0121	6.7	204
	0748	−0.1	−3
	1421	6.6	201
	2010	1.8	55
30 F	0200	6.3	192
	0816	0.4	12
	1450	6.6	201
	2052	1.7	52
31 Sa	0243	5.8	177
	0845	1.0	30
	1521	6.7	204
	2138	1.6	49

August

	Time	Height	
	h m	ft	cm
1 Su	0332	5.3	162
	0916	1.6	49
	1554	6.8	207
	2232	1.4	43
2 M ◑	0431	4.8	146
	0951	2.3	70
	1634	6.8	207
	2333	1.2	37
3 Tu	0546	4.5	137
	1035	2.8	85
	1722	6.9	210
4 W	0041	0.9	27
	0714	4.4	134
	1138	3.3	101
	1820	7.0	213
5 Th	0148	0.4	12
	0836	4.7	143
	1258	3.5	107
	1924	7.3	223
6 F	0249	−0.2	−6
	0939	5.1	155
	1415	3.3	101
	2027	7.6	232
7 Sa	0341	−0.9	−27
	1028	5.6	171
	1521	2.9	88
	2126	8.0	244
8 Su	0429	−1.4	−43
	1110	6.1	186
	1618	2.4	73
	2221	8.3	253
9 M ●	0513	−1.7	−52
	1149	6.7	204
	1711	1.7	52
	2314	8.5	259
10 Tu	0555	−1.8	−55
	1227	7.2	219
	1803	1.1	34
11 W	0006	8.3	253
	0636	−1.6	−49
	1306	7.6	232
	1854	0.5	15
12 Th	0059	8.0	244
	0717	−1.1	−34
	1345	7.9	241
	1947	0.2	6
13 F	0152	7.4	226
	0758	−0.3	−9
	1425	8.1	247
	2041	0.0	0
14 Sa	0249	6.7	204
	0840	0.6	18
	1508	8.1	247
	2139	0.0	0
15 Su	0351	6.0	183
	0925	1.5	46
	1554	7.9	241
	2242	0.1	3

	Time	Height	
	h m	ft	cm
16 M ◐	0502	5.4	165
	1016	2.3	70
	1646	7.6	232
	2351	0.2	6
17 Tu	0625	5.0	152
	1119	3.0	91
	1747	7.3	223
18 W	0104	0.2	6
	0754	5.0	152
	1236	3.4	104
	1853	7.1	216
19 Th	0213	0.1	3
	0909	5.2	158
	1355	3.4	104
	2000	7.0	213
20 F	0312	0.0	0
	1004	5.5	168
	1501	3.2	98
	2100	7.1	216
21 Sa	0400	−0.2	−6
	1044	5.8	177
	1554	2.8	85
	2151	7.2	219
22 Su	0440	−0.3	−9
	1117	6.1	186
	1638	2.4	73
	2235	7.2	219
23 M	0515	−0.3	−9
	1146	6.3	192
	1717	2.0	61
	2315	7.2	219
24 Tu ○	0546	−0.2	−6
	1213	6.6	201
	1753	1.6	49
	2352	7.1	216
25 W	0615	0.0	0
	1239	6.7	204
	1829	1.3	40
26 Th	0029	6.9	210
	0643	0.3	9
	1305	6.9	210
	1904	1.1	34
27 F	0106	6.7	204
	0711	0.7	21
	1331	7.0	213
	1940	1.0	30
28 Sa	0145	6.3	192
	0738	1.2	37
	1358	7.1	216
	2018	0.9	27
29 Su	0226	5.9	180
	0806	1.8	55
	1426	7.1	216
	2100	0.9	27
30 M	0314	5.5	168
	0837	2.3	70
	1459	7.0	213
	2150	0.9	27
31 Tu	0412	5.1	155
	0913	2.9	88
	1540	7.0	213
	2250	0.9	27

September

	Time	Height	
	h m	ft	cm
1 W ◑	0526	4.8	146
	1001	3.3	101
	1634	6.9	210
2 Th	0000	0.7	21
	0651	4.7	143
	1115	3.6	110
	1743	6.9	210
3 F	0112	0.4	12
	0809	5.0	152
	1247	3.6	110
	1859	7.1	216
4 Sa	0217	0.0	0
	0907	5.5	168
	1407	3.2	98
	2011	7.4	226
5 Su	0312	−0.5	−15
	0953	6.1	186
	1512	2.4	73
	2115	7.7	235
6 M	0400	−0.8	−24
	1033	6.7	204
	1608	1.6	49
	2213	8.0	244
7 Tu	0444	−0.9	−27
	1111	7.4	226
	1700	0.7	21
	2307	8.1	247
8 W	0526	−0.8	−24
	1149	7.9	241
	1749	0.0	0
9 Th	0000	8.0	244
	0607	−0.4	−12
	1226	8.4	256
	1838	−0.6	−18
10 F	0052	7.7	235
	0648	0.2	6
	1305	8.6	262
	1927	−0.9	−27
11 Sa	0146	7.3	223
	0729	0.9	27
	1345	8.6	262
	2018	−0.8	−24
12 Su	0241	6.7	204
	0812	1.7	52
	1428	8.3	253
	2112	−0.6	−18
13 M	0342	6.1	186
	0859	2.4	73
	1515	7.9	241
	2211	−0.1	−3
14 Tu ◐	0450	5.6	171
	0954	3.1	94
	1609	7.4	226
	2317	0.3	9
15 W	0608	5.4	165
	1104	3.5	107
	1714	6.9	210

	Time	Height	
	h m	ft	cm
16 Th	0029	0.6	18
	0730	5.4	165
	1227	3.6	110
	1827	6.6	201
17 F	0139	0.6	18
	0837	5.6	171
	1347	3.4	104
	1940	6.5	198
18 Sa	0238	0.6	18
	0925	5.9	180
	1450	2.9	88
	2042	6.6	201
19 Su	0325	0.6	18
	1002	6.2	189
	1539	2.4	73
	2134	6.7	204
20 M	0404	0.6	18
	1032	6.5	198
	1620	1.9	58
	2219	6.8	207
21 Tu	0438	0.6	18
	1100	6.8	207
	1656	1.4	43
	2300	6.9	210
22 W	0509	0.8	24
	1126	7.1	216
	1731	0.9	27
	2339	6.9	210
23 Th ○	0538	1.1	34
	1151	7.3	223
	1805	0.6	18
24 F	0016	6.8	207
	0607	1.4	43
	1217	7.5	229
	1838	0.3	9
25 Sa	0055	6.6	201
	0635	1.8	55
	1243	7.5	229
	1913	0.2	6
26 Su	0134	6.4	195
	0704	2.2	67
	1311	7.6	232
	1950	0.1	3
27 M	0217	6.1	186
	0735	2.7	82
	1341	7.5	229
	2032	0.2	6
28 Tu	0306	5.8	177
	0809	3.1	94
	1417	7.4	226
	2120	0.3	9
29 W	0404	5.5	168
	0851	3.4	104
	1502	7.2	219
	2218	0.4	12
30 Th ◑	0514	5.3	162
	0950	3.7	113
	1602	7.0	213
	2325	0.5	15

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Charleston, Oregon, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0629	5.4	165
	1115	3.8	116
	1718	6.8	207
2 Sa	0035	0.4	12
	0735	5.7	174
	1246	3.5	107
	1842	6.8	207
3 Su	0140	0.3	9
	0828	6.3	192
	1402	2.7	82
	1958	7.0	213
4 M	0236	0.2	6
	0913	6.9	210
	1504	1.8	55
	2106	7.2	219
5 Tu	0326	0.2	6
	0953	7.6	232
	1558	0.7	21
	2206	7.5	229
6 W	0411	0.3	9
	1032	8.2	250
	1647	−0.2	−6
	2302	7.6	232
7 Th ●	0455	0.6	18
	1110	8.7	265
	1735	−0.9	−27
	2356	7.6	232
8 F	0537	1.0	30
	1149	9.0	274
	1822	−1.4	−43
9 Sa	0048	7.5	229
	0620	1.6	49
	1228	9.0	274
	1908	−1.5	−46
10 Su	0140	7.2	219
	0703	2.1	64
	1309	8.8	268
	1956	−1.2	−37
11 M	0233	6.8	207
	0748	2.7	82
	1352	8.4	256
	2046	−0.8	−24
12 Tu	0330	6.4	195
	0838	3.2	98
	1439	7.8	238
	2140	−0.2	−6
13 W	0432	6.0	183
	0936	3.6	110
	1533	7.2	219
	2240	0.4	12
14 Th ◐	0541	5.8	177
	1048	3.8	116
	1638	6.6	201
	2344	0.8	24
15 F	0649	5.9	180
	1210	3.7	113
	1752	6.2	189

	Time	Height	
	h m	ft	cm
16 Sa	0049	1.1	34
	0747	6.0	183
	1327	3.3	101
	1908	6.0	183
17 Su	0147	1.3	40
	0833	6.3	192
	1428	2.7	82
	2015	6.0	183
18 M	0236	1.4	43
	0909	6.6	201
	1516	2.1	64
	2111	6.2	189
19 Tu	0317	1.5	46
	0940	7.0	213
	1556	1.4	43
	2200	6.3	192
20 W	0353	1.7	52
	1009	7.3	223
	1632	0.9	27
	2245	6.5	198
21 Th	0427	1.9	58
	1037	7.6	232
	1707	0.4	12
	2326	6.6	201
22 F ○	0459	2.2	67
	1105	7.8	238
	1741	0.0	0
23 Sa	0006	6.7	204
	0531	2.5	76
	1134	8.0	244
	1816	−0.3	−9
24 Su	0046	6.6	201
	0603	2.8	85
	1203	8.1	247
	1852	−0.5	−15
25 M	0128	6.5	198
	0637	3.1	94
	1235	8.1	247
	1930	−0.5	−15
26 Tu	0213	6.4	195
	0713	3.3	101
	1310	8.0	244
	2013	−0.4	−12
27 W	0302	6.2	189
	0754	3.6	110
	1351	7.8	238
	2101	−0.2	−6
28 Th	0357	6.0	183
	0846	3.8	116
	1441	7.4	226
	2154	0.0	0
29 F	0457	6.0	183
	0954	3.8	116
	1544	7.0	213
	2254	0.3	9
30 Sa ◑	0559	6.2	189
	1118	3.6	110
	1702	6.6	201
	2357	0.6	18
31 Su	0656	6.6	201
	1242	3.0	91
	1827	6.4	195

November

	Time	Height	
	h m	ft	cm
1 M	0058	0.8	24
	0746	7.1	216
	1353	2.1	64
	1948	6.4	195
2 Tu	0156	1.1	34
	0831	7.8	238
	1454	1.0	30
	2059	6.6	201
3 W	0249	1.4	43
	0914	8.4	256
	1546	0.0	0
	2203	6.8	207
4 Th	0338	1.7	52
	0955	8.8	268
	1635	−0.8	−24
	2300	7.1	216
5 F ●	0426	2.0	61
	1036	9.2	280
	1722	−1.4	−43
	2354	7.2	219
6 Sa	0511	2.4	73
	1117	9.3	283
	1807	−1.6	−49
7 Su	0044	7.2	219
	0557	2.7	82
	1158	9.2	280
	1852	−1.6	−49
8 M	0134	7.1	216
	0642	3.0	91
	1241	8.8	268
	1937	−1.3	−40
9 Tu	0223	6.9	210
	0729	3.3	101
	1324	8.3	253
	2023	−0.8	−24
10 W	0314	6.6	201
	0819	3.6	110
	1410	7.7	235
	2110	−0.2	−6
11 Th	0407	6.4	195
	0916	3.7	113
	1501	7.1	216
	2200	0.4	12
12 F	0501	6.3	192
	1022	3.8	116
	1559	6.4	195
	2253	0.9	27
13 Sa ◐	0556	6.3	192
	1137	3.6	110
	1707	5.9	180
	2347	1.4	43
14 Su	0646	6.5	198
	1250	3.2	98
	1822	5.6	171
15 M	0041	1.9	58
	0730	6.7	204
	1353	2.6	79
	1936	5.5	168

	Time	Height	
	h m	ft	cm
16 Tu	0132	2.2	67
	0809	7.1	216
	1444	1.9	58
	2042	5.6	171
17 W	0219	2.5	76
	0844	7.4	226
	1527	1.2	37
	2139	5.8	177
18 Th	0302	2.8	85
	0918	7.7	235
	1606	0.6	18
	2229	6.1	186
19 F	0343	3.0	91
	0951	8.0	244
	1643	0.1	3
	2314	6.3	192
20 Sa	0422	3.2	98
	1025	8.3	253
	1720	−0.4	−12
	2357	6.5	198
21 Su ○	0500	3.3	101
	1059	8.5	259
	1757	−0.7	−21
22 M	0039	6.6	201
	0538	3.4	104
	1135	8.6	262
	1835	−0.9	−27
23 Tu	0121	6.7	204
	0618	3.5	107
	1213	8.6	262
	1916	−1.0	−30
24 W	0205	6.7	204
	0701	3.6	110
	1254	8.4	256
	1958	−0.9	−27
25 Th	0251	6.7	204
	0750	3.6	110
	1340	8.1	247
	2043	−0.7	−21
26 F	0340	6.7	204
	0847	3.6	110
	1433	7.6	232
	2131	−0.3	−9
27 Sa	0430	6.9	210
	0955	3.4	104
	1536	7.0	213
	2223	0.2	6
28 Su ◑	0521	7.1	216
	1111	3.0	91
	1651	6.4	195
	2317	0.8	24
29 M	0612	7.5	229
	1228	2.3	70
	1815	6.0	183
30 Tu	0015	1.5	46
	0702	7.9	241
	1339	1.5	46
	1939	5.9	180

December

	Time	Height	
	h m	ft	cm
1 W	0115	2.1	64
	0751	8.4	256
	1440	0.5	15
	2057	6.0	183
2 Th	0213	2.5	76
	0838	8.8	268
	1534	−0.3	−9
	2204	6.3	192
3 F	0309	2.9	88
	0925	9.1	277
	1624	−0.9	−27
	2302	6.6	201
4 Sa	0402	3.1	94
	1010	9.2	280
	1710	−1.3	−40
	2354	6.9	210
5 Su ●	0453	3.3	101
	1055	9.2	280
	1754	−1.5	−46
6 M	0041	7.0	213
	0541	3.4	104
	1138	9.0	274
	1837	−1.4	−43
7 Tu	0125	7.0	213
	0627	3.4	104
	1221	8.7	265
	1919	−1.1	−34
8 W	0208	7.0	213
	0714	3.5	107
	1304	8.3	253
	1959	−0.7	−21
9 Th	0250	6.9	210
	0801	3.5	107
	1347	7.7	235
	2039	−0.2	−6
10 F	0332	6.8	207
	0852	3.5	107
	1432	7.1	216
	2119	0.4	12
11 Sa	0414	6.8	207
	0948	3.5	107
	1522	6.5	198
	2200	1.0	30
12 Su	0456	6.8	207
	1051	3.3	101
	1620	5.8	177
	2242	1.6	49
13 M ◐	0538	6.9	210
	1158	3.0	91
	1729	5.4	165
	2328	2.3	70
14 Tu	0621	7.1	216
	1303	2.5	76
	1848	5.1	155
15 W	0018	2.8	85
	0703	7.3	223
	1401	1.9	58
	2006	5.2	158

	Time	Height	
	h m	ft	cm
16 Th	0112	3.3	101
	0746	7.6	232
	1452	1.3	40
	2116	5.4	165
17 F	0207	3.6	110
	0828	7.8	238
	1537	0.6	18
	2213	5.7	174
18 Sa	0259	3.8	116
	0910	8.2	250
	1619	0.0	0
	2302	6.1	186
19 Su	0348	3.8	116
	0952	8.5	259
	1700	−0.5	−15
	2345	6.4	195
20 M	0434	3.7	113
	1034	8.7	265
	1740	−1.0	−30
21 Tu ○	0026	6.7	204
	0519	3.6	110
	1117	8.9	271
	1820	−1.3	−40
22 W	0107	6.9	210
	0605	3.4	104
	1201	8.9	271
	1900	−1.4	−43
23 Th	0147	7.1	216
	0653	3.2	98
	1247	8.7	265
	1941	−1.2	−37
24 F	0228	7.3	223
	0745	3.0	91
	1336	8.3	253
	2023	−0.9	−27
25 Sa	0310	7.5	229
	0842	2.8	85
	1430	7.7	235
	2106	−0.3	−9
26 Su	0354	7.7	235
	0945	2.5	76
	1531	7.0	213
	2151	0.5	15
27 M ◑	0440	7.9	241
	1054	2.1	64
	1642	6.2	189
	2240	1.4	43
28 Tu	0529	8.2	250
	1207	1.6	49
	1804	5.7	174
	2335	2.2	67
29 W	0621	8.4	256
	1318	1.0	30
	1933	5.5	168
30 Th	0037	2.9	88
	0715	8.6	262
	1424	0.3	9
	2057	5.7	174
31 F	0145	3.4	104
	0809	8.7	265
	1522	−0.2	−6
	2207	6.0	183

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Astoria (Tongue Pt.), Oregon, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0159	8.2	250
	0716	3.1	94
	1303	10.5	320
	2013	−1.5	−46
2 Sa	0243	8.5	259
	0808	2.7	82
	1355	10.3	314
	2056	−1.4	−43
3 Su	0325	8.8	268
	0901	2.3	70
	1448	9.9	302
	2139	−1.1	−34
4 M	0407	9.0	274
	0955	2.0	61
	1542	9.2	280
	2221	−0.5	−15
5 Tu	0450	9.1	277
	1052	1.8	55
	1640	8.3	253
	2304	0.3	9
6 W	0535	9.2	280
	1154	1.6	49
	1745	7.4	226
	2350	1.1	34
7 Th ◑	0622	9.2	280
	1302	1.4	43
	1859	6.7	204
8 F	0042	2.0	61
	0714	9.1	277
	1413	1.1	34
	2019	6.4	195
9 Sa	0142	2.8	85
	0809	9.1	277
	1523	0.7	21
	2137	6.4	195
10 Su	0247	3.3	101
	0904	9.1	277
	1626	0.3	9
	2245	6.8	207
11 M	0351	3.6	110
	0957	9.1	277
	1719	0.0	0
	2341	7.2	219
12 Tu	0450	3.6	110
	1047	9.2	280
	1806	−0.2	−6
13 W	0029	7.5	229
	0541	3.6	110
	1133	9.2	280
	1846	−0.3	−9
14 Th ●	0112	7.8	238
	0628	3.5	107
	1216	9.2	280
	1923	−0.2	−6
15 F	0150	8.0	244
	0711	3.3	101
	1255	9.1	277
	1956	−0.1	−3

	Time	Height	
	h m	ft	cm
16 Sa	0224	8.1	247
	0751	3.1	94
	1333	9.0	274
	2025	0.0	0
17 Su	0256	8.2	250
	0830	2.9	88
	1410	8.7	265
	2053	0.2	6
18 M	0324	8.2	250
	0907	2.7	82
	1446	8.4	256
	2119	0.5	15
19 Tu	0350	8.3	253
	0945	2.5	76
	1524	8.0	244
	2146	0.8	24
20 W	0415	8.4	256
	1025	2.3	70
	1606	7.4	226
	2215	1.3	40
21 Th	0442	8.5	259
	1110	2.1	64
	1657	6.8	207
	2249	1.9	58
22 F	0514	8.6	262
	1204	2.0	61
	1803	6.2	189
	2330	2.6	79
23 Sa ◐	0556	8.7	265
	1311	1.7	52
	1928	5.9	180
24 Su	0025	3.2	98
	0649	8.8	268
	1426	1.3	40
	2056	5.9	180
25 M	0136	3.7	113
	0753	8.9	271
	1538	0.7	21
	2212	6.3	192
26 Tu	0256	3.9	119
	0901	9.2	280
	1640	0.1	3
	2313	6.9	210
27 W	0409	3.8	116
	1007	9.6	293
	1735	−0.6	−18
28 Th	0004	7.5	229
	0513	3.4	104
	1107	10.0	305
	1824	−1.0	−30
29 F ○	0050	8.1	247
	0611	2.9	88
	1204	10.3	314
	1909	−1.3	−40
30 Sa	0133	8.6	262
	0705	2.3	70
	1258	10.3	314
	1952	−1.2	−37
31 Su	0214	9.1	277
	0757	1.7	52
	1350	10.2	311
	2033	−1.0	−30

February

	Time	Height	
	h m	ft	cm
1 M	0253	9.4	287
	0848	1.3	40
	1442	9.7	296
	2112	−0.5	−15
2 Tu	0332	9.7	296
	0939	1.0	30
	1534	9.0	274
	2151	0.2	6
3 W	0411	9.7	296
	1032	0.9	27
	1629	8.2	250
	2231	1.0	30
4 Th	0451	9.6	293
	1128	1.0	30
	1730	7.4	226
	2314	1.9	58
5 F ◑	0535	9.3	283
	1230	1.1	34
	1840	6.7	204
6 Sa	0005	2.7	82
	0626	9.0	274
	1340	1.2	37
	1958	6.3	192
7 Su	0107	3.4	104
	0725	8.6	262
	1454	1.0	30
	2118	6.4	195
8 M	0219	3.8	116
	0830	8.4	256
	1602	0.8	24
	2226	6.7	204
9 Tu	0331	3.9	119
	0933	8.4	256
	1658	0.5	15
	2321	7.1	216
10 W	0434	3.6	110
	1030	8.5	259
	1744	0.2	6
11 Th	0005	7.5	229
	0527	3.3	101
	1119	8.7	265
	1822	0.1	3
12 F	0044	7.9	241
	0613	3.0	91
	1203	8.8	268
	1856	0.1	3
13 Sa ●	0118	8.1	247
	0654	2.6	79
	1244	8.8	268
	1927	0.2	6
14 Su	0148	8.3	253
	0733	2.4	73
	1322	8.8	268
	1954	0.4	12
15 M	0216	8.5	259
	0809	2.1	64
	1359	8.6	262
	2021	0.7	21

	Time	Height	
	h m	ft	cm
16 Tu	0240	8.7	265
	0844	1.8	55
	1436	8.4	256
	2047	1.0	30
17 W	0302	8.8	268
	0919	1.6	49
	1513	8.0	244
	2113	1.4	43
18 Th	0325	9.0	274
	0955	1.4	43
	1555	7.5	229
	2142	1.9	58
19 F	0351	9.1	277
	1035	1.3	40
	1643	7.0	213
	2216	2.4	73
20 Sa	0424	9.1	277
	1125	1.3	40
	1745	6.4	195
	2258	3.0	91
21 Su ◐	0507	9.0	274
	1229	1.3	40
	1905	6.0	183
	2354	3.5	107
22 M	0604	8.8	268
	1348	1.1	34
	2032	6.0	183
23 Tu	0112	3.9	119
	0718	8.7	265
	1507	0.7	21
	2147	6.4	195
24 W	0241	3.9	119
	0840	8.8	268
	1615	0.2	6
	2246	7.0	213
25 Th	0358	3.4	104
	0954	9.1	277
	1710	−0.3	−9
	2335	7.7	235
26 F	0503	2.7	82
	1059	9.5	290
	1758	−0.6	−18
27 Sa	0019	8.4	256
	0600	1.9	58
	1157	9.8	299
	1842	−0.7	−21
28 Su ○	0059	9.0	274
	0653	1.2	37
	1251	9.8	299
	1924	−0.5	−15

March

	Time	Height	
	h m	ft	cm
1 M	0138	9.5	290
	0743	0.6	18
	1343	9.7	296
	2004	−0.1	−3
2 Tu	0216	9.9	302
	0832	0.2	6
	1434	9.3	283
	2043	0.5	15
3 W	0253	10.0	305
	0920	0.1	3
	1525	8.7	265
	2121	1.1	34
4 Th	0330	10.0	305
	1008	0.2	6
	1618	8.1	247
	2201	1.9	58
5 F	0408	9.6	293
	1059	0.4	12
	1715	7.4	226
	2244	2.6	79
6 Sa	0450	9.1	277
	1155	0.8	24
	1820	6.8	207
	2335	3.3	101
7 Su ◑	0539	8.6	262
	1301	1.1	34
	1934	6.4	195
8 M	0039	3.7	113
	0641	8.0	244
	1415	1.3	40
	2049	6.4	195
9 Tu	0156	3.9	119
	0755	7.7	235
	1525	1.1	34
	2155	6.7	204
10 W	0311	3.7	113
	0907	7.6	232
	1622	0.9	27
	2246	7.1	216
11 Th	0415	3.2	98
	1009	7.8	238
	1708	0.7	21
	2328	7.6	232
12 F	0507	2.7	82
	1101	8.0	244
	1745	0.6	18
13 Sa	0004	7.9	241
	0552	2.2	67
	1146	8.2	250
	1819	0.7	21
14 Su	0036	8.3	253
	0633	1.8	55
	1229	8.3	253
	1849	0.9	27
15 M ●	0104	8.5	259
	0711	1.4	43
	1309	8.4	256
	1918	1.1	34

	Time	Height	
	h m	ft	cm
16 Tu	0130	8.8	268
	0747	1.1	34
	1348	8.3	253
	1947	1.5	46
17 W	0153	9.0	274
	0821	0.8	24
	1427	8.1	247
	2016	1.8	55
18 Th	0216	9.2	280
	0855	0.6	18
	1507	7.9	241
	2045	2.2	67
19 F	0241	9.3	283
	0931	0.4	12
	1550	7.5	229
	2118	2.5	76
20 Sa	0312	9.4	287
	1012	0.4	12
	1639	7.0	213
	2156	2.9	88
21 Su	0350	9.3	283
	1101	0.5	15
	1739	6.6	201
	2242	3.3	101
22 M	0437	9.0	274
	1203	0.6	18
	1852	6.3	192
	2345	3.6	110
23 Tu ◐	0540	8.5	259
	1319	0.7	21
	2009	6.3	192
24 W	0109	3.7	113
	0701	8.2	250
	1436	0.5	15
	2117	6.7	204
25 Th	0235	3.3	101
	0828	8.2	250
	1542	0.3	9
	2212	7.4	226
26 F	0349	2.6	79
	0945	8.4	256
	1637	0.0	0
	2259	8.1	247
27 Sa	0452	1.7	52
	1051	8.7	265
	1726	0.0	0
	2342	8.8	268
28 Su	0548	0.8	24
	1149	8.9	271
	1810	0.2	6
29 M ○	0021	9.4	287
	0639	0.1	3
	1243	9.0	274
	1852	0.5	15
30 Tu	0100	9.8	299
	0727	−0.4	−12
	1336	8.9	271
	1933	1.0	30
31 W	0137	10.0	305
	0814	−0.6	−18
	1426	8.7	265
	2013	1.5	46

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Astoria (Tongue Pt.), Oregon, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm	
1 Th	0214	10.0	305	**16** F	0136	9.4	287	**1** Sa	0218	9.3	283	**16** Su	0148	9.5	290	
	0900	−0.6	−18		0837	−0.4	−12		0924	−0.7	−21		0906	−1.2	−37	
	1517	8.3	253		1504	7.7	235		1556	7.6	232		1544	7.4	226	
	2054	2.1	64		2024	2.8	85		2115	3.1	94		2055	3.0	91	
2 F	0251	9.8	299	**17** Sa	0209	9.5	290	**2** Su	0257	8.9	271	**17** M	0234	9.3	283	
	0945	−0.3	−9		0916	−0.4	−12		1006	−0.3	−9		0950	−1.2	−37	
	1608	7.8	238		1549	7.4	226		1645	7.3	223		1632	7.3	223	
	2135	2.6	79		2103	3.0	91		2201	3.3	101		2146	2.9	88	
3 Sa	0329	9.3	283	**18** Su	0246	9.4	287	**3** M	0338	8.3	253	**18** Tu	0324	8.9	271	
	1031	0.0	0		0959	−0.4	−12		1050	0.1	3		1038	−1.0	−30	
	1701	7.3	223		1639	7.1	216		1735	7.0	213		1721	7.3	223	
	2220	3.1	94		2148	3.2	98		2252	3.4	104		2244	2.8	85	
4 Su	0410	8.7	265	**19** M	0331	9.2	280	**4** Tu	0425	7.7	235	**19** W	0421	8.4	256	
	1122	0.5	15		1049	−0.3	−9		1137	0.5	15		1129	−0.6	−18	
	1800	6.9	210		1735	6.8	207		1828	6.8	207		1814	7.3	223	
	2312	3.5	107		2242	3.3	101		2350	3.4	104		2350	2.5	76	
5 M	0458	8.1	247	**20** Tu	0424	8.7	265	**5** W	0522	7.0	213	**20** Th	0528	7.7	235	
	1219	0.9	27		1147	0.0	0		1228	0.9	27		1225	−0.2	−6	
	1904	6.6	201		1837	6.7	204		1922	6.7	204		1908	7.6	232	
					2350	3.3	101									
6 Tu	0016	3.7	113	**21** W	0531	8.1	247	**6** Th	0057	3.2	98	**21** F	0103	2.1	64	
	0600	7.4	226		1253	0.2	6		0632	6.5	198		0646	7.0	213	
	1325	1.2	37		1941	6.9	210		1323	1.2	37		1323	0.2	6	
	2010	6.6	201						2014	6.9	210		2002	7.9	241	
7 W	0130	3.7	113	**22** Th	0109	3.0	91	**7** F	0207	2.8	85	**22** Sa	0217	1.5	46	
	0716	7.0	213		0653	7.6	232		0749	6.2	189		0808	6.7	204	
	1430	1.3	40		1401	0.3	9		1418	1.4	43		1422	0.7	21	
	2110	6.8	207		2041	7.3	223		2101	7.2	219		2053	8.4	256	
8 Th	0244	3.3	101	**23** F	0228	2.4	73	**8** Sa	0311	2.2	67	**23** Su	0325	0.7	21	
	0832	6.9	210		0819	7.4	226		0901	6.2	189		0924	6.6	201	
	1528	1.2	37		1503	0.4	12		1509	1.6	49		1519	1.2	37	
	2159	7.2	219		2133	7.9	241		2142	7.6	232		2141	8.9	271	
9 F	0347	2.7	82	**24** Sa	0339	1.6	49	**9** Su	0407	1.5	46	**24** M	0426	−0.1	−3	
	0939	7.0	213		0935	7.5	229		1004	6.4	195		1033	6.8	207	
	1615	1.2	37		1559	0.5	15		1556	1.8	55		1613	1.6	49	
	2240	7.6	232		2220	8.6	262		2219	8.0	244		2226	9.3	283	
10 Sa	0440	2.0	61	**25** Su	0440	0.6	18	**10** M	0455	0.8	24	**25** Tu	0521	−0.8	−24	
	1035	7.2	219		1042	7.7	235		1100	6.7	204		1134	7.1	216	
	1655	1.2	37		1649	0.8	24		1639	2.1	64		1704	2.0	61	
	2315	8.0	244		2303	9.2	280		2252	8.4	256		2309	9.5	290	
11 Su	0526	1.4	43	**26** M	0534	−0.2	−6	**11** Tu	0539	0.2	6	**26** W	0611	−1.2	−37	
	1125	7.5	229		1141	7.9	241		1152	7.0	213		1230	7.3	223	
	1732	1.4	43		1735	1.1	34		1721	2.4	73		1753	2.4	73	
	2346	8.4	256		2343	9.6	293		2324	8.8	268		2351	9.5	290	
12 M	0607	0.9	27	**27** Tu	0625	−0.7	−21	**12** W	0620	−0.3	−9	**27** Th	0658	−1.3	−40	
	1211	7.7	235		1236	8.1	247		1240	7.2	219		1321	7.5	229	
	1806	1.7	52		1820	1.6	49		1802	2.7	82		1841	2.7	82	
									2356	9.1	277					
13 Tu	0015	8.7	265	**28** W	0023	9.8	299	**13** Th	0701	−0.7	−21	**28** F	0033	9.4	287	
	0646	0.5	15		0712	−1.0	−30		1327	7.4	226		0742	−1.3	−40	
	1255	7.8	238		1328	8.1	247		1843	2.9	88		1410	7.5	229	
	1840	2.0	61		1904	2.0	61						1927	2.9	88	
14 W	0041	9.0	274	**29** Th	0101	9.9	302	**14** F	0030	9.3	283	**29** Sa	0113	9.2	280	
	0723	0.1	3		0757	−1.1	−34		0742	−0.9	−27		0824	−1.1	−34	
	1338	7.8	238		1419	8.0	244		1413	7.5	229		1456	7.5	229	
	1913	2.3	70		1947	2.5	76		1925	3.1	94		2012	3.0	91	
15 Th	0108	9.2	280	**30** F	0139	9.7	296	**15** Sa	0107	9.5	290	**30** Su	0153	8.9	271	
	0800	−0.2	−6		0841	−1.0	−30		0823	−1.1	−34		0904	−0.9	−27	
	1420	7.8	238		1508	7.9	241		1458	7.5	229		1540	7.4	226	
	1948	2.6	79		2031	2.8	85		2009	3.1	94		2057	3.1	94	
												31 M	0233	8.5	259	
													0942	−0.6	−18	
													1622	7.2	219	
													2142	3.0	91	

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0314	8.0	244	**16** W	0322	8.8	268
	1018	−0.3	−9		1020	−1.4	−43
	1703	7.1	216		1656	7.9	241
	2229	3.0	91		2238	1.9	58
2 W	0359	7.4	226	**17** Th	0419	8.1	247
	1055	0.1	3		1106	−0.9	−27
	1744	7.0	213		1742	8.0	244
	2320	2.8	85		2340	1.5	46
3 Th	0449	6.8	207	**18** F	0524	7.3	223
	1134	0.5	15		1153	−0.2	−6
	1827	7.0	213		1830	8.2	250
4 F	0019	2.6	79	**19** Sa	0048	1.2	37
	0549	6.2	189		0637	6.5	198
	1217	0.9	27		1245	0.5	15
	1910	7.1	216		1921	8.4	256
5 Sa	0122	2.3	70	**20** Su	0159	0.7	21
	0702	5.7	174		0756	6.1	186
	1305	1.4	43		1342	1.2	37
	1954	7.3	223		2013	8.6	262
6 Su	0226	1.7	52	**21** M	0308	0.1	3
	0819	5.5	168		0914	6.0	183
	1358	1.9	58		1442	1.8	55
	2036	7.6	232		2104	8.8	268
7 M	0326	1.1	34	**22** Tu	0412	−0.5	−15
	0931	5.7	174		1025	6.2	189
	1452	2.3	70		1542	2.3	70
	2117	8.0	244		2155	8.9	271
8 Tu	0420	0.4	12	**23** W	0508	−0.9	−27
	1035	6.0	183		1127	6.5	198
	1546	2.6	79		1640	2.6	79
	2157	8.4	256		2243	9.0	274
9 W	0510	−0.2	−6	**24** Th	0559	−1.2	−37
	1132	6.3	192		1222	6.8	207
	1638	2.9	88		1734	2.8	85
	2238	8.7	265		2329	9.0	274
10 Th	0556	−0.7	−21	**25** F	0645	−1.3	−40
	1224	6.7	204		1311	7.1	216
	1728	3.1	94		1824	2.8	85
	2320	9.1	277				
11 F	0641	−1.2	−37	**26** Sa	0014	8.9	271
	1313	7.0	213		0728	−1.2	−37
	1818	3.1	94		1356	7.2	219
					1911	2.8	85
12 Sa	0004	9.3	283	**27** Su	0056	8.7	265
	0726	−1.5	−46		0806	−1.1	−34
	1400	7.2	219		1437	7.3	223
	1908	3.0	91		1956	2.8	85
13 Su	0050	9.5	290	**28** M	0137	8.5	259
	0810	−1.7	−52		0842	−0.9	−27
	1445	7.4	226		1514	7.3	223
	1957	2.8	85		2038	2.6	79
14 M	0139	9.5	290	**29** Tu	0216	8.1	247
	0853	−1.8	−55		0914	−0.7	−21
	1529	7.6	232		1549	7.3	223
	2048	2.5	76		2120	2.5	76
15 Tu	0229	9.2	280	**30** W	0256	7.8	238
	0937	−1.7	−52		0944	−0.4	−12
	1612	7.7	235		1622	7.3	223
	2142	2.2	67		2202	2.3	70

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Astoria (Tongue Pt.), Oregon, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0336	7.3	223	**16** F	0414	7.9	241
	1014	−0.1	−3		1037	−0.6	−18
	1654	7.3	223		1704	8.6	262
	2246	2.1	64		2323	0.6	18
2 F	0421	6.7	204	**17** Sa	0516	7.0	213
	1045	0.4	12		1121	0.2	6
	1725	7.3	223		1749	8.6	262
	2335	1.9	58				
3 Sa	0513	6.1	186	**18** Su	0026	0.4	12
	1119	0.9	27		0626	6.2	189
	1800	7.4	226		1211	1.1	34
					1839	8.5	259
4 Su	0032	1.7	52	**19** M	0136	0.2	6
	0619	5.5	168		0743	5.8	177
	1201	1.5	46		1308	1.9	58
	1839	7.5	229		1934	8.4	256
5 M	0135	1.4	43	**20** Tu	0248	−0.1	−3
	0737	5.2	158		0903	5.7	174
	1252	2.1	64		1414	2.4	73
	1924	7.7	235		2032	8.4	256
6 Tu	0241	0.9	27	**21** W	0355	−0.4	−12
	0858	5.2	158		1015	5.9	180
	1353	2.7	82		1522	2.7	82
	2015	7.9	241		2130	8.3	253
7 W	0344	0.3	9	**22** Th	0454	−0.7	−21
	1010	5.5	168		1116	6.3	192
	1500	3.0	91		1625	2.8	85
	2109	8.2	250		2225	8.4	256
8 Th	0441	−0.3	−9	**23** F	0545	−1.0	−30
	1112	6.0	183		1207	6.7	204
	1604	3.1	94		1721	2.7	82
	2202	8.6	262		2315	8.4	256
9 F	0533	−0.9	−27	**24** Sa	0629	−1.1	−34
	1205	6.4	195		1252	7.0	213
	1704	3.1	94		1811	2.5	76
	2256	9.0	274				
10 Sa	0622	−1.4	−43	**25** Su	0001	8.4	256
	1253	6.9	210		0707	−1.0	−30
	1800	2.8	85		1331	7.2	219
	2349	9.3	283		1856	2.3	70
11 Su	0708	−1.8	−55	**26** M	0044	8.3	253
	1338	7.3	223		0742	−0.9	−27
	1854	2.4	73		1407	7.3	223
					1938	2.1	64
12 M	0041	9.4	287	**27** Tu	0124	8.2	250
	0751	−2.0	−61		0813	−0.7	−21
	1420	7.6	232		1439	7.4	226
	1946	2.0	61		2017	1.9	58
13 Tu	0133	9.4	287	**28** W	0202	7.9	241
	0834	−2.0	−61		0841	−0.5	−15
	1501	8.0	244		1508	7.5	229
	2038	1.5	46		2055	1.7	52
14 W	0225	9.1	277	**29** Th	0239	7.6	232
	0915	−1.7	−52		0907	−0.1	−3
	1541	8.3	253		1534	7.6	232
	2130	1.1	34		2132	1.5	46
15 Th	0318	8.6	262	**30** F	0317	7.2	219
	0955	−1.3	−40		0934	0.2	6
	1622	8.5	259		1558	7.7	235
	2225	0.8	24		2211	1.3	40
				31 Sa	0358	6.7	204
					1002	0.7	21
					1623	7.7	235
					2252	1.2	37

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0446	6.1	186	**16** M	0000	0.0	0
	1033	1.2	37		0613	6.2	189
	1653	7.8	238		1141	1.8	55
	2341	1.1	34		1756	8.4	256
2 M	0545	5.6	171	**17** Tu	0108	0.1	3
	1112	1.8	55		0729	5.8	177
	1730	7.8	238		1242	2.5	76
					1856	8.0	244
3 Tu	0042	1.0	30	**18** W	0222	0.1	3
	0703	5.2	158		0848	5.7	174
	1202	2.5	76		1355	2.9	88
	1820	7.8	238		2004	7.7	235
4 W	0154	0.7	21	**19** Th	0333	−0.1	−3
	0829	5.1	155		0959	6.0	183
	1309	3.0	91		1509	2.9	88
	1922	7.8	238		2111	7.6	232
5 Th	0308	0.3	9	**20** F	0433	−0.3	−9
	0946	5.4	165		1056	6.4	195
	1428	3.2	98		1614	2.7	82
	2032	8.0	244		2211	7.7	235
6 F	0413	−0.3	−9	**21** Sa	0522	−0.5	−15
	1048	5.9	180		1142	6.8	207
	1543	3.1	94		1709	2.3	70
	2140	8.4	256		2303	7.9	241
7 Sa	0509	−0.9	−27	**22** Su	0603	−0.6	−18
	1140	6.5	198		1221	7.2	219
	1648	2.7	82		1756	1.9	58
	2242	8.8	268		2349	8.0	244
8 Su	0558	−1.4	−43	**23** M	0638	−0.6	−18
	1225	7.0	213		1256	7.4	226
	1746	2.1	64		1838	1.6	49
	2339	9.1	277				
9 M	0643	−1.7	−52	**24** Tu	0031	8.0	244
	1307	7.6	232		0709	−0.4	−12
	1840	1.5	46		1328	7.6	232
					1917	1.3	40
10 Tu	0034	9.3	283	**25** W	0110	7.9	241
	0726	−1.7	−52		0738	−0.1	−3
	1346	8.1	247		1356	7.8	238
	1932	0.9	27		1954	1.1	34
11 W	0127	9.2	280	**26** Th	0148	7.8	238
	0807	−1.6	−49		0805	0.2	6
	1425	8.6	262		1420	7.9	241
	2023	0.4	12		2029	0.9	27
12 Th	0219	8.9	271	**27** F	0225	7.5	229
	0847	−1.1	−34		0831	0.6	18
	1503	8.9	271		1443	8.1	247
	2113	0.0	0		2103	0.7	21
13 F	0311	8.4	256	**28** Sa	0303	7.2	219
	0926	−0.5	−15		0857	1.0	30
	1542	9.1	277		1504	8.2	250
	2205	−0.2	−6		2138	0.6	18
14 Sa	0406	7.7	235	**29** Su	0343	6.8	207
	1007	0.2	6		0925	1.4	43
	1622	9.0	274		1528	8.2	250
	2300	−0.2	−6		2215	0.5	15
15 Su	0506	6.9	210	**30** M	0429	6.3	192
	1050	1.0	30		0958	1.9	58
	1706	8.8	268		1559	8.2	250
					2300	0.5	15
				31 Tu	0526	5.8	177
					1038	2.4	73
					1639	8.1	247
					2358	0.6	18

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0641	5.4	165	**16** Th	0149	0.4	12
	1131	2.9	88		0825	6.1	186
	1733	7.8	238		1338	3.2	98
					1935	7.1	216
2 Th	0113	0.6	18	**17** F	0300	0.4	12
	0805	5.3	162		0931	6.3	192
	1246	3.3	101		1454	2.9	88
	1844	7.6	232		2049	7.0	213
3 F	0234	0.3	9	**18** Sa	0359	0.3	9
	0919	5.6	171		1023	6.7	204
	1414	3.2	98		1559	2.4	73
	2008	7.7	235		2153	7.2	219
4 Sa	0343	−0.2	−6	**19** Su	0446	0.1	3
	1019	6.2	189		1106	7.2	219
	1532	2.7	82		1651	1.8	55
	2126	8.0	244		2246	7.4	226
5 Su	0440	−0.7	−21	**20** M	0525	0.1	3
	1107	6.9	210		1142	7.6	232
	1637	2.0	61		1736	1.3	40
	2232	8.5	259		2333	7.6	232
6 M	0529	−1.0	−30	**21** Tu	0559	0.2	6
	1149	7.6	232		1214	7.9	241
	1734	1.2	37		1817	0.9	27
	2331	8.8	268				
7 Tu	0613	−1.1	−34	**22** W	0015	7.7	235
	1229	8.3	253		0630	0.5	15
	1826	0.4	12		1243	8.1	247
					1855	0.5	15
8 W	0026	9.0	274	**23** Th	0056	7.7	235
	0655	−0.9	−27		0659	0.8	24
	1308	8.8	268		1308	8.3	253
	1916	−0.2	−6		1930	0.3	9
9 Th	0119	8.9	271	**24** F	0135	7.7	235
	0736	−0.6	−18		0728	1.2	37
	1346	9.3	283		1332	8.5	259
	2006	−0.7	−21		2004	0.1	3
10 F	0211	8.7	265	**25** Sa	0214	7.5	229
	0816	0.0	0		0756	1.6	49
	1423	9.5	290		1354	8.6	262
	2054	−0.9	−27		2037	0.0	0
11 Sa	0303	8.2	250	**26** Su	0253	7.3	223
	0856	0.6	18		0826	2.0	61
	1502	9.5	290		1418	8.7	265
	2143	−0.8	−24		2111	−0.1	−3
12 Su	0357	7.6	232	**27** M	0335	7.0	213
	0938	1.3	40		0858	2.3	70
	1541	9.2	280		1447	8.7	265
	2235	−0.6	−18		2149	0.0	0
13 M	0455	7.0	213	**28** Tu	0421	6.6	201
	1024	2.0	61		0934	2.7	82
	1625	8.7	265		1522	8.6	262
	2331	−0.2	−6		2233	0.1	3
14 Tu	0559	6.4	195	**29** W	0517	6.1	186
	1116	2.6	79		1019	3.0	91
	1716	8.1	247		1607	8.3	253
					2330	0.2	6
15 W	0036	0.2	6	**30** Th	0626	5.9	180
	0711	6.1	186		1118	3.3	101
	1222	3.1	94		1705	7.9	241
	1819	7.5	229				

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Astoria (Tongue Pt.), Oregon, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0042	0.3	9
	0740	5.9	180
	1239	3.4	104
	1823	7.5	229
2 Sa	0159	0.3	9
	0847	6.3	192
	1407	3.0	91
	1954	7.4	226
3 Su	0307	0.1	3
	0943	6.9	210
	1522	2.2	67
	2115	7.6	232
4 M	0404	−0.2	−6
	1029	7.7	235
	1625	1.3	40
	2223	8.0	244
5 Tu	0454	−0.2	−6
	1111	8.4	256
	1721	0.3	9
	2323	8.3	253
6 W	0539	−0.1	−3
	1151	9.1	277
	1812	−0.5	−15
7 Th ●	0018	8.5	259
	0622	0.3	9
	1229	9.6	293
	1901	−1.0	−30
8 F	0111	8.5	259
	0704	0.8	24
	1307	9.9	302
	1949	−1.3	−40
9 Sa	0203	8.4	256
	0747	1.3	40
	1346	9.9	302
	2035	−1.3	−40
10 Su	0255	8.1	247
	0829	1.8	55
	1425	9.7	296
	2122	−1.1	−34
11 M	0347	7.7	235
	0914	2.4	73
	1505	9.3	283
	2211	−0.7	−21
12 Tu	0442	7.2	219
	1002	2.8	85
	1549	8.6	262
	2302	−0.2	−6
13 W	0541	6.8	207
	1056	3.2	98
	1640	7.9	241
14 Th ◐	0000	0.3	9
	0645	6.6	201
	1201	3.4	104
	1743	7.2	219
15 F	0104	0.7	21
	0750	6.5	198
	1316	3.3	101
	1859	6.7	204

	Time	Height	
	h m	ft	cm
16 Sa	0209	0.9	27
	0849	6.7	204
	1430	2.9	88
	2017	6.5	198
17 Su	0307	0.9	27
	0939	7.1	216
	1534	2.2	67
	2125	6.6	201
18 M	0355	1.0	30
	1020	7.6	232
	1627	1.6	49
	2222	6.9	210
19 Tu	0436	1.1	34
	1055	8.0	244
	1712	0.9	27
	2312	7.1	216
20 W	0512	1.3	40
	1126	8.3	253
	1753	0.4	12
	2358	7.4	226
21 Th	0547	1.6	49
	1155	8.6	262
	1831	0.0	0
22 F ○	0041	7.5	229
	0620	2.0	61
	1222	8.8	268
	1907	−0.2	−6
23 Sa	0123	7.6	232
	0654	2.3	70
	1247	9.0	274
	1942	−0.4	−12
24 Su	0205	7.5	229
	0728	2.7	82
	1314	9.2	280
	2017	−0.5	−15
25 M	0247	7.4	226
	0803	2.9	88
	1344	9.2	280
	2054	−0.5	−15
26 Tu	0331	7.2	219
	0840	3.1	94
	1420	9.1	277
	2134	−0.5	−15
27 W	0417	7.0	213
	0923	3.3	101
	1501	8.9	271
	2219	−0.3	−9
28 Th	0509	6.7	204
	1014	3.4	104
	1551	8.5	259
	2313	−0.1	−3
29 F	0608	6.6	201
	1118	3.4	104
	1653	7.9	241
30 Sa ◑	0015	0.1	3
	0710	6.8	207
	1236	3.1	94
	1812	7.3	223
31 Su	0121	0.3	9
	0809	7.2	219
	1357	2.6	79
	1942	7.1	216

November

	Time	Height	
	h m	ft	cm
1 M	0226	0.5	15
	0902	7.8	238
	1510	1.7	52
	2104	7.2	219
2 Tu	0324	0.7	21
	0949	8.5	259
	1613	0.7	21
	2214	7.4	226
3 W	0416	0.9	27
	1032	9.2	280
	1708	−0.3	−9
	2315	7.8	238
4 Th	0505	1.2	37
	1114	9.8	299
	1759	−0.9	−27
5 F ●	0012	8.0	244
	0551	1.6	49
	1154	10.1	308
	1847	−1.3	−40
6 Sa	0105	8.1	247
	0637	2.1	64
	1235	10.2	311
	1934	−1.5	−46
7 Su	0157	8.1	247
	0723	2.5	76
	1315	10.1	308
	2019	−1.3	−40
8 M	0247	8.0	244
	0808	2.8	85
	1356	9.7	296
	2104	−1.0	−30
9 Tu	0336	7.8	238
	0855	3.1	94
	1438	9.2	280
	2148	−0.6	−18
10 W	0426	7.5	229
	0943	3.3	101
	1521	8.6	262
	2233	−0.1	−3
11 Th	0517	7.3	223
	1036	3.4	104
	1609	7.9	241
	2320	0.4	12
12 F	0609	7.1	216
	1135	3.4	104
	1706	7.2	219
13 Sa ◐	0010	0.8	24
	0703	7.1	216
	1242	3.3	101
	1816	6.6	201
14 Su	0103	1.2	37
	0755	7.2	219
	1353	2.9	88
	1934	6.2	189
15 M	0158	1.6	49
	0842	7.5	229
	1458	2.2	67
	2047	6.2	189

	Time	Height	
	h m	ft	cm
16 Tu	0250	1.9	58
	0924	7.9	241
	1555	1.5	46
	2152	6.4	195
17 W	0337	2.1	64
	1001	8.3	253
	1643	0.9	27
	2249	6.7	204
18 Th	0422	2.4	73
	1036	8.6	262
	1726	0.3	9
	2340	7.0	213
19 F	0503	2.7	82
	1108	9.0	274
	1807	−0.1	−3
20 Sa	0027	7.3	223
	0544	3.0	91
	1139	9.2	280
	1846	−0.5	−15
21 Su ○	0112	7.5	229
	0625	3.3	101
	1212	9.4	287
	1924	−0.7	−21
22 M	0156	7.6	232
	0705	3.4	104
	1247	9.6	293
	2003	−0.8	−24
23 Tu	0240	7.6	232
	0747	3.5	107
	1325	9.6	293
	2043	−0.9	−27
24 W	0323	7.6	232
	0831	3.4	104
	1407	9.5	290
	2124	−0.8	−24
25 Th	0407	7.6	232
	0919	3.3	101
	1454	9.2	280
	2208	−0.7	−21
26 F	0453	7.5	229
	1013	3.2	98
	1547	8.7	265
	2255	−0.4	−12
27 Sa	0542	7.6	232
	1116	3.0	91
	1649	8.0	244
	2346	0.1	3
28 Su ◑	0633	7.8	238
	1227	2.6	79
	1805	7.3	223
29 M	0043	0.6	18
	0726	8.2	250
	1342	2.0	61
	1930	6.8	207
30 Tu	0143	1.1	34
	0819	8.7	265
	1454	1.2	37
	2052	6.7	204

December

	Time	Height	
	h m	ft	cm
1 W	0243	1.6	49
	0909	9.2	280
	1558	0.3	9
	2205	6.9	210
2 Th	0340	2.1	64
	0957	9.7	296
	1656	−0.4	−12
	2309	7.3	223
3 F	0435	2.4	73
	1043	10.0	305
	1748	−1.0	−30
4 Sa	0007	7.6	232
	0527	2.7	82
	1127	10.2	311
	1836	−1.2	−37
5 Su ●	0100	7.9	241
	0617	3.0	91
	1211	10.1	308
	1922	−1.2	−37
6 M	0149	8.0	244
	0706	3.2	98
	1254	9.9	302
	2006	−1.1	−34
7 Tu	0236	8.1	247
	0753	3.3	101
	1336	9.6	293
	2047	−0.8	−24
8 W	0320	8.0	244
	0839	3.3	101
	1419	9.2	280
	2125	−0.5	−15
9 Th	0402	7.9	241
	0925	3.3	101
	1501	8.7	265
	2202	−0.1	−3
10 F	0443	7.8	238
	1013	3.3	101
	1545	8.0	244
	2238	0.4	12
11 Sa	0524	7.7	235
	1104	3.2	98
	1634	7.3	223
	2315	0.9	27
12 Su	0606	7.6	232
	1200	3.0	91
	1732	6.7	204
	2356	1.4	43
13 M ◐	0648	7.7	235
	1304	2.7	82
	1844	6.1	186
14 Tu	0042	2.0	61
	0732	7.8	238
	1410	2.3	70
	2002	5.9	180
15 W	0135	2.5	76
	0817	8.1	247
	1513	1.7	52
	2117	6.0	183

	Time	Height	
	h m	ft	cm
16 Th	0232	3.0	91
	0900	8.4	256
	1608	1.1	34
	2223	6.3	192
17 F	0329	3.4	104
	0942	8.7	265
	1658	0.5	15
	2321	6.7	204
18 Sa	0422	3.6	110
	1023	9.1	277
	1743	−0.1	−3
19 Su	0012	7.1	216
	0513	3.7	113
	1105	9.4	287
	1826	−0.5	−15
20 M	0059	7.5	229
	0602	3.7	113
	1147	9.7	296
	1908	−0.8	−24
21 Tu ○	0143	7.7	235
	0649	3.6	110
	1231	9.9	302
	1950	−1.0	−30
22 W	0225	8.0	244
	0736	3.4	104
	1317	9.9	302
	2030	−1.1	−34
23 Th	0305	8.1	247
	0824	3.1	94
	1404	9.8	299
	2110	−1.0	−30
24 F	0345	8.3	253
	0914	2.8	85
	1454	9.4	287
	2151	−0.8	−24
25 Sa	0425	8.5	259
	1007	2.5	76
	1547	8.8	268
	2232	−0.3	−9
26 Su	0508	8.7	265
	1105	2.2	67
	1647	8.0	244
	2317	0.3	9
27 M ◑	0553	8.8	268
	1210	1.8	55
	1757	7.2	219
28 Tu	0006	1.1	34
	0642	9.0	274
	1321	1.4	43
	1917	6.6	201
29 W	0102	1.9	58
	0735	9.2	280
	1434	0.9	27
	2040	6.4	195
30 Th	0205	2.6	79
	0831	9.4	287
	1543	0.3	9
	2157	6.6	201
31 F	0311	3.0	91
	0926	9.6	293
	1644	−0.2	−6
	2304	7.0	213

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Toke Point, Willapa Bay, Washington, 2010

Times and Heights of High and Low Waters

January

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0135	8.6	262	**16** Sa	0204	8.2	250
	0653	3.4	104		0731	3.5	107
	1244	11.1	338		1317	9.4	287
	1946	−2.0	−61		2004	−0.1	−3
2 Sa	0218	8.9	271	**17** Su	0234	8.3	253
	0745	3.0	91		0808	3.3	101
	1335	10.9	332		1353	9.1	277
	2029	−1.8	−55		2034	0.1	3
3 Su	0301	9.1	277	**18** M	0303	8.5	259
	0838	2.7	82		0846	3.1	94
	1427	10.4	317		1429	8.7	265
	2113	−1.3	−40		2103	0.5	15
4 M	0344	9.4	287	**19** Tu	0332	8.6	262
	0933	2.4	73		0925	3.0	91
	1521	9.6	293		1507	8.2	250
	2157	−0.5	−15		2132	1.0	30
5 Tu	0429	9.6	293	**20** W	0401	8.7	265
	1032	2.2	67		1008	2.9	88
	1620	8.7	265		1549	7.7	235
	2241	0.5	15		2202	1.7	52
6 W	0515	9.7	296	**21** Th	0432	8.8	268
	1136	2.0	61		1056	2.7	82
	1726	7.7	235		1640	7.1	216
	2328	1.6	49		2235	2.4	73
7 Th ◑	0604	9.7	296	**22** F	0507	9.0	274
	1244	1.8	55		1151	2.5	76
	1840	6.9	210		1743	6.6	201
					2314	3.1	94
8 F	0020	2.7	82	**23** Sa ◐	0549	9.1	277
	0656	9.7	296		1255	2.2	67
	1357	1.5	46		1902	6.2	189
	2003	6.6	201				
9 Sa	0120	3.6	110	**24** Su	0004	3.9	119
	0750	9.7	296		0641	9.2	280
	1506	1.1	34		1405	1.7	52
	2129	6.6	201		2028	6.2	189
10 Su	0227	4.2	128	**25** M	0113	4.4	134
	0846	9.7	296		0742	9.4	287
	1608	0.7	21		1513	1.0	30
	2243	6.9	210		2148	6.5	198
11 M	0335	4.5	137	**26** Tu	0234	4.6	140
	0941	9.7	296		0848	9.7	296
	1700	0.3	9		1615	0.2	6
	2340	7.3	223		2253	7.1	216
12 Tu	0436	4.5	137	**27** W	0349	4.4	134
	1032	9.7	296		0951	10.1	308
	1745	0.0	0		1708	−0.6	−18
					2344	7.7	235
13 W	0024	7.6	232	**28** Th	0454	3.9	119
	0527	4.3	131		1050	10.6	323
	1119	9.7	296		1757	−1.3	−40
	1825	−0.2	−6				
14 Th ●	0101	7.9	241	**29** F ○	0029	8.3	253
	0612	4.0	122		0550	3.2	98
	1201	9.7	296		1145	10.9	332
	1900	−0.3	−9		1842	−1.7	−52
15 F	0133	8.1	247	**30** Sa	0110	8.9	271
	0653	3.8	116		0643	2.5	76
	1240	9.6	293		1237	10.9	332
	1933	−0.3	−9		1925	−1.7	−52
				31 Su	0150	9.4	287
					0734	1.9	58
					1329	10.7	326
					2007	−1.4	−43

February

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0229	9.8	299	**16** Tu	0221	8.8	268
	0825	1.4	43		0823	2.0	61
	1420	10.2	311		1416	8.6	262
	2047	−0.8	−24		2031	1.0	30
2 Tu	0309	10.0	305	**17** W	0246	9.0	274
	0917	1.1	34		0900	1.8	55
	1512	9.4	287		1454	8.2	250
	2128	0.1	3		2058	1.6	49
3 W	0349	10.2	311	**18** Th	0313	9.2	280
	1010	1.0	30		0939	1.7	52
	1608	8.5	259		1535	7.7	235
	2209	1.2	37		2128	2.2	67
4 Th	0432	10.1	308	**19** F	0341	9.2	280
	1108	1.1	34		1022	1.6	49
	1709	7.6	232		1622	7.2	219
	2253	2.3	70		2200	2.8	85
5 F ◑	0518	9.8	299	**20** Sa	0415	9.2	280
	1210	1.3	40		1113	1.6	49
	1818	6.9	210		1721	6.7	204
	2343	3.3	101		2238	3.5	107
6 Sa	0610	9.5	290	**21** Su ◐	0458	9.2	280
	1320	1.4	43		1215	1.5	46
	1940	6.4	195		1836	6.3	192
					2330	4.1	125
7 Su	0044	4.2	128	**22** M	0555	9.1	277
	0709	9.2	280		1327	1.3	40
	1434	1.4	43		2003	6.2	189
	2109	6.4	195				
8 M	0159	4.6	140	**23** Tu	0047	4.5	137
	0815	8.9	271		0708	9.0	274
	1542	1.1	34		1442	0.9	27
	2227	6.7	204		2123	6.5	198
9 Tu	0317	4.7	143	**24** W	0218	4.5	137
	0919	8.9	271		0826	9.2	280
	1639	0.8	24		1548	0.3	9
	2321	7.1	216		2226	7.1	216
10 W	0422	4.4	134	**25** Th	0338	4.0	122
	1017	9.0	274		0937	9.5	290
	1725	0.5	15		1644	−0.4	−12
					2316	7.8	238
11 Th	0000	7.5	229	**26** F	0444	3.1	94
	0514	3.9	119		1041	9.9	302
	1106	9.1	277		1733	−0.8	−24
	1803	0.3	9		2358	8.6	262
12 F	0033	7.8	238	**27** Sa	0541	2.2	67
	0558	3.5	107		1138	10.2	311
	1149	9.2	280		1818	−1.0	−30
	1836	0.1	3				
13 Sa ●	0102	8.1	247	**28** Su ○	0038	9.2	280
	0636	3.0	91		0632	1.2	37
	1228	9.2	280		1231	10.3	314
	1907	0.1	3		1900	−0.9	−27
14 Su	0129	8.4	256				
	0713	2.6	79				
	1305	9.1	277				
	1935	0.3	9				
15 M	0155	8.6	262				
	0748	2.3	70				
	1340	8.9	271				
	2003	0.6	18				

March

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0116	9.8	299	**16** Tu	0111	8.9	271
	0721	0.5	15		0726	1.0	30
	1322	10.1	308		1328	8.5	259
	1940	−0.5	−15		1930	1.3	40
2 Tu	0153	10.2	311	**17** W	0136	9.1	277
	0809	0.0	0		0800	0.7	21
	1412	9.6	293		1406	8.3	253
	2020	0.2	6		1959	1.8	55
3 W	0231	10.4	317	**18** Th	0202	9.3	283
	0857	−0.2	−6		0836	0.5	15
	1503	9.0	274		1445	8.0	244
	2059	1.1	34		2029	2.2	67
4 Th	0309	10.3	314	**19** F	0229	9.4	287
	0946	−0.1	−3		0914	0.4	12
	1555	8.2	250		1527	7.6	232
	2140	2.0	61		2101	2.8	85
5 F	0350	10.0	305	**20** Sa	0300	9.4	287
	1037	0.3	9		0957	0.4	12
	1652	7.5	229		1615	7.2	219
	2223	3.0	91		2137	3.3	101
6 Sa	0434	9.5	290	**21** Su	0337	9.3	283
	1134	0.8	24		1047	0.6	18
	1756	6.9	210		1713	6.7	204
	2313	3.8	116		2222	3.7	113
7 Su ◑	0526	8.9	271	**22** M	0425	9.0	274
	1239	1.3	40		1147	0.7	21
	1912	6.5	198		1824	6.4	195
					2323	4.1	125
8 M	0016	4.4	134	**23** Tu ◐	0528	8.7	265
	0629	8.4	256		1257	0.8	24
	1351	1.5	46		1942	6.5	198
	2035	6.4	195				
9 Tu	0136	4.6	140	**24** W	0046	4.3	131
	0742	8.1	247		0648	8.4	256
	1503	1.5	46		1410	0.6	18
	2149	6.6	201		2054	6.8	207
10 W	0258	4.4	134	**25** Th	0215	3.9	119
	0853	8.0	244		0812	8.4	256
	1603	1.2	37		1516	0.3	9
	2240	7.0	213		2152	7.4	226
11 Th	0404	3.9	119	**26** F	0332	3.1	94
	0956	8.1	247		0927	8.6	262
	1650	1.0	30		1613	0.1	3
	2318	7.4	226		2239	8.2	250
12 F	0455	3.3	101	**27** Sa	0435	2.0	61
	1047	8.3	253		1032	8.9	271
	1728	0.8	24		1703	−0.1	−3
	2350	7.8	238		2321	8.9	271
13 Sa	0538	2.6	79	**28** Su	0530	0.9	27
	1132	8.5	259		1131	9.1	277
	1801	0.7	21		1748	0.0	0
14 Su	0018	8.2	250	**29** M ○	0001	9.6	293
	0615	2.0	61		0619	−0.1	−3
	1213	8.6	262		1224	9.2	280
	1832	0.8	24		1831	0.3	9
15 M ●	0045	8.6	262	**30** Tu	0039	10.1	308
	0651	1.4	43		0706	−0.8	−24
	1251	8.6	262		1315	9.1	277
	1901	1.0	30		1912	0.8	24
				31 W	0116	10.4	317
					0751	−1.1	−34
					1404	8.9	271
					1952	1.4	43

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Toke Point, Willapa Bay, Washington, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0154	10.4	317	**16** F	0123	9.5	290
	0836	−1.1	−34		0816	−0.8	−24
	1453	8.4	256		1439	7.7	235
	2033	2.1	64		2006	2.8	85
2 F	0232	10.1	308	**17** Sa	0155	9.5	290
	0921	−0.8	−24		0856	−0.8	−24
	1543	7.9	241		1523	7.4	226
	2114	2.7	82		2044	3.2	98
3 Sa	0312	9.6	293	**18** Su	0232	9.4	287
	1008	−0.3	−9		0941	−0.7	−21
	1636	7.4	226		1613	7.2	219
	2159	3.4	104		2128	3.5	107
4 Su	0356	9.0	274	**19** M	0316	9.1	277
	1059	0.3	9		1031	−0.5	−15
	1734	6.9	210		1709	6.9	210
	2250	3.9	119		2221	3.7	113
5 M	0447	8.3	253	**20** Tu	0409	8.7	265
	1157	0.9	27		1127	−0.1	−3
	1840	6.6	201		1813	6.8	207
	2353	4.2	128		2329	3.8	116
6 Tu ◑	0550	7.7	235	**21** W ◐	0517	8.2	250
	1301	1.3	40		1230	0.1	3
	1950	6.5	198		1918	7.0	213
7 W	0110	4.2	128	**22** Th	0049	3.6	110
	0703	7.2	219		0638	7.7	235
	1407	1.5	46		1336	0.4	12
	2053	6.7	204		2019	7.4	226
8 Th	0230	3.9	119	**23** F	0211	2.9	88
	0818	7.1	216		0801	7.5	229
	1508	1.5	46		1439	0.5	15
	2143	7.0	213		2112	8.0	244
9 F	0336	3.2	98	**24** Sa	0323	1.9	58
	0924	7.2	219		0917	7.6	232
	1557	1.5	46		1536	0.7	21
	2223	7.4	226		2200	8.7	265
10 Sa	0428	2.5	76	**25** Su	0424	0.8	24
	1021	7.3	223		1025	7.7	235
	1639	1.5	46		1628	0.9	27
	2256	7.9	241		2243	9.3	283
11 Su	0511	1.7	52	**26** M	0517	−0.3	−9
	1110	7.6	232		1125	8.0	244
	1716	1.5	46		1716	1.2	37
	2327	8.3	253		2324	9.8	299
12 M	0549	1.0	30	**27** Tu	0605	−1.1	−34
	1154	7.7	235		1219	8.1	247
	1750	1.7	52		1801	1.6	49
	2356	8.8	268				
13 Tu	0626	0.3	9	**28** W ○	0003	10.1	308
	1236	7.9	241		0651	−1.6	−49
	1824	1.9	58		1310	8.2	250
					1845	2.0	61
14 W ●	0025	9.1	277	**29** Th	0042	10.2	311
	0702	−0.2	−6		0734	−1.8	−55
	1317	7.9	241		1358	8.1	247
	1857	2.2	67		1928	2.4	73
15 Th	0053	9.3	283	**30** F	0121	10.0	305
	0738	−0.6	−18		0817	−1.6	−49
	1357	7.9	241		1444	7.9	241
	1930	2.5	76		2010	2.8	85

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0200	9.6	293	**16** Su	0133	9.6	293
	0859	−1.3	−40		0842	−1.8	−55
	1531	7.6	232		1518	7.4	226
	2053	3.1	94		2034	3.1	94
2 Su	0241	9.1	277	**17** M	0218	9.4	287
	0943	−0.8	−24		0927	−1.6	−49
	1619	7.2	219		1607	7.3	223
	2139	3.5	107		2124	3.2	98
3 M	0325	8.4	256	**18** Tu	0307	9.0	274
	1028	−0.2	−6		1016	−1.3	−40
	1710	6.9	210		1658	7.3	223
	2229	3.7	113		2223	3.1	94
4 Tu	0414	7.8	238	**19** W	0405	8.4	256
	1116	0.4	12		1107	−0.9	−27
	1804	6.7	204		1753	7.4	226
	2329	3.8	116		2331	2.9	88
5 W ◑	0512	7.1	216	**20** Th ◐	0512	7.7	235
	1208	0.9	27		1202	−0.3	−9
	1859	6.7	204		1847	7.7	235
6 Th	0038	3.7	113	**21** F	0045	2.5	76
	0620	6.6	201		0629	7.0	213
	1303	1.3	40		1300	0.3	9
	1952	6.9	210		1941	8.1	247
7 F	0151	3.3	101	**22** Sa	0201	1.8	55
	0733	6.3	192		0750	6.6	201
	1359	1.6	49		1359	0.9	27
	2039	7.2	219		2032	8.6	262
8 Sa	0257	2.6	79	**23** Su	0310	0.8	24
	0843	6.2	189		0907	6.6	201
	1451	1.9	58		1457	1.5	46
	2120	7.6	232		2120	9.0	274
9 Su	0352	1.8	55	**24** M	0410	−0.1	−3
	0947	6.4	195		1018	6.7	204
	1539	2.1	64		1553	1.9	58
	2158	8.0	244		2206	9.4	287
10 M	0438	1.0	30	**25** Tu	0503	−0.9	−27
	1043	6.6	201		1121	6.9	210
	1623	2.3	70		1646	2.3	70
	2233	8.5	259		2251	9.7	296
11 Tu	0520	0.2	6	**26** W	0551	−1.5	−46
	1134	6.9	210		1216	7.2	219
	1705	2.5	76		1736	2.6	79
	2307	8.9	271		2333	9.8	299
12 W	0559	−0.5	−15	**27** Th ○	0636	−1.8	−55
	1220	7.2	219		1306	7.4	226
	1745	2.7	82		1823	2.8	85
	2341	9.2	280				
13 Th ●	0638	−1.1	−34	**28** F	0015	9.7	296
	1305	7.4	226		0718	−1.9	−58
	1825	2.9	88		1351	7.4	226
					1908	2.9	88
14 F	0016	9.5	290	**29** Sa	0056	9.4	287
	0718	−1.5	−46		0759	−1.8	−55
	1348	7.5	229		1434	7.4	226
	1906	3.0	91		1952	3.0	91
15 Sa	0053	9.6	293	**30** Su	0137	9.1	277
	0759	−1.7	−52		0839	−1.5	−46
	1432	7.4	226		1516	7.3	223
	1948	3.1	94		2035	3.1	94
				31 M	0218	8.6	262
					0918	−1.1	−34
					1557	7.1	216
					2120	3.2	98

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0300	8.0	244	**16** W	0303	8.8	268
	0957	−0.6	−18		0957	−1.8	−55
	1640	7.0	213		1635	7.9	241
	2207	3.2	98		2218	2.1	64
2 W	0345	7.4	226	**17** Th	0401	8.1	247
	1037	−0.1	−3		1043	−1.1	−34
	1723	7.0	213		1722	8.1	247
	2300	3.2	98		2322	1.8	55
3 Th	0436	6.8	207	**18** F ◐	0506	7.3	223
	1118	0.5	15		1132	−0.3	−9
	1807	7.0	213		1811	8.4	256
4 F ◑	0000	3.0	91	**19** Sa	0031	1.4	43
	0536	6.2	189		0619	6.5	198
	1202	1.0	30		1224	0.7	21
	1851	7.2	219		1901	8.6	262
5 Sa	0104	2.7	82	**20** Su	0142	0.8	24
	0645	5.8	177		0738	6.0	183
	1249	1.6	49		1320	1.5	46
	1934	7.4	226		1953	8.9	271
6 Su	0209	2.1	64	**21** M	0251	0.1	3
	0758	5.6	171		0858	5.9	180
	1340	2.2	67		1421	2.3	70
	2017	7.8	238		2045	9.1	277
7 M	0308	1.4	43	**22** Tu	0354	−0.5	−15
	0909	5.6	171		1014	6.0	183
	1433	2.6	79		1523	2.8	85
	2059	8.2	250		2136	9.2	280
8 Tu	0401	0.5	15	**23** W	0449	−1.1	−34
	1014	5.9	180		1119	6.3	192
	1528	3.0	91		1623	3.0	91
	2141	8.6	262		2225	9.3	283
9 W	0448	−0.3	−9	**24** Th	0538	−1.4	−43
	1112	6.2	189		1213	6.7	204
	1620	3.1	94		1718	3.1	94
	2223	8.9	271		2313	9.2	280
10 Th	0533	−1.0	−30	**25** F	0623	−1.6	−49
	1203	6.6	201		1259	6.9	210
	1710	3.2	98		1807	3.1	94
	2306	9.3	283		2358	9.1	277
11 F	0617	−1.6	−49	**26** Sa ○	0703	−1.7	−52
	1251	6.9	210		1340	7.1	216
	1759	3.1	94		1853	3.0	91
	2349	9.6	293				
12 Sa ●	0700	−2.1	−64	**27** Su	0040	8.9	271
	1336	7.2	219		0742	−1.6	−49
	1846	3.0	91		1417	7.1	216
					1936	2.9	88
13 Su	0034	9.7	296	**28** M	0120	8.7	265
	0743	−2.4	−73		0818	−1.4	−43
	1420	7.4	226		1452	7.2	219
	1935	2.8	85		2017	2.8	85
14 M	0121	9.7	296	**29** Tu	0200	8.3	253
	0827	−2.5	−76		0852	−1.1	−34
	1504	7.5	229		1527	7.2	219
	2025	2.6	79		2058	2.7	82
15 Tu	0210	9.4	287	**30** W	0239	7.8	238
	0911	−2.3	−70		0925	−0.7	−21
	1549	7.7	235		1601	7.2	219
	2119	2.4	73		2141	2.6	79

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Toke Point, Willapa Bay, Washington, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0321	7.3	223	16 F	0354	7.9	241
	0958	−0.2	−6		1015	−0.7	−21
	1636	7.3	223		1644	8.8	268
	2228	2.5	76		2304	0.6	18
2 F	0406	6.7	204	17 Sa	0457	7.1	216
	1032	0.4	12		1101	0.3	9
	1712	7.4	226		1731	8.9	271
	2319	2.3	70				
3 Sa	0459	6.1	186	18 Su ◐	0008	0.5	15
	1108	1.1	34		0607	6.3	192
	1749	7.5	229		1150	1.4	43
					1821	8.9	271
4 Su ◑	0015	2.0	61	19 M	0118	0.3	9
	0601	5.6	171		0725	5.8	177
	1147	1.8	55		1247	2.3	70
	1830	7.7	235		1916	8.8	268
5 M	0117	1.6	49	20 Tu	0228	0.0	0
	0714	5.3	162		0848	5.6	171
	1234	2.5	76		1352	3.0	91
	1914	7.9	241		2014	8.7	265
6 Tu	0221	1.1	34	21 W	0335	−0.3	−9
	0831	5.2	158		1008	5.8	177
	1332	3.0	91		1503	3.4	104
	2003	8.2	250		2113	8.7	265
7 W	0321	0.4	12	22 Th	0433	−0.7	−21
	0945	5.5	168		1112	6.2	189
	1438	3.4	104		1609	3.4	104
	2055	8.5	259		2209	8.7	265
8 Th	0417	−0.4	−12	23 F	0523	−1.0	−30
	1049	5.9	180		1202	6.5	198
	1543	3.5	107		1706	3.2	98
	2148	8.9	271		2300	8.7	265
9 F	0508	−1.1	−34	24 Sa	0607	−1.1	−34
	1143	6.4	195		1242	6.8	207
	1644	3.3	101		1755	2.9	88
	2241	9.3	283		2346	8.7	265
10 Sa	0555	−1.8	−55	25 Su ○	0645	−1.2	−37
	1231	6.8	207		1317	7.0	213
	1739	3.0	91		1839	2.6	79
	2332	9.6	293				
11 Su ●	0641	−2.4	−73	26 M	0028	8.6	262
	1314	7.2	219		0719	−1.2	−37
	1831	2.5	76		1348	7.2	219
					1918	2.3	70
12 M	0023	9.8	299	27 Tu	0107	8.4	256
	0724	−2.6	−79		0751	−1.0	−30
	1356	7.6	232		1418	7.4	226
	1923	2.0	61		1956	2.1	64
13 Tu	0113	9.7	296	28 W	0144	8.1	247
	0807	−2.6	−79		0822	−0.7	−21
	1437	8.0	244		1447	7.5	229
	2014	1.6	49		2034	1.9	58
14 W	0204	9.4	287	29 Th	0221	7.7	235
	0850	−2.2	−67		0851	−0.3	−9
	1518	8.3	253		1516	7.6	232
	2108	1.2	37		2113	1.7	52
15 Th	0258	8.7	265	30 F	0300	7.3	223
	0932	−1.6	−49		0920	0.2	6
	1600	8.6	262		1545	7.7	235
	2204	0.9	27		2154	1.6	49
				31 Sa	0342	6.8	207
					0950	0.8	24
					1615	7.8	238
					2238	1.5	46

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0429	6.2	189	16 M ◐	0553	6.3	192
	1021	1.5	46		1121	2.3	70
	1648	7.9	241		1742	8.8	268
	2329	1.4	43				
2 M ◑	0527	5.7	174	17 Tu	0047	0.2	6
	1058	2.2	67		0710	5.9	180
	1727	8.0	244		1221	3.1	94
					1842	8.5	259
3 Tu	0028	1.3	40	18 W	0200	0.3	9
	0638	5.4	165		0834	5.8	177
	1143	2.9	88		1334	3.6	110
	1816	8.0	244		1948	8.2	250
4 W	0135	0.9	27	19 Th	0310	0.2	6
	0759	5.3	162		0952	6.0	183
	1246	3.4	104		1452	3.6	110
	1915	8.1	247		2055	8.1	247
5 Th	0244	0.4	12	20 F	0411	0.0	0
	0918	5.5	168		1051	6.4	195
	1404	3.7	113		1600	3.3	101
	2020	8.4	256		2156	8.1	247
6 F	0347	−0.3	−9	21 Sa	0501	−0.3	−9
	1024	5.9	180		1135	6.7	204
	1520	3.5	107		1656	2.9	88
	2124	8.7	265		2249	8.2	250
7 Sa	0442	−1.0	−30	22 Su	0542	−0.4	−12
	1117	6.5	198		1210	7.0	213
	1627	3.1	94		1741	2.4	73
	2224	9.2	280		2334	8.3	253
8 Su	0532	−1.6	−49	23 M	0618	−0.5	−15
	1202	7.1	216		1240	7.3	223
	1725	2.4	73		1821	2.0	61
	2320	9.5	290				
9 M ●	0617	−2.1	−64	24 Tu ○	0014	8.3	253
	1243	7.7	235		0649	−0.4	−12
	1818	1.6	49		1308	7.6	232
					1858	1.6	49
10 Tu	0013	9.7	296	25 W	0052	8.2	250
	0700	−2.2	−67		0719	−0.2	−6
	1323	8.2	250		1335	7.8	238
	1909	0.9	27		1934	1.2	37
11 W	0105	9.6	293	26 Th	0129	8.0	244
	0742	−2.0	−61		0747	0.1	3
	1402	8.7	265		1401	8.0	244
	2000	0.3	9		2009	1.0	30
12 Th	0157	9.3	283	27 F	0206	7.7	235
	0823	−1.5	−46		0815	0.6	18
	1441	9.1	277		1427	8.2	250
	2051	−0.1	−3		2044	0.9	27
13 F	0250	8.6	262	28 Sa	0243	7.4	226
	0904	−0.7	−21		0843	1.1	34
	1521	9.3	283		1453	8.3	253
	2144	−0.3	−9		2122	0.8	24
14 Sa	0345	7.9	241	29 Su	0324	7.0	213
	0946	0.3	9		0912	1.7	52
	1604	9.3	283		1521	8.3	253
	2240	−0.2	−6		2203	0.8	24
15 Su	0445	7.1	216	30 M	0409	6.5	198
	1030	1.3	40		0944	2.3	70
	1650	9.2	280		1553	8.3	253
	2340	−0.1	−3		2250	0.8	24
				31 Tu	0505	6.1	186
					1022	2.9	88
					1633	8.2	250
					2348	0.9	27

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W ◑	0614	5.7	174	16 Th	0124	0.7	21
	1111	3.5	107		0810	6.2	189
	1727	8.1	247		1320	3.9	119
					1922	7.6	232
2 Th	0056	0.8	24	17 F	0235	0.8	24
	0734	5.6	171		0920	6.5	198
	1222	3.8	116		1441	3.7	113
	1838	8.0	244		2035	7.5	229
3 F	0208	0.5	15	18 Sa	0337	0.7	21
	0852	5.9	180		1013	6.8	207
	1350	3.8	116		1547	3.2	98
	1956	8.1	247		2138	7.6	232
4 Sa	0316	0.0	0	19 Su	0426	0.6	18
	0954	6.4	195		1053	7.2	219
	1510	3.4	104		1639	2.5	76
	2109	8.5	259		2232	7.8	238
5 Su	0413	−0.6	−18	20 M	0506	0.5	15
	1044	7.0	213		1126	7.6	232
	1616	2.5	76		1722	1.9	58
	2213	8.9	271		2317	7.9	241
6 M	0503	−1.0	−30	21 Tu	0541	0.5	15
	1127	7.8	238		1155	7.9	241
	1713	1.5	46		1800	1.3	40
	2311	9.3	283		2359	8.0	244
7 Tu	0549	−1.2	−37	22 W	0612	0.7	21
	1207	8.5	259		1223	8.3	253
	1805	0.6	18		1836	0.8	24
8 W	0005	9.4	287	23 Th ○	0037	8.0	244
	0631	−1.2	−37		0642	1.0	30
	1245	9.2	280		1249	8.5	259
●	1855	−0.3	−9		1910	0.4	12
9 Th	0057	9.4	287	24 F	0115	7.9	241
	0713	−0.8	−24		0712	1.4	43
	1323	9.7	296		1315	8.7	265
	1943	−0.9	−27		1944	0.2	6
10 F	0149	9.0	274	25 Sa	0153	7.8	238
	0754	−0.1	−3		0741	1.8	55
	1401	9.9	302		1340	8.9	271
	2032	−1.1	−34		2018	0.1	3
11 Sa	0241	8.5	259	26 Su	0231	7.5	229
	0835	0.7	21		0811	2.3	70
	1441	9.9	302		1407	8.9	271
	2121	−1.1	−34		2055	0.1	3
12 Su	0335	7.9	241	27 M	0312	7.2	219
	0918	1.6	49		0842	2.8	85
	1523	9.7	296		1436	8.9	271
	2213	−0.7	−21		2136	0.1	3
13 M	0433	7.2	219	28 Tu	0358	6.9	210
	1004	2.4	73		0918	3.2	98
	1610	9.2	280		1511	8.7	265
	2310	−0.2	−6		2223	0.3	9
14 Tu ◐	0537	6.7	204	29 W	0453	6.5	198
	1056	3.2	98		1001	3.7	113
	1704	8.6	262		1556	8.5	259
					2318	0.5	15
15 W	0014	0.3	9	30 Th ◑	0600	6.3	192
	0651	6.3	192		1059	4.0	122
	1201	3.7	113		1656	8.1	247
	1808	8.0	244				

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Toke Point, Willapa Bay, Washington, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0024	0.6	18
	0714	6.3	192
	1219	4.1	125
	1814	7.9	241
2 Sa	0134	0.6	18
	0822	6.6	201
	1346	3.8	116
	1939	7.9	241
3 Su	0241	0.4	12
	0919	7.2	219
	1503	2.9	88
	2056	8.1	247
4 M	0339	0.1	3
	1006	8.0	244
	1606	1.8	55
	2203	8.4	256
5 Tu	0430	0.0	0
	1049	8.8	268
	1702	0.7	21
	2303	8.7	265
6 W	0517	0.1	3
	1128	9.5	290
	1752	−0.4	−12
	2358	8.9	271
7 Th ●	0601	0.4	12
	1207	10.1	308
	1840	−1.2	−37
8 F	0050	8.9	271
	0644	0.9	27
	1246	10.4	317
	1926	−1.6	−49
9 Sa	0141	8.8	268
	0726	1.4	43
	1325	10.5	320
	2012	−1.7	−52
10 Su	0232	8.5	259
	0809	2.1	64
	1405	10.3	314
	2059	−1.4	−43
11 M	0324	8.0	244
	0853	2.7	82
	1448	9.8	299
	2148	−0.9	−27
12 Tu	0419	7.6	232
	0941	3.3	101
	1535	9.1	277
	2240	−0.2	−6
13 W	0518	7.1	216
	1036	3.8	116
	1628	8.4	256
	2337	0.5	15
14 Th ◐	0624	6.9	210
	1142	4.1	125
	1733	7.7	235
15 F	0040	1.0	30
	0732	6.8	207
	1259	4.1	125
	1847	7.2	219

	Time	Height	
	h m	ft	cm
16 Sa	0145	1.3	40
	0833	7.0	213
	1418	3.7	113
	2002	7.0	213
17 Su	0245	1.5	46
	0922	7.3	223
	1523	3.1	94
	2109	7.1	216
18 M	0335	1.6	49
	1001	7.8	238
	1615	2.3	70
	2207	7.3	223
19 Tu	0418	1.7	52
	1035	8.2	250
	1657	1.5	46
	2256	7.5	229
20 W	0456	1.8	55
	1106	8.6	262
	1735	0.9	27
	2341	7.7	235
21 Th	0531	2.1	64
	1135	9.0	274
	1811	0.3	9
22 F ○	0023	7.8	238
	0604	2.3	70
	1204	9.3	283
	1846	−0.1	−3
23 Sa	0103	7.9	241
	0637	2.7	82
	1232	9.4	287
	1921	−0.4	−12
24 Su	0142	7.9	241
	0710	3.0	91
	1301	9.5	290
	1957	−0.5	−15
25 M	0222	7.7	235
	0745	3.3	101
	1332	9.5	290
	2035	−0.5	−15
26 Tu	0305	7.5	229
	0822	3.6	110
	1407	9.4	287
	2117	−0.4	−12
27 W	0352	7.3	223
	0904	3.9	119
	1447	9.2	280
	2204	−0.2	−6
28 Th	0445	7.1	216
	0955	4.1	125
	1537	8.7	265
	2257	0.1	3
29 F	0545	7.1	216
	1100	4.2	128
	1640	8.2	250
	2356	0.4	12
30 Sa ◑	0648	7.2	219
	1218	4.0	122
	1800	7.8	238
31 Su	0059	0.7	21
	0747	7.7	235
	1340	3.3	101
	1925	7.5	229

November

	Time	Height	
	h m	ft	cm
1 M	0201	0.9	27
	0840	8.3	253
	1453	2.3	70
	2044	7.6	232
2 Tu	0300	1.2	37
	0927	9.0	274
	1555	1.2	37
	2155	7.8	238
3 W	0354	1.4	43
	1011	9.7	296
	1649	0.0	0
	2257	8.1	247
4 Th	0444	1.7	52
	1053	10.3	314
	1739	−0.9	−27
	2354	8.4	256
5 F ●	0532	2.1	64
	1134	10.7	326
	1825	−1.5	−46
6 Sa	0046	8.5	259
	0618	2.4	73
	1215	10.9	332
	1911	−1.8	−55
7 Su	0136	8.5	259
	0703	2.8	85
	1256	10.7	326
	1955	−1.7	−52
8 M	0224	8.4	256
	0748	3.2	98
	1338	10.4	317
	2039	−1.3	−40
9 Tu	0312	8.2	250
	0833	3.5	107
	1421	9.8	299
	2124	−0.8	−24
10 W	0402	7.9	241
	0922	3.8	116
	1506	9.1	277
	2210	−0.1	−3
11 Th	0453	7.6	232
	1015	4.1	125
	1557	8.4	256
	2258	0.5	15
12 F	0548	7.5	229
	1116	4.2	128
	1655	7.7	235
	2350	1.1	34
13 Sa ◐	0642	7.5	229
	1226	4.1	125
	1803	7.1	216
14 Su	0044	1.7	52
	0734	7.6	232
	1339	3.7	113
	1917	6.7	204
15 M	0138	2.1	64
	0821	7.9	241
	1446	3.0	91
	2030	6.6	201

	Time	Height	
	h m	ft	cm
16 Tu	0231	2.5	76
	0903	8.3	253
	1540	2.2	67
	2135	6.7	204
17 W	0319	2.8	85
	0940	8.7	265
	1626	1.5	46
	2232	7.0	213
18 Th	0405	3.1	94
	1016	9.1	277
	1707	0.7	21
	2322	7.3	223
19 F	0447	3.3	101
	1050	9.5	290
	1746	0.1	3
20 Sa	0008	7.6	232
	0527	3.5	107
	1124	9.8	299
	1823	−0.4	−12
21 Su ○	0051	7.8	238
	0607	3.7	113
	1158	10.0	305
	1901	−0.8	−24
22 M	0132	7.9	241
	0646	3.8	116
	1233	10.1	308
	1940	−1.0	−30
23 Tu	0214	8.0	244
	0727	3.9	119
	1311	10.1	308
	2020	−1.0	−30
24 W	0257	7.9	241
	0810	3.9	119
	1352	9.9	302
	2102	−0.9	−27
25 Th	0342	7.9	241
	0858	3.9	119
	1438	9.6	293
	2147	−0.6	−18
26 F	0430	7.9	241
	0953	3.9	119
	1531	9.0	274
	2235	−0.2	−6
27 Sa	0521	8.1	247
	1057	3.7	113
	1634	8.3	253
	2327	0.4	12
28 Su ◑	0614	8.3	253
	1210	3.4	104
	1749	7.6	232
29 M	0022	1.0	30
	0706	8.8	268
	1326	2.7	82
	1911	7.2	219
30 Tu	0120	1.7	52
	0758	9.3	283
	1437	1.7	52
	2033	7.1	216

December

	Time	Height	
	h m	ft	cm
1 W	0220	2.3	70
	0848	9.8	299
	1541	0.7	21
	2148	7.2	219
2 Th	0319	2.8	85
	0936	10.3	314
	1637	−0.2	−6
	2255	7.6	232
3 F	0416	3.2	98
	1023	10.6	323
	1727	−0.9	−27
	2353	7.9	241
4 Sa	0509	3.4	104
	1108	10.8	329
	1814	−1.3	−40
5 Su ●	0044	8.2	250
	0559	3.5	107
	1153	10.8	329
	1858	−1.5	−46
6 M	0131	8.3	253
	0647	3.6	110
	1236	10.6	323
	1940	−1.4	−43
7 Tu	0215	8.4	256
	0732	3.7	113
	1319	10.3	314
	2021	−1.1	−34
8 W	0257	8.3	253
	0818	3.8	116
	1401	9.8	299
	2101	−0.6	−18
9 Th	0339	8.2	250
	0903	3.8	116
	1444	9.2	280
	2140	−0.1	−3
10 F	0421	8.1	247
	0951	3.9	119
	1529	8.5	259
	2219	0.5	15
11 Sa	0503	8.0	244
	1044	3.9	119
	1619	7.8	238
	2259	1.2	37
12 Su	0546	8.1	247
	1143	3.8	116
	1718	7.1	216
	2341	1.9	58
13 M ◐	0630	8.2	250
	1247	3.5	107
	1826	6.5	198
14 Tu	0026	2.6	79
	0714	8.4	256
	1354	3.0	91
	1941	6.3	192
15 W	0117	3.2	98
	0758	8.6	262
	1455	2.3	70
	2056	6.3	192

	Time	Height	
	h m	ft	cm
16 Th	0213	3.7	113
	0842	9.0	274
	1549	1.6	49
	2204	6.6	201
17 F	0310	4.1	125
	0926	9.3	283
	1637	0.8	24
	2303	7.0	213
18 Sa	0404	4.3	131
	1009	9.7	296
	1720	0.1	3
	2353	7.4	226
19 Su	0455	4.3	131
	1051	10.0	305
	1802	−0.5	−15
20 M	0037	7.7	235
	0542	4.2	128
	1133	10.3	314
	1843	−0.9	−27
21 Tu ○	0119	8.0	244
	0628	4.0	122
	1216	10.5	320
	1924	−1.3	−40
22 W	0200	8.2	250
	0714	3.8	116
	1300	10.5	320
	2005	−1.4	−43
23 Th	0240	8.4	256
	0801	3.5	107
	1346	10.3	314
	2046	−1.3	−40
24 F	0321	8.6	262
	0852	3.3	101
	1435	9.9	302
	2128	−0.9	−27
25 Sa	0403	8.8	268
	0946	3.0	91
	1528	9.2	280
	2211	−0.2	−6
26 Su	0447	9.1	277
	1046	2.8	85
	1629	8.4	256
	2257	0.6	18
27 M ◑	0534	9.4	287
	1153	2.4	73
	1739	7.5	229
	2346	1.6	49
28 Tu	0624	9.6	293
	1304	1.9	58
	1858	6.9	210
29 W	0041	2.5	76
	0717	9.9	302
	1417	1.3	40
	2023	6.7	204
30 Th	0143	3.3	101
	0811	10.1	308
	1524	0.6	18
	2145	6.9	210
31 F	0250	3.9	119
	0907	10.2	311
	1624	0.0	0
	2255	7.2	219

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Aberdeen, Washington, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0148	9.9	302
	0659	3.2	98
	1259	12.1	369
	1942	−2.1	−64
2 Sa	0233	10.2	311
	0749	2.7	82
	1351	11.9	363
	2026	−2.0	−61
3 Su	0317	10.5	320
	0840	2.3	70
	1444	11.4	347
	2110	−1.5	−46
4 M	0359	10.7	326
	0932	2.0	61
	1536	10.7	326
	2155	−0.8	−24
5 Tu	0440	10.8	329
	1026	1.8	55
	1631	9.8	299
	2240	0.2	6
6 W	0523	10.8	329
	1125	1.7	52
	1730	8.8	268
	2329	1.3	40
7 Th ◑	0609	10.7	326
	1227	1.6	49
	1836	8.0	244
8 F	0022	2.5	76
	0658	10.6	323
	1332	1.5	46
	1951	7.5	229
9 Sa	0120	3.4	104
	0752	10.4	317
	1438	1.2	37
	2110	7.4	226
10 Su	0223	4.1	125
	0848	10.4	317
	1539	0.8	24
	2228	7.6	232
11 M	0325	4.4	134
	0943	10.4	317
	1634	0.4	12
	2332	8.1	247
12 Tu	0423	4.5	137
	1035	10.4	317
	1722	0.2	6
13 W	0021	8.5	259
	0516	4.3	131
	1123	10.4	317
	1804	−0.1	−3
14 Th ●	0101	8.9	271
	0604	4.1	125
	1207	10.4	317
	1843	−0.2	−6
15 F	0137	9.1	277
	0647	3.8	116
	1248	10.4	317
	1920	−0.2	−6

	Time	Height	
	h m	ft	cm
16 Sa	0210	9.3	283
	0728	3.5	107
	1327	10.3	314
	1956	−0.2	−6
17 Su	0242	9.5	290
	0808	3.2	98
	1405	10.1	308
	2030	0.1	3
18 M	0312	9.6	293
	0847	3.0	91
	1443	9.7	296
	2103	0.4	12
19 Tu	0341	9.7	296
	0927	2.8	85
	1522	9.3	283
	2135	1.0	30
20 W	0409	9.7	296
	1010	2.7	82
	1604	8.7	265
	2207	1.6	49
21 Th	0439	9.8	299
	1057	2.6	79
	1652	8.1	247
	2241	2.4	73
22 F	0512	9.9	302
	1151	2.5	76
	1750	7.5	229
	2321	3.2	98
23 Sa ◐	0553	10.0	305
	1253	2.2	67
	1901	7.1	216
24 Su	0018	4.0	122
	0645	10.1	308
	1359	1.8	55
	2022	7.1	216
25 M	0134	4.5	137
	0748	10.3	314
	1503	1.1	34
	2142	7.4	226
26 Tu	0249	4.6	140
	0855	10.6	323
	1603	0.3	9
	2250	8.0	244
27 W	0356	4.4	134
	1000	11.1	338
	1658	−0.5	−15
	2348	8.7	265
28 Th	0456	3.8	116
	1100	11.5	351
	1749	−1.2	−37
29 F ○	0038	9.5	290
	0552	3.0	91
	1158	11.8	360
	1836	−1.7	−52
30 Sa	0124	10.1	308
	0645	2.2	67
	1252	11.9	363
	1921	−1.9	−58
31 Su	0206	10.7	326
	0735	1.5	46
	1345	11.8	360
	2004	−1.7	−52

February

	Time	Height	
	h m	ft	cm
1 M	0246	11.1	338
	0825	0.9	27
	1436	11.3	344
	2046	−1.1	−34
2 Tu	0326	11.3	344
	0914	0.6	18
	1527	10.5	320
	2128	−0.2	−6
3 W	0404	11.3	344
	1005	0.6	18
	1619	9.6	293
	2211	0.9	27
4 Th	0444	11.1	338
	1059	0.8	24
	1713	8.7	265
	2257	2.0	61
5 F ◑	0526	10.7	326
	1156	1.1	34
	1814	7.8	238
	2348	3.2	98
6 Sa	0614	10.2	311
	1259	1.4	43
	1924	7.2	219
7 Su	0047	4.1	125
	0709	9.8	299
	1405	1.5	46
	2045	7.1	216
8 M	0154	4.6	140
	0813	9.5	290
	1510	1.3	40
	2208	7.3	223
9 Tu	0302	4.7	143
	0917	9.5	290
	1608	1.1	34
	2311	7.8	238
10 W	0404	4.5	137
	1015	9.6	293
	1658	0.7	21
	2354	8.3	253
11 Th	0458	4.0	122
	1106	9.8	299
	1740	0.4	12
12 F	0030	8.8	268
	0545	3.5	107
	1152	10.0	305
	1818	0.2	6
13 Sa ●	0103	9.2	280
	0628	3.0	91
	1234	10.1	308
	1854	0.1	3
14 Su	0134	9.5	290
	0708	2.5	76
	1314	10.1	308
	1928	0.2	6
15 M	0204	9.8	299
	0746	2.1	64
	1352	10.0	305
	2001	0.4	12

	Time	Height	
	h m	ft	cm
16 Tu	0232	10.0	305
	0824	1.7	52
	1430	9.7	296
	2033	0.9	27
17 W	0259	10.1	308
	0902	1.5	46
	1508	9.3	283
	2104	1.4	43
18 Th	0324	10.1	308
	0942	1.4	43
	1548	8.8	268
	2135	2.0	61
19 F	0350	10.2	311
	1025	1.4	43
	1633	8.2	250
	2207	2.7	82
20 Sa	0420	10.2	311
	1115	1.5	46
	1727	7.6	232
	2244	3.5	107
21 Su ◐	0500	10.1	308
	1215	1.6	49
	1835	7.1	216
	2342	4.1	125
22 M	0557	9.9	302
	1323	1.4	43
	1957	7.0	213
23 Tu	0107	4.6	140
	0712	9.9	302
	1431	1.0	30
	2118	7.3	223
24 W	0227	4.5	137
	0831	10.1	308
	1535	0.3	9
	2225	8.0	244
25 Th	0338	3.9	119
	0945	10.5	320
	1632	−0.3	−9
	2320	8.8	268
26 F	0440	2.9	88
	1050	10.9	332
	1724	−0.9	−27
27 Sa	0007	9.7	296
	0537	1.9	58
	1148	11.3	344
	1811	−1.2	−37
28 Su ○	0050	10.4	317
	0629	0.9	27
	1244	11.4	347
	1855	−1.1	−34

March

	Time	Height	
	h m	ft	cm
1 M	0131	11.0	335
	0719	0.1	3
	1336	11.2	341
	1938	−0.8	−24
2 Tu	0211	11.4	347
	0806	−0.4	−12
	1427	10.8	329
	2020	−0.1	−3
3 W	0249	11.5	351
	0854	−0.6	−18
	1516	10.1	308
	2101	0.8	24
4 Th	0326	11.3	344
	0941	−0.4	−12
	1605	9.3	283
	2144	1.8	55
5 F	0404	10.9	332
	1031	0.1	3
	1656	8.5	259
	2228	2.8	85
6 Sa	0445	10.3	314
	1123	0.7	21
	1752	7.7	235
	2318	3.7	113
7 Su ◑	0532	9.6	293
	1222	1.3	40
	1857	7.2	219
8 M	0018	4.4	134
	0629	9.0	274
	1326	1.6	49
	2011	7.0	213
9 Tu	0128	4.7	143
	0737	8.6	262
	1431	1.7	52
	2127	7.2	219
10 W	0239	4.6	140
	0848	8.5	259
	1532	1.5	46
	2226	7.7	235
11 Th	0343	4.0	122
	0951	8.8	268
	1622	1.2	37
	2308	8.3	253
12 F	0436	3.3	101
	1044	9.1	277
	1705	0.9	27
	2345	8.8	268
13 Sa	0523	2.6	79
	1132	9.4	287
	1744	0.8	24
14 Su	0018	9.3	283
	0605	1.9	58
	1216	9.7	296
	1821	0.7	21
15 M ●	0051	9.7	296
	0644	1.3	40
	1258	9.7	296
	1856	0.9	27

	Time	Height	
	h m	ft	cm
16 Tu	0121	10.0	305
	0723	0.8	24
	1338	9.7	296
	1931	1.2	37
17 W	0150	10.2	311
	0801	0.5	15
	1418	9.5	290
	2004	1.6	49
18 Th	0216	10.4	317
	0839	0.3	9
	1458	9.2	280
	2038	2.1	64
19 F	0242	10.4	317
	0918	0.2	6
	1539	8.7	265
	2111	2.6	79
20 Sa	0309	10.4	317
	1000	0.3	9
	1624	8.2	250
	2147	3.2	98
21 Su	0341	10.2	311
	1049	0.6	18
	1718	7.7	235
	2231	3.7	113
22 M	0426	9.9	302
	1147	0.8	24
	1823	7.3	223
	2335	4.2	128
23 Tu ◐	0530	9.6	293
	1253	0.9	27
	1937	7.3	223
24 W	0056	4.3	131
	0652	9.3	283
	1401	0.7	21
	2050	7.7	235
25 Th	0214	3.9	119
	0816	9.4	287
	1504	0.4	12
	2152	8.4	256
26 F	0323	3.0	91
	0932	9.7	296
	1602	0.0	0
	2244	9.2	280
27 Sa	0425	1.8	55
	1038	10.1	308
	1654	−0.2	−6
	2330	10.1	308
28 Su	0521	0.6	18
	1138	10.3	314
	1742	−0.2	−6
29 M ○	0012	10.8	329
	0612	−0.4	−12
	1234	10.5	320
	1827	0.0	0
30 Tu	0053	11.3	344
	0700	−1.1	−34
	1326	10.4	317
	1911	0.5	15
31 W	0132	11.4	347
	0747	−1.4	−43
	1417	10.1	308
	1954	1.1	34

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Aberdeen, Washington, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0211	11.3	344
	0832	−1.4	−43
	1505	9.6	293
	2036	1.9	58
2 F	0248	11.0	335
	0917	−1.0	−30
	1552	9.0	274
	2119	2.6	79
3 Sa	0326	10.4	317
	1003	−0.4	−12
	1640	8.4	256
	2203	3.4	104
4 Su	0407	9.7	296
	1051	0.4	12
	1731	7.8	238
	2253	4.0	122
5 M	0454	9.0	274
	1144	1.1	34
	1828	7.4	226
	2352	4.4	134
6 Tu ◑	0551	8.3	253
	1243	1.6	49
	1930	7.2	219
7 W	0101	4.5	137
	0659	7.9	241
	1344	1.8	55
	2034	7.4	226
8 Th	0211	4.1	125
	0811	7.8	238
	1443	1.8	55
	2128	7.8	238
9 F	0314	3.4	104
	0917	8.0	244
	1535	1.7	52
	2213	8.4	256
10 Sa	0408	2.6	79
	1015	8.3	253
	1622	1.6	49
	2253	9.0	274
11 Su	0455	1.7	52
	1106	8.7	265
	1704	1.5	46
	2329	9.6	293
12 M	0538	0.9	27
	1154	9.0	274
	1744	1.6	49
13 Tu	0003	10.0	305
	0619	0.3	9
	1240	9.2	280
	1823	1.8	55
14 W ●	0036	10.3	314
	0658	−0.3	−9
	1325	9.3	283
	1901	2.1	64
15 Th	0107	10.5	320
	0738	−0.6	−18
	1408	9.2	280
	1938	2.5	76

	Time	Height	
	h m	ft	cm
16 F	0137	10.6	323
	0817	−0.8	−24
	1451	9.0	274
	2015	2.8	85
17 Sa	0208	10.6	323
	0858	−0.8	−24
	1536	8.7	265
	2054	3.1	94
18 Su	0241	10.4	317
	0942	−0.6	−18
	1623	8.3	253
	2137	3.5	107
19 M	0322	10.2	311
	1030	−0.4	−12
	1715	8.0	244
	2229	3.7	113
20 Tu	0415	9.7	296
	1125	0.0	0
	1813	7.8	238
	2334	3.8	116
21 W ◐	0523	9.2	280
	1226	0.3	9
	1916	7.9	241
22 Th	0048	3.6	110
	0642	8.8	268
	1329	0.5	15
	2018	8.4	256
23 F	0201	2.9	88
	0804	8.6	262
	1431	0.6	18
	2115	9.1	277
24 Sa	0308	1.9	58
	0919	8.8	268
	1528	0.7	21
	2205	9.8	299
25 Su	0409	0.7	21
	1027	9.0	274
	1622	0.8	24
	2251	10.5	320
26 M	0504	−0.4	−12
	1128	9.3	283
	1712	1.1	34
	2334	11.0	335
27 Tu	0554	−1.2	−37
	1224	9.5	290
	1759	1.4	43
28 W ○	0015	11.3	344
	0641	−1.7	−52
	1317	9.5	290
	1845	1.9	58
29 Th	0056	11.2	341
	0726	−1.8	−55
	1408	9.4	287
	1929	2.4	73
30 F	0136	11.0	335
	0810	−1.6	−49
	1455	9.1	277
	2013	2.8	85

May

	Time	Height	
	h m	ft	cm
1 Sa	0215	10.5	320
	0853	−1.2	−37
	1540	8.8	268
	2056	3.3	101
2 Su	0254	9.9	302
	0936	−0.6	−18
	1624	8.4	256
	2141	3.7	113
3 M	0335	9.2	280
	1020	0.1	3
	1708	8.0	244
	2230	4.0	122
4 Tu	0422	8.6	262
	1107	0.7	21
	1756	7.7	235
	2326	4.1	125
5 W ◑	0516	8.0	244
	1158	1.3	40
	1846	7.7	235
6 Th	0029	4.0	122
	0620	7.5	229
	1253	1.7	52
	1939	7.8	238
7 F	0135	3.6	110
	0729	7.3	223
	1348	2.0	61
	2029	8.2	250
8 Sa	0238	2.9	88
	0837	7.3	223
	1442	2.1	64
	2116	8.8	268
9 Su	0334	2.0	61
	0941	7.6	232
	1533	2.3	70
	2158	9.3	283
10 M	0423	1.1	34
	1038	8.0	244
	1620	2.4	73
	2238	9.8	299
11 Tu	0508	0.3	9
	1131	8.4	256
	1705	2.6	79
	2316	10.3	314
12 W	0552	−0.4	−12
	1222	8.7	265
	1749	2.8	85
	2353	10.6	323
13 Th ●	0634	−0.9	−27
	1311	8.9	271
	1832	3.0	91
14 F	0029	10.8	329
	0716	−1.3	−40
	1359	9.0	274
	1914	3.1	94
15 Sa	0107	10.8	329
	0758	−1.5	−46
	1445	9.0	274
	1957	3.2	98

	Time	Height	
	h m	ft	cm
16 Su	0146	10.8	329
	0841	−1.6	−49
	1531	8.8	268
	2042	3.3	101
17 M	0229	10.5	320
	0926	−1.4	−43
	1617	8.7	265
	2130	3.3	101
18 Tu	0318	10.2	311
	1013	−1.1	−34
	1705	8.6	262
	2225	3.3	101
19 W	0415	9.6	293
	1104	−0.6	−18
	1756	8.7	265
	2328	3.1	94
20 Th ◐	0520	8.9	271
	1159	−0.1	−3
	1849	8.9	271
21 F	0036	2.7	82
	0633	8.3	253
	1257	0.5	15
	1943	9.3	283
22 Sa	0145	1.9	58
	0750	8.0	244
	1356	1.0	30
	2036	9.8	299
23 Su	0251	1.0	30
	0905	7.9	241
	1454	1.5	46
	2126	10.3	314
24 M	0351	0.0	0
	1015	8.1	247
	1549	2.0	61
	2213	10.7	326
25 Tu	0445	−0.8	−24
	1119	8.4	256
	1643	2.3	70
	2259	11.0	335
26 W	0536	−1.4	−43
	1217	8.7	265
	1733	2.7	82
	2343	11.0	335
27 Th ○	0622	−1.7	−52
	1310	8.8	268
	1822	2.9	88
28 F	0026	10.8	329
	0707	−1.7	−52
	1359	8.9	271
	1908	3.2	98
29 Sa	0108	10.5	320
	0749	−1.5	−46
	1443	8.8	268
	1952	3.3	101
30 Su	0149	10.1	308
	0830	−1.1	−34
	1524	8.7	265
	2036	3.5	107
31 M	0229	9.6	293
	0910	−0.7	−21
	1602	8.5	259
	2120	3.6	110

June

	Time	Height	
	h m	ft	cm
1 Tu	0311	9.0	274
	0950	−0.2	−6
	1640	8.3	253
	2206	3.7	113
2 W	0354	8.5	259
	1030	0.4	12
	1719	8.2	250
	2257	3.6	110
3 Th	0444	7.9	241
	1113	1.0	30
	1800	8.2	250
	2353	3.5	107
4 F ◑	0541	7.4	226
	1200	1.6	49
	1844	8.4	256
5 Sa	0055	3.1	94
	0646	7.0	213
	1252	2.1	64
	1930	8.7	265
6 Su	0156	2.5	76
	0755	6.9	210
	1346	2.6	79
	2017	9.1	277
7 M	0255	1.7	52
	0904	7.0	213
	1442	3.0	91
	2104	9.5	290
8 Tu	0348	0.9	27
	1009	7.4	226
	1536	3.3	101
	2149	10.0	305
9 W	0438	0.1	3
	1108	7.8	238
	1628	3.4	104
	2233	10.4	317
10 Th	0525	−0.7	−21
	1204	8.3	253
	1718	3.5	107
	2317	10.8	329
11 F	0611	−1.3	−40
	1256	8.6	262
	1807	3.4	104
12 Sa ●	0002	11.0	335
	0655	−1.8	−55
	1346	8.9	271
	1854	3.3	101
13 Su	0048	11.1	338
	0740	−2.1	−64
	1433	9.1	277
	1942	3.0	91
14 M	0135	11.0	335
	0823	−2.1	−64
	1517	9.2	280
	2030	2.8	85
15 Tu	0225	10.7	326
	0908	−2.0	−61
	1601	9.3	283
	2121	2.5	76

	Time	Height	
	h m	ft	cm
16 W	0317	10.2	311
	0953	−1.5	−46
	1644	9.4	287
	2215	2.3	70
17 Th	0413	9.5	290
	1040	−0.8	−24
	1729	9.6	293
	2314	2.0	61
18 F ◐	0514	8.7	265
	1130	0.0	0
	1816	9.8	299
19 Sa	0018	1.6	49
	0621	8.0	244
	1224	0.9	27
	1905	10.0	305
20 Su	0124	1.1	34
	0734	7.5	229
	1322	1.8	55
	1957	10.2	311
21 M	0230	0.5	15
	0851	7.3	223
	1421	2.5	76
	2050	10.4	317
22 Tu	0331	−0.1	−3
	1005	7.5	229
	1521	3.0	91
	2142	10.5	320
23 W	0427	−0.7	−21
	1112	7.8	238
	1618	3.3	101
	2232	10.6	323
24 Th	0518	−1.1	−34
	1210	8.2	250
	1712	3.4	104
	2320	10.5	320
25 F	0604	−1.2	−37
	1301	8.4	256
	1802	3.4	104
26 Sa ○	0006	10.4	317
	0647	−1.3	−40
	1345	8.6	262
	1849	3.4	104
27 Su	0049	10.1	308
	0728	−1.1	−34
	1424	8.7	265
	1933	3.3	101
28 M	0131	9.8	299
	0806	−0.9	−27
	1459	8.7	265
	2015	3.2	98
29 Tu	0210	9.5	290
	0843	−0.6	−18
	1532	8.7	265
	2057	3.1	94
30 W	0250	9.1	277
	0919	−0.2	−6
	1605	8.7	265
	2140	3.0	91

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Aberdeen, Washington, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0331	8.6	262
	0954	0.3	9
	1637	8.7	265
	2225	2.9	88
2 F	0415	8.0	244
	1030	1.0	30
	1711	8.8	268
	2315	2.7	82
3 Sa	0506	7.5	229
	1109	1.7	52
	1748	8.9	271
4 Su ◑	0011	2.5	76
	0606	7.0	213
	1154	2.4	73
	1831	9.0	274
5 M	0112	2.1	64
	0714	6.7	204
	1249	3.1	94
	1919	9.3	283
6 Tu	0213	1.6	49
	0828	6.7	204
	1352	3.6	110
	2011	9.6	293
7 W	0312	0.9	27
	0940	7.0	213
	1455	3.9	119
	2105	10.0	305
8 Th	0408	0.1	3
	1046	7.5	229
	1556	3.9	119
	2159	10.4	317
9 F	0459	−0.7	−21
	1145	8.0	244
	1653	3.7	113
	2252	10.8	329
10 Sa	0548	−1.4	−43
	1237	8.5	259
	1746	3.3	101
	2345	11.1	338
11 Su ●	0634	−1.9	−58
	1325	9.0	274
	1837	2.8	85
12 M	0036	11.3	344
	0719	−2.2	−67
	1410	9.4	287
	1926	2.2	67
13 Tu	0128	11.2	341
	0803	−2.3	−70
	1452	9.8	299
	2016	1.7	52
14 W	0219	10.9	332
	0846	−2.0	−61
	1533	10.1	308
	2106	1.3	40
15 Th	0312	10.3	314
	0929	−1.4	−43
	1613	10.3	314
	2159	1.0	30

	Time	Height	
	h m	ft	cm
16 F	0406	9.5	290
	1014	−0.5	−15
	1655	10.4	317
	2255	0.9	27
17 Sa	0503	8.6	262
	1101	0.6	18
	1739	10.3	314
	2355	0.8	24
18 Su ◐	0607	7.8	238
	1152	1.7	52
	1827	10.2	311
19 M	0059	0.7	21
	0718	7.2	219
	1250	2.7	82
	1920	10.1	308
20 Tu	0205	0.5	15
	0837	7.0	213
	1354	3.4	104
	2019	10.0	305
21 W	0309	0.2	6
	0955	7.1	216
	1458	3.7	113
	2118	9.9	302
22 Th	0408	−0.2	−6
	1104	7.6	232
	1600	3.8	116
	2214	9.9	302
23 F	0500	−0.4	−12
	1158	8.0	244
	1655	3.6	110
	2305	10.0	305
24 Sa	0545	−0.6	−18
	1242	8.3	253
	1745	3.3	101
	2352	9.9	302
25 Su ○	0626	−0.7	−21
	1319	8.6	262
	1831	3.0	91
26 M	0035	9.9	302
	0704	−0.7	−21
	1353	8.8	268
	1913	2.7	82
27 Tu	0115	9.7	296
	0740	−0.6	−18
	1424	9.0	274
	1953	2.4	73
28 W	0153	9.5	290
	0814	−0.3	−9
	1454	9.1	277
	2032	2.2	67
29 Th	0231	9.2	280
	0847	0.1	3
	1522	9.1	277
	2112	2.0	61
30 F	0310	8.7	265
	0919	0.7	21
	1550	9.2	280
	2153	1.9	58
31 Sa	0352	8.2	250
	0951	1.3	40
	1619	9.3	283
	2238	1.9	58

August

	Time	Height	
	h m	ft	cm
1 Su	0438	7.7	235
	1024	2.1	64
	1651	9.3	283
	2329	1.9	58
2 M ◑	0533	7.1	216
	1101	2.8	85
	1731	9.3	283
3 Tu	0028	1.8	55
	0640	6.7	204
	1153	3.6	110
	1821	9.3	283
4 W	0132	1.5	46
	0757	6.6	201
	1308	4.1	125
	1923	9.4	287
5 Th	0237	1.0	30
	0915	6.8	207
	1423	4.3	131
	2030	9.7	296
6 F	0338	0.3	9
	1023	7.4	226
	1531	4.0	122
	2135	10.2	311
7 Sa	0433	−0.5	−15
	1121	8.1	247
	1632	3.4	104
	2236	10.6	323
8 Su	0524	−1.2	−37
	1210	8.8	268
	1728	2.6	79
	2332	11.0	335
9 M ●	0611	−1.7	−52
	1255	9.4	287
	1820	1.8	55
10 Tu	0026	11.2	341
	0655	−2.0	−61
	1337	10.0	305
	1910	1.0	30
11 W	0119	11.2	341
	0738	−1.8	−55
	1418	10.5	320
	1959	0.4	12
12 Th	0211	10.8	329
	0821	−1.4	−43
	1457	10.8	329
	2048	−0.1	−3
13 F	0303	10.2	311
	0903	−0.6	−18
	1536	10.9	332
	2139	−0.2	−6
14 Sa	0355	9.5	290
	0946	0.4	12
	1616	10.8	329
	2232	−0.1	−3
15 Su	0451	8.6	262
	1032	1.5	46
	1700	10.5	320
	2329	0.2	6

	Time	Height	
	h m	ft	cm
16 M ◐	0552	7.7	235
	1124	2.6	79
	1749	10.0	305
17 Tu	0030	0.6	18
	0701	7.1	216
	1223	3.5	107
	1846	9.6	293
18 W	0137	0.8	24
	0820	6.9	210
	1331	4.0	122
	1951	9.2	280
19 Th	0243	0.7	21
	0940	7.1	216
	1440	4.1	125
	2058	9.1	277
20 F	0345	0.5	15
	1045	7.6	232
	1545	3.8	116
	2158	9.2	280
21 Sa	0436	0.3	9
	1131	8.1	247
	1640	3.3	101
	2250	9.4	287
22 Su	0520	0.1	3
	1208	8.5	259
	1728	2.8	85
	2336	9.6	293
23 M	0559	−0.1	−3
	1241	8.9	271
	1811	2.3	70
24 Tu ○	0018	9.6	293
	0635	−0.1	−3
	1312	9.2	280
	1851	1.8	55
25 W	0058	9.6	293
	0709	0.1	3
	1341	9.4	287
	1929	1.4	43
26 Th	0137	9.5	290
	0743	0.4	12
	1409	9.6	293
	2007	1.2	37
27 F	0215	9.2	280
	0815	0.9	27
	1436	9.7	296
	2045	1.0	30
28 Sa	0253	8.9	271
	0847	1.4	43
	1501	9.7	296
	2123	1.0	30
29 Su	0334	8.4	256
	0917	2.0	61
	1527	9.7	296
	2205	1.1	34
30 M	0418	7.9	241
	0948	2.7	82
	1556	9.6	293
	2252	1.2	37
31 Tu	0510	7.3	223
	1024	3.4	104
	1634	9.5	290
	2349	1.4	43

September

	Time	Height	
	h m	ft	cm
1 W ◑	0615	6.9	210
	1117	4.0	122
	1729	9.3	283
2 Th	0055	1.3	40
	0732	6.7	204
	1240	4.4	134
	1844	9.2	280
3 F	0203	1.0	30
	0850	7.0	213
	1402	4.3	131
	2005	9.4	287
4 Sa	0307	0.4	12
	0956	7.7	235
	1513	3.7	113
	2118	9.8	299
5 Su	0404	−0.2	−6
	1050	8.5	259
	1615	2.8	85
	2222	10.3	314
6 M	0456	−0.8	−24
	1136	9.3	283
	1711	1.7	52
	2321	10.7	326
7 Tu	0543	−1.1	−34
	1218	10.1	308
	1803	0.6	18
8 W ●	0016	10.9	332
	0628	−1.1	−34
	1259	10.8	329
	1852	−0.3	−9
9 Th	0109	10.9	332
	0711	−0.8	−24
	1339	11.2	341
	1941	−0.9	−27
10 F	0201	10.6	323
	0754	−0.2	−6
	1418	11.4	347
	2028	−1.2	−37
11 Sa	0253	10.1	308
	0837	0.6	18
	1457	11.3	344
	2117	−1.1	−34
12 Su	0344	9.4	287
	0920	1.6	49
	1538	10.9	332
	2207	−0.6	−18
13 M	0438	8.6	262
	1007	2.5	76
	1622	10.3	314
	2300	0.0	0
14 Tu ◐	0536	7.9	241
	1059	3.4	104
	1712	9.6	293
	2358	0.7	21
15 W	0641	7.4	226
	1200	4.1	125
	1812	8.9	271

	Time	Height	
	h m	ft	cm
16 Th	0103	1.1	34
	0755	7.2	219
	1310	4.4	134
	1922	8.5	259
17 F	0209	1.3	40
	0908	7.4	226
	1422	4.2	128
	2033	8.4	256
18 Sa	0310	1.2	37
	1005	7.8	238
	1527	3.6	110
	2136	8.6	262
19 Su	0401	1.0	30
	1047	8.3	253
	1621	2.9	88
	2229	8.8	268
20 M	0445	0.9	27
	1122	8.9	271
	1706	2.2	67
	2316	9.1	277
21 Tu	0524	0.8	24
	1155	9.3	283
	1748	1.5	46
	2359	9.4	287
22 W	0601	0.9	27
	1226	9.7	296
	1827	0.9	27
23 Th ○	0040	9.5	290
	0636	1.1	34
	1256	10.0	305
	1905	0.5	15
24 F	0121	9.4	287
	0711	1.5	46
	1324	10.1	308
	1942	0.2	6
25 Sa	0201	9.3	283
	0745	1.9	58
	1351	10.2	311
	2020	0.1	3
26 Su	0241	9.0	274
	0818	2.4	73
	1417	10.2	311
	2058	0.1	3
27 M	0323	8.6	262
	0851	2.9	88
	1443	10.1	308
	2139	0.3	9
28 Tu	0408	8.1	247
	0926	3.4	104
	1513	9.9	302
	2224	0.6	18
29 W	0459	7.7	235
	1007	3.9	119
	1554	9.6	293
	2319	0.8	24
30 Th ◑	0601	7.3	223
	1107	4.3	131
	1656	9.3	283

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Aberdeen, Washington, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0023	1.0	30
	0712	7.3	223
	1228	4.5	137
	1819	9.0	274
2 Sa	0130	0.9	27
	0822	7.7	235
	1346	4.0	122
	1945	9.0	274
3 Su	0233	0.6	18
	0922	8.4	256
	1457	3.1	94
	2102	9.3	283
4 M	0331	0.3	9
	1013	9.2	280
	1558	1.9	58
	2209	9.8	299
5 Tu	0424	0.1	3
	1057	10.1	308
	1654	0.7	21
	2309	10.1	308
6 W	0513	0.1	3
	1140	10.9	332
	1745	−0.5	−15
7 Th ●	0005	10.4	317
	0559	0.3	9
	1220	11.5	351
	1834	−1.3	−40
8 F	0059	10.4	317
	0644	0.7	21
	1301	11.7	357
	1922	−1.7	−52
9 Sa	0152	10.2	311
	0728	1.3	40
	1341	11.7	357
	2008	−1.8	−55
10 Su	0243	9.8	299
	0812	2.0	61
	1422	11.4	347
	2054	−1.4	−43
11 M	0334	9.3	283
	0857	2.7	82
	1503	10.8	329
	2142	−0.8	−24
12 Tu	0425	8.8	268
	0944	3.4	104
	1548	10.1	308
	2231	0.0	0
13 W	0518	8.2	250
	1036	4.0	122
	1638	9.2	280
	2324	0.7	21
14 Th ◐	0616	7.8	238
	1137	4.4	134
	1737	8.5	259
15 F	0023	1.4	43
	0718	7.7	235
	1245	4.5	137
	1846	8.0	244

	Time	Height	
	h m	ft	cm
16 Sa	0124	1.7	52
	0819	7.8	238
	1356	4.1	125
	1957	7.8	238
17 Su	0222	1.9	58
	0911	8.2	250
	1500	3.4	104
	2103	7.9	241
18 M	0315	1.9	58
	0954	8.8	268
	1554	2.6	79
	2200	8.3	253
19 Tu	0401	1.9	58
	1032	9.3	283
	1640	1.7	52
	2250	8.7	265
20 W	0443	1.9	58
	1106	9.9	302
	1721	0.9	27
	2337	9.0	274
21 Th	0524	2.1	64
	1140	10.3	314
	1801	0.3	9
22 F ○	0022	9.2	280
	0603	2.3	70
	1212	10.6	323
	1840	−0.2	−6
23 Sa	0107	9.3	283
	0641	2.6	79
	1243	10.7	326
	1919	−0.4	−12
24 Su	0150	9.3	283
	0718	3.0	91
	1313	10.7	326
	1958	−0.5	−15
25 M	0234	9.1	277
	0755	3.3	101
	1343	10.7	326
	2037	−0.5	−15
26 Tu	0318	8.8	268
	0834	3.7	113
	1415	10.5	320
	2119	−0.3	−9
27 W	0403	8.5	259
	0915	3.9	119
	1452	10.2	311
	2205	−0.1	−3
28 Th	0453	8.2	250
	1003	4.2	128
	1541	9.8	299
	2256	0.3	9
29 F	0548	8.1	247
	1105	4.3	131
	1646	9.3	283
	2354	0.6	18
30 Sa ◑	0648	8.2	250
	1217	4.1	125
	1805	8.8	268
31 Su	0055	0.9	27
	0747	8.6	262
	1331	3.5	107
	1928	8.6	262

November

	Time	Height	
	h m	ft	cm
1 M	0157	1.0	30
	0843	9.3	283
	1439	2.4	73
	2046	8.7	265
2 Tu	0256	1.1	34
	0933	10.1	308
	1541	1.2	37
	2156	9.1	277
3 W	0350	1.3	40
	1019	10.9	332
	1637	0.0	0
	2259	9.4	287
4 Th	0442	1.5	46
	1102	11.5	351
	1728	−1.0	−30
	2357	9.7	296
5 F ●	0531	1.8	55
	1145	11.9	363
	1817	−1.7	−52
6 Sa	0052	9.8	299
	0619	2.2	67
	1228	12.0	366
	1903	−1.9	−58
7 Su	0145	9.8	299
	0706	2.6	79
	1311	11.7	357
	1949	−1.8	−55
8 M	0235	9.7	296
	0752	3.1	94
	1353	11.3	344
	2033	−1.4	−43
9 Tu	0323	9.4	287
	0837	3.5	107
	1436	10.6	323
	2118	−0.7	−21
10 W	0410	9.0	274
	0924	3.9	119
	1520	9.9	302
	2203	0.0	0
11 Th	0456	8.7	265
	1014	4.2	128
	1608	9.1	277
	2249	0.7	21
12 F	0543	8.4	256
	1110	4.4	134
	1702	8.4	256
	2339	1.4	43
13 Sa ◐	0632	8.3	253
	1213	4.3	131
	1803	7.8	238
14 Su	0032	2.0	61
	0722	8.4	256
	1319	3.9	119
	1911	7.5	229
15 M	0126	2.4	73
	0810	8.7	265
	1422	3.3	101
	2020	7.5	229

	Time	Height	
	h m	ft	cm
16 Tu	0220	2.7	82
	0856	9.2	280
	1518	2.4	73
	2124	7.7	235
17 W	0311	2.9	88
	0938	9.7	296
	1607	1.6	49
	2222	8.1	247
18 Th	0400	3.1	94
	1018	10.3	314
	1653	0.8	24
	2315	8.6	262
19 F	0446	3.3	101
	1056	10.7	326
	1735	0.1	3
20 Sa	0006	8.9	271
	0530	3.5	107
	1133	11.0	335
	1817	−0.4	−12
21 Su ○	0054	9.2	280
	0613	3.7	113
	1210	11.1	338
	1858	−0.8	−24
22 M	0141	9.3	283
	0655	3.8	116
	1247	11.2	341
	1939	−1.0	−30
23 Tu	0227	9.3	283
	0738	3.8	116
	1325	11.1	338
	2020	−1.0	−30
24 W	0311	9.2	280
	0821	3.9	119
	1405	10.9	332
	2103	−0.9	−27
25 Th	0355	9.1	277
	0907	3.9	119
	1450	10.6	323
	2147	−0.7	−21
26 F	0440	9.1	277
	0958	3.8	116
	1542	10.0	305
	2234	−0.2	−6
27 Sa	0527	9.1	277
	1057	3.7	113
	1643	9.4	287
	2325	0.3	9
28 Su ◑	0617	9.3	283
	1202	3.3	101
	1754	8.8	268
29 M	0021	1.0	30
	0708	9.7	296
	1311	2.7	82
	1911	8.3	253
30 Tu	0120	1.6	49
	0801	10.2	311
	1419	1.7	52
	2029	8.2	250

December

	Time	Height	
	h m	ft	cm
1 W	0219	2.1	64
	0852	10.8	329
	1521	0.7	21
	2143	8.4	256
2 Th	0318	2.6	79
	0942	11.3	344
	1619	−0.3	−9
	2251	8.7	265
3 F	0414	2.9	88
	1031	11.7	357
	1711	−1.0	−30
	2352	9.1	277
4 Sa	0507	3.2	98
	1118	11.8	360
	1800	−1.4	−43
5 Su ●	0048	9.4	287
	0558	3.4	104
	1204	11.7	357
	1847	−1.5	−46
6 M	0139	9.5	290
	0647	3.5	107
	1250	11.5	351
	1931	−1.4	−43
7 Tu	0226	9.6	293
	0734	3.6	110
	1334	11.0	335
	2013	−1.1	−34
8 W	0309	9.5	290
	0820	3.7	113
	1417	10.5	320
	2054	−0.6	−18
9 Th	0348	9.3	283
	0905	3.8	116
	1459	9.9	302
	2134	0.0	0
10 F	0426	9.1	277
	0951	3.9	119
	1542	9.2	280
	2214	0.6	18
11 Sa	0503	9.0	274
	1040	3.9	119
	1628	8.6	262
	2255	1.3	40
12 Su	0541	9.0	274
	1134	3.8	116
	1722	7.9	241
	2338	2.0	61
13 M ◐	0622	9.0	274
	1234	3.6	110
	1823	7.4	226
14 Tu	0027	2.7	82
	0707	9.2	280
	1335	3.1	94
	1932	7.2	219
15 W	0121	3.3	101
	0754	9.5	290
	1435	2.4	73
	2043	7.3	223

	Time	Height	
	h m	ft	cm
16 Th	0218	3.8	116
	0842	9.9	302
	1531	1.7	52
	2151	7.6	232
17 F	0314	4.1	125
	0929	10.3	314
	1622	0.9	27
	2252	8.1	247
18 Sa	0409	4.3	131
	1016	10.7	326
	1709	0.2	6
	2349	8.6	262
19 Su	0500	4.3	131
	1101	11.1	338
	1754	−0.4	−12
20 M	0040	9.0	274
	0549	4.2	128
	1146	11.3	344
	1838	−0.9	−27
21 Tu ○	0128	9.3	283
	0636	4.0	122
	1231	11.4	347
	1921	−1.3	−40
22 W	0214	9.6	293
	0722	3.7	113
	1316	11.4	347
	2003	−1.4	−43
23 Th	0256	9.8	299
	0809	3.4	104
	1402	11.3	344
	2045	−1.4	−43
24 F	0337	9.9	302
	0856	3.1	94
	1450	10.9	332
	2127	−1.0	−30
25 Sa	0417	10.1	308
	0947	2.8	85
	1542	10.3	314
	2211	−0.4	−12
26 Su	0458	10.2	311
	1043	2.5	76
	1638	9.5	290
	2257	0.4	12
27 M ◑	0541	10.4	317
	1143	2.2	67
	1742	8.7	265
	2348	1.3	40
28 Tu	0628	10.6	323
	1248	1.8	55
	1854	8.0	244
29 W	0045	2.3	70
	0720	10.7	326
	1355	1.2	37
	2013	7.7	235
30 Th	0146	3.1	94
	0815	10.9	332
	1500	0.6	18
	2132	7.8	238
31 F	0249	3.7	113
	0912	11.1	338
	1600	0.0	0
	2246	8.2	250

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Neah Bay, Washington, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0129	7.2	219
	0619	4.0	122
	1214	10.2	311
	1937	−2.2	−67
2 Sa	0210	7.5	229
	0715	3.7	113
	1305	9.9	302
	2019	−1.9	−58
3 Su	0251	7.8	238
	0813	3.3	101
	1357	9.3	283
	2100	−1.3	−40
4 M	0333	8.1	247
	0914	3.0	91
	1451	8.4	256
	2140	−0.4	−12
5 Tu	0416	8.3	253
	1021	2.7	82
	1551	7.4	226
	2220	0.6	18
6 W	0501	8.5	259
	1134	2.4	73
	1701	6.3	192
	2300	1.8	55
7 Th ◑	0548	8.6	262
	1251	1.9	58
	1828	5.5	168
	2341	2.8	85
8 F	0639	8.7	265
	1407	1.4	43
	2008	5.2	158
9 Sa	0028	3.8	116
	0733	8.7	265
	1514	0.8	24
	2142	5.3	162
10 Su	0133	4.5	137
	0828	8.7	265
	1611	0.3	9
	2255	5.7	174
11 M	0256	4.9	149
	0922	8.7	265
	1700	−0.1	−3
	2347	6.0	183
12 Tu	0409	5.0	152
	1011	8.8	268
	1742	−0.4	−12
13 W	0026	6.3	192
	0504	4.8	146
	1055	8.8	268
	1820	−0.5	−15
14 Th ●	0059	6.6	201
	0548	4.6	140
	1135	8.8	268
	1854	−0.6	−18
15 F	0130	6.8	207
	0628	4.3	131
	1212	8.7	265
	1926	−0.5	−15

	Time	Height	
	h m	ft	cm
16 Sa	0159	6.9	210
	0705	4.0	122
	1247	8.5	259
	1954	−0.3	−9
17 Su	0228	7.1	216
	0743	3.8	116
	1322	8.1	247
	2021	0.0	0
18 M	0255	7.2	219
	0823	3.6	110
	1358	7.7	235
	2046	0.5	15
19 Tu	0321	7.4	226
	0906	3.4	104
	1436	7.1	216
	2110	1.1	34
20 W	0346	7.5	229
	0954	3.2	98
	1519	6.5	198
	2135	1.7	52
21 Th	0413	7.7	235
	1048	2.9	88
	1610	5.8	177
	2201	2.4	73
22 F	0445	7.9	241
	1152	2.6	79
	1718	5.2	158
	2231	3.1	94
23 Sa ◐	0523	8.0	244
	1305	2.1	64
	1852	4.9	149
	2309	3.8	116
24 Su	0612	8.3	253
	1418	1.4	43
	2046	4.9	149
25 M	0003	4.4	134
	0713	8.5	259
	1523	0.6	18
	2209	5.3	162
26 Tu	0122	4.7	143
	0819	8.9	271
	1618	−0.3	−9
	2303	5.9	180
27 W	0255	4.8	146
	0923	9.3	283
	1707	−1.0	−30
	2346	6.4	195
28 Th	0415	4.4	134
	1022	9.7	296
	1752	−1.6	−49
29 F ○	0024	7.0	213
	0520	3.8	116
	1118	10.0	305
	1834	−1.8	−55
30 Sa	0101	7.5	229
	0618	3.2	98
	1211	9.9	302
	1915	−1.7	−52
31 Su	0138	8.0	244
	0713	2.5	76
	1303	9.6	293
	1954	−1.3	−40

February

	Time	Height	
	h m	ft	cm
1 M	0215	8.4	256
	0808	2.0	61
	1354	8.9	271
	2031	−0.5	−15
2 Tu	0253	8.7	265
	0904	1.6	49
	1448	8.1	247
	2108	0.4	12
3 W	0332	8.9	271
	1002	1.4	43
	1545	7.1	216
	2143	1.5	46
4 Th	0412	8.9	271
	1105	1.3	40
	1651	6.1	186
	2217	2.6	79
5 F ◑	0457	8.7	265
	1215	1.3	40
	1813	5.4	165
	2252	3.6	110
6 Sa	0547	8.4	256
	1331	1.2	37
	1955	5.1	155
	2333	4.4	134
7 Su	0648	8.2	250
	1444	1.0	30
	2135	5.3	162
8 M	0044	4.9	149
	0757	8.0	244
	1547	0.7	21
	2246	5.6	171
9 Tu	0253	5.1	155
	0903	8.0	244
	1638	0.4	12
	2329	6.0	183
10 W	0411	4.8	146
	0959	8.1	247
	1721	0.2	6
11 Th	0001	6.3	192
	0502	4.4	134
	1046	8.2	250
	1757	0.0	0
12 F	0029	6.6	201
	0543	4.0	122
	1127	8.2	250
	1829	0.0	0
13 Sa ●	0055	6.9	210
	0620	3.5	107
	1204	8.2	250
	1857	0.1	3
14 Su	0120	7.1	216
	0655	3.1	94
	1239	8.0	244
	1922	0.3	9
15 M	0143	7.4	226
	0730	2.7	82
	1314	7.8	238
	1946	0.6	18

	Time	Height	
	h m	ft	cm
16 Tu	0205	7.6	232
	0806	2.4	73
	1349	7.4	226
	2009	1.1	34
17 W	0227	7.8	238
	0844	2.1	64
	1428	7.0	213
	2031	1.7	52
18 Th	0250	8.0	244
	0926	1.9	58
	1510	6.5	198
	2055	2.3	70
19 F	0317	8.1	247
	1013	1.7	52
	1600	5.9	180
	2121	2.9	88
20 Sa	0349	8.2	250
	1110	1.6	49
	1704	5.4	165
	2152	3.5	107
21 Su ◐	0430	8.2	250
	1219	1.4	43
	1833	5.0	152
	2231	4.1	125
22 M	0524	8.2	250
	1337	1.0	30
	2025	5.0	152
	2333	4.6	140
23 Tu	0636	8.2	250
	1450	0.5	15
	2144	5.4	165
24 W	0112	4.8	146
	0757	8.4	256
	1550	−0.1	−3
	2234	6.0	183
25 Th	0301	4.4	134
	0912	8.7	265
	1641	−0.7	−21
	2313	6.6	201
26 F	0421	3.7	113
	1016	9.0	274
	1726	−1.0	−30
	2349	7.3	223
27 Sa	0522	2.7	82
	1114	9.2	280
	1808	−1.0	−30
28 Su ○	0024	7.9	241
	0616	1.8	55
	1208	9.1	277
	1847	−0.7	−21

March

	Time	Height	
	h m	ft	cm
1 M	0059	8.5	259
	0707	1.0	30
	1300	8.8	268
	1924	−0.1	−3
2 Tu	0134	8.9	271
	0757	0.4	12
	1352	8.3	253
	2000	0.7	21
3 W	0210	9.2	280
	0847	0.1	3
	1444	7.6	232
	2034	1.6	49
4 Th	0247	9.1	277
	0939	0.1	3
	1540	6.8	207
	2108	2.5	76
5 F	0326	8.9	271
	1034	0.4	12
	1642	6.1	186
	2141	3.3	101
6 Sa	0408	8.5	259
	1136	0.7	21
	1758	5.5	168
	2216	4.1	125
7 Su ◑	0457	7.9	241
	1247	1.0	30
	1932	5.3	162
	2302	4.6	140
8 M	0602	7.4	226
	1402	1.1	34
	2104	5.4	165
9 Tu	0040	5.0	152
	0725	7.1	216
	1509	1.1	34
	2207	5.6	171
10 W	0257	4.8	146
	0843	7.1	216
	1603	0.9	27
	2247	6.0	183
11 Th	0405	4.3	131
	0943	7.2	219
	1646	0.8	24
	2317	6.3	192
12 F	0451	3.7	113
	1032	7.3	223
	1721	0.7	21
	2344	6.7	204
13 Sa	0529	3.0	91
	1114	7.4	226
	1752	0.8	24
14 Su	0008	7.0	213
	0604	2.4	73
	1153	7.5	229
	1819	0.9	27
15 M ●	0030	7.4	226
	0638	1.8	55
	1230	7.4	226
	1843	1.2	37

	Time	Height	
	h m	ft	cm
16 Tu	0052	7.7	235
	0712	1.3	40
	1307	7.3	223
	1907	1.6	49
17 W	0114	8.0	244
	0747	0.9	27
	1344	7.1	216
	1931	2.1	64
18 Th	0137	8.2	250
	0823	0.6	18
	1424	6.8	207
	1956	2.6	79
19 F	0203	8.3	253
	0903	0.5	15
	1508	6.4	195
	2023	3.1	94
20 Sa	0233	8.4	256
	0949	0.5	15
	1600	5.9	180
	2053	3.5	107
21 Su	0309	8.4	256
	1042	0.5	15
	1703	5.5	168
	2130	4.0	122
22 M	0355	8.2	250
	1147	0.6	18
	1827	5.2	158
	2221	4.3	131
23 Tu ◐	0455	7.9	241
	1300	0.5	15
	1959	5.4	165
	2343	4.6	140
24 W	0614	7.6	232
	1412	0.3	9
	2105	5.8	177
25 Th	0140	4.4	134
	0744	7.6	232
	1514	0.1	3
	2152	6.4	195
26 F	0318	3.6	110
	0905	7.7	235
	1607	0.0	0
	2231	7.1	216
27 Sa	0424	2.5	76
	1013	7.9	241
	1653	0.0	0
	2308	7.8	238
28 Su	0519	1.3	40
	1112	8.0	244
	1734	0.3	9
	2343	8.4	256
29 M ○	0609	0.3	9
	1207	8.0	244
	1814	0.8	24
30 Tu	0018	8.9	271
	0656	−0.5	−15
	1259	7.8	238
	1851	1.3	40
31 W	0054	9.2	280
	0742	−0.9	−27
	1350	7.5	229
	1927	2.0	61

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Neah Bay, Washington, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0130	9.3	283
	0828	−1.0	−30
	1441	7.1	216
	2003	2.7	82
2 F	0206	9.0	274
	0915	−0.8	−24
	1534	6.6	201
	2038	3.3	101
3 Sa	0244	8.6	262
	1004	−0.3	−9
	1632	6.1	186
	2114	3.9	119
4 Su	0325	8.0	244
	1058	0.2	6
	1740	5.7	174
	2156	4.3	131
5 M	0412	7.4	226
	1200	0.7	21
	1858	5.5	168
	2257	4.6	140
6 Tu ◑	0515	6.7	204
	1307	1.1	34
	2014	5.5	168
7 W	0055	4.7	143
	0641	6.3	192
	1413	1.3	40
	2110	5.8	177
8 Th	0242	4.2	128
	0808	6.1	186
	1508	1.4	43
	2150	6.1	186
9 F	0345	3.6	110
	0916	6.2	189
	1553	1.4	43
	2222	6.5	198
10 Sa	0430	2.8	85
	1011	6.3	192
	1630	1.6	49
	2249	6.9	210
11 Su	0508	2.0	61
	1058	6.5	198
	1702	1.7	52
	2313	7.3	223
12 M	0543	1.2	37
	1140	6.6	201
	1731	2.0	61
	2336	7.7	235
13 Tu	0617	0.6	18
	1221	6.7	204
	1759	2.3	70
14 W ●	0000	8.1	247
	0651	0.0	0
	1301	6.7	204
	1827	2.6	79
15 Th	0026	8.3	253
	0727	−0.4	−12
	1342	6.7	204
	1856	3.0	91

	Time	Height	
	h m	ft	cm
16 F	0054	8.6	262
	0805	−0.7	−21
	1424	6.5	198
	1926	3.3	101
17 Sa	0126	8.6	262
	0847	−0.8	−24
	1511	6.2	189
	2000	3.6	110
18 Su	0202	8.6	262
	0933	−0.7	−21
	1604	6.0	183
	2040	3.9	119
19 M	0245	8.4	256
	1024	−0.5	−15
	1706	5.7	174
	2130	4.1	125
20 Tu	0336	8.0	244
	1122	−0.3	−9
	1816	5.7	174
	2239	4.3	131
21 W ◐	0441	7.4	226
	1225	0.0	0
	1924	5.9	180
22 Th	0019	4.1	125
	0604	6.9	210
	1329	0.3	9
	2020	6.4	195
23 F	0205	3.4	104
	0736	6.6	201
	1429	0.5	15
	2106	7.0	213
24 Sa	0322	2.3	70
	0900	6.5	198
	1523	0.9	27
	2147	7.7	235
25 Su	0421	1.1	34
	1011	6.6	201
	1612	1.3	40
	2226	8.3	253
26 M	0512	0.0	0
	1112	6.8	207
	1657	1.7	52
	2303	8.8	268
27 Tu	0559	−0.9	−27
	1208	6.9	210
	1739	2.2	67
	2340	9.1	277
28 W ○	0644	−1.5	−46
	1259	6.9	210
	1819	2.7	82
29 Th	0017	9.2	280
	0727	−1.7	−52
	1349	6.8	207
	1858	3.1	94
30 F	0054	9.1	277
	0810	−1.6	−49
	1437	6.6	201
	1936	3.5	107

May

	Time	Height	
	h m	ft	cm
1 Sa	0132	8.7	265
	0853	−1.3	−40
	1527	6.3	192
	2015	3.8	116
2 Su	0210	8.2	250
	0938	−0.8	−24
	1619	6.1	186
	2057	4.1	125
3 M	0251	7.6	232
	1024	−0.3	−9
	1716	5.8	177
	2147	4.2	128
4 Tu	0336	6.9	210
	1113	0.3	9
	1816	5.7	174
	2256	4.3	131
5 W ◑	0431	6.2	189
	1205	0.8	24
	1915	5.8	177
6 Th	0035	4.2	128
	0546	5.6	171
	1258	1.3	40
	2004	6.0	183
7 F	0208	3.6	110
	0716	5.3	162
	1349	1.7	52
	2044	6.3	192
8 Sa	0312	2.9	88
	0837	5.2	158
	1436	2.0	61
	2117	6.7	204
9 Su	0359	2.0	61
	0943	5.3	162
	1518	2.3	70
	2147	7.1	216
10 M	0440	1.1	34
	1039	5.5	168
	1557	2.6	79
	2214	7.6	232
11 Tu	0517	0.3	9
	1127	5.8	177
	1634	2.9	88
	2243	8.0	244
12 W	0554	−0.4	−12
	1212	6.0	183
	1710	3.2	98
	2313	8.4	256
13 Th ●	0631	−1.1	−34
	1256	6.2	189
	1747	3.4	104
	2346	8.7	265
14 F	0710	−1.5	−46
	1339	6.3	192
	1825	3.5	107
15 Sa	0023	8.9	271
	0751	−1.8	−55
	1424	6.3	192
	1905	3.7	113

	Time	Height	
	h m	ft	cm
16 Su	0102	8.9	271
	0834	−1.8	−55
	1511	6.2	189
	1950	3.8	116
17 M	0146	8.7	265
	0919	−1.7	−52
	1601	6.2	189
	2042	3.8	116
18 Tu	0234	8.3	253
	1007	−1.4	−43
	1654	6.2	189
	2145	3.8	116
19 W	0330	7.6	232
	1057	−0.9	−27
	1750	6.3	192
	2305	3.6	110
20 Th ◐	0436	6.8	207
	1149	−0.2	−6
	1843	6.7	204
21 F	0038	3.1	94
	0558	6.1	186
	1243	0.5	15
	1934	7.1	216
22 Sa	0204	2.2	67
	0731	5.6	171
	1339	1.2	37
	2021	7.6	232
23 Su	0314	1.1	34
	0858	5.4	165
	1434	1.9	58
	2105	8.1	247
24 M	0412	0.0	0
	1013	5.5	168
	1527	2.4	73
	2147	8.6	262
25 Tu	0502	−0.9	−27
	1116	5.8	177
	1618	2.9	88
	2228	8.8	268
26 W	0548	−1.5	−46
	1211	6.0	183
	1706	3.3	101
	2309	9.0	274
27 Th ○	0631	−1.9	−58
	1301	6.2	189
	1752	3.5	107
	2349	8.9	271
28 F	0713	−2.0	−61
	1346	6.3	192
	1835	3.7	113
29 Sa	0028	8.7	265
	0753	−1.9	−58
	1430	6.2	189
	1917	3.8	116
30 Su	0107	8.3	253
	0833	−1.6	−49
	1514	6.2	189
	1959	3.8	116
31 M	0146	7.9	241
	0912	−1.1	−34
	1558	6.1	186
	2045	3.9	119

June

	Time	Height	
	h m	ft	cm
1 Tu	0226	7.3	223
	0950	−0.6	−18
	1642	6.0	183
	2137	3.9	119
2 W	0308	6.6	201
	1027	−0.1	−3
	1727	6.0	183
	2240	3.8	116
3 Th	0357	5.9	180
	1104	0.5	15
	1811	6.1	186
	2356	3.5	107
4 F ◑	0457	5.3	162
	1141	1.2	37
	1852	6.3	192
5 Sa	0117	3.0	91
	0617	4.7	143
	1220	1.8	55
	1930	6.5	198
6 Su	0226	2.3	70
	0749	4.4	134
	1302	2.4	73
	2006	6.9	210
7 M	0321	1.5	46
	0912	4.5	137
	1350	2.9	88
	2041	7.3	223
8 Tu	0407	0.6	18
	1019	4.8	146
	1441	3.3	101
	2117	7.7	235
9 W	0450	−0.3	−9
	1115	5.2	158
	1533	3.6	110
	2156	8.2	250
10 Th	0531	−1.1	−34
	1203	5.5	168
	1625	3.7	113
	2237	8.6	262
11 F	0612	−1.7	−52
	1247	5.8	177
	1715	3.7	113
	2319	8.9	271
12 Sa ●	0653	−2.2	−67
	1330	6.1	186
	1804	3.7	113
13 Su	0004	9.1	277
	0736	−2.5	−76
	1413	6.2	189
	1855	3.5	107
14 M	0050	9.0	274
	0818	−2.5	−76
	1456	6.4	195
	1949	3.4	104
15 Tu	0139	8.7	265
	0901	−2.2	−67
	1540	6.6	201
	2048	3.2	98

	Time	Height	
	h m	ft	cm
16 W	0231	8.1	247
	0944	−1.7	−52
	1625	6.8	207
	2155	2.9	88
17 Th	0328	7.3	223
	1027	−0.9	−27
	1711	7.0	213
	2310	2.5	76
18 F ◐	0434	6.3	192
	1111	0.0	0
	1759	7.4	226
19 Sa	0031	1.9	58
	0554	5.4	165
	1157	1.0	30
	1848	7.7	235
20 Su	0149	1.1	34
	0726	4.8	146
	1246	1.9	58
	1937	8.0	244
21 M	0258	0.3	9
	0858	4.7	143
	1342	2.8	85
	2027	8.2	250
22 Tu	0358	−0.5	−15
	1017	4.9	149
	1445	3.4	104
	2116	8.4	256
23 W	0450	−1.1	−34
	1121	5.2	158
	1549	3.7	113
	2203	8.5	259
24 Th	0536	−1.6	−49
	1213	5.6	171
	1647	3.8	116
	2249	8.5	259
25 F	0619	−1.8	−55
	1257	5.8	177
	1738	3.8	116
	2332	8.4	256
26 Sa ○	0658	−1.8	−55
	1336	6.0	183
	1823	3.7	113
27 Su	0013	8.3	253
	0736	−1.7	−52
	1413	6.1	186
	1906	3.6	110
28 M	0052	8.0	244
	0810	−1.5	−46
	1448	6.1	186
	1948	3.4	104
29 Tu	0129	7.6	232
	0843	−1.1	−34
	1523	6.2	189
	2031	3.3	101
30 W	0207	7.1	216
	0914	−0.6	−18
	1557	6.2	189
	2118	3.2	98

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Neah Bay, Washington, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0247	6.5	198
	0942	−0.1	−3
	1629	6.3	192
	2211	3.0	91
2 F	0331	5.8	177
	1010	0.6	18
	1702	6.4	195
	2311	2.8	85
3 Sa	0423	5.1	155
	1038	1.3	40
	1735	6.6	201
4 Su ◑	0019	2.4	73
	0531	4.5	137
	1109	2.0	61
	1810	6.8	207
5 M	0130	1.8	55
	0701	4.1	125
	1146	2.6	79
	1851	7.1	216
6 Tu	0235	1.1	34
	0840	4.1	125
	1233	3.2	98
	1938	7.4	226
7 W	0332	0.3	9
	1001	4.5	137
	1334	3.7	113
	2029	7.8	238
8 Th	0422	−0.5	−15
	1100	4.9	149
	1445	3.9	119
	2121	8.2	250
9 F	0508	−1.3	−40
	1148	5.3	162
	1555	3.8	116
	2213	8.6	262
10 Sa	0552	−2.0	−61
	1229	5.7	174
	1658	3.6	110
	2304	9.0	274
11 Su ●	0635	−2.4	−73
	1308	6.1	186
	1756	3.2	98
	2354	9.1	277
12 M	0716	−2.6	−79
	1346	6.5	198
	1852	2.8	85
13 Tu	0044	9.0	274
	0757	−2.5	−76
	1425	6.8	207
	1948	2.4	73
14 W	0135	8.6	262
	0837	−2.0	−61
	1504	7.2	219
	2046	2.0	61
15 Th	0229	7.9	241
	0916	−1.3	−40
	1545	7.5	229
	2149	1.6	49

	Time	Height	
	h m	ft	cm
16 F	0326	6.9	210
	0954	−0.3	−9
	1627	7.7	235
	2256	1.2	37
17 Sa	0431	5.9	180
	1033	0.8	24
	1712	7.9	241
18 Su ◐	0009	0.9	27
	0549	5.1	155
	1113	1.8	55
	1802	7.9	241
19 M	0124	0.5	15
	0723	4.6	140
	1159	2.8	85
	1856	7.9	241
20 Tu	0236	0.0	0
	0859	4.5	137
	1258	3.5	107
	1956	7.9	241
21 W	0340	−0.5	−15
	1020	4.8	146
	1422	4.0	122
	2055	7.9	241
22 Th	0434	−0.9	−27
	1119	5.2	158
	1544	4.0	122
	2150	7.9	241
23 F	0521	−1.1	−34
	1203	5.5	168
	1647	3.9	119
	2239	8.0	244
24 Sa	0602	−1.3	−40
	1239	5.7	174
	1735	3.6	110
	2323	8.0	244
25 Su ○	0639	−1.3	−40
	1311	5.9	180
	1817	3.3	101
26 M	0003	7.9	241
	0712	−1.2	−37
	1341	6.1	186
	1856	3.0	91
27 Tu	0040	7.7	235
	0742	−0.9	−27
	1409	6.3	192
	1934	2.7	82
28 W	0116	7.3	223
	0809	−0.6	−18
	1436	6.4	195
	2013	2.5	76
29 Th	0153	6.9	210
	0834	−0.1	−3
	1502	6.6	201
	2054	2.2	67
30 F	0231	6.4	195
	0858	0.5	15
	1527	6.7	204
	2138	2.1	64
31 Sa	0312	5.8	177
	0922	1.1	34
	1554	6.8	207
	2228	1.9	58

August

	Time	Height	
	h m	ft	cm
1 Su	0401	5.2	158
	0947	1.8	55
	1623	6.9	210
	2326	1.7	52
2 M ◑	0502	4.6	140
	1015	2.5	76
	1659	7.0	213
3 Tu	0034	1.4	43
	0626	4.2	128
	1051	3.1	94
	1745	7.2	219
4 W	0147	0.9	27
	0814	4.2	128
	1140	3.6	110
	1844	7.4	226
5 Th	0255	0.3	9
	0942	4.5	137
	1253	4.0	122
	1952	7.7	235
6 F	0353	−0.5	−15
	1038	4.9	149
	1425	4.0	122
	2058	8.1	247
7 Sa	0443	−1.2	−37
	1121	5.4	165
	1548	3.6	110
	2159	8.5	259
8 Su	0528	−1.7	−52
	1158	6.0	183
	1655	3.1	94
	2255	8.8	268
9 M ●	0610	−2.0	−61
	1233	6.5	198
	1753	2.3	70
	2348	8.9	271
10 Tu	0650	−2.0	−61
	1309	7.1	216
	1847	1.6	49
11 W	0040	8.8	268
	0729	−1.7	−52
	1345	7.6	232
	1941	1.0	30
12 Th	0132	8.3	253
	0806	−1.1	−34
	1422	8.0	244
	2035	0.5	15
13 F	0226	7.6	232
	0843	−0.2	−6
	1500	8.2	250
	2132	0.2	6
14 Sa	0323	6.7	204
	0920	0.8	24
	1541	8.3	253
	2233	0.1	3
15 Su	0427	5.8	177
	0956	1.8	55
	1625	8.2	250
	2340	0.2	6

	Time	Height	
	h m	ft	cm
16 M ◐	0544	5.1	155
	1036	2.8	85
	1716	7.9	241
17 Tu	0053	0.2	6
	0717	4.7	143
	1124	3.6	110
	1818	7.6	232
18 W	0208	0.1	3
	0853	4.8	146
	1241	4.1	125
	1931	7.3	223
19 Th	0315	0.0	0
	1008	5.1	155
	1436	4.2	128
	2042	7.3	223
20 F	0412	−0.2	−6
	1058	5.4	165
	1554	3.9	119
	2142	7.3	223
21 Sa	0458	−0.4	−12
	1134	5.7	174
	1648	3.5	107
	2233	7.4	226
22 Su	0537	−0.5	−15
	1204	6.0	183
	1730	3.0	91
	2315	7.5	229
23 M	0611	−0.4	−12
	1231	6.3	192
	1807	2.5	76
	2354	7.4	226
24 Tu ○	0640	−0.3	−9
	1257	6.5	198
	1842	2.1	64
25 W	0030	7.3	223
	0706	0.0	0
	1321	6.8	207
	1917	1.7	52
26 Th	0106	7.1	216
	0730	0.4	12
	1343	7.0	213
	1952	1.4	43
27 F	0142	6.8	207
	0753	0.9	27
	1405	7.1	216
	2028	1.2	37
28 Sa	0219	6.4	195
	0815	1.5	46
	1428	7.3	223
	2108	1.1	34
29 Su	0301	5.9	180
	0839	2.1	64
	1454	7.3	223
	2152	1.0	30
30 M	0348	5.4	165
	0905	2.6	79
	1524	7.4	226
	2244	1.0	30
31 Tu	0447	4.9	149
	0935	3.2	98
	1602	7.3	223
	2348	0.9	27

September

	Time	Height	
	h m	ft	cm
1 W ◑	0609	4.6	140
	1014	3.7	113
	1654	7.3	223
2 Th	0103	0.7	21
	0755	4.6	140
	1114	4.1	125
	1803	7.3	223
3 F	0217	0.3	9
	0914	4.9	149
	1248	4.2	128
	1926	7.4	226
4 Sa	0319	−0.2	−6
	1004	5.4	165
	1436	3.9	119
	2044	7.7	235
5 Su	0411	−0.7	−21
	1043	6.0	183
	1555	3.1	94
	2151	8.1	247
6 M	0457	−1.0	−30
	1118	6.7	204
	1655	2.1	64
	2250	8.4	256
7 Tu	0539	−1.0	−30
	1152	7.4	226
	1749	1.1	34
	2344	8.4	256
8 W ●	0618	−0.8	−24
	1227	8.0	244
	1840	0.3	9
9 Th	0037	8.3	253
	0656	−0.2	−6
	1302	8.5	259
	1929	−0.4	−12
10 F	0130	7.9	241
	0733	0.5	15
	1339	8.8	268
	2020	−0.8	−24
11 Sa	0223	7.3	223
	0809	1.3	40
	1417	8.9	271
	2112	−0.8	−24
12 Su	0320	6.7	204
	0846	2.2	67
	1457	8.6	262
	2207	−0.6	−18
13 M	0422	6.0	183
	0925	3.0	91
	1541	8.2	250
	2308	−0.2	−6
14 Tu ◐	0536	5.5	168
	1008	3.7	113
	1632	7.7	235
15 W	0017	0.2	6
	0704	5.2	158
	1107	4.2	128
	1739	7.1	216

	Time	Height	
	h m	ft	cm
16 Th	0131	0.5	15
	0831	5.3	162
	1300	4.5	137
	1905	6.7	204
17 F	0240	0.6	18
	0934	5.5	168
	1448	4.2	128
	2025	6.6	201
18 Sa	0337	0.6	18
	1018	5.8	177
	1552	3.6	110
	2129	6.7	204
19 Su	0423	0.6	18
	1051	6.2	189
	1639	3.0	91
	2220	6.8	207
20 M	0500	0.6	18
	1118	6.5	198
	1717	2.3	70
	2304	6.9	210
21 Tu	0531	0.8	24
	1143	6.9	210
	1751	1.7	52
	2343	7.0	213
22 W	0559	1.0	30
	1207	7.2	219
	1824	1.2	37
23 Th ○	0020	6.9	210
	0624	1.3	40
	1228	7.5	229
	1857	0.7	21
24 F	0057	6.8	207
	0648	1.7	52
	1250	7.7	235
	1930	0.4	12
25 Sa	0134	6.7	204
	0712	2.2	67
	1313	7.9	241
	2005	0.2	6
26 Su	0213	6.4	195
	0736	2.7	82
	1338	7.9	241
	2043	0.1	3
27 M	0256	6.1	186
	0803	3.1	94
	1407	7.9	241
	2125	0.2	6
28 Tu	0344	5.7	174
	0833	3.6	110
	1441	7.9	241
	2215	0.3	9
29 W	0444	5.4	165
	0910	4.0	122
	1523	7.7	235
	2315	0.4	12
30 Th ◑	0603	5.2	158
	1000	4.3	131
	1620	7.4	226

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Neah Bay, Washington, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0024	0.5	15
	0730	5.3	162
	1120	4.5	137
	1737	7.1	216
2 Sa	0135	0.4	12
	0835	5.7	174
	1315	4.2	128
	1909	7.0	213
3 Su	0238	0.2	6
	0921	6.2	189
	1452	3.4	104
	2035	7.1	216
4 M	0332	0.2	6
	0959	6.9	210
	1558	2.3	70
	2145	7.4	226
5 Tu	0419	0.3	9
	1035	7.7	235
	1652	1.1	34
	2247	7.6	232
6 W	0502	0.5	15
	1110	8.4	256
	1742	0.0	0
	2343	7.7	235
7 Th ●	0542	1.0	30
	1146	9.0	274
	1829	−0.9	−27
8 F	0036	7.7	235
	0621	1.5	46
	1222	9.4	287
	1916	−1.4	−43
9 Sa	0128	7.5	229
	0700	2.1	64
	1300	9.5	290
	2003	−1.6	−49
10 Su	0221	7.2	219
	0738	2.8	85
	1338	9.3	283
	2051	−1.4	−43
11 M	0315	6.7	204
	0818	3.4	104
	1419	8.8	268
	2141	−0.9	−27
12 Tu	0415	6.3	192
	0900	3.9	119
	1502	8.2	250
	2236	−0.3	−9
13 W	0522	6.0	183
	0951	4.4	134
	1552	7.5	229
	2336	0.3	9
14 Th ◐	0638	5.8	177
	1106	4.6	140
	1657	6.8	207
15 F	0042	0.8	24
	0749	5.9	180
	1304	4.5	137
	1826	6.2	189

	Time	Height	
	h m	ft	cm
16 Sa	0146	1.2	37
	0845	6.1	186
	1436	4.0	122
	1955	6.0	183
17 Su	0243	1.4	43
	0926	6.4	195
	1535	3.3	101
	2105	6.0	183
18 M	0330	1.6	49
	0959	6.8	207
	1619	2.5	76
	2201	6.1	186
19 Tu	0408	1.8	55
	1026	7.2	219
	1657	1.8	55
	2249	6.3	192
20 W	0441	2.1	64
	1051	7.5	229
	1731	1.0	30
	2332	6.5	198
21 Th	0510	2.4	73
	1115	7.9	241
	1803	0.4	12
22 F ○	0012	6.6	201
	0538	2.7	82
	1139	8.2	250
	1836	−0.1	−3
23 Sa	0051	6.7	204
	0605	3.1	94
	1203	8.4	256
	1910	−0.4	−12
24 Su	0130	6.7	204
	0634	3.4	104
	1231	8.6	262
	1946	−0.6	−18
25 M	0211	6.5	198
	0704	3.7	113
	1301	8.6	262
	2025	−0.7	−21
26 Tu	0255	6.4	195
	0738	4.0	122
	1335	8.6	262
	2108	−0.6	−18
27 W	0345	6.1	186
	0816	4.3	131
	1415	8.3	253
	2155	−0.4	−12
28 Th	0443	6.0	183
	0904	4.5	137
	1503	8.0	244
	2249	−0.1	−3
29 F	0548	6.0	183
	1012	4.6	140
	1603	7.4	226
	2347	0.2	6
30 Sa ◑	0653	6.2	189
	1148	4.4	134
	1722	6.8	207
31 Su	0049	0.6	18
	0748	6.7	204
	1335	3.8	116
	1857	6.5	198

November

	Time	Height	
	h m	ft	cm
1 M	0149	0.9	27
	0833	7.3	223
	1454	2.7	82
	2027	6.4	195
2 Tu	0244	1.3	40
	0914	8.0	244
	1554	1.4	43
	2143	6.6	201
3 W	0335	1.8	55
	0953	8.7	265
	1646	0.2	6
	2247	6.8	207
4 Th	0422	2.2	67
	1031	9.3	283
	1733	−0.9	−27
	2345	7.0	213
5 F ●	0506	2.7	82
	1110	9.7	296
	1819	−1.6	−49
6 Sa	0038	7.2	219
	0549	3.1	94
	1149	9.9	302
	1903	−1.9	−58
7 Su	0128	7.2	219
	0632	3.5	107
	1229	9.8	299
	1948	−1.9	−58
8 M	0218	7.1	216
	0714	3.9	119
	1309	9.4	287
	2032	−1.5	−46
9 Tu	0309	6.9	210
	0757	4.2	128
	1350	8.9	271
	2117	−1.0	−30
10 W	0401	6.6	201
	0844	4.4	134
	1433	8.2	250
	2204	−0.4	−12
11 Th	0458	6.5	198
	0941	4.6	140
	1519	7.4	226
	2252	0.3	9
12 F	0557	6.4	195
	1056	4.7	143
	1616	6.6	201
	2343	1.0	30
13 Sa ◐	0654	6.5	198
	1234	4.4	134
	1731	5.9	180
14 Su	0034	1.6	49
	0743	6.7	204
	1401	3.9	119
	1904	5.5	168
15 M	0125	2.1	64
	0824	7.0	213
	1504	3.1	94
	2028	5.4	165

	Time	Height	
	h m	ft	cm
16 Tu	0212	2.6	79
	0859	7.3	223
	1551	2.2	67
	2137	5.5	168
17 W	0256	3.0	91
	0929	7.7	235
	1631	1.4	43
	2233	5.7	174
18 Th	0336	3.4	104
	0957	8.1	247
	1707	0.6	18
	2321	6.0	183
19 F	0413	3.7	113
	1025	8.5	259
	1742	0.0	0
20 Sa	0005	6.3	192
	0450	3.9	119
	1055	8.8	268
	1817	−0.6	−18
21 Su ○	0046	6.5	198
	0527	4.1	125
	1127	9.1	277
	1854	−1.0	−30
22 M	0127	6.7	204
	0604	4.2	128
	1201	9.2	280
	1932	−1.2	−37
23 Tu	0208	6.7	204
	0643	4.3	131
	1239	9.2	280
	2011	−1.3	−40
24 W	0251	6.7	204
	0726	4.4	134
	1320	9.1	277
	2053	−1.2	−37
25 Th	0337	6.7	204
	0815	4.5	137
	1405	8.7	265
	2137	−0.9	−27
26 F	0426	6.7	204
	0915	4.4	134
	1456	8.1	247
	2223	−0.4	−12
27 Sa	0517	6.9	210
	1030	4.3	131
	1557	7.4	226
	2311	0.3	9
28 Su ◑	0608	7.2	219
	1200	3.8	116
	1714	6.5	198
29 M	0001	1.0	30
	0657	7.7	235
	1330	3.0	91
	1848	5.9	180
30 Tu	0055	1.8	55
	0745	8.2	250
	1444	1.8	55
	2023	5.7	174

December

	Time	Height	
	h m	ft	cm
1 W	0150	2.5	76
	0831	8.8	268
	1544	0.7	21
	2145	5.9	180
2 Th	0247	3.2	98
	0915	9.3	283
	1636	−0.4	−12
	2253	6.2	189
3 F	0344	3.7	113
	1000	9.7	296
	1724	−1.1	−34
	2350	6.6	201
4 Sa	0437	4.0	122
	1043	9.9	302
	1809	−1.6	−49
5 Su ●	0041	6.8	207
	0527	4.2	128
	1126	9.9	302
	1852	−1.8	−55
6 M	0127	7.0	213
	0615	4.3	131
	1208	9.7	296
	1934	−1.7	−52
7 Tu	0211	7.0	213
	0700	4.4	134
	1250	9.3	283
	2014	−1.4	−43
8 W	0255	7.0	213
	0746	4.4	134
	1331	8.8	268
	2054	−0.9	−27
9 Th	0338	7.0	213
	0834	4.4	134
	1412	8.2	250
	2131	−0.3	−9
10 F	0421	6.9	210
	0927	4.4	134
	1454	7.4	226
	2208	0.4	12
11 Sa	0504	6.9	210
	1029	4.3	131
	1542	6.7	204
	2242	1.1	34
12 Su	0547	7.0	213
	1144	4.1	125
	1640	5.9	180
	2317	1.8	55
13 M ◐	0629	7.1	216
	1304	3.6	110
	1759	5.2	158
	2352	2.6	79
14 Tu	0709	7.4	226
	1415	3.0	91
	1937	4.9	149
15 W	0032	3.2	98
	0747	7.6	232
	1512	2.2	67
	2107	5.0	152

	Time	Height	
	h m	ft	cm
16 Th	0120	3.8	116
	0824	8.0	244
	1559	1.3	40
	2217	5.3	162
17 F	0214	4.2	128
	0902	8.3	253
	1641	0.6	18
	2312	5.7	174
18 Sa	0312	4.5	137
	0941	8.7	265
	1720	−0.2	−6
	2358	6.1	186
19 Su	0406	4.6	140
	1021	9.1	277
	1759	−0.8	−24
20 M	0038	6.4	195
	0457	4.6	140
	1102	9.4	287
	1837	−1.3	−40
21 Tu ○	0117	6.7	204
	0546	4.5	137
	1144	9.6	293
	1916	−1.6	−49
22 W	0155	6.9	210
	0635	4.3	131
	1228	9.6	293
	1956	−1.6	−49
23 Th	0233	7.1	216
	0726	4.1	125
	1314	9.4	287
	2035	−1.4	−43
24 F	0313	7.3	223
	0821	3.9	119
	1402	8.9	271
	2114	−1.0	−30
25 Sa	0353	7.6	232
	0922	3.6	110
	1456	8.1	247
	2154	−0.3	−9
26 Su	0435	7.9	241
	1032	3.3	101
	1556	7.2	219
	2234	0.6	18
27 M ◑	0520	8.2	250
	1149	2.7	82
	1710	6.2	189
	2316	1.7	52
28 Tu	0607	8.5	259
	1310	2.0	61
	1841	5.5	168
29 W	0001	2.7	82
	0658	8.8	268
	1425	1.2	37
	2022	5.3	162
30 Th	0055	3.6	110
	0751	9.1	277
	1529	0.3	9
	2151	5.5	168
31 F	0202	4.2	128
	0845	9.3	283
	1625	−0.4	−12
	2301	5.9	180

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Townsend, Washington, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0552	9.6	293
	1002	7.2	219
	1456	8.9	271
	2216	−3.0	−91
2 Sa	0626	9.7	296
	1058	6.6	201
	1559	8.5	259
	2302	−2.4	−73
3 Su	0700	9.8	299
	1158	5.8	177
	1705	7.9	241
	2347	−1.5	−46
4 M	0734	9.8	299
	1303	4.9	149
	1816	7.1	216
5 Tu	0032	−0.1	−3
	0808	9.8	299
	1410	3.8	116
	1935	6.3	192
6 W	0118	1.5	46
	0841	9.7	296
	1518	2.6	79
	2111	5.7	174
7 Th ◑	0206	3.2	98
	0915	9.6	293
	1621	1.6	49
	2324	5.8	177
8 F	0301	4.8	146
	0949	9.4	287
	1718	0.7	21
9 Sa	0127	6.7	204
	0411	6.2	189
	1025	9.1	277
	1810	0.0	0
10 Su	0241	7.7	235
	0539	7.1	216
	1104	8.8	268
	1857	−0.5	−15
11 M	0332	8.5	259
	0711	7.5	229
	1148	8.5	259
	1939	−0.8	−24
12 Tu	0414	9.0	274
	0829	7.5	229
	1236	8.2	250
	2018	−0.9	−27
13 W	0450	9.2	280
	0922	7.3	223
	1325	8.1	247
	2054	−1.0	−30
14 Th ●	0522	9.3	283
	0959	7.1	216
	1412	7.9	241
	2129	−0.9	−27
15 F	0550	9.2	280
	1032	6.7	204
	1458	7.7	235
	2203	−0.7	−21

	Time	Height	
	h m	ft	cm
16 Sa	0614	9.1	277
	1107	6.3	192
	1544	7.5	229
	2237	−0.4	−12
17 Su	0634	9.1	277
	1144	5.8	177
	1632	7.2	219
	2311	0.1	3
18 M	0653	9.0	274
	1225	5.2	158
	1723	6.7	204
	2344	0.9	27
19 Tu	0713	9.1	277
	1307	4.5	137
	1819	6.3	192
20 W	0016	1.8	55
	0735	9.1	277
	1351	3.7	113
	1922	5.9	180
21 Th	0048	2.9	88
	0800	9.0	274
	1436	2.9	88
	2037	5.6	171
22 F	0119	4.1	125
	0825	8.9	271
	1524	2.1	64
	2221	5.6	171
23 Sa ◐	0147	5.2	158
	0852	8.8	268
	1614	1.2	37
24 Su	0921	8.8	268
	1706	0.3	9
25 M	0956	8.8	268
	1759	−0.5	−15
26 Tu	0323	8.0	244
	0550	7.7	235
	1044	8.8	268
	1851	−1.3	−40
27 W	0350	8.6	262
	0703	7.7	235
	1148	8.8	268
	1941	−2.0	−61
28 Th	0418	8.9	271
	0802	7.4	226
	1257	8.9	271
	2029	−2.4	−73
29 F ○	0446	9.2	280
	0855	6.7	204
	1405	8.8	268
	2115	−2.4	−73
30 Sa	0514	9.4	287
	0946	5.9	180
	1511	8.7	265
	2200	−2.0	−61
31 Su	0543	9.5	290
	1039	4.9	149
	1616	8.3	253
	2244	−1.1	−34

February

	Time	Height	
	h m	ft	cm
1 M	0613	9.6	293
	1133	3.9	119
	1722	7.8	238
	2327	0.1	3
2 Tu	0643	9.7	296
	1228	2.9	88
	1832	7.2	219
3 W	0010	1.6	49
	0714	9.6	293
	1325	2.0	61
	1949	6.7	204
4 Th	0055	3.1	94
	0746	9.5	290
	1423	1.3	40
	2123	6.4	195
5 F ◑	0143	4.6	140
	0819	9.2	280
	1524	0.8	24
	2329	6.6	201
6 Sa	0242	5.9	180
	0854	8.8	268
	1626	0.5	15
7 Su	0115	7.3	223
	0406	6.9	210
	0934	8.4	256
	1728	0.3	9
8 M	0222	8.0	244
	0600	7.3	223
	1023	8.0	244
	1826	0.1	3
9 Tu	0308	8.5	259
	0745	7.2	219
	1124	7.7	235
	1918	0.1	3
10 W	0346	8.7	265
	0843	6.8	207
	1230	7.5	229
	2001	0.0	0
11 Th	0418	8.8	268
	0916	6.5	198
	1330	7.5	229
	2039	0.0	0
12 F	0445	8.7	265
	0940	6.0	183
	1422	7.5	229
	2112	0.1	3
13 Sa ●	0505	8.7	265
	1003	5.5	168
	1509	7.4	226
	2144	0.4	12
14 Su	0521	8.6	262
	1031	4.9	149
	1556	7.3	223
	2215	0.8	24
15 M	0535	8.6	262
	1102	4.2	128
	1644	7.2	219
	2247	1.4	43

	Time	Height	
	h m	ft	cm
16 Tu	0552	8.7	265
	1136	3.5	107
	1734	7.0	213
	2319	2.2	67
17 W	0613	8.7	265
	1212	2.8	85
	1828	6.8	207
	2351	3.1	94
18 Th	0637	8.7	265
	1251	2.1	64
	1927	6.6	201
19 F	0024	4.1	125
	0702	8.6	262
	1334	1.5	46
	2037	6.5	198
20 Sa	0058	5.1	155
	0727	8.5	259
	1423	0.9	27
	2213	6.5	198
21 Su ◐	0135	6.1	186
	0754	8.4	256
	1518	0.4	12
22 M	0826	8.4	256
	1620	0.0	0
23 Tu	0203	7.5	229
	0419	7.3	223
	0914	8.3	253
	1724	−0.5	−15
24 W	0237	8.0	244
	0550	7.3	223
	1027	8.2	250
	1824	−0.9	−27
25 Th	0305	8.4	256
	0659	6.8	207
	1151	8.1	247
	1919	−1.2	−37
26 F	0331	8.6	262
	0754	6.0	183
	1311	8.2	250
	2009	−1.2	−37
27 Sa	0357	8.8	268
	0843	5.0	152
	1424	8.2	250
	2056	−0.8	−24
28 Su ○	0423	9.0	274
	0930	3.8	116
	1531	8.2	250
	2140	−0.1	−3

March

	Time	Height	
	h m	ft	cm
1 M	0450	9.2	280
	1017	2.6	79
	1636	8.1	247
	2223	1.0	30
2 Tu	0518	9.3	283
	1104	1.6	49
	1741	7.9	241
	2307	2.2	67
3 W	0548	9.3	283
	1153	0.8	24
	1847	7.7	235
	2352	3.5	107
4 Th	0618	9.1	277
	1242	0.3	9
	1959	7.5	229
5 F	0040	4.7	143
	0651	8.9	271
	1334	0.1	3
	2124	7.4	226
6 Sa	0135	5.8	177
	0725	8.5	259
	1429	0.2	6
	2305	7.4	226
7 Su ◑	0248	6.5	198
	0804	8.0	244
	1530	0.5	15
8 M	0036	7.7	235
	0437	6.8	207
	0851	7.5	229
	1637	0.7	21
9 Tu	0139	8.0	244
	0640	6.6	201
	0954	7.1	216
	1745	0.9	27
10 W	0225	8.2	250
	0746	6.2	189
	1114	6.8	207
	1844	1.0	30
11 Th	0300	8.3	253
	0823	5.7	174
	1235	6.7	204
	1932	1.1	34
12 F	0328	8.2	250
	0848	5.1	155
	1341	6.8	207
	2011	1.2	37
13 Sa	0348	8.2	250
	0908	4.5	137
	1436	7.0	213
	2045	1.5	46
14 Su	0401	8.1	247
	0929	3.8	116
	1524	7.1	216
	2117	2.0	61
15 M ●	0413	8.2	250
	0953	3.0	91
	1611	7.3	223
	2149	2.5	76

	Time	Height	
	h m	ft	cm
16 Tu	0429	8.2	250
	1022	2.2	67
	1658	7.4	226
	2222	3.2	98
17 W	0449	8.3	253
	1053	1.5	46
	1747	7.5	229
	2257	3.9	119
18 Th	0512	8.3	253
	1128	0.8	24
	1839	7.5	229
	2333	4.7	143
19 F	0537	8.3	253
	1206	0.3	9
	1936	7.5	229
20 Sa	0011	5.5	168
	0604	8.2	250
	1250	−0.1	−3
	2041	7.5	229
21 Su	0055	6.2	189
	0631	8.1	247
	1340	−0.3	−9
	2203	7.4	226
22 M	0150	6.7	204
	0701	7.9	241
	1437	−0.3	−9
	2339	7.6	232
23 Tu ◐	0310	7.0	213
	0745	7.7	235
	1542	−0.3	−9
24 W	0048	7.8	238
	0445	6.8	207
	0901	7.4	226
	1649	−0.3	−9
25 Th	0131	8.0	244
	0604	6.2	189
	1036	7.1	216
	1754	−0.1	−3
26 F	0203	8.2	250
	0700	5.3	162
	1211	7.1	216
	1851	0.2	6
27 Sa	0232	8.4	256
	0746	4.0	122
	1336	7.3	223
	1943	0.7	21
28 Su	0258	8.6	262
	0829	2.7	82
	1450	7.6	232
	2031	1.4	43
29 M ○	0325	8.8	268
	0911	1.4	43
	1556	7.9	241
	2117	2.4	73
30 Tu	0352	8.9	271
	0953	0.3	9
	1658	8.2	250
	2203	3.4	104
31 W	0420	8.9	271
	1035	−0.5	−15
	1759	8.4	256
	2249	4.4	134

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Townsend, Washington, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0450	8.8	268	**16** F	0409	8.0	244
	1119	−1.0	−30		1054	−1.1	−34
	1859	8.4	256		1850	8.3	253
	2339	5.3	162		2319	6.1	186
2 F	0522	8.5	259	**17** Sa	0437	8.0	244
	1204	−1.0	−30		1135	−1.4	−43
	2002	8.3	253		1943	8.3	253
3 Sa	0034	5.9	180	**18** Su	0006	6.5	198
	0557	8.1	247		0506	7.9	241
	1251	−0.7	−21		1220	−1.5	−46
	2111	8.2	250		2041	8.3	253
4 Su	0141	6.4	195	**19** M	0102	6.7	204
	0635	7.6	232		0540	7.6	232
	1342	−0.2	−6		1311	−1.3	−40
	2227	8.1	247		2143	8.2	250
5 M	0316	6.5	198	**20** Tu	0213	6.8	207
	0719	7.1	216		0626	7.3	223
	1439	0.4	12		1407	−0.9	−27
	2340	8.0	244		2245	8.2	250
6 Tu ◑	0521	6.2	189	**21** W ◐	0343	6.4	195
	0815	6.6	201		0739	6.8	207
	1542	1.0	30		1509	−0.4	−12
					2337	8.2	250
7 W	0038	8.0	244	**22** Th	0510	5.7	174
	0635	5.7	174		0914	6.3	192
	0930	6.1	186		1613	0.3	9
	1649	1.5	46				
8 Th	0122	8.0	244	**23** F	0019	8.3	253
	0719	5.1	155		0608	4.6	140
	1103	5.8	177		1058	6.0	183
	1750	1.9	58		1717	1.1	34
9 F	0153	7.9	241	**24** Sa	0054	8.4	256
	0749	4.4	134		0653	3.2	98
	1239	5.9	180		1243	6.2	189
	1843	2.3	70		1817	2.0	61
10 Sa	0214	7.8	238	**25** Su	0125	8.5	259
	0811	3.6	110		0733	1.8	55
	1355	6.2	189		1411	6.7	204
	1928	2.7	82		1912	2.9	88
11 Su	0228	7.8	238	**26** M	0154	8.6	262
	0830	2.8	85		0812	0.4	12
	1453	6.6	201		1523	7.4	226
	2007	3.2	98		2005	3.9	119
12 M	0241	7.8	238	**27** Tu	0223	8.7	265
	0851	1.9	58		0850	−0.7	−21
	1543	7.0	213		1624	8.1	247
	2044	3.8	116		2055	4.7	143
13 Tu	0258	7.9	241	**28** W ○	0252	8.7	265
	0916	1.0	30		0929	−1.5	−46
	1629	7.5	229		1720	8.6	262
	2121	4.4	134		2146	5.5	168
14 W ●	0319	8.0	244	**29** Th	0322	8.5	259
	0945	0.2	6		1009	−1.9	−58
	1714	7.8	238		1812	8.8	268
	2158	5.0	152		2237	6.0	183
15 Th	0343	8.1	247	**30** F	0355	8.3	253
	1017	−0.5	−15		1049	−2.0	−61
	1801	8.1	247		1904	8.9	271
	2237	5.6	171		2333	6.4	195

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0430	7.9	241	**16** Su	0344	8.0	244
	1132	−1.7	−52		1113	−2.5	−76
	1956	8.8	268		1939	8.9	271
2 Su	0036	6.5	198	**17** M	0001	6.9	210
	0508	7.5	229		0426	7.7	235
	1216	−1.2	−37		1200	−2.4	−73
	2049	8.7	265		2025	8.9	271
3 M	0156	6.5	198	**18** Tu	0107	6.7	204
	0551	7.0	213		0521	7.3	223
	1304	−0.5	−15		1250	−1.9	−58
	2143	8.4	256		2111	8.8	268
4 Tu	0348	6.1	186	**19** W	0226	6.2	189
	0642	6.4	195		0632	6.7	204
	1354	0.2	6		1343	−1.1	−34
	2234	8.2	250		2155	8.8	268
5 W ◑	0510	5.5	168	**20** Th ◐	0352	5.3	162
	0745	5.8	177		0757	5.9	180
	1448	1.0	30		1438	0.0	0
	2318	8.1	247		2236	8.7	265
6 Th	0602	4.8	146	**21** F	0500	4.1	125
	0905	5.3	162		0935	5.4	165
	1546	1.8	55		1536	1.2	37
	2352	7.9	241		2313	8.7	265
7 F	0638	4.0	122	**22** Sa	0550	2.7	82
	1046	5.0	152		1132	5.3	162
	1644	2.6	79		1637	2.6	79
					2347	8.7	265
8 Sa	0016	7.9	241	**23** Su	0634	1.3	40
	0704	3.2	98		1326	5.9	180
	1245	5.2	158		1740	3.8	116
	1740	3.4	104				
9 Su	0036	7.8	238	**24** M	0020	8.7	265
	0726	2.2	67		0714	−0.1	−3
	1412	5.8	177		1448	6.8	207
	1833	4.1	125		1842	4.9	149
10 M	0056	7.9	241	**25** Tu	0052	8.7	265
	0748	1.3	40		0752	−1.1	−34
	1512	6.5	198		1551	7.7	235
	1921	4.8	146		1943	5.8	177
11 Tu	0118	7.9	241	**26** W	0125	8.6	262
	0812	0.3	9		0830	−1.9	−58
	1601	7.2	219		1643	8.4	256
	2007	5.5	168		2040	6.4	195
12 W	0143	8.0	244	**27** Th ○	0157	8.5	259
	0840	−0.6	−18		0908	−2.3	−70
	1644	7.9	241		1731	8.9	271
	2051	6.0	183		2136	6.7	204
13 Th ●	0210	8.1	247	**28** F	0232	8.2	250
	0913	−1.4	−43		0946	−2.4	−73
	1726	8.3	253		1815	9.1	277
	2134	6.4	195		2232	6.8	207
14 F	0238	8.1	247	**29** Sa	0309	7.9	241
	0949	−2.0	−61		1026	−2.2	−67
	1808	8.7	265		1857	9.1	277
	2219	6.7	204		2329	6.7	204
15 Sa	0309	8.1	247	**30** Su	0349	7.5	229
	1029	−2.4	−73		1107	−1.9	−58
	1853	8.8	268		1938	9.0	274
	2307	6.9	210				
				31 M	0033	6.5	198
					0434	7.1	216
					1149	−1.3	−40
					2017	8.8	268

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0150	6.2	189	**16** W	0054	5.8	177
	0523	6.6	201		0536	6.9	210
	1232	−0.7	−21		1230	−1.7	−52
	2053	8.6	262		2029	9.1	277
2 W	0312	5.6	171	**17** Th	0206	4.9	149
	0620	6.0	183		0651	6.2	189
	1315	0.2	6		1318	−0.5	−15
	2124	8.4	256		2105	9.1	277
3 Th	0415	4.9	149	**18** F ◐	0318	3.7	113
	0726	5.3	162		0817	5.4	165
	1359	1.1	34		1408	0.9	27
	2152	8.3	253		2139	9.1	277
4 F ◑	0501	4.1	125	**19** Sa	0422	2.4	73
	0844	4.8	146		1001	5.0	152
	1445	2.1	64		1501	2.5	76
	2217	8.2	250		2214	9.0	274
5 Sa	0536	3.2	98	**20** Su	0517	1.1	34
	1027	4.6	140		1214	5.3	162
	1534	3.3	101		1602	4.1	125
	2243	8.1	247		2248	8.9	271
6 Su	0606	2.2	67	**21** M	0606	−0.1	−3
	1258	5.0	152		1359	6.3	192
	1631	4.3	131		1711	5.4	165
	2309	8.1	247		2324	8.7	265
7 M	0633	1.2	37	**22** Tu	0651	−1.0	−30
	1433	5.9	180		1508	7.3	223
	1732	5.3	162		1824	6.3	192
	2336	8.1	247				
8 Tu	0702	0.2	6	**23** W	0001	8.6	262
	1528	6.8	207		0733	−1.6	−49
	1833	6.1	186		1601	8.1	247
					1935	6.8	207
9 W	0005	8.2	250	**24** Th	0040	8.3	253
	0734	−0.8	−24		0812	−2.0	−61
	1610	7.5	229		1645	8.6	262
	1929	6.6	201		2039	7.0	213
10 Th	0036	8.2	250	**25** F	0121	8.1	247
	0809	−1.7	−52		0851	−2.1	−64
	1648	8.2	250		1725	8.9	271
	2020	7.0	213		2135	6.9	210
11 F	0110	8.3	253	**26** Sa ○	0204	7.9	241
	0847	−2.4	−73		0930	−2.1	−64
	1724	8.6	262		1802	8.9	271
	2109	7.1	216		2226	6.7	204
12 Sa ●	0148	8.3	253	**27** Su	0249	7.6	232
	0928	−2.9	−88		1008	−1.9	−58
	1801	8.9	271		1835	8.8	268
	2158	7.1	216		2314	6.4	195
13 Su	0234	8.3	253	**28** M	0335	7.2	219
	1011	−3.2	−98		1046	−1.5	−46
	1838	9.0	274		1906	8.7	265
	2250	6.9	210				
14 M	0327	8.0	244	**29** Tu	0004	6.0	183
	1056	−3.1	−94		0423	6.8	207
	1916	9.1	277		1124	−1.0	−30
	2348	6.5	198		1932	8.6	262
15 Tu	0428	7.6	232	**30** W	0057	5.5	168
	1143	−2.6	−79		0515	6.3	192
	1953	9.1	277		1202	−0.3	−9
					1956	8.5	259

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Townsend, Washington, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0151	4.9	149
	0612	5.8	177
	1239	0.6	18
	2018	8.5	259
2 F	0243	4.1	125
	0716	5.3	162
	1316	1.6	49
	2042	8.4	256
3 Sa	0331	3.3	101
	0831	4.9	149
	1353	2.8	85
	2107	8.3	253
4 Su ◑	0414	2.4	73
	1009	4.7	143
	1432	4.0	122
	2133	8.3	253
5 M	0455	1.5	46
	1316	5.2	158
	1521	5.1	155
	2201	8.2	250
6 Tu	0536	0.6	18
	1446	6.2	189
	1635	6.1	186
	2232	8.2	250
7 W	0617	−0.4	−12
	1529	7.1	216
	1752	6.8	207
	2306	8.2	250
8 Th	0659	−1.2	−37
	1602	7.7	235
	1859	7.1	216
	2347	8.3	253
9 F	0742	−2.0	−61
	1633	8.2	250
	1955	7.2	219
10 Sa	0037	8.4	256
	0826	−2.7	−82
	1703	8.5	259
	2046	7.0	213
11 Su ●	0134	8.4	256
	0910	−3.0	−91
	1733	8.7	265
	2136	6.6	201
12 M	0235	8.3	253
	0955	−3.1	−94
	1804	8.9	271
	2229	6.0	183
13 Tu	0338	8.0	244
	1040	−2.7	−82
	1835	9.0	274
	2326	5.2	158
14 W	0444	7.5	229
	1124	−1.9	−58
	1907	9.1	277
15 Th	0026	4.2	128
	0553	6.8	207
	1209	−0.7	−21
	1939	9.1	277

	Time	Height	
	h m	ft	cm
16 F	0129	3.1	94
	0709	6.1	186
	1255	0.8	24
	2012	9.1	277
17 Sa	0232	2.0	61
	0836	5.6	171
	1342	2.5	76
	2045	9.1	277
18 Su ◐	0335	1.0	30
	1028	5.5	168
	1435	4.0	122
	2120	8.9	271
19 M	0435	0.1	3
	1237	6.1	186
	1540	5.4	165
	2157	8.6	262
20 Tu	0532	−0.6	−18
	1405	7.0	213
	1703	6.4	195
	2239	8.3	253
21 W	0625	−1.0	−30
	1503	7.8	238
	1833	6.8	207
	2326	8.0	244
22 Th	0714	−1.3	−40
	1548	8.3	253
	1953	6.8	207
23 F	0019	7.8	238
	0758	−1.4	−43
	1627	8.5	259
	2051	6.6	201
24 Sa	0113	7.6	232
	0838	−1.4	−43
	1701	8.6	262
	2133	6.3	192
25 Su ○	0205	7.4	226
	0916	−1.2	−37
	1731	8.5	259
	2209	5.9	180
26 M	0253	7.2	219
	0951	−1.0	−30
	1756	8.4	256
	2244	5.5	168
27 Tu	0340	7.0	213
	1025	−0.6	−18
	1816	8.3	253
	2322	4.9	149
28 W	0428	6.7	204
	1100	−0.1	−3
	1834	8.3	253
29 Th	0001	4.3	131
	0519	6.4	195
	1133	0.7	21
	1853	8.3	253
30 F	0042	3.6	110
	0614	6.0	183
	1207	1.6	49
	1915	8.3	253
31 Sa	0125	2.9	88
	0714	5.7	174
	1241	2.7	82
	1939	8.2	250

August

	Time	Height	
	h m	ft	cm
1 Su	0209	2.3	70
	0824	5.5	168
	1315	3.8	116
	2005	8.1	247
2 M ◑	0256	1.6	49
	0956	5.4	165
	1350	4.9	149
	2033	8.0	244
3 Tu	0346	0.9	27
	2103	7.9	241
4 W	0439	0.2	6
	1426	6.7	204
	1606	6.6	201
	2138	7.9	241
5 Th	0534	−0.5	−15
	1501	7.3	223
	1734	7.0	213
	2225	7.9	241
6 F	0627	−1.2	−37
	1529	7.8	238
	1844	6.9	210
	2327	8.0	244
7 Sa	0718	−1.8	−55
	1555	8.1	247
	1939	6.6	201
8 Su	0035	8.1	247
	0806	−2.2	−67
	1621	8.3	253
	2029	6.0	183
9 M ●	0143	8.1	247
	0852	−2.3	−70
	1647	8.5	259
	2118	5.2	158
10 Tu	0249	8.1	247
	0936	−2.0	−61
	1714	8.6	262
	2208	4.2	128
11 W	0355	7.9	241
	1020	−1.2	−37
	1743	8.8	268
	2300	3.1	94
12 Th	0501	7.5	229
	1103	−0.1	−3
	1813	8.9	271
	2353	2.1	64
13 F	0610	7.1	216
	1148	1.3	40
	1844	8.9	271
14 Sa	0048	1.1	34
	0725	6.7	204
	1234	2.7	82
	1917	8.9	271
15 Su	0145	0.4	12
	0851	6.4	195
	1324	4.2	128
	1952	8.7	265

	Time	Height	
	h m	ft	cm
16 M ◐	0245	0.0	0
	1039	6.5	198
	1425	5.4	165
	2030	8.3	253
17 Tu	0348	−0.2	−6
	1227	7.0	213
	1547	6.2	189
	2114	7.9	241
18 W	0453	−0.3	−9
	1341	7.6	232
	1735	6.6	201
	2207	7.5	229
19 Th	0556	−0.3	−9
	1434	8.0	244
	1913	6.4	195
	2313	7.2	219
20 F	0653	−0.3	−9
	1515	8.2	250
	2013	6.1	186
21 Sa	0023	7.1	216
	0741	−0.3	−9
	1550	8.2	250
	2049	5.6	171
22 Su	0125	7.0	213
	0822	−0.2	−6
	1619	8.2	250
	2116	5.2	158
23 M	0219	7.0	213
	0857	0.1	3
	1641	8.1	247
	2142	4.6	140
24 Tu ○	0306	7.0	213
	0929	0.4	12
	1658	8.0	244
	2209	4.0	122
25 W	0353	6.9	210
	1001	0.9	27
	1712	7.9	241
	2240	3.3	101
26 Th	0439	6.8	207
	1034	1.6	49
	1728	8.0	244
	2313	2.7	82
27 F	0528	6.8	207
	1107	2.3	70
	1748	8.0	244
	2348	2.0	61
28 Sa	0620	6.7	204
	1141	3.2	98
	1812	8.0	244
29 Su	0026	1.5	46
	0717	6.6	201
	1216	4.1	125
	1838	7.9	241
30 M	0107	1.0	30
	0822	6.5	198
	1254	5.0	152
	1905	7.7	235
31 Tu	0154	0.6	18
	0946	6.4	195
	1339	5.8	177
	1933	7.6	232

September

	Time	Height	
	h m	ft	cm
1 W ◑	0248	0.3	9
	1157	6.7	204
	1445	6.5	198
	2006	7.5	229
2 Th	0349	0.0	0
	1323	7.1	216
	1617	6.8	207
	2054	7.4	226
3 F	0453	−0.4	−12
	1404	7.5	229
	1741	6.7	204
	2207	7.4	226
4 Sa	0555	−0.7	−21
	1434	7.8	238
	1842	6.2	189
	2330	7.4	226
5 Su	0651	−1.0	−30
	1500	8.0	244
	1931	5.4	165
6 M	0049	7.5	229
	0742	−0.9	−27
	1525	8.2	250
	2016	4.3	131
7 Tu	0202	7.7	235
	0829	−0.6	−18
	1550	8.4	256
	2101	3.1	94
8 W	0310	7.8	238
	0913	0.1	3
	1616	8.6	262
	2147	1.9	58
9 Th	0415	7.9	241
	0957	1.1	34
	1644	8.7	265
	2233	0.8	24
10 F	0520	7.9	241
	1042	2.3	70
	1714	8.8	268
	2320	−0.1	−3
11 Sa	0627	7.8	238
	1129	3.5	107
	1747	8.7	265
12 Su	0010	−0.6	−18
	0737	7.7	235
	1219	4.7	143
	1821	8.5	259
13 M	0102	−0.7	−21
	0856	7.6	232
	1318	5.6	171
	1859	8.1	247
14 Tu ◐	0157	−0.5	−15
	1026	7.6	232
	1436	6.2	189
	1942	7.6	232
15 W	0259	−0.1	−3
	1153	7.7	235
	1634	6.4	195
	2036	7.1	216

	Time	Height	
	h m	ft	cm
16 Th	0407	0.3	9
	1259	7.9	241
	1823	6.1	186
	2145	6.6	201
17 F	0517	0.6	18
	1349	8.1	247
	1924	5.5	168
	2310	6.4	195
18 Sa	0620	0.8	24
	1427	8.1	247
	2002	5.0	152
19 Su	0034	6.4	195
	0711	1.1	34
	1457	8.0	244
	2029	4.4	134
20 M	0142	6.5	198
	0753	1.4	43
	1519	7.9	241
	2050	3.7	113
21 Tu	0237	6.7	204
	0829	1.8	55
	1534	7.8	238
	2111	3.0	91
22 W	0325	6.9	210
	0902	2.3	70
	1546	7.8	238
	2135	2.3	70
23 Th ○	0410	7.1	216
	0935	2.9	88
	1601	7.8	238
	2202	1.5	46
24 F	0455	7.3	223
	1008	3.6	110
	1620	7.9	241
	2232	0.9	27
25 Sa	0541	7.5	229
	1043	4.3	131
	1643	7.9	241
	2305	0.3	9
26 Su	0630	7.6	232
	1121	5.0	152
	1708	7.8	238
	2341	−0.1	−3
27 M	0723	7.6	232
	1201	5.6	171
	1733	7.6	232
28 Tu	0023	−0.3	−9
	0823	7.6	232
	1247	6.2	189
	1759	7.5	229
29 W	0110	−0.4	−12
	0936	7.5	229
	1346	6.6	201
	1825	7.3	223
30 Th ◑	0205	−0.3	−9
	1059	7.6	232
	1510	6.8	207
	1906	7.1	216

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Townsend, Washington, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0307	−0.2	−6
	1208	7.8	238
	1648	6.5	198
	2030	6.8	207
2 Sa	0414	−0.1	−3
	1253	7.9	241
	1756	5.9	180
	2209	6.6	201
3 Su	0519	0.1	3
	1326	8.1	247
	1842	4.9	149
	2345	6.6	201
4 M	0619	0.5	15
	1354	8.2	250
	1922	3.6	110
5 Tu	0112	6.9	210
	0712	1.0	30
	1421	8.4	256
	2003	2.2	67
6 W	0228	7.4	226
	0801	1.8	55
	1448	8.6	262
	2043	0.8	24
7 Th ●	0336	7.9	241
	0849	2.7	82
	1515	8.8	268
	2125	−0.4	−12
8 F	0439	8.3	253
	0936	3.7	113
	1545	8.8	268
	2207	−1.2	−37
9 Sa	0539	8.6	262
	1024	4.7	143
	1616	8.7	265
	2251	−1.7	−52
10 Su	0640	8.7	265
	1115	5.5	168
	1650	8.5	259
	2336	−1.7	−52
11 M	0742	8.7	265
	1213	6.1	186
	1727	8.1	247
12 Tu	0024	−1.4	−43
	0848	8.6	262
	1324	6.5	198
	1808	7.6	232
13 W	0116	−0.7	−21
	0957	8.4	256
	1514	6.5	198
	1857	7.0	213
14 Th ◐	0213	0.0	0
	1105	8.3	253
	1718	6.0	183
	2000	6.4	195
15 F	0316	0.8	24
	1203	8.3	253
	1823	5.4	165
	2122	5.8	177

	Time	Height	
	h m	ft	cm
16 Sa	0423	1.4	43
	1248	8.2	250
	1905	4.7	143
	2304	5.6	171
17 Su	0527	2.0	61
	1322	8.1	247
	1935	3.9	119
18 M	0046	5.8	177
	0622	2.6	79
	1345	8.0	244
	1958	3.1	94
19 Tu	0201	6.2	189
	0710	3.2	98
	1401	7.9	241
	2017	2.3	70
20 W	0258	6.7	204
	0751	3.8	116
	1414	7.9	241
	2037	1.5	46
21 Th	0346	7.2	219
	0830	4.4	134
	1430	8.0	244
	2100	0.6	18
22 F ○	0429	7.7	235
	0907	5.0	152
	1450	8.0	244
	2127	−0.1	−3
23 Sa	0511	8.1	247
	0945	5.6	171
	1513	8.0	244
	2158	−0.7	−21
24 Su	0553	8.3	253
	1024	6.1	186
	1538	8.0	244
	2232	−1.1	−34
25 M	0638	8.5	259
	1106	6.5	198
	1603	7.9	241
	2310	−1.3	−40
26 Tu	0727	8.6	262
	1152	6.8	207
	1626	7.7	235
	2353	−1.4	−43
27 W	0819	8.6	262
	1247	7.0	213
	1646	7.5	229
28 Th	0041	−1.2	−37
	0915	8.5	259
	1400	7.0	213
	1707	7.2	219
29 F	0133	−0.8	−24
	1011	8.5	259
	1541	6.5	198
	1842	6.6	201
30 Sa ◑	0232	−0.2	−6
	1100	8.5	259
	1710	5.7	174
	2036	6.1	186
31 Su	0334	0.5	15
	1141	8.6	262
	1752	4.6	140
	2225	5.8	177

November

	Time	Height	
	h m	ft	cm
1 M	0438	1.4	43
	1216	8.6	262
	1830	3.2	98
2 Tu	0014	5.9	180
	0540	2.4	73
	1247	8.8	268
	1908	1.7	52
3 W	0148	6.6	201
	0639	3.4	104
	1317	8.9	271
	1946	0.3	9
4 Th	0303	7.5	229
	0734	4.4	134
	1347	9.0	274
	2025	−1.0	−30
5 F ●	0404	8.3	253
	0827	5.3	162
	1417	9.0	274
	2104	−1.9	−58
6 Sa	0500	8.9	271
	0919	6.0	183
	1449	9.0	274
	2144	−2.4	−73
7 Su	0553	9.3	283
	1011	6.5	198
	1524	8.7	265
	2226	−2.4	−73
8 M	0644	9.4	287
	1108	6.8	207
	1601	8.4	256
	2309	−2.1	−64
9 Tu	0735	9.4	287
	1211	6.9	210
	1641	7.9	241
	2354	−1.5	−46
10 W	0827	9.2	280
	1333	6.8	207
	1726	7.3	223
11 Th	0041	−0.8	−24
	0918	9.0	274
	1538	6.3	192
	1821	6.6	201
12 F	0131	0.1	3
	1007	8.8	268
	1700	5.6	171
	1929	5.9	180
13 Sa ◐	0224	1.1	34
	1050	8.6	262
	1751	4.8	146
	2054	5.3	162
14 Su	0320	2.1	64
	1124	8.4	256
	1827	3.9	119
	2248	5.1	155
15 M	0419	3.1	94
	1150	8.3	253
	1855	3.0	91

	Time	Height	
	h m	ft	cm
16 Tu	0100	5.4	165
	0519	4.0	122
	1211	8.3	253
	1917	2.1	64
17 W	0222	6.2	189
	0615	4.8	146
	1231	8.2	250
	1938	1.2	37
18 Th	0318	7.0	213
	0708	5.6	171
	1254	8.3	253
	2001	0.3	9
19 F	0403	7.7	235
	0756	6.2	189
	1318	8.3	253
	2028	−0.5	−15
20 Sa	0443	8.3	253
	0841	6.7	204
	1345	8.4	256
	2058	−1.2	−37
21 Su ○	0521	8.7	265
	0924	7.0	213
	1412	8.4	256
	2131	−1.7	−52
22 M	0558	9.0	274
	1006	7.2	219
	1441	8.3	253
	2209	−2.1	−64
23 Tu	0637	9.2	280
	1051	7.4	226
	1511	8.2	250
	2250	−2.2	−67
24 W	0718	9.3	283
	1142	7.3	223
	1546	8.0	244
	2333	−2.0	−61
25 Th	0800	9.3	283
	1242	7.1	216
	1634	7.5	229
26 F	0020	−1.6	−49
	0842	9.3	283
	1356	6.6	201
	1746	6.9	210
27 Sa	0108	−0.8	−24
	0922	9.2	280
	1521	5.7	174
	1915	6.2	189
28 Su ◑	0200	0.2	6
	1000	9.2	280
	1631	4.5	137
	2055	5.5	168
29 M	0255	1.5	46
	1036	9.2	280
	1722	3.1	94
	2252	5.3	162
30 Tu	0355	3.0	91
	1110	9.2	280
	1806	1.6	49

December

	Time	Height	
	h m	ft	cm
1 W	0058	5.9	180
	0500	4.3	131
	1144	9.3	283
	1847	0.2	6
2 Th	0228	7.0	213
	0607	5.5	168
	1218	9.3	283
	1927	−1.0	−30
3 F	0332	8.1	247
	0712	6.4	195
	1252	9.2	280
	2007	−1.9	−58
4 Sa	0424	8.9	271
	0813	7.0	213
	1329	9.1	277
	2047	−2.4	−73
5 Su ●	0511	9.4	287
	0911	7.3	223
	1407	8.9	271
	2127	−2.5	−76
6 M	0554	9.7	296
	1007	7.3	223
	1448	8.6	262
	2207	−2.4	−73
7 Tu	0636	9.7	296
	1104	7.2	219
	1531	8.2	250
	2249	−1.9	−58
8 W	0716	9.6	293
	1204	7.0	213
	1617	7.7	235
	2330	−1.3	−40
9 Th	0754	9.4	287
	1315	6.6	201
	1707	7.1	216
10 F	0012	−0.5	−15
	0829	9.3	283
	1436	6.0	183
	1803	6.4	195
11 Sa	0054	0.4	12
	0901	9.1	277
	1547	5.2	158
	1909	5.7	174
12 Su	0136	1.5	46
	0928	8.9	271
	1640	4.3	131
	2030	5.2	158
13 M ◐	0220	2.7	82
	0953	8.8	268
	1720	3.4	104
	2222	4.9	149
14 Tu	0307	3.9	119
	1018	8.7	265
	1753	2.5	76
15 W	0119	5.4	165
	0405	5.1	155
	1044	8.6	262
	1823	1.5	46

	Time	Height	
	h m	ft	cm
16 Th	0243	6.4	195
	0513	6.1	186
	1112	8.6	262
	1853	0.6	18
17 F	0333	7.4	226
	0622	6.9	210
	1142	8.5	259
	1924	−0.2	−6
18 Sa	0411	8.1	247
	0723	7.3	223
	1215	8.6	262
	1957	−1.0	−30
19 Su	0444	8.7	265
	0816	7.6	232
	1250	8.6	262
	2033	−1.7	−52
20 M	0516	9.1	277
	0901	7.7	235
	1330	8.6	262
	2111	−2.2	−67
21 Tu ○	0547	9.3	283
	0946	7.6	232
	1414	8.6	262
	2152	−2.5	−76
22 W	0619	9.5	290
	1032	7.4	226
	1504	8.4	256
	2234	−2.4	−73
23 Th	0652	9.6	293
	1124	6.9	210
	1601	8.1	247
	2317	−2.1	−64
24 F	0725	9.6	293
	1222	6.3	192
	1705	7.5	229
25 Sa	0001	−1.3	−40
	0758	9.6	293
	1327	5.4	165
	1817	6.7	204
26 Su	0046	−0.2	−6
	0831	9.7	296
	1434	4.3	131
	1939	6.0	183
27 M ◑	0131	1.3	40
	0904	9.6	293
	1539	3.0	91
	2117	5.5	168
28 Tu	0220	2.9	88
	0937	9.6	293
	1639	1.7	52
	2330	5.6	171
29 W	0317	4.5	137
	1012	9.5	290
	1732	0.5	15
30 Th	0136	6.6	201
	0427	6.0	183
	1048	9.4	287
	1822	−0.6	−18
31 F	0250	7.7	235
	0548	7.0	213
	1128	9.2	280
	1908	−1.3	−40

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Seattle, Washington, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0605	12.7	387
	1120	7.7	235
	1606	11.6	354
	2314	−3.4	−104
2 Sa	0641	13.0	396
	1210	6.9	210
	1702	11.3	344
3 Su	0000	−2.8	−85
	0717	13.1	399
	1302	6.0	183
	1802	10.8	329
4 M	0046	−1.7	−52
	0754	13.2	402
	1357	5.0	152
	1907	10.0	305
5 Tu	0132	−0.2	−6
	0832	13.2	402
	1454	3.9	119
	2019	9.2	280
6 W	0220	1.7	52
	0911	13.0	396
	1554	2.8	85
	2142	8.6	262
7 Th ◑	0312	3.8	116
	0951	12.7	387
	1655	1.8	55
	2325	8.5	259
8 F	0414	5.7	174
	1035	12.2	372
	1755	0.9	27
9 Sa	0122	9.1	277
	0535	7.3	223
	1122	11.7	357
	1852	0.2	6
10 Su	0251	10.2	311
	0715	8.1	247
	1214	11.2	341
	1944	−0.4	−12
11 M	0352	11.1	338
	0841	8.3	253
	1306	10.8	329
	2030	−0.8	−24
12 Tu	0437	11.7	357
	0943	8.1	247
	1357	10.5	320
	2111	−1.0	−30
13 W	0514	12.0	366
	1030	7.8	238
	1444	10.3	314
	2150	−1.0	−30
14 Th ●	0543	12.0	366
	1107	7.5	229
	1528	10.2	311
	2225	−1.0	−30
15 F	0607	12.0	366
	1138	7.1	216
	1610	10.1	308
	2300	−0.8	−24

	Time	Height	
	h m	ft	cm
16 Sa	0627	12.0	366
	1208	6.7	204
	1651	9.9	302
	2334	−0.4	−12
17 Su	0647	12.1	369
	1238	6.1	186
	1733	9.6	293
18 M	0007	0.2	6
	0709	12.1	369
	1312	5.4	165
	1818	9.3	283
19 Tu	0041	1.0	30
	0734	12.2	372
	1348	4.7	143
	1907	9.0	274
20 W	0115	2.1	64
	0802	12.1	369
	1427	3.9	119
	2002	8.6	262
21 Th	0150	3.4	104
	0831	12.0	366
	1511	3.2	98
	2107	8.3	253
22 F	0227	4.9	149
	0902	11.7	357
	1559	2.4	73
	2226	8.2	250
23 Sa ◐	0310	6.3	192
	0936	11.5	351
	1652	1.6	49
24 Su	0009	8.5	259
	0410	7.7	235
	1017	11.2	341
	1749	0.7	21
25 M	0210	9.4	287
	0543	8.7	265
	1108	11.0	335
	1847	−0.3	−9
26 Tu	0317	10.3	314
	0721	9.0	274
	1208	11.0	335
	1943	−1.2	−37
27 W	0358	11.1	338
	0834	8.7	265
	1311	11.2	341
	2035	−2.1	−64
28 Th	0431	11.7	357
	0928	8.1	247
	1411	11.4	347
	2125	−2.6	−79
29 F ○	0502	12.2	372
	1015	7.2	219
	1510	11.6	354
	2212	−2.8	−85
30 Sa	0532	12.6	384
	1101	6.2	189
	1608	11.6	354
	2258	−2.4	−73
31 Su	0603	12.9	393
	1148	5.0	152
	1706	11.4	347
	2343	−1.5	−46

February

	Time	Height	
	h m	ft	cm
1 M	0636	13.1	399
	1236	3.8	116
	1806	11.0	335
2 Tu	0027	−0.1	−3
	0709	13.2	402
	1325	2.8	85
	1909	10.4	317
3 W	0112	1.6	49
	0744	13.0	396
	1416	1.9	58
	2017	9.8	299
4 Th	0159	3.4	104
	0821	12.7	387
	1509	1.3	40
	2135	9.3	283
5 F ◑	0250	5.3	162
	0902	12.1	369
	1606	0.9	27
	2313	9.2	280
6 Sa	0354	6.9	210
	0947	11.4	347
	1707	0.7	21
7 Su	0110	9.6	293
	0531	8.0	244
	1042	10.7	326
	1811	0.6	18
8 M	0236	10.3	314
	0728	8.2	250
	1146	10.1	308
	1913	0.4	12
9 Tu	0332	11.0	335
	0846	7.8	238
	1253	9.8	299
	2007	0.2	6
10 W	0412	11.3	344
	0937	7.3	223
	1353	9.8	299
	2052	0.0	0
11 Th	0444	11.5	351
	1014	6.8	207
	1444	9.8	299
	2132	0.0	0
12 F	0507	11.5	351
	1043	6.3	192
	1529	9.9	302
	2207	0.1	3
13 Sa ●	0524	11.5	351
	1108	5.7	174
	1609	9.9	302
	2240	0.3	9
14 Su	0540	11.6	354
	1133	5.1	155
	1649	9.9	302
	2312	0.8	24
15 M	0557	11.7	357
	1159	4.3	131
	1730	9.9	302
	2344	1.5	46

	Time	Height	
	h m	ft	cm
16 Tu	0619	11.8	360
	1229	3.5	107
	1813	9.8	299
17 W	0017	2.4	73
	0643	11.8	360
	1303	2.8	85
	1859	9.7	296
18 Th	0050	3.5	107
	0709	11.8	360
	1340	2.0	61
	1950	9.5	290
19 F	0126	4.7	143
	0736	11.5	351
	1421	1.5	46
	2048	9.3	283
20 Sa	0204	5.9	180
	0806	11.3	344
	1509	1.0	30
	2159	9.1	277
21 Su ◐	0250	7.1	216
	0842	10.9	332
	1604	0.6	18
	2332	9.2	280
22 M	0356	8.1	247
	0929	10.6	323
	1707	0.2	6
23 Tu	0127	9.6	293
	0537	8.6	262
	1035	10.3	314
	1813	−0.3	−9
24 W	0236	10.3	314
	0717	8.4	256
	1153	10.3	314
	1917	−0.8	−24
25 Th	0317	10.9	332
	0823	7.6	232
	1307	10.5	320
	2014	−1.3	−40
26 F	0348	11.5	351
	0912	6.5	198
	1414	10.9	332
	2106	−1.4	−43
27 Sa	0417	11.9	363
	0956	5.2	158
	1515	11.2	341
	2154	−1.2	−37
28 Su ○	0446	12.3	375
	1039	3.8	116
	1614	11.4	347
	2239	−0.4	−12

March

	Time	Height	
	h m	ft	cm
1 M	0516	12.6	384
	1122	2.4	73
	1712	11.4	347
	2324	0.7	21
2 Tu	0547	12.7	387
	1206	1.3	40
	1810	11.2	341
3 W	0009	2.1	64
	0621	12.6	384
	1251	0.4	12
	1909	10.9	332
4 Th	0055	3.6	110
	0656	12.3	375
	1337	0.0	0
	2012	10.5	320
5 F	0143	5.1	155
	0734	11.7	357
	1425	0.0	0
	2122	10.1	308
6 Sa	0239	6.4	195
	0816	11.0	335
	1518	0.2	6
	2248	9.9	302
7 Su ◑	0351	7.4	226
	0906	10.2	311
	1617	0.7	21
8 M	0030	9.9	302
	0543	7.8	238
	1009	9.4	287
	1724	1.1	34
9 Tu	0152	10.2	311
	0729	7.4	226
	1126	8.9	271
	1832	1.2	37
10 W	0247	10.5	320
	0831	6.7	204
	1244	8.8	268
	1934	1.2	37
11 Th	0324	10.7	326
	0913	6.0	183
	1350	9.0	274
	2024	1.2	37
12 F	0351	10.8	329
	0944	5.3	162
	1443	9.2	280
	2106	1.3	40
13 Sa	0410	10.9	332
	1008	4.6	140
	1528	9.5	290
	2142	1.6	49
14 Su	0425	11.0	335
	1030	3.8	116
	1610	9.8	299
	2215	2.0	61
15 M ●	0441	11.1	338
	1054	3.0	91
	1649	10.0	305
	2248	2.6	79

	Time	Height	
	h m	ft	cm
16 Tu	0501	11.2	341
	1120	2.1	64
	1730	10.2	311
	2322	3.3	101
17 W	0524	11.2	341
	1150	1.3	40
	1811	10.4	317
	2356	4.2	128
18 Th	0549	11.2	341
	1224	0.6	18
	1856	10.5	320
19 F	0033	5.1	155
	0616	11.1	338
	1301	0.0	0
	1944	10.4	317
20 Sa	0113	6.0	183
	0646	10.9	332
	1344	−0.3	−9
	2039	10.2	311
21 Su	0157	6.8	207
	0720	10.6	323
	1432	−0.4	−12
	2145	10.0	305
22 M	0253	7.5	229
	0802	10.2	311
	1528	−0.3	−9
	2306	9.9	302
23 Tu ◐	0410	8.0	244
	0902	9.7	296
	1632	−0.1	−3
24 W	0032	10.1	308
	0550	7.8	238
	1024	9.4	287
	1741	−0.1	−3
25 Th	0135	10.5	320
	0712	6.9	210
	1152	9.3	283
	1848	0.0	0
26 F	0218	10.9	332
	0808	5.7	174
	1312	9.6	293
	1949	0.1	3
27 Sa	0252	11.4	347
	0853	4.2	128
	1422	10.1	308
	2043	0.5	15
28 Su	0323	11.7	357
	0935	2.6	79
	1526	10.7	326
	2133	1.2	37
29 M ○	0354	12.0	366
	1015	1.1	34
	1624	11.1	338
	2220	2.2	67
30 Tu	0425	12.1	369
	1055	−0.1	−3
	1720	11.4	347
	2307	3.3	101
31 W	0458	12.1	369
	1136	−1.0	−30
	1815	11.5	351
	2354	4.4	134

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Seattle, Washington, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0532	11.8	360
	1217	−1.4	−43
	1910	11.4	347
2 F	0043	5.4	165
	0610	11.3	344
	1300	−1.4	−43
	2006	11.2	341
3 Sa	0136	6.3	192
	0650	10.6	323
	1346	−0.9	−27
	2106	10.8	329
4 Su	0237	6.9	210
	0735	9.8	299
	1435	−0.2	−6
	2214	10.5	320
5 M	0356	7.2	219
	0830	9.0	274
	1530	0.6	18
	2330	10.2	311
6 Tu ◑	0541	7.1	216
	0939	8.3	253
	1632	1.3	40
7 W	0041	10.2	311
	0705	6.4	195
	1102	7.9	241
	1740	1.9	58
8 Th	0133	10.2	311
	0758	5.6	171
	1226	7.9	241
	1845	2.3	70
9 F	0209	10.3	314
	0835	4.7	143
	1339	8.2	250
	1941	2.6	79
10 Sa	0235	10.4	317
	0903	3.8	116
	1437	8.7	265
	2028	3.0	91
11 Su	0256	10.5	320
	0926	2.8	85
	1526	9.2	280
	2109	3.5	107
12 M	0317	10.6	323
	0949	1.9	58
	1610	9.7	296
	2147	4.1	125
13 Tu	0339	10.7	326
	1014	0.9	27
	1651	10.2	311
	2224	4.7	143
14 W ●	0403	10.8	329
	1043	0.0	0
	1731	10.6	323
	2302	5.3	162
15 Th	0429	10.8	329
	1115	−0.8	−24
	1812	11.0	335
	2341	6.0	183

	Time	Height	
	h m	ft	cm
16 F	0458	10.7	326
	1152	−1.4	−43
	1856	11.1	338
17 Sa	0023	6.5	198
	0529	10.6	323
	1232	−1.7	−52
	1944	11.1	338
18 Su	0109	7.0	213
	0605	10.3	314
	1317	−1.7	−52
	2037	11.0	335
19 M	0201	7.3	223
	0648	10.0	305
	1407	−1.5	−46
	2136	10.9	332
20 Tu	0306	7.4	226
	0743	9.4	287
	1502	−1.0	−30
	2240	10.8	329
21 W ◐	0425	7.2	219
	0857	8.9	271
	1603	−0.3	−9
	2342	10.8	329
22 Th	0549	6.3	192
	1026	8.4	256
	1709	0.5	15
23 F	0034	11.0	335
	0656	5.0	152
	1158	8.4	256
	1816	1.3	40
24 Sa	0117	11.3	344
	0747	3.4	104
	1323	8.9	271
	1920	2.1	64
25 Su	0154	11.5	351
	0831	1.7	52
	1437	9.6	293
	2019	3.0	91
26 M	0229	11.7	357
	0911	0.2	6
	1542	10.4	317
	2113	4.0	122
27 Tu	0302	11.8	360
	0950	−1.1	−34
	1639	11.0	335
	2205	4.8	146
28 W ○	0337	11.7	357
	1029	−2.0	−61
	1732	11.5	351
	2256	5.6	171
29 Th	0412	11.4	347
	1108	−2.4	−73
	1822	11.7	357
	2346	6.2	189
30 F	0450	11.0	335
	1148	−2.4	−73
	1910	11.7	357

May

	Time	Height	
	h m	ft	cm
1 Sa	0038	6.7	204
	0530	10.4	317
	1230	−2.0	−61
	1958	11.6	354
2 Su	0133	6.9	210
	0613	9.7	296
	1313	−1.4	−43
	2047	11.3	344
3 M	0235	7.0	213
	0702	9.0	274
	1358	−0.6	−18
	2137	11.0	335
4 Tu	0347	6.8	207
	0759	8.3	253
	1447	0.4	12
	2229	10.7	326
5 W ◑	0508	6.3	192
	0908	7.6	232
	1541	1.3	40
	2318	10.5	320
6 Th	0617	5.5	168
	1030	7.2	219
	1639	2.3	70
7 F	0002	10.5	320
	0707	4.6	140
	1157	7.2	219
	1741	3.2	98
8 Sa	0040	10.5	320
	0743	3.5	107
	1320	7.6	232
	1842	4.1	125
9 Su	0112	10.5	320
	0812	2.5	76
	1429	8.3	253
	1939	4.8	146
10 M	0142	10.5	320
	0839	1.3	40
	1524	9.1	277
	2031	5.5	168
11 Tu	0210	10.6	323
	0906	0.2	6
	1611	9.9	302
	2117	6.1	186
12 W	0238	10.6	323
	0937	−0.8	−24
	1653	10.5	320
	2202	6.6	201
13 Th ●	0308	10.6	323
	1010	−1.7	−52
	1733	11.1	338
	2245	7.0	213
14 F	0340	10.6	323
	1047	−2.3	−70
	1814	11.4	347
	2329	7.3	223
15 Sa	0415	10.6	323
	1127	−2.8	−85
	1857	11.7	357

	Time	Height	
	h m	ft	cm
16 Su	0016	7.4	226
	0456	10.4	317
	1211	−2.9	−88
	1942	11.7	357
17 M	0107	7.4	226
	0542	10.1	308
	1258	−2.7	−82
	2030	11.7	357
18 Tu	0203	7.2	219
	0637	9.6	293
	1347	−2.1	−64
	2118	11.7	357
19 W	0308	6.7	204
	0742	9.0	274
	1440	−1.1	−34
	2207	11.7	357
20 Th ◐	0419	5.8	177
	0901	8.3	253
	1536	0.1	3
	2254	11.7	357
21 F	0528	4.5	137
	1032	7.9	241
	1637	1.6	49
	2339	11.7	357
22 Sa	0629	3.0	91
	1208	7.9	241
	1743	3.1	94
23 Su	0021	11.8	360
	0720	1.3	40
	1341	8.6	262
	1852	4.4	134
24 M	0101	11.7	357
	0806	−0.2	−6
	1500	9.5	290
	1959	5.5	168
25 Tu	0140	11.7	357
	0848	−1.4	−43
	1604	10.5	320
	2101	6.3	192
26 W	0219	11.5	351
	0927	−2.2	−67
	1657	11.2	341
	2159	6.8	207
27 Th ○	0257	11.2	341
	1006	−2.6	−79
	1744	11.6	354
	2253	7.1	216
28 F	0337	10.8	329
	1045	−2.7	−82
	1827	11.8	360
	2344	7.2	219
29 Sa	0418	10.3	314
	1125	−2.5	−76
	1906	11.8	360
30 Su	0034	7.2	219
	0502	9.8	299
	1205	−2.1	−64
	1943	11.7	357
31 M	0124	7.0	213
	0548	9.3	283
	1246	−1.4	−43
	2020	11.6	354

June

	Time	Height	
	h m	ft	cm
1 Tu	0216	6.7	204
	0637	8.7	265
	1327	−0.6	−18
	2056	11.4	347
2 W	0311	6.2	189
	0733	8.0	244
	1410	0.3	9
	2133	11.2	341
3 Th	0408	5.6	171
	0838	7.4	226
	1454	1.5	46
	2210	11.1	338
4 F ◑	0505	4.8	146
	0953	7.0	213
	1541	2.8	85
	2247	11.0	335
5 Sa	0555	3.8	116
	1120	6.9	210
	1635	4.1	125
	2323	10.9	332
6 Su	0637	2.7	82
	1253	7.4	226
	1736	5.4	165
	2359	10.8	329
7 M	0715	1.5	46
	1417	8.2	250
	1844	6.4	195
8 Tu	0035	10.7	326
	0750	0.4	12
	1522	9.2	280
	1950	7.1	216
9 W	0110	10.6	323
	0826	−0.7	−21
	1611	10.1	308
	2049	7.6	232
10 Th	0146	10.7	326
	0904	−1.7	−52
	1653	10.8	329
	2141	7.8	238
11 F	0224	10.7	326
	0943	−2.6	−79
	1731	11.3	344
	2229	7.9	241
12 Sa ●	0306	10.8	329
	1025	−3.2	−98
	1809	11.7	357
	2316	7.8	238
13 Su	0351	10.7	326
	1109	−3.5	−107
	1847	12.0	366
14 M	0004	7.5	229
	0441	10.6	323
	1154	−3.4	−104
	1927	12.2	372
15 Tu	0056	6.9	210
	0536	10.2	311
	1241	−2.9	−88
	2006	12.3	375

	Time	Height	
	h m	ft	cm
16 W	0151	6.2	189
	0638	9.6	293
	1329	−1.9	−58
	2046	12.3	375
17 Th	0250	5.2	158
	0747	8.9	271
	1418	−0.5	−15
	2127	12.3	375
18 F ◐	0352	4.0	122
	0905	8.2	250
	1509	1.3	40
	2208	12.3	375
19 Sa	0455	2.7	82
	1036	7.8	238
	1607	3.2	98
	2249	12.1	369
20 Su	0555	1.3	40
	1219	8.0	244
	1713	5.0	152
	2333	11.9	363
21 M	0650	0.0	0
	1401	8.9	271
	1831	6.4	195
22 Tu	0017	11.6	354
	0740	−1.0	−30
	1520	9.9	302
	1952	7.2	219
23 W	0103	11.3	344
	0825	−1.7	−52
	1618	10.8	329
	2104	7.5	229
24 Th	0149	10.9	332
	0908	−2.2	−67
	1705	11.4	347
	2204	7.6	232
25 F	0234	10.6	323
	0948	−2.3	−70
	1745	11.7	357
	2255	7.4	226
26 Sa ○	0319	10.3	314
	1028	−2.3	−70
	1819	11.7	357
	2339	7.2	219
27 Su	0403	9.9	302
	1106	−2.0	−61
	1848	11.7	357
28 M	0020	6.9	210
	0447	9.6	293
	1143	−1.6	−49
	1915	11.6	354
29 Tu	0059	6.5	198
	0533	9.2	280
	1221	−1.0	−30
	1942	11.6	354
30 W	0139	5.9	180
	0621	8.7	265
	1258	−0.2	−6
	2009	11.6	354

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Seattle, Washington, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0220	5.3	162
	0713	8.2	250
	1335	0.8	24
	2039	11.5	351
2 F	0304	4.6	140
	0812	7.7	235
	1413	2.1	64
	2110	11.4	347
3 Sa	0350	3.8	116
	0919	7.4	226
	1453	3.5	107
	2143	11.2	341
4 Su ◑	0438	2.9	88
	1039	7.3	223
	1538	5.0	152
	2218	11.0	335
5 M	0527	2.0	61
	1216	7.6	232
	1636	6.3	192
	2255	10.7	326
6 Tu	0615	1.0	30
	1401	8.4	256
	1752	7.5	229
	2336	10.6	323
7 W	0703	0.0	0
	1514	9.4	287
	1916	8.1	247
8 Th	0021	10.5	320
	0750	−1.1	−34
	1602	10.2	311
	2027	8.3	253
9 F	0109	10.6	323
	0836	−2.0	−61
	1640	10.9	332
	2122	8.2	250
10 Sa	0159	10.8	329
	0921	−2.8	−85
	1714	11.4	347
	2210	7.8	238
11 Su ●	0250	10.9	332
	1007	−3.3	−101
	1746	11.7	357
	2257	7.2	219
12 M	0344	11.0	335
	1052	−3.4	−104
	1819	12.1	369
	2344	6.5	198
13 Tu	0439	10.8	329
	1138	−3.0	−91
	1853	12.3	375
14 W	0033	5.5	168
	0538	10.4	317
	1223	−2.1	−64
	1928	12.5	381
15 Th	0125	4.4	134
	0641	9.9	302
	1309	−0.8	−24
	2003	12.6	384

	Time	Height	
	h m	ft	cm
16 F	0219	3.2	98
	0750	9.2	280
	1356	1.0	30
	2041	12.5	381
17 Sa	0316	2.1	64
	0907	8.6	262
	1446	2.9	88
	2121	12.3	375
18 Su ◐	0415	1.2	37
	1038	8.3	253
	1543	4.8	146
	2204	11.9	363
19 M	0515	0.3	9
	1228	8.6	262
	1657	6.5	198
	2252	11.4	347
20 Tu	0616	−0.3	−9
	1410	9.5	290
	1831	7.5	229
	2345	10.9	332
21 W	0713	−0.8	−24
	1520	10.3	314
	2004	7.7	235
22 Th	0042	10.4	317
	0805	−1.2	−37
	1611	11.0	335
	2113	7.5	229
23 F	0137	10.2	311
	0851	−1.4	−43
	1652	11.3	344
	2205	7.1	216
24 Sa	0229	10.0	305
	0933	−1.4	−43
	1724	11.4	347
	2245	6.7	204
25 Su ○	0316	9.9	302
	1012	−1.3	−40
	1751	11.3	344
	2319	6.3	192
26 M	0400	9.7	296
	1048	−1.1	−34
	1811	11.3	344
	2351	5.8	177
27 Tu	0442	9.6	293
	1122	−0.7	−21
	1831	11.3	344
28 W	0021	5.3	162
	0525	9.3	283
	1156	0.0	0
	1852	11.4	347
29 Th	0054	4.6	140
	0610	9.1	277
	1230	0.8	24
	1916	11.4	347
30 F	0129	3.9	119
	0659	8.8	268
	1304	1.9	58
	1943	11.4	347
31 Sa	0206	3.2	98
	0752	8.5	259
	1340	3.2	98
	2012	11.2	341

August

	Time	Height	
	h m	ft	cm
1 Su	0248	2.5	76
	0852	8.2	250
	1417	4.5	137
	2043	10.9	332
2 M ◑	0334	1.9	58
	1003	8.1	247
	1500	5.9	180
	2118	10.6	323
3 Tu	0425	1.3	40
	1134	8.2	250
	1556	7.1	216
	2158	10.3	314
4 W	0522	0.6	18
	1328	8.7	265
	1721	8.0	244
	2248	10.1	308
5 Th	0620	−0.1	−3
	1448	9.5	290
	1859	8.3	253
	2347	10.1	308
6 F	0718	−1.0	−30
	1533	10.2	311
	2012	8.0	244
7 Sa	0050	10.3	314
	0811	−1.7	−52
	1606	10.8	329
	2104	7.5	229
8 Su	0150	10.6	323
	0901	−2.3	−70
	1635	11.2	341
	2149	6.6	201
9 M ●	0248	10.9	332
	0948	−2.6	−79
	1704	11.6	354
	2234	5.6	171
10 Tu	0345	11.1	338
	1034	−2.3	−70
	1734	12.0	366
	2319	4.4	134
11 W	0443	11.0	335
	1119	−1.6	−49
	1806	12.3	375
12 Th	0005	3.2	98
	0542	10.8	329
	1204	−0.4	−12
	1839	12.4	378
13 F	0053	2.0	61
	0644	10.4	317
	1249	1.2	37
	1915	12.4	378
14 Sa	0143	1.0	30
	0751	9.9	302
	1337	2.9	88
	1953	12.1	369
15 Su	0236	0.4	12
	0905	9.4	287
	1429	4.7	143
	2034	11.6	354

	Time	Height	
	h m	ft	cm
16 M ◐	0332	0.1	3
	1033	9.2	280
	1532	6.2	189
	2121	11.0	335
17 Tu	0433	0.0	0
	1220	9.4	287
	1700	7.2	219
	2218	10.3	314
18 W	0538	0.0	0
	1353	9.9	302
	1852	7.5	229
	2324	9.7	296
19 Th	0643	−0.1	−3
	1456	10.4	317
	2014	7.1	216
20 F	0035	9.4	287
	0742	−0.2	−6
	1542	10.8	329
	2109	6.5	198
21 Sa	0139	9.4	287
	0833	−0.2	−6
	1617	10.9	332
	2150	5.9	180
22 Su	0233	9.5	290
	0915	−0.2	−6
	1643	10.9	332
	2221	5.4	165
23 M	0319	9.6	293
	0953	0.0	0
	1702	10.9	332
	2248	4.8	146
24 Tu ○	0401	9.6	293
	1026	0.4	12
	1718	10.9	332
	2314	4.2	128
25 W	0441	9.7	296
	1059	0.9	27
	1735	11.0	335
	2340	3.5	107
26 Th	0522	9.6	293
	1131	1.6	49
	1756	11.0	335
27 F	0009	2.7	82
	0604	9.6	293
	1204	2.5	76
	1820	11.0	335
28 Sa	0041	2.0	61
	0649	9.5	290
	1238	3.5	107
	1847	10.9	332
29 Su	0117	1.4	43
	0737	9.4	287
	1315	4.6	140
	1915	10.7	326
30 M	0157	1.0	30
	0832	9.2	280
	1354	5.7	174
	1945	10.3	314
31 Tu	0243	0.7	21
	0937	9.1	277
	1441	6.7	204
	2020	10.0	305

September

	Time	Height	
	h m	ft	cm
1 W ◑	0335	0.5	15
	1059	9.0	274
	1546	7.6	232
	2107	9.7	296
2 Th	0436	0.3	9
	1239	9.3	283
	1720	8.0	244
	2213	9.4	287
3 F	0542	−0.1	−3
	1356	9.8	299
	1856	7.7	235
	2330	9.4	287
4 Sa	0647	−0.5	−15
	1441	10.3	314
	1959	7.0	213
5 Su	0045	9.7	296
	0746	−0.9	−27
	1514	10.8	329
	2046	5.9	180
6 M	0151	10.2	311
	0838	−1.1	−34
	1543	11.2	341
	2128	4.6	140
7 Tu	0253	10.7	326
	0927	−0.9	−27
	1612	11.6	354
	2210	3.1	94
8 W	0351	11.0	335
	1013	−0.2	−6
	1642	11.9	363
●	2252	1.7	52
9 Th	0449	11.2	341
	1059	0.8	24
	1714	12.1	369
	2336	0.5	15
10 F	0547	11.2	341
	1145	2.1	64
	1748	12.1	369
11 Sa	0021	−0.4	−12
	0646	11.0	335
	1232	3.5	107
	1825	11.9	363
12 Su	0107	−0.9	−27
	0749	10.7	326
	1323	4.9	149
	1905	11.4	347
13 M	0156	−0.9	−27
	0858	10.4	317
	1421	6.1	186
	1950	10.7	326
14 Tu ◐	0250	−0.6	−18
	1018	10.1	308
	1535	6.9	210
	2043	9.8	299
15 W	0349	0.0	0
	1151	10.0	305
	1719	7.2	219
	2150	9.1	277

	Time	Height	
	h m	ft	cm
16 Th	0456	0.5	15
	1312	10.2	311
	1901	6.8	207
	2310	8.6	262
17 F	0606	0.9	27
	1410	10.4	317
	2004	6.0	183
18 Sa	0031	8.5	259
	0711	1.1	34
	1452	10.6	323
	2049	5.2	158
19 Su	0140	8.7	265
	0805	1.2	37
	1522	10.6	323
	2122	4.5	137
20 M	0235	9.0	274
	0849	1.4	43
	1543	10.6	323
	2149	3.7	113
21 Tu	0322	9.4	287
	0927	1.8	55
	1559	10.6	323
	2212	3.0	91
22 W	0403	9.7	296
	1002	2.3	70
	1616	10.7	326
	2235	2.2	67
23 Th ○	0442	9.9	302
	1035	3.0	91
	1636	10.7	326
	2300	1.4	43
24 F	0521	10.1	308
	1108	3.8	116
	1659	10.7	326
	2329	0.7	21
25 Sa	0601	10.3	314
	1143	4.6	140
	1724	10.6	323
26 Su	0001	0.1	3
	0643	10.4	317
	1220	5.4	165
	1751	10.4	317
27 M	0037	−0.3	−9
	0728	10.4	317
	1300	6.1	186
	1820	10.2	311
28 Tu	0118	−0.4	−12
	0820	10.3	314
	1345	6.8	207
	1852	9.9	302
29 W	0205	−0.4	−12
	0921	10.1	308
	1440	7.4	226
	1932	9.5	290
30 Th ◑	0258	−0.3	−9
	1033	9.9	302
	1555	7.7	235
	2031	9.0	274

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Seattle, Washington, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0359	0.0	0
	1151	10.0	305
	1730	7.5	229
	2155	8.7	265
2 Sa	0507	0.2	6
	1254	10.3	314
	1848	6.6	201
	2325	8.7	265
3 Su	0614	0.3	9
	1339	10.7	326
	1942	5.3	162
4 M	0047	9.1	277
	0717	0.6	18
	1415	11.1	338
	2025	3.8	116
5 Tu	0158	9.7	296
	0813	1.0	30
	1447	11.5	351
	2106	2.1	64
6 W	0302	10.4	317
	0904	1.6	49
	1519	11.8	360
	2146	0.6	18
7 Th ●	0401	11.0	335
	0953	2.6	79
	1551	12.0	366
	2226	−0.8	−24
8 F	0458	11.5	351
	1041	3.6	110
	1625	12.0	366
	2308	−1.7	−52
9 Sa	0553	11.7	357
	1130	4.7	143
	1701	11.8	360
	2350	−2.2	−67
10 Su	0649	11.7	357
	1221	5.6	171
	1740	11.3	344
11 M	0035	−2.1	−64
	0746	11.6	354
	1316	6.4	195
	1822	10.6	323
12 Tu	0121	−1.6	−49
	0847	11.2	341
	1420	6.9	210
	1910	9.8	299
13 W	0211	−0.8	−24
	0953	10.9	332
	1541	7.1	216
	2008	8.9	271
14 Th ◐	0307	0.1	3
	1104	10.6	323
	1721	6.8	207
	2122	8.2	250
15 F	0409	1.0	30
	1210	10.5	320
	1843	6.0	183
	2249	7.7	235

	Time	Height	
	h m	ft	cm
16 Sa	0516	1.8	55
	1303	10.5	320
	1937	5.1	155
17 Su	0018	7.8	238
	0624	2.4	73
	1341	10.6	323
	2016	4.1	125
18 M	0133	8.2	250
	0723	2.9	88
	1409	10.6	323
	2046	3.2	98
19 Tu	0234	8.7	265
	0813	3.5	107
	1432	10.6	323
	2110	2.2	67
20 W	0323	9.3	283
	0856	4.0	122
	1453	10.7	326
	2133	1.3	40
21 Th	0406	9.9	302
	0935	4.7	143
	1515	10.7	326
	2157	0.5	15
22 F ○	0445	10.4	317
	1012	5.3	162
	1539	10.7	326
	2224	−0.3	−9
23 Sa	0523	10.8	329
	1049	5.9	180
	1605	10.6	323
	2255	−0.9	−27
24 Su	0601	11.1	338
	1128	6.5	198
	1633	10.5	320
	2330	−1.4	−43
25 M	0641	11.3	344
	1208	6.9	210
	1703	10.3	314
26 Tu	0008	−1.6	−49
	0725	11.3	344
	1253	7.3	223
	1736	10.1	308
27 W	0051	−1.6	−49
	0814	11.2	341
	1344	7.5	229
	1816	9.7	296
28 Th	0138	−1.3	−40
	0909	11.1	338
	1445	7.6	232
	1907	9.2	280
29 F	0230	−0.8	−24
	1007	11.0	335
	1600	7.3	223
	2019	8.6	262
30 Sa ◑	0328	−0.1	−3
	1105	11.1	338
	1721	6.4	195
	2151	8.2	250
31 Su	0432	0.8	24
	1156	11.2	341
	1827	5.1	155
	2326	8.2	250

November

	Time	Height	
	h m	ft	cm
1 M	0538	1.7	52
	1239	11.5	351
	1918	3.5	107
2 Tu	0055	8.6	262
	0644	2.7	82
	1318	11.7	357
	2002	1.7	52
3 W	0212	9.5	290
	0746	3.6	110
	1354	12.0	366
	2043	0.0	0
4 Th	0319	10.4	317
	0844	4.5	137
	1430	12.1	369
	2123	−1.4	−43
5 F ●	0417	11.3	344
	0938	5.4	165
	1505	12.1	369
	2203	−2.4	−73
6 Sa	0511	11.9	363
	1030	6.1	186
	1543	11.8	360
	2244	−2.9	−88
7 Su	0602	12.2	372
	1123	6.7	204
	1622	11.4	347
	2325	−2.9	−88
8 M	0651	12.3	375
	1216	7.0	213
	1704	10.8	329
9 Tu	0008	−2.5	−76
	0740	12.2	372
	1313	7.2	219
	1749	10.1	308
10 W	0052	−1.8	−55
	0829	11.9	363
	1415	7.2	219
	1840	9.3	283
11 Th	0138	−0.8	−24
	0919	11.6	354
	1527	6.9	210
	1939	8.5	259
12 F	0227	0.3	9
	1008	11.3	344
	1647	6.3	192
	2050	7.8	238
13 Sa ◐	0320	1.4	43
	1056	11.1	338
	1757	5.5	168
	2216	7.3	223
14 Su	0417	2.6	79
	1139	11.0	335
	1849	4.5	137
	2349	7.3	223
15 M	0520	3.7	113
	1217	10.9	332
	1928	3.4	104

	Time	Height	
	h m	ft	cm
16 Tu	0117	7.8	238
	0624	4.7	143
	1250	10.9	332
	1959	2.3	70
17 W	0229	8.6	262
	0726	5.6	171
	1321	10.9	332
	2027	1.3	40
18 Th	0325	9.5	290
	0821	6.3	192
	1350	10.8	329
	2054	0.3	9
19 F	0411	10.3	314
	0910	6.8	207
	1419	10.8	329
	2122	−0.6	−18
20 Sa	0450	10.9	332
	0954	7.3	223
	1449	10.8	329
	2154	−1.4	−43
21 Su ○	0526	11.4	347
	1035	7.6	232
	1520	10.7	326
	2228	−2.0	−61
22 M	0602	11.8	360
	1117	7.8	238
	1554	10.7	326
	2306	−2.3	−70
23 Tu	0640	12.0	366
	1200	7.9	241
	1631	10.5	320
	2348	−2.5	−76
24 W	0721	12.1	369
	1247	7.8	238
	1714	10.3	314
25 Th	0032	−2.3	−70
	0803	12.1	369
	1339	7.6	232
	1805	9.8	299
26 F	0118	−1.7	−52
	0848	12.1	369
	1438	7.1	216
	1906	9.2	280
27 Sa	0207	−0.8	−24
	0933	12.1	369
	1544	6.2	189
	2022	8.5	259
28 Su ◑	0300	0.4	12
	1018	12.1	369
	1652	5.0	152
	2151	8.0	244
29 M	0357	2.0	61
	1101	12.2	372
	1754	3.5	107
	2330	8.0	244
30 Tu	0502	3.6	110
	1144	12.2	372
	1848	1.8	55

December

	Time	Height	
	h m	ft	cm
1 W	0109	8.6	262
	0612	5.0	152
	1226	12.2	372
	1936	0.2	6
2 Th	0235	9.7	296
	0725	6.2	189
	1308	12.2	372
	2021	−1.2	−37
3 F	0342	10.8	329
	0833	7.0	213
	1349	12.1	369
	2103	−2.2	−67
4 Sa	0437	11.7	357
	0934	7.4	226
	1431	11.8	360
	2144	−2.7	−82
5 Su ●	0524	12.3	375
	1030	7.7	235
	1514	11.5	351
	2225	−2.9	−88
6 M	0607	12.5	381
	1123	7.7	235
	1558	11.1	338
	2306	−2.7	−82
7 Tu	0647	12.6	384
	1213	7.5	229
	1643	10.6	323
	2347	−2.2	−67
8 W	0725	12.5	381
	1303	7.3	223
	1730	10.0	305
9 Th	0028	−1.5	−46
	0801	12.3	375
	1354	6.9	210
	1821	9.3	283
10 F	0109	−0.6	−18
	0836	12.1	369
	1448	6.4	195
	1916	8.6	262
11 Sa	0151	0.6	18
	0911	11.9	363
	1545	5.8	177
	2020	7.9	241
12 Su	0234	1.9	58
	0947	11.7	357
	1641	5.0	152
	2135	7.4	226
13 M ◐	0319	3.3	101
	1023	11.5	351
	1734	4.0	122
	2306	7.3	223
14 Tu	0411	4.8	146
	1100	11.3	344
	1820	3.0	91
15 W	0050	7.7	235
	0514	6.2	189
	1137	11.1	338
	1900	1.9	58

	Time	Height	
	h m	ft	cm
16 Th	0223	8.7	265
	0630	7.3	223
	1215	11.0	335
	1937	0.9	27
17 F	0327	9.7	296
	0745	8.0	244
	1252	10.9	332
	2013	−0.1	−3
18 Sa	0413	10.6	323
	0848	8.3	253
	1330	10.8	329
	2050	−1.0	−30
19 Su	0451	11.3	344
	0938	8.5	259
	1409	10.9	332
	2128	−1.8	−55
20 M	0524	11.8	360
	1022	8.5	259
	1450	10.9	332
	2208	−2.4	−73
21 Tu ○	0556	12.1	369
	1103	8.3	253
	1533	11.0	335
	2249	−2.7	−82
22 W	0628	12.4	378
	1146	7.9	241
	1620	10.9	332
	2332	−2.7	−82
23 Th	0702	12.6	384
	1232	7.4	226
	1712	10.6	323
24 F	0015	−2.3	−70
	0738	12.8	390
	1322	6.6	201
	1809	10.2	311
25 Sa	0100	−1.5	−46
	0814	12.9	393
	1416	5.7	174
	1913	9.5	290
26 Su	0146	−0.1	−3
	0851	12.9	393
	1513	4.5	137
	2026	8.8	268
27 M ◑	0234	1.6	49
	0930	12.8	390
	1614	3.3	101
	2153	8.3	253
28 Tu	0327	3.5	107
	1011	12.7	387
	1715	1.9	58
	2335	8.3	253
29 W	0430	5.5	168
	1055	12.5	381
	1814	0.6	18
30 Th	0129	9.1	277
	0549	7.0	213
	1142	12.1	369
	1909	−0.5	−15
31 F	0257	10.2	311
	0718	8.0	244
	1232	11.8	360
	1959	−1.3	−40

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Cherry Point, Washington, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0652	10.6	323
	1154	7.5	229
	1552	8.9	271
	2337	−3.1	−94
2 Sa	0727	10.7	326
	1248	6.8	207
	1656	8.5	259
3 Su	0022	−2.5	−76
	0801	10.7	326
	1344	5.9	180
	1803	7.9	241
4 M	0106	−1.4	−43
	0834	10.7	326
	1442	4.8	146
	1917	7.1	216
5 Tu	0149	0.0	0
	0907	10.6	323
	1541	3.6	110
	2042	6.4	195
6 W	0233	1.7	52
	0939	10.4	317
	1640	2.4	73
	2222	6.0	183
7 Th ◑	0319	3.6	110
	1011	10.1	308
	1739	1.3	40
8 F	0022	6.3	192
	0414	5.3	162
	1043	9.8	299
	1834	0.4	12
9 Sa	0223	7.2	219
	0529	6.7	204
	1118	9.4	287
	1925	−0.3	−9
10 Su	0344	8.3	253
	0709	7.6	232
	1156	9.0	274
	2013	−0.8	−24
11 M	0435	9.1	277
	0849	7.8	238
	1239	8.6	262
	2057	−1.1	−34
12 Tu	0515	9.6	293
	1006	7.7	235
	1327	8.3	253
	2137	−1.2	−37
13 W	0549	9.8	299
	1058	7.5	229
	1417	8.0	244
	2215	−1.2	−37
14 Th ●	0619	9.8	299
	1137	7.1	216
	1507	7.8	238
	2249	−1.1	−34
15 F	0645	9.8	299
	1211	6.7	204
	1554	7.6	232
	2322	−0.9	−27

	Time	Height	
	h m	ft	cm
16 Sa	0710	9.7	296
	1244	6.3	192
	1641	7.4	226
	2354	−0.5	−15
17 Su	0732	9.7	296
	1318	5.7	174
	1729	7.1	216
18 M	0025	0.1	3
	0753	9.6	293
	1355	5.1	155
	1821	6.7	204
19 Tu	0055	0.9	27
	0813	9.6	293
	1433	4.4	134
	1919	6.4	195
20 W	0125	1.9	58
	0833	9.5	290
	1513	3.6	110
	2027	6.1	186
21 Th	0156	3.0	91
	0852	9.4	287
	1556	2.8	85
	2150	5.9	180
22 F	0227	4.3	131
	0912	9.3	283
	1642	2.0	61
	2334	6.1	186
23 Sa ◐	0300	5.5	168
	0933	9.2	280
	1732	1.1	34
24 Su	0151	6.8	207
	0345	6.7	204
	1000	9.2	280
	1825	0.2	6
25 M	0330	7.8	238
	0533	7.7	235
	1037	9.1	277
	1919	−0.7	−21
26 Tu	0411	8.7	265
	0727	8.1	247
	1129	9.0	274
	2011	−1.5	−46
27 W	0444	9.3	283
	0850	8.1	247
	1238	9.0	274
	2102	−2.1	−64
28 Th	0515	9.8	299
	0952	7.7	235
	1351	8.9	271
	2150	−2.5	−76
29 F ○	0546	10.1	308
	1044	7.0	213
	1502	8.9	271
	2236	−2.5	−76
30 Sa	0615	10.3	314
	1134	6.1	186
	1610	8.7	265
	2321	−2.0	−61
31 Su	0645	10.4	317
	1223	5.1	155
	1718	8.3	253

February

	Time	Height	
	h m	ft	cm
1 M	0004	−1.1	−34
	0714	10.4	317
	1313	3.9	119
	1826	7.9	241
2 Tu	0047	0.2	6
	0743	10.4	317
	1403	2.8	85
	1938	7.4	226
3 W	0129	1.8	55
	0812	10.2	311
	1455	1.8	55
	2057	7.1	216
4 Th	0213	3.4	104
	0842	10.0	305
	1549	1.1	34
	2227	6.9	210
5 F ◑	0300	5.0	152
	0912	9.6	293
	1646	0.5	15
6 Sa	0015	7.2	219
	0359	6.3	192
	0944	9.1	277
	1745	0.2	6
7 Su	0206	7.8	238
	0527	7.3	223
	1022	8.6	262
	1845	0.0	0
8 M	0320	8.5	259
	0727	7.6	232
	1110	8.1	247
	1941	−0.1	−3
9 Tu	0408	8.9	271
	0908	7.4	226
	1217	7.7	235
	2033	−0.3	−9
10 W	0445	9.2	280
	1004	7.0	213
	1327	7.5	229
	2117	−0.3	−9
11 Th	0515	9.2	280
	1040	6.5	198
	1429	7.4	226
	2156	−0.3	−9
12 F	0540	9.2	280
	1108	6.0	183
	1523	7.4	226
	2230	−0.1	−3
13 Sa ●	0601	9.2	280
	1136	5.5	168
	1612	7.4	226
	2302	0.2	6
14 Su	0619	9.1	277
	1204	4.8	146
	1700	7.3	223
	2332	0.7	21
15 M	0636	9.1	277
	1233	4.2	128
	1748	7.2	219

	Time	Height	
	h m	ft	cm
16 Tu	0002	1.4	43
	0653	9.1	277
	1305	3.4	104
	1839	7.1	216
17 W	0033	2.3	70
	0711	9.1	277
	1338	2.7	82
	1933	7.0	213
18 Th	0105	3.3	101
	0728	9.0	274
	1414	2.0	61
	2034	7.0	213
19 F	0138	4.3	131
	0747	9.0	274
	1455	1.4	43
	2145	7.0	213
20 Sa	0213	5.4	165
	0807	8.9	271
	1541	0.9	27
	2313	7.1	216
21 Su ◐	0254	6.4	195
	0831	8.8	268
	1636	0.4	12
22 M	0104	7.5	229
	0358	7.2	219
	0904	8.7	265
	1738	−0.1	−3
23 Tu	0236	8.1	247
	0548	7.7	235
	0954	8.5	259
	1843	−0.6	−18
24 W	0325	8.6	262
	0733	7.6	232
	1112	8.3	253
	1944	−1.1	−34
25 Th	0359	9.0	274
	0845	7.1	216
	1245	8.2	250
	2039	−1.4	−43
26 F	0429	9.3	283
	0939	6.2	189
	1410	8.2	250
	2130	−1.3	−40
27 Sa	0456	9.6	293
	1025	5.2	158
	1525	8.3	253
	2217	−0.9	−27
28 Su ○	0523	9.7	296
	1110	3.9	119
	1634	8.3	253
	2302	−0.1	−3

March

	Time	Height	
	h m	ft	cm
1 M	0550	9.8	299
	1154	2.7	82
	1740	8.3	253
	2346	1.1	34
2 Tu	0618	9.8	299
	1239	1.6	49
	1846	8.3	253
3 W	0030	2.4	73
	0646	9.7	296
	1324	0.7	21
	1952	8.2	250
4 Th	0115	3.7	113
	0714	9.5	290
	1410	0.2	6
	2102	8.1	247
5 F	0202	5.0	152
	0744	9.1	277
	1459	0.0	0
	2218	8.0	244
6 Sa	0257	6.0	183
	0814	8.7	265
	1552	0.0	0
	2345	8.0	244
7 Su ◑	0408	6.7	204
	0848	8.1	247
	1651	0.3	9
8 M	0116	8.1	247
	0550	7.0	213
	0930	7.5	229
	1755	0.5	15
9 Tu	0227	8.4	256
	0752	6.8	207
	1040	7.0	213
	1900	0.7	21
10 W	0316	8.5	259
	0902	6.3	192
	1216	6.7	204
	1957	0.7	21
11 Th	0352	8.6	262
	0938	5.7	174
	1338	6.7	204
	2046	0.8	24
12 F	0419	8.6	262
	1006	5.1	155
	1443	6.8	207
	2126	1.0	30
13 Sa	0441	8.5	259
	1031	4.4	134
	1539	7.0	213
	2202	1.4	43
14 Su	0458	8.5	259
	1056	3.7	113
	1629	7.2	219
	2236	1.9	58
15 M ●	0514	8.5	259
	1122	2.9	88
	1717	7.4	226
	2308	2.5	76

	Time	Height	
	h m	ft	cm
16 Tu	0530	8.5	259
	1150	2.2	67
	1804	7.7	235
	2342	3.2	98
17 W	0546	8.5	259
	1220	1.4	43
	1853	7.9	241
18 Th	0017	4.0	122
	0604	8.5	259
	1252	0.8	24
	1944	8.0	244
19 F	0054	4.8	146
	0623	8.5	259
	1328	0.2	6
	2039	8.1	247
20 Sa	0133	5.6	171
	0645	8.5	259
	1409	−0.1	−3
	2143	8.1	247
21 Su	0219	6.3	192
	0710	8.4	256
	1457	−0.3	−9
	2256	8.1	247
22 M	0316	6.9	210
	0742	8.2	250
	1554	−0.4	−12
23 Tu ◐	0018	8.2	250
	0439	7.2	219
	0826	7.9	241
	1658	−0.4	−12
24 W	0130	8.4	256
	0621	7.0	213
	0938	7.5	229
	1806	−0.4	−12
25 Th	0220	8.7	265
	0742	6.4	195
	1128	7.1	216
	1911	−0.2	−6
26 F	0256	8.9	271
	0838	5.3	162
	1313	7.1	216
	2010	0.1	3
27 Sa	0327	9.0	274
	0923	4.1	125
	1439	7.4	226
	2104	0.7	21
28 Su	0355	9.2	280
	1004	2.7	82
	1553	7.8	238
	2154	1.5	46
29 M ○	0422	9.3	283
	1045	1.4	43
	1659	8.2	250
	2242	2.5	76
30 Tu	0450	9.3	283
	1125	0.2	6
	1801	8.6	262
	2330	3.6	110
31 W	0518	9.2	280
	1206	−0.6	−18
	1901	8.9	271

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Cherry Point, Washington, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0018	4.6	140
	0546	9.0	274
	1247	−1.0	−30
	1959	9.0	274
2 F	0108	5.4	165
	0616	8.7	265
	1329	−1.1	−34
	2059	9.0	274
3 Sa	0203	6.1	186
	0647	8.2	250
	1414	−0.8	−24
	2201	8.8	268
4 Su	0306	6.5	198
	0719	7.7	235
	1502	−0.3	−9
	2307	8.6	262
5 M	0426	6.6	201
	0755	7.1	216
	1557	0.3	9
6 Tu ◑	0016	8.4	256
	0613	6.3	192
	0846	6.5	198
	1657	0.8	24
7 W	0116	8.3	253
	0745	5.8	177
	1023	6.0	183
	1802	1.3	40
8 Th	0203	8.3	253
	0830	5.1	155
	1214	5.8	177
	1903	1.7	52
9 F	0238	8.2	250
	0900	4.3	131
	1344	5.9	180
	1956	2.2	67
10 Sa	0303	8.2	250
	0926	3.5	107
	1454	6.3	192
	2043	2.7	82
11 Su	0324	8.1	247
	0950	2.7	82
	1552	6.8	207
	2125	3.2	98
12 M	0341	8.1	247
	1015	1.8	55
	1643	7.4	226
	2205	3.9	119
13 Tu	0358	8.2	250
	1042	0.9	27
	1731	7.9	241
	2245	4.5	137
14 W ●	0416	8.2	250
	1110	0.1	3
	1817	8.4	256
	2325	5.1	155
15 Th	0435	8.2	250
	1142	−0.5	−15
	1903	8.7	265

	Time	Height	
	h m	ft	cm
16 F	0007	5.7	174
	0457	8.2	250
	1216	−1.1	−34
	1951	9.0	274
17 Sa	0051	6.2	189
	0522	8.2	250
	1255	−1.4	−43
	2042	9.1	277
18 Su	0140	6.6	201
	0552	8.2	250
	1339	−1.5	−46
	2138	9.0	274
19 M	0236	6.9	210
	0627	7.9	241
	1428	−1.3	−40
	2238	9.0	274
20 Tu	0347	6.9	210
	0711	7.6	232
	1523	−1.0	−30
	2337	8.9	271
21 W ◐	0514	6.5	198
	0816	7.0	213
	1624	−0.4	−12
22 Th	0029	8.9	271
	0635	5.7	174
	1002	6.3	192
	1728	0.3	9
23 F	0112	9.0	274
	0735	4.5	137
	1203	6.0	183
	1833	1.2	37
24 Sa	0149	9.0	274
	0821	3.2	98
	1347	6.3	192
	1936	2.1	64
25 Su	0220	9.1	277
	0902	1.7	52
	1512	7.0	213
	2035	3.1	94
26 M	0250	9.1	277
	0941	0.3	9
	1622	7.8	238
	2131	4.1	125
27 Tu	0319	9.1	277
	1020	−0.8	−24
	1723	8.6	262
	2226	5.0	152
28 W ○	0348	9.0	274
	1058	−1.6	−49
	1819	9.2	280
	2320	5.7	174
29 Th	0418	8.8	268
	1136	−2.0	−61
	1910	9.5	290
30 F	0014	6.2	189
	0449	8.4	256
	1215	−2.0	−61
	2000	9.6	293

May

	Time	Height	
	h m	ft	cm
1 Sa	0110	6.5	198
	0521	8.0	244
	1255	−1.8	−55
	2049	9.6	293
2 Su	0209	6.6	201
	0555	7.6	232
	1337	−1.3	−40
	2138	9.3	283
3 M	0315	6.5	198
	0631	7.0	213
	1421	−0.6	−18
	2228	9.1	277
4 Tu	0434	6.2	189
	0714	6.4	195
	1508	0.1	3
	2317	8.8	268
5 W ◑	0600	5.6	171
	0820	5.8	177
	1558	1.0	30
6 Th	0002	8.6	262
	0704	4.9	149
	1007	5.2	158
	1653	1.8	55
7 F	0039	8.4	256
	0743	4.0	122
	1204	5.1	155
	1750	2.7	82
8 Sa	0110	8.3	253
	0813	3.1	94
	1345	5.4	165
	1849	3.5	107
9 Su	0136	8.2	250
	0840	2.1	64
	1503	6.1	186
	1946	4.3	131
10 M	0158	8.2	250
	0907	1.2	37
	1604	6.9	210
	2040	5.1	155
11 Tu	0218	8.2	250
	0935	0.2	6
	1655	7.8	238
	2132	5.7	174
12 W	0239	8.2	250
	1004	−0.7	−21
	1740	8.5	259
	2222	6.3	192
13 Th ●	0301	8.3	253
	1037	−1.4	−43
	1824	9.1	277
	2311	6.7	204
14 F	0328	8.3	253
	1112	−2.0	−61
	1907	9.5	290
15 Sa	0000	7.0	213
	0400	8.3	253
	1151	−2.4	−73
	1952	9.7	296

	Time	Height	
	h m	ft	cm
16 Su	0051	7.1	216
	0437	8.3	253
	1234	−2.5	−76
	2037	9.8	299
17 M	0146	7.1	216
	0520	8.0	244
	1319	−2.4	−73
	2124	9.8	299
18 Tu	0249	6.8	207
	0610	7.6	232
	1407	−1.9	−58
	2209	9.7	296
19 W	0400	6.3	192
	0715	6.9	210
	1458	−1.0	−30
	2253	9.6	293
20 Th ◐	0513	5.3	162
	0845	6.1	186
	1551	0.1	3
	2333	9.5	290
21 F	0618	4.1	125
	1040	5.5	168
	1649	1.5	46
22 Sa	0009	9.5	290
	0711	2.6	79
	1239	5.6	171
	1752	2.9	88
23 Su	0043	9.4	287
	0756	1.2	37
	1424	6.3	192
	1859	4.3	131
24 M	0116	9.3	283
	0838	−0.2	−6
	1546	7.3	223
	2007	5.4	165
25 Tu	0148	9.2	280
	0918	−1.2	−37
	1650	8.3	253
	2115	6.3	192
26 W	0219	9.0	274
	0956	−2.0	−61
	1742	9.1	277
	2218	6.8	207
27 Th ○	0252	8.7	265
	1034	−2.4	−73
	1829	9.6	293
	2319	7.0	213
28 F	0326	8.4	256
	1112	−2.4	−73
	1911	9.8	299
29 Sa	0016	7.0	213
	0402	8.1	247
	1150	−2.2	−67
	1952	9.8	299
30 Su	0111	6.9	210
	0440	7.7	235
	1229	−1.9	−58
	2031	9.7	296
31 M	0206	6.6	201
	0521	7.2	219
	1307	−1.3	−40
	2109	9.5	290

June

	Time	Height	
	h m	ft	cm
1 Tu	0304	6.2	189
	0606	6.7	204
	1346	−0.6	−18
	2145	9.3	283
2 W	0405	5.7	174
	0701	6.0	183
	1425	0.2	6
	2220	9.1	277
3 Th	0505	5.0	152
	0814	5.4	165
	1505	1.2	37
	2251	8.9	271
4 F ◑	0557	4.2	128
	0953	4.9	149
	1547	2.3	70
	2319	8.8	268
5 Sa	0640	3.2	98
	1147	4.9	149
	1634	3.5	107
	2345	8.6	262
6 Su	0716	2.2	67
	1341	5.4	165
	1731	4.7	143
7 M	0009	8.5	259
	0749	1.2	37
	1512	6.3	192
	1840	5.7	174
8 Tu	0033	8.5	259
	0822	0.2	6
	1613	7.3	223
	1952	6.5	198
9 W	0058	8.5	259
	0855	−0.7	−21
	1700	8.2	250
	2059	7.1	216
10 Th	0126	8.6	262
	0931	−1.6	−49
	1741	9.0	274
	2159	7.4	226
11 F	0201	8.6	262
	1010	−2.3	−70
	1821	9.5	290
	2254	7.5	229
12 Sa ●	0242	8.6	262
	1051	−2.8	−85
	1900	9.8	299
	2347	7.5	229
13 Su	0329	8.6	262
	1134	−3.1	−94
	1939	10.0	305
14 M	0041	7.2	219
	0422	8.3	253
	1218	−3.0	−91
	2017	10.1	308
15 Tu	0137	6.8	207
	0520	7.9	241
	1303	−2.5	−76
	2054	10.1	308

	Time	Height	
	h m	ft	cm
16 W	0237	6.0	183
	0627	7.2	219
	1348	−1.6	−49
	2130	10.1	308
17 Th	0340	5.0	152
	0745	6.4	195
	1434	−0.3	−9
	2204	10.0	305
18 F ◐	0443	3.8	116
	0920	5.7	174
	1522	1.3	40
	2238	9.9	302
19 Sa	0542	2.4	73
	1110	5.5	168
	1614	3.0	91
	2311	9.7	296
20 Su	0636	1.1	34
	1310	5.9	180
	1715	4.7	143
	2344	9.6	293
21 M	0726	−0.1	−3
	1455	6.9	210
	1830	6.0	183
22 Tu	0019	9.3	283
	0812	−1.1	−34
	1609	8.0	244
	1954	7.0	213
23 W	0055	9.0	274
	0855	−1.7	−52
	1702	8.9	271
	2113	7.4	226
24 Th	0133	8.7	265
	0936	−2.1	−64
	1746	9.4	287
	2223	7.4	226
25 F	0214	8.4	256
	1016	−2.2	−67
	1824	9.6	293
	2321	7.3	223
26 Sa ○	0257	8.1	247
	1054	−2.1	−64
	1859	9.7	296
27 Su	0010	7.0	213
	0342	7.8	238
	1131	−1.8	−55
	1931	9.6	293
28 M	0055	6.6	201
	0428	7.4	226
	1207	−1.5	−46
	2001	9.5	290
29 Tu	0139	6.2	189
	0516	7.0	213
	1242	−0.9	−27
	2029	9.4	287
30 W	0224	5.7	174
	0608	6.5	198
	1316	−0.2	−6
	2055	9.3	283

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Cherry Point, Washington, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0309	5.0	152
	0707	6.0	183
	1349	0.7	21
	2120	9.2	280
2 F	0356	4.3	131
	0816	5.5	168
	1422	1.8	55
	2143	9.0	274
3 Sa	0442	3.5	107
	0942	5.2	158
	1456	3.0	91
	2206	8.9	271
4 Su ◑	0526	2.6	79
	1125	5.2	158
	1534	4.3	131
	2228	8.8	268
5 M	0610	1.7	52
	1327	5.8	177
	1622	5.5	168
	2251	8.7	265
6 Tu	0653	0.7	21
	1513	6.8	207
	1740	6.6	201
	2318	8.7	265
7 W	0736	−0.2	−6
	1611	7.7	235
	1912	7.3	223
	2353	8.7	265
8 Th	0820	−1.1	−34
	1651	8.5	259
	2033	7.7	235
9 F	0037	8.7	265
	0904	−1.9	−58
	1727	9.1	277
	2138	7.7	235
10 Sa	0130	8.7	265
	0948	−2.5	−76
	1801	9.5	290
	2234	7.5	229
11 Su ●	0229	8.7	265
	1033	−2.9	−88
	1834	9.8	299
	2326	7.1	216
12 M	0330	8.6	262
	1117	−3.0	−91
	1907	9.9	302
13 Tu	0018	6.5	198
	0434	8.3	253
	1201	−2.5	−76
	1938	10.0	305
14 W	0111	5.6	171
	0541	7.8	238
	1245	−1.7	−52
	2009	10.1	308
15 Th	0206	4.5	137
	0653	7.2	219
	1328	−0.4	−12
	2040	10.1	308

	Time	Height	
	h m	ft	cm
16 F	0302	3.3	101
	0813	6.6	201
	1412	1.2	37
	2111	10.0	305
17 Sa	0400	2.1	64
	0943	6.2	189
	1458	2.9	88
	2142	9.8	299
18 Su ◐	0457	1.1	34
	1128	6.2	189
	1550	4.6	140
	2215	9.5	290
19 M	0555	0.2	6
	1325	6.8	207
	1657	6.0	183
	2251	9.2	280
20 Tu	0651	−0.5	−15
	1501	7.7	235
	1827	7.0	213
	2332	8.8	268
21 W	0744	−1.0	−30
	1604	8.5	259
	2005	7.4	226
22 Th	0020	8.4	256
	0834	−1.3	−40
	1649	9.0	274
	2126	7.3	223
23 F	0114	8.1	247
	0919	−1.4	−43
	1727	9.2	280
	2225	7.0	213
24 Sa	0209	7.9	241
	1000	−1.4	−43
	1759	9.3	283
	2309	6.6	201
25 Su ○	0302	7.7	235
	1038	−1.2	−37
	1828	9.2	280
	2346	6.2	189
26 M	0351	7.5	229
	1113	−1.0	−30
	1853	9.1	277
27 Tu	0021	5.7	174
	0440	7.3	223
	1145	−0.5	−15
	1915	9.1	277
28 W	0055	5.2	158
	0529	7.0	213
	1217	0.1	3
	1936	9.0	274
29 Th	0131	4.5	137
	0620	6.7	204
	1248	0.9	27
	1955	8.9	271
30 F	0208	3.9	119
	0717	6.4	195
	1319	1.9	58
	2015	8.9	271
31 Sa	0247	3.2	98
	0819	6.2	189
	1351	2.9	88
	2034	8.8	268

August

	Time	Height	
	h m	ft	cm
1 Su	0329	2.5	76
	0933	6.0	183
	1425	4.1	125
	2054	8.6	262
2 M ◑	0414	1.8	55
	1103	6.1	186
	1502	5.2	158
	2116	8.5	259
3 Tu	0504	1.1	34
	1254	6.5	198
	1552	6.2	189
	2142	8.5	259
4 W	0557	0.4	12
	1442	7.3	223
	1718	7.1	216
	2218	8.4	256
5 Th	0653	−0.3	−9
	1540	8.0	244
	1900	7.5	229
	2310	8.4	256
6 F	0747	−1.0	−30
	1618	8.5	259
	2021	7.5	229
7 Sa	0018	8.4	256
	0839	−1.7	−52
	1650	8.9	271
	2121	7.1	216
8 Su	0131	8.4	256
	0927	−2.1	−64
	1720	9.2	280
	2213	6.5	198
9 M ●	0241	8.5	259
	1014	−2.2	−67
	1749	9.4	287
	2301	5.7	174
10 Tu	0349	8.4	256
	1059	−1.8	−55
	1817	9.6	293
	2349	4.6	140
11 W	0457	8.3	253
	1143	−1.0	−30
	1845	9.7	296
12 Th	0038	3.5	107
	0605	8.0	244
	1226	0.2	6
	1914	9.7	296
13 F	0128	2.4	73
	0715	7.7	235
	1310	1.6	49
	1943	9.7	296
14 Sa	0219	1.4	43
	0830	7.4	226
	1355	3.1	94
	2014	9.5	290
15 Su	0313	0.6	18
	0953	7.2	219
	1445	4.6	140
	2046	9.2	280

	Time	Height	
	h m	ft	cm
16 M ◐	0409	0.1	3
	1128	7.3	223
	1546	5.9	180
	2122	8.8	268
17 Tu	0509	−0.1	−3
	1310	7.7	235
	1708	6.7	204
	2205	8.3	253
18 W	0612	−0.3	−9
	1433	8.2	250
	1853	7.0	213
	2300	7.8	238
19 Th	0714	−0.3	−9
	1530	8.5	259
	2027	6.8	207
20 F	0011	7.5	229
	0810	−0.3	−9
	1612	8.7	265
	2128	6.4	195
21 Sa	0123	7.3	223
	0859	−0.3	−9
	1646	8.8	268
	2209	5.9	180
22 Su	0226	7.3	223
	0940	−0.2	−6
	1714	8.7	265
	2242	5.4	165
23 M	0320	7.3	223
	1017	0.1	3
	1737	8.6	262
	2311	4.8	146
24 Tu ○	0409	7.3	223
	1050	0.5	15
	1756	8.6	262
	2340	4.2	128
25 W	0457	7.3	223
	1121	1.0	30
	1813	8.5	259
26 Th	0009	3.5	107
	0544	7.2	219
	1152	1.7	52
	1830	8.5	259
27 F	0040	2.9	88
	0633	7.2	219
	1224	2.6	79
	1847	8.4	256
28 Sa	0113	2.3	70
	0725	7.2	219
	1258	3.5	107
	1905	8.4	256
29 Su	0147	1.7	52
	0822	7.2	219
	1333	4.4	134
	1924	8.3	253
30 M	0226	1.2	37
	0926	7.2	219
	1412	5.3	162
	1944	8.2	250
31 Tu	0311	0.9	27
	1043	7.2	219
	1458	6.1	186
	2009	8.1	247

September

	Time	Height	
	h m	ft	cm
1 W ◑	0404	0.5	15
	1215	7.4	226
	1603	6.8	207
	2042	8.0	244
2 Th	0506	0.2	6
	1345	7.8	238
	1738	7.1	216
	2133	7.8	238
3 F	0611	−0.2	−6
	1444	8.2	250
	1911	7.0	213
	2252	7.7	235
4 Sa	0714	−0.6	−18
	1523	8.5	259
	2018	6.5	198
5 Su	0026	7.7	235
	0811	−0.8	−24
	1554	8.8	268
	2108	5.7	174
6 M	0150	7.8	238
	0903	−0.8	−24
	1622	9.0	274
	2153	4.7	143
7 Tu	0305	8.0	244
	0951	−0.5	−15
	1649	9.1	277
	2237	3.4	104
8 W	0413	8.2	250
	1037	0.3	9
	1716	9.3	283
●	2321	2.2	67
9 Th	0519	8.4	256
	1123	1.4	43
	1744	9.3	283
10 F	0005	1.0	30
	0625	8.5	259
	1209	2.6	79
	1813	9.3	283
11 Sa	0051	0.1	3
	0730	8.5	259
	1256	3.8	116
	1843	9.1	277
12 Su	0137	−0.4	−12
	0838	8.5	259
	1348	5.0	152
	1915	8.8	268
13 M	0227	−0.6	−18
	0951	8.4	256
	1447	5.9	180
	1950	8.4	256
14 Tu ◐	0321	−0.4	−12
	1110	8.3	253
	1601	6.5	198
	2029	7.8	238
15 W	0421	−0.1	−3
	1232	8.3	253
	1739	6.6	201
	2122	7.2	219

	Time	Height	
	h m	ft	cm
16 Th	0526	0.3	9
	1343	8.4	256
	1924	6.3	192
	2242	6.7	204
17 F	0633	0.6	18
	1437	8.5	259
	2030	5.7	174
18 Sa	0016	6.5	198
	0735	0.8	24
	1517	8.5	259
	2111	5.1	155
19 Su	0137	6.5	198
	0826	1.1	34
	1547	8.4	256
	2142	4.4	134
20 M	0242	6.7	204
	0910	1.4	43
	1610	8.3	253
	2209	3.7	113
21 Tu	0337	7.0	213
	0948	1.8	55
	1629	8.2	250
	2234	3.0	91
22 W	0426	7.3	223
	1022	2.4	73
	1646	8.2	250
	2300	2.3	70
23 Th ○	0513	7.6	232
	1056	3.1	94
	1702	8.1	247
	2327	1.6	49
24 F	0558	7.9	241
	1131	3.8	116
	1718	8.1	247
	2355	1.0	30
25 Sa	0644	8.1	247
	1207	4.5	137
	1735	8.1	247
26 Su	0026	0.5	15
	0732	8.3	253
	1246	5.2	158
	1754	8.0	244
27 M	0101	0.1	3
	0823	8.3	253
	1327	5.8	177
	1814	7.9	241
28 Tu	0140	−0.1	−3
	0921	8.3	253
	1415	6.3	192
	1839	7.8	238
29 W	0225	−0.2	−6
	1027	8.3	253
	1514	6.8	207
	1910	7.7	235
30 Th ◑	0319	−0.2	−6
	1139	8.3	253
	1635	6.9	210
	1953	7.4	226

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Cherry Point, Washington, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0422	−0.1	−3
	1247	8.4	256
	1809	6.7	204
	2108	7.0	213
2 Sa	0530	0.1	3
	1338	8.6	262
	1921	6.0	183
	2303	6.7	204
3 Su	0636	0.3	9
	1417	8.7	265
	2011	5.0	152
4 M	0050	6.8	207
	0737	0.6	18
	1449	8.9	271
	2053	3.7	113
5 Tu	0218	7.2	219
	0833	1.2	37
	1517	9.0	274
	2134	2.3	70
6 W	0332	7.8	238
	0925	2.0	61
	1545	9.1	277
	2213	0.9	27
7 Th ●	0438	8.4	256
	1016	3.0	91
	1613	9.2	280
	2254	−0.3	−9
8 F	0541	8.9	271
	1106	4.0	122
	1642	9.1	277
	2335	−1.2	−37
9 Sa	0640	9.3	283
	1157	5.0	152
	1712	9.0	274
10 Su	0017	−1.6	−49
	0739	9.5	290
	1250	5.8	177
	1744	8.7	265
11 M	0101	−1.6	−49
	0837	9.5	290
	1349	6.3	192
	1818	8.2	250
12 Tu	0147	−1.3	−40
	0938	9.4	287
	1457	6.6	201
	1855	7.6	232
13 W	0236	−0.7	−21
	1041	9.1	277
	1622	6.5	198
	1938	7.0	213
14 Th ◐	0331	0.0	0
	1144	8.9	271
	1805	6.1	186
	2043	6.3	192
15 F	0432	0.8	24
	1242	8.7	265
	1924	5.4	165
	2228	5.8	177

	Time	Height	
	h m	ft	cm
16 Sa	0537	1.5	46
	1329	8.6	262
	2009	4.6	140
17 Su	0017	5.7	174
	0640	2.1	64
	1405	8.4	256
	2041	3.8	116
18 M	0147	5.9	180
	0737	2.7	82
	1433	8.3	253
	2108	3.0	91
19 Tu	0256	6.5	198
	0826	3.3	101
	1454	8.2	250
	2133	2.2	67
20 W	0353	7.1	216
	0911	3.9	119
	1513	8.2	250
	2157	1.3	40
21 Th	0441	7.7	235
	0953	4.5	137
	1529	8.1	247
	2223	0.6	18
22 F ○	0526	8.2	250
	1033	5.2	158
	1546	8.1	247
	2250	−0.1	−3
23 Sa	0609	8.7	265
	1115	5.7	174
	1605	8.1	247
	2319	−0.6	−18
24 Su	0652	9.1	277
	1157	6.2	189
	1625	8.1	247
	2352	−1.0	−30
25 M	0736	9.3	283
	1241	6.6	201
	1649	8.0	244
26 Tu	0029	−1.2	−37
	0823	9.4	287
	1330	6.9	210
	1717	7.9	241
27 W	0110	−1.3	−40
	0914	9.3	283
	1426	7.0	213
	1750	7.7	235
28 Th	0156	−1.1	−34
	1008	9.3	283
	1536	6.9	210
	1832	7.4	226
29 F	0247	−0.7	−21
	1102	9.2	280
	1700	6.5	198
	1934	6.8	207
30 Sa ◑	0345	−0.1	−3
	1151	9.2	280
	1816	5.7	174
	2123	6.1	186
31 Su	0447	0.7	21
	1234	9.2	280
	1910	4.5	137
	2333	5.8	177

November

	Time	Height	
	h m	ft	cm
1 M	0553	1.6	49
	1310	9.2	280
	1953	3.1	94
2 Tu	0122	6.2	189
	0658	2.7	82
	1342	9.3	283
	2033	1.6	49
3 W	0250	7.1	216
	0801	3.7	113
	1412	9.3	283
	2112	0.1	3
4 Th	0402	8.0	244
	0901	4.7	143
	1442	9.3	283
	2151	−1.1	−34
5 F ●	0504	9.0	274
	0959	5.6	171
	1513	9.3	283
	2230	−2.0	−61
6 Sa	0559	9.7	296
	1056	6.3	192
	1544	9.1	277
	2309	−2.4	−73
7 Su	0650	10.1	308
	1153	6.7	204
	1618	8.8	268
	2350	−2.5	−76
8 M	0740	10.2	311
	1252	6.9	210
	1653	8.4	256
9 Tu	0032	−2.1	−64
	0828	10.2	311
	1354	6.9	210
	1731	7.8	238
10 W	0114	−1.6	−49
	0917	9.9	302
	1503	6.7	204
	1812	7.2	219
11 Th	0159	−0.8	−24
	1005	9.7	296
	1624	6.2	189
	1901	6.5	198
12 F	0245	0.1	3
	1052	9.4	287
	1748	5.6	171
	2016	5.8	177
13 Sa ◐	0335	1.1	34
	1135	9.1	277
	1848	4.7	143
	2207	5.2	158
14 Su	0428	2.2	67
	1212	8.9	271
	1927	3.8	116
15 M	0006	5.1	155
	0526	3.2	98
	1243	8.7	265
	1958	2.9	88

	Time	Height	
	h m	ft	cm
16 Tu	0151	5.7	174
	0628	4.2	128
	1309	8.6	262
	2026	1.9	58
17 W	0309	6.5	198
	0730	5.1	155
	1331	8.5	259
	2052	1.0	30
18 Th	0407	7.4	226
	0828	5.8	177
	1352	8.4	256
	2119	0.1	3
19 F	0454	8.2	250
	0923	6.4	195
	1412	8.4	256
	2148	−0.6	−18
20 Sa	0535	8.9	271
	1014	6.9	210
	1435	8.4	256
	2219	−1.2	−37
21 Su ○	0614	9.5	290
	1102	7.2	219
	1500	8.4	256
	2252	−1.7	−52
22 M	0653	9.8	299
	1150	7.4	226
	1531	8.4	256
	2329	−2.1	−64
23 Tu	0734	10.0	305
	1238	7.4	226
	1606	8.3	253
24 W	0008	−2.2	−67
	0815	10.1	308
	1330	7.3	223
	1647	8.1	247
25 Th	0051	−2.0	−61
	0857	10.1	308
	1429	7.1	216
	1736	7.7	235
26 F	0135	−1.6	−49
	0938	10.0	305
	1535	6.5	198
	1837	7.0	213
27 Sa	0222	−0.8	−24
	1018	10.0	305
	1644	5.6	171
	2004	6.2	189
28 Su ◑	0312	0.4	12
	1056	9.9	302
	1747	4.4	134
	2200	5.6	171
29 M	0406	1.8	55
	1131	9.8	299
	1840	2.9	88
30 Tu	0005	5.6	171
	0508	3.3	101
	1205	9.8	299
	1926	1.4	43

December

	Time	Height	
	h m	ft	cm
1 W	0159	6.4	195
	0618	4.8	146
	1238	9.7	296
	2009	−0.1	−3
2 Th	0326	7.6	232
	0733	6.0	183
	1311	9.6	293
	2050	−1.2	−37
3 F	0431	8.7	265
	0846	6.9	210
	1346	9.5	290
	2130	−2.1	−64
4 Sa	0523	9.6	293
	0955	7.4	226
	1422	9.2	280
	2210	−2.5	−76
5 Su ●	0609	10.2	311
	1058	7.6	232
	1500	8.9	271
	2250	−2.7	−82
6 M	0651	10.5	320
	1156	7.5	229
	1541	8.6	262
	2330	−2.5	−76
7 Tu	0731	10.5	320
	1252	7.3	223
	1623	8.1	247
8 W	0010	−2.0	−61
	0810	10.4	317
	1347	6.9	210
	1708	7.6	232
9 Th	0049	−1.4	−43
	0847	10.2	311
	1445	6.4	195
	1757	7.0	213
10 F	0127	−0.6	−18
	0922	9.9	302
	1544	5.8	177
	1854	6.3	192
11 Sa	0205	0.4	12
	0955	9.7	296
	1643	5.1	155
	2009	5.6	171
12 Su	0243	1.6	49
	1025	9.4	287
	1737	4.2	128
	2146	5.1	155
13 M ◐	0322	2.8	85
	1053	9.2	280
	1821	3.3	101
	2344	5.1	155
14 Tu	0406	4.1	125
	1118	9.0	274
	1859	2.3	70
15 W	0151	5.8	177
	0503	5.4	165
	1142	8.9	271
	1934	1.3	40

	Time	Height	
	h m	ft	cm
16 Th	0324	6.8	207
	0620	6.5	198
	1206	8.7	265
	2008	0.4	12
17 F	0419	7.8	238
	0743	7.2	219
	1231	8.7	265
	2042	−0.4	−12
18 Sa	0459	8.7	265
	0856	7.7	235
	1301	8.7	265
	2117	−1.1	−34
19 Su	0535	9.4	287
	0957	7.9	241
	1336	8.7	265
	2153	−1.8	−55
20 M	0609	9.8	299
	1049	7.9	241
	1419	8.7	265
	2232	−2.3	−70
21 Tu ○	0643	10.2	311
	1136	7.8	238
	1506	8.7	265
	2312	−2.5	−76
22 W	0718	10.4	317
	1224	7.5	229
	1558	8.5	259
	2353	−2.5	−76
23 Th	0751	10.4	317
	1314	7.0	213
	1655	8.1	247
24 F	0035	−2.1	−64
	0825	10.5	320
	1408	6.3	192
	1758	7.5	229
25 Sa	0117	−1.3	−40
	0857	10.5	320
	1505	5.3	162
	1913	6.8	207
26 Su	0200	0.0	0
	0928	10.4	317
	1605	4.1	125
	2042	6.1	186
27 M ◑	0244	1.6	49
	1000	10.3	314
	1703	2.8	85
	2230	5.8	177
28 Tu	0332	3.3	101
	1032	10.2	311
	1759	1.4	43
29 W	0034	6.1	186
	0429	5.1	155
	1104	10.0	305
	1852	0.2	6
30 Th	0232	7.2	219
	0546	6.6	201
	1140	9.8	299
	1942	−0.8	−24
31 F	0351	8.4	256
	0720	7.5	229
	1219	9.5	290
	2029	−1.6	−49

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Victoria, British Columbia, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0718	8.9	270
	0824	8.9	270
	1228	10.2	310
	2139	0.0	0
2 Sa	0736	8.9	270
	0938	8.5	260
	1326	9.8	300
	2221	0.7	20
3 Su	0751	8.9	270
	1045	7.9	240
	1431	8.9	270
	2303	1.3	40
4 M	0748	8.9	270
	1154	7.2	220
	1606	7.9	240
	2342	2.6	80
5 Tu	0713	8.9	270
	1310	6.2	190
	1740	6.9	210
6 W	0018	3.9	120
	0737	9.2	280
	1438	5.2	160
	1940	5.9	180
7 Th ◑	0044	5.2	160
	0805	9.2	280
	1559	4.3	130
8 F	0833	9.5	290
	1657	3.3	100
9 Sa	0859	9.5	290
	1743	2.6	80
10 Su	0915	9.5	290
	1826	2.0	60
11 M	0919	9.5	290
	1907	1.6	50
12 Tu	0943	9.5	290
	1946	1.6	50
13 W	0615	8.9	270
	0717	8.9	270
	1021	9.5	290
	2023	1.3	40
14 Th ●	0644	8.9	270
	0810	8.9	270
	1104	9.2	280
	2059	1.6	50
15 F	0711	8.9	270
	0858	8.5	260
	1148	9.2	280
	2132	1.6	50

	Time	Height	
	h m	ft	cm
16 Sa	0731	8.5	260
	0944	8.2	250
	1231	8.9	270
	2203	2.0	60
17 Su	0744	8.5	260
	1028	7.9	240
	1313	8.2	250
	2231	2.6	80
18 M	0747	8.5	260
	1115	7.5	230
	1358	7.9	240
	2256	3.3	100
19 Tu	0703	8.2	250
	1205	6.9	210
	1457	7.2	220
	2317	3.9	120
20 W	0646	8.5	260
	1302	6.2	190
	1652	6.6	200
	2335	4.6	140
21 Th	0700	8.5	260
	1405	5.6	170
	1841	5.9	180
	2338	5.2	160
22 F	0718	8.9	270
	1508	4.6	140
23 Sa ◐	0735	8.9	270
	1603	3.9	120
24 Su	0750	9.2	280
	1653	3.0	90
25 M	0807	9.5	290
	1742	2.3	70
26 Tu	0842	9.8	300
	1829	1.3	40
27 W	0932	10.2	310
	1914	1.0	30
28 Th	1032	10.2	310
	1958	0.7	20
29 F ○	0611	8.5	260
	0725	8.5	260
	1138	9.8	300
	2039	0.7	20
30 Sa	0615	8.2	250
	0834	7.9	240
	1307	9.5	290
	2120	1.0	30
31 Su	0613	8.2	250
	0933	7.2	220
	1434	8.9	270
	2159	1.6	50

February

	Time	Height	
	h m	ft	cm
1 M	0456	8.5	260
	1030	6.2	190
	1544	8.2	250
	2236	2.6	80
2 Tu	0523	8.9	270
	1128	5.2	160
	1654	7.2	220
	2312	3.9	120
3 W	0555	9.2	280
	1231	4.6	140
	1819	6.6	200
	2342	5.2	160
4 Th	0627	9.2	280
	1342	3.9	120
5 F ◑	0657	9.2	280
	1456	3.3	100
6 Sa	0723	9.2	280
	1607	3.0	90
7 Su	0737	9.2	280
	1709	2.6	80
8 M	0744	8.9	270
	1803	2.3	70
9 Tu	0817	8.9	270
	1849	2.3	70
10 W	0458	8.5	260
	0628	8.5	260
	0906	8.9	270
	1928	2.3	70
11 Th	0525	8.5	260
	0719	8.2	250
	1003	8.9	270
	2005	2.3	70
12 F	0549	8.2	250
	0802	7.9	240
	1106	8.5	260
	2038	2.3	70
13 Sa ●	0606	8.2	250
	0841	7.5	230
	1318	8.2	250
	2108	2.6	80
14 Su	0611	7.9	240
	0919	7.2	220
	1412	7.9	240
	2135	3.0	90
15 M	0440	7.9	240
	0956	6.6	200
	1501	7.5	230
	2159	3.6	110

	Time	Height	
	h m	ft	cm
16 Tu	0446	7.9	240
	1034	5.9	180
	1552	7.2	220
	2221	4.3	130
17 W	0503	8.2	250
	1115	5.2	160
	1647	6.9	210
	2241	4.9	150
18 Th	0523	8.5	260
	1200	4.6	140
	1754	6.6	200
	2257	5.6	170
19 F	0543	8.5	260
	1251	4.3	130
20 Sa	0600	8.9	270
	1348	3.6	110
21 Su ◐	0612	8.9	270
	1450	3.3	100
22 M	0626	9.2	280
	1557	2.6	80
23 Tu	0702	9.2	280
	1702	2.3	70
24 W	0803	9.2	280
	1801	1.6	50
25 Th	0915	9.2	280
	1850	1.6	50
26 F	0430	8.2	250
	0636	7.9	240
	1043	9.2	280
	1934	1.6	50
27 Sa	0428	7.9	240
	0737	6.9	210
	1240	8.9	270
	2015	2.0	60
28 Su ○	0300	7.9	240
	0830	5.9	180
	1357	8.5	260
	2053	2.6	80

March

	Time	Height	
	h m	ft	cm
1 M	0321	8.5	260
	0920	4.9	150
	1503	7.9	240
	2131	3.6	110
2 Tu	0349	8.9	270
	1010	3.9	120
	1609	7.5	230
	2207	4.6	140
3 W	0420	8.9	270
	1101	3.3	100
	1724	6.9	210
	2242	5.6	170
4 Th	0451	9.2	280
	1154	3.0	90
	2044	6.9	210
	2311	6.6	200
5 F	0521	8.9	270
	1253	3.0	90
6 Sa	0544	8.9	270
	1359	3.0	90
7 Su ◑	0552	8.5	260
	1509	3.0	90
8 M	0558	8.5	260
	1619	3.0	90
9 Tu	0247	8.5	260
	0449	8.2	250
	0625	8.2	250
	1721	3.0	90
10 W	0316	8.2	250
	0555	7.9	240
	0718	8.2	250
	1813	3.0	90
11 Th	0345	8.2	250
	0639	7.5	230
	0832	7.9	240
	1856	3.0	90
12 F	0404	7.9	240
	0716	7.2	220
	1203	7.5	230
	1933	3.3	100
13 Sa	0403	7.5	230
	0750	6.6	200
	1303	7.5	230
	2006	3.6	110
14 Su	0250	7.5	230
	0822	5.9	180
	1353	7.5	230
	2034	3.9	120
15 M ●	0256	7.5	230
	0854	5.2	160
	1441	7.2	220
	2059	4.6	140

	Time	Height	
	h m	ft	cm
16 Tu	0312	7.9	240
	0927	4.6	140
	1529	7.2	220
	2121	5.2	160
17 W	0330	7.9	240
	1002	3.9	120
	1621	6.9	210
	2143	5.9	180
18 Th	0350	8.2	250
	1040	3.3	100
	1723	6.9	210
	2205	6.2	190
19 F	0410	8.5	260
	1122	3.0	90
	2054	6.9	210
	2218	6.9	210
20 Sa	0424	8.5	260
	1208	2.6	80
21 Su	0426	8.9	270
	1302	2.3	70
22 M	0434	8.9	270
	1402	2.3	70
23 Tu ◐	0510	8.9	270
	1509	2.3	70
24 W	0609	8.5	260
	1618	2.3	70
25 Th	0221	8.2	250
	0444	7.9	240
	0732	8.2	250
	1721	2.3	70
26 F	0228	7.9	240
	0551	7.2	220
	0934	7.9	240
	1815	2.6	80
27 Sa	0133	7.9	240
	0645	6.2	190
	1157	7.5	230
	1901	3.0	90
28 Su	0131	7.9	240
	0733	4.9	150
	1315	7.5	230
	1942	3.6	110
29 M ○	0153	8.2	250
	0819	3.9	120
	1422	7.5	230
	2022	4.6	140
30 Tu	0220	8.5	260
	0903	2.6	80
	1529	7.2	220
	2101	5.6	170
31 W	0251	8.9	270
	0948	2.0	60
	1649	7.2	220
	2139	6.2	190

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the Canadian chart datum of soundings. Subtract 2.5 feet (76 centimeters) to refer these levels to the datum of N.O.S. charts.

Victoria, British Columbia, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0321	8.9	270
	1033	1.6	50
	1950	7.5	230
	2218	7.2	220
2 F	0349	8.9	270
	1121	1.6	50
	2121	7.9	240
	2254	7.5	230
3 Sa	0409	8.9	270
	1212	2.0	60
4 Su	0412	8.5	260
	1309	2.3	70
5 M	0022	8.2	250
	0230	8.2	250
	0409	8.2	250
	1410	2.6	80
6 Tu ◑	0055	8.2	250
	1514	3.0	90
7 W	0124	8.2	250
	1618	3.3	100
8 Th	0144	7.9	240
	1716	3.6	110
9 F	0141	7.9	240
	0644	6.6	200
	1057	6.6	200
	1805	3.9	120
10 Sa	0112	7.5	230
	0705	5.9	180
	1220	6.6	200
	1846	4.6	140
11 Su	0112	7.5	230
	0731	4.9	150
	1321	6.6	200
	1919	4.9	150
12 M	0123	7.9	240
	0759	4.3	130
	1415	6.9	210
	1947	5.6	170
13 Tu	0139	7.9	240
	0828	3.3	100
	1511	6.9	210
	2011	5.9	180
14 W ●	0157	8.2	250
	0900	2.6	80
	1615	6.9	210
	2035	6.6	200
15 Th	0215	8.2	250
	0935	2.0	60
	1852	7.2	220
	2101	7.2	220

	Time	Height	
	h m	ft	cm
16 F	0230	8.5	260
	1013	1.6	50
	2009	7.5	230
	2125	7.5	230
17 Sa	0230	8.9	270
	1054	1.3	40
18 Su	0230	8.9	270
	1140	1.3	40
19 M	0258	8.9	270
	1232	1.3	40
20 Tu	0337	8.5	260
	1328	1.6	50
21 W ◐	0004	8.2	250
	0224	8.2	250
	0425	8.2	250
	1428	2.0	60
22 Th	0024	8.2	250
	0401	7.5	230
	0531	7.5	230
	1530	2.6	80
23 F	0030	7.9	240
	0505	6.6	200
	0737	6.9	210
	1631	3.3	100
24 Sa	0003	7.9	240
	0555	5.6	170
	1104	6.6	200
	1729	3.9	120
25 Su	0002	8.2	250
	0639	4.3	130
	1234	6.6	200
	1819	4.9	150
26 M	0025	8.5	260
	0721	3.0	90
	1352	6.9	210
	1906	5.6	170
27 Tu	0052	8.9	270
	0803	2.0	60
	1658	7.2	220
	1949	6.6	200
28 W ○	0121	8.9	270
	0844	1.3	40
	1808	7.5	230
	2032	7.2	220
29 Th	0151	8.9	270
	0926	0.7	20
	1910	7.9	240
	2116	7.5	230
30 F	0217	8.9	270
	1009	0.7	20
	2013	8.2	250
	2203	7.9	240

May

	Time	Height	
	h m	ft	cm
1 Sa	0232	8.9	270
	1053	1.0	30
	2121	8.2	250
	2304	8.2	250
2 Su	0231	8.5	260
	1140	1.3	40
	2221	8.2	250
3 M	0050	8.2	250
	0236	8.2	250
	1227	2.0	60
	2304	8.2	250
4 Tu	1315	2.3	70
	2332	8.2	250
5 W ◑	1402	3.0	90
	2343	8.2	250
6 Th	1447	3.6	110
	2336	7.9	240
7 F	1531	4.3	130
	2329	7.9	240
8 Sa	0626	5.2	160
	1112	5.6	170
	1619	4.9	150
	2335	7.9	240
9 Su	0640	4.6	140
	1243	5.9	180
	1708	5.6	170
	2346	7.9	240
10 M	0704	3.6	110
	1610	6.2	190
	1750	6.2	190
	2359	8.2	250
11 Tu	0731	2.6	80
	1714	6.9	210
	1825	6.9	210
12 W	0013	8.2	250
	0801	2.0	60
	1755	7.2	220
	1857	7.2	220
13 Th ●	0023	8.5	260
	0835	1.3	40
14 F	0027	8.9	270
	0911	0.7	20
15 Sa	0044	9.2	280
	0951	0.3	10

	Time	Height	
	h m	ft	cm
16 Su	0117	9.2	280
	1034	0.3	10
17 M	0158	9.2	280
	1120	0.3	10
	2147	8.2	250
	2325	8.2	250
18 Tu	0242	8.5	260
	1209	1.0	30
	2215	8.2	250
19 W	0057	7.9	240
	0328	8.2	250
	1259	1.6	50
	2236	8.2	250
20 Th ◐	0232	7.2	220
	0418	7.2	220
	1350	2.3	70
	2229	8.2	250
21 F	0357	6.2	190
	0541	6.2	190
	1441	3.3	100
	2213	8.2	250
22 Sa	0456	4.9	150
	0956	5.6	170
	1533	4.6	140
	2231	8.5	260
23 Su	0542	3.6	110
	1205	5.9	180
	1630	5.6	170
	2256	8.5	260
24 M	0624	2.6	80
	1545	6.6	200
	1730	6.6	200
	2323	8.9	270
25 Tu	0705	1.6	50
	1650	7.2	220
	1826	7.2	220
	2350	8.9	270
26 W	0746	1.0	30
	1742	7.9	240
	1918	7.5	230
27 Th ○	0017	9.2	280
	0827	0.7	20
	1833	8.2	250
	2008	7.9	240
28 F	0037	9.2	280
	0908	0.3	10
	1923	8.2	250
	2059	8.2	250
29 Sa	0052	8.9	270
	0950	0.3	10
	2011	8.2	250
	2155	8.2	250
30 Su	0115	8.9	270
	1032	0.7	20
	2054	8.2	250
	2300	8.2	250
31 M	0142	8.5	260
	1113	1.3	40
	2128	8.2	250

June

	Time	Height	
	h m	ft	cm
1 Tu	0020	7.9	240
	0207	7.9	240
	1152	1.6	50
	2151	8.2	250
2 W	1227	2.3	70
	2159	8.2	250
3 Th	1257	3.3	100
	2151	7.9	240
4 F ◑	1319	3.9	120
	2146	7.9	240
5 Sa	0543	5.2	160
	0745	5.2	160
	1333	4.6	140
	2152	8.2	250
6 Su	0539	4.6	140
	1138	5.2	160
	1327	5.2	160
	2203	8.2	250
7 M	0602	3.6	110
	2216	8.2	250
8 Tu	0630	2.6	80
	2229	8.5	260
9 W	0701	2.0	60
	2243	8.9	270
10 Th	0735	1.0	30
	2304	9.2	280
11 F	0812	0.3	10
	2338	9.5	290
12 Sa ●	0852	0.0	0
13 Su	0022	9.5	290
	0934	0.0	0
	2002	8.2	250
	2103	8.2	250
14 M	0112	9.5	290
	1017	0.0	0
	2021	8.2	250
	2217	7.9	240
15 Tu	0205	8.9	270
	1102	0.3	10
	2040	8.2	250
	2328	7.5	230

	Time	Height	
	h m	ft	cm
16 W	0302	8.2	250
	1146	1.0	30
	2045	8.2	250
17 Th	0044	6.9	210
	0415	7.2	220
	1229	2.0	60
	2013	8.2	250
18 F ◐	0205	5.9	180
	0615	6.2	190
	1311	3.3	100
	2033	8.5	260
19 Sa	0324	4.9	150
	0828	5.6	170
	1348	4.6	140
	2100	8.5	260
20 Su	0429	3.6	110
	2128	8.9	270
21 M	0520	2.6	80
	2156	8.9	270
22 Tu	0606	2.0	60
	2223	9.2	280
23 W	0650	1.3	40
	2247	9.2	280
24 Th	0732	0.7	20
	1747	8.2	250
	1853	8.2	250
	2310	9.2	280
25 F	0814	0.7	20
	1835	8.2	250
	1952	8.2	250
	2341	8.9	270
26 Sa ○	0854	0.7	20
	1912	8.2	250
	2046	8.2	250
27 Su	0019	8.9	270
	0933	0.7	20
	1944	8.2	250
	2139	7.9	240
28 M	0057	8.5	260
	1011	1.0	30
	2010	8.2	250
	2233	7.9	240
29 Tu	0136	8.2	250
	1046	1.6	50
	2027	7.9	240
	2328	7.2	220
30 W	0216	7.5	230
	1118	2.0	60
	2027	7.9	240

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the Canadian chart datum of soundings. Subtract 2.5 feet (76 centimeters) to refer these levels to the datum of N.O.S. charts.

Victoria, British Columbia, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0030	6.9	210	16 F	0019	5.2	160
	0303	7.2	220		0527	6.9	210
	1145	3.0	90		1156	3.3	100
	1958	7.9	240		1852	8.5	260
2 F	0141	6.2	190	17 Sa	0129	4.6	140
	0411	6.2	190		0700	5.9	180
	1207	3.6	110		1230	4.6	140
	1955	7.9	240		1926	8.9	270
3 Sa	0256	5.6	170	18 Su ◐	0243	3.6	110
	0601	5.6	170		1100	5.6	170
	1223	4.3	130		1244	5.6	170
	2008	8.2	250		1959	8.9	270
4 Su ◑	0351	4.9	150	19 M	0353	3.0	90
	0859	5.2	160		2031	8.9	270
	1226	4.9	150				
	2024	8.2	250				
5 M	0434	3.9	120	20 Tu	0454	2.3	70
	2042	8.5	260		2101	8.9	270
6 Tu	0513	3.3	100	21 W	0548	1.6	50
	2101	8.5	260		2129	8.9	270
7 W	0551	2.3	70	22 Th	0636	1.3	40
	2122	8.9	270		2201	8.9	270
8 Th	0631	1.6	50	23 F	0720	1.3	40
	2153	9.2	280		1735	8.2	250
					1848	7.9	240
					2244	8.9	270
9 F	0712	1.0	30	24 Sa	0800	1.3	40
	2236	9.5	290		1806	7.9	240
					1943	7.9	240
					2336	8.5	260
10 Sa	0753	0.3	10	25 Su ○	0838	1.3	40
	2328	9.5	290		1833	7.9	240
					2032	7.5	230
11 Su ●	0835	0.0	0	26 M	0040	8.5	260
	1854	7.9	240		0914	1.6	50
	1958	7.9	240		1854	7.5	230
					2118	7.2	220
12 M	0027	9.5	290	27 Tu	0143	8.2	250
	0917	0.0	0		0947	2.0	60
	1901	7.9	240		1903	7.5	230
	2109	7.5	230		2202	6.9	210
13 Tu	0138	9.2	280	28 W	0235	7.9	240
	0958	0.3	10		1017	2.3	70
	1904	7.9	240		1734	7.5	230
	2211	6.9	210		2246	6.6	200
14 W	0258	8.5	260	29 Th	0326	7.2	220
	1039	1.0	30		1043	3.0	90
	1749	7.9	240		1747	7.9	240
	2313	6.2	190		2332	5.9	180
15 Th	0411	7.9	240	30 F	0420	6.9	210
	1118	2.0	60		1106	3.6	110
	1819	8.2	250		1806	7.9	240
				31 Sa	0022	5.2	160
					0522	6.2	190
					1125	4.6	140
					1828	8.2	250

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0117	4.6	140	16 M ◐	0201	2.6	80
	0645	5.9	180		1859	8.9	270
	1138	5.2	160				
	1849	8.2	250				
2 M ◑	0217	4.3	130	17 Tu	0313	2.6	80
	1911	8.2	250		1931	8.5	260
3 Tu	0317	3.6	110	18 W	0422	2.3	70
	1932	8.5	260		2001	8.5	260
4 W	0415	3.0	90	19 Th	0524	2.3	70
	1957	8.9	270		1540	7.9	240
					1649	7.9	240
					2040	8.5	260
5 Th	0510	2.3	70	20 F	0617	2.0	60
	2034	9.2	280		1609	7.9	240
					1756	7.9	240
					2141	8.2	250
6 F	0602	1.6	50	21 Sa	0702	2.0	60
	2125	9.2	280		1640	7.9	240
					1849	7.5	230
					2337	8.2	250
7 Sa	0649	1.0	30	22 Su	0741	2.3	70
	2226	9.2	280		1706	7.5	230
					1935	7.2	220
8 Su	0733	0.7	20	23 M	0041	8.2	250
	1729	7.5	230		0816	2.3	70
	1859	7.5	230		1719	7.2	220
	2337	9.2	280		2017	6.6	200
9 M ●	0814	0.7	20	24 Tu ○	0132	7.9	240
	1725	7.5	230		0849	2.6	80
	2006	6.9	210		1535	7.2	220
					2057	6.2	190
10 Tu	0105	9.2	280	25 W	0218	7.9	240
	0854	1.0	30		0918	3.3	100
	1546	7.5	230		1549	7.5	230
	2103	6.2	190		2134	5.6	170
11 W	0221	8.5	260	26 Th	0304	7.5	230
	0933	1.6	50		0944	3.6	110
	1612	8.2	250		1610	7.5	230
	2158	5.2	160		2212	4.9	150
12 Th	0328	7.9	240	27 F	0351	7.2	220
	1011	2.6	80		1007	4.3	130
	1643	8.5	260		1632	7.9	240
	2253	4.6	140		2251	4.6	140
13 F	0434	7.2	220	28 Sa	0443	6.9	210
	1048	3.6	110		1027	4.9	150
	1717	8.9	270		1655	7.9	240
	2350	3.6	110		2333	3.9	120
14 Sa	0550	6.6	200	29 Su	0546	6.6	200
	1123	4.9	150		1046	5.6	170
	1751	8.9	270		1717	8.2	250
15 Su	0052	3.3	100	30 M	0020	3.6	110
	0801	6.2	190		0731	6.2	190
	1152	5.9	180		1053	6.2	190
	1826	8.9	270		1738	8.2	250
				31 Tu	0114	3.3	100
					1757	8.5	260

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W ◑	0214	3.0	90	16 Th	0339	2.6	80
	1817	8.5	260		1350	7.9	240
					1612	7.9	240
					1840	7.9	240
2 Th	0319	2.6	80	17 F	0446	3.0	90
	1855	8.5	260		1423	7.9	240
					1717	7.5	230
					1940	7.5	230
3 F	0426	2.3	70	18 Sa	0543	3.0	90
	1955	8.5	260		1450	7.9	240
					1807	7.2	220
					2249	7.5	230
4 Sa	0528	2.0	60	19 Su	0630	3.3	100
	1539	7.9	240		1502	7.5	230
	1646	7.9	240		1849	6.6	200
	2110	8.5	260				
5 Su	0621	1.6	50	20 M	0003	7.2	220
	1530	7.5	230		0710	3.3	100
	1810	7.2	220		1400	7.2	220
	2243	8.5	260		1926	5.9	180
6 M	0706	1.6	50	21 Tu	0058	7.2	220
	1411	7.5	230		0745	3.9	120
	1909	6.2	190		1404	7.5	230
					2001	5.2	160
7 Tu	0023	8.5	260	22 W	0148	7.2	220
	0747	2.0	60		0816	4.3	130
	1420	7.9	240		1421	7.5	230
	2002	5.2	160		2035	4.6	140
8 W	0137	8.2	250	23 Th ○	0235	7.2	220
	0826	2.6	80		0843	4.9	150
	1445	8.2	250		1441	7.9	240
●	2051	4.3	130		2108	3.9	120
9 Th	0241	7.9	240	24 F	0322	7.2	220
	0904	3.3	100		0906	5.2	160
	1515	8.5	260		1502	7.9	240
	2140	3.3	100		2142	3.6	110
10 F	0345	7.5	230	25 Sa	0413	7.2	220
	0942	4.6	140		0928	5.9	180
	1547	8.9	270		1523	8.2	250
	2229	2.6	80		2219	3.0	90
11 Sa	0455	7.2	220	26 Su	0511	6.9	210
	1019	5.6	170		0949	6.6	200
	1620	8.9	270		1543	8.2	250
	2320	2.3	70		2258	2.6	80
12 Su	0638	6.9	210	27 M	0808	6.9	210
	1056	6.2	190		1008	6.9	210
	1654	8.9	270		1559	8.2	250
					2342	2.3	70
13 M	0016	2.3	70	28 Tu	1603	8.5	260
	1002	7.2	220				
	1127	7.2	220				
	1725	8.9	270				
14 Tu ◐	0118	2.3	70	29 W	0031	2.3	70
	1750	8.5	260		1609	8.5	260
15 W	0228	2.6	80	30 Th ◑	0128	2.3	70
	1321	7.9	240		1646	8.5	260
	1435	7.9	240				
	1809	8.2	250				

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the Canadian chart datum of soundings. Subtract 2.5 feet (76 centimeters) to refer these levels to the datum of N.O.S. charts.

Victoria, British Columbia, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0231	2.3	70
	1319	7.9	240
	1447	7.9	240
	1749	8.2	250
2 Sa	0338	2.6	80
	1326	7.9	240
	1624	7.5	230
	1920	7.9	240
3 Su	0444	2.6	80
	1325	7.9	240
	1726	6.9	210
	2137	7.5	230
4 M	0541	3.0	90
	1244	7.9	240
	1818	5.9	180
	2336	7.5	230
5 Tu	0630	3.3	100
	1255	8.2	250
	1906	4.6	140
6 W	0053	7.5	230
	0713	3.9	120
	1319	8.5	260
	1952	3.3	100
7 Th ●	0200	7.5	230
	0754	4.9	150
	1347	8.9	270
	2036	2.3	70
8 F	0305	7.5	230
	0834	5.6	170
	1419	9.2	280
	2121	1.6	50
9 Sa	0416	7.5	230
	0915	6.6	200
	1451	9.2	280
	2206	1.3	40
10 Su	0712	7.5	230
	0956	7.2	220
	1522	9.2	280
	2253	1.3	40
11 M	0837	7.9	240
	1042	7.5	230
	1550	8.9	270
	2343	1.6	50
12 Tu	1003	8.2	250
	1145	7.9	240
	1605	8.5	260
13 W	0039	2.0	60
	1114	8.2	250
	1345	8.2	250
	1607	8.2	250
14 Th ◐	0139	2.6	80
	1159	8.2	250
15 F	0242	3.0	90
	1232	8.2	250

	Time	Height	
	h m	ft	cm
16 Sa	0346	3.6	110
	1251	8.2	250
17 Su	0446	3.9	120
	1240	7.9	240
	1818	6.2	190
	2307	6.6	200
18 M	0539	4.6	140
	1227	7.9	240
	1844	5.2	160
19 Tu	0021	6.6	200
	0624	4.9	150
	1236	7.9	240
	1913	4.6	140
20 W	0121	6.9	210
	0701	5.6	170
	1253	7.9	240
	1943	3.9	120
21 Th	0218	6.9	210
	0732	5.9	180
	1310	8.2	250
	2013	3.3	100
22 F ○	0317	7.2	220
	0757	6.6	200
	1328	8.2	250
	2044	2.6	80
23 Sa	0522	7.2	220
	0820	6.9	210
	1344	8.5	260
	2117	2.0	60
24 Su	0642	7.5	230
	0844	7.5	230
	1352	8.5	260
	2152	1.6	50
25 M	0751	7.9	240
	0909	7.9	240
	1337	8.9	270
	2231	1.3	40
26 Tu	0850	8.2	250
	0956	8.2	250
	1349	8.9	270
	2314	1.3	40
27 W	1419	8.9	270
28 Th	0002	1.6	50
	1054	8.5	260
	1203	8.2	250
	1457	8.5	260
29 F	0054	2.0	60
	1119	8.5	260
	1408	8.2	250
	1540	8.2	250
30 Sa ◑	0150	2.3	70
	1140	8.2	250
	1551	7.5	230
	1655	7.5	230
31 Su	0248	3.0	90
	1139	8.2	250
	1648	6.6	200
	1906	6.6	200

November

	Time	Height	
	h m	ft	cm
1 M	0348	3.6	110
	1112	8.2	250
	1732	5.6	170
	2242	6.6	200
2 Tu	0447	4.6	140
	1127	8.5	260
	1815	4.3	130
3 W	0016	6.6	200
	0543	5.2	160
	1151	8.9	270
	1857	3.0	90
4 Th	0139	6.9	210
	0633	6.2	190
	1218	9.2	280
	1938	2.0	60
5 F ●	0438	7.5	230
	0720	6.9	210
	1248	9.5	290
	2020	1.0	30
6 Sa	0546	7.9	240
	0806	7.5	230
	1318	9.5	290
	2103	0.7	20
7 Su	0646	8.2	250
	0853	7.9	240
	1346	9.5	290
	2146	0.7	20
8 M	0744	8.5	260
	0944	8.2	250
	1405	9.2	280
	2231	0.7	20
9 Tu	0842	8.5	260
	1046	8.5	260
	1410	8.9	270
	2317	1.3	40
10 W	0935	8.9	270
	1214	8.5	260
	1419	8.5	260
11 Th	0003	2.0	60
	1017	8.9	270
12 F	0050	2.6	80
	1048	8.5	260
13 Sa ◐	0135	3.3	100
	1103	8.5	260
14 Su	0217	3.9	120
	1057	8.5	260
15 M	0252	4.9	150
	1055	8.2	250
	1825	5.2	160
	2331	5.9	180

	Time	Height	
	h m	ft	cm
16 Tu	0245	5.6	170
	1104	8.5	260
	1832	4.3	130
17 W	1117	8.5	260
	1856	3.6	110
18 Th	1129	8.5	260
	1922	3.0	90
19 F	1139	8.9	270
	1951	2.3	70
20 Sa	1143	8.9	270
	2022	1.6	50
21 Su ○	1146	9.2	280
	2056	1.0	30
22 M	1206	9.5	290
	2132	0.7	20
23 Tu	1239	9.5	290
	2212	0.7	20
24 W	0843	8.9	270
	0947	8.5	260
	1318	9.5	290
	2255	1.0	30
25 Th	0918	8.9	270
	1107	8.5	260
	1359	9.2	280
	2339	1.3	40
26 F	0944	8.9	270
	1233	8.2	250
	1441	8.5	260
27 Sa	0025	2.0	60
	1002	8.9	270
	1409	7.5	230
	1522	7.5	230
28 Su ◑	0111	3.0	90
	0945	8.9	270
29 M	0157	3.9	120
	0938	8.9	270
	1646	5.2	160
	2122	5.9	180
30 Tu	0241	4.9	150
	0958	9.2	280
	1725	4.3	130

December

	Time	Height	
	h m	ft	cm
1 W	0150	5.9	180
	0326	5.9	180
	1023	9.2	280
	1805	3.0	90
2 Th	1050	9.5	290
	1845	2.0	60
3 F	0447	7.9	240
	0559	7.9	240
	1117	9.8	300
	1926	1.0	30
4 Sa	0531	8.2	250
	0646	8.2	250
	1142	9.8	300
	2008	0.7	20
5 Su ●	0616	8.9	270
	0743	8.5	260
	1202	9.8	300
	2049	0.3	10
6 M	0701	8.9	270
	0839	8.9	270
	1223	9.5	290
	2131	0.7	20
7 Tu	0744	8.9	270
	0937	8.9	270
	1250	9.5	290
	2213	1.0	30
8 W	0823	8.9	270
	1041	8.5	260
	1318	8.9	270
	2254	1.3	40
9 Th	0856	8.9	270
	1156	8.5	260
	1340	8.5	260
	2332	2.0	60
10 F	0921	8.9	270
11 Sa	0006	3.0	90
	0932	8.9	270
12 Su	0033	3.6	110
	0925	8.5	260
13 M ◐	0044	4.6	140
	0921	8.5	260
	1912	5.2	160
	2114	5.6	170
14 Tu	0032	5.2	160
	0928	8.9	270
	1754	4.6	140
15 W	0938	8.9	270
	1807	3.9	120

	Time	Height	
	h m	ft	cm
16 Th	0948	8.9	270
	1832	3.0	90
17 F	0958	9.2	280
	1859	2.3	70
18 Sa	1010	9.5	290
	1930	1.6	50
19 Su	1031	9.5	290
	2003	1.0	30
20 M	1104	9.8	300
	2039	0.7	20
21 Tu ○	1146	9.8	300
	2117	0.7	20
22 W	1233	9.8	300
	2156	0.7	20
23 Th	0803	8.9	270
	0958	8.5	260
	1322	9.5	290
	2237	1.0	30
24 F	0820	8.9	270
	1105	8.2	250
	1411	8.9	270
	2317	1.6	50
25 Sa	0824	8.9	270
	1215	7.5	230
	1502	7.9	240
	2357	2.6	80
26 Su	0739	8.9	270
	1333	6.6	200
	1628	6.9	210
27 M ◑	0034	3.6	110
	0801	9.2	280
	1458	5.6	170
	1939	5.9	180
28 Tu	0105	4.9	150
	0829	9.2	280
	1610	4.3	130
29 W	0858	9.5	290
	1704	3.3	100
30 Th	0926	9.5	290
	1750	2.3	70
31 F	0953	9.8	300
	1834	1.6	50

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the Canadian chart datum of soundings. Subtract 2.5 feet (76 centimeters) to refer these levels to the datum of N.O.S. charts.

Vancouver, British Columbia, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0704	16.1	490
	1215	11.8	360
	1642	14.8	450
2 Sa	0018	0.3	10
	0740	16.4	500
	1309	10.8	330
	1745	14.1	430
3 Su	0102	1.0	30
	0815	16.4	500
	1405	9.8	300
	1849	13.5	410
4 M	0144	2.0	60
	0850	16.7	510
	1504	8.9	270
	1957	12.5	380
5 Tu	0227	3.6	110
	0924	16.7	510
	1603	7.2	220
	2113	11.5	350
6 W	0310	5.6	170
	0959	16.4	500
	1702	5.9	180
	2247	11.2	340
7 Th ◑	0357	7.9	240
	1034	15.7	480
	1758	4.9	150
8 F	0040	11.5	350
	0456	9.8	300
	1109	15.1	460
	1852	3.9	120
9 Sa	0222	12.5	380
	0619	11.2	340
	1147	14.4	440
	1945	3.3	100
10 Su	0339	13.5	410
	0756	12.1	370
	1230	14.1	430
	2036	3.0	90
11 M	0433	14.4	440
	0919	12.1	370
	1318	13.8	420
	2125	2.6	80
12 Tu	0515	14.8	450
	1018	12.1	370
	1411	13.5	410
	2211	2.6	80
13 W	0551	15.1	460
	1103	11.8	360
	1503	13.5	410
	2252	2.3	70
14 Th ●	0622	15.4	470
	1143	11.5	350
	1552	13.5	410
	2329	2.3	70
15 F	0651	15.4	470
	1220	11.2	340
	1638	13.1	400

	Time	Height	
	h m	ft	cm
16 Sa	0002	2.6	80
	0719	15.4	470
	1258	10.8	330
	1723	13.1	400
17 Su	0033	3.0	90
	0744	15.4	470
	1337	10.2	310
	1808	12.5	380
18 M	0102	3.6	110
	0807	15.4	470
	1416	9.5	290
	1856	12.1	370
19 Tu	0130	4.6	140
	0830	15.4	470
	1456	8.5	260
	1948	11.8	360
20 W	0159	5.9	180
	0852	15.1	460
	1538	7.9	240
	2047	11.2	340
21 Th	0231	7.2	220
	0916	15.1	460
	1621	6.9	210
	2159	11.2	340
22 F	0307	8.5	260
	0942	14.8	450
	1707	5.9	180
	2336	11.2	340
23 Sa ◐	0350	9.8	300
	1010	14.4	440
	1757	5.2	160
24 Su	0137	11.8	360
	0450	11.2	340
	1044	14.4	440
	1850	4.3	130
25 M	0301	12.8	390
	0617	12.1	370
	1128	14.1	430
	1947	3.3	100
26 Tu	0358	13.8	420
	0801	12.5	380
	1224	14.1	430
	2043	2.3	70
27 W	0443	14.4	440
	0920	12.5	380
	1329	14.4	440
	2138	1.6	50
28 Th	0521	15.1	460
	1019	12.1	370
	1438	14.4	440
	2229	1.0	30
29 F ○	0556	15.4	470
	1111	11.2	340
	1548	14.4	440
	2317	0.7	20
30 Sa	0629	15.7	480
	1200	10.2	310
	1655	14.4	440
31 Su	0001	1.3	40
	0700	16.1	490
	1250	8.9	270
	1758	14.1	430

February

	Time	Height	
	h m	ft	cm
1 M	0042	2.3	70
	0731	16.4	500
	1340	7.5	230
	1900	13.5	410
2 Tu	0123	3.6	110
	0802	16.4	500
	1431	6.2	190
	2005	12.8	390
3 W	0204	5.6	170
	0834	16.4	500
	1523	5.2	160
	2118	12.5	380
4 Th	0246	7.5	230
	0906	15.7	480
	1615	4.6	140
	2247	12.1	370
5 F ◑	0334	9.2	280
	0938	15.1	460
	1709	4.3	130
6 Sa	0026	12.5	380
	0437	10.8	330
	1013	14.4	440
	1806	3.9	120
7 Su	0156	13.1	400
	0614	11.8	360
	1054	13.8	420
	1905	3.9	120
8 M	0310	13.8	420
	0802	12.1	370
	1146	13.1	400
	2005	3.6	110
9 Tu	0404	14.1	430
	0918	11.8	360
	1253	12.8	390
	2101	3.6	110
10 W	0444	14.4	440
	1008	11.5	350
	1405	12.8	390
	2150	3.6	110
11 Th	0517	14.8	450
	1046	10.8	330
	1509	12.8	390
	2231	3.3	100
12 F	0545	14.8	450
	1120	10.5	320
	1602	12.8	390
	2307	3.6	110
13 Sa ●	0611	14.8	450
	1154	9.8	300
	1649	13.1	400
	2339	3.6	110
14 Su	0634	14.8	450
	1227	9.2	280
	1733	13.1	400
15 M	0009	4.3	130
	0654	14.8	450
	1259	8.2	250
	1817	12.8	390

	Time	Height	
	h m	ft	cm
16 Tu	0038	4.9	150
	0714	14.8	450
	1333	7.5	230
	1902	12.8	390
17 W	0107	5.9	180
	0734	14.8	450
	1408	6.6	200
	1951	12.5	380
18 Th	0138	7.2	220
	0756	14.8	450
	1445	5.9	180
	2045	12.1	370
19 F	0211	8.2	250
	0818	14.4	440
	1524	5.2	160
	2151	12.1	370
20 Sa	0250	9.5	290
	0843	14.1	430
	1609	4.6	140
	2315	12.5	380
21 Su ◐	0337	10.8	330
	0911	14.1	430
	1701	4.3	130
22 M	0055	12.8	390
	0443	11.8	360
	0950	13.8	420
	1802	3.9	120
23 Tu	0217	13.5	410
	0625	12.1	370
	1048	13.5	410
	1908	3.3	100
24 W	0316	14.1	430
	0809	12.1	370
	1206	13.5	410
	2014	3.0	90
25 Th	0401	14.4	440
	0916	11.5	350
	1330	13.5	410
	2114	2.3	70
26 F	0438	14.8	450
	1008	10.5	320
	1452	13.8	420
	2208	2.3	70
27 Sa	0511	15.1	460
	1055	9.2	280
	1605	14.1	430
	2255	2.6	80
28 Su ○	0541	15.4	470
	1141	7.5	230
	1709	14.1	430
	2339	3.3	100

March

	Time	Height	
	h m	ft	cm
1 M	0611	15.7	480
	1226	6.2	190
	1809	14.1	430
2 Tu	0020	4.6	140
	0641	16.1	490
	1311	4.9	150
	1909	13.8	420
3 W	0102	5.9	180
	0711	15.7	480
	1356	3.9	120
	2011	13.5	410
4 Th	0144	7.5	230
	0741	15.4	470
	1442	3.6	110
	2119	13.5	410
5 F	0231	9.2	280
	0812	14.8	450
	1529	3.3	100
	2235	13.5	410
6 Sa	0325	10.5	320
	0844	14.1	430
	1620	3.6	110
	2354	13.5	410
7 Su ◑	0440	11.2	340
	0920	13.1	400
	1716	3.9	120
8 M	0110	13.5	410
	0628	11.5	350
	1005	12.5	380
	1817	4.6	140
9 Tu	0217	13.8	420
	0805	11.5	350
	1113	11.8	360
	1923	4.6	140
10 W	0310	13.8	420
	0906	10.8	330
	1246	11.5	350
	2024	4.9	150
11 Th	0351	14.1	430
	0947	10.2	310
	1416	11.8	360
	2117	4.9	150
12 F	0424	14.1	430
	1020	9.2	280
	1521	12.1	370
	2200	4.9	150
13 Sa	0451	14.1	430
	1052	8.5	260
	1612	12.5	380
	2238	5.2	160
14 Su	0515	14.1	430
	1122	7.9	240
	1657	12.8	390
	2312	5.6	170
15 M ●	0536	14.1	430
	1152	6.9	210
	1740	13.1	400
	2343	6.2	190

	Time	Height	
	h m	ft	cm
16 Tu	0556	14.1	430
	1223	5.9	180
	1823	13.5	410
17 W	0015	6.9	210
	0616	14.1	430
	1254	5.2	160
	1907	13.5	410
18 Th	0047	7.9	240
	0637	14.1	430
	1327	4.6	140
	1955	13.5	410
19 F	0121	8.9	270
	0659	14.1	430
	1403	3.9	120
	2048	13.5	410
20 Sa	0159	9.8	300
	0722	13.8	420
	1442	3.6	110
	2150	13.5	410
21 Su	0245	10.5	320
	0749	13.5	410
	1527	3.3	100
	2301	13.5	410
22 M	0344	11.2	340
	0823	13.1	400
	1620	3.3	100
23 Tu ◐	0017	13.8	420
	0511	11.8	360
	0915	12.8	390
	1723	3.6	110
24 W	0125	14.1	430
	0656	11.5	350
	1037	12.5	380
	1832	3.6	110
25 Th	0221	14.1	430
	0812	10.5	320
	1214	12.1	370
	1942	3.6	110
26 F	0305	14.4	440
	0905	9.5	290
	1351	12.5	380
	2045	3.9	120
27 Sa	0343	14.8	450
	0951	7.9	240
	1513	12.8	390
	2140	4.3	130
28 Su	0416	15.1	460
	1035	6.2	190
	1621	13.5	410
	2230	5.2	160
29 M ○	0447	15.1	460
	1117	4.9	150
	1722	13.8	420
	2316	6.2	190
30 Tu	0518	15.1	460
	1159	3.6	110
	1820	14.1	430
31 W	0001	7.2	220
	0549	15.1	460
	1241	2.6	80
	1916	14.4	440

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the Canadian chart datum of soundings. Subtract 3.8 feet (116 centimeters) to refer these levels to the datum of N.O.S. charts.

Vancouver, British Columbia, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0045	8.5	260
	0619	14.8	450
	1322	2.3	70
	2014	14.4	440
2 F	0132	9.5	290
	0651	14.4	440
	1404	2.3	70
	2113	14.4	440
3 Sa	0224	10.2	310
	0722	13.8	420
	1448	2.6	80
	2214	14.4	440
4 Su	0327	10.8	330
	0755	12.8	390
	1534	3.3	100
	2316	14.1	430
5 M	0452	11.2	340
	0833	12.1	370
	1624	4.3	130
6 Tu ◑	0017	14.1	430
	0631	10.8	330
	0926	11.5	350
	1720	4.9	150
7 W	0114	13.8	420
	0750	10.2	310
	1052	10.8	330
	1823	5.6	170
8 Th	0203	13.8	420
	0838	9.5	290
	1248	10.5	320
	1928	6.2	190
9 F	0243	13.8	420
	0914	8.5	260
	1422	10.8	330
	2027	6.6	200
10 Sa	0316	13.8	420
	0946	7.5	230
	1526	11.5	350
	2118	6.9	210
11 Su	0344	13.8	420
	1016	6.6	200
	1617	12.1	370
	2201	7.2	220
12 M	0408	13.5	410
	1046	5.6	170
	1702	12.8	390
	2240	7.9	240
13 Tu	0430	13.8	420
	1116	4.6	140
	1745	13.5	410
	2316	8.2	250
14 W ●	0452	13.8	420
	1147	3.9	120
	1828	13.8	420
	2352	8.9	270
15 Th	0515	13.8	420
	1220	3.0	90
	1913	14.1	430

	Time	Height	
	h m	ft	cm
16 F	0029	9.8	300
	0540	13.8	420
	1255	2.6	80
	2000	14.4	440
17 Sa	0110	10.2	310
	0606	13.8	420
	1332	2.3	70
	2051	14.4	440
18 Su	0156	10.8	330
	0636	13.5	410
	1414	2.3	70
	2146	14.4	440
19 M	0253	11.2	340
	0712	13.1	400
	1500	2.3	70
	2243	14.4	440
20 Tu	0407	11.2	340
	0801	12.5	380
	1553	3.0	90
	2340	14.4	440
21 W ◐	0537	10.8	330
	0916	11.8	360
	1652	3.6	110
22 Th	0034	14.8	450
	0656	9.8	300
	1054	11.2	340
	1758	4.3	130
23 F	0123	14.8	450
	0755	8.5	260
	1239	11.2	340
	1906	5.2	160
24 Sa	0205	14.8	450
	0844	6.9	210
	1416	11.5	350
	2012	6.2	190
25 Su	0242	14.8	450
	0928	5.2	160
	1533	12.5	380
	2112	7.2	220
26 M	0317	14.8	450
	1010	3.9	120
	1638	13.5	410
	2207	8.2	250
27 Tu	0351	14.8	450
	1051	2.6	80
	1736	14.1	430
	2258	8.9	270
28 W ○	0425	14.4	440
	1132	1.6	50
	1829	14.8	450
	2347	9.5	290
29 Th	0458	14.4	440
	1213	1.3	40
	1920	15.1	460
30 F	0035	10.2	310
	0532	13.8	420
	1253	1.6	50
	2009	15.1	460

May

	Time	Height	
	h m	ft	cm
1 Sa	0126	10.5	320
	0606	13.5	410
	1333	2.0	60
	2058	15.1	460
2 Su	0221	10.8	330
	0640	12.8	390
	1413	2.3	70
	2146	14.8	450
3 M	0326	10.8	330
	0717	12.1	370
	1454	3.3	100
	2235	14.8	450
4 Tu	0444	10.5	320
	0802	11.5	350
	1536	4.3	130
	2322	14.4	440
5 W ◑	0605	10.2	310
	0905	10.5	320
	1621	5.2	160
6 Th	0007	14.1	430
	0709	9.2	280
	1039	9.8	300
	1712	6.2	190
7 F	0047	14.1	430
	0754	8.2	250
	1240	9.8	300
	1812	7.2	220
8 Sa	0123	13.8	420
	0830	7.2	220
	1418	10.5	320
	1920	8.2	250
9 Su	0155	13.8	420
	0903	6.2	190
	1524	11.5	350
	2024	8.9	270
10 M	0224	13.5	410
	0935	4.9	150
	1617	12.1	370
	2118	9.2	280
11 Tu	0252	13.5	410
	1007	3.9	120
	1703	13.1	400
	2206	9.8	300
12 W	0320	13.5	410
	1040	3.0	90
	1747	13.8	420
	2249	10.2	310
13 Th ●	0349	13.8	420
	1115	2.3	70
	1831	14.4	440
	2331	10.5	320
14 F	0419	13.8	420
	1152	1.6	50
	1914	14.8	450
15 Sa	0015	10.8	330
	0452	13.8	420
	1231	1.3	40
	1958	15.1	460

	Time	Height	
	h m	ft	cm
16 Su	0102	11.2	340
	0529	13.8	420
	1312	1.0	30
	2044	15.1	460
17 M	0156	11.2	340
	0613	13.5	410
	1356	1.3	40
	2130	15.1	460
18 Tu	0259	10.8	330
	0706	12.8	390
	1443	2.0	60
	2216	15.4	470
19 W	0413	10.5	320
	0814	11.8	360
	1532	3.0	90
	2301	15.4	470
20 Th ◐	0526	9.5	290
	0939	11.2	340
	1626	4.3	130
	2345	15.1	460
21 F	0631	7.9	240
	1117	10.5	320
	1725	5.6	170
22 Sa	0026	15.1	460
	0726	6.6	200
	1304	10.8	330
	1831	7.2	220
23 Su	0105	15.1	460
	0815	4.9	150
	1438	11.8	360
	1941	8.5	260
24 M	0143	14.8	450
	0900	3.6	110
	1552	12.8	390
	2050	9.5	290
25 Tu	0221	14.4	440
	0944	2.3	70
	1653	13.8	420
	2152	10.2	310
26 W	0259	14.1	430
	1027	1.6	50
	1745	14.4	440
	2248	10.8	330
27 Th ○	0337	14.1	430
	1109	1.3	40
	1831	14.8	450
	2339	10.8	330
28 F	0416	13.8	420
	1150	1.3	40
	1914	15.1	460
29 Sa	0028	10.8	330
	0455	13.5	410
	1230	1.6	50
	1955	15.1	460
30 Su	0118	10.8	330
	0534	13.1	400
	1308	2.0	60
	2035	15.1	460
31 M	0210	10.8	330
	0614	12.5	380
	1345	2.6	80
	2114	15.1	460

June

	Time	Height	
	h m	ft	cm
1 Tu	0308	10.5	320
	0658	11.8	360
	1420	3.3	100
	2151	14.8	450
2 W	0410	10.2	310
	0750	11.2	340
	1455	4.3	130
	2226	14.8	450
3 Th	0513	9.2	280
	0857	10.5	320
	1531	5.6	170
	2259	14.4	440
4 F ◑	0608	8.2	250
	1023	9.8	300
	1611	6.9	210
	2331	14.1	430
5 Sa	0654	7.2	220
	1216	9.8	300
	1700	7.9	240
6 Su	0001	14.1	430
	0735	6.2	190
	1402	10.5	320
	1804	9.2	280
7 M	0033	13.8	420
	0812	5.2	160
	1514	11.5	350
	1920	10.2	310
8 Tu	0106	13.8	420
	0849	4.3	130
	1610	12.5	380
	2031	10.8	330
9 W	0140	13.8	420
	0927	3.3	100
	1658	13.5	410
	2132	11.2	340
10 Th	0216	13.8	420
	1007	2.3	70
	1742	14.1	430
	2224	11.5	350
11 F	0256	13.8	420
	1048	1.3	40
	1823	14.8	450
	2313	11.5	350
12 Sa ●	0339	14.1	430
	1130	1.0	30
	1904	15.1	460
13 Su	0001	11.5	350
	0426	14.1	430
	1214	0.7	20
	1943	15.4	470
14 M	0053	11.2	340
	0519	13.8	420
	1257	0.7	20
	2022	15.4	470
15 Tu	0149	10.8	330
	0617	13.5	410
	1342	1.3	40
	2101	15.7	480

	Time	Height	
	h m	ft	cm
16 W	0250	9.8	300
	0721	12.5	380
	1426	2.3	70
	2139	15.7	480
17 Th	0353	8.9	270
	0833	11.8	360
	1511	3.6	110
	2217	15.7	480
18 F ◐	0457	7.5	230
	0956	11.2	340
	1559	5.2	160
	2255	15.4	470
19 Sa	0556	6.2	190
	1135	10.8	330
	1655	7.2	220
	2332	15.1	460
20 Su	0651	4.9	150
	1323	11.5	350
	1801	8.9	270
21 M	0010	14.8	450
	0742	3.6	110
	1453	12.5	380
	1921	10.5	320
22 Tu	0050	14.4	440
	0832	2.6	80
	1603	13.5	410
	2039	11.2	340
23 W	0133	14.1	430
	0920	2.3	70
	1658	14.1	430
	2147	11.5	350
24 Th	0218	13.8	420
	1007	2.0	60
	1743	14.4	440
	2243	11.5	350
25 F	0305	13.5	410
	1051	1.6	50
	1822	14.8	450
	2332	11.2	340
26 Sa ○	0352	13.5	410
	1133	1.6	50
	1858	14.8	450
27 Su	0017	11.2	340
	0437	13.1	400
	1211	2.0	60
	1933	15.1	460
28 M	0101	10.8	330
	0520	12.8	390
	1246	2.3	70
	2005	15.1	460
29 Tu	0147	10.5	320
	0605	12.5	380
	1319	3.0	90
	2035	14.8	450
30 W	0234	9.8	300
	0653	11.8	360
	1350	3.9	120
	2103	14.8	450

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the Canadian chart datum of soundings. Subtract 3.8 feet (116 centimeters) to refer these levels to the datum of N.O.S. charts.

Vancouver, British Columbia, 2010

Times and Heights of High and Low Waters

July

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Th	0322	9.2 280	**16** F	0324	6.9 210
	0747	11.2 340		0844	12.1 370
	1420	4.9 150		1448	5.2 160
	2130	14.8 450		2129	15.7 480
2 F	0411	8.5 260	**17** Sa	0421	5.9 180
	0848	10.5 320		1006	11.5 350
	1452	6.2 190		1535	7.2 220
	2155	14.4 440		2204	15.4 470
3 Sa	0459	7.5 230	**18** Su	0517	4.6 140
	1002	10.2 310		1146	11.5 350
	1528	7.5 230		1631	8.9 270
	2222	14.1 430	◐	2241	14.8 450
4 Su	0546	6.6 200	**19** M	0613	3.9 120
	1141	10.2 310		1327	12.1 370
	1611	8.9 270		1745	10.5 320
◑	2251	14.1 430		2322	14.1 430
5 M	0631	5.6 170	**20** Tu	0710	3.3 100
	1334	10.8 330		1451	13.1 400
	1707	9.8 300		1916	11.5 350
	2323	13.8 420			
6 Tu	0717	4.9 150	**21** W	0007	13.8 420
	1455	11.8 360		0806	3.0 90
	1823	10.8 330		1555	13.8 420
				2041	11.5 350
7 W	0000	13.8 420	**22** Th	0100	13.5 410
	0803	3.9 120		0859	2.6 80
	1554	12.8 390		1645	14.1 430
	1949	11.5 350		2146	11.5 350
8 Th	0042	13.8 420	**23** F	0158	13.1 400
	0850	3.0 90		0950	2.6 80
	1642	13.8 420		1726	14.4 440
	2103	11.8 360		2236	11.2 340
9 F	0131	13.8 420	**24** Sa	0256	13.1 400
	0938	2.0 60		1036	2.3 70
	1725	14.4 440		1800	14.4 440
	2203	11.8 360		2318	10.8 330
10 Sa	0224	14.1 430	**25** Su	0348	13.1 400
	1026	1.3 40		1115	2.6 80
	1803	14.8 450		1831	14.4 440
	2256	11.5 350	○	2358	10.5 320
11 Su	0322	14.4 440	**26** M	0436	13.1 400
	1113	0.7 20		1151	2.6 80
	1839	15.1 460		1859	14.4 440
●	2347	11.2 340			
12 M	0423	14.4 440	**27** Tu	0037	9.8 300
	1158	0.7 20		0521	12.8 390
	1914	15.4 470		1223	3.3 100
				1924	14.4 440
13 Tu	0039	10.5 320	**28** W	0115	9.5 290
	0525	14.1 430		0606	12.5 380
	1241	1.0 30		1253	3.9 120
	1948	15.4 470		1948	14.4 440
14 W	0132	9.5 290	**29** Th	0154	8.9 270
	0628	13.5 410		0653	12.1 370
	1323	2.0 60		1322	4.9 150
	2021	15.7 480		2010	14.4 440
15 Th	0227	8.2 250	**30** F	0233	7.9 240
	0733	12.8 390		0743	11.8 360
	1405	3.3 100		1351	5.9 180
	2055	15.7 480		2032	14.4 440
			31 Sa	0313	7.2 220
				0838	11.5 350
				1422	7.2 220
				2056	14.1 430

August

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Su	0355	6.6 200	**16** M	0436	3.6 110
	0944	11.2 340		1143	12.5 380
	1457	8.2 250		1619	10.2 310
	2121	14.1 430	◐	2154	14.1 430
2 M	0439	5.9 180	**17** Tu	0534	3.6 110
	1110	11.2 340		1311	12.8 390
	1539	9.5 290		1746	11.2 340
◑	2150	13.8 420		2239	13.5 410
3 Tu	0528	5.2 160	**18** W	0635	3.6 110
	1258	11.5 350		1427	13.5 410
	1634	10.5 320		1926	11.5 350
	2224	13.8 420		2337	12.8 390
4 W	0621	4.6 140	**19** Th	0738	3.6 110
	1424	12.5 380		1527	13.8 420
	1752	11.5 350		2044	11.2 340
	2308	13.5 410			
5 Th	0718	3.9 120	**20** F	0048	12.5 380
	1526	13.1 400		0838	3.6 110
	1929	11.8 360		1614	14.1 430
				2139	10.8 330
6 F	0003	13.5 410	**21** Sa	0201	12.5 380
	0817	3.0 90		0930	3.6 110
	1613	13.8 420		1651	14.1 430
	2051	11.8 360		2221	10.2 310
7 Sa	0108	13.8 420	**22** Su	0305	12.8 390
	0913	2.3 70		1015	3.6 110
	1653	14.1 430		1721	14.1 430
	2150	11.5 350		2258	9.8 300
8 Su	0216	14.1 430	**23** M	0357	12.8 390
	1005	1.6 50		1053	3.6 110
	1728	14.8 450		1748	14.1 430
	2242	10.8 330		2333	9.2 280
9 M	0326	14.1 430	**24** Tu	0444	12.8 390
	1053	1.3 40		1127	3.9 120
	1800	15.1 460		1812	14.1 430
●	2331	9.8 300	○		
10 Tu	0432	14.1 430	**25** W	0007	8.5 260
	1137	1.6 50		0527	12.8 390
	1832	15.4 470		1158	4.6 140
				1833	14.1 430
11 W	0019	8.5 260	**26** Th	0040	7.9 240
	0535	14.1 430		0610	12.8 390
	1220	2.3 70		1227	5.6 170
	1902	15.4 470		1853	14.1 430
12 Th	0109	7.2 220	**27** F	0114	6.9 210
	0637	13.8 420		0654	12.8 390
	1301	3.6 110		1256	6.2 190
	1934	15.7 480		1913	14.1 430
13 F	0159	5.9 180	**28** Sa	0147	6.2 190
	0740	13.1 400		0740	12.5 380
	1343	5.2 160		1326	7.2 220
	2006	15.7 480		1935	13.8 420
14 Sa	0250	4.9 150	**29** Su	0223	5.9 180
	0849	12.8 390		0832	12.5 380
	1427	6.9 210		1359	8.5 260
	2039	15.4 470		1958	13.8 420
15 Su	0342	4.3 130	**30** M	0301	5.2 160
	1011	12.5 380		0933	12.1 370
	1517	8.9 270		1437	9.5 290
	2115	14.8 450		2022	13.5 410
			31 Tu	0344	4.9 150
				1050	12.1 370
				1524	10.5 320
				2051	13.5 410

September

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 W	0434	4.6 140	**16** Th	0555	4.3 130
	1220	12.5 380		1343	13.8 420
	1626	11.2 340		1934	10.8 330
◑	2131	13.1 400		2319	11.8 360
2 Th	0532	4.3 130	**17** F	0701	4.6 140
	1340	13.1 400		1438	13.8 420
	1759	11.5 350		2037	10.2 310
	2229	12.8 390			
3 F	0637	3.9 120	**18** Sa	0053	11.5 350
	1441	13.5 410		0804	4.9 150
	1939	11.5 350		1522	13.8 420
	2345	12.8 390		2122	9.5 290
4 Sa	0744	3.3 100	**19** Su	0215	11.8 360
	1528	13.8 420		0859	5.2 160
	2047	10.8 330		1557	13.8 420
				2158	8.9 270
5 Su	0107	13.1 400	**20** M	0316	12.1 370
	0845	3.0 90		0945	5.2 160
	1606	14.4 440		1627	13.8 420
	2139	9.8 300		2231	7.9 240
6 M	0227	13.5 410	**21** Tu	0407	12.5 380
	0940	2.6 80		1024	5.6 170
	1639	14.8 450		1652	13.8 420
	2226	8.9 270		2303	7.2 220
7 Tu	0340	13.8 420	**22** W	0451	12.8 390
	1029	3.0 90		1059	6.2 190
	1710	15.1 460		1714	13.8 420
	2311	7.2 220		2334	6.6 200
8 W	0445	14.1 430	**23** Th	0533	13.1 400
	1114	3.6 110		1131	6.9 210
	1741	15.1 460		1734	13.8 420
●	2357	5.9 180	○		
9 Th	0545	14.1 430	**24** F	0004	5.6 170
	1157	4.6 140		0614	13.5 410
	1812	15.4 470		1203	7.5 230
				1754	13.8 420
10 F	0042	4.6 140	**25** Sa	0035	4.9 150
	0645	14.1 430		0657	13.5 410
	1239	6.2 190		1234	8.2 250
	1843	15.4 470		1815	13.5 410
11 Sa	0128	3.6 110	**26** Su	0107	4.6 140
	0746	13.8 420		0742	13.5 410
	1324	7.5 230		1308	9.2 280
	1916	15.1 460		1837	13.5 410
12 Su	0214	3.3 100	**27** M	0141	3.9 120
	0853	13.8 420		0832	13.5 410
	1412	8.9 270		1346	9.8 300
	1950	14.4 440		1900	13.5 410
13 M	0303	3.0 90	**28** Tu	0219	3.9 120
	1006	13.5 410		0929	13.5 410
	1509	10.2 310		1430	10.5 320
	2027	13.8 420		1927	13.1 400
14 Tu	0355	3.3 100	**29** W	0302	3.9 120
	1123	13.5 410		1034	13.5 410
	1624	10.8 330		1527	11.2 340
◐	2109	13.1 400		2000	12.8 390
15 W	0452	3.9 120	**30** Th	0352	3.9 120
	1236	13.8 420		1143	13.8 420
	1802	11.2 340		1649	11.5 350
	2203	12.1 370	◑	2052	12.5 380

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the Canadian chart datum of soundings. Subtract 3.8 feet (116 centimeters) to refer these levels to the datum of N.O.S. charts.

Vancouver, British Columbia, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0452	3.9	120
	1249	13.8	420
	1829	11.2	340
	2214	12.1	370
2 Sa	0558	4.3	130
	1344	14.1	430
	1943	10.2	310
	2350	11.8	360
3 Su	0707	4.3	130
	1429	14.4	440
	2036	9.2	280
4 M	0124	12.1	370
	0813	4.6	140
	1508	14.4	440
	2122	7.9	240
5 Tu	0247	12.8	390
	0910	4.9	150
	1542	14.8	450
	2205	6.2	190
6 W	0357	13.5	410
	1002	5.6	170
	1615	15.1	460
	2248	4.6	140
7 Th ●	0458	14.1	430
	1050	6.6	200
	1647	15.1	460
	2331	3.3	100
8 F	0556	14.4	440
	1137	7.5	230
	1720	15.1	460
9 Sa	0014	2.3	70
	0653	14.8	450
	1224	8.5	260
	1753	14.8	450
10 Su	0057	2.0	60
	0751	14.8	450
	1312	9.5	290
	1828	14.4	440
11 M	0141	2.0	60
	0849	14.8	450
	1406	10.2	310
	1904	13.8	420
12 Tu	0226	2.6	80
	0950	14.8	450
	1511	10.8	330
	1943	12.8	390
13 W	0314	3.3	100
	1050	14.4	440
	1634	10.8	330
	2028	12.1	370
14 Th ◐	0406	3.9	120
	1150	14.4	440
	1807	10.5	320
	2132	11.2	340
15 F	0503	4.9	150
	1245	14.1	430
	1923	9.8	300
	2307	10.8	330

	Time	Height	
	h m	ft	cm
16 Sa	0605	5.9	180
	1335	14.1	430
	2015	8.9	270
17 Su	0059	10.8	330
	0711	6.6	200
	1416	14.1	430
	2054	7.9	240
18 M	0223	11.2	340
	0812	7.2	220
	1450	13.8	420
	2127	6.9	210
19 Tu	0324	11.8	360
	0905	7.5	230
	1519	13.8	420
	2159	6.2	190
20 W	0414	12.5	380
	0950	7.9	240
	1544	13.5	410
	2229	5.2	160
21 Th	0458	13.1	400
	1030	8.5	260
	1607	13.5	410
	2259	4.6	140
22 F ○	0540	13.8	420
	1106	8.9	270
	1630	13.5	410
	2330	3.9	120
23 Sa	0621	14.1	430
	1142	9.5	290
	1653	13.5	410
24 Su	0001	3.3	100
	0702	14.4	440
	1218	10.2	310
	1717	13.5	410
25 M	0035	3.0	90
	0746	14.8	450
	1257	10.5	320
	1743	13.5	410
26 Tu	0110	2.6	80
	0832	14.8	450
	1341	11.2	340
	1812	13.1	400
27 W	0150	2.6	80
	0921	14.8	450
	1435	11.2	340
	1846	12.8	390
28 Th	0233	3.0	90
	1013	14.8	450
	1546	11.2	340
	1934	12.1	370
29 F	0322	3.3	100
	1106	14.8	450
	1710	10.8	330
	2047	11.5	350
30 Sa ◑	0418	3.9	120
	1157	14.8	450
	1827	9.8	300
	2225	11.2	340
31 Su	0520	4.9	150
	1244	14.8	450
	1926	8.5	260

November

	Time	Height	
	h m	ft	cm
1 M	0010	11.2	340
	0628	5.9	180
	1327	15.1	460
	2014	6.9	210
2 Tu	0149	11.5	350
	0736	6.9	210
	1406	15.1	460
	2059	5.2	160
3 W	0310	12.5	380
	0841	7.9	240
	1443	15.1	460
	2142	3.6	110
4 Th	0416	13.5	410
	0939	8.5	260
	1519	15.1	460
	2224	2.3	70
5 F ●	0514	14.4	440
	1033	9.5	290
	1555	14.8	450
	2307	1.6	50
6 Sa	0608	15.1	460
	1125	10.2	310
	1631	14.8	450
	2349	1.0	30
7 Su	0659	15.4	470
	1215	10.5	320
	1709	14.4	440
8 M	0031	1.3	40
	0748	15.7	480
	1308	10.8	330
	1747	13.8	420
9 Tu	0113	1.6	50
	0836	15.7	480
	1405	10.8	330
	1826	13.1	400
10 W	0155	2.3	70
	0924	15.4	470
	1510	10.8	330
	1908	12.5	380
11 Th	0237	3.3	100
	1011	15.4	470
	1626	10.5	320
	1959	11.5	350
12 F	0319	4.3	130
	1057	15.1	460
	1744	9.8	300
	2108	10.5	320
13 Sa ◐	0403	5.6	170
	1141	14.8	450
	1848	8.9	270
	2248	10.2	310
14 Su	0453	6.6	200
	1221	14.4	440
	1936	7.9	240
15 M	0052	10.2	310
	0553	7.9	240
	1257	14.1	430
	2014	6.9	210

	Time	Height	
	h m	ft	cm
16 Tu	0223	10.8	330
	0703	8.9	270
	1330	14.1	430
	2048	5.9	180
17 W	0327	11.8	360
	0812	9.5	290
	1359	13.8	420
	2121	4.9	150
18 Th	0418	12.8	390
	0910	10.2	310
	1428	13.8	420
	2153	3.9	120
19 F	0503	13.8	420
	0959	10.5	320
	1457	13.8	420
	2225	3.3	100
20 Sa	0544	14.4	440
	1042	10.8	330
	1527	13.8	420
	2259	2.6	80
21 Su ○	0623	14.8	450
	1123	11.2	340
	1557	13.8	420
	2334	2.0	60
22 M	0702	15.4	470
	1205	11.5	350
	1630	13.8	420
23 Tu	0011	1.6	50
	0742	15.4	470
	1249	11.5	350
	1707	13.8	420
24 W	0050	1.6	50
	0822	15.7	480
	1339	11.5	350
	1748	13.5	410
25 Th	0130	2.0	60
	0903	15.7	480
	1438	11.2	340
	1839	12.8	390
26 F	0214	2.3	70
	0944	15.7	480
	1545	10.5	320
	1944	12.1	370
27 Sa	0259	3.3	100
	1026	15.7	480
	1655	9.5	290
	2106	11.2	340
28 Su ◑	0349	4.6	140
	1108	15.7	480
	1759	8.2	250
	2242	10.8	330
29 M	0444	5.9	180
	1148	15.7	480
	1856	6.6	200
30 Tu	0031	10.8	330
	0548	7.5	230
	1228	15.4	470
	1946	4.9	150

December

	Time	Height	
	h m	ft	cm
1 W	0213	11.8	360
	0701	9.2	280
	1307	15.4	470
	2032	3.6	110
2 Th	0332	13.1	400
	0816	10.2	310
	1347	15.1	460
	2118	2.3	70
3 F	0435	14.1	430
	0925	10.8	330
	1428	14.8	450
	2202	1.6	50
4 Sa	0527	15.1	460
	1025	11.5	350
	1510	14.4	440
	2246	1.0	30
5 Su ●	0613	15.4	470
	1120	11.5	350
	1554	14.4	440
	2329	1.0	30
6 M	0656	15.7	480
	1211	11.5	350
	1637	14.1	430
7 Tu	0011	1.3	40
	0736	16.1	490
	1301	11.2	340
	1721	13.5	410
8 W	0051	1.6	50
	0815	16.1	490
	1354	10.8	330
	1805	12.8	390
9 Th	0128	2.3	70
	0853	15.7	480
	1451	10.5	320
	1851	12.1	370
10 F	0203	3.3	100
	0929	15.7	480
	1551	9.8	300
	1945	11.5	350
11 Sa	0237	4.6	140
	1003	15.4	470
	1653	9.2	280
	2052	10.5	320
12 Su	0311	5.9	180
	1035	15.1	460
	1749	8.2	250
	2220	9.8	300
13 M ◐	0347	7.2	220
	1105	14.8	450
	1838	7.2	220
14 Tu	0025	10.2	310
	0431	8.9	270
	1135	14.4	440
	1921	6.2	190
15 W	0211	10.8	330
	0533	10.2	310
	1206	14.1	430
	1959	5.2	160

	Time	Height	
	h m	ft	cm
16 Th	0322	12.1	370
	0659	11.2	340
	1240	14.1	430
	2038	4.3	130
17 F	0414	13.1	400
	0822	11.8	360
	1316	13.8	420
	2115	3.3	100
18 Sa	0458	14.1	430
	0927	12.1	370
	1354	14.1	430
	2154	2.6	80
19 Su	0537	14.8	450
	1019	12.1	370
	1435	14.1	430
	2233	2.0	60
20 M	0614	15.1	460
	1105	12.1	370
	1519	14.1	430
	2313	1.3	40
21 Tu ○	0649	15.4	470
	1151	11.8	360
	1607	14.1	430
	2353	1.0	30
22 W	0724	15.7	480
	1238	11.5	350
	1658	14.1	430
23 Th	0034	1.0	30
	0758	16.1	490
	1328	11.2	340
	1753	13.8	420
24 F	0115	1.6	50
	0832	16.1	490
	1423	10.2	310
	1855	13.1	400
25 Sa	0156	2.6	80
	0907	16.4	500
	1522	9.2	280
	2002	12.1	370
26 Su	0239	3.9	120
	0943	16.4	500
	1622	7.9	240
	2120	11.5	350
27 M ◑	0323	5.6	170
	1019	16.1	490
	1721	6.6	200
	2254	11.2	340
28 Tu	0413	7.5	230
	1056	16.1	490
	1818	5.2	160
29 W	0047	11.5	350
	0515	9.5	290
	1134	15.4	470
	1912	3.9	120
30 Th	0229	12.5	380
	0636	10.8	330
	1215	15.1	460
	2004	3.0	90
31 F	0344	13.5	410
	0805	11.8	360
	1301	14.8	450
	2055	2.3	70

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to the Canadian chart datum of soundings. Subtract 3.8 feet (116 centimeters) to refer these levels to the datum of N.O.S. charts.

Ketchikan, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0057	15.9	485
	0629	2.7	82
	1239	19.1	582
	1913	−3.8	−116
2 Sa	0140	16.6	506
	0718	2.1	64
	1327	19.0	579
	1956	−3.7	−113
3 Su	0223	17.0	518
	0807	1.7	52
	1415	18.3	558
	2040	−3.0	−91
4 M	0307	17.1	521
	0858	1.6	49
	1505	17.1	521
	2124	−1.7	−52
5 Tu	0352	16.9	515
	0953	1.8	55
	1558	15.5	472
	2210	−0.1	−3
6 W	0439	16.5	503
	1054	2.2	67
	1658	13.8	421
	2300	1.7	52
7 Th ◑	0531	16.0	488
	1202	2.5	76
	1809	12.3	375
	2356	3.5	107
8 F	0629	15.5	472
	1318	2.5	76
	1933	11.4	347
9 Sa	0103	4.9	149
	0733	15.1	460
	1434	2.1	64
	2059	11.5	351
10 Su	0217	5.7	174
	0839	15.1	460
	1540	1.5	46
	2211	12.0	366
11 M	0327	5.8	177
	0939	15.3	466
	1634	0.7	21
	2306	12.8	390
12 Tu	0426	5.5	168
	1031	15.7	479
	1719	0.1	3
	2350	13.5	411
13 W	0513	5.0	152
	1116	16.0	488
	1758	−0.5	−15
14 Th ●	0027	14.1	430
	0554	4.4	134
	1156	16.3	497
	1832	−0.8	−24
15 F	0100	14.5	442
	0631	3.9	119
	1232	16.4	500
	1904	−1.0	−30

	Time	Height	
	h m	ft	cm
16 Sa	0131	14.8	451
	0706	3.4	104
	1306	16.4	500
	1933	−0.9	−27
17 Su	0201	15.0	457
	0740	3.1	94
	1340	16.0	488
	2002	−0.6	−18
18 M	0229	15.1	460
	0815	3.0	91
	1413	15.5	472
	2030	0.0	0
19 Tu	0258	15.1	460
	0850	3.0	91
	1447	14.7	448
	2059	0.8	24
20 W	0327	15.0	457
	0928	3.1	94
	1524	13.7	418
	2128	1.8	55
21 Th	0359	14.8	451
	1011	3.3	101
	1607	12.7	387
	2202	3.0	91
22 F	0435	14.5	442
	1103	3.6	110
	1659	11.5	351
	2242	4.2	128
23 Sa ◐	0520	14.3	436
	1208	3.6	110
	1811	10.7	326
	2336	5.4	165
24 Su	0619	14.2	433
	1326	3.2	98
	1942	10.4	317
25 M	0052	6.2	189
	0732	14.4	439
	1443	2.1	64
	2110	11.1	338
26 Tu	0221	6.2	189
	0846	15.2	463
	1548	0.6	18
	2217	12.3	375
27 W	0337	5.4	165
	0952	16.3	497
	1642	−1.0	−30
	2310	13.7	418
28 Th	0438	4.1	125
	1049	17.5	533
	1729	−2.5	−76
	2355	15.2	463
29 F ○	0531	2.7	82
	1141	18.5	564
	1813	−3.5	−107
30 Sa	0038	16.4	500
	0620	1.3	40
	1230	19.0	579
	1855	−3.9	−119
31 Su	0118	17.4	530
	0707	0.2	6
	1317	19.0	579
	1936	−3.7	−113

February

	Time	Height	
	h m	ft	cm
1 M	0159	18.0	549
	0754	−0.4	−12
	1404	18.3	558
	2016	−2.9	−88
2 Tu	0238	18.2	555
	0841	−0.4	−12
	1451	17.1	521
	2057	−1.5	−46
3 W	0319	17.8	543
	0931	0.0	0
	1540	15.4	469
	2139	0.3	9
4 Th	0401	17.1	521
	1024	0.8	24
	1633	13.6	415
	2223	2.3	70
5 F ◑	0448	16.1	491
	1125	1.8	55
	1738	11.9	363
	2315	4.2	128
6 Sa	0542	14.9	454
	1239	2.6	79
	1902	10.8	329
7 Su	0023	5.8	177
	0650	14.0	427
	1403	2.8	85
	2040	10.7	326
8 M	0150	6.5	198
	0810	13.6	415
	1521	2.3	70
	2159	11.4	347
9 Tu	0314	6.4	195
	0923	13.9	424
	1619	1.5	46
	2253	12.3	375
10 W	0416	5.6	171
	1019	14.5	442
	1704	0.7	21
	2332	13.1	399
11 Th	0503	4.6	140
	1104	15.1	460
	1740	0.1	3
12 F	0005	13.9	424
	0541	3.7	113
	1142	15.6	475
	1811	−0.4	−12
13 Sa ●	0034	14.5	442
	0615	2.8	85
	1217	15.9	485
	1839	−0.7	−21
14 Su	0102	15.1	460
	0647	2.1	64
	1250	16.1	491
	1906	−0.7	−21
15 M	0128	15.5	472
	0719	1.5	46
	1322	15.9	485
	1933	−0.4	−12

	Time	Height	
	h m	ft	cm
16 Tu	0154	15.8	482
	0751	1.2	37
	1354	15.5	472
	1959	0.1	3
17 W	0220	15.8	482
	0823	1.2	37
	1427	14.9	454
	2025	0.9	27
18 Th	0246	15.7	479
	0858	1.3	40
	1502	14.0	427
	2054	1.9	58
19 F	0315	15.5	472
	0937	1.6	49
	1542	12.9	393
	2126	3.0	91
20 Sa	0349	15.1	460
	1024	2.1	64
	1631	11.8	360
	2205	4.3	131
21 Su ◐	0433	14.6	445
	1126	2.6	79
	1739	10.7	326
	2258	5.5	168
22 M	0534	14.0	427
	1246	2.7	82
	1913	10.3	314
23 Tu	0020	6.3	192
	0658	13.8	421
	1413	2.0	61
	2048	11.0	335
24 W	0202	6.1	186
	0826	14.4	439
	1524	0.7	21
	2156	12.3	375
25 Th	0325	4.9	149
	0938	15.5	472
	1621	−0.8	−24
	2247	14.0	427
26 F	0427	3.1	94
	1038	16.8	512
	1708	−2.1	−64
	2331	15.6	475
27 Sa	0519	1.2	37
	1130	17.8	543
	1751	−2.9	−88
28 Su ○	0011	17.0	518
	0607	−0.4	−12
	1218	18.3	558
	1832	−3.2	−98

March

	Time	Height	
	h m	ft	cm
1 M	0050	18.0	549
	0652	−1.6	−49
	1305	18.3	558
	1911	−2.8	−85
2 Tu	0129	18.6	567
	0736	−2.2	−67
	1350	17.7	539
	1950	−1.9	−58
3 W	0207	18.6	567
	0820	−2.0	−61
	1435	16.6	506
	2029	−0.5	−15
4 Th	0245	18.0	549
	0905	−1.3	−40
	1521	15.1	460
	2109	1.2	37
5 F	0325	17.0	518
	0954	−0.1	−3
	1611	13.4	408
	2152	3.1	94
6 Sa	0408	15.6	475
	1049	1.3	40
	1710	11.8	360
	2242	4.8	146
7 Su ◑	0459	14.2	433
	1157	2.5	76
	1830	10.6	323
	2350	6.2	189
8 M	0608	12.9	393
	1324	3.1	94
	2010	10.4	317
9 Tu	0125	6.7	204
	0737	12.4	378
	1448	2.9	88
	2130	11.1	338
10 W	0256	6.2	189
	0859	12.7	387
	1549	2.2	67
	2222	12.0	366
11 Th	0357	5.1	155
	0958	13.3	405
	1634	1.4	43
	2259	12.9	393
12 F	0442	3.9	119
	1043	14.1	430
	1709	0.8	24
	2330	13.8	421
13 Sa	0519	2.7	82
	1121	14.7	448
	1739	0.3	9
	2358	14.6	445
14 Su	0552	1.6	49
	1156	15.2	463
	1807	0.1	3
15 M ●	0024	15.3	466
	0623	0.7	21
	1229	15.4	469
	1834	0.1	3

	Time	Height	
	h m	ft	cm
16 Tu	0050	15.9	485
	0654	0.0	0
	1302	15.5	472
	1901	0.4	12
17 W	0116	16.2	494
	0726	−0.4	−12
	1335	15.2	463
	1928	0.9	27
18 Th	0143	16.3	497
	0758	−0.5	−15
	1410	14.7	448
	1956	1.6	49
19 F	0211	16.2	494
	0833	−0.3	−9
	1446	14.0	427
	2027	2.5	76
20 Sa	0242	15.9	485
	0913	0.2	6
	1528	13.0	396
	2102	3.5	107
21 Su	0319	15.3	466
	1001	0.8	24
	1619	12.0	366
	2146	4.5	137
22 M	0406	14.6	445
	1101	1.5	46
	1727	11.1	338
	2246	5.5	168
23 Tu ◐	0511	13.8	421
	1219	1.9	58
	1855	10.8	329
24 W	0015	6.0	183
	0639	13.3	405
	1343	1.6	49
	2021	11.6	354
25 Th	0156	5.4	165
	0810	13.7	418
	1455	0.7	21
	2126	13.0	396
26 F	0315	3.8	116
	0924	14.7	448
	1552	−0.3	−9
	2216	14.6	445
27 Sa	0414	1.7	52
	1024	15.8	482
	1640	−1.1	−34
	2300	16.1	491
28 Su	0504	−0.2	−6
	1117	16.6	506
	1724	−1.6	−49
	2340	17.4	530
29 M ○	0550	−1.8	−55
	1205	17.1	521
	1805	−1.6	−49
30 Tu	0019	18.3	558
	0634	−2.8	−85
	1251	17.1	521
	1845	−1.1	−34
31 W	0058	18.6	567
	0716	−3.1	−94
	1336	16.6	506
	1924	−0.2	−6

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Ketchikan, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0136	18.4	561	**16** F	0111	16.6	506
	0759	−2.8	−85		0738	−1.7	−52
	1420	15.8	482		1357	14.5	442
	2003	1.0	30		1933	2.5	76
2 F	0214	17.6	536	**17** Sa	0144	16.5	503
	0842	−1.9	−58		0816	−1.5	−46
	1504	14.6	445		1438	13.9	424
	2043	2.4	73		2010	3.1	94
3 Sa	0253	16.5	503	**18** Su	0221	16.2	494
	0927	−0.6	−18		0859	−1.0	−30
	1552	13.2	402		1523	13.2	402
	2126	3.8	116		2052	3.8	116
4 Su	0335	15.1	460	**19** M	0304	15.5	472
	1017	0.8	24		0948	−0.4	−12
	1647	11.9	363		1617	12.5	381
	2217	5.1	155		2143	4.6	140
5 M	0424	13.6	415	**20** Tu	0356	14.6	445
	1118	2.1	64		1047	0.4	12
	1757	11.0	335		1721	12.0	366
	2324	6.1	186		2251	5.1	155
6 Tu ◑	0529	12.3	375	**21** W ◐	0504	13.6	415
	1234	3.0	91		1157	1.0	30
	1922	10.7	326		1836	12.0	366
7 W	0055	6.4	195	**22** Th	0017	5.1	155
	0653	11.6	354		0628	13.0	396
	1353	3.2	98		1311	1.1	34
	2038	11.1	338		1949	12.7	387
8 Th	0222	5.8	177	**23** F	0146	4.1	125
	0817	11.6	354		0754	13.1	399
	1458	2.8	85		1419	1.0	30
	2131	12.0	366		2050	13.9	424
9 F	0324	4.6	140	**24** Sa	0259	2.5	76
	0922	12.2	372		0908	13.7	418
	1546	2.4	73		1517	0.7	21
	2210	12.9	393		2141	15.3	466
10 Sa	0410	3.3	101	**25** Su	0357	0.6	18
	1011	12.9	393		1009	14.5	442
	1624	1.9	58		1609	0.4	12
	2243	13.8	421		2226	16.5	503
11 Su	0448	1.9	58	**26** M	0448	−1.1	−34
	1053	13.6	415		1104	15.1	460
	1657	1.6	49		1655	0.4	12
	2313	14.7	448		2309	17.4	530
12 M	0523	0.7	21	**27** Tu	0533	−2.4	−73
	1131	14.2	433		1153	15.6	475
	1728	1.4	43		1739	0.6	18
	2341	15.5	472		2349	17.9	546
13 Tu	0556	−0.3	−9	**28** W ○	0617	−3.1	−94
	1207	14.6	445		1239	15.7	479
	1758	1.4	43		1820	1.0	30
14 W ●	0010	16.1	491	**29** Th	0029	18.0	549
	0629	−1.1	−34		0659	−3.2	−98
	1243	14.8	451		1324	15.4	469
	1829	1.6	49		1901	1.6	49
15 Th	0040	16.5	503	**30** F	0108	17.7	539
	0702	−1.5	−46		0740	−2.8	−85
	1319	14.8	451		1407	14.9	454
	1900	2.0	61		1942	2.4	73

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0148	16.9	515	**16** Su	0127	16.9	515
	0821	−2.0	−61		0804	−2.5	−76
	1451	14.1	430		1432	14.2	433
	2023	3.3	101		2001	3.2	98
2 Su	0228	15.9	485	**17** M	0210	16.5	503
	0904	−0.9	−27		0849	−2.2	−67
	1536	13.2	402		1519	13.9	424
	2107	4.2	128		2049	3.6	110
3 M	0309	14.7	448	**18** Tu	0258	15.8	482
	0950	0.3	9		0938	−1.5	−46
	1625	12.3	375		1611	13.6	415
	2157	5.0	152		2146	3.9	119
4 Tu	0356	13.4	408	**19** W	0353	14.8	451
	1041	1.5	46		1032	−0.7	−21
	1722	11.7	357		1707	13.4	408
	2258	5.6	171		2253	4.0	122
5 W ◑	0452	12.2	372	**20** Th ◐	0457	13.7	418
	1140	2.4	73		1132	0.2	6
	1826	11.4	347		1809	13.6	415
6 Th	0013	5.7	174	**21** F	0010	3.7	113
	0602	11.3	344		0613	12.8	390
	1244	3.0	91		1235	1.0	30
	1929	11.6	354		1911	14.1	430
7 F	0131	5.2	158	**22** Sa	0128	2.8	85
	0720	11.0	335		0734	12.4	378
	1346	3.3	101		1339	1.6	49
	2024	12.2	372		2010	14.8	451
8 Sa	0237	4.2	128	**23** Su	0239	1.5	46
	0831	11.2	341		0849	12.6	384
	1440	3.3	101		1441	2.0	61
	2109	13.0	396		2105	15.6	475
9 Su	0329	2.9	88	**24** M	0339	0.1	3
	0930	11.7	357		0955	13.1	399
	1527	3.2	98		1537	2.2	67
	2147	13.9	424		2154	16.4	500
10 M	0412	1.6	49	**25** Tu	0431	−1.2	−37
	1019	12.4	378		1052	13.7	418
	1608	3.1	94		1628	2.4	73
	2223	14.7	448		2240	16.9	515
11 Tu	0451	0.4	12	**26** W	0519	−2.1	−64
	1103	13.0	396		1144	14.1	430
	1646	2.9	88		1716	2.5	76
	2258	15.5	472		2325	17.2	524
12 W	0528	−0.7	−21	**27** Th ○	0602	−2.6	−79
	1145	13.6	415		1230	14.4	439
	1723	2.9	88		1801	2.7	82
	2333	16.2	494				
13 Th ●	0605	−1.6	−49	**28** F	0007	17.1	521
	1226	14.1	430		0644	−2.6	−79
	1800	2.8	85		1314	14.4	439
					1844	2.9	88
14 F	0009	16.7	509	**29** Sa	0048	16.8	512
	0643	−2.3	−70		0725	−2.4	−73
	1306	14.3	436		1356	14.3	436
	1838	2.9	88		1925	3.2	98
15 Sa	0047	16.9	515	**30** Su	0128	16.3	497
	0722	−2.6	−79		0804	−1.8	−55
	1348	14.3	436		1436	13.9	424
	1918	3.0	91		2007	3.6	110
				31 M	0208	15.5	472
					0843	−1.1	−34
					1517	13.5	411
					2049	4.0	122

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0248	14.6	445	**16** W	0252	16.3	497
	0923	−0.2	−6		0923	−2.5	−76
	1558	13.0	396		1553	15.0	457
	2135	4.4	134		2141	2.4	73
2 W	0330	13.6	415	**17** Th	0346	15.2	463
	1004	0.8	24		1011	−1.4	−43
	1642	12.6	384		1642	15.0	457
	2227	4.7	143		2242	2.4	73
3 Th	0417	12.5	381	**18** F ◐	0446	13.9	424
	1048	1.7	52		1102	−0.1	−3
	1729	12.4	378		1735	15.0	457
	2326	4.8	146		2351	2.2	67
4 F ◑	0513	11.5	351	**19** Sa	0554	12.6	384
	1135	2.6	79		1159	1.3	40
	1819	12.4	378		1832	15.0	457
5 Sa	0032	4.5	137	**20** Su	0104	1.8	55
	0618	10.7	326		0712	11.8	360
	1227	3.4	104		1301	2.5	76
	1910	12.6	384		1932	15.1	460
6 Su	0139	3.9	119	**21** M	0216	1.1	34
	0731	10.4	317		0832	11.6	354
	1324	4.0	122		1406	3.4	104
	2001	13.1	399		2031	15.3	466
7 M	0239	2.9	88	**22** Tu	0321	0.2	6
	0841	10.7	326		0944	11.9	363
	1421	4.3	131		1511	3.9	119
	2048	13.8	421		2128	15.6	475
8 Tu	0332	1.7	52	**23** W	0418	−0.6	−18
	0943	11.2	341		1045	12.5	381
	1515	4.4	134		1609	4.0	122
	2134	14.6	445		2220	15.9	485
9 W	0419	0.4	12	**24** Th	0508	−1.3	−40
	1036	12.0	366		1137	13.1	399
	1605	4.2	128		1702	3.8	116
	2218	15.4	469		2308	16.1	491
10 Th	0502	−0.8	−24	**25** F	0552	−1.8	−55
	1124	12.8	390		1223	13.6	415
	1652	3.9	119		1748	3.6	110
	2302	16.2	494		2353	16.2	494
11 F	0544	−1.9	−58	**26** Sa ○	0632	−2.0	−61
	1210	13.5	411		1303	13.9	424
	1737	3.5	107		1831	3.3	101
	2346	16.8	512				
12 Sa ●	0627	−2.8	−85	**27** Su	0034	16.2	494
	1254	14.1	430		0710	−2.0	−61
	1821	3.1	94		1341	14.0	427
					1911	3.2	98
13 Su	0030	17.3	527	**28** M	0113	15.9	485
	0709	−3.3	−101		0746	−1.7	−52
	1337	14.6	445		1416	14.0	427
	1907	2.7	82		1950	3.1	94
14 M	0116	17.4	530	**29** Tu	0150	15.4	469
	0752	−3.5	−107		0820	−1.3	−40
	1421	14.9	454		1450	13.9	424
	1954	2.5	76		2028	3.1	94
15 Tu	0203	17.1	521	**30** W	0227	14.8	451
	0837	−3.2	−98		0853	−0.6	−18
	1506	15.0	457		1524	13.7	418
	2045	2.4	73		2108	3.3	101

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Ketchikan, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0304	13.9	424
	0926	0.3	9
	1558	13.5	411
	2151	3.4	104
2 F	0344	12.9	393
	0959	1.3	40
	1634	13.3	405
	2239	3.6	110
3 Sa	0430	11.8	360
	1036	2.3	70
	1713	13.2	402
	2334	3.7	113
4 Su ◑	0524	10.9	332
	1118	3.4	104
	1759	13.1	399
5 M	0037	3.5	107
	0632	10.2	311
	1210	4.4	134
	1852	13.2	402
6 Tu	0145	2.9	88
	0751	10.0	305
	1315	5.1	155
	1951	13.5	411
7 W	0251	2.0	61
	0908	10.4	317
	1425	5.3	162
	2051	14.2	433
8 Th	0349	0.7	21
	1012	11.3	344
	1531	5.0	152
	2147	15.1	460
9 F	0440	−0.7	−21
	1106	12.4	378
	1628	4.3	131
	2240	16.1	491
10 Sa	0526	−2.0	−61
	1153	13.4	408
	1720	3.3	101
	2330	17.0	518
11 Su ●	0610	−3.2	−98
	1237	14.5	442
	1809	2.4	73
12 M	0019	17.7	539
	0653	−3.9	−119
	1319	15.3	466
	1856	1.5	46
13 Tu	0106	17.9	546
	0735	−4.1	−125
	1401	16.0	488
	1944	0.8	24
14 W	0154	17.6	536
	0817	−3.7	−113
	1442	16.4	500
	2033	0.5	15
15 Th	0242	16.8	512
	0900	−2.8	−85
	1525	16.5	503
	2125	0.4	12

	Time	Height	
	h m	ft	cm
16 F	0333	15.5	472
	0944	−1.3	−40
	1610	16.3	497
	2222	0.7	21
17 Sa	0429	13.9	424
	1031	0.4	12
	1658	15.8	482
	2324	1.1	34
18 Su ◐	0533	12.4	378
	1124	2.1	64
	1753	15.2	463
19 M	0035	1.4	43
	0650	11.2	341
	1226	3.7	113
	1855	14.7	448
20 Tu	0152	1.3	40
	0817	10.8	329
	1339	4.7	143
	2003	14.4	439
21 W	0305	0.9	27
	0937	11.2	341
	1454	5.0	152
	2110	14.5	442
22 Th	0407	0.2	6
	1040	11.9	363
	1600	4.8	146
	2209	14.9	454
23 F	0458	−0.5	−15
	1129	12.7	387
	1654	4.2	128
	2259	15.2	463
24 Sa	0540	−1.0	−30
	1209	13.3	405
	1739	3.5	107
	2342	15.6	475
25 Su ○	0617	−1.4	−43
	1245	13.8	421
	1818	2.9	88
26 M	0021	15.7	479
	0650	−1.6	−49
	1317	14.2	433
	1854	2.4	73
27 Tu	0056	15.7	479
	0721	−1.5	−46
	1346	14.4	439
	1929	2.0	61
28 W	0130	15.4	469
	0750	−1.1	−34
	1415	14.5	442
	2003	1.9	58
29 Th	0204	14.9	454
	0819	−0.5	−15
	1443	14.5	442
	2038	1.9	58
30 F	0238	14.2	433
	0847	0.3	9
	1512	14.4	439
	2114	2.0	61
31 Sa	0314	13.3	405
	0916	1.3	40
	1542	14.1	430
	2154	2.3	70

August

	Time	Height	
	h m	ft	cm
1 Su	0354	12.2	372
	0947	2.4	73
	1616	13.8	421
	2242	2.7	82
2 M ◑	0442	11.2	341
	1024	3.6	110
	1657	13.5	411
	2341	3.0	91
3 Tu	0545	10.2	311
	1112	4.8	146
	1751	13.2	402
4 W	0054	2.9	88
	0709	9.7	296
	1222	5.6	171
	1901	13.2	402
5 Th	0213	2.2	67
	0839	10.1	308
	1349	5.9	180
	2018	13.7	418
6 F	0322	0.9	27
	0951	11.2	341
	1510	5.2	158
	2126	14.8	451
7 Sa	0418	−0.6	−18
	1045	12.5	381
	1613	3.9	119
	2225	16.0	488
8 Su	0506	−2.0	−61
	1130	13.9	424
	1707	2.4	73
	2317	17.1	521
9 M ●	0549	−3.2	−98
	1212	15.3	466
	1755	0.9	27
10 Tu	0006	17.9	546
	0631	−3.8	−116
	1252	16.4	500
	1842	−0.3	−9
11 W	0054	18.1	552
	0711	−3.9	−119
	1332	17.2	524
	1928	−1.2	−37
12 Th	0140	17.8	543
	0752	−3.3	−101
	1412	17.6	536
	2015	−1.5	−46
13 F	0228	16.9	515
	0832	−2.1	−64
	1452	17.6	536
	2104	−1.3	−40
14 Sa	0317	15.5	472
	0914	−0.5	−15
	1535	17.0	518
	2156	−0.6	−18
15 Su	0410	13.9	424
	1000	1.4	43
	1621	16.0	488
	2255	0.4	12

	Time	Height	
	h m	ft	cm
16 M ◐	0511	12.2	372
	1051	3.2	98
	1714	14.9	454
17 Tu	0004	1.4	43
	0629	11.0	335
	1157	4.8	146
	1821	13.9	424
18 W	0127	1.9	58
	0803	10.6	323
	1321	5.7	174
	1941	13.3	405
19 Th	0248	1.7	52
	0926	11.1	338
	1448	5.6	171
	2058	13.5	411
20 F	0353	1.1	34
	1026	11.9	363
	1554	4.8	146
	2159	14.0	427
21 Sa	0441	0.3	9
	1109	12.8	390
	1644	3.8	116
	2248	14.6	445
22 Su	0520	−0.3	−9
	1144	13.5	411
	1724	2.9	88
	2328	15.1	460
23 M	0553	−0.7	−21
	1215	14.2	433
	1800	2.0	61
24 Tu ○	0003	15.4	469
	0623	−0.8	−24
	1243	14.7	448
	1832	1.3	40
25 W	0037	15.5	472
	0650	−0.8	−24
	1310	15.1	460
	1904	0.8	24
26 Th	0109	15.4	469
	0717	−0.4	−12
	1336	15.3	466
	1935	0.5	15
27 F	0141	15.0	457
	0743	0.2	6
	1401	15.3	466
	2007	0.5	15
28 Sa	0214	14.4	439
	0810	1.0	30
	1428	15.2	463
	2041	0.7	21
29 Su	0248	13.6	415
	0838	1.9	58
	1456	14.8	451
	2118	1.2	37
30 M	0326	12.6	384
	0908	3.0	91
	1528	14.4	439
	2201	1.8	55
31 Tu	0412	11.5	351
	0945	4.2	128
	1608	13.8	421
	2258	2.3	70

September

	Time	Height	
	h m	ft	cm
1 W ◑	0514	10.5	320
	1035	5.3	162
	1705	13.2	402
2 Th	0013	2.6	79
	0641	10.0	305
	1151	6.1	186
	1826	12.9	393
3 F	0140	2.2	67
	0816	10.5	320
	1333	6.0	183
	1956	13.4	408
4 Sa	0254	1.1	34
	0926	11.7	357
	1458	4.8	146
	2110	14.5	442
5 Su	0352	−0.3	−9
	1018	13.3	405
	1601	3.1	94
	2211	15.8	482
6 M	0440	−1.6	−49
	1101	14.9	454
	1653	1.1	34
	2304	16.9	515
7 Tu	0523	−2.5	−76
	1142	16.4	500
	1740	−0.7	−21
	2353	17.7	539
8 W ●	0604	−2.9	−88
	1221	17.6	536
	1825	−2.0	−61
9 Th	0039	17.9	546
	0644	−2.7	−82
	1300	18.4	561
	1909	−2.8	−85
10 F	0126	17.6	536
	0724	−1.9	−58
	1339	18.6	567
	1954	−2.9	−88
11 Sa	0212	16.7	509
	0805	−0.7	−21
	1419	18.2	555
	2040	−2.3	−70
12 Su	0300	15.4	469
	0846	0.9	27
	1500	17.2	524
	2129	−1.2	−37
13 M	0351	13.8	421
	0931	2.7	82
	1545	15.9	485
	2225	0.2	6
14 Tu ◐	0451	12.3	375
	1024	4.3	131
	1639	14.4	439
	2332	1.6	49
15 W	0608	11.1	338
	1134	5.7	174
	1748	13.1	399

	Time	Height	
	h m	ft	cm
16 Th	0055	2.4	73
	0741	10.9	332
	1308	6.2	189
	1916	12.4	378
17 F	0219	2.5	76
	0901	11.4	347
	1437	5.7	174
	2039	12.6	384
18 Sa	0324	2.0	61
	0956	12.3	375
	1540	4.6	140
	2141	13.2	402
19 Su	0411	1.4	43
	1036	13.2	402
	1625	3.3	101
	2228	13.9	424
20 M	0448	0.9	27
	1108	14.0	427
	1703	2.2	67
	2307	14.5	442
21 Tu	0520	0.5	15
	1137	14.7	448
	1736	1.1	34
	2342	14.9	454
22 W	0549	0.4	12
	1204	15.3	466
	1807	0.3	9
23 Th ○	0015	15.1	460
	0616	0.5	15
	1230	15.8	482
	1838	−0.3	−9
24 F	0048	15.2	463
	0643	0.9	27
	1256	16.0	488
	1908	−0.6	−18
25 Sa	0120	15.0	457
	0710	1.4	43
	1322	16.1	491
	1940	−0.6	−18
26 Su	0154	14.5	442
	0738	2.1	64
	1350	15.9	485
	2013	−0.3	−9
27 M	0229	13.8	421
	0807	2.9	88
	1419	15.5	472
	2051	0.2	6
28 Tu	0309	12.9	393
	0841	3.9	119
	1454	14.9	454
	2135	0.9	27
29 W	0357	12.0	366
	0922	4.9	149
	1538	14.2	433
	2232	1.7	52
30 Th ◑	0500	11.2	341
	1019	5.8	177
	1638	13.4	408
	2344	2.2	67

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Ketchikan, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0624	10.9	332
	1144	6.3	192
	1804	12.8	390
2 Sa	0107	2.0	61
	0749	11.5	351
	1325	5.7	174
	1938	13.1	399
3 Su	0221	1.3	40
	0854	12.8	390
	1446	4.1	125
	2054	14.1	430
4 M	0320	0.4	12
	0945	14.5	442
	1546	2.0	61
	2156	15.3	466
5 Tu	0410	−0.5	−15
	1029	16.1	491
	1637	0.0	0
	2249	16.3	497
6 W	0454	−1.0	−30
	1110	17.5	533
	1723	−1.8	−55
	2339	17.0	518
7 Th ●	0537	−1.1	−34
	1149	18.5	564
	1807	−3.0	−91
8 F	0026	17.2	524
	0618	−0.7	−21
	1229	19.0	579
	1851	−3.6	−110
9 Sa	0112	17.0	518
	0658	0.0	0
	1309	18.9	576
	1934	−3.4	−104
10 Su	0158	16.3	497
	0740	1.1	34
	1349	18.3	558
	2019	−2.6	−79
11 M	0245	15.2	463
	0822	2.4	73
	1431	17.2	524
	2105	−1.3	−40
12 Tu	0334	14.0	427
	0908	3.8	116
	1515	15.7	479
	2157	0.2	6
13 W	0431	12.7	387
	1002	5.1	155
	1607	14.1	430
	2258	1.7	52
14 Th ◐	0541	11.8	360
	1112	6.1	186
	1713	12.7	387
15 F	0012	2.7	82
	0702	11.5	351
	1243	6.3	192
	1838	11.9	363

	Time	Height	
	h m	ft	cm
16 Sa	0130	3.1	94
	0816	11.9	363
	1408	5.7	174
	2002	11.9	363
17 Su	0236	3.0	91
	0910	12.7	387
	1510	4.5	137
	2108	12.3	375
18 M	0326	2.7	82
	0950	13.5	411
	1556	3.2	98
	2158	13.0	396
19 Tu	0405	2.4	73
	1023	14.4	439
	1634	1.9	58
	2240	13.6	415
20 W	0439	2.2	67
	1053	15.2	463
	1709	0.8	24
	2318	14.2	433
21 Th	0511	2.2	67
	1122	15.9	485
	1741	−0.2	−6
	2353	14.6	445
22 F ○	0541	2.2	67
	1151	16.4	500
	1813	−0.8	−24
23 Sa	0028	14.8	451
	0611	2.5	76
	1220	16.7	509
	1845	−1.2	−37
24 Su	0103	14.8	451
	0641	2.8	85
	1250	16.7	509
	1919	−1.3	−40
25 M	0140	14.6	445
	0713	3.3	101
	1321	16.6	506
	1955	−1.0	−30
26 Tu	0218	14.1	430
	0748	3.8	116
	1356	16.2	494
	2035	−0.6	−18
27 W	0301	13.5	411
	0827	4.5	137
	1436	15.6	475
	2121	0.1	3
28 Th	0351	12.9	393
	0915	5.2	158
	1524	14.7	448
	2215	0.8	24
29 F	0451	12.4	378
	1018	5.7	174
	1627	13.7	418
	2320	1.5	46
30 Sa ◑	0602	12.4	378
	1142	5.8	177
	1748	13.0	396
31 Su	0032	1.8	55
	0713	13.1	399
	1312	4.9	149
	1917	13.0	396

November

	Time	Height	
	h m	ft	cm
1 M	0142	1.8	55
	0816	14.2	433
	1428	3.3	101
	2035	13.5	411
2 Tu	0243	1.5	46
	0908	15.6	475
	1529	1.3	40
	2140	14.4	439
3 W	0337	1.3	40
	0955	17.0	518
	1620	−0.6	−18
	2236	15.3	466
4 Th	0425	1.2	37
	1039	18.1	552
	1707	−2.1	−64
	2327	15.9	485
5 F ●	0511	1.2	37
	1121	18.8	573
	1752	−3.1	−94
6 Sa	0015	16.2	494
	0555	1.5	46
	1203	19.0	579
	1835	−3.4	−104
7 Su	0101	16.2	494
	0637	2.0	61
	1244	18.8	573
	1918	−3.1	−94
8 M	0147	15.8	482
	0720	2.7	82
	1326	18.1	552
	2001	−2.3	−70
9 Tu	0232	15.1	460
	0804	3.5	107
	1408	17.0	518
	2045	−1.2	−37
10 W	0319	14.3	436
	0850	4.4	134
	1452	15.7	479
	2132	0.1	3
11 Th	0409	13.4	408
	0942	5.3	162
	1540	14.3	436
	2222	1.4	43
12 F	0505	12.8	390
	1044	5.9	180
	1636	12.9	393
	2319	2.6	79
13 Sa ◐	0607	12.4	378
	1159	6.1	186
	1745	11.8	360
14 Su	0022	3.4	104
	0710	12.5	381
	1318	5.6	171
	1904	11.3	344
15 M	0125	3.9	119
	0806	13.0	396
	1425	4.6	140
	2018	11.4	347

	Time	Height	
	h m	ft	cm
16 Tu	0222	4.1	125
	0852	13.7	418
	1518	3.4	104
	2119	11.9	363
17 W	0310	4.2	128
	0932	14.5	442
	1601	2.1	64
	2209	12.6	384
18 Th	0353	4.1	125
	1007	15.3	466
	1639	1.0	30
	2253	13.3	405
19 F	0431	4.0	122
	1042	16.0	488
	1715	0.0	0
	2333	13.9	424
20 Sa	0508	3.9	119
	1116	16.6	506
	1751	−0.9	−27
21 Su ○	0012	14.4	439
	0544	3.9	119
	1151	17.0	518
	1827	−1.4	−43
22 M	0051	14.6	445
	0620	3.9	119
	1227	17.3	527
	1904	−1.8	−55
23 Tu	0130	14.7	448
	0658	3.9	119
	1305	17.3	527
	1943	−1.8	−55
24 W	0211	14.7	448
	0738	4.1	125
	1345	17.0	518
	2024	−1.5	−46
25 Th	0255	14.5	442
	0823	4.3	131
	1429	16.4	500
	2109	−1.0	−30
26 F	0342	14.3	436
	0915	4.6	140
	1520	15.4	469
	2158	−0.2	−6
27 Sa	0434	14.1	430
	1017	4.7	143
	1619	14.3	436
	2253	0.8	24
28 Su ◑	0532	14.2	433
	1130	4.6	140
	1731	13.3	405
	2354	1.7	52
29 M	0633	14.6	445
	1250	3.8	116
	1853	12.7	387
30 Tu	0059	2.5	76
	0734	15.3	466
	1405	2.6	79
	2014	12.8	390

December

	Time	Height	
	h m	ft	cm
1 W	0204	3.0	91
	0831	16.2	494
	1510	1.0	30
	2126	13.3	405
2 Th	0305	3.2	98
	0924	17.1	521
	1605	−0.5	−15
	2227	14.1	430
3 F	0400	3.3	101
	1013	17.8	543
	1655	−1.6	−49
	2321	14.8	451
4 Sa	0451	3.3	101
	1100	18.2	555
	1741	−2.3	−70
5 Su ●	0009	15.3	466
	0539	3.3	101
	1145	18.4	561
	1824	−2.6	−79
6 M	0054	15.5	472
	0624	3.3	101
	1228	18.2	555
	1906	−2.5	−76
7 Tu	0137	15.5	472
	0707	3.5	107
	1310	17.7	539
	1946	−2.0	−61
8 W	0219	15.2	463
	0750	3.8	116
	1351	16.9	515
	2026	−1.2	−37
9 Th	0259	14.8	451
	0833	4.2	128
	1432	15.9	485
	2105	−0.2	−6
10 F	0340	14.3	436
	0919	4.6	140
	1514	14.7	448
	2145	0.9	27
11 Sa	0422	13.8	421
	1009	5.0	152
	1600	13.4	408
	2226	2.1	64
12 Su	0507	13.5	411
	1107	5.3	162
	1652	12.2	372
	2311	3.3	101
13 M ◐	0556	13.3	405
	1213	5.2	158
	1756	11.2	341
14 Tu	0002	4.3	131
	0648	13.4	408
	1322	4.7	143
	1912	10.8	329
15 W	0100	5.1	155
	0741	13.7	418
	1427	3.9	119
	2029	10.9	332

	Time	Height	
	h m	ft	cm
16 Th	0202	5.6	171
	0832	14.2	433
	1522	2.8	85
	2134	11.5	351
17 F	0300	5.7	174
	0920	14.9	454
	1609	1.6	49
	2228	12.3	375
18 Sa	0352	5.5	168
	1005	15.7	479
	1652	0.4	12
	2315	13.1	399
19 Su	0439	5.1	155
	1048	16.5	503
	1732	−0.7	−21
	2358	13.9	424
20 M ○	0523	4.6	140
	1130	17.2	524
	1812	−1.7	−52
21 Tu	0039	14.6	445
	0605	4.1	125
	1212	17.7	539
	1851	−2.3	−70
22 W	0119	15.2	463
	0648	3.6	110
	1255	17.9	546
	1931	−2.6	−79
23 Th	0159	15.6	475
	0732	3.2	98
	1339	17.8	543
	2011	−2.5	−76
24 F	0240	15.8	482
	0818	3.0	91
	1424	17.2	524
	2053	−2.0	−61
25 Sa	0323	16.0	488
	0909	2.9	88
	1513	16.2	494
	2137	−1.0	−30
26 Su	0408	16.0	488
	1005	2.9	88
	1608	14.9	454
	2225	0.4	12
27 M ◑	0457	15.9	485
	1109	2.9	88
	1712	13.5	411
	2317	1.9	58
28 Tu	0551	15.8	482
	1222	2.7	82
	1828	12.4	378
29 W	0018	3.3	101
	0652	15.8	482
	1338	2.1	64
	1954	11.9	363
30 Th	0127	4.4	134
	0755	16.0	488
	1451	1.2	37
	2115	12.2	372
31 F	0238	4.9	149
	0858	16.3	497
	1554	0.2	6
	2223	13.0	396

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Juneau, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0127	16.6	506
	0703	2.3	70
	1304	19.9	607
	1937	−4.3	−131
2 Sa	0210	17.3	527
	0750	1.6	49
	1352	19.8	604
	2020	−4.1	−125
3 Su	0252	17.7	539
	0838	1.2	37
	1440	19.1	582
	2104	−3.4	−104
4 M	0335	17.8	543
	0928	1.1	34
	1530	17.8	543
	2148	−2.1	−64
5 Tu	0419	17.6	536
	1022	1.4	43
	1623	16.1	491
	2235	−0.3	−9
6 W	0506	17.2	524
	1120	1.8	55
	1722	14.3	436
	2326	1.7	52
7 Th ◑	0557	16.6	506
	1225	2.3	70
	1834	12.8	390
8 F	0024	3.5	107
	0655	16.0	488
	1338	2.4	73
	2001	11.9	363
9 Sa	0133	5.0	152
	0759	15.6	475
	1453	2.2	67
	2130	11.9	363
10 Su	0250	5.8	177
	0904	15.6	475
	1601	1.5	46
	2243	12.6	384
11 M	0400	5.8	177
	1004	15.8	482
	1656	0.8	24
	2339	13.4	408
12 Tu	0458	5.3	162
	1056	16.2	494
	1742	0.0	0
13 W	0023	14.1	430
	0546	4.7	143
	1141	16.7	509
	1821	−0.5	−15
14 Th ●	0059	14.7	448
	0627	4.1	125
	1221	17.0	518
	1855	−1.0	−30
15 F	0131	15.2	463
	0704	3.5	107
	1257	17.2	524
	1927	−1.2	−37

	Time	Height	
	h m	ft	cm
16 Sa	0201	15.5	472
	0738	3.1	94
	1332	17.1	521
	1957	−1.1	−34
17 Su	0229	15.7	479
	0812	2.8	85
	1405	16.8	512
	2026	−0.8	−24
18 M	0256	15.8	482
	0845	2.7	82
	1438	16.2	494
	2055	−0.2	−6
19 Tu	0322	15.8	482
	0918	2.8	85
	1511	15.4	469
	2124	0.7	21
20 W	0350	15.6	475
	0954	2.9	88
	1547	14.4	439
	2154	1.8	55
21 Th	0420	15.4	469
	1035	3.2	98
	1627	13.2	402
	2228	3.0	91
22 F	0456	15.2	463
	1124	3.4	104
	1718	12.1	369
	2310	4.4	134
23 Sa ◐	0542	14.9	454
	1226	3.5	107
	1829	11.1	338
24 Su	0006	5.6	171
	0642	14.8	451
	1342	3.2	98
	2009	10.8	329
25 M	0127	6.5	198
	0757	15.0	457
	1501	2.2	67
	2144	11.5	351
26 Tu	0259	6.4	195
	0911	15.8	482
	1609	0.7	21
	2251	12.9	393
27 W	0414	5.4	165
	1017	17.0	518
	1705	−1.0	−30
	2342	14.4	439
28 Th	0513	4.0	122
	1114	18.3	558
	1753	−2.6	−79
29 F ○	0027	15.9	485
	0604	2.3	70
	1207	19.3	588
	1838	−3.8	−116
30 Sa	0108	17.3	527
	0652	0.8	24
	1256	19.9	607
	1920	−4.3	−131
31 Su	0148	18.3	558
	0738	−0.3	−9
	1343	19.9	607
	2001	−4.1	−125

February

	Time	Height	
	h m	ft	cm
1 M	0227	18.9	576
	0823	−0.9	−27
	1429	19.2	585
	2042	−3.2	−98
2 Tu	0305	19.0	579
	0909	−1.0	−30
	1516	17.9	546
	2123	−1.7	−52
3 W	0345	18.7	570
	0957	−0.4	−12
	1604	16.2	494
	2206	0.2	6
4 Th	0426	17.9	546
	1048	0.5	15
	1657	14.3	436
	2252	2.3	70
5 F ◑	0512	16.7	509
	1146	1.7	52
	1802	12.5	381
	2346	4.4	134
6 Sa	0606	15.5	472
	1257	2.6	79
	1931	11.3	344
7 Su	0056	6.0	183
	0715	14.6	445
	1420	3.0	91
	2115	11.2	341
8 M	0226	6.7	204
	0834	14.2	433
	1541	2.6	79
	2234	12.0	366
9 Tu	0347	6.4	195
	0946	14.5	442
	1641	1.8	55
	2326	13.0	396
10 W	0448	5.5	168
	1043	15.1	460
	1727	0.9	27
11 Th	0005	13.9	424
	0533	4.4	134
	1129	15.8	482
	1803	0.1	3
12 F	0037	14.7	448
	0612	3.4	104
	1207	16.4	500
	1835	−0.5	−15
13 Sa ●	0104	15.4	469
	0646	2.5	76
	1243	16.8	512
	1904	−0.8	−24
14 Su	0130	15.9	485
	0718	1.8	55
	1316	16.9	515
	1932	−0.9	−27
15 M	0155	16.4	500
	0748	1.3	40
	1347	16.8	512
	1959	−0.6	−18

	Time	Height	
	h m	ft	cm
16 Tu	0219	16.6	506
	0818	1.0	30
	1419	16.4	500
	2025	0.0	0
17 W	0244	16.7	509
	0849	0.9	27
	1450	15.7	479
	2053	0.9	27
18 Th	0309	16.6	506
	0922	1.1	34
	1523	14.8	451
	2122	2.0	61
19 F	0337	16.4	500
	1000	1.5	46
	1600	13.6	415
	2154	3.2	98
20 Sa	0411	15.9	485
	1045	2.0	61
	1647	12.4	378
	2234	4.6	140
21 Su ◐	0455	15.3	466
	1143	2.6	79
	1754	11.2	341
	2330	5.9	180
22 M	0557	14.7	448
	1301	2.8	85
	1940	10.7	326
23 Tu	0057	6.7	204
	0723	14.5	442
	1429	2.3	70
	2124	11.5	351
24 W	0242	6.4	195
	0851	15.1	460
	1545	0.9	27
	2230	13.1	399
25 Th	0401	4.9	149
	1004	16.3	497
	1644	−0.7	−21
	2319	14.8	451
26 F	0500	2.9	88
	1103	17.7	539
	1733	−2.2	−67
27 Sa	0001	16.5	503
	0551	0.9	27
	1156	18.7	570
	1816	−3.1	−94
28 Su ○	0041	18.0	549
	0636	−0.9	−27
	1244	19.3	588
	1858	−3.5	−107

March

	Time	Height	
	h m	ft	cm
1 M	0119	19.1	582
	0720	−2.1	−64
	1331	19.3	588
	1938	−3.1	−94
2 Tu	0156	19.6	597
	0803	−2.7	−82
	1415	18.7	570
	2018	−2.1	−64
3 W	0233	19.6	597
	0846	−2.5	−76
	1500	17.5	533
	2057	−0.6	−18
4 Th	0310	19.0	579
	0930	−1.7	−52
	1545	15.9	485
	2138	1.2	37
5 F	0349	17.9	546
	1017	−0.3	−9
	1634	14.1	430
	2222	3.2	98
6 Sa	0431	16.4	500
	1109	1.3	40
	1734	12.4	378
	2314	5.1	155
7 Su ◑	0523	14.9	454
	1214	2.7	82
	1900	11.1	338
8 M	0026	6.5	198
	0632	13.6	415
	1339	3.6	110
	2048	11.0	335
9 Tu	0203	7.0	213
	0801	13.0	396
	1508	3.4	104
	2206	11.8	360
10 W	0328	6.4	195
	0922	13.3	405
	1613	2.7	82
	2255	12.8	390
11 Th	0428	5.2	158
	1022	14.1	430
	1658	1.8	55
	2330	13.8	421
12 F	0512	3.8	116
	1108	14.9	454
	1733	1.0	30
	2359	14.7	448
13 Sa	0548	2.5	76
	1147	15.6	475
	1805	0.4	12
14 Su	0026	15.6	475
	0621	1.4	43
	1222	16.1	491
	1833	0.1	3
15 M ●	0051	16.3	497
	0652	0.5	15
	1256	16.4	500
	1901	0.0	0

	Time	Height	
	h m	ft	cm
16 Tu	0116	16.8	512
	0722	−0.2	−6
	1328	16.4	500
	1929	0.3	9
17 W	0141	17.2	524
	0752	−0.6	−18
	1400	16.1	491
	1957	0.8	24
18 Th	0207	17.3	527
	0823	−0.7	−21
	1433	15.6	475
	2026	1.6	49
19 F	0234	17.2	524
	0857	−0.5	−15
	1507	14.8	451
	2057	2.6	79
20 Sa	0305	16.8	512
	0935	0.0	0
	1546	13.7	418
	2133	3.7	113
21 Su	0341	16.2	494
	1021	0.7	21
	1635	12.6	384
	2218	4.9	149
22 M	0428	15.4	469
	1119	1.6	49
	1745	11.6	354
	2320	6.0	183
23 Tu ◐	0534	14.5	442
	1235	2.1	64
	1926	11.3	344
24 W	0053	6.4	195
	0705	14.0	427
	1401	1.9	58
	2057	12.2	372
25 Th	0232	5.6	171
	0837	14.4	439
	1517	1.0	30
	2159	13.8	421
26 F	0347	3.8	116
	0950	15.5	472
	1616	−0.1	−3
	2247	15.5	472
27 Sa	0444	1.6	49
	1050	16.7	509
	1706	−1.1	−34
	2329	17.1	521
28 Su	0533	−0.5	−15
	1143	17.6	536
	1751	−1.7	−52
29 M ○	0008	18.5	564
	0618	−2.2	−67
	1231	18.1	552
	1833	−1.8	−55
30 Tu	0046	19.3	588
	0701	−3.3	−101
	1317	18.1	552
	1913	−1.3	−40
31 W	0124	19.7	600
	0742	−3.6	−110
	1402	17.6	536
	1953	−0.4	−12

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Juneau, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0201	19.4	591
	0824	−3.2	−98
	1445	16.7	509
	2033	0.9	27
2 F	0238	18.6	567
	0905	−2.2	−67
	1529	15.4	469
	2115	2.4	73
3 Sa	0317	17.4	530
	0949	−0.7	−21
	1617	13.9	424
	2159	4.0	122
4 Su	0359	15.9	485
	1037	0.9	27
	1713	12.5	381
	2251	5.4	165
5 M	0448	14.3	436
	1135	2.4	73
	1828	11.5	351
6 Tu ◑	0001	6.5	198
	0553	13.0	396
	1249	3.4	104
	1959	11.3	344
7 W	0131	6.7	204
	0719	12.2	372
	1412	3.7	113
	2113	11.8	360
8 Th	0254	6.0	183
	0842	12.3	375
	1521	3.3	101
	2203	12.7	387
9 F	0354	4.7	143
	0946	12.9	393
	1611	2.7	82
	2239	13.7	418
10 Sa	0439	3.3	101
	1036	13.7	418
	1650	2.1	64
	2310	14.7	448
11 Su	0517	1.9	58
	1119	14.5	442
	1725	1.7	52
	2339	15.6	475
12 M	0551	0.6	18
	1157	15.1	460
	1757	1.4	43
13 Tu	0007	16.4	500
	0623	−0.5	−15
	1234	15.5	472
	1828	1.4	43
14 W ●	0035	17.1	521
	0655	−1.3	−40
	1309	15.7	479
	1859	1.6	49
15 Th	0104	17.5	533
	0727	−1.8	−55
	1345	15.6	475
	1932	2.0	61

	Time	Height	
	h m	ft	cm
16 F	0135	17.6	536
	0801	−2.0	−61
	1421	15.2	463
	2005	2.5	76
17 Sa	0207	17.5	533
	0839	−1.8	−55
	1500	14.6	445
	2042	3.2	98
18 Su	0244	17.1	521
	0920	−1.2	−37
	1544	13.9	424
	2124	4.1	125
19 M	0326	16.4	500
	1008	−0.4	−12
	1638	13.0	396
	2217	4.9	149
20 Tu	0419	15.4	469
	1106	0.5	15
	1747	12.5	381
	2326	5.5	168
21 W ◐	0527	14.3	436
	1215	1.2	37
	1907	12.6	384
22 Th	0052	5.3	162
	0653	13.7	418
	1331	1.4	43
	2022	13.5	411
23 F	0218	4.2	128
	0820	13.8	421
	1442	1.2	37
	2121	14.8	451
24 Sa	0328	2.4	73
	0934	14.5	442
	1543	0.8	24
	2210	16.2	494
25 Su	0425	0.4	12
	1036	15.3	466
	1636	0.5	15
	2254	17.5	533
26 M	0514	−1.4	−43
	1130	16.1	491
	1724	0.3	9
	2335	18.4	561
27 Tu	0559	−2.7	−82
	1220	16.5	503
	1808	0.4	12
28 W ○	0015	19.0	579
	0642	−3.5	−107
	1306	16.6	506
	1851	0.8	24
29 Th	0054	19.0	579
	0723	−3.6	−110
	1351	16.3	497
	1932	1.4	43
30 F	0133	18.6	567
	0803	−3.1	−94
	1434	15.7	479
	2014	2.3	70

May

	Time	Height	
	h m	ft	cm
1 Sa	0212	17.9	546
	0844	−2.2	−67
	1517	14.9	454
	2056	3.3	101
2 Su	0251	16.8	512
	0926	−0.9	−27
	1602	13.9	424
	2140	4.3	131
3 M	0333	15.5	472
	1010	0.4	12
	1652	12.9	393
	2231	5.2	158
4 Tu	0420	14.1	430
	1059	1.7	52
	1751	12.2	372
	2333	5.9	180
5 W ◑	0517	12.9	393
	1157	2.8	85
	1857	12.0	366
6 Th	0047	6.0	183
	0628	11.9	363
	1302	3.5	107
	2001	12.2	372
7 F	0203	5.4	165
	0747	11.6	354
	1409	3.7	113
	2054	12.9	393
8 Sa	0306	4.4	134
	0857	11.8	360
	1506	3.7	113
	2136	13.8	421
9 Su	0356	3.0	91
	0956	12.4	378
	1555	3.5	107
	2214	14.7	448
10 M	0439	1.6	49
	1046	13.2	402
	1638	3.2	98
	2248	15.6	475
11 Tu	0517	0.3	9
	1131	13.9	424
	1717	3.0	91
	2322	16.4	500
12 W	0553	−0.9	−27
	1212	14.5	442
	1755	2.9	88
	2357	17.1	521
13 Th ●	0629	−1.8	−55
	1253	14.9	454
	1833	2.8	85
14 F	0033	17.6	536
	0706	−2.5	−76
	1334	15.1	460
	1911	2.9	88
15 Sa	0111	17.9	546
	0745	−2.8	−85
	1415	15.1	460
	1951	3.0	91

	Time	Height	
	h m	ft	cm
16 Su	0151	17.8	543
	0826	−2.8	−85
	1458	14.8	451
	2034	3.3	101
17 M	0234	17.4	530
	0911	−2.4	−73
	1545	14.5	442
	2123	3.7	113
18 Tu	0322	16.7	509
	0959	−1.6	−49
	1637	14.2	433
	2219	4.0	122
19 W	0416	15.6	475
	1053	−0.7	−21
	1735	14.1	430
	2325	4.1	125
20 Th ◐	0522	14.4	439
	1153	0.3	9
	1838	14.3	436
21 F	0040	3.8	116
	0639	13.5	411
	1258	1.2	37
	1941	14.8	451
22 Sa	0156	2.8	85
	0801	13.1	399
	1404	1.8	55
	2039	15.6	475
23 Su	0304	1.4	43
	0916	13.3	405
	1508	2.2	67
	2132	16.5	503
24 M	0404	−0.1	−3
	1022	13.9	424
	1606	2.3	70
	2220	17.3	527
25 Tu	0456	−1.4	−43
	1120	14.5	442
	1659	2.4	73
	2306	17.8	543
26 W	0543	−2.3	−70
	1212	15.0	457
	1748	2.4	73
	2349	18.1	552
27 Th ○	0626	−2.8	−85
	1259	15.2	463
	1833	2.6	79
28 F	0031	18.1	552
	0708	−2.9	−88
	1343	15.3	466
	1916	2.8	85
29 Sa	0112	17.7	539
	0747	−2.6	−79
	1425	15.0	457
	1958	3.1	94
30 Su	0152	17.2	524
	0826	−1.9	−58
	1505	14.6	445
	2040	3.6	110
31 M	0232	16.4	500
	0905	−1.1	−34
	1545	14.2	433
	2123	4.0	122

June

	Time	Height	
	h m	ft	cm
1 Tu	0312	15.4	469
	0944	−0.1	−3
	1626	13.7	418
	2208	4.5	137
2 W	0355	14.3	436
	1025	0.9	27
	1708	13.3	405
	2258	4.9	149
3 Th	0442	13.2	402
	1108	1.9	58
	1755	13.0	396
	2356	5.0	152
4 F ◑	0538	12.1	369
	1156	2.9	88
	1845	13.0	396
5 Sa	0100	4.8	146
	0645	11.4	347
	1250	3.8	116
	1936	13.3	405
6 Su	0204	4.1	125
	0758	11.1	338
	1350	4.4	134
	2026	13.9	424
7 M	0304	3.1	94
	0909	11.3	344
	1451	4.7	143
	2113	14.6	445
8 Tu	0356	1.8	55
	1011	12.0	366
	1548	4.7	143
	2159	15.4	469
9 W	0442	0.5	15
	1105	12.8	390
	1639	4.4	134
	2243	16.3	497
10 Th	0526	−0.8	−24
	1154	13.6	415
	1727	4.0	122
	2326	17.1	521
11 F	0608	−2.0	−61
	1239	14.3	436
	1812	3.5	107
12 Sa ●	0010	17.8	543
	0650	−2.9	−88
	1323	14.9	454
	1856	3.1	94
13 Su	0055	18.3	558
	0732	−3.5	−107
	1407	15.4	469
	1941	2.7	82
14 M	0141	18.3	558
	0815	−3.7	−113
	1450	15.7	479
	2028	2.4	73
15 Tu	0228	18.0	549
	0859	−3.4	−104
	1534	15.8	482
	2118	2.3	70

	Time	Height	
	h m	ft	cm
16 W	0317	17.2	524
	0945	−2.6	−79
	1621	15.9	485
	2212	2.3	70
17 Th	0410	16.0	488
	1034	−1.4	−43
	1710	15.8	482
	2312	2.3	70
18 F ◐	0510	14.6	445
	1126	0.0	0
	1803	15.8	482
19 Sa	0018	2.2	67
	0620	13.3	405
	1224	1.5	46
	1859	15.8	482
20 Su	0128	1.8	55
	0739	12.5	381
	1328	2.8	85
	1959	15.9	485
21 M	0238	1.1	34
	0900	12.3	375
	1436	3.7	113
	2057	16.2	494
22 Tu	0343	0.3	9
	1013	12.7	387
	1542	4.1	125
	2153	16.5	503
23 W	0440	−0.6	−18
	1116	13.3	405
	1642	4.1	125
	2245	16.8	512
24 Th	0530	−1.3	−40
	1208	13.9	424
	1734	3.8	116
	2332	17.0	518
25 F	0615	−1.8	−55
	1254	14.4	439
	1821	3.5	107
26 Sa ○	0017	17.2	524
	0655	−2.0	−61
	1335	14.7	448
	1904	3.3	101
27 Su	0058	17.1	521
	0733	−2.0	−61
	1411	14.9	454
	1944	3.1	94
28 M	0137	16.8	512
	0808	−1.7	−52
	1446	14.9	454
	2022	3.1	94
29 Tu	0215	16.4	500
	0842	−1.3	−40
	1518	14.8	451
	2100	3.2	98
30 W	0251	15.7	479
	0916	−0.5	−15
	1550	14.6	445
	2139	3.4	104

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Juneau, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0329	14.7	448
	0949	0.4	12
	1623	14.4	439
	2220	3.6	110
2 F	0408	13.7	418
	1023	1.4	43
	1657	14.2	433
	2305	3.8	116
3 Sa	0453	12.6	384
	1100	2.6	79
	1736	14.0	427
	2357	3.9	119
4 Su ◑	0547	11.6	354
	1143	3.8	116
	1822	13.9	424
5 M	0057	3.8	116
	0656	10.8	329
	1237	4.9	149
	1916	14.0	427
6 Tu	0204	3.2	98
	0819	10.6	323
	1346	5.6	171
	2016	14.4	439
7 W	0311	2.3	70
	0938	11.1	338
	1500	5.8	177
	2115	15.1	460
8 Th	0410	0.9	27
	1044	12.0	366
	1608	5.4	165
	2212	16.1	491
9 F	0502	−0.5	−15
	1137	13.2	402
	1705	4.5	137
	2305	17.1	521
10 Sa	0549	−2.0	−61
	1224	14.3	436
	1755	3.4	104
	2355	18.1	552
11 Su ●	0634	−3.2	−98
	1308	15.4	469
	1843	2.3	70
12 M	0044	18.7	570
	0717	−4.0	−122
	1349	16.3	497
	1929	1.4	43
13 Tu	0131	19.0	579
	0759	−4.2	−128
	1430	17.0	518
	2016	0.7	21
14 W	0219	18.6	567
	0841	−3.8	−116
	1511	17.4	530
	2104	0.3	9
15 Th	0307	17.8	543
	0924	−2.8	−85
	1552	17.5	533
	2154	0.3	9

	Time	Height	
	h m	ft	cm
16 F	0358	16.4	500
	1009	−1.3	−40
	1636	17.3	527
	2249	0.6	18
17 Sa	0453	14.8	451
	1057	0.5	15
	1724	16.8	512
	2349	1.1	34
18 Su ◐	0558	13.2	402
	1151	2.4	73
	1818	16.2	494
19 M	0057	1.5	46
	0717	12.0	366
	1255	4.1	125
	1920	15.6	475
20 Tu	0211	1.6	49
	0847	11.6	354
	1411	5.1	155
	2028	15.3	466
21 W	0325	1.2	37
	1009	12.0	366
	1527	5.4	165
	2134	15.4	469
22 Th	0428	0.6	18
	1113	12.8	390
	1633	5.0	152
	2232	15.8	482
23 F	0520	−0.2	−6
	1202	13.6	415
	1726	4.3	131
	2323	16.2	494
24 Sa	0603	−0.8	−24
	1242	14.3	436
	1810	3.6	110
25 Su ○	0006	16.6	506
	0640	−1.2	−37
	1316	14.8	451
	1850	2.9	88
26 M	0045	16.8	512
	0714	−1.4	−43
	1347	15.2	463
	1926	2.4	73
27 Tu	0121	16.8	512
	0745	−1.4	−43
	1415	15.5	472
	2000	2.1	64
28 W	0156	16.5	503
	0815	−1.1	−34
	1442	15.6	475
	2033	1.9	58
29 Th	0229	16.0	488
	0844	−0.4	−12
	1509	15.6	475
	2106	2.0	61
30 F	0302	15.2	463
	0912	0.4	12
	1536	15.4	469
	2141	2.2	67
31 Sa	0337	14.2	433
	0942	1.5	46
	1605	15.2	463
	2219	2.5	76

August

	Time	Height	
	h m	ft	cm
1 Su	0415	13.1	399
	1014	2.8	85
	1638	14.9	454
	2303	2.9	88
2 M ◑	0500	12.0	366
	1052	4.1	125
	1719	14.5	442
	2358	3.2	98
3 Tu	0602	10.9	332
	1141	5.3	162
	1814	14.2	433
4 W	0109	3.2	98
	0733	10.4	317
	1254	6.3	192
	1926	14.2	433
5 Th	0229	2.6	79
	0912	10.8	329
	1427	6.5	198
	2043	14.7	448
6 F	0342	1.4	43
	1025	12.0	366
	1547	5.7	174
	2151	15.8	482
7 Sa	0440	−0.2	−6
	1118	13.4	408
	1649	4.2	128
	2250	17.1	521
8 Su	0529	−1.8	−55
	1202	15.0	457
	1741	2.5	76
	2343	18.2	555
9 M ●	0614	−3.1	−94
	1243	16.4	500
	1828	0.9	27
10 Tu	0032	19.0	579
	0656	−3.9	−119
	1322	17.6	536
	1913	−0.5	−15
11 W	0119	19.3	588
	0737	−4.0	−122
	1400	18.5	564
	1958	−1.4	−43
12 Th	0206	19.0	579
	0818	−3.4	−104
	1439	18.9	576
	2044	−1.7	−52
13 F	0253	18.0	549
	0859	−2.1	−64
	1519	18.8	573
	2131	−1.4	−43
14 Sa	0341	16.6	506
	0942	−0.4	−12
	1600	18.2	555
	2221	−0.6	−18
15 Su	0434	14.8	451
	1028	1.6	49
	1645	17.1	521
	2317	0.5	15

	Time	Height	
	h m	ft	cm
16 M ◐	0536	13.1	399
	1121	3.6	110
	1738	15.9	485
17 Tu	0023	1.7	52
	0657	11.7	357
	1229	5.3	162
	1845	14.8	451
18 W	0143	2.4	73
	0837	11.4	347
	1355	6.2	189
	2005	14.2	433
19 Th	0307	2.3	70
	1001	12.0	366
	1519	6.0	183
	2121	14.4	439
20 F	0414	1.6	49
	1100	12.9	393
	1625	5.1	155
	2223	14.9	454
21 Sa	0504	0.8	24
	1142	13.8	421
	1714	4.0	122
	2311	15.6	475
22 Su	0544	0.1	3
	1216	14.6	445
	1755	3.0	91
	2352	16.1	491
23 M	0618	−0.4	−12
	1246	15.3	466
	1830	2.0	61
24 Tu ○	0029	16.5	503
	0648	−0.7	−21
	1312	15.8	482
	1903	1.3	40
25 W	0102	16.6	506
	0717	−0.6	−18
	1337	16.2	494
	1934	0.8	24
26 Th	0135	16.5	503
	0744	−0.3	−9
	1402	16.4	500
	2004	0.6	18
27 F	0206	16.1	491
	0811	0.3	9
	1426	16.5	503
	2034	0.6	18
28 Sa	0237	15.5	472
	0838	1.2	37
	1451	16.4	500
	2106	0.8	24
29 Su	0310	14.6	445
	0906	2.2	67
	1519	16.0	488
	2141	1.3	40
30 M	0345	13.5	411
	0937	3.4	104
	1551	15.5	472
	2223	1.9	58
31 Tu	0428	12.4	378
	1014	4.7	143
	1631	14.9	454
	2316	2.6	79

September

	Time	Height	
	h m	ft	cm
1 W ◑	0528	11.2	341
	1105	5.9	180
	1728	14.2	433
2 Th	0027	3.0	91
	0705	10.6	323
	1226	6.8	207
	1850	13.9	424
3 F	0154	2.7	82
	0851	11.2	341
	1410	6.6	201
	2021	14.3	436
4 Sa	0314	1.6	49
	1001	12.6	384
	1533	5.3	162
	2136	15.5	472
5 Su	0415	0.1	3
	1050	14.3	436
	1634	3.3	101
	2236	16.9	515
6 M	0505	−1.3	−40
	1132	16.0	488
	1724	1.2	37
	2329	18.1	552
7 Tu	0549	−2.4	−73
	1211	17.6	536
	1810	−0.8	−24
8 W ●	0018	18.9	576
	0631	−2.9	−88
	1249	18.9	576
	1854	−2.3	−70
9 Th	0105	19.1	582
	0712	−2.8	−85
	1327	19.7	600
	1938	−3.1	−94
10 F	0151	18.8	573
	0752	−2.0	−61
	1405	19.8	604
	2021	−3.2	−98
11 Sa	0237	17.8	543
	0833	−0.7	−21
	1444	19.4	591
	2106	−2.5	−76
12 Su	0324	16.4	500
	0916	1.0	30
	1525	18.4	561
	2153	−1.2	−37
13 M	0415	14.8	451
	1002	2.9	88
	1609	17.0	518
	2246	0.4	12
14 Tu ◐	0516	13.1	399
	1056	4.7	143
	1702	15.4	469
	2350	2.0	61
15 W	0638	11.9	363
	1208	6.2	189
	1811	14.0	427

	Time	Height	
	h m	ft	cm
16 Th	0111	3.0	91
	0818	11.6	354
	1341	6.7	204
	1940	13.3	405
17 F	0238	3.1	94
	0937	12.3	375
	1506	6.1	186
	2102	13.5	411
18 Sa	0347	2.6	79
	1030	13.2	402
	1608	4.9	149
	2204	14.1	430
19 Su	0436	1.9	58
	1108	14.2	433
	1654	3.5	107
	2252	14.9	454
20 M	0514	1.2	37
	1138	15.0	457
	1732	2.3	70
	2332	15.5	472
21 Tu	0546	0.8	24
	1205	15.8	482
	1805	1.2	37
22 W	0007	16.0	488
	0616	0.6	18
	1231	16.4	500
	1836	0.3	9
23 Th ○	0041	16.2	494
	0644	0.6	18
	1256	16.9	515
	1906	−0.3	−9
24 F	0113	16.2	494
	0712	0.9	27
	1321	17.2	524
	1935	−0.6	−18
25 Sa	0145	16.0	488
	0740	1.5	46
	1347	17.2	524
	2005	−0.6	−18
26 Su	0217	15.5	472
	0808	2.3	70
	1413	17.1	521
	2038	−0.3	−9
27 M	0251	14.7	448
	0839	3.2	98
	1443	16.7	509
	2114	0.2	6
28 Tu	0328	13.8	421
	0912	4.2	128
	1518	16.0	488
	2156	1.0	30
29 W	0413	12.7	387
	0954	5.3	162
	1601	15.2	463
	2250	1.8	55
30 Th ◑	0517	11.8	360
	1052	6.3	192
	1701	14.3	436

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Juneau, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0000	2.5	76
	0651	11.5	351
	1220	6.8	207
	1828	13.7	418
2 Sa	0123	2.5	76
	0823	12.2	372
	1400	6.1	186
	2003	14.0	427
3 Su	0241	1.8	55
	0927	13.7	418
	1517	4.3	131
	2120	15.0	457
4 M	0344	0.7	21
	1016	15.4	469
	1616	2.1	64
	2222	16.2	494
5 Tu	0436	−0.3	−9
	1058	17.1	521
	1706	−0.1	−3
	2315	17.3	527
6 W	0522	−0.9	−27
	1138	18.6	567
	1751	−2.0	−61
7 Th ●	0005	18.1	552
	0605	−1.1	−34
	1217	19.7	600
	1835	−3.4	−104
8 F	0052	18.3	558
	0647	−0.9	−27
	1255	20.2	616
	1917	−3.9	−119
9 Sa	0138	18.0	549
	0729	−0.1	−3
	1334	20.1	613
	2000	−3.7	−113
10 Su	0224	17.3	527
	0811	1.0	30
	1414	19.4	591
	2043	−2.8	−85
11 M	0310	16.1	491
	0854	2.4	73
	1455	18.2	555
	2128	−1.4	−43
12 Tu	0400	14.7	448
	0941	3.9	119
	1540	16.7	509
	2218	0.3	9
13 W	0458	13.4	408
	1036	5.4	165
	1631	15.0	457
	2316	2.0	61
14 Th ◐	0611	12.4	378
	1146	6.4	195
	1737	13.5	411
15 F	0028	3.2	98
	0737	12.2	372
	1314	6.6	201
	1902	12.6	384

	Time	Height	
	h m	ft	cm
16 Sa	0149	3.7	113
	0850	12.6	384
	1436	5.9	180
	2026	12.6	384
17 Su	0258	3.5	107
	0942	13.5	411
	1538	4.7	143
	2132	13.1	399
18 M	0351	3.1	94
	1020	14.4	439
	1624	3.3	101
	2223	13.8	421
19 Tu	0432	2.7	82
	1051	15.3	466
	1702	1.9	58
	2305	14.5	442
20 W	0507	2.4	73
	1120	16.1	491
	1736	0.8	24
	2344	15.1	460
21 Th	0540	2.2	67
	1148	16.8	512
	1808	−0.2	−6
22 F ○	0020	15.5	472
	0612	2.2	67
	1216	17.3	527
	1839	−0.9	−27
23 Sa	0055	15.7	479
	0643	2.4	73
	1245	17.7	539
	1910	−1.3	−40
24 Su	0129	15.6	475
	0714	2.8	85
	1314	17.8	543
	1943	−1.4	−43
25 M	0204	15.3	466
	0746	3.3	101
	1346	17.6	536
	2018	−1.2	−37
26 Tu	0241	14.8	451
	0821	4.0	122
	1420	17.2	524
	2057	−0.7	−21
27 W	0323	14.1	430
	0901	4.7	143
	1500	16.5	503
	2142	0.0	0
28 Th	0412	13.4	408
	0949	5.4	165
	1548	15.6	475
	2234	0.8	24
29 F	0514	12.9	393
	1053	6.0	183
	1650	14.5	442
	2338	1.6	49
30 Sa ◑	0630	12.9	393
	1215	6.0	183
	1812	13.7	418
31 Su	0051	2.0	61
	0745	13.7	418
	1342	5.0	152
	1942	13.6	415

November

	Time	Height	
	h m	ft	cm
1 M	0204	2.0	61
	0846	14.9	454
	1456	3.3	101
	2101	14.3	436
2 Tu	0308	1.7	52
	0937	16.4	500
	1556	1.2	37
	2206	15.2	463
3 W	0404	1.3	40
	1023	17.8	543
	1647	−0.8	−24
	2303	16.1	491
4 Th	0455	1.1	34
	1106	19.0	579
	1733	−2.4	−73
	2354	16.8	512
5 F ●	0541	1.0	30
	1147	19.7	600
	1818	−3.5	−107
6 Sa	0042	17.1	521
	0626	1.2	37
	1229	20.0	610
	1900	−3.8	−116
7 Su	0129	17.0	518
	0710	1.7	52
	1310	19.7	600
	1942	−3.5	−107
8 M	0214	16.6	506
	0753	2.4	73
	1351	19.0	579
	2025	−2.6	−79
9 Tu	0259	15.8	482
	0837	3.3	101
	1433	17.9	546
	2108	−1.4	−43
10 W	0346	14.9	454
	0924	4.3	131
	1517	16.5	503
	2153	0.1	3
11 Th	0437	14.0	427
	1015	5.3	162
	1604	15.0	457
	2242	1.5	46
12 F	0534	13.3	405
	1117	6.0	183
	1700	13.6	415
	2338	2.8	85
13 Sa ◐	0637	12.9	393
	1230	6.2	189
	1810	12.5	381
14 Su	0041	3.7	113
	0741	13.1	399
	1345	5.7	174
	1929	11.9	363
15 M	0148	4.2	128
	0835	13.6	415
	1451	4.7	143
	2043	12.0	366

	Time	Height	
	h m	ft	cm
16 Tu	0248	4.4	134
	0919	14.3	436
	1543	3.5	107
	2145	12.6	384
17 W	0339	4.3	131
	0958	15.2	463
	1627	2.2	67
	2235	13.3	405
18 Th	0423	4.2	128
	1033	16.0	488
	1705	0.9	27
	2320	14.0	427
19 F	0503	4.0	122
	1107	16.8	512
	1740	−0.2	−6
20 Sa	0001	14.6	445
	0541	3.9	119
	1141	17.4	530
	1815	−1.1	−34
21 Su ○	0040	15.0	457
	0618	3.8	116
	1216	17.9	546
	1851	−1.7	−52
22 M	0119	15.3	466
	0654	3.7	113
	1252	18.1	552
	1927	−2.1	−64
23 Tu	0157	15.3	466
	0732	3.8	116
	1330	18.1	552
	2006	−2.1	−64
24 W	0238	15.2	463
	0813	4.0	122
	1410	17.8	543
	2047	−1.8	−55
25 Th	0320	15.0	457
	0857	4.2	128
	1454	17.1	521
	2131	−1.2	−37
26 F	0407	14.8	451
	0948	4.5	137
	1544	16.1	491
	2220	−0.3	−9
27 Sa	0500	14.6	445
	1049	4.7	143
	1643	15.0	457
	2315	0.7	21
28 Su ◑	0559	14.7	448
	1200	4.5	137
	1755	13.9	424
29 M	0017	1.7	52
	0701	15.2	463
	1316	3.7	113
	1919	13.2	402
30 Tu	0124	2.6	79
	0802	15.9	485
	1429	2.4	73
	2041	13.3	405

December

	Time	Height	
	h m	ft	cm
1 W	0231	3.0	91
	0858	16.8	512
	1533	0.8	24
	2153	13.9	424
2 Th	0334	3.2	98
	0950	17.7	539
	1629	−0.7	−21
	2255	14.7	448
3 F	0432	3.2	98
	1039	18.5	564
	1719	−1.9	−58
	2349	15.4	469
4 Sa	0524	3.0	91
	1126	19.0	579
	1805	−2.7	−82
5 Su ●	0039	15.9	485
	0612	2.9	88
	1210	19.1	582
	1848	−3.0	−91
6 M	0124	16.1	491
	0657	3.0	91
	1254	19.0	579
	1930	−2.8	−85
7 Tu	0207	16.1	491
	0740	3.1	94
	1336	18.4	561
	2010	−2.3	−70
8 W	0248	15.8	482
	0823	3.5	107
	1417	17.6	536
	2049	−1.4	−43
9 Th	0328	15.3	466
	0906	3.9	119
	1457	16.6	506
	2128	−0.4	−12
10 F	0408	14.8	451
	0951	4.5	137
	1539	15.3	466
	2207	0.8	24
11 Sa	0449	14.3	436
	1040	4.9	149
	1624	14.0	427
	2248	2.1	64
12 Su	0533	13.9	424
	1135	5.2	158
	1716	12.7	387
	2333	3.3	101
13 M ◐	0621	13.8	421
	1238	5.2	158
	1821	11.7	357
14 Tu	0026	4.4	134
	0713	13.8	421
	1345	4.8	146
	1938	11.2	341
15 W	0127	5.3	162
	0806	14.2	433
	1449	3.9	119
	2056	11.3	344

	Time	Height	
	h m	ft	cm
16 Th	0232	5.8	177
	0857	14.7	448
	1545	2.8	85
	2203	11.9	363
17 F	0334	5.8	177
	0945	15.5	472
	1632	1.6	49
	2258	12.8	390
18 Sa	0428	5.5	168
	1030	16.3	497
	1715	0.3	9
	2345	13.7	418
19 Su	0515	5.0	152
	1113	17.1	521
	1756	−0.9	−27
20 M ○	0028	14.5	442
	0558	4.5	137
	1156	17.9	546
	1835	−1.9	−58
21 Tu	0109	15.2	463
	0640	3.8	116
	1238	18.4	561
	1914	−2.7	−82
22 W	0148	15.8	482
	0722	3.3	101
	1321	18.7	570
	1954	−3.0	−91
23 Th	0228	16.2	494
	0805	2.9	88
	1404	18.5	564
	2035	−2.9	−88
24 F	0308	16.4	500
	0851	2.6	79
	1449	17.9	546
	2117	−2.3	−70
25 Sa	0349	16.6	506
	0940	2.5	76
	1538	16.9	515
	2201	−1.2	−37
26 Su	0434	16.6	506
	1034	2.6	79
	1632	15.5	472
	2249	0.2	6
27 M ◑	0522	16.5	503
	1136	2.6	79
	1735	14.0	427
	2343	1.8	55
28 Tu	0617	16.4	500
	1245	2.5	76
	1853	12.8	390
29 W	0045	3.3	101
	0718	16.3	497
	1400	2.0	61
	2021	12.4	378
30 Th	0156	4.4	134
	0822	16.5	503
	1512	1.1	34
	2145	12.7	387
31 F	0310	4.9	149
	0924	16.9	515
	1615	0.1	3
	2253	13.6	415

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sitka, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0115	9.8	299
	0634	3.3	101
	1231	12.4	378
	1924	−2.5	−76
2 Sa	0156	10.2	311
	0725	2.8	85
	1321	12.2	372
	2007	−2.3	−70
3 Su	0238	10.5	320
	0817	2.4	73
	1411	11.6	354
	2049	−1.8	−55
4 M	0321	10.7	326
	0911	2.2	67
	1503	10.7	326
	2132	−0.8	−24
5 Tu	0405	10.8	329
	1009	2.0	61
	1559	9.5	290
	2216	0.4	12
6 W	0451	10.7	326
	1112	2.0	61
	1703	8.3	253
	2303	1.7	52
7 Th ◑	0540	10.6	323
	1223	1.9	58
	1820	7.4	226
	2355	2.9	88
8 F	0634	10.4	317
	1338	1.6	49
	1952	6.9	210
9 Sa	0058	4.0	122
	0733	10.2	311
	1452	1.2	37
	2125	7.1	216
10 Su	0213	4.7	143
	0835	10.1	308
	1555	0.7	21
	2238	7.5	229
11 M	0327	4.9	149
	0933	10.2	311
	1648	0.3	9
	2331	8.1	247
12 Tu	0428	4.8	146
	1025	10.4	317
	1731	−0.1	−3
13 W	0011	8.5	259
	0518	4.5	137
	1110	10.5	320
	1809	−0.4	−12
14 Th ●	0046	8.8	268
	0600	4.2	128
	1151	10.6	323
	1843	−0.6	−18
15 F	0116	9.1	277
	0638	3.8	116
	1228	10.6	323
	1915	−0.6	−18

	Time	Height	
	h m	ft	cm
16 Sa	0145	9.3	283
	0713	3.5	107
	1303	10.5	320
	1944	−0.5	−15
17 Su	0213	9.4	287
	0748	3.2	98
	1337	10.2	311
	2013	−0.2	−6
18 M	0241	9.5	290
	0824	3.0	91
	1412	9.7	296
	2040	0.2	6
19 Tu	0309	9.6	293
	0901	2.9	88
	1447	9.1	277
	2108	0.9	27
20 W	0337	9.6	293
	0941	2.8	85
	1527	8.4	256
	2136	1.6	49
21 Th	0407	9.7	296
	1027	2.7	82
	1612	7.7	235
	2207	2.5	76
22 F	0441	9.7	296
	1121	2.6	79
	1711	7.0	213
	2243	3.4	104
23 Sa ◐	0523	9.7	296
	1227	2.4	73
	1831	6.5	198
	2331	4.2	128
24 Su	0617	9.7	296
	1344	2.0	61
	2014	6.4	195
25 M	0043	4.9	149
	0723	9.9	302
	1458	1.2	37
	2144	6.9	210
26 Tu	0214	5.1	155
	0835	10.3	314
	1601	0.2	6
	2245	7.7	235
27 W	0335	4.8	146
	0941	10.9	332
	1653	−0.8	−24
	2332	8.6	262
28 Th	0440	4.1	125
	1040	11.5	351
	1740	−1.7	−52
29 F ○	0013	9.4	287
	0535	3.2	98
	1134	12.0	366
	1824	−2.2	−67
30 Sa	0052	10.2	311
	0626	2.2	67
	1225	12.2	372
	1905	−2.3	−70
31 Su	0130	10.8	329
	0715	1.4	43
	1314	12.0	366
	1945	−2.0	−61

February

	Time	Height	
	h m	ft	cm
1 M	0209	11.2	341
	0804	0.9	27
	1403	11.4	347
	2025	−1.3	−40
2 Tu	0247	11.5	351
	0854	0.6	18
	1453	10.5	320
	2104	−0.3	−9
3 W	0327	11.4	347
	0946	0.7	21
	1545	9.4	287
	2144	1.0	30
4 Th	0408	11.1	338
	1042	0.9	27
	1644	8.2	250
	2226	2.3	70
5 F ◑	0453	10.6	323
	1145	1.3	40
	1755	7.3	223
	2314	3.6	110
6 Sa	0545	10.0	305
	1259	1.6	49
	1928	6.7	204
7 Su	0017	4.6	140
	0649	9.5	290
	1421	1.6	49
	2112	6.8	207
8 M	0146	5.2	158
	0804	9.3	283
	1534	1.3	40
	2228	7.3	223
9 Tu	0316	5.2	158
	0915	9.3	283
	1631	0.9	27
	2316	7.8	238
10 W	0421	4.8	146
	1013	9.6	293
	1714	0.4	12
	2351	8.3	253
11 Th	0509	4.2	128
	1100	9.9	302
	1750	0.1	3
12 F	0020	8.7	265
	0548	3.5	107
	1140	10.1	308
	1821	−0.2	−6
13 Sa ●	0047	9.1	277
	0623	2.9	88
	1216	10.2	311
	1849	−0.2	−6
14 Su	0112	9.5	290
	0656	2.4	73
	1250	10.1	308
	1916	−0.1	−3
15 M	0136	9.8	299
	0728	2.0	61
	1323	10.0	305
	1942	0.2	6

	Time	Height	
	h m	ft	cm
16 Tu	0200	10.0	305
	0800	1.7	52
	1357	9.6	293
	2008	0.6	18
17 W	0225	10.1	308
	0834	1.5	46
	1432	9.2	280
	2034	1.3	40
18 Th	0251	10.2	311
	0910	1.4	43
	1509	8.6	262
	2101	2.0	61
19 F	0320	10.2	311
	0951	1.5	46
	1553	7.9	241
	2130	2.8	85
20 Sa	0353	10.1	308
	1041	1.6	49
	1647	7.2	219
	2205	3.6	110
21 Su ◐	0434	9.9	302
	1144	1.7	52
	1803	6.6	201
	2254	4.4	134
22 M	0531	9.6	293
	1304	1.6	49
	1947	6.4	195
23 Tu	0013	5.0	152
	0648	9.5	290
	1427	1.1	34
	2120	7.0	213
24 W	0159	5.0	152
	0813	9.7	296
	1536	0.3	9
	2220	7.8	238
25 Th	0327	4.3	131
	0929	10.3	314
	1631	−0.6	−18
	2305	8.8	268
26 F	0432	3.2	98
	1032	10.9	332
	1718	−1.2	−37
	2344	9.7	296
27 Sa	0526	1.9	58
	1127	11.3	344
	1800	−1.5	−46
28 Su ○	0021	10.6	323
	0615	0.8	24
	1218	11.5	351
	1840	−1.5	−46

March

	Time	Height	
	h m	ft	cm
1 M	0058	11.3	344
	0702	−0.1	−3
	1306	11.4	347
	1919	−1.0	−30
2 Tu	0135	11.7	357
	0747	−0.6	−18
	1354	10.9	332
	1957	−0.3	−9
3 W	0211	11.8	360
	0833	−0.8	−24
	1442	10.1	308
	2035	0.7	21
4 Th	0249	11.6	354
	0920	−0.5	−15
	1531	9.2	280
	2114	1.9	58
5 F	0328	11.0	335
	1010	0.1	3
	1626	8.2	250
	2155	3.0	91
6 Sa	0410	10.3	314
	1107	0.9	27
	1731	7.3	223
	2241	4.1	125
7 Su ◑	0500	9.5	290
	1216	1.5	46
	1859	6.7	204
	2347	4.9	149
8 M	0606	8.7	265
	1339	1.8	55
	2042	6.7	204
9 Tu	0126	5.2	158
	0731	8.3	253
	1459	1.7	52
	2156	7.2	219
10 W	0302	4.9	149
	0853	8.4	256
	1558	1.4	43
	2241	7.7	235
11 Th	0406	4.2	128
	0955	8.7	265
	1642	1.0	30
	2313	8.2	250
12 F	0451	3.4	104
	1043	9.0	274
	1717	0.7	21
	2340	8.7	265
13 Sa	0528	2.6	79
	1124	9.3	283
	1747	0.5	15
14 Su	0005	9.2	280
	0601	1.9	58
	1200	9.5	290
	1815	0.5	15
15 M ●	0029	9.6	293
	0633	1.2	37
	1235	9.6	293
	1842	0.7	21

	Time	Height	
	h m	ft	cm
16 Tu	0053	10.0	305
	0704	0.7	21
	1309	9.5	290
	1909	1.0	30
17 W	0118	10.3	314
	0736	0.3	9
	1344	9.4	287
	1936	1.4	43
18 Th	0144	10.5	320
	0809	0.1	3
	1420	9.0	274
	2004	2.0	61
19 F	0211	10.5	320
	0846	0.1	3
	1459	8.5	259
	2033	2.6	79
20 Sa	0242	10.4	317
	0927	0.3	9
	1544	7.9	241
	2107	3.3	101
21 Su	0319	10.2	311
	1016	0.6	18
	1640	7.3	223
	2148	3.9	119
22 M	0404	9.8	299
	1117	0.9	27
	1754	6.8	207
	2246	4.5	137
23 Tu ◐	0506	9.3	283
	1233	1.0	30
	1926	6.8	207
24 W	0017	4.8	146
	0629	8.9	271
	1354	0.8	24
	2046	7.4	226
25 Th	0201	4.4	134
	0800	9.0	274
	1503	0.4	12
	2143	8.2	250
26 F	0322	3.3	101
	0919	9.4	287
	1600	−0.1	−3
	2228	9.2	280
27 Sa	0423	1.9	58
	1023	9.9	302
	1648	−0.3	−9
	2308	10.1	308
28 Su	0514	0.6	18
	1119	10.3	314
	1731	−0.4	−12
	2346	10.9	332
29 M ○	0601	−0.6	−18
	1210	10.5	320
	1812	−0.1	−3
30 Tu	0023	11.5	351
	0645	−1.4	−43
	1258	10.4	317
	1852	0.4	12
31 W	0059	11.8	360
	0729	−1.7	−52
	1345	10.1	308
	1930	1.1	34

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sitka, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0136	11.7	357	**16** F	0107	10.7	326
	0812	−1.6	−49		0749	−1.1	−34
	1431	9.6	293		1412	8.8	268
	2009	1.9	58		1940	2.7	82
2 F	0214	11.3	344	**17** Sa	0140	10.7	326
	0856	−1.2	−37		0828	−1.0	−30
	1519	8.9	271		1455	8.4	256
	2049	2.7	82		2016	3.2	98
3 Sa	0252	10.6	323	**18** Su	0217	10.5	320
	0942	−0.4	−12		0912	−0.8	−24
	1610	8.1	247		1543	8.0	244
	2131	3.5	107		2057	3.6	110
4 Su	0334	9.8	299	**19** M	0259	10.1	308
	1033	0.4	12		1002	−0.5	−15
	1710	7.4	226		1640	7.6	232
	2220	4.3	131		2149	4.0	122
5 M	0422	8.9	271	**20** Tu	0350	9.6	293
	1134	1.2	37		1100	0.0	0
	1824	6.9	210		1747	7.4	226
	2327	4.8	146		2259	4.2	128
6 Tu ◑	0525	8.1	247	**21** W ◐	0456	8.9	271
	1247	1.7	52		1207	0.3	9
	1949	6.9	210		1900	7.6	232
7 W	0102	4.9	149	**22** Th	0029	4.0	122
	0649	7.5	229		0619	8.3	253
	1401	1.9	58		1318	0.6	18
	2058	7.2	219		2006	8.1	247
8 Th	0233	4.4	134	**23** F	0158	3.3	101
	0815	7.4	226		0749	8.1	247
	1503	1.8	55		1424	0.7	21
	2144	7.6	232		2101	8.8	268
9 F	0336	3.6	110	**24** Sa	0311	2.0	61
	0924	7.6	232		0908	8.3	253
	1551	1.6	49		1522	0.7	21
	2219	8.2	250		2148	9.7	296
10 Sa	0422	2.7	82	**25** Su	0409	0.7	21
	1017	8.0	244		1015	8.7	265
	1629	1.5	46		1613	0.9	27
	2248	8.7	265		2230	10.4	317
11 Su	0459	1.7	52	**26** M	0500	−0.5	−15
	1101	8.3	253		1112	9.1	277
	1703	1.5	46		1700	1.1	34
	2315	9.3	283		2310	11.0	335
12 M	0533	0.9	27	**27** Tu	0546	−1.5	−46
	1141	8.6	262		1204	9.3	283
	1734	1.6	49		1744	1.4	43
	2342	9.8	299		2349	11.4	347
13 Tu	0606	0.1	3	**28** W ○	0629	−2.0	−61
	1218	8.9	271		1251	9.4	287
	1805	1.7	52		1826	1.8	55
14 W ●	0009	10.2	311	**29** Th	0027	11.5	351
	0639	−0.5	−15		0711	−2.2	−67
	1255	9.0	274		1337	9.3	283
	1835	2.0	61		1907	2.3	70
15 Th	0037	10.5	320	**30** F	0106	11.3	344
	0713	−0.9	−27		0753	−2.0	−61
	1333	9.0	274		1422	9.0	274
	1907	2.3	70		1947	2.8	85

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0144	10.8	329	**16** Su	0119	10.9	332
	0835	−1.5	−46		0816	−2.0	−61
	1507	8.6	262		1451	8.5	259
	2029	3.3	101		2007	3.3	101
2 Su	0224	10.1	308	**17** M	0203	10.6	323
	0918	−0.8	−24		0901	−1.8	−55
	1555	8.1	247		1540	8.4	256
	2113	3.7	113		2057	3.4	104
3 M	0305	9.4	287	**18** Tu	0251	10.1	308
	1004	−0.1	−3		0950	−1.4	−43
	1647	7.6	232		1632	8.3	253
	2204	4.1	125		2156	3.4	104
4 Tu	0352	8.5	259	**19** W	0346	9.3	283
	1054	0.6	18		1042	−0.8	−24
	1745	7.3	223		1728	8.3	253
	2307	4.3	131		2307	3.3	101
5 W ◑	0448	7.7	235	**20** Th ◐	0452	8.5	259
	1150	1.3	40		1139	−0.1	−3
	1847	7.2	219		1826	8.5	259
6 Th	0026	4.2	128	**21** F	0026	2.9	88
	0600	7.0	213		0610	7.7	235
	1250	1.7	52		1239	0.6	18
	1945	7.4	226		1924	8.9	271
7 F	0147	3.8	116	**22** Sa	0145	2.0	61
	0722	6.7	204		0736	7.3	223
	1349	2.0	61		1341	1.2	37
	2033	7.8	238		2017	9.5	290
8 Sa	0252	3.0	91	**23** Su	0255	1.0	30
	0839	6.7	204		0857	7.3	223
	1442	2.3	70		1442	1.7	52
	2113	8.2	250		2107	10.0	305
9 Su	0343	2.1	64	**24** M	0354	−0.1	−3
	0942	6.9	210		1008	7.6	232
	1528	2.4	73		1538	2.2	67
	2148	8.8	268		2154	10.5	320
10 M	0425	1.1	34	**25** Tu	0445	−1.0	−30
	1034	7.3	223		1108	8.0	244
	1610	2.5	76		1631	2.5	76
	2221	9.3	283		2238	10.8	329
11 Tu	0503	0.2	6	**26** W	0532	−1.7	−52
	1120	7.8	238		1200	8.4	256
	1649	2.7	82		1719	2.7	82
	2254	9.9	302		2321	10.9	332
12 W	0539	−0.6	−18	**27** Th ○	0615	−2.0	−61
	1202	8.2	250		1247	8.6	262
	1726	2.8	85		1805	2.9	88
	2328	10.3	314				
13 Th ●	0616	−1.2	−37	**28** F	0002	10.9	332
	1243	8.4	256		0657	−2.1	−64
	1804	2.9	88		1331	8.6	262
					1848	3.1	94
14 F	0003	10.7	326	**29** Sa	0043	10.7	326
	0654	−1.7	−52		0737	−1.9	−58
	1324	8.6	262		1413	8.6	262
	1842	3.0	91		1931	3.2	98
15 Sa	0040	10.9	332	**30** Su	0123	10.3	314
	0734	−2.0	−61		0817	−1.6	−49
	1407	8.6	262		1454	8.4	256
	1923	3.1	94		2013	3.4	104
				31 M	0202	9.8	299
					0856	−1.1	−34
					1535	8.2	250
					2057	3.5	107

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0243	9.1	277	**16** W	0247	10.1	308
	0935	−0.5	−15		0932	−1.9	−58
	1617	7.9	241		1610	9.2	280
	2145	3.6	110		2154	2.3	70
2 W	0326	8.3	253	**17** Th	0342	9.2	280
	1015	0.1	3		1019	−1.1	−34
	1701	7.8	238		1658	9.3	283
	2239	3.6	110		2259	2.0	61
3 Th	0414	7.6	232	**18** F ◐	0445	8.2	250
	1057	0.8	24		1108	−0.1	−3
	1745	7.8	238		1748	9.4	287
	2341	3.5	107				
4 F ◑	0512	6.8	207	**19** Sa	0010	1.7	52
	1141	1.5	46		0558	7.3	223
	1831	7.8	238		1201	1.0	30
					1841	9.6	293
5 Sa	0050	3.1	94	**20** Su	0123	1.1	34
	0624	6.2	189		0722	6.7	204
	1230	2.1	64		1300	2.0	61
	1917	8.1	247		1935	9.8	299
6 Su	0157	2.5	76	**21** M	0234	0.4	12
	0744	6.0	183		0848	6.6	201
	1322	2.7	82		1404	2.8	85
	2001	8.4	256		2031	9.9	302
7 M	0256	1.7	52	**22** Tu	0337	−0.3	−9
	0901	6.2	189		1004	6.9	210
	1418	3.2	98		1509	3.3	101
	2045	8.9	271		2124	10.1	308
8 Tu	0346	0.8	24	**23** W	0432	−0.9	−27
	1006	6.6	201		1107	7.4	226
	1512	3.4	104		1610	3.5	107
	2128	9.4	287		2215	10.3	314
9 W	0431	−0.1	−3	**24** Th	0521	−1.4	−43
	1100	7.1	216		1158	7.8	238
	1603	3.5	107		1704	3.5	107
	2211	9.9	302		2303	10.3	314
10 Th	0514	−0.9	−27	**25** F	0605	−1.6	−49
	1147	7.6	232		1241	8.1	247
	1652	3.5	107		1752	3.4	104
	2254	10.4	317		2347	10.3	314
11 F	0556	−1.7	−52	**26** Sa ○	0645	−1.7	−52
	1231	8.1	247		1321	8.3	253
	1739	3.4	104		1836	3.3	101
	2337	10.8	329				
12 Sa ●	0638	−2.2	−67	**27** Su	0028	10.2	311
	1313	8.4	256		0722	−1.7	−52
	1825	3.2	98		1357	8.4	256
					1917	3.1	94
13 Su	0022	11.1	338	**28** M	0107	10.0	305
	0721	−2.6	−79		0757	−1.5	−46
	1356	8.7	265		1431	8.4	256
	1912	2.9	88		1957	3.0	91
14 M	0108	11.1	338	**29** Tu	0145	9.6	293
	0804	−2.7	−82		0831	−1.1	−34
	1439	8.9	271		1505	8.4	256
	2002	2.7	82		2037	2.9	88
15 Tu	0156	10.7	326	**30** W	0223	9.0	274
	0848	−2.4	−73		0904	−0.7	−21
	1524	9.0	274		1538	8.4	256
	2055	2.5	76		2119	2.8	85

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sitka, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0302	8.4	256
	0936	0.0	0
	1612	8.3	253
	2204	2.8	85
2 F	0344	7.6	232
	1008	0.7	21
	1646	8.3	253
	2254	2.7	82
3 Sa	0433	6.9	210
	1043	1.5	46
	1723	8.4	256
	2352	2.5	76
4 Su ◑	0533	6.2	189
	1121	2.3	70
	1804	8.5	259
5 M	0056	2.2	67
	0649	5.8	177
	1208	3.1	94
	1852	8.6	262
6 Tu	0203	1.6	49
	0817	5.8	177
	1309	3.7	113
	1945	8.9	271
7 W	0306	0.9	27
	0937	6.1	186
	1418	4.1	125
	2041	9.3	283
8 Th	0402	0.0	0
	1040	6.7	204
	1527	4.1	125
	2137	9.9	302
9 F	0452	−0.9	−27
	1130	7.4	226
	1627	3.8	116
	2230	10.5	320
10 Sa	0537	−1.8	−55
	1214	8.0	244
	1721	3.3	101
	2321	10.9	332
11 Su ●	0621	−2.4	−73
	1255	8.6	262
	1812	2.7	82
12 M	0011	11.2	341
	0704	−2.8	−85
	1335	9.1	277
	1902	2.1	64
13 Tu	0100	11.2	341
	0745	−2.8	−85
	1415	9.6	293
	1953	1.6	49
14 W	0149	10.9	332
	0827	−2.5	−76
	1455	9.9	302
	2045	1.2	37
15 Th	0240	10.2	311
	0908	−1.7	−52
	1537	10.1	308
	2140	0.9	27

	Time	Height	
	h m	ft	cm
16 F	0334	9.2	280
	0951	−0.7	−21
	1620	10.2	311
	2239	0.8	24
17 Sa	0434	8.1	247
	1035	0.6	18
	1707	10.1	308
	2344	0.7	21
18 Su ◐	0543	7.1	216
	1125	1.8	55
	1759	9.9	302
19 M	0056	0.7	21
	0707	6.5	198
	1223	2.9	88
	1857	9.7	296
20 Tu	0211	0.4	12
	0840	6.4	195
	1335	3.8	116
	2000	9.5	290
21 W	0321	0.1	3
	1002	6.7	204
	1453	4.1	125
	2104	9.5	290
22 Th	0420	−0.4	−12
	1103	7.2	219
	1602	4.0	122
	2202	9.6	293
23 F	0510	−0.7	−21
	1149	7.7	235
	1658	3.7	113
	2253	9.8	299
24 Sa	0552	−1.0	−30
	1227	8.0	244
	1744	3.3	101
	2337	9.9	302
25 Su ○	0628	−1.2	−37
	1259	8.3	253
	1824	2.9	88
26 M	0016	9.9	302
	0701	−1.2	−37
	1329	8.6	262
	1901	2.5	76
27 Tu	0053	9.8	299
	0732	−1.1	−34
	1358	8.7	265
	1937	2.2	67
28 W	0129	9.5	290
	0801	−0.8	−24
	1426	8.9	271
	2012	2.0	61
29 Th	0204	9.1	277
	0829	−0.3	−9
	1453	8.9	271
	2049	1.9	58
30 F	0240	8.5	259
	0857	0.3	9
	1521	9.0	274
	2127	1.8	55
31 Sa	0318	7.9	241
	0924	1.1	34
	1550	8.9	271
	2210	1.8	55

August

	Time	Height	
	h m	ft	cm
1 Su	0401	7.2	219
	0954	1.9	58
	1623	8.9	271
	2259	1.9	58
2 M ◑	0454	6.5	198
	1028	2.8	85
	1701	8.8	268
3 Tu	0000	1.8	55
	0605	6.0	183
	1111	3.6	110
	1751	8.8	268
4 W	0113	1.6	49
	0739	5.8	177
	1215	4.2	128
	1854	8.9	271
5 Th	0229	1.0	30
	0913	6.1	186
	1342	4.5	137
	2006	9.2	280
6 F	0334	0.2	6
	1018	6.8	207
	1506	4.2	128
	2115	9.7	296
7 Sa	0429	−0.7	−21
	1106	7.6	232
	1613	3.6	110
	2216	10.4	317
8 Su	0516	−1.6	−49
	1147	8.4	256
	1710	2.7	82
	2310	10.9	332
9 M ●	0559	−2.2	−67
	1226	9.2	280
	1801	1.7	52
10 Tu	0001	11.3	344
	0640	−2.4	−73
	1304	9.9	302
	1850	0.8	24
11 W	0051	11.2	341
	0721	−2.3	−70
	1341	10.5	320
	1938	0.1	3
12 Th	0140	10.9	332
	0800	−1.7	−52
	1420	10.8	329
	2027	−0.3	−9
13 F	0230	10.2	311
	0840	−0.8	−24
	1459	10.9	332
	2118	−0.4	−12
14 Sa	0323	9.2	280
	0921	0.4	12
	1541	10.8	329
	2213	−0.2	−6
15 Su	0420	8.2	250
	1004	1.6	49
	1626	10.3	314
	2314	0.2	6

	Time	Height	
	h m	ft	cm
16 M ◐	0528	7.2	219
	1053	2.8	85
	1718	9.8	299
17 Tu	0024	0.6	18
	0652	6.6	201
	1155	3.9	119
	1821	9.2	280
18 W	0144	0.8	24
	0830	6.5	198
	1320	4.5	137
	1936	8.9	271
19 Th	0301	0.7	21
	0951	6.9	210
	1449	4.5	137
	2051	8.8	268
20 F	0403	0.4	12
	1046	7.4	226
	1559	4.0	122
	2154	9.0	274
21 Sa	0451	0.0	0
	1126	7.9	241
	1650	3.4	104
	2244	9.3	283
22 Su	0530	−0.3	−9
	1158	8.3	253
	1731	2.8	85
	2326	9.5	290
23 M	0603	−0.4	−12
	1226	8.7	265
	1807	2.2	67
24 Tu ○	0003	9.6	293
	0632	−0.4	−12
	1251	9.0	274
	1840	1.7	52
25 W	0038	9.6	293
	0700	−0.2	−6
	1316	9.3	283
	1913	1.3	40
26 Th	0112	9.4	287
	0726	0.1	3
	1341	9.5	290
	1945	1.0	30
27 F	0146	9.1	277
	0753	0.6	18
	1406	9.6	293
	2018	0.9	27
28 Sa	0221	8.7	265
	0819	1.2	37
	1432	9.6	293
	2053	0.9	27
29 Su	0258	8.2	250
	0846	1.9	58
	1459	9.5	290
	2132	1.0	30
30 M	0339	7.6	232
	0915	2.7	82
	1531	9.4	287
	2218	1.2	37
31 Tu	0430	6.9	210
	0949	3.4	104
	1611	9.2	280
	2316	1.4	43

September

	Time	Height	
	h m	ft	cm
1 W ◑	0539	6.3	192
	1035	4.1	125
	1704	8.9	271
2 Th	0031	1.5	46
	0715	6.2	189
	1149	4.7	143
	1817	8.8	268
3 F	0153	1.1	34
	0847	6.5	198
	1331	4.7	143
	1943	8.9	271
4 Sa	0304	0.4	12
	0949	7.3	223
	1459	4.0	122
	2100	9.4	287
5 Su	0401	−0.3	−9
	1034	8.2	250
	1604	2.9	88
	2205	10.1	308
6 M	0448	−1.0	−30
	1114	9.2	280
	1658	1.7	52
	2301	10.6	323
7 Tu	0532	−1.3	−40
	1151	10.1	308
	1747	0.4	12
	2352	11.0	335
8 W ●	0612	−1.3	−40
	1228	10.9	332
	1834	−0.6	−18
9 Th	0042	11.0	335
	0652	−1.0	−30
	1305	11.4	347
	1920	−1.2	−37
10 F	0131	10.7	326
	0731	−0.3	−9
	1343	11.6	354
	2007	−1.5	−46
11 Sa	0220	10.1	308
	0811	0.6	18
	1421	11.5	351
	2055	−1.3	−40
12 Su	0311	9.3	283
	0852	1.7	52
	1502	11.0	335
	2146	−0.7	−21
13 M	0407	8.4	256
	0936	2.8	85
	1547	10.3	314
	2243	0.1	3
14 Tu ◐	0512	7.5	229
	1028	3.8	116
	1640	9.5	290
	2350	0.8	24
15 W	0634	7.0	213
	1137	4.5	137
	1747	8.7	265

	Time	Height	
	h m	ft	cm
16 Th	0110	1.3	40
	0808	6.9	210
	1313	4.8	146
	1911	8.2	250
17 F	0229	1.4	43
	0922	7.3	223
	1444	4.5	137
	2034	8.2	250
18 Sa	0331	1.2	37
	1012	7.8	238
	1548	3.8	116
	2139	8.5	259
19 Su	0418	0.9	27
	1048	8.3	253
	1634	2.9	88
	2228	8.8	268
20 M	0456	0.8	24
	1117	8.7	265
	1712	2.2	67
	2310	9.0	274
21 Tu	0527	0.7	21
	1143	9.2	280
	1745	1.4	43
	2347	9.2	280
22 W	0556	0.8	24
	1207	9.6	293
	1816	0.8	24
23 Th ○	0022	9.3	283
	0624	1.0	30
	1232	9.9	302
	1847	0.4	12
24 F	0056	9.3	283
	0651	1.3	40
	1256	10.1	308
	1919	0.1	3
25 Sa	0130	9.1	277
	0718	1.8	55
	1322	10.2	311
	1951	0.0	0
26 Su	0206	8.9	271
	0746	2.4	73
	1349	10.2	311
	2026	0.0	0
27 M	0244	8.4	256
	0815	3.0	91
	1419	10.1	308
	2105	0.3	9
28 Tu	0327	7.9	241
	0847	3.6	110
	1453	9.8	299
	2151	0.6	18
29 W	0420	7.4	226
	0927	4.1	125
	1536	9.5	290
	2248	0.9	27
30 Th ◑	0529	6.9	210
	1023	4.6	140
	1634	9.0	274
	2359	1.2	37

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sitka, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0655	6.9	210
	1150	4.9	149
	1754	8.6	262
2 Sa	0117	1.1	34
	0813	7.4	226
	1332	4.5	137
	1927	8.6	262
3 Su	0228	0.8	24
	0910	8.2	250
	1453	3.4	104
	2048	9.0	274
4 M	0326	0.4	12
	0956	9.1	277
	1554	2.0	61
	2155	9.5	290
5 Tu	0415	0.1	3
	1036	10.1	308
	1646	0.6	18
	2252	10.1	308
6 W	0500	0.1	3
	1114	11.0	335
	1733	−0.7	−21
	2344	10.4	317
7 Th ●	0542	0.3	9
	1152	11.7	357
	1818	−1.6	−49
8 F	0034	10.5	320
	0623	0.7	21
	1230	12.1	369
	1903	−2.0	−61
9 Sa	0122	10.3	314
	0704	1.4	43
	1308	12.1	369
	1947	−2.0	−61
10 Su	0210	9.9	302
	0745	2.1	64
	1348	11.8	360
	2033	−1.6	−49
11 M	0300	9.3	283
	0828	2.9	88
	1429	11.1	338
	2121	−0.9	−27
12 Tu	0353	8.6	262
	0914	3.7	113
	1514	10.2	311
	2213	0.0	0
13 W	0454	8.0	244
	1009	4.4	134
	1605	9.3	283
	2314	0.9	27
14 Th ◐	0607	7.5	229
	1121	4.9	149
	1711	8.4	256
15 F	0024	1.6	49
	0726	7.5	229
	1255	4.9	149
	1835	7.7	235

	Time	Height	
	h m	ft	cm
16 Sa	0137	1.9	58
	0833	7.8	238
	1421	4.3	131
	2001	7.6	232
17 Su	0240	2.0	61
	0921	8.2	250
	1523	3.5	107
	2111	7.8	238
18 M	0329	2.0	61
	0957	8.7	265
	1608	2.6	79
	2205	8.1	247
19 Tu	0409	2.0	61
	1027	9.2	280
	1646	1.7	52
	2250	8.4	256
20 W	0444	2.1	64
	1055	9.7	296
	1719	0.9	27
	2329	8.7	265
21 Th	0516	2.2	67
	1122	10.1	308
	1751	0.3	9
22 F ○	0006	9.0	274
	0546	2.4	73
	1149	10.5	320
	1823	−0.2	−6
23 Sa	0042	9.1	277
	0617	2.7	82
	1216	10.7	326
	1856	−0.6	−18
24 Su	0119	9.1	277
	0648	3.0	91
	1246	10.8	329
	1930	−0.7	−21
25 M	0156	9.0	274
	0720	3.4	104
	1317	10.8	329
	2007	−0.6	−18
26 Tu	0237	8.7	265
	0754	3.8	116
	1352	10.6	323
	2048	−0.4	−12
27 W	0322	8.3	253
	0834	4.2	128
	1431	10.3	314
	2134	−0.1	−3
28 Th	0415	8.0	244
	0923	4.5	137
	1519	9.7	296
	2228	0.4	12
29 F	0518	7.9	241
	1029	4.7	143
	1620	9.1	277
	2331	0.8	24
30 Sa ◑	0626	8.0	244
	1156	4.6	140
	1740	8.4	256
31 Su	0039	1.1	34
	0731	8.5	259
	1326	3.8	116
	1911	8.2	250

November

	Time	Height	
	h m	ft	cm
1 M	0145	1.3	40
	0826	9.2	280
	1441	2.6	79
	2035	8.4	256
2 Tu	0246	1.4	43
	0914	10.1	308
	1541	1.2	37
	2146	8.8	268
3 W	0339	1.6	49
	0958	10.9	332
	1632	−0.1	−3
	2246	9.3	283
4 Th	0428	1.8	55
	1039	11.6	354
	1719	−1.2	−37
	2339	9.7	296
5 F ●	0514	2.1	64
	1120	12.1	369
	1804	−1.9	−58
6 Sa	0028	9.9	302
	0559	2.4	73
	1201	12.3	375
	1848	−2.2	−67
7 Su	0116	9.9	302
	0642	2.8	85
	1241	12.1	369
	1931	−2.1	−64
8 M	0202	9.7	296
	0726	3.2	98
	1322	11.7	357
	2014	−1.6	−49
9 Tu	0249	9.4	287
	0810	3.7	113
	1404	11.0	335
	2059	−0.9	−27
10 W	0338	8.9	271
	0857	4.1	125
	1448	10.2	311
	2146	−0.1	−3
11 Th	0430	8.5	259
	0951	4.5	137
	1536	9.2	280
	2235	0.8	24
12 F	0527	8.2	250
	1056	4.7	143
	1633	8.3	253
	2329	1.5	46
13 Sa ◐	0627	8.1	247
	1215	4.6	140
	1744	7.5	229
14 Su	0028	2.2	67
	0724	8.2	250
	1336	4.2	128
	1908	7.1	216
15 M	0127	2.7	82
	0813	8.5	259
	1442	3.4	104
	2028	7.0	213

	Time	Height	
	h m	ft	cm
16 Tu	0221	3.0	91
	0855	9.0	274
	1533	2.5	76
	2133	7.3	223
17 W	0310	3.3	101
	0931	9.5	290
	1614	1.6	49
	2226	7.7	235
18 Th	0353	3.4	104
	1004	9.9	302
	1651	0.8	24
	2312	8.2	250
19 F	0433	3.6	110
	1037	10.4	317
	1727	0.0	0
	2352	8.6	262
20 Sa	0510	3.7	113
	1110	10.8	329
	1802	−0.5	−15
21 Su ○	0031	8.9	271
	0547	3.8	116
	1144	11.1	338
	1838	−0.9	−27
22 M	0110	9.1	277
	0624	3.9	119
	1220	11.3	344
	1915	−1.2	−37
23 Tu	0149	9.1	277
	0703	4.0	122
	1257	11.3	344
	1955	−1.3	−40
24 W	0231	9.1	277
	0745	4.0	122
	1338	11.1	338
	2036	−1.1	−34
25 Th	0315	9.0	274
	0831	4.1	125
	1422	10.7	326
	2121	−0.8	−24
26 F	0403	9.0	274
	0926	4.1	125
	1513	10.0	305
	2209	−0.2	−6
27 Sa	0455	9.0	274
	1031	4.0	122
	1614	9.1	277
	2301	0.5	15
28 Su ◑	0549	9.2	280
	1148	3.7	113
	1728	8.3	253
	2358	1.2	37
29 M	0646	9.6	293
	1308	2.9	88
	1855	7.8	238
30 Tu	0100	2.0	61
	0741	10.1	308
	1422	1.9	58
	2022	7.7	235

December

	Time	Height	
	h m	ft	cm
1 W	0203	2.6	79
	0833	10.7	326
	1525	0.7	21
	2139	8.0	244
2 Th	0304	3.1	94
	0923	11.2	341
	1619	−0.4	−12
	2243	8.5	259
3 F	0401	3.4	104
	1010	11.7	357
	1708	−1.2	−37
	2338	9.0	274
4 Sa	0453	3.6	110
	1056	11.9	363
	1754	−1.7	−52
5 Su ●	0027	9.4	287
	0542	3.6	110
	1140	12.0	366
	1837	−1.9	−58
6 M	0111	9.6	293
	0629	3.7	113
	1223	11.8	360
	1918	−1.7	−52
7 Tu	0154	9.6	293
	0713	3.8	116
	1305	11.5	351
	1959	−1.4	−43
8 W	0235	9.5	290
	0757	3.9	119
	1346	10.9	332
	2038	−0.9	−27
9 Th	0316	9.3	283
	0842	4.0	122
	1428	10.2	311
	2117	−0.2	−6
10 F	0358	9.0	274
	0929	4.1	125
	1511	9.3	283
	2156	0.6	18
11 Sa	0440	8.9	271
	1022	4.2	128
	1558	8.4	256
	2236	1.4	43
12 Su	0523	8.8	268
	1123	4.1	125
	1653	7.5	229
	2317	2.2	67
13 M ◐	0608	8.8	268
	1232	3.8	116
	1803	6.9	210
14 Tu	0004	3.0	91
	0654	8.9	271
	1342	3.3	101
	1928	6.5	198
15 W	0057	3.7	113
	0741	9.1	277
	1445	2.6	79
	2052	6.6	201

	Time	Height	
	h m	ft	cm
16 Th	0156	4.3	131
	0828	9.5	290
	1537	1.8	55
	2201	7.0	213
17 F	0256	4.6	140
	0913	9.9	302
	1623	0.9	27
	2255	7.6	232
18 Sa	0350	4.7	143
	0957	10.4	317
	1704	0.1	3
	2340	8.2	250
19 Su	0439	4.6	140
	1039	10.9	332
	1744	−0.6	−18
20 M ○	0020	8.6	262
	0525	4.4	134
	1121	11.3	344
	1823	−1.2	−37
21 Tu	0059	9.1	277
	0609	4.1	125
	1204	11.6	354
	1902	−1.6	−49
22 W	0137	9.4	287
	0653	3.8	116
	1247	11.7	357
	1942	−1.8	−55
23 Th	0217	9.7	296
	0739	3.5	107
	1331	11.5	351
	2022	−1.7	−52
24 F	0257	9.9	302
	0828	3.2	98
	1419	11.0	335
	2103	−1.2	−37
25 Sa	0338	10.0	305
	0922	3.0	91
	1510	10.2	311
	2145	−0.5	−15
26 Su	0422	10.2	311
	1021	2.7	82
	1607	9.2	280
	2230	0.5	15
27 M ◑	0509	10.3	314
	1128	2.4	73
	1715	8.2	250
	2319	1.7	52
28 Tu	0600	10.4	317
	1242	2.0	61
	1837	7.4	226
29 W	0016	2.8	85
	0656	10.6	323
	1358	1.4	43
	2010	7.2	219
30 Th	0122	3.7	113
	0755	10.7	326
	1507	0.6	18
	2136	7.5	229
31 F	0234	4.3	131
	0854	10.9	332
	1608	−0.1	−3
	2245	8.0	244

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Cordova, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0151	12.3	375
	0709	2.9	88
	1314	15.7	479
	1953	−3.2	−98
2 Sa	0233	12.9	393
	0758	2.3	70
	1403	15.5	472
	2037	−3.1	−94
3 Su	0315	13.2	402
	0848	2.0	61
	1451	14.8	451
	2120	−2.5	−76
4 M	0357	13.4	408
	0940	1.8	55
	1541	13.7	418
	2204	−1.5	−46
5 Tu	0441	13.4	408
	1035	1.8	55
	1635	12.2	372
	2249	−0.1	−3
6 W	0529	13.2	402
	1132	2.0	61
	1741	10.7	326
	2335	1.4	43
7 Th ◑	0623	12.9	393
	1236	2.3	70
	1902	9.5	290
8 F	0026	3.0	91
	0721	12.7	387
	1350	2.3	70
	2027	9.0	274
9 Sa	0125	4.4	134
	0821	12.6	384
	1516	2.0	61
	2149	9.0	274
10 Su	0240	5.2	158
	0919	12.7	387
	1628	1.3	40
	2303	9.5	290
11 M	0358	5.5	168
	1014	12.8	390
	1720	0.5	15
12 Tu	0002	10.1	308
	0500	5.2	158
	1105	13.0	396
	1802	−0.1	−3
13 W	0047	10.6	323
	0548	4.7	143
	1151	13.2	402
	1838	−0.5	−15
14 Th ●	0123	11.1	338
	0629	4.2	128
	1232	13.4	408
	1911	−0.8	−24
15 F	0153	11.4	347
	0706	3.8	116
	1309	13.4	408
	1943	−0.9	−27

	Time	Height	
	h m	ft	cm
16 Sa	0221	11.7	357
	0742	3.4	104
	1343	13.3	405
	2014	−0.9	−27
17 Su	0248	11.9	363
	0819	3.1	94
	1415	13.0	396
	2045	−0.6	−18
18 M	0314	12.0	366
	0855	2.9	88
	1447	12.5	381
	2116	−0.1	−3
19 Tu	0340	12.1	369
	0933	2.9	88
	1519	11.8	360
	2147	0.7	21
20 W	0407	12.0	366
	1013	2.9	88
	1554	10.9	332
	2218	1.6	49
21 Th	0437	12.0	366
	1056	2.9	88
	1635	9.9	302
	2251	2.6	79
22 F	0512	11.9	363
	1146	3.0	91
	1735	8.9	271
	2329	3.6	110
23 Sa ◐	0601	11.8	360
	1245	3.0	91
	1909	8.1	247
24 Su	0017	4.7	143
	0705	11.9	363
	1400	2.7	82
	2046	8.1	247
25 M	0126	5.5	168
	0815	12.2	372
	1523	1.9	58
	2206	8.7	265
26 Tu	0256	5.7	174
	0922	12.9	393
	1632	0.5	15
	2311	9.6	293
27 W	0416	5.1	155
	1024	13.7	418
	1725	−0.9	−27
28 Th	0004	10.7	326
	0518	4.0	122
	1122	14.5	442
	1810	−2.1	−64
29 F ○	0049	11.8	360
	0610	2.8	85
	1217	15.1	460
	1853	−2.9	−88
30 Sa	0130	12.8	390
	0659	1.6	49
	1308	15.4	469
	1934	−3.2	−98
31 Su	0209	13.6	415
	0746	0.7	21
	1356	15.3	466
	2015	−3.0	−91

February

	Time	Height	
	h m	ft	cm
1 M	0247	14.2	433
	0834	0.2	6
	1443	14.6	445
	2056	−2.3	−70
2 Tu	0324	14.4	439
	0923	0.0	0
	1530	13.5	411
	2137	−1.1	−34
3 W	0403	14.2	433
	1012	0.2	6
	1619	12.0	366
	2218	0.4	12
4 Th	0443	13.7	418
	1105	0.8	24
	1717	10.5	320
	2301	2.0	61
5 F ◑	0530	13.0	396
	1202	1.5	46
	1832	9.2	280
	2349	3.6	110
6 Sa	0628	12.2	372
	1310	2.2	67
	2003	8.5	259
7 Su	0045	5.0	152
	0739	11.7	357
	1440	2.5	76
	2135	8.5	259
8 M	0204	5.9	180
	0852	11.5	351
	1611	2.0	61
	2253	9.1	277
9 Tu	0343	5.9	180
	0957	11.6	354
	1708	1.2	37
	2349	9.7	296
10 W	0453	5.3	162
	1053	12.0	366
	1748	0.5	15
11 Th	0028	10.4	317
	0539	4.4	134
	1140	12.4	378
	1821	0.0	0
12 F	0058	11.0	335
	0617	3.6	110
	1220	12.7	387
	1850	−0.5	−15
13 Sa ●	0124	11.5	351
	0651	2.8	85
	1256	12.9	393
	1919	−0.7	−21
14 Su	0148	12.0	366
	0724	2.2	67
	1329	12.9	393
	1947	−0.6	−18
15 M	0212	12.4	378
	0757	1.7	52
	1401	12.7	387
	2015	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Tu	0236	12.6	384
	0831	1.4	43
	1431	12.3	375
	2044	0.2	6
17 W	0259	12.8	390
	0906	1.2	37
	1502	11.8	360
	2113	0.9	27
18 Th	0323	12.8	390
	0944	1.3	40
	1535	11.0	335
	2144	1.8	55
19 F	0349	12.7	387
	1024	1.4	43
	1613	10.0	305
	2216	2.8	85
20 Sa	0420	12.5	381
	1111	1.8	55
	1705	9.0	274
	2254	3.8	116
21 Su ◐	0503	12.1	369
	1208	2.1	64
	1835	8.1	247
	2344	4.8	146
22 M	0610	11.7	357
	1321	2.2	67
	2025	8.0	244
23 Tu	0056	5.6	171
	0742	11.7	357
	1448	1.7	52
	2148	8.7	265
24 W	0235	5.6	171
	0904	12.2	372
	1607	0.6	18
	2250	9.7	296
25 Th	0403	4.6	140
	1013	13.0	396
	1703	−0.6	−18
	2339	11.0	335
26 F	0507	3.1	94
	1113	13.8	421
	1749	−1.7	−52
27 Sa	0021	12.2	372
	0559	1.5	46
	1208	14.4	439
	1830	−2.3	−70
28 Su ○	0100	13.3	405
	0646	0.0	0
	1259	14.7	448
	1910	−2.5	−76

March

	Time	Height	
	h m	ft	cm
1 M	0138	14.2	433
	0731	−1.0	−30
	1346	14.5	442
	1950	−2.1	−64
2 Tu	0214	14.7	448
	0816	−1.5	−46
	1432	13.9	424
	2029	−1.3	−40
3 W	0249	14.8	451
	0902	−1.5	−46
	1517	12.9	393
	2109	−0.1	−3
4 Th	0324	14.5	442
	0948	−1.0	−30
	1603	11.7	357
	2149	1.3	40
5 F	0401	13.7	418
	1036	−0.1	−3
	1655	10.3	314
	2232	2.8	85
6 Sa	0442	12.7	387
	1129	1.0	30
	1804	9.0	274
	2318	4.2	128
7 Su ◑	0535	11.6	354
	1230	2.0	61
	1936	8.3	253
8 M	0015	5.3	162
	0655	10.7	326
	1352	2.7	82
	2110	8.4	256
9 Tu	0135	6.0	183
	0823	10.3	314
	1534	2.5	76
	2222	8.9	271
10 W	0327	5.8	177
	0935	10.5	320
	1639	1.8	55
	2312	9.6	293
11 Th	0440	4.8	146
	1032	11.0	335
	1719	1.2	37
	2347	10.3	314
12 F	0523	3.7	113
	1120	11.4	347
	1751	0.6	18
13 Sa	0015	11.0	335
	0558	2.6	79
	1200	11.8	360
	1819	0.2	6
14 Su	0041	11.6	354
	0630	1.7	52
	1237	12.1	369
	1847	0.1	3
15 M ●	0106	12.2	372
	0701	0.8	24
	1311	12.3	375
	1914	0.1	3

	Time	Height	
	h m	ft	cm
16 Tu	0131	12.7	387
	0734	0.2	6
	1345	12.2	372
	1943	0.4	12
17 W	0155	13.1	399
	0807	−0.2	−6
	1417	12.0	366
	2013	0.9	27
18 Th	0220	13.3	405
	0841	−0.3	−9
	1450	11.5	351
	2043	1.6	49
19 F	0245	13.3	405
	0919	−0.2	−6
	1524	10.8	329
	2116	2.4	73
20 Sa	0313	13.1	399
	1001	0.1	3
	1605	9.9	302
	2153	3.2	98
21 Su	0346	12.7	387
	1048	0.6	18
	1659	9.0	274
	2236	4.1	125
22 M	0431	12.1	369
	1145	1.1	34
	1829	8.3	253
	2333	4.9	149
23 Tu ◐	0541	11.4	347
	1254	1.4	43
	2009	8.4	256
24 W	0051	5.3	162
	0724	11.0	335
	1415	1.3	40
	2122	9.2	280
25 Th	0226	4.9	149
	0852	11.4	347
	1533	0.7	21
	2218	10.3	314
26 F	0352	3.6	110
	1001	12.0	366
	1633	−0.2	−6
	2304	11.5	351
27 Sa	0455	1.8	55
	1102	12.7	387
	1720	−0.8	−24
	2346	12.7	387
28 Su	0545	0.1	3
	1157	13.2	402
	1803	−1.1	−34
29 M ○	0025	13.8	421
	0630	−1.3	−40
	1248	13.4	408
	1843	−1.1	−34
30 Tu	0103	14.5	442
	0714	−2.3	−70
	1336	13.3	405
	1923	−0.6	−18
31 W	0139	14.8	451
	0757	−2.6	−79
	1421	12.9	393
	2002	0.2	6

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Cordova, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0215	14.7	448
	0840	−2.4	−73
	1504	12.2	372
	2042	1.2	37
2 F	0250	14.2	433
	0924	−1.7	−52
	1549	11.2	341
	2124	2.3	70
3 Sa	0325	13.3	405
	1010	−0.7	−21
	1639	10.1	308
	2207	3.4	104
4 Su	0404	12.2	372
	1059	0.5	15
	1741	9.1	277
	2255	4.4	134
5 M	0452	11.0	335
	1154	1.6	49
	1903	8.5	259
	2352	5.3	162
6 Tu ◑	0607	10.0	305
	1301	2.4	73
	2025	8.5	259
7 W	0107	5.7	174
	0743	9.5	290
	1424	2.7	82
	2128	9.0	274
8 Th	0249	5.3	162
	0859	9.5	290
	1541	2.4	73
	2214	9.6	293
9 F	0409	4.3	131
	0959	9.9	302
	1630	2.0	61
	2249	10.3	314
10 Sa	0455	3.0	91
	1048	10.3	314
	1707	1.6	49
	2321	11.0	335
11 Su	0531	1.8	55
	1133	10.7	326
	1738	1.3	40
	2350	11.8	360
12 M	0603	0.7	21
	1213	11.1	338
	1809	1.2	37
13 Tu	0019	12.4	378
	0636	−0.2	−6
	1252	11.4	347
	1839	1.3	40
14 W ●	0047	13.0	396
	0709	−0.9	−27
	1329	11.5	351
	1911	1.5	46
15 Th	0116	13.4	408
	0744	−1.4	−43
	1405	11.4	347
	1944	1.9	58

	Time	Height	
	h m	ft	cm
16 F	0146	13.6	415
	0821	−1.5	−46
	1443	11.1	338
	2019	2.4	73
17 Sa	0216	13.6	415
	0901	−1.4	−43
	1522	10.6	323
	2058	2.9	88
18 Su	0250	13.3	405
	0945	−1.1	−34
	1608	9.9	302
	2141	3.5	107
19 M	0330	12.8	390
	1034	−0.6	−18
	1708	9.3	283
	2232	4.1	125
20 Tu	0420	11.9	363
	1129	0.0	0
	1827	9.0	274
	2335	4.5	137
21 W ◐	0535	11.0	335
	1231	0.5	15
	1945	9.3	283
22 Th	0050	4.5	137
	0714	10.5	320
	1341	0.8	24
	2048	10.1	308
23 F	0217	3.8	116
	0838	10.5	320
	1452	0.9	27
	2140	11.1	338
24 Sa	0338	2.4	73
	0948	10.9	332
	1555	0.7	21
	2225	12.2	372
25 Su	0440	0.7	21
	1050	11.3	344
	1647	0.5	15
	2308	13.2	402
26 M	0530	−0.9	−27
	1146	11.7	357
	1733	0.5	15
	2349	13.9	424
27 Tu	0615	−2.1	−64
	1239	12.0	366
	1816	0.7	21
28 W ○	0029	14.3	436
	0657	−2.7	−82
	1327	12.0	366
	1857	1.1	34
29 Th	0108	14.4	439
	0739	−2.9	−88
	1412	11.8	360
	1938	1.6	49
30 F	0145	14.2	433
	0821	−2.6	−79
	1455	11.4	347
	2020	2.3	70

May

	Time	Height	
	h m	ft	cm
1 Sa	0222	13.6	415
	0904	−1.9	−58
	1538	10.8	329
	2102	3.0	91
2 Su	0258	12.8	390
	0947	−1.0	−30
	1625	10.1	308
	2147	3.7	113
3 M	0337	11.8	360
	1033	−0.1	−3
	1718	9.4	287
	2236	4.3	131
4 Tu	0422	10.7	326
	1121	0.9	27
	1822	9.0	274
	2330	4.8	146
5 W ◑	0523	9.7	296
	1213	1.7	52
	1927	9.0	274
6 Th	0035	5.0	152
	0649	8.9	271
	1312	2.3	70
	2023	9.3	283
7 F	0154	4.7	143
	0809	8.7	265
	1415	2.7	82
	2108	9.8	299
8 Sa	0315	3.8	116
	0914	8.8	268
	1517	2.8	85
	2147	10.5	320
9 Su	0413	2.6	79
	1010	9.2	280
	1607	2.7	82
	2222	11.2	341
10 M	0456	1.4	43
	1100	9.6	293
	1649	2.6	79
	2257	11.9	363
11 Tu	0533	0.2	6
	1148	10.0	305
	1728	2.6	79
	2331	12.6	384
12 W	0609	−0.8	−24
	1232	10.5	320
	1805	2.5	76
13 Th ●	0007	13.1	399
	0646	−1.6	−49
	1315	10.7	326
	1842	2.6	79
14 F	0043	13.6	415
	0724	−2.1	−64
	1357	10.9	332
	1921	2.7	82
15 Sa	0120	13.8	421
	0804	−2.4	−73
	1439	10.9	332
	2001	2.8	85

	Time	Height	
	h m	ft	cm
16 Su	0159	13.8	421
	0847	−2.4	−73
	1523	10.7	326
	2046	3.0	91
17 M	0240	13.5	411
	0933	−2.2	−67
	1610	10.4	317
	2135	3.3	101
18 Tu	0326	12.8	390
	1021	−1.7	−52
	1705	10.2	311
	2231	3.4	104
19 W	0421	11.9	363
	1113	−1.0	−30
	1808	10.2	311
	2333	3.5	107
20 Th ◐	0533	10.8	329
	1207	−0.2	−6
	1911	10.6	323
21 F	0042	3.2	98
	0701	10.0	305
	1306	0.6	18
	2008	11.2	341
22 Sa	0200	2.5	76
	0822	9.7	296
	1409	1.3	40
	2100	11.9	363
23 Su	0318	1.4	43
	0933	9.8	299
	1514	1.8	55
	2148	12.6	384
24 M	0422	0.0	0
	1038	10.1	308
	1613	2.1	64
	2233	13.2	402
25 Tu	0515	−1.1	−34
	1138	10.4	317
	1706	2.2	67
	2318	13.6	415
26 W	0600	−2.0	−61
	1233	10.7	326
	1753	2.4	73
27 Th ○	0001	13.8	421
	0643	−2.5	−76
	1322	11.0	335
	1837	2.5	76
28 F	0043	13.8	421
	0724	−2.5	−76
	1406	11.0	335
	1919	2.7	82
29 Sa	0123	13.5	411
	0805	−2.3	−70
	1447	10.9	332
	2002	3.0	91
30 Su	0202	13.1	399
	0845	−1.9	−58
	1526	10.6	323
	2044	3.3	101
31 M	0239	12.5	381
	0926	−1.3	−40
	1606	10.3	314
	2129	3.6	110

June

	Time	Height	
	h m	ft	cm
1 Tu	0317	11.7	357
	1007	−0.5	−15
	1648	9.9	302
	2215	3.8	116
2 W	0358	10.8	329
	1047	0.2	6
	1733	9.7	296
	2304	4.0	122
3 Th	0446	9.8	299
	1129	1.0	30
	1823	9.7	296
	2358	4.1	125
4 F ◑	0551	8.9	271
	1213	1.9	58
	1913	9.8	299
5 Sa	0059	3.9	119
	0709	8.3	253
	1301	2.6	79
	2001	10.2	311
6 Su	0208	3.4	104
	0823	8.1	247
	1356	3.3	101
	2044	10.7	326
7 M	0318	2.5	76
	0928	8.3	253
	1457	3.7	113
	2126	11.3	344
8 Tu	0416	1.4	43
	1027	8.7	265
	1555	3.8	116
	2208	12.0	366
9 W	0502	0.2	6
	1123	9.2	280
	1647	3.7	113
	2250	12.7	387
10 Th	0545	−0.9	−27
	1215	9.8	299
	1734	3.5	107
	2334	13.3	405
11 F	0626	−1.8	−55
	1303	10.3	314
	1818	3.2	98
12 Sa ●	0019	13.8	421
	0707	−2.6	−79
	1348	10.7	326
	1903	2.9	88
13 Su	0104	14.1	430
	0750	−3.0	−91
	1431	11.1	338
	1948	2.6	79
14 M	0150	14.1	430
	0834	−3.2	−98
	1514	11.3	344
	2037	2.4	73
15 Tu	0236	13.8	421
	0918	−2.9	−88
	1558	11.4	347
	2128	2.3	70

	Time	Height	
	h m	ft	cm
16 W	0325	13.1	399
	1004	−2.4	−73
	1644	11.5	351
	2223	2.2	67
17 Th	0420	12.0	366
	1051	−1.4	−43
	1735	11.6	354
	2322	2.1	64
18 F ◐	0525	10.7	326
	1139	−0.3	−9
	1830	11.7	357
19 Sa	0025	1.9	58
	0643	9.7	296
	1231	1.0	30
	1927	12.0	366
20 Su	0136	1.6	49
	0804	9.1	277
	1329	2.2	67
	2021	12.3	375
21 M	0254	1.0	30
	0919	8.9	271
	1434	3.1	94
	2114	12.6	384
22 Tu	0405	0.2	6
	1030	9.2	280
	1543	3.6	110
	2205	12.8	390
23 W	0503	−0.7	−21
	1135	9.6	293
	1645	3.7	113
	2255	13.0	396
24 Th	0550	−1.3	−40
	1231	10.0	305
	1737	3.5	107
	2343	13.1	399
25 F	0632	−1.7	−52
	1317	10.4	317
	1823	3.3	101
26 Sa ○	0028	13.1	399
	0712	−1.9	−58
	1357	10.7	326
	1905	3.1	94
27 Su	0110	13.0	396
	0749	−1.9	−58
	1433	10.8	329
	1946	3.0	91
28 M	0148	12.8	390
	0826	−1.7	−52
	1506	10.8	329
	2027	2.9	88
29 Tu	0224	12.4	378
	0901	−1.3	−40
	1537	10.8	329
	2107	2.9	88
30 W	0259	11.8	360
	0937	−0.8	−24
	1609	10.7	326
	2149	3.0	91

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Cordova, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0335	11.0	335
	1011	0.0	0
	1642	10.6	323
	2232	3.0	91
2 F	0414	10.1	308
	1046	0.8	24
	1718	10.5	320
	2318	3.1	94
3 Sa	0502	9.1	277
	1122	1.8	55
	1800	10.5	320
4 Su ◑	0009	3.1	94
	0608	8.3	253
	1202	2.7	82
	1848	10.6	323
5 M	0108	3.0	91
	0730	7.8	238
	1248	3.7	113
	1941	10.9	332
6 Tu	0218	2.5	76
	0848	7.8	238
	1349	4.4	134
	2034	11.3	344
7 W	0331	1.7	52
	0958	8.1	247
	1503	4.8	146
	2127	11.9	363
8 Th	0432	0.5	15
	1102	8.7	265
	1612	4.6	140
	2219	12.6	384
9 F	0523	−0.7	−21
	1158	9.5	290
	1710	4.0	122
	2312	13.4	408
10 Sa	0608	−1.8	−55
	1247	10.3	314
	1800	3.2	98
11 Su ●	0004	14.0	427
	0650	−2.8	−85
	1330	11.1	338
	1848	2.4	73
12 M	0054	14.4	439
	0733	−3.3	−101
	1411	11.8	360
	1936	1.7	52
13 Tu	0143	14.5	442
	0815	−3.4	−104
	1451	12.3	375
	2025	1.1	34
14 W	0230	14.1	430
	0857	−3.1	−94
	1531	12.7	387
	2115	0.7	21
15 Th	0319	13.3	405
	0940	−2.3	−70
	1612	12.8	390
	2208	0.6	18

	Time	Height	
	h m	ft	cm
16 F	0411	12.1	369
	1024	−1.1	−34
	1656	12.8	390
	2302	0.7	21
17 Sa	0511	10.7	326
	1109	0.3	9
	1746	12.6	384
18 Su ◐	0001	0.9	27
	0624	9.5	290
	1158	1.8	55
	1843	12.3	375
19 M	0108	1.2	37
	0747	8.7	265
	1253	3.2	98
	1945	12.1	369
20 Tu	0227	1.2	37
	0909	8.5	259
	1402	4.3	131
	2047	12.0	366
21 W	0349	0.8	24
	1026	8.8	268
	1522	4.7	143
	2147	12.1	369
22 Th	0453	0.2	6
	1132	9.4	287
	1634	4.5	137
	2243	12.3	375
23 F	0541	−0.5	−15
	1223	9.9	302
	1729	4.0	122
	2334	12.5	381
24 Sa	0621	−0.9	−27
	1304	10.4	317
	1813	3.4	104
25 Su ○	0019	12.7	387
	0656	−1.2	−37
	1337	10.8	329
	1852	2.9	88
26 M	0059	12.8	390
	0729	−1.4	−43
	1406	11.1	338
	1929	2.5	76
27 Tu	0134	12.7	387
	0801	−1.3	−40
	1433	11.4	347
	2006	2.1	64
28 W	0208	12.4	378
	0832	−1.0	−30
	1459	11.5	351
	2043	1.9	58
29 Th	0240	11.9	363
	0903	−0.4	−12
	1525	11.6	354
	2120	1.9	58
30 F	0312	11.3	344
	0934	0.3	9
	1551	11.5	351
	2159	1.9	58
31 Sa	0346	10.5	320
	1005	1.2	37
	1619	11.4	347
	2240	2.1	64

August

	Time	Height	
	h m	ft	cm
1 Su	0426	9.6	293
	1038	2.2	67
	1651	11.3	344
	2325	2.3	70
2 M ◑	0518	8.6	262
	1114	3.2	98
	1734	11.1	338
3 Tu	0019	2.5	76
	0640	7.8	238
	1158	4.2	128
	1835	11.0	335
4 W	0127	2.5	76
	0816	7.7	235
	1258	5.0	152
	1947	11.2	341
5 Th	0248	2.0	61
	0937	8.1	247
	1424	5.4	165
	2057	11.7	357
6 F	0404	0.9	27
	1042	8.8	268
	1548	4.9	149
	2159	12.5	381
7 Sa	0500	−0.4	−12
	1136	9.8	299
	1653	3.9	119
	2258	13.4	408
8 Su	0547	−1.6	−49
	1222	10.9	332
	1746	2.6	79
	2352	14.1	430
9 M ●	0629	−2.5	−76
	1303	11.9	363
	1835	1.3	40
10 Tu	0044	14.6	445
	0710	−3.0	−91
	1342	12.9	393
	1922	0.2	6
11 W	0133	14.6	445
	0751	−3.0	−91
	1419	13.6	415
	2009	−0.5	−15
12 Th	0221	14.2	433
	0832	−2.4	−73
	1457	14.0	427
	2057	−0.9	−27
13 F	0308	13.4	408
	0913	−1.4	−43
	1535	14.0	427
	2146	−0.8	−24
14 Sa	0358	12.2	372
	0955	−0.1	−3
	1615	13.7	418
	2238	−0.3	−9
15 Su	0454	10.8	329
	1040	1.4	43
	1701	13.0	396
	2334	0.4	12

	Time	Height	
	h m	ft	cm
16 M ◐	0604	9.5	290
	1128	3.0	91
	1758	12.2	372
17 Tu	0037	1.2	37
	0731	8.7	265
	1224	4.3	131
	1910	11.5	351
18 W	0157	1.8	55
	0900	8.6	262
	1338	5.3	162
	2027	11.3	344
19 Th	0331	1.7	52
	1017	9.0	274
	1514	5.4	165
	2135	11.4	347
20 F	0439	1.1	34
	1116	9.6	293
	1631	4.8	146
	2234	11.7	357
21 Sa	0525	0.4	12
	1200	10.2	311
	1722	3.9	119
	2324	12.0	366
22 Su	0601	−0.1	−3
	1234	10.8	329
	1801	3.0	91
23 M	0006	12.3	375
	0632	−0.4	−12
	1302	11.3	344
	1836	2.2	67
24 Tu ○	0043	12.5	381
	0702	−0.5	−15
	1328	11.7	357
	1909	1.6	49
25 W	0117	12.5	381
	0730	−0.4	−12
	1352	12.1	369
	1942	1.1	34
26 Th	0149	12.4	378
	0759	−0.1	−3
	1416	12.4	378
	2016	0.8	24
27 F	0221	12.0	366
	0828	0.5	15
	1440	12.5	381
	2050	0.8	24
28 Sa	0252	11.5	351
	0857	1.2	37
	1503	12.5	381
	2126	0.9	27
29 Su	0324	10.8	329
	0928	2.1	64
	1528	12.3	375
	2205	1.2	37
30 M	0401	9.9	302
	1001	3.0	91
	1558	12.0	366
	2250	1.6	49
31 Tu	0448	9.0	274
	1038	4.0	122
	1636	11.6	354
	2343	2.0	61

September

	Time	Height	
	h m	ft	cm
1 W ◑	0608	8.2	250
	1125	4.9	149
	1736	11.2	341
2 Th	0049	2.3	70
	0757	8.0	244
	1232	5.6	171
	1910	11.0	335
3 F	0211	2.1	64
	0918	8.6	262
	1404	5.6	171
	2037	11.4	347
4 Sa	0332	1.2	37
	1018	9.5	290
	1534	4.8	146
	2146	12.3	375
5 Su	0433	0.1	3
	1106	10.7	326
	1641	3.2	98
	2246	13.1	399
6 M	0521	−1.0	−30
	1149	11.9	363
	1733	1.6	49
	2341	13.9	424
7 Tu	0603	−1.7	−52
	1228	13.1	399
	1820	0.0	0
8 W ●	0033	14.3	436
	0643	−1.9	−58
	1306	14.1	430
	1905	−1.2	−37
9 Th	0122	14.4	439
	0723	−1.7	−52
	1344	14.7	448
	1950	−1.9	−58
10 F	0209	14.0	427
	0804	−1.0	−30
	1420	15.0	457
	2036	−2.1	−64
11 Sa	0256	13.2	402
	0845	0.1	3
	1457	14.8	451
	2123	−1.7	−52
12 Su	0344	12.1	369
	0927	1.4	43
	1536	14.1	430
	2213	−0.8	−24
13 M	0438	10.9	332
	1012	2.8	85
	1619	13.1	399
	2306	0.3	9
14 Tu ◐	0546	9.7	296
	1102	4.1	125
	1714	11.9	363
15 W	0006	1.4	43
	0714	9.0	274
	1202	5.2	158
	1834	10.9	332

	Time	Height	
	h m	ft	cm
16 Th	0121	2.3	70
	0842	9.0	274
	1320	5.8	177
	2005	10.5	320
17 F	0256	2.4	73
	0952	9.5	290
	1506	5.6	171
	2119	10.7	326
18 Sa	0409	2.0	61
	1042	10.1	308
	1622	4.6	140
	2217	11.0	335
19 Su	0455	1.4	43
	1120	10.8	329
	1707	3.5	107
	2305	11.5	351
20 M	0530	1.0	30
	1151	11.4	347
	1743	2.4	73
	2346	11.8	360
21 Tu	0600	0.8	24
	1217	12.0	366
	1815	1.5	46
22 W	0023	12.1	369
	0628	0.7	21
	1243	12.5	381
	1846	0.7	21
23 Th ○	0058	12.2	372
	0656	0.9	27
	1308	12.9	393
	1917	0.2	6
24 F	0131	12.2	372
	0725	1.2	37
	1333	13.2	402
	1949	−0.1	−3
25 Sa	0204	12.0	366
	0754	1.7	52
	1358	13.3	405
	2023	−0.2	−6
26 Su	0236	11.6	354
	0825	2.4	73
	1423	13.3	405
	2059	0.0	0
27 M	0310	11.0	335
	0857	3.2	98
	1450	13.1	399
	2139	0.4	12
28 Tu	0348	10.2	311
	0933	4.0	122
	1521	12.7	387
	2225	0.9	27
29 W	0439	9.4	287
	1016	4.7	143
	1601	12.1	369
	2318	1.4	43
30 Th ◑	0600	8.7	265
	1111	5.4	165
	1702	11.3	344

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Cordova, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0022	1.8	55
	0740	8.8	268
	1224	5.7	174
	1846	10.8	329
2 Sa	0137	1.9	58
	0852	9.5	290
	1355	5.4	165
	2021	11.1	338
3 Su	0254	1.5	46
	0946	10.6	323
	1522	4.1	125
	2133	11.8	360
4 M	0358	0.8	24
	1031	11.9	363
	1627	2.3	70
	2234	12.5	381
5 Tu	0449	0.1	3
	1112	13.1	399
	1718	0.5	15
	2329	13.2	402
6 W	0533	−0.3	−9
	1152	14.2	433
	1804	−1.1	−34
7 Th ●	0021	13.6	415
	0615	−0.3	−9
	1231	15.0	457
	1848	−2.2	−67
8 F	0111	13.7	418
	0656	0.1	3
	1309	15.5	472
	1932	−2.7	−82
9 Sa	0158	13.4	408
	0737	0.8	24
	1347	15.5	472
	2016	−2.6	−79
10 Su	0245	12.8	390
	0819	1.7	52
	1425	15.0	457
	2102	−2.0	−61
11 M	0332	12.0	366
	0903	2.7	82
	1503	14.2	433
	2149	−1.0	−30
12 Tu	0424	11.0	335
	0949	3.8	116
	1545	13.0	396
	2240	0.2	6
13 W	0527	10.1	308
	1041	4.8	146
	1636	11.7	357
	2335	1.4	43
14 Th ◐	0647	9.6	293
	1141	5.6	171
	1752	10.5	320
15 F	0039	2.4	73
	0806	9.6	293
	1257	5.9	180
	1929	9.9	302

	Time	Height	
	h m	ft	cm
16 Sa	0155	2.9	88
	0907	10.0	305
	1436	5.5	168
	2046	9.9	302
17 Su	0312	2.9	88
	0953	10.6	323
	1555	4.5	137
	2146	10.2	311
18 M	0406	2.6	79
	1028	11.2	341
	1642	3.2	98
	2236	10.6	323
19 Tu	0446	2.4	73
	1059	11.9	363
	1718	2.1	64
	2320	11.0	335
20 W	0519	2.3	70
	1128	12.5	381
	1750	1.0	30
21 Th	0000	11.4	347
	0551	2.3	70
	1157	13.1	399
	1821	0.2	6
22 F ○	0038	11.6	354
	0621	2.4	73
	1225	13.5	411
	1853	−0.4	−12
23 Sa	0115	11.8	360
	0653	2.6	79
	1254	13.8	421
	1926	−0.8	−24
24 Su	0151	11.7	357
	0725	3.0	91
	1323	14.0	427
	2002	−0.9	−27
25 M	0227	11.5	351
	0759	3.5	107
	1353	13.9	424
	2040	−0.8	−24
26 Tu	0305	11.1	338
	0836	4.0	122
	1426	13.7	418
	2122	−0.4	−12
27 W	0348	10.6	323
	0918	4.5	137
	1502	13.2	402
	2208	0.0	0
28 Th	0442	10.0	305
	1008	5.0	152
	1547	12.4	378
	2300	0.6	18
29 F	0554	9.8	299
	1108	5.3	162
	1651	11.5	351
	2358	1.1	34
30 Sa ◑	0712	10.0	305
	1220	5.3	162
	1830	10.7	326
31 Su	0103	1.6	49
	0816	10.7	326
	1342	4.7	143
	2004	10.7	326

November

	Time	Height	
	h m	ft	cm
1 M	0211	1.8	55
	0908	11.8	360
	1505	3.3	101
	2117	11.1	338
2 Tu	0317	1.7	52
	0953	12.9	393
	1610	1.5	46
	2221	11.6	354
3 W	0414	1.6	49
	1036	14.0	427
	1703	−0.2	−6
	2319	12.1	369
4 Th	0503	1.6	49
	1118	14.8	451
	1750	−1.6	−49
5 F ●	0013	12.5	381
	0549	1.7	52
	1159	15.4	469
	1833	−2.4	−73
6 Sa	0103	12.7	387
	0632	2.0	61
	1240	15.6	475
	1916	−2.8	−85
7 Su	0151	12.7	387
	0715	2.4	73
	1320	15.4	469
	1959	−2.5	−76
8 M	0237	12.4	378
	0758	3.0	91
	1400	14.9	454
	2043	−1.9	−58
9 Tu	0322	11.9	363
	0843	3.6	110
	1440	14.0	427
	2128	−1.0	−30
10 W	0410	11.3	344
	0930	4.3	131
	1521	12.9	393
	2215	0.0	0
11 Th	0503	10.7	326
	1021	4.9	149
	1606	11.7	357
	2303	1.1	34
12 F	0605	10.2	311
	1117	5.4	165
	1706	10.5	320
	2354	2.0	61
13 Sa ◐	0709	10.2	311
	1223	5.6	171
	1831	9.6	293
14 Su	0049	2.9	88
	0805	10.4	317
	1340	5.3	162
	1955	9.2	280
15 M	0150	3.4	104
	0851	10.9	332
	1503	4.5	137
	2103	9.3	283

	Time	Height	
	h m	ft	cm
16 Tu	0253	3.8	116
	0930	11.5	351
	1604	3.3	101
	2200	9.6	293
17 W	0347	3.9	119
	1005	12.1	369
	1646	2.1	64
	2251	10.1	308
18 Th	0432	3.9	119
	1039	12.8	390
	1723	1.0	30
	2337	10.5	320
19 F	0512	3.8	116
	1113	13.4	408
	1757	0.1	3
20 Sa	0021	10.9	332
	0549	3.8	116
	1148	13.8	421
	1832	−0.6	−18
21 Su ○	0102	11.3	344
	0625	3.8	116
	1223	14.2	433
	1908	−1.2	−37
22 M	0142	11.5	351
	0702	3.9	119
	1259	14.4	439
	1946	−1.5	−46
23 Tu	0222	11.5	351
	0742	4.0	122
	1337	14.4	439
	2026	−1.5	−46
24 W	0303	11.4	347
	0824	4.1	125
	1416	14.2	433
	2109	−1.3	−40
25 Th	0346	11.3	344
	0910	4.3	131
	1458	13.6	415
	2154	−0.9	−27
26 F	0435	11.1	338
	1003	4.4	134
	1546	12.7	387
	2242	−0.3	−9
27 Sa	0531	11.1	338
	1102	4.4	134
	1649	11.6	354
	2333	0.5	15
28 Su ◑	0632	11.4	347
	1208	4.2	128
	1813	10.6	323
29 M	0028	1.4	43
	0732	11.9	363
	1322	3.6	110
	1943	10.2	311
30 Tu	0128	2.2	67
	0826	12.7	387
	1441	2.5	76
	2101	10.2	311

December

	Time	Height	
	h m	ft	cm
1 W	0233	2.9	88
	0916	13.5	411
	1552	1.1	34
	2210	10.5	320
2 Th	0338	3.3	101
	1003	14.2	433
	1649	−0.3	−9
	2312	11.0	335
3 F	0436	3.4	104
	1050	14.7	448
	1738	−1.3	−40
4 Sa	0010	11.5	351
	0528	3.4	104
	1136	15.0	457
	1822	−2.0	−61
5 Su ●	0101	11.9	363
	0615	3.4	104
	1221	15.1	460
	1905	−2.3	−70
6 M	0148	12.1	369
	0700	3.5	107
	1304	14.9	454
	1946	−2.1	−64
7 Tu	0230	12.1	369
	0743	3.6	110
	1345	14.5	442
	2027	−1.7	−52
8 W	0310	11.9	363
	0827	3.8	116
	1425	13.8	421
	2108	−1.1	−34
9 Th	0350	11.7	357
	0912	4.1	125
	1503	12.9	393
	2148	−0.3	−9
10 F	0430	11.3	344
	0959	4.4	134
	1543	11.9	363
	2228	0.6	18
11 Sa	0513	11.0	335
	1048	4.6	140
	1628	10.8	329
	2309	1.6	49
12 Su	0600	10.9	332
	1141	4.7	143
	1726	9.7	296
	2350	2.6	79
13 M ◐	0649	10.9	332
	1240	4.7	143
	1846	8.9	271
14 Tu	0036	3.5	107
	0739	11.1	338
	1350	4.3	131
	2007	8.5	259
15 W	0129	4.4	134
	0826	11.5	351
	1505	3.6	110
	2117	8.7	265

	Time	Height	
	h m	ft	cm
16 Th	0232	5.0	152
	0910	12.0	366
	1607	2.5	76
	2220	9.1	277
17 F	0337	5.2	158
	0953	12.6	384
	1655	1.4	43
	2316	9.6	293
18 Sa	0432	5.1	155
	1036	13.2	402
	1735	0.3	9
19 Su	0006	10.3	314
	0520	4.8	146
	1119	13.8	421
	1814	−0.6	−18
20 M ○	0052	10.9	332
	0603	4.4	134
	1202	14.3	436
	1852	−1.5	−46
21 Tu	0133	11.4	347
	0646	4.0	122
	1246	14.7	448
	1932	−2.0	−61
22 W	0213	11.8	360
	0729	3.6	110
	1329	14.8	451
	2012	−2.3	−70
23 Th	0252	12.1	369
	0814	3.3	101
	1412	14.6	445
	2053	−2.2	−67
24 F	0331	12.4	378
	0902	3.0	91
	1457	14.0	427
	2136	−1.7	−52
25 Sa	0412	12.5	381
	0954	2.9	88
	1545	13.0	396
	2219	−0.9	−27
26 Su	0457	12.6	384
	1049	2.7	82
	1642	11.8	360
	2305	0.2	6
27 M ◑	0548	12.7	387
	1149	2.6	79
	1755	10.5	320
	2354	1.5	46
28 Tu	0644	12.8	390
	1256	2.4	73
	1922	9.6	293
29 W	0048	2.9	88
	0743	13.0	396
	1413	2.0	61
	2046	9.4	287
30 Th	0152	4.0	122
	0841	13.3	405
	1533	1.2	37
	2203	9.6	293
31 F	0306	4.6	140
	0937	13.7	418
	1639	0.2	6
	2312	10.2	311

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Valdez, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0144	11.7	357
	0707	2.8	85
	1305	15.1	460
	1952	−3.2	−98
2 Sa	0226	12.2	372
	0755	2.3	70
	1353	14.8	451
	2035	−3.1	−94
3 Su	0307	12.6	384
	0846	1.9	58
	1442	14.1	430
	2118	−2.5	−76
4 M	0350	12.7	387
	0937	1.7	52
	1532	13.0	396
	2201	−1.5	−46
5 Tu	0435	12.7	387
	1032	1.8	55
	1628	11.6	354
	2245	−0.1	−3
6 W	0523	12.6	384
	1130	1.9	58
	1735	10.2	311
	2331	1.4	43
7 Th ◑	0617	12.4	378
	1236	2.1	64
	1857	9.0	274
8 F	0021	3.0	91
	0716	12.2	372
	1352	2.1	64
	2024	8.5	259
9 Sa	0123	4.3	131
	0816	12.1	369
	1516	1.8	55
	2146	8.6	262
10 Su	0242	5.1	155
	0914	12.1	369
	1624	1.1	34
	2258	9.0	274
11 M	0400	5.3	162
	1009	12.2	372
	1716	0.4	12
	2356	9.6	293
12 Tu	0501	5.0	152
	1100	12.4	378
	1759	−0.2	−6
13 W	0040	10.1	308
	0548	4.5	137
	1145	12.6	384
	1836	−0.7	−21
14 Th ●	0116	10.5	320
	0628	4.0	122
	1225	12.8	390
	1910	−0.9	−27
15 F	0147	10.9	332
	0706	3.6	110
	1301	12.8	390
	1943	−1.0	−30

	Time	Height	
	h m	ft	cm
16 Sa	0215	11.1	338
	0742	3.2	98
	1335	12.7	387
	2014	−1.0	−30
17 Su	0242	11.3	344
	0817	3.0	91
	1407	12.4	378
	2044	−0.6	−18
18 M	0308	11.4	347
	0853	2.8	85
	1438	11.9	363
	2113	−0.1	−3
19 Tu	0334	11.5	351
	0930	2.7	82
	1510	11.2	341
	2142	0.6	18
20 W	0401	11.5	351
	1008	2.7	82
	1545	10.3	314
	2212	1.5	46
21 Th	0430	11.4	347
	1051	2.8	85
	1627	9.4	287
	2243	2.5	76
22 F	0506	11.3	344
	1140	2.9	88
	1727	8.4	256
	2319	3.5	107
23 Sa ◐	0553	11.3	344
	1241	2.9	88
	1902	7.7	235
24 Su	0005	4.5	137
	0657	11.3	344
	1400	2.6	79
	2043	7.7	235
25 M	0114	5.3	162
	0808	11.7	357
	1526	1.7	52
	2204	8.2	250
26 Tu	0250	5.6	171
	0915	12.3	375
	1632	0.4	12
	2308	9.1	277
27 W	0414	5.0	152
	1018	13.1	399
	1724	−1.0	−30
	2359	10.2	311
28 Th	0516	3.9	119
	1115	13.9	424
	1809	−2.1	−64
29 F ○	0043	11.2	341
	0608	2.7	82
	1209	14.5	442
	1852	−2.9	−88
30 Sa	0123	12.2	372
	0657	1.6	49
	1300	14.8	451
	1933	−3.2	−98
31 Su	0201	13.0	396
	0744	0.7	21
	1348	14.6	445
	2014	−2.9	−88

February

	Time	Height	
	h m	ft	cm
1 M	0239	13.5	411
	0832	0.1	3
	1435	13.9	424
	2054	−2.2	−67
2 Tu	0317	13.7	418
	0920	−0.1	−3
	1522	12.8	390
	2134	−1.0	−30
3 W	0356	13.6	415
	1010	0.1	3
	1613	11.4	347
	2215	0.4	12
4 Th	0437	13.1	399
	1102	0.7	21
	1712	10.0	305
	2257	2.0	61
5 F ◑	0524	12.4	378
	1200	1.4	43
	1828	8.7	265
	2343	3.6	110
6 Sa	0623	11.7	357
	1311	2.0	61
	2000	8.0	244
7 Su	0041	4.9	149
	0734	11.1	338
	1441	2.2	67
	2131	8.1	247
8 M	0208	5.7	174
	0848	10.9	332
	1606	1.8	55
	2247	8.6	262
9 Tu	0347	5.7	174
	0954	11.1	338
	1702	1.1	34
	2341	9.2	280
10 W	0453	5.0	152
	1049	11.4	347
	1744	0.4	12
11 Th	0020	9.9	302
	0538	4.2	128
	1136	11.8	360
	1818	−0.2	−6
12 F	0051	10.4	317
	0616	3.4	104
	1215	12.1	369
	1849	−0.5	−15
13 Sa ●	0117	10.9	332
	0650	2.7	82
	1250	12.3	375
	1918	−0.7	−21
14 Su	0142	11.4	347
	0723	2.0	61
	1322	12.3	375
	1946	−0.6	−18
15 M	0206	11.8	360
	0756	1.6	49
	1353	12.1	369
	2014	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Tu	0229	12.0	366
	0829	1.2	37
	1424	11.8	360
	2041	0.2	6
17 W	0252	12.2	372
	0903	1.1	34
	1455	11.2	341
	2109	0.9	27
18 Th	0315	12.2	372
	0939	1.1	34
	1527	10.4	317
	2137	1.8	55
19 F	0341	12.1	369
	1019	1.3	40
	1606	9.5	290
	2209	2.7	82
20 Sa	0412	11.9	363
	1105	1.6	49
	1658	8.5	259
	2245	3.7	113
21 Su ◐	0455	11.6	354
	1202	1.9	58
	1828	7.7	235
	2332	4.6	140
22 M	0601	11.2	341
	1318	2.1	64
	2021	7.6	232
23 Tu	0044	5.4	165
	0733	11.1	338
	1451	1.6	49
	2145	8.2	250
24 W	0231	5.5	168
	0857	11.6	354
	1607	0.5	15
	2246	9.3	283
25 Th	0403	4.5	137
	1007	12.3	375
	1702	−0.7	−21
	2333	10.4	317
26 F	0506	3.0	91
	1107	13.1	399
	1748	−1.7	−52
27 Sa	0015	11.7	357
	0557	1.4	43
	1202	13.8	421
	1829	−2.3	−70
28 Su ○	0053	12.7	387
	0644	0.0	0
	1252	14.0	427
	1909	−2.4	−73

March

	Time	Height	
	h m	ft	cm
1 M	0130	13.6	415
	0730	−1.0	−30
	1339	13.9	424
	1948	−2.0	−61
2 Tu	0205	14.1	430
	0815	−1.6	−49
	1425	13.3	405
	2027	−1.2	−37
3 W	0241	14.2	433
	0900	−1.6	−49
	1510	12.3	375
	2106	0.0	0
4 Th	0317	13.9	424
	0946	−1.1	−34
	1557	11.1	338
	2146	1.3	40
5 F	0354	13.1	399
	1034	−0.2	−6
	1651	9.8	299
	2227	2.7	82
6 Sa	0436	12.1	369
	1126	0.8	24
	1801	8.6	262
	2312	4.1	125
7 Su ◑	0530	11.1	338
	1230	1.9	58
	1933	8.0	244
8 M	0009	5.2	158
	0650	10.2	311
	1354	2.5	76
	2104	8.0	244
9 Tu	0138	5.9	180
	0819	9.8	299
	1530	2.3	70
	2215	8.5	259
10 W	0331	5.5	168
	0932	10.0	305
	1633	1.7	52
	2305	9.1	277
11 Th	0437	4.6	140
	1030	10.4	317
	1715	1.1	34
	2341	9.8	299
12 F	0521	3.5	107
	1117	10.9	332
	1748	0.6	18
13 Sa	0010	10.5	320
	0556	2.5	76
	1156	11.3	344
	1818	0.2	6
14 Su	0035	11.1	338
	0629	1.5	46
	1232	11.5	351
	1846	0.1	3
15 M ●	0100	11.7	357
	0701	0.8	24
	1306	11.7	357
	1914	0.2	6

	Time	Height	
	h m	ft	cm
16 Tu	0124	12.2	372
	0733	0.2	6
	1338	11.6	354
	1941	0.5	15
17 W	0147	12.5	381
	0805	−0.2	−6
	1410	11.4	347
	2010	1.0	30
18 Th	0211	12.7	387
	0839	−0.4	−12
	1443	11.0	335
	2039	1.7	52
19 F	0236	12.7	387
	0915	−0.3	−9
	1517	10.3	314
	2110	2.4	73
20 Sa	0304	12.6	384
	0956	0.0	0
	1558	9.5	290
	2146	3.2	98
21 Su	0338	12.2	372
	1043	0.4	12
	1653	8.6	262
	2228	4.0	122
22 M	0422	11.6	354
	1139	0.9	27
	1824	7.9	241
	2323	4.7	143
23 Tu ◐	0531	10.9	332
	1250	1.3	40
	2004	8.0	244
24 W	0042	5.2	158
	0714	10.5	320
	1415	1.2	37
	2118	8.8	268
25 Th	0227	4.8	146
	0844	10.8	329
	1533	0.6	18
	2213	9.9	302
26 F	0354	3.5	107
	0956	11.4	347
	1631	−0.1	−3
	2258	11.1	338
27 Sa	0454	1.7	52
	1057	12.0	366
	1719	−0.7	−21
	2339	12.2	372
28 Su	0544	0.0	0
	1152	12.6	384
	1801	−1.0	−30
29 M ○	0018	13.2	402
	0629	−1.4	−43
	1242	12.8	390
	1842	−0.9	−27
30 Tu	0055	13.9	424
	0713	−2.3	−70
	1329	12.7	387
	1921	−0.4	−12
31 W	0131	14.3	436
	0756	−2.6	−79
	1414	12.3	375
	2001	0.3	9

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Valdez, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0206	14.2	433
	0839	−2.4	−73
	1459	11.6	354
	2040	1.3	40
2 F	0242	13.7	418
	0923	−1.8	−55
	1544	10.7	326
	2121	2.3	70
3 Sa	0318	12.8	390
	1008	−0.8	−24
	1635	9.7	296
	2203	3.4	104
4 Su	0357	11.7	357
	1057	0.3	9
	1739	8.8	268
	2250	4.4	134
5 M	0445	10.6	323
	1152	1.4	43
	1901	8.2	250
	2347	5.2	158
6 Tu ◑	0601	9.5	290
	1301	2.2	67
	2020	8.2	250
7 W	0109	5.5	168
	0738	9.0	274
	1425	2.5	76
	2122	8.6	262
8 Th	0255	5.1	155
	0856	9.0	274
	1537	2.3	70
	2209	9.2	280
9 F	0407	4.1	125
	0957	9.3	283
	1627	1.9	58
	2245	9.9	302
10 Sa	0453	2.9	88
	1047	9.8	299
	1705	1.6	49
	2316	10.6	323
11 Su	0530	1.7	52
	1130	10.2	311
	1737	1.4	43
	2345	11.3	344
12 M	0603	0.7	21
	1210	10.6	323
	1808	1.3	40
13 Tu	0013	12.0	366
	0635	−0.2	−6
	1247	10.8	329
	1838	1.4	43
14 W ●	0040	12.5	381
	0708	−0.9	−27
	1323	10.9	332
	1909	1.7	52
15 Th	0108	12.9	393
	0742	−1.4	−43
	1359	10.9	332
	1941	2.0	61

	Time	Height	
	h m	ft	cm
16 F	0137	13.1	399
	0819	−1.6	−49
	1436	10.6	323
	2015	2.5	76
17 Sa	0207	13.1	399
	0858	−1.5	−46
	1516	10.1	308
	2052	3.0	91
18 Su	0241	12.8	390
	0941	−1.2	−37
	1603	9.6	293
	2135	3.6	110
19 M	0320	12.3	375
	1030	−0.7	−21
	1703	9.0	274
	2225	4.1	125
20 Tu	0411	11.5	351
	1124	−0.1	−3
	1822	8.7	265
	2327	4.4	134
21 W ◐	0524	10.6	323
	1227	0.5	15
	1939	9.0	274
22 Th	0047	4.4	134
	0704	10.0	305
	1339	0.8	24
	2042	9.8	299
23 F	0219	3.7	113
	0831	10.0	305
	1451	0.9	27
	2134	10.7	326
24 Sa	0339	2.3	70
	0943	10.3	314
	1554	0.8	24
	2219	11.8	360
25 Su	0439	0.6	18
	1046	10.8	329
	1646	0.7	21
	2302	12.7	387
26 M	0529	−0.9	−27
	1142	11.2	341
	1732	0.7	21
	2342	13.4	408
27 Tu	0614	−2.1	−64
	1234	11.4	347
	1815	0.9	27
28 W ○	0021	13.9	424
	0657	−2.7	−82
	1322	11.5	351
	1856	1.3	40
29 Th	0059	14.0	427
	0739	−2.9	−88
	1407	11.3	344
	1937	1.8	55
30 F	0136	13.7	418
	0821	−2.6	−79
	1450	10.9	332
	2018	2.4	73

May

	Time	Height	
	h m	ft	cm
1 Sa	0213	13.2	402
	0903	−2.0	−61
	1534	10.4	317
	2100	3.1	94
2 Su	0250	12.4	378
	0946	−1.1	−34
	1622	9.7	296
	2144	3.7	113
3 M	0329	11.4	347
	1031	−0.2	−6
	1717	9.1	277
	2232	4.3	131
4 Tu	0414	10.3	314
	1118	0.8	24
	1820	8.8	268
	2327	4.7	143
5 W ◑	0515	9.3	283
	1210	1.6	49
	1924	8.8	268
6 Th	0034	4.9	149
	0642	8.5	259
	1310	2.2	67
	2019	9.0	274
7 F	0159	4.6	140
	0804	8.2	250
	1415	2.6	79
	2104	9.5	290
8 Sa	0318	3.7	113
	0911	8.3	253
	1516	2.8	85
	2143	10.2	311
9 Su	0414	2.5	76
	1008	8.6	262
	1606	2.8	85
	2218	10.9	332
10 M	0456	1.3	40
	1059	9.1	277
	1648	2.8	85
	2252	11.5	351
11 Tu	0534	0.2	6
	1146	9.5	290
	1726	2.7	82
	2325	12.2	372
12 W	0609	−0.8	−24
	1229	10.0	305
	1803	2.7	82
	2359	12.7	387
13 Th ●	0646	−1.6	−49
	1311	10.3	314
	1839	2.8	85
14 F	0034	13.2	402
	0724	−2.1	−64
	1352	10.4	317
	1918	2.9	88
15 Sa	0111	13.4	408
	0803	−2.4	−73
	1433	10.4	317
	1958	3.0	91

	Time	Height	
	h m	ft	cm
16 Su	0149	13.4	408
	0846	−2.5	−76
	1517	10.3	314
	2042	3.2	98
17 M	0230	13.1	399
	0931	−2.2	−67
	1606	10.1	308
	2131	3.4	104
18 Tu	0316	12.4	378
	1018	−1.7	−52
	1701	9.9	302
	2226	3.5	107
19 W	0411	11.5	351
	1108	−1.0	−30
	1803	10.0	305
	2329	3.5	107
20 Th ◐	0523	10.4	317
	1202	−0.2	−6
	1905	10.3	314
21 F	0041	3.3	101
	0652	9.5	290
	1301	0.7	21
	2002	10.9	332
22 Sa	0202	2.5	76
	0815	9.2	280
	1406	1.5	46
	2053	11.6	354
23 Su	0319	1.4	43
	0929	9.3	283
	1512	2.0	61
	2141	12.3	375
24 M	0422	0.0	0
	1035	9.5	290
	1611	2.3	70
	2227	12.8	390
25 Tu	0514	−1.2	−37
	1135	9.9	302
	1704	2.5	76
	2311	13.2	402
26 W	0600	−2.0	−61
	1229	10.3	314
	1752	2.6	79
	2354	13.4	408
27 Th ○	0643	−2.4	−73
	1318	10.5	320
	1836	2.7	82
28 F	0035	13.4	408
	0724	−2.5	−76
	1402	10.6	323
	1919	2.9	88
29 Sa	0115	13.2	402
	0805	−2.3	−70
	1443	10.5	320
	2001	3.1	94
30 Su	0153	12.7	387
	0845	−1.9	−58
	1523	10.3	314
	2044	3.4	104
31 M	0231	12.1	369
	0925	−1.3	−40
	1603	10.0	305
	2127	3.6	110

June

	Time	Height	
	h m	ft	cm
1 Tu	0309	11.3	344
	1005	−0.6	−18
	1646	9.7	296
	2212	3.9	119
2 W	0349	10.4	317
	1044	0.1	3
	1732	9.5	290
	2301	4.0	122
3 Th	0437	9.4	287
	1124	1.0	30
	1821	9.5	290
	2355	4.1	125
4 F ◑	0542	8.5	259
	1206	1.8	55
	1910	9.6	293
5 Sa	0059	3.9	119
	0702	7.8	238
	1253	2.6	79
	1956	10.0	305
6 Su	0212	3.4	104
	0818	7.6	232
	1348	3.3	101
	2039	10.5	320
7 M	0322	2.5	76
	0926	7.8	238
	1451	3.8	116
	2120	11.0	335
8 Tu	0417	1.4	43
	1026	8.2	250
	1551	4.0	122
	2202	11.7	357
9 W	0503	0.2	6
	1122	8.7	265
	1643	3.9	119
	2243	12.3	375
10 Th	0545	−0.9	−27
	1213	9.3	283
	1731	3.7	113
	2326	12.9	393
11 F	0626	−1.8	−55
	1259	9.8	299
	1815	3.4	104
12 Sa ●	0010	13.4	408
	0707	−2.6	−79
	1343	10.3	314
	1900	3.1	94
13 Su	0055	13.7	418
	0750	−3.0	−91
	1426	10.7	326
	1946	2.8	85
14 M	0140	13.7	418
	0833	−3.2	−98
	1509	10.9	332
	2034	2.6	79
15 Tu	0226	13.4	408
	0916	−2.9	−88
	1553	11.1	338
	2126	2.4	73

	Time	Height	
	h m	ft	cm
16 W	0315	12.6	384
	1001	−2.3	−70
	1640	11.2	341
	2220	2.3	70
17 Th	0410	11.6	354
	1047	−1.4	−43
	1731	11.3	344
	2319	2.2	67
18 F ◐	0516	10.3	314
	1134	−0.2	−6
	1825	11.5	351
19 Sa	0024	2.0	61
	0635	9.2	280
	1225	1.1	34
	1920	11.7	357
20 Su	0138	1.7	52
	0758	8.6	262
	1323	2.3	70
	2014	12.0	366
21 M	0256	1.0	30
	0915	8.5	259
	1431	3.2	98
	2107	12.3	375
22 Tu	0405	0.1	3
	1027	8.7	265
	1541	3.7	113
	2159	12.5	381
23 W	0501	−0.7	−21
	1132	9.1	277
	1644	3.8	116
	2249	12.7	387
24 Th	0549	−1.3	−40
	1227	9.6	293
	1736	3.7	113
	2336	12.8	390
25 F	0632	−1.7	−52
	1314	10.0	305
	1823	3.5	107
26 Sa ○	0021	12.8	390
	0712	−1.9	−58
	1353	10.3	314
	1905	3.3	101
27 Su	0102	12.7	387
	0750	−1.9	−58
	1429	10.4	317
	1946	3.2	98
28 M	0140	12.4	378
	0826	−1.7	−52
	1502	10.5	320
	2026	3.1	94
29 Tu	0216	12.0	366
	0901	−1.4	−43
	1534	10.5	320
	2106	3.0	91
30 W	0251	11.4	347
	0935	−0.8	−24
	1606	10.4	317
	2147	3.1	94

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Valdez, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0326	10.6	323
	1008	−0.1	−3
	1640	10.3	314
	2229	3.1	94
2 F	0405	9.7	296
	1040	0.8	24
	1716	10.3	314
	2315	3.2	98
3 Sa	0453	8.8	268
	1114	1.7	52
	1756	10.3	314
4 Su ◑	0006	3.2	98
	0558	7.9	241
	1150	2.7	82
	1843	10.4	317
5 M	0107	3.0	91
	0722	7.4	226
	1234	3.7	113
	1934	10.7	326
6 Tu	0221	2.6	79
	0844	7.3	223
	1334	4.4	134
	2026	11.1	338
7 W	0335	1.7	52
	0957	7.7	235
	1452	4.8	146
	2119	11.6	354
8 Th	0434	0.6	18
	1101	8.3	253
	1607	4.7	143
	2212	12.3	375
9 F	0523	−0.7	−21
	1156	9.1	277
	1706	4.2	128
	2304	13.0	396
10 Sa	0608	−1.8	−55
	1243	9.9	302
	1758	3.5	107
	2355	13.6	415
11 Su ●	0651	−2.7	−82
	1326	10.7	326
	1846	2.7	82
12 M	0045	14.0	427
	0732	−3.2	−98
	1406	11.4	347
	1934	1.9	58
13 Tu	0133	14.1	430
	0814	−3.4	−104
	1446	11.9	363
	2023	1.3	40
14 W	0221	13.7	418
	0856	−3.0	−91
	1525	12.3	375
	2113	0.9	27
15 Th	0310	12.9	393
	0938	−2.2	−67
	1607	12.5	381
	2205	0.8	24

	Time	Height	
	h m	ft	cm
16 F	0402	11.7	357
	1020	−1.1	−34
	1651	12.5	381
	2300	0.8	24
17 Sa	0503	10.3	314
	1104	0.4	12
	1740	12.3	375
18 Su ◐	0000	1.1	34
	0616	9.1	277
	1151	1.9	58
	1836	12.1	369
19 M	0109	1.3	40
	0741	8.3	253
	1246	3.3	101
	1938	11.9	363
20 Tu	0229	1.2	37
	0905	8.1	247
	1357	4.4	134
	2040	11.8	360
21 W	0349	0.8	24
	1023	8.4	256
	1522	4.8	146
	2141	11.8	360
22 Th	0451	0.1	3
	1128	8.9	271
	1634	4.6	140
	2238	12.0	366
23 F	0539	−0.5	−15
	1220	9.5	290
	1728	4.1	125
	2328	12.2	372
24 Sa	0620	−0.9	−27
	1300	10.0	305
	1813	3.6	110
25 Su ○	0012	12.4	378
	0656	−1.3	−40
	1333	10.4	317
	1852	3.1	94
26 M	0051	12.4	378
	0730	−1.4	−43
	1402	10.7	326
	1929	2.6	79
27 Tu	0127	12.3	375
	0801	−1.3	−40
	1429	11.0	335
	2006	2.3	70
28 W	0200	12.0	366
	0832	−0.9	−27
	1455	11.2	341
	2041	2.1	64
29 Th	0232	11.6	354
	0901	−0.4	−12
	1521	11.2	341
	2118	2.0	61
30 F	0304	10.9	332
	0930	0.3	9
	1547	11.2	341
	2155	2.1	64
31 Sa	0338	10.1	308
	0959	1.2	37
	1614	11.2	341
	2235	2.2	67

August

	Time	Height	
	h m	ft	cm
1 Su	0416	9.2	280
	1029	2.2	67
	1646	11.0	335
	2320	2.4	73
2 M ◑	0508	8.3	253
	1103	3.2	98
	1728	10.9	332
3 Tu	0015	2.6	79
	0629	7.5	229
	1143	4.1	125
	1826	10.8	329
4 W	0126	2.5	76
	0810	7.3	223
	1241	5.0	152
	1938	11.0	335
5 Th	0252	2.0	61
	0935	7.6	232
	1410	5.4	165
	2048	11.4	347
6 F	0406	0.9	27
	1042	8.4	256
	1544	5.0	152
	2152	12.2	372
7 Sa	0501	−0.4	−12
	1134	9.4	287
	1651	4.0	122
	2251	13.0	396
8 Su	0547	−1.5	−46
	1218	10.5	320
	1745	2.8	85
	2345	13.7	418
9 M ●	0629	−2.4	−73
	1258	11.5	351
	1833	1.6	49
10 Tu	0036	14.1	430
	0710	−2.9	−88
	1336	12.4	378
	1920	0.5	15
11 W	0124	14.2	433
	0750	−2.8	−85
	1413	13.1	399
	2007	−0.3	−9
12 Th	0212	13.8	421
	0830	−2.3	−70
	1450	13.6	415
	2055	−0.7	−21
13 F	0300	12.9	393
	0910	−1.3	−40
	1528	13.6	415
	2145	−0.6	−18
14 Sa	0350	11.7	357
	0951	0.0	0
	1609	13.3	405
	2236	−0.2	−6
15 Su	0447	10.4	317
	1034	1.5	46
	1655	12.7	387
	2332	0.5	15

	Time	Height	
	h m	ft	cm
16 M ◐	0558	9.1	277
	1121	3.0	91
	1752	12.0	366
17 Tu	0038	1.3	40
	0726	8.3	253
	1217	4.4	134
	1903	11.3	344
18 W	0200	1.8	55
	0855	8.2	250
	1335	5.3	162
	2020	11.0	335
19 Th	0329	1.6	49
	1012	8.6	262
	1515	5.4	165
	2130	11.1	338
20 F	0436	1.0	30
	1112	9.2	280
	1629	4.8	146
	2230	11.4	347
21 Sa	0522	0.4	12
	1156	9.8	299
	1720	3.9	119
	2319	11.7	357
22 Su	0559	−0.1	−3
	1230	10.4	317
	1800	3.1	94
23 M	0001	12.0	366
	0632	−0.4	−12
	1258	10.9	332
	1835	2.4	73
24 Tu ○	0037	12.1	369
	0702	−0.5	−15
	1324	11.3	344
	1909	1.7	52
25 W	0110	12.1	369
	0731	−0.4	−12
	1348	11.7	357
	1942	1.3	40
26 Th	0142	12.0	366
	0759	0.0	0
	1411	12.0	366
	2014	1.0	30
27 F	0213	11.6	354
	0826	0.5	15
	1434	12.1	369
	2048	0.9	27
28 Sa	0244	11.1	338
	0854	1.3	40
	1457	12.1	369
	2123	1.0	30
29 Su	0316	10.4	317
	0922	2.1	64
	1522	12.0	366
	2201	1.3	40
30 M	0352	9.6	293
	0952	3.0	91
	1551	11.7	357
	2245	1.6	49
31 Tu	0438	8.7	265
	1027	3.9	119
	1629	11.4	347
	2337	2.1	64

September

	Time	Height	
	h m	ft	cm
1 W ◑	0557	7.8	238
	1111	4.8	146
	1727	10.9	332
2 Th	0046	2.3	70
	0751	7.6	232
	1216	5.5	168
	1859	10.7	326
3 F	0213	2.1	64
	0916	8.1	247
	1355	5.6	171
	2028	11.1	338
4 Sa	0335	1.2	37
	1016	9.1	277
	1533	4.8	146
	2139	11.9	363
5 Su	0434	0.1	3
	1103	10.2	311
	1639	3.3	101
	2240	12.7	387
6 M	0520	−0.9	−27
	1144	11.5	351
	1731	1.7	52
	2334	13.4	408
7 Tu	0602	−1.6	−49
	1223	12.6	384
	1819	0.2	6
8 W	0025	13.8	421
	0643	−1.8	−55
	1300	13.6	415
	1904	−1.0	−30
9 Th	0114	13.9	424
	0722	−1.5	−46
	1336	14.3	436
	1949	−1.7	−52
10 F	0201	13.5	411
	0802	−0.9	−27
	1413	14.5	442
	2035	−1.9	−58
11 Sa	0248	12.7	387
	0842	0.2	6
	1450	14.3	436
	2122	−1.5	−46
12 Su	0336	11.7	357
	0924	1.4	43
	1529	13.7	418
	2211	−0.7	−21
13 M	0431	10.4	317
	1007	2.8	85
	1613	12.7	387
	2304	0.4	12
14 Tu ◐	0540	9.3	283
	1056	4.1	125
	1708	11.6	354
15 W	0006	1.5	46
	0709	8.6	262
	1156	5.2	158
	1829	10.6	323

	Time	Height	
	h m	ft	cm
16 Th	0124	2.2	67
	0836	8.6	262
	1320	5.8	177
	2000	10.2	311
17 F	0256	2.3	70
	0946	9.1	277
	1506	5.5	168
	2114	10.3	314
18 Sa	0406	1.9	58
	1038	9.7	296
	1618	4.6	140
	2213	10.7	326
19 Su	0452	1.4	43
	1116	10.3	314
	1704	3.5	107
	2301	11.1	338
20 M	0528	1.0	30
	1147	10.9	332
	1741	2.5	76
	2342	11.4	347
21 Tu	0559	0.8	24
	1214	11.5	351
	1814	1.6	49
22 W	0018	11.7	357
	0628	0.7	21
	1239	12.0	366
	1845	0.8	24
23 Th ○	0052	11.8	360
	0656	0.9	27
	1303	12.5	381
	1916	0.3	9
24 F	0124	11.7	357
	0724	1.3	40
	1327	12.7	387
	1948	0.0	0
25 Sa	0156	11.5	351
	0752	1.8	55
	1351	12.9	393
	2021	−0.1	−3
26 Su	0228	11.1	338
	0821	2.4	73
	1415	12.9	393
	2056	0.1	3
27 M	0301	10.6	323
	0851	3.1	94
	1442	12.7	387
	2135	0.4	12
28 Tu	0340	9.8	299
	0925	3.9	119
	1513	12.3	375
	2220	0.9	27
29 W	0430	9.0	274
	1006	4.6	140
	1553	11.7	357
	2313	1.4	43
30 Th ◑	0553	8.4	256
	1059	5.3	162
	1653	11.0	335

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Valdez, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0018	1.8	55
	0736	8.4	256
	1213	5.7	174
	1835	10.5	320
2 Sa	0137	1.9	58
	0849	9.1	277
	1352	5.4	165
	2014	10.7	326
3 Su	0256	1.4	43
	0942	10.1	308
	1522	4.1	125
	2127	11.3	344
4 M	0359	0.8	24
	1027	11.4	347
	1626	2.4	73
	2228	12.1	369
5 Tu	0448	0.2	6
	1107	12.6	384
	1717	0.6	18
	2323	12.7	387
6 W	0532	−0.1	−3
	1146	13.7	418
	1803	−1.0	−30
7 Th ●	0015	13.1	399
	0614	−0.1	−3
	1224	14.5	442
	1847	−2.1	−64
8 F	0104	13.2	402
	0654	0.2	6
	1301	15.0	457
	1931	−2.6	−79
9 Sa	0151	12.9	393
	0735	0.9	27
	1339	15.0	457
	2015	−2.5	−76
10 Su	0237	12.3	375
	0817	1.7	52
	1417	14.6	445
	2100	−1.9	−58
11 M	0325	11.5	351
	0859	2.7	82
	1456	13.7	418
	2147	−0.9	−27
12 Tu	0418	10.6	323
	0945	3.8	116
	1538	12.6	384
	2238	0.2	6
13 W	0523	9.7	296
	1036	4.7	143
	1629	11.3	344
	2334	1.4	43
14 Th ◐	0643	9.2	280
	1137	5.5	168
	1747	10.2	311
15 F	0040	2.3	70
	0801	9.2	280
	1258	5.8	177
	1925	9.6	293

	Time	Height	
	h m	ft	cm
16 Sa	0159	2.8	85
	0902	9.6	293
	1438	5.4	165
	2043	9.6	293
17 Su	0312	2.7	82
	0949	10.1	308
	1552	4.4	134
	2144	9.8	299
18 M	0405	2.5	76
	1025	10.8	329
	1639	3.2	98
	2234	10.2	311
19 Tu	0445	2.3	70
	1056	11.4	347
	1715	2.0	61
	2317	10.6	323
20 W	0519	2.2	67
	1125	12.0	366
	1749	1.0	30
	2356	10.9	332
21 Th	0550	2.3	70
	1152	12.6	384
	1820	0.2	6
22 F ○	0033	11.2	341
	0621	2.4	73
	1220	13.0	396
	1852	−0.4	−12
23 Sa	0108	11.3	344
	0651	2.7	82
	1247	13.4	408
	1925	−0.7	−21
24 Su	0143	11.3	344
	0722	3.0	91
	1315	13.5	411
	2000	−0.8	−24
25 M	0219	11.0	335
	0755	3.4	104
	1345	13.5	411
	2037	−0.7	−21
26 Tu	0257	10.6	323
	0831	3.9	119
	1417	13.2	402
	2118	−0.4	−12
27 W	0340	10.1	308
	0911	4.4	134
	1453	12.7	387
	2204	0.0	0
28 Th	0434	9.6	293
	0959	4.9	149
	1538	12.0	366
	2256	0.6	18
29 F	0548	9.3	283
	1059	5.2	158
	1641	11.1	338
	2354	1.1	34
30 Sa ◑	0707	9.6	293
	1214	5.2	158
	1820	10.3	314
31 Su	0100	1.6	49
	0811	10.3	314
	1342	4.6	140
	1957	10.2	311

November

	Time	Height	
	h m	ft	cm
1 M	0211	1.8	55
	0903	11.3	344
	1506	3.2	98
	2112	10.6	323
2 Tu	0317	1.8	55
	0948	12.4	378
	1610	1.5	46
	2216	11.1	338
3 W	0413	1.7	52
	1030	13.4	408
	1702	−0.2	−6
	2314	11.6	354
4 Th	0502	1.6	49
	1111	14.3	436
	1748	−1.5	−46
5 F ●	0007	12.0	366
	0547	1.8	55
	1152	14.8	451
	1832	−2.4	−73
6 Sa	0057	12.2	372
	0631	2.0	61
	1232	15.1	460
	1915	−2.7	−82
7 Su	0144	12.2	372
	0713	2.4	73
	1312	14.9	454
	1959	−2.5	−76
8 M	0230	11.9	363
	0756	3.0	91
	1352	14.4	439
	2042	−1.9	−58
9 Tu	0315	11.4	347
	0841	3.6	110
	1431	13.5	411
	2127	−1.0	−30
10 W	0404	10.8	329
	0927	4.2	128
	1513	12.5	381
	2213	0.0	0
11 Th	0459	10.2	311
	1017	4.8	146
	1559	11.3	344
	2301	1.0	30
12 F	0602	9.8	299
	1114	5.2	158
	1700	10.1	308
	2352	2.0	61
13 Sa ◐	0706	9.8	299
	1222	5.4	165
	1827	9.2	280
14 Su	0050	2.8	85
	0802	10.0	305
	1344	5.1	155
	1952	8.8	268
15 M	0153	3.3	101
	0848	10.5	320
	1505	4.3	131
	2101	8.9	271

	Time	Height	
	h m	ft	cm
16 Tu	0256	3.6	110
	0927	11.0	335
	1602	3.2	98
	2159	9.2	280
17 W	0349	3.8	116
	1002	11.6	354
	1645	2.0	61
	2249	9.6	293
18 Th	0433	3.8	116
	1036	12.3	375
	1722	1.0	30
	2335	10.0	305
19 F	0511	3.8	116
	1109	12.8	390
	1757	0.1	3
20 Sa	0017	10.5	320
	0547	3.8	116
	1142	13.3	405
	1831	−0.7	−21
21 Su ○	0056	10.8	329
	0623	3.8	116
	1216	13.7	418
	1907	−1.2	−37
22 M	0135	11.0	335
	0659	3.8	116
	1251	13.9	424
	1944	−1.5	−46
23 Tu	0214	11.0	335
	0738	3.9	119
	1327	13.9	424
	2024	−1.5	−46
24 W	0255	10.9	332
	0819	4.0	122
	1406	13.7	418
	2106	−1.4	−43
25 Th	0339	10.7	326
	0905	4.2	128
	1448	13.1	399
	2150	−1.0	−30
26 F	0428	10.6	323
	0957	4.3	131
	1537	12.2	372
	2238	−0.3	−9
27 Sa	0525	10.6	323
	1057	4.3	131
	1639	11.1	338
	2328	0.5	15
28 Su ◑	0627	10.9	332
	1205	4.1	125
	1805	10.1	308
29 M	0024	1.4	43
	0726	11.4	347
	1323	3.5	107
	1937	9.6	293
30 Tu	0125	2.2	67
	0820	12.1	369
	1443	2.4	73
	2057	9.7	296

December

	Time	Height	
	h m	ft	cm
1 W	0233	2.9	88
	0910	12.9	393
	1552	1.0	30
	2206	10.0	305
2 Th	0338	3.2	98
	0958	13.6	415
	1648	−0.4	−12
	2309	10.5	320
3 F	0436	3.4	104
	1044	14.2	433
	1737	−1.4	−43
4 Sa	0005	11.0	335
	0527	3.4	104
	1129	14.5	442
	1821	−2.1	−64
5 Su ●	0055	11.3	344
	0614	3.4	104
	1213	14.6	445
	1904	−2.3	−70
6 M	0141	11.5	351
	0658	3.4	104
	1256	14.4	439
	1946	−2.2	−67
7 Tu	0223	11.5	351
	0742	3.5	107
	1337	13.9	424
	2027	−1.8	−55
8 W	0304	11.4	347
	0826	3.7	113
	1416	13.3	405
	2107	−1.2	−37
9 Th	0344	11.1	338
	0910	3.9	119
	1455	12.4	378
	2147	−0.4	−12
10 F	0426	10.8	329
	0956	4.2	128
	1535	11.4	347
	2226	0.5	15
11 Sa	0510	10.5	320
	1044	4.4	134
	1621	10.3	314
	2305	1.5	46
12 Su	0558	10.4	317
	1138	4.6	140
	1721	9.2	280
	2346	2.5	76
13 M ◐	0647	10.4	317
	1240	4.5	137
	1842	8.4	256
14 Tu	0031	3.5	107
	0736	10.6	323
	1354	4.1	125
	2005	8.1	247
15 W	0125	4.3	131
	0822	11.0	335
	1509	3.4	104
	2117	8.2	250

	Time	Height	
	h m	ft	cm
16 Th	0231	4.9	149
	0906	11.5	351
	1608	2.3	70
	2220	8.6	262
17 F	0336	5.1	155
	0949	12.0	366
	1654	1.3	40
	2315	9.2	280
18 Sa	0431	5.0	152
	1031	12.6	384
	1735	0.2	6
19 Su	0003	9.8	299
	0518	4.7	143
	1113	13.2	402
	1813	−0.7	−21
20 M ○	0046	10.3	314
	0601	4.3	131
	1155	13.7	418
	1852	−1.5	−46
21 Tu	0127	10.8	329
	0643	3.9	119
	1237	14.1	430
	1931	−2.1	−64
22 W	0206	11.2	341
	0726	3.6	110
	1319	14.2	433
	2010	−2.3	−70
23 Th	0244	11.5	351
	0811	3.2	98
	1402	14.0	427
	2051	−2.2	−67
24 F	0324	11.7	357
	0859	3.0	91
	1447	13.4	408
	2133	−1.7	−52
25 Sa	0406	11.9	363
	0950	2.8	85
	1536	12.5	381
	2216	−0.9	−27
26 Su	0451	12.0	366
	1045	2.6	79
	1634	11.2	341
	2300	0.2	6
27 M ◑	0542	12.1	369
	1146	2.5	76
	1748	10.0	305
	2348	1.5	46
28 Tu	0638	12.3	375
	1256	2.3	70
	1916	9.1	277
29 W	0043	2.8	85
	0737	12.5	381
	1415	1.8	55
	2042	8.9	271
30 Th	0150	3.9	119
	0835	12.8	390
	1533	1.0	30
	2200	9.1	277
31 F	0307	4.5	137
	0932	13.1	399
	1637	0.0	0
	2308	9.6	293

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Seldovia, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0249	19.2	585
	0825	2.0	61
	1427	21.7	661
	2100	−5.3	−162
2 Sa	0332	20.0	610
	0913	1.1	34
	1515	21.8	664
	2144	−5.1	−155
3 Su	0414	20.4	622
	1001	0.6	18
	1605	21.2	646
	2228	−4.3	−131
4 M	0457	20.4	622
	1051	0.6	18
	1655	19.8	604
	2312	−2.7	−82
5 Tu	0541	20.0	610
	1144	0.9	27
	1749	18.0	549
	2359	−0.7	−21
6 W	0627	19.3	588
	1241	1.5	46
	1849	16.1	491
7 Th ◑	0049	1.6	49
	0717	18.3	558
	1347	2.1	64
	1959	14.3	436
8 F	0146	3.8	116
	0812	17.4	530
	1502	2.4	73
	2124	13.2	402
9 Sa	0254	5.5	168
	0914	16.6	506
	1621	2.1	64
	2256	13.2	402
10 Su	0410	6.4	195
	1022	16.3	497
	1731	1.4	43
11 M	0011	14.1	430
	0522	6.4	195
	1127	16.5	503
	1826	0.5	15
12 Tu	0105	15.1	460
	0620	5.9	180
	1221	17.1	521
	1910	−0.3	−9
13 W	0147	16.1	491
	0707	5.1	155
	1306	17.7	539
	1948	−1.0	−30
14 Th ●	0221	16.9	515
	0748	4.3	131
	1345	18.3	558
	2021	−1.4	−43
15 F	0253	17.6	536
	0825	3.6	110
	1422	18.8	573
	2052	−1.7	−52

	Time	Height	
	h m	ft	cm
16 Sa	0322	18.1	552
	0900	3.1	94
	1457	18.9	576
	2122	−1.6	−49
17 Su	0351	18.3	558
	0935	2.8	85
	1532	18.7	570
	2152	−1.1	−34
18 M	0420	18.4	561
	1009	2.7	82
	1607	18.1	552
	2221	−0.3	−9
19 Tu	0448	18.1	552
	1044	2.8	85
	1642	17.2	524
	2251	0.8	24
20 W	0517	17.8	543
	1121	3.1	94
	1720	15.9	485
	2322	2.1	64
21 Th	0547	17.2	524
	1200	3.5	107
	1803	14.6	445
	2356	3.6	110
22 F	0620	16.7	509
	1247	3.9	119
	1855	13.2	402
23 Sa ◐	0037	5.1	155
	0701	16.1	491
	1348	4.1	125
	2006	12.1	369
24 Su	0133	6.5	198
	0757	15.7	479
	1505	3.8	116
	2140	11.8	360
25 M	0253	7.4	226
	0909	15.7	479
	1628	2.6	79
	2312	12.8	390
26 Tu	0422	7.3	223
	1027	16.4	500
	1736	0.8	24
27 W	0018	14.4	439
	0536	6.0	183
	1138	17.8	543
	1831	−1.3	−40
28 Th	0108	16.4	500
	0635	4.3	131
	1237	19.5	594
	1918	−3.2	−98
29 F ○	0151	18.3	558
	0726	2.3	70
	1330	21.0	640
	2002	−4.6	−140
30 Sa	0231	19.9	607
	0814	0.5	15
	1420	22.0	671
	2044	−5.3	−162
31 Su	0310	21.1	643
	0900	−0.9	−27
	1507	22.3	680
	2125	−5.1	−155

February

	Time	Height	
	h m	ft	cm
1 M	0349	21.8	664
	0946	−1.6	−49
	1554	21.7	661
	2206	−4.1	−125
2 Tu	0428	21.8	664
	1032	−1.7	−52
	1642	20.4	622
	2247	−2.4	−73
3 W	0508	21.2	646
	1120	−1.1	−34
	1731	18.5	564
	2329	−0.1	−3
4 Th	0548	20.0	610
	1210	0.1	3
	1824	16.3	497
5 F ◑	0014	2.3	70
	0632	18.5	564
	1308	1.5	46
	1928	14.1	430
6 Sa	0106	4.7	143
	0723	16.8	512
	1419	2.8	85
	2051	12.6	384
7 Su	0212	6.6	201
	0826	15.4	469
	1550	3.3	101
	2239	12.4	378
8 M	0341	7.6	232
	0948	14.7	448
	1717	2.8	85
9 Tu	0003	13.3	405
	0510	7.4	226
	1112	14.9	454
	1816	1.8	55
10 W	0055	14.5	442
	0613	6.3	192
	1213	15.8	482
	1859	0.8	24
11 Th	0132	15.7	479
	0658	5.1	155
	1257	16.9	515
	1932	0.0	0
12 F	0201	16.8	512
	0734	3.9	119
	1334	17.8	543
	2001	−0.7	−21
13 Sa ●	0228	17.7	539
	0808	2.7	82
	1408	18.6	567
	2029	−1.1	−34
14 Su	0253	18.5	564
	0840	1.8	55
	1442	19.1	582
	2056	−1.1	−34
15 M	0318	19.1	582
	0912	1.2	37
	1515	19.1	582
	2124	−0.8	−24

	Time	Height	
	h m	ft	cm
16 Tu	0344	19.3	588
	0944	0.9	27
	1548	18.7	570
	2152	−0.1	−3
17 W	0410	19.2	585
	1016	0.9	27
	1622	17.9	546
	2221	0.9	27
18 Th	0436	18.8	573
	1049	1.1	34
	1658	16.7	509
	2251	2.2	67
19 F	0503	18.2	555
	1125	1.6	49
	1737	15.3	466
	2324	3.6	110
20 Sa	0535	17.5	533
	1208	2.3	70
	1826	13.8	421
21 Su ◐	0003	5.2	158
	0614	16.6	506
	1304	3.0	91
	1933	12.4	378
22 M	0057	6.6	201
	0711	15.7	479
	1423	3.4	104
	2109	11.9	363
23 Tu	0223	7.6	232
	0835	15.2	463
	1556	2.7	82
	2249	12.8	390
24 W	0403	7.2	219
	1008	15.7	479
	1714	1.1	34
	2357	14.6	445
25 Th	0523	5.5	168
	1126	17.2	524
	1811	−0.9	−27
26 F	0045	16.7	509
	0623	3.2	98
	1228	19.1	582
	1858	−2.6	−79
27 Sa	0126	18.8	573
	0713	0.8	24
	1321	20.7	631
	1941	−3.8	−116
28 Su ○	0204	20.6	628
	0759	−1.3	−40
	1409	21.8	664
	2022	−4.2	−128

March

	Time	Height	
	h m	ft	cm
1 M	0242	21.9	668
	0843	−2.8	−85
	1455	22.1	674
	2102	−3.9	−119
2 Tu	0319	22.5	686
	0927	−3.5	−107
	1540	21.6	658
	2142	−2.8	−85
3 W	0356	22.4	683
	1010	−3.3	−101
	1625	20.3	619
	2221	−1.1	−34
4 Th	0433	21.5	655
	1053	−2.3	−70
	1712	18.4	561
	2301	1.0	30
5 F	0511	19.9	607
	1139	−0.7	−21
	1801	16.3	497
	2344	3.2	98
6 Sa	0552	18.1	552
	1231	1.2	37
	1900	14.2	433
7 Su ◑	0033	5.4	165
	0640	16.1	491
	1335	3.0	91
	2018	12.5	381
8 M	0138	7.2	219
	0742	14.3	436
	1507	4.1	125
	2209	12.2	372
9 Tu	0314	8.0	244
	0912	13.4	408
	1647	3.8	116
	2336	13.0	396
10 W	0454	7.5	229
	1050	13.7	418
	1750	3.0	91
11 Th	0026	14.2	433
	0556	6.1	186
	1155	14.8	451
	1831	2.0	61
12 F	0059	15.5	472
	0638	4.6	140
	1239	16.0	488
	1902	1.2	37
13 Sa	0126	16.7	509
	0712	3.1	94
	1315	17.2	524
	1930	0.5	15
14 Su	0151	17.8	543
	0744	1.7	52
	1349	18.2	555
	1958	0.1	3
15 M ●	0215	18.7	570
	0815	0.5	15
	1422	18.8	573
	2025	0.0	0

	Time	Height	
	h m	ft	cm
16 Tu	0240	19.4	591
	0846	−0.3	−9
	1455	19.0	579
	2054	0.2	6
17 W	0305	19.7	600
	0917	−0.8	−24
	1529	18.8	573
	2124	0.8	24
18 Th	0332	19.7	600
	0949	−0.9	−27
	1604	18.1	552
	2154	1.7	52
19 F	0400	19.4	591
	1023	−0.6	−18
	1641	17.0	518
	2227	2.8	85
20 Sa	0430	18.7	570
	1100	0.0	0
	1723	15.7	479
	2303	4.0	122
21 Su	0505	17.8	543
	1144	0.9	27
	1813	14.2	433
	2347	5.4	165
22 M	0549	16.7	509
	1241	1.8	55
	1922	13.0	396
23 Tu ◐	0047	6.6	201
	0652	15.5	472
	1358	2.5	76
	2051	12.7	387
24 W	0215	7.1	216
	0821	14.8	451
	1528	2.3	70
	2219	13.6	415
25 Th	0353	6.3	192
	0956	15.2	463
	1645	1.2	37
	2324	15.3	466
26 F	0510	4.2	128
	1115	16.6	506
	1744	−0.2	−6
27 Sa	0012	17.4	530
	0608	1.6	49
	1217	18.3	558
	1832	−1.4	−43
28 Su	0054	19.3	588
	0657	−0.8	−24
	1310	19.8	604
	1916	−2.1	−64
29 M ○	0133	20.9	637
	0741	−2.8	−85
	1357	20.8	634
	1957	−2.3	−70
30 Tu	0210	22.0	671
	0824	−4.0	−122
	1442	21.0	640
	2037	−1.8	−55
31 W	0247	22.3	680
	0906	−4.4	−134
	1526	20.6	628
	2117	−0.9	−27

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Seldovia, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0324	21.9	668
	0947	−3.9	−119
	1610	19.5	594
	2157	0.5	15
2 F	0401	20.8	634
	1029	−2.7	−82
	1655	17.9	546
	2237	2.2	67
3 Sa	0439	19.2	585
	1112	−1.0	−30
	1742	16.1	491
	2320	4.0	122
4 Su	0520	17.3	527
	1159	0.9	27
	1837	14.3	436
5 M	0009	5.8	177
	0606	15.4	469
	1256	2.7	82
	1946	13.0	396
6 Tu ◑	0113	7.1	216
	0707	13.7	418
	1413	4.0	122
	2116	12.5	381
7 W	0243	7.7	235
	0831	12.7	387
	1546	4.4	134
	2240	13.0	396
8 Th	0419	7.0	213
	1007	12.8	390
	1657	4.0	122
	2333	14.0	427
9 F	0523	5.6	171
	1118	13.7	418
	1743	3.3	101
10 Sa	0008	15.2	463
	0606	4.0	122
	1208	14.9	454
	1818	2.7	82
11 Su	0037	16.3	497
	0641	2.4	73
	1248	16.1	491
	1850	2.1	64
12 M	0104	17.5	533
	0714	0.8	24
	1325	17.2	524
	1920	1.7	52
13 Tu	0131	18.5	564
	0746	−0.5	−15
	1400	17.9	546
	1952	1.6	49
14 W ●	0159	19.3	588
	0818	−1.5	−46
	1436	18.3	558
	2024	1.6	49
15 Th	0228	19.7	600
	0851	−2.1	−64
	1513	18.3	558
	2057	1.9	58

	Time	Height	
	h m	ft	cm
16 F	0259	19.8	604
	0926	−2.3	−70
	1551	17.9	546
	2133	2.5	76
17 Sa	0332	19.5	594
	1003	−2.1	−64
	1631	17.0	518
	2210	3.2	98
18 Su	0408	18.8	573
	1045	−1.5	−46
	1717	16.0	488
	2253	4.2	128
19 M	0450	17.8	543
	1132	−0.6	−18
	1811	14.9	454
	2344	5.1	155
20 Tu	0542	16.6	506
	1230	0.5	15
	1915	14.2	433
21 W ◐	0050	5.8	177
	0650	15.4	469
	1339	1.3	40
	2029	14.1	430
22 Th	0213	5.7	174
	0814	14.6	445
	1457	1.7	52
	2142	14.9	454
23 F	0339	4.6	140
	0943	14.8	451
	1609	1.4	43
	2243	16.3	497
24 Sa	0451	2.5	76
	1100	15.8	482
	1710	0.9	27
	2334	17.9	546
25 Su	0549	0.2	6
	1203	17.1	521
	1802	0.4	12
26 M	0018	19.3	588
	0638	−1.9	−58
	1257	18.3	558
	1848	0.1	3
27 Tu	0100	20.5	625
	0723	−3.4	−104
	1345	19.1	582
	1932	0.1	3
28 W ○	0139	21.1	643
	0805	−4.3	−131
	1430	19.4	591
	2014	0.4	12
29 Th	0218	21.2	646
	0847	−4.4	−134
	1514	19.1	582
	2055	1.1	34
30 F	0256	20.7	631
	0927	−3.8	−116
	1557	18.4	561
	2136	2.0	61

May

	Time	Height	
	h m	ft	cm
1 Sa	0335	19.7	600
	1008	−2.7	−82
	1640	17.3	527
	2218	3.1	94
2 Su	0414	18.3	558
	1049	−1.2	−37
	1726	16.1	491
	2301	4.4	134
3 M	0455	16.7	509
	1133	0.4	12
	1816	14.8	451
	2350	5.5	168
4 Tu	0542	15.1	460
	1222	2.0	61
	1912	13.8	421
5 W ◑	0049	6.4	195
	0637	13.7	418
	1320	3.3	101
	2016	13.3	405
6 Th	0202	6.8	207
	0747	12.6	384
	1427	4.2	128
	2120	13.4	408
7 F	0324	6.3	192
	0908	12.3	375
	1536	4.6	140
	2216	14.0	427
8 Sa	0432	5.2	158
	1025	12.7	387
	1634	4.5	137
	2300	14.9	454
9 Su	0523	3.6	110
	1127	13.6	415
	1721	4.2	128
	2337	15.9	485
10 M	0603	2.0	61
	1216	14.7	448
	1802	3.9	119
11 Tu	0011	17.0	518
	0640	0.5	15
	1259	15.8	482
	1840	3.5	107
12 W	0045	18.0	549
	0716	−0.9	−27
	1339	16.7	509
	1918	3.1	94
13 Th ●	0120	18.8	573
	0752	−2.1	−64
	1419	17.4	530
	1956	2.9	88
14 F	0156	19.4	591
	0830	−2.9	−88
	1459	17.7	539
	2035	2.8	85
15 Sa	0234	19.7	600
	0909	−3.4	−104
	1541	17.6	536
	2116	2.9	88

	Time	Height	
	h m	ft	cm
16 Su	0314	19.6	597
	0950	−3.3	−101
	1625	17.3	527
	2200	3.1	94
17 M	0357	19.1	582
	1035	−2.9	−88
	1712	16.8	512
	2248	3.5	107
18 Tu	0446	18.1	552
	1123	−2.0	−61
	1803	16.3	497
	2343	3.9	119
19 W	0542	16.9	515
	1217	−0.9	−27
	1859	16.0	488
20 Th ◐	0047	4.1	125
	0647	15.6	475
	1317	0.3	9
	2000	16.0	488
21 F	0201	3.8	116
	0804	14.7	448
	1423	1.3	40
	2101	16.3	497
22 Sa	0318	2.8	85
	0925	14.4	439
	1530	2.0	61
	2159	17.1	521
23 Su	0428	1.2	37
	1043	14.8	451
	1634	2.3	70
	2254	17.9	546
24 M	0528	−0.5	−15
	1150	15.7	479
	1731	2.4	73
	2344	18.7	570
25 Tu	0620	−1.9	−58
	1247	16.6	506
	1823	2.4	73
26 W	0030	19.4	591
	0707	−3.0	−91
	1336	17.3	527
	1910	2.3	70
27 Th ○	0113	19.7	600
	0750	−3.6	−110
	1422	17.8	543
	1955	2.4	73
28 F	0155	19.7	600
	0832	−3.6	−110
	1504	17.8	543
	2037	2.5	76
29 Sa	0235	19.4	591
	0911	−3.2	−98
	1546	17.6	536
	2119	2.9	88
30 Su	0315	18.8	573
	0951	−2.5	−76
	1626	17.1	521
	2201	3.4	104
31 M	0355	17.8	543
	1029	−1.5	−46
	1707	16.4	500
	2244	4.1	125

June

	Time	Height	
	h m	ft	cm
1 Tu	0436	16.7	509
	1108	−0.3	−9
	1749	15.7	479
	2329	4.7	143
2 W	0520	15.5	472
	1149	1.0	30
	1832	15.0	457
3 Th	0019	5.3	162
	0608	14.2	433
	1232	2.4	73
	1917	14.6	445
4 F ◑	0115	5.6	171
	0704	13.0	396
	1320	3.6	110
	2005	14.4	439
5 Sa	0220	5.5	168
	0811	12.2	372
	1415	4.7	143
	2054	14.4	439
6 Su	0328	4.8	146
	0926	12.0	366
	1516	5.4	165
	2144	14.8	451
7 M	0429	3.7	113
	1039	12.5	381
	1616	5.6	171
	2232	15.5	472
8 Tu	0521	2.2	67
	1141	13.4	408
	1712	5.5	168
	2319	16.4	500
9 W	0607	0.7	21
	1234	14.5	442
	1802	5.0	152
10 Th	0004	17.4	530
	0649	−0.9	−27
	1320	15.6	475
	1849	4.4	134
11 F	0048	18.4	561
	0731	−2.3	−70
	1404	16.7	509
	1934	3.6	110
12 Sa ●	0132	19.3	588
	0813	−3.5	−107
	1446	17.5	533
	2019	3.0	91
13 Su	0217	19.9	607
	0855	−4.2	−128
	1529	18.0	549
	2104	2.5	76
14 M	0303	20.1	613
	0938	−4.4	−134
	1613	18.3	558
	2151	2.1	64
15 Tu	0351	19.8	604
	1023	−4.1	−125
	1657	18.3	558
	2241	2.0	61

	Time	Height	
	h m	ft	cm
16 W	0442	19.0	579
	1109	−3.1	−94
	1744	18.2	555
	2334	2.0	61
17 Th	0536	17.7	539
	1158	−1.7	−52
	1832	18.0	549
18 F ◐	0033	2.1	64
	0637	16.2	494
	1250	0.0	0
	1924	17.7	539
19 Sa	0139	2.0	61
	0746	14.8	451
	1348	1.7	52
	2019	17.4	530
20 Su	0251	1.7	52
	0904	13.9	424
	1452	3.1	94
	2117	17.3	527
21 M	0403	0.9	27
	1025	13.8	421
	1600	4.1	125
	2217	17.4	530
22 Tu	0510	0.0	0
	1140	14.4	439
	1705	4.4	134
	2315	17.6	536
23 W	0607	−1.0	−30
	1241	15.2	463
	1804	4.3	131
24 Th	0008	18.0	549
	0656	−1.8	−55
	1332	16.1	491
	1855	4.0	122
25 F	0057	18.3	558
	0740	−2.3	−70
	1415	16.8	512
	1942	3.6	110
26 Sa ○	0141	18.6	567
	0820	−2.6	−79
	1455	17.2	524
	2024	3.2	98
27 Su	0222	18.7	570
	0857	−2.5	−76
	1531	17.4	530
	2104	3.1	94
28 M	0300	18.5	564
	0932	−2.2	−67
	1606	17.4	530
	2143	3.1	94
29 Tu	0339	18.1	552
	1006	−1.5	−46
	1640	17.2	524
	2222	3.3	101
30 W	0417	17.3	527
	1040	−0.6	−18
	1713	16.9	515
	2302	3.6	110

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Seldovia, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0456	16.3	497
	1114	0.6	18
	1747	16.4	500
	2343	4.0	122
2 F	0538	15.1	460
	1148	1.9	58
	1822	16.0	488
3 Sa	0028	4.3	131
	0625	13.9	424
	1226	3.3	101
	1859	15.5	472
4 Su ◑	0120	4.6	140
	0721	12.7	387
	1310	4.7	143
	1942	15.2	463
5 M	0221	4.5	137
	0829	11.9	363
	1405	5.9	180
	2032	15.0	457
6 Tu	0330	4.0	122
	0950	11.8	360
	1514	6.7	204
	2131	15.2	463
7 W	0438	2.8	85
	1109	12.5	381
	1626	6.7	204
	2232	15.9	485
8 Th	0537	1.3	40
	1213	13.7	418
	1731	6.1	186
	2332	17.0	518
9 F	0627	−0.5	−15
	1304	15.2	463
	1826	5.0	152
10 Sa	0026	18.3	558
	0713	−2.2	−67
	1348	16.7	509
	1917	3.7	113
11 Su ●	0117	19.6	597
	0757	−3.7	−113
	1430	18.0	549
	2004	2.3	70
12 M	0206	20.6	628
	0840	−4.6	−140
	1511	19.1	582
	2051	1.2	37
13 Tu	0254	21.1	643
	0922	−4.9	−149
	1551	19.9	607
	2138	0.3	9
14 W	0342	20.9	637
	1004	−4.5	−137
	1632	20.2	616
	2226	−0.1	−3
15 Th	0432	20.1	613
	1048	−3.3	−101
	1714	20.2	616
	2316	−0.1	−3

	Time	Height	
	h m	ft	cm
16 F	0524	18.6	567
	1133	−1.5	−46
	1758	19.7	600
17 Sa	0010	0.3	9
	0620	16.8	512
	1221	0.6	18
	1845	18.8	573
18 Su ◐	0110	0.9	27
	0725	15.0	457
	1314	2.8	85
	1937	17.8	543
19 M	0220	1.5	46
	0842	13.7	418
	1418	4.6	140
	2037	16.9	515
20 Tu	0338	1.6	49
	1011	13.2	402
	1532	5.8	177
	2146	16.3	497
21 W	0455	1.2	37
	1135	13.7	418
	1649	6.1	186
	2256	16.3	497
22 Th	0559	0.4	12
	1238	14.7	448
	1755	5.6	171
	2358	16.8	512
23 F	0649	−0.4	−12
	1326	15.8	482
	1848	4.8	146
24 Sa	0049	17.5	533
	0730	−1.1	−34
	1404	16.7	509
	1931	3.9	119
25 Su ○	0132	18.1	552
	0806	−1.5	−46
	1437	17.4	530
	2010	3.2	98
26 M	0210	18.6	567
	0838	−1.7	−52
	1507	17.9	546
	2046	2.6	79
27 Tu	0245	18.8	573
	0909	−1.6	−49
	1536	18.3	558
	2121	2.2	67
28 W	0320	18.7	570
	0939	−1.1	−34
	1604	18.4	561
	2156	2.1	64
29 Th	0355	18.2	555
	1008	−0.3	−9
	1632	18.2	555
	2230	2.3	70
30 F	0431	17.3	527
	1038	0.8	24
	1701	17.8	543
	2306	2.6	79
31 Sa	0509	16.2	494
	1109	2.2	67
	1730	17.2	524
	2344	3.1	94

August

	Time	Height	
	h m	ft	cm
1 Su	0549	14.8	451
	1142	3.6	110
	1802	16.6	506
2 M ◑	0027	3.7	113
	0638	13.4	408
	1219	5.2	158
	1840	15.9	485
3 Tu	0121	4.1	125
	0743	12.2	372
	1309	6.6	201
	1930	15.3	466
4 W	0234	4.2	128
	0909	11.7	357
	1424	7.6	232
	2039	15.1	460
5 Th	0358	3.5	107
	1044	12.3	375
	1553	7.6	232
	2159	15.5	472
6 F	0511	1.9	58
	1154	13.8	421
	1710	6.6	201
	2311	16.8	512
7 Sa	0607	0.0	0
	1244	15.6	475
	1811	4.9	149
8 Su	0013	18.5	564
	0654	−1.9	−58
	1326	17.5	533
	1902	2.9	88
9 M ●	0106	20.1	613
	0737	−3.4	−104
	1405	19.2	585
	1949	1.0	30
10 Tu	0155	21.4	652
	0819	−4.3	−131
	1444	20.7	631
	2035	−0.7	−21
11 W	0243	22.0	671
	0900	−4.5	−137
	1522	21.6	658
	2120	−1.7	−52
12 Th	0330	21.9	668
	0941	−3.8	−116
	1601	22.0	671
	2206	−2.1	−64
13 F	0418	20.9	637
	1022	−2.4	−73
	1640	21.6	658
	2253	−1.8	−55
14 Sa	0507	19.3	588
	1105	−0.4	−12
	1722	20.7	631
	2343	−0.8	−24
15 Su	0601	17.3	527
	1151	1.9	58
	1806	19.2	585

	Time	Height	
	h m	ft	cm
16 M ◐	0039	0.6	18
	0702	15.2	463
	1243	4.2	128
	1858	17.6	536
17 Tu	0147	2.0	61
	0820	13.6	415
	1348	6.2	189
	2001	16.0	488
18 W	0313	2.8	85
	1000	13.1	399
	1513	7.2	219
	2122	15.2	463
19 Th	0443	2.6	79
	1129	13.7	418
	1644	7.1	216
	2247	15.3	466
20 F	0549	1.8	55
	1227	14.9	454
	1751	6.1	186
	2353	16.0	488
21 Sa	0636	1.0	30
	1308	16.0	488
	1839	4.8	146
22 Su	0041	17.0	518
	0713	0.2	6
	1340	17.1	521
	1917	3.6	110
23 M	0119	18.0	549
	0743	−0.3	−9
	1408	18.0	549
	1951	2.5	76
24 Tu ○	0154	18.7	570
	0811	−0.5	−15
	1433	18.7	570
	2024	1.7	52
25 W	0227	19.2	585
	0839	−0.5	−15
	1458	19.2	585
	2055	1.1	34
26 Th	0300	19.3	588
	0907	−0.1	−3
	1524	19.4	591
	2127	0.8	24
27 F	0333	18.9	576
	0936	0.6	18
	1550	19.3	588
	2158	0.9	27
28 Sa	0407	18.1	552
	1005	1.7	52
	1616	18.9	576
	2231	1.3	40
29 Su	0443	17.0	518
	1035	3.0	91
	1643	18.2	555
	2306	1.9	58
30 M	0521	15.6	475
	1107	4.4	134
	1714	17.4	530
	2346	2.7	82
31 Tu	0608	14.1	430
	1144	5.8	177
	1751	16.4	500

September

	Time	Height	
	h m	ft	cm
1 W ◑	0038	3.6	110
	0711	12.8	390
	1234	7.2	219
	1844	15.5	472
2 Th	0151	4.1	125
	0842	12.2	372
	1355	8.2	250
	2005	14.9	454
3 F	0324	3.7	113
	1020	12.8	390
	1536	7.9	241
	2139	15.3	466
4 Sa	0445	2.3	70
	1129	14.5	442
	1657	6.3	192
	2259	16.7	509
5 Su	0543	0.5	15
	1216	16.6	506
	1757	4.0	122
6 M	0001	18.6	567
	0630	−1.2	−37
	1257	18.7	570
	1847	1.5	46
7 Tu	0054	20.4	622
	0713	−2.5	−76
	1335	20.6	628
	1932	−0.8	−24
8 W	0143	21.7	661
	0754	−3.2	−98
	1412	22.0	671
	2016	−2.5	−76
9 Th	0229	22.3	680
	0835	−3.1	−94
	1449	22.9	698
	2100	−3.5	−107
10 F	0315	22.1	674
	0915	−2.2	−67
	1527	23.0	701
	2143	−3.6	−110
11 Sa	0402	21.1	643
	0956	−0.8	−24
	1606	22.3	680
	2228	−2.8	−85
12 Su	0449	19.5	594
	1039	1.2	37
	1647	20.9	637
	2315	−1.3	−40
13 M	0541	17.4	530
	1124	3.3	101
	1730	19.0	579
14 Tu ◐	0008	0.6	18
	0641	15.4	469
	1216	5.5	168
	1821	16.9	515
15 W	0113	2.5	76
	0759	13.8	421
	1324	7.2	219
	1927	15.1	460

	Time	Height	
	h m	ft	cm
16 Th	0241	3.8	116
	0940	13.3	405
	1459	7.9	241
	2058	14.1	430
17 F	0418	3.8	116
	1105	14.1	430
	1636	7.3	223
	2233	14.4	439
18 Sa	0525	3.1	94
	1159	15.2	463
	1738	5.9	180
	2339	15.4	469
19 Su	0609	2.4	73
	1236	16.3	497
	1821	4.4	134
20 M	0024	16.5	503
	0642	1.7	52
	1304	17.4	530
	1855	3.0	91
21 Tu	0100	17.6	536
	0711	1.3	40
	1329	18.4	561
	1927	1.7	52
22 W	0133	18.5	564
	0739	1.0	30
	1353	19.2	585
	1957	0.7	21
23 Th ○	0206	19.1	582
	0806	1.0	30
	1418	19.8	604
	2028	−0.1	−3
24 F	0239	19.3	588
	0835	1.3	40
	1444	20.1	613
	2058	−0.4	−12
25 Sa	0312	19.1	582
	0905	1.9	58
	1510	20.0	610
	2130	−0.4	−12
26 Su	0347	18.4	561
	0935	2.8	85
	1538	19.5	594
	2202	0.0	0
27 M	0423	17.4	530
	1007	3.9	119
	1607	18.8	573
	2238	0.7	21
28 Tu	0504	16.1	491
	1042	5.1	155
	1640	17.8	543
	2319	1.7	52
29 W	0552	14.7	448
	1124	6.3	192
	1721	16.7	509
30 Th ◑	0012	2.7	82
	0657	13.5	411
	1221	7.5	229
	1820	15.5	472

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Seldovia, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0124	3.4	104
	0823	13.2	402
	1347	8.0	244
	1948	14.7	448
2 Sa	0252	3.4	104
	0949	14.0	427
	1524	7.2	219
	2125	15.1	460
3 Su	0412	2.5	76
	1053	15.6	475
	1642	5.2	158
	2245	16.4	500
4 M	0512	1.1	34
	1141	17.6	536
	1740	2.6	79
	2348	18.2	555
5 Tu	0601	−0.1	−3
	1222	19.6	597
	1829	−0.1	−3
6 W	0041	19.9	607
	0646	−0.9	−27
	1301	21.4	652
	1914	−2.3	−70
7 Th ●	0130	21.1	643
	0728	−1.3	−40
	1340	22.6	689
	1957	−3.8	−116
8 F	0216	21.6	658
	0810	−1.1	−34
	1418	23.2	707
	2040	−4.5	−137
9 Sa	0302	21.4	652
	0851	−0.3	−9
	1457	22.9	698
	2122	−4.2	−128
10 Su	0347	20.5	625
	0933	1.0	30
	1536	22.0	671
	2206	−3.2	−98
11 M	0434	19.1	582
	1016	2.6	79
	1617	20.4	622
	2251	−1.4	−43
12 Tu	0524	17.4	530
	1102	4.3	131
	1700	18.4	561
	2340	0.6	18
13 W	0621	15.6	475
	1154	6.1	186
	1751	16.4	500
14 Th ◐	0039	2.5	76
	0732	14.3	436
	1302	7.4	226
	1855	14.6	445
15 F	0155	4.0	122
	0858	13.8	421
	1433	7.9	241
	2021	13.5	411

	Time	Height	
	h m	ft	cm
16 Sa	0324	4.6	140
	1017	14.3	436
	1607	7.1	216
	2156	13.5	411
17 Su	0435	4.4	134
	1111	15.2	463
	1709	5.7	174
	2306	14.3	436
18 M	0523	3.9	119
	1148	16.2	494
	1752	4.1	125
	2356	15.4	469
19 Tu	0600	3.5	107
	1217	17.2	524
	1827	2.6	79
20 W	0035	16.5	503
	0632	3.1	94
	1244	18.2	555
	1859	1.2	37
21 Th	0111	17.5	533
	0702	2.8	85
	1311	19.1	582
	1930	0.0	0
22 F ○	0145	18.3	558
	0733	2.7	82
	1338	19.8	604
	2001	−0.8	−24
23 Sa	0220	18.7	570
	0805	2.8	85
	1407	20.1	613
	2033	−1.3	−40
24 Su	0256	18.7	570
	0838	3.1	94
	1437	20.1	613
	2107	−1.4	−43
25 M	0332	18.2	555
	0912	3.7	113
	1509	19.8	604
	2142	−1.2	−37
26 Tu	0412	17.5	533
	0949	4.4	134
	1544	19.1	582
	2221	−0.6	−18
27 W	0455	16.5	503
	1029	5.2	158
	1623	18.2	555
	2306	0.3	9
28 Th	0546	15.6	475
	1118	6.1	186
	1711	17.0	518
	2358	1.3	40
29 F	0646	14.8	451
	1219	6.8	207
	1814	15.7	479
30 Sa ◑	0103	2.2	67
	0757	14.7	448
	1339	6.8	207
	1937	14.8	451
31 Su	0218	2.7	82
	0907	15.4	469
	1506	5.7	174
	2107	14.9	454

November

	Time	Height	
	h m	ft	cm
1 M	0332	2.6	79
	1009	16.7	509
	1621	3.7	113
	2228	15.8	482
2 Tu	0436	2.1	64
	1101	18.3	558
	1720	1.2	37
	2334	17.2	524
3 W	0530	1.6	49
	1147	19.9	607
	1810	−1.1	−34
4 Th	0029	18.5	564
	0619	1.1	34
	1229	21.2	646
	1857	−3.0	−91
5 F ●	0119	19.6	597
	0704	1.0	30
	1311	22.1	674
	1940	−4.1	−125
6 Sa	0206	20.1	613
	0748	1.1	34
	1352	22.4	683
	2023	−4.5	−137
7 Su	0251	20.1	613
	0831	1.5	46
	1432	22.0	671
	2105	−4.1	−125
8 M	0336	19.6	597
	0914	2.3	70
	1513	21.1	643
	2148	−3.1	−94
9 Tu	0421	18.6	567
	0958	3.4	104
	1555	19.7	600
	2231	−1.6	−49
10 W	0508	17.4	530
	1044	4.6	140
	1638	18.0	549
	2316	0.1	3
11 Th	0559	16.2	494
	1135	5.8	177
	1726	16.2	494
12 F	0005	1.9	58
	0655	15.2	463
	1234	6.7	204
	1822	14.6	445
13 Sa ◐	0101	3.4	104
	0757	14.6	445
	1347	7.1	216
	1932	13.3	405
14 Su	0206	4.6	140
	0901	14.5	442
	1510	6.7	204
	2054	12.8	390
15 M	0315	5.2	158
	0957	14.9	454
	1620	5.6	171
	2214	13.1	399

	Time	Height	
	h m	ft	cm
16 Tu	0416	5.4	165
	1043	15.7	479
	1712	4.2	128
	2317	13.9	424
17 W	0505	5.3	162
	1120	16.5	503
	1753	2.7	82
18 Th	0006	15.0	457
	0547	5.0	152
	1155	17.5	533
	1829	1.2	37
19 F	0048	16.0	488
	0625	4.7	143
	1229	18.4	561
	1904	−0.1	−3
20 Sa	0127	16.9	515
	0702	4.3	131
	1303	19.2	585
	1938	−1.2	−37
21 Su ○	0205	17.6	536
	0740	4.1	125
	1338	19.7	600
	2014	−1.9	−58
22 M	0243	18.0	549
	0818	3.9	119
	1414	20.0	610
	2051	−2.4	−73
23 Tu	0323	18.1	552
	0857	3.9	119
	1452	20.0	610
	2129	−2.5	−76
24 W	0404	17.9	546
	0938	4.1	125
	1533	19.5	594
	2211	−2.1	−64
25 Th	0447	17.5	533
	1023	4.4	134
	1618	18.7	570
	2255	−1.4	−43
26 F	0535	17.0	518
	1114	4.7	143
	1709	17.6	536
	2344	−0.4	−12
27 Sa	0626	16.7	509
	1213	4.9	149
	1810	16.3	497
28 Su ◑	0040	0.8	24
	0723	16.6	506
	1322	4.7	143
	1923	15.1	460
29 M	0142	2.0	61
	0822	16.9	515
	1439	3.9	119
	2045	14.6	445
30 Tu	0250	2.9	88
	0922	17.5	533
	1554	2.4	73
	2207	14.8	451

December

	Time	Height	
	h m	ft	cm
1 W	0357	3.4	104
	1019	18.3	558
	1658	0.6	18
	2320	15.7	479
2 Th	0459	3.5	107
	1113	19.3	588
	1754	−1.2	−37
3 F	0021	16.8	512
	0555	3.3	101
	1202	20.1	613
	1843	−2.6	−79
4 Sa	0114	17.8	543
	0646	3.0	91
	1249	20.7	631
	1929	−3.5	−107
5 Su ●	0201	18.5	564
	0733	2.8	85
	1334	20.9	637
	2012	−3.8	−116
6 M	0245	18.9	576
	0818	2.8	85
	1417	20.7	631
	2054	−3.6	−110
7 Tu	0328	18.8	573
	0901	2.9	88
	1459	20.2	616
	2134	−2.9	−88
8 W	0409	18.4	561
	0944	3.4	104
	1540	19.3	588
	2213	−1.9	−58
9 Th	0450	17.8	543
	1028	4.0	122
	1621	18.0	549
	2252	−0.6	−18
10 F	0530	17.1	521
	1112	4.7	143
	1704	16.6	506
	2331	0.9	27
11 Sa	0612	16.3	497
	1200	5.3	162
	1750	15.2	463
12 Su	0012	2.5	76
	0655	15.7	479
	1255	5.8	177
	1844	13.8	421
13 M ◐	0057	4.0	122
	0741	15.2	463
	1358	5.9	180
	1948	12.7	387
14 Tu	0149	5.3	162
	0830	15.0	457
	1509	5.5	168
	2105	12.2	372
15 W	0250	6.3	192
	0922	15.2	463
	1616	4.6	140
	2225	12.4	378

	Time	Height	
	h m	ft	cm
16 Th	0356	6.8	207
	1014	15.6	475
	1712	3.3	101
	2334	13.3	405
17 F	0456	6.7	204
	1103	16.4	500
	1759	1.8	55
18 Sa	0027	14.4	439
	0549	6.3	192
	1150	17.3	527
	1840	0.3	9
19 Su	0112	15.6	475
	0636	5.6	171
	1234	18.3	558
	1920	−1.1	−34
20 M ○	0153	16.7	509
	0720	4.8	146
	1317	19.3	588
	1959	−2.3	−70
21 Tu	0232	17.6	536
	0803	3.9	119
	1400	20.0	610
	2038	−3.2	−98
22 W	0312	18.3	558
	0845	3.2	98
	1443	20.4	622
	2118	−3.7	−113
23 Th	0351	18.8	573
	0929	2.7	82
	1528	20.4	622
	2159	−3.6	−110
24 F	0432	19.0	579
	1015	2.4	73
	1614	19.7	600
	2241	−2.9	−88
25 Sa	0514	19.0	579
	1104	2.3	70
	1705	18.6	567
	2325	−1.6	−49
26 Su	0558	18.8	573
	1158	2.3	70
	1800	17.1	521
27 M ◑	0013	0.0	0
	0645	18.5	564
	1258	2.4	73
	1904	15.6	475
28 Tu	0107	1.9	58
	0738	18.1	552
	1407	2.3	70
	2020	14.3	436
29 W	0209	3.6	110
	0836	17.8	543
	1523	1.8	55
	2145	13.8	421
30 Th	0320	4.8	146
	0939	17.7	539
	1638	0.8	24
	2310	14.3	436
31 F	0432	5.3	162
	1044	17.9	546
	1742	−0.4	−12

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nikiski, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0459	21.9	668
	1057	3.3	101
	1634	24.0	732
	2330	−5.1	−155
2 Sa	0542	22.7	692
	1144	2.2	67
	1723	24.0	732
3 Su	0013	−4.9	−149
	0626	23.1	704
	1232	1.5	46
	1815	23.4	713
4 M	0058	−3.9	−119
	0712	23.1	704
	1322	1.3	40
	1910	22.1	674
5 Tu	0143	−2.2	−67
	0759	22.7	692
	1416	1.6	49
	2009	20.4	622
6 W	0231	0.1	3
	0849	22.0	671
	1515	2.2	67
	2115	18.6	567
7 Th ◑	0325	2.7	82
	0943	21.0	640
	1622	2.7	82
	2228	17.0	518
8 F	0427	5.2	158
	1043	20.1	613
	1735	2.8	85
	2348	16.3	497
9 Sa	0537	6.9	210
	1147	19.4	591
	1847	2.2	67
10 Su	0106	16.5	503
	0649	7.8	238
	1252	19.2	585
	1951	1.3	40
11 M	0213	17.4	530
	0754	7.7	235
	1349	19.4	591
	2044	0.3	9
12 Tu	0306	18.4	561
	0848	7.1	216
	1438	19.8	604
	2129	−0.5	−15
13 W	0347	19.2	585
	0934	6.3	192
	1520	20.2	616
	2208	−1.2	−37
14 Th ●	0423	19.9	607
	1014	5.4	165
	1558	20.5	625
	2243	−1.5	−46
15 F	0457	20.5	625
	1052	4.6	140
	1634	20.8	634
	2317	−1.7	−52

	Time	Height	
	h m	ft	cm
16 Sa	0530	20.9	637
	1128	3.8	116
	1710	20.9	637
	2350	−1.5	−46
17 Su	0602	21.2	646
	1204	3.3	101
	1746	20.7	631
18 M	0022	−1.0	−30
	0635	21.2	646
	1240	3.0	91
	1823	20.2	616
19 Tu	0053	−0.1	−3
	0707	21.0	640
	1317	3.0	91
	1902	19.3	588
20 W	0125	1.2	37
	0739	20.5	625
	1357	3.4	104
	1945	18.1	552
21 Th	0156	2.9	88
	0810	19.9	607
	1442	3.9	119
	2037	16.7	509
22 F	0230	4.8	146
	0844	19.2	585
	1537	4.4	134
	2144	15.4	469
23 Sa ◐	0314	6.8	207
	0927	18.4	561
	1647	4.5	137
	2306	14.7	448
24 Su	0424	8.5	259
	1031	17.9	546
	1803	3.9	119
25 M	0028	15.1	460
	0557	9.3	283
	1149	18.0	549
	1911	2.4	73
26 Tu	0137	16.3	497
	0714	8.8	268
	1259	19.0	579
	2009	0.4	12
27 W	0232	17.9	546
	0816	7.3	223
	1359	20.4	622
	2059	−1.6	−49
28 Th	0318	19.6	597
	0909	5.3	162
	1451	22.0	671
	2145	−3.4	−104
29 F ○	0359	21.2	646
	0957	3.2	98
	1540	23.4	713
	2229	−4.6	−140
30 Sa	0439	22.6	689
	1043	1.3	40
	1628	24.2	738
	2311	−5.2	−158
31 Su	0519	23.6	719
	1129	−0.2	−6
	1716	24.4	744
	2353	−4.9	−149

February

	Time	Height	
	h m	ft	cm
1 M	0559	24.2	738
	1214	−1.1	−34
	1804	23.9	728
2 Tu	0034	−3.8	−116
	0640	24.2	738
	1301	−1.2	−37
	1855	22.6	689
3 W	0116	−1.8	−55
	0722	23.6	719
	1351	−0.6	−18
	1949	20.8	634
4 Th	0200	0.7	21
	0807	22.4	683
	1445	0.6	18
	2049	18.7	570
5 F ◑	0249	3.6	110
	0857	20.8	634
	1548	2.0	61
	2159	16.8	512
6 Sa	0348	6.3	192
	0957	19.1	582
	1700	3.0	91
	2320	15.7	479
7 Su	0503	8.3	253
	1110	17.8	543
	1819	3.1	94
8 M	0046	15.8	482
	0626	8.9	271
	1229	17.4	530
	1932	2.5	76
9 Tu	0200	16.7	509
	0740	8.4	256
	1338	17.7	539
	2029	1.4	43
10 W	0253	17.9	546
	0837	7.2	219
	1431	18.5	564
	2112	0.4	12
11 Th	0331	18.9	576
	0921	5.8	177
	1513	19.3	588
	2149	−0.3	−9
12 F	0403	19.8	604
	0958	4.4	134
	1549	20.0	610
	2222	−0.9	−27
13 Sa ●	0432	20.5	625
	1033	3.2	98
	1622	20.6	628
	2253	−1.1	−34
14 Su	0501	21.1	643
	1106	2.1	64
	1655	21.0	640
	2323	−1.1	−34
15 M	0529	21.5	655
	1140	1.3	40
	1728	21.0	640
	2353	−0.7	−21

	Time	Height	
	h m	ft	cm
16 Tu	0556	21.7	661
	1214	0.9	27
	1803	20.7	631
17 W	0023	0.2	6
	0623	21.6	658
	1248	0.8	24
	1839	20.0	610
18 Th	0052	1.4	43
	0648	21.3	649
	1324	1.1	34
	1919	18.9	576
19 F	0121	3.0	91
	0714	20.7	631
	1404	1.8	55
	2005	17.5	533
20 Sa	0154	4.9	149
	0743	19.9	607
	1453	2.7	82
	2106	16.0	488
21 Su ◐	0234	6.8	207
	0822	18.9	576
	1602	3.5	107
	2229	15.0	457
22 M	0341	8.6	262
	0927	17.8	543
	1725	3.5	107
	2358	15.0	457
23 Tu	0529	9.3	283
	1114	17.3	527
	1842	2.4	73
24 W	0112	16.2	494
	0654	8.4	256
	1242	18.2	555
	1945	0.7	21
25 Th	0209	17.9	546
	0759	6.3	192
	1349	19.8	604
	2037	−1.2	−37
26 F	0254	19.8	604
	0853	3.8	116
	1443	21.6	658
	2124	−2.8	−85
27 Sa	0334	21.6	658
	0941	1.3	40
	1531	23.1	704
	2207	−3.9	−119
28 Su ○	0412	23.1	704
	1026	−0.9	−27
	1618	24.0	732
	2248	−4.2	−128

March

	Time	Height	
	h m	ft	cm
1 M	0450	24.2	738
	1110	−2.5	−76
	1703	24.2	738
	2329	−3.7	−113
2 Tu	0527	24.7	753
	1154	−3.2	−98
	1750	23.6	719
3 W	0009	−2.4	−73
	0606	24.5	747
	1239	−3.0	−91
	1838	22.4	683
4 Th	0050	−0.5	−15
	0646	23.6	719
	1325	−2.1	−64
	1929	20.7	631
5 F	0132	1.9	58
	0728	22.1	674
	1416	−0.4	−12
	2026	18.7	570
6 Sa	0219	4.5	137
	0816	20.1	613
	1514	1.5	46
	2132	16.9	515
7 Su ◑	0317	7.0	213
	0915	18.0	549
	1624	3.1	94
	2251	15.7	479
8 M	0433	8.7	265
	1035	16.4	500
	1744	3.8	116
9 Tu	0016	15.6	475
	0601	9.1	277
	1205	15.9	485
	1901	3.4	104
10 W	0130	16.4	500
	0720	8.1	247
	1320	16.5	503
	2001	2.5	76
11 Th	0222	17.6	536
	0817	6.5	198
	1415	17.5	533
	2045	1.6	49
12 F	0259	18.7	570
	0859	4.8	146
	1456	18.6	567
	2120	0.9	27
13 Sa	0330	19.6	597
	0934	3.2	98
	1531	19.5	594
	2152	0.4	12
14 Su	0358	20.4	622
	1008	1.8	55
	1603	20.2	616
	2223	0.2	6
15 M ●	0425	21.1	643
	1041	0.5	15
	1636	20.7	631
	2253	0.2	6

	Time	Height	
	h m	ft	cm
16 Tu	0450	21.6	658
	1114	−0.4	−12
	1709	20.9	637
	2323	0.6	18
17 W	0515	21.9	668
	1147	−0.9	−27
	1743	20.7	631
	2354	1.3	40
18 Th	0540	21.9	668
	1222	−1.1	−34
	1820	20.2	616
19 F	0025	2.4	73
	0605	21.7	661
	1258	−0.7	−21
	1901	19.3	588
20 Sa	0057	3.7	113
	0633	21.1	643
	1338	0.1	3
	1948	18.0	549
21 Su	0134	5.3	162
	0707	20.2	616
	1427	1.2	37
	2049	16.7	509
22 M	0222	6.9	210
	0753	18.9	576
	1534	2.3	70
	2207	15.7	479
23 Tu ◐	0338	8.2	250
	0908	17.4	530
	1655	2.7	82
	2330	15.8	482
24 W	0515	8.4	256
	1100	16.9	515
	1811	2.2	67
25 Th	0041	16.9	515
	0636	6.9	210
	1229	17.7	539
	1916	0.9	27
26 F	0138	18.5	564
	0741	4.6	140
	1336	19.3	588
	2010	−0.4	−12
27 Sa	0223	20.3	619
	0834	1.9	58
	1431	20.9	637
	2058	−1.5	−46
28 Su	0303	22.0	671
	0922	−0.6	−18
	1519	22.2	677
	2142	−2.0	−61
29 M ○	0341	23.3	710
	1007	−2.6	−79
	1604	23.0	701
	2223	−2.0	−61
30 Tu	0418	24.1	735
	1051	−3.9	−119
	1649	23.2	707
	2304	−1.4	−43
31 W	0455	24.4	744
	1134	−4.3	−131
	1735	22.7	692
	2345	−0.2	−6

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nikiski, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height (ft)	Height (cm)
1 Th	0533	23.9	728
	1217	−3.9	−119
	1822	21.8	664
2 F	0026	1.4	43
	0612	22.8	695
	1302	−2.7	−82
	1911	20.4	622
3 Sa	0109	3.2	98
	0654	21.2	646
	1349	−1.0	−30
	2006	18.8	573
4 Su	0156	5.2	158
	0741	19.2	585
	1443	1.0	30
	2108	17.3	527
5 M	0253	7.1	216
	0842	17.2	524
	1547	2.8	85
	2219	16.3	497
6 Tu ◑	0405	8.3	253
	1002	15.6	475
	1700	3.9	119
	2334	16.0	488
7 W	0528	8.4	256
	1130	15.1	460
	1814	4.1	125
8 Th	0042	16.5	503
	0644	7.3	223
	1246	15.6	475
	1915	3.6	110
9 F	0135	17.4	530
	0743	5.7	174
	1343	16.5	503
	2003	3.1	94
10 Sa	0215	18.4	561
	0827	3.9	119
	1428	17.6	536
	2042	2.6	79
11 Su	0248	19.3	588
	0904	2.2	67
	1505	18.6	567
	2116	2.3	70
12 M	0317	20.1	613
	0939	0.7	21
	1540	19.4	591
	2149	2.1	64
13 Tu	0344	20.8	634
	1014	−0.6	−18
	1615	20.0	610
	2222	2.2	67
14 W ●	0410	21.3	649
	1048	−1.6	−49
	1650	20.3	619
	2255	2.4	73
15 Th	0436	21.7	661
	1124	−2.2	−67
	1726	20.4	622
	2329	2.8	85
16 F	0503	21.9	668
	1200	−2.4	−73
	1806	20.1	613
17 Sa	0005	3.5	107
	0533	21.7	661
	1239	−2.2	−67
	1850	19.4	591
18 Su	0044	4.3	131
	0609	21.1	643
	1323	−1.5	−46
	1941	18.6	567
19 M	0129	5.3	162
	0652	20.1	613
	1414	−0.4	−12
	2040	17.7	539
20 Tu	0225	6.3	192
	0750	18.7	570
	1516	0.8	24
	2148	17.1	521
21 W ◐	0338	6.9	210
	0914	17.4	530
	1627	1.6	49
	2259	17.2	524
22 Th	0500	6.5	198
	1050	16.9	515
	1738	1.8	55
23 F	0005	18.0	549
	0615	5.0	152
	1212	17.4	530
	1843	1.5	46
24 Sa	0101	19.3	588
	0719	2.7	82
	1319	18.5	564
	1939	1.0	30
25 Su	0148	20.7	631
	0814	0.4	12
	1416	19.8	604
	2029	0.7	21
26 M	0230	22.0	671
	0903	−1.8	−55
	1505	20.8	634
	2115	0.6	18
27 Tu	0310	22.9	698
	0949	−3.3	−101
	1552	21.5	655
	2159	0.8	24
28 W ○	0348	23.4	713
	1033	−4.2	−128
	1636	21.7	661
	2242	1.3	40
29 Th	0425	23.3	710
	1115	−4.4	−134
	1721	21.5	655
	2324	2.1	64
30 F	0504	22.7	692
	1158	−3.9	−119
	1808	20.9	637

May

	Time	Height (ft)	Height (cm)
1 Sa	0006	3.1	94
	0544	21.7	661
	1241	−2.8	−85
	1856	20.0	610
2 Su	0050	4.2	128
	0628	20.3	619
	1326	−1.3	−40
	1948	19.0	579
3 M	0137	5.4	165
	0717	18.7	570
	1414	0.4	12
	2043	18.0	549
4 Tu	0231	6.4	195
	0816	17.0	518
	1509	2.0	61
	2143	17.2	524
5 W ◑	0334	7.2	219
	0927	15.6	475
	1610	3.4	104
	2245	16.8	512
6 Th	0445	7.2	219
	1045	14.9	454
	1714	4.3	131
	2345	16.9	515
7 F	0556	6.5	198
	1158	14.9	454
	1815	4.6	140
8 Sa	0038	17.4	530
	0657	5.1	155
	1301	15.5	472
	1909	4.7	143
9 Su	0122	18.1	552
	0747	3.5	107
	1352	16.4	500
	1955	4.6	140
10 M	0200	18.8	573
	0830	1.8	55
	1437	17.4	530
	2036	4.5	137
11 Tu	0232	19.5	594
	0909	0.3	9
	1516	18.3	558
	2114	4.4	134
12 W	0302	20.3	619
	0947	−1.1	−34
	1555	19.1	582
	2152	4.3	131
13 Th ●	0332	20.9	637
	1025	−2.3	−70
	1633	19.7	600
	2230	4.1	125
14 F	0402	21.5	655
	1103	−3.1	−94
	1713	20.0	610
	2309	4.1	125
15 Sa	0437	21.8	664
	1143	−3.5	−107
	1755	20.1	613
	2351	4.1	125
16 Su	0515	21.8	664
	1226	−3.4	−104
	1841	19.9	607
17 M	0035	4.2	128
	0600	21.3	649
	1311	−2.9	−88
	1932	19.6	597
18 Tu	0125	4.5	137
	0653	20.3	619
	1401	−1.9	−58
	2026	19.2	585
19 W	0222	4.8	146
	0757	19.0	579
	1456	−0.6	−18
	2125	18.9	576
20 Th ◐	0327	4.9	149
	0913	17.8	543
	1557	0.7	21
	2225	18.9	576
21 F	0439	4.4	134
	1034	17.1	521
	1702	1.8	55
	2325	19.3	588
22 Sa	0551	3.2	98
	1151	17.0	518
	1806	2.6	79
23 Su	0022	20.0	610
	0656	1.5	46
	1301	17.6	536
	1906	3.0	91
24 M	0113	20.7	631
	0754	−0.3	−9
	1401	18.4	561
	2001	3.2	98
25 Tu	0159	21.4	652
	0845	−1.9	−58
	1454	19.3	588
	2052	3.4	104
26 W	0242	21.9	668
	0933	−3.0	−91
	1542	19.9	607
	2139	3.5	107
27 Th ○	0323	22.0	671
	1017	−3.6	−110
	1627	20.3	619
	2224	3.6	110
28 F	0404	21.9	668
	1100	−3.7	−113
	1711	20.4	622
	2307	3.8	116
29 Sa	0444	21.4	652
	1141	−3.4	−104
	1755	20.3	619
	2350	4.0	122
30 Su	0526	20.7	631
	1222	−2.7	−82
	1839	20.0	610
31 M	0033	4.3	131
	0610	19.8	604
	1303	−1.6	−49
	1925	19.5	594

June

	Time	Height (ft)	Height (cm)
1 Tu	0118	4.8	146
	0657	18.7	570
	1345	−0.4	−12
	2012	18.9	576
2 W	0205	5.3	162
	0750	17.4	530
	1430	1.1	34
	2101	18.3	558
3 Th	0258	5.7	174
	0849	16.2	494
	1518	2.7	82
	2152	17.8	543
4 F ◑	0358	5.9	180
	0955	15.2	463
	1611	4.2	128
	2244	17.5	533
5 Sa	0502	5.6	171
	1105	14.7	448
	1709	5.4	165
	2335	17.5	533
6 Su	0606	4.8	146
	1213	14.8	451
	1808	6.2	189
7 M	0023	17.7	539
	0703	3.5	107
	1314	15.4	469
	1903	6.6	201
8 Tu	0107	18.2	555
	0754	2.0	61
	1407	16.3	497
	1954	6.6	201
9 W	0147	18.9	576
	0839	0.4	12
	1453	17.4	530
	2041	6.3	192
10 Th	0224	19.7	600
	0922	−1.1	−34
	1536	18.4	561
	2126	5.8	177
11 F	0301	20.6	628
	1004	−2.5	−76
	1618	19.3	588
	2210	5.1	155
12 Sa ●	0340	21.4	652
	1046	−3.6	−110
	1659	20.0	610
	2254	4.3	131
13 Su	0422	22.0	671
	1128	−4.3	−131
	1742	20.5	625
	2339	3.6	110
14 M	0508	22.2	677
	1211	−4.5	−137
	1827	20.9	637
15 Tu	0025	3.0	91
	0558	21.9	668
	1256	−4.1	−125
	1913	21.0	640
16 W	0115	2.7	82
	0653	21.1	643
	1342	−3.0	−91
	2002	21.0	640
17 Th	0208	2.6	79
	0754	19.9	607
	1432	−1.4	−43
	2053	20.7	631
18 F ◐	0308	2.6	79
	0901	18.5	564
	1526	0.5	15
	2147	20.4	622
19 Sa	0414	2.5	76
	1013	17.3	527
	1626	2.5	76
	2245	20.1	613
20 Su	0524	2.1	64
	1129	16.6	506
	1731	4.1	125
	2343	20.0	610
21 M	0632	1.1	34
	1243	16.7	509
	1836	5.2	158
22 Tu	0041	20.1	613
	0735	0.0	0
	1349	17.3	527
	1938	5.6	171
23 W	0135	20.3	619
	0831	−1.1	−34
	1446	18.1	552
	2035	5.6	171
24 Th	0224	20.5	625
	0920	−2.0	−61
	1535	18.9	576
	2125	5.2	158
25 F	0309	20.6	628
	1004	−2.6	−79
	1619	19.5	594
	2211	4.8	146
26 Sa ○	0351	20.7	631
	1045	−2.8	−85
	1659	19.9	607
	2253	4.3	131
27 Su	0432	20.6	628
	1124	−2.8	−85
	1738	20.2	616
	2334	3.9	119
28 M	0513	20.4	622
	1201	−2.4	−73
	1817	20.3	619
29 Tu	0014	3.7	113
	0554	20.0	610
	1238	−1.8	−55
	1855	20.2	616
30 W	0054	3.6	110
	0636	19.3	588
	1314	−0.8	−24
	1934	19.9	607

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nikiski, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0135	3.7	113
	0721	18.3	558
	1350	0.6	18
	2014	19.4	591
2 F	0220	4.1	125
	0810	17.1	521
	1428	2.3	70
	2055	18.8	573
3 Sa	0310	4.4	134
	0907	15.9	485
	1509	4.1	125
	2138	18.1	552
4 Su ◑	0407	4.7	143
	1012	14.9	454
	1558	5.9	180
	2225	17.6	536
5 M	0512	4.5	137
	1125	14.4	439
	1701	7.4	226
	2318	17.4	530
6 Tu	0618	3.8	116
	1237	14.7	448
	1812	8.2	250
7 W	0013	17.5	533
	0718	2.5	76
	1340	15.6	475
	1917	8.2	250
8 Th	0106	18.2	555
	0812	0.8	24
	1433	16.8	512
	2014	7.5	229
9 F	0155	19.2	585
	0900	−0.9	−27
	1518	18.1	552
	2105	6.3	192
10 Sa	0242	20.5	625
	0944	−2.6	−79
	1600	19.4	591
	2152	4.9	149
11 Su ●	0328	21.7	661
	1027	−3.9	−119
	1641	20.6	628
	2238	3.3	101
12 M	0414	22.6	689
	1110	−4.8	−146
	1721	21.6	658
	2323	1.9	58
13 Tu	0502	23.1	704
	1152	−5.1	−155
	1803	22.3	680
14 W	0010	0.9	27
	0552	22.9	698
	1235	−4.5	−137
	1846	22.6	689
15 Th	0057	0.3	9
	0644	22.1	674
	1318	−3.2	−98
	1930	22.6	689

	Time	Height	
	h m	ft	cm
16 F	0148	0.3	9
	0741	20.7	631
	1404	−1.2	−37
	2017	22.1	674
17 Sa	0244	0.7	21
	0842	19.0	579
	1454	1.3	40
	2107	21.3	649
18 Su ◐	0346	1.3	40
	0951	17.4	530
	1551	3.8	116
	2204	20.2	616
19 M	0456	1.7	52
	1108	16.3	497
	1659	5.9	180
	2308	19.3	588
20 Tu	0609	1.6	49
	1227	16.1	491
	1812	7.1	216
21 W	0016	18.8	573
	0719	1.0	30
	1341	16.7	509
	1923	7.3	223
22 Th	0121	18.9	576
	0818	0.0	0
	1441	17.7	539
	2024	6.7	204
23 F	0217	19.2	585
	0908	−0.9	−27
	1527	18.6	567
	2115	5.8	177
24 Sa	0304	19.7	600
	0950	−1.5	−46
	1606	19.4	591
	2158	4.8	146
25 Su ○	0344	20.1	613
	1028	−1.9	−58
	1641	20.0	610
	2237	3.8	116
26 M	0422	20.4	622
	1103	−2.0	−61
	1714	20.5	625
	2314	3.0	91
27 Tu	0458	20.6	628
	1136	−1.9	−58
	1746	20.8	634
	2350	2.4	73
28 W	0535	20.5	625
	1209	−1.4	−43
	1818	20.9	637
29 Th	0026	2.1	64
	0613	20.0	610
	1240	−0.5	−15
	1850	20.7	631
30 F	0103	2.1	64
	0652	19.3	588
	1312	0.8	24
	1922	20.3	619
31 Sa	0142	2.4	73
	0735	18.1	552
	1343	2.5	76
	1953	19.6	597

August

	Time	Height	
	h m	ft	cm
1 Su	0224	3.0	91
	0824	16.8	512
	1416	4.4	134
	2025	18.8	573
2 M ◑	0314	3.7	113
	0925	15.5	472
	1455	6.4	195
	2104	17.9	546
3 Tu	0419	4.2	128
	1041	14.6	445
	1555	8.2	250
	2201	17.2	524
4 W	0534	4.1	125
	1203	14.6	445
	1728	9.2	280
	2321	17.0	518
5 Th	0645	3.0	91
	1315	15.5	472
	1849	8.9	271
6 F	0036	17.7	539
	0746	1.3	40
	1411	16.9	515
	1953	7.6	232
7 Sa	0138	19.0	579
	0837	−0.6	−18
	1457	18.6	567
	2047	5.7	174
8 Su	0231	20.7	631
	0923	−2.4	−73
	1537	20.2	616
	2135	3.6	110
9 M ●	0319	22.2	677
	1006	−3.8	−116
	1615	21.7	661
	2220	1.5	46
10 Tu	0405	23.4	713
	1048	−4.6	−140
	1653	22.9	698
	2305	−0.3	−9
11 W	0452	23.9	728
	1129	−4.6	−140
	1732	23.7	722
	2350	−1.5	−46
12 Th	0539	23.7	722
	1210	−3.8	−116
	1812	24.0	732
13 F	0036	−2.0	−61
	0629	22.8	695
	1252	−2.2	−67
	1853	23.7	722
14 Sa	0124	−1.6	−49
	0723	21.3	649
	1335	0.0	0
	1938	22.8	695
15 Su	0217	−0.6	−18
	0822	19.4	591
	1423	2.7	82
	2027	21.3	649

	Time	Height	
	h m	ft	cm
16 M ◐	0317	0.8	24
	0929	17.5	533
	1520	5.4	165
	2125	19.6	597
17 Tu	0427	2.1	64
	1047	16.2	494
	1632	7.5	229
	2238	18.2	555
18 W	0545	2.6	79
	1212	16.0	488
	1755	8.4	256
	2359	17.5	533
19 Th	0701	2.2	67
	1330	16.8	512
	1913	7.9	241
20 F	0114	17.8	543
	0803	1.3	40
	1427	17.9	546
	2015	6.7	204
21 Sa	0212	18.5	564
	0851	0.4	12
	1509	18.9	576
	2102	5.3	162
22 Su	0257	19.3	588
	0930	−0.3	−9
	1543	19.8	604
	2141	3.9	119
23 M	0334	20.0	610
	1004	−0.7	−21
	1613	20.5	625
	2216	2.7	82
24 Tu ○	0407	20.6	628
	1036	−0.9	−27
	1641	21.0	640
	2250	1.7	52
25 W	0440	20.9	637
	1107	−0.7	−21
	1709	21.4	652
	2324	1.0	30
26 Th	0514	20.9	637
	1137	−0.2	−6
	1737	21.6	658
	2357	0.6	18
27 F	0549	20.6	628
	1207	0.7	21
	1803	21.4	652
28 Sa	0031	0.6	18
	0625	20.0	610
	1236	1.9	58
	1829	21.1	643
29 Su	0106	1.0	30
	0705	18.9	576
	1306	3.4	104
	1854	20.4	622
30 M	0145	1.7	52
	0750	17.6	536
	1338	5.2	158
	1920	19.5	594
31 Tu	0231	2.7	82
	0849	16.2	494
	1417	7.1	216
	1955	18.5	564

September

	Time	Height	
	h m	ft	cm
1 W ◑	0334	3.7	113
	1007	15.1	460
	1518	8.8	268
	2053	17.3	527
2 Th	0456	4.0	122
	1133	15.1	460
	1702	9.6	293
	2244	16.7	509
3 F	0614	3.3	101
	1248	16.0	488
	1829	8.7	265
4 Sa	0018	17.4	530
	0718	1.7	52
	1345	17.6	536
	1935	6.8	207
5 Su	0125	19.0	579
	0811	−0.1	−3
	1429	19.5	594
	2028	4.3	131
6 M	0219	20.9	637
	0858	−1.7	−52
	1508	21.3	649
	2116	1.7	52
7 Tu	0307	22.6	689
	0941	−2.8	−85
	1544	22.9	698
	2201	−0.6	−18
8 W	0353	23.7	722
	1022	−3.3	−101
	1621	24.1	735
	2245	−2.4	−73
9 Th	0438	24.2	738
	1103	−3.0	−91
	1658	24.9	759
	2329	−3.4	−104
10 F	0524	24.0	732
	1144	−2.0	−61
	1736	24.9	759
11 Sa	0014	−3.5	−107
	0612	23.0	701
	1225	−0.4	−12
	1817	24.2	738
12 Su	0100	−2.7	−82
	0704	21.5	655
	1309	1.8	55
	1900	22.8	695
13 M	0151	−1.2	−37
	0802	19.6	597
	1357	4.3	131
	1949	20.9	637
14 Tu ◐	0248	0.7	21
	0908	17.8	543
	1455	6.6	201
	2050	18.8	573
15 W	0357	2.5	76
	1026	16.6	506
	1610	8.4	256
	2211	17.1	521

	Time	Height	
	h m	ft	cm
16 Th	0516	3.4	104
	1149	16.5	503
	1736	8.7	265
	2342	16.5	503
17 F	0633	3.3	101
	1303	17.2	524
	1857	7.8	238
18 Sa	0100	17.0	518
	0736	2.6	79
	1358	18.3	558
	1957	6.2	189
19 Su	0157	18.0	549
	0824	1.8	55
	1438	19.3	588
	2041	4.5	137
20 M	0240	19.0	579
	0901	1.2	37
	1510	20.2	616
	2117	2.9	88
21 Tu	0315	19.8	604
	0934	1.0	30
	1538	20.9	637
	2151	1.6	49
22 W	0348	20.5	625
	1005	0.9	27
	1604	21.4	652
	2224	0.6	18
23 Th ○	0420	20.9	637
	1036	1.1	34
	1630	21.8	664
	2257	−0.2	−6
24 F	0453	21.0	640
	1106	1.6	49
	1654	22.0	671
	2330	−0.6	−18
25 Sa	0527	20.9	637
	1136	2.4	73
	1719	22.0	671
26 Su	0003	−0.6	−18
	0603	20.4	622
	1206	3.4	104
	1743	21.6	658
27 M	0038	−0.2	−6
	0643	19.5	594
	1239	4.6	140
	1808	21.0	640
28 Tu	0117	0.6	18
	0729	18.3	558
	1315	6.1	186
	1840	20.1	613
29 W	0203	1.7	52
	0828	17.1	521
	1401	7.6	232
	1922	18.8	573
30 Th ◑	0304	2.8	85
	0943	16.2	494
	1511	8.8	268
	2028	17.4	530

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nikiski, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0423	3.5	107
	1104	16.2	494
	1647	9.0	274
	2228	16.6	506
2 Sa	0540	3.2	98
	1215	17.1	521
	1809	7.7	235
3 Su	0002	17.4	530
	0646	2.1	64
	1311	18.7	570
	1914	5.4	165
4 M	0110	19.0	579
	0741	0.8	24
	1356	20.5	625
	2008	2.6	79
5 Tu	0205	20.8	634
	0829	−0.3	−9
	1435	22.3	680
	2056	0.0	0
6 W	0253	22.3	680
	0914	−0.9	−27
	1512	23.8	725
	2141	−2.2	−67
7 Th ●	0339	23.3	710
	0956	−1.0	−30
	1549	24.8	756
	2225	−3.7	−113
8 F	0424	23.7	722
	1038	−0.6	−18
	1626	25.2	768
	2309	−4.4	−134
9 Sa	0510	23.5	716
	1120	0.4	12
	1704	24.9	759
	2353	−4.2	−128
10 Su	0557	22.6	689
	1202	1.8	55
	1744	23.9	728
11 M	0039	−3.1	−94
	0648	21.4	652
	1247	3.5	107
	1828	22.3	680
12 Tu	0127	−1.4	−43
	0744	19.9	607
	1336	5.4	165
	1917	20.3	619
13 W	0221	0.6	18
	0847	18.4	561
	1434	7.2	219
	2020	18.2	555
14 Th ◐	0324	2.5	76
	0958	17.4	530
	1546	8.4	256
	2142	16.5	503
15 F	0436	3.8	116
	1112	17.2	524
	1708	8.4	256
	2311	15.9	485

	Time	Height	
	h m	ft	cm
16 Sa	0550	4.3	131
	1220	17.6	536
	1825	7.4	226
17 Su	0028	16.3	497
	0653	4.0	122
	1314	18.5	564
	1926	5.7	174
18 M	0128	17.2	524
	0743	3.6	110
	1356	19.4	591
	2011	4.0	122
19 Tu	0213	18.2	555
	0823	3.4	104
	1429	20.2	616
	2049	2.4	73
20 W	0251	19.1	582
	0859	3.2	98
	1459	20.9	637
	2124	1.0	30
21 Th	0326	19.9	607
	0932	3.2	98
	1526	21.4	652
	2158	−0.1	−3
22 F ○	0400	20.4	622
	1004	3.4	104
	1551	21.8	664
	2232	−1.0	−30
23 Sa	0434	20.7	631
	1037	3.7	113
	1616	22.1	674
	2306	−1.5	−46
24 Su	0510	20.8	634
	1110	4.1	125
	1642	22.2	677
	2341	−1.6	−49
25 M	0548	20.5	625
	1145	4.7	143
	1710	22.0	671
26 Tu	0018	−1.3	−40
	0629	19.9	607
	1223	5.5	168
	1743	21.4	652
27 W	0059	−0.6	−18
	0717	19.1	582
	1305	6.4	195
	1822	20.5	625
28 Th	0147	0.4	12
	0814	18.3	558
	1358	7.2	219
	1914	19.1	582
29 F	0244	1.6	49
	0920	17.7	539
	1507	7.8	238
	2032	17.7	539
30 Sa ◑	0352	2.5	76
	1029	17.8	543
	1628	7.5	229
	2213	17.0	518
31 Su	0503	2.9	88
	1134	18.5	564
	1745	6.1	186
	2341	17.4	530

November

	Time	Height	
	h m	ft	cm
1 M	0610	2.8	85
	1231	19.8	604
	1850	3.9	119
2 Tu	0051	18.6	567
	0708	2.3	70
	1319	21.3	649
	1947	1.3	40
3 W	0149	20.0	610
	0800	1.9	58
	1402	22.7	692
	2037	−1.0	−30
4 Th	0240	21.3	649
	0847	1.7	52
	1442	23.8	725
	2123	−2.9	−88
5 F ●	0327	22.2	677
	0933	1.8	55
	1521	24.5	747
	2208	−4.0	−122
6 Sa	0413	22.6	689
	1017	2.1	64
	1559	24.6	750
	2252	−4.4	−134
7 Su	0458	22.5	686
	1101	2.7	82
	1639	24.2	738
	2336	−4.1	−125
8 M	0545	22.1	674
	1145	3.5	107
	1721	23.2	707
9 Tu	0020	−3.1	−94
	0634	21.3	649
	1230	4.5	137
	1806	21.7	661
10 W	0106	−1.6	−49
	0726	20.3	619
	1318	5.6	171
	1856	20.0	610
11 Th	0154	0.2	6
	0822	19.3	588
	1412	6.7	204
	1955	18.2	555
12 F	0248	2.0	61
	0921	18.5	564
	1514	7.5	229
	2106	16.7	509
13 Sa ◐	0348	3.7	113
	1023	18.0	549
	1625	7.6	232
	2225	15.7	479
14 Su	0452	4.8	146
	1124	18.0	549
	1737	6.9	210
	2340	15.6	475
15 M	0555	5.4	165
	1218	18.4	561
	1841	5.6	171

	Time	Height	
	h m	ft	cm
16 Tu	0046	16.2	494
	0650	5.7	174
	1305	19.0	579
	1933	4.0	122
17 W	0140	17.0	518
	0738	5.8	177
	1344	19.6	597
	2017	2.5	76
18 Th	0225	18.0	549
	0820	5.7	174
	1418	20.3	619
	2056	1.0	30
19 F	0305	18.9	576
	0859	5.7	174
	1448	20.9	637
	2133	−0.2	−6
20 Sa	0342	19.6	597
	0936	5.6	171
	1518	21.4	652
	2209	−1.2	−37
21 Su ○	0419	20.2	616
	1014	5.4	165
	1547	21.9	668
	2246	−2.0	−61
22 M	0457	20.5	625
	1052	5.3	162
	1619	22.2	677
	2324	−2.4	−73
23 Tu	0536	20.6	628
	1131	5.2	158
	1654	22.2	677
24 W	0004	−2.4	−73
	0619	20.5	625
	1213	5.3	162
	1735	21.8	664
25 Th	0046	−2.0	−61
	0705	20.3	619
	1300	5.4	165
	1822	21.0	640
26 F	0132	−1.2	−37
	0756	19.9	607
	1352	5.6	171
	1920	19.9	607
27 Sa	0223	0.1	3
	0851	19.7	600
	1454	5.8	177
	2032	18.5	564
28 Su ◑	0320	1.5	46
	0950	19.6	597
	1604	5.4	165
	2154	17.6	536
29 M	0424	2.8	85
	1049	19.9	607
	1716	4.4	134
	2315	17.3	527
30 Tu	0530	3.7	113
	1148	20.5	625
	1825	2.7	82

December

	Time	Height	
	h m	ft	cm
1 W	0030	17.8	543
	0633	4.3	131
	1242	21.3	649
	1926	0.8	24
2 Th	0134	18.8	573
	0732	4.4	134
	1331	22.2	677
	2020	−1.1	−34
3 F	0230	19.8	604
	0825	4.4	134
	1417	22.9	698
	2109	−2.5	−76
4 Sa	0320	20.7	631
	0915	4.3	131
	1500	23.3	710
	2155	−3.4	−104
5 Su ●	0406	21.3	649
	1002	4.2	128
	1543	23.3	710
	2239	−3.7	−113
6 M	0450	21.6	658
	1047	4.2	128
	1625	23.0	701
	2322	−3.5	−107
7 Tu	0534	21.6	658
	1131	4.2	128
	1707	22.3	680
8 W	0003	−2.9	−88
	0618	21.3	649
	1215	4.5	137
	1752	21.4	652
9 Th	0045	−1.8	−55
	0704	20.9	637
	1259	4.9	149
	1838	20.2	616
10 F	0126	−0.4	−12
	0750	20.3	619
	1346	5.4	165
	1930	18.8	573
11 Sa	0210	1.2	37
	0838	19.6	597
	1438	5.9	180
	2027	17.4	530
12 Su	0256	3.0	91
	0928	18.9	576
	1536	6.3	192
	2132	16.1	491
13 M ◐	0347	4.8	146
	1020	18.4	561
	1641	6.3	192
	2243	15.3	466
14 Tu	0445	6.3	192
	1113	18.2	555
	1747	5.6	171
	2355	15.2	463
15 W	0547	7.4	226
	1205	18.2	555
	1848	4.5	137

	Time	Height	
	h m	ft	cm
16 Th	0101	15.7	479
	0647	8.0	244
	1253	18.5	564
	1941	3.1	94
17 F	0158	16.7	509
	0741	8.0	244
	1336	19.1	582
	2028	1.6	49
18 Sa	0245	17.7	539
	0829	7.7	235
	1415	19.8	604
	2110	0.1	3
19 Su	0327	18.8	573
	0913	7.1	216
	1451	20.7	631
	2150	−1.2	−37
20 M ○	0406	19.7	600
	0955	6.3	192
	1528	21.5	655
	2230	−2.4	−73
21 Tu	0444	20.5	625
	1037	5.3	162
	1607	22.2	677
	2309	−3.2	−98
22 W	0523	21.1	643
	1119	4.5	137
	1649	22.6	689
	2349	−3.6	−110
23 Th	0603	21.5	655
	1203	3.7	113
	1734	22.6	689
24 F	0031	−3.4	−104
	0646	21.8	664
	1248	3.2	98
	1823	22.0	671
25 Sa	0114	−2.5	−76
	0730	21.8	664
	1338	3.0	91
	1918	20.9	637
26 Su	0159	−1.1	−34
	0817	21.6	658
	1433	3.1	94
	2021	19.5	594
27 M ◑	0249	0.9	27
	0908	21.3	649
	1536	3.2	98
	2132	18.0	549
28 Tu	0346	3.0	91
	1004	20.8	634
	1646	3.0	91
	2250	17.0	518
29 W	0451	4.9	149
	1105	20.6	628
	1758	2.2	67
30 Th	0009	16.9	515
	0601	6.2	189
	1207	20.5	625
	1906	1.0	30
31 F	0122	17.5	533
	0709	6.7	204
	1307	20.8	634
	2006	−0.3	−9

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Anchorage, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height		Time	Height	
	h m	ft	cm	h m	ft	cm
1 F	0156	−4.0	−122	**16** Sa 0222	−0.6	−18
	0745	30.0	914	0803	28.8	878
	1402	3.7	113	1427	4.7	143
	1923	32.5	991	1952	29.2	890
2 Sa	0241	−4.8	−146	**17** Su 0253	−0.5	−15
	0825	30.7	936	0832	29.3	893
	1451	2.4	73	1458	3.9	119
	2011	32.7	997	2026	29.0	884
3 Su	0325	−4.9	−149	**18** M 0323	−0.2	−6
	0906	31.4	957	0903	29.7	905
	1538	1.4	43	1533	3.2	98
	2059	32.4	988	2100	28.6	872
4 M	0407	−4.4	−134	**19** Tu 0352	0.4	12
	0948	31.9	972	0935	29.8	908
	1626	0.7	21	1610	2.7	82
	2147	31.5	960	2135	27.8	847
5 Tu	0448	−3.1	−94	**20** W 0421	1.3	40
	1032	32.1	978	1006	29.5	899
	1714	0.5	15	1649	2.5	76
	2239	30.0	914	2213	26.8	817
6 W	0530	−1.0	−30	**21** Th 0452	2.8	85
	1120	31.6	963	1037	28.8	878
	1806	0.8	24	1731	2.5	76
	2336	27.9	850	2258	25.4	774
7 Th ◑	0615	1.9	58	**22** F 0527	4.7	143
	1214	30.5	930	1111	27.9	850
	1905	1.5	46	1817	2.9	88
				2351	23.8	725
8 F	0048	25.8	786	**23** Sa 0610	7.0	213
	0710	5.1	155	1155	26.7	814
	1315	28.9	881	1912	3.3	101
	2012	2.0	61	◐		
9 Sa	0222	24.5	747	**24** Su 0059	22.6	689
	0821	7.8	238	0704	9.2	280
	1421	27.5	838	1257	25.7	783
	2131	2.1	64	2020	3.3	101
10 Su	0355	24.9	759	**25** M 0233	22.5	686
	0948	8.9	271	0816	10.6	323
	1529	26.7	814	1415	25.7	783
	2250	1.2	37	2135	2.4	73
11 M	0503	26.1	796	**26** Tu 0410	24.0	732
	1105	8.4	256	0943	9.9	302
	1631	26.6	811	1529	26.8	817
	2348	0.2	6	2246	0.9	27
12 Tu	0555	27.1	826	**27** W 0512	26.0	792
	1200	7.4	226	1053	8.2	250
	1723	27.1	826	1635	28.6	872
				2354	−1.0	−30
13 W	0034	−0.5	−15	**28** Th 0601	27.9	850
	0636	27.7	844	1200	6.0	183
	1244	6.5	198	1734	30.5	930
	1806	27.7	844			
14 Th ●	0115	−0.7	−21	**29** F ○ 0050	−2.9	−88
	0709	28.0	853	0645	29.5	899
	1323	5.8	177	1259	3.7	113
	1843	28.4	866	1826	32.1	978
15 F	0150	−0.6	−18	**30** Sa 0139	−4.4	−134
	0737	28.3	863	0725	30.7	936
	1356	5.3	162	1351	1.6	49
	1918	28.9	881	1914	33.2	1012
				31 Su 0223	−5.2	−158
				0804	31.7	966
				1439	−0.2	−6
				2001	33.6	1024

February

	Time	Height		Time	Height	
	h m	ft	cm	h m	ft	cm
1 M	0305	−5.2	−158	**16** Tu 0258	0.1	3
	0842	32.6	994	0833	30.5	930
	1524	−1.5	−46	1514	1.1	34
	2047	33.3	1015	2043	29.6	902
2 Tu	0345	−4.3	−131	**17** W 0327	0.9	27
	0920	33.2	1012	0902	30.6	933
	1609	−2.1	−64	1549	0.6	18
	2133	32.3	985	2117	28.9	881
3 W	0424	−2.6	−79	**18** Th 0354	1.9	58
	1001	33.2	1012	0929	30.3	924
	1654	−1.8	−55	1627	0.5	15
	2221	30.7	936	2153	27.9	850
4 Th	0502	−0.1	−3	**19** F 0422	3.3	101
	1043	32.2	981	0956	29.6	902
	1739	−0.7	−21	1706	0.8	24
	2315	28.3	863	2234	26.5	808
5 F ◑	0541	3.2	98	**20** Sa 0457	5.0	152
	1130	30.2	920	1029	28.6	872
	1829	0.9	27	1749	1.5	46
				2325	24.8	756
6 Sa	0020	25.8	786	**21** Su 0540	7.2	219
	0625	6.7	204	1113	27.3	832
	1228	27.7	844	1838	2.4	73
	1927	2.7	82	◐		
7 Su	0148	24.0	732	**22** M 0028	23.4	713
	0737	9.8	299	0633	9.3	283
	1339	25.5	777	1213	25.9	789
	2041	3.9	119	1940	3.1	94
8 M	0331	23.9	728	**23** Tu 0155	23.0	701
	0922	10.8	329	0744	10.6	323
	1457	24.4	744	1333	25.4	774
	2218	3.6	110	2058	2.8	85
9 Tu	0442	25.2	768	**24** W 0338	24.3	741
	1045	9.4	287	0916	9.8	299
	1611	24.7	753	1501	26.4	805
	2323	2.0	61	2217	1.4	43
10 W	0535	26.6	811	**25** Th 0445	26.5	808
	1140	7.4	226	1036	7.4	226
	1707	25.9	789	1620	28.5	869
				2331	−0.5	−15
11 Th	0009	0.7	21	**26** F 0537	28.6	872
	0615	27.5	838	1148	4.5	137
	1224	5.7	174	1721	30.7	936
	1751	27.2	829			
12 F	0048	−0.2	−6	**27** Sa 0029	−2.4	−73
	0646	28.0	853	0621	30.3	924
	1302	4.5	137	1246	1.7	52
	1829	28.3	863	1813	32.4	988
13 Sa	0123	−0.6	−18	**28** Su 0117	−3.7	−113
	0711	28.5	869	0700	31.6	963
	1336	3.5	107	1337	−0.7	−21
●	1903	29.2	890	○ 1901	33.3	1015
14 Su	0157	−0.6	−18			
	0735	29.2	890			
	1408	2.7	82			
	1936	29.7	905			
15 M	0228	−0.4	−12			
	0803	30.0	914			
	1440	1.8	55			
	2010	29.8	908			

March

	Time	Height		Time	Height	
	h m	ft	cm	h m	ft	cm
1 M	0201	−4.1	−125	**16** Tu 0200	0.9	27
	0737	32.6	994	0731	30.5	930
	1423	−2.4	−73	1418	0.2	6
	1948	33.6	1024	1951	30.0	914
2 Tu	0243	−3.6	−110	**17** W 0231	1.6	49
	0813	33.4	1018	0801	30.9	942
	1507	−3.3	−101	1453	−0.5	−15
	2033	33.3	1015	2026	29.9	911
3 W	0322	−2.4	−73	**18** Th 0259	2.4	73
	0850	33.8	1030	0828	30.9	942
	1549	−3.4	−104	1529	−0.8	−24
	2118	32.4	988	2102	29.4	896
4 Th	0359	−0.5	−15	**19** F 0327	3.3	101
	0928	33.3	1015	0855	30.6	933
	1630	−2.6	−79	1605	−0.7	−21
	2204	30.8	939	2138	28.4	866
5 F	0433	2.0	61	**20** Sa 0358	4.4	134
	1006	31.8	969	0925	29.9	911
	1710	−1.0	−30	1644	−0.2	−6
	2253	28.6	872	2219	27.2	829
6 Sa	0507	4.9	149	**21** Su 0434	5.9	180
	1047	29.4	896	1000	28.9	881
	1753	1.1	34	1725	0.7	21
	2352	26.2	799	2309	25.8	786
7 Su ◑	0545	8.0	244	**22** M 0519	7.5	229
	1136	26.4	805	1047	27.5	838
	1841	3.4	104	1813	1.7	52
8 M	0104	24.3	741	**23** Tu 0010	24.7	753
	0642	10.8	329	0614	9.1	277
	1253	23.8	725	1150	26.1	796
	1946	5.1	155	◐ 1913	2.7	82
9 Tu	0244	23.6	719	**24** W 0132	24.4	744
	0852	11.5	351	0728	9.8	299
	1422	22.7	692	1311	25.5	777
	2111	5.4	165	2030	2.8	85
10 W	0407	24.6	750	**25** Th 0304	25.6	780
	1016	9.5	290	0902	8.4	256
	1547	23.5	716	1444	26.4	805
	2239	4.0	122	2149	1.8	55
11 Th	0501	26.1	796	**26** F 0412	27.6	841
	1112	6.9	210	1024	5.6	171
	1646	25.2	768	1604	28.5	869
	2332	2.2	67	2303	0.3	9
12 F	0541	27.3	832	**27** Sa 0506	29.5	899
	1156	4.6	140	1135	2.5	76
	1731	26.8	817	1707	30.4	927
13 Sa	0013	1.0	30	**28** Su 0003	−1.0	−30
	0611	28.2	860	0551	31.1	948
	1235	3.0	91	1231	−0.3	−9
	1808	28.2	860	1800	31.8	969
14 Su	0051	0.4	12	**29** M 0053	−1.6	−49
	0636	28.9	881	0631	32.1	978
	1310	1.9	58	1320	−2.2	−67
	1842	29.1	887	○ 1849	32.5	991
15 M	0126	0.4	12	**30** Tu 0138	−1.4	−43
	0702	29.8	908	0708	32.9	1003
	1344	1.0	30	1406	−3.4	−104
●	1916	29.7	905	1935	32.6	994
				31 W 0219	−0.6	−18
				0743	33.3	1015
				1448	−3.6	−110
				2019	32.3	985

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Anchorage, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0258	0.6	18
	0819	33.3	1015
	1528	−3.2	−98
	2103	31.6	963
2 F	0333	2.3	70
	0855	32.4	988
	1606	−2.0	−61
	2147	30.3	924
3 Sa	0406	4.3	131
	0932	30.7	936
	1642	−0.4	−12
	2233	28.7	875
4 Su	0438	6.4	195
	1009	28.2	860
	1719	1.4	43
	2323	26.8	817
5 M	0514	8.6	262
	1052	25.5	777
	1802	3.3	101
6 Tu ◑	0022	25.2	768
	0606	10.5	320
	1200	23.0	701
	1858	5.1	155
7 W	0130	24.3	741
	0801	11.2	341
	1337	22.0	671
	2015	5.8	177
8 Th	0258	24.5	747
	0930	9.1	277
	1506	22.7	692
	2132	5.1	155
9 F	0406	25.8	786
	1031	6.3	192
	1615	24.4	744
	2237	3.8	116
10 Sa	0450	27.1	826
	1119	3.9	119
	1704	26.1	796
	2330	2.8	85
11 Su	0524	28.2	860
	1201	2.0	61
	1744	27.4	835
12 M	0014	2.4	73
	0555	29.1	887
	1240	0.8	24
	1820	28.4	866
13 Tu	0053	2.6	79
	0626	29.9	911
	1317	−0.1	−3
	1856	29.1	887
14 W ●	0129	3.1	94
	0657	30.5	930
	1354	−0.9	−27
	1933	29.5	899
15 Th	0202	3.7	113
	0727	30.9	942
	1431	−1.4	−43
	2011	29.6	902

	Time	Height	
	h m	ft	cm
16 F	0233	4.2	128
	0756	30.9	942
	1509	−1.6	−49
	2050	29.2	890
17 Sa	0305	4.8	146
	0827	30.5	930
	1547	−1.4	−43
	2129	28.6	872
18 Su	0340	5.5	168
	0901	29.8	908
	1626	−0.9	−27
	2212	27.7	844
19 M	0421	6.4	195
	0942	28.8	878
	1708	−0.1	−3
	2300	26.9	820
20 Tu	0509	7.4	226
	1034	27.5	838
	1756	0.9	27
	2359	26.4	805
21 W ◐	0607	8.1	247
	1140	26.3	802
	1854	1.9	58
22 Th	0112	26.5	808
	0722	7.9	241
	1258	25.9	789
	2005	2.3	70
23 F	0229	27.4	835
	0851	6.0	183
	1428	26.5	808
	2119	2.1	64
24 Sa	0336	28.8	878
	1009	3.3	101
	1548	28.0	853
	2231	1.7	52
25 Su	0432	30.2	920
	1117	0.5	15
	1653	29.4	896
	2335	1.3	40
26 M	0519	31.2	951
	1214	−1.6	−49
	1749	30.4	927
27 Tu	0028	1.4	43
	0601	31.8	969
	1303	−2.8	−85
	1839	30.8	939
28 W ○	0115	1.9	58
	0639	32.1	978
	1348	−3.2	−98
	1925	30.9	942
29 Th	0157	2.7	82
	0715	32.2	981
	1430	−2.9	−88
	2008	30.7	936
30 F	0236	3.7	113
	0751	31.8	969
	1508	−2.1	−64
	2050	30.3	924

May

	Time	Height	
	h m	ft	cm
1 Sa	0311	4.8	146
	0827	30.8	939
	1543	−1.0	−30
	2130	29.6	902
2 Su	0343	5.9	180
	0904	29.2	890
	1617	0.2	6
	2211	28.6	872
3 M	0415	7.0	213
	0941	27.3	832
	1652	1.4	43
	2254	27.4	835
4 Tu	0453	8.1	247
	1024	25.2	768
	1731	2.7	82
	2343	26.4	805
5 W ◑	0542	9.0	274
	1121	23.3	710
	1819	4.1	125
6 Th	0040	25.7	783
	0648	9.3	283
	1242	22.1	674
	1923	5.4	165
7 F	0141	25.6	780
	0830	8.1	247
	1404	22.2	677
	2040	5.7	174
8 Sa	0245	26.0	792
	0937	5.7	174
	1525	23.3	710
	2147	5.4	165
9 Su	0343	26.9	820
	1033	3.4	104
	1631	24.8	756
	2244	5.0	152
10 M	0431	27.8	847
	1122	1.6	49
	1718	26.2	799
	2334	5.0	152
11 Tu	0511	28.6	872
	1206	0.3	9
	1759	27.2	829
12 W	0017	5.2	158
	0548	29.3	893
	1249	−0.6	−18
	1838	28.0	853
13 Th ●	0057	5.4	165
	0622	30.0	914
	1330	−1.4	−43
	1918	28.6	872
14 F	0134	5.5	168
	0656	30.4	927
	1411	−1.9	−58
	1958	28.9	881
15 Sa	0211	5.5	168
	0730	30.6	933
	1451	−2.2	−67
	2039	29.0	884

	Time	Height	
	h m	ft	cm
16 Su	0250	5.5	168
	0808	30.4	927
	1532	−2.2	−67
	2120	28.8	878
17 M	0331	5.7	174
	0849	29.8	908
	1613	−1.9	−58
	2204	28.5	869
18 Tu	0417	5.8	177
	0937	29.0	884
	1656	−1.3	−40
	2251	28.4	866
19 W	0507	5.9	180
	1031	28.0	853
	1743	−0.4	−12
	2344	28.4	866
20 Th ◐	0605	5.8	177
	1133	27.0	823
	1836	0.7	21
21 F	0046	28.6	872
	0715	5.0	152
	1245	26.4	805
	1939	1.9	58
22 Sa	0153	29.0	884
	0832	3.4	104
	1411	26.3	802
	2047	2.9	88
23 Su	0258	29.6	902
	0947	1.3	40
	1534	26.9	820
	2157	3.6	110
24 M	0356	30.1	917
	1058	−0.6	−18
	1645	27.9	850
	2307	4.1	125
25 Tu	0448	30.4	927
	1157	−2.0	−61
	1744	28.6	872
26 W	0006	4.4	134
	0534	30.5	930
	1248	−2.6	−79
	1834	29.0	884
27 Th ○	0056	4.7	143
	0615	30.5	930
	1333	−2.4	−73
	1919	29.2	890
28 F	0139	5.1	155
	0653	30.4	927
	1414	−1.8	−55
	1958	29.1	887
29 Sa	0218	5.6	171
	0730	30.1	917
	1451	−1.0	−30
	2035	29.0	884
30 Su	0253	6.0	183
	0808	29.4	896
	1524	−0.3	−9
	2110	28.8	878
31 M	0325	6.3	192
	0845	28.3	863
	1555	0.3	9
	2146	28.5	869

June

	Time	Height	
	h m	ft	cm
1 Tu	0358	6.5	198
	0923	27.0	823
	1628	0.9	27
	2224	28.0	853
2 W	0436	6.6	201
	1004	25.6	780
	1704	1.8	55
	2306	27.5	838
3 Th	0519	6.7	204
	1052	24.3	741
	1745	3.0	91
	2354	27.0	823
4 F ◑	0610	6.6	201
	1150	23.1	704
	1831	4.6	140
5 Sa	0050	26.6	811
	0714	6.2	189
	1302	22.4	683
	1932	6.4	195
6 Su	0149	26.4	805
	0835	4.9	149
	1421	22.5	686
	2052	7.4	226
7 M	0247	26.5	808
	0941	3.2	98
	1544	23.4	713
	2157	7.7	235
8 Tu	0340	26.9	820
	1038	1.7	52
	1650	24.7	753
	2251	7.6	232
9 W	0428	27.6	841
	1130	0.4	12
	1738	26.0	792
	2340	7.4	226
10 Th	0511	28.4	866
	1220	−0.6	−18
	1821	27.0	823
11 F	0025	7.0	213
	0551	29.3	893
	1307	−1.5	−46
	1902	27.9	850
12 Sa ●	0109	6.3	192
	0631	30.1	917
	1352	−2.4	−73
	1944	28.6	872
13 Su	0154	5.6	171
	0714	30.6	933
	1436	−3.0	−91
	2025	29.0	884
14 M	0240	4.9	149
	0758	30.7	936
	1519	−3.3	−101
	2106	29.4	896
15 Tu	0326	4.2	128
	0845	30.5	930
	1601	−3.3	−101
	2148	29.8	908

	Time	Height	
	h m	ft	cm
16 W	0413	3.6	110
	0934	29.9	911
	1643	−2.7	−82
	2232	30.2	920
17 Th	0503	3.0	91
	1026	29.1	887
	1727	−1.7	−52
	2320	30.4	927
18 F ◐	0557	2.5	76
	1122	28.0	853
	1814	0.0	0
19 Sa	0015	30.3	924
	0657	2.0	61
	1229	26.7	814
	1910	2.2	67
20 Su	0116	30.0	914
	0807	1.4	43
	1353	25.7	783
	2015	4.4	134
21 M	0220	29.5	899
	0921	0.6	18
	1524	25.7	783
	2128	5.9	180
22 Tu	0323	29.1	887
	1037	−0.4	−12
	1640	26.5	808
	2246	6.6	201
23 W	0421	28.8	878
	1140	−1.3	−40
	1740	27.4	835
	2350	6.4	195
24 Th	0513	28.7	875
	1233	−1.8	−55
	1829	27.9	850
25 F	0041	6.1	186
	0559	28.8	878
	1318	−1.7	−52
	1910	28.1	856
26 Sa ○	0125	6.0	183
	0640	28.9	881
	1358	−1.2	−37
	1945	28.2	860
27 Su	0204	5.9	180
	0719	29.0	884
	1433	−0.6	−18
	2016	28.3	863
28 M	0238	5.7	174
	0756	28.8	878
	1504	−0.2	−6
	2046	28.5	869
29 Tu	0309	5.5	168
	0832	28.3	863
	1534	0.0	0
	2118	28.7	875
30 W	0341	5.0	152
	0908	27.6	841
	1605	0.4	12
	2152	28.8	878

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Anchorage, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0417	4.6	140
	0945	26.7	814
	1637	1.1	34
	2228	28.6	872
2 F	0456	4.1	125
	1025	25.7	783
	1711	2.4	73
	2307	28.1	856
3 Sa	0540	3.9	119
	1112	24.5	747
	1748	4.2	128
	2350	27.3	832
4 Su ◑	0629	3.9	119
	1210	23.2	707
	1831	6.4	195
5 M	0042	26.3	802
	0729	3.8	116
	1324	22.3	680
	1925	8.7	265
6 Tu	0146	25.6	780
	0842	3.3	101
	1453	22.4	683
	2049	10.0	305
7 W	0248	25.6	780
	0951	2.3	70
	1619	23.7	722
	2205	9.7	296
8 Th	0345	26.4	805
	1052	1.1	34
	1716	25.2	768
	2302	8.7	265
9 F	0437	27.6	841
	1152	−0.2	−6
	1802	26.7	814
	2356	7.4	226
10 Sa	0527	29.0	884
	1246	−1.6	−49
	1844	27.9	850
11 Su ●	0050	6.0	183
	0615	30.4	927
	1334	−2.9	−88
	1925	28.9	881
12 M	0141	4.4	134
	0703	31.3	954
	1419	−3.9	−119
	2005	29.8	908
13 Tu	0229	2.9	88
	0750	31.8	969
	1502	−4.4	−134
	2044	30.6	933
14 W	0316	1.6	49
	0837	31.8	969
	1544	−4.3	−131
	2124	31.4	957
15 Th	0403	0.5	15
	0925	31.4	957
	1625	−3.5	−107
	2205	31.9	972

	Time	Height	
	h m	ft	cm
16 F	0450	−0.2	−6
	1014	30.4	927
	1706	−1.9	−58
	2250	32.0	975
17 Sa	0539	−0.3	−9
	1107	28.8	878
	1749	0.5	15
	2340	31.3	954
18 Su ◐	0633	0.1	3
	1212	26.9	820
	1838	3.5	107
19 M	0038	29.9	911
	0735	0.8	24
	1336	25.3	771
	1943	6.5	198
20 Tu	0144	28.4	866
	0848	1.3	40
	1512	24.9	759
	2105	8.3	253
21 W	0254	27.2	829
	1014	1.1	34
	1631	25.8	786
	2231	8.3	253
22 Th	0401	26.8	817
	1123	0.0	0
	1730	26.9	820
	2336	7.2	219
23 F	0500	27.1	826
	1216	−0.8	−24
	1817	27.6	841
24 Sa	0026	6.1	186
	0548	27.7	844
	1259	−1.1	−34
	1854	27.9	850
25 Su ○	0109	5.3	162
	0629	28.4	866
	1337	−0.9	−27
	1925	28.0	853
26 M	0146	4.8	146
	0706	28.9	881
	1410	−0.6	−18
	1951	28.4	866
27 Tu	0219	4.4	134
	0741	29.2	890
	1440	−0.3	−9
	2017	28.9	881
28 W	0250	3.8	116
	0815	29.1	887
	1510	−0.1	−3
	2046	29.4	896
29 Th	0321	3.1	94
	0849	28.7	875
	1539	0.4	12
	2118	29.6	902
30 F	0355	2.5	76
	0923	28.0	853
	1609	1.3	40
	2149	29.5	899
31 Sa	0432	2.0	61
	1000	27.1	826
	1639	2.7	82
	2220	28.9	881

August

	Time	Height	
	h m	ft	cm
1 Su	0512	1.9	58
	1042	25.8	786
	1711	4.5	137
	2253	28.0	853
2 M ◑	0556	2.3	70
	1132	24.2	738
	1750	6.8	207
	2333	26.6	811
3 Tu	0646	2.9	88
	1237	22.8	695
	1838	9.1	277
4 W	0029	25.3	771
	0747	3.4	104
	1407	22.3	680
	1943	10.9	332
5 Th	0146	24.8	756
	0903	3.0	91
	1543	23.4	713
	2117	10.8	329
6 F	0304	25.6	780
	1015	1.9	58
	1649	25.3	771
	2230	9.0	274
7 Sa	0411	27.3	832
	1124	0.2	6
	1738	27.1	826
	2334	6.8	207
8 Su	0510	29.4	896
	1223	−1.5	−46
	1821	28.7	875
9 M ●	0034	4.5	137
	0602	31.2	951
	1313	−3.1	−94
	1901	30.0	914
10 Tu	0127	2.3	70
	0651	32.4	988
	1359	−4.1	−125
	1939	31.2	951
11 W	0215	0.3	9
	0738	33.1	1009
	1441	−4.4	−134
	2017	32.2	981
12 Th	0302	−1.2	−37
	0824	33.1	1009
	1522	−3.9	−119
	2055	33.0	1006
13 F	0347	−2.2	−67
	0910	32.5	991
	1602	−2.6	−79
	2134	33.3	1015
14 Sa	0431	−2.4	−73
	0958	31.2	951
	1641	−0.6	−18
	2217	32.8	1000
15 Su	0517	−1.8	−55
	1050	29.3	893
	1721	2.2	67
	2303	31.3	954

	Time	Height	
	h m	ft	cm
16 M ◐	0605	−0.4	−12
	1153	27.1	826
	1806	5.6	171
	2358	29.0	884
17 Tu	0700	1.4	43
	1315	25.2	768
	1911	8.7	265
18 W	0109	26.6	811
	0810	3.0	91
	1451	24.7	753
	2049	10.1	308
19 Th	0229	25.2	768
	0943	3.2	98
	1612	25.6	780
	2217	9.0	274
20 F	0345	25.3	771
	1100	1.9	58
	1711	26.9	820
	2318	7.0	213
21 Sa	0446	26.2	799
	1151	0.6	18
	1755	27.8	847
22 Su	0007	5.2	158
	0533	27.4	835
	1233	−0.1	−3
	1830	28.3	863
23 M	0047	4.0	122
	0613	28.5	869
	1308	−0.2	−6
	1856	28.6	872
24 Tu ○	0124	3.2	98
	0649	29.3	893
	1341	−0.1	−3
	1919	29.1	887
25 W	0156	2.7	82
	0722	29.8	908
	1412	0.2	6
	1944	29.8	908
26 Th	0227	2.0	61
	0755	29.9	911
	1442	0.7	21
	2013	30.3	924
27 F	0259	1.4	43
	0829	29.7	905
	1512	1.5	46
	2043	30.5	930
28 Sa	0333	0.8	24
	0903	29.1	887
	1540	2.6	79
	2111	30.2	920
29 Su	0408	0.6	18
	0938	28.1	856
	1607	3.9	119
	2138	29.5	899
30 M	0446	0.8	24
	1017	26.8	817
	1639	5.5	168
	2209	28.4	866
31 Tu	0527	1.5	46
	1105	25.1	765
	1718	7.5	229
	2249	26.9	820

September

	Time	Height	
	h m	ft	cm
1 W ◑	0613	2.5	76
	1206	23.6	719
	1808	9.6	293
	2345	25.4	774
2 Th	0709	3.4	104
	1329	23.1	704
	1912	11.0	335
3 F	0102	24.6	750
	0822	3.6	110
	1507	24.0	732
	2043	10.6	323
4 Sa	0231	25.4	774
	0941	2.5	76
	1616	26.1	796
	2208	8.2	250
5 Su	0351	27.5	838
	1054	0.8	24
	1708	28.2	860
	2317	5.3	162
6 M	0453	30.0	914
	1156	−1.0	−30
	1753	30.1	917
7 Tu	0018	2.5	76
	0547	31.9	972
	1248	−2.4	−73
	1832	31.5	960
8 W	0111	0.0	0
	0636	33.1	1009
	1334	−3.0	−91
	1910	32.7	997
9 Th	0159	−2.0	−61
	0723	33.6	1024
	1418	−2.8	−85
	1946	33.6	1024
10 F	0244	−3.2	−98
	0809	33.4	1018
	1458	−1.9	−58
	2024	34.1	1039
11 Sa	0327	−3.6	−110
	0855	32.7	997
	1538	−0.4	−12
	2103	33.9	1033
12 Su	0410	−3.1	−94
	0942	31.4	957
	1616	1.8	55
	2143	32.7	997
13 M	0452	−1.8	−55
	1033	29.6	902
	1654	4.5	137
	2226	30.5	930
14 Tu ◐	0535	0.2	6
	1133	27.5	838
	1736	7.5	229
	2318	27.6	841
15 W	0624	2.5	76
	1245	25.6	780
	1837	10.2	311

	Time	Height	
	h m	ft	cm
16 Th	0033	24.9	759
	0725	4.4	134
	1412	24.7	753
	2028	11.0	335
17 F	0202	23.6	719
	0847	5.2	158
	1539	25.4	774
	2152	9.1	277
18 Sa	0325	24.1	735
	1018	4.2	128
	1638	26.7	814
	2252	6.5	198
19 Su	0427	25.6	780
	1114	2.7	82
	1721	27.9	850
	2339	4.3	131
20 M	0514	27.2	829
	1156	1.6	49
	1754	28.6	872
21 Tu	0020	2.7	82
	0554	28.5	869
	1233	1.1	34
	1819	29.2	890
22 W	0056	1.7	52
	0629	29.4	896
	1308	1.2	37
	1843	29.9	911
23 Th ○	0130	1.1	34
	0702	29.9	911
	1342	1.6	49
	1910	30.6	933
24 F	0203	0.5	15
	0735	30.1	917
	1414	2.4	73
	1940	31.0	945
25 Sa	0236	0.0	0
	0810	30.0	914
	1444	3.3	101
	2008	31.0	945
26 Su	0310	−0.2	−6
	0846	29.5	899
	1512	4.3	131
	2035	30.6	933
27 M	0346	−0.1	−3
	0922	28.6	872
	1540	5.4	165
	2103	29.7	905
28 Tu	0423	0.4	12
	1001	27.4	835
	1614	6.7	204
	2136	28.5	869
29 W	0503	1.2	37
	1047	26.0	792
	1656	8.2	250
	2220	27.0	823
30 Th ◑	0548	2.3	70
	1145	24.8	756
	1748	9.7	296
	2320	25.5	777

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Anchorage, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0642	3.3	101
	1300	24.4	744
	1854	10.4	317
2 Sa	0037	24.8	756
	0751	3.6	110
	1429	25.4	774
	2024	9.4	287
3 Su	0206	25.6	780
	0909	2.9	88
	1539	27.3	832
	2150	6.5	198
4 M	0331	27.7	844
	1021	1.5	46
	1634	29.5	899
	2300	3.3	101
5 Tu	0437	30.0	914
	1126	0.3	9
	1721	31.3	954
6 W	0001	0.4	12
	0532	31.7	966
	1221	−0.5	−15
	1802	32.6	994
7 Th ●	0053	−1.9	−58
	0623	32.7	997
	1309	−0.6	−18
	1840	33.5	1021
8 F	0141	−3.3	−101
	0711	32.9	1003
	1354	−0.1	−3
	1917	34.0	1036
9 Sa	0226	−3.9	−119
	0757	32.7	997
	1435	0.9	27
	1954	34.1	1039
10 Su	0308	−3.6	−110
	0842	32.1	978
	1515	2.4	73
	2033	33.4	1018
11 M	0349	−2.6	−79
	0928	31.1	948
	1553	4.2	128
	2113	31.8	969
12 Tu	0428	−1.0	−30
	1016	29.6	902
	1630	6.3	192
	2154	29.4	896
13 W	0507	0.9	27
	1108	27.9	850
	1710	8.5	259
	2242	26.6	811
14 Th ◐	0549	3.0	91
	1207	26.3	802
	1803	10.4	317
	2351	24.0	732
15 F	0642	4.9	149
	1314	25.3	771
	1945	10.9	332

	Time	Height	
	h m	ft	cm
16 Sa	0121	22.7	692
	0751	5.9	180
	1435	25.3	771
	2110	9.0	274
17 Su	0248	23.1	704
	0906	5.7	174
	1544	26.3	802
	2213	6.3	192
18 M	0359	24.6	750
	1013	4.7	143
	1631	27.5	838
	2303	3.8	116
19 Tu	0451	26.4	805
	1107	3.6	110
	1707	28.5	869
	2346	1.9	58
20 W	0533	27.8	847
	1153	3.1	94
	1737	29.4	896
21 Th	0025	0.7	21
	0609	28.7	875
	1233	3.2	98
	1807	30.1	917
22 F ○	0102	0.0	0
	0643	29.3	893
	1311	3.7	113
	1837	30.7	936
23 Sa	0138	−0.5	−15
	0718	29.6	902
	1345	4.4	134
	1908	31.0	945
24 Su	0213	−0.8	−24
	0755	29.7	905
	1417	5.1	155
	1937	30.9	942
25 M	0250	−0.8	−24
	0833	29.4	896
	1448	5.7	174
	2006	30.5	930
26 Tu	0327	−0.6	−18
	0911	28.7	875
	1521	6.4	195
	2039	29.7	905
27 W	0405	−0.1	−3
	0951	27.9	850
	1559	7.2	219
	2117	28.6	872
28 Th	0445	0.7	21
	1036	27.0	823
	1645	8.1	247
	2205	27.2	829
29 F	0530	1.6	49
	1129	26.4	805
	1738	8.7	265
	2307	26.0	792
30 Sa ◑	0621	2.5	76
	1233	26.3	802
	1844	8.6	262
31 Su	0020	25.5	777
	0725	3.1	94
	1349	27.1	826
	2009	7.2	219

November

	Time	Height	
	h m	ft	cm
1 M	0144	25.9	789
	0837	3.1	94
	1459	28.6	872
	2130	4.3	131
2 Tu	0311	27.4	835
	0946	2.6	79
	1557	30.3	924
	2241	1.4	43
3 W	0422	29.1	887
	1053	2.3	70
	1648	31.6	963
	2343	−1.1	−34
4 Th	0522	30.4	927
	1154	2.1	64
	1732	32.6	994
5 F ●	0037	−2.8	−85
	0615	31.2	951
	1246	2.3	70
	1813	33.1	1009
6 Sa	0125	−3.6	−110
	0703	31.4	957
	1333	2.8	85
	1851	33.2	1012
7 Su	0210	−3.5	−107
	0748	31.3	954
	1416	3.5	107
	1930	33.0	1006
8 M	0251	−2.8	−85
	0831	31.0	945
	1456	4.5	137
	2009	32.1	978
9 Tu	0330	−1.7	−52
	0913	30.3	924
	1534	5.6	171
	2049	30.6	933
10 W	0406	−0.3	−9
	0955	29.4	896
	1610	6.9	210
	2131	28.5	869
11 Th	0441	1.1	34
	1039	28.3	863
	1648	8.1	247
	2216	26.2	799
12 F	0519	2.6	79
	1127	27.2	829
	1734	9.0	274
	2310	24.1	735
13 Sa ◐	0603	4.2	128
	1220	26.3	802
	1835	9.4	287
14 Su	0023	22.7	692
	0659	5.6	171
	1319	25.9	789
	2007	8.4	256
15 M	0143	22.4	683
	0810	6.4	195
	1421	26.2	799
	2117	6.2	189

	Time	Height	
	h m	ft	cm
16 Tu	0311	23.2	707
	0919	6.3	192
	1520	26.9	820
	2214	3.8	116
17 W	0422	24.8	756
	1019	5.9	180
	1611	27.8	847
	2305	1.8	55
18 Th	0513	26.3	802
	1112	5.6	171
	1653	28.6	872
	2351	0.4	12
19 F	0553	27.4	835
	1159	5.6	171
	1731	29.3	893
20 Sa	0033	−0.4	−12
	0629	28.2	860
	1240	5.8	177
	1806	29.9	911
21 Su ○	0114	−0.9	−27
	0705	28.7	875
	1318	6.0	183
	1840	30.4	927
22 M	0153	−1.2	−37
	0743	29.1	887
	1355	6.1	186
	1913	30.6	933
23 Tu	0232	−1.4	−43
	0821	29.1	887
	1432	6.2	189
	1949	30.4	927
24 W	0312	−1.4	−43
	0901	28.9	881
	1512	6.3	192
	2027	29.8	908
25 Th	0351	−1.1	−34
	0941	28.6	872
	1555	6.4	195
	2111	29.0	884
26 F	0432	−0.6	−18
	1023	28.4	866
	1642	6.5	198
	2202	28.0	853
27 Sa	0515	0.1	3
	1110	28.4	866
	1735	6.3	192
	2300	27.1	826
28 Su ◑	0603	1.1	34
	1204	28.5	869
	1836	5.7	174
29 M	0004	26.3	802
	0659	2.4	73
	1309	28.9	881
	1950	4.3	131
30 Tu	0122	26.0	792
	0805	3.5	107
	1416	29.5	899
	2106	2.3	70

December

	Time	Height	
	h m	ft	cm
1 W	0253	26.4	805
	0914	4.3	131
	1519	30.2	920
	2219	0.3	9
2 Th	0413	27.5	838
	1024	4.7	143
	1616	30.8	939
	2326	−1.5	−46
3 F	0518	28.7	875
	1132	4.9	149
	1707	31.2	951
4 Sa	0022	−2.7	−82
	0613	29.5	899
	1229	4.8	146
	1752	31.4	957
5 Su ●	0112	−3.1	−94
	0700	29.9	911
	1318	4.8	146
	1834	31.5	960
6 M	0156	−2.8	−85
	0741	29.9	911
	1401	5.0	152
	1915	31.3	954
7 Tu	0236	−2.0	−61
	0820	29.8	908
	1441	5.3	162
	1955	30.7	936
8 W	0312	−1.1	−34
	0856	29.6	902
	1518	5.7	174
	2035	29.7	905
9 Th	0345	−0.2	−6
	0931	29.3	893
	1553	6.1	186
	2115	28.3	863
10 F	0417	0.7	21
	1007	28.8	878
	1628	6.4	195
	2155	26.8	817
11 Sa	0450	1.6	49
	1046	28.2	860
	1707	6.6	201
	2238	25.2	768
12 Su	0528	2.9	88
	1130	27.6	841
	1752	6.6	201
	2330	23.8	725
13 M ◐	0611	4.7	143
	1221	26.9	820
	1849	6.3	192
14 Tu	0036	22.7	692
	0705	6.6	201
	1319	26.4	805
	2005	5.5	168
15 W	0156	22.3	680
	0821	8.1	247
	1420	26.2	799
	2118	4.0	122

	Time	Height	
	h m	ft	cm
16 Th	0335	23.0	701
	0935	8.6	262
	1518	26.4	805
	2219	2.4	73
17 F	0448	24.6	750
	1034	8.4	256
	1610	27.0	823
	2314	1.0	30
18 Sa	0535	26.0	792
	1125	8.0	244
	1657	27.8	847
19 Su	0004	0.0	0
	0614	27.1	826
	1211	7.4	226
	1739	28.8	878
20 M ○	0051	−0.9	−27
	0651	28.0	853
	1255	6.8	207
	1819	29.7	905
21 Tu	0135	−1.6	−49
	0729	28.7	875
	1338	6.0	183
	1859	30.4	927
22 W	0217	−2.2	−67
	0807	29.2	890
	1421	5.3	162
	1941	30.7	936
23 Th	0258	−2.6	−79
	0845	29.6	902
	1505	4.5	137
	2024	30.6	933
24 F	0338	−2.7	−82
	0924	29.9	911
	1550	3.9	119
	2110	30.2	920
25 Sa	0418	−2.3	−70
	1003	30.3	924
	1637	3.3	101
	2158	29.5	899
26 Su	0459	−1.5	−46
	1046	30.6	933
	1726	2.7	82
	2249	28.5	869
27 M ◑	0543	0.0	0
	1134	30.6	933
	1821	2.3	70
	2348	27.2	829
28 Tu	0632	2.1	64
	1230	30.2	920
	1925	1.9	58
29 W	0102	25.8	786
	0732	4.5	137
	1336	29.6	902
	2038	1.3	40
30 Th	0239	25.3	771
	0845	6.3	192
	1444	29.1	887
	2156	0.4	12
31 F	0408	26.1	796
	1003	7.2	219
	1550	29.0	884
	2311	−0.9	−27

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Kodiak, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0228	7.9	241
	0738	2.3	70
	1346	11.1	338
	2037	−2.3	−70
2 Sa	0309	8.2	250
	0828	1.9	58
	1435	10.9	332
	2119	−2.2	−67
3 Su	0350	8.6	262
	0919	1.6	49
	1524	10.3	314
	2200	−1.7	−52
4 M	0432	8.8	268
	1013	1.5	46
	1615	9.4	287
	2242	−0.9	−27
5 Tu	0516	8.9	271
	1110	1.5	46
	1708	8.3	253
	2324	0.0	0
6 W	0601	9.0	274
	1214	1.6	49
	1809	7.1	216
7 Th ◑	0009	1.1	34
	0651	8.9	271
	1327	1.6	49
	1922	6.1	186
8 F	0059	2.1	64
	0745	8.9	271
	1451	1.5	46
	2059	5.5	168
9 Sa	0159	3.0	91
	0846	8.8	268
	1611	1.1	34
	2242	5.6	171
10 Su	0312	3.6	110
	0950	8.8	268
	1717	0.6	18
	2357	6.0	183
11 M	0427	3.8	116
	1050	9.0	274
	1809	0.2	6
12 Tu	0050	6.4	195
	0530	3.7	113
	1142	9.2	280
	1851	−0.2	−6
13 W	0131	6.8	207
	0620	3.5	107
	1226	9.4	287
	1928	−0.4	−12
14 Th ●	0205	7.2	219
	0702	3.2	98
	1306	9.5	290
	2000	−0.6	−18
15 F	0234	7.4	226
	0740	2.9	88
	1341	9.6	293
	2029	−0.6	−18

	Time	Height	
	h m	ft	cm
16 Sa	0300	7.6	232
	0815	2.7	82
	1415	9.4	287
	2057	−0.5	−15
17 Su	0326	7.8	238
	0850	2.5	76
	1449	9.2	280
	2124	−0.3	−9
18 M	0351	7.9	241
	0926	2.3	70
	1523	8.7	265
	2151	0.0	0
19 Tu	0417	8.0	244
	1002	2.2	67
	1557	8.1	247
	2218	0.5	15
20 W	0445	8.1	247
	1042	2.2	67
	1635	7.4	226
	2247	1.1	34
21 Th	0517	8.2	250
	1128	2.2	67
	1718	6.7	204
	2318	1.7	52
22 F	0553	8.3	253
	1222	2.2	67
	1811	5.9	180
	2354	2.4	73
23 Sa ◐	0638	8.3	253
	1329	2.1	64
	1924	5.2	158
24 Su	0042	3.1	94
	0733	8.4	256
	1451	1.7	52
	2107	4.9	149
25 M	0150	3.6	110
	0839	8.6	262
	1613	1.0	30
	2256	5.3	162
26 Tu	0315	3.8	116
	0950	9.0	274
	1718	0.1	3
27 W	0002	5.9	180
	0436	3.5	107
	1056	9.6	293
	1810	−0.8	−24
28 Th	0048	6.7	204
	0542	2.9	88
	1155	10.2	311
	1856	−1.6	−49
29 F ○	0128	7.5	229
	0639	2.1	64
	1249	10.7	326
	1938	−2.1	−64
30 Sa	0206	8.2	250
	0731	1.3	40
	1340	10.8	329
	2018	−2.2	−67
31 Su	0243	8.8	268
	0820	0.7	21
	1428	10.6	323
	2056	−2.0	−61

February

	Time	Height	
	h m	ft	cm
1 M	0321	9.3	283
	0909	0.3	9
	1516	10.0	305
	2134	−1.4	−43
2 Tu	0359	9.6	293
	0959	0.2	6
	1604	9.1	277
	2212	−0.6	−18
3 W	0438	9.7	296
	1050	0.3	9
	1653	8.0	244
	2250	0.4	12
4 Th	0519	9.5	290
	1146	0.7	21
	1748	6.8	207
	2331	1.5	46
5 F ◑	0604	9.1	277
	1250	1.1	34
	1855	5.8	177
6 Sa	0016	2.6	79
	0656	8.7	265
	1411	1.4	43
	2034	5.2	158
7 Su	0113	3.4	104
	0800	8.2	250
	1544	1.4	43
	2233	5.2	158
8 M	0237	4.0	122
	0917	8.1	247
	1700	1.1	34
	2349	5.7	174
9 Tu	0414	4.0	122
	1032	8.2	250
	1754	0.6	18
10 W	0036	6.2	189
	0524	3.7	113
	1130	8.4	256
	1835	0.2	6
11 Th	0111	6.7	204
	0613	3.2	98
	1216	8.7	265
	1908	−0.1	−3
12 F	0139	7.1	216
	0652	2.7	82
	1255	9.0	274
	1937	−0.3	−9
13 Sa ●	0203	7.5	229
	0727	2.2	67
	1329	9.1	277
	2003	−0.4	−12
14 Su	0226	7.9	241
	0800	1.8	55
	1402	9.0	274
	2027	−0.3	−9
15 M	0247	8.2	250
	0832	1.4	43
	1434	8.8	268
	2052	−0.1	−3

	Time	Height	
	h m	ft	cm
16 Tu	0310	8.4	256
	0905	1.2	37
	1506	8.5	259
	2117	0.3	9
17 W	0335	8.6	262
	0939	1.0	30
	1540	8.0	244
	2143	0.7	21
18 Th	0402	8.7	265
	1015	1.0	30
	1616	7.3	223
	2211	1.3	40
19 F	0432	8.8	268
	1057	1.1	34
	1657	6.6	201
	2241	1.9	58
20 Sa	0508	8.7	265
	1146	1.2	37
	1748	5.8	177
	2316	2.5	76
21 Su ◐	0552	8.5	259
	1249	1.4	43
	1858	5.1	155
22 M	0003	3.2	98
	0650	8.3	253
	1411	1.3	40
	2043	4.8	146
23 Tu	0118	3.7	113
	0805	8.3	253
	1542	0.8	24
	2237	5.2	158
24 W	0258	3.7	113
	0928	8.5	259
	1654	0.1	3
	2338	6.0	183
25 Th	0428	3.1	94
	1043	9.0	274
	1748	−0.7	−21
26 F	0021	6.9	210
	0536	2.2	67
	1147	9.5	290
	1832	−1.3	−40
27 Sa	0059	7.8	238
	0631	1.1	34
	1242	9.9	302
	1913	−1.6	−49
28 Su ○	0135	8.7	265
	0721	0.2	6
	1332	10.0	305
	1951	−1.5	−46

March

	Time	Height	
	h m	ft	cm
1 M	0211	9.4	287
	0808	−0.5	−15
	1419	9.8	299
	2029	−1.2	−37
2 Tu	0246	9.9	302
	0854	−0.9	−27
	1505	9.3	283
	2105	−0.6	−18
3 W	0323	10.1	308
	0940	−0.9	−27
	1551	8.5	259
	2142	0.2	6
4 Th	0400	10.0	305
	1027	−0.6	−18
	1639	7.6	232
	2219	1.1	34
5 F	0439	9.6	293
	1117	0.0	0
	1730	6.6	201
	2258	2.1	64
6 Sa	0522	9.0	274
	1214	0.7	21
	1832	5.7	174
	2341	3.0	91
7 Su ◑	0612	8.3	253
	1326	1.3	40
	2006	5.1	155
8 M	0039	3.7	113
	0716	7.6	232
	1501	1.6	49
	2206	5.2	158
9 Tu	0212	4.1	125
	0841	7.3	223
	1625	1.4	43
	2318	5.6	171
10 W	0401	3.9	119
	1007	7.3	223
	1722	1.0	30
11 Th	0001	6.1	186
	0510	3.3	101
	1111	7.6	232
	1802	0.7	21
12 F	0033	6.7	204
	0557	2.6	79
	1158	7.9	241
	1834	0.4	12
13 Sa	0058	7.2	219
	0634	2.0	61
	1237	8.2	250
	1901	0.3	9
14 Su	0120	7.7	235
	0708	1.3	40
	1312	8.4	256
	1927	0.2	6
15 M ●	0142	8.2	250
	0739	0.8	24
	1346	8.4	256
	1952	0.3	9

	Time	Height	
	h m	ft	cm
16 Tu	0204	8.6	262
	0811	0.4	12
	1419	8.3	253
	2017	0.6	18
17 W	0229	8.9	271
	0843	0.1	3
	1452	8.0	244
	2044	0.9	27
18 Th	0255	9.1	277
	0917	−0.1	−3
	1527	7.6	232
	2112	1.3	40
19 F	0324	9.2	280
	0953	−0.1	−3
	1605	7.1	216
	2142	1.8	55
20 Sa	0357	9.1	277
	1035	0.1	3
	1648	6.5	198
	2215	2.3	70
21 Su	0435	8.9	271
	1124	0.4	12
	1741	5.8	177
	2256	2.8	85
22 M	0522	8.6	262
	1226	0.6	18
	1853	5.3	162
	2351	3.3	101
23 Tu ◐	0625	8.1	247
	1343	0.8	24
	2031	5.1	155
24 W	0115	3.6	110
	0745	7.8	238
	1508	0.6	18
	2202	5.6	171
25 Th	0258	3.3	101
	0913	7.8	238
	1619	0.2	6
	2300	6.5	198
26 F	0424	2.4	73
	1032	8.1	247
	1715	−0.3	−9
	2344	7.4	226
27 Sa	0529	1.3	40
	1138	8.6	262
	1801	−0.5	−15
28 Su	0023	8.4	256
	0622	0.1	3
	1233	8.9	271
	1842	−0.6	−18
29 M ○	0100	9.3	283
	0710	−0.8	−24
	1324	9.0	274
	1921	−0.4	−12
30 Tu	0136	9.9	302
	0754	−1.4	−43
	1411	8.8	268
	1959	0.0	0
31 W	0212	10.3	314
	0838	−1.7	−52
	1456	8.5	259
	2036	0.5	15

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Kodiak, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0248	10.3	314
	0921	−1.5	−46
	1541	7.9	241
	2114	1.2	37
2 F	0326	10.0	305
	1005	−1.1	−34
	1627	7.2	219
	2152	1.9	58
3 Sa	0404	9.5	290
	1050	−0.4	−12
	1716	6.5	198
	2232	2.6	79
4 Su	0446	8.7	265
	1141	0.4	12
	1814	5.8	177
	2317	3.2	98
5 M	0534	7.9	241
	1242	1.1	34
	1933	5.4	165
6 Tu ◑	0017	3.7	113
	0635	7.2	219
	1400	1.5	46
	2110	5.4	165
7 W	0148	3.9	119
	0754	6.7	204
	1522	1.6	49
	2221	5.7	174
8 Th	0332	3.6	110
	0923	6.5	198
	1624	1.5	46
	2305	6.2	189
9 F	0442	2.9	88
	1035	6.7	204
	1708	1.3	40
	2337	6.8	207
10 Sa	0530	2.1	64
	1129	7.0	213
	1743	1.2	37
11 Su	0004	7.4	226
	0608	1.4	43
	1213	7.3	223
	1814	1.1	34
12 M	0028	8.0	244
	0642	0.6	18
	1252	7.5	229
	1843	1.1	34
13 Tu	0054	8.5	259
	0715	0.0	0
	1329	7.6	232
	1912	1.2	37
14 W ●	0121	9.0	274
	0748	−0.5	−15
	1405	7.7	235
	1942	1.4	43
15 Th	0150	9.4	287
	0822	−0.8	−24
	1441	7.5	229
	2013	1.7	52
16 F	0221	9.6	293
	0859	−1.0	−30
	1520	7.3	223
	2046	1.9	58
17 Sa	0255	9.6	293
	0938	−1.0	−30
	1601	6.9	210
	2122	2.3	70
18 Su	0333	9.4	287
	1022	−0.8	−24
	1649	6.4	195
	2203	2.6	79
19 M	0416	9.0	274
	1112	−0.5	−15
	1744	6.0	183
	2253	2.9	88
20 Tu	0508	8.5	259
	1210	−0.1	−3
	1852	5.8	177
	2358	3.2	98
21 W ◐	0612	7.9	241
	1317	0.2	6
	2009	5.9	180
22 Th	0124	3.1	94
	0732	7.3	223
	1429	0.4	12
	2119	6.5	198
23 F	0258	2.6	79
	0859	7.1	216
	1536	0.4	12
	2215	7.2	219
24 Sa	0417	1.6	49
	1020	7.2	219
	1634	0.5	15
	2302	8.1	247
25 Su	0519	0.4	12
	1128	7.4	226
	1723	0.5	15
	2344	8.9	271
26 M	0611	−0.6	−18
	1226	7.7	235
	1808	0.7	21
27 Tu	0024	9.6	293
	0657	−1.4	−43
	1318	7.8	238
	1850	0.9	27
28 W ○	0103	10.1	308
	0741	−1.8	−55
	1405	7.8	238
	1931	1.2	37
29 Th	0141	10.2	311
	0823	−1.9	−58
	1450	7.7	235
	2011	1.6	49
30 F	0219	10.1	308
	0904	−1.6	−49
	1534	7.4	226
	2050	2.0	61

May

	Time	Height	
	h m	ft	cm
1 Sa	0257	9.8	299
	0946	−1.2	−37
	1618	7.0	213
	2130	2.5	76
2 Su	0336	9.2	280
	1028	−0.6	−18
	1704	6.5	198
	2212	2.9	88
3 M	0418	8.5	259
	1113	0.0	0
	1755	6.1	186
	2259	3.3	101
4 Tu	0504	7.8	238
	1203	0.6	18
	1853	5.9	180
	2358	3.5	107
5 W ◑	0558	7.0	213
	1258	1.2	37
	1957	5.9	180
6 Th	0114	3.6	110
	0704	6.4	195
	1359	1.5	46
	2057	6.1	186
7 F	0243	3.3	101
	0823	6.0	183
	1459	1.8	55
	2146	6.5	198
8 Sa	0357	2.6	79
	0942	5.9	180
	1552	1.9	58
	2225	7.0	213
9 Su	0452	1.8	55
	1049	6.1	186
	1637	2.0	61
	2259	7.6	232
10 M	0535	1.0	30
	1144	6.3	192
	1717	2.0	61
	2333	8.3	253
11 Tu	0614	0.3	9
	1230	6.6	201
	1755	2.1	64
12 W	0006	8.8	268
	0650	−0.4	−12
	1313	6.9	210
	1832	2.1	64
13 Th ●	0041	9.3	283
	0727	−1.0	−30
	1353	7.1	216
	1910	2.2	67
14 F	0117	9.7	296
	0805	−1.4	−43
	1434	7.1	216
	1948	2.2	67
15 Sa	0155	9.9	302
	0845	−1.6	−49
	1516	7.0	213
	2028	2.3	70
16 Su	0235	9.9	302
	0928	−1.7	−52
	1601	6.9	210
	2111	2.4	73
17 M	0319	9.6	293
	1013	−1.5	−46
	1648	6.8	207
	2200	2.5	76
18 Tu	0407	9.2	280
	1101	−1.2	−37
	1741	6.7	204
	2256	2.6	79
19 W	0501	8.5	259
	1153	−0.7	−21
	1837	6.7	204
20 Th ◐	0004	2.6	79
	0605	7.6	232
	1249	−0.2	−6
	1936	7.0	213
21 F	0124	2.3	70
	0719	6.9	210
	1349	0.4	12
	2035	7.4	226
22 Sa	0248	1.7	52
	0843	6.4	195
	1450	0.9	27
	2130	8.0	244
23 Su	0404	0.9	27
	1008	6.2	189
	1549	1.3	40
	2221	8.6	262
24 M	0506	0.0	0
	1122	6.4	195
	1645	1.6	49
	2308	9.2	280
25 Tu	0559	−0.8	−24
	1224	6.7	204
	1736	1.9	58
	2353	9.6	293
26 W	0647	−1.4	−43
	1316	6.9	210
	1824	2.1	64
27 Th ○	0036	9.9	302
	0730	−1.6	−49
	1403	7.1	216
	1908	2.2	67
28 F	0117	9.9	302
	0811	−1.7	−52
	1447	7.1	216
	1951	2.4	73
29 Sa	0157	9.8	299
	0851	−1.5	−46
	1527	7.1	216
	2032	2.5	76
30 Su	0236	9.5	290
	0929	−1.2	−37
	1607	6.9	210
	2113	2.7	82
31 M	0315	9.0	274
	1007	−0.8	−24
	1646	6.7	204
	2156	2.9	88

June

	Time	Height	
	h m	ft	cm
1 Tu	0355	8.4	256
	1046	−0.3	−9
	1726	6.6	201
	2241	3.0	91
2 W	0437	7.7	235
	1124	0.2	6
	1807	6.5	198
	2333	3.1	94
3 Th	0524	7.0	213
	1205	0.8	24
	1850	6.5	198
4 F ◑	0033	3.1	94
	0618	6.3	192
	1248	1.3	40
	1936	6.7	204
5 Sa	0144	2.9	88
	0723	5.7	174
	1336	1.8	55
	2022	7.0	213
6 Su	0258	2.4	73
	0839	5.3	162
	1428	2.2	67
	2109	7.4	226
7 M	0403	1.7	52
	1000	5.3	162
	1523	2.6	79
	2155	7.9	241
8 Tu	0457	1.0	30
	1112	5.5	168
	1617	2.7	82
	2240	8.4	256
9 W	0544	0.2	6
	1210	5.9	180
	1708	2.8	85
	2324	9.0	274
10 Th	0627	−0.6	−18
	1259	6.3	192
	1756	2.7	82
11 F	0008	9.5	290
	0709	−1.3	−40
	1343	6.6	201
	1843	2.6	79
12 Sa ●	0053	9.9	302
	0751	−1.8	−55
	1426	6.9	210
	1929	2.4	73
13 Su	0138	10.2	311
	0833	−2.1	−64
	1508	7.1	216
	2016	2.2	67
14 M	0224	10.1	308
	0916	−2.2	−67
	1551	7.3	223
	2105	2.0	61
15 Tu	0311	9.8	299
	0959	−2.0	−61
	1634	7.4	226
	2157	1.9	58
16 W	0401	9.2	280
	1043	−1.6	−49
	1720	7.6	232
	2254	1.8	55
17 Th	0455	8.4	256
	1129	−0.9	−27
	1807	7.8	238
	2358	1.7	52
18 F ◐	0555	7.4	226
	1216	−0.1	−3
	1858	8.0	244
19 Sa	0110	1.5	46
	0704	6.4	195
	1308	0.7	21
	1951	8.2	250
20 Su	0229	1.1	34
	0827	5.8	177
	1405	1.5	46
	2047	8.5	259
21 M	0347	0.5	15
	0958	5.5	168
	1507	2.2	67
	2144	8.8	268
22 Tu	0454	−0.1	−3
	1121	5.7	174
	1612	2.6	79
	2239	9.0	274
23 W	0550	−0.6	−18
	1225	6.0	183
	1713	2.8	85
	2331	9.3	283
24 Th	0639	−1.0	−30
	1317	6.4	195
	1807	2.8	85
25 F	0019	9.4	287
	0722	−1.2	−37
	1400	6.7	204
	1855	2.7	82
26 Sa ○	0102	9.5	290
	0801	−1.3	−40
	1439	6.9	210
	1938	2.6	79
27 Su	0143	9.4	287
	0837	−1.3	−40
	1513	7.0	213
	2019	2.5	76
28 M	0221	9.2	280
	0910	−1.1	−34
	1546	7.1	216
	2058	2.4	73
29 Tu	0258	8.9	271
	0943	−0.8	−24
	1616	7.1	216
	2137	2.4	73
30 W	0335	8.4	256
	1014	−0.4	−12
	1647	7.1	216
	2218	2.4	73

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Kodiak, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0413	7.8	238
	1045	0.0	0
	1718	7.1	216
	2302	2.4	73
2 F	0453	7.1	216
	1117	0.6	18
	1752	7.2	219
	2351	2.4	73
3 Sa	0539	6.3	192
	1151	1.2	37
	1830	7.3	223
4 Su ◑	0048	2.3	70
	0633	5.6	171
	1230	1.9	58
	1913	7.5	229
5 M	0155	2.1	64
	0742	5.1	155
	1316	2.5	76
	2002	7.7	235
6 Tu	0308	1.7	52
	0909	4.8	146
	1415	3.0	91
	2057	8.0	244
7 W	0418	1.0	30
	1042	5.0	152
	1522	3.2	98
	2155	8.4	256
8 Th	0517	0.2	6
	1153	5.4	165
	1630	3.2	98
	2252	9.0	274
9 F	0607	−0.6	−18
	1245	6.0	183
	1730	2.9	88
	2346	9.5	290
10 Sa	0652	−1.4	−43
	1328	6.5	198
	1825	2.5	76
11 Su ●	0037	10.0	305
	0735	−2.0	−61
	1408	7.1	216
	1916	1.9	58
12 M	0126	10.3	314
	0817	−2.3	−70
	1447	7.5	229
	2006	1.4	43
13 Tu	0215	10.3	314
	0857	−2.4	−73
	1526	8.0	244
	2057	1.0	30
14 W	0303	9.9	302
	0938	−2.1	−64
	1606	8.3	253
	2148	0.7	21
15 Th	0353	9.2	280
	1018	−1.5	−46
	1647	8.6	262
	2243	0.6	18

	Time	Height	
	h m	ft	cm
16 F	0445	8.2	250
	1059	−0.7	−21
	1731	8.7	265
	2342	0.6	18
17 Sa	0542	7.1	216
	1142	0.3	9
	1817	8.7	265
18 Su ◐	0048	0.7	21
	0648	6.1	186
	1230	1.3	40
	1909	8.6	262
19 M	0204	0.8	24
	0811	5.4	165
	1325	2.3	70
	2008	8.5	259
20 Tu	0326	0.6	18
	0954	5.1	155
	1434	2.9	88
	2113	8.5	259
21 W	0442	0.3	9
	1121	5.4	165
	1552	3.3	101
	2220	8.5	259
22 Th	0542	−0.1	−3
	1223	5.9	180
	1703	3.2	98
	2319	8.7	265
23 F	0630	−0.5	−15
	1309	6.3	192
	1801	3.0	91
24 Sa	0010	8.9	271
	0710	−0.8	−24
	1346	6.7	204
	1847	2.6	79
25 Su ○	0053	9.0	274
	0745	−0.9	−27
	1418	7.0	213
	1928	2.3	70
26 M	0131	9.1	277
	0816	−0.9	−27
	1446	7.2	219
	2004	2.0	61
27 Tu	0207	9.0	274
	0844	−0.8	−24
	1511	7.4	226
	2040	1.8	55
28 W	0241	8.7	265
	0912	−0.6	−18
	1536	7.6	232
	2115	1.7	52
29 Th	0315	8.3	253
	0939	−0.2	−6
	1601	7.7	235
	2151	1.6	49
30 F	0349	7.8	238
	1006	0.3	9
	1629	7.8	238
	2229	1.6	49
31 Sa	0426	7.1	216
	1034	0.9	27
	1659	7.9	241
	2311	1.6	49

August

	Time	Height	
	h m	ft	cm
1 Su	0507	6.4	195
	1104	1.5	46
	1733	7.9	241
2 M ◑	0001	1.7	52
	0555	5.7	174
	1138	2.1	64
	1815	7.8	238
3 Tu	0101	1.7	52
	0700	5.0	152
	1221	2.8	85
	1906	7.8	238
4 W	0217	1.6	49
	0829	4.7	143
	1322	3.3	101
	2010	7.9	241
5 Th	0340	1.1	34
	1020	4.8	146
	1444	3.5	107
	2121	8.2	250
6 F	0450	0.3	9
	1134	5.4	165
	1607	3.3	101
	2229	8.8	268
7 Sa	0545	−0.6	−18
	1222	6.1	186
	1716	2.7	82
	2330	9.4	287
8 Su	0631	−1.3	−40
	1302	6.8	207
	1814	1.9	58
9 M ●	0025	9.9	302
	0713	−1.8	−55
	1339	7.6	232
	1906	1.1	34
10 Tu	0116	10.1	308
	0753	−2.1	−64
	1416	8.3	253
	1955	0.3	9
11 W	0205	10.1	308
	0832	−2.0	−61
	1453	8.9	271
	2044	−0.2	−6
12 Th	0253	9.7	296
	0910	−1.5	−46
	1531	9.3	283
	2133	−0.5	−15
13 F	0342	9.0	274
	0948	−0.8	−24
	1610	9.5	290
	2224	−0.4	−12
14 Sa	0432	8.0	244
	1028	0.1	3
	1651	9.4	287
	2318	−0.1	−3
15 Su	0527	7.0	213
	1109	1.1	34
	1737	9.1	277

	Time	Height	
	h m	ft	cm
16 M ◐	0020	0.3	9
	0632	6.0	183
	1155	2.1	64
	1829	8.6	262
17 Tu	0133	0.7	21
	0759	5.3	162
	1253	3.0	91
	1932	8.2	250
18 W	0302	0.9	27
	0949	5.2	158
	1413	3.5	107
	2048	7.9	241
19 Th	0424	0.7	21
	1112	5.5	168
	1548	3.6	110
	2206	7.9	241
20 F	0526	0.4	12
	1206	6.0	183
	1703	3.2	98
	2311	8.1	247
21 Sa	0611	0.1	3
	1245	6.5	198
	1756	2.7	82
22 Su	0000	8.4	256
	0648	−0.2	−6
	1317	6.9	210
	1837	2.2	67
23 M	0041	8.6	262
	0718	−0.3	−9
	1343	7.3	223
	1913	1.7	52
24 Tu ○	0117	8.7	265
	0745	−0.3	−9
	1406	7.7	235
	1946	1.3	40
25 W	0151	8.6	262
	0811	−0.2	−6
	1428	8.0	244
	2018	1.0	30
26 Th	0223	8.5	259
	0836	0.1	3
	1451	8.3	253
	2050	0.8	24
27 F	0255	8.2	250
	0901	0.5	15
	1515	8.4	256
	2124	0.7	21
28 Sa	0329	7.7	235
	0927	0.9	27
	1542	8.5	259
	2159	0.7	21
29 Su	0404	7.1	216
	0955	1.5	46
	1612	8.5	259
	2238	0.9	27
30 M	0444	6.5	198
	1024	2.0	61
	1646	8.3	253
	2324	1.1	34
31 Tu	0531	5.8	177
	1058	2.6	79
	1728	8.1	247

September

	Time	Height	
	h m	ft	cm
1 W ◑	0022	1.3	40
	0635	5.2	158
	1143	3.2	98
	1823	7.9	241
2 Th	0137	1.3	40
	0809	4.8	146
	1252	3.6	110
	1935	7.8	238
3 F	0305	1.0	30
	0959	5.1	155
	1429	3.7	113
	2057	7.9	241
4 Sa	0420	0.4	12
	1105	5.8	177
	1559	3.1	94
	2213	8.4	256
5 Su	0516	−0.3	−9
	1149	6.6	201
	1708	2.2	67
	2318	9.0	274
6 M	0602	−0.9	−27
	1227	7.6	232
	1804	1.1	34
7 Tu	0015	9.4	287
	0644	−1.2	−37
	1304	8.5	259
	1855	0.0	0
8 W	0106	9.7	296
	0723	−1.2	−37
	1340	9.3	283
●	1942	−0.8	−24
9 Th	0155	9.6	293
	0801	−1.0	−30
	1416	9.9	302
	2029	−1.3	−40
10 F	0243	9.2	280
	0839	−0.4	−12
	1454	10.2	311
	2115	−1.4	−43
11 Sa	0331	8.6	262
	0918	0.3	9
	1533	10.2	311
	2203	−1.1	−34
12 Su	0420	7.8	238
	0957	1.1	34
	1614	9.8	299
	2253	−0.6	−18
13 M	0514	6.9	210
	1039	2.0	61
	1659	9.2	280
	2350	0.2	6
14 Tu ◐	0618	6.1	186
	1127	2.9	88
	1751	8.5	259
15 W	0100	0.9	27
	0745	5.5	168
	1230	3.6	110
	1856	7.8	238

	Time	Height	
	h m	ft	cm
16 Th	0227	1.2	37
	0930	5.5	168
	1403	3.9	119
	2021	7.3	223
17 F	0352	1.2	37
	1044	5.9	180
	1546	3.7	113
	2147	7.3	223
18 Sa	0453	1.0	30
	1132	6.4	195
	1654	3.1	94
	2254	7.5	229
19 Su	0537	0.8	24
	1207	6.9	210
	1742	2.4	73
	2343	7.8	238
20 M	0611	0.6	18
	1234	7.4	226
	1820	1.7	52
21 Tu	0024	8.0	244
	0640	0.5	15
	1258	7.9	241
	1853	1.1	34
22 W	0100	8.2	250
	0707	0.6	18
	1320	8.3	253
	1925	0.6	18
23 Th ○	0133	8.2	250
	0733	0.8	24
	1343	8.7	265
	1955	0.3	9
24 F	0206	8.1	247
	0759	1.0	30
	1407	9.0	274
	2027	0.0	0
25 Sa	0239	7.9	241
	0825	1.4	43
	1433	9.1	277
	2059	0.0	0
26 Su	0313	7.6	232
	0853	1.8	55
	1502	9.2	280
	2134	0.0	0
27 M	0350	7.1	216
	0923	2.2	67
	1534	9.0	274
	2214	0.2	6
28 Tu	0431	6.6	201
	0955	2.7	82
	1610	8.8	268
	2300	0.5	15
29 W	0522	6.0	183
	1034	3.2	98
	1655	8.4	256
	2357	0.8	24
30 Th ◑	0629	5.5	168
	1128	3.6	110
	1754	8.0	244

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Kodiak, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0107	1.0	30
	0758	5.4	165
	1248	3.8	116
	1911	7.6	232
2 Sa	0228	0.9	27
	0926	5.8	177
	1427	3.6	110
	2038	7.6	232
3 Su	0341	0.6	18
	1025	6.6	201
	1555	2.7	82
	2159	7.9	241
4 M	0439	0.2	6
	1110	7.5	229
	1700	1.5	46
	2307	8.3	253
5 Tu	0527	0.0	0
	1149	8.5	259
	1754	0.3	9
6 W	0005	8.7	265
	0610	−0.1	−3
	1227	9.5	290
	1842	−0.8	−24
7 Th ●	0058	8.9	271
	0651	0.1	3
	1304	10.2	311
	1928	−1.5	−46
8 F	0147	8.9	271
	0731	0.4	12
	1342	10.7	326
	2013	−1.9	−58
9 Sa	0234	8.7	265
	0810	0.9	27
	1421	10.8	329
	2058	−1.8	−55
10 Su	0321	8.2	250
	0850	1.5	46
	1500	10.5	320
	2143	−1.4	−43
11 M	0410	7.6	232
	0931	2.1	64
	1542	10.0	305
	2230	−0.7	−21
12 Tu	0502	7.0	213
	1015	2.8	85
	1626	9.2	280
	2322	0.1	3
13 W	0603	6.4	195
	1105	3.5	107
	1717	8.3	253
14 Th ◐	0023	0.9	27
	0720	6.0	183
	1211	3.9	119
	1819	7.5	229
15 F	0137	1.4	43
	0847	6.0	183
	1345	4.1	125
	1940	6.9	210

	Time	Height	
	h m	ft	cm
16 Sa	0255	1.6	49
	0954	6.3	192
	1524	3.7	113
	2109	6.7	204
17 Su	0357	1.7	52
	1041	6.8	207
	1631	3.0	91
	2222	6.8	207
18 M	0444	1.6	49
	1115	7.3	223
	1718	2.2	67
	2317	7.1	216
19 Tu	0521	1.6	49
	1142	7.9	241
	1756	1.4	43
20 W	0002	7.3	223
	0553	1.6	49
	1208	8.4	256
	1830	0.8	24
21 Th	0041	7.6	232
	0623	1.7	52
	1233	8.9	271
	1902	0.2	6
22 F ○	0117	7.7	235
	0653	1.9	58
	1300	9.3	283
	1933	−0.2	−6
23 Sa	0152	7.7	235
	0723	2.1	64
	1329	9.6	293
	2006	−0.5	−15
24 Su	0227	7.7	235
	0754	2.3	70
	1359	9.8	299
	2040	−0.6	−18
25 M	0304	7.5	229
	0826	2.6	79
	1432	9.8	299
	2118	−0.5	−15
26 Tu	0344	7.1	216
	0900	2.9	88
	1508	9.6	293
	2159	−0.4	−12
27 W	0428	6.8	207
	0940	3.2	98
	1549	9.2	280
	2245	−0.1	−3
28 Th	0521	6.4	195
	1027	3.5	107
	1637	8.7	265
	2339	0.2	6
29 F	0623	6.2	189
	1129	3.7	113
	1738	8.1	247
30 Sa ◑	0040	0.6	18
	0734	6.4	195
	1250	3.6	110
	1853	7.5	229
31 Su	0148	0.8	24
	0842	6.8	207
	1424	3.1	94
	2020	7.2	219

November

	Time	Height	
	h m	ft	cm
1 M	0256	1.0	30
	0939	7.6	232
	1546	2.1	64
	2145	7.2	219
2 Tu	0355	1.0	30
	1027	8.5	259
	1650	0.9	27
	2257	7.5	229
3 W	0448	1.1	34
	1111	9.4	287
	1743	−0.2	−6
	2359	7.8	238
4 Th	0536	1.3	40
	1153	10.2	311
	1831	−1.2	−37
5 F ●	0053	8.1	247
	0621	1.5	46
	1233	10.7	326
	1916	−1.7	−52
6 Sa	0142	8.2	250
	0704	1.7	52
	1314	11.0	335
	2000	−1.9	−58
7 Su	0229	8.1	247
	0746	2.1	64
	1354	10.9	332
	2043	−1.7	−52
8 M	0315	7.9	241
	0828	2.4	73
	1435	10.6	323
	2126	−1.3	−40
9 Tu	0401	7.6	232
	0911	2.8	85
	1517	10.0	305
	2210	−0.7	−21
10 W	0449	7.2	219
	0956	3.2	98
	1600	9.2	280
	2256	0.0	0
11 Th	0541	6.9	210
	1047	3.6	110
	1647	8.3	253
	2345	0.7	21
12 F	0639	6.6	201
	1147	3.9	119
	1741	7.5	229
13 Sa ◐	0038	1.3	40
	0740	6.6	201
	1305	4.0	122
	1847	6.7	204
14 Su	0136	1.8	55
	0839	6.8	207
	1435	3.6	110
	2007	6.2	189
15 M	0236	2.2	67
	0928	7.2	219
	1550	3.0	91
	2131	6.1	186

	Time	Height	
	h m	ft	cm
16 Tu	0330	2.4	73
	1008	7.7	235
	1644	2.2	67
	2241	6.3	192
17 W	0417	2.6	79
	1043	8.2	250
	1727	1.4	43
	2337	6.5	198
18 Th	0459	2.7	82
	1116	8.8	268
	1804	0.7	21
19 F	0023	6.8	207
	0538	2.8	85
	1149	9.3	283
	1840	0.1	3
20 Sa	0104	7.1	216
	0615	2.9	88
	1223	9.7	296
	1914	−0.4	−12
21 Su ○	0142	7.3	223
	0652	2.9	88
	1258	10.1	308
	1950	−0.8	−24
22 M	0220	7.4	226
	0729	2.9	88
	1335	10.2	311
	2027	−1.0	−30
23 Tu	0259	7.4	226
	0807	3.0	91
	1413	10.2	311
	2107	−1.1	−34
24 W	0340	7.3	223
	0849	3.0	91
	1454	10.0	305
	2148	−1.0	−30
25 Th	0424	7.3	223
	0934	3.1	94
	1539	9.6	293
	2232	−0.7	−21
26 F	0512	7.2	219
	1027	3.2	98
	1629	9.0	274
	2320	−0.3	−9
27 Sa	0604	7.3	223
	1130	3.2	98
	1728	8.1	247
28 Su ◑	0011	0.2	6
	0659	7.5	229
	1245	3.0	91
	1838	7.3	223
29 M	0107	0.8	24
	0756	7.9	241
	1409	2.4	73
	2000	6.7	204
30 Tu	0207	1.4	43
	0852	8.5	259
	1530	1.6	49
	2130	6.4	195

December

	Time	Height	
	h m	ft	cm
1 W	0309	1.9	58
	0946	9.1	277
	1637	0.6	18
	2251	6.6	201
2 Th	0410	2.3	70
	1037	9.8	299
	1734	−0.3	−9
	2359	6.9	210
3 F	0505	2.5	76
	1125	10.3	314
	1824	−1.0	−30
4 Sa	0055	7.3	223
	0557	2.6	79
	1211	10.6	323
	1909	−1.4	−43
5 Su ●	0143	7.6	232
	0645	2.7	82
	1255	10.8	329
	1952	−1.6	−49
6 M	0228	7.7	235
	0731	2.8	85
	1338	10.7	326
	2033	−1.5	−46
7 Tu	0310	7.8	238
	0815	2.9	88
	1419	10.4	317
	2112	−1.2	−37
8 W	0350	7.7	235
	0858	3.0	91
	1459	9.8	299
	2150	−0.7	−21
9 Th	0429	7.5	229
	0941	3.1	94
	1540	9.2	280
	2228	−0.2	−6
10 F	0509	7.4	226
	1027	3.3	101
	1621	8.4	256
	2305	0.4	12
11 Sa	0549	7.3	223
	1117	3.4	104
	1706	7.6	232
	2344	1.1	34
12 Su	0630	7.3	223
	1216	3.5	107
	1758	6.8	207
13 M ◐	0025	1.7	52
	0714	7.4	226
	1326	3.4	104
	1901	6.0	183
14 Tu	0110	2.4	73
	0801	7.6	232
	1444	3.0	91
	2020	5.6	171
15 W	0202	2.9	88
	0849	7.9	241
	1555	2.4	73
	2151	5.5	168

	Time	Height	
	h m	ft	cm
16 Th	0259	3.3	101
	0937	8.3	253
	1652	1.6	49
	2310	5.7	174
17 F	0358	3.6	110
	1024	8.8	268
	1738	0.9	27
18 Sa	0008	6.1	186
	0452	3.6	110
	1110	9.3	283
	1819	0.2	6
19 Su	0054	6.6	201
	0542	3.5	107
	1153	9.8	299
	1859	−0.5	−15
20 M ○	0134	7.0	213
	0628	3.3	101
	1236	10.2	311
	1937	−1.1	−34
21 Tu	0212	7.3	223
	0712	3.0	91
	1319	10.5	320
	2015	−1.4	−43
22 W	0250	7.6	232
	0756	2.8	85
	1402	10.5	320
	2054	−1.6	−49
23 Th	0328	7.8	238
	0842	2.5	76
	1447	10.3	314
	2134	−1.6	−49
24 F	0407	8.0	244
	0931	2.3	70
	1533	9.8	299
	2214	−1.2	−37
25 Sa	0449	8.2	250
	1023	2.2	67
	1623	9.1	277
	2256	−0.6	−18
26 Su	0532	8.4	256
	1122	2.1	64
	1718	8.1	247
	2340	0.2	6
27 M ◑	0619	8.6	262
	1229	1.9	58
	1822	7.0	213
28 Tu	0027	1.1	34
	0711	8.8	268
	1346	1.7	52
	1941	6.2	189
29 W	0122	2.0	61
	0807	9.0	274
	1509	1.2	37
	2117	5.8	177
30 Th	0225	2.7	82
	0908	9.3	283
	1624	0.5	15
	2252	5.9	180
31 F	0336	3.2	98
	1009	9.5	290
	1727	−0.1	−3

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sand Point, Popof Island, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0309	6.9	210
	0805	3.2	98
	1400	9.3	283
	2108	−1.9	−58
2 Sa	0348	7.2	219
	0857	2.9	88
	1450	9.0	274
	2150	−1.6	−49
3 Su	0428	7.4	226
	0952	2.6	79
	1541	8.5	259
	2231	−1.0	−30
4 M	0509	7.6	232
	1050	2.3	70
	1635	7.7	235
	2311	−0.2	−6
5 Tu	0551	7.8	238
	1153	2.1	64
	1734	6.7	204
	2353	0.7	21
6 W	0635	7.8	238
	1304	1.9	58
	1846	5.7	174
7 Th ◑	0036	1.8	55
	0723	7.8	238
	1421	1.6	49
	2017	5.0	152
8 F	0124	2.7	82
	0816	7.7	235
	1539	1.2	37
	2200	4.8	146
9 Sa	0226	3.5	107
	0913	7.7	235
	1649	0.7	21
	2332	5.0	152
10 Su	0347	4.0	122
	1013	7.6	232
	1747	0.2	6
11 M	0041	5.4	165
	0504	4.2	128
	1109	7.7	235
	1836	−0.1	−3
12 Tu	0129	5.7	174
	0605	4.2	128
	1158	7.8	238
	1918	−0.4	−12
13 W	0206	6.0	183
	0654	4.0	122
	1242	7.9	241
	1955	−0.5	−15
14 Th ●	0239	6.2	189
	0736	3.7	113
	1321	7.9	241
	2028	−0.6	−18
15 F	0309	6.4	195
	0812	3.5	107
	1357	7.9	241
	2058	−0.5	−15

	Time	Height	
	h m	ft	cm
16 Sa	0337	6.6	201
	0847	3.3	101
	1430	7.7	235
	2126	−0.3	−9
17 Su	0403	6.7	204
	0921	3.1	94
	1503	7.5	229
	2152	0.0	0
18 M	0428	6.8	207
	0957	2.9	88
	1537	7.1	216
	2216	0.5	15
19 Tu	0451	6.9	210
	1034	2.7	82
	1612	6.6	201
	2239	1.0	30
20 W	0515	6.9	210
	1117	2.6	79
	1652	6.0	183
	2303	1.6	49
21 Th	0541	7.0	213
	1206	2.4	73
	1740	5.3	162
	2329	2.2	67
22 F	0612	7.1	216
	1308	2.2	67
	1846	4.7	143
23 Sa ◐	0001	2.8	85
	0652	7.2	219
	1426	1.9	58
	2035	4.3	131
24 Su	0043	3.4	104
	0744	7.3	223
	1549	1.3	40
	2245	4.4	134
25 M	0147	4.0	122
	0850	7.5	229
	1658	0.5	15
26 Tu	0001	4.9	149
	0326	4.2	128
	1003	7.8	238
	1754	−0.3	−9
27 W	0050	5.5	168
	0501	4.1	125
	1111	8.3	253
	1843	−1.0	−30
28 Th	0130	6.1	186
	0611	3.6	110
	1211	8.7	265
	1927	−1.5	−46
29 F ○	0206	6.6	201
	0709	3.0	91
	1306	9.0	274
	2008	−1.7	−52
30 Sa	0242	7.2	219
	0801	2.3	70
	1358	9.0	274
	2048	−1.6	−49
31 Su	0317	7.6	232
	0852	1.8	55
	1448	8.8	268
	2127	−1.2	−37

February

	Time	Height	
	h m	ft	cm
1 M	0353	8.0	244
	0943	1.3	40
	1539	8.2	250
	2204	−0.5	−15
2 Tu	0429	8.2	250
	1035	1.0	30
	1631	7.4	226
	2240	0.4	12
3 W	0507	8.2	250
	1131	0.9	27
	1727	6.4	195
	2316	1.3	40
4 Th	0546	8.1	247
	1232	1.0	30
	1832	5.5	168
	2353	2.3	70
5 F ◑	0630	7.8	238
	1343	1.1	34
	1959	4.8	146
6 Sa	0033	3.2	98
	0721	7.4	226
	1503	1.1	34
	2147	4.6	140
7 Su	0130	3.9	119
	0826	7.1	216
	1621	0.9	27
	2328	4.8	146
8 M	0321	4.3	131
	0943	6.9	210
	1727	0.6	18
9 Tu	0033	5.2	158
	0457	4.3	131
	1052	7.0	213
	1818	0.3	9
10 W	0112	5.6	171
	0600	4.0	122
	1148	7.2	219
	1859	0.0	0
11 Th	0143	5.9	180
	0647	3.6	110
	1234	7.3	223
	1934	−0.1	−3
12 F	0210	6.2	189
	0726	3.2	98
	1314	7.5	229
	2004	−0.1	−3
13 Sa ●	0235	6.5	198
	0800	2.8	85
	1349	7.5	229
	2032	−0.1	−3
14 Su	0258	6.7	204
	0833	2.4	73
	1423	7.4	226
	2056	0.1	3
15 M	0320	6.9	210
	0904	2.0	61
	1455	7.2	219
	2119	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0340	7.1	216
	0936	1.8	55
	1528	6.8	207
	2141	0.9	27
17 W	0400	7.2	219
	1010	1.5	46
	1603	6.4	195
	2202	1.4	43
18 Th	0422	7.3	223
	1047	1.4	43
	1642	5.9	180
	2225	1.9	58
19 F	0448	7.4	226
	1130	1.3	40
	1728	5.3	162
	2252	2.5	76
20 Sa	0520	7.4	226
	1225	1.3	40
	1830	4.7	143
	2323	3.0	91
21 Su ◐	0601	7.3	223
	1337	1.2	37
	2014	4.3	131
22 M	0005	3.6	110
	0657	7.2	219
	1506	1.0	30
	2224	4.4	134
23 Tu	0117	4.0	122
	0814	7.2	219
	1627	0.5	15
	2336	4.9	149
24 W	0319	4.2	128
	0943	7.3	223
	1729	−0.1	−3
25 Th	0021	5.5	168
	0502	3.7	113
	1102	7.7	235
	1819	−0.6	−18
26 F	0058	6.2	189
	0609	2.9	88
	1207	8.1	247
	1903	−0.9	−27
27 Sa	0132	6.9	210
	0704	1.9	58
	1304	8.4	256
	1944	−1.0	−30
28 Su ○	0206	7.5	229
	0754	1.1	34
	1356	8.4	256
	2022	−0.7	−21

March

	Time	Height	
	h m	ft	cm
1 M	0240	8.0	244
	0842	0.4	12
	1446	8.1	247
	2059	−0.3	−9
2 Tu	0314	8.3	253
	0929	−0.1	−3
	1535	7.6	232
	2134	0.4	12
3 W	0348	8.4	256
	1016	−0.3	−9
	1625	6.9	210
	2209	1.2	37
4 Th	0424	8.3	253
	1106	−0.1	−3
	1719	6.1	186
	2244	2.0	61
5 F	0500	8.0	244
	1200	0.2	6
	1820	5.4	165
	2318	2.8	85
6 Sa	0541	7.5	229
	1303	0.6	18
	1940	4.8	146
	2357	3.5	107
7 Su ◑	0629	6.9	210
	1419	1.0	30
	2122	4.6	140
8 M	0056	4.0	122
	0737	6.4	195
	1542	1.1	34
	2258	4.8	146
9 Tu	0313	4.3	131
	0910	6.1	186
	1652	0.9	27
	2357	5.1	155
10 W	0448	4.0	122
	1032	6.2	189
	1745	0.8	24
11 Th	0033	5.5	168
	0547	3.5	107
	1133	6.4	195
	1826	0.6	18
12 F	0101	5.9	180
	0631	2.9	88
	1221	6.6	201
	1900	0.5	15
13 Sa	0126	6.2	189
	0708	2.3	70
	1301	6.8	207
	1930	0.5	15
14 Su	0149	6.6	201
	0741	1.8	55
	1338	6.9	210
	1956	0.6	18
15 M ●	0211	6.9	210
	0812	1.2	37
	1413	6.8	207
	2021	0.9	27

	Time	Height	
	h m	ft	cm
16 Tu	0231	7.1	216
	0843	0.8	24
	1448	6.7	204
	2044	1.2	37
17 W	0252	7.3	223
	0914	0.5	15
	1523	6.5	198
	2106	1.5	46
18 Th	0313	7.4	226
	0947	0.2	6
	1600	6.1	186
	2130	2.0	61
19 F	0338	7.5	229
	1024	0.1	3
	1641	5.7	174
	2156	2.4	73
20 Sa	0408	7.5	229
	1107	0.2	6
	1730	5.2	158
	2227	2.8	85
21 Su	0444	7.4	226
	1200	0.3	9
	1835	4.7	143
	2304	3.3	101
22 M	0529	7.2	219
	1308	0.5	15
	2012	4.5	137
	2358	3.7	113
23 Tu ◐	0630	6.9	210
	1431	0.5	15
	2150	4.7	143
24 W	0132	3.9	119
	0755	6.6	201
	1550	0.4	12
	2253	5.2	158
25 Th	0341	3.6	110
	0935	6.6	201
	1654	0.1	3
	2338	5.9	180
26 F	0505	2.8	85
	1058	6.9	210
	1746	−0.1	−3
27 Sa	0016	6.5	198
	0605	1.7	52
	1204	7.2	219
	1831	−0.1	−3
28 Su	0052	7.2	219
	0656	0.7	21
	1301	7.4	226
	1913	0.1	3
29 M ○	0126	7.8	238
	0743	−0.2	−6
	1354	7.4	226
	1951	0.4	12
30 Tu	0200	8.2	250
	0828	−0.9	−27
	1443	7.2	219
	2029	0.9	27
31 W	0235	8.4	256
	0912	−1.2	−37
	1532	6.9	210
	2105	1.4	43

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sand Point, Popof Island, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0309	8.4	256
	0956	−1.2	−37
	1621	6.4	195
	2141	2.0	61
2 F	0344	8.1	247
	1042	−0.9	−27
	1712	5.8	177
	2216	2.6	79
3 Sa	0420	7.6	232
	1130	−0.4	−12
	1810	5.3	162
	2254	3.1	94
4 Su	0459	7.1	216
	1226	0.2	6
	1920	4.9	149
	2338	3.6	110
5 M	0545	6.4	195
	1331	0.7	21
	2043	4.7	143
6 Tu	0052	3.9	119
	0648	5.8	177
	1446	1.1	34
◑	2201	4.9	149
7 W	0256	3.9	119
	0825	5.4	165
	1556	1.2	37
	2256	5.2	158
8 Th	0424	3.5	107
	0958	5.4	165
	1652	1.2	37
	2335	5.5	168
9 F	0522	2.9	88
	1106	5.5	168
	1736	1.2	37
10 Sa	0005	5.9	180
	0606	2.2	67
	1159	5.7	174
	1812	1.3	40
11 Su	0032	6.3	192
	0643	1.4	43
	1244	5.9	180
	1844	1.4	43
12 M	0056	6.6	201
	0717	0.8	24
	1325	6.1	186
	1913	1.5	46
13 Tu	0119	7.0	213
	0749	0.2	6
	1404	6.2	189
	1940	1.7	52
14 W	0142	7.3	223
	0821	−0.3	−9
	1442	6.2	189
●	2007	2.0	61
15 Th	0206	7.5	229
	0854	−0.7	−21
	1521	6.0	183
	2035	2.2	67

	Time	Height	
	h m	ft	cm
16 F	0234	7.6	232
	0930	−0.9	−27
	1602	5.8	177
	2104	2.5	76
17 Sa	0305	7.7	235
	1010	−0.9	−27
	1647	5.5	168
	2138	2.8	85
18 Su	0341	7.6	232
	1055	−0.8	−24
	1740	5.2	158
	2217	3.1	94
19 M	0423	7.4	226
	1147	−0.5	−15
	1843	5.0	152
	2308	3.4	104
20 Tu	0514	7.0	213
	1248	−0.2	−6
	1957	5.0	152
21 W	0021	3.6	110
	0621	6.5	198
	1357	0.1	3
◐	2107	5.3	162
22 Th	0209	3.4	104
	0750	6.0	183
	1508	0.3	9
	2204	5.8	177
23 F	0348	2.7	82
	0930	5.8	177
	1611	0.5	15
	2250	6.3	192
24 Sa	0459	1.7	52
	1054	5.9	180
	1706	0.8	24
	2331	7.0	213
25 Su	0556	0.6	18
	1202	6.1	186
	1754	1.0	30
26 M	0010	7.5	229
	0645	−0.4	−12
	1300	6.3	192
	1839	1.3	40
27 Tu	0047	7.9	241
	0731	−1.2	−37
	1353	6.4	195
	1920	1.6	49
28 W	0123	8.2	250
	0814	−1.7	−52
	1442	6.4	195
○	2000	2.0	61
29 Th	0159	8.2	250
	0857	−1.8	−55
	1530	6.2	189
	2039	2.3	70
30 F	0235	8.1	247
	0939	−1.7	−52
	1617	6.0	183
	2118	2.6	79

May

	Time	Height	
	h m	ft	cm
1 Sa	0312	7.7	235
	1021	−1.3	−40
	1705	5.6	171
	2156	3.0	91
2 Su	0349	7.3	223
	1105	−0.8	−24
	1756	5.3	162
	2239	3.3	101
3 M	0428	6.7	204
	1152	−0.2	−6
	1853	5.1	155
	2330	3.5	107
4 Tu	0512	6.1	186
	1243	0.3	9
	1954	5.0	152
5 W	0044	3.6	110
	0607	5.5	168
	1340	0.8	24
◑	2053	5.1	155
6 Th	0221	3.5	107
	0726	4.9	149
	1439	1.3	40
	2144	5.3	162
7 F	0345	3.0	91
	0905	4.7	143
	1536	1.6	49
	2225	5.6	171
8 Sa	0446	2.3	70
	1028	4.7	143
	1625	1.8	55
	2259	6.0	183
9 Su	0533	1.5	46
	1132	4.8	146
	1709	2.0	61
	2329	6.4	195
10 M	0613	0.8	24
	1225	5.1	155
	1747	2.2	67
	2357	6.7	204
11 Tu	0649	0.0	0
	1312	5.3	162
	1823	2.3	70
12 W	0026	7.1	216
	0725	−0.6	−18
	1355	5.5	168
	1858	2.5	76
13 Th	0056	7.4	226
	0801	−1.2	−37
	1437	5.7	174
●	1933	2.6	79
14 F	0129	7.7	235
	0838	−1.6	−49
	1519	5.7	174
	2009	2.7	82
15 Sa	0205	7.8	238
	0918	−1.8	−55
	1603	5.7	174
	2047	2.9	88

	Time	Height	
	h m	ft	cm
16 Su	0244	7.9	241
	1000	−1.8	−55
	1649	5.6	171
	2131	3.0	91
17 M	0327	7.7	235
	1045	−1.6	−49
	1738	5.6	171
	2222	3.0	91
18 Tu	0415	7.3	223
	1134	−1.2	−37
	1831	5.6	171
	2325	3.1	94
19 W	0511	6.7	204
	1226	−0.7	−21
	1927	5.7	174
20 Th	0045	2.9	88
	0620	6.0	183
	1322	−0.1	−3
◐	2022	6.0	183
21 F	0217	2.4	73
	0747	5.4	165
	1422	0.5	15
	2114	6.4	195
22 Sa	0339	1.6	49
	0924	5.0	152
	1522	1.1	34
	2202	6.8	207
23 Su	0447	0.7	21
	1050	5.0	152
	1621	1.6	49
	2247	7.3	223
24 M	0543	−0.3	−9
	1202	5.2	158
	1716	2.0	61
	2331	7.6	232
25 Tu	0634	−1.1	−34
	1302	5.4	165
	1807	2.3	70
26 W	0013	7.8	238
	0719	−1.6	−49
	1355	5.6	171
	1854	2.6	79
27 Th	0053	7.9	241
	0803	−1.9	−58
	1443	5.7	174
○	1938	2.7	82
28 F	0132	7.9	241
	0844	−1.9	−58
	1527	5.7	174
	2021	2.8	85
29 Sa	0211	7.7	235
	0924	−1.8	−55
	1610	5.7	174
	2102	2.9	88
30 Su	0249	7.4	226
	1003	−1.4	−43
	1652	5.6	171
	2143	3.0	91
31 M	0326	7.0	213
	1041	−1.0	−30
	1734	5.5	168
	2227	3.1	94

June

	Time	Height	
	h m	ft	cm
1 Tu	0405	6.5	198
	1119	−0.5	−15
	1816	5.4	165
	2317	3.2	98
2 W	0446	5.9	180
	1157	0.0	0
	1859	5.4	165
3 Th	0018	3.1	94
	0534	5.3	162
	1236	0.6	18
	1942	5.5	168
4 F	0132	2.9	88
	0635	4.7	143
	1316	1.2	37
◑	2024	5.6	171
5 Sa	0250	2.5	76
	0759	4.2	128
	1400	1.7	52
	2104	5.8	177
6 Su	0357	1.9	58
	0939	4.0	122
	1450	2.2	67
	2142	6.1	186
7 M	0452	1.1	34
	1102	4.1	125
	1545	2.6	79
	2220	6.4	195
8 Tu	0539	0.4	12
	1207	4.4	134
	1639	2.8	85
	2259	6.8	207
9 W	0622	−0.4	−12
	1300	4.8	146
	1730	3.0	91
	2339	7.2	219
10 Th	0703	−1.1	−34
	1346	5.1	155
	1819	3.0	91
11 F	0020	7.6	232
	0743	−1.7	−52
	1429	5.4	165
	1905	3.0	91
12 Sa	0103	7.9	241
	0824	−2.1	−64
	1511	5.6	171
●	1951	2.9	88
13 Su	0148	8.1	247
	0906	−2.3	−70
	1552	5.8	177
	2040	2.7	82
14 M	0234	8.0	244
	0948	−2.2	−67
	1634	6.0	183
	2131	2.6	79
15 Tu	0322	7.8	238
	1031	−2.0	−61
	1717	6.1	186
	2228	2.4	73

	Time	Height	
	h m	ft	cm
16 W	0414	7.2	219
	1114	−1.4	−43
	1801	6.3	192
	2332	2.2	67
17 Th	0512	6.5	198
	1159	−0.7	−21
	1847	6.5	198
18 F	0044	1.9	58
	0619	5.6	171
	1246	0.1	3
◐	1935	6.7	204
19 Sa	0203	1.4	43
	0742	4.9	149
	1336	1.0	30
	2025	6.9	210
20 Su	0320	0.8	24
	0918	4.4	134
	1433	1.8	55
	2117	7.1	216
21 M	0430	0.1	3
	1049	4.4	134
	1537	2.4	73
	2209	7.3	223
22 Tu	0530	−0.6	−18
	1205	4.6	140
	1643	2.9	88
	2300	7.4	226
23 W	0623	−1.1	−34
	1306	4.9	149
	1745	3.0	91
	2349	7.5	229
24 Th	0709	−1.5	−46
	1355	5.2	158
	1839	3.1	94
25 F	0034	7.5	229
	0752	−1.7	−52
	1438	5.4	165
	1926	3.0	91
26 Sa	0117	7.5	229
	0831	−1.7	−52
	1516	5.6	171
○	2010	2.9	88
27 Su	0157	7.4	226
	0908	−1.6	−49
	1552	5.6	171
	2050	2.8	85
28 M	0234	7.2	219
	0942	−1.3	−40
	1626	5.7	174
	2129	2.8	85
29 Tu	0311	6.8	207
	1014	−0.9	−27
	1658	5.7	174
	2210	2.7	82
30 W	0347	6.4	195
	1044	−0.5	−15
	1730	5.8	177
	2253	2.6	79

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sand Point, Popof Island, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0425	5.9	180
	1112	0.0	0
	1800	5.8	177
	2342	2.5	76
2 F	0507	5.3	162
	1140	0.6	18
	1830	5.9	180
3 Sa	0038	2.3	70
	0558	4.7	143
	1209	1.2	37
	1902	6.0	183
4 Su ◑	0145	2.0	61
	0705	4.1	125
	1242	1.9	58
	1939	6.1	186
5 M	0257	1.6	49
	0844	3.7	113
	1323	2.4	73
	2023	6.3	192
6 Tu	0406	1.0	30
	1033	3.7	113
	1419	2.9	88
	2114	6.5	198
7 W	0505	0.3	9
	1151	4.1	125
	1531	3.3	101
	2209	6.9	210
8 Th	0556	−0.5	−15
	1247	4.5	137
	1647	3.3	101
	2305	7.3	223
9 F	0642	−1.2	−37
	1332	5.0	152
	1753	3.2	98
	2358	7.7	235
10 Sa	0725	−1.8	−55
	1412	5.4	165
	1850	2.9	88
11 Su ●	0049	8.0	244
	0807	−2.2	−67
	1449	5.8	177
	1942	2.5	76
12 M	0139	8.2	250
	0848	−2.3	−70
	1527	6.2	189
	2034	2.1	64
13 Tu	0229	8.2	250
	0928	−2.2	−67
	1604	6.5	198
	2127	1.7	52
14 W	0320	7.8	238
	1008	−1.8	−55
	1642	6.8	207
	2223	1.4	43
15 Th	0413	7.2	219
	1048	−1.1	−34
	1722	7.0	213
	2322	1.1	34

	Time	Height	
	h m	ft	cm
16 F	0510	6.3	192
	1128	−0.2	−6
	1803	7.2	219
17 Sa	0027	0.9	27
	0615	5.4	165
	1209	0.8	24
	1848	7.2	219
18 Su ◐	0139	0.6	18
	0736	4.6	140
	1254	1.7	52
	1938	7.1	216
19 M	0255	0.3	9
	0913	4.2	128
	1349	2.5	76
	2035	7.0	213
20 Tu	0409	0.0	0
	1049	4.2	128
	1505	3.1	94
	2138	7.0	213
21 W	0515	−0.4	−12
	1206	4.5	137
	1629	3.4	104
	2240	7.0	213
22 Th	0610	−0.8	−24
	1302	4.9	149
	1739	3.4	104
	2337	7.1	216
23 F	0657	−1.0	−30
	1345	5.2	158
	1834	3.2	98
24 Sa	0026	7.1	216
	0738	−1.2	−37
	1420	5.5	168
	1920	2.9	88
25 Su ○	0109	7.2	219
	0813	−1.2	−37
	1451	5.7	174
	2000	2.6	79
26 M	0148	7.1	216
	0845	−1.1	−34
	1520	5.8	177
	2036	2.4	73
27 Tu	0224	7.0	213
	0915	−0.8	−24
	1547	6.0	183
	2112	2.2	67
28 W	0258	6.8	207
	0941	−0.5	−15
	1612	6.1	186
	2147	2.0	61
29 Th	0332	6.4	195
	1006	0.0	0
	1636	6.2	189
	2224	1.8	55
30 F	0408	5.9	180
	1029	0.5	15
	1659	6.2	189
	2304	1.7	52
31 Sa	0447	5.4	165
	1052	1.0	30
	1723	6.3	192
	2349	1.6	49

August

	Time	Height	
	h m	ft	cm
1 Su	0532	4.8	146
	1117	1.6	49
	1753	6.3	192
2 M ◑	0045	1.5	46
	0630	4.2	128
	1146	2.2	67
	1830	6.4	195
3 Tu	0155	1.3	40
	0802	3.8	116
	1224	2.8	85
	1918	6.4	195
4 W	0316	0.9	27
	1010	3.7	113
	1320	3.3	101
	2021	6.5	198
5 Th	0430	0.3	9
	1134	4.1	125
	1450	3.6	110
	2134	6.8	207
6 F	0529	−0.4	−12
	1226	4.6	140
	1630	3.5	107
	2244	7.2	219
7 Sa	0619	−1.0	−30
	1305	5.2	158
	1744	3.1	94
	2346	7.7	235
8 Su	0703	−1.5	−46
	1341	5.7	174
	1843	2.4	73
9 M ●	0042	8.1	247
	0744	−1.8	−55
	1415	6.3	192
	1935	1.7	52
10 Tu	0135	8.2	250
	0824	−1.8	−55
	1450	6.8	207
	2026	1.1	34
11 W	0226	8.1	247
	0902	−1.5	−46
	1525	7.3	223
	2116	0.5	15
12 Th	0317	7.7	235
	0940	−0.9	−27
	1601	7.6	232
	2208	0.2	6
13 F	0409	7.0	213
	1017	−0.1	−3
	1638	7.7	235
	2302	0.0	0
14 Sa	0505	6.2	189
	1055	0.8	24
	1718	7.7	235
15 Su	0001	0.0	0
	0609	5.4	165
	1134	1.7	52
	1801	7.4	226

	Time	Height	
	h m	ft	cm
16 M ◐	0109	0.2	6
	0728	4.7	143
	1218	2.5	76
	1853	7.1	216
17 Tu	0225	0.3	9
	0906	4.3	131
	1318	3.2	98
	1957	6.7	204
18 W	0344	0.2	6
	1043	4.4	134
	1457	3.7	113
	2115	6.5	198
19 Th	0454	0.1	3
	1154	4.8	146
	1632	3.6	110
	2229	6.5	198
20 F	0551	−0.2	−6
	1241	5.2	158
	1739	3.3	101
	2330	6.6	201
21 Sa	0636	−0.3	−9
	1316	5.5	168
	1829	2.9	88
22 Su	0019	6.8	207
	0714	−0.4	−12
	1346	5.8	177
	1909	2.5	76
23 M	0101	6.9	210
	0746	−0.4	−12
	1412	6.0	183
	1945	2.1	64
24 Tu ○	0138	6.9	210
	0815	−0.2	−6
	1437	6.3	192
	2018	1.7	52
25 W	0213	6.9	210
	0841	0.0	0
	1459	6.5	198
	2050	1.4	43
26 Th	0247	6.7	204
	0904	0.4	12
	1520	6.6	201
	2122	1.1	34
27 F	0320	6.4	195
	0926	0.8	24
	1540	6.7	204
	2155	0.9	27
28 Sa	0355	6.0	183
	0948	1.3	40
	1602	6.8	207
	2230	0.9	27
29 Su	0433	5.5	168
	1010	1.8	55
	1627	6.8	207
	2311	0.8	24
30 M	0517	5.0	152
	1036	2.3	70
	1657	6.8	207
31 Tu	0000	0.9	27
	0615	4.5	137
	1106	2.8	85
	1737	6.7	204

September

	Time	Height	
	h m	ft	cm
1 W ◑	0106	0.9	27
	0747	4.1	125
	1147	3.3	101
	1829	6.6	201
2 Th	0231	0.8	24
	0950	4.1	125
	1255	3.7	113
	1942	6.5	198
3 F	0354	0.5	15
	1105	4.6	140
	1450	3.8	116
	2112	6.7	204
4 Sa	0458	0.0	0
	1151	5.1	155
	1634	3.4	104
	2234	7.0	213
5 Su	0549	−0.5	−15
	1227	5.8	177
	1742	2.6	79
	2340	7.5	229
6 M	0634	−0.8	−24
	1301	6.4	195
	1836	1.6	49
7 Tu	0038	7.8	238
	0715	−0.8	−24
	1335	7.1	216
	1926	0.7	21
8 W	0131	7.9	241
	0754	−0.6	−18
	1408	7.7	235
	2014	−0.1	−3
9 Th	0222	7.8	238
	0831	−0.2	−6
	1443	8.1	247
	2101	−0.6	−18
10 F	0313	7.4	226
	0908	0.4	12
	1518	8.3	253
	2150	−0.9	−27
11 Sa	0405	6.9	210
	0945	1.1	34
	1555	8.2	250
	2240	−0.8	−24
12 Su	0500	6.2	189
	1023	1.9	58
	1634	7.9	241
	2334	−0.5	−15
13 M	0602	5.5	168
	1103	2.6	79
	1717	7.5	229
14 Tu ◐	0036	0.0	0
	0719	5.0	152
	1151	3.3	101
	1809	6.9	210
15 W	0150	0.4	12
	0851	4.7	143
	1306	3.8	116
	1919	6.3	192

	Time	Height	
	h m	ft	cm
16 Th	0310	0.7	21
	1019	4.9	149
	1503	3.9	119
	2052	6.0	183
17 F	0421	0.7	21
	1121	5.2	158
	1631	3.6	110
	2214	6.0	183
18 Sa	0518	0.6	18
	1202	5.6	171
	1730	3.1	94
	2317	6.2	189
19 Su	0602	0.6	18
	1234	5.9	180
	1815	2.5	76
20 M	0007	6.4	195
	0638	0.6	18
	1301	6.3	192
	1852	1.9	58
21 Tu	0049	6.6	201
	0709	0.7	21
	1325	6.6	201
	1926	1.4	43
22 W	0127	6.6	201
	0737	0.9	27
	1348	6.8	207
	1957	0.9	27
23 Th ○	0203	6.6	201
	0802	1.2	37
	1408	7.0	213
	2027	0.6	18
24 F	0237	6.5	198
	0825	1.5	46
	1429	7.2	219
	2058	0.3	9
25 Sa	0312	6.3	192
	0848	1.9	58
	1450	7.3	223
	2129	0.1	3
26 Su	0348	6.0	183
	0911	2.3	70
	1514	7.3	223
	2204	0.1	3
27 M	0428	5.7	174
	0937	2.7	82
	1543	7.3	223
	2244	0.2	6
28 Tu	0515	5.2	158
	1006	3.1	94
	1617	7.2	219
	2333	0.4	12
29 W	0616	4.9	149
	1043	3.5	107
	1700	7.0	213
30 Th ◑	0035	0.6	18
	0745	4.7	143
	1136	3.8	116
	1758	6.7	204

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sand Point, Popof Island, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 F	0152	0.7 / 21	**16** Sa	0329	1.3 / 40
	0918	4.8 / 146		1029	5.7 / 174
	1306	4.0 / 122		1612	3.5 / 107
	1919	6.4 / 195		2145	5.6 / 171
2 Sa	0312	0.7 / 21	**17** Su	0427	1.5 / 46
	1021	5.3 / 162		1109	6.0 / 183
	1513	3.7 / 113		1709	2.9 / 88
	2059	6.4 / 195		2254	5.7 / 174
3 Su	0419	0.5 / 15	**18** M	0513	1.6 / 49
	1106	5.9 / 180		1142	6.4 / 195
	1637	2.9 / 88		1753	2.2 / 67
	2227	6.6 / 201		2348	5.9 / 180
4 M	0512	0.4 / 12	**19** Tu	0551	1.7 / 52
	1143	6.6 / 201		1209	6.7 / 204
	1737	1.8 / 55		1830	1.5 / 46
	2336	7.0 / 213			
5 Tu	0559	0.4 / 12	**20** W	0034	6.1 / 186
	1218	7.3 / 223		0624	1.9 / 58
	1828	0.7 / 21		1234	7.1 / 216
				1903	0.9 / 27
6 W	0035	7.3 / 223	**21** Th	0115	6.2 / 189
	0641	0.5 / 15		0654	2.1 / 64
	1253	8.0 / 244		1257	7.4 / 226
	1915	−0.3 / −9		1935	0.3 / 9
7 Th ●	0129	7.4 / 226	**22** F ○	0153	6.3 / 192
	0721	0.8 / 24		0721	2.4 / 73
	1328	8.5 / 259		1320	7.6 / 232
	2001	−1.0 / −30		2006	−0.1 / −3
8 F	0220	7.4 / 226	**23** Sa	0231	6.3 / 192
	0800	1.2 / 37		0748	2.6 / 79
	1404	8.7 / 265		1344	7.8 / 238
	2046	−1.4 / −43		2038	−0.4 / −12
9 Sa	0310	7.1 / 216	**24** Su	0308	6.3 / 192
	0838	1.8 / 55		0815	2.9 / 88
	1440	8.8 / 268		1410	7.9 / 241
	2132	−1.5 / −46		2111	−0.5 / −15
10 Su	0401	6.7 / 204	**25** M	0347	6.1 / 186
	0917	2.3 / 70		0843	3.1 / 94
	1518	8.5 / 259		1440	7.9 / 241
	2219	−1.2 / −37		2148	−0.5 / −15
11 M	0454	6.3 / 192	**26** Tu	0430	5.9 / 180
	0957	2.9 / 88		0915	3.4 / 104
	1557	8.1 / 247		1514	7.8 / 238
	2309	−0.7 / −21		2229	−0.4 / −12
12 Tu	0553	5.8 / 177	**27** W	0519	5.7 / 174
	1041	3.4 / 104		0953	3.7 / 113
	1640	7.4 / 226		1554	7.6 / 232
				2317	−0.1 / −3
13 W	0004	0.0 / 0	**28** Th	0618	5.5 / 168
	0702	5.4 / 165		1041	3.9 / 119
	1135	3.8 / 116		1641	7.3 / 223
	1729	6.7 / 204			
14 Th ◐	0109	0.6 / 18	**29** F	0013	0.2 / 6
	0820	5.3 / 162		0727	5.5 / 168
	1302	4.1 / 125		1150	4.1 / 125
	1837	6.1 / 186		1743	6.8 / 207
15 F	0221	1.1 / 34	**30** Sa ◑	0117	0.6 / 18
	0933	5.4 / 165		0834	5.7 / 174
	1451	4.0 / 122		1334	3.9 / 119
	2014	5.6 / 171		1907	6.2 / 189
			31 Su	0226	0.9 / 27
				0930	6.2 / 189
				1517	3.3 / 101
				2050	6.0 / 183

November

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0331	1.2 / 37	**16** Tu	0404	2.6 / 79
	1016	6.8 / 207		1040	6.7 / 204
	1630	2.2 / 67		1723	2.0 / 61
	2221	6.1 / 186		2325	5.3 / 162
2 Tu	0428	1.4 / 43	**17** W	0450	2.8 / 85
	1057	7.4 / 226		1111	7.1 / 216
	1728	1.0 / 30		1803	1.2 / 37
	2334	6.3 / 192			
3 W	0519	1.7 / 52	**18** Th	0019	5.5 / 168
	1137	8.1 / 247		0530	3.0 / 91
	1818	0.0 / 0		1140	7.4 / 226
				1839	0.6 / 18
4 Th	0035	6.6 / 201	**19** F	0105	5.8 / 177
	0606	2.0 / 61		0607	3.2 / 98
	1215	8.6 / 262		1209	7.7 / 235
	1905	−0.9 / −27		1913	0.0 / 0
5 F ●	0130	6.8 / 207	**20** Sa	0147	6.0 / 183
	0650	2.3 / 70		0641	3.4 / 104
	1253	8.9 / 271		1238	8.0 / 244
	1949	−1.5 / −46		1947	−0.5 / −15
6 Sa	0220	6.9 / 210	**21** Su ○	0226	6.2 / 189
	0733	2.6 / 79		0715	3.5 / 107
	1332	9.0 / 274		1310	8.2 / 250
	2033	−1.7 / −52		2022	−0.8 / −24
7 Su	0309	6.8 / 207	**22** M	0306	6.3 / 192
	0815	2.9 / 88		0750	3.6 / 110
	1410	8.9 / 271		1344	8.4 / 256
	2117	−1.6 / −49		2059	−1.0 / −30
8 M	0357	6.6 / 201	**23** Tu	0346	6.3 / 192
	0856	3.2 / 98		0826	3.6 / 110
	1449	8.6 / 262		1420	8.4 / 256
	2201	−1.2 / −37		2137	−1.0 / −30
9 Tu	0447	6.4 / 195	**24** W	0428	6.3 / 192
	0939	3.5 / 107		0907	3.7 / 113
	1529	8.1 / 247		1501	8.3 / 253
	2246	−0.7 / −21		2219	−0.9 / −27
10 W	0538	6.1 / 186	**25** Th	0513	6.3 / 192
	1026	3.8 / 116		0955	3.8 / 116
	1611	7.4 / 226		1545	8.0 / 244
	2333	0.0 / 0		2302	−0.5 / −15
11 Th	0634	5.9 / 180	**26** F	0601	6.3 / 192
	1123	4.0 / 122		1053	3.8 / 116
	1657	6.7 / 204		1637	7.4 / 226
				2350	0.0 / 0
12 F	0023	0.6 / 18	**27** Sa	0652	6.4 / 195
	0733	5.9 / 180		1206	3.7 / 113
	1240	4.1 / 125		1739	6.7 / 204
	1754	6.0 / 183			
13 Sa ◐	0118	1.3 / 40	**28** Su ◑	0041	0.6 / 18
	0831	5.9 / 180		0744	6.7 / 204
	1414	3.9 / 119		1336	3.3 / 101
	1914	5.4 / 165		1900	6.0 / 183
14 Su	0216	1.8 / 55	**29** M	0137	1.3 / 40
	0922	6.1 / 186		0835	7.1 / 216
	1535	3.4 / 104		1504	2.5 / 76
	2055	5.1 / 155		2041	5.5 / 168
15 M	0313	2.2 / 67	**30** Tu	0238	1.9 / 58
	1004	6.4 / 195		0925	7.5 / 229
	1636	2.7 / 82		1616	1.5 / 46
	2219	5.1 / 155		2218	5.5 / 168

December

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 W	0340	2.5 / 76	**16** Th	0320	3.6 / 110
	1013	8.0 / 244		1004	7.1 / 216
	1716	0.5 / 15		1732	1.2 / 37
	2336	5.7 / 174			
2 Th	0440	2.9 / 88	**17** F	0005	5.0 / 152
	1059	8.4 / 256		0422	3.9 / 119
	1808	−0.4 / −12		1045	7.5 / 229
				1814	0.5 / 15
3 F	0039	6.0 / 183	**18** Sa	0057	5.4 / 165
	0536	3.2 / 98		0518	4.0 / 122
	1144	8.7 / 265		1126	7.8 / 238
	1856	−1.1 / −34		1853	−0.1 / −3
4 Sa	0134	6.3 / 192	**19** Su	0140	5.8 / 177
	0628	3.4 / 104		0607	4.0 / 122
	1228	8.9 / 271		1206	8.2 / 250
	1941	−1.5 / −46		1931	−0.7 / −21
5 Su ●	0222	6.5 / 198	**20** M ○	0219	6.1 / 186
	0716	3.5 / 107		0652	3.9 / 119
	1311	8.9 / 271		1247	8.5 / 259
	2023	−1.6 / −49		2009	−1.1 / −34
6 M	0307	6.6 / 201	**21** Tu	0256	6.3 / 192
	0801	3.5 / 107		0736	3.8 / 116
	1352	8.8 / 268		1329	8.7 / 265
	2105	−1.4 / −43		2047	−1.4 / −43
7 Tu	0350	6.6 / 201	**22** W	0333	6.6 / 201
	0845	3.6 / 110		0820	3.6 / 110
	1432	8.5 / 259		1412	8.7 / 265
	2144	−1.1 / −34		2125	−1.4 / −43
8 W	0432	6.6 / 201	**23** Th	0411	6.8 / 207
	0929	3.7 / 113		0907	3.4 / 104
	1512	8.0 / 244		1457	8.6 / 262
	2223	−0.6 / −18		2204	−1.2 / −37
9 Th	0513	6.5 / 198	**24** F	0448	6.9 / 210
	1014	3.7 / 113		0959	3.2 / 98
	1551	7.5 / 229		1545	8.1 / 247
	2300	0.0 / 0		2243	−0.7 / −21
10 F	0555	6.4 / 195	**25** Sa	0528	7.1 / 216
	1104	3.8 / 116		1057	2.9 / 88
	1632	6.8 / 207		1638	7.4 / 226
	2337	0.6 / 18		2323	0.0 / 0
11 Sa	0636	6.4 / 195	**26** Su	0609	7.3 / 223
	1204	3.8 / 116		1203	2.7 / 82
	1718	6.1 / 186		1738	6.6 / 201
12 Su	0013	1.3 / 40	**27** M	0005	0.8 / 24
	0718	6.4 / 195		0654	7.5 / 229
	1316	3.6 / 110		1319	2.3 / 70
	1817	5.4 / 165	◑	1854	5.7 / 174
13 M ◐	0050	2.0 / 61	**28** Tu	0051	1.7 / 52
	0800	6.5 / 198		0743	7.7 / 235
	1435	3.2 / 98		1440	1.7 / 52
	1941	4.8 / 146		2033	5.1 / 155
14 Tu	0131	2.6 / 79	**29** W	0145	2.6 / 79
	0842	6.6 / 201		0836	7.9 / 241
	1546	2.6 / 79		1556	1.0 / 30
	2129	4.6 / 140		2216	5.0 / 152
15 W	0221	3.2 / 98	**30** Th	0251	3.3 / 101
	0923	6.9 / 210		0933	8.1 / 247
	1644	1.9 / 58		1703	0.3 / 9
	2259	4.7 / 143		2341	5.3 / 162
			31 F	0407	3.8 / 116
				1030	8.2 / 250
				1759	−0.4 / −12

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Unalaska, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0824	3.8	116	**16** Sa	0042	0.3	9
	1041	3.7	113		0922	3.8	116
	1606	4.7	143				
2 Sa	0031	−0.8	−24	**17** Su	0116	0.5	15
	0841	3.9	119		0939	3.7	113
	1236	3.5	107				
	1722	4.3	131				
3 Su	0123	−0.5	−15	**18** M	0149	0.8	24
	0908	4.0	122		0952	3.6	110
	1415	2.9	88		1612	2.6	79
	1851	3.8	116		1845	2.7	82
4 M	0215	−0.1	−3	**19** Tu	0223	1.1	34
	0939	4.2	128		1005	3.6	110
	1538	2.2	67		1644	2.2	67
	2031	3.3	101		2042	2.5	76
5 Tu	0308	0.4	12	**20** W	0257	1.5	46
	1013	4.4	134		1018	3.6	110
	1648	1.4	43		1716	1.7	52
	2214	3.1	94		2235	2.4	73
6 W	0402	1.0	30	**21** Th	0329	1.9	58
	1049	4.5	137		1029	3.6	110
	1750	0.7	21		1747	1.3	40
	2354	3.0	91				
7 Th ◑	0456	1.6	49	**22** F	0019	2.5	76
	1126	4.6	140		0355	2.3	70
	1847	0.1	3		1039	3.7	113
					1818	0.9	27
8 F	0126	3.2	98	**23** Sa ◐	0156	2.8	85
	0552	2.2	67		0411	2.7	82
	1204	4.6	140		1052	3.9	119
	1940	−0.2	−6		1852	0.5	15
9 Sa	0251	3.4	104	**24** Su	1111	4.2	128
	0650	2.7	82		1928	0.1	3
	1241	4.6	140				
	2031	−0.4	−12				
10 Su	0408	3.6	110	**25** M	1141	4.5	137
	0747	3.1	94		2008	−0.3	−9
	1316	4.5	137				
	2119	−0.5	−15				
11 M	0519	3.7	113	**26** Tu	1222	4.8	146
	0844	3.4	104		2051	−0.5	−15
	1348	4.3	131				
	2205	−0.4	−12				
12 Tu	0626	3.9	119	**27** W	1310	4.9	149
	0939	3.6	110		2136	−0.7	−21
	1416	4.2	128				
	2249	−0.2	−6				
13 W	0727	3.9	119	**28** Th	1406	4.9	149
	1036	3.7	113		2224	−0.7	−21
	1439	4.1	125				
	2329	−0.1	−3				
14 Th ●	0819	3.9	119	**29** F ○	0628	3.4	104
	1139	3.7	113		0915	3.2	98
	1459	3.9	119		1509	4.7	143
					2313	−0.6	−18
15 F	0007	0.1	3	**30** Sa	0653	3.5	107
	0858	3.8	116		1052	2.9	88
	1254	3.6	110		1621	4.3	131
	1521	3.7	113				
				31 Su	0004	−0.3	−9
					0725	3.6	110
					1226	2.5	76
					1745	3.8	116

February

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0057	0.1	3	**16** Tu	0111	1.3	40
	0800	3.8	116		0819	3.0	91
	1353	1.9	58		1434	1.9	58
	1921	3.4	104		1950	2.5	76
2 Tu	0152	0.6	18	**17** W	0148	1.7	52
	0840	4.0	122		0833	3.1	94
	1511	1.2	37		1520	1.5	46
	2102	3.2	98		2135	2.5	76
3 W	0250	1.2	37	**18** Th	0227	2.0	61
	0922	4.1	125		0847	3.1	94
	1620	0.5	15		1603	1.1	34
	2240	3.2	98		2314	2.6	79
4 Th	0351	1.7	52	**19** F	0306	2.4	73
	1006	4.2	128		0904	3.3	101
	1722	0.0	0		1644	0.7	21
5 F ◑	0009	3.3	101	**20** Sa	0039	2.8	85
	0454	2.2	67		0340	2.7	82
	1051	4.3	131		0924	3.5	107
	1819	−0.3	−9		1725	0.4	12
6 Sa	0127	3.5	107	**21** Su ◐	0150	3.0	91
	0556	2.5	76		0405	2.9	88
	1136	4.3	131		0953	3.7	113
	1914	−0.4	−12		1807	0.0	0
7 Su	0236	3.6	110	**22** M	1031	4.0	122
	0656	2.8	85		1850	−0.3	−9
	1220	4.2	128				
	2005	−0.4	−12				
8 M	0339	3.7	113	**23** Tu	1118	4.2	128
	0751	3.0	91		1934	−0.5	−15
	1301	4.1	125				
	2054	−0.3	−9				
9 Tu	0438	3.7	113	**24** W	0347	3.1	94
	0841	3.1	94		0605	3.0	91
	1338	4.0	122		1211	4.4	134
	2139	−0.2	−6		2020	−0.6	−18
10 W	0533	3.6	110	**25** Th	0408	3.1	94
	0927	3.2	98		0711	2.9	88
	1410	3.8	116		1310	4.4	134
	2221	0.0	0		2106	−0.6	−18
11 Th	0623	3.5	107	**26** F	0432	3.1	94
	1009	3.1	94		0824	2.6	79
	1440	3.7	113		1415	4.2	128
	2258	0.2	6		2154	−0.4	−12
12 F	0704	3.3	101	**27** Sa	0500	3.1	94
	1054	3.0	91		0941	2.2	67
	1513	3.4	104		1528	3.9	119
	2333	0.5	15		2244	−0.1	−3
13 Sa ●	0733	3.2	98	**28** Su ○	0533	3.2	98
	1146	2.9	88		1100	1.7	52
	1554	3.2	98		1650	3.5	107
					2336	0.4	12
14 Su	0005	0.7	21				
	0752	3.1	94				
	1244	2.6	79				
	1652	2.9	88				
15 M	0037	1.0	30				
	0805	3.0	91				
	1342	2.3	70				
	1811	2.6	79				

March

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0611	3.4	104	**16** Tu	0603	2.6	79
	1218	1.1	34		1241	1.2	37
	1822	3.3	101		1924	2.5	76
2 Tu	0032	0.9	27	**17** W	0035	1.9	58
	0652	3.5	107		0616	2.7	82
	1332	0.6	18		1328	0.8	24
	1958	3.1	94		2058	2.6	79
3 W	0134	1.4	43	**18** Th	0122	2.3	70
	0738	3.6	110		0632	2.8	85
	1442	0.1	3		1415	0.5	15
	2131	3.2	98		2224	2.8	85
4 Th	0242	1.8	55	**19** F	0215	2.6	79
	0828	3.7	113		0654	2.9	88
	1547	−0.2	−6		1502	0.3	9
	2254	3.4	104		2335	3.0	91
5 F	0352	2.2	67	**20** Sa	0307	2.8	85
	0921	3.7	113		0726	3.1	94
	1648	−0.5	−15		1550	0.0	0
6 Sa	0006	3.5	107	**21** Su	0029	3.1	94
	0500	2.4	73		0349	3.0	91
	1015	3.7	113		0810	3.3	101
	1745	−0.5	−15		1637	−0.2	−6
7 Su ◑	0109	3.6	110	**22** M	0111	3.2	98
	0603	2.5	76		0426	3.0	91
	1107	3.7	113		0904	3.5	107
	1840	−0.5	−15		1725	−0.4	−12
8 M	0205	3.6	110	**23** Tu ◐	0143	3.2	98
	0659	2.5	76		0506	2.9	88
	1157	3.6	110		1003	3.6	110
	1931	−0.4	−12		1812	−0.6	−18
9 Tu	0257	3.5	107	**24** W	0208	3.1	94
	0748	2.5	76		0554	2.7	82
	1243	3.5	107		1106	3.7	113
	2018	−0.2	−6		1859	−0.6	−18
10 W	0344	3.4	104	**25** Th	0230	3.1	94
	0833	2.5	76		0649	2.4	73
	1326	3.4	104		1212	3.6	110
	2101	0.0	0		1945	−0.4	−12
11 Th	0425	3.2	98	**26** F	0254	3.0	91
	0913	2.4	73		0750	2.0	61
	1407	3.2	98		1323	3.5	107
	2141	0.3	9		2032	−0.1	−3
12 F	0459	3.0	91	**27** Sa	0320	3.1	94
	0951	2.3	70		0854	1.4	43
	1449	3.0	91		1441	3.2	98
	2216	0.6	18		2120	0.3	9
13 Sa	0523	2.8	85	**28** Su	0350	3.1	94
	1030	2.0	61		0959	0.9	27
	1539	2.8	85		1605	3.0	91
	2248	0.9	27		2211	0.8	24
14 Su	0540	2.7	82	**29** M ○	0424	3.2	98
	1111	1.8	55		1104	0.3	9
	1640	2.6	79		1735	2.9	88
	2320	1.2	37		2308	1.3	40
15 M ●	0552	2.6	79	**30** Tu	0503	3.3	101
	1155	1.5	46		1209	−0.1	−3
	1755	2.5	76		1907	3.0	91
	2355	1.6	49				
				31 W	0012	1.8	55
					0547	3.3	101
					1312	−0.5	−15
					2034	3.2	98

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Unalaska, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Th	0126	2.1 64	**16** F	0046	2.8 85
	0637	3.3 101		0436	3.0 91
	1414	−0.7 −21		1331	−0.4 −12
	2150	3.4 104		2245	3.1 94
2 F	0244	2.4 73	**17** Sa	0157	3.0 91
	0732	3.3 101		0513	3.1 94
	1513	−0.8 −24		1419	−0.5 −15
	2254	3.6 110		2325	3.3 101
3 Sa	0359	2.4 73	**18** Su	0300	3.1 94
	0831	3.2 98		0609	3.2 98
	1611	−0.7 −21		1509	−0.7 −21
	2351	3.7 113		2356	3.3 101
4 Su	0506	2.4 73	**19** M	0352	3.0 91
	0932	3.2 98		0720	3.2 98
	1706	−0.6 −18		1559	−0.8 −24
5 M	0041	3.7 113	**20** Tu	0023	3.3 101
	0604	2.3 70		0441	2.9 88
	1031	3.1 94		0835	3.2 98
	1758	−0.5 −15		1648	−0.8 −24
6 Tu ◑	0127	3.6 110	**21** W ◐	0046	3.3 101
	0655	2.2 67		0531	2.5 76
	1126	3.0 91		0952	3.1 94
	1846	−0.2 −6		1735	−0.6 −18
7 W	0208	3.4 104	**22** Th	0108	3.2 98
	0740	2.0 61		0624	2.1 64
	1219	2.8 85		1111	3.0 91
	1930	0.0 0		1822	−0.4 −12
8 Th	0243	3.2 98	**23** F	0131	3.2 98
	0821	1.8 55		0719	1.5 46
	1312	2.7 82		1233	2.8 85
	2010	0.3 9		1908	0.1 3
9 F	0311	3.0 91	**24** Sa	0156	3.2 98
	0858	1.6 49		0815	0.9 27
	1408	2.5 76		1358	2.6 79
	2046	0.7 21		1955	0.6 18
10 Sa	0330	2.8 85	**25** Su	0223	3.3 101
	0934	1.3 40		0911	0.3 9
	1509	2.4 73		1528	2.6 79
	2118	1.1 34		2045	1.1 34
11 Su	0343	2.7 82	**26** M	0253	3.4 104
	1008	1.0 30		1006	−0.3 −9
	1619	2.3 70		1700	2.6 79
	2149	1.5 46		2139	1.7 52
12 M	0350	2.6 79	**27** Tu	0327	3.4 104
	1043	0.7 21		1102	−0.7 −21
	1738	2.3 70		1829	2.8 85
	2220	1.8 55		2244	2.2 67
13 Tu	0356	2.6 79	**28** W ○	0405	3.4 104
	1121	0.4 12		1158	−1.0 −30
	1906	2.4 73		1950	3.1 94
	2256	2.2 67			
14 W ●	0403	2.7 82	**29** Th	0001	2.5 76
	1201	0.1 3		0447	3.4 104
	2035	2.7 82		1253	−1.1 −34
	2343	2.5 76		2058	3.4 104
15 Th	0415	2.9 88	**30** F	0127	2.7 82
	1244	−0.1 −3		0536	3.2 98
	2150	2.9 88		1348	−1.0 −30
				2155	3.6 110

May

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Sa	0252	2.7 82	**16** Su	0053	3.3 101
	0631	3.1 94		0435	3.5 107
	1442	−0.9 −27		1349	−1.1 −34
	2245	3.7 113		2251	3.4 104
2 Su	0406	2.6 79	**17** M	0223	3.2 98
	0732	2.9 88		0545	3.4 104
	1534	−0.8 −24		1438	−1.1 −34
	2330	3.7 113		2309	3.4 104
3 M	0508	2.4 73	**18** Tu	0336	2.9 88
	0837	2.7 82		0707	3.2 98
	1623	−0.6 −18		1527	−1.0 −30
				2329	3.4 104
4 Tu	0010	3.6 110	**19** W	0441	2.5 76
	0601	2.2 67		0834	2.9 88
	0942	2.6 79		1615	−0.7 −21
	1709	−0.3 −9		2352	3.5 107
5 W ◑	0046	3.5 107	**20** Th ◐	0540	1.9 58
	0647	1.9 58		1006	2.6 79
	1047	2.4 73		1702	−0.3 −9
	1752	0.0 0			
6 Th	0116	3.3 101	**21** F	0016	3.5 107
	0727	1.6 49		0636	1.2 37
	1154	2.2 67		1139	2.4 73
	1831	0.3 9		1748	0.2 6
7 F	0140	3.2 98	**22** Sa	0042	3.6 110
	0804	1.3 40		0730	0.5 15
	1304	2.1 64		1314	2.3 70
	1906	0.7 21		1835	0.8 24
8 Sa	0157	3.0 91	**23** Su	0110	3.6 110
	0837	0.9 27		0823	−0.1 −3
	1419	2.0 61		1450	2.3 70
	1937	1.2 37		1923	1.4 43
9 Su	0208	2.9 88	**24** M	0139	3.7 113
	0909	0.6 18		0914	−0.6 −18
	1541	2.1 64		1625	2.5 76
	2003	1.6 49		2015	2.0 61
10 M	0214	2.9 88	**25** Tu	0211	3.7 113
	0941	0.2 6		1005	−1.0 −30
	1712	2.2 67		1754	2.8 85
	2024	2.1 64		2115	2.5 76
11 Tu	0218	3.0 91	**26** W	0244	3.7 113
	1014	−0.1 −3		1056	−1.2 −37
				1911	3.1 94
				2229	2.8 85
12 W	0225	3.1 94	**27** Th ○	0320	3.6 110
	1049	−0.4 −12		1146	−1.2 −37
				2014	3.4 104
				2355	3.0 91
13 Th ●	0238	3.2 98	**28** F	0358	3.5 107
	1129	−0.6 −18		1235	−1.2 −37
				2106	3.5 107
14 F	0303	3.4 104	**29** Sa	0127	3.1 94
	1213	−0.8 −24		0439	3.3 101
				1324	−1.0 −30
				2150	3.6 110
15 Sa	0341	3.5 107	**30** Su	0254	2.9 88
	1300	−1.0 −30		0527	3.0 91
	2238	3.4 104		1411	−0.8 −24
				2230	3.7 113
			31 M	0408	2.7 82
				0624	2.8 85
				1456	−0.6 −18
				2304	3.6 110

June

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Tu	0506	2.4 73	**16** W	0314	2.5 76
	0733	2.5 76		0721	3.0 91
	1539	−0.4 −12		1459	−0.8 −24
	2334	3.5 107		2233	3.5 107
2 W	0551	2.1 64	**17** Th	0426	1.8 55
	0851	2.3 70		0858	2.6 79
	1619	0.0 0		1548	−0.3 −9
	2359	3.4 104		2300	3.7 113
3 Th	0629	1.7 52	**18** F ◐	0530	1.1 34
	1013	2.0 61		1038	2.4 73
	1655	0.3 9		1636	0.3 9
				2330	3.8 116
4 F ◑	0020	3.3 101	**19** Sa	0628	0.3 9
	0703	1.3 40		1219	2.3 70
	1139	1.9 58		1725	0.9 27
	1729	0.8 24			
5 Sa	0036	3.2 98	**20** Su	0002	3.9 119
	0735	0.9 27		0723	−0.3 −9
	1308	1.9 58		1356	2.3 70
	1758	1.2 37		1815	1.5 46
6 Su	0048	3.1 94	**21** M	0035	3.9 119
	0805	0.5 15		0815	−0.8 −24
	1441	1.9 58		1529	2.6 79
	1820	1.7 52		1908	2.1 64
7 M	0056	3.2 98	**22** Tu	0109	4.0 122
	0836	0.1 3		0906	−1.1 −34
				1655	2.9 88
				2005	2.6 79
8 Tu	0102	3.3 101	**23** W	0144	3.9 119
	0907	−0.2 −6		0956	−1.2 −37
				1811	3.1 94
				2109	2.9 88
9 W	0112	3.4 104	**24** Th	0219	3.8 116
	0941	−0.5 −15		1045	−1.2 −37
				1917	3.3 101
				2221	3.1 94
10 Th	0130	3.6 110	**25** F	0253	3.7 113
	1019	−0.8 −24		1132	−1.1 −34
				2011	3.4 104
				2341	3.2 98
11 F	0200	3.8 116	**26** Sa ○	0327	3.5 107
	1101	−1.0 −30		1217	−0.9 −27
				2056	3.5 107
12 Sa ●	0241	3.9 119	**27** Su	0107	3.1 94
	1146	−1.2 −37		0401	3.3 101
				1300	−0.7 −21
				2133	3.5 107
13 Su	0334	3.9 119	**28** M	0232	2.9 88
	1233	−1.3 −40		0439	3.0 91
	2146	3.3 101		1341	−0.5 −15
				2202	3.4 104
14 M	0000	3.2 98	**29** Tu	1419	−0.2 −6
	0437	3.7 113		2227	3.4 104
	1322	−1.3 −40			
	2151	3.4 104			
15 Tu	0148	3.0 91	**30** W	0437	2.3 70
	0553	3.4 104		0654	2.4 73
	1411	−1.1 −34		1456	0.1 3
	2210	3.4 104		2247	3.3 101

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Unalaska, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0514	1.9	58
	0828	2.1	64
	1532	0.4	12
	2305	3.2	98
2 F	0547	1.4	43
	1007	1.9	58
	1606	0.8	24
	2320	3.2	98
3 Sa	0619	1.0	30
	1144	1.9	58
	1637	1.3	40
	2333	3.2	98
4 Su ◑	0650	0.6	18
	1321	2.0	61
	1702	1.7	52
	2343	3.2	98
5 M	0722	0.2	6
	1503	2.2	67
	1712	2.1	64
	2353	3.4	104
6 Tu	0755	−0.1	−3
7 W	0007	3.6	110
	0829	−0.4	−12
8 Th	0029	3.8	116
	0907	−0.7	−21
9 F	0102	4.0	122
	0948	−1.0	−30
10 Sa	0145	4.2	128
	1032	−1.1	−34
11 Su ●	0238	4.2	128
	1118	−1.2	−37
12 M	0340	4.0	122
	1206	−1.2	−37
	2018	3.1	94
	2346	2.8	85
13 Tu	0452	3.7	113
	1255	−1.0	−30
	2038	3.2	98
14 W	0125	2.3	70
	0617	3.2	98
	1345	−0.6	−18
	2105	3.4	104
15 Th	0250	1.7	52
	0752	2.8	85
	1436	−0.1	−3
	2136	3.5	107

	Time	Height	
	h m	ft	cm
16 F	0403	0.9	27
	0933	2.6	79
	1528	0.4	12
	2212	3.7	113
17 Sa	0508	0.2	6
	1113	2.5	76
	1622	1.0	30
	2249	3.9	119
18 Su ◐	0607	−0.4	−12
	1246	2.6	79
	1718	1.6	49
	2329	4.0	122
19 M	0703	−0.8	−24
	1411	2.8	85
	1816	2.1	64
20 Tu	0010	4.0	122
	0758	−1.0	−30
	1528	3.0	91
	1915	2.4	73
21 W	0051	4.0	122
	0850	−1.1	−34
	1639	3.1	94
	2014	2.7	82
22 Th	0132	3.9	119
	0940	−1.0	−30
	1744	3.2	98
	2112	2.9	88
23 F	0209	3.7	113
	1028	−0.9	−27
	1844	3.2	98
	2212	3.0	91
24 Sa	0244	3.5	107
	1113	−0.7	−21
	1937	3.2	98
	2316	2.9	88
25 Su ○	0318	3.3	101
	1155	−0.5	−15
	2018	3.2	98
26 M	0024	2.8	85
	0353	3.0	91
	1233	−0.2	−6
	2049	3.1	94
27 Tu	0134	2.6	79
	0440	2.7	82
	1309	0.0	0
	2110	3.0	91
28 W	0236	2.3	70
	0547	2.4	73
	1345	0.3	9
	2127	2.9	88
29 Th	0325	1.9	58
	0716	2.2	67
	1421	0.7	21
	2142	2.9	88
30 F	0406	1.5	46
	0854	2.0	61
	1458	1.0	30
	2157	2.9	88
31 Sa	0444	1.1	34
	1032	2.0	61
	1535	1.4	43
	2211	2.9	88

August

	Time	Height	
	h m	ft	cm
1 Su	0520	0.7	21
	1203	2.2	67
	1609	1.8	55
	2225	3.0	91
2 M ◑	0556	0.4	12
	1327	2.3	70
	1635	2.2	67
	2240	3.2	98
3 Tu	0632	0.0	0
	2258	3.4	104
4 W	0710	−0.3	−9
	2325	3.7	113
5 Th	0749	−0.5	−15
6 F	0002	3.9	119
	0830	−0.8	−24
7 Sa	0047	4.1	125
	0914	−0.9	−27
8 Su	0141	4.1	125
	0959	−1.0	−30
	1801	2.7	82
	2037	2.6	79
9 M ●	0243	4.0	122
	1046	−0.9	−27
	1820	2.8	85
	2211	2.3	70
10 Tu	0355	3.7	113
	1136	−0.6	−18
	1847	2.9	88
	2343	1.8	55
11 W	0518	3.3	101
	1227	−0.2	−6
	1920	3.1	94
12 Th	0108	1.3	40
	0651	3.0	91
	1321	0.2	6
	1958	3.3	101
13 F	0226	0.6	18
	0830	2.8	85
	1419	0.8	24
	2040	3.5	107
14 Sa	0335	0.0	0
	1005	2.8	85
	1520	1.3	40
	2125	3.7	113
15 Su	0439	−0.5	−15
	1132	2.9	88
	1623	1.7	52
	2213	3.8	116

	Time	Height	
	h m	ft	cm
16 M ◐	0540	−0.8	−24
	1248	3.1	94
	1726	2.0	61
	2303	3.8	116
17 Tu	0637	−1.0	−30
	1357	3.2	98
	1827	2.3	70
	2352	3.8	116
18 W	0732	−1.0	−30
	1459	3.3	101
	1925	2.4	73
19 Th	0040	3.7	113
	0825	−0.8	−24
	1557	3.2	98
	2019	2.5	76
20 F	0125	3.6	110
	0914	−0.6	−18
	1652	3.1	94
	2110	2.5	76
21 Sa	0207	3.4	104
	1001	−0.4	−12
	1743	3.0	91
	2200	2.5	76
22 Su	0246	3.1	94
	1043	−0.1	−3
	1826	2.9	88
	2250	2.4	73
23 M	0328	2.9	88
	1123	0.2	6
	1858	2.7	82
	2341	2.2	67
24 Tu ○	0417	2.6	79
	1159	0.5	15
	1921	2.6	79
25 W	0033	1.9	58
	0521	2.4	73
	1236	0.8	24
	1938	2.5	76
26 Th	0123	1.6	49
	0642	2.3	70
	1314	1.1	34
	1952	2.5	76
27 F	0210	1.3	40
	0813	2.2	67
	1358	1.5	46
	2008	2.5	76
28 Sa	0255	0.9	27
	0944	2.3	70
	1445	1.8	55
	2026	2.6	79
29 Su	0338	0.6	18
	1104	2.5	76
	1532	2.1	64
	2046	2.7	82
30 M	0419	0.3	9
	1213	2.7	82
	1612	2.4	73
	2108	2.9	88
31 Tu	0501	0.1	3
	1313	2.8	85
	1640	2.6	79
	2135	3.1	94

September

	Time	Height	
	h m	ft	cm
1 W ◑	0542	−0.2	−6
	1405	2.9	88
	1658	2.7	82
	2210	3.4	104
2 Th	0624	−0.4	−12
	1446	2.9	88
	1718	2.8	85
	2254	3.6	110
3 F	0707	−0.5	−15
	1514	2.8	85
	1755	2.7	82
	2345	3.8	116
4 Sa	0750	−0.6	−18
	1534	2.7	82
	1850	2.5	76
5 Su	0042	3.8	116
	0835	−0.6	−18
	1554	2.7	82
	1955	2.1	64
6 M	0147	3.7	113
	0921	−0.4	−12
	1619	2.7	82
	2108	1.7	52
7 Tu	0300	3.4	104
	1009	−0.1	−3
	1649	2.8	85
	2223	1.2	37
8 W	0424	3.2	98
	1101	0.3	9
	1725	3.0	91
	2339	0.7	21
9 Th	0556	3.0	91
	1159	0.8	24
	1806	3.1	94
10 F	0052	0.1	3
	0732	3.0	91
	1302	1.3	40
	1853	3.3	101
11 Sa	0201	−0.3	−9
	0903	3.1	94
	1411	1.7	52
	1945	3.4	104
12 Su	0307	−0.7	−21
	1023	3.3	101
	1523	2.0	61
	2041	3.5	107
13 M	0409	−0.9	−27
	1132	3.5	107
	1632	2.2	67
	2139	3.5	107
14 Tu ◐	0509	−0.9	−27
	1233	3.6	110
	1736	2.2	67
	2238	3.5	107
15 W	0605	−0.8	−24
	1328	3.6	110
	1834	2.2	67
	2334	3.5	107

	Time	Height	
	h m	ft	cm
16 Th	0659	−0.7	−21
	1419	3.5	107
	1927	2.2	67
17 F	0027	3.3	101
	0750	−0.4	−12
	1506	3.3	101
	2017	2.1	64
18 Sa	0117	3.2	98
	0837	−0.1	−3
	1549	3.1	94
	2103	2.0	61
19 Su	0206	2.9	88
	0920	0.2	6
	1624	2.9	88
	2146	1.8	55
20 M	0258	2.7	82
	0959	0.6	18
	1651	2.7	82
	2227	1.6	49
21 Tu	0355	2.5	76
	1037	1.0	30
	1709	2.6	79
	2307	1.4	43
22 W	0504	2.4	73
	1114	1.4	43
	1721	2.5	76
	2347	1.1	34
23 Th ○	0625	2.4	73
	1155	1.7	52
	1730	2.5	76
24 F	0029	0.8	24
	0754	2.5	76
	1247	2.1	64
	1742	2.5	76
25 Sa	0112	0.6	18
	0917	2.7	82
	1353	2.3	70
	1757	2.6	79
26 Su	0156	0.3	9
	1026	2.9	88
	1502	2.6	79
	1818	2.7	82
27 M	0242	0.1	3
	1121	3.1	94
	1558	2.8	85
	1850	2.9	88
28 Tu	0327	0.0	0
	1207	3.2	98
	1633	2.9	88
	1936	3.0	91
29 W	0412	−0.2	−6
	1246	3.3	101
	1654	2.9	88
	2032	3.2	98
30 Th ◑	0457	−0.4	−12
	1316	3.2	98
	1716	2.9	88
	2131	3.3	101

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Unalaska, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0541	−0.4	−12
	1338	3.2	98
	1748	2.7	82
	2234	3.4	104
2 Sa	0624	−0.4	−12
	1357	3.1	94
	1832	2.4	73
	2340	3.4	104
3 Su	0708	−0.2	−6
	1416	3.0	91
	1924	1.9	58
4 M	0052	3.2	98
	0752	0.0	0
	1438	3.1	94
	2023	1.3	40
5 Tu	0210	3.1	94
	0839	0.5	15
	1505	3.2	98
	2124	0.8	24
6 W	0337	2.9	88
	0929	1.0	30
	1537	3.3	101
	2228	0.2	6
7 Th ●	0509	2.9	88
	1025	1.5	46
	1615	3.4	104
	2332	−0.3	−9
8 F	0643	3.1	94
	1132	2.0	61
	1659	3.5	107
9 Sa	0035	−0.7	−21
	0810	3.3	101
	1249	2.4	73
	1751	3.5	107
10 Su	0138	−0.9	−27
	0924	3.6	110
	1412	2.6	79
	1850	3.5	107
11 M	0239	−1.0	−30
	1027	3.8	116
	1531	2.6	79
	1955	3.4	104
12 Tu	0339	−0.9	−27
	1121	3.9	119
	1640	2.5	76
	2102	3.3	101
13 W	0435	−0.8	−24
	1211	4.0	122
	1740	2.4	73
	2207	3.2	98
14 Th ◐	0529	−0.5	−15
	1256	3.9	119
	1835	2.2	67
	2310	3.1	94
15 F	0618	−0.2	−6
	1337	3.7	113
	1924	2.0	61

	Time	Height	
	h m	ft	cm
16 Sa	0010	2.9	88
	0705	0.1	3
	1412	3.5	107
	2009	1.7	52
17 Su	0109	2.7	82
	0747	0.5	15
	1441	3.3	101
	2050	1.5	46
18 M	0212	2.6	79
	0825	1.0	30
	1502	3.1	94
	2127	1.2	37
19 Tu	0320	2.5	76
	0859	1.4	43
	1515	3.0	91
	2202	0.9	27
20 W	0438	2.5	76
	0931	1.9	58
	1521	2.9	88
	2235	0.7	21
21 Th	0607	2.6	79
	1004	2.3	70
	1523	2.9	88
	2311	0.4	12
22 F ○	0744	2.8	85
	1046	2.7	82
	1522	3.0	91
	2348	0.2	6
23 Sa	0911	3.0	91
	1155	2.9	88
	1521	3.1	94
24 Su	0030	0.0	0
	1009	3.3	101
25 M	0113	−0.1	−3
	1049	3.5	107
26 Tu	0159	−0.2	−6
	1120	3.7	113
27 W	0246	−0.3	−9
	1146	3.7	113
28 Th	0332	−0.4	−12
	1207	3.7	113
	1658	3.2	98
	1947	3.3	101
29 F	0417	−0.4	−12
	1225	3.6	110
	1729	2.9	88
	2112	3.2	98
30 Sa ◑	0501	−0.2	−6
	1241	3.6	110
	1810	2.4	73
	2235	3.1	94
31 Su	0545	0.0	0
	1258	3.6	110
	1856	1.8	55
	2358	2.9	88

November

	Time	Height	
	h m	ft	cm
1 M	0627	0.5	15
	1318	3.6	110
	1946	1.2	37
2 Tu	0125	2.8	85
	0711	1.0	30
	1342	3.8	116
	2038	0.5	15
3 W	0256	2.8	85
	0757	1.6	49
	1410	3.9	119
	2132	−0.1	−3
4 Th	0430	2.9	88
	0849	2.2	67
	1443	4.0	122
	2227	−0.5	−15
5 F ●	0603	3.2	98
	0951	2.7	82
	1521	4.0	122
	2323	−0.8	−24
6 Sa	0726	3.5	107
	1109	3.1	94
	1604	4.0	122
7 Su	0020	−1.0	−30
	0835	3.8	116
	1241	3.3	101
	1656	3.9	119
8 M	0117	−0.9	−27
	0931	4.1	125
	1414	3.3	101
	1755	3.7	113
9 Tu	0213	−0.8	−24
	1020	4.2	128
	1536	3.1	94
	1904	3.4	104
10 W	0307	−0.6	−18
	1104	4.3	131
	1644	2.8	85
	2016	3.2	98
11 Th	0359	−0.4	−12
	1144	4.2	128
	1741	2.5	76
	2129	3.0	91
12 F	0447	0.0	0
	1220	4.1	125
	1831	2.2	67
	2241	2.8	85
13 Sa ◐	0532	0.3	9
	1252	4.0	122
	1915	1.8	55
	2353	2.6	79
14 Su	0612	0.8	24
	1317	3.8	116
	1954	1.5	46
15 M	0107	2.5	76
	0649	1.2	37
	1336	3.6	110
	2029	1.1	34

	Time	Height	
	h m	ft	cm
16 Tu	0226	2.5	76
	0720	1.7	52
	1349	3.5	107
	2101	0.8	24
17 W	0352	2.6	79
	0746	2.2	67
	1355	3.5	107
	2132	0.5	15
18 Th	0531	2.8	85
	0802	2.7	82
	1358	3.5	107
	2204	0.3	9
19 F	1400	3.6	110
	2238	0.0	0
20 Sa	1406	3.8	116
	2316	−0.1	−3
21 Su ○	1419	3.9	119
	2357	−0.3	−9
22 M	1442	4.0	122
23 Tu	0040	−0.4	−12
	1519	4.0	122
24 W	0126	−0.5	−15
	1057	4.0	122
25 Th	0212	−0.5	−15
	1103	4.0	122
	1547	3.5	107
	1801	3.6	110
26 F	0258	−0.4	−12
	1115	4.0	122
	1637	3.1	94
	1943	3.3	101
27 Sa	0343	−0.1	−3
	1130	4.0	122
	1725	2.5	76
	2124	3.0	91
28 Su ◑	0427	0.3	9
	1148	4.0	122
	1813	1.8	55
	2303	2.8	85
29 M	0510	0.8	24
	1209	4.1	125
	1902	1.1	34
30 Tu	0040	2.7	82
	0554	1.4	43
	1234	4.3	131
	1951	0.4	12

December

	Time	Height	
	h m	ft	cm
1 W	0217	2.8	85
	0638	2.0	61
	1302	4.4	134
	2040	−0.2	−6
2 Th	0351	3.0	91
	0726	2.6	79
	1333	4.5	137
	2131	−0.6	−18
3 F	0522	3.3	101
	0821	3.1	94
	1408	4.5	137
	2222	−0.8	−24
4 Sa	0642	3.6	110
	0928	3.5	107
	1446	4.5	137
	2313	−0.9	−27
5 Su ●	0747	3.9	119
	1053	3.7	113
	1528	4.3	131
6 M	0005	−0.8	−24
	0840	4.1	125
	1229	3.8	116
	1614	4.1	125
7 Tu	0057	−0.7	−21
	0925	4.3	131
	1406	3.6	110
	1706	3.8	116
8 W	0147	−0.4	−12
	1005	4.3	131
	1533	3.4	104
	1809	3.5	107
9 Th	0235	−0.2	−6
	1040	4.3	131
	1641	3.0	91
	1924	3.1	94
10 F	0320	0.1	3
	1112	4.3	131
	1733	2.6	79
	2049	2.8	85
11 Sa	0403	0.5	15
	1139	4.2	128
	1815	2.1	64
	2217	2.6	79
12 Su	0443	0.9	27
	1202	4.0	122
	1852	1.7	52
	2346	2.5	76
13 M ◐	0519	1.4	43
	1221	3.9	119
	1925	1.3	40
14 Tu	0115	2.5	76
	0552	1.9	58
	1235	3.9	119
	1956	0.9	27
15 W	0246	2.6	79
	0618	2.4	73
	1245	3.9	119
	2027	0.6	18

	Time	Height	
	h m	ft	cm
16 Th	0425	2.9	88
	0630	2.8	85
	1253	3.9	119
	2058	0.3	9
17 F	1302	4.1	125
	2132	0.1	3
18 Sa	1316	4.2	128
	2207	−0.1	−3
19 Su	1338	4.4	134
	2246	−0.3	−9
20 M ○	1411	4.5	137
	2327	−0.4	−12
21 Tu	1455	4.5	137
22 W	0010	−0.5	−15
	1550	4.3	131
23 Th	0055	−0.5	−15
	0949	3.9	119
	1313	3.7	113
	1701	4.0	122
24 F	0141	−0.3	−9
	0955	4.0	122
	1450	3.3	101
	1830	3.6	110
25 Sa	0227	0.0	0
	1011	4.0	122
	1603	2.6	79
	2014	3.2	98
26 Su	0313	0.4	12
	1032	4.2	128
	1704	1.8	55
	2201	2.9	88
27 M ◑	0400	1.0	30
	1058	4.3	131
	1759	1.1	34
	2346	2.8	85
28 Tu	0448	1.6	49
	1128	4.5	137
	1851	0.4	12
29 W	0124	2.9	88
	0537	2.2	67
	1201	4.7	143
	1943	−0.2	−6
30 Th	0255	3.2	98
	0628	2.7	82
	1236	4.7	143
	2033	−0.5	−15
31 F	0418	3.4	104
	0722	3.2	98
	1313	4.8	146
	2123	−0.7	−21

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Sweeper Cove, Adak Island, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	1417	5.1	155
2 Sa	0001	−1.1	−34
	1522	4.7	143
3 Su	0047	−0.8	−24
	1014	3.8	116
	1244	3.7	113
	1644	4.0	122
4 M	0132	−0.3	−9
	0947	3.9	119
	1455	3.1	94
	1831	3.4	104
5 Tu	0213	0.3	9
	0952	4.0	122
	1613	2.2	67
	2032	2.8	85
6 W	0252	1.0	30
	1008	4.2	128
	1716	1.4	43
	2236	2.5	76
7 Th ◑	0325	1.6	49
	1030	4.4	134
	1811	0.6	18
8 F	0046	2.5	76
	0347	2.3	70
	1053	4.6	140
	1903	0.0	0
9 Sa	1118	4.7	143
	1953	−0.4	−12
10 Su	1141	4.7	143
	2041	−0.6	−18
11 M	1202	4.7	143
	2128	−0.6	−18
12 Tu	1219	4.6	140
	2212	−0.6	−18
13 W	1233	4.5	137
	2254	−0.5	−15
14 Th ●	1245	4.4	134
	2333	−0.3	−9
15 F	1253	4.3	131

	Time	Height	
	h m	ft	cm
16 Sa	0009	−0.1	−3
	1240	4.0	122
17 Su	0041	0.1	3
	1110	3.8	116
18 M	0110	0.4	12
	1025	3.6	110
19 Tu	0137	0.8	24
	1005	3.5	107
20 W	0158	1.2	37
	0954	3.6	110
	1717	2.1	64
	2026	2.2	67
21 Th	0210	1.7	52
	0949	3.6	110
	1729	1.6	49
	2318	2.1	64
22 F	0155	2.0	61
	0947	3.8	116
	1754	1.0	30
23 Sa ◐	0951	4.1	125
	1825	0.4	12
24 Su	1003	4.4	134
	1901	−0.1	−3
25 M	1026	4.8	146
	1942	−0.5	−15
26 Tu	1059	5.0	152
	2025	−0.8	−24
27 W	1142	5.2	158
	2112	−1.0	−30
28 Th	1232	5.2	158
	2159	−1.0	−30
29 F ○	1329	5.0	152
	2247	−0.8	−24
30 Sa	1437	4.5	137
	2334	−0.5	−15
31 Su	1601	3.9	119

February

	Time	Height	
	h m	ft	cm
1 M	0020	0.0	0
	0810	3.3	101
	1259	2.7	82
	1746	3.3	101
2 Tu	0104	0.6	18
	0819	3.6	110
	1431	1.9	58
	1943	2.9	88
3 W	0147	1.2	37
	0840	3.8	116
	1541	1.1	34
	2139	2.7	82
4 Th	0227	1.8	55
	0907	4.1	125
	1641	0.4	12
	2330	2.7	82
5 F ◑	0304	2.3	70
	0937	4.3	131
	1736	−0.1	−3
6 Sa	0120	2.8	85
	0331	2.7	82
	1009	4.4	134
	1829	−0.4	−12
7 Su	1041	4.4	134
	1919	−0.5	−15
8 M	1112	4.4	134
	2009	−0.5	−15
9 Tu	1140	4.3	131
	2056	−0.4	−12
10 W	1205	4.2	128
	2141	−0.2	−6
11 Th	1228	4.0	122
	2223	0.0	0
12 F	1252	3.8	116
	2301	0.2	6
13 Sa ●	1320	3.6	110
	2336	0.5	15
14 Su	1355	3.2	98
15 M	0007	0.8	24
	0852	3.0	91

	Time	Height	
	h m	ft	cm
16 Tu	0035	1.2	37
	0825	3.0	91
	1427	2.3	70
	1801	2.5	76
17 W	0100	1.6	49
	0813	3.0	91
	1503	1.8	55
	2030	2.3	70
18 Th	0118	2.0	61
	0809	3.2	98
	1538	1.3	40
	2254	2.4	73
19 F	0116	2.3	70
	0811	3.4	104
	1614	0.8	24
20 Sa	0820	3.7	113
	1651	0.3	9
21 Su ◐	0840	4.0	122
	1732	−0.1	−3
22 M	0910	4.3	131
	1815	−0.5	−15
23 Tu	0951	4.6	140
	1901	−0.7	−21
24 W	1039	4.7	143
	1948	−0.8	−24
25 Th	1135	4.7	143
	2036	−0.7	−21
26 F	1238	4.4	134
	2124	−0.4	−12
27 Sa	1352	4.0	122
	2212	0.0	0
28 Su ○	0558	2.7	82
	0926	2.5	76
	1522	3.5	107
	2259	0.5	15

March

	Time	Height	
	h m	ft	cm
1 M	0601	2.9	88
	1123	1.9	58
	1710	3.1	94
	2347	1.1	34
2 Tu	0620	3.1	94
	1251	1.2	37
	1905	2.9	88
3 W	0036	1.7	52
	0648	3.4	104
	1402	0.6	18
	2054	2.8	85
4 Th	0125	2.2	67
	0722	3.6	110
	1504	0.0	0
	2231	2.9	88
5 F	0215	2.5	76
	0800	3.8	116
	1601	−0.3	−9
	2354	3.0	91
6 Sa	0304	2.8	85
	0840	3.9	119
	1655	−0.5	−15
7 Su ◑	0109	3.1	94
	0349	3.0	91
	0921	3.9	119
	1747	−0.6	−18
8 M	0222	3.1	94
	0427	3.0	91
	1002	3.9	119
	1837	−0.5	−15
9 Tu	1040	3.8	116
	1925	−0.3	−9
10 W	1118	3.6	110
	2012	−0.1	−3
11 Th	1155	3.5	107
	2055	0.2	6
12 F	1236	3.3	101
	2135	0.5	15
13 Sa	1328	3.0	91
	2211	0.9	27
14 Su	0610	2.5	76
	0951	2.4	73
	1444	2.7	82
	2245	1.3	40
15 M ●	0554	2.5	76
	1114	2.0	61
	1636	2.4	73
	2316	1.7	52

	Time	Height	
	h m	ft	cm
16 Tu	0544	2.6	79
	1216	1.6	49
	1851	2.4	73
	2345	2.0	61
17 W	0539	2.7	82
	1305	1.1	34
	2109	2.5	76
18 Th	0007	2.4	73
	0540	2.9	88
	1349	0.7	21
19 F	0549	3.1	94
	1432	0.2	6
20 Sa	0610	3.4	104
	1515	−0.1	−3
21 Su	0644	3.6	110
	1559	−0.5	−15
22 M	0731	3.9	119
	1644	−0.7	−21
23 Tu ◐	0825	4.0	122
	1731	−0.7	−21
24 W	0924	4.0	122
	1817	−0.7	−21
25 Th	1029	3.9	119
	1904	−0.4	−12
26 F	1142	3.7	113
	1950	0.0	0
27 Sa	0323	2.6	79
	0719	2.2	67
	1308	3.3	101
	2036	0.5	15
28 Su	0329	2.7	82
	0855	1.7	52
	1449	2.9	88
	2122	1.1	34
29 M ○	0344	2.8	85
	1018	1.1	34
	1646	2.7	82
	2209	1.7	52
30 Tu	0408	3.1	94
	1130	0.4	12
	1845	2.7	82
	2301	2.2	67
31 W	0438	3.3	101
	1235	−0.1	−3
	2032	2.9	88

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Sweeper Cove, Adak Island, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0002	2.7	82
	0513	3.4	104
	1333	−0.5	−15
	2157	3.2	98
2 F	0110	2.9	88
	0554	3.5	107
	1428	−0.7	−21
	2302	3.3	101
3 Sa	0220	3.1	94
	0640	3.5	107
	1520	−0.8	−24
	2355	3.3	101
4 Su	0323	3.1	94
	0729	3.5	107
	1611	−0.7	−21
5 M ◑	0044	3.3	101
	0419	3.0	91
	0819	3.4	104
	1659	−0.6	−18
6 Tu	0128	3.2	98
	0508	2.9	88
	0909	3.3	101
	1746	−0.3	−9
7 W	0208	3.1	94
	0554	2.8	85
	0959	3.1	94
	1829	0.0	0
8 Th	0240	2.9	88
	0642	2.6	79
	1052	2.9	88
	1909	0.4	12
9 F	0301	2.7	82
	0733	2.3	70
	1154	2.7	82
	1945	0.8	24
10 Sa	0310	2.6	79
	0828	2.0	61
	1312	2.4	73
	2016	1.2	37
11 Su	0310	2.6	79
	0921	1.7	52
	1458	2.2	67
	2040	1.7	52
12 M	0305	2.6	79
	1010	1.2	37
	1723	2.2	67
	2049	2.1	64
13 Tu	0257	2.7	82
	1055	0.8	24
14 W ●	0251	2.9	88
	1138	0.4	12
15 Th	0249	3.1	94
	1220	−0.1	−3

	Time	Height	
	h m	ft	cm
16 F	0257	3.4	104
	1303	−0.4	−12
17 Sa	0325	3.6	110
	1347	−0.7	−21
18 Su	0414	3.7	113
	1432	−0.9	−27
19 M	0520	3.8	116
	1518	−1.0	−30
20 Tu	0634	3.7	113
	1604	−1.0	−30
21 W ◐	0750	3.6	110
	1649	−0.7	−21
22 Th	0134	3.1	94
	0446	2.9	88
	0912	3.3	101
	1732	−0.3	−9
23 F	0128	2.9	88
	0606	2.4	73
	1042	2.9	88
	1813	0.2	6
24 Sa	0131	2.9	88
	0720	1.7	52
	1225	2.6	79
	1852	0.8	24
25 Su	0141	3.1	94
	0827	1.1	34
	1424	2.3	70
	1928	1.5	46
26 M	0156	3.2	98
	0930	0.4	12
	1640	2.3	70
	1959	2.1	64
27 Tu	0216	3.4	104
	1028	−0.2	−6
28 W ○	0239	3.6	110
	1123	−0.7	−21
29 Th	0306	3.7	113
	1216	−1.0	−30
30 F	0336	3.7	113
	1306	−1.1	−34
	2255	3.5	107

May

	Time	Height	
	h m	ft	cm
1 Sa	0059	3.5	107
	0408	3.6	110
	1355	−1.1	−34
	2320	3.6	110
2 Su	1442	−1.0	−30
	2350	3.5	107
3 M	1527	−0.8	−24
4 Tu	0018	3.4	104
	1610	−0.5	−15
5 W ◑	0043	3.3	101
	1649	−0.1	−3
6 Th	0102	3.2	98
	0645	2.4	73
	0905	2.5	76
	1723	0.3	9
7 F	0115	3.0	91
	0724	2.1	64
	1035	2.2	67
	1752	0.8	24
8 Sa	0121	3.0	91
	0802	1.6	49
	1223	2.0	61
	1810	1.3	40
9 Su	0121	2.9	88
	0839	1.2	37
	1446	1.9	58
	1804	1.8	55
10 M	0117	3.0	91
	0914	0.7	21
11 Tu	0111	3.2	98
	0951	0.2	6
12 W	0108	3.4	104
	1028	−0.2	−6
13 Th ●	0113	3.7	113
	1106	−0.6	−18
14 F	0128	3.9	119
	1147	−1.0	−30
15 Sa	0156	4.1	125
	1231	−1.2	−37

	Time	Height	
	h m	ft	cm
16 Su	0237	4.1	125
	1315	−1.4	−43
17 M	0330	4.0	122
	1400	−1.4	−43
18 Tu	0439	3.8	116
	1445	−1.2	−37
19 W	0025	3.5	107
	0324	3.4	104
	0606	3.5	107
	1528	−0.9	−27
20 Th ◐	0005	3.3	101
	0450	2.8	85
	0749	3.0	91
	1608	−0.4	−12
21 F	0004	3.3	101
	0556	2.1	64
	0941	2.5	76
	1645	0.3	9
22 Sa	0010	3.4	104
	0655	1.4	43
	1143	2.1	64
	1717	1.0	30
23 Su	0022	3.5	107
	0750	0.6	18
	1359	2.0	61
	1738	1.6	49
24 M	0037	3.7	113
	0842	−0.1	−3
25 Tu	0056	3.9	119
	0933	−0.7	−21
26 W	0116	4.0	122
	1022	−1.0	−30
27 Th ○	0137	4.1	125
	1110	−1.3	−40
28 F	0157	4.0	122
	1157	−1.3	−40
29 Sa	0212	3.9	119
	1242	−1.3	−40
30 Su	0157	3.8	116
	1326	−1.1	−34
	2337	3.7	113
31 M	1407	−0.9	−27
	2340	3.6	110

June

	Time	Height	
	h m	ft	cm
1 Tu	1446	−0.6	−18
	2348	3.5	107
2 W	1521	−0.2	−6
	2355	3.4	104
3 Th	1551	0.2	6
4 F ◑	0000	3.3	101
	1614	0.7	21
5 Sa	0002	3.2	98
	0721	1.5	46
	1102	1.7	52
	1625	1.2	37
6 Su	0001	3.3	101
	0745	1.0	30
7 M	0000	3.4	104
	0814	0.5	15
	2359	3.6	110
8 Tu	0845	0.0	0
9 W	0002	3.8	116
	0920	−0.5	−15
10 Th	0013	4.1	125
	0957	−0.9	−27
11 F	0035	4.3	131
	1037	−1.2	−37
12 Sa ●	0108	4.5	137
	1120	−1.4	−43
13 Su	0150	4.5	137
	1204	−1.5	−46
14 M	0239	4.4	134
	1249	−1.5	−46
15 Tu	0339	4.0	122
	1333	−1.3	−40
	2328	3.5	107

	Time	Height	
	h m	ft	cm
16 W	0146	3.4	104
	0457	3.5	107
	1416	−0.9	−27
	2249	3.4	104
17 Th	0347	2.8	85
	0643	2.9	88
	1455	−0.3	−9
	2247	3.4	104
18 F ◐	0459	2.0	61
	0846	2.3	70
	1531	0.3	9
	2256	3.6	110
19 Sa	0558	1.1	34
	1054	2.0	61
	1601	1.0	30
	2312	3.8	116
20 Su	0651	0.3	9
	1313	1.9	58
	1618	1.7	52
	2331	4.0	122
21 M	0743	−0.3	−9
	2353	4.2	128
22 Tu	0832	−0.8	−24
23 W	0016	4.3	131
	0921	−1.1	−34
24 Th	0039	4.3	131
	1009	−1.3	−40
25 F	0100	4.2	128
	1055	−1.3	−40
26 Sa ○	0119	4.1	125
	1139	−1.2	−37
27 Su	0132	4.0	122
	1220	−1.0	−30
28 M	0122	3.8	116
	1259	−0.8	−24
	2340	3.6	110
29 Tu	1335	−0.5	−15
	2310	3.4	104
30 W	1407	−0.1	−3
	2259	3.3	101

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Sweeper Cove, Adak Island, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	1436	0.3	9
	2253	3.2	98
2 F	1458	0.7	21
	2250	3.2	98
3 Sa	0612	1.6	49
	0938	1.8	55
	1511	1.2	37
	2249	3.3	101
4 Su ◑	0631	1.1	34
	1226	1.7	52
	1451	1.6	49
	2249	3.4	104
5 M	0659	0.5	15
	2251	3.6	110
6 Tu	0730	0.0	0
	2259	3.9	119
7 W	0805	−0.4	−12
	2315	4.2	128
8 Th	0844	−0.8	−24
	2342	4.5	137
9 F	0925	−1.1	−34
10 Sa	0019	4.7	143
	1008	−1.3	−40
11 Su ●	0104	4.7	143
	1053	−1.4	−43
12 M	0157	4.5	137
	1138	−1.3	−40
13 Tu	0259	4.2	128
	1223	−1.1	−34
14 W	0419	3.6	110
	1306	−0.6	−18
	2123	3.1	94
15 Th	0155	2.6	79
	0601	3.0	91
	1348	−0.1	−3
	2121	3.3	101

	Time	Height	
	h m	ft	cm
16 F	0325	1.8	55
	0800	2.5	76
	1426	0.6	18
	2135	3.5	107
17 Sa	0432	1.0	30
	1002	2.2	67
	1501	1.2	37
	2156	3.8	116
18 Su ◐	0531	0.2	6
	1205	2.1	64
	1529	1.8	55
	2222	4.0	122
19 M	0626	−0.4	−12
	2250	4.2	128
20 Tu	0718	−0.8	−24
	2320	4.3	131
21 W	0810	−1.0	−30
	2350	4.3	131
22 Th	0900	−1.1	−34
23 F	0018	4.2	128
	0948	−1.0	−30
24 Sa	0044	4.0	122
	1035	−0.9	−27
25 Su ○	0106	3.9	119
	1117	−0.7	−21
26 M	0124	3.7	113
	1157	−0.4	−12
27 Tu	0135	3.4	104
	1232	−0.1	−3
	2236	3.1	94
28 W	1304	0.2	6
	2154	3.0	91
29 Th	1333	0.6	18
	2137	2.9	88
30 F	0402	2.1	64
	0627	2.2	67
	1358	1.0	30
	2129	2.9	88
31 Sa	0422	1.6	49
	0856	2.0	61
	1416	1.4	43
	2126	3.0	91

August

	Time	Height	
	h m	ft	cm
1 Su	0452	1.1	34
	1117	1.9	58
	1415	1.8	55
	2128	3.2	98
2 M ◑	0525	0.6	18
	2133	3.5	107
3 Tu	0600	0.1	3
	2146	3.7	113
4 W	0639	−0.3	−9
	2208	4.1	125
5 Th	0719	−0.6	−18
	2240	4.3	131
6 F	0803	−0.9	−27
	2322	4.5	137
7 Sa	0848	−1.0	−30
8 Su	0011	4.5	137
	0934	−1.0	−30
9 M ●	0109	4.4	134
	1021	−0.9	−27
10 Tu	0217	4.0	122
	1107	−0.5	−15
11 W	0342	3.5	107
	1153	−0.1	−3
	1927	2.7	82
12 Th	0005	2.1	64
	0526	3.0	91
	1237	0.5	15
	1934	3.0	91
13 F	0140	1.4	43
	0720	2.7	82
	1321	1.1	34
	1955	3.3	101
14 Sa	0254	0.7	21
	0913	2.5	76
	1404	1.6	49
	2024	3.6	110
15 Su	0357	0.0	0
	1059	2.5	76
	1445	2.1	64
	2058	3.8	116

	Time	Height	
	h m	ft	cm
16 M ◐	0455	−0.5	−15
	1237	2.6	79
	1523	2.5	76
	2135	4.0	122
17 Tu	0551	−0.8	−24
	2215	4.0	122
18 W	0645	−0.9	−27
	2254	4.0	122
19 Th	0737	−0.8	−24
	2331	3.9	119
20 F	0829	−0.7	−21
21 Sa	0006	3.8	116
	0918	−0.4	−12
22 Su	0039	3.6	110
	1004	−0.2	−6
23 M	0114	3.3	101
	1046	0.1	3
24 Tu ○	0156	3.1	94
	1125	0.5	15
	2028	2.6	79
	2257	2.5	76
25 W	0303	2.7	82
	1200	0.8	24
	1955	2.5	76
26 Th	0038	2.2	67
	0450	2.4	73
	1233	1.2	37
	1939	2.5	76
27 F	0136	1.8	55
	0657	2.3	70
	1303	1.6	49
	1932	2.6	79
28 Sa	0221	1.4	43
	0858	2.3	70
	1329	2.0	61
	1931	2.8	85
29 Su	0301	0.9	27
	1052	2.4	73
	1345	2.3	70
	1937	3.0	91
30 M	0340	0.5	15
	1948	3.2	98
31 Tu	0421	0.1	3
	2009	3.5	107

September

	Time	Height	
	h m	ft	cm
1 W ◑	0502	−0.2	−6
	2040	3.8	116
2 Th	0545	−0.5	−15
	2122	4.0	122
3 F	0630	−0.6	−18
	2211	4.2	128
4 Sa	0716	−0.6	−18
	2308	4.2	128
5 Su	0803	−0.5	−15
6 M	0013	4.0	122
	0850	−0.2	−6
7 Tu	0131	3.7	113
	0937	0.2	6
	1657	2.4	73
	2059	2.1	64
8 W ●	0305	3.3	101
	1025	0.7	21
	1703	2.6	79
	2244	1.5	46
9 Th	0455	2.9	88
	1113	1.3	40
	1723	2.9	88
10 F	0008	0.8	24
	0650	2.8	85
	1204	1.8	55
	1753	3.2	98
11 Sa	0119	0.2	6
	0837	2.9	88
	1257	2.3	70
	1830	3.5	107
12 Su	0222	−0.3	−9
	1008	3.0	91
	1352	2.7	82
	1912	3.7	113
13 M	0321	−0.7	−21
	1125	3.2	98
	1448	2.9	88
	1959	3.8	116
14 Tu ◐	0417	−0.8	−24
	1231	3.2	98
	1543	3.0	91
	2047	3.8	116
15 W	0511	−0.8	−24
	1330	3.2	98
	1634	3.0	91
	2136	3.7	113

	Time	Height	
	h m	ft	cm
16 Th	0603	−0.6	−18
	1427	3.1	94
	1723	2.9	88
	2225	3.6	110
17 F	0654	−0.4	−12
	1520	3.0	91
	1811	2.8	85
	2312	3.4	104
18 Sa	0743	0.0	0
	1606	2.8	85
	1901	2.7	82
	2359	3.2	98
19 Su	0829	0.3	9
	1640	2.7	82
	2000	2.6	79
20 M	0053	2.9	88
	0912	0.7	21
	1657	2.6	79
	2107	2.3	70
21 Tu	0202	2.7	82
	0952	1.2	37
	1700	2.5	76
	2212	2.0	61
22 W ○	0338	2.5	76
	1030	1.6	49
	1655	2.5	76
	2309	1.7	52
23 Th	0541	2.4	73
	1107	2.0	61
	1647	2.5	76
	2357	1.3	40
24 F	0750	2.5	76
	1146	2.4	73
	1641	2.7	82
25 Sa	0041	0.9	27
	0945	2.7	82
	1228	2.6	79
	1639	2.9	88
26 Su	0122	0.5	15
	1643	3.1	94
27 M	0203	0.1	3
	1703	3.3	101
28 Tu	0245	−0.2	−6
	1742	3.5	107
29 W	0328	−0.4	−12
	1836	3.7	113
30 Th ◑	0411	−0.5	−15
	1936	3.8	116

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Sweeper Cove, Adak Island, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0456	−0.5	−15
	2041	3.8	116
2 Sa	0540	−0.4	−12
	2151	3.7	113
3 Su	0624	−0.2	−6
	1443	2.8	85
	1733	2.7	82
	2309	3.5	107
4 M	0708	0.3	9
	1432	2.8	85
	1908	2.2	67
5 Tu	0042	3.1	94
	0751	0.8	24
	1436	2.9	88
	2032	1.6	49
6 W	0231	2.8	85
	0835	1.4	43
	1450	3.1	94
	2148	0.9	27
7 Th ●	0435	2.7	82
	0920	2.1	64
	1513	3.3	101
	2256	0.3	9
8 F	0640	2.9	88
	1010	2.6	79
	1542	3.6	110
	2359	−0.3	−9
9 Sa	0828	3.2	98
	1113	3.1	94
	1619	3.8	116
10 Su	0057	−0.7	−21
	0946	3.5	107
	1232	3.4	104
	1703	3.8	116
11 M	0153	−0.9	−27
	1042	3.7	113
	1354	3.5	107
	1754	3.8	116
12 Tu	0246	−1.0	−30
	1128	3.7	113
	1508	3.4	104
	1850	3.7	113
13 W	0338	−0.8	−24
	1210	3.7	113
	1614	3.3	101
	1948	3.6	110
14 Th ◐	0428	−0.6	−18
	1250	3.6	110
	1713	3.1	94
	2047	3.4	104
15 F	0515	−0.2	−6
	1325	3.4	104
	1809	2.9	88
	2146	3.1	94

	Time	Height	
	h m	ft	cm
16 Sa	0559	0.2	6
	1355	3.3	101
	1904	2.6	79
	2250	2.9	88
17 Su	0640	0.6	18
	1416	3.1	94
	1956	2.3	70
18 M	0006	2.6	79
	0715	1.1	34
	1428	3.0	91
	2045	1.9	58
19 Tu	0144	2.4	73
	0744	1.6	49
	1431	2.9	88
	2129	1.5	46
20 W	0356	2.3	70
	0759	2.1	64
	1425	3.0	91
	2209	1.1	34
21 Th	1413	3.1	94
	2247	0.7	21
22 F ○	1359	3.3	101
	2325	0.4	12
23 Sa	1344	3.5	107
24 Su	0003	0.0	0
	1331	3.7	113
25 M	0042	−0.3	−9
	1334	3.9	119
26 Tu	0123	−0.5	−15
	1402	4.0	122
27 W	0205	−0.7	−21
	1507	4.0	122
28 Th	0247	−0.7	−21
	1658	3.9	119
29 F	0330	−0.6	−18
	1327	3.7	113
	1551	3.6	110
	1839	3.7	113
30 Sa ◑	0411	−0.4	−12
	1305	3.5	107
	1659	3.3	101
	2016	3.4	104
31 Su	0451	0.0	0
	1255	3.4	104
	1803	2.7	82
	2158	3.0	91

November

	Time	Height	
	h m	ft	cm
1 M	0529	0.6	18
	1254	3.4	104
	1905	2.0	61
	2352	2.7	82
2 Tu	0603	1.2	37
	1300	3.5	107
	2005	1.3	40
3 W	0202	2.5	76
	0631	1.9	58
	1313	3.8	116
	2103	0.5	15
4 Th	0438	2.6	79
	0644	2.5	76
	1332	4.0	122
	2158	−0.1	−3
5 F ●	1356	4.3	131
	2252	−0.7	−21
6 Sa	1425	4.4	134
	2345	−1.0	−30
7 Su	1458	4.4	134
8 M	0036	−1.1	−34
	1534	4.2	128
9 Tu	0126	−1.1	−34
	1103	4.1	125
10 W	0215	−0.9	−27
	1123	4.1	125
11 Th	0301	−0.6	−18
	1148	4.0	122
12 F	0344	−0.3	−9
	1211	3.9	119
13 Sa ◐	0423	0.2	6
	1231	3.8	116
	1854	2.6	79
	2059	2.7	82
14 Su	0457	0.7	21
	1245	3.6	110
	1930	2.2	67
	2244	2.4	73
15 M	0523	1.2	37
	1253	3.6	110
	2005	1.8	55

	Time	Height	
	h m	ft	cm
16 Tu	0049	2.2	67
	0535	1.8	55
	1255	3.6	110
	2038	1.3	40
17 W	1252	3.6	110
	2111	0.9	27
18 Th	1246	3.8	116
	2144	0.4	12
19 F	1241	4.0	122
	2218	0.0	0
20 Sa	1241	4.2	128
	2254	−0.3	−9
21 Su ○	1251	4.4	134
	2332	−0.6	−18
22 M	1311	4.6	140
23 Tu	0012	−0.8	−24
	1339	4.6	140
24 W	0053	−0.9	−27
	1412	4.5	137
25 Th	0134	−0.9	−27
	1424	4.3	131
26 F	0215	−0.7	−21
	1217	4.1	125
27 Sa	0254	−0.4	−12
	1147	3.9	119
28 Su ◑	0331	0.1	3
	1138	3.8	116
	1751	2.7	82
	2048	2.8	85
29 M	0404	0.7	21
	1139	3.9	119
	1837	1.9	58
	2304	2.4	73
30 Tu	0431	1.4	43
	1147	4.1	125
	1925	1.0	30

December

	Time	Height	
	h m	ft	cm
1 W	0131	2.3	70
	0444	2.1	64
	1201	4.4	134
	2014	0.3	9
2 Th	1220	4.6	140
	2104	−0.4	−12
3 F	1243	4.8	146
	2153	−0.8	−24
4 Sa	1308	4.9	149
	2242	−1.1	−34
5 Su ●	1336	4.8	146
	2330	−1.1	−34
6 M	1401	4.7	143
7 Tu	0017	−1.1	−34
	1417	4.5	137
8 W	0103	−0.9	−27
	1116	4.3	131
9 Th	0145	−0.6	−18
	1111	4.2	128
10 F	0225	−0.2	−6
	1118	4.1	125
11 Sa	0300	0.2	6
	1127	4.0	122
12 Su	0331	0.7	21
	1135	3.9	119
13 M ◐	0353	1.2	37
	1139	3.9	119
	1912	1.8	55
	2322	2.1	64
14 Tu	0401	1.8	55
	1142	3.9	119
	1936	1.3	40
15 W	1142	4.0	122
	2005	0.8	24

	Time	Height	
	h m	ft	cm
16 Th	1142	4.2	128
	2037	0.4	12
17 F	1146	4.4	134
	2110	0.0	0
18 Sa	1155	4.6	140
	2146	−0.4	−12
19 Su	1213	4.8	146
	2224	−0.7	−21
20 M ○	1240	5.0	152
	2303	−0.8	−24
21 Tu	1315	5.0	152
	2344	−0.9	−27
22 W	1355	4.9	149
23 Th	0025	−0.9	−27
	1440	4.6	140
24 F	0106	−0.7	−21
	1537	4.1	125
25 Sa	0145	−0.3	−9
	1036	3.9	119
26 Su	0222	0.2	6
	1024	3.9	119
	1644	2.6	79
	1959	2.8	85
27 M ◑	0255	0.8	24
	1027	4.1	125
	1734	1.7	52
	2217	2.4	73
28 Tu	0322	1.5	46
	1039	4.4	134
	1823	0.9	27
29 W	0042	2.3	70
	0335	2.1	64
	1057	4.6	140
	1912	0.1	3
30 Th	1120	4.9	149
	2002	−0.4	−12
31 F	1146	5.0	152
	2051	−0.8	−24

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Massacre Bay, Attu Island, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	1531	4.5	137
2 Sa	0035	−0.7	−21
	0926	3.8	116
	1218	3.7	113
	1648	4.2	128
3 Su	0117	−0.4	−12
	0921	3.8	116
	1350	3.2	98
	1811	3.8	116
4 M	0158	0.0	0
	0930	3.9	119
	1504	2.5	76
	1939	3.3	101
5 Tu	0235	0.6	18
	0947	4.1	125
	1609	1.9	58
	2111	2.9	88
6 W	0311	1.1	34
	1009	4.3	131
	1710	1.2	37
	2250	2.7	82
7 Th ◑	0343	1.7	52
	1035	4.4	134
	1808	0.7	21
8 F	0039	2.6	79
	0409	2.2	67
	1105	4.5	137
	1904	0.2	6
9 Sa	1137	4.6	140
	2000	0.0	0
10 Su	1212	4.5	137
	2055	−0.2	−6
11 M	1247	4.4	134
	2148	−0.3	−9
12 Tu	1324	4.3	131
	2238	−0.3	−9
13 W	1401	4.1	125
	2324	−0.3	−9
14 Th ●	1440	3.9	119
15 F	0006	−0.2	−6
	0918	3.8	116
	1253	3.6	110
	1524	3.7	113

	Time	Height	
	h m	ft	cm
16 Sa	0043	0.0	0
	0928	3.7	113
	1406	3.3	101
	1620	3.4	104
17 Su	0116	0.2	6
	0937	3.7	113
	1454	3.1	94
	1727	3.2	98
18 M	0145	0.5	15
	0943	3.6	110
	1530	2.7	82
	1841	2.9	88
19 Tu	0211	0.8	24
	0947	3.6	110
	1602	2.3	70
	1958	2.7	82
20 W	0233	1.2	37
	0950	3.6	110
	1633	1.9	58
	2119	2.5	76
21 Th	0251	1.6	49
	0954	3.7	113
	1708	1.5	46
	2248	2.4	73
22 F	0302	2.0	61
	1001	3.8	116
	1745	1.0	30
23 Sa ◐	0041	2.3	70
	0252	2.2	67
	1013	4.0	122
	1827	0.6	18
24 Su	1031	4.2	128
	1914	0.2	6
25 M	1059	4.4	134
	2004	−0.2	−6
26 Tu	1135	4.5	137
	2057	−0.4	−12
27 W	1223	4.6	140
	2149	−0.6	−18
28 Th	1322	4.5	137
	2240	−0.6	−18
29 F ○	1435	4.2	128
	2328	−0.5	−15
30 Sa	0807	3.2	98
	1039	3.1	94
	1558	3.9	119
31 Su	0013	−0.2	−6
	0755	3.3	101
	1222	2.6	79
	1727	3.6	110

February

	Time	Height	
	h m	ft	cm
1 M	0056	0.2	6
	0805	3.4	104
	1337	2.0	61
	1855	3.2	98
2 Tu	0135	0.6	18
	0823	3.6	110
	1441	1.3	40
	2022	3.0	91
3 W	0213	1.1	34
	0847	3.9	119
	1540	0.8	24
	2147	2.8	85
4 Th	0249	1.6	49
	0916	4.0	122
	1636	0.3	9
	2314	2.6	79
5 F ◑	0323	2.0	61
	0949	4.2	128
	1732	0.0	0
6 Sa	0047	2.6	79
	0352	2.4	73
	1024	4.2	128
	1829	−0.2	−6
7 Su	1102	4.1	125
	1926	−0.3	−9
8 M	1142	4.0	122
	2024	−0.3	−9
9 Tu	1224	3.9	119
	2120	−0.2	−6
10 W	1309	3.7	113
	2212	−0.2	−6
11 Th	1400	3.5	107
	2300	0.0	0
12 F	0757	3.1	94
	1058	3.0	91
	1459	3.2	98
	2342	0.1	3
13 Sa ●	0803	3.1	94
	1217	2.7	82
	1607	3.0	91
14 Su	0019	0.3	9
	0811	3.0	91
	1310	2.4	73
	1719	2.8	85
15 M	0052	0.6	18
	0817	3.0	91
	1350	2.1	64
	1830	2.6	79

	Time	Height	
	h m	ft	cm
16 Tu	0121	0.9	27
	0821	3.0	91
	1424	1.7	52
	1939	2.5	76
17 W	0147	1.2	37
	0825	3.0	91
	1457	1.3	40
	2047	2.4	73
18 Th	0210	1.5	46
	0830	3.1	94
	1531	0.9	27
	2158	2.4	73
19 F	0226	1.9	58
	0838	3.2	98
	1608	0.5	15
	2315	2.4	73
20 Sa	0234	2.2	67
	0852	3.4	104
	1650	0.2	6
21 Su ◐	0913	3.6	110
	1736	−0.1	−3
22 M	0943	3.8	116
	1828	−0.3	−9
23 Tu	1023	3.9	119
	1923	−0.5	−15
24 W	1114	4.0	122
	2020	−0.5	−15
25 Th	1218	3.8	116
	2116	−0.5	−15
26 F	1338	3.6	110
	2209	−0.3	−9
27 Sa	0605	2.5	76
	0928	2.3	70
	1511	3.3	101
	2259	0.0	0
28 Su ○	0607	2.6	79
	1105	1.8	55
	1647	3.1	94
	2347	0.4	12

March

	Time	Height	
	h m	ft	cm
1 M	0623	2.8	85
	1216	1.1	34
	1817	2.9	88
2 Tu	0031	0.9	27
	0646	3.0	91
	1317	0.5	15
	1940	2.8	85
3 W	0114	1.3	40
	0715	3.3	101
	1413	0.0	0
	2057	2.7	82
4 Th	0156	1.6	49
	0747	3.4	104
	1506	−0.3	−9
	2209	2.7	82
5 F	0236	1.9	58
	0823	3.5	107
	1559	−0.5	−15
	2320	2.6	79
6 Sa	0315	2.1	64
	0902	3.6	110
	1653	−0.6	−18
7 Su ◑	0033	2.5	76
	0353	2.3	70
	0943	3.5	107
	1747	−0.5	−15
8 M	0152	2.5	76
	0431	2.4	73
	1026	3.4	104
	1844	−0.4	−12
9 Tu	1112	3.2	98
	1941	−0.3	−9
10 W	1204	3.1	94
	2037	−0.1	−3
11 Th	0517	2.5	76
	0756	2.4	73
	1305	2.8	85
	2131	0.1	3
12 F	0542	2.4	73
	0933	2.2	67
	1419	2.6	79
	2221	0.3	9
13 Sa	0559	2.4	73
	1047	1.9	58
	1541	2.5	76
	2305	0.5	15
14 Su	0613	2.4	73
	1140	1.6	49
	1702	2.4	73
	2346	0.8	24
15 M ●	0623	2.4	73
	1221	1.2	37
	1816	2.3	70

	Time	Height	
	h m	ft	cm
16 Tu	0023	1.1	34
	0631	2.4	73
	1257	0.9	27
	1923	2.4	73
17 W	0057	1.4	43
	0639	2.5	76
	1331	0.5	15
	2026	2.4	73
18 Th	0126	1.7	52
	0648	2.6	79
	1405	0.2	6
	2127	2.5	76
19 F	0151	2.0	61
	0700	2.7	82
	1442	−0.2	−6
	2229	2.5	76
20 Sa	0207	2.2	67
	0718	2.9	88
	1522	−0.4	−12
	2337	2.5	76
21 Su	0216	2.4	73
	0744	3.1	94
	1605	−0.6	−18
22 M	0820	3.3	101
	1653	−0.7	−21
23 Tu ◐	0905	3.4	104
	1745	−0.7	−21
24 W	1000	3.3	101
	1839	−0.6	−18
25 Th	1109	3.1	94
	1934	−0.3	−9
26 F	0332	2.2	67
	0659	2.0	61
	1238	2.8	85
	2031	0.0	0
27 Sa	0344	2.3	70
	0842	1.6	49
	1423	2.6	79
	2126	0.4	12
28 Su	0403	2.4	73
	1001	1.0	30
	1610	2.5	76
	2221	0.9	27
29 M ○	0428	2.6	79
	1106	0.3	9
	1746	2.5	76
	2314	1.3	40
30 Tu	0457	2.8	85
	1203	−0.2	−6
	1908	2.6	79
31 W	0005	1.6	49
	0531	2.9	88
	1256	−0.7	−21
	2019	2.7	82

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Massacre Bay, Attu Island, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0055	1.9	58
	0608	3.1	94
	1346	−1.0	−30
	2123	2.8	85
2 F	0144	2.1	64
	0648	3.1	94
	1435	−1.1	−34
	2221	2.8	85
3 Sa	0231	2.2	67
	0730	3.1	94
	1524	−1.0	−30
	2317	2.7	82
4 Su	0317	2.2	67
	0813	3.1	94
	1613	−0.9	−27
5 M ◑	0013	2.6	79
	0405	2.2	67
	0858	2.9	88
	1703	−0.7	−21
6 Tu	0108	2.5	76
	0458	2.2	67
	0945	2.8	85
	1753	−0.4	−12
7 W	0158	2.4	73
	0602	2.1	64
	1039	2.6	79
	1844	−0.1	−3
8 Th	0240	2.4	73
	0716	1.9	58
	1146	2.3	70
	1935	0.2	6
9 F	0312	2.3	70
	0831	1.7	52
	1313	2.1	64
	2025	0.5	15
10 Sa	0336	2.3	70
	0933	1.3	40
	1453	2.0	61
	2116	0.9	27
11 Su	0353	2.3	70
	1022	1.0	30
	1631	2.0	61
	2206	1.2	37
12 M	0407	2.3	70
	1103	0.6	18
	1755	2.1	64
	2254	1.5	46
13 Tu	0420	2.3	70
	1139	0.2	6
	1907	2.3	70
	2341	1.8	55
14 W ●	0432	2.4	73
	1215	−0.2	−6
	2010	2.5	76
15 Th	0023	2.1	64
	0446	2.5	76
	1250	−0.5	−15
	2107	2.6	79

	Time	Height	
	h m	ft	cm
16 F	0058	2.4	73
	0505	2.7	82
	1327	−0.7	−21
	2201	2.7	82
17 Sa	0124	2.5	76
	0531	2.9	88
	1406	−0.9	−27
	2255	2.8	85
18 Su	0146	2.6	79
	0606	3.0	91
	1448	−1.0	−30
	2344	2.7	82
19 M	0210	2.6	79
	0649	3.1	94
	1532	−1.0	−30
20 Tu	0024	2.7	82
	0251	2.6	79
	0741	3.1	94
	1617	−0.9	−27
21 W ◐	0050	2.6	79
	0355	2.4	73
	0842	2.9	88
	1704	−0.6	−18
22 Th	0108	2.5	76
	0516	2.1	64
	0958	2.7	82
	1752	−0.2	−6
23 F	0126	2.5	76
	0641	1.7	52
	1134	2.3	70
	1840	0.3	9
24 Sa	0145	2.6	79
	0759	1.1	34
	1331	2.1	64
	1931	0.8	24
25 Su	0209	2.7	82
	0905	0.4	12
	1533	2.1	64
	2026	1.3	40
26 M	0236	2.9	88
	1004	−0.2	−6
	1722	2.3	70
	2126	1.8	55
27 Tu	0308	3.0	91
	1057	−0.7	−21
	1848	2.5	76
	2230	2.2	67
28 W ○	0344	3.1	94
	1147	−1.1	−34
	1956	2.8	85
	2336	2.4	73
29 Th	0423	3.2	98
	1236	−1.3	−40
	2051	2.9	88
30 F	0038	2.6	79
	0506	3.2	98
	1322	−1.3	−40
	2141	3.0	91

May

	Time	Height	
	h m	ft	cm
1 Sa	0137	2.6	79
	0550	3.1	94
	1408	−1.3	−40
	2227	3.0	91
2 Su	0233	2.6	79
	0634	3.0	91
	1453	−1.1	−34
	2310	3.0	91
3 M	0328	2.5	76
	0720	2.8	85
	1536	−0.8	−24
	2350	2.9	88
4 Tu	0426	2.4	73
	0808	2.6	79
	1618	−0.5	−15
5 W ◑	0025	2.8	85
	0528	2.2	67
	0902	2.4	73
	1659	−0.2	−6
6 Th	0053	2.7	82
	0632	1.9	58
	1010	2.1	64
	1738	0.2	6
7 F	0116	2.6	79
	0732	1.6	49
	1140	1.9	58
	1815	0.7	21
8 Sa	0134	2.6	79
	0823	1.2	37
	1334	1.7	52
	1853	1.1	34
9 Su	0148	2.6	79
	0908	0.7	21
	1539	1.8	55
	1931	1.6	49
10 M	0201	2.7	82
	0948	0.3	9
	1737	2.1	64
	2012	2.0	61
11 Tu	0213	2.8	85
	1025	−0.1	−3
12 W	0227	2.9	88
	1103	−0.5	−15
13 Th ●	0245	3.0	91
	1140	−0.8	−24
14 F	0309	3.1	94
	1219	−1.0	−30
15 Sa	0344	3.3	101
	1300	−1.2	−37

	Time	Height	
	h m	ft	cm
16 Su	0429	3.3	101
	1341	−1.3	−40
	2301	3.1	94
17 M	0122	3.0	91
	0522	3.3	101
	1422	−1.2	−37
	2316	3.1	94
18 Tu	0225	2.9	88
	0622	3.2	98
	1504	−1.0	−30
	2328	3.0	91
19 W	0335	2.6	79
	0731	2.9	88
	1545	−0.7	−21
	2341	3.0	91
20 Th ◐	0448	2.1	64
	0853	2.6	79
	1625	−0.2	−6
	2356	3.0	91
21 F	0559	1.6	49
	1032	2.2	67
	1704	0.4	12
22 Sa	0014	3.1	94
	0705	0.9	27
	1230	1.9	58
	1742	1.0	30
23 Su	0037	3.3	101
	0805	0.3	9
	1444	1.9	58
	1819	1.6	49
24 M	0104	3.4	104
	0901	−0.3	−9
25 Tu	0134	3.5	107
	0954	−0.8	−24
26 W	0209	3.6	110
	1044	−1.1	−34
27 Th ○	0248	3.6	110
	1132	−1.3	−40
	2040	3.1	94
	2258	3.0	91
28 F	0330	3.5	107
	1219	−1.3	−40
	2116	3.2	98
29 Sa	0023	3.1	94
	0413	3.4	104
	1303	−1.2	−37
	2151	3.3	101
30 Su	0137	3.0	91
	0458	3.2	98
	1346	−1.1	−34
	2224	3.3	101
31 M	0243	2.9	88
	0544	3.0	91
	1426	−0.8	−24
	2253	3.2	98

June

	Time	Height	
	h m	ft	cm
1 Tu	0345	2.7	82
	0633	2.8	85
	1503	−0.5	−15
	2317	3.2	98
2 W	0443	2.4	73
	0728	2.5	76
	1536	−0.2	−6
	2336	3.1	94
3 Th	0537	2.1	64
	0836	2.2	67
	1607	0.3	9
	2351	3.1	94
4 F ◑	0625	1.7	52
	1002	2.0	61
	1634	0.7	21
5 Sa	0003	3.0	91
	0708	1.3	40
	1148	1.8	55
	1656	1.2	37
6 Su	0013	3.1	94
	0748	0.9	27
	1401	1.7	52
	1706	1.6	49
7 M	0023	3.1	94
	0828	0.4	12
8 Tu	0035	3.3	101
	0908	0.0	0
9 W	0050	3.4	104
	0948	−0.4	−12
10 Th	0111	3.5	107
	1030	−0.7	−21
11 F	0140	3.7	113
	1112	−1.0	−30
12 Sa ●	0219	3.8	116
	1155	−1.2	−37
13 Su	0310	3.8	116
	1238	−1.3	−40
14 M	0410	3.7	113
	1320	−1.2	−37
	2219	3.3	101
15 Tu	0115	3.1	94
	0519	3.5	107
	1400	−1.0	−30
	2218	3.2	98

	Time	Height	
	h m	ft	cm
16 W	0235	2.7	82
	0635	3.1	94
	1439	−0.6	−18
	2225	3.2	98
17 Th	0346	2.2	67
	0801	2.7	82
	1516	−0.1	−3
	2238	3.3	101
18 F ◐	0452	1.5	46
	0936	2.3	70
	1551	0.5	15
	2256	3.5	107
19 Sa	0553	0.9	27
	1123	2.0	61
	1622	1.1	34
	2319	3.7	113
20 Su	0652	0.2	6
	1326	2.0	61
	1649	1.7	52
	2347	3.8	116
21 M	0749	−0.3	−9
22 Tu	0018	3.9	119
	0844	−0.7	−21
23 W	0054	3.9	119
	0938	−0.9	−27
24 Th	0132	3.9	119
	1029	−1.0	−30
25 F	0214	3.8	116
	1118	−1.1	−34
26 Sa ○	0257	3.6	110
	1205	−1.0	−30
	2119	3.3	101
27 Su	0012	3.2	98
	0343	3.4	104
	1247	−0.9	−27
	2140	3.3	101
28 M	0137	3.1	94
	0431	3.2	98
	1326	−0.7	−21
	2200	3.3	101
29 Tu	0244	2.8	85
	0525	2.9	88
	1401	−0.4	−12
	2216	3.3	101
30 W	0337	2.5	76
	0625	2.7	82
	1433	−0.1	−3
	2229	3.2	98

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Massacre Bay, Attu Island, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0421	2.2	67
	0734	2.4	73
	1500	0.3	9
	2238	3.2	98
2 F	0501	1.8	55
	0852	2.1	64
	1524	0.7	21
	2246	3.2	98
3 Sa	0538	1.4	43
	1019	1.9	58
	1543	1.2	37
	2253	3.2	98
4 Su ◑	0616	1.0	30
	1202	1.8	55
	1552	1.6	49
	2302	3.3	101
5 M	0656	0.6	18
	2315	3.5	107
6 Tu	0739	0.2	6
	2332	3.6	110
7 W	0824	−0.2	−6
	2356	3.8	116
8 Th	0911	−0.5	−15
9 F	0028	3.9	119
	0958	−0.8	−24
10 Sa	0111	4.0	122
	1046	−1.0	−30
11 Su ●	0205	4.0	122
	1132	−1.1	−34
12 M	0312	3.8	116
	1216	−1.0	−30
	2116	3.1	94
	2334	3.0	91
13 Tu	0428	3.5	107
	1258	−0.7	−21
	2100	3.0	91
14 W	0111	2.5	76
	0551	3.2	98
	1338	−0.4	−12
	2104	3.1	94
15 Th	0224	1.9	58
	0718	2.9	88
	1415	0.1	3
	2118	3.3	101

	Time	Height	
	h m	ft	cm
16 F	0328	1.3	40
	0847	2.5	76
	1451	0.7	21
	2138	3.5	107
17 Sa	0428	0.7	21
	1020	2.3	70
	1524	1.2	37
	2203	3.7	113
18 Su ◐	0526	0.1	3
	1159	2.2	67
	1554	1.7	52
	2233	3.9	119
19 M	0624	−0.3	−9
	1352	2.2	67
	1616	2.1	64
	2308	4.0	122
20 Tu	0722	−0.6	−18
	2346	4.0	122
21 W	0820	−0.7	−21
22 Th	0027	3.9	119
	0917	−0.8	−24
23 F	0112	3.7	113
	1011	−0.8	−24
24 Sa	0200	3.5	107
	1102	−0.7	−21
25 Su ○	0252	3.3	101
	1148	−0.6	−18
	2037	3.0	91
26 M	0007	2.9	88
	0349	3.1	94
	1230	−0.4	−12
	2052	3.0	91
27 Tu	0118	2.6	79
	0451	2.8	85
	1306	−0.1	−3
	2105	3.0	91
28 W	0210	2.3	70
	0557	2.6	79
	1338	0.1	3
	2115	2.9	88
29 Th	0251	2.0	61
	0704	2.4	73
	1407	0.5	15
	2122	2.9	88
30 F	0327	1.6	49
	0814	2.3	70
	1432	0.8	24
	2128	2.9	88
31 Sa	0401	1.2	37
	0925	2.1	64
	1453	1.2	37
	2134	3.0	91

August

	Time	Height	
	h m	ft	cm
1 Su	0437	0.9	27
	1042	2.0	61
	1508	1.6	49
	2142	3.1	94
2 M ◑	0516	0.5	15
	1213	2.0	61
	1511	1.9	58
	2155	3.3	101
3 Tu	0559	0.2	6
	2214	3.4	104
4 W	0646	−0.1	−3
	2241	3.6	110
5 Th	0737	−0.4	−12
	2316	3.8	116
6 F	0831	−0.6	−18
7 Sa	0003	3.8	116
	0924	−0.7	−21
8 Su	0102	3.8	116
	1016	−0.7	−21
9 M ●	0215	3.6	110
	1105	−0.6	−18
	1938	2.6	79
	2202	2.5	76
10 Tu	0341	3.3	101
	1151	−0.4	−12
	1922	2.6	79
	2346	2.0	61
11 W	0511	3.1	94
	1234	0.0	0
	1929	2.8	85
12 Th	0100	1.4	43
	0640	2.9	88
	1315	0.4	12
	1946	3.0	91
13 F	0202	0.8	24
	0804	2.7	82
	1354	0.9	27
	2010	3.2	98
14 Sa	0300	0.2	6
	0926	2.5	76
	1431	1.4	43
	2039	3.5	107
15 Su	0356	−0.3	−9
	1047	2.4	73
	1507	1.7	52
	2114	3.6	110

	Time	Height	
	h m	ft	cm
16 M ◐	0452	−0.5	−15
	1209	2.4	73
	1543	2.0	61
	2152	3.7	113
17 Tu	0549	−0.7	−21
	1338	2.4	73
	1617	2.2	67
	2234	3.7	113
18 W	0648	−0.7	−21
	2320	3.6	110
19 Th	0747	−0.6	−18
20 F	0009	3.4	104
	0847	−0.5	−15
21 Sa	0104	3.2	98
	0944	−0.4	−12
	1832	2.6	79
	2104	2.5	76
22 Su	0206	3.0	91
	1037	−0.2	−6
	1854	2.6	79
	2241	2.3	70
23 M	0315	2.8	85
	1124	0.0	0
	1914	2.6	79
	2351	2.1	64
24 Tu ○	0429	2.6	79
	1206	0.2	6
	1929	2.6	79
25 W	0042	1.8	55
	0540	2.4	73
	1243	0.5	15
	1940	2.5	76
26 Th	0122	1.5	46
	0648	2.4	73
	1316	0.8	24
	1948	2.5	76
27 F	0157	1.1	34
	0752	2.3	70
	1346	1.1	34
	1955	2.6	79
28 Sa	0231	0.8	24
	0854	2.3	70
	1412	1.4	43
	2003	2.6	79
29 Su	0304	0.5	15
	0957	2.3	70
	1433	1.7	52
	2012	2.8	85
30 M	0341	0.2	6
	1103	2.3	70
	1447	2.0	61
	2027	2.9	88
31 Tu	0421	−0.1	−3
	1222	2.3	70
	1448	2.2	67
	2048	3.1	94

September

	Time	Height	
	h m	ft	cm
1 W ◑	0505	−0.3	−9
	2118	3.3	101
2 Th	0555	−0.4	−12
	2157	3.4	104
3 F	0648	−0.5	−15
	2247	3.4	104
4 Sa	0745	−0.5	−15
	2352	3.3	101
5 Su	0841	−0.4	−12
6 M	0115	3.1	94
	0936	−0.1	−3
	1715	2.2	67
	2104	1.9	58
7 Tu	0252	2.9	88
	1029	0.2	6
	1721	2.3	70
	2234	1.4	43
8 W ●	0432	2.8	85
	1118	0.6	18
	1737	2.5	76
	2343	0.7	21
9 Th	0605	2.7	82
	1206	1.0	30
	1801	2.8	85
10 F	0042	0.1	3
	0728	2.8	85
	1251	1.4	43
	1830	3.0	91
11 Sa	0137	−0.4	−12
	0842	2.8	85
	1335	1.7	52
	1905	3.2	98
12 Su	0231	−0.7	−21
	0951	2.8	85
	1418	2.0	61
	1944	3.4	104
13 M	0323	−0.9	−27
	1057	2.7	82
	1502	2.2	67
	2026	3.4	104
14 Tu ◐	0417	−0.9	−27
	1201	2.7	82
	1547	2.3	70
	2112	3.4	104
15 W	0511	−0.8	−24
	1306	2.6	79
	1637	2.3	70
	2201	3.2	98

	Time	Height	
	h m	ft	cm
16 Th	0607	−0.6	−18
	1411	2.5	76
	1735	2.3	70
	2254	3.0	91
17 F	0704	−0.3	−9
	1511	2.5	76
	1849	2.2	67
	2354	2.8	85
18 Sa	0802	−0.1	−3
	1600	2.4	73
	2013	2.1	64
19 Su	0106	2.6	79
	0859	0.2	6
	1636	2.4	73
	2133	1.9	58
20 M	0230	2.4	73
	0953	0.5	15
	1704	2.4	73
	2236	1.6	49
21 Tu	0358	2.3	70
	1044	0.8	24
	1724	2.4	73
	2324	1.2	37
22 W ○	0520	2.3	70
	1130	1.1	34
	1739	2.4	73
23 Th	0003	0.9	27
	0633	2.4	73
	1214	1.4	43
	1752	2.4	73
24 F	0038	0.6	18
	0736	2.5	76
	1253	1.7	52
	1802	2.5	76
25 Sa	0111	0.3	9
	0834	2.6	79
	1329	2.0	61
	1812	2.5	76
26 Su	0144	0.0	0
	0929	2.7	82
	1358	2.2	67
	1825	2.7	82
27 M	0219	−0.2	−6
	1024	2.7	82
	1420	2.4	73
	1844	2.8	85
28 Tu	0256	−0.4	−12
	1122	2.7	82
	1435	2.6	79
	1909	3.0	91
29 W	0337	−0.5	−15
	1225	2.7	82
	1444	2.6	79
	1944	3.1	94
30 Th ◑	0421	−0.5	−15
	2028	3.2	98

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Massacre Bay, Attu Island, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0508	−0.5	−15
	2123	3.1	94
2 Sa	0559	−0.3	−9
	1430	2.5	76
	1714	2.4	73
	2234	3.0	91
3 Su	0651	0.0	0
	1441	2.4	73
	1854	2.1	64
4 M	0007	2.7	82
	0745	0.4	12
	1454	2.5	76
	2022	1.6	49
5 Tu	0200	2.5	76
	0841	0.8	24
	1513	2.6	79
	2134	0.9	27
6 W	0355	2.5	76
	0937	1.3	40
	1536	2.8	85
	2236	0.3	9
7 Th ●	0536	2.6	79
	1034	1.8	55
	1606	3.0	91
	2331	−0.3	−9
8 F	0700	2.9	88
	1130	2.2	67
	1640	3.2	98
9 Sa	0024	−0.8	−24
	0810	3.1	94
	1226	2.4	73
	1720	3.4	104
10 Su	0114	−1.1	−34
	0910	3.2	98
	1319	2.6	79
	1804	3.4	104
11 M	0204	−1.2	−37
	1005	3.2	98
	1412	2.7	82
	1850	3.4	104
12 Tu	0253	−1.1	−34
	1056	3.2	98
	1506	2.6	79
	1939	3.3	101
13 W	0343	−0.9	−27
	1145	3.1	94
	1602	2.6	79
	2030	3.2	98
14 Th ◐	0432	−0.6	−18
	1232	3.0	91
	1704	2.4	73
	2124	2.9	88
15 F	0521	−0.2	−6
	1315	2.9	88
	1813	2.3	70
	2226	2.7	82

	Time	Height	
	h m	ft	cm
16 Sa	0610	0.2	6
	1353	2.9	88
	1926	2.0	61
	2343	2.4	73
17 Su	0659	0.6	18
	1425	2.8	85
	2033	1.7	52
18 M	0120	2.2	67
	0748	1.0	30
	1451	2.8	85
	2127	1.4	43
19 Tu	0308	2.2	67
	0840	1.4	43
	1510	2.7	82
	2212	1.0	30
20 W	0450	2.3	70
	0933	1.8	55
	1526	2.8	85
	2251	0.6	18
21 Th	0616	2.5	76
	1030	2.2	67
	1540	2.8	85
	2326	0.3	9
22 F ○	0725	2.8	85
	1126	2.5	76
	1552	2.9	88
23 Sa	0000	0.0	0
	0823	3.0	91
	1218	2.7	82
	1605	3.0	91
24 Su	0034	−0.3	−9
	0915	3.2	98
	1303	2.9	88
	1622	3.1	94
25 M	0109	−0.5	−15
	1003	3.3	101
	1338	3.1	94
	1645	3.2	98
26 Tu	0146	−0.6	−18
	1050	3.3	101
	1405	3.2	98
	1718	3.3	101
27 W	0224	−0.7	−21
	1132	3.3	101
	1432	3.2	98
	1801	3.4	104
28 Th	0304	−0.6	−18
	1204	3.3	101
	1511	3.1	94
	1853	3.3	101
29 F	0345	−0.5	−15
	1225	3.2	98
	1608	2.9	88
	1956	3.2	98
30 Sa ◑	0427	−0.2	−6
	1239	3.1	94
	1719	2.6	79
	2114	2.9	88
31 Su	0510	0.2	6
	1251	3.1	94
	1832	2.1	64
	2255	2.6	79

November

	Time	Height	
	h m	ft	cm
1 M	0553	0.7	21
	1306	3.2	98
	1939	1.5	46
2 Tu	0100	2.3	70
	0637	1.3	40
	1325	3.3	101
	2040	0.8	24
3 W	0314	2.4	73
	0725	1.9	58
	1349	3.5	107
	2135	0.1	3
4 Th	0516	2.7	82
	0819	2.5	76
	1419	3.7	113
	2228	−0.4	−12
5 F ●	0650	3.0	91
	0926	2.9	88
	1455	3.8	116
	2318	−0.8	−24
6 Sa	0756	3.4	104
	1042	3.2	98
	1536	3.9	119
7 Su	0007	−1.1	−34
	0846	3.6	110
	1158	3.3	101
	1621	3.9	119
8 M	0055	−1.1	−34
	0930	3.7	113
	1308	3.3	101
	1710	3.8	116
9 Tu	0142	−1.0	−30
	1010	3.7	113
	1414	3.3	101
	1801	3.6	110
10 W	0227	−0.8	−24
	1048	3.7	113
	1519	3.1	94
	1852	3.4	104
11 Th	0311	−0.5	−15
	1124	3.6	110
	1625	2.9	88
	1947	3.1	94
12 F	0353	−0.1	−3
	1155	3.6	110
	1731	2.6	79
	2048	2.8	85
13 Sa ◐	0432	0.3	9
	1223	3.5	107
	1834	2.3	70
	2203	2.5	76
14 Su	0509	0.8	24
	1245	3.4	104
	1931	1.9	58
	2341	2.3	70
15 M	0543	1.3	40
	1304	3.4	104
	2018	1.5	46

	Time	Height	
	h m	ft	cm
16 Tu	0143	2.2	67
	0613	1.8	55
	1319	3.4	104
	2100	1.1	34
17 W	0403	2.3	70
	0636	2.2	67
	1332	3.4	104
	2138	0.7	21
18 Th	1344	3.5	107
	2215	0.3	9
19 F	1356	3.6	110
	2251	0.0	0
20 Sa	1411	3.7	113
	2328	−0.3	−9
21 Su ○	1430	3.8	116
22 M	0005	−0.5	−15
	1457	3.9	119
23 Tu	0043	−0.6	−18
	1536	3.9	119
24 W	0121	−0.7	−21
	1100	3.9	119
	1337	3.8	116
	1628	3.9	119
25 Th	0159	−0.6	−18
	1109	3.8	116
	1438	3.6	110
	1729	3.7	113
26 F	0237	−0.4	−12
	1114	3.7	113
	1541	3.3	101
	1841	3.5	107
27 Sa	0314	−0.1	−3
	1121	3.7	113
	1644	2.8	85
	2008	3.1	94
28 Su ◑	0350	0.4	12
	1130	3.7	113
	1745	2.2	67
	2151	2.7	82
29 M	0424	1.0	30
	1144	3.8	116
	1843	1.6	49
	2353	2.4	73
30 Tu	0455	1.6	49
	1202	4.0	122
	1938	0.9	27

December

	Time	Height	
	h m	ft	cm
1 W	0215	2.4	73
	0519	2.2	67
	1225	4.2	128
	2032	0.2	6
2 Th	1254	4.4	134
	2124	−0.3	−9
3 F	1328	4.5	137
	2215	−0.6	−18
4 Sa	1407	4.5	137
	2305	−0.8	−24
5 Su ●	1451	4.4	134
	2353	−0.9	−27
6 M	0915	3.9	119
	1130	3.8	116
	1539	4.2	128
7 Tu	0039	−0.8	−24
	0937	4.0	122
	1304	3.8	116
	1629	4.0	122
8 W	0123	−0.6	−18
	1003	4.0	122
	1424	3.6	110
	1721	3.7	113
9 Th	0204	−0.4	−12
	1029	4.0	122
	1534	3.3	101
	1817	3.4	104
10 F	0242	0.0	0
	1052	4.0	122
	1636	3.0	91
	1919	3.1	94
11 Sa	0316	0.4	12
	1112	3.9	119
	1731	2.6	79
	2033	2.8	85
12 Su	0346	0.9	27
	1128	3.9	119
	1817	2.2	67
	2202	2.5	76
13 M ◐	0411	1.3	40
	1141	3.9	119
	1859	1.8	55
	2350	2.3	70
14 Tu	0429	1.8	55
	1152	3.9	119
	1939	1.3	40
15 W	0210	2.3	70
	0426	2.2	67
	1204	3.9	119
	2018	0.9	27

	Time	Height	
	h m	ft	cm
16 Th	1216	4.0	122
	2058	0.5	15
17 F	1231	4.1	125
	2138	0.2	6
18 Sa	1250	4.2	128
	2218	−0.1	−3
19 Su	1315	4.3	131
	2259	−0.3	−9
20 M ○	1347	4.4	134
	2340	−0.5	−15
21 Tu	1431	4.4	134
22 W	0020	−0.6	−18
	1526	4.2	128
23 Th	0059	−0.5	−15
	1018	3.9	119
	1309	3.8	116
	1635	4.0	122
24 F	0137	−0.3	−9
	1007	3.9	119
	1427	3.4	104
	1755	3.7	113
25 Sa	0213	0.1	3
	1007	3.9	119
	1532	2.9	88
	1923	3.3	101
26 Su	0247	0.5	15
	1015	4.0	122
	1631	2.2	67
	2100	2.9	88
27 M ◑	0319	1.1	34
	1029	4.1	125
	1728	1.5	46
	2247	2.6	79
28 Tu	0346	1.7	52
	1048	4.4	134
	1823	0.9	27
29 W	0050	2.5	76
	0406	2.2	67
	1113	4.6	140
	1918	0.3	9
30 Th	1144	4.7	143
	2013	−0.1	−3
31 F	1219	4.7	143
	2108	−0.4	−12

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Port Moller, Bristol Bay, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0433	10.9	332	**16** Sa	0542	10.5	320
	0952	6.6	201		1120	5.7	174
	1402	9.6	293		1545	7.5	229
	2149	−2.7	−82		2250	0.2	6
2 Sa	0521	11.3	344	**17** Su	0617	10.4	317
	1053	6.0	183		1207	5.4	165
	1514	9.3	283		1639	7.2	219
	2245	−2.5	−76		2328	0.7	21
3 Su	0607	11.7	357	**18** M	0648	10.3	314
	1155	5.1	155		1252	4.9	149
	1638	9.0	274		1738	7.0	213
	2342	−2.0	−61				
4 M	0653	12.0	366	**19** Tu	0006	1.4	43
	1256	4.0	122		0716	10.1	308
	1805	8.7	265		1334	4.3	131
					1841	6.9	210
5 Tu	0040	−1.2	−37	**20** W	0045	2.1	64
	0738	12.1	369		0742	9.9	302
	1355	2.6	79		1413	3.5	107
	1930	8.7	265		1946	7.0	213
6 W	0140	−0.1	−3	**21** Th	0126	3.0	91
	0822	12.1	369		0806	9.7	296
	1453	1.3	40		1449	2.8	85
	2051	8.9	271		2050	7.2	219
7 Th ◑	0240	1.1	34	**22** F	0210	3.8	116
	0907	12.0	366		0828	9.5	290
	1548	0.1	3		1524	2.0	61
	2208	9.3	283		2151	7.6	232
8 F	0342	2.4	73	**23** Sa ◐	0256	4.6	140
	0951	11.6	354		0848	9.4	287
	1642	−0.8	−24		1558	1.2	37
	2320	9.7	296		2250	8.1	247
9 Sa	0445	3.5	107	**24** Su	0344	5.4	165
	1036	11.1	338		0908	9.3	283
	1735	−1.4	−43		1635	0.4	12
					2347	8.6	262
10 Su	0028	10.2	311	**25** M	0436	6.0	183
	0548	4.3	131		0937	9.5	290
	1121	10.5	320		1717	−0.4	−12
	1827	−1.7	−52				
11 M	0131	10.5	320	**26** Tu	0041	9.1	277
	0651	5.0	152		0532	6.5	198
	1206	9.9	302		1015	9.6	293
	1916	−1.7	−52		1803	−1.1	−34
12 Tu	0230	10.7	326	**27** W	0132	9.6	293
	0750	5.4	165		0630	6.7	204
	1250	9.3	283		1102	9.8	299
	2003	−1.5	−46		1852	−1.8	−55
13 W	0325	10.8	329	**28** Th	0222	10.0	305
	0846	5.7	174		0727	6.7	204
	1332	8.8	268		1157	10.0	305
	2048	−1.2	−37		1944	−2.2	−67
14 Th ●	0416	10.8	329	**29** F ○	0310	10.3	314
	0940	5.8	177		0825	6.3	192
	1414	8.3	253		1258	10.0	305
	2131	−0.8	−24		2037	−2.4	−73
15 F	0502	10.7	326	**30** Sa	0357	10.7	326
	1031	5.8	177		0925	5.7	174
	1457	7.9	241		1406	9.8	299
	2211	−0.3	−9		2132	−2.2	−67
				31 Su	0442	11.0	335
					1026	4.8	146
					1525	9.5	290
					2228	−1.7	−52

February

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0527	11.3	344	**16** Tu	0554	9.3	283
	1126	3.7	113		1203	4.0	122
	1649	9.3	283		1735	7.5	229
	2325	−0.9	−27		2340	2.6	79
2 Tu	0612	11.5	351	**17** W	0618	9.1	277
	1226	2.4	73		1240	3.4	104
	1811	9.3	283		1834	7.6	232
3 W	0024	0.1	3	**18** Th	0021	3.3	101
	0657	11.6	354		0640	9.0	274
	1324	1.1	34		1316	2.7	82
	1931	9.5	290		1933	7.9	241
4 Th	0125	1.2	37	**19** F	0106	4.0	122
	0743	11.5	351		0702	8.8	268
	1421	0.1	3		1352	2.0	61
	2046	9.8	299		2031	8.2	250
5 F ◑	0227	2.3	70	**20** Sa	0153	4.7	143
	0831	11.2	341		0724	8.8	268
	1517	−0.8	−24		1429	1.3	40
	2156	10.1	308		2127	8.6	262
6 Sa	0329	3.2	98	**21** Su ◐	0242	5.2	158
	0920	10.8	329		0750	8.8	268
	1612	−1.2	−37		1509	0.6	18
	2303	10.4	317		2222	9.0	274
7 Su	0431	3.9	119	**22** M	0332	5.7	174
	1009	10.4	317		0824	9.0	274
	1707	−1.4	−43		1554	−0.1	−3
					2316	9.3	283
8 M	0006	10.6	323	**23** Tu	0424	6.1	186
	0533	4.4	134		0907	9.2	280
	1059	9.9	302		1643	−0.6	−18
	1800	−1.4	−43				
9 Tu	0106	10.6	323	**24** W	0008	9.6	293
	0633	4.8	146		0519	6.2	189
	1149	9.5	290		0958	9.4	287
	1852	−1.2	−37		1736	−1.1	−34
10 W	0202	10.6	323	**25** Th	0058	9.8	299
	0730	5.1	155		0615	6.1	186
	1236	9.0	274		1056	9.6	293
	1940	−0.8	−24		1831	−1.4	−43
11 Th	0254	10.4	317	**26** F	0145	10.1	308
	0822	5.2	158		0712	5.7	174
	1322	8.6	262		1201	9.7	296
	2025	−0.4	−12		1926	−1.5	−46
12 F	0342	10.2	311	**27** Sa	0229	10.3	314
	0912	5.3	162		0808	5.0	152
	1407	8.3	253		1311	9.7	296
	2107	0.1	3		2020	−1.2	−37
13 Sa ●	0423	10.0	305	**28** Su ○	0313	10.5	320
	0959	5.2	158		0905	4.0	122
	1453	7.9	241		1425	9.7	296
	2146	0.6	18		2116	−0.7	−21
14 Su	0458	9.8	299				
	1043	5.0	152				
	1543	7.7	235				
	2224	1.3	40				
15 M	0528	9.6	293				
	1124	4.6	140				
	1638	7.5	229				
	2302	1.9	58				

March

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0357	10.6	323	**16** Tu	0421	8.7	265
	1002	2.9	88		1036	3.3	101
	1543	9.7	296		1641	8.1	247
	2213	0.0	0		2238	3.4	104
2 Tu	0441	10.7	326	**17** W	0444	8.4	256
	1058	1.8	55		1109	2.7	82
	1701	9.8	299		1735	8.3	253
	2312	0.9	27		2321	4.0	122
3 W	0527	10.7	326	**18** Th	0505	8.2	250
	1155	0.7	21		1143	2.1	64
	1815	10.1	308		1827	8.7	265
4 Th	0012	1.8	55	**19** F	0006	4.6	140
	0614	10.6	323		0526	8.2	250
	1251	−0.1	−3		1218	1.5	46
	1926	10.4	317		1920	9.1	277
5 F	0113	2.6	79	**20** Sa	0055	5.0	152
	0704	10.4	317		0551	8.2	250
	1347	−0.7	−21		1257	0.9	27
	2033	10.7	326		2012	9.4	287
6 Sa	0215	3.2	98	**21** Su	0145	5.4	165
	0756	10.2	311		0624	8.3	253
	1443	−1.0	−30		1341	0.4	12
	2136	10.9	332		2104	9.7	296
7 Su ◑	0316	3.7	113	**22** M	0235	5.6	171
	0849	9.8	299		0706	8.4	256
	1538	−1.1	−34		1430	−0.1	−3
	2236	10.9	332		2155	9.9	302
8 M	0415	4.0	122	**23** Tu ◐	0326	5.7	174
	0943	9.5	290		0756	8.6	262
	1634	−0.9	−27		1522	−0.5	−15
	2335	10.8	329		2246	10.1	308
9 Tu	0514	4.3	131	**24** W	0418	5.7	174
	1037	9.2	280		0854	8.8	268
	1728	−0.6	−18		1616	−0.7	−21
					2335	10.2	311
10 W	0031	10.6	323	**25** Th	0512	5.4	165
	0611	4.4	134		0959	8.9	271
	1130	8.9	271		1713	−0.7	−21
	1821	−0.2	−6				
11 Th	0122	10.3	314	**26** F	0021	10.2	311
	0705	4.5	137		0607	4.9	149
	1222	8.7	265		1109	9.1	277
	1910	0.2	6		1811	−0.5	−15
12 F	0209	10.0	305	**27** Sa	0104	10.3	314
	0754	4.5	137		0702	4.1	125
	1313	8.4	256		1222	9.2	280
	1955	0.8	24		1908	0.0	0
13 Sa	0251	9.7	296	**28** Su	0146	10.3	314
	0840	4.3	131		0755	3.0	91
	1402	8.2	250		1336	9.4	287
	2037	1.4	43		2005	0.6	18
14 Su	0326	9.3	283	**29** M ○	0227	10.3	314
	0922	4.1	125		0847	1.9	58
	1454	8.0	244		1449	9.7	296
	2118	2.1	64		2103	1.4	43
15 M ●	0356	9.0	274	**30** Tu	0309	10.2	311
	1000	3.7	113		0940	0.9	27
	1547	8.0	244		1602	10.1	308
	2158	2.8	85		2202	2.1	64
				31 W	0354	10.1	308
					1032	0.0	0
					1711	10.5	320
					2302	2.8	85

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Moller, Bristol Bay, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0441	9.9	302	16 F	0336	7.9	241
	1125	−0.6	−18		1052	0.6	18
	1815	10.9	332		1816	9.8	299
					2352	5.6	171
2 F	0002	3.4	104	17 Sa	0408	7.9	241
	0531	9.6	293		1132	0.1	3
	1219	−1.0	−30		1904	10.2	311
	1917	11.2	341				
3 Sa	0103	3.7	113	18 Su	0043	5.8	177
	0625	9.4	287		0451	8.0	244
	1313	−1.1	−34		1218	−0.3	−9
	2015	11.4	347		1952	10.5	320
4 Su	0202	3.9	119	19 M	0134	5.8	177
	0720	9.1	277		0542	8.1	247
	1408	−0.9	−27		1308	−0.6	−18
	2111	11.3	344		2041	10.7	326
5 M	0300	4.0	122	20 Tu	0226	5.7	174
	0818	8.9	271		0640	8.2	250
	1502	−0.7	−21		1402	−0.8	−24
	2205	11.2	341		2129	10.8	329
6 Tu	0357	4.0	122	21 W	0318	5.4	165
	0915	8.6	262		0747	8.2	250
	1556	−0.2	−6		1457	−0.7	−21
◑	2258	10.9	332	◐	2215	10.9	332
7 W	0452	4.0	122	22 Th	0411	4.8	146
	1012	8.5	259		0901	8.3	253
	1649	0.3	9		1554	−0.4	−12
	2347	10.6	323		2300	10.9	332
8 Th	0545	3.9	119	23 F	0505	4.1	125
	1109	8.3	253		1017	8.4	256
	1741	0.9	27		1653	0.2	6
					2342	10.8	329
9 F	0033	10.2	311	24 Sa	0559	3.1	94
	0636	3.8	116		1134	8.6	262
	1206	8.1	247		1753	0.9	27
	1830	1.5	46				
10 Sa	0113	9.8	299	25 Su	0023	10.6	323
	0722	3.5	107		0651	2.0	61
	1302	8.1	247		1249	9.0	274
	1917	2.3	70		1853	1.8	55
11 Su	0147	9.3	283	26 M	0103	10.4	317
	0803	3.1	94		0741	0.9	27
	1357	8.1	247		1400	9.5	290
	2002	3.0	91		1953	2.7	82
12 M	0215	8.9	271	27 Tu	0143	10.2	311
	0840	2.7	82		0831	0.0	0
	1452	8.2	250		1509	10.0	305
	2045	3.7	113		2053	3.4	104
13 Tu	0238	8.5	259	28 W	0224	9.9	302
	0914	2.3	70		0920	−0.8	−24
	1546	8.5	259		1615	10.6	323
	2130	4.4	134	○	2154	4.0	122
14 W	0257	8.2	250	29 Th	0309	9.5	290
	0946	1.7	52		1009	−1.2	−37
	1638	8.9	271		1715	11.1	338
●	2216	5.0	152		2254	4.4	134
15 Th	0314	8.0	244	30 F	0359	9.1	277
	1017	1.2	37		1059	−1.4	−43
	1727	9.3	283		1811	11.4	347
	2303	5.4	165		2353	4.6	140

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0452	8.8	268	16 Su	0314	8.3	253
	1150	−1.3	−40		1101	−1.1	−34
	1904	11.6	354		1844	10.9	332
2 Su	0051	4.6	140	17 M	0023	6.2	189
	0548	8.5	259		0413	8.2	250
	1241	−1.1	−34		1151	−1.4	−43
	1956	11.6	354		1930	11.3	344
3 M	0148	4.5	137	18 Tu	0117	5.9	180
	0645	8.2	250		0521	8.2	250
	1333	−0.7	−21		1245	−1.4	−43
	2045	11.5	351		2016	11.5	351
4 Tu	0242	4.3	131	19 W	0211	5.3	162
	0744	8.0	244		0635	8.1	247
	1424	−0.2	−6		1341	−1.1	−34
	2132	11.3	344		2100	11.6	354
5 W	0335	4.1	125	20 Th	0305	4.5	137
	0844	7.9	241		0756	8.1	247
	1514	0.4	12		1438	−0.6	−18
◑	2217	11.0	335	◐	2143	11.6	354
6 Th	0426	3.8	116	21 F	0358	3.5	107
	0944	7.7	235		0918	8.1	247
	1604	1.1	34		1535	0.3	9
	2258	10.6	323		2224	11.5	351
7 F	0516	3.4	104	22 Sa	0452	2.3	70
	1045	7.7	235		1037	8.3	253
	1653	2.0	61		1635	1.3	40
	2335	10.1	308		2305	11.2	341
8 Sa	0602	3.0	91	23 Su	0545	1.2	37
	1147	7.7	235		1154	8.8	268
	1742	2.9	88		1737	2.4	73
					2345	10.9	332
9 Su	0008	9.7	296	24 M	0636	0.1	3
	0644	2.5	76		1308	9.3	283
	1248	7.8	238		1841	3.5	107
	1831	3.8	116				
10 M	0035	9.2	280	25 Tu	0025	10.5	320
	0722	2.0	61		0726	−0.8	−24
	1347	8.2	250		1416	10.0	305
	1920	4.6	140		1944	4.3	131
11 Tu	0057	8.7	265	26 W	0106	10.1	308
	0755	1.4	43		0814	−1.4	−43
	1443	8.6	262		1520	10.5	320
	2009	5.3	162		2045	4.9	149
12 W	0112	8.4	256	27 Th	0149	9.6	293
	0826	0.9	27		0902	−1.7	−52
	1535	9.1	277		1618	11.0	335
	2058	5.8	177	○	2145	5.2	158
13 Th	0126	8.3	253	28 F	0234	9.1	277
	0858	0.3	9		0949	−1.7	−52
	1625	9.6	293		1712	11.3	344
●	2148	6.2	189		2244	5.4	165
14 F	0149	8.2	250	29 Sa	0324	8.6	262
	0933	−0.2	−6		1037	−1.6	−49
	1712	10.1	308		1802	11.5	351
	2239	6.4	195		2340	5.3	162
15 Sa	0226	8.3	253	30 Su	0418	8.3	253
	1014	−0.7	−21		1125	−1.3	−40
	1758	10.6	323		1850	11.5	351
	2330	6.4	195				
				31 M	0035	5.1	155
					0515	8.0	244
					1212	−0.9	−27
					1935	11.5	351

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0129	4.9	149	16 W	0052	5.4	165
	0613	7.7	235		0520	8.4	256
	1259	−0.4	−12		1227	−1.6	−49
	2017	11.4	347		1945	11.8	360
2 W	0221	4.5	137	17 Th	0149	4.3	131
	0713	7.5	229		0645	8.3	253
	1346	0.3	9		1324	−0.9	−27
	2056	11.2	341		2027	11.9	363
3 Th	0310	4.0	122	18 F	0244	3.1	94
	0815	7.3	223		0809	8.3	253
	1432	1.0	30		1422	0.1	3
	2132	10.9	332	◐	2108	11.9	363
4 F	0356	3.5	107	19 Sa	0338	1.8	55
	0918	7.3	223		0930	8.5	259
	1517	1.9	58		1521	1.2	37
◑	2206	10.5	320		2150	11.7	357
5 Sa	0440	2.9	88	20 Su	0432	0.6	18
	1021	7.3	223		1047	8.9	271
	1603	2.9	88		1622	2.5	76
	2235	10.0	305		2231	11.4	347
6 Su	0521	2.3	70	21 M	0525	−0.5	−15
	1126	7.5	229		1201	9.4	287
	1650	4.0	122		1726	3.6	110
	2301	9.6	293		2314	10.9	332
7 M	0559	1.7	52	22 Tu	0617	−1.2	−37
	1228	7.9	241		1311	10.0	305
	1741	4.9	149		1831	4.5	137
	2322	9.2	280		2357	10.4	317
8 Tu	0634	1.1	34	23 W	0708	−1.7	−52
	1327	8.3	253		1415	10.5	320
	1834	5.7	174		1934	5.1	155
	2337	8.9	271				
9 W	0707	0.5	15	24 Th	0041	9.8	299
	1421	8.9	271		0757	−1.9	−58
	1926	6.3	192		1515	10.8	329
	2354	8.8	268		2034	5.5	168
10 Th	0740	−0.1	−3	25 F	0126	9.3	283
	1512	9.4	287		0845	−1.8	−55
	2019	6.7	204		1611	11.0	335
					2133	5.7	174
11 F	0021	8.8	268	26 Sa	0212	8.8	268
	0817	−0.7	−21		0932	−1.5	−46
	1601	9.9	302		1702	11.1	338
	2111	6.9	210	○	2229	5.7	174
12 Sa	0100	8.9	271	27 Su	0301	8.4	256
	0859	−1.3	−40		1018	−1.2	−37
	1648	10.4	317		1748	11.1	338
●	2205	6.9	210		2323	5.6	171
13 Su	0149	8.9	271	28 M	0354	8.0	244
	0947	−1.7	−52		1103	−0.8	−24
	1733	10.8	329		1830	11.1	338
	2300	6.7	204				
14 M	0248	8.8	268	29 Tu	0015	5.3	162
	1038	−1.9	−58		0450	7.7	235
	1818	11.2	341		1146	−0.3	−9
	2355	6.2	189		1908	11.0	335
15 Tu	0359	8.6	262	30 W	0105	4.9	149
	1132	−1.9	−58		0548	7.4	226
	1901	11.6	354		1229	0.3	9
					1943	10.9	332

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Moller, Bristol Bay, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0152	4.4	134	**16** F	0121	2.8	85
	0649	7.3	223		0655	8.8	268
	1311	1.0	30		1310	0.0	0
	2015	10.7	326		1950	11.8	360
2 F	0236	3.7	113	**17** Sa	0217	1.4	43
	0752	7.2	219		0816	9.1	277
	1354	1.9	58		1410	1.1	34
	2045	10.4	317		2033	11.7	357
3 Sa	0317	3.1	94	**18** Su	0312	0.2	6
	0856	7.2	219		0932	9.4	287
	1437	2.8	85		1510	2.2	67
	2112	10.1	308	◐	2118	11.5	351
4 Su	0356	2.4	73	**19** M	0407	−0.8	−24
	0958	7.4	226		1044	9.8	299
	1521	3.8	116		1612	3.3	101
◑	2137	9.7	296		2203	11.1	338
5 M	0432	1.8	55	**20** Tu	0501	−1.4	−43
	1059	7.8	238		1152	10.2	311
	1607	4.7	143		1716	4.1	125
	2157	9.4	287		2250	10.6	323
6 Tu	0507	1.2	37	**21** W	0555	−1.7	−52
	1158	8.2	250		1257	10.5	320
	1656	5.6	171		1819	4.8	146
	2214	9.2	280		2339	10.1	308
7 W	0543	0.5	15	**22** Th	0648	−1.8	−55
	1254	8.6	262		1358	10.7	326
	1748	6.2	189		1920	5.2	158
	2234	9.1	277				
8 Th	0620	−0.1	−3	**23** F	0027	9.6	293
	1347	9.1	277		0739	−1.6	−49
	1842	6.7	204		1456	10.7	326
	2304	9.2	280		2018	5.4	165
9 F	0700	−0.7	−21	**24** Sa	0115	9.1	277
	1437	9.5	290		0827	−1.3	−40
	1935	7.0	213		1550	10.7	326
	2345	9.4	287		2114	5.5	168
10 Sa	0744	−1.3	−40	**25** Su	0202	8.6	262
	1526	9.9	302		0914	−0.9	−27
	2030	7.0	213		1639	10.6	323
				○	2207	5.5	168
11 Su	0035	9.4	287	**26** M	0251	8.2	250
	0833	−1.8	−55		0958	−0.4	−12
	1613	10.3	314		1722	10.5	320
●	2127	6.8	207		2258	5.3	162
12 M	0134	9.4	287	**27** Tu	0344	7.9	241
	0924	−2.0	−61		1040	0.1	3
	1658	10.7	326		1759	10.3	314
	2225	6.2	189		2345	5.0	152
13 Tu	0242	9.2	280	**28** W	0440	7.6	232
	1018	−2.0	−61		1121	0.7	21
	1742	11.1	338		1831	10.1	308
	2324	5.3	162				
14 W	0404	8.9	271	**29** Th	0030	4.5	137
	1114	−1.6	−49		0538	7.5	229
	1824	11.4	347		1202	1.4	43
					1900	10.0	305
15 Th	0023	4.2	128	**30** F	0113	3.9	119
	0531	8.8	268		0638	7.4	226
	1211	−0.9	−27		1243	2.2	67
	1907	11.7	357		1927	9.7	296
				31 Sa	0152	3.3	101
					0738	7.6	232
					1326	3.0	91
					1953	9.5	290

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0229	2.6	79	**16** M	0243	−0.9	−27
	0837	7.8	238		0923	10.5	320
	1410	3.7	113		1502	3.0	91
	2017	9.2	280	◐	2049	10.8	329
2 M	0304	1.9	58	**17** Tu	0338	−1.4	−43
	0934	8.1	247		1029	10.8	329
	1454	4.5	137		1603	3.6	110
◑	2039	9.0	274		2140	10.5	320
3 Tu	0339	1.3	40	**18** W	0434	−1.6	−49
	1029	8.4	256		1131	10.9	332
	1539	5.2	158		1703	4.1	125
	2059	9.0	274		2232	10.1	308
4 W	0415	0.7	21	**19** Th	0529	−1.5	−46
	1123	8.7	265		1232	10.8	329
	1626	5.8	177		1804	4.5	137
	2122	9.0	274		2325	9.7	296
5 Th	0454	0.2	6	**20** F	0624	−1.2	−37
	1215	9.0	274		1329	10.7	326
	1715	6.3	192		1902	4.7	143
	2155	9.2	280				
6 F	0538	−0.4	−12	**21** Sa	0017	9.3	283
	1306	9.3	283		0716	−0.9	−27
	1806	6.6	201		1424	10.5	320
	2237	9.4	287		1957	4.8	146
7 Sa	0626	−0.9	−27	**22** Su	0108	8.9	271
	1354	9.5	290		0805	−0.4	−12
	1900	6.6	201		1514	10.2	311
	2329	9.6	293		2049	4.8	146
8 Su	0716	−1.3	−40	**23** M	0158	8.5	259
	1441	9.8	299		0851	0.2	6
	1956	6.3	192		1559	9.9	302
					2138	4.7	143
9 M	0028	9.6	293	**24** Tu	0250	8.2	250
	0809	−1.5	−46		0935	0.8	24
	1527	10.1	308		1638	9.6	293
●	2054	5.8	177	○	2224	4.5	137
10 Tu	0136	9.6	293	**25** W	0344	7.9	241
	0904	−1.4	−43		1017	1.5	46
	1612	10.4	317		1710	9.3	283
	2154	4.9	149		2306	4.1	125
11 W	0254	9.4	287	**26** Th	0441	7.8	238
	1000	−1.1	−34		1058	2.2	67
	1655	10.7	326		1738	9.0	274
	2253	3.7	113		2346	3.6	110
12 Th	0420	9.3	283	**27** F	0537	7.9	241
	1058	−0.4	−12		1140	2.9	88
	1739	11.0	335		1804	8.8	268
	2352	2.4	73				
13 F	0543	9.5	290	**28** Sa	0023	3.1	94
	1158	0.4	12		0633	8.1	247
	1824	11.1	338		1224	3.5	107
					1828	8.6	262
14 Sa	0049	1.1	34	**29** Su	0059	2.5	76
	0701	9.8	299		0727	8.4	256
	1258	1.4	43		1309	4.1	125
	1910	11.1	338		1853	8.4	256
15 Su	0146	−0.1	−3	**30** M	0134	1.9	58
	0815	10.2	311		0819	8.7	265
	1400	2.2	67		1355	4.7	143
	1959	11.0	335		1916	8.3	253
				31 Tu	0210	1.4	43
					0910	9.0	274
					1441	5.1	155
					1941	8.3	253

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0247	0.8	24	**16** Th	0404	−1.3	−40
	0959	9.3	283		1103	11.3	344
	1525	5.5	168		1648	3.8	116
◑	2010	8.5	259		2215	9.4	287
2 Th	0328	0.3	9	**17** F	0459	−0.9	−27
	1048	9.4	287		1158	11.0	335
	1610	5.8	177		1745	3.9	119
	2047	8.7	265		2311	9.1	277
3 F	0414	−0.1	−3	**18** Sa	0554	−0.4	−12
	1137	9.5	290		1251	10.7	326
	1657	6.0	183		1840	3.9	119
	2133	9.0	274				
4 Sa	0503	−0.5	−15	**19** Su	0007	8.8	268
	1224	9.7	296		0646	0.2	6
	1747	5.9	180		1339	10.3	314
	2227	9.2	280		1932	3.9	119
5 Su	0557	−0.7	−21	**20** M	0101	8.6	262
	1309	9.8	299		0735	0.9	27
	1840	5.5	168		1422	9.8	299
	2330	9.3	283		2019	3.7	113
6 M	0652	−0.7	−21	**21** Tu	0156	8.4	256
	1352	9.9	302		0822	1.7	52
	1934	4.9	149		1500	9.3	283
					2103	3.5	107
7 Tu	0039	9.4	287	**22** W	0251	8.2	250
	0747	−0.5	−15		0907	2.5	76
	1434	10.0	305		1533	8.8	268
	2030	4.0	122		2144	3.2	98
8 W	0155	9.5	290	**23** Th	0347	8.2	250
	0845	0.0	0		0951	3.2	98
	1517	10.1	308		1601	8.4	256
●	2127	2.8	85	○	2221	2.8	85
9 Th	0315	9.6	293	**24** F	0443	8.4	256
	0944	0.7	21		1036	3.9	119
	1602	10.2	311		1625	8.1	247
	2224	1.6	49		2255	2.4	73
10 F	0435	9.9	302	**25** Sa	0535	8.7	265
	1045	1.5	46		1122	4.4	134
	1649	10.3	314		1649	7.8	238
	2321	0.5	15		2329	1.9	58
11 Sa	0550	10.4	317	**26** Su	0625	9.0	274
	1146	2.2	67		1209	4.9	149
	1739	10.3	314		1712	7.6	232
12 Su	0017	−0.5	−15	**27** M	0003	1.5	46
	0700	10.8	329		0714	9.4	287
	1249	2.8	85		1257	5.2	158
	1830	10.2	311		1737	7.6	232
13 M	0114	−1.1	−34	**28** Tu	0039	1.0	30
	0806	11.2	341		0801	9.7	296
	1351	3.2	98		1345	5.4	165
	1925	10.0	305		1808	7.7	235
14 Tu	0211	−1.4	−43	**29** W	0120	0.6	18
	0908	11.4	347		0847	10.0	305
	1452	3.5	107		1431	5.6	171
◐	2021	9.9	302		1847	7.8	238
15 W	0308	−1.5	−46	**30** Th	0204	0.2	6
	1006	11.5	351		0933	10.2	311
	1551	3.7	113		1516	5.6	171
	2118	9.6	293	◑	1934	8.0	244

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Port Moller, Bristol Bay, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0252	−0.1	−3
	1017	10.2	311
	1601	5.5	168
	2028	8.3	253
2 Sa	0342	−0.3	−9
	1101	10.2	311
	1648	5.3	162
	2129	8.5	259
3 Su	0436	−0.2	−6
	1143	10.2	311
	1737	4.7	143
	2237	8.7	265
4 M	0532	0.1	3
	1224	10.2	311
	1829	3.9	119
	2350	8.9	271
5 Tu	0630	0.6	18
	1303	10.2	311
	1920	2.9	88
6 W	0104	9.1	277
	0729	1.2	37
	1342	10.1	308
	2012	1.7	52
7 Th ●	0219	9.5	290
	0829	2.0	61
	1424	10.1	308
	2104	0.6	18
8 F	0334	10.0	305
	0931	2.8	85
	1509	9.9	302
	2158	−0.4	−12
9 Sa	0445	10.6	323
	1034	3.4	104
	1600	9.7	296
	2252	−1.1	−34
10 Su	0551	11.2	341
	1137	3.8	116
	1654	9.5	290
	2347	−1.5	−46
11 M	0653	11.6	354
	1239	4.0	122
	1752	9.3	283
12 Tu	0043	−1.6	−49
	0752	11.9	363
	1340	4.0	122
	1852	9.1	277
13 W	0140	−1.5	−46
	0847	12.0	366
	1439	3.9	119
	1954	8.9	271
14 Th ◐	0236	−1.2	−37
	0940	11.8	360
	1536	3.7	113
	2055	8.8	268
15 F	0331	−0.7	−21
	1031	11.6	354
	1630	3.5	107
	2155	8.6	262

	Time	Height	
	h m	ft	cm
16 Sa	0424	−0.1	−3
	1120	11.2	341
	1724	3.3	101
	2254	8.5	259
17 Su	0517	0.7	21
	1205	10.7	326
	1815	3.1	94
	2354	8.3	253
18 M	0609	1.5	46
	1245	10.2	311
	1902	2.8	85
19 Tu	0053	8.3	253
	0658	2.4	73
	1321	9.6	293
	1945	2.5	76
20 W	0151	8.3	253
	0747	3.3	101
	1350	9.0	274
	2024	2.1	64
21 Th	0248	8.5	259
	0834	4.1	125
	1415	8.4	256
	2059	1.8	55
22 F ○	0344	8.8	268
	0923	4.9	149
	1435	8.0	244
	2132	1.4	43
23 Sa	0437	9.1	277
	1012	5.4	165
	1450	7.7	235
	2204	1.1	34
24 Su	0525	9.5	290
	1102	5.8	177
	1506	7.5	229
	2237	0.7	21
25 M	0611	9.9	302
	1151	6.0	183
	1535	7.5	229
	2314	0.3	9
26 Tu	0656	10.3	314
	1241	6.1	186
	1617	7.5	229
	2356	0.0	0
27 W	0740	10.6	323
	1329	6.0	183
	1709	7.5	229
28 Th	0042	−0.3	−9
	0824	10.8	329
	1417	5.8	177
	1808	7.6	232
29 F	0132	−0.4	−12
	0906	10.9	332
	1504	5.4	165
	1915	7.7	235
30 Sa ◑	0224	−0.4	−12
	0947	11.0	335
	1551	4.9	149
	2029	7.8	238
31 Su	0318	−0.1	−3
	1027	11.0	335
	1639	4.1	125
	2145	8.0	244

November

	Time	Height	
	h m	ft	cm
1 M	0413	0.5	15
	1105	10.9	332
	1728	3.1	94
	2301	8.3	253
2 Tu	0512	1.3	40
	1142	10.8	329
	1818	1.9	58
3 W	0017	8.7	265
	0613	2.2	67
	1220	10.6	323
	1907	0.7	21
4 Th	0129	9.3	283
	0715	3.1	94
	1258	10.3	314
	1956	−0.4	−12
5 F ●	0239	9.9	302
	0818	3.9	119
	1339	10.1	308
	2046	−1.2	−37
6 Sa	0347	10.6	323
	0921	4.5	137
	1425	9.7	296
	2136	−1.7	−52
7 Su	0449	11.2	341
	1024	4.9	149
	1516	9.3	283
	2228	−2.0	−61
8 M	0548	11.7	357
	1126	4.9	149
	1614	8.9	271
	2321	−1.9	−58
9 Tu	0642	11.9	363
	1227	4.8	146
	1716	8.6	262
10 W	0015	−1.7	−52
	0735	12.1	369
	1326	4.5	137
	1820	8.3	253
11 Th	0109	−1.3	−40
	0825	12.0	366
	1423	4.2	128
	1924	8.1	247
12 F	0202	−0.7	−21
	0912	11.9	363
	1517	3.7	113
	2028	8.0	244
13 Sa ◐	0254	0.0	0
	0956	11.6	354
	1609	3.3	101
	2132	7.9	241
14 Su	0345	0.8	24
	1037	11.2	341
	1658	2.8	85
	2235	7.8	238
15 M	0435	1.8	55
	1114	10.7	326
	1745	2.3	70
	2338	7.9	241

	Time	Height	
	h m	ft	cm
16 Tu	0526	2.8	85
	1148	10.1	308
	1828	1.8	55
17 W	0040	8.1	247
	0617	3.8	116
	1216	9.5	290
	1907	1.4	43
18 Th	0140	8.4	256
	0708	4.8	146
	1240	8.9	271
	1942	1.0	30
19 F	0237	8.8	268
	0759	5.5	168
	1256	8.5	259
	2015	0.6	18
20 Sa	0330	9.2	280
	0850	6.1	186
	1307	8.2	250
	2046	0.2	6
21 Su ○	0420	9.6	293
	0941	6.5	198
	1322	8.1	247
	2119	−0.2	−6
22 M	0505	10.1	308
	1031	6.7	204
	1352	8.0	244
	2156	−0.5	−15
23 Tu	0549	10.4	317
	1122	6.8	207
	1435	7.9	241
	2238	−0.8	−24
24 W	0632	10.8	329
	1212	6.6	201
	1531	7.9	241
	2325	−1.0	−30
25 Th	0714	11.1	338
	1303	6.2	189
	1637	7.7	235
26 F	0015	−1.0	−30
	0755	11.3	344
	1354	5.6	171
	1754	7.6	232
27 Sa	0108	−0.8	−24
	0835	11.5	351
	1445	4.7	143
	1919	7.6	232
28 Su ◑	0203	−0.3	−9
	0914	11.6	354
	1534	3.7	113
	2044	7.6	232
29 M	0259	0.5	15
	0952	11.5	351
	1624	2.4	73
	2205	7.9	241
30 Tu	0357	1.5	46
	1029	11.3	344
	1714	1.2	37
	2323	8.4	256

December

	Time	Height	
	h m	ft	cm
1 W	0458	2.6	79
	1107	11.1	338
	1803	0.0	0
2 Th	0036	9.1	277
	0602	3.7	113
	1146	10.8	329
	1853	−1.0	−30
3 F	0145	9.8	299
	0707	4.6	140
	1226	10.4	317
	1941	−1.8	−55
4 Sa	0249	10.5	320
	0810	5.2	158
	1309	10.0	305
	2030	−2.2	−67
5 Su ●	0350	11.0	335
	0912	5.5	168
	1355	9.5	290
	2119	−2.3	−70
6 M	0446	11.4	347
	1013	5.7	174
	1446	9.0	274
	2209	−2.1	−64
7 Tu	0538	11.7	357
	1112	5.6	171
	1544	8.6	262
	2259	−1.8	−55
8 W	0627	11.8	360
	1210	5.3	162
	1646	8.2	250
	2349	−1.4	−43
9 Th	0714	11.8	360
	1307	4.9	149
	1750	7.8	238
10 F	0039	−0.8	−24
	0758	11.7	357
	1401	4.4	134
	1855	7.6	232
11 Sa	0128	−0.1	−3
	0838	11.5	351
	1452	3.7	113
	2002	7.4	226
12 Su	0216	0.8	24
	0915	11.3	344
	1540	3.1	94
	2108	7.4	226
13 M ◐	0304	1.8	55
	0949	10.9	332
	1625	2.4	73
	2213	7.5	229
14 Tu	0352	2.9	88
	1021	10.4	317
	1707	1.8	55
	2318	7.8	238
15 W	0442	3.9	119
	1049	9.8	299
	1747	1.2	37

	Time	Height	
	h m	ft	cm
16 Th	0021	8.1	247
	0534	4.9	149
	1113	9.3	283
	1824	0.7	21
17 F	0119	8.6	262
	0628	5.8	177
	1132	8.9	271
	1858	0.3	9
18 Sa	0213	9.0	274
	0720	6.4	195
	1146	8.7	265
	1931	−0.2	−6
19 Su	0304	9.4	287
	0810	6.8	207
	1205	8.7	265
	2005	−0.6	−18
20 M ○	0351	9.8	299
	0900	7.1	216
	1237	8.7	265
	2042	−1.0	−30
21 Tu	0436	10.2	311
	0950	7.2	219
	1319	8.7	265
	2125	−1.3	−40
22 W	0518	10.6	323
	1041	7.0	213
	1411	8.6	262
	2211	−1.5	−46
23 Th	0559	10.9	332
	1134	6.5	198
	1515	8.4	256
	2302	−1.5	−46
24 F	0639	11.2	341
	1229	5.8	177
	1634	8.1	247
	2354	−1.2	−37
25 Sa	0719	11.5	351
	1323	4.7	143
	1803	7.9	241
26 Su	0050	−0.6	−18
	0758	11.7	357
	1417	3.5	107
	1933	7.9	241
27 M ◑	0147	0.3	9
	0837	11.7	357
	1510	2.1	64
	2058	8.1	247
28 Tu	0246	1.4	43
	0917	11.6	354
	1602	0.7	21
	2216	8.6	262
29 W	0347	2.6	79
	0957	11.4	347
	1654	−0.4	−12
	2331	9.2	280
30 Th	0451	3.7	113
	1039	11.1	338
	1746	−1.4	−43
31 F	0040	9.9	302
	0556	4.6	140
	1122	10.7	326
	1837	−2.0	−61

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nushagak Bay (Clarks Pt.), Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 F	0158	15.7 / 479	**16** Sa	0324	13.3 / 405
	0848	−3.5 / −107		0949	1.0 / 30
	1546	22.3 / 680		1651	19.2 / 585
	2201	6.4 / 195		2304	6.8 / 207
2 Sa	0302	15.9 / 485	**17** Su	0412	13.0 / 396
	0943	−3.3 / −101		1033	1.9 / 58
	1636	22.8 / 695		1726	18.8 / 573
	2255	5.1 / 155		2345	6.3 / 192
3 Su	0408	16.1 / 491	**18** M	0502	13.0 / 396
	1040	−2.6 / −79		1116	2.8 / 85
	1725	22.9 / 698		1758	18.4 / 561
	2349	3.5 / 107			
4 M	0517	16.5 / 503	**19** Tu	0024	5.6 / 171
	1138	−1.5 / −46		0552	13.2 / 402
	1814	22.7 / 692		1200	3.8 / 116
				1829	17.9 / 546
5 Tu	0042	1.8 / 55	**20** W	0101	4.8 / 146
	0627	17.0 / 518		0643	13.7 / 418
	1238	−0.2 / −6		1246	4.7 / 143
	1903	22.2 / 677		1859	17.5 / 533
6 W	0135	0.2 / 6	**21** Th	0138	3.9 / 119
	0736	17.7 / 539		0734	14.4 / 439
	1339	1.4 / 43		1333	5.6 / 171
	1952	21.5 / 655		1930	17.1 / 521
7 Th ◑	0228	−1.2 / −37	**22** F	0215	2.9 / 88
	0844	18.5 / 564		0825	15.3 / 466
	1440	2.9 / 88		1422	6.3 / 192
	2042	20.6 / 628		2003	16.7 / 509
8 F	0320	−2.2 / −67	**23** Sa ◐	0252	1.8 / 55
	0951	19.2 / 585		0915	16.2 / 494
	1542	4.2 / 128		1513	7.0 / 213
	2132	19.5 / 594		2038	16.4 / 500
9 Sa	0412	−2.8 / −85	**24** Su	0332	0.7 / 21
	1055	19.8 / 604		1006	17.3 / 527
	1644	5.3 / 162		1604	7.5 / 229
	2223	18.4 / 561		2116	16.3 / 497
10 Su	0504	−3.0 / −91	**25** M	0414	−0.4 / −12
	1156	20.2 / 616		1057	18.3 / 558
	1746	6.1 / 186		1657	7.8 / 238
	2315	17.3 / 527		2200	16.2 / 494
11 M	0555	−2.8 / −85	**26** Tu	0459	−1.4 / −43
	1255	20.4 / 622		1149	19.3 / 588
	1845	6.7 / 204		1751	7.9 / 241
				2248	16.3 / 497
12 Tu	0006	16.2 / 494	**27** W	0547	−2.3 / −70
	0645	−2.2 / −67		1241	20.2 / 616
	1350	20.4 / 622		1845	7.6 / 232
	1943	7.1 / 216		2342	16.4 / 500
13 W	0057	15.3 / 466	**28** Th	0639	−2.9 / −88
	0733	−1.6 / −49		1333	21.0 / 640
	1441	20.2 / 616		1940	7.0 / 213
	2038	7.3 / 223			
14 Th ●	0147	14.5 / 442	**29** F ○	0042	16.6 / 506
	0820	−0.8 / −24		0733	−3.2 / −98
	1529	20.0 / 610		1424	21.5 / 655
	2130	7.3 / 223		2035	6.1 / 186
15 F	0235	13.8 / 421	**30** Sa	0146	16.8 / 512
	0906	0.1 / 3		0829	−3.0 / −91
	1612	19.6 / 597		1515	21.9 / 668
	2219	7.2 / 219		2130	4.8 / 146
			31 Su	0253	17.1 / 521
				0927	−2.4 / −73
				1606	22.0 / 671
				2225	3.2 / 98

February

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0402	17.6 / 536	**16** Tu	0445	14.2 / 433
	1026	−1.4 / −43		1056	4.1 / 125
	1656	21.8 / 664		1715	16.8 / 512
	2319	1.6 / 49		2339	4.7 / 143
2 Tu	0511	18.2 / 555	**17** W	0533	14.7 / 448
	1126	−0.1 / −3		1142	4.9 / 149
	1746	21.4 / 652		1746	16.4 / 500
3 W	0013	0.0 / 0	**18** Th	0016	4.0 / 122
	0619	18.8 / 573		0621	15.3 / 466
	1227	1.2 / 37		1229	5.6 / 171
	1836	20.8 / 634		1817	16.0 / 488
4 Th	0106	−1.2 / −37	**19** F	0053	3.1 / 94
	0726	19.4 / 591		0709	16.1 / 491
	1328	2.5 / 76		1316	6.2 / 189
	1927	20.1 / 613		1850	15.7 / 479
5 F ◑	0200	−2.1 / −64	**20** Sa	0131	2.2 / 67
	0830	19.9 / 607		0756	16.9 / 515
	1428	3.7 / 113		1404	6.7 / 204
	2018	19.2 / 585		1925	15.6 / 475
6 Sa	0253	−2.5 / −76	**21** Su ◐	0210	1.2 / 37
	0933	20.2 / 616		0844	17.8 / 543
	1528	4.6 / 140		1452	7.0 / 213
	2110	18.3 / 558		2003	15.7 / 479
7 Su	0346	−2.6 / −79	**22** M	0253	0.2 / 6
	1033	20.3 / 619		0933	18.6 / 567
	1627	5.4 / 165		1542	7.2 / 219
	2202	17.4 / 530		2047	15.8 / 482
8 M	0438	−2.2 / −67	**23** Tu	0339	−0.7 / −21
	1131	20.2 / 616		1024	19.3 / 588
	1725	6.0 / 183		1632	7.1 / 216
	2254	16.6 / 506		2137	16.1 / 491
9 Tu	0529	−1.7 / −52	**24** W	0429	−1.5 / −46
	1227	19.9 / 607		1115	19.9 / 607
	1821	6.5 / 198		1724	6.8 / 207
	2346	15.8 / 482		2232	16.5 / 503
10 W	0619	−1.0 / −30	**25** Th	0521	−1.9 / −58
	1319	19.6 / 597		1207	20.4 / 622
	1914	6.8 / 207		1818	6.2 / 189
				2332	16.8 / 512
11 Th	0036	15.1 / 460	**26** F	0617	−2.1 / −64
	0708	−0.2 / −6		1259	20.7 / 631
	1408	19.2 / 585		1912	5.2 / 158
	2006	6.9 / 210			
12 F	0126	14.6 / 445	**27** Sa	0036	17.3 / 527
	0755	0.6 / 18		0715	−1.8 / −55
	1453	18.7 / 570		1350	20.9 / 637
	2054	6.8 / 207		2006	3.9 / 119
13 Sa ●	0216	14.2 / 433	**28** Su ○	0143	17.9 / 546
	0841	1.5 / 46		0814	−1.2 / −37
	1533	18.3 / 558		1442	20.8 / 634
	2139	6.5 / 198		2100	2.4 / 73
14 Su	0306	14.0 / 427			
	0926	2.4 / 73			
	1610	17.8 / 543			
	2222	6.0 / 183			
15 M	0355	14.0 / 427			
	1011	3.3 / 101			
	1643	17.3 / 527			
	2301	5.4 / 165			

March

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0251	18.5 / 564	**16** Tu	0340	15.5 / 472
	0914	−0.3 / −9		0951	4.8 / 146
	1533	20.5 / 625		1552	15.7 / 479
	2155	0.9 / 27		2214	4.0 / 122
2 Tu	0358	19.2 / 585	**17** W	0428	16.0 / 488
	1015	0.7 / 21		1039	5.4 / 165
	1624	20.1 / 613		1626	15.2 / 463
	2249	−0.4 / −12		2252	3.4 / 104
3 W	0505	20.0 / 610	**18** Th	0514	16.7 / 509
	1116	1.7 / 52		1127	5.9 / 180
	1716	19.5 / 594		1700	14.8 / 451
	2342	−1.4 / −43		2330	2.7 / 82
4 Th	0609	20.5 / 625	**19** F	0559	17.4 / 530
	1217	2.6 / 79		1214	6.3 / 192
	1808	18.9 / 576		1734	14.6 / 445
5 F	0036	−2.0 / −61	**20** Sa	0009	2.0 / 61
	0711	20.9 / 637		0644	18.1 / 552
	1316	3.5 / 107		1301	6.6 / 201
	1901	18.2 / 555		1811	14.5 / 442
6 Sa	0129	−2.2 / −67	**21** Su	0049	1.2 / 37
	0810	21.0 / 640		0729	18.8 / 573
	1414	4.2 / 128		1348	6.7 / 204
	1954	17.5 / 533		1852	14.7 / 448
7 Su ◑	0223	−2.0 / −61	**22** M	0133	0.5 / 15
	0908	20.8 / 634		0816	19.4 / 591
	1511	4.7 / 143		1435	6.6 / 201
	2047	16.9 / 515		1938	15.0 / 457
8 M	0315	−1.5 / −46	**23** Tu ◐	0220	−0.2 / −6
	1004	20.4 / 622		0904	19.9 / 607
	1606	5.2 / 158		1523	6.4 / 195
	2140	16.3 / 497		2029	15.4 / 469
9 Tu	0407	−0.9 / −27	**24** W	0310	−0.6 / −18
	1057	19.9 / 607		0954	20.3 / 619
	1659	5.6 / 171		1612	5.8 / 177
	2232	15.8 / 482		2125	15.9 / 485
10 W	0458	−0.1 / −3	**25** Th	0404	−0.8 / −24
	1148	19.3 / 588		1044	20.5 / 625
	1751	5.8 / 177		1703	5.0 / 152
	2324	15.3 / 466		2227	16.5 / 503
11 Th	0549	0.7 / 21	**26** F	0501	−0.7 / −21
	1237	18.7 / 570		1134	20.5 / 625
	1840	5.8 / 177		1755	3.9 / 119
				2331	17.2 / 524
12 F	0016	15.0 / 457	**27** Sa	0600	−0.2 / −6
	0638	1.6 / 49		1225	20.3 / 619
	1322	18.1 / 552		1847	2.6 / 79
	1927	5.7 / 174			
13 Sa	0108	14.9 / 454	**28** Su	0038	18.0 / 549
	0726	2.4 / 73		0701	0.5 / 15
	1403	17.5 / 533		1316	20.0 / 610
	2012	5.4 / 165		1940	1.2 / 37
14 Su	0159	14.9 / 454	**29** M ○	0145	19.0 / 579
	0814	3.3 / 101		0803	1.4 / 43
	1442	16.9 / 515		1408	19.5 / 594
	2054	5.0 / 152		2033	−0.1 / −3
15 M ●	0250	15.1 / 460	**30** Tu	0251	19.9 / 607
	0903	4.1 / 125		0905	2.2 / 67
	1518	16.3 / 497		1500	18.8 / 573
	2135	4.5 / 137		2127	−1.2 / −37
			31 W	0355	20.8 / 634
				1007	2.9 / 88
				1553	18.2 / 555
				2220	−1.9 / −58

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nushagak Bay (Clarks Pt.), Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0456	21.4	652	**16** F	0451	18.7	570
	1107	3.5	107		1109	6.8	207
	1647	17.5	533		1611	13.8	421
	2313	−2.1	−64		2247	1.0	30
2 F	0555	21.8	664	**17** Sa	0535	19.4	591
	1206	4.0	122		1156	6.8	207
	1741	16.9	515		1652	13.7	418
					2329	0.5	15
3 Sa	0006	−2.0	−61	**18** Su	0620	20.0	610
	0652	21.8	664		1243	6.7	204
	1303	4.3	131		1737	13.9	424
	1835	16.3	497				
4 Su	0058	−1.6	−49	**19** M	0014	0.0	0
	0746	21.5	655		0705	20.5	625
	1358	4.6	140		1330	6.4	195
	1929	15.8	482		1827	14.2	433
5 M	0150	−0.9	−27	**20** Tu	0102	−0.3	−9
	0839	21.0	640		0751	20.9	637
	1451	4.8	146		1417	5.8	177
	2022	15.4	469		1921	14.6	445
6 Tu ◑	0241	−0.2	−6	**21** W ◐	0153	−0.4	−12
	0929	20.3	619		0838	21.1	643
	1541	4.9	149		1505	5.0	152
	2115	15.1	460		2020	15.2	463
7 W	0332	0.7	21	**22** Th	0248	−0.2	−6
	1017	19.6	597		0926	21.1	643
	1630	4.9	149		1554	3.9	119
	2208	14.9	454		2124	15.9	485
8 Th	0423	1.7	52	**23** F	0345	0.4	12
	1102	18.8	573		1014	20.9	637
	1717	4.8	146		1644	2.6	79
	2301	14.9	454		2230	16.8	512
9 F	0513	2.6	79	**24** Sa	0445	1.2	37
	1145	18.1	552		1103	20.4	622
	1802	4.5	137		1735	1.2	37
	2355	15.0	457		2337	17.8	543
10 Sa	0604	3.5	107	**25** Su	0547	2.1	64
	1225	17.3	527		1153	19.8	604
	1846	4.2	128		1826	−0.2	−6
11 Su	0048	15.3	466	**26** M	0043	19.0	579
	0655	4.4	134		0651	3.1	94
	1304	16.5	503		1244	19.0	579
	1928	3.7	113		1918	−1.4	−43
12 M	0141	15.8	482	**27** Tu	0148	20.1	613
	0746	5.2	158		0754	3.9	119
	1342	15.8	482		1336	18.1	552
	2008	3.2	98		2010	−2.2	−67
13 Tu	0231	16.4	500	**28** W ○	0250	21.1	643
	0838	5.8	177		0857	4.5	137
	1419	15.1	460		1430	17.3	527
	2048	2.6	79		2102	−2.6	−79
14 W ●	0320	17.2	524	**29** Th	0350	21.8	664
	0929	6.3	192		0958	4.8	146
	1456	14.6	445		1524	16.5	503
	2127	2.1	64		2153	−2.6	−79
15 Th	0406	17.9	546	**30** F	0446	22.1	674
	1020	6.6	201		1057	5.0	152
	1533	14.1	430		1618	15.7	479
	2206	1.6	49		2245	−2.2	−67

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0540	22.2	677	**16** Su	0510	21.0	640
	1153	5.1	155		1132	7.1	216
	1713	15.1	460		1616	13.7	418
	2336	−1.6	−49		2256	−1.0	−30
2 Su	0631	21.9	668	**17** M	0555	21.5	655
	1247	5.1	155		1220	6.5	198
	1807	14.6	445		1711	13.9	424
					2346	−1.1	−34
3 M	0026	−0.8	−24	**18** Tu	0640	21.8	664
	0720	21.4	652		1308	5.6	171
	1338	5.0	152		1810	14.3	436
	1901	14.3	436				
4 Tu	0116	0.2	6	**19** W	0038	−0.8	−24
	0807	20.8	634		0726	22.0	671
	1427	4.9	149		1356	4.5	137
	1954	14.1	430		1913	14.9	454
5 W ◑	0205	1.2	37	**20** Th ◐	0133	−0.2	−6
	0850	20.1	613		0812	21.9	668
	1514	4.7	143		1445	3.1	94
	2047	14.0	427		2018	15.6	475
6 Th	0254	2.2	67	**21** F	0231	0.7	21
	0932	19.3	588		0859	21.5	655
	1558	4.3	131		1535	1.6	49
	2142	14.2	433		2126	16.5	503
7 F	0344	3.3	101	**22** Sa	0332	1.9	58
	1011	18.5	564		0947	20.9	637
	1641	3.8	116		1625	0.1	3
	2236	14.5	442		2234	17.6	536
8 Sa	0435	4.4	134	**23** Su	0434	3.1	94
	1049	17.7	539		1035	20.1	613
	1722	3.2	98		1715	−1.3	−40
	2331	15.1	460		2340	18.8	573
9 Su	0527	5.3	162	**24** M	0538	4.2	128
	1126	16.9	515		1125	19.2	585
	1803	2.6	79		1806	−2.4	−73
10 M	0025	15.9	485	**25** Tu	0045	20.0	610
	0621	6.2	189		0642	5.1	155
	1203	16.1	491		1217	18.1	552
	1843	1.9	58		1857	−3.0	−91
11 Tu	0116	16.7	509	**26** W	0146	20.9	637
	0715	6.8	207		0745	5.7	174
	1241	15.3	466		1310	17.1	521
	1923	1.3	40		1949	−3.2	−98
12 W	0206	17.7	539	**27** Th ○	0245	21.6	658
	0809	7.3	223		0847	6.0	183
	1319	14.7	448		1403	16.1	491
	2003	0.7	21		2040	−3.0	−91
13 Th ●	0253	18.6	567	**28** F	0341	22.0	671
	0902	7.5	229		0947	6.2	189
	1359	14.2	433		1458	15.3	466
	2044	0.2	6		2130	−2.5	−76
14 F	0340	19.5	594	**29** Sa	0433	22.0	671
	0954	7.5	229		1043	6.1	186
	1441	13.8	421		1552	14.5	442
	2126	−0.3	−9		2219	−1.7	−52
15 Sa	0425	20.3	619	**30** Su	0523	21.8	664
	1044	7.4	226		1137	6.0	183
	1527	13.7	418		1645	13.9	424
	2210	−0.7	−21		2308	−0.8	−24
				31 M	0609	21.4	652
					1227	5.8	177
					1738	13.5	411
					2355	0.2	6

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0652	20.9	637	**16** W	0614	22.4	683
	1315	5.5	168		1242	4.3	131
	1831	13.3	405		1800	15.2	463
2 W	0042	1.3	40	**17** Th	0021	−0.7	−21
	0732	20.2	616		0700	22.3	680
	1359	5.0	152		1332	2.7	82
	1924	13.2	402		1908	15.9	485
3 Th	0129	2.4	73	**18** F ◐	0119	0.5	15
	0810	19.6	597		0746	21.9	668
	1441	4.4	134		1422	1.0	30
	2018	13.5	411		2017	16.8	512
4 F ◑	0217	3.6	110	**19** Sa	0219	1.8	55
	0846	18.8	573		0834	21.3	649
	1522	3.7	113		1513	−0.6	−18
	2113	13.9	424		2125	17.8	543
5 Sa	0306	4.7	143	**20** Su	0321	3.2	98
	0921	18.1	552		0922	20.5	625
	1602	2.9	88		1604	−2.0	−61
	2208	14.6	445		2232	18.9	576
6 Su	0358	5.7	174	**21** M	0425	4.5	137
	0955	17.4	530		1012	19.5	594
	1641	2.1	64		1655	−2.9	−88
	2302	15.5	472		2337	19.9	607
7 M	0451	6.6	201	**22** Tu	0528	5.5	168
	1031	16.6	506		1103	18.5	564
	1720	1.3	40		1747	−3.4	−104
	2354	16.5	503				
8 Tu	0546	7.4	226	**23** W	0039	20.7	631
	1107	15.9	485		0631	6.2	189
	1800	0.6	18		1156	17.4	530
					1838	−3.5	−107
9 W	0045	17.5	533	**24** Th	0138	21.2	646
	0641	7.9	241		0733	6.6	201
	1145	15.3	466		1249	16.4	500
	1841	−0.1	−3		1929	−3.1	−94
10 Th	0134	18.5	564	**25** F	0234	21.4	652
	0735	8.2	250		0832	6.8	207
	1226	14.9	454		1343	15.4	469
	1923	−0.8	−24		2020	−2.5	−76
11 F	0222	19.5	594	**26** Sa ○	0326	21.4	652
	0829	8.2	250		0930	6.8	207
	1311	14.5	442		1436	14.6	445
	2006	−1.4	−43		2108	−1.7	−52
12 Sa ●	0309	20.4	622	**27** Su	0416	21.2	646
	0921	8.0	244		1024	6.7	204
	1359	14.4	439		1528	13.9	424
	2052	−1.8	−55		2156	−0.7	−21
13 Su	0355	21.2	646	**28** M	0501	20.8	634
	1012	7.6	232		1114	6.5	198
	1453	14.4	439		1620	13.4	408
	2141	−2.1	−64		2242	0.3	9
14 M	0442	21.8	664	**29** Tu	0543	20.4	622
	1102	6.8	207		1201	6.1	186
	1551	14.5	442		1712	13.1	399
	2231	−2.0	−61		2327	1.4	43
15 Tu	0528	22.2	677	**30** W	0621	19.8	604
	1152	5.7	174		1244	5.6	171
	1654	14.8	451		1804	13.0	396
	2325	−1.6	−49				

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nushagak Bay (Clarks Pt.), Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 Th	0012	2.5 / 76	**16** F	0008	0.1 / 3
	0655	19.2 / 585		0632	21.7 / 661
	1325	5.0 / 152		1303	0.6 / 18
	1857	13.2 / 402		1903	17.7 / 539
2 F	0058	3.6 / 110	**17** Sa	0108	1.4 / 43
	0728	18.6 / 567		0720	21.2 / 646
	1404	4.2 / 128		1356	−1.0 / −30
	1950	13.7 / 418		2010	18.6 / 567
3 Sa	0145	4.7 / 143	**18** Su	0210	2.8 / 85
	0801	18.0 / 549		0810	20.5 / 625
	1442	3.3 / 101		1448	−2.2 / −67
	2043	14.3 / 436	◐	2117	19.4 / 591
4 Su	0235	5.7 / 174	**19** M	0312	4.0 / 122
	0833	17.4 / 530		0901	19.7 / 600
	1520	2.4 / 73		1541	−3.0 / −91
◑	2135	15.2 / 463		2221	20.1 / 613
5 M	0325	6.6 / 201	**20** Tu	0414	5.0 / 152
	0907	16.8 / 512		0953	18.7 / 570
	1558	1.5 / 46		1634	−3.4 / −104
	2227	16.1 / 491		2323	20.6 / 628
6 Tu	0418	7.3 / 223	**21** W	0515	5.8 / 177
	0942	16.3 / 497		1046	17.8 / 543
	1638	0.6 / 18		1726	−3.3 / −101
	2317	17.1 / 521			
7 W	0511	7.9 / 241	**22** Th	0023	20.8 / 634
	1020	15.9 / 485		0616	6.3 / 192
	1719	−0.2 / −6		1139	16.9 / 515
				1819	−2.9 / −88
8 Th	0007	18.1 / 552	**23** F	0120	20.8 / 634
	0605	8.2 / 250		0714	6.6 / 201
	1101	15.6 / 475		1233	16.0 / 488
	1801	−1.0 / −30		1910	−2.2 / −67
9 F	0057	19.1 / 582	**24** Sa	0214	20.6 / 628
	0658	8.4 / 256		0811	6.8 / 207
	1146	15.4 / 469		1326	15.2 / 463
	1847	−1.8 / −55		1959	−1.3 / −40
10 Sa	0146	20.0 / 610	**25** Su	0304	20.3 / 619
	0751	8.2 / 250		0905	6.8 / 207
	1236	15.4 / 469		1419	14.5 / 442
	1934	−2.3 / −70	○	2047	−0.4 / −12
11 Su	0234	20.8 / 634	**26** M	0350	19.9 / 607
	0844	7.7 / 235		0956	6.7 / 204
	1332	15.4 / 469		1510	13.9 / 424
●	2025	−2.6 / −79		2134	0.7 / 21
12 M	0322	21.4 / 652	**27** Tu	0432	19.4 / 591
	0936	6.9 / 210		1042	6.4 / 195
	1433	15.5 / 472		1601	13.6 / 415
	2117	−2.5 / −76		2219	1.7 / 52
13 Tu	0410	21.9 / 668	**28** W	0510	18.8 / 573
	1028	5.6 / 171		1125	5.9 / 180
	1538	15.8 / 482		1652	13.5 / 411
	2212	−2.0 / −61		2304	2.8 / 85
14 W	0457	22.1 / 674	**29** Th	0544	18.3 / 558
	1120	4.1 / 125		1205	5.3 / 162
	1645	16.3 / 497		1743	13.7 / 418
	2309	−1.1 / −34		2349	3.8 / 116
15 Th	0544	22.0 / 671	**30** F	0615	17.7 / 539
	1212	2.4 / 73		1244	4.6 / 140
	1754	16.9 / 515		1833	14.1 / 430
			31 Sa	0035	4.7 / 143
				0647	17.2 / 524
				1321	3.8 / 116
				1922	14.7 / 448

August

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 Su	0122	5.6 / 171	**16** M	0200	3.4 / 104
	0718	16.7 / 509		0747	19.2 / 585
	1358	3.0 / 91		1421	−2.9 / −88
	2011	15.4 / 469	◐	2101	20.8 / 634
2 M	0210	6.3 / 192	**17** Tu	0300	4.3 / 131
	0750	16.3 / 497		0841	18.5 / 564
	1436	2.1 / 64		1516	−3.0 / −91
◑	2100	16.2 / 494		2201	20.9 / 637
3 Tu	0259	7.0 / 213	**18** W	0400	4.9 / 149
	0824	16.0 / 488		0935	17.8 / 543
	1515	1.2 / 37		1610	−2.8 / −85
	2149	17.1 / 521		2300	20.8 / 634
4 W	0349	7.5 / 229	**19** Th	0458	5.4 / 165
	0901	15.8 / 482		1030	17.0 / 518
	1556	0.3 / 9		1703	−2.2 / −67
	2238	17.9 / 546		2357	20.5 / 625
5 Th	0440	7.8 / 238	**20** F	0555	5.8 / 177
	0942	15.8 / 482		1124	16.3 / 497
	1640	−0.5 / −15		1756	−1.4 / −43
	2328	18.7 / 570			
6 F	0531	7.9 / 241	**21** Sa	0052	20.0 / 610
	1028	15.8 / 482		0650	6.0 / 183
	1726	−1.3 / −40		1219	15.7 / 479
				1847	−0.5 / −15
7 Sa	0017	19.5 / 594	**22** Su	0143	19.5 / 594
	0623	7.7 / 235		0743	6.1 / 186
	1119	16.0 / 488		1312	15.1 / 460
	1816	−1.9 / −58		1937	0.4 / 12
8 Su	0107	20.1 / 613	**23** M	0230	19.0 / 579
	0715	7.2 / 219		0832	6.0 / 183
	1216	16.2 / 494		1405	14.7 / 448
	1908	−2.2 / −67		2025	1.4 / 43
9 M	0157	20.6 / 628	**24** Tu	0313	18.3 / 558
	0808	6.4 / 195		0919	5.8 / 177
	1318	16.5 / 503		1457	14.5 / 442
●	2002	−2.1 / −64	○	2112	2.4 / 73
10 Tu	0246	21.0 / 640	**25** W	0352	17.7 / 539
	0901	5.1 / 155		1002	5.5 / 168
	1423	16.9 / 515		1547	14.5 / 442
	2059	−1.6 / −49		2159	3.4 / 104
11 W	0335	21.2 / 646	**26** Th	0427	17.1 / 521
	0954	3.5 / 107		1042	5.0 / 152
	1531	17.5 / 533		1636	14.7 / 448
	2158	−0.8 / −24		2245	4.3 / 131
12 Th	0424	21.1 / 643	**27** F	0500	16.5 / 503
	1047	1.8 / 55		1121	4.5 / 137
	1640	18.3 / 558		1724	15.1 / 460
	2258	0.2 / 6		2331	5.1 / 155
13 F	0513	20.8 / 634	**28** Sa	0532	15.9 / 485
	1140	0.2 / 6		1158	3.9 / 119
	1747	19.1 / 582		1810	15.7 / 479
	2358	1.3 / 40			
14 Sa	0604	20.4 / 622	**29** Su	0018	5.7 / 174
	1234	−1.2 / −37		0603	15.5 / 472
	1853	19.9 / 607		1235	3.2 / 98
				1856	16.3 / 497
15 Su	0059	2.4 / 73	**30** M	0104	6.3 / 192
	0655	19.8 / 604		0636	15.2 / 463
	1327	−2.3 / −70		1313	2.5 / 76
	1958	20.5 / 625		1941	17.0 / 518
			31 Tu	0151	6.7 / 204
				0710	15.0 / 457
				1352	1.8 / 55
				2026	17.6 / 536

September

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 W	0237	7.0 / 213	**16** Th	0342	4.6 / 140
	0747	15.0 / 457		0917	16.6 / 506
	1433	1.0 / 30		1542	−1.4 / −43
◑	2113	18.3 / 558		2230	20.7 / 631
2 Th	0325	7.2 / 219	**17** F	0436	4.8 / 146
	0829	15.2 / 463		1013	16.2 / 494
	1517	0.2 / 6		1636	−0.5 / −15
	2201	18.9 / 576		2323	20.0 / 610
3 F	0413	7.2 / 219	**18** Sa	0529	5.0 / 152
	0915	15.5 / 472		1109	15.8 / 482
	1605	−0.4 / −12		1728	0.5 / 15
	2249	19.4 / 591			
4 Sa	0502	6.9 / 210	**19** Su	0013	19.2 / 585
	1008	15.9 / 485		0620	5.0 / 152
	1656	−0.9 / −27		1204	15.5 / 472
	2339	19.8 / 604		1820	1.5 / 46
5 Su	0552	6.3 / 192	**20** M	0100	18.4 / 561
	1105	16.3 / 497		0708	4.9 / 149
	1749	−1.1 / −34		1258	15.3 / 466
				1910	2.5 / 76
6 M	0028	20.1 / 613	**21** Tu	0143	17.6 / 536
	0644	5.3 / 162		0754	4.7 / 143
	1208	16.9 / 515		1351	15.3 / 466
	1846	−0.9 / −27		2001	3.5 / 107
7 Tu	0118	20.2 / 616	**22** W	0223	16.9 / 515
	0736	4.0 / 122		0837	4.4 / 134
	1314	17.6 / 536		1443	15.5 / 472
	1945	−0.4 / −12		2050	4.4 / 134
8 W	0208	20.2 / 616	**23** Th	0300	16.1 / 491
	0829	2.5 / 76		0917	4.0 / 122
	1421	18.5 / 564		1532	15.9 / 485
●	2045	0.3 / 9	○	2139	5.1 / 155
9 Th	0259	20.0 / 610	**24** F	0336	15.4 / 469
	0922	0.9 / 27		0956	3.6 / 110
	1528	19.4 / 591		1619	16.4 / 500
	2146	1.1 / 34		2228	5.7 / 174
10 F	0350	19.6 / 597	**25** Sa	0410	14.8 / 451
	1015	−0.6 / −18		1034	3.2 / 98
	1634	20.4 / 622		1704	16.9 / 515
	2248	2.0 / 61		2316	6.2 / 189
11 Sa	0442	19.2 / 585	**26** Su	0444	14.3 / 436
	1109	−1.7 / −52		1112	2.7 / 82
	1738	21.2 / 646		1747	17.5 / 533
	2349	2.7 / 82			
12 Su	0535	18.7 / 570	**27** M	0002	6.5 / 198
	1204	−2.5 / −76		0519	14.0 / 427
	1840	21.7 / 661		1150	2.2 / 67
				1830	18.1 / 552
13 M	0049	3.3 / 101	**28** Tu	0048	6.7 / 204
	0630	18.2 / 555		0555	13.9 / 424
	1258	−2.8 / −85		1230	1.7 / 52
	1940	21.8 / 664		1912	18.6 / 567
14 Tu	0148	3.8 / 116	**29** W	0133	6.8 / 207
	0725	17.6 / 536		0633	14.0 / 427
	1353	−2.6 / −79		1311	1.2 / 37
◐	2039	21.7 / 661		1956	19.1 / 582
15 W	0246	4.2 / 128	**30** Th	0218	6.8 / 207
	0821	17.1 / 521		0717	14.2 / 433
	1448	−2.2 / −67		1356	0.6 / 18
	2135	21.3 / 649	◑	2041	19.6 / 597

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nushagak Bay (Clarks Pt.), Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0304	6.5	198	**16** Sa	0411	4.2	128
	0805	14.6	445		0953	15.2	463
	1444	0.3	9		1603	1.3	40
	2127	19.9	607		2241	19.5	594
2 Sa	0350	6.0	183	**17** Su	0459	4.0	122
	0859	15.2	463		1050	15.2	463
	1535	0.1	3		1655	2.5	76
	2214	20.1	613		2326	18.6	567
3 Su	0438	5.2	158	**18** M	0546	3.7	113
	0959	15.9	485		1146	15.3	466
	1631	0.2	6		1748	3.6	110
	2302	20.1	613				
4 M	0527	4.0	122	**19** Tu	0007	17.6	536
	1102	16.7	509		0630	3.4	104
	1729	0.6	18		1241	15.6	475
	2351	20.0	610		1840	4.7	143
5 Tu	0617	2.6	79	**20** W	0047	16.7	509
	1208	17.7	539		0712	3.0	91
	1829	1.2	37		1334	16.1	491
					1933	5.5	168
6 W	0040	19.7	600	**21** Th	0125	15.8	482
	0708	1.1	34		0752	2.6	79
	1315	18.8	573		1424	16.7	509
	1932	2.0	61		2025	6.2	189
7 Th ●	0131	19.2	585	**22** F ○	0202	15.0	457
	0801	−0.4	−12		0832	2.3	70
	1420	20.0	610		1512	17.4	530
	2034	2.7	82		2117	6.7	204
8 F	0223	18.7	570	**23** Sa	0239	14.3	436
	0853	−1.6	−49		0911	1.9	58
	1525	21.2	646		1557	18.0	549
	2137	3.3	101		2207	7.0	213
9 Sa	0317	18.1	552	**24** Su	0316	13.7	418
	0947	−2.5	−76		0950	1.6	49
	1626	22.0	671		1640	18.6	567
	2239	3.7	113		2256	7.1	216
10 Su	0412	17.5	533	**25** M	0354	13.3	405
	1041	−2.9	−88		1029	1.3	40
	1726	22.5	686		1722	19.2	585
	2339	4.0	122		2343	7.2	219
11 M	0508	17.0	518	**26** Tu	0433	13.2	402
	1135	−2.9	−88		1110	0.9	27
	1824	22.7	692		1804	19.7	600
12 Tu	0037	4.1	125	**27** W	0029	7.0	213
	0605	16.5	503		0516	13.2	402
	1230	−2.5	−76		1152	0.6	18
	1919	22.5	686		1846	20.2	616
13 W	0133	4.2	128	**28** Th	0113	6.8	207
	0702	16.1	491		0603	13.4	408
	1324	−1.8	−55		1237	0.4	12
	2013	22.0	671		1929	20.5	625
14 Th ◐	0228	4.2	128	**29** F	0158	6.2	189
	0759	15.7	479		0655	13.8	421
	1418	−0.9	−27		1325	0.3	9
	2105	21.3	649		2012	20.7	631
15 F	0320	4.2	128	**30** Sa ◑	0243	5.4	165
	0856	15.4	469		0752	14.4	439
	1511	0.2	6		1418	0.6	18
	2154	20.4	622		2056	20.8	634
				31 Su	0329	4.3	131
					0854	15.2	463
					1513	1.1	34
					2142	20.6	628

November

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0416	2.9	88	**16** Tu	0507	2.6	79
	0958	16.2	494		1122	15.3	466
	1612	1.8	55		1713	5.5	168
	2229	20.3	619		2311	17.0	518
2 Tu	0505	1.3	40	**17** W	0548	2.0	61
	1105	17.4	530		1217	16.0	488
	1714	2.7	82		1807	6.4	195
	2317	19.7	600		2349	16.1	491
3 W	0554	−0.2	−6	**18** Th	0629	1.5	46
	1211	18.7	570		1308	16.8	512
	1817	3.6	110		1901	7.1	216
4 Th	0007	19.0	579	**19** F	0026	15.3	466
	0645	−1.6	−49		0709	1.1	34
	1316	20.1	613		1357	17.7	539
	1921	4.3	131		1955	7.6	232
5 F ●	0059	18.3	558	**20** Sa	0104	14.5	442
	0737	−2.7	−82		0749	0.7	21
	1419	21.3	649		1444	18.5	564
	2025	4.8	146		2048	7.8	238
6 Sa	0153	17.5	533	**21** Su ○	0143	13.9	424
	0830	−3.3	−101		0829	0.3	9
	1519	22.2	677		1529	19.2	585
	2127	5.1	155		2140	7.9	241
7 Su	0248	16.8	512	**22** M	0224	13.5	411
	0923	−3.5	−107		0910	0.0	0
	1617	22.8	695		1612	19.8	604
	2228	5.1	155		2229	7.8	238
8 M	0345	16.1	491	**23** Tu	0307	13.3	405
	1016	−3.3	−101		0952	−0.2	−6
	1712	23.0	701		1655	20.4	622
	2326	5.0	152		2317	7.5	229
9 Tu	0443	15.5	472	**24** W	0354	13.2	402
	1109	−2.7	−82		1036	−0.4	−12
	1806	22.8	695		1737	20.9	637
10 W	0022	4.9	149	**25** Th	0003	7.0	213
	0540	15.1	460		0445	13.3	405
	1202	−1.8	−55		1122	−0.4	−12
	1857	22.3	680		1819	21.2	646
11 Th	0115	4.6	140	**26** F	0048	6.2	189
	0638	14.7	448		0542	13.6	415
	1254	−0.7	−21		1211	−0.2	−6
	1945	21.7	661		1901	21.4	652
12 F	0206	4.4	134	**27** Sa	0134	5.1	155
	0735	14.5	442		0642	14.2	433
	1345	0.5	15		1304	0.4	12
	2031	20.9	637		1944	21.4	652
13 Sa ◐	0255	4.0	122	**28** Su ◑	0220	3.7	113
	0833	14.4	439		0747	14.9	454
	1436	1.8	55		1400	1.2	37
	2114	20.0	610		2028	21.2	646
14 Su	0341	3.6	110	**29** M	0306	2.1	64
	0930	14.5	442		0853	15.9	485
	1528	3.1	94		1459	2.3	70
	2155	19.0	579		2113	20.7	631
15 M	0425	3.1	94	**30** Tu	0354	0.4	12
	1027	14.8	451		1000	17.2	524
	1620	4.3	131		1600	3.4	104
	2234	18.0	549		2200	20.1	613

December

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0444	−1.2	−37	**16** Th	0506	1.2	37
	1106	18.5	564		1144	16.5	503
	1704	4.5	137		1731	7.5	229
	2249	19.3	588		2254	15.9	485
2 Th	0534	−2.5	−76	**17** F	0546	0.6	18
	1211	19.8	604		1234	17.4	530
	1808	5.3	162		1826	8.0	244
	2340	18.4	561		2332	15.2	463
3 F	0625	−3.4	−104	**18** Sa	0627	0.0	0
	1313	21.0	640		1322	18.2	555
	1912	5.9	180		1920	8.3	253
4 Sa	0034	17.5	533	**19** Su	0012	14.7	448
	0717	−3.8	−116		0708	−0.4	−12
	1413	21.8	664		1409	19.0	579
	2014	6.2	189		2012	8.5	259
5 Su ●	0129	16.7	509	**20** M ○	0054	14.3	436
	0810	−3.9	−119		0751	−0.8	−24
	1510	22.4	683		1455	19.8	604
	2115	6.2	189		2104	8.3	253
6 M	0225	15.9	485	**21** Tu	0140	14.1	430
	0902	−3.5	−107		0835	−1.2	−37
	1605	22.6	689		1539	20.4	622
	2214	6.0	183		2154	8.0	244
7 Tu	0322	15.2	463	**22** W	0231	14.0	427
	0954	−2.8	−85		0921	−1.3	−40
	1656	22.5	686		1623	21.0	640
	2310	5.8	177		2242	7.3	223
8 W	0420	14.6	445	**23** Th	0326	14.0	427
	1045	−1.8	−55		1009	−1.2	−37
	1745	22.1	674		1706	21.4	652
					2330	6.3	192
9 Th	0003	5.4	165	**24** F	0426	14.3	436
	0516	14.1	430		1059	−0.8	−24
	1135	−0.6	−18		1749	21.6	658
	1831	21.6	658				
10 F	0053	5.0	152	**25** Sa	0017	5.0	152
	0613	13.8	421		0530	14.7	448
	1224	0.6	18		1153	−0.1	−3
	1914	20.9	637		1832	21.6	658
11 Sa	0140	4.5	137	**26** Su	0105	3.4	104
	0710	13.7	418		0636	15.4	469
	1313	1.9	58		1249	0.9	27
	1954	20.1	613		1917	21.4	652
12 Su	0224	3.9	119	**27** M ◑	0153	1.6	49
	0806	13.9	424		0744	16.4	500
	1402	3.3	101		1348	2.1	64
	2031	19.2	585		2002	21.0	640
13 M ◐	0306	3.3	101	**28** Tu	0242	−0.1	−3
	0902	14.2	433		0851	17.5	533
	1453	4.5	137		1449	3.4	104
	2107	18.3	558		2049	20.3	619
14 Tu	0347	2.6	79	**29** W	0332	−1.7	−52
	0958	14.9	454		0957	18.7	570
	1544	5.7	174		1552	4.5	137
	2143	17.5	533		2138	19.6	597
15 W	0426	1.8	55	**30** Th	0423	−2.9	−88
	1052	15.6	475		1102	19.8	604
	1637	6.7	204		1655	5.5	168
	2218	16.6	506		2229	18.7	570
				31 F	0515	−3.6	−110
					1204	20.7	631
					1758	6.1	186
					2322	17.8	543

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

St. Michael, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0717	−0.6	−18
	2200	5.3	162
2 Sa	0741	−0.7	−21
	2248	5.2	158
3 Su	0802	−0.6	−18
	2336	4.9	149
4 M	0820	−0.4	−12
5 Tu	0023	4.4	134
	0835	−0.2	−6
	1548	2.1	64
	1753	2.0	61
6 W	0109	3.7	113
	0848	0.0	0
	1605	2.7	82
	2015	2.2	67
7 Th ◑	0154	2.9	88
	0900	0.2	6
	1638	3.3	101
	2311	2.0	61
8 F	0237	2.2	67
	0911	0.3	9
	1716	3.8	116
9 Sa	0920	0.4	12
	1758	4.3	131
10 Su	0924	0.4	12
	1842	4.5	137
11 M	0449	0.4	12
	1927	4.7	143
12 Tu	0528	0.0	0
	2012	4.7	143
13 W	0606	−0.2	−6
	2056	4.7	143
14 Th ●	0643	−0.3	−9
	2137	4.6	140
15 F	0717	−0.3	−9
	2216	4.5	137

	Time	Height	
	h m	ft	cm
16 Sa	0747	−0.3	−9
	2252	4.3	131
17 Su	0813	−0.2	−6
	2324	4.0	122
18 M	0831	0.0	0
	2353	3.7	113
19 Tu	0839	0.2	6
20 W	0019	3.3	101
	0833	0.4	12
21 Th	0039	2.9	88
	0822	0.6	18
	1609	2.6	79
	1959	2.3	70
22 F	0041	2.5	76
	0818	0.7	21
	1620	2.9	88
23 Sa ◐	0819	0.7	21
	1639	3.3	101
24 Su	0823	0.7	21
	1705	3.7	113
25 M	0824	0.6	18
	1739	4.1	125
26 Tu	0759	0.4	12
	1820	4.5	137
27 W	0547	0.1	3
	1907	4.8	146
28 Th	0600	−0.1	−3
	1959	4.9	149
29 F ○	0619	−0.3	−9
	2052	5.0	152
30 Sa	0638	−0.3	−9
	2146	4.8	146
31 Su	0655	−0.2	−6
	2240	4.5	137

February

	Time	Height	
	h m	ft	cm
1 M	0708	0.0	0
	2333	4.0	122
2 Tu	0720	0.2	6
	1351	2.2	67
	1735	1.7	52
3 W	0025	3.5	107
	0731	0.4	12
	1421	2.8	85
	1933	1.7	52
4 Th	0118	2.8	85
	0743	0.5	15
	1458	3.4	104
	2131	1.5	46
5 F ◑	0212	2.1	64
	0756	0.6	18
	1539	3.8	116
	2329	1.3	40
6 Sa	0309	1.6	49
	0809	0.6	18
	1623	4.2	128
7 Su	0118	0.9	27
	0417	1.1	34
	0819	0.7	21
	1710	4.3	131
8 M	0247	0.6	18
	0551	0.8	24
	0820	0.7	21
	1759	4.4	134
9 Tu	0354	0.4	12
	1849	4.4	134
10 W	0446	0.2	6
	1940	4.3	131
11 Th	0530	0.1	3
	2029	4.2	128
12 F	0607	0.1	3
	2115	4.0	122
13 Sa ●	0638	0.2	6
	2158	3.8	116
14 Su	0703	0.3	9
	2239	3.6	110
15 M	0721	0.5	15
	2317	3.3	101

	Time	Height	
	h m	ft	cm
16 Tu	0728	0.7	21
	1405	2.1	64
	1627	2.0	61
	2354	3.0	91
17 W	0718	0.9	27
	1404	2.3	70
	1815	1.9	58
18 Th	0032	2.6	79
	0703	1.0	30
	1415	2.7	82
	1945	1.8	55
19 F	0110	2.2	67
	0656	1.1	34
	1431	3.0	91
	2114	1.6	49
20 Sa	0149	1.8	55
	0658	1.1	34
	1453	3.4	104
	2302	1.3	40
21 Su ◐	0232	1.4	43
	0703	1.0	30
	1521	3.7	113
22 M	0126	1.0	30
	0327	1.1	34
	0708	0.9	27
	1556	4.0	122
23 Tu	0301	0.6	18
	1640	4.3	131
24 W	0349	0.4	12
	1731	4.4	134
25 Th	0423	0.3	9
	1829	4.5	137
26 F	0449	0.2	6
	1930	4.4	134
27 Sa	0509	0.2	6
	2034	4.2	128
28 Su ○	0523	0.4	12
	2137	3.9	119

March

	Time	Height	
	h m	ft	cm
1 M	0535	0.5	15
	1137	2.0	61
	1522	1.5	46
	2239	3.4	104
2 Tu	0545	0.7	21
	1206	2.5	76
	1722	1.4	43
	2341	2.9	88
3 W	0557	0.9	27
	1241	3.1	94
	1902	1.2	37
4 Th	0042	2.4	73
	0610	1.0	30
	1319	3.6	110
	2029	0.9	27
5 F	0143	1.9	58
	0626	1.0	30
	1400	4.0	122
	2148	0.7	21
6 Sa	0246	1.6	49
	0642	1.0	30
	1444	4.2	128
	2305	0.6	18
7 Su ◑	0353	1.3	40
	0657	1.0	30
	1529	4.3	131
8 M	0022	0.5	15
	1617	4.2	128
9 Tu	0137	0.5	15
	1707	4.1	125
10 W	0244	0.4	12
	1800	3.9	119
11 Th	0340	0.4	12
	1856	3.7	113
12 F	0425	0.5	15
	1951	3.5	107
13 Sa	0500	0.6	18
	2046	3.3	101
14 Su	0526	0.8	24
	2140	3.0	91
15 M ●	0541	1.0	30
	1148	2.1	64
	1552	1.9	58
	2232	2.7	82

	Time	Height	
	h m	ft	cm
16 Tu	0541	1.2	37
	1156	2.4	73
	1742	1.7	52
	2324	2.4	73
17 W	0524	1.3	40
	1211	2.7	82
	1852	1.5	46
18 Th	0017	2.2	67
	0510	1.4	43
	1229	3.0	91
	1948	1.2	37
19 F	0111	1.9	58
	0507	1.5	46
	1249	3.3	101
	2039	1.0	30
20 Sa	0209	1.6	49
	0509	1.4	43
	1312	3.6	110
	2131	0.7	21
21 Su	0314	1.4	43
	0511	1.3	40
	1340	3.9	119
	2229	0.6	18
22 M	1415	4.1	125
	2332	0.4	12
23 Tu ◐	1457	4.3	131
24 W	0038	0.4	12
	1546	4.3	131
25 Th	0136	0.3	9
	1643	4.2	128
26 F	0219	0.4	12
	1747	3.9	119
27 Sa	0248	0.5	15
	1900	3.5	107
28 Su	0308	0.7	21
	0937	2.0	61
	1252	1.8	55
	2017	3.1	94
29 M ○	0323	0.9	27
	1001	2.5	76
	1528	1.6	49
	2136	2.6	79
30 Tu	0338	1.1	34
	1034	3.1	94
	1722	1.2	37
	2253	2.2	67
31 W	0353	1.2	37
	1110	3.6	110
	1842	0.7	21

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

St. Michael, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0007	1.8	55
	0410	1.3	40
	1149	4.1	125
	1947	0.4	12
2 F	0120	1.6	49
	0427	1.3	40
	1229	4.4	134
	2045	0.1	3
3 Sa	0234	1.4	43
	0441	1.3	40
	1310	4.5	137
	2141	0.0	0
4 Su	1352	4.4	134
	2237	0.1	3
5 M	1434	4.3	131
	2333	0.1	3
6 Tu ◑	1518	4.1	125
7 W	0029	0.3	9
	1604	3.8	116
8 Th	0121	0.4	12
	1653	3.5	107
9 F	0205	0.6	18
	1748	3.1	94
10 Sa	0239	0.8	24
	1851	2.7	82
11 Su	0258	1.0	30
	0952	2.3	70
	1532	2.1	64
	2004	2.4	73
12 M	0256	1.2	37
	0959	2.6	79
	1714	1.7	52
	2122	2.1	64
13 Tu	0242	1.4	43
	1016	2.9	88
	1809	1.3	40
	2240	1.8	55
14 W ●	0233	1.5	46
	1035	3.3	101
	1853	1.0	30
15 Th	0001	1.6	49
	0228	1.5	46
	1057	3.6	110
	1931	0.6	18

	Time	Height	
	h m	ft	cm
16 F	1120	3.9	119
	2009	0.4	12
17 Sa	1146	4.1	125
	2046	0.1	3
18 Su	1216	4.4	134
	2126	0.0	0
19 M	1250	4.5	137
	2207	−0.1	−3
20 Tu	1330	4.5	137
	2247	−0.1	−3
21 W ◐	1413	4.4	134
	2325	0.0	0
22 Th	1501	4.1	125
	2357	0.2	6
23 F	1554	3.7	113
24 Sa	0023	0.4	12
	1658	3.1	94
25 Su	0043	0.6	18
	0815	2.6	79
	1253	2.1	64
	1823	2.5	76
26 M	0101	0.8	24
	0841	3.1	94
	1608	1.6	49
	2006	1.9	58
27 Tu	0116	1.0	30
	0915	3.7	113
	1729	0.9	27
	2152	1.4	43
28 W ○	0129	1.1	34
	0951	4.2	128
	1825	0.4	12
29 Th	1030	4.5	137
	1915	−0.1	−3
30 F	1109	4.7	143
	2001	−0.3	−9

May

	Time	Height	
	h m	ft	cm
1 Sa	1148	4.8	146
	2046	−0.4	−12
2 Su	1228	4.7	143
	2129	−0.4	−12
3 M	1306	4.5	137
	2211	−0.3	−9
4 Tu	1343	4.3	131
	2251	−0.1	−3
5 W ◑	1418	3.9	119
	2326	0.1	3
6 Th	1451	3.6	110
	2352	0.3	9
7 F	1518	3.1	94
8 Sa	0007	0.6	18
	1501	2.6	79
9 Su	0008	0.8	24
	0822	2.7	82
10 M	0004	1.0	30
	0831	3.0	91
11 Tu	0001	1.1	34
	0849	3.4	104
	1812	1.1	34
	2109	1.2	37
	2352	1.1	34
12 W	0911	3.7	113
	1837	0.7	21
13 Th ●	0936	4.0	122
	1905	0.3	9
14 F	1003	4.4	134
	1936	−0.1	−3
15 Sa	1032	4.6	140
	2007	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Su	1106	4.8	146
	2040	−0.5	−15
17 M	1142	4.9	149
	2111	−0.5	−15
18 Tu	1221	4.9	149
	2141	−0.5	−15
19 W	1302	4.7	143
	2207	−0.4	−12
20 Th ◐	1343	4.3	131
	2228	−0.2	−6
21 F	1425	3.7	113
	2245	0.1	3
22 Sa	0648	2.4	73
	0856	2.3	70
	1506	3.0	91
	2300	0.3	9
23 Su	0659	3.0	91
	2313	0.5	15
24 M	0728	3.6	110
	2323	0.6	18
25 Tu	0802	4.1	125
	1725	0.8	24
	2015	0.9	27
	2324	0.7	21
26 W	0841	4.6	140
	1804	0.2	6
27 Th ○	0920	4.9	149
	1843	−0.2	−6
28 F	1000	5.0	152
	1923	−0.5	−15
29 Sa	1040	5.0	152
	2001	−0.6	−18
30 Su	1118	4.9	149
	2039	−0.6	−18
31 M	1155	4.7	143
	2114	−0.5	−15

June

	Time	Height	
	h m	ft	cm
1 Tu	1229	4.5	137
	2145	−0.4	−12
2 W	1300	4.2	128
	2210	−0.2	−6
3 Th	1325	3.8	116
	2225	0.1	3
4 F ◑	1340	3.3	101
	2230	0.3	9
5 Sa	1310	2.9	88
	2227	0.5	15
6 Su	0702	2.8	85
	2225	0.6	18
7 M	0709	3.1	94
	2225	0.7	21
8 Tu	0727	3.5	107
	2219	0.7	21
9 W	0751	3.9	119
	1836	0.6	18
10 Th	0818	4.3	131
	1840	0.2	6
11 F	0849	4.6	140
	1901	−0.2	−6
12 Sa ●	0923	4.9	149
	1928	−0.4	−12
13 Su	1001	5.1	155
	1956	−0.6	−18
14 M	1041	5.2	158
	2022	−0.7	−21
15 Tu	1123	5.1	155
	2045	−0.6	−18

	Time	Height	
	h m	ft	cm
16 W	1205	4.8	146
	2104	−0.5	−15
17 Th	1247	4.4	134
	2119	−0.3	−9
18 F ◐	1329	3.8	116
	2131	−0.1	−3
19 Sa	0513	2.6	79
	0819	2.4	73
	1407	3.0	91
	2142	0.1	3
20 Su	0536	3.2	98
	1215	2.1	64
	1426	2.2	67
	2153	0.3	9
21 M	0609	3.8	116
	2202	0.4	12
22 Tu	0647	4.3	131
	2204	0.4	12
23 W	0729	4.7	143
	1729	0.2	6
24 Th	0812	4.9	149
	1803	−0.2	−6
25 F	0855	5.0	152
	1840	−0.4	−12
26 Sa ○	0938	5.0	152
	1916	−0.6	−18
27 Su	1018	4.9	149
	1951	−0.6	−18
28 M	1057	4.7	143
	2022	−0.5	−15
29 Tu	1132	4.5	137
	2050	−0.4	−12
30 W	1203	4.2	128
	2111	−0.2	−6

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

St. Michael, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	1230	3.8	116
	2122	0.0	0
2 F	1251	3.4	104
	2121	0.3	9
3 Sa	1255	3.0	91
	2115	0.4	12
4 Su	0529	2.7	82
	0912	2.4	73
	1138	2.5	76
◑	2112	0.6	18
5 M	0538	3.1	94
	2112	0.6	18
6 Tu	0558	3.4	104
	2113	0.6	18
7 W	0623	3.8	116
	2104	0.5	15
8 Th	0654	4.2	128
	1827	0.3	9
9 F	0730	4.5	137
	1826	0.0	0
10 Sa	0810	4.8	146
	1845	−0.3	−9
11 Su	0853	5.0	152
	1907	−0.5	−15
●			
12 M	0939	5.1	155
	1929	−0.5	−15
13 Tu	1026	5.0	152
	1946	−0.4	−12
14 W	1113	4.7	143
	2000	−0.3	−9
15 Th	1200	4.3	131
	2010	−0.1	−3

	Time	Height	
	h m	ft	cm
16 F	0313	2.0	61
	0529	1.9	58
	1246	3.7	113
	2020	0.1	3
17 Sa	0329	2.6	79
	0742	2.0	61
	1333	3.0	91
	2030	0.3	9
18 Su	0401	3.3	101
	1011	1.9	58
	1420	2.2	67
◐	2042	0.4	12
19 M	0439	3.8	116
	1306	1.4	43
	1510	1.5	46
	2053	0.4	12
20 Tu	0521	4.3	131
	2101	0.4	12
21 W	0607	4.6	140
	1614	0.4	12
	1841	0.5	15
	2054	0.4	12
22 Th	0655	4.7	143
	1659	0.1	3
23 F	0744	4.8	146
	1740	−0.1	−3
24 Sa	0832	4.7	143
	1818	−0.2	−6
25 Su	0918	4.6	140
	1853	−0.3	−9
○			
26 M	1001	4.4	134
	1925	−0.2	−6
27 Tu	1041	4.2	128
	1951	−0.1	−3
28 W	1117	3.9	119
	2011	0.1	3
29 Th	1150	3.6	110
	2021	0.3	9
30 F	1221	3.2	98
	2017	0.5	15
31 Sa	0334	2.3	70
	0618	2.2	67
	1248	2.8	85
	2005	0.7	21

August

	Time	Height	
	h m	ft	cm
1 Su	0339	2.6	79
	0813	2.2	67
	1307	2.4	73
	1959	0.8	24
2 M	0354	3.0	91
	2000	0.8	24
◑			
3 Tu	0415	3.3	101
	2004	0.8	24
4 W	0442	3.6	110
	2006	0.7	21
5 Th	0516	4.0	122
	1945	0.6	18
6 F	0556	4.3	131
	1731	0.3	9
7 Sa	0642	4.5	137
	1745	0.1	3
8 Su	0733	4.7	143
	1804	−0.1	−3
9 M	0827	4.7	143
	1821	−0.1	−3
●			
10 Tu	0921	4.6	140
	1834	0.0	0
11 W	1016	4.3	131
	1842	0.2	6
12 Th	0100	1.6	49
	0309	1.5	46
	1111	3.9	119
	1850	0.4	12
13 F	0114	2.2	67
	0517	1.6	49
	1205	3.3	101
	1858	0.5	15
14 Sa	0143	2.8	85
	0710	1.5	46
	1301	2.7	82
	1910	0.6	18
15 Su	0220	3.4	104
	0857	1.3	40
	1357	2.1	64
	1923	0.7	21

	Time	Height	
	h m	ft	cm
16 M	0301	3.9	119
	1042	1.1	34
	1458	1.6	49
◐	1938	0.7	21
17 Tu	0346	4.3	131
	1223	0.8	24
	1606	1.1	34
	1953	0.7	21
18 W	0434	4.4	134
	1353	0.6	18
	1734	0.8	24
	2000	0.7	21
19 Th	0525	4.5	137
	1508	0.4	12
20 F	0618	4.4	134
	1607	0.2	6
21 Sa	0712	4.3	131
	1654	0.2	6
22 Su	0806	4.1	125
	1734	0.2	6
23 M	0857	3.9	119
	1808	0.3	9
24 Tu	0945	3.7	113
	1835	0.4	12
○			
25 W	1030	3.4	104
	1855	0.6	18
26 Th	1112	3.1	94
	1903	0.8	24
27 F	0124	2.2	67
	0514	1.9	58
	1154	2.8	85
	1855	1.0	30
28 Sa	0132	2.5	76
	0647	1.8	55
	1236	2.5	76
	1839	1.2	37
29 Su	0147	2.8	85
	0804	1.6	49
	1319	2.1	64
	1832	1.2	37
30 M	0205	3.1	94
	0916	1.4	43
	1404	1.8	55
	1833	1.2	37
31 Tu	0228	3.4	104
	1035	1.2	37
	1455	1.4	43
	1838	1.1	34

September

	Time	Height	
	h m	ft	cm
1 W	0254	3.6	110
	1214	1.0	30
	1557	1.1	34
◑	1840	1.0	30
2 Th	0328	3.9	119
	1353	0.8	24
3 F	0409	4.1	125
	1503	0.6	18
4 Sa	0457	4.2	128
	1548	0.4	12
5 Su	0553	4.3	131
	1617	0.4	12
6 M	0655	4.2	128
	1636	0.4	12
7 Tu	0801	4.0	122
	1647	0.6	18
8 W	0908	3.6	110
	1654	0.7	21
	2301	2.0	61
●			
9 Th	0306	1.5	46
	1014	3.2	98
	1702	0.9	27
	2329	2.6	79
10 F	0506	1.3	40
	1120	2.7	82
	1714	1.0	30
11 Sa	0003	3.3	101
	0643	1.0	30
	1225	2.3	70
	1729	1.1	34
12 Su	0042	3.8	116
	0805	0.7	21
	1330	1.8	55
	1746	1.1	34
13 M	0124	4.2	128
	0919	0.5	15
	1436	1.5	46
	1805	1.1	34
14 Tu	0209	4.4	134
	1030	0.3	9
	1546	1.2	37
◐	1823	1.1	34
15 W	0255	4.5	137
	1140	0.3	9

	Time	Height	
	h m	ft	cm
16 Th	0344	4.4	134
	1250	0.3	9
17 F	0436	4.2	128
	1356	0.3	9
18 Sa	0530	3.9	119
	1454	0.4	12
19 Su	0627	3.7	113
	1541	0.5	15
20 M	0727	3.4	104
	1619	0.7	21
21 Tu	0827	3.1	94
	1647	0.9	27
	2317	2.1	64
22 W	0226	2.0	61
	0926	2.8	85
	1703	1.1	34
	2316	2.4	73
23 Th	0505	1.8	55
	1025	2.5	76
	1702	1.3	40
○	2330	2.6	79
24 F	0617	1.6	49
	1123	2.2	67
	1644	1.5	46
	2347	2.9	88
25 Sa	0711	1.3	40
	1221	2.0	61
	1631	1.5	46
26 Su	0006	3.2	98
	0757	1.0	30
	1320	1.8	55
	1628	1.5	46
27 M	0027	3.4	104
	0840	0.8	24
	1424	1.6	49
	1627	1.5	46
28 Tu	0049	3.7	113
	0924	0.6	18
29 W	0116	3.9	119
	1011	0.5	15
30 Th	0147	4.1	125
	1103	0.4	12
◑			

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
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St. Michael, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 F	0224 1157	4.2 / 128 0.3 / 9	**16** Sa	0339 1241	3.9 / 119 0.3 / 9
2 Sa	0309 1248	4.2 / 128 0.4 / 12	**17** Su	0426 1322	3.5 / 107 0.5 / 15
3 Su	0400 1327	4.1 / 125 0.4 / 12	**18** M	0518 1353	3.0 / 91 0.7 / 21
4 M	0500 1354	3.8 / 116 0.6 / 18	**19** Tu	0621 1409 2125	2.6 / 79 1.0 / 30 2.5 / 76
5 Tu	0611 1413 2106	3.4 / 104 0.8 / 24 2.1 / 64	**20** W	0421 0739 1406 2138	2.0 / 61 2.2 / 67 1.2 / 37 2.8 / 85
6 W	0027 0734 1428 2127	1.8 / 55 2.9 / 88 1.0 / 30 2.6 / 79	**21** Th	0530 0907 1353 2156	1.6 / 49 1.8 / 55 1.4 / 43 3.1 / 94
7 Th ●	0312 0901 1444 2159	1.6 / 49 2.4 / 73 1.1 / 34 3.2 / 98	**22** F ○	0618 1037 1342 2217	1.2 / 37 1.6 / 49 1.4 / 43 3.4 / 104
8 F	0509 1027 1501 2235	1.1 / 34 2.0 / 61 1.2 / 37 3.8 / 116	**23** Sa	0657 2240	0.8 / 24 3.7 / 113
9 Sa	0625 1150 1518 2315	0.6 / 18 1.6 / 49 1.3 / 40 4.3 / 131	**24** Su	0733 2303	0.5 / 15 4.0 / 122
10 Su	0728 1311 1535 2356	0.2 / 6 1.4 / 43 1.3 / 40 4.6 / 140	**25** M	0808 2328	0.2 / 6 4.2 / 128
11 M	0824	−0.1 / −3	**26** Tu	0842 2355	0.0 / 0 4.4 / 134
12 Tu	0039 0917	4.7 / 143 −0.2 / −6	**27** W	0917	−0.1 / −3
13 W	0123 1010	4.7 / 143 −0.2 / −6	**28** Th	0026 0952	4.5 / 137 −0.1 / −3
14 Th ◐	0208 1102	4.5 / 137 −0.1 / −3	**29** F	0101 1025	4.5 / 137 −0.1 / −3
15 F	0253 1153	4.2 / 128 0.1 / 3	**30** Sa ◑	0140 1056	4.4 / 134 0.0 / 0
			31 Su	0221 1121	4.1 / 125 0.1 / 3

November

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0307 1141	3.7 / 113 0.3 / 9	**16** Tu	0117 1141 2000	2.6 / 79 0.7 / 21 2.8 / 85
2 Tu	0359 1158 1947	3.1 / 94 0.5 / 15 2.6 / 79	**17** W	1136 2013	0.9 / 27 3.2 / 98
3 W	0011 0511 1214 2010	2.2 / 67 2.4 / 73 0.7 / 21 3.2 / 98	**18** Th	1130 2033	1.0 / 30 3.5 / 107
4 Th	0406 0709 1229 2042	1.6 / 49 1.7 / 52 0.9 / 27 3.8 / 116	**19** F	0615 0849 1113 2057	1.0 / 30 1.1 / 34 1.0 / 30 3.8 / 116
5 F ●	0519 0913 1240 2119	0.9 / 27 1.2 / 37 1.0 / 30 4.3 / 131	**20** Sa	0636 2122	0.6 / 18 4.1 / 125
6 Sa	0611 2159	0.3 / 9 4.8 / 146	**21** Su ○	0703 2149	0.2 / 6 4.4 / 134
7 Su	0657 2240	−0.2 / −6 5.0 / 152	**22** M	0733 2218	−0.1 / −3 4.6 / 140
8 M	0742 2322	−0.5 / −15 5.1 / 155	**23** Tu	0803 2249	−0.3 / −9 4.7 / 143
9 Tu	0826	−0.6 / −18	**24** W	0833 2322	−0.4 / −12 4.8 / 146
10 W	0004 0909	5.0 / 152 −0.6 / −18	**25** Th	0902 2358	−0.5 / −15 4.8 / 146
11 Th	0045 0949	4.8 / 146 −0.5 / −15	**26** F	0927	−0.5 / −15
12 F	0125 1027	4.5 / 137 −0.3 / −9	**27** Sa	0034 0947	4.6 / 140 −0.4 / −12
13 Sa ◐	0202 1100	4.1 / 125 −0.1 / −3	**28** Su ◑	0112 1002	4.3 / 131 −0.2 / −6
14 Su	0235 1125	3.6 / 110 0.2 / 6	**29** M	0149 1015	3.8 / 116 0.0 / 0
15 M	0301 1139	3.1 / 94 0.5 / 15	**30** Tu	0222 1027 1831 2356	3.1 / 94 0.2 / 6 3.0 / 91 2.3 / 70

December

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 W	0207 1038 1856	2.4 / 73 0.4 / 12 3.6 / 110	**16** Th	1005 1910	0.7 / 21 3.6 / 110
2 Th	1048 1930	0.5 / 15 4.1 / 125	**17** F	0959 1936	0.7 / 21 3.9 / 119
3 F	1052 2008	0.5 / 15 4.6 / 140	**18** Sa	0637 2004	0.6 / 18 4.2 / 128
4 Sa	0551 2050	0.2 / 6 5.0 / 152	**19** Su	0635 2036	0.2 / 6 4.5 / 137
5 Su ●	0626 2133	−0.3 / −9 5.2 / 158	**20** M ○	0656 2110	−0.1 / −3 4.7 / 143
6 M	0704 2216	−0.6 / −18 5.2 / 158	**21** Tu	0722 2146	−0.4 / −12 4.9 / 149
7 Tu	0742 2258	−0.7 / −21 5.1 / 155	**22** W	0749 2224	−0.5 / −15 5.0 / 152
8 W	0819 2338	−0.7 / −21 4.9 / 149	**23** Th	0813 2303	−0.6 / −18 4.9 / 149
9 Th	0854	−0.6 / −18	**24** F	0833 2343	−0.5 / −15 4.7 / 143
10 F	0016 0925	4.6 / 140 −0.5 / −15	**25** Sa	0847	−0.4 / −12
11 Sa	0050 0950	4.2 / 128 −0.3 / −9	**26** Su	0023 0857	4.3 / 131 −0.2 / −6
12 Su	0118 1007	3.8 / 116 0.0 / 0	**27** M ◑	0102 0905 1645 1941	3.8 / 116 0.0 / 0 2.5 / 76 2.3 / 70
13 M ◐	0138 1013	3.3 / 101 0.2 / 6	**28** Tu	0139 0914 1703 2240	3.1 / 94 0.2 / 6 3.1 / 94 2.2 / 67
14 Tu	0111 1011 1837	2.8 / 85 0.4 / 12 2.9 / 88	**29** W	0204 0924 1734	2.3 / 70 0.3 / 9 3.7 / 113
15 W	1007 1849	0.6 / 18 3.2 / 98	**30** Th	0934 1812	0.3 / 9 4.3 / 131
			31 F	0939 1855	0.4 / 12 4.7 / 143

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Nome, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0301	1.4	43
	1053	−0.2	−6
	1800	1.3	40
	2234	0.9	27
2 Sa	0414	1.5	46
	1147	−0.3	−9
	1849	1.3	40
	2337	0.8	24
3 Su	0524	1.5	46
	1240	−0.3	−9
	1937	1.4	43
4 M	0041	0.8	24
	0632	1.5	46
	1332	−0.3	−9
	2023	1.4	43
5 Tu	0145	0.7	21
	0739	1.5	46
	1422	−0.2	−6
	2108	1.5	46
6 W	0250	0.6	18
	0847	1.4	43
	1512	−0.1	−3
	2152	1.5	46
7 Th ◑	0354	0.4	12
	0957	1.4	43
	1602	0.1	3
	2234	1.5	46
8 F	0457	0.3	9
	1111	1.3	40
	1652	0.3	9
	2316	1.4	43
9 Sa	0559	0.2	6
	1228	1.2	37
	1745	0.5	15
	2359	1.4	43
10 Su	0700	0.1	3
	1349	1.2	37
	1842	0.7	21
11 M	0044	1.3	40
	0758	0.1	3
	1508	1.2	37
	1942	0.9	27
12 Tu	0133	1.2	37
	0855	0.1	3
	1619	1.2	37
	2046	0.9	27
13 W	0227	1.2	37
	0949	0.1	3
	1719	1.2	37
	2146	0.9	27
14 Th ●	0322	1.2	37
	1039	0.1	3
	1808	1.2	37
	2236	0.9	27
15 F	0416	1.2	37
	1123	0.1	3
	1847	1.2	37
	2318	0.9	27

	Time	Height	
	h m	ft	cm
16 Sa	0505	1.2	37
	1204	0.0	0
	1919	1.2	37
	2358	0.9	27
17 Su	0551	1.3	40
	1241	0.1	3
	1945	1.2	37
18 M	0041	0.8	24
	0637	1.3	40
	1317	0.1	3
	2009	1.2	37
19 Tu	0125	0.7	21
	0723	1.3	40
	1351	0.1	3
	2032	1.2	37
20 W	0210	0.7	21
	0811	1.2	37
	1424	0.2	6
	2054	1.2	37
21 Th	0255	0.6	18
	0902	1.1	34
	1457	0.4	12
	2116	1.2	37
22 F	0338	0.5	15
	0956	1.1	34
	1529	0.5	15
	2134	1.3	40
23 Sa ◐	0422	0.4	12
	1054	1.0	30
	1600	0.7	21
	2147	1.3	40
24 Su	0506	0.3	9
	1155	1.0	30
	1633	0.8	24
	2159	1.3	40
25 M	0554	0.2	6
	1258	1.0	30
	1712	0.9	27
	2224	1.3	40
26 Tu	0647	0.2	6
	1402	1.0	30
	1802	0.9	27
	2311	1.3	40
27 W	0745	0.1	3
	1503	1.1	34
	1905	0.9	27
28 Th	0023	1.4	43
	0844	0.0	0
	1558	1.1	34
	2014	0.9	27
29 F ○	0152	1.4	43
	0942	−0.1	−3
	1647	1.2	37
	2122	0.9	27
30 Sa	0314	1.5	46
	1037	−0.2	−6
	1733	1.3	40
	2228	0.8	24
31 Su	0425	1.5	46
	1129	−0.2	−6
	1817	1.4	43
	2331	0.7	21

February

	Time	Height	
	h m	ft	cm
1 M	0532	1.5	46
	1218	−0.2	−6
	1859	1.4	43
2 Tu	0033	0.5	15
	0636	1.5	46
	1306	−0.2	−6
	1940	1.5	46
3 W	0132	0.4	12
	0740	1.5	46
	1354	0.0	0
	2021	1.5	46
4 Th	0231	0.3	9
	0845	1.4	43
	1441	0.2	6
	2101	1.5	46
5 F ◑	0328	0.2	6
	0953	1.4	43
	1531	0.4	12
	2143	1.4	43
6 Sa	0426	0.1	3
	1104	1.3	40
	1624	0.6	18
	2227	1.3	40
7 Su	0525	0.1	3
	1219	1.3	40
	1722	0.7	21
	2317	1.3	40
8 M	0626	0.1	3
	1338	1.2	37
	1827	0.8	24
9 Tu	0015	1.2	37
	0730	0.1	3
	1454	1.2	37
	1942	0.9	27
10 W	0122	1.1	34
	0832	0.1	3
	1600	1.2	37
	2105	0.9	27
11 Th	0229	1.1	34
	0929	0.1	3
	1653	1.2	37
	2205	0.9	27
12 F	0328	1.2	37
	1018	0.1	3
	1736	1.2	37
	2239	0.8	24
13 Sa ●	0417	1.2	37
	1059	0.1	3
	1807	1.2	37
	2310	0.8	24
14 Su	0500	1.2	37
	1134	0.1	3
	1830	1.2	37
	2343	0.7	21
15 M	0543	1.3	40
	1207	0.2	6
	1847	1.2	37

	Time	Height	
	h m	ft	cm
16 Tu	0019	0.6	18
	0626	1.3	40
	1238	0.2	6
	1905	1.2	37
17 W	0056	0.5	15
	0711	1.2	37
	1309	0.3	9
	1923	1.2	37
18 Th	0134	0.4	12
	0758	1.2	37
	1341	0.5	15
	1940	1.2	37
19 F	0212	0.3	9
	0848	1.2	37
	1412	0.6	18
	1954	1.2	37
20 Sa	0251	0.3	9
	0939	1.1	34
	1444	0.7	21
	2003	1.3	40
21 Su ◐	0333	0.2	6
	1034	1.1	34
	1519	0.8	24
	2017	1.3	40
22 M	0421	0.1	3
	1133	1.1	34
	1558	0.9	27
	2047	1.3	40
23 Tu	0516	0.1	3
	1236	1.1	34
	1648	0.9	27
	2136	1.3	40
24 W	0619	0.1	3
	1340	1.1	34
	1752	1.0	30
	2252	1.3	40
25 Th	0723	0.0	0
	1438	1.1	34
	1904	0.9	27
26 F	0040	1.3	40
	0825	0.0	0
	1529	1.2	37
	2015	0.8	24
27 Sa	0210	1.4	43
	0921	−0.1	−3
	1613	1.3	40
	2122	0.7	21
28 Su ○	0325	1.4	43
	1013	−0.1	−3
	1654	1.3	40
	2225	0.6	18

March

	Time	Height	
	h m	ft	cm
1 M	0432	1.5	46
	1102	−0.1	−3
	1733	1.4	43
	2324	0.4	12
2 Tu	0536	1.5	46
	1149	0.0	0
	1811	1.5	46
3 W	0019	0.2	6
	0638	1.5	46
	1235	0.2	6
	1849	1.5	46
4 Th	0113	0.1	3
	0741	1.4	43
	1323	0.3	9
	1928	1.5	46
5 F	0205	0.0	0
	0843	1.4	43
	1412	0.5	15
	2009	1.4	43
6 Sa	0258	0.0	0
	0948	1.4	43
	1505	0.6	18
	2052	1.3	40
7 Su ◑	0352	0.0	0
	1055	1.3	40
	1603	0.8	24
	2143	1.2	37
8 M	0450	0.1	3
	1205	1.3	40
	1710	0.8	24
	2245	1.1	34
9 Tu	0552	0.1	3
	1316	1.3	40
	1829	0.9	27
	2359	1.1	34
10 W	0656	0.2	6
	1424	1.3	40
	2014	0.8	24
11 Th	0116	1.1	34
	0758	0.2	6
	1521	1.3	40
	2126	0.8	24
12 F	0223	1.1	34
	0852	0.2	6
	1606	1.3	40
	2201	0.8	24
13 Sa	0317	1.1	34
	0937	0.2	6
	1640	1.3	40
	2225	0.7	21
14 Su	0404	1.2	37
	1015	0.2	6
	1703	1.2	37
	2251	0.6	18
15 M ●	0449	1.2	37
	1048	0.3	9
	1720	1.2	37
	2320	0.5	15

	Time	Height	
	h m	ft	cm
16 Tu	0533	1.2	37
	1120	0.4	12
	1736	1.2	37
	2350	0.4	12
17 W	0617	1.2	37
	1152	0.5	15
	1751	1.2	37
18 Th	0022	0.3	9
	0703	1.2	37
	1224	0.6	18
	1804	1.2	37
19 F	0055	0.2	6
	0750	1.2	37
	1257	0.7	21
	1814	1.3	40
20 Sa	0131	0.1	3
	0838	1.2	37
	1332	0.8	24
	1823	1.3	40
21 Su	0212	0.0	0
	0929	1.2	37
	1411	0.9	27
	1844	1.3	40
22 M	0259	0.0	0
	1023	1.2	37
	1455	1.0	30
	1919	1.3	40
23 Tu ◐	0354	0.0	0
	1121	1.2	37
	1548	1.0	30
	2010	1.3	40
24 W	0455	0.0	0
	1221	1.2	37
	1652	1.0	30
	2126	1.3	40
25 Th	0559	0.0	0
	1318	1.2	37
	1804	0.9	27
	2324	1.3	40
26 F	0701	0.0	0
	1408	1.3	40
	1915	0.8	24
27 Sa	0101	1.3	40
	0759	0.0	0
	1451	1.3	40
	2022	0.7	21
28 Su	0220	1.3	40
	0851	0.0	0
	1531	1.4	43
	2124	0.5	15
29 M ○	0331	1.3	40
	0941	0.1	3
	1607	1.4	43
	2220	0.3	9
30 Tu	0438	1.4	43
	1028	0.2	6
	1643	1.5	46
	2312	0.1	3
31 W	0541	1.4	43
	1115	0.4	12
	1719	1.5	46

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean low water which is the chart datum of soundings.

Nome, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0002	0.0	0	**16** F	0657	1.2	37
	0643	1.4	43		1136	0.9	27
	1203	0.5	15		1634	1.3	40
	1756	1.5	46				
2 F	0051	−0.1	−3	**17** Sa	0021	0.0	0
	0743	1.4	43		0744	1.3	40
	1253	0.7	21		1215	1.0	30
	1835	1.4	43		1648	1.3	40
3 Sa	0139	−0.1	−3	**18** Su	0102	−0.1	−3
	0843	1.4	43		0832	1.3	40
	1346	0.8	24		1259	1.0	30
	1917	1.3	40		1717	1.4	43
4 Su	0229	−0.1	−3	**19** M	0148	−0.1	−3
	0943	1.4	43		0923	1.3	40
	1445	0.8	24		1349	1.0	30
	2007	1.2	37		1800	1.4	43
5 M	0323	0.0	0	**20** Tu	0241	−0.2	−6
	1044	1.4	43		1017	1.3	40
	1551	0.9	27		1447	1.1	34
	2108	1.1	34		1856	1.3	40
6 Tu ◑	0419	0.0	0	**21** W ◐	0339	−0.2	−6
	1146	1.3	40		1111	1.3	40
	1707	0.9	27		1553	1.0	30
	2222	1.1	34		2016	1.3	40
7 W	0518	0.1	3	**22** Th	0439	−0.1	−3
	1247	1.3	40		1203	1.3	40
	1845	0.8	24		1705	1.0	30
	2340	1.0	30		2210	1.2	37
8 Th	0616	0.2	6	**23** F	0537	−0.1	−3
	1341	1.3	40		1250	1.4	43
	2012	0.8	24		1816	0.8	24
					2346	1.2	37
9 F	0053	1.0	30	**24** Sa	0633	0.0	0
	0710	0.2	6		1331	1.4	43
	1427	1.3	40		1924	0.6	18
	2059	0.7	21				
10 Sa	0157	1.1	34	**25** Su	0109	1.2	37
	0757	0.3	9		0725	0.1	3
	1501	1.3	40		1409	1.5	46
	2131	0.6	18		2024	0.4	12
11 Su	0253	1.1	34	**26** M	0226	1.2	37
	0839	0.3	9		0815	0.2	6
	1527	1.3	40		1444	1.5	46
	2156	0.5	15		2119	0.2	6
12 M	0346	1.1	34	**27** Tu	0338	1.2	37
	0916	0.4	12		0904	0.4	12
	1547	1.3	40		1518	1.5	46
	2221	0.4	12		2210	0.0	0
13 Tu	0436	1.1	34	**28** W ○	0447	1.3	40
	0951	0.5	15		0952	0.6	18
	1603	1.3	40		1552	1.5	46
	2247	0.3	9		2258	−0.1	−3
14 W ●	0524	1.1	34	**29** Th	0552	1.3	40
	1026	0.6	18		1041	0.7	21
	1617	1.3	40		1627	1.5	46
	2315	0.2	6		2344	−0.2	−6
15 Th	0611	1.2	37	**30** F	0653	1.3	40
	1100	0.8	24		1132	0.9	27
	1627	1.3	40		1705	1.4	43
	2346	0.1	3				

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0030	−0.2	−6	**16** Su	0739	1.3	40
	0751	1.4	43		1137	1.1	34
	1227	0.9	27		1559	1.4	43
	1746	1.4	43				
2 Su	0118	−0.2	−6	**17** M	0044	−0.2	−6
	0847	1.4	43		0827	1.3	40
	1325	1.0	30		1235	1.1	34
	1835	1.3	40		1652	1.4	43
3 M	0207	−0.1	−3	**18** Tu	0136	−0.3	−9
	0940	1.4	43		0915	1.4	43
	1430	1.0	30		1338	1.1	34
	1935	1.2	37		1758	1.4	43
4 Tu	0259	−0.1	−3	**19** W	0230	−0.3	−9
	1033	1.4	43		1003	1.4	43
	1540	0.9	27		1447	1.0	30
	2044	1.1	34		1925	1.3	40
5 W ◑	0351	0.0	0	**20** Th ◐	0325	−0.3	−9
	1123	1.4	43		1050	1.4	43
	1701	0.9	27		1558	1.0	30
	2156	1.1	34		2101	1.3	40
6 Th	0442	0.1	3	**21** F	0419	−0.2	−6
	1209	1.4	43		1133	1.5	46
	1827	0.8	24		1710	0.8	24
	2308	1.0	30		2229	1.2	37
7 F	0530	0.1	3	**22** Sa	0510	−0.1	−3
	1249	1.4	43		1212	1.5	46
	1931	0.7	21		1818	0.6	18
					2352	1.2	37
8 Sa	0016	1.0	30	**23** Su	0601	0.1	3
	0615	0.2	6		1250	1.6	49
	1323	1.4	43		1920	0.4	12
	2015	0.6	18				
9 Su	0121	1.0	30	**24** M	0113	1.1	34
	0656	0.3	9		0649	0.3	9
	1350	1.4	43		1325	1.6	49
	2048	0.5	15		2016	0.2	6
10 M	0225	1.0	30	**25** Tu	0232	1.1	34
	0734	0.5	15		0738	0.5	15
	1412	1.4	43		1359	1.6	49
	2115	0.4	12		2108	0.0	0
11 Tu	0326	1.0	30	**26** W	0350	1.2	37
	0811	0.6	18		0827	0.7	21
	1430	1.4	43		1433	1.5	46
	2141	0.3	9		2157	−0.1	−3
12 W	0424	1.0	30	**27** Th ○	0504	1.2	37
	0847	0.7	21		0917	0.9	27
	1443	1.3	40		1507	1.5	46
	2209	0.1	3		2244	−0.2	−6
13 Th ●	0518	1.1	34	**28** F	0613	1.3	40
	0923	0.9	27		1010	1.0	30
	1450	1.4	43		1544	1.4	43
	2240	0.0	0		2331	−0.2	−6
14 F	0608	1.1	34	**29** Sa	0713	1.3	40
	1003	1.0	30		1106	1.0	30
	1457	1.4	43		1626	1.4	43
	2315	−0.1	−3				
15 Sa	0654	1.2	37	**30** Su	0017	−0.2	−6
	1047	1.0	30		0806	1.3	40
	1520	1.4	43		1206	1.1	34
	2357	−0.2	−6		1717	1.3	40
				31 M	0104	−0.2	−6
					0852	1.3	40
					1308	1.0	30
					1816	1.2	37

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0151	−0.1	−3	**16** W	0123	−0.4	−12
	0934	1.4	43		0852	1.4	43
	1413	1.0	30		1332	1.0	30
	1919	1.2	37		1836	1.4	43
2 W	0236	−0.1	−3	**17** Th	0214	−0.4	−12
	1012	1.4	43		0933	1.5	46
	1522	0.9	27		1443	0.9	27
	2023	1.1	34		1957	1.4	43
3 Th	0320	0.0	0	**18** F ◐	0304	−0.3	−9
	1048	1.4	43		1014	1.6	49
	1631	0.9	27		1552	0.8	24
	2127	1.1	34		2115	1.3	40
4 F ◑	0402	0.0	0	**19** Sa	0352	−0.2	−6
	1120	1.4	43		1052	1.6	49
	1736	0.8	24		1659	0.6	18
	2231	1.0	30		2233	1.2	37
5 Sa	0441	0.2	6	**20** Su	0440	0.0	0
	1150	1.4	43		1130	1.6	49
	1832	0.6	18		1803	0.4	12
	2337	0.9	27		2352	1.1	34
6 Su	0519	0.3	9	**21** M	0527	0.2	6
	1216	1.4	43		1207	1.6	49
	1916	0.5	15		1903	0.2	6
7 M	0044	0.9	27	**22** Tu	0114	1.1	34
	0554	0.4	12		0615	0.5	15
	1239	1.4	43		1243	1.6	49
	1952	0.4	12		2000	0.0	0
8 Tu	0154	0.9	27	**23** W	0240	1.1	34
	0628	0.6	18		0704	0.7	21
	1257	1.4	43		1320	1.5	46
	2025	0.3	9		2054	−0.1	−3
9 W	0305	0.9	27	**24** Th	0407	1.1	34
	0700	0.8	24		0756	0.9	27
	1310	1.4	43		1358	1.5	46
	2056	0.2	6		2146	−0.1	−3
10 Th	0415	1.0	30	**25** F	0527	1.2	37
	0733	0.9	27		0851	1.0	30
	1317	1.4	43		1439	1.4	43
	2131	0.0	0		2236	−0.2	−6
11 F	0519	1.0	30	**26** Sa ○	0634	1.2	37
	0811	0.9	27		0950	1.1	34
	1329	1.4	43		1527	1.4	43
	2209	−0.1	−3		2324	−0.2	−6
12 Sa ●	0608	1.1	34	**27** Su	0727	1.3	40
	0901	1.0	30		1050	1.1	34
	1402	1.5	46		1620	1.3	40
	2253	−0.2	−6				
13 Su	0649	1.2	37	**28** M	0009	−0.2	−6
	1003	1.1	34		0808	1.3	40
	1451	1.5	46		1151	1.1	34
	2341	−0.3	−9		1716	1.3	40
14 M	0729	1.3	40	**29** Tu	0051	−0.1	−3
	1111	1.1	34		0842	1.3	40
	1556	1.5	46		1252	1.0	30
					1813	1.3	40
15 Tu	0032	−0.3	−9	**30** W	0130	−0.1	−3
	0810	1.3	40		0909	1.3	40
	1221	1.1	34		1351	1.0	30
	1713	1.5	46		1908	1.2	37

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean low water which is the chart datum of soundings.

Nome, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0208	−0.1	−3
	0933	1.4	43
	1449	0.9	27
	2003	1.2	37
2 F	0244	0.0	0
	0957	1.4	43
	1545	0.8	24
	2100	1.1	34
3 Sa	0319	0.1	3
	1021	1.4	43
	1638	0.7	21
	2159	1.0	30
4 Su	0352	0.2	6
	1045	1.4	43
	1727	0.5	15
◑	2302	0.9	27
5 M	0424	0.4	12
	1107	1.4	43
	1811	0.4	12
6 Tu	0009	0.9	27
	0454	0.6	18
	1125	1.4	43
	1852	0.3	9
7 W	0120	0.9	27
	0520	0.7	21
	1138	1.4	43
	1932	0.2	6
8 Th	0238	0.9	27
	0541	0.8	24
	1148	1.4	43
	2014	0.1	3
9 F	1208	1.5	46
	2058	0.0	0
10 Sa	1249	1.5	46
	2146	−0.1	−3
11 Su	0557	1.1	34
	0818	1.0	30
	1350	1.5	46
●	2236	−0.2	−6
12 M	0623	1.2	37
	0943	1.1	34
	1507	1.5	46
	2326	−0.3	−9
13 Tu	0657	1.3	40
	1101	1.0	30
	1628	1.5	46
14 W	0015	−0.4	−12
	0734	1.4	43
	1213	1.0	30
	1743	1.5	46
15 Th	0103	−0.4	−12
	0812	1.5	46
	1322	0.8	24
	1855	1.5	46

	Time	Height	
	h m	ft	cm
16 F	0150	−0.4	−12
	0850	1.6	49
	1429	0.7	21
	2005	1.4	43
17 Sa	0237	−0.2	−6
	0928	1.6	49
	1533	0.5	15
	2117	1.3	40
18 Su	0323	0.0	0
	1007	1.6	49
	1635	0.3	9
◐	2231	1.2	37
19 M	0410	0.2	6
	1046	1.6	49
	1737	0.2	6
	2349	1.1	34
20 Tu	0458	0.5	15
	1126	1.6	49
	1838	0.1	3
21 W	0113	1.1	34
	0548	0.7	21
	1209	1.5	46
	1940	0.0	0
22 Th	0245	1.1	34
	0642	0.9	27
	1255	1.4	43
	2041	−0.1	−3
23 F	0416	1.1	34
	0740	1.0	30
	1346	1.4	43
	2139	−0.1	−3
24 Sa	0529	1.2	37
	0843	1.0	30
	1441	1.3	40
	2231	−0.1	−3
25 Su	0626	1.2	37
	0946	1.1	34
	1537	1.3	40
○	2316	−0.1	−3
26 M	0709	1.2	37
	1047	1.0	30
	1630	1.3	40
	2354	−0.1	−3
27 Tu	0741	1.2	37
	1141	1.0	30
	1720	1.3	40
28 W	0029	−0.1	−3
	0802	1.3	40
	1232	0.9	27
	1808	1.3	40
29 Th	0101	0.0	0
	0818	1.3	40
	1322	0.8	24
	1857	1.2	37
30 F	0133	0.0	0
	0834	1.3	40
	1409	0.7	21
	1947	1.2	37
31 Sa	0205	0.1	3
	0853	1.3	40
	1456	0.6	18
	2040	1.1	34

August

	Time	Height	
	h m	ft	cm
1 Su	0236	0.3	9
	0914	1.4	43
	1541	0.5	15
	2135	1.0	30
2 M	0306	0.4	12
	0935	1.4	43
	1625	0.4	12
◑	2233	1.0	30
3 Tu	0335	0.6	18
	0952	1.4	43
	1709	0.3	9
	2335	0.9	27
4 W	0359	0.7	21
	1005	1.4	43
	1755	0.3	9
5 Th	0043	0.9	27
	0417	0.8	24
	1019	1.4	43
	1845	0.2	6
6 F	0201	0.9	27
	0419	0.8	24
	1047	1.4	43
	1938	0.1	3
7 Sa	1137	1.5	46
	2033	0.0	0
8 Su	0432	1.0	30
	0640	0.9	27
	1251	1.5	46
	2126	−0.1	−3
9 M	0501	1.1	34
	0822	1.0	30
	1418	1.5	46
●	2216	−0.2	−6
10 Tu	0534	1.2	37
	0944	0.9	27
	1536	1.5	46
	2305	−0.3	−9
11 W	0609	1.3	40
	1057	0.8	24
	1647	1.5	46
	2351	−0.3	−9
12 Th	0645	1.4	43
	1204	0.7	21
	1754	1.5	46
13 F	0037	−0.3	−9
	0722	1.5	46
	1307	0.5	15
	1900	1.5	46
14 Sa	0122	−0.1	−3
	0800	1.6	49
	1407	0.4	12
	2007	1.4	43
15 Su	0208	0.0	0
	0840	1.6	49
	1506	0.2	6
	2114	1.3	40

	Time	Height	
	h m	ft	cm
16 M	0255	0.2	6
	0921	1.6	49
	1605	0.1	3
◐	2225	1.2	37
17 Tu	0344	0.5	15
	1004	1.5	46
	1706	0.1	3
	2341	1.2	37
18 W	0436	0.6	18
	1052	1.4	43
	1810	0.0	0
19 Th	0106	1.1	34
	0532	0.8	24
	1147	1.4	43
	1918	0.0	0
20 F	0238	1.1	34
	0634	0.9	27
	1248	1.3	40
	2025	0.0	0
21 Sa	0359	1.2	37
	0742	1.0	30
	1352	1.3	40
	2124	0.0	0
22 Su	0502	1.2	37
	0853	1.0	30
	1452	1.3	40
	2213	0.0	0
23 M	0548	1.2	37
	0955	1.0	30
	1544	1.3	40
	2252	0.0	0
24 Tu	0622	1.2	37
	1044	0.9	27
	1630	1.3	40
○	2324	0.0	0
25 W	0644	1.2	37
	1127	0.8	24
	1715	1.3	40
	2354	0.1	3
26 Th	0656	1.2	37
	1208	0.7	21
	1800	1.3	40
27 F	0024	0.1	3
	0708	1.2	37
	1247	0.6	18
	1847	1.2	37
28 Sa	0054	0.2	6
	0724	1.3	40
	1327	0.5	15
	1935	1.2	37
29 Su	0124	0.4	12
	0743	1.3	40
	1407	0.4	12
	2024	1.1	34
30 M	0155	0.5	15
	0801	1.3	40
	1447	0.3	9
	2115	1.1	34
31 Tu	0224	0.6	18
	0816	1.3	40
	1530	0.3	9
	2209	1.0	30

September

	Time	Height	
	h m	ft	cm
1 W	0251	0.7	21
	0829	1.3	40
	1618	0.2	6
◑	2308	1.0	30
2 Th	0316	0.8	24
	0848	1.3	40
	1711	0.2	6
3 F	0013	1.0	30
	0339	0.9	27
	0925	1.4	43
	1810	0.1	3
4 Sa	0126	1.0	30
	0418	0.9	27
	1022	1.4	43
	1910	0.1	3
5 Su	0234	1.0	30
	0543	0.9	27
	1148	1.4	43
	2007	0.0	0
6 M	0324	1.1	34
	0715	0.9	27
	1321	1.4	43
	2100	−0.1	−3
7 Tu	0403	1.1	34
	0835	0.9	27
	1439	1.5	46
	2149	−0.1	−3
8 W	0439	1.3	40
	0946	0.7	21
	1549	1.5	46
●	2235	−0.1	−3
9 Th	0515	1.4	43
	1051	0.5	15
	1655	1.5	46
	2321	−0.1	−3
10 F	0552	1.5	46
	1150	0.4	12
	1759	1.5	46
11 Sa	0007	0.0	0
	0630	1.5	46
	1246	0.2	6
	1902	1.4	43
12 Su	0053	0.2	6
	0710	1.5	46
	1342	0.1	3
	2005	1.4	43
13 M	0140	0.4	12
	0752	1.5	46
	1437	0.0	0
	2110	1.3	40
14 Tu	0230	0.5	15
	0837	1.5	46
	1535	0.0	0
◐	2217	1.3	40
15 W	0323	0.7	21
	0929	1.4	43
	1636	0.0	0
	2330	1.2	37

	Time	Height	
	h m	ft	cm
16 Th	0421	0.8	24
	1028	1.3	40
	1742	0.1	3
17 F	0050	1.2	37
	0524	0.8	24
	1136	1.3	40
	1851	0.1	3
18 Sa	0211	1.2	37
	0636	0.9	27
	1246	1.2	37
	1955	0.1	3
19 Su	0319	1.2	37
	0754	0.9	27
	1350	1.3	40
	2049	0.1	3
20 M	0411	1.2	37
	0902	0.9	27
	1446	1.3	40
	2133	0.1	3
21 Tu	0448	1.2	37
	0951	0.8	24
	1536	1.3	40
	2209	0.1	3
22 W	0512	1.2	37
	1028	0.7	21
	1622	1.3	40
	2241	0.2	6
23 Th	0526	1.2	37
	1103	0.6	18
	1707	1.3	40
○	2311	0.3	9
24 F	0539	1.2	37
	1136	0.5	15
	1753	1.3	40
	2342	0.4	12
25 Sa	0554	1.2	37
	1211	0.4	12
	1839	1.2	37
26 Su	0013	0.5	15
	0611	1.2	37
	1246	0.3	9
	1925	1.2	37
27 M	0045	0.6	18
	0626	1.2	37
	1323	0.2	6
	2011	1.2	37
28 Tu	0116	0.7	21
	0640	1.2	37
	1404	0.2	6
	2100	1.1	34
29 W	0147	0.8	24
	0654	1.3	40
	1450	0.1	3
	2152	1.1	34
30 Th	0219	0.9	27
	0722	1.3	40
	1543	0.1	3
◑	2249	1.1	34

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean low water which is the chart datum of soundings.

Nome, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0255	0.9	27
	0805	1.3	40
	1641	0.1	3
	2352	1.0	30
2 Sa	0345	0.9	27
	0907	1.3	40
	1742	0.1	3
3 Su	0054	1.1	34
	0456	0.9	27
	1040	1.3	40
	1841	0.0	0
4 M	0147	1.1	34
	0616	0.9	27
	1216	1.4	43
	1936	0.0	0
5 Tu	0230	1.2	37
	0732	0.8	24
	1337	1.4	43
	2027	0.0	0
6 W	0309	1.3	40
	0841	0.6	18
	1449	1.4	43
	2116	0.0	0
7 Th ●	0346	1.4	43
	0943	0.4	12
	1557	1.4	43
	2202	0.1	3
8 F	0423	1.4	43
	1040	0.2	6
	1701	1.4	43
	2249	0.3	9
9 Sa	0501	1.5	46
	1133	0.1	3
	1803	1.4	43
	2337	0.4	12
10 Su	0540	1.5	46
	1225	−0.1	−3
	1904	1.4	43
11 M	0025	0.5	15
	0623	1.5	46
	1318	−0.1	−3
	2003	1.4	43
12 Tu	0116	0.6	18
	0710	1.4	43
	1412	−0.1	−3
	2103	1.3	40
13 W	0209	0.7	21
	0803	1.4	43
	1508	0.0	0
	2206	1.3	40
14 Th ◐	0306	0.8	24
	0903	1.3	40
	1609	0.0	0
	2313	1.2	37
15 F	0408	0.8	24
	1009	1.2	37
	1711	0.1	3

	Time	Height	
	h m	ft	cm
16 Sa	0022	1.2	37
	0518	0.8	24
	1119	1.2	37
	1812	0.1	3
17 Su	0127	1.2	37
	0634	0.8	24
	1227	1.2	37
	1907	0.2	6
18 M	0221	1.2	37
	0747	0.8	24
	1329	1.2	37
	1955	0.2	6
19 Tu	0301	1.2	37
	0844	0.7	21
	1427	1.2	37
	2037	0.3	9
20 W	0329	1.2	37
	0925	0.6	18
	1520	1.2	37
	2114	0.3	9
21 Th	0349	1.2	37
	0959	0.5	15
	1611	1.2	37
	2150	0.5	15
22 F ○	0407	1.2	37
	1030	0.4	12
	1700	1.2	37
	2225	0.6	18
23 Sa	0424	1.2	37
	1101	0.3	9
	1747	1.2	37
	2259	0.7	21
24 Su	0439	1.2	37
	1134	0.2	6
	1831	1.2	37
	2333	0.8	24
25 M	0453	1.2	37
	1210	0.1	3
	1915	1.2	37
26 Tu	0007	0.8	24
	0506	1.2	37
	1250	0.1	3
	2000	1.2	37
27 W	0042	0.9	27
	0527	1.3	40
	1335	0.0	0
	2048	1.2	37
28 Th	0119	0.9	27
	0605	1.3	40
	1426	0.0	0
	2139	1.2	37
29 F	0202	0.9	27
	0656	1.3	40
	1521	0.0	0
	2233	1.2	37
30 Sa ◑	0256	0.9	27
	0805	1.3	40
	1618	0.0	0
	2327	1.2	37
31 Su	0403	0.9	27
	0934	1.3	40
	1715	0.0	0

November

	Time	Height	
	h m	ft	cm
1 M	0016	1.2	37
	0515	0.8	24
	1105	1.3	40
	1809	0.0	0
2 Tu	0100	1.3	40
	0628	0.7	21
	1227	1.3	40
	1901	0.1	3
3 W	0140	1.3	40
	0736	0.5	15
	1345	1.3	40
	1951	0.2	6
4 Th	0218	1.4	43
	0837	0.3	9
	1457	1.3	40
	2041	0.3	9
5 F ●	0256	1.4	43
	0933	0.1	3
	1605	1.3	40
	2130	0.5	15
6 Sa	0334	1.5	46
	1026	0.0	0
	1709	1.3	40
	2220	0.6	18
7 Su	0415	1.5	46
	1117	−0.1	−3
	1809	1.4	43
	2311	0.7	21
8 M	0459	1.5	46
	1208	−0.1	−3
	1906	1.3	40
9 Tu	0003	0.8	24
	0548	1.4	43
	1259	−0.1	−3
	2001	1.3	40
10 W	0056	0.8	24
	0641	1.4	43
	1352	−0.1	−3
	2056	1.3	40
11 Th	0151	0.8	24
	0740	1.3	40
	1446	0.0	0
	2152	1.3	40
12 F	0249	0.8	24
	0842	1.3	40
	1540	0.0	0
	2247	1.3	40
13 Sa ◐	0352	0.8	24
	0946	1.2	37
	1633	0.1	3
	2340	1.2	37
14 Su	0500	0.8	24
	1051	1.2	37
	1723	0.2	6
15 M	0028	1.3	40
	0609	0.7	21
	1155	1.1	34
	1809	0.2	6

	Time	Height	
	h m	ft	cm
16 Tu	0108	1.3	40
	0712	0.6	18
	1259	1.1	34
	1854	0.3	9
17 W	0141	1.3	40
	0803	0.5	15
	1402	1.1	34
	1936	0.4	12
18 Th	0208	1.2	37
	0844	0.4	12
	1503	1.1	34
	2017	0.6	18
19 F	0231	1.2	37
	0919	0.3	9
	1600	1.1	34
	2056	0.7	21
20 Sa	0250	1.2	37
	0952	0.2	6
	1652	1.2	37
	2135	0.8	24
21 Su ○	0307	1.2	37
	1026	0.2	6
	1740	1.2	37
	2214	0.9	27
22 M	0320	1.2	37
	1103	0.1	3
	1823	1.2	37
	2252	0.9	27
23 Tu	0337	1.2	37
	1143	0.0	0
	1905	1.2	37
	2331	1.0	30
24 W	0411	1.3	40
	1229	0.0	0
	1948	1.2	37
25 Th	0013	1.0	30
	0502	1.3	40
	1318	−0.1	−3
	2033	1.2	37
26 F	0102	1.0	30
	0604	1.4	43
	1409	−0.1	−3
	2120	1.2	37
27 Sa	0158	0.9	27
	0716	1.4	43
	1501	−0.1	−3
	2206	1.3	40
28 Su ◑	0301	0.9	27
	0834	1.4	43
	1553	−0.1	−3
	2251	1.3	40
29 M	0409	0.8	24
	0953	1.3	40
	1644	0.0	0
	2333	1.4	43
30 Tu	0518	0.6	18
	1113	1.3	40
	1735	0.1	3

December

	Time	Height	
	h m	ft	cm
1 W	0013	1.4	43
	0624	0.5	15
	1233	1.2	37
	1826	0.3	9
2 Th	0052	1.4	43
	0727	0.3	9
	1351	1.2	37
	1918	0.5	15
3 F	0132	1.4	43
	0826	0.1	3
	1506	1.2	37
	2010	0.6	18
4 Sa	0212	1.4	43
	0921	0.0	0
	1617	1.3	40
	2104	0.8	24
5 Su ●	0256	1.4	43
	1014	−0.1	−3
	1721	1.3	40
	2159	0.8	24
6 M	0344	1.4	43
	1106	−0.1	−3
	1819	1.3	40
	2253	0.9	27
7 Tu	0436	1.4	43
	1157	−0.1	−3
	1911	1.3	40
	2346	0.9	27
8 W	0532	1.4	43
	1247	−0.1	−3
	1958	1.3	40
9 Th	0039	0.9	27
	0629	1.3	40
	1336	−0.1	−3
	2043	1.3	40
10 F	0133	0.8	24
	0726	1.3	40
	1423	0.0	0
	2126	1.3	40
11 Sa	0229	0.8	24
	0822	1.3	40
	1507	0.0	0
	2206	1.3	40
12 Su	0327	0.8	24
	0919	1.2	37
	1550	0.1	3
	2245	1.3	40
13 M ◐	0427	0.7	21
	1019	1.2	37
	1632	0.2	6
	2320	1.3	40
14 Tu	0526	0.6	18
	1121	1.1	34
	1713	0.3	9
	2353	1.3	40
15 W	0622	0.5	15
	1227	1.1	34
	1755	0.5	15

	Time	Height	
	h m	ft	cm
16 Th	0023	1.3	40
	0711	0.4	12
	1336	1.1	34
	1837	0.6	18
17 F	0049	1.2	37
	0754	0.3	9
	1444	1.1	34
	1919	0.8	24
18 Sa	0111	1.2	37
	0834	0.3	9
	1548	1.1	34
	2003	0.9	27
19 Su	0127	1.2	37
	0913	0.2	6
	1643	1.1	34
	2046	1.0	30
20 M ○	0140	1.2	37
	0954	0.1	3
	1728	1.2	37
	2129	1.0	30
21 Tu	0209	1.2	37
	1037	0.0	0
	1807	1.2	37
	2214	1.0	30
22 W	0303	1.3	40
	1123	−0.1	−3
	1845	1.2	37
	2303	1.0	30
23 Th	0410	1.4	43
	1211	−0.1	−3
	1924	1.2	37
	2356	0.9	27
24 F	0519	1.4	43
	1300	−0.2	−6
	2005	1.3	40
25 Sa	0053	0.9	27
	0627	1.4	43
	1348	−0.2	−6
	2046	1.3	40
26 Su	0154	0.8	24
	0736	1.4	43
	1436	−0.2	−6
	2126	1.4	43
27 M ◑	0257	0.7	21
	0846	1.4	43
	1525	−0.1	−3
	2206	1.4	43
28 Tu	0401	0.5	15
	1000	1.3	40
	1614	0.1	3
	2246	1.5	46
29 W	0505	0.4	12
	1116	1.3	40
	1704	0.3	9
	2327	1.5	46
30 Th	0608	0.2	6
	1236	1.2	37
	1757	0.5	15
31 F	0009	1.4	43
	0710	0.1	3
	1357	1.2	37
	1852	0.7	21

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean low water which is the chart datum of soundings.

Prudhoe Bay, Alaska, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0117	0.6	18
	0738	0.0	0
	1244	0.3	9
	1903	−0.3	−9
2 Sa	0155	0.6	18
	0807	−0.1	−3
	1333	0.3	9
	1953	−0.3	−9
3 Su	0229	0.5	15
	0837	−0.2	−6
	1423	0.4	12
	2042	−0.3	−9
4 M	0303	0.4	12
	0909	−0.2	−6
	1514	0.4	12
	2132	−0.3	−9
5 Tu	0334	0.3	9
	0943	−0.3	−9
	1609	0.3	9
	2225	−0.2	−6
6 W	0405	0.2	6
	1020	−0.3	−9
	1709	0.3	9
	2325	−0.1	−3
7 Th ◑	0437	0.1	3
	1102	−0.3	−9
	1819	0.3	9
8 F	0039	0.0	0
	0511	0.1	3
	1155	−0.3	−9
	1944	0.3	9
9 Sa	0227	0.0	0
	0557	0.1	3
	1304	−0.2	−6
	2118	0.3	9
10 Su	0427	0.0	0
	0724	0.1	3
	1430	−0.2	−6
	2236	0.3	9
11 M	0530	0.0	0
	0914	0.1	3
	1551	−0.2	−6
	2332	0.4	12
12 Tu	0606	0.0	0
	1029	0.1	3
	1654	−0.2	−6
13 W	0014	0.4	12
	0634	0.0	0
	1123	0.2	6
	1743	−0.2	−6
14 Th ●	0047	0.4	12
	0659	0.0	0
	1206	0.2	6
	1825	−0.2	−6
15 F	0115	0.4	12
	0723	−0.1	−3
	1244	0.3	9
	1901	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Sa	0141	0.4	12
	0746	−0.1	−3
	1319	0.3	9
	1935	−0.3	−9
17 Su	0205	0.4	12
	0809	−0.1	−3
	1354	0.3	9
	2007	−0.3	−9
18 M	0228	0.3	9
	0832	−0.2	−6
	1427	0.3	9
	2040	−0.3	−9
19 Tu	0252	0.3	9
	0855	−0.2	−6
	1502	0.3	9
	2115	−0.2	−6
20 W	0315	0.3	9
	0918	−0.2	−6
	1540	0.3	9
	2153	−0.2	−6
21 Th	0339	0.2	6
	0944	−0.2	−6
	1623	0.3	9
	2236	−0.1	−3
22 F	0403	0.2	6
	1015	−0.2	−6
	1716	0.3	9
	2332	0.0	0
23 Sa ◐	0426	0.1	3
	1054	−0.2	−6
	1828	0.3	9
24 Su	0103	0.0	0
	0448	0.1	3
	1149	−0.2	−6
	2008	0.4	12
25 M	1315	−0.2	−6
	2147	0.4	12
26 Tu	0538	0.0	0
	0748	0.1	3
	1455	−0.2	−6
	2256	0.4	12
27 W	0558	0.0	0
	0949	0.1	3
	1618	−0.3	−9
	2346	0.5	15
28 Th	0620	0.0	0
	1100	0.2	6
	1722	−0.3	−9
29 F ○	0027	0.4	12
	0644	−0.1	−3
	1155	0.2	6
	1817	−0.4	−12
30 Sa	0102	0.4	12
	0709	−0.2	−6
	1244	0.3	9
	1907	−0.4	−12
31 Su	0135	0.3	9
	0736	−0.3	−9
	1331	0.3	9
	1954	−0.5	−15

February

	Time	Height	
	h m	ft	cm
1 M	0205	0.3	9
	0804	−0.4	−12
	1417	0.3	9
	2038	−0.4	−12
2 Tu	0234	0.2	6
	0834	−0.4	−12
	1502	0.3	9
	2121	−0.4	−12
3 W	0301	0.1	3
	0907	−0.5	−15
	1549	0.3	9
	2204	−0.3	−9
4 Th	0328	0.1	3
	0942	−0.5	−15
	1639	0.3	9
	2248	−0.2	−6
5 F ◑	0353	0.1	3
	1022	−0.4	−12
	1738	0.2	6
	2340	−0.1	−3
6 Sa	0418	0.1	3
	1110	−0.3	−9
	1859	0.2	6
7 Su	0104	−0.1	−3
	0441	0.0	0
	1220	−0.3	−9
	2059	0.2	6
8 M	1408	−0.2	−6
	2237	0.2	6
9 Tu	0531	−0.1	−3
	0847	0.0	0
	1550	−0.2	−6
	2328	0.2	6
10 W	0551	0.0	0
	1024	0.1	3
	1656	−0.3	−9
11 Th	0002	0.3	9
	0612	−0.1	−3
	1119	0.1	3
	1743	−0.3	−9
12 F	0029	0.3	9
	0633	−0.2	−6
	1200	0.2	6
	1821	−0.4	−12
13 Sa ●	0053	0.2	6
	0653	−0.2	−6
	1235	0.2	6
	1854	−0.4	−12
14 Su	0115	0.2	6
	0714	−0.3	−9
	1307	0.2	6
	1924	−0.4	−12
15 M	0137	0.2	6
	0734	−0.3	−9
	1337	0.2	6
	1954	−0.4	−12

	Time	Height	
	h m	ft	cm
16 Tu	0159	0.2	6
	0755	−0.4	−12
	1407	0.2	6
	2025	−0.4	−12
17 W	0221	0.1	3
	0816	−0.4	−12
	1439	0.3	9
	2056	−0.3	−9
18 Th	0243	0.1	3
	0838	−0.4	−12
	1513	0.3	9
	2130	−0.3	−9
19 F	0303	0.1	3
	0904	−0.4	−12
	1553	0.3	9
	2208	−0.2	−6
20 Sa	0323	0.1	3
	0935	−0.3	−9
	1642	0.3	9
	2256	−0.1	−3
21 Su ◐	0341	0.1	3
	1015	−0.3	−9
	1751	0.3	9
22 M	0013	0.0	0
	0356	0.1	3
	1114	−0.3	−9
	1935	0.2	6
23 Tu	1251	−0.3	−9
	2129	0.2	6
24 W	0510	−0.1	−3
	0732	0.0	0
	1454	−0.3	−9
	2240	0.2	6
25 Th	0519	−0.1	−3
	0948	0.0	0
	1623	−0.4	−12
	2326	0.2	6
26 F	0540	−0.2	−6
	1058	0.1	3
	1727	−0.5	−15
27 Sa	0004	0.2	6
	0604	−0.3	−9
	1151	0.1	3
	1819	−0.5	−15
28 Su ○	0036	0.1	3
	0630	−0.5	−15
	1237	0.2	6
	1905	−0.6	−18

March

	Time	Height	
	h m	ft	cm
1 M	0106	0.1	3
	0659	−0.5	−15
	1320	0.2	6
	1947	−0.6	−18
2 Tu	0135	0.0	0
	0729	−0.6	−18
	1402	0.3	9
	2026	−0.5	−15
3 W	0202	0.0	0
	0801	−0.6	−18
	1444	0.3	9
	2103	−0.5	−15
4 Th	0229	0.0	0
	0834	−0.6	−18
	1525	0.2	6
	2138	−0.4	−12
5 F	0255	0.0	0
	0910	−0.6	−18
	1610	0.2	6
	2212	−0.2	−6
6 Sa	0320	0.0	0
	0950	−0.5	−15
	1701	0.1	3
	2251	−0.1	−3
7 Su ◑	0345	0.0	0
	1038	−0.4	−12
	1813	0.1	3
	2349	−0.1	−3
8 M	0411	0.0	0
	1148	−0.3	−9
	2018	0.1	3
9 Tu	0248	−0.1	−3
	0459	0.0	0
	1351	−0.3	−9
	2210	0.1	3
10 W	0438	−0.1	−3
	0838	0.0	0
	1543	−0.3	−9
	2258	0.1	3
11 Th	0505	−0.2	−6
	1013	0.0	0
	1648	−0.3	−9
	2329	0.1	3
12 F	0528	−0.2	−6
	1105	0.0	0
	1732	−0.4	−12
	2355	0.1	3
13 Sa	0550	−0.3	−9
	1143	0.1	3
	1807	−0.5	−15
14 Su	0019	0.0	0
	0611	−0.4	−12
	1216	0.1	3
	1839	−0.5	−15
15 M ●	0042	0.0	0
	0632	−0.5	−15
	1246	0.1	3
	1909	−0.5	−15

	Time	Height	
	h m	ft	cm
16 Tu	0105	0.0	0
	0653	−0.5	−15
	1315	0.2	6
	1938	−0.5	−15
17 W	0127	0.0	0
	0715	−0.5	−15
	1345	0.2	6
	2009	−0.4	−12
18 Th	0149	0.0	0
	0738	−0.5	−15
	1417	0.3	9
	2040	−0.4	−12
19 F	0210	0.0	0
	0804	−0.5	−15
	1453	0.3	9
	2114	−0.3	−9
20 Sa	0231	0.0	0
	0834	−0.4	−12
	1534	0.3	9
	2152	−0.2	−6
21 Su	0252	0.1	3
	0910	−0.4	−12
	1624	0.3	9
	2240	−0.1	−3
22 M	0316	0.0	0
	0957	−0.4	−12
	1731	0.2	6
	2352	−0.1	−3
23 Tu ◐	0349	0.0	0
	1104	−0.3	−9
	1906	0.1	3
24 W	0202	−0.1	−3
	0511	0.0	0
	1255	−0.3	−9
	2052	0.1	3
25 Th	0333	−0.2	−6
	0806	−0.1	−3
	1500	−0.4	−12
	2203	0.1	3
26 F	0413	−0.3	−9
	0948	0.0	0
	1626	−0.5	−15
	2251	0.0	0
27 Sa	0445	−0.4	−12
	1050	0.1	3
	1726	−0.5	−15
	2329	0.0	0
28 Su	0517	−0.5	−15
	1140	0.1	3
	1815	−0.6	−18
29 M ○	0002	−0.1	−3
	0549	−0.6	−18
	1224	0.2	6
	1857	−0.6	−18
30 Tu	0033	−0.1	−3
	0622	−0.7	−21
	1306	0.2	6
	1935	−0.6	−18
31 W	0103	−0.1	−3
	0656	−0.7	−21
	1346	0.3	9
	2010	−0.5	−15

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Prudhoe Bay, Alaska, 2010

Times and Heights of High and Low Waters

April

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0131	−0.1	−3	**16** F	0117	0.1	3
	0731	−0.6	−18		0707	−0.4	−12
	1425	0.3	9		1403	0.4	12
	2042	−0.4	−12		2029	−0.2	−6
2 F	0159	0.0	0	**17** Sa	0141	0.1	3
	0807	−0.6	−18		0740	−0.4	−12
	1504	0.2	6		1442	0.4	12
	2114	−0.3	−9		2106	−0.1	−3
3 Sa	0227	0.0	0	**18** Su	0207	0.1	3
	0845	−0.5	−15		0817	−0.3	−9
	1546	0.2	6		1526	0.4	12
	2146	−0.2	−6		2147	−0.1	−3
4 Su	0256	0.1	3	**19** M	0239	0.2	6
	0927	−0.4	−12		0901	−0.3	−9
	1633	0.2	6		1616	0.4	12
	2222	−0.1	−3		2235	0.0	0
5 M	0329	0.1	3	**20** Tu	0320	0.1	3
	1016	−0.3	−9		0957	−0.3	−9
	1732	0.1	3		1715	0.3	9
	2315	−0.1	−3		2337	0.0	0
6 Tu ◑	0414	0.0	0	**21** W ◐	0426	0.1	3
	1125	−0.3	−9		1113	−0.2	−6
	1901	0.0	0		1829	0.2	6
7 W	0055	−0.1	−3	**22** Th	0054	−0.1	−3
	0547	0.0	0		0615	0.1	3
	1319	−0.2	−6		1305	−0.2	−6
	2046	0.0	0		1953	0.1	3
8 Th	0252	−0.1	−3	**23** F	0206	−0.1	−3
	0818	0.0	0		0813	0.1	3
	1513	−0.2	−6		1459	−0.2	−6
	2152	0.0	0		2105	0.0	0
9 F	0348	−0.2	−6	**24** Sa	0302	−0.2	−6
	0945	0.0	0		0936	0.2	6
	1622	−0.3	−9		1621	−0.3	−9
	2234	0.0	0		2200	0.0	0
10 Sa	0424	−0.3	−9	**25** Su	0348	−0.3	−9
	1036	0.1	3		1036	0.3	9
	1709	−0.4	−12		1719	−0.3	−9
	2307	0.0	0		2245	0.0	0
11 Su	0453	−0.3	−9	**26** M	0431	−0.4	−12
	1116	0.1	3		1126	0.3	9
	1746	−0.4	−12		1806	−0.4	−12
	2336	0.0	0		2324	0.0	0
12 M	0520	−0.4	−12	**27** Tu	0511	−0.5	−15
	1150	0.2	6		1210	0.4	12
	1820	−0.4	−12		1846	−0.3	−9
					2359	0.0	0
13 Tu	0003	0.0	0	**28** W ○	0551	−0.5	−15
	0545	−0.4	−12		1252	0.4	12
	1222	0.3	9		1921	−0.3	−9
	1852	−0.4	−12				
14 W ●	0029	0.0	0	**29** Th	0032	0.1	3
	0611	−0.4	−12		0630	−0.5	−15
	1254	0.3	9		1332	0.5	15
	1923	−0.4	−12		1954	−0.2	−6
15 Th	0054	0.1	3	**30** F	0104	0.1	3
	0638	−0.4	−12		0709	−0.4	−12
	1327	0.4	12		1411	0.5	15
	1956	−0.3	−9		2025	−0.1	−3

May

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Sa	0136	0.2	6	**16** Su	0122	0.4	12
	0748	−0.3	−9		0729	−0.1	−3
	1449	0.4	12		1437	0.8	24
	2056	0.0	0		2101	0.2	6
2 Su	0209	0.3	9	**17** M	0159	0.5	15
	0829	−0.2	−6		0814	−0.1	−3
	1528	0.4	12		1520	0.7	21
	2129	0.0	0		2141	0.2	6
3 M	0245	0.3	9	**18** Tu	0245	0.5	15
	0912	−0.2	−6		0906	0.0	0
	1609	0.4	12		1605	0.6	18
	2208	0.1	3		2223	0.2	6
4 Tu	0328	0.3	9	**19** W	0343	0.5	15
	1001	−0.1	−3		1007	0.0	0
	1654	0.3	9		1653	0.5	15
	2255	0.1	3		2309	0.2	6
5 W ◑	0427	0.3	9	**20** Th ◐	0458	0.4	12
	1103	0.0	0		1123	0.1	3
	1749	0.3	9		1746	0.4	12
	2356	0.1	3				
6 Th	0552	0.2	6	**21** F	0002	0.1	3
	1231	0.0	0		0628	0.5	15
	1857	0.2	6		1300	0.1	3
					1846	0.3	9
7 F	0109	0.0	0	**22** Sa	0100	0.0	0
	0735	0.2	6		0759	0.5	15
	1415	0.0	0		1444	0.1	3
	2011	0.2	6		1953	0.3	9
8 Sa	0214	0.0	0	**23** Su	0159	0.0	0
	0858	0.3	9		0917	0.5	15
	1538	0.0	0		1608	0.1	3
	2114	0.2	6		2058	0.3	9
9 Su	0305	−0.1	−3	**24** M	0257	−0.1	−3
	0956	0.3	9		1020	0.6	18
	1636	−0.1	−3		1710	0.1	3
	2204	0.2	6		2156	0.3	9
10 M	0347	−0.1	−3	**25** Tu	0352	−0.1	−3
	1042	0.4	12		1113	0.7	21
	1721	−0.1	−3		1757	0.1	3
	2244	0.2	6		2245	0.3	9
11 Tu	0424	−0.1	−3	**26** W	0442	−0.1	−3
	1121	0.5	15		1200	0.7	21
	1800	−0.1	−3		1835	0.2	6
	2319	0.2	6		2328	0.4	12
12 W	0459	−0.1	−3	**27** Th ○	0530	−0.1	−3
	1159	0.6	18		1244	0.8	24
	1837	0.0	0		1910	0.2	6
	2350	0.3	9				
13 Th ●	0534	−0.1	−3	**28** F	0007	0.5	15
	1237	0.7	21		0615	0.0	0
	1913	0.0	0		1324	0.8	24
					1941	0.3	9
14 F	0020	0.3	9	**29** Sa	0044	0.6	18
	0610	−0.1	−3		0657	0.0	0
	1316	0.7	21		1401	0.8	24
	1948	0.1	3		2012	0.3	9
15 Sa	0049	0.4	12	**30** Su	0121	0.6	18
	0648	−0.1	−3		0738	0.1	3
	1356	0.8	24		1436	0.8	24
	2024	0.2	6		2043	0.4	12
				31 M	0200	0.6	18
					0819	0.2	6
					1510	0.8	24
					2115	0.4	12

June

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Tu	0241	0.7	21	**16** W	0256	0.9	27
	0901	0.2	6		0913	0.3	9
	1543	0.8	24		1544	1.0	30
	2149	0.4	12		2155	0.4	12
2 W	0328	0.7	21	**17** Th	0354	0.9	27
	0946	0.3	9		1011	0.4	12
	1617	0.7	21		1621	0.9	27
	2226	0.4	12		2233	0.4	12
3 Th	0422	0.7	21	**18** F ◐	0459	0.9	27
	1037	0.3	9		1118	0.5	15
	1654	0.6	18		1700	0.8	24
	2306	0.3	9		2316	0.4	12
4 F ◑	0525	0.6	18	**19** Sa	0613	0.9	27
	1140	0.4	12		1238	0.5	15
	1736	0.6	18		1743	0.7	21
	2353	0.3	9				
5 Sa	0639	0.7	21	**20** Su	0007	0.3	9
	1302	0.4	12		0734	0.9	27
	1829	0.6	18		1415	0.6	18
					1837	0.7	21
6 Su	0044	0.3	9	**21** M	0108	0.4	12
	0757	0.7	21		0855	1.0	30
	1435	0.4	12		1552	0.6	18
	1934	0.5	15		1947	0.7	21
7 M	0141	0.3	9	**22** Tu	0217	0.4	12
	0907	0.8	24		1008	1.0	30
	1557	0.4	12		1703	0.6	18
	2042	0.6	18		2105	0.7	21
8 Tu	0237	0.3	9	**23** W	0326	0.4	12
	1007	0.8	24		1108	1.1	34
	1659	0.4	12		1751	0.6	18
	2141	0.6	18		2212	0.8	24
9 W	0331	0.3	9	**24** Th	0429	0.4	12
	1058	0.9	27		1158	1.1	34
	1747	0.5	15		1829	0.7	21
	2230	0.6	18		2307	0.8	24
10 Th	0421	0.3	9	**25** F	0523	0.4	12
	1144	1.0	30		1241	1.2	37
	1829	0.5	15		1901	0.7	21
	2312	0.7	21		2354	0.9	27
11 F	0508	0.3	9	**26** Sa ○	0611	0.4	12
	1228	1.1	34		1317	1.2	37
	1906	0.5	15		1930	0.7	21
	2351	0.7	21				
12 Sa ●	0555	0.3	9	**27** Su	0036	1.0	30
	1310	1.1	34		0653	0.5	15
	1941	0.5	15		1349	1.2	37
					1957	0.7	21
13 Su	0032	0.8	24	**28** M	0115	1.0	30
	0642	0.3	9		0733	0.5	15
	1350	1.2	37		1419	1.2	37
	2014	0.6	18		2024	0.7	21
14 M	0116	0.8	24	**29** Tu	0154	1.0	30
	0730	0.3	9		0811	0.5	15
	1429	1.1	34		1446	1.1	34
	2047	0.5	15		2051	0.7	21
15 Tu	0203	0.9	27	**30** W	0234	1.0	30
	0820	0.3	9		0848	0.5	15
	1507	1.1	34		1513	1.1	34
	2120	0.5	15		2118	0.6	18

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Prudhoe Bay, Alaska, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0315	1.0	30	**16** F	0345	1.2	37
	0926	0.6	18		1003	0.7	21
	1540	1.1	34		1544	1.1	34
	2146	0.6	18		2154	0.6	18
2 F	0358	1.1	34	**17** Sa	0442	1.2	37
	1008	0.6	18		1058	0.7	21
	1608	1.0	30		1615	1.0	30
	2217	0.6	18		2235	0.6	18
3 Sa	0446	1.1	34	**18** Su	0545	1.2	37
	1056	0.7	21		1203	0.8	24
	1638	1.0	30		1647	1.0	30
	2251	0.6	18	◐	2324	0.6	18
4 Su	0543	1.1	34	**19** M	0703	1.2	37
	1156	0.8	24		1331	0.9	27
	1712	1.0	30		1726	1.0	30
◑	2332	0.7	21				
5 M	0653	1.1	34	**20** Tu	0027	0.6	18
	1321	0.8	24		0836	1.2	37
	1754	0.9	27		1535	0.9	27
					1830	1.0	30
6 Tu	0024	0.7	21	**21** W	0149	0.7	21
	0816	1.2	37		1004	1.2	37
	1515	0.8	24		1704	0.9	27
	1856	0.9	27		2024	1.0	30
7 W	0132	0.7	21	**22** Th	0318	0.7	21
	0937	1.2	37		1110	1.3	40
	1651	0.8	24		1747	1.0	30
	2023	0.9	27		2158	1.1	34
8 Th	0248	0.7	21	**23** F	0431	0.7	21
	1043	1.3	40		1157	1.3	40
	1745	0.9	27		1818	0.9	27
	2142	1.0	30		2301	1.1	34
9 F	0358	0.7	21	**24** Sa	0526	0.7	21
	1135	1.4	43		1233	1.3	40
	1822	0.9	27		1844	0.9	27
	2244	1.0	30		2350	1.2	37
10 Sa	0458	0.6	18	**25** Su	0611	0.7	21
	1220	1.4	43		1302	1.3	40
	1853	0.9	27		1908	0.9	27
	2337	1.1	34	○			
11 Su	0553	0.6	18	**26** M	0030	1.2	37
	1300	1.4	43		0650	0.7	21
	1921	0.8	24		1328	1.3	40
●					1930	0.8	24
12 M	0026	1.1	34	**27** Tu	0107	1.2	37
	0644	0.6	18		0725	0.7	21
	1336	1.4	43		1352	1.3	40
	1948	0.8	24		1953	0.8	24
13 Tu	0115	1.2	37	**28** W	0142	1.2	37
	0734	0.5	15		0758	0.7	21
	1410	1.3	40		1415	1.2	37
	2017	0.7	21		2016	0.7	21
14 W	0203	1.2	37	**29** Th	0216	1.2	37
	0823	0.6	18		0830	0.7	21
	1443	1.2	37		1439	1.2	37
	2046	0.6	18		2039	0.7	21
15 Th	0253	1.2	37	**30** F	0250	1.3	40
	0912	0.6	18		0903	0.7	21
	1514	1.2	37		1502	1.2	37
	2119	0.6	18		2103	0.7	21
				31 Sa	0326	1.3	40
					0938	0.8	24
					1526	1.2	37
					2129	0.7	21

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0406	1.3	40	**16** M	0514	1.2	37
	1017	0.9	27		1120	0.9	27
	1550	1.1	34		1601	1.0	30
	2158	0.8	24	◐	2248	0.6	18
2 M	0454	1.3	40	**17** Tu	0629	1.2	37
	1106	0.9	27		1236	0.9	27
	1613	1.1	34		1630	1.0	30
◑	2235	0.8	24		2355	0.7	21
3 Tu	0558	1.3	40	**18** W	0818	1.2	37
	1218	1.0	30		1517	0.9	27
	1636	1.1	34		1719	1.0	30
	2326	0.8	24				
4 W	0730	1.3	40	**19** Th	0137	0.7	21
	1443	1.0	30		1003	1.2	37
	1701	1.1	34		1656	0.9	27
					2013	1.0	30
5 Th	0043	0.8	24	**20** F	0324	0.7	21
	0915	1.3	40		1103	1.2	37
					1725	0.9	27
					2159	1.0	30
6 F	0225	0.8	24	**21** Sa	0436	0.7	21
	1031	1.4	43		1141	1.2	37
	1736	1.0	30		1749	0.9	27
	2118	1.1	34		2259	1.1	34
7 Sa	0353	0.8	24	**22** Su	0527	0.6	18
	1123	1.4	43		1210	1.2	37
	1758	1.0	30		1811	0.8	24
	2235	1.1	34		2342	1.1	34
8 Su	0500	0.7	21	**23** M	0606	0.6	18
	1204	1.4	43		1235	1.2	37
	1821	0.9	27		1832	0.7	21
	2332	1.2	37				
9 M	0556	0.6	18	**24** Tu	0019	1.1	34
	1239	1.4	43		0640	0.6	18
	1845	0.8	24		1257	1.1	34
●				○	1853	0.6	18
10 Tu	0021	1.2	37	**25** W	0051	1.2	37
	0646	0.6	18		0711	0.5	15
	1312	1.3	40		1320	1.1	34
	1911	0.7	21		1914	0.6	18
11 W	0108	1.3	40	**26** Th	0122	1.2	37
	0733	0.5	15		0741	0.5	15
	1342	1.2	37		1342	1.1	34
	1939	0.6	18		1935	0.6	18
12 Th	0154	1.3	40	**27** F	0152	1.2	37
	0817	0.6	18		0810	0.6	18
	1411	1.2	37		1404	1.1	34
	2009	0.5	15		1957	0.6	18
13 F	0239	1.3	40	**28** Sa	0222	1.2	37
	0901	0.6	18		0840	0.6	18
	1439	1.1	34		1426	1.1	34
	2042	0.5	15		2021	0.6	18
14 Sa	0326	1.3	40	**29** Su	0255	1.2	37
	0944	0.7	21		0912	0.7	21
	1507	1.1	34		1447	1.1	34
	2118	0.5	15		2046	0.6	18
15 Su	0416	1.3	40	**30** M	0332	1.2	37
	1029	0.8	24		0948	0.8	24
	1534	1.1	34		1507	1.1	34
	2159	0.6	18		2116	0.6	18
				31 Tu	0418	1.2	37
					1032	0.9	27
					1526	1.0	30
					2154	0.7	21

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0520	1.2	37	**16** Th	0744	0.9	27
	1138	0.9	27		1411	0.7	21
	1544	1.0	30		1717	0.8	24
◑	2248	0.7	21				
2 Th	0655	1.2	37	**17** F	0130	0.6	18
					0934	0.9	27
					1600	0.7	21
					2020	0.8	24
3 F	0019	0.7	21	**18** Sa	0323	0.5	15
	0852	1.2	37		1030	0.9	27
	1634	0.8	24		1636	0.6	18
	1853	0.9	27		2153	0.8	24
4 Sa	0223	0.7	21	**19** Su	0430	0.5	15
	1009	1.1	34		1105	0.9	27
	1650	0.8	24		1702	0.5	15
	2120	0.9	27		2246	0.8	24
5 Su	0356	0.6	18	**20** M	0516	0.4	12
	1058	1.1	34		1132	0.8	24
	1711	0.7	21		1725	0.4	12
	2231	1.0	30		2325	0.9	27
6 M	0502	0.5	15	**21** Tu	0553	0.3	9
	1136	1.1	34		1157	0.8	24
	1735	0.6	18		1748	0.4	12
	2325	1.0	30		2359	0.9	27
7 Tu	0555	0.4	12	**22** W	0624	0.3	9
	1209	1.0	30		1221	0.8	24
	1802	0.5	15		1811	0.3	9
8 W	0012	1.1	34	**23** Th	0029	0.9	27
	0642	0.3	9		0654	0.3	9
	1240	0.9	27		1245	0.8	24
●	1830	0.4	12	○	1833	0.3	9
9 Th	0056	1.1	34	**24** F	0058	1.0	30
	0725	0.3	9		0722	0.3	9
	1309	0.9	27		1307	0.8	24
	1901	0.3	9		1856	0.3	9
10 F	0138	1.2	37	**25** Sa	0128	1.0	30
	0805	0.4	12		0751	0.3	9
	1337	0.9	27		1330	0.8	24
	1934	0.2	6		1919	0.3	9
11 Sa	0221	1.2	37	**26** Su	0158	1.0	30
	0844	0.4	12		0821	0.4	12
	1405	0.9	27		1351	0.8	24
	2010	0.2	6		1945	0.3	9
12 Su	0304	1.1	34	**27** M	0232	1.0	30
	0921	0.5	15		0853	0.5	15
	1433	0.9	27		1412	0.8	24
	2047	0.3	9		2014	0.3	9
13 M	0350	1.1	34	**28** Tu	0311	1.0	30
	0958	0.6	18		0930	0.5	15
	1500	0.9	27		1433	0.8	24
	2129	0.4	12		2048	0.4	12
14 Tu	0443	1.0	30	**29** W	0357	1.0	30
	1041	0.7	21		1015	0.6	18
	1529	0.9	27		1457	0.8	24
◐	2219	0.5	15		2131	0.4	12
15 W	0553	1.0	30	**30** Th	0458	0.9	27
	1144	0.7	21		1122	0.6	18
	1602	0.8	24		1529	0.7	21
	2331	0.5	15	◑	2234	0.4	12

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Prudhoe Bay, Alaska, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0624	0.9	27
	1318	0.6	18
	1644	0.7	21
2 Sa	0018	0.4	12
	0809	0.8	24
	1456	0.5	15
	1931	0.6	18
3 Su	0227	0.3	9
	0926	0.7	21
	1540	0.4	12
	2118	0.7	21
4 M	0358	0.2	6
	1018	0.7	21
	1613	0.3	9
	2222	0.7	21
5 Tu	0501	0.2	6
	1058	0.6	18
	1646	0.2	6
	2313	0.8	24
6 W	0551	0.1	3
	1133	0.6	18
	1719	0.1	3
	2358	0.9	27
7 Th ●	0635	0.1	3
	1205	0.5	15
	1754	0.0	0
8 F	0041	0.9	27
	0714	0.1	3
	1235	0.5	15
	1829	−0.1	−3
9 Sa	0123	0.9	27
	0750	0.1	3
	1306	0.5	15
	1906	−0.1	−3
10 Su	0204	0.9	27
	0825	0.2	6
	1335	0.6	18
	1945	0.0	0
11 M	0245	0.9	27
	0859	0.3	9
	1406	0.6	18
	2025	0.0	0
12 Tu	0329	0.8	24
	0934	0.4	12
	1437	0.6	18
	2109	0.1	3
13 W	0416	0.7	21
	1014	0.4	12
	1514	0.6	18
	2200	0.2	6
14 Th ◐	0515	0.7	21
	1110	0.5	15
	1604	0.6	18
	2311	0.3	9
15 F	0637	0.6	18
	1243	0.4	12
	1743	0.5	15

	Time	Height	
	h m	ft	cm
16 Sa	0103	0.3	9
	0815	0.5	15
	1425	0.4	12
	2003	0.5	15
17 Su	0257	0.3	9
	0924	0.5	15
	1522	0.3	9
	2128	0.5	15
18 M	0408	0.2	6
	1009	0.5	15
	1600	0.2	6
	2220	0.6	18
19 Tu	0455	0.1	3
	1044	0.4	12
	1632	0.1	3
	2300	0.6	18
20 W	0532	0.1	3
	1114	0.4	12
	1700	0.1	3
	2334	0.6	18
21 Th	0605	0.1	3
	1142	0.4	12
	1727	0.0	0
22 F ○	0006	0.7	21
	0635	0.1	3
	1209	0.5	15
	1754	0.0	0
23 Sa	0037	0.7	21
	0706	0.1	3
	1234	0.5	15
	1821	0.0	0
24 Su	0109	0.8	24
	0737	0.1	3
	1258	0.5	15
	1850	0.0	0
25 M	0143	0.8	24
	0809	0.2	6
	1322	0.5	15
	1921	0.0	0
26 Tu	0220	0.8	24
	0845	0.3	9
	1347	0.5	15
	1956	0.1	3
27 W	0301	0.8	24
	0924	0.3	9
	1417	0.5	15
	2037	0.1	3
28 Th	0347	0.7	21
	1010	0.3	9
	1456	0.5	15
	2128	0.1	3
29 F	0441	0.6	18
	1106	0.3	9
	1557	0.5	15
	2238	0.1	3
30 Sa ◑	0547	0.5	15
	1216	0.3	9
	1736	0.4	12
31 Su	0023	0.1	3
	0706	0.4	12
	1327	0.2	6
	1935	0.4	12

November

	Time	Height	
	h m	ft	cm
1 M	0222	0.1	3
	0823	0.3	9
	1425	0.1	3
	2104	0.5	15
2 Tu	0352	0.0	0
	0924	0.3	9
	1515	−0.1	−3
	2207	0.5	15
3 W	0455	0.0	0
	1012	0.2	6
	1600	−0.2	−6
	2300	0.6	18
4 Th	0544	−0.1	−3
	1053	0.2	6
	1643	−0.2	−6
	2346	0.6	18
5 F ●	0626	−0.1	−3
	1131	0.3	9
	1725	−0.3	−9
6 Sa	0030	0.7	21
	0703	0.0	0
	1206	0.3	9
	1807	−0.3	−9
7 Su	0112	0.7	21
	0737	0.0	0
	1240	0.3	9
	1848	−0.2	−6
8 M	0153	0.7	21
	0810	0.1	3
	1315	0.4	12
	1930	−0.2	−6
9 Tu	0232	0.7	21
	0843	0.1	3
	1350	0.4	12
	2012	−0.1	−3
10 W	0312	0.6	18
	0917	0.2	6
	1429	0.4	12
	2057	−0.1	−3
11 Th	0352	0.5	15
	0955	0.2	6
	1514	0.4	12
	2146	0.0	0
12 F	0436	0.4	12
	1040	0.2	6
	1612	0.4	12
	2247	0.1	3
13 Sa ◐	0525	0.4	12
	1136	0.1	3
	1734	0.3	9
14 Su	0011	0.1	3
	0627	0.3	9
	1243	0.1	3
	1915	0.3	9
15 M	0156	0.1	3
	0739	0.2	6
	1349	0.0	0
	2041	0.3	9

	Time	Height	
	h m	ft	cm
16 Tu	0324	0.0	0
	0847	0.2	6
	1444	0.0	0
	2142	0.4	12
17 W	0424	0.0	0
	0941	0.2	6
	1530	−0.1	−3
	2229	0.4	12
18 Th	0509	0.0	0
	1024	0.2	6
	1610	−0.1	−3
	2309	0.5	15
19 F	0547	0.0	0
	1101	0.2	6
	1647	−0.1	−3
	2347	0.6	18
20 Sa	0622	0.0	0
	1134	0.3	9
	1722	−0.1	−3
21 Su ○	0023	0.6	18
	0657	0.0	0
	1204	0.3	9
	1757	−0.1	−3
22 M	0100	0.7	21
	0731	0.1	3
	1233	0.4	12
	1833	−0.1	−3
23 Tu	0137	0.7	21
	0805	0.1	3
	1305	0.4	12
	1911	−0.1	−3
24 W	0216	0.7	21
	0841	0.1	3
	1340	0.4	12
	1954	−0.1	−3
25 Th	0255	0.6	18
	0917	0.1	3
	1422	0.4	12
	2041	−0.1	−3
26 F	0336	0.6	18
	0955	0.1	3
	1515	0.4	12
	2137	−0.1	−3
27 Sa	0419	0.5	15
	1036	0.0	0
	1622	0.3	9
	2245	0.0	0
28 Su ◑	0505	0.3	9
	1123	0.0	0
	1745	0.3	9
29 M	0014	0.0	0
	0559	0.2	6
	1217	−0.1	−3
	1917	0.3	9
30 Tu	0202	0.0	0
	0703	0.1	3
	1318	−0.2	−6
	2041	0.4	12

December

	Time	Height	
	h m	ft	cm
1 W	0339	0.0	0
	0813	0.1	3
	1421	−0.2	−6
	2151	0.4	12
2 Th	0449	−0.1	−3
	0919	0.1	3
	1521	−0.3	−9
	2250	0.5	15
3 F	0540	−0.1	−3
	1015	0.1	3
	1617	−0.3	−9
	2341	0.5	15
4 Sa	0621	0.0	0
	1103	0.2	6
	1709	−0.3	−9
5 Su ●	0026	0.6	18
	0656	0.0	0
	1146	0.2	6
	1757	−0.3	−9
6 M	0108	0.6	18
	0729	0.0	0
	1227	0.3	9
	1842	−0.3	−9
7 Tu	0146	0.6	18
	0759	0.0	0
	1306	0.3	9
	1925	−0.2	−6
8 W	0222	0.5	15
	0830	0.0	0
	1346	0.3	9
	2007	−0.2	−6
9 Th	0255	0.5	15
	0900	0.0	0
	1427	0.3	9
	2048	−0.2	−6
10 F	0326	0.4	12
	0932	0.0	0
	1513	0.3	9
	2131	−0.1	−3
11 Sa	0357	0.4	12
	1005	0.0	0
	1603	0.3	9
	2219	−0.1	−3
12 Su	0429	0.3	9
	1042	−0.1	−3
	1702	0.3	9
	2316	0.0	0
13 M ◐	0506	0.2	6
	1125	−0.1	−3
	1811	0.3	9
14 Tu	0031	0.0	0
	0551	0.2	6
	1215	−0.1	−3
	1931	0.3	9
15 W	0207	0.0	0
	0653	0.1	3
	1315	−0.1	−3
	2050	0.3	9

	Time	Height	
	h m	ft	cm
16 Th	0341	0.0	0
	0809	0.1	3
	1419	−0.1	−3
	2155	0.4	12
17 F	0449	0.0	0
	0921	0.1	3
	1519	−0.1	−3
	2249	0.5	15
18 Sa	0539	0.0	0
	1016	0.2	6
	1612	−0.1	−3
	2335	0.5	15
19 Su	0619	0.1	3
	1101	0.2	6
	1700	−0.1	−3
20 M ○	0016	0.6	18
	0654	0.1	3
	1141	0.3	9
	1745	−0.2	−6
21 Tu	0055	0.6	18
	0726	0.1	3
	1220	0.3	9
	1829	−0.2	−6
22 W	0132	0.6	18
	0756	0.0	0
	1300	0.3	9
	1914	−0.2	−6
23 Th	0208	0.6	18
	0826	0.0	0
	1344	0.4	12
	2000	−0.2	−6
24 F	0243	0.5	15
	0855	−0.1	−3
	1431	0.4	12
	2048	−0.2	−6
25 Sa	0316	0.4	12
	0926	−0.1	−3
	1524	0.4	12
	2141	−0.2	−6
26 Su	0350	0.3	9
	1000	−0.2	−6
	1622	0.3	9
	2240	−0.1	−3
27 M ◑	0424	0.2	6
	1039	−0.2	−6
	1729	0.3	9
	2352	−0.1	−3
28 Tu	0500	0.1	3
	1125	−0.3	−9
	1847	0.3	9
29 W	0125	0.0	0
	0543	0.1	3
	1223	−0.3	−9
	2015	0.3	9
30 Th	0319	−0.1	−3
	0646	0.0	0
	1335	−0.3	−9
	2139	0.4	12
31 F	0450	0.0	0
	0818	0.1	3
	1455	−0.3	−9
	2248	0.4	12

Time meridian 135° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sand Island, Midway Islands, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0525	1.6	49
	1154	0.6	18
	1622	0.9	27
	2254	−0.1	−3
2 Sa	0607	1.6	49
	1233	0.5	15
	1732	1.0	30
	2350	0.0	0
3 Su	0646	1.5	46
	1313	0.4	12
	1842	1.1	34
4 M	0045	0.1	3
	0723	1.5	46
	1354	0.2	6
	1951	1.1	34
5 Tu	0142	0.2	6
	0800	1.4	43
	1437	0.1	3
	2059	1.2	37
6 W ◑	0240	0.4	12
	0837	1.3	40
	1522	0.0	0
	2206	1.2	37
7 Th	0342	0.5	15
	0916	1.2	37
	1608	0.0	0
	2313	1.3	40
8 F	0449	0.6	18
	0957	1.2	37
	1656	0.0	0
9 Sa	0019	1.3	40
	0601	0.7	21
	1042	1.1	34
	1747	0.0	0
10 Su	0123	1.4	43
	0716	0.8	24
	1131	1.0	30
	1839	0.0	0
11 M	0224	1.4	43
	0831	0.8	24
	1225	0.9	27
	1932	0.0	0
12 Tu	0319	1.4	43
	0938	0.7	21
	1325	0.9	27
	2024	0.1	3
13 W	0409	1.4	43
	1033	0.7	21
	1426	0.9	27
	2114	0.1	3
14 Th ●	0453	1.4	43
	1118	0.7	21
	1525	0.9	27
	2201	0.1	3
15 F	0532	1.4	43
	1155	0.6	18
	1622	0.9	27
	2246	0.2	6

	Time	Height	
	h m	ft	cm
16 Sa	0605	1.4	43
	1227	0.6	18
	1716	0.9	27
	2328	0.2	6
17 Su	0635	1.4	43
	1256	0.5	15
	1808	1.0	30
18 M	0009	0.3	9
	0701	1.3	40
	1324	0.4	12
	1858	1.0	30
19 Tu	0051	0.4	12
	0726	1.3	40
	1353	0.3	9
	1948	1.1	34
20 W	0134	0.4	12
	0751	1.2	37
	1422	0.3	9
	2039	1.1	34
21 Th	0220	0.5	15
	0815	1.2	37
	1453	0.2	6
	2130	1.2	37
22 F ◐	0310	0.6	18
	0839	1.1	34
	1528	0.1	3
	2225	1.3	40
23 Sa	0406	0.7	21
	0906	1.1	34
	1607	0.1	3
	2323	1.3	40
24 Su	0511	0.8	24
	0936	1.0	30
	1652	0.0	0
25 M	0026	1.4	43
	0625	0.9	27
	1013	1.0	30
	1744	0.0	0
26 Tu	0130	1.4	43
	0744	0.9	27
	1106	1.0	30
	1842	−0.1	−3
27 W	0231	1.5	46
	0854	0.8	24
	1220	1.0	30
	1944	−0.1	−3
28 Th	0325	1.5	46
	0949	0.8	24
	1347	1.0	30
	2047	−0.1	−3
29 F ○	0414	1.5	46
	1034	0.7	21
	1512	1.0	30
	2149	0.0	0
30 Sa	0457	1.5	46
	1116	0.5	15
	1629	1.1	34
	2249	0.0	0
31 Su	0536	1.5	46
	1156	0.4	12
	1740	1.2	37
	2347	0.1	3

February

	Time	Height	
	h m	ft	cm
1 M	0614	1.4	43
	1238	0.2	6
	1845	1.3	40
2 Tu	0043	0.2	6
	0651	1.4	43
	1319	0.1	3
	1946	1.3	40
3 W	0138	0.4	12
	0728	1.3	40
	1402	0.0	0
	2045	1.4	43
4 Th	0233	0.5	15
	0806	1.3	40
	1446	0.0	0
	2144	1.4	43
5 F ◑	0329	0.6	18
	0846	1.2	37
	1532	0.0	0
	2243	1.4	43
6 Sa	0428	0.7	21
	0927	1.1	34
	1620	0.0	0
	2344	1.3	40
7 Su	0532	0.7	21
	1011	1.0	30
	1712	0.0	0
8 M	0048	1.3	40
	0642	0.8	24
	1100	1.0	30
	1807	0.1	3
9 Tu	0152	1.3	40
	0755	0.8	24
	1158	0.9	27
	1906	0.1	3
10 W	0251	1.3	40
	0903	0.7	21
	1304	0.9	27
	2004	0.2	6
11 Th	0343	1.3	40
	0957	0.7	21
	1415	0.9	27
	2100	0.2	6
12 F	0425	1.3	40
	1039	0.6	18
	1522	0.9	27
	2152	0.2	6
13 Sa ●	0501	1.3	40
	1113	0.5	15
	1622	1.0	30
	2239	0.3	9
14 Su	0532	1.3	40
	1143	0.5	15
	1714	1.0	30
	2323	0.3	9
15 M	0559	1.2	37
	1211	0.4	12
	1802	1.1	34

	Time	Height	
	h m	ft	cm
16 Tu	0006	0.4	12
	0624	1.2	37
	1238	0.3	9
	1847	1.2	37
17 W	0047	0.4	12
	0648	1.1	34
	1306	0.2	6
	1930	1.2	37
18 Th	0129	0.5	15
	0711	1.1	34
	1335	0.1	3
	2014	1.3	40
19 F	0212	0.5	15
	0735	1.1	34
	1408	0.1	3
	2100	1.3	40
20 Sa	0257	0.6	18
	0800	1.0	30
	1444	0.0	0
	2151	1.3	40
21 Su ◐	0346	0.7	21
	0829	1.0	30
	1527	0.0	0
	2247	1.3	40
22 M	0442	0.7	21
	0904	1.0	30
	1617	−0.1	−3
	2348	1.3	40
23 Tu	0546	0.8	24
	0952	1.0	30
	1715	−0.1	−3
24 W	0051	1.3	40
	0657	0.8	24
	1100	0.9	27
	1820	0.0	0
25 Th	0153	1.3	40
	0804	0.7	21
	1229	0.9	27
	1930	0.0	0
26 F	0247	1.3	40
	0900	0.6	18
	1402	1.0	30
	2039	0.0	0
27 Sa	0335	1.3	40
	0949	0.5	15
	1526	1.1	34
	2146	0.1	3
28 Su ○	0418	1.3	40
	1034	0.3	9
	1637	1.2	37
	2247	0.2	6

March

	Time	Height	
	h m	ft	cm
1 M	0459	1.2	37
	1117	0.1	3
	1740	1.3	40
	2345	0.2	6
2 Tu	0538	1.2	37
	1200	0.0	0
	1837	1.4	43
3 W	0039	0.3	9
	0617	1.2	37
	1243	−0.1	−3
	1931	1.4	43
4 Th	0131	0.4	12
	0657	1.1	34
	1326	−0.1	−3
	2022	1.4	43
5 F	0222	0.4	12
	0737	1.1	34
	1410	−0.1	−3
	2114	1.4	43
6 Sa	0313	0.5	15
	0818	1.0	30
	1455	−0.1	−3
	2207	1.3	40
7 Su ◑	0405	0.5	15
	0900	1.0	30
	1543	0.0	0
	2304	1.2	37
8 M	0502	0.6	18
	0946	0.9	27
	1636	0.0	0
9 Tu	0005	1.2	37
	0605	0.6	18
	1039	0.9	27
	1734	0.1	3
10 W	0108	1.1	34
	0711	0.6	18
	1144	0.8	24
	1838	0.2	6
11 Th	0207	1.1	34
	0812	0.6	18
	1300	0.8	24
	1944	0.2	6
12 F	0257	1.1	34
	0903	0.5	15
	1416	0.9	27
	2047	0.2	6
13 Sa	0339	1.1	34
	0944	0.4	12
	1522	0.9	27
	2144	0.3	9
14 Su	0414	1.0	30
	1018	0.3	9
	1618	1.0	30
	2235	0.3	9
15 M ●	0445	1.0	30
	1050	0.2	6
	1706	1.1	34
	2321	0.3	9

	Time	Height	
	h m	ft	cm
16 Tu	0514	1.0	30
	1120	0.1	3
	1749	1.1	34
17 W	0004	0.3	9
	0540	0.9	27
	1149	0.1	3
	1829	1.2	37
18 Th	0045	0.4	12
	0606	0.9	27
	1219	0.0	0
	1909	1.3	40
19 F	0126	0.4	12
	0632	0.8	24
	1252	−0.1	−3
	1950	1.3	40
20 Sa	0206	0.4	12
	0658	0.8	24
	1328	−0.1	−3
	2035	1.3	40
21 Su	0247	0.5	15
	0729	0.8	24
	1409	−0.2	−6
	2123	1.3	40
22 M	0332	0.5	15
	0805	0.8	24
	1457	−0.2	−6
	2215	1.2	37
23 Tu ◐	0423	0.6	18
	0853	0.8	24
	1551	−0.2	−6
	2311	1.2	37
24 W	0520	0.5	15
	0958	0.8	24
	1654	−0.1	−3
25 Th	0009	1.1	34
	0622	0.5	15
	1123	0.8	24
	1806	0.0	0
26 F	0105	1.1	34
	0721	0.4	12
	1257	0.9	27
	1922	0.1	3
27 Sa	0158	1.0	30
	0816	0.2	6
	1423	1.0	30
	2036	0.1	3
28 Su	0247	1.0	30
	0906	0.1	3
	1536	1.1	34
	2145	0.2	6
29 M ○	0332	1.0	30
	0953	−0.1	−3
	1638	1.2	37
	2247	0.2	6
30 Tu	0417	0.9	27
	1038	−0.2	−6
	1733	1.3	40
	2343	0.2	6
31 W	0500	0.9	27
	1122	−0.2	−6
	1823	1.3	40

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sand Island, Midway Islands, 2010

Times and Heights of High and Low Waters

April

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Th	0034	0.2 6	16 F	0041	0.3 9
	0543	0.9 27		0521	0.6 18
	1206	−0.3 −9		1137	−0.3 −9
	1910	1.3 40		1848	1.2 37
2 F	0122	0.2 6	17 Sa	0120	0.3 9
	0626	0.9 27		0552	0.6 18
	1249	−0.3 −9		1216	−0.3 −9
	1957	1.3 40		1930	1.3 40
3 Sa	0209	0.3 9	18 Su	0159	0.3 9
	0708	0.8 24		0627	0.6 18
	1333	−0.2 −6		1257	−0.3 −9
	2044	1.3 40		2014	1.2 37
4 Su	0255	0.3 9	19 M	0239	0.3 9
	0751	0.8 24		0709	0.6 18
	1418	−0.2 −6		1344	−0.3 −9
	2133	1.2 37		2059	1.2 37
5 M ◑	0343	0.3 9	20 Tu	0322	0.3 9
	0836	0.8 24		0800	0.6 18
	1506	−0.1 −3		1436	−0.3 −9
	2223	1.1 34		2147	1.1 34
6 Tu	0435	0.4 12	21 W ◐	0409	0.3 9
	0927	0.7 21		0906	0.6 18
	1558	0.0 0		1534	−0.2 −6
	2317	1.0 30		2235	1.0 30
7 W	0529	0.4 12	22 Th	0500	0.2 6
	1028	0.7 21		1026	0.7 21
	1657	0.1 3		1642	−0.1 −3
				2324	1.0 30
8 Th	0011	0.9 27	23 F	0553	0.1 3
	0624	0.3 9		1155	0.7 21
	1141	0.7 21		1758	0.1 3
	1805	0.1 3			
9 F	0102	0.9 27	24 Sa	0013	0.9 27
	0716	0.3 9		0647	0.0 0
	1300	0.7 21		1320	0.8 24
	1918	0.2 6		1918	0.1 3
10 Sa	0150	0.8 24	25 Su	0104	0.8 24
	0802	0.2 6		0739	−0.1 −3
	1413	0.8 24		1434	1.0 30
	2030	0.2 6		2035	0.2 6
11 Su	0232	0.8 24	26 M	0154	0.7 21
	0843	0.1 3		0828	−0.3 −9
	1513	0.9 27		1536	1.1 34
	2133	0.3 9		2144	0.2 6
12 M	0311	0.7 21	27 Tu	0245	0.7 21
	0920	0.0 0		0917	−0.3 −9
	1604	1.0 30		1631	1.2 37
	2228	0.3 9		2244	0.2 6
13 Tu	0346	0.7 21	28 W ○	0334	0.7 21
	0954	−0.1 −3		1003	−0.4 −12
	1648	1.1 34		1720	1.3 40
	2317	0.3 9		2337	0.2 6
14 W ●	0419	0.7 21	29 Th	0423	0.7 21
	1028	−0.1 −3		1048	−0.4 −12
	1728	1.2 37		1806	1.3 40
15 Th	0001	0.3 9	30 F	0026	0.2 6
	0450	0.6 18		0510	0.6 18
	1102	−0.2 −6		1132	−0.4 −12
	1808	1.2 37		1850	1.3 40

May

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Sa	0111	0.2 6	16 Su	0110	0.3 9
	0555	0.6 18		0519	0.5 15
	1216	−0.4 −12		1149	−0.4 −12
	1933	1.2 37		1912	1.2 37
2 Su	0155	0.2 6	17 M	0147	0.2 6
	0640	0.6 18		0609	0.5 15
	1259	−0.3 −9		1237	−0.4 −12
	2017	1.1 34		1954	1.2 37
3 M	0238	0.2 6	18 Tu	0226	0.2 6
	0726	0.6 18		0707	0.6 18
	1343	−0.2 −6		1328	−0.3 −9
	2100	1.1 34		2035	1.1 34
4 Tu	0322	0.2 6	19 W	0307	0.1 3
	0816	0.6 18		0814	0.6 18
	1430	−0.1 −3		1424	−0.2 −6
	2143	1.0 30		2116	1.1 34
5 W ◑	0406	0.2 6	20 Th ◐	0350	0.1 3
	0914	0.6 18		0930	0.6 18
	1521	0.0 0		1525	−0.1 −3
	2225	0.9 27		2158	1.0 30
6 Th	0451	0.1 3	21 F	0437	−0.1 −3
	1021	0.6 18		1051	0.7 21
	1620	0.1 3		1635	0.1 3
	2307	0.8 24		2240	0.9 27
7 F	0536	0.1 3	22 Sa	0525	−0.2 −6
	1135	0.6 18		1212	0.8 24
	1728	0.2 6		1752	0.2 6
	2348	0.7 21		2325	0.8 24
8 Sa	0620	0.0 0	23 Su	0615	−0.3 −9
	1249	0.7 21		1326	0.9 27
	1846	0.3 9		1913	0.3 9
9 Su	0030	0.7 21	24 M	0013	0.7 21
	0703	−0.1 −3		0706	−0.3 −9
	1355	0.8 24		1431	1.1 34
	2004	0.3 9		2030	0.3 9
10 M	0112	0.6 18	25 Tu	0105	0.7 21
	0743	−0.1 −3		0756	−0.4 −12
	1451	0.9 27		1527	1.1 34
	2115	0.3 9		2138	0.3 9
11 Tu	0154	0.5 15	26 W	0200	0.6 18
	0823	−0.2 −6		0845	−0.4 −12
	1540	1.0 30		1618	1.2 37
	2215	0.3 9		2237	0.3 9
12 W	0235	0.5 15	27 Th ○	0255	0.6 18
	0902	−0.3 −9		0933	−0.4 −12
	1624	1.1 34		1705	1.2 37
	2306	0.3 9		2329	0.3 9
13 Th ●	0315	0.5 15	28 F	0348	0.6 18
	0941	−0.3 −9		1019	−0.4 −12
	1706	1.2 37		1749	1.2 37
	2351	0.3 9			
14 F	0354	0.5 15	29 Sa	0015	0.2 6
	1022	−0.4 −12		0438	0.6 18
	1748	1.2 37		1104	−0.4 −12
				1832	1.2 37
15 Sa	0032	0.3 9	30 Su	0058	0.2 6
	0435	0.5 15		0527	0.6 18
	1104	−0.4 −12		1148	−0.3 −9
	1830	1.3 40		1912	1.2 37
			31 M	0139	0.2 6
				0616	0.6 18
				1231	−0.2 −6
				1950	1.1 34

June

	Time	Height		Time	Height
	h m	ft cm		h m	ft cm
1 Tu	0218	0.2 6	16 W	0201	0.2 6
	0707	0.6 18		0717	0.7 21
	1314	−0.1 −3		1320	−0.2 −6
	2027	1.1 34		2006	1.2 37
2 W	0255	0.1 3	17 Th	0241	0.1 3
	0802	0.6 18		0829	0.8 24
	1400	0.0 0		1418	0.0 0
	2101	1.0 30		2044	1.1 34
3 Th	0332	0.1 3	18 F ◐	0323	−0.1 −3
	0903	0.6 18		0943	0.9 27
	1450	0.1 3		1521	0.2 6
	2134	0.9 27		2121	1.0 30
4 F ◑	0410	0.0 0	19 Sa	0409	−0.2 −6
	1008	0.7 21		1056	0.9 27
	1546	0.2 6		1629	0.3 9
	2206	0.8 24		2201	1.0 30
5 Sa	0448	0.0 0	20 Su	0456	−0.3 −9
	1116	0.7 21		1208	1.0 30
	1652	0.3 9		1743	0.4 12
	2239	0.8 24		2244	0.9 27
6 Su	0527	−0.1 −3	21 M	0546	−0.3 −9
	1222	0.8 24		1315	1.1 34
	1807	0.4 12		1901	0.5 15
	2313	0.7 21		2332	0.8 24
7 M	0608	−0.2 −6	22 Tu	0637	−0.3 −9
	1323	0.9 27		1416	1.2 37
	1928	0.4 12		2016	0.5 15
	2351	0.6 18			
8 Tu	0650	−0.2 −6	23 W	0026	0.7 21
	1419	1.0 30		0729	−0.3 −9
	2045	0.4 12		1512	1.2 37
				2125	0.5 15
9 W	0033	0.6 18	24 Th	0124	0.7 21
	0733	−0.3 −9		0821	−0.3 −9
	1510	1.1 34		1603	1.3 40
	2152	0.4 12		2224	0.5 15
10 Th	0120	0.5 15	25 F	0223	0.7 21
	0818	−0.3 −9		0911	−0.2 −6
	1558	1.2 37		1650	1.3 40
	2247	0.4 12		2316	0.4 12
11 F	0211	0.5 15	26 Sa ○	0320	0.7 21
	0905	−0.4 −12		0958	−0.2 −6
	1644	1.3 40		1734	1.3 40
	2332	0.4 12			
12 Sa ●	0305	0.5 15	27 Su	0000	0.4 12
	0953	−0.4 −12		0415	0.7 21
	1728	1.3 40		1044	−0.2 −6
				1813	1.3 40
13 Su	0011	0.4 12	28 M	0039	0.4 12
	0402	0.6 18		0509	0.7 21
	1042	−0.4 −12		1128	−0.1 −3
	1810	1.3 40		1849	1.2 37
14 M	0047	0.3 9	29 Tu	0115	0.3 9
	0504	0.6 18		0602	0.7 21
	1133	−0.4 −12		1211	0.0 0
	1850	1.3 40		1921	1.2 37
15 Tu	0123	0.3 9	30 W	0147	0.3 9
	0608	0.7 21		0656	0.7 21
	1226	−0.3 −9		1254	0.1 3
	1929	1.3 40		1951	1.1 34

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sand Island, Midway Islands, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0219	0.2	6
	0751	0.8	24
	1339	0.2	6
	2019	1.1	34
2 F	0251	0.1	3
	0847	0.8	24
	1427	0.3	9
	2046	1.0	30
3 Sa	0324	0.1	3
	0945	0.9	27
	1519	0.4	12
	2112	1.0	30
4 Su ◑	0359	0.0	0
	1043	1.0	30
	1618	0.5	15
	2140	0.9	27
5 M	0436	−0.1	−3
	1143	1.0	30
	1726	0.6	18
	2210	0.8	24
6 Tu	0517	−0.1	−3
	1243	1.1	34
	1842	0.6	18
	2244	0.8	24
7 W	0602	−0.2	−6
	1342	1.2	37
	2002	0.7	21
	2326	0.8	24
8 Th	0651	−0.2	−6
	1438	1.3	40
	2115	0.6	18
9 F	0019	0.7	21
	0743	−0.2	−6
	1531	1.3	40
	2211	0.6	18
10 Sa	0127	0.7	21
	0838	−0.3	−9
	1619	1.4	43
	2255	0.6	18
11 Su ●	0240	0.8	24
	0934	−0.3	−9
	1703	1.4	43
	2333	0.5	15
12 M	0354	0.8	24
	1029	−0.2	−6
	1744	1.4	43
13 Tu	0010	0.4	12
	0506	0.9	27
	1125	−0.1	−3
	1822	1.4	43
14 W	0047	0.3	9
	0616	0.9	27
	1221	0.0	0
	1858	1.3	40
15 Th	0126	0.1	3
	0724	1.0	30
	1317	0.1	3
	1934	1.3	40

	Time	Height	
	h m	ft	cm
16 F	0208	0.0	0
	0830	1.1	34
	1415	0.3	9
	2010	1.2	37
17 Sa ◐	0251	−0.1	−3
	0936	1.2	37
	1516	0.4	12
	2048	1.1	34
18 Su	0337	−0.2	−6
	1042	1.2	37
	1619	0.5	15
	2129	1.1	34
19 M	0426	−0.2	−6
	1147	1.3	40
	1727	0.6	18
	2214	1.0	30
20 Tu	0517	−0.2	−6
	1251	1.3	40
	1839	0.7	21
	2303	0.9	27
21 W	0611	−0.1	−3
	1353	1.3	40
	1953	0.7	21
	2359	0.9	27
22 Th	0706	−0.1	−3
	1452	1.3	40
	2103	0.7	21
23 F	0100	0.8	24
	0802	0.0	0
	1545	1.3	40
	2203	0.6	18
24 Sa	0205	0.8	24
	0855	0.0	0
	1632	1.3	40
	2252	0.6	18
25 Su ○	0308	0.8	24
	0945	0.0	0
	1713	1.3	40
	2332	0.5	15
26 M	0408	0.8	24
	1032	0.1	3
	1748	1.3	40
27 Tu	0006	0.5	15
	0503	0.9	27
	1117	0.1	3
	1819	1.3	40
28 W	0037	0.4	12
	0556	0.9	27
	1200	0.2	6
	1847	1.2	37
29 Th	0105	0.3	9
	0646	1.0	30
	1243	0.3	9
	1912	1.2	37
30 F	0134	0.3	9
	0735	1.0	30
	1326	0.4	12
	1937	1.1	34
31 Sa	0203	0.2	6
	0823	1.1	34
	1411	0.5	15
	2001	1.1	34

August

	Time	Height	
	h m	ft	cm
1 Su	0235	0.1	3
	0913	1.2	37
	1458	0.6	18
	2026	1.0	30
2 M ◑	0309	0.1	3
	1004	1.2	37
	1550	0.7	21
	2053	1.0	30
3 Tu	0348	0.0	0
	1100	1.2	37
	1649	0.7	21
	2122	1.0	30
4 W	0431	0.0	0
	1200	1.3	40
	1757	0.8	24
	2157	0.9	27
5 Th	0521	0.0	0
	1302	1.3	40
	1912	0.8	24
	2246	0.9	27
6 F	0617	−0.1	−3
	1403	1.4	43
	2024	0.8	24
	2354	0.9	27
7 Sa	0718	−0.1	−3
	1458	1.4	43
	2120	0.8	24
8 Su	0119	0.9	27
	0821	−0.1	−3
	1547	1.4	43
	2206	0.7	21
9 M ●	0244	1.0	30
	0923	0.0	0
	1630	1.4	43
	2246	0.5	15
10 Tu	0402	1.1	34
	1024	0.0	0
	1709	1.4	43
	2326	0.4	12
11 W	0513	1.2	37
	1122	0.1	3
	1746	1.4	43
12 Th	0007	0.2	6
	0618	1.3	40
	1219	0.2	6
	1823	1.3	40
13 F	0048	0.1	3
	0719	1.3	40
	1315	0.3	9
	1900	1.3	40
14 Sa	0131	0.0	0
	0818	1.4	43
	1410	0.5	15
	1939	1.2	37
15 Su	0216	−0.1	−3
	0916	1.4	43
	1505	0.6	18
	2020	1.2	37

	Time	Height	
	h m	ft	cm
16 M ◐	0304	−0.1	−3
	1015	1.4	43
	1603	0.6	18
	2103	1.1	34
17 Tu	0354	0.0	0
	1115	1.4	43
	1705	0.7	21
	2150	1.1	34
18 W	0447	0.0	0
	1219	1.3	40
	1813	0.7	21
	2242	1.0	30
19 Th	0544	0.1	3
	1323	1.3	40
	1924	0.7	21
	2343	1.0	30
20 F	0645	0.1	3
	1423	1.3	40
	2031	0.7	21
21 Sa	0052	0.9	27
	0746	0.2	6
	1517	1.3	40
	2128	0.7	21
22 Su	0203	0.9	27
	0844	0.2	6
	1602	1.3	40
	2212	0.6	18
23 M	0310	1.0	30
	0938	0.3	9
	1640	1.3	40
	2248	0.5	15
24 Tu ○	0409	1.0	30
	1028	0.3	9
	1712	1.3	40
	2320	0.5	15
25 W	0501	1.1	34
	1113	0.3	9
	1741	1.2	37
	2348	0.4	12
26 Th	0548	1.2	37
	1156	0.4	12
	1806	1.2	37
27 F	0017	0.3	9
	0632	1.2	37
	1238	0.5	15
	1831	1.1	34
28 Sa	0045	0.2	6
	0714	1.3	40
	1318	0.5	15
	1855	1.1	34
29 Su	0115	0.2	6
	0756	1.3	40
	1359	0.6	18
	1919	1.1	34
30 M	0147	0.1	3
	0840	1.3	40
	1442	0.6	18
	1945	1.0	30
31 Tu	0223	0.1	3
	0928	1.4	43
	1528	0.7	21
	2013	1.0	30

September

	Time	Height	
	h m	ft	cm
1 W ◑	0304	0.1	3
	1021	1.4	43
	1621	0.8	24
	2047	1.0	30
2 Th	0352	0.0	0
	1119	1.4	43
	1721	0.8	24
	2132	1.0	30
3 F	0448	0.0	0
	1221	1.3	40
	1828	0.8	24
	2237	1.0	30
4 Sa	0552	0.1	3
	1321	1.3	40
	1933	0.8	24
5 Su	0004	1.0	30
	0701	0.1	3
	1415	1.3	40
	2028	0.7	21
6 M	0136	1.0	30
	0811	0.1	3
	1503	1.3	40
	2115	0.5	15
7 Tu ●	0259	1.1	34
	0919	0.2	6
	1546	1.3	40
	2200	0.4	12
8 W	0411	1.3	40
	1022	0.3	9
	1627	1.3	40
	2243	0.2	6
9 Th	0514	1.4	43
	1121	0.3	9
	1707	1.2	37
	2327	0.1	3
10 F	0611	1.5	46
	1216	0.4	12
	1747	1.2	37
11 Sa	0011	0.0	0
	0705	1.5	46
	1309	0.4	12
	1827	1.2	37
12 Su	0055	−0.1	−3
	0757	1.5	46
	1400	0.5	15
	1910	1.2	37
13 M	0142	−0.1	−3
	0849	1.5	46
	1451	0.6	18
	1954	1.1	34
14 Tu ◐	0229	0.0	0
	0943	1.4	43
	1544	0.6	18
	2040	1.1	34
15 W	0320	0.0	0
	1039	1.4	43
	1641	0.6	18
	2130	1.0	30

	Time	Height	
	h m	ft	cm
16 Th	0414	0.1	3
	1139	1.3	40
	1744	0.7	21
	2228	1.0	30
17 F	0514	0.2	6
	1241	1.3	40
	1849	0.7	21
	2337	0.9	27
18 Sa	0620	0.3	9
	1340	1.2	37
	1949	0.6	18
19 Su	0054	0.9	27
	0728	0.3	9
	1432	1.2	37
	2039	0.6	18
20 M	0208	1.0	30
	0834	0.4	12
	1515	1.1	34
	2120	0.5	15
21 Tu	0312	1.1	34
	0933	0.4	12
	1552	1.1	34
	2155	0.4	12
22 W	0406	1.1	34
	1025	0.4	12
	1624	1.1	34
	2227	0.3	9
23 Th	0452	1.2	37
	1111	0.4	12
	1654	1.0	30
	2257	0.2	6
24 F	0534	1.3	40
	1154	0.5	15
	1721	1.0	30
	2327	0.2	6
25 Sa	0612	1.4	43
	1234	0.5	15
	1747	1.0	30
	2358	0.1	3
26 Su	0651	1.4	43
	1312	0.5	15
	1813	0.9	27
27 M	0030	0.1	3
	0730	1.4	43
	1351	0.6	18
	1840	0.9	27
28 Tu	0105	0.0	0
	0812	1.4	43
	1431	0.6	18
	1909	0.9	27
29 W	0145	0.0	0
	0858	1.4	43
	1514	0.6	18
	1944	0.9	27
30 Th ◑	0229	0.0	0
	0948	1.4	43
	1602	0.7	21
	2030	0.9	27

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Sand Island, Midway Islands, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0322	0.0	0
	1041	1.3	40
	1656	0.7	21
	2133	0.9	27
2 Sa	0423	0.1	3
	1136	1.3	40
	1754	0.6	18
	2257	0.9	27
3 Su	0533	0.2	6
	1230	1.2	37
	1850	0.5	15
4 M	0030	1.0	30
	0650	0.3	9
	1322	1.2	37
	1942	0.4	12
5 Tu	0157	1.1	34
	0807	0.3	9
	1410	1.1	34
	2031	0.2	6
6 W	0310	1.3	40
	0918	0.4	12
	1457	1.1	34
	2119	0.1	3
7 Th ●	0412	1.4	43
	1022	0.4	12
	1542	1.1	34
	2205	−0.1	−3
8 F	0507	1.5	46
	1119	0.4	12
	1627	1.0	30
	2251	−0.1	−3
9 Sa	0558	1.6	49
	1211	0.4	12
	1712	1.0	30
	2336	−0.2	−6
10 Su	0646	1.6	49
	1300	0.4	12
	1757	1.0	30
11 M	0022	−0.2	−6
	0734	1.5	46
	1347	0.5	15
	1842	1.0	30
12 Tu	0108	−0.1	−3
	0822	1.5	46
	1435	0.5	15
	1929	1.0	30
13 W	0156	0.0	0
	0911	1.4	43
	1525	0.5	15
	2019	0.9	27
14 Th ◐	0245	0.1	3
	1002	1.3	40
	1618	0.5	15
	2114	0.9	27
15 F	0339	0.2	6
	1054	1.2	37
	1712	0.5	15
	2219	0.9	27

	Time	Height	
	h m	ft	cm
16 Sa	0440	0.3	9
	1147	1.1	34
	1807	0.5	15
	2335	0.9	27
17 Su	0550	0.4	12
	1239	1.1	34
	1858	0.4	12
18 M	0053	0.9	27
	0705	0.4	12
	1327	1.0	30
	1943	0.3	9
19 Tu	0204	1.0	30
	0819	0.5	15
	1410	1.0	30
	2023	0.3	9
20 W	0303	1.1	34
	0923	0.5	15
	1449	0.9	27
	2100	0.2	6
21 Th	0352	1.2	37
	1018	0.5	15
	1525	0.9	27
	2135	0.1	3
22 F ○	0434	1.3	40
	1106	0.5	15
	1559	0.8	24
	2209	0.1	3
23 Sa	0514	1.4	43
	1148	0.5	15
	1631	0.8	24
	2242	0.0	0
24 Su	0552	1.4	43
	1228	0.5	15
	1701	0.8	24
	2317	0.0	0
25 M	0630	1.4	43
	1306	0.5	15
	1732	0.8	24
	2353	−0.1	−3
26 Tu	0709	1.5	46
	1343	0.5	15
	1806	0.8	24
27 W	0033	−0.1	−3
	0750	1.4	43
	1422	0.5	15
	1845	0.8	24
28 Th	0116	−0.1	−3
	0833	1.4	43
	1502	0.5	15
	1934	0.8	24
29 F	0205	0.0	0
	0918	1.3	40
	1546	0.5	15
	2037	0.8	24
30 Sa ◑	0301	0.1	3
	1003	1.3	40
	1633	0.4	12
	2156	0.9	27
31 Su	0407	0.2	6
	1050	1.2	37
	1722	0.3	9
	2325	0.9	27

November

	Time	Height	
	h m	ft	cm
1 M	0522	0.3	9
	1137	1.1	34
	1813	0.2	6
2 Tu	0051	1.1	34
	0644	0.4	12
	1225	1.0	30
	1904	0.1	3
3 W	0206	1.2	37
	0805	0.5	15
	1315	1.0	30
	1954	−0.1	−3
4 Th	0310	1.3	40
	0916	0.5	15
	1407	0.9	27
	2044	−0.2	−6
5 F ●	0405	1.5	46
	1018	0.5	15
	1458	0.9	27
	2133	−0.2	−6
6 Sa	0456	1.5	46
	1113	0.5	15
	1550	0.9	27
	2220	−0.2	−6
7 Su	0543	1.6	49
	1202	0.4	12
	1640	0.9	27
	2307	−0.2	−6
8 M	0628	1.5	46
	1249	0.4	12
	1729	0.9	27
	2353	−0.2	−6
9 Tu	0713	1.5	46
	1334	0.4	12
	1818	0.9	27
10 W	0039	−0.1	−3
	0757	1.4	43
	1419	0.4	12
	1908	0.9	27
11 Th	0125	0.0	0
	0840	1.4	43
	1504	0.4	12
	2001	0.8	24
12 F	0212	0.1	3
	0923	1.3	40
	1550	0.4	12
	2101	0.8	24
13 Sa ◐	0304	0.2	6
	1005	1.2	37
	1635	0.3	9
	2210	0.8	24
14 Su	0403	0.3	9
	1046	1.1	34
	1719	0.3	9
	2324	0.9	27
15 M	0513	0.4	12
	1127	1.0	30
	1803	0.2	6

	Time	Height	
	h m	ft	cm
16 Tu	0038	1.0	30
	0632	0.5	15
	1208	0.9	27
	1845	0.2	6
17 W	0144	1.1	34
	0753	0.6	18
	1250	0.8	24
	1926	0.1	3
18 Th	0240	1.2	37
	0904	0.6	18
	1333	0.8	24
	2006	0.0	0
19 F	0328	1.3	40
	1004	0.6	18
	1415	0.8	24
	2046	0.0	0
20 Sa	0411	1.4	43
	1055	0.6	18
	1456	0.7	21
	2125	−0.1	−3
21 Su ○	0452	1.4	43
	1138	0.5	15
	1536	0.7	21
	2204	−0.1	−3
22 M	0532	1.5	46
	1218	0.5	15
	1616	0.7	21
	2245	−0.1	−3
23 Tu	0611	1.5	46
	1255	0.5	15
	1659	0.7	21
	2327	−0.1	−3
24 W	0651	1.5	46
	1331	0.5	15
	1746	0.8	24
25 Th	0012	−0.1	−3
	0730	1.5	46
	1406	0.5	15
	1841	0.8	24
26 F	0100	−0.1	−3
	0809	1.4	43
	1443	0.4	12
	1945	0.8	24
27 Sa	0153	0.1	3
	0847	1.3	40
	1523	0.3	9
	2058	0.9	27
28 Su ◑	0252	0.2	6
	0926	1.3	40
	1606	0.2	6
	2218	1.0	30
29 M	0359	0.4	12
	1005	1.2	37
	1652	0.1	3
	2339	1.1	34
30 Tu	0515	0.5	15
	1048	1.1	34
	1740	0.0	0

December

	Time	Height	
	h m	ft	cm
1 W	0054	1.2	37
	0637	0.6	18
	1134	1.0	30
	1832	−0.1	−3
2 Th	0201	1.3	40
	0757	0.6	18
	1226	0.9	27
	1924	−0.2	−6
3 F	0301	1.4	43
	0909	0.6	18
	1322	0.9	27
	2016	−0.2	−6
4 Sa	0354	1.5	46
	1010	0.6	18
	1421	0.9	27
	2107	−0.2	−6
5 Su ●	0443	1.5	46
	1104	0.5	15
	1518	0.9	27
	2157	−0.2	−6
6 M	0529	1.5	46
	1152	0.5	15
	1614	0.8	24
	2244	−0.1	−3
7 Tu	0612	1.5	46
	1237	0.5	15
	1707	0.8	24
	2330	−0.1	−3
8 W	0653	1.5	46
	1319	0.4	12
	1759	0.8	24
9 Th	0015	0.0	0
	0732	1.4	43
	1359	0.4	12
	1853	0.9	27
10 F	0100	0.1	3
	0809	1.4	43
	1437	0.4	12
	1949	0.9	27
11 Sa	0146	0.2	6
	0843	1.3	40
	1514	0.3	9
	2049	0.9	27
12 Su	0236	0.3	9
	0916	1.2	37
	1551	0.3	9
	2153	0.9	27
13 M ◐	0331	0.5	15
	0947	1.1	34
	1629	0.2	6
	2259	1.0	30
14 Tu	0435	0.6	18
	1019	1.0	30
	1708	0.1	3
15 W	0005	1.1	34
	0549	0.7	21
	1052	0.9	27
	1749	0.1	3

	Time	Height	
	h m	ft	cm
16 Th	0107	1.2	37
	0710	0.7	21
	1129	0.9	27
	1832	0.0	0
17 F	0204	1.3	40
	0830	0.7	21
	1211	0.8	24
	1917	0.0	0
18 Sa	0256	1.3	40
	0939	0.7	21
	1259	0.8	24
	2002	0.0	0
19 Su	0344	1.4	43
	1035	0.7	21
	1352	0.8	24
	2048	−0.1	−3
20 M ○	0429	1.5	46
	1120	0.7	21
	1447	0.8	24
	2135	−0.1	−3
21 Tu	0511	1.5	46
	1158	0.6	18
	1544	0.8	24
	2223	−0.1	−3
22 W	0551	1.5	46
	1231	0.6	18
	1643	0.8	24
	2311	−0.1	−3
23 Th	0629	1.5	46
	1304	0.5	15
	1746	0.9	27
24 F	0002	0.0	0
	0706	1.5	46
	1338	0.4	12
	1851	0.9	27
25 Sa	0054	0.1	3
	0741	1.4	43
	1414	0.3	9
	1959	1.0	30
26 Su	0150	0.2	6
	0815	1.4	43
	1452	0.2	6
	2109	1.1	34
27 M ◑	0250	0.4	12
	0850	1.3	40
	1535	0.1	3
	2221	1.2	37
28 Tu	0355	0.5	15
	0928	1.2	37
	1621	0.0	0
	2332	1.3	40
29 W	0506	0.7	21
	1008	1.1	34
	1711	−0.1	−3
30 Th	0041	1.3	40
	0622	0.7	21
	1055	1.1	34
	1803	−0.1	−3
31 F	0145	1.4	43
	0740	0.8	24
	1148	1.0	30
	1858	−0.1	−3

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nawiliwili, Kauai Island, Hawaii, 2010

Times and Heights of High and Low Waters

January

	Time	Height		Time	Height		Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm		h m	ft / cm		h m	ft / cm
1 F	0431	2.5 / 76	**16** Sa	0441	2.0 / 61	**1** M	0517	1.9 / 58	**16** Tu	0448	1.5 / 46
	1135	0.3 / 9		1130	0.3 / 9		1153	0.0 / 0		1116	0.0 / 0
	1601	0.7 / 21		1621	0.8 / 24		1754	1.2 / 37		1729	1.2 / 37
	2140	−0.3 / −9		2152	0.0 / 0		2322	0.2 / 6		2307	0.3 / 9
2 Sa	0511	2.4 / 73	**17** Su	0506	1.9 / 58	**2** Tu	0549	1.6 / 49	**17** W	0506	1.3 / 40
	1212	0.2 / 6		1153	0.3 / 9		1226	−0.1 / −3		1140	0.0 / 0
	1659	0.8 / 24		1703	0.9 / 27		1858	1.3 / 40		1814	1.2 / 37
	2229	−0.2 / −6		2228	0.1 / 3					2355	0.5 / 15
3 Su	0550	2.2 / 67	**18** M	0530	1.8 / 55	**3** W	0023	0.4 / 12	**18** Th	0522	1.2 / 37
	1249	0.2 / 6		1218	0.2 / 6		0616	1.3 / 40		1206	0.0 / 0
	1806	0.9 / 27		1751	0.9 / 27		1300	−0.1 / −3		1909	1.3 / 40
	2320	0.1 / 3		2307	0.3 / 9		2012	1.3 / 40			
4 M	0628	2.0 / 61	**19** Tu	0551	1.6 / 49	**4** Th	0141	0.7 / 21	**19** F	0057	0.6 / 18
	1328	0.1 / 3		1244	0.2 / 6		0637	1.1 / 34		0534	1.0 / 30
	1923	1.0 / 30		1847	1.0 / 30		1338	−0.1 / −3		1238	0.0 / 0
				2351	0.5 / 15		2135	1.4 / 43		2020	1.4 / 43
5 Tu	0019	0.4 / 12	**20** W	0608	1.4 / 43	**5** F ◑	0408	0.7 / 21	**20** Sa	0234	0.7 / 21
	0703	1.7 / 52		1312	0.1 / 3		0623	0.8 / 24		0534	0.8 / 24
	1407	0.0 / 0		1957	1.0 / 30		1423	0.0 / 0		1319	0.0 / 0
	2052	1.1 / 34					2258	1.6 / 49		2147	1.5 / 46
6 W	0134	0.7 / 21	**21** Th	0049	0.7 / 21	**6** Sa	1520	0.0 / 0	**21** Su ◐	1416	0.0 / 0
	0737	1.4 / 43		0622	1.2 / 37					2309	1.6 / 49
	1447	0.0 / 0		1344	0.1 / 3						
	2223	1.3 / 40		2123	1.2 / 37						
7 Th ◑	0333	0.9 / 27	**22** F	0222	0.9 / 27	**7** Su	0006	1.7 / 52	**22** M	1533	0.0 / 0
	0807	1.1 / 34		0628	1.1 / 34		1629	0.0 / 0			
	1530	0.0 / 0		1422	0.0 / 0						
	2338	1.6 / 49		2247	1.4 / 43						
8 F	1617	−0.1 / −3	**23** Sa ◐	1512	0.0 / 0	**8** M	0059	1.8 / 55	**23** Tu	0012	1.8 / 55
				2352	1.6 / 49		0915	0.4 / 12		0839	0.3 / 9
							1212	0.5 / 15		1104	0.4 / 12
							1736	0.0 / 0		1653	−0.1 / −3
9 Sa	0036	1.8 / 55	**24** Su	1611	−0.1 / −3	**9** Tu	0142	1.8 / 55	**24** W	0103	1.9 / 58
	1705	−0.1 / −3					0923	0.4 / 12		0833	0.3 / 9
							1310	0.6 / 18		1232	0.5 / 15
							1832	0.0 / 0		1803	−0.2 / −6
10 Su	0123	1.9 / 58	**25** M	0044	1.8 / 55	**10** W	0219	1.9 / 58	**25** Th	0147	2.0 / 61
	0934	0.5 / 15		1714	−0.2 / −6		0935	0.3 / 9		0849	0.2 / 6
	1155	0.6 / 18					1351	0.7 / 21		1330	0.7 / 21
	1754	−0.1 / −3					1918	−0.1 / −3		1903	−0.3 / −9
11 M	0203	2.0 / 61	**26** Tu	0130	2.0 / 61	**11** Th	0250	1.9 / 58	**26** F	0226	2.1 / 64
	0953	0.5 / 15		0916	0.4 / 12		0947	0.3 / 9		0911	0.1 / 3
	1302	0.6 / 18		1217	0.5 / 15		1427	0.8 / 24		1420	0.9 / 27
	1841	−0.1 / −3		1814	−0.3 / −9		1958	−0.1 / −3		1958	−0.3 / −9
12 Tu	0239	2.1 / 64	**27** W	0212	2.2 / 67	**12** F	0318	1.9 / 58	**27** Sa	0303	2.0 / 61
	1012	0.4 / 12		0932	0.3 / 9		1000	0.3 / 9		0935	0.0 / 0
	1351	0.6 / 18		1324	0.6 / 18		1500	0.9 / 27		1508	1.1 / 34
	1924	−0.1 / −3		1909	−0.4 / −12		2035	−0.1 / −3		2050	−0.2 / −6
13 W	0313	2.1 / 64	**28** Th	0253	2.3 / 70	**13** Sa ●	0344	1.8 / 55	**28** Su ○	0338	1.9 / 58
	1029	0.4 / 12		0956	0.3 / 9		1016	0.2 / 6		1002	−0.1 / −3
	1431	0.7 / 21		1418	0.7 / 21		1535	0.9 / 27		1556	1.3 / 40
	2004	−0.2 / −6		2000	−0.4 / −12		2111	−0.1 / −3		2142	−0.1 / −3
14 Th ●	0344	2.1 / 64	**29** F ○	0331	2.3 / 70	**14** Su	0407	1.8 / 55			
	1048	0.4 / 12		1023	0.2 / 6		1034	0.1 / 3			
	1507	0.7 / 21		1509	0.8 / 24		1610	1.0 / 30			
	2041	−0.1 / −3		2050	−0.4 / −12		2147	0.0 / 0			
15 F	0413	2.1 / 64	**30** Sa	0408	2.3 / 70	**15** M	0429	1.6 / 49			
	1108	0.3 / 9		1052	0.1 / 3		1054	0.1 / 3			
	1543	0.8 / 24		1601	0.9 / 27		1648	1.1 / 34			
	2117	−0.1 / −3		2139	−0.3 / −9		2225	0.2 / 6			
			31 Su	0444	2.1 / 64						
				1122	0.0 / 0						
				1655	1.1 / 34						
				2229	−0.1 / −3						

March

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0410	1.7 / 52	**16** Tu	0347	1.3 / 40
	1029	−0.2 / −6		0957	−0.1 / −3
	1645	1.4 / 43		1631	1.4 / 43
	2234	0.0 / 0		2230	0.2 / 6
2 Tu	0441	1.5 / 46	**17** W	0408	1.1 / 34
	1058	−0.2 / −6		1020	−0.1 / −3
	1736	1.5 / 46		1708	1.5 / 46
	2330	0.2 / 6		2316	0.3 / 9
3 W	0509	1.2 / 37	**18** Th	0428	1.0 / 30
	1127	−0.2 / −6		1045	−0.2 / −6
	1830	1.6 / 49		1750	1.6 / 49
4 Th	0033	0.4 / 12	**19** F	0010	0.4 / 12
	0534	1.0 / 30		0447	0.9 / 27
	1200	−0.2 / −6		1114	−0.1 / −3
	1930	1.6 / 49		1840	1.6 / 49
5 F	0156	0.6 / 18	**20** Sa	0119	0.5 / 15
	0550	0.8 / 24		0503	0.7 / 21
	1236	−0.1 / −3		1149	−0.1 / −3
	2042	1.5 / 46		1943	1.6 / 49
6 Sa	1320	0.0 / 0	**21** Su	1233	−0.1 / −3
	2204	1.5 / 46		2102	1.6 / 49
7 Su ◑	1425	0.1 / 3	**22** M	1338	0.0 / 0
	2321	1.5 / 46		2223	1.6 / 49
8 M	0819	0.3 / 9	**23** Tu ◐	1507	0.0 / 0
	1057	0.4 / 12		2331	1.7 / 52
	1554	0.2 / 6			
9 Tu	0021	1.6 / 49	**24** W	0719	0.3 / 9
	0820	0.3 / 9		1137	0.5 / 15
	1218	0.5 / 15		1638	0.0 / 0
	1717	0.1 / 3			
10 W	0107	1.6 / 49	**25** Th	0025	1.8 / 55
	0829	0.3 / 9		0735	0.2 / 6
	1306	0.7 / 21		1241	0.7 / 21
	1819	0.1 / 3		1756	0.0 / 0
11 Th	0144	1.6 / 49	**26** F	0110	1.8 / 55
	0838	0.3 / 9		0755	0.1 / 3
	1343	0.8 / 24		1333	1.0 / 30
	1908	0.1 / 3		1902	0.0 / 0
12 F	0214	1.6 / 49	**27** Sa	0150	1.7 / 52
	0849	0.2 / 6		0818	−0.1 / −3
	1417	0.9 / 27		1419	1.2 / 37
	1950	0.0 / 0		2001	0.0 / 0
13 Sa	0241	1.6 / 49	**28** Su	0227	1.6 / 49
	0902	0.1 / 3		0843	−0.2 / −6
	1449	1.1 / 34		1504	1.5 / 46
	2029	0.0 / 0		2057	0.0 / 0
14 Su	0304	1.5 / 46	**29** M ○	0301	1.4 / 43
	0918	0.1 / 3		0909	−0.3 / −9
	1522	1.2 / 37		1547	1.7 / 52
	2108	0.1 / 3		2151	0.1 / 3
15 M ●	0326	1.4 / 43	**30** Tu	0333	1.2 / 37
	0936	0.0 / 0		0937	−0.3 / −9
	1556	1.3 / 40		1631	1.8 / 55
	2148	0.1 / 3		2246	0.2 / 6
			31 W	0404	1.0 / 30
				1006	−0.3 / −9
				1716	1.8 / 55
				2344	0.3 / 9

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nawiliwili, Kauai Island, Hawaii, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0434	0.8	24
	1036	−0.3	−9
	1803	1.8	55
2 F	0048	0.4	12
	0502	0.7	21
	1108	−0.2	−6
	1854	1.7	52
3 Sa	0210	0.5	15
	0527	0.6	18
	1145	−0.1	−3
	1955	1.6	49
4 Su	1230	0.1	3
	2106	1.5	46
5 M ◑	1334	0.2	6
	2219	1.5	46
6 Tu	0653	0.3	9
	1058	0.5	15
	1508	0.3	9
	2323	1.4	43
7 W	0706	0.3	9
	1206	0.6	18
	1643	0.3	9
8 Th	0012	1.4	43
	0718	0.2	6
	1252	0.8	24
	1756	0.3	9
9 F	0051	1.4	43
	0730	0.2	6
	1329	1.0	30
	1854	0.3	9
10 Sa	0123	1.3	40
	0743	0.1	3
	1402	1.2	37
	1943	0.3	9
11 Su	0150	1.2	37
	0800	0.0	0
	1435	1.4	43
	2028	0.2	6
12 M	0216	1.1	34
	0819	−0.1	−3
	1507	1.5	46
	2112	0.3	9
13 Tu	0240	1.0	30
	0841	−0.2	−6
	1540	1.7	52
	2157	0.3	9
14 W ●	0305	0.9	27
	0905	−0.2	−6
	1615	1.8	55
	2243	0.3	9
15 Th	0331	0.8	24
	0933	−0.3	−9
	1652	1.8	55
	2334	0.3	9

	Time	Height	
	h m	ft	cm
16 F	0358	0.7	21
	1004	−0.3	−9
	1735	1.9	58
17 Sa	0032	0.4	12
	0426	0.6	18
	1038	−0.2	−6
	1824	1.8	55
18 Su	0144	0.4	12
	0458	0.5	15
	1119	−0.2	−6
	1922	1.8	55
19 M	0319	0.3	9
	0544	0.4	12
	1209	−0.1	−3
	2028	1.7	52
20 Tu	0451	0.3	9
	0755	0.4	12
	1317	0.1	3
	2137	1.7	52
21 W ◐	0536	0.2	6
	1022	0.5	15
	1448	0.2	6
	2241	1.6	49
22 Th	0606	0.1	3
	1146	0.7	21
	1627	0.3	9
	2336	1.6	49
23 F	0632	0.0	0
	1243	1.0	30
	1755	0.3	9
24 Sa	0023	1.4	43
	0658	−0.1	−3
	1331	1.3	40
	1910	0.3	9
25 Su	0105	1.3	40
	0725	−0.2	−6
	1415	1.6	49
	2015	0.3	9
26 M	0144	1.1	34
	0752	−0.3	−9
	1456	1.8	55
	2115	0.3	9
27 Tu	0221	1.0	30
	0820	−0.4	−12
	1536	2.0	61
	2211	0.3	9
28 W ○	0257	0.8	24
	0850	−0.4	−12
	1616	2.0	61
	2305	0.3	9
29 Th	0332	0.7	21
	0922	−0.4	−12
	1657	2.0	61
	2359	0.3	9
30 F	0408	0.6	18
	0955	−0.3	−9
	1740	2.0	61

May

	Time	Height	
	h m	ft	cm
1 Sa	0057	0.3	9
	0445	0.5	15
	1031	−0.2	−6
	1825	1.9	58
2 Su	0202	0.4	12
	0529	0.5	15
	1110	0.0	0
	1915	1.7	52
3 M	0317	0.3	9
	0636	0.4	12
	1154	0.1	3
	2010	1.6	49
4 Tu	0427	0.3	9
	0835	0.4	12
	1252	0.3	9
	2108	1.5	46
5 W ◑	0509	0.3	9
	1029	0.6	18
	1412	0.4	12
	2204	1.4	43
6 Th	0535	0.2	6
	1142	0.7	21
	1552	0.5	15
	2254	1.3	40
7 F	0556	0.2	6
	1231	1.0	30
	1725	0.6	18
	2337	1.2	37
8 Sa	0615	0.1	3
	1310	1.2	37
	1842	0.5	15
9 Su	0013	1.1	34
	0635	0.0	0
	1344	1.4	43
	1944	0.5	15
10 M	0047	1.0	30
	0658	−0.1	−3
	1417	1.6	49
	2037	0.4	12
11 Tu	0119	0.9	27
	0724	−0.2	−6
	1450	1.8	55
	2125	0.4	12
12 W	0152	0.8	24
	0753	−0.3	−9
	1524	2.0	61
	2212	0.3	9
13 Th ●	0226	0.7	21
	0825	−0.3	−9
	1601	2.1	64
	2259	0.3	9
14 F	0302	0.6	18
	0900	−0.3	−9
	1641	2.1	64
	2349	0.3	9
15 Sa	0341	0.6	18
	0938	−0.3	−9
	1724	2.1	64

	Time	Height	
	h m	ft	cm
16 Su	0044	0.3	9
	0426	0.5	15
	1019	−0.3	−9
	1811	2.1	64
17 M	0143	0.3	9
	0523	0.5	15
	1105	−0.2	−6
	1902	2.0	61
18 Tu	0244	0.3	9
	0646	0.4	12
	1159	0.0	0
	1955	1.9	58
19 W	0338	0.2	6
	0839	0.5	15
	1307	0.2	6
	2050	1.7	52
20 Th ◐	0422	0.1	3
	1024	0.7	21
	1437	0.4	12
	2144	1.5	46
21 F	0458	0.0	0
	1141	1.0	30
	1624	0.6	18
	2237	1.3	40
22 Sa	0531	−0.1	−3
	1238	1.3	40
	1809	0.6	18
	2327	1.1	34
23 Su	0603	−0.2	−6
	1325	1.6	49
	1938	0.6	18
24 M	0015	0.9	27
	0635	−0.3	−9
	1407	1.9	58
	2049	0.5	15
25 Tu	0101	0.8	24
	0707	−0.3	−9
	1447	2.0	61
	2146	0.4	12
26 W	0145	0.7	21
	0741	−0.4	−12
	1525	2.2	67
	2236	0.3	9
27 Th ○	0228	0.6	18
	0816	−0.3	−9
	1603	2.2	67
	2320	0.3	9
28 F	0311	0.6	18
	0852	−0.3	−9
	1641	2.2	67
29 Sa	0002	0.3	9
	0353	0.5	15
	0930	−0.2	−6
	1719	2.1	64
30 Su	0044	0.3	9
	0437	0.5	15
	1008	−0.1	−3
	1759	2.0	61
31 M	0128	0.3	9
	0527	0.5	15
	1047	0.0	0
	1838	1.9	58

June

	Time	Height	
	h m	ft	cm
1 Tu	0212	0.3	9
	0632	0.5	15
	1130	0.2	6
	1918	1.7	52
2 W	0253	0.3	9
	0759	0.6	18
	1218	0.3	9
	1958	1.5	46
3 Th	0330	0.3	9
	0939	0.7	21
	1323	0.5	15
	2036	1.4	43
4 F ◑	0402	0.2	6
	1103	0.9	27
	1457	0.7	21
	2114	1.2	37
5 Sa	0431	0.1	3
	1201	1.1	34
	1654	0.8	24
	2153	1.0	30
6 Su	0459	0.0	0
	1244	1.4	43
	1845	0.8	24
	2237	0.9	27
7 M	0530	−0.1	−3
	1321	1.6	49
	2006	0.7	21
	2327	0.8	24
8 Tu	0603	−0.1	−3
	1356	1.8	55
	2101	0.6	18
9 W	0019	0.7	21
	0638	−0.2	−6
	1432	2.0	61
	2144	0.5	15
10 Th	0110	0.6	18
	0717	−0.3	−9
	1509	2.2	67
	2223	0.4	12
11 F	0200	0.6	18
	0758	−0.4	−12
	1548	2.3	70
	2303	0.3	9
12 Sa ●	0248	0.6	18
	0841	−0.4	−12
	1629	2.3	70
	2344	0.3	9
13 Su	0339	0.6	18
	0925	−0.4	−12
	1711	2.3	70
14 M	0027	0.3	9
	0435	0.6	18
	1011	−0.3	−9
	1753	2.2	67
15 Tu	0110	0.2	6
	0540	0.6	18
	1101	−0.1	−3
	1836	2.1	64

	Time	Height	
	h m	ft	cm
16 W	0153	0.2	6
	0700	0.7	21
	1156	0.1	3
	1919	1.9	58
17 Th	0235	0.1	3
	0833	0.8	24
	1304	0.4	12
	2001	1.6	49
18 F ◐	0316	0.0	0
	1007	1.0	30
	1435	0.7	21
	2044	1.4	43
19 Sa	0355	−0.1	−3
	1124	1.3	40
	1641	0.8	24
	2129	1.1	34
20 Su	0434	−0.1	−3
	1224	1.6	49
	1900	0.8	24
	2222	0.9	27
21 M	0514	−0.2	−6
	1313	1.9	58
	2038	0.6	18
	2326	0.7	21
22 Tu	0554	−0.2	−6
	1356	2.0	61
	2134	0.5	15
23 W	0031	0.6	18
	0635	−0.2	−6
	1436	2.2	67
	2212	0.4	12
24 Th	0129	0.6	18
	0716	−0.2	−6
	1513	2.2	67
	2243	0.4	12
25 F	0218	0.6	18
	0757	−0.2	−6
	1549	2.2	67
	2311	0.4	12
26 Sa ○	0302	0.6	18
	0837	−0.2	−6
	1623	2.2	67
	2338	0.4	12
27 Su	0344	0.6	18
	0915	−0.1	−3
	1657	2.1	64
28 M	0007	0.4	12
	0426	0.7	21
	0953	0.0	0
	1729	2.0	61
29 Tu	0036	0.3	9
	0513	0.7	21
	1032	0.1	3
	1800	1.9	58
30 W	0105	0.3	9
	0608	0.7	21
	1112	0.3	9
	1828	1.7	52

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nawiliwili, Kauai Island, Hawaii, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0135	0.3	9
	0715	0.8	24
	1156	0.5	15
	1853	1.6	49
2 F	0205	0.2	6
	0836	0.9	27
	1253	0.7	21
	1915	1.4	43
3 Sa	0236	0.2	6
	1003	1.1	34
	1419	0.9	27
	1931	1.2	37
4 Su ◑	0310	0.1	3
	1115	1.3	40
	1635	0.9	27
	1938	1.0	30
5 M	0348	0.1	3
	1208	1.5	46
6 Tu	0431	0.0	0
	1253	1.8	55
7 W	0518	−0.1	−3
	1333	2.0	61
	2126	0.5	15
	2338	0.6	18
8 Th	0607	−0.2	−6
	1413	2.2	67
	2143	0.5	15
9 F	0053	0.6	18
	0656	−0.3	−9
	1452	2.3	70
	2209	0.4	12
10 Sa	0152	0.7	21
	0744	−0.3	−9
	1531	2.4	73
	2239	0.4	12
11 Su ●	0246	0.7	21
	0832	−0.3	−9
	1610	2.4	73
	2312	0.3	9
12 M	0339	0.8	24
	0920	−0.3	−9
	1649	2.4	73
	2346	0.2	6
13 Tu	0436	0.9	27
	1009	−0.2	−6
	1727	2.2	67
14 W	0020	0.2	6
	0539	0.9	27
	1100	0.1	3
	1803	2.0	61
15 Th	0056	0.1	3
	0650	1.1	34
	1158	0.3	9
	1838	1.8	55

	Time	Height	
	h m	ft	cm
16 F	0133	0.0	0
	0810	1.2	37
	1309	0.6	18
	1911	1.5	46
17 Sa	0212	0.0	0
	0936	1.4	43
	1450	0.9	27
	1940	1.2	37
18 Su ◐	0254	0.0	0
	1056	1.6	49
	1749	0.8	24
	2001	0.9	27
19 M	0341	0.0	0
	1202	1.8	55
20 Tu	0433	0.0	0
	1256	2.0	61
21 W	0527	0.0	0
	1341	2.1	64
	2137	0.5	15
22 Th	0038	0.6	18
	0619	0.0	0
	1421	2.1	64
	2156	0.5	15
23 F	0133	0.7	21
	0706	−0.1	−3
	1456	2.2	67
	2214	0.5	15
24 Sa	0217	0.7	21
	0749	−0.1	−3
	1529	2.2	67
	2233	0.4	12
25 Su ○	0256	0.8	24
	0829	−0.1	−3
	1559	2.1	64
	2252	0.4	12
26 M	0334	0.9	27
	0906	0.0	0
	1627	2.1	64
	2312	0.4	12
27 Tu	0412	0.9	27
	0943	0.1	3
	1653	2.0	61
	2334	0.3	9
28 W	0454	1.0	30
	1021	0.2	6
	1717	1.8	55
	2358	0.3	9
29 Th	0540	1.1	34
	1101	0.4	12
	1738	1.7	52
30 F	0022	0.3	9
	0632	1.1	34
	1146	0.6	18
	1755	1.5	46
31 Sa	0049	0.2	6
	0735	1.2	37
	1242	0.8	24
	1808	1.3	40

August

	Time	Height	
	h m	ft	cm
1 Su	0119	0.2	6
	0851	1.3	40
	1406	0.9	27
	1813	1.1	34
2 M ◑	0155	0.2	6
	1014	1.5	46
3 Tu	0243	0.2	6
	1125	1.6	49
4 W	0342	0.1	3
	1220	1.8	55
5 Th	0446	0.0	0
	1307	2.0	61
	2100	0.6	18
	2348	0.7	21
6 F	0548	−0.1	−3
	1349	2.2	67
	2109	0.5	15
7 Sa	0058	0.7	21
	0645	−0.2	−6
	1429	2.3	70
	2130	0.4	12
8 Su	0154	0.9	27
	0737	−0.2	−6
	1507	2.4	73
	2156	0.3	9
9 M ●	0246	1.0	30
	0828	−0.2	−6
	1544	2.3	70
	2224	0.3	9
10 Tu	0337	1.1	34
	0918	−0.1	−3
	1619	2.2	67
	2253	0.2	6
11 W	0431	1.3	40
	1009	0.1	3
	1653	2.0	61
	2324	0.1	3
12 Th	0527	1.4	43
	1104	0.3	9
	1725	1.8	55
	2356	0.0	0
13 F	0629	1.5	46
	1205	0.5	15
	1755	1.5	46
14 Sa	0031	0.0	0
	0738	1.6	49
	1322	0.8	24
	1822	1.2	37
15 Su	0109	0.0	0
	0856	1.7	52
	1524	0.9	27
	1835	1.0	30

	Time	Height	
	h m	ft	cm
16 M ◐	0154	0.1	3
	1018	1.8	55
17 Tu	0251	0.2	6
	1131	1.9	58
18 W	0402	0.2	6
	1230	2.0	61
	2042	0.6	18
	2350	0.7	21
19 Th	0513	0.2	6
	1318	2.0	61
	2055	0.5	15
20 F	0052	0.8	24
	0613	0.2	6
	1357	2.0	61
	2110	0.5	15
21 Sa	0136	0.9	27
	0702	0.1	3
	1430	2.0	61
	2124	0.5	15
22 Su	0213	1.0	30
	0744	0.1	3
	1459	2.0	61
	2138	0.4	12
23 M	0248	1.1	34
	0822	0.1	3
	1526	2.0	61
	2154	0.4	12
24 Tu ○	0322	1.2	37
	0859	0.2	6
	1549	1.9	58
	2211	0.3	9
25 W	0357	1.3	40
	0937	0.3	9
	1611	1.8	55
	2231	0.3	9
26 Th	0434	1.4	43
	1016	0.4	12
	1631	1.6	49
	2252	0.2	6
27 F	0513	1.5	46
	1058	0.5	15
	1649	1.4	43
	2315	0.2	6
28 Sa	0556	1.5	46
	1147	0.7	21
	1705	1.3	40
	2341	0.2	6
29 Su	0647	1.5	46
	1247	0.8	24
	1716	1.1	34
30 M	0011	0.2	6
	0752	1.6	49
	1418	0.9	27
	1717	1.0	30
31 Tu	0050	0.2	6
	0913	1.6	49

September

	Time	Height	
	h m	ft	cm
1 W ◑	0145	0.3	9
	1036	1.8	55
2 Th	0301	0.3	9
	1142	1.9	58
	2011	0.6	18
	2241	0.7	21
3 F	0424	0.2	6
	1234	2.1	64
	2003	0.6	18
4 Sa	0009	0.8	24
	0536	0.1	3
	1318	2.2	67
	2018	0.5	15
5 Su	0106	1.0	30
	0638	0.0	0
	1358	2.2	67
	2040	0.4	12
6 M	0156	1.2	37
	0734	0.0	0
	1435	2.2	67
	2104	0.2	6
7 Tu	0244	1.4	43
	0827	0.0	0
	1510	2.1	64
	2130	0.1	3
8 W ●	0331	1.6	49
	0921	0.1	3
	1543	1.9	58
	2158	0.0	0
9 Th	0420	1.7	52
	1015	0.3	9
	1615	1.6	49
	2228	0.0	0
10 F	0511	1.9	58
	1113	0.5	15
	1646	1.4	43
	2259	0.0	0
11 Sa	0604	1.9	58
	1219	0.6	18
	1714	1.2	37
	2333	0.0	0
12 Su	0704	1.9	58
	1343	0.8	24
	1739	1.0	30
13 M	0010	0.1	3
	0814	1.9	58
14 Tu ◐	0057	0.2	6
	0932	1.9	58
15 W	0203	0.3	9
	1049	1.8	55
	1930	0.6	18
	2245	0.7	21

	Time	Height	
	h m	ft	cm
16 Th	0332	0.4	12
	1152	1.9	58
	1944	0.6	18
17 F	0003	0.8	24
	0457	0.4	12
	1241	1.9	58
	1958	0.5	15
18 Sa	0052	1.0	30
	0603	0.4	12
	1320	1.9	58
	2011	0.5	15
19 Su	0130	1.1	34
	0654	0.4	12
	1352	1.8	55
	2024	0.4	12
20 M	0204	1.3	40
	0738	0.3	9
	1419	1.8	55
	2038	0.4	12
21 Tu	0236	1.4	43
	0818	0.4	12
	1443	1.7	52
	2053	0.3	9
22 W ○	0309	1.5	46
	0858	0.4	12
	1506	1.6	49
	2112	0.2	6
23 Th	0341	1.7	52
	0938	0.5	15
	1527	1.5	46
	2132	0.2	6
24 F	0415	1.8	55
	1020	0.5	15
	1547	1.3	40
	2154	0.1	3
25 Sa	0450	1.8	55
	1105	0.6	18
	1606	1.2	37
	2219	0.1	3
26 Su	0530	1.9	58
	1158	0.7	21
	1624	1.1	34
	2247	0.1	3
27 M	0616	1.9	58
	1304	0.8	24
	1640	0.9	27
	2319	0.2	6
28 Tu	0714	1.8	55
29 W	0001	0.2	6
	0827	1.8	55
30 Th ◑	0101	0.3	9
	0947	1.9	58

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Nawiliwili, Kauai Island, Hawaii, 2010

Times and Heights of High and Low Waters

October

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0229	0.4	12	**16** Sa	0425	0.6	18
	1056	1.9	58		1146	1.7	52
	1847	0.5	15		1853	0.5	15
	2316	0.8	24				
2 Sa	0404	0.4	12	**17** Su	0041	1.1	34
	1151	2.0	61		0543	0.6	18
	1903	0.4	12		1227	1.6	49
					1907	0.4	12
3 Su	0019	1.0	30	**18** M	0118	1.3	40
	0526	0.4	12		0644	0.6	18
	1237	2.0	61		1300	1.5	46
	1923	0.3	9		1921	0.3	9
4 M	0109	1.2	37	**19** Tu	0151	1.5	46
	0635	0.3	9		0735	0.6	18
	1318	1.9	58		1329	1.4	43
	1947	0.2	6		1938	0.2	6
5 Tu	0155	1.5	46	**20** W	0223	1.7	52
	0737	0.3	9		0821	0.6	18
	1355	1.8	55		1354	1.3	40
	2012	0.1	3		1956	0.1	3
6 W	0239	1.8	55	**21** Th	0254	1.8	55
	0835	0.3	9		0904	0.6	18
	1431	1.6	49		1419	1.2	37
	2039	0.0	0		2018	0.1	3
7 Th	0323	2.0	61	**22** F	0325	2.0	61
	0932	0.4	12		0947	0.6	18
	1505	1.4	43		1443	1.1	34
●	2107	−0.1	−3	○	2042	0.0	0
8 F	0408	2.2	67	**23** Sa	0358	2.1	64
	1029	0.5	15		1032	0.6	18
	1538	1.2	37		1508	1.0	30
	2138	−0.1	−3		2109	0.0	0
9 Sa	0453	2.2	67	**24** Su	0433	2.1	64
	1128	0.5	15		1120	0.6	18
	1610	1.1	34		1533	0.9	27
	2210	−0.1	−3		2138	0.0	0
10 Su	0541	2.2	67	**25** M	0513	2.1	64
	1235	0.6	18		1214	0.6	18
	1642	0.9	27		1600	0.8	24
	2244	0.0	0		2211	0.0	0
11 M	0633	2.1	64	**26** Tu	0558	2.1	64
	1358	0.7	21		1321	0.7	21
	1714	0.8	24		1629	0.8	24
	2323	0.1	3		2249	0.1	3
12 Tu	0733	2.0	61	**27** W	0651	2.1	64
					1448	0.6	18
					1710	0.7	21
					2334	0.2	6
13 W	0009	0.3	9	**28** Th	0752	2.0	61
	0841	1.9	58		1618	0.5	15
	1748	0.5	15		1905	0.6	18
	2039	0.6	18				
14 Th	0113	0.5	15	**29** F	0036	0.3	9
	0952	1.8	55		0858	1.9	58
	1817	0.6	18		1705	0.5	15
◐	2247	0.8	24		2152	0.7	21
15 F	0247	0.6	18	**30** Sa	0203	0.5	15
	1055	1.7	52		1002	1.9	58
	1837	0.5	15		1735	0.4	12
	2356	0.9	27	◑	2322	0.9	27
				31 Su	0347	0.6	18
					1058	1.8	55
					1801	0.3	9

November

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0021	1.2	37	**16** Tu	0101	1.4	43
	0523	0.6	18		0639	0.8	24
	1148	1.7	52		1153	1.2	37
	1828	0.1	3		1817	0.2	6
2 Tu	0108	1.5	46	**17** W	0135	1.7	52
	0644	0.6	18		0744	0.8	24
	1232	1.5	46		1228	1.1	34
	1855	0.0	0		1840	0.1	3
3 W	0152	1.8	55	**18** Th	0207	1.9	58
	0753	0.6	18		0836	0.7	21
	1313	1.3	40		1301	1.0	30
	1924	−0.1	−3		1906	0.0	0
4 Th	0234	2.1	64	**19** F	0238	2.0	61
	0856	0.5	15		0921	0.6	18
	1352	1.2	37		1334	0.9	27
	1954	−0.2	−6		1934	−0.1	−3
5 F	0315	2.3	70	**20** Sa	0310	2.2	67
	0953	0.5	15		1003	0.6	18
	1430	1.0	30		1407	0.9	27
●	2026	−0.2	−6		2005	−0.1	−3
6 Sa	0356	2.4	73	**21** Su	0345	2.3	70
	1048	0.5	15		1045	0.5	15
	1507	0.9	27		1441	0.8	24
	2059	−0.2	−6	○	2039	−0.1	−3
7 Su	0437	2.4	73	**22** M	0421	2.3	70
	1143	0.5	15		1130	0.5	15
	1545	0.8	24		1518	0.8	24
	2135	−0.1	−3		2116	−0.1	−3
8 M	0521	2.3	70	**23** Tu	0501	2.3	70
	1240	0.5	15		1218	0.5	15
	1625	0.7	21		1559	0.7	21
	2212	0.0	0		2155	−0.1	−3
9 Tu	0606	2.2	67	**24** W	0544	2.3	70
	1344	0.6	18		1311	0.5	15
	1712	0.7	21		1649	0.7	21
	2251	0.1	3		2237	0.0	0
10 W	0655	2.1	64	**25** Th	0630	2.2	67
	1454	0.5	15		1407	0.5	15
	1822	0.6	18		1802	0.6	18
	2335	0.3	9		2325	0.2	6
11 Th	0748	1.9	58	**26** F	0719	2.1	64
	1600	0.5	15		1500	0.4	12
	2018	0.7	21		1949	0.7	21
12 F	0030	0.5	15	**27** Sa	0025	0.4	12
	0843	1.8	55		0810	1.9	58
	1645	0.5	15		1545	0.3	9
	2216	0.8	24		2146	0.8	24
13 Sa	0148	0.7	21	**28** Su	0148	0.6	18
	0939	1.6	49		0902	1.7	52
	1714	0.4	12		1624	0.2	6
◐	2333	1.0	30	◑	2312	1.1	34
14 Su	0332	0.8	24	**29** M	0339	0.8	24
	1029	1.5	46		0955	1.5	46
	1737	0.4	12		1700	0.1	3
15 M	0023	1.2	37	**30** Tu	0013	1.5	46
	0516	0.8	24		0537	0.8	24
	1114	1.4	43		1049	1.3	40
	1757	0.3	9		1734	0.0	0

December

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0102	1.8	55	**16** Th	0114	1.7	52
	0716	0.8	24		0830	0.7	21
	1142	1.1	34		1107	0.8	24
	1808	−0.1	−3		1747	0.0	0
2 Th	0146	2.1	64	**17** F	0148	1.9	58
	0832	0.7	21		0912	0.6	18
	1233	0.9	27		1207	0.7	21
	1843	−0.2	−6		1824	−0.1	−3
3 F	0227	2.3	70	**18** Sa	0222	2.1	64
	0931	0.6	18		0943	0.6	18
	1322	0.8	24		1300	0.7	21
	1920	−0.3	−9		1903	−0.2	−6
4 Sa	0306	2.4	73	**19** Su	0256	2.2	67
	1019	0.5	15		1012	0.5	15
	1408	0.7	21		1347	0.7	21
	1958	−0.3	−9		1943	−0.2	−6
5 Su	0345	2.4	73	**20** M	0332	2.3	70
	1102	0.4	12		1044	0.4	12
	1453	0.7	21		1432	0.7	21
●	2036	−0.2	−6	○	2024	−0.3	−9
6 M	0424	2.4	73	**21** Tu	0409	2.4	73
	1142	0.4	12		1119	0.4	12
	1536	0.7	21		1518	0.7	21
	2115	−0.2	−6		2106	−0.3	−9
7 Tu	0502	2.3	70	**22** W	0447	2.4	73
	1222	0.4	12		1156	0.3	9
	1620	0.7	21		1608	0.7	21
	2154	−0.1	−3		2150	−0.2	−6
8 W	0541	2.2	67	**23** Th	0526	2.3	70
	1303	0.4	12		1235	0.3	9
	1709	0.7	21		1706	0.7	21
	2233	0.1	3		2235	−0.1	−3
9 Th	0619	2.1	64	**24** F	0605	2.2	67
	1344	0.4	12		1314	0.2	6
	1810	0.7	21		1816	0.8	24
	2314	0.2	6		2325	0.2	6
10 F	0656	1.9	58	**25** Sa	0643	2.0	61
	1425	0.4	12		1355	0.2	6
	1931	0.7	21		1942	0.9	27
	2359	0.4	12				
11 Sa	0733	1.7	52	**26** Su	0025	0.4	12
	1503	0.4	12		0721	1.7	52
	2113	0.8	24		1435	0.1	3
					2119	1.1	34
12 Su	0059	0.7	21	**27** M	0148	0.7	21
	0808	1.5	46		0800	1.5	46
	1537	0.3	9		1516	0.0	0
	2246	1.0	30	◑	2248	1.3	40
13 M	0231	0.9	27	**28** Tu	0351	0.9	27
	0843	1.3	40		0840	1.2	37
	1609	0.3	9		1559	−0.1	−3
◐	2351	1.2	37		2357	1.6	49
14 Tu	0445	1.0	30	**29** W	0637	0.8	24
	0920	1.1	34		0933	0.9	27
	1640	0.2	6		1643	−0.1	−3
15 W	0036	1.5	46	**30** Th	0051	1.9	58
	0707	0.8	24		0832	0.6	18
	1007	0.9	27		1052	0.7	21
	1713	0.1	3		1729	−0.2	−6
				31 F	0137	2.1	64
					0923	0.5	15
					1212	0.6	18
					1816	−0.2	−6

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Honolulu, Oahu Island, Hawaii, 2010

Times and Heights of High and Low Waters

January

	Time	Height		Time	Height		Time	Height		Time	Height
	h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 F	0441	2.7	82	**16** Sa	0451	2.1	64	**1** M	0536	2.1	64	**16** Tu	0510	1.6	49
	1155	0.0	0		1154	0.1	3		1220	−0.2	−6		1143	0.0	0
	1639	0.7	21		1655	0.8	24		1821	1.3	40		1752	1.3	40
	2201	−0.3	−9		2214	0.0	0		2356	0.1	3		2335	0.3	9
2 Sa	0523	2.6	79	**17** Su	0520	2.0	61	**2** Tu	0612	1.7	52	**17** W	0536	1.4	43
	1234	−0.1	−3		1220	0.1	3		1254	−0.2	−6		1206	−0.1	−3
	1738	0.8	24		1737	0.9	27		1922	1.4	43		1837	1.4	43
	2253	−0.1	−3		2251	0.1	3								
3 Su	0605	2.4	73	**18** M	0547	1.9	58	**3** W	0103	0.4	12	**18** Th	0026	0.4	12
	1314	−0.1	−3		1246	0.1	3		0648	1.4	43		0601	1.2	37
	1842	0.9	27		1824	1.0	30		1329	−0.2	−6		1232	−0.1	−3
	2349	0.1	3		2333	0.3	9		2029	1.5	46		1928	1.4	43
4 M	0646	2.1	64	**19** Tu	0614	1.7	52	**4** Th	0231	0.6	18	**19** F	0133	0.6	18
	1354	−0.1	−3		1313	0.1	3		0725	1.1	34		0628	1.0	30
	1954	1.1	34		1918	1.0	30		1408	−0.1	−3		1303	−0.1	−3
									2144	1.6	49		2031	1.5	46
5 Tu	0056	0.4	12	**20** W	0022	0.5	15	**5** F ◑	0438	0.7	21	**20** Sa	0314	0.6	18
	0727	1.8	55		0641	1.5	46		0806	0.8	24		0657	0.8	24
	1433	−0.1	−3		1341	0.1	3		1454	−0.1	−3		1343	0.0	0
	2114	1.3	40		2020	1.2	37		2300	1.7	52		2146	1.6	49
6 W	0224	0.7	21	**21** Th	0129	0.7	21	**6** Sa	0706	0.5	15	**21** Su ◐	1440	0.0	0
	0808	1.5	46		0708	1.3	40		0919	0.6	18		2302	1.7	52
	1514	−0.1	−3		1413	0.0	0		1550	0.0	0				
	2233	1.5	46		2130	1.3	40								
7 Th ◑	0424	0.8	24	**22** F	0310	0.8	24	**7** Su	0007	1.8	55	**22** M	0722	0.3	9
	0855	1.1	34		0738	1.1	34		0816	0.4	12		0953	0.4	12
	1557	−0.1	−3		1450	0.0	0		1121	0.5	15		1555	−0.1	−3
	2342	1.7	52		2242	1.5	46		1657	0.0	0				
8 F	0638	0.7	21	**23** Sa ◐	0540	0.7	21	**8** M	0102	1.9	58	**23** Tu	0008	1.9	58
	0955	0.9	27		0821	0.8	24		0850	0.3	9		0758	0.2	6
	1642	−0.1	−3		1537	0.0	0		1246	0.5	15		1149	0.4	12
					2346	1.7	52		1800	0.0	0		1714	−0.1	−3
9 Sa	0039	1.9	58	**24** Su	0737	0.5	15	**9** Tu	0147	1.9	58	**24** W	0103	2.1	64
	0812	0.6	18		0950	0.6	18		0916	0.2	6		0829	0.1	3
	1116	0.7	21		1634	−0.1	−3		1339	0.5	15		1301	0.6	18
	1730	−0.1	−3						1854	−0.1	−3		1824	−0.2	−6
10 Su	0127	2.1	64	**25** M	0041	2.0	61	**10** W	0225	2.0	61	**25** Th	0151	2.2	67
	0905	0.4	12		0827	0.4	12		0938	0.1	3		0858	0.0	0
	1234	0.6	18		1137	0.5	15		1419	0.6	18		1356	0.7	21
	1817	−0.1	−3		1734	−0.2	−6		1939	−0.1	−3		1925	−0.3	−9
11 M	0208	2.2	67	**26** Tu	0130	2.2	67	**11** Th	0257	2.0	61	**26** F	0234	2.2	67
	0942	0.3	9		0902	0.2	6		0959	0.1	3		0927	−0.1	−3
	1335	0.6	18		1256	0.5	15		1453	0.7	21		1445	1.0	30
	1902	−0.1	−3		1833	−0.3	−9		2019	−0.1	−3		2021	−0.3	−9
12 Tu	0245	2.2	67	**27** W	0215	2.4	73	**12** F	0327	2.0	61	**27** Sa	0314	2.2	67
	1011	0.2	6		0935	0.1	3		1019	0.1	3		0956	−0.2	−6
	1422	0.6	18		1357	0.6	18		1526	0.9	27		1533	1.2	37
	1944	−0.2	−6		1928	−0.4	−12		2057	−0.1	−3		2115	−0.3	−9
13 W	0319	2.2	67	**28** Th	0258	2.5	76	**13** Sa ●	0354	2.0	61	**28** Su ○	0352	2.1	64
	1038	0.2	6		1008	0.0	0		1039	0.0	0		1025	−0.3	−9
	1502	0.6	18		1450	0.7	21		1600	1.0	30		1619	1.4	43
	2024	−0.2	−6		2021	−0.4	−12		2134	−0.1	−3		2209	−0.2	−6
14 Th ●	0351	2.2	67	**29** F ○	0340	2.5	76	**14** Su	0420	1.9	58				
	1103	0.1	3		1041	−0.1	−3		1100	0.0	0				
	1539	0.7	21		1541	0.8	24		1635	1.1	34				
	2101	−0.2	−6		2112	−0.4	−12		2211	0.0	0				
15 F	0422	2.2	67	**30** Sa	0420	2.5	76	**15** M	0445	1.8	55				
	1128	0.1	3		1114	−0.2	−6		1121	0.0	0				
	1616	0.7	21		1632	1.0	30		1712	1.2	37				
	2137	−0.1	−3		2204	−0.3	−9		2251	0.1	3				
				31 Su	0458	2.3	70								
					1147	−0.2	−6								
					1725	1.1	34								
					2258	−0.1	−3								

March

	Time	Height		Time	Height
	h m	ft	cm	h m	ft	cm
1 M	0429	1.9	58	**16** Tu	0409	1.4	43
	1054	−0.3	−9		1022	−0.1	−3
	1707	1.6	49		1648	1.6	49
	2305	0.0	0		2256	0.2	6
2 Tu	0505	1.6	49	**17** W	0436	1.3	40
	1124	−0.3	−9		1044	−0.2	−6
	1756	1.7	52		1725	1.7	52
					2344	0.2	6
3 W	0004	0.2	6	**18** Th	0503	1.1	34
	0540	1.3	40		1109	−0.2	−6
	1155	−0.3	−9		1807	1.7	52
	1848	1.7	52				
4 Th	0112	0.3	9	**19** F	0039	0.3	9
	0616	1.0	30		0533	0.9	27
	1228	−0.2	−6		1137	−0.2	−6
	1945	1.7	52		1855	1.7	52
5 F	0238	0.4	12	**20** Sa	0150	0.4	12
	0654	0.7	21		0606	0.7	21
	1304	−0.1	−3		1210	−0.1	−3
	2052	1.7	52		1954	1.7	52
6 Sa	0439	0.4	12	**21** Su	0329	0.4	12
	0745	0.5	15		0651	0.5	15
	1350	0.0	0		1254	−0.1	−3
	2208	1.6	49		2105	1.7	52
7 Su ◑	0638	0.3	9	**22** M	0523	0.3	9
	0936	0.4	12		0821	0.4	12
	1458	0.1	3		1359	0.0	0
	2322	1.6	49		2221	1.8	55
8 M	0733	0.2	6	**23** Tu ◐	0630	0.2	6
	1142	0.4	12		1033	0.4	12
	1627	0.2	6		1530	0.0	0
					2330	1.8	55
9 Tu	0024	1.7	52	**24** W	0709	0.1	3
	0804	0.2	6		1204	0.5	15
	1250	0.5	15		1703	0.0	0
	1745	0.1	3				
10 W	0112	1.7	52	**25** Th	0028	1.9	58
	0828	0.1	3		0740	−0.1	−3
	1332	0.7	21		1304	0.8	24
	1844	0.1	3		1820	0.0	0
11 Th	0151	1.7	52	**26** F	0117	1.9	58
	0848	0.1	3		0809	−0.2	−6
	1406	0.8	24		1353	1.0	30
	1931	0.0	0		1927	−0.1	−3
12 F	0223	1.7	52	**27** Sa	0201	1.9	58
	0906	0.0	0		0837	−0.2	−6
	1438	1.0	30		1438	1.3	40
	2013	0.0	0		2026	−0.1	−3
13 Sa	0251	1.7	52	**28** Su	0241	1.7	52
	0924	0.0	0		0905	−0.3	−9
	1509	1.1	34		1521	1.6	49
	2053	0.0	0		2123	−0.1	−3
14 Su	0318	1.6	49	**29** M ○	0320	1.6	49
	0942	−0.1	−3		0933	−0.4	−12
	1541	1.3	40		1604	1.8	55
	2133	0.0	0		2219	0.0	0
15 M ●	0343	1.5	46	**30** Tu	0357	1.3	40
	1002	−0.1	−3		1002	−0.4	−12
	1614	1.4	43		1647	2.0	61
	2213	0.1	3		2315	0.0	0
				31 W	0435	1.1	34
					1031	−0.3	−9
					1731	2.0	61

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Honolulu, Oahu Island, Hawaii, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0015	0.1	3
	0513	0.9	27
	1101	−0.3	−9
	1817	2.0	61
2 F	0120	0.2	6
	0553	0.7	21
	1134	−0.2	−6
	1907	1.9	58
3 Sa	0237	0.3	9
	0641	0.5	15
	1209	0.0	0
	2005	1.8	55
4 Su	0410	0.3	9
	0754	0.4	12
	1254	0.1	3
	2112	1.6	49
5 M ◑	0534	0.2	6
	0955	0.4	12
	1405	0.2	6
	2223	1.6	49
6 Tu	0627	0.2	6
	1139	0.5	15
	1546	0.3	9
	2326	1.5	46
7 W	0700	0.1	3
	1235	0.7	21
	1716	0.3	9
8 Th	0018	1.5	46
	0725	0.1	3
	1314	0.8	24
	1824	0.3	9
9 F	0059	1.5	46
	0746	0.0	0
	1347	1.0	30
	1919	0.2	6
10 Sa	0133	1.4	43
	0805	0.0	0
	1418	1.3	40
	2007	0.2	6
11 Su	0204	1.4	43
	0823	−0.1	−3
	1449	1.5	46
	2052	0.2	6
12 M	0234	1.3	40
	0843	−0.2	−6
	1520	1.7	52
	2136	0.2	6
13 Tu	0303	1.2	37
	0905	−0.2	−6
	1552	1.8	55
	2220	0.2	6
14 W ●	0333	1.0	30
	0928	−0.2	−6
	1627	1.9	58
	2307	0.2	6
15 Th	0405	0.9	27
	0955	−0.3	−9
	1705	2.0	61
	2358	0.2	6

	Time	Height	
	h m	ft	cm
16 F	0440	0.7	21
	1024	−0.3	−9
	1747	2.0	61
17 Sa	0057	0.2	6
	0519	0.6	18
	1057	−0.2	−6
	1835	2.0	61
18 Su	0207	0.2	6
	0608	0.5	15
	1137	−0.2	−6
	1931	1.9	58
19 M	0327	0.2	6
	0720	0.4	12
	1227	0.0	0
	2034	1.9	58
20 Tu	0440	0.1	3
	0907	0.4	12
	1339	0.1	3
	2141	1.8	55
21 W ◐	0533	0.0	0
	1053	0.5	15
	1518	0.2	6
	2246	1.8	55
22 Th	0613	−0.1	−3
	1205	0.8	24
	1658	0.3	9
	2343	1.7	52
23 F	0646	−0.2	−6
	1259	1.1	34
	1823	0.3	9
24 Sa	0035	1.6	49
	0716	−0.3	−9
	1345	1.4	43
	1936	0.2	6
25 Su	0121	1.4	43
	0745	−0.3	−9
	1427	1.8	55
	2039	0.2	6
26 M	0205	1.2	37
	0814	−0.4	−12
	1508	2.0	61
	2138	0.1	3
27 Tu	0247	1.1	34
	0844	−0.4	−12
	1548	2.2	67
	2233	0.1	3
28 W ○	0328	0.9	27
	0914	−0.4	−12
	1628	2.3	70
	2328	0.1	3
29 Th	0409	0.7	21
	0945	−0.3	−9
	1708	2.2	67
30 F	0022	0.1	3
	0452	0.6	18
	1018	−0.3	−9
	1751	2.1	64

May

	Time	Height	
	h m	ft	cm
1 Sa	0119	0.1	3
	0539	0.5	15
	1053	−0.1	−3
	1836	2.0	61
2 Su	0221	0.1	3
	0636	0.4	12
	1130	0.0	0
	1925	1.9	58
3 M	0326	0.1	3
	0753	0.4	12
	1215	0.2	6
	2019	1.7	52
4 Tu	0425	0.1	3
	0934	0.4	12
	1319	0.3	9
	2116	1.6	49
5 W ◑	0512	0.1	3
	1105	0.6	18
	1452	0.5	15
	2212	1.5	46
6 Th	0546	0.1	3
	1205	0.8	24
	1634	0.5	15
	2304	1.4	43
7 F	0613	0.0	0
	1246	1.0	30
	1758	0.5	15
	2349	1.3	40
8 Sa	0637	0.0	0
	1321	1.3	40
	1907	0.5	15
9 Su	0030	1.2	37
	0659	−0.1	−3
	1353	1.5	46
	2004	0.4	12
10 M	0109	1.1	34
	0722	−0.2	−6
	1425	1.8	55
	2056	0.3	9
11 Tu	0146	0.9	27
	0747	−0.2	−6
	1458	2.0	61
	2143	0.3	9
12 W	0223	0.8	24
	0815	−0.3	−9
	1532	2.1	64
	2230	0.2	6
13 Th ●	0302	0.7	21
	0845	−0.3	−9
	1610	2.2	67
	2318	0.1	3
14 F	0343	0.6	18
	0919	−0.3	−9
	1650	2.3	70
15 Sa	0009	0.1	3
	0427	0.5	15
	0955	−0.3	−9
	1734	2.3	70

	Time	Height	
	h m	ft	cm
16 Su	0104	0.1	3
	0518	0.5	15
	1036	−0.3	−9
	1821	2.2	67
17 M	0201	0.0	0
	0621	0.4	12
	1123	−0.1	−3
	1912	2.2	67
18 Tu	0259	0.0	0
	0742	0.4	12
	1220	0.0	0
	2006	2.0	61
19 W	0351	0.0	0
	0918	0.6	18
	1336	0.3	9
	2101	1.9	58
20 Th ◐	0436	−0.1	−3
	1046	0.8	24
	1515	0.5	15
	2158	1.7	52
21 F	0515	−0.2	−6
	1154	1.1	34
	1702	0.5	15
	2254	1.4	43
22 Sa	0550	−0.2	−6
	1247	1.5	46
	1837	0.5	15
	2348	1.2	37
23 Su	0624	−0.3	−9
	1333	1.8	55
	1956	0.4	12
24 M	0040	1.0	30
	0656	−0.3	−9
	1414	2.1	64
	2101	0.3	9
25 Tu	0130	0.8	24
	0729	−0.4	−12
	1454	2.3	70
	2157	0.2	6
26 W	0219	0.7	21
	0803	−0.4	−12
	1533	2.3	70
	2247	0.1	3
27 Th ○	0305	0.6	18
	0838	−0.3	−9
	1611	2.4	73
	2333	0.1	3
28 F	0351	0.5	15
	0913	−0.3	−9
	1650	2.3	70
29 Sa	0018	0.1	3
	0437	0.5	15
	0950	−0.2	−6
	1729	2.2	67
30 Su	0103	0.1	3
	0526	0.5	15
	1028	−0.1	−3
	1809	2.1	64
31 M	0148	0.1	3
	0621	0.5	15
	1107	0.0	0
	1850	2.0	61

June

	Time	Height	
	h m	ft	cm
1 Tu	0233	0.1	3
	0727	0.5	15
	1151	0.2	6
	1931	1.8	55
2 W	0315	0.1	3
	0846	0.6	18
	1246	0.4	12
	2013	1.7	52
3 Th	0353	0.1	3
	1008	0.8	24
	1403	0.6	18
	2056	1.5	46
4 F ◑	0427	0.1	3
	1116	1.0	30
	1546	0.7	21
	2140	1.3	40
5 Sa	0457	0.0	0
	1207	1.2	37
	1732	0.8	24
	2227	1.1	34
6 Su	0526	0.0	0
	1247	1.5	46
	1901	0.7	21
	2318	1.0	30
7 M	0555	−0.1	−3
	1324	1.8	55
	2009	0.6	18
8 Tu	0010	0.8	24
	0626	−0.2	−6
	1400	2.0	61
	2103	0.4	12
9 W	0101	0.7	21
	0700	−0.2	−6
	1437	2.2	67
	2150	0.3	9
10 Th	0151	0.6	18
	0737	−0.3	−9
	1515	2.3	70
	2234	0.2	6
11 F	0240	0.6	18
	0817	−0.4	−12
	1555	2.4	73
	2317	0.1	3
12 Sa ●	0330	0.5	15
	0859	−0.4	−12
	1637	2.5	76
13 Su	0001	0.0	0
	0422	0.5	15
	0943	−0.3	−9
	1720	2.5	76
14 M	0046	0.0	0
	0519	0.5	15
	1030	−0.2	−6
	1804	2.4	73
15 Tu	0131	0.0	0
	0624	0.6	18
	1123	−0.1	−3
	1849	2.3	70

	Time	Height	
	h m	ft	cm
16 W	0215	−0.1	−3
	0739	0.7	21
	1224	0.2	6
	1934	2.0	61
17 Th	0257	−0.1	−3
	0902	0.9	27
	1341	0.5	15
	2021	1.8	55
18 F ◐	0338	−0.1	−3
	1022	1.2	37
	1522	0.7	21
	2109	1.5	46
19 Sa	0418	−0.2	−6
	1131	1.5	46
	1719	0.7	21
	2203	1.2	37
20 Su	0457	−0.2	−6
	1228	1.8	55
	1905	0.7	21
	2303	0.9	27
21 M	0536	−0.2	−6
	1317	2.1	64
	2026	0.5	15
22 Tu	0008	0.7	21
	0616	−0.3	−9
	1401	2.2	67
	2124	0.4	12
23 W	0110	0.6	18
	0657	−0.3	−9
	1441	2.3	70
	2208	0.2	6
24 Th	0206	0.6	18
	0737	−0.2	−6
	1519	2.4	73
	2246	0.2	6
25 F	0255	0.6	18
	0818	−0.2	−6
	1556	2.4	73
	2321	0.1	3
26 Sa ○	0339	0.6	18
	0857	−0.2	−6
	1632	2.3	70
	2354	0.1	3
27 Su	0423	0.6	18
	0936	−0.1	−3
	1706	2.3	70
28 M	0027	0.1	3
	0507	0.6	18
	1014	0.0	0
	1740	2.2	67
29 Tu	0100	0.1	3
	0555	0.7	21
	1054	0.1	3
	1813	2.0	61
30 W	0132	0.1	3
	0649	0.8	24
	1136	0.3	9
	1845	1.9	58

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Honolulu, Oahu Island, Hawaii, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0204	0.1	3
	0751	0.9	27
	1226	0.5	15
	1917	1.7	52
2 F	0235	0.1	3
	0900	1.0	30
	1333	0.7	21
	1948	1.5	46
3 Sa	0307	0.1	3
	1011	1.2	37
	1508	0.9	27
	2023	1.3	40
4 Su ◑	0340	0.1	3
	1113	1.4	43
	1712	0.9	27
	2105	1.0	30
5 M	0416	0.0	0
	1206	1.7	52
	1905	0.8	24
	2205	0.9	27
6 Tu	0456	0.0	0
	1251	1.9	58
	2016	0.6	18
	2321	0.7	21
7 W	0541	−0.1	−3
	1334	2.1	64
	2103	0.4	12
8 Th	0033	0.6	18
	0627	−0.2	−6
	1416	2.3	70
	2142	0.3	9
9 F	0135	0.6	18
	0715	−0.3	−9
	1457	2.5	76
	2218	0.2	6
10 Sa	0230	0.6	18
	0803	−0.3	−9
	1538	2.6	79
	2255	0.1	3
11 Su ●	0323	0.7	21
	0851	−0.4	−12
	1619	2.6	79
	2331	0.0	0
12 M	0416	0.8	24
	0940	−0.3	−9
	1700	2.6	79
13 Tu	0008	0.0	0
	0512	0.9	27
	1032	−0.1	−3
	1741	2.4	73
14 W	0044	−0.1	−3
	0613	1.0	30
	1127	0.1	3
	1821	2.2	67
15 Th	0121	−0.1	−3
	0719	1.2	37
	1232	0.4	12
	1900	1.9	58

	Time	Height	
	h m	ft	cm
16 F	0159	−0.1	−3
	0831	1.4	43
	1351	0.6	18
	1941	1.5	46
17 Sa	0239	−0.1	−3
	0947	1.6	49
	1538	0.8	24
	2025	1.2	37
18 Su ◐	0321	−0.1	−3
	1100	1.8	55
	1748	0.8	24
	2120	0.9	27
19 M	0407	−0.1	−3
	1204	2.0	61
	1938	0.6	18
	2238	0.7	21
20 Tu	0458	−0.1	−3
	1258	2.1	64
	2041	0.5	15
21 W	0005	0.6	18
	0551	−0.1	−3
	1345	2.2	67
	2122	0.4	12
22 Th	0114	0.6	18
	0641	−0.1	−3
	1426	2.3	70
	2153	0.3	9
23 F	0206	0.6	18
	0728	−0.1	−3
	1503	2.3	70
	2221	0.2	6
24 Sa	0249	0.7	21
	0811	−0.1	−3
	1537	2.3	70
	2247	0.2	6
25 Su ○	0328	0.8	24
	0850	−0.1	−3
	1608	2.3	70
	2312	0.2	6
26 M	0405	0.9	27
	0928	0.0	0
	1638	2.2	67
	2336	0.2	6
27 Tu	0444	0.9	27
	1006	0.1	3
	1706	2.1	64
28 W	0001	0.2	6
	0525	1.0	30
	1045	0.2	6
	1734	2.0	61
29 Th	0026	0.2	6
	0610	1.1	34
	1128	0.4	12
	1801	1.8	55
30 F	0051	0.2	6
	0700	1.2	37
	1217	0.6	18
	1827	1.6	49
31 Sa	0118	0.2	6
	0756	1.3	40
	1320	0.8	24
	1854	1.4	43

August

	Time	Height	
	h m	ft	cm
1 Su	0148	0.2	6
	0901	1.4	43
	1452	0.9	27
	1922	1.1	34
2 M ◑	0224	0.2	6
	1012	1.6	49
	1708	0.8	24
	1959	0.9	27
3 Tu	0309	0.1	3
	1119	1.8	55
	1915	0.7	21
	2116	0.8	24
4 W	0405	0.1	3
	1216	2.0	61
	2007	0.6	18
	2307	0.7	21
5 Th	0507	0.0	0
	1307	2.2	67
	2041	0.4	12
6 F	0030	0.7	21
	0608	−0.1	−3
	1352	2.4	73
	2112	0.3	9
7 Sa	0132	0.7	21
	0704	−0.2	−6
	1435	2.5	76
	2143	0.2	6
8 Su	0225	0.8	24
	0757	−0.2	−6
	1515	2.6	79
	2214	0.1	3
9 M ●	0316	1.0	30
	0849	−0.2	−6
	1555	2.5	76
	2246	0.0	0
10 Tu	0406	1.2	37
	0942	−0.1	−3
	1634	2.4	73
	2318	0.0	0
11 W	0458	1.4	43
	1036	0.0	0
	1711	2.2	67
	2350	−0.1	−3
12 Th	0552	1.5	46
	1135	0.2	6
	1749	1.9	58
13 F	0023	−0.1	−3
	0651	1.7	52
	1242	0.5	15
	1827	1.6	49
14 Sa	0059	0.0	0
	0755	1.8	55
	1406	0.7	21
	1906	1.2	37
15 Su	0138	0.0	0
	0906	1.9	58
	1558	0.8	24
	1952	1.0	30

	Time	Height	
	h m	ft	cm
16 M ◐	0223	0.1	3
	1021	1.9	58
	1812	0.6	18
	2106	0.7	21
17 Tu	0321	0.1	3
	1133	2.0	61
	1935	0.5	15
	2259	0.6	18
18 W	0430	0.2	6
	1233	2.1	64
	2018	0.4	12
19 Th	0027	0.7	21
	0539	0.2	6
	1323	2.1	64
	2049	0.3	9
20 F	0123	0.8	24
	0637	0.1	3
	1404	2.1	64
	2114	0.3	9
21 Sa	0204	0.9	27
	0725	0.1	3
	1438	2.2	67
	2137	0.3	9
22 Su	0240	1.0	30
	0807	0.1	3
	1509	2.1	64
	2157	0.3	9
23 M	0313	1.1	34
	0846	0.1	3
	1537	2.1	64
	2217	0.2	6
24 Tu ○	0346	1.2	37
	0924	0.2	6
	1603	2.0	61
	2237	0.2	6
25 W	0421	1.4	43
	1002	0.2	6
	1628	1.9	58
	2258	0.2	6
26 Th	0457	1.5	46
	1042	0.4	12
	1654	1.7	52
	2319	0.2	6
27 F	0535	1.6	49
	1127	0.5	15
	1719	1.6	49
	2342	0.2	6
28 Sa	0617	1.6	49
	1218	0.6	18
	1745	1.4	43
29 Su	0008	0.2	6
	0705	1.7	52
	1322	0.7	21
	1812	1.2	37
30 M	0037	0.2	6
	0804	1.7	52
	1455	0.8	24
	1842	1.0	30
31 Tu	0115	0.2	6
	0915	1.8	55
	1713	0.7	21
	1930	0.8	24

September

	Time	Height	
	h m	ft	cm
1 W ◑	0209	0.2	6
	1031	1.9	58
	1850	0.6	18
	2132	0.7	21
2 Th	0324	0.2	6
	1138	2.0	61
	1930	0.5	15
	2326	0.7	21
3 F	0445	0.2	6
	1234	2.2	67
	2000	0.3	9
4 Sa	0037	0.8	24
	0557	0.1	3
	1322	2.3	70
	2028	0.2	6
5 Su	0131	1.0	30
	0659	0.0	0
	1405	2.4	73
	2056	0.1	3
6 M	0220	1.2	37
	0757	0.0	0
	1446	2.3	70
	2125	0.0	0
7 Tu	0307	1.5	46
	0852	0.0	0
	1524	2.2	67
	2154	0.0	0
8 W	0353	1.7	52
	0947	0.1	3
	1602	2.0	61
	2223	−0.1	−3
9 Th	0440	1.9	58
	1044	0.2	6
	1640	1.8	55
	2254	−0.1	−3
10 F	0529	2.0	61
	1146	0.3	9
	1717	1.5	46
	2326	−0.1	−3
11 Sa	0621	2.1	64
	1254	0.5	15
	1756	1.2	37
12 Su	0000	0.0	0
	0718	2.1	64
	1419	0.6	18
	1840	0.9	27
13 M	0038	0.1	3
	0823	2.0	61
	1608	0.6	18
	1941	0.7	21
14 Tu ◐	0126	0.2	6
	0937	2.0	61
	1754	0.5	15
	2133	0.6	18
15 W	0235	0.4	12
	1052	1.9	58
	1856	0.4	12
	2329	0.7	21

	Time	Height	
	h m	ft	cm
16 Th	0406	0.4	12
	1156	1.9	58
	1933	0.4	12
17 F	0036	0.8	24
	0527	0.4	12
	1247	2.0	61
	2000	0.3	9
18 Sa	0120	1.0	30
	0629	0.4	12
	1328	2.0	61
	2022	0.3	9
19 Su	0154	1.1	34
	0719	0.3	9
	1401	1.9	58
	2042	0.3	9
20 M	0225	1.3	40
	0802	0.3	9
	1430	1.9	58
	2100	0.2	6
21 Tu	0256	1.5	46
	0843	0.3	9
	1457	1.8	55
	2118	0.2	6
22 W ○	0326	1.6	49
	0923	0.3	9
	1523	1.7	52
	2137	0.1	3
23 Th	0358	1.8	55
	1003	0.4	12
	1549	1.6	49
	2157	0.1	3
24 F	0431	1.9	58
	1046	0.4	12
	1616	1.4	43
	2219	0.1	3
25 Sa	0506	2.0	61
	1133	0.5	15
	1643	1.2	37
	2242	0.1	3
26 Su	0545	2.0	61
	1227	0.6	18
	1713	1.1	34
	2309	0.1	3
27 M	0631	2.0	61
	1334	0.6	18
	1746	0.9	27
	2341	0.2	6
28 Tu	0726	2.0	61
	1507	0.6	18
	1830	0.7	21
29 W	0022	0.2	6
	0832	2.0	61
	1654	0.5	15
	1958	0.6	18
30 Th ◑	0122	0.3	9
	0946	2.0	61
	1800	0.4	12
	2211	0.6	18

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Honolulu, Oahu Island, Hawaii, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0252	0.4	12
	1055	2.0	61
	1839	0.3	9
	2341	0.8	24
2 Sa	0429	0.4	12
	1154	2.1	64
	1909	0.2	6
3 Su	0040	1.0	30
	0551	0.3	9
	1244	2.1	64
	1938	0.1	3
4 M	0128	1.3	40
	0700	0.3	9
	1329	2.1	64
	2006	0.0	0
5 Tu	0212	1.6	49
	0802	0.2	6
	1411	1.9	58
	2034	−0.1	−3
6 W	0256	1.9	58
	0900	0.2	6
	1451	1.8	55
	2102	−0.1	−3
7 Th ●	0339	2.2	67
	0958	0.2	6
	1530	1.5	46
	2132	−0.2	−6
8 F	0422	2.4	73
	1056	0.3	9
	1609	1.3	40
	2203	−0.1	−3
9 Sa	0507	2.4	73
	1157	0.3	9
	1650	1.1	34
	2235	−0.1	−3
10 Su	0554	2.4	73
	1304	0.4	12
	1734	0.9	27
	2309	0.0	0
11 M	0645	2.3	70
	1421	0.4	12
	1827	0.7	21
	2347	0.2	6
12 Tu	0743	2.1	64
	1548	0.4	12
	1947	0.6	18
13 W	0034	0.3	9
	0848	2.0	61
	1706	0.4	12
	2149	0.6	18
14 Th ◐	0145	0.5	15
	0957	1.9	58
	1759	0.3	9
	2330	0.8	24
15 F	0328	0.6	18
	1101	1.8	55
	1835	0.3	9

	Time	Height	
	h m	ft	cm
16 Sa	0026	1.0	30
	0502	0.6	18
	1153	1.8	55
	1901	0.3	9
17 Su	0104	1.2	37
	0613	0.6	18
	1236	1.7	52
	1923	0.2	6
18 M	0137	1.4	43
	0710	0.6	18
	1312	1.6	49
	1942	0.2	6
19 Tu	0207	1.6	49
	0759	0.5	15
	1343	1.5	46
	2001	0.1	3
20 W	0236	1.8	55
	0844	0.5	15
	1413	1.4	43
	2021	0.1	3
21 Th	0306	2.0	61
	0927	0.5	15
	1442	1.3	40
	2042	0.0	0
22 F ○	0337	2.1	64
	1010	0.4	12
	1512	1.2	37
	2105	0.0	0
23 Sa	0409	2.2	67
	1055	0.4	12
	1544	1.1	34
	2130	0.0	0
24 Su	0445	2.3	70
	1144	0.4	12
	1617	0.9	27
	2158	0.0	0
25 M	0525	2.3	70
	1239	0.4	12
	1654	0.8	24
	2230	0.0	0
26 Tu	0610	2.2	67
	1344	0.4	12
	1740	0.7	21
	2306	0.1	3
27 W	0701	2.2	67
	1459	0.4	12
	1847	0.6	18
	2352	0.2	6
28 Th	0800	2.1	64
	1610	0.3	9
	2033	0.6	18
29 F	0056	0.3	9
	0904	2.1	64
	1703	0.3	9
	2224	0.7	21
30 Sa ◑	0232	0.5	15
	1008	2.0	61
	1742	0.2	6
	2340	1.0	30
31 Su	0420	0.6	18
	1106	1.9	58
	1815	0.1	3

November

	Time	Height	
	h m	ft	cm
1 M	0034	1.3	40
	0552	0.6	18
	1200	1.8	55
	1845	0.0	0
2 Tu	0120	1.7	52
	0709	0.5	15
	1249	1.6	49
	1915	−0.1	−3
3 W	0203	2.0	61
	0816	0.4	12
	1334	1.4	43
	1945	−0.2	−6
4 Th	0244	2.3	70
	0917	0.4	12
	1419	1.2	37
	2016	−0.2	−6
5 F ●	0325	2.5	76
	1014	0.3	9
	1502	1.1	34
	2049	−0.2	−6
6 Sa	0406	2.6	79
	1109	0.3	9
	1545	0.9	27
	2122	−0.2	−6
7 Su	0448	2.6	79
	1204	0.3	9
	1630	0.8	24
	2157	−0.1	−3
8 M	0532	2.5	76
	1301	0.3	9
	1720	0.7	21
	2233	0.0	0
9 Tu	0617	2.4	73
	1402	0.3	9
	1818	0.6	18
	2313	0.2	6
10 W	0706	2.2	67
	1504	0.3	9
	1936	0.6	18
	2357	0.3	9
11 Th	0758	2.0	61
	1602	0.3	9
	2119	0.7	21
12 F	0058	0.5	15
	0853	1.9	58
	1649	0.3	9
	2255	0.8	24
13 Sa ◐	0231	0.7	21
	0948	1.7	52
	1725	0.2	6
	2356	1.1	34
14 Su	0419	0.8	24
	1041	1.6	49
	1754	0.2	6
15 M	0038	1.3	40
	0551	0.8	24
	1128	1.4	43
	1818	0.1	3

	Time	Height	
	h m	ft	cm
16 Tu	0112	1.5	46
	0702	0.7	21
	1211	1.3	40
	1841	0.1	3
17 W	0144	1.8	55
	0801	0.7	21
	1250	1.2	37
	1904	0.0	0
18 Th	0214	2.0	61
	0851	0.6	18
	1328	1.1	34
	1929	0.0	0
19 F	0246	2.2	67
	0936	0.5	15
	1405	1.0	30
	1956	−0.1	−3
20 Sa	0318	2.3	70
	1020	0.4	12
	1443	0.9	27
	2026	−0.1	−3
21 Su ○	0353	2.4	73
	1104	0.3	9
	1522	0.8	24
	2058	−0.2	−6
22 M	0431	2.4	73
	1150	0.3	9
	1603	0.7	21
	2133	−0.2	−6
23 Tu	0511	2.5	76
	1239	0.3	9
	1650	0.6	18
	2211	−0.1	−3
24 W	0555	2.4	73
	1332	0.2	6
	1747	0.6	18
	2254	0.0	0
25 Th	0641	2.3	70
	1426	0.2	6
	1902	0.6	18
	2345	0.2	6
26 F	0731	2.2	67
	1517	0.1	3
	2034	0.7	21
27 Sa	0052	0.4	12
	0823	2.0	61
	1602	0.1	3
	2209	0.9	27
28 Su ◑	0226	0.6	18
	0918	1.8	55
	1642	0.0	0
	2324	1.3	40
29 M	0420	0.8	24
	1014	1.6	49
	1719	−0.1	−3
30 Tu	0020	1.6	49
	0606	0.7	21
	1112	1.4	43
	1754	−0.2	−6

December

	Time	Height	
	h m	ft	cm
1 W	0108	2.0	61
	0732	0.6	18
	1209	1.1	34
	1829	−0.2	−6
2 Th	0151	2.2	67
	0841	0.5	15
	1303	1.0	30
	1905	−0.3	−9
3 F	0233	2.5	76
	0938	0.3	9
	1356	0.8	24
	1941	−0.3	−9
4 Sa	0313	2.6	79
	1028	0.2	6
	1445	0.7	21
	2019	−0.3	−9
5 Su ●	0353	2.6	79
	1114	0.2	6
	1532	0.7	21
	2057	−0.2	−6
6 M	0433	2.6	79
	1158	0.2	6
	1619	0.6	18
	2136	−0.2	−6
7 Tu	0512	2.5	76
	1241	0.2	6
	1708	0.6	18
	2215	0.0	0
8 W	0552	2.3	70
	1324	0.2	6
	1801	0.6	18
	2254	0.1	3
9 Th	0631	2.2	67
	1408	0.2	6
	1904	0.7	21
	2337	0.3	9
10 F	0710	2.0	61
	1449	0.2	6
	2020	0.7	21
11 Sa	0028	0.5	15
	0750	1.8	55
	1528	0.2	6
	2145	0.9	27
12 Su	0140	0.7	21
	0830	1.6	49
	1604	0.2	6
	2301	1.1	34
13 M ◐	0326	0.9	27
	0913	1.4	43
	1636	0.1	3
	2356	1.4	43
14 Tu	0525	0.9	27
	1002	1.2	37
	1707	0.1	3
15 W	0039	1.6	49
	0703	0.8	24
	1056	1.0	30
	1738	0.0	0

	Time	Height	
	h m	ft	cm
16 Th	0116	1.8	55
	0812	0.7	21
	1153	0.9	27
	1811	0.0	0
17 F	0151	2.0	61
	0902	0.5	15
	1248	0.8	24
	1846	−0.1	−3
18 Sa	0226	2.2	67
	0943	0.4	12
	1338	0.7	21
	1923	−0.2	−6
19 Su	0302	2.4	73
	1021	0.3	9
	1425	0.7	21
	2002	−0.3	−9
20 M ○	0339	2.5	76
	1059	0.2	6
	1511	0.6	18
	2042	−0.3	−9
21 Tu	0417	2.5	76
	1137	0.1	3
	1559	0.6	18
	2124	−0.3	−9
22 W	0457	2.5	76
	1217	0.1	3
	1650	0.7	21
	2208	−0.2	−6
23 Th	0537	2.5	76
	1258	0.0	0
	1749	0.7	21
	2256	0.0	0
24 F	0618	2.3	70
	1338	0.0	0
	1856	0.8	24
	2351	0.2	6
25 Sa	0700	2.1	64
	1419	0.0	0
	2014	1.0	30
26 Su	0059	0.5	15
	0743	1.9	58
	1459	−0.1	−3
	2137	1.2	37
27 M ◑	0232	0.7	21
	0829	1.5	46
	1540	−0.1	−3
	2254	1.5	46
28 Tu	0435	0.8	24
	0921	1.2	37
	1622	−0.1	−3
	2358	1.8	55
29 W	0637	0.7	21
	1025	1.0	30
	1706	−0.2	−6
30 Th	0052	2.1	64
	0806	0.5	15
	1139	0.7	21
	1751	−0.2	−6
31 F	0139	2.3	70
	0906	0.4	12
	1250	0.6	18
	1837	−0.2	−6

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Moku O Loe, Oahu Island, Hawaii, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0344	2.8	85
	1026	0.8	24
	1419	1.2	37
	2048	−0.6	−18
2 Sa	0421	2.8	85
	1103	0.7	21
	1514	1.2	37
	2131	−0.4	−12
3 Su	0456	2.6	79
	1143	0.6	18
	1615	1.2	37
	2213	−0.1	−3
4 M	0529	2.4	73
	1224	0.5	15
	1727	1.1	34
	2256	0.3	9
5 Tu	0559	2.1	64
	1309	0.3	9
	1905	1.2	37
	2343	0.8	24
6 W	0623	1.8	55
	1357	0.2	6
	2128	1.3	40
7 Th ◑	0057	1.2	37
	0637	1.6	49
	1450	0.1	3
	2338	1.6	49
8 F	1544	0.0	0
9 Sa	0034	1.9	58
	1636	−0.1	−3
10 Su	0111	2.2	67
	1724	−0.1	−3
11 M	0141	2.3	70
	1806	−0.2	−6
12 Tu	0209	2.4	73
	0921	0.9	27
	1153	1.0	30
	1845	−0.3	−9
13 W	0235	2.5	76
	0928	0.9	27
	1244	1.1	34
	1920	−0.3	−9
14 Th ●	0259	2.5	76
	0941	0.9	27
	1325	1.2	37
	1953	−0.3	−9
15 F	0324	2.5	76
	0958	0.8	24
	1404	1.2	37
	2025	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Sa	0347	2.4	73
	1019	0.7	21
	1442	1.3	40
	2055	−0.2	−6
17 Su	0409	2.3	70
	1041	0.7	21
	1521	1.3	40
	2124	0.0	0
18 M	0430	2.2	67
	1106	0.6	18
	1604	1.3	40
	2152	0.2	6
19 Tu	0448	2.1	64
	1132	0.5	15
	1654	1.2	37
	2219	0.5	15
20 W	0503	1.9	58
	1200	0.4	12
	1758	1.2	37
	2248	0.8	24
21 Th	0514	1.8	55
	1234	0.3	9
	1936	1.3	40
	2321	1.1	34
22 F	0518	1.6	49
	1318	0.2	6
	2231	1.4	43
23 Sa ◐	0050	1.3	40
	0448	1.5	46
	1417	0.1	3
	2353	1.8	55
24 Su	1528	0.0	0
25 M	0030	2.1	64
	1637	−0.2	−6
26 Tu	0104	2.3	70
	1736	−0.4	−12
27 W	0138	2.6	79
	0838	0.9	27
	1140	1.1	34
	1828	−0.5	−15
28 Th	0212	2.7	82
	0855	0.8	24
	1245	1.2	37
	1916	−0.6	−18
29 F ○	0246	2.8	85
	0918	0.7	21
	1340	1.3	40
	2001	−0.6	−18
30 Sa	0318	2.7	82
	0946	0.5	15
	1433	1.4	43
	2044	−0.4	−12
31 Su	0349	2.6	79
	1016	0.4	12
	1526	1.5	46
	2127	−0.2	−6

February

	Time	Height	
	h m	ft	cm
1 M	0417	2.4	73
	1048	0.3	9
	1623	1.5	46
	2208	0.2	6
2 Tu	0442	2.2	67
	1122	0.2	6
	1726	1.5	46
	2251	0.6	18
3 W	0502	1.9	58
	1158	0.1	3
	1844	1.5	46
	2339	1.0	30
4 Th	0512	1.7	52
	1239	0.1	3
	2042	1.5	46
5 F ◑	0102	1.4	43
	0446	1.5	46
	1329	0.1	3
	2312	1.7	52
6 Sa	1439	0.2	6
7 Su	0018	1.9	58
	1601	0.1	3
8 M	0055	2.1	64
	1708	0.1	3
9 Tu	0124	2.2	67
	0859	0.8	24
	1118	0.9	27
	1758	0.0	0
10 W	0149	2.3	70
	0846	0.9	27
	1216	1.1	34
	1838	−0.1	−3
11 Th	0211	2.3	70
	0848	0.8	24
	1256	1.2	37
	1913	−0.1	−3
12 F	0231	2.3	70
	0857	0.7	21
	1332	1.3	40
	1944	−0.1	−3
13 Sa ●	0250	2.3	70
	0911	0.6	18
	1408	1.4	43
	2015	−0.1	−3
14 Su	0308	2.2	67
	0927	0.5	15
	1444	1.5	46
	2044	0.0	0
15 M	0326	2.2	67
	0947	0.4	12
	1521	1.6	49
	2114	0.2	6

	Time	Height	
	h m	ft	cm
16 Tu	0343	2.0	61
	1007	0.3	9
	1601	1.6	49
	2144	0.4	12
17 W	0357	1.9	58
	1030	0.2	6
	1645	1.6	49
	2216	0.7	21
18 Th	0410	1.8	55
	1055	0.1	3
	1739	1.6	49
	2251	1.0	30
19 F	0418	1.6	49
	1126	0.1	3
	1854	1.6	49
	2340	1.2	37
20 Sa	0413	1.5	46
	1207	0.1	3
	2101	1.6	49
21 Su ◐	1309	0.1	3
	2303	1.9	58
22 M	1442	0.1	3
	2357	2.1	64
23 Tu	1614	0.0	0
24 W	0036	2.3	70
	0800	0.9	27
	1038	1.0	30
	1723	−0.2	−6
25 Th	0110	2.5	76
	0756	0.8	24
	1159	1.2	37
	1819	−0.3	−9
26 F	0142	2.5	76
	0812	0.6	18
	1257	1.4	43
	1909	−0.3	−9
27 Sa	0212	2.5	76
	0834	0.4	12
	1349	1.6	49
	1955	−0.3	−9
28 Su ○	0240	2.4	73
	0900	0.2	6
	1439	1.8	55
	2039	−0.1	−3

March

	Time	Height	
	h m	ft	cm
1 M	0307	2.3	70
	0927	0.1	3
	1529	1.9	58
	2123	0.2	6
2 Tu	0331	2.1	64
	0956	−0.1	−3
	1620	1.9	58
	2208	0.5	15
3 W	0352	1.8	55
	1026	−0.1	−3
	1715	1.9	58
	2256	0.9	27
4 Th	0407	1.6	49
	1058	−0.1	−3
	1819	1.8	55
	2355	1.2	37
5 F	0407	1.4	43
	1132	0.0	0
	1949	1.7	52
6 Sa	1213	0.2	6
	2200	1.8	55
7 Su ◑	1322	0.3	9
	2329	1.9	58
8 M	1518	0.4	12
9 Tu	0015	2.0	61
	1646	0.3	9
10 W	0045	2.0	61
	0757	0.8	24
	1144	1.0	30
	1742	0.2	6
11 Th	0109	2.1	64
	0751	0.7	21
	1224	1.2	37
	1823	0.2	6
12 F	0128	2.1	64
	0755	0.6	18
	1259	1.4	43
	1859	0.2	6
13 Sa	0146	2.1	64
	0804	0.5	15
	1332	1.5	46
	1931	0.2	6
14 Su	0203	2.0	61
	0818	0.4	12
	1406	1.7	52
	2003	0.2	6
15 M ●	0219	2.0	61
	0835	0.2	6
	1441	1.8	55
	2036	0.4	12

	Time	Height	
	h m	ft	cm
16 Tu	0236	1.9	58
	0855	0.1	3
	1516	1.9	58
	2110	0.5	15
17 W	0253	1.8	55
	0916	0.0	0
	1555	1.9	58
	2146	0.7	21
18 Th	0309	1.6	49
	0940	−0.1	−3
	1637	1.9	58
	2227	0.9	27
19 F	0322	1.5	46
	1007	−0.1	−3
	1728	1.9	58
	2318	1.1	34
20 Sa	0328	1.4	43
	1040	−0.1	−3
	1837	1.9	58
21 Su	0049	1.2	37
	0309	1.3	40
	1122	0.0	0
	2015	1.9	58
22 M	1226	0.1	3
	2159	2.0	61
23 Tu ◐	1407	0.2	6
	2305	2.1	64
24 W	1552	0.2	6
	2350	2.2	67
25 Th	0654	0.7	21
	1110	1.1	34
	1708	0.1	3
26 F	0025	2.3	70
	0704	0.5	15
	1214	1.4	43
	1809	0.1	3
27 Sa	0057	2.2	67
	0723	0.3	9
	1306	1.7	52
	1902	0.1	3
28 Su	0126	2.1	64
	0747	0.1	3
	1354	1.9	58
	1951	0.2	6
29 M ○	0153	2.0	61
	0813	−0.1	−3
	1440	2.1	64
	2039	0.4	12
30 Tu	0218	1.8	55
	0840	−0.3	−9
	1526	2.2	67
	2127	0.6	18
31 W	0241	1.7	52
	0909	−0.3	−9
	1612	2.2	67
	2217	0.8	24

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Moku O Loe, Oahu Island, Hawaii, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0302	1.5	46
	0938	−0.3	−9
	1701	2.2	67
	2313	1.0	30
2 F	0315	1.3	40
	1008	−0.2	−6
	1755	2.1	64
3 Sa	0033	1.1	34
	0309	1.2	37
	1040	0.0	0
	1903	1.9	58
4 Su	1117	0.2	6
	2034	1.8	55
5 M ◑	1211	0.4	12
	2204	1.8	55
6 Tu	1405	0.5	15
	2303	1.8	55
7 W	0703	0.7	21
	1048	0.9	27
	1559	0.6	18
	2339	1.8	55
8 Th	0646	0.7	21
	1144	1.1	34
	1708	0.5	15
9 F	0006	1.8	55
	0647	0.6	18
	1221	1.3	40
	1758	0.5	15
10 Sa	0026	1.8	55
	0655	0.4	12
	1255	1.5	46
	1840	0.5	15
11 Su	0045	1.8	55
	0708	0.2	6
	1328	1.7	52
	1919	0.6	18
12 M	0103	1.7	52
	0725	0.1	3
	1401	1.9	58
	1957	0.6	18
13 Tu	0123	1.6	49
	0745	−0.1	−3
	1435	2.1	64
	2036	0.7	21
14 W ●	0143	1.6	49
	0808	−0.2	−6
	1511	2.2	67
	2118	0.8	24
15 Th	0203	1.5	46
	0834	−0.3	−9
	1551	2.3	70
	2203	0.9	27

	Time	Height	
	h m	ft	cm
16 F	0223	1.4	43
	0903	−0.3	−9
	1635	2.3	70
	2257	1.0	30
17 Sa	0240	1.3	40
	0936	−0.3	−9
	1726	2.2	67
18 Su	0012	1.1	34
	0249	1.2	37
	1013	−0.2	−6
	1829	2.2	67
19 M	1100	−0.1	−3
	1943	2.1	64
20 Tu	1203	0.1	3
	2059	2.1	64
21 W ◐	1338	0.3	9
	2201	2.1	64
22 Th	0539	0.6	18
	1007	0.9	27
	1526	0.4	12
	2248	2.0	61
23 F	0551	0.4	12
	1129	1.3	40
	1653	0.5	15
	2327	2.0	61
24 Sa	0611	0.2	6
	1225	1.6	49
	1802	0.6	18
25 Su	0000	1.9	58
	0635	0.0	0
	1313	1.9	58
	1903	0.6	18
26 M	0030	1.7	52
	0702	−0.2	−6
	1357	2.2	67
	1958	0.7	21
27 Tu	0059	1.6	49
	0730	−0.4	−12
	1440	2.4	73
	2050	0.8	24
28 W ○	0126	1.5	46
	0759	−0.5	−15
	1521	2.5	76
	2142	0.9	27
29 Th	0152	1.3	40
	0830	−0.4	−12
	1603	2.5	76
	2236	0.9	27
30 F	0215	1.2	37
	0901	−0.4	−12
	1646	2.4	73
	2337	1.0	30

May

	Time	Height	
	h m	ft	cm
1 Sa	0234	1.1	34
	0933	−0.2	−6
	1733	2.3	70
2 Su	1006	0.0	0
	1825	2.1	64
3 M	1042	0.2	6
	1924	2.0	61
4 Tu	1126	0.4	12
	2026	1.9	58
5 W ◑	1236	0.6	18
	2121	1.8	55
6 Th	0526	0.7	21
	1029	0.9	27
	1433	0.8	24
	2204	1.7	52
7 F	0528	0.5	15
	1134	1.2	37
	1615	0.9	27
	2236	1.6	49
8 Sa	0538	0.4	12
	1214	1.4	43
	1728	0.9	27
	2303	1.6	49
9 Su	0553	0.2	6
	1249	1.7	52
	1826	0.9	27
	2328	1.5	46
10 M	0612	0.0	0
	1322	1.9	58
	1917	0.9	27
	2354	1.4	43
11 Tu	0636	−0.2	−6
	1355	2.2	67
	2004	0.9	27
12 W	0021	1.4	43
	0703	−0.3	−9
	1430	2.3	70
	2050	0.9	27
13 Th ●	0050	1.3	40
	0733	−0.4	−12
	1508	2.5	76
	2138	1.0	30
14 F	0119	1.3	40
	0806	−0.5	−15
	1548	2.5	76
	2230	1.0	30
15 Sa	0149	1.2	37
	0842	−0.5	−15
	1633	2.5	76
	2330	1.0	30

	Time	Height	
	h m	ft	cm
16 Su	0220	1.1	34
	0920	−0.4	−12
	1721	2.5	76
17 M	0044	0.9	27
	0252	1.0	30
	1003	−0.3	−9
	1813	2.4	73
18 Tu	1051	−0.1	−3
	1907	2.3	70
19 W	0318	0.7	21
	0531	0.8	24
	1149	0.2	6
	2001	2.1	64
20 Th ◐	0353	0.6	18
	0820	0.9	27
	1311	0.5	15
	2051	2.0	61
21 F	0423	0.4	12
	1027	1.1	34
	1459	0.8	24
	2136	1.8	55
22 Sa	0452	0.2	6
	1142	1.5	46
	1646	1.0	30
	2216	1.7	52
23 Su	0522	−0.1	−3
	1236	1.9	58
	1814	1.0	30
	2253	1.5	46
24 M	0552	−0.3	−9
	1320	2.2	67
	1925	1.0	30
	2328	1.4	43
25 Tu	0623	−0.4	−12
	1400	2.4	73
	2024	1.0	30
26 W	0003	1.3	40
	0656	−0.5	−15
	1438	2.5	76
	2116	1.0	30
27 Th ○	0037	1.2	37
	0729	−0.5	−15
	1516	2.6	79
	2203	1.0	30
28 F	0112	1.2	37
	0803	−0.5	−15
	1553	2.5	76
	2249	1.0	30
29 Sa	0147	1.1	34
	0837	−0.4	−12
	1630	2.5	76
	2337	1.0	30
30 Su	0221	1.1	34
	0912	−0.2	−6
	1708	2.4	73
31 M	0029	0.9	27
	0256	1.0	30
	0946	−0.1	−3
	1747	2.2	67

June

	Time	Height	
	h m	ft	cm
1 Tu	0127	0.8	24
	0338	0.9	27
	1020	0.1	3
	1825	2.1	64
2 W	0223	0.8	24
	0448	0.9	27
	1055	0.4	12
	1902	1.9	58
3 Th	0304	0.7	21
	0654	0.8	24
	1136	0.6	18
	1937	1.8	55
4 F ◑	0334	0.6	18
	0940	1.0	30
	1243	0.9	27
	2009	1.7	52
5 Sa	0359	0.4	12
	1120	1.2	37
	1455	1.1	34
	2040	1.5	46
6 Su	0424	0.2	6
	1207	1.5	46
	1705	1.2	37
	2114	1.4	43
7 M	0452	0.1	3
	1241	1.8	55
	1836	1.2	37
	2153	1.3	40
8 Tu	0522	−0.1	−3
	1314	2.1	64
	1939	1.1	34
	2237	1.3	40
9 W	0556	−0.3	−9
	1348	2.3	70
	2027	1.1	34
	2324	1.2	37
10 Th	0632	−0.4	−12
	1424	2.5	76
	2110	1.0	30
11 F	0011	1.2	37
	0711	−0.5	−15
	1502	2.6	79
	2152	1.0	30
12 Sa ●	0057	1.2	37
	0751	−0.6	−18
	1541	2.7	82
	2235	0.9	27
13 Su	0144	1.1	34
	0832	−0.6	−18
	1622	2.7	82
	2320	0.9	27
14 M	0234	1.1	34
	0915	−0.5	−15
	1704	2.6	79
15 Tu	0008	0.8	24
	0332	1.0	30
	0959	−0.3	−9
	1745	2.5	76

	Time	Height	
	h m	ft	cm
16 W	0057	0.7	21
	0445	1.0	30
	1045	0.0	0
	1824	2.3	70
17 Th	0145	0.6	18
	0624	1.0	30
	1137	0.4	12
	1902	2.1	64
18 F ◐	0232	0.4	12
	0833	1.1	34
	1247	0.8	24
	1938	1.8	55
19 Sa	0316	0.2	6
	1037	1.4	43
	1446	1.2	37
	2012	1.6	49
20 Su	0357	0.0	0
	1154	1.7	52
	1720	1.3	40
	2046	1.4	43
21 M	0438	−0.2	−6
	1244	2.1	64
	1920	1.2	37
	2127	1.3	40
22 Tu	0518	−0.3	−9
	1325	2.3	70
23 W	0557	−0.4	−12
	1400	2.4	73
	2107	1.0	30
	2320	1.1	34
24 Th	0635	−0.4	−12
	1433	2.5	76
	2135	1.0	30
25 F	0014	1.1	34
	0713	−0.4	−12
	1505	2.5	76
	2202	0.9	27
26 Sa ○	0102	1.1	34
	0749	−0.4	−12
	1536	2.5	76
	2229	0.9	27
27 Su	0146	1.1	34
	0824	−0.3	−9
	1607	2.5	76
	2257	0.9	27
28 M	0228	1.1	34
	0857	−0.2	−6
	1636	2.4	73
	2327	0.8	24
29 Tu	0311	1.1	34
	0930	−0.1	−3
	1704	2.3	70
	2359	0.8	24
30 W	0400	1.1	34
	1001	0.2	6
	1729	2.1	64

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Moku O Loe, Oahu Island, Hawaii, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0032	0.7	21
	0459	1.0	30
	1031	0.4	12
	1751	2.0	61
2 F	0106	0.6	18
	0619	1.0	30
	1101	0.7	21
	1809	1.8	55
3 Sa	0143	0.5	15
	0820	1.1	34
	1137	1.0	30
	1823	1.6	49
4 Su ◑	0223	0.3	9
	1055	1.3	40
	1315	1.2	37
	1830	1.5	46
5 M	0307	0.2	6
	1157	1.6	49
6 Tu	0353	0.0	0
	1231	1.9	58
7 W	0441	−0.1	−3
	1304	2.2	67
8 Th	0529	−0.3	−9
	1337	2.4	73
	2044	1.0	30
	2256	1.1	34
9 F	0615	−0.5	−15
	1412	2.6	79
	2105	1.0	30
10 Sa	0005	1.1	34
	0700	−0.6	−18
	1447	2.7	82
	2132	0.9	27
11 Su ●	0103	1.2	37
	0744	−0.6	−18
	1523	2.8	85
	2204	0.8	24
12 M	0158	1.2	37
	0827	−0.6	−18
	1558	2.7	82
	2238	0.7	21
13 Tu	0254	1.2	37
	0910	−0.4	−12
	1632	2.6	79
	2314	0.6	18
14 W	0354	1.2	37
	0954	−0.1	−3
	1705	2.4	73
	2352	0.4	12
15 Th	0502	1.2	37
	1038	0.3	9
	1734	2.2	67

	Time	Height	
	h m	ft	cm
16 F	0033	0.3	9
	0628	1.3	40
	1128	0.7	21
	1759	1.9	58
17 Sa	0118	0.2	6
	0823	1.4	43
	1237	1.1	34
	1817	1.6	49
18 Su ◐	0209	0.1	3
	1036	1.6	49
	1536	1.3	40
	1805	1.4	43
19 M	0305	0.0	0
	1156	1.9	58
20 Tu	0402	−0.1	−3
	1243	2.1	64
21 W	0457	−0.1	−3
	1319	2.3	70
22 Th	0545	−0.2	−6
	1351	2.4	73
	2105	0.9	27
	2334	1.0	30
23 F	0628	−0.3	−9
	1418	2.4	73
	2112	0.9	27
24 Sa	0029	1.1	34
	0706	−0.3	−9
	1444	2.4	73
	2125	0.9	27
25 Su ○	0113	1.2	37
	0740	−0.3	−9
	1509	2.4	73
	2141	0.8	24
26 M	0153	1.2	37
	0813	−0.2	−6
	1532	2.4	73
	2201	0.7	21
27 Tu	0232	1.3	40
	0844	−0.1	−3
	1554	2.3	70
	2223	0.6	18
28 W	0313	1.3	40
	0914	0.1	3
	1614	2.2	67
	2246	0.5	15
29 Th	0356	1.3	40
	0943	0.3	9
	1632	2.0	61
	2310	0.5	15
30 F	0445	1.3	40
	1012	0.5	15
	1646	1.9	58
	2338	0.4	12
31 Sa	0545	1.3	40
	1042	0.8	24
	1656	1.7	52

August

	Time	Height	
	h m	ft	cm
1 Su	0009	0.3	9
	0711	1.3	40
	1118	1.1	34
	1658	1.6	49
2 M ◑	0050	0.3	9
	0940	1.4	43
	1241	1.3	40
	1627	1.5	46
3 Tu	0146	0.2	6
	1128	1.7	52
4 W	0259	0.1	3
	1209	2.0	61
5 Th	0410	−0.1	−3
	1243	2.2	67
6 F	0512	−0.2	−6
	1316	2.4	73
	2016	1.0	30
	2314	1.1	34
7 Sa	0604	−0.4	−12
	1348	2.6	79
	2028	0.8	24
8 Su	0021	1.2	37
	0652	−0.5	−15
	1420	2.7	82
	2050	0.7	21
9 M ●	0116	1.4	43
	0737	−0.5	−15
	1452	2.7	82
	2117	0.5	15
10 Tu	0209	1.5	46
	0821	−0.4	−12
	1522	2.5	76
	2146	0.4	12
11 W	0303	1.6	49
	0905	−0.2	−6
	1550	2.4	73
	2218	0.2	6
12 Th	0359	1.6	49
	0949	0.2	6
	1616	2.1	64
	2251	0.1	3
13 F	0501	1.6	49
	1035	0.6	18
	1638	1.9	58
	2327	0.1	3
14 Sa	0615	1.6	49
	1129	1.0	30
	1652	1.6	49
15 Su	0008	0.0	0
	0757	1.6	49
	1301	1.3	40
	1640	1.4	43

	Time	Height	
	h m	ft	cm
16 M ◐	0059	0.1	3
	1011	1.8	55
17 Tu	0208	0.1	3
	1136	2.0	61
18 W	0333	0.1	3
	1224	2.1	64
19 Th	0446	0.1	3
	1258	2.2	67
	2023	0.9	27
	2310	1.0	30
20 F	0540	0.0	0
	1326	2.3	70
	2018	0.8	24
21 Sa	0005	1.1	34
	0622	0.0	0
	1349	2.3	70
	2024	0.8	24
22 Su	0045	1.2	37
	0657	−0.1	−3
	1410	2.3	70
	2034	0.7	21
23 M	0120	1.4	43
	0730	−0.1	−3
	1429	2.2	67
	2047	0.6	18
24 Tu ○	0155	1.5	46
	0800	0.0	0
	1447	2.2	67
	2103	0.5	15
25 W	0231	1.6	49
	0831	0.1	3
	1504	2.1	64
	2122	0.4	12
26 Th	0307	1.6	49
	0901	0.3	9
	1520	1.9	58
	2142	0.3	9
27 F	0346	1.6	49
	0932	0.5	15
	1535	1.8	55
	2204	0.2	6
28 Sa	0428	1.6	49
	1004	0.7	21
	1546	1.7	52
	2228	0.1	3
29 Su	0519	1.6	49
	1040	1.0	30
	1552	1.5	46
	2257	0.1	3
30 M	0627	1.6	49
	1130	1.2	37
	1544	1.4	43
	2335	0.1	3
31 Tu	0823	1.6	49

September

	Time	Height	
	h m	ft	cm
1 W ◑	0033	0.2	6
	1031	1.8	55
2 Th	0207	0.2	6
	1129	2.0	61
3 F	0345	0.1	3
	1208	2.2	67
	1933	0.9	27
	2219	1.0	30
4 Sa	0457	−0.1	−3
	1241	2.4	73
	1927	0.8	24
	2338	1.2	37
5 Su	0554	−0.2	−6
	1312	2.4	73
	1942	0.6	18
6 M	0034	1.4	43
	0643	−0.2	−6
	1342	2.4	73
	2003	0.4	12
7 Tu	0125	1.6	49
	0730	−0.2	−6
	1410	2.4	73
	2028	0.2	6
8 W	0215	1.8	55
	0816	0.0	0
	1437	2.2	67
	2056	0.0	0
9 Th	0305	2.0	61
	0902	0.2	6
	1502	2.0	61
	2125	−0.1	−3
10 F	0356	2.0	61
	0949	0.5	15
	1525	1.8	55
	2156	−0.2	−6
11 Sa	0451	2.0	61
	1041	0.9	27
	1541	1.6	49
	2229	−0.2	−6
12 Su	0556	1.9	58
	1149	1.1	34
	1545	1.4	43
	2305	−0.1	−3
13 M	0721	1.9	58
	2350	0.1	3
14 Tu ◐	0918	1.9	58
15 W	0100	0.3	9
	1050	1.9	58

	Time	Height	
	h m	ft	cm
16 Th	0257	0.4	12
	1143	2.0	61
	1942	0.7	21
	2238	0.8	24
17 F	0428	0.3	9
	1218	2.1	64
	1925	0.7	21
	2339	1.0	30
18 Sa	0526	0.3	9
	1244	2.1	64
	1925	0.6	18
19 Su	0017	1.2	37
	0609	0.2	6
	1304	2.0	61
	1931	0.5	15
20 M	0050	1.4	43
	0644	0.2	6
	1322	2.0	61
	1941	0.4	12
21 Tu	0121	1.6	49
	0717	0.3	9
	1339	1.9	58
	1954	0.3	9
22 W ○	0153	1.7	52
	0750	0.3	9
	1355	1.9	58
	2010	0.1	3
23 Th	0226	1.9	58
	0822	0.4	12
	1411	1.8	55
	2029	0.0	0
24 F	0300	1.9	58
	0856	0.6	18
	1427	1.7	52
	2050	0.0	0
25 Sa	0337	2.0	61
	0932	0.7	21
	1441	1.6	49
	2113	−0.1	−3
26 Su	0417	2.0	61
	1011	0.9	27
	1453	1.5	46
	2138	−0.1	−3
27 M	0504	1.9	58
	1101	1.1	34
	1458	1.4	43
	2208	−0.1	−3
28 Tu	0606	1.9	58
	2246	0.0	0
29 W	0737	1.9	58
	2342	0.1	3
30 Th ◑	0922	1.9	58

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Moku O Loe, Oahu Island, Hawaii, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0121	0.2	6
	1032	2.0	61
2 Sa	0316	0.3	9
	1118	2.1	64
	1829	0.7	21
	2252	1.0	30
3 Su	0439	0.2	6
	1154	2.2	67
	1836	0.5	15
	2354	1.3	40
4 M	0542	0.2	6
	1225	2.2	67
	1854	0.2	6
5 Tu	0044	1.7	52
	0637	0.2	6
	1254	2.1	64
	1917	0.0	0
6 W	0132	2.0	61
	0728	0.3	9
	1322	2.0	61
	1943	−0.2	−6
7 Th ●	0218	2.2	67
	0817	0.4	12
	1348	1.8	55
	2012	−0.4	−12
8 F	0304	2.3	70
	0907	0.6	18
	1413	1.6	49
	2041	−0.4	−12
9 Sa	0350	2.4	73
	0959	0.8	24
	1435	1.5	46
	2112	−0.4	−12
10 Su	0440	2.3	70
	1059	1.0	30
	1450	1.3	40
	2144	−0.3	−9
11 M	0535	2.2	67
	1226	1.1	34
	1446	1.2	37
	2218	−0.1	−3
12 Tu	0642	2.1	64
	2255	0.1	3
13 W	0808	1.9	58
	2347	0.3	9
14 Th ◐	0935	1.9	58
15 F	0141	0.5	15
	1036	1.9	58
	1833	0.7	21
	2257	0.9	27

	Time	Height	
	h m	ft	cm
16 Sa	0343	0.6	18
	1115	1.9	58
	1825	0.6	18
	2345	1.1	34
17 Su	0456	0.6	18
	1143	1.8	55
	1829	0.5	15
18 M	0019	1.3	40
	0548	0.6	18
	1204	1.8	55
	1837	0.3	9
19 Tu	0050	1.6	49
	0631	0.6	18
	1223	1.7	52
	1849	0.2	6
20 W	0120	1.8	55
	0710	0.6	18
	1241	1.6	49
	1905	0.0	0
21 Th	0150	2.0	61
	0747	0.7	21
	1259	1.6	49
	1924	−0.1	−3
22 F ○	0222	2.1	64
	0825	0.8	24
	1318	1.5	46
	1947	−0.2	−6
23 Sa	0256	2.2	67
	0904	0.8	24
	1338	1.4	43
	2011	−0.3	−9
24 Su	0332	2.3	70
	0946	0.9	27
	1357	1.4	43
	2039	−0.3	−9
25 M	0412	2.3	70
	1036	1.0	30
	1413	1.3	40
	2109	−0.3	−9
26 Tu	0459	2.2	67
	1144	1.1	34
	1422	1.2	37
	2143	−0.2	−6
27 W	0555	2.2	67
	2224	−0.1	−3
28 Th	0703	2.1	64
	2317	0.1	3
29 F	0817	2.1	64
30 Sa ◑	0041	0.3	9
	0922	2.0	61
	1721	0.6	18
	2140	0.9	27
31 Su	0238	0.5	15
	1013	2.0	61
	1727	0.4	12
	2310	1.2	37

November

	Time	Height	
	h m	ft	cm
1 M	0419	0.6	18
	1054	1.9	58
	1746	0.2	6
2 Tu	0006	1.6	49
	0536	0.7	21
	1129	1.8	55
	1809	−0.1	−3
3 W	0054	1.9	58
	0641	0.7	21
	1201	1.7	52
	1836	−0.3	−9
4 Th	0138	2.3	70
	0738	0.8	24
	1231	1.6	49
	1906	−0.5	−15
5 F ●	0220	2.5	76
	0832	0.8	24
	1300	1.5	46
	1937	−0.6	−18
6 Sa	0302	2.6	79
	0925	0.9	27
	1329	1.4	43
	2009	−0.6	−18
7 Su	0344	2.6	79
	1018	0.9	27
	1356	1.2	37
	2042	−0.5	−15
8 M	0428	2.5	76
	1118	1.0	30
	1418	1.2	37
	2116	−0.4	−12
9 Tu	0514	2.4	73
	2150	−0.1	−3
10 W	0604	2.2	67
	2224	0.1	3
11 Th	0700	2.1	64
	2302	0.3	9
12 F	0759	1.9	58
	2355	0.6	18
13 Sa ◐	0854	1.8	55
	1712	0.6	18
	2246	0.9	27
14 Su	0158	0.8	24
	0940	1.7	52
	1716	0.5	15
	2344	1.2	37
15 M	0404	1.0	30
	1015	1.6	49
	1726	0.3	9

	Time	Height	
	h m	ft	cm
16 Tu	0019	1.5	46
	0527	1.0	30
	1043	1.5	46
	1741	0.2	6
17 W	0049	1.7	52
	0628	1.0	30
	1109	1.4	43
	1759	0.0	0
18 Th	0118	2.0	61
	0717	1.0	30
	1135	1.4	43
	1822	−0.2	−6
19 F	0148	2.2	67
	0801	1.0	30
	1202	1.3	40
	1848	−0.3	−9
20 Sa	0219	2.3	70
	0842	1.0	30
	1231	1.3	40
	1916	−0.4	−12
21 Su ○	0253	2.5	76
	0924	1.0	30
	1301	1.2	37
	1948	−0.5	−15
22 M	0330	2.5	76
	1008	1.0	30
	1331	1.2	37
	2022	−0.5	−15
23 Tu	0409	2.5	76
	1059	1.0	30
	1402	1.2	37
	2058	−0.4	−12
24 W	0452	2.5	76
	1158	1.0	30
	1434	1.1	34
	2136	−0.3	−9
25 Th	0538	2.4	73
	1312	0.9	27
	1515	1.0	30
	2217	−0.1	−3
26 F	0627	2.3	70
	1427	0.8	24
	1632	0.9	27
	2305	0.2	6
27 Sa	0717	2.2	67
	1516	0.7	21
	1908	0.8	24
28 Su ◑	0010	0.5	15
	0806	2.0	61
	1551	0.4	12
	2153	1.0	30
29 M	0157	0.8	24
	0853	1.8	55
	1624	0.2	6
	2324	1.4	43
30 Tu	0409	1.0	30
	0938	1.6	49
	1656	0.0	0

December

	Time	Height	
	h m	ft	cm
1 W	0019	1.8	55
	0554	1.1	34
	1020	1.5	46
	1729	−0.3	−9
2 Th	0104	2.2	67
	0712	1.1	34
	1102	1.4	43
	1803	−0.4	−12
3 F	0144	2.4	73
	0812	1.0	30
	1142	1.3	40
	1838	−0.6	−18
4 Sa	0223	2.6	79
	0902	1.0	30
	1223	1.2	37
	1914	−0.6	−18
5 Su ●	0300	2.7	82
	0946	0.9	27
	1302	1.2	37
	1950	−0.6	−18
6 M	0337	2.7	82
	1027	0.9	27
	1340	1.1	34
	2026	−0.5	−15
7 Tu	0413	2.6	79
	1109	0.9	27
	1418	1.1	34
	2101	−0.3	−9
8 W	0450	2.5	76
	1154	0.9	27
	1456	1.0	30
	2134	−0.2	−6
9 Th	0526	2.3	70
	1242	0.9	27
	1538	1.0	30
	2206	0.1	3
10 F	0600	2.1	64
	1334	0.8	24
	1635	0.9	27
	2237	0.3	9
11 Sa	0633	2.0	61
	1424	0.7	21
	1815	0.9	27
	2306	0.6	18
12 Su	0703	1.8	55
	1505	0.6	18
	2122	0.9	27
	2335	0.8	24
13 M ◐	0729	1.6	49
	1538	0.5	15
	2355	1.2	37
14 Tu	0200	1.1	34
	0755	1.5	46
	1609	0.3	9
15 W	0023	1.5	46
	0529	1.3	40
	0824	1.4	43
	1639	0.1	3

	Time	Height	
	h m	ft	cm
16 Th	0049	1.8	55
	1711	−0.1	−3
17 F	0116	2.1	64
	0805	1.1	34
	1012	1.2	37
	1746	−0.2	−6
18 Sa	0145	2.3	70
	0835	1.1	34
	1110	1.2	37
	1822	−0.4	−12
19 Su	0215	2.5	76
	0904	1.0	30
	1201	1.2	37
	1859	−0.5	−15
20 M ○	0248	2.6	79
	0935	1.0	30
	1248	1.2	37
	1937	−0.6	−18
21 Tu	0323	2.7	82
	1009	0.9	27
	1334	1.2	37
	2016	−0.6	−18
22 W	0359	2.7	82
	1046	0.9	27
	1420	1.2	37
	2055	−0.5	−15
23 Th	0435	2.6	79
	1125	0.8	24
	1511	1.1	34
	2135	−0.3	−9
24 F	0511	2.5	76
	1208	0.7	21
	1611	1.1	34
	2216	0.0	0
25 Sa	0546	2.4	73
	1253	0.6	18
	1730	1.0	30
	2259	0.3	9
26 Su	0619	2.1	64
	1340	0.4	12
	1921	1.1	34
	2352	0.7	21
27 M ◑	0650	1.9	58
	1429	0.2	6
	2149	1.3	40
28 Tu	0127	1.2	37
	0718	1.6	49
	1518	0.1	3
	2335	1.7	52
29 W	0450	1.3	40
	0741	1.4	43
	1607	−0.1	−3
30 Th	0030	2.0	61
	1655	−0.3	−9
31 F	0111	2.3	70
	1741	−0.4	−12

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Kahului, Maui Island, Hawaii, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0328	3.1	94
	1005	0.7	21
	1423	1.4	43
	2042	−0.7	−21
2 Sa	0405	3.0	91
	1043	0.6	18
	1515	1.4	43
	2124	−0.4	−12
3 Su	0441	2.8	85
	1122	0.5	15
	1611	1.4	43
	2207	−0.1	−3
4 M	0515	2.6	79
	1203	0.4	12
	1715	1.3	40
	2251	0.3	9
5 Tu	0547	2.3	70
	1246	0.4	12
	1838	1.3	40
	2340	0.8	24
6 W	0615	2.0	61
	1334	0.3	9
	2034	1.4	43
7 Th ◑	0052	1.2	37
	0638	1.7	52
	1428	0.2	6
	2247	1.7	52
8 F	0359	1.4	43
	0646	1.5	46
	1527	0.1	3
9 Sa	0002	2.0	61
	1625	0.0	0
10 Su	0046	2.2	67
	1717	−0.1	−3
11 M	0121	2.4	73
	0831	1.0	30
	1114	1.1	34
	1803	−0.2	−6
12 Tu	0151	2.5	76
	0844	0.9	27
	1212	1.1	34
	1843	−0.3	−9
13 W	0219	2.6	79
	0901	0.8	24
	1256	1.2	37
	1919	−0.4	−12
14 Th ●	0246	2.6	79
	0920	0.8	24
	1335	1.3	40
	1952	−0.4	−12
15 F	0311	2.6	79
	0941	0.7	21
	1411	1.4	43
	2023	−0.3	−9

	Time	Height	
	h m	ft	cm
16 Sa	0336	2.6	79
	1004	0.6	18
	1446	1.4	43
	2053	−0.2	−6
17 Su	0400	2.5	76
	1028	0.6	18
	1523	1.4	43
	2122	0.0	0
18 M	0421	2.4	73
	1053	0.5	15
	1602	1.4	43
	2150	0.2	6
19 Tu	0441	2.3	70
	1118	0.5	15
	1646	1.4	43
	2218	0.5	15
20 W	0457	2.1	64
	1146	0.4	12
	1739	1.4	43
	2246	0.8	24
21 Th	0510	1.9	58
	1218	0.3	9
	1857	1.3	40
	2320	1.1	34
22 F	0518	1.7	52
	1300	0.3	9
	2117	1.4	43
23 Sa ◐	0029	1.3	40
	0507	1.5	46
	1359	0.2	6
	2327	1.7	52
24 Su	1517	0.0	0
25 M	0014	2.1	64
	1631	−0.1	−3
26 Tu	0050	2.4	73
	0813	0.9	27
	1025	1.0	30
	1731	−0.4	−12
27 W	0124	2.6	79
	0817	0.8	24
	1151	1.1	34
	1824	−0.6	−18
28 Th	0158	2.8	85
	0837	0.7	21
	1251	1.3	40
	1911	−0.7	−21
29 F ○	0232	2.9	88
	0903	0.5	15
	1342	1.4	43
	1955	−0.7	−21
30 Sa	0305	2.9	88
	0932	0.4	12
	1432	1.6	49
	2038	−0.6	−18
31 Su	0336	2.8	85
	1002	0.3	9
	1521	1.7	52
	2120	−0.3	−9

February

	Time	Height	
	h m	ft	cm
1 M	0405	2.6	79
	1033	0.1	3
	1612	1.7	52
	2202	0.1	3
2 Tu	0432	2.4	73
	1105	0.1	3
	1707	1.7	52
	2244	0.5	15
3 W	0455	2.1	64
	1139	0.1	3
	1812	1.6	49
	2330	0.9	27
4 Th	0510	1.8	55
	1217	0.1	3
	1942	1.6	49
5 F ◑	0034	1.2	37
	0506	1.5	46
	1304	0.1	3
	2210	1.7	52
6 Sa	1414	0.2	6
	2352	1.9	58
7 Su	1548	0.2	6
8 M	0037	2.1	64
	1704	0.1	3
9 Tu	0109	2.2	67
	0824	0.8	24
	1135	0.9	27
	1756	−0.1	−3
10 W	0135	2.3	70
	0823	0.7	21
	1225	1.1	34
	1837	−0.2	−6
11 Th	0159	2.4	73
	0831	0.6	18
	1303	1.3	40
	1912	−0.2	−6
12 F	0220	2.4	73
	0844	0.5	15
	1337	1.4	43
	1943	−0.3	−9
13 Sa ●	0241	2.4	73
	0901	0.4	12
	1410	1.5	46
	2014	−0.2	−6
14 Su	0301	2.4	73
	0919	0.3	9
	1444	1.6	49
	2043	−0.1	−3
15 M	0320	2.3	70
	0939	0.2	6
	1518	1.7	52
	2112	0.1	3

	Time	Height	
	h m	ft	cm
16 Tu	0338	2.2	67
	1000	0.2	6
	1553	1.7	52
	2141	0.3	9
17 W	0354	2.1	64
	1021	0.1	3
	1632	1.7	52
	2210	0.5	15
18 Th	0408	1.9	58
	1045	0.1	3
	1717	1.7	52
	2243	0.8	24
19 F	0418	1.7	52
	1112	0.0	0
	1818	1.6	49
	2322	1.1	34
20 Sa	0420	1.5	46
	1149	0.0	0
	2003	1.6	49
21 Su ◐	0053	1.3	40
	0338	1.4	43
	1246	0.1	3
	2239	1.8	55
22 M	1423	0.1	3
	2345	2.0	61
23 Tu	1607	−0.1	−3
24 W	0025	2.3	70
	0743	0.8	24
	1053	0.9	27
	1720	−0.2	−6
25 Th	0059	2.5	76
	0744	0.6	18
	1206	1.2	37
	1816	−0.4	−12
26 F	0131	2.6	79
	0801	0.4	12
	1259	1.4	43
	1904	−0.5	−15
27 Sa	0201	2.7	82
	0824	0.2	6
	1347	1.7	52
	1950	−0.4	−12
28 Su ○	0230	2.6	79
	0850	0.0	0
	1432	1.9	58
	2033	−0.3	−9

March

	Time	Height	
	h m	ft	cm
1 M	0258	2.4	73
	0917	−0.1	−3
	1518	2.0	61
	2115	0.0	0
2 Tu	0324	2.2	67
	0945	−0.2	−6
	1603	2.1	64
	2158	0.3	9
3 W	0347	2.0	61
	1013	−0.2	−6
	1651	2.0	61
	2241	0.6	18
4 Th	0406	1.7	52
	1043	−0.2	−6
	1745	1.9	58
	2330	0.9	27
5 F	0415	1.5	46
	1114	−0.1	−3
	1856	1.8	55
6 Sa	0046	1.2	37
	0352	1.3	40
	1151	0.1	3
	2057	1.7	52
7 Su ◑	1250	0.2	6
	2307	1.8	55
8 M	1459	0.3	9
9 Tu	0002	1.9	58
	0812	0.7	21
	1042	0.8	24
	1643	0.3	9
10 W	0035	2.0	61
	0740	0.7	21
	1149	1.0	30
	1741	0.1	3
11 Th	0100	2.1	64
	0738	0.6	18
	1227	1.2	37
	1822	0.0	0
12 F	0120	2.1	64
	0745	0.5	15
	1300	1.4	43
	1857	0.0	0
13 Sa	0140	2.2	67
	0758	0.3	9
	1332	1.6	49
	1930	0.0	0
14 Su	0158	2.1	64
	0813	0.2	6
	1403	1.8	55
	2001	0.0	0
15 M ●	0217	2.1	64
	0831	0.0	0
	1435	1.9	58
	2033	0.1	3

	Time	Height	
	h m	ft	cm
16 Tu	0235	2.0	61
	0851	−0.1	−3
	1508	2.0	61
	2105	0.3	9
17 W	0253	1.9	58
	0912	−0.2	−6
	1543	2.0	61
	2138	0.5	15
18 Th	0310	1.7	52
	0934	−0.2	−6
	1620	2.0	61
	2214	0.7	21
19 F	0325	1.6	49
	1000	−0.2	−6
	1705	2.0	61
	2255	0.9	27
20 Sa	0336	1.4	43
	1029	−0.2	−6
	1803	1.9	58
	2358	1.1	34
21 Su	0333	1.3	40
	1106	−0.1	−3
	1932	1.8	55
22 M	1202	0.0	0
	2134	1.9	58
23 Tu ◐	1344	0.1	3
	2253	2.0	61
24 W	0715	0.6	18
	0922	0.7	21
	1544	0.1	3
	2340	2.2	67
25 Th	0646	0.5	15
	1117	1.0	30
	1705	0.0	0
26 F	0017	2.3	70
	0657	0.3	9
	1215	1.4	43
	1806	0.0	0
27 Sa	0050	2.3	70
	0717	0.1	3
	1302	1.7	52
	1857	−0.1	−3
28 Su	0120	2.3	70
	0740	−0.1	−3
	1346	2.0	61
	1945	0.0	0
29 M ○	0149	2.1	64
	0806	−0.3	−9
	1428	2.2	67
	2030	0.1	3
30 Tu	0216	2.0	61
	0833	−0.4	−12
	1510	2.4	73
	2115	0.3	9
31 W	0241	1.8	55
	0900	−0.5	−15
	1552	2.4	73
	2159	0.5	15

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Kahului, Maui Island, Hawaii, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0304	1.6	49
	0929	−0.4	−12
	1636	2.3	70
	2246	0.7	21
2 F	0323	1.4	43
	0958	−0.3	−9
	1723	2.1	64
	2343	0.9	27
3 Sa	0333	1.2	37
	1028	−0.2	−6
	1822	1.9	58
4 Su	1101	0.0	0
	1947	1.8	55
5 M ◑	1146	0.2	6
	2137	1.7	52
6 Tu	1337	0.4	12
	2251	1.8	55
7 W	0654	0.6	18
	1048	0.8	24
	1554	0.5	15
	2332	1.8	55
8 Th	0637	0.6	18
	1143	1.0	30
	1707	0.4	12
9 F	0001	1.8	55
	0640	0.4	12
	1218	1.3	40
	1757	0.4	12
10 Sa	0024	1.9	58
	0650	0.3	9
	1250	1.6	49
	1838	0.4	12
11 Su	0045	1.8	55
	0705	0.1	3
	1321	1.8	55
	1916	0.4	12
12 M	0105	1.8	55
	0723	−0.1	−3
	1353	2.0	61
	1952	0.4	12
13 Tu	0126	1.7	52
	0744	−0.2	−6
	1425	2.2	67
	2028	0.5	15
14 W ●	0148	1.7	52
	0807	−0.4	−12
	1459	2.3	70
	2106	0.5	15
15 Th	0210	1.5	46
	0832	−0.4	−12
	1535	2.3	70
	2146	0.7	21

	Time	Height	
	h m	ft	cm
16 F	0231	1.4	43
	0859	−0.5	−15
	1616	2.3	70
	2232	0.8	24
17 Sa	0251	1.3	40
	0930	−0.4	−12
	1703	2.2	67
	2330	0.9	27
18 Su	0308	1.2	37
	1004	−0.4	−12
	1800	2.1	64
19 M	0108	1.0	30
	0311	1.1	34
	1046	−0.2	−6
	1913	2.1	64
20 Tu	1143	0.0	0
	2035	2.0	61
21 W ◐	1318	0.2	6
	2146	2.0	61
22 Th	0529	0.5	15
	1006	0.9	27
	1517	0.4	12
	2240	2.0	61
23 F	0543	0.3	9
	1125	1.2	37
	1649	0.4	12
	2322	2.0	61
24 Sa	0605	0.1	3
	1218	1.6	49
	1758	0.4	12
	2358	1.9	58
25 Su	0630	−0.2	−6
	1302	2.0	61
	1855	0.4	12
26 M	0031	1.8	55
	0656	−0.4	−12
	1343	2.3	70
	1947	0.5	15
27 Tu	0102	1.7	52
	0725	−0.5	−15
	1423	2.5	76
	2035	0.5	15
28 W ○	0132	1.5	46
	0754	−0.6	−18
	1502	2.6	79
	2121	0.6	18
29 Th	0200	1.4	43
	0824	−0.6	−18
	1542	2.5	76
	2208	0.7	21
30 F	0227	1.3	40
	0855	−0.5	−15
	1623	2.4	73
	2258	0.8	24

May

	Time	Height	
	h m	ft	cm
1 Sa	0252	1.2	37
	0927	−0.4	−12
	1707	2.3	70
	2358	0.9	27
2 Su	0311	1.0	30
	0959	−0.2	−6
	1756	2.1	64
3 M	1033	0.0	0
	1854	1.9	58
4 Tu	1114	0.2	6
	2000	1.8	55
5 W ◑	1219	0.5	15
	2105	1.7	52
6 Th	0512	0.6	18
	1012	0.9	27
	1422	0.7	21
	2156	1.7	52
7 F	0519	0.5	15
	1123	1.1	34
	1611	0.8	24
	2235	1.6	49
8 Sa	0532	0.3	9
	1203	1.4	43
	1724	0.8	24
	2306	1.6	49
9 Su	0550	0.1	3
	1237	1.7	52
	1820	0.8	24
	2335	1.6	49
10 M	0611	−0.1	−3
	1309	2.0	61
	1907	0.8	24
11 Tu	0003	1.5	46
	0635	−0.3	−9
	1342	2.2	67
	1950	0.7	21
12 W	0032	1.4	43
	0702	−0.4	−12
	1416	2.4	73
	2033	0.7	21
13 Th ●	0102	1.4	43
	0732	−0.5	−15
	1452	2.5	76
	2116	0.7	21
14 F	0133	1.3	40
	0804	−0.6	−18
	1532	2.6	79
	2203	0.8	24
15 Sa	0204	1.2	37
	0838	−0.6	−18
	1614	2.6	79
	2255	0.8	24

	Time	Height	
	h m	ft	cm
16 Su	0236	1.1	34
	0916	−0.6	−18
	1701	2.5	76
	2357	0.8	24
17 M	0313	1.0	30
	0956	−0.4	−12
	1751	2.4	73
18 Tu	0112	0.8	24
	0401	0.9	27
	1041	−0.2	−6
	1845	2.3	70
19 W	0231	0.7	21
	0530	0.8	24
	1137	0.1	3
	1941	2.2	67
20 Th ◐	0328	0.5	15
	0801	0.8	24
	1257	0.5	15
	2036	2.0	61
21 F	0407	0.3	9
	1010	1.1	34
	1449	0.8	24
	2128	1.9	58
22 Sa	0441	0.1	3
	1126	1.5	46
	1638	0.9	27
	2215	1.7	52
23 Su	0514	−0.1	−3
	1219	1.9	58
	1802	0.9	27
	2258	1.6	49
24 M	0546	−0.3	−9
	1302	2.2	67
	1908	0.9	27
	2338	1.4	43
25 Tu	0618	−0.5	−15
	1342	2.5	76
	2003	0.8	24
26 W	0017	1.3	40
	0652	−0.6	−18
	1420	2.6	79
	2050	0.8	24
27 Th ○	0054	1.3	40
	0726	−0.6	−18
	1457	2.7	82
	2133	0.8	24
28 F	0130	1.2	37
	0800	−0.6	−18
	1534	2.6	79
	2216	0.8	24
29 Sa	0205	1.1	34
	0834	−0.5	−15
	1611	2.6	79
	2259	0.8	24
30 Su	0240	1.1	34
	0909	−0.4	−12
	1650	2.4	73
	2346	0.8	24
31 M	0315	1.0	30
	0943	−0.2	−6
	1728	2.3	70

June

	Time	Height	
	h m	ft	cm
1 Tu	0037	0.8	24
	0356	1.0	30
	1017	0.0	0
	1807	2.2	67
2 W	0133	0.8	24
	0453	0.9	27
	1052	0.3	9
	1845	2.0	61
3 Th	0226	0.7	21
	0630	0.9	27
	1133	0.6	18
	1922	1.8	55
4 F ◑	0309	0.6	18
	0856	1.0	30
	1239	0.9	27
	2000	1.7	52
5 Sa	0344	0.4	12
	1050	1.2	37
	1444	1.1	34
	2039	1.6	49
6 Su	0415	0.3	9
	1145	1.5	46
	1650	1.2	37
	2122	1.5	46
7 M	0446	0.1	3
	1223	1.8	55
	1816	1.1	34
	2208	1.4	43
8 Tu	0519	−0.1	−3
	1258	2.1	64
	1916	1.0	30
	2256	1.3	40
9 W	0554	−0.3	−9
	1333	2.4	73
	2002	1.0	30
	2342	1.2	37
10 Th	0630	−0.5	−15
	1409	2.6	79
	2045	0.9	27
11 F	0028	1.2	37
	0709	−0.6	−18
	1447	2.7	82
	2126	0.8	24
12 Sa ●	0112	1.2	37
	0748	−0.7	−21
	1526	2.8	85
	2208	0.8	24
13 Su	0157	1.2	37
	0829	−0.7	−21
	1606	2.8	85
	2253	0.7	21
14 M	0245	1.2	37
	0910	−0.6	−18
	1647	2.8	85
	2339	0.7	21
15 Tu	0339	1.1	34
	0953	−0.4	−12
	1727	2.6	79

	Time	Height	
	h m	ft	cm
16 W	0027	0.6	18
	0444	1.1	34
	1039	0.0	0
	1807	2.4	73
17 Th	0117	0.5	15
	0609	1.1	34
	1130	0.4	12
	1847	2.2	67
18 F ◐	0206	0.4	12
	0800	1.2	37
	1238	0.8	24
	1926	2.0	61
19 Sa	0255	0.2	6
	0959	1.4	43
	1429	1.1	34
	2007	1.7	52
20 Su	0341	0.0	0
	1124	1.8	55
	1652	1.2	37
	2053	1.5	46
21 M	0426	−0.1	−3
	1220	2.1	64
	1842	1.2	37
	2149	1.3	40
22 Tu	0510	−0.3	−9
	1303	2.3	70
	1948	1.1	34
	2250	1.2	37
23 W	0552	−0.4	−12
	1341	2.5	76
	2030	1.0	30
	2346	1.2	37
24 Th	0632	−0.4	−12
	1416	2.6	79
	2103	0.9	27
25 F	0036	1.2	37
	0711	−0.5	−15
	1449	2.7	82
	2134	0.8	24
26 Sa ○	0120	1.2	37
	0748	−0.5	−15
	1522	2.7	82
	2203	0.8	24
27 Su	0201	1.2	37
	0823	−0.4	−12
	1553	2.6	79
	2234	0.7	21
28 M	0240	1.2	37
	0857	−0.3	−9
	1623	2.5	76
	2305	0.7	21
29 Tu	0321	1.2	37
	0929	−0.1	−3
	1652	2.4	73
	2337	0.7	21
30 W	0404	1.2	37
	1001	0.1	3
	1718	2.3	70

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Kahului, Maui Island, Hawaii, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0010	0.6	18	**16** F	0013	0.3	9
	0455	1.2	37		0605	1.5	46
	1031	0.4	12		1123	0.6	18
	1741	2.1	64		1751	2.1	64
2 F	0044	0.6	18	**17** Sa	0056	0.2	6
	0601	1.1	34		0738	1.5	46
	1104	0.7	21		1226	1.1	34
	1802	1.9	58		1814	1.8	55
3 Sa	0120	0.5	15	**18** Su	0145	0.1	3
	0734	1.2	37		0939	1.7	52
	1143	1.0	30		1433	1.4	43
	1820	1.8	55		1828	1.6	49
4 Su	0202	0.4	12	**19** M	0243	0.1	3
	0948	1.4	43		1120	2.0	61
	1303	1.3	40				
	1835	1.6	49				
5 M	0250	0.3	9	**20** Tu	0346	0.0	0
	1125	1.6	49		1219	2.2	67
6 Tu	0342	0.1	3	**21** W	0447	−0.1	−3
	1211	1.9	58		1300	2.4	73
					2024	1.0	30
					2239	1.1	34
7 W	0434	−0.1	−3	**22** Th	0540	−0.1	−3
	1248	2.2	67		1334	2.5	76
					2033	0.9	27
					2352	1.1	34
8 Th	0524	−0.3	−9	**23** F	0625	−0.2	−6
	1323	2.5	76		1404	2.6	79
	2016	1.0	30		2049	0.9	27
	2315	1.2	37				
9 F	0611	−0.5	−15	**24** Sa	0042	1.2	37
	1358	2.7	82		0704	−0.3	−9
	2043	0.9	27		1432	2.6	79
					2107	0.8	24
10 Sa	0018	1.2	37	**25** Su	0124	1.3	40
	0656	−0.6	−18		0740	−0.3	−9
	1434	2.9	88		1458	2.6	79
	2113	0.8	24		2127	0.7	21
11 Su	0113	1.3	40	**26** M	0202	1.4	43
	0740	−0.7	−21		0813	−0.2	−6
	1509	3.0	91		1523	2.6	79
	2146	0.7	21		2149	0.7	21
12 M	0205	1.4	43	**27** Tu	0239	1.5	46
	0823	−0.6	−18		0844	−0.1	−3
	1545	2.9	88		1546	2.5	76
	2220	0.6	18		2212	0.6	18
13 Tu	0257	1.4	43	**28** W	0316	1.5	46
	0906	−0.5	−15		0914	0.0	0
	1619	2.8	85		1607	2.4	73
	2256	0.5	15		2236	0.5	15
14 W	0352	1.4	43	**29** Th	0355	1.5	46
	0949	−0.2	−6		0944	0.3	9
	1652	2.6	79		1627	2.3	70
	2333	0.4	12		2300	0.5	15
15 Th	0453	1.5	46	**30** F	0438	1.5	46
	1034	0.2	6		1013	0.5	15
	1723	2.4	73		1643	2.1	64
					2325	0.4	12
				31 Sa	0527	1.5	46
					1043	0.8	24
					1655	1.9	58
					2354	0.4	12

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0634	1.5	46	**16** M	0036	0.2	6
	1117	1.1	34		0907	1.9	58
	1702	1.7	52				
2 M	0031	0.3	9	**17** Tu	0141	0.3	9
	0825	1.5	46		1103	2.0	61
	1215	1.4	43				
	1653	1.6	49				
3 Tu	0125	0.3	9	**18** W	0313	0.3	9
	1053	1.7	52		1204	2.2	67
4 W	0240	0.2	6	**19** Th	0436	0.2	6
	1153	2.0	61		1243	2.3	70
					1958	0.9	27
					2318	1.1	34
5 Th	0400	0.1	3	**20** F	0535	0.1	3
	1230	2.3	70		1313	2.4	73
					2000	0.9	27
6 F	0505	−0.1	−3	**21** Sa	0010	1.3	40
	1304	2.6	79		0619	0.0	0
	1959	1.0	30		1338	2.5	76
	2324	1.2	37		2010	0.8	24
7 Sa	0600	−0.3	−9	**22** Su	0049	1.4	43
	1336	2.8	85		0656	0.0	0
	2015	0.8	24		1400	2.5	76
					2023	0.7	21
8 Su	0027	1.4	43	**23** M	0124	1.6	49
	0648	−0.5	−15		0729	0.0	0
	1409	2.9	88		1421	2.5	76
	2039	0.7	21		2039	0.6	18
9 M	0120	1.5	46	**24** Tu	0157	1.7	52
	0733	−0.5	−15		0800	0.0	0
	1440	2.9	88		1442	2.5	76
	2106	0.5	15		2058	0.5	15
10 Tu	0210	1.7	52	**25** W	0231	1.8	55
	0816	−0.4	−12		0830	0.1	3
	1511	2.9	88		1501	2.4	73
	2135	0.3	9		2117	0.4	12
11 W	0259	1.8	55	**26** Th	0305	1.9	58
	0900	−0.2	−6		0900	0.3	9
	1541	2.7	82		1519	2.3	70
	2206	0.2	6		2138	0.3	9
12 Th	0350	1.9	58	**27** F	0340	1.9	58
	0943	0.1	3		0930	0.5	15
	1609	2.5	76		1535	2.1	64
	2238	0.1	3		2159	0.3	9
13 F	0445	1.9	58	**28** Sa	0417	1.9	58
	1028	0.5	15		1001	0.7	21
	1633	2.2	67		1548	2.0	61
	2312	0.1	3		2221	0.2	6
14 Sa	0547	1.9	58	**29** Su	0500	1.9	58
	1119	0.9	27		1034	1.0	30
	1653	1.9	58		1558	1.8	55
	2350	0.1	3		2248	0.2	6
15 Su	0708	1.9	58	**30** M	0556	1.8	55
	1228	1.3	40		1114	1.3	40
	1700	1.6	49		1558	1.6	49
					2321	0.3	9
				31 Tu	0728	1.8	55
					1242	1.4	43
					1518	1.5	46

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0012	0.3	9	**16** Th	0234	0.5	15
	0957	1.9	58		1126	2.2	67
					1924	0.9	27
					2234	1.0	30
2 Th	0143	0.3	9	**17** F	0419	0.5	15
	1115	2.1	64		1205	2.2	67
					1908	0.8	24
					2337	1.2	37
3 F	0333	0.2	6	**18** Sa	0521	0.4	12
	1156	2.4	73		1233	2.3	70
	1920	1.0	30		1912	0.7	21
	2227	1.1	34				
4 Sa	0451	0.1	3	**19** Su	0015	1.4	43
	1230	2.6	79		0605	0.3	9
	1917	0.8	24		1256	2.3	70
	2342	1.3	40		1921	0.6	18
5 Su	0549	−0.1	−3	**20** M	0047	1.7	52
	1302	2.7	82		0641	0.3	9
	1933	0.6	18		1316	2.3	70
					1934	0.5	15
6 M	0035	1.6	49	**21** Tu	0118	1.9	58
	0638	−0.2	−6		0715	0.3	9
	1332	2.8	85		1335	2.3	70
	1955	0.4	12		1949	0.3	9
7 Tu	0123	1.9	58	**22** W	0149	2.1	64
	0725	−0.1	−3		0747	0.4	12
	1402	2.7	82		1353	2.2	67
	2020	0.2	6		2007	0.2	6
8 W	0209	2.2	67	**23** Th	0220	2.2	67
	0810	0.0	0		0819	0.5	15
	1430	2.6	79		1412	2.1	64
	2047	0.0	0		2027	0.1	3
9 Th	0255	2.3	70	**24** F	0252	2.3	70
	0854	0.2	6		0851	0.6	18
	1457	2.4	73		1430	2.0	61
	2116	−0.1	−3		2047	0.0	0
10 F	0341	2.4	73	**25** Sa	0326	2.3	70
	0940	0.5	15		0924	0.8	24
	1522	2.1	64		1446	1.9	58
	2146	−0.1	−3		2110	0.0	0
11 Sa	0431	2.4	73	**26** Su	0402	2.3	70
	1027	0.8	24		1000	0.9	27
	1544	1.9	58		1500	1.7	52
	2218	−0.1	−3		2134	0.0	0
12 Su	0526	2.3	70	**27** M	0444	2.2	67
	1123	1.1	34		1041	1.1	34
	1557	1.6	49		1510	1.6	49
	2252	0.0	0		2201	0.1	3
13 M	0636	2.1	64	**28** Tu	0538	2.1	64
	1254	1.3	40		1144	1.3	40
	1542	1.4	43		1505	1.5	46
	2332	0.2	6		2235	0.1	3
14 Tu	0821	2.0	61	**29** W	0659	2.0	61
					2324	0.3	9
15 W	0033	0.4	12	**30** Th	0853	2.1	64
	1021	2.1	64				

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Kahului, Maui Island, Hawaii, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0056	0.4	12
	1017	2.2	67
2 Sa	0304	0.5	15
	1106	2.4	73
	1819	0.8	24
	2254	1.2	37
3 Su	0433	0.4	12
	1144	2.5	76
	1828	0.6	18
	2351	1.6	49
4 M	0537	0.3	9
	1217	2.5	76
	1847	0.3	9
5 Tu	0038	2.0	61
	0631	0.3	9
	1248	2.4	73
	1910	0.1	3
6 W	0122	2.3	70
	0720	0.3	9
	1318	2.3	70
	1936	−0.1	−3
7 Th ●	0205	2.6	79
	0808	0.4	12
	1346	2.2	67
	2004	−0.3	−9
8 F	0248	2.7	82
	0854	0.6	18
	1413	2.0	61
	2034	−0.3	−9
9 Sa	0331	2.7	82
	0942	0.8	24
	1439	1.8	55
	2104	−0.3	−9
10 Su	0417	2.7	82
	1034	1.0	30
	1500	1.6	49
	2135	−0.2	−6
11 M	0507	2.5	76
	1137	1.2	37
	1513	1.4	43
	2208	0.0	0
12 Tu	0607	2.3	70
	2244	0.2	6
13 W	0728	2.1	64
	2331	0.5	15
14 Th ◐	0906	2.1	64
15 F	0119	0.7	21
	1019	2.1	64
	1816	0.8	24
	2245	1.1	34

	Time	Height	
	h m	ft	cm
16 Sa	0334	0.8	24
	1104	2.1	64
	1811	0.7	21
	2335	1.3	40
17 Su	0451	0.7	21
	1135	2.1	64
	1818	0.6	18
18 M	0009	1.6	49
	0543	0.7	21
	1159	2.1	64
	1829	0.4	12
19 Tu	0039	1.9	58
	0625	0.7	21
	1221	2.0	61
	1844	0.3	9
20 W	0109	2.1	64
	0703	0.7	21
	1242	2.0	61
	1902	0.1	3
21 Th	0139	2.3	70
	0739	0.7	21
	1303	1.9	58
	1922	0.0	0
22 F ○	0210	2.5	76
	0814	0.8	24
	1324	1.8	55
	1945	−0.1	−3
23 Sa	0243	2.6	79
	0851	0.8	24
	1345	1.7	52
	2009	−0.2	−6
24 Su	0317	2.6	79
	0930	0.9	27
	1406	1.6	49
	2036	−0.2	−6
25 M	0355	2.6	79
	1013	1.1	34
	1425	1.5	46
	2105	−0.2	−6
26 Tu	0439	2.5	76
	1109	1.2	37
	1440	1.4	43
	2137	−0.1	−3
27 W	0532	2.4	73
	1240	1.2	37
	1442	1.3	40
	2214	0.0	0
28 Th	0637	2.3	70
	2303	0.2	6
29 F	0755	2.3	70
30 Sa ◑	0024	0.5	15
	0906	2.3	70
	1706	0.8	24
	2136	1.0	30
31 Su	0229	0.7	21
	1003	2.2	67
	1717	0.6	18
	2303	1.4	43

November

	Time	Height	
	h m	ft	cm
1 M	0413	0.8	24
	1047	2.2	67
	1737	0.3	9
	2356	1.8	55
2 Tu	0529	0.8	24
	1125	2.1	64
	1802	0.0	0
3 W	0040	2.2	67
	0631	0.8	24
	1200	2.0	61
	1829	−0.2	−6
4 Th	0122	2.6	79
	0725	0.8	24
	1233	1.9	58
	1859	−0.4	−12
5 F ●	0203	2.8	85
	0815	0.8	24
	1305	1.8	55
	1930	−0.5	−15
6 Sa	0243	2.9	88
	0903	0.9	27
	1336	1.6	49
	2002	−0.5	−15
7 Su	0324	2.9	88
	0952	0.9	27
	1405	1.5	46
	2035	−0.4	−12
8 M	0406	2.8	85
	1043	1.0	30
	1433	1.4	43
	2109	−0.3	−9
9 Tu	0451	2.6	79
	1143	1.1	34
	1457	1.3	40
	2143	−0.1	−3
10 W	0539	2.4	73
	1310	1.0	30
	1511	1.1	34
	2217	0.2	6
11 Th	0634	2.3	70
	2256	0.4	12
12 F	0736	2.1	64
	2353	0.7	21
13 Sa ◐	0838	2.0	61
	1650	0.8	24
	2214	1.1	34
14 Su	0155	1.0	30
	0931	1.9	58
	1701	0.6	18
	2322	1.4	43
15 M	0357	1.1	34
	1012	1.8	55
	1716	0.5	15
	2359	1.7	52

	Time	Height	
	h m	ft	cm
16 Tu	0517	1.1	34
	1045	1.8	55
	1734	0.3	9
17 W	0031	2.0	61
	0614	1.1	34
	1115	1.7	52
	1755	0.1	3
18 Th	0101	2.2	67
	0701	1.0	30
	1144	1.6	49
	1819	−0.1	−3
19 F	0132	2.4	73
	0742	1.0	30
	1213	1.6	49
	1845	−0.2	−6
20 Sa	0204	2.6	79
	0821	1.0	30
	1242	1.5	46
	1914	−0.3	−9
21 Su ○	0237	2.7	82
	0901	1.0	30
	1312	1.5	46
	1945	−0.4	−12
22 M	0314	2.8	85
	0943	1.0	30
	1343	1.4	43
	2018	−0.4	−12
23 Tu	0353	2.8	85
	1030	1.0	30
	1414	1.3	40
	2053	−0.4	−12
24 W	0435	2.7	82
	1125	1.0	30
	1449	1.3	40
	2130	−0.3	−9
25 Th	0520	2.6	79
	1231	1.0	30
	1532	1.1	34
	2210	0.0	0
26 F	0608	2.5	76
	1345	0.9	27
	1643	1.0	30
	2257	0.3	9
27 Sa	0700	2.4	73
	1448	0.8	24
	1857	1.0	30
28 Su ◑	0003	0.6	18
	0753	2.2	67
	1534	0.6	18
	2132	1.2	37
29 M	0151	1.0	30
	0846	2.0	61
	1611	0.3	9
	2303	1.6	49
30 Tu	0359	1.1	34
	0937	1.9	58
	1646	0.1	3
	2359	2.0	61

December

	Time	Height	
	h m	ft	cm
1 W	0538	1.1	34
	1025	1.7	52
	1721	−0.1	−3
2 Th	0043	2.4	73
	0651	1.1	34
	1111	1.6	49
	1756	−0.3	−9
3 F	0124	2.7	82
	0747	1.0	30
	1154	1.5	46
	1832	−0.5	−15
4 Sa	0203	2.8	85
	0834	0.9	27
	1235	1.4	43
	1908	−0.5	−15
5 Su ●	0241	2.9	88
	0917	0.9	27
	1314	1.4	43
	1945	−0.5	−15
6 M	0318	2.9	88
	0958	0.9	27
	1352	1.3	40
	2021	−0.5	−15
7 Tu	0355	2.8	85
	1039	0.9	27
	1429	1.3	40
	2056	−0.3	−9
8 W	0432	2.7	82
	1121	0.9	27
	1506	1.2	37
	2130	−0.1	−3
9 Th	0508	2.5	76
	1207	0.9	27
	1547	1.2	37
	2203	0.1	3
10 F	0544	2.4	73
	1257	0.9	27
	1640	1.1	34
	2235	0.4	12
11 Sa	0618	2.2	67
	1349	0.8	24
	1802	1.0	30
	2310	0.7	21
12 Su	0652	2.0	61
	1439	0.7	21
	2027	1.1	34
	2357	1.0	30
13 M ◐	0725	1.8	55
	1521	0.6	18
	2255	1.4	43
14 Tu	0206	1.3	40
	0802	1.6	49
	1558	0.4	12
	2351	1.7	52
15 W	0458	1.4	43
	0847	1.5	46
	1632	0.2	6

	Time	Height	
	h m	ft	cm
16 Th	0025	2.0	61
	0633	1.3	40
	0943	1.4	43
	1707	0.0	0
17 F	0056	2.2	67
	0725	1.2	37
	1039	1.3	40
	1743	−0.1	−3
18 Sa	0127	2.4	73
	0802	1.1	34
	1129	1.3	40
	1819	−0.3	−9
19 Su	0159	2.6	79
	0836	1.0	30
	1216	1.3	40
	1856	−0.5	−15
20 M ○	0233	2.8	85
	0910	0.9	27
	1259	1.3	40
	1934	−0.6	−18
21 Tu	0308	2.9	88
	0946	0.9	27
	1342	1.3	40
	2012	−0.6	−18
22 W	0344	2.9	88
	1023	0.8	24
	1427	1.3	40
	2050	−0.5	−15
23 Th	0420	2.9	88
	1103	0.8	24
	1515	1.3	40
	2129	−0.3	−9
24 F	0456	2.8	85
	1145	0.7	21
	1611	1.2	37
	2210	0.0	0
25 Sa	0532	2.6	79
	1230	0.6	18
	1722	1.2	37
	2254	0.3	9
26 Su	0607	2.3	70
	1318	0.5	15
	1858	1.2	37
	2349	0.8	24
27 M ◑	0641	2.1	64
	1409	0.3	9
	2107	1.4	43
28 Tu	0121	1.2	37
	0717	1.8	55
	1502	0.2	6
	2259	1.8	55
29 W	0413	1.4	43
	0759	1.5	46
	1555	0.0	0
30 Th	0003	2.1	64
	0641	1.2	37
	0904	1.3	40
	1647	−0.2	−6
31 F	0049	2.4	73
	0745	1.1	34
	1026	1.2	37
	1734	−0.3	−9

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Hilo, Hawaii Island, Hawaii, 2010

Times and Heights of High and Low Waters

January

	Time	Height	
	h m	ft	cm
1 F	0358	3.3	101
	1037	0.4	12
	1526	1.5	46
	2128	−0.6	−18
2 Sa	0438	3.2	98
	1118	0.3	9
	1619	1.5	46
	2214	−0.4	−12
3 Su	0518	3.0	91
	1159	0.3	9
	1716	1.6	49
	2303	−0.1	−3
4 M	0557	2.8	85
	1242	0.2	6
	1821	1.6	49
	2355	0.3	9
5 Tu	0634	2.5	76
	1327	0.2	6
	1939	1.6	49
6 W	0058	0.8	24
	0712	2.1	64
	1415	0.1	3
	2111	1.8	55
7 Th ◑	0228	1.1	34
	0750	1.8	55
	1507	0.1	3
	2245	2.0	61
8 F	0443	1.3	40
	0838	1.5	46
	1602	0.1	3
	2359	2.2	67
9 Sa	0651	1.2	37
	0950	1.3	40
	1658	0.0	0
10 Su	0053	2.4	73
	0756	1.0	30
	1114	1.2	37
	1750	−0.1	−3
11 M	0134	2.6	79
	0832	0.8	24
	1221	1.2	37
	1837	−0.1	−3
12 Tu	0210	2.7	82
	0900	0.7	21
	1312	1.2	37
	1919	−0.2	−6
13 W	0242	2.7	82
	0924	0.6	18
	1353	1.3	40
	1957	−0.3	−9
14 Th ●	0311	2.8	85
	0949	0.6	18
	1431	1.4	43
	2032	−0.3	−9
15 F	0340	2.8	85
	1014	0.5	15
	1507	1.5	46
	2105	−0.2	−6

	Time	Height	
	h m	ft	cm
16 Sa	0407	2.7	82
	1040	0.5	15
	1544	1.5	46
	2138	−0.1	−3
17 Su	0434	2.7	82
	1106	0.4	12
	1621	1.5	46
	2210	0.0	0
18 M	0459	2.5	76
	1134	0.4	12
	1702	1.6	49
	2243	0.3	9
19 Tu	0523	2.4	73
	1202	0.3	9
	1747	1.6	49
	2318	0.5	15
20 W	0545	2.2	67
	1232	0.3	9
	1842	1.6	49
	2359	0.8	24
21 Th	0608	2.0	61
	1307	0.2	6
	1953	1.6	49
22 F	0059	1.1	34
	0632	1.7	52
	1350	0.2	6
	2127	1.7	52
23 Sa ◐	0251	1.3	40
	0700	1.5	46
	1447	0.1	3
	2300	2.0	61
24 Su	0557	1.2	37
	0758	1.3	40
	1556	0.0	0
25 M	0006	2.3	70
	0717	1.0	30
	1006	1.1	34
	1704	−0.2	−6
26 Tu	0056	2.6	79
	0753	0.8	24
	1142	1.1	34
	1805	−0.4	−12
27 W	0139	2.8	85
	0826	0.6	18
	1249	1.3	40
	1900	−0.5	−15
28 Th	0220	3.0	91
	0858	0.4	12
	1344	1.4	43
	1949	−0.7	−21
29 F ○	0258	3.1	94
	0931	0.3	9
	1434	1.6	49
	2037	−0.7	−21
30 Sa	0336	3.1	94
	1005	0.1	3
	1524	1.8	55
	2123	−0.5	−15
31 Su	0411	3.0	91
	1039	0.0	0
	1614	1.9	58
	2209	−0.3	−9

February

	Time	Height	
	h m	ft	cm
1 M	0445	2.8	85
	1114	−0.1	−3
	1706	1.9	58
	2256	0.1	3
2 Tu	0518	2.5	76
	1150	−0.1	−3
	1802	2.0	61
	2346	0.4	12
3 W	0548	2.1	64
	1227	−0.1	−3
	1907	1.9	58
4 Th	0046	0.8	24
	0617	1.8	55
	1309	0.0	0
	2027	1.9	58
5 F ◑	0216	1.1	34
	0641	1.5	46
	1359	0.1	3
	2206	2.0	61
6 Sa	1505	0.1	3
	2335	2.1	64
7 Su	1624	0.1	3
8 M	0035	2.2	67
	0803	0.8	24
	1121	1.0	30
	1735	0.1	3
9 Tu	0118	2.4	73
	0819	0.7	21
	1229	1.1	34
	1829	0.0	0
10 W	0152	2.4	73
	0836	0.6	18
	1314	1.2	37
	1912	−0.1	−3
11 Th	0220	2.5	76
	0854	0.5	15
	1351	1.4	43
	1948	−0.2	−6
12 F	0246	2.6	79
	0913	0.4	12
	1425	1.5	46
	2022	−0.2	−6
13 Sa ●	0311	2.6	79
	0934	0.3	9
	1458	1.7	52
	2054	−0.2	−6
14 Su	0334	2.5	76
	0956	0.2	6
	1532	1.8	55
	2126	−0.1	−3
15 M	0357	2.5	76
	1019	0.1	3
	1607	1.8	55
	2158	0.1	3

	Time	Height	
	h m	ft	cm
16 Tu	0419	2.3	70
	1042	0.1	3
	1643	1.9	58
	2232	0.3	9
17 W	0440	2.1	64
	1106	0.0	0
	1723	1.9	58
	2308	0.5	15
18 Th	0501	1.9	58
	1133	0.0	0
	1810	1.9	58
	2352	0.8	24
19 F	0521	1.7	52
	1205	0.0	0
	1910	1.8	55
20 Sa	0053	1.0	30
	0540	1.5	46
	1246	0.0	0
	2035	1.8	55
21 Su ◐	0257	1.2	37
	0556	1.3	40
	1347	0.1	3
	2218	2.0	61
22 M	1514	0.0	0
	2337	2.2	67
23 Tu	0708	0.8	24
	1011	0.9	27
	1643	−0.1	−3
24 W	0031	2.5	76
	0730	0.6	18
	1149	1.1	34
	1754	−0.3	−9
25 Th	0115	2.7	82
	0757	0.4	12
	1251	1.3	40
	1851	−0.4	−12
26 F	0154	2.8	85
	0825	0.2	6
	1343	1.6	49
	1942	−0.5	−15
27 Sa	0230	2.9	88
	0855	0.0	0
	1431	1.9	58
	2030	−0.5	−15
28 Su ○	0304	2.8	85
	0925	−0.2	−6
	1517	2.1	64
	2117	−0.3	−9

March

	Time	Height	
	h m	ft	cm
1 M	0337	2.6	79
	0956	−0.3	−9
	1603	2.3	70
	2203	−0.1	−3
2 Tu	0409	2.4	73
	1028	−0.3	−9
	1650	2.3	70
	2251	0.2	6
3 W	0438	2.1	64
	1100	−0.3	−9
	1740	2.3	70
	2342	0.5	15
4 Th	0506	1.7	52
	1133	−0.2	−6
	1835	2.2	67
5 F	0043	0.8	24
	0531	1.4	43
	1210	−0.1	−3
	1942	2.0	61
6 Sa	0216	1.0	30
	0548	1.2	37
	1255	0.1	3
	2111	1.9	58
7 Su ◑	1404	0.2	6
	2249	1.9	58
8 M	1548	0.3	9
	2358	2.0	61
9 Tu	0724	0.7	21
	1132	0.9	27
	1714	0.3	9
10 W	0043	2.1	64
	0737	0.5	15
	1228	1.1	34
	1812	0.1	3
11 Th	0116	2.2	67
	0752	0.4	12
	1307	1.3	40
	1856	0.1	3
12 F	0143	2.2	67
	0809	0.3	9
	1340	1.5	46
	1934	0.0	0
13 Sa	0208	2.3	70
	0828	0.2	6
	1412	1.7	52
	2008	0.0	0
14 Su	0231	2.3	70
	0848	0.0	0
	1445	1.9	58
	2042	0.0	0
15 M ●	0254	2.2	67
	0909	−0.1	−3
	1517	2.1	64
	2116	0.1	3

	Time	Height	
	h m	ft	cm
16 Tu	0316	2.1	64
	0931	−0.2	−6
	1551	2.2	67
	2151	0.2	6
17 W	0339	2.0	61
	0954	−0.2	−6
	1626	2.2	67
	2228	0.4	12
18 Th	0402	1.8	55
	1020	−0.2	−6
	1705	2.2	67
	2310	0.6	18
19 F	0425	1.6	49
	1048	−0.2	−6
	1750	2.2	67
20 Sa	0002	0.7	21
	0448	1.4	43
	1121	−0.2	−6
	1848	2.1	64
21 Su	0116	0.9	27
	0513	1.2	37
	1205	−0.1	−3
	2005	2.0	61
22 M	0336	0.9	27
	0542	1.0	30
	1310	0.0	0
	2137	2.1	64
23 Tu ◐	0549	0.7	21
	0803	0.8	24
	1447	0.1	3
	2256	2.2	67
24 W	0620	0.6	18
	1036	0.9	27
	1625	0.1	3
	2353	2.3	70
25 Th	0647	0.4	12
	1155	1.2	37
	1741	0.0	0
26 F	0038	2.4	73
	0715	0.1	3
	1251	1.6	49
	1842	−0.1	−3
27 Sa	0117	2.5	76
	0743	−0.1	−3
	1339	1.9	58
	1936	−0.1	−3
28 Su	0153	2.4	73
	0813	−0.3	−9
	1424	2.2	67
	2025	−0.1	−3
29 M ○	0227	2.3	70
	0842	−0.4	−12
	1507	2.5	76
	2114	0.0	0
30 Tu	0259	2.1	64
	0913	−0.5	−15
	1550	2.6	79
	2201	0.2	6
31 W	0331	1.9	58
	0944	−0.5	−15
	1633	2.6	79
	2250	0.4	12

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Hilo, Hawaii Island, Hawaii, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0401	1.6	49
	1015	−0.5	−15
	1718	2.5	76
	2342	0.6	18
2 F	0431	1.4	43
	1048	−0.3	−9
	1807	2.3	70
3 Sa	0044	0.7	21
	0500	1.1	34
	1124	−0.1	−3
	1904	2.1	64
4 Su	0213	0.8	24
	0529	1.0	30
	1206	0.1	3
	2016	2.0	61
5 M ◑	1310	0.3	9
	2140	1.9	58
6 Tu	0553	0.7	21
	0931	0.8	24
	1454	0.4	12
	2252	1.9	58
7 W	0618	0.5	15
	1118	1.0	30
	1633	0.5	15
	2343	1.9	58
8 Th	0637	0.4	12
	1210	1.2	37
	1741	0.4	12
9 F	0020	1.9	58
	0656	0.3	9
	1249	1.5	46
	1831	0.3	9
10 Sa	0049	2.0	61
	0716	0.1	3
	1323	1.7	52
	1914	0.3	9
11 Su	0116	1.9	58
	0736	0.0	0
	1356	2.0	61
	1953	0.3	9
12 M	0142	1.9	58
	0758	−0.2	−6
	1428	2.2	67
	2032	0.3	9
13 Tu	0208	1.8	55
	0822	−0.3	−9
	1501	2.4	73
	2110	0.3	9
14 W ●	0235	1.7	52
	0847	−0.4	−12
	1536	2.5	76
	2151	0.4	12
15 Th	0302	1.6	49
	0915	−0.4	−12
	1613	2.5	76
	2234	0.5	15

	Time	Height	
	h m	ft	cm
16 F	0331	1.4	43
	0945	−0.4	−12
	1654	2.5	76
	2324	0.6	18
17 Sa	0401	1.3	40
	1018	−0.4	−12
	1742	2.4	73
18 Su	0024	0.7	21
	0435	1.1	34
	1058	−0.3	−9
	1838	2.3	70
19 M	0144	0.7	21
	0520	0.9	27
	1147	−0.1	−3
	1945	2.3	70
20 Tu	0322	0.7	21
	0643	0.8	24
	1254	0.1	3
	2058	2.2	67
21 W ◐	0436	0.5	15
	0858	0.8	24
	1428	0.2	6
	2206	2.2	67
22 Th	0521	0.3	9
	1045	1.1	34
	1607	0.3	9
	2303	2.2	67
23 F	0556	0.1	3
	1154	1.5	46
	1729	0.3	9
	2351	2.1	64
24 Sa	0628	−0.1	−3
	1247	1.9	58
	1836	0.3	9
25 Su	0032	2.0	61
	0659	−0.3	−9
	1333	2.2	67
	1934	0.3	9
26 M	0110	1.9	58
	0730	−0.5	−15
	1416	2.5	76
	2026	0.3	9
27 Tu	0147	1.8	55
	0802	−0.6	−18
	1457	2.7	82
	2116	0.3	9
28 W ○	0222	1.6	49
	0834	−0.6	−18
	1538	2.8	85
	2204	0.4	12
29 Th	0256	1.4	43
	0907	−0.6	−18
	1618	2.8	85
	2253	0.5	15
30 F	0331	1.3	40
	0941	−0.5	−15
	1700	2.6	79
	2344	0.5	15

May

	Time	Height	
	h m	ft	cm
1 Sa	0407	1.1	34
	1016	−0.3	−9
	1744	2.5	76
2 Su	0041	0.6	18
	0446	1.0	30
	1053	−0.1	−3
	1833	2.3	70
3 M	0149	0.7	21
	0534	0.9	27
	1135	0.1	3
	1927	2.1	64
4 Tu	0307	0.6	18
	0653	0.8	24
	1229	0.3	9
	2027	2.0	61
5 W ◑	0412	0.6	18
	0856	0.8	24
	1349	0.5	15
	2127	1.9	58
6 Th	0455	0.4	12
	1038	1.0	30
	1527	0.7	21
	2219	1.8	55
7 F	0525	0.3	9
	1141	1.3	40
	1653	0.7	21
	2302	1.8	55
8 Sa	0552	0.2	6
	1225	1.6	49
	1759	0.7	21
	2340	1.7	52
9 Su	0617	0.0	0
	1302	1.9	58
	1854	0.7	21
10 M	0014	1.6	49
	0642	−0.2	−6
	1336	2.2	67
	1942	0.6	18
11 Tu	0048	1.6	49
	0710	−0.3	−9
	1411	2.4	73
	2027	0.6	18
12 W	0122	1.5	46
	0740	−0.5	−15
	1446	2.6	79
	2111	0.5	15
13 Th ●	0157	1.4	43
	0812	−0.6	−18
	1524	2.7	82
	2156	0.5	15
14 F	0233	1.3	40
	0846	−0.6	−18
	1604	2.8	85
	2243	0.5	15
15 Sa	0312	1.2	37
	0923	−0.6	−18
	1648	2.8	85
	2335	0.5	15

	Time	Height	
	h m	ft	cm
16 Su	0354	1.1	34
	1004	−0.5	−15
	1735	2.7	82
17 M	0033	0.5	15
	0444	1.0	30
	1049	−0.3	−9
	1826	2.6	79
18 Tu	0136	0.5	15
	0549	0.9	27
	1142	−0.1	−3
	1920	2.5	76
19 W	0240	0.4	12
	0720	0.9	27
	1247	0.2	6
	2016	2.3	70
20 Th ◐	0336	0.3	9
	0906	1.1	34
	1412	0.5	15
	2112	2.2	67
21 F	0423	0.1	3
	1038	1.4	43
	1550	0.7	21
	2206	2.0	61
22 Sa	0504	−0.1	−3
	1147	1.8	55
	1722	0.7	21
	2256	1.8	55
23 Su	0542	−0.3	−9
	1241	2.1	64
	1839	0.7	21
	2343	1.6	49
24 M	0618	−0.4	−12
	1327	2.5	76
	1942	0.7	21
25 Tu	0028	1.5	46
	0653	−0.5	−15
	1409	2.7	82
	2037	0.6	18
26 W	0110	1.4	43
	0729	−0.6	−18
	1449	2.8	85
	2125	0.6	18
27 Th ○	0152	1.3	40
	0805	−0.6	−18
	1527	2.8	85
	2209	0.5	15
28 F	0233	1.2	37
	0841	−0.5	−15
	1605	2.8	85
	2252	0.5	15
29 Sa	0313	1.1	34
	0918	−0.5	−15
	1643	2.7	82
	2335	0.5	15
30 Su	0355	1.1	34
	0955	−0.3	−9
	1722	2.6	79
31 M	0020	0.5	15
	0439	1.0	30
	1033	−0.1	−3
	1802	2.4	73

June

	Time	Height	
	h m	ft	cm
1 Tu	0107	0.5	15
	0532	1.0	30
	1113	0.1	3
	1842	2.3	70
2 W	0155	0.5	15
	0638	1.0	30
	1158	0.3	9
	1922	2.1	64
3 Th	0243	0.5	15
	0804	1.0	30
	1254	0.6	18
	2003	2.0	61
4 F ◑	0326	0.4	12
	0939	1.2	37
	1412	0.9	27
	2045	1.8	55
5 Sa	0405	0.3	9
	1058	1.4	43
	1552	1.0	30
	2130	1.7	52
6 Su	0441	0.1	3
	1154	1.7	52
	1727	1.0	30
	2217	1.5	46
7 M	0516	0.0	0
	1237	2.0	61
	1841	1.0	30
	2306	1.4	43
8 Tu	0551	−0.2	−6
	1317	2.3	70
	1939	0.9	27
	2355	1.3	40
9 W	0629	−0.4	−12
	1355	2.6	79
	2028	0.7	21
10 Th	0043	1.3	40
	0707	−0.5	−15
	1433	2.8	85
	2113	0.6	18
11 F	0131	1.2	37
	0748	−0.6	−18
	1514	2.9	88
	2156	0.5	15
12 Sa ●	0218	1.2	37
	0830	−0.7	−21
	1555	3.0	91
	2241	0.5	15
13 Su	0306	1.2	37
	0913	−0.7	−21
	1637	3.0	91
	2326	0.4	12
14 M	0357	1.2	37
	0958	−0.5	−15
	1720	3.0	91
15 Tu	0013	0.4	12
	0454	1.2	37
	1046	−0.3	−9
	1804	2.8	85

	Time	Height	
	h m	ft	cm
16 W	0101	0.3	9
	0601	1.2	37
	1138	0.0	0
	1847	2.6	79
17 Th	0149	0.2	6
	0721	1.3	40
	1239	0.4	12
	1931	2.3	70
18 F ◐	0238	0.1	3
	0852	1.4	43
	1357	0.7	21
	2017	2.0	61
19 Sa	0326	0.0	0
	1022	1.7	52
	1539	1.0	30
	2105	1.8	55
20 Su	0413	−0.1	−3
	1136	2.0	61
	1730	1.1	34
	2159	1.5	46
21 M	0459	−0.2	−6
	1234	2.3	70
	1900	1.0	30
	2257	1.3	40
22 Tu	0544	−0.3	−9
	1321	2.6	79
	2004	0.9	27
	2356	1.2	37
23 W	0627	−0.4	−12
	1403	2.7	82
	2051	0.7	21
24 Th	0050	1.2	37
	0709	−0.4	−12
	1440	2.8	85
	2129	0.6	18
25 F	0138	1.2	37
	0749	−0.5	−15
	1516	2.8	85
	2203	0.6	18
26 Sa ○	0223	1.2	37
	0828	−0.4	−12
	1550	2.8	85
	2235	0.5	15
27 Su	0305	1.2	37
	0905	−0.4	−12
	1623	2.8	85
	2308	0.5	15
28 M	0346	1.2	37
	0941	−0.2	−6
	1655	2.7	82
	2341	0.5	15
29 Tu	0429	1.2	37
	1017	−0.1	−3
	1726	2.5	76
30 W	0014	0.5	15
	0515	1.2	37
	1052	0.2	6
	1756	2.4	73

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Hilo, Hawaii Island, Hawaii, 2010

Times and Heights of High and Low Waters

July

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Th	0049	0.4	12	16 F	0055	0.1	3
	0608	1.3	40		0704	1.7	52
	1130	0.4	12		1231	0.6	18
	1824	2.2	67		1844	2.2	67
2 F	0124	0.4	12	17 Sa	0140	0.0	0
	0712	1.3	40		0826	1.8	55
	1215	0.7	21		1349	1.0	30
	1852	2.0	61		1921	1.8	55
3 Sa	0201	0.3	9	18 Su	0229	0.0	0
	0832	1.4	43		0958	2.0	61
	1315	1.0	30		1546	1.2	37
	1921	1.8	55		2002	1.5	46
4 Su	0242	0.2	6	19 M	0324	0.0	0
	1000	1.6	49		1121	2.2	67
	1453	1.2	37		1808	1.2	37
	1956	1.6	49		2103	1.3	40
5 M	0328	0.1	3	20 Tu	0423	−0.1	−3
	1115	1.8	55		1225	2.4	73
	1704	1.3	40		1934	1.0	30
	2046	1.4	43		2233	1.1	34
6 Tu	0417	0.0	0	21 W	0522	−0.1	−3
	1211	2.1	64		1313	2.6	79
	1845	1.1	34		2016	0.9	27
	2200	1.3	40		2353	1.1	34
7 W	0508	−0.1	−3	22 Th	0614	−0.2	−6
	1257	2.4	73		1352	2.7	82
	1943	1.0	30		2046	0.7	21
	2317	1.2	37				
8 Th	0558	−0.3	−9	23 F	0052	1.2	37
	1339	2.7	82		0701	−0.2	−6
	2025	0.8	24		1427	2.7	82
					2111	0.6	18
9 F	0023	1.2	37	24 Sa	0138	1.3	40
	0647	−0.5	−15		0741	−0.3	−9
	1419	2.9	88		1458	2.8	85
	2103	0.6	18		2135	0.6	18
10 Sa	0120	1.3	40	25 Su	0218	1.4	43
	0734	−0.6	−18		0819	−0.3	−9
	1459	3.1	94		1526	2.8	85
	2140	0.5	15		2200	0.5	15
11 Su	0213	1.3	40	26 M	0256	1.5	46
	0821	−0.7	−21		0853	−0.2	−6
	1538	3.2	98		1554	2.7	82
	2217	0.4	12		2225	0.4	12
12 M	0304	1.4	43	27 Tu	0334	1.6	49
	0907	−0.6	−18		0927	−0.1	−3
	1617	3.1	94		1620	2.7	82
	2255	0.3	9		2251	0.4	12
13 Tu	0357	1.5	46	28 W	0412	1.6	49
	0953	−0.4	−12		1000	0.1	3
	1655	3.0	91		1645	2.5	76
	2334	0.2	6		2317	0.4	12
14 W	0453	1.6	49	29 Th	0452	1.6	49
	1041	−0.2	−6		1034	0.3	9
	1732	2.8	85		1708	2.4	73
					2344	0.3	9
15 Th	0014	0.1	3	30 F	0536	1.7	52
	0554	1.6	49		1109	0.6	18
	1132	0.2	6		1730	2.2	67
	1808	2.5	76				
				31 Sa	0013	0.3	9
					0627	1.7	52
					1150	0.8	24
					1752	2.0	61

August

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 Su	0045	0.3	9	16 M	0131	0.1	3
	0731	1.7	52		0926	2.1	64
	1244	1.1	34		1619	1.2	37
	1813	1.8	55		1859	1.3	40
2 M	0125	0.2	6	17 Tu	0236	0.2	6
	0856	1.8	55		1058	2.2	67
	1419	1.3	40				
	1835	1.5	46				
3 Tu	0217	0.2	6	18 W	0355	0.2	6
	1031	1.9	58		1206	2.4	73
					1932	0.9	27
					2255	1.1	34
4 W	0324	0.1	3	19 Th	0510	0.2	6
	1143	2.2	67		1254	2.5	76
	1904	1.1	34		1954	0.8	24
	2118	1.2	37				
5 Th	0436	0.0	0	20 F	0009	1.2	37
	1234	2.5	76		0608	0.1	3
	1936	0.9	27		1330	2.6	79
	2309	1.2	37		2015	0.7	21
6 F	0539	−0.2	−6	21 Sa	0057	1.4	43
	1318	2.7	82		0654	0.0	0
	2005	0.7	21		1401	2.6	79
					2034	0.6	18
7 Sa	0021	1.3	40	22 Su	0136	1.5	46
	0635	−0.4	−12		0732	0.0	0
	1357	3.0	91		1428	2.7	82
	2035	0.6	18		2054	0.5	15
8 Su	0118	1.5	46	23 M	0210	1.7	52
	0725	−0.5	−15		0807	0.0	0
	1435	3.1	94		1452	2.6	79
	2107	0.4	12		2114	0.4	12
9 M	0210	1.7	52	24 Tu	0244	1.8	55
	0813	−0.5	−15		0840	0.0	0
	1511	3.1	94		1516	2.6	79
	2139	0.2	6		2136	0.3	9
10 Tu	0300	1.9	58	25 W	0318	2.0	61
	0859	−0.4	−12		0913	0.1	3
	1547	3.1	94		1538	2.5	76
	2213	0.1	3		2158	0.3	9
11 W	0350	2.0	61	26 Th	0352	2.0	61
	0946	−0.2	−6		0946	0.3	9
	1621	2.9	88		1600	2.4	73
	2247	0.0	0		2221	0.2	6
12 Th	0442	2.1	64	27 F	0429	2.1	64
	1035	0.1	3		1020	0.5	15
	1654	2.6	79		1622	2.2	67
	2323	0.0	0		2246	0.2	6
13 F	0537	2.2	67	28 Sa	0507	2.1	64
	1126	0.5	15		1056	0.7	21
	1726	2.3	70		1642	2.0	61
					2311	0.2	6
14 Sa	0001	0.0	0	29 Su	0552	2.1	64
	0640	2.2	67		1139	0.9	27
	1227	0.8	24		1702	1.8	55
	1757	1.9	58		2342	0.2	6
15 Su	0042	0.0	0	30 M	0648	2.0	61
	0754	2.1	64		1237	1.2	37
	1351	1.2	37		1720	1.6	49
	1827	1.6	49				
				31 Tu	0020	0.2	6
					0806	2.0	61
					1428	1.3	40
					1735	1.4	43

September

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0117	0.3	9	16 Th	0327	0.5	15
	0945	2.1	64		1129	2.3	70
					1851	0.8	24
					2315	1.2	37
2 Th	0241	0.3	9	17 F	0453	0.5	15
	1107	2.3	70		1217	2.4	73
	1845	1.0	30		1911	0.7	21
	2137	1.1	34				
3 F	0412	0.2	6	18 Sa	0012	1.4	43
	1203	2.5	76		0554	0.4	12
	1904	0.8	24		1253	2.4	73
	2321	1.3	40		1929	0.6	18
4 Sa	0525	0.0	0	19 Su	0052	1.6	49
	1247	2.7	82		0639	0.3	9
	1929	0.6	18		1321	2.4	73
					1947	0.5	15
5 Su	0025	1.5	46	20 M	0125	1.8	55
	0624	−0.1	−3		0718	0.3	9
	1326	2.9	88		1346	2.5	76
	1957	0.4	12		2006	0.4	12
6 M	0117	1.8	55	21 Tu	0157	2.0	61
	0716	−0.2	−6		0753	0.3	9
	1402	3.0	91		1409	2.4	73
	2026	0.2	6		2025	0.3	9
7 Tu	0205	2.1	64	22 W	0229	2.2	67
	0805	−0.2	−6		0827	0.3	9
	1436	2.9	88		1432	2.4	73
	2056	0.0	0		2046	0.1	3
8 W	0252	2.4	73	23 Th	0301	2.4	73
	0853	−0.1	−3		0901	0.4	12
	1510	2.8	85		1455	2.3	70
	2128	−0.1	−3		2108	0.1	3
9 Th	0339	2.5	76	24 F	0334	2.4	73
	0941	0.1	3		0936	0.5	15
	1543	2.5	76		1517	2.1	64
	2200	−0.2	−6		2132	0.0	0
10 F	0427	2.6	79	25 Sa	0408	2.5	76
	1030	0.4	12		1013	0.7	21
	1614	2.2	67		1540	2.0	61
	2234	−0.2	−6		2156	0.0	0
11 Sa	0517	2.6	79	26 Su	0446	2.5	76
	1124	0.7	21		1054	0.8	24
	1645	1.9	58		1602	1.8	55
	2309	−0.1	−3		2224	0.0	0
12 Su	0613	2.5	76	27 M	0529	2.4	73
	1228	1.0	30		1144	1.0	30
	1715	1.6	49		1624	1.6	49
	2348	0.0	0		2255	0.1	3
13 M	0720	2.4	73	28 Tu	0622	2.3	70
	1401	1.2	37		1255	1.2	37
	1743	1.4	43		1647	1.4	43
					2336	0.2	6
14 Tu	0036	0.2	6	29 W	0734	2.3	70
	0845	2.3	70		1506	1.1	34
					1713	1.2	37
15 W	0147	0.4	12	30 Th	0036	0.3	9
	1018	2.2	67		0903	2.3	70
	1828	0.9	27				
	2118	1.0	30				

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Hilo, Hawaii Island, Hawaii, 2010

Times and Heights of High and Low Waters

October

	Time	Height	
	h m	ft	cm
1 F	0208	0.4	12
	1022	2.4	73
	1753	0.9	27
	2206	1.2	37
2 Sa	0350	0.4	12
	1121	2.5	76
	1819	0.6	18
	2328	1.4	43
3 Su	0510	0.3	9
	1207	2.6	79
	1846	0.4	12
4 M	0024	1.8	55
	0613	0.2	6
	1246	2.7	82
	1914	0.2	6
5 Tu	0113	2.2	67
	0708	0.2	6
	1323	2.6	79
	1943	0.0	0
6 W	0158	2.5	76
	0800	0.2	6
	1358	2.5	76
	2014	−0.2	−6
7 Th ●	0243	2.8	85
	0850	0.3	9
	1432	2.3	70
	2045	−0.3	−9
8 F	0327	3.0	91
	0940	0.5	15
	1505	2.1	64
	2118	−0.4	−12
9 Sa	0411	3.0	91
	1031	0.6	18
	1538	1.9	58
	2152	−0.3	−9
10 Su	0458	2.9	88
	1126	0.8	24
	1610	1.6	49
	2227	−0.2	−6
11 M	0549	2.7	82
	1231	1.0	30
	1644	1.4	43
	2306	0.1	3
12 Tu	0647	2.5	76
	1400	1.0	30
	1723	1.2	37
	2351	0.3	9
13 W	0758	2.3	70
	1604	1.0	30
	1840	1.1	34
14 Th ◐	0057	0.5	15
	0918	2.2	67
	1719	0.9	27
	2125	1.1	34
15 F	0238	0.7	21
	1028	2.2	67
	1752	0.8	24
	2305	1.3	40

	Time	Height	
	h m	ft	cm
16 Sa	0416	0.7	21
	1120	2.2	67
	1816	0.6	18
	2358	1.5	46
17 Su	0525	0.7	21
	1158	2.2	67
	1836	0.5	15
18 M	0037	1.8	55
	0617	0.7	21
	1228	2.2	67
	1856	0.4	12
19 Tu	0110	2.1	64
	0700	0.7	21
	1255	2.2	67
	1916	0.2	6
20 W	0142	2.3	70
	0740	0.6	18
	1321	2.1	64
	1938	0.1	3
21 Th	0214	2.5	76
	0818	0.7	21
	1347	2.0	61
	2001	0.0	0
22 F ○	0246	2.7	82
	0856	0.7	21
	1413	1.9	58
	2026	−0.1	−3
23 Sa	0319	2.7	82
	0935	0.7	21
	1440	1.8	55
	2053	−0.2	−6
24 Su	0354	2.8	85
	1016	0.8	24
	1507	1.7	52
	2122	−0.2	−6
25 M	0433	2.8	85
	1103	0.9	27
	1536	1.5	46
	2154	−0.1	−3
26 Tu	0517	2.7	82
	1159	1.0	30
	1608	1.4	43
	2231	0.0	0
27 W	0610	2.6	79
	1313	1.0	30
	1649	1.2	37
	2315	0.1	3
28 Th	0712	2.5	76
	1448	1.0	30
	1801	1.1	34
29 F	0016	0.3	9
	0821	2.5	76
	1605	0.8	24
	2013	1.1	34
30 Sa ◑	0144	0.5	15
	0929	2.4	73
	1652	0.6	18
	2212	1.3	40
31 Su	0326	0.7	21
	1028	2.4	73
	1727	0.4	12
	2326	1.7	52

November

	Time	Height	
	h m	ft	cm
1 M	0455	0.7	21
	1118	2.4	73
	1800	0.2	6
2 Tu	0021	2.1	64
	0606	0.7	21
	1201	2.3	70
	1831	−0.1	−3
3 W	0108	2.5	76
	0708	0.6	18
	1241	2.2	67
	1904	−0.3	−9
4 Th	0152	2.8	85
	0803	0.6	18
	1320	2.0	61
	1937	−0.4	−12
5 F ●	0235	3.1	94
	0854	0.6	18
	1357	1.9	58
	2011	−0.5	−15
6 Sa	0317	3.2	98
	0944	0.7	21
	1434	1.7	52
	2046	−0.4	−12
7 Su	0359	3.1	94
	1034	0.7	21
	1511	1.6	49
	2122	−0.4	−12
8 M	0442	3.0	91
	1126	0.8	24
	1549	1.4	43
	2159	−0.2	−6
9 Tu	0527	2.9	88
	1222	0.8	24
	1631	1.3	40
	2238	0.0	0
10 W	0616	2.6	79
	1328	0.9	27
	1722	1.2	37
	2321	0.3	9
11 Th	0709	2.5	76
	1442	0.9	27
	1840	1.1	34
12 F	0014	0.5	15
	0806	2.3	70
	1549	0.8	24
	2039	1.1	34
13 Sa ◐	0129	0.8	24
	0905	2.2	67
	1635	0.7	21
	2226	1.3	40
14 Su	0309	1.0	30
	0958	2.1	64
	1708	0.6	18
	2331	1.6	49
15 M	0440	1.0	30
	1043	2.0	61
	1735	0.4	12

	Time	Height	
	h m	ft	cm
16 Tu	0016	1.9	58
	0550	1.0	30
	1122	1.9	58
	1801	0.2	6
17 W	0052	2.2	67
	0646	1.0	30
	1157	1.8	55
	1827	0.1	3
18 Th	0126	2.4	73
	0733	0.9	27
	1231	1.8	55
	1854	−0.1	−3
19 F	0159	2.6	79
	0816	0.9	27
	1305	1.7	52
	1923	−0.2	−6
20 Sa	0233	2.8	85
	0857	0.8	24
	1339	1.6	49
	1954	−0.3	−9
21 Su ○	0308	2.9	88
	0939	0.8	24
	1414	1.5	46
	2028	−0.3	−9
22 M	0345	3.0	91
	1022	0.8	24
	1451	1.5	46
	2103	−0.3	−9
23 Tu	0426	3.0	91
	1109	0.8	24
	1530	1.4	43
	2141	−0.3	−9
24 W	0509	2.9	88
	1201	0.8	24
	1615	1.3	40
	2223	−0.1	−3
25 Th	0555	2.9	88
	1259	0.8	24
	1713	1.2	37
	2310	0.1	3
26 F	0645	2.7	82
	1359	0.7	21
	1832	1.2	37
27 Sa	0007	0.3	9
	0738	2.6	79
	1457	0.6	18
	2016	1.3	40
28 Su ◑	0124	0.7	21
	0832	2.4	73
	1548	0.4	12
	2159	1.5	46
29 M	0303	0.9	27
	0928	2.2	67
	1632	0.2	6
	2317	1.9	58
30 Tu	0446	1.0	30
	1022	2.0	61
	1713	0.0	0

December

	Time	Height	
	h m	ft	cm
1 W	0016	2.3	70
	0612	1.0	30
	1113	1.8	55
	1752	−0.2	−6
2 Th	0104	2.7	82
	0721	0.9	27
	1203	1.7	52
	1831	−0.3	−9
3 F	0148	2.9	88
	0817	0.8	24
	1249	1.6	49
	1909	−0.4	−12
4 Sa	0229	3.1	94
	0906	0.7	21
	1334	1.5	46
	1948	−0.5	−15
5 Su ●	0309	3.1	94
	0950	0.7	21
	1417	1.4	43
	2027	−0.4	−12
6 M	0348	3.1	94
	1032	0.7	21
	1459	1.4	43
	2105	−0.4	−12
7 Tu	0427	3.0	91
	1113	0.7	21
	1541	1.3	40
	2143	−0.2	−6
8 W	0505	2.9	88
	1156	0.7	21
	1625	1.3	40
	2221	0.0	0
9 Th	0543	2.7	82
	1240	0.7	21
	1715	1.3	40
	2300	0.2	6
10 F	0621	2.5	76
	1326	0.7	21
	1815	1.2	37
	2341	0.5	15
11 Sa	0659	2.3	70
	1413	0.6	18
	1935	1.2	37
12 Su	0032	0.8	24
	0737	2.1	64
	1459	0.6	18
	2114	1.4	43
13 M ◐	0145	1.1	34
	0817	1.9	58
	1542	0.5	15
	2244	1.6	49
14 Tu	0334	1.2	37
	0903	1.8	55
	1622	0.3	9
	2347	1.9	58
15 W	0524	1.3	40
	0954	1.6	49
	1701	0.2	6

	Time	Height	
	h m	ft	cm
16 Th	0032	2.2	67
	0643	1.2	37
	1049	1.5	46
	1739	0.0	0
17 F	0110	2.4	73
	0738	1.0	30
	1143	1.4	43
	1817	−0.1	−3
18 Sa	0146	2.6	79
	0821	0.9	27
	1232	1.4	43
	1855	−0.3	−9
19 Su	0222	2.8	85
	0900	0.8	24
	1318	1.4	43
	1935	−0.4	−12
20 M ○	0258	3.0	91
	0938	0.7	21
	1403	1.4	43
	2015	−0.5	−15
21 Tu	0336	3.1	94
	1017	0.6	18
	1448	1.4	43
	2055	−0.5	−15
22 W	0414	3.1	94
	1057	0.6	18
	1534	1.4	43
	2137	−0.4	−12
23 Th	0453	3.1	94
	1138	0.5	15
	1625	1.4	43
	2221	−0.2	−6
24 F	0533	3.0	91
	1222	0.4	12
	1724	1.4	43
	2308	0.0	0
25 Sa	0613	2.8	85
	1307	0.4	12
	1833	1.4	43
26 Su	0002	0.4	12
	0653	2.5	76
	1354	0.3	9
	1959	1.5	46
27 M ◑	0110	0.8	24
	0735	2.2	67
	1444	0.2	6
	2135	1.8	55
28 Tu	0249	1.1	34
	0822	1.9	58
	1535	0.1	3
	2303	2.1	64
29 W	0454	1.2	37
	0919	1.6	49
	1628	−0.1	−3
30 Th	0009	2.4	73
	0641	1.1	34
	1028	1.4	43
	1719	−0.2	−6
31 F	0101	2.6	79
	0749	1.0	30
	1138	1.3	40
	1809	−0.3	−9

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Johnston Island, 2010

Times and Heights of High and Low Waters

January

	Time	Height		Time	Height		Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm		h m	ft / cm		h m	ft / cm
1 F	0604	2.8 / 85	**16** Sa	0001	0.1 / 3	**1** M	0106	−0.2 / −6	**16** Tu	0051	−0.1 / −3
	1237	−0.5 / −15		0618	2.4 / 73		0713	2.5 / 76		0654	2.2 / 67
	1844	2.1 / 64		1243	−0.2 / −6		1330	−0.6 / −18		1304	−0.3 / −9
				1851	1.9 / 58		1952	2.4 / 73		1923	2.2 / 67
2 Sa	0028	−0.1 / −3	**17** Su	0034	0.1 / 3	**2** Tu	0151	−0.1 / −3	**17** W	0123	0.0 / 0
	0648	2.8 / 85		0648	2.4 / 73		0753	2.3 / 70		0723	2.0 / 61
	1317	−0.5 / −15		1311	−0.2 / −6		1405	−0.4 / −12		1330	−0.3 / −9
	1929	2.2 / 67		1922	2.0 / 61		2033	2.4 / 73		1953	2.2 / 67
3 Su	0115	0.0 / 0	**18** M	0108	0.1 / 3	**3** W	0238	0.1 / 3	**18** Th	0158	0.0 / 0
	0731	2.6 / 79		0717	2.3 / 70		0833	2.0 / 61		0754	1.9 / 58
	1357	−0.4 / −12		1338	−0.2 / −6		1441	−0.2 / −6		1358	−0.2 / −6
	2016	2.2 / 67		1954	2.0 / 61		2117	2.2 / 67		2028	2.1 / 64
4 M	0204	0.1 / 3	**19** Tu	0142	0.2 / 6	**4** Th	0329	0.3 / 9	**19** F	0238	0.1 / 3
	0814	2.4 / 73		0747	2.1 / 64		0916	1.7 / 52		0829	1.7 / 52
	1438	−0.3 / −9		1405	−0.1 / −3		1518	0.0 / 0		1430	−0.1 / −3
	2105	2.2 / 67		2028	2.0 / 61		2205	2.1 / 64		2109	2.0 / 61
5 Tu	0258	0.3 / 9	**20** W	0220	0.3 / 9	**5** F ◑	0431	0.4 / 12	**20** Sa	0326	0.3 / 9
	0859	2.1 / 64		0819	2.0 / 61		1007	1.4 / 43		0913	1.4 / 43
	1520	−0.1 / −3		1434	0.0 / 0		1600	0.3 / 9		1509	0.1 / 3
	2157	2.2 / 67		2106	2.0 / 61		2302	1.9 / 58		2202	1.9 / 58
6 W	0359	0.5 / 15	**21** Th	0303	0.4 / 12	**6** Sa	0559	0.5 / 15	**21** Su ◐	0435	0.4 / 12
	0949	1.8 / 55		0856	1.8 / 55		1118	1.1 / 34		1016	1.2 / 37
	1605	0.1 / 3		1507	0.1 / 3		1702	0.5 / 15		1605	0.2 / 6
	2254	2.1 / 64		2150	2.0 / 61					2315	1.8 / 55
7 Th ◑	0516	0.6 / 18	**22** F	0358	0.5 / 15	**7** Su	0017	1.8 / 55	**22** M	0618	0.4 / 12
	1048	1.5 / 46		0942	1.5 / 46		0746	0.5 / 15		1153	1.1 / 34
	1658	0.3 / 9		1549	0.2 / 6		1308	1.0 / 30		1737	0.4 / 12
	2357	2.0 / 61		2246	1.9 / 58		1843	0.6 / 18			
8 F	0650	0.6 / 18	**23** Sa ◐	0515	0.6 / 18	**8** M	0142	1.7 / 52	**23** Tu	0044	1.8 / 55
	1205	1.3 / 40		1046	1.3 / 40		0901	0.4 / 12		0759	0.2 / 6
	1805	0.4 / 12		1646	0.3 / 9		1451	1.1 / 34		1343	1.2 / 37
				2357	1.9 / 58		2017	0.5 / 15		1928	0.3 / 9
9 Sa	0107	2.0 / 61	**24** Su	0657	0.5 / 15	**9** Tu	0253	1.8 / 55	**24** W	0208	2.0 / 61
	0815	0.5 / 15		1218	1.2 / 37		0949	0.2 / 6		0905	0.0 / 0
	1338	1.2 / 37		1811	0.4 / 12		1548	1.3 / 40		1503	1.4 / 43
	1922	0.5 / 15					2119	0.4 / 12		2049	0.1 / 3
10 Su	0214	2.1 / 64	**25** M	0116	2.0 / 61	**10** W	0345	1.9 / 58	**25** Th	0313	2.2 / 67
	0918	0.3 / 9		0825	0.3 / 9		1025	0.0 / 0		0954	−0.3 / −9
	1500	1.3 / 40		1358	1.2 / 37		1627	1.5 / 46		1559	1.7 / 52
	2032	0.5 / 15		1943	0.3 / 9		2204	0.2 / 6		2149	−0.1 / −3
11 M	0311	2.1 / 64	**26** Tu	0229	2.2 / 67	**11** Th	0424	2.1 / 64	**26** F	0406	2.4 / 73
	1005	0.2 / 6		0927	0.1 / 3		1055	−0.1 / −3		1035	−0.5 / −15
	1558	1.4 / 43		1515	1.4 / 43		1659	1.6 / 49		1645	2.0 / 61
	2127	0.4 / 12		2057	0.2 / 6		2241	0.1 / 3		2239	−0.3 / −9
12 Tu	0358	2.2 / 67	**27** W	0330	2.4 / 73	**12** F	0458	2.2 / 67	**27** Sa	0452	2.5 / 76
	1042	0.0 / 0		1016	−0.2 / −6		1123	−0.2 / −6		1114	−0.6 / −18
	1640	1.5 / 46		1613	1.6 / 49		1729	1.8 / 55		1727	2.3 / 70
	2213	0.3 / 9		2156	0.0 / 0		2315	0.0 / 0		2326	−0.4 / −12
13 W	0438	2.3 / 70	**28** Th	0422	2.5 / 76	**13** Sa ●	0529	2.3 / 70	**28** Su ○	0534	2.5 / 76
	1116	−0.1 / −3		1059	−0.4 / −12		1149	−0.3 / −9		1150	−0.7 / −21
	1716	1.6 / 49		1702	1.9 / 58		1758	2.0 / 61		1806	2.5 / 76
	2252	0.2 / 6		2247	−0.2 / −6		2348	−0.1 / −3			
14 Th ●	0514	2.4 / 73	**29** F ○	0509	2.7 / 82	**14** Su	0558	2.3 / 70			
	1146	−0.2 / −6		1139	−0.6 / −18		1215	−0.3 / −9			
	1749	1.7 / 52		1746	2.1 / 64		1826	2.1 / 64			
	2327	0.1 / 3		2335	−0.3 / −9						
15 F	0547	2.4 / 73	**30** Sa	0552	2.7 / 82	**15** M	0019	−0.1 / −3			
	1215	−0.2 / −6		1217	−0.7 / −21		0626	2.2 / 67			
	1820	1.8 / 55		1829	2.3 / 70		1240	−0.3 / −9			
							1854	2.2 / 67			
			31 Su	0021	−0.3 / −9						
				0633	2.7 / 82						
				1254	−0.7 / −21						
				1910	2.4 / 73						

March

	Time	Height		Time	Height
	h m	ft / cm		h m	ft / cm
1 M	0009	−0.4 / −12	**16** Tu	0001	−0.2 / −6
	0614	2.4 / 73		0602	2.0 / 61
	1225	−0.7 / −21		1205	−0.4 / −12
	1845	2.6 / 79		1823	2.3 / 70
2 Tu	0052	−0.4 / −12	**17** W	0033	−0.3 / −9
	0653	2.3 / 70		0631	2.0 / 61
	1258	−0.6 / −18		1232	−0.4 / −12
	1922	2.5 / 76		1852	2.3 / 70
3 W	0133	−0.3 / −9	**18** Th	0106	−0.2 / −6
	0731	2.0 / 61		0702	1.8 / 55
	1332	−0.4 / −12		1259	−0.3 / −9
	2000	2.4 / 73		1924	2.3 / 70
4 Th	0215	−0.1 / −3	**19** F	0141	−0.2 / −6
	0810	1.8 / 55		0736	1.7 / 52
	1404	−0.2 / −6		1330	−0.2 / −6
	2038	2.2 / 67		1959	2.2 / 67
5 F	0259	0.1 / 3	**20** Sa	0221	−0.1 / −3
	0850	1.5 / 46		0814	1.5 / 46
	1438	0.0 / 0		1405	−0.1 / −3
	2120	2.0 / 61		2042	2.1 / 64
6 Sa	0351	0.3 / 9	**21** Su	0310	0.1 / 3
	0937	1.2 / 37		0903	1.3 / 40
	1516	0.3 / 9		1448	0.1 / 3
	2212	1.7 / 52		2136	1.9 / 58
7 Su ◑	0504	0.4 / 12	**22** M	0417	0.2 / 6
	1043	1.0 / 30		1012	1.2 / 37
	1611	0.5 / 15		1549	0.2 / 6
	2324	1.6 / 49		2249	1.8 / 55
8 M	0656	0.5 / 15	**23** Tu ◐	0552	0.2 / 6
	1234	1.0 / 30		1150	1.1 / 34
	1805	0.6 / 18		1729	0.4 / 12
9 Tu	0100	1.5 / 46	**24** W	0019	1.7 / 52
	0824	0.3 / 9		0726	0.1 / 3
	1423	1.1 / 34		1331	1.3 / 40
	1958	0.5 / 15		1921	0.3 / 9
10 W	0222	1.6 / 49	**25** Th	0143	1.8 / 55
	0915	0.2 / 6		0832	−0.1 / −3
	1521	1.3 / 40		1443	1.6 / 49
	2102	0.4 / 12		2040	0.1 / 3
11 Th	0317	1.7 / 52	**26** F	0250	2.0 / 61
	0951	0.0 / 0		0921	−0.3 / −9
	1559	1.5 / 46		1536	1.9 / 58
	2146	0.2 / 6		2139	−0.1 / −3
12 F	0358	1.9 / 58	**27** Sa	0344	2.1 / 64
	1021	−0.1 / −3		1003	−0.5 / −15
	1630	1.7 / 52		1621	2.2 / 67
	2224	0.0 / 0		2228	−0.3 / −9
13 Sa	0432	2.0 / 61	**28** Su	0431	2.2 / 67
	1048	−0.2 / −6		1042	−0.6 / −18
	1659	1.9 / 58		1701	2.4 / 73
	2257	−0.1 / −3		2313	−0.4 / −12
14 Su	0503	2.1 / 64	**29** M ○	0514	2.2 / 67
	1114	−0.3 / −9		1118	−0.6 / −18
	1727	2.1 / 64		1740	2.6 / 79
	2330	−0.2 / −6		2355	−0.5 / −15
15 M ●	0532	2.1 / 64	**30** Tu	0554	2.1 / 64
	1140	−0.3 / −9		1153	−0.6 / −18
	1755	2.2 / 67		1816	2.6 / 79
			31 W	0035	−0.5 / −15
				0633	2.0 / 61
				1227	−0.5 / −15
				1852	2.5 / 76

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Johnston Island, 2010

Times and Heights of High and Low Waters

April

	Time	Height	
	h m	ft	cm
1 Th	0114	−0.4	−12
	0712	1.8	55
	1300	−0.3	−9
	1928	2.4	73
2 F	0153	−0.3	−9
	0750	1.6	49
	1334	−0.1	−3
	2005	2.2	67
3 Sa	0234	−0.1	−3
	0831	1.4	43
	1408	0.1	3
	2045	1.9	58
4 Su	0321	0.1	3
	0918	1.2	37
	1448	0.3	9
	2134	1.7	52
5 M ◑	0421	0.3	9
	1023	1.1	34
	1544	0.5	15
	2238	1.5	46
6 Tu	0549	0.4	12
	1155	1.0	30
	1726	0.6	18
7 W	0004	1.4	43
	0718	0.3	9
	1330	1.1	34
	1921	0.6	18
8 Th	0127	1.4	43
	0817	0.2	6
	1433	1.4	43
	2030	0.4	12
9 F	0229	1.5	46
	0858	0.1	3
	1515	1.6	49
	2119	0.2	6
10 Sa	0316	1.7	52
	0932	0.0	0
	1550	1.8	55
	2159	0.1	3
11 Su	0355	1.7	52
	1003	−0.1	−3
	1621	2.0	61
	2235	−0.1	−3
12 M	0430	1.8	55
	1032	−0.2	−6
	1652	2.2	67
	2309	−0.2	−6
13 Tu	0504	1.8	55
	1102	−0.3	−9
	1722	2.3	70
	2342	−0.3	−9
14 W ●	0538	1.8	55
	1131	−0.3	−9
	1753	2.4	73
15 Th	0016	−0.4	−12
	0612	1.8	55
	1202	−0.3	−9
	1826	2.4	73

	Time	Height	
	h m	ft	cm
16 F	0052	−0.4	−12
	0648	1.7	52
	1235	−0.3	−9
	1902	2.3	70
17 Sa	0131	−0.3	−9
	0727	1.6	49
	1311	−0.2	−6
	1942	2.2	67
18 Su	0214	−0.2	−6
	0812	1.4	43
	1352	−0.1	−3
	2028	2.1	64
19 M	0306	−0.1	−3
	0909	1.3	40
	1443	0.1	3
	2124	1.9	58
20 Tu	0410	0.0	0
	1021	1.3	40
	1553	0.3	9
	2233	1.8	55
21 W ◐	0528	0.0	0
	1148	1.3	40
	1731	0.4	12
	2353	1.7	52
22 Th	0647	0.0	0
	1310	1.5	46
	1912	0.3	9
23 F	0112	1.7	52
	0750	−0.1	−3
	1416	1.8	55
	2027	0.2	6
24 Sa	0220	1.7	52
	0842	−0.2	−6
	1508	2.1	64
	2125	0.0	0
25 Su	0318	1.8	55
	0926	−0.3	−9
	1553	2.3	70
	2215	−0.2	−6
26 M	0408	1.8	55
	1007	−0.4	−12
	1634	2.5	76
	2259	−0.4	−12
27 Tu	0453	1.8	55
	1046	−0.4	−12
	1712	2.6	79
	2340	−0.5	−15
28 W ○	0535	1.8	55
	1123	−0.3	−9
	1749	2.6	79
29 Th	0019	−0.5	−15
	0616	1.7	52
	1159	−0.3	−9
	1825	2.5	76
30 F	0057	−0.4	−12
	0655	1.6	49
	1234	−0.2	−6
	1902	2.3	70

May

	Time	Height	
	h m	ft	cm
1 Sa	0135	−0.3	−9
	0735	1.5	46
	1310	0.0	0
	1939	2.1	64
2 Su	0214	−0.2	−6
	0817	1.4	43
	1347	0.1	3
	2019	1.9	58
3 M	0257	0.0	0
	0905	1.3	40
	1430	0.3	9
	2104	1.8	55
4 Tu	0347	0.1	3
	1003	1.2	37
	1525	0.5	15
	2159	1.6	49
5 W ◑	0449	0.2	6
	1113	1.2	37
	1645	0.6	18
	2304	1.5	46
6 Th	0558	0.3	9
	1227	1.3	40
	1825	0.6	18
7 F	0017	1.4	43
	0700	0.2	6
	1331	1.5	46
	1945	0.5	15
8 Sa	0125	1.4	43
	0751	0.2	6
	1421	1.7	52
	2042	0.3	9
9 Su	0222	1.5	46
	0834	0.1	3
	1502	1.9	58
	2128	0.2	6
10 M	0311	1.5	46
	0912	0.0	0
	1540	2.1	64
	2209	0.0	0
11 Tu	0355	1.6	49
	0949	−0.1	−3
	1616	2.3	70
	2247	−0.2	−6
12 W	0436	1.6	49
	1025	−0.2	−6
	1652	2.4	73
	2324	−0.3	−9
13 Th ●	0517	1.6	49
	1102	−0.2	−6
	1729	2.5	76
14 F	0003	−0.4	−12
	0557	1.6	49
	1140	−0.2	−6
	1808	2.5	76
15 Sa	0042	−0.4	−12
	0639	1.6	49
	1220	−0.2	−6
	1849	2.4	73

	Time	Height	
	h m	ft	cm
16 Su	0124	−0.4	−12
	0725	1.6	49
	1302	−0.1	−3
	1933	2.3	70
17 M	0210	−0.3	−9
	0816	1.5	46
	1350	0.0	0
	2021	2.2	67
18 Tu	0300	−0.3	−9
	0914	1.5	46
	1447	0.2	6
	2114	2.0	61
19 W	0356	−0.2	−6
	1020	1.5	46
	1557	0.3	9
	2215	1.9	58
20 Th ◐	0458	−0.1	−3
	1131	1.6	49
	1725	0.4	12
	2324	1.7	52
21 F	0603	−0.1	−3
	1241	1.8	55
	1856	0.4	12
22 Sa	0037	1.6	49
	0704	−0.1	−3
	1343	2.0	61
	2011	0.2	6
23 Su	0148	1.5	46
	0759	−0.1	−3
	1437	2.2	67
	2111	0.1	3
24 M	0252	1.5	46
	0849	−0.1	−3
	1525	2.4	73
	2202	−0.1	−3
25 Tu	0347	1.5	46
	0935	−0.1	−3
	1608	2.4	73
	2246	−0.2	−6
26 W	0436	1.6	49
	1018	−0.1	−3
	1649	2.5	76
	2326	−0.3	−9
27 Th ○	0521	1.6	49
	1058	−0.1	−3
	1727	2.5	76
28 F	0004	−0.4	−12
	0602	1.5	46
	1137	−0.1	−3
	1805	2.4	73
29 Sa	0041	−0.3	−9
	0642	1.5	46
	1215	0.0	0
	1842	2.3	70
30 Su	0118	−0.3	−9
	0721	1.5	46
	1253	0.1	3
	1919	2.2	67
31 M	0155	−0.2	−6
	0802	1.5	46
	1331	0.2	6
	1957	2.0	61

June

	Time	Height	
	h m	ft	cm
1 Tu	0233	−0.1	−3
	0846	1.5	46
	1414	0.3	9
	2037	1.9	58
2 W	0313	0.0	0
	0934	1.5	46
	1503	0.5	15
	2120	1.8	55
3 Th	0356	0.1	3
	1028	1.5	46
	1604	0.6	18
	2210	1.6	49
4 F ◑	0445	0.2	6
	1126	1.6	49
	1722	0.6	18
	2308	1.5	46
5 Sa	0539	0.2	6
	1225	1.7	52
	1847	0.6	18
6 Su	0014	1.4	43
	0635	0.2	6
	1321	1.8	55
	1958	0.5	15
7 M	0122	1.3	40
	0730	0.2	6
	1413	2.0	61
	2055	0.3	9
8 Tu	0225	1.3	40
	0821	0.1	3
	1500	2.2	67
	2143	0.1	3
9 W	0322	1.4	43
	0910	0.0	0
	1545	2.3	70
	2227	−0.1	−3
10 Th	0413	1.5	46
	0956	−0.1	−3
	1628	2.4	73
	2309	−0.3	−9
11 F	0500	1.6	49
	1041	−0.1	−3
	1712	2.5	76
	2350	−0.4	−12
12 Sa ●	0547	1.6	49
	1126	−0.2	−6
	1755	2.6	79
13 Su	0032	−0.5	−15
	0633	1.7	52
	1211	−0.2	−6
	1839	2.6	79
14 M	0115	−0.5	−15
	0721	1.7	52
	1258	−0.1	−3
	1924	2.5	76
15 Tu	0159	−0.4	−12
	0811	1.8	55
	1349	0.0	0
	2010	2.3	70

	Time	Height	
	h m	ft	cm
16 W	0244	−0.4	−12
	0904	1.8	55
	1445	0.2	6
	2059	2.1	64
17 Th	0331	−0.3	−9
	1001	1.9	58
	1550	0.4	12
	2152	1.9	58
18 F ◐	0422	−0.1	−3
	1102	1.9	58
	1707	0.5	15
	2252	1.7	52
19 Sa	0517	0.0	0
	1205	2.0	61
	1833	0.5	15
20 Su	0002	1.5	46
	0617	0.1	3
	1308	2.1	64
	1953	0.4	12
21 M	0117	1.4	43
	0719	0.1	3
	1407	2.2	67
	2058	0.2	6
22 Tu	0231	1.3	40
	0818	0.2	6
	1501	2.3	70
	2151	0.1	3
23 W	0334	1.4	43
	0912	0.1	3
	1549	2.3	70
	2235	−0.1	−3
24 Th	0426	1.4	43
	1000	0.1	3
	1632	2.4	73
	2314	−0.2	−6
25 F	0510	1.5	46
	1043	0.1	3
	1712	2.4	73
	2351	−0.2	−6
26 Sa ○	0550	1.6	49
	1123	0.1	3
	1749	2.4	73
27 Su	0025	−0.2	−6
	0627	1.6	49
	1201	0.1	3
	1825	2.3	70
28 M	0058	−0.2	−6
	0703	1.7	52
	1238	0.1	3
	1859	2.3	70
29 Tu	0130	−0.2	−6
	0740	1.7	52
	1314	0.2	6
	1933	2.2	67
30 W	0202	−0.1	−3
	0817	1.7	52
	1353	0.3	9
	2007	2.1	64

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Johnston Island, 2010

Times and Heights of High and Low Waters

July

	Time	Height	
	h m	ft	cm
1 Th	0234	0.0	0
	0856	1.8	55
	1435	0.4	12
	2042	1.9	58
2 F	0307	0.0	0
	0939	1.8	55
	1524	0.5	15
	2122	1.7	52
3 Sa	0344	0.1	3
	1027	1.8	55
	1625	0.6	18
	2210	1.6	49
4 Su ◑	0428	0.2	6
	1122	1.9	58
	1743	0.7	21
	2310	1.4	43
5 M	0522	0.3	9
	1223	1.9	58
	1909	0.6	18
6 Tu	0025	1.3	40
	0628	0.3	9
	1326	2.0	61
	2022	0.4	12
7 W	0145	1.3	40
	0738	0.3	9
	1426	2.2	67
	2120	0.2	6
8 Th	0256	1.3	40
	0841	0.2	6
	1521	2.3	70
	2209	0.0	0
9 F	0355	1.5	46
	0937	0.0	0
	1611	2.5	76
	2254	−0.2	−6
10 Sa	0447	1.6	49
	1029	−0.1	−3
	1658	2.6	79
	2336	−0.4	−12
11 Su ●	0535	1.8	55
	1117	−0.1	−3
	1743	2.7	82
12 M	0016	−0.5	−15
	0621	2.0	61
	1204	−0.2	−6
	1826	2.7	82
13 Tu	0056	−0.5	−15
	0707	2.1	64
	1252	−0.1	−3
	1909	2.6	79
14 W	0136	−0.5	−15
	0753	2.2	67
	1341	0.0	0
	1952	2.5	76
15 Th	0216	−0.4	−12
	0841	2.2	67
	1433	0.2	6
	2037	2.2	67

	Time	Height	
	h m	ft	cm
16 F	0257	−0.2	−6
	0931	2.2	67
	1532	0.3	9
	2125	1.9	58
17 Sa	0341	−0.1	−3
	1025	2.2	67
	1641	0.5	15
	2220	1.6	49
18 Su ◐	0431	0.1	3
	1125	2.1	64
	1805	0.6	18
	2329	1.4	43
19 M	0531	0.3	9
	1232	2.1	64
	1934	0.5	15
20 Tu	0054	1.3	40
	0645	0.4	12
	1341	2.1	64
	2047	0.4	12
21 W	0221	1.3	40
	0800	0.4	12
	1444	2.1	64
	2141	0.2	6
22 Th	0329	1.4	43
	0902	0.4	12
	1537	2.2	67
	2223	0.1	3
23 F	0418	1.5	46
	0952	0.3	9
	1620	2.3	70
	2259	0.0	0
24 Sa	0458	1.6	49
	1034	0.2	6
	1658	2.4	73
	2332	−0.1	−3
25 Su ○	0533	1.7	52
	1112	0.1	3
	1733	2.4	73
26 M	0002	−0.2	−6
	0606	1.8	55
	1147	0.1	3
	1805	2.4	73
27 Tu	0030	−0.2	−6
	0638	1.9	58
	1221	0.1	3
	1835	2.4	73
28 W	0058	−0.1	−3
	0709	2.0	61
	1255	0.2	6
	1905	2.3	70
29 Th	0125	−0.1	−3
	0741	2.1	64
	1329	0.3	9
	1935	2.2	67
30 F	0152	0.0	0
	0814	2.1	64
	1406	0.4	12
	2006	2.0	61
31 Sa	0221	0.1	3
	0851	2.1	64
	1448	0.5	15
	2041	1.8	55

August

	Time	Height	
	h m	ft	cm
1 Su	0253	0.2	6
	0933	2.0	61
	1538	0.6	18
	2123	1.6	49
2 M ◑	0331	0.3	9
	1025	2.0	61
	1646	0.7	21
	2221	1.4	43
3 Tu	0423	0.4	12
	1130	2.0	61
	1821	0.7	21
	2342	1.3	40
4 W	0538	0.5	15
	1247	2.0	61
	1954	0.5	15
5 Th	0119	1.3	40
	0709	0.4	12
	1401	2.2	67
	2100	0.3	9
6 F	0241	1.4	43
	0826	0.3	9
	1503	2.4	73
	2150	0.0	0
7 Sa	0342	1.6	49
	0927	0.1	3
	1556	2.6	79
	2233	−0.2	−6
8 Su	0433	1.9	58
	1020	0.0	0
	1643	2.7	82
	2314	−0.4	−12
9 M ●	0518	2.1	64
	1108	−0.1	−3
	1726	2.8	85
	2352	−0.5	−15
10 Tu	0602	2.4	73
	1155	−0.2	−6
	1808	2.8	85
11 W	0029	−0.5	−15
	0644	2.5	76
	1241	−0.1	−3
	1850	2.7	82
12 Th	0106	−0.4	−12
	0726	2.6	79
	1327	0.0	0
	1931	2.4	73
13 F	0143	−0.3	−9
	0809	2.5	76
	1415	0.1	3
	2013	2.2	67
14 Sa	0220	−0.1	−3
	0855	2.4	73
	1507	0.3	9
	2058	1.9	58
15 Su	0300	0.1	3
	0944	2.3	70
	1608	0.5	15
	2150	1.6	49

	Time	Height	
	h m	ft	cm
16 M ◐	0346	0.3	9
	1042	2.1	64
	1731	0.6	18
	2300	1.4	43
17 Tu	0448	0.5	15
	1155	2.0	61
	1912	0.6	18
18 W	0039	1.2	37
	0622	0.7	21
	1318	1.9	58
	2032	0.5	15
19 Th	0217	1.3	40
	0754	0.6	18
	1430	2.0	61
	2125	0.4	12
20 F	0321	1.5	46
	0857	0.5	15
	1524	2.1	64
	2203	0.2	6
21 Sa	0404	1.6	49
	0944	0.4	12
	1605	2.3	70
	2235	0.1	3
22 Su	0438	1.8	55
	1023	0.3	9
	1639	2.4	73
	2304	0.0	0
23 M	0509	2.0	61
	1057	0.2	6
	1711	2.4	73
	2330	−0.1	−3
24 Tu ○	0538	2.1	64
	1130	0.1	3
	1740	2.4	73
	2356	−0.1	−3
25 W	0606	2.3	70
	1202	0.1	3
	1809	2.4	73
26 Th	0021	−0.1	−3
	0635	2.3	70
	1234	0.1	3
	1837	2.3	70
27 F	0047	0.0	0
	0704	2.4	73
	1306	0.2	6
	1906	2.2	67
28 Sa	0112	0.0	0
	0734	2.4	73
	1339	0.3	9
	1936	2.0	61
29 Su	0139	0.1	3
	0807	2.3	70
	1417	0.4	12
	2009	1.9	58
30 M	0210	0.2	6
	0847	2.2	67
	1503	0.5	15
	2051	1.7	52
31 Tu	0248	0.3	9
	0938	2.1	64
	1606	0.6	18
	2150	1.5	46

September

	Time	Height	
	h m	ft	cm
1 W ◑	0341	0.5	15
	1048	2.0	61
	1743	0.7	21
	2321	1.3	40
2 Th	0507	0.6	18
	1216	2.0	61
	1927	0.6	18
3 F	0108	1.4	43
	0656	0.6	18
	1339	2.1	64
	2035	0.3	9
4 Sa	0229	1.6	49
	0819	0.4	12
	1444	2.3	70
	2125	0.1	3
5 Su	0326	1.9	58
	0919	0.2	6
	1537	2.5	76
	2206	−0.1	−3
6 M	0414	2.2	67
	1011	0.0	0
	1623	2.7	82
	2245	−0.3	−9
7 Tu	0456	2.5	76
	1057	−0.1	−3
	1707	2.7	82
	2322	−0.4	−12
8 W ●	0537	2.7	82
	1142	−0.2	−6
	1748	2.7	82
	2358	−0.4	−12
9 Th	0617	2.8	85
	1226	−0.2	−6
	1828	2.6	79
10 F	0033	−0.3	−9
	0656	2.8	85
	1309	−0.1	−3
	1909	2.3	70
11 Sa	0109	−0.2	−6
	0736	2.7	82
	1353	0.1	3
	1950	2.1	64
12 Su	0144	0.0	0
	0817	2.6	79
	1440	0.3	9
	2033	1.8	55
13 M	0222	0.3	9
	0903	2.3	70
	1534	0.5	15
	2125	1.6	49
14 Tu ◐	0306	0.5	15
	0959	2.1	64
	1650	0.6	18
	2237	1.4	43
15 W	0409	0.7	21
	1114	1.9	58
	1836	0.7	21

	Time	Height	
	h m	ft	cm
16 Th	0023	1.3	40
	0602	0.8	24
	1247	1.8	55
	2001	0.6	18
17 F	0202	1.4	43
	0744	0.8	24
	1405	1.9	58
	2053	0.5	15
18 Sa	0259	1.6	49
	0845	0.6	18
	1459	2.0	61
	2129	0.3	9
19 Su	0337	1.8	55
	0929	0.5	15
	1539	2.2	67
	2200	0.2	6
20 M	0409	2.1	64
	1006	0.3	9
	1613	2.3	70
	2227	0.1	3
21 Tu	0438	2.3	70
	1039	0.2	6
	1644	2.3	70
	2253	0.0	0
22 W ○	0506	2.4	73
	1111	0.1	3
	1713	2.4	73
	2319	0.0	0
23 Th	0533	2.5	76
	1142	0.1	3
	1743	2.3	70
	2345	0.0	0
24 F	0601	2.6	79
	1213	0.1	3
	1812	2.2	67
25 Sa	0011	0.0	0
	0630	2.6	79
	1245	0.1	3
	1841	2.1	64
26 Su	0038	0.1	3
	0700	2.5	76
	1318	0.2	6
	1913	2.0	61
27 M	0107	0.2	6
	0734	2.4	73
	1356	0.3	9
	1950	1.8	55
28 Tu	0140	0.3	9
	0815	2.3	70
	1442	0.4	12
	2036	1.6	49
29 W	0222	0.4	12
	0908	2.2	67
	1544	0.5	15
	2141	1.5	46
30 Th ◑	0320	0.6	18
	1019	2.0	61
	1715	0.6	18
	2317	1.4	43

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Johnston Island, 2010

Times and Heights of High and Low Waters

October

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 F	0455	0.7	21	**16** Sa	0118	1.6	49
	1148	2.0	61		0714	0.9	27
	1853	0.5	15		1315	1.8	55
					2000	0.6	18
2 Sa	0057	1.6	49	**17** Su	0217	1.8	55
	0649	0.7	21		0819	0.7	21
	1313	2.1	64		1416	1.9	58
	2001	0.3	9		2041	0.4	12
3 Su	0211	1.9	58	**18** M	0258	2.0	61
	0810	0.5	15		0906	0.6	18
	1420	2.3	70		1501	2.0	61
	2051	0.1	3		2115	0.3	9
4 M	0305	2.2	67	**19** Tu	0332	2.2	67
	0910	0.3	9		0944	0.4	12
	1514	2.4	73		1540	2.1	64
	2134	−0.1	−3		2145	0.2	6
5 Tu	0350	2.5	76	**20** W	0403	2.4	73
	1000	0.0	0		1019	0.2	6
	1602	2.5	76		1614	2.1	64
	2213	−0.2	−6		2214	0.2	6
6 W	0432	2.8	85	**21** Th	0433	2.6	79
	1046	−0.1	−3		1052	0.1	3
	1646	2.5	76		1647	2.1	64
	2250	−0.3	−9		2243	0.1	3
7 Th ●	0511	3.0	91	**22** F ○	0502	2.7	82
	1129	−0.2	−6		1124	0.0	0
	1728	2.5	76		1719	2.1	64
	2327	−0.2	−6		2312	0.1	3
8 F	0549	3.0	91	**23** Sa	0532	2.7	82
	1210	−0.2	−6		1156	0.0	0
	1809	2.3	70		1752	2.1	64
					2342	0.1	3
9 Sa	0003	−0.2	−6	**24** Su	0604	2.7	82
	0627	2.9	88		1230	0.0	0
	1251	−0.1	−3		1825	2.0	61
	1850	2.2	67				
10 Su	0039	0.0	0	**25** M	0013	0.1	3
	0706	2.8	85		0638	2.6	79
	1332	0.0	0		1306	0.0	0
	1931	2.0	61		1902	1.9	58
11 M	0115	0.2	6	**26** Tu	0047	0.2	6
	0745	2.6	79		0715	2.5	76
	1415	0.2	6		1346	0.1	3
	2014	1.8	55		1944	1.8	55
12 Tu	0153	0.4	12	**27** W	0125	0.3	9
	0828	2.3	70		0758	2.4	73
	1504	0.4	12		1434	0.3	9
	2106	1.6	49		2036	1.7	52
13 W	0236	0.6	18	**28** Th	0212	0.5	15
	0920	2.1	64		0851	2.3	70
	1607	0.6	18		1533	0.4	12
	2214	1.4	43		2144	1.6	49
14 Th ◐	0337	0.8	24	**29** F	0316	0.6	18
	1028	1.9	58		0957	2.1	64
	1736	0.7	21		1648	0.4	12
	2348	1.4	43		2310	1.6	49
15 F	0525	0.9	27	**30** Sa ◑	0450	0.8	24
	1154	1.8	55		1117	2.0	61
	1902	0.6	18		1809	0.4	12
				31 Su	0035	1.8	55
					0636	0.7	21
					1238	2.0	61
					1917	0.3	9

November

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 M	0143	2.1	64	**16** Tu	0207	2.0	61
	0757	0.5	15		0833	0.7	21
	1350	2.1	64		1412	1.7	52
	2012	0.2	6		2019	0.4	12
2 Tu	0238	2.4	73	**17** W	0248	2.2	67
	0858	0.3	9		0918	0.5	15
	1450	2.1	64		1501	1.8	55
	2059	0.0	0		2059	0.3	9
3 W	0325	2.7	82	**18** Th	0326	2.4	73
	0949	0.1	3		0957	0.3	9
	1542	2.2	67		1544	1.8	55
	2141	0.0	0		2135	0.3	9
4 Th	0407	2.9	88	**19** F	0401	2.5	76
	1034	−0.1	−3		1033	0.1	3
	1629	2.2	67		1623	1.9	58
	2222	−0.1	−3		2211	0.2	6
5 F ●	0447	3.0	91	**20** Sa	0436	2.6	79
	1117	−0.2	−6		1108	0.0	0
	1713	2.2	67		1701	1.9	58
	2301	−0.1	−3		2246	0.1	3
6 Sa	0526	3.0	91	**21** Su ○	0511	2.7	82
	1157	−0.2	−6		1144	−0.1	−3
	1755	2.1	64		1739	1.9	58
	2339	0.0	0		2322	0.1	3
7 Su	0604	2.9	88	**22** M	0547	2.7	82
	1236	−0.2	−6		1220	−0.1	−3
	1836	2.0	61		1818	1.9	58
					2359	0.1	3
8 M	0016	0.1	3	**23** Tu	0625	2.7	82
	0643	2.7	82		1259	−0.1	−3
	1315	−0.1	−3		1859	1.9	58
	1917	1.9	58				
9 Tu	0054	0.2	6	**24** W	0039	0.1	3
	0721	2.5	76		0706	2.6	79
	1355	0.1	3		1341	−0.1	−3
	2000	1.8	55		1945	1.8	55
10 W	0133	0.4	12	**25** Th	0123	0.3	9
	0802	2.3	70		0750	2.5	76
	1438	0.2	6		1426	0.0	0
	2048	1.6	49		2038	1.8	55
11 Th	0216	0.6	18	**26** F	0213	0.4	12
	0847	2.1	64		0839	2.3	70
	1527	0.4	12		1517	0.1	3
	2145	1.6	49		2139	1.8	55
12 F	0310	0.8	24	**27** Sa	0316	0.6	18
	0940	1.9	58		0936	2.2	67
	1627	0.5	15		1615	0.2	6
	2255	1.6	49		2248	1.9	58
13 Sa ◐	0429	0.9	27	**28** Su ◑	0438	0.7	21
	1046	1.8	55		1043	2.0	61
	1736	0.6	18		1719	0.2	6
14 Su	0010	1.7	52	**29** M	0001	2.0	61
	0613	0.9	27		0614	0.7	21
	1200	1.7	52		1159	1.8	55
	1842	0.6	18		1826	0.3	9
15 M	0116	1.8	55	**30** Tu	0108	2.2	67
	0735	0.8	24		0740	0.6	18
	1312	1.7	52		1316	1.8	55
	1935	0.5	15		1928	0.2	6

December

	Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm
1 W	0208	2.4	73	**16** Th	0157	2.1	64
	0846	0.3	9		0847	0.5	15
	1426	1.7	52		1416	1.4	43
	2024	0.2	6		2008	0.4	12
2 Th	0300	2.6	79	**17** F	0247	2.2	67
	0940	0.1	3		0935	0.3	9
	1526	1.8	55		1515	1.5	46
	2114	0.1	3		2059	0.3	9
3 F	0346	2.7	82	**18** Sa	0333	2.4	73
	1026	0.0	0		1017	0.1	3
	1618	1.8	55		1604	1.6	49
	2200	0.1	3		2146	0.2	6
4 Sa	0429	2.8	85	**19** Su	0415	2.5	76
	1108	−0.2	−6		1056	−0.1	−3
	1704	1.9	58		1648	1.7	52
	2243	0.1	3		2229	0.1	3
5 Su ●	0510	2.8	85	**20** M ○	0456	2.6	79
	1147	−0.2	−6		1134	−0.2	−6
	1746	1.9	58		1731	1.8	55
	2324	0.1	3		2311	0.0	0
6 M	0549	2.7	82	**21** Tu	0537	2.7	82
	1224	−0.2	−6		1212	−0.3	−9
	1826	1.9	58		1813	1.9	58
					2353	0.0	0
7 Tu	0003	0.1	3	**22** W	0617	2.7	82
	0627	2.6	79		1250	−0.3	−9
	1301	−0.2	−6		1855	2.0	61
	1905	1.8	55				
8 W	0040	0.2	6	**23** Th	0036	0.0	0
	0704	2.5	76		0658	2.7	82
	1336	−0.1	−3		1330	−0.3	−9
	1945	1.8	55		1940	2.0	61
9 Th	0119	0.3	9	**24** F	0122	0.1	3
	0740	2.3	70		0741	2.6	79
	1412	0.1	3		1410	−0.3	−9
	2026	1.8	55		2028	2.1	64
10 F	0159	0.5	15	**25** Sa	0212	0.2	6
	0818	2.2	67		0825	2.4	73
	1449	0.2	6		1453	−0.2	−6
	2110	1.8	55		2120	2.1	64
11 Sa	0244	0.6	18	**26** Su	0309	0.4	12
	0858	2.0	61		0914	2.1	64
	1529	0.3	9		1539	0.0	0
	2200	1.8	55		2217	2.1	64
12 Su	0340	0.8	24	**27** M ◑	0419	0.5	15
	0944	1.8	55		1010	1.8	55
	1614	0.4	12		1631	0.1	3
	2257	1.8	55		2320	2.1	64
13 M ◐	0454	0.9	27	**28** Tu	0545	0.6	18
	1041	1.6	49		1118	1.6	49
	1707	0.5	15		1732	0.2	6
	2359	1.9	58				
14 Tu	0626	0.8	24	**29** W	0028	2.2	67
	1150	1.5	46		0717	0.5	15
	1808	0.5	15		1241	1.4	43
					1843	0.3	9
15 W	0101	2.0	61	**30** Th	0136	2.3	70
	0747	0.7	21		0834	0.4	12
	1306	1.4	43		1407	1.4	43
	1911	0.5	15		1954	0.3	9
				31 F	0238	2.3	70
					0933	0.2	6
					1519	1.5	46
					2056	0.3	9

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

EXTRA TIDES, 2010

Punta Arenas, Chile

January

2	2000	0.9	29
3	2053	0.9	30
14	1839	1.1	37
30	1907	1.2	39
31	2005	1.1	36

February

1	2054	1.1	37
10	2335	5.9	192
12	1829	1.6	53
28	1906	1.5	48

March

10	2158	5.4	176
11	2306	5.5	180
12	1525	2.8	91
	1722	2.4	80
	2358	5.6	185

April

18	2205	3.0	99

May

17	2208	3.1	103
28	2339	4.0	130

June

14	2347	4.3	141
16	2239	2.6	86
17	2319	2.3	75
24	2315	3.7	122
26	2331	3.5	116

July

13	1430	7.0	231
	2059	2.8	91
	2330	4.1	136
15	2215	2.0	66
24	2355	3.3	108

August

10	2345	3.8	124
21	2249	3.2	104
22	2045	3.2	105
	2147	3.2	104
	2353	3.5	116

September

19	2247	3.6	118
28	2113	0.7	23

October

26	2025	0.9	28

November

24	2008	0.9	29

December

5	1833	0.8	26
6	1914	0.6	20
22	1923	1.0	34
23	2013	1.0	32
24	2059	1.0	32
25	2141	1.1	37

TABLE 2. - TIDAL DIFFERENCES AND OTHER CONSTANTS

EXPLANATION OF TABLE

The publication of full daily predictions is necessarily limited to a comparatively small number of stations. Tide predictions for many other places, however, can be obtained by applying certain differences to the predictions for the reference stations in table 1. The following pages list the places called “subordinate stations” for which such predictions can be made, and the differences or ratios to be used. These differences or ratios are to be applied to the predictions for the proper reference station which is listed in table 2 in boldface type above the differences for the subordinate station. The stations in this table are arranged in geographical order. The index to stations at the end of this volume will assist in locating a particular station.

Caution.— The time and height differences listed in Table 2 are average difference derived from comparisons of simultaneous tide observations at the subordinate location and its reference station. Because these figures are constant, they may not always provide for the daily variations of the actual tide, especially if the subordinate station is some distance from the reference station. Therefore, although the application of the time and height differences will generally provide reasonable accurate approximations, they cannot result in predictions as accurate as those listed for the reference stations which are based upon much larger periods of analyses and which do provide for daily variations.

Time differences.—To determine the time of high water or low water at any station listed in this table there is given in the columns headed “Differences, Time” the hours and minutes to be added to or subtracted from the time of high or low water at some reference station. A plus (+) sign indicates that the tide at the subordinate station is later than at the reference station and the difference should be added; a minus (–) sign indicates that it is earlier and should be subtracted.

To obtain the tide at a subordinate station on any date, apply the difference to the tide at the reference station for that same date. In some cases, however, to obtain an a.m. tide it may be necessary to use the preceding day’s p.m. tide at the reference station (or to obtain a p.m. tide it may be necessary to use the following day’s a.m. tide). For example, if a high water at a reference station occurs at 0200 on July 17, and the tide at the subordinate station occurs 5 hour earlier, the high water at the subordinate station will occur at 2100 on July 16. For the second case, if a high water occurs at a reference station at 2200 on July 2, and the tide at the subordinate station occurs 3 hours later, then high water will occur at 0100 on July 3 at the subordinate station. The necessary allowance for change in date when the international date line is crossed is included in the time difference. In such cases use the same date at the reference station as desired for the subordinate station as explained above.

The results obtained by the application of the time differences will be in the kind of time indicated by the time meridian shown above the name of the subordinate station. Differences in time meridians between a subordinate station and its reference station have been accounted for and no further adjustment by the reader is necessary. Summer or daylight-saving time is not used in the tide tables.

Height differences.—The height of the tide, referred to the datum of charts, is obtained by means of the height differences or ratios. A plus (+) sign indicates that the difference should be added to the height at the reference station, and a minus (–) sign indicates that it should be subtracted. All height differences, ranges, and levels in Table 2 are in feet but may be converted to centimeters by the use of table 7.

Ratio. — For some stations, use of predicted height difference would give unsatisfactory predictions. In such cases they have been omitted and one or two ratios are given (*). Where two ratios are given, one in the “height of high water” column and one in the “height of low water” column, the high

waters and low waters at the reference station should be multiplied by these respective ratios. Where only one is given, the omitted ratio is either unreliable or unknown.

For some subordinate stations there is given in parentheses a ratio as well as a correction in feet. In those instances, each predicted high and low water at the reference station should first be multiplied by the ratio and then the correction in feet is added to or subtracted from each product as indicated.

As an example, at Treadwell Bay, British Columbia, the values in the time and height difference columns in Table 2 are given as +0 34, +0 46, and (*0.48 + 2.8) as referred to the reference station at Ketchikan, Alaska. If we assume that the tide predictions in column (1) below are those of Ketchikan on a particular day, application of the time and height correction in columns (2) and (3) would result in the tide predictions for Treadwell Bay in column (4).

(1)		(2)	(3)	(4)		
Time h.m.	*Height* ft.	*Time* Corrections	*Height* Corrections	*Time* h.m.	ft.	*Height* centimeters
0313	3.8	+0 46	x0.48 + 2.8	0359	4.6	140
0921	15.2	+0 34	x0.48 + 2.8	0955	10.1	308
1601	-0.4	+0 46	x0.48 + 2.8	1647	2.6	79
2230	14.1	+0 34	x0.48 + 2.8	2304	9.6	293

Range. —The *mean range* is the difference in height between mean high water (MHW) and mean low water (MLW). The *spring range* is the average semidiurnal range occurring semimonthly as a result of the Moon being new or full. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of not practical significance where the type of tide is diurnal. Where the tide is chiefly of the diurnal type the table gives the *diurnal range*, which is the difference in height between mean higher high water and mean lower low water.

Datum. — The datum of the predictions obtained through the height differences or ratios is also the datum of the largest scale chart for the locality. To obtain the depth at the time of high or low water, the predicted height should be added to the depth on the chart unless such height is negative (–), when it should be subtracted. To find the height at times between high and low water see table 3. On some charts the depths are given in meters or centimeters and in such cases the heights of the tide can be converted to other units by the use of table 7. Chart datums for the portion of the world covered by these tables are approximately as follows: *Mean lower low water* for the Pacific coast of the United States, Alaska, and the Hawaiian Islands, *mean low water springs* for Central American and Mexico. For the rest of the area covered by these tables the datums generally used are approximately *mean low water springs, Indian spring low water,* or the *lowest possible low water.*

Mean Tide Level (Half-Tide Level). — The mean tide level is a plane midway between mean low water and mean high water. Tabular values are reckoned from chart depth.

Observations Supporting Predictions.– All tidal predictions made by the National Ocean Service are based upon observations taken at the location in question. For most reference stations these observations often are of a continuing nature. As such, they are used to quality control the predictions and to update the harmonic constants used in generating annual predictions. For subordinate stations, the age and duration of their observations vary from a few days of observation taken decades ago to the most recent survey data.

The precision with which the position, ranges and mean tide level are reported in Table 2 is an indication of the age and analytical history of the supporting observation. Stations whose position is reported to the nearest tenth minute of latitude and longitude and whose ranges and mean tide level are reported to the nearest hundredth foot are supported by the most recent observations, analyzed with

TABLE 2. - TIDAL DIFFERENCES AND OTHER CONSTANTS

regard to current chart datums and the 1960-1978 National Tidal Datum Epoch. Stations whose position is reported to the nearest tenth minute but whose ranges and mean tide level are reported to the nearest tenth foot are typically supported by observations taken in the 1960's and 1970's with analysis based upon the 1941-1959 National Tidal Datum Epoch. Finally, stations whose positions is reported to the nearest minute and whose ranges and mean tide level are reported to the nearest tenth foot indicated either older supporting observations or simply data not yet reviewed and entered into the Tables with full published precision. NOS is in the continuous process of updating the Tables with all available data.

Old observations are not in and of themselves an indication of poor present predictions. Certain coastal areas do not undergo much human or natural modification while other coastal areas are subject to nearly constant modification by both agents. Local knowledge of conditions is still very important to the wise use of these astronomical predictions.

NOTE. — Dashes are entered in the place of data which are unknown, unreliable, or not applicable.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Spring	Mean Tide Level
		South	**West**	h m	h m	ft	ft	ft	ft	ft
	ARGENTINA, Tierra del Fuego <1> Time meridian, 60° W				**on Cabo de Hornos, p.4**					
1	Bahia Buen Suceso	54° 49'	65° 13'	+0 55	+0 54	+0.9	+0.3	4.8	5.8	5.0
3	Bahia Aguirre	54° 55'	65° 58'	+0 28	+0 28	–0.9	–0.4	3.7	4.5	3.7
5	Bahia Ushuaia, Beagle Channel	54° 49'	68° 13'	+0 08	+0 02	–0.9	–0.6	3.9	4.4	3.6
	CHILE, Magellan Strait				**on Puerto Montt, p.12**					
7	Dungeness	52° 24'	68° 26'	–5 05	–5 05	*1.56	*0.94	23.8	29.8	16.8
9	Punta Catalina	52° 32'	68° 46'	–4 58	–4 58	*1.53	*1.04	22.8	28.5	16.8
11	Bahia Posesion	52° 16'	69° 10'	–4 31	–4 33	*1.83	*1.19	27.5	33.4	19.9
13	Banco Direccion	52° 24'	69° 26'	–4 21	–4 21	*1.90	*1.35	28.0	34.0	21.0
15	Bahia Santiago	52° 31'	69° 52'	–3 49	–3 45	–0.8	–1.6	14.0	17.8	10.6
17	Bahia Felipe	52° 57'	69° 47'	–3 48	–3 44	–2.9	–1.7	12.0	15.1	9.5
19	Segunda Angostura	52° 45'	70° 18'	–3 11	–3 03	+2.4	–0.4	16.0	20.3	12.8
					on Punta Arenas, p.8					
21	Puerto Zenteno	52° 47'	70° 46'	–1 45	–1 45	+0.7	0.0	4.5	5.8	4.4
23	Bahia Gente Grande	53° 03'	70° 16'	–0 04	–0 22	+2.3	–0.2	6.3	7.4	5.0
25	PUNTA ARENAS	53° 09'	70° 54'		*Daily predictions*			3.8	4.9	4.0
27	Puerto del Hambre	53° 38'	70° 55'	+0 15	+0 10	0.0	0.0	3.6	4.7	3.9
29	Puerto San Antonio	53° 54'	70° 54'	+0 15	+0 15	+0.5	+0.5	3.8	5.0	4.5
31	Bahia Snug	53° 51'	71° 25'	+1 25	+1 25	+1.4	+0.9	4.3	5.6	5.2
33	Bahia Wood	53° 49'	71° 38'	+1 20	+1 20	+1.4	+0.9	4.3	5.6	5.2
35	Puerto Gallant	53° 42'	72° 00'	+1 20	+1 20	+1.4	+0.9	4.3	5.6	5.2
					on Cabo de Hornos, p.4					
37	Bahia Borja	53° 32'	72° 30'	–2 00	–2 00	–1.8	–2.1	4.5	5.0	2.4
39	Bahia Swallow	53° 30'	72° 47'	–1 55	–1 55	–1.8	–2.1	4.5	5.0	2.4
41	Caleta Playa Parda	53° 19'	73° 01'	–2 05	–2 05	–2.8	–2.1	3.5	4.0	1.9
43	Puerto Angosto	53° 14'	73° 22'	–2 30	–2 30	–2.7	–2.1	3.6	4.0	2.0
45	Caleta Sylvia	52° 58'	73° 33'	–2 11	–2 12	–2.4	–2.0	3.8	4.3	2.2
47	Puerto Tamar	52° 56'	73° 46'	–1 30	–1 30	–0.8	–0.7	4.1	4.6	3.7
49	Islote Pollo, Canal Smyth	52° 23'	73° 41'	–2 06	–2 06	–1.7	–0.9	3.4	4.3	3.1
51	Punta Ancud, Canal Smyth	52° 43'	73° 49'	–1 36	–1 36	–1.7	–0.9	3.4	4.1	3.1
53	Bahia Tuesday	52° 51'	74° 27'	–2 23	–2 24	–0.9	–0.7	4.0	4.5	3.6
55	Cabo Pilar	52° 43'	74° 42'	–2 34	–2 34	–2.7	–2.1	3.6	4.0	2.0
	CHILE, Coast									
57	Paso Goree, Bahia Nassau	55° 19'	67° 14'	+0 13	+0 13	+1.2	–0.6	6.0	6.7	4.7
59	Caleta Saint Martin, Isla Hermite	55° 51'	67° 34'	+0 08	–0 03	+0.6	+0.4	4.4	5.0	4.9
61	CABO de HORNOS	55° 31'	68° 05'		*Daily predictions*			4.2	4.8	4.4
63	Isla Diego Ramirez	56° 28'	68° 43'	+0 19	+0 19	–0.8	–1.1	4.5	5.0	3.4
65	Bahia India, Seno Ano Nuevo	55° 30'	69° 06'	+0 30	+0 30	+0.4	+0.1	4.5	5.0	4.6
67	Isla Noir	54° 29'	73° 00'	–0 53	–0 53	–2.0	–2.1	4.3	4.8	2.3
69	Islas Week	53° 12'	74° 21'	–1 17	–1 17	–2.0	–2.0	4.2	4.7	2.4
71	Evangelistas	52° 24'	75° 06'	–2 09	–2 09	–1.8	–1.5	3.9	4.4	2.7
73	Angostura Guia	50° 45'	74° 24'	–2 25	–2 25	– –	– –	– –	7.9	– –
75	Puerto Henry, Golfo Trinidad	50° 00'	75° 20'	–3 05	–3 05	–1.8	–2.1	4.5	5.0	2.4
77	Angostura Inglesa	48° 59'	74° 24'	–2 50	–2 50	–0.9	–2.0	5.3	6.0	2.9
79	Puerto Barbara, Canal Fallos	48° 02'	75° 24'	–2 48	–2 46	–0.9	–2.0	5.3	6.0	2.9
81	Puerto Barroso, Golfo de Penas	46° 49'	75° 17'	–3 50	–3 50	–0.9	–2.0	5.3	6.0	2.9
83	Puerto Slight, Golfo Tres Montes	46° 49'	75° 33'	–3 31	–3 31	*0.63	*0.57	2.8	3.8	2.7
85	Caleta Pascuas, Bahia San Andres	46° 36'	75° 31'	–2 15	–2 15	–2.0	–2.1	4.3	4.8	2.3
87	Puerto Refugio	45° 52'	74° 47'	–2 20	–2 20	–1.9	–2.0	4.3	4.9	2.4
89	Puerto Yates	45° 26'	74° 26'	–2 30	–2 30	+2.4	+0.3	6.3	8.0	5.7
91	Rada Vallenar	45° 19'	74° 32'	–2 50	–2 50	–1.1	–1.7	4.8	6.0	3.0
93	Puerto Italiano, Canal Darwin	45° 22'	74° 08'	–2 50	–2 50	–0.9	–1.7	5.0	6.2	3.1
95	Puerto Lagunas	45° 17'	73° 46'	–2 00	–2 00	–0.2	–1.6	5.6	7.1	3.5
97	Puerto Americano	45° 03'	73° 45'	–1 45	–1 45	–0.7	–1.7	5.2	6.5	3.2
99	Isla Guamblin	44° 49'	75° 02'	–3 45	–3 45	+0.5	–1.7	6.4	7.7	3.8
101	Isla Guafo	43° 37'	74° 36'	–4 00	–4 00	+0.2	–1.5	5.9	7.5	3.8
	Golfo de Corcovado									
103	Puerto Low	43° 49'	74° 01'	–2 55	–2 55	+0.6	–1.6	6.4	7.9	3.9
105	Puerto Melinka	43° 54'	73° 45'	–3 20	–3 20	+0.9	–1.6	6.7	8.2	4.0
107	Bahia Tictoc	43° 37'	72° 56'	–3 00	–3 00	+1.9	–0.9	7.0	8.6	4.9
109	Puerto San Pedro	43° 20'	73° 42'	–2 20	–2 20	+1.7	–1.3	7.2	8.8	4.6
					on Puerto Montt, p.12					
111	Puerto Quellon	43° 07'	73° 38'	+0 15	+0 15	–4.0	–3.3	12.5	15.7	8.2
113	Puerto Queilen	42° 54'	73° 29'	+0 30	+0 30	–3.7	–3.5	13.0	16.4	8.2
115	Castro	42° 29'	73° 46'	–0 05	–0 05	–1.9	–3.3	14.6	18.4	9.2
	Golfo de Ancud									
117	Puerto Quemchi	42° 09'	73° 29'	+0 15	+0 15	+1.1	–1.5	15.8	19.7	11.6
119	Bahia Linao	41° 56'	73° 33'	+0 20	+0 20	–3.4	–3.2	13.0	16.9	8.5
121	Paso Lagartija	41° 50'	73° 19'	+0 20	+0 20	–3.9	–3.2	12.5	16.5	8.2
123	Paso Tautil	41° 44'	73° 04'	+0 05	+0 05	–0.8	–0.6	13.0	17.7	11.1
125	PUERTO MONTT, Seno Reloncavi	41° 29'	72° 58'		*Daily predictions*			13.2	18.0	11.8
127	Roca Remolinos, Canal Chacao	41° 48'	73° 32'	+0 25	+0 25	–3.9	–3.2	12.5	16.9	8.3

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Spring	Mean Tide Level
		South	**West**	h m	h m	ft	ft	ft	ft	ft
	CHILE, Coast–cont. Time meridian, 60° W				**on Valparaiso, p.16**					
129	Ancud	41° 52'	73° 50'	+2 00	+1 59	+1.4	–0.2	4.6	6.0	3.6
131	Carelmapu, Canal Chacao	41° 45'	73° 42'	+3 12	+3 10	*1.93	*1.20	6.9	8.8	5.3
133	Maullin, Rio Maullin	41° 37'	73° 36'	+3 15	+3 15	+2.5	–0.6	6.1	7.9	3.9
135	Corral, Bahia Corral	39° 52'	73° 26'	+0 56	+0 55	+1.4	+1.2	3.2	4.0	4.3
137	Valdivia, Rio Valdivia	39° 49'	73° 15'	+1 55	+1 55	–1.0	–1.0	3.0	3.9	2.0
139	Queule	39° 23'	73° 14'	+0 45	+0 45	–0.2	–1.0	3.8	4.9	2.4
141	Rio Imperial entrance	38° 48'	73° 23'	+0 30	+0 30	–0.2	–1.0	3.8	4.9	2.4
143	Caleta La Hacienda, Isla Mocha	38° 20'	73° 56'	+0 25	+0 25	+0.1	–0.9	4.0	5.2	2.6
145	Puerto Lebu	37° 37'	73° 41'	+0 40	+0 40	+0.1	–0.7	3.8	4.9	2.7
147	Puerto Yana	37° 22'	73° 40'	+0 35	+0 35	–0.2	–1.0	3.8	4.9	2.4
149	Isla Santa Maria	36° 59'	73° 32'	+0 30	+0 30	+1.0	–0.8	4.8	6.2	3.1
151	Bahia Lota, Bahia Arauco	37° 06'	73° 10'	+0 20	+0 20	–0.2	–1.0	3.8	4.9	2.4
153	Talcahuano, Bahia Concepcion	36° 42'	73° 06'	+0 24	+0 23	+0.1	–0.1	3.2	4.3	3.0
155	Bahia Coliumo	36° 32'	72° 58'	+0 30	+0 30	–0.2	–1.0	3.8	4.9	2.4
157	Buchupureo	36° 04'	72° 47'	+0 30	+0 30	*0.42	*0.13	1.7	2.1	1.0
159	Curanipe	35° 49'	72° 36'	+0 50	+0 50	–1.0	–1.0	3.0	3.9	2.0
161	Constitucion, Rio Maule entrance	35° 19'	72° 24'	+0 25	+0 25	–0.2	–1.0	3.8	4.9	2.4
163	Llico	34° 45'	72° 07'	+0 15	+0 15	–0.2	–1.0	3.8	4.9	2.4
165	Rada Pichilemu	34° 23'	71° 59'	+0 10	+0 10	–0.1	–1.0	3.9	5.0	2.4
167	Rada Topocalma	34° 07'	72° 00'	+0 05	+0 05	+0.4	–0.4	3.8	4.9	3.0
169	San Antonio	33° 35'	71° 38'	–0 05	–0 05	–0.1	–1.0	3.9	5.0	2.4
171	Algarrobo	33° 21'	71° 41'	+0 00	+0 00	0.0	0.0	3.0	3.9	3.0
173	Rada Quintay	33° 11'	71° 42'	–0 05	–0 05	–0.1	–1.0	3.9	5.0	2.4
175	VALPARAISO	33° 02'	71° 38'		*Daily predictions*			3.0	3.9	3.0
177	Quintero	32° 46'	71° 32'	–0 05	–0 05	+1.5	+0.7	3.8	4.9	4.1
179	Zapallar	32° 32'	71° 29'	–0 25	–0 25	–0.2	–1.0	3.8	4.9	2.4
181	Papudo	32° 30'	71° 28'	–0 25	–0 25	–0.2	–1.0	3.8	4.9	2.4
183	Pichidangui	32° 09'	71° 33'	–0 30	–0 30	–0.2	–1.0	3.8	4.9	2.4
185	Los Vilos	31° 54'	71° 32'	–0 20	–0 20	+1.0	+0.4	3.6	4.6	3.7
187	Caleta Oscuro	31° 25'	71° 37'	–0 25	–0 25	–0.3	–0.9	3.6	4.6	2.4
189	Bahia Tongoy	30° 15'	71° 31'	–0 40	–0 40	–0.2	–1.0	3.8	4.9	2.4
191	Coquimbo	29° 56'	71° 20'	–0 21	–0 23	–0.2	–0.1	2.9	3.8	2.9
193	Caleta Totoralillo	29° 29'	71° 20'	–0 50	–0 50	–0.2	–1.0	3.8	4.9	2.4
					on Antofagasta, p.20					
195	Huasco	28° 28'	71° 14'	+0 19	+0 18	–0.3	–0.4	2.7	3.5	2.3
197	Carrizal Bajo	28° 04'	71° 11'	+0 00	–0 01	*0.77	*0.54	2.3	2.9	1.9
199	Caleta Barranquillas	27° 31'	70° 56'	+0 00	+0 00	*0.90	*0.92	2.3	2.9	2.4
201	Caldera	27° 04'	70° 50'	+0 17	+0 16	+0.5	+0.3	2.8	3.6	3.0
203	Puerto Flamenco	26° 34'	70° 44'	+0 10	+0 09	+0.1	0.0	2.7	3.5	2.7
205	Chanaral de las Animas	26° 21'	70° 38'	+0 22	+0 23	+0.1	+0.1	2.6	3.4	2.7
207	Taltal	25° 25'	70° 29'	+0 15	+0 15	0.0	0.0	2.6	3.4	2.6
209	Paposo	25° 02'	70° 28'	+0 15	+0 15	0.0	0.0	2.6	3.4	2.6
211	Blanco Encalada	24° 22'	70° 32'	+0 10	+0 10	+0.1	0.0	2.7	3.5	2.7
213	ANTOFAGASTA	23° 39'	70° 25'		*Daily predictions*			2.6	3.4	2.6
215	Mejillones del Sur	23° 06'	70° 28'	+0 00	+0 00	+0.3	–0.7	3.6	4.7	2.4
217	Cobija	22° 34'	70° 18'	–0 05	–0 05	–0.4	–0.8	3.0	3.9	2.0
219	Tocopilla	22° 06'	70° 14'	–0 05	–0 05	+0.1	–0.3	3.0	3.9	2.5
221	Caleta Lobos	21° 05'	70° 11'	–0 25	–0 25	+0.4	+0.1	2.9	3.8	2.9
223	Iquique	20° 12'	70° 10'	–0 22	–0 15	+0.3	+0.5	2.4	3.1	3.0
225	Caleta Junin	19° 40'	70° 12'	–0 31	–0 13	–0.3	–0.1	2.4	3.1	2.4
227	Pisagua	19° 35'	70° 14'	–0 20	–0 20	+0.7	+0.3	3.0	3.9	3.1
229	Arica	18° 28'	70° 20'	–0 18	–0 19	*0.97	*1.08	2.4	3.1	2.6
	PERU Time meridian, 75° W				**on Matarani, p.24**					
231	Ilo	17° 38'	71° 21'	+0 02	–0 02	+0.2	0.0	2.3	2.9	1.5
233	MATARANI	17° 00'	72° 07'		*Daily predictions*			2.1	2.7	1.4
235	Puerto San Juan	15° 21'	75° 09'	–0 34	–0 37	–0.3	0.0	1.8	2.4	1.2
					on Callao, p.28					
237	Pisco	13° 43'	76° 14'	+0 36	+0 29	–0.4	–0.5	1.9	2.5	1.3
239	CALLAO	12° 03'	77° 09'		*Daily predictions*			1.8	2.4	1.7
241	Huacho	11° 07'	77° 37'	–0 24	–0 31	–0.3	–0.5	2.0	2.6	1.3
243	Bahia Huarmey	10° 06'	78° 10'	–0 46	–0 55	0.0	–0.4	2.2	2.9	1.5
245	Chimbote	9° 05'	78° 38'	–0 58	–1 05	+0.7	+0.2	2.3	3.1	2.2
247	Puerto Chicama	7° 42'	79° 27'	–1 21	–1 33	+0.5	–0.4	2.7	3.5	1.7
249	Punta Eten	6° 57'	79° 52'	–1 29	–1 41	+0.8	–0.4	3.0	3.9	1.9
					on Talara, p.32					
251	Bayovar	5° 50'	81° 03'	+0 21	+0 17	–0.6	–0.1	3.5	4.5	2.2
253	Paita	5° 05'	81° 07'	+0 12	+0 08	–0.3	–0.1	3.8	4.9	2.4
255	TALARA	4° 35'	81° 17'		*Daily predictions*			4.0	5.2	2.6
257	Caleta Lobitos	4° 27'	81° 17'	+0 02	–0 02	+0.1	0.0	4.1	5.3	2.6
259	Zorritos	3° 40'	80° 40'	+0 35	+0 51	+0.8	+0.1	4.7	6.0	3.0

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		South	**West**	h m	h m	ft	ft	ft	ft	ft
	ECUADOR Time meridian, 75° W				**on La Libertad, p.40**					
261	Puerto Bolivar	3° 16’	80° 01’	+1 01	+0 43	*1.34	*1.25	7.3	9.4	4.7
263	Puna	2° 44’	79° 55’	+1 37	+1 49	*1.76	*1.75	9.5	12.3	6.2
265	GUAYAQUIL	2° 12’	79° 52’		*Daily predictions, p.36*			10.8	12.1	6.0
267	LA LIBERTAD, Bahia de Santa Elena	2° 13’	80° 55’		*Daily predictions*			5.4	7.0	3.5
269	Puerto de Cayo	1° 21’	80° 45’	–0 11	–0 09	*1.11	*1.11	6.0	7.7	3.9
271	Bahia Manta	0° 57’	80° 44’	–0 16	–0 11	*1.15	*1.00	6.3	8.0	4.0
273	Rio Chone	0° 35’	80° 26’	+0 08	+0 11	*1.24	*1.13	6.8	8.6	4.3
275	Cabo Pasado	0° 21’	80° 31’	+0 04	+0 05	*1.19	*1.00	6.6	8.2	4.1
		North	**West**							
277	Rio Santiago	1° 13’	79° 07’	+0 07	+0 10	*1.45	*1.25	8.0	10.0	5.0
279	San Lorenzo	1° 15’	78° 50’	+0 17	+0 09	*1.60	*1.25	8.9	11.0	5.5
	Galapagos Islands	**South**	**West**		**on San Cristobal, p.44**					
281	SAN CRISTOBAL	0° 54’	89° 37’		*Daily predictions*			4.8	6.1	3.1
283	Isla Santa Maria	1° 14’	90° 27’	–0 02	–0 07	*0.83	*0.83	4.0	5.0	2.5
285	Bahia Isabela, Isla Isabela	0° 36’	91° 05’	–0 06	–0 06	*0.80	*0.83	3.8	4.8	2.4
287	Caleta Tagus, Isla Isabela	0° 15’	91° 22’	–0 11	–0 12	*0.85	*0.83	4.1	5.2	2.5
289	Bahia de Perry, Isla Isabela	0° 34’	90° 58’	–0 06	–0 16	*0.96	*1.00	4.6	5.8	2.9
291	Caleta Aeolian, Isla Baltra	0° 26’	90° 17’	–0 02	–0 00	*1.02	*1.00	4.9	6.2	3.0
		North	**West**							
293	Bahia de Darwin, Isla Genovesa	0° 19’	89° 57’	–0 07	–0 05	*1.06	*1.00	5.1	6.4	3.1
	COLOMBIA <2>				**on Buenaventura, p.48**					
295	Tumaco	1° 50’	78° 44’	–0 19	–0 04	*0.79	*0.79	8.2	10.2	5.1
297	BUENAVENTURA	3° 54’	77° 05’		*Daily predictions*			10.4	12.9	6.5
299	Los Negritos	3° 54’	77° 24’	–0 10	–0 01	–0.4	0.0	10.0	12.5	6.3
301	Rio San Juan	4° 17’	77° 30’	–0 09	+0 00	–0.4	0.0	10.0	12.5	6.3
303	Bahia Cuevita	5° 28’	77° 31’	–0 09	+0 00	–0.3	+0.1	10.0	12.8	6.4
305	Ensenada Utria	6° 00’	77° 21’	–0 10	–0 01	–0.3	+0.1	10.0	12.8	6.4
307	Bahia Solano	6° 14’	77° 24’	–0 28	–0 09	*0.78	*0.78	8.3	10.3	5.1
309	Bahia Cupica	6° 41’	77° 30’	–0 19	–0 10	–0.1	+0.2	10.1	13.0	6.5
311	Bahia Octavia	6° 52’	77° 40’	–0 23	–0 09	–0.1	+0.2	10.1	13.0	6.5
	PANAMA <2>				**on Balboa, p.52**					
313	Bahia Pina	7° 34’	78° 11’	+0 00	–0 11	–2.4	–0.3	10.5	13.7	6.8
315	Punta Garachine	8° 05’	78° 25’	+0 00	–0 08	–2.0	–0.3	10.9	14.2	7.0
317	Isla del Rey	8° 18’	78° 54’	–0 03	–0 04	–2.2	–0.3	10.7	13.9	6.9
319	Rio Chepo	8° 59’	79° 07’	–0 01	–0 02	–0.1	0.0	12.5	16.2	8.1
321	BALBOA	8° 57’	79° 34’		*Daily predictions*			12.6	16.4	8.2
323	Naos Island	8° 55’	79° 32’	+0 01	+0 00	–0.5	–0.3	12.4	15.6	7.8
325	Taboga	8° 48’	79° 33’	–0 05	–0 06	–0.1	0.0	12.5	16.2	8.1
327	Bahia de Chame	8° 41’	79° 45’	–0 02	–0 03	–0.1	0.0	12.5	16.2	8.1
329	Punta Mala	7° 28’	80° 00’	+0 03	–0 12	*0.64	*0.63	8.1	10.5	5.2
331	Isla Cebaco	7° 31’	81° 13’	–0 06	–0 05	*0.65	*0.63	8.3	10.8	5.3
333	Bahia Honda	7° 46’	81° 31’	–0 04	–0 03	*0.65	*0.63	8.3	10.8	5.3
335	Isla Parida	8° 08’	82° 19’	+0 00	–0 09	*0.63	*0.47	8.2	10.0	5.0
					on Puntarenas, p.56					
337	Puerto Armuelles	8° 16’	82° 52’	+0 55	+0 59	+0.3	+0.2	7.6	9.6	4.8
	COSTA RICA <2> Time meridian, 90° W									
339	Golfito, Golfo Dulce	8° 39’	83° 11’	–0 13	+0 02	+1.3	+1.1	7.7	9.5	5.8
341	Bahia Uvita	9° 09’	83° 45’	–0 25	–0 20	0.0	0.0	7.5	9.2	4.5
343	Quepos	9° 24’	84° 10’	–0 13	–0 04	–0.7	0.0	6.8	8.4	4.2
345	Puerto Herradura	9° 39’	84° 40’	–0 06	–0 01	0.0	0.0	7.5	9.2	4.5
347	PUNTARENAS	9° 58’	84° 50’		*Daily predictions*			7.5	9.2	4.6
349	Bahia de Culebra	10° 38’	85° 40’	–0 02	–0 02	0.0	0.0	7.5	9.0	4.5
351	Golfo Elena	10° 56’	85° 49’	–0 02	–0 02	–0.1	–0.1	7.5	8.8	4.4
353	Cocos Island	5° 33’	86° 59’	–0 25	–0 25	–0.5	0.0	7.0	8.5	4.3
	NICARAGUA <2>									
355	Puerto Somoza	12° 12’	86° 46’	+0 11	+0 22	–1.7	–0.1	5.9	7.3	3.6
					on La Union, p.60					
357	San Juan del Sur	11° 15’	85° 53’	–0 27	–0 05	*0.77	*0.77	6.2	7.6	3.8
359	Corinto (Isla Cardon)	12° 29’	87° 10’	–0 18	+0 00	–2.1	–0.1	6.1	7.5	3.8
	HONDURAS <2>									
361	Amapala	13° 18’	87° 39’	–0 07	–0 06	–0.1	0.0	8.0	9.8	4.9
	EL SALVADOR									
363	LA UNION (Cutuco)	13° 20’	87° 49’		*Daily predictions*			8.1	10.0	5.0
365	La Libertad	13° 29’	89° 19’	–0 26	+0 00	*0.67	*0.67	5.4	6.7	3.3
367	Acajutla	13° 35’	89° 51’	–0 25	–0 03	*0.64	*0.64	5.2	6.4	3.2

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		North	**West**	h m	h m	ft	ft	ft	ft	ft
	GUATEMALA <2>				**on La Union, p.60**					
	Time meridian, 90° W									
369	Puerto de San Jose	13° 55'	90° 50'	–0 27	–0 03	*0.61	*0.61	5.0	6.1	3.0
371	Champerico	14° 18'	91° 56'	–0 27	–0 03	*0.61	*0.61	5.0	6.1	3.0
	MEXICO <2>				**on Salina Cruz, p.64**			Mean	Diurnal	
373	Puerto Angel	15° 39'	96° 30'	–0 04	–0 04	–0.7	0.0	2.9	3.4	1.6
375	SALINA CRUZ	16° 10'	95° 12'		*Daily predictions*			3.6	4.1	1.9
377	Acapulco	16° 50'	99° 55'	–0 25	–0 24	–1.9	+0.1	1.6	2.1	1.0
					on San Diego, p.72					
379	Manzanillo	19° 03'	104° 20'	+0 37	+0 45	–2.9	–0.5	1.7	2.3	1.3
381	Puerto Vallarta	20° 37'	105° 15'	+0 22	+0 31	*0.62	*0.56	2.6	3.5	1.8
	Time meridian, 105° W									
383	Isla Socorro	18° 44'	111° 01'	–0 38	–0 29	–1.9	–0.5	2.7	3.5	1.8
385	Mazatlan	23° 12'	106° 25'	–0 38	–0 29	*0.70	*0.56	3.0	3.8	2.0
	Gulf of California									
387	Topolobampo	25° 36'	109° 03'	+0 49	+0 57	*0.68	*0.78	2.7	3.7	2.0
389	Puerto Penasco	31° 18'	113° 33'	+4 59	+5 08	*2.58	*1.33	11.7	14.1	7.0
					on Guaymas, p.68					
391	GUAYMAS †	27° 56'	110° 54'		*Daily predictions*			– –	2.6	1.3
393	Tepoca Bay	30° 16'	112° 52'	– – –	– – –	– –	– –	– –	13.0	6.5
395	Colorado River entrance <3>	31° 46'	114° 44'	– – –	– – –	– –	– –	– –	23.0	– –
397	La Paz †	24° 10'	110° 21'	+0 56	–0 47	+0.8	0.0	– –	3.4	1.7
	Baja California				**on San Diego, p.72**					
399	San Carlos	24° 47'	112° 07'	–0 09	+0 00	0.0	–0.2	4.3	5.6	2.9
	Time meridian, 120° W									
401	Isla Guadalupe	28° 53'	116° 18'	–0 30	–0 21	*0.78	*0.78	3.2	4.6	2.3
403	Ensenada, Todos Santos Bay	31° 51'	116° 38'	–0 19	–0 11	*0.92	*0.89	3.8	5.3	2.7
	CALIFORNIA									
405	Imperial Beach	32° 34.7'	117° 08.1'	+0 00	–0 03	*0.93	*0.96	3.74	5.37	2.75
407	Point Loma	32° 40'	117° 14'	–0 09	–0 02	*0.92	*0.92	3.7	5.3	2.8
409	San Diego, Quarantine Station	32° 42'	117° 14'	–0 04	+0 02	*0.96	*0.96	3.9	5.6	2.9
411	SAN DIEGO (Broadway)	32° 42.8'	117° 10.4'		*Daily predictions*			4.05	5.73	2.96
413	National City, San Diego Bay	32° 40'	117° 07'	+0 04	+0 10	+0.2	0.0	4.3	5.9	3.0
415	Quivira Basin, Mission Bay	32° 46'	117° 14'	+0 05	+0 04	*0.95	*0.95	3.8	5.4	2.8
417	Crown Point, Mission Bay	32° 46.8'	117° 14.1'	–0 03	+0 16	*0.96	*0.96	3.9	5.5	2.8
419	La Jolla (Scripps Institution Wharf)	32° 52.0'	117° 15.5'	+0 00	–0 04	*0.92	*0.97	3.70	5.33	2.75
421	San Clemente	33° 25'	117° 37'	–0 15	–0 11	*0.92	*0.92	3.7	5.3	2.7
	San Pedro Channel				**on Los Angeles, p.76**					
423	Newport Bay Entrance, Corona del Mar	33° 36.2'	117° 53.0'	–0 03	–0 04	*0.98	*0.98	3.76	5.41	2.77
425	Balboa Pier, Newport Beach	33° 35.9'	117° 54.0'	–0 09	+0 00	*0.96	*0.96	3.65	5.33	2.74
427	Santa Ana River entrance (inside)	33° 38'	117° 57'	+0 23	+1 47	*0.54	*0.20	2.4	3.3	1.4
429	Los Patos (highway bridge)	33° 43'	118° 03'	+1 00	+1 12	*0.83	*0.60	3.4	4.7	2.3
431	Long Beach, Terminal Island	33° 45.1'	118° 13.7'	–0 01	+0 00	*1.01	*1.01	3.9	5.6	2.9
433	Long Beach, Inner Harbor	33° 46.3'	118° 12.6'	+0 04	+0 05	*0.96	*0.96	3.7	5.3	2.7
435	Cabrillo Beach	33° 42.4'	118° 16.4'	+0 00	+0 00	*1.00	*1.00	3.81	5.48	2.82
437	LOS ANGELES (Outer Harbor)	33° 43.2'	118° 16.3'		*Daily predictions*			3.81	5.49	2.85
439	Los Angeles Harbor, Mormon Island	33° 45'	118° 16'	+0 04	+0 02	–0.1	0.0	3.8	5.4	2.8
441	King Harbor, Santa Monica Bay	33° 50.8'	118° 23.9'	+0 08	+0 07	*0.96	*1.00	3.64	5.32	2.76
443	El Segundo, Santa Monica Bay	33° 55'	118° 26'	+0 13	+0 13	*0.96	*0.96	3.7	5.3	2.7
445	Santa Monica, Municipal Pier	34° 00.5'	118° 30.0'	+0 03	+0 03	*0.99	*0.99	3.76	5.43	2.81
	Santa Barbara Channel									
447	Mugu Lagoon (ocean pier)	34° 06'	119° 06'	+0 03	+0 11	*0.96	*0.96	3.7	5.3	2.7
449	Port Hueneme	34° 09'	119° 12'	+0 10	+0 13	–0.1	0.0	3.7	5.4	2.8
451	Ventura	34° 16'	119° 17'	+0 09	+0 16	–0.1	0.0	3.7	5.4	2.8
453	Rincon Island, Mussel Shoals	34° 20.9'	119° 26.6'	+0 20	+0 18	*0.99	*1.05	3.72	5.46	2.83
455	Santa Barbara	34° 24.5'	119° 41.1'	+0 23	+0 21	*0.98	*1.04	3.66	5.39	2.79
457	Gaviota	34° 28'	120° 13'	+0 39	+0 37	*0.96	*0.96	3.6	5.3	2.8
	Santa Barbara Islands									
459	Wilson Cove, San Clemente Island	33° 00'	118° 33'	–0 03	–0 03	*0.94	*0.94	3.6	5.2	2.7
461	Catalina Harbor, Santa Catalina Island	33° 26'	118° 30'	+0 11	+0 17	*0.94	*0.94	3.6	5.2	2.7
463	Avalon, Santa Catalina Island	33° 21'	118° 19'	+0 06	+0 09	*0.96	*0.96	3.7	5.3	2.7
465	Santa Barbara Island	33° 29'	119° 02'	–0 02	+0 04	*0.92	*0.92	3.5	5.1	2.6
467	San Nicolas Island	33° 16'	119° 30'	+0 10	+0 21	*0.88	*0.88	3.3	4.9	2.5
469	Prisoners Harbor, Santa Cruz Island	34° 01'	119° 41'	+0 25	+0 26	*0.90	*0.90	3.4	5.0	2.6
471	Bechers Bay, Santa Rosa Island	34° 00.5'	120° 02.8'	+0 27	+0 27	*0.93	*1.03	3.45	5.14	2.69
473	Cuyler Harbor, San Miguel Island	34° 03'	120° 21'	+0 33	+0 34	*0.94	*0.94	3.5	5.2	2.7

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	West	h m	h m	ft	ft	ft	ft	ft
	CALIFORNIA Outer Coast Time meridian, 120° W				**on Port San Luis, p.80**					
475	Point Arguello	34° 35'	120° 39'	–0 03	–0 08	*0.96	*0.96	3.5	5.2	2.7
477	PORT SAN LUIS	35° 10.1'	120° 45.1'		*Daily predictions*			3.58	5.33	2.83
479	San Simeon	35° 38'	121° 11'	+0 08	+0 07	*0.99	*1.00	3.6	5.3	2.8
					on Monterey, p.84					
481	Carmel Cove, Carmel Bay	36° 31'	121° 56'	–0 03	–0 04	*0.97	*0.99	3.5	5.2	2.8
	Monterey Bay									
483	MONTEREY, MONTEREY BAY	36° 36.3'	121° 53.3'		*Daily predictions*			3.54	5.34	2.86
485	General Fish Company Pier	36° 48.1'	121° 47.2'	+0 01	+0 01	*0.98	*0.95	3.56	5.31	2.84
487	Moss Landing, Ocean Pier	36° 48'	121° 47'	–0 01	–0 01	*0.95	*0.90	3.5	5.2	2.8
489	Elkhorn Yacht Club	36° 48.8'	121° 47.2'	+0 00	+0 02	*0.97	*0.95	3.52	5.27	2.82
491	Elkhorn Slough, Highway 1 Bridge	36° 48.6'	121° 47.1'	+0 03	–0 02	*0.95	*0.90	3.5	5.2	2.8
493	Pacific Mariculture Dock	36° 49'	121° 46'	+0 15	+0 07	*1.00	*0.98	3.6	5.4	2.9
495	Elkhorn, Elkhorn Slough	36° 49.1'	121° 44.8'	+0 21	+0 05	*0.98	*0.97	3.54	5.32	2.85
497	Kirby Park, Elkhorn Slough	36° 50'	121° 45'	+0 26	+0 08	*1.02	*0.96	3.7	5.5	2.9
499	Elkhorn Slough railroad bridge	36° 51.4'	121° 45.3'	+0 33	+0 08	*1.02	*0.96	3.74	5.52	2.94
501	Santa Cruz, Monterey Bay	36° 58'	122° 01'	–0 06	–0 11	*0.97	*0.99	3.5	5.3	2.8
					on San Francisco, p.88					
503	Ano Nuevo Island	37° 06'	122° 20'	–1 24	–1 04	–0.7	–0.1	3.5	5.2	2.7
505	Princeton, Half Moon Bay	37° 30'	122° 29'	–1 06	–0 50	–0.3	0.0	3.8	5.5	3.0
507	Southeast Farallon Island	37° 42'	123° 00'	–0 39	–0 19	–0.3	0.0	3.8	5.6	3.0
509	San Francisco Bar	37° 46'	122° 38'	–0 35	–0 31	–0.2	0.0	3.9	5.6	3.0
511	Ocean Beach, outer coast	37° 46'	122° 31'	–0 49	–0 35	+0.1	0.0	4.2	6.0	3.2
	San Francisco Bay									
513	Point Bonita, Bonita Cove	37° 49'	122° 32'	–0 17	–0 10	+0.3	0.0	4.3	6.0	3.3
515	SAN FRANCISCO (Golden Gate)	37° 48.4'	122° 27.9'		*Daily predictions*			4.10	5.84	3.18
517	Alcatraz Island	37° 50'	122° 25'	+0 14	+0 18	0.0	0.0	4.1	5.8	3.1
519	San Francisco, North Point, Pier 41	37° 49'	122° 25'	+0 13	+0 11	+0.2	0.0	4.3	6.1	3.3
521	Rincon Point, Pier 22 1/2	37° 47'	122° 23'	+0 23	+0 25	+0.4	0.0	4.6	6.3	3.4
523	Yerba Buena Island	37° 48.6'	122° 21.6'	+0 25	+0 33	*1.06	*0.99	4.43	6.16	3.34
525	Oakland, Matson Wharf	37° 49'	122° 20'	+0 28	+0 36	+0.3	0.0	4.4	6.2	3.3
527	Oakland Middle Harbor	37° 48.3'	122° 20.3'	+0 21	+0 31	*1.07	*0.96	4.52	6.22	3.36
529	Oakland Pier	37° 48'	122° 20'	+0 33	+0 48	+0.2	0.0	4.3	6.0	3.2
531	Oakland Inner Harbor	37° 47.7'	122° 16.9'	+0 24	+0 31	*1.12	*0.99	4.71	6.45	3.49
533	Alameda Naval Air Station	37° 47.6'	122° 18.9'	+0 24	+0 33	*1.11	*1.00	4.65	6.40	3.46
535	Alameda	37° 46.3'	122° 17.9'	+0 29	+0 39	*1.11	*0.99	4.84	6.60	3.55
537	Oakland Harbor, Grove Street	37° 48'	122° 17'	+0 33	+0 42	+0.4	0.0	4.5	6.2	3.3
539	Oakland Harbor, Park Street Bridge	37° 46.3'	122° 14.1'	+0 28	+0 34	*1.13	*0.98	4.80	6.55	3.51
541	San Leandro Channel, San Leandro Bay	37° 44.9'	122° 14.1'	+0 42	+0 52	*1.16	*0.98	4.98	6.69	3.60
543	Oakland Airport	37° 43.9'	122° 12.5'	+0 40	+0 45	*1.15	*0.96	4.95	6.65	3.56
545	Potrero Point	37° 46'	122° 23'	+0 33	+0 46	+0.5	0.0	4.6	6.3	3.4
547	Hunters Point	37° 44'	122° 21'	+0 25	+0 39	+0.9	0.0	5.0	6.7	3.6
549	San Leandro Marina	37° 41.7'	122° 11.5'	+0 54	+1 23	*1.28	*1.01	5.55	7.31	3.92
551	Roberts Landing, 1.3 miles west of	37° 40'	122° 12'	+0 52	+1 28	+1.4	+0.1	5.4	7.2	3.9
553	South San Francisco	37° 40'	122° 23'	+0 38	+0 56	+1.2	0.0	5.3	7.0	3.8
555	Oyster Point Marina	37° 39.9'	122° 22.6'	+0 41	+1 00	*1.23	*1.00	5.30	7.06	3.78
557	Point San Bruno	37° 39'	122° 23'	+0 38	+1 10	+1.1	+0.1	5.1	6.9	3.7
559	Seaplane Harbor	37° 38'	122° 23'	+0 42	+1 03	+1.4	0.0	5.4	7.2	3.9
561	Coyote Point Marina	37° 35.5'	122° 18.8'	+0 42	+1 08	*1.29	*1.01	5.61	7.37	3.94
563	San Mateo Bridge (west end)	37° 34.8'	122° 15.2'	+0 44	+1 11	*1.36	*1.04	5.90	7.72	4.11
565	San Mateo Bridge (east end)	37° 36'	122° 11'	+0 48	+1 19	+1.8	0.0	5.9	7.7	4.1
567	Alameda Creek	37° 35.7'	122° 08.7'	+0 57	+2 25	*1.05	*0.27	5.20	6.12	2.91
569	Coyote Hills Slough entrance	37° 33.8'	122° 07.7'	+0 52	+2 21	*1.17	*0.45	5.63	6.74	3.33
571	Bay Slough, west end	37° 33.1'	122° 14.6'	+0 48	+1 28	*1.35	*1.00	5.91	7.66	4.09
573	Bay Slough, east end	37° 32.7'	122° 13.3'	+0 49	+1 52	*1.27	*0.77	5.79	7.28	3.77
575	Redwood Creek Marker 8	37° 32'	122° 12'	+0 53	+1 28	*1.41	*1.05	6.2	8.0	4.3
577	Redwood Creek entrance (inside)	37° 31'	122° 12'	+1 06	+1 38	+2.1	+0.1	6.1	7.9	4.2
579	South Bay Wreck	37° 33'	122° 10'	+1 02	+1 37	+2.2	+0.1	6.2	8.0	4.3
581	Corkscrew Slough	37° 30'	122° 13'	+1 03	+1 42	+2.2	+0.1	6.2	8.0	4.3
583	Redwood City, Wharf 5	37° 30.4'	122° 12.6'	+0 48	+1 15	*1.45	*1.05	6.39	8.22	4.41
585	West Point Slough	37° 30.3'	122° 11.5'	+0 56	+1 30	*1.44	*1.04	6.33	8.14	4.34
587	Smith Slough	37° 30'	122° 14'	+1 15	+1 58	+2.1	0.0	6.2	7.9	4.2
589	Newark Slough	37° 31'	122° 05'	+1 11	+1 58	+2.6	+0.1	6.6	8.4	4.2
591	Dumbarton Highway Bridge	37° 30.4'	122° 06.9'	+0 50	+1 15	*1.51	*1.05	6.68	8.51	4.57
593	Ravenswood Slough <17>	37° 29.8'	122° 10.3'	+0 58	– – –	– –	– –	– –	– –	– –
595	Granite Rock, Redwood Creek	37° 29.7'	122° 12.8'	+0 55	+1 31	*1.43	*1.04	6.28	8.08	4.32
597	Palo Alto Marker 8 <18>	37° 28.1'	122° 05.8'	+1 01	– – –	– –	– –	– –	– –	– –
599	Palo Alto Yacht Harbor	37° 27.5'	122° 06.3'	+0 59	+2 14	*1.34	*0.68	6.22	7.62	3.88
601	Mowry Slough	37° 30'	122° 02'	+1 12	+2 07	+2.6	0.0	6.7	8.4	4.4
603	Calaveras Point, west of	37° 28'	122° 04'	+1 05	+1 49	+2.8	+0.1	6.8	8.5	4.6
605	Mud Slough railroad bridge <18>	37° 28.1'	121° 59.2'	+1 12	– – –	– –	– –	– –	– –	– –
607	Guadalupe Slough	37° 27.2'	122° 02.0'	+1 06	– – –	– –	– –	– –	– –	– –
609	Upper Guadalupe Slough	37° 26.1'	122° 00.4'	+1 14	+2 13	*1.66	*1.13	7.40	9.29	4.98
611	Coyote Creek, Alviso Slough	37° 27.8'	122° 01.4'	+0 59	+1 49	*1.61	*1.09	7.18	9.00	4.83
613	Gold Street Bridge, Alviso Slough	37° 25.4'	121° 58.5'	+1 03	+2 21	*1.67	*0.96	7.62	9.28	4.90
615	Coyote Creek, Tributary no.1	37° 27'	121° 58'	+1 21	+2 45	+2.6	–0.3	7.0	8.4	4.3
617	Coyote Creek, Tributary no.2 <18>	37° 27.6'	121° 57.2'	+1 18	– – –	– –	– –	– –	– –	– –
619	Coyote Creek, Tributary no.3 <18>	37° 27.7'	121° 57.1'	+1 15	– – –	– –	– –	– –	– –	– –

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No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	CALIFORNIA San Francisco Bay–cont. Time meridian, 120° W			**on San Francisco, p.88**						
621	Sausalito	37° 50.8'	122° 28.6'	+0 10	+0 14	*0.97	*1.00	3.95	5.69	3.12
623	Sausalito, Corps of Engineers Dock	37° 51.9'	122° 29.6'	+0 10	+0 21	*0.98	*1.00	4.01	5.73	3.13
625	Angel Island (west side)	37° 52'	122° 27'	+0 13	+0 21	–0.2	0.0	3.9	5.6	3.0
627	Angel Island, East Garrison	37° 51.8'	122° 25.1'	+0 16	+0 20	*1.02	*1.04	4.16	5.92	3.25
629	Point Chauncey	37° 53.5'	122° 26.6'	+0 28	+0 32	*0.98	*0.96	4.05	5.72	3.10
631	Berkeley	37° 52'	122° 18'	+0 21	+0 38	+0.1	0.0	4.2	5.9	3.2
633	Point Isabel	37° 54'	122° 19'	+0 23	+0 33	+0.1	0.0	4.2	5.9	3.2
635	Richmond Inner Harbor	37° 54.6'	122° 21.5'	+0 16	+0 30	*1.04	*0.98	4.30	6.04	3.27
637	Chevron Oil Company Pier, Richmond	37° 55.7'	122° 24.0'	+0 24	+0 38	*1.04	*0.98	4.32	6.05	3.25
639	Point Orient	37° 57.5'	122° 25.5'	+0 50	+0 52	*1.03	*0.96	4.28	5.98	3.24
641	Corte Madera Creek	37° 56.6'	122° 30.8'	+0 36	+0 51	*0.99	*0.95	4.12	5.80	3.14
643	Point San Quentin	37° 56.7'	122° 28.4'	+0 42	+0 50	*0.99	*0.93	4.11	5.78	3.12
	San Pablo Bay									
645	Point San Pedro	37° 59.6'	122° 26.8'	+1 02	+1 07	*1.01	*0.92	4.22	5.87	3.16
647	Pinole Point	38° 01'	122° 22'	+1 12	+1 26	*1.04	*0.92	4.4	6.0	3.2
649	Hercules, Refugio Landing	38° 01.4'	122° 17.5'	+1 15	+1 39	*1.05	*0.85	4.52	6.08	3.23
651	Petaluma River entrance	38° 06.7'	122° 29.9'	+1 23	+2 08	*1.06	*0.86	4.55	6.13	3.28
653	Lakeville, Petaluma River	38° 12'	122° 34'	+1 59	+2 50	*1.11	*0.81	4.9	6.3	3.4
655	Upper drawbridge, Petaluma River	38° 13.7'	122° 36.8'	+2 11	+2 59	*1.15	*0.82	5.10	6.59	3.47
657	Gallinas, Gallinas Creek	38° 00.9'	122° 30.2'	+1 18	+1 25	*1.02	*0.89	4.30	5.92	3.16
659	Hog Island, San Antonio Creek	38° 09.4'	122° 33.0'	+1 47	+2 36	*1.07	*0.79	4.68	6.08	3.23
661	Sonoma Creek	38° 09.4'	122° 24.4'	+1 35	+2 39	*0.95	*0.69	4.21	5.56	2.88
663	Wingo, Sonoma Creek	38° 13'	122° 26'	+2 12	+3 11	+0.1	–0.3	4.5	5.9	3.1
	Carquinez Strait									
665	Mare Island	38° 04.2'	122° 15.0'	+1 32	+1 58	*1.01	*0.84	4.34	5.86	3.12
667	Vallejo, Mare Island Strait	38° 06.7'	122° 16.4'	+1 47	+2 12	*1.02	*0.84	4.41	5.92	3.15
669	Edgerley Island, Napa River	38° 11.6'	122° 18.8'	+2 02	+2 29	*1.06	*0.76	4.69	6.13	3.20
671	Brazos Drawbridge, Napa River	38° 12.5'	122° 18.2'	+2 02	+2 29	*1.14	*0.86	4.98	6.50	3.46
673	Napa, Napa River	38° 17.9'	122° 16.8'	+2 05	+2 37	*1.22	*0.90	5.35	6.86	3.71
675	Selby	38° 03'	122° 15'	+1 29	+2 04	+0.6	0.0	4.7	6.3	3.4
				on Port Chicago, p.92						
677	Crockett	38° 03.5'	122° 13.4'	–0 58	–1 05	*1.22	*1.31	4.40	5.94	3.17
679	Benicia	38° 02.6'	122° 07.8'	–0 24	–0 33	*1.09	*1.18	3.93	5.33	2.93
681	Suisun Point	38° 02.1'	122° 07.4'	–0 24	–0 30	*1.07	*1.09	3.84	5.16	2.73
	Suisun Bay									
683	Suisun Slough entrance	38° 07.3'	122° 04.4'	+0 13	+0 26	*0.97	*0.93	3.53	4.72	2.45
685	Pierce Harbor, Goodyear Slough	38° 07.6'	122° 06.0'	+0 27	+0 41	*1.00	*0.96	3.72	4.92	2.57
687	Joice Island, Suisun Slough	38° 10.8'	122° 02.7'	+0 21	+0 41	*1.07	*1.00	3.97	5.21	2.73
689	Suisun City, Suisun Slough	38° 14.2'	122° 01.8'	+0 36	+1 01	*1.11	*1.00	4.17	5.40	2.82
691	PORT CHICAGO, SUISUN BAY	38° 03.4'	122° 02.3'		*Daily predictons*			3.67	4.91	2.57
693	Montezuma Slough Bridge	38° 11.2'	121° 58.8'	+0 37	+0 46	*1.01	*0.95	3.71	4.91	2.56
695	Bradmoor Island, Nurse Slough	38° 11.0'	121° 55.4'	+0 59	+1 06	*1.07	*0.99	3.92	5.17	2.69
697	Meins Landing, Montezuma Slough	38° 08.2'	121° 54.4'	+0 57	+1 11	*1.01	*0.93	3.70	4.90	2.54
699	Montezuma Slough	38° 04.6'	121° 53.1'	+1 16	+1 27	*0.84	*0.82	3.06	4.15	2.14
701	Point Buckler	38° 06.0'	122° 01.0'	+0 13	+0 22	*1.12	*1.08	4.10	5.50	2.80
703	Mallard Island Ferry Wharf	38° 02.6'	121° 55.1'	+0 54	+0 57	*0.83	*0.81	3.01	4.10	2.10
705	Pittsburg, New York Slough	38° 02.1'	121° 52.8'	+0 59	+1 05	*0.83	*0.84	3.02	4.14	2.13
	San Joaquin River									
707	Antioch	38° 01.2'	121° 48.9'	+1 12	+1 26	*0.77	*0.78	2.82	3.88	2.03
709	Threemile Slough entrance	38° 05.0'	121° 41.0'	+2 27	+2 52	*0.71	*0.68	2.60	3.60	1.80
711	Prisoners Point	38° 03.7'	121° 33.3'	+3 25	+3 29	*0.73	*0.69	2.71	3.66	1.86
713	Wards Island, Little Connection Slough	38° 03.0'	121° 29.8'	+3 45	+3 51	*0.68	*0.61	2.50	3.37	1.70
715	Blackslough Landing	37° 59.7'	121° 25.3'	+4 00	+4 15	*0.75	*0.62	2.82	3.73	1.87
717	Stockton	37° 57.5'	121° 17.4'	+4 06	+4 33	*0.81	*0.66	3.06	3.98	2.02
	Mokelumne River									
719	Georgiana Slough entrance	38° 07.6'	121° 34.7'	+3 29	+3 41	*0.67	*0.59	2.46	3.34	1.67
721	Terminous, South Fork	38° 06.6'	121° 29.9'	+3 53	+4 11	*0.70	*0.59	2.62	3.50	1.75
723	New Hope Bridge <4>	38° 14.0'	121° 29.0'	+4 22	+4 56	*0.73	*0.68	2.70	3.60	1.80
725	Bishop Cut, Disappointment Slough	38° 02.6'	121° 25.1'	+4 12	+4 12	*0.79	*0.66	2.94	3.86	1.96
727	False River	38° 03.3'	121° 39.3'	+2 45	+2 45	*0.66	*0.64	2.40	3.31	1.67
729	Davis Slough	38° 00.7'	121° 38.3'	+2 33	+2 46	*0.68	*0.72	2.46	3.45	1.76
731	Irish Landing, Sand Mound Slough	38° 02.0'	121° 35.0'	+3 29	+3 34	*0.73	*0.68	2.70	3.60	1.80
733	Orwood, Old River	37° 56.0'	121° 34.0'	+4 32	+4 33	*0.76	*0.68	2.80	3.70	1.90
735	Holt, Whiskey Slough	37° 56.0'	121° 26.0'	+4 18	+4 39	*0.80	*0.68	3.00	3.90	2.00
737	Borden Highway Bridge, Old River	37° 53.4'	121° 34.2'	+4 40	+4 35	*0.64	*0.61	2.33	3.18	1.61
739	Borden Highway Bridge, Middle River	37° 53.5'	121° 29.3'	+4 50	+4 54	*0.67	*0.62	2.51	3.37	1.72
741	Borden Highway Bridge, San Joaquin River	37° 56.2'	121° 20.0'	+4 28	+4 48	*0.78	*0.64	2.95	3.85	1.95
743	Grant Line Canal (drawbridge)	37° 49.0'	121° 27.0'	+6 14	+6 20	*0.76	*0.68	2.80	3.70	1.90

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	CALIFORNIA Sacramento River Time meridian, 120° W				**on Port Chicago, p.92**					
745	Collinsville	38° 04.4'	121° 50.9'	+1 11	+1 20	*0.80	*0.80	2.89	3.96	2.03
747	Threemile Slough	38° 06.4'	121° 42.0'	+1 49	+1 58	*0.82	*0.78	3.01	4.05	2.08
749	Rio Vista	38° 08.8'	121° 41.4'	+1 51	+2 02	*0.88	*0.78	3.25	4.31	2.20
751	Steamboat Slough, Snug Harbor Marina	38° 12.0'	121° 36.7'	+2 24	+2 48	*0.80	*0.65	3.02	3.96	1.99
753	Snodgrass Slough	38° 16.5'	121° 29.2'	+5 00	+5 36	*0.49	*0.39	1.83	2.48	1.21
755	Clarksburg <4>	38° 25.0'	121° 31.0'	+3 58	+5 02	*0.60	*0.41	2.30	2.90	1.40
757	Sacramento <4>	38° 35.0'	121° 30.0'	+5 07	+6 32	*0.60	*0.41	2.30	2.90	1.40
	Outer Coast				**on San Francisco, p.88**					
759	Bolinas Lagoon	37° 54.6'	122° 40.9'	–0 10	+0 38	*0.70	*0.61	2.98	4.30	2.19
761	Point Reyes	37° 59.8'	122° 58.5'	–0 51	–0 31	*0.98	*1.04	3.91	5.77	3.14
763	Tomales Bay entrance	38° 14'	122° 59'	–0 12	+0 20	*0.87	*0.91	3.5	5.2	2.7
765	Blakes Landing, Tomales Bay	38° 11.4'	122° 55.0'	+0 32	+1 15	*0.86	*0.79	3.63	5.22	2.70
767	Marshall, Tomales Bay	38° 10'	122° 54'	+0 38	+1 16	–0.6	–0.1	3.6	5.4	2.8
769	Reynolds, Tomales Bay	38° 08.8'	122° 53.0'	+0 26	+1 59	*0.89	*0.83	3.73	5.41	2.82
771	Inverness, Tomales Bay	38° 06'	122° 51'	+0 40	+1 24	–0.6	–0.2	3.7	5.3	2.8
773	Bodega Harbor entrance	38° 18'	123° 03'	–0 38	–0 16	–0.2	+0.1	3.8	5.7	3.1
775	Fort Ross	38° 31'	123° 15'	–0 51	–0 30	*0.96	*0.96	3.9	5.7	3.0
					on Arena Cove, p.96					
777	ARENA COVE	38° 54.8'	123° 42.5'		*Daily predictions*			4.05	5.88	3.19
779	Point Arena	38° 57'	123° 44'	+0 03	+0 01	*0.98	*0.95	4.0	5.8	3.1
781	Mendocino, Mendocino Bay	39° 18'	123° 48'	+0 07	+0 01	*0.98	*0.95	4.0	5.8	3.1
783	Fort Bragg Landing	39° 27'	123° 49'	+0 15	+0 02	*1.00	*0.95	4.1	5.8	3.1
785	Noyo River	39° 25'	123° 48'	+0 09	+0 05	*1.02	*1.03	4.1	6.0	3.2
787	Westport	39° 38'	123° 47'	+0 14	+0 00	*0.98	*0.95	4.0	5.8	3.1
789	Shelter Cove	40° 02'	124° 04'	+0 06	+0 05	*1.04	*1.03	4.2	6.0	3.3
					on Humboldt Bay, p.100					
	Humboldt Bay									
791	HUMBOLDT BAY (North Spit)	40° 46.0'	124° 13.0'		*Daily predictions*			4.89	6.86	3.70
793	Fields Landing	40° 43.4'	124° 13.3'	–0 01	+0 04	*0.99	*0.99	4.92	6.85	3.69
795	Hookton Slough	40° 41.2'	124° 13.3'	+0 06	+0 15	*1.01	*0.98	4.98	6.94	3.72
797	Elk River Railroad Bridge <18>	40° 45.4'	124° 11.6'	+0 19	+1 32	*0.71	*0.31	4.01	5.10	2.39
799	Bucksport	40° 46.7'	124° 11.8'	+0 17	+0 16	*1.01	*1.00	4.98	6.97	3.75
801	Eureka	40° 48.4'	124° 10.0'	+0 26	+0 13	*1.06	*1.03	5.33	7.32	3.94
803	Eureka Slough Bridge	40° 48.4'	124° 08.5'	+0 33	+0 19	*1.08	*1.02	5.37	7.40	3.97
805	Samoa	40° 49.6'	124° 10.8'	+0 22	+0 11	*1.07	*1.04	5.31	7.34	3.96
807	Arcata Wharf	40° 51'	124° 07'	+0 48	+0 54	+0.1	+0.1	5.0	7.0	3.8
809	Mad River Slough, Arcata Bay	40° 51.9'	124° 08.9'	+0 43	+0 35	*1.12	*1.07	5.56	7.63	4.13
					on Crescent City, p.104					
811	Trinidad Harbor	41° 03.4'	124° 08.8'	–0 02	–0 03	*0.97	*0.98	4.83	6.73	3.63
813	CRESCENT CITY	41° 44.7'	124° 11.0'		*Daily predictions*			4.99	6.87	3.74
	OREGON									
815	Brookings, Chetco Cove	42° 03'	124° 17'	+0 01	+0 04	*1.00	*1.00	5.1	6.9	3.7
817	Wedderburn, Rogue River	42° 26'	124° 25'	+0 09	+0 16	*0.95	*0.92	4.9	6.7	3.6
819	Port Orford	42° 44.4'	124° 29.8'	+0 13	+0 11	*1.06	*1.09	5.21	7.28	3.97
					on Charleston, p.108					
821	Bandon, Coquille River	43° 07.2'	124° 24.8'	–0 05	+0 02	*0.92	*0.94	5.18	7.10	3.78
	Coos Bay									
823	CHARLESTON	43° 20.7'	124° 19.3'		*Daily predictions*			5.69	7.62	4.11
825	Empire	43° 24'	124° 17'	+0 37	+0 50	*0.86	*0.88	4.9	6.7	3.5
827	Coos Bay	43° 23'	124° 13'	+1 26	+1 28	*0.96	*0.88	5.6	7.3	3.9
	Umpqua River									
829	Entrance	43° 41'	124° 12'	+0 05	+0 03	*0.91	*0.96	5.1	6.9	3.7
831	Gardiner	43° 44'	124° 07'	+0 56	+1 09	*0.88	*0.80	5.1	6.7	3.5
833	Reedsport	43° 42'	124° 06'	+1 11	+1 24	*0.88	*0.80	5.1	6.7	3.6
	Siuslaw River									
835	Entrance	44° 01'	124° 08'	–0 06	+0 03	*0.96	*0.96	5.5	7.3	4.0
837	Florence	43° 58'	124° 06'	+0 44	+0 58	*0.86	*0.80	5.0	6.6	3.5
839	Waldport, Alsea Bay	44° 26'	124° 04'	+0 21	+0 31	*1.01	*0.96	5.8	7.7	4.1
841	Drift Creek, Alsea River	44° 24.8'	123° 59.4'	+0 44	+1 51	*0.83	*0.53	5.10	6.45	3.21
					on Crescent City, p.104					
	Yaquina Bay and River									
843	Bar at entrance	44° 37'	124° 05'	+0 34	+0 39	*1.14	*1.08	5.9	7.9	4.2
845	Newport	44° 38'	124° 03'	+0 44	+0 42	*1.16	*1.08	6.0	8.0	4.3
847	Southbeach	44° 37.5'	124° 02.6'	+0 41	+0 34	*1.23	*1.10	6.37	8.34	4.51
849	Yaquina	44° 36'	124° 01'	+0 55	+0 55	*1.19	*1.08	6.2	8.2	4.4
851	Winant	44° 35'	124° 00'	+1 03	+1 16	*1.19	*1.00	6.3	8.2	4.3
853	Toledo	44° 37'	123° 56'	+1 29	+1 39	*1.17	*0.92	6.3	8.1	4.2
855	Depoe Bay	44° 48.6'	124° 03.5'	+0 27	+0 27	*1.21	*1.10	6.16	8.24	4.45
857	Taft, Siletz Bay	44° 56'	124° 01'	+0 48	+1 13	*0.94	*0.75	5.0	6.6	3.4
859	Kernville, Siletz River	44° 54'	124° 00'	+1 24	+1 53	*0.86	*0.67	4.6	6.1	3.1

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No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	OREGON–cont. Time meridian, 120° W				**on Crescent City, p.104**					
861	Nestucca Bay entrance	45° 10'	123° 58'	+0 55	+1 12	*1.10	*0.92	5.8	7.6	4.0
863	Netarts, Netarts Bay	45° 25.8'	123° 56.7'	+1 17	+1 38	*0.98	*0.85	5.02	6.86	3.58
	Tillamook Bay									
865	Barview	45° 34'	123° 57'	+0 42	+0 56	*1.08	*0.92	5.7	7.5	3.9
867	Garibaldi	45° 33.3'	123° 54.7'	+1 19	+1 11	*1.19	*1.06	6.10	8.15	4.37
869	Miami Cove	45° 33'	123° 54'	+1 15	+1 26	*1.06	*0.92	5.6	7.4	3.9
871	Bay City	45° 31'	123° 54'	+1 33	+2 00	*1.02	*0.83	5.4	7.1	3.7
873	Tillamook, Hoquarten Slough	45° 28'	123° 51'	+1 52	+3 15	*0.94	*0.58	5.2	6.6	3.3
	Nehalem River									
875	Brighton	45° 40'	123° 56'	+0 51	+0 54	*1.13	*1.00	5.9	7.8	4.1
877	Nehalem	45° 43'	123° 53'	+1 17	+1 56	*1.03	*0.75	5.6	7.2	3.7
879	Seaside, 12th Avenue bridge, Necanicum River	46° 00.1'	123° 55.2'	+0 47	+2 07	*0.81	*0.37	4.66	5.82	2.78
	OREGON and WASHINGTON Columbia River <5>				**on Astoria, p.112**					
881	Columbia River entrance (N. Jetty)	46° 16'	124° 04'	–0 44	–1 00	–1.0	+0.1	5.6	7.5	4.0
883	Fort Canby, Jetty 'A', Wash.	46° 16.1'	124° 02.2'	–0 41	–1 05	*0.97	*1.22	6.31	8.48	4.58
885	Ilwaco, Baker Bay, Wash.	46° 18'	124° 02'	–0 13	+0 01	–0.8	–0.1	6.0	7.6	4.0
887	Chinook, Baker Bay, Wash.	46° 16'	123° 57'	–0 30	–0 52	*0.95	*1.12	6.1	8.1	4.3
889	Hungry Harbor, Wash.	46° 16'	123° 51'	+0 04	–0 09	–0.2	+0.1	6.4	8.2	4.4
891	Point Adams, Oreg.	46° 12'	123° 57'	–0 25	–0 38	–0.2	+0.1	6.4	8.3	4.4
893	Hammond, Oreg.	46° 12.1'	123° 56.7'	–0 38	–0 30	*0.96	*1.08	6.38	8.32	4.45
895	Warrenton, Skipanon River, Oreg.	46° 10'	123° 55'	–0 13	–0 19	–0.1	+0.1	6.5	8.3	4.4
897	Astoria (Youngs Bay), Oreg.	46° 10'	123° 50'	–0 13	–0 14	+0.1	+0.1	6.7	8.6	4.5
899	Astoria (Port Docks), Oreg.	46° 11'	123° 52'	–0 08	–0 03	–0.5	0.0	6.2	8.0	4.2
901	ASTORIA (Tongue Point), Oreg.	46° 12.5'	123° 46.0'		*Daily predictions*			6.77	8.61	4.55
903	Knappa, Knappa Slough	46° 11'	123° 35'	+0 29	+0 58	*0.97	*0.86	6.5	8.2	4.2
905	Settlers Point, Oreg.	46° 10'	123° 41'	+0 22	+0 53	–0.5	–0.1	6.3	8.0	4.1
907	Harrington Point, Wash.	46° 16'	123° 39'	+0 21	+0 52	–0.8	–0.2	6.1	7.7	3.9
909	Skamokawa, Steamboat Slough, Wash.	46° 16'	123° 27'	+0 56	+1 45	– –	– –	5.6	6.9	– –
911	Cathlamet, Wash.	46° 12'	123° 23'	+1 15	+2 15	– –	– –	5.2	6.4	– –
913	Wauna, Oreg.	46° 10'	123° 24'	+1 17	+2 19	– –	– –	5.2	6.3	– –
915	Eagle Cliff, Wash.	46° 10'	123° 14'	+1 43	+3 01	– –	– –	4.5	5.5	– –
917	Stella, Wash.	46° 11'	123° 07'	+2 01	+3 30	– –	– –	4.0	4.9	– –
919	Longview, Wash.	46° 06'	122° 57'	+2 27	+4 14	– –	– –	3.3	4.0	– –
921	Kalama, Wash.	46° 00'	122° 51'	+2 54	+4 55	– –	– –	2.6	3.2	– –
923	Saint Helens, Oreg.	45° 52'	122° 48'	+3 31	+5 44	– –	– –	2.0	2.5	– –
925	Knapp Landing, Wash.	45° 44'	122° 45'	+4 26	+6 28	– –	– –	1.5	2.0	– –
927	Kelley Point, Oreg.	45° 39'	122° 46'	+5 26	+7 16	– –	– –	1.4	2.0	– –
929	St. Johns, Willamette River, Oreg.	45° 35'	122° 46'	+5 08	+7 26	– –	– –	1.7	2.2	– –
931	Portland, Willamette River, Oreg.	45° 31'	122° 40'	+5 05	+7 37	– –	– –	1.8	2.4	– –
933	Vancouver, Wash.	45° 37'	122° 40'	+5 45	+7 38	– –	– –	1.3	1.8	– –
935	Ellsworth, Wash.	45° 36'	122° 33'	+6 11	+8 03	– –	– –	1.0	1.4	– –
937	Washougal, Wash.	45° 35'	122° 23'	– – –	– – –	– –	– –	0.5	0.9	– –
939	Warrendale, Oreg.	45° 37'	122° 00'	– – –	– – –	– –	– –	0.4	0.6	– –
	WASHINGTON				**on Toke Point, p.116**					
	Willapa Bay									
941	Nahcotta	46° 30.1'	124° 01.8'	+0 29	+0 28	*1.13	*1.01	7.89	10.03	5.33
943	Tarlatt Slough	46° 22.2'	124° 00.3'	+0 45	+1 14	*1.05	*1.05	7.9	9.4	4.6
945	Paradise Point, Long Island	46° 28.1'	123° 56.7'	+0 43	+0 41	*1.15	*1.04	8.0	10.2	5.4
947	Naselle River, swing bridge	46° 25.8'	123° 54.2'	+0 42	+0 37	*1.22	*1.08	8.48	10.72	5.72
949	Naselle River, 4 miles above swing bridge	46° 23.3'	123° 50.4'	+1 02	+1 02	*1.22	*0.93	8.68	10.75	5.62
951	Bay Center, Palix River	46° 37.4'	123° 56.7'	+0 09	+0 22	*1.04	*1.03	7.07	9.21	4.94
953	Palix River, south fork	46° 35.2'	123° 54.6'	+0 25	+0 31	*1.04	*0.96	7.17	9.28	4.90
955	TOKE POINT	46° 42.5'	123° 57.9'		*Daily predictions*			6.81	8.92	4.78
957	Mailboat Slough, Willapa River	46° 41.3'	123° 49.0'	+0 18	+0 11	*1.07	*1.02	7.36	9.52	5.08
959	South Bend, Willapa River	46° 39.8'	123° 47.9'	+0 14	+0 15	*1.11	*1.05	7.66	9.82	5.27
961	Raymond, Willapa River	46° 41.0'	123° 45.3'	+0 27	+0 17	*1.13	*1.04	7.85	10.01	5.30
	Grays Harbor									
963	Westport, Point Chehalis	46° 54.5'	124° 06.6'	–0 11	–0 29	*1.03	*1.01	7.04	9.16	4.91
965	Point Brown	46° 56.9'	124° 07.7'	–0 09	–0 24	*1.06	*1.04	7.22	9.38	5.04
967	Bay City, South Bay	46° 51.7'	124° 04.0'	–0 01	–0 26	*1.10	*1.13	7.41	9.69	5.25
969	Markham	46° 54.4'	123° 59.9'	+0 05	–0 15	*1.06	*1.02	7.3	9.4	5.1
971	ABERDEEN	46° 58.1'	123° 51.2'		*Daily predictions, p.120*			7.94	10.11	5.44
973	Cosmopolis, Chehalis River	46° 58.0'	123° 46.7'	+0 26	+0 15	*1.23	*1.12	8.53	10.73	5.80
975	Montesano, Chehalis River	46° 58.1'	123° 36.0'	+1 34	+1 45	*0.94	*0.94	6.78	8.23	4.27
977	Point Grenville	47° 18.2'	124° 16.2'	–0 37	–0 44	*0.92	*0.90	6.30	8.19	4.38
979	Destruction Island	47° 40'	124° 29'	–0 37	–0 43	*0.98	*1.02	6.6	8.7	4.7
981	James Island	47° 54.4'	124° 38.8'	–0 39	–0 32	*0.92	*0.96	6.22	8.21	4.42
983	La Push, Quillayute River	47° 54.8'	124° 38.2'	–0 39	–0 34	*0.91	*0.94	6.17	8.14	4.38
985	Makah Bay	48° 17.8'	124° 40.3'	–0 25	–0 28	*0.99	*1.10	6.56	8.83	4.79
	Strait of Juan de Fuca <6>									
987	Tatoosh Island, Cape Flattery	48° 23.5'	124° 44.2'	–0 22	–0 25	*0.88	*1.12	5.63	8.00	4.35
989	NEAH BAY	48° 22.1'	124° 37.0'		*Daily predictions, p.124*			5.52	7.96	4.35
991	Sekiu, Clallam Bay	48° 15.8'	124° 17.8'	+0 21	+0 02	*0.81	*0.81	4.88	7.50	4.21
993	Twin Rivers	48° 10.5'	123° 57.0'	+0 33	+0 44	*0.77	*0.77	4.41	7.01	4.12

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	WASHINGTON Strait of Juan de Fuca <6>–cont. Time meridian, 120° W				**on Port Townsend, p.128**					
995	Crescent Bay	48° 10'	123° 44'	–2 41	–2 02	*0.80	*0.80	4.1	6.7	4.1
997	Port Angeles	48° 07.5'	123° 26.4'	–1 45	–1 14	*0.83	*0.77	4.60	7.06	4.22
999	Ediz Hook, Port Angeles	48° 08.4'	123° 24.8'	–1 37	–1 13	*0.81	*0.90	4.08	7.01	4.28
1001	Dungeness	48° 10'	123° 07'	–0 54	–0 38	*0.90	*0.90	4.4	7.6	4.7
1003	Sequim Bay entrance	48° 05'	123° 03'	–0 39	–0 07	*0.94	*0.94	4.8	7.9	4.8
1005	Gardiner, Discovery Bay	48° 04'	122° 55'	–0 47	–0 17	*0.94	*0.94	4.8	7.9	4.8
1007	Smith Island	48° 19'	122° 50'	–0 13	–0 25	*0.83	*0.83	4.2	7.0	4.5
1009	Point Partridge, Whidbey Island	48° 14'	122° 46'	–0 11	–0 15	*0.92	*0.92	4.5	7.7	4.7
1011	Sunset Beach, Whidbey Island	48° 17.0'	122° 43.7'	–0 27	–0 16	*0.87	*0.95	4.30	7.39	4.71
	Admiralty Inlet									
1013	Admiralty Head	48° 10'	122° 40'	–0 11	+0 20	0.0	–0.1	5.2	8.4	5.1
1015	PORT TOWNSEND	48° 06.7'	122° 45.5'		*Daily predictions*			5.34	8.52	5.17
1017	Port Townsend (Point Hudson)	48° 07'	122° 45'	–0 11	–0 06	+0.2	0.0	5.3	8.6	5.2
1019	Marrowstone Point	48° 06'	122° 41'	+0 02	+0 05	+0.4	–0.1	5.6	8.8	5.3
1021	Mystery Bay, Marrowstone Island	48° 03'	122° 41'	+0 13	+0 48	–0.2	–0.1	5.0	8.2	5.0
1023	Bush Point, Whidbey Island	48° 02.0'	122° 36.4'	+0 10	+0 45	*1.09	*1.08	5.87	9.35	5.64
1025	Oak Bay	48° 01'	122° 43'	+0 08	+0 27	+0.9	0.0	6.0	9.4	5.6
	Hood Canal				**on Seattle, p.132**					
1027	Port Ludlow	47° 55.5'	122° 40.8'	–0 14	–0 14	*0.87	*0.95	6.4	9.9	5.9
1029	Foulweather Bluff	47° 55.6'	122° 37.0'	–0 11	–0 07	*0.89	*0.98	6.54	10.16	6.05
1031	Port Gamble	47° 51.5'	122° 34.8'	–0 09	–0 05	*0.90	*0.95	6.7	10.3	6.1
1033	Lofall	47° 48.9'	122° 39.4'	–0 08	–0 06	*0.94	*1.01	6.96	10.71	6.34
1035	Bangor Wharf	47° 44.9'	122° 43.6'	–0 06	+0 01	*0.97	*1.03	7.31	11.13	6.57
1037	Zelatched Point, Dabob Bay	47° 42.7'	122° 49.3'	–0 09	–0 05	*1.00	*1.02	7.6	11.5	6.7
1039	Whitney Point, Dabob Bay	47° 45.7'	122° 51.0'	–0 05	+0 02	*1.01	*1.06	7.59	11.55	6.80
1041	Quilcene, Quilcene Bay, Dabob Bay	47° 48.0'	122° 51.5'	–0 08	–0 02	*1.00	*1.04	7.59	11.38	6.74
1043	Seabeck, Seabeck Bay	47° 38.5'	122° 49.7'	–0 04	+0 01	*1.01	*1.06	7.58	11.53	6.79
1045	Pleasant Harbor	47° 39.9'	122° 54.7'	–0 14	–0 01	*1.01	*1.02	7.7	11.6	6.8
1047	Triton Head	47° 36.2'	122° 58.9'	–0 06	+0 06	*1.00	*1.02	7.61	11.38	6.69
1049	Ayock Point	47° 30.5'	123° 03.2'	–0 03	+0 05	*0.99	*1.07	7.38	11.37	6.73
1051	Union	47° 21.5'	123° 05.9'	+0 01	+0 10	*1.04	*1.06	7.86	11.84	6.93
1053	Lynch Cove Dock	47° 25.1'	122° 54.1'	+0 00	+0 06	*1.07	*1.08	8.04	12.11	7.08
	Puget Sound									
1055	Hansville	47° 55.1'	122° 32.7'	–0 07	–0 08	*0.92	*0.98	6.83	10.44	6.19
1057	Edmonds	47° 48.8'	122° 23.0'	+0 00	–0 04	*0.96	*0.99	7.26	10.91	6.43
1059	Kingston, Appletree Cove	47° 47.8'	122° 29.7'	–0 05	–0 05	*0.97	*1.00	7.32	10.99	6.48
1061	Port Jefferson	47° 44.7'	122° 28.6'	–0 03	–0 04	*0.95	*0.98	7.20	10.83	6.37
1063	Port Madison	47° 42.3'	122° 31.5'	+0 09	–0 03	*1.00	*0.99	7.7	11.4	6.6
1065	Meadow Point, Shilshole Bay	47° 41.3'	122° 24.2'	+0 00	–0 01	*0.98	*0.99	7.51	11.18	6.57
1067	Poulsbo, Liberty Bay	47° 43.5'	122° 38.3'	+0 05	+0 12	*1.03	*1.01	7.99	11.73	6.85
1069	Brownsville, Port Orchard	47° 39.2'	122° 36.9'	+0 07	+0 09	*1.04	*1.03	8.04	11.82	6.93
1071	SEATTLE (Madison St.), Elliott Bay	47° 36.3'	122° 20.3'		*Daily predictions*			7.66	11.36	6.67
1073	Lockheed Shipyard, Harbor Island	47° 35.1'	122° 21.7'	–0 01	–0 01	*1.00	*1.00	7.67	11.39	6.68
1075	Duwamish Waterway, Eighth Ave. South	47° 32.1'	122° 19.3'	+0 10	+0 11	*0.97	*0.95	7.5	11.1	6.4
1077	Eagle Harbor, Bainbridge Island	47° 37.2'	122° 30.9'	+0 04	+0 05	*1.00	*1.02	7.6	11.3	6.7
1079	Port Blakely	47° 35.8'	122° 30.6'	+0 04	+0 04	*1.01	*0.99	7.8	11.5	6.7
1081	Clam Bay, Rich Passage	47° 34.5'	122° 32.6'	+0 03	+0 04	*1.01	*1.00	7.78	11.46	6.71
1083	Bremerton, Sinclair Inlet, Port Orchard	47° 33.7'	122° 37.4'	+0 11	+0 18	*1.04	*1.00	8.01	11.74	6.85
1085	Tracyton, Dyes Inlet	47° 36.6'	122° 39.6'	+0 28	+0 53	*1.06	*0.95	8.4	12.0	6.9
1087	Harper, Yukon Harbor	47° 31.4'	122° 31.0'	–0 06	–0 01	*1.02	*0.99	7.9	11.6	6.7
1089	Point Vashon, Vashon Island	47° 30.7'	122° 27.8'	+0 02	+0 02	*1.02	*1.01	7.80	11.53	6.76
1091	Des Moines, East Passage	47° 24.0'	122° 19.7'	+0 05	+0 08	*1.03	*1.01	7.91	11.66	6.82
1093	Burton, Quartermaster Hbr. (inside), Vashon I.	47° 23.7'	122° 27.8'	+0 01	+0 03	*1.06	*1.02	8.26	12.05	7.01
1095	Tahlequah, Neil Pt., Dalco Passage, Vashon I.	47° 19.9'	122° 30.4'	+0 04	+0 05	*1.05	*1.01	8.15	11.89	6.93
1097	Gig Harbor	47° 20.4'	122° 35.3'	+0 18	+0 22	*1.05	*0.99	8.2	11.8	6.9
1099	Tacoma, Commencement Bay, Sitcum Waterway	47° 16.0'	122° 24.8'	+0 04	+0 04	*1.04	*1.00	8.09	11.83	6.90
1101	Tacoma Narrows Bridge	47° 16.3'	122° 33.1'	+0 28	+0 23	*1.11	*1.02	8.79	12.59	7.30
1103	Arletta, Hale Passage	47° 16.8'	122° 39.1'	+0 31	+0 40	*1.18	*1.04	9.46	13.31	7.67
1105	Horsehead Bay, Carr Inlet	47° 18.1'	122° 40.9'	+0 38	+0 46	*1.20	*1.05	9.58	13.48	7.76
1107	Wauna, Carr Inlet	47° 22.7'	122° 38.4'	+0 31	+0 44	*1.16	*0.99	9.4	13.1	7.5
1109	Home, Von Geldern Cove, Carr Inlet	47° 16.5'	122° 45.5'	+0 37	+0 45	*1.19	*1.04	9.54	13.42	7.72
1111	Steilacoom, Cormorant Passage	47° 10.4'	122° 36.2'	+0 37	+0 45	*1.20	*1.05	9.59	13.48	7.77
1113	Yoman Point, Anderson Island, Balch Passage	47° 10.8'	122° 40.5'	+0 33	+0 41	*1.20	*1.04	9.61	13.47	7.75
1115	Dupont Wharf, Nisqually Reach	47° 07.1'	122° 40.0'	+0 41	+0 49	*1.20	*1.04	9.63	13.51	7.77
1117	Longbranch, Filucy Bay	47° 12.6'	122° 45.2'	+0 38	+0 47	*1.20	*1.02	9.7	13.5	7.7
1119	Devils Head, Drayton Passage	47° 10.0'	122° 45.8'	+0 40	+0 50	*1.25	*1.10	9.98	14.18	8.09
1121	Henderson Inlet	47° 09.3'	122° 50.3'	+0 47	+0 58	*1.24	*1.06	10.0	14.0	8.0
1123	McMicken Island, Case Inlet	47° 14.8'	122° 51.7'	+0 40	+0 52	*1.24	*1.06	10.00	13.96	8.01
1125	Vaughn, Case Inlet	47° 20.5'	122° 46.5'	+0 51	+0 57	*1.26	*1.06	10.2	14.1	8.1
1127	Allyn, Case Inlet	47° 23.0'	122° 49.4'	+0 48	+0 59	*1.26	*1.07	10.20	14.16	8.13
1129	Walkers Landing, Pickering Passage	47° 16.9'	122° 55.4'	+0 44	+0 55	*1.26	*1.07	10.20	14.15	8.12
1131	Shelton, Oakland Bay	47° 12.9'	123° 05.0'	+1 26	+2 05	*1.26	*0.92	10.6	14.2	7.9
1133	Arcadia, Totten Inlet	47° 11.8'	122° 56.3'	+0 49	+1 05	*1.28	*1.06	10.4	14.4	8.2
1135	Barron Point, Little Snookum Inlet Entrance	47° 09.4'	123° 00.5'	+0 50	+0 59	*1.29	*1.06	10.53	14.52	8.28
1137	Burns Point, Totten Inlet	47° 07.3'	123° 03.4'	+0 54	+1 07	*1.33	*1.06	11.0	15.0	8.5

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	WASHINGTON Puget Sound–cont. Time meridian, 120° W				**on Seattle, p.132**					
1139	Rocky Point, Eld Inlet	47° 04.9'	123° 00.3'	+0 39	+0 56	*1.31	*1.10	10.6	14.7	8.4
1141	Dofflemeyer Point, Boston Hbr., Budd Inlet	47° 08.5'	122° 54.2'	+0 44	+0 57	*1.28	*1.09	10.35	14.37	8.27
1143	Budd Inlet, Olympia Shoal	47° 05.9'	122° 53.7'	+0 43	+0 55	*1.29	*1.08	10.46	14.48	8.30
1145	Olympia, Budd Inlet	47° 03.6'	122° 54.2'	+0 45	+0 57	*1.29	*1.08	10.48	14.56	8.31
	Possession Sound and Port Susan									
1147	Glendale, Whidbey Island	47° 56.4'	122° 21.4'	+0 01	–0 03	*0.97	*0.99	7.38	11.02	6.50
1149	Everett	47° 58.8'	122° 13.4'	+0 01	–0 01	*0.97	*0.99	7.41	11.09	6.51
1151	Marysville, Quilceda Creek	48° 02.7'	122° 12.7'	+0 09	+0 29	*0.95	*0.89	7.47	10.83	6.25
1153	Tulalip	48° 03.9'	122° 17.3'	+0 00	+0 02	*0.97	*0.95	7.5	11.1	6.4
1155	Kayak Point	48° 08.2'	122° 22.1'	+0 00	–0 02	*0.99	*0.99	7.56	11.24	6.58
1157	Stanwood, Stillaguamish River <7>	48° 14'	122° 22'	+0 23	+2 14	*0.62	*0.29	5.7	7.4	3.6
	Saratoga Passage and Skagit Bay									
1159	Sandy Point, Whidbey Island	48° 02.1'	122° 22.6'	+0 03	–0 01	*0.99	*1.00	7.56	11.25	6.60
1161	Holly Farms Harbor, Holmes Harbor, Whidbey I.	48° 01.6'	122° 32.1'	+0 01	–0 04	*1.01	*0.99	7.76	11.44	6.67
1163	Greenbank, Whidbey Island	48° 06.3'	122° 34.2'	–0 03	–0 06	*0.99	*0.99	7.6	11.3	6.6
1165	Crescent Harbor, N. Whidbey Island	48° 17'	122° 37'	+0 04	–0 04	*1.03	*0.99	8.0	11.6	6.8
1167	Coupeville, Penn Cove, Whidbey Island	48° 13.4'	122° 41.4'	+0 15	+0 09	*1.01	*0.99	7.8	11.5	6.7
1169	La Conner, Swinomish Channel <8>	48° 23.5'	122° 29.8'	+0 21	+0 39	*0.90	*0.95	6.74	10.34	6.06
1171	Sneeoosh Point	48° 24.0'	122° 32.9'	+0 32	+0 39	*0.97	*0.90	7.64	11.05	6.38
1173	Turner Bay, Similk Bay	48° 26.7'	122° 33.3'	+0 34	+0 36	*0.90	*0.88	6.98	10.34	5.99
1175	Ala Spit, Whidbey Island	48° 23.8'	122° 35.2'	+0 12	+0 26	*0.92	*0.95	6.9	10.5	6.1
1177	Yokeko Point, Deception Pass	48° 24.8'	122° 36.9'	+0 26	+0 38	–1.0	–0.2	6.9	10.5	6.1
1179	Cornet Bay, Deception Pass	48° 24.1'	122° 37.4'	+0 15	+0 26	*0.89	*0.95	6.6	10.2	6.0
	Rosario Strait, etc.				**on Port Townsend, p.128**					
1181	Deception Pass St. Park, Bowman Bay, Fidalgo I.	48° 24.9'	122° 39.1'	–0 18	+0 00	*0.90	*0.98	4.62	7.72	4.76
1183	Aleck Bay, Lopez Island	48° 26'	122° 51'	–0 18	–0 08	*0.88	*0.88	4.2	7.4	4.6
1185	Burrows Bay (Allan Island)	48° 28'	122° 42'	+0 09	+0 03	*0.95	*0.88	5.0	8.1	4.8
1187	Ship Harbor, Fidalgo Island	48° 30.4'	122° 40.6'	+0 16	+0 25	*0.94	*1.00	4.75	8.05	4.93
1189	Anacortes, Guemes Channel	48° 31'	122° 37'	+0 22	+0 33	*0.96	*1.00	4.8	8.2	5.0
1191	Swinomish Channel ent., Padilla Bay	48° 28'	122° 31'	+0 36	+1 17	0.0	0.0	5.1	8.4	5.1
1193	Armitage Island, Thatcher Pass	48° 32.1'	122° 47.8'	+0 22	+0 29	*0.92	*0.93	4.91	7.84	4.78
1195	Strawberry Bay, Cypress Island	48° 34'	122° 43'	+0 34	+0 52	*0.95	*0.95	4.8	8.0	4.9
1197	Peavine Pass	48° 36'	122° 48'	+0 34	+0 18	*0.98	*0.92	5.0	8.2	4.9
1199	Eagle Harbor, Cypress Island	48° 35'	122° 42'	+0 36	+0 48	*0.98	*0.92	5.0	8.2	4.9
1201	Tide Point, Cypress Island	48° 35.2'	122° 44.2'	+0 31	+0 41	*0.94	*0.95	4.88	8.08	4.86
	Bellingham Bay									
1203	Chuckanut Bay	48° 40'	122° 30'	+0 33	+0 53	0.0	–0.1	5.2	8.4	5.1
1205	Bellingham	48° 44.7'	122° 29.7'	+0 43	+1 11	*0.99	*0.94	5.44	8.51	5.07
	Hale Passage									
1207	Gooseberry Point	48° 43.9'	122° 40.2'	+0 41	+1 10	*1.04	*0.97	5.57	8.83	5.26
1209	Point Migley	48° 45'	122° 43'	+0 56	+0 51	+0.1	0.0	5.2	8.6	5.2
1211	Village Point, Lummi Island	48° 43.0'	122° 42.5'	+0 44	+1 12	*1.01	*1.02	5.22	8.62	5.20
1213	Sandy Point, Lummi Bay	48° 47.4'	122° 42.5'	+0 52	+1 24	*1.05	*1.03	5.50	8.97	5.18
1215	Rosario, East Sound, Orcas Island	48° 39'	122° 52'	+0 27	+1 04	*0.96	*0.96	4.9	8.1	4.9
1217	Upright Head, Lopez Island	48° 34'	122° 53'	+0 26	+0 44	*0.93	*0.93	4.6	7.8	4.8
1219	Orcas, Orcas Island	48° 36'	122° 57'	+0 33	+0 56	*0.90	*0.90	4.5	7.6	4.7
	San Juan Channel									
1221	Richardson, Lopez Island	48° 26.8'	122° 54.0'	–0 27	–0 12	*0.85	*0.84	4.55	7.17	4.36
1223	Shaw Island, Ferry Terminal, Harney Channel	48° 35.1'	122° 55.7'	+0 31	+0 56	*0.90	*0.99	4.40	7.63	4.73
1225	Friday Harbor, San Juan Island	48° 32.8'	123° 00.6'	+0 33	+0 51	*0.91	*0.92	4.82	7.76	4.70
	Strait of Georgia									
1227	Echo Bay, Sucia Islands	48° 45'	122° 54'	+1 01	+1 34	+0.1	0.0	5.2	8.6	5.2
1229	Ferndale	48° 50'	122° 43'	+0 49	+1 20	+0.5	0.0	5.6	9.0	5.4
1231	CHERRY POINT	48° 51.8'	122° 45.5'		*Daily predictions, p.136*			5.71	9.15	5.47
1233	Blaine, Semiahmoo Bay	48° 59.5'	122° 45.9'	+0 54	+1 27	*1.11	*1.06	6.01	9.53	5.67
	Haro Strait									
1235	Kanaka Bay, San Juan Island	48° 29.1'	123° 05.0'	–0 11	–0 01	*0.86	*0.95	4.24	7.30	4.54
1237	Hanbury Point, Mosquito Pass, San Juan I.	48° 34.7'	123° 10.4'	+0 08	+0 26	*0.89	*0.97	4.43	7.57	4.68
1239	Roche Harbor, San Juan Island	48° 36.6'	123° 09.1'	+0 33	+0 47	*0.90	*0.99	4.47	7.60	4.76
1241	Turn Point, Stuart Island	48° 41'	123° 14'	+0 24	+0 47	*0.90	*0.90	4.4	7.5	4.7
	Boundary Pass									
1243	Patos Island Wharf	48° 47'	122° 58'	+1 03	+1 30	+0.2	0.0	5.3	8.6	5.2
	BRITISH COLUMBIA Passages inside Vancouver Island <16>				**on Victoria, p.140**					
1245	Sooke, Vancouver Island	48° 22'	123° 44'	–0 11	–0 33	+0.8	+0.5	– –	6.4	6.6
1247	Esquimalt, Vancouver Island	48° 26'	123° 26'	+0 12	+0 17	0.0	–0.1	– –	6.2	6.3
1249	VICTORIA, Vancouver Island	48° 26'	123° 23'		*Daily predictions*			– –	6.1	6.3
					on Vancouver, p.144					
1251	Sidney, Haro Strait	48° 39'	123° 24'	–1 01	–1 12	*0.71	*0.61	– –	7.8	7.1
1253	Fulford Harbor, Saltspring Island	48° 46'	123° 27'	–0 55	–1 08	–3.5	–1.0	– –	8.0	7.6
1255	Active Pass, Mayne Island	48° 52'	123° 20'	–0 16	–0 30	–1.5	–0.8	– –	9.8	8.6
1257	Cowichan Bay	48° 45'	123° 37'	–0 53	–1 09	–3.0	–0.6	– –	8.0	8.1
1259	Chemainus, Stuart Channel	48° 55'	123° 42'	–0 51	–1 03	–2.2	–1.0	– –	9.3	8.3

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	BRITISH COLUMBIA Passages inside Vancouver Island <16>–cont. Time meridian, 120° W				**on Vancouver, p.144**					
1261	Ladysmith	48° 59'	123° 47'	–0 53	–1 02	–2.3	–0.8	– –	9.0	8.4
1263	Sand Heads, Fraser River	49° 07'	123° 18'	–0 25	–0 27	–1.2	–1.1	– –	10.4	8.7
1265	Atkinson Point, Burrard Inlet	49° 19'	123° 15'	–0 25	–0 27	–1.2	–1.1	– –	10.4	8.7
1267	VANCOUVER, Burrard Inlet	49° 18'	123° 07'		*Daily predictions*			– –	10.5	9.9
1269	Squamish, Howe Sound	49° 41'	123° 10'	–0 24	–0 24	–0.8	–1.2	– –	10.9	8.9
1271	Nanaimo	49° 10'	123° 57'	–0 20	–0 20	0.0	+0.1	– –	10.4	10.0
1273	Pender Harbor, Malaspina Strait	49° 38'	124° 02'	–0 22	–0 22	–1.1	–1.2	– –	10.6	8.8
1275	Comox, Baynes Sound	49° 40'	124° 55'	–0 18	–0 20	–0.4	–1.5	– –	11.6	9.0
1277	Whaletown, Cortes Island	50° 06'	125° 03'	–0 15	–0 17	+0.5	–0.2	– –	11.2	10.0
1279	Duncan Bay, Discovery Passage	50° 05'	125° 18'	–1 03	–1 16	–3.7	–1.5	– –	8.3	7.4
1281	Redonda Bay, Deer Passage	50° 16'	124° 59'	–0 07	–0 08	+1.2	+0.5	– –	11.2	10.8
1283	Yuculta, Cordero Channel	50° 24'	125° 08'	–0 59	–0 36	–0.2	+1.0	– –	9.3	10.4
1285	Waddington Harbor, Bute Inlet	50° 56'	124° 51'	–0 12	–0 08	+0.6	–0.4	– –	11.5	10.1
1287	Gowlland Harbor, Discovery Passage	50° 04'	125° 14'	–1 09	–1 18	–3.0	–0.9	– –	8.4	8.0
1289	Seymour Narrows (Canoe Pass)	50° 08'	125° 21'	–2 30	–3 30	0.0	+0.5	– –	10.0	10.0
1291	Owen Bay, Okisollo Channel	50° 19'	125° 13'	–3 01	–3 02	–1.4	–0.2	– –	9.3	8.9
					on Sitka, p.156					
1293	Turn Island, Johnstone Strait	50° 21'	125° 29'	+1 56	+2 02	+0.6	+0.9	– –	9.6	6.3
1295	Knox Bay, West Thurlow Island	50° 24'	125° 36'	+1 30	+1 40	+2.9	+3.1	– –	9.7	8.5
1297	Kelsey Bay, Johnstone Strait	50° 24'	125° 58'	+0 54	+1 05	+4.3	+3.6	– –	10.6	9.4
1299	Port Neville, Johnstone Strait	50° 30'	126° 05'	+0 54	+0 59	+5.1	+3.8	– –	11.2	9.8
1301	Port Harvey, Johnstone Strait	50° 34'	126° 17'	+0 38	+0 47	+4.0	+3.2	– –	10.7	8.9
1303	Chatham Channel (Root Point)	50° 35'	126° 12'	+0 43	+0 57	+5.1	+3.4	– –	11.6	9.5
1305	Glendale Cove, Knight Inlet	50° 40'	125° 44'	+0 21	+0 31	+6.6	+3.7	– –	12.8	10.6
1307	Farewell Harbor, Blackfish Sound	50° 36'	126° 42'	+0 37	+0 58	+3.9	+2.9	– –	10.9	8.5
1309	Blunden Harbor	50° 54'	127° 17'	+0 19	+0 20	+4.9	+3.3	– –	11.5	9.4
1311	Alert Bay, Cormorant Island	50° 35'	126° 56'	+0 29	+0 35	+4.8	+3.3	– –	11.4	9.4
1313	Port Hardy, Vancouver Island	50° 43'	127° 29'	+0 08	+0 14	+4.7	+3.3	– –	11.3	9.4
1315	Shushartie Bay, Goletas Channel	50° 51'	127° 52'	+0 02	+0 08	+4.0	+2.7	– –	11.2	8.7
	Vancouver Island, Southwest Coast									
1317	Port San Juan	48° 33'	124° 25'	–0 11	–0 10	(*0.65+3.4)		5.0	7.2	6.8
1319	Carmanah Point	48° 37'	124° 45'	–0 16	–0 14	(*0.75+2.3)		6.0	7.4	6.2
1321	Bamfield, Barkley Sound	48° 50'	125° 08'	–0 29	–0 23	(*0.86+2.5)		6.6	8.7	7.1
1323	Port Alberni	49° 14'	124° 49'	–0 20	–0 19	(*0.87+2.5)		6.7	8.6	7.1
1325	Clayoquot	49° 09'	125° 55'	–0 16	–0 11	+1.7	+2.4	7.0	8.8	7.3
1327	Riley Cove	49° 23'	126° 13'	–0 14	–0 09	+1.5	+2.3	6.9	8.8	7.2
1329	Nootka Sound	49° 37'	126° 37'	–0 14	–0 13	+1.2	+2.0	6.9	8.9	6.9
1331	Esperanza Inlet	49° 52'	126° 43'	–0 16	–0 11	+2.0	+1.9	7.8	9.4	7.2
1333	Kyuquot Sound	50° 08'	127° 18'	–0 11	–0 06	+1.8	+2.5	7.0	8.8	7.4
1335	Nasparti Inlet	50° 06'	127° 43'	–0 09	–0 05	+2.1	+2.6	7.2	9.1	7.6
1337	Klaskish Inlet	50° 15'	127° 44'	–0 06	–0 03	+2.1	+2.6	7.2	9.1	7.6
1339	Bergh Cove, Quatsino Sound	50° 32'	127° 37'	–0 06	–0 01	+2.7	+3.1	7.3	9.4	8.2
	Prince Rupert				**on Ketchikan, p.148**			Mean	Spring	
1341	Treadwell Bay, Slingsby Channel	51° 06'	127° 32'	+0 34	+0 46	(*0.48+2.8)		6.3	7.9	6.6
1343	Wadhams, Rivers Inlet	51° 31'	127° 31'	+0 08	+0 15	(*0.68+3.3)		8.9	11.3	8.7
	Fitz Hugh Sound									
1345	Namu Harbor	51° 52'	127° 52'	+0 18	+0 21	(*0.69+3.0)		9.0	11.3	8.5
1347	Addenbroke Island	51° 36'	127° 49'	+0 09	+0 21	(*0.66+3.4)		8.6	10.9	8.7
1349	Ocean Falls, Fisher Channel	52° 21'	127° 41'	+0 09	+0 21	(*0.74+3.7)		9.5	12.0	9.6
1351	Bella Bella, Lama Passage, Campbell Island	52° 08'	128° 08'	+0 11	+0 17	(*0.70+3.7)		9.1	11.8	9.3
1353	Port Blackney, Milbanke Sound	52° 19'	128° 21'	+0 11	+0 19	(*0.72+3.1)		9.3	11.8	8.9
1355	Bella Coola, North Bentinck Arm	52° 23'	126° 48'	+0 14	+0 23	(*0.78+3.1)		10.1	13.0	9.3
	Finlayson Channel									
1357	Klemtu Passage	52° 36'	128° 31'	+0 14	+0 25	(*0.72+3.8)		9.3	11.6	9.6
1359	Carter Bay	52° 50'	128° 24'	+0 17	+0 23	(*0.78+3.1)		10.1	13.2	9.3
1361	Barnard Harbor, Whale Channel	53° 05'	129° 07'	+0 24	+0 35	+0.7	+2.8	10.9	13.9	9.8
1363	Hartley Bay, Wright Sound	53° 26'	129° 15'	+0 20	+0 31	+1.6	+3.4	11.2	14.3	10.5
1365	Kitimat, Douglas Channel	53° 59'	128° 42'	+0 24	+0 40	+2.4	+3.6	11.8	15.1	11.0
1367	Kemano Bay, Gardner Canal	53° 31'	128° 07'	+0 24	+0 40	+2.7	+3.6	12.1	15.5	11.2
1369	Lowe Inlet, Grenville Channel	53° 33'	129° 35'	+0 32	+0 44	+2.8	+4.0	11.8	14.9	11.4
	Principe Channel, etc.									
1371	Port Stephens	53° 21'	129° 43'	+0 22	+0 32	+0.5	+3.2	10.3	13.2	9.9
1373	Port Canaveral	53° 35'	130° 09'	+0 29	+0 38	+0.5	+3.2	10.3	13.2	9.9
1375	Beaver Passage	53° 48'	130° 21'	+0 38	+0 50	+3.7	+3.5	13.2	17.1	11.6
	Chatam Sound									
1377	Porcher Island	54° 05'	130° 24'	+0 34	+0 46	+3.6	+4.6	12.0	15.2	12.1
1379	Qlawdzeet Anchorage	54° 12'	130° 46'	+0 43	+0 49	+4.2	+4.3	12.9	16.6	12.3
1381	Prince Rupert	54° 19'	130° 20'	+0 51	+0 57	+4.6	+4.3	13.3	17.3	12.5
1383	Port Simpson	54° 34'	130° 26'	+0 51	+0 57	+3.9	+4.2	12.7	16.5	12.1
	Queen Charlotte Island									
1385	Skidegate Inlet	53° 15'	132° 04'	+1 01	+1 07	+5.5	+4.8	13.7	17.7	13.2
1387	Tasu Sound	52° 45'	132° 01'	+0 22	+0 29	(*0.58+3.6)		7.5	9.4	8.2

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Spring	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	BRITISH COLUMBIA and ALASKA Time meridian, 120° W				**on Ketchikan, p.148**					
	Dixon Entrance									
	Graham Island, B.C.									
1389	Parry Passage	54° 11'	132° 59'	+0 20	+0 30	(*0.68+4.2)		8.9	11.2	9.6
1391	Wiah Point	54° 07'	132° 19'	+0 36	+0 40	(*0.79+3.8)		10.3	12.9	10.1
1393	Masset Harbor	53° 59'	132° 08'	+1 01	+1 13	(*0.58+2.0)		7.6	9.5	6.6
	Time meridian, 135° W							Mean	Diurnal	
1395	Cape Muzon, Dall Island, Alaska	54° 40.6'	132° 40.1'	–0 14	–0 08	*0.78	*0.93	9.9	12.1	6.40
1397	Kelp Island Passage, Duke Island	54° 52.6'	131° 18.0'	–0 04	+0 03	*0.94	*0.96	12.2	14.6	7.60
1399	Nakat Harbor, Alaska	54° 49.2'	130° 42.0'	+0 01	+0 09	*0.95	*0.89	12.4	14.7	7.60
	Time meridian, 120° W									
1401	Haystack Island, B.C. <9>	54° 43'	130° 37'	+0 45	+0 49	–0.4	0.0	12.6	15.0	7.8
	Portland Canal, etc.									
1403	Wales Island (Cannery), Pearse Canal <9>	54° 47'	130° 33'	+0 57	+1 04	–0.1	0.0	12.9	15.3	7.9
1405	Kumeon Bay, B.C. <9>	54° 43'	130° 14'	+0 53	+0 56	+0.2	0.0	13.2	15.6	8.1
1407	Mill Bay, Nass River, B.C. <9>	55° 00'	129° 54'	+0 51	+1 17	+0.1	–0.1	13.2	15.5	8.0
1409	Stewart, B.C. <9>	55° 55'	129° 48'	+0 53	+0 56	+1.4	+0.1	14.3	16.8	8.7
	Time meridian, 135° W									
1411	Davis River entrance, Alaska <9>	55° 45.6'	130° 10.6'	–0 02	+0 00	*1.08	*0.96	14.2	16.6	8.60
	ALASKA Revillagigedo Channel									
1413	Morse Cove, Duke Island	54° 55.2'	131° 15.3'	+0 03	+0 15	*0.96	*0.96	12.43	14.80	7.70
1415	Kah Shakes Cove	55° 02.5'	130° 58.8'	+0 00	+0 06	*0.97	*0.96	12.60	14.98	7.80
1417	Boca de Quadra	55° 07.0'	130° 47.9'	+0 00	+0 02	*0.98	*0.98	12.72	15.14	7.70
1419	Mop Point, Thorne Arm	55° 23.0'	131° 14.1'	–0 05	–0 03	*0.98	*0.98	12.80	15.20	7.90
1421	Coon Island, George Inlet	55° 27.7'	131° 30.3'	–0 03	–0 07	*0.99	*0.96	12.90	15.30	7.90
	Tongass Narrows									
1423	KETCHIKAN	55° 20.0'	131° 37.5'		*Daily predictions*			12.97	15.45	8.06
1425	Ward Cove	55° 23.9'	131° 43.6'	–0 05	–0 03	*1.02	*0.96	13.28	15.70	8.10
	Behm Canal									
1427	Alva Bay, Revillagigedo Island	55° 14.0'	131° 08.0'	–0 05	–0 03	*0.98	*0.96	12.80	15.20	7.90
1429	Vallenar Point	55° 25.6'	131° 50.8'	–0 01	–0 06	*0.99	*0.96	12.90	15.30	7.90
1431	Rudyerd Bay	55° 38.5'	130° 38.7'	+0 01	+0 02	*1.02	*0.96	13.30	15.70	8.10
1433	Fitzgibbon Cove	55° 59.0'	131° 10.5'	–0 05	–0 01	*1.02	*0.96	13.40	15.80	8.20
1435	Yes Cannery, Yes Bay	55° 54.8'	131° 47.8'	+0 00	+0 01	*1.02	*0.96	13.30	15.70	8.10
1437	Loring, Naha Bay	55° 36.1'	131° 37.9'	–0 02	–0 06	*1.02	*0.96	13.16	15.70	8.20
1439	Tamgas Harbor, Annette Island	55° 04.0'	131° 32.5'	–0 09	–0 08	*0.98	*0.89	12.80	15.00	7.80
1441	Ingraham Bay, Prince of Wales Island	54° 58.8'	132° 00.4'	+0 03	+0 04	*0.93	*0.96	12.00	14.40	7.50
1443	Menefee Anch., Prince of Wales Island	55° 01.6'	132° 00.8'	–0 02	+0 01	*0.94	*0.89	12.20	14.40	7.50
1445	Niblack Anchorage, Moira Sound	55° 04.0'	132° 07.2'	+0 03	+0 09	*0.94	*0.96	12.20	14.60	7.60
1447	Metlakatla, Port Chester	55° 07.7'	131° 34.3'	–0 10	–0 07	*0.95	*0.96	12.30	14.70	7.60
	Clarence Strait									
1449	Nehenta Bay, Gravina Island	55° 10.0'	131° 47.8'	–0 01	–0 01	*0.95	*0.96	12.30	14.70	7.70
1451	Lancaster Cove, Cholmondeley Sound	55° 12.8'	132° 05.7'	+0 05	+0 03	*0.98	*0.96	12.70	15.10	7.90
1453	Divide Head, Cholmondeley Sound	55° 15.1'	132° 18.0'	–0 05	–0 08	*0.98	*0.96	12.70	15.10	7.90
	Kasaan Bay									
1455	Saltery Cove, Skowl Arm	55° 24.1'	132° 19.7'	+0 04	+0 02	*1.01	*1.01	13.07	15.57	8.13
1457	Kasaan	55° 32.1'	132° 23.8'	+0 05	+0 03	*1.02	*1.01	13.20	15.69	7.84
1459	Lindeman Cove	55° 36.1'	132° 30.7'	+0 06	+0 03	*1.02	*1.01	13.27	15.75	8.22
1461	Hollis Anchorage	55° 28.8'	132° 38.7'	+0 06	+0 02	*1.03	*1.01	13.39	15.88	7.94
1463	Bradfield Canal, Ernest Sound	56° 11.0'	131° 34.3'	+0 11	+0 05	*1.08	*0.99	14.09	16.59	8.60
1465	Ratz Harbor, Prince of Wales Island	55° 52.8'	132° 35.7'	+0 09	+0 00	*1.03	*0.99	13.46	15.90	7.94
1467	Lake Bay	56° 01.0'	132° 55.0'	+0 10	+0 01	*1.03	*0.89	13.60	15.90	8.20
1469	Thorne Island, Whale Passage	56° 03.5'	132° 59.1'	+0 12	+0 01	*1.04	*0.98	13.52	15.93	8.30
1471	Point Harrington	56° 10.7'	132° 41.8'	+0 09	+0 01	*1.04	*0.97	13.55	15.96	8.29
1473	Thoms Point, Zimovia Strait	56° 07.1'	132° 04.7'	+0 07	+0 01	*1.06	*0.99	13.90	16.33	8.50
1475	Village Rock, Zimovia Strait	56° 13.2'	132° 17.8'	+0 09	+0 01	*1.05	*0.97	13.75	16.13	8.40
1477	Madan Bay	56° 23.5'	132° 10.1'	+0 12	+0 04	*1.05	*0.98	13.81	16.23	8.42
1479	Wrangell, Wrangell Island	56° 28.2'	132° 23.2'	+0 10	+0 01	*1.04	*0.96	13.57	15.96	8.29
	Cordova Bay				**on Sitka, p.156**					
1481	Minnie Bay	54° 43'	132° 18'	–0 05	+0 00	+2.7	+0.1	10.3	12.7	6.6
1483	Tah Bay	54° 50'	132° 20'	–0 04	+0 03	+2.6	+0.1	10.2	12.5	6.6
1485	Hunter Bay	54° 52'	132° 19'	–0 02	+0 03	+2.7	+0.1	10.3	12.7	6.6
1487	Kassa Inlet entrance	54° 56'	132° 31'	–0 03	+0 01	+2.6	+0.1	10.2	12.5	6.6
1489	Elbow Bay	54° 54'	132° 39'	–0 04	–0 04	+2.6	+0.1	10.2	12.6	6.6

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No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	ALASKA Cordova Bay–cont. Time meridian, 135° W				**on Sitka, p.156**					
1491	Mabel Island	55° 00’	132° 36’	–0 10	–0 01	+2.8	+0.1	10.4	12.8	6.7
1493	Keete Island, Nutkwa Inlets	55° 03’	132° 35’	–0 13	–0 05	+2.8	+0.1	10.4	12.8	6.7
1495	Keete Inlet	55° 05’	132° 29’	–0 11	–0 01	+2.9	+0.1	10.5	12.9	6.7
	Hetta Inlet									
1497	Mud Bay	55° 05’	132° 38’	–0 05	+0 01	+2.8	+0.1	10.4	12.8	6.7
1499	Copper Harbor	55° 13’	132° 37’	–0 10	–0 08	+2.8	+0.1	10.4	12.8	6.7
1501	Sulzer	55° 17’	132° 37’	–0 02	+0 08	+2.9	+0.1	10.5	12.9	6.7
1503	American Bay, Kaigani Strait	54° 51’	132° 50’	+0 01	+0 01	+2.5	0.0	10.2	12.4	6.5
	Tlevak Strait									
1505	Kasook Inlet, Sukkwan Island	55° 01’	132° 47’	–0 13	–0 05	+2.8	0.0	10.5	12.6	6.6
1507	View Cove	55° 05’	133° 01’	–0 02	+0 02	+2.8	0.0	10.5	12.7	6.6
1509	South Pass, Sukkwan Strait	55° 10’	132° 52’	–0 02	+0 02	+2.9	+0.1	10.5	12.9	6.8
1511	Saltery Point	55° 11’	132° 48’	–0 08	–0 05	+2.9	+0.1	10.5	12.9	6.8
1513	North Pass, West End	55° 12’	132° 56’	–0 12	–0 06	+3.0	+0.1	10.6	13.0	6.8
1515	Natalia Point	55° 14’	133° 03’	–0 05	+0 01	+2.9	+0.1	10.5	12.9	6.8
1517	Soda Bay	55° 16’	132° 58’	+0 03	+0 07	+3.0	+0.1	10.6	13.0	6.8
1519	Tlevak Narrows	55° 16’	133° 07’	–0 07	–0 01	+1.7	+0.1	9.3	11.7	6.2
	Dall Island, west coast									
	Cape Muzon (see Index)	54° 40’	132° 40’	– – –	– – –	– –	– –	– –	– –	– –
1521	Security Cove	54° 45’	132° 51’	–0 20	–0 24	+1.0	0.0	8.7	10.8	5.7
1523	Sakie Bay	55° 04’	133° 12’	+0 01	+0 05	+0.3	0.0	8.0	10.3	5.4
1525	Sea Otter Harbor	55° 07’	133° 10’	–0 04	+0 04	–0.2	–0.1	7.6	9.7	5.1
	Bucareli Bay to Davidson Inlet									
	Ulloa Channel									
	Bucareli Bay									
1527	Craig, Klawock Inlet	55° 29.3’	133° 08.5’	–0 08	–0 08	*1.02	*0.94	7.95	10.15	5.35
1529	Cruz Pass, San Fernando Island	55° 32’	133° 19’	–0 15	–0 12	+0.1	–0.1	7.9	10.1	5.2
	Gulf of Esquibel									
1531	Steamboat Bay, Noyes Island	55° 32.0’	133° 38.2’	–0 12	–0 13	*1.04	*0.93	8.16	10.33	5.44
1533	Anguilla Island	55° 41’	133° 35’	–0 18	–0 14	+0.4	–0.1	8.2	10.3	5.4
1535	Nossuk Bay, Tonowek Bay	55° 43.3’	133° 21.0’	–0 14	–0 14	*1.05	*0.94	8.21	10.40	5.48
	Davidson Inlet									
1537	Port Alice, Heceta Island	55° 49’	133° 36’	–0 20	–0 14	+0.9	0.0	8.6	10.8	5.7
1539	Tuxekan, 0.5 mile south of	55° 53’	133° 15’	–0 17	–0 07	+0.9	–0.1	8.7	10.9	5.6
1541	El Capitan Island	55° 56’	133° 20’	–0 11	–0 10	+0.9	–0.1	8.7	10.8	5.6
1543	Cyrus Cove, Sea Otter Sound	55° 55’	133° 24’	–0 16	–0 12	+1.1	0.0	8.8	10.9	5.8
1545	Marble Island	56° 00’	133° 28’	–0 19	–0 15	+0.8	–0.1	8.6	10.7	5.6
1547	Edna Bay	55° 57’	133° 40’	–0 20	–0 08	+0.9	0.0	8.6	10.8	5.7
	Sumner Strait									
1549	Coronation Island	55° 54’	134° 07’	–0 16	–0 17	+0.8	0.0	8.5	10.7	5.6
1551	Pole Anchorage, Kosciusko Island	55° 57’	133° 49’	–0 22	–0 22	+1.4	–0.1	9.2	11.4	5.9
1553	Port McArthur, Kuiu Island	56° 04’	134° 07’	–0 11	–0 07	+0.6	–0.1	8.4	10.6	5.5
1555	Affleck Canal entrance, Kuiu Island	56° 02.2’	134° 06.9’	–0 09	–0 06	*1.09	*0.95	8.63	10.73	5.70
1557	Kell Bay, Affleck Canal, Kuiu Island	56° 09’	134° 08’	+0 01	+0 01	+1.3	0.0	9.0	11.2	5.9
1559	Point St. Albans	56° 05’	133° 58’	–0 17	–0 13	+1.4	0.0	9.1	11.3	5.9
1561	Shakan Bay Entrance	56° 08’	133° 37’	–0 13	–0 12	+1.8	0.0	9.5	11.7	6.2
1563	Shakan Strait, Kosciusko Island	56° 08’	133° 28’	–0 09	–0 10	+1.9	–0.1	9.7	11.7	6.2
1565	El Capitan Passage	56° 04’	133° 19’	–0 05	+0 02	+0.9	–0.1	8.7	10.8	5.6
1567	Port Beauclerc, Kuiu Island	56° 17’	133° 57’	–0 14	–0 12	+1.9	–0.1	9.7	11.9	6.2
1569	Port Protection, Prince of Wales Island.	56° 19’	133° 36’	–0 13	–0 11	+2.4	0.0	10.1	12.4	6.4
1571	Reid Bay	56° 23’	133° 53’	–0 11	–0 19	+2.5	0.0	10.2	12.4	6.5
1573	Sumner Island	56° 25’	133° 48’	–0 19	–0 12	+2.6	0.0	10.3	12.6	6.6
					on Ketchikan, p.148					
1575	Bushy Island, Snow Passage	56° 16.6’	132° 59.1’	+0 03	+0 01	*0.95	*0.93	12.41	14.74	7.66
1577	Reef Point, Stikine Strait	56° 21.2’	132° 33.2’	+0 09	+0 02	*1.04	*0.96	13.57	15.96	8.28
1579	Greys Island	56° 31.3’	132° 32.5’	+0 11	+0 05	*1.01	*0.94	13.20	15.57	8.08
	Wrangell Narrows									
1581	Point Lockwood, Woewodski Island	56° 33.5’	132° 57.8’	+0 15	+0 08	*0.98	*0.98	12.67	15.09	7.87
1583	Beecher Pass	56° 35.7’	132° 59.2’	+0 22	+0 14	*1.00	*0.98	13.05	15.47	8.06
1585	Anchor Point	56° 38.3’	132° 55.6’	+0 31	+0 40	*1.04	*0.99	13.56	15.99	8.00
1587	Papke’s Landing	56° 40.6’	132° 55.9’	+0 33	+0 50	*1.00	*1.01	13.92	16.39	8.54
1589	Turn Point	56° 48.0’	132° 58.8’	+0 25	+0 38	*1.04	*0.96	13.68	16.07	8.34
1591	Petersburg	56° 48.9’	132° 57.4’	+0 28	+0 37	*1.04	*0.97	13.56	15.99	8.00
	Keku Strait									
1593	Monte Carlo Island	56° 32.1’	133° 45.9’	+0 03	+0 03	*0.80	*0.89	10.30	12.50	6.60
1595	The Summit	56° 40.9’	133° 44.1’	+0 19	+0 23	*0.98	*0.99	12.63	15.04	7.86
1597	Entrance Island	56° 48.7’	133° 47.2’	+0 18	+0 20	*0.94	*0.98	12.17	14.56	7.62

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	ALASKA Frederick Sound Time meridian, 135° W				**on Juneau, p.152**					
1599	Dry Strait	56° 37'	132° 34'	–0 18	–0 03	–0.2	0.0	13.5	16.1	8.3
1601	Cosmos Point	56° 39.8'	132° 37.0'	–0 05	–0 05	*0.98	*0.99	13.47	16.00	8.43
1603	Ideal Cove, Mitkof Island	56° 40'	132° 38'	–0 09	–0 05	–0.2	0.0	13.5	16.1	8.3
1605	Leconte Bay	56° 47.3'	132° 30.1'	–0 01	+0 02	*0.98	*0.99	13.47	16.01	8.31
1607	Brown Cove	56° 53'	132° 48'	–0 14	–0 10	–0.3	–0.1	13.5	15.8	8.2
1609	Thomas Bay	57° 00'	132° 47'	+0 07	+0 07	–0.8	–0.1	13.0	15.4	8.0
1611	Portage Bay, Kupreanof Island	57° 00'	133° 19'	–0 19	–0 15	–0.7	0.0	13.0	15.5	8.1
1613	Cleveland Passage, Whitney Island	57° 13'	133° 30'	–0 01	+0 03	–1.2	–0.1	12.6	15.0	7.8
1615	Cannery Cove, Pybus Bay	57° 18.4'	134° 08.0'	–0 08	–0 06	*0.90	*0.94	12.24	14.63	7.60
1617	Eliza Harbor, Liesnoi Island	57° 10'	134° 17'	–0 19	–0 19	–1.9	–0.1	11.9	14.3	7.4
1619	Eliza Harbor, Admiralty Island	57° 11.3'	134° 17.2'	–0 06	–0 04	*0.87	*0.92	11.79	14.10	7.35
1621	Herring Bay	57° 06.8'	134° 22.8'	–0 08	–0 07	*0.84	*0.91	11.44	13.70	7.16
1623	Saginaw Bay, Kuiu Island	56° 54.2'	134° 18.2'	–0 12	–0 15	*0.84	*0.96	11.34	13.67	7.18
	Stephens Passage									
1625	The Brothers	57° 17.7'	133° 47.8'	–0 07	–0 04	*0.91	*0.98	12.34	14.85	7.73
1627	Port Houghton, Robert Islands	57° 18'	133° 28'	–0 21	–0 17	–0.8	–0.1	13.0	15.4	8.0
1629	Hobart Bay	57° 24'	133° 25'	–0 06	+0 03	–1.1	–0.1	12.7	15.1	7.8
1631	Good Island, Gambier Bay	57° 29.2'	133° 53.9'	–0 05	–0 04	*0.93	*0.96	12.77	15.25	7.91
1633	Gambier Bay (cannery wharf)	57° 29.0'	133° 57.6'	–0 01	–0 01	*0.92	*0.96	12.63	15.08	7.86
1635	Upper Endicott Arm, North Shore	57° 31.3'	133° 03.3'	+0 01	+0 06	*0.98	*0.99	13.52	16.04	8.34
1637	Windham Bay	57° 33'	133° 30'	+0 00	+0 00	–1.1	–0.1	12.7	15.1	7.8
1639	Rasp Ledge, Seymour Canal	57° 41'	134° 02'	+0 06	+0 05	–0.7	+0.1	12.9	15.6	8.2
1641	Windfall Harbor, Seymour Canal	57° 52'	134° 16'	+0 14	+0 18	–0.2	0.0	13.5	16.0	8.3
1643	Holkham Bay, Wood Spit	57° 43'	133° 35'	+0 03	+0 06	–0.8	–0.1	13.0	15.4	8.0
1645	Holkham Bay, Tracy Arm Entrance	57° 46.6'	133° 36.2'	+0 01	+0 02	*0.96	*0.96	13.14	15.61	8.11
1647	Sawyer Island, Tracy Arm	57° 52.7'	133° 11.4'	+0 02	+0 06	*0.97	*1.01	13.32	15.83	8.25
1649	Port Snettisham, Point Styleman	57° 58'	133° 53'	–0 12	–0 06	–0.4	–0.1	13.4	15.8	8.2
1651	Port Snettisham, Crib Point	58° 05.7'	133° 44.3'	–0 03	–0 03	*0.98	*0.97	13.40	15.86	8.23
1653	Taku Harbor	58° 04.1'	134° 00.6'	–0 03	–0 04	*0.97	*1.00	13.29	15.71	8.22
1655	Greely Point, Taku Inlet	58° 13'	134° 04'	–0 01	–0 04	–0.6	–0.1	13.2	15.7	8.1
1657	Taku Point, Taku Inlet	58° 24'	134° 01'	+0 14	+0 13	+0.4	0.0	14.1	16.7	8.6
1659	JUNEAU	58° 17.9'	134° 24.7'		*Daily predictions*			13.74	16.31	8.47
1661	Young Bay	58° 11.0'	134° 35.2'	+0 00	+0 02	*1.00	*1.00	13.80	16.39	8.49
1663	Fritz Cove, Douglas Island	58° 19'	134° 36'	–0 01	+0 05	–0.3	–0.1	13.5	15.9	8.2
1665	Auke Bay	58° 23'	134° 39'	–0 06	–0 03	–0.4	0.0	13.3	15.9	8.2
	Lynn Canal									
1667	Funter, Funter Bay	58° 15'	134° 54'	+0 00	+0 01	–1.1	0.0	12.6	15.1	7.9
1669	Barlow Cove, Mansfield Peninsula	58° 19.3'	134° 52.7'	–0 04	–0 01	*0.96	*0.99	13.22	15.75	8.19
1671	Lincoln Island	58° 29.9'	134° 57.9'	–0 03	+0 01	*0.98	*1.00	13.49	15.98	8.33
1673	William Henry Bay	58° 43'	135° 14'	+0 02	+0 09	–0.5	0.0	13.2	15.7	8.2
1675	Cove Point, Berner's Bay	58° 45.1'	135° 01.7'	–0 02	+0 00	*1.00	*1.02	13.64	16.26	8.45
1677	Chilkat Inlet	59° 10.2'	135° 24.0'	–0 04	–0 01	*1.01	*1.00	13.89	16.49	8.53
1679	Haines Inlet	59° 14'	135° 26'	–0 09	–0 06	+0.5	0.0	14.2	16.8	8.7
1681	Taiyasanka Harbor, Taiya Inlet	59° 18.1'	135° 25.7'	–0 04	–0 02	*1.03	*1.01	14.20	16.89	8.72
1683	Skagway, Taiya Inlet	59° 27.0'	135° 19.6'	–0 03	–0 01	*1.03	*1.01	14.11	16.74	8.68
	Chatham Strait				**on Sitka, p.156**					
1685	Port Alexander, Baranof Island	56° 14.8'	134° 38.8'	+0 07	+0 10	*1.14	*1.01	8.59	10.93	5.76
1687	Port Walter, Baranof Island	56° 23'	134° 40'	+0 04	+0 13	+1.5	+0.1	9.1	11.5	6.0
1689	Table Bay, Kuiu Island	56° 10'	134° 15'	–0 15	–0 13	+1.1	0.0	8.8	11.1	5.8
1691	Port Malmesbury, Kuiu Island	56° 18'	134° 14'	+0 04	+0 13	+1.2	+0.1	8.8	11.2	5.9
1693	Tebenkof Bay, Kuiu Island	56° 25'	134° 08'	+0 04	+0 11	+1.8	+0.1	9.4	11.8	6.2
1695	Red Bluff Bay	56° 51'	134° 43'	–0 02	+0 12	+2.7	+0.2	10.2	12.7	6.7
					on Juneau, p.152					
	Frederick Sound (see Index)	– – –	– – –	– – –	– – –	– –	– –	– –	– –	– –
1697	Baranof, Warm Spring Bay	57° 05'	134° 50'	–0 07	–0 04	–2.8	–0.1	11.0	13.4	7.0
1699	Whitewater Bay, Admiralty Island	57° 14'	134° 36'	–0 19	–0 15	–2.0	+0.3	11.4	13.9	7.6
1701	Kasnyku Bay	57° 13'	134° 52'	–0 10	–0 06	–2.4	–0.1	11.4	13.8	7.2
1703	Point Thatcher	57° 25'	134° 51'	–0 15	–0 11	–1.9	+0.2	11.6	14.2	7.6
	Peril Strait (see Index)	– – –	– – –	– – –	– – –	– –	– –	– –	– –	– –
1705	Killisnoo	57° 28'	134° 34'	–0 06	–0 04	–2.1	0.0	11.6	14.1	7.4
	Kootznahoo Inlet									
1707	Favorite Bay	57° 29'	134° 33'	+0 11	+0 15	–2.8	+0.3	10.6	13.0	7.2
1709	Mitchell Bay	57° 32'	134° 24'	+1 22	+1 31	*0.67	*0.62	9.2	11.0	5.6
1711	Tenakee Springs, Tenakee Inlet	57° 47'	135° 13'	–0 04	+0 05	–1.5	–0.1	12.3	14.7	7.7
1713	Freshwater Bay, Chichagof Island	57° 51'	135° 01'	–0 08	+0 00	–1.5	+0.3	11.9	14.4	7.8
1715	Hawk Inlet Entrance	58° 05.1'	134° 46.6'	–0 04	–0 01	*0.94	*0.98	12.85	15.29	7.98
	Baranof Island, west coast				**on Sitka, p.156**					
1717	Dorothy Cove, Necker Bay	56° 43.3'	135° 04.5'	–0 02	–0 02	*0.97	*0.95	7.48	9.61	5.12
1719	Golf Island, Necker Island	56° 47.2'	135° 23.5'	–0 02	–0 01	*0.98	*0.97	7.53	9.70	5.18
	Sitka Sound									
1721	Symonds Bay, Biorka Island	56° 51'	135° 31'	–0 15	–0 16	–0.1	0.0	7.6	9.8	5.2
1723	SITKA	57° 03.1'	135° 20.5'		*Daily predictions*			7.70	9.94	5.31
1725	Olga Point, Olga Strait	57° 14'	135° 32'	+0 00	+0 14	0.0	0.0	7.7	9.9	5.3

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	ALASKA Salisbury Sound and Peril Strait Time meridian, 135° W				**on Sitka, p.156**					
1727	Klokachef Island	57° 25’	135° 53’	–0 10	–0 06	–0.1	+0.1	7.5	9.9	5.2
1729	Scraggy Point	57° 20’	135° 43’	–0 09	+0 00	–0.1	+0.1	7.5	9.8	5.2
1731	Scraggy Island	57° 20.4’	135° 42.4’	+0 00	–0 01	*1.00	*1.03	7.62	9.97	5.31
1733	Haley Anchorage, Fish Bay	57° 22’	135° 37’	+0 03	+0 12	+0.2	+0.1	7.8	10.1	5.4
1735	Serguis Narrows	57° 24.6’	135° 37.6’	+0 19	+0 24	*1.33	*1.05	10.62	13.04	6.86
1737	Bear Bay	57° 25’	135° 35’	+0 18	+0 29	+3.7	+0.2	11.2	13.6	7.2
					on Juneau, p.152					
1739	Povorotni Island, Pogibshi Point	57° 31’	135° 33’	–0 09	+0 02	–1.3	–0.1	12.5	14.9	7.7
1741	Nismeni Cove	57° 34’	135° 25’	–0 15	–0 03	–1.3	–0.1	12.5	15.0	7.7
1743	Point Elizabeth	57° 31’	135° 17’	–0 15	–0 05	–1.6	0.0	12.1	14.7	7.6
1745	Lindenburg Head	57° 27’	135° 02’	–0 15	–0 05	–1.8	0.0	11.9	14.5	7.5
1747	Fairway Island	57° 27’	134° 53’	–0 15	–0 05	–2.1	0.0	11.6	14.2	7.4
	Chichagof Island, west coast				**on Sitka, p.156**					
1749	Falcon Arm, Slocum Arm	57° 33’	135° 56’	–0 03	–0 02	+0.6	+0.2	8.1	10.2	5.6
1751	Elbow Passage, Klag Bay	57° 37’	136° 05’	+0 10	+0 18	+0.8	+0.1	8.4	10.7	5.7
1753	Kimshan Cove, Ogden Passage	57° 41’	136° 06’	+0 07	+0 11	+0.2	+0.1	7.8	10.1	5.4
	Lisianski Strait and Inlet									
1755	Canoe Cove, North Pass	57° 51’	136° 25’	+0 04	+0 04	+0.1	–0.1	7.9	10.1	5.2
1757	Miner Island	58° 01’	136° 20’	–0 06	–0 01	+0.4	0.0	8.1	10.4	5.5
	Yakobi Island, outer coast									
1759	Takanis Bay	57° 55’	136° 31’	–0 02	+0 04	0.0	+0.1	7.6	10.1	5.3
1761	Surge Bay	58° 01’	136° 32’	+0 02	+0 07	–0.2	0.0	7.5	9.9	5.1
	Cross Sound									
1763	Elfin Cove, Port Althorp	58° 11.6’	136° 20.5’	+0 04	+0 05	*1.10	*1.01	8.65	11.03	5.80
1765	Inian Cove, North Inian Pass	58° 16’	136° 20’	+0 11	+0 11	+1.5	0.0	9.2	11.5	6.0
	Icy Strait									
1767	Mud Bay, Goose Island	58° 13’	136° 02’	+0 08	+0 11	+2.9	0.0	10.6	12.9	6.7
					on Juneau, p.152					
1769	Point Adolphus	58° 17’	135° 47’	–0 03	+0 01	–1.8	–0.1	12.0	14.5	7.5
1771	Flynn Cove	58° 12’	135° 35’	–0 05	–0 01	–1.4	–0.1	12.4	15.0	7.7
1773	Excursion Inlet Entrance	58° 25.0’	135° 26.8’	+0 00	+0 03	*0.91	*0.96	12.44	14.88	7.76
1775	Excursion Inlet	58° 30’	135° 29’	+0 02	+0 03	–1.3	0.0	12.4	14.8	7.8
1777	Hoonah Harbor, Port Frederick	58° 08’	135° 28’	+0 01	+0 03	–1.4	–0.1	12.4	14.8	7.7
1779	Swanson Harbor	58° 13’	135° 08’	+0 04	+0 09	–1.1	0.0	12.6	15.1	7.9
	Glacier Bay									
1781	Bartlett Cove	58° 27’	135° 53’	+0 11	+0 12	–1.6	0.0	12.1	14.6	7.7
1783	Willoughby Island	58° 36’	136° 07’	+0 24	+0 36	–0.2	+0.1	13.4	16.0	8.4
1785	Muir Inlet	58° 55’	136° 07’	+0 29	+0 39	+0.3	+0.1	13.9	16.5	8.6
1787	Composite Island	58° 53’	136° 34’	+0 28	+0 37	+0.3	+0.1	13.9	16.5	8.6
	Gulf of Alaska				**on Sitka, p.156**					
1789	Graves Harbor	58° 16’	136° 41’	+0 06	+0 12	0.0	+0.1	7.6	10.0	5.3
1791	Dixon Harbor	58° 23’	136° 52’	+0 09	+0 12	–0.1	0.0	7.6	9.9	5.2
1793	Lituya Bay, 2 miles inside entrance	58° 37’	137° 37’	+0 08	+0 41	–0.3	–0.1	7.5	9.7	5.0
1795	Yakutat, Yakutat Bay	59° 32.9’	139° 44.1’	+0 17	+0 16	*1.01	*0.95	7.82	10.07	5.30
1797	Johnstone Passage, Yakutat Bay	59° 35’	139° 42’	+0 16	+0 19	*1.00	*0.96	7.8	10.0	5.3
1799	Redfield Cove, Yakutat Bay	59° 37’	139° 35’	+0 16	+0 16	*1.00	*0.88	7.8	10.0	5.2
1801	Point Latouche, Yakutat Bay	59° 54’	139° 38’	+0 21	+0 19	*1.00	*0.89	7.8	10.0	5.2
1803	Icy Bay	59° 53’	141° 28’	+0 17	+0 19	–0.1	0.0	7.6	9.9	5.2
1805	Tyndall Glacier, Icy Bay	60° 05’	141° 16’	+0 35	+0 33	–0.3	–0.1	7.5	9.7	5.1
1807	Wingham Island, Controller Bay	60° 03’	144° 24’	+0 20	+0 24	0.0	0.0	7.7	10.1	5.2
					on Cordova, p.160					
	Copper River Delta									
1809	Kokinhenik Island <10>	60° 18’	145° 05’	+0 08	– – –	– –	– –	– –	– –	– –
1811	Pete Dahl Slough	60° 23’	145° 24’	+0 06	+0 38	–2.4	0.0	7.7	10.0	5.3
1813	Eyak River entrance	60° 28’	145° 40’	+0 14	+0 58	–1.6	–0.1	8.6	10.8	5.7
1815	Middleton Island (north end)	59° 28’	146° 19’	–0 21	–0 14	–2.2	–0.1	8.0	10.3	5.4
	Prince William Sound									
	Orca Inlet									
1817	Shag Rock	60° 28’	145° 59’	–0 11	–0 16	–1.1	–0.1	9.1	11.4	6.0
1819	Gravel Point	60° 28’	145° 58’	+0 01	+0 31	–0.1	0.0	10.0	12.3	6.5
1821	CORDOVA	60° 33.5’	145° 45.2’		*Daily predictions*			10.17	12.59	6.59
1823	Orca	60° 35’	145° 43’	+0 01	+0 01	–0.2	0.0	9.9	12.4	6.4
1825	Windy Bay, Hawkins Island	60° 34’	145° 58’	–0 08	–0 01	–0.5	0.0	9.6	12.1	6.3
1827	Comfort Cove, Port Gravina	60° 43’	146° 05’	–0 16	–0 06	–0.7	–0.1	9.5	11.8	6.2

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	ALASKA Prince William Sound–cont. Time meridian, 135° W				**on Cordova, p.160**					
	Hinchinbrook Island									
1829	Johnstone Point	60° 29'	146° 37'	–0 07	+0 02	–0.8	–0.1	9.4	11.8	6.1
1831	Port Etches	60° 20'	146° 33'	–0 09	+0 01	–1.3	–0.2	9.0	11.2	5.8
1833	Cape Hinchinbrook	60° 14.3'	146° 38.8'	–3 36	–3 28	*0.88	*0.98	8.86	11.24	5.90
	Montague Island									
1835	Wooded Islands	59° 52.5'	147° 24.2'	–0 02	+0 00	*0.80	*0.95	7.90	10.24	5.39
1837	Patton Bay	59° 54'	147° 26'	–0 12	–0 05	–2.3	–0.1	7.9	10.2	5.3
1839	Macleod Harbor	59° 53'	147° 46'	–0 33	–0 16	–1.4	–0.1	8.8	11.0	5.8
1841	Hanning Bay	59° 57'	147° 41'	–0 08	–0 05	–1.0	–0.1	9.2	11.5	6.0
1843	5 miles NE of Point Brazil	59° 01.5'	147° 35.5'	–0 02	+0 00	*0.91	*0.96	9.14	11.51	6.02
1845	Perch Point	60° 07.6'	147° 23.7'	–0 08	–0 03	*0.92	*0.94	9.31	11.72	6.08
1847	Port Chalmers	60° 14.5'	147° 14.9'	–0 03	–0 02	*0.94	*0.97	9.53	11.91	6.22
1849	Gibbon Anchorage, Green Island	60° 16'	147° 26'	–0 21	–0 06	–0.8	–0.2	9.5	11.5	6.1
1851	Latouche, Latouche Island	60° 03'	147° 54'	–0 05	–0 02	–1.0	0.0	9.1	11.5	6.0
1853	Guguak	60° 06.0'	148° 02.2'	–0 07	–0 03	*0.91	*0.95	9.19	11.57	6.04
1855	Sawmill Bay, Evans Island	60° 03'	148° 04'	–0 03	+0 03	–1.2	0.0	8.9	11.3	5.9
1857	Point Elrington, Elrington Island	59° 56.3'	148° 13.6'	–0 13	–0 02	*0.84	*0.94	8.44	10.83	5.64
	Knight Island									
1859	Point Helen	60° 09.2'	147° 47.0'	–0 05	–0 01	*0.92	*1.00	9.17	11.55	6.04
1861	Snug Harbor	60° 15.0'	147° 43.0'	–0 03	+0 00	*0.91	*0.97	9.17	11.54	6.06
1863	Port Audrey	60° 20'	147° 46'	–0 04	–0 01	–0.4	+0.1	9.6	12.1	6.4
1865	Herring Point	60° 28.5'	147° 47.5'	–0 04	+0 01	*0.95	*1.01	9.55	11.95	6.26
1867	Smith Island	60° 32'	147° 19'	–0 05	–0 04	–0.8	–0.1	9.4	11.8	6.1
1869	Snug Corner Cove, Port Fidalgo	60° 44'	146° 39'	–0 07	–0 06	–0.6	0.0	9.5	12.0	6.2
1871	Landlocked Bay, Port Fidalgo	60° 51'	146° 32'	–0 12	–0 08	–0.7	–0.1	9.5	11.9	6.1
					on Valdez, p.164					
	Valdez Arm									
1873	Busby Island	60° 53.9'	146° 46.9'	–0 02	–0 02	*0.98	*0.98	9.54	11.89	6.25
1875	Rocky Point	60° 56.8'	146° 45.3'	+0 00	–0 03	*0.99	*0.99	9.60	12.10	6.30
1877	Jack Bay	61° 02.4'	146° 36.9'	–0 01	–0 02	*0.99	*0.99	9.63	12.10	6.30
1879	VALDEZ, Port Valdez	61° 07.5'	146° 21.7'		*Daily predictions*			9.70	12.15	6.36
					on Cordova, p.160					
1881	Columbia Glacier, Columbia Bay	61° 01.4'	147° 05.1'	–0 01	+0 01	*0.95	*0.99	9.60	12.01	6.30
1883	Jackson Cove, Glacier Island	60° 53'	147° 14'	–0 10	–0 02	–0.6	0.0	9.5	11.9	6.2
1885	Naked Island, McPherson Passage	60° 40'	147° 24'	–0 18	–0 08	–0.7	–0.1	9.5	11.8	6.1
1887	Kings Bay, Port Nellie Juan	60° 32'	148° 28'	–0 01	+0 09	–0.6	0.0	9.5	11.9	6.2
1889	Culross Bay, Wells Passage	60° 44'	148° 11'	–0 15	–0 01	–0.4	0.0	9.7	12.1	6.3
1891	Long Bay Entrance, Culross Passage	60° 42'	148° 16'	+0 03	+0 09	–0.9	–0.1	9.3	11.6	6.1
1893	Whittier, Passage Canal	60° 47'	148° 40'	–0 05	+0 01	–0.3	0.0	9.8	12.3	6.4
1895	Applegate Island	60° 38'	148° 10'	–0 01	+0 06	–0.6	0.0	9.5	11.9	6.2
1897	Eshamy Bay, Knight Island Passage	60° 27'	147° 59'	+0 01	+0 04	–0.4	0.0	9.7	12.1	6.4
1899	Eshamy Lagoon	60° 27.7'	147° 02.7'	–0 11	+0 00	*0.92	*1.03	9.11	11.51	6.06
1901	Chenega Island, Dangerous Passage	60° 20'	148° 09'	–0 01	+0 06	–0.9	0.0	9.2	11.6	6.1
1903	Chenega Island, southwest end	60° 17.2'	148° 07.2'	–0 03	+0 00	*0.94	*1.00	9.37	11.71	6.14
1905	Bainbridge Point, Bainbridge Island	60° 11.8'	148° 02.5'	–0 06	+0 01	*0.93	*0.98	9.36	11.79	6.16
1907	Hogg Bay, Port Bainbridge	60° 04'	148° 12'	–0 12	–0 03	–1.9	–0.1	8.3	10.6	5.5
	Kenai Peninsula, outer coast									
1909	Day Harbor	60° 01'	149° 03'	–0 11	–0 02	–2.0	–0.1	8.2	10.5	5.5
1911	Seward, Resurrection Bay	60° 07.2'	149° 25.6'	–0 06	–0 13	*0.83	*0.91	8.33	10.62	5.55
1913	Aialik Bay, North end	59° 57.2'	149° 42.9'	–0 06	+0 01	*0.83	*0.89	8.38	10.62	5.53
1915	Aialik Sill, Aialik Bay	59° 53.1'	149° 43.1'	–0 05	+0 00	*0.83	*0.90	8.38	10.65	5.55
1917	Bear Cove, Aialik Peninsula	59° 48.1'	149° 36.9'	–0 05	+0 00	*0.83	*0.89	8.34	10.57	5.51
1919	Agnes Cove, Aialik Peninsula	59° 46.4'	149° 35.3'	–0 06	+0 00	*0.84	*0.91	8.39	10.69	5.57
1921	Camp Cove, Aialik Bay	59° 41.6'	149° 44.9'	–0 06	+0 00	*0.84	*0.90	8.40	10.66	5.57
1923	Crater Bay, Harris Bay	59° 42.8'	149° 47.2'	–0 03	+0 01	*0.84	*0.87	8.49	10.72	5.56
1925	Upper Northwestern Fiord, Harris Bay	59° 47.4'	150° 01.9'	+0 01	+0 11	*0.85	*0.90	8.59	10.84	5.65
1927	Two Arm Bay, Harris Bay	59° 40'	150° 06'	–0 19	–0 07	–1.6	–0.2	8.7	11.0	5.7
1929	Chance Cove (Lagoon)	59° 29'	150° 19'	–0 09	–0 01	–1.5	–0.1	8.7	11.0	5.7
1931	Beauty Bay, Nuka Bay	59° 31'	150° 38'	+0 03	+0 12	–1.1	–0.1	9.1	11.4	5.9
1933	Nuka Passage	59° 24'	150° 40'	+0 02	+0 10	–1.0	–0.1	9.2	11.5	6.0
1935	Takoma Cove, Port Dick	59° 15'	150° 59'	+0 14	+0 16	–0.4	–0.1	9.8	12.1	6.3
1937	Picnic Harbor, Rocky Bay	59° 15'	151° 26'	+0 17	+0 19	+0.3	–0.1	10.5	12.7	6.6
	Cook Inlet				**on Seldovia, p.168**					
1939	Ushagat Island, Barren Islands	58° 57'	152° 16'	–0 08	–0 04	*0.76	*0.76	11.4	13.7	7.2
1941	Port Chatham	59° 13'	151° 44'	–0 28	–0 34	*0.78	*0.92	11.9	14.3	7.5
1943	Port Graham	59° 21'	151° 49'	–0 08	–0 14	–1.0	0.0	14.5	16.9	8.9
1945	Tutka Bay,Kachemak Bay	59° 26'	151° 21'	–0 01	–0 01	+0.2	0.0	15.7	18.1	9.5
1947	SELDOVIA, Kachemak Bay	59° 26.4'	151° 43.2'		*Daily predictions*			15.54	18.04	9.46
1949	Sadie Cove, Kachemak Bay	59° 29'	151° 22'	–0 04	–0 04	+0.1	–0.1	15.6	18.0	9.4
1951	Halibut Cove, Kachemak Bay	59° 36'	151° 13'	–0 03	–0 05	+0.7	0.0	16.2	18.7	9.7
1953	Homer, Kachemak Bay	59° 36.2'	151° 25.2'	+0 05	+0 03	*1.01	*0.97	15.83	18.32	9.57
1955	Bear Cove, Kachemak Bay	59° 44'	151° 01'	–0 04	–0 05	+0.4	–0.1	16.0	18.4	9.6
1957	Anchor Point	59° 46'	151° 53'	+0 29	+0 21	+0.4	0.0	15.9	18.3	9.6
1959	Cape Ninilchik	60° 01'	151° 43'	+0 41	+0 54	+1.2	+0.2	16.5	19.1	10.1
1961	Ninilchik	60° 03'	151° 40'	+0 41	+1 04	+1.2	0.0	16.7	19.1	10.0

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No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	ALASKA Cook Inlet–cont. Time meridian, 135° W				**on Seldovia, p.168**					
1963	Kenai River entrance	60° 33'	151° 17'	+1 52	+2 18	+2.7	+0.5	17.7	20.7	11.0
1965	Kenai City Pier	60° 33'	151° 14'	+1 54	+2 55	+1.9	–0.1	17.5	19.8	10.4
1967	NIKISKI	60° 41.0'	151° 23.9'		*Daily predictions, p.172*			17.63	20.42	10.86
1969	East Foreland	60° 43'	151° 25'	+2 37	+2 58	+3.0	+0.5	18.0	21.0	11.2
					on Anchorage, p.176					
1971	Fire Island	61° 10.4'	150° 12.2'	–0 17	–0 27	*0.92	*0.98	23.97	26.91	14.20
1973	ANCHORAGE, Knik Arm	61° 14.3'	149° 53.4'		*Daily predictions*			26.19	29.16	15.34
1975	Port Mackenzie	61° 16.1'	149° 55.0'	+0 07	+0 03	*1.00	*0.99	26.15	29.10	15.30
					on Seldovia, p.168					
1977	North Foreland	61° 03'	151° 10'	+3 47	+4 06	(*1.18+0.2)		18.3	21.0	11.3
1979	Drift River Terminal	60° 34'	152° 08'	+1 39	+2 04	*1.01	*1.18	15.4	18.1	9.7
1981	Tuxedni Channel	60° 09'	152° 38'	+0 39	+0 53	–1.3	+0.2	14.0	16.6	8.9
1983	Snug Harbor	60° 06'	152° 34'	+1 04	+1 15	–2.3	0.0	13.2	15.7	8.3
1985	Oil Bay, Kamishak Bay	59° 38'	153° 16'	+1 15	+1 16	*0.77	*0.83	12.6	13.9	7.3
1987	Iliamna Bay	59° 37'	153° 35'	+0 12	+0 16	*0.80	*0.82	12.3	14.5	7.5
1989	Nordyke Island, Kamishak Bay	59° 11'	154° 05'	+0 10	+0 22	–2.8	–0.2	12.9	15.2	8.0
	Kodiak and Afognak Islands				**on Kodiak, p.180**					
1991	Andreon Bay, Shuyak Island	58° 31'	152° 25'	+0 35	+0 44	+2.5	+0.3	9.0	11.3	5.9
1993	Perenosa Bay	58° 21'	152° 27'	+0 28	+0 39	+2.5	+0.3	9.0	11.3	5.9
1995	Seal Bay	58° 22'	152° 15'	+0 29	+0 36	+2.4	+0.3	8.9	11.2	5.8
1997	Tonki Bay	58° 19'	152° 04'	+0 12	+0 21	+2.3	+0.2	8.9	11.2	5.8
1999	Marmot Island, Marmot Strait	58° 14'	151° 52'	+0 18	+0 07	+0.9	0.0	7.7	9.8	4.9
2001	Izhut Bay	58° 13'	152° 19'	+0 12	+0 21	+0.1	0.0	6.9	8.9	4.5
2003	Kazakof Bay, Marmot Bay	58° 08'	152° 34'	+0 04	+0 06	+0.6	+0.2	7.2	9.4	4.9
2005	Fox Bay, Whale Island	57° 59'	152° 45'	+0 22	+0 37	+1.2	+0.2	7.8	10.0	5.2
2007	Kizhuyak Bay	57° 49'	152° 54'	+0 06	+0 11	+0.8	0.0	7.6	9.6	4.9
2009	Kizhuyak Point	57° 54'	152° 39'	+0 05	+0 09	+0.6	+0.1	7.3	9.4	4.8
2011	Ouzinkie, Spruce Island	57° 55'	152° 30'	–0 05	–0 04	+0.2	0.0	7.0	9.1	4.6
2013	Spruce Island (north side)	57° 56'	152° 26'	+0 02	+0 08	+0.4	+0.1	7.1	9.2	4.7
2015	Kodiak, Port of Kodiak	57° 47.0'	152° 25.7'	–0 03	–0 02	0.0	0.0	6.78	8.76	4.48
2017	Kodiak, St. Paul Harbor	57° 44.7'	152° 29.0'	–0 05	–0 02	–0.1	0.0	6.67	8.65	4.45
2019	KODIAK, Womens Bay	57° 43.9'	152° 30.7'		*Daily predictions*			6.78	8.78	4.49
2021	Ugak Bay (Saltery Cove)	57° 29'	152° 44'	–0 29	–0 20	–0.3	–0.1	6.6	8.4	4.3
2023	Port Hobron, Sitkalidak Island	57° 10'	153° 09'	–0 18	–0 06	–0.3	+0.1	6.4	8.3	4.4
2025	Three Saints Bay	57° 07'	153° 31'	–0 22	–0 13	–0.2	+0.1	6.5	8.3	4.4
2027	Jap Bay	56° 58'	153° 42'	–0 17	–0 10	–0.3	+0.1	6.4	8.2	4.4
2029	Sitkinak Lagoon	56° 30'	154° 08'	–0 20	+0 07	–1.0	+0.2	5.6	7.5	4.1
2031	Alitak, Lazy Bay	56° 53.9'	154° 14.8'	+0 02	+0 19	*1.38	*1.42	9.25	11.63	6.20
2033	Moser Bay (Trap Point)	57° 00'	154° 09'	+0 09	+0 29	*1.37	*1.47	9.3	11.6	6.2
2035	Olga Bay (A. P. A. Cannery)	57° 10'	154° 14'	+3 44	+4 13	*0.14	*0.09	1.0	1.4	0.6
					on Seldovia, p.168					
	Uyak Bay									
2037	Uyak	57° 38.1'	154° 00.4'	–0 17	–0 03	*0.75	*0.98	11.26	13.78	7.28
2039	Larsen Bay	57° 32'	154° 00'	–0 14	–0 01	–4.4	–0.1	11.2	13.7	7.2
2041	Mining Camp	57° 28'	153° 49'	–0 37	–0 10	–4.1	–0.1	11.5	13.9	7.3
2043	Zachar Bay	57° 33'	153° 44'	–0 09	+0 00	*0.77	*0.77	11.3	13.8	7.3
	Uganik Bay									
2045	Village Islands	57° 47'	153° 33'	–0 15	–0 02	*0.80	*0.80	11.7	14.4	7.5
2047	Northeast Arm	57° 44'	153° 20'	–0 12	–0 01	*0.77	*0.77	11.4	13.9	7.3
2049	Uganik Passage	57° 48'	153° 18'	–0 07	+0 02	*0.81	*0.81	11.9	14.6	7.6
2051	Viekoda Bay	57° 54'	153° 10'	–0 11	–0 03	*0.80	*0.80	11.8	14.4	7.6
	Kupreanof Strait									
2053	Onion Bay	58° 03'	153° 14'	+0 00	–0 01	*0.80	*0.80	11.8	14.4	7.6
2055	Dry Spruce Island	57° 57'	153° 02'	+0 02	+0 13	*0.77	*0.77	11.4	13.9	7.4
2057	Nachalni Island	57° 59'	152° 56'	+0 10	+0 24	*0.76	*0.76	11.2	13.6	7.2
2059	Uzkosti Point	57° 56'	152° 49'	–0 43	+0 34	*0.64	*0.64	8.8	11.6	6.2
2061	Dolphin Point, Raspberry Strait	58° 07'	153° 09'	–0 25	–0 05	–4.1	–0.1	11.5	14.0	7.3
2063	Malina Bay, Shelikof Strait	58° 11'	152° 57'	–0 14	+0 00	*0.81	*0.81	12.0	14.5	7.7
2065	Redfox Bay, Shuyak Strait	58° 27'	152° 36'	–0 14	–0 02	–4.4	–0.2	11.3	13.7	7.2
	Shuyak Island									
2067	Big Bay	58° 33'	152° 37'	+0 10	+0 15	*0.77	*0.77	11.5	13.9	7.3
2069	Carry Inlet	58° 35'	152° 31'	+0 06	+0 07	*0.73	*0.73	10.7	13.1	6.9
	Alaska Peninsula									
2071	Nukshak Island, Shelikof Strait	58° 23.5'	153° 57.5'	–0 01	+0 07	*0.76	*0.95	11.42	13.82	7.32
2073	Kukak, Kukak Bay	58° 20'	154° 07'	–0 08	+0 05	*0.74	*0.74	11.1	13.3	6.9
2075	Aguchik Island, Kukak Bay	58° 17.4'	154° 16.2'	–0 04	+0 06	*0.75	*0.94	11.35	13.76	7.27
2077	Takli Island, Shelikof Strait	58° 03.8'	154° 28.6'	–0 09	+0 03	*0.73	*1.00	10.95	13.59	7.18
2079	Katmai Bay, Shelikof Strait	58° 00'	154° 59'	–0 14	+0 01	*0.71	*0.71	10.5	12.8	6.6
2081	Puale Bay	57° 42'	155° 23'	–0 22	–0 03	*0.67	*0.67	9.8	12.1	6.4

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		North	**West**	h m	h m	ft	ft	ft	ft	ft
	ALASKA Alaska Peninsula–cont. Time meridian, 135° W				**on Kodiak, p.180**					
2083	Kanatak Lagoon, Portage Bay	57° 31'	156° 04'	+0 21	+0 51	+3.0	+0.3	9.5	11.8	6.1
2085	Lees Cabins, Wide Bay	57° 26'	156° 18'	+0 21	+0 32	+3.2	+0.2	9.8	11.9	6.2
2087	Kujulik Bay (North Shore)	56° 36.8'	157° 59.0'	+0 31	+0 46	*1.10	*1.35	7.18	9.50	5.08
2089	Unavikshak Island	56° 29.5'	157° 44.4'	+0 31	+0 44	*1.05	*1.24	6.86	9.08	4.80
2091	Nakchamik Island	56° 21.1'	157° 48.7'	+0 29	+0 41	*1.04	*1.33	6.73	8.99	4.82
2093	Chignik, Anchorage Bay	56° 17.8'	158° 24.0'	+0 34	+0 44	*1.04	*1.28	6.77	8.96	4.78
2095	Castle Bay, Northwest Arm	56° 13.9'	158° 20.8'	+0 32	+0 47	*1.02	*1.30	6.58	8.82	4.72
2097	Chankliut Island	56° 08.8'	158° 06.4'	+0 32	+0 43	*0.98	*1.27	6.32	8.50	4.55
2099	Chowiet Island, Semidi Island	56° 03.1'	156° 41.9'	+0 15	+0 25	*1.04	*1.29	6.75	8.95	4.79
2101	Hump Island, Kuiukta Bay	56° 06.8'	158° 35.8'	+0 35	+0 42	*0.91	*1.23	5.78	7.93	4.24
2103	Three Star Point	55° 54'	159° 10'	+0 28	+0 37	*0.90	*1.28	5.7	7.9	4.2
2105	Mitrofania Island	55° 53.4'	158° 49.2'	+0 32	+0 39	*0.88	*1.23	5.62	7.73	4.15
2107	Chiachi Island (east side)	55° 51'	159° 06'	+0 22	+0 37	*0.89	*1.28	5.6	7.8	4.2
2109	Kupreanof Harbor, Paul Island	55° 47'	159° 21'	+0 19	+0 35	*0.89	*1.28	5.6	7.8	4.2
2111	Fox Bay, Kupreanof Peninsula	55° 38'	159° 37'	+0 18	+0 33	*0.86	*1.19	5.5	7.6	4.0
2113	Dent Point, Stepovak Bay	55° 47'	159° 53'	+0 17	+0 33	*0.86	*1.19	5.5	7.6	4.0
	Shumagin Islands									
2115	Korovin Island (east side)	55° 24'	160° 09'	+0 22	+0 49	*0.89	*1.28	5.6	7.8	4.2
2117	Sanborn Harbor, Nagai Island	55° 09'	159° 59'	+0 33	+0 34	*0.83	*1.19	5.2	7.2	3.9
2119	Mist Harbor, Nagai Island	55° 08'	159° 51'	+0 31	+0 35	*0.80	*1.10	5.1	7.0	3.7
2121	Pirate Cove, Popof Island	55° 22'	160° 22'	+0 38	+0 40	*0.85	*1.19	5.4	7.4	4.0
2123	SAND POINT, POPOF ISLAND	55° 20.2'	160° 30.1'		*Daily predictions, p.184*			5.19	7.23	3.93
2125	Zachary Bay, Unga Island	55° 20'	160° 37'	+0 30	+0 46	*0.85	*1.19	5.4	7.5	4.0
2127	Albatross Anchorage, Balboa Bay	55° 35'	160° 37'	+0 28	+0 40	*0.88	*1.28	5.5	7.6	4.1
2129	Beaver Bay	55° 28'	160° 50'	+0 33	+0 39	*0.84	*1.28	5.2	7.3	4.0
2131	Seal Cape, Coal Bay	55° 22'	161° 20'	+0 30	+0 42	*0.81	*1.28	5.0	7.0	3.9
2133	Ukolnoi Island	55° 16'	161° 32'	+0 37	+0 37	*0.80	*1.19	5.0	7.0	3.8
2135	Dolgoi Harbor, Dolgoi Island	55° 07'	161° 48'	+0 40	+0 37	*0.76	*1.19	4.7	6.7	3.6
2137	Settlement Point, Pavlof Bay	55° 30'	161° 28'	+0 39	+0 45	*0.81	*1.10	5.2	7.2	3.8
2139	Canoe Bay, Pavlof Bay	55° 35'	161° 16'	+1 32	+1 27	*0.74	*1.10	4.6	6.5	3.5
2141	King Cove	55° 04'	162° 19'	+0 36	+0 39	*0.78	*1.19	4.8	6.8	3.7
2143	Lenard Harbor, Cold Bay	55° 07'	162° 23'	+0 42	+0 54	*0.81	*1.19	5.1	7.2	3.8
2145	Cold Bay	55° 12'	162° 42'	+0 45	+1 00	*0.81	*1.10	5.2	7.1	3.8
2147	Morzhovoi Bay	55° 01'	162° 58'	+0 46	+0 40	*0.76	*1.19	4.7	6.8	3.6
	Sanak Islands									
2149	Peterson Bay	54° 24'	162° 38'	+0 25	+0 29	*0.69	*1.28	4.0	6.2	3.4
2151	Sanak Harbor	54° 29'	162° 49'	+0 44	+0 40	*0.74	*1.28	4.4	6.6	3.6
	Aleutian Islands									
	Unimak Island									
2153	Dora Harbor	54° 42'	163° 16'	+0 45	+0 52	*0.72	*1.28	4.3	6.5	3.5
2155	Ikatan Bay	54° 45'	163° 19'	+0 39	+0 42	*0.75	*1.19	4.6	6.5	3.6
					on Unalaska, p.188					
2157	False Pass, Isanotski Strait	54° 52'	163° 24'	–1 47	–2 25	*1.02	*1.19	2.1	4.1	2.4
2159	St. Catherine Cove	55° 01'	163° 30'	+0 04	–0 18	*1.23	*1.36	2.6	4.7	2.9
2161	Cape Mordvinof	54° 56'	164° 28'	+0 26	+0 19	*1.73	*1.36	4.3	6.4	3.7
2163	Cape Sarichef	54° 36'	164° 55'	–0 24	–0 56	*1.37	*1.27	3.2	5.0	3.1
2165	Scotch Cap	54° 24'	164° 44'	–2 27	–2 49	*1.40	*1.27	3.3	5.4	3.1
2167	Tigalda Bay, Tigalda Island	54° 07'	164° 59'	–1 53	–2 04	*0.82	*0.85	1.8	3.3	1.9
2169	Trident Bay, 1262 Island	54° 08'	165° 32'	–3 59	–4 11	*0.99	*0.76	2.5	4.1	2.1
2171	1262 Bay, 1262 Island	54° 14'	165° 32'	–0 02	–0 34	*0.79	*0.93	1.6	3.0	1.9
2173	Akutan Harbor, Akutan Island	54° 08'	165° 48'	–0 17	–0 07	*1.08	*1.10	2.4	3.9	2.5
2175	Malga Bay, Unalga Island	53° 59'	166° 10'	–0 18	–1 05	*0.85	*0.93	1.8	3.3	2.0
	Unalaska Island									
2177	English Bay	53° 56'	166° 15'	+0 16	–0 01	*0.79	*0.76	1.8	3.0	1.8
2179	Dutch Harbor, Amaknak Island	53° 54'	166° 32'	+0 00	–0 07	*1.00	*1.00	2.2	3.7	2.3
2181	UNALASKA	53° 52.8'	166° 32.2'		*Daily predictions*			2.39	3.60	2.12
2183	Anderson Bay	53° 41'	166° 50'	–0 01	+0 28	*1.08	*1.10	2.4	4.0	2.5
2185	Skan Bay	53° 37'	167° 03'	–0 07	–0 19	*1.05	*1.10	2.3	4.0	2.4
2187	Kashega Bay	53° 28'	167° 05'	–0 08	–0 24	*1.08	*1.19	2.3	4.0	2.5
2189	Chernofski Harbor	53° 24'	167° 32'	–0 10	–0 29	*1.02	*1.10	2.2	3.8	2.4
2191	Kuliliak Bay	53° 28'	167° 01'	–3 10	–3 35	*1.46	*1.27	3.5	5.6	3.2
2193	Eagle Bay	53° 29'	166° 56'	–2 56	–3 16	*1.46	*1.02	3.8	5.4	3.1
2195	Raven Bay	53° 28'	166° 52'	–3 16	–3 48	*1.49	*1.27	3.6	5.7	3.3
2197	Usof Bay	53° 31'	166° 48'	–3 30	–3 45	*1.55	*1.19	3.9	6.1	3.3
2199	Udamat Bay, Sedanka Island	53° 50'	166° 13'	–3 13	–3 25	*1.35	*1.35	3.3	5.1	2.9
2201	Udagak Strait	53° 44'	166° 18'	–3 32	–3 59	*1.37	*1.02	3.5	5.5	2.9
2203	Kisselen Bay, Beaver Inlet	53° 43'	166° 34'	–2 59	–3 14	*1.40	*1.10	3.5	5.2	3.0
2205	Bogoslof Island	53° 55'	168° 02'	–0 30	–0 55	*1.08	*1.10	2.4	3.9	2.5
	Umnak Island									
2207	Otter Point	53° 24'	167° 51'	–0 27	–0 40	*0.88	*0.93	1.9	3.4	2.0
2209	Inanudak Bay	53° 18'	168° 21'	–0 06	–0 30	*0.96	*0.93	2.2	3.7	2.2
2211	Okee Bay	53° 01'	168° 50'	–0 07	–0 43	*0.99	*1.10	2.1	3.7	2.3
2213	Adugak Islands	52° 55'	169° 10'	–0 33	–0 56	*1.02	*1.10	2.2	4.0	2.4
2215	Cape Sagak	52° 50'	169° 03'	–3 03	–3 16	*1.20	*1.02	2.9	4.9	2.6
2217	Driftwood Bay	52° 57'	168° 43'	–2 56	–3 22	*1.35	*1.10	3.3	5.3	2.9
2219	Nikolski	52° 56.5'	168° 52.3'	–0 25	–0 24	*1.12	*0.99	2.80	4.03	2.32
2221	Kigul Island	53° 03'	168° 26'	–3 04	–3 42	*1.37	*1.27	3.2	5.5	3.1

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	ALASKA Aleutian Islands–cont. Time meridian, 150° W				**on Unalaska, p.188**					
2223	Applegate Cove, Chuginadak Island	52° 52'	169° 52'	–1 21	–1 58	*1.08	*1.27	2.2	4.2	2.6
2225	Herbert Island, west side	52° 43'	170° 09'	–2 40	–2 51	*1.14	*0.93	2.8	4.4	2.5
	Yunaska Island									
2227	East Cove	52° 40'	170° 34'	–2 36	–3 35	*0.88	*0.85	2.0	3.7	2.0
2229	North side	52° 41'	170° 42'	–2 05	–2 29	*1.02	*1.19	2.1	4.0	2.4
2231	Amukta Island, north side	52° 31'	171° 14'	–2 32	–3 03	*0.94	*1.10	1.9	3.6	2.2
					on Sweeper Cove, p.192					
2233	Finch Cove, Seguam Island †	52° 23'	172° 24'	–1 00	+0 07	*0.87	*0.87	– –	3.2	1.6
	Atka Island									
2235	Martin Harbor, Korovin Bay †	52° 14'	174° 18'	+0 19	+0 21	*0.87	*0.87	– –	3.2	1.6
2237	Atka, Nazan Bay †	52° 13.9'	174° 10.3'	–0 26	+0 34	*0.92	*0.89	2.70	3.40	1.85
2239	Cape Utalug (4 miles west of) †	52° 07'	174° 12'	–1 38	–2 32	*1.19	*1.19	– –	4.4	2.2
2241	Atka Pass, east end †	52° 00'	175° 19'	–1 07	–2 10	*1.24	*1.24	– –	4.6	2.3
2243	Sagchudak Island †	52° 02'	174° 29'	–1 26	–2 25	*1.24	*1.24	– –	4.6	2.3
2245	Explorer Bay †	52° 04'	174° 34'	–2 43	–2 24	*1.24	*1.24	– –	4.6	2.3
2247	Bechevin Bay †	52° 02'	175° 07'	+0 11	+0 04	*0.95	*0.95	– –	3.5	1.7
2249	Fenimore Pass †	51° 58'	175° 35'	–0 04	–0 13	*0.89	*0.89	– –	3.3	1.6
2251	Bugle Point, Great Sitkin Island †	52° 02'	175° 59'	+0 01	–0 05	*0.89	*0.89	– –	3.3	1.6
2253	Sand Bay, Great Sitkin Island †	51° 58'	176° 05'	–0 05	–0 20	*0.97	*0.97	– –	3.6	1.8
2255	Tanager Point, Chugul Island †	51° 57'	175° 52'	– – –	–2 08	*1.00	*1.00	– –	3.7	1.9
2257	Laska Cove, Kagalaska Island †	51° 50'	176° 24'	–0 04	+0 07	*0.97	*0.97	– –	3.6	1.8
	Adak Island									
2259	SWEEPER COVE, Kuluk Bay †	51° 51.8'	176° 37.9'		*Daily predictions*			2.90	3.71	2.01
2261	Adak Bight †	51° 46'	176° 26'	–1 24	–2 02	*1.00	*1.00	– –	3.7	1.8
2263	Boot Bay †	51° 43'	176° 32'	–1 38	–2 09	*0.97	*0.97	– –	3.6	1.8
2265	Bay of Waterfalls †	51° 39'	176° 50'	–1 20	–2 04	*0.95	*0.95	– –	3.5	1.7
2267	Unalga Bight †	51° 47'	176° 48'	–0 07	–0 21	*0.97	*0.97	– –	3.6	1.8
	Kanaga Island									
2269	Shoal Point	51° 52'	177° 04'	+0 01	–0 16	*0.86	*0.86	– –	3.2	1.6
2271	Cape Chlanak	51° 43'	177° 09'	–1 22	–1 34	*0.92	*0.92	– –	3.4	1.7
2273	Kanaga Bay †	51° 43'	177° 12'	–1 39	–1 44	*1.05	*1.05	– –	3.9	1.9
2275	Cape Chunu †	51° 40'	177° 38'	–1 44	–1 54	*1.11	*1.11	– –	4.1	2.0
	Tanaga Island									
2277	Hot Springs Bay †	51° 47'	177° 48'	–0 40	–0 12	*0.84	*0.84	– –	3.1	1.5
2279	Tanaga Bay †	51° 43'	178° 00'	–0 06	–0 32	*1.08	*1.08	– –	4.0	2.0
2281	Lash Bay †	51° 40'	178° 03'	–0 56	–1 39	*1.14	*1.14	– –	4.2	2.1
	Delarof Islands									
2283	Ogliuga Island (east coast) †	51° 36'	178° 37'	+0 01	–0 43	*0.95	*0.95	– –	3.5	1.7
2285	Gareloi Island †	51° 45'	178° 48'	–0 08	–0 30	*1.00	*1.00	– –	3.7	1.8
		North	**East**							
	Rat Islands									
2287	Constantine Harbor, Amchitka Island †	51° 25'	179° 17'	+0 19	–0 06	*0.76	*0.76	– –	2.8	1.4
2289	Gertrude Cove, Kiska Island †	51° 56'	177° 27'	+0 02	–0 19	*0.86	*0.86	– –	3.2	1.6
2291	Kiska Harbor, Kiska Island †	51° 59'	177° 33'	+0 24	–0 13	*0.97	*0.97	– –	3.6	1.8
					on Massacre Bay, p.196					
2293	Alcan Harbor, Shemya Island †	52° 44'	174° 04'	+0 00	–0 03	*1.03	*1.03	– –	3.4	1.7
2295	Otkriti Bay, Agattu Island †	52° 23'	173° 38'	–0 14	–0 13	*1.03	*1.03	– –	3.4	1.7
	Attu Island									
2297	MASSACRE BAY †	52° 50'	173° 12'		*Daily predictions*			– –	3.3	1.6
2299	Chichagof Harbor †	52° 56'	173° 14'	+0 13	+0 16	*1.09	*1.09	– –	3.6	1.8
2301	Holtz Bay †	52° 56'	173° 10'	–0 04	+0 18	*1.12	*1.12	– –	3.7	1.8
2303	Steller Cove †	52° 59'	172° 54'	–0 13	+0 11	*1.12	*1.12	– –	3.7	1.8
2305	Etienne Bay †	52° 56'	172° 37'	–0 17	+0 03	*1.12	*1.12	– –	3.7	1.8
	Bristol Bay Time meridian, 135° W	**North**	**West**		**on Unalaska, p.188**					
2307	Amak Island	55° 25'	163° 07'	+1 47	+1 48	*2.13	*1.78	5.2	7.7	4.7
2309	Grant Point, Izembek Lagoon	55° 16'	162° 54'	+3 03	+4 05	*1.23	*0.85	3.2	4.5	2.6
					on Nushagak Bay, p.204					
2311	PORT MOLLER	55° 59.4'	160° 33.7'		*Daily predictions, p. 200*			7.44	10.49	5.91
2313	Port Heiden	56° 56.0'	158° 43.7'	–3 03	–2 55	*0.62	*1.04	8.5	12.3	6.9
	Egegik River									
2315	Entrance	58° 14.3'	157° 30.0'	–1 30	–1 13	*0.92	*0.92	13.8	18.2	9.4
2317	Egegik	58° 13.0'	157° 22.5'	–1 04	+0 36	*0.65	*0.32	10.8	13.3	6.2
2319	Middle Bluff, Kvichak Bay	58° 27.2'	157° 30.0'	–0 50	–0 50	*1.01	*1.01	15.2	19.6	10.1
	Naknek River									
2321	Entrance <13>	58° 43.3'	157° 03.4'	–0 19	+0 26	*1.16	*0.88	18.5	22.6	11.4
2323	Omakstalia Point	58° 42.4'	156° 45.4'	+0 12	+3 35	*0.37	*0.12	6.3	8.1	3.4
2325	King Salmon Airport	58° 40.3'	156° 39.4'	+0 57	+4 46	*0.13	*0.08	2.1	3.2	1.2
	Kvichak River									
2327	Kvichak	58° 58.2'	156° 56.8'	+0 35	+2 49	*0.83	*0.36	13.9	16.5	7.8
2329	Levelock	59° 06.8'	156° 49.9'	+1 27	+4 34	*0.49	*0.20	8.2	10.3	4.6

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No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	ALASKA Bristol Bay–cont. Time meridian, 135° W				**on Nushagak Bay, p.204**					
	Nushagak Bay									
2331	Protection Point	58° 30.0'	158° 42.7'	–0 12	–0 22	*0.85	*1.00	12.7	16.9	8.8
2333	NUSHAGAK BAY (Clarks Point)	58° 51'	158° 33'		*Daily predictions*			15.3	19.5	10.1
2335	Snag Point	59° 02.4'	158° 26.8'	+0 28	+0 54	*1.03	*0.97	15.94	20.19	10.39
2337	Black Rock, Walrus Islands <14>	58° 42.5'	160° 11.3'	+0 07	–0 07	*0.43	*0.72	5.9	9.5	4.7
	Kuskokwim Bay and River									
2339	Platinum	59° 02.8'	161° 49.0'	+6 17	+5 41	*0.38	*0.25	6.12	9.44	3.68
2341	Goodnews Bay entrance	59° 02.7'	161° 48.5'	+6 21	+5 52	*0.38	*0.24	6.2	8.9	3.7
2343	Apokak Creek entrance	60° 08.2'	162° 09.5'	–2 50	–2 14	*0.56	*0.20	9.4	12.0	5.2
2345	Bethel	60° 48.0'	161° 45.0'	+1 48	+3 47	*0.15	*0.16	2.3	4.0	1.5
	Bering Sea				**on Unalaska, p.188**					
2347	Zapadni Bay, St. George Island	56° 34'	169° 41'	+1 15	+1 18	*0.89	*0.89	– –	3.3	1.7
2349	Village Cove, St. Paul Island	57° 07.5'	170° 16.5'	+0 26	+0 27	*0.93	*1.06	2.11	3.33	2.05
2351	St. Matthew Island	60° 22'	172° 43'	+0 22	+0 50	*0.57	*0.57	1.3	2.1	1.2
					on Nushagak Bay, p.204					
	St. Lawrence Island									
2353	Fossil River entrance	63° 28.0'	170° 01.0'	–2 06	–2 34	*0.08	*0.08	1.3	1.7	0.8
2355	Niyrakpak Lagoon entrance	63° 37.2'	171° 23.0'	–2 33	–2 57	*0.06	*0.06	0.9	1.2	0.6
	Norton Sound				**on St. Michael, p.208**					
2357	Apoon Mouth, Yukon River †	63° 03'	163° 23'	–1 19	–1 19	*1.00	*1.00	– –	4.0	2.0
2359	Pikmiktalik River entrance †	63° 16'	162° 36'	–1 02	–1 02	*1.08	*1.08	– –	4.2	2.1
2361	ST. MICHAEL †	63° 29'	162° 02'		*Daily predictions*			– –	3.9	2.0
2363	North Bay, Stuart Island †	63° 37'	162° 30'	–0 22	–0 22	*0.72	*0.72	– –	2.8	1.4
2365	Carolyn Island, Golovnin Bay †	64° 27'	162° 52'	+1 19	+1 19	*0.46	*0.46	– –	1.8	0.9
					on Nome, p.212					
2367	NOME	64° 30.0'	165° 25.8'		*Daily predictions*			1.04	1.54	0.83
2369	Point Spencer, Port Clarence	65° 15.4'	166° 50.8'	+5 15	+5 26	*0.81	*0.35	0.99	1.24	0.61
2371	Teller, Port Clarance	65° 16.0'	166° 21.1'	+4 01	+4 13	*0.80	*0.87	0.80	1.18	0.67
2373	Lost River, Seward Peninsula	65° 23.4'	167° 08.7'	+6 43	+5 30	*0.71	*0.29	0.86	1.09	0.53
	Bering Straits				**on Kodiak, p.180**					
2375	Tin City	65° 33.5'	167° 58.5'	+7 30	+6 14	*0.61	*0.32	1.02	0.73	0.46
	Arctic Ocean <15>									
2377	Kiwalik, Kotzebue Sound	66° 08'	161° 52'	+6 16	+6 07	*0.30	*0.28	2.1	2.7	1.3
2379	Point Barrow	71° 22'	156° 22'	–0 37	–0 26	*0.04	*0.04	0.3	0.4	0.2
2381	PRUDHOE BAY	70° 24.0'	148° 31.6'		*Daily predictions, p.216*			0.51	0.69	0.33
2383	Flaxman Island	70° 11'	145° 50'	–0 57	–0 28	*0.08	*0.09	0.5	0.7	0.3
2385	Herschel Island, Mackenzie Bay	69° 34'	138° 55'	–1 36	–1 42	– –	– –	0.6	0.7	1.5
2387	Tuktoyaktuk, Mackenzie Bay	69° 27'	133° 00'	–1 30	–0 54	– –	– –	1.1	1.2	1.3
	HAWAIIAN ISLANDS Time meridian, 165° W				**on Honolulu, p.228**					
2389	SAND ISLAND, MIDWAY ISLANDS	28° 12.7'	177° 21.6'		*Daily predictions, p.220*			0.9	1.3	0.7
2391	Lisianski Island	26° 04'	173° 58'	– – –	– – –	– –	– –	0.5	0.8	0.3
	Time meridian, 150° W									
2393	Laysan Island	25° 46'	171° 45'	+1 02	+1 12	*0.53	*0.50	0.7	1.0	0.4
2395	East Island, French Frigate Shoals	23° 47'	166° 13'	+0 03	+0 08	*0.73	*0.73	0.9	1.4	0.6
2397	Nonopapa, Niihau Island	21° 52'	160° 14'	–0 16	–0 11	*0.77	*0.77	1.0	1.6	0.7
					on Nawiliwili, p.224					
	Kauai Island									
2399	Waimea Bay	21° 57'	159° 40'	+0 07	+0 18	*0.86	*0.91	1.0	1.6	0.7
2401	Port Allen, Hanapepe Bay	21° 54.2'	159° 3.5'	–0 15	–0 10	*1.01	*1.00	1.24	1.84	0.82
2403	NAWILIWILI BAY	21° 57.4'	159° 21.6'		*Daily predictions*			1.2	1.8	0.8
2405	Hanamaulu Bay	22° 00'	159° 20'	+0 10	+0 04	*1.00	*0.91	1.2	1.8	0.8
2407	Hanalei Bay	22° 13'	159° 30'	–1 01	–1 22	*1.07	*0.91	1.3	1.8	0.8
					on Honolulu, p.228					
	Oahu Island									
2409	Haleiwa, Waialua Bay †	21° 36'	158° 07'	–1 02	–2 05	*0.80	*0.80	– –	1.6	0.7
2411	Waianae	21° 27'	158° 12'	+0 20	+0 18	*0.93	*1.00	1.2	1.8	0.8
2413	Pearl Harbor Entrance, Bishop Point	21° 19.8'	157° 58.0'	+0 15	+0 06	*1.00	*0.88	1.30	1.66	0.79
2415	Pearl Harbor, Ford Island Ferry	21° 22.1'	157° 56.4'	+0 16	+0 08	*1.03	*0.88	1.35	1.73	0.82
2417	HONOLULU	21° 18.5'	157° 52.0'		*Daily predictions*			1.28	1.64	0.80
2419	Hanauma Bay	21° 17'	157° 42'	–0 59	–0 45	*1.00	*1.00	1.3	1.9	0.8

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION Latitude	POSITION Longitude	DIFFERENCES Time High Water	DIFFERENCES Time Low Water	DIFFERENCES Height High Water	DIFFERENCES Height Low Water	RANGES Mean	RANGES Diurnal	Mean Tide Level
		North	**West**	h m	h m	ft	ft	ft	ft	ft
	HAWAIIAN ISLANDS–cont. Time meridian, 150° W				**on Moku O Loe, p.232**					
	Oahu Island–cont.									
2421	Waimanalo	21° 20’	157° 42’	+0 11	+0 05	*0.88	*0.75	1.1	1.8	0.8
2423	MOKU O LOE	21° 26.2’	157° 47.6’		*Daily predictions*			1.5	2.1	1.0
2425	Waikane, Kaneohe Bay	21° 30’	157° 51’	–0 22	–0 04	*1.13	*1.00	1.4	2.2	1.1
2427	Laie Bay	21° 39’	157° 56’	–0 21	–0 32	*1.00	*0.75	1.3	2.2	0.9
					on Honolulu, p.228					
	Molokai Island									
2429	Kolo	21° 06’	157° 12’	+0 05	+0 01	0.0	0.0	1.3	2.0	0.8
2431	Kaunakakai Harbor	21° 05.1’	157° 01.9’	–0 10	–0 14	*1.13	*1.25	1.42	1.82	0.91
2433	Kamalo Harbor	21° 03’	156° 53’	–0 37	–0 16	+0.1	0.0	1.4	2.1	0.9
2435	Pukoo Harbor	21° 04’	156° 48’	–1 03	–0 48	+0.1	0.0	1.4	2.1	0.9
2437	Kaumalapau, Lanai Island	20° 47’	157° 00’	+0 02	+0 03	+0.2	0.0	1.5	2.2	0.9
	Kahoolawe Island									
2439	Kuheia Bay	20° 36’	156° 36’	–0 09	–0 09	+0.2	0.0	1.5	2.1	0.9
2441	Smuggler Cove	20° 31’	156° 41’	–0 15	+0 03	+0.2	0.0	1.5	2.2	0.9
					on Kahului, p.236					
	Maui Island									
2443	KAHULUI	20° 53.9’	156° 28.3’		*Daily predictions*			1.6	2.3	1.1
2445	Hana	20° 46’	155° 59’	+0 40	+0 18	*1.05	*0.54	1.8	2.5	1.1
2447	Makena	20° 39’	156° 27’	+1 21	+1 09	*0.73	*0.54	1.2	1.8	0.8
2449	Kihei, Maalaea Bay	20° 47’	156° 28’	+1 52	+1 19	*0.94	*0.54	1.6	2.3	1.0
2451	Lahaina	20° 53’	156° 41’	+1 18	+1 01	*0.89	*0.81	1.4	2.2	1.0
					on Hilo, p.240					
	Hawaii Island									
2453	Mahukona	20° 11’	155° 54’	+0 38	+0 42	*0.80	*0.67	1.4	2.1	0.9
2455	Kawaihae	20° 02.4’	155° 49.9’	+1 01	+0 57	*0.83	*0.60	1.46	2.14	0.91
2457	Kailua Kona	19° 39’	156° 00’	+0 38	+0 37	*0.80	*0.67	1.4	2.1	0.9
2459	Napoopoo, Kealakekua Bay	19° 28’	155° 55’	+0 48	+0 47	*0.80	*0.67	1.4	2.1	0.9
2461	Honuapo	19° 05’	155° 33’	+0 38	+0 33	*1.01	*1.00	1.7	2.5	1.1
2463	HILO	19° 43.8’	155° 03.4’		*Daily predictions*			1.67	2.40	1.13
2465	JOHNSTON ATOLL	16° 44.3’	169° 31.8’		*Daily predictions, p.244*			1.9	2.2	1.1

Endnotes can be found at the end of table 2.

ENDNOTES

* Ratio. If the ratio is accompanied by a correction factor, multiply the heights of the high and low waters at the reference station by the ratio, and then apply the correction factor. See note and examples on pages 249 and 250.

† The tide at this place is chiefly diurnal. See caution note on page 249.

<1> For places on the Atlantic coast, see “Tide Tables, East Coast of North and South America.”

<2> For places on the Caribbean Sea and Gulf of Mexico, see “Tide Tables, East Coast of North and South America.”

<3> The bore in the Colorado River above Phillips Point is reported to have a height of several feet at times of large tides.

<4> These data apply only during low river stages.

<5> The Columbia River is subject to annual freshets. Short range predictions are available at local river forecast centers. The data for stations above Harrington Point apply only during low river stages.

<6> For stations on the Canadian side see pages 260 and 263.

<7> The low water seldom falls below the chart datum.

<8> The data for La Conner apply only during low levels of the channel which usually occur in midsummer. Low water seldom falls below the chart datum.

<9> Heights are referred to mean lower low water, the datum of soundings on National Ocean Service charts.

<10> Because of shoals, low water at this place is restricted from falling below half tide level outside the river entrance.

<11> A bore frequently occurs in Turnagain Arm just after low water. Under favorable conditions it is said to reach a height of 6 feet.

<12> Because of the shoal condition of the upper part of Knik Arm, the channel off Eklutna becomes practically a nontidal stream during the period when the height of the tide at Anchorage is less than 15 feet above mean lower low water.

<13> No low water falls below –2 feet.

<14> When the difference in height between lower high water and higher low water at Nushagak Bay is less than 8 feet, reliance should not be placed on calculated corresponding tides at Black Rock because the tide there may actually be diurnal.

<15> Along the Arctic coast of Alaska east of Cape Lisburne, the mean range is about 0.5 foot.

<16> For the passages inside Vancouver Island the height differences apply only to the higher high and lower low waters at the indicated reference station.

<17> The slough in this area goes dry at low water stages of the tide. The mean high water depth is about 5 feet.

<18> Due to bottom configuration and depths at low water stages, a low water stand may occur at this station.

<19> The times listed for this reference station are the Greenwich Intervals for high water and low water respectively. Please see the discussion at the beginning of Table 2 under the heading “Time differences.”

TABLE 3. —HEIGHT OF TIDE AT ANY TIME

EXPLANATION OF TABLE

Although the footnote of table 3 may contain sufficient explanation for finding the height of tide at any time, two examples are given here to illustrate its use.

Example 1.—Find the height of the tide at 0735 at Balboa, Panama, on a day when the predicted tides from table 1 are given as:

Low Water	
Time	*Height*
h.m.	*ft*
0500	3.1
1746	2.5

High Water	
Time	*Height*
h.m.	*ft*
1114	14.7
2356	13.4

An inspection of the above example shows that the desired time falls between the two morning tides

The duration of rise is $11^h\ 14^m - 5^h\ 00^m = 6^h\ 14^m$.

The time after low water for which the height is required is $7^h\ 35^m - 5^h\ 00^m = 2^h\ 35^m$.

The range of tide is 14.7 – 3.1 = 11.6 feet.

The duration of rise or fall in table 3 is given in heavy-faced type for each 20 minutes from $4^h\ 00^m$ to $10^h\ 40^m$. The nearest tabular value to $6^h\ 14^m$, the above duration of rise, is $6^h\ 20^m$; and on the horizontal line of $6^h\ 20^m$, the nearest tabular time to $2^h\ 35^m$ after low water for which the height is required is $2^h\ 32^m$. Following down the column in which this $2^h\ 32^m$ is found to its intersection with the line of the range 11.5 feet (the nearest tabular value to the above range of 11.6 feet), the correction is found to be 4.0 feet, which being reckoned from low water, must be added, making 3.1 + 4.0 = 7.1 feet or 216 centimeters which is the required height above mean lower low water, the datum for Balboa.

Example 2. —Find the height of the tide at 0300 at Los Angeles, Calif., on a day when the predicted tides are given as:

High Water	
Time	*Height*
h.m.	*ft*
0039	4.9
1510	3.1

Low Water	
Time	*Height*
h.m.	*ft*
0814	0.2
1933	2.4

The duration of fall is $8^h\ 14^m - 00^h\ 39^m = 7^h\ 35^m$.

The time after high water for which the height is required is $3^h\ 00^m - 00^h\ 39^m = 02^h\ 21^m$.

The range of tide is 4.9 – 0.2 = 4.7 feet.

Entering table 3 at the duration of fall of $7^h\ 40^m$, which is the nearest value to $7^h\ 35^m$, the nearest value on the horizontal line to $2^h\ 21^m$ is $2^h\ 18^m$ after high water. Follow down this column to its intersection with a range of 4.5 feet which is the nearest tabular value to 4.7 feet, one obtains 0.9 which, being calculated from high water, must be subtracted from it. The approximate height at $03^h\ 00^m$ is, therefore, 4.9 - 0.9 = 4.0 feet or 122 centimeters.

When the duration of rise or fall is greater than $10^h\ 40^m$, enter the table with one-half the given duration and with one-half the time from the nearest high or low water; but if the duration of rise or fall is less than 4 hours, enter the table with double the given duration and with double the time from the nearest high or low water.

TABLE 3. —HEIGHT OF TIDE AT ANY TIME.

Similarly, when the range of tide is greater than 20 feet, enter the table with one-half the given range. The tabular correction should then be doubled before applying it to the given high or low water height. If the range of tide is greater than 40 feet, take one-third of the range and multiply the tabular correction by 3.

If the height at any time is desired for a place listed in table 2 predictions of the high and low waters for the day in question should be obtained by the use of the difference given for the place in that table. Having obtained these predictions, the height for any intermediate time is obtained in the same manner as illustrated in the foregoing example.

GRAPHIC METHOD

If the height of the tide is required for a number of times on a certain day, the full tide curve for the day may be obtained by the *one-quarter, one-tenth rule*. The procedure is as follows:

1. On cross-section paper plot the high and low water points in the order of their occurrence for the day, measuring time horizontally and height vertically. These are the basic points for the curve.
2. Draw light straight lines connecting the points representing successive high and low waters.
3. Divide each of these straight lines into four equal parts. The halfway point of each line gives another point for the curve.
4. At the quarter point adjacent to high water draw a vertical line above the point and at the quarter point adjacent to low water draw a vertical line below the point, making the length of these lines equal to one-tenth of the range between the high and low waters used. The points marking the ends of these vertical lines give two additional intermediate points for the curve.
5. Draw a smooth curve through the points of high and low waters and the intermediate points, making the curve well rounded near high and low waters. This curve will approximate the actual tide curve and heights for any time of the day may be readily scaled from it.

Caution.—Both methods presented are based on the assumption that the rise and fall conform to simple cosine curves. Therefore, the heights obtained will be approximate. The roughness of approximation will vary as the tide curve differs from a cosine curve.

An example of the use of the graphical method is illustrated below. Using the same predicted tides as in example 2, the approximate height at $3^h\ 00^m$ could be determined as shown below.

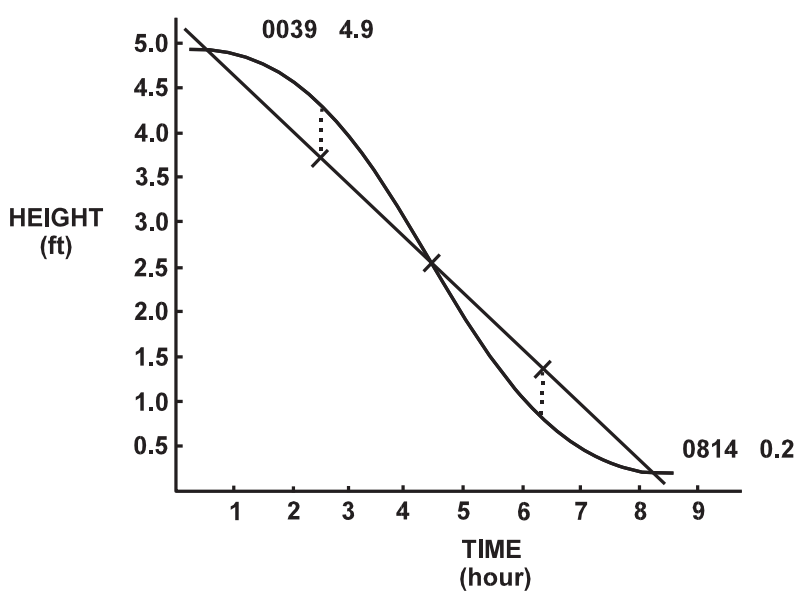


TABLE 3. —HEIGHT OF TIDE AT ANY TIME

Duration of rise or fall, see footnote	Time from the nearest high water or low water														
h. m.	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*	*h. m.*
4 10	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 36	2 53	3 11	3 28	3 45	4 03	4 20
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20

Range of tide, see footnote	Correction to height														
Ft.	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*	*Ft.*
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.8
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.8	2.0
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.0
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.2
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.7	2.3	2.8	3.3	3.8	4.4	4.9	5.5
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.8	2.3	2.9	3.4	4.0	4.6	5.1	5.8
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.5	3.0	3.6	4.1	4.8	5.4	6.0
12.5	0.0	0.1	0.3	0.5	0.8	1.2	2.6	1.9	2.6	3.1	3.7	4.3	5.0	5.6	6.2
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low, add the correction.

TABLE 4.—LOCAL MEAN TIME OF SUNRISE AND SUNSET

EXPLANATION OF TABLE

This table gives the local mean time of the rising and setting of the Sun's upper limb for every fifth day of the year. The times were computed for the instant when the true zenith distance of the Sun's center is 90° 50', 34' having been allowed for horizontal refraction and 16' for semidiameter. No allowance has been made for elevation of the observer.

Because of the sensible variations which may be made in the time of rising or setting of the Sun by a difference in elevation of the observer, and by changes in the refraction, any great refinement in the interpolation of intermediate dates or latitudes in this table is unnecessary.

The value obtained from table 4 may be converted to standard time by means of table 5, which follows it.

Date		0°		5° N.		10° N.		15° N.		20° N.		25° N.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan.	1	06 00	18 07	06 08	17 59	06 17	17 50	06 26	17 41	06 35	17 32	06 45	17 22
	6	06 02	18 10	06 10	18 01	06 19	17 53	06 27	17 44	06 37	17 35	06 46	17 26
	11	06 04	18 12	06 12	18 04	06 20	17 56	06 29	17 47	06 37	17 38	06 47	17 29
	16	06 06	18 13	06 14	18 06	06 21	17 58	06 29	17 50	06 38	17 42	06 47	17 33
	21	06 08	18 15	06 15	18 08	06 22	18 00	06 30	17 53	06 38	17 45	06 46	17 37
	26	06 09	18 16	06 16	18 09	06 23	18 03	06 30	17 56	06 37	17 48	06 45	17 40
	31	06 10	18 17	06 16	18 11	06 22	18 04	06 29	17 58	06 36	17 51	06 43	17 44
Feb.	5	06 10	18 17	06 16	18 12	06 22	18 06	06 28	18 00	06 34	17 54	06 41	17 48
	10	06 11	18 18	06 16	18 13	06 21	18 07	06 26	18 02	06 32	17 57	06 38	17 51
	15	06 11	18 18	06 15	18 13	06 20	18 09	06 24	18 04	06 29	17 59	06 34	17 54
	20	06 10	18 17	06 14	18 13	06 18	18 09	06 22	18 06	06 26	18 01	06 31	17 57
	25	06 10	18 16	06 13	18 13	06 16	18 10	06 19	18 07	06 23	18 03	06 27	18 00
Mar.	2	06 09	18 15	06 11	18 13	06 14	18 11	06 17	18 08	06 19	18 05	06 22	18 03
	7	06 08	18 14	06 10	18 13	06 11	18 11	06 13	18 09	06 15	18 07	06 17	18 05
	12	06 06	18 13	06 08	18 12	06 09	18 11	06 10	18 10	06 11	18 09	06 12	18 07
	17	06 05	18 12	06 06	18 11	06 06	18 11	06 06	18 10	06 07	18 10	06 07	18 10
	22	06 04	18 10	06 03	18 10	06 03	18 11	06 03	18 11	06 03	18 12	06 02	18 12
	27	06 02	18 09	06 01	18 10	06 00	18 11	05 59	18 12	05 58	18 13	05 57	18 14
Apr.	1	06 01	18 07	05 59	18 09	05 57	18 11	05 56	18 12	05 54	18 14	05 52	18 16
	6	05 59	18 06	05 57	18 08	05 55	18 10	05 52	18 13	05 50	18 16	05 47	18 18
	11	05 58	18 04	05 55	18 07	05 52	18 10	05 49	18 14	05 45	18 17	05 42	18 21
	16	05 57	18 03	05 53	18 07	05 49	18 11	05 45	18 14	05 41	18 18	05 37	18 23
	21	05 55	18 02	05 51	18 06	05 47	18 11	05 42	18 15	05 38	18 20	05 33	18 25
	26	05 54	18 01	05 50	18 06	05 45	18 11	05 40	18 16	05 34	18 22	05 28	18 28
May	1	05 54	18 00	05 48	18 06	05 43	18 12	05 37	18 17	05 31	18 23	05 24	18 30
	6	05 53	18 00	05 47	18 06	05 41	18 12	05 35	18 19	05 28	18 25	05 21	18 33
	11	05 53	18 00	05 46	18 06	05 40	18 13	05 33	18 20	05 26	18 27	05 18	18 35
	16	05 53	18 00	05 46	18 07	05 39	18 14	05 31	18 21	05 24	18 29	05 15	18 38
	21	05 53	18 00	05 46	18 08	05 38	18 15	05 30	18 23	05 22	18 31	05 13	18 40
	26	05 53	18 01	05 46	18 08	05 38	18 16	05 30	18 25	05 21	18 33	05 12	18 43
	31	05 54	18 01	05 46	18 09	05 38	18 18	05 29	18 26	05 20	18 35	05 10	18 45
June	5	05 55	18 02	05 46	18 10	05 38	18 19	05 29	18 28	05 20	18 37	05 10	18 47
	10	05 56	18 03	05 47	18 12	05 39	18 20	05 29	18 29	05 20	18 39	05 10	18 49
	15	05 57	18 04	05 48	18 13	05 39	18 22	05 30	18 31	05 20	18 41	05 10	18 51
	20	05 58	18 05	05 49	18 14	05 40	18 23	05 31	18 32	05 21	18 42	05 11	18 52
	25	05 59	18 06	05 50	18 15	05 41	18 24	05 32	18 33	05 22	18 43	05 12	18 53
	30	06 00	18 07	05 51	18 16	05 43	18 25	05 33	18 34	05 24	18 43	05 13	18 54
July	5	06 01	18 08	05 52	18 17	05 44	18 25	05 35	18 34	05 25	18 44	05 15	18 54
	10	06 02	18 09	05 54	18 17	05 45	18 26	05 36	18 34	05 27	18 43	05 17	18 53
	15	06 02	18 10	05 54	18 17	05 46	18 26	05 38	18 34	05 29	18 43	05 20	18 52
	20	06 03	18 10	05 55	18 17	05 47	18 25	05 39	18 33	05 31	18 42	05 22	18 51
	25	06 03	18 10	05 56	18 17	05 48	18 24	05 41	18 32	05 33	18 40	05 24	18 49
	30	06 03	18 10	05 56	18 17	05 49	18 23	05 42	18 31	05 35	18 38	05 27	18 46
Aug.	4	06 03	18 10	05 56	18 16	05 50	18 22	05 43	18 29	05 36	18 36	05 29	18 43
	9	06 02	18 09	05 56	18 15	05 51	18 20	05 45	18 26	05 38	18 33	05 31	18 39
	14	06 01	18 08	05 56	18 13	05 51	18 18	05 45	18 24	05 40	18 29	05 33	18 36
	19	06 00	18 07	05 56	18 11	05 51	18 16	05 46	18 21	05 41	18 26	05 36	18 31
	24	05 59	18 06	05 55	18 10	05 51	18 14	05 47	18 18	05 42	18 22	05 38	18 27
	29	05 58	18 04	05 54	18 07	05 51	18 11	05 47	18 14	05 44	18 18	05 40	18 22
Sept.	3	05 56	18 03	05 53	18 05	05 51	18 08	05 48	18 11	05 45	18 14	05 42	18 17
	8	05 54	18 01	05 52	18 03	05 50	18 05	05 48	18 07	05 46	18 09	05 43	18 12
	13	05 53	17 59	05 51	18 00	05 50	18 02	05 49	18 03	05 47	18 05	05 45	18 06
	18	05 51	17 57	05 50	17 58	05 50	17 59	05 49	17 59	05 48	18 00	05 47	18 01
	23	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 55	05 49	17 55	05 49	17 56
	28	05 47	17 54	05 48	17 53	05 49	17 52	05 49	17 52	05 50	17 51	05 51	17 50
Oct.	3	05 46	17 52	05 47	17 51	05 49	17 49	05 50	17 48	05 51	17 47	05 53	17 45
	8	05 44	17 51	05 46	17 49	05 48	17 47	05 50	17 44	05 53	17 42	05 55	17 40
	13	05 43	17 50	05 46	17 47	05 48	17 44	05 51	17 41	05 54	17 38	05 57	17 35
	18	05 42	17 49	05 45	17 45	05 49	17 42	05 52	17 38	05 56	17 34	06 00	17 30
	23	05 41	17 48	05 45	17 44	05 49	17 40	05 53	17 35	05 58	17 31	06 02	17 26
	28	05 40	17 47	05 45	17 42	05 50	17 38	05 55	17 33	06 00	17 28	06 05	17 22
Nov.	2	05 40	17 47	05 45	17 42	05 51	17 36	05 56	17 31	06 02	17 25	06 08	17 19
	7	05 40	17 47	05 46	17 41	05 52	17 35	05 58	17 29	06 04	17 23	06 11	17 16
	12	05 41	17 48	05 47	17 41	05 53	17 35	06 00	17 28	06 07	17 21	06 14	17 14
	17	05 41	17 49	05 48	17 42	05 55	17 35	06 02	17 27	06 10	17 20	06 18	17 12
	22	05 42	17 50	05 50	17 42	05 57	17 35	06 05	17 27	06 13	17 19	06 21	17 11
	27	05 44	17 51	05 52	17 43	05 59	17 36	06 08	17 28	06 16	17 19	06 25	17 10
Dec.	2	05 46	17 53	05 54	17 45	06 02	17 37	06 10	17 28	06 19	17 19	06 29	17 10
	7	05 48	17 55	05 56	17 47	06 04	17 38	06 13	17 30	06 22	17 20	06 32	17 11
	12	05 50	17 57	05 58	17 49	06 07	17 40	06 16	17 31	06 25	17 22	06 35	17 12
	17	05 52	18 00	06 01	17 51	06 10	17 42	06 19	17 33	06 28	17 24	06 38	17 14
	22	05 55	18 02	06 03	17 54	06 12	17 45	06 21	17 36	06 31	17 26	06 41	17 16
	27	05 57	18 05	06 06	17 56	06 15	17 47	06 24	17 38	06 33	17 29	06 43	17 19
Jan.	1	06 00	18 07	06 08	17 59	06 17	17 50	06 26	17 41	06 35	17 32	06 45	17 22

Local mean time. To obtain standard time of rise or set, see table 5.

Date		30° N.		32° N.		34° N.		36° N.		38° N.		40° N.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan.	1	06 56	17 11	07 01	17 07	07 05	17 02	07 11	16 57	07 16	16 51	07 22	16 45
	6	06 57	17 15	07 01	17 10	07 06	17 06	07 11	17 01	07 16	16 55	07 22	16 50
	11	06 57	17 19	07 01	17 15	07 06	17 10	07 11	17 05	07 16	17 00	07 21	16 55
	16	06 56	17 23	07 01	17 19	07 05	17 15	07 10	17 10	07 15	17 05	07 20	17 00
	21	06 55	17 28	06 59	17 24	07 03	17 20	07 08	17 15	07 12	17 11	07 17	17 06
	26	06 53	17 32	06 57	17 28	07 01	17 24	07 05	17 20	07 09	17 16	07 14	17 12
	31	06 51	17 36	06 54	17 33	06 58	17 29	07 02	17 26	07 05	17 22	07 10	17 18
Feb.	5	06 48	17 40	06 51	17 37	06 54	17 34	06 57	17 31	07 01	17 27	07 05	17 24
	10	06 44	17 45	06 47	17 42	06 50	17 39	06 53	17 36	06 56	17 33	06 59	17 30
	15	06 40	17 49	06 42	17 46	06 45	17 44	06 48	17 41	06 50	17 38	06 53	17 36
	20	06 35	17 52	06 37	17 50	06 40	17 48	06 42	17 46	06 44	17 44	06 47	17 41
	25	06 30	17 56	06 32	17 54	06 34	17 53	06 36	17 51	06 38	17 49	06 40	17 47
Mar.	2	06 25	18 00	06 26	17 58	06 28	17 57	06 29	17 56	06 31	17 54	06 32	17 53
	7	06 20	18 03	06 20	18 02	06 21	18 01	06 22	18 00	06 23	17 59	06 25	17 58
	12	06 14	18 06	06 14	18 06	06 15	18 05	06 15	18 05	06 16	18 04	06 17	18 03
	17	06 08	18 09	06 08	18 09	06 08	18 09	06 08	18 09	06 09	18 09	06 09	18 09
	22	06 02	18 13	06 02	18 13	06 01	18 13	06 01	18 13	06 01	18 14	06 01	18 14
	27	05 56	18 16	05 55	18 16	05 55	18 17	05 54	18 17	05 53	18 18	05 53	18 19
Apr.	1	05 50	18 19	05 49	18 20	05 48	18 21	05 47	18 22	05 46	18 23	05 44	18 24
	6	05 44	18 22	05 42	18 23	05 41	18 24	05 40	18 26	05 38	18 27	05 36	18 29
	11	05 38	18 25	05 36	18 26	05 35	18 28	05 33	18 30	05 31	18 32	05 29	18 34
	16	05 32	18 28	05 30	18 30	05 28	18 32	05 26	18 34	05 24	18 37	05 21	18 39
	21	05 27	18 31	05 25	18 33	05 22	18 36	05 20	18 38	05 17	18 41	05 14	18 44
	26	05 22	18 34	05 19	18 37	05 16	18 40	05 13	18 43	05 10	18 46	05 07	18 49
May	1	05 17	18 37	05 14	18 40	05 11	18 44	05 08	18 47	05 04	18 51	05 00	18 54
	6	05 13	18 40	05 10	18 44	05 06	18 47	05 03	18 51	04 59	18 55	04 54	18 59
	11	05 09	18 44	05 06	18 47	05 02	18 51	04 58	18 55	04 53	19 00	04 49	19 04
	16	05 06	18 47	05 02	18 51	04 58	18 55	04 54	19 00	04 49	19 04	04 44	19 09
	21	05 03	18 50	04 59	18 54	04 55	18 59	04 50	19 03	04 45	19 08	04 40	19 14
	26	05 01	18 53	04 57	18 57	04 52	19 02	04 47	19 07	04 42	19 12	04 36	19 18
	31	05 00	18 56	04 55	19 00	04 50	19 05	04 45	19 11	04 40	19 16	04 34	19 22
June	5	04 59	18 58	04 54	19 03	04 49	19 08	04 44	19 14	04 38	19 19	04 32	19 25
	10	04 58	19 01	04 53	19 06	04 48	19 11	04 43	19 16	04 37	19 22	04 31	19 28
	15	04 58	19 02	04 54	19 07	04 48	19 13	04 43	19 18	04 37	19 24	04 31	19 30
	20	04 59	19 04	04 54	19 09	04 49	19 14	04 43	19 20	04 37	19 26	04 31	19 32
	25	05 00	19 05	04 55	19 10	04 50	19 15	04 45	19 21	04 39	19 27	04 32	19 33
	30	05 02	19 05	04 57	19 10	04 52	19 15	04 46	19 21	04 41	19 27	04 34	19 33
July	5	05 04	19 05	04 59	19 10	04 54	19 15	04 49	19 20	04 43	19 26	04 37	19 32
	10	05 06	19 04	05 02	19 09	04 57	19 14	04 52	19 19	04 46	19 24	04 40	19 30
	15	05 09	19 03	05 04	19 07	05 00	19 12	04 55	19 17	04 49	19 22	04 44	19 28
	20	05 12	19 01	05 07	19 05	05 03	19 09	04 58	19 14	04 53	19 19	04 48	19 25
	25	05 15	18 58	05 11	19 02	05 06	19 06	05 02	19 11	04 57	19 16	04 52	19 21
	30	05 18	18 55	05 14	18 59	05 10	19 03	05 06	19 07	05 01	19 11	04 56	19 16
Aug.	4	05 21	18 51	05 17	18 55	05 13	18 58	05 10	19 02	05 05	19 06	05 01	19 11
	9	05 24	18 47	05 20	18 50	05 17	18 53	05 13	18 57	05 10	19 01	05 06	19 05
	14	05 27	18 42	05 24	18 45	05 21	18 48	05 17	18 51	05 14	18 55	05 10	18 58
	19	05 30	18 37	05 27	18 40	05 24	18 42	05 21	18 45	05 18	18 48	05 15	18 51
	24	05 32	18 32	05 30	18 34	05 28	18 36	05 25	18 39	05 23	18 41	05 20	18 44
	29	05 35	18 26	05 33	18 28	05 31	18 30	05 29	18 32	05 27	18 34	05 25	18 37
Sept.	3	05 38	18 20	05 36	18 22	05 35	18 23	05 33	18 25	05 31	18 27	05 29	18 29
	8	05 41	18 14	05 39	18 15	05 38	18 17	05 37	18 18	05 36	18 19	05 34	18 21
	13	05 43	18 08	05 43	18 09	05 42	18 10	05 41	18 11	05 40	18 11	05 39	18 12
	18	05 46	18 02	05 46	18 02	05 45	18 03	05 45	18 03	05 44	18 04	05 44	18 04
	23	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 48	17 56	05 48	17 56
	28	05 52	17 49	05 52	17 49	05 52	17 49	05 52	17 48	05 53	17 48	05 53	17 48
Oct.	3	05 54	17 43	05 55	17 43	05 56	17 42	05 56	17 41	05 57	17 40	05 58	17 39
	8	05 57	17 37	05 58	17 36	05 59	17 35	06 01	17 34	06 02	17 33	06 03	17 32
	13	06 00	17 32	06 02	17 30	06 03	17 29	06 05	17 27	06 06	17 26	06 08	17 24
	18	06 04	17 26	06 05	17 24	06 07	17 23	06 09	17 21	06 11	17 19	06 13	17 16
	23	06 07	17 21	06 09	17 19	06 11	17 17	06 14	17 14	06 16	17 12	06 19	17 09
	28	06 11	17 17	06 13	17 14	06 16	17 11	06 18	17 09	06 21	17 06	06 24	17 03
Nov.	2	06 14	17 12	06 17	17 09	06 20	17 07	06 23	17 03	06 27	17 00	06 30	16 57
	7	06 18	17 09	06 22	17 05	06 25	17 02	06 28	16 59	06 32	16 55	06 36	16 51
	12	06 22	17 06	06 26	17 02	06 29	16 58	06 33	16 55	06 37	16 51	06 41	16 46
	17	06 27	17 03	06 30	16 59	06 34	16 55	06 38	16 51	06 43	16 47	06 47	16 42
	22	06 31	17 01	06 35	16 57	06 39	16 53	06 43	16 49	06 48	16 44	06 53	16 39
	27	06 35	17 00	06 39	16 56	06 43	16 51	06 48	16 47	06 53	16 42	06 58	16 37
Dec.	2	06 39	17 00	06 43	16 55	06 48	16 51	06 53	16 46	06 58	16 41	07 03	16 35
	7	06 43	17 00	06 47	16 55	06 52	16 51	06 57	16 46	07 02	16 40	07 08	16 35
	12	06 46	17 01	06 51	16 56	06 56	16 51	07 01	16 46	07 06	16 41	07 12	16 35
	17	06 49	17 03	06 54	16 58	06 59	16 53	07 04	16 48	07 10	16 42	07 16	16 36
	22	06 52	17 05	06 57	17 00	07 02	16 55	07 07	16 50	07 13	16 44	07 19	16 38
	27	06 54	17 08	06 59	17 03	07 04	16 58	07 09	16 53	07 15	16 47	07 21	16 41
Jan.	1	06 56	17 11	07 00	17 06	07 05	17 02	07 11	16 56	07 16	16 51	07 22	16 45

Local mean time. To obtain standard time of rise or set, see table 5.

Date		42° N.		44° N.		46° N.		48° N.		50° N.		52° N.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan.	1	07 28	16 39	07 35	16 32	07 42	16 25	07 50	16 17	07 59	16 09	08 08	15 59
	6	07 28	16 44	07 35	16 37	07 42	16 30	07 49	16 23	07 58	16 14	08 07	16 05
	11	07 27	16 49	07 33	16 43	07 40	16 36	07 47	16 29	07 55	16 21	08 04	16 12
	16	07 25	16 55	07 31	16 49	07 37	16 42	07 44	16 35	07 52	16 28	08 00	16 20
	21	07 22	17 01	07 28	16 55	07 34	16 49	07 40	16 43	07 47	16 36	07 55	16 28
	26	07 19	17 07	07 24	17 02	07 29	16 56	07 35	16 50	07 42	16 44	07 49	16 37
	31	07 14	17 13	07 19	17 09	07 24	17 04	07 29	16 58	07 35	16 52	07 42	16 46
Feb.	5	07 09	17 20	07 13	17 16	07 18	17 11	07 22	17 06	07 28	17 01	07 34	16 55
	10	07 03	17 26	07 07	17 22	07 11	17 18	07 15	17 14	07 20	17 09	07 25	17 04
	15	06 56	17 33	06 59	17 29	07 03	17 26	07 07	17 22	07 11	17 18	07 15	17 14
	20	06 49	17 39	06 52	17 36	06 55	17 33	06 58	17 30	07 02	17 27	07 05	17 23
	25	06 42	17 45	06 44	17 43	06 46	17 40	06 49	17 38	06 52	17 35	06 55	17 32
Mar.	2	06 34	17 51	06 36	17 49	06 37	17 48	06 39	17 46	06 42	17 43	06 44	17 41
	7	06 26	17 57	06 27	17 56	06 28	17 55	06 30	17 53	06 31	17 52	06 33	17 50
	12	06 17	18 03	06 18	18 02	06 19	18 01	06 20	18 01	06 21	18 00	06 22	17 59
	17	06 09	18 09	06 09	18 08	06 09	18 08	06 10	18 08	06 10	18 08	06 10	18 08
	22	06 00	18 14	06 00	18 15	06 00	18 15	05 59	18 15	05 59	18 16	05 59	18 16
	27	05 52	18 20	05 51	18 21	05 50	18 22	05 49	18 23	05 48	18 24	05 47	18 25
Apr.	1	05 43	18 25	05 42	18 27	05 40	18 28	05 39	18 30	05 37	18 32	05 35	18 33
	6	05 35	18 31	05 33	18 33	05 31	18 35	05 29	18 37	05 26	18 39	05 24	18 42
	11	05 26	18 36	05 24	18 39	05 22	18 41	05 19	18 44	05 16	18 47	05 13	18 51
	16	05 18	18 42	05 16	18 45	05 12	18 48	05 09	18 51	05 06	18 55	05 02	18 59
	21	05 11	18 48	05 07	18 51	05 04	18 55	05 00	18 59	04 56	19 03	04 51	19 08
	26	05 03	18 53	04 59	18 57	04 55	19 01	04 51	19 06	04 46	19 11	04 41	19 16
May	1	04 56	18 59	04 52	19 03	04 47	19 08	04 42	19 13	04 37	19 18	04 31	19 25
	6	04 50	19 04	04 45	19 09	04 40	19 14	04 34	19 20	04 28	19 26	04 21	19 33
	11	04 44	19 09	04 39	19 15	04 33	19 20	04 27	19 27	04 20	19 33	04 13	19 41
	16	04 39	19 14	04 33	19 20	04 27	19 26	04 20	19 33	04 13	19 41	04 05	19 49
	21	04 34	19 19	04 28	19 26	04 22	19 32	04 15	19 39	04 07	19 47	03 58	19 56
	26	04 31	19 24	04 24	19 30	04 17	19 37	04 10	19 45	04 01	19 54	03 52	20 03
	31	04 28	19 28	04 21	19 35	04 14	19 42	04 06	19 50	03 57	19 59	03 47	20 09
June	5	04 25	19 32	04 18	19 39	04 11	19 46	04 03	19 55	03 53	20 04	03 43	20 14
	10	04 24	19 35	04 17	19 42	04 09	19 50	04 01	19 58	03 51	20 08	03 41	20 19
	15	04 24	19 37	04 17	19 45	04 09	19 52	04 00	20 01	03 50	20 11	03 39	20 22
	20	04 24	19 39	04 17	19 46	04 09	19 54	04 00	20 03	03 50	20 13	03 40	20 24
	25	04 26	19 40	04 18	19 47	04 10	19 55	04 02	20 04	03 52	20 13	03 41	20 24
	30	04 28	19 39	04 20	19 47	04 12	19 55	04 04	20 03	03 54	20 13	03 44	20 23
July	5	04 30	19 39	04 23	19 46	04 16	19 53	04 07	20 02	03 58	20 11	03 47	20 21
	10	04 34	19 37	04 27	19 44	04 19	19 51	04 11	19 59	04 02	20 08	03 52	20 18
	15	04 38	19 34	04 31	19 41	04 24	19 48	04 16	19 55	04 07	20 04	03 58	20 13
	20	04 42	19 30	04 36	19 37	04 29	19 43	04 21	19 51	04 13	19 59	04 04	20 08
	25	04 46	19 26	04 40	19 32	04 34	19 38	04 27	19 45	04 20	19 53	04 11	20 01
	30	04 51	19 21	04 46	19 26	04 40	19 32	04 33	19 39	04 26	19 46	04 18	19 53
Aug.	4	04 56	19 15	04 51	19 20	04 46	19 26	04 40	19 32	04 33	19 38	04 26	19 45
	9	05 01	19 09	04 57	19 14	04 52	19 18	04 46	19 24	04 41	19 30	04 34	19 36
	14	05 07	19 02	05 02	19 06	04 58	19 11	04 53	19 15	04 48	19 20	04 42	19 26
	19	05 12	18 55	05 08	18 58	05 04	19 02	05 00	19 06	04 55	19 11	04 50	19 16
	24	05 17	18 47	05 14	18 50	05 10	18 53	05 07	18 57	05 03	19 01	04 58	19 05
	29	05 22	18 39	05 20	18 42	05 17	18 44	05 14	18 47	05 10	18 51	05 07	18 54
Sept.	3	05 27	18 31	05 25	18 33	05 23	18 35	05 20	18 37	05 18	18 40	05 15	18 43
	8	05 33	18 22	05 31	18 24	05 29	18 25	05 27	18 27	05 25	18 29	05 23	18 31
	13	05 38	18 13	05 37	18 15	05 35	18 16	05 34	18 17	05 33	18 18	05 31	18 20
	18	05 43	18 05	05 42	18 05	05 42	18 06	05 41	18 07	05 40	18 07	05 39	18 08
	23	05 48	17 56	05 48	17 56	05 48	17 56	05 48	17 56	05 48	17 56	05 47	17 56
	28	05 53	17 47	05 54	17 47	05 54	17 46	05 55	17 46	05 55	17 45	05 56	17 45
Oct.	3	05 59	17 39	06 00	17 38	06 01	17 37	06 02	17 36	06 03	17 34	06 04	17 33
	8	06 04	17 30	06 06	17 29	06 07	17 27	06 09	17 26	06 10	17 24	06 12	17 22
	13	06 10	17 22	06 12	17 20	06 14	17 18	06 16	17 16	06 18	17 13	06 21	17 11
	18	06 16	17 14	06 18	17 12	06 21	17 09	06 23	17 06	06 26	17 03	06 30	17 00
	23	06 22	17 07	06 24	17 04	06 28	17 01	06 31	16 57	06 34	16 53	06 38	16 49
	28	06 27	17 00	06 31	16 56	06 35	16 52	06 38	16 48	06 43	16 44	06 47	16 39
Nov.	2	06 34	16 53	06 37	16 49	06 42	16 45	06 46	16 40	06 51	16 35	06 56	16 30
	7	06 40	16 47	06 44	16 43	06 49	16 38	06 54	16 33	06 59	16 27	07 05	16 21
	12	06 46	16 42	06 51	16 37	06 56	16 32	07 01	16 26	07 08	16 20	07 14	16 13
	17	06 52	16 37	06 57	16 32	07 03	16 27	07 09	16 20	07 16	16 14	07 23	16 06
	22	06 58	16 34	07 04	16 28	07 10	16 22	07 16	16 15	07 24	16 08	07 31	16 00
	27	07 04	16 31	07 10	16 25	07 16	16 19	07 23	16 12	07 31	16 04	07 39	15 55
Dec.	2	07 09	16 29	07 15	16 23	07 22	16 16	07 30	16 09	07 38	16 01	07 47	15 52
	7	07 14	16 28	07 21	16 22	07 28	16 15	07 35	16 07	07 44	15 59	07 53	15 49
	12	07 19	16 29	07 25	16 22	07 32	16 15	07 40	16 07	07 49	15 58	07 59	15 48
	17	07 22	16 30	07 29	16 23	07 36	16 16	07 44	16 08	07 53	15 59	08 03	15 49
	22	07 25	16 32	07 32	16 25	07 39	16 18	07 47	16 10	07 56	16 01	08 06	15 51
	27	07 27	16 35	07 34	16 28	07 41	16 21	07 49	16 13	07 58	16 04	08 08	15 54
Jan.	1	07 28	16 39	07 35	16 32	07 42	16 25	07 50	16 17	07 59	16 08	08 08	15 59

Local mean time. To obtain standard time of rise or set, see table 5.

Date		54° N.		56° N.		58° N.		60° N.		62° N.		64° N.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan.	1	08 19	15 48	08 31	15 36	08 45	15 22	09 02	15 05	09 23	14 44	09 50	14 18
	6	08 17	15 55	08 29	15 43	08 43	15 29	08 59	15 13	09 18	14 54	09 43	14 29
	11	08 14	16 02	08 25	15 51	08 38	15 38	08 53	15 23	09 12	15 05	09 34	14 42
	16	08 10	16 10	08 20	16 00	08 32	15 48	08 46	15 34	09 03	15 17	09 23	14 57
	21	08 04	16 19	08 14	16 10	08 25	15 59	08 38	15 46	08 53	15 31	09 11	15 12
	26	07 57	16 29	08 06	16 20	08 16	16 10	08 28	15 58	08 41	15 45	08 57	15 29
	31	07 49	16 39	07 57	16 31	08 06	16 22	08 16	16 11	08 28	15 59	08 43	15 45
Feb.	5	07 40	16 49	07 47	16 41	07 55	16 33	08 04	16 24	08 15	16 14	08 27	16 02
	10	07 30	16 59	07 37	16 52	07 44	16 46	07 52	16 38	08 01	16 29	08 12	16 18
	15	07 20	17 09	07 26	17 03	07 32	16 58	07 38	16 51	07 46	16 43	07 55	16 34
	20	07 09	17 19	07 14	17 14	07 19	17 09	07 25	17 04	07 31	16 57	07 39	16 50
	25	06 58	17 29	07 02	17 25	07 06	17 21	07 11	17 17	07 16	17 12	07 22	17 06
Mar.	2	06 47	17 39	06 49	17 36	06 53	17 33	06 56	17 29	07 00	17 26	07 04	17 21
	7	06 35	17 48	06 37	17 46	06 39	17 44	06 41	17 42	06 44	17 39	06 47	17 36
	12	06 23	17 58	06 24	17 57	06 25	17 56	06 26	17 54	06 28	17 53	06 30	17 51
	17	06 10	18 07	06 11	18 07	06 11	18 07	06 11	18 07	06 12	18 07	06 12	18 06
	22	05 58	18 17	05 57	18 18	05 57	18 18	05 56	18 19	05 55	18 20	05 54	18 21
	27	05 46	18 26	05 44	18 28	05 43	18 29	05 41	18 31	05 39	18 33	05 37	18 36
Apr.	1	05 33	18 36	05 31	18 38	05 29	18 40	05 26	18 43	05 23	18 47	05 19	18 51
	6	05 21	18 45	05 18	18 48	05 15	18 52	05 11	18 56	05 06	19 00	05 01	19 05
	11	05 09	18 54	05 05	18 58	05 01	19 03	04 56	19 08	04 50	19 14	04 44	19 20
	16	04 57	19 04	04 52	19 08	04 47	19 14	04 41	19 20	04 34	19 27	04 26	19 36
	21	04 46	19 13	04 40	19 19	04 34	19 25	04 27	19 33	04 18	19 41	04 09	19 51
	26	04 35	19 22	04 28	19 29	04 21	19 36	04 12	19 45	04 03	19 55	03 51	20 07
May	1	04 24	19 31	04 17	19 39	04 08	19 48	03 58	19 57	03 47	20 09	03 34	20 22
	6	04 14	19 40	04 06	19 49	03 56	19 59	03 45	20 10	03 32	20 23	03 17	20 38
	11	04 05	19 49	03 55	19 59	03 45	20 10	03 32	20 22	03 18	20 37	03 01	20 55
	16	03 56	19 58	03 46	20 08	03 34	20 20	03 20	20 34	03 04	20 50	02 44	21 11
	21	03 48	20 06	03 37	20 17	03 24	20 30	03 09	20 45	02 51	21 04	02 29	21 27
	26	03 41	20 13	03 30	20 25	03 16	20 39	03 00	20 56	02 40	21 16	02 14	21 42
	31	03 36	20 20	03 23	20 33	03 09	20 48	02 51	21 05	02 29	21 28	02 01	21 57
June	5	03 32	20 26	03 18	20 39	03 03	20 55	02 44	21 14	02 21	21 37	01 49	22 10
	10	03 29	20 31	03 15	20 44	02 59	21 01	02 39	21 20	02 14	21 45	01 40	22 21
	15	03 27	20 34	03 13	20 48	02 57	21 05	02 36	21 25	02 10	21 51	01 33	22 28
	20	03 27	20 36	03 13	20 50	02 56	21 07	02 36	21 28	02 09	21 54	01 31	22 32
	25	03 29	20 36	03 14	20 51	02 58	21 07	02 37	21 28	02 11	21 54	01 33	22 31
	30	03 31	20 35	03 17	20 49	03 01	21 06	02 41	21 26	02 15	21 51	01 39	22 27
July	5	03 36	20 33	03 22	20 47	03 06	21 02	02 47	21 21	02 23	21 45	01 49	22 18
	10	03 41	20 29	03 28	20 42	03 13	20 57	02 54	21 15	02 32	21 38	02 01	22 07
	15	03 47	20 24	03 35	20 36	03 20	20 50	03 03	21 07	02 42	21 28	02 15	21 55
	20	03 54	20 18	03 42	20 29	03 29	20 42	03 13	20 58	02 54	21 17	02 30	21 40
	25	04 02	20 10	03 51	20 21	03 39	20 33	03 24	20 47	03 07	21 04	02 46	21 25
	30	04 10	20 02	04 00	20 12	03 49	20 23	03 36	20 36	03 20	20 51	03 01	21 09
Aug.	4	04 18	19 53	04 09	20 02	03 59	20 12	03 47	20 23	03 34	20 37	03 17	20 53
	9	04 27	19 43	04 19	19 51	04 10	20 00	03 59	20 10	03 47	20 22	03 33	20 36
	14	04 36	19 32	04 29	19 39	04 21	19 47	04 11	19 56	04 01	20 07	03 48	20 19
	19	04 45	19 21	04 38	19 28	04 31	19 34	04 23	19 42	04 14	19 51	04 04	20 01
	24	04 54	19 10	04 48	19 15	04 42	19 21	04 35	19 28	04 28	19 35	04 19	19 44
	29	05 02	18 58	04 58	19 03	04 53	19 07	04 47	19 13	04 41	19 19	04 33	19 26
Sept.	3	05 11	18 46	05 08	18 50	05 04	18 54	04 59	18 58	04 54	19 03	04 48	19 09
	8	05 20	18 34	05 18	18 37	05 14	18 40	05 11	18 43	05 07	18 47	05 02	18 51
	13	05 29	18 22	05 27	18 23	05 25	18 25	05 23	18 28	05 20	18 30	05 17	18 33
	18	05 38	18 09	05 37	18 10	05 36	18 11	05 34	18 13	05 33	18 14	05 31	18 16
	23	05 47	17 57	05 47	17 57	05 46	17 57	05 46	17 57	05 46	17 58	05 45	17 58
	28	05 56	17 44	05 57	17 44	05 57	17 43	05 58	17 42	05 59	17 41	06 00	17 40
Oct.	3	06 05	17 32	06 07	17 30	06 08	17 29	06 10	17 27	06 12	17 25	06 14	17 23
	8	06 14	17 20	06 17	17 17	06 19	17 15	06 22	17 12	06 25	17 09	06 28	17 05
	13	06 24	17 08	06 27	17 05	06 30	17 01	06 34	16 57	06 38	16 53	06 43	16 48
	18	06 33	16 56	06 37	16 52	06 41	16 48	06 46	16 43	06 52	16 37	06 58	16 31
	23	06 43	16 45	06 48	16 40	06 53	16 35	06 59	16 29	07 06	16 22	07 14	16 14
	28	06 52	16 34	06 58	16 29	07 04	16 22	07 12	16 15	07 20	16 07	07 29	15 57
Nov.	2	07 02	16 24	07 09	16 18	07 16	16 10	07 24	16 02	07 34	15 52	07 45	15 41
	7	07 12	16 15	07 19	16 07	07 28	15 59	07 37	15 49	07 48	15 38	08 01	15 25
	12	07 22	16 06	07 30	15 58	07 39	15 48	07 50	15 38	08 02	15 25	08 17	15 10
	17	07 31	15 58	07 40	15 49	07 51	15 39	08 03	15 27	08 17	15 13	08 33	14 56
	22	07 40	15 51	07 50	15 41	08 02	15 30	08 15	15 17	08 30	15 01	08 49	14 42
	27	07 49	15 46	08 00	15 35	08 12	15 23	08 26	15 09	08 43	14 51	09 04	14 30
Dec.	2	07 57	15 42	08 08	15 30	08 21	15 17	08 37	15 02	08 55	14 43	09 18	14 20
	7	08 04	15 39	08 16	15 27	08 30	15 13	08 46	14 57	09 06	14 37	09 31	14 12
	12	08 10	15 38	08 22	15 25	08 36	15 11	08 53	14 54	09 14	14 33	09 41	14 06
	17	08 14	15 38	08 27	15 25	08 42	15 11	08 59	14 53	09 20	14 32	09 48	14 04
	22	08 17	15 40	08 30	15 27	08 45	15 12	09 02	14 55	09 24	14 33	09 52	14 05
	27	08 19	15 43	08 32	15 31	08 46	15 16	09 04	14 59	09 25	14 37	09 53	14 09
Jan.	1	08 19	15 48	08 31	15 36	08 46	15 22	09 02	15 05	09 23	14 44	09 50	14 17

Local mean time. To obtain standard time of rise or set, see table 5.

Date		66° N.		68° N.		70° N.		72° N.		74° N.		76° N.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan.	1	10 28	13 40	Rises 3 Jan		Sun does not		Sun does not		Sun does not		Sun does not	
	6	10 18	13 54	11 22	12 50	rise until		rise until		rise until		rise until	
	11	10 05	14 12	10 53	13 23	17 January		26 January		2 February		9 February	
	16	09 50	14 30	10 29	13 52								
	21	09 34	14 49	10 06	14 18	10 57	13 27	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	26	09 17	15 08	09 44	14 42	10 21	14 05	11 40	12 46	.. ..	.. ..	.. ..	.. ..
	31	09 00	15 28	09 22	15 06	09 51	14 37	10 37	13 51	.. ..	.. ..	.. ..	.. ..
Feb.	5	08 42	15 47	09 01	15 28	09 24	15 05	09 57	14 32	10 52	13 37	.. ..	.. ..
	10	08 24	16 05	08 40	15 50	08 59	15 31	09 24	15 06	10 01	14 29	11 10	13 21
	15	08 06	16 24	08 19	16 11	08 34	15 56	08 54	15 36	09 21	15 09	10 02	14 28
	20	07 47	16 42	07 58	16 31	08 10	16 19	08 26	16 03	08 46	15 43	09 15	15 15
	25	07 29	16 59	07 37	16 51	07 47	16 41	07 59	16 29	08 14	16 14	08 35	15 53
Mar.	2	07 10	17 16	07 16	17 10	07 23	17 03	07 32	16 54	07 43	16 43	07 58	16 29
	7	06 51	17 33	06 55	17 29	07 00	17 24	07 06	17 18	07 14	17 11	07 23	17 01
	12	06 32	17 49	06 34	17 47	06 37	17 45	06 40	17 41	06 44	17 38	06 50	17 33
	17	06 13	18 06	06 13	18 06	06 14	18 05	06 15	18 05	06 16	18 04	06 17	18 03
	22	05 53	18 22	05 52	18 24	05 51	18 25	05 49	18 28	05 47	18 30	05 44	18 34
	27	05 34	18 39	05 31	18 42	05 27	18 46	05 23	18 51	05 17	18 57	05 10	19 04
Apr.	1	05 15	18 55	05 10	19 00	05 04	19 06	04 57	19 14	04 48	19 24	04 36	19 36
	6	04 56	19 11	04 49	19 19	04 40	19 27	04 30	19 38	04 17	19 52	04 00	20 10
	11	04 36	19 28	04 27	19 38	04 16	19 49	04 03	20 03	03 45	20 21	03 21	20 46
	16	04 17	19 45	04 05	19 57	03 52	20 11	03 34	20 29	03 11	20 54	02 38	21 29
	21	03 57	20 03	03 43	20 17	03 26	20 35	03 04	20 58	02 33	21 31	01 44	22 25
	26	03 38	20 21	03 21	20 38	03 00	21 00	02 31	21 30	01 48	22 17	.. ..	.. ..
May	1	03 18	20 39	02 58	20 59	02 32	21 27	01 54	22 08	00 33	.. ..	.. ..	.. ..
	6	02 58	20 58	02 34	21 23	02 01	21 58	01 03	23 03	.. ..	.. ..	.. ..	.. ..
	11	02 39	21 17	02 09	21 48	01 24	22 36	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	16	02 19	21 37	01 42	22 15	00 25	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	21	01 59	21 58	01 11	22 49	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	26	01 38	22 19	00 20	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	31	01 17	22 42	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
June	5	00 55	23 06										
	10	00 30	23 36	Sun rises		Sun rises		Sun rises		Sun rises		Sun rises	
	15	Sun Rises		26 May		16 May		8 May		1 May		25 April	
	20	12 June		Sun sets		Sun sets		Sun sets		Sun sets		Sun sets	
	25			17 July		27 July		4 August		11 August		18 August	
	30	.. ..	23 49										
July	5	00 47	23 18	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	10	01 12	22 55	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	15	01 35	22 33	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	20	01 56	22 13	00 56	23 09	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	25	02 17	21 53	01 34	22 33	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	30	02 37	21 33	02 04	22 05	01 05	22 58	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Aug.	4	02 56	21 13	02 29	21 39	01 49	22 17	.. ..	23 39	.. ..	.. ..	.. ..	.. ..
	9	03 15	20 53	02 53	21 15	02 22	21 44	01 34	22 29	.. ..	.. ..	.. ..	.. ..
	14	03 33	20 33	03 15	20 52	02 50	21 15	02 16	21 47	01 16	22 41	.. ..	.. ..
	19	03 51	20 14	03 35	20 29	03 16	20 48	02 50	21 13	02 11	21 49	00 53	22 54
	24	04 08	19 54	03 55	20 07	03 39	20 22	03 19	20 42	02 51	21 08	02 08	21 48
	29	04 25	19 35	04 14	19 45	04 02	19 57	03 45	20 13	03 24	20 33	02 55	21 01
Sept.	3	04 41	19 15	04 33	19 23	04 23	19 33	04 10	19 45	03 55	20 00	03 33	20 20
	8	04 57	18 56	04 51	19 02	04 44	19 09	04 34	19 18	04 23	19 29	04 07	19 44
	13	05 13	18 37	05 09	18 41	05 04	18 46	04 57	18 52	04 49	18 59	04 39	19 09
	18	05 29	18 18	05 26	18 20	05 24	18 22	05 20	18 26	05 15	18 30	05 10	18 35
	23	05 45	17 58	05 44	17 59	05 43	17 59	05 42	18 00	05 41	18 01	05 39	18 02
	28	06 00	17 39	06 02	17 38	06 03	17 36	06 05	17 34	06 07	17 32	06 09	17 29
Oct.	3	06 16	17 20	06 19	17 17	06 23	17 13	06 27	17 09	06 32	17 03	06 39	16 56
	8	06 33	17 01	06 37	16 56	06 43	16 50	06 50	16 43	06 59	16 34	07 10	16 22
	13	06 49	16 42	06 56	16 35	07 04	16 27	07 14	16 17	07 26	16 04	07 43	15 47
	18	07 06	16 23	07 14	16 14	07 25	16 04	07 38	15 50	07 55	15 33	08 18	15 10
	23	07 23	16 05	07 34	15 54	07 47	15 40	08 04	15 23	08 27	15 00	08 58	14 28
	28	07 40	15 46	07 54	15 33	08 10	15 16	08 32	14 54	09 01	14 24	09 48	13 38
Nov.	2	07 58	15 28	08 14	15 12	08 35	14 51	09 02	14 23	09 43	13 43	11 26	12 00
	7	08 17	15 10	08 36	14 50	09 01	14 25	09 37	13 49	10 43	12 43	.. ..	.. ..
	12	08 35	14 52	08 58	14 29	09 30	13 58	10 20	13 07	.. ..	.. ..	.. ..	.. ..
	17	08 54	14 35	09 22	14 07	10 02	13 27	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	22	09 13	14 18	09 46	13 45	10 44	12 48	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	27	09 32	14 03	10 13	13 22	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Dec.	2	09 50	13 48	10 41	12 57	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	7	10 06	13 36	11 18	12 25	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	12	10 20	13 27										
	17	10 30	13 22	Sun does not		Sun does not		Sun does not		Sun does not		Sun does not	
	22	10 35	13 22	rise after		rise after		rise after		rise after		rise after	
	27	10 34	13 28	9 December		25 November		16 November		8 November		2 November	
Jan.	1	10 28	13 39	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

Local mean time. To obtain standard time of rise or set, see table 5.

Date		0°		5° S.		10° S.		15° S.		20° S.		25° S.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan.	1	06 00	18 07	05 51	18 16	05 43	18 24	05 33	18 34	05 24	18 43	05 14	18 53
	6	06 02	18 10	05 54	18 18	05 45	18 26	05 36	18 35	05 27	18 44	05 17	18 54
	11	06 04	18 12	05 56	18 20	05 48	18 28	05 39	18 36	05 30	18 45	05 21	18 55
	16	06 06	18 13	05 58	18 21	05 51	18 29	05 42	18 37	05 34	18 46	05 24	18 55
	21	06 08	18 15	06 00	18 22	05 53	18 30	05 45	18 37	05 37	18 45	05 28	18 54
	26	06 09	18 16	06 02	18 23	05 55	18 30	05 48	18 37	05 40	18 44	05 32	18 53
	31	06 10	18 17	06 04	18 23	05 57	18 30	05 50	18 36	05 43	18 43	05 36	18 51
Feb.	5	06 10	18 17	06 05	18 23	05 59	18 29	05 53	18 35	05 46	18 41	05 39	18 48
	10	06 11	18 18	06 06	18 23	06 00	18 28	05 55	18 33	05 49	18 39	05 43	18 45
	15	06 11	18 18	06 06	18 22	06 02	18 27	05 57	18 31	05 52	18 36	05 46	18 42
	20	06 10	18 17	06 06	18 21	06 02	18 25	05 58	18 29	05 54	18 33	05 49	18 38
	25	06 10	18 16	06 06	18 20	06 03	18 23	06 00	18 26	05 56	18 30	05 52	18 34
Mar.	2	06 09	18 15	06 06	18 18	06 04	18 20	06 01	18 23	05 58	18 26	05 55	18 29
	7	06 08	18 14	06 06	18 16	06 04	18 18	06 02	18 20	06 00	18 22	05 57	18 24
	12	06 06	18 13	06 05	18 14	06 04	18 15	06 03	18 17	06 01	18 18	06 00	18 19
	17	06 05	18 12	06 05	18 12	06 04	18 13	06 04	18 13	06 03	18 14	06 02	18 14
	22	06 04	18 10	06 04	18 10	06 04	18 10	06 04	18 09	06 04	18 09	06 04	18 09
	27	06 02	18 09	06 03	18 08	06 04	18 07	06 05	18 06	06 06	18 05	06 07	18 04
Apr.	1	06 01	18 07	06 02	18 06	06 04	18 04	06 05	18 02	06 07	18 00	06 09	17 59
	6	05 59	18 06	06 01	18 03	06 04	18 01	06 06	17 59	06 08	17 56	06 11	17 54
	11	05 58	18 04	06 01	18 01	06 04	17 58	06 07	17 55	06 10	17 52	06 13	17 49
	16	05 57	18 03	06 00	18 00	06 04	17 56	06 07	17 52	06 11	17 48	06 15	17 44
	21	05 55	18 02	06 00	17 58	06 04	17 54	06 08	17 49	06 13	17 45	06 17	17 40
	26	05 54	18 01	05 59	17 56	06 04	17 51	06 09	17 46	06 14	17 41	06 20	17 36
May	1	05 54	18 00	05 59	17 55	06 05	17 50	06 10	17 44	06 16	17 38	06 22	17 32
	6	05 53	18 00	05 59	17 54	06 05	17 48	06 11	17 42	06 18	17 35	06 25	17 28
	11	05 53	18 00	05 59	17 53	06 06	17 47	06 13	17 40	06 20	17 33	06 27	17 25
	16	05 53	18 00	06 00	17 53	06 07	17 46	06 14	17 39	06 22	17 31	06 30	17 23
	21	05 53	18 00	06 00	17 53	06 08	17 45	06 15	17 38	06 24	17 29	06 32	17 21
	26	05 53	18 01	06 01	17 53	06 09	17 45	06 17	17 37	06 26	17 28	06 35	17 19
	31	05 54	18 01	06 02	17 53	06 10	17 45	06 19	17 37	06 27	17 28	06 37	17 18
June	5	05 55	18 02	06 03	17 54	06 12	17 45	06 20	17 37	06 29	17 28	06 39	17 18
	10	05 56	18 03	06 04	17 55	06 13	17 46	06 22	17 37	06 31	17 28	06 41	17 18
	15	05 57	18 04	06 05	17 55	06 14	17 47	06 23	17 38	06 33	17 28	06 43	17 18
	20	05 58	18 05	06 07	17 57	06 15	17 48	06 24	17 39	06 34	17 29	06 44	17 19
	25	05 59	18 06	06 08	17 58	06 16	17 49	06 25	17 40	06 35	17 30	06 45	17 20
	30	06 00	18 07	06 09	17 59	06 17	17 50	06 26	17 41	06 36	17 32	06 46	17 22
July	5	06 01	18 08	06 09	18 00	06 18	17 51	06 27	17 43	06 36	17 33	06 46	17 24
	10	06 02	18 09	06 10	18 01	06 18	17 53	06 27	17 44	06 36	17 35	06 45	17 26
	15	06 02	18 10	06 10	18 02	06 18	17 54	06 27	17 46	06 35	17 37	06 44	17 28
	20	06 03	18 10	06 10	18 02	06 18	17 55	06 26	17 47	06 34	17 39	06 43	17 30
	25	06 03	18 10	06 10	18 03	06 17	17 56	06 25	17 48	06 33	17 41	06 41	17 32
	30	06 03	18 10	06 10	18 03	06 16	17 57	06 23	17 50	06 31	17 42	06 39	17 35
Aug.	4	06 03	18 10	06 09	18 03	06 15	17 57	06 22	17 51	06 28	17 44	06 36	17 37
	9	06 02	18 09	06 08	18 03	06 14	17 58	06 19	17 52	06 26	17 46	06 32	17 39
	14	06 01	18 08	06 06	18 03	06 12	17 58	06 17	17 53	06 23	17 47	06 28	17 41
	19	06 00	18 07	06 05	18 02	06 09	17 58	06 14	17 53	06 19	17 48	06 24	17 43
	24	05 59	18 06	06 03	18 02	06 07	17 58	06 11	17 54	06 15	17 50	06 20	17 45
	29	05 58	18 04	06 01	18 01	06 04	17 58	06 08	17 54	06 11	17 51	06 15	17 47
Sept.	3	05 56	18 03	05 59	18 00	06 01	17 57	06 04	17 55	06 07	17 52	06 10	17 49
	8	05 54	18 01	05 56	17 59	05 58	17 57	06 00	17 55	06 03	17 53	06 05	17 51
	13	05 53	17 59	05 54	17 58	05 55	17 57	05 57	17 55	05 58	17 54	06 00	17 53
	18	05 51	17 57	05 52	17 57	05 52	17 56	05 53	17 56	05 53	17 55	05 54	17 55
	23	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56
	28	05 47	17 54	05 47	17 55	05 46	17 56	05 45	17 56	05 44	17 57	05 43	17 58
Oct.	3	05 46	17 52	05 44	17 54	05 43	17 55	05 41	17 57	05 40	17 59	05 38	18 00
	8	05 44	17 51	05 42	17 53	05 40	17 55	05 38	17 57	05 36	18 00	05 33	18 03
	13	05 43	17 50	05 40	17 52	05 37	17 55	05 35	17 58	05 31	18 01	05 28	18 05
	18	05 42	17 49	05 38	17 52	05 35	17 56	05 31	17 59	05 28	18 03	05 23	18 07
	23	05 41	17 48	05 37	17 52	05 33	17 56	05 29	18 00	05 24	18 05	05 19	18 10
	28	05 40	17 47	05 36	17 52	05 31	17 57	05 26	18 02	05 21	18 07	05 15	18 13
Nov.	2	05 40	17 47	05 35	17 52	05 29	17 58	05 24	18 03	05 18	18 09	05 12	18 16
	7	05 40	17 47	05 34	17 53	05 28	17 59	05 22	18 05	05 16	18 12	05 09	18 19
	12	05 41	17 48	05 34	17 54	05 28	18 01	05 21	18 08	05 14	18 15	05 06	18 23
	17	05 41	17 49	05 34	17 55	05 27	18 03	05 20	18 10	05 12	18 18	05 04	18 26
	22	05 42	17 50	05 35	17 57	05 28	18 05	05 20	18 13	05 12	18 21	05 03	18 30
	27	05 44	17 51	05 36	17 59	05 28	18 07	05 20	18 15	05 11	18 24	05 02	18 33
Dec.	2	05 46	17 53	05 38	18 01	05 29	18 09	05 21	18 18	05 12	18 27	05 02	18 37
	7	05 48	17 55	05 39	18 04	05 31	18 12	05 22	18 21	05 13	18 30	05 02	18 41
	12	05 50	17 57	05 41	18 06	05 33	18 15	05 24	18 24	05 14	18 33	05 04	18 44
	17	05 52	18 00	05 44	18 09	05 35	18 17	05 26	18 27	05 16	18 36	05 05	18 47
	22	05 55	18 02	05 46	18 11	05 37	18 20	05 28	18 29	05 18	18 39	05 08	18 49
	27	05 57	18 05	05 49	18 13	05 40	18 22	05 31	18 31	05 21	18 41	05 10	18 52
Jan.	1	06 00	18 07	05 51	18 16	05 42	18 24	05 33	18 33	05 24	18 43	05 13	18 53

Local mean time. To obtain standard time of rise or set, see table 5.

Date		30° S.		32° S.		34° S.		36° S.		38° S.		40° S.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan.	1	05 02	19 05	04 57	19 10	04 52	19 15	04 47	19 20	04 41	19 26	04 35	19 32
	6	05 06	19 05	05 01	19 10	04 56	19 15	04 51	19 20	04 45	19 26	04 39	19 32
	11	05 10	19 05	05 05	19 10	05 01	19 15	04 55	19 20	04 50	19 25	04 44	19 31
	16	05 14	19 05	05 10	19 09	05 05	19 14	05 00	19 19	04 55	19 24	04 50	19 29
	21	05 19	19 04	05 15	19 08	05 10	19 12	05 06	19 17	05 01	19 21	04 55	19 27
	26	05 23	19 02	05 19	19 05	05 15	19 09	05 11	19 14	05 06	19 18	05 01	19 23
	31	05 28	18 59	05 24	19 02	05 20	19 06	05 16	19 10	05 12	19 14	05 08	19 19
Feb.	5	05 32	18 56	05 29	18 59	05 25	19 02	05 22	19 06	05 18	19 10	05 14	19 14
	10	05 36	18 52	05 33	18 55	05 30	18 58	05 27	19 01	05 23	19 04	05 20	19 08
	15	05 40	18 48	05 38	18 50	05 35	18 53	05 32	18 56	05 29	18 58	05 26	19 02
	20	05 44	18 43	05 42	18 45	05 40	18 47	05 37	18 50	05 35	18 52	05 32	18 55
	25	05 48	18 38	05 46	18 40	05 44	18 41	05 42	18 43	05 40	18 45	05 38	18 48
Mar.	2	05 51	18 32	05 50	18 34	05 48	18 35	05 47	18 37	05 45	18 38	05 43	18 40
	7	05 55	18 27	05 54	18 28	05 53	18 29	05 51	18 30	05 50	18 31	05 49	18 33
	12	05 58	18 21	05 57	18 21	05 57	18 22	05 56	18 23	05 55	18 24	05 54	18 25
	17	06 01	18 15	06 01	18 15	06 01	18 15	06 00	18 16	06 00	18 16	05 59	18 17
	22	06 05	18 09	06 05	18 09	06 05	18 09	06 05	18 09	06 05	18 09	06 05	18 08
	27	06 08	18 03	06 08	18 02	06 08	18 02	06 09	18 01	06 09	18 01	06 10	18 00
Apr.	1	06 11	17 57	06 11	17 56	06 12	17 55	06 13	17 54	06 14	17 53	06 15	17 52
	6	06 14	17 51	06 15	17 50	06 16	17 48	06 17	17 47	06 18	17 46	06 20	17 44
	11	06 17	17 45	06 18	17 44	06 20	17 42	06 21	17 40	06 23	17 39	06 25	17 37
	16	06 20	17 40	06 21	17 38	06 23	17 36	06 25	17 34	06 28	17 32	06 30	17 29
	21	06 23	17 34	06 25	17 32	06 27	17 30	06 30	17 27	06 32	17 25	06 35	17 22
	26	06 26	17 30	06 28	17 27	06 31	17 24	06 34	17 21	06 37	17 18	06 40	17 15
May	1	06 29	17 25	06 32	17 22	06 35	17 19	06 38	17 16	06 41	17 13	06 45	17 09
	6	06 32	17 21	06 35	17 18	06 39	17 14	06 42	17 11	06 46	17 07	06 50	17 03
	11	06 35	17 17	06 39	17 14	06 42	17 10	06 46	17 06	06 50	17 02	06 54	16 58
	16	06 38	17 14	06 42	17 10	06 46	17 06	06 50	17 02	06 55	16 58	06 59	16 53
	21	06 41	17 12	06 45	17 08	06 50	17 03	06 54	16 59	06 59	16 54	07 04	16 49
	26	06 44	17 09	06 49	17 05	06 53	17 01	06 58	16 56	07 03	16 51	07 08	16 46
	31	06 47	17 08	06 52	17 04	06 56	16 59	07 01	16 54	07 06	16 49	07 12	16 43
June	5	06 50	17 07	06 54	17 03	06 59	16 58	07 04	16 53	07 09	16 47	07 15	16 42
	10	06 52	17 07	06 57	17 02	07 01	16 57	07 07	16 52	07 12	16 47	07 18	16 41
	15	06 54	17 07	06 58	17 02	07 03	16 57	07 09	16 52	07 14	16 47	07 20	16 41
	20	06 55	17 08	07 00	17 03	07 05	16 58	07 10	16 53	07 16	16 47	07 22	16 41
	25	06 56	17 09	07 01	17 04	07 06	16 59	07 11	16 54	07 17	16 49	07 23	16 43
	30	06 57	17 11	07 01	17 06	07 06	17 01	07 11	16 56	07 17	16 50	07 23	16 45
July	5	06 56	17 13	07 01	17 08	07 06	17 03	07 11	16 58	07 16	16 53	07 22	16 47
	10	06 56	17 15	07 00	17 11	07 05	17 06	07 10	17 01	07 15	16 56	07 21	16 50
	15	06 54	17 18	06 59	17 13	07 03	17 09	07 08	17 04	07 13	16 59	07 18	16 54
	20	06 52	17 20	06 57	17 16	07 01	17 12	07 05	17 08	07 10	17 03	07 15	16 58
	25	06 50	17 23	06 54	17 19	06 58	17 15	07 02	17 11	07 07	17 07	07 11	17 02
	30	06 47	17 26	06 51	17 23	06 54	17 19	06 58	17 15	07 03	17 11	07 07	17 06
Aug.	4	06 43	17 29	06 47	17 26	06 50	17 22	06 54	17 19	06 58	17 15	07 02	17 11
	9	06 39	17 32	06 42	17 29	06 46	17 26	06 49	17 23	06 52	17 19	06 56	17 15
	14	06 35	17 35	06 38	17 32	06 40	17 29	06 43	17 26	06 47	17 23	06 50	17 20
	19	06 30	17 38	06 32	17 35	06 35	17 33	06 37	17 30	06 40	17 28	06 43	17 25
	24	06 25	17 41	06 27	17 39	06 29	17 36	06 31	17 34	06 33	17 32	06 36	17 29
	29	06 19	17 43	06 21	17 42	06 23	17 40	06 24	17 38	06 26	17 36	06 28	17 34
Sept.	3	06 13	17 46	06 15	17 45	06 16	17 43	06 17	17 42	06 19	17 40	06 21	17 39
	8	06 07	17 49	06 08	17 48	06 09	17 47	06 10	17 46	06 11	17 44	06 13	17 43
	13	06 01	17 51	06 02	17 51	06 02	17 50	06 03	17 49	06 04	17 49	06 05	17 48
	18	05 55	17 54	05 55	17 54	05 55	17 53	05 56	17 53	05 56	17 53	05 56	17 53
	23	05 49	17 57	05 48	17 57	05 48	17 57	05 48	17 57	05 48	17 57	05 48	17 57
	28	05 42	17 59	05 42	18 00	05 41	18 01	05 41	18 01	05 40	18 02	05 40	18 02
Oct.	3	05 36	18 02	05 35	18 03	05 34	18 04	05 34	18 05	05 33	18 06	05 32	18 07
	8	05 30	18 05	05 29	18 07	05 28	18 08	05 26	18 09	05 25	18 11	05 24	18 12
	13	05 24	18 09	05 23	18 10	05 21	18 12	05 20	18 14	05 18	18 16	05 16	18 17
	18	05 19	18 12	05 17	18 14	05 15	18 16	05 13	18 18	05 11	18 20	05 08	18 23
	23	05 14	18 15	05 11	18 18	05 09	18 20	05 07	18 23	05 04	18 25	05 01	18 28
	28	05 09	18 19	05 06	18 22	05 04	18 25	05 01	18 28	04 58	18 31	04 54	18 34
Nov.	2	05 05	18 23	05 02	18 26	04 59	18 29	04 55	18 32	04 52	18 36	04 48	18 40
	7	05 01	18 27	04 58	18 30	04 54	18 34	04 50	18 38	04 47	18 41	04 42	18 46
	12	04 58	18 31	04 54	18 35	04 50	18 39	04 46	18 43	04 42	18 47	04 37	18 52
	17	04 55	18 35	04 51	18 39	04 47	18 43	04 43	18 48	04 38	18 52	04 33	18 57
	22	04 53	18 40	04 49	18 44	04 44	18 48	04 40	18 53	04 35	18 58	04 30	19 03
	27	04 52	18 44	04 47	18 48	04 43	18 53	04 38	18 58	04 33	19 03	04 27	19 09
Dec.	2	04 51	18 48	04 47	18 52	04 42	18 57	04 37	19 02	04 31	19 08	04 25	19 14
	7	04 51	18 52	04 47	18 56	04 42	19 02	04 36	19 07	04 31	19 13	04 24	19 19
	12	04 52	18 55	04 47	19 00	04 42	19 05	04 37	19 11	04 31	19 17	04 25	19 23
	17	04 54	18 58	04 49	19 03	04 44	19 09	04 38	19 14	04 32	19 20	04 26	19 26
	22	04 56	19 01	04 51	19 06	04 46	19 11	04 40	19 17	04 34	19 23	04 28	19 29
	27	04 59	19 03	04 54	19 08	04 49	19 13	04 43	19 19	04 37	19 25	04 31	19 31
Jan.	1	05 02	19 05	04 57	19 09	04 52	19 15	04 47	19 20	04 41	19 26	04 35	19 32

Local mean time. To obtain standard time of rise or set, see table 5.

Date		42° S.		44° S.		46° S.		48° S.		50° S.		52° S.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan.	1	04 28	19 39	04 21	19 46	04 13	19 54	04 05	20 02	03 55	20 12	03 45	20 22
	6	04 33	19 39	04 26	19 45	04 18	19 53	04 10	20 01	04 01	20 10	03 50	20 21
	11	04 38	19 37	04 31	19 44	04 24	19 51	04 16	19 59	04 07	20 08	03 58	20 18
	16	04 44	19 35	04 37	19 41	04 30	19 48	04 23	19 56	04 15	20 04	04 05	20 13
	21	04 50	19 32	04 44	19 38	04 37	19 44	04 30	19 51	04 23	19 59	04 14	20 08
	26	04 56	19 28	04 51	19 34	04 45	19 40	04 38	19 46	04 31	19 53	04 23	20 01
	31	05 03	19 23	04 58	19 28	04 52	19 34	04 46	19 40	04 40	19 46	04 32	19 53
Feb.	5	05 09	19 18	05 05	19 22	05 00	19 27	04 54	19 33	04 48	19 38	04 42	19 45
	10	05 16	19 12	05 12	19 16	05 07	19 20	05 03	19 25	04 57	19 30	04 52	19 36
	15	05 23	19 05	05 19	19 08	05 15	19 12	05 11	19 16	05 06	19 21	05 01	19 26
	20	05 29	18 58	05 26	19 01	05 22	19 04	05 19	19 08	05 15	19 11	05 11	19 16
	25	05 35	18 50	05 33	18 53	05 30	18 55	05 27	18 58	05 24	19 01	05 20	19 05
Mar.	2	05 41	18 42	05 39	18 44	05 37	18 46	05 35	18 49	05 32	18 51	05 29	18 54
	7	05 47	18 34	05 46	18 35	05 44	18 37	05 42	18 39	05 40	18 41	05 38	18 43
	12	05 53	18 26	05 52	18 26	05 51	18 28	05 50	18 29	05 49	18 30	05 47	18 31
	17	05 59	18 17	05 58	18 17	05 58	18 18	05 57	18 18	05 57	18 19	05 56	18 20
	22	06 05	18 08	06 05	18 08	06 05	18 08	06 05	18 08	06 05	18 08	06 05	18 08
	27	06 10	18 00	06 11	17 59	06 11	17 59	06 12	17 58	06 13	17 57	06 13	17 57
Apr.	1	06 16	17 51	06 17	17 50	06 18	17 49	06 19	17 48	06 20	17 47	06 22	17 45
	6	06 21	17 43	06 23	17 41	06 24	17 40	06 26	17 38	06 28	17 36	06 30	17 34
	11	06 27	17 35	06 29	17 33	06 31	17 30	06 33	17 28	06 36	17 25	06 39	17 23
	16	06 32	17 27	06 35	17 24	06 37	17 21	06 40	17 18	06 44	17 15	06 47	17 12
	21	06 38	17 19	06 41	17 16	06 44	17 13	06 47	17 09	06 51	17 05	06 55	17 01
	26	06 43	17 12	06 47	17 08	06 50	17 05	06 54	17 01	06 59	16 56	07 04	16 51
May	1	06 48	17 05	06 52	17 01	06 57	16 57	07 01	16 52	07 06	16 47	07 12	16 42
	6	06 54	16 59	06 58	16 54	07 03	16 50	07 08	16 45	07 14	16 39	07 20	16 33
	11	06 59	16 53	07 04	16 48	07 09	16 43	07 15	16 37	07 21	16 31	07 28	16 24
	16	07 04	16 48	07 09	16 43	07 15	16 37	07 21	16 31	07 28	16 24	07 35	16 17
	21	07 09	16 44	07 15	16 38	07 21	16 32	07 27	16 26	07 34	16 18	07 42	16 10
	26	07 13	16 40	07 19	16 34	07 26	16 28	07 33	16 21	07 40	16 13	07 49	16 05
	31	07 17	16 38	07 24	16 31	07 30	16 25	07 38	16 17	07 46	16 09	07 55	16 00
June	5	07 21	16 36	07 28	16 29	07 35	16 22	07 42	16 14	07 51	16 06	08 00	15 57
	10	07 24	16 35	07 31	16 28	07 38	16 21	07 46	16 13	07 55	16 04	08 04	15 54
	15	07 26	16 34	07 33	16 28	07 41	16 20	07 49	16 12	07 58	16 03	08 07	15 53
	20	07 28	16 35	07 35	16 28	07 42	16 21	07 51	16 13	07 59	16 04	08 09	15 54
	25	07 29	16 36	07 36	16 29	07 43	16 22	07 51	16 14	08 00	16 05	08 10	15 55
	30	07 29	16 38	07 36	16 32	07 43	16 24	07 51	16 16	08 00	16 08	08 10	15 58
July	5	07 28	16 41	07 35	16 34	07 42	16 27	07 50	16 20	07 58	16 11	08 08	16 02
	10	07 27	16 44	07 33	16 38	07 40	16 31	07 47	16 24	07 56	16 15	08 05	16 06
	15	07 24	16 48	07 30	16 42	07 37	16 35	07 44	16 28	07 52	16 20	08 01	16 12
	20	07 21	16 52	07 27	16 47	07 33	16 40	07 40	16 34	07 47	16 26	07 55	16 18
	25	07 17	16 57	07 22	16 51	07 28	16 46	07 34	16 39	07 41	16 32	07 49	16 25
	30	07 12	17 02	07 17	16 57	07 22	16 51	07 28	16 45	07 35	16 39	07 42	16 32
Aug.	4	07 06	17 06	07 11	17 02	07 16	16 57	07 21	16 51	07 27	16 46	07 34	16 39
	9	07 00	17 11	07 04	17 07	07 09	17 03	07 14	16 58	07 19	16 53	07 25	16 47
	14	06 53	17 17	06 57	17 13	07 01	17 09	07 06	17 04	07 10	17 00	07 15	16 55
	19	06 46	17 22	06 49	17 18	06 53	17 15	06 57	17 11	07 01	17 07	07 05	17 03
	24	06 39	17 27	06 41	17 24	06 44	17 21	06 48	17 18	06 51	17 14	06 55	17 11
	29	06 31	17 32	06 33	17 30	06 35	17 27	06 38	17 24	06 41	17 22	06 44	17 19
Sept.	3	06 22	17 37	06 24	17 35	06 26	17 33	06 28	17 31	06 31	17 29	06 33	17 27
	8	06 14	17 42	06 15	17 41	06 17	17 39	06 18	17 38	06 20	17 36	06 22	17 35
	13	06 05	17 47	06 06	17 46	06 07	17 46	06 08	17 45	06 09	17 44	06 10	17 43
	18	05 57	17 52	05 57	17 52	05 57	17 52	05 58	17 51	05 58	17 51	05 59	17 51
	23	05 48	17 58	05 48	17 58	05 48	17 58	05 47	17 58	05 47	17 59	05 47	17 59
	28	05 39	18 03	05 38	18 04	05 38	18 04	05 37	18 05	05 36	18 06	05 35	18 07
Oct.	3	05 30	18 08	05 29	18 10	05 28	18 11	05 27	18 12	05 25	18 14	05 24	18 16
	8	05 22	18 14	05 20	18 16	05 18	18 18	05 17	18 20	05 14	18 22	05 12	18 24
	13	05 14	18 20	05 11	18 22	05 09	18 24	05 07	18 27	05 04	18 30	05 01	18 33
	18	05 06	18 25	05 03	18 28	05 00	18 31	04 57	18 34	04 53	18 38	04 50	18 42
	23	04 58	18 31	04 55	18 35	04 51	18 38	04 48	18 42	04 44	18 46	04 39	18 51
	28	04 51	18 38	04 47	18 41	04 43	18 45	04 39	18 50	04 34	18 55	04 29	19 00
Nov.	2	04 44	18 44	04 40	18 48	04 35	18 53	04 30	18 58	04 25	19 03	04 19	19 09
	7	04 38	18 50	04 33	18 55	04 28	19 00	04 23	19 06	04 17	19 12	04 10	19 18
	12	04 33	18 56	04 27	19 02	04 22	19 07	04 16	19 13	04 09	19 20	04 02	19 28
	17	04 28	19 03	04 22	19 08	04 16	19 15	04 10	19 21	04 02	19 29	03 54	19 37
	22	04 24	19 09	04 18	19 15	04 11	19 21	04 04	19 29	03 56	19 37	03 48	19 45
	27	04 21	19 15	04 15	19 21	04 08	19 28	04 00	19 36	03 52	19 44	03 42	19 54
Dec.	2	04 19	19 20	04 12	19 27	04 05	19 34	03 57	19 42	03 48	19 51	03 38	20 01
	7	04 18	19 25	04 11	19 32	04 03	19 40	03 55	19 48	03 46	19 57	03 36	20 08
	12	04 18	19 30	04 11	19 37	04 03	19 45	03 54	19 53	03 45	20 03	03 34	20 13
	17	04 19	19 33	04 12	19 40	04 04	19 48	03 55	19 57	03 45	20 07	03 35	20 18
	22	04 21	19 36	04 14	19 43	04 06	19 51	03 57	20 00	03 47	20 10	03 36	20 21
	27	04 24	19 38	04 17	19 45	04 09	19 53	04 00	20 02	03 50	20 11	03 40	20 22
Jan.	1	04 28	19 39	04 21	19 46	04 13	19 54	04 04	20 02	03 55	20 12	03 44	20 22

Local mean time. To obtain standard time of rise or set, see table 5.

Date	54° S.		56° S.		58° S.		60° S.	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Jan. 1	03 33	20 34	03 19	20 48	03 02	21 04	02 43	21 23
6	03 39	20 32	03 26	20 45	03 10	21 01	02 51	21 19
11	03 47	20 28	03 34	20 41	03 19	20 55	03 02	21 13
16	03 55	20 23	03 43	20 35	03 30	20 49	03 13	21 04
21	04 04	20 17	03 53	20 28	03 41	20 40	03 26	20 55
26	04 14	20 10	04 04	20 19	03 53	20 31	03 40	20 44
31	04 24	20 01	04 15	20 10	04 05	20 20	03 53	20 32
Feb. 5	04 35	19 52	04 27	20 00	04 18	20 09	04 07	20 19
10	04 45	19 42	04 38	19 49	04 30	19 57	04 21	20 06
15	04 56	19 31	04 49	19 37	04 42	19 44	04 35	19 52
20	05 06	19 20	05 01	19 25	04 55	19 31	04 48	19 38
25	05 16	19 09	05 12	19 13	05 07	19 18	05 01	19 23
Mar. 2	05 26	18 57	05 23	19 00	05 19	19 04	05 14	19 08
7	05 36	18 45	05 33	18 47	05 30	18 50	05 27	18 53
12	05 46	18 33	05 44	18 34	05 42	18 36	05 40	18 38
17	05 55	18 20	05 54	18 21	05 53	18 22	05 52	18 23
22	06 05	18 08	06 05	18 08	06 05	18 08	06 04	18 08
27	06 14	17 56	06 15	17 55	06 16	17 54	06 17	17 53
Apr. 1	06 23	17 44	06 25	17 42	06 27	17 40	06 29	17 38
6	06 32	17 31	06 35	17 29	06 38	17 26	06 41	17 23
11	06 42	17 20	06 45	17 16	06 49	17 12	06 53	17 08
16	06 51	17 08	06 55	17 04	07 00	16 59	07 05	16 54
21	07 00	16 57	07 05	16 52	07 10	16 46	07 17	16 40
26	07 09	16 46	07 15	16 40	07 21	16 33	07 29	16 26
May 1	07 18	16 36	07 25	16 29	07 32	16 21	07 41	16 13
6	07 27	16 26	07 34	16 18	07 43	16 10	07 52	16 00
11	07 35	16 17	07 44	16 08	07 53	15 59	08 04	15 48
16	07 43	16 09	07 53	15 59	08 03	15 49	08 15	15 37
21	07 51	16 01	08 01	15 51	08 13	15 40	08 26	15 27
26	07 58	15 55	08 09	15 44	08 21	15 32	08 36	15 18
31	08 05	15 50	08 16	15 39	08 29	15 26	08 45	15 10
June 5	08 10	15 46	08 22	15 34	08 36	15 21	08 52	15 04
10	08 15	15 44	08 27	15 31	08 42	15 17	08 59	15 00
15	08 18	15 42	08 31	15 30	08 46	15 15	09 03	14 58
20	08 20	15 43	08 33	15 30	08 48	15 15	09 06	14 58
25	08 21	15 44	08 34	15 31	08 49	15 17	09 06	14 59
30	08 20	15 47	08 33	15 35	08 47	15 20	09 04	15 03
July 5	08 18	15 51	08 30	15 39	08 44	15 25	09 01	15 08
10	08 15	15 56	08 27	15 44	08 40	15 31	08 56	15 15
15	08 10	16 02	08 21	15 51	08 34	15 38	08 49	15 24
20	08 04	16 09	08 15	15 58	08 27	15 47	08 40	15 33
25	07 57	16 16	08 07	16 07	08 18	15 56	08 30	15 43
30	07 50	16 24	07 58	16 15	08 08	16 05	08 20	15 54
Aug. 4	07 41	16 32	07 49	16 24	07 58	16 15	08 08	16 05
9	07 31	16 40	07 38	16 33	07 46	16 25	07 56	16 16
14	07 21	16 49	07 27	16 43	07 34	16 36	07 42	16 28
19	07 10	16 58	07 16	16 52	07 22	16 46	07 29	16 39
24	06 59	17 06	07 04	17 02	07 09	16 57	07 15	16 51
29	06 48	17 15	06 51	17 11	06 56	17 07	07 00	17 03
Sept. 3	06 36	17 24	06 39	17 21	06 42	17 18	06 46	17 14
8	06 24	17 33	06 26	17 31	06 28	17 28	06 31	17 26
13	06 11	17 41	06 13	17 40	06 14	17 39	06 16	17 37
18	05 59	17 50	06 00	17 50	06 00	17 49	06 01	17 49
23	05 47	17 59	05 46	18 00	05 46	18 00	05 46	18 01
28	05 34	18 08	05 33	18 10	05 32	18 11	05 30	18 12
Oct. 3	05 22	18 17	05 20	18 20	05 18	18 22	05 15	18 24
8	05 10	18 27	05 07	18 30	05 04	18 33	05 00	18 37
13	04 57	18 36	04 54	18 40	04 50	18 44	04 45	18 49
18	04 46	18 46	04 41	18 51	04 36	18 56	04 30	19 02
23	04 34	18 56	04 29	19 01	04 23	19 08	04 16	19 15
28	04 23	19 06	04 17	19 12	04 10	19 20	04 02	19 28
Nov. 2	04 13	19 16	04 05	19 23	03 57	19 32	03 48	19 41
7	04 03	19 26	03 54	19 34	03 45	19 44	03 34	19 55
12	03 54	19 36	03 44	19 45	03 34	19 56	03 22	20 08
17	03 45	19 46	03 35	19 56	03 24	20 08	03 10	20 21
22	03 38	19 55	03 27	20 06	03 14	20 19	02 59	20 34
27	03 32	20 04	03 20	20 16	03 06	20 30	02 50	20 47
Dec. 2	03 27	20 12	03 15	20 25	03 00	20 40	02 42	20 58
7	03 24	20 19	03 11	20 33	02 55	20 49	02 36	21 08
12	03 22	20 25	03 08	20 39	02 52	20 56	02 32	21 16
17	03 22	20 30	03 08	20 44	02 51	21 01	02 31	21 21
22	03 24	20 33	03 10	20 47	02 53	21 04	02 32	21 25
27	03 27	20 34	03 13	20 49	02 56	21 05	02 36	21 25
Jan. 1	03 32	20 34	03 18	20 48	03 02	21 04	02 42	21 24

Local mean time. To obtain standard time of rise or set, see table 5.

TABLE 5. —REDUCTION OF LOCAL MEAN TIME TO STANDARD TIME

Difference of longitude between local and standard meridian	Correction to local mean time to obtain standard time	Difference of longitude between local and standard meridian	Correction to local mean time to obtain standard time	Difference of longitude between local and standard meridian	Correction to local mean time to obtain standard time
° ′ ° ′	Minutes	° ′ ° ′	Minutes	°	Hours
0 00 to 0 07	0	7 23 to 7 37	30	15	1
0 08 to 0 22	1	7 38 to 7 52	31	30	2
0 23 to 0 37	2	7 53 to 8 07	32	45	3
0 38 to 0 52	3	8 08 to 8 22	33	60	4
0 53 to 1 07	4	8 23 to 8 37	34	75	5
1 08 to 1 22	5	8 38 to 8 52	35	90	6
1 23 to 1 37	6	8 53 to 9 07	36	105	7
1 38 to 1 52	7	9 08 to 9 22	37	120	8
1 53 to 2 07	8	9 23 to 9 37	38	135	9
2 08 to 2 22	9	9 38 to 9 52	39	150	10
2 23 to 2 37	10	9 53 to 10 07	40	165	11
2 38 to 2 52	11	10 08 to 10 22	4	180	12
2 53 to 3 07	12	10 23 to 10 37	42		
3 08 to 3 22	13	10 38 to 10 52	43		
3 23 to 3 37	14	10 53 to 11 07	44		
3 38 to 3 52	15	11 08 to 11 22	45		
3 53 to 4 07	16	11 23 to 11 37	46		
4 08 to 4 22	17	11 38 to 11 52	47		
4 23 to 4 37	18	11 53 to 12 07	48		
4 38 to 4 52	19	12 08 to 12 22	49		
4 53 to 5 07	20	12 23 to 12 37	50		
5 08 to 5 22	21	12 38 to 12 52	51		
5 23 to 5 37	22	12 53 to 13 07	52		
5 38 to 5 52	23	13 08 to 13 22	53		
5 53 to 6 07	24	13 23 to 13 37	54		
6 08 to 6 22	25	13 38 to 13 52	55		
6 23 to 6 37	26	13 53 to 14 07	56		
6 38 to 6 52	27	14 08 to 14 22	57		
6 53 to 7 07	28	14 23 to 14 37	58		
7 08 to 7 22	29	14 38 to 14 52	59		

If local meridian is east of standard meridian, subtract the correction from local time.

If local meridian is west of standard meridian, add the correction to local time.

For differences of longitude less than 15° , use the first part of the table. For greater differences use both parts thus: 47° 23′ is equivalent to 45°+ 2° 23′, the correction for 45° is 3 hours, the correction for 2° 23′ is 10 minutes; therefore the total correction for the difference in longitude 47° 23′ is 3 hours and 10 minutes.

TABLE 6.—MOONRISE AND MOONSET

EXPLANATION OF TABLE

This table gives the time of rising and setting of the Moon's upper limb for every day in the year, at each of the following places:

Panama Canal	San Francisco, California	Anchorage, Alaska
Los Angeles, California	Seattle, Washington	Honolulu, Hawaii

All of table 6 was supplied by the Nautical Almanac Office of the United States Naval Observatory. For the Panama Canal the times were computed for a point about midway between the two ends and are applicable to the entire canal and are accurate to within a minute or two.

Panama Canal (West End)

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	1922	....	2058	0831	1936	0705	2106	0807	2140	0836	2239	0954	1
2	2024	0816	2153	0918	2032	0753	2203	0900	2231	0930	2318	1041	2
3	2122	0907	2247	1004	2128	0840	2258	0954	2319	1023	2356	1126	3
4	2217	0955	2341	1051	2224	0929	2351	1048	....	1113	....	1210	4
5	2310	1041	....	1138	2320	1020	....	1141	0003	1201	0033	1254	5
6	....	1125	0035	1228	....	1112	0040	1232	0044	1247	0111	1339	6
7	0002	1209	0129	1319	0016	1205	0126	1321	0122	1332	0150	1426	7
8	0054	1255	0223	1411	0109	1257	0208	1408	0200	1416	0231	1516	8
9	0147	1342	0314	1503	0159	1349	0247	1453	0237	1501	0317	1609	9
10	0240	1431	0403	1553	0246	1439	0325	1538	0315	1547	0407	1706	10
11	0334	1523	0449	1642	0330	1526	0403	1622	0356	1635	0502	1806	11
12	0426	1615	0531	1730	0411	1613	0440	1707	0439	1727	0601	1906	12
13	0517	1706	0612	1815	0449	1657	0519	1754	0527	1822	0703	2005	13
14	0605	1757	0650	1900	0527	1742	0601	1844	0619	1920	0805	2100	14
15	0650	1846	0727	1944	0604	1826	0645	1936	0715	2019	0905	2152	15
16	0732	1932	0804	2028	0642	1911	0734	2031	0814	2118	1003	2241	16
17	0812	2018	0842	2113	0721	1959	0826	2129	0915	2214	1058	2327	17
18	0849	2102	0921	2201	0803	2048	0923	2227	1015	2307	1152	....	18
19	0926	2145	1003	2251	0848	2141	1021	2323	1113	2356	1245	0012	19
20	1003	2230	1049	2345	0937	2236	1121	....	1208	....	1338	0057	20
21	1041	2316	1140	....	1030	2333	1220	0018	1302	0043	1432	0143	21
22	1122	....	1236	0042	1127	....	1317	0109	1355	0128	1528	0232	22
23	1206	0005	1335	0141	1227	0031	1413	0158	1448	0213	1624	0322	23
24	1255	0057	1437	0240	1327	0128	1507	0245	1543	0259	1719	0415	24
25	1349	0154	1540	0339	1427	0223	1601	0331	1638	0346	1813	0510	25
26	1449	0254	1642	0434	1525	0315	1656	0417	1735	0436	1904	0604	26
27	1553	0356	1742	0527	1622	0404	1753	0505	1832	0529	1951	0656	27
28	1658	0458	1840	0617	1719	0452	1850	0554	1928	0624	2035	0747	28
29	1802	0557	....	....	1815	0539	1948	0646	2021	0719	2115	0835	29
30	1903	0652	....	....	1911	0627	2045	0741	2111	0813	2154	0921	30
31	2002	0743	....	....	2008	0716	....	....	2157	0905	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	2231	1005	2303	1059	....	1220	0002	1300	0142	1413	0219	1429	1
2	2308	1049	2347	1148	0014	1317	0100	1353	0237	1500	0315	1519	2
3	2345	1133	....	1239	0112	1414	0158	1444	0332	1548	0413	1612	3
4	....	1218	0036	1334	0212	1510	0256	1533	0429	1638	0512	1707	4
5	0025	1305	0129	1432	0313	1604	0353	1622	0528	1730	0611	1804	5
6	0108	1356	0227	1531	0413	1656	0450	1711	0627	1825	0708	1901	6
7	0155	1451	0328	1629	0513	1746	0548	1800	0728	1922	0802	1957	7
8	0247	1549	0430	1726	0611	1836	0647	1852	0827	2019	0853	2049	8
9	0344	1649	0532	1820	0709	1925	0746	1946	0923	2116	0939	2139	9
10	0445	1749	0633	1911	0807	2015	0846	2041	1015	2209	1021	2226	10
11	0548	1847	0731	2000	0905	2106	0945	2138	1102	2300	1100	2311	11
12	0650	1942	0829	2048	1003	2200	1042	2234	1146	2348	1138	2355	12
13	0751	2033	0925	2136	1101	2254	1135	2328	1226	....	1215	....	13
14	0849	2122	1021	2225	1158	2349	1224	....	1304	0033	1253	0039	14
15	0945	2209	1117	2315	1252	....	1309	0019	1342	0118	1332	0124	15
16	1040	2255	1214	....	1342	0043	1350	0108	1419	0201	1413	0210	16
17	1134	2341	1310	0008	1428	0135	1429	0154	1457	0246	1459	0259	17
18	1228	....	1404	0101	1512	0224	1507	0239	1538	0331	1548	0351	18
19	1324	0029	1456	0154	1552	0312	1544	0323	1621	0419	1641	0446	19
20	1419	0119	1545	0247	1631	0357	1622	0406	1708	0510	1739	0543	20
21	1514	0211	1630	0338	1708	0442	1701	0451	1759	0603	1838	0640	21
22	1608	0305	1713	0427	1745	0526	1742	0538	1854	0659	1937	0736	22
23	1659	0358	1752	0514	1823	0610	1826	0626	1951	0755	2036	0830	23
24	1747	0451	1830	0600	1902	0655	1914	0717	2049	0851	2133	0921	24
25	1832	0542	1907	0644	1944	0741	2005	0811	2146	0945	2227	1009	25
26	1914	0630	1944	0727	2028	0830	2100	0906	2243	1036	2321	1055	26
27	1953	0717	2022	0811	2117	0921	2157	1001	2337	1124	....	1141	27
28	2030	0802	2102	0856	2209	1015	2254	1056	....	1211	0015	1227	28
29	2107	0845	2144	0943	2304	1110	2351	1148	0031	1256	0110	1315	29
30	2144	0929	2230	1033	....	1205	....	1238	0125	1342	0205	1405	30
31	2222	1013	2320	1125	....	....	0047	1326	....	....	0302	1458	31

Time meridian 75° W. 0000 is midnight. 1200 is noon.

Los Angeles, California

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	1820	....	2043	0813	1927	0640	2137	0701	2216	0718	2248	0857	1
2	1934	0831	2151	0846	2037	0714	2240	0746	2303	0814	2318	0953	2
3	2046	0910	2258	0919	2145	0749	2337	0836	2343	0912	2345	1049	3
4	2154	0944	....	0954	2252	0827	....	0930	....	1011	....	1143	4
5	2301	1016	0003	1032	2355	0909	0027	1027	0018	1108	0011	1238	5
6	....	1047	0106	1114	....	0955	0110	1124	0049	1204	0038	1335	6
7	0006	1120	0206	1200	0054	1045	0147	1221	0117	1259	0106	1433	7
8	0109	1154	0302	1251	0147	1139	0220	1317	0144	1354	0138	1533	8
9	0212	1232	0351	1345	0233	1236	0249	1413	0211	1450	0214	1637	9
10	0314	1315	0435	1442	0313	1333	0317	1508	0238	1547	0256	1741	10
11	0412	1403	0513	1539	0348	1429	0343	1604	0308	1647	0346	1844	11
12	0506	1455	0547	1636	0419	1525	0410	1700	0342	1749	0444	1942	12
13	0554	1551	0617	1732	0448	1621	0438	1759	0420	1853	0550	2034	13
14	0636	1648	0645	1827	0515	1716	0509	1859	0505	1957	0659	2120	14
15	0712	1745	0711	1922	0541	1812	0544	2002	0558	2057	0810	2200	15
16	0745	1842	0737	2018	0608	1909	0624	2105	0658	2152	0920	2235	16
17	0814	1937	0804	2115	0636	2007	0711	2206	0804	2240	1028	2309	17
18	0841	2032	0833	2213	0708	2108	0805	2304	0912	2322	1135	2341	18
19	0906	2127	0905	2314	0743	2210	0906	2356	1021	....	1241	....	19
20	0932	2223	0942	....	0825	2312	1012	....	1129	0000	1347	0014	20
21	1000	2321	1025	0017	0913	....	1120	0042	1236	0034	1452	0049	21
22	1030	....	1117	0120	1009	0012	1229	0122	1342	0106	1557	0127	22
23	1104	0021	1217	0220	1112	0108	1337	0159	1448	0138	1659	0210	23
24	1144	0124	1325	0317	1220	0159	1445	0232	1555	0212	1757	0259	24
25	1233	0229	1437	0407	1330	0244	1553	0305	1701	0249	1849	0352	25
26	1330	0334	1551	0451	1441	0324	1701	0339	1807	0329	1934	0449	26
27	1437	0436	1704	0530	1552	0400	1810	0414	1909	0415	2014	0548	27
28	1550	0531	1817	0606	1702	0435	1917	0453	2005	0506	2048	0646	28
29	1705	0619	....	....	1812	0508	2022	0536	2055	0602	2118	0743	29
30	1820	0701	....	....	1922	0543	2123	0625	2138	0700	2146	0839	30
31	1933	0739	....	....	2031	0620	....	....	2216	0759	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	2213	0934	2208	1108	2258	1257	2356	1327	0109	1359	0220	1342	1
2	2239	1029	2243	1207	2357	1354	....	1411	0217	1433	0328	1421	2
3	2306	1124	2324	1307	....	1447	0105	1450	0326	1508	0437	1505	3
4	2336	1220	....	1409	0103	1535	0215	1527	0436	1546	0543	1554	4
5	....	1319	0013	1509	0213	1618	0325	1602	0546	1628	0646	1649	5
6	0009	1420	0110	1607	0325	1657	0436	1638	0655	1715	0743	1747	6
7	0048	1522	0215	1659	0438	1733	0548	1715	0802	1807	0833	1848	7
8	0133	1626	0325	1746	0550	1809	0659	1755	0903	1904	0916	1949	8
9	0227	1727	0438	1827	0702	1845	0810	1839	0956	2004	0952	2047	9
10	0329	1822	0552	1905	0813	1922	0918	1928	1042	2104	1025	2144	10
11	0438	1912	0704	1940	0924	2003	1021	2022	1121	2203	1054	2240	11
12	0551	1955	0815	2014	1032	2049	1117	2119	1155	2300	1121	2334	12
13	0703	2034	0925	2050	1136	2138	1206	2217	1226	2356	1148	....	13
14	0815	2109	1034	2127	1234	2232	1248	2316	1254	....	1216	0028	14
15	0924	2142	1141	2208	1326	2329	1324	....	1321	0050	1245	0124	15
16	1032	2216	1245	2254	1411	....	1356	0013	1348	0144	1317	0220	16
17	1139	2250	1346	2344	1450	0026	1425	0109	1416	0239	1354	0319	17
18	1245	2328	1441	....	1525	0124	1453	0204	1447	0336	1437	0419	18
19	1350	....	1530	0038	1555	0220	1520	0259	1521	0434	1527	0520	19
20	1453	0009	1613	0134	1623	0316	1547	0353	1600	0534	1624	0619	20
21	1551	0056	1650	0232	1650	0411	1616	0449	1646	0634	1728	0713	21
22	1645	0147	1723	0329	1717	0505	1648	0546	1739	0734	1835	0803	22
23	1732	0242	1752	0426	1744	0600	1723	0644	1837	0830	1944	0847	23
24	1813	0340	1820	0521	1814	0656	1804	0744	1941	0922	2052	0926	24
25	1849	0438	1846	0616	1846	0753	1851	0844	2047	1008	2200	1002	25
26	1920	0535	1913	0710	1923	0851	1945	0941	2154	1049	2306	1035	26
27	1949	0632	1940	0805	2005	0951	2044	1035	2301	1125	....	1109	27
28	2016	0727	2010	0901	2053	1049	2148	1125	....	1200	0013	1143	28
29	2042	0822	2043	0959	2149	1146	2254	1208	0007	1233	0119	1220	29
30	2109	0916	2122	1057	2250	1239	....	1248	0113	1306	0226	1301	30
31	2137	1011	2206	1157	....	....	0001	1324	....	....	0331	1347	31

Time meridian 120° W. 0000 is midnight. 1200 is noon.

San Francisco, California

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	1828	....	2102	0830	1947	0657	2206	0708	2246	0722	2312	0906	1
2	1945	0856	2213	0900	2100	0728	2310	0752	2332	0819	2339	1005	2
3	2100	0932	2322	0931	2211	0800	....	0841	....	0919	....	1103	3
4	2211	1003	....	1003	2320	0836	0007	0935	0010	1019	0004	1200	4
5	2321	1032	0030	1039	....	0915	0056	1032	0043	1118	0028	1257	5
6	....	1101	0135	1119	0025	1000	0138	1131	0112	1216	0053	1356	6
7	0028	1130	0237	1204	0124	1050	0213	1230	0138	1314	0119	1456	7
8	0135	1203	0332	1255	0217	1144	0244	1329	0203	1411	0148	1559	8
9	0240	1239	0422	1350	0302	1241	0311	1426	0227	1509	0222	1705	9
10	0343	1320	0504	1448	0341	1340	0337	1524	0252	1609	0302	1810	10
11	0442	1407	0541	1547	0414	1439	0401	1622	0320	1712	0351	1914	11
12	0536	1459	0612	1646	0443	1537	0425	1721	0351	1816	0449	2012	12
13	0624	1556	0640	1744	0509	1635	0451	1822	0427	1922	0555	2103	13
14	0704	1655	0705	1842	0534	1733	0520	1925	0511	2027	0707	2146	14
15	0739	1754	0729	1940	0558	1831	0552	2030	0603	2127	0820	2223	15
16	0809	1853	0753	2038	0622	1930	0631	2134	0703	2221	0933	2256	16
17	0836	1951	0817	2137	0649	2031	0716	2237	0810	2308	1044	2326	17
18	0900	2048	0844	2238	0718	2134	0810	2334	0921	2347	1154	2356	18
19	0924	2146	0914	2341	0751	2238	0911	....	1032	....	1302	....	19
20	0948	2244	0949	....	0831	2342	1018	0025	1143	0022	1411	0026	20
21	1013	2344	1031	0046	0918	....	1129	0109	1252	0054	1519	0059	21
22	1040	....	1122	0150	1014	0043	1240	0147	1401	0123	1625	0135	22
23	1112	0047	1222	0251	1117	0138	1351	0220	1510	0153	1729	0216	23
24	1151	0152	1331	0346	1227	0228	1502	0251	1620	0224	1827	0304	24
25	1237	0259	1445	0435	1340	0310	1613	0321	1729	0258	1919	0357	25
26	1335	0405	1602	0516	1454	0348	1724	0352	1836	0336	2003	0454	26
27	1442	0506	1718	0553	1608	0421	1835	0425	1939	0421	2040	0554	27
28	1557	0600	1834	0625	1721	0452	1945	0501	2035	0511	2113	0655	28
29	1715	0646	....	....	1834	0523	2052	0542	2125	0606	2141	0754	29
30	1833	0725	....	....	1946	0555	2153	0630	2206	0706	2206	0853	30
31	1948	0759	....	....	2058	0630	....	....	2242	0806	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	2231	0950	2218	1132	2303	1327	....	1355	0124	1417	0243	1353	1
2	2255	1047	2251	1233	....	1424	0004	1436	0235	1449	0353	1430	2
3	2320	1144	2330	1335	0002	1516	0115	1513	0346	1521	0504	1512	3
4	2347	1243	....	1438	0110	1602	0228	1547	0459	1556	0612	1600	4
5	....	1343	0018	1540	0222	1642	0341	1620	0612	1636	0716	1654	5
6	0018	1447	0115	1637	0337	1719	0455	1652	0724	1721	0813	1753	6
7	0055	1551	0220	1727	0453	1752	0610	1726	0831	1813	0901	1855	7
8	0139	1656	0333	1811	0608	1825	0724	1804	0932	1909	0942	1957	8
9	0232	1757	0449	1850	0723	1858	0837	1846	1025	2010	1017	2058	9
10	0334	1851	0605	1925	0837	1933	0947	1934	1110	2111	1047	2157	10
11	0445	1939	0720	1957	0950	2011	1051	2027	1147	2212	1114	2255	11
12	0559	2020	0834	2029	1100	2055	1147	2124	1219	2312	1139	2352	12
13	0715	2055	0947	2101	1205	2143	1235	2224	1247	....	1204	....	13
14	0829	2128	1058	2136	1305	2237	1315	2324	1313	0009	1229	0048	14
15	0942	2158	1208	2215	1356	2334	1350	....	1338	0106	1257	0146	15
16	1052	2229	1314	2259	1440	....	1420	0024	1403	0203	1327	0245	16
17	1202	2301	1416	2348	1517	0033	1446	0122	1429	0300	1402	0345	17
18	1311	2336	1511	....	1549	0133	1512	0219	1458	0359	1443	0447	18
19	1418	....	1559	0042	1618	0231	1536	0316	1530	0459	1532	0549	19
20	1522	0016	1641	0140	1644	0329	1601	0413	1608	0601	1629	0648	20
21	1622	0101	1716	0239	1708	0426	1628	0510	1652	0703	1734	0743	21
22	1715	0151	1747	0339	1733	0523	1658	0610	1744	0803	1843	0830	22
23	1801	0247	1814	0437	1758	0620	1731	0710	1843	0900	1954	0912	23
24	1840	0346	1839	0535	1825	0718	1811	0812	1948	0950	2105	0949	24
25	1914	0446	1904	0632	1855	0817	1857	0913	2056	1034	2215	1022	25
26	1944	0545	1928	0729	1930	0918	1950	1011	2205	1113	2325	1053	26
27	2010	0644	1953	0826	2011	1019	2050	1105	2315	1147	....	1123	27
28	2035	0742	2021	0924	2058	1119	2155	1153	....	1219	0034	1155	28
29	2059	0838	2052	1024	2154	1216	2304	1235	0024	1249	0143	1230	29
30	2123	0935	2128	1125	2256	1308	....	1312	0133	1320	0252	1309	30
31	2149	1033	2211	1226	....	....	0013	1345	....	....	0400	1353	31

Time meridian 120° W. 0000 is midnight. 1200 is noon.

Seattle, Washington

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	1759	....	2104	0831	1954	0653	2241	0637	2325	0642	2331	0841	1
2	1925	0918	2224	0853	2116	0716	2349	0715	....	0740	2352	0947	2
3	2049	0945	2342	0915	2235	0740	....	0800	0007	0844	....	1052	3
4	2209	1008	....	0939	2352	0808	0047	0854	0040	0950	0010	1156	4
5	2327	1029	0058	1008	....	0841	0134	0954	0107	1056	0028	1300	5
6	....	1050	0210	1042	0102	0921	0211	1058	0129	1201	0045	1406	6
7	0043	1111	0316	1124	0205	1008	0241	1203	0148	1305	0105	1514	7
8	0158	1136	0413	1213	0257	1104	0305	1309	0206	1410	0127	1624	8
9	0310	1206	0501	1311	0339	1205	0326	1414	0224	1515	0154	1736	9
10	0420	1242	0540	1413	0412	1309	0344	1518	0242	1622	0228	1847	10
11	0522	1326	0610	1518	0439	1414	0402	1623	0303	1732	0313	1953	11
12	0617	1418	0636	1624	0502	1520	0420	1730	0327	1844	0409	2049	12
13	0702	1517	0657	1729	0521	1625	0439	1838	0357	1956	0518	2135	13
14	0738	1621	0715	1834	0539	1730	0500	1948	0435	2105	0635	2211	14
15	0807	1727	0732	1939	0556	1835	0526	2100	0523	2206	0757	2240	15
16	0830	1833	0749	2044	0614	1942	0557	2210	0624	2257	0918	2305	16
17	0850	1938	0807	2151	0633	2050	0638	2316	0735	2338	1037	2327	17
18	0908	2043	0826	2259	0655	2200	0729	....	0852	....	1156	2349	18
19	0925	2147	0849	....	0722	2311	0832	0013	1011	0010	1313	....	19
20	0942	2253	0917	0010	0755	....	0944	0059	1130	0037	1429	0012	20
21	1000	....	0954	0121	0838	0019	1102	0137	1248	0100	1545	0036	21
22	1020	0001	1041	0229	0933	0122	1221	0207	1406	0122	1658	0106	22
23	1045	0111	1141	0331	1039	0217	1341	0233	1523	0144	1806	0141	23
24	1117	0224	1254	0423	1154	0301	1501	0256	1640	0207	1906	0224	24
25	1158	0336	1415	0505	1315	0336	1620	0318	1757	0233	1956	0317	25
26	1253	0445	1541	0539	1438	0406	1740	0340	1910	0305	2036	0416	26
27	1402	0546	1707	0607	1601	0431	1859	0405	2017	0344	2108	0521	27
28	1523	0634	1831	0631	1723	0454	2017	0434	2114	0431	2134	0627	28
29	1649	0713	....	....	1845	0516	2129	0508	2201	0527	2156	0734	29
30	1817	0743	....	....	2006	0540	2232	0551	2238	0629	2215	0839	30
31	1942	0809	....	....	2126	0606	....	....	2307	0735	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	2233	0943	2156	1151	2223	1405	2334	1426	0115	1420	0256	1336	1
2	2250	1047	2222	1258	2324	1502	....	1500	0234	1444	0415	1405	2
3	2308	1151	2256	1407	....	1550	0053	1529	0354	1508	0533	1440	3
4	2329	1257	2339	1515	0035	1630	0214	1555	0516	1536	0647	1523	4
5	2353	1405	....	1618	0155	1703	0336	1619	0637	1608	0753	1615	5
6	....	1515	0035	1714	0318	1731	0459	1644	0755	1647	0849	1716	6
7	0023	1626	0143	1759	0443	1756	0622	1710	0908	1735	0935	1822	7
8	0102	1734	0301	1836	0607	1820	0745	1739	1010	1831	1010	1930	8
9	0152	1835	0425	1907	0731	1845	0906	1814	1101	1934	1039	2037	9
10	0255	1926	0551	1933	0854	1912	1022	1857	1141	2040	1103	2143	10
11	0410	2007	0715	1957	1015	1943	1129	1948	1213	2147	1123	2248	11
12	0532	2040	0838	2020	1132	2020	1224	2046	1239	2253	1142	2351	12
13	0656	2108	0959	2044	1242	2105	1309	2150	1300	2358	1200	....	13
14	0819	2132	1119	2112	1343	2157	1345	2255	1320	....	1219	0054	14
15	0941	2154	1236	2144	1433	2257	1413	....	1338	0102	1240	0159	15
16	1100	2217	1349	2222	1513	....	1437	0001	1357	0205	1304	0304	16
17	1218	2241	1454	2309	1545	0000	1457	0106	1416	0309	1333	0412	17
18	1335	2309	1550	....	1611	0106	1516	0210	1438	0414	1409	0519	18
19	1449	2342	1636	0003	1633	0211	1534	0313	1504	0521	1455	0625	19
20	1558	....	1713	0104	1652	0315	1553	0417	1536	0630	1552	0725	20
21	1701	0022	1742	0208	1710	0419	1613	0522	1616	0737	1659	0817	21
22	1753	0111	1806	0314	1728	0523	1636	0628	1706	0840	1814	0900	22
23	1836	0208	1827	0419	1747	0627	1703	0735	1806	0936	1932	0935	23
24	1910	0311	1846	0524	1808	0732	1737	0843	1915	1023	2052	1004	24
25	1938	0416	1904	0628	1831	0838	1819	0948	2029	1102	2210	1029	25
26	2001	0522	1921	0731	1900	0945	1912	1048	2146	1134	2328	1053	26
27	2021	0628	1940	0835	1935	1052	2014	1141	2303	1200	....	1116	27
28	2039	0733	2001	0940	2020	1156	2124	1225	....	1224	0045	1140	28
29	2056	0836	2026	1047	2115	1254	2239	1300	0021	1247	0202	1207	29
30	2114	0940	2056	1154	2221	1344	2356	1330	0138	1311	0319	1239	30
31	2133	1044	2135	1301	....	....	....	1357	....	....	0432	1318	31

Time meridian 120° W. 0000 is midnight. 1200 is noon.

Anchorage, Alaska

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	1744	....	2210	0924	2110	0738	....	0611	0123	0540	0102	0838	1
2	1936	1102	2351	0927	2253	0741	0115	0628	0209	0647	0108	1002	2
3	2122	1107	....	0930	....	0745	0239	0658	0233	0808	0112	1124	3
4	2304	1111	0130	0934	0036	0752	0339	0751	0247	0934	0115	1244	4
5	....	1113	0309	0942	0215	0803	0413	0905	0254	1059	0118	1405	5
6	0041	1116	0443	0954	0347	0823	0431	1029	0259	1222	0121	1528	6
7	0218	1119	0608	1019	0500	0901	0441	1155	0303	1344	0124	1654	7
8	0354	1124	0711	1104	0547	1002	0447	1319	0306	1504	0130	1824	8
9	0529	1132	0749	1213	0613	1121	0451	1441	0308	1627	0138	1958	9
10	0700	1147	0808	1335	0626	1246	0453	1603	0311	1752	0153	2128	10
11	0819	1217	0818	1502	0633	1412	0456	1724	0315	1921	0220	2241	11
12	0914	1310	0824	1627	0638	1536	0458	1848	0322	2053	0311	2326	12
13	0944	1425	0827	1751	0641	1658	0501	2015	0332	2227	0433	2351	13
14	1000	1550	0829	1913	0643	1820	0506	2145	0351	2351	0613	....	14
15	1008	1717	0831	2035	0645	1942	0513	2318	0426	....	0758	0004	15
16	1012	1843	0832	2157	0647	2106	0525	....	0529	0052	0941	0012	16
17	1015	2006	0834	2321	0650	2234	0547	0048	0657	0127	1121	0017	17
18	1017	2127	0837	....	0655	....	0629	0205	0837	0145	1259	0021	18
19	1018	2249	0842	0050	0702	0004	0740	0256	1019	0156	1436	0025	19
20	1020	....	0850	0222	0715	0137	0912	0324	1200	0202	1613	0030	20
21	1022	0012	0906	0355	0741	0305	1053	0339	1338	0207	1750	0036	21
22	1025	0138	0937	0521	0830	0415	1236	0347	1515	0211	1925	0045	22
23	1031	0309	1039	0624	0950	0458	1416	0353	1652	0215	2051	0100	23
24	1041	0445	1211	0659	1128	0520	1556	0357	1831	0220	2156	0128	24
25	1101	0621	1359	0716	1314	0532	1736	0401	2010	0227	2236	0216	25
26	1146	0743	1550	0725	1459	0539	1917	0405	2145	0237	2258	0326	26
27	1306	0834	1739	0731	1644	0544	2059	0411	2306	0256	2311	0450	27
28	1453	0858	1926	0735	1827	0548	2239	0419	....	0331	2318	0617	28
29	1647	0910	....	....	2010	0552	....	0432	0002	0429	2322	0742	29
30	1839	0917	....	....	2154	0556	0011	0456	0035	0546	2326	0905	30
31	2026	0921	....	....	2337	0602	....	....	0052	0712	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	2329	1025	2155	1334	2128	1649	2316	1636	0154	1519	0427	1347	1
2	2331	1145	2204	1501	2233	1743	....	1650	0333	1525	0607	1357	2
3	2334	1306	2219	1631	....	1815	0057	1659	0513	1531	0746	1412	3
4	2339	1429	2246	1756	0003	1833	0240	1705	0655	1539	0919	1438	4
5	2345	1556	2338	1906	0146	1844	0423	1711	0838	1551	1035	1522	5
6	2356	1727	....	1950	0332	1851	0606	1717	1018	1611	1126	1629	6
7	....	1859	0059	2015	0519	1857	0751	1723	1147	1644	1156	1751	7
8	0016	2021	0240	2028	0705	1902	0936	1733	1252	1739	1213	1919	8
9	0054	2120	0428	2036	0849	1908	1119	1747	1332	1854	1224	2045	9
10	0202	2153	0617	2042	1034	1915	1255	1811	1354	2018	1231	2208	10
11	0337	2211	0803	2047	1218	1925	1412	1853	1408	2144	1236	2328	11
12	0523	2221	0946	2052	1357	1942	1504	1956	1416	2308	1240	....	12
13	0711	2227	1129	2057	1524	2011	1534	2115	1422	....	1244	0047	13
14	0856	2232	1310	2105	1629	2100	1551	2240	1426	0029	1248	0206	14
15	1037	2236	1449	2116	1710	2210	1602	....	1430	0148	1254	0327	15
16	1217	2241	1622	2136	1733	2331	1608	0004	1434	0307	1301	0450	16
17	1355	2246	1741	2210	1746	....	1613	0126	1439	0427	1313	0616	17
18	1533	2254	1837	2306	1754	0055	1617	0246	1445	0550	1333	0742	18
19	1709	2307	1909	....	1800	0219	1621	0406	1455	0715	1406	0902	19
20	1838	2330	1928	0020	1804	0341	1625	0525	1509	0842	1503	1004	20
21	1950	....	1938	0144	1807	0501	1630	0646	1533	1007	1623	1045	21
22	2038	0010	1945	0309	1810	0620	1637	0810	1615	1120	1759	1108	22
23	2105	0113	1949	0433	1814	0741	1647	0936	1721	1212	1939	1123	23
24	2120	0233	1952	0554	1819	0902	1704	1102	1846	1244	2119	1132	24
25	2128	0358	1955	0714	1826	1026	1732	1223	2022	1303	2257	1139	25
26	2134	0524	1958	0834	1837	1153	1820	1329	2159	1314	....	1145	26
27	2137	0648	2002	0954	1856	1318	1932	1413	2336	1322	0033	1150	27
28	2140	0809	2007	1117	1928	1435	2100	1440	....	1329	0210	1157	28
29	2143	0929	2015	1242	2023	1536	2237	1456	0113	1334	0347	1205	29
30	2146	1048	2027	1409	2142	1614	....	1506	0249	1340	0525	1218	30
31	2150	1210	2048	1534	....	....	0015	1513	....	....	0658	1239	31

Time meridian 135° W. 0000 is midnight. 1200 is noon.

Honolulu, Hawaii

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	1929	....	2125	0854	2007	0725	2154	0810	2229	0834	2314	1001	1
2	2036	0855	2226	0935	2109	0807	2253	0900	2318	0930	2348	1052	2
3	2140	0940	2326	1015	2210	0849	2349	0952	....	1025	....	1141	3
4	2241	1021	....	1057	2311	0934	....	1047	0001	1118	0021	1230	4
5	2339	1101	0025	1140	....	1021	0039	1141	0040	1210	0053	1319	5
6	....	1139	0123	1227	0010	1110	0125	1235	0116	1300	0126	1409	6
7	0037	1218	0219	1316	0106	1202	0206	1327	0150	1349	0201	1502	7
8	0135	1259	0313	1408	0158	1256	0244	1418	0223	1438	0238	1557	8
9	0232	1343	0403	1501	0246	1349	0318	1507	0255	1528	0320	1655	9
10	0329	1430	0449	1554	0329	1442	0351	1557	0329	1620	0408	1756	10
11	0424	1520	0531	1647	0409	1533	0424	1646	0405	1714	0502	1857	11
12	0517	1612	0609	1738	0445	1624	0457	1737	0445	1811	0601	1956	12
13	0606	1706	0644	1828	0519	1713	0531	1829	0529	1910	0705	2051	13
14	0650	1759	0717	1917	0551	1802	0608	1924	0619	2011	0810	2142	14
15	0731	1851	0750	2006	0624	1852	0649	2021	0715	2110	0915	2228	15
16	0808	1942	0822	2056	0657	1943	0735	2120	0815	2206	1018	2310	16
17	0843	2032	0855	2147	0732	2035	0826	2219	0918	2258	1119	2350	17
18	0915	2121	0930	2240	0809	2130	0922	2317	1021	2346	1218	....	18
19	0947	2209	1008	2335	0851	2227	1022	....	1124	....	1317	0029	19
20	1019	2259	1051	....	0937	2326	1124	0011	1225	0029	1416	0109	20
21	1053	2351	1140	0033	1029	....	1227	0101	1324	0110	1515	0150	21
22	1129	....	1234	0133	1126	0025	1329	0147	1423	0149	1615	0235	22
23	1210	0046	1335	0233	1228	0122	1431	0230	1522	0229	1713	0323	23
24	1256	0143	1440	0330	1332	0215	1531	0311	1622	0309	1809	0414	24
25	1349	0244	1547	0424	1436	0305	1632	0351	1723	0352	1902	0508	25
26	1449	0347	1654	0514	1540	0351	1733	0431	1823	0439	1949	0604	26
27	1554	0448	1800	0600	1643	0434	1834	0514	1922	0529	2032	0659	27
28	1703	0547	1904	0644	1746	0516	1936	0559	2018	0622	2111	0752	28
29	1812	0640	....	....	1848	0557	2037	0648	2109	0718	2147	0844	29
30	1919	0728	....	....	1950	0639	2135	0740	2155	0813	2220	0934	30
31	2023	0813	....	....	2053	0723	....	....	2236	0908	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	Rise h m	Set h m	
1	2253	1023	2309	1136	....	1310	0004	1345	0201	1438	0254	1440	1
2	2325	1112	2350	1229	0014	1407	0106	1433	0302	1519	0355	1525	2
3	2358	1201	....	1325	0113	1502	0209	1519	0404	1602	0458	1615	3
4	....	1251	0036	1424	0216	1554	0312	1602	0507	1647	0600	1708	4
5	0034	1344	0128	1523	0321	1643	0415	1645	0610	1735	0701	1804	5
6	0113	1440	0227	1621	0427	1729	0518	1728	0715	1827	0757	1902	6
7	0157	1539	0330	1716	0532	1812	0622	1812	0817	1922	0849	2000	7
8	0247	1640	0436	1808	0636	1855	0727	1859	0916	2020	0935	2055	8
9	0344	1740	0543	1856	0740	1939	0832	1949	1010	2117	1016	2149	9
10	0446	1838	0649	1940	0844	2023	0935	2042	1059	2213	1053	2240	10
11	0552	1931	0754	2023	0948	2111	1035	2137	1142	2307	1128	2329	11
12	0659	2020	0857	2104	1050	2201	1131	2234	1221	2359	1200	....	12
13	0804	2105	0959	2147	1151	2253	1221	2329	1256	....	1233	0018	13
14	0908	2148	1101	2231	1247	2348	1306	....	1330	0049	1306	0106	14
15	1010	2228	1202	2318	1340	....	1347	0024	1402	0137	1341	0156	15
16	1110	2308	1302	....	1427	0043	1423	0116	1435	0226	1419	0248	16
17	1210	2350	1359	0007	1510	0137	1458	0206	1509	0315	1501	0341	17
18	1310	....	1454	0059	1548	0230	1531	0255	1546	0406	1549	0437	18
19	1409	0034	1544	0153	1624	0321	1603	0344	1625	0459	1642	0535	19
20	1508	0120	1629	0248	1657	0411	1636	0433	1710	0554	1739	0633	20
21	1604	0210	1710	0341	1730	0500	1711	0523	1759	0651	1841	0729	21
22	1657	0303	1748	0434	1802	0548	1748	0614	1854	0748	1944	0821	22
23	1746	0357	1823	0525	1836	0637	1830	0708	1952	0844	2047	0910	23
24	1830	0452	1856	0615	1911	0728	1915	0803	2053	0938	2148	0955	24
25	1910	0546	1928	0703	1949	0819	2005	0859	2154	1028	2249	1037	25
26	1947	0638	2000	0752	2031	0913	2100	0955	2255	1113	2348	1117	26
27	2021	0729	2034	0841	2117	1008	2158	1050	2355	1156	....	1157	27
28	2054	0818	2109	0931	2208	1104	2258	1141	....	1237	0048	1239	28
29	2126	0907	2148	1023	2304	1200	2359	1229	0054	1317	0148	1322	29
30	2158	0955	2231	1117	....	1254	....	1314	0153	1357	0249	1409	30
31	2232	1045	2320	1213	....	....	0100	1357	....	....	0350	1459	31

Time meridian 150° W. 0000 is midnight. 1200 is noon.

TABLE 7. — CONVERSION OF FEET TO CENTIMETERS

	Tenths of a Foot										
Feet	**0.0**	**0.1**	**0.2**	**0.3**	**0.4**	**0.5**	**0.6**	**0.7**	**0.8**	**0.9**	**Feet**
0	0	3	6	9	12	15	18	21	24	27	**0**
1	30	34	37	40	43	46	49	52	55	58	**1**
2	61	64	67	70	73	76	79	82	85	88	**2**
3	91	94	98	101	104	107	110	113	116	119	**3**
4	122	125	128	131	134	137	140	143	146	149	**4**
5	152	155	158	162	165	168	171	174	177	180	**5**
6	183	186	189	192	195	198	201	204	207	210	**6**
7	213	216	219	223	226	229	232	235	238	241	**7**
8	244	247	250	253	256	259	262	265	268	271	**8**
9	274	277	280	283	287	290	293	296	299	302	**9**
10	305	308	311	314	317	320	323	326	329	332	**10**
11	335	338	341	344	347	351	354	357	360	363	**11**
12	366	369	372	375	378	381	384	387	390	393	**12**
13	396	399	402	405	408	411	415	418	421	424	**13**
14	427	430	433	436	439	442	445	448	451	454	**14**
15	457	460	463	466	469	472	475	479	482	485	**15**
16	488	491	494	497	500	503	506	509	512	515	**16**
17	518	521	524	527	530	533	536	539	543	546	**17**
18	549	552	555	558	561	564	567	570	573	576	**18**
19	579	582	585	588	591	594	597	600	604	607	**19**
20	610	613	616	619	622	625	628	631	634	637	**20**
21	640	643	646	649	652	655	658	661	664	668	**21**
22	671	674	677	680	683	686	689	692	695	698	**22**
23	701	704	707	710	713	716	719	722	725	728	**23**
24	732	735	738	741	744	747	750	753	756	759	**24**
25	762	765	768	771	774	777	780	783	786	789	**25**
26	792	796	799	802	805	808	811	814	817	820	**26**
27	823	826	829	832	835	838	841	844	847	850	**27**
28	853	856	860	863	866	869	872	875	878	881	**28**
29	884	887	890	893	896	899	902	905	908	911	**29**
30	914	917	920	924	927	930	933	936	939	942	**30**
31	945	948	951	954	957	960	963	966	969	972	**31**
32	975	978	981	985	988	991	994	997	1000	1003	**32**
33	1006	1009	1012	1015	1018	1021	1024	1027	1030	1033	**33**
34	1036	1039	1042	1045	1049	1052	1055	1058	1061	1064	**34**
35	1067	1070	1073	1076	1079	1082	1085	1088	1091	1094	**35**
36	1097	1100	1103	1106	1109	1113	1116	1119	1122	1125	**36**
37	1128	1131	1134	1137	1140	1143	1146	1149	1152	1155	**37**
38	1158	1161	1164	1167	1170	1173	1177	1180	1183	1186	**38**
39	1189	1192	1195	1198	1201	1204	1207	1210	1213	1216	**39**
40	1219	1222	1225	1228	1231	1234	1237	1241	1244	1247	**40**
41	1250	1253	1256	1259	1262	1265	1268	1271	1274	1277	**41**
42	1280	1283	1286	1289	1292	1295	1298	1301	1305	1308	**42**
43	1311	1314	1317	1320	1323	1326	1329	1332	1335	1338	**43**
44	1341	1344	1347	1350	1353	1356	1359	1362	1366	1369	**44**
45	1372	1375	1378	1381	1384	1387	1390	1393	1396	1399	**45**
46	1402	1405	1408	1411	1414	1417	1420	1423	1426	1430	**46**
47	1433	1436	1439	1442	1445	1448	1451	1454	1457	1460	**47**
48	1463	1466	1469	1472	1475	1478	1481	1484	1487	1490	**48**
49	1494	1497	1500	1503	1506	1509	1512	1515	1518	1521	**49**

Feet to Meters = Centimeters divided by 100 (from above table)
Example: 09.40 feet = (287 centimeters) / (100) = 02.87 meters.

1 Meter = 100 centimeters
1 Meter = 3.2808399 feet

1 Foot = 0.30480061 meters
1 Foot = 30.480061 centimeters

TABLE 8.—TIDE PREDICTION ACCURACY

EXPLANATION OF TABLE

The accuracy of National Ocean Service tide predictions is determined by comparing predicted and observed high and low waters at all stations for which data exists, primarily the U.S. and its territories. Each water-level station is unique; there is no single standard of accuracy when comparing astronomic tide predictions with observed water levels. Water-level station locations are examined on an individual basis to determine if the predictions are adequate. Comparisons are based on 1989 data except for those locations where the stations were not in operation or the data acquired were unacceptable. If a station was not in operation in 1989, the last good year of data was used. Comparisons are made by subtracting the observed times and heights of the high and low waters from the predicted tides to compute a difference.

Table Legend

Station ID—Each water-level station in the United States and dependent territories has a unique seven digit identification number (ID). The ID is unrelated to the four digit station number used in the published prediction tables.

90% Distribution Level—90% of the absolute values of the differences are less than or equal to the values in these columns.

Standard Deviation of Differences—Standard deviation of all the differences.

Average Difference—Average of the signed sum of all the differences.

Table 8. - TIDE PREDICTION ACCURACY

		90% Distribution Level				Standard Deviation of Differences				Average Differences			
		Time Differences		Height Differences		Times		Heights		Times		Heights	
Station ID Station Name	Year	High Water (Hours)	Low Water (Hours)	High Water (Feet)	Low Water (Feet)	High Water (Hours)	Low Water (Hours)	High Water (Feet)	Low Water (Feet)	High Water (Hours)	Low Water (Hours)	High Water (Feet)	Low Water (Feet)
161-2340 Honolulu, HI	1995	0.6	0.5	0.3	0.3	0.39	0.37	0.21	0.20	0.01	0.03	-0.03	0.02
941-0170 San Diego, CA	1995	0.4	0.3	0.3	0.3	0.17	0.17	0.17	0.18	0.20	0.16	0.06	-0.07
941-0660 Los Angeles, CA	**2004**	**0.2**	**0.1**	**0.3**	**0.3**	**0.11**	**0.11**	**0.19**	**0.19**	**0.00**	**0.00**	**0.00**	**0.00**
941-4290 San Francisco, CA	1995	0.3	0.4	0.4	0.6	0.18	0.25	0.31	0.39	-0.12	-0.03	0.03	-0.02
941-8767 Humbolt Bay, CA	**2004**	**0.2**	**0.2**	**0.5**	**0.5**	**0.10**	**0.11**	**0.29**	**0.31**	**-0.05**	**0.04**	**0.00**	**-0.01**
941-9750 Cresent City,CA	**2004**	**0.2**	**0.2**	**0.6**	**0.6**	**0.11**	**0.11**	**0.35**	**0.34**	**-0.01**	**-0.01**	**-0.01**	**0.00**
943-9040 Astoria, OR	1995	0.2	0.3	0.7	0.9	0.11	0.17	0.48	0.55	-0.02	0.04	-0.04	0.07
944-1187 Aberdeen, WA	1982	0.4	0.7	1.0	>1.0	0.26	0.31	0.58	0.76	0.04	0.34	-0.29	-0.10
944-3090 Neah Bay, WA	**2004**	**0.2**	**0.2**	**0.7**	**0.8**	**0.13**	**0.17**	**0.42**	**0.44**	**-0.02**	**0.00**	**0.00**	**-0.01**
44-4900 Port Townsend, WA	**2004**	**0.3**	**0.3**	**0.7**	**0.7**	**0.21**	**0.46**	**0.40**	**0.50**	**-0.04**	**0.02**	**0.01**	**0.00**
944-7130 Seattle, WA	**2004**	**0.3**	**0.2**	**0.7**	**0.7**	**0.16**	**0.14**	**0.41**	**0.40**	**0.05**	**0.04**	**0.01**	**0.01**
945-0460 Ketchikan, AK	**2004**	**0.1**	**0.1**	**0.7**	**0.7**	**0.08**	**0.09**	**0.42**	**0.42**	**0.00**	**0.00**	**-0.01**	**0.00**
945-1600 Sitka, AK	**2004**	**0.1**	**0.1**	**0.7**	**0.7**	**0.09**	**0.09**	**0.40**	**0.39**	**0.00**	**0.01**	**-0.01**	**0.00**
945-2210 Juneau, AK	**2004**	**0.1**	**0.1**	**0.8**	**0.7**	**0.10**	**0.10**	**0.49**	**0.47**	**0.00**	**0.00**	**0.08**	**-0.08**
945-4050 Cordova, AK	**2004**	**0.2**	**0.2**	**0.7**	**0.7**	**0.15**	**0.14**	**0.43**	**0.44**	**0.04**	**0.05**	**-0.02**	**0.03**
945-4240 Valdez, AK	**2004**	**0.2**	**0.2**	**0.7**	**0.7**	**0.14**	**0.12**	**0.42**	**0.44**	**-0.01**	**0.00**	**-0.01**	**0.01**
945-5500 Seldovia, AK	1995	0.1	0.1	0.8	0.9	0.08	0.09	0.52	0.56	-0.01	0.03	-0.04	0.07
945-5760 Nikishki, AK	**2004**	**0.3**	**0.3**	**0.9**	**1.0**	**0.15**	**0.17**	**0.51**	**0.55**	**-0.13**	**-0.13**	**-0.03**	**0.14**
945-5920 Anchorage, AK	1995	0.2	0.2	>1.0	>1.0	0.12	0.12	0.70	0.78	0.08	0.02	0.06	0.20
945-7283 Kodiak, AK	1983	0.2	0.2	0.9	0.9	0.16	0.15	0.55	0.55	0.01	0.04	-0.09	-0.23
946-5261 Nushagak Bay, AK	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
946-8132 St. Michael, AK	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
946-1380 Sweeper Cove	1995	0.4	0.3	0.7	0.8	0.33	0.23	0.47	0.48	0.09	0.07	-0.02	0.04
946-2620 Unalaska, AK	**2004**	**0.4**	**0.4**	**0.7**	**0.7**	**0.47**	**0.20**	**0.46**	**0.45**	**0.01**	**0.02**	**-0.02**	**0.00**

TABLE 9.— LOWEST/ HIGHEST ASTRONOMICAL TIDE AND OTHER TIDAL DATUMS

Explanation of table

Lowest Astronomical Tide (LAT) and Highest Astronomical Tide (HAT) are the lowest and highest predicted values for the tides at a given location over a 19 year period. These values were calculated by generating tide predictions for the time period of the latest National Tidal Datum Epoch (1983-2001) using the latest set of tidal harmonic constituents. The highest and lowest values predicted were recorded to the nearest 0.1 foot. It is important to note that the LAT and HAT values are derived solely from predicted tides based on astronomical forces. Observed water levels can be above the HAT level or below the LAT level due to storms, winds, or other meteorological effects which are not accounted for in the tide predictions.

Table Legend

Station - Each water level station in the United States and its territories has a unique seven digit identification number (ID). The ID is unrelated to the four digit indexing number used in the published prediction tables.

LAT - Lowest Astronomical Tide - The lowest predicted tidal level

MLLW - Mean Lower Low Water

MLW - Mean Low Water

MHW - Mean High Water

MHHW - Mean Higher High Water

HAT - Highest Astronomical Tide - The highest predicted tidal level

Notes

All elevations are provided in feet relative to Mean Lower Low Water (MLLW), the reference datum for tide predictions and soundings on NOAA nautical charts. The other tidal datums (Mean Low Water, Mean High Water, and Mean Higher High Water) in this table are included to provide additional information.

TABLE 9.— LOWEST/ HIGHEST ASTRONOMICAL TIDE AND OTHER TIDAL DATUMS

RELATIVE TO MLLW (feet)

Station	Name	LAT	MLW	MHW	MHHW	HAT
9410170	San Diego, California	-2.2	0.9	5.0	5.7	7.8
9410660	Los Angeles, California	-1.9	0.9	4.8	5.5	7.3
9412110	Port San Luis, California	-2.0	1.0	4.6	5.3	7.1
9413450	Monterey, California	-2.0	1.1	4.6	5.3	7.0
9414290	San Francisco, California	-2.1	1.1	5.2	5.8	7.3
9415144	Port Chicago, California	-1.0	0.7	4.4	4.9	6.1
9416841	Arena Cove, California	-2.2	1.2	5.2	5.9	7.7
9418767	North Spit, California	-2.3	1.3	6.1	6.9	8.6
9419750	Crescent City, California	-2.6	1.2	6.2	6.9	8.9
9432780	Charleston, Oregon	-2.7	1.3	7.0	7.6	9.7
9439040	Astoria, Oregon	-2.0	1.2	7.9	8.6	10.6
9441187	Aberdeen, Washington	-3.3	1.5	9.4	10.1	12.8
9441187	Toke Point, Washington	-3.0	1.4	8.2	8.9	11.4
9443090	Neah Bay, Washington	-3.2	1.6	7.1	8.0	10.6
9444900	Port Townsend, Washington	-3.8	2.5	7.8	8.5	10.2
9447130	Seattle, Washington	-4.1	2.8	10.5	11.4	13.5
9449424	Cherry Point, Washington	-3.9	2.6	8.3	9.1	11.0
9450460	Ketchikan, Alaska	-4.5	1.6	14.5	15.4	19.5
9452210	Juneau, Alaska	-4.9	1.6	15.3	16.3	20.9
9451600	Sitka, Alaska	-3.4	1.5	9.2	9.9	12.9
9454050	Cordova, Alaska	-3.8	1.5	11.7	12.6	16.1
9454240	Valdez, Alaska	-3.8	1.5	11.2	12.1	15.4
9455500	Seldovia, Alaska	-5.9	1.7	17.2	18.0	23.1
9455760	Nikiski, Alaska	-5.2	2.1	19.7	20.4	25.2
9455920	Anchorage, Alaska	-4.5	2.2	28.4	29.2	34.6
9457292	Kodiak Island, Alaska	-2.7	1.1	7.9	8.8	11.5
9459450	Sand Point, Alaska	-2.8	1.3	6.5	7.2	9.5
9462620	Unalaska, Alaska	-1.9	0.9	3.3	3.6	5.0
9461380	Adak Island, Alaska	-2.1	0.6	3.5	3.7	5.6
9460150	Massacre Bay, Alaska	-1.9	0.6	3.0	3.3	5.0
9465261	Nushagak Bay, Alaska	-5.0	2.5	17.8	19.5	24.1
9468132	St. Michael, Alaska	-1.0	0.6	3.6	3.9	5.7
9468756	Nome, Alaska	-0.5	0.3	1.4	1.5	1.7
9497645	Prudhoe Bay, Alaska	-0.7	0.1	0.6	0.7	1.5
1619910	Sand Island, Midway Islands	-0.6	0.2	1.1	1.3	1.6
1611400	Nawiliwili, Kauai Island, Hawaii	-0.5	0.2	1.4	1.8	2.6
1612340	Honolulu, Oahu Island, Hawaii	-0.5	0.2	1.4	1.9	2.8
1612480	Mokuoloe, Oahu Island, Hawaii	-0.8	0.3	1.8	2.1	2.9
1615680	Kahului, Maui Island, Hawaii	-0.8	0.3	1.9	2.3	3.1
1617760	Hilo, Hawaii Island, Hawaii	-0.8	0.3	2.0	2.4	3.3
1619000	Johnston Island	-0.7	0.1	2.0	2.2	3.1

PUBLICATIONS RELATING TO TIDES AND TIDAL CURRENTS

TIDE TABLES

Advance information relative to the rise and fall of the tide is given in annual tide tables. These tables include the predicted times and heights of high and low waters for every day in the year for a number of reference stations and differences for obtaining similar predictions for numerous other places.

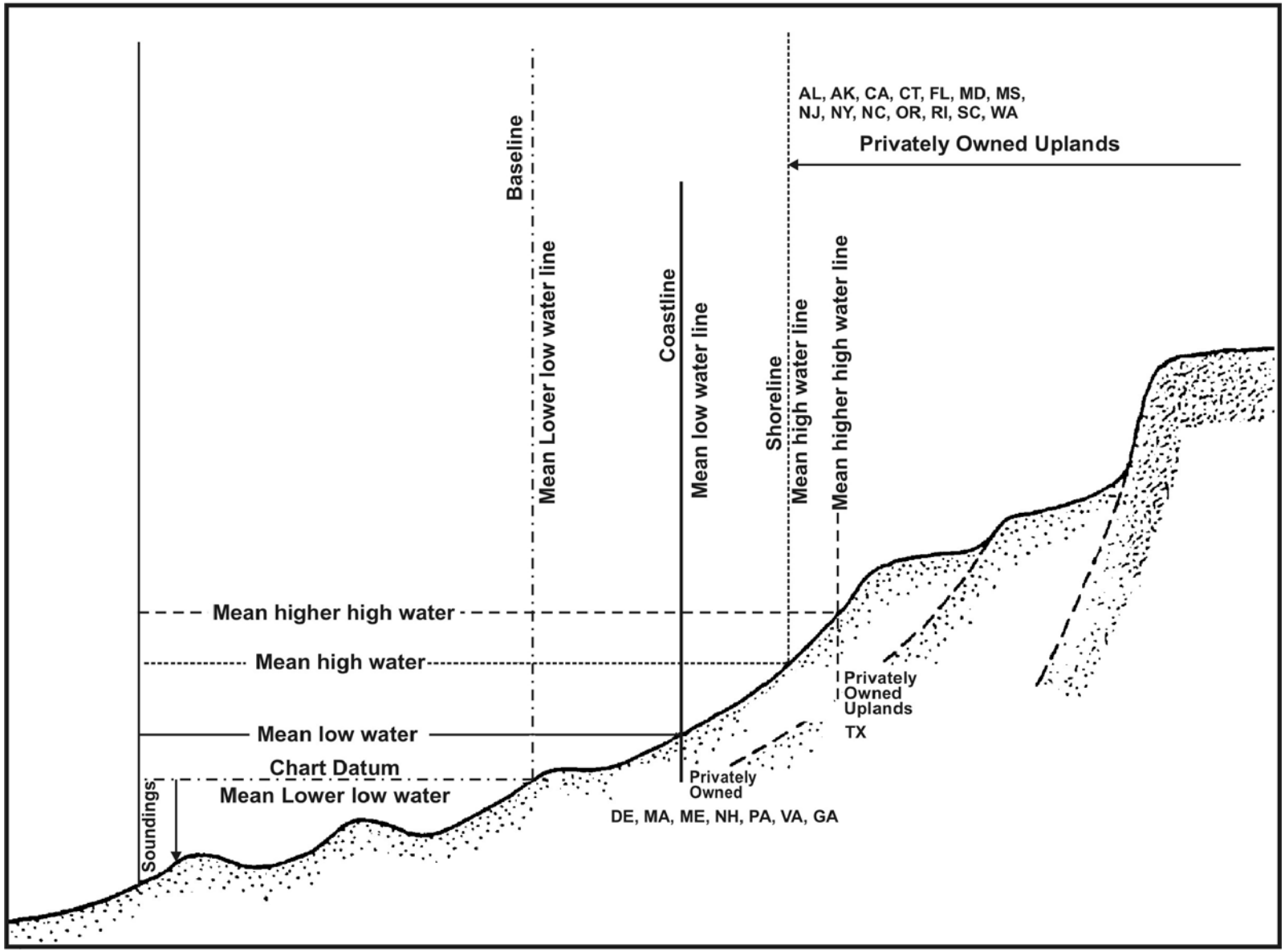
Tide Tables, Central and Western Pacific Ocean and Indian Ocean.
Tide Tables, East Coast of North and South America (Including Greenland).
Tide Tables, Europe and West Coast of Africa (Including the Mediterranean Sea).
Tide Tables, West Coast of North and South America (Including the Hawaiian Islands).

TIDAL CURRENT TABLES

Accompanying the rise and fall of the tide is a periodic horizontal flow of the water known as the tidal current. Advance information relative to these currents is made available in annual tidal current tables which include daily predictions of the times of slack water and the times and velocities of strength of flood and ebb currents for a number of waterways together with differences for obtaining predictions for numerous other places.

Tidal Current Tables, Atlantic Coast of North America.
Tidal Current Tables, Pacific Coast of North America and Asia.

OFFICIAL U.S. DATUMS



Appendix

Hourly Heights

Daily predictions for Anchorage, Nikiski, Seldovia and Valdez, Alaska

ANCHORAGE, ALASKA, 2010

Lat. 61° 14′N Long. 149° 53′W

JANUARY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	5.0	−0.4	−4.0	2.2	11.4	18.9	24.9	28.8	29.8	27.2	22.2	16.6
F	11.0	6.5	3.7	8.5	18.1	24.3	29.4	32.2	31.6	26.7	20.5	14.3
2	8.7	3.7	−2.2	−4.1	4.8	14.0	21.3	26.8	30.3	30.0	26.4	20.9
Sa	15.2	9.6	5.0	2.6	9.8	19.3	25.5	30.2	32.6	30.9	25.5	19.2
3	12.9	7.1	2.1	−3.9	−2.5	8.1	17.0	23.7	28.7	31.4	29.8	25.3
Su	19.5	13.6	8.3	3.3	2.2	11.1	20.0	26.2	30.4	32.4	29.7	24.1
4	17.6	11.3	5.6	0.5	−4.3	0.6	11.5	19.9	25.8	30.4	31.8	29.2
M	23.9	17.9	12.0	6.9	1.7	2.7	11.9	20.3	26.2	30.1	31.4	28.1
5	22.5	16.2	9.9	4.4	−0.5	−2.9	4.4	14.7	22.3	27.5	31.4	31.6
Tu	28.2	22.4	16.4	10.7	5.5	0.8	3.4	11.9	19.8	25.4	29.1	29.7
6	26.5	21.2	15.3	9.1	4.0	−0.1	0.2	7.9	17.1	23.8	28.4	31.4
W	30.8	26.9	21.0	15.2	9.8	4.7	0.9	3.9	11.2	18.6	23.9	27.3
7	27.7	25.1	20.5	15.2	9.5	4.9	2.1	3.7	10.5	18.4	24.2	28.2
Th	30.4	29.5	25.5	19.9	14.5	9.5	4.5	1.5	3.9	10.0	16.8	21.9
8	25.0	25.8	24.2	20.7	16.2	11.0	7.1	5.1	6.6	11.9	18.6	23.6
F	26.9	28.8	28.1	24.3	19.4	14.5	9.7	5.1	2.1	3.4	8.2	14.7
9	19.7	22.9	24.4	24.1	21.8	17.9	13.2	9.8	7.9	8.4	12.1	17.9
Sa	22.3	25.3	27.3	26.9	23.7	19.3	14.8	10.2	5.7	2.5	2.5	6.5
10	12.9	18.0	21.6	23.9	24.9	23.4	19.7	15.3	12.1	9.7	9.0	11.5
Su	17.0	21.0	24.1	26.4	26.3	23.4	19.4	15.0	10.6	6.0	2.5	1.3
11	5.3	12.0	17.3	21.3	24.4	26.1	24.7	21.0	16.6	13.0	10.1	8.5
M	10.8	16.5	20.4	23.9	26.2	26.2	23.3	19.3	14.9	10.4	5.9	2.0
12	0.3	5.4	12.3	18.0	22.1	25.6	27.1	25.2	21.1	16.5	12.4	9.4
Tu	7.4	10.9	16.8	21.0	24.7	26.8	26.4	22.9	18.6	14.1	9.5	5.2
13	0.8	0.4	6.8	13.9	19.7	23.7	27.0	27.4	24.6	20.1	15.0	11.1
W	8.0	6.8	12.1	18.1	22.6	26.1	27.7	26.2	22.0	17.3	12.7	8.2
14	3.9	−0.4	2.0	9.5	16.6	22.0	25.7	28.0	26.8	23.0	18.0	12.8
Th	9.3	6.3	7.4	14.3	20.1	24.7	27.6	28.3	25.4	20.5	15.5	10.8
15	6.5	1.9	−0.5	5.2	13.0	19.7	24.5	27.6	28.0	25.3	20.7	15.3
F	10.4	7.2	5.3	9.6	16.9	22.5	26.6	28.8	28.0	23.8	18.4	13.3
16	8.6	4.5	0.0	1.4	9.3	16.7	22.7	26.9	28.8	27.2	23.1	18.0
Sa	12.6	8.3	5.2	5.8	12.6	19.5	24.6	28.0	29.1	26.7	21.7	16.0
17	10.8	6.4	2.1	−0.4	5.2	13.8	20.4	25.4	28.8	28.9	25.6	20.6
Su	15.2	10.2	6.2	3.9	7.9	15.6	21.8	26.2	28.7	28.4	24.6	19.2
18	13.4	8.2	4.2	0.4	1.6	9.9	17.9	23.6	27.6	29.7	27.9	23.4
M	17.8	12.5	8.0	4.2	4.1	10.8	18.0	23.5	27.1	28.6	26.7	22.1
19	16.6	10.8	6.0	2.4	0.4	5.7	14.6	21.5	26.1	29.1	29.4	26.1
Tu	20.8	15.1	10.1	6.1	2.8	5.7	13.4	19.7	24.5	27.3	27.5	24.4
20	19.6	14.2	8.8	4.6	1.7	3.0	10.6	18.4	24.3	27.7	29.4	28.0
W	23.8	18.0	12.5	8.2	4.4	2.6	7.9	15.0	20.6	24.6	26.7	25.7
21	22.0	17.5	12.6	7.8	4.2	2.8	7.1	14.8	21.2	25.9	28.3	28.6
Th	26.0	21.2	15.5	10.6	6.9	3.4	3.5	9.5	15.6	20.6	24.0	25.4
22	23.7	20.3	16.3	12.1	8.0	5.1	5.6	11.3	17.5	22.9	26.4	27.8
F	27.0	23.9	19.1	13.7	9.5	6.2	3.2	4.5	9.9	15.4	19.7	22.7
23	23.8	22.2	19.5	16.2	12.8	9.3	7.1	8.8	13.9	18.8	23.3	25.9
Sa	26.7	25.4	22.4	17.7	12.9	9.2	6.0	3.4	4.8	9.3	14.3	18.2
24	21.3	22.6	21.7	19.9	17.3	14.3	11.1	9.2	10.9	14.6	18.9	22.8
Su	24.9	25.7	24.7	22.0	17.5	13.0	9.4	6.1	3.5	4.1	7.9	12.6
25	16.6	20.3	22.3	22.4	21.3	19.1	16.1	12.7	10.7	11.2	13.9	18.1
M	21.8	24.3	25.6	25.1	22.6	18.1	13.6	9.8	6.1	3.0	2.7	6.1
26	10.9	15.6	20.3	23.0	23.9	23.3	20.9	17.4	13.5	10.7	10.1	12.4
Tu	17.0	21.2	24.4	26.5	26.5	23.9	19.1	14.3	10.0	5.9	2.0	1.0
27	4.2	9.9	15.8	21.3	24.5	26.0	25.1	22.1	17.8	13.3	9.5	8.2
W	10.6	16.3	21.4	25.5	28.2	28.4	25.4	20.1	14.6	9.9	5.3	0.9
28	−1.0	2.9	10.1	17.0	22.9	26.3	27.9	26.3	22.3	17.3	12.2	7.8
Th	6.0	9.0	16.4	22.3	27.2	30.1	30.2	26.3	20.5	14.5	9.5	4.5
29	−0.5	−2.8	3.1	11.7	19.1	24.8	28.4	29.3	26.7	21.7	16.2	10.6
F	6.1	3.7	8.3	17.3	23.7	28.9	31.8	31.3	26.6	20.3	14.0	8.6
30	3.5	−2.3	−3.6	5.1	14.2	21.6	26.9	30.3	29.9	26.2	20.5	14.7
Sa	9.0	4.2	1.7	8.9	18.6	25.2	30.2	33.0	31.5	26.1	19.4	13.0
31	7.4	2.2	−4.2	−2.5	8.4	17.3	24.2	29.2	31.7	29.9	25.1	19.0
Su	13.0	7.5	1.9	0.7	10.4	19.9	26.4	31.2	33.6	30.9	24.9	18.1

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 14′N Long. 149° 53′W

FEBRUARY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	11.6	5.9	0.4	-5.1	0.8	12.3	20.5	26.8	31.4	32.4	29.1	23.5
M	17.2	11.1	5.7	-0.5	1.0	12.0	20.9	27.2	31.7	33.2	29.5	23.3
2	16.5	9.9	4.3	-1.4	-3.9	5.3	16.2	23.6	29.1	32.9	32.2	27.8
Tu	21.5	15.2	9.3	3.6	-1.9	2.6	13.4	21.6	27.5	31.5	31.8	27.7
3	21.5	14.9	8.3	3.0	-1.8	-0.4	9.9	19.4	25.9	30.8	33.2	31.0
W	25.8	19.3	13.2	7.6	1.7	-1.7	4.6	14.2	21.7	27.0	30.4	29.8
4	25.7	19.8	13.6	7.4	2.8	-0.1	4.2	13.7	21.7	27.2	31.1	32.0
Th	29.1	23.4	17.3	11.6	6.4	1.0	-0.2	6.2	14.3	21.1	25.8	28.2
5	27.4	23.9	18.8	13.2	7.7	4.2	3.5	8.4	16.0	22.7	27.1	29.8
F	29.8	26.7	21.3	15.8	10.8	6.0	1.7	1.8	7.1	13.7	19.6	23.7
6	25.7	25.3	22.8	18.8	13.9	9.4	7.0	7.3	11.1	16.8	22.2	25.6
Sa	27.5	27.3	24.5	19.9	15.2	10.8	6.5	3.2	3.4	7.0	12.3	17.5
7	21.3	23.5	23.9	22.7	19.8	15.7	11.9	10.2	10.0	12.0	16.1	20.6
Su	23.3	25.0	25.3	23.3	19.5	15.5	11.5	7.7	4.6	4.0	6.0	10.4
8	15.6	19.5	22.1	23.7	23.6	21.5	17.7	14.4	12.3	10.9	11.2	14.4
M	18.7	21.3	23.5	24.4	23.1	19.9	16.3	12.4	8.6	5.2	3.7	4.4
9	9.0	14.4	18.9	22.0	24.5	25.1	23.0	19.2	15.6	12.6	10.2	9.5
Tu	12.9	17.3	20.4	23.2	24.7	23.8	20.7	16.9	12.9	8.7	5.0	2.4
10	3.2	8.7	14.7	19.5	23.1	26.0	26.3	23.7	19.5	15.2	11.4	8.4
W	7.7	12.3	17.2	21.0	24.2	25.9	24.6	21.0	16.9	12.6	8.0	3.9
11	0.8	3.3	10.0	16.3	21.3	24.9	27.4	26.6	23.1	18.3	13.4	9.5
Th	6.2	7.1	13.2	18.5	22.8	26.0	27.1	24.8	20.6	16.0	11.4	6.7
12	2.0	0.0	5.3	12.7	19.0	23.6	27.0	27.9	25.7	21.3	15.9	11.0
F	7.1	4.5	8.2	15.3	20.7	25.1	27.9	27.7	24.2	19.2	14.3	9.6
13	4.9	0.1	1.2	8.9	16.2	22.0	26.2	28.5	27.4	23.7	18.6	13.1
Sa	8.5	4.7	4.2	10.8	18.0	23.3	27.3	29.2	27.3	22.7	17.2	12.1
14	7.6	2.6	-0.6	4.7	13.3	19.9	25.0	28.5	28.9	25.9	21.1	15.6
Su	10.4	6.0	2.8	6.0	14.1	20.8	25.7	29.0	29.3	25.9	20.5	14.8
15	9.7	5.3	0.5	1.0	9.5	17.6	23.4	27.8	30.0	28.2	23.7	18.1
M	12.7	7.9	3.4	2.4	9.2	17.2	23.2	27.5	29.8	28.3	23.8	18.0
16	12.1	7.2	3.0	0.1	5.2	14.6	21.6	26.4	29.8	30.0	26.4	20.9
Tu	15.1	10.0	5.4	1.3	4.0	12.7	19.8	25.2	28.6	29.4	26.4	21.3
17	15.4	9.6	5.1	1.6	2.3	10.7	19.0	24.8	28.7	30.6	28.6	23.7
W	17.7	12.2	7.5	3.0	0.8	7.1	15.6	21.8	26.3	28.8	27.9	23.9
18	18.7	13.1	7.6	3.7	2.0	7.0	15.9	22.4	27.2	29.8	29.7	26.0
Th	20.5	14.6	9.5	5.5	1.3	2.1	10.4	17.6	23.0	26.6	27.8	25.6
19	21.5	16.5	11.3	6.6	3.6	4.7	12.4	19.7	24.8	28.4	29.6	27.6
F	23.0	17.3	11.8	7.6	3.9	0.8	4.5	12.6	18.7	23.2	25.9	26.1
20	23.4	19.5	15.1	10.7	6.8	5.0	8.7	16.5	21.9	26.0	28.3	28.2
Sa	25.0	20.3	14.9	10.0	6.5	3.2	1.6	6.5	13.4	18.8	22.4	24.6
21	24.3	21.9	18.5	14.9	11.2	8.0	7.5	12.2	18.4	22.6	25.8	27.2
Su	26.4	23.1	18.7	13.6	9.4	6.3	3.3	2.8	7.2	13.0	17.7	20.8
22	23.1	23.1	21.5	18.9	15.8	12.6	9.9	9.8	13.6	18.1	21.9	24.6
M	25.9	25.2	22.5	18.6	13.9	10.0	6.8	3.9	3.3	6.5	11.4	15.7
23	19.2	22.2	23.0	22.3	20.3	17.6	14.3	11.4	10.7	12.8	16.3	20.3
Tu	23.1	25.0	25.2	23.4	19.8	15.2	11.1	7.6	4.3	2.8	4.7	9.2
24	13.8	18.5	22.4	24.0	24.2	22.4	19.4	15.5	12.0	9.9	10.5	13.8
W	18.4	22.2	25.2	26.4	25.4	21.8	16.9	12.3	8.2	4.2	1.6	2.5
25	7.0	12.9	18.9	23.4	25.8	26.4	24.3	20.5	15.8	11.3	8.0	7.6
Th	11.1	17.2	22.3	26.4	28.4	27.8	23.8	18.4	13.1	8.4	3.7	0.1
26	0.2	6.1	13.6	20.3	25.1	27.9	28.3	25.4	20.6	15.2	9.9	5.8
F	4.6	9.3	17.1	23.2	28.0	30.5	29.7	25.1	19.1	13.2	8.2	3.0
27	-1.5	-1.1	7.2	15.6	22.5	27.2	30.0	29.4	25.4	19.7	13.9	8.2
Sa	3.6	2.0	8.9	18.0	24.7	29.6	32.2	30.8	25.4	18.9	12.8	7.5
28	2.1	-3.2	-0.5	10.0	18.4	24.9	29.4	31.6	29.5	24.4	18.2	12.2
Su	6.7	1.2	0.3	10.0	19.4	26.1	31.0	33.3	30.7	24.9	18.1	11.9

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

ANCHORAGE, ALASKA, 2010

Lat. 61° 14′N Long. 149° 53′W

MARCH

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	6.5	0.8	−4.1	2.5	13.7	21.5	27.5	31.7	32.3	28.6	22.7	16.4
M	10.5	4.9	−1.4	0.5	11.9	20.8	27.3	32.0	33.5	29.9	23.6	16.8
2	10.5	5.1	−0.8	−3.0	7.1	17.5	24.5	30.0	33.3	31.9	27.1	20.6
Tu	14.4	8.7	2.6	−3.2	2.3	13.9	22.1	28.3	32.5	32.7	28.4	21.9
3	15.2	8.8	3.6	−1.7	0.4	11.9	20.8	27.2	32.0	33.7	30.6	24.8
W	18.3	12.3	6.6	0.2	−3.1	5.2	15.6	23.1	28.7	32.2	31.2	26.5
4	20.0	13.4	7.2	2.6	−0.5	5.4	16.0	23.5	29.0	32.8	32.6	28.3
Th	22.1	15.9	10.1	4.7	−1.3	−1.0	8.0	16.9	23.6	28.5	30.8	29.1
5	24.4	18.3	12.0	6.5	2.9	2.8	10.2	18.8	25.1	29.6	31.8	30.2
F	25.4	19.3	13.7	8.4	3.3	−0.9	2.1	10.2	17.6	23.3	27.3	28.6
6	26.8	22.4	17.1	11.5	7.0	4.9	7.1	13.6	20.3	25.4	28.5	29.3
Sa	27.2	22.6	17.1	12.2	7.6	3.2	1.2	5.0	11.4	17.4	22.1	25.3
7	26.2	24.7	21.3	16.9	12.1	8.8	8.1	10.5	15.1	20.1	24.1	26.1
Su	26.3	24.4	20.5	15.9	11.7	7.8	4.3	3.6	6.8	11.4	16.2	20.3
8	23.2	24.2	23.5	21.2	17.7	13.8	11.3	10.9	12.1	14.7	18.7	21.9
M	23.3	23.8	22.6	19.7	15.9	12.3	8.8	5.9	5.1	7.0	10.2	14.5
9	18.6	21.7	23.3	23.5	22.2	19.3	15.7	13.3	12.0	11.5	12.9	16.4
Tu	19.5	21.3	22.6	22.4	20.3	16.9	13.5	10.1	7.0	5.4	6.0	8.5
10	13.1	17.7	21.3	23.5	24.6	23.7	20.7	17.0	13.9	11.3	9.6	10.5
W	14.5	18.1	20.8	22.9	23.4	21.6	18.3	14.6	10.8	7.0	4.5	4.2
11	7.5	12.9	18.1	22.1	24.8	26.1	24.8	21.3	16.9	12.8	9.2	7.0
Th	8.6	13.9	18.1	21.8	24.4	25.1	22.9	19.1	14.9	10.6	6.1	2.9
12	2.9	8.0	14.2	19.7	23.9	26.6	27.2	24.8	20.5	15.5	10.7	6.7
F	4.7	8.4	14.7	19.6	23.8	26.4	26.4	23.4	18.9	14.3	9.6	4.6
13	1.2	3.3	10.3	16.7	22.2	26.1	28.1	27.1	23.5	18.5	13.1	8.1
Sa	4.1	3.8	10.0	16.8	22.0	26.1	28.1	26.8	22.8	17.7	12.9	8.0
14	2.9	0.5	6.0	13.9	19.9	24.9	28.3	28.7	25.9	21.2	15.7	10.4
Su	5.5	2.0	4.9	12.9	19.5	24.6	28.2	28.9	26.1	21.3	15.8	10.9
15	6.2	1.3	2.0	10.3	17.8	23.3	27.7	29.8	28.0	23.7	18.2	12.9
M	7.8	2.9	1.3	7.8	16.1	22.2	26.9	29.6	28.6	24.6	19.1	13.5
16	8.7	4.2	0.9	5.9	15.1	21.6	26.5	29.9	30.0	26.2	20.9	15.3
Tu	10.2	5.2	0.6	2.7	11.5	19.0	24.7	28.6	30.0	27.4	22.5	16.7
17	11.1	6.6	2.6	2.8	11.2	19.4	24.9	29.0	30.9	28.7	23.7	17.8
W	12.4	7.6	2.5	−0.4	5.9	14.9	21.4	26.5	29.5	29.2	25.5	20.2
18	14.3	8.8	4.8	2.4	7.1	16.3	22.7	27.6	30.5	30.3	26.2	20.6
Th	14.8	9.8	5.2	0.2	0.8	9.7	17.5	23.4	27.5	29.4	27.5	23.3
19	17.9	12.2	7.1	3.9	4.5	12.6	20.3	25.3	29.2	30.6	28.2	23.1
F	17.3	11.9	7.4	3.0	−0.7	3.7	13.0	19.5	24.6	27.7	28.2	25.4
20	21.0	15.9	10.7	6.3	4.4	8.5	17.4	22.9	27.0	29.6	29.2	25.2
Sa	19.9	14.3	9.5	5.5	1.6	0.1	7.0	15.1	20.7	24.8	27.0	26.4
21	23.4	19.1	14.5	10.0	6.6	6.4	12.7	20.1	24.2	27.5	28.9	27.0
Su	22.5	17.3	12.1	8.0	4.5	1.3	2.1	9.3	16.0	20.9	24.0	25.8
22	24.8	22.1	18.2	14.2	10.4	7.7	8.9	15.2	20.6	24.3	26.8	27.4
M	25.1	20.9	16.1	11.3	7.6	4.4	1.9	3.7	9.8	15.6	19.9	22.9
23	24.6	24.0	21.8	18.4	14.9	11.5	9.2	10.5	15.2	19.4	23.0	25.3
Tu	26.0	24.2	20.9	16.4	11.9	8.2	5.1	2.8	4.1	8.8	14.2	18.3
24	21.9	24.2	24.3	22.8	19.8	16.3	12.8	10.2	10.3	13.0	16.9	20.9
W	23.9	25.4	24.8	22.3	18.0	13.5	9.5	6.0	3.2	3.3	6.9	12.2
25	17.0	21.7	24.7	25.6	24.6	21.6	17.7	13.5	10.0	8.4	9.8	13.9
Th	19.0	23.1	25.9	26.4	24.6	20.3	15.5	10.9	6.8	3.1	1.9	4.7
26	10.7	16.9	22.4	25.9	27.5	26.5	23.1	18.4	13.4	8.8	5.9	6.3
F	11.2	17.9	23.3	27.1	28.5	26.9	22.4	17.0	11.8	7.1	2.6	0.3
27	3.1	10.8	18.0	23.9	27.6	29.5	28.0	23.7	18.1	12.5	7.2	3.3
Sa	3.1	9.7	18.0	24.2	28.5	30.4	28.6	23.7	17.7	12.1	6.9	2.1
28	−1.0	3.2	12.6	20.0	25.8	29.6	31.0	28.3	23.1	17.0	11.2	5.6
Su	0.8	1.0	10.0	18.9	25.4	29.8	31.8	29.3	23.9	17.5	11.8	6.5
29	1.4	−1.5	5.5	15.6	22.6	28.0	31.5	31.6	27.6	21.6	15.4	9.7
M	4.1	−1.6	0.7	11.6	20.2	26.6	31.0	32.4	29.1	23.2	16.8	10.9
30	5.9	0.5	−0.5	9.4	18.8	25.3	30.3	32.9	31.1	26.0	19.6	13.7
Tu	8.1	2.2	−3.3	2.4	13.6	21.7	27.8	31.8	32.2	28.1	21.9	15.5
31	9.6	4.9	−0.1	2.6	13.8	21.8	27.8	32.1	33.1	29.6	23.7	17.4
W	11.8	6.3	−0.1	−3.3	5.3	15.6	23.1	28.7	32.1	31.2	26.6	20.3

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 14′N Long. 149° 53′W

APRIL

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	13.9	8.2	3.8	0.6	7.1	17.6	24.3	29.8	33.0	32.1	27.3	21.0
Th	15.2	9.6	4.2	−1.9	−1.3	8.6	17.4	24.3	29.3	31.6	29.7	24.7
2	18.5	12.2	7.0	3.3	3.3	11.8	20.3	26.2	30.7	32.4	29.8	24.5
F	18.3	12.8	7.5	2.3	−2.0	2.3	11.6	19.1	25.1	29.2	30.2	27.7
3	22.6	16.8	10.8	6.5	4.3	7.3	15.4	22.1	27.0	30.1	30.2	26.8
Sa	21.4	15.7	10.7	5.9	1.3	0.0	6.2	13.9	20.1	25.1	28.2	28.3
4	25.5	20.7	15.5	10.3	7.1	6.7	11.1	17.4	22.7	26.5	28.2	27.2
Su	23.8	18.7	13.7	9.2	5.1	1.7	3.0	9.1	15.2	20.3	24.3	26.6
5	26.3	23.6	19.5	15.0	10.8	8.7	9.6	13.3	17.8	22.1	24.8	25.5
M	24.3	21.3	17.0	12.7	8.8	5.4	3.4	5.6	10.6	15.5	19.6	23.1
6	25.0	24.8	22.6	19.3	15.4	12.0	10.5	11.3	13.5	16.7	20.3	22.5
Tu	23.0	22.4	20.2	16.7	12.8	9.5	6.5	5.1	6.8	10.7	14.6	18.5
7	22.0	24.0	24.1	22.7	20.0	16.5	13.3	11.6	11.2	11.9	14.6	18.1
W	20.4	21.7	21.8	20.5	17.6	14.0	10.7	7.7	5.9	6.6	9.6	13.4
8	17.7	21.6	24.0	24.5	23.7	21.0	17.4	13.9	11.2	9.4	9.4	12.3
Th	16.5	19.5	21.7	22.6	21.9	19.1	15.5	11.9	8.4	5.6	5.5	8.3
9	12.9	17.7	22.1	24.8	25.8	24.8	21.7	17.5	13.3	9.5	6.7	6.8
F	10.8	16.0	19.9	22.9	24.3	23.6	20.6	16.6	12.5	8.3	4.6	4.1
10	7.9	13.7	18.9	23.5	26.3	27.0	25.2	21.4	16.5	11.6	7.1	4.1
Sa	5.2	11.0	16.8	21.4	24.7	26.1	24.8	21.2	16.6	12.2	7.4	3.4
11	3.6	9.3	15.8	20.9	25.4	27.9	27.6	24.5	19.9	14.6	9.4	4.6
Su	2.0	5.3	12.6	18.7	23.5	26.6	27.3	25.1	20.8	15.8	11.2	6.3
12	2.6	4.8	12.4	18.7	23.6	27.6	29.1	27.0	22.8	17.5	12.3	7.0
M	2.2	1.2	7.4	15.1	21.0	25.6	28.2	27.7	24.3	19.3	14.2	9.7
13	5.0	2.6	7.9	16.3	21.8	26.4	29.5	29.2	25.4	20.2	14.9	9.9
Tu	4.6	0.2	2.2	10.5	17.8	23.5	27.5	29.1	27.1	22.9	17.4	12.3
14	8.0	3.9	4.3	12.4	19.9	24.9	28.8	30.5	28.1	23.1	17.5	12.3
W	7.5	2.2	−0.8	5.0	13.7	20.4	25.6	28.9	29.1	25.9	21.0	15.3
15	10.2	6.3	3.7	8.0	16.9	22.9	27.6	30.4	30.2	26.0	20.4	14.8
Th	10.0	5.2	−0.1	−0.1	8.5	16.4	22.6	27.1	29.5	28.3	24.3	19.0
16	13.4	8.4	5.1	5.1	12.7	20.4	25.4	29.4	30.9	28.5	23.3	17.6
F	12.4	7.7	2.9	−1.5	2.5	11.9	18.6	24.3	28.0	29.2	26.9	22.5
17	17.1	11.6	7.1	4.8	8.2	17.2	22.8	27.2	30.2	29.9	25.8	20.4
Sa	14.9	10.1	5.6	0.9	−1.2	6.0	14.5	20.5	25.3	28.1	28.1	25.2
18	20.5	15.4	10.3	6.5	5.9	12.2	20.1	24.4	28.2	29.8	27.9	23.0
Su	17.7	12.6	8.1	3.9	−0.1	0.7	9.1	16.3	21.8	25.6	27.6	26.7
19	23.6	18.9	14.3	9.6	6.7	7.9	15.2	21.3	25.1	28.1	28.6	25.7
M	20.9	15.7	10.9	6.7	3.0	0.0	3.1	10.9	17.4	22.2	25.4	26.9
20	25.6	22.5	18.1	13.8	9.7	7.4	9.6	16.0	20.9	24.8	27.1	27.2
Tu	24.2	19.8	14.8	10.3	6.3	2.9	0.9	4.6	11.4	17.5	21.8	25.0
21	26.4	25.3	22.2	18.1	14.0	10.2	8.1	10.0	14.7	19.3	23.3	25.7
W	26.2	23.9	20.1	15.3	10.8	6.8	3.5	1.9	4.9	10.8	16.8	21.1
22	24.8	26.4	25.8	23.0	19.0	14.7	10.8	8.2	8.6	11.9	16.8	21.4
Th	24.6	25.9	24.7	21.5	16.9	12.3	8.0	4.4	2.4	4.2	9.6	15.8
23	20.8	25.0	27.1	27.0	24.3	20.1	15.4	10.9	7.3	6.1	8.4	13.9
F	19.7	24.1	26.3	26.2	23.5	19.0	14.1	9.4	5.3	2.3	3.2	8.4
24	15.3	21.2	25.8	28.3	28.5	25.6	20.9	15.5	10.5	5.7	3.3	5.1
Sa	11.7	18.9	24.1	27.2	27.9	25.5	21.0	15.6	10.5	5.8	2.3	2.3
25	8.0	16.0	22.2	26.9	29.7	29.8	26.2	20.8	15.0	9.6	4.2	0.8
Su	2.5	10.9	18.9	24.6	28.1	29.4	26.9	22.1	16.3	11.0	6.1	2.3
26	2.0	9.2	17.7	23.7	28.4	31.0	30.2	25.8	19.9	14.1	8.4	3.0
M	−1.3	1.6	11.5	19.5	25.3	29.0	30.3	27.5	22.3	16.3	10.9	6.2
27	2.2	2.8	11.9	19.9	25.6	29.9	31.8	29.6	24.4	18.3	12.8	7.3
Tu	1.7	−2.8	2.6	12.9	20.7	26.2	29.8	30.5	27.1	21.5	15.6	10.3
28	6.1	2.2	5.2	15.3	22.3	27.7	31.3	31.8	28.2	22.4	16.5	11.2
W	6.1	0.1	−3.0	5.0	14.8	22.1	27.3	30.5	30.1	26.1	20.3	14.4
29	9.3	5.5	2.7	8.8	18.3	24.5	29.4	32.1	30.9	26.1	20.1	14.6
Th	9.5	4.5	−1.5	−1.2	8.1	16.7	23.7	28.3	30.7	29.2	24.5	18.7
30	12.9	8.2	4.9	4.5	12.8	20.7	26.3	30.5	31.8	29.0	23.6	17.7
F	12.6	7.5	2.6	−2.0	2.1	11.2	18.8	25.0	29.0	30.2	27.7	22.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

ANCHORAGE, ALASKA, 2010

Lat. 61° 14′N Long. 149° 53′W

MAY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	17.0	11.2	7.3	4.9	7.7	16.1	22.5	27.5	30.5	30.2	26.5	20.8
Sa	15.3	10.4	5.6	0.9	−0.6	6.1	14.0	20.7	26.0	29.1	29.1	25.8
2	20.7	15.2	9.9	6.8	6.1	11.2	18.3	23.6	27.6	29.2	27.8	23.6
Su	18.1	13.0	8.3	4.0	0.5	2.3	9.8	16.5	22.1	26.4	28.5	27.5
3	23.7	18.8	13.7	9.3	7.1	8.4	13.9	19.5	23.9	26.7	27.1	25.0
M	20.9	15.8	11.1	6.9	3.2	1.5	5.7	12.6	18.2	22.8	26.2	27.4
4	25.7	21.9	17.4	12.9	9.4	8.1	10.5	15.1	19.6	23.2	25.0	24.8
Tu	22.6	18.8	14.2	9.9	6.4	3.4	3.4	8.2	14.3	19.0	22.8	25.7
5	26.3	24.3	20.8	16.7	12.7	9.8	9.2	11.3	14.7	18.6	21.7	23.2
W	22.9	21.1	17.9	13.8	9.9	6.8	4.3	5.1	9.5	14.8	18.9	22.4
6	25.1	25.5	23.7	20.5	16.6	13.0	10.1	9.4	10.5	13.1	16.8	20.1
Th	21.8	22.1	20.8	18.3	14.5	10.9	7.8	5.6	6.0	9.6	14.5	18.6
7	22.2	24.9	25.4	23.9	20.8	17.0	13.2	9.9	8.3	8.4	10.9	15.0
F	18.9	21.3	22.2	21.6	19.6	16.0	12.3	8.9	6.4	6.0	9.1	14.0
8	18.5	22.3	25.3	26.0	24.5	21.2	17.2	12.8	9.0	6.3	5.9	8.9
Sa	14.0	18.5	21.6	23.2	23.1	21.2	17.5	13.5	9.8	6.6	5.5	8.8
9	14.3	19.1	23.1	26.2	26.8	24.9	21.1	16.6	11.8	7.3	4.0	3.8
Su	7.9	14.1	19.1	22.7	24.6	24.6	22.4	18.4	13.9	10.0	6.3	5.2
10	9.3	15.7	20.4	24.5	27.4	27.4	24.6	20.2	15.3	10.3	5.4	1.9
M	2.7	8.5	15.2	20.5	24.2	26.0	25.6	22.7	18.2	13.6	9.5	5.8
11	5.6	11.3	17.9	22.4	26.3	28.5	27.4	23.4	18.4	13.4	8.5	3.4
Tu	0.3	3.1	10.4	17.0	22.3	25.8	27.2	25.8	22.2	17.2	12.6	8.6
12	5.4	7.0	14.4	20.5	24.7	28.2	29.2	26.5	21.6	16.3	11.5	6.6
W	1.5	−0.5	4.9	12.8	19.2	24.2	27.3	27.8	25.3	20.9	15.7	11.2
13	7.4	5.4	9.8	17.8	23.0	27.1	29.7	29.1	24.9	19.5	14.2	9.6
Th	4.7	−0.3	−0.1	7.6	15.1	21.4	25.9	28.4	27.7	24.2	19.3	14.1
14	9.6	6.3	6.2	13.3	20.6	25.3	29.1	30.4	28.1	22.9	17.3	12.3
F	7.7	2.7	−1.7	1.7	10.4	17.3	23.3	27.3	28.9	27.1	22.9	17.7
15	12.4	8.1	5.6	8.3	16.8	22.7	27.2	30.2	30.1	26.2	20.8	15.3
Sa	10.4	5.8	0.7	−2.1	4.5	12.9	19.4	24.8	28.2	28.7	26.0	21.4
16	16.2	10.9	7.0	5.6	11.2	19.5	24.2	28.4	30.3	28.8	24.1	18.7
Su	13.4	8.6	4.0	−0.9	−0.9	7.5	15.1	21.2	25.9	28.5	28.0	24.8
17	19.9	14.8	9.7	6.4	6.6	14.0	20.9	25.3	28.8	29.7	27.0	22.0
M	16.7	11.6	6.8	2.4	−1.6	1.3	10.1	17.1	22.7	26.6	28.5	27.2
18	23.5	18.6	13.6	8.9	6.1	7.9	15.4	21.3	25.7	28.4	28.7	25.4
Tu	20.4	15.1	10.1	5.4	1.3	−1.2	3.7	12.0	18.7	23.6	27.1	28.3
19	26.5	22.5	17.6	12.7	8.5	6.0	8.6	15.2	20.8	25.2	27.6	27.5
W	24.3	19.6	14.3	9.4	4.8	1.1	−0.1	5.4	13.2	19.7	24.1	27.5
20	28.3	26.3	22.0	17.2	12.3	8.2	5.8	8.1	13.5	19.4	23.9	26.5
Th	26.7	24.0	19.6	14.5	9.6	5.2	1.7	1.2	6.2	13.7	19.9	24.4
21	27.8	28.5	26.6	22.2	17.2	12.3	8.0	5.1	6.3	10.9	17.2	22.2
F	25.5	26.3	24.5	20.6	15.8	10.8	6.3	2.9	2.2	6.5	13.6	19.8
22	24.6	28.0	29.0	27.1	22.7	17.5	12.4	7.7	4.0	3.8	8.0	14.8
Sa	20.7	24.7	26.3	25.5	22.2	17.6	12.5	7.8	4.2	3.0	6.4	13.3
23	19.9	24.8	28.3	29.6	27.7	23.1	17.7	12.3	7.2	2.7	1.5	5.3
Su	13.0	19.7	24.2	26.5	26.6	23.9	19.5	14.0	9.4	5.4	3.6	6.3
24	13.5	20.3	25.1	28.8	30.1	27.9	23.1	17.5	12.0	6.6	1.7	−0.5
M	3.6	12.3	19.3	24.0	26.9	27.7	25.3	20.6	15.1	10.3	6.3	4.1
25	6.6	14.6	21.0	25.9	29.4	30.3	27.5	22.4	16.7	11.4	6.0	0.9
Tu	−1.9	3.4	12.7	19.6	24.3	27.6	28.5	25.8	20.8	15.4	10.6	6.9
26	4.4	7.8	16.4	22.2	27.0	30.0	30.1	26.4	21.0	15.6	10.5	5.4
W	0.1	−2.3	4.8	13.8	20.6	25.1	28.3	28.7	25.4	20.1	14.8	10.2
27	7.0	4.7	10.1	18.4	23.8	28.2	30.4	29.3	24.8	19.2	14.2	9.3
Th	4.7	−0.9	−1.2	7.2	15.6	22.1	26.2	29.0	28.2	24.2	18.9	13.5
28	9.5	6.5	5.7	13.0	20.3	25.5	29.2	30.4	27.9	22.8	17.3	12.5
F	7.8	3.4	−1.5	1.4	10.1	17.8	23.7	27.4	29.1	27.2	22.6	17.3
29	11.9	8.5	5.9	7.8	15.8	22.0	26.9	29.7	29.6	26.0	20.5	15.3
Sa	10.6	6.1	1.7	−0.9	5.0	13.0	20.1	25.3	28.4	28.7	25.6	20.7
30	15.4	10.3	7.5	6.0	10.7	18.1	23.5	27.6	29.4	28.0	23.7	18.2
Su	13.2	8.5	4.3	0.3	1.4	8.9	16.0	22.2	26.6	28.8	27.6	23.7
31	18.7	13.4	9.0	6.7	7.4	13.5	19.8	24.5	27.5	28.2	25.8	21.2
M	15.8	10.9	6.5	2.6	0.3	4.9	12.5	18.7	23.9	27.5	28.4	26.0

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 14′N Long. 149° 53′W

JUNE

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	21.6	16.7	11.7	8.1	6.5	9.5	15.6	20.8	24.7	26.8	26.4	23.4
Tu	18.7	13.5	8.8	5.0	1.6	2.0	8.6	15.6	20.9	25.1	27.8	27.4
2	24.3	19.6	14.8	10.5	7.4	7.1	11.3	16.6	21.2	24.3	25.6	24.5
W	21.2	16.7	11.8	7.5	4.1	1.8	4.6	11.6	18.0	22.3	25.7	27.5
3	26.3	22.7	18.0	13.4	9.7	6.9	7.8	11.9	16.5	20.7	23.4	24.2
Th	22.8	19.7	15.6	10.9	7.2	4.2	3.2	7.0	13.6	19.3	23.0	25.9
4	27.0	25.3	21.5	16.9	12.7	9.1	6.6	7.8	11.2	15.6	19.6	22.3
F	23.1	21.8	19.1	15.6	11.3	7.8	5.1	5.1	8.6	14.6	19.8	23.2
5	25.7	26.5	24.7	20.9	16.4	12.3	8.5	6.2	6.9	9.7	14.0	18.3
Sa	21.4	22.4	21.6	19.6	16.5	12.6	9.1	6.7	6.6	9.4	14.9	19.8
6	23.1	25.5	26.3	24.4	20.6	16.2	12.1	8.0	5.4	5.2	7.9	12.6
Su	17.4	20.8	22.4	22.2	20.9	18.1	14.2	10.5	8.2	7.4	9.8	15.1
7	19.9	23.1	25.6	26.4	24.4	20.4	15.9	11.6	7.3	4.0	3.4	6.5
M	11.8	17.0	20.9	23.0	23.3	22.3	19.4	15.3	11.6	9.0	7.7	10.1
8	15.7	20.4	23.6	26.2	26.7	24.2	19.8	15.2	10.7	6.2	2.5	2.0
Tu	5.8	11.9	17.5	21.7	24.1	24.7	23.4	20.1	15.7	11.9	8.9	7.7
9	10.9	17.0	21.4	24.8	27.2	27.1	23.7	18.9	14.1	9.7	4.9	1.1
W	1.1	6.3	12.9	18.7	23.1	25.5	25.8	23.8	19.8	15.2	11.3	8.2
10	7.7	12.3	18.7	23.0	26.5	28.3	27.2	22.9	17.6	12.8	8.4	3.5
Th	−0.2	1.0	7.7	14.4	20.5	24.6	26.9	26.4	23.5	18.9	14.1	10.1
11	7.3	8.0	14.5	20.7	24.9	28.3	29.3	26.8	21.7	16.2	11.5	7.0
F	2.1	−1.5	1.8	9.6	16.3	22.4	26.2	27.9	26.4	22.6	17.6	12.7
12	8.7	6.4	9.0	16.8	22.4	26.8	29.7	29.7	25.9	20.5	14.9	10.1
Sa	5.5	0.5	−2.3	3.6	11.7	18.5	24.1	27.6	28.4	25.9	21.4	16.3
13	11.2	7.4	5.6	10.6	18.9	24.0	28.4	30.5	29.4	24.7	19.1	13.5
Su	8.7	4.0	−1.3	−2.1	6.1	13.9	20.6	25.7	28.7	28.4	25.1	20.2
14	14.9	9.8	6.1	5.4	12.7	20.4	25.4	29.3	30.7	28.4	23.2	17.6
M	12.1	7.0	2.3	−2.8	−0.5	8.8	16.3	22.6	27.1	29.4	28.0	24.1
15	18.9	13.5	8.6	4.9	5.8	14.4	21.3	26.3	29.5	30.3	27.1	21.7
Tu	16.0	10.5	5.4	0.6	−3.3	2.2	11.6	18.8	24.4	28.4	29.7	27.4
16	22.9	17.6	12.0	7.4	3.8	6.6	15.1	21.7	26.5	29.3	29.5	25.7
W	20.3	14.6	9.0	4.0	−0.7	−2.3	5.1	14.2	21.1	26.0	29.6	29.7
17	26.8	21.7	16.2	10.8	6.2	3.1	6.9	14.7	21.4	26.0	28.7	28.4
Th	24.6	19.3	13.6	8.0	3.2	−0.9	−0.2	7.7	16.3	22.7	27.2	30.2
18	29.7	26.1	20.7	15.1	9.9	5.2	2.5	6.4	13.5	20.3	24.9	27.7
F	27.3	24.0	18.9	13.5	8.0	3.4	0.2	2.1	9.6	17.7	23.5	27.8
19	30.2	29.5	25.6	20.0	14.5	9.3	4.5	2.0	5.1	11.6	18.5	23.4
Sa	26.3	26.3	23.8	19.4	14.4	9.0	4.8	2.3	4.2	10.7	18.2	23.6
20	27.7	29.9	29.1	25.2	19.8	14.3	9.1	4.2	1.4	3.3	9.4	16.5
Su	21.7	24.9	25.7	24.3	20.8	16.1	10.8	6.9	4.5	5.7	11.0	18.0
21	23.2	27.0	29.3	28.7	24.9	19.8	14.4	9.3	4.2	0.9	1.6	7.2
M	14.7	20.2	23.7	25.5	25.2	22.5	17.9	12.9	9.1	6.3	6.5	10.9
22	17.7	22.6	26.4	28.8	28.4	24.6	19.7	14.5	9.4	4.3	0.5	0.1
Tu	5.8	13.6	19.3	23.2	25.8	26.3	23.9	19.3	14.4	10.5	7.5	6.7
23	10.8	17.7	22.4	26.3	28.6	28.0	24.2	19.3	14.3	9.3	4.3	0.1
W	−0.9	5.7	13.6	19.4	23.4	26.6	27.2	24.5	19.7	14.9	10.9	7.9
24	6.5	11.4	18.2	22.8	26.6	28.6	27.5	23.3	18.4	13.6	8.8	4.3
Th	−0.5	−0.7	6.9	14.6	20.4	24.3	27.4	27.4	24.1	19.1	14.2	10.5
25	7.5	6.6	12.9	19.3	24.0	27.4	28.8	26.7	22.1	17.1	12.5	8.0
F	3.7	−1.2	0.9	9.1	16.6	22.0	25.7	28.0	26.8	22.8	17.7	12.7
26	9.6	6.6	7.5	14.9	20.9	25.4	28.2	28.7	25.5	20.4	15.6	10.9
Sa	6.8	2.3	−1.2	3.8	12.0	19.1	23.9	27.1	28.0	25.5	21.0	15.7
27	11.0	8.3	5.9	9.6	17.1	22.6	26.8	28.8	28.0	23.9	18.5	13.7
Su	9.1	5.2	0.6	0.4	7.6	15.2	21.6	25.8	28.2	27.3	23.7	18.8
28	13.5	9.3	6.7	6.3	12.4	19.2	24.3	27.6	28.8	26.7	21.8	16.3
M	11.5	7.1	3.1	−0.2	3.7	11.6	18.4	23.9	27.5	28.4	26.0	21.5
29	16.5	11.3	7.7	5.5	8.0	15.1	21.0	25.4	27.9	27.9	24.7	19.4
Tu	14.0	9.1	5.1	1.1	0.9	7.9	15.5	21.4	25.9	28.5	27.8	24.1
30	19.2	14.1	9.5	6.1	5.4	10.5	17.2	22.4	25.9	27.5	26.3	22.3
W	17.0	11.6	7.0	3.3	0.4	3.9	12.2	19.0	23.8	27.4	28.7	26.5

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

ANCHORAGE, ALASKA, 2010

Lat. 61° 14′N Long. 149° 53′W

JULY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	22.0	16.8	11.9	7.8	4.8	6.3	12.7	18.6	23.1	25.9	26.6	24.2
Th	20.0	14.8	9.6	5.5	2.2	1.6	7.8	15.8	21.7	25.5	28.2	28.1
2	24.8	19.8	14.5	10.1	6.3	4.2	7.7	13.8	19.2	23.1	25.4	25.1
F	22.3	18.1	13.3	8.5	4.9	2.5	4.5	11.4	18.5	23.5	26.5	28.1
3	26.9	23.0	17.8	12.7	8.8	5.1	4.3	8.5	13.9	18.9	22.5	24.4
Sa	23.6	20.8	17.2	12.9	8.6	5.4	4.3	7.7	13.8	20.1	24.1	26.5
4	27.3	25.6	21.5	16.3	11.7	8.0	4.5	4.5	8.2	13.2	17.9	21.4
Su	23.2	22.5	20.2	17.3	13.6	9.7	6.9	6.9	10.1	15.1	20.6	24.0
5	25.9	26.2	24.4	20.4	15.5	11.3	7.6	4.3	4.3	7.3	12.0	16.5
M	20.3	22.2	22.0	20.6	18.4	15.1	11.4	8.9	9.1	11.3	15.6	20.4
6	23.4	25.2	25.6	23.8	19.8	15.2	11.2	7.4	4.1	3.5	6.0	10.6
Tu	15.3	19.5	21.9	22.4	21.7	19.9	16.6	12.9	10.5	10.0	11.5	15.7
7	20.2	23.1	25.0	25.6	23.8	19.7	15.1	11.1	7.1	3.5	2.3	4.8
W	9.6	14.8	19.5	22.4	23.6	23.3	21.3	17.7	13.7	11.0	9.7	11.1
8	15.7	20.2	23.3	25.7	26.3	24.1	19.7	15.0	10.7	6.6	2.6	1.1
Th	3.9	9.3	15.1	20.4	23.6	25.2	24.6	21.9	17.8	13.6	10.2	8.7
9	10.7	16.1	20.9	24.5	27.1	27.4	24.6	19.6	14.5	10.1	5.7	1.4
F	−0.2	3.5	10.0	16.4	22.0	25.3	26.7	25.3	21.8	17.1	12.5	8.8
10	7.4	10.4	17.2	22.2	26.3	28.8	28.5	24.8	19.3	13.8	9.3	4.6
Sa	0.1	−1.4	4.1	11.5	18.5	23.8	27.0	27.8	25.4	21.0	15.9	11.0
11	7.3	6.0	10.9	18.6	23.8	28.1	30.2	29.2	24.5	18.6	13.0	8.3
Su	3.5	−1.5	−1.9	5.8	13.7	20.7	25.6	28.6	28.3	24.9	19.9	14.5
12	9.4	5.7	4.9	12.0	20.1	25.4	29.6	31.3	29.2	23.8	17.7	12.0
M	7.0	2.1	−3.3	−1.0	8.5	16.3	23.0	27.5	29.7	28.2	24.0	18.6
13	13.0	8.0	3.9	4.4	13.6	21.3	26.8	30.5	31.7	28.5	22.7	16.5
Tu	10.7	5.6	0.3	−4.4	1.5	11.6	19.2	25.2	29.3	30.4	27.7	22.8
14	17.1	11.4	6.5	2.0	4.8	14.9	22.3	27.5	31.0	31.4	27.3	21.4
W	15.1	9.1	4.0	−1.6	−3.8	5.1	15.0	22.0	27.3	31.0	30.6	26.9
15	21.3	15.5	9.8	4.7	0.5	5.8	15.7	22.9	27.8	31.0	30.5	25.9
Th	19.9	13.6	7.6	2.5	−2.6	−1.3	9.0	18.1	24.4	29.2	31.9	30.2
16	25.7	19.7	13.8	8.3	2.8	0.0	6.6	15.8	22.8	27.5	30.3	29.0
F	24.5	18.6	12.5	6.5	1.7	−1.8	2.3	12.3	20.6	26.2	30.5	31.9
17	29.4	24.2	18.1	12.3	6.9	1.5	0.3	6.9	15.3	22.0	26.5	28.8
Sa	27.4	23.4	17.9	12.1	6.5	2.3	0.7	5.8	14.6	22.0	26.9	30.5
18	31.1	28.2	22.7	16.9	11.4	6.1	1.2	0.8	6.4	14.0	20.5	24.8
Su	26.8	26.0	22.8	18.2	12.8	7.7	4.4	3.9	8.4	15.7	22.1	26.4
19	29.3	29.7	26.9	21.7	16.4	11.2	6.1	1.7	1.3	5.4	12.2	18.4
M	22.6	24.9	25.1	23.1	19.4	14.5	10.0	7.3	6.7	9.6	15.5	21.2
20	25.0	27.6	28.3	25.9	21.3	16.5	11.6	6.8	2.6	1.4	4.0	10.1
Tu	16.4	20.7	23.5	24.9	24.1	21.2	16.5	12.5	9.8	8.3	9.7	14.5
21	19.8	23.3	26.2	27.2	25.4	21.3	16.9	12.2	7.5	3.3	1.2	2.5
W	8.6	15.0	19.6	23.0	25.4	25.5	22.8	18.2	14.3	11.0	8.7	8.8
22	13.4	18.7	22.4	25.5	26.8	25.3	21.5	17.1	12.6	7.9	3.7	0.5
Th	1.4	8.2	14.8	19.8	23.5	26.5	26.5	23.5	18.9	14.6	11.0	8.1
23	7.7	13.2	18.5	22.5	25.8	27.1	25.3	21.3	16.8	12.3	7.7	3.5
F	−0.5	1.7	9.2	16.0	20.9	24.7	27.5	26.7	23.1	18.2	13.5	10.1
24	6.8	7.4	14.0	19.4	23.7	26.7	27.6	25.0	20.5	15.9	11.3	7.0
Sa	2.5	−1.1	3.6	11.5	18.3	22.8	26.3	27.9	25.9	21.6	16.3	11.7
25	8.6	5.4	8.5	15.8	21.2	25.4	27.9	27.8	24.0	19.1	14.3	9.7
Su	5.7	0.8	−0.1	6.9	14.7	21.0	25.0	27.7	27.4	24.2	19.3	13.8
26	9.8	6.6	5.1	11.0	18.1	23.3	27.0	28.9	27.2	22.5	17.2	12.4
M	7.9	3.7	−0.4	2.8	11.0	18.2	23.7	27.1	28.3	26.1	21.8	16.7
27	11.4	7.8	4.7	6.4	14.0	20.5	25.3	28.3	28.9	25.8	20.4	14.9
Tu	10.1	5.9	1.4	0.2	7.3	15.3	21.5	26.2	28.7	27.9	24.2	19.2
28	13.9	9.2	5.6	3.9	9.1	16.9	22.7	26.7	29.0	28.0	23.7	18.0
W	12.4	7.8	3.7	0.1	3.3	12.2	19.3	24.5	28.2	29.3	26.6	21.8
29	16.4	11.4	7.0	3.6	4.9	12.3	19.3	24.3	27.6	28.6	26.1	21.2
Th	15.4	10.0	5.7	1.9	1.0	8.1	16.7	22.7	26.8	29.5	28.6	24.5
30	19.0	13.6	9.0	4.9	2.5	7.2	15.0	21.1	25.3	27.8	27.3	23.7
F	18.7	13.1	7.9	4.2	1.4	4.4	13.0	20.4	25.3	28.4	29.4	26.9
31	21.9	16.2	11.1	7.0	3.0	2.9	9.7	16.7	22.1	25.6	27.1	25.4
Sa	21.4	16.6	11.4	6.8	3.7	3.1	9.1	17.0	23.0	26.8	28.8	28.2

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 14′N Long. 149° 53′W

AUGUST

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	24.6	19.3	13.7	9.1	5.4	2.1	4.5	11.4	17.5	22.2	25.0	25.6
Su	23.3	19.7	15.4	10.8	6.8	4.6	6.6	13.2	19.4	24.3	27.1	27.9
2	26.2	22.3	17.0	11.9	8.0	4.5	2.3	5.9	11.9	17.3	21.3	23.8
M	23.9	21.9	18.8	15.3	11.4	8.0	6.9	10.2	15.6	20.5	24.4	26.3
3	26.4	24.3	20.6	15.6	11.1	7.7	4.3	3.0	6.4	11.4	16.2	19.8
Tu	22.3	22.6	21.3	19.1	16.3	12.9	9.9	9.4	12.4	16.2	20.4	23.5
4	25.1	25.1	23.3	19.8	15.2	11.2	7.9	4.6	3.5	5.9	10.2	14.5
W	18.3	21.3	22.3	21.9	20.4	17.9	14.6	11.6	11.0	12.6	15.6	19.5
5	22.4	24.2	24.7	23.4	20.2	15.7	11.8	8.3	4.8	3.0	4.6	8.6
Th	13.0	17.5	21.3	23.1	23.3	22.1	19.4	15.7	12.4	10.8	11.3	14.3
6	18.5	21.8	24.4	25.6	24.6	21.3	16.6	12.3	8.4	4.5	2.0	2.9
F	7.0	12.3	17.9	22.4	24.6	25.2	23.6	20.3	15.9	12.0	9.4	9.4
7	12.8	18.1	22.2	25.7	27.3	26.4	22.5	17.3	12.4	8.1	3.7	0.6
Sa	1.2	6.3	12.9	19.4	24.0	26.5	26.9	24.5	20.2	15.2	10.5	7.4
8	7.2	12.0	18.6	23.6	27.6	29.3	28.0	23.3	17.5	12.1	7.5	2.7
Su	-1.1	0.0	7.2	14.7	21.6	26.0	28.5	27.9	24.4	19.2	13.8	8.7
9	5.3	5.2	12.1	19.8	25.3	29.5	31.2	29.0	23.4	17.1	11.5	6.6
M	1.6	-2.8	0.2	9.4	17.4	23.9	28.1	30.0	28.2	23.6	17.9	12.2
10	7.1	3.1	4.0	13.2	21.3	27.0	31.0	32.4	29.0	22.9	16.4	10.6
Tu	5.6	0.1	-4.1	2.4	12.7	20.3	26.3	30.2	30.9	27.7	22.3	16.3
11	10.6	5.5	0.7	3.9	14.9	22.7	28.3	32.1	32.7	28.3	21.9	15.3
W	9.4	4.3	-1.7	-3.6	6.3	16.2	23.3	28.7	32.0	30.9	26.6	20.6
12	14.6	9.0	3.4	-1.2	5.2	16.4	23.8	29.1	32.6	32.0	27.0	20.5
Th	13.9	7.9	2.8	-3.0	-1.0	10.7	19.7	26.0	30.9	33.0	30.3	25.0
13	18.8	12.8	7.3	1.0	-1.8	7.0	17.4	24.4	29.4	32.4	30.7	25.5
F	18.9	12.4	6.4	1.4	-2.6	3.4	14.8	22.6	28.2	32.4	32.8	29.0
14	23.0	16.8	10.9	5.4	-0.9	-0.9	8.7	18.0	24.6	29.1	31.2	28.9
Sa	23.8	17.6	11.2	5.5	1.1	-0.1	7.9	17.8	24.7	29.5	32.6	31.6
15	27.1	20.9	15.0	9.4	3.8	-1.4	0.9	9.7	18.0	24.0	28.0	29.3
Su	27.1	22.5	16.8	10.8	5.8	2.6	3.8	11.4	19.5	25.4	29.4	31.3
16	29.6	25.0	19.1	13.7	8.5	3.2	-0.3	2.7	9.9	17.1	22.5	26.0
M	27.1	25.5	21.8	16.9	11.5	7.4	5.6	7.5	13.3	19.8	24.7	27.8
17	29.0	27.4	23.3	18.1	13.3	8.5	3.8	1.4	3.8	9.3	15.4	20.4
Tu	23.7	25.2	24.6	22.1	18.1	13.3	10.1	8.8	9.7	13.4	18.6	22.8
18	25.3	26.6	25.7	22.3	18.0	13.7	9.3	5.2	3.0	4.1	7.8	13.4
W	18.3	21.8	24.0	24.6	23.2	19.8	15.6	12.7	10.8	10.1	12.1	16.7
19	20.5	23.1	25.0	24.9	22.4	18.6	14.6	10.4	6.4	3.8	3.3	6.0
Th	11.7	16.9	21.0	23.8	25.5	24.7	21.5	17.3	14.1	11.1	9.1	10.2
20	14.9	18.9	22.0	24.6	25.2	23.1	19.5	15.4	11.1	6.9	3.7	1.9
F	4.9	11.3	17.0	21.3	24.7	26.8	25.8	22.2	17.7	13.7	10.1	7.2
21	8.6	14.2	18.6	22.5	25.4	26.1	23.7	19.8	15.5	11.0	6.5	2.7
Sa	0.7	5.4	12.5	18.4	22.7	26.3	27.8	25.9	21.6	16.6	12.1	8.3
22	5.2	8.3	14.9	19.8	24.0	26.9	27.0	23.8	19.3	14.7	10.0	5.5
Su	1.1	0.9	7.7	15.0	20.8	24.8	27.8	27.8	24.7	19.7	14.3	9.9
23	6.0	4.2	9.9	16.8	22.0	26.1	28.4	27.2	23.0	18.0	13.2	8.4
M	3.8	-0.1	3.2	11.3	18.2	23.6	27.1	28.6	26.7	22.5	17.0	11.6
24	7.6	3.8	5.0	12.8	19.5	24.5	28.1	29.2	26.4	21.3	16.0	11.2
Tu	6.6	1.7	0.4	7.5	15.5	21.7	26.3	28.9	28.2	24.7	19.6	14.0
25	9.1	5.2	2.7	7.6	16.0	22.2	26.7	29.5	28.9	24.7	19.1	13.6
W	9.0	4.5	0.4	3.5	12.5	19.6	24.9	28.7	29.6	26.8	22.0	16.5
26	11.3	6.8	2.8	3.4	11.3	19.1	24.5	28.3	29.9	27.5	22.5	16.6
Th	11.2	6.8	2.5	1.1	8.5	17.3	23.2	27.6	30.2	29.0	24.6	19.0
27	13.6	8.8	4.3	1.4	6.1	14.9	21.6	26.3	29.2	29.1	25.4	20.0
F	14.1	8.8	4.9	1.7	4.6	13.9	21.3	26.2	29.5	30.3	27.1	21.7
28	15.8	10.8	6.4	2.0	1.8	9.7	17.7	23.4	27.3	29.1	27.3	23.0
Sa	17.6	11.8	7.0	3.7	3.0	9.9	18.5	24.3	28.2	30.2	28.8	24.2
29	18.4	12.9	8.4	4.3	0.7	4.2	12.9	19.6	24.5	27.5	27.9	25.1
Su	20.6	15.5	10.2	6.1	3.9	6.8	15.2	21.7	26.2	28.9	29.3	26.2
30	21.1	15.4	10.5	6.6	2.8	1.1	7.3	15.0	20.6	24.6	26.6	25.9
M	22.9	18.8	14.2	9.6	6.4	5.9	11.4	18.7	23.4	26.9	28.4	27.2
31	23.3	18.4	13.1	8.9	5.6	2.2	2.8	9.5	15.8	20.5	23.7	25.1
Tu	24.0	21.4	17.8	14.0	10.2	7.7	8.9	14.9	20.1	23.7	26.3	26.9

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

ANCHORAGE, ALASKA, 2010

Lat. 61° 14′N Long. 149° 53′W

SEPTEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	25.0	21.2	16.6	12.0	8.4	5.4	2.7	4.5	10.2	15.4	19.4	22.2
W	23.6	22.9	20.9	18.1	14.9	11.6	9.6	11.4	16.0	19.7	22.9	24.9
2	25.3	23.6	20.5	16.3	12.1	8.8	5.8	3.5	5.1	9.4	14.0	17.6
Th	20.9	22.9	22.9	21.7	19.3	16.4	13.1	11.1	12.1	14.9	18.1	21.4
3	23.5	24.6	23.7	21.3	17.3	13.2	9.7	6.4	3.8	4.3	7.7	12.0
F	16.1	20.5	23.2	24.0	23.3	21.1	17.8	14.1	11.3	10.7	12.4	16.0
4	19.9	23.0	25.1	25.2	23.2	19.1	14.6	10.5	6.7	3.3	2.7	5.5
Sa	10.4	15.8	21.2	24.5	26.0	25.4	22.6	18.4	13.9	10.1	8.2	9.5
5	14.0	19.3	23.6	26.7	27.5	25.5	20.9	15.7	10.9	6.4	2.3	0.8
Su	3.7	10.2	17.0	23.0	26.5	28.2	27.0	23.2	18.0	12.8	8.1	5.5
6	6.6	13.0	19.8	25.2	28.8	29.9	27.4	22.0	16.1	10.8	5.8	1.2
M	−1.0	3.3	11.7	19.2	25.2	28.7	30.0	27.7	22.8	16.8	11.1	6.1
7	2.8	4.6	13.3	21.0	26.9	30.8	31.8	28.3	22.3	15.8	10.3	5.1
Tu	0.0	−2.2	4.9	14.6	21.9	27.5	30.9	31.0	27.3	21.5	15.3	9.5
8	4.3	0.1	4.0	14.7	22.6	28.5	32.3	32.7	28.3	21.8	15.1	9.5
W	4.3	−1.3	−1.7	8.5	18.0	24.8	29.9	32.6	31.0	26.1	19.7	13.6
9	8.0	2.3	−2.0	5.1	16.4	24.0	29.7	33.2	32.5	27.4	20.7	14.0
Th	8.3	3.2	−2.3	0.9	12.9	21.3	27.5	32.1	33.4	30.1	24.3	17.8
10	11.9	6.4	−0.1	−2.6	7.3	18.0	25.2	30.4	33.4	31.5	26.0	19.2
F	12.7	7.1	2.1	−1.9	5.3	17.0	24.2	29.9	33.6	33.1	28.4	22.0
11	15.8	10.1	4.5	−2.2	−1.4	9.8	19.3	25.9	30.7	32.7	30.0	24.4
Sa	17.7	11.3	6.0	1.4	0.5	10.2	20.2	26.5	31.4	33.9	31.6	26.1
12	19.7	13.8	8.3	2.5	−2.9	1.3	11.8	20.2	26.2	30.3	31.2	28.2
Su	22.6	16.4	10.2	5.5	2.1	4.5	14.2	22.2	27.7	31.6	32.5	29.2
13	23.6	17.4	12.1	6.7	1.2	−1.7	4.3	13.2	20.5	25.7	29.0	29.3
M	26.3	21.2	15.6	9.9	6.1	4.5	8.7	16.5	23.0	27.5	30.2	30.0
14	26.5	21.2	15.8	10.9	6.0	1.4	0.9	6.7	13.8	19.9	24.4	27.1
Tu	27.2	24.7	20.5	15.5	10.7	8.0	7.8	11.5	17.1	22.4	25.9	27.5
15	27.0	24.2	19.6	15.0	10.6	6.3	2.9	3.4	7.9	13.4	18.5	22.5
W	25.0	25.5	23.9	20.8	16.5	12.5	10.6	10.4	12.3	16.2	20.5	23.3
16	24.7	24.7	22.7	19.1	15.2	11.3	7.5	4.8	5.0	7.8	12.0	16.8
Th	20.8	23.5	24.7	24.2	21.8	18.1	14.5	12.5	11.2	11.3	14.1	18.1
17	20.8	22.7	23.6	22.6	19.7	16.2	12.5	8.8	5.9	5.2	6.6	10.4
F	15.5	19.9	23.1	25.0	25.3	23.2	19.5	15.8	12.9	10.2	9.2	11.6
18	16.1	19.3	22.2	23.9	23.6	21.0	17.4	13.5	9.5	6.0	4.3	5.1
Sa	9.6	15.3	20.2	23.8	26.2	26.5	24.1	19.9	15.6	11.6	8.1	6.6
19	10.1	15.4	19.5	23.1	25.3	25.1	22.1	18.1	13.8	9.2	5.1	2.8
Su	4.4	10.4	16.6	21.8	25.4	27.7	27.2	23.9	19.0	13.9	9.4	5.5
20	4.7	10.2	16.3	21.1	25.0	27.1	26.2	22.5	17.9	13.2	8.1	3.7
M	1.6	5.6	12.8	19.0	24.0	27.4	28.6	26.7	22.3	16.8	11.5	6.9
21	3.1	4.6	12.0	18.3	23.4	27.1	28.5	26.2	21.7	16.6	11.7	6.6
Tu	2.1	2.0	8.9	16.2	22.0	26.6	29.1	28.4	24.9	19.7	14.0	8.9
22	4.3	1.7	6.6	14.9	21.0	25.9	28.9	28.8	25.3	20.0	14.7	9.9
W	5.0	1.2	4.7	13.4	19.9	25.2	29.0	29.8	27.0	22.2	16.6	11.2
23	6.4	2.0	2.3	10.1	18.0	23.7	28.0	29.9	28.0	23.5	17.8	12.5
Th	8.0	3.4	2.1	9.4	17.9	23.5	28.1	30.5	29.1	24.7	19.1	13.7
24	8.7	3.9	0.5	4.8	13.9	20.9	26.0	29.4	29.8	26.5	21.2	15.3
F	10.3	6.2	2.6	5.3	14.7	21.8	26.6	30.1	30.7	27.2	21.7	16.0
25	10.9	6.3	1.5	0.9	8.7	17.2	23.3	27.7	30.0	28.6	24.4	18.8
Sa	13.0	8.3	4.8	3.6	10.4	19.2	24.8	28.9	31.0	29.3	24.4	18.5
26	13.1	8.5	3.9	−0.1	3.4	12.6	19.7	25.1	28.5	29.4	26.8	22.1
Su	16.5	11.0	6.8	4.4	7.0	15.8	22.4	27.0	30.0	30.2	26.6	21.1
27	15.4	10.5	6.4	2.0	0.1	7.1	15.6	21.5	26.1	28.4	27.9	24.6
M	19.9	14.7	9.7	6.3	5.7	11.8	19.8	24.4	28.1	29.7	28.0	23.3
28	17.9	12.7	8.5	4.7	1.0	2.2	10.6	17.4	22.6	26.0	27.4	26.0
Tu	22.6	18.1	13.6	9.2	6.8	8.5	16.1	21.9	25.4	28.0	28.3	25.3
29	20.4	15.4	10.8	7.2	3.9	1.2	5.0	12.7	18.3	22.6	25.2	25.9
W	24.3	21.2	17.2	13.3	9.7	8.2	11.6	18.3	22.2	25.2	26.9	26.4
30	23.0	18.7	14.0	10.0	6.8	3.8	2.4	7.0	13.2	18.1	21.6	24.1
Th	24.8	23.5	20.8	17.4	13.9	10.8	9.8	13.2	17.9	21.2	24.0	25.4

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 14′N Long. 149° 53′W

OCTOBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	24.9	22.1	18.5	14.1	10.4	7.3	4.3	3.5	7.2	12.4	17.0	20.4
F	23.4	24.4	23.8	21.5	18.4	15.0	11.8	10.4	12.4	15.7	19.2	22.3
2	24.3	24.6	22.9	19.7	15.5	11.6	8.2	4.9	3.7	6.1	10.7	15.5
Sa	19.7	23.6	25.2	25.1	23.1	19.8	15.8	12.0	9.6	9.9	12.5	16.8
3	20.9	24.2	25.6	24.9	22.0	17.5	13.1	9.0	5.2	2.9	4.3	9.0
Su	14.6	20.1	24.6	26.8	27.2	24.8	20.8	16.0	11.3	7.6	6.6	9.1
4	14.8	20.5	25.0	27.4	27.4	24.4	19.4	14.3	9.5	4.9	1.8	2.5
M	8.0	15.1	21.5	26.4	29.0	29.1	26.0	21.0	15.3	9.9	5.2	3.3
5	6.3	14.1	21.1	26.4	29.4	29.7	26.2	20.7	14.8	9.5	4.4	0.7
Tu	1.4	8.7	17.0	23.6	28.5	31.0	30.3	26.1	20.1	14.0	8.2	3.1
6	0.4	4.9	14.6	22.2	27.9	31.1	31.2	27.0	21.0	14.7	9.2	4.0
W	0.0	1.6	11.3	19.7	26.1	30.6	32.6	30.4	25.1	18.5	12.5	6.7
7	1.2	−1.8	5.3	16.0	23.6	29.1	32.3	31.7	26.9	20.4	14.1	8.6
Th	3.6	−0.5	3.8	14.9	22.6	28.6	32.5	33.2	29.4	23.3	16.7	10.9
8	5.4	−0.8	−2.6	7.2	17.6	24.9	30.0	32.9	31.2	26.0	19.3	13.1
F	7.8	3.0	0.0	7.7	18.5	25.2	30.7	33.8	32.7	27.6	21.1	14.9
9	9.4	3.8	−2.7	−1.5	9.8	19.2	26.0	30.7	32.7	30.1	24.5	17.9
Sa	11.8	6.9	2.5	2.0	12.2	21.5	27.5	32.3	34.1	31.1	25.2	18.8
10	13.1	7.7	2.0	−3.5	1.4	12.3	20.6	26.9	31.0	31.9	28.6	22.8
Su	16.5	10.5	6.2	2.6	5.6	16.0	23.6	29.0	32.7	32.9	28.7	22.6
11	16.6	11.2	6.0	0.4	−2.4	5.0	14.5	21.9	27.3	30.6	30.5	26.8
M	21.1	15.2	9.5	6.0	4.2	9.7	18.6	24.8	29.3	31.7	30.5	25.9
12	20.0	14.6	9.5	4.6	−0.1	0.4	8.3	16.1	22.5	27.0	29.5	28.7
Tu	24.9	19.7	14.2	9.4	6.8	7.0	12.9	19.7	24.9	28.3	29.4	27.5
13	23.2	17.8	13.0	8.4	4.1	1.0	3.8	10.7	17.1	22.3	26.1	27.8
W	26.8	23.4	18.9	13.9	10.1	8.5	9.9	14.5	19.6	23.8	26.1	26.5
14	24.7	21.0	16.4	12.2	8.2	4.5	3.1	6.5	12.0	17.1	21.5	24.8
Th	26.2	25.4	22.6	18.8	14.5	11.5	10.4	11.4	14.2	18.2	21.7	23.5
15	23.9	22.9	20.0	16.2	12.4	8.9	5.8	5.1	7.8	12.0	16.3	20.4
F	23.7	25.2	24.7	22.7	19.4	15.6	12.7	11.3	11.0	12.6	16.1	19.4
16	21.4	22.5	22.3	20.3	16.9	13.4	10.0	7.0	6.0	7.8	11.2	15.4
Sa	19.7	23.2	25.0	25.1	23.5	20.3	16.4	13.1	10.6	9.1	10.1	13.9
17	17.8	20.5	22.5	23.0	21.6	18.3	14.8	11.0	7.5	5.7	6.8	10.2
Su	15.1	19.9	23.7	25.8	26.2	24.3	20.7	16.3	12.2	8.6	6.4	7.7
18	12.6	17.3	21.0	23.7	24.6	23.2	19.7	15.6	11.4	7.2	4.7	5.8
M	10.3	16.0	21.0	25.1	27.2	27.2	24.5	20.2	15.1	10.3	6.0	3.8
19	6.4	12.9	18.2	22.6	25.5	26.4	24.4	20.3	15.7	11.0	6.2	3.7
Tu	5.7	11.9	17.8	23.0	26.9	28.5	27.3	23.6	18.5	13.0	7.8	3.4
20	2.1	7.1	14.4	20.1	24.6	27.3	27.4	24.6	19.8	14.9	10.0	5.2
W	3.2	7.4	14.9	20.5	25.4	28.8	29.1	26.3	21.6	16.1	10.6	5.4
21	1.3	2.1	9.4	16.8	22.4	26.6	28.6	27.5	23.7	18.4	13.4	8.6
Th	4.2	4.0	11.0	18.4	23.5	27.9	30.1	28.6	24.2	18.8	13.5	8.2
22	3.1	0.0	4.0	12.6	19.5	24.8	28.4	29.1	26.6	21.9	16.4	11.6
F	7.2	3.8	6.8	15.4	21.8	26.4	29.9	30.4	26.9	21.5	16.0	10.9
23	6.0	1.0	0.2	7.4	15.8	22.1	26.8	29.5	28.7	25.1	19.7	14.2
Sa	9.7	6.0	4.6	11.1	19.4	24.7	28.9	31.0	29.3	24.4	18.6	13.3
24	8.6	3.7	−0.5	2.3	11.1	18.5	24.3	28.2	29.7	27.6	23.1	17.6
Su	12.2	8.1	5.3	7.2	15.8	22.4	27.1	30.3	30.6	27.0	21.5	15.8
25	11.0	6.5	1.7	−0.7	5.8	14.3	20.8	25.9	28.9	29.0	25.9	21.1
M	15.6	10.5	7.0	5.9	11.3	19.6	24.5	28.6	30.5	28.9	24.1	18.6
26	13.4	8.8	4.6	0.2	1.0	9.5	16.7	22.6	26.7	28.7	27.6	24.1
Tu	19.2	14.1	9.3	6.7	7.9	15.5	22.0	25.9	29.1	29.5	26.3	21.2
27	15.9	11.2	7.0	3.1	−0.1	4.0	12.5	18.6	23.7	26.8	27.8	26.0
W	22.3	17.7	13.0	8.9	7.2	10.7	18.4	22.9	26.4	28.5	27.7	23.7
28	18.8	13.9	9.6	5.8	2.3	0.9	7.0	14.3	19.8	23.9	26.5	26.8
Th	24.7	21.0	16.7	12.5	9.1	8.3	12.9	19.1	22.9	26.0	27.2	25.9
29	22.0	17.4	12.8	8.8	5.4	2.3	2.5	8.7	15.1	20.2	23.7	26.1
F	26.1	24.1	20.5	16.5	12.6	9.5	9.1	13.2	17.9	21.8	24.7	26.0
30	24.8	21.5	17.3	12.9	9.0	5.6	2.8	3.7	9.0	15.0	19.8	23.4
Sa	26.0	26.2	24.4	20.9	16.9	13.0	9.7	8.8	11.4	15.4	19.9	23.3
31	25.3	24.9	22.4	18.5	14.1	10.0	6.4	3.5	3.9	8.3	14.3	19.3
Su	23.6	26.5	27.1	25.5	21.9	17.6	13.1	9.2	7.2	8.3	12.3	17.7

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

ANCHORAGE, ALASKA, 2010

Lat. 61° 14′N Long. 149° 53′W

NOVEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	22.2	25.2	25.8	24.2	20.5	16.0	11.4	7.3	3.9	3.4	7.2	13.5
M	19.3	24.2	27.6	28.6	27.0	22.9	18.0	12.9	8.1	4.8	4.8	9.2
2	16.0	21.8	25.8	27.3	26.4	22.8	17.9	12.7	8.1	3.9	2.7	6.3
Tu	13.4	20.0	25.4	29.0	30.3	28.2	23.5	17.8	12.1	6.7	2.4	1.7
3	6.9	15.4	22.0	26.6	28.9	28.3	24.6	19.2	13.5	8.5	4.0	2.3
W	6.1	14.6	21.5	27.0	30.6	31.6	28.6	23.1	16.9	11.1	5.3	0.5
4	−0.7	6.2	15.7	22.7	27.5	30.1	29.6	25.5	19.6	13.8	8.5	4.1
Th	2.2	7.3	16.8	23.4	28.7	32.0	32.1	27.9	21.9	15.6	9.9	4.2
5	−1.1	−1.9	7.1	16.7	23.6	28.4	31.0	29.9	25.4	19.1	13.4	8.3
F	4.1	2.6	9.9	19.3	25.4	30.5	33.0	31.6	26.4	20.1	14.2	8.7
6	3.3	−2.6	−1.3	9.1	18.1	24.8	29.2	31.4	29.5	24.4	18.1	12.5
Sa	7.8	4.0	4.0	13.4	21.7	27.4	31.8	33.2	30.2	24.4	18.1	12.6
7	7.3	2.0	−3.3	1.0	11.5	19.8	26.0	30.0	31.2	28.4	22.9	16.8
Su	11.2	7.2	3.9	6.6	16.6	23.7	29.1	32.5	32.4	28.1	22.0	16.2
8	10.9	5.9	0.5	−2.7	4.4	13.9	21.6	27.1	30.4	30.5	26.8	21.2
M	15.3	10.0	6.7	4.5	10.1	19.1	25.1	29.8	32.1	30.5	25.6	19.6
9	14.2	9.1	4.4	−0.6	−0.3	8.1	16.3	23.1	27.8	30.2	29.2	25.0
Tu	19.5	13.8	9.1	6.4	6.4	13.3	20.7	25.9	29.5	30.5	28.0	22.9
10	17.2	12.3	7.4	3.1	−0.3	3.3	11.3	18.4	24.1	28.0	29.4	27.5
W	23.1	17.9	12.6	8.8	7.0	9.0	15.6	21.4	25.7	28.2	28.1	25.2
11	20.4	15.2	10.5	6.2	2.5	1.5	7.0	14.0	19.9	24.5	27.6	28.1
Th	25.7	21.4	16.7	12.0	9.0	8.2	11.2	16.5	21.2	24.6	26.2	25.6
12	22.8	18.4	13.7	9.5	5.8	2.9	4.1	9.9	15.8	20.6	24.4	26.9
F	26.7	24.1	20.3	15.9	12.0	9.5	9.4	12.0	16.1	20.2	22.9	24.1
13	23.5	21.1	17.3	13.1	9.4	6.2	4.2	6.3	11.5	16.6	20.6	24.1
Sa	26.2	25.7	23.3	19.8	15.8	12.2	9.8	9.6	11.3	14.7	18.5	21.2
14	22.5	22.3	20.6	17.4	13.6	10.2	7.1	5.6	7.5	12.1	16.6	20.4
Su	23.8	25.8	25.4	23.2	19.8	15.9	12.1	9.5	8.4	9.4	12.7	16.9
15	20.1	21.9	22.3	21.2	18.6	14.9	11.5	8.2	6.4	7.7	11.8	16.3
M	20.4	23.9	26.0	25.8	23.6	20.0	15.9	11.6	8.3	6.3	7.0	10.8
16	15.8	19.7	22.3	23.2	22.7	20.2	16.4	12.6	9.1	6.5	7.3	11.5
Tu	16.6	20.8	24.6	26.8	26.4	23.9	19.9	15.2	10.5	6.4	3.9	5.0
17	9.9	15.8	20.2	23.3	24.7	24.4	21.6	17.4	13.2	9.2	6.1	7.0
W	12.0	17.6	21.8	25.8	27.8	26.9	23.5	19.0	14.0	8.9	4.2	1.8
18	4.0	10.4	16.6	21.5	24.8	26.3	25.5	22.2	17.5	13.1	8.8	5.7
Th	7.5	13.7	19.3	23.5	27.3	28.6	26.6	22.3	17.4	12.3	7.0	2.3
19	0.5	4.7	12.1	18.3	23.2	26.4	27.4	25.7	21.6	16.6	12.2	7.9
F	5.6	9.2	16.4	21.5	25.7	28.9	28.9	25.4	20.5	15.3	10.3	5.1
20	0.6	0.4	6.8	14.3	20.5	25.1	27.8	27.7	24.9	20.1	15.1	10.8
Sa	7.0	6.2	12.2	19.3	24.0	27.9	29.9	28.3	23.6	18.2	13.1	8.4
21	3.3	−0.7	1.7	9.6	16.8	22.8	26.8	28.7	27.3	23.5	18.3	13.2
Su	9.2	6.3	7.9	15.7	21.9	26.4	29.6	30.2	26.8	21.5	15.9	11.1
22	6.4	1.5	−1.2	4.3	12.4	19.3	24.8	28.2	28.9	26.3	21.7	16.4
M	11.4	7.8	6.1	10.8	18.9	24.0	28.3	30.5	29.4	24.8	19.2	13.9
23	9.2	4.6	−0.2	−0.3	7.5	15.0	21.6	26.3	28.9	28.4	25.0	20.0
Tu	14.6	9.8	6.9	7.0	14.2	21.2	25.7	29.4	30.3	27.6	22.5	17.0
24	11.9	7.3	2.8	−1.2	2.0	10.6	17.3	23.4	27.3	28.9	27.3	23.4
W	18.4	13.1	8.7	6.4	8.8	17.0	22.6	26.9	29.5	29.3	25.4	20.2
25	14.9	10.1	5.6	1.3	−1.0	5.1	13.2	19.6	24.7	27.8	28.5	26.1
Th	21.8	16.9	11.9	8.1	6.4	11.0	18.6	23.4	27.2	28.9	27.8	23.4
26	18.3	13.1	8.4	4.3	0.4	0.4	8.0	15.4	21.4	25.6	28.2	27.8
F	25.0	20.5	15.7	11.0	7.6	6.8	12.2	18.7	23.4	26.7	28.0	26.3
27	22.0	16.9	12.0	7.4	3.5	0.4	2.5	10.1	17.2	22.5	26.2	28.3
Sa	27.4	24.3	19.6	14.9	10.5	7.1	6.9	11.8	17.6	22.6	25.8	27.1
28	25.3	21.4	16.5	11.7	7.3	3.6	1.1	4.2	11.3	18.2	23.1	26.8
Su	28.5	27.5	24.1	19.2	14.5	10.1	6.5	6.1	9.9	15.6	21.0	24.6
29	26.3	25.1	21.8	17.2	12.6	8.1	4.4	2.4	5.2	11.8	18.5	23.4
M	27.1	28.8	28.0	24.3	19.4	14.5	9.8	5.8	4.4	7.2	13.1	19.1
30	23.5	25.8	25.5	23.1	18.9	14.3	9.6	5.7	3.5	5.6	11.7	18.4
Tu	23.5	27.4	29.4	28.7	24.9	19.8	14.5	9.5	4.8	2.4	4.3	10.4

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 14′N Long. 149° 53′W

DECEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	17.5	22.6	25.6	26.4	24.8	21.1	16.2	11.2	7.1	4.4	5.7	11.3
W	18.4	23.7	27.8	30.0	29.4	25.3	20.0	14.4	9.1	3.8	0.5	1.6
2	8.5	16.4	22.1	25.7	27.4	26.5	23.0	17.7	12.6	8.2	5.1	5.6
Th	11.3	18.8	24.1	28.4	30.7	29.7	25.3	19.7	14.0	8.6	3.1	-0.9
3	-0.2	7.9	16.2	22.2	26.1	28.5	27.8	24.0	18.5	13.3	8.7	5.5
F	5.6	12.2	19.8	25.0	29.3	31.2	29.5	24.6	18.8	13.3	7.9	2.6
4	-2.1	-0.6	8.6	16.8	22.8	26.9	29.4	28.3	24.0	18.3	13.1	8.7
Sa	5.5	6.0	14.0	21.1	26.3	30.2	31.4	28.6	23.3	17.6	12.3	7.1
5	2.1	-2.9	0.6	10.2	18.3	24.0	27.9	29.9	27.8	23.0	17.3	12.1
Su	8.4	5.2	7.4	16.2	22.6	27.8	30.9	31.1	27.2	21.5	16.1	10.9
6	6.2	1.0	-2.8	3.3	12.5	20.2	25.4	28.9	29.7	26.7	21.4	15.8
M	10.8	7.7	5.0	9.7	18.3	24.3	28.9	31.2	30.1	25.4	19.5	14.3
7	9.2	4.9	-0.3	-1.2	6.7	15.2	22.3	26.9	29.6	28.9	25.0	19.6
Tu	13.9	9.5	6.7	5.7	12.6	20.1	25.6	29.4	30.7	28.4	23.1	17.4
8	12.3	7.5	3.3	-0.9	2.0	10.3	18.0	24.2	28.1	29.6	27.6	23.0
W	17.7	12.1	8.5	6.0	7.7	15.2	21.6	26.4	29.2	29.4	26.1	20.7
9	15.1	10.2	5.7	1.6	0.1	6.1	13.9	20.6	25.7	28.8	28.9	25.7
Th	20.9	15.6	10.6	7.5	6.2	10.2	17.2	22.6	26.4	28.2	27.4	23.6
10	18.2	12.9	8.2	4.3	0.9	2.8	10.2	17.1	22.6	26.7	28.8	27.5
F	23.7	18.8	13.8	9.6	6.9	7.2	12.4	18.3	22.8	25.7	26.7	25.0
11	21.1	15.9	11.0	6.9	3.4	1.7	6.3	13.7	19.6	24.0	27.3	28.1
Sa	25.9	21.7	16.9	12.4	8.7	6.6	8.5	13.4	18.5	22.4	24.7	25.0
12	22.9	19.2	14.5	9.9	6.5	3.5	3.8	9.4	16.2	21.2	24.7	27.2
Su	27.2	24.4	20.1	15.5	11.5	8.0	6.6	8.9	13.2	17.8	21.4	23.5
13	23.5	21.5	18.3	14.2	10.1	7.0	4.7	6.2	11.5	17.6	21.8	24.8
M	26.8	26.3	23.4	19.2	14.7	11.0	7.5	6.4	8.2	12.0	16.5	20.2
14	22.3	22.5	21.1	18.6	15.0	11.3	8.3	6.6	8.0	12.5	17.9	21.7
Tu	24.5	26.3	25.7	22.9	18.7	14.5	10.6	7.0	5.6	6.6	10.3	15.0
15	19.1	21.6	22.3	21.6	19.9	16.7	13.0	9.9	8.3	8.8	12.7	17.8
W	21.5	24.2	26.0	25.6	22.7	18.6	14.5	10.2	6.3	4.1	4.9	8.7
16	13.9	18.4	21.5	22.9	23.0	21.6	18.4	14.5	11.4	9.1	8.9	12.7
Th	17.7	21.4	24.2	26.3	25.7	22.7	18.4	14.1	9.6	5.3	2.6	3.3
17	7.8	13.6	18.5	22.1	24.1	24.5	23.0	19.4	15.2	11.9	9.0	8.8
F	13.0	18.3	21.9	25.1	27.0	25.9	22.3	17.8	13.3	8.7	4.0	1.2
18	2.5	7.9	14.2	19.5	23.4	25.6	25.7	23.5	19.3	15.0	11.3	8.4
Sa	8.9	14.1	19.4	23.2	26.5	27.8	25.9	21.6	16.8	12.2	7.5	2.6
19	0.0	2.6	9.2	15.7	21.3	25.1	27.0	26.2	23.1	18.4	13.8	10.0
Su	7.5	9.5	15.9	21.1	25.1	28.1	28.5	25.5	20.5	15.4	10.8	6.0
20	1.2	-0.8	3.8	11.1	17.9	23.4	26.8	27.9	26.0	21.9	16.8	12.1
M	8.5	6.8	10.9	18.1	23.1	27.3	29.5	28.8	24.5	19.1	13.8	9.2
21	4.4	-0.4	-0.8	6.0	13.5	20.4	25.3	28.2	28.2	25.1	20.3	15.0
Tu	10.2	7.0	6.6	13.1	20.2	25.1	29.0	30.4	28.3	23.2	17.5	12.3
22	7.4	2.7	-1.9	0.4	8.7	16.1	22.7	27.0	29.2	27.8	23.9	18.7
W	13.2	8.7	5.6	7.1	15.5	21.9	26.8	30.0	30.5	27.1	21.6	15.8
23	10.5	5.7	0.8	-2.6	3.0	11.7	18.9	24.7	28.4	29.4	27.0	22.4
Th	17.1	11.6	7.3	4.6	8.6	17.4	23.3	27.8	30.3	29.8	25.4	19.8
24	14.1	8.7	4.0	-0.9	-1.9	6.4	14.7	21.5	26.5	29.6	29.2	25.9
F	20.8	15.4	10.1	6.0	4.0	10.2	18.5	24.2	28.2	30.2	28.6	23.7
25	18.0	12.3	7.0	2.4	-1.9	0.4	9.8	17.8	23.8	28.1	30.3	28.7
Sa	24.6	19.2	13.7	8.8	4.6	4.0	11.1	18.8	24.5	28.0	29.5	27.2
26	22.2	16.5	10.9	5.7	1.4	-1.5	3.5	12.9	20.4	25.6	29.4	30.4
Su	28.0	23.3	17.7	12.3	7.6	3.4	4.0	10.9	18.3	23.9	27.3	28.5
27	25.9	21.2	15.7	10.3	5.4	1.5	0.4	6.4	15.1	22.1	26.7	30.0
M	30.2	27.4	22.2	16.6	11.4	6.6	2.7	3.7	9.7	17.0	22.6	26.1
28	27.1	25.1	21.0	16.0	10.9	6.2	2.8	2.8	8.5	16.4	22.7	27.0
Tu	29.8	29.8	26.9	21.6	16.1	11.0	6.2	2.3	2.8	7.8	14.9	20.7
29	24.5	25.8	24.8	21.7	17.4	12.5	8.0	5.1	5.0	9.5	16.5	22.4
W	26.4	29.1	29.4	26.6	21.5	16.3	11.1	6.2	2.2	1.6	5.5	12.5
30	18.7	22.8	24.9	25.2	23.2	19.5	14.6	10.4	7.3	6.5	9.6	15.8
Th	21.6	25.5	28.4	29.0	26.5	21.7	16.7	11.6	6.6	2.1	0.4	3.3
31	10.5	17.1	21.7	24.6	26.1	25.0	21.6	16.6	12.4	8.9	7.2	9.0
F	15.0	20.7	24.8	28.0	28.9	26.5	21.9	16.9	11.9	6.8	2.1	-0.8

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

NIKISKI, ALASKA, 2010

Lat. 60° 41′N Long. 151° 24′W

JANUARY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	−1.4	4.5	11.0	16.7	20.6	21.9	20.6	17.1	12.7	8.3	4.7	3.3
F	5.3	10.5	16.3	20.9	23.6	23.7	21.2	16.4	10.4	4.3	−1.0	−4.6
2	−4.5	−0.3	6.4	13.2	18.6	22.0	22.5	20.4	16.2	11.3	6.6	3.1
Sa	2.3	5.3	11.1	17.1	21.5	23.8	23.5	20.5	15.3	9.0	2.9	−2.1
3	−4.8	−3.6	1.7	8.7	15.3	20.2	22.8	22.6	19.7	15.0	9.8	5.1
Su	2.0	2.0	5.7	11.7	17.4	21.4	23.3	22.6	19.3	14.0	7.8	2.1
4	−2.2	−3.9	−1.6	4.2	11.0	17.0	21.1	23.0	22.2	18.8	13.8	8.6
M	4.2	1.6	2.1	6.1	11.9	17.0	20.6	22.1	21.2	17.9	12.7	7.1
5	2.1	−1.3	−2.0	1.0	6.7	13.0	18.1	21.5	22.7	21.3	17.6	12.7
Tu	7.8	3.9	1.7	2.6	6.5	11.5	15.9	19.0	20.4	19.5	16.5	11.9
6	7.1	3.1	0.5	0.5	3.7	9.0	14.3	18.5	21.2	21.9	20.3	16.6
W	12.1	7.7	4.2	2.3	3.0	6.4	10.6	14.3	17.1	18.5	17.9	15.4
7	11.6	7.8	4.8	2.9	3.2	6.1	10.6	14.9	18.3	20.5	21.0	19.3
Th	15.9	11.9	8.1	4.9	2.9	3.2	5.8	9.2	12.4	15.1	16.8	16.8
8	14.9	12.1	9.3	7.0	5.4	5.5	7.9	11.5	14.9	17.7	19.6	20.0
F	18.5	15.6	12.2	8.8	5.5	3.2	3.0	4.8	7.6	10.6	13.6	15.7
9	16.3	15.2	13.2	11.1	9.0	7.3	7.1	8.9	11.6	14.4	17.0	18.9
Sa	19.4	18.2	15.7	12.6	9.3	5.7	3.0	2.3	3.7	6.2	9.4	12.8
10	15.5	16.5	16.0	14.5	12.6	10.5	8.4	7.8	9.1	11.4	13.9	16.5
Su	18.6	19.2	18.1	15.8	12.9	9.3	5.3	2.2	1.3	2.6	5.3	9.0
11	13.0	16.0	17.3	17.0	15.6	13.6	11.0	8.6	7.7	8.9	11.1	13.8
M	16.6	18.8	19.4	18.2	15.8	12.6	8.7	4.3	1.0	0.4	2.1	5.3
12	9.6	14.0	17.2	18.4	17.7	16.0	13.6	10.6	7.9	7.2	8.6	11.1
Tu	14.2	17.3	19.3	19.6	18.1	15.3	11.6	7.3	2.7	−0.2	−0.2	2.3
13	6.3	11.2	15.7	18.6	19.2	18.0	15.7	12.8	9.3	6.7	6.5	8.6
W	11.7	15.2	18.3	20.0	19.7	17.5	14.1	10.0	5.3	0.9	−1.1	0.0
14	3.5	8.3	13.4	17.6	19.8	19.5	17.6	14.6	11.1	7.6	5.5	6.2
Th	9.2	13.0	16.6	19.5	20.5	19.4	16.4	12.4	7.9	3.1	−0.6	−1.4
15	1.1	5.6	10.8	15.8	19.4	20.5	19.3	16.4	12.8	9.0	5.7	4.6
F	6.5	10.4	14.6	18.2	20.4	20.6	18.5	14.7	10.2	5.5	1.1	−1.5
16	−0.7	3.1	8.4	13.6	18.1	20.6	20.6	18.3	14.7	10.6	6.8	4.2
Sa	4.3	7.5	12.0	16.2	19.4	20.9	20.1	17.1	12.6	7.8	3.2	−0.4
17	−1.5	0.9	5.9	11.4	16.3	19.8	21.2	20.0	16.8	12.5	8.4	4.9
Su	3.3	4.7	8.9	13.7	17.6	20.1	20.7	19.0	15.2	10.4	5.6	1.6
18	−0.8	−0.3	3.5	9.0	14.3	18.3	20.8	21.0	18.8	14.8	10.3	6.4
M	3.6	3.2	5.8	10.5	15.1	18.4	20.0	19.8	17.4	13.2	8.3	4.0
19	0.9	−0.1	1.9	6.6	12.1	16.6	19.7	21.0	20.1	17.0	12.7	8.3
Tu	4.9	3.2	3.8	7.2	11.9	15.9	18.4	19.3	18.4	15.5	11.2	6.7
20	3.3	1.4	1.7	4.7	9.7	14.7	18.2	20.1	20.4	18.7	15.1	10.7
W	6.9	4.3	3.4	4.7	8.4	12.8	16.0	17.7	18.1	16.8	13.8	9.8
21	6.1	3.7	2.9	4.1	7.6	12.4	16.5	18.9	19.9	19.3	17.0	13.3
Th	9.3	6.1	4.3	4.0	5.7	9.2	12.8	15.3	16.5	16.6	15.3	12.6
22	9.2	6.4	5.0	5.0	6.7	10.2	14.3	17.4	18.8	19.1	18.1	15.6
F	12.1	8.6	6.0	4.7	4.5	6.1	9.2	12.1	14.1	15.2	15.4	14.4
23	12.2	9.5	7.6	6.8	7.1	8.8	11.9	15.2	17.4	18.3	18.3	17.1
Sa	14.7	11.5	8.4	6.3	4.9	4.6	5.8	8.4	10.9	12.8	14.1	14.7
24	14.2	12.6	10.6	9.2	8.6	8.7	10.0	12.6	15.3	17.1	17.8	17.8
Su	16.8	14.5	11.5	8.7	6.5	4.7	3.9	4.8	7.1	9.6	11.8	13.7
25	14.9	14.9	13.6	11.9	10.6	9.7	9.3	10.1	12.4	14.9	16.7	17.7
M	18.0	17.1	14.9	11.9	8.9	6.2	3.8	2.4	3.2	5.6	8.5	11.5
26	14.2	15.9	16.2	14.9	13.1	11.4	9.8	8.8	9.3	11.6	14.4	16.7
Tu	18.3	19.0	18.1	15.7	12.3	8.7	5.3	2.1	0.5	1.4	4.5	8.2
27	12.1	15.6	17.6	17.7	16.1	13.7	11.3	8.9	7.4	8.0	10.7	14.2
W	17.2	19.5	20.4	19.3	16.4	12.3	8.0	3.7	0.0	−1.6	0.1	4.1
28	8.9	13.7	17.6	19.5	19.0	16.7	13.5	10.2	7.1	5.4	6.5	10.1
Th	14.5	18.4	21.1	22.0	20.4	16.7	11.8	6.6	1.6	−2.3	−3.3	−0.5
29	4.8	10.6	16.0	19.8	21.2	19.9	16.6	12.5	8.3	4.7	3.3	5.2
F	9.9	15.3	19.8	22.7	23.2	20.9	16.4	10.8	4.9	−0.5	−4.1	−4.0
30	0.1	6.5	13.0	18.6	21.9	22.4	20.0	15.8	10.8	6.0	2.3	1.5
Sa	4.6	10.3	16.4	21.2	23.9	23.8	20.8	15.5	9.3	3.0	−2.3	−5.1
31	−3.6	1.9	9.0	15.8	20.9	23.4	22.9	19.5	14.4	8.8	3.7	0.3
Su	0.4	4.6	11.1	17.4	22.1	24.3	23.6	19.9	14.2	7.6	1.5	−3.3

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 60° 41′N Long. 151° 24′W

FEBRUARY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	−4.9	−2.0	4.5	11.9	18.3	22.7	24.2	22.6	18.3	12.6	6.8	1.8
M	−1.0	0.2	5.3	12.0	18.0	22.2	23.9	22.5	18.5	12.6	6.2	0.6
2	−3.1	−3.4	0.7	7.6	14.6	20.2	23.5	24.0	21.5	16.7	10.8	5.1
Tu	0.7	−1.2	0.8	6.2	12.5	17.9	21.4	22.6	20.9	16.7	11.1	5.4
3	0.8	−1.7	−0.8	4.0	10.6	16.7	21.1	23.4	23.1	20.0	15.0	9.4
W	4.3	0.6	−0.5	1.9	7.0	12.5	17.0	20.0	20.7	19.0	15.1	10.1
4	5.5	2.1	0.7	2.4	7.1	12.8	17.7	21.0	22.4	21.5	18.3	13.5
Th	8.6	4.4	1.4	0.7	3.0	7.4	11.9	15.5	18.0	18.7	17.2	13.9
5	10.0	6.6	4.3	3.6	5.4	9.5	14.0	17.6	20.0	20.8	19.7	16.7
F	12.7	8.7	5.3	2.8	2.1	3.9	7.2	10.6	13.6	15.9	16.8	15.9
6	13.5	10.7	8.5	6.8	6.3	7.8	10.9	14.2	16.7	18.5	19.1	18.2
Sa	15.8	12.6	9.5	6.6	4.1	3.0	4.0	6.4	9.1	11.8	14.3	15.6
7	15.4	13.9	12.2	10.5	9.1	8.3	9.1	11.2	13.4	15.3	17.0	17.8
Su	17.3	15.6	13.1	10.6	7.8	4.9	3.3	3.6	5.2	7.6	10.5	13.4
8	15.3	15.7	15.0	13.7	12.3	10.5	9.1	9.2	10.6	12.2	14.0	15.9
M	17.2	17.2	15.9	13.9	11.4	8.3	4.9	2.7	2.7	4.1	6.6	10.1
9	13.6	15.9	16.7	16.2	15.0	13.2	10.7	8.8	8.5	9.5	11.2	13.4
Tu	15.8	17.4	17.6	16.5	14.4	11.6	7.9	4.0	1.7	1.7	3.5	6.6
10	10.7	14.7	17.2	17.8	17.1	15.4	12.9	9.8	7.6	7.3	8.6	10.8
W	13.6	16.5	18.2	18.3	16.8	14.2	10.8	6.5	2.4	0.5	1.2	3.8
11	7.8	12.5	16.5	18.6	18.7	17.2	14.8	11.5	8.0	5.9	6.3	8.4
Th	11.4	14.8	17.8	19.3	18.7	16.5	13.2	9.1	4.4	0.7	−0.3	1.6
12	5.2	10.0	14.9	18.4	19.8	18.8	16.4	13.2	9.3	5.8	4.4	5.9
F	9.0	12.8	16.5	19.3	20.0	18.5	15.4	11.3	6.7	2.2	−0.6	−0.2
13	3.1	7.7	12.9	17.5	20.1	20.2	18.1	14.7	10.8	6.7	3.7	3.5
Sa	6.3	10.5	14.7	18.4	20.4	20.1	17.5	13.5	8.9	4.2	0.2	−1.1
14	1.1	5.6	11.0	16.0	19.7	21.1	19.8	16.6	12.4	8.0	4.1	2.2
Su	3.5	7.6	12.5	16.8	19.9	21.0	19.5	15.9	11.1	6.3	1.9	−0.8
15	−0.4	3.5	9.0	14.4	18.7	21.2	21.2	18.6	14.3	9.6	5.2	2.1
M	1.5	4.5	9.5	14.6	18.5	20.7	20.7	18.1	13.7	8.7	4.0	0.6
16	−0.7	1.6	6.8	12.6	17.4	20.6	21.7	20.3	16.6	11.7	6.9	3.0
Tu	1.0	1.9	6.1	11.6	16.3	19.5	20.7	19.6	16.2	11.4	6.5	2.6
17	0.4	0.8	4.6	10.4	15.8	19.6	21.5	21.2	18.6	14.1	9.0	4.6
W	1.7	0.9	3.1	8.0	13.4	17.4	19.6	19.9	18.0	14.2	9.4	5.1
18	2.3	1.4	3.3	7.9	13.7	18.2	20.7	21.3	19.8	16.4	11.7	6.9
Th	3.3	1.3	1.6	4.7	9.7	14.4	17.5	18.8	18.5	16.2	12.4	8.1
19	4.8	3.1	3.5	6.2	11.1	16.1	19.4	20.7	20.2	18.0	14.3	9.7
F	5.6	2.9	1.8	2.8	6.1	10.7	14.5	16.7	17.5	16.8	14.6	11.2
20	7.8	5.5	4.9	5.9	9.0	13.4	17.4	19.5	19.9	18.8	16.3	12.6
Sa	8.5	5.2	3.3	2.8	3.9	6.9	10.7	13.7	15.4	16.0	15.5	13.7
21	10.9	8.4	7.0	6.9	8.1	10.9	14.6	17.5	18.8	18.7	17.5	15.1
Su	11.8	8.4	5.7	4.1	3.5	4.3	6.8	9.9	12.3	13.9	14.8	14.8
22	13.6	11.5	9.7	8.8	8.7	9.4	11.6	14.5	16.8	17.7	17.6	16.8
M	14.8	12.0	9.0	6.6	4.8	3.7	3.8	5.8	8.5	10.9	12.9	14.4
23	15.0	14.3	12.8	11.2	10.2	9.5	9.5	11.0	13.5	15.6	16.7	17.3
Tu	17.0	15.5	12.9	10.0	7.3	4.9	3.0	2.5	4.2	7.0	9.9	12.7
24	15.0	16.2	15.7	14.2	12.4	10.6	9.0	8.4	9.5	12.0	14.5	16.4
W	17.8	18.1	16.8	14.2	10.9	7.5	4.1	1.4	0.8	2.7	6.0	9.8
25	13.6	16.6	17.9	17.3	15.2	12.7	10.0	7.4	6.3	7.6	10.6	13.9
Th	17.0	19.2	19.8	18.3	15.2	11.2	6.9	2.6	−0.6	−1.0	1.7	6.0
26	10.9	15.5	18.8	19.8	18.5	15.6	12.0	8.2	5.0	3.8	5.7	9.7
F	14.2	18.2	20.9	21.5	19.5	15.6	10.7	5.5	0.6	−2.5	−2.1	1.7
27	7.3	13.1	18.1	21.1	21.3	19.0	15.0	10.3	5.7	2.1	1.5	4.4
Sa	9.6	15.2	19.8	22.7	22.7	20.0	15.2	9.5	3.7	−1.4	−3.8	−2.1
28	3.1	9.7	16.0	20.8	23.1	22.1	18.6	13.5	8.0	2.9	−0.5	−0.2
Su	4.0	10.3	16.5	21.4	23.8	23.2	19.6	14.1	7.9	1.9	−2.8	−4.1

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

NIKISKI, ALASKA, 2010

Lat. 60° 41′N Long. 151° 24′W

MARCH

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	−0.9	5.5	12.7	18.9	23.1	24.1	22.0	17.4	11.5	5.5	0.3	−2.4
M	−0.9	4.5	11.4	17.8	22.4	24.2	22.7	18.5	12.5	6.2	0.5	−3.2
2	−3.0	1.5	8.6	15.7	21.3	24.3	24.2	21.0	15.5	9.2	3.2	−1.5
Tu	−3.2	−0.5	5.7	12.7	18.6	22.5	23.6	21.5	16.8	10.9	4.9	0.1
3	−2.4	−0.8	4.7	11.8	18.2	22.7	24.5	23.2	19.2	13.4	7.2	1.7
W	−2.2	−2.8	0.8	7.1	13.5	18.7	21.8	22.2	19.7	15.1	9.5	4.4
4	0.7	−0.4	2.2	8.0	14.5	19.6	22.8	23.5	21.5	17.1	11.4	5.8
Th	1.1	−1.7	−1.4	2.5	8.3	13.8	18.0	20.4	20.4	17.8	13.5	8.8
5	4.8	2.3	2.2	5.4	10.8	16.0	19.8	21.8	21.8	19.3	15.1	10.0
F	5.4	1.7	−0.3	0.5	4.1	8.9	13.3	16.6	18.5	18.4	16.1	12.6
6	9.0	6.2	4.6	5.1	8.1	12.5	16.3	18.8	20.1	19.6	17.3	13.6
Sa	9.5	5.9	3.1	1.6	2.3	5.2	8.8	12.1	14.9	16.6	16.7	15.0
7	12.4	9.9	8.1	7.0	7.5	9.8	12.9	15.5	17.1	18.0	17.6	15.8
Su	13.0	9.9	7.2	4.9	3.3	3.5	5.5	8.0	10.6	13.2	15.1	15.7
8	14.8	13.1	11.5	10.1	8.9	8.9	10.3	12.3	13.9	15.2	16.2	16.3
M	15.2	13.2	11.0	8.8	6.3	4.3	3.9	5.0	6.9	9.3	12.0	14.4
9	15.6	15.3	14.2	13.0	11.5	9.8	9.1	9.7	10.9	12.2	13.7	15.2
Tu	15.9	15.4	14.0	12.1	9.9	7.0	4.4	3.4	4.1	5.8	8.5	11.8
10	14.7	16.3	16.3	15.4	13.9	11.9	9.5	8.2	8.3	9.4	11.0	13.1
W	15.2	16.4	16.2	14.9	12.9	10.1	6.6	3.6	2.5	3.3	5.5	8.8
11	12.7	15.9	17.5	17.3	16.0	13.9	11.0	8.1	6.5	6.9	8.4	10.7
Th	13.6	16.2	17.5	17.1	15.3	12.8	9.3	5.3	2.3	1.7	3.2	6.1
12	10.2	14.5	17.6	18.7	17.8	15.7	12.8	9.2	6.0	4.8	5.8	8.2
F	11.4	15.0	17.7	18.5	17.5	15.0	11.6	7.6	3.4	1.0	1.4	4.1
13	8.0	12.7	16.9	19.3	19.3	17.4	14.3	10.6	6.6	3.7	3.5	5.7
Sa	9.1	13.1	16.9	19.2	19.2	17.1	13.8	9.7	5.3	1.6	0.4	2.3
14	6.2	10.9	15.6	19.2	20.4	19.1	16.0	12.1	7.7	3.8	1.8	3.0
Su	6.5	10.9	15.3	18.8	20.2	19.1	16.0	11.8	7.4	3.1	0.4	0.8
15	4.3	9.2	14.2	18.5	20.8	20.6	17.9	13.8	9.2	4.7	1.3	0.7
M	3.5	8.3	13.3	17.5	20.2	20.5	18.2	14.2	9.5	5.1	1.5	0.2
16	2.5	7.3	12.8	17.5	20.6	21.5	19.8	15.9	11.0	6.1	2.0	−0.3
Tu	0.7	5.0	10.5	15.6	19.2	20.8	19.9	16.6	12.0	7.3	3.3	0.8
17	1.3	5.1	10.9	16.2	20.0	21.8	21.1	18.1	13.3	8.0	3.4	0.1
W	−0.9	1.7	7.1	12.8	17.4	20.1	20.6	18.7	14.8	9.9	5.5	2.4
18	1.3	3.4	8.4	14.3	18.9	21.4	21.8	19.8	15.8	10.5	5.4	1.4
Th	−0.9	−0.4	3.5	9.3	14.6	18.3	20.1	19.7	17.1	12.9	8.3	4.6
19	2.6	2.8	6.1	11.6	17.0	20.5	21.7	20.8	17.9	13.3	8.1	3.5
F	0.4	−0.7	0.9	5.4	11.0	15.6	18.3	19.3	18.3	15.4	11.3	7.3
20	4.6	3.7	5.0	8.9	14.3	18.7	20.8	20.9	19.2	15.9	11.2	6.4
Sa	2.6	0.5	0.2	2.4	6.9	11.9	15.5	17.5	18.0	16.8	14.0	10.4
21	7.3	5.5	5.4	7.2	11.1	15.8	19.0	20.2	19.6	17.6	14.2	9.9
Su	5.8	2.8	1.3	1.4	3.7	7.7	11.8	14.7	16.2	16.6	15.7	13.3
22	10.4	8.1	7.0	7.2	8.9	12.3	16.0	18.3	18.9	18.2	16.3	13.3
M	9.6	6.2	3.8	2.5	2.4	4.2	7.6	11.0	13.4	15.0	15.7	15.2
23	13.4	11.1	9.3	8.4	8.3	9.5	12.1	15.1	16.9	17.4	17.1	15.8
Tu	13.4	10.2	7.3	5.0	3.4	2.7	3.9	6.7	9.7	12.2	14.3	15.6
24	15.6	14.3	12.3	10.6	9.2	8.4	8.8	10.9	13.4	15.3	16.4	16.9
W	16.2	14.3	11.5	8.6	5.9	3.6	2.2	2.9	5.5	8.6	11.7	14.5
25	16.4	16.8	15.5	13.4	11.2	9.0	7.3	7.1	8.9	11.6	14.0	16.1
Th	17.5	17.5	15.8	12.9	9.5	6.2	2.9	1.0	1.7	4.5	8.3	12.2
26	15.8	18.1	18.4	16.8	14.0	10.9	7.7	5.2	4.7	6.7	10.1	13.6
F	16.7	18.9	19.1	17.2	13.8	9.8	5.6	1.7	−0.4	0.7	4.3	9.0
27	13.8	17.9	20.1	19.9	17.4	13.8	9.6	5.5	2.4	2.2	5.0	9.3
Sa	14.0	18.1	20.6	20.6	18.2	14.1	9.3	4.4	0.2	−1.5	0.5	5.2
28	10.8	16.2	20.4	22.0	20.7	17.2	12.6	7.5	2.7	−0.3	0.2	4.0
Su	9.5	15.1	19.7	22.1	21.5	18.3	13.6	8.2	2.9	−1.1	−1.8	1.4
29	7.1	13.5	19.0	22.6	23.2	20.7	16.2	10.6	4.9	−0.1	−2.6	−1.0
M	4.1	10.5	16.6	21.1	23.0	21.7	17.8	12.4	6.8	1.6	−1.7	−1.2
30	3.4	9.9	16.4	21.5	24.0	23.3	19.8	14.3	8.2	2.3	−2.4	−3.8
Tu	−0.9	5.1	12.0	18.0	22.0	23.1	21.0	16.6	11.0	5.5	0.8	−1.4
31	0.5	6.1	12.9	18.9	23.0	24.4	22.5	18.1	12.1	5.9	0.3	−3.6
W	−3.9	0.1	6.7	13.4	18.9	22.2	22.4	19.8	15.0	9.6	4.6	0.8

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 60° 41′N Long. 151° 24′W

APRIL

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	−0.1	3.0	9.1	15.5	20.6	23.5	23.6	20.9	15.9	9.9	4.1	−0.9
Th	−3.7	−2.8	1.9	8.4	14.5	19.2	21.6	21.2	18.2	13.5	8.6	4.4
2	1.7	2.0	5.8	11.7	17.2	21.1	22.8	22.0	18.7	13.7	8.1	3.0
F	−1.0	−2.7	−0.9	3.9	9.8	14.9	18.6	20.3	19.5	16.5	12.3	8.2
3	4.9	3.3	4.4	8.4	13.6	17.8	20.4	21.2	19.9	16.5	11.9	7.1
Sa	3.0	0.0	−0.9	1.2	5.7	10.5	14.5	17.5	18.8	17.9	15.2	11.7
4	8.4	6.1	5.2	6.7	10.3	14.3	17.2	18.9	19.2	17.7	14.7	10.8
Su	7.0	3.8	1.6	1.1	3.1	6.7	10.4	13.6	16.1	17.3	16.6	14.4
5	11.7	9.3	7.7	7.1	8.3	11.1	13.9	15.8	16.9	17.1	16.0	13.6
M	10.5	7.7	5.3	3.4	2.9	4.3	7.0	9.8	12.5	14.9	16.2	15.9
6	14.3	12.3	10.5	9.1	8.3	9.0	10.8	12.7	14.0	15.1	15.6	15.0
Tu	13.3	11.0	8.9	6.8	4.8	3.9	4.8	6.7	8.9	11.5	14.1	15.8
7	15.9	14.7	13.2	11.6	9.9	8.6	8.6	9.7	11.0	12.3	13.8	14.9
W	14.9	13.8	12.0	10.0	7.8	5.4	4.1	4.5	6.1	8.3	11.2	14.2
8	16.1	16.5	15.5	13.9	12.0	9.7	7.8	7.4	8.2	9.5	11.3	13.5
Th	15.1	15.5	14.6	12.8	10.7	8.0	5.2	3.7	4.1	5.8	8.5	11.8
9	15.1	17.1	17.3	16.0	14.0	11.4	8.4	6.2	5.8	6.8	8.7	11.3
F	14.1	16.1	16.5	15.3	13.2	10.6	7.3	4.3	3.1	4.0	6.3	9.6
10	13.4	16.7	18.3	17.9	15.9	13.1	9.8	6.3	4.2	4.2	6.1	8.8
Sa	12.2	15.5	17.4	17.3	15.5	12.9	9.6	6.0	3.2	2.7	4.5	7.7
11	11.6	15.7	18.5	19.2	17.8	14.9	11.3	7.4	3.8	2.2	3.3	6.2
Su	10.0	13.9	17.2	18.5	17.7	15.1	11.7	8.1	4.5	2.4	3.0	6.1
12	10.1	14.4	18.1	20.0	19.4	16.8	13.0	8.8	4.6	1.4	0.9	3.3
M	7.4	11.9	16.0	18.8	19.2	17.4	14.0	10.1	6.3	3.2	2.2	4.3
13	8.5	13.1	17.2	20.1	20.7	18.7	15.0	10.4	5.8	1.8	−0.5	0.4
Tu	4.3	9.4	14.2	18.0	19.9	19.3	16.4	12.4	8.3	4.7	2.4	2.9
14	6.5	11.5	16.2	19.7	21.3	20.4	17.2	12.5	7.5	2.9	−0.5	−1.5
W	1.0	6.1	11.7	16.3	19.4	20.3	18.6	15.0	10.7	6.7	3.6	2.4
15	4.4	9.2	14.6	18.9	21.3	21.5	19.3	15.1	9.8	4.7	0.6	−2.0
Th	−1.6	2.4	8.3	13.8	17.9	20.1	20.0	17.5	13.5	9.1	5.4	3.2
16	3.3	6.6	12.1	17.3	20.7	21.9	20.8	17.6	12.7	7.3	2.5	−1.0
F	−2.4	−0.7	4.3	10.4	15.4	18.7	20.1	19.2	16.2	12.0	7.8	4.8
17	3.5	4.7	9.0	14.6	19.1	21.4	21.5	19.6	15.7	10.6	5.3	1.1
Sa	−1.6	−2.0	0.8	6.2	11.9	16.2	18.8	19.4	18.0	14.9	10.8	7.2
18	4.9	4.4	6.5	11.1	16.3	19.8	21.1	20.5	18.0	13.9	9.0	4.2
Su	0.6	−1.3	−0.9	2.3	7.6	12.7	16.2	18.2	18.5	16.9	13.8	10.2
19	7.2	5.6	5.6	8.0	12.4	16.8	19.5	20.1	19.1	16.6	12.7	8.1
M	4.0	1.1	−0.3	0.4	3.6	8.4	12.7	15.6	17.3	17.6	16.2	13.4
20	10.2	7.7	6.5	6.7	8.9	12.7	16.3	18.3	18.7	17.9	15.6	12.2
Tu	8.2	4.6	2.1	0.9	1.4	4.3	8.4	12.1	14.8	16.6	17.1	15.9
21	13.5	10.7	8.6	7.2	7.1	8.7	11.9	14.9	16.6	17.3	17.0	15.4
W	12.4	8.9	5.8	3.4	1.8	2.0	4.4	8.0	11.4	14.3	16.4	17.2
22	16.3	14.1	11.5	9.2	7.4	6.5	7.6	10.2	13.0	15.0	16.4	16.8
Th	15.8	13.3	10.2	7.1	4.3	2.3	2.0	4.1	7.5	11.1	14.3	16.9
23	18.0	17.3	15.0	12.1	9.3	6.7	5.1	5.7	8.1	11.1	13.8	16.2
F	17.4	16.8	14.6	11.4	8.0	4.8	2.2	1.6	3.7	7.4	11.4	15.2
24	18.2	19.3	18.3	15.6	12.2	8.5	5.0	2.9	3.4	6.1	9.7	13.4
Sa	16.7	18.4	18.0	15.7	12.2	8.4	4.6	1.7	1.2	3.7	7.9	12.5
25	16.9	19.9	20.7	19.0	15.6	11.4	6.9	2.8	0.4	1.3	4.7	9.2
Su	13.9	17.8	19.7	19.1	16.4	12.5	8.2	4.0	1.1	1.1	4.4	9.2
26	14.4	18.9	21.6	21.7	19.1	14.9	9.9	4.7	0.2	−1.8	−0.1	4.2
M	9.6	15.0	19.1	20.8	19.7	16.4	12.1	7.5	3.2	0.7	1.6	5.8
27	11.3	16.7	21.0	22.9	21.9	18.4	13.4	7.8	2.4	−2.0	−3.3	−0.6
Tu	4.7	10.8	16.5	20.3	21.4	19.7	15.9	11.3	6.6	2.5	0.8	2.8
28	7.8	13.6	18.9	22.4	23.3	21.2	16.9	11.4	5.6	0.2	−3.6	−3.8
W	0.0	6.0	12.4	17.8	21.1	21.4	19.1	14.9	10.2	5.7	2.2	1.5
29	4.6	10.1	15.9	20.5	23.0	22.8	19.8	15.0	9.3	3.6	−1.4	−4.2
Th	−3.2	1.5	7.8	14.0	18.8	21.3	20.9	18.0	13.7	9.2	5.1	2.4
30	2.8	6.7	12.4	17.6	21.2	22.7	21.6	18.0	12.9	7.3	2.1	−2.2
F	−3.9	−1.7	3.5	9.6	15.2	19.2	20.9	19.9	16.8	12.5	8.3	4.8

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

NIKISKI, ALASKA, 2010

Lat. 60° 41′N Long. 151° 24′W

MAY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	3.1	4.5	8.8	14.1	18.4	21.1	21.6	19.8	16.0	11.0	5.9	1.3
Sa	−2.0	−2.6	0.3	5.6	11.1	15.8	19.0	20.0	18.7	15.5	11.5	7.9
2	5.1	4.2	6.3	10.6	15.1	18.4	20.1	20.0	17.9	14.1	9.5	5.0
Su	1.3	−1.1	−0.8	2.5	7.3	11.9	15.8	18.3	19.0	17.5	14.4	10.9
3	7.9	5.8	5.5	7.8	11.7	15.2	17.5	18.6	18.2	16.1	12.6	8.6
M	4.9	2.0	0.4	1.1	4.3	8.4	12.2	15.3	17.5	17.9	16.4	13.7
4	10.7	8.3	6.7	6.7	8.8	11.9	14.5	16.1	16.9	16.6	14.7	11.7
Tu	8.4	5.5	3.2	2.0	2.9	5.6	8.9	12.0	14.8	16.7	17.1	15.8
5	13.4	10.9	8.9	7.5	7.4	9.0	11.3	13.2	14.6	15.5	15.4	13.9
W	11.4	8.8	6.5	4.5	3.4	4.1	6.4	9.1	11.7	14.4	16.3	16.8
6	15.6	13.5	11.3	9.3	7.7	7.3	8.5	10.2	11.8	13.2	14.5	14.8
Th	13.8	11.7	9.5	7.5	5.5	4.3	4.8	6.7	9.1	11.7	14.4	16.4
7	16.9	15.7	13.7	11.5	9.2	7.2	6.5	7.3	8.9	10.6	12.5	14.2
F	14.9	14.1	12.3	10.3	8.2	6.0	4.7	5.2	7.0	9.4	12.2	15.1
8	17.0	17.3	15.9	13.6	11.1	8.4	6.0	5.1	6.0	7.8	9.9	12.5
Sa	14.7	15.5	14.8	12.9	10.7	8.3	6.0	4.7	5.4	7.6	10.3	13.3
9	16.3	17.9	17.7	15.8	13.0	10.0	6.8	4.2	3.5	4.9	7.3	10.2
Su	13.3	15.7	16.4	15.3	13.2	10.6	8.0	5.6	4.6	5.9	8.6	11.8
10	15.1	17.8	18.8	17.7	15.1	11.7	8.1	4.6	2.1	2.1	4.3	7.6
M	11.2	14.7	17.0	17.3	15.6	12.9	10.0	7.2	5.0	4.7	6.9	10.3
11	13.9	17.1	19.2	19.3	17.2	13.7	9.7	5.7	2.1	0.3	1.3	4.6
Tu	8.8	12.9	16.5	18.2	17.7	15.4	12.2	9.1	6.2	4.5	5.2	8.4
12	12.5	16.2	19.1	20.3	19.2	16.0	11.7	7.3	3.1	−0.2	−1.0	1.3
W	5.7	10.5	14.9	18.1	19.1	17.7	14.7	11.2	7.9	5.2	4.3	6.2
13	10.4	14.9	18.5	20.6	20.7	18.4	14.3	9.4	4.7	0.7	−2.0	−1.6
Th	2.0	7.4	12.6	16.8	19.3	19.4	17.3	13.7	10.0	6.7	4.5	4.5
14	7.7	12.6	17.2	20.3	21.5	20.4	17.1	12.4	7.1	2.4	−1.3	−3.1
F	−1.4	3.4	9.3	14.5	18.2	19.9	19.3	16.5	12.6	8.7	5.7	4.1
15	5.2	9.3	14.7	19.0	21.4	21.6	19.6	15.6	10.4	5.1	0.5	−2.6
Sa	−3.3	−0.5	5.2	11.2	16.0	19.1	20.1	18.7	15.5	11.5	7.7	5.0
16	4.1	6.2	11.0	16.3	20.1	21.7	21.2	18.5	14.1	8.8	3.5	−0.6
Su	−3.1	−2.9	1.0	6.9	12.7	16.9	19.4	19.8	18.0	14.5	10.5	6.9
17	4.7	4.5	7.2	12.2	17.2	20.3	21.3	20.3	17.4	12.8	7.5	2.6
M	−1.0	−2.8	−1.8	2.5	8.4	13.6	17.3	19.3	19.3	17.3	13.7	9.8
18	6.6	4.7	5.0	8.0	12.8	17.2	19.6	20.3	19.2	16.3	11.9	6.9
Tu	2.5	−0.6	−1.9	−0.4	4.0	9.4	14.0	17.2	19.0	18.8	16.7	13.2
19	9.5	6.6	5.0	5.3	8.2	12.6	16.3	18.4	19.0	18.1	15.5	11.4
W	6.9	3.1	0.4	−0.6	1.0	5.2	10.0	14.1	17.1	18.7	18.6	16.4
20	13.0	9.6	6.8	5.1	5.3	7.8	11.5	14.7	16.8	17.8	17.3	15.1
Th	11.5	7.6	4.2	1.7	0.7	2.2	6.0	10.3	14.1	17.0	18.8	18.6
21	16.5	13.2	9.9	7.0	4.9	4.6	6.6	9.8	12.9	15.2	16.8	16.9
F	15.2	12.1	8.7	5.5	3.0	1.8	3.1	6.5	10.5	14.2	17.3	19.1
22	19.0	16.8	13.6	10.1	6.8	4.1	3.2	4.8	7.9	11.1	14.1	16.3
Sa	17.0	15.8	13.1	9.9	6.8	4.0	2.6	3.7	6.9	10.9	14.7	18.0
23	19.8	19.5	17.2	13.7	9.9	6.0	2.7	1.5	3.0	6.2	9.9	13.6
Su	16.5	17.6	16.6	14.0	10.9	7.6	4.6	3.0	4.1	7.5	11.6	15.7
24	19.0	20.7	20.0	17.3	13.4	9.1	4.6	0.9	−0.3	1.4	5.1	9.4
M	13.9	17.2	18.4	17.4	14.7	11.4	7.9	4.7	3.2	4.7	8.3	12.7
25	16.9	20.2	21.4	20.2	16.9	12.6	7.8	2.9	−0.9	−1.8	0.5	4.8
Tu	9.9	14.8	18.2	19.3	17.9	15.0	11.5	7.8	4.5	3.4	5.4	9.5
26	14.1	18.3	21.2	21.8	19.8	15.9	11.2	6.1	1.0	−2.5	−2.6	0.5
W	5.5	11.1	16.1	19.3	19.8	18.0	14.8	11.0	7.2	4.2	3.7	6.4
27	10.9	15.7	19.6	21.8	21.5	18.8	14.5	9.5	4.2	−0.6	−3.5	−2.6
Th	1.4	7.0	12.7	17.4	20.0	19.9	17.6	14.1	10.2	6.4	3.9	4.2
28	7.7	12.5	17.1	20.5	21.9	20.7	17.4	12.8	7.7	2.5	−1.9	−3.7
F	−1.8	3.0	8.8	14.4	18.5	20.4	19.6	16.8	13.1	9.2	5.7	3.8
29	5.1	9.2	14.0	18.1	20.8	21.3	19.5	15.7	10.9	5.9	1.1	−2.5
Sa	−3.2	−0.2	5.1	10.8	15.8	19.2	20.3	18.9	15.7	11.9	8.1	5.1
30	4.1	6.2	10.6	15.2	18.6	20.5	20.4	18.0	14.0	9.2	4.4	0.2
Su	−2.4	−1.9	1.9	7.2	12.4	16.8	19.4	19.8	17.9	14.5	10.7	7.2
31	4.8	4.7	7.5	11.9	15.9	18.6	19.8	19.1	16.4	12.3	7.7	3.4
M	0.0	−1.6	−0.1	4.1	9.1	13.7	17.3	19.3	19.1	16.8	13.3	9.7

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 60° 41′N Long. 151° 24′W

JUNE

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	6.7	4.9	5.5	8.6	12.7	15.9	18.0	18.7	17.7	14.9	10.8	6.6
Tu	3.0	0.4	-0.3	1.9	6.1	10.6	14.5	17.4	18.9	18.2	15.7	12.3
2	9.0	6.5	5.3	6.3	9.4	12.8	15.4	17.0	17.4	16.3	13.5	9.8
W	6.1	3.2	1.4	1.4	4.0	7.9	11.7	14.9	17.3	18.3	17.4	14.7
3	11.5	8.7	6.6	5.7	6.9	9.6	12.4	14.4	15.8	16.2	15.1	12.5
Th	9.2	6.2	4.0	2.8	3.2	5.8	9.2	12.4	15.1	17.1	17.8	16.6
4	14.0	11.1	8.5	6.7	5.9	6.9	9.3	11.5	13.3	14.7	15.2	14.3
F	12.0	9.2	6.9	5.1	4.2	4.8	7.2	10.2	12.9	15.3	17.1	17.4
5	16.1	13.5	10.8	8.4	6.5	5.6	6.4	8.4	10.5	12.3	13.9	14.7
Sa	14.0	12.1	9.8	7.8	6.3	5.4	6.0	8.3	11.0	13.4	15.6	17.2
6	17.3	15.8	13.2	10.5	8.0	5.8	4.8	5.5	7.4	9.5	11.6	13.6
Su	14.7	14.3	12.6	10.5	8.7	7.1	6.2	6.9	9.1	11.7	14.1	16.2
7	17.6	17.4	15.5	12.7	9.8	7.1	4.6	3.5	4.4	6.5	9.0	11.7
M	14.1	15.3	14.9	13.2	11.1	9.2	7.5	6.6	7.5	9.9	12.6	15.1
8	17.2	18.2	17.5	15.1	11.9	8.7	5.6	2.9	2.0	3.3	6.1	9.2
Tu	12.4	15.1	16.3	15.6	13.7	11.4	9.3	7.4	6.6	7.9	10.8	13.8
9	16.4	18.3	18.8	17.4	14.4	10.7	7.1	3.6	1.0	0.6	2.7	6.3
W	10.1	13.8	16.5	17.3	16.2	13.8	11.2	8.8	6.8	6.5	8.4	11.9
10	15.3	18.0	19.5	19.3	17.1	13.4	9.1	5.1	1.4	-0.9	-0.5	2.7
Th	7.1	11.6	15.5	18.0	18.2	16.4	13.6	10.6	7.9	6.0	6.2	9.1
11	13.2	16.9	19.6	20.6	19.5	16.4	12.0	7.3	2.9	-0.8	-2.5	-1.0
F	3.4	8.6	13.5	17.3	19.2	18.7	16.3	12.9	9.6	6.7	5.1	6.2
12	10.0	14.7	18.6	20.9	21.3	19.4	15.5	10.5	5.4	0.8	-2.6	-3.5
Sa	-0.7	4.6	10.4	15.4	18.8	20.0	18.8	15.7	11.9	8.3	5.4	4.3
13	6.3	11.0	16.1	19.9	21.8	21.5	18.9	14.4	9.0	3.6	-0.9	-3.9
Su	-3.7	0.2	6.3	12.3	17.0	19.9	20.4	18.5	14.9	10.7	6.9	4.2
14	3.8	6.7	12.0	17.2	20.7	22.1	21.3	18.2	13.3	7.6	2.2	-2.2
M	-4.4	-3.2	1.8	8.2	14.1	18.3	20.6	20.5	18.0	13.9	9.5	5.6
15	3.3	3.6	7.2	12.8	17.8	20.9	21.9	20.7	17.2	12.1	6.4	1.2
Tu	-2.7	-4.1	-1.8	3.7	10.1	15.5	19.2	21.0	20.3	17.3	12.9	8.4
16	4.7	2.7	3.6	7.7	13.1	17.6	20.3	21.1	19.7	16.2	11.1	5.6
W	0.9	-2.2	-2.9	0.0	5.7	11.6	16.5	19.7	20.9	19.8	16.5	12.0
17	7.7	4.3	2.6	3.8	7.7	12.7	16.7	19.1	19.9	18.6	15.2	10.4
Th	5.5	1.5	-1.0	-1.0	2.1	7.5	12.8	17.0	19.8	20.7	19.3	15.8
18	11.5	7.4	4.2	2.6	3.7	7.3	11.7	15.2	17.5	18.5	17.5	14.5
F	10.3	6.1	2.8	0.8	1.0	4.1	8.9	13.6	17.3	19.7	20.4	18.8
19	15.4	11.3	7.4	4.3	2.6	3.3	6.4	10.1	13.4	15.9	17.2	16.7
Sa	14.2	10.8	7.3	4.5	2.7	2.9	5.7	9.9	14.0	17.3	19.6	20.1
20	18.5	15.2	11.4	7.7	4.4	2.3	2.5	5.0	8.4	11.7	14.6	16.4
Su	16.3	14.5	11.7	8.9	6.3	4.4	4.4	6.8	10.5	14.1	17.3	19.5
21	19.9	18.3	15.3	11.6	7.8	4.1	1.5	1.4	3.6	6.8	10.4	13.8
M	16.1	16.6	15.2	12.9	10.3	7.7	5.6	5.4	7.5	10.8	14.2	17.4
22	19.6	20.0	18.3	15.2	11.5	7.5	3.4	0.5	0.2	2.4	5.8	9.9
Tu	13.8	16.6	17.2	16.1	13.9	11.3	8.5	6.1	5.8	7.8	11.0	14.5
23	17.8	19.9	20.1	18.2	15.0	11.1	6.7	2.2	-0.7	-0.8	1.7	5.6
W	10.3	14.6	17.4	18.0	16.8	14.5	11.6	8.5	6.0	5.8	8.0	11.5
24	15.1	18.4	20.3	20.1	17.8	14.3	10.1	5.4	0.8	-1.8	-1.3	1.8
Th	6.4	11.4	15.9	18.5	18.7	17.1	14.4	11.3	7.9	5.5	5.7	8.4
25	12.2	16.0	19.1	20.6	19.8	17.1	13.2	8.7	3.8	-0.6	-2.6	-1.1
F	2.8	7.9	13.1	17.4	19.4	19.0	16.8	13.8	10.3	6.8	4.9	5.8
26	9.2	13.3	17.1	19.8	20.7	19.2	15.9	11.7	7.0	2.1	-1.8	-2.7
Sa	-0.2	4.5	9.9	15.1	18.7	19.9	18.8	16.0	12.6	8.8	5.5	4.4
27	6.3	10.2	14.5	18.1	20.3	20.4	18.2	14.4	9.9	5.1	0.5	-2.5
Su	-2.1	1.6	6.8	12.2	16.8	19.6	20.0	18.1	14.8	11.0	7.2	4.4
28	4.3	7.1	11.5	15.7	18.8	20.3	19.7	16.9	12.7	7.9	3.3	-0.7
M	-2.4	-0.7	3.9	9.3	14.3	18.2	20.2	19.6	17.0	13.2	9.2	5.8
29	3.8	4.7	8.3	12.8	16.6	19.1	19.9	18.6	15.3	10.8	6.1	1.9
Tu	-1.1	-1.5	1.4	6.5	11.7	16.1	19.1	20.1	18.8	15.5	11.5	7.7
30	4.7	3.6	5.5	9.5	13.8	17.0	18.9	19.1	17.2	13.6	9.0	4.7
W	1.2	-0.7	0.2	4.0	9.1	13.7	17.3	19.5	19.7	17.6	13.9	9.9

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

NIKISKI, ALASKA, 2010

Lat. 60° 41′N Long. 151° 24′W

JULY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	6.4	4.2	4.0	6.5	10.6	14.3	16.9	18.2	17.9	15.7	11.9	7.6
Th	3.9	1.4	0.6	2.5	6.7	11.3	15.2	17.9	19.3	18.8	16.2	12.4
2	8.6	5.8	4.2	4.6	7.4	11.1	14.2	16.2	17.1	16.6	14.2	10.6
F	6.9	4.0	2.5	2.6	5.0	9.1	13.1	16.1	18.1	18.8	17.6	14.8
3	11.1	7.9	5.6	4.5	5.2	7.9	11.1	13.5	15.2	15.9	15.3	13.1
Sa	9.9	6.9	4.9	4.1	4.7	7.3	11.0	14.2	16.5	17.8	18.0	16.6
4	13.7	10.3	7.5	5.6	4.7	5.4	7.8	10.5	12.5	14.0	14.9	14.4
Su	12.6	10.0	7.7	6.4	5.9	6.7	9.1	12.3	14.8	16.5	17.5	17.4
5	15.7	12.9	9.9	7.4	5.6	4.6	5.1	7.2	9.5	11.5	13.2	14.3
M	14.2	12.7	10.6	8.9	7.8	7.4	8.1	10.2	13.0	15.1	16.5	17.3
6	17.0	15.3	12.5	9.6	7.2	5.2	3.9	4.3	6.2	8.6	10.8	12.9
Tu	14.4	14.6	13.4	11.6	10.0	8.9	8.2	8.7	10.7	13.3	15.3	16.7
7	17.5	17.1	15.2	12.3	9.3	6.6	4.1	2.6	3.0	5.2	7.9	10.7
W	13.4	15.2	15.5	14.3	12.5	10.8	9.3	8.2	8.7	10.8	13.5	15.7
8	17.4	18.2	17.5	15.3	12.0	8.6	5.4	2.5	0.9	1.7	4.4	7.9
Th	11.4	14.6	16.5	16.6	15.2	13.0	10.8	8.8	7.5	8.2	10.7	13.9
9	16.6	18.5	19.2	18.1	15.3	11.5	7.5	3.7	0.5	-0.9	0.6	4.2
F	8.6	12.8	16.3	18.0	17.7	15.6	12.8	10.1	7.6	6.3	7.5	10.8
10	14.7	17.9	20.0	20.4	18.7	15.1	10.6	6.0	1.7	-1.7	-2.4	0.1
Sa	4.9	10.1	14.8	18.2	19.4	18.3	15.5	12.1	8.7	5.9	4.9	6.9
11	11.2	15.8	19.4	21.4	21.3	18.9	14.6	9.4	4.2	-0.4	-3.5	-3.3
Su	0.5	6.3	12.1	17.0	20.0	20.4	18.5	14.9	10.8	6.9	4.0	3.6
12	6.6	11.8	17.0	20.7	22.5	21.8	18.7	13.7	7.9	2.3	-2.3	-4.8
M	-3.3	1.8	8.4	14.4	19.0	21.4	21.0	18.1	13.8	9.1	4.9	2.2
13	2.7	6.7	12.7	18.0	21.7	23.1	21.8	18.0	12.5	6.4	0.7	-3.6
Tu	-5.0	-2.3	3.9	10.8	16.7	20.7	22.3	21.0	17.3	12.4	7.3	3.1
14	0.9	2.3	7.2	13.4	18.6	21.9	22.9	21.2	17.0	11.2	5.0	-0.3
W	-3.9	-4.1	-0.2	6.4	13.2	18.5	21.8	22.5	20.5	16.2	10.9	5.7
15	1.8	0.3	2.4	7.7	13.7	18.5	21.4	22.0	20.0	15.7	9.9	4.2
Th	-0.4	-3.0	-2.2	2.4	9.0	15.2	19.7	22.3	22.2	19.6	14.9	9.6
16	4.7	1.3	0.3	2.8	8.0	13.5	17.7	20.2	20.6	18.6	14.4	9.1
F	4.2	0.5	-1.2	0.4	5.1	11.2	16.5	20.2	22.0	21.4	18.5	13.8
17	8.8	4.5	1.5	0.8	3.3	7.9	12.6	16.2	18.5	18.9	17.1	13.4
Sa	9.0	5.0	2.3	1.3	3.1	7.6	12.7	17.0	19.9	21.2	20.4	17.4
18	13.1	8.6	4.8	2.1	1.4	3.4	7.2	11.1	14.4	16.7	17.4	16.0
Su	13.1	9.7	6.7	4.5	3.8	5.5	9.2	13.4	16.7	19.2	20.2	19.3
19	16.6	12.9	9.1	5.6	2.8	1.8	3.2	6.1	9.4	12.5	15.1	16.3
M	15.6	13.5	11.0	8.7	6.8	5.9	7.1	10.0	13.2	16.0	18.2	19.3
20	18.6	16.3	13.1	9.8	6.4	3.2	1.7	2.5	4.8	7.8	11.2	14.2
Tu	15.9	15.8	14.4	12.5	10.5	8.4	7.2	7.8	10.0	12.7	15.2	17.5
21	18.8	18.4	16.4	13.6	10.4	6.7	3.1	1.1	1.5	3.7	6.8	10.6
W	14.1	16.3	16.6	15.6	13.8	11.7	9.2	7.4	7.7	9.5	12.0	14.8
22	17.3	18.8	18.5	16.7	13.9	10.4	6.3	2.3	0.1	0.6	3.0	6.6
Th	11.0	14.9	17.2	17.6	16.5	14.5	11.9	8.9	6.9	7.1	9.0	11.8
23	14.9	17.7	19.2	18.7	16.7	13.6	9.8	5.2	1.1	-0.8	0.1	3.2
F	7.5	12.3	16.3	18.4	18.4	16.8	14.3	11.1	7.7	5.8	6.5	8.9
24	12.2	15.7	18.5	19.7	18.8	16.3	12.7	8.4	3.6	-0.3	-1.5	0.5
Sa	4.3	9.3	14.3	18.0	19.4	18.6	16.3	13.2	9.5	6.1	4.8	6.2
25	9.5	13.3	16.9	19.5	20.0	18.4	15.2	11.1	6.4	1.6	-1.5	-1.4
Su	1.7	6.4	11.7	16.5	19.5	19.9	18.2	15.1	11.4	7.5	4.4	4.1
26	6.6	10.6	14.8	18.3	20.3	20.0	17.5	13.6	9.0	4.2	-0.1	-2.0
M	-0.4	3.9	9.2	14.4	18.5	20.4	19.8	17.1	13.3	9.2	5.3	3.1
27	4.0	7.7	12.3	16.4	19.5	20.6	19.3	16.0	11.5	6.7	2.1	-1.2
Tu	-1.6	1.6	6.8	12.2	16.9	20.0	20.7	18.9	15.3	11.0	6.9	3.5
28	2.5	4.7	9.2	14.0	17.8	20.1	20.3	18.1	14.1	9.2	4.5	0.7
W	-1.3	0.0	4.4	10.0	15.0	18.8	20.8	20.3	17.4	13.2	8.7	4.9
29	2.4	2.6	6.0	10.9	15.4	18.5	20.0	19.3	16.4	12.0	7.1	3.0
Th	0.2	-0.3	2.5	7.6	13.0	17.2	19.9	20.7	19.1	15.5	11.0	6.7
30	3.5	2.1	3.5	7.6	12.4	16.2	18.5	19.2	17.9	14.5	10.0	5.7
F	2.4	0.9	1.8	5.5	10.8	15.4	18.6	20.2	19.9	17.5	13.5	9.0
31	5.3	3.0	2.6	4.7	9.0	13.3	16.2	17.9	18.0	16.2	12.8	8.7
Sa	5.1	3.0	2.6	4.5	8.6	13.4	17.0	19.0	19.6	18.5	15.6	11.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 60° 41′N Long. 151° 24′W

AUGUST

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	7.6	4.7	3.2	3.4	5.9	9.8	13.4	15.6	16.7	16.5	14.7	11.6
Su	8.1	5.6	4.5	4.9	7.2	11.1	15.1	17.6	18.7	18.6	17.0	14.0
2	10.3	7.0	4.8	3.8	4.3	6.6	10.0	12.7	14.4	15.4	15.2	13.7
M	11.1	8.5	6.9	6.4	7.1	9.3	12.8	15.8	17.4	17.9	17.5	15.8
3	13.0	9.7	7.0	5.2	4.3	4.6	6.6	9.3	11.6	13.2	14.3	14.5
Tu	13.4	11.5	9.6	8.5	8.2	8.7	10.6	13.4	15.7	16.9	17.2	16.8
4	15.2	12.7	9.8	7.4	5.6	4.3	4.2	5.8	8.2	10.4	12.3	13.9
W	14.6	14.0	12.5	10.9	9.9	9.3	9.4	10.8	13.2	15.2	16.3	16.9
5	16.8	15.4	13.0	10.2	7.6	5.4	3.6	3.1	4.5	7.0	9.5	12.1
Th	14.3	15.4	15.1	13.7	12.0	10.6	9.4	9.0	10.2	12.5	14.7	16.3
6	17.4	17.6	16.2	13.6	10.5	7.4	4.5	2.0	1.4	3.1	6.1	9.5
F	12.9	15.6	16.9	16.4	14.6	12.5	10.3	8.4	7.6	9.0	11.8	14.7
7	17.0	18.7	18.9	17.3	14.2	10.4	6.5	2.8	0.0	-0.4	2.1	6.0
Sa	10.4	14.5	17.6	18.6	17.5	15.0	12.0	9.0	6.5	5.8	7.7	11.4
8	15.2	18.4	20.4	20.4	18.2	14.3	9.7	5.0	0.6	-2.1	-1.7	1.9
Su	7.0	12.3	16.9	19.7	20.0	18.0	14.5	10.7	6.9	4.1	3.9	6.8
9	11.6	16.4	20.1	22.1	21.6	18.6	13.8	8.4	3.0	-1.6	-3.8	-2.1
M	2.8	9.0	14.9	19.4	21.6	20.9	17.8	13.4	8.6	4.4	1.7	2.3
10	6.5	12.4	17.8	21.7	23.4	22.2	18.3	12.8	6.7	1.0	-3.3	-4.5
Tu	-1.4	4.8	11.7	17.7	21.7	22.9	21.1	16.9	11.6	6.3	1.9	-0.3
11	1.5	6.8	13.4	19.1	22.8	23.9	22.0	17.4	11.4	5.0	-0.5	-4.1
W	-4.0	0.5	7.6	14.6	20.2	23.3	23.4	20.5	15.5	9.6	4.1	-0.1
12	-1.4	1.5	7.6	14.4	19.8	23.1	23.6	21.0	16.0	9.8	3.7	-1.3
Th	-3.8	-2.2	3.3	10.7	17.2	21.9	24.0	23.0	19.3	13.8	7.7	2.4
13	-1.2	-1.6	2.1	8.5	14.9	19.8	22.5	22.4	19.6	14.5	8.6	3.1
F	-0.9	-2.2	0.5	6.5	13.4	19.0	22.6	23.7	22.0	17.7	12.1	6.3
14	1.6	-1.3	-0.9	3.1	9.2	14.8	18.9	21.1	20.8	17.9	13.1	7.9
Sa	3.5	0.6	0.3	3.6	9.4	15.3	19.8	22.3	22.6	20.4	16.1	10.8
15	5.8	1.7	-0.5	0.3	4.1	9.3	14.0	17.4	19.2	18.9	16.3	12.3
Su	8.1	4.8	2.9	3.2	6.5	11.4	16.1	19.4	21.1	21.0	18.8	14.8
16	10.3	6.1	2.8	0.9	1.5	4.7	8.8	12.5	15.5	17.3	17.3	15.3
M	12.3	9.2	6.9	5.5	5.9	8.5	12.4	15.7	18.1	19.5	19.3	17.4
17	14.2	10.5	7.2	4.3	2.3	2.4	4.7	7.7	10.8	13.6	15.7	16.2
Tu	15.1	13.0	10.9	9.1	7.7	7.7	9.5	12.2	14.6	16.5	17.9	18.1
18	16.7	14.3	11.4	8.6	5.6	3.2	2.6	4.0	6.4	9.2	12.3	14.8
W	16.0	15.6	14.3	12.7	10.9	9.1	8.4	9.3	11.2	13.1	15.1	16.8
19	17.5	16.8	14.9	12.5	9.7	6.3	3.3	2.2	3.0	5.1	8.2	11.8
Th	14.9	16.6	16.6	15.6	13.9	11.7	9.3	7.9	8.4	9.9	11.9	14.3
20	16.6	17.7	17.3	15.7	13.2	10.0	6.0	2.6	1.3	2.1	4.6	8.2
F	12.4	16.0	17.7	17.7	16.4	14.3	11.4	8.3	6.7	7.2	9.0	11.5
21	14.5	17.2	18.5	18.0	16.0	13.2	9.3	4.9	1.4	0.4	1.8	5.0
Sa	9.4	14.1	17.5	18.9	18.3	16.4	13.6	10.0	6.6	5.3	6.3	8.8
22	12.0	15.6	18.4	19.3	18.2	15.7	12.2	7.7	3.1	0.1	0.0	2.5
Su	6.6	11.6	16.3	19.2	19.7	18.2	15.4	11.8	7.7	4.6	4.1	6.1
23	9.5	13.5	17.3	19.7	19.8	17.8	14.5	10.3	5.5	1.2	-0.7	0.6
M	4.3	9.2	14.4	18.5	20.4	19.8	17.1	13.5	9.3	5.2	2.9	3.6
24	6.8	11.1	15.5	19.0	20.6	19.6	16.6	12.5	7.9	3.2	-0.2	-0.6
Tu	2.4	7.2	12.5	17.3	20.4	20.9	18.9	15.2	10.9	6.5	2.9	1.8
25	4.0	8.4	13.3	17.5	20.3	20.8	18.7	14.8	10.1	5.4	1.4	-0.7
W	0.7	5.2	10.6	15.7	19.6	21.4	20.4	17.2	12.8	8.1	3.9	1.3
26	1.7	5.3	10.5	15.4	19.1	20.9	20.2	17.1	12.6	7.7	3.4	0.4
Th	0.1	3.2	8.6	14.1	18.5	21.1	21.4	19.1	14.9	10.0	5.5	2.0
27	0.6	2.5	7.3	12.7	17.1	19.9	20.6	18.9	15.1	10.3	5.8	2.3
F	0.7	2.0	6.4	12.2	17.0	20.2	21.4	20.4	17.1	12.3	7.5	3.5
28	1.0	1.0	4.1	9.4	14.4	18.0	19.8	19.6	17.2	13.1	8.5	4.6
Sa	2.3	2.1	4.8	9.9	15.2	19.0	20.8	20.8	18.7	14.8	9.9	5.5
29	2.4	1.0	2.1	6.0	11.1	15.3	17.9	18.9	18.1	15.4	11.4	7.4
Su	4.6	3.4	4.4	7.8	12.8	17.3	19.8	20.4	19.4	16.7	12.6	8.1
30	4.4	2.3	1.8	3.6	7.5	12.0	15.3	17.1	17.6	16.5	13.9	10.4
M	7.3	5.5	5.3	6.9	10.5	14.9	18.1	19.5	19.3	17.7	14.8	11.0
31	7.1	4.3	2.9	2.9	4.8	8.4	12.1	14.5	15.8	16.2	15.3	13.1
Tu	10.3	8.1	7.1	7.4	9.0	12.2	15.7	17.9	18.5	17.9	16.3	13.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

NIKISKI, ALASKA, 2010

Lat. 60° 41′N Long. 151° 24′W

SEPTEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	10.3	7.1	5.0	3.9	3.8	5.4	8.3	11.2	13.2	14.5	15.1	14.7
W	13.0	11.0	9.4	8.8	9.0	10.2	12.7	15.4	17.0	17.3	16.9	15.6
2	13.4	10.5	7.8	5.9	4.6	4.0	5.0	7.4	9.9	12.0	13.7	14.9
Th	14.9	13.8	12.2	10.8	10.0	9.6	10.2	12.1	14.4	15.8	16.5	16.6
3	15.9	14.0	11.4	8.8	6.5	4.5	3.3	3.9	6.1	8.7	11.3	13.7
F	15.5	16.0	15.1	13.4	11.7	10.1	8.9	9.0	10.7	13.0	15.0	16.4
4	17.3	17.0	15.3	12.5	9.5	6.4	3.6	1.8	2.3	4.8	8.1	11.6
Sa	14.9	17.1	17.6	16.3	14.1	11.6	9.1	7.2	7.0	9.0	12.0	14.8
5	17.3	18.9	18.7	16.7	13.3	9.4	5.5	1.9	-0.1	0.9	4.2	8.5
Su	13.0	16.9	19.2	19.2	17.1	14.0	10.5	7.0	4.6	4.7	7.5	11.5
6	15.6	18.9	20.8	20.3	17.6	13.4	8.7	3.9	-0.1	-1.7	0.2	4.7
M	10.2	15.5	19.5	21.3	20.3	17.1	12.9	8.4	4.3	1.8	2.7	6.7
7	11.9	17.0	20.8	22.6	21.5	17.9	12.8	7.3	2.0	-1.9	-2.6	0.7
Tu	6.5	12.8	18.4	22.0	22.8	20.6	16.2	11.0	5.7	1.3	-0.6	1.4
8	6.7	13.0	18.6	22.5	23.7	21.8	17.3	11.5	5.6	0.3	-3.0	-2.4
W	2.3	9.2	15.9	21.2	23.9	23.5	20.0	14.6	8.6	3.0	-1.2	-2.3
9	1.1	7.4	14.3	20.1	23.6	24.0	21.3	16.2	10.0	4.0	-0.8	-3.0
Th	-0.9	5.0	12.4	18.9	23.3	24.9	23.1	18.6	12.6	6.3	0.7	-2.9
10	-2.8	1.7	8.6	15.5	20.9	23.7	23.4	20.0	14.6	8.6	3.0	-1.0
F	-1.9	1.6	8.2	15.3	21.0	24.3	24.7	21.9	16.8	10.5	4.3	-0.7
11	-3.4	-2.2	3.0	9.9	16.3	20.8	22.9	22.0	18.4	13.2	7.6	2.9
Sa	0.0	0.3	4.6	11.2	17.5	22.0	24.1	23.5	20.1	14.8	8.8	3.2
12	-1.0	-2.7	-0.8	4.5	10.8	16.2	20.0	21.5	20.3	16.8	12.0	7.3
Su	3.7	1.9	3.1	7.6	13.5	18.5	21.7	22.8	21.6	18.1	13.1	7.8
13	3.2	-0.1	-1.2	1.1	5.8	11.1	15.4	18.4	19.6	18.5	15.5	11.5
M	7.9	5.3	4.3	5.8	9.9	14.6	18.2	20.3	20.9	19.5	16.3	12.1
14	7.8	4.2	1.5	0.8	2.7	6.5	10.6	14.0	16.6	17.8	17.1	14.8
Tu	11.9	9.3	7.4	6.7	7.9	11.1	14.4	16.8	18.3	18.7	17.7	15.2
15	11.9	8.7	5.8	3.4	2.5	3.7	6.5	9.5	12.4	14.9	16.5	16.4
W	14.9	12.8	11.0	9.3	8.4	9.0	11.0	13.2	14.9	16.3	17.0	16.6
16	14.9	12.6	10.1	7.5	5.0	3.5	4.0	5.8	8.2	11.0	13.9	15.9
Th	16.4	15.6	14.2	12.5	10.6	9.1	8.9	10.0	11.5	13.0	14.8	16.1
17	16.4	15.4	13.6	11.4	8.7	5.7	3.6	3.5	4.8	7.1	10.3	13.8
F	16.3	17.2	16.7	15.3	13.4	10.8	8.6	7.8	8.5	9.8	11.8	14.2
18	16.2	17.0	16.3	14.6	12.3	9.0	5.4	3.0	2.7	4.2	6.9	10.8
Sa	14.7	17.4	18.3	17.5	15.8	13.2	9.8	7.1	6.2	7.0	8.9	11.6
19	14.7	17.2	18.0	17.1	15.1	12.1	8.2	4.3	2.0	2.2	4.3	7.9
Su	12.3	16.4	18.9	19.2	17.7	15.2	11.8	7.9	5.1	4.6	6.2	8.9
20	12.5	16.1	18.5	18.9	17.3	14.6	10.9	6.6	2.8	1.2	2.5	5.6
M	9.9	14.7	18.5	20.2	19.4	17.0	13.5	9.4	5.3	3.1	3.6	6.3
21	10.1	14.3	18.0	19.7	19.2	16.7	13.2	9.0	4.6	1.5	1.2	3.8
Tu	8.0	12.9	17.4	20.4	20.7	18.7	15.2	11.0	6.5	2.8	1.7	3.6
22	7.5	12.1	16.5	19.6	20.4	18.7	15.3	11.2	6.8	2.8	0.9	2.3
W	6.3	11.2	16.1	19.9	21.4	20.3	17.0	12.6	8.0	3.6	0.8	1.2
23	4.7	9.6	14.5	18.6	20.7	20.3	17.5	13.3	8.9	4.7	1.7	1.4
Th	4.5	9.6	14.7	19.0	21.5	21.5	18.9	14.5	9.6	5.0	1.3	-0.2
24	1.8	6.6	12.0	16.8	20.0	21.0	19.4	15.8	11.2	6.8	3.3	1.6
F	3.1	7.6	13.1	17.9	21.0	22.0	20.5	16.7	11.7	6.7	2.5	-0.2
25	-0.2	3.4	8.9	14.4	18.4	20.6	20.5	18.0	13.8	9.2	5.3	2.9
Sa	2.6	5.6	10.9	16.3	20.1	21.8	21.4	18.7	14.2	9.0	4.3	0.9
26	-0.6	0.9	5.5	11.2	16.1	19.2	20.4	19.3	16.3	12.0	7.8	4.7
Su	3.4	4.5	8.5	14.0	18.6	21.1	21.6	20.0	16.5	11.6	6.7	2.7
27	0.3	0.0	2.5	7.6	12.9	16.9	19.0	19.4	17.9	14.6	10.6	7.1
M	5.0	4.8	6.8	11.3	16.3	19.8	21.0	20.4	18.1	14.3	9.6	5.3
28	2.1	0.7	1.2	4.3	9.2	13.7	16.7	18.1	18.1	16.4	13.4	9.9
Tu	7.3	6.1	6.6	9.1	13.3	17.4	19.7	20.0	18.8	16.3	12.7	8.5
29	4.8	2.5	1.7	2.6	5.7	10.0	13.6	15.8	16.9	16.9	15.4	12.8
W	10.1	8.2	7.6	8.2	10.6	14.2	17.4	18.7	18.6	17.4	15.1	11.9
30	8.3	5.4	3.5	2.8	3.6	6.2	9.8	12.7	14.7	15.9	16.1	15.1
Th	13.0	10.9	9.4	8.8	9.2	11.0	13.9	16.3	17.3	17.3	16.5	14.7

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 60° 41′N Long. 151° 24′W

OCTOBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	12.0	9.0	6.4	4.6	3.6	3.8	5.9	8.9	11.6	13.7	15.4	16.2
F	15.6	13.9	11.9	10.4	9.4	9.1	10.2	12.5	14.7	15.9	16.5	16.5
2	15.3	13.0	10.2	7.6	5.3	3.6	3.3	5.0	7.9	10.8	13.6	15.9
Sa	17.1	16.7	15.0	12.8	10.7	8.8	7.7	8.4	10.7	13.1	15.1	16.7
3	17.4	16.6	14.4	11.4	8.3	5.3	2.8	2.2	4.0	7.2	10.8	14.4
Su	17.3	18.7	18.1	15.9	13.0	10.0	7.1	5.4	6.1	8.7	12.0	15.1
4	17.7	19.0	18.3	15.7	12.2	8.3	4.5	1.5	1.0	3.3	7.4	11.9
M	16.3	19.5	20.5	19.2	16.1	12.2	8.2	4.5	2.7	3.8	7.3	11.7
5	15.9	19.3	20.8	19.7	16.5	12.2	7.6	3.2	0.2	0.2	3.6	8.7
Tu	14.1	18.8	21.8	22.0	19.6	15.4	10.5	5.6	1.5	0.0	2.1	6.8
6	12.3	17.4	21.1	22.3	20.5	16.6	11.5	6.4	1.8	-0.8	0.3	4.9
W	10.9	16.9	21.5	23.7	22.8	19.1	13.9	8.2	2.8	-1.3	-2.0	1.3
7	7.2	13.6	19.1	22.6	23.1	20.6	15.9	10.4	5.0	0.7	-1.0	1.4
Th	7.1	13.8	19.7	23.7	24.8	22.6	17.8	11.8	5.7	0.1	-3.4	-3.0
8	1.6	8.3	15.1	20.5	23.5	23.1	19.8	14.7	9.1	3.9	0.2	-0.3
F	3.4	9.9	16.7	22.0	24.9	24.7	21.4	15.9	9.5	3.4	-1.8	-4.4
9	-2.7	2.8	9.9	16.5	21.3	23.4	22.4	18.6	13.4	8.0	3.4	0.6
Sa	1.4	6.1	12.7	18.9	23.2	24.9	23.6	19.6	13.8	7.5	1.8	-2.6
10	-4.2	-1.5	4.5	11.4	17.3	21.3	22.6	21.1	17.2	12.2	7.4	3.5
Su	1.8	3.6	8.8	15.0	20.1	23.2	23.9	21.8	17.5	11.8	6.1	1.1
11	-2.4	-2.9	0.5	6.3	12.4	17.4	20.5	21.3	19.5	15.8	11.4	7.3
M	4.4	3.6	6.0	11.0	16.3	20.1	22.1	22.0	19.7	15.5	10.4	5.5
12	1.5	-1.1	-0.9	2.5	7.7	12.7	16.7	19.3	19.8	18.1	14.8	11.1
Tu	8.0	5.9	5.6	8.1	12.4	16.4	19.0	20.2	19.9	17.7	14.0	9.8
13	5.9	2.7	0.8	1.2	4.3	8.4	12.3	15.6	17.8	18.4	17.0	14.4
W	11.5	9.1	7.5	7.4	9.4	12.6	15.4	17.2	18.1	17.9	16.2	13.3
14	10.0	7.0	4.4	2.7	3.0	5.3	8.4	11.5	14.4	16.6	17.4	16.5
Th	14.6	12.4	10.4	8.8	8.4	9.7	11.9	13.7	15.1	16.2	16.5	15.4
15	13.3	10.8	8.4	6.1	4.2	4.0	5.6	7.9	10.6	13.5	16.0	17.1
F	16.7	15.2	13.4	11.4	9.5	8.5	9.0	10.4	11.8	13.4	15.0	15.9
16	15.4	13.9	11.9	9.7	7.2	4.9	4.3	5.4	7.4	10.0	13.3	16.1
Sa	17.5	17.3	15.9	14.0	11.7	9.1	7.5	7.6	8.7	10.3	12.4	14.7
17	16.1	16.1	14.8	12.9	10.4	7.4	4.9	4.1	5.1	7.2	10.3	14.0
Su	17.0	18.4	18.0	16.3	13.9	10.9	7.8	5.9	6.0	7.4	9.6	12.5
18	15.4	17.0	17.0	15.5	13.2	10.3	6.9	4.3	3.7	5.2	7.9	11.6
M	15.5	18.5	19.4	18.3	16.0	12.9	9.1	5.7	4.0	4.7	6.8	9.9
19	13.5	16.7	18.2	17.7	15.6	12.8	9.4	5.8	3.6	3.8	6.1	9.6
Tu	13.7	17.6	19.9	19.9	17.9	14.6	10.8	6.7	3.3	2.4	4.1	7.2
20	11.2	15.3	18.3	19.1	17.8	15.0	11.6	7.9	4.6	3.2	4.6	8.0
W	12.1	16.3	19.7	20.9	19.6	16.5	12.4	8.1	3.9	1.2	1.6	4.5
21	8.7	13.3	17.3	19.6	19.5	17.2	13.8	10.0	6.3	3.7	3.6	6.4
Th	10.6	15.1	18.9	21.2	21.0	18.4	14.3	9.7	5.2	1.4	-0.1	1.7
22	5.9	10.9	15.6	19.1	20.4	19.2	16.0	12.1	8.3	5.0	3.4	4.8
F	8.9	13.7	18.0	20.9	21.8	20.2	16.4	11.6	6.7	2.4	-0.5	-0.6
23	2.8	8.0	13.3	17.7	20.3	20.5	18.3	14.5	10.4	6.8	4.2	3.9
Sa	6.8	11.8	16.7	20.3	22.0	21.5	18.5	13.9	8.8	4.0	0.3	-1.4
24	0.0	4.7	10.4	15.5	19.1	20.7	19.9	16.9	12.8	8.9	5.8	4.2
Su	5.2	9.3	14.7	19.1	21.6	22.1	20.3	16.4	11.4	6.2	2.0	-0.9
25	-1.4	1.4	6.9	12.6	17.1	19.8	20.4	18.9	15.5	11.4	7.8	5.4
M	4.8	7.0	11.8	17.0	20.6	21.9	21.3	18.6	14.3	9.2	4.4	0.8
26	-1.2	-0.5	3.2	8.9	14.2	17.8	19.7	19.6	17.6	14.2	10.3	7.3
Tu	5.6	5.9	8.9	13.8	18.4	20.9	21.3	19.9	16.8	12.4	7.6	3.3
27	0.5	-0.6	0.8	5.0	10.4	14.9	17.7	19.0	18.7	16.5	13.2	9.8
W	7.4	6.4	7.2	10.4	15.0	18.7	20.4	20.2	18.5	15.4	11.2	6.8
28	3.2	1.0	0.5	2.3	6.4	11.2	14.9	17.2	18.2	17.8	15.8	12.8
Th	9.8	7.9	7.2	8.2	11.2	15.2	18.0	19.1	18.8	17.3	14.4	10.7
29	6.8	3.8	2.0	1.6	3.4	7.1	11.2	14.4	16.5	17.7	17.4	15.6
F	12.9	10.3	8.6	7.8	8.5	11.0	14.3	16.6	17.6	17.6	16.6	14.3
30	11.0	7.6	4.9	3.1	2.5	3.9	7.2	10.9	13.9	16.2	17.6	17.6
Sa	16.0	13.5	11.0	9.0	7.7	7.8	9.8	12.6	14.8	16.3	17.0	16.6
31	14.8	11.9	8.8	6.1	4.0	2.9	4.0	7.0	10.5	13.7	16.5	18.2
Su	18.4	16.8	14.1	11.3	8.8	6.7	6.2	7.8	10.6	13.2	15.4	17.0

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

NIKISKI, ALASKA, 2010

Lat. 60° 41′N Long. 151° 24′W

NOVEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	17.3	15.9	13.2	10.0	7.0	4.3	2.8	3.7	6.8	10.6	14.3	17.5
M	19.5	19.5	17.6	14.5	11.0	7.6	4.8	3.9	5.6	8.7	12.2	15.4
2	17.9	18.6	17.2	14.3	10.8	7.3	4.0	2.4	3.5	6.9	11.3	15.6
Tu	19.2	21.2	20.7	18.1	14.2	9.9	5.7	2.3	1.4	3.6	7.5	11.9
3	16.1	19.2	20.0	18.4	15.0	11.0	7.0	3.5	1.9	3.6	7.8	12.8
W	17.6	21.2	22.7	21.4	17.9	13.2	8.1	3.2	-0.3	-0.7	2.2	7.2
4	12.6	17.5	20.6	21.1	19.0	15.1	10.7	6.3	2.8	1.8	4.3	9.3
Th	14.9	19.8	23.1	23.7	21.4	16.9	11.5	5.9	0.7	-2.6	-2.1	1.9
5	7.8	13.9	19.0	21.8	21.7	18.9	14.7	10.0	5.5	2.3	2.2	5.7
F	11.4	17.2	21.8	24.3	23.8	20.5	15.3	9.4	3.6	-1.5	-4.0	-2.4
6	2.6	9.2	15.5	20.3	22.5	21.7	18.3	13.8	9.1	4.8	2.3	3.1
Sa	7.6	13.6	19.2	23.2	24.6	23.1	19.0	13.4	7.4	1.7	-2.9	-4.4
7	-1.7	4.2	10.9	16.9	21.1	22.5	21.0	17.4	12.8	8.2	4.4	2.7
Su	4.6	9.7	15.6	20.6	23.6	24.0	21.6	17.1	11.4	5.6	0.4	-3.3
8	-3.7	0.0	6.1	12.5	17.9	21.3	22.0	20.0	16.2	11.7	7.6	4.4
M	3.6	6.4	11.6	17.0	21.0	23.0	22.6	19.8	15.1	9.7	4.4	-0.1
9	-2.8	-2.2	2.1	8.0	13.7	18.2	20.9	21.0	18.8	15.1	11.0	7.3
Tu	4.9	4.9	8.1	13.1	17.6	20.5	21.7	20.8	17.9	13.4	8.5	3.9
10	0.2	-1.6	-0.1	4.2	9.5	14.3	18.0	20.1	19.9	17.6	14.2	10.6
W	7.6	5.8	6.3	9.5	13.8	17.2	19.3	20.0	19.0	16.1	12.1	7.9
11	4.1	1.3	0.2	2.0	6.0	10.4	14.4	17.5	19.2	18.9	16.7	13.6
Th	10.6	8.1	6.8	7.5	10.3	13.6	16.1	17.7	18.2	17.3	14.8	11.4
12	7.9	5.0	2.7	2.1	3.8	7.2	10.8	14.1	16.8	18.3	18.1	16.1
F	13.5	10.9	8.8	7.5	8.1	10.3	12.7	14.6	16.0	16.6	16.1	14.1
13	11.3	8.6	6.2	4.3	3.7	5.2	7.9	10.8	13.7	16.3	17.9	17.7
Sa	16.0	13.6	11.3	9.2	7.8	7.9	9.5	11.3	13.0	14.5	15.6	15.5
14	14.0	11.8	9.5	7.4	5.5	4.8	6.0	8.3	10.9	13.7	16.3	17.9
Su	17.7	16.1	13.9	11.5	9.1	7.3	7.1	8.2	9.8	11.7	13.7	15.3
15	15.5	14.4	12.5	10.4	8.2	6.2	5.4	6.5	8.6	11.2	14.1	16.8
M	18.3	18.0	16.2	13.8	11.1	8.3	6.1	5.7	6.9	8.7	11.1	13.7
16	15.7	16.1	15.0	13.1	11.0	8.6	6.4	5.7	6.9	9.2	12.0	15.1
Tu	17.8	19.0	18.2	16.0	13.1	9.9	6.7	4.4	4.2	5.8	8.3	11.3
17	14.5	16.6	16.9	15.6	13.5	11.0	8.4	6.2	5.9	7.6	10.3	13.5
W	16.7	19.1	19.6	18.0	15.1	11.7	8.0	4.5	2.6	3.1	5.4	8.7
18	12.4	15.9	17.8	17.7	15.8	13.3	10.5	7.7	5.9	6.3	8.7	12.0
Th	15.4	18.5	20.2	19.7	17.2	13.6	9.7	5.7	2.3	1.0	2.6	6.0
19	10.0	14.2	17.5	18.9	18.0	15.5	12.6	9.5	6.9	5.7	7.1	10.4
F	14.1	17.6	20.1	20.8	19.2	15.8	11.5	7.2	3.1	0.3	0.1	2.9
20	7.3	12.0	16.2	19.0	19.5	17.8	14.8	11.5	8.4	6.1	5.8	8.3
Sa	12.5	16.5	19.6	21.3	20.8	18.1	13.8	9.1	4.6	0.8	-1.2	0.0
21	4.1	9.3	14.2	18.1	20.0	19.6	17.1	13.6	10.2	7.2	5.5	6.4
Su	10.0	14.7	18.7	21.2	21.8	20.2	16.5	11.6	6.6	2.3	-1.0	-1.9
22	0.7	5.9	11.5	16.2	19.4	20.5	19.2	16.1	12.3	8.9	6.2	5.3
M	7.3	11.9	16.8	20.4	22.1	21.6	19.0	14.6	9.4	4.5	0.4	-2.1
23	-1.7	2.1	8.0	13.5	17.7	20.2	20.5	18.5	15.0	11.1	7.7	5.6
Tu	5.6	8.6	13.7	18.5	21.4	22.2	20.9	17.6	12.8	7.5	2.8	-0.8
24	-2.4	-0.9	3.9	9.9	15.1	18.7	20.4	20.0	17.6	13.8	9.9	6.9
W	5.3	6.1	9.9	15.1	19.3	21.5	21.7	19.9	16.2	11.3	6.1	1.8
25	-1.2	-1.9	0.5	5.8	11.6	16.2	19.1	20.3	19.4	16.6	12.8	9.1
Th	6.5	5.4	6.8	10.8	15.8	19.3	20.9	20.7	18.7	15.0	10.2	5.4
26	1.5	-0.8	-0.8	2.2	7.4	12.7	16.7	19.1	19.9	18.8	15.9	12.1
F	8.7	6.4	5.7	7.3	11.2	15.5	18.5	19.8	19.5	17.6	14.1	9.6
27	5.3	2.0	0.2	0.6	3.7	8.7	13.4	16.8	19.0	19.7	18.4	15.5
Sa	11.9	8.7	6.5	5.8	7.2	10.7	14.5	17.1	18.4	18.4	16.8	13.7
28	9.7	6.0	3.2	1.6	2.0	5.0	9.5	13.7	16.9	19.0	19.6	18.3
Su	15.4	11.9	8.9	6.5	5.4	6.5	9.5	12.8	15.3	17.0	17.5	16.5
29	13.9	10.5	7.2	4.6	3.0	3.2	6.0	10.0	13.9	17.0	19.2	19.9
M	18.5	15.6	12.2	8.9	6.1	4.5	5.1	7.7	10.9	13.7	16.0	17.2
30	16.8	14.6	11.6	8.5	5.9	4.0	4.1	6.6	10.4	14.2	17.5	19.8
Tu	20.5	19.0	15.9	12.3	8.6	5.2	3.0	3.2	5.7	9.1	12.5	15.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 60° 41′N Long. 151° 24′W

DECEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	17.6	17.5	15.7	12.8	9.7	6.8	4.7	4.5	7.0	10.9	14.8	18.3
W	20.8	21.2	19.4	16.1	12.0	7.7	3.7	1.1	1.3	4.0	7.9	12.2
2	16.0	18.4	18.6	16.7	13.7	10.5	7.2	4.8	4.8	7.4	11.5	15.8
Th	19.5	21.8	21.9	19.6	15.7	11.1	6.3	1.8	-0.9	-0.3	3.0	7.6
3	12.6	17.0	19.5	19.5	17.4	14.2	10.7	7.1	4.7	5.0	8.1	12.5
F	17.0	20.8	22.8	22.2	19.3	14.8	9.8	4.6	-0.1	-2.5	-1.2	2.9
4	8.3	13.8	18.3	20.6	20.1	17.6	14.1	10.3	6.6	4.4	5.3	9.0
Sa	13.8	18.4	21.9	23.3	21.9	18.4	13.5	8.2	2.7	-1.8	-3.4	-1.2
5	3.7	9.6	15.4	19.6	21.3	20.3	17.3	13.5	9.5	5.9	4.2	5.9
Su	10.2	15.2	19.7	22.6	23.2	21.1	17.0	11.8	6.4	1.1	-2.9	-3.5
6	-0.2	5.3	11.5	17.0	20.6	21.6	19.9	16.6	12.6	8.5	5.2	4.3
M	6.8	11.5	16.6	20.6	22.8	22.5	19.8	15.3	10.1	4.7	-0.2	-3.3
7	-2.7	1.5	7.4	13.3	18.3	21.1	21.3	19.1	15.5	11.4	7.5	4.7
Tu	4.7	7.9	12.9	17.6	20.9	22.3	21.4	18.2	13.6	8.4	3.3	-0.9
8	-2.9	-1.1	3.7	9.5	14.9	19.1	21.2	20.7	18.1	14.2	10.2	6.6
W	4.6	5.4	9.2	14.0	18.0	20.6	21.4	19.9	16.5	11.8	6.9	2.5
9	-0.9	-1.7	1.0	6.0	11.4	16.1	19.5	20.9	19.8	16.8	13.0	9.2
Th	6.2	4.9	6.4	10.4	14.6	17.9	19.8	20.1	18.3	14.8	10.3	5.9
10	2.2	-0.1	0.1	3.3	8.2	12.9	16.8	19.5	20.2	18.7	15.6	11.9
F	8.5	6.1	5.5	7.4	11.1	14.7	17.2	18.6	18.6	16.7	13.3	9.3
11	5.6	2.7	1.3	2.2	5.6	10.0	13.9	17.1	19.2	19.4	17.7	14.5
Sa	11.1	8.3	6.3	6.1	8.1	11.3	14.1	16.1	17.2	17.1	15.4	12.3
12	8.8	5.9	3.8	3.0	4.4	7.6	11.3	14.5	17.1	18.7	18.6	16.7
Su	13.7	10.8	8.3	6.6	6.5	8.2	10.8	13.0	14.7	15.9	15.9	14.4
13	11.8	9.0	6.8	5.3	4.8	6.3	9.1	12.2	14.8	17.0	18.3	18.0
M	16.1	13.3	10.6	8.4	6.7	6.4	7.8	9.9	11.8	13.5	14.9	15.2
14	14.1	11.9	9.8	8.0	6.7	6.4	7.7	10.2	12.7	15.0	17.0	18.1
Tu	17.6	15.7	13.0	10.5	8.1	6.2	5.7	6.8	8.7	10.7	12.8	14.5
15	15.2	14.3	12.6	10.7	9.2	7.9	7.5	8.7	10.9	13.2	15.4	17.3
W	18.2	17.5	15.4	12.7	10.0	7.4	5.2	4.6	5.7	7.7	10.1	12.7
16	14.9	15.7	15.0	13.4	11.6	9.9	8.5	8.0	9.3	11.5	13.8	16.1
Th	17.9	18.5	17.5	15.0	12.0	9.0	6.0	3.6	3.2	4.8	7.3	10.2
17	13.4	15.8	16.7	15.8	14.0	12.1	10.1	8.4	8.1	9.7	12.2	14.8
F	17.1	18.8	19.0	17.3	14.3	10.9	7.5	4.1	1.9	2.0	4.2	7.5
18	11.2	14.7	17.1	17.7	16.4	14.2	11.9	9.6	7.9	8.0	10.2	13.2
Sa	16.1	18.5	19.8	19.3	16.9	13.3	9.3	5.5	2.0	0.2	1.2	4.4
19	8.5	12.8	16.5	18.5	18.4	16.6	13.9	11.2	8.6	7.1	7.9	10.9
Su	14.5	17.7	20.0	20.7	19.3	16.0	11.8	7.4	3.2	-0.1	-1.2	1.0
20	5.3	10.3	14.8	18.3	19.7	18.8	16.2	13.0	9.9	7.3	6.3	8.0
M	11.9	16.1	19.4	21.3	21.2	18.9	14.9	10.0	5.2	1.0	-1.9	-1.9
21	1.6	7.0	12.4	16.9	19.8	20.4	18.7	15.4	11.7	8.4	5.9	5.6
Tu	8.4	13.2	17.7	20.9	22.2	21.3	18.2	13.5	8.1	3.1	-1.0	-3.1
22	-1.8	3.0	9.0	14.6	18.7	20.9	20.6	18.1	14.3	10.2	6.7	4.6
W	5.3	9.1	14.5	19.1	21.9	22.6	21.0	17.2	11.9	6.3	1.3	-2.4
23	-3.5	-0.8	4.9	11.3	16.6	20.2	21.5	20.4	17.2	12.9	8.6	5.2
Th	3.7	5.3	10.0	15.6	19.9	22.2	22.4	20.2	15.9	10.4	4.8	0.1
24	-2.9	-2.9	0.9	7.2	13.4	18.2	21.1	21.7	19.9	16.1	11.5	7.2
F	4.2	3.3	5.6	10.7	16.2	20.0	21.9	21.6	19.1	14.6	9.1	3.8
25	-0.3	-2.5	-1.4	3.1	9.4	15.2	19.3	21.5	21.5	19.1	15.0	10.3
Sa	6.2	3.6	3.2	6.0	11.0	16.0	19.3	20.9	20.4	17.9	13.5	8.3
26	3.6	0.2	-1.1	0.7	5.4	11.4	16.4	19.9	21.5	21.0	18.3	14.0
Su	9.5	5.8	3.5	3.4	6.1	10.7	15.0	17.9	19.4	19.1	16.7	12.7
27	8.2	4.3	1.7	0.9	2.9	7.5	12.8	17.1	20.0	21.2	20.4	17.6
M	13.4	9.3	5.8	3.6	3.4	5.8	9.7	13.4	16.2	17.8	17.8	16.0
28	12.6	8.8	5.7	3.6	3.1	5.0	9.1	13.6	17.3	19.8	20.8	19.9
Tu	17.1	13.3	9.4	6.1	3.7	3.0	4.9	8.2	11.5	14.4	16.4	17.0
29	15.8	13.1	10.1	7.6	5.6	5.0	6.6	10.1	13.9	17.1	19.5	20.5
W	19.7	17.1	13.5	9.8	6.3	3.4	2.2	3.6	6.5	9.7	13.0	15.6
30	16.9	16.2	14.2	11.7	9.3	7.2	6.2	7.4	10.4	13.8	16.9	19.4
Th	20.5	19.8	17.3	13.8	10.0	6.1	2.7	1.0	2.1	4.9	8.5	12.3
31	15.6	17.4	17.1	15.4	13.1	10.6	8.1	6.7	7.6	10.3	13.7	16.9
F	19.5	20.8	20.0	17.4	13.9	9.8	5.4	1.5	-0.3	0.8	3.9	8.0

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

SELDOVIA, ALASKA, 2010

Lat. 59° 27′N Long. 151° 43′W

JANUARY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	10.0	15.0	18.3	19.2	17.5	13.9	9.2	4.8	2.3	2.5	5.3	9.8
F	14.7	19.0	21.4	21.3	18.4	13.4	7.1	1.0	-3.6	-5.3	-3.7	0.4
2	6.0	11.9	16.8	19.6	19.7	17.2	12.8	7.7	3.3	1.2	2.0	5.5
Sa	10.3	15.5	19.6	21.7	21.0	17.6	12.1	5.6	-0.3	-4.2	-5.0	-2.6
3	2.1	8.0	13.8	18.3	20.4	19.6	16.4	11.5	6.3	2.2	0.6	2.0
Su	5.8	10.8	15.8	19.6	21.1	19.9	16.2	10.6	4.4	-0.9	-3.9	-3.8
4	-0.8	4.3	10.0	15.4	19.2	20.4	19.0	15.3	10.2	5.2	1.6	0.6
M	2.4	6.2	10.9	15.5	18.7	19.8	18.3	14.5	9.3	3.8	-0.6	-2.7
5	-1.8	1.6	6.5	11.8	16.5	19.4	19.9	17.9	14.0	9.2	4.6	1.6
Tu	1.0	2.8	6.3	10.6	14.5	17.3	18.0	16.5	13.0	8.5	4.0	0.6
6	-0.7	0.6	4.0	8.5	13.1	16.9	19.0	19.0	16.7	13.0	8.6	4.6
W	2.0	1.6	3.2	6.2	9.7	13.1	15.4	16.0	14.7	12.0	8.4	4.9
7	2.3	1.7	3.1	6.1	9.9	13.7	16.7	18.3	17.8	15.7	12.3	8.4
Th	4.9	2.6	2.1	3.3	5.6	8.5	11.4	13.5	14.3	13.5	11.6	8.9
8	6.2	4.3	3.9	5.1	7.5	10.6	13.7	16.2	17.3	16.9	15.0	12.1
F	8.7	5.4	3.2	2.4	3.0	4.7	7.2	9.9	12.0	13.1	13.0	11.9
9	10.0	7.8	6.1	5.5	6.3	8.2	10.7	13.4	15.6	16.6	16.2	14.7
Sa	12.1	9.0	5.8	3.4	2.2	2.4	3.7	6.0	8.8	11.2	12.8	13.2
10	12.6	11.1	9.1	7.3	6.4	6.8	8.3	10.5	13.0	15.1	16.2	16.1
Su	14.7	12.4	9.2	5.8	3.1	1.6	1.5	2.9	5.3	8.4	11.2	13.2
11	14.0	13.6	12.1	9.8	7.7	6.5	6.7	8.1	10.3	12.9	15.2	16.4
M	16.3	15.0	12.4	8.9	5.2	2.2	0.7	0.8	2.4	5.3	8.8	12.0
12	14.2	15.1	14.5	12.5	9.7	7.3	6.0	6.2	7.8	10.4	13.3	15.7
Tu	17.0	16.7	15.1	12.0	8.0	4.0	1.0	-0.3	0.3	2.6	6.2	10.1
13	13.5	15.5	16.0	14.8	12.1	8.9	6.2	5.1	5.8	7.9	11.0	14.2
W	16.7	17.7	17.0	14.7	11.0	6.5	2.4	-0.3	-0.9	0.5	3.6	7.7
14	11.9	15.2	16.8	16.5	14.4	11.0	7.5	5.0	4.4	5.7	8.5	12.1
Th	15.5	17.8	18.3	16.9	13.7	9.3	4.5	0.6	-1.3	-1.0	1.4	5.3
15	9.9	14.0	16.8	17.5	16.3	13.3	9.4	5.8	3.8	4.0	6.1	9.6
F	13.5	16.9	18.6	18.3	16.0	12.1	7.2	2.5	-0.7	-1.6	-0.2	3.2
16	7.6	12.3	16.0	17.9	17.6	15.4	11.6	7.5	4.3	3.1	4.2	7.1
Sa	11.1	15.0	17.9	18.9	17.7	14.5	9.9	5.0	0.8	-1.4	-1.1	1.5
17	5.6	10.3	14.6	17.5	18.3	16.9	13.8	9.6	5.7	3.2	3.0	5.0
Su	8.5	12.6	16.2	18.4	18.5	16.3	12.4	7.7	3.1	-0.2	-1.1	0.4
18	3.9	8.3	12.8	16.4	18.2	17.9	15.5	11.8	7.7	4.3	2.7	3.5
M	6.2	10.0	13.8	16.8	18.1	17.2	14.4	10.2	5.7	1.9	-0.2	0.2
19	2.7	6.6	10.9	14.8	17.4	18.1	16.7	13.6	9.7	6.0	3.5	2.9
Tu	4.5	7.6	11.2	14.5	16.7	17.1	15.5	12.2	8.2	4.3	1.6	0.8
20	2.2	5.4	9.3	13.2	16.2	17.7	17.2	15.0	11.6	8.0	4.9	3.3
W	3.6	5.6	8.7	11.9	14.5	15.8	15.5	13.5	10.3	6.8	3.9	2.2
21	2.5	4.6	8.0	11.6	14.7	16.7	17.2	15.9	13.3	9.9	6.7	4.4
Th	3.5	4.4	6.6	9.3	11.9	13.8	14.6	13.9	11.8	9.0	6.3	4.3
22	3.6	4.5	7.0	10.1	13.1	15.4	16.6	16.3	14.6	11.8	8.8	6.1
F	4.4	3.9	4.9	6.9	9.2	11.3	12.7	13.2	12.5	10.7	8.6	6.6
23	5.3	5.2	6.4	8.7	11.4	13.8	15.5	16.1	15.5	13.6	11.0	8.3
Sa	6.0	4.5	4.1	4.9	6.6	8.4	10.2	11.5	12.1	11.7	10.5	9.0
24	7.6	6.7	6.6	7.7	9.6	11.8	13.8	15.2	15.7	15.0	13.3	10.9
Su	8.4	6.1	4.5	3.8	4.2	5.5	7.2	9.0	10.6	11.6	11.8	11.1
25	10.0	8.8	7.8	7.4	8.1	9.6	11.6	13.5	14.9	15.7	15.2	13.7
M	11.4	8.8	6.2	4.0	2.8	2.8	3.9	5.8	8.0	10.3	12.0	12.7
26	12.5	11.4	9.9	8.3	7.3	7.5	8.8	10.8	13.1	15.0	16.2	16.2
Tu	14.8	12.4	9.2	5.8	2.8	1.1	0.9	2.2	4.6	7.7	10.9	13.3
27	14.4	14.1	12.7	10.4	8.0	6.3	6.2	7.6	10.0	12.9	15.7	17.5
W	17.7	16.2	13.2	9.3	4.9	1.1	-1.0	-1.1	0.9	4.2	8.3	12.3
28	15.2	16.4	15.7	13.4	10.1	6.8	4.6	4.4	6.2	9.5	13.3	16.8
Th	19.0	19.3	17.4	13.7	8.7	3.4	-0.9	-3.1	-2.6	0.3	4.7	9.8
29	14.4	17.4	18.2	16.8	13.4	9.0	4.9	2.6	2.7	5.2	9.4	14.1
F	18.2	20.7	20.7	18.1	13.5	7.5	1.5	-2.9	-4.6	-3.2	0.7	6.2
30	12.0	16.8	19.5	19.6	17.1	12.6	7.3	2.8	0.6	1.4	4.7	9.7
Sa	15.1	19.5	21.8	21.3	18.0	12.5	5.9	-0.3	-4.3	-5.1	-2.7	2.2
31	8.4	14.5	19.1	21.1	20.1	16.5	11.0	5.2	0.8	-0.9	0.7	4.8
Su	10.4	16.0	20.4	22.2	21.1	17.0	11.0	4.2	-1.6	-4.8	-4.5	-1.0

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 59° 27′N Long. 151° 43′W

FEBRUARY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	4.6	11.0	16.9	20.8	21.8	19.7	15.1	9.2	3.3	-0.6	-1.5	0.8
M	5.4	11.1	16.6	20.5	21.7	19.9	15.4	9.3	3.0	-2.0	-4.1	-2.7
2	1.5	7.3	13.5	18.6	21.5	21.4	18.4	13.4	7.4	2.0	-1.2	-1.4
Tu	1.4	6.2	11.6	16.5	19.7	20.2	18.0	13.5	7.9	2.4	-1.4	-2.3
3	-0.1	4.3	9.9	15.3	19.4	21.2	20.2	16.7	11.6	6.0	1.4	-0.9
W	-0.4	2.5	6.9	11.6	15.7	18.1	18.2	15.9	11.8	7.1	2.8	0.2
4	0.2	2.8	7.0	11.9	16.3	19.2	20.0	18.3	14.8	10.1	5.4	1.7
Th	0.1	0.9	3.5	7.2	11.1	14.3	16.1	15.9	13.9	10.7	7.0	3.9
5	2.4	3.0	5.4	9.0	12.9	16.2	18.2	18.3	16.5	13.2	9.4	5.5
F	2.7	1.5	2.2	4.2	7.0	10.0	12.6	14.0	13.9	12.5	10.3	7.8
6	5.6	4.7	5.4	7.4	10.1	13.0	15.4	16.7	16.5	14.9	12.4	9.3
Sa	6.3	3.9	2.8	3.0	4.3	6.3	8.7	10.8	12.3	12.6	12.0	10.7
7	9.0	7.5	6.7	7.0	8.4	10.3	12.4	14.2	15.3	15.2	14.1	12.2
Su	9.8	7.3	5.0	3.6	3.3	3.9	5.3	7.4	9.5	11.3	12.2	12.3
8	11.7	10.4	8.9	7.8	7.7	8.4	9.7	11.5	13.2	14.4	14.6	14.0
M	12.7	10.6	8.0	5.5	3.6	2.8	3.1	4.4	6.5	9.1	11.3	12.7
9	13.3	12.8	11.4	9.6	8.0	7.4	7.7	8.9	10.7	12.7	14.2	14.9
Tu	14.6	13.3	11.1	8.1	5.1	2.9	1.9	2.2	3.8	6.5	9.6	12.2
10	14.0	14.5	13.7	11.7	9.3	7.3	6.4	6.7	8.2	10.5	13.0	14.9
W	15.8	15.4	13.8	10.9	7.3	3.9	1.6	0.8	1.7	4.1	7.5	11.0
11	13.9	15.5	15.5	13.9	11.1	8.1	5.8	5.1	5.9	8.1	11.1	14.0
Th	16.1	16.8	16.0	13.6	9.9	5.8	2.2	0.3	0.2	2.0	5.3	9.4
12	13.2	15.8	16.8	15.9	13.3	9.7	6.2	4.2	4.0	5.7	8.7	12.4
F	15.6	17.5	17.7	16.0	12.6	8.2	3.7	0.5	-0.7	0.4	3.3	7.4
13	11.9	15.5	17.5	17.4	15.3	11.7	7.5	4.2	2.7	3.5	6.2	10.0
Sa	14.1	17.3	18.6	17.8	15.1	10.8	5.9	1.6	-0.8	-0.7	1.5	5.5
14	10.2	14.6	17.6	18.5	17.1	13.9	9.5	5.2	2.4	2.0	3.9	7.4
Su	11.8	15.9	18.5	19.0	17.1	13.4	8.5	3.6	0.0	-1.1	0.3	3.7
15	8.4	13.2	17.0	18.9	18.5	15.8	11.7	7.0	3.1	1.2	2.0	4.9
M	9.2	13.6	17.3	19.0	18.4	15.6	11.1	6.1	1.8	-0.6	-0.3	2.4
16	6.6	11.5	15.8	18.6	19.2	17.4	13.7	9.1	4.6	1.6	1.0	2.9
Tu	6.6	11.0	15.1	17.9	18.7	17.0	13.4	8.8	4.2	0.9	-0.1	1.5
17	5.2	9.7	14.2	17.6	19.2	18.4	15.5	11.2	6.6	2.8	1.0	1.6
W	4.3	8.3	12.5	15.9	17.7	17.4	15.0	11.1	6.8	3.1	1.1	1.5
18	4.1	8.2	12.5	16.2	18.4	18.7	16.7	13.1	8.8	4.7	1.9	1.2
Th	2.7	5.9	9.7	13.3	15.8	16.7	15.6	12.9	9.2	5.6	3.0	2.2
19	3.7	6.9	10.8	14.5	17.2	18.2	17.4	14.7	10.9	6.9	3.6	1.8
F	2.0	4.0	7.2	10.5	13.3	15.0	15.2	13.7	11.1	8.0	5.3	3.8
20	4.0	6.0	9.2	12.7	15.5	17.2	17.3	15.8	12.8	9.2	5.9	3.4
Sa	2.3	3.0	5.0	7.8	10.4	12.5	13.6	13.5	12.2	10.0	7.7	5.9
21	5.2	5.8	7.9	10.8	13.6	15.6	16.6	16.2	14.4	11.6	8.5	5.8
Su	3.8	3.0	3.6	5.3	7.5	9.6	11.2	12.2	12.3	11.4	9.9	8.3
22	7.1	6.6	7.3	9.0	11.2	13.4	14.9	15.7	15.3	13.8	11.4	8.8
M	6.3	4.4	3.4	3.6	4.7	6.4	8.2	9.9	11.3	11.9	11.6	10.7
23	9.5	8.4	7.7	7.8	8.9	10.6	12.4	14.0	15.0	15.1	14.1	12.2
Tu	9.8	7.2	4.9	3.2	2.7	3.3	4.8	6.8	9.1	11.1	12.4	12.7
24	12.2	10.9	9.3	7.9	7.2	7.8	9.2	11.2	13.2	14.9	15.7	15.2
W	13.6	11.0	7.9	4.7	2.2	1.1	1.5	3.2	5.9	9.1	12.0	14.0
25	14.6	13.9	12.0	9.5	7.0	5.7	5.8	7.4	10.0	12.9	15.6	17.1
Th	17.0	15.2	12.1	8.1	3.9	0.6	-0.8	-0.2	2.2	5.9	10.1	13.9
26	16.2	16.7	15.3	12.4	8.6	5.2	3.4	3.6	5.8	9.3	13.3	16.8
F	18.8	18.8	16.6	12.6	7.5	2.4	-1.3	-2.6	-1.2	2.2	7.1	12.2
27	16.4	18.6	18.5	16.0	11.8	6.9	2.8	0.9	1.6	4.7	9.2	14.2
Sa	18.4	20.5	20.1	17.2	12.2	6.2	0.6	-3.0	-3.6	-1.2	3.4	9.2
28	14.9	19.0	20.6	19.4	15.7	10.3	4.6	0.2	-1.3	0.3	4.3	9.8
Su	15.4	19.8	21.7	20.7	16.9	11.1	4.6	-1.0	-4.0	-3.5	0.0	5.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

SELDOVIA, ALASKA, 2010

Lat. 59° 27′N Long. 151° 43′W

MARCH

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	11.9	17.6	21.2	21.8	19.4	14.5	8.2	2.1	-1.9	-2.7	-0.2	4.7
M	10.8	16.6	20.7	22.1	20.3	15.8	9.5	3.0	-2.0	-3.9	-2.3	2.2
2	8.4	14.7	19.8	22.4	21.8	18.2	12.5	5.9	0.1	-3.1	-2.9	0.4
Tu	5.8	11.9	17.4	20.8	21.4	18.9	14.0	7.8	1.9	-2.0	-2.6	0.0
3	5.0	11.1	16.9	21.0	22.4	20.6	16.2	10.2	3.9	-1.0	-3.2	-2.2
W	1.6	7.0	12.7	17.4	20.0	19.8	16.9	12.1	6.5	1.7	-0.9	-0.5
4	2.8	7.9	13.4	18.2	21.0	21.2	18.6	13.9	8.2	2.7	-1.1	-2.3
Th	-0.6	3.2	8.1	12.9	16.7	18.4	17.6	14.8	10.5	5.9	2.4	1.0
5	2.2	5.6	10.2	14.7	18.3	19.9	19.2	16.2	11.8	6.9	2.6	-0.2
F	-0.5	1.3	4.7	8.7	12.5	15.2	16.3	15.4	12.9	9.5	6.2	3.8
6	3.3	4.9	7.9	11.6	15.0	17.3	18.0	16.8	14.1	10.4	6.6	3.3
Sa	1.5	1.4	3.0	5.6	8.6	11.4	13.4	14.2	13.5	11.7	9.4	7.1
7	5.7	5.6	7.0	9.3	11.9	14.2	15.8	16.0	14.8	12.6	9.8	7.0
Su	4.6	3.2	3.1	4.1	5.8	7.9	10.0	11.7	12.5	12.3	11.4	10.0
8	8.5	7.4	7.3	8.1	9.6	11.3	13.0	14.1	14.3	13.5	12.0	10.1
M	8.0	6.0	4.6	4.1	4.3	5.3	6.9	8.8	10.5	11.7	12.1	11.9
9	11.1	9.8	8.6	8.1	8.3	9.0	10.3	11.6	12.8	13.4	13.2	12.3
Tu	10.9	9.0	7.0	5.2	4.1	3.9	4.5	6.0	8.1	10.2	11.9	12.8
10	12.9	12.1	10.6	8.9	7.8	7.5	7.9	9.1	10.8	12.4	13.4	13.7
W	13.2	11.8	9.7	7.1	4.8	3.4	3.0	3.8	5.7	8.3	11.0	13.0
11	14.1	14.0	12.7	10.5	8.2	6.6	6.1	6.7	8.4	10.6	12.8	14.3
Th	14.8	14.1	12.3	9.5	6.3	3.7	2.2	2.2	3.6	6.3	9.6	12.7
12	14.7	15.5	14.7	12.5	9.4	6.6	4.9	4.7	5.9	8.4	11.4	14.1
F	15.7	15.9	14.7	12.0	8.4	4.8	2.2	1.2	2.0	4.4	8.0	11.8
13	14.9	16.5	16.4	14.5	11.2	7.5	4.5	3.1	3.7	5.9	9.3	12.9
Sa	15.8	17.2	16.7	14.5	10.9	6.6	2.9	0.8	0.8	2.7	6.2	10.5
14	14.4	17.0	17.7	16.4	13.3	9.1	5.0	2.3	1.8	3.4	6.7	10.8
Su	14.8	17.5	18.1	16.7	13.5	9.1	4.5	1.2	0.1	1.4	4.5	8.9
15	13.4	17.0	18.6	18.1	15.4	11.2	6.4	2.5	0.6	1.2	4.0	8.2
M	12.8	16.6	18.6	18.3	15.8	11.7	6.9	2.6	0.2	0.4	3.0	7.1
16	11.9	16.2	18.9	19.3	17.3	13.4	8.5	3.7	0.5	-0.2	1.7	5.5
Tu	10.2	14.7	18.0	19.0	17.6	14.2	9.6	4.8	1.3	0.2	1.8	5.5
17	10.1	14.8	18.3	19.7	18.7	15.5	10.8	5.7	1.5	-0.7	-0.1	2.9
W	7.3	12.1	16.1	18.5	18.5	16.1	12.1	7.4	3.3	1.0	1.3	4.1
18	8.3	13.0	17.0	19.4	19.4	17.1	13.0	8.0	3.3	0.0	-0.8	1.0
Th	4.7	9.2	13.6	16.8	18.1	17.1	14.1	10.0	5.8	2.7	1.7	3.2
19	6.7	11.1	15.3	18.2	19.4	18.2	14.9	10.4	5.7	1.7	-0.4	-0.1
F	2.5	6.4	10.6	14.2	16.5	16.9	15.3	12.1	8.4	5.0	3.0	3.1
20	5.4	9.2	13.2	16.5	18.4	18.4	16.4	12.7	8.3	4.1	1.1	0.0
Sa	1.1	4.0	7.7	11.3	14.1	15.5	15.3	13.5	10.6	7.5	5.0	4.0
21	4.9	7.5	11.1	14.4	16.8	17.8	17.0	14.5	10.9	7.0	3.6	1.4
Su	0.9	2.3	5.0	8.2	11.1	13.2	14.2	13.8	12.1	9.8	7.5	5.8
22	5.4	6.5	9.0	11.9	14.5	16.2	16.6	15.6	13.2	10.0	6.7	3.9
M	2.2	1.9	3.1	5.3	7.8	10.2	12.0	12.9	12.8	11.6	9.9	8.2
23	6.9	6.6	7.5	9.4	11.7	13.7	15.1	15.5	14.7	12.8	10.1	7.3
Tu	4.9	3.1	2.5	3.2	4.8	6.8	9.0	10.9	12.3	12.6	12.1	10.8
24	9.3	7.9	7.2	7.4	8.7	10.5	12.3	13.9	14.7	14.5	13.2	11.1
W	8.5	5.9	3.7	2.4	2.5	3.7	5.6	8.1	10.6	12.6	13.5	13.3
25	12.2	10.4	8.3	6.8	6.3	7.0	8.6	10.8	13.0	14.6	15.2	14.5
Th	12.6	9.8	6.6	3.6	1.6	1.2	2.4	4.7	7.9	11.2	13.9	15.2
26	15.1	13.5	10.9	7.8	5.3	4.2	4.8	6.7	9.6	12.7	15.3	16.6
F	16.2	14.1	10.8	6.7	2.9	0.4	-0.1	1.4	4.6	8.6	12.8	15.9
27	17.3	16.7	14.3	10.6	6.4	3.1	1.7	2.5	5.1	9.0	13.2	16.6
Sa	18.2	17.8	15.3	11.1	6.1	1.6	-1.0	-1.1	1.2	5.4	10.4	15.1
28	18.3	19.3	17.9	14.3	9.3	4.2	0.4	-0.8	0.7	4.3	9.2	14.2
Su	18.1	19.8	18.9	15.6	10.6	5.0	0.3	-2.0	-1.3	2.0	7.1	12.8
29	17.7	20.5	20.6	18.0	13.2	7.3	1.6	-2.0	-2.6	-0.3	4.4	10.1
M	15.6	19.5	20.8	19.2	15.2	9.5	3.6	-0.8	-2.3	-0.5	3.8	9.5
30	15.4	19.9	21.9	20.9	17.2	11.4	4.8	-0.7	-3.8	-3.4	-0.1	5.2
Tu	11.4	16.8	20.3	20.9	18.6	14.0	8.0	2.4	-1.2	-1.6	1.2	6.2
31	12.1	17.6	21.3	22.2	20.1	15.4	9.1	2.6	-2.4	-4.4	-3.1	1.0
W	6.7	12.7	17.6	20.3	20.1	17.2	12.3	6.6	1.7	-0.8	-0.1	3.5

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 59° 27′N Long. 151° 43′W

APRIL

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	8.7	14.4	19.1	21.6	21.3	18.3	13.1	6.8	1.0	-2.9	-3.9	-1.7
Th	2.7	8.2	13.6	17.7	19.5	18.6	15.4	10.7	5.6	1.8	0.5	2.1
2	6.0	10.9	15.8	19.4	20.8	19.5	15.9	10.8	5.1	0.3	-2.4	-2.4
F	0.2	4.5	9.4	13.9	17.0	17.9	16.6	13.5	9.4	5.3	2.7	2.4
3	4.5	8.2	12.5	16.3	18.7	19.1	17.2	13.5	8.9	4.3	0.7	-1.0
Sa	-0.3	2.3	6.0	10.0	13.4	15.6	16.0	14.6	12.0	8.7	5.8	4.1
4	4.5	6.6	9.7	13.1	15.8	17.2	16.9	14.9	11.6	7.9	4.4	1.8
Su	0.9	1.8	4.0	6.8	9.9	12.5	14.1	14.2	13.1	11.1	8.8	6.7
5	5.8	6.3	8.0	10.4	12.8	14.6	15.4	14.8	13.0	10.5	7.7	5.1
M	3.3	2.7	3.4	5.0	7.0	9.3	11.3	12.6	12.9	12.3	11.0	9.4
6	7.9	7.2	7.5	8.6	10.2	11.8	13.1	13.7	13.3	12.0	10.2	8.2
Tu	6.2	4.7	4.1	4.3	5.2	6.7	8.5	10.4	11.8	12.4	12.3	11.5
7	10.2	8.8	7.9	7.7	8.3	9.3	10.5	11.8	12.6	12.6	11.9	10.7
W	9.1	7.3	5.6	4.6	4.4	4.9	6.2	8.1	10.2	11.9	12.8	12.9
8	12.3	10.9	9.2	7.7	7.1	7.2	8.0	9.5	11.1	12.3	12.8	12.5
Th	11.5	9.9	7.8	5.8	4.4	4.0	4.5	6.0	8.3	10.8	12.8	13.8
9	13.9	12.9	10.9	8.6	6.7	5.7	5.8	7.0	8.9	11.1	12.8	13.7
F	13.5	12.3	10.2	7.6	5.2	3.6	3.4	4.4	6.5	9.4	12.2	14.3
10	15.1	14.7	12.9	10.1	7.1	4.9	4.0	4.6	6.4	9.1	11.9	14.0
Sa	14.9	14.4	12.6	9.8	6.7	4.0	2.8	3.1	4.9	7.8	11.3	14.3
11	16.0	16.2	14.8	12.0	8.4	4.9	2.8	2.4	3.8	6.6	10.1	13.4
Su	15.6	16.1	14.9	12.4	8.8	5.3	2.8	2.2	3.4	6.2	9.9	13.6
12	16.4	17.5	16.7	14.1	10.2	6.0	2.5	0.9	1.5	3.9	7.6	11.7
M	15.2	17.0	16.8	14.8	11.4	7.3	3.7	1.9	2.2	4.6	8.2	12.4
13	16.1	18.2	18.2	16.2	12.5	7.8	3.3	0.3	-0.4	1.3	4.8	9.3
Tu	13.6	16.8	17.9	16.9	13.9	9.8	5.6	2.5	1.6	3.1	6.5	10.8
14	15.0	18.1	19.3	18.0	14.8	10.1	5.0	0.8	-1.3	-0.8	2.0	6.4
W	11.2	15.4	17.9	18.2	16.2	12.5	8.1	4.1	1.8	2.1	4.7	8.8
15	13.3	17.2	19.4	19.3	16.9	12.6	7.4	2.5	-1.0	-2.0	-0.3	3.4
Th	8.2	12.9	16.6	18.3	17.6	14.8	10.8	6.4	3.1	1.9	3.3	6.8
16	11.2	15.5	18.6	19.8	18.5	15.0	10.2	4.9	0.5	-2.0	-1.8	0.9
F	5.1	9.9	14.2	17.0	17.8	16.4	13.2	9.1	5.3	2.9	2.7	5.1
17	9.0	13.3	17.0	19.1	19.2	17.0	12.9	7.9	3.0	-0.6	-2.1	-0.9
Sa	2.3	6.7	11.1	14.7	16.7	16.8	14.9	11.6	7.9	4.8	3.3	4.0
18	6.9	10.8	14.6	17.5	18.8	18.0	15.2	10.9	6.2	2.0	-0.8	-1.4
Su	0.3	3.7	7.8	11.6	14.5	15.9	15.5	13.5	10.4	7.3	4.9	4.2
19	5.4	8.3	11.9	15.1	17.2	17.8	16.5	13.6	9.5	5.4	1.8	-0.2
M	-0.3	1.5	4.7	8.2	11.4	13.8	14.9	14.4	12.5	10.0	7.4	5.6
20	5.2	6.5	9.0	12.0	14.6	16.2	16.5	15.2	12.5	9.0	5.4	2.4
Tu	0.7	0.7	2.4	5.0	8.1	10.9	13.1	14.1	13.8	12.3	10.2	7.9
21	6.3	5.8	6.8	8.8	11.2	13.4	14.9	15.3	14.4	12.2	9.2	6.1
W	3.4	1.7	1.4	2.7	4.9	7.6	10.4	12.7	14.0	14.0	12.8	10.9
22	8.6	6.7	5.8	6.1	7.6	9.7	11.8	13.6	14.6	14.2	12.6	10.2
Th	7.2	4.4	2.4	1.7	2.5	4.5	7.2	10.2	12.9	14.6	14.9	13.8
23	11.7	9.1	6.5	4.9	4.6	5.7	7.8	10.3	12.8	14.4	14.8	13.7
F	11.4	8.4	5.1	2.6	1.4	2.0	4.1	7.2	10.7	13.9	15.9	16.2
24	15.0	12.4	8.9	5.5	3.2	2.5	3.6	6.0	9.3	12.6	15.0	15.8
Sa	15.0	12.6	9.2	5.4	2.3	0.9	1.6	4.0	7.7	11.9	15.5	17.5
25	17.7	15.9	12.4	8.0	3.8	1.0	0.2	1.7	4.8	8.9	13.0	16.0
Su	17.1	16.2	13.5	9.4	5.0	1.7	0.4	1.5	4.6	9.0	13.7	17.4
26	19.2	18.8	16.1	11.7	6.4	1.6	-1.3	-1.7	0.4	4.4	9.3	14.0
M	17.2	18.3	17.0	13.7	9.0	4.3	1.0	0.1	2.0	5.8	10.8	15.7
27	19.2	20.5	19.2	15.6	10.2	4.3	-0.6	-3.2	-2.9	0.1	4.9	10.3
Tu	15.2	18.4	19.0	17.2	13.2	8.2	3.4	0.5	0.4	3.0	7.5	12.8
28	17.6	20.5	20.9	18.7	14.2	8.3	2.2	-2.4	-4.3	-3.0	0.7	6.0
W	11.7	16.4	19.0	19.1	16.6	12.2	7.0	2.6	0.5	1.3	4.6	9.5
29	14.7	18.9	21.1	20.5	17.4	12.3	6.1	0.4	-3.4	-4.3	-2.2	2.1
Th	7.6	13.0	17.2	19.1	18.4	15.4	10.9	6.0	2.3	1.1	2.7	6.5
30	11.4	16.1	19.5	20.7	19.2	15.4	10.1	4.3	-0.7	-3.5	-3.4	-0.6
F	3.9	9.1	14.0	17.3	18.4	17.1	13.9	9.5	5.2	2.5	2.2	4.4

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

SELDOVIA, ALASKA, 2010

Lat. 59° 27′N Long. 151° 43′W

MAY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	8.3	12.8	16.8	19.3	19.5	17.3	13.2	8.1	3.0	-1.0	-2.7	-1.7
Sa	1.3	5.6	10.3	14.3	16.8	17.2	15.6	12.4	8.5	5.0	3.2	3.7
2	6.2	9.9	13.7	16.8	18.3	17.7	15.1	11.2	6.6	2.4	-0.5	-1.2
Su	0.2	3.2	7.1	11.0	14.2	15.9	15.8	14.0	11.2	8.0	5.4	4.4
3	5.3	7.7	10.8	13.8	16.0	16.7	15.7	13.1	9.6	5.9	2.6	0.7
M	0.6	2.1	4.8	8.0	11.1	13.6	14.8	14.4	12.8	10.5	7.9	6.1
4	5.5	6.5	8.6	11.0	13.3	14.8	15.1	13.9	11.6	8.7	5.7	3.3
Tu	2.1	2.2	3.7	5.9	8.4	11.0	12.9	13.8	13.5	12.2	10.3	8.3
5	6.8	6.5	7.2	8.8	10.6	12.3	13.4	13.6	12.6	10.7	8.4	6.2
W	4.3	3.3	3.5	4.7	6.4	8.6	10.8	12.5	13.3	13.1	12.0	10.5
6	8.7	7.3	6.8	7.2	8.3	9.7	11.2	12.3	12.6	11.9	10.5	8.7
Th	6.8	5.2	4.3	4.3	5.2	6.7	8.7	10.8	12.5	13.4	13.2	12.3
7	10.7	8.8	7.2	6.4	6.5	7.3	8.7	10.3	11.6	12.2	11.9	10.9
F	9.3	7.5	5.8	4.7	4.6	5.4	7.0	9.1	11.4	13.1	14.0	13.7
8	12.6	10.7	8.4	6.4	5.3	5.3	6.2	7.8	9.9	11.6	12.6	12.5
Sa	11.6	9.9	7.8	5.9	4.7	4.6	5.6	7.5	10.0	12.5	14.3	14.9
9	14.3	12.6	10.1	7.3	4.9	3.7	3.9	5.3	7.5	10.1	12.3	13.5
Su	13.4	12.3	10.2	7.7	5.5	4.3	4.5	6.0	8.5	11.4	14.0	15.6
10	15.8	14.5	12.1	8.8	5.5	3.0	2.0	2.7	4.8	7.8	11.0	13.5
M	14.7	14.3	12.7	10.1	7.1	4.8	3.9	4.7	6.8	9.9	13.1	15.7
11	16.9	16.4	14.3	10.9	6.9	3.3	0.9	0.6	2.1	5.1	8.8	12.4
Tu	14.9	15.8	14.9	12.6	9.4	6.1	3.9	3.6	5.1	8.1	11.7	15.1
12	17.4	17.9	16.5	13.4	9.1	4.6	0.9	-0.9	-0.3	2.2	6.0	10.2
W	14.0	16.3	16.6	15.0	12.0	8.3	5.0	3.2	3.7	6.1	9.7	13.7
13	17.0	18.7	18.3	15.9	11.8	6.9	2.2	-1.1	-2.1	-0.6	2.9	7.3
Th	11.9	15.5	17.3	16.9	14.5	10.9	7.0	3.9	2.9	4.2	7.4	11.5
14	15.5	18.4	19.4	18.1	14.7	9.9	4.6	0.1	-2.6	-2.6	-0.1	4.1
F	8.9	13.4	16.6	17.7	16.6	13.6	9.6	5.8	3.2	3.0	5.2	9.0
15	13.3	17.0	19.3	19.5	17.2	13.1	7.8	2.6	-1.5	-3.3	-2.4	0.9
Sa	5.5	10.3	14.5	17.1	17.5	15.8	12.4	8.4	4.8	3.0	3.5	6.3
16	10.4	14.6	17.9	19.5	18.9	15.9	11.4	6.0	1.1	-2.4	-3.3	-1.6
Su	2.1	6.8	11.4	15.1	17.1	16.9	14.7	11.2	7.4	4.3	3.1	4.3
17	7.5	11.5	15.3	18.1	19.1	17.8	14.5	9.8	4.7	0.3	-2.4	-2.6
M	-0.4	3.4	7.9	12.1	15.3	16.8	16.2	13.8	10.3	6.8	4.2	3.6
18	5.1	8.2	11.9	15.3	17.6	18.1	16.5	13.2	8.7	4.1	0.2	-1.8
Tu	-1.6	0.8	4.5	8.7	12.5	15.2	16.3	15.5	13.1	9.9	6.7	4.4
19	4.0	5.5	8.3	11.6	14.5	16.5	16.8	15.3	12.2	8.2	4.1	0.8
W	-0.8	-0.4	1.9	5.4	9.1	12.6	15.1	16.0	15.1	12.8	9.8	6.8
20	4.7	4.2	5.4	7.8	10.6	13.3	15.1	15.6	14.4	11.8	8.3	4.8
Th	1.9	0.4	0.8	2.8	5.9	9.4	12.7	15.1	16.0	15.1	13.0	10.0
21	7.0	4.7	3.8	4.5	6.5	9.1	11.7	13.8	14.7	14.0	11.9	9.0
F	5.8	3.0	1.5	1.7	3.5	6.4	9.8	13.1	15.5	16.3	15.6	13.4
22	10.3	7.0	4.2	2.9	3.2	4.9	7.4	10.3	12.8	14.2	14.1	12.6
Sa	10.0	6.9	4.0	2.2	2.2	3.9	6.7	10.3	13.7	16.2	17.1	16.2
23	13.8	10.4	6.5	3.2	1.4	1.5	3.1	6.0	9.4	12.4	14.4	14.7
Su	13.5	11.0	7.8	4.6	2.7	2.5	4.2	7.3	11.0	14.6	17.1	17.9
24	16.8	14.0	10.0	5.6	1.8	-0.2	-0.2	1.8	5.1	9.1	12.7	15.0
M	15.6	14.5	11.8	8.2	4.8	2.7	2.7	4.6	8.0	12.0	15.8	18.2
25	18.7	17.1	13.8	9.1	4.2	0.2	-1.8	-1.4	1.0	4.9	9.5	13.5
Tu	16.0	16.5	15.1	12.1	8.1	4.5	2.5	2.8	5.2	9.0	13.2	17.0
26	19.1	19.1	16.9	13.0	7.8	2.5	-1.4	-3.0	-2.0	1.0	5.5	10.4
W	14.5	16.9	17.1	15.3	11.8	7.5	4.0	2.4	3.2	6.0	10.2	14.5
27	18.0	19.7	19.0	16.2	11.6	6.1	0.9	-2.6	-3.5	-1.9	1.8	6.7
Th	11.7	15.6	17.6	17.3	14.9	11.0	6.7	3.4	2.4	3.8	7.1	11.5
28	15.7	18.8	19.7	18.4	14.9	9.9	4.4	-0.5	-3.2	-3.3	-0.9	3.2
F	8.3	13.1	16.5	17.8	16.9	14.0	9.9	5.7	3.0	2.7	4.8	8.4
29	12.7	16.6	19.0	19.2	17.2	13.2	8.1	2.8	-1.3	-3.2	-2.4	0.6
Sa	5.0	9.9	14.2	16.9	17.5	16.0	12.7	8.7	5.0	3.0	3.5	6.0
30	9.7	13.8	17.1	18.7	18.1	15.5	11.3	6.3	1.6	-1.6	-2.5	-0.9
Su	2.4	6.8	11.3	14.9	16.9	16.8	14.7	11.4	7.6	4.6	3.4	4.5
31	7.2	10.8	14.4	17.0	17.8	16.6	13.6	9.5	4.9	1.0	-1.2	-1.2
M	0.9	4.3	8.4	12.3	15.2	16.4	15.7	13.4	10.2	6.9	4.6	4.2

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 59° 27′N Long. 151° 43′W

JUNE

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	5.6	8.3	11.6	14.5	16.4	16.6	14.9	11.8	7.9	4.1	1.1	-0.2
Tu	0.5	2.8	6.1	9.7	12.9	15.1	15.7	14.6	12.3	9.3	6.6	4.9
2	5.0	6.6	9.1	11.8	14.1	15.4	15.1	13.2	10.3	6.9	3.8	1.6
W	1.1	2.2	4.6	7.6	10.6	13.3	14.8	14.9	13.6	11.4	8.8	6.6
3	5.4	5.6	7.1	9.3	11.5	13.3	14.2	13.6	11.8	9.2	6.5	4.0
Th	2.6	2.5	3.9	6.1	8.7	11.3	13.5	14.5	14.2	12.8	10.8	8.5
4	6.6	5.6	5.9	7.2	9.0	10.8	12.4	13.0	12.5	10.9	8.8	6.6
F	4.7	3.7	3.9	5.2	7.3	9.6	11.9	13.6	14.3	13.9	12.4	10.4
5	8.3	6.5	5.5	5.7	6.7	8.3	10.0	11.5	12.2	11.9	10.6	8.9
Sa	7.1	5.5	4.7	5.0	6.2	8.1	10.3	12.4	13.9	14.4	13.8	12.2
6	10.2	7.9	6.0	4.9	5.0	5.9	7.4	9.3	11.0	11.9	11.9	10.9
Su	9.4	7.7	6.2	5.4	5.7	6.9	8.8	11.0	13.1	14.5	14.8	13.9
7	12.1	9.8	7.2	5.0	3.8	3.8	4.9	6.7	8.9	11.0	12.2	12.4
M	11.6	10.1	8.3	6.6	5.7	5.9	7.3	9.4	11.8	14.0	15.3	15.4
8	14.1	11.9	9.1	6.1	3.6	2.3	2.5	4.0	6.3	9.1	11.6	13.1
Tu	13.3	12.4	10.6	8.4	6.5	5.5	5.9	7.6	10.1	12.8	15.1	16.3
9	16.0	14.3	11.5	8.0	4.5	1.8	0.7	1.3	3.4	6.5	9.8	12.6
W	14.3	14.4	13.1	10.8	8.1	5.9	5.0	5.8	8.0	11.0	14.0	16.4
10	17.4	16.6	14.2	10.7	6.5	2.5	-0.2	-0.9	0.5	3.4	7.1	11.0
Th	14.0	15.5	15.3	13.4	10.6	7.4	5.0	4.4	5.7	8.6	12.1	15.4
11	17.8	18.4	17.0	13.8	9.4	4.6	0.4	-2.0	-2.0	0.1	3.8	8.2
F	12.5	15.5	16.7	15.8	13.3	9.8	6.3	4.0	3.9	5.9	9.4	13.3
12	16.8	19.0	19.1	16.9	13.0	7.9	2.7	-1.5	-3.4	-2.6	0.4	4.8
Sa	9.7	14.0	16.8	17.4	15.9	12.7	8.7	5.1	3.1	3.6	6.3	10.3
13	14.6	18.0	19.8	19.3	16.4	11.8	6.2	0.9	-3.0	-4.2	-2.6	1.2
Su	6.1	11.2	15.4	17.7	17.7	15.5	11.7	7.4	3.9	2.5	3.6	6.8
14	11.2	15.5	18.8	20.1	19.0	15.5	10.4	4.6	-0.5	-3.8	-4.2	-1.9
M	2.5	7.6	12.7	16.5	18.2	17.6	14.8	10.6	6.3	3.1	2.1	3.8
15	7.4	11.8	16.0	18.9	19.8	18.1	14.3	9.0	3.4	-1.3	-3.8	-3.5
Tu	-0.6	4.0	9.2	13.9	17.2	18.3	17.1	13.9	9.6	5.4	2.6	2.1
16	4.1	7.8	12.0	15.9	18.4	18.9	16.9	13.0	7.9	2.7	-1.3	-3.1
W	-2.2	1.1	5.7	10.5	14.8	17.6	18.1	16.4	13.0	8.8	4.8	2.4
17	2.2	4.3	7.7	11.6	15.1	17.3	17.5	15.6	11.9	7.3	2.8	-0.6
Th	-1.7	-0.4	2.9	7.2	11.7	15.4	17.6	17.7	15.8	12.3	8.3	4.6
18	2.4	2.3	4.1	7.2	10.7	13.8	15.8	16.1	14.4	11.2	7.3	3.4
F	0.7	0.0	1.4	4.5	8.4	12.4	15.7	17.5	17.3	15.3	12.0	8.1
19	4.6	2.4	2.1	3.6	6.2	9.3	12.3	14.3	14.8	13.6	11.0	7.8
Sa	4.6	2.3	1.7	3.0	5.8	9.3	12.9	15.8	17.3	17.0	15.0	11.8
20	8.1	4.6	2.3	1.7	2.7	5.0	7.9	10.8	13.1	13.9	13.3	11.4
Su	8.8	5.9	3.8	3.2	4.2	6.6	9.8	13.2	15.9	17.2	16.9	15.0
21	11.9	8.1	4.5	1.9	0.9	1.6	3.7	6.6	9.8	12.4	13.7	13.6
M	12.2	9.9	7.1	4.9	4.1	4.9	7.1	10.1	13.4	16.0	17.3	16.9
22	15.0	11.9	8.0	4.1	1.2	0.0	0.5	2.6	5.8	9.3	12.3	14.1
Tu	14.3	13.1	10.8	7.9	5.5	4.4	5.1	7.3	10.3	13.7	16.3	17.6
23	17.1	15.1	11.7	7.5	3.3	0.2	-1.0	-0.3	2.1	5.7	9.6	12.9
W	14.9	15.2	13.9	11.2	8.0	5.4	4.3	5.1	7.4	10.7	14.2	16.8
24	18.0	17.3	15.0	11.2	6.6	2.2	-0.9	-1.8	-0.7	2.2	6.3	10.5
Th	14.0	15.8	15.9	14.2	11.1	7.5	4.9	4.0	5.1	7.8	11.4	14.9
25	17.5	18.3	17.3	14.4	10.2	5.2	0.8	-1.8	-2.2	-0.4	3.1	7.5
F	11.9	15.2	16.7	16.2	13.9	10.3	6.6	4.1	3.7	5.3	8.5	12.3
26	15.9	18.1	18.5	16.8	13.4	8.7	3.7	-0.4	-2.5	-2.1	0.5	4.5
Sa	9.2	13.5	16.4	17.2	16.0	13.1	9.1	5.5	3.4	3.6	5.9	9.4
27	13.4	16.8	18.5	18.2	15.9	11.9	6.9	2.1	-1.4	-2.5	-1.2	2.0
Su	6.4	11.1	15.0	17.1	17.2	15.2	11.7	7.7	4.4	3.1	4.0	6.8
28	10.6	14.5	17.4	18.5	17.4	14.4	10.0	5.1	0.7	-1.8	-1.9	0.2
M	4.0	8.5	12.9	16.1	17.4	16.6	14.0	10.2	6.3	3.7	3.2	4.8
29	8.0	11.8	15.3	17.6	17.9	16.1	12.6	8.1	3.5	0.0	-1.5	-0.6
Tu	2.2	6.2	10.6	14.4	16.8	17.1	15.5	12.4	8.7	5.3	3.4	3.7
30	5.9	9.2	12.7	15.7	17.2	16.8	14.4	10.7	6.4	2.4	-0.1	-0.5
W	1.3	4.5	8.5	12.4	15.4	16.8	16.3	14.1	10.9	7.4	4.7	3.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

SELDOVIA, ALASKA, 2010

Lat. 59° 27′N Long. 151° 43′W

JULY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	4.5	6.9	10.1	13.2	15.5	16.3	15.2	12.5	8.9	5.1	2.1	0.6
Th	1.2	3.5	6.8	10.4	13.7	15.9	16.4	15.2	12.7	9.5	6.5	4.4
2	4.1	5.3	7.8	10.6	13.1	14.8	15.0	13.6	10.9	7.7	4.6	2.5
F	1.9	3.2	5.7	8.8	12.0	14.5	15.8	15.6	14.0	11.3	8.5	6.0
3	4.5	4.6	6.0	8.2	10.5	12.6	13.7	13.6	12.1	9.7	7.1	4.8
Sa	3.5	3.6	5.1	7.6	10.4	13.0	14.8	15.5	14.8	12.9	10.4	7.8
4	5.7	4.6	4.9	6.2	8.1	10.0	11.7	12.6	12.4	11.1	9.2	7.2
Su	5.5	4.8	5.2	6.8	9.1	11.4	13.5	14.8	15.1	14.1	12.1	9.8
5	7.4	5.6	4.6	4.7	5.9	7.5	9.2	10.8	11.8	11.8	10.8	9.4
M	7.8	6.5	6.0	6.4	7.9	9.9	12.0	13.7	14.9	14.9	13.8	11.8
6	9.5	7.2	5.2	4.1	4.1	5.0	6.6	8.4	10.2	11.5	11.8	11.2
Tu	10.1	8.7	7.4	6.7	7.0	8.3	10.2	12.2	14.0	15.1	15.1	13.9
7	11.9	9.4	6.8	4.5	3.1	2.9	3.9	5.6	7.8	10.1	11.8	12.5
W	12.2	11.1	9.5	7.9	6.9	6.9	8.2	10.1	12.4	14.4	15.7	15.8
8	14.5	12.2	9.3	6.1	3.3	1.6	1.4	2.6	4.9	7.7	10.6	12.8
Th	13.7	13.4	12.0	9.9	7.7	6.3	6.3	7.7	10.1	12.8	15.2	16.8
9	16.8	15.3	12.5	8.8	4.9	1.5	-0.3	-0.2	1.6	4.6	8.3	11.8
F	14.3	15.2	14.5	12.5	9.7	6.9	5.2	5.3	7.2	10.1	13.5	16.4
10	18.1	18.0	16.0	12.4	7.9	3.2	-0.5	-2.2	-1.5	1.1	5.0	9.5
Sa	13.5	16.0	16.6	15.3	12.5	8.8	5.5	3.8	4.3	6.8	10.5	14.5
11	17.8	19.5	19.0	16.3	11.9	6.6	1.3	-2.4	-3.7	-2.2	1.4	6.2
Su	11.2	15.4	17.7	17.7	15.6	11.8	7.4	3.9	2.4	3.5	6.7	11.1
12	15.6	19.1	20.6	19.6	16.1	10.9	4.9	-0.5	-4.0	-4.4	-2.1	2.4
M	7.9	13.3	17.3	19.1	18.3	15.2	10.6	5.8	2.2	1.2	3.0	6.9
13	11.9	16.6	20.0	21.1	19.4	15.3	9.6	3.3	-1.9	-4.7	-4.3	-1.0
Tu	4.2	10.0	15.3	18.9	19.9	18.1	14.2	9.1	4.2	0.9	0.5	3.0
14	7.4	12.5	17.2	20.2	20.8	18.6	14.0	8.1	2.0	-2.6	-4.5	-3.1
W	0.9	6.4	12.1	17.0	19.8	19.9	17.4	12.9	7.6	2.9	0.2	0.4
15	3.2	7.7	12.7	17.1	19.7	19.8	17.2	12.6	6.9	1.4	-2.3	-3.2
Th	-1.2	3.2	8.6	13.9	18.1	20.1	19.4	16.3	11.6	6.4	2.1	0.0
16	0.6	3.6	7.9	12.5	16.3	18.4	18.2	15.6	11.2	6.2	1.6	-1.1
F	-1.3	1.2	5.5	10.5	15.2	18.5	19.7	18.4	15.0	10.5	5.7	2.0
17	0.3	1.1	3.9	7.7	11.7	15.0	16.7	16.4	14.0	10.4	6.2	2.7
Sa	0.7	1.1	3.6	7.5	11.8	15.6	18.2	18.8	17.2	14.0	9.8	5.6
18	2.4	1.0	1.6	3.9	7.0	10.4	13.3	14.9	14.7	13.0	10.2	7.0
Su	4.2	2.8	3.3	5.5	8.8	12.4	15.5	17.5	17.7	16.2	13.3	9.7
19	6.0	3.0	1.6	1.8	3.5	6.1	9.0	11.6	13.3	13.6	12.6	10.6
M	8.1	5.9	4.7	5.0	6.8	9.4	12.3	14.9	16.6	16.8	15.5	13.1
20	9.9	6.5	3.6	1.9	1.7	2.8	4.9	7.7	10.4	12.4	13.2	12.8
Tu	11.5	9.5	7.4	6.0	6.0	7.2	9.3	11.9	14.3	15.9	16.3	15.4
21	13.3	10.3	6.9	3.8	1.8	1.2	2.0	4.0	6.8	9.8	12.2	13.5
W	13.6	12.6	10.5	8.2	6.6	6.1	7.0	8.9	11.4	14.0	15.8	16.3
22	15.6	13.7	10.6	6.9	3.5	1.2	0.4	1.2	3.5	6.7	10.1	12.8
Th	14.4	14.6	13.4	11.0	8.3	6.3	5.6	6.5	8.5	11.3	14.1	16.1
23	16.8	16.0	13.8	10.4	6.3	2.6	0.2	-0.4	0.8	3.6	7.4	11.1
F	14.1	15.6	15.5	13.7	10.7	7.5	5.4	4.8	6.0	8.5	11.7	14.8
24	16.9	17.4	16.3	13.6	9.5	5.0	1.3	-0.8	-0.8	1.1	4.6	8.8
Sa	12.8	15.6	16.7	15.8	13.3	9.7	6.2	4.2	4.2	6.0	9.1	12.7
25	16.0	17.8	17.9	16.1	12.6	8.0	3.3	-0.1	-1.5	-0.6	2.2	6.4
Su	10.9	14.8	17.0	17.2	15.5	12.1	8.0	4.7	3.2	3.9	6.5	10.2
26	14.1	17.2	18.6	17.9	15.2	11.0	6.0	1.5	-1.2	-1.5	0.4	4.1
M	8.7	13.3	16.6	17.9	17.1	14.4	10.3	6.2	3.3	2.6	4.2	7.5
27	11.7	15.6	18.2	18.7	17.1	13.6	8.9	3.9	0.1	-1.5	-0.7	2.3
Tu	6.6	11.3	15.4	17.9	18.1	16.2	12.6	8.3	4.4	2.4	2.7	5.2
28	9.0	13.2	16.7	18.6	18.2	15.7	11.6	6.7	2.2	-0.6	-1.0	1.1
W	4.8	9.4	13.8	17.1	18.4	17.4	14.6	10.5	6.3	3.2	2.1	3.4
29	6.5	10.5	14.4	17.2	18.2	16.9	13.7	9.4	4.9	1.3	-0.3	0.6
Th	3.5	7.6	12.0	15.7	17.9	18.0	16.0	12.6	8.5	4.8	2.6	2.5
30	4.6	8.0	11.8	15.1	17.0	17.1	15.1	11.6	7.5	3.7	1.3	1.0
F	2.8	6.3	10.3	14.0	16.8	17.8	16.8	14.1	10.5	6.8	3.9	2.6
31	3.4	5.9	9.2	12.5	15.0	16.1	15.5	13.1	9.8	6.3	3.5	2.2
Sa	2.9	5.4	8.9	12.4	15.3	17.0	17.0	15.2	12.2	8.8	5.7	3.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 59° 27′N Long. 151° 43′W

AUGUST

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	3.2	4.5	7.0	9.9	12.5	14.3	14.8	13.7	11.4	8.5	5.8	4.1
Su	3.7	5.1	7.8	10.9	13.8	15.8	16.6	15.8	13.7	10.7	7.7	5.2
2	3.8	3.9	5.3	7.6	9.9	11.9	13.2	13.3	12.3	10.3	8.1	6.2
M	5.2	5.5	7.1	9.5	12.1	14.3	15.6	15.8	14.7	12.5	9.8	7.2
3	5.2	4.2	4.4	5.6	7.4	9.3	10.9	12.0	12.2	11.4	10.0	8.5
Tu	7.2	6.6	7.0	8.4	10.4	12.5	14.2	15.2	15.2	14.0	12.0	9.6
4	7.3	5.5	4.4	4.3	5.2	6.6	8.2	9.8	11.1	11.7	11.4	10.5
W	9.4	8.3	7.7	7.8	8.8	10.5	12.2	13.8	14.8	15.0	14.1	12.3
5	10.1	7.7	5.5	4.0	3.5	4.0	5.3	7.1	9.1	10.9	12.1	12.3
Th	11.7	10.6	9.2	8.1	7.7	8.3	9.8	11.7	13.5	15.0	15.5	14.9
6	13.2	10.8	7.9	5.1	2.9	1.9	2.4	3.9	6.3	9.1	11.6	13.3
F	13.8	13.1	11.5	9.5	7.6	6.6	7.1	8.7	11.1	13.6	15.8	16.8
7	16.3	14.4	11.4	7.7	4.0	1.2	0.0	0.7	2.9	6.2	9.9	13.1
Sa	15.1	15.5	14.3	11.9	8.9	6.2	4.9	5.5	7.7	10.9	14.3	17.1
8	18.4	17.9	15.4	11.6	6.9	2.3	-0.9	-1.9	-0.5	2.7	7.0	11.6
Su	15.3	17.3	17.1	15.1	11.5	7.5	4.2	2.9	4.0	7.0	11.1	15.4
9	18.7	20.1	19.2	16.0	11.1	5.4	0.3	-2.9	-3.2	-0.9	3.4	8.8
M	13.9	17.7	19.2	18.2	15.0	10.3	5.4	1.9	1.0	2.9	6.8	11.8
10	16.7	20.2	21.4	19.8	15.7	10.0	3.7	-1.5	-4.2	-3.6	-0.1	5.2
Tu	11.2	16.5	19.9	20.6	18.4	14.0	8.5	3.2	-0.1	-0.4	2.3	7.1
11	12.8	17.9	21.3	21.9	19.6	14.8	8.4	2.0	-2.7	-4.5	-2.8	1.6
W	7.6	13.8	18.8	21.4	21.0	17.8	12.5	6.4	1.2	-1.5	-1.0	2.5
12	7.8	13.6	18.6	21.5	21.5	18.5	13.3	6.9	0.9	-3.0	-3.6	-1.0
Th	4.1	10.3	16.2	20.4	22.0	20.5	16.4	10.6	4.6	-0.1	-2.1	-0.8
13	3.1	8.5	14.1	18.5	20.8	20.2	16.9	11.7	5.7	0.6	-2.2	-1.8
F	1.6	6.8	12.6	17.8	21.0	21.5	19.1	14.6	8.9	3.3	-0.6	-1.8
14	0.0	4.0	9.0	13.9	17.7	19.3	18.3	15.0	10.3	5.3	1.3	-0.4
Sa	0.8	4.4	9.2	14.3	18.3	20.5	20.1	17.4	12.9	7.7	3.0	-0.1
15	-0.7	1.2	4.8	9.1	13.2	16.2	17.3	16.2	13.4	9.5	5.6	2.7
Su	1.9	3.4	6.7	10.9	14.9	17.9	19.2	18.4	15.6	11.7	7.3	3.4
16	1.0	0.7	2.3	5.2	8.6	11.9	14.3	15.2	14.5	12.4	9.5	6.7
M	4.7	4.3	5.7	8.3	11.5	14.6	16.8	17.6	16.7	14.3	11.1	7.6
17	4.5	2.5	2.0	3.0	5.0	7.6	10.3	12.5	13.5	13.3	12.1	10.2
Tu	8.2	6.6	6.2	7.1	9.0	11.3	13.6	15.4	16.0	15.4	13.7	11.3
18	8.5	5.7	3.7	2.8	3.1	4.4	6.5	8.9	11.1	12.6	13.1	12.6
W	11.4	9.6	8.0	7.3	7.5	8.7	10.5	12.5	14.2	15.1	14.9	13.9
19	12.0	9.4	6.6	4.3	2.9	2.7	3.6	5.5	8.1	10.6	12.6	13.6
Th	13.6	12.5	10.6	8.6	7.3	7.1	7.9	9.5	11.6	13.6	14.9	15.2
20	14.5	12.7	10.0	6.9	4.1	2.3	1.9	2.8	5.0	8.1	11.1	13.5
F	14.7	14.7	13.2	10.8	8.3	6.5	6.1	6.9	8.8	11.4	13.9	15.5
21	16.0	15.2	13.1	9.9	6.2	3.1	1.3	1.1	2.6	5.5	9.1	12.5
Sa	15.0	16.0	15.4	13.2	10.1	7.0	5.2	4.9	6.3	8.8	12.0	14.9
22	16.7	17.0	15.7	12.8	8.9	4.8	1.7	0.3	0.9	3.2	6.9	11.0
Su	14.5	16.6	17.0	15.4	12.3	8.4	5.3	3.7	4.1	6.3	9.6	13.4
23	16.4	17.9	17.5	15.4	11.7	7.1	2.9	0.3	-0.2	1.5	4.8	9.2
M	13.5	16.6	17.9	17.2	14.5	10.5	6.3	3.4	2.5	3.9	7.0	11.1
24	15.1	17.9	18.7	17.5	14.3	9.8	5.0	1.2	-0.5	0.2	3.1	7.3
Tu	12.0	16.0	18.4	18.5	16.4	12.7	8.1	4.0	1.8	2.1	4.6	8.5
25	13.0	16.8	18.9	18.8	16.5	12.5	7.6	3.0	0.1	-0.3	1.7	5.5
W	10.3	14.8	18.1	19.2	18.0	14.8	10.3	5.6	2.2	1.1	2.5	5.9
26	10.4	14.8	18.1	19.3	18.1	14.8	10.3	5.4	1.6	-0.1	0.9	4.1
Th	8.5	13.2	17.1	19.2	19.0	16.5	12.5	7.7	3.5	1.1	1.2	3.7
27	7.7	12.2	16.2	18.5	18.7	16.5	12.7	8.1	3.8	1.1	0.8	3.1
F	7.0	11.5	15.7	18.5	19.3	17.7	14.3	9.9	5.4	2.1	0.9	2.2
28	5.4	9.5	13.6	16.8	18.1	17.3	14.5	10.5	6.3	3.1	1.7	2.7
Sa	5.8	9.9	14.0	17.2	18.8	18.3	15.8	11.9	7.6	3.8	1.6	1.6
29	3.7	7.1	11.0	14.3	16.5	16.9	15.4	12.4	8.7	5.4	3.3	3.2
Su	5.1	8.5	12.3	15.6	17.7	18.1	16.6	13.6	9.7	5.9	3.1	1.9
30	2.7	5.2	8.5	11.7	14.2	15.5	15.3	13.5	10.7	7.8	5.4	4.4
M	5.1	7.5	10.7	13.9	16.2	17.3	16.9	14.8	11.7	8.2	5.2	3.2
31	2.8	4.0	6.3	9.1	11.5	13.3	14.1	13.6	12.0	9.8	7.6	6.2
Tu	5.9	7.0	9.3	12.0	14.4	16.0	16.4	15.5	13.4	10.5	7.6	5.2

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

SELDOVIA, ALASKA, 2010

Lat. 59° 27′N Long. 151° 43′W

SEPTEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	3.8	3.7	4.8	6.7	8.8	10.7	12.1	12.8	12.4	11.3	9.7	8.3
W	7.4	7.3	8.3	10.2	12.3	14.1	15.2	15.4	14.6	12.7	10.3	7.9
2	5.9	4.5	4.1	4.8	6.2	7.8	9.5	11.0	11.9	12.1	11.5	10.5
Th	9.4	8.5	8.2	8.7	10.0	11.7	13.2	14.4	14.9	14.4	13.0	11.0
3	8.8	6.6	4.8	3.8	3.9	4.9	6.5	8.4	10.4	12.0	12.8	12.7
F	11.8	10.5	9.1	8.1	8.0	8.9	10.4	12.2	13.9	15.0	15.2	14.2
4	12.3	9.8	7.0	4.4	2.7	2.3	3.3	5.3	7.9	10.8	13.1	14.4
Sa	14.3	13.2	11.2	8.8	6.9	6.3	7.0	8.9	11.4	14.0	16.0	16.7
5	15.9	13.7	10.5	6.7	3.2	1.0	0.6	1.9	4.8	8.4	12.2	15.1
Su	16.5	16.1	14.1	11.0	7.5	4.9	4.0	5.0	7.7	11.2	14.8	17.5
6	18.6	17.6	14.8	10.6	5.8	1.5	-0.9	-0.9	1.3	5.2	10.0	14.5
M	17.6	18.7	17.4	14.2	9.8	5.4	2.3	1.6	3.3	7.0	11.6	16.1
7	19.4	20.4	18.9	15.2	9.9	4.3	-0.3	-2.5	-1.6	1.7	6.8	12.4
Tu	17.3	20.1	20.3	17.9	13.4	7.9	2.7	-0.3	-0.5	2.3	7.0	12.6
8	17.7	21.0	21.6	19.3	14.7	8.7	2.6	-1.8	-3.2	-1.2	3.3	9.2
W	15.2	19.9	22.0	21.1	17.4	11.7	5.4	0.2	-2.4	-1.6	2.1	7.7
9	13.8	19.0	21.9	21.9	18.9	13.6	7.1	1.2	-2.5	-2.8	0.3	5.6
Th	12.0	17.8	21.8	22.8	20.7	15.9	9.6	3.1	-1.8	-3.5	-1.8	2.7
10	8.7	14.8	19.7	22.0	21.2	17.6	12.0	5.7	0.5	-2.1	-1.3	2.6
F	8.4	14.5	19.7	22.6	22.5	19.3	13.9	7.4	1.3	-2.7	-3.5	-1.0
11	3.9	9.8	15.4	19.6	21.1	19.7	15.9	10.5	4.9	0.7	-0.8	1.0
Sa	5.3	10.9	16.4	20.5	22.2	21.1	17.3	11.8	5.7	0.5	-2.4	-2.4
12	0.5	5.2	10.5	15.3	18.6	19.4	17.7	14.1	9.3	4.8	1.7	1.3
Su	3.6	7.8	12.7	17.1	20.1	20.8	19.0	15.1	10.1	4.9	0.8	-1.2
13	-0.6	2.2	6.3	10.7	14.5	16.9	17.3	15.7	12.6	8.9	5.5	3.5
M	3.7	6.1	9.6	13.5	16.8	18.7	18.7	16.8	13.3	9.1	5.1	2.0
14	0.7	1.4	3.6	6.8	10.2	13.1	15.0	15.3	14.1	11.9	9.2	6.8
Tu	5.5	5.9	7.8	10.5	13.3	15.6	16.9	16.6	14.9	12.2	9.1	6.0
15	3.6	2.6	3.0	4.5	6.7	9.2	11.6	13.2	13.8	13.3	11.9	10.1
W	8.3	7.3	7.4	8.6	10.3	12.3	14.0	15.0	15.0	13.9	12.0	9.7
16	7.3	5.2	4.0	3.8	4.5	6.0	8.1	10.3	12.1	13.2	13.3	12.6
Th	11.3	9.6	8.4	7.9	8.3	9.4	10.9	12.5	13.7	14.1	13.7	12.5
17	10.8	8.5	6.3	4.6	3.9	4.1	5.2	7.3	9.7	12.0	13.5	14.0
F	13.6	12.2	10.3	8.5	7.5	7.4	8.2	9.7	11.6	13.3	14.2	14.3
18	13.4	11.6	9.1	6.4	4.3	3.2	3.4	4.7	7.2	10.1	12.8	14.5
Sa	15.2	14.5	12.5	9.9	7.6	6.2	6.0	7.1	9.1	11.6	13.8	15.1
19	15.3	14.2	12.0	8.9	5.7	3.4	2.4	2.9	5.0	8.1	11.6	14.4
Su	16.0	16.2	14.7	11.9	8.6	5.9	4.5	4.8	6.5	9.3	12.5	15.1
20	16.4	16.2	14.5	11.5	7.8	4.3	2.2	1.8	3.2	6.2	10.0	13.7
M	16.4	17.4	16.6	14.1	10.4	6.6	3.9	3.0	4.1	6.8	10.5	14.1
21	16.7	17.6	16.7	14.1	10.2	6.0	2.8	1.3	2.0	4.5	8.3	12.6
Tu	16.2	18.1	18.1	16.1	12.4	8.0	4.1	2.0	2.1	4.3	7.9	12.2
22	16.0	18.1	18.3	16.4	12.8	8.3	4.2	1.5	1.2	3.1	6.6	11.1
W	15.4	18.3	19.2	17.8	14.6	10.0	5.3	1.8	0.7	2.0	5.3	9.7
23	14.3	17.7	19.1	18.2	15.2	10.9	6.3	2.6	1.0	2.0	5.1	9.4
Th	14.1	17.8	19.7	19.2	16.5	12.2	7.2	2.8	0.2	0.3	2.9	7.0
24	11.8	16.1	18.8	19.1	17.2	13.5	8.8	4.5	1.8	1.5	3.8	7.8
F	12.4	16.6	19.4	20.0	18.1	14.3	9.5	4.5	0.9	-0.4	1.0	4.5
25	9.1	13.7	17.3	19.0	18.3	15.5	11.4	7.0	3.4	1.9	3.0	6.3
Sa	10.6	15.0	18.4	19.9	19.1	16.2	11.7	6.8	2.5	0.0	0.0	2.4
26	6.5	11.0	15.0	17.7	18.4	16.8	13.5	9.5	5.7	3.2	3.0	5.2
Su	8.9	13.2	16.8	19.1	19.4	17.4	13.7	9.1	4.7	1.3	0.0	1.1
27	4.2	8.3	12.3	15.5	17.2	17.0	14.9	11.6	8.1	5.2	3.9	4.7
M	7.5	11.3	14.9	17.6	18.8	18.0	15.3	11.4	7.2	3.5	1.2	0.9
28	2.7	5.9	9.5	12.8	15.1	16.1	15.3	13.2	10.3	7.5	5.5	5.2
Tu	6.7	9.6	12.9	15.7	17.5	17.7	16.3	13.4	9.7	6.1	3.2	1.8
29	2.1	4.1	7.0	10.0	12.5	14.2	14.7	13.8	12.0	9.7	7.6	6.5
W	6.6	8.2	10.8	13.5	15.6	16.6	16.4	14.8	12.1	8.9	5.9	3.7
30	2.7	3.1	4.8	7.2	9.6	11.6	13.1	13.5	13.0	11.6	9.9	8.4
Th	7.6	7.7	9.0	11.1	13.1	14.7	15.5	15.3	14.0	11.7	9.1	6.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 59° 27′N Long. 151° 43′W

OCTOBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	4.6	3.5	3.6	4.8	6.7	8.7	10.7	12.3	13.1	13.0	12.1	10.8
F	9.4	8.3	8.0	8.8	10.2	11.9	13.4	14.4	14.7	14.0	12.3	10.0
2	7.6	5.4	3.9	3.4	4.1	5.7	7.7	10.1	12.2	13.6	14.0	13.3
Sa	11.9	10.1	8.3	7.3	7.4	8.5	10.2	12.2	13.9	15.0	14.9	13.6
3	11.4	8.7	5.8	3.5	2.5	2.9	4.6	7.2	10.3	13.2	15.1	15.6
Su	14.8	12.8	10.1	7.4	5.6	5.2	6.4	8.6	11.4	14.1	16.0	16.4
4	15.2	12.7	9.3	5.6	2.6	1.2	1.8	4.0	7.5	11.5	15.0	17.2
M	17.5	16.0	13.0	9.2	5.4	3.0	2.7	4.3	7.4	11.3	15.0	17.5
5	18.2	16.8	13.6	9.3	4.7	1.2	-0.1	1.1	4.3	8.7	13.5	17.4
Tu	19.5	19.2	16.6	12.4	7.3	2.8	0.2	0.3	2.8	7.0	11.9	16.4
6	19.3	19.7	17.8	13.8	8.6	3.4	-0.1	-0.8	1.2	5.4	10.8	16.1
W	19.9	21.4	20.1	16.3	10.9	4.9	0.1	-2.2	-1.4	2.1	7.3	13.1
7	17.9	20.7	20.7	18.0	13.2	7.4	2.1	-0.9	-0.8	2.3	7.4	13.3
Th	18.6	21.9	22.4	20.0	15.1	8.7	2.3	-2.3	-3.8	-2.0	2.4	8.4
8	14.4	19.2	21.5	20.8	17.4	12.1	6.1	1.2	-1.0	0.1	4.1	9.8
F	15.8	20.6	23.0	22.4	18.8	13.1	6.4	0.2	-3.7	-4.3	-1.6	3.5
9	9.7	15.6	19.8	21.4	20.0	16.1	10.7	5.0	0.9	-0.2	1.8	6.4
Sa	12.1	17.6	21.6	22.9	21.3	16.9	10.9	4.3	-1.1	-4.0	-3.6	-0.2
10	5.0	10.9	16.2	19.7	20.5	18.6	14.5	9.4	4.5	1.4	1.3	4.0
Su	8.7	13.9	18.6	21.5	21.7	19.3	14.7	8.9	3.1	-1.3	-3.1	-2.0
11	1.6	6.6	11.8	16.2	18.7	18.9	16.8	13.0	8.5	4.6	2.7	3.3
M	6.2	10.5	14.9	18.5	20.3	19.8	17.0	12.6	7.5	2.7	-0.5	-1.4
12	0.1	3.5	7.7	12.0	15.4	17.2	17.0	15.0	11.9	8.3	5.5	4.3
Tu	5.3	8.0	11.5	14.9	17.5	18.4	17.5	14.8	11.1	7.0	3.3	1.0
13	0.7	2.2	4.9	8.2	11.5	14.2	15.5	15.3	13.8	11.4	8.8	6.7
W	6.1	7.0	9.1	11.7	14.1	15.9	16.4	15.4	13.2	10.3	7.2	4.5
14	2.8	2.6	3.7	5.7	8.2	10.8	12.9	14.1	14.2	13.2	11.6	9.6
Th	8.0	7.4	7.9	9.3	11.0	12.8	14.1	14.5	13.9	12.4	10.3	8.0
15	5.9	4.4	4.0	4.6	5.9	7.7	10.0	12.0	13.4	13.8	13.4	12.2
F	10.5	8.9	8.0	7.9	8.6	9.8	11.3	12.7	13.4	13.3	12.4	10.9
16	9.1	7.0	5.4	4.6	4.7	5.6	7.4	9.6	11.9	13.5	14.2	14.0
Sa	12.9	11.0	9.1	7.7	7.1	7.4	8.5	10.2	11.9	13.1	13.5	13.0
17	11.8	9.8	7.6	5.7	4.5	4.5	5.4	7.4	10.0	12.6	14.4	15.1
Su	14.8	13.2	10.8	8.3	6.5	5.7	6.1	7.6	9.8	12.0	13.7	14.3
18	13.9	12.4	10.1	7.4	5.2	4.0	4.2	5.6	8.2	11.3	14.0	15.7
M	16.2	15.2	12.9	9.7	6.7	4.7	4.1	5.1	7.2	10.2	13.0	14.8
19	15.4	14.7	12.6	9.7	6.6	4.3	3.5	4.3	6.5	9.7	13.2	15.9
Tu	17.2	16.8	14.9	11.6	7.8	4.5	2.8	2.9	4.7	7.8	11.4	14.5
20	16.3	16.4	14.9	12.1	8.6	5.3	3.4	3.3	5.1	8.2	12.0	15.5
W	17.7	18.2	16.7	13.7	9.5	5.3	2.2	1.2	2.3	5.1	9.0	13.1
21	16.2	17.5	16.9	14.6	11.0	7.1	4.0	2.8	3.8	6.6	10.4	14.5
Th	17.7	19.1	18.4	15.8	11.7	6.9	2.7	0.3	0.3	2.5	6.4	10.9
22	15.0	17.6	18.2	16.7	13.5	9.4	5.5	3.1	3.0	5.0	8.7	13.0
F	16.8	19.3	19.6	17.7	14.0	9.1	4.2	0.5	-0.8	0.4	3.7	8.2
23	12.8	16.6	18.5	18.2	15.8	12.0	7.7	4.3	2.8	3.8	6.9	11.1
Sa	15.4	18.7	20.1	19.2	16.1	11.6	6.4	1.8	-0.9	-1.1	1.3	5.4
24	10.1	14.6	17.7	18.6	17.4	14.3	10.2	6.3	3.6	3.3	5.4	9.1
Su	13.4	17.3	19.7	20.0	17.9	14.0	9.0	4.0	0.2	-1.4	-0.4	2.8
25	7.2	11.8	15.7	17.9	18.0	16.0	12.6	8.7	5.4	3.7	4.4	7.3
M	11.3	15.3	18.4	19.8	19.0	16.1	11.7	6.8	2.3	-0.5	-1.1	0.9
26	4.5	8.9	13.0	16.1	17.5	16.8	14.5	11.1	7.6	5.1	4.4	5.9
Tu	9.2	13.0	16.4	18.6	19.0	17.5	14.1	9.6	5.1	1.5	-0.4	-0.1
27	2.3	6.0	10.0	13.4	15.8	16.5	15.5	13.1	10.1	7.2	5.5	5.5
W	7.4	10.6	13.9	16.6	18.0	17.8	15.8	12.3	8.3	4.4	1.5	0.3
28	1.1	3.6	7.0	10.4	13.3	15.1	15.5	14.4	12.2	9.7	7.4	6.2
Th	6.5	8.4	11.2	13.9	16.0	16.9	16.4	14.4	11.3	7.7	4.4	2.1
29	1.3	2.2	4.5	7.4	10.3	12.8	14.4	14.8	13.9	12.0	9.9	7.9
F	6.8	7.1	8.6	10.9	13.1	14.8	15.7	15.3	13.6	11.0	8.0	5.1
30	3.0	2.2	2.9	4.8	7.3	10.0	12.4	14.2	14.7	14.1	12.5	10.4
Sa	8.4	7.1	6.9	7.9	9.6	11.6	13.4	14.6	14.7	13.6	11.5	8.9
31	6.1	3.9	2.7	3.0	4.6	7.0	9.8	12.5	14.6	15.4	14.9	13.3
Su	11.0	8.5	6.5	5.7	6.2	7.8	9.9	12.2	14.0	14.8	14.3	12.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

SELDOVIA, ALASKA, 2010

Lat. 59° 27′N Long. 151° 43′W

NOVEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	10.1	7.1	4.4	2.8	2.8	4.2	6.8	10.0	13.2	15.7	16.7	16.1
M	14.2	11.3	8.0	5.2	3.8	4.0	5.7	8.4	11.4	14.1	15.6	15.6
2	14.0	11.2	7.8	4.5	2.5	2.3	3.9	7.0	10.8	14.6	17.3	18.3
Tu	17.4	14.8	10.9	6.6	3.1	1.3	1.7	3.9	7.4	11.4	14.8	16.9
3	17.0	15.2	12.0	7.9	4.1	1.9	1.9	4.0	7.8	12.3	16.4	19.2
W	19.8	18.2	14.7	9.8	4.7	0.7	-1.1	-0.3	2.7	7.1	12.0	16.0
4	18.3	18.2	16.1	12.2	7.5	3.4	1.3	1.8	4.6	9.1	14.1	18.4
Th	20.9	20.9	18.4	13.8	8.1	2.4	-1.6	-3.0	-1.4	2.5	7.7	13.1
5	17.4	19.5	19.0	16.2	11.7	6.7	2.6	1.0	2.2	5.8	10.9	16.1
F	20.2	22.0	21.2	17.7	12.3	6.0	0.2	-3.4	-4.0	-1.6	3.1	8.8
6	14.4	18.5	20.1	19.1	15.7	10.8	5.7	2.1	1.1	3.2	7.4	12.7
Sa	17.8	21.3	22.3	20.5	16.3	10.4	3.9	-1.4	-4.3	-3.9	-0.7	4.4
7	10.3	15.6	19.1	20.1	18.4	14.6	9.6	4.9	1.9	1.9	4.6	9.1
Su	14.3	18.9	21.6	21.7	19.1	14.4	8.4	2.3	-2.3	-4.1	-2.9	0.8
8	6.0	11.6	16.3	19.1	19.4	17.2	13.3	8.5	4.4	2.4	3.1	6.2
M	10.8	15.5	19.2	21.0	20.3	17.2	12.3	6.6	1.4	-2.2	-3.1	-1.2
9	2.7	7.6	12.6	16.5	18.5	18.2	15.8	12.0	7.8	4.5	3.4	4.6
Tu	7.8	11.9	15.9	18.8	19.7	18.4	15.1	10.5	5.5	1.2	-1.3	-1.3
10	0.8	4.5	8.9	13.0	16.1	17.4	16.7	14.4	11.0	7.6	5.1	4.6
W	6.2	9.1	12.5	15.6	17.6	17.9	16.3	13.1	9.1	5.0	1.8	0.2
11	0.6	2.8	6.0	9.6	13.0	15.4	16.2	15.4	13.3	10.5	7.8	6.0
Th	5.9	7.3	9.7	12.4	14.7	16.1	16.0	14.4	11.6	8.4	5.2	2.8
12	1.9	2.5	4.4	7.1	10.0	12.7	14.6	15.1	14.4	12.7	10.5	8.3
F	6.9	6.8	7.9	9.7	11.7	13.5	14.5	14.3	13.0	10.8	8.3	5.9
13	4.1	3.4	4.0	5.5	7.7	10.1	12.4	14.0	14.6	14.0	12.6	10.7
Sa	8.8	7.5	7.2	7.8	9.1	10.6	12.2	13.2	13.2	12.3	10.7	8.7
14	6.8	5.2	4.6	5.0	6.2	8.0	10.3	12.4	14.0	14.5	14.1	12.8
Su	10.9	8.9	7.4	6.7	7.0	8.0	9.5	11.2	12.4	12.8	12.3	11.1
15	9.4	7.6	6.0	5.3	5.5	6.6	8.4	10.7	12.9	14.4	14.9	14.4
M	12.9	10.8	8.4	6.6	5.7	5.8	6.9	8.7	10.7	12.3	13.1	12.8
16	11.7	10.0	8.0	6.3	5.4	5.7	7.0	9.1	11.6	13.9	15.3	15.6
Tu	14.7	12.8	10.1	7.2	5.1	4.2	4.6	6.1	8.4	11.0	13.0	13.9
17	13.6	12.4	10.3	8.0	6.1	5.3	5.9	7.6	10.1	12.9	15.3	16.5
W	16.2	14.7	12.0	8.7	5.5	3.3	2.7	3.6	5.9	8.9	11.9	14.1
18	15.0	14.4	12.7	10.1	7.4	5.5	5.1	6.2	8.5	11.5	14.6	16.8
Th	17.5	16.5	14.1	10.6	6.7	3.3	1.4	1.5	3.2	6.3	10.0	13.3
19	15.5	16.0	14.9	12.5	9.4	6.5	4.9	5.0	6.8	9.8	13.3	16.4
F	18.2	18.1	16.3	12.9	8.7	4.4	1.2	-0.1	0.8	3.6	7.4	11.5
20	14.9	16.8	16.7	14.9	11.8	8.3	5.5	4.3	5.3	7.9	11.5	15.2
Sa	18.0	19.2	18.2	15.4	11.2	6.4	2.0	-0.7	-1.0	0.9	4.5	9.0
21	13.2	16.4	17.6	16.8	14.2	10.7	7.0	4.6	4.2	6.0	9.4	13.4
Su	17.0	19.3	19.6	17.7	13.9	9.1	4.0	0.0	-1.9	-1.2	1.7	6.0
22	10.7	14.8	17.4	17.9	16.3	13.2	9.3	5.8	4.0	4.5	7.1	11.0
M	15.1	18.3	20.0	19.3	16.5	12.1	6.9	2.0	-1.4	-2.4	-0.7	3.0
23	7.6	12.2	16.0	17.9	17.6	15.4	11.9	8.0	5.0	3.9	5.2	8.5
Tu	12.5	16.4	19.1	20.0	18.5	15.0	10.1	4.9	0.5	-2.1	-2.1	0.4
24	4.5	9.1	13.5	16.6	17.8	16.9	14.2	10.6	7.0	4.5	4.2	6.2
W	9.7	13.7	17.1	19.2	19.3	17.2	13.3	8.4	3.5	-0.3	-2.1	-1.3
25	1.7	6.0	10.4	14.3	16.8	17.4	16.0	13.1	9.6	6.4	4.5	4.8
Th	7.1	10.6	14.2	17.1	18.6	18.2	15.8	11.8	7.1	2.7	-0.4	-1.4
26	0.0	3.1	7.2	11.3	14.7	16.7	16.9	15.2	12.3	9.0	6.2	4.7
F	5.3	7.6	10.8	14.0	16.4	17.6	16.9	14.5	10.7	6.5	2.7	0.2
27	-0.3	1.3	4.4	8.2	11.9	14.9	16.5	16.4	14.7	11.9	8.8	6.2
Sa	4.9	5.4	7.5	10.3	13.0	15.2	16.3	15.7	13.5	10.3	6.6	3.4
28	1.3	1.0	2.5	5.4	8.9	12.3	15.0	16.5	16.3	14.6	11.9	8.9
Su	6.2	4.8	5.0	6.6	9.0	11.6	13.8	15.0	14.8	13.2	10.5	7.4
29	4.4	2.5	2.1	3.5	6.1	9.3	12.6	15.3	16.8	16.6	14.9	12.1
M	9.0	6.0	4.2	4.0	5.2	7.3	10.0	12.5	14.2	14.5	13.5	11.3
30	8.4	5.6	3.5	3.0	4.1	6.5	9.7	13.1	15.9	17.4	17.1	15.4
Tu	12.4	8.8	5.4	3.1	2.4	3.4	5.6	8.5	11.5	13.9	14.8	14.2

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 59° 27′N Long. 151° 43′W

DECEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	12.4	9.6	6.6	4.2	3.4	4.4	6.8	10.2	13.8	16.7	18.2	17.9
W	15.9	12.5	8.4	4.3	1.5	0.6	1.5	4.1	7.6	11.3	14.2	15.6
2	15.3	13.5	10.5	7.1	4.5	3.5	4.5	7.2	10.8	14.7	17.8	19.2
Th	18.6	16.2	12.2	7.4	2.9	-0.3	-1.2	0.1	3.2	7.4	11.7	15.0
3	16.7	16.4	14.3	10.9	7.1	4.2	3.3	4.6	7.6	11.7	15.8	18.9
F	20.1	19.1	16.0	11.4	6.1	1.2	-1.9	-2.5	-0.7	3.1	7.9	12.6
4	16.2	17.8	17.2	14.7	10.8	6.6	3.8	3.1	4.8	8.3	12.8	17.0
Sa	19.9	20.6	19.0	15.4	10.2	4.4	-0.4	-3.2	-3.1	-0.6	3.8	9.0
5	13.9	17.3	18.5	17.4	14.4	10.0	5.8	3.2	3.1	5.4	9.3	13.9
Su	18.0	20.5	20.7	18.4	14.2	8.6	2.8	-1.7	-3.8	-2.9	0.3	5.1
6	10.5	15.2	18.2	18.8	17.1	13.5	9.0	5.0	2.9	3.4	6.2	10.5
M	15.0	18.8	20.6	20.1	17.2	12.5	6.8	1.3	-2.5	-3.6	-2.0	1.8
7	6.8	12.0	16.3	18.5	18.5	16.2	12.3	7.8	4.3	2.9	4.1	7.3
Tu	11.6	15.9	19.0	20.2	18.9	15.5	10.6	5.2	0.3	-2.5	-2.7	-0.4
8	3.7	8.6	13.4	16.9	18.4	17.6	14.9	11.0	6.9	4.0	3.4	5.2
W	8.6	12.6	16.3	18.8	19.1	17.3	13.6	8.8	3.9	0.0	-1.8	-1.2
9	1.6	5.7	10.3	14.4	17.1	17.8	16.4	13.5	9.8	6.3	4.2	4.3
Th	6.3	9.6	13.2	16.3	17.9	17.6	15.3	11.7	7.3	3.1	0.3	-0.6
10	0.8	3.8	7.6	11.6	14.9	16.8	16.8	15.1	12.2	8.9	6.1	4.7
F	5.3	7.4	10.3	13.3	15.7	16.6	15.8	13.5	10.0	6.3	3.1	1.2
11	1.1	2.9	5.8	9.2	12.5	15.1	16.3	15.8	13.9	11.3	8.4	6.2
Sa	5.3	6.1	8.0	10.5	12.9	14.6	15.1	14.1	11.9	9.0	6.0	3.6
12	2.5	3.0	4.8	7.5	10.4	13.1	15.1	15.7	14.9	13.0	10.6	8.2
Su	6.4	5.8	6.5	8.2	10.1	12.1	13.4	13.7	12.8	10.9	8.5	6.3
13	4.6	4.0	4.7	6.5	8.8	11.3	13.5	14.9	15.1	14.2	12.4	10.2
M	8.1	6.5	5.9	6.5	7.7	9.4	11.1	12.3	12.7	12.0	10.5	8.7
14	7.0	5.7	5.3	6.1	7.7	9.7	11.8	13.8	14.9	14.9	13.8	12.1
Tu	10.0	7.8	6.2	5.5	5.9	6.9	8.5	10.2	11.6	12.2	11.8	10.8
15	9.3	7.8	6.7	6.3	7.0	8.4	10.3	12.3	14.1	15.1	14.9	13.8
W	11.9	9.6	7.3	5.5	4.6	4.9	6.0	7.7	9.7	11.4	12.3	12.3
16	11.5	10.1	8.5	7.3	6.8	7.4	8.8	10.8	12.9	14.7	15.6	15.3
Th	13.9	11.7	9.0	6.3	4.2	3.3	3.7	5.1	7.3	9.8	11.9	13.1
17	13.2	12.3	10.7	8.8	7.3	6.7	7.4	9.1	11.3	13.7	15.6	16.4
F	15.8	14.0	11.2	8.0	4.8	2.6	1.8	2.6	4.6	7.5	10.5	13.0
18	14.3	14.2	13.0	10.9	8.6	6.8	6.3	7.3	9.4	12.1	14.8	16.7
Sa	17.3	16.2	13.8	10.4	6.5	2.9	0.8	0.4	1.9	4.7	8.2	11.8
19	14.4	15.6	15.1	13.3	10.6	7.8	5.9	5.7	7.3	10.0	13.2	16.2
Su	18.0	18.1	16.4	13.2	9.0	4.5	0.9	-1.0	-0.6	1.7	5.3	9.5
20	13.4	16.0	16.7	15.6	13.0	9.7	6.6	4.9	5.2	7.5	10.8	14.5
M	17.6	19.2	18.7	16.3	12.2	7.3	2.4	-1.1	-2.3	-1.1	2.2	6.6
21	11.2	15.1	17.3	17.4	15.5	12.2	8.4	5.2	3.9	5.0	8.0	12.0
Tu	15.9	18.9	20.0	18.9	15.6	10.7	5.3	0.4	-2.7	-3.0	-0.8	3.3
22	8.2	13.0	16.7	18.3	17.6	14.9	11.0	6.9	4.0	3.3	5.1	8.8
W	13.1	17.1	19.8	20.3	18.4	14.4	9.0	3.4	-1.2	-3.5	-3.0	0.2
23	4.8	10.1	14.8	17.9	18.8	17.3	13.9	9.6	5.5	3.0	3.1	5.5
Th	9.6	14.1	17.9	20.1	20.0	17.4	12.9	7.3	1.8	-2.2	-3.6	-2.1
24	1.7	6.7	11.9	16.2	18.7	18.8	16.5	12.7	8.2	4.4	2.5	3.1
F	6.0	10.2	14.5	18.0	19.7	19.0	16.0	11.3	5.9	1.0	-2.2	-2.7
25	-0.5	3.6	8.7	13.5	17.2	18.9	18.3	15.5	11.5	7.1	3.7	2.3
Sa	3.3	6.4	10.4	14.4	17.4	18.6	17.6	14.5	10.1	5.2	1.0	-1.4
26	-1.2	1.4	5.6	10.4	14.7	17.7	18.8	17.6	14.6	10.5	6.4	3.4
Su	2.3	3.5	6.4	10.0	13.5	16.1	17.1	16.1	13.3	9.3	5.1	1.7
27	0.1	0.7	3.4	7.4	11.6	15.4	17.9	18.4	16.9	13.8	10.0	6.1
M	3.4	2.4	3.4	5.9	9.0	12.2	14.6	15.6	14.8	12.5	9.3	5.8
28	3.1	1.9	2.6	5.2	8.7	12.4	15.7	17.7	17.9	16.4	13.4	9.8
Tu	6.2	3.4	2.3	2.9	4.9	7.6	10.5	13.0	14.2	14.0	12.4	9.9
29	7.1	4.7	3.6	4.2	6.3	9.4	12.7	15.6	17.5	17.6	16.1	13.4
W	9.9	6.3	3.4	1.9	2.1	3.6	6.1	9.0	11.7	13.4	13.8	12.9
30	10.9	8.5	6.2	4.9	5.2	6.9	9.6	12.7	15.5	17.3	17.6	16.3
Th	13.7	10.2	6.3	3.1	1.2	0.9	2.3	4.8	8.0	11.1	13.4	14.3
31	13.8	12.2	9.7	7.1	5.5	5.5	6.9	9.5	12.6	15.5	17.5	17.8
F	16.6	14.0	10.2	6.0	2.3	0.1	-0.3	1.1	3.9	7.6	11.2	14.0

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

VALDEZ, ALASKA, 2010

Lat. 61° 08′N Long. 146° 22′W

JANUARY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	9.7	11.4	11.7	10.7	8.6	6.0	3.8	2.8	3.5	5.8	8.9	11.9
F	14.2	15.1	14.4	12.1	8.6	4.4	0.4	−2.4	−3.2	−1.9	1.1	4.7
2	8.2	10.8	12.1	12.0	10.5	8.0	5.2	3.0	2.3	3.3	5.9	9.2
Sa	12.2	14.2	14.8	13.8	11.3	7.5	3.3	−0.4	−2.7	−2.9	−1.0	2.3
3	6.1	9.4	11.7	12.6	12.0	10.1	7.3	4.5	2.4	2.0	3.3	6.0
Su	9.3	12.1	13.8	14.1	12.8	10.2	6.5	2.5	−0.7	−2.4	−2.0	0.4
4	3.9	7.5	10.4	12.3	12.7	11.8	9.6	6.7	3.9	2.1	1.9	3.4
M	6.1	9.0	11.5	12.8	12.9	11.6	9.0	5.7	2.2	−0.4	−1.5	−0.5
5	2.1	5.4	8.7	11.2	12.5	12.6	11.4	9.2	6.3	3.6	2.0	1.9
Tu	3.4	5.9	8.5	10.4	11.5	11.4	10.3	8.1	5.2	2.4	0.4	−0.1
6	1.2	3.8	6.8	9.6	11.5	12.5	12.4	11.1	8.8	6.1	3.6	2.1
W	2.1	3.4	5.4	7.5	9.1	10.0	10.1	9.2	7.5	5.2	3.0	1.6
7	1.6	3.0	5.3	7.8	10.0	11.6	12.3	12.1	10.8	8.6	6.0	3.7
Th	2.4	2.2	3.2	4.7	6.3	7.7	8.7	9.0	8.6	7.3	5.6	3.9
8	3.0	3.2	4.4	6.3	8.3	10.1	11.5	12.1	11.9	10.6	8.5	6.1
F	3.9	2.5	2.2	2.7	3.8	5.2	6.6	7.8	8.4	8.4	7.5	6.3
9	5.0	4.3	4.4	5.3	6.8	8.5	10.1	11.4	12.0	11.8	10.6	8.6
Sa	6.2	4.1	2.5	1.8	2.0	2.9	4.3	5.9	7.4	8.3	8.5	8.0
10	7.1	6.0	5.3	5.1	5.7	6.9	8.5	10.1	11.4	12.1	11.8	10.6
Su	8.6	6.2	3.9	2.1	1.2	1.3	2.3	3.9	5.8	7.5	8.6	9.0
11	8.6	7.7	6.6	5.6	5.3	5.7	6.9	8.5	10.2	11.6	12.2	11.9
M	10.6	8.5	5.9	3.4	1.4	0.4	0.7	2.0	4.0	6.2	8.0	9.2
12	9.6	9.1	8.0	6.7	5.5	5.0	5.5	6.9	8.8	10.6	11.9	12.4
Tu	11.9	10.4	8.1	5.2	2.5	0.5	−0.2	0.5	2.3	4.6	7.0	8.8
13	9.9	10.0	9.3	7.9	6.2	4.9	4.5	5.4	7.1	9.2	11.1	12.3
W	12.6	11.8	9.9	7.2	4.1	1.3	−0.4	−0.5	0.8	3.1	5.6	8.0
14	9.7	10.5	10.2	9.0	7.2	5.4	4.2	4.2	5.5	7.6	9.9	11.7
Th	12.7	12.6	11.4	9.0	6.0	2.8	0.2	−0.9	−0.4	1.6	4.2	6.9
15	9.1	10.5	10.8	10.0	8.3	6.2	4.4	3.6	4.2	6.0	8.4	10.6
F	12.2	12.8	12.3	10.5	7.7	4.4	1.4	−0.6	−1.0	0.3	2.8	5.7
16	8.3	10.2	11.1	10.8	9.4	7.3	5.1	3.6	3.3	4.5	6.7	9.2
Sa	11.3	12.5	12.6	11.5	9.2	6.1	2.9	0.3	−0.9	−0.4	1.5	4.4
17	7.3	9.6	11.0	11.2	10.3	8.4	6.1	4.1	3.0	3.3	5.0	7.5
Su	9.9	11.7	12.4	11.9	10.3	7.7	4.6	1.7	−0.2	−0.6	0.7	3.2
18	6.1	8.8	10.7	11.4	11.0	9.5	7.3	5.0	3.3	2.8	3.7	5.7
M	8.2	10.4	11.7	11.8	10.8	8.8	6.1	3.3	1.0	−0.1	0.4	2.3
19	5.1	7.9	10.1	11.3	11.4	10.4	8.5	6.2	4.1	2.9	2.9	4.2
Tu	6.4	8.7	10.4	11.2	10.8	9.5	7.4	4.9	2.5	1.0	0.7	1.8
20	4.2	6.9	9.3	10.9	11.5	11.0	9.6	7.5	5.3	3.5	2.7	3.2
W	4.8	6.9	8.9	10.1	10.3	9.6	8.2	6.3	4.1	2.4	1.5	1.9
21	3.6	6.0	8.5	10.3	11.3	11.3	10.4	8.8	6.8	4.7	3.2	2.8
Th	3.6	5.2	7.1	8.5	9.3	9.3	8.5	7.3	5.6	3.9	2.8	2.5
22	3.4	5.3	7.5	9.5	10.9	11.3	11.0	10.0	8.3	6.2	4.3	3.1
F	2.9	3.8	5.2	6.7	7.8	8.3	8.3	7.8	6.8	5.5	4.2	3.5
23	3.7	4.8	6.6	8.5	10.1	11.0	11.3	10.9	9.7	8.0	6.0	4.2
Sa	3.1	2.9	3.6	4.7	5.9	6.9	7.5	7.7	7.5	6.8	5.8	4.9
24	4.5	4.8	5.8	7.3	8.9	10.2	11.1	11.3	11.0	9.8	8.0	6.0
Su	4.2	3.0	2.6	2.9	3.8	4.9	6.0	6.9	7.5	7.6	7.2	6.5
25	5.7	5.3	5.5	6.2	7.5	8.9	10.2	11.2	11.7	11.4	10.2	8.3
M	6.1	4.1	2.5	1.8	1.8	2.6	3.9	5.4	6.8	7.8	8.2	8.0
26	7.3	6.4	5.8	5.6	6.0	7.1	8.6	10.3	11.6	12.3	12.0	10.8
Tu	8.7	6.2	3.7	1.7	0.5	0.5	1.5	3.3	5.4	7.3	8.6	9.1
27	8.9	7.9	6.7	5.6	5.0	5.3	6.5	8.4	10.5	12.2	13.0	12.8
W	11.4	9.0	6.0	3.0	0.5	−0.9	−0.7	0.8	3.2	5.9	8.2	9.7
28	10.2	9.7	8.3	6.5	4.9	4.0	4.3	5.9	8.3	10.9	12.9	13.9
Th	13.5	11.8	9.0	5.4	1.9	−0.9	−2.1	−1.5	0.7	3.8	6.9	9.4
29	10.9	11.2	10.2	8.2	5.8	3.7	2.7	3.3	5.4	8.4	11.3	13.5
F	14.5	14.0	11.9	8.5	4.5	0.6	−2.1	−2.9	−1.6	1.3	4.9	8.2
30	10.8	12.1	11.9	10.3	7.7	4.7	2.4	1.6	2.6	5.2	8.6	11.8
Sa	14.0	14.8	13.9	11.4	7.6	3.3	−0.5	−2.8	−3.0	−0.9	2.5	6.4
31	9.8	12.1	13.0	12.2	9.9	6.7	3.5	1.2	0.7	2.2	5.3	8.9
Su	12.0	14.1	14.6	13.3	10.5	6.5	2.2	−1.2	−2.9	−2.3	0.4	4.2

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 08′N Long. 146° 22′W

FEBRUARY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	8.1	11.3	13.1	13.4	12.0	9.2	5.7	2.4	0.4	0.3	2.2	5.5
M	9.0	12.0	13.7	13.8	12.2	9.2	5.4	1.5	-1.3	-2.2	-0.9	2.2
2	6.1	9.7	12.4	13.6	13.3	11.4	8.3	4.7	1.7	0.0	0.3	2.5
Tu	5.7	9.0	11.5	12.7	12.5	10.9	8.0	4.5	1.3	-0.7	-0.8	1.0
3	4.2	7.8	10.9	12.9	13.6	12.7	10.5	7.4	4.1	1.4	0.1	0.8
W	2.9	5.8	8.6	10.5	11.4	11.0	9.5	7.0	4.2	1.7	0.5	0.9
4	3.0	6.1	9.1	11.5	12.9	13.0	11.9	9.7	6.8	3.8	1.5	0.7
Th	1.4	3.3	5.7	7.8	9.3	9.9	9.7	8.4	6.5	4.3	2.6	2.0
5	2.8	4.8	7.4	9.8	11.5	12.3	12.3	11.2	9.1	6.5	4.0	2.1
F	1.4	2.0	3.5	5.3	6.8	8.0	8.6	8.6	7.8	6.5	5.0	3.8
6	3.6	4.5	6.1	8.1	9.8	11.0	11.6	11.5	10.6	8.8	6.6	4.4
Sa	2.8	2.1	2.3	3.3	4.5	5.8	6.9	7.7	8.0	7.7	6.9	5.8
7	5.1	5.0	5.6	6.7	8.1	9.3	10.4	11.0	11.1	10.3	8.9	6.9
Su	4.9	3.3	2.4	2.3	2.8	3.7	4.9	6.3	7.4	8.0	8.0	7.5
8	6.7	6.1	5.7	5.9	6.6	7.6	8.8	9.9	10.7	10.9	10.4	9.1
M	7.2	5.3	3.5	2.3	1.8	2.1	3.1	4.5	6.2	7.5	8.4	8.6
9	8.2	7.4	6.5	5.9	5.7	6.1	7.1	8.5	9.8	10.8	11.1	10.6
Tu	9.3	7.4	5.2	3.1	1.6	1.1	1.5	2.9	4.7	6.6	8.2	9.1
10	9.2	8.7	7.6	6.3	5.3	5.0	5.6	6.8	8.5	10.1	11.1	11.4
W	10.8	9.3	7.1	4.6	2.2	0.7	0.4	1.4	3.2	5.4	7.5	9.1
11	9.8	9.7	8.7	7.2	5.6	4.4	4.3	5.2	6.9	8.9	10.6	11.6
Th	11.7	10.8	8.9	6.3	3.4	1.1	-0.1	0.2	1.8	4.1	6.6	8.7
12	10.1	10.4	9.8	8.2	6.2	4.4	3.4	3.7	5.2	7.4	9.6	11.3
F	12.1	11.8	10.4	8.0	4.9	2.0	0.0	-0.5	0.6	2.8	5.5	8.1
13	10.0	10.9	10.6	9.3	7.2	4.9	3.2	2.7	3.6	5.7	8.2	10.4
Sa	11.9	12.3	11.5	9.4	6.6	3.4	0.7	-0.6	-0.3	1.6	4.3	7.2
14	9.6	11.1	11.3	10.3	8.3	5.8	3.5	2.2	2.3	4.0	6.5	9.1
Su	11.2	12.2	12.1	10.6	8.1	4.9	1.9	-0.1	-0.6	0.6	3.2	6.2
15	9.0	11.0	11.8	11.2	9.5	6.9	4.3	2.3	1.6	2.5	4.7	7.4
M	10.0	11.6	12.1	11.3	9.3	6.5	3.4	0.9	-0.3	0.2	2.2	5.2
16	8.2	10.6	11.9	11.8	10.5	8.2	5.4	2.9	1.4	1.5	3.0	5.6
Tu	8.4	10.5	11.7	11.5	10.2	7.8	5.0	2.3	0.6	0.3	1.6	4.2
17	7.3	10.0	11.7	12.2	11.3	9.4	6.8	4.1	2.0	1.1	1.8	3.9
W	6.6	9.1	10.7	11.2	10.5	8.8	6.5	3.9	1.9	0.9	1.5	3.5
18	6.3	9.1	11.2	12.2	11.9	10.5	8.2	5.5	3.0	1.4	1.2	2.5
Th	4.7	7.3	9.3	10.3	10.3	9.3	7.6	5.4	3.4	2.0	1.9	3.1
19	5.4	8.2	10.5	11.9	12.1	11.2	9.5	7.1	4.6	2.5	1.4	1.6
F	3.1	5.4	7.5	9.0	9.5	9.2	8.2	6.6	4.9	3.4	2.7	3.2
20	4.8	7.1	9.5	11.2	11.9	11.6	10.5	8.7	6.4	4.1	2.3	1.6
Sa	2.1	3.6	5.5	7.2	8.2	8.5	8.2	7.4	6.2	4.9	4.0	3.7
21	4.5	6.1	8.2	10.1	11.2	11.6	11.1	10.0	8.3	6.2	4.1	2.5
Su	1.9	2.4	3.6	5.1	6.4	7.2	7.6	7.6	7.2	6.4	5.4	4.8
22	4.7	5.5	6.9	8.6	10.0	10.9	11.2	10.9	10.0	8.4	6.4	4.4
M	2.8	2.1	2.3	3.1	4.2	5.4	6.4	7.1	7.5	7.5	6.9	6.2
23	5.6	5.4	5.9	6.9	8.2	9.4	10.4	11.0	11.0	10.3	8.9	6.9
Tu	4.7	3.0	1.9	1.6	2.1	3.1	4.5	6.0	7.2	8.0	8.2	7.8
24	6.9	6.1	5.6	5.5	6.2	7.3	8.7	10.2	11.2	11.6	11.0	9.6
W	7.4	5.0	2.8	1.2	0.5	0.9	2.2	4.1	6.2	7.9	9.0	9.2
25	8.6	7.5	6.1	5.0	4.5	4.9	6.3	8.2	10.1	11.7	12.3	11.9
Th	10.3	7.8	4.9	2.1	0.1	-0.7	0.0	1.9	4.4	7.0	9.1	10.3
26	10.3	9.3	7.6	5.5	3.8	3.0	3.5	5.3	7.9	10.4	12.3	13.1
F	12.6	10.7	7.8	4.3	1.1	-1.1	-1.7	-0.4	2.2	5.4	8.4	10.6
27	11.6	11.3	9.6	7.1	4.3	2.2	1.4	2.3	4.8	7.9	10.8	13.0
Sa	13.8	13.0	10.7	7.3	3.4	0.0	-2.0	-2.0	0.0	3.3	6.9	10.1
28	12.1	12.7	11.7	9.4	6.1	2.8	0.5	0.1	1.6	4.6	8.1	11.3
Su	13.4	14.0	12.9	10.2	6.4	2.3	-0.9	-2.3	-1.6	1.2	4.9	8.7

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

VALDEZ, ALASKA, 2010

Lat. 61° 08′N Long. 146° 22′W

MARCH

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	11.7	13.4	13.4	11.7	8.5	4.8	1.3	−0.8	−0.8	1.3	4.7	8.5
M	11.6	13.5	13.8	12.3	9.3	5.3	1.5	−1.2	−1.9	−0.4	2.9	6.9
2	10.5	13.1	14.1	13.4	11.0	7.4	3.4	0.1	−1.5	−1.0	1.6	5.2
Tu	8.8	11.7	13.1	13.0	11.2	8.1	4.4	1.0	−0.9	−0.8	1.3	4.9
3	8.7	11.9	13.8	14.1	12.7	9.9	6.1	2.3	−0.5	−1.6	−0.5	2.2
W	5.7	9.0	11.3	12.3	11.8	9.9	7.0	3.8	1.1	0.0	0.8	3.3
4	6.8	10.1	12.6	13.8	13.5	11.7	8.7	5.1	1.7	−0.5	−1.1	0.3
Th	3.0	6.1	8.8	10.6	11.1	10.4	8.7	6.2	3.6	1.8	1.4	2.6
5	5.2	8.2	10.9	12.6	13.1	12.4	10.5	7.7	4.5	1.7	0.0	−0.1
F	1.3	3.7	6.2	8.3	9.5	9.8	9.2	7.8	5.9	4.0	2.9	2.9
6	4.3	6.6	9.1	10.9	12.0	12.1	11.2	9.5	7.1	4.5	2.2	1.0
Sa	1.0	2.3	4.1	6.0	7.4	8.3	8.6	8.3	7.4	6.0	4.8	4.1
7	4.4	5.7	7.4	9.1	10.4	11.0	11.0	10.3	8.9	6.9	4.8	3.0
Su	2.0	2.0	2.8	4.1	5.3	6.4	7.3	7.9	7.9	7.4	6.5	5.6
8	5.2	5.5	6.3	7.5	8.6	9.5	10.0	10.2	9.8	8.7	7.1	5.3
M	3.8	2.8	2.5	2.8	3.6	4.6	5.7	6.8	7.7	8.0	7.8	7.1
9	6.4	5.9	5.9	6.3	6.9	7.8	8.6	9.4	9.8	9.7	8.9	7.5
Tu	5.9	4.3	3.0	2.4	2.4	3.0	4.1	5.5	6.9	8.0	8.5	8.3
10	7.7	6.9	6.1	5.6	5.6	6.1	7.0	8.1	9.2	9.9	9.9	9.2
W	7.8	6.1	4.3	2.7	1.8	1.8	2.6	4.1	5.8	7.5	8.7	9.1
11	8.8	8.0	6.8	5.5	4.7	4.6	5.3	6.6	8.1	9.5	10.3	10.3
Th	9.5	7.9	5.8	3.7	1.9	1.1	1.4	2.7	4.7	6.8	8.5	9.6
12	9.8	9.1	7.7	6.0	4.4	3.6	3.7	4.9	6.7	8.6	10.1	10.8
F	10.6	9.4	7.4	5.0	2.6	1.0	0.6	1.5	3.5	5.9	8.1	9.8
13	10.5	10.1	8.8	6.8	4.7	3.1	2.5	3.2	5.0	7.2	9.3	10.8
Sa	11.3	10.6	9.0	6.5	3.8	1.5	0.3	0.6	2.3	4.8	7.5	9.6
14	10.9	11.0	10.0	8.0	5.4	3.1	1.7	1.7	3.2	5.5	8.1	10.2
Su	11.4	11.4	10.3	8.1	5.3	2.5	0.6	0.1	1.3	3.7	6.6	9.2
15	11.0	11.7	11.0	9.2	6.6	3.8	1.6	0.8	1.5	3.7	6.4	9.1
M	10.9	11.7	11.1	9.4	6.8	3.9	1.5	0.3	0.7	2.7	5.6	8.6
16	10.9	12.1	11.9	10.4	7.9	4.9	2.1	0.4	0.3	1.9	4.6	7.5
Tu	9.9	11.4	11.5	10.4	8.2	5.4	2.7	0.9	0.6	2.0	4.6	7.7
17	10.4	12.1	12.5	11.5	9.3	6.3	3.2	0.8	−0.2	0.5	2.7	5.7
W	8.5	10.5	11.4	11.0	9.4	6.9	4.3	2.1	1.0	1.6	3.7	6.6
18	9.6	11.7	12.7	12.2	10.5	7.8	4.7	1.8	0.0	−0.3	1.1	3.7
Th	6.7	9.2	10.6	10.9	10.0	8.2	5.8	3.5	2.0	1.8	3.1	5.6
19	8.5	11.0	12.5	12.6	11.5	9.3	6.4	3.4	0.9	−0.3	0.1	2.0
F	4.7	7.4	9.4	10.3	10.1	8.9	7.1	5.0	3.3	2.4	2.9	4.7
20	7.3	10.0	11.9	12.6	12.1	10.5	8.1	5.3	2.6	0.6	0.0	0.8
Sa	2.9	5.4	7.7	9.1	9.5	9.1	8.0	6.4	4.7	3.5	3.2	4.1
21	6.1	8.6	10.7	12.0	12.1	11.3	9.6	7.3	4.7	2.3	0.8	0.5
Su	1.5	3.5	5.6	7.4	8.3	8.6	8.2	7.4	6.2	4.9	4.1	4.2
22	5.2	7.1	9.2	10.8	11.6	11.5	10.6	9.1	7.0	4.6	2.5	1.2
M	1.0	1.9	3.5	5.3	6.7	7.5	7.9	7.9	7.3	6.4	5.4	4.8
23	4.9	5.9	7.4	9.0	10.2	10.8	10.8	10.2	9.0	7.2	5.0	3.0
Tu	1.7	1.3	1.9	3.1	4.6	5.9	6.9	7.7	8.0	7.8	7.0	6.1
24	5.4	5.2	5.8	6.8	8.1	9.3	10.1	10.5	10.3	9.4	7.7	5.6
W	3.5	1.9	1.3	1.5	2.4	3.8	5.4	6.9	8.1	8.7	8.6	7.8
25	6.6	5.5	4.9	4.9	5.6	6.9	8.3	9.6	10.5	10.7	10.0	8.4
Th	6.1	3.8	1.9	0.8	0.7	1.7	3.4	5.5	7.6	9.1	9.8	9.5
26	8.4	6.8	5.1	3.9	3.5	4.1	5.6	7.5	9.5	10.9	11.4	10.7
F	9.0	6.5	3.8	1.4	0.1	0.0	1.3	3.6	6.3	8.8	10.5	11.1
27	10.4	8.7	6.4	4.1	2.3	1.7	2.6	4.6	7.2	9.7	11.4	12.0
Sa	11.3	9.3	6.5	3.3	0.7	−0.6	−0.3	1.6	4.5	7.7	10.3	11.9
28	12.1	10.9	8.6	5.5	2.5	0.5	0.1	1.4	4.1	7.2	10.1	12.0
Su	12.5	11.6	9.3	6.0	2.7	0.0	−1.0	0.0	2.5	6.0	9.4	11.9
29	13.2	12.8	10.9	7.8	4.1	0.8	−1.1	−1.1	0.9	4.1	7.6	10.6
M	12.4	12.7	11.5	8.8	5.3	1.9	−0.4	−0.8	0.9	4.0	7.7	11.0
30	13.2	13.9	12.9	10.3	6.6	2.6	−0.7	−2.2	−1.6	0.9	4.5	8.1
Tu	11.0	12.5	12.5	10.9	8.0	4.5	1.4	−0.3	0.0	2.3	5.8	9.4
31	12.4	14.0	14.1	12.4	9.2	5.2	1.2	−1.7	−2.6	−1.4	1.5	5.2
W	8.6	11.2	12.3	11.9	10.0	7.1	3.9	1.3	0.3	1.3	4.0	7.5

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 08′N Long. 146° 22′W

APRIL

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	10.8	13.2	14.2	13.5	11.3	7.9	3.9	0.3	-2.0	-2.3	-0.6	2.5
Th	6.0	9.0	11.0	11.6	10.9	9.0	6.3	3.5	1.7	1.4	2.8	5.6
2	8.9	11.7	13.3	13.6	12.4	10.0	6.6	3.0	0.0	-1.6	-1.4	0.5
F	3.5	6.5	9.0	10.4	10.7	9.8	8.0	5.7	3.6	2.4	2.7	4.4
3	7.0	9.8	11.8	12.8	12.5	11.1	8.7	5.7	2.6	0.3	-0.8	-0.2
Sa	1.8	4.3	6.8	8.6	9.5	9.6	8.8	7.4	5.6	4.0	3.4	4.0
4	5.7	7.9	10.0	11.3	11.7	11.2	9.9	7.8	5.2	2.7	0.9	0.3
Su	1.1	2.7	4.8	6.6	7.9	8.6	8.7	8.2	7.1	5.7	4.7	4.4
5	5.0	6.5	8.2	9.6	10.4	10.5	10.1	8.9	7.2	5.2	3.2	1.8
M	1.4	2.0	3.3	4.8	6.1	7.2	7.9	8.2	7.9	7.2	6.2	5.4
6	5.2	5.7	6.7	7.8	8.7	9.3	9.5	9.3	8.5	7.1	5.4	3.8
Tu	2.6	2.2	2.6	3.4	4.5	5.7	6.8	7.7	8.2	8.1	7.5	6.6
7	5.9	5.5	5.7	6.3	7.0	7.7	8.4	8.9	8.9	8.4	7.3	5.8
W	4.3	3.1	2.6	2.6	3.2	4.2	5.5	6.8	8.0	8.6	8.5	7.8
8	6.9	6.0	5.3	5.1	5.4	6.0	6.9	7.9	8.7	9.0	8.6	7.5
Th	6.1	4.5	3.2	2.4	2.3	3.0	4.2	5.8	7.5	8.7	9.2	9.0
9	8.1	6.8	5.5	4.5	4.1	4.4	5.3	6.6	7.9	9.0	9.3	8.9
F	7.7	6.1	4.4	2.9	2.0	2.1	3.0	4.7	6.7	8.5	9.6	9.9
10	9.2	7.9	6.2	4.5	3.3	2.9	3.5	4.9	6.7	8.4	9.5	9.7
Sa	9.1	7.7	5.8	3.8	2.3	1.6	2.1	3.7	5.8	8.1	9.8	10.6
11	10.3	9.1	7.2	5.0	3.1	1.9	1.9	3.1	5.1	7.2	9.0	10.0
Su	10.1	9.1	7.3	5.1	3.0	1.7	1.5	2.7	4.8	7.4	9.6	11.0
12	11.3	10.4	8.5	6.0	3.5	1.5	0.7	1.3	3.2	5.7	8.1	9.8
M	10.5	10.2	8.8	6.6	4.2	2.3	1.4	1.9	3.8	6.4	9.1	11.0
13	11.9	11.6	10.0	7.4	4.4	1.7	0.0	-0.1	1.3	3.8	6.6	9.0
Tu	10.4	10.8	10.0	8.1	5.7	3.3	1.8	1.6	2.9	5.4	8.2	10.7
14	12.2	12.4	11.3	9.0	5.9	2.7	0.2	-0.9	-0.3	1.8	4.7	7.6
W	9.8	10.8	10.7	9.4	7.2	4.8	2.7	1.7	2.3	4.3	7.1	9.9
15	12.0	12.9	12.3	10.5	7.6	4.2	1.1	-0.9	-1.3	0.1	2.7	5.8
Th	8.5	10.3	10.9	10.3	8.6	6.3	4.0	2.4	2.1	3.4	5.9	8.8
16	11.3	12.8	13.0	11.7	9.3	6.1	2.7	-0.1	-1.5	-1.2	0.8	3.7
F	6.7	9.1	10.4	10.5	9.5	7.7	5.5	3.6	2.5	2.9	4.7	7.4
17	10.2	12.2	13.1	12.6	10.8	8.0	4.7	1.6	-0.7	-1.5	-0.6	1.7
Sa	4.7	7.4	9.3	10.1	9.9	8.7	6.9	5.0	3.5	3.0	3.9	6.0
18	8.7	11.1	12.5	12.8	11.8	9.8	6.9	3.8	1.0	-0.8	-1.1	0.1
Su	2.6	5.3	7.6	9.1	9.6	9.2	8.1	6.5	4.9	3.8	3.7	4.8
19	6.9	9.4	11.3	12.2	12.1	10.9	8.9	6.2	3.4	0.9	-0.5	-0.5
M	0.9	3.2	5.6	7.5	8.6	9.0	8.7	7.8	6.4	5.0	4.2	4.3
20	5.4	7.4	9.4	10.9	11.5	11.2	10.1	8.3	6.0	3.4	1.2	0.0
Tu	0.1	1.5	3.5	5.5	7.1	8.2	8.7	8.6	7.9	6.7	5.4	4.5
21	4.6	5.6	7.1	8.8	9.9	10.5	10.5	9.7	8.2	6.1	3.7	1.7
W	0.6	0.6	1.7	3.4	5.2	6.8	8.1	8.9	9.0	8.3	7.1	5.7
22	4.7	4.5	5.1	6.2	7.6	8.8	9.6	10.0	9.6	8.4	6.5	4.2
Th	2.3	1.1	0.9	1.7	3.3	5.1	6.9	8.5	9.5	9.7	9.0	7.5
23	5.8	4.5	3.8	3.9	4.8	6.2	7.7	9.0	9.8	9.9	8.9	7.0
F	4.8	2.7	1.3	0.9	1.6	3.2	5.3	7.5	9.4	10.6	10.6	9.6
24	7.8	5.6	3.7	2.5	2.3	3.2	4.9	6.9	8.8	10.0	10.3	9.4
Sa	7.5	5.2	2.9	1.3	0.8	1.6	3.5	6.0	8.6	10.7	11.7	11.5
25	10.0	7.7	4.9	2.5	0.9	0.7	1.8	4.0	6.6	8.9	10.4	10.7
Su	9.8	7.9	5.3	2.9	1.1	0.7	1.9	4.2	7.2	10.0	12.0	12.7
26	12.0	10.0	7.1	3.8	0.9	-0.7	-0.7	1.0	3.7	6.7	9.3	10.8
M	11.1	10.1	7.9	5.2	2.6	1.0	0.9	2.6	5.4	8.6	11.4	13.1
27	13.4	12.2	9.6	6.1	2.4	-0.6	-2.0	-1.5	0.7	3.9	7.2	9.7
Tu	11.2	11.3	10.0	7.7	4.8	2.3	1.0	1.5	3.6	6.8	10.0	12.5
28	13.8	13.5	11.8	8.7	4.8	1.0	-1.8	-2.7	-1.6	1.1	4.5	7.8
W	10.2	11.4	11.2	9.7	7.1	4.3	2.1	1.3	2.3	4.9	8.2	11.2
29	13.2	14.0	13.2	10.9	7.4	3.5	-0.2	-2.5	-2.8	-1.1	1.9	5.4
Th	8.4	10.5	11.3	10.8	9.0	6.5	3.9	2.2	1.9	3.5	6.2	9.3
30	11.9	13.5	13.6	12.3	9.7	6.1	2.3	-0.8	-2.5	-2.2	-0.1	3.0
F	6.2	8.9	10.5	10.9	10.1	8.3	5.9	3.7	2.5	2.8	4.6	7.4

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

VALDEZ, ALASKA, 2010

Lat. 61° 08′N Long. 146° 22′W

MAY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	10.2	12.2	13.1	12.8	11.1	8.4	4.9	1.6	−1.0	−2.0	−1.2	1.1
Sa	4.1	6.9	9.0	10.2	10.3	9.3	7.5	5.5	3.8	3.1	3.8	5.7
2	8.2	10.5	12.0	12.4	11.6	9.8	7.1	4.1	1.3	−0.6	−1.1	0.1
Su	2.3	4.9	7.3	8.9	9.7	9.5	8.6	7.0	5.3	4.0	3.8	4.7
3	6.5	8.7	10.4	11.3	11.3	10.4	8.6	6.2	3.6	1.4	0.0	0.0
M	1.3	3.3	5.5	7.3	8.6	9.1	8.9	8.1	6.8	5.4	4.4	4.4
4	5.4	7.0	8.6	9.8	10.3	10.1	9.2	7.7	5.7	3.5	1.7	0.8
Tu	1.0	2.3	4.0	5.8	7.2	8.2	8.7	8.6	7.9	6.7	5.6	4.8
5	4.9	5.7	6.9	8.1	8.9	9.3	9.1	8.5	7.2	5.5	3.7	2.2
W	1.6	1.9	3.0	4.4	5.8	7.1	8.1	8.7	8.6	7.9	6.8	5.7
6	5.0	5.0	5.5	6.4	7.2	7.9	8.4	8.5	8.0	7.0	5.5	4.0
Th	2.8	2.3	2.5	3.4	4.6	6.0	7.3	8.4	9.0	8.9	8.1	6.9
7	5.7	4.9	4.6	4.8	5.5	6.3	7.2	7.9	8.2	7.9	7.0	5.6
F	4.2	3.2	2.7	2.8	3.6	4.9	6.4	7.9	9.1	9.5	9.2	8.1
8	6.7	5.3	4.2	3.7	3.9	4.5	5.6	6.8	7.8	8.3	8.1	7.2
Sa	5.8	4.5	3.4	2.8	3.0	3.9	5.4	7.2	8.8	9.9	10.1	9.4
9	8.0	6.2	4.5	3.2	2.6	2.8	3.8	5.3	6.9	8.1	8.6	8.3
Su	7.3	5.9	4.5	3.3	2.8	3.2	4.4	6.3	8.3	10.0	10.8	10.6
10	9.4	7.5	5.4	3.3	1.8	1.3	2.0	3.5	5.5	7.3	8.6	9.1
M	8.6	7.5	5.9	4.3	3.1	2.8	3.6	5.3	7.6	9.7	11.1	11.5
11	10.8	9.1	6.7	4.1	1.8	0.4	0.3	1.6	3.7	6.0	8.0	9.2
Tu	9.5	8.8	7.4	5.6	3.9	2.8	2.9	4.3	6.5	9.0	11.0	12.1
12	12.0	10.7	8.4	5.5	2.5	0.3	−0.8	−0.2	1.6	4.2	6.8	8.8
W	9.8	9.8	8.8	7.1	5.1	3.4	2.7	3.4	5.3	7.9	10.4	12.1
13	12.7	12.1	10.1	7.3	4.0	1.0	−1.1	−1.5	−0.3	2.1	5.1	7.7
Th	9.5	10.3	9.9	8.5	6.6	4.5	3.1	2.9	4.1	6.5	9.2	11.6
14	12.9	13.0	11.8	9.3	6.0	2.5	−0.4	−2.0	−1.8	0.1	2.9	6.0
F	8.4	10.0	10.4	9.7	8.1	5.9	4.0	2.9	3.2	5.0	7.6	10.4
15	12.5	13.4	12.9	11.1	8.2	4.7	1.2	−1.4	−2.4	−1.6	0.7	3.8
Sa	6.8	9.0	10.2	10.3	9.3	7.5	5.4	3.6	3.0	3.8	5.9	8.7
16	11.3	12.9	13.4	12.4	10.3	7.1	3.5	0.2	−1.9	−2.4	−1.1	1.5
Su	4.7	7.4	9.4	10.2	10.0	8.8	6.9	4.9	3.5	3.2	4.4	6.7
17	9.4	11.6	12.9	12.9	11.7	9.3	6.1	2.7	−0.3	−2.0	−2.0	−0.3
M	2.4	5.4	7.9	9.5	10.1	9.7	8.4	6.6	4.7	3.5	3.5	4.8
18	7.1	9.6	11.5	12.4	12.1	10.8	8.4	5.4	2.3	−0.3	−1.6	−1.3
Tu	0.5	3.2	6.0	8.1	9.4	9.9	9.5	8.2	6.5	4.7	3.6	3.7
19	5.0	7.1	9.2	10.8	11.4	11.1	9.9	7.8	5.1	2.2	0.0	−1.0
W	−0.4	1.4	3.9	6.3	8.3	9.5	10.0	9.6	8.3	6.5	4.7	3.7
20	3.7	4.8	6.6	8.3	9.7	10.3	10.2	9.3	7.5	5.1	2.5	0.6
Th	−0.2	0.5	2.2	4.5	6.7	8.5	9.8	10.3	9.9	8.5	6.6	4.7
21	3.5	3.3	4.1	5.5	7.1	8.4	9.3	9.5	9.0	7.5	5.3	3.1
F	1.3	0.7	1.3	2.8	4.9	7.0	8.9	10.3	10.9	10.4	8.8	6.7
22	4.6	3.1	2.5	3.0	4.1	5.7	7.2	8.5	9.2	8.9	7.7	5.8
Sa	3.7	2.1	1.5	1.9	3.3	5.4	7.6	9.7	11.1	11.6	10.8	9.0
23	6.6	4.2	2.3	1.4	1.6	2.8	4.5	6.5	8.2	9.1	9.1	8.1
Su	6.3	4.3	2.8	2.0	2.3	3.8	6.0	8.4	10.6	12.0	12.2	11.2
24	9.0	6.3	3.5	1.3	0.1	0.3	1.7	3.8	6.2	8.2	9.3	9.4
M	8.5	6.8	4.8	3.1	2.3	2.7	4.3	6.8	9.4	11.5	12.7	12.6
25	11.2	8.8	5.7	2.5	0.1	−1.1	−0.7	1.1	3.7	6.3	8.5	9.7
Tu	9.8	8.8	7.1	5.0	3.2	2.5	3.1	5.0	7.7	10.3	12.3	13.2
26	12.8	11.0	8.2	4.7	1.4	−1.1	−2.0	−1.1	1.1	4.0	6.8	9.0
W	10.1	10.1	9.0	7.1	4.9	3.1	2.6	3.6	5.8	8.6	11.2	12.9
27	13.4	12.6	10.5	7.3	3.6	0.2	−2.0	−2.4	−1.0	1.7	4.7	7.5
Th	9.5	10.5	10.2	8.9	6.8	4.5	3.0	2.9	4.2	6.7	9.5	11.8
28	13.2	13.3	12.0	9.6	6.1	2.4	−0.7	−2.4	−2.2	−0.3	2.5	5.6
F	8.2	10.0	10.6	10.0	8.4	6.2	4.1	3.0	3.3	5.0	7.6	10.2
29	12.2	13.1	12.8	11.2	8.4	4.9	1.4	−1.3	−2.3	−1.6	0.6	3.6
Sa	6.5	8.8	10.2	10.4	9.6	7.8	5.6	3.8	3.1	3.8	5.8	8.3
30	10.7	12.2	12.7	12.0	10.0	7.1	3.8	0.7	−1.4	−1.9	−0.6	1.8
Su	4.7	7.3	9.2	10.2	10.1	8.9	7.1	5.1	3.7	3.4	4.5	6.5
31	8.9	10.9	11.9	12.0	10.9	8.8	5.9	2.8	0.2	−1.2	−1.1	0.5
M	3.1	5.7	8.0	9.4	10.0	9.6	8.3	6.5	4.8	3.7	3.8	5.1

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 08′N Long. 146° 22′W

JUNE

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	7.1	9.2	10.7	11.3	10.9	9.7	7.5	4.9	2.2	0.2	-0.6	0.0
Tu	1.8	4.2	6.6	8.4	9.4	9.7	9.1	7.8	6.1	4.6	3.9	4.2
2	5.6	7.4	9.1	10.1	10.4	9.8	8.5	6.5	4.2	2.0	0.5	0.2
W	1.2	3.1	5.3	7.2	8.6	9.4	9.4	8.7	7.4	5.8	4.5	4.0
3	4.5	5.8	7.3	8.6	9.3	9.4	8.8	7.6	5.8	3.8	2.1	1.1
Th	1.2	2.3	4.1	6.1	7.7	8.8	9.4	9.3	8.5	7.1	5.6	4.5
4	4.1	4.6	5.6	6.8	7.8	8.4	8.5	8.0	7.0	5.4	3.7	2.4
F	1.8	2.2	3.4	5.0	6.7	8.1	9.2	9.6	9.4	8.4	6.9	5.4
5	4.3	3.9	4.3	5.1	6.1	6.9	7.6	7.8	7.6	6.7	5.3	4.0
Sa	3.0	2.7	3.1	4.3	5.7	7.3	8.7	9.6	10.0	9.5	8.3	6.6
6	5.0	3.9	3.4	3.6	4.3	5.2	6.3	7.1	7.6	7.5	6.7	5.5
Su	4.4	3.6	3.3	3.8	4.9	6.4	7.9	9.4	10.3	10.4	9.6	8.1
7	6.3	4.5	3.2	2.6	2.6	3.4	4.6	5.9	7.1	7.7	7.7	7.0
M	5.9	4.8	4.0	3.8	4.3	5.4	7.0	8.7	10.2	11.0	10.8	9.7
8	7.9	5.7	3.7	2.2	1.4	1.6	2.7	4.3	6.0	7.4	8.1	8.1
Tu	7.3	6.2	5.1	4.2	4.0	4.5	5.9	7.8	9.7	11.1	11.7	11.2
9	9.6	7.4	4.9	2.6	0.9	0.2	0.8	2.3	4.4	6.4	7.9	8.7
W	8.6	7.7	6.5	5.1	4.2	4.0	4.8	6.5	8.7	10.7	12.0	12.3
10	11.4	9.4	6.8	3.9	1.3	-0.4	-0.8	0.2	2.3	4.8	7.0	8.6
Th	9.3	9.0	8.0	6.4	4.9	3.9	3.9	5.1	7.2	9.7	11.7	12.8
11	12.7	11.4	9.0	5.9	2.6	-0.1	-1.7	-1.5	0.1	2.7	5.5	7.8
F	9.3	9.8	9.3	8.0	6.1	4.4	3.5	3.8	5.5	8.0	10.6	12.5
12	13.4	13.0	11.2	8.3	4.8	1.3	-1.4	-2.5	-1.9	0.3	3.3	6.3
Sa	8.6	10.0	10.3	9.4	7.7	5.6	3.8	3.1	3.9	6.0	8.8	11.4
13	13.2	13.7	12.9	10.7	7.4	3.6	0.1	-2.4	-3.0	-1.7	0.9	4.2
Su	7.2	9.4	10.5	10.5	9.2	7.2	4.9	3.3	2.9	4.0	6.4	9.3
14	11.9	13.4	13.7	12.5	9.9	6.4	2.5	-0.9	-2.9	-3.0	-1.2	1.9
M	5.2	8.1	10.1	10.9	10.4	8.9	6.6	4.4	2.9	2.7	4.2	6.8
15	9.7	12.0	13.3	13.2	11.7	9.0	5.4	1.7	-1.4	-2.9	-2.4	-0.2
Tu	3.0	6.3	8.9	10.6	11.1	10.3	8.5	6.2	3.9	2.6	2.7	4.3
16	6.9	9.6	11.7	12.6	12.3	10.7	8.0	4.6	1.2	-1.4	-2.3	-1.4
W	1.0	4.2	7.3	9.6	10.9	11.1	10.2	8.2	5.8	3.6	2.4	2.6
17	4.3	6.7	9.1	10.8	11.5	11.2	9.7	7.2	4.2	1.2	-0.9	-1.4
Th	-0.1	2.4	5.4	8.1	10.1	11.2	11.2	10.1	8.0	5.6	3.4	2.2
18	2.5	4.0	6.1	8.1	9.6	10.3	10.1	8.9	6.7	4.1	1.6	0.0
F	-0.1	1.3	3.7	6.4	8.8	10.5	11.4	11.3	10.1	8.0	5.4	3.3
19	2.1	2.2	3.4	5.2	6.9	8.3	9.1	9.2	8.3	6.6	4.4	2.3
Sa	1.2	1.3	2.6	4.8	7.1	9.2	10.8	11.7	11.5	10.2	7.9	5.4
20	3.2	1.9	1.7	2.6	4.0	5.6	7.1	8.2	8.6	8.1	6.7	4.9
Su	3.3	2.4	2.5	3.6	5.5	7.6	9.6	11.2	12.0	11.7	10.2	7.9
21	5.3	3.0	1.5	1.0	1.6	2.9	4.6	6.3	7.7	8.4	8.2	7.2
M	5.7	4.2	3.4	3.3	4.3	6.0	8.0	10.0	11.6	12.3	11.8	10.2
22	7.9	5.1	2.6	0.8	0.1	0.6	2.0	4.0	6.0	7.7	8.6	8.6
Tu	7.7	6.4	5.0	4.0	3.8	4.6	6.3	8.4	10.5	12.0	12.5	11.9
23	10.2	7.7	4.7	2.0	0.0	-0.7	-0.1	1.7	3.9	6.2	8.0	9.0
W	9.0	8.2	6.8	5.3	4.1	3.9	4.8	6.6	8.9	10.9	12.3	12.6
24	11.8	9.9	7.2	4.1	1.2	-0.8	-1.3	-0.3	1.8	4.3	6.7	8.6
Th	9.5	9.5	8.5	6.9	5.2	3.9	3.8	5.0	7.0	9.4	11.4	12.6
25	12.7	11.6	9.5	6.5	3.1	0.2	-1.5	-1.6	-0.1	2.4	5.1	7.5
F	9.2	10.0	9.7	8.4	6.6	4.7	3.6	3.8	5.3	7.6	9.9	11.8
26	12.7	12.5	11.1	8.7	5.4	2.0	-0.7	-1.9	-1.4	0.6	3.3	6.1
Sa	8.4	9.8	10.3	9.6	8.0	5.9	4.1	3.3	3.9	5.7	8.2	10.5
27	12.1	12.7	12.1	10.3	7.5	4.1	0.9	-1.3	-1.9	-0.8	1.6	4.5
Su	7.2	9.2	10.3	10.3	9.2	7.3	5.2	3.6	3.2	4.2	6.3	8.8
28	10.9	12.2	12.4	11.4	9.2	6.2	2.9	0.0	-1.6	-1.5	0.2	2.9
M	5.8	8.2	9.9	10.5	10.0	8.5	6.4	4.4	3.2	3.3	4.7	7.0
29	9.3	11.1	12.0	11.7	10.3	7.8	4.8	1.8	-0.5	-1.3	-0.6	1.6
Tu	4.4	7.1	9.1	10.3	10.4	9.4	7.6	5.6	3.8	3.0	3.6	5.3
30	7.6	9.7	11.0	11.4	10.7	9.0	6.5	3.6	1.1	-0.5	-0.7	0.7
W	3.1	5.9	8.2	9.8	10.4	10.0	8.7	6.8	4.9	3.4	3.1	4.0

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

VALDEZ, ALASKA, 2010

Lat. 61° 08′N Long. 146° 22′W

JULY

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	5.8	7.9	9.7	10.5	10.5	9.5	7.7	5.3	2.8	0.8	-0.1	0.5
Th	2.3	4.8	7.2	9.1	10.1	10.3	9.5	8.0	6.1	4.3	3.2	3.3
2	4.4	6.2	8.0	9.3	9.7	9.4	8.3	6.6	4.4	2.4	1.1	0.9
F	1.9	3.9	6.2	8.3	9.7	10.3	10.1	9.1	7.4	5.6	4.0	3.2
3	3.5	4.6	6.2	7.6	8.5	8.8	8.4	7.4	5.8	4.1	2.5	1.8
Sa	2.1	3.4	5.4	7.4	9.0	10.0	10.3	9.9	8.7	7.0	5.1	3.7
4	3.2	3.5	4.6	5.9	7.0	7.7	7.9	7.6	6.8	5.5	4.1	3.0
Su	2.7	3.3	4.7	6.5	8.2	9.5	10.2	10.4	9.8	8.4	6.6	4.8
5	3.5	3.0	3.3	4.2	5.2	6.2	6.9	7.3	7.3	6.6	5.6	4.5
M	3.8	3.7	4.4	5.7	7.2	8.7	9.8	10.5	10.6	9.8	8.3	6.4
6	4.6	3.2	2.6	2.7	3.4	4.4	5.5	6.5	7.2	7.3	6.8	6.0
Tu	5.1	4.5	4.5	5.1	6.2	7.6	9.1	10.3	11.0	10.9	10.0	8.3
7	6.2	4.2	2.7	1.8	1.8	2.5	3.7	5.1	6.4	7.4	7.7	7.3
W	6.6	5.7	5.1	4.9	5.3	6.3	7.8	9.5	10.9	11.6	11.4	10.3
8	8.3	6.0	3.7	1.8	0.7	0.6	1.6	3.2	5.1	6.8	7.9	8.3
Th	8.0	7.1	6.1	5.2	4.7	5.1	6.3	8.1	10.0	11.6	12.3	12.0
9	10.6	8.3	5.6	2.8	0.6	-0.6	-0.4	1.0	3.1	5.4	7.4	8.7
F	9.1	8.6	7.5	6.1	4.8	4.2	4.6	6.2	8.4	10.7	12.3	13.0
10	12.5	10.8	8.1	4.8	1.7	-0.7	-1.8	-1.2	0.8	3.5	6.2	8.3
Sa	9.6	9.8	9.1	7.5	5.6	4.1	3.5	4.2	6.2	8.8	11.4	13.1
11	13.6	12.8	10.7	7.5	3.8	0.4	-2.0	-2.7	-1.5	1.1	4.3	7.2
Su	9.4	10.6	10.5	9.2	7.1	4.8	3.1	2.7	3.9	6.3	9.3	11.9
12	13.6	14.0	12.9	10.3	6.7	2.6	-0.9	-2.9	-3.0	-1.2	1.9	5.4
M	8.4	10.5	11.4	10.8	9.0	6.5	3.9	2.2	2.1	3.7	6.5	9.7
13	12.3	13.9	13.9	12.4	9.5	5.6	1.5	-1.7	-3.3	-2.7	-0.3	3.2
Tu	6.8	9.7	11.5	11.9	10.8	8.5	5.6	3.0	1.5	1.7	3.6	6.7
14	9.9	12.4	13.6	13.4	11.6	8.5	4.5	0.7	-2.1	-3.0	-1.8	1.1
W	4.8	8.2	10.9	12.2	12.1	10.5	7.9	4.9	2.3	1.0	1.5	3.6
15	6.7	9.7	11.9	12.9	12.4	10.5	7.4	3.7	0.3	-1.8	-2.1	-0.4
Th	2.8	6.4	9.5	11.7	12.5	12.0	10.1	7.3	4.2	1.8	0.8	1.5
16	3.7	6.6	9.2	11.0	11.7	11.1	9.3	6.5	3.3	0.5	-0.9	-0.6
F	1.4	4.5	7.8	10.4	12.1	12.5	11.7	9.7	6.8	3.9	1.7	0.8
17	1.6	3.6	6.1	8.3	9.8	10.3	9.9	8.3	6.0	3.4	1.3	0.4
Sa	1.1	3.2	6.0	8.8	10.9	12.1	12.3	11.3	9.3	6.6	3.8	1.8
18	1.1	1.7	3.4	5.4	7.2	8.4	9.1	8.8	7.7	5.9	3.9	2.4
Su	1.9	2.8	4.7	7.0	9.2	10.9	11.9	12.0	11.1	9.1	6.5	4.0
19	2.1	1.3	1.7	2.9	4.4	6.0	7.3	8.1	8.3	7.6	6.2	4.7
M	3.6	3.3	4.1	5.6	7.4	9.3	10.7	11.7	11.8	10.9	9.1	6.7
20	4.2	2.3	1.4	1.4	2.2	3.5	5.0	6.5	7.6	8.1	7.8	6.8
Tu	5.7	4.7	4.4	4.8	5.9	7.5	9.1	10.6	11.6	11.7	10.9	9.1
21	6.8	4.4	2.4	1.1	0.8	1.4	2.8	4.5	6.2	7.6	8.3	8.2
W	7.5	6.5	5.5	4.9	5.0	5.8	7.3	9.0	10.6	11.6	11.8	10.9
22	9.2	6.9	4.4	2.1	0.6	0.2	0.9	2.5	4.5	6.5	8.0	8.8
Th	8.8	8.1	6.9	5.6	4.8	4.7	5.6	7.2	9.1	10.7	11.8	11.9
23	11.0	9.2	6.7	3.9	1.4	-0.2	-0.4	0.7	2.7	5.0	7.1	8.7
F	9.5	9.3	8.3	6.8	5.3	4.3	4.3	5.4	7.3	9.4	11.1	12.1
24	12.0	10.9	8.8	6.0	2.9	0.4	-0.9	-0.6	1.0	3.4	5.9	8.1
Sa	9.5	10.0	9.5	8.1	6.2	4.5	3.6	4.0	5.5	7.7	9.9	11.6
25	12.3	12.0	10.5	8.0	4.8	1.7	-0.5	-1.2	-0.3	1.8	4.5	7.1
Su	9.1	10.3	10.3	9.3	7.4	5.3	3.6	3.1	4.0	5.9	8.4	10.5
26	12.0	12.4	11.6	9.6	6.7	3.4	0.5	-1.1	-1.1	0.5	3.1	5.9
M	8.4	10.1	10.7	10.2	8.6	6.4	4.2	2.8	2.8	4.3	6.6	9.1
27	11.1	12.2	12.1	10.8	8.4	5.2	2.0	-0.4	-1.3	-0.4	1.8	4.7
Tu	7.5	9.7	10.8	10.8	9.6	7.6	5.2	3.2	2.3	2.9	4.8	7.4
28	9.8	11.4	12.0	11.4	9.6	6.9	3.7	1.0	-0.7	-0.8	0.8	3.5
W	6.4	9.0	10.6	11.2	10.5	8.7	6.4	4.0	2.4	2.2	3.3	5.6
29	8.1	10.2	11.4	11.4	10.3	8.2	5.4	2.6	0.4	-0.4	0.4	2.5
Th	5.4	8.1	10.2	11.2	11.0	9.7	7.6	5.2	3.2	2.1	2.4	4.0
30	6.3	8.7	10.3	10.9	10.5	9.0	6.7	4.2	1.9	0.5	0.5	2.0
F	4.5	7.2	9.5	10.9	11.2	10.5	8.8	6.6	4.3	2.6	2.1	2.8
31	4.7	6.9	8.8	9.9	10.1	9.3	7.7	5.6	3.5	1.8	1.2	1.9
Sa	3.8	6.3	8.7	10.4	11.1	10.9	9.8	7.9	5.7	3.7	2.4	2.3

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 08′N Long. 146° 22′W

AUGUST

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	3.4	5.2	7.2	8.6	9.2	9.0	8.2	6.7	5.0	3.3	2.3	2.3
Su	3.5	5.5	7.8	9.7	10.8	11.0	10.4	9.1	7.2	5.1	3.4	2.5
2	2.6	3.8	5.4	6.9	7.9	8.3	8.1	7.4	6.2	4.8	3.7	3.2
M	3.6	5.0	6.9	8.8	10.1	10.8	10.8	10.1	8.7	6.8	4.9	3.3
3	2.6	2.8	3.8	5.1	6.3	7.1	7.5	7.4	7.0	6.1	5.1	4.3
Tu	4.2	4.8	6.1	7.6	9.1	10.2	10.7	10.7	10.0	8.6	6.8	4.9
4	3.4	2.6	2.7	3.3	4.3	5.4	6.3	6.9	7.3	7.1	6.5	5.7
W	5.1	5.0	5.5	6.5	7.8	9.1	10.2	10.8	10.9	10.3	8.9	6.9
5	4.9	3.3	2.3	2.0	2.4	3.4	4.6	5.8	6.9	7.5	7.6	7.1
Th	6.4	5.7	5.4	5.6	6.3	7.5	8.9	10.2	11.2	11.4	10.8	9.3
6	7.2	4.9	2.9	1.5	0.9	1.3	2.5	4.1	5.9	7.4	8.2	8.4
F	7.9	6.9	5.9	5.2	5.0	5.7	7.0	8.8	10.5	11.8	12.2	11.5
7	9.8	7.4	4.6	2.1	0.3	-0.4	0.2	1.9	4.2	6.5	8.3	9.3
Sa	9.3	8.5	7.2	5.6	4.4	4.0	4.8	6.6	8.9	11.1	12.6	13.0
8	12.1	10.1	7.2	4.0	1.0	-1.0	-1.5	-0.4	2.0	4.9	7.5	9.5
Su	10.4	10.2	8.9	6.9	4.8	3.2	2.9	4.0	6.3	9.1	11.7	13.3
9	13.7	12.6	10.1	6.7	2.9	-0.3	-2.2	-2.2	-0.3	2.7	6.1	8.9
M	10.9	11.5	10.8	8.8	6.1	3.5	1.8	1.7	3.4	6.3	9.5	12.3
10	13.9	14.0	12.6	9.6	5.8	1.7	-1.4	-2.9	-2.1	0.4	4.0	7.6
Tu	10.5	12.1	12.3	10.9	8.3	5.1	2.2	0.6	0.9	3.1	6.4	9.9
11	12.6	14.1	13.9	12.1	8.8	4.7	0.7	-2.1	-2.8	-1.3	1.8	5.7
W	9.3	11.9	13.1	12.6	10.6	7.4	3.9	1.0	-0.3	0.5	3.1	6.6
12	10.1	12.6	13.8	13.2	11.1	7.7	3.7	0.1	-2.0	-2.0	0.1	3.7
Th	7.6	10.9	13.0	13.5	12.4	9.9	6.4	2.8	0.2	-0.7	0.5	3.3
13	6.8	10.0	12.2	12.9	12.2	9.9	6.6	3.0	0.1	-1.3	-0.6	2.0
F	5.6	9.2	12.0	13.4	13.4	11.9	9.0	5.5	2.2	-0.1	-0.6	0.9
14	3.7	6.8	9.6	11.3	11.7	10.8	8.8	5.9	2.9	0.7	0.0	1.2
Sa	3.9	7.3	10.3	12.4	13.3	12.8	11.1	8.3	5.0	2.0	0.1	0.0
15	1.4	3.9	6.6	8.8	10.1	10.3	9.6	7.9	5.6	3.3	1.8	1.6
Su	3.1	5.6	8.4	10.8	12.3	12.7	12.1	10.4	7.8	4.9	2.3	0.8
16	0.7	2.0	4.0	6.0	7.7	8.8	9.1	8.7	7.4	5.7	4.0	3.1
M	3.3	4.6	6.7	8.9	10.6	11.6	11.9	11.4	9.9	7.7	5.1	2.9
17	1.5	1.4	2.3	3.7	5.2	6.6	7.7	8.3	8.2	7.4	6.2	5.0
Tu	4.4	4.6	5.6	7.1	8.7	10.0	10.9	11.3	10.9	9.7	7.8	5.6
18	3.6	2.2	1.8	2.2	3.1	4.3	5.7	7.0	7.9	8.2	7.8	7.0
W	6.0	5.4	5.3	5.9	6.9	8.1	9.3	10.4	11.0	10.8	9.8	8.1
19	6.1	4.1	2.5	1.7	1.7	2.4	3.7	5.3	6.9	8.1	8.6	8.4
Th	7.7	6.7	5.8	5.4	5.6	6.3	7.5	8.9	10.2	11.0	11.0	10.1
20	8.4	6.3	4.1	2.3	1.2	1.1	2.0	3.5	5.5	7.3	8.6	9.2
F	9.0	8.1	6.9	5.6	4.9	4.9	5.7	7.2	8.9	10.4	11.2	11.2
21	10.3	8.5	6.1	3.6	1.6	0.5	0.7	1.9	3.9	6.2	8.1	9.4
Sa	9.8	9.3	8.1	6.4	4.9	4.0	4.2	5.4	7.3	9.2	10.8	11.6
22	11.4	10.2	8.1	5.4	2.6	0.6	-0.1	0.6	2.5	4.9	7.3	9.2
Su	10.3	10.3	9.3	7.5	5.4	3.7	3.1	3.8	5.5	7.8	9.9	11.4
23	12.0	11.4	9.7	7.2	4.2	1.5	-0.2	-0.2	1.2	3.7	6.4	8.7
M	10.3	10.9	10.3	8.6	6.4	4.1	2.6	2.5	3.8	6.0	8.5	10.6
24	11.9	12.0	11.0	8.8	5.8	2.8	0.4	-0.5	0.3	2.4	5.3	8.0
Tu	10.1	11.2	11.1	9.8	7.5	4.9	2.8	1.8	2.3	4.2	6.9	9.4
25	11.3	12.1	11.7	10.0	7.4	4.3	1.5	-0.2	-0.2	1.5	4.2	7.2
W	9.7	11.3	11.7	10.8	8.7	6.1	3.4	1.7	1.4	2.6	5.1	7.8
26	10.2	11.7	11.9	10.9	8.8	5.9	3.0	0.8	0.0	0.9	3.2	6.2
Th	9.0	11.1	11.9	11.5	9.9	7.4	4.5	2.2	1.0	1.5	3.4	6.1
27	8.8	10.7	11.6	11.3	9.7	7.3	4.5	2.1	0.7	0.8	2.5	5.2
F	8.1	10.5	11.9	12.0	10.8	8.6	5.9	3.3	1.4	0.9	2.0	4.3
28	7.0	9.4	10.8	11.1	10.2	8.4	6.0	3.6	1.8	1.3	2.2	4.4
Sa	7.2	9.8	11.5	12.1	11.5	9.8	7.3	4.6	2.4	1.1	1.3	2.9
29	5.3	7.8	9.6	10.4	10.2	9.0	7.2	5.1	3.2	2.2	2.4	3.9
Su	6.3	8.9	10.9	11.9	11.8	10.6	8.6	6.2	3.8	2.0	1.3	1.9
30	3.7	6.0	8.0	9.3	9.6	9.1	7.9	6.3	4.7	3.4	3.0	3.7
M	5.5	7.9	10.0	11.4	11.7	11.1	9.8	7.8	5.5	3.4	2.0	1.7
31	2.6	4.3	6.2	7.7	8.5	8.6	8.2	7.2	6.0	4.8	4.0	4.0
Tu	5.1	6.9	8.9	10.5	11.3	11.3	10.5	9.2	7.4	5.3	3.4	2.3

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

VALDEZ, ALASKA, 2010

Lat. 61° 08′N Long. 146° 22′W

SEPTEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	2.1	3.0	4.4	5.9	7.0	7.7	7.8	7.6	7.0	6.1	5.2	4.8
W	5.0	6.0	7.6	9.1	10.3	10.9	10.9	10.3	9.1	7.4	5.4	3.7
2	2.6	2.3	2.9	4.0	5.1	6.2	6.9	7.5	7.6	7.3	6.6	5.9
Th	5.5	5.6	6.4	7.5	8.8	9.8	10.5	10.7	10.4	9.4	7.8	5.8
3	4.0	2.7	2.1	2.3	3.1	4.2	5.5	6.7	7.7	8.1	8.0	7.3
F	6.5	5.9	5.6	6.0	6.8	8.0	9.3	10.4	11.0	11.0	10.1	8.4
4	6.2	4.1	2.3	1.3	1.3	2.1	3.5	5.3	7.1	8.4	9.1	8.9
Sa	8.0	6.8	5.7	4.9	4.9	5.7	7.1	8.9	10.6	11.6	11.8	10.9
5	9.0	6.4	3.8	1.6	0.3	0.2	1.4	3.4	5.8	8.1	9.6	10.2
Su	9.8	8.4	6.6	4.8	3.6	3.4	4.5	6.5	8.9	11.1	12.4	12.6
6	11.5	9.3	6.3	3.1	0.5	-0.8	-0.6	1.2	4.0	7.0	9.5	11.1
M	11.4	10.4	8.4	5.9	3.5	1.9	1.9	3.4	6.1	9.1	11.7	13.2
7	13.3	11.9	9.2	5.7	2.2	-0.5	-1.6	-0.7	1.9	5.3	8.6	11.2
Tu	12.5	12.3	10.7	7.9	4.6	1.8	0.3	0.7	2.8	6.1	9.5	12.2
8	13.7	13.6	11.8	8.7	4.8	1.2	-1.2	-1.7	0.0	3.2	7.0	10.4
W	12.8	13.6	12.7	10.3	6.8	3.1	0.2	-1.0	-0.1	2.7	6.4	10.0
9	12.6	13.8	13.4	11.2	7.8	3.9	0.5	-1.4	-1.1	1.3	5.0	8.9
Th	12.1	13.9	14.1	12.6	9.5	5.6	1.7	-1.0	-1.7	-0.2	3.0	6.8
10	10.3	12.6	13.5	12.7	10.3	6.8	3.2	0.3	-0.9	0.2	3.1	6.9
F	10.6	13.3	14.5	14.0	11.8	8.4	4.4	0.7	-1.5	-1.7	0.2	3.5
11	7.2	10.3	12.2	12.7	11.6	9.2	6.0	2.8	0.7	0.3	1.8	4.9
Sa	8.6	11.8	13.8	14.3	13.3	10.8	7.3	3.5	0.3	-1.4	-1.1	1.0
12	4.2	7.4	10.0	11.4	11.6	10.4	8.2	5.5	3.0	1.6	1.7	3.6
Su	6.6	9.8	12.2	13.5	13.5	12.2	9.7	6.5	3.2	0.5	-0.7	-0.1
13	1.9	4.7	7.3	9.3	10.3	10.3	9.4	7.6	5.5	3.6	2.8	3.3
M	5.2	7.8	10.2	12.0	12.7	12.4	11.1	8.9	6.1	3.3	1.2	0.4
14	1.0	2.7	4.9	6.9	8.3	9.2	9.3	8.7	7.4	5.8	4.5	4.1
Tu	4.7	6.3	8.3	10.0	11.2	11.6	11.3	10.3	8.5	6.2	3.9	2.2
15	1.5	1.9	3.1	4.7	6.1	7.4	8.2	8.6	8.4	7.6	6.4	5.5
W	5.2	5.6	6.7	8.1	9.2	10.1	10.6	10.6	9.9	8.5	6.6	4.6
16	3.1	2.3	2.4	3.1	4.2	5.4	6.7	7.8	8.5	8.6	8.0	7.1
Th	6.3	5.8	5.9	6.5	7.3	8.3	9.2	9.9	10.2	9.9	8.7	7.1
17	5.3	3.7	2.6	2.3	2.7	3.6	5.0	6.5	7.9	8.9	9.1	8.6
F	7.7	6.6	5.8	5.5	5.7	6.4	7.5	8.7	9.8	10.3	10.1	9.1
18	7.4	5.5	3.7	2.4	1.9	2.3	3.4	5.1	7.0	8.6	9.5	9.6
Sa	9.0	7.8	6.4	5.2	4.6	4.8	5.7	7.1	8.7	10.0	10.7	10.4
19	9.3	7.5	5.3	3.3	1.8	1.4	2.1	3.7	5.8	7.9	9.5	10.3
Su	10.1	9.0	7.4	5.6	4.1	3.5	4.0	5.4	7.3	9.2	10.6	11.1
20	10.6	9.2	7.0	4.6	2.4	1.1	1.2	2.5	4.7	7.1	9.3	10.6
M	10.9	10.2	8.5	6.3	4.2	2.8	2.5	3.6	5.6	7.9	9.9	11.2
21	11.4	10.5	8.6	6.1	3.5	1.5	0.8	1.5	3.6	6.2	8.7	10.6
Tu	11.5	11.2	9.7	7.4	4.9	2.7	1.6	2.0	3.8	6.3	8.8	10.7
22	11.6	11.4	10.0	7.7	4.9	2.4	0.9	1.0	2.6	5.2	8.0	10.4
W	11.8	11.9	10.9	8.7	5.9	3.2	1.3	0.9	2.1	4.5	7.2	9.7
23	11.3	11.8	11.0	9.1	6.4	3.7	1.6	0.9	1.9	4.2	7.1	9.8
Th	11.7	12.5	11.8	10.0	7.2	4.2	1.7	0.4	0.8	2.7	5.5	8.3
24	10.5	11.6	11.5	10.2	7.9	5.2	2.8	1.4	1.6	3.3	6.1	9.0
F	11.4	12.6	12.5	11.1	8.6	5.5	2.6	0.6	0.0	1.2	3.7	6.6
25	9.3	11.0	11.5	10.8	9.1	6.7	4.2	2.4	1.8	2.8	5.1	8.0
Sa	10.7	12.4	12.9	12.0	9.9	7.1	4.0	1.4	0.0	0.3	2.1	4.8
26	7.7	9.9	11.0	11.0	9.9	7.9	5.6	3.6	2.5	2.7	4.4	7.0
Su	9.7	11.8	12.8	12.5	11.0	8.6	5.6	2.8	0.8	0.1	1.0	3.1
27	5.9	8.4	10.0	10.6	10.1	8.8	6.9	5.0	3.6	3.1	4.0	6.0
M	8.6	10.9	12.4	12.6	11.7	9.9	7.3	4.6	2.2	0.7	0.6	1.8
28	4.1	6.6	8.6	9.6	9.8	9.1	7.9	6.4	4.9	4.0	4.1	5.3
Tu	7.4	9.7	11.5	12.3	12.0	10.8	8.9	6.5	4.0	2.0	1.0	1.2
29	2.6	4.7	6.8	8.2	8.9	8.9	8.4	7.4	6.2	5.1	4.6	5.0
W	6.4	8.3	10.2	11.4	11.7	11.2	10.1	8.3	6.2	4.0	2.3	1.4
30	1.8	3.1	4.8	6.5	7.6	8.2	8.4	8.1	7.4	6.5	5.6	5.3
Th	5.7	6.9	8.5	9.9	10.8	11.0	10.7	9.8	8.3	6.4	4.3	2.7

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 08′N Long. 146° 22′W

OCTOBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	1.9	2.1	3.1	4.5	5.9	7.0	7.8	8.3	8.4	7.9	7.0	6.1
F	5.7	5.9	6.7	7.9	9.1	9.9	10.4	10.5	9.9	8.7	6.8	4.8
2	3.1	2.0	1.9	2.6	3.8	5.3	6.7	8.0	8.9	9.1	8.6	7.6
Sa	6.4	5.6	5.4	5.8	6.7	7.9	9.2	10.2	10.7	10.5	9.3	7.4
3	5.2	3.2	1.9	1.4	2.0	3.3	5.1	7.1	8.8	9.9	10.1	9.4
Su	8.0	6.3	4.9	4.2	4.3	5.3	6.9	8.7	10.3	11.2	11.2	10.0
4	7.9	5.4	3.1	1.4	0.8	1.4	3.2	5.6	8.1	10.1	11.2	11.2
M	10.0	8.0	5.7	3.6	2.5	2.6	3.9	6.1	8.6	10.7	11.9	11.9
5	10.6	8.2	5.3	2.6	0.7	0.2	1.3	3.7	6.7	9.6	11.7	12.6
Tu	12.0	10.2	7.5	4.4	1.9	0.6	1.0	2.9	5.8	8.9	11.3	12.6
6	12.4	10.8	8.1	4.9	2.0	0.1	0.1	1.8	4.9	8.3	11.3	13.2
W	13.6	12.5	9.9	6.4	2.9	0.1	-1.0	-0.1	2.5	6.0	9.4	11.9
7	13.0	12.6	10.7	7.7	4.3	1.4	-0.1	0.5	2.9	6.5	10.1	12.9
Th	14.4	14.2	12.3	9.1	5.1	1.3	-1.4	-2.0	-0.5	2.7	6.4	9.9
8	12.2	13.2	12.4	10.2	7.0	3.6	1.1	0.2	1.5	4.5	8.2	11.7
F	14.1	15.0	14.1	11.7	7.9	3.7	-0.1	-2.3	-2.3	-0.2	3.2	7.1
9	10.3	12.3	12.9	11.9	9.5	6.3	3.2	1.2	1.1	2.9	6.1	9.8
Sa	12.8	14.6	14.9	13.5	10.6	6.6	2.5	-0.8	-2.4	-1.9	0.6	4.1
10	7.6	10.5	12.1	12.2	11.0	8.6	5.7	3.2	1.8	2.2	4.4	7.6
Su	10.9	13.3	14.5	14.2	12.4	9.3	5.5	1.8	-0.9	-1.9	-0.9	1.6
11	4.9	8.0	10.3	11.4	11.3	10.0	7.9	5.5	3.5	2.7	3.6	5.8
M	8.7	11.4	13.2	13.7	13.0	11.1	8.2	4.9	1.7	-0.4	-0.9	0.3
12	2.7	5.5	8.0	9.7	10.5	10.3	9.2	7.5	5.6	4.1	3.8	4.8
Tu	6.9	9.3	11.3	12.4	12.5	11.7	9.9	7.4	4.6	2.1	0.5	0.3
13	1.5	3.6	5.8	7.7	9.0	9.6	9.5	8.7	7.4	5.9	4.9	4.8
W	5.8	7.4	9.2	10.6	11.2	11.2	10.5	9.1	7.1	4.8	2.8	1.6
14	1.5	2.5	4.1	5.7	7.2	8.3	9.0	9.1	8.6	7.6	6.5	5.6
Th	5.5	6.2	7.4	8.6	9.5	10.0	10.2	9.8	8.8	7.2	5.3	3.6
15	2.5	2.4	3.0	4.1	5.4	6.7	7.9	8.8	9.2	8.9	8.0	6.9
F	6.1	5.8	6.1	6.8	7.6	8.4	9.1	9.5	9.5	8.7	7.4	5.7
16	4.2	3.1	2.8	3.1	4.0	5.2	6.7	8.1	9.2	9.6	9.2	8.3
Sa	7.1	6.1	5.5	5.4	5.8	6.6	7.6	8.6	9.4	9.5	8.9	7.7
17	6.1	4.5	3.3	2.8	3.0	3.9	5.4	7.1	8.8	9.9	10.1	9.6
Su	8.4	6.9	5.5	4.6	4.4	4.8	5.9	7.3	8.6	9.6	9.8	9.2
18	7.8	6.1	4.4	3.1	2.5	2.9	4.2	6.1	8.1	9.8	10.7	10.6
M	9.6	8.0	6.2	4.5	3.4	3.2	4.1	5.6	7.5	9.1	10.1	10.1
19	9.3	7.7	5.8	4.0	2.7	2.4	3.2	5.0	7.3	9.4	10.9	11.4
Tu	10.8	9.3	7.2	4.9	3.0	2.1	2.4	3.8	5.9	8.1	9.7	10.6
20	10.3	9.2	7.3	5.2	3.3	2.3	2.6	4.1	6.4	8.9	10.9	11.9
W	11.8	10.6	8.4	5.8	3.3	1.5	1.1	2.1	4.1	6.6	8.9	10.4
21	10.9	10.3	8.8	6.6	4.4	2.8	2.3	3.2	5.4	8.0	10.5	12.1
Th	12.6	11.8	9.8	7.1	4.1	1.7	0.3	0.6	2.3	4.9	7.6	9.8
22	11.0	11.1	10.0	8.1	5.8	3.7	2.5	2.7	4.4	7.0	9.8	11.9
F	13.0	12.7	11.2	8.6	5.5	2.4	0.3	-0.3	0.7	3.1	6.0	8.7
23	10.5	11.3	10.9	9.4	7.2	4.9	3.2	2.7	3.7	5.9	8.8	11.3
Sa	12.9	13.3	12.4	10.2	7.1	3.8	1.0	-0.6	-0.4	1.3	4.1	7.1
24	9.5	10.9	11.2	10.3	8.5	6.3	4.3	3.1	3.3	5.0	7.6	10.3
Su	12.5	13.5	13.1	11.5	8.8	5.5	2.4	0.0	-0.8	0.0	2.3	5.3
25	8.1	10.0	11.0	10.8	9.6	7.7	5.6	4.0	3.4	4.3	6.4	9.1
M	11.5	13.1	13.4	12.5	10.3	7.4	4.2	1.4	-0.4	-0.6	0.8	3.4
26	6.2	8.7	10.2	10.6	10.1	8.8	7.0	5.2	4.1	4.1	5.4	7.6
Tu	10.2	12.2	13.2	12.9	11.5	9.2	6.3	3.3	0.9	-0.4	-0.1	1.7
27	4.3	6.9	8.9	9.9	10.1	9.4	8.1	6.6	5.1	4.4	4.8	6.3
W	8.6	10.8	12.3	12.7	12.1	10.5	8.2	5.5	2.9	0.8	0.0	0.6
28	2.5	4.9	7.1	8.7	9.5	9.5	9.0	7.9	6.5	5.3	4.9	5.4
Th	6.9	9.0	10.8	11.8	11.9	11.2	9.8	7.7	5.2	2.9	1.1	0.6
29	1.3	3.1	5.2	7.1	8.4	9.1	9.3	8.9	8.0	6.7	5.6	5.2
F	5.7	7.0	8.7	10.1	10.9	11.0	10.5	9.4	7.6	5.4	3.2	1.6
30	1.1	1.8	3.4	5.2	6.9	8.3	9.2	9.6	9.3	8.4	7.0	5.8
Sa	5.2	5.5	6.4	7.7	9.0	9.8	10.3	10.2	9.4	7.8	5.7	3.7
31	2.1	1.6	2.1	3.4	5.1	6.9	8.5	9.7	10.3	10.0	8.9	7.3
Su	5.8	4.8	4.6	5.2	6.3	7.7	8.9	9.9	10.2	9.7	8.3	6.3

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

VALDEZ, ALASKA, 2010

Lat. 61° 08′N Long. 146° 22′W

NOVEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	4.1	2.5	1.8	2.1	3.4	5.2	7.3	9.2	10.7	11.3	10.8	9.3
M	7.3	5.3	3.8	3.2	3.6	4.8	6.5	8.4	9.8	10.6	10.2	8.8
2	6.8	4.5	2.7	1.8	2.1	3.5	5.7	8.2	10.4	12.0	12.3	11.5
Tu	9.5	6.9	4.3	2.4	1.5	1.9	3.5	5.8	8.2	10.1	11.1	10.8
3	9.3	7.1	4.7	2.7	1.7	2.1	3.9	6.6	9.4	11.9	13.2	13.2
W	11.8	9.3	6.1	3.0	0.7	-0.2	0.6	2.7	5.6	8.5	10.6	11.6
4	11.2	9.6	7.2	4.6	2.5	1.6	2.4	4.7	7.8	10.9	13.2	14.3
Th	13.8	11.8	8.7	5.0	1.5	-0.9	-1.5	-0.2	2.6	5.9	9.0	11.1
5	12.0	11.5	9.7	7.1	4.3	2.3	1.8	3.1	5.8	9.2	12.2	14.3
F	14.8	13.8	11.3	7.7	3.6	0.0	-2.1	-2.2	-0.3	2.9	6.5	9.6
6	11.6	12.2	11.4	9.4	6.7	4.0	2.3	2.3	4.1	7.1	10.5	13.3
Sa	14.8	14.9	13.4	10.4	6.5	2.3	-1.0	-2.6	-2.1	0.3	3.7	7.2
7	10.1	11.8	12.1	11.1	8.9	6.1	3.7	2.5	3.0	5.2	8.3	11.5
Su	13.8	14.9	14.4	12.4	9.2	5.2	1.3	-1.5	-2.5	-1.4	1.3	4.7
8	7.9	10.4	11.7	11.7	10.4	8.2	5.7	3.7	3.0	3.9	6.3	9.3
M	12.1	13.8	14.4	13.5	11.2	8.0	4.2	0.8	-1.4	-1.8	-0.4	2.4
9	5.6	8.5	10.4	11.3	11.0	9.7	7.6	5.4	3.9	3.6	4.9	7.2
Tu	9.9	12.1	13.4	13.4	12.2	9.9	6.9	3.6	0.7	-0.9	-0.8	0.9
10	3.6	6.4	8.7	10.2	10.8	10.3	9.1	7.2	5.4	4.3	4.4	5.7
W	7.9	10.1	11.7	12.4	12.2	10.9	8.8	6.1	3.3	1.1	0.0	0.4
11	2.1	4.5	6.8	8.7	9.8	10.2	9.8	8.6	7.1	5.6	4.8	5.1
Th	6.3	8.1	9.8	10.9	11.3	10.9	9.8	7.9	5.7	3.4	1.7	1.0
12	1.6	3.2	5.2	7.0	8.5	9.5	9.8	9.5	8.5	7.1	5.9	5.3
F	5.5	6.5	7.9	9.1	9.8	10.1	9.8	8.9	7.5	5.6	3.7	2.4
13	2.0	2.6	3.9	5.6	7.1	8.4	9.4	9.8	9.5	8.5	7.3	6.1
Sa	5.5	5.6	6.2	7.2	8.1	8.7	9.1	9.1	8.5	7.3	5.7	4.1
14	3.1	2.8	3.3	4.4	5.8	7.3	8.6	9.6	10.0	9.6	8.6	7.3
Su	6.0	5.3	5.1	5.5	6.2	7.1	7.9	8.6	8.8	8.4	7.3	5.9
15	4.6	3.6	3.3	3.8	4.8	6.2	7.7	9.2	10.2	10.4	9.9	8.6
M	7.1	5.6	4.6	4.3	4.5	5.3	6.4	7.6	8.5	8.9	8.5	7.5
16	6.2	4.9	4.0	3.6	4.1	5.2	6.8	8.5	10.1	10.9	10.9	9.9
Tu	8.3	6.5	4.8	3.6	3.2	3.5	4.6	6.1	7.7	8.8	9.2	8.8
17	7.7	6.3	5.0	4.0	3.8	4.4	5.8	7.7	9.6	11.1	11.6	11.2
W	9.8	7.8	5.6	3.6	2.3	2.0	2.8	4.4	6.4	8.1	9.3	9.6
18	9.0	7.8	6.3	4.9	3.9	3.9	4.9	6.7	8.9	10.9	12.1	12.2
Th	11.2	9.2	6.8	4.2	2.2	1.1	1.2	2.6	4.7	7.0	8.8	9.9
19	10.0	9.2	7.7	6.0	4.5	3.8	4.2	5.7	8.0	10.3	12.0	12.8
F	12.4	10.8	8.4	5.5	2.7	0.7	0.1	0.9	2.9	5.5	7.9	9.6
20	10.4	10.2	9.1	7.4	5.5	4.2	3.8	4.8	6.8	9.3	11.6	13.0
Sa	13.3	12.2	10.1	7.1	4.0	1.2	-0.4	-0.5	1.1	3.6	6.4	8.8
21	10.3	10.8	10.2	8.7	6.8	5.0	3.9	4.1	5.6	8.0	10.6	12.7
Su	13.6	13.3	11.7	9.0	5.7	2.4	-0.1	-1.2	-0.5	1.6	4.5	7.4
22	9.6	10.8	10.9	9.9	8.2	6.1	4.5	3.8	4.6	6.6	9.3	11.8
M	13.4	13.9	13.0	10.9	7.8	4.3	1.1	-1.0	-1.4	-0.1	2.5	5.5
23	8.2	10.1	11.0	10.7	9.4	7.5	5.5	4.2	4.0	5.3	7.6	10.3
Tu	12.6	13.8	13.7	12.3	9.8	6.5	3.0	0.2	-1.4	-1.2	0.6	3.4
24	6.5	8.9	10.5	10.9	10.3	8.8	6.9	5.1	4.1	4.4	6.0	8.4
W	11.0	12.9	13.7	13.1	11.4	8.7	5.4	2.1	-0.3	-1.4	-0.7	1.5
25	4.4	7.3	9.4	10.5	10.7	9.9	8.3	6.5	4.9	4.2	4.7	6.5
Th	9.0	11.3	12.7	13.1	12.3	10.4	7.7	4.6	1.7	-0.4	-0.9	0.1
26	2.5	5.3	7.9	9.6	10.5	10.5	9.6	8.1	6.3	4.8	4.3	5.0
F	6.8	9.0	10.9	12.0	12.2	11.3	9.5	7.1	4.2	1.6	0.0	-0.2
27	1.1	3.4	6.0	8.3	9.8	10.5	10.5	9.6	8.0	6.2	4.8	4.3
Sa	4.9	6.5	8.5	10.1	11.0	11.1	10.4	8.9	6.8	4.2	2.0	0.6
28	0.7	2.1	4.3	6.6	8.6	10.0	10.8	10.7	9.8	8.2	6.3	4.7
Su	4.1	4.5	5.8	7.4	8.8	9.8	10.1	9.8	8.7	6.8	4.6	2.6
29	1.5	1.6	2.9	4.9	7.1	9.0	10.5	11.3	11.3	10.2	8.3	6.2
M	4.4	3.5	3.7	4.6	6.0	7.5	8.7	9.5	9.6	8.8	7.2	5.1
30	3.3	2.3	2.4	3.6	5.4	7.6	9.6	11.2	12.1	11.9	10.6	8.4
Tu	6.0	3.9	2.6	2.4	3.1	4.6	6.3	8.0	9.2	9.7	9.1	7.7

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 61° 08′N Long. 146° 22′W

DECEMBER

Predicted hourly heights in feet

Day	Hours 0/12	Hours 1/13	Hours 2/14	Hours 3/15	Hours 4/16	Hours 5/17	Hours 6/18	Hours 7/19	Hours 8/20	Hours 9/21	Hours 10/22	Hours 11/23
1	5.8	4.1	3.0	3.0	4.0	5.9	8.1	10.4	12.1	12.9	12.5	10.8
W	8.4	5.6	3.1	1.5	1.0	1.7	3.4	5.6	7.8	9.4	10.0	9.6
2	8.3	6.4	4.6	3.5	3.3	4.4	6.4	8.9	11.3	13.0	13.6	12.9
Th	10.9	8.1	4.9	2.0	0.1	-0.3	0.7	2.8	5.5	8.0	9.7	10.5
3	10.1	8.7	6.8	4.9	3.6	3.5	4.7	7.0	9.8	12.2	13.8	14.1
F	13.0	10.7	7.5	3.9	0.8	-1.1	-1.3	0.2	2.8	5.8	8.5	10.3
4	11.0	10.5	9.0	6.9	4.8	3.5	3.6	5.2	7.8	10.6	13.0	14.3
Sa	14.3	12.8	10.2	6.6	2.8	-0.3	-1.9	-1.7	0.3	3.3	6.5	9.1
5	10.8	11.3	10.6	8.9	6.6	4.5	3.4	3.8	5.8	8.6	11.4	13.5
Su	14.5	14.1	12.3	9.3	5.5	1.7	-1.2	-2.3	-1.5	1.0	4.2	7.3
6	9.8	11.2	11.5	10.5	8.5	6.1	4.1	3.4	4.3	6.5	9.4	12.0
M	13.8	14.4	13.6	11.4	8.1	4.3	0.8	-1.6	-2.1	-0.7	2.0	5.2
7	8.2	10.3	11.4	11.3	10.0	7.8	5.5	3.9	3.6	4.8	7.2	10.0
Tu	12.3	13.7	13.8	12.7	10.2	6.9	3.2	0.1	-1.6	-1.5	0.3	3.2
8	6.3	8.9	10.7	11.4	10.9	9.3	7.2	5.1	3.8	3.9	5.5	7.9
W	10.4	12.3	13.2	12.9	11.5	8.9	5.7	2.4	-0.1	-1.2	-0.5	1.6
9	4.5	7.3	9.5	10.8	11.1	10.3	8.6	6.6	4.8	4.0	4.4	6.1
Th	8.4	10.5	12.0	12.4	11.8	10.1	7.6	4.7	2.0	0.1	-0.3	0.8
10	3.0	5.7	8.1	9.8	10.7	10.6	9.7	8.0	6.2	4.7	4.2	4.9
F	6.6	8.6	10.3	11.2	11.3	10.5	8.9	6.6	4.1	1.9	0.7	0.7
11	2.2	4.4	6.7	8.7	10.0	10.5	10.2	9.2	7.6	5.9	4.7	4.5
Sa	5.3	6.8	8.4	9.6	10.2	10.1	9.3	7.8	5.9	3.8	2.2	1.5
12	2.0	3.5	5.5	7.5	9.1	10.1	10.4	10.0	8.9	7.3	5.8	4.8
Su	4.6	5.4	6.6	7.8	8.7	9.2	9.1	8.4	7.2	5.6	3.9	2.8
13	2.5	3.2	4.7	6.5	8.1	9.4	10.2	10.4	9.9	8.6	7.1	5.6
M	4.7	4.6	5.1	6.1	7.0	7.8	8.3	8.4	7.9	6.9	5.6	4.3
14	3.6	3.6	4.3	5.6	7.1	8.6	9.8	10.5	10.6	9.9	8.5	6.8
Tu	5.4	4.4	4.1	4.5	5.2	6.1	7.0	7.7	8.1	7.8	7.0	5.9
15	4.9	4.3	4.4	5.1	6.2	7.7	9.1	10.3	10.9	10.8	9.9	8.3
W	6.5	4.9	3.8	3.4	3.6	4.4	5.5	6.7	7.7	8.2	8.0	7.3
16	6.4	5.5	4.9	4.9	5.5	6.7	8.2	9.7	11.0	11.5	11.1	9.9
Th	8.0	6.0	4.2	2.9	2.4	2.7	3.7	5.2	6.7	8.0	8.6	8.4
17	7.8	6.8	5.8	5.2	5.1	5.8	7.1	8.9	10.6	11.7	12.0	11.3
F	9.7	7.6	5.2	3.1	1.7	1.3	1.9	3.4	5.3	7.2	8.5	9.1
18	8.9	8.1	7.0	5.9	5.1	5.1	6.0	7.7	9.7	11.5	12.5	12.5
Sa	11.4	9.4	6.9	4.2	1.8	0.4	0.3	1.5	3.6	5.9	7.9	9.3
19	9.8	9.4	8.3	6.9	5.5	4.8	5.0	6.3	8.4	10.7	12.4	13.2
Su	12.9	11.3	8.9	5.8	2.8	0.4	-0.7	-0.3	1.5	4.1	6.7	8.8
20	10.0	10.3	9.6	8.2	6.5	5.0	4.3	5.0	6.8	9.3	11.6	13.2
M	13.7	13.0	11.0	8.0	4.6	1.4	-0.9	-1.5	-0.4	2.0	4.9	7.6
21	9.7	10.7	10.7	9.6	7.7	5.8	4.3	4.0	5.1	7.4	10.1	12.5
Tu	13.9	14.0	12.8	10.3	6.9	3.2	0.0	-1.8	-1.8	-0.1	2.8	5.9
22	8.7	10.5	11.2	10.7	9.2	7.1	5.0	3.7	3.8	5.4	8.0	10.8
W	13.1	14.2	13.9	12.2	9.3	5.6	1.9	-1.0	-2.3	-1.7	0.6	3.9
23	7.1	9.7	11.2	11.5	10.6	8.7	6.3	4.3	3.3	3.8	5.7	8.5
Th	11.3	13.3	14.0	13.4	11.3	8.2	4.5	0.9	-1.5	-2.2	-1.0	1.8
24	5.2	8.3	10.5	11.6	11.5	10.2	8.1	5.6	3.7	3.0	3.8	6.0
F	8.8	11.4	13.0	13.4	12.5	10.3	7.1	3.6	0.4	-1.5	-1.5	0.2
25	3.2	6.5	9.3	11.2	11.9	11.4	9.8	7.5	5.1	3.3	2.8	3.8
Sa	6.1	8.7	11.0	12.2	12.4	11.3	9.2	6.3	3.1	0.5	-0.9	-0.4
26	1.6	4.7	7.7	10.1	11.6	12.0	11.3	9.6	7.2	4.8	3.1	2.7
Su	3.8	5.8	8.2	10.0	11.0	11.1	10.2	8.4	5.8	3.1	1.0	0.2
27	1.0	3.2	6.0	8.7	10.7	11.9	12.1	11.2	9.4	7.0	4.6	3.0
M	2.6	3.5	5.2	7.2	8.8	9.7	9.9	9.4	7.9	5.8	3.6	2.0
28	1.6	2.5	4.5	7.0	9.3	11.0	12.1	12.2	11.3	9.4	6.9	4.5
Tu	2.9	2.3	2.9	4.3	5.9	7.4	8.5	9.1	8.9	7.8	6.2	4.4
29	3.1	2.9	3.8	5.5	7.6	9.6	11.3	12.3	12.4	11.4	9.5	7.0
W	4.5	2.7	1.9	2.1	3.2	4.6	6.3	7.7	8.6	8.8	8.1	6.8
30	5.3	4.3	4.0	4.6	6.0	7.9	9.9	11.5	12.6	12.7	11.6	9.6
Th	7.0	4.4	2.3	1.2	1.1	2.0	3.6	5.6	7.4	8.7	9.1	8.7
31	7.6	6.2	5.1	4.6	4.9	6.2	8.0	10.1	11.8	12.9	12.9	11.8
F	9.7	7.0	4.1	1.7	0.3	0.1	1.2	3.1	5.4	7.5	9.0	9.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

GLOSSARY OF TERMS

ANNUAL INEQUALITY—Seasonal variation in the water level or current, more or less periodic, due chiefly to meteorological causes.

APOGEAN TIDES OR TIDAL CURRENTS—Tides of decreased range or currents of decreased speed occurring monthly as the result of the Moon being in apogee (farthest from the Earth).

AUTOMATIC TIDE GAGE—An instrument that automatically registers the rise and fall of the tide. In some instruments, the registration is accomplished by recording the heights at regular intervals in digital format, in others by a continuous graph in which the height versus corresponding time of the tide is recorded.

BENCH MARK (BM)—A fixed physical object or marks used as reference for a vertical datum. A *tidal bench mark is* one near a tide station to which the tide staff and tidal datums are referred. A *Geodetic bench mark* identifies a surveyed point in the National Geodetic Vertical Network.

CHART DATUM—The tidal datum to which soundings on a chart are referred. It is usually taken to correspond to low water elevation of the tide, and its depression below mean sea level is represented by the symbol Zo.

CURRENT—Generally, a horizontal movement of water. Currents may be classified as *tidal* and *nontidal*. Tidal currents are caused by gravitational interactions between the Sun, Moon, and Earth and are a part of the same general movement of the sea that is manifested in the vertical rise and fall, called *tide*. Nontidal currents include the permanent currents in the general circulatory systems of the sea as well as temporary currents arising from more pronounced meteorological variability.

CURRENT DIFFERENCE—Difference between the time of slack water (or minimum current) or strength of current in any locality and the time of the corresponding phase of the tidal current at a reference station, for which predictions are given in the *Tidal Current Tables*.

CURRENT ELLIPSE—A graphic representation of a rotary current in which the velocity of the current at different hours of the tidal cycle is represented by radius vectors and vectorial angles. A line joining the extremities of the radius vectors will form a curve roughly approximating an ellipse. The cycle is completed in one-half tidal day or in a whole tidal day according to whether the tidal current is of the semidiurnal or the diurnal type. A current of the mixed type will give a curve of two unequal loops each tidal day.

CURRENT METER—An instrument for measuring the speed and direction or just the speed of a current. The measurements are usually Eulerian since the meter is most often fixed or moored at a specific location.

DATUM (vertical)—For marine applications, a base elevation used as a reference from which to reckon heights or depths. It is called a *tidal datum* when defined by a certain phase of the tide. Tidal datums are local datums and should not be extended into areas which have differing topographic features without substantiating measurements. In order that they may be recovered when needed, such datums are referenced to fixed points known as *bench marks.*

DAYLIGHT SAVING TIME—A time used during the summer in some localities in which clocks are advanced 1 hour from the usual standard time.

DIURNAL—Having a period or cycle of approximately 1 tidal day. Thus, the tide is said to be diurnal when only one high water and one low water occur during a tidal day, and the tidal current is said to be diurnal when there is a single flood and single ebb period in the tidal day. A rotary current is diurnal if it changes its direction through all points of the compass once each tidal day.

DIURNAL INEQUALITY—The difference in height of the two high waters or of the two low waters of each day; also the difference in speed between the two flood tidal currents or the two ebb tidal currents of each day. The difference changes with the declination of the Moon and to a lesser extent with the declination of the Sun. In general, the inequality tends to increase with an increasing declination, either north or south, and to diminish as the Moon approaches the Equator. *Mean diurnal high water inequality* (DHQ) is one-half the average difference between the two high waters of each day observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). It is obtained by subtracting the mean of all high waters from the mean of the higher high waters. *Mean diurnal low water inequality* (DLQ) is one-half the average difference between the two low waters of each day observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). It is obtained by subtracting the mean of the lower low waters from the mean of all low waters. *Tropic high water inequality* (HWQ) is the average difference between the two high waters of the day at the times of the tropic tides. *Tropic low water inequality* (LWQ) is the average difference between the two low waters of the day at the times of the tropic tides. Mean and tropic inequalities as

defined above are applicable only when the type of tide is either semidiurnal or mixed. Diurnal inequality is sometimes called *declinational inequality.*

DOUBLE EBB—An ebb tidal current where, after ebb begins, the speed increases to a maximum called *first ebb*; it then decreases, reaching a *minimum ebb* near the middle of the ebb period (and at some places it may actually run in a flood direction for a short period); it then again ebbs to a maximum speed called second ebb after which it decreases to slack water.

DOUBLE FLOOD—A flood tidal current where, after flood begins, the speed increases to a maximum called first flood; it then decreases, reaching a minimum flood near the middle of the flood period (and at some places it may actually run in an ebb direction for a short period); it then again floods to a maximum speed called second flood after which it decreases to slack water.

DOUBLE TIDE—A double-headed tide, that is, a high water consisting of two maxima of nearly the same height separated by a relatively small depression, or a low water consisting of two minima separated by a relatively small elevation. Sometimes, it is called an agger.

DURATION OF FLOOD AND DURATION OF EBB—Duration of flood is the interval of time in which a tidal current is flooding, and the *duration of ebb* is the interval in which it is ebbing. Together they cover, on an average, a period of 12.42 hours for a semidiurnal tidal current or a period of 24.84 hours for a diurnal current. In a normal semidiurnal tidal current, the duration of flood and duration of ebb will each be approximately equal to 6.21 hours, but the times may be modified greatly by the presence of a nontidal flow. In a river the duration of ebb is usually longer than the duration of flood because of the freshwater discharge, especially during the spring when snow and ice melt are the predominant influences.

DURATION OF RISE AND DURATION OF FALL—*Duration of rise* is the interval from low water to high water, and *duration of fall* is the interval from high water to low water. Together they cover, on an average, a period of 12.42 hours for a semidiurnal tide or a period of 24.84 hours for a diurnal tide. In a normal semidiurnal tide, the duration of rise and duration of fall will each be approximately equal to 6.21 hours, but in shallow waters and in rivers there is a tendency for a decrease in the duration of rise and a corresponding increase in the duration of fall.

EBB CURRENT—The movement of a tidal current away from shore or down a tidal river or estuary. In the mixed type of reversing tidal current, the terms *greater ebb* and *lesser ebb* are applied respectively to the ebb tidal currents of greater and lesser speed of each day. The terms *maximum ebb* and *minimum ebb* are applied to the maximum and minimum speeds of a current running continuously ebb, the speed alternately increasing and decreasing without coming to a slack or reversing. The expression maximum ebb is also applicable to any ebb current at the time of greatest speed.

EQUATORIAL TIDAL CURRENTS—Tidal currents occurring semimonthly as a result of the Moon being over the Equator. At these times the tendency of the Moon to produce a diurnal inequality in the tidal current is at a minimum.

EQUATORIAL TIDES—Tides occurring semi monthly as the result of the Moon being over the Equator. At these times the tendency of the Moon to produce a diurnal inequality in the tide is at a minimum.

FLOOD CURRENT—The movement of a tidal current toward the shore or up a tidal river or estuary. In the mixed type of reversing current, the terms *greater flood* and *lesser flood* are applied respectively to the flood currents of greater and lesser speed of each day. The terms *maximum flood* and *minimum flood* are applied to the maximum and minimum speeds of a flood current, the speed of which alternately increases and decreases without coming to a slack or reversing. The expression maximum flood is also applicable to any flood current at the time of greatest speed.

GREAT DIURNAL RANGE (Gt)—The difference in height between mean higher high water and mean lower low water. The expression may also be used in its contracted form, *diurnal range*.

GREENWICH INTERVAL—An interval referred to the transit of the Moon over the meridian of Greenwich as distinguished from the local interval which is referred to the Moon's transit over the local meri-dian. The relation in hours between Greenwich and local intervals may be expressed by the formula:

Greenwich interval = local interval +0.069 L

where L is the west longitude of the local meridian in degrees. For east longitude, L is to be considered negative.

GULF COAST LOW WATER DATUM—A chart datum. Specifically, the tidal datum formerly designated for the coastal waters of the Gulf Coast of the United States. It was defined as *mean lower low water* when the type of tide was mixed and *mean low water* when the type of tide was diurnal.

HALF-TIDE LEVEL—See *mean tide level*.

HARMONIC ANALYSIS—The mathematical process by which the observed tide or tidal current at any place is separated into basic harmonic constituents.

HARMONIC CONSTANTS—The amplitudes and epochs of the harmonic constituents of the tide or tidal current at any place.

HARMONIC CONSTITUENT—One of the harmonic elements in a mathematical expression for the tide-producing force and in corresponding formulas for the tide or tidal current. Each constituent represents a periodic change or variation in the relative positions of the Earth, Moon, and Sun. A single constituent is usually written in the form $y=A \cos (at+\alpha)$, in which y is a function of time as expressed by the symbol t and is reckoned from a specific origin. The coefficient A is called the amplitude of the constituent and is a measure of its relative importance. The angle $(at+\alpha)$ changes uniformly and its value at any time is called the phase of the constituent. The speed of the constituent is the rate of change in its phase and is represented by the symbol a in the formula. The quantity α is the phase of the constituent at the initial instant from which the time is reckoned. The period of the constituent is the time required for the phase to change through 360° and is the cycle of the astronomical condition represented by the constituent.

HIGH WATER (HW)—The maximum height reached by a rising tide. The height may be due solely to the periodic tidal forces or it may have superimposed upon it the effects of prevailing meteorological conditions. Use of the synonymous term, *high tide*, is discouraged.

HIGHER HIGH WATER (HHW)—The higher of the two high waters of any tidal day.

HIGHER LOW WATER (HLW)—The higher of the two low waters of any tidal day.

HYDRAULIC CURRENT—A current in a channel caused by a difference in the surface level at the two ends. Such a current may be expected in a strait connecting two bodies of water in which the tides differ in time or range. The current in the East River, N.Y., connecting Long Island Sound and New York Harbor, is an example.

KNOT—A unit of speed, one international nautical mile (1,852.0 meters or 6,076.11549 international feet) per hour.

LOW WATER (LW)—The minimum height reached by a falling tide. The height may be due solely to the periodic tidal forces or it may have superimposed upon it the effects of meteorological conditions. Use of the synonymous term, *low tide*, is discouraged.

LOWER HIGH WATER (LHW)—The lower of the two high waters of any tidal day.

LOWER LOW WATER (LLW)—The lower of the two low waters of any tidal day.

LUNAR DAY—The time of the rotation of the Earth with respect to the Moon, or the interval between two successive upper transits of the Moon over the meridian of a place. The mean lunar day is approximately 24.84 solar hours long, or 1.035 times as long as the mean solar day.

LUNAR INTERVAL—The difference in time between the transit of the Moon over the meridian of Greenwich and over a local meridian. The average value of this interval expressed in hours is 0.069 L, in which L is the local longitude in degrees, positive for west longitude and negative for east longitude. The lunar interval equals the difference between the local and Greenwich interval of a tide or current phase.

LUNICURRENT INTERVAL—The interval between the Moon's transit (upper or lower) over the local or Greenwich meridian and a specified phase of the tidal current following the transit. Examples: *strength of flood interval and strength of ebb interval,* which may be abbreviated to *flood interval and ebb interval,* respectively. The interval is described as local or Greenwich according to whether the reference is to the Moon's transit over the local or Greenwich meridian. When not otherwise specified, the reference is assumed to be local.

LUNITIDAL INTERVAL—The interval between the Moon's transit (upper or lower) over the local or Greenwich meridian and the following high or low water. The average of all high water intervals for all phases of the Moon is known as *mean high water lunitidal interval* and is abbreviated to high water interval (HWI). Similarly the *mean low water lunitidal interval* is abbreviated to *low water interval* (LWI). The interval is described as local or Greenwich according to whether the reference is to the transit over the local or Greenwich meridian. When not otherwise specified, the reference is assumed to be local.

MEAN HIGH WATER (MHW)—A tidal datum. The arithmetic mean of the high water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a l9-year value.

MEAN HIGHER HIGH WATER (MHHW)—A tidal datum. The arithmetic mean of the higher high water heights of a mixed tide observed over a specific l9-year Metonic cycle (the National Tidal Datum Epoch). Only the higher high water of each pair of high waters, or the only high water of a tidal day is included in the mean.

MEAN HIGHER HIGH WATER LINE (MHHWL)—The intersection of the land with the water surface at the elevation of mean higher high water.

MEAN LOW WATER (MLW)—A tidal datum. The arithmetic mean of the low water heights observed over a specific l9-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a l9-year value.

MEAN LOW WATER SPRINGS (MLWS)—A tidal datum. Frequently abbreviated *spring low water.* The arithmetic mean of the low water heights occurring at the time of the spring tides observed over a specific l9-year Metonic cycle (the National Tidal Datum Epoch).

MEAN LOWER LOW WATER (MLLW)—A tidal datum. The arithmetic mean of the lower low water heights of a mixed tide observed over a specific l9-year Metonic cycle (the National Tidal Datum Epoch). Only the lower low water of each pair of low waters, or the only low water of a tidal day is included in the mean.

MEAN RANGE OF TIDE (Mn)—The difference in height between mean high water and mean low water.

MEAN RIVER LEVEL—A tidal datum. The average height of the surface of a tidal river at any point for all stages of the tide observed over a l9-year Metonic cycle (the National Tidal Datum Epoch), usually determined from hourly height readings. In rivers subject to occasional freshets the river level may undergo wide variations, and for practical purposes certain months of the year may be excluded in the determination of tidal datums. For charting purposes, tidal datums for rivers are usually based on observations during selected periods when the river is at or near low water stage.

MEAN SEA LEVEL (MSL)—A tidal datum. The arithmetic mean of hourly water elevations observed over a specific l9-year Metonic cycle (the National Tidal Datum Epoch). Shorter series are specified in the name; e.g., monthly mean sea level and yearly mean sea level.

MEAN TIDE LEVEL (MTL)—Also called half-tide level. A tidal datum midway between mean high water and mean low water.

MIXED TIDE—Type of tide with a large inequality in the high and/or low water heights, with two high waters and two low waters usually occurring each tidal day. In strictness, all tides are mixed but the name is usually applied to the tides intermediate to those predominantly semidiurnal and those predominantly diurnal.

NATIONAL TIDAL DATUM EPOCH—The specific 19-year period adopted by the National Ocean Service as the official time segment over which tide observations are taken and reduced to obtain mean values (e.g., mean lower low water, etc.) for tidal datums. It is necessary for standardization because of periodic and apparent secular trends in sea level. The present National Tidal Datum Epoch is 1960 through 1978. It is reviewed annually for possible revision and must be actively considered for revision every 25 years.

NEAP TIDES OR TIDAL CURRENTS—Tides of decreased range or tidal currents of decreased speed occurring semimonthly as the result of the Moon being in quadrature. The *neap range* (Np) of the tide is the average semidiurnal range occurring at the time of neap tides and is most conveniently computed from the harmonic constants. It is smaller than the mean range where the type of tide is either semidiurnal or mixed and is of no practical significance where the type of tide is diurnal. The average height of the high waters of the neap tides is called *neap high water* or *high water neaps* (MHWN) and the average height of the corresponding low waters is called neap low water or low water neaps (MLWN).

PERIGEAN TIDES OR TIDAL CURRENTS—Tides of increased range or tidal currents of increased speed occurring monthly as the result of the Moon being in perigee or nearest the Earth. The *perigean range* (Pn) of tide is the average semidiurnal range occurring at the time of perigean tides and is most conveniently computed from the harmonic constants. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal.

RANGE OF TIDE—The difference in height between consecutive high and low waters, the *mean range* is the difference in height between mean high water and mean low water. Where the type of tide is diurnal the mean range is the same as the diurnal range.

For other ranges, see great diurnal, spring, neap, perigean, apogean, and tropic tides.

REFERENCE STATION—A tide or current station for which independent daily predictions are given in the *Tide Tables and Tidal Current Tables,* and from which corresponding predictions are obtained for subordinate stations by means of differences and ratios.

REVERSING CURRENT—A tidal current which flows alternately in approximately opposite directions with a slack water at each reversal of direction. Currents of this type usually occur in rivers and straits where the direction of flow is more or less restricted to certain channels. When the movement is towards the shore or up a stream, the current is said to be flooding, and when in the opposite direction it is said to be ebbing. The combined flood and ebb movement including the slack water covers, on an average, 12.42 hours for the semidiurnal current. If unaffected by a nontidal flow, the flood and ebb movements will each last about 6 hours, but when combined with such a flow, the durations of flood and ebb may be quite unequal. During the flow in each direction the speed of the current will vary from zero at the time of slack water to a maximum about midway between the slacks.

ROTARY CURRENT—A tidal current that flows continually with the direction of flow changing through all points of the compass during the tidal period. Rotary currents are usually found offshore where the direction of flow is not restricted by any barriers. The tendency for the rotation in direction has its origin in the Coriolis force and, unless modified by local conditions, the change is clockwise in the Northern Hemisphere and counterclockwise in the Southern. The speed of the current usually varies throughout the tidal cycle, passing through the two maxima in approximately opposite directions and the two minima with the direction of the current at approximately 90° from the direction at time of maximum speed.

SEMIDIURNAL—Having a period or cycle of approximately one-half of a tidal day. The predominating type of tide throughout the world is semidiurnal, with two high waters and two low waters each tidal day. The tidal current is said to be semidiurnal when there are two flood and two ebb periods each day.

SET (OF CURRENT)—The direction *towards* which the current flows.

SLACK WATER—The state of a tidal current when its speed is near zero, especially the moment when a reversing current changes direction and its speed is zero. The term is also applied to the entire period of low speed near the time of turning of the current when it is too weak to be of any practical importance in navigation. The relation of the time of slack water to the tidal phases varies in different localities. For standing tidal waves, slack water occurs near the times of high and low water, while for progressive tidal waves, slack water occurs midway between high and low water.

SPRING TIDES OR TIDAL CURRENTS—Tides of increased range or tidal currents of increased speed occurring semimonthly as the result of the Moon being new or full. The *spring range* (Sg) of tide is the average semidiurnal range occurring at the time of spring tides and is most conveniently computed from the harmonic constants. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal. The mean of the high waters of the spring tide is called *spring high water or mean high water springs* (MHWS), and the average height of the corresponding low waters is called *spring low water or mean low water springs* (MLWS).

STAND OF TIDE—Sometimes called a platform tide. An interval at high or low water when there is no sensible change in the height of the tide. The water level is stationary at high and low water for only an instant, but the change in level near these times is so slow that it is not usually perceptible. In general, the duration of the apparent stand will depend upon the range of tide, being longer for a small range than for a large range, but where there is a tendency for a double tide the stand may last for several hours even with a large range of tide.

STANDARD TIME—A kind of time based upon the transit of the Sun over a certain specified meridian, called the *time meridian*, and adopted for use over a considerable area. With a few exceptions, standard time is based upon some meridian which differs by a multiple of 15° from the meridian of Greenwich.

STRENGTH OF CURRENT—Phase of tidal current in which the speed is a maximum; also the speed at this time. Beginning with slack before flood in the period of a reversing tidal current (or minimum before flood in a rotary current), the speed gradually increases to flood strength and then diminishes to slack before ebb (or minimum before ebb in a rotary current), after which the current turns in direction, the speed increases to ebb strength and then diminishes to slack before flood completing the cycle. If it is assumed that the speed throughout the cycle varies as the ordinates of a cosine curve, it can

be shown that the average speed for an entire flood or ebb period is equal to $2/\pi$ or 0.6366 of the speed of the corresponding strength of current.

SUBORDINATE CURRENT STATION—(1) A current station from which a relatively short series of observations is reduced by comparison with simultaneous observations from a control current station. (2) A station listed in the *Tidal Current Tables* for which predictions are to be obtained by means of differences and ratios applied to the full predictions at a reference station .

SUBORDINATE TIDE STATION—(1) A tide station from which a relatively short series of observations is reduced by comparison with simultaneous observations from a tide station with a relatively long series of observations. (2) A station listed in the *Tide Tables* for which predictions are to be obtained by means of differences and ratios applied to the full predictions at a reference station.

TIDAL CURRENT TABLES—Tables which give daily predictions of the times and speeds of the tidal currents. These predictions are usually supplemented by current differences and constants through which additional predictions can be obtained for numerous other places.

TIDAL DIFFERENCE—Difference in time or height of a high or low water at a subordinate station and at a reference station for which predictions are given in the *Tide Tables*. The difference, when applied according to sign to the prediction at the reference station, gives the corresponding time or height for the subordinate station .

TIDE—The periodic rise and fall of the water resulting from gravitational interactions between the Sun, Moon, and Earth. The vertical component of the particulate motion of a tidal wave. Although the accompanying horizontal movement of the water is part of the same phenomenon, it is preferable to designate the motion as tidal current.

TIDE TABLES—Tables which give daily predictions of the times and heights of high and low waters. These predictions are usually supplemented by tidal differences and constants through which additional predictions can be obtained for numerous other places.

TIME MERIDIAN—A meridian used as a reference for time.

TROPIC CURRENTS—Tidal currents occurring semimonthly when the effect of the Moon's maximum declination is greatest. At these times the tendency of the Moon to produce a diurnal inequality in the current is at a maximum.

TROPIC RANGES—The *great tropic range* (Gc), or *tropic range*, is the difference in height between tropic higher high water and tropic lower low water. The *small tropic range* (Sc) is the difference in height between tropic lower high water and tropic higher low water. The *mean tropic range* (Mc) is the mean between the great tropic range and the small tropic range. The small tropic range and the mean tropic range are applicable only when the type of tide is semidiurnal or mixed. Tropic ranges are most conveniently computed from the harmonic constants.

TROPIC TIDES—Tides occurring semimonthly when the effect of the Moon's maximum declination is greatest. At these times there is a tendency for an increase in the diurnal range. The tidal datums pertaining to the tropic tides are designated as *tropic higher high water* (TcHHW), *tropic lower high water* (TcLHW), *tropic higher low water* (TcHLW), and *tropic lower low water* (TcLLW).

TYPE OF TIDE—A classification based on characteristic forms of a tide curve. Qualitatively, when the two high waters and two low waters of each tidal day are approximately equal in height, the tide is said to be *semidiurnal*; when there is a relatively large diurnal inequality in the high or low waters or both, it is said to be *mixed*; and when there is only one high water and one low water in each tidal day, it is said to be *diurnal*.

VANISHING TIDE—In a mixed tide with very large diurnal inequality, the lower high water (or higher low water) frequently becomes indistinct (or vanishes) at time of extreme declinations. During these periods the diurnal tide has such overriding dominance that the semidiurnal tide, although still present, cannot be readily seen on the tide curve.

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○	30	06	18
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◐	23	11	00
P	28	04	. .
E	28	19	. .
○	30	02	25

April

	d.	h	m
S	4	06	. .
◑	6	09	37
A	9	02	. .
E	11	17	. .
●	14	12	29
N	18	18	. .
◐	21	18	20
P	24	21	. .
E	25	03	. .
○	28	12	18

May

	d.	h	m
S	1	14	. .
◑	6	04	15
A	6	21	. .
E	9	00	. .
●	14	01	04
N	15	23	. .
P	20	08	. .
◐	20	23	43
E	22	08	. .
○	27	23	07
S	28	22	. .

June

	d.	h	m
A	3	16	. .
◑	4	22	13
E	5	08	. .
N	12	07	. .
●	12	11	15
P	15	14	. .
E	18	13	. .
◐	19	04	29
⊙J	21	11	28
S	25	06	. .
○	26	11	30

July

	d.	h	m
A	1	10	. .
E	2	15	. .
◑	4	14	35
N	9	17	. .
●	11	19	40
P	13	11	. .
E	15	20	. .
◐	18	10	11
S	22	12	. .
○	26	01	37
A	28	23	. .
E	29	22	. .

August

	d.	h	m
◑	3	04	59
N	6	03	. .
●	10	03	08
P	10	17	. .
E	12	05	. .
◐	16	18	14
S	18	17	. .
○	24	17	05
A	25	05	. .
E	26	05	. .

September

	d.	h	m
◑	1	17	22
N	2	12	. .
P	8	04	. .
●	8	10	30
E	8	16	. .
S	15	00	. .
◐	15	05	50
A	21	08	. .
E	22	11	. .
⊙S	23	03	09
○	23	09	17
N	29	18	. .

October

	d.	h	m
◑	1	03	52
E	6	03	. .
P	6	13	. .
●	7	18	44
S	12	08	. .
◐	14	21	27
A	18	18	. .
E	19	17	. .
○	23	01	36
N	26	23	. .
◑	30	12	46

November

	d.	h	m
E	2	11	. .
P	3	17	. .
●	6	04	52
S	8	17	. .
◐	13	16	39
A	15	11	. .
E	16	00	. .
○	21	17	27
N	23	05	. .
◑	28	20	36
E	29	17	. .
P	30	19	. .

December

	d.	h	m
●	5	17	36
S	6	02	. .
E	13	08	. .
A	13	08	. .
◐	13	13	59
N	20	13	. .
○	21	08	13
⊙D	21	23	38
P	21	12	. .
E	26	22	. .
◑	28	04	18

LUNAR DATA

● – new Moon
◐ – first quarter
○ – full Moon
◑ – last quarter

A – Moon in apogee
P – Moon in perigee
N – Moon farthest north of Equator
E – Moon on Equator
S – Moon farthest south of Equator

SOLAR DATA

⊙M – March equinox
⊙J – June solstice
⊙S – September equinox
⊙D – December solstice

Greenwich mean time (GMT) or universal time (UT) is the mean solar time on the Greenwich meridian reckoned in days of 24 mean solar hours written as 00^h at midnight and 12^h at noon. To convert the above times to those of other standard time meridians, add 1 hour for each 15° of east longitude of the desired meridian and subtract 1 hour for each 15° of west longitude. This table was compiled from data supplied by the Nautical Almanac Office, United States Naval Observatory.