

Tide Tables 2015 – West Coast of North and South America including the Hawaiian Islands

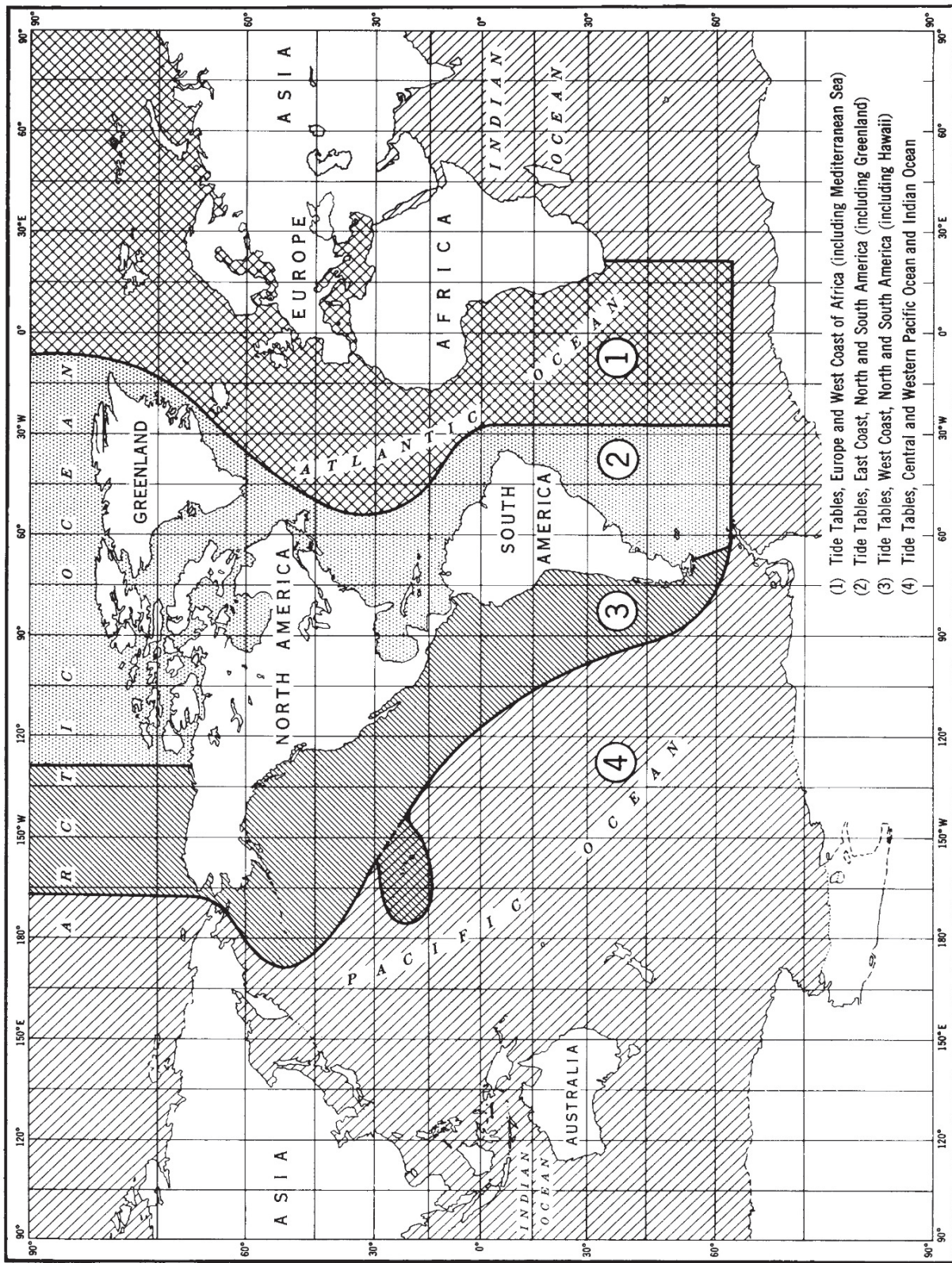
Tide Tables 2015 HIGH AND LOW WATER PREDICTIONS

West Coast of North and South America

Including the Hawaiian Islands



INDEX OF TIDE TABLE COVERAGE



Tide Tables 2015 HIGH AND LOW WATER PREDICTIONS

West Coast of North and South America

Including the Hawaiian Islands

Issued 2014



**This edition of the Tide Tables and Tidal Current Tables
is dedicated in memory of
William "Bill" Michael Stoney
(1949-2014)**



Bill Stoney's career as a physical oceanographer spanned more than 30 years with NOAA studying tides and water levels, becoming a recognized expert in tidal datums and their computations. His career culminated as the Chief of CO-OPS Products Services Division. Throughout his career, Mr. Stoney continually strove to improve the techniques, procedures and computer software used in tidal analysis, and the creation of new and improved products and services from tidal data. Mr. Stoney's knowledge and dedication contributed substantially to improvements in the tide and tidal current products, services, information and data available through NOAA's Center for Operational Oceanographic Products and Services (CO-OPS).

*"Knowledge of the oceans is more than a matter of curiosity.
Our very survival may hinge upon it"*
John F. Kennedy

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 several private companies working from information provided by NOS.

NOS now offers two 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 federal or 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 stations, predictions are available on the NOS, Center for Operational Oceanographic Products and Services (CO-OPS), website, (<http://tidesandcurrents.noaa.gov/>).

In addition to predictions, the website 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
Oceanographic Division, N/OPS3
1305 East-West Highway
Silver Spring, MD 20910
(301) 713-2815, fax (301) 713-4500

A list of authorized sales agents is published in the Nautical Chart Catalogs or may be obtained on request from the National Ocean Service.

TECHNICAL ASSISTANCE:

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

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

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

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

SOURCES OF ADDITIONAL INFORMATION

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

National Ocean Service
Navigation Services Division
1315 East-West Highway
Silver Spring, MD 20910
(888) 990-NOAA (6622)

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.oceanservice.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.weather.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.

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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
CHARLESTON HARBOR	855-216-2137	www.tidesandcurrents.noaa.gov
CHERRY POINT	888-817-7794	"
CHESAPEAKE BAY	866-CH-PORTS (866-247-6787)	"
DELAWARE RIVER & BAY	866-30-PORTS (866-307-6787)	"
HOUSTON/GALVESTON	866-HG-PORTS (866-447-6787)	"
HUMBOLDT BAY	855-876-5015	"
JACKSONVILLE	855-901-1549	"
LAKE CHARLES	888-817-7692	"
LOS ANGELES/LONG BEACH		"
LOWER COLUMBIA RIVER	888-53-PORTS (888-537-6787)	"
LOWER MISSISSIPPI RIVER	888-817-7767	"
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 LONDON	855-626-0509	"
NEW YORK/NEW JERSEY	866-21-PORTS (866-217-6787)	"
PASCAGOULA	888-257-1857	"

IMPORTANT NOTICES

PORTS® SITES	VOICE ACCESS	INTERNET ACCESS
PORT OF ANCHORAGE	866-AK-PORTS (866-257-6787)	www.tidesandcurrents.noaa.gov
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

QUARTERLY UPDATES TO THE NOAA TIDE PREDICTIONS SERVICE

The NOAA, National Ocean Service's, Center for Operational Oceanographic Products and Services (CO-OPS) provides electronic tide predictions for more than 3000 locations around the US, Caribbean, and Pacific Islands as part of the NOAA Tide Predictions service of the CO-OPS Tides & Currents website. <http://tidesandcurrents.noaa.gov>

The NOAA Tide Predictions service uses the most up-to-date information available in order to provide accurate tide predictions. Updates to the predictions provided by the NOAA Tide Predictions service, based on newly obtained or analyzed data, are released quarterly.

The third quarterly update for 2013 to NOAA Tide Predictions service was released the week of July 8th, 2013. Changes this quarter include more than 50 updated stations in Alaska. Five new harmonic stations have been added for the coast of Alaska resulting in subordinate stations being recalculated to use these new harmonic stations as reference for providing tide predictions. These updates will be reflected in the 2014 Tide Table publication for the West Coast of North and South America including the Hawaiian Islands. A listing of the stations effected by this quarterly update, as well as previous quarterly updates, are available through the NOAA Tide Predictions service of the CO-OPS Tides & Currents website. http://tidesandcurrents.noaa.gov/tide_predictions.shtml

For additional information, please contact CO-OPS via e-mail at Tide.Predictions@noaa.gov or (301) 713-2815.

(Issued: July 10, 2013)

UPDATE TO THE 2012 EDITION OF THE NOS TIDE TABLES

The NOAA National Ocean Service's Center for Operational Oceanographic Products and Services (CO-OPS) is updating the tide predictions published for the Bristol Bay region of Alaska within the 2012 Tide Tables – West Coast of North and South America. Two new reference stations have been added to this region:

Bethel, Kuskokwim River, AK
Platinum, AK

Secondary stations in this area have been updated to use these new reference stations.

(Issued: October 1, 2011)

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)

IMPORTANT NOTICES

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)

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

IMPORTANT NOTICES

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)

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 more than 250 reference ports and differences and other constants for about 6,500 stations.

This edition of the Tide Tables, *West Coast of North and South America*, contains full daily predictions for more than 60 reference ports and differences and other constants for more than 1,200 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, Oceanographic 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

Station Name	Page	Datum below mean sea-level	Updated	Data Series
Aberdeen, Washington.....	120	5.56	1994	one year beginning 6/1/1982
* Alitak, Alaska	196	6.14	2014	1 year (April 2007-Mar 2008)
Anchorage, Alaska	188	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		
Bethel, Kuskokwim River, Alaska.....	228	1.62	2012	4 months (June-Oct 2010)
Buenaventura, Columbia.....	48	6.48		
Cabo de Hornos, Chile.....	4	4.43		
Callao, Peru	28	1.69		
* Cape Krusenstern, Alaska	240	.23	2014	3 months (July-Sept 2011)
Charleston, Oregon.....	108	4.08	2003	5 years (1996-2000)
Cherry Point, Washington	136	5.26	1998	12 years (1981-1993)
Cordova, Alaska.....	168	6.70	2007	5 years (2000-2004)
Crescent City, California	104	3.75	2007	4 years (2001-2004)
* Elfin Cove, Port Althorp, Alaska.....	160	5.75	2014	6 months (Sep 2005-Feb 2006)
Guayaquil, Ecuador.....	36	6.35		
Guaymas, Mexico	68	1.52		
Hilo, Hawaii Island, Hawaii.....	268	1.19	2002	5 years (1994-1998)
Honolulu, Hawaii	256	0.85	2003	5 years (1996-2000)
Humboldt Bay, California	100	3.74	2007	5 years (2000-2004)
Johnston Island.....	272	1.07	2002	5 years (1994-1998)
Juneau, Alaska.....	152	8.53	2007	5 years (2000-2004)
Kahului, Maui Island, Hawaii	264	1.16	2002	5 years (1994-1998)
Ketchikan, Alaska.....	148	8.04	2007	5 years (2000-2004)
Kodiak, Alaska	192	4.48	1994	6 years (1985-1989,1991)
La Libertad, Ecuador.....	40	3.50		
La Union, El Salvador	60	5.10		
Los Angeles, California	76	2.84	2007	5 years (2000-2004)
Massacre Bay, Alaska.....	212	1.94	1985	369 days beginning 6/12/1943
Matarani, Peru.....	24	1.36		
Moku O Loe, Oahu Island, Hawaii.....	260	1.07	2002	4 years (1993-1996)
Monterey, California	84	2.88	2003	4 years (1993-1996)
Nawiliwili, Kauai Island, Hawaii	252	0.85	2002	4 years (1993-1996)
Neah Bay, Washington	124	4.30	2007	5 years (2000-2004)
Nikiski, Alaska	184	11.21	2007	5 years (2000-2004)
Nome, Alaska	236	0.84	2001	2 years (1993,1998)
Platinum, Alaska	224	3.85	2012	2 months (June-July 2007)
Port Chicago, California	92	2.55	1998	4 years (1993-1996)
Port Moller, Bristol Bay, Alaska	220	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.....	244	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		

LIST OF REFERENCE STATIONS Cont.

Station Name	Page	Datum below mean sea-level	Updated	Data Series
Salina Cruz, Mexico	64	1.93		
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	248	0.65	2002	5 years (1994-1998)
Sand Point, Alaska	200	3.84	1999	4 years (1993-1996)
Seattle, Washington	132	6.63	2007	5 years (2000-2004)
Seldovia, Alaska	180	9.50	1999	365 days beginning 2/1/1996
* Seward, Alaska	176	5.56	2014	4 years (1992-1996)
Sitka, Alaska	156	5.25	2007	5 years (2000-2004)
Sweeper Cove, Alaska	208	2.22	1990	4 years (1982-1985)
Talara, Peru	32	2.59		
Toke Point, Washington	116	4.79	2005	5 years (1998-2002)
* Unalakleet, Alaska	232	1.78	2014	2 months (July-Aug 2011)
Unalaska, Alaska	204	2.19	2007	5 years (2000-2004)
Valdez, Alaska	172	6.43	2007	5 years (2000-2004)
Valparaiso, Chile	16	2.99		
Vancouver, British Columbia	144	10.0		
Victoria, British Columbia	140	6.1		
* Village Cove, St. Paul Island, Alaska	216	1.96	2014	1 year (Jan-Dec 2007)
* Yakutat, Alaska	164	5.28	2014	5 years (1980-1987)

* 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 the Tide 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.

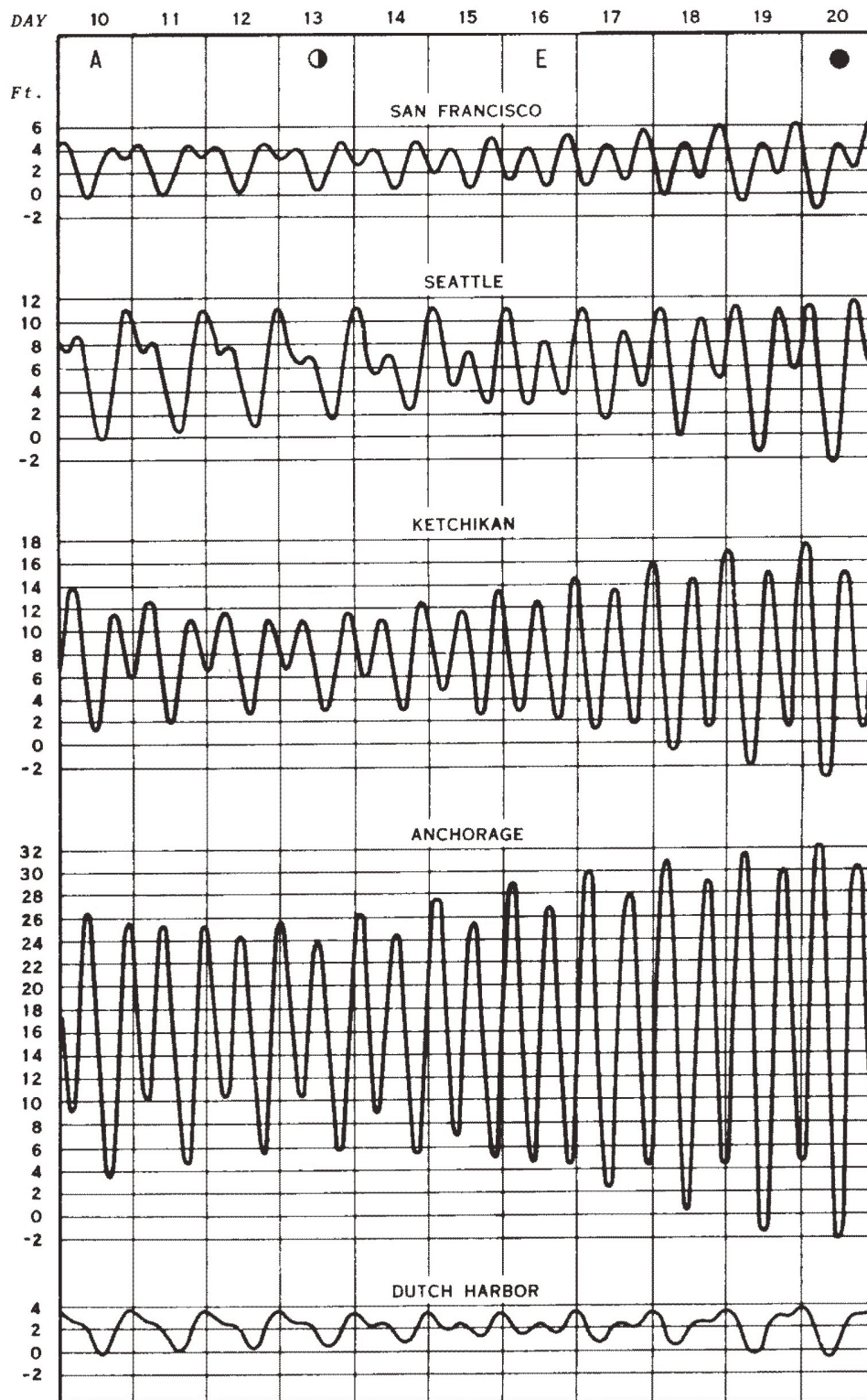
Number of tides.— There are usually two high and two low waters in a day. Tides follow the Moon more closely than they do the Sun, and the lunar or tidal day is about 50 minutes longer than the solar day. This causes the tide to occur later each day, and a tide that has occurred near the end of one calendar 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.

TABLE 1.—DAILY TIDE PREDICTIONS

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, 2015

Times and Heights of High and Low Waters

January						February						March											
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		h m	ft cm			
1 Th	0048	7.3	222	16 F	0010	6.7	204	1 Su	0211	7.4	227	16 M	0118	7.5	229	1 Su	0055	7.3	221	16 M	0647	2.1	63
	0730	1.9	58		0653	2.7	81		0907	1.8	54		0811	1.9	57		0749	2.0	61		1256	5.8	176
	1332	5.8	178		1249	5.3	162		1513	5.7	173		1415	5.7	174		1357	5.8	176		1827	3.1	93
	1917	2.6	80		1823	3.0	92		2040	3.1	95		1943	2.9	88		1930	3.2	98				
2 F	0141	7.4	227	17 Sa	0059	7.0	213	2 M	0259	7.4	226	17 Tu	0213	7.8	238	2 M	0147	7.2	220	17 Tu	0054	7.6	231
	0831	1.7	51		0749	2.3	70		0954	1.8	54		0903	1.6	48		0838	2.0	62		0741	1.8	56
	1435	5.7	175		1348	5.4	164		1601	5.7	174		1509	5.9	181		1446	5.8	177		1350	6.1	185
	2010	2.8	84		1915	3.0	92		2128	3.1	96		2041	2.7	81		2021	3.2	98		1928	2.8	84
3 Sa	0233	7.5	230	18 Su	0149	7.3	223	3 Tu	0345	7.3	224	18 W	0308	8.0	245	3 Tu	0235	7.2	218	18 W	0152	7.8	237
	0926	1.5	46		0842	1.9	59		1036	1.8	55		0953	1.3	41		0922	2.1	64		0833	1.6	50
	1532	5.7	174		1445	5.5	167		1644	5.7	175		1600	6.2	190		1529	5.9	180		1441	6.4	195
	2101	2.9	88		2009	2.9	89		2213	3.1	96		2139	2.4	74		2107	3.1	96		2028	2.4	74
4 Su	0321	7.6	231	19 M	0240	7.6	233	4 W	0427	7.2	220	19 Th	0402	8.1	248	4 W	0319	7.1	216	19 Th	0248	7.9	241
	1016	1.4	44		0933	1.6	48		1115	1.9	57		1043	1.2	38		1001	2.2	66		0923	1.5	46
	1624	5.7	174		1538	5.7	173		1724	5.8	177		1651	6.6	200		1608	6.0	182		1531	6.8	207
	2150	3.0	91		2103	2.8	86		2256	3.2	97		2237	2.2	67		2151	3.1	95		2126	2.1	64
5 M	0407	7.5	230	20 Tu	0331	7.9	242	5 Th	0508	7.1	216	20 F	0457	8.1	247	5 Th	0401	7.0	212	20 F	0345	7.9	241
	1102	1.4	44		1023	1.3	39		1152	2.0	61		1131	1.3	39		1037	2.3	69		1012	1.5	46
	1711	5.7	174		1630	5.9	179		1801	5.9	179		1741	6.9	209		1645	6.1	185		1621	7.1	217
	2236	3.1	93		2157	2.7	81		2338	3.2	97		2335	2.0	61		2233	3.1	93		2224	1.8	55
6 Tu	0451	7.4	227	21 W	0422	8.1	247	6 F	0548	6.9	210	21 Sa	0553	7.9	241	6 F	0442	6.8	208	21 Sa	0441	7.8	238
	1144	1.5	45		1112	1.1	33		1226	2.1	65		1220	1.4	43		1112	2.4	72		1100	1.6	50
	1755	5.7	174		1720	6.1	186		1838	5.9	181		1831	7.1	216		1721	6.2	188		1710	7.4	226
	2319	3.1	95		2252	2.5	76								2314		3.0	92	2323		1.6	49	
7 W	0533	7.3	222	22 Th	0515	8.2	249	7 Sa	0020	3.2	97	22 Su	0035	1.9	57	7 Sa	0522	6.7	203	22 Su	0538	7.5	230
	1224	1.6	49		1200	1.0	31		0627	6.7	204		0649	7.6	232		1145	2.5	77		1149	1.8	56
	1836	5.7	174		1810	6.3	193		1300	2.3	70		1309	1.6	50		1756	6.3	191		1801	7.6	232
					2348	2.4	72		1915	6.0	183		1922	7.3	222		2356	3.0	91				
8 Th	0002	3.2	98	23 F	0608	8.1	246	8 Su	0102	3.2	98	23 M	0136	1.8	56	8 Su	0603	6.5	197	23 M	0021	1.5	46
	0613	7.1	216		1248	1.1	33		0708	6.4	196		0748	7.2	219		1218	2.7	82		0635	7.2	220
	1302	1.8	54		1900	6.6	200		1334	2.5	76		1359	2.0	60		1831	6.3	193		1238	2.1	65
	1916	5.7	175				1951		6.1	185	2015		7.4	225				1852	7.7		234		
9 F	0045	3.3	100	24 Sa	0047	2.3	69	9 M	0147	3.2	97	24 Tu	0238	1.8	56	9 M	0038	3.0	90	24 Tu	0121	1.5	46
	0653	6.9	209		0703	7.8	238		0750	6.2	188		0849	6.8	206		0644	6.2	190		0734	6.8	208
	1338	1.9	59		1337	1.2	38		1407	2.7	82		1451	2.3	70		1251	2.9	87		1330	2.5	75
	1955	5.8	176		1951	6.8	206		2029	6.2	189		2110	7.4	227		1908	6.4	195		1945	7.6	233
10 Sa	0128	3.3	102	25 Su	0147	2.2	67	10 Tu	0235	3.1	96	25 W	0343	1.9	57	10 Tu	0122	2.9	89	25 W	0222	1.6	49
	0734	6.6	201		0800	7.4	226		0835	5.9	180		0952	6.4	194		0728	6.0	183		0835	6.5	197
	1414	2.1	65		1426	1.5	46		1443	2.9	87		1545	2.6	80		1325	3.1	93		1423	2.8	85
	2034	5.8	177		2044	7.0	212		2109	6.3	192		2206	7.4	226		1946	6.5	198		2040	7.5	230
11 Su	0214	3.4	103	26 M	0251	2.2	66	11 W	0327	3.1	94	26 Th	0448	1.9	59	11 W	0209	2.9	88	26 Th	0324	1.7	53
	0816	6.3	192		0900	7.0	213		0925	5.7	173		1057	6.0	184		0815	5.8	176		0938	6.2	188
	1449	2.4	72		1517	1.8	56		1521	3.0	92		1642	2.9	88		1402	3.2	98		1520	3.1	94
	2113	5.9	180		2137	7.1	217		2152	6.5	197		2303	7.4	225		2027	6.6	200		2136	7.4	225
12 M	0304	3.4	103	27 Tu	0357	2.1	65	12 Th	0422	3.0	90	27 F	0553	2.0	60	12 Th	0300	2.8	86	27 F	0427	1.9	57
	0902	6.0	183		1002	6.5	199		1020	5.5	168		1201	5.9	179		0906	5.6	171		1042	6.0	182
	1526	2.6	78		1609	2.2	67		1604	3.1	95		1739	3.1	94		1443	3.3	101		1619	3.3	100
	2154	6.0	184		2232	7.3	221		2240	6.7	203						2112	6.7	204		2235	7.2	220
13 Tu	0358	3.3	101	28 W	0504	2.1	63	13 F	0520	2.8	84	28 Sa	0000	7.3	223	13 F	0355	2.7	82	28 Sa	0528	2.0	61
	0952	5.7	175		1108	6.1	187		1120	5.4	165		0654	2.0	60		1002	5.5	168		1143	5.9	179
	1605	2.7	83		1703	2.5	76		1653	3.2	97		1302	5.8	176		1530	3.4	103		1719	3.4	103
	2237	6.2	189		2329	7.3	224		2330	6.9	211		1836	3.2	97		2203	6.9	209		2332	7.1	216
14 W	0455	3.1	96	29 Th	0611	2.0	61	14 Sa	0619	2.5	76	15 Su	0024	7.2	220	14 Sa	0452	2.5	77	29 Su	0625	2.1	64
	1048	5.5	168		1214	5.9	179		1220	5.4	165		1201	5.9	179		1100	5.5	167		1240	5.9	179
	1647	2.9	88		1759	2.8	84		1748	3.1	96		1739	3.1	94		1625	3.4	103		1816	3.4	103
	2323	6.4	196												2258		7.1	216					
15 Th	0554	3.0	90	30 F	0024	7.4	226	15 Su	0024	7.2	220	15 Su	0550	2.3	71	15 Su	0550	2.3	71	30 M	0027	7.0	213
	1148	5.4	164		0715	1.9	58		0716	2.2	67		1159	5.6	170		1159	5.6	170		0716	2.2	67
	1733	3.0	91		1319	5.7	174		1319	5.5	168		1725	3.3	100		1725	3.3	100		1330	5.9	181
					1855	2.9	89		1845	3.1	93		2356	7.3									

Times and Heights of High and Low Waters

Cabo de Hornos, Chile, 2015

Times and Heights of High and Low Waters

July				August				September															
Time		Height		Time		Height		Time		Height		Time		Height									
1 W ○	h	m	cm	16 Th	h	m	cm	1 Sa	h	m	cm	1 Tu	h	m	cm								
	0346	5.7	173		0442	5.9	181		0538	6.0	182		0558	7.0	212								
	0913	2.8	86		1013	2.7	82		1121	2.7	82		1201	1.5	45								
	1538	7.6	233		1629	7.7	235		1731	6.9	211		1817	7.5	229								
2 Th	0432	5.7	175	17 F	0526	5.9	180	2 Su	0538	6.2	189	17 M	0004	1.8	56	2 W	0035	1.3	41	17 Th	0031	2.5	77
	0956	2.8	85		1057	2.8	85		1116	2.2	67		0613	6.0	182		0646	7.1	217		0645	6.3	193
	1621	7.8	238		1712	7.5	229		1737	7.9	242		1201	2.7	83		1258	7.4	44		1302	2.4	74
	2310	1.3	40		2358	1.4	43						1809	6.6	202		1912	1.1	216		1908	5.8	177
3 F	0517	5.8	177	18 Sa	0608	5.9	179	3 M	0015	1.0	32	18 Tu	0037	2.1	63	3 Th	0122	1.7	51	18 F	0102	2.7	83
	1041	2.8	84		1139	2.9	89		0625	6.4	195		0648	6.0	182		0737	7.2	220		0719	6.3	192
	1705	7.9	241		1753	7.3	221		1210	2.1	64		1241	2.8	85		1359	1.5	45		1344	2.5	75
	2355	1.2	38				1828		7.7	235	1848		6.3	193	2011		6.6	202	1951		5.5	168	
4 Sa	0604	5.9	179	19 Su	0037	1.6	50	4 Tu	0102	1.2	37	19 W	0109	2.3	70	4 F	0213	2.0	62	19 Sa	0134	3.0	90
	1128	2.7	83		0649	5.8	177		0714	6.6	200		0724	6.0	182		0831	7.2	219		0757	6.3	192
	1752	7.9	240		1222	3.1	93		1308	2.1	64		1323	2.9	87		1503	1.6	48		1431	2.5	76
					1833	6.9	211		1923	7.3	223		1928	6.0	183		2115	6.2	188		2038	5.3	161
5 Su	0040	1.2	38	20 M	0115	1.9	58	5 W	0150	1.5	46	20 Th	0142	2.6	78	5 Sa	0308	2.4	74	20 Su	0210	3.1	95
	0652	5.9	181		0729	5.8	176		0806	6.7	204		0802	6.0	183		0929	7.1	217		0839	6.3	192
	1220	2.7	83		1306	3.2	97		1410	2.1	64		1410	2.9	89		1612	1.7	51		1524	2.5	77
	1842	7.7	234		1914	6.6	200		2022	6.9	209		2013	5.6	172		2223	5.8	177		2133	5.1	155
6 M	0128	1.3	41	21 Tu	0152	2.2	66	6 Th	0241	1.8	56	21 F	0217	2.8	86	6 Su	0408	2.7	83	21 M	0255	3.3	100
	0742	6.0	184		0810	5.7	175		0901	6.8	208		0842	6.0	183		1030	7.1	215		0929	6.3	193
	1317	2.8	84		1353	3.3	100		1518	2.1	64		1502	3.0	90		1722	1.7	53		1623	2.5	75
	1936	7.4	226		1958	6.2	189		2127	6.4	194		2103	5.3	163		2335	5.6	170		2234	5.0	153
7 Tu	0218	1.5	46	22 W	0230	2.4	74	7 F	0336	2.2	66	22 Sa	0256	3.0	92	7 M	0513	2.9	89	22 Tu	0351	3.3	102
	0836	6.2	189		0853	5.8	176		0959	6.9	211		0928	6.1	185		1134	7.0	213		1027	6.4	196
	1421	2.8	84		1446	3.3	102		1630	2.1	63		1601	2.9	89		1830	1.7	53		1725	2.3	71
	2035	7.1	215		2046	5.8	178		2237	6.0	182		2202	5.1	156				2337		5.1	154	
8 W ○	0310	1.7	53	23 Th	0310	2.7	82	8 Sa	0434	2.5	75	23 Su	0341	3.2	97	8 Tu	0043	5.5	169	23 W	0456	3.3	101
	0932	6.4	195		0938	5.8	178		1100	7.1	215		1019	6.2	188		0619	3.0	91		1129	6.6	201
	1531	2.7	81		1545	3.3	102		1743	1.9	59		1705	2.8	85		1236	7.0	212		1825	2.1	64
	2140	6.7	203		2140	5.5	168		2349	5.7	175		2306	5.0	153		1931	1.7	52				
9 Th	0405	2.0	61	24 F	0353	2.9	88	9 Su	0536	2.7	81	24 M	0436	3.3	100	9 W	0144	5.6	171	24 Th	0038	5.2	160
	1029	6.7	203		1026	6.0	182		1201	7.2	219		1114	6.4	194		0720	3.0	90		0605	3.1	95
	1644	2.5	76		1648	3.2	98		1851	1.7	53		1807	2.6	78		1334	7.0	212		1231	6.8	208
	2249	6.3	192		2241	5.3	161								2024		1.7	51	1921		1.8	56	
10 F	0501	2.2	67	25 Sa	0439	3.1	93	10 M	0058	5.7	173	25 Tu	0011	5.0	153	10 Th	0236	5.7	175	25 F	0133	5.6	170
	1127	7.0	212		1115	6.2	188		0637	2.8	84		0536	3.2	99		0815	2.8	86		0709	2.8	85
	1756	2.2	67		1751	3.0	92		1259	7.3	222		1210	6.6	202		1426	6.9	211		1331	7.1	216
	2359	6.1	185		2345	5.2	158		1953	1.6	48		1905	2.2	68		2110	1.7	51		2013	1.6	48
11 Sa	0558	2.4	73	26 Su	0529	3.1	95	11 Tu	0200	5.7	173	26 W	0111	5.2	158	11 F	0319	5.9	179	26 Sa	0224	6.0	182
	1224	7.3	221		1204	6.4	196		0735	2.8	85		0636	3.1	94		0903	2.7	83		0810	2.4	72
	1904	1.9	57		1850	2.7	82		1354	7.4	225		1306	7.0	212		1512	6.9	210		1428	7.3	224
					2047	1.4	44		2047	1.4	44		1958	1.9	57		2150	1.7	52		2102	1.4	42
12 Su	0107	6.0	182	27 M	0046	5.2	158	12 W	0254	5.8	176	27 Th	0204	5.4	165	12 Sa	0358	6.0	183	27 Su	0312	6.4	196
	0654	2.5	76		0621	3.1	95		0828	2.7	83		0733	2.9	87		0947	2.6	79		0907	1.9	58
	1318	7.5	229		1253	6.7	205		1444	7.4	227		1359	7.3	223		1554	6.8	208		1524	7.5	228
	2004	1.6	48		1943	2.3	71		2134	1.4	42		2047	1.5	47		2225	1.8	55		2149	1.3	39
13 M	0209	5.9	181	28 Tu	0142	5.3	161	13 Th	0341	5.8	178	28 F	0253	5.7	175	13 Su	0433	6.1	186	28 M	0358	6.9	209
	0748	2.6	78		0711	3.0	92		0916	2.7	82		0827	2.5	77		1027	2.5	76		1003	1.5	45
	1410	7.7	235		1341	7.1	216		1530	7.4	226		1451	7.6	232		1634	6.7	204		1618	7.5	229
	2059	1.3	40		2031	1.9	59		2216	1.4	43		2133	1.2	38		2258	1.9	59		2235	1.3	39
14 Tu	0305	5.9	181	29 W	0233	5.4	166	14 F	0423	5.9	180	29 Sa	0340	6.1	185	14 M	0506	6.2	189	29 Tu	0445	7.3	221
	0839	2.6	79		0800	2.9	88		1000	2.7	81		0920	2.2	67		1105	6.4	74		1057	1.1	35
	1459	7.8	239		1427	7.4	226		1613	7.3	223		1541	7.8	239		1712	6.5	199		1712	7.4	225
	2149	1.2	36		2117	1.6	48		2255	1.5	45		2219	1.1	33		2330	2.1	64		2321	1.4	43
15 W ●	0356	5.9	181	30 Th	0321	5.6	171	15 Sa	0502	5.9	181	30 Su	0425	6.4	195	15 Tu	0539	6.3	191	30 W	0532	7.5	229
	0927	2.7	81		0848	2.7	82		1042	2.7	81		1013	1.9	57		1144	2.4	73		1152	1.0	29
	1545	7.8	239		1514	7.7	235		1653	7.2	218		1632	7.9	240		1750	6.3	192		1807	7.1	217
	2235	1.2	36		2201	1.3	39		2330	1.6	50		2303	1.0	31								
				31 F ○	0407	5.8	178					31 M	0511	6.7	204								
					0936	2.5	76						1106	1.6	50								
					1600	7.9	242						1724	7.8	237								
					2246	1.1	33						2348	1.1	34								

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.

Times and Heights of High and Low Waters

Punta Arenas, Chile, 2015

Times and Heights of High and Low Waters

January						February						March					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 Th	0329	3.4	105			16 F	0157	3.9	120			1 Su	0417	3.8	116		
	0852	5.0	153				0559	5.2	158				0643	4.3	132		16 M
	1550	1.7	52				1423	1.9	59				1358	2.3	70		
	2234	6.1	187				2137	5.7	174				1449	2.4	73		
													1559*	2.2	68		
2 F	0459	3.3	102			17 Sa	0337	4.2	127			2 M	0524	3.4	105		
	1024	4.6	140				0657	4.7	143				0746	3.9	120		17 Tu
	1659	1.4	44				1524	1.9	57				0907	3.8	115		
	2335	6.5	199				2252	6.1	187				1059	4.1	126		
													1714*	2.2	68		
3 Sa	0601	3.1	95			18 Su	0528	4.0	122			3 Tu	0612	3.1	93		
	0836	4.1	124				0832	4.4	134				1157	4.5	137		18 W
	0925	3.9	120				1629	1.7	53				1807	2.0	62		
	1129	4.4	134				2356	6.6	202								
	1753	1.2	36														
	0205	6.8	208			19 M	0635	3.7	112			4 W	0033	6.3	193		
	0650	2.9	88				0914	4.3	130				0652	2.7	83		19 Th
	0926	3.9	120				1030	4.1	126				1241	5.0	152		
	1011	3.8	116				1116	4.2	129				1852	1.9	57		
	1220*	4.4	133				1745	1.6	48								
	0109	7.0	214			20 Tu	0050	7.1	215			5 Th	0110	6.5	197		20 F
	0733	2.7	82				0723	3.4	104				0727	2.5	75		
	1302	4.4	135				0956	4.3	132				1315	5.4	166		
	1920	0.9	27				1110	4.2	129				1930	1.8	55		
							1232*	4.4	133								
6 Tu	0148	7.1	216			21 W	0138	7.4	225			6 F	0242	7.3	222		
	0812	2.5	76				0807	3.1	96				0903	2.3	70		21 Sa
	1338	4.6	141				1042	4.5	138				1454	6.2	189		
	1956	0.9	27				1155	4.4	134				2113	1.5	47		
							1328*	4.6	141								
7 W	0223	7.1	217			22 Th	0222	7.6	231			7 Sa	0320	7.2	220		
	0847	2.4	72				0848	3.0	90				0941	2.0	60		22 Su
	1409	4.9	148				1131	4.8	146				1537	6.7	203		
	2026	1.0	29				1237	4.7	142				2156	1.7	53		
							1418*	5.0	152								
8 Th	0253	7.1	217			23 F	0303	7.6	233			8 Su	0355	7.1	216		
	0918	2.2	68				0928	2.7	82				1017	1.7	51		23 M
	1437	5.1	156				1227	5.1	154				1618	6.9	210		
	2049	1.0	32				1311	4.9	149				2236	2.1	63		
							1504*	5.4	165								
9 F	0319	7.1	217			24 Sa	0342	7.6	231			9 M	0426	6.9	209		
	0944	2.1	65				1007	2.4	72				1051	1.5	45		24 Tu
	1508	5.3	163				1548	5.8	177				1659	6.9	210		
	2111	1.2	36				2206	1.5	46				2314	2.5	75		
10 Sa	0345	7.1	217			25 Su	0418	7.4	227			10 W	0452	6.5	198		
	1007	2.0	62				1044	2.1	63				1122	1.4	42		25 Th
	1541	5.5	169				1632	6.1	186				1743	6.7	204		
	2140	1.4	43				2247	1.8	55				2353	2.9	89		
11 Su	0413	7.1	215			26 M	0452	7.2	219			11 W	0513	6.1	185		
	1034	1.9	59				1122	1.8	55				1151	1.5	45		26 Th
	1618	5.6	171				1718	6.3	191				1836	6.3	193		
	2211	1.8	54				2329	2.2	68								
12 M	0442	6.9	209			27 Tu	0525	6.8	207			12 Th	0039	3.4	104		
	1105	1.9	58				1201	1.6	50				0532	5.5	167		27 F
	1659	5.6	171				1810	6.2	189				1222	1.7	52		
	2245	2.2	68										2000	6.0	182		
13 Tu	0510	6.6	200			28 W	0016	2.8	84			13 F	0212	3.9	118		
	1142	1.9	57				0556	6.3	191				0600	4.9	149		28 Sa
	1750	5.5	169				1244	1.6	49				1304	2.0	62		
	2324	2.8	86				1917	6.0	183				2138	5.9	179		
14 W	0535	6.2	188			29 Th	0116	3.3	101			14 Sa	0407	5.5	168		
	1227	1.9	58				0620	5.6	171				1055	1.3	40		29 Su
	1853	5.4	166				1335	1.7	52				1845	6.1	186		
							2045	5.9	180								
15 Th	0030	3.4	105			30 F	0255	3.7	114			15 Su	0057	3.4	104		
	0537	5.7	173				0638	5.0	151				0448	5.0	153		30 M
	1322	2.0	60				1455	1.8	56				1144	1.6	49		
	2013	5.4	166				2209	6.0	184				1957	5.9	179		
						31 Sa	0439	3.7	112								31 Tu
							0712	4.4	133								
							1630	1.8	54								
							2315	6.3	191								

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 276 for the remaining tides on this day.

* See Page 276 for the remaining tides on this day.

* See Page 276 for the remaining tides on this day.

* See Page 276 for the remaining tides on this day.

Puerto Montt, Chile, 2015

Times and Heights of High and Low Waters

January						February						March																	
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					
1 Th	0504		5.6	171	16 F	0407		8.7	265	1 Su	0013		20.4	622	16 M	0547		5.8	176	1 Su	0539		5.6	172	16 M	0425		7.3	224
	1112		17.8	542		1007		15.5	471		0640		4.3	132		1150		17.9	546		1147		17.6	536		1034		16.5	502
	1719		5.6	171		1611		8.2	250		1245		18.8	572		1752		5.8	176		1745		6.3	193		1639		7.5	228
	2333		19.8	604		2234		17.7	539		1842		5.1	156							2354		19.7	601		2253		18.9	576
2 F	0600		4.7	142	17 Sa	0507		7.3	222	2 M	0052		21.2	646	17 Tu	0006		21.0	639	2 M	0619		4.5	138	17 Tu	0525		5.2	160
	1206		18.6	568		1108		16.6	507		0717		3.7	113		0635		3.7	114		1226		18.7	569		1132		18.5	563
	1810		4.9	150		1711		7.0	213		1320		19.4	591		1239		19.7	601		1824		5.3	162		1738		5.3	162
						2328		19.3	587		1918		4.7	142		1842		3.9	120							2349		20.9	631
3 Sa	0022		20.7	631	18 Su	0559		5.6	171	3 Tu	0126		21.6	658	18 W	0055		22.7	691	3 Tu	0031		20.6	629	18 W	0614		3.2	98
	0646		3.9	120		1201		18.0	549		0749		3.5	106		0720		2.0	62		0654		3.7	114		1220		20.4	622
	1251		19.3	588		1803		5.6	171		1351		19.7	599		1324		21.2	646		1258		19.4	592		1827		3.2	99
	1853		4.5	137							1950		4.6	139		●	1929		2.4		74	1858		4.6		140			
4 Su	0103		21.3	649	19 M	0018		20.8	635	4 W	0157		21.6	658	19 Th	0140		23.8	725	4 W	0103		21.2	645	19 Th	0037		22.6	689
	0726		3.6	109		0647		4.0	121		0819		3.6	109		0803		0.9	28		0724		3.3	101		0659		1.6	48
	1330		19.7	599		1250		19.3	589		1421		19.6	597		1407		22.2	676		1328		19.9	606		1304		21.9	669
	1931		4.4	134		1852		4.3	130		2020		4.7	143		2013		1.5	46		1929		4.2	128		1913		1.6	50
5 M	0140		21.5	654	20 Tu	0106		22.2	677	5 Th	0225		21.2	647	20 F	0223		24.1	735	5 Th	0133		21.3	650	20 F	0122		23.6	720
	0802		3.6	110		0733		2.6	79		0846		3.9	120		0844		0.6	17		0752		3.2	99		0741		0.6	19
	1405		19.7	599		1337		20.4	623		1448		19.3	588		1449		22.5	685		1355		20.0	610		1346		22.9	698
	2005		4.6	140		●	1939		3.2		97	2048		5.1		155	2057		1.3		41	1958		4.1		124	●	1957		0.8	24
6 Tu	0213		21.3	648	21 W	0152		23.2	706	6 F	0253		20.6	629	21 Sa	0305		23.6	720	6 F	0202		21.1	644	21 Sa	0205		23.8	726
	0835		4.0	121		0817		1.7	51		0912		4.5	137		0924		1.0	30		0818		3.4	105		0821		0.5	15
	1437		19.4	590		1422		21.2	645		1515		18.8	574		1530		22.1	675		1422		19.9	607		1427		23.1	705
	2037		5.0	153		2025		2.5	76		2116		5.6	172		2140		2.0	60		2026		4.2	129		2039		0.8	23
7 W	0243		20.8	633	22 Th	0236		23.5	715	7 Sa	0320		19.8	603	22 Su	0347		22.3	681	7 Sa	0229		20.6	629	22 Su	0247		23.2	706
	0905		4.5	138		0901		1.3	41		0937		5.2	158		1005		2.1	64		0843		3.9	119		0901		1.1	34
	1507		18.8	574		1506		21.4	652		1542		18.2	556		1612		21.2	647		1448		19.6	598		1507		22.6	690
	2107		5.6	172		2111		2.4	73		2145		6.4	194		2224		3.2	98		2054		4.6	141		2121		1.5	46
8 Th	0313		20.0	610	23 F	0321		23.1	703	8 Su	0347		18.8	572	23 M	0430		20.5	626	8 Su	0257		19.9	607	23 M	0328		21.9	666
	0934		5.2	159		0944		1.6	50		1003		6.0	184		1046		3.7	113		0908		4.6	139		0940		2.4	74
	1538		18.2	554		1550		21.1	643		1609		17.6	536		1657		19.9	607		1513		19.2	584		1547		21.5	656
	2138		6.4	195		2156		2.9	87		2214		7.2	219		2312		4.9	149		2122		5.2	160		2204		2.9	88
9 F	0343		19.1	583	24 Sa	0405		22.0	672	9 M	0415		17.7	540	24 Tu	0519		18.4	562	9 M	0324		19.0	579	24 Tu	0410		20.1	612
	1003		6.0	183		1028		2.5	76		1030		6.9	210		1133		5.6	170		0933		5.4	164		1020		4.1	126
	1609		17.5	532		1635		20.4	622		1638		16.9	516		1750		18.4	562		1539		18.6	566		1629		20.0	611
	2209		7.2	219		2244		3.9	118		2247		8.1	246							2151		6.0	184		2250		4.6	140
10 Sa	0414		18.1	551	25 Su	0452		20.5	625	10 Tu	0445		16.7	508	25 W	0011		6.7	203	10 Tu	0351		18.0	549	25 W	0457		18.1	552
	1034		6.8	208		1113		3.8	115		1100		7.7	236		0620		16.4	501		0959		6.3	191		1104		6.0	184
	1642		16.7	509		1724		19.4	591		1712		16.3	498		1232		7.4	225		1606		17.9	547		1718		18.4	561
	2244		8.0	245		2336		5.2	159		2325		8.9	272		●	1901		17.2		523	2222		6.9		211	2344		6.4	194
11 Su	0448		17.0	519	26 M	0544		18.7	569	11 W	0522		15.6	477	26 Th	0135		8.0	244	11 W	0421		17.0	518	26 Th	0556		16.3	497
	1108		7.6	233		1204		5.3	162		1137		8.5	260		0750		15.1	460		1028		7.2	220		1201		7.8	239
	1721		16.0	487		1822		18.3	557		1759		15.9	484		1400		8.6	263		1637		17.3	528		1823		16.9	516
	2325		8.9	271		●					●					2034		16.7	508		2034		16.7	508		2258		7.8	238
12 M	0528		16.0	487	27 Tu	0039		6.7	204	12 Th	0019		9.6	294	27 F	0324		8.0	245	12 Th	0457		16.0	487	27 F	0100		7.7	236
	1148		8.4	256		0648		16.9	514		0618		14.8	451		0939		15.2	462		1103		8.1	248		0720		15.1	460
	1809		15.5	471		1307		6.8	208		1232		9.3	282		1543		8.5	260		1718		16.7	508		1326		9.1	276
						1935		17.4	531		1909		15.6	476		2204		17.3	528		2347		8.7	264		●	1951		16.1	492
13 Tu	0017		9.5	291	28 W	0204		7.7	234	13 F	0143		10.0	304	28 Sa	0446		7.0	212	13 F	0550		15.1	459	28 Sa	0241		8.1	246
	0620		15.1	461		0815		15.7	479		0748		14.3	435		1057		16.3	496		1155		9.1	276		0905		15.1	460
	1239		9.0	274		1431		7.7	236		1357		9.6	294		1655		7.5	228		1823		16.1	490		1512		9.1	276
	1912		15.3	466		2102		17.3	528		2041		16.0	488		2308		18.5	565		●					2124		16.4	500
14 W	0127		9.9	302	29 Th	0343		7.6	231	14 Sa	0330		9.4	286						14 Sa	0105		9.3	282	29 Su	0406		7.3	222
	0731		14.6	446		0953		15.7	479		0933		14.8	450		0719		14.4	440		0719		14.7	440		1023		16.1	491
	1346		9.3	282		1601		7.6	233		1537		9.1	277		1322		9.7	295		1322		9.7	295		1626		8.0	244
	2024		15.6	474		2224		18.1	551		2206		17.2	525		2001		16.0	488		2001		16.0	488		2232		17.4	531
15 Th	0251		9.6	294	30 F	0502		6.6	200	15 Su	0450		7.8	237						15 Su	0256		8.9	272	30 M	0502		6.1	186
	0853		14.7	449		1109		16.7	508		1052		16.1	492		0911		14.9	454		0911		14.9	454		1114		17.4	529
	1502		9.0	274		1710		6.8	208		1654		7.6	233		1515		9.2	280		1515		9.2	280		1716		6.7	205
	2133		16.4	500		2326		19.3	588		2312		19.0	580		2141		17.1	520		2141		17.1	520		2320		18.5	564
				31 Sa	0557		5.3	163														31 Tu	0543		5.0	152			
					1203		17.8	543															1152		18.5	563			
		</																											

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, 2015

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 W	h m 0617 4.2 1225 19.4 1830 4.7	ft 127 590 142	cm 127 590 142	16 Th	h m 0547 3.0 1155 20.9 1808 2.9	ft 92 636 88	cm 92 636 88	1 M	h m 0025 18.6 0627 4.4 1240 20.8 1902 3.8	ft 566 134 633 115	cm 566 134 633 115
2 Th	0032 20.0 0648 3.6 1254 19.9 1901 4.0	611 111 608 121	611 111 608 121	17 F	0016 21.9 0633 1.7 1240 22.3 1854 1.5	666 53 679 46	666 53 679 46	2 Tu	0103 19.0 0703 4.1 1316 21.3 1940 3.3	580 124 650 101	580 124 650 101
3 F	0103 20.4 0716 3.4 1322 20.3 1931 3.6	621 103 620 109	621 103 620 109	18 Sa	0102 22.6 0716 1.1 1323 23.0 1939 0.9	690 34 702 26	690 34 702 26	3 W	0141 19.2 0741 4.0 1353 21.6 2019 3.1	586 121 658 94	586 121 658 94
4 Sa	0133 20.4 0743 3.4 1349 20.5 2000 3.5	622 104 624 106	622 104 624 106	19 Su	0145 22.7 0757 1.2 1404 23.1 2021 1.0	692 36 704 30	692 36 704 30	4 Th	0221 19.2 0820 4.1 1432 21.5 2100 3.2	586 125 656 97	586 125 656 97
5 Su	0202 20.2 0810 3.7 1416 20.4 2030 3.7	615 112 621 112	615 112 621 112	20 M	0227 22.1 0837 1.9 1444 22.5 2103 1.8	674 59 687 54	674 59 687 54	5 F	0303 19.0 0902 4.5 1513 21.2 2143 3.5	579 137 645 106	579 137 645 106
6 M	0232 19.7 0837 4.2 1443 20.1 2100 4.1	599 128 612 126	599 128 612 126	21 Tu	0309 21.0 0916 3.2 1523 21.4 2144 3.0	639 97 653 92	639 97 653 92	6 Sa	0348 18.6 0947 5.0 1559 20.5 2230 4.0	567 153 626 122	567 153 626 122
7 Tu	0302 19.0 0905 4.9 1511 19.6 2131 4.8	578 150 597 147	578 150 597 147	22 W	0351 19.5 0955 4.7 1603 20.0 2227 4.5	595 144 610 138	595 144 610 138	7 Su	0437 18.1 1037 5.7 1649 19.7 2321 4.6	553 173 601 140	553 173 601 140
8 W	0333 18.1 0934 5.8 1541 19.0 2205 5.6	552 176 578 171	552 176 578 171	23 Th	0436 18.0 1038 6.4 1648 18.5 2316 6.0	548 195 564 184	548 195 564 184	8 M	0532 17.7 1134 6.3 1747 18.9 2321 4.6	540 193 575 140	540 193 575 140
9 Th	0407 17.2 1007 6.8 1616 18.2 2245 6.5	525 206 556 198	525 206 556 198	24 F	0530 16.5 1130 7.9 1743 17.1	503 242 520	503 242 520	9 Tu	0020 5.2 0637 17.5 1241 6.8 1855 18.1	158 532 208 552	158 532 208 552
10 F	0449 16.3 1048 7.7 1701 17.5 2337 7.3	497 235 532 224	497 235 532 224	25 Sa	0019 7.3 0641 15.5 1242 9.1 1857 16.0	221 276 276 489	221 276 276 489	10 W	0127 5.6 0748 17.6 1359 6.9 2011 17.7	170 535 211 541	170 535 211 541
11 Sa	0548 15.5 1146 8.6 1806 16.7	472 263 509	472 263 509	26 Su	0141 7.9 0810 15.2 1417 9.3 2023 15.8	240 464 284 481	240 464 284 481	11 Th	0239 5.6 0901 18.2 1519 6.4 2127 17.9	170 554 196 546	170 554 196 546
12 Su	0051 7.9 0712 15.1 1312 9.1 1937 16.5	241 461 278 502	241 461 278 502	27 M	0305 7.6 0929 15.9 1539 8.6 2138 16.3	232 484 262 496	232 484 262 496	12 F	0350 5.2 1008 19.2 1631 5.4 2236 18.5	158 584 166 565	158 584 166 565
13 M	0226 7.7 0849 15.7 1455 8.5 2112 17.2	234 478 260 525	234 478 260 525	28 Tu	0408 6.8 1026 16.9 1635 7.4 2234 17.1	208 514 227 521	208 514 227 521	13 Sa	0452 4.5 1108 20.3 1731 4.4 2336 19.3	138 619 133 587	138 619 133 587
14 Tu	0352 6.4 1006 17.2 1616 6.8 2227 18.8	196 525 208 572	196 525 208 572	29 W	0454 5.9 1108 17.9 1718 6.3 2317 17.9	180 547 191 546	180 547 191 546	14 Su	0546 3.9 1200 21.3 1824 3.5	119 650 106	119 650 106
15 W	0455 4.7 1105 19.1 1717 4.8 2325 20.5	144 582 145 624	144 582 145 624	30 Th	0531 5.1 1143 18.9 1754 5.2 2354 18.6	155 576 159 568	155 576 159 568	15 M	0027 19.8 0635 3.5 1247 22.0 1911 3.0	605 107 670 91	605 107 670 91
				31 F	0517 3.5 1129 20.8 1747 3.3 2353 20.6	106 635 101 629	106 635 101 629	16 Sa	0517 5.6 1132 19.1 1750 5.4 2348 18.0	171 582 164 548	171 582 164 548
								31 Su	0552 5.0 1206 20.0 1826 4.5	151 610 137	151 610 137

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, 2015

Times and Heights of High and Low Waters

July				August				September															
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 W ○	0038	18.8	573	16 Th 	0142	19.9	606	1 Sa 	0150	21.1	643	16 Su 	0224	20.0	610	1 Tu 	0256	22.8	695	16 W 	0250	19.7	600
	0638	4.5	136		0743	4.2	127		0754	2.5	77		0827	4.4	135		0908	1.2	37		0901	4.8	145
	1253	21.6	659		1352	21.9	669		1405	23.5	716		1431	21.1	643		1515	22.9	697		1502	19.3	587
	1920	3.4	103		2015	3.5	106		2029	1.3	40		2048	3.9	120		2132	2.4	43		2111	5.0	153
2 Th 	0121	19.5	594	17 F 	0216	19.8	603	2 Su 	0233	21.6	657	17 M 	0252	19.6	597	2 W 	0338	22.1	673	17 Th 	0317	19.0	579
	0722	3.8	117		0817	4.5	136		0839	2.2	66		0856	5.0	151		0953	2.2	67		0931	5.6	171
	1335	22.3	679		1425	21.6	658		1449	23.4	713		1459	20.3	618		1559	21.3	648		1532	18.2	554
	2002	2.7	83		2047	3.9	119		2112	1.3	40		2115	4.7	142		2214	2.9	87		2138	6.0	181
3 F 	0205	19.9	608	18 Sa 	0248	19.4	592	3 M 	0317	21.6	657	18 Tu 	0319	19.0	579	3 Th 	0423	20.9	637	18 F 	0345	18.2	556
	0806	3.5	106		0849	5.0	152		0924	2.3	71		0925	5.7	173		1041	3.7	113		1003	6.6	201
	1419	22.6	688		1455	20.9	638		1533	22.7	691		1528	19.3	587		1647	19.3	588		1603	17.0	519
	2046	2.4	72		2117	4.5	138		2155	1.9	58		2142	5.5	169		2300	4.7	143		2208	7.1	217
4 Sa 	0249	20.1	613	19 Su 	0319	18.9	575	4 Tu 	0401	21.1	643	19 W 	0348	18.3	557	4 F 	0514	19.4	592	19 Sa 	0417	17.4	531
	0851	3.4	105		0920	5.7	173		1011	3.0	92		0957	6.5	198		1137	5.4	166		1040	7.6	231
	1503	22.4	683		1526	20.0	611		1619	21.4	652		1558	18.1	552		1745	17.3	527		1641	16.0	487
	2130	2.4	74		2147	5.2	160		2239	3.0	90		2211	6.5	198		2356	6.6	200		2244	8.2	249
5 Su 	0334	20.0	610	20 M 	0351	18.2	554	5 W 	0448	20.3	618	20 Th 	0419	17.5	534	5 Sa ○	0619	18.0	549	20 Su 	0458	16.7	508
	0938	3.7	113		0952	6.5	197		1101	4.2	128		1031	7.5	228		1251	7.0	212		1129	8.5	258
	1548	21.8	665		1557	19.0	580		1708	19.7	601		1632	17.0	517		1906	15.7	480		1734	15.0	458
	2215	2.9	87		2217	6.0	184		2327	4.4	134		2243	7.5	228						2335	9.1	277
6 M 	0422	19.7	599	21 Tu 	0424	17.4	531	6 Th ○	0542	19.2	586	21 F 	0455	16.8	512	6 Su 	0114	8.0	244	21 M ○	0600	16.0	489
	1026	4.3	130		1027	7.3	224		1158	5.6	170		1112	8.4	256		0744	17.2	524		1241	9.0	275
	1636	20.9	636		1632	17.9	545		1807	17.9	546		1712	15.8	483		1429	7.5	228		1857	14.5	442
	2303	3.6	109		2251	6.9	211						2322	8.4	257		2048	15.5	471				
7 Tu 	0512	19.1	582	22 W 	0503	16.7	509	7 F 	0024	5.9	180	22 Sa ○	0542	16.2	494	7 M 	0254	8.3	254	22 Tu 	0056	9.6	293
	1119	5.1	155		1108	8.2	251		0647	18.2	556		1205	9.2	279		0916	17.4	531		0730	16.0	487
	1729	19.7	599		1712	16.7	510		1310	6.8	208		1712	15.8	483		1600	6.7	205		1419	8.7	266
	2355	4.5	137		2331	7.8	237		1922	16.5	502		1809	15.0	456		2215	16.4	500		2037	14.9	455
8 W ○	0610	18.5	564	23 Th 	0550	16.1	491	8 Sa 	0137	7.2	218	23 Su 	0016	9.2	281	8 Tu 	0417	7.4	226	23 W 	0237	9.2	280
	1220	6.0	183		1158	9.0	275		0807	17.7	541		0649	15.8	483		1028	18.5	564		0901	16.9	514
	1830	18.3	559		1802	15.7	480		1443	7.3	223		1322	9.5	290		1701	5.4	165		1545	7.4	225
					2056	16.0	487						1932	14.5	443		2312	17.7	541		2156	16.3	498
9 Th 	0055	5.4	166	24 F ○	0020	8.5	258	9 Su 	0307	7.5	230	24 M 	0134	9.6	292	9 W 	0513	6.1	187	24 Th 	0359	7.6	233
	0717	18.1	551		0650	15.7	480		0932	18.1	551		0811	16.1	491		1120	19.7	601		1013	18.5	565
	1332	6.7	205		1303	9.5	291		1612	6.7	203		1455	9.1	276		1746	4.2	128		1646	5.4	166
	1944	17.3	528		1908	15.1	459		2222	16.6	506		2104	15.0	456		2354	19.0	579		2254	18.2	555
10 F 	0206	6.2	188	25 Sa 	0121	8.9	272	10 M 	0426	7.0	212	25 Tu 	0303	9.1	278	10 Th 	0555	5.0	152	25 F 	0500	5.6	170
	0832	18.1	552		0759	15.9	484		1043	19.1	583		0930	17.1	522		1201	20.7	632		1110	20.5	624
	1457	6.9	210		1422	9.5	289		1718	5.5	167		1611	7.7	235		1823	3.3	101		1736	3.4	105
	2106	17.0	517		2026	14.9	455		2325	17.8	542		2218	16.2	494						2342	20.2	615
11 Sa 	0324	6.3	193	26 Su 	0233	8.9	270	11 Tu 	0526	5.9	181	26 W 	0418	7.8	238	11 F 	0029	19.9	607	26 Sa 	0550	3.4	105
	0947	18.7	570		0907	16.5	504		1138	20.3	619		1035	18.7	570		0632	4.1	126		1200	22.2	678
	1618	6.3	191		1538	8.8	267		1807	4.3	132		1709	5.9	180		1236	21.4	651		1822	1.7	52
	2224	17.4	529		2138	15.5	471						2314	17.8	544		1856	2.9	87				
12 Su 	0435	5.9	179	27 M 	0341	8.3	252	12 W 	0012	18.9	577	27 Th 	0516	6.0	184	12 Sa 	0101	20.4	623	27 Su ○	0027	21.9	666
	1053	19.7	600		1006	17.7	538		0612	5.0	152		1129	20.5	625		0704	3.6	111		0637	1.7	52
	1724	5.2	160		1639	7.5	229		1222	21.3	648		1758	4.0	121		1308	21.6	658		1246	23.5	716
	2328	18.2	554		2239	16.5	502		1847	3.5	107						1925	2.7	83		1905	0.5	16
13 M 	0534	5.2	158	28 Tu 	0440	7.2	220	13 Th 	0051	19.7	601	28 F 	0003	19.6	598	13 Su ●	0129	20.6	629	28 M 	0111	23.0	701
	1149	20.7	632		1059	19.1	581		0652	4.4	133		0607	4.2	128		0734	3.5	107		0722	0.6	18
	1817	4.3	131		1730	6.0	183		1259	21.8	664		1218	22.2	677		1337	21.4	653		1330	24.0	730
					2331	17.7	540		1922	3.1	95		1843	2.2	68		1952	3.0	90		1947	0.1	3
14 Tu 	0020	19.0	580	29 W 	0532	5.9	181	14 F ●	0125	20.2	615	29 Sa ○	0048	21.2	645	14 M 	0157	20.5	626	29 Tu 	0153	23.5	715
	0623	4.5	138		1148	20.5	626		0726	4.1	124		0654	2.6	78		0803	3.6	111		0806	0.3	8
	1236	21.6	657		1817	4.4	135		1332	21.9	668		1304	23.5	715		1406	21.0	639		1413	23.6	720
	1901	3.6	111						1953	3.1	95		1927	1.0	30		2018	3.4	105		2028	0.5	15
15 W ●	0104	19.7	599	30 Th 	0019	19.0	580	15 Sa 	0155	20.2	617	30 Su 	0131	22.3	680	15 Tu 	0223	20.2	616	30 W 	0234	23.2	707
	0706	4.2	128		0621	4.6	140		0757	4.1	125		0739	1.4	43		0832	4.1	124		0850	0.8	24
	1316	22.0	670		1235	21.9	668		1402	21.7	660		1348	24.0	733		1434	20.2	616		1456	22.5	685
	1940	3.4	103		1902	3.0	92		2021	3.4	104		2009	0.4	12		2044	4.1	126		2109	1.6	49
				31 F ○	0105	20.2	616					31 M 	0214	22.9	697								
			0708		3.4	104				0824	0.9		28										
			1320		23.0	700				1431	23.9		727										
			1946		1.9	58				2050	0.6		17										

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, 2015

Times and Heights of High and Low Waters

October								November								December													
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										
1 Th	0316	22.3	679		16 F	0251	19.5	595		1 Su	0429	18.9	577		16 M	0343	18.7	569		1 Tu	0456	17.8	543		16 W	0423	19.3	587	
	0934	2.0	61			0909	4.8	147			1053	5.6	170			1010	5.8	177			1121	6.8	206			1051	5.2	159	
	1540	20.8	635			1511	18.3	557			1704	17.2	523			1616	17.0	519			1733	16.5	503			1659	17.7	538	
	2151	3.2	98			2114	5.6	172			2311	7.0	213			2219	6.8	208			2341	7.9	241			2304	6.3	191	
2 F	0400	20.9	636		17 Sa	0321	18.8	572		2 M	0526	17.4	531		17 Tu	0429	17.9	546		2 W	0553	16.6	507		17 Th	0516	18.5	564	
	1021	3.6	111			0942	5.7	175			1156	7.0	213			1100	6.5	199			1221	7.7	235			1145	5.8	177	
	1628	18.9	575			1544	17.3	527			1812	15.9	485			1709	16.4	499			1840	15.7	479			1757	17.3	526	
	2237	5.1	156			2147	6.7	203								2313	7.5	229											
3 Sa	0450	19.2	585		18 Su	0354	17.9	547		3 Tu	0021	8.2	250		18 W	0528	17.3	526		3 Th	0050	8.6	263		18 F	0005	6.8	206	
	1115	5.5	167			1020	6.7	204			0640	16.3	498			1202	7.1	216			0704	15.8	483			0619	17.8	543	
	1726	17.0	517			1624	16.3	497			1317	7.7	236			1816	16.0	487			1335	8.1	248			1248	6.3	191	
	2332	7.0	213			2226	7.6	233			1938	15.4	470						1958		15.6	474		1905		17.1	521		
4 Su	0553	17.6	536		19 M	0437	17.1	522		4 W	0151	8.6	261		19 Th	0023	7.9	240		4 F	0213	8.7	265		19 Sa	0116	7.1	215	
	1227	7.0	213			1109	7.6	231			0806	16.1	490			0643	16.9	515			0822	15.7	478			0733	17.4	529	
	1845	15.6	475			1717	15.5	471			1442	7.6	231			1318	7.2	219			1449	8.0	243			1400	6.5	197	
						2319	8.5	260			2101	15.9	484			1935	16.2	493			2109	16.0	488			2019	17.4	530	
5 M	0051	8.3	254		20 Tu	0538	16.4	500		5 Th	0314	8.0	243		20 F	0145	7.6	233		5 Sa	0326	8.1	247		20 Su	0238	6.9	209	
	0717	16.6	506			1218	8.2	249			0922	16.6	506			0805	17.2	524			0931	16.1	490			0853	17.4	531	
	1402	7.6	231			1835	15.0	457			1549	6.8	206			1437	6.6	201			1550	7.4	226			1516	6.2	189	
	2025	15.4	468						2202		16.8	513		2052		17.1	520		2205		16.8	513		2133		18.2	554		
6 Tu	0233	8.5	260		21 W	0038	9.0	274		6 F	0413	6.9	209		21 Sa	0306	6.6	202		6 Su	0422	7.2	219		21 M	0356	6.1	185	
	0850	16.7	510			0704	16.2	494			1018	17.5	533			0922	18.1	552			1024	16.7	510			1008	18.0	549	
	1531	7.0	212			1348	8.0	245			1638	5.8	177			1548	5.5	168			1637	6.7	204			1625	5.5	168	
	2148	16.2	495			2008	15.4	469			2248	17.9	546			2158	18.4	562			2249	17.7	540			2239	19.3	589	
7 W	0354	7.6	231		22 Th	0213	8.5	259		7 Sa	0459	5.7	174		22 Su	0415	5.2	157		7 M	0506	6.2	190		22 Tu	0504	4.9	150	
	1002	17.7	538			0835	16.9	516			1102	18.4	561			1027	19.4	591			1108	17.5	532			1113	18.9	577	
	1632	5.8	176			1513	6.9	211			1718	4.9	150			1647	4.2	129			1716	6.0	183			1725	4.7	142	
	2244	17.5	534			2126	16.7	509			2325	18.8	574			2256	19.9	608			2326	18.6	568			2337	20.5	626	
8 Th	0448	6.3	191		23 F	0335	7.0	214		8 Su	0537	4.7	144		23 M	0513	3.6	111		8 Tu	0544	5.4	164		23 W	0602	3.8	117	
	1054	18.8	573			0950	18.4	561			1140	19.1	583			1123	20.6	628			1146	18.1	552			1209	19.8	604	
	1716	4.6	141			1618	5.2	160			1752	4.3	130			1739	3.1	94			1751	5.4	165			1818	3.9	118	
	2325	18.7	570			2227	18.5	563			2358	19.6	598			2347	21.3	648											
9 F	0530	5.1	154		24 Sa	0438	5.0	153		9 M	0611	4.0	121		24 Tu	0606	2.4	74		9 W	0000	19.4	592		24 Th	0029	21.5	656	
	1134	19.8	603			1049	20.2	615			1214	19.7	599			1214	21.5	654			0619	4.7	142			0652	3.1	93	
	1753	3.7	113			1712	3.5	106			1822	3.9	118			1828	2.3	71			1221	18.6	568			1259	20.4	623	
						2319	20.3	619											1824		4.9	150		1905		3.4	105		
10 Sa	0000	19.7	599		25 Su	0531	3.1	94		10 Tu	0029	20.2	615		25 W	0035	22.2	676		10 Th	0034	20.1	612		25 F	0115	22.1	673	
	0606	4.1	125			1141	21.8	663			0643	3.5	106			0654	1.7	53			0653	4.1	126			0738	2.7	83	
	1209	20.4	623			1800	2.0	60			1246	19.9	606			1302	21.8	665			1256	19.0	579			1343	20.7	630	
	1825	3.1	96						1852		3.7	112				1913	2.1	64			1857	4.6	140			1949	3.4	104	
11 Su	0031	20.3	618		26 M	0005	21.9	666		11 W	0059	20.5	625		26 Th	0120	22.5	687		11 F	0107	20.5	626		26 Sa	0158	22.1	674	
	0638	3.4	105			0619	1.5	47			0714	3.3	100			0740	1.6	50			0728	3.8	115			0820	2.9	88	
	1241	20.8	634			1228	22.8	696			1317	19.9	606			1347	21.7	661			1331	19.2	584			1424	20.4	623	
	1854	2.9	89			1844	1.0	31			1922	3.7	114			1956	2.4	74			1932	4.5	136			2029	3.8	116	
12 M	0100	20.6	629		27 Tu	0050	22.9	697		12 Th	0129	20.6	627		27 F	0204	22.3	679		12 Sa	0142	20.8	633		27 Su	0237	21.7	661	
	0709	3.1	95			0705	0.7	20			0746	3.3	102			0824	2.1	65			0804	3.7	112			0859	3.4	105	
	1311	20.8	635			1313	23.2	707			1349	19.7	599			1430	21.0	641			1408	19.2	584			1502	19.9	606	
	1922	3.0	91			1927	0.8	24			1952	4.1	124			2038	3.2	97			2008	4.5	138			2106	4.5	138	
13 Tu	0128	20.7	631		28 W	0133	23.2	707		13 F	0200	20.4	622		28 Sa	0246	21.6	657		13 Su	0218	20.7	632		28 M	0313	20.9	637	
	0738	3.1	95			0750	0.6	17			0818	3.7	113			0907	3.1	94			0842	3.8	116			0935	4.3	130	
	1341	20.6	627			1357	22.8	695			1422	19.2	584			1513	20.0	611			1446	18.9	577			1539	19.1	581	
	1949	3.3	101			2009	1.2	38			2024	4.6	140			2119	4.3	130			2047	4.8	146			2143	5.4	166	
14 W	0155	20.5	626		29 Th	0216	22.8	696		14 Sa	0231	20.0	610		29 Su	0327	20.4	623		14 M	0256	20.4	623		29 Tu	0349	19.8	604	
	0808	3.4	105			0834	1.2	36			0852	4.3	130			0949	4.3	130			0922	4.1	126			1011	5.3	161	
	1410	20.0	610			1441	21.8	665			1456	18.5	565			1555	18.8	574			1526	18.6	566			1616	18.1	552	
	2016	3.9	119			2051	2.3	70			2058	5.3	161			2201	5.5	168			2128	5.2	158			2219	6.5	198	
15 Th	0223	20.1	613		30 F	0258	21.9	667		15 Su	0305	19.4	592		30 M	0410	19.2	584		15 Tu	0338	19.9	608		30 W	0425	18.6	568	
	0838	4.0	122			0918	2.4	73			0929	5.0	153			1032	5.6	170			1004	4.6	141			1048	6.3	192	
	1440	19.2	586			1524	20.4	621			1533	17.8	542			1640	17.6	537			1610	18.1	552			1656	17.1	521	
	2045	4.7	144			2133	3.8	115			2135	6.1	185			2247	6.8	207			2213	5.7	174			2300	7.5	230	
				31 Sa	0341	20.5	625																						
					1003	3.9	120																						
					1611	18.7	571																						

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.

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.

Valparaíso, Chile, 2015

Times and Heights of High and Low Waters

April					May					June																			
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 W	0256	1.3	40		16 Th	0217	0.8	24		1 F	0245	1.4	42		16 Sa	0228	0.8	23		1 M	0307	1.4	42		16 Tu	0333	1.0	29	
	0858	4.3	132			0828	4.8	145			0859	4.8	145			0851	5.4	165			0936	5.4	164			1006	5.9	179	
	1456	1.5	47			1431	1.1	33			1512	1.5	47			1512	0.9	28			1607	1.2	38			1644	0.7	22	
	2108	4.8	147			2040	5.3	161			2109	4.5	136			2107	4.8	145			2153	4.1	126			2231	4.2	127	
2 Th	0326	1.2	37		17 F	0258	0.6	17		2 Sa	0314	1.3	40		17 Su	0311	0.7	20		2 Tu	0341	1.3	40		17 W	0416	1.0	31	
	0929	4.6	139			0911	5.2	159			0930	5.0	152			0935	5.7	175			1011	5.6	170			1048	5.9	179	
	1532	1.4	42			1521	0.8	23			1548	1.3	41			1602	0.7	21			1646	1.1	33			1728	0.7	22	
	2140	4.9	148			2126	5.3	163			2143	4.5	136			2155	4.7	143			2232	4.1	125			2315	4.1	125	
3 F	0354	1.1	35		18 Sa	0339	0.4	13		3 Su	0342	1.2	38		18 M	0352	0.7	21		3 W	0416	1.2	38		18 Th	0458	1.1	33	
	0959	4.8	145			0954	5.6	171			1001	5.2	158			1019	5.9	181			1048	5.7	173			1128	5.8	176	
	1606	1.2	38			1610	0.5	16			1623	1.2	37			1651	0.6	18			1725	1.0	29			1811	0.8	24	
	2211	4.8	147			2212	5.3	162			2216	4.4	134			2242	4.6	139			2312	4.0	123			2358	4.0	122	
4 Sa O	0421	1.1	35		19 Su	0419	0.4	13		4 M	0411	1.2	38		19 Tu	0434	0.8	24		4 Th	0455	1.3	39		19 F	0540	1.2	38	
	1028	4.9	149			1037	5.8	178			1033	5.3	163			1102	6.0	182			1127	5.7	174			1208	5.5	169	
	1639	1.2	36			1659	0.5	14			1659	1.1	34			1739	0.6	19			1808	0.9	28			1853	0.9	28	
	2241	4.8	145			2258	5.1	155			2250	4.3	131			2329	4.3	132			2356	3.9	120						
5 Su	0447	1.1	35		20 M	0500	0.6	17		5 Tu	0442	1.2	38		20 W	0517	1.0	30		5 F	0536	1.3	40		20 Sa	0041	3.9	118	
	1058	5.0	152			1121	5.9	180			1107	5.4	165			1145	5.8	178			1208	5.6	172			0622	1.5	45	
	1713	1.2	36			1749	0.5	16			1737	1.1	33			1827	0.8	23			1853	1.0	29			1247	5.2	160	
	2312	4.6	140			2344	4.8	145			2327	4.1	126								1935	1.1	34						
6 M	0515	1.2	37		21 Tu	0542	0.8	24		6 W	0515	1.3	40		21 Th	0016	4.1	125		6 Sa	0042	3.8	117		21 Su	0126	3.7	114	
	1130	5.1	154			1205	5.8	176			1143	5.4	165			0600	1.2	38			0622	1.4	44			0704	1.7	52	
	1748	1.2	37			1840	0.8	23			1818	1.1	34			1229	5.5	169			1253	5.5	167			1326	4.9	150	
	2345	4.4	134								1916	1.0	29			1916	1.0	29			1941	1.0	31			2019	1.3	41	
7 Tu	0544	1.3	40		22 W	0032	4.4	134		7 Th	0007	3.9	120		22 F	0105	3.9	118		7 Su	0135	3.8	115		22 M	0215	3.6	111	
	1204	5.0	153			0626	1.1	34			0551	1.4	44			0646	1.5	47			0714	1.6	48			0749	2.0	60	
	1827	1.3	40			1252	5.5	168			1222	5.3	162			1313	5.2	159			1343	5.2	159			1407	4.6	139	
						1935	1.0	32			1904	1.2	36			2007	1.2	37			2034	1.1	34			2105	1.5	47	
8 W	0020	4.1	126		23 Th	0124	4.0	122		8 F	0052	3.7	114		23 Sa	0159	3.6	111		8 M	0236	3.7	114		23 Tu	0311	3.6	110	
	0615	1.5	45			0713	1.5	46			0632	1.6	49			0734	1.8	56			0814	1.8	54			0841	2.2	68	
	1241	4.9	150			1341	5.2	157			1306	5.2	157			1401	4.8	147			1439	5.0	151			1454	4.3	130	
	1912	1.4	44			2034	1.3	41			1956	1.3	40			2102	1.4	44			2131	1.2	37			2155	1.7	52	
9 Th	0101	3.8	117		24 F	0225	3.7	112		9 Sa	0146	3.5	108		24 Su	0301	3.5	107		9 Tu	0343	3.8	116		24 W	0415	3.7	112	
	0651	1.7	51			0806	1.9	57			0721	1.8	55			0830	2.1	65			0923	1.9	58			0949	2.4	74	
	1324	4.8	146			1437	4.8	145			1357	4.9	150			1453	4.5	137			1541	4.7	143			1550	4.0	121	
	2005	1.6	49			2141	1.6	49			2056	1.4	43			2200	1.6	49			2230	1.2	38			2248	1.8	56	
10 F	0151	3.5	107		25 Sa	0340	3.5	106		10 Su	0253	3.4	105		25 M	0412	3.5	107		10 W	0453	4.0	123		25 Th	0520	3.8	117	
	0735	1.9	58			0911	2.2	66			0823	2.0	61			0936	2.3	71			1042	2.0	60			1115	2.5	76	
	1415	4.6	141			1543	4.4	135			1458	4.7	143			1554	4.2	128			1648	4.5	136			1659	3.8	115	
	2111	1.8	54			2253	1.7	52			2202	1.5	45			2301	1.7	52			2329	1.2	37			2342	1.9	57	
11 Sa O	0300	3.3	101		26 Su	0504	3.5	106		11 M	0411	3.5	106		26 Tu	0523	3.6	111		11 Th	0558	4.3	132		26 F	0619	4.1	125	
	0834	2.1	64			1030	2.3	71			0938	2.1	64			1056	2.4	74			1202	1.9	58			1236	2.4	73	
	1520	4.5	137			1657	4.3	130			1607	4.6	139			1702	4.0	123			1757	4.3	132			1811	3.7	112	
	2230	1.8	54								2307	1.4	43			2357	1.7	53											
12 Su	0429	3.2	99		27 M	0000	1.7	52		12 Tu	0525	3.7	113		27 W	0622	3.9	118		12 F	0024	1.1	35		27 Sa	0031	1.8	56	
	0954	2.2	67			0616	3.6	111			1102	2.1	63			1215	2.4	73			0656	4.7	144			0709	4.4	135	
	1636	4.5	136			1151	2.3	71			1719	4.5	138			1809	4.0	121			1313	1.7	51			1339	2.2	66	
	2345	1.6	50			1808	4.2	129								1902	4.3	130			1913	3.7	113			1913	3.7	113	
13 M	0552	3.5	106		28 Tu	0055	1.6	50		13 W	0007	1.2	38		28 Th	0045	1.7	52		13 Sa	0115	1.1	33		28 Su	0116	1.7	53	
	1121	2.1	65			0709	3.9	119			0627	4.1	125			0710	4.2	127			0748	5.1	155			0753	4.8	145	
	1751	4.6	139			1259	2.2	66			1219	1.9	57			1318	2.2	67			1414	1.4	42			1428	1.9	57	
						1907	4.3	130			1825	4.6	140			1906	4.0	121			2001	4.3	130			2006	3.8	115	
14 Tu	0045	1.4	42		29 W	0138	1.5	47		14 Th	0058	1.1	33		29 F	0125	1.6	50		14 Su	0203	1.0	31		29 M	0157	1.6	50	
	0654	3.8	117			0751	4.2	127			0719	4.5	138			0750	4.5	137			0837	5.4	166			0834	5.1	156	
	1237	1.9	57			1351	2.0	60			1324	1.5	47			1408	2.0	60			1508	1.1	34			1511	1.6	48	
	1855	4.8	146			1954	4.4	133			1924	4.7	143			1955	4.0	123			2055	4.2	129			2051	3.8	117	
15 W	0134	1.1	33		30 Th	0213	1.4	44		15 F	0145	0.9	27		30 Sa	0201	1.5	47		15 M	0249	1.0	30		30 Tu	0237	1.5	45	
	0743	4.3	131			0826	4.5	136			0806	5.0	152			0827	4.8	147			0922	5.7	174			0913	5.4	165	
	1338	1.5	45			1434	1.7	53			1420	1.2	37			1451	1.7	52			1558	0.9	27			1551	1.3	39	
	1950	5.1	154			2033	4.4	135			2017	4.8	145			2037	4.1	124			2144	4.2	129			2134	3.9	120	

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, 2015

Times and Heights of High and Low Waters

July					August					September													
Time		Height	Time		Height	Time		Height	Time		Height	Time		Height									
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
1 W ○	0317	1.3	41	16 Th	0403	1.1	34	1 Sa	0427	0.9	27	16 Su	0503	1.1	35	1 Tu	0548	0.6	17	16 W	0552	1.3	39
	0951	5.7	173		1034	5.7	175		1054	6.1	186		1122	5.3	162		1200	5.7	175		1155	4.6	141
	1630	1.0	31		1712	0.8	24		1727	0.5	16		1750	1.0	30		1819	0.5	14		1805	1.3	40
	2215	4.0	123		2259	4.1	125		2321	4.6	139		2343	4.3	132								
2 Th	0358	1.2	37	17 F	0443	1.1	34	2 Su	0513	0.8	24	17 M	0537	1.2	38	2 W	0028	5.3	161	17 Th	0016	4.7	142
	1031	5.9	179		1111	5.6	172		1137	6.1	185		1152	5.1	156		0639	0.7	22		0627	1.4	44
	1710	0.8	25		1749	0.8	25		1808	0.5	15		1819	1.1	34		1246	5.3	163		1226	4.3	132
	2257	4.1	125		2337	4.1	124								1903		0.7	21	1833		1.5	48	
3 F	0440	1.1	34	18 Sa	0522	1.2	36	3 M	0006	4.7	143	18 Tu	0016	4.3	131	3 Th	0118	5.2	159	18 F	0051	4.6	140
	1112	6.0	182		1146	5.5	167		0601	0.8	24		0611	1.4	43		0735	1.0	32		0707	1.6	50
	1751	0.7	22		1824	1.0	29		1221	5.9	180		1222	4.9	148		1336	4.8	147		1301	4.0	122
	2341	4.2	127			1851	0.6		17	1851	0.6		17	1848	1.3		39	1951	1.0		31	1905	1.7	51
4 Sa	0525	1.1	33	19 Su	0013	4.0	123	4 Tu	0053	4.7	144	19 W	0050	4.2	129	4 F	0213	5.1	154	19 Sa	0130	4.5	137
	1154	5.9	180		0559	1.3	41		0652	1.0	29		0647	1.6	49		0840	1.4	43		0755	1.8	56
	1834	0.7	21		1220	5.2	160		1307	5.5	169		1254	4.5	138		1433	4.3	130		1344	3.7	112
					1859	1.1	34		1936	0.7	22		1918	1.5	45		2044	1.4	42		1942	1.9	58
5 Su	0027	4.2	127	20 M	0050	4.0	121	5 W	0145	4.7	144	20 Th	0127	4.2	127	5 Sa	0318	4.9	148	20 Su	0219	4.4	133
	0613	1.1	34		0635	1.5	47		0748	1.2	38		0726	1.8	56		0957	1.7	52		0859	2.0	62
	1239	5.7	175		1253	5.0	151		1356	5.1	154		1328	4.2	128		1545	3.8	116		1442	3.4	103
	1919	0.8	23		1933	1.3	39		2025	1.0	29		1951	1.7	51		2148	1.7	52		2032	2.1	64
6 M	0116	4.2	128	21 Tu	0130	3.9	119	6 Th	0243	4.7	143	21 F	0211	4.1	126	6 Su	0433	4.7	143	21 M	0322	4.3	130
	0705	1.2	38		0714	1.8	55		0852	1.6	48		0815	2.1	64		1125	1.8	56		1025	2.1	64
	1327	5.5	167		1328	4.6	141		1452	4.5	138		1410	3.8	117		1716	3.5	108		1609	3.2	97
	2007	0.9	27		2009	1.5	46		2118	1.2	38		2030	1.9	58		2304	1.9	58		2144	2.3	69
7 Tu	0211	4.2	128	22 W	0214	3.8	117	7 F	0349	4.6	141	22 Sa	0305	4.1	124	7 M	0552	4.7	142	22 Tu	0439	4.3	130
	0801	1.5	45		0757	2.1	63		1010	1.8	56		0924	2.3	70		1247	1.7	53		1152	2.0	60
	1418	5.1	155		1406	4.3	131		1600	4.0	123		1506	3.5	107		1842	3.6	109		1747	3.2	99
	2059	1.0	31		2049	1.7	52		2219	1.5	45		2123	2.1	63						2312	2.3	69
8 W ●	0313	4.2	129	23 Th	0306	3.8	117	8 Sa	0503	4.7	142	23 Su	0414	4.1	125	8 Tu	0021	1.9	59	23 W	0555	4.4	135
	0907	1.7	53		0852	2.3	70		1138	1.9	59		1100	2.4	72		0702	4.8	145		1258	1.7	52
	1515	4.7	143		1451	3.9	120		1721	3.7	114		1631	3.3	100		1350	1.5	47		1857	3.5	107
	2154	1.2	36		2135	1.9	57		2327	1.6	50		2232	2.2	66		1945	3.7	114				
9 Th	0421	4.3	132	24 F	0409	3.9	118	9 Su	0616	4.8	145	24 M	0529	4.3	130	9 W	0126	1.8	55	24 Th	0030	2.0	62
	1024	1.9	58		1011	2.5	76		1302	1.8	55		1232	2.2	66		0758	4.9	149		0700	4.7	144
	1621	4.3	131		1553	3.6	111		1845	3.6	111		1807	3.3	100		1436	1.3	40		1347	1.3	41
	2253	1.3	40		2231	2.0	61				2348		2.1	65	2032		4.0	121	1948		3.9	119	
10 F	0530	4.5	138	25 Sa	0517	4.0	123	10 M	0035	1.7	51	25 Tu	0638	4.5	138	10 Th	0217	1.6	49	25 F	0131	1.7	52
	1149	1.9	59		1147	2.5	75		0722	5.0	151		1335	1.8	56		0843	5.1	154		0753	5.1	155
	1735	4.0	123		1714	3.5	106		1408	1.5	47		1919	3.5	106		1513	1.2	36		1428	1.0	31
	2353	1.4	42		2332	2.0	62		1953	3.7	113				2109		4.2	127	2030		4.3	132	
11 Sa	0636	4.8	146	26 Su	0622	4.3	131	11 Tu	0136	1.6	49	26 W	0055	1.9	59	11 F	0300	1.4	43	26 Sa	0223	1.3	40
	1307	1.8	54		1307	2.2	68		0816	5.2	157		0735	4.9	149		0920	5.2	157		0840	5.4	164
	1848	3.9	118		1835	3.4	105		1458	1.3	39		1422	1.5	45		1546	1.0	32		1507	0.7	22
						2045	3.9		118	2045	3.9		118	2011	3.7		114	2142	4.4		133	2111	4.8	146
12 Su	0052	1.4	42	27 M	0031	1.9	59	12 W	0227	1.4	44	27 Th	0151	1.7	51	12 Sa	0337	1.2	38	27 Su	0311	0.9	28
	0735	5.1	155		0718	4.7	142		0902	5.3	163		0823	5.2	160		0954	5.2	158		0925	5.6	172
	1413	1.5	46		1404	1.9	59		1539	1.1	33		1502	1.1	34		1616	1.0	31		1546	0.5	14
	1954	3.9	118		1940	3.5	108		2127	4.0	122		2055	4.1	124		2214	4.5	138		2152	5.2	159
13 M	0146	1.3	40	28 Tu	0124	1.8	55	13 Th	0312	1.3	40	28 F	0240	1.3	40	13 Su	0412	1.2	36	28 M	0359	0.6	19
	0827	5.3	163		0806	5.0	153		0941	5.5	167		0907	5.6	171		1025	5.2	157		1009	5.7	175
	1506	1.2	38		1450	1.6	48		1615	1.0	29		1540	0.8	24		1644	1.0	31		1625	0.3	10
	2050	3.9	120		2031	3.7	114		2204	4.2	127		2136	4.4	135		2244	4.6	141		2235	5.5	169
14 Tu	0235	1.2	38	29 W	0212	1.6	48	14 F	0351	1.2	36	29 Sa	0327	1.0	30	14 M	0446	1.1	35	29 Tu	0446	0.4	13
	0913	5.5	169		0849	5.4	164		1017	5.5	168		0950	5.9	180		1055	5.0	153		1053	5.6	172
	1552	1.0	31		1530	1.2	37		1648	0.9	27		1618	0.5	16		1712	1.1	33		1705	0.4	11
	2138	4.0	122		2115	3.9	120		2238	4.3	130		2216	4.8	146		2314	4.7	143		2319	5.7	175
15 W ●	0321	1.2	36	30 Th	0257	1.3	41	15 Sa	0428	1.1	34	30 Su	0413	0.7	21	15 Tu	0519	1.2	36	30 W	0536	0.5	14
	0955	5.7	174		0931	5.7	174		1050	5.4	166		1032	6.0	184		1125	4.9	148		1139	5.3	163
	1634	0.9	26		1608	0.9	28		1719	0.9	28		1657	0.4	11		1738	1.2	36		1747	0.5	15
	2220	4.1	124		2157	4.2	127		2311	4.3	131		2258	5.1	154		2344	4.7	143				
			31 F ○	0342	1.1	33				31 M	0500	0.6	17										
				1012	5.9	181					1115	6.0	183										
				1647	0.7	20					1737	0.4	11										
				2239	4.4	133					2342	5.2	160										

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.

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.

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.

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, 2015

Times and Heights of High and Low Waters

July						August						September					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 W ○	0214	1.1	35			16 Th	0304	1.0	30			1 Su	0408	1.1	34		
	0853	4.8	147				0939	4.9	150				1032	4.6	140		
	1531	1.2	36				1622	0.9	27				1703	1.0	30		
	2108	3.3	102				2202	3.5	108				2253	3.8	115		
2 Th	0254	1.1	33			17 F	0346	1.0	31			17 M	0444	1.2	38		
	0934	5.0	152				1020	4.9	149				1105	4.4	135		
	1611	1.1	33				1701	0.9	28				1735	1.1	34		
	2151	3.4	105				2243	3.5	108				2330	3.7	114		
3 F	0336	1.1	33			18 Sa	0425	1.1	35			18 Tu	0520	1.4	42		
	1016	5.1	156				1058	4.8	145				1138	4.2	127		
	1653	1.0	30				1738	1.0	31				1806	1.2	38		
	2235	3.5	107				2324	3.5	107				1850	1.0	29		
4 Sa	0420	1.1	33			19 Su	0504	1.3	40			19 W	0008	3.7	113		
	1100	5.1	156				1134	4.6	140				0559	1.6	48		
	1736	1.0	29				1815	1.1	35				1210	3.9	119		
	2323	3.6	109										1838	1.4	42		
5 Su	0508	1.2	36			20 M	0005	3.5	106			20 Th	0049	3.6	111		
	1145	5.1	154				0543	1.5	47				0643	1.8	54		
	1822	1.0	30				1210	4.3	132				1245	3.6	111		
							1852	1.3	39				1913	1.5	47		
6 M	0014	3.6	111			21 Tu	0048	3.4	105			21 F	0135	3.6	110		
	0600	1.3	41				0625	1.8	54				0735	2.0	60		
	1233	4.9	149				1246	4.1	124				1324	3.3	102		
	1909	1.0	31				1930	1.4	44				1953	1.7	52		
7 Tu	0109	3.7	112			22 W	0136	3.4	104			22 Sa	0228	3.6	110		
	0658	1.5	47				0713	2.0	60				0841	2.1	64		
	1323	4.6	141				1234	3.8	116				1415	3.1	94		
	2000	1.1	33				2011	1.6	48				2042	1.8	55		
8 W ●	0210	3.7	114			23 Th	0229	3.4	105			23 Su	0332	3.6	111		
	0806	1.7	53				0811	2.2	66				1004	2.1	65		
	1418	4.3	130				1408	3.5	108				1531	2.9	89		
	2053	1.2	36				2057	1.7	51				2145	1.9	57		
9 Th	0316	3.8	116			24 F ●	0330	3.5	107			24 M	0441	3.8	115		
	0923	1.8	56				0924	2.3	69				1126	2.0	61		
	1520	3.9	119				1505	3.3	100				1703	2.9	88		
	2149	1.2	37				2148	1.7	53				2252	1.8	56		
10 F	0426	4.0	121			25 Sa	0433	3.6	111			25 Tu	0542	4.0	122		
	1047	1.8	56				1046	2.2	68				1229	1.8	55		
	1629	3.6	110				1617	3.1	95				1812	3.0	91		
	2247	1.2	38				2241	1.7	53				2353	1.7	52		
11 Sa	0532	4.2	127			26 Su	0530	3.9	118			26 W	0635	4.3	131		
	1206	1.7	52				1159	2.1	64				1317	1.5	47		
	1740	3.4	104				1730	3.1	93				1903	3.2	98		
	2345	1.2	37				2333	1.7	52								
12 Su	0632	4.4	134			27 M	0620	4.1	126			27 Th	0047	1.5	45		
	1313	1.5	45				1257	1.9	58				0721	4.6	140		
	1846	3.3	102				1831	3.1	95				1359	1.3	39		
													1946	3.4	105		
13 M	0040	1.1	35			28 Tu	0022	1.6	49			28 F	0135	1.2	37		
	0724	4.6	141				0705	4.4	134				0806	4.9	148		
	1409	1.2	38				1345	1.7	51				1438	1.0	31		
	1943	3.3	102				1921	3.2	98				2027	3.7	114		
14 Tu	0132	1.1	33			29 W	0108	1.4	44			29 Sa	0221	1.0	30		
	0812	4.8	146				0748	4.7	143				0849	5.1	154		
	1458	1.0	32				1427	1.4	44				1517	0.8	24		
	2034	3.4	104				2005	3.4	103				2109	4.0	122		
15 W ●	0219	1.0	31			30 Th	0152	1.3	39			30 Su	0307	0.8	24		
	0857	4.9	149				0830	5.0	151				0932	5.2	158		
	1541	1.0	29				1507	1.2	37				1556	0.6	19		
	2119	3.5	106				2048	3.6	109				2153	4.3	130		
						31 F ○	0237	1.1	34			31 M	0355	0.7	21		
							0912	5.2	158				1017	5.1	156		
							1547	1.0	32				1637	0.6	17		
							2131	3.8	115				2239	4.4	135		

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, 2015

Times and Heights of High and Low Waters

October						November						December																
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				
1 Th	0530	0.6	17		16 F	0527	1.0	30		1 Su	0027	4.5	138		16 M	0643	1.1	34		1 Tu	0057	4.4	135		16 W	0025	4.7	143
	1130	4.0	123			1117	3.1	96			0722	0.8	24			1230	2.9	88			0757	1.0	32			0712	1.2	38
	1730	0.6	18			1709	1.1	34			1314	3.1	94			1757	1.6	49			1358	3.2	97			1310	3.3	102
	2355	4.6	141			2339	4.0	122			1847	1.3	39								1922	1.8	54			1842	1.9	57
2 F	0629	0.8	23		17 Sa	0609	1.1	34		2 M	0124	4.2	129		17 Tu	0041	4.2	127		2 W	0151	4.1	126		17 Th	0114	4.5	138
	1224	3.6	111			1155	3.0	90			0828	1.0	30			0734	1.2	37			0854	1.2	37			0802	1.3	40
	1818	0.9	26			1740	1.3	40			1425	2.9	89			1328	2.8	86			1507	3.2	97			1410	3.4	104
											1953	1.6	48			1852	1.8	55			2032	2.0	61			1948	2.0	62
3 Sa	0049	4.4	135		18 Su	0018	3.9	119		3 Tu	0228	4.0	121		18 W	0133	4.0	123		3 Th	0249	3.8	117		18 F	0208	4.3	131
	0735	1.0	30			0656	1.2	38			0936	1.1	34			0832	1.2	38			0950	1.3	41			0856	1.3	41
	1325	3.3	100			1239	2.8	84			1546	2.9	89			1439	2.9	87			1616	3.3	100			1517	3.5	108
	1913	1.2	36			1818	1.5	47			2112	1.8	54	☉		2003	1.9	59	☉		2149	2.1	65	☉		2105	2.1	64
4 Su	0150	4.2	128		19 M	0104	3.8	116		4 W	0340	3.7	114		19 Th	0234	3.9	119		4 F	0353	3.6	110		19 Sa	0309	4.1	124
	0850	1.2	36			0753	1.4	42			1041	1.1	35			0933	1.2	38			1043	1.4	42			0950	1.3	41
	1439	3.0	91			1336	2.6	80			1700	3.1	94			1556	3.0	92			1716	3.5	106			1623	3.8	115
	2020	1.5	45			1909	1.7	53			2233	1.8	55	☉		2128	1.9	59	☉		2304	2.1	64	☉		2226	2.1	63
5 M	0303	4.0	122		20 Tu	0159	3.7	113		5 Th	0449	3.6	110		20 F	0342	3.8	116		5 Sa	0455	3.4	105		20 Su	0415	3.9	118
	1010	1.3	39			0900	1.4	43			1136	1.1	35			1031	1.1	35			1131	1.4	42			1044	1.3	39
	1607	2.9	89			1457	2.6	79			1756	3.3	100			1700	3.3	100			1804	3.7	113			1724	4.1	124
	2141	1.6	49			2022	1.9	57	☉		2342	1.7	52			2248	1.8	55								2342	1.9	58
6 Tu	0423	3.9	118		21 W	0307	3.6	111		6 F	0547	3.5	108		21 Sa	0448	3.8	115		6 Su	0008	2.0	61		21 M	0522	3.7	113
	1122	1.2	37			1012	1.4	42			1221	1.1	33			1123	1.0	31			0552	3.4	103			1137	1.2	37
	1726	3.0	92			1629	2.7	82			1840	3.5	107			1752	3.6	111			1213	1.3	41			1818	4.4	134
	2301	1.6	49			2152	1.8	56								2356	1.6	48			1845	3.9	120					
7 W	0533	3.8	117		22 Th	0420	3.7	112		7 Sa	0038	1.6	48		22 Su	0549	3.8	115		7 M	0102	1.8	55		22 Tu	0050	1.6	50
	1219	1.1	34			1113	1.2	37			0636	3.5	107			1210	0.9	26			0642	3.3	101			0626	3.6	110
	1824	3.2	97			1733	3.0	90			1259	1.0	30			1839	4.0	122			1252	1.3	39			1228	1.1	35
						2310	1.7	51			1917	3.7	114								1921	4.2	127			1909	4.7	143
8 Th	0007	1.5	45		23 F	0525	3.8	116		8 Su	0125	1.4	42		23 M	0055	1.3	39		8 Tu	0148	1.6	49		23 W	0149	1.3	41
	0628	3.9	118			1203	1.0	31			0719	3.5	106			0645	3.7	114			0727	3.3	101			0726	3.6	109
	1304	1.0	31			1820	3.3	101			1334	0.9	28			1255	0.7	22			1328	1.2	38			1318	1.0	32
	1907	3.4	104						1951		3.9	120		1923		4.4	134		1956		4.4	133		1957		5.0	152	
9 F	0059	1.3	40		24 Sa	0012	1.4	42		9 M	0207	1.2	37		24 Tu	0151	1.0	30		9 W	0229	1.4	44		24 Th	0243	1.1	34
	0713	3.9	118			0620	3.9	120			0758	3.4	105			0738	3.7	114			0809	3.3	101			0821	3.6	110
	1342	0.9	27			1247	0.8	24			1407	0.9	26			1339	0.6	18			1402	1.2	37			1407	1.0	31
	1944	3.6	110			1902	3.7	112			2023	4.1	125			2008	4.7	144			2031	4.6	139			2045	5.2	158
10 Sa	0144	1.1	35		25 Su	0106	1.0	32		10 Tu	0245	1.0	32		25 W	0243	0.7	22		10 Th	0308	1.3	39		25 F	0333	0.9	28
	0752	3.9	118			0710	4.1	124			0835	3.4	104			0830	3.7	113			0848	3.3	101			0913	3.6	111
	1415	0.8	24			1329	0.6	17			1437	0.9	26			1424	0.5	16			1435	1.2	37			1456	1.0	31
	2018	3.8	115			1943	4.1	124			2056	4.3	130	☉		2054	5.0	151	☉		2106	4.7	144	☉		2132	5.3	161
11 Su	0223	1.0	31		26 M	0157	0.8	23		11 W	0323	1.0	29		26 Th	0335	0.6	17		11 F	0345	1.2	36		26 Sa	0420	0.8	25
	0828	3.8	117			0758	4.1	126			0911	3.3	102			0921	3.6	111			0926	3.3	101			1003	3.6	111
	1446	0.7	22			1409	0.4	11			1507	0.9	27			1509	0.6	17			1508	1.2	38			1543	1.0	32
	2050	3.9	119			2026	4.4	135	☉		2129	4.4	133			2141	5.1	155	☉		2142	4.8	147			2218	5.3	161
12 M	0300	0.9	28		27 Tu	0247	0.5	15		12 Th	0359	0.9	27		27 F	0426	0.5	15		12 Sa	0423	1.1	34		27 Su	0506	0.9	26
	0903	3.8	115			0846	4.1	125			0947	3.2	99			1013	3.5	108			1004	3.3	101			1052	3.7	112
	1516	0.7	21			1451	0.3	8			1537	1.0	29			1555	0.7	21			1542	1.3	40			1629	1.2	37
	2123	4.0	122			2110	4.7	143	☉		2203	4.4	134			2229	5.1	155			2219	4.9	149			2304	5.2	157
13 Tu	0336	0.9	26		28 W	0338	0.4	11		13 F	0437	0.9	27		28 Sa	0518	0.5	16		13 Su	0501	1.1	34		28 M	0551	1.0	29
	0936	3.7	112			0934	4.0	121			1023	3.1	96			1105	3.4	105			1045	3.3	101			1140	3.6	111
	1545	0.8	23			1533	0.3	8			1606	1.0	32			1643	0.9	27			1620	1.4	43			1714	1.4	43
	2155	4.1	124			2156	4.9	148			2238	4.4	135			2318	5.0	151			2259	4.9	148			2347	5.0	151
14																												

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.

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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.

Times and Heights of High and Low Waters

Callao, Peru, 2015

Times and Heights of High and Low Waters

January						February						March																	
Time			Height			Time			Height			Time			Height			Time			Height								
1 Th	h	m	ft	cm	16 F	h	m	ft	cm	1 Su	h	m	ft	cm	16 M	h	m	ft	cm	1 Su	h	m	ft	cm	16 M	h	m	ft	cm
	0221	2.3	70	0110		2.1	64	0404	2.1		64	0258	2.2	67		0315	2.1	64	0143		2.1	64							
	0855	0.2	6	0803		0.6	18	1011	0.4		12	0913	0.4	12		0913	0.8	24	0751		0.9	27							
	1557	3.0	91	1519		2.7	82	1713	3.3		101	1614	3.3	101		1612	3.1	94	1454		3.1	94							
	2208	1.2	37			2124	1.5	46			2342	1.1	34			2237	1.1	34			2245	1.2	37			2126	1.2	37	
2 F	0316	2.2	67		17 Sa	0213	2.1	64		2 M	0447	2.2	67		17 Tu	0356	2.4	73		2 M	0402	2.2	67		17 Tu	0252	2.3	70	
	0940	0.2	6			0849	0.4	12			1050	0.4	12			1005	0.3	9			0958	0.7	21			0855	0.7	21	
	1644	3.1	94			1600	3.0	91			1748	3.3	101			1657	3.5	107			1648	3.2	98			1542	3.3	101	
	2303	1.1	34			2215	1.3	40								2319	0.9	27			2316	1.1	34			2208	0.9	27	
3 Sa	0406	2.2	67		18 Su	0311	2.2	67		3 Tu	0017	1.1	34		18 W	0449	2.6	79		3 Tu	0441	2.3	70		18 W	0349	2.6	79	
	1021	0.1	3			0935	0.3	9			0526	2.2	67			1055	0.2	6			1036	0.7	21			0951	0.5	15	
	1726	3.3	101			1641	3.2	98			1126	0.4	12			1739	3.6	110			1720	3.2	98			1626	3.5	107	
	2351	1.1	34			2301	1.1	34	○		1820	3.3	101	●					2344		1.0	30		2249		0.7	21		
4 Su ○	0451	2.1	64		19 M	0405	2.2	67		4 W	0048	1.0	30		19 Th	0001	0.7	21		4 W	0515	2.4	73		19 Th	0441	2.9	88	
	1101	0.2	6			1021	0.1	3			0602	2.2	67			0540	2.7	82			1111	0.7	21			1043	0.4	12	
	1805	3.3	101			1722	3.5	107			1159	0.5	15			1144	0.1	3			1748	3.2	98			1710	3.5	107	
						2345	1.0	30			1850	3.2	98			1821	3.7	113						2330		0.5	15		
5 M	0035	1.0	30		20 Tu	0457	2.3	70		5 Th	0118	1.0	30		20 F	0044	0.5	15		5 Th	0009	1.0	30		20 F	0531	3.1	94	
	0534	2.1	64			1106	0.0	0			0637	2.2	67			0631	2.8	85			0547	2.5	76			1134	0.4	12	
	1138	0.2	6			1804	3.6	110			1232	0.6	18			1233	0.2	6			1144	0.7	21			1753	3.5	107	
	1842	3.3	101			●			1919		3.1	94		1904		3.6	110		○		1815	3.1	94	●					
6 Tu	0115	1.0	30		21 W	0030	0.8	24		6 F	0147	1.0	30		21 Sa	0128	0.5	15		6 F	0034	0.9	27		21 Sa	0012	0.3	9	
	0614	2.0	61			0548	2.4	73			0712	2.2	67			0723	2.9	88			0619	2.5	76			0620	3.2	98	
	1213	0.3	9			1153	0.0	0			1303	0.7	21			1323	0.4	12			1216	0.8	24			1225	0.5	15	
	1917	3.3	101			1846	3.7	113			1946	3.0	91			1948	3.4	104			1841	3.0	91			1836	3.4	104	
7 W	0154	1.0	30		22 Th	0114	0.7	21		7 Sa	0215	1.0	30		22 Su	0213	0.5	15		7 Sa	0059	0.9	27		22 Su	0054	0.3	9	
	0653	2.0	61			0640	2.4	73			0747	2.2	67			0818	2.9	88			0651	2.6	79			0710	3.3	101	
	1247	0.5	15			1241	0.1	3			1334	0.9	27			1417	0.7	21			1248	0.9	27			1317	0.6	18	
	1951	3.2	98			1930	3.6	110			2011	2.9	88			2033	3.2	98			1906	2.9	88			1920	3.2	98	
8 Th	0232	1.0	30		23 F	0201	0.6	18		8 Su	0243	1.1	34		23 M	0301	0.5	15		8 Su	0123	0.9	27		23 M	0137	0.4	12	
	0733	1.9	58			0734	2.4	73			0824	2.2	67			0918	2.8	85			0723	2.6	79			0803	3.3	101	
	1320	0.6	18			1330	0.3	9			1405	1.1	34			1517	1.0	30			1320	1.0	30			1413	0.8	24	
	2024	3.0	91			2014	3.5	107			2035	2.7	82			2122	2.8	85			1930	2.7	82			2006	2.9	88	
9 F	0310	1.1	34		24 Sa	0249	0.6	18		9 M	0312	1.1	34		24 Tu	0353	0.6	18		9 M	0147	1.0	30		24 Tu	0223	0.5	15	
	0814	1.8	55			0832	2.4	73			0906	2.1	64			1027	2.7	82			0757	2.6	79			0859	3.2	98	
	1352	0.8	24			1423	0.5	15			1438	1.3	40			1629	1.3	40			1352	1.2	37			1514	1.1	34	
	2054	2.9	88			2101	3.3	101			2059	2.5	76			2217	2.5	76			1952	2.6	79			2055	2.6	79	
10 Sa	0348	1.1	34		25 Su	0340	0.6	18		10 Tu	0342	1.1	34		25 W	0452	0.8	24		10 Tu	0212	1.0	30		25 W	0312	0.7	21	
	0900	1.8	55			0938	2.4	73			0957	2.1	64			1149	2.7	82			0834	2.5	76			1003	3.0	91	
	1425	1.0	30			1522	0.8	24			1520	1.5	46			1802	1.5	46			1428	1.4	43			1629	1.3	40	
	2124	2.7	82			2150	3.0	91			2125	2.4	73			○	2326	2.3	70			2014	2.4	73			2153	2.3	70
11 Su	0426	1.1	34		26 M	0436	0.6	18		11 W	0420	1.1	34		26 Th	0601	0.8	24		11 W	0239	1.0	30		26 Th	0408	0.9	27	
	0956	1.8	55			1053	2.4	73			1106	2.2	67			1315	2.8	85			0918	2.5	76			1117	2.9	88	
	1502	1.2	37			1633	1.2	37			1624	1.7	52			1947	1.5	46			1513	1.6	49			1802	1.4	43	
	2155	2.5	76			○	2245	2.7	82		○	2201	2.2	67		○					2039	2.3	70			2310	2.1	64	
12 M	0506	1.1	34		27 Tu	0536	0.6	18		12 Th	0509	1.0	30		27 F	0051	2.1	64		12 Th	0313	1.1	34		27 F	0517	1.1	34	
	1107	1.8	55			1218	2.5	76			1230	2.3	70			0713	0.9	27			1016	2.5	76			1239	2.9	88	
	1552	1.4	43			1802	1.4	43			1807	1.8	55			1430	2.9	88			1618	1.7	52			1939	1.4	43	
	2229	2.4	73			2349	2.5	76			2259	2.1	64			2110	1.4	43			2116	2.1	64	○					
13 Tu ○	0548	1.0	30		28 W	0639	0.6	18		13 F	0611	1.0	30		28 Sa	0212	2.1	64		13 F	0402	1.1	34		28 Sa	0047	2.0	61	
	1229	1.9	58			1342	2.6	79			1345	2.5	76			0819	0.9	27			1131	2.5	76			0637	1.1	34	
	1709	1.6	49			1943	1.5	46			1954	1.7	52			1527	3.0	91			1757	1.8	55			1352	2.9	88	
	2311	2.3	70													2205	1.3	40			○	2224	2.0	61			2050	1.3	40
14 W	0632	0.9	27		29 Th	0100	2.3	70		14 Sa	0026	2.1	64							14 Sa	0513	1.1	34		29 Su	0211	2.0	61	
	1341	2.1	64			0741	0.6	18			0717	0.8	24						1253		2.7	82		0752		1.2	37		
	1850	1.7	52			1452	2.8	85			1442	2.7	82																

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, 2015

Times and Heights of High and Low Waters

July				August				September			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 W ○	0530	3.3	101	16 Th	0625	3.4	104	1 Sa	0022	0.4	12
	1153	1.2	37		1257	1.0	30		0704	3.0	91
	1650	2.2	67		1801	2.1	64		1330	0.8	24
	2303	0.2	6						1903	2.1	64
2 Th	0608	3.4	104	17 F	0001	0.3	9	17 M	0056	0.6	18
	1236	1.1	34		0703	3.3	101		0733	2.8	85
	1736	2.2	67		1337	1.0	30		1359	0.8	24
	2344	0.2	6		1844	2.0	61		1939	2.1	64
3 F	0648	3.5	107	18 Sa	0039	0.4	12	18 Tu	0129	0.7	21
	1320	1.0	30		0739	3.2	98		0800	2.6	79
	1825	2.2	67		1417	1.0	30		1428	0.8	24
					1926	2.0	61		2017	2.1	64
4 Sa	0027	0.2	6	19 Su	0116	0.6	18	19 W	0202	0.9	27
	0730	3.5	107		0813	3.1	94		0825	2.5	76
	1406	0.9	27		1455	1.0	30		1457	0.9	27
	1916	2.1	64		2010	1.9	58		2059	2.0	61
5 Su	0113	0.3	9	20 M	0151	0.8	24	20 Th	0237	1.1	34
	0813	3.4	104		0845	2.9	88		0849	2.3	70
	1454	0.8	24		1532	1.0	30		1528	0.9	27
	2013	2.1	64		2056	1.9	58		2148	2.0	61
6 M	0202	0.5	15	21 Tu	0226	1.0	30	21 F	0320	1.3	40
	0858	3.3	101		0916	2.7	82		0915	2.1	64
	1544	0.8	24		1610	1.0	30		1603	0.9	27
	2117	2.1	64		2149	1.8	55		2252	2.0	61
7 Tu	0257	0.7	21	22 W	0305	1.2	37	22 Sa	0422	1.5	46
	0946	3.1	94		0947	2.5	76		0948	2.0	61
	1637	0.7	21		1649	1.0	30		1650	0.9	27
	2231	2.1	64		2253	1.8	55				
8 W	0402	1.0	30	23 Th	0352	1.4	43	23 Su	0011	2.1	64
	1037	2.9	88		1019	2.3	70		0559	1.6	49
	1733	0.6	18		1729	1.0	30		1041	1.8	55
	2352	2.2	67						1749	0.8	24
9 Th	0521	1.2	37	24 F	0008	1.9	58	24 M	0125	2.2	67
	1134	2.7	82		0500	1.6	49		0742	1.5	46
	1830	0.5	15		1056	2.2	67		1205	1.8	55
					1813	0.9	27		1854	0.7	21
10 F	0112	2.4	73	25 Sa	0121	2.1	64	25 Tu	0222	2.4	73
	0650	1.3	40		0633	1.6	49		0848	1.3	40
	1235	2.5	76		1146	2.1	64		1330	1.8	55
	1926	0.4	12		1858	0.8	24		1956	0.6	18
11 Sa	0223	2.7	82	26 Su	0219	2.3	70	26 W	0308	2.7	82
	0818	1.4	43		0804	1.6	49		0934	1.1	34
	1339	2.4	73		1248	2.0	61		1437	1.9	58
	2019	0.3	9		1945	0.7	21		2051	0.4	12
12 Su	0323	2.9	88	27 M	0305	2.5	76	27 Th	0351	2.9	88
	0933	1.3	40		0911	1.5	46		1015	0.9	27
	1440	2.3	70		1352	2.0	61		1533	2.1	64
	2109	0.2	6		2030	0.5	15		2141	0.2	6
13 M	0415	3.1	94	28 Tu	0345	2.8	85	28 F	0432	3.1	94
	1035	1.2	37		1001	1.3	40		1054	0.7	21
	1537	2.2	67		1451	2.0	61		1625	2.3	70
	2156	0.2	6		2116	0.3	9		2230	0.1	3
14 Tu	0502	3.3	101	29 W	0424	3.0	91	29 Sa	0512	3.3	101
	1127	1.1	34		1045	1.2	37		1134	0.5	15
	1628	2.2	67		1544	2.1	64		1715	2.5	76
	2240	0.2	6		2201	0.2	6		2319	0.0	0
15 W	0544	3.4	104	30 Th	0503	3.2	98	30 Su	0554	3.3	101
	1214	1.0	30		1126	1.0	30		1215	0.3	9
	1716	2.1	64		1635	2.2	67		1804	2.6	79
	2322	0.2	6		2246	0.1	3				
				31 F	0543	3.4	104	31 M	0007	0.0	0
					1208	0.8	24		0636	3.3	101
					1725	2.3	70		1257	0.2	6
					2331	0.0	0		1855	2.7	82

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, 2015

Times and Heights of High and Low Waters

October						November						December																
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				
1 Th	0146	0.5	15		16 F	0138	1.0	30		1 Su	0358	0.9	27		16 M	0311	1.1	34		1 Tu	0450	0.9	27		16 W	0343	1.0	30
	0736	2.5	76			0657	2.0	61			0906	1.7	52			0741	1.6	49			0957	1.6	49			0842	1.7	52
	1350	0.0	0			1306	0.5	15			1500	0.5	15			1343	0.5	15			1522	0.8	24			1424	0.6	18
	2030	3.0	91			2000	2.5	76			2216	2.9	88			2110	2.8	85			2238	2.8	85			2135	3.0	91
2 F	0248	0.7	21		17 Sa	0220	1.1	34		2 M	0520	0.9	27		17 Tu	0411	1.1	34		2 W	0557	0.9	27		17 Th	0436	0.9	27
	0826	2.2	67			0721	1.8	55			1026	1.6	49			0836	1.5	46			1125	1.6	49			0955	1.7	52
	1440	0.2	6			1332	0.6	18			1603	0.7	21			1429	0.7	21			1625	1.0	30			1523	0.9	27
	2132	2.8	85			2041	2.5	76			2324	2.7	82			2201	2.7	82			2334	2.6	79			2225	2.8	85
3 Sa	0401	0.9	27		18 Su	0311	1.2	37		3 Tu	0642	0.9	27		18 W	0515	1.1	34		3 Th	0656	0.8	24		18 F	0531	0.8	24
	0925	1.9	58			0749	1.7	52			1205	1.5	46			0959	1.5	46			1256	1.7	52			1122	1.8	55
	1536	0.4	12			1404	0.6	18			1721	0.9	27			1532	0.8	24			1742	1.2	37			1638	1.1	34
	2243	2.7	82			2129	2.4	73			●					2259	2.7	82			●					2321	2.7	82
4 Su	0530	1.0	30		19 M	0419	1.3	40		4 W	0032	2.6	79		19 Th	0616	0.9	27		4 F	0027	2.5	76		19 Sa	0626	0.6	18
	1042	1.7	52			0832	1.6	49			0747	0.8	24			1139	1.6	49			0742	0.7	21			1247	2.1	64
	1644	0.6	18			1448	0.7	21			1334	1.7	52			1655	1.0	30			1406	1.8	55			1807	1.2	37
	●					2230	2.4	73			1844	1.0	30			●					1903	1.3	40			●		
5 M	0002	2.6	79		20 Tu	0544	1.2	37		5 Th	0131	2.5	76		20 F	0000	2.6	79		5 Sa	0116	2.4	73		20 Su	0021	2.6	79
	0705	1.0	30			0951	1.5	46			0833	0.7	21			0707	0.7	21			0818	0.7	21			0718	0.4	12
	1219	1.6	49			1554	0.8	24			1437	1.8	55			1306	1.8	55			1456	2.1	64			1400	2.4	73
	1805	0.7	21			2338	2.4	73			1955	1.0	30			1826	1.0	30			2013	1.3	40			1936	1.2	37
6 Tu	0118	2.6	79		21 W	0656	1.1	34		6 F	0219	2.5	76		21 Sa	0059	2.6	79		6 Su	0158	2.3	70		21 M	0122	2.5	76
	0819	0.9	27			1146	1.5	46			0908	0.6	18			0753	0.5	15			0848	0.6	18			0808	0.2	6
	1347	1.7	52			1725	0.9	27			1521	2.0	61			1412	2.2	67			1534	2.3	70			1500	2.7	82
	1924	0.8	24			●					2052	1.0	30			1947	1.0	30			2110	1.3	40			2054	1.2	37
7 W	0220	2.7	82		22 Th	0045	2.5	76		7 Sa	0258	2.4	73		22 Su	0155	2.6	79		7 M	0237	2.2	67		22 Tu	0221	2.4	73
	0910	0.7	21			0747	0.9	27			0936	0.5	15			0837	0.2	6			0916	0.5	15			0857	0.1	3
	1451	1.8	55			1318	1.7	52			1557	2.2	67			1508	2.5	76			1606	2.5	76			1553	3.0	91
	2028	0.7	21			1853	0.8	24			2138	1.0	30			2056	0.9	27			2158	1.3	40			2200	1.1	34
8 Th	0308	2.7	82		23 F	0142	2.6	79		8 Su	0331	2.4	73		23 M	0247	2.6	79		8 Tu	0313	2.2	67		23 W	0317	2.4	73
	0948	0.6	18			0828	0.6	18			1000	0.4	12			0920	0.0	0			0943	0.4	12			0943	0.0	0
	1537	2.0	61			1422	2.0	61			1628	2.4	73			1558	2.9	88			1638	2.7	82			1643	3.3	101
	2119	0.7	21			2006	0.7	21			2219	1.0	30			2158	0.8	24			2241	1.2	37			2259	1.0	30
9 F	0347	2.6	79		24 Sa	0233	2.7	82		9 M	0402	2.3	70		24 Tu	0337	2.6	79		9 W	0349	2.1	64		24 Th	0411	2.3	70
	1017	0.6	18			0908	0.4	12			1024	0.3	9			1002	-0.2	-6			1012	0.3	9			1029	-0.1	-3
	1614	2.1	64			1516	2.4	73			1658	2.6	79			1647	3.2	98			1709	2.8	85			1729	3.5	107
	2202	0.7	21			2108	0.6	18			2257	0.9	27			2255	0.7	21			2321	1.1	34			2352	0.9	27
10 Sa	0419	2.6	79		25 Su	0321	2.8	85		10 Tu	0431	2.3	70		25 W	0426	2.5	76		10 Th	0424	2.1	64		25 F	0502	2.2	67
	1043	0.5	15			0948	0.1	3			1049	0.3	9			1045	-0.3	-9			1041	0.2	6			1113	-0.1	-3
	1646	2.3	70			1606	2.7	82			1729	2.7	82			1735	3.4	104			1742	3.0	91			1815	3.5	107
	2239	0.7	21			2204	0.4	12			2334	0.9	27			●					●					●		
11 Su	0448	2.6	79		26 M	0406	2.8	85		11 W	0500	2.2	67		26 Th	0514	2.4	73		11 F	0002	1.1	34		26 Sa	0043	0.8	24
	1107	0.4	12			1028	-0.1	-3			1114	0.3	9			1128	-0.3	-9			0500	2.0	61			0551	2.2	67
	1717	2.4	73			1654	3.0	91			1800	2.8	85			1823	3.5	107			1113	0.2	6			1157	0.0	0
	2314	0.7	21			2258	0.4	12			●					●					1817	3.1	94			1859	3.5	107
12 M	0515	2.5	76		27 Tu	0451	2.8	85		12 Th	0013	0.9	27		27 F	0045	0.7	21		12 Sa	0042	1.1	34		27 Su	0133	0.8	24
	1130	0.4	12			1110	-0.2	-6			0529	2.1	64			0603	2.2	67			0536	2.0	61			0640	2.1	64
	1748	2.5	76			1742	3.2	98			1140	0.2	6			1212	-0.2	-6			1145	0.2	6			1240	0.1	3
	●					2352	0.4	12			1833	2.9	88			1911	3.5	107			1852	3.2	98			1943	3.4	104
13 Tu	0541	2.4	73		28 W	0537	2.7	82		13 F	0052	1.0	30		28 Sa	0142	0.7	21		13 Su	0124	1.0	30		28 M	0222	0.8	24
	1154	0.4	12			1152	-0.3	-9			0559	2.0	61			0653	2.1	64			0614	1.9	58			0729	2.0	61
	1819	2.6	79			1831	3.3	101			1208	0.3	9			1256	0.0	0			1219	0.2	6			1322	0.3	9
	●					●					1908	2.9	88			2000	3.4	104			1929	3.2	98			2025	3.3	101
14 W	0024	0.8	24		29 Th	0046	0.5	15		14 Sa	0134	1.0	30		29 Su	0240	0.8	24		14 M	0207	1.0	30</					

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.

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.

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, 2015

Times and Heights of High and Low Waters

January				February				March															
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	h m	ft cm								
1 Th	0339	11.5	351	16 F	0304	11.0	335	1 Su	0516	10.9	332	16 M	0443	11.0	335	1 Su	0341	10.4	317	16 M	0306	10.8	329
	1042	0.4	12		1029	1.8	55		1207	0.3	9		1154	0.9	27		1044	1.1	34		1027	1.6	49
	1617	11.0	335		1542	10.6	323		1755	11.0	335		1721	11.3	344		1621	10.6	323		1547	11.1	338
	2309	1.0	30		2257	2.3	70						2314	1.4	43		2300	1.6	49				
2 F	0442	11.4	347	17 Sa	0408	11.0	335	2 M	0035	0.9	27	17 Tu	0024	1.2	37	2 M	0446	10.5	320	17 Tu	0417	11.1	338
	1139	0.1	3		1127	1.4	43		0613	11.1	338		0546	11.4	347		1139	0.7	21		1127	0.9	27
	1721	11.2	341		1647	10.8	329		1258	0.0	0		1248	0.2	6		1723	10.9	332		1655	11.6	354
					2355	1.9	58		1847	11.4	347		1821	12.0	366		2358	0.8	24				
3 Sa	0006	0.8	24	18 Su	0510	11.1	338	3 Tu	0124	0.6	18	18 W	0116	0.4	12	3 Tu	0007	1.0	30	18 W	0523	11.6	354
	0542	11.4	347		1221	0.9	27		0702	11.3	344		0643	12.0	366		0545	10.8	329		1223	0.1	3
	1232	-0.2	-6		1748	11.2	341		1346	-0.2	-6		1339	-0.4	-12		1231	0.4	12		1756	12.2	372
	1819	11.4	347			1930	11.7		357	1914	12.6		384	1816	11.3		344						
4 Su	0058	0.6	18	19 M	0049	1.3	40	4 W	0211	0.4	12	19 Th	0206	-0.2	-6	4 W	0057	0.6	18	19 Th	0051	0.0	0
	0635	11.5	351		0608	11.4	347		0743	11.4	347		0734	12.5	381		0635	11.1	338		0622	12.2	372
	1322	-0.3	-9		1313	0.3	9		1430	-0.2	-6		1427	-0.8	-24		1319	0.1	3		1315	-0.5	-15
	1909	11.7	357		1843	11.8	360		2008	11.9	363		2002	13.1	399		1901	11.6	354		1851	12.8	390
5 M	0148	0.4	12	20 Tu	0140	0.8	24	5 Th	0254	0.4	12	20 F	0253	-0.6	-18	5 Th	0143	0.3	9	20 F	0141	-0.6	-18
	0723	11.5	351		0702	11.8	360		0821	11.6	354		0822	12.9	393		0718	11.4	347		0715	12.7	387
	1410	-0.4	-12		1402	-0.1	-3		1512	0.0	0		1513	-1.0	-30		1403	0.0	0		1404	-0.9	-27
	1953	11.8	360		1934	12.3	375		2043	12.1	369		2048	13.4	408		1940	11.9	363		1940	13.2	402
6 Tu	0235	0.5	15	21 W	0228	0.4	12	6 F	0335	0.5	15	21 Sa	0339	-0.7	-21	6 F	0227	0.2	6	21 Sa	0229	-1.0	-30
	0805	11.5	351		0751	12.2	372		0856	11.7	357		0907	13.0	396		0756	11.6	354		0803	13.0	396
	1454	-0.2	-6		1448	-0.5	-15		1551	0.3	9		1559	-0.9	-27		1445	0.1	3		1451	-1.0	-30
	2032	11.9	363		2021	12.8	390		2116	12.2	372		2131	13.4	408		2015	12.0	366		2026	13.3	405
7 W	0318	0.6	18	22 Th	0315	0.1	3	7 Sa	0413	0.8	24	22 Su	0424	-0.6	-18	7 Sa	0307	0.4	12	22 Su	0316	-1.1	-34
	0843	11.5	351		0838	12.5	381		0929	11.8	360		0952	13.0	396		0831	11.8	360		0849	13.1	399
	1536	0.0	0		1534	-0.6	-18		1628	0.7	21		1645	-0.6	-18		1525	0.4	12		1538	-0.9	-27
	2107	12.0	366		2106	13.1	399		2149	12.3	375		2215	13.3	405		2048	12.1	369		2110	13.3	405
8 Th	0400	0.8	24	23 F	0400	-0.1	-3	8 Su	0450	1.0	30	23 M	0511	-0.3	-9	8 Su	0346	0.6	18	23 M	0402	-0.9	-27
	0919	11.5	351		0924	12.7	387		1003	11.8	360		1036	12.7	387		0904	11.9	363		0933	13.0	396
	1616	0.4	12		1619	-0.6	-18		1702	1.1	34		1732	-0.1	-3		1602	0.8	24		1624	-0.5	-15
	2142	12.1	369		2150	13.3	405		2223	12.3	375		2259	12.9	393		2121	12.2	372		2153	13.0	396
9 F	0441	1.0	30	24 Sa	0446	-0.1	-3	9 M	0525	1.3	40	24 Tu	0559	0.1	3	9 M	0422	0.9	27	24 Tu	0448	-0.5	-15
	0954	11.6	354		1009	12.7	387		1038	11.8	360		1123	12.3	375		0937	11.9	363		1016	12.7	387
	1655	0.7	21		1705	-0.3	-9		1733	1.5	46		1822	0.5	15		1635	1.2	37		1711	0.1	3
	2217	12.1	369		2235	13.2	402		2258	12.3	375		2346	12.3	375		2153	12.2	372		2236	12.6	384
10 Sa	0520	1.3	40	25 Su	0534	0.0	0	10 Tu	0559	1.6	49	25 W	0651	0.6	18	10 Tu	0454	1.2	37	25 W	0535	0.1	3
	1031	11.5	351		1056	12.5	381		1117	11.7	357		1213	11.7	357		1011	12.0	366		1101	12.2	372
	1733	1.1	34		1754	0.0	0		1751	1.8	55		1917	1.1	34		1703	1.6	49		1800	0.7	21
	2254	12.2	372		2322	12.9	393		2338	12.1	369		●				2227	12.2	372		2320	12.0	366
11 Su	0600	1.5	46	26 M	0624	0.3	9	11 W	0633	1.9	58	26 Th	0037	11.7	357	11 W	0519	1.5	46	26 Th	0625	0.6	18
	1109	11.5	351		1145	12.2	372		1201	11.5	351		0747	1.0	30		1048	11.9	363		1148	11.7	357
	1811	1.5	46		1846	0.5	15		1810	2.2	67		1308	11.2	341		1706	1.9	58		1853	1.3	40
	2333	12.1	369		●				●				2016	1.6	49		2305	12.1	369				
12 M	0642	1.8	55	27 Tu	0011	12.5	381	12 Th	0024	11.8	360	27 F	0133	11.1	338	12 Th	0523	1.7	52	27 F	0009	11.4	347
	1152	11.4	347		0718	0.6	18		0732	2.1	64		0846	1.3	40		1131	11.7	357		0719	1.1	34
	1854	1.9	58		1238	11.7	357		1254	11.1	338		1409	10.7	326		1732	2.2	67		1240	11.2	341
					1943	1.0	30		1959	2.6	79		2116	1.8	55		2351	11.8	360		●	1949	1.7	52
13 Tu	0016	11.9	363	28 W	0105	11.9	363	13 F	0119	11.3	344	28 Sa	0235	10.6	323	13 F	0605	2.0	61	28 Sa	0103	10.9	332
	0731	1.9	58		0815	0.9	27		0846	2.3	70		0946	1.3	40		1223	11.4	347		0816	1.5	46
	1240	11.1	338		1337	11.2	341		1356	10.8	329		1514	10.5	320		1838	2.6	79		1337	10.8	329
	1947	2.2	67		2042	1.4	43		2118	2.7	82		2216	1.7	52		●				2047	1.9	58
14 W	0105	11.6	354	29 Th	0204	11.4	347	14 Sa	0224	11.0	335	14 Sa	0047	11.3	344	14 Sa	0047	11.3	344	29 Su	0203	10.4	317
	0828	2.1	64		0915	1.0	30		0954	2.1	64		0806	2.2	67		0806	2.2	67		0914	1.5	46
	1335	10.8	329		1440	10.8	329		1506	10.7	326		1325	11.1	338		1325	11.1	338		1439	10.6	323
	2051	2.5	76		2144	1.5	46		2226	2.4	73		2048	2.6	79		2048	2.6	79		2146	1.8	55
15 Th	0202	11.3	344	30 F	0307	11.0	335	15 Su	0334	10.8	329	15 Su	0154	11.0	335	15 Su	0154	11.0	335	30 M	0306	10.3	314
	0928	2.0	61		1015	0.9	27		1057	1.6	49		0921	2.1	64		0921	2.1	64		1012	1.4	43
	1437	10.6	323		1547	10.6	323		1616	10.9	332		1436	11.0	335		1436	11.0	335		1542	10.6	323
	2155	2.5	76		2244	1.5	46		2327	1.9	58		2158	2.3	70		2158	2.3	70		2242	1.5	46
				31 Sa	0413	10.8	329											31 Tu	0410	10.4	317		
					1113	0.7	21													1107	1.1	34	
					1654	10.8	329													1643	10.9	332	
					2341	1.2	37													2336	1.0	30	

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Seasonal variations in sea level have not been included in these predictions.

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
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Seasonal variations in sea level have not been included in these predictions.

Guayaquil, Ecuador, 2015

Times and Heights of High and Low Waters

July								August								September							
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		h m	ft cm			
1 W ○	0117	0.7	21	16 Th F	0149	-0.4	-12	1 Sa Su	0226	-0.1	-3	16 Su M	0253	-0.1	-3	1 Tu W	0334	-0.7	-21	16 W Th	0345	0.7	21
	0643	11.3	344		0734	11.9	363		0757	12.5	381		0828	12.1	369		0905	13.3	405		0905	12.1	369
	1342	1.4	43		1414	0.3	9		1452	0.4	12		1517	0.3	9		1559	-0.5	-15		1605	0.8	24
	1859	11.4	347		1948	11.6	354		2014	12.3	375		2041	11.7	357		2126	13.0	396		2122	11.8	360
2 Th F	0204	0.5	15	17 F Sa	0235	-0.4	-12	2 Su M	0311	-0.3	-9	17 M Tu	0334	0.2	6	2 W Th	0420	-0.5	-15	17 Th F	0421	1.2	37
	0731	11.7	357		0816	12.0	366		0841	12.8	390		0901	12.1	369		0949	13.2	402		0937	12.1	369
	1429	1.2	37		1500	0.4	12		1537	0.2	6		1556	0.6	18		1645	-0.3	-9		1640	1.2	37
	1946	11.6	354		2028	11.6	354		2059	12.5	381		2115	11.7	357		2211	12.8	390		2155	11.8	360
3 F Sa	0249	0.3	9	18 Sa Su	0319	-0.2	-6	3 M Tu	0356	-0.3	-9	18 Tu W	0412	0.6	18	3 Th F	0507	0.0	0	18 F Sa	0454	1.7	52
	0816	12.1	369		0854	12.0	366		0925	13.1	399		0935	12.2	372		1034	12.9	393		1010	12.0	366
	1515	1.0	30		1543	0.5	15		1622	0.1	3		1635	0.9	27		1734	0.0	0		1711	1.6	49
	2030	11.8	360		2106	11.6	354		2144	12.6	384		2149	11.7	357		2258	12.4	378		2231	11.8	360
4 Sa Su	0333	0.3	9	19 Su M	0401	0.1	3	4 Tu W	0441	-0.2	-6	19 W Th	0449	1.0	30	4 F Sa	0557	0.5	15	19 Sa Su	0520	2.0	61
	0859	12.4	378		0930	12.1	369		1010	13.1	399		1008	12.2	372		1121	12.4	378		1047	11.8	360
	1559	0.9	27		1625	0.8	24		1708	0.1	3		1712	1.2	37		1825	0.5	15		1730	1.9	58
	2115	12.0	366		2142	11.6	354		2230	12.6	384		2224	11.7	357		2348	12.0	366		2312	11.6	354
5 Su M	0416	0.2	6	20 M Tu	0441	0.5	15	5 W Th	0528	0.1	3	20 Th F	0524	1.4	43	5 Sa Su	0652	1.0	30	20 Su M	0520	2.4	73
	0943	12.7	387		1005	12.1	369		1056	13.0	396		1043	12.1	369		1212	11.9	363		1130	11.6	354
	1644	0.8	24		1705	1.0	30		1757	0.3	9		1748	1.6	49		1922	0.9	27		1745	2.1	64
	2200	12.2	372		2219	11.5	351		2319	12.3	375		2302	11.6	354								
6 M Tu	0500	0.3	9	21 Tu W	0520	0.9	27	6 Th ○	0619	0.5	15	21 F Sa	0558	1.9	58	6 Su ○	0043	11.4	347	21 M ○	0001	11.4	347
	1028	12.8	390		1041	12.1	369		1144	12.6	384		1121	12.0	366		0751	1.5	46		0619	2.7	82
	1730	0.8	24		1746	1.3	40		1850	0.6	18		1827	1.9	58		1309	11.2	341		1223	11.2	341
	2247	12.2	372		2257	11.5	351						2344	11.4	347		2021	1.1	34		1940	2.4	73
7 Tu F	0548	0.4	12	22 W Sa	0600	1.3	40	7 F ○	0011	11.9	363	22 Sa ○	0638	2.3	70	7 M ○	0144	10.9	332	22 Tu ○	0100	11.1	338
	1116	12.8	390		1119	12.1	369		0714	0.9	27		1206	11.7	357		0852	1.6	49		0823	2.8	85
	1820	0.8	24		1828	1.6	49		1232	12.2	372		1918	2.1	64		1411	10.8	329		1326	10.9	332
	2338	12.1	369		2338	11.4	347		1947	0.8	24						2121	1.2	37		2055	2.3	70
8 W ○	0641	0.7	21	23 Th ○	0642	1.7	52	8 Sa Su	0108	11.5	351	23 Su M	0034	11.1	338	8 Tu ○	0250	10.7	326	23 W ○	0207	10.9	332
	1207	12.6	384		1201	11.9	363		0814	1.2	37		0744	2.6	79		0952	1.6	49		0932	2.5	76
	1915	0.8	24		1914	1.8	55		1335	11.6	354		1258	11.3	344		1517	10.6	323		1437	10.7	326
					2047	0.9	27		2023	2.3	70		2023	2.3	70		2220	1.0	30		2200	1.9	58
9 Th ○	0033	11.8	360	24 F Su	0024	11.2	341	9 Su M	0210	11.1	338	24 M Tu	0133	10.8	329	9 W ○	0357	10.7	326	24 Th ○	0317	11.0	335
	0738	0.9	27		0731	2.1	64		0916	1.4	43		0855	2.7	82		1050	1.2	37		1034	1.9	58
	1202	13.2	375		1248	11.7	357		1438	11.2	341		1400	10.9	332		1623	10.7	326		1548	10.9	332
	2013	0.8	24		2007	1.9	58		2147	0.8	24		2129	2.2	67		2316	0.6	18		2300	1.2	37
10 F Sa	0133	11.5	351	25 Sa Su	0116	10.9	332	10 M Tu	0317	10.9	332	25 Tu W	0240	10.7	326	10 Th ○	0500	11.0	335	25 F Sa	0424	11.4	347
	0838	1.1	34		0829	2.4	73		1017	1.4	43		1001	2.6	79		1145	0.8	24		1131	1.1	34
	1402	12.0	366		1341	11.3	344		1544	11.0	335		1507	10.7	326		1723	10.9	332		1653	11.4	347
	2113	0.7	21		2105	2.0	61		2246	0.6	18		2232	1.8	55						2356	0.5	15
11 Sa Su	0236	11.3	344	26 Su M	0214	10.7	326	11 Tu W	0425	10.9	332	26 W Th	0348	10.8	329	11 F Sa	0008	0.3	9	26 Sa Su	0526	12.0	366
	0940	1.1	34		0932	2.5	76		1115	1.1	34		1102	2.1	64		0555	11.4	347		1225	0.3	9
	1505	11.7	357		1440	11.0	335		1649	11.0	335		1615	10.9	332		1235	0.4	12		1753	12.0	366
	2212	0.5	15		2205	1.9	58		2343	0.3	9		2329	1.2	37		1815	11.3	344				
12 Su M	0343	11.2	341	27 M Tu	0317	10.6	323	12 W Th	0528	11.2	341	27 Th ○	0453	11.2	341	12 Sa ○	0057	0.0	0	27 Su ○	0048	-0.2	-6
	1040	1.0	30		1033	2.4	73		1211	0.8	24		1159	1.4	43		0642	11.7	357		0621	12.6	384
	1609	11.5	351		1542	10.9	332		1749	11.2	341		1718	11.2	341		1323	0.1	3		1315	-0.4	-12
	2311	0.2	6		2303	1.6	49										1900	11.5	351		1846	12.5	381
13 M Tu	0448	11.2	341	28 Tu W	0421	10.7	326	13 Th ○	0035	0.0	0	28 F Sa	0023	0.6	18	13 Su ●	0143	-0.1	-3	28 M ○	0138	-0.6	-18
	1139	0.8	24		1131	2.1	64		0624	11.5	351		0552	11.7	357		0722	12.0	366		0712	13.1	399
	1712	11.5	351		1644	10.9	332		1302	0.4	12		1251	0.7	21		1407	0.0	0		1404	-0.8	-24
					2358	1.1	34		1841	11.4	347		1815	11.8	360		1939	11.7	357		1936	12.9	393
14 Tu F	0006	-0.1	-3	29 W Sa	0522	11.0	335	14 F ●	0124	-0.3	-9	29 Sa ○	0114	0.0	0	14 M ○	0226	0.0	0	29 Tu ○	0226	-0.8	-24
	0551	11.4	347		1226	1.6	49		0711	11.8	360		0646	12.3	375		0758	12.1	369		0759	13.3	405
	1234	0.6	18		1743	11.2	341		1350	0.2	6		1341	0.1	3		1448	0.2	6		1450	-1.0	-30
	1810	11.5	351						1926	11.5	351		1907	12.3	375		2015	11.8	360		2022	13.1	399
15 W ●	0059	-0.3	-9	30 Th F	0050	0.7	21	15 Sa M	0210	-0.3	-9	30 Su M	0202	-0.5	-15	15 Tu ○	0307	0.3	9	30 W ○	0313	-0.8	-24
	0646	11.7	357		0618	11.5	351		0751	12.0	366		0735	12.8	390		0832	12.1	369		0844	13.3	405
	1326	0.4	12		1317	1.1	34		1434	0.2	6		1428	-0.3	-9		1528	0.4	12		1537	-0.9	-27
	1902	11.6	354		1837	11.5	351		2005	11.6	354		1956	12.7	387		2049	11.8	360		2107	13.1	399
			31 F ○	0139	0.2	6				31 M ○	0249	-0.7	-21										
				0709	12.0	366					0821	13.2	402										
				1406	0.7	21					1514	-0.5	-15										
				1927	11.9	363					2041	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, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0359	-0.5	-15	16 F	0357	1.4	43	1 Tu	0543	1.0	30
	0928	13.1	399		0909	11.9	363		1058	11.4	347
	1623	-0.6	-18		1614	1.2	37		1801	0.8	24
	2152	12.8	390		2131	11.8	360		2326	11.8	360
2 F	0447	0.0	0	17 Sa	0432	1.8	55	2 W	0631	1.4	43
	1012	12.7	387		0943	11.8	360		1144	11.1	338
	1711	-0.1	-3		1645	1.5	46		1850	1.2	37
	2238	12.4	378		2207	11.8	360				
3 Sa	0537	0.6	18	18 Su	0504	2.2	67	3 Th	0012	11.6	354
	1058	12.1	369		1020	11.7	357		0721	1.6	49
	1802	0.5	15		1702	1.8	55		1233	10.8	329
	2326	11.9	363		2248	11.8	360		1942	1.5	46
4 Su	0630	1.2	37	19 M	0532	2.4	73	4 F	0101	11.4	347
	1147	11.5	351		1104	11.5	351		0814	1.6	49
	1856	1.0	30		1718	2.0	61		1326	10.6	323
					2336	11.6	354		2036	1.7	52
5 M	0018	11.4	347	20 Tu	0640	2.6	79	5 Sa	0155	11.2	341
	0727	1.6	49		1157	11.2	341		0909	1.6	49
	1242	11.0	335		1903	2.2	67		1424	10.5	320
	1953	1.3	40						2131	1.8	55
6 Tu	0116	11.0	335	21 W	0034	11.4	347	6 Su	0251	11.1	338
	0825	1.7	52		0755	2.5	76		1003	1.4	43
	1342	10.5	320		1300	11.0	335		1523	10.5	320
	2052	1.4	43		2022	2.1	64		2227	1.7	52
7 W	0218	10.7	326	22 Th	0140	11.3	344	7 M	0348	11.1	338
	0924	1.6	49		0903	2.2	67		1057	1.1	34
	1446	10.4	317		1410	10.9	332		1621	10.6	323
	2150	1.3	40		2129	1.8	55		2321	1.5	46
8 Th	0321	10.8	329	23 F	0248	11.4	347	8 Tu	0443	11.1	338
	1021	1.3	40		1005	1.6	49		1149	0.8	24
	1550	10.5	320		1521	11.0	335		1716	10.8	329
	2245	1.0	30		2231	1.2	37				
9 F	0422	11.0	335	24 Sa	0355	11.7	357	9 W	0013	1.4	43
	1114	0.9	27		1103	0.8	24		0535	11.2	341
	1650	10.8	329		1627	11.5	351		1239	0.6	18
	2338	0.6	18		2328	0.5	15		1808	11.1	338
10 Sa	0517	11.3	344	25 Su	0458	12.2	372	10 Th	0102	1.3	40
	1205	0.4	12		1158	0.0	0		0624	11.3	344
	1743	11.1	338		1729	12.0	366		1326	0.5	15
									1854	11.3	344
11 Su	0027	0.4	12	26 M	0023	-0.1	-3	11 F	0150	1.3	40
	0606	11.6	354		0555	12.6	384		0708	11.4	347
	1253	0.1	3		1250	-0.6	-18		1411	0.5	15
	1829	11.4	347		1825	12.5	381		1937	11.5	351
12 M	0114	0.2	6	27 Tu	0114	-0.5	-15	12 Sa	0234	1.3	40
	0648	11.9	363		0648	13.0	396		0749	11.5	351
	1338	0.0	0		1340	-1.0	-30		1453	0.6	18
	1910	11.6	354		1916	12.9	393		2017	11.7	357
13 Tu	0158	0.3	9	28 W	0204	-0.7	-21	13 Su	0317	1.4	43
	0727	11.9	363		0737	13.1	399		0829	11.6	354
	1420	0.1	3		1428	-1.1	-34		1534	0.7	21
	1948	11.8	360		2004	13.0	396		2056	12.0	366
14 W	0240	0.6	18	29 Th	0253	-0.6	-18	14 M	0359	1.5	46
	0802	11.9	363		0823	13.0	396		0908	11.7	357
	1500	0.4	12		1516	-1.0	-30		1613	0.8	24
	2023	11.8	360		2050	13.0	396		2136	12.2	372
15 Th	0320	1.0	30	30 F	0340	-0.3	-9	15 Tu	0439	1.5	46
	0836	11.9	363		0908	12.7	387		0949	11.8	360
	1539	0.8	24		1603	-0.6	-18		1652	0.9	27
	2057	11.8	360		2135	12.7	387		2218	12.4	378
				31 Sa	0428	0.2	6				
					0951	12.3	375				
					1650	-0.1	-3				
					2219	12.4	378				
								31 Th	0600	1.1	34
									1113	11.4	347
									1816	1.1	34
									2337	12.0	366

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, 2015

Times and Heights of High and Low Waters

January								February								March							
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				
1 Th	0027	6.2	189	16 F	0608	1.4	43	1 Su	0206	6.0	183	16 M	0107	6.0	183	1 Su	0048	5.5	168	16 M	0556	1.3	40
	0657	0.6	18		1231	5.3	162		0828	0.7	21		0732	0.8	24		0713	1.4	43		1226	5.9	180
	1319	5.9	180		1828	2.1	64		1452	6.3	192		1357	6.4	195		1341	5.8	177		1838	1.7	52
	1920	1.4	43		2056	1.5	46		2004	1.3	40		2004	1.3	40		1949	1.9	58				
2 F	0127	6.2	189	17 Sa	0036	5.8	177	2 M	0254	6.2	189	17 Tu	0207	6.5	198	2 M	0149	5.7	174	17 Tu	0044	5.9	180
	0753	0.4	12		0707	1.0	30		0911	0.6	18		0827	0.3	9		0806	1.2	37		0705	0.9	27
	1416	6.2	189		1331	5.8	177		1533	6.6	201		1449	7.0	213		1430	6.1	186		1330	6.4	195
	2018	1.3	40		1931	1.7	52		2138	1.3	40		2058	0.7	21		2038	1.6	49		1943	1.1	31
3 Sa	0220	6.3	192	18 Su	0134	6.1	186	3 Tu	0335	6.3	192	18 W	0301	7.0	213	3 Tu	0237	5.9	180	18 W	0149	6.4	195
	0843	0.2	6		0800	0.6	18		0949	0.4	12		0917	-0.3	-9		0849	0.9	27		0804	0.4	12
	1505	6.5	198		1424	6.3	192		1609	6.8	207		1537	7.6	232		1509	6.4	195		1424	7.1	216
	2107	1.1	34		2026	1.3	40		2215	1.1	34		2147	0.2	6		2118	1.3	40		2037	0.5	15
4 Su	0307	6.4	195	19 M	0228	6.5	198	4 W	0413	6.5	198	19 Th	0351	7.5	229	4 W	0317	6.2	189	19 Th	0244	7.0	213
	0926	0.1	3		0849	0.1	3		1024	0.3	9		1005	-0.6	-18		0926	0.7	21		0857	-0.1	-3
	1549	6.7	204		1512	6.9	210		1643	7.0	213		1623	8.0	244		1544	6.7	204		1514	7.6	232
	2151	1.0	30		2117	0.8	24		2250	0.9	27		2234	-0.3	-9		2153	1.0	30		2127	-0.1	-3
5 M	0349	6.5	198	20 Tu	0318	6.9	210	5 Th	0448	6.5	198	20 F	0440	7.7	235	5 Th	0353	6.4	195	20 F	0335	7.5	229
	1006	0.0	0		0936	-0.4	-12		1057	0.3	9		1051	-0.8	-24		1000	0.6	18		0946	-0.5	-15
	1628	6.8	207		1558	7.4	226		1715	7.0	213		1708	8.2	250		1615	6.9	210		1600	8.0	244
	2232	0.9	27		2205	0.4	12		2323	0.8	24		2321	-0.5	-15		2225	0.8	24		2214	-0.6	-18
6 Tu	0429	6.5	198	21 W	0406	7.2	219	6 F	0522	6.5	198	21 Sa	0528	7.8	238	6 F	0427	6.6	201	21 Sa	0423	7.8	238
	1043	0.0	0		1022	-0.7	-21		1130	0.3	9		1138	-0.7	-21		1033	0.5	15		1033	-0.7	-21
	1704	6.9	210		1643	7.8	238		1747	7.0	213		1754	8.2	250		1646	7.0	213		1646	8.2	250
	2310	0.9	27		2252	0.0	0		2357	0.8	24		2357	0.8	24		2257	0.6	18		2300	-0.8	-24
7 W	0506	6.4	195	22 Th	0454	7.4	226	7 Sa	0556	6.4	195	22 Su	0008	-0.5	-15	7 Sa	0459	6.6	201	22 Su	0511	7.9	241
	1119	0.1	3		1108	-0.8	-24		1202	0.5	15		0616	7.7	235		1104	0.5	15		1119	-0.6	-18
	1740	6.9	210		1728	8.0	244		1818	6.9	210		1225	-0.5	-15		1717	7.1	216		1731	8.1	247
	2347	0.9	27		2339	-0.2	-6		1840	8.0	244		1840	8.0	244		2328	0.5	15		2346	-0.8	-24
8 Th	0543	6.3	192	23 F	0542	7.5	229	8 Su	0030	0.9	27	23 M	0055	-0.3	-9	8 Su	0532	6.6	201	23 M	0558	7.7	235
	1153	0.2	6		1155	-0.7	-21		0630	6.3	192		0705	7.3	223		1136	0.6	18		1205	-0.3	-9
	1814	6.8	207		1814	8.0	244		1235	0.8	24		1313	0.0	0		1747	7.0	213		1816	7.8	238
					1850	6.7	204		1927	7.5	229												
9 F	0023	1.0	30	24 Sa	0027	-0.2	-6	9 M	0104	1.0	30	24 Tu	0146	0.1	3	9 M	0000	0.5	15	24 Tu	0032	-0.5	-15
	0620	6.1	186		0632	7.3	223		0706	6.0	183		0758	6.8	207		0605	6.5	198		0646	7.4	226
	1228	0.5	15		1242	-0.5	-15		1309	1.1	34		1404	0.7	21		1208	0.8	24		1252	0.2	6
	1849	6.6	201		1902	7.8	238		1924	6.5	198		2018	7.0	213		1818	6.8	207		1902	7.3	223
10 Sa	0101	1.1	34	25 Su	0117	0.0	0	10 Tu	0141	1.2	37	25 W	0240	0.5	15	10 Tu	0032	0.7	21	25 W	0120	-0.1	-3
	0657	5.9	180		0723	7.0	213		0745	5.8	177		0856	6.3	192		0639	6.3	192		0736	6.9	210
	1304	0.8	24		1332	0.0	0		1345	1.4	43		1501	1.3	40		1241	1.0	30		1343	0.8	24
	1925	6.4	195		1952	7.4	226		2001	6.2	189		2115	6.4	195		1850	6.6	201		1951	6.7	204
11 Su	0140	1.3	40	26 M	0210	0.3	9	11 W	0222	1.4	43	26 Th	0341	1.0	30	11 W	0107	0.8	24	26 Th	0211	0.5	15
	0737	5.6	171		0819	6.6	201		0829	5.5	168		1003	5.8	177		0716	6.1	186		0831	6.3	192
	1341	1.2	37		1426	0.6	18		1428	1.8	55		1609	1.9	58		1317	1.3	40		1438	1.4	43
	2003	6.2	189		2045	6.9	210		2043	5.9	180		2221	5.8	177		1926	6.3	192		2045	6.1	186
12 M	0222	1.5	46	27 Tu	0309	0.6	18	12 Th	0310	1.6	49	27 F	0452	1.4	43	12 Th	0145	1.1	34	27 F	0309	1.0	30
	0821	5.3	162		0921	6.1	186		0923	5.3	162		1121	5.6	171		0758	5.8	177		0934	5.8	177
	1423	1.5	46		1526	1.2	37		1522	2.1	64		1728	2.2	67		1359	1.7	52		1543	1.9	58
	2045	5.9	180		2145	6.5	198		2137	5.7	174		2336	5.6	171		2007	6.0	183		2149	5.5	168
13 Tu	0309	1.6	49	28 W	0414	0.9	27	13 F	0410	1.6	49	28 Sa	0606	1.5	46	13 F	0231	1.3	40	28 Sa	0415	1.4	43
	0913	5.1	155		1032	5.8	177		1031	5.2	158		1237	5.6	171		0850	5.6	171		1047	5.5	168
	1511	1.9	58		1636	1.6	49		1631	2.3	70		1846	2.2	67		1451	2.0	61		1700	2.2	67
	2133	5.7	174		2252	6.1	186		2243	5.6	171						2100	5.7	174		2304	5.2	158
14 W	0404	1.7	52	29 Th	0524	1.1	34	14 Sa	0519	1.6	49	15 Su	0629	1.3	40	14 Sa	0329	1.5	46	29 Su	0528	1.7	52
	1014	5.0	152		1149	5.6	171		1147	5.4	165		1237	5.6	171		0955	5.5	168		1202	5.5	168
	1610	2.1	64		1751	1.9	58		1749	2.2	67		1846	2.2	67		1600	2.2	67		1817	2.2	67
	2229	5.6	171		2357	5.7	174								2209		5.5	168					
15 Th	0505	1.6	49	30 F	0002	5.9	180	15 Su	0254	6.2	189	16 M	0207	6.5	198	15 Su	0440	1.5	46	30 M	0019	5.2	158
	1123	5.0	152		0634	1.1	34		1258	5.8	177		1121	5.5	168		1112	5.5	168		0637	1.6	49
	1718	2.2	67		1302	5.8	177		1902	1.9	58		1722	2.1	64		1722	2.1	64		1305	5.7	174
	2332	5.6	171		1904	1.9	58								2329		5.6	171	1921		1.9	58	
				31 Sa	0109	5.9	180										31 Tu	0122	5.3	162			
					0736	0.9	27												0733	1.5	46		
					1403	6.0	183												1355	5.9	180		
					2006	1.8	55												2009	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.

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, 2015

Times and Heights of High and Low Waters

July						August						September											
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		h m	ft cm		h m	ft cm
1 W ○	0316	6.2	189	16 Th	0409	6.6	201	1 Sa	0420	7.1	216	16 Su	0500	6.7	204	1 Tu	0526	7.8	238	16 W	0531	6.6	201
	0917	0.9	27		1013	0.6	18		1027	0.0	0		1107	0.5	15		1139	-0.8	-24		1142	0.2	6
	1518	6.3	192		1612	6.4	195		1630	7.0	213		1708	6.3	192		1748	7.5	229		1750	6.3	192
	2139	-0.2	-6		2229	-0.3	-9		2245	-0.8	-24		2317	0.1	3		2358	-0.8	-24		2354	0.5	15
2 Th	0359	6.5	198	17 F	0449	6.7	204	2 Su	0504	7.4	226	17 M	0532	6.7	204	2 W	0612	7.6	232	17 Th	0602	6.4	195
	1002	0.6	18		1054	0.6	18		1113	-0.2	-6		1141	0.4	12		1226	-0.7	-21		1215	0.4	12
	1602	6.6	201		1653	6.4	195		1717	7.1	216		1743	6.2	189		1837	7.2	219		1824	6.1	186
	2221	-0.5	-15		2307	-0.2	-6		2331	-0.9	-27		2350	0.2	6								
3 F	0442	6.8	207	18 Sa	0527	6.7	204	3 M	0549	7.5	229	18 Tu	0605	6.6	201	3 Th	0047	-0.4	-12	18 F	0027	0.8	24
	1046	0.4	12		1133	0.6	18		1200	-0.3	-9		1215	0.5	15		0700	7.3	223		0635	6.2	189
	1647	6.7	204		1731	6.2	189		1805	7.1	216		1817	6.1	186		1316	-0.4	-12		1249	0.6	18
	2304	-0.7	-21		2344	-0.1	-3										1929	6.8	207		1900	5.8	177
4 Sa	0525	7.0	213	19 Su	0603	6.6	201	4 Tu	0017	-0.7	-21	19 W	0024	0.4	12	4 F	0138	0.1	3	19 Sa	0103	1.1	34
	1132	0.2	6		1211	0.7	21		0636	7.4	226		0638	6.4	195		0751	6.8	207		0710	5.9	180
	1733	6.7	204		1809	6.1	186		1249	-0.3	-9		1250	0.7	21		1410	0.1	3		1326	0.9	27
	2348	-0.7	-21				1855		6.9	210	1853		5.8	177	2026		6.3	192	1941		5.6	171	
5 Su	0610	7.1	216	20 M	0020	0.2	6	5 W	0106	-0.4	-12	20 Th	0058	0.7	21	5 Sa	0235	0.7	21	20 Su	0144	1.4	43
	1219	0.2	6		0639	6.5	198		0724	7.2	219		0712	6.1	186		0848	6.2	189		0750	5.5	168
	1820	6.6	201		1249	0.8	24		1340	-0.1	-3		1326	0.9	27		1511	0.5	15		1410	1.1	34
					1847	5.8	177		1948	6.5	198		1931	5.6	171		2131	5.8	177		2029	5.3	162
6 M	0035	-0.5	-15	21 Tu	0056	0.4	12	6 Th	0158	0.0	0	21 F	0135	1.1	34	6 Su	0341	1.2	37	21 M	0234	1.7	52
	0657	7.0	213		0716	6.3	192		0816	6.8	207		0748	5.8	177		0954	5.7	174		0841	5.2	158
	1308	0.2	6		1328	1.0	30		1436	0.2	6		1406	1.1	34		1620	0.9	27		1505	1.3	40
	1911	6.4	195		1927	5.5	168		2047	6.1	186		2014	5.3	162		2246	5.5	168		2130	5.1	155
7 Tu	0124	-0.2	-6	22 W	0133	0.8	24	7 F	0255	0.6	18	22 Sa	0216	1.5	46	7 M	0457	1.6	49	22 Tu	0338	1.9	58
	0746	6.9	210		0753	6.0	183		0913	6.4	195		0830	5.5	168		1108	5.4	165		0946	5.0	152
	1401	0.3	9		1409	1.1	34		1538	0.5	15		1453	1.3	40		1736	1.1	34		1613	1.4	43
	2006	6.2	189		2009	5.3	162		2153	5.7	174		2105	5.0	152						2243	5.1	155
8 W ○	0217	0.1	3	23 Th	0213	1.1	34	8 Sa	0400	1.1	34	23 Su	0307	1.8	55	8 Tu	0004	5.4	165	23 W	0456	1.9	58
	0840	6.6	201		0834	5.7	174		1018	6.0	183		0921	5.3	162		0615	1.6	49		1104	5.1	155
	1459	0.5	15		1455	1.3	40		1646	0.7	21		1549	1.5	46		1223	5.4	165		1728	1.3	40
	2107	5.9	180		2058	5.0	152		2307	5.5	168		2209	4.9	149		1846	1.0	30		2357	5.4	165
9 Th	0316	0.5	15	24 F	0259	1.5	46	9 Su	0513	1.4	43	24 M	0411	2.0	61	9 W	0111	5.6	171	24 Th	0611	1.5	46
	0938	6.4	195		0920	5.5	168		1128	5.8	177		1024	5.1	155		0722	1.4	43		1219	5.4	165
	1603	0.6	18		1546	1.4	43		1758	0.8	24		1656	1.5	46		1327	5.5	168		1837	0.9	27
	2214	5.6	171		2154	4.8	146						2321	5.0	152		1944	0.9	27				
10 F	0421	0.9	27	25 Sa	0353	1.8	55	10 M	0022	5.5	168	25 Tu	0525	2.0	61	10 Th	0205	5.9	180	25 F	0100	5.9	180
	1042	6.2	189		1013	5.3	162		0628	1.5	46		1135	5.2	158		0814	1.2	37		0714	1.0	30
	1710	0.6	18		1644	1.5	46		1237	5.7	174		1805	1.2	37		1418	5.7	174		1322	5.9	180
	2326	5.6	171		2259	4.8	146		1905	0.7	21						2030	0.6	18		1937	0.4	12
11 Sa	0531	1.1	34	26 Su	0456	1.9	58	11 Tu	0129	5.7	174	26 W	0031	5.3	162	11 F	0248	6.1	186	26 Sa	0155	6.5	198
	1148	6.1	186		1112	5.3	162		0734	1.3	40		0637	1.7	52		0857	0.9	27		0808	0.3	9
	1817	0.5	15		1746	1.3	40		1339	5.8	177		1244	5.5	168		1500	6.0	183		1417	6.5	198
							2002		0.5	15	1908		0.8	24	2110		0.5	15	2029		-0.1	-3	
12 Su	0037	5.7	174	27 M	0006	4.9	149	12 W	0224	6.0	183	27 Th	0131	5.8	177	12 Sa	0324	6.4	195	27 Su	0244	7.1	216
	0640	1.2	37		0603	1.9	58		0829	1.1	34		0738	1.2	37		0933	0.6	18		0858	-0.3	-9
	1252	6.1	186		1214	5.4	165		1432	6.0	183		1343	6.0	183		1537	6.2	189		1508	7.1	216
	1920	0.3	9		1845	1.1	34		2050	0.3	9		2002	0.3	9		2145	0.3	9		2118	-0.6	-18
13 M	0141	5.9	180	28 Tu	0107	5.2	158	13 Th	0310	6.2	189	28 F	0223	6.4	195	13 Su	0357	6.5	198	28 M	0331	7.5	229
	0743	1.1	34		0707	1.7	52		0915	0.9	27		0831	0.6	18		1007	0.4	12		0945	-0.8	-24
	1350	6.2	189		1313	5.6	171		1516	6.1	186		1436	6.5	198		1611	6.3	192		1556	7.5	229
	2015	0.1	3		1939	0.7	21		2132	0.1	3		2052	-0.2	-6		2218	0.2	6		2205	-0.8	-24
14 Tu	0237	6.1	186	29 W	0201	5.7	174	14 F	0350	6.4	195	29 Sa	0310	6.9	210	14 M	0429	6.6	201	29 Tu	0417	7.8	238
	0839	0.9	27		0803	1.3	40		0956	0.7	21		0920	0.1	3		1039	0.3	9		1031	-1.1	-34
	1442	6.3	192		1406	6.0	183		1556	6.3	192		1526	7.0	213		1644	6.4	195		1643	7.7	235
	2104	-0.1	-3		2029	0.2	6		2209	0.0	0		2139	-0.6	-18		2250	0.2	6		2252	-0.9	-27
15 W ●	0325	6.4	195	30 Th	0250	6.2	189	15 Sa	0426	6.6	201	30 Su	0356	7.4	226	15 Tu	0500	6.7	204	30 W	0502	7.8	238
	0928	0.8	24		0853	0.8	24		1032	0.5	15		1006	-0.4	-12		1110	0.2	6		1117	-1.1	-34
	1529	6.4	195		1456	6.4	195		1633	6.3	192		1613	7.3	223		1717	6.4	195		1730	7.6	232
	2148	-0.2	-6		2115	-0.2	-6		2244	0.0	0		2226	-0.9	-27		2322	0.3	9		2339	-0.7	-21
			31 F ○	0336	6.7	204				31 M	0441	7.7	235										
				0941	0.4	12					1052	-0.7	-21										
				1544	6.7	204					1700	7.5	229										
				2201	-0.6	-18					2312	-1.0	-30										

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.

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, 2015

Times and Heights of High and Low Waters

January				February				March			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0015	5.5	168	16 F	0554	1.2	37	1 Su	0037	4.8	146
	0643	0.6	18		1211	4.6	140		0659	1.1	34
	1301	5.2	158		1811	1.6	49		1322	5.0	152
	1903	1.1	34						1931	1.5	46
2 F	0114	5.6	171	17 Sa	0024	5.2	158	2 M	0135	5.0	152
	0739	0.4	12		0653	0.9	27		0752	0.9	27
	1358	5.4	165		1312	5.0	152		1411	5.3	162
	2000	1.0	30		1914	1.3	40		2019	1.2	37
3 Sa	0207	5.7	174	18 Su	0122	5.5	168	3 Tu	0222	5.2	158
	0829	0.2	6		0747	0.4	12		0835	0.7	21
	1448	5.6	171		1406	5.5	168		1452	5.5	168
	2050	0.9	27		2009	0.9	27		2100	0.9	27
4 Su	0254	5.8	177	19 M	0216	5.9	180	4 W	0302	5.4	165
	0913	0.1	3		0837	0.0	0		0912	0.5	15
	1532	5.8	177		1456	6.0	183		1527	5.8	177
	2134	0.7	21		2101	0.5	15		2135	0.7	21
5 M	0336	5.8	177	20 Tu	0306	6.2	189	5 Th	0338	5.6	171
	0953	0.0	0		0924	-0.4	-12		0946	0.3	9
	1611	5.9	180		1543	6.5	198		1559	6.0	183
	2215	0.7	21		2150	0.1	3		2208	0.5	15
6 Tu	0415	5.8	177	21 W	0355	6.5	198	6 F	0412	5.8	177
	1030	0.0	0		1010	-0.7	-21		1019	0.3	9
	1649	6.0	183		1629	6.8	207		1631	6.1	186
	2253	0.7	21		2237	-0.2	-6		2240	0.4	12
7 W	0453	5.8	177	22 Th	0442	6.7	204	7 Sa	0444	5.8	177
	1106	0.0	0		1057	-0.8	-24		1051	0.3	9
	1725	6.0	183		1715	7.0	213		1702	6.1	186
	2331	0.7	21		2325	-0.3	-9		2312	0.3	9
8 Th	0529	5.6	171	23 F	0530	6.7	204	8 Su	0517	5.8	177
	1141	0.2	6		1143	-0.8	-24		1122	0.4	12
	1800	5.9	180		1801	7.0	213		1733	6.0	183
9 F	0008	0.8	24	24 Sa	0013	-0.3	-9	9 M	0550	5.7	174
	0606	5.4	165		0619	6.5	198		1154	0.5	15
	1216	0.4	12		1231	-0.5	-15		1804	5.9	180
	1836	5.8	177		1849	6.8	207				
10 Sa	0045	0.9	27	25 Su	0104	-0.1	-3	10 Tu	0017	0.5	15
	0643	5.2	158		0710	6.2	189		0624	5.5	168
	1252	0.6	18		1320	-0.2	-6		1227	0.7	21
	1912	5.6	171		1940	6.5	198		1837	5.7	174
11 Su	0124	1.1	34	26 M	0157	0.2	6	11 W	0052	0.7	21
	0722	5.0	152		0805	5.8	177		0700	5.3	162
	1329	0.9	27		1414	0.3	9		1303	1.0	30
	1950	5.4	165		2034	6.1	186		1913	5.4	165
12 M	0206	1.3	40	27 Tu	0255	0.5	15	12 Th	0131	0.9	27
	0805	4.7	143		0906	5.4	165		0742	5.1	155
	1410	1.2	37		1514	0.8	24		1346	1.3	40
	2032	5.2	158		2134	5.7	174		1957	5.2	158
13 Tu	0253	1.4	43	28 W	0400	0.8	24	13 F	0218	1.1	34
	0855	4.5	137		1015	5.0	152		0834	4.9	149
	1457	1.5	46		1622	1.2	37		1439	1.5	46
	2121	5.0	152		2241	5.3	162		2052	4.9	149
14 W	0348	1.5	46	29 Th	0511	1.0	30	14 Sa	0317	1.3	40
	0955	4.4	134		1130	4.9	149		0940	4.7	143
	1555	1.7	52		1736	1.5	46		1549	1.7	52
	2218	4.9	149		2351	5.2	158		2202	4.8	146
15 Th	0450	1.4	43	30 F	0621	1.0	30	15 Su	0430	1.3	40
	1103	4.4	134		1243	5.0	152		1056	4.8	146
	1702	1.7	52		1847	1.5	46		1709	1.6	49
	2321	5.0	152						2321	4.9	149
				31 Sa	0057	5.2	158	30 M	0007	4.6	140
					0722	0.8	24		0623	1.4	43
					1344	5.2	158		1247	4.9	149
					1948	1.3	40		1902	1.5	46
								31 Tu	0107	4.8	146
									0718	1.2	37
									1337	5.2	158
									1950	1.2	37

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 Heights are referred to the chart datum of soundings.

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, 2015

Times and Heights of High and Low Waters

July						August						September																	
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					
1 W ○	0300		5.6	171	16 Th	0353		5.9	180	1 Sa	0405		6.5	198	16 Su	0444		6.0	183	1 Tu	0512		7.0	213	16 W	0516		5.8	177
	0901		0.8	24		0957		0.6	18		1013		-0.1	-3		1052		0.4	12		1126		-0.8	-24		1128		0.2	6
	1505		5.9	180		1559		5.8	177		1618		6.4	195		1654		5.7	174		1735		6.6	201		1735		5.5	168
	2125		-0.1	-3		2214		-0.1	-3		2232		-0.7	-21		2303		0.1	3		2344		-0.8	-24		2339		0.4	12
2 Th	0344		6.0	183	17 F	0433		6.0	183	2 Su	0450		6.7	204	17 M	0517		5.9	180	2 W	0559		6.8	207	17 Th	0548		5.6	171
	0947		0.6	18		1039		0.6	18		1100		-0.3	-9		1126		0.4	12		1213		-0.7	-21		1201		0.3	9
	1550		6.1	186		1639		5.8	177		1705		6.5	198		1728		5.6	171		1824		6.4	195		1809		5.3	162
	2208		-0.3	-9		2253		-0.1	-3		2318		-0.7	-21		2336		0.2	6										
3 F	0427		6.2	189	18 Sa	0511		6.0	183	3 M	0536		6.8	207	18 Tu	0550		5.8	177	3 Th	0033		-0.4	-12	18 F	0012		0.6	18
	1033		0.3	9		1118		0.6	18		1147		-0.3	-9		1200		0.5	15		0647		6.5	198		0620		5.4	165
	1635		6.2	189		1718		5.7	174		1753		6.4	195		1803		5.4	165		1303		-0.4	-12		1235		0.5	15
	2252		-0.4	-12		2330		0.1	3									1915			6.0	183	1845			5.1	155		
4 Sa	0511		6.4	195	19 Su	0548		6.0	183	4 Tu	0005		-0.6	-18	19 W	0009		0.4	12	4 F	0124		0.0	0	19 Sa	0048		0.9	27
	1119		0.2	6		1156		0.6	18		0622		6.7	204		0623		5.7	174		0739		6.0	183		0656		5.1	155
	1722		6.2	189		1756		5.5	168		1236		-0.3	-9		1235		0.6	18		1358		0.1	3		1313		0.7	21
	2336		-0.4	-12		1834		5.3	162		1843		6.2	189		1838		5.2	158		2012		5.5	168		1926		4.8	146
5 Su	0556		6.5	198	20 M	0006		0.3	9	5 W	0053		-0.3	-9	20 Th	0043		0.7	21	5 Sa	0222		0.5	15	20 Su	0129		1.2	37
	1206		0.2	6		0624		5.8	177		0711		6.5	198		0657		5.4	165		0836		5.5	168		0738		4.9	149
	1809		6.1	186		1234		0.8	24		1327		-0.1	-3		1311		0.8	24		1459		0.5	15		1358		1.0	30
						1834		5.3	162		1936		5.9	180		1916		4.9	149		2117		5.1	155		2015		4.6	140
6 M	0023		-0.3	-9	21 Tu	0042		0.5	15	6 Th	0145		0.1	3	21 F	0120		1.0	30	6 Su	0328		1.0	30	21 M	0220		1.4	43
	0643		6.4	195		0701		5.6	171		0804		6.1	186		0734		5.2	158		0942		5.1	155		0830		4.6	140
	1256		0.2	6		1313		0.9	27		1423		0.2	6		1351		1.0	30		1608		0.8	24		1454		1.1	34
	1900		5.9	180		1913		5.0	152		2034		5.5	168		1959		4.7	143		2232		4.8	146		2116		4.5	137
7 Tu	0112		-0.1	-3	22 W	0119		0.8	24	7 F	0242		0.5	15	22 Sa	0201		1.3	40	7 M	0444		1.3	40	22 Tu	0326		1.6	49
	0733		6.3	192		0739		5.4	165		0901		5.7	174		0816		4.9	149		1057		4.8	146		0936		4.5	137
	1349		0.4	12		1354		1.1	34		1525		0.5	15		1438		1.2	37		1722		0.9	27		1603		1.2	37
	1954		5.7	174		1955		4.8	146		2139		5.1	155		2050		4.4	134		2348		4.8	146		2230		4.5	137
8 W ○	0205		0.2	6	23 Th	0159		1.1	34	8 Sa	0347		0.9	27	23 Su	0252		1.5	46	8 Tu	0600		1.3	40	23 W	0443		1.5	46
	0827		6.1	186		0819		5.2	158		1006		5.4	165		0908		4.7	143		1210		4.8	146		1054		4.5	137
	1447		0.5	15		1439		1.3	40		1633		0.7	21		1536		1.3	40		1831		0.9	27		1717		1.0	30
	2054		5.4	165		2042		4.5	137		2252		4.9	149		2153		4.3	131							2342		4.8	146
9 Th	0303		0.6	18	24 F	0244		1.4	43	9 Su	0500		1.2	37	24 M	0357		1.7	52	9 W	0055		5.0	152	24 Th	0557		1.2	37
	0926		5.8	177		0905		5.0	152		1116		5.2	158		1012		4.6	140		0706		1.2	37		1206		4.8	146
	1550		0.6	18		1530		1.4	43		1744		0.8	24		1643		1.3	40		1312		4.9	149		1824		0.7	21
	2201		5.2	158		2137		4.4	134							2305		4.4	134		1928		0.7	21					
10 F	0408		0.9	27	25 Sa	0338		1.6	49	10 M	0006		4.9	149	25 Tu	0511		1.6	49	10 Th	0148		5.2	158	25 F	0045		5.3	162
	1029		5.7	174		0958		4.8	146		0613		1.3	40		1124		4.7	143		0758		0.9	27		0700		0.7	21
	1657		0.7	21		1628		1.4	43		1225		5.2	158		1752		1.1	34		1402		5.1	155		1309		5.3	162
	2311		5.1	155		2241		4.3	131		1850		0.7	21							2014		0.5	15		1922		0.2	6
11 Sa	0517		1.0	30	26 Su	0440		1.7	52	11 Tu	0112		5.1	155	26 W	0015		4.7	143	11 F	0231		5.4	165	26 Sa	0140		5.8	177
	1135		5.6	171		1058		4.8	146		0718		1.1	34		0622		1.4	43		0840		0.7	21		0754		0.1	3
	1803		0.6	18		1730		1.3	40		1326		5.2	158		1231		5.0	152		1444		5.3	162		1403		5.8	177
						2348		4.5	137		1947		0.5	15		1854		0.7	21		2054		0.3	9		2014		-0.3	-9
12 Su	0021		5.2	158	27 M	0547		1.7	52	12 W	0207		5.3	162	27 Th	0115		5.2	158	12 Sa	0308		5.6	171	27 Su	0229		6.3	192
	0625		1.1	34		1200		4.9	149		0813		1.0	30		0723		0.9	27		0917		0.4	12		0844		-0.4	-12
	1239		5.6	171		1830		1.0	30		1417		5.4	165		1330		5.4	165		1521		5.5	168		1453		6.3	192
	1905		0.4	12							2035		0.3	9		1948		0.2	6		2129		0.2	6		2103		-0.6	-18
13 M	0124		5.3	162	28 Tu	0050		4.8	146	13 Th	0253		5.6	171	28 F	0207		5.7	174	13 Su	0341		5.8	177	28 M	0317		6.7	204
	0728		1.0	30		0651		1.4	43		0859		0.7	21		0816		0.4	12		0951		0.3	9		0931		-0.8	-24
	1337		5.7	174		1259		5.2	158		1502		5.5	168		1423		5.8	177		1556		5.6	171		1541		6.6	201
	2000		0.3	9		1925		0.7	21		2116		0.1	3		2038		-0.3	-9		2202		0.1	3		2150		-0.9	-27
14 Tu	0220		5.6	171	29 W	0144		5.2	158	14 F	0334		5.8	177	29 Sa	0255		6.2	189	14 M	0413		5.9	180	29 Tu	0403		6.9	210
	0823		0.9	27		0747		1.1	34		0940		0.6	18		0905		-0.1	-3		1024		0.1	3		1017		-1.1	-34
	1429		5.7	174		1353		5.5	168		1542		5.6	171		1512		6.3	192		1629		5.6	171		1628		6.7	204
	2049		0.1	3		2015		0.2	6		2154		0.0	0		2125		-0.6	-18		2234		0.1	3		2237		-0.9	-27
15 W ●	0309		5.8	177	30 Th	0234		5.6	171	15 Sa	0410		5.9	180	30 Su	0341		6.6	201	15 Tu	0445		5.9	180	30 W	0448		6.9	210
	0913		0.7	21		0838		0.7	21		1017		0.4	12		0952		-0.5	-15		1056		0.1	3		1103		-1.1	-34
	1516		5.8	177		1444		5.8	177		1619		5.7	174		1600		6.6	201		1702		5.6	171		1716		6.7	204
	2134		0.0	0		2102		-0.2	-6		2229		0.0	0		2212		-0.9	-27		2306		0.2	6		2324		-0.7	-21
				31 F ○	0320		6.1	186																					
					0927		0.3	9													</								

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.

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, 2015

Times and Heights of High and Low Waters

January				February				March																
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	0037	11.8	360	16 F	0553	2.3	70	1 Su	0211	11.1	338	16 M	0125	10.8	329	1 Su	0046	10.1	308	16 M	0547	1.5	46	
	0638	1.5	46			1235	9.7		296		0816		1.4	43			0724	1.0	30			1231	10.3	314
	1315	11.1	338			1815	2.7		82		1447		11.0	335			1406	11.0	335			1326	10.0	305
	1900	2.1	64			2038	2.1		64		1953		1.3	40			1915	2.8	85			1821	1.9	58
2 F	0137	11.9	363	17 Sa	0055	10.6	323	2 M	0303	11.4	347	17 Tu	0227	11.6	354	2 M	0147	10.2	311	17 Tu	0059	10.7	326	
	0741	1.2	37			0656	1.8		55		0905		1.0	30			0824	0.1	3			0747	1.9	58
	1414	11.5	351			1338	10.3		314		1534		11.5	351			1502	12.0	366			1421	10.5	320
	2002	2.0	61			1919	2.2		67		2126		1.7	52			2052	0.3	9			2016	2.4	73
3 Sa	0232	12.1	369	18 Su	0156	11.2	341	3 Tu	0349	11.7	357	18 W	0321	12.5	381	3 Tu	0240	10.6	323	18 W	0204	11.5	351	
	0836	0.9	27			0755	1.0		30		0947		0.6	18			0919	-0.9	-27			0839	1.5	46
	1507	11.9	363			1434	11.2		341		1617		11.9	363			1552	13.1	399			1509	11.0	335
	2056	1.7	52			2018	1.5		46		2207		1.2	37			2146	-0.7	-21			2104	1.8	55
4 Su	0322	12.4	378	19 M	0250	12.0	366	4 W	0430	11.9	363	19 Th	0412	13.3	405	4 W	0326	11.1	338	19 Th	0301	12.5	381	
	0924	0.5	15			0849	0.2		6		1024		0.3	9			1010	-1.6	-49			0921	1.0	30
	1554	12.2	372			1526	12.1		369		1656		12.2	372			1641	13.9	424			1551	11.5	351
	2143	1.4	43			2113	0.7		21		2245		0.9	27			2236	-1.4	-43			2144	1.2	37
5 M	0407	12.5	381	20 Tu	0341	12.7	387	5 Th	0509	12.0	366	20 F	0501	13.9	424	5 Th	0408	11.4	347	20 F	0353	13.4	408	
	1006	0.3	9			0941	-0.7		-21		1100		0.1	3			1058	-2.1	-64			0959	0.6	18
	1637	12.5	381			1614	13.0		396		1733		12.3	375			1727	14.4	439			1630	11.9	363
	2225	1.2	37			2205	-0.1		-3		2321		0.6	18			2324	-1.9	-58			2220	0.8	24
6 Tu	0450	12.5	381	21 W	0430	13.4	408	6 F	0545	11.9	363	21 Sa	0548	14.1	430	6 F	0446	11.7	357	21 Sa	0443	13.9	424	
	1045	0.1	3			1029	-1.4		-43		1135		0.0	0			1145	-2.2	-67			1034	0.3	9
	1718	12.6	384			1701	13.7		418		1807		12.3	375			1813	14.5	442			1706	12.2	372
	2305	1.0	30			2254	-0.8		-24		2356		0.5	15								2256	0.4	12
7 W	0529	12.4	378	22 Th	0518	13.8	421	7 Sa	0620	11.7	357	22 Su	0012	-2.0	-61	7 Sa	0522	11.8	360	22 Su	0530	14.1	430	
	1122	0.1	3			1116	-1.8		-55		1209		0.1	3			0636	13.9	424			1109	0.1	3
	1756	12.6	384			1747	14.1		430		1840		12.1	369			1231	-1.9	-58			1740	12.3	375
	2343	1.0	30			2342	-1.2		-37								1900	14.2	433			2330	0.2	6
8 Th	0607	12.1	369	23 F	0605	13.9	424	8 Su	0032	0.6	18	23 M	0059	-1.6	-49	8 Su	0555	11.7	357	23 M	0617	13.9	424	
	1159	0.2	6			1203	-1.8		-55		0653		11.4	347			0724	13.3	405			1143	0.1	3
	1833	12.4	378			1833	14.2		433		1244		0.4	12			1318	-1.3	-40			1811	12.2	372
						1912	11.8		360		1912		11.8	360			1948	13.5	411					
9 F	0020	1.1	34	24 Sa	0030	-1.2	-37	9 M	0107	0.8	24	24 Tu	0147	-1.0	-30	9 M	0005	0.1	3	24 Tu	0037	-1.7	-52	
	0644	11.8	360			0726	11.0		335		0814		12.5	381			0628	11.5	351			0704	13.4	408
	1235	0.5	15			1319	0.7		21		1406		-0.4	-12			1217	0.2	6			1256	-1.0	-30
	1908	12.1	369			1945	11.4		347		2038		12.7	387			1842	11.9	363			1924	13.5	411
10 Sa	0058	1.3	40	25 Su	0119	-1.0	-30	10 Tu	0145	1.0	30	25 W	0237	-0.1	-3	10 Tu	0040	0.2	6	25 W	0123	-1.0	-30	
	0720	11.3	344			0801	10.5		320		0908		11.5	351			0700	11.2	341			0752	12.6	384
	1312	0.8	24			1356	1.2		37		1457		0.7	21			1252	0.5	15			1343	-0.1	-3
	1944	11.7	357			2010	13.5		411		2132		11.7	357			1913	11.6	354			2012	12.5	381
11 Su	0137	1.5	46	26 M	0209	-0.4	-12	11 W	0225	1.3	40	26 Th	0330	0.8	24	11 W	0116	0.4	12	26 Th	0210	-0.1	-3	
	0757	10.8	329			0842	10.0		305		1008		10.6	323			0734	10.9	332			0844	11.6	354
	1349	1.3	40			1438	1.6		49		1552		1.7	52			1329	0.9	27			1431	0.9	27
	2021	11.3	344			2102	10.6		323		2233		10.8	329			1948	11.2	341			2104	11.5	351
12 M	0218	1.8	55	27 Tu	0302	0.3	9	12 Th	0311	1.6	49	27 F	0429	1.6	49	12 Th	0155	0.7	21	27 F	0300	0.9	27	
	0837	10.3	314			0931	9.6		293		1114		10.0	305			0812	10.4	317			0940	10.8	329
	1430	1.8	55			1527	2.1		64		1655		2.5	76			1409	1.3	40			1524	1.9	58
	2101	10.8	329			2154	10.2		311		2340		10.2	311			2028	10.8	329			2202	10.6	323
13 Tu	0302	2.2	67	28 W	0359	1.0	30	13 F	0407	1.9	58	28 Sa	0535	2.1	64	13 F	0239	1.1	34	28 Sa	0355	1.7	52	
	0923	9.8	299			1035	9.4		287		1222		9.8	299			0900	10.0	305			1042	10.1	308
	1515	2.3	70			1627	2.4		73		1804		2.8	85			1458	1.8	55			1623	2.7	82
	2149	10.5	320			2300	10.0		305								2119	10.4	317			2307	9.9	302
14 W	0353	2.4	73	29 Th	0502	1.5	46	14 Sa	0511	1.9	58	15 Su	0437	1.7	52	14 Sa	0333	1.5	46	29 Su	0456	2.4	73	
	1020	9.4	287			1150	9.5		290		1115		9.8	299			1000	9.8	299			1148	9.8	299
	1608	2.7	82			1737	2.5		76		1708		2.2	67			1558	2.1	64			1730	3.1	94
	2245	10.2	311								2344		10.1	308			2226	10.1	308					
15 Th	0451	2.5	76	30 F	0009	10.9	332	15 Su	0015	10.2	311	31 M	0014	9.7	296	15 Su	0437	1.7	52	30 M	0014	9.7	296	
	1126	9.4	287			0619	1.6		49		1115		9.8	299			1115	9.8	299			0602	2.6	79
	1710	2.8	85			1303	10.0		305		1708		2.2	67			1708	2.2	67			1252	9.9	302
	2350	10.3	314			1847	2.1		64		2344		10.1	308			2344	10.1	308			1839	3.0	91
				31 Sa	0113	10.9	332					31 Tu	0116	9.8	299					31 Tu	0116	9.8	299	
					0716	1.7	52							0706	2.5	76		0706	2.5		76			
					1352	10.6	323							1348	10.3	314		1348	10.3		314			
					1940	2.4	73							1941	2.6	79		1941	2.6		79			

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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, 2015

Times and Heights of High and Low Waters

July				August				September			
Time		Height		Time		Height		Time		Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
1 W ○	0331 0914 1544 2142	11.8 1.7 12.6 0.5	360 52 384 15	16 Th	0417 1006 1631 2229	12.7 1.3 13.0 0.4	387 40 396 12	1 Sa	0437 1028 1654 2252	13.4 0.0 13.7 -0.9	390 0 418 -27
2 Th	0416 1002 1628 2227	12.5 1.2 13.0 -0.1	381 37 396 -3	17 F	0500 1048 1713 2309	12.9 1.2 12.9 0.3	393 37 393 9	2 Su	0522 1116 1740 2339	14.0 -0.5 14.0 -1.2	427 -15 427 -37
3 F	0459 1048 1712 2312	13.0 0.7 13.4 -0.4	396 21 408 -12	18 Sa	0541 1128 1753 2346	12.9 1.2 12.7 0.4	393 37 387 12	3 M	0608 1204 1827	14.3 -0.7 14.0	436 -21 427
4 Sa	0543 1134 1757 2357	13.4 0.3 13.5 -0.6	408 9 411 -18	19 Su	0620 1207 1832	12.8 1.2 12.4	390 37 378	4 Tu	0025 0654 1252 1915	-1.1 14.2 -0.6 13.6	-34 433 -18 415
5 Su	0627 1221 1843	13.6 0.2 13.4	415 6 408	20 M	0023 0657 1245 1909	0.6 12.5 1.4 11.9	18 381 43 363	5 W	0113 0743 1341 2006	-0.8 13.9 -0.2 13.1	-24 424 -6 399
6 M	0043 0713 1309 1931	-0.5 13.6 0.3 13.1	-15 415 9 399	21 Tu	0100 0734 1324 1947	1.0 12.1 1.7 11.4	30 369 52 347	6 Th	0202 0834 1433 2102	-0.1 13.3 0.3 12.3	-3 405 9 375
7 Tu	0131 0802 1400 2024	-0.2 13.4 0.5 12.6	-6 408 15 384	22 W	0138 0811 1404 2026	1.4 11.7 2.1 10.8	43 357 64 329	7 F	0255 0930 1529 2203	0.7 12.7 1.0 11.6	21 387 30 354
8 W	0221 0855 1454 2121	0.3 13.0 0.9 12.1	9 396 27 369	23 Th	0218 0851 1447 2110	1.9 11.3 2.4 10.3	58 344 73 314	8 Sa	0352 1032 1630 2309	1.5 12.0 1.6 11.1	46 366 49 338
9 Th	0316 0953 1552 2224	0.9 12.6 1.3 11.6	27 384 40 354	24 F	0302 0936 1536 2202	2.4 10.9 2.7 9.9	73 332 82 302	9 Su	0455 1138 1736	2.2 11.6 2.0	67 354 61
10 F	0414 1056 1655 2331	1.5 12.3 1.6 11.4	46 375 49 347	25 Sa	0351 1029 1630 2304	2.9 10.6 2.9 9.7	88 323 88 296	10 M	0017 0602 1244 1844	10.9 2.5 11.5 2.0	332 76 351 61
11 Sa	0518 1201 1800	1.9 12.2 1.7	58 372 52	26 Su	0448 1130 1730	3.1 10.5 2.9	94 320 88	11 Tu	0122 0710 1345 1948	11.1 2.5 11.7 1.8	338 76 357 55
12 Su	0038 0623 1304 1905	11.4 2.1 12.2 1.5	347 64 372 46	27 M	0010 0550 1233 1831	9.8 3.2 10.7 2.5	299 98 326 76	12 W	0220 0811 1439 2042	11.5 2.3 11.9 1.4	351 70 363 43
13 M	0141 0727 1403 2006	11.6 2.1 12.4 1.2	354 64 378 37	28 Tu	0114 0653 1334 1931	10.3 2.9 11.2 1.9	314 88 341 58	13 Th	0311 0903 1528 2128	11.9 1.9 12.3 1.0	363 58 375 30
14 Tu	0238 0826 1457 2059	12.0 1.8 12.7 0.9	366 55 387 27	29 W	0211 0753 1428 2026	11.0 2.3 11.8 1.2	335 70 360 37	14 F	0356 0947 1612 2208	12.3 1.5 12.5 0.7	375 46 381 21
15 W	0330 0919 1546 2147	12.4 1.6 12.9 0.5	378 49 393 15	30 Th	0303 0848 1519 2117	11.8 1.5 12.6 0.3	360 46 384 9	15 Sa	0437 1027 1652 2245	12.6 1.2 12.6 0.5	384 37 384 15
				31 F	0351 0939 1607 2206	12.7 0.7 13.2 -0.4	387 21 402 -12				
								31 M	0500 1056 1722 2318	14.5 -1.2 14.4 -1.5	442 -37 439 -46

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, 2015

Times and Heights of High and Low Waters

October								November								December							
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				
1 Th	0610	14.8	451	16 F	0558	12.4	378	1 Su	0058	0.3	9	16 M	0029	1.4	43	1 Tu	0123	1.2	37	16 W	0058	0.9	27
	1210	-1.5	-46		1155	0.5	15		0725	13.2	402		0646	12.0	366		0749	12.1	369		0716	12.2	372
	1837	14.2	433		1821	12.1	369		1322	0.1	3		1250	0.7	21		1342	0.9	27		1318	0.2	6
									1956	12.8	390		1916	12.0	366		2021	12.2	372		1947	12.5	381
2 F	0031	-0.8	-24	17 Sa	0011	1.2	37	2 M	0147	1.2	37	17 Tu	0112	1.6	49	2 W	0210	1.9	58	17 Th	0146	1.0	30
	0658	14.2	433		0630	12.1	369		0816	12.2	372		0728	11.7	357		0838	11.3	344		0805	11.8	360
	1257	-0.9	-27		1231	0.8	24		1410	1.0	30		1333	1.0	30		1428	1.7	52		1406	0.6	18
	1927	13.5	411		1855	11.7	357		2049	11.9	363		2001	11.7	357		2110	11.5	351		2037	12.3	375
3 Sa	0119	0.0	0	18 Su	0048	1.5	46	3 Tu	0238	2.1	64	18 W	0200	1.8	55	3 Th	0259	2.5	76	18 F	0238	1.2	37
	0748	13.3	405		0705	11.7	357		0911	11.2	341		0817	11.3	344		0932	10.5	320		0900	11.4	347
	1346	0.0	0		1309	1.1	34		1502	1.9	58		1422	1.4	43		1517	2.4	73		1459	1.0	30
	2019	12.6	384		1932	11.4	347	○	2147	11.2	341		2053	11.5	351	○	2204	11.0	335		2134	12.0	366
4 Su	0210	1.0	30	19 M	0129	1.9	58	4 W	0334	2.8	85	19 Th	0255	2.1	64	4 F	0352	3.0	91	19 Sa	0336	1.4	43
	0841	12.3	375		0744	11.3	344		1012	10.5	320		0916	10.9	332		1030	10.0	305		1004	11.1	338
	1438	1.0	30		1352	1.5	46		1558	2.7	82		1519	1.7	52		1610	3.0	91		1559	1.4	43
○	2116	11.7	357		2016	11.0	335		2248	10.8	329	○	2155	11.4	347		2301	10.6	323		2238	11.9	363
5 M	0304	1.9	58	20 Tu	0215	2.3	70	5 Th	0435	3.3	101	20 F	0357	2.1	64	5 Sa	0450	3.2	98	20 Su	0440	1.5	46
	0941	11.3	344		0833	10.8	329		1117	10.1	308		1026	10.8	329		1132	9.8	299		1114	11.0	335
	1534	1.9	58		1442	1.9	58		1658	3.1	94		1622	1.9	58		1707	3.3	101		1703	1.7	52
	2219	11.0	335	○	2111	10.7	326		2350	10.7	326		2304	11.5	351		2359	10.6	323		2345	12.0	366
6 Tu	0404	2.7	82	21 W	0312	2.5	76	6 F	0539	3.3	101	21 Sa	0504	2.0	61	6 Su	0550	3.1	94	21 M	0546	1.3	40
	1046	10.7	326		0935	10.5	320		1220	10.1	308		1139	11.0	335		1233	9.9	302		1224	11.2	341
	1636	2.6	79		1541	2.2	67		1801	3.3	101		1730	1.9	58		1807	3.3	101		1810	1.7	52
	2325	10.6	323		2218	10.7	326																
7 W	0512	3.2	98	22 Th	0418	2.6	79	7 Sa	0047	10.8	329	22 Su	0012	12.0	366	7 M	0055	10.8	329	22 Tu	0051	12.3	375
	1154	10.4	317		1050	10.5	320		0642	3.1	94		0611	1.5	46		0647	2.8	85		0652	1.0	30
	1743	2.9	88		1649	2.2	67		1317	10.4	317		1248	11.6	354		1328	10.2	311		1330	11.7	357
					2331	11.0	335		1859	3.1	94		1836	1.5	46		1904	3.1	94		1916	1.4	43
8 Th	0029	10.6	323	23 F	0528	2.3	70	8 Su	0139	11.2	341	23 M	0115	12.6	384	8 Tu	0146	11.1	338	23 W	0152	12.7	387
	0622	3.2	98		1205	10.9	332		0736	2.6	79		0715	0.8	24		0740	2.3	70		0754	0.4	12
	1257	10.5	320		1758	1.9	58		1408	10.9	332		1350	12.3	375		1419	10.7	326		1429	12.4	378
	1849	2.9	88						1951	2.7	82		1939	1.0	30		1956	2.8	85		2017	1.0	30
9 F	0127	11.0	335	24 Sa	0040	11.7	357	9 M	0226	11.6	354	24 Tu	0213	13.3	405	9 W	0233	11.5	351	24 Th	0248	13.1	399
	0725	2.8	85		0636	1.6	49		0821	2.0	61		0814	0.0	0		0828	1.7	52		0850	-0.1	-3
	1352	10.9	332		1313	11.7	357		1453	11.4	347		1446	13.1	399		1505	11.2	341		1523	12.9	393
	1945	2.5	76		1903	1.3	40		2036	2.3	70		2036	0.4	12		2044	2.3	70		2112	0.6	18
10 Sa	0217	11.4	347	25 Su	0141	12.6	384	10 Tu	0308	12.1	369	25 W	0306	13.9	424	10 Th	0316	11.9	363	25 F	0340	13.5	411
	0815	2.3	70		0738	0.7	21		0903	1.4	43		0907	-0.7	-21		0911	1.1	34		0941	-0.6	-18
	1440	11.3	344		1412	12.6	384		1534	11.8	360		1538	13.7	418		1547	11.7	357		1613	13.4	408
	2031	2.1	64		2003	0.5	15		2117	1.8	55	○	2129	0.0	0		2128	1.8	55	○	2203	0.3	9
11 Su	0301	11.9	363	26 M	0236	13.5	411	11 W	0347	12.4	378	26 Th	0356	14.3	436	11 F	0357	12.3	375	26 Sa	0428	13.6	415
	0857	1.7	52		0835	-0.3	-9		0941	0.9	27		0957	-1.1	-34		0953	0.6	18		1028	-0.8	-24
	1523	11.8	360		1505	13.5	411		1613	12.2	372		1628	14.1	430		1627	12.2	372		1659	13.6	415
	2111	1.7	52		2058	-0.2	-6	●	2156	1.5	46		2219	-0.3	-9	●	2210	1.4	43		2250	0.2	6
12 M	0341	12.3	375	27 Tu	0327	14.3	436	12 Th	0424	12.6	384	27 F	0444	14.4	439	12 Sa	0436	12.5	381	27 Su	0514	13.5	411
	0934	1.2	37		0927	-1.0	-30		1019	0.6	18		1045	-1.2	-37		1033	0.2	6		1112	-0.7	-21
	1602	12.2	372		1556	14.2	433		1650	12.4	378		1715	14.2	433		1705	12.5	381		1744	13.5	411
●	2148	1.3	40	○	2149	-0.7	-21		2234	1.3	40		2306	-0.2	-6		2251	1.1	34		2334	0.3	9
13 Tu	0418	12.6	384	28 W	0416	14.8	451	13 F	0500	12.6	384	28 Sa	0531	14.2	433	13 Su	0514	12.6	384	28 M	0558	13.2	402
	1010	0.8	24		1016	-1.5	-46		1055	0.4	12		1130	-1.1	-34		1112	0.0	0		1154	-0.5	-15
	1639	12.4	378		1644	14.6	445		1726	12.4	378		1801	14.0	427		1743	12.6	384		1827	13.3	405
	2224	1.1	34		2237	-1.0	-30		2312	1.2	37		2352	0.1	3		2332	0.9	27				
14 W	0453	12.7	387	29 Th	0503	14.9	454	14 Sa	0534	12.5	381	29 Su	0617	13.7	418	14 M	0553	12.6	384	29 Tu	0017	0.5	15
	1045	0.5	15		1103	-1.7	-52		1132	0.3	9												

Balboa, Panama, 2015

Times and Heights of High and Low Waters

January					February					March																		
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									
1 Th	0018	14.6	445		16 F	0557	3.3	101	1 Su	0155	13.6	415	16 M	0055	13.4	408	1 Su	0036	12.4	378	16 M	0549	2.5	76				
	0634	2.0	61			1207	12.1	369			0811	1.7		52		0727		1.6	49			0645	2.7	82		1205	12.7	387
	1259	13.7	418			1816	3.8	116			1434	13.4		408		1335		13.6	415			1320	12.3	375		1820	2.7	82
	1859	2.7	82			2036	2.3	70			1953	13.8		415		1917		3.3	101									
2 F	0118	14.8	451		17 Sa	0026	13.2	402	2 M	0245	14.0	427	17 Tu	0155	14.4	439	2 M	0136	12.7	387	17 Tu	0032	13.2	402				
	0736	1.6	49			0700	2.6	79			0900	1.1		34		0826		0.2	6			0746	2.3	70		0658	1.6	49
	1357	14.1	430			1307	12.8	390			1520	13.9		424		1430		14.9	454			1413	12.8	390		1310	13.8	421
	2000	2.3	70			1920	3.1	94			2121	1.7		52		2049		0.3	9			2014	2.7	82		1929	1.6	49
3 Sa	0211	15.0	457		18 Su	0124	14.0	427	3 Tu	0329	14.3	436	18 W	0250	15.5	472	3 Tu	0225	13.1	399	18 W	0135	14.3	436				
	0830	1.1	34			0758	1.5	46			0941	0.5		15		0917		-1.1	-34			0836	1.7	52		0800	0.4	12
	1448	14.5	442			1401	13.9	424			1601	14.3		436		1522		16.1	491			1457	13.4	408		1407	15.1	460
	2052	1.9	58			2019	2.0	61			2201	1.1		34		2140		-1.1	-34			2100	1.9	58		2028	0.1	3
4 Su	0259	15.2	463		19 M	0216	14.9	454	4 W	0409	14.5	442	19 Th	0342	16.5	503	4 W	0308	13.6	415	19 Th	0231	15.5	472				
	0917	0.5	15			0850	0.3	9			1018	0.1		3		1004		-2.3	-70			0917	1.0	30		0854	-0.9	-27
	1535	14.8	451			1452	15.0	457			1638	14.7		448		1612		17.1	521			1535	14.0	427		1459	16.4	500
	2138	1.4	43			2111	0.8	24			2238	0.7		21		2226		-2.2	-67			2140	1.1	34		2120	-1.3	-40
5 M	0344	15.3	466		20 Tu	0308	15.8	482	5 Th	0447	14.7	448	20 F	0434	17.2	524	5 Th	0346	14.0	427	20 F	0324	16.5	503				
	0959	0.1	3			0938	-0.9	-27			1053	-0.2		-6		1049		-2.9	-88			0954	0.4	12		0943	-2.0	-61
	1619	15.1	460			1542	16.0	488			1713	14.9		454		1702		17.8	543			1610	14.5	442		1550	17.4	530
	2219	1.1	34			2158	-0.4	-12			2314	0.4		12		2312		-2.7	-82			2215	0.5	15		2207	-2.4	-73
6 Tu	0427	15.4	469		21 W	0359	16.6	506	6 F	0523	14.7	448	21 Sa	0524	17.5	533	6 F	0423	14.4	439	21 Sa	0415	17.2	524				
	1037	-0.1	-3			1023	-1.9	-58			1127	-0.2		-6		1134		-3.0	-91			1029	0.0	0		1029	-2.7	-82
	1700	15.3	466			1632	16.9	515			1747	15.0		457		1750		18.0	549			1644	14.8	451		1639	17.9	546
	2257	1.0	30			2244	-1.3	-40			2349	0.5		15		2358		-2.7	-82			2250	0.1	3		2253	-3.0	-91
7 W	0508	15.3	466		22 Th	0450	17.1	521	7 Sa	0558	14.6	445	22 Su	0613	17.3	527	7 Sa	0458	14.6	445	22 Su	0506	17.5	533				
	1114	-0.1	-3			1108	-2.4	-73			1201	0.1		3		1219		-2.6	-79			1102	-0.2	-6		1114	-2.8	-85
	1738	15.3	466			1721	17.5	533			1819	14.9		454		1838		17.7	539			1716	15.0	457		1728	18.1	552
	2335	1.0	30			2330	-1.7	-52												2323		-0.1	-3		2338	-3.0	-91	
8 Th	0546	15.1	460		23 F	0540	17.3	527	8 Su	0024	0.7	21	23 M	0045	-2.2	-67	8 Su	0531	14.6	445	23 M	0554	17.3	527				
	1151	0.2	6			1153	-2.5	-76			0631	14.3		436		0702		16.6	506			1135	-0.1	-3		1158	-2.3	-70
	1814	15.2	463			1810	17.7	539			1236	0.6		18		1307		-1.6	-49			1747	15.0	457		1815	17.7	539
											1850	14.6		445		1925		17.0	518			2357	0.0	0				
9 F	0013	1.3	40		24 Sa	0017	-1.7	-52	9 M	0101	1.2	37	24 Tu	0135	-1.2	-37	9 M	0604	14.5	442	24 Tu	0023	-2.3	-70				
	0623	14.7	448			0630	17.1	521			0704	13.9		424		0751		15.6	475			1209	0.3	9		0642	16.7	509
	1227	0.7	21			1239	-2.0	-61			1313	1.3		40		1358		-0.3	-9			1818	14.9	454		1245	-1.3	-40
	1848	14.9	454			1858	17.5	533			1921	14.2		433		2014		15.8	482							1902	16.9	515
10 Sa	0052	1.8	55		25 Su	0106	-1.2	-37	10 Tu	0140	1.7	52	25 W	0229	0.0	0	10 Tu	0032	0.4	12	25 W	0111	-1.3	-40				
	0659	14.2	433			0720	16.5	503			0843	14.4		439		0637		14.2	433			0730	15.7	479				
	1305	1.3	40			1329	-1.1	-34			1351	2.0		61		1453		1.0	30			1244	0.9	27		1334	0.0	0
	1922	14.5	442			1947	16.9	515			1954	13.7		418		2107		14.5	442			1849	14.5	442		1950	15.7	479
11 Su	0133	2.3	70		26 M	0159	-0.4	-12	11 W	0223	2.3	70	26 Th	0327	1.2	37	11 W	0109	1.0	30	26 Th	0202	0.0	0				
	0735	13.6	415			0811	15.5	472			0944	13.1		399		0711		13.7	418			0820	14.5	442				
	1346	2.1	64			1422	0.0	0			1554	2.2		67		1321		1.6	49			1427	1.4	43				
	1957	14.0	427			2038	15.9	485			2033	13.2		402		2210		13.3	405			1923	14.1	430		2040	14.3	436
12 M	0217	2.8	85		27 Tu	0255	0.5	15	12 Th	0312	2.8	85	27 F	0430	2.1	64	12 Th	0150	1.6	49	27 F	0257	1.3	40				
	0813	13.0	396			0903	12.1	369			1056	12.2		372		0748		13.2	402			0916	13.2	402				
	1429	2.8	85			1527	3.3	101			1700	3.1		94		1404		2.3	70			1526	2.6	79				
	2035	13.4	408			2123	12.7	387			2323	12.6		384		2001		13.5	411			2139	13.1	399				
13 Tu	0305	3.3	101		28 W	0356	1.3	40	13 F	0409	3.1	94	28 Sa	0537	2.7	82	13 F	0237	2.2	67	28 Sa	0358	2.4	73				
	0856	12.3	375			1005	11.7	357			1214	12.0		366		0833		12.6	384			1024	12.3	375				
	1517	3.5	107			1627	3.7	113			1810	3.5		107		1455		2.9	88			1631	3.5	107				
	2120	13.0	396			2230	12.4	378								2049		13.0	396			2250	12.2	372				
14 W	0358	3.6	110		29 Th	0500	2.0	61	14 Sa	0513	3.1	94	14 Sa	0537	2.7	82	14 Sa	0333	2.6	79	29 Su	0502	3.1	94				
	0951	11.8	360			1121	11.8	360			1214	12.0		366		0931		12.2	372			1140	12.0	366				
	1611	3.9	119			1736	3.6	110			1810	3.5		107		1557		3.3	101			1739	3.9	119				
	2216	12.7	387			2347	12.6	384								2155		12.5	381									
15 Th	0456	3.6	110		30 F	0607	2.3	70	15 Su	0622	2.6	79	15 Su	0438	2.8	85	15 Su	0438	2.8	85	30 M	0004	11.9	363				
	1058	11.7	357			1239	12.6	384			1047	12.1		369		1047		12.1	369			0608	3.3	101				
	1711	4.1	125			1836	3.1	94			1707	3.3		101		1707		3.3	101			1248	12.2	372				
	2322	12.7	387								2316	12.5		381		2316		12.5	381			1846	3.7	113				
				31 Sa	0058	13.4	408																					
					0713	2.2	67																					
					1341	12.9	393																					
					1941	2.9	88																					

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, 2015

Times and Heights of High and Low Waters

April				May				June			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 W	0157	12.7	387	16 Th	0116	14.5	442	1 M	0245	14.2	433
	0803	2.5	76		0734	0.9	27		0858	2.4	73
	1423	13.3	405		1344	15.6	475		1456	15.2	463
	2032	2.3	70		2005	0.2	6		2127	1.1	34
2 Th	0239	13.3	405	17 F	0212	15.5	472	2 Tu	0326	14.8	451
	0847	1.8	55		0830	-0.2	-6		0940	1.8	55
	1501	14.0	427		1437	16.7	509		1536	15.6	475
	2112	1.4	43		2059	-1.0	-30		2206	0.4	12
3 F	0317	13.8	421	18 Sa	0305	16.4	500	3 W	0408	15.3	466
	0925	1.1	34		0921	-1.1	-34		1020	1.3	40
	1535	14.5	442		1527	17.5	533		1618	16.0	488
	2149	0.7	21		2147	-2.0	-61		2245	0.0	0
4 Sa	0353	14.3	436	19 Su	0356	17.0	518	4 Th	0451	15.7	479
	1001	0.6	18		1008	-1.7	-52		1100	1.0	30
	1609	14.9	454		1616	17.9	546		1701	16.2	494
	2223	0.1	3		2233	-2.5	-76		2324	-0.2	-6
5 Su	0429	14.7	448	20 M	0446	17.2	524	5 F	0535	16.0	488
	1036	0.3	9		1053	-1.8	-55		1142	1.0	30
	1642	15.2	463		1705	17.8	543		1746	16.2	494
	2257	-0.2	-6		2317	-2.4	-73				
6 M	0504	14.8	451	21 Tu	0535	17.1	521	6 Sa	0006	-0.1	-3
	1110	0.3	9		1138	-1.3	-40		0620	16.1	491
	1715	15.3	466		1753	17.4	530		1226	1.1	34
	2332	-0.2	-6						1832	16.0	488
7 Tu	0538	14.8	451	22 W	0001	-1.8	-55	7 Su	0051	0.2	6
	1144	0.5	15		0623	16.6	506		0706	16.0	488
	1749	15.2	463		1223	-0.5	-15		1314	1.4	43
					1840	16.6	506		1920	15.7	479
8 W	0007	0.1	3	23 Th	0047	-0.8	-24	8 M	0140	0.8	24
	0613	14.7	448		0710	15.7	479		0754	15.8	482
	1219	1.0	30		1310	0.7	21		1408	1.8	55
	1823	15.0	457		1926	15.6	475		2012	15.1	460
9 Th	0044	0.6	18	24 F	0135	0.4	12	9 Tu	0234	1.3	40
	0650	14.4	439		0758	14.7	448		0847	15.5	472
	1258	1.6	49		1402	1.9	58		1507	2.1	64
	1859	14.6	445		2014	14.4	439		2110	14.6	445
10 F	0125	1.2	37	25 Sa	0227	1.6	49	10 W	0333	1.8	55
	0729	14.0	427		0849	13.7	418		0948	15.2	463
	1343	2.2	67		1458	3.0	91		1610	2.3	70
	1941	14.1	430		2107	13.2	402		2218	14.2	433
11 Sa	0213	1.8	55	26 Su	0323	2.7	82	11 Th	0435	2.2	67
	0815	13.5	411		0948	12.9	393		1054	15.2	463
	1435	2.8	85		1559	3.8	116		1714	2.2	67
	2031	13.5	411		2210	12.3	375		2330	14.1	430
12 Su	0309	2.3	70	27 M	0423	3.4	104	12 F	0539	2.3	70
	0912	13.1	399		1055	12.4	378		1200	15.4	469
	1538	3.1	94		1702	4.2	128		1818	1.9	58
	2135	13.0	396		2321	11.9	363				
13 M	0413	2.5	76	28 Tu	0524	3.8	116	13 Sa	0037	14.5	442
	1024	13.0	396		1202	12.5	381		0644	2.2	67
	1646	3.1	94		1805	4.1	125		1301	15.8	482
	2254	12.9	393						1921	1.3	40
14 Tu	0522	2.4	73	29 W	0026	12.1	369	14 Su	0136	15.0	457
	1140	13.5	411		0624	3.8	116		0745	1.8	55
	1757	2.5	76		1256	12.9	393		1356	16.2	494
					1903	3.6	110		2019	0.6	18
15 W	0011	13.5	411	30 Th	0118	12.5	381	15 M	0231	15.4	469
	0630	1.8	55		0720	3.4	104		0841	1.3	40
	1247	14.5	442		1341	13.5	411		1447	16.5	503
	1905	1.5	46		1954	2.9	88		2110	0.0	0
				1 F	0056	14.6	445				
					0708	1.5	46				
					1321	15.9	485				
					1943	0.7	21				
				2 Sa	0153	15.4	469				
					0807	0.8	24				
					1415	16.7	509				
					2038	-0.3	-9				
				3 Su	0247	16.1	491				
					0900	0.1	3				
					1505	17.2	524				
					2128	-1.0	-30				
				4 M	0320	14.3	436				
					0931	1.6	49				
					1532	15.1	460				
					2155	0.5	15				
				5 Tu	0358	14.7	448				
					1008	1.1	34				
					1608	15.5	472				
					2231	0.1	3				
				6 W	0436	15.1	460				
					1044	0.9	27				
					1645	15.6	475				
					2307	-0.1	-3				
				7 Th	0514	15.2	463				
					1121	0.9	27				
					1723	15.7	479				
					2344	0.0	0				
				8 F	0553	15.3	466				
					1159	1.1	34				
					1802	15.5	472				
				9 Sa	0023	0.3	9				
					0634	15.2	463				
					1241	1.5	46				
					1843	15.2	463				
				10 Su	0106	0.8	24				
					0717	14.9	454				
					1328	2.0	61				
					1929	14.8	451				
				11 M	0155	1.4	43				
					0805	14.6	445				
					1422	2.5	76				
					2021	14.3	436				
				12 Tu	0251	1.9	58				
					0900	14.3	436				
					1523	2.8	85				
					2123	13.8	421				
				13 W	0353	2.3	70				
					1006	14.2	433				
					1629	2.7	82				
					2236	13.6	415				
				14 Th	0458	2.3	70				
					1117	14.5	442				
					1735	2.4	73				
					2350	13.9	424				
				15 F	0604	2.1	64				
					1223	15.1	460				
					1841	1.6	49				
				16 Sa	0120	12.9	393				
					0724	3.7	113				
					1336	14.0	427				
					2000	2.7	82				
				17 Su	0204	13.5	411				
					0814	3.1	94				
					1416	14.6	445				
					2045	1.9	58				

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, 2015

Times and Heights of High and Low Waters

July					August					September													
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					
1 W ○	0257	14.7	448	16 Th	0358	15.5	472	1 Sa	0407	16.7	509	16 Su	0456	15.7	479	1 Tu	0521	18.6	567	16 W	0530	15.8	482
	0913	2.1	64		1000	1.4	43		1021	-0.1	-3		1057	1.0	30		1131	-1.9	-58		1140	0.9	27
	1508	15.7	479		1608	15.9	485		1624	17.1	521		1708	15.5	472		1744	18.1	552		1748	15.3	466
	2141	0.5	15		2221	0.2	6		2245	-1.3	-40		2312	0.5	15		2353	-1.8	-55		2353	1.2	37
2 Th	0343	15.5	472	17 F	0442	15.7	479	2 Su	0455	17.4	530	17 M	0531	15.7	479	2 W	0609	18.5	564	17 Th	0602	15.6	475
	0958	1.3	40		1041	1.2	37		1106	-0.8	-24		1133	1.0	30		1218	-1.6	-49		1215	1.3	40
	1554	16.2	494		1652	15.9	485		1713	17.5	533		1744	15.4	469		1833	17.7	539		1822	15.0	457
	2223	-0.2	-6		2300	0.2	6		2329	-1.6	-49		2347	0.7	21								
3 F	0429	16.2	494	18 Sa	0523	15.8	482	3 M	0543	17.9	546	18 Tu	0605	15.6	475	3 Th	0040	-1.1	-34	18 F	0028	1.9	58
	1041	0.6	18		1120	1.2	37		1152	-1.0	-30		1209	1.3	40		0658	18.0	549		0634	15.2	463
	1642	16.6	506		1733	15.7	479		1803	17.5	533		1818	15.1	460		1307	-0.8	-24		1251	1.9	58
	2305	-0.7	-21		2337	0.4	12						1923	16.9	515		1923	16.9	515		1855	14.5	442
4 Sa	0516	16.7	509	19 Su	0602	15.7	479	4 Tu	0014	-1.4	-43	19 W	0022	1.2	37	4 F	0131	0.0	0	19 Sa	0105	2.6	79
	1125	0.3	9		1159	1.4	43		0631	17.9	546		0637	15.3	466		0747	17.0	518		0707	14.7	448
	1730	16.9	515		1812	15.4	469		1239	-0.7	-21		1246	1.8	55		1401	0.3	9		1331	2.6	79
	2348	-0.8	-24				1852		17.2	524	1852		14.6	445	2016		15.7	479	1932		13.9	424	
5 Su	0603	17.0	518	20 M	0015	0.8	24	5 W	0102	-0.8	-24	20 Th	0058	1.9	58	5 Sa	0226	1.3	40	20 Su	0146	3.4	104
	1210	0.2	6		0639	15.5	472		0720	17.6	536		0709	14.9	454		0841	15.9	485		0744	14.1	430
	1819	16.8	512		1238	1.9	58		1330	-0.2	-6		1325	2.4	73		1459	1.5	46		1417	3.3	101
					1849	14.9	454		1942	16.5	503		1927	14.1	430		2115	14.6	445		2014	13.3	405
6 M	0034	-0.6	-18	21 Tu	0053	1.4	43	6 Th	0154	0.1	3	21 F	0137	2.7	82	6 Su	0327	2.5	76	21 M	0235	4.0	122
	0651	17.1	521		0714	15.1	460		0810	16.9	515		0743	14.3	436		0943	14.7	448		0829	13.5	411
	1258	0.4	12		1319	2.4	73		1425	0.7	21		1407	3.1	94		1602	2.5	76		1512	3.8	116
	1908	16.5	503		1926	14.3	436		2036	15.5	472		2004	13.4	408		2225	13.6	415		2108	12.8	390
7 Tu	0122	-0.1	-3	22 W	0133	2.2	67	7 F	0250	1.2	37	22 Sa	0220	3.5	107	7 M	0433	3.4	104	22 Tu	0335	4.5	137
	0739	16.9	515		0749	14.6	445		0904	16.0	488		0820	13.8	421		1055	13.9	424		0929	13.0	396
	1351	0.8	24		1403	3.0	91		1524	1.5	46		1455	3.6	110		1710	3.1	94		1614	4.0	122
	1959	15.9	485		2003	13.7	418		2137	14.5	442		2048	12.8	390		2343	13.2	402		2219	12.7	387
8 W ○	0215	0.6	18	23 Th	0216	3.0	91	8 Sa	0350	2.2	67	23 Su	0310	4.1	125	8 Tu	0543	3.8	116	23 W	0442	4.5	137
	0830	16.4	500		0825	14.1	430		1007	15.1	460		0907	13.2	402		1210	13.6	415		1048	13.0	396
	1448	1.3	40		1450	3.6	110		1628	2.2	67		1550	4.0	122		1818	3.3	101		1722	3.8	116
	2055	15.2	463		2045	13.0	396		2248	13.8	421		2145	12.3	375						2337	13.2	402
9 Th	0312	1.4	43	24 F	0302	3.7	113	9 Su	0455	2.9	88	24 M	0408	4.5	137	9 W	0053	13.5	411	24 Th	0553	3.9	119
	0927	15.8	482		0907	13.5	411		1117	14.5	442		1009	12.9	393		0651	3.7	113		1205	13.6	415
	1548	1.8	55		1541	4.0	122		1734	2.6	79		1652	4.1	125		1313	13.8	421		1830	3.1	94
	2158	14.5	442		2134	12.4	378				2257		12.2	372	1921		3.0	91					
10 F	0413	2.1	64	25 Sa	0353	4.2	128	10 M	0003	13.5	411	25 Tu	0513	4.6	140	10 Th	0149	13.9	424	25 F	0043	14.2	433
	1031	15.3	466		0959	13.1	399		0603	3.3	101		1123	13.0	396		0751	3.2	98		0700	2.9	88
	1651	2.1	64		1636	4.2	128		1227	14.3	436		1757	3.8	116		1405	14.3	436		1309	14.7	448
	2309	14.0	427		2236	12.1	369		1841	2.6	79				2015		2.5	76	1932		1.9	58	
11 Sa	0516	2.6	79	26 Su	0450	4.5	137	11 Tu	0110	13.7	418	26 W	0010	12.8	390	11 F	0235	14.5	442	26 Sa	0139	15.5	472
	1138	15.1	460		1101	13.0	396		0710	3.3	101		0622	4.1	125		0840	2.5	76		0800	1.5	46
	1756	2.2	67		1735	4.1	125		1328	14.5	442		1232	13.7	418		1449	14.7	448		1403	15.9	485
					2344	12.2	372		1944	2.3	70		1902	2.9	88		2059	1.9	58		2027	0.6	18
12 Su	0019	14.0	427	27 M	0552	4.5	137	12 W	0207	14.2	433	27 Th	0111	13.8	421	12 Sa	0315	15.0	457	27 Su	0230	16.8	512
	0622	2.8	85		1205	13.3	405		0809	2.8	85		0727	3.1	94		0921	1.8	55		0852	0.0	0
	1243	15.2	463		1837	3.6	110		1421	14.8	451		1331	14.7	448		1528	15.1	460		1455	17.1	521
	1901	2.0	61				2037		1.7	52	2000		1.7	52	2000		1.7	52	2137		1.3	40	2116	-0.6	-18
13 M	0122	14.3	436	28 Tu	0046	12.8	390	13 Th	0256	14.7	448	28 F	0204	15.0	457	13 Su	0351	15.4	469	28 M	0319	17.9	546
	0726	2.6	79		0655	4.1	125		0900	2.2	67		0824	1.7	52		0958	1.3	40		0940	-1.3	-40
	1340	15.4	469		1303	14.0	427		1508	15.1	460		1424	15.8	482		1605	15.4	469		1545	17.9	546
	2001	1.5	46		1936	2.7	82		2121	1.2	37		2052	0.4	12		2212	0.9	27		2202	-1.5	-46
14 Tu	0219	14.7	448	29 W	0140	13.7	418	14 F	0339	15.1	460	29 Sa	0254	16.3	497	14 M	0425	15.7	479	29 Tu	0408	18.6	567
	0825	2.2	67		0755	3.2	98		0942	1.7	52		0914	0.3	9		1033	0.9	27		1026	-2.0	-61
	1433	15.6	475		1355	14.8	451		1550	15.4	469		1514	16.8	512		1640	15.5	472		1635	18.3	558
	2054	1.0	30		2029	1.6	49		2201	0.7	21		2139	-0.8	-24		2246	0.8	24		2247	-1.9	-58
15 W ●	0310	15.1	460	30 Th	0230	14.8	451	15 Sa	0419	15.4	469	30 Su	0343	17.4	530	15 Tu	0458	15.8	482	30 W	0457	18.9	576
	0915	1.8	55		0848	2.0	61		1021	1.2	37		1001	-0.9	-27		1106	0.7	21		1111	-2.2	-67
	1522	15.8	482		1445	15.7	479		1630	15.5	472		1604	17.6	536		1715	15.5	472		1725	18.3	558
	2139	0.5	15		2117	0.5	15		2237	0.5	15		2224	-1.7	-52		2319	0.9	27		2333	-1.6	-49
			31 F ○	0318	15.8	482																	
				0936	0.9	27																	
				1534	16.5	503																	
				2202	-0.6	-18																	

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, 2015

Times and Heights of High and Low Waters

October					November					December																			
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	0546	18.7	570		16 F	0530	15.8	482		1 Su	0047	0.7	21		16 M	0020	2.1	64		1 Tu	0115	1.8	55		16 W	0049	1.4	43	
	1157	-1.8	-55			1149	1.0	30			0703	16.7	509			0621	15.4	469			0729	15.3	466			0652	15.5	472	
	1814	17.9	546			1755	15.3	466			1312	0.4	12			1243	1.4	43			1336	1.4	43			1311	0.7	21	
											1936	16.0	488			1853	15.2	463			2001	15.1	460			1924	15.8	482	
2 F	0019	-0.9	-27		17 Sa	0002	1.9	58		2 M	0139	1.9	58		17 Tu	0104	2.6	79		2 W	0207	2.8	85		17 Th	0138	1.7	52	
	0635	18.0	549			0604	15.5	472			0754	15.5	472			0703	15.0	457			0817	14.3	436			0740	15.1	460	
	1244	-0.9	-27			1225	1.5	46			1404	1.7	52			1328	2.0	61			1427	2.5	76			1401	1.3	40	
	1904	17.0	518			1831	15.0	457			2028	15.0	457			1938	14.9	454			2050	14.3	436			2013	15.5	472	
3 Sa	0109	0.3	9		18 Su	0039	2.5	76		3 Tu	0237	3.1	94		18 W	0154	3.0	91		3 Th	0302	3.6	110		18 F	0233	2.0	61	
	0725	17.0	518			0639	15.0	457			0848	14.3	436			0751	14.5	442			0909	13.3	405			0833	14.5	442	
	1336	0.3	9			1304	2.1	64			1502	2.9	88			1421	2.5	76			1521	3.4	104			1457	1.9	58	
	1956	15.9	485			1909	14.5	442		○	2127	14.0	427			2028	14.6	445		○	2144	13.6	415			2108	15.1	460	
4 Su	0203	1.6	49		19 M	0121	3.2	98		4 W	0339	3.9	119		19 Th	0252	3.3	101		4 F	0400	4.1	125		19 Sa	0333	2.3	70	
	0817	15.7	479			0719	14.5	442			0951	13.3	405			0848	14.0	427			1009	12.6	384			0935	14.0	427	
	1432	1.7	52			1349	2.8	85			1603	3.7	113			1520	2.9	88			1617	4.1	125			1558	2.3	70	
	2053	14.7	448			1952	14.1	430			2235	13.4	408		○	2129	14.4	439			2245	13.1	399			2211	14.9	454	
5 M	0303	2.9	88		20 Tu	0211	3.8	116		5 Th	0443	4.4	134		20 F	0355	3.4	104		5 Sa	0459	4.3	131		20 Su	0437	2.3	70	
	0917	14.4	439			0805	13.9	424			1103	12.8	390			0957	13.7	418			1116	12.2	372			1047	13.8	421	
	1534	2.8	85			1442	3.4	104			1706	4.2	128			1624	3.1	94			1715	4.4	134			1702	2.5	76	
	2159	13.7	418		●	2044	13.7	418			2344	13.3	405			2238	14.5	442			2346	13.1	399			2321	14.9	454	
6 Tu	0409	3.8	116		21 W	0311	4.1	125		6 F	0547	4.4	134		21 Sa	0502	3.0	91		6 Su	0558	4.2	128		21 M	0542	2.0	61	
	1028	13.5	411			0904	13.4	408			1211	12.8	390			1113	13.9	424			1218	12.4	378			1200	14.0	427	
	1640	3.6	110			1545	3.7	113			1807	4.3	131			1730	2.8	85			1813	4.4	134			1809	2.4	73	
	2316	13.3	405			2151	13.5	411							2348	15.1	460												
7 W	0518	4.2	128		22 Th	0418	4.1	125		7 Sa	0041	13.6	415		22 Su	0608	2.4	73		7 M	0040	13.4	408		22 Tu	0027	15.3	466	
	1144	13.1	399			1020	13.3	405			0646	4.0	122			1223	14.5	442			0654	3.7	113			0648	1.5	46	
	1747	3.9	119			1652	3.6	110			1306	13.2	402			1835	2.3	70			1310	12.8	390			1305	14.5	442	
					2307	13.8	421			1903	4.0	122							1909	4.1	125			1914	2.0	61			
8 Th	0026	13.4	408		23 F	0527	3.6	110		8 Su	0128	14.1	430		23 M	0050	15.9	485		8 Tu	0125	13.9	424		23 W	0126	15.8	482	
	0625	4.1	125			1139	13.8	421			0738	3.4	104			0711	1.4	43			0746	3.0	91			0749	0.7	21	
	1249	13.3	405			1759	3.0	91			1351	13.7	418			1323	15.4	469			1355	13.4	408			1403	15.2	463	
	1850	3.7	113							1953	3.5	107			1936	1.5	46			2000	3.5	107			2014	1.3	40		
9 F	0122	13.8	421		24 Sa	0016	14.7	448		9 M	0207	14.6	445		24 Tu	0145	16.8	512		9 W	0206	14.4	439		24 Th	0221	16.3	497	
	0724	3.6	110			0634	2.6	79			0823	2.6	79			0809	0.3	9			0831	2.2	67			0845	-0.1	-3	
	1341	13.8	421			1246	14.7	448			1430	14.3	436			1418	16.3	497			1436	14.0	427			1457	15.8	482	
	1944	3.3	101			1903	2.1	64			2036	2.9	88			2032	0.6	18			2045	2.9	88			2108	0.7	21	
10 Sa	0206	14.4	439		25 Su	0114	15.9	485		10 Tu	0243	15.1	460		25 W	0237	17.5	533		10 Th	0245	14.9	454		25 F	0313	16.7	509	
	0813	2.9	88			0735	1.4	43			0903	1.8	55			0901	-0.7	-21			0913	1.4	43			0934	-0.8	-24	
	1424	14.3	436			1343	15.9	485			1507	14.8	451			1510	17.0	518			1515	14.6	445			1549	16.2	494	
	2029	2.6	79			2001	1.0	30			2116	2.3	70		○	2123	-0.1	-3			2127	2.2	67		○	2156	0.2	6	
11 Su	0244	14.9	454		26 M	0207	17.1	521		11 W	0317	15.5	472		26 Th	0327	17.9	546		11 F	0323	15.3	466		26 Sa	0403	16.8	512	
	0855	2.1	64			0830	0.0	0			0940	1.2	37			0949	-1.4	-43			0952	0.7	21			1019	-1.1	-34	
	1501	14.8	451			1435	16.9	515			1543	15.2	463			1601	17.3	527			1555	15.1	460			1638	16.5	503	
	2108	2.0	61			2053	-0.1	-3		●	2153	1.8	55			2210	-0.5	-15		●	2206	1.7	52			2241	0.0	0	
12 M	0318	15.4	469		27 Tu	0257	18.0	549		12 Th	0352	15.8	482		27 F	0417	18.0	549		12 Sa	0403	15.7	479		27 Su	0451	16.7	509	
	0932	1.5	46			0920	-1.2	-37			1016	0.7	21			1034	-1.6	-49			1029	0.2	6			1102	-1.1	-34	
	1537	15.2	463			1526	17.7	539			1620	15.5	472			1651	17.4	530			1635	15.5	472			1725	16.5	503	
	2145	1.5	46		○	2142	-0.9	-27			2229	1.6	49			2256	-0.4	-12			2245	1.3	40			2324	0.1	3	
13 Tu	0351	15.7	479		28 W	0346	18.6	567		13 F	0428	15.9	485		28 Sa	0507	17.7	539		13 Su	0443	15.9	485		28 M	0538	16.4	500	
	1006	0.9	27			1051	0.5	15			1119	-1.3	-40			1107	0.0	0			1143	-0.7	-21						
	1612	15.5	472			1657	15.6	475			1740	17.2	524			1716	15.8	482			1809	16.3	497						
	2219	1.3	40			2228	-1.2	-37			2305	1.6	49			2341	0.0	0			2324	1.1	34						
14 W	0424	15.9	485		29 Th	0435	18.7	570		14 Sa	0504	15.9	485		29 Su	0555	17.2	524		14 M	0525	15.9	485		29 Tu	0006	0.5	15	
	1040	0.7	21			1052	-2.1	-64			1126	0.6	18			1203	-0.7	-21			1146	0.0	0			0622	15.8	482	
	1646	15.6	475			1706	18.1	552			1734	15.6	475			1828	16.7	509			1757	15.9	485			1224	0.0	0	
	2253	1.2	37			2313	-1.1	-34			2341	1.8	55								1851	15.8	482						
15 Th	0457	15.9	485		30 F	0525	18.4	561		15 Su	0542	15.7	479		30 M	0027	0.8	24		15 Tu	0004	1.1	34		30 W	0050	1.2	37	
	1114	0.7	21			1137	-1.7	-52			1203	0.9	27			0643	16.3	497			0608	15.8	482			0703	15.1	460	
	1721	15.5	472			1756	17.7	539			1813	15.4	469			1248	0.3	9			1227	0.3	9			1306	0.8	24	
	2327	1.5	46			2359	-0.4	-12							1915	16.0	488			1840	15.9	485			1931	15.2	463		
					31 Sa	0614	17.7	539																					
							1223	-0.8	-24				</																

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, 2015

Times and Heights of High and Low Waters

January				February				March															
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									
1 Th	0528	1.0	30	16 F	0444	1.7	52	1 Su	0047	8.1	247	16 M	0608	0.9	27	1 Su	0546	1.4	43	16 M	0431	1.2	37
	1145	7.8	238		1104	6.9	210		0709	1.0	30		1231	7.7	235		1206	7.1	216		1058	7.3	223
	1743	1.3	40		1654	1.9	58		1325	7.7	235		1830	1.0	30		1811	1.8	55		1700	1.3	40
					2326	7.9	241		1926	1.4	43								2327	7.8	238		
2 F	0008	8.7	265	17 Sa	0544	1.4	43	2 M	0139	8.3	253	17 Tu	0053	8.5	259	2 M	0026	7.5	229	17 Tu	0538	0.8	24
	0630	0.8	24		1205	7.2	219		0757	0.7	21		0706	0.2	6		0646	1.2	37		1204	7.9	241
	1246	7.9	241		1756	1.6	49		1413	8.0	244		1327	8.5	259		1302	7.4	226		1808	0.7	21
	1844	1.3	40						2014	1.2	37		1929	0.3	9		1908	1.5	46				
3 Sa	0104	8.8	268	18 Su	0024	8.3	253	3 Tu	0225	8.5	259	18 W	0148	9.1	277	3 Tu	0119	7.7	235	18 W	0030	8.3	253
	0725	0.6	18		0641	0.9	27		0839	0.4	12		0759	-0.4	-12		0734	0.9	27		0640	0.2	6
	1340	8.2	250		1301	7.8	238		1455	8.4	256		1419	9.3	283		1350	7.8	238		1302	8.6	262
	1939	1.1	34		1855	1.1	34	○	2056	0.9	27	●	2023	-0.4	-12		1955	1.2	37		1909	0.0	0
4 Su	0155	8.9	271	19 M	0118	8.8	268	4 W	0306	8.6	262	19 Th	0240	9.7	296	4 W	0204	8.0	244	19 Th	0127	8.9	271
	0813	0.3	9		0733	0.3	9		0917	0.2	6		0849	-1.0	-30		0815	0.6	18		0735	-0.5	-15
	1429	8.4	256		1353	8.5	259		1534	8.6	262		1508	9.9	302		1430	8.2	250		1355	9.4	287
○	2027	1.0	30		1950	0.5	15		2134	0.7	21		2114	-1.0	-30		2035	0.8	24		2004	-0.7	-21
5 M	0241	9.0	274	20 Tu	0209	9.3	283	5 Th	0344	8.7	265	20 F	0329	10.1	308	5 Th	0244	8.3	253	20 F	0220	9.5	290
	0857	0.1	3		0822	-0.3	-9		0952	0.1	3		0937	-1.5	-46		0851	0.3	9		0826	-1.0	-30
	1513	8.7	265		1442	9.1	277		1610	8.8	268		1556	10.4	317		1507	8.5	259		1445	10.1	308
	2111	0.8	24	●	2041	0.0	0		2210	0.5	15		2203	-1.3	-40	○	2111	0.5	15	●	2055	-1.3	-40
6 Tu	0324	9.1	277	21 W	0258	9.8	299	6 F	0421	8.7	265	21 Sa	0417	10.2	311	6 F	0321	8.5	259	21 Sa	0310	9.9	302
	0937	0.0	0		0910	-0.9	-27		1026	0.0	0		1024	-1.6	-49		0925	0.1	3		0915	-1.4	-43
	1554	8.8	268		1529	9.7	296		1645	8.9	271		1643	10.6	323		1542	8.7	265		1533	10.5	320
	2153	0.8	24		2131	-0.5	-15		2246	0.5	15		2252	-1.4	-43		2145	0.2	6		2144	-1.6	-49
7 W	0404	9.0	274	22 Th	0347	10.1	308	7 Sa	0457	8.6	262	22 Su	0506	10.1	308	7 Sa	0357	8.6	262	22 Su	0358	10.1	308
	1015	0.0	0		0957	-1.2	-37		1100	0.1	3		1111	-1.5	-46		0958	0.0	0		1002	-1.5	-46
	1634	8.9	271		1617	10.1	308		1720	8.8	268		1731	10.5	320		1615	8.9	271		1621	10.6	323
	2232	0.8	24		2221	-0.8	-24		2322	0.5	15		2341	-1.2	-37		2219	0.1	3		2231	-1.6	-49
8 Th	0443	8.9	271	23 F	0435	10.2	311	8 Su	0533	8.4	256	23 M	0555	9.7	296	8 Su	0432	8.5	259	23 M	0446	10.0	305
	1051	0.1	3		1044	-1.3	-40		1134	0.3	9		1159	-1.1	-34		1031	0.0	0		1049	-1.4	-43
	1712	8.8	268		1704	10.3	314		1755	8.7	265		1820	10.1	308		1649	8.9	271		1708	10.4	317
	2311	0.8	24		2310	-0.9	-27		2358	0.6	18					2254	0.1	3		2319	-1.4	-43	
9 F	0522	8.6	262	24 Sa	0524	10.0	305	9 M	0609	8.1	247	24 Tu	0031	-0.8	-24	9 M	0506	8.4	256	24 Tu	0535	9.6	293
	1128	0.3	9		1131	-1.2	-37		1208	0.6	18		0646	9.1	277		1104	0.2	6		1137	-0.9	-27
	1750	8.7	265		1753	10.3	314		1831	8.4	256		1248	-0.4	-12		1723	8.8	268		1756	9.9	302
	2349	1.0	30									1912	9.5	290		2328	0.2	6					
10 Sa	0601	8.3	253	25 Su	0000	-0.7	-21	10 Tu	0036	0.9	27	25 W	0124	-0.1	-3	10 Tu	0541	8.1	247	25 W	0008	-0.9	-27
	1204	0.6	18		0614	9.6	293		0647	7.7	235		0740	8.4	256		1138	0.4	12		0625	9.0	274
	1828	8.5	259		1220	-0.8	-24		1245	0.9	27		1342	0.3	9		1757	8.6	262		1226	-0.3	-9
					1843	10.0	305		1909	8.2	250	○	2007	8.8	268					1847	9.2	280	
11 Su	0029	1.2	37	26 M	0053	-0.3	-9	11 W	0117	1.1	34	26 Th	0221	0.5	15	11 W	0005	0.4	12	26 Th	0059	-0.2	-6
	0641	7.9	241		0707	9.1	277		0729	7.3	223		0840	7.8	238		0618	7.8	238		0718	8.4	256
	1242	0.9	27		1311	-0.3	-9		1325	1.3	40		1441	1.0	30		1214	0.7	21		1318	0.5	15
	1908	8.2	250	○	1937	9.5	290	○	1951	7.9	241		2109	8.1	247		1834	8.3	253		1940	8.5	259
12 M	0111	1.4	43	27 Tu	0148	0.2	6	12 Th	0203	1.4	43	27 F	0326	1.1	34	12 Th	0044	0.7	21	27 F	0153	0.5	15
	0723	7.5	229		0803	8.5	259		0817	7.0	213		0948	7.3	223		0658	7.5	229		0816	7.7	235
	1322	1.3	40		1406	0.3	9		1412	1.6	49		1548	1.6	49		1255	1.0	30		1416	1.2	37
	1950	8.0	244		2034	9.0	274		2041	7.7	235		2216	7.6	232		1916	8.0	244	○	2040	7.8	238
13 Tu	0157	1.7	52	28 W	0249	0.7	21	13 F	0256	1.6	49	28 Sa	0436	1.4	43	13 F	0129	1.0	30	28 Sa	0254	1.1	34
	0809	7.2	219		0906	7.9	241		0914	6.8	207		1059	7.0	213		0745	7.2	219		0920	7.2	219
	1406	1.6	49		1506	1.0	30		1509	1.8	55		1702	1.9	58		1342	1.3	40		1522	1.7	52
○	2037	7.8	238		2136	8.5	259		2141	7.5	229		2324	7.4	226	○	2006	7.7	235		2146	7.3	223
14 W	0247	1.8	55	29 Th	0355	1.0	30	14 Sa	0358	1.6	49	15 Su	0505	1.4	43	14 Sa	0221	1.2	37	29 Su	0402	1.5	46
	0902	6.9	210		1013	7.5	229		1021	6.8	207		10841	7.0	213		0841	7.0	213		1029	7.0	213
	1456	1.9	58		1613	1.4	43		1615	1.8	55		1439	1.5	46		1439	1.5	46		1634	2.0	61
	2129	7.7	235		2242	8.2	250		2247	7.6	232					2107	7.5	229		2254	7.0	213	
15 Th	0344	1.9	58	30 F	0505	1.2	37	15 Su	0505	1.4	43	15 Su	0323	1.3	40	15 Su	0323	1.3	40	30 M	0510	1.6	49
	1002	6.7	204		1123	7.3	223		1129	7.1	216		0948	7.0	213		1134	7.1	216		1134	7.1	216
	1552	2.0	61		1723	1.7	52		1724	1.5	46		1547	1.6	49		1743	1.9	58		1743	1.9	58
	2227	7.7	235		2348	8.1	247		2353	8.0	244		2217	7.5	229					2357	7.1	216	
				31 Sa	0611	1.2	37												31 Tu	0610	1.5	46	
					1228	7.4	226														1230	7.3	223
					1829	1.6	49														1840	1.6	49

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.

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, 2015

Times and Heights of High and Low Waters

July					August					September																			
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 W ○	0201	8.2	250		16 Th	0251	8.8	268		1 Sa	0306	9.5	290		16 Su	0353	9.0	274		1 Tu	0416	10.7	326		16 W	0432	9.1	277	
	0753	1.2	37			0851	0.9	27			0908	0.0	0			0955	0.7	21			1024	-1.2	-37			1037	0.3	9	
	1413	9.1	277			1504	9.2	280			1523	9.9	302			1605	8.9	271			1638	10.3	314			1651	8.6	262	
	2027	0.3	9			2118	0.1	3			2133	-0.7	-21			2210	0.2	6			2243	-1.2	-37			2248	0.5	15	
2 Th	0246	8.7	265		17 F	0336	9.0	274		2 Su	0352	10.0	305		17 M	0429	9.1	277		2 W	0503	10.7	326		17 Th	0506	9.0	274	
	0840	0.8	24			0936	0.8	24			0956	-0.4	-12			1031	0.6	18			1113	-1.1	-34			1112	0.4	12	
	1458	9.4	287			1547	9.2	280			1611	10.1	308			1642	8.8	268			1727	10.0	305			1726	8.3	253	
	2111	-0.1	-3			2159	0.1	3			2219	-0.9	-27			2245	0.3	9			2331	-0.9	-27			2322	0.7	21	
3 F	0330	9.1	277		18 Sa	0417	9.1	277		3 M	0439	10.3	314		18 Tu	0505	9.1	277		3 Th	0552	10.4	317		18 F	0541	8.7	265	
	0927	0.4	12			1017	0.8	24			1044	-0.6	-18			1107	0.6	18			1203	-0.8	-24			1149	0.7	21	
	1544	9.7	296			1629	9.1	277			1658	10.1	308			1719	8.6	262			1818	9.6	293			1803	8.0	244	
	2155	-0.4	-12			2237	0.2	6			2305	-0.9	-27			2320	0.5	15								2358	1.0	30	
4 Sa	0415	9.5	290		19 Su	0457	9.1	277		4 Tu	0526	10.4	317		19 W	0540	8.9	271		4 F	0621	-0.4	-12		19 Sa	0618	8.4	256	
	1014	0.1	3			1058	0.8	24			1133	-0.6	-18			1144	0.8	24			1255	-0.9	-6			1227	1.0	30	
	1630	9.8	299			1709	8.9	271			1747	9.9	302			1756	8.3	253			1912	8.2	271			1843	7.6	232	
	2240	-0.5	-15			2315	0.3	9			2353	-0.7	-21			2355	0.8	24											
5 Su	0500	9.7	296		20 M	0537	9.0	274		5 W	0615	10.2	311		20 Th	0616	8.7	265		5 Sa	0114	0.2	6		20 Su	0038	1.4	43	
	1102	0.0	0			1138	1.0	30			1224	-0.3	-9			1222	1.0	30			1352	0.4	12			0659	8.1	247	
	1717	9.7	296			1749	8.6	262			1839	9.5	290			1835	7.9	241			2012	8.3	253			1310	1.3	40	
	2325	-0.5	-15			2352	0.6	18													1928	7.3	223						
6 M	0548	9.8	299		21 Tu	0616	8.8	268		6 Th	0043	-0.3	-9		21 F	0031	1.1	34		6 Su	0213	0.9	27		21 M	0124	1.7	52	
	1152	0.0	0			1218	1.2	37			0707	9.9	302			0655	8.4	256			0840	8.6	262			0747	7.7	235	
	1806	9.5	290			1829	8.2	250			1318	0.1	3			1302	1.3	40			1456	1.0	30			1400	1.6	49	
											1933	8.9	271			1916	7.5	229			2118	7.8	238			●	2022	7.1	216
7 Tu	0013	-0.3	-9		22 W	0030	0.9	27		7 F	0136	0.2	6		22 Sa	0111	1.5	46		7 M	0320	1.5	46		22 Tu	0218	2.0	61	
	0637	9.7	296			0656	8.5	259			0803	9.4	287			0737	8.0	244			0947	8.1	247			0845	7.5	229	
	1244	0.2	6			1259	1.4	43			1416	0.5	15			1347	1.6	49			1606	1.3	40			1459	1.7	52	
	1858	9.1	277			1911	7.8	238			2033	8.4	256			●	2003	7.2	219			2229	7.5	229			2125	7.1	216
8 W ○	0103	0.0	0		23 Th	0110	1.3	40		8 Sa	0234	0.8	24		23 Su	0157	1.9	58		8 Tu	0433	1.8	55		23 W	0324	2.0	61	
	0729	9.6	293			0737	8.3	253			0903	9.0	274			0825	7.8	238			1056	7.9	241			0952	7.5	229	
	1339	0.4	12			1343	1.7	52			1520	0.9	27			1438	1.8	55			1716	1.4	43			1605	1.6	49	
	1954	8.7	265			●	1956	7.4	226			2139	7.9	241			2058	6.9	210			2338	7.6	232			2233	7.3	223
9 Th	0157	0.4	12		24 F	0152	1.7	52		9 Su	0339	1.3	40		24 M	0251	2.1	64		9 W	0545	1.8	55		24 Th	0434	1.8	55	
	0826	9.3	283			0822	8.0	244			1008	8.6	262			0922	7.6	232			1201	7.9	241			1100	7.7	235	
	1438	0.7	21			1432	1.9	58			1628	1.2	37			1538	1.9	58			1819	1.3	40			1711	1.3	40	
	2054	8.3	253			2047	7.1	216			2248	7.7	235			2201	6.9	210								2337	7.9	241	
10 F	0256	0.8	24		25 Sa	0240	2.0	61		10 M	0448	1.6	49		25 Tu	0353	2.2	67		10 Th	0037	7.8	238		25 F	0541	1.2	37	
	0926	9.1	277			0912	7.8	238			1115	8.4	256			1025	7.6	232			0645	1.6	49			1203	8.2	250	
	1542	0.9	27			1525	2.0	61			1737	1.2	37			1641	1.8	55			1257	8.0	244			1811	0.7	21	
	2159	8.1	247			2143	6.9	210			2356	7.8	238			2306	7.1	216			1912	1.1	34						
11 Sa	0359	1.1	34		26 Su	0333	2.2	67		11 Tu	0557	1.7	52		26 W	0501	2.0	61		11 F	0127	8.2	250		26 Sa	0035	8.6	262	
	1029	8.9	271			1007	7.8	238			1218	8.4	256			1130	7.9	241			0735	1.3	40			0641	0.5	15	
	1648	1.0	30			1623	2.0	61			1839	1.1	34			1744	1.4	43			1344	8.3	253			1300	8.8	268	
	2306	8.0	244			2244	6.9	210											1955		0.8	24		1906		0.1	3		
12 Su	0504	1.3	40		27 M	0433	2.2	67		12 W	0056	8.0	244		27 Th	0008	7.7	235		12 Sa	0210	8.5	259		27 Su	0127	9.4	287	
	1132	8.9	271			1105	7.9	241			0659	1.5	46			0605	1.5	46			0817	1.0	30			0736	-0.2	-6	
	1753	0.9	27			1723	1.8	55			1314	8.5	259			1229	8.4	256			1426	8.5	259			1352	9.4	287	
						2344	7.2	219			1932	0.8	24			1841	0.8	24			2033	0.6	18			○	1957	-0.5	-15
13 M	0010	8.1	247		28 Tu	0534	2.0	61		13 Th	0148	8.3	253		28 F	0103	8.4	256		13 Su	0248	8.8	268		28 M	0217	10.1	308	
	0609	1.3	40			1202	8.2	250			0751	1.3	40			0704	0.8	24			0854	0.7	21			0826	-0.9	-27	
	1232	8.9	271			1819	1.4	43			1403	8.7	265			1323	9.0	274			1504	8.7	265			1442	9.9	302	
	1853	0.7	21								2018	0.6	18			1933	0.2	6			●	2108	0.4	12			2046	-1.0	-30
14 Tu	0109	8.3	253		29 W	0040	7.6	232		14 F	0234	8.6	262		29 Sa	0153	9.1	277		14 M	0324	9.0	274		29 Tu	03053			

Puntarenas, Costa Rica, 2015

Times and Heights of High and Low Waters

October					November					December													
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					
1 Th	0440	10.7	326	16 F	0436	9.0	274	1 Su	0558	9.6	293	16 M	0528	8.8	268	1 Tu	0011	0.7	21	16 W	0555	8.9	271
	1051	-1.3	-40		1044	0.2	6		1210	-0.3	-9		1138	0.3	9		0625	8.8	268		1204	0.1	3
	1707	10.0	305		1700	8.4	256		1831	9.0	274		1759	8.4	256		1235	0.3	9		1827	9.0	274
	2310	-0.9	-27		2254	0.8	24				2356		1.0	30	1901		8.7	265					
2 F	0529	10.4	317	17 Sa	0511	8.8	268	2 M	0033	0.6	18	17 Tu	0611	8.5	259	2 W	0103	1.2	37	17 Th	0030	0.7	21
	1141	-0.9	-27		1121	0.4	12		0650	8.9	271		1222	0.6	18		0717	8.2	250		0644	8.7	265
	1758	9.5	290		1738	8.2	250		1302	0.4	12		1845	8.2	250		1324	0.9	27		1251	0.3	9
					2332	1.0	30		1927	8.4	256				1953		8.2	250	1917		8.9	271	
3 Sa	0000	-0.3	-9	18 Su	0549	8.5	259	3 Tu	0129	1.2	37	18 W	0044	1.2	37	3 Th	0157	1.7	52	18 F	0123	0.8	24
	0620	9.8	299		1200	0.6	18		0747	8.2	250		0700	8.2	250		0811	7.6	232		0737	8.3	253
	1232	-0.3	-9		1818	7.9	241		1358	1.0	30		1310	0.8	24		1416	1.4	43		1342	0.6	18
	1852	8.9	271		●	2027	8.0		244	1936	8.1		247	2048	7.9		241	●	2011		8.8	268	
4 Su	0053	0.4	12	19 M	0013	1.3	40	4 W	0232	1.7	52	19 Th	0139	1.4	43	4 F	0255	2.0	61	19 Sa	0221	1.0	30
	0715	9.0	274		0631	8.2	250		0849	7.6	232		0756	7.9	241		0909	7.2	219		0836	8.0	244
	1328	0.4	12		1243	0.9	27		1500	1.5	46		1404	1.0	30		1511	1.8	55		1439	0.8	24
	1950	8.3	253		1903	7.7	235		2130	7.7	235		●	2034	8.2		250	2144	7.7		235	2111	8.7	265
5 M	0152	1.1	34	20 Tu	0100	1.5	46	5 Th	0339	2.0	61	20 F	0241	1.4	43	5 Sa	0356	2.1	64	20 Su	0324	1.0	30
	0815	8.3	253		0719	7.9	241		0955	7.2	219		0859	7.7	235		1010	7.0	213		0941	7.9	241
	1429	1.0	30		1332	1.2	37		1603	1.8	55		1505	1.1	34		1609	2.0	61		1542	1.0	30
	2055	7.8	238		●	1956	7.5		229	2233	7.6		232	2137	8.3		253	2240	7.7		235	2214	8.8	268
6 Tu	0259	1.7	52	21 W	0156	1.7	52	6 F	0446	2.0	61	21 Sa	0348	1.3	40	6 Su	0456	2.0	61	21 M	0431	0.9	27
	0922	7.7	235		0817	7.6	232		1059	7.2	219		1007	7.8	238		1109	7.0	213		1048	7.9	241
	1537	1.4	43		1429	1.4	43		1705	1.8	55		1609	1.1	34		1705	2.1	64		1647	1.0	30
	2204	7.5	229		2058	7.5	229		2330	7.7	235		2240	8.6	262		2333	7.8	238		2317	9.0	274
7 W	0412	1.9	58	22 Th	0301	1.8	55	7 Sa	0545	1.8	55	22 Su	0454	0.9	27	7 M	0550	1.8	55	22 Tu	0536	0.7	21
	1031	7.5	229		0924	7.5	229		1156	7.3	223		1113	8.0	244		1204	7.1	216		1154	8.1	247
	1646	1.6	49		1533	1.4	43		1758	1.7	52		1713	0.8	24		1757	2.0	61		1752	0.9	27
	2311	7.5	229		2204	7.8	238				2341		9.1	277									
8 Th	0523	1.9	58	23 F	0411	1.5	46	8 Su	0020	8.0	244	23 M	0557	0.4	12	8 Tu	0021	8.0	244	23 W	0018	9.2	280
	1136	7.5	229		1033	7.7	235		0635	1.5	46		1214	8.5	259		0639	1.5	46		0637	0.3	9
	1749	1.6	49		1639	1.2	37		1245	7.5	229		1814	0.5	15		1253	7.4	226		1254	8.5	259
					2308	8.2	250		1845	1.5	46				1845		1.8	55	1853		0.6	18	
9 F	0009	7.8	238	24 Sa	0518	1.0	30	9 M	0103	8.3	253	24 Tu	0038	9.6	293	9 W	0106	8.3	253	24 Th	0115	9.5	290
	0622	1.7	52		1138	8.1	247		0717	1.1	34		0655	-0.1	-3		0722	1.1	34		0733	-0.1	-3
	1232	7.6	232		1742	0.7	21		1329	7.8	238		1311	8.9	271		1338	7.7	235		1350	8.8	268
	1841	1.4	43				1926		1.3	40	1911		0.1	3	1929		1.5	46	1949		0.4	12	
10 Sa	0058	8.1	247	25 Su	0007	8.9	271	10 Tu	0143	8.6	262	25 W	0132	10.0	305	10 Th	0148	8.6	262	25 F	0208	9.7	296
	0710	1.3	40		0619	0.4	12		0756	0.8	24		0748	-0.6	-18		0803	0.7	21		0825	-0.4	-12
	1319	7.9	241		1237	8.7	265		1409	8.1	247		1404	9.3	283		1419	8.1	247		1442	9.2	280
	1924	1.1	34		1839	0.2	6		2004	1.1	34		●	2004	-0.2		-6	2011	1.2		37	2042	0.2	6
11 Su	0140	8.4	256	26 M	0102	9.6	293	11 W	0220	8.9	271	26 Th	0223	10.3	314	11 F	0228	8.9	271	26 Sa	0258	9.8	299
	0750	1.0	30		0715	-0.3	-9		0832	0.4	12		0839	-0.9	-27		0842	0.3	9		0913	-0.6	-18
	1400	8.2	250		1331	9.2	280		1447	8.3	253		1455	9.6	293		1459	8.4	256		1531	9.4	287
	2002	0.9	27		1933	-0.3	-9		●	2040	0.9		27	2055	-0.4		-12	●	2052		1.0	30	2131	0.1	3
12 M	0217	8.7	265	27 Tu	0153	10.2	311	12 Th	0257	9.1	277	27 F	0312	10.4	317	12 Sa	0308	9.1	277	27 Su	0345	9.8	299
	0827	0.6	18		0806	-0.9	-27		0908	0.2	6		0927	-1.0	-30		0921	0.1	3		0959	-0.6	-18
	1438	8.4	256		1422	9.7	296		1524	8.5	259		1544	9.7	296		1539	8.6	262		1617	9.5	290
	●	2037	0.7		21	○	2023		-0.7	-21	2117		0.8	24	2144		-0.3	-9	2132		0.7	21	2218	0.2	6
13 Tu	0252	8.9	271	28 W	0242	10.6	323	13 F	0333	9.2	280	28 Sa	0401	10.2	311	13 Su	0348	9.3	283	28 M	0431	9.6	293
	0901	0.3	9		0856	-1.3	-40		0944	0.1	3		1014	-0.9	-27		0959	-0.1	-3		1042	-0.5	-15
	1514	8.6	262		1511	10.0	305		1601	8.6	262		1633	9.7	296		1618	8.8	268		1702	9.4	287
	2111	0.6	18		2112	-0.9	-27		2154	0.7	21		2233	-0.1	-3		2214	0.6	18		2303	0.4	12
14 W	0327	9.1	277	29 Th	0331	10.7	326	14 Sa	0410	9.1	277	29 Su	0448	9.9	302	14 M	0428	9.3	283	29 Tu	0515	9.3	283
	0935	0.2	6		0944	-1.4	-43		1021	0.0	0		1101	-0.7	-21		1039	-0.1	-3		1125	-0.2	-6
	1549	8.6	262		1600	10.1	308		1638	8.6	262		1721	9.4	287		1659	8.9	271		1747	9.2	280
	2145	0.5	15		2201	-0.8	-24		2232	0.8	24		2322	0.2	6		2256	0.5	15		2348	0.6	18
15 Th	0401	9.1	277	30 F	0419	10.6	323	15 Su	0448	9.0	274	30 M	0536	9.4	287	15 Tu	0511	9.2	280	30 W	0600	8.8	268
	1009	0.1	3		1																		

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Times and Heights of High and Low Waters

January				February				March															
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									
1 Th	0528	1.1	34	16 F	0439	1.8	55	1 Su	0103	8.6	262	16 M	0607	0.9	27	1 Su	0538	1.8	55	16 M	0429	1.2	37
	1157	8.1	247		1056	7.5	229		0707	1.3	40		1235	8.2	250		1219	7.4	226		1059	8.0	244
	1744	1.5	46		1651	2.1	64		1347	7.9	241		1833	1.1	34		1806	2.2	67		1700	1.4	43
					2327	8.7	265		1927	1.7	52						2329	8.7	265				
2 F	0026	9.2	280	17 Sa	0541	1.5	46	2 M	0157	8.7	265	17 Tu	0101	9.3	283	2 M	0034	8.0	244	17 Tu	0537	0.8	24
	0631	1.0	30		1201	7.7	235		0757	1.0	30		0708	0.2	6		0641	1.7	52		1210	8.5	259
	1304	8.2	250		1756	1.8	55		1438	8.3	253		1340	9.0	274		1322	7.7	235		1810	0.9	27
	1847	1.4	43						2016	1.4	43		1935	0.4	12		1907	2.0	61				
3 Sa	0125	9.3	283	18 Su	0028	9.1	277	3 Tu	0244	8.9	271	18 W	0201	9.9	302	3 Tu	0131	8.2	250	18 W	0036	9.1	277
	0726	0.8	24		0641	0.9	27		0840	0.7	21		0803	-0.5	-15		0733	1.4	43		0641	0.2	6
	1403	8.4	256		1305	8.2	250		1520	8.6	262		1438	9.8	299		1412	8.1	247		1316	9.2	280
	1943	1.2	37		1859	1.2	37		2100	1.1	34		2031	-0.4	-12		1957	1.6	49		1915	0.2	6
4 Su	0217	9.4	287	19 M	0128	9.5	290	4 W	0324	9.1	277	19 Th	0258	10.4	317	4 W	0218	8.4	256	19 Th	0139	9.6	293
	0816	0.5	15		0736	0.3	9		0920	0.5	15		0855	-1.1	-34		0816	1.1	34		0739	-0.4	-12
	1454	8.7	265		1405	8.9	271		1556	8.9	271		1532	10.5	320		1453	8.5	259		1416	10.0	305
	2032	1.0	30		1956	0.6	18		2140	0.8	24		2123	-1.0	-30		2039	1.2	37		2012	-0.6	-18
5 M	0303	9.5	290	20 Tu	0224	10.0	305	5 Th	0400	9.2	280	20 F	0350	10.7	326	5 Th	0258	8.7	265	20 F	0237	10.1	308
	0900	0.3	9		0827	-0.4	-12		0956	0.3	9		0944	-1.6	-49		0854	0.7	21		0832	-1.1	-34
	1538	8.9	271		1500	9.6	293		1630	9.2	280		1622	11.0	335		1528	8.9	271		1510	10.7	326
	2117	0.9	27		2049	-0.1	-3		2217	0.7	21		2213	-1.4	-43		2117	0.8	24		2104	-1.2	-37
6 Tu	0344	9.6	293	21 W	0317	10.5	320	6 F	0435	9.2	280	21 Sa	0440	10.8	329	6 F	0335	8.9	271	21 Sa	0331	10.5	320
	0940	0.1	3		0916	-1.0	-30		1030	0.2	6		1032	-1.7	-52		0929	0.5	15		0923	-1.5	-46
	1617	9.1	277		1551	10.2	311		1703	9.3	283		1710	11.3	344		1601	9.2	280		1600	11.2	341
	2159	0.8	24		2140	-0.7	-21		2252	0.6	18		2302	-1.5	-46		2152	0.5	15		2154	-1.6	-49
7 W	0422	9.5	290	22 Th	0408	10.8	329	7 Sa	0509	9.2	280	22 Su	0529	10.7	326	7 Sa	0410	9.0	274	22 Su	0421	10.6	323
	1018	0.1	3		1004	-1.4	-43		1104	0.3	9		1119	-1.6	-49		1003	0.3	9		1011	-1.6	-49
	1653	9.2	280		1641	10.7	326		1736	9.3	283		1758	11.2	341		1634	9.4	287		1649	11.4	347
	2238	0.8	24		2230	-1.0	-30		2328	0.6	18		2350	-1.3	-40		2227	0.3	9		2242	-1.7	-52
8 Th	0458	9.4	287	23 F	0458	10.9	332	8 Su	0544	9.0	274	23 M	0617	10.3	314	8 Su	0444	9.1	277	23 M	0510	10.5	320
	1055	0.2	6		1051	-1.5	-46		1138	0.4	12		1206	-1.2	-37		1036	0.3	9		1058	-1.4	-43
	1728	9.2	280		1730	10.9	332		1809	9.3	283		1846	10.9	332		1707	9.5	290		1736	11.2	341
	2316	0.8	24		2319	-1.1	-34								2301		0.3	9	2329		-1.4	-43	
9 F	0534	9.2	280	24 Sa	0547	10.7	326	9 M	0003	0.7	21	24 Tu	0039	-0.8	-24	9 M	0519	9.0	274	24 Tu	0558	10.1	308
	1131	0.4	12		1138	-1.4	-43		0620	8.7	265		0706	9.7	296		1109	0.3	9		1145	-1.0	-30
	1803	9.1	277		1819	10.9	332		1212	0.6	18		1254	-0.5	-15		1740	9.5	290		1823	10.8	329
	2354	1.0	30		1845	9.2	280		1845	9.2	280		1936	10.3	314		2336	0.3	9				
10 Sa	0610	9.0	274	25 Su	0009	-0.9	-27	10 Tu	0040	0.9	27	25 W	0130	-0.2	-6	10 Tu	0554	8.8	268	25 W	0017	-0.9	-27
	1206	0.6	18		0636	10.3	314		0657	8.4	256		0757	9.0	274		1144	0.5	15		0646	9.6	293
	1839	9.0	274		1226	-1.0	-30		1248	0.9	27		1345	0.3	9		1815	9.4	287		1232	-0.3	-9
					1908	10.7	326		1923	9.0	274		2027	9.6	293						1910	10.2	311
11 Su	0032	1.2	37	26 M	0100	-0.5	-15	11 W	0121	1.1	34	26 Th	0223	0.6	18	11 W	0012	0.4	12	26 Th	0105	-0.2	-6
	0648	8.6	262		0727	9.7	296		0737	8.1	247		0852	8.3	253		0630	8.5	259		0735	8.9	271
	1243	1.0	30		1316	-0.4	-12		1328	1.2	37		1440	1.1	34		1220	0.7	21		1321	0.5	15
	1917	8.9	271		2000	10.3	314		2005	8.8	268		2122	8.9	271		1852	9.2	280		1959	9.4	287
12 M	0112	1.5	46	27 Tu	0153	0.1	3	12 Th	0205	1.4	43	27 F	0322	1.2	37	12 Th	0052	0.6	18	27 F	0155	0.5	15
	0729	8.3	253		0820	9.1	277		0823	7.7	235		0954	7.7	235		0710	8.2	250		0827	8.3	253
	1321	1.3	40		1408	0.3	9		1414	1.5	46		1543	1.8	55		1301	1.0	30		1414	1.3	40
	1958	8.7	265		2054	9.8	299		2053	8.6	262		2223	8.4	256		1934	9.0	274		2050	8.7	265
13 Tu	0155	1.7	52	28 W	0250	0.7	21	13 F	0257	1.5	46	28 Sa	0429	1.7	52	13 F	0135	0.9	27	28 Sa	0250	1.3	40
	0812	7.9	241		0917	8.4	256		0916	7.5	229		1105	7.4	226		0755	7.9	241		0925	7.7	235
	1403	1.6	49		1506	1.0	30		1509	1.8	55		1655	2.2	67		1347	1.3	40		1514	2.0	61
	2043	8.5	259		2152	9.2	280		2148	8.5	259		2329	8.1	247		2021	8.8	268		2147	8.1	247
14 W	0244	1.9	58	29 Th	0353	1.2	37	14 Sa	0356	1.6	49	14 Sa	0429	1.7	52	14 Sa	0226	1.1	34	29 Su	0351	1.8	55
	0901	7.6	232		1021	7.9	241		1018	7.5	229		1105	7.4	226		0848	7.8	238		1031	7.4	226
	1451	1.9	58		1610	1.6	49		1614	1.9	58		1655	2.2	67		1442	1.5	46		1624	2.4	73
	2133	8.5	259		2255	8.8	268		2250	8.6	262						2117	8.6	262		2249	7.7	235
15 Th	0338	2.0	61	30 F	0501	1.5	46	15 Su	0502	1.4	43	15 Su	0324	1.2	37	15 Su	0324	1.2	37	30 M	0459	2.0	61
	0956	7.4	226		1133	7.7	235		1126	7.7	235		0950	7.7	235		0950	7.7	235		1140	7.4	226
	1547	2.1	64		1720	1.9	58		1724	1.6	49		1548	1.6	49		1548	1.6	49		1736	2.4	73
	2228	8.5	259						2356	8.9	271						2221	8.5	259		2353	7.6	232
				31 Sa	0001	8.6	262											31 Tu	0604	2.0	61		
			0608		1.5	46													1242	7.6	232		
			1245		7.7	235													1839	2.2	67		
			1828		1.9	58																	

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.

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.

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Times and Heights of High and Low Waters

July					August					September																			
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 W ○	0206	8.5	259		16 Th	0315	9.0	274		1 Sa	0324	9.9	302		16 Su	0414	9.3	283		1 Tu	0441	11.3	344		16 W	0449	9.6	293	
	0757	1.2	37			0854	0.9	27			0914	-0.1	-3			0959	0.8	24			1033	-1.3	-40			1044	0.5	15	
	1427	9.9	302			1527	10.0	305			1543	10.8	329			1621	9.6	293			1701	11.1	338			1702	9.3	283	
	2033	0.5	15			2123	0.4	12			2140	-0.7	-21			2217	0.5	15			2253	-1.3	-40			2256	0.7	21	
2 Th	0258	9.0	274		17 F	0400	9.2	280		2 Su	0414	10.4	317		17 M	0448	9.4	287		2 W	0530	11.4	347		17 Th	0523	9.5	290	
	0846	0.7	21			0939	0.8	24			1003	-0.5	-15			1036	0.7	21			1122	-1.2	-37			1118	0.6	18	
	1516	10.3	314			1608	10.0	305			1632	11.0	335			1655	9.6	293			1750	10.8	329			1737	9.1	277	
	2118	0.0	0			2204	0.3	9			2227	-1.0	-30			2252	0.5	15			2341	-1.1	-34			2330	0.9	21	
3 F	0347	9.4	287		18 Sa	0440	9.3	283		3 M	0503	10.8	329		18 Tu	0521	9.5	290		3 Th	0619	11.1	338		18 F	0558	9.4	287	
	0933	0.3	9			1021	0.8	24			1052	-0.7	-21			1112	0.8	24			1211	-0.8	-24			1154	0.8	24	
	1603	10.6	323			1646	9.9	302			1720	11.0	335			1729	9.4	287			1839	10.3	314			1813	8.8	268	
	2202	-0.4	-12			2243	0.3	9			2314	-1.1	-34			2326	0.7	21											
4 Sa	0435	9.8	299		19 Su	0517	9.4	287		4 Tu	0552	10.9	332		19 W	0555	9.4	287		4 F	0030	-0.5	-15		19 Sa	0006	1.1	34	
	1021	0.0	0			1101	0.9	27			1141	-0.7	-21			1148	1.0	30			0710	10.7	326			0635	9.2	280	
	1650	10.7	326			1723	9.7	296			1809	10.7	326			1805	9.2	280			1301	-0.2	-6			1232	1.1	34	
	2247	-0.7	-21			2320	0.5	15								1931	9.7	296			1852	8.5	259						
5 Su	0523	10.1	308		20 M	0553	9.3	283		5 W	0001	-0.9	-27		20 Th	0000	0.9	27		5 Sa	0121	0.2	6		20 Su	0045	1.4	43	
	1109	-0.1	-3			1140	1.1	34			0642	10.9	332			0631	9.2	280			0803	10.1	308			0716	8.9	271	
	1738	10.6	323			1759	9.4	287			1231	-0.4	-12			1225	1.2	37			1355	0.5	15			1314	1.3	40	
	2333	-0.7	-21			2357	0.7	21			1859	10.3	314			1842	8.8	268			2026	9.0	274			1935	8.2	250	
6 M	0611	10.3	314		21 Tu	0630	9.2	280		6 Th	0050	-0.5	-15		21 F	0036	1.2	37		6 Su	0216	0.9	27		21 M	0129	1.6	49	
	1158	-0.1	-3			1219	1.3	40			0733	10.6	323			0709	9.0	274			0900	9.5	290			0803	8.7	265	
	1826	10.4	317			1836	9.1	277			1323	0.1	3			1304	1.5	46			1453	1.2	37			1401	1.6	49	
											1950	9.7	296			1921	8.4	256			2127	8.4	256			2025	8.0	244	
7 Tu	0020	-0.6	-18		22 W	0033	1.0	30		7 F	0142	0.1	3		22 Sa	0115	1.5	46		7 M	0318	1.6	49		22 Tu	0220	1.9	58	
	0701	10.3	314			0707	9.0	274			0826	10.2	311			0751	8.8	268			1002	8.9	271			0857	8.5	259	
	1249	0.1	3			1258	1.6	49			1419	0.7	21			1347	1.8	55			1559	1.8	55			1456	1.8	55	
	1916	10.0	305			1915	8.7	265			2046	9.1	277			2005	8.1	247			2236	8.0	244			2123	7.9	241	
8 W ●	0109	-0.2	-6		23 Th	0111	1.4	43		8 Sa	0237	0.7	21		23 Su	0159	1.8	55		8 Tu	0428	2.0	61		23 W	0322	2.0	61	
	0753	10.2	311			0747	8.9	271			0924	9.7	296			0838	8.6	262			1109	8.6	262			0958	8.5	259	
	1342	0.4	12			1340	1.9	58			1519	1.2	37			1435	2.0	61			1709	2.0	61			1559	1.8	55	
	2009	9.6	293			1957	8.3	253			2147	8.6	262			2055	7.8	238			2348	7.9	241			2229	8.1	247	
9 Th	0202	0.2	6		24 F	0152	1.7	52		9 Su	0339	1.3	40		24 M	0250	2.1	64		9 W	0540	2.1	64		24 Th	0431	1.8	55	
	0848	10.0	305			0831	8.7	265			1026	9.4	287			0931	8.5	259			1215	8.5	259			1103	8.7	265	
	1440	0.8	24			1426	2.2	67			1625	1.6	49			1532	2.2	67			1816	2.0	61			1706	1.5	46	
	2105	9.1	277			2042	8.0	244			2254	8.2	250			2153	7.7	235								2337	8.5	259	
10 F	0258	0.7	21		25 Sa	0237	2.0	61		10 M	0447	1.7	52		25 Tu	0351	2.2	67		10 Th	0054	8.1	247		25 F	0541	1.3	40	
	0946	9.8	299			0918	8.6	262			1132	9.1	277			1030	8.6	262			0643	1.9	58			1209	9.1	277	
	1542	1.1	34			1518	2.4	73			1734	1.7	52			1635	2.1	64			1313	8.6	262			1811	1.0	30	
	2206	8.7	265			2134	7.7	235								2257	7.8	238			1911	1.7	52						
11 Sa	0400	1.0	30		26 Su	0329	2.2	67		11 Tu	0006	8.1	247		26 W	0458	2.0	61		11 F	0148	8.4	256		26 Sa	0042	9.2	280	
	1047	9.7	296			1011	8.6	262			0556	1.8	55			1133	8.8	268			0735	1.6	49			0645	0.6	18	
	1648	1.3	40			1616	2.4	73			1236	9.1	277			1740	1.7	52			1402	8.8	268			1311	9.6	293	
	2312	8.4	256			2231	7.6	232			1838	1.6	49								1958	1.4	43			1910	0.3	9	
12 Su	0506	1.3	40		27 M	0428	2.3	70		12 W	0114	8.2	250		27 Th	0004	8.2	250		12 Sa	0232	8.7	265		27 Su	0142	10.0	305	
	1151	9.6	293			1108	8.7	265			0658	1.7	52			0605	1.5	46			0819	1.2	37			0742	-0.2	-6	
	1754	1.3	40			1717	2.2	67			1334	9.2	280			1236	9.3	283			1443	9.1	277			1408	10.2	311	
						2332	7.7	235			1933	1.3	40			1841	1.1	34			2038	1.1	34			2004	-0.4	-12	
13 M	0020	8.4	256		28 Tu	0532	2.1	64		13 Th	0210	8.5	259		28 F	0108	8.9	271		13 Su	0309	9.0	274		28 M	0237	10.7	326	
	0611	1.3	40			1206	9.0	274			0752	1.4	43			0707	0.9	27			0858	0.9	27			0835	-0.9	-27	
	1253	9.7	296			1817	1.7	52			1424	9.4	287			1335	9.8	299			1520	9.3	283			1501	10.7	326	
	1855	1.1	34								2020	1.0	30			1937	0.4	12			2114	0.8	24			2055	-1.0	-30	
14 Tu	0126	8.5	259		29 W	0035	8.1	247		14 F	0257	8.8	268		29 Sa	0207	9.6	293		14 M	0343	9.3	283		29 Tu	0328	11.2	341	
	0711	1.2	37			0633	1.7	52			0838	1.2	37			0803	0.1	3			0934	0.7	21			0925	-1.4	-43	
	1350	9.8	299			1304	9.4	287			1507	9.5	290			1430	10.4	317			1554	9.4	287			1552	10.9	332	
	1950	0.8	24			1913	1.1	34			2102	0.8	24			2029	-0.3	-9			2149	0.7	21			2144	-1.3	-40	
15 W ●	0224	8.7	265		30 Th	0136	8.6	262		15 Sa	0338	9.1	277		30 Su	0301	10.3	314		15 Tu	0416	9.5	290		30 W	0418	11.5	351	
	0805	1.0	30			0730	1.1	34			0920	0.9	27			0855	-0.6	-18			1009	0.5	15			1014	-1.6	-49	
	1441	9.9	302			1400	9.9	302			1546	9.6	293			1522	10.8	329			1628	9.4	287			1641	10.9	332	
	2038	0.6	18			2005	0.5	15			2141	0.6	18			2118	-0.9	-27			2222	0.6	18			2232	-1.3	-40	
				31 F ○	0232	9.2	280		31 M	0352	10.9	332			0352	10.9	332												
					0824	0.5	15			0945	-1.1	-34			0945	-1.1	-34												
					1453	10.4	317			1612	11.1	338			1612	11.1	338												
					2053	-0.2	-6			2206	-1.3	-40			2206	-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.

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, 2015

Times and Heights of High and Low Waters

January					February					March													
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 Th	0520	0.0	0	16 F	0445	0.4	12	1 Su	0025	3.5	107	16 M	0555	0.2	6	1 Su	0527	0.3	9	16 M	0419	0.3	9
	1108	2.6	79		1024	2.3	70		0658	0.1	3		1147	2.7	82		1125	2.7	82		1016	2.9	88
	1711	-0.3	-9		1622	0.0	0		1253	2.6	79		1749	0.0	0		1726	0.3	9		1622	0.2	6
	2351	3.7	113		2307	3.4	104		1849	0.1	3						2356	3.3	101		2252	3.5	107
2 F	0624	0.0	0	17 Sa	0542	0.3	9	2 M	0121	3.5	107	17 Tu	0024	3.6	110	2 M	0626	0.3	9	17 Tu	0517	0.2	6
	1213	2.6	79		1122	2.3	70		0753	0.1	3		0653	0.1	3		1227	2.7	82		1122	3.0	91
	1810	-0.2	-6		1717	0.0	0		1351	2.6	79		1253	2.9	88		1828	0.4	12		1730	0.1	3
									1946	0.1	3		1856	-0.1	-3		2355	3.5	107				
3 Sa	0049	3.7	113	18 Su	0002	3.6	110	3 Tu	0212	3.5	107	18 W	0124	3.7	113	3 Tu	0053	3.2	98	18 W	0617	0.1	3
	0723	-0.1	-3		0638	0.2	6		0841	0.0	0		0749	-0.2	-6		0720	0.3	9		1228	3.3	101
	1315	2.6	79		1223	2.4	73		1443	2.8	85		1355	3.2	98		1325	2.8	85		1840	0.0	0
	1909	-0.1	-3		1817	-0.1	-3		2039	0.1	3		2001	-0.3	-9		1926	0.4	12				
4 Su	0143	3.7	113	19 M	0058	3.7	113	4 W	0259	3.5	107	19 Th	0222	3.8	116	4 W	0146	3.2	98	19 Th	0058	3.6	110
	0817	-0.2	-6		0732	0.0	0		0925	-0.1	-3		0843	-0.5	-15		0809	0.2	6		0716	-0.1	-3
	1412	2.7	82		1324	2.6	79		1530	2.9	88		1454	3.6	110		1417	2.9	88		1332	3.6	110
	2005	-0.1	-3		1919	-0.2	-6		2127	0.1	3		2103	-0.5	-15		2019	0.3	9		1947	-0.2	-6
5 M	0234	3.7	113	20 Tu	0152	3.8	116	5 Th	0343	3.5	107	20 F	0317	3.9	119	5 Th	0234	3.3	101	20 F	0159	3.7	113
	0905	-0.3	-9		0824	-0.3	-9		1005	-0.2	-6		0934	-0.7	-21		0853	0.1	3		0813	-0.4	-12
	1505	2.8	85		1422	2.9	88		1613	3.1	94		1550	3.9	119		1502	3.1	94		1432	4.0	122
	2057	-0.1	-3		2019	-0.3	-9		2212	0.0	0		2201	-0.6	-18		2107	0.2	6		2049	-0.4	-12
6 Tu	0320	3.7	113	21 W	0246	4.0	122	6 F	0424	3.4	104	21 Sa	0410	4.0	122	6 F	0318	3.3	101	21 Sa	0256	3.8	116
	0950	-0.4	-12		0913	-0.5	-15		1043	-0.3	-9		1024	-0.9	-27		0932	0.0	0		0907	-0.6	-18
	1553	2.9	88		1517	3.2	98		1653	3.2	98		1643	4.2	128		1544	3.3	101		1528	4.3	131
	2146	-0.1	-3		2117	-0.5	-15		2255	0.0	0		2256	-0.7	-21		2152	0.1	3		2147	-0.5	-15
7 W	0404	3.7	113	22 Th	0338	4.0	122	7 Sa	0503	3.4	104	22 Su	0502	3.9	119	7 Sa	0359	3.3	101	22 Su	0351	3.9	119
	1031	-0.4	-12		1002	-0.8	-24		1119	-0.3	-9		1114	-1.0	-30		1010	0.0	0		0959	-0.8	-24
	1637	3.0	91		1611	3.6	110		1732	3.3	101		1735	4.4	134		1623	3.5	107		1622	4.5	137
	2232	-0.1	-3		2214	-0.6	-18		2337	0.0	0		2350	-0.7	-21		2234	0.0	0		2241	-0.6	-18
8 Th	0446	3.6	110	23 F	0429	4.0	122	8 Su	0541	3.3	101	23 M	0553	3.8	116	8 Su	0439	3.3	101	23 M	0443	3.9	119
	1110	-0.4	-12		1049	-0.9	-27		1153	-0.3	-9		1203	-1.0	-30		1045	-0.1	-3		1049	-0.8	-24
	1719	3.1	94		1703	3.8	116		1810	3.4	104		1827	4.4	134		1701	3.6	110		1713	4.6	140
	2316	-0.1	-3		2310	-0.6	-18								2315		0.0	0	2333		-0.7	-21	
9 F	0526	3.5	107	24 Sa	0519	4.0	122	9 M	0018	0.0	0	24 Tu	0044	-0.6	-18	9 M	0516	3.2	98	24 Tu	0534	3.8	116
	1148	-0.4	-12		1137	-1.0	-30		0618	3.2	98		0643	3.7	113		1120	-0.1	-3		1139	-0.8	-24
	1800	3.1	94		1755	4.0	122		1227	-0.2	-6		1252	-0.9	-27		1738	3.7	113		1804	4.6	140
	2359	0.0	0						1847	3.5	107		1918	4.3	131		2355	0.0	0				
10 Sa	0605	3.3	101	25 Su	0005	-0.6	-18	10 Tu	0059	0.1	3	25 W	0137	-0.4	-12	10 Tu	0553	3.2	98	25 W	0025	-0.6	-18
	1224	-0.4	-12		0610	3.8	116		0654	3.0	91		0735	3.5	107		1154	-0.1	-3		0625	3.7	113
	1840	3.2	98		1225	-1.0	-30		1300	-0.2	-6		1342	-0.7	-21		1815	3.8	116		1229	-0.6	-18
					1847	4.1	125		1925	3.5	107		2010	4.2	128						1854	4.5	137
11 Su	0042	0.1	3	26 M	0100	-0.5	-15	11 W	0141	0.2	6	26 Th	0232	-0.2	-6	11 W	0034	0.0	0	26 Th	0116	-0.4	-12
	0644	3.2	98		0700	3.6	110		0731	2.8	85		0828	3.2	98		0628	3.0	91		0716	3.5	107
	1300	-0.3	-9		1313	-0.9	-27		1335	-0.1	-3		1433	-0.4	-12		1227	-0.1	-3		1319	-0.4	-12
	1920	3.2	98		1940	4.1	125		2004	3.5	107		2104	3.9	119		1852	3.8	116		1944	4.2	128
12 M	0125	0.2	6	27 Tu	0156	-0.4	-12	12 Th	0224	0.3	9	27 F	0328	0.0	0	12 Th	0113	0.1	3	27 F	0207	-0.2	-6
	0723	2.9	88		0752	3.4	104		0810	2.7	82		0923	3.0	91		0705	2.9	88		0807	3.3	101
	1335	-0.2	-6		1403	-0.8	-24		1412	0.0	0		1527	-0.1	-3		1303	0.0	0		1410	-0.1	-3
	2000	3.2	98		2034	4.0	122		2047	3.5	107		2200	3.7	113		1931	3.8	116		2035	3.9	119
13 Tu	0211	0.3	9	28 W	0254	-0.2	-6	13 F	0311	0.4	12	28 Sa	0427	0.2	6	13 F	0154	0.2	6	28 Sa	0259	0.0	0
	0802	2.7	82		0847	3.1	94		0853	2.6	79		1023	2.8	85		0743	2.9	88		0901	3.1	94
	1411	-0.1	-3		1455	-0.6	-18		1455	0.0	0		1625	0.1	3		1342	0.0	0		1503	0.2	6
	2042	3.2	98		2130	3.9	119		2134	3.5	107		2258	3.5	107		2013	3.7	113		2128	3.6	110
14 W	0258	0.4	12	29 Th	0354	0.0	0	14 Sa	0402	0.4	12				14 Sa	0237	0.3	9	29 Su	0353	0.3	9	
	0844	2.5	76		0944	2.8	85		0944	2.5	76					0827	2.8	85		0958	3.0	91	
	1450	0.0	0		1550	-0.3	-9		1545	0.0	0					1427	0.1	3		1600	0.4	12	
	2126	3.3	101		2228	3.7	113		2227	3.5	107					2100	3.6	110		2223	3.4	104	
15 Th	0350	0.4	12	30 F	0456	0.1	3	15 Su	0457	0.4	12				15 Su	0325	0.3	9	30 M	0449	0.4	12	
	0931	2.4	73		1046	2.7	82		1043	2.5	76					0917	2.8	85		1057	2.9	88	
	1532	0.0	0		1648	-0.1	-3		1644	0.0	0					1520	0.1	3		1701	0.6	18	
	2215	3.3	101		2327	3.6	110		2324	3.6	110					2153	3.6	110		2321	3.2	98	
			31 Sa	0559	0.2	6												31 Tu	0545	0.5	15		
				1150	2.6	79													1157	2.9	88		
				1748	0.0	0													1803	0.6	18		

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Salina Cruz, Mexico, 2015

Times and Heights of High and Low Waters

July						August						September					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 W ○	0136	3.3	101			16 Th	0234	3.7	113			1 Su	0352	3.9	119		
	0727	0.8	24				0831	0.7	21				0954	0.7	21		
	1405	4.6	140				1459	4.7	143				1608	4.3	131		
	2039	0.8	24				2127	0.6	18				2226	0.6	18		
2 Th	0228	3.5	107			17 F	0327	3.8	116			17 M	0434	4.0	122		
	0819	0.7	21				0923	0.7	21				1038	0.7	21		
	1453	4.8	146				1546	4.6	140				1648	4.2	128		
	2125	0.6	18				2212	0.5	15				2304	0.5	15		
3 F	0319	3.7	113			18 Sa	0415	3.9	119			18 Tu	0514	4.1	125		
	0912	0.6	18				1012	0.7	21				1120	0.7	21		
	1540	4.8	146				1630	4.6	140				1727	4.1	125		
	2209	0.4	12				2254	0.5	15				2340	0.5	15		
4 Sa	0408	3.9	119			19 Su	0501	4.0	122			19 W	0553	4.1	125		
	1004	0.5	15				1058	0.8	24				1201	0.7	21		
	1627	4.9	149				1712	4.5	137				1805	4.0	122		
	2253	0.3	9				2334	0.5	15								
5 Su	0458	4.2	128			20 M	0544	4.1	125			20 Th	0615	0.6	18		
	1057	0.4	12				1143	0.8	24				0632	4.2	128		
	1714	4.8	146				1753	4.3	131				1243	0.8	24		
	2337	0.1	3										1842	3.8	116		
6 M	0547	4.4	134			21 Tu	0613	0.5	15			21 F	0050	0.6	18		
	1150	0.4	12				0626	4.1	125				0710	4.2	128		
	1801	4.7	143				1227	0.9	27				1324	0.9	27		
							1832	4.2	128				1919	3.6	110		
7 Tu	0021	0.1	3			22 W	0050	0.6	18			22 Sa	0125	0.7	21		
	0638	4.5	137				0707	4.1	125				0750	4.1	125		
	1244	0.5	15				1311	1.0	30				1407	1.0	30		
	1850	4.5	137				1912	4.0	122				1957	3.5	107		
8 W ●	0108	0.1	3			23 Th	0126	0.7	21			23 Su	0202	0.7	21		
	0730	4.6	140				0748	4.1	125				0832	4.1	125		
	1340	0.6	18				1356	1.1	34				1452	1.1	34		
	1940	4.3	131				1951	3.8	116				2039	3.3	101		
9 Th	0156	0.1	3			24 F	0203	0.8	24			24 M	0243	0.8	24		
	0824	4.7	143				0830	4.1	125				0918	4.1	125		
	1438	0.7	21				1443	1.2	37				1541	1.2	37		
	2033	4.1	125				2032	3.6	110				2126	3.3	101		
10 F	0246	0.2	6			25 Sa	0241	0.9	27			25 Tu	0330	0.8	24		
	0921	4.7	143				0914	4.1	125				1009	4.1	125		
	1539	0.9	27				1532	1.3	40				1634	1.2	37		
	2129	3.8	116				2116	3.4	104				2220	3.2	98		
11 Sa	0340	0.3	9			26 Su	0322	0.9	27			26 W	0425	0.8	24		
	1019	4.7	143				1001	4.2	128				1104	4.1	125		
	1642	0.9	27				1625	1.4	43				1730	1.1	34		
	2230	3.7	113				2205	3.3	101				2320	3.3	101		
12 Su	0437	0.4	12			27 M	0408	0.9	27			27 Th	0527	0.7	21		
	1119	4.7	143				1051	4.2	128				1202	4.1	125		
	1746	1.0	30				1720	1.3	40				1827	0.9	27		
	2333	3.6	110				2259	3.2	98								
13 M	0537	0.5	15			28 Tu	0500	0.9	27			28 F	0024	3.5	107		
	1218	4.7	143				1144	4.3	131				0631	0.6	18		
	1848	0.9	27				1816	1.2	37				1300	4.2	128		
							2357	3.3	101				1922	0.7	21		
14 Tu	0036	3.6	110			29 W	0556	0.9	27			29 Sa	0125	3.8	116		
	0637	0.6	18				1238	4.4	134				0734	0.4	12		
	1315	4.7	143				1910	1.1	34				1357	4.3	131		
	1946	0.8	24										2015	0.4	12		
15 W ●	0138	3.6	110			30 Th	0057	3.4	104			30 Su	0224	4.1	125		
	0735	0.7	21				0655	0.8	24				0835	0.2	6		
	1409	4.7	143				1332	4.5	137				1451	4.4	134		
	2039	0.7	21				2001	0.9	27				2106	0.2	6		
						31 F ○	0154	3.6	110			31 M	0319	4.5	137		
							0754	0.6	18				0932	0.1	3		
							1424	4.7	143				1544	4.5	137		
							2050	0.6	18				2156	-0.1	-3		

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.

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.

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.

* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Guaymas, Mexico, 2015

Times and Heights of High and Low Waters

April				May				June			
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
1 W	0256 0.7 21 0842 1.8 55 1437 0.1 3 2122 2.0 61	16 Th	0251 0.3 9 0901 2.1 64 1433 0.3 9 2104 2.5 76	1 F	0250 0.2 6 0929 1.9 58 1407 1.0 30 2032 2.4 73	16 Sa	0313 -0.4 -12 1023 2.3 70 1424 1.7 52 2026 2.9 88	1 M	0324 -0.3 -9 1114 2.4 73 1429 2.1 64 2003 3.0 91	16 Tu	0410 -0.5 -15 1227 2.8 85 1448 2.7 82 ● 2017 3.3 101
2 Th	0304 0.5 15 0918 1.9 58 1456 0.3 9 2134 2.1 64	17 F	0321 -0.1 -3 0957 2.2 67 1506 0.7 21 2122 2.5 76	2 Sa	0309 0.0 0 1011 2.0 61 1433 1.2 37 2040 2.5 76	17 Su	0346 -0.6 -18 1120 2.4 73 1453 1.9 58 ● 2039 2.9 88	2 Tu	0356 -0.5 -15 1204 2.5 76 1505 2.3 70 ○ 2018 3.1 94	17 W	0440 -0.4 -12 1315 2.8 85 1520 2.7 82 2024 3.2 98
3 F	0324 0.2 6 0954 1.9 58 1516 0.4 12 2143 2.1 64	18 Sa	0355 -0.4 -12 1053 2.1 64 1535 1.0 30 ● 2136 2.5 76	3 Su	0335 -0.3 -9 1055 2.0 61 1500 1.4 43 ○ 2045 2.5 76	18 M	0419 -0.7 -21 1220 2.4 73 1516 2.1 64 2043 2.9 88	3 W	0432 -0.6 -18 1301 2.6 79 1542 2.4 73 2034 3.1 94	18 Th	0511 -0.3 -9 2028 3.1 94
4 Sa	0349 0.0 0 1032 1.8 55 1537 0.6 18 ○ 2146 2.1 64	19 Su	0431 -0.6 -18 1155 2.0 61 1557 1.4 43 2141 2.5 76	4 M	0405 -0.4 -12 1146 2.0 61 1526 1.6 49 2048 2.6 79	19 Tu	0454 -0.7 -21 1331 2.4 73 1532 2.3 70 2037 2.9 88	4 Th	0510 -0.6 -18 1406 2.6 79 1620 2.5 76 2049 3.1 94	19 F	0540 0.0 0 2034 3.0 91
5 Su	0417 -0.1 -3 1113 1.7 52 1558 0.8 24 2143 2.1 64	20 M	0508 -0.7 -21 1309 1.9 58 1609 1.7 52 2129 2.5 76	5 Tu	0438 -0.5 -15 1249 2.0 61 1550 1.8 55 2055 2.7 82	20 W	0529 -0.5 -15 2030 2.8 85	5 F	0551 -0.5 -15 2101 2.9 88	20 Sa	0608 0.3 9 2040 2.8 85
6 M	0448 -0.2 -6 1204 1.6 49 1616 1.1 34 2141 2.2 67	21 Tu	0548 -0.6 -18 2108 2.5 76	6 W	0515 -0.5 -15 2105 2.7 82	21 Th	0605 -0.3 -9 2029 2.8 85	6 Sa	0634 -0.2 -6 1617 2.8 85 1842 2.7 82 2055 2.8 85	21 Su	0635 0.6 18 1631 2.7 82
7 Tu	0524 -0.3 -9 1323 1.5 46 1625 1.3 40 2145 2.3 70	22 W	0630 -0.4 -12 2059 2.5 76	7 Th	0557 -0.5 -15 2115 2.7 82	22 F	0641 0.0 0 2028 2.7 82	7 Su	0720 0.1 3 1657 2.8 85	22 M	0700 0.9 27 1657 2.7 82
8 W	0605 -0.3 -9 2155 2.3 70	23 Th	0718 -0.1 -3 2057 2.5 76	8 F	0646 -0.4 -12 2118 2.6 79	23 Sa	0719 0.3 9 1956 2.6 79	8 M	0810 0.5 15 1727 2.8 85	23 Tu	0724 1.2 37 1718 2.7 82
9 Th	0658 -0.2 -6 2204 2.3 70	24 F	0823 0.1 3 2048 2.4 73	9 Sa	0744 -0.2 -6 1841 2.5 76	24 Su	0801 0.6 18 1838 2.5 76	9 Tu	0905 0.9 27 1752 2.9 88 ○	24 W	0320 1.4 43 1736 2.7 82 ○
10 F	0811 -0.1 -3 2156 2.3 70	25 Sa	1021 0.3 9 2012 2.3 70 ○	10 Su	0855 0.1 3 1837 2.6 79	25 M	0853 0.8 24 1838 2.5 76 ○	10 W	0212 1.2 37 0631 1.6 49 1008 1.4 43 1816 2.9 88	25 Th	0243 1.3 40 1753 2.8 85
11 Sa	0948 -0.1 -3 1954 2.2 67 ○	26 Su	1158 0.4 12 1952 2.3 70	11 M	1015 0.3 9 1852 2.6 79 ○	26 Tu	0320 1.2 37 0603 1.3 40 0955 1.1 34 1847 2.5 76	11 Th	0206 0.8 24 0805 1.9 58 1114 1.7 52 1838 3.0 91	26 F	0220 1.0 30 1810 2.9 88
12 Su	1121 -0.2 -6 1951 2.3 70	27 M	0328 1.1 34 0623 1.3 40 1236 0.5 15 1952 2.3 70	12 Tu	0248 1.2 37 0557 1.4 43 1127 0.5 15 1911 2.7 82	27 W	0258 1.1 34 0725 1.5 46 1057 1.3 40 1858 2.6 79	12 F	0219 0.3 9 0913 2.2 67 1212 2.1 64 1900 3.1 94	27 Sa	0207 0.7 21 1830 3.1 94
13 M	0321 1.4 43 0540 1.5 46 1226 -0.2 -6 2005 2.4 73	28 Tu	0312 1.0 30 0722 1.5 46 1259 0.7 21 2000 2.3 70	13 W	0219 0.9 27 0723 1.7 52 1225 0.8 24 1930 2.7 82	28 Th	0238 0.8 24 0819 1.7 52 1149 1.5 46 1910 2.6 79	13 Sa	0242 -0.1 -3 1007 2.5 76 1300 2.3 70 1923 3.2 98	28 Su	0218 0.4 12 1001 2.5 76 1230 2.4 73 1853 3.2 98
14 Tu	0229 1.1 34 0703 1.7 52 1315 -0.1 -3 2024 2.4 73	29 W	0254 0.8 24 0808 1.6 49 1320 0.8 24 2010 2.3 70	14 Th	0224 0.4 12 0829 1.9 58 1312 1.1 34 1950 2.8 85	29 F	0227 0.5 15 0903 2.0 61 1234 1.6 49 1923 2.7 82	14 Su	0309 -0.3 -9 1056 2.6 79 1340 2.5 76 1944 3.3 101	29 M	0242 0.0 0 1034 2.7 82 1327 2.5 76 1920 3.4 104
15 W	0229 0.7 21 0805 1.9 58 1357 0.1 3 2044 2.5 76	30 Th	0243 0.5 15 0849 1.8 55 1342 0.9 27 2022 2.4 73	15 F	0245 0.0 0 0927 2.2 67 1351 1.4 43 2009 2.8 85	30 Sa	0234 0.2 6 0945 2.1 64 1314 1.8 55 1936 2.8 85	15 M	0339 -0.5 -15 1142 2.7 82 1415 2.6 79 2003 3.3 101	30 Tu	0313 -0.2 -6 1111 2.9 88 1417 2.6 79 1949 3.5 107
						31 Su	0256 -0.1 -3 1028 2.3 70 1352 1.9 58 1949 3.0 91				

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.

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.

* Neither a high or low water but an intermediate value to show the period of an approximate stand.

Guaymas, Mexico, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Th h m 0153 2.5 76 0446 2.4 73 0951 3.0 91 1833 0.6 18		16 F h m 0109 2.2 67 0409 2.1 64 0914 2.9 88 1737 0.3 9		1 Su h m 0824 2.8 85 1953 0.3 9		16 M h m 0903 2.5 76 1901 -0.2 -6		1 Tu h m 0714 2.1 64 1928 0.2 6		16 W h m 0409 2.0 61 1922 -0.2 -6	
2 F 0922 3.1 94 1940 0.7 21		17 Sa 0925 2.9 88 1823 0.4 12		2 M 0805 2.7 82 2130 0.6 18		17 Tu 0615 2.3 70 2004 0.0 0		2 W 0609 2.1 64 2006 0.5 15		17 Th 0447 2.0 61 2009 0.2 6	
3 Sa 0909 3.1 94 2209 0.9 27		18 Su 0935 2.9 88 1926 0.5 15		3 Tu 0733 2.6 79 2332 0.7 21		18 W 0606 2.4 73 2120 0.3 9		3 Th 0616 2.0 61 1500 0.6 18 1825 0.8 24 2100 0.7 21		18 F 0517 2.0 61 1408 0.5 15 1813 0.8 24 2109 0.6 18	
4 Su 0900 3.1 94		19 M 0929 2.8 85 2054 0.6 18		4 W 0724 2.5 76 1505 1.2 37 1824 1.4 43		19 Th 0622 2.4 73 1449 1.1 34 1733 1.2 37 2241 0.5 15		4 F 0627 2.0 61 1446 0.4 12 1949 1.1 34 2218 1.0 30		19 Sa 0544 2.1 64 1349 0.0 0 1959 1.1 34 2229 1.0 30	
5 M 0008 0.8 24 0844 3.0 91		20 Tu 0722 2.8 85 2233 0.6 18		5 Th 0022 0.9 27 0728 2.5 76 1455 1.0 30 1923 1.6 49		20 F 0641 2.5 76 1403 0.7 21 1906 1.5 46 2350 0.7 21		5 Sa 0640 2.1 64 1436 0.2 6 2035 1.3 40 2328 1.2 37		20 Su 0610 2.1 64 1358 -0.5 -15 2103 1.5 46 2354 1.4 43	
6 Tu 0059 0.8 24 0829 3.0 91 1516 1.9 58 1825 2.2 67		21 W 0720 2.8 85 1519 1.7 52 1719 1.8 55 2348 0.5 15		6 F 0048 1.0 30 0737 2.5 76 1446 0.8 24 2008 1.8 55		21 Sa 0701 2.5 76 1401 0.2 6 2012 1.7 52		6 Su 0653 2.1 64 1428 -0.1 -3 2111 1.5 46		21 M 0635 2.2 67 1421 -0.9 -27 2152 1.8 55	
7 W 0131 0.8 24 0828 2.9 88 1508 1.8 55 1917 2.3 70		22 Th 0734 2.9 88 1411 1.6 49 1845 2.1 64		7 Sa 0107 1.1 34 0748 2.5 76 1437 0.5 15 2047 1.9 58		22 Su 0045 1.0 30 0722 2.6 79 1421 -0.3 -9 2110 2.0 61		7 M 0020 1.3 40 0707 2.2 67 1431 -0.4 -12 2146 1.6 49		22 Tu 0058 1.6 49 0701 2.3 70 1449 -1.3 -40 2235 1.9 58	
8 Th 0152 0.9 27 0834 2.8 85 1455 1.6 49 1959 2.5 76		23 F 0043 0.6 18 0752 2.9 88 1404 1.1 34 1947 2.3 70		8 Su 0127 1.2 37 0759 2.5 76 1440 0.2 6 2126 2.0 61		23 M 0130 1.3 40 0742 2.6 79 1450 -0.8 -24 2204 2.2 67		8 Tu 0102 1.4 43 0720 2.3 70 1447 -0.7 -21 2222 1.8 55		23 W 0146 1.7 52 0728 2.4 73 1520 -1.5 -46 2316 2.0 61	
9 F 0207 1.0 30 0844 2.8 85 1445 1.4 43 2036 2.6 79		24 Sa 0127 0.7 21 0812 2.9 88 1424 0.6 18 2042 2.5 76		9 M 0151 1.3 40 0809 2.5 76 1456 0.0 0 2205 2.1 64		24 Tu 0209 1.5 46 0801 2.7 82 1523 -1.1 -34 2259 2.2 67		9 W 0140 1.5 46 0734 2.3 70 1511 -0.9 -27 2300 1.9 58		24 Th 0225 1.8 55 0753 2.4 73 1552 -1.6 -49 2357 2.0 61	
10 Sa 0221 1.1 34 0855 2.8 85 1450 1.1 34 2112 2.6 79		25 Su 0207 0.9 27 0832 2.9 88 1454 0.2 6 2137 2.7 82		10 Tu 0216 1.4 43 0816 2.6 79 1519 -0.3 -9 2246 2.1 64		25 W 0242 1.8 55 0818 2.7 82 1558 -1.2 -37 2356 2.3 70		10 Th 0217 1.6 49 0748 2.4 73 1539 -1.1 -34 2342 1.9 58		25 F 0259 1.8 55 0815 2.4 73 1623 -1.5 -46	
11 Su 0238 1.2 37 0906 2.8 85 1508 0.8 24 2148 2.6 79		26 M 0243 1.2 37 0851 2.9 88 1529 -0.2 -6 2234 2.7 82		11 W 0242 1.6 49 0820 2.6 79 1547 -0.4 -12 2332 2.1 64		26 Th 0311 1.9 58 0828 2.7 82 1634 -1.2 -37		11 F 0253 1.6 49 0803 2.4 73 1611 -1.2 -37		26 Sa 0037 2.0 61 0332 1.8 55 0831 2.3 70 1653 -1.3 -40	
12 M 0258 1.3 40 0914 2.8 85 1531 0.6 18 2226 2.6 79		27 Tu 0315 1.5 46 0906 2.9 88 1606 -0.4 -12 2335 2.6 79		12 Th 0308 1.7 52 0823 2.6 79 1617 -0.5 -15		27 F 0059 2.2 67 0334 2.1 64 0828 2.6 79 1709 -1.1 -34		12 Sa 0029 2.0 61 0329 1.7 52 0820 2.4 73 1645 -1.2 -37		27 Su 0120 1.9 58 0406 1.7 52 0838 2.2 67 1721 -1.1 -34	
13 Tu 0319 1.5 46 0916 2.8 85 1558 0.5 15 2307 2.5 76		28 W 0342 1.9 58 0914 2.9 88 1644 -0.5 -15		13 F 0028 2.1 64 0333 1.9 58 0831 2.7 82 1651 -0.6 -18		28 Sa 0820 2.5 76 1745 -0.8 -24		13 Su 0121 2.0 61 0407 1.8 55 0838 2.4 73 1721 -1.1 -34		28 M 0204 1.8 55 0444 1.7 52 0840 2.0 61 1747 -0.8 -24	
14 W 0340 1.7 52 0912 2.8 85 1627 0.4 12 2356 2.3 70		29 Th 0046 2.5 76 0401 2.2 67 0906 2.9 88 1725 -0.4 -12		14 Sa 0141 2.1 64 0353 2.0 61 0842 2.7 82 1728 -0.5 -15		29 Su 0815 2.4 73 1819 -0.5 -15		14 M 0220 2.0 61 0452 1.9 58 0855 2.2 67 1759 -0.9 -27		29 Tu 0250 1.7 52 0530 1.6 49 0841 1.8 55 1810 -0.4 -12	
15 Th 0358 1.9 58 0909 2.8 85 1700 0.3 9		30 F 0846 2.8 85 1807 -0.2 -6		15 Su 0855 2.6 79 1811 -0.4 -12		30 M 0808 2.3 70 1853 -0.2 -6		15 Tu 0320 2.0 61 0559 1.9 58 0905 2.0 61 1839 -0.6 -18		30 W 0335 1.7 52 1829 -0.1 -3	
		31 Sa 0832 2.8 85 1854 0.0 0								31 Th 0415 1.6 49 1837 0.2 6	

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.

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.

Times and Heights of High and Low Waters

San Diego, California, 2015

Times and Heights of High and Low Waters

July						August						September																
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				
1 W ○	0247	-0.9	-27		16 Th	0327	-0.8	-24		1 Sa	0340	-1.1	-34		16 Su	0355	0.1	3		1 Tu	0427	0.1	3		16 W	0402	1.3	40
	0906	4.3	131			0951	4.5	137			0958	5.2	158			1011	5.0	152			1044	6.2	189			1016	5.4	165
	1404	1.8	55			1458	1.9	58			1526	1.2	37			1552	1.5	46			1700	0.4	12			1643	1.1	34
	2020	6.9	210			2104	6.5	198			2135	6.9	210			2152	5.6	171			2307	5.4	165			2245	4.5	137
2 Th	0325	-1.2	-37		17 F	0400	-0.6	-18		2 Su	0419	-0.9	-27		17 M	0421	0.5	15		2 W	0509	0.8	24		17 Th	0425	1.7	52
	0946	4.4	134			1024	4.6	140			1039	5.4	165			1040	5.0	152			1130	6.1	186			1044	5.3	162
	1447	1.8	55			1536	1.9	58			1617	1.2	37			1629	1.6	49			1802	0.6	18			1726	1.3	40
	2101	6.9	210			2139	6.1	186			2222	6.4	195			2226	5.2	158						2329		4.0	121	
3 F	0404	-1.2	-37		18 Sa	0432	-0.3	-9		3 M	0500	-0.5	-15		18 Tu	0448	0.9	27		3 Th	0009	4.6	140		18 F	0448	2.1	64
	1028	4.6	140			1058	4.6	140			1123	5.5	168			1110	4.9	149			0555	1.4	43			1116	5.2	158
	1533	1.8	55			1615	2.0	61			1713	1.2	37			1709	1.7	52			1223	5.9	180			1822	1.4	43
	2144	6.7	204			2214	5.7	174			2314	5.7	174			2301	4.7	143			1916	0.9	27					
4 Sa	0446	-1.1	-34		19 Su	0504	0.1	3		4 Tu	0543	0.1	3		19 W	0514	1.3	40		4 F	0130	4.0	122		19 Sa	0031	3.6	110
	1113	4.7	143			1133	4.5	137			1211	5.6	171			1142	4.9	149			0653	2.1	64			0515	2.5	76
	1625	1.9	58			1657	2.1	64			1819	1.3	40			1758	1.9	58			1328	5.6	171			1200	5.0	152
	2230	6.3	192			2250	5.2	158						2344		4.1	125		2046		0.9	27		1939		1.5	46	
5 Su	0529	-0.7	-21		20 M	0536	0.5	15		5 W	0614	4.9	149		20 Th	0541	1.7	52		5 Sa	0318	3.7	113		20 Su	0210	3.3	101
	1201	4.8	146			1211	4.5	137			0630	0.8	24			1221	4.8	146			0813	2.6	79			0601	2.9	88
	1723	1.9	58			1745	2.3	70			1306	5.6	171			1902	2.0	61			1445	5.5	168			1311	4.8	146
	2321	5.7	174			2328	4.7	143			1937	1.4	43						2217		0.8	24		2108		1.4	43	
6 M	0615	-0.3	-9		21 Tu	0608	0.9	27		6 Th	0131	4.1	125		21 F	0043	3.6	110		6 Su	0505	3.9	119		21 M	0407	3.5	107
	1253	5.0	152			1252	4.5	137			0724	1.4	43			0613	2.2	67			0947	2.7	82			0810	3.2	98
	1834	2.0	61			1845	2.4	73			1409	5.6	171			1312	4.8	146			1605	5.5	168			1446	4.9	149
						2109	1.2	37			2028	2.0	61			2028	2.0	61			2329	0.5	15			2224	1.0	30
7 Tu	0022	5.0	152		22 W	0015	4.1	125		7 F	0309	3.6	110		22 Sa	0221	3.2	98		7 M	0610	4.3	131		22 Tu	0515	3.9	119
	0705	0.2	6			0644	1.3	40			0832	1.9	58			0702	2.6	79			1107	2.5	76			0959	3.0	91
	1350	5.2	158			1339	4.6	140			1518	5.7	174			1421	4.8	146			1713	5.7	174			1608	5.2	158
	1957	1.9	58			2001	2.4	73			2239	0.8	24			2159	1.6	49						2319		0.5	15	
8 W ●	0138	4.3	131		23 Th	0120	3.6	110		8 Sa	0456	3.6	110		23 Su	0420	3.2	98		8 Tu	0020	0.2	6		23 W	0555	4.4	134
	0800	0.8	24			0726	1.8	55			0949	2.2	67			0839	2.8	85			0652	4.6	140			1108	2.4	73
	1450	5.4	165			1433	4.7	143			1626	5.9	180			1536	5.1	155			1204	2.2	67			1711	5.6	171
	2128	1.6	49			2130	2.1	64			2349	0.4	12			2309	1.1	34			1806	5.8	177					
9 Th	0309	3.8	116		24 F	0255	3.2	98		9 Su	0616	3.9	119		24 M	0540	3.5	107		9 W	0059	0.1	3		24 Th	0004	0.1	3
	0901	1.2	37			0820	2.1	64			1102	2.3	70			1011	2.8	85			0724	4.8	146			0628	4.9	149
	1550	5.7	174			1531	4.9	149			1726	6.1	186			1641	5.5	168			1247	1.8	55			1200	1.8	55
	2251	1.0	30			2249	1.7	52						2358		0.5	15		1849		6.0	183		1805		6.1	186	
10 F	0445	3.6	110		25 Sa	0438	3.2	98		10 M	0042	0.0	0		25 Tu	0626	4.0	122		10 Th	0131	0.1	3		25 F	0044	-0.2	-6
	1006	1.6	49			0929	2.4	73			0709	4.2	128			1118	2.5	76			0750	5.0	152			0702	5.4	165
	1647	6.1	186			1625	5.2	158			1202	2.2	67			1735	6.0	183			1324	1.5	46			1248	1.1	34
	2358	0.3	9			2346	1.1	34			1817	6.3	192						1926		6.0	183		1854		6.4	195	
11 Sa	0607	3.8	116		26 Su	0555	3.4	104		11 Tu	0124	-0.3	-9		26 W	0040	0.0	0		11 F	0159	0.1	3		26 Sa	0122	-0.4	-12
	1108	1.8	55			1035	2.4	73			0749	4.5	137			0701	4.4	134			0814	5.2	158			0736	6.0	183
	1740	6.4	195			1715	5.6	171			1251	2.0	61			1210	2.0	61			1356	1.3	40			1333	0.5	15
						1901	6.4	195			1824	6.4	195			1824	6.4	195			1959	6.0	183			1941	6.5	198
12 Su	0052	-0.2	-6		27 M	0031	0.5	15		12 W	0200	-0.4	-12		27 Th	0118	-0.5	-15		12 Sa	0225	0.2	6		27 Su	0159	-0.3	-9
	0709	4.0	122			0647	3.7	113			0821	4.6	140			0735	4.8	146			0837	5.3	162			0812	6.4	195
	1204	1.9	58			1133	2.3	70			1332	1.8	55			1257	1.6	49			1428	1.1	34			1419	0.0	0
	1827	6.6	201			1800	6.1	186			1939	6.5	198			1909	6.8	207			2031	5.8	177			2028	6.4	195
13 M	0137	-0.6	-18		28 Tu	0110	-0.1	-3		13 Th	0231	-0.4	-12		28 F	0155	-0.8	-24		13 Su	0250	0.4	12		28 M	0237	-0.1	-3
	0758	4.2	128			0728	4.0	122			0850	4.8	146			0810	5.3	162			0901	5.4	165			0848	-0.7	204
	1253	1.9	58			1222	2.1	64			1409	1.6	49			1343	1.1	34			1459	1.0	30			1506	-0.4	-12
	1910	6.8	207			1843	6.5	198			2015	6.4	195			1954	7.0	213			2102	5.6	171			2116	6.1	186
14 Tu	0217	-0.8	-24		29 W	0147	-0.6	-18		14 F	0300	-0.3	-9		29 Sa	0232	-0.9	-27		14 M	0314	0.7	21		29 Tu	0315	0.3	9
	0839	4.4	134			0805	4.4	134			0917	4.9	149			0846	5.7	174			0925	5.5	168			0927	6.8	207
	1338	1.9	58			1308	1.8	55			1443	1.5	46			1429	0.7	21			1531	0.9	27			1554	-0.4	-12
	1950	6.8	207			1925	6.9	210			2048	6.3	192			2039	7.0	213			2134	5.3	162			2207	5.6	171
15 W ●	0253	-0.9	-27		30 Th	0224	-0.9	-27		15 Sa	0328	-0.1	-3		30 Su	0310	-0.7	-21		15 Tu	0338	1.0	30		30 W	0355	0.8	24
	0916	4.5	137			0842	4.7	143			0944	5.0	152			0923	6.0	183			0950	5.5	168			1008	6.7	204
	1419	1.8	55			1353	1.6	49			1517	1.5	46			1516	0.4	12			1605	1.0	30			1647	-0.3	-9
	2028	6.7	204			2007	7.1	216			2120	6.0	183			2125	6.7	204			2208	5.0	152			2302	5.0	152
				31 F ○	0302	-1.1	-34							31 M	0348	-0.4	-12											
					0919	5.0	152									1002	6.2	189										
					1438	1.4	43									1606	0.4	12										
					2050	7.1	216									2214	6.1	186										

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, 2015

Times and Heights of High and Low Waters

January								February								March							
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				
1 Th	0611	6.1	186	16 F	0535	5.5	168	1 Su	0114	1.8	55	16 M	0030	1.6	49	1 Su	0030	1.9	58	16 M	0537	5.3	162
	1322	-0.4	-12		1255	-0.1	-3		0721	5.8	177		0645	6.1	186		0631	5.2	158		1237	-0.5	-15
	1941	3.8	116		1914	3.4	104		1425	-0.7	-21		1347	-1.1	-34		1329	-0.3	-9		1902	4.2	128
					2350	2.0	61		2049	4.0	122		2007	4.3	131		1955	4.0	122				
2 F	0033	1.8	55	17 Sa	0618	5.9	180	2 M	0151	1.7	52	17 Tu	0119	1.2	37	2 M	0110	1.6	49	17 Tu	0025	1.3	40
	0652	6.2	189		1332	-0.6	-18		0756	5.8	177		0732	6.4	195		0710	5.3	162		0631	5.6	171
	1402	-0.7	-21		1954	3.7	113		1454	-0.7	-21		1424	-1.4	-43		1359	-0.3	-9		1316	-0.8	-24
	2026	3.9	119				2117		4.1	125	2042		4.6	140	2020		4.2	128	1935		4.7	143	
3 Sa	0116	1.8	55	18 Su	0039	1.8	55	3 Tu	0225	1.6	49	18 W	0207	0.8	24	3 Tu	0143	1.3	40	18 W	0114	0.7	21
	0730	6.3	192		0700	6.3	192		0828	5.7	174		0817	6.5	198		0744	5.3	162		0721	5.9	180
	1439	-0.9	-27		1410	-1.1	-34		1521	-0.6	-18		1502	-1.4	-43		1425	-0.3	-9		1354	-0.9	-27
	2105	4.0	122		2032	4.0	122		2143	4.2	128		2118	5.0	152		2042	4.3	131		2009	5.2	158
4 Su	0155	1.9	58	19 M	0126	1.6	49	4 W	0257	1.5	46	19 Th	0254	0.5	15	4 W	0215	1.1	34	19 Th	0200	0.1	3
	0805	6.2	189		0742	6.6	201		0859	5.6	171		0903	6.3	192		0816	5.3	162		0809	5.9	180
	1513	-0.9	-27		1448	-1.4	-43		1547	-0.4	-12		1540	-1.2	-37		1449	-0.2	-6		1432	-0.9	-27
	2140	4.0	122		2110	4.3	131		2209	4.2	128		2156	5.2	158		2104	4.5	137		2044	5.6	171
5 M	0232	1.9	58	20 Tu	0212	1.4	43	5 Th	0330	1.5	46	20 F	0343	0.3	9	5 Th	0245	0.9	27	20 F	0247	-0.3	-9
	0839	6.1	186		0826	6.8	207		0930	5.3	162		0950	5.9	180		0846	5.2	158		0856	5.8	177
	1545	-0.8	-24		1527	-1.5	-46		1613	-0.2	-6		1618	-0.8	-24		1512	-0.1	-3		1509	-0.6	-18
	2214	4.0	122		2149	4.5	137		2235	4.3	131		2236	5.4	165		2126	4.6	140		2121	5.8	177
6 Tu	0308	2.0	61	21 W	0300	1.3	40	6 F	0405	1.5	46	21 Sa	0435	0.3	9	6 F	0316	0.8	24	21 Sa	0335	-0.5	-15
	0912	5.9	180		0911	6.6	201		1001	5.0	152		1040	5.3	162		0916	5.0	152		0944	5.4	165
	1617	-0.6	-18		1607	-1.4	-43		1638	0.1	3		1658	-0.3	-9		1536	0.2	6		1546	-0.2	-6
	2248	4.0	122		2230	4.7	143		2303	4.3	131		2318	5.4	165		2150	4.7	143		2159	5.9	180
7 W	0344	2.0	61	22 Th	0350	1.2	37	7 Sa	0442	1.5	46	22 Su	0533	0.4	12	7 Sa	0348	0.8	24	22 Su	0424	-0.5	-15
	0945	5.5	168		0957	6.3	192		1034	4.6	140		1134	4.6	140		0948	4.7	143		1035	4.8	146
	1648	-0.3	-9		1648	-1.1	-34		1704	0.5	15		1739	0.4	12		1559	0.4	12		1625	0.4	12
	2322	4.0	122		2313	4.8	146		2333	4.3	131						2214	4.7	143		2240	5.8	177
8 Th	0423	2.1	64	23 F	0445	1.2	37	8 Su	0526	1.6	49	23 M	0006	5.3	162	8 Su	0423	0.8	24	23 M	0518	-0.3	-9
	1018	5.2	158		1046	5.7	174		1110	4.0	122		0640	0.6	18		1022	4.3	131		1130	4.2	128
	1719	0.0	0		1730	-0.6	-18		1730	0.9	27		1241	3.8	116		1622	0.8	24		1706	1.0	30
	2359	4.0	122								1825		1.1	34	2240		4.7	143	2324		5.5	168	
9 F	0506	2.3	70	24 Sa	0000	4.9	149	9 M	0007	4.3	131	24 Tu	0101	5.1	155	9 M	0503	0.9	27	24 Tu	0618	0.0	0
	1053	4.7	143		0548	1.3	40		0620	1.7	52		0802	0.7	21		1059	3.8	116		1238	3.6	110
	1751	0.4	12		1142	4.9	149		1154	3.5	107		1412	3.2	98		1646	1.1	34		1752	1.6	49
					1815	0.0	0		1758	1.3	40		1924	1.7	52		2310	4.6	140				
10 Sa	0039	4.0	122	25 Su	0052	5.0	152	10 Tu	0048	4.3	131	25 W	0208	4.9	149	10 Tu	0550	1.0	30	25 W	0014	5.1	155
	0600	2.4	73		0702	1.3	40		0734	1.8	55		0938	0.6	18		1145	3.4	104		0730	0.3	9
	1132	4.1	125		1248	4.1	125		1258	2.9	88		1612	3.0	91		1712	1.5	46		1409	3.2	98
	1824	0.8	24		1904	0.6	18		1831	1.7	52		2048	2.2	67		2346	4.5	137		1852	2.2	67
11 Su	0125	4.0	122	26 M	0151	5.0	152	11 W	0142	4.3	131	26 Th	0327	4.8	146	11 W	0652	1.1	34	26 Th	0118	4.7	143
	0712	2.4	73		0833	1.3	40		0914	1.6	49		1104	0.4	12		1251	2.9	88		0857	0.4	12
	1222	3.6	110		1417	3.4	104		1455	2.6	79		1749	3.3	101		1742	1.9	58		1603	3.2	98
	1901	1.2	37		2003	1.2	37		1923	2.1	64		2224	2.3	70				2029		2.5	76	
12 M	0216	4.2	128	27 Tu	0257	5.1	155	12 Th	0251	4.4	134	27 F	0442	4.8	146	12 Th	0034	4.4	134	27 F	0241	4.4	134
	0848	2.3	70		1009	0.9	27		1044	1.1	34		1206	0.1	3		0817	1.1	34		1022	0.4	12
	1340	3.1	94		1610	3.1	94		1708	2.7	82		1846	3.6	110		1446	2.7	82		1728	3.5	107
	1947	1.6	49		2115	1.7	52		2055	2.3	70		2337	2.1	64		1833	2.3	70		2217	2.5	76
13 Tu	0310	4.4	134	28 W	0404	5.2	158	13 F	0402	4.7	143	28 Sa	0543	5.0	152	13 F	0146	4.4	134	28 Sa	0409	4.3	131
	1023	1.8	55		1128	0.4	12		1143	0.5	15		1252	-0.2	-6		0951	0.8	24		1127	0.3	9
	1536	2.8	85		1748	3.2	98		1816	3.0	91		1925	3.8	116		1653	2.9	88		1817	3.8	116
	2045	1.9	58		2231	2.0	61		2228	2.3	70				2026		2.6	79	2331		2.1	64	
14 W	0403	4.7	143	29 Th	0505	5.4	165	14 Sa	0504	5.2	158	14 Sa	0315	4.5	137	14 Sa	0315	4.5	137	29 Su	0518	4.4	134
	1128	1.2	37		1227	0.0	0		1229	-0.1	-3		1102	0.3	9		1102	0.3	9		1215	0.2	6
	1720	2.8	85		1855	3.5	107		1858	3.4	104		1751	3.3	101		1751	3.3	101		1851	4.0	122
	2152	2.1	64		2337	2.0	61		2336	2.0	61		2218	2.4	73								
15 Th	0450	5.0	152	30 F	0558	5.6	171	15 Su	0557	5.7	174	15 Su	0434	4.8	146	15 Su	0434	4.8	146	30 M	0020	1.8	55
	1215	0.6	18		1313	-0.4	-12		1309	-0.7	-21		1153	-0.1	-3		0610	4.5	137				
	1827	3.1	94		1942	3.7	113		1933	3.8	116		1828	3.7	113		1251	0.2	6				
	2255	2.1	64								2330		1.9	58	2330		1.9	58	1918		4.3	131	
				31 Sa	0030	1.9	58									31 Tu	0058	1.4	43				
			0642		5.7	174											0652	4.6	140				
			1352		-0.6	-18											1320	0.2	6				
					2018	3.9	119										1940	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.

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, 2015

Times and Heights of High and Low Waters

July					August					September																		
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 W ○	0253	-0.9	-27		16 Th	0333	-0.7	-21		1 Sa	0345	-1.0	-30		16 Su	0359	0.2	6		1 W	0404	1.4	43					
	0917	4.0	122			1000	4.3	131			1005	4.9	149			1018	4.7	143			1019	5.1	155					
	1403	1.9	58			1459	1.9	58			1527	1.3	40			1555	1.6	49			1648	1.2	37					
	2020	6.5	198			2104	6.1	186			2135	6.5	198			2154	5.3	162			2249	4.2	128					
2 Th	0331	-1.1	-34		17 F	0406	-0.5	-15		2 Su	0423	-0.8	-24		17 M	0425	0.5	15		2 W	0511	0.8	24		17 Th	0428	1.8	55
	0957	4.1	125			1034	4.3	131			1045	5.0	152			1046	4.7	143			1133	5.8	177			1048	5.0	152
	1447	1.9	58			1538	2.0	61			1619	1.3	40			1632	1.7	52			1808	0.7	21			1733	1.3	40
	2101	6.5	198			2139	5.8	177			2223	6.0	183			2227	4.9	149			2336	3.8	116					
3 F	0410	-1.1	-34		18 Sa	0437	-0.3	-9		3 M	0504	-0.4	-12		18 Tu	0451	0.9	27		3 Th	0015	4.4	134		18 F	0453	2.1	64
	1038	4.3	131			1108	4.3	131			1129	5.2	158			1115	4.7	143			0558	1.4	43			1122	4.9	149
	1534	1.9	58			1617	2.1	64			1717	1.3	40			1714	1.8	55			1226	5.6	171			1832	1.4	43
	2144	6.3	192			2214	5.4	165			2316	5.3	162			2304	4.4	134			1924	0.8	24					
4 Sa	0451	-1.0	-30		19 Su	0508	0.1	3		4 Tu	0546	0.2	6		19 W	0517	1.3	40		4 F	0139	3.8	116		19 Sa	0042	3.4	104
	1122	4.4	134			1143	4.3	131			1217	5.3	162			1148	4.6	140			0655	2.1	64			0523	2.5	76
	1626	1.9	58			1700	2.2	67			1825	1.4	43			1805	1.9	58			1331	5.4	165			1207	4.7	143
	2230	6.0	183			2250	4.9	149			1946	1.3	40			2348	3.8	116			2055	0.9	27			1951	1.5	46
5 Su	0534	-0.7	-21		20 M	0539	0.5	15		5 W	0017	4.6	140		20 Th	0544	1.7	52		5 Sa	0330	3.6	110		20 Su	0235	3.2	98
	1210	4.5	137			1220	4.3	131			0632	0.8	24			1227	4.6	140			0816	2.5	76			0612	2.9	88
	1727	2.0	61			1750	2.3	70			1311	5.3	162			1913	2.0	61			1449	5.2	158			1315	4.6	140
	2322	5.4	165			2329	4.4	134			1946	1.3	40				2223	0.7	21			2223	1.3	40				
6 M	0619	-0.3	-9		21 Tu	0611	0.9	27		6 Th	0136	3.9	119		21 F	0050	3.3	101		6 Su	0509	3.8	116		21 M	0437	3.4	104
	1302	4.7	143			1301	4.3	131			0727	1.4	43			0617	2.1	64			0953	2.6	79			0808	3.1	94
	1839	2.0	61			1853	2.4	73			1414	5.4	165			1317	4.5	137			1609	5.3	162			1447	4.7	143
											2119	1.1	34			2045	1.9	58			2331	0.4	12			2235	0.9	27
7 Tu	0024	4.7	143		22 W	0015	3.8	116		7 F	0320	3.5	107		22 Sa	0237	3.0	91		7 M	0613	4.1	125		22 Tu	0532	3.7	113
	0708	0.2	6			0645	1.3	40			0834	1.9	58			0705	2.5	76			1111	2.5	76			1002	2.9	88
	1358	4.9	149			1348	4.4	134			1522	5.5	168			1424	4.6	140			1716	5.4	165			1609	5.0	152
	2006	1.9	58			2015	2.3	70			2245	0.8	24			2217	1.5	46						2327		0.5	15	
8 W ○	0141	4.0	122		23 Th	0122	3.3	101		8 Sa	0505	3.5	107		23 Su	0449	3.1	94		8 Tu	0023	0.2	6		23 W	0606	4.1	125
	0803	0.8	24			0725	1.7	52			0952	2.2	67			0834	2.8	85			0656	4.4	134			1111	2.4	73
	1457	5.2	158			1441	4.5	137			1629	5.6	171			1538	4.8	146			1208	2.2	67			1713	5.4	165
	2138	1.5	46			2150	2.0	61			2353	0.3	9			2321	1.0	30			1809	5.5	168					
9 Th	0316	3.6	110		24 F	0306	3.0	91		9 Su	0621	3.7	113		24 M	0559	3.4	104		9 W	0103	0.1	3		24 Th	0009	0.2	6
	0903	1.2	37			0817	2.1	64			1106	2.3	70			1010	2.7	82			0729	4.6	140			0636	4.6	140
	1555	5.5	168			1537	4.7	143			1729	5.8	177			1642	5.2	158			1252	1.9	58			1203	1.8	55
	2259	0.9	27			2306	1.6	49										1852	5.6		171		1806	5.7		174		
10 F	0454	3.4	104		25 Sa	0458	3.0	91		10 M	0045	-0.1	-3		25 Tu	0008	0.5	15		10 Th	0137	0.1	3		25 F	0048	-0.1	-3
	1007	1.6	49			0925	2.3	70			0714	4.0	122			0639	3.7	113			0757	4.7	143			0708	5.1	155
	1651	5.8	177			1629	5.0	152			1205	2.2	67			1118	2.5	76			1328	1.6	49			1250	1.2	37
						2359	1.0	30			1819	6.0	183			1736	5.7	174			1929	5.7	174			1856	6.0	183
11 Sa	0004	0.3	9		26 Su	0613	3.2	98		11 Tu	0128	-0.3	-9		26 W	0047	0.0	0		11 F	0205	0.2	6		26 Sa	0125	-0.2	-6
	0614	3.6	110			1033	2.4	73			0755	4.2	128			0712	4.1	125			0821	4.9	149			0740	5.6	171
	1109	1.8	55			1717	5.4	165			1254	2.0	61			1211	2.1	64			1401	1.4	43			1336	0.6	18
	1742	6.1	186								1903	6.1	186			1824	6.1	186			2002	5.6	171			1943	6.1	186
12 Su	0056	-0.2	-6		27 M	0041	0.4	12		12 W	0205	-0.4	-12		27 Th	0124	-0.4	-12		12 Sa	0231	0.3	9		27 Su	0202	-0.2	-6
	0716	3.8	116			0702	3.5	107			0828	4.4	134			0743	4.5	137			0844	5.0	152			0815	6.0	183
	1205	1.9	58			1131	2.3	70			1335	1.9	58			1258	1.7	52			1432	1.2	37			1422	0.1	3
	1828	6.3	192			1801	5.8	177			1941	6.1	186			1910	6.4	195			2034	5.5	168			2031	6.0	183
13 M	0141	-0.6	-18		28 Tu	0118	-0.1	-3		13 Th	0237	-0.4	-12		28 F	0200	-0.6	-18		13 Su	0254	0.5	15		28 M	0239	0.0	0
	0805	4.0	122			0740	3.8	116			0858	4.5	137			0816	4.9	149			0906	5.1	155			0851	6.3	192
	1255	1.9	58			1221	2.2	67			1412	1.7	52			1344	1.2	37			1503	1.1	34			1509	-0.2	-6
	1911	6.4	195			1843	6.2	189			2016	6.0	183			1955	6.6	201			2105	5.3	162			2119	5.7	174
14 Tu	0222	-0.8	-24		29 W	0154	-0.5	-15		14 F	0306	-0.2	-6		29 Sa	0236	-0.7	-21		14 M	0318	0.8	24		29 Tu	0317	0.4	12
	0847	4.1	125			0816	4.1	125			0925	4.6	140			0851	5.3	162			0929	5.1	155			0929	6.4	195
	1339	1.9	58			1307	1.9	58			1446	1.6	49			1430	0.8	24			1535	1.0	30			1558	-0.3	-9
	1951	6.4	195			1925	6.5	198			2049	5.9	180			2040	6.5	198			2137	5.0	152			2211	5.3	162
15 W ●	0258	-0.8	-24		30 Th	0230	-0.9	-27		15 Sa	0333	0.0	0		30 Su	0313	-0.6	-18		15 Tu	0341	1.1	34		30 W	0356	0.9	27
	0925	4.2	128			0851	4.3	131			0952	4.6	140			0927	5.6	171			0953	5.2	158			1010	6.4	195
	1420	1.9	58			1353	1.7	52			1520	1.6	49			1518	0.6	18			1610	1.1	34			1651	-0.2	-6
	2029	6.3	192			2007	6.7	204			2121	5.6	171			2127	6.3	192			2211	4.6	140			2307	4.7	143
				31 F ○	0307	-1.0	-30							31 M	0351	-0.3	-9											
					0927	4.6	140									1006	5.8	177										
					1439	1.5	46									1609	0.5	15										
					2050	6.7	204									2216	5.7	174										

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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, 2015

Times and Heights of High and Low Waters

July					August					September																			
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 W ○	0338	-0.9	-27		16 Th	0421	-0.7	-21		1 Sa	0431	-0.9	-27		16 Su	0452	0.4	12		1 Tu	0520	0.4	12		16 W	0503	1.6	49	
	1012	3.8	116			1057	4.2	128			1058	4.7	143			1116	4.5	137			1140	5.7	174			1116	4.9	149	
	1445	2.2	67			1546	2.3	70			1615	1.7	52			1648	1.9	58			1800	0.6	18			1747	1.2	37	
	2058	6.3	192			2148	5.9	180			2218	6.2	189			2244	5.1	155						2355		4.1	125		
2 Th	0417	-1.1	-34		17 F	0456	-0.5	-15		2 Su	0511	-0.6	-18		17 M	0521	0.7	21		2 W	0005	4.9	149		17 Th	0532	1.9	58	
	1053	4.0	122			1133	4.2	128			1140	4.9	149			1145	4.6	140			0604	1.0	30			1147	4.9	149	
	1531	2.2	67			1628	2.3	70			1711	1.6	49			1730	1.9	58			1227	5.7	174			1836	1.2	37	
	2141	6.3	192			2225	5.6	171			2310	5.8	177			2322	4.7	143			1905	0.7	21						
3 F	0457	-1.1	-34		18 Sa	0530	-0.2	-6		3 M	0552	-0.3	-9		18 Tu	0549	1.0	30		3 Th	0114	4.3	131		18 F	0049	3.8	116	
	1136	4.2	128			1209	4.2	128			1224	5.1	155			1216	4.6	140			0653	1.6	49			0603	2.3	70	
	1622	2.2	67			1712	2.4	73			1813	1.5	46			1816	1.9	58			1320	5.6	171			1224	4.8	146	
	2226	6.1	186			2302	5.2	158								2019	0.7	21			2019	0.7	21			1934	1.3	40	
4 Sa	0539	-1.0	-30		19 Su	0603	0.1	3		4 Tu	0006	5.2	158		19 W	0005	4.3	131		4 F	0238	3.9	119		19 Sa	0201	3.5	107	
	1221	4.3	131			1246	4.3	131			0636	0.3	9			0619	1.4	43			0751	2.1	64			0643	2.6	79	
	1719	2.2	67			1800	2.4	73			1312	5.3	162			1251	4.6	140			1421	5.5	168			1311	4.7	143	
	2315	5.7	174			2342	4.7	143			1923	1.4	43			1911	1.9	58			2140	0.6	18			2044	1.2	37	
5 Su	0622	-0.7	-21		20 M	0636	0.5	15		5 W	0112	4.5	137		20 Th	0057	3.8	116		5 Sa	0414	3.8	116		20 Su	0334	3.4	104	
	1308	4.5	137			1323	4.3	131			0723	0.8	24			0651	1.8	55			0905	2.5	76			0742	2.9	88	
	1823	2.2	67			1854	2.4	73			1404	5.4	165			1330	4.7	143			1531	5.4	165			1412	4.7	143	
						2042	1.3	40			2042	1.3	40			2018	1.9	58			2257	0.5	15			2157	1.0	30	
6 M	0010	5.2	158		21 Tu	0026	4.3	131		6 Th	0232	3.9	119		21 F	0206	3.4	104		6 Su	0542	3.9	119		21 M	0502	3.5	107	
	0707	-0.3	-9			0710	0.9	27			0816	1.4	43			0729	2.2	67			1029	2.6	79			0909	3.0	91	
	1357	4.8	146			1403	4.4	134			1502	5.6	171			1418	4.7	143			1643	5.4	165			1525	4.8	146	
	1938	2.1	64			2000	2.4	73			2205	1.0	30			2135	1.7	52						2303		0.7	21		
7 Tu	0113	4.6	140		22 W	0119	3.8	116		7 F	0408	3.6	110		22 Sa	0341	3.2	98		7 M	0003	0.3	9		22 Tu	0559	3.8	116	
	0756	0.2	6			0746	1.3	40			0820	2.5	76			0646	4.1	125			1035	2.8	85						
	1449	5.0	152			1446	4.5	137			1513	4.8	146			1143	2.5	76			1637	5.0	152						
	2101	1.8	55			2116	2.2	67			2323	0.6	18			2250	1.4	43			1747	5.4	165			2356	0.4	12	
8 W ●	0230	4.0	122		23 Th	0230	3.4	104		8 Sa	0543	3.6	110		23 Su	0520	3.3	101		8 Tu	0056	0.2	6		23 W	0640	4.1	125	
	0847	0.7	21			0827	1.7	52			0930	2.7	82			0733	4.3	131			0733	4.3	131			1143	2.5	76	
	1543	5.3	162			1531	4.7	143			1614	5.0	152			1242	2.3	70			1242	2.3	70			1741	5.3	162	
	2225	1.3	40			2234	1.9	58			2350	0.9	27			2350	0.9	27			1842	5.4	165						
9 Th	0401	3.6	110		24 F	0403	3.1	94		9 Su	0028	0.2	6		24 M	0629	3.5	107		9 W	0140	0.1	3		24 Th	0043	0.1	3	
	0943	1.2	37			0914	2.0	61			0659	3.8	116			1044	2.7	82			0810	4.4	134			0715	4.5	137	
	1636	5.6	171			1617	4.9	149			1138	2.4	73			1712	5.3	162			1329	2.1	64			1238	1.9	58	
	2340	0.8	24			2340	1.4	43			1802	5.9	180						1928		5.5	168		1839		5.5	168		
10 F	0535	3.4	104		25 Sa	0538	3.1	94		10 M	0122	-0.1	-3		25 Tu	0039	0.5	15		10 Th	0217	0.2	6		25 F	0125	-0.1	-3	
	1043	1.6	49			1009	2.3	70			0755	4.0	122			0715	3.7	113			0841	4.6	140			0749	4.9	149	
	1728	5.9	180			1704	5.1	155			1239	2.4	73			1149	2.6	79			1409	1.8	55			1329	1.4	43	
						1853	6.0	183			1853	6.0	183			1806	5.7	174			2009	5.4	165			1932	5.7	174	
11 Sa	0043	0.2	6		26 Su	0032	0.9	27		11 Tu	0207	-0.3	-9		26 W	0122	0.0	0		11 F	0249	0.3	9		26 Sa	0205	-0.1	-3	
	0656	3.5	107			0651	3.2	98			0753	4.0	122			0908	4.7	143			0823	5.3	162						
	1143	1.9	58			1108	2.4	73			1244	2.3	70			1445	1.6	49			1418	0.8	24						
	1818	6.1	186			1749	5.5	168			1856	6.0	183			2046	5.3	162			2024	5.8	177						
12 Su	0136	-0.3	-9		27 M	0116	0.4	12		12 W	0247	-0.3	-9		27 Th	0202	-0.3	-9		12 Sa	0317	0.5	15		27 Su	0244	0.0	0	
	0801	3.7	113			0744	3.5	107			0828	4.4	134			0933	4.8	146			0859	5.6	171						
	1239	2.1	64			1203	2.5	76			1335	1.9	58			1519	1.5	46			1507	0.3	9						
	1904	6.2	189			1833	5.8	177			2020	5.9	180			1945	6.2	189			2121	5.2	158			2116	5.7	174	
13 M	0223	-0.6	-18		28 Tu	0156	-0.1	-3		13 Th	0322	-0.3	-9		28 F	0241	-0.5	-15		13 Su	0344	0.7	21		28 M	0324	0.3	9	
	0854	3.9	119			0826	3.7	113			0949	4.4	134			0903	4.7	143			0957	4.8	146			0937	5.9	180	
	1331	2.2	67			1255	2.4	73			1455	2.1	64			1425	1.5	46			1553	1.3	40			1558	0.0	0	
	1948	6.3	192			1916	6.1	186			2058	5.8	177			2033	6.3	192			2156	5.0	152			2209	5.4	165	
14 Tu	0305	-0.8	-24		29 W	0234	-0.5	-15		14 F	0354	-0.1	-3		29 Sa	0320	-0.5	-15		14 M	0410	1.0	30		29 Tu	0405	0.7	21	
	0939	4.0	122			0904	4.0	122			1019	4.4	134			0939	5.0	152			1022	4.9	149			1017	6.1	186	
	1419	2.2	67			1344	2.2	67			1533	2.0	61			1514	1.2	37			1628	1.2	37			1650	-0.2	-6	
	2030	6.2	189			2000	6.4	195			2134	5.7	174			2122	6.2	189			2232	4.7	143			2305	5.0	152	
15 W ●	0344	-0.8	-24		30 Th	0313	-0.8	-24		15 Sa	0423	0.1	3		30 Su	0359	-0.4	-12		15 Tu	0436	1.3	40		30 W	0447	1.2	37	
	1020	4.1	125			0941	4.2	128			1047	4.5	137			1017	5.3	162			1048	4.9	149			1059	6.1	186	
	1503	2.3	70			1433	2.1	64			1610	1.9	58			1606	0.9	27			1706	1.2	37			1746	-0.2	-6	
	2110	6.1	186			2044	6.5	198			2209	5.4	165			2212	6.0	183			2311	4.4	134						
				31 F ○	0351	-0.9	-27							31 M	0439	0.0	0												
					1019	4.5	137																						
					1522	1.9	58											</											

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Monterey, California, 2015

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Th	h m 0039 2.0 61 0707 6.0 183 1426 -0.4 -12 2056 3.7 113	16 F	h m ft cm 0629 5.6 171 1357 0.0 0 2030 3.5 107	1 Su	h m ft cm 0214 2.4 73 0818 5.7 174 1532 -0.5 -15 2210 4.1 125	16 M	h m ft cm 0128 2.2 67 0740 6.0 183 1452 -0.8 -24 2123 4.2 128	1 Su	h m ft cm 0123 2.3 70 0722 5.2 158 1428 -0.1 -3 2104 4.1 125	16 M	h m ft cm 0023 2.2 67 0627 5.3 162 1335 -0.4 -12 2009 4.2 128
2 F	0131 2.3 70 0750 6.1 186 1510 -0.6 -18 2147 3.9 119	17 Sa	0046 2.4 73 0713 5.9 180 1438 -0.5 -15 2114 3.7 113	2 M	0257 2.3 70 0857 5.7 174 1606 -0.4 -12 2242 4.1 125	17 Tu	0222 1.9 58 0830 6.2 189 1532 -1.0 -30 2200 4.5 137	2 M	0210 2.1 64 0806 5.2 158 1504 -0.1 -3 2134 4.2 128	17 Tu	0123 1.8 55 0726 5.5 168 1419 -0.5 -15 2045 4.6 140
3 Sa	0219 2.4 73 0830 6.1 186 1550 -0.8 -24 2231 4.0 122	18 Su	0139 2.4 73 0757 6.2 189 1518 -0.9 -27 2155 4.0 122	3 Tu	0336 2.3 70 0934 5.5 168 1637 -0.3 -9 2311 4.2 128	18 W	0315 1.5 46 0921 6.2 189 1613 -0.9 -27 2237 4.9 149	3 Tu	0250 1.9 58 0846 5.1 155 1535 0.0 0 2201 4.3 131	18 W	0218 1.3 40 0821 5.6 171 1500 -0.5 -15 2121 4.9 149
4 Su	0304 2.5 76 0909 6.0 183 1627 -0.7 -21 2311 4.1 125	19 M	0230 2.3 70 0843 6.4 195 1559 -1.2 -37 2235 4.2 128	4 W	0414 2.2 67 1009 5.4 165 1706 -0.1 -3 2339 4.3 131	19 Th	0408 1.2 37 1011 6.1 186 1653 -0.7 -21 2317 5.1 155	4 W	0327 1.7 52 0923 5.1 155 1604 0.2 6 2226 4.4 134	19 Th	0310 0.7 21 0915 5.6 171 1541 -0.4 -12 2158 5.3 162
5 M	0346 2.5 76 0945 5.8 177 1702 -0.6 -18 2348 4.1 125	20 Tu	0322 2.1 64 0929 6.5 198 1640 -1.2 -37 2315 4.5 137	5 Th	0452 2.1 64 1044 5.1 155 1735 0.1 3	20 F	0502 0.9 27 1104 5.7 174 1734 -0.3 -9 2358 5.3 162	5 Th	0402 1.6 49 0959 4.9 149 1631 0.4 12 2250 4.5 137	20 F	0401 0.3 9 1008 5.4 165 1621 -0.1 -3 2237 5.5 168
6 Tu	0427 2.6 79 1021 5.6 171 1736 -0.4 -12	21 W	0414 2.0 61 1017 6.4 195 1721 -1.1 -34 2356 4.7 143	6 F	0008 4.3 131 0533 2.1 64 1120 4.8 146 1803 0.4 12	21 Sa	0559 0.8 24 1159 5.1 155 1816 0.2 6	6 F	0437 1.4 43 1034 4.7 143 1657 0.6 18 2316 4.6 140	21 Sa	0453 0.0 0 1102 5.1 155 1702 0.4 12 2317 5.6 171
7 W	0024 4.1 125 0509 2.6 79 1058 5.3 162 1809 -0.2 -6	22 Th	0510 1.8 55 1108 6.0 183 1803 -0.9 -27	7 Sa	0038 4.4 134 0617 2.0 61 1159 4.4 134 1832 0.8 24	22 Su	0041 5.4 165 0700 0.7 21 1300 4.5 137 1900 0.8 24	7 Sa	0514 1.3 40 1111 4.4 134 1724 0.9 27 2342 4.6 140	22 Su	0547 -0.2 -6 1159 4.6 140 1744 0.8 24 2359 5.6 171
8 Th	0100 4.2 128 0555 2.6 79 1135 4.9 149 1843 0.1 3	23 F	0039 4.9 149 0610 1.7 52 1202 5.5 168 1847 -0.4 -12	8 Su	0109 4.5 137 0706 2.0 61 1243 4.0 122 1902 1.1 34	23 M	0129 5.4 165 0808 0.6 18 1410 3.9 119 1948 1.3 40	8 Su	0554 1.2 37 1152 4.1 125 1751 1.2 37	23 M	0643 -0.2 -6 1301 4.2 128 1829 1.4 43
9 F	0137 4.2 128 0646 2.6 79 1215 4.5 137 1916 0.5 15	24 Sa	0125 5.1 155 0716 1.6 49 1302 4.8 146 1932 0.2 6	9 M	0144 4.5 137 0805 1.9 58 1337 3.5 107 1934 1.5 46	24 Tu	0221 5.4 165 0923 0.6 18 1536 3.5 107 2045 1.9 58	9 M	0011 4.7 143 0638 1.1 34 1237 3.8 116 1819 1.5 46	24 Tu	0045 5.5 168 0744 -0.1 -3 1411 3.8 116 1920 1.9 58
10 Sa	0215 4.3 131 0746 2.6 79 1301 4.0 122 1951 0.9 27	25 Su	0214 5.3 162 0830 1.4 43 1412 4.2 128 2020 0.8 24	10 Tu	0223 4.6 140 0915 1.7 52 1450 3.1 94 2012 1.9 58	25 W	0320 5.3 162 1041 0.5 15 1712 3.4 104 2154 2.3 70	10 Tu	0043 4.7 143 0729 1.1 34 1333 3.4 104 1851 1.9 58	25 W	0136 5.2 158 0851 0.0 0 1533 3.6 110 2022 2.3 70
11 Su	0255 4.4 134 0857 2.5 76 1359 3.6 110 2028 1.2 37	26 M	0307 5.4 165 0951 1.2 37 1537 3.6 110 2114 1.4 43	11 W	0309 4.7 143 1030 1.4 43 1628 2.9 88 2101 2.2 67	26 Th	0425 5.2 158 1154 0.3 9 1839 3.5 107 2313 2.5 76	11 W	0121 4.7 143 0829 1.0 30 1445 3.2 98 1931 2.2 67	26 Th	0236 4.9 149 1003 0.2 6 1700 3.5 107 2141 2.5 76
12 M	0336 4.5 137 1015 2.2 67 1518 3.2 98 2109 1.6 49	27 Tu	0403 5.5 168 1112 0.8 24 1714 3.4 104 2215 1.9 58	12 Th	0401 4.9 149 1139 1.0 30 1807 3.0 91 2208 2.5 76	27 F	0530 5.1 155 1256 0.1 3 1942 3.7 113	12 Th	0207 4.7 143 0939 0.9 27 1617 3.1 94 2027 2.5 76	27 F	0344 4.6 140 1113 0.2 6 1815 3.7 113 2307 2.5 76
13 Tu	0419 4.7 143 1127 1.7 52 1655 3.0 91 2158 2.0 61	28 W	0500 5.6 171 1223 0.4 12 1846 3.4 104 2322 2.2 67	13 F	0457 5.1 155 1237 0.5 15 1917 3.3 101 2322 2.5 76	28 Sa	0025 2.5 76 0630 5.1 155 1346 0.0 0 2028 3.9 119	13 F	0306 4.7 143 1050 0.6 18 1745 3.2 98 2147 2.6 79	28 Sa	0457 4.5 137 1215 0.2 6 1909 3.9 119
14 W	0502 5.0 152 1226 1.2 37 1827 3.0 91 2253 2.2 67	29 Th	0556 5.6 171 1322 0.0 0 1958 3.6 110	14 Sa	0554 5.4 165 1326 0.0 0 2005 3.6 110			14 Sa	0414 4.8 146 1153 0.3 9 1846 3.5 107 2312 2.5 76	29 Su	0020 2.3 70 0605 4.4 134 1306 0.2 6 1950 4.0 122
15 Th	0545 5.3 162 1314 0.6 18 1937 3.2 98 2351 2.4 73	30 F	0027 2.4 73 0648 5.7 174 1412 -0.3 -9 2052 3.8 116	15 Su	0029 2.5 76 0648 5.7 174 1410 -0.5 -15 2046 3.9 119			15 Su	0523 5.0 152 1247 -0.1 -3 1931 3.8 116	30 M	0116 2.0 61 0702 4.5 137 1348 0.3 9 2022 4.2 128
		31 Sa	0125 2.4 73 0736 5.7 174 1455 -0.4 -12 2134 3.9 119							31 Tu	0200 1.7 52 0750 4.5 137 1424 0.4 12 2049 4.3 131

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.

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.

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.

Times and Heights of High and Low Waters

October								November								December							
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				
1 Th	0037	4.6	140	16 F	0031	3.9	119	1 Su	0253	4.2	128	16 M	0219	3.9	119	1 Tu	0323	4.3	131	16 W	0235	4.4	134
	0603	1.7	52		0527	2.4	73		0741	2.8	85		0637	3.0	91		0834	2.8	85		0741	2.7	82
	1214	5.9	180		1132	5.1	155		1326	5.0	152		1226	5.0	152		1350	4.4	134		1310	4.7	143
	1914	-0.1	-3		1845	0.5	15		2052	0.0	0		2001	0.0	0		2102	0.3	9		2019	0.0	0
2 F	0146	4.3	131	17 Sa	0127	3.7	113	2 M	0403	4.2	128	17 Tu	0317	4.0	122	2 W	0417	4.5	137	17 Th	0324	4.6	140
	0656	2.2	67		0604	2.7	82		0904	2.9	88		0750	3.0	91		0959	2.7	82		0903	2.5	76
	1306	5.6	171		1209	5.0	152		1434	4.6	140		1324	4.7	143		1501	3.9	119		1421	4.2	128
	2019	0.0	0		1935	0.5	15		2154	0.3	9		2055	0.1	3		2154	0.7	21		2109	0.4	12
3 Sa	0304	4.1	125	18 Su	0234	3.7	113	3 Tu	0506	4.4	134	18 W	0411	4.2	128	3 Th	0505	4.6	140	18 F	0412	4.9	149
	0759	2.5	76		0651	2.9	88		1032	2.7	82		0917	2.9	88		1118	2.3	70		1026	2.0	61
	1406	5.3	162		1254	4.8	146		1551	4.2	128		1438	4.4	134		1622	3.6	110		1547	3.8	116
	2129	0.2	6		2033	0.5	15		2253	0.5	15		2150	0.3	9		2244	1.1	34		2202	0.8	24
4 Su	0427	4.0	122	19 M	0346	3.7	113	4 W	0557	4.5	137	19 Th	0458	4.5	137	4 F	0546	4.8	146	19 Sa	0459	5.3	162
	0919	2.7	82		0759	3.1	94		1147	2.4	73		1041	2.4	73		1221	1.9	58		1141	1.3	40
	1515	5.0	152		1354	4.7	143		1709	4.0	122		1602	4.2	128		1743	3.4	104		1718	3.6	110
	2239	0.3	9		2135	0.5	15		2346	0.8	24		2245	0.5	15		2331	1.4	43		2257	1.2	37
5 M	0540	4.1	125	20 Tu	0452	3.9	119	5 Th	0638	4.7	143	20 F	0541	4.9	149	5 Sa	0621	5.0	152	20 Su	0545	5.7	174
	1045	2.7	82		0926	3.0	91		1246	1.9	58		1152	1.8	55		1311	1.4	43		1245	0.6	18
	1631	4.8	146		1507	4.6	140		1818	4.0	122		1725	4.1	125		1854	3.4	104		1842	3.6	110
	2343	0.4	12		2236	0.5	15						2338	0.7	21				2352		1.5	46	
6 Tu	0637	4.3	131	21 W	0542	4.1	125	6 F	0032	1.0	30	21 Sa	0621	5.3	162	6 Su	0014	1.7	52	21 M	0630	6.0	183
	1200	2.5	76		1050	2.7	82		0711	4.9	149		1252	1.0	30		0653	5.1	155		1340	-0.1	-3
	1743	4.7	143		1627	4.6	140		1332	1.5	46		1841	4.1	125		1352	0.9	27		1954	3.7	113
					2332	0.4	12		1917	4.0	122						1953	3.5	107				
7 W	0037	0.5	15	22 Th	0623	4.5	137	7 Sa	0111	1.3	40	22 Su	0028	1.0	30	7 M	0054	1.9	58	22 Tu	0047	1.8	55
	0721	4.5	137		1159	2.2	67		0740	5.0	152		0700	5.8	177		0723	5.3	162		0715	6.3	192
	1259	2.2	67		1741	4.7	143		1411	1.1	34		1345	0.3	9		1429	0.5	15		1430	-0.6	-18
	1844	4.7	143		2008	4.0	122		1948	4.2	128		1948	4.2	128		2044	3.6	110		2056	3.9	119
8 Th	0123	0.6	18	23 F	0023	0.4	12	8 Su	0146	1.5	46	23 M	0116	1.2	37	8 Tu	0131	2.1	64	23 W	0139	2.0	61
	0756	4.6	140		0700	4.9	149		0806	5.2	158		0740	6.1	186		0752	5.5	168		0800	6.5	198
	1346	1.8	55		1257	1.6	49		1447	0.7	21		1435	-0.4	-12		1504	0.1	3		1517	-1.0	-30
	1936	4.7	143		1848	4.8	146		2053	4.0	122		2050	4.2	128		2129	3.7	113		2151	4.1	125
9 F	0201	0.8	24	24 Sa	0109	0.5	15	9 M	0217	1.7	52	24 Tu	0203	1.5	46	9 W	0207	2.3	70	24 Th	0230	2.2	67
	0826	4.8	146		0736	5.3	162		0832	5.3	162		0821	6.4	195		0822	5.7	174		0843	6.5	198
	1425	1.5	46		1349	0.9	27		1521	0.4	12		1523	-0.9	-27		1538	-0.2	-6		1601	-1.2	-37
	2021	4.7	143		1950	4.9	149		2135	4.0	122		2147	4.3	131		2211	3.8	116		2240	4.2	128
10 Sa	0234	1.0	30	25 Su	0153	0.6	18	10 Tu	0247	1.9	58	25 W	0249	1.8	55	10 Th	0243	2.4	73	25 F	0320	2.3	70
	0852	4.9	149		0813	5.7	174		0858	5.4	165		0902	6.5	198		0854	5.8	177		0927	6.4	195
	1501	1.2	37		1439	0.2	6		1554	0.1	3		1610	-1.2	-37		1613	-0.5	-15		1644	-1.2	-37
	2102	4.6	140		2047	4.9	149		2217	4.0	122		2242	4.3	131		2252	3.8	116		2327	4.3	131
11 Su	0304	1.2	37	26 M	0236	0.8	24	11 W	0317	2.1	64	26 Th	0336	2.0	61	11 F	0320	2.5	76	26 Sa	0409	2.4	73
	0916	5.0	152		0850	6.0	183		0925	5.5	168		0944	6.5	198		0927	5.9	180		1010	6.2	189
	1535	0.9	27		1529	-0.4	-12		1629	-0.1	-3		1657	-1.3	-40		1648	-0.6	-18		1726	-1.1	-34
	2141	4.5	137		2144	4.9	149		2259	3.9	119		2337	4.3	131		2333	3.9	119				
12 M	0331	1.4	43	27 Tu	0318	1.1	34	12 Th	0349	2.3	70	27 F	0424	2.3	70	12 Sa	0359	2.6	79	27 Su	0013	4.3	131
	0940	5.1	155		0929	6.3	192		0954	5.5	168		1027	6.3	192		1003	5.8	177		0458	2.5	76
	1609	0.7	21		1618	-0.7	-21		1705	-0.2	-6		1744	-1.2	-37		1726	-0.7	-21		1052	5.8	177
	2220	4.4	134		2240	4.7	143		2343	3.9	119								1807		-0.8	-24	
13 Tu	0358	1.6	49	28 W	0402	1.5	46	13 F	0422	2.5	76	28 Sa	0032	4.3	131	13 Su	0016	4.0	122	28 M	0058	4.4	134
	1005	5.1	155		1010	6.3	192		1025	5.5	168		0515	2.5	76		0442	2.7	82		0551	2.6	79
	1644	0.6	18		1708	-0.9	-27		1743	-0.2	-6		1112	5.9	180		1041	5.7	174		1136	5.4	165
	2300	4.2	128		2337	4.6	140						1832	-0.9	-27		1805	-0.7	-21		1848	-0.4	-12
14 W	0426	1.9	58	29 Th	0447	1.9	58	14 Sa	0031	3.9	119	29 Su	0128	4.3	131	14 M	0101	4.1	125	29 Tu	0144	4.4	134
	1031	5.2	158		1053	6.2	189		0458	2.7	82		0611	2.7	82		0531	2.8	85		0648	2.6	79
	1720	0.5	15		1800	-0.9	-27		1059	5.4	165		1159	5.5	168		1124	5.5	168		1221	4.8	146
	2343	4.1	125						1825	-0.2	-6		1921	-0.5	-15		1847	-0.5	-15		1928	0.1	3
15 Th	0455	2.2	67	30 F	0038	4.4	134	15 Su	0123	3.8	116	30 M	0226	4.3	131	15 Tu	0147	4.2	128	30 W	0229	4.4	134
	1100	5.2	158		0536	2.2	67		0542	2.9	88		0717	2.8	85		0630	2.8	85		0753	2.6	79
	1800	0.4	12		1139	5.9	180		1139	5.3	162		1251	4.9	149		1213	5.2	158		1311	4.3	131
					1854	-0.7	-21		1911	-0.2	-6		2011	-0.1	-3		1932	-0.3	-9		2009	0.5	15
			31 Sa	0143	4.2	128										31 Th	0315	4.5	137				
				0632	2.6	79											0908	2.5	76				
				1229	5.5	168											1411	3.8	116				
				1951	-0.4	-12											2051	1.0	30				

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, 2015

Times and Heights of High and Low Waters

January					February					March											
Time		Height			Time		Height			Time		Height			Time		Height				
1 Th	h	m	ft	cm	16 F	h	m	ft	cm	1 Su	h	m	ft	cm	16 M	h	m	ft	cm		
	0143	2.2	67	0105		2.7	82	0321	2.5		76	0238	2.5	76		0223	2.4	73	0131	2.4	73
	0814	6.5	198	0735		6.1	186	0927	6.2		189	0853	6.5	198		0825	5.7	174	0738	5.8	177
	1508	-0.3	-9	1431		0.1	3	1616	-0.3		-9	1532	-0.7	-21		1512	0.2	6	1414	-0.2	-6
	2203	4.7	143	2138		4.3	131	2318	5.1		155	2236	5.1	155		2209	5.0	152	2119	5.0	152
2 F	0238	2.4	73	0201	2.7	82	0405	2.5	76	0330	2.1	64	0311	2.2	67	0228	1.9	58			
	0859	6.5	198	0822	6.4	195	1008	6.1	186	0946	6.7	204	0913	5.7	174	0840	6.0	183			
	1552	-0.5	-15	1515	-0.4	-12	1650	-0.3	-9	1616	-0.9	-27	1549	0.2	6	1502	-0.4	-12			
	2254	4.9	149	2225	4.6	140	2352	5.1	155	2314	5.4	165	2244	5.1	155	2159	5.3	162			
	3 Sa	0328	2.5	76	0253	2.7	82	0446	2.4	73	0420	1.7	52	0353	2.0	61	0319	1.4	43		
0941		6.5	198	0910	6.7	204	1046	6.0	183	1038	6.8	207	0956	5.7	174	0937	6.2	189			
1632		-0.7	-21	1557	-0.9	-27	1721	-0.2	-6	1659	-0.9	-27	1622	0.2	6	1548	-0.4	-12			
2339		5.0	152	2307	4.9	149	○	●	2352	5.7	174	2313	5.2	158	2236	5.7	174				
4 Su ○		0415	2.6	79	0342	2.5	76	0023	5.2	158	0510	1.3	40	0430	1.8	55	0409	0.8	24		
	1021	6.4	195	0958	6.8	207	0524	2.3	70	1129	6.6	201	1035	5.6	171	1032	6.2	189			
	1709	-0.7	-21	1640	-1.1	-34	1123	5.9	180	1742	-0.7	-21	1653	0.3	9	1632	-0.3	-9			
				2347	5.2	158	1752	0.0	0				2340	5.2	158	2314	6.0	183			
	5 M	0020	5.0	152	0432	2.3	70	0051	5.2	158	0031	6.0	183	0505	1.6	49	0458	0.3	9		
0459		2.6	79	1046	6.9	210	0601	2.2	67	0601	1.0	30	1113	5.5	168	1126	6.1	186			
1059		6.2	189	1722	-1.2	-37	1159	5.6	171	1222	6.3	192	1722	0.5	15	1715	0.0	0			
1743		-0.6	-18	●			1822	0.2	6	1825	-0.3	-9	○			●	2352	6.2	189		
6 Tu		0057	5.1	155	0027	5.4	165	0118	5.2	158	0111	6.1	186	0005	5.3	162	0547	0.0	0		
	0541	2.7	82	0522	2.1	64	0639	2.1	64	0654	0.8	24	0539	1.4	43	1220	5.8	177			
	1136	6.0	183	1136	6.8	207	1236	5.4	165	1318	5.9	180	1149	5.3	162	1759	0.4	12			
	1817	-0.4	-12	1805	-1.2	-37	1852	0.5	15	1910	0.2	6	1750	0.7	21						
	7 W	0132	5.1	155	0108	5.6	171	0146	5.2	158	0153	6.2	189	0029	5.3	162	0032	6.3	192		
0623		2.7	82	0615	1.9	58	0719	2.0	61	0751	0.6	18	0613	1.3	40	0637	-0.2	-6			
1213		5.7	174	1227	6.5	198	1315	5.0	152	1417	5.3	162	1227	5.1	155	1316	5.5	168			
1851		-0.2	-6	1850	-0.9	-27	1924	0.9	27	1957	0.8	24	1819	1.0	30	1844	0.9	27			
8 Th		0206	5.1	155	0150	5.8	177	0216	5.3	162	0238	6.2	189	0056	5.4	165	0113	6.3	192		
	0707	2.7	82	0711	1.7	52	0802	1.9	58	0853	0.6	18	0648	1.1	34	0729	-0.3	-9			
	1251	5.4	165	1322	6.1	186	1359	4.6	140	1525	4.8	146	1307	4.8	146	1416	5.1	155			
	1926	0.1	3	1935	-0.4	-12	1957	1.3	40	2050	1.5	46	1849	1.3	40	1933	1.5	46			
	9 F	0239	5.1	155	0234	6.0	183	0250	5.3	162	0327	6.1	186	0125	5.4	165	0157	6.1	186		
0755		2.6	79	0813	1.6	49	0852	1.8	55	1001	0.6	18	0727	1.0	30	0825	-0.2	-6			
1333		5.0	152	1421	5.5	168	1451	4.2	128	1644	4.4	134	1351	4.5	137	1521	4.7	143			
2001		0.5	15	2023	0.2	6	2034	1.7	52	2150	2.0	61	1922	1.7	52	2028	2.0	61			
10 Sa		0313	5.1	155	0321	6.1	186	0328	5.4	165	0422	5.9	180	0158	5.4	165	0246	5.8	177		
	0848	2.5	76	0921	1.4	43	0950	1.6	49	1115	0.6	18	0812	0.9	27	0927	0.0	0			
	1420	4.6	140	1530	4.9	149	1558	3.9	119	1812	4.2	128	1444	4.2	128	1635	4.4	134			
	2039	0.9	27	2115	0.9	27	2118	2.1	64	●	2302	2.4	73	1959	2.1	64	2132	2.4	73		
	11 Su	0350	5.2	158	0411	6.1	186	0413	5.4	165	0524	5.7	174	0237	5.4	165	0341	5.5	168		
0948		2.4	73	1034	1.2	37	1055	1.4	43	1228	0.5	15	0904	0.9	27	1034	0.2	6			
1516		4.2	128	1650	4.4	134	1725	3.7	113	1934	4.4	134	1549	3.9	119	1754	4.4	134			
2121		1.4	43	2213	1.5	46	●	2215	2.5	76	●			2045	2.4	73	●	2248	2.6	79	
12 M		0430	5.3	162	0504	6.1	186	0504	5.5	168	0017	2.6	79	0323	5.3	162	0444	5.2	158		
	1053	2.1	64	1150	0.9	27	1201	1.0	30	0628	5.7	174	1004	0.8	24	1144	0.4	12			
	1626	3.8	116	1821	4.2	128	1902	3.7	113	1333	0.3	9	1710	3.8	116	1906	4.5	137			
	2208	1.8	55	2318	2.0	61	2326	2.8	85	2038	4.6	140	2147	2.7	82						
	13 Tu ○	0513	5.4	165	0601	6.2	189	0601	5.7	174	0125	2.6	79	0419	5.3	162	0006	2.6	79		
1156		1.7	52	1300	0.5	15	1302	0.6	18	0730	5.6	171	1112	0.6	18	0553	5.0	152			
1755		3.6	110	1948	4.2	128	2018	4.0	122	1427	0.2	6	1836	3.9	119	1249	0.5	15			
2304		2.2	67						2129	4.8	146	●	2306	2.9	88	2005	4.7	143			
14 W		0559	5.6	171	0027	2.4	73	0038	2.9	88				0523	5.4	165	0114	2.4	73		
	1254	1.2	37	0658	6.2	189	0700	5.9	180				1219	0.3	9	0702	4.9	149			
	1928	3.7	113	1402	0.2	6	1357	0.1	3				1945	4.2	128	1345	0.5	15			
				2058	4.5	137	2112	4.4	134						2050	4.8	146				
	15 Th	0005	2.5	76	0132	2.6	79	0142	2.7	82				0024	2.8	85	0209	2.1	64		
0646		5.8	177	0752	6.2	189	0758	6.2	189				0632	5.5	168	0803	4.9	149			
1345		0.7	21	1454	-0.1	-3	1446	-0.3	-9				1320	0.0	0	1431	0.5	15			
2042		3.9	119	2153	4.7	143	2156	4.7	143				2037	4.6	140	2128	5.0	152			
				31 Sa	0230	2.6	79									31 Tu	0256	1.7	52		
				0842	6.2	189										0856	5.0	152			
				1538	-0.2	-6										1511	0.6	18			
				2239	4.9	149										2159	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.

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, 2015

Times and Heights of High and Low Waters

July				August				September															
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									
1 W ○	0446	-1.0	-30	16 Th	0530	-0.7	-21	1 Sa	0543	-0.9	-27	16 Su	0610	0.4	12	1 Tu	0054	6.0	183	16 W	0058	4.9	149
	1158	4.6	140		1240	5.1	155		1244	5.5	168		1302	5.3	162		0644	0.4	12		0636	1.7	52
	1627	2.6	79		1725	2.5	76		1749	1.9	58		1825	2.0	61		1324	6.3	192		1306	5.4	165
	2241	6.5	198		2326	6.1	186						1921	0.6	18		1911	1.1	34				
2 Th	0525	-1.2	-37	17 F	0606	-0.5	-15	2 Su	0004	6.5	198	17 M	0028	5.4	165	2 W	0153	5.5	168	17 Th	0142	4.6	140
	1239	4.8	146		1317	5.1	155		0626	-0.7	-21		0641	0.7	21		0731	0.9	27		0709	2.0	61
	1714	2.5	76		1809	2.5	76		1324	5.7	174		1330	5.3	162		1409	6.3	192		1339	5.4	165
	2326	6.5	198						1843	1.7	52		1905	1.9	58		2021	0.5	15		1954	1.0	30
3 F	0606	-1.2	-37	18 Sa	0005	5.8	177	3 M	0057	6.1	186	18 Tu	0108	5.1	155	3 Th	0259	5.1	155	18 F	0233	4.4	134
	1320	5.0	152		0641	-0.3	-9		0710	-0.3	-9		0713	1.0	30		0823	1.5	46		0747	2.4	73
	1803	2.4	73		1351	5.1	155		1405	5.9	180		1400	5.3	162		1458	6.2	189		1417	5.4	165
					1854	2.4	73		1941	1.5	46		1948	1.8	55		2126	0.5	15		2043	1.0	30
4 Sa	0013	6.3	192	19 Su	0044	5.5	168	4 Tu	0155	5.6	171	19 W	0151	4.7	143	4 F	0413	4.7	143	19 Sa	0335	4.2	128
	0649	-1.1	-34		0716	0.0	0		0756	0.2	6		0747	1.4	43		0923	2.0	61		0832	2.7	82
	1401	5.2	158		1424	5.1	155		1450	6.1	186		1433	5.3	162		1553	6.1	186		1502	5.3	162
	1858	2.3	70		1941	2.4	73		2044	1.3	40		2035	1.7	52		2238	0.5	15		2141	1.0	30
5 Su	0103	6.0	183	20 M	0125	5.1	155	5 W	0259	5.1	155	20 Th	0242	4.3	131	5 Sa	0536	4.5	137	20 Su	0450	4.0	122
	0733	-0.9	-27		0751	0.4	12		0846	0.8	24		0824	1.8	55		1033	2.4	73		0934	3.0	91
	1445	5.4	165		1457	5.1	155		1538	6.2	189		1510	5.3	162		1654	5.9	180		1557	5.3	162
	1958	2.2	67		2032	2.3	70		2154	1.1	34		2130	1.6	49		2352	0.5	15		2246	0.9	27
6 M	0159	5.5	168	21 Tu	0211	4.7	143	6 Th	0414	4.6	140	21 F	0344	4.0	122	6 Su	0657	4.6	140	21 M	0610	4.1	125
	0821	-0.5	-15		0829	0.8	24		0942	1.4	43		0908	2.3	70		1148	2.6	79		1051	3.1	94
	1530	5.6	171		1532	5.2	158		1630	6.2	189		1554	5.4	165		1759	5.8	177		1659	5.3	162
	2106	1.9	58		2128	2.2	67		2308	0.8	24		2232	1.5	46						2351	0.7	21
7 Tu	0302	5.0	152	22 W	0303	4.2	128	7 F	0540	4.3	131	22 Sa	0504	3.8	116	7 M	0059	0.4	12	22 Tu	0717	4.4	134
	0911	0.1	3		0909	1.3	40		1044	1.9	58		1003	2.6	79		0805	4.8	146		1206	2.9	88
	1618	5.8	177		1610	5.3	162		1726	6.2	189		1644	5.4	165		1258	2.6	79		1806	5.4	165
	2219	1.6	49		2230	2.0	61						2337	1.2	37		1904	5.8	177				
8 W ●	0415	4.5	137	23 Th	0408	3.8	116	8 Sa	0020	0.5	15	23 Su	0636	3.8	116	8 Tu	0157	0.3	9	23 W	0052	0.4	12
	1005	0.7	21		0954	1.7	52		0707	4.3	131		1110	2.9	88		0858	5.0	152		0807	4.7	143
	1708	6.0	183		1652	5.4	165		1153	2.3	70		1739	5.6	171		1359	2.4	73		1309	2.6	79
	2333	1.2	37		2333	1.7	52		1825	6.3	192						2003	5.8	177		1912	5.6	171
9 Th	0540	4.1	125	24 F	0530	3.6	110	9 Su	0126	0.2	6	24 M	0039	0.9	27	9 W	0246	0.3	9	24 Th	0145	0.2	6
	1104	1.2	37		1046	2.2	67		0823	4.5	137		0752	4.0	122		0942	5.2	158		0850	5.0	152
	1800	6.2	189		1737	5.5	168		1300	2.5	76		1220	2.9	88		1449	2.2	67		1404	2.1	64
					1923	6.3	192		1923	6.3	192		1838	5.8	177		2055	5.8	177		2013	5.9	180
10 F	0042	0.6	18	25 Sa	0033	1.3	40	10 M	0224	0.0	0	25 Tu	0134	0.5	15	10 Th	0327	0.3	9	25 F	0234	0.0	0
	0708	4.1	125		0703	3.6	110		0923	4.7	143		0848	4.3	131		1019	5.3	162		0928	5.4	165
	1205	1.7	52		1145	2.5	76		1402	2.5	76		1322	2.8	85		1533	1.9	58		1454	1.5	46
	1852	6.3	192		1825	5.7	174		2017	6.3	192		1935	6.0	183		2141	5.8	177		2111	6.1	186
11 Sa	0145	0.1	3	26 Su	0127	0.8	24	11 Tu	0312	-0.2	-6	26 W	0223	0.1	3	11 F	0403	0.4	12	26 Sa	0319	0.0	0
	0828	4.2	128		0822	3.8	116		1012	4.9	149		0932	4.7	143		1051	5.3	162		1006	5.8	177
	1307	2.1	64		1245	2.7	82		1456	2.5	76		1416	2.6	79		1613	1.7	52		1542	0.9	27
	1943	6.5	198		1914	5.9	180		2107	6.3	192		2030	6.3	192		2223	5.7	174		2207	6.2	189
12 Su	0240	-0.3	-9	27 M	0214	0.4	12	12 W	0355	-0.2	-6	27 Th	0309	-0.3	-9	12 Sa	0435	0.6	18	27 Su	0403	0.1	3
	0935	4.4	134		0921	4.1	125		1055	5.1	155		1011	5.0	152		1120	5.4	165		1043	6.1	186
	1406	2.3	70		1341	2.8	85		1544	2.4	73		1507	2.2	67		1649	1.5	46		1630	0.4	12
	2033	6.5	198		2002	6.1	186		2152	6.2	189		2123	6.5	198		● 2302	5.6	171		○ 2301	6.1	186
13 M	0329	-0.6	-18	28 Tu	0258	-0.1	-3	13 Th	0432	-0.2	-6	28 F	0352	-0.5	-15	13 Su	0506	0.8	24	28 M	0447	0.3	9
	1030	4.7	143		1008	4.4	134		1131	5.2	158		1048	5.3	162		1145	5.4	165		1122	6.3	192
	1501	2.4	73		1433	2.7	82		1627	2.3	70		1555	1.8	55		1723	1.4	43		1719	0.0	0
	2120	6.5	198		2050	6.4	195		2234	6.1	186		2214	6.6	201		2340	5.4	165		2356	6.0	183
14 Tu	0413	-0.7	-21	29 W	0340	-0.5	-15	14 F	0506	-0.1	-3	29 Sa	0434	-0.5	-15	14 M	0535	1.0	30	29 Tu	0531	0.7	21
	1118	4.9	149		1049	4.7	143		1204	5.2	158		1125	5.7	174		1210	5.4	165		1201	6.5	198
	1552	2.5	76		1522	2.6	79		1708	2.2	67		1644	1.4	43		1758	1.2	37		1809	-0.3	-9
	2204	6.5	198		2138	6.6	201		● 2312	5.9	180		○ 2306	6.6	201								
15 W ●	0453	-0.8	-24	30 Th	0421	-0.8	-24	15 Sa	0538	0.1	3	30 Su	0516	-0.4	-12	15 Tu	0018	5.2	158	30 W	0053	5.7	174
	1201	5.0	152		1127	5.0	152		1234	5.2	158		1203	5.9	180		0605	1.3	40		0617	1.2	37
	1640	2.5	76		1610	2.4	73		1746	2.1	64		1734	1.0	30		1237	5.4	165		1244	6.5	198
	2246	6.3	192		2226	6.7	204		2350	5.7	174		2359	6.4	195		1833	1.1	34		1901	-0.3	-9
				31 F ○	0502	-0.9	-27					31 M	0559	-0.1	-3								
					1205	5.2	158						1242	6.1	186								
					1658	2.1	64																
					2314	6.7	204																

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Port Chicago, Suisun Bay, California, 2015

Times and Heights of High and Low Waters

January					February					March													
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 Th	0434	1.3	40	16 F	0344	1.8	55	1 Su	0047	4.4	134	16 M	0023	4.2	128	1 Su	0506	1.7	52	16 M	0421	1.7	52
	1048	5.3	162		0952	5.2	158		0609	1.9	58		0532	1.8	55		1101	4.8	146		1003	4.9	149
	1812	-0.3	-9		1753	0.2	6		1158	5.2	158		1116	5.5	168		1816	0.0	0		1735	0.0	0
									1925	-0.2	-6		1855	-0.1	-3					2350	4.3	131	
2 F	0011	4.0	122	17 Sa	0001	3.7	113	2 M	0132	4.6	140	17 Tu	0106	4.4	134	2 M	0022	4.6	140	17 Tu	0524	1.4	43
	0527	1.5	46		0445	2.0	61		0657	1.9	58		0628	1.6	49		0558	1.6	49		1108	5.1	155
	1130	5.4	165		1040	5.5	168		1238	5.2	158		1211	5.7	174		1148	4.8	146		1820	-0.1	-3
	1901	-0.4	-12		1839	-0.1	-3		2003	-0.1	-3		1936	-0.2	-6		1855	0.1	3				
3 Sa	0104	4.2	128	18 Su	0051	4.0	122	3 Tu	0213	4.6	140	18 W	0146	4.7	143	3 Tu	0102	4.7	143	18 W	0030	4.6	140
	0618	1.7	52		0542	2.0	61		0741	1.8	55		0722	1.3	40		0645	1.5	46		0620	1.0	30
	1209	5.4	165		1129	5.7	174		1315	5.1	155		1305	5.7	174		1230	4.8	146		1206	5.2	158
	1946	-0.4	-12		1922	-0.3	-9	○	2036	0.0	0	●	2016	-0.2	-6		1930	0.2	6		1902	0.0	0
4 Su	0153	4.3	131	19 M	0136	4.2	128	4 W	0250	4.7	143	19 Th	0225	4.9	149	4 W	0139	4.7	143	19 Th	0108	4.9	149
	0706	1.9	58		0638	1.9	58		0823	1.8	55		0815	1.0	30		0728	1.3	40		0713	0.6	18
	1246	5.3	162		1218	5.8	177		1351	5.0	152		1358	5.6	171		1308	4.8	146		1301	5.2	158
○	2026	-0.4	-12		2004	-0.4	-12		2104	0.2	6		2055	-0.2	-6		2000	0.3	9		1942	0.1	3
5 M	0239	4.4	134	20 Tu	0220	4.4	134	5 Th	0323	4.6	140	20 F	0303	5.0	152	5 Th	0210	4.7	143	20 F	0144	5.1	155
	0753	2.0	61		0732	1.8	55		0903	1.7	52		0908	0.8	24		0807	1.2	37		0805	0.3	9
	1322	5.2	158		1309	5.9	180		1428	4.8	146		1452	5.4	165		1346	4.7	143		1356	5.1	155
	2104	-0.3	-9	●	2045	-0.5	-15		2129	0.3	9		2134	0.0	0	○	2026	0.5	15	●	2021	0.2	6
6 Tu	0322	4.4	134	21 W	0301	4.6	140	6 F	0351	4.6	140	21 Sa	0341	5.1	155	6 F	0237	4.7	143	21 Sa	0220	5.2	158
	0837	2.0	61		0825	1.6	49		0941	1.6	49		1002	0.6	18		0845	1.1	34		0856	0.1	3
	1358	5.1	155		1400	5.8	177		1505	4.6	140		1548	5.0	152		1423	4.6	140		1450	4.9	149
	2137	-0.1	-3		2125	-0.5	-15		2152	0.4	12		2213	0.3	9		2049	0.7	21		2101	0.5	15
7 W	0402	4.4	134	22 Th	0342	4.7	143	7 Sa	0415	4.6	140	22 Su	0420	5.2	158	7 Sa	0257	4.7	143	22 Su	0257	5.3	162
	0921	1.9	58		0920	1.3	40		1021	1.4	43		1059	0.5	15		0921	1.0	30		0948	0.0	0
	1436	4.9	149		1454	5.5	168		1546	4.3	131		1649	4.6	140		1501	4.4	134		1547	4.7	143
	2207	0.0	0		2204	-0.4	-12		2216	0.6	18		2255	0.6	18		2112	0.8	24		2142	0.8	24
8 Th	0439	4.4	134	23 F	0424	4.8	146	8 Su	0435	4.6	140	23 M	0503	5.2	158	8 Su	0313	4.8	146	23 M	0335	5.3	162
	1004	1.9	58		1016	1.1	34		1102	1.4	43		1200	0.5	15		0956	0.9	27		1042	0.0	0
	1516	4.6	140		1550	5.2	158		1632	4.0	122		1758	4.2	128		1542	4.2	128		1647	4.4	134
	2234	0.1	3		2245	-0.2	-6		2245	0.8	24		2342	1.0	30		2138	1.0	30		2226	1.1	34
9 F	0514	4.3	131	24 Sa	0506	4.9	149	9 M	0459	4.6	140	24 Tu	0551	5.0	152	9 M	0334	4.9	149	24 Tu	0416	5.2	158
	1050	1.7	52		1115	1.0	30		1150	1.3	40		1309	0.5	15		1033	0.8	24		1139	0.1	3
	1559	4.3	131		1651	4.7	143		1729	3.7	113		1914	3.9	119		1628	3.9	119		1752	4.1	125
	2301	0.2	6		2327	0.1	3		2321	1.0	30					2210	1.1	34		2315	1.4	43	
10 Sa	0547	4.3	131	25 Su	0552	4.9	149	10 Tu	0532	4.7	143	25 W	0037	1.4	43	10 Tu	0402	4.9	149	25 W	0502	4.9	149
	1139	1.6	49		1220	0.9	27		1250	1.2	37		0648	4.9	149		1114	0.8	24		1242	0.2	6
	1649	3.9	119		1802	4.2	128		1846	3.4	104		1423	0.5	15		1723	3.7	113		1902	3.9	119
	2331	0.4	12								○	2031	3.8	116		2248	1.4	43					
11 Su	0620	4.3	131	26 M	0014	0.5	15	11 W	0005	1.4	43	26 Th	0143	1.7	52	11 W	0439	4.9	149	26 Th	0013	1.6	49
	1237	1.5	46		0642	4.9	149		0615	4.7	143		0755	4.8	146		1205	0.8	24		0557	4.6	140
	1750	3.5	107		1333	0.7	21		1404	1.1	34		1534	0.4	12		1836	3.5	107		1350	0.2	6
			○	1922	3.8	116	○	2019	3.3	101		2141	3.9	119		2336	1.6	49	○	2012	3.9	119	
12 M	0007	0.7	21	27 Tu	0107	0.9	27	12 Th	0100	1.7	52	27 F	0255	1.8	55	12 Th	0525	4.9	149	27 F	0123	1.8	55
	0654	4.3	131		0738	5.0	152		0708	4.8	146		0905	4.7	143		1314	0.8	24		0708	4.3	131
	1344	1.4	43		1448	0.6	18		1521	0.9	27		1637	0.2	6		1959	3.4	104		1458	0.2	6
	1914	3.2	98		2044	3.7	113		2138	3.4	104		2243	4.1	125					2118	4.0	122	
13 Tu	0051	1.0	30	28 W	0207	1.3	40	13 F	0207	1.9	58	28 Sa	0405	1.8	55	13 F	0035	1.9	58	28 Sa	0239	1.8	55
	0734	4.5	137		0836	5.0	152		0810	4.9	149		1007	4.7	143		0621	4.8	146		0830	4.1	125
	1456	1.1	34		1559	0.3	9		1627	0.6	18		1731	0.1	3		1434	0.7	21		1559	0.2	6
○	2046	3.1	94		2157	3.7	113		2243	3.6	110		2336	4.4	134	○	2113	3.5	107		2215	4.2	128
14 W	0143	1.3	40	29 Th	0313	1.6	49	14 Sa	0320	2.1	64	14 Sa	0731	4.7	143	14 Sa	0149	2.0	61	29 Su	0350	1.7	52
	0818	4.7	143		0934	5.1	155		1722	0.3	9		1546	0.5	15		0731	4.7	143		0942	4.1	125
	1603	0.8	24		1702	0.1	3		2302	4.0	122		2215	3.7	113		1546	0.5	15		1652	0.1	3
	2202	3.2	98						2336	3.9	119									2305	4.4	134	
15 Th	0243	1.6	49	30 F	0417	1.7	52	15 Su	0430	2.0	61	15 Su	0309	1.9	58	15 Su	0309	1.9	58	30 M	0451	1.4	43
	0904	4.9	149		1027	5.2	158		1018	5.3	162		0849	4.7	143		0849	4.7	143		1041	4.1	125
	1702	0.5	15		1756	-0.1	-3		1811	0.0	0		1645	0.2	6		1645	0.2	6		1737	0.2	6
	2306	3.5	107		2358	4.2	128						2306	4.0	122					2348	4.6	140	
				31 Sa	0516	1.8	55												31 Tu	0543	1.1	34	
					1115	5.2	158														1131	4.2	128
					1843	-0.2	-6													1815	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.

Port Chicago, Suisun Bay, California, 2015

Times and Heights of High and Low Waters

April						May						June																																																																																																																																																																																																																																																																																																																						
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 W	0025	4.7	143		16 Th	0612	0.3	9		1 F	0010	4.7	143	16 Sa	0658	-0.5	-15	1 M	0007	5.2	158	16 Tu	0042	5.5	168																																																																																																																																																																																																																																																																																																									
	0629	0.9	27			1201	4.5	137			0652	0.2	6			1255	4.1		125		0753		-0.3	-9		0826	-0.7	-21																																																																																																																																																																																																																																																																																																						
	1216	4.2	128			1823	0.2	6			1245	3.7	113			1831	0.9		27		1405		3.7	113		1437	4.2	128																																																																																																																																																																																																																																																																																																						
	1848	0.4	12				1828	1.0	30								1855		1.8	55			●	1945	1.8	55																																																																																																																																																																																																																																																																																																								
2 Th	0057	4.7	143		17 F	0029	5.0	152	2 Sa	0034	4.8	146	17 Su	0030	5.4	165	2 Tu	0037	5.3	162	17 W	0121	5.4	165																																																																																																																																																																																																																																																																																																										
	0711	0.7	21			0705	-0.1	-3			0733	0.0		0		0748		-0.7	-21			0832	-0.4	-12		0909	-0.6	-18																																																																																																																																																																																																																																																																																																						
	1258	4.2	128			1258	4.6	140			1330	3.8		116		1351		4.1	125			1451	3.8	116		1527	4.3	131																																																																																																																																																																																																																																																																																																						
	1917	0.6	18			1905	0.4	12			1858	1.2		37		●		1916	1.2	37			○	1939	1.9	58		2035	1.9	58																																																																																																																																																																																																																																																																																																				
3 F	0124	4.7	143		18 Sa	0105	5.2	158	3 Su	0053	4.9	149	18 M	0107	5.5	168	3 W	0113	5.5	168	18 Th	0200	5.2	158																																																																																																																																																																																																																																																																																																										
	0751	0.6	18			0756	-0.3	-9			0811	-0.1		-3		0837		-0.8	-24			0910	-0.5	-15		0950	-0.5	-15																																																																																																																																																																																																																																																																																																						
	1339	4.2	128			1353	4.5	137			1414	3.8		116		1445		4.2	128			1536	3.9	119		1614	4.3	131																																																																																																																																																																																																																																																																																																						
	1943	0.8	24			●	1947	0.7		21		○		1929	1.4	43			2003	1.4		43		2026	1.9	58		2124	2.0	61																																																																																																																																																																																																																																																																																																				
4 Sa	0145	4.8	146		19 Su	0141	5.4	165	4 M	0114	5.1	155	19 Tu	0144	5.4	165	4 Th	0154	5.5	168	19 F	0241	5.0	152																																																																																																																																																																																																																																																																																																										
	0828	0.5	15			0846	-0.5	-15			0848	-0.2		-6		0924		-0.7	-21			0948	-0.6	-18		1028	-0.4	-12																																																																																																																																																																																																																																																																																																						
	1419	4.2	128			1449	4.4	134			1459	3.8		116		1539		4.2	128			1622	4.0	122		1700	4.3	131																																																																																																																																																																																																																																																																																																						
	2008	1.0	30			2029	0.9	27			2004	1.5		46		2051		1.6	49			2116	1.9	58		2215	1.9	58																																																																																																																																																																																																																																																																																																						
5 Su	0202	4.9	149		20 M	0217	5.4	165	5 Tu	0141	5.2	158	20 W	0222	5.2	158	5 F	0239	5.3	162	20 Sa	0324	4.7	143																																																																																																																																																																																																																																																																																																										
	0903	0.4	12			0936	-0.5	-15			0924	-0.2		-6		1010		-0.7	-21			1027	-0.6	-18		1103	-0.3	-9																																																																																																																																																																																																																																																																																																						
	1500	4.1	125			1545	4.3	131			1544	3.8		116		1633		4.2	128			1707	4.0	122		1745	4.3	131																																																																																																																																																																																																																																																																																																						
	2035	1.2	37			2113	1.2	37			2043	1.6		49		2141		1.7	52			2209	1.8	55		2307	1.9	58																																																																																																																																																																																																																																																																																																						
6 M	0221	5.0	152		21 Tu	0255	5.3	162	6 W	0215	5.2	158	21 Th	0303	5.0	152	6 Sa	0329	5.1	155	21 Su	0410	4.3	131																																																																																																																																																																																																																																																																																																										
	0938	0.3	9			1026	-0.5	-15			1000	-0.3		-9		1054		-0.5	-15			1108	-0.6	-18		1138	-0.1	-3																																																																																																																																																																																																																																																																																																						
	1544	3.9	119			1642	4.2	128			1632	3.8		116		1726		4.1	125			1755	4.0	122		1829	4.2	128																																																																																																																																																																																																																																																																																																						
	2107	1.3	40			2201	1.4	43			2126	1.7		52		2234		1.8	55			2309	1.6	49																																																																																																																																																																																																																																																																																																										
7 Tu	0248	5.1	155		22 W	0335	5.1	155	7 Th	0255	5.2	158	22 F	0347	4.6	140	7 Su	0424	4.7	143	22 M	0004	1.7	52																																																																																																																																																																																																																																																																																																										
	1013	0.2	6			1118	-0.3	-9			1039	-0.3		-9		1139		-0.4	-12			1153	-0.5	-15		0504	3.8	116																																																																																																																																																																																																																																																																																																						
	1631	3.8	116			1742	4.1	125			1723	3.7		113		1819		4.1	125			1844	4.1	125		1213	0.1	3																																																																																																																																																																																																																																																																																																						
	2143	1.5	46			2253	1.6	49			2216	1.7		52		2332		1.8	55						1913	4.2	128																																																																																																																																																																																																																																																																																																							
8 W	0322	5.1	155		23 Th	0419	4.7	143	8 F	0341	5.0	152	23 Sa	0436	4.2	128	8 M	0015	1.5	46	23 Tu	0107	1.6	49																																																																																																																																																																																																																																																																																																										
	1052	0.2	6			1212	-0.2	-6			1124	-0.3		-9		1225		-0.2	-6			0528	4.3	131		0611	3.4	104																																																																																																																																																																																																																																																																																																						
	1726	3.7	113			1845	4.0	122			1818	3.7		113		1913		4.1	125			1243	-0.3	-9		1251	0.4	12																																																																																																																																																																																																																																																																																																						
	2227	1.6	49			2353	1.8	55			2313	1.8		55						1935		4.3	131		1956	4.3	131																																																																																																																																																																																																																																																																																																							
9 Th	0404	5.0	152		24 F	0511	4.3	131	9 Sa	0433	4.7	143	24 Su	0036	1.8	55	9 Tu	0129	1.2	37	24 W	0215	1.4	43																																																																																																																																																																																																																																																																																																										
	1139	0.2	6			1310	0.0	0			0536	3.7		113		0646		3.8	116			0736	3.1	94																																																																																																																																																																																																																																																																																																										
	1831	3.5	107			1947	4.0	122			1313	0.0		0		1336		-0.1	-3			1334	0.7	21																																																																																																																																																																																																																																																																																																										
	2320	1.8	55							2005	4.1	125			2025	4.5		137		2037		4.4	134																																																																																																																																																																																																																																																																																																											
10 F	0452	4.8	146		25 Sa	0102	1.8	55	10 Su	0021	1.7	52	25 M	0145	1.6	49	10 W	0245	0.9	27	25 Th	0322	1.1	34																																																																																																																																																																																																																																																																																																										
	1239	0.2	6			0535	4.3	131			0655	3.3		101		0816		3.5	107			0859	3.0	91																																																																																																																																																																																																																																																																																																										
	1940	3.5	107			1315	-0.2	-6			1401	0.2		6		1432		0.2	6			1421	1.0	30																																																																																																																																																																																																																																																																																																										
						2012	3.9	119			2054	4.2		128		2114		4.7	143			2115	4.6	140																																																																																																																																																																																																																																																																																																										
11 Sa	0024	1.9	58		26 Su	0216	1.7	52	11 M	0138	1.5	46	26 Tu	0255	1.3	40	11 Th	0356	0.5	15	26 F	0424	0.7	21																																																																																																																																																																																																																																																																																																										
	0552	4.5	137			0652	4.0	122			0822	3.1		94		0938		3.5	107			1011	3.1	94																																																																																																																																																																																																																																																																																																										
	1351	0.2	6			1416	-0.1	-3			1450	0.4		12		1528		0.5	15			1510	1.3	40																																																																																																																																																																																																																																																																																																										
	2045	3.6	110			●	2105	4.1		125		2138		4.3	131			2200	5.0	152			2150	4.8	146																																																																																																																																																																																																																																																																																																									
12 Su	0142	1.8	55		27 M	0327	1.4	43	12 Tu	0256	1.2	37	27 W	0400	0.9	27	12 F	0500	0.0	0	27 Sa	0518	0.4	12																																																																																																																																																																																																																																																																																																										
	0706	4.3	131			0822	3.8	116			0937	3.1		94		1049		3.6	110			1113	3.2	98																																																																																																																																																																																																																																																																																																										
	1500	0.1	3			1515	0.0	0			1536	0.6		18		1622		0.8	24			1600	1.6	49																																																																																																																																																																																																																																																																																																										
	2142	3.9	119			2152	4.4	134			2217	4.5		137		2243		5.3	162			2222	5.0	152																																																																																																																																																																																																																																																																																																										
13 M	0303	1.6	49		28 Tu	0429	1.1	34	13 W	0406	0.7	21	28 Th	0456	0.6	18	13 Sa	0558	-0.3	-9	28 Su	0607	0.1	3																																																																																																																																																																																																																																																																																																										
	0833	4.2	128			0945	3.7	113			1040	3.2		98		1152		3.7	113			1209	3.5	107																																																																																																																																																																																																																																																																																																										
	1601	0.0	0			1609	0.1	3			1618	0.9		27		1714		1.1	34			1650	1.8	55																																																																																																																																																																																																																																																																																																										
	2230	4.1	125			2236	4.7	143			2250	4.6		140		2324		5.5	168			2256	5.3	162																																																																																																																																																																																																																																																																																																										
14 Tu	0415	1.2	37		29 W	0522	0.7	21	14 Th	0509	0.2	6	29 F	0546	0.2	6	14 Su	0650	-0.6	-18	29 M	0651	-0.1	-3																																																																																																																																																																																																																																																																																																										
	0953	4.3	131			1105	3.8	116			1137	3.3		101		1250		3.9	119			1259	3.7	113																																																																																																																																																																																																																																																																																																										
	1653	0.0	0			1659	0.3	9			1658	1.1		34		1805		1.4	43			1740	2.0	61																																																																																																																																																																																																																																																																																																										
	2313	4.5	137			2315	5.0	152			2318	4.8		146						2332		5.5	168																																																																																																																																																																																																																																																																																																											
15 W	0516	0.7	21		30 Th	0609	0.4	12	15 F	0605	-0.2	-6	30 Sa	0631	0.0	0	15 M	0004	5.5	168	30 Tu	0732	-0.3	-9																																																																																																																																																																																																																																																																																																										
	1101	4.4	134			1157	4.0	122			1228	3.4		104		0740		-0.7	-21			1347	3.9	119																																																																																																																																																																																																																																																																																																										
	1740	0.1	3			1745	0.6	18			1736	1.4		43		1345		4.1	125			1830	2.0	61																																																																																																																																																																																																																																																																																																										
	2352	4.8	146			2353	5.2	158			2342	5.0		152		1855		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.

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Heights are referred to mean lower low water which is the chart datum of soundings.

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, 2015

Times and Heights of High and Low Waters

January				February				March															
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	0112	2.5	76	16 F	0024	2.9	88	1 Su	0251	2.9	88	16 M	0203	2.7	82	16 M	0053	2.6	79				
	0735	6.8	207		0655	6.4	195		0850	6.5	198		0811	6.8	207		0655	5.9	180				
	1450	-0.1	-3		1420	0.4	12		1559	-0.1	-3		1519	-0.5	-15		1453	0.3	9				
	2123	4.6	140		2054	4.3	131		2238	5.0	152		2151	5.1	155		2130	4.8	146				
2 F	0208	2.7	82	17 Sa	0123	3.0	91	2 M	0336	2.8	85	17 Tu	0300	2.3	70	2 M	0243	2.6	79	17 Tu	0156	2.1	64
	0821	6.8	207		0742	6.7	204		0932	6.4	195		0904	7.0	213		0838	5.8	177		0757	6.1	186
	1536	-0.4	-12		1503	-0.2	-6		1635	-0.1	-3		1602	-0.7	-21		1532	0.3	9		1447	-0.3	-9
	2214	4.8	146		2141	4.6	140		2311	5.1	155		2230	5.5	168		2203	5.0	152		2114	5.3	162
3 Sa	0259	2.8	85	18 Su	0218	2.9	88	3 Tu	0417	2.7	82	18 W	0353	1.9	58	3 Tu	0326	2.3	70	18 W	0252	1.5	46
	0903	6.8	207		0829	7.0	213		1010	6.3	192		0955	7.0	213		0920	5.8	177		0854	6.2	189
	1617	-0.5	-15		1545	-0.6	-18		1707	0.0	0		1644	-0.7	-21		1605	0.3	9		1531	-0.4	-12
	2258	4.9	149		2223	5.0	152		2341	5.2	158		2309	5.9	180		2232	5.1	155		2153	5.7	174
4 Su O	0345	2.9	88	19 M	0311	2.8	85	4 W	0456	2.6	79	19 Th	0446	1.5	46	4 W	0404	2.1	64	19 Th	0345	0.9	27
	0943	6.7	204		0916	7.2	219		1047	6.2	189		1047	6.9	210		0959	5.7	174		0949	6.3	192
	1655	-0.5	-15		1627	-0.9	-27		1738	0.2	6		1725	-0.5	-15		1636	0.4	12		1614	-0.2	-6
	2338	5.0	152		2304	5.3	162						2349	6.1	186		2258	5.2	158		2232	6.1	186
5 M	0429	2.9	88	20 Tu	0403	2.6	79	5 Th	0010	5.3	162	20 F	0539	1.2	37	5 Th O	0440	1.8	55	20 F	0436	0.4	12
	1022	6.6	201		1004	7.3	223		0534	2.5	76		1140	6.6	201		1036	5.6	171		1043	6.1	186
	1731	-0.4	-12		1709	-1.0	-30		1807	0.4	12		1807	-0.2	-6		1705	0.6	18		1656	0.0	0
					2345	5.5	168								2324		5.3	162	2311		6.3	192	
6 Tu	0015	5.1	155	21 W	0455	2.4	73	6 F	0040	5.4	165	21 Sa	0030	6.3	192	6 F	0516	1.7	52	21 Sa	0528	0.0	0
	0511	2.9	88		1053	7.2	219		0614	2.4	73		0634	1.0	30		1113	5.5	168		1137	5.9	180
	1100	6.3	192		1751	-0.9	-27		1201	5.6	171		1235	6.1	186		1733	0.8	24		1738	0.4	12
	1805	-0.2	-6				1837		0.7	21	1850		0.4	12	2351		5.4	165	2352		6.5	198	
7 W	0050	5.1	155	22 Th	0026	5.8	177	7 Sa	0109	5.4	165	22 Su	0113	6.4	195	7 Sa	0553	1.5	46	22 Su	0620	-0.2	-6
	0554	2.9	88		0550	2.2	67		0656	2.3	70		0733	0.8	24		1151	5.2	158		1233	5.5	168
	1137	6.1	186		1145	6.9	210		1240	5.2	158		1334	5.5	168		1801	1.1	34		1822	0.9	27
	1839	0.0	0		1834	-0.6	-18		1907	1.1	34		1934	1.0	30								
8 Th	0126	5.2	158	23 F	0109	6.0	183	8 Su	0141	5.4	165	23 M	0159	6.4	195	8 Su	0018	5.5	168	23 M	0034	6.4	195
	0638	2.9	88		0648	2.0	61		0743	2.2	67		0836	0.8	24		0631	1.4	43		0714	-0.2	-6
	1216	5.7	174		1239	6.4	195		1324	4.8	146		1441	4.9	149		1231	4.9	149		1332	5.0	152
	1913	0.4	12		1917	-0.2	-6		1938	1.5	46		2022	1.6	49		1830	1.4	43		1907	1.5	46
9 F	0201	5.2	158	24 Sa	0154	6.2	189	9 M	0214	5.5	168	24 Tu	0250	6.3	192	9 M	0047	5.5	168	24 Tu	0119	6.2	189
	0726	2.9	88		0750	1.8	55		0835	2.2	67		0944	0.8	24		0713	1.3	40		0811	-0.1	-3
	1257	5.3	162		1338	5.7	174		1416	4.4	134		1558	4.4	134		1315	4.6	140		1437	4.6	140
	1946	0.7	21		2003	0.4	12		2011	1.9	58		2117	2.2	67		1900	1.8	55		1958	2.0	61
10 Sa	0238	5.3	162	25 Su	0241	6.3	192	10 Tu	0251	5.5	168	25 W	0346	6.1	186	10 Tu	0119	5.5	168	25 W	0209	5.9	180
	0821	2.9	88		0858	1.7	52		0936	2.0	61		1057	0.7	21		0800	1.2	37		0913	0.0	0
	1343	4.8	146		1445	5.1	155		1522	4.0	122		1726	4.2	128		1407	4.3	131		1550	4.3	131
	2021	1.2	37		2051	1.1	34		2049	2.3	70		2223	2.6	79		1934	2.1	64		2056	2.4	73
11 Su	0316	5.3	162	26 M	0332	6.4	195	11 W	0334	5.6	171	26 Th	0448	5.9	180	11 W	0156	5.5	168	26 Th	0305	5.6	171
	0923	2.7	82		1013	1.4	43		1044	1.7	52		1210	0.6	18		0854	1.1	34		1020	0.2	6
	1439	4.4	134		1604	4.5	137		1645	3.8	116		1851	4.2	128		1511	4.0	122		1709	4.2	128
	2058	1.6	49		2144	1.8	55		2138	2.7	82		2339	2.9	88		2015	2.5	76		2208	2.7	82
12 M	0356	5.4	165	27 Tu	0426	6.4	195	12 Th	0425	5.7	174	27 F	0553	5.8	177	12 Th	0240	5.4	165	27 F	0409	5.2	158
	1031	2.5	76		1129	1.1	34		1152	1.3	40		1314	0.5	15		0957	1.0	30		1129	0.4	12
	1550	4.0	122		1734	4.2	128		1816	3.8	116		2000	4.4	134		1628	3.8	116		1825	4.2	128
	2140	2.0	61		2244	2.3	70		2241	2.9	88				2108		2.8	85	2328		2.8	85	
13 Tu O	0439	5.6	171	28 W	0523	6.4	195	13 F	0521	5.9	180	28 Sa	0052	2.9	88	13 F	0334	5.5	168	28 Sa	0520	5.0	152
	1139	2.1	64		1240	0.8	24		1253	0.9	27		0655	5.8	177		1104	0.8	24		1233	0.4	12
	1717	3.8	116		1904	4.2	128		1931	4.0	122		1408	0.3	9		1751	3.9	119		1925	4.4	134
	2228	2.4	73		2351	2.7	82		2353	3.1	94		2051	4.6	140		2220	2.9	88				
14 W	0523	5.8	177	29 Th	0620	6.4	195	14 Sa	0619	6.2	189				14 Sa	0440	5.5	168	29 Su	0043	2.6	79	
	1241	1.6	49		1342	0.4	12		1346	0.3	9					1210	0.5	15		0629	4.9	149	
	1845	3.8	116		2018	4.4	134		2026	4.4	134					1859	4.1	125		1328	0.5	15	
	2324	2.7	82							2340	2.9					88				2011	4.6	140	
15 Th	0609	6.0	183	30 F	0058	2.9	88	15 Su	0102	3.0	91				15 Su	0549	5.7	174	30 M	0142	2.3	70	
	1333	1.0	30		0715	6.5	198		0716	6.5	198					1308	0.2	6		0729	4.9	149	
	1957	4.0	122		1435	0.1	3		1434	-0.1	-3					1951	4.5	137		1413	0.5	15	
					2115	4.6	140		2111	4.7	143							2047		4.7	143		
			31 Sa	0159	3.0	91							31 Tu	0230	2.0	61							
				0805	6.5	198								0820	5.0	152							
				1520	0.0	0								1452	0.6	18							
				2200	4.8	146								2118	4.9	149							

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Arena Cove, California, 2015

Times and Heights of High and Low Waters

July					August					September																			
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 W ○	0434	-1.0	-30		16 Th	0517	-0.8	-24		1 Sa	0530	-1.0	-30		16 Su	0555	0.3	9		1 Tu	0011	6.0	183		16 W	0023	4.9	149	
	1113	4.3	131			1155	4.7	143			1159	5.3	162			1220	5.1	155			0624	0.3	9			0616	1.6	49	
	1556	2.4	73			1655	2.4	73			1722	1.8	55			1759	1.9	58			1242	6.2	189			1226	5.3	162	
	2200	6.5	198			2250	6.1	186			2322	6.6	201			2353	5.4	165			1901	0.4	12			1855	1.0	30	
2 Th	0514	-1.2	-37		17 F	0553	-0.6	-18		2 Su	0611	-0.8	-24		17 M	0625	0.6	18		2 W	0109	5.5	168		17 Th	0107	4.6	140	
	1154	4.5	137			1232	4.8	146			1240	5.5	168			1250	5.1	155			0709	0.9	27			0648	1.9	58	
	1643	2.3	70			1739	2.4	73			1818	1.5	46			1840	1.8	55			1327	6.2	189			1257	5.3	162	
	2244	6.5	198			2329	5.9	180								2002	0.4	12			2002	0.4	12			1939	1.0	30	
3 F	0555	-1.3	-40		18 Sa	0628	-0.4	-12		3 M	0015	6.2	189		18 Tu	0033	5.1	155		3 Th	0214	5.0	152		18 F	0157	4.3	131	
	1236	4.7	143			1308	4.8	146			0653	-0.4	-12			0656	1.0	30			0757	1.4	43			0723	2.3	70	
	1734	2.3	70			1823	2.4	73			1323	5.7	174			1321	5.1	155			1418	6.1	186			1334	5.2	158	
	2330	6.4	195				1917	1.4	43			1925	1.8	55			2108	0.4	12			2108	0.4	12			2031	1.0	30
4 Sa	0636	-1.2	-37		19 Su	0009	5.5	168		4 Tu	0111	5.7	174		19 W	0117	4.7	143		4 F	0327	4.5	137		19 Sa	0257	4.1	125	
	1319	4.9	149			0703	0.0	0			0737	0.1	3			0728	1.4	43			0853	2.0	61			0804	2.6	79	
	1829	2.2	67			1344	4.9	149			1409	5.9	180			1355	5.1	155			1514	6.0	183			1417	5.2	158	
						1911	2.4	73			2021	1.2	37			2015	1.8	55			2219	0.4	12			2130	1.0	30	
5 Su	0020	6.1	186		20 M	0051	5.1	155		5 W	0215	5.0	152		20 Th	0208	4.3	131		5 Sa	0449	4.3	131		20 Su	0410	3.9	119	
	0720	-0.9	-27			0737	0.4	12			0824	0.7	21			0802	1.8	55			0959	2.4	73			0858	2.8	85	
	1403	5.1	155			1420	4.9	149			1458	6.0	183			1433	5.1	155			1617	5.8	177			1511	5.1	155	
	1930	2.1	64			2003	2.3	70			2132	1.0	30			2113	1.7	52			2332	0.4	12			2236	0.9	27	
6 M	0115	5.6	171		21 Tu	0136	4.6	140		6 Th	0328	4.5	137		21 F	0309	3.9	119		6 Su	0612	4.3	131		21 M	0526	4.0	122	
	0805	-0.5	-15			0811	0.8	24			0915	1.3	40			0841	2.2	67			1114	2.6	79			1008	2.9	88	
	1450	5.4	165			1458	5.0	152			1552	6.1	186			1516	5.2	158			1725	5.7	174			1616	5.2	158	
	2038	1.9	58			2101	2.2	67			2246	0.8	24			2218	1.5	46						○		2341	0.7	21	
7 Tu	0217	5.0	152		22 W	0229	4.2	128		7 F	0452	4.1	125		22 Sa	0426	3.7	113		7 M	0040	0.3	9		22 Tu	0632	4.1	125	
	0852	0.0	0			0848	1.2	37			1013	1.9	58			0929	2.5	76			0722	4.4	134			1125	2.9	88	
	1539	5.6	171			1538	5.0	152			1650	6.1	186			1606	5.2	158			1228	2.6	79			1726	5.3	162	
	2152	1.6	49			2206	2.1	64						○		2326	1.3	40			1831	5.7	174						
8 W ○	0329	4.4	134		23 Th	0334	3.8	116		8 Sa	0000	0.5	15		23 Su	0551	3.7	113		8 Tu	0138	0.2	6		23 W	0039	0.5	15	
	0942	0.6	18			0928	1.7	52			0620	4.0	122			1030	2.7	82			0817	4.6	140			0723	4.4	134	
	1630	5.8	177			1620	5.1	155			1119	2.3	70			1702	5.4	165			1331	2.4	73			1234	2.5	76	
	2308	1.2	37			2314	1.8	55			1749	6.1	186								1930	5.7	174			1832	5.5	168	
9 Th	0453	4.0	122		24 F	0454	3.5	107		9 Su	0107	0.2	6		24 M	0029	0.9	27		9 W	0228	0.2	6		24 Th	0131	0.2	6	
	1037	1.1	34			1014	2.0	61			0738	4.1	125			0705	3.8	116			0900	4.8	146			0805	4.8	146	
	1722	6.0	183			1706	5.3	162			1228	2.5	76			1138	2.8	85			1424	2.2	67			1334	2.1	64	
											1848	6.2	189			1801	5.6	171			2022	5.7	174			1934	5.8	177	
10 F	0021	0.6	18		25 Sa	0018	1.4	43		10 M	0205	-0.1	-3		25 Tu	0123	0.5	15		10 Th	0309	0.3	9		25 F	0218	0.0	0	
	0620	3.8	116			0619	3.5	107			0840	4.3	131			0800	4.1	125			0936	4.9	149			0844	5.2	158	
	1136	1.6	49			1107	2.3	70			1332	2.5	76			1244	2.7	82			1508	2.0	61			1428	1.5	46	
	1815	6.2	189			1752	5.5	168			1943	6.2	189			1857	5.9	180			2107	5.7	174			2031	6.0	183	
11 Sa	0125	0.1	3		26 Su	0114	0.9	27		11 Tu	0254	-0.2	-6		26 W	0211	0.1	3		11 F	0346	0.4	12		26 Sa	0302	0.0	0	
	0741	3.9	119			0734	3.6	110			0930	4.5	137			0845	4.4	134			1007	5.0	152			0921	5.6	171	
	1237	2.0	61			1206	2.5	76			1427	2.5	76			1343	2.4	73			1548	1.7	52			1519	0.8	24	
	1906	6.4	195			1839	5.8	177			2032	6.2	189			1951	6.2	189			2148	5.6	171			2126	6.1	186	
12 Su	0222	-0.3	-9		27 M	0203	0.4	12		12 W	0338	-0.3	-9		27 Th	0256	-0.3	-9		12 Sa	0418	0.5	15		27 Su	0345	0.1	3	
	0849	4.1	125			0833	3.8	116			1011	4.7	143			0924	4.8	146			1035	5.1	155			1000	6.0	183	
	1336	2.2	67			1303	2.6	79			1516	2.3	70			1436	2.1	64			1625	1.5	46			1609	0.3	9	
	1956	6.5	198			1926	6.1	186			2117	6.2	189			2043	6.5	198			2227	5.5	168			2220	6.1	186	
13 M	0311	-0.7	-21		28 Tu	0246	-0.1	-3		13 Th	0416	-0.3	-9		28 F	0338	-0.5	-15		13 Su	0448	0.7	21		28 M	0428	0.3	9	
	0946	4.3	131			0920	4.1	125			1047	4.8	146			1002	5.1	155			1102	5.2	158			1039	6.3	192	
	1431	2.3	70			1358	2.6	79			1559	2.2	67			1528	1.7	52			1700	1.3	40			1659	-0.2	-6	
	2043	6.5	198			2012	6.4	195			2158	6.1	186			2134	6.6	201			2304	5.4	165			2314	5.9	180	
14 Tu	0356	-0.9	-27		29 W	0328	-0.5	-15		14 F	0451	-0.2	-6		29 Sa	0419	-0.5	-15		14									

Arena Cove, California, 2015

Times and Heights of High and Low Waters

October					November					December																			
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	0108	5.3	162		16 F	0103	4.5	137		1 Su	0309	4.8	146		16 M	0236	4.6	140		1 Tu	0338	5.1	155		16 W	0255	5.3	162	
	0642	1.6	49			0614	2.4	73			0817	2.8	85			0723	3.1	94			0903	2.9	88			0817	2.9	88	
	1248	6.4	195			1211	5.5	168			1400	5.5	168			1305	5.5	168			1425	5.0	152			1348	5.4	165	
	1941	-0.4	-12			1913	0.3	9			2112	-0.1	-3			2025	-0.1	-3			2125	0.4	12			2045	0.2	6	
2 F	0212	4.9	149		17 Sa	0153	4.3	131		2 M	0415	4.8	146		17 Tu	0330	4.7	143		2 W	0430	5.1	155		17 Th	0343	5.5	168	
	0734	2.1	64			0652	2.7	82			0931	2.9	88			0829	3.1	94			1019	2.8	85			0931	2.6	79	
	1339	6.1	186			1248	5.4	165			1504	5.0	152			1402	5.2	158			1532	4.5	137			1457	4.9	149	
	2042	-0.2	-6			2000	0.3	9			2213	0.3	9			2117	0.1	3			2215	0.9	27			2135	0.6	18	
3 Sa	0323	4.6	140		18 Su	0250	4.2	128		3 Tu	0517	4.8	146		18 W	0423	4.8	146		3 Th	0520	5.2	158		18 F	0432	5.8	177	
	0835	2.5	76			0739	2.9	88			1053	2.7	82			0946	2.9	88			1134	2.5	76			1049	2.2	67	
	1436	5.7	174			1332	5.3	162			1618	4.6	140			1511	4.9	149			1650	4.1	125			1618	4.5	137	
	2148	0.1	3			2054	0.4	12			2312	0.6	18			2213	0.4	12			2306	1.4	43			2229	1.1	34	
4 Su	0439	4.5	137		19 M	0354	4.2	128		4 W	0612	5.0	152		19 Th	0514	5.1	155		4 F	0603	5.4	165		19 Sa	0521	6.1	186	
	0948	2.7	82			0840	3.0	91			1207	2.4	73			1105	2.5	76			1239	2.1	64			1202	1.5	46	
	1543	5.4	165			1428	5.1	155			1735	4.4	134			1632	4.6	140			1809	3.9	119			1746	4.3	131	
	2256	0.3	9			2153	0.4	12						2309		0.6	18		2356		1.7	52		2326		1.5	46		
5 M	0552	4.6	140		20 Tu	0458	4.3	131		5 Th	0008	0.9	27		20 F	0601	5.5	168		5 Sa	0642	5.5	168		20 Su	0609	6.4	195	
	1109	2.7	82			0956	3.0	91			0657	5.1	155			1216	1.9	58			1332	1.6	49			1307	0.8	24	
	1656	5.1	155			1538	5.0	152			1309	2.0	61			1755	4.5	137			1921	3.9	119			1909	4.3	131	
						2255	0.5	15			1846	4.3	131																
6 Tu	0002	0.4	12		21 W	0555	4.6	140		6 F	0058	1.2	37		21 Sa	0005	0.9	27		6 Su	0043	2.0	61		21 M	0024	1.9	58	
	0653	4.7	143			1116	2.7	82			0734	5.3	162			0645	5.9	180			0718	5.7	174			0658	6.8	207	
	1224	2.5	76			1655	4.9	149			1358	1.6	49			1318	1.1	34			1416	1.1	34			1404	0.1	3	
	1809	5.0	152			2354	0.4	12			1947	4.4	134			1912	4.6	140			2022	4.1	125			2022	4.5	137	
7 W	0100	0.6	18		22 Th	0642	4.9	149		7 Sa	0141	1.4	43		22 Su	0059	1.2	37		7 M	0127	2.3	70		22 Tu	0122	2.2	67	
	0742	4.9	149			1226	2.2	67			0807	5.5	168			0728	6.3	192			0751	5.9	180			0745	7.0	213	
	1325	2.2	67			1811	5.0	152			1439	1.1	34			1413	0.3	9			1454	0.6	18			1456	-0.5	-15	
	1913	5.0	152				2040	4.4	134					2020		4.7	143		2114		4.2	128		2125		4.7	143		
8 Th	0149	0.7	21		23 F	0048	0.5	15		8 Su	0219	1.6	49		23 M	0150	1.4	43		8 Tu	0208	2.5	76		23 W	0217	2.4	73	
	0821	5.0	152			0724	5.3	162			0836	5.6	171			0811	6.7	204			0823	6.1	186			0831	7.2	219	
	1415	1.8	55			1326	1.5	46			1516	0.7	21			1503	-0.4	-12			1531	0.2	6			1544	-0.9	-27	
	2008	5.0	152			1920	5.2	158			2126	4.5	137			2122	4.9	149			2159	4.4	134			2219	4.9	149	
9 F	0230	0.8	24		24 Sa	0138	0.5	15		9 M	0254	1.8	55		24 Tu	0240	1.7	52		9 W	0248	2.6	79		24 Th	0311	2.6	79	
	0853	5.2	158			0804	5.8	177			0904	5.8	177			0853	7.0	213			0856	6.2	189			0917	7.2	219	
	1456	1.5	46			1420	0.8	24			1551	0.4	12			1552	-0.9	-27			1606	-0.1	-3			1629	-1.1	-34	
	2055	5.0	152			2023	5.3	162			2209	4.6	140			2219	5.1	155			2241	4.5	137			2309	5.1	155	
10 Sa	0306	1.0	30		25 Su	0225	0.6	18		10 Tu	0327	2.0	61		25 W	0329	1.9	58		10 Th	0326	2.7	82		25 F	0402	2.7	82	
	0922	5.3	162			0844	6.2	189			0932	5.9	180			0936	7.1	216			0929	6.4	195			1002	7.1	216	
	1534	1.1	34			1511	0.1	3			1625	0.1	3			1639	-1.3	-40			1641	-0.4	-12			1712	-1.1	-34	
	2137	5.0	152			2121	5.4	165			2250	4.6	140			2313	5.1	155			2321	4.7	143			2355	5.2	158	
11 Su	0338	1.2	37		26 M	0311	0.9	27		11 W	0400	2.2	67		26 Th	0417	2.2	67		11 F	0405	2.8	85		26 Sa	0452	2.7	82	
	0949	5.4	165			0923	6.6	201			1001	6.0	183			1020	7.1	216			1004	6.5	198			1046	6.9	210	
	1608	0.8	24			1600	-0.5	-15			1659	-0.1	-3			1726	-1.4	-43			1717	-0.6	-18			1754	-0.9	-27	
	2217	5.0	152			2218	5.5	168			2331	4.6	140																
12 M	0409	1.4	43		27 Tu	0356	1.1	34		12 Th	0434	2.4	73		27 F	0005	5.2	158		12 Sa	0001	4.8	146		27 Su	0039	5.3	162	
	1015	5.5	168			1004	6.8	207			1031	6.0	183			0507	2.4	73			0445	2.9	88			0541	2.8	85	
	1642	0.6	18			1649	-0.9	-27			1735	-0.3	-9			1104	6.9	210			1040	6.5	198			1130	6.6	201	
	2256	4.9	149			2313	5.4	165						1812		-1.2	-37		1754		-0.6	-18		1836		-0.6	-18		
13 Tu	0438	1.6	49		28 W	0441	1.5	46		13 F	0013	4.6	140		28 Sa	0057	5.1	155		13 Su	0042	4.9	149		28 M	0123	5.3	162	
	1041	5.6	171			1046	6.8	207			0509	2.6	79			0558	2.6	79			0529	3.0	91			0632	2.8	85	
	1717	0.4	12			1738	-1.1	-34			1103	6.0	183			1149	6.5	198			1120	6.4	195			1214	6.1	186	
	2336	4.8	146								1812	-0.3	-9			1859	-1.0	-30			1834	-0.6	-18			1916	-0.2	-6	
14 W	0508	1.9	58		29 Th	0008	5.3	162		14 Sa	0057	4.6	140		29 Su	0150	5.1	155		14 M	0125	5.0	152		29 Tu	0206	5.3	162	
	1109	5.6	171			0528	1.8	55			0547	2.8	85			0653	2.8	85			0617	3.0	91			0726	2.9	88	
	1753	0.3	9			1129	6.7	204			1139	5.9	180			1237	6.0	183			1203	6.2	189			1300	5.6	171	
						1828	-1.1	-34			1853	-0.3	-9			1946	-0.5	-15			1915	-0.5	-15			1956	0.3	9	
15 Th	0018	4.7	143		30 F	0106	5.1	155		15 Su	0145	4.6	140		30 M	0244	5.1	155		15 Tu	0209	5.1	155		30 W	0250	5.4	165	
	0540	2.1	64			0618	2.2	67			0631	3.0	91			0754	2.9	88			0713	3.0	91			0826	2.9	88	
	1138	5.6	171			1215	6.4	195			1218	5.7	174			1328	5.5	168			1251	5.8	177			1350	5.0	152	
	1831	0.3	9			1920	-0.9	-27			1937	-0.2	-6			2035	-0.1	-3			1959	-0.2	-6			2036	0.8	24	
				31 Sa	0206	4.9	149																						
					0713	2.5	76																						
					1305	6.0	183																						
					2015	-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.

Humboldt Bay, California, 2015

Times and Heights of High and Low Waters

January				February				March			
Time		Height		Time		Height		Time		Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
1 Th	0154	2.7	82	16 F	0109	3.2	98	1 Su	0228	3.0	91
	0822	7.8	238		0742	7.3	223		0833	6.6	201
	1523	0.0	0		1452	0.5	15		1526	0.4	12
	2201	5.4	165		2126	5.0	152		2212	5.5	168
2 F	0251	2.9	88	17 Sa	0211	3.2	98	2 M	0321	2.7	82
	0909	7.9	241		0831	7.6	232		0923	6.7	204
	1609	-0.4	-12		1539	-0.2	-6		1607	0.3	9
	2254	5.6	171		2219	5.4	165		2246	5.7	174
3 Sa	0344	3.0	91	18 Su	0308	3.1	94	3 Tu	0406	2.4	73
	0953	7.9	241		0921	8.0	244		1007	6.7	204
	1651	-0.6	-18		1623	-0.8	-24		1642	0.2	6
	2339	5.8	177		2305	5.8	177		2316	5.9	180
4 Su	0431	3.0	91	19 M	0402	2.9	88	4 W	0446	2.1	64
	1035	7.8	238		1009	8.2	250		1048	6.7	204
	1730	-0.7	-21		1706	-1.2	-37		1715	0.3	9
					2348	6.2	189		2344	6.1	186
5 M	0019	6.0	183	20 Tu	0453	2.6	79	5 Th	0524	1.8	55
	0516	3.0	91		1058	8.4	256		1126	6.6	201
	1114	7.6	232		1749	-1.4	-43		1746	0.4	12
	1807	-0.6	-18								
6 Tu	0055	6.0	183	21 W	0030	6.5	198	6 F	0011	6.2	189
	0558	3.0	91		0544	2.3	70		0600	1.5	46
	1152	7.4	226		1147	8.3	253		1203	6.4	195
	1843	-0.5	-15		1832	-1.3	-40		1816	0.7	21
7 W	0130	6.1	186	22 Th	0112	6.8	207	7 Sa	0039	6.4	195
	0640	3.0	91		0637	2.0	61		0636	1.4	43
	1230	7.1	216		1238	8.0	244		1241	6.2	189
	1917	-0.2	-6		1915	-1.1	-34		1846	1.0	30
8 Th	0204	6.1	186	23 F	0155	7.1	216	8 Su	0108	6.4	195
	0722	3.0	91		0731	1.8	55		0713	1.2	37
	1308	6.7	204		1330	7.5	229		1320	5.9	180
	1951	0.2	6		1959	-0.6	-18		1915	1.3	40
9 F	0239	6.1	186	24 Sa	0240	7.2	219	9 M	0137	6.5	198
	0807	3.0	91		0829	1.7	52		0753	1.1	34
	1348	6.2	189		1427	6.8	207		1401	5.6	171
	2025	0.6	18		2044	0.1	3		1946	1.7	52
10 Sa	0315	6.2	189	25 Su	0326	7.3	223	10 Tu	0208	6.5	198
	0856	3.0	91		0932	1.6	49		0836	1.1	34
	1432	5.7	174		1529	6.1	186		1449	5.2	158
	2100	1.1	34		2131	0.9	27		2018	2.1	64
11 Su	0353	6.3	192	26 M	0416	7.4	226	11 W	0243	6.5	198
	0951	2.9	88		1040	1.4	43		0925	1.1	34
	1524	5.2	158		1640	5.4	165		1545	4.9	149
	2136	1.6	49		2223	1.7	52		2057	2.5	76
12 M	0433	6.4	195	27 Tu	0509	7.4	226	12 Th	0325	6.4	195
	1054	2.7	82		1153	1.2	37		1023	1.0	30
	1628	4.8	146		1801	5.0	152		1653	4.6	140
	2217	2.1	64		2323	2.3	70		2148	2.9	88
13 Tu	0517	6.5	198	28 W	0605	7.4	226	13 F	0418	6.4	195
	1200	2.3	70		1305	0.9	27		1129	0.9	27
	1744	4.5	137		1929	4.9	149		1809	4.6	140
	2306	2.6	79						2258	3.1	94
14 W	0603	6.7	204	29 Th	0029	2.8	85	14 Sa	0524	6.4	195
	1303	1.8	55		0703	7.3	223		1236	0.6	18
	1906	4.4	134		1410	0.6	18		1923	4.8	146
					2050	5.0	152				
15 Th	0005	2.9	88	30 F	0136	3.1	94	15 Su	0020	3.1	94
	0652	7.0	213		0759	7.4	226		0635	6.5	198
	1401	1.1	34		1505	0.2	6		1340	0.3	9
	2022	4.6	140		2153	5.3	162		2025	5.1	155
				31 Sa	0238	3.1	94	31 Tu	0305	2.1	64
					0851	7.4	226		0902	5.8	177
					1553	0.0	0		1528	0.7	21
					2241	5.6	171		2200	5.7	174

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.

Times and Heights of High and Low Waters

Humboldt Bay, California, 2015

Times and Heights of High and Low Waters

July						August						September																
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				
1 W ○	0510	-1.1	-34		16 Th	0551	-0.9	-27		1 Sa	0609	-1.2	-37		16 Su	0006	6.7	204		1 Tu	0101	7.1	216		16 W	0110	5.9	180
	1153	5.4	165			1236	5.8	177			1246	6.4	195			0633	0.2	6			0706	0.1	3			0659	1.6	49
	1649	2.6	79			1743	2.5	76			1812	1.7	52			1303	6.1	186			1331	7.4	226			1314	6.4	195
	2253	7.6	232			2341	7.2	219								1845	1.9	58			1943	0.2	6			1936	0.9	27
2 Th	0551	-1.4	-43		17 F	0628	-0.8	-24		2 Su	0016	7.6	232		17 M	0044	6.4	195		2 W	0157	6.6	201		17 Th	0152	5.6	171
	1236	5.7	174			1312	5.8	177			0651	-1.0	-30			0704	0.5	15			0751	0.7	21			0730	2.0	61
	1736	2.5	76			1826	2.4	73			1327	6.7	204			1334	6.2	189			1416	7.4	226			1345	6.4	195
	2337	7.6	232								1904	1.4	43			1925	1.8	55			2039	0.2	6			2018	1.0	30
3 F	0632	-1.5	-46		18 Sa	0021	6.9	210		3 M	0107	7.2	219		18 Tu	0123	6.0	183		3 Th	0257	6.0	183		18 F	0239	5.3	162
	1318	5.9	180			0704	-0.5	-15			0733	-0.6	-18			0736	0.9	27			0839	1.4	43			0803	2.5	76
	1825	2.4	73			1347	5.9	180			1410	6.9	210			1405	6.2	189			1504	7.3	223			1419	6.3	192
						1910	2.4	73			2000	1.2	37			2007	1.7	52			2140	0.3	9			2104	1.0	30
4 Sa	0024	7.4	226		19 Su	0101	6.5	198		4 Tu	0202	6.7	204		19 W	0206	5.6	171		4 F	0404	5.5	168		19 Sa	0333	5.0	152
	0714	-1.4	-43			0739	-0.1	-3			0817	-0.1	-3			0807	1.4	43			0932	2.1	64			0842	2.8	85
	1401	6.1	186			1422	5.9	180			1455	7.0	213			1438	6.2	189			1558	7.1	216			1500	6.2	189
	1918	2.2	67			1955	2.4	73			2059	1.1	34			2052	1.7	52			2246	0.4	12			2158	1.0	30
5 Su	0114	7.1	216		20 M	0143	6.0	183		5 W	0303	6.1	186		20 Th	0253	5.2	158		5 Sa	0519	5.2	158		20 Su	0437	4.8	146
	0758	-1.1	-34			0814	0.3	9			0904	0.6	18			0841	1.9	58			1035	2.6	79			0933	3.2	98
	1446	6.3	192			1457	5.9	180			1543	7.1	216			1514	6.2	189			1659	6.8	207			1552	6.1	186
	2015	2.1	64			2042	2.4	73			2204	0.9	27			2144	1.7	52			2356	0.5	15			2301	1.0	30
6 M	0208	6.6	201		21 Tu	0227	5.6	171		6 Th	0410	5.5	168		21 F	0349	4.8	146		6 Su	0640	5.1	155		21 M	0549	4.7	143
	0843	-0.6	-18			0849	0.8	24			0955	1.4	43			0918	2.4	73			1147	2.9	88			1042	3.3	101
	1532	6.5	198			1534	6.0	183			1635	7.1	216			1556	6.2	189			1804	6.6	201			1657	6.1	186
	2117	1.9	58			2134	2.3	70			2313	0.8	24			2243	1.6	49						●				
7 Tu	0308	6.0	183		22 W	0317	5.1	155		7 F	0527	5.0	152		22 Sa	0456	4.5	137		7 M	0105	0.5	15		22 Tu	0007	0.8	24
	0930	0.0	0			0925	1.3	40			1053	2.0	61			1004	2.8	85			0756	5.2	158			0658	4.9	149
	1620	6.7	204			1613	6.0	183			1731	7.1	216			1645	6.2	189			1302	3.0	91			1202	3.3	101
	2225	1.6	49			2232	2.2	67								●	2347	1.4	43			1910	6.5	198			1808	6.2	189
8 W ○	0417	5.4	165		23 Th	0416	4.6	140		8 Sa	0025	0.6	18		23 Su	0613	4.4	134		8 Tu	0207	0.4	12		23 W	0109	0.6	18
	1022	0.6	18			1005	1.9	58			0650	4.8	146			1106	3.1	94			0856	5.4	165			0757	5.3	162
	1711	6.9	210			1656	6.1	186			1159	2.5	76			1742	6.3	192			1408	2.8	85			1316	2.9	88
	2337	1.2	37			2335	1.9	58			1830	7.1	216								2012	6.5	198			1917	6.4	195
9 Th	0533	5.0	152		24 F	0526	4.3	131		9 Su	0133	0.3	9		24 M	0052	1.1	34		9 W	0258	0.3	9		24 Th	0206	0.3	9
	1117	1.3	40			1051	2.3	70			0811	4.9	149			0728	4.6	140			0942	5.7	174			0846	5.7	174
	1803	7.1	216			1742	6.2	189			1308	2.8	85			1220	3.2	98			1503	2.4	73			1418	2.3	70
											1930	7.1	216			1843	6.5	198			2105	6.6	201			2021	6.7	204
10 F	0048	0.8	24		25 Sa	0039	1.6	49		10 M	0233	0.0	0		25 Tu	0151	0.6	18		10 Th	0342	0.3	9		25 F	0256	0.0	0
	0655	4.7	143			0643	4.2	128			0918	5.2	158			0832	4.9	149			1020	5.9	180			0930	6.2	189
	1218	1.8	55			1148	2.7	82			1413	2.8	85			1330	3.1	94			1550	2.1	64			1514	1.6	49
	1857	7.3	223			1831	6.4	195			2027	7.1	216			1943	6.8	207			2152	6.6	201			2120	7.0	213
11 Sa	0153	0.2	6		26 Su	0138	1.1	34		11 Tu	0325	-0.2	-6		26 W	0244	0.1	3		11 F	0420	0.3	9		26 Sa	0343	-0.1	-3
	0816	4.8	146			0759	4.3	131			1011	5.4	165			0924	5.3	162			1051	6.1	186			1010	6.7	204
	1320	2.2	67			1250	2.9	88			1510	2.7	82			1431	2.7	82			1631	1.8	55			1605	0.8	24
	1950	7.4	226			1921	6.7	204			2118	7.2	219			2039	7.1	216			2235	6.6	201			2215	7.1	216
12 Su	0251	-0.3	-9		27 M	0230	0.5	15		12 W	0410	-0.3	-9		27 Th	0331	-0.3	-9		12 Sa	0455	0.5	15		27 Su	0428	-0.1	-3
	0927	5.0	152			0903	4.6	140			1053	5.6	171			1008	5.7	174			1121	6.2	189			1050	7.2	219
	1421	2.5	76			1352	3.0	91			1600	2.5	76			1526	2.2	67			1709	1.5	46			1655	0.1	3
	2042	7.5	229			2012	7.0	213			2205	7.1	216			2133	7.4	226			●	2314	6.5	198		○	2309	7.2	219
13 M	0342	-0.6	-18		28 Tu	0318	0.0	0		13 Th	0450	-0.3	-9		28 F	0416	-0.6	-18		13 Su	0527	0.7	21		28 M	0511	0.2	6
	1025	5.2	158			0957	5.0	152			1130	5.8	177			1049	6.2	189			1149	6.3	192			1130	7.6	232
	1518	2.6	79			1449	2.9	88			1645	2.3	70			1618	1.7	52			1745	1.2	37			1744	-0.4	-12
	2131	7.6	232			2101	7.3	223			2247	7.1	216			2225	7.6	232			2352	6.4	195					
14 Tu	0429	-0.9	-27		29 W	0402	-0.6	-18		14 F	0526	-0.3	-9		29 Sa	0459	-0.8	-24		14 M	0558	0.9	27		29 Tu	0002	7.1	216
	1115	5.5	168			1042	5.4	165			1202	5.9	180			1128	6.6	201			1217	6.4	195			0555	0.5	15
	1610	2.6	79			1541	2.6	79			1726	2.1	64			1708	1.1	34			1821	1.1	34			1211	7.8	238
	2217	7.5	229			2149	7.6	232			●	2327	6.9	210			○	2317	7.7		235						1834	-0.7	-21
15 W ●	0511	-1.0	-30		30 Th	0445	-1.0	-30		15 Sa	0600	-0.1	-3		30 Su	0541	-0.7	-21		15 Tu	0030	6.2	189		30 W			

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.

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.

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.

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, 2015

Times and Heights of High and Low Waters

July						August						September											
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				
1 W ○	0503	-1.1	-34	16 Th	0546	-1.0	-30	1 Sa	0601	-1.3	-40	16 Su	0627	0.1	3	1 Tu	0048	7.2	219	16 W	0058	6.0	183
	1140	5.6	171		1223	5.9	180		1231	6.6	201		1251	6.2	189		0659	0.1	3		0652	1.6	49
	1642	2.6	79		1739	2.5	76		1805	1.6	49		1839	1.8	55		1316	7.6	232		1301	6.5	198
	2240	7.6	232		2330	7.1	216								1935		0.1	3	1927		0.9	27	
2 Th	0544	-1.4	-43	17 F	0623	-0.8	-24	2 Su	0002	7.7	235	17 M	0033	6.4	195	2 W	0143	6.7	204	17 Th	0139	5.7	174
	1221	5.8	177		0643	-1.1	-34		0658	0.5	15		0743	0.7	21		0724	2.0	61				
	1729	2.5	76		1311	6.9	210		1321	6.3	192		1400	7.5	229		1332	6.4	195				
	2324	7.6	232		1857	1.4	43		1918	1.7	52		2031	0.1	3		2008	1.0	30				
3 F	0625	-1.5	-46	18 Sa	0010	6.8	207	3 M	0054	7.3	223	18 Tu	0112	6.1	186	3 Th	0244	6.2	189	18 F	0225	5.4	165
	1303	6.1	186		0725	-0.7	-21		0729	0.9	27		0831	1.4	43		0758	2.4	73				
	1819	2.3	70		1354	7.1	216		1352	6.3	192		1449	7.3	223		1406	6.3	192				
					1953	1.1	34		1959	1.7	52		2133	0.2	6		2055	1.0	30				
4 Sa	0011	7.5	229	19 Su	0050	6.5	198	4 Tu	0149	6.8	207	19 W	0153	5.7	174	4 F	0352	5.6	171	19 Sa	0319	5.0	152
	0706	-1.4	-43		0809	-0.1	-3		0800	1.4	43		0925	2.1	64		0837	2.8	85				
	1345	6.3	192		1438	7.2	219		1424	6.2	189		1543	7.1	216		1447	6.2	189				
	1911	2.2	67		2053	1.0	30		2044	1.7	52		2241	0.4	12		2150	1.1	34				
5 Su	0100	7.1	216	20 M	0131	6.0	183	5 W	0249	6.1	186	20 Th	0240	5.2	158	5 Sa	0509	5.3	162	20 Su	0424	4.8	146
	0750	-1.1	-34		0856	0.6	18		0834	1.9	58		1029	2.6	79		0928	3.1	94				
	1429	6.5	198		1527	7.2	219		1500	6.2	189		1645	6.8	207		1538	6.1	186				
	2008	2.0	61		2158	0.9	27		2136	1.7	52		2353	0.5	15		2253	1.0	30				
6 M	0154	6.6	201	21 Tu	0215	5.5	168	6 Th	0358	5.5	168	21 F	0336	4.8	146	6 Su	0632	5.2	158	21 M	0539	4.8	146
	0835	-0.7	-21		0947	1.4	43		0912	2.3	70		1145	2.9	88		1036	3.3	101				
	1516	6.6	201		1619	7.2	219		1540	6.2	189		1754	6.5	198		1642	6.0	183				
	2111	1.8	55		2309	0.7	21		2235	1.6	49				○			○					
7 Tu	0255	6.0	183	22 W	0305	5.1	155	7 F	0517	5.1	155	22 Sa	0445	4.5	137	7 M	0104	0.4	12	22 Tu	0001	0.9	27
	0922	0.0	0		1046	2.0	61		0959	2.8	85		0747	5.3	162		0651	5.0	152				
	1604	6.8	207		1717	7.1	216		1629	6.2	189		1302	2.9	88		1156	3.3	101				
	2220	1.5	46				○		2342	1.4	43		1903	6.5	198		1755	6.1	186				
8 W	0404	5.4	165	23 Th	0405	4.6	140	8 Sa	0022	0.5	15	23 Su	0607	4.5	137	8 Tu	0206	0.4	12	23 W	0105	0.6	18
	1013	0.7	21		0643	4.9	149		1059	3.1	94		0845	5.5	168		0749	5.3	162				
	1656	6.9	210		1153	2.5	76		1727	6.2	189		1410	2.7	82		1310	2.9	88				
	2333	1.2	37		1819	7.0	213				2006		6.5	198	1906		6.3	192					
9 Th	0524	5.0	152	24 F	0519	4.3	131	9 Su	0131	0.3	9	24 M	0048	1.1	34	9 W	0258	0.3	9	24 Th	0201	0.3	9
	1110	1.3	40		0803	5.0	152		0725	4.6	140		0931	5.8	177		0836	5.8	177				
	1750	7.1	216		1305	2.8	85		1212	3.2	98		1504	2.4	73		1412	2.3	70				
					1920	7.0	213		1829	6.4	195		2059	6.5	198		2010	6.7	204				
10 F	0044	0.7	21	25 Sa	0035	1.5	46	10 M	0231	0.0	0	25 Tu	0147	0.6	18	10 Th	0341	0.3	9	25 F	0251	0.0	0
	0649	4.8	146		0908	5.3	162		0826	4.9	149		1009	6.0	183		0918	6.3	192				
	1211	1.9	58		1412	2.8	85		1322	3.1	94		1549	2.1	64		1507	1.5	46				
	1845	7.2	219		2018	7.1	216		1930	6.7	204		2146	6.6	201		2109	7.0	213				
11 Sa	0150	0.2	6	26 Su	0134	1.1	34	11 Tu	0323	-0.2	-6	26 W	0239	0.1	3	11 F	0419	0.3	9	26 Sa	0337	-0.1	-3
	0809	4.9	149		0959	5.5	168		0914	5.4	165		1041	6.1	186		0957	6.9	210				
	1316	2.3	70		1510	2.7	82		1424	2.7	82		1629	1.8	55		1558	0.8	24				
	1939	7.4	226		2110	7.1	216		2027	7.1	216		2227	6.6	201		2204	7.2	219				
12 Su	0248	-0.3	-9	27 M	0227	0.5	15	12 W	0408	-0.4	-12	27 Th	0326	-0.4	-12	12 Sa	0452	0.4	12	27 Su	0421	-0.1	-3
	0917	5.1	155		1041	5.8	177		0956	5.8	177		1110	6.3	192		1036	7.3	223				
	1418	2.5	76		1559	2.5	76		1519	2.2	67		1705	1.5	46		1647	0.1	3				
	2031	7.5	229		2156	7.1	216		2121	7.4	226		2305	6.5	198		2257	7.3	223				
13 M	0339	-0.7	-21	28 Tu	0313	-0.1	-3	13 Th	0447	-0.4	-12	28 F	0410	-0.7	-21	13 Su	0523	0.6	18	28 M	0504	0.1	3
	1014	5.4	165		1117	5.9	180		1035	6.3	192		1138	6.4	195		1116	7.7	235				
	1515	2.6	79		1643	2.3	70		1610	1.7	52		1739	1.2	37		1736	-0.5	-15				
	2120	7.5	229		2238	7.0	213		2213	7.7	235		2342	6.4	195		2349	7.2	219				
14 Tu	0425	-0.9	-27	29 W	0357	-0.6	-18	14 F	0523	-0.3	-9	29 Sa	0452	-0.8	-24	14 M	0553	0.9	27	29 Tu	0548	0.5	15
	1101	5.6	171		1150	6.1	186		1114	6.8	207		1205	6.5	198		1157	7.9	241				
	1607	2.6	79		1723	2.1	64		1700	1.1	34		1814	1.1	34		1825	-0.8	-24				
	2206	7.5	229		2317	6.9	210		2304	7.7	235												
15 W	0507	-1.0	-30	30 Th	0439	-1.0	-30	15 Sa	0556	-0.1	-3	30 Su	0534	-0.7	-21	15 Tu	0019	6.2	189	30 W	0043	7.0	213
	1144	5.8	177		1221	6.2	189		1153	7.1	216		0622	1.2	37		0632	0.9	27				
	1655	2.5	76		1801	1.9	58		1750	0.6	18		1232	6.5	198		1239	7.9	241				
	2249	7.3	223		2355	6.7	204		2355	7.6	232		1850	1.0	30		1916	-0.8	-24				
15 ●				31 F	0520	-1.3	-40	31 ○	1151	6.3	192	31 M	0616	-0.4	-12								
					1714	2.0	61		1234	7.4	226												
					2313	7.8	238		1841	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.

Charleston, Oregon, 2015

Times and Heights of High and Low Waters

January								February								March							
Time		Height		Time		Height		Time		Height		Time		Height		Time		Height					
	h	m	cm		h	m	cm		h	m	cm		h	m	cm		h	m	cm				
1 Th	0224	2.9	88	16 F	0138	3.4	104	1 Su	0403	3.2	98	16 M	0320	3.0	91	1 Su	0258	3.2	98	16 M	0202	3.0	91
	0846	8.5	259		0804	7.9	241		1006	8.1	247		0927	8.4	256		0900	7.3	223		0807	7.5	229
	1544	0.0	0		1510	0.6	18		1656	-0.1	-3		1618	-0.6	-18		1549	0.6	18		1457	0.1	3
	2217	6.3	192		2143	5.8	177		2334	6.7	204		2253	6.9	210		2227	6.4	195		2134	6.6	201
2 F	0322	3.1	94	17 Sa	0240	3.4	104	2 M	0450	3.0	91	17 Tu	0416	2.4	73	2 M	0351	2.8	85	17 Tu	0307	2.4	73
	0935	8.6	262		0856	8.3	253		1049	8.1	247		1021	8.8	268		0951	7.4	226		0912	7.8	238
	1631	-0.4	-12		1558	-0.1	-3		1734	-0.2	-6		1704	-1.0	-30		1631	0.4	12		1549	-0.3	-9
	2309	6.6	201		2235	6.3	192		2335	7.5	229		2335	7.5	229		2303	6.7	204		2219	7.2	219
3 Sa	0414	3.1	94	18 Su	0337	3.2	98	3 Tu	0009	6.9	210	18 W	0508	1.8	55	3 Tu	0435	2.5	76	18 W	0404	1.6	49
	1020	8.7	265		0946	8.7	265		0531	2.7	82		1114	9.0	274		1035	7.5	229		1010	8.2	250
	1713	-0.6	-18		1643	-0.8	-24		1129	8.1	247		1747	-1.2	-37		1707	0.3	9		1636	-0.5	-15
	2353	6.8	207		2321	6.8	207		1808	-0.2	-6		●	2334	6.9		210	2334	6.9		210	2302	7.8	238
4 Su	0502	3.1	94	19 M	0430	2.9	88	4 W	0041	7.1	216	19 Th	0016	8.0	244	4 W	0514	2.1	64	19 Th	0456	0.8	24
	1102	8.6	262		1035	9.1	277		0609	2.5	76		0559	1.2	37		1115	7.6	232		1105	8.4	256
	1752	-0.7	-21		1727	-1.2	-37		1206	8.0	244		1205	9.0	274		1740	0.4	12		1721	-0.5	-15
	○						1840		-0.1	-3	1830		-1.0	-30					2343		8.3	253	
5 M	0033	7.0	213	20 Tu	0004	7.3	223	5 Th	0111	7.2	219	20 F	0057	8.4	256	5 Th	0003	7.1	216	20 F	0545	0.1	3
	0545	3.1	94		0521	2.6	79		0646	2.4	73		0649	0.7	21		0550	1.8	55		1157	8.4	256
	1142	8.4	256		1123	9.2	280		1242	7.7	235		1255	8.7	265		1152	7.5	229		1804	-0.2	-6
	1829	-0.6	-18		●	1810	-1.5		-46	1911	0.2		6	1912	-0.7		-21	○	1810		0.5	15	●
6 Tu	0109	7.1	216	21 W	0046	7.6	232	6 F	0141	7.2	219	21 Sa	0138	8.6	262	6 F	0032	7.3	223	21 Sa	0023	8.6	262
	0626	3.0	91		0611	2.2	67		0723	2.3	70		0739	0.5	15		0625	1.5	46		0634	-0.4	-12
	1220	8.2	250		1212	9.2	280		1318	7.4	226		1347	8.2	250		1228	7.4	226		1249	8.2	250
	1904	-0.4	-12		1853	-1.5	-46		1941	0.5	15		1955	-0.1	-3		1840	0.7	21		1847	0.2	6
7 W	0144	7.1	216	22 Th	0128	8.0	244	7 Sa	0211	7.3	223	22 Su	0221	8.6	262	7 Sa	0100	7.4	226	22 Su	0104	8.8	268
	0707	3.0	91		0702	1.9	58		0801	2.2	67		0832	0.4	12		0659	1.3	40		0722	-0.6	-18
	1257	7.9	241		1302	8.9	271		1356	7.1	216		1442	7.6	232		1304	7.2	219		1340	7.8	238
	1938	-0.2	-6		1936	-1.2	-37		2011	0.9	27		2040	0.7	21		1909	1.0	30		1931	0.7	21
8 Th	0219	7.1	216	23 F	0211	8.2	250	8 Su	0242	7.3	223	23 M	0306	8.5	259	8 Su	0128	7.4	226	23 M	0146	8.7	265
	0747	3.0	91		0755	1.7	52		0841	2.1	64		0928	0.5	15		0734	1.2	37		0812	-0.6	-18
	1335	7.5	229		1354	8.4	256		1436	6.6	201		1540	6.9	210		1342	6.9	210		1433	7.3	223
	2012	0.2	6		2019	-0.6	-18		2042	1.4	43		2127	1.5	46		1939	1.4	43		2016	1.4	43
9 F	0254	7.1	216	24 Sa	0256	8.3	253	9 M	0315	7.3	223	24 Tu	0354	8.3	253	9 M	0157	7.4	226	24 Tu	0230	8.4	256
	0830	3.0	91		0851	1.5	46		0926	2.1	64		1029	0.7	21		0812	1.1	34		0904	-0.3	-9
	1414	7.0	213		1450	7.7	235		1521	6.1	186		1647	6.2	189		1421	6.6	201		1530	6.8	207
	2046	0.7	21		2105	0.1	3		2115	2.0	61		2220	2.3	70		2009	1.8	55		2104	2.1	64
10 Sa	0329	7.1	216	25 Su	0342	8.3	253	10 Tu	0351	7.2	219	25 W	0447	7.9	241	10 Tu	0227	7.4	226	25 W	0317	8.0	244
	0916	3.0	91		0952	1.5	46		1017	2.1	64		1137	0.9	27		0852	1.1	34		0959	0.1	3
	1457	6.5	198		1551	6.9	210		1616	5.7	174		1803	5.8	177		1506	6.2	189		1632	6.3	192
	2120	1.2	37		2153	1.0	30		2153	2.5	76		●	2323	3.0		91	2042	2.3		70	2158	2.7	82
11 Su	0407	7.1	216	26 M	0432	8.3	253	11 W	0432	7.2	219	26 Th	0548	7.6	232	11 W	0302	7.3	223	26 Th	0410	7.4	226
	1008	2.9	88		1058	1.4	43		1118	1.9	58		1249	1.0	30		0939	1.2	37		1101	0.5	15
	1548	6.0	183		1700	6.2	189		1726	5.3	162		1926	5.6	171		1559	5.8	177		1742	5.9	180
	2158	1.7	52		●	2246	1.8		55	●	2241		3.0	91				2121	2.8		85	●	2303	3.2	98
12 M	0448	7.1	216	27 Tu	0526	8.2	250	12 Th	0523	7.3	223	27 F	0037	3.4	104	12 Th	0343	7.2	219	27 F	0511	6.9	210
	1108	2.8	85		1210	1.3	40		1226	1.7	52		0655	7.3	223		1035	1.2	37		1208	0.9	27
	1649	5.5	168		1820	5.8	177		1848	5.2	158		1359	0.9	27		1704	5.5	168		1857	5.8	177
	2240	2.3	70		2347	2.6	79		2346	3.4	104		2043	5.8	177		2212	3.2	98				
13 Tu	0532	7.2	219	28 W	0624	8.1	247	13 F	0622	7.4	226	28 Sa	0153	3.4	104	13 F	0436	7.1	216	28 Sa	0020	3.3	101
	1213	2.4	73		1322	1.0	30		1334	1.2	37		0801	7.3	223		1141	1.1	34		0621	6.6	201
	1803	5.2	158		1946	5.6	171		2008	5.4	165		1459	0.7	21		1820	5.4	165		1317	1.0	30
	2331	2.8	85								2142		6.1	186	●		2321	3.5	107		2006	5.9	180
14 W	0620	7.4	226	29 Th	0056	3.1	94	14 Sa	0103	3.6	110	15 Su	0216	3.4	104	14 Sa	0542	7.1	216	29 Su	0137	3.2	98
	1318	2.0	61		0725	8.0	244		0726	7.6	232		0829	8.0	244		1251	0.9	27		0732	6.4	195
	1925	5.2	158		1429	0.7	21		1435	0.6	18		1529	0.0	0		1937	5.6	171		1419	1.1	34
					2104	5.8	177		2114	5.8	177		2207	6.4	195						2102	6.1	186
15 Th	0032	3.2	98	30 F	0206	3.3	101	15 Su	0216	3.4	104	15 Su	0045	3.4	104	15 Su	0045	3.4	104	30 M	0241	2.8	85
	0712	7.6	232		0823	8.0	244		0829	8.0	244		0656	7.2	219		0836	6.5	198				
	1417	1.3	40		1526	0.3	9		1529	0.0	0		1358	0.5	15		1510	1.0	30				
	2040	5.4	165		2207	6.1	186		2207	6.4	195		2041	6.0	183		2144	6.4	195				
			31 Sa	0309	3.3	101											31 Tu	0332	2.3	70			
				0918	8.1	247												0930	6.6	201			
				1615	0.1	3												1553	1.0	30			
				2255	6.4	195												2220	6.7	204			

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, 2015

Times and Heights of High and Low Waters

April						May						June											
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		h m	ft cm		h m	ft cm
1 W	0415	1.8	55	16 Th	0352	0.6	18	1 F	0427	0.7	21	16 Sa	0430	-0.9	-27	1 M	0514	-0.7	-21	16 Tu	0549	-1.7	-52
	1017	6.8	207		1001	7.3	223		1039	6.2	189		1053	6.7	204		1146	6.1	186		1229	6.5	198
	1630	1.0	30		1605	0.3	9		1623	1.7	52		1625	1.3	40		1700	2.4	73		1741	2.3	70
	2251	7.0	213		2227	8.1	247		2235	7.3	223		2238	8.6	262		2303	7.9	241		●	2342	8.2
2 Th	0453	1.4	43	17 F	0443	-0.2	-6	2 Sa	0503	0.2	6	17 Su	0518	-1.4	-43	2 Tu	0552	-1.1	-34	17 W	0631	-1.7	-52
	1058	6.9	210		1058	7.5	229		1121	6.4	195		1146	6.9	210		1228	6.3	192		1313	6.6	201
	1704	1.0	30		1652	0.4	12		1658	1.8	55		1713	1.6	49		1740	2.5	76		1828	2.3	70
	2320	7.2	219		2309	8.5	259		2306	7.5	229		●	2321	8.7		265	○	2340		8.0	244	
3 F	0528	0.9	27	18 Sa	0531	-0.9	-27	3 Su	0538	-0.2	-6	18 M	0603	-1.7	-52	3 W	0631	-1.4	-43	18 Th	0024	8.0	244
	1137	7.0	213		1151	7.6	232		1201	6.5	198		1237	6.9	210		1311	6.4	195		0712	-1.5	-46
	1736	1.1	34		1738	0.7	21		1733	2.0	61		1800	1.8	55		1822	2.5	76		1356	6.6	201
	2349	7.4	226		●	2350	8.8		268	○	2337		7.7	235								1914	2.4	73
4 Sa O	0602	0.6	18	19 Su	0618	-1.3	-40	4 M	0614	-0.5	-15	19 Tu	0003	8.6	262	4 Th	0019	8.0	244	19 F	0106	7.5	229
	1215	7.0	213		1243	7.6	232		1242	6.5	198		0648	-1.8	-55		0711	-1.5	-46		0752	-1.2	-37
	1807	1.3	40		1822	1.1	34		1807	2.2	67		1325	6.9	210		1354	6.5	198		1437	6.5	198
													1846	2.1	64		1906	2.5	76		2000	2.5	76
5 Su	0017	7.5	229	20 M	0031	8.8	268	5 Tu	0009	7.8	238	20 W	0046	8.3	253	5 F	0100	7.8	238	20 Sa	0148	7.1	216
	0636	0.3	9		0705	-1.4	-43		0650	-0.7	-21		0732	-1.6	-49		0752	-1.5	-46		0832	-0.7	-21
	1253	6.9	210		1333	7.3	223		1323	6.5	198		1413	6.8	207		1439	6.5	198		1518	6.4	195
	1838	1.6	49		1907	1.5	46		1843	2.4	73		1933	2.4	73		1954	2.6	79		2049	2.5	76
6 M	0046	7.6	232	21 Tu	0114	8.6	262	6 W	0043	7.8	238	21 Th	0129	7.8	238	6 Sa	0146	7.6	232	21 Su	0232	6.5	198
	0711	0.2	6		0751	-1.3	-40		0728	-0.8	-24		0816	-1.2	-37		0837	-1.3	-40		0911	-0.2	-6
	1331	6.7	204		1425	7.0	213		1406	6.4	195		1501	6.6	201		1526	6.6	201		1600	6.4	195
	1909	1.9	58		1953	2.0	61		1921	2.6	79		2022	2.6	79		2049	2.5	76		2141	2.6	79
7 Tu	0116	7.6	232	22 W	0157	8.2	250	7 Th	0119	7.7	235	22 F	0214	7.3	223	7 Su	0238	7.1	216	22 M	0320	5.9	180
	0747	0.1	3		0839	-0.9	-27		0809	-0.8	-24		0901	-0.7	-21		0924	-0.9	-27		0952	0.3	9
	1413	6.5	198		1518	6.7	204		1452	6.3	192		1550	6.4	195		1616	6.7	204		1643	6.3	192
	1942	2.3	70		2043	2.5	76		2004	2.8	85		2116	2.8	85		2151	2.4	73		2239	2.5	76
8 W	0148	7.5	229	23 Th	0243	7.6	232	8 F	0200	7.5	229	23 Sa	0301	6.7	204	8 M	0337	6.6	201	23 Tu	0414	5.4	165
	0828	0.1	3		0930	-0.4	-12		0854	-0.7	-21		0948	-0.1	-3		1014	-0.4	-12		1034	0.9	27
	1458	6.2	189		1614	6.3	192		1542	6.2	189		1641	6.2	189		1708	6.8	207		1727	6.4	195
	2019	2.6	79		2138	2.9	88		2055	2.9	88		2215	2.9	88		2301	2.1	64		2342	2.3	70
9 Th	0224	7.4	226	24 F	0334	7.0	213	9 Sa	0248	7.1	216	24 Su	0355	6.0	183	9 Tu	0446	6.0	183	24 W	0517	4.9	149
	0913	0.2	6		1024	0.2	6		0944	-0.4	-12		1037	0.4	12		1109	0.1	3		1121	1.4	43
	1550	6.0	183		1715	6.1	186		1637	6.2	189		1732	6.2	189		1801	7.1	216		1812	6.4	195
	2103	3.0	91		2243	3.1	94		2157	3.0	91		2322	2.9	88		●				●		
10 F	0308	7.2	219	25 Sa	0433	6.4	195	10 Su	0347	6.7	204	25 M	0456	5.5	168	10 W	0015	1.7	52	25 Th	0046	1.9	58
	1005	0.3	9		1123	0.7	21		1039	-0.1	-3		1128	0.9	27		0604	5.6	171		0629	4.7	143
	1651	5.8	177		1818	6.0	183		1736	6.3	192		1823	6.2	189		1208	0.7	21		1212	1.9	58
	2200	3.2	98		2356	3.2	98		2311	2.9	88		●				1855	7.4	226		1857	6.6	201
11 Sa O	0404	6.9	210	26 Su	0541	5.9	180	11 M	0457	6.3	192	26 Tu	0031	2.6	79	11 Th	0126	1.0	30	26 F	0145	1.4	43
	1107	0.5	15		1224	1.0	30		1140	0.2	6		0606	5.2	158		0725	5.5	168		0743	4.6	140
	1759	5.8	177		1918	6.0	183		1834	6.5	198		1222	1.3	40		1310	1.2	37		1307	2.3	70
	2314	3.3	101								1911		6.3	192				1947	7.7		235	1942	6.8	207
12 Su	0514	6.7	204	27 M	0110	2.9	88	12 Tu	0029	2.4	73	27 W	0135	2.1	64	12 F	0230	0.2	6	27 Sa	0238	0.9	27
	1214	0.5	15		0653	5.7	174		0617	6.1	186		0718	5.0	152		0842	5.5	168		0851	4.8	146
	1906	6.0	183		1324	1.3	40		1243	0.5	15		1316	1.7	52		1410	1.6	49		1402	2.5	76
					2009	6.2	189		1930	6.9	210		1955	6.6	201		2038	8.0	244		2027	7.1	216
13 M	0037	3.0	91	28 Tu	0214	2.4	73	13 W	0141	1.7	52	28 Th	0230	1.6	49	13 Sa	0326	-0.5	-15	28 Su	0325	0.2	6
	0634	6.6	201		0802	5.7	174		0736	6.0	183		0825	5.1	155		0949	5.8	177		0950	5.1	155
	1320	0.5	15		1418	1.4	43		1344	0.7	21		1407	1.9	58		1508	1.9	58		1455	2.6	79
	2006	6.4	195		2052	6.5	198		2021	7.4	226		2036	6.8	207		2127	8.3	253		2110	7.4	226
14 Tu	0152	2.4	73	29 W	0305	1.9	58	14 Th	0244	0.8	24	29 F	0316	1.0	30	14 Su	0418	-1.1	-34	29 M	0408	-0.4	-12
	0750	6.7	204		0902	5.8	177		0849	6.2	189		0924	5.3	162		1049	6.1	186		1041	5.5	168
	1421	0.4	12		1504	1.5	46		1441	0.9	27		1454	2.1	64		1602	2.1	64		1544	2.6	79
	2057	7.0	213		2129	6.8	207		2109	7.9	241		2114	7.1	216		2213	8.4	256		2153	7.7	235
15 W	0256	1.6	49	30 Th	0349	1.3	40	15 F	0339	-0.1	-3	30 Sa	0358	0.3	9	15 M	0505	-1.5	-46	30 Tu	0450	-0.9	-27
	0859	7.0	213		0953	6.0	183		0954	6.4	195		1016	5.6	171		1141	6.3	192		1126	5.9	180
	1515	0.3	9		1545	1.6	49		1535	1.1	34		1538	2.2	67		1653	2.2	67		1631	2.6	79
	2144	7.6	232		2203	7.1	216		2154	8.3	253		2150	7.4	226		2258	8.4	256		2235	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.

Charleston, Oregon, 2015

Times and Heights of High and Low Waters

July					August					September																			
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 W ○	0530	-1.4	-43		16 Th	0613	-1.3	-40		16 Su	0031	7.2	219		1 Tu	0123	7.8	238		16 W	0131	6.6	201						
	1209	6.2	189			1252	6.5	198			0656	-0.2	-6			0729	-0.3	-9			0723	1.4	43						
	1717	2.4	73			1811	2.2	67			1323	6.8	207			1351	8.2	250			1337	7.1	216						
	2318	8.2	250			1838	1.2	37			1910	1.5	46			2004	-0.3	-9			1956	0.7	21						
2 Th	0611	-1.7	-52		17 F	0008	7.7	235		2 Su	0040	8.2	250		2 W	0217	7.3	223		17 Th	0210	6.3	192						
	1251	6.5	198			0650	-1.2	-37			0711	-1.6	-49			0813	0.4	12			0754	1.8	55						
	1804	2.3	70			1329	6.5	198			1344	7.5	229			1435	8.2	250			1407	7.1	216						
						1854	2.1	64			1929	0.9	27			2059	-0.2	-6			2035	0.8	22						
3 F	0002	8.2	250		18 Sa	0047	7.4	226		3 M	0130	7.8	238		3 Th	0315	6.7	204		18 F	0254	6.0	183						
	0652	-1.9	-58			0726	-0.9	-27			0754	-1.1	-34			0900	1.1	34			0827	2.3	70						
	1333	6.7	204			1404	6.5	198			1427	7.7	235			1523	8.0	244			1441	6.9	210						
	1852	2.1	64			1936	2.1	64			2022	0.7	21			2158	-0.1	-3			2120	0.9	27						
4 Sa	0049	8.0	244		19 Su	0127	7.0	213		4 Tu	0224	7.3	223		4 F	0420	6.1	186		19 Sa	0345	5.6	171						
	0734	-1.8	-55			0800	-0.5	-15			0838	-0.5	-15			0954	1.9	58			0906	-2.7	82						
	1416	6.9	210			1438	6.5	198			1511	7.8	238			1617	7.7	235			1521	6.8	207						
	1943	1.9	58			2018	2.1	64			2120	0.6	18			2303	0.2	6			2212	1.0	30						
5 Su	0138	7.7	235		20 M	0207	6.5	198		5 W	0323	6.6	201		20 Th	0312	5.7	174		5 Sa	0447	5.4	165						
	0817	-1.5	-46			0835	0.0	0			0903	1.6	49			1056	2.5	76			0955	3.1	94						
	1500	7.1	216			1514	6.5	198			1532	6.7	204			1718	7.3	223			1611	6.7	204						
	2038	1.7	52			2104	2.0	61			2159	1.4	43								2314	1.0	30						
6 M	0231	7.2	219		21 Tu	0250	6.0	183		6 Th	0429	5.9	180		21 F	0405	5.3	162		6 Su	0559	5.3	162						
	0902	-1.0	-30			0909	0.5	15			1016	1.1	34			0940	2.1	64			1102	3.4	104						
	1546	7.2	219			1550	6.5	198			1652	7.7	235			1613	6.6	201			1716	6.6	201						
	2138	1.6	49			2153	2.0	61			2331	0.5	15			2256	1.4	43											
7 Tu	0330	6.5	198		22 W	0339	5.5	168		7 F	0544	5.4	165		22 Sa	0510	4.9	149		7 M	0125	0.4	12		22 Tu	0022	0.9	27	
	0950	-0.3	-9			0946	1.1	34			1115	1.8	55			1027	2.6	79			0810	5.7	174			0712	5.4	165	
	1635	7.4	226			1629	6.5	198			1749	7.6	232			1702	6.6	201			1328	2.9	88			1224	3.3	101	
	2245	1.3	40			2248	1.9	58								1934	7.0	213			1934	7.0	213			1829	6.6	201	
8 W ●	0437	5.9	180		23 Th ●	0436	5.0	152		8 Sa	0043	0.3	9		23 Su	0001	1.3	40		8 Tu	0229	0.3	9		23 W	0128	0.6	18	
	1041	0.4	12			1026	1.7	52			0707	5.2	158			0626	4.8	146			0912	5.9	180			0814	5.8	177	
	1727	7.5	229			1712	6.5	198			1222	2.4	73			1128	3.0	91			1436	2.7	82			1340	3.0	91	
	2356	1.0	30			2350	1.7	52			1851	7.5	229			1800	6.6	201			2037	7.0	213			1941	6.9	210	
9 Th	0554	5.4	165		24 F	0544	4.7	143		9 Su	0153	0.1	3		24 M	0108	0.9	27		9 W	0323	0.2	6		24 Th	0227	0.3	9	
	1139	1.2	37			1114	2.2	67			0827	5.3	162			0744	4.9	149			1000	6.2	189			0905	6.4	195	
	1821	7.6	232			1759	6.6	201			1334	2.7	82			1243	3.1	94			1532	2.3	70			1444	2.3	70	
						1953	7.5	229			1903	6.8	207			1903	6.8	207			2132	7.1	216			2046	7.3	223	
10 F	0107	0.5	15		25 Sa	0054	1.4	43		10 M	0255	-0.2	-6		25 Tu	0210	0.5	15		10 Th	0407	0.1	3		25 F	0319	-0.1	-3	
	0716	5.2	158			0701	4.6	140			0934	5.6	171			0849	5.3	162			1039	6.5	198			0950	7.0	213	
	1242	1.8	55			1211	2.6	79			1442	2.7	82			1355	3.0	91			1618	1.9	58			1539	1.5	46	
	1917	7.7	235			1850	6.8	207			2051	7.5	229			2005	7.2	219			2219	7.1	216			2144	7.7	235	
11 Sa	0213	0.0	0		26 Su	0155	0.9	27		11 Tu	0348	-0.5	-15		26 W	0304	-0.1	-3		11 F	0446	0.1	3		26 Sa	0407	-0.3	-9	
	0835	5.2	158			0817	4.7	143			1027	5.9	180			0942	5.8	177			1112	6.7	204			1032	7.6	232	
	1347	2.2	67			1316	2.9	88			1540	2.5	76			1458	2.6	79			1658	1.6	49			1630	0.6	18	
	2013	7.9	241			1943	7.0	213			2144	7.6	232			2104	7.6	232			2301	7.2	219			2239	7.9	241	
12 Su	0312	-0.6	-18		27 M	0249	0.3	9		12 W	0433	-0.6	-18		27 Th	0353	-0.6	-18		12 Sa	0520	0.2	6		27 Su	0452	-0.3	-9	
	0945	5.5	168			0921	5.0	152			1110	6.2	189			1027	6.3	192			1142	6.9	210			1112	8.1	247	
	1450	2.4	73			1419	2.9	88			1630	2.3	70			1553	2.0	61			1735	1.2	37			1719	-0.1	-3	
	2106	8.0	244			2035	7.3	223			2231	7.6	232			2158	7.9	241			2339	7.2	219			2332	8.1	247	
13 M	0405	-1.0	-30		28 Tu	0338	-0.3	-9		13 Th	0514	-0.7	-21		28 F	0438	-1.0	-30		13 Su	0552	0.4	12		28 M	0535	-0.1	-3	
	1042	5.8	177			1014	5.5	168			1148	6.4	195			1108	6.9	210			1211	7.1	216			1153	8.5	259	
	1548	2.4	73			1517	2.7	82			1714	2.0	61			1644	1.4	43			1810	1.0	30			1807	-0.7	-21	
	2156	8.0	244			2125	7.7	235			2314	7.5	229			2250	8.2	250											
14 Tu	0451	-1.2	-37		29 W	0423	-0.9	-27		14 F	0550	-0.7	-21		29 Sa	0521	-1.2	-37		14 M	0016	7.1	216		29 Tu	0024	8.0	244	
	1131	6.1	186			1100	5.9	180			1221	6.6	201			1148	7.4	226			0623	0.7	21			0619	0.2	6	
	1640	2.4	73			1609	2.4	73			1754	1.8	55			1733	0.8	24			1239	7.1	216			1234	8.8	268	
	2243	8.0	244			2214	8.0	244			2353	7.4	226			2341	8.3	253			1844	0.8	24			1855	-1.0	-30	
15 W ●	0534	-1.3	-40		30 Th	0506	-1.4	-43		15 Sa	0624	-0.5	-15		30 Su	0604	-1.1	-34		15 Tu	0053	6.9	210		30 W	0116	7.8	238	
	1213	6.3	192			1142	6.4	195			1253	6.7	204			1228	7.8	238			0653	1.0	30			0703	0.8	24	
	1727	2.3	70			1659	2.0	61			1832	1.6	49			1822	0.2	6			1308	7.2	219			1316	8.8	268	
	2326	7.9	241			2302	8.3	253													1919	0.7	21			1945	-1.1	-34	
				31 F ○	0548	-1.7	-52						31 M	0031	8.2	250													
					1223	6.8	207								0646	-0.8	-24												
					1748	1.6	49								1309	8.1	247												
					2351	8.3	253								1912	-0.1	-3												

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, 2015

Times and Heights of High and Low Waters

October						November						December																							
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											
1 Th	0210	7.4	226			16 F	0159	6.5	198			1 Su	0353	6.8	207			16 M	0320	6.6	201			1 Tu	0420	7.0	213			16 W	0346	7.2	219		
	0749	1.4	43				0724	2.6	79				0916	3.1	94				0830	3.5	107				0955	3.3	101				0918	3.1	94		
	1401	8.5	259				1326	7.5	229				1511	7.5	229				1419	7.4	226				1535	6.8	207				1502	7.2	219		
	2037	-0.8	-24				2008	0.2	6				2201	0.0	0				2116	0.0	0				2216	0.7	21				2141	0.2	6		
2 F	0307	6.9	210			17 Sa	0243	6.3	192			2 M	0454	6.6	201			17 Tu	0412	6.6	201			2 W	0512	6.9	210			17 Th	0434	7.4	226		
	0838	2.0	61				0800	2.9	88				1022	3.4	104				0928	3.5	107				1102	3.3	101				1024	2.9	88		
	1449	8.1	247				1400	7.3	223				1610	6.8	207				1513	7.0	213				1637	6.1	186				1607	6.7	204		
	2132	-0.4	-12				2051	0.3	9				2259	0.6	18				2207	0.3	9				2307	1.3	40				2232	0.7	21		
3 Sa	0409	6.5	198			18 Su	0333	6.1	186			3 Tu	0557	6.5	198			18 W	0507	6.7	204			3 Th	0604	6.9	210			18 F	0526	7.6	232		
	0934	2.6	79				0843	3.3	101				1137	3.4	104				1038	3.4	104				1213	3.1	94				1137	2.5	76		
	1543	7.6	232				1442	7.1	216				1719	6.3	192				1620	6.6	201				1747	5.7	174				1722	6.2	189		
	2233	0.1	3				2140	0.5	15				0001	1.1	34				2304	0.7	21				0001	1.8	55				2329	1.3	40		
4 Su	0518	6.1	186			19 M	0430	5.9	180			4 W	0657	6.6	201			19 Th	0603	6.9	210			4 F	0653	7.0	213			19 Sa	0619	7.9	241		
	1041	3.1	94				0937	3.5	107				1254	3.1	94				1156	3.0	91				1320	2.7	82				1250	1.8	55		
	1645	7.0	213				1534	6.8	207				1834	6.0	183				1739	6.3	192				1901	5.5	168				1846	5.9	180		
	2339	0.5	15				2237	0.7	21				0101	1.4	43				0005	1.0	30				0056	2.3	70				0030	1.9	58		
5 M	0631	6.0	183			20 Tu	0534	5.9	180			5 Th	0749	6.8	207			20 F	0658	7.3	223			5 Sa	0739	7.2	219			20 Su	0713	8.3	253		
	1159	3.2	98				1049	3.6	110				1400	2.6	79				1310	2.3	70				1418	2.1	64				1358	1.1	34		
	1756	6.6	201				1642	6.6	201				1945	5.9	180				1901	6.2	189				2013	5.5	168				2007	6.0	183		
							2341	0.8	24				0156	1.7	52				0107	1.3	40				0149	2.6	79				0134	2.3	70		
6 Tu	0048	0.8	24			21 W	0639	6.1	186			6 F	0834	7.0	213			21 Sa	0749	7.8	238			6 Su	0820	7.5	229			21 M	0806	8.6	262		
	0740	6.1	186				1211	3.3	101				1453	2.1	64				1415	1.4	43				1506	1.5	46				1458	0.3	9		
	1317	3.1	94				1801	6.5	198				2048	6.0	183				2017	6.4	195				2114	5.7	174				2120	6.2	189		
	1910	6.4	195										0244	1.9	58				0207	1.5	46				0238	2.8	85				0236	2.6	79		
7 W	0152	0.9	27			22 Th	0737	6.6	201			7 Sa	0911	7.3	223			22 Su	0838	8.4	256			7 M	0859	7.7	235			22 Tu	0858	8.9	271		
	0836	6.4	195				1326	2.7	82				1537	1.5	46				1512	0.5	15				1548	0.9	27				1552	-0.5	-15		
	1424	2.6	79				1919	6.6	201				2141	6.2	189				2125	6.7	204				2207	6.0	183				2223	6.6	201		
	2017	6.4	195										0327	2.0	61				0302	1.7	52				0323	3.0	91				0334	2.7	82		
8 Th	0246	1.0	30			23 F	0827	7.1	216			8 Su	0945	7.5	229			23 M	0924	8.8	268			8 Tu	0936	8.0	244			23 W	0947	9.2	280		
	0921	6.6	201				1430	1.9	58				1604	-0.4	-12				1604	-0.4	-12				1626	0.4	12				1641	-1.0	-30		
	1517	2.1	64				2030	6.8	207				2226	7.0	213				2226	7.0	213				2253	6.3	192				2317	7.0	213		
	2114	6.5	198										0405	2.2	67				0354	1.9	58				0406	3.1	94				0428	2.8	85		
9 F	0331	1.0	30			24 Sa	0913	7.7	235			9 M	1017	7.8	238			24 Tu	1009	9.2	280			9 W	1012	8.2	250			24 Th	1035	9.3	283		
	0958	6.9	210				1526	0.9	27				1651	0.5	15				1652	-1.1	-34				1703	0.0	0				1727	-1.3	-40		
	1600	1.6	49				2133	7.2	219				2310	6.6	201				2321	7.3	223				2335	6.5	198								
	2203	6.7	204										0441	2.3	70				0444	2.1	64				0446	3.1	94				0006	7.2	219		
10 Sa	0410	1.1	34			25 Su	0956	8.3	253			10 Tu	1049	8.0	244			25 W	1054	9.4	287			10 Th	1048	8.4	256			25 F	0518	2.8	85		
	1030	7.2	219				1617	0.0	0				1739	-1.5	-46				1739	-0.4	-12				1121	9.2	280				1121	9.2	280		
	1638	1.2	37				2231	7.5	229				2350	6.1	3								1811		-1.4	-43			1811		-1.4	-43			
	2245	6.8	207										0516	2.5	76				0013	7.4	226				0015	6.7	204				0051	7.4	226		
11 Su	0445	1.2	37			26 M	1038	8.8	268			11 W	1119	8.1	247			26 Th	0533	2.3	70			11 F	0525	3.2	98			26 Sa	0607	2.8	85		
	1100	7.4	226				1705	-0.8	-24				1138	9.4	287				1124	8.5	259				1124	8.5	259				1205	9.0	274		
	1714	0.8	24				2325	7.7	235				1825	-1.6	-49				1815	-0.7	-21				1815	-0.7	-21				1853	-1.2	-37		
	2325	6.9	210										0029	6.8	207				0102	7.5	229				0055	6.9	210				0135	7.4	226		
12 M	0518	1.4	43			27 Tu	1120	9.1	277			12 Th	0550	2.7	82			27 F	0621	2.5	76			12 Sa	0604	3.2	98			27 Su	0654	2.8	85		
	1129	7.5	229				1752	-1.3	-40				1222	9.1	277				1222	9.1	277				1201	8.5	259				1249	8.6	262		
	1747	0.5	15										1834	-0.3	-9				1910	-1.5	-46				1852	-0.8	-24				1934	-0.9	-27		
													0108																						

Astoria (Tongue Pt.), Oregon, 2015

Times and Heights of High and Low Waters

January						February						March																							
Time			Height			Time			Height			Time			Height			Time			Height														
1 Th	h	m	ft	cm		16 F	h	m	ft	cm		1 Su	h	m	ft	cm		16 M	h	m	ft	cm		1 Su	h	m	ft	cm		16 M	h	m	ft	cm	
	0346	2.5	76		0305		3.3	101		0520	3.0		91		0446	2.9	88			0409	3.0	91			0326	2.9	88								
	1001	9.5	290		0915		8.9	271		1119	9.1		277		1042	9.5	290			1010	8.3	253			0921	8.5	259								
	1705	-0.1	-3		1631		0.6	18		1820	-0.1		-3		1745	-0.4	-12			1710	0.5	15			1622	0.3	9								
	2316	7.4	226		2256		6.9	210												2325	7.7	235			2249	7.7	235								
2 F	0442	2.7	82		17 Sa	0408	3.3	101		2 M	0037	8.1	247		17 Tu	0009	8.1	247		2 M	0504	2.7	82		17 Tu	0431	2.3	70							
	1050	9.6	293			1008	9.3	283			0608	2.8	85			0544	2.4	73			1102	8.5	259			1027	8.9	271							
	1754	-0.4	-12			1722	0.0	0			1203	9.2	280			1138	9.9	302			1753	0.3	9			1715	-0.1	-3							
						2349	7.4	226			1859	-0.1	-3			1832	-0.7	-21								2336	8.4	256							
3 Sa	0009	7.8	238		18 Su	0505	3.2	98		3 Tu	0117	8.3	253		18 W	0053	8.7	265		3 Tu	0007	8.1	247		18 W	0529	1.6	49							
	0534	2.8	85			1100	9.8	299			0652	2.7	82			0637	1.8	55			0551	2.4	73			1127	9.3	283							
	1135	9.6	293			1810	-0.5	-15			1244	9.1	277			1232	10.1	308			1148	8.6	262			1803	-0.2	-6							
	1839	-0.6	-18								1934	0.0	0			1916	-0.8	-24			1830	0.4	12												
4 Su	0057	8.1	247		19 M	0037	7.9	241		4 W	0153	8.5	259		19 Th	0136	9.2	280		4 W	0044	8.4	256		19 Th	0020	9.0	274							
	0623	2.9	88			0559	2.9	88			0733	2.6	79			0728	1.3	40			0634	2.1	64			0623	0.9	27							
	1217	9.6	293			1151	10.1	308			1323	9.0	274			1324	10.2	311			1230	8.7	265			1222	9.6	293							
	1920	-0.5	-15			1856	-0.9	-27			2005	0.2	6			1959	-0.7	-21			1903	0.5	15			1848	-0.2	-6							
5 M	0140	8.2	250		20 Tu	0122	8.4	256		5 Th	0227	8.5	259		20 F	0217	9.5	290		5 Th	0118	8.6	262		20 F	0102	9.5	290							
	0708	3.0	91			0651	2.6	79			0811	2.4	73			0819	0.9	27			0713	1.8	55			0713	0.3	9							
	1257	9.4	287			1241	10.3	314			1400	8.8	268			1415	9.9	302			1309	8.7	265			1315	9.6	293							
	1957	-0.4	-12			1939	-1.1	-34			2035	0.4	12			2041	-0.4	-12			1934	0.7	21			1932	0.0	0							
6 Tu	0221	8.3	253		21 W	0205	8.8	268		6 F	0257	8.6	262		21 Sa	0257	9.8	299		6 F	0148	8.7	265		21 Sa	0142	9.9	302							
	0750	3.0	91			0742	2.2	67			0848	2.3	70			0909	0.6	18			0750	1.6	49			0803	-0.1	-3							
	1336	9.2	280			1331	10.3	314			1436	8.6	262			1507	9.5	290			1347	8.6	262			1407	9.5	290							
	2032	-0.2	-6			2022	-1.1	-34			2103	0.6	18			2123	0.1	3			2004	0.9	27			2015	0.4	12							
7 W	0258	8.3	253		22 Th	0248	9.1	277		7 Sa	0325	8.6	262		22 Su	0338	9.8	299		7 Sa	0216	8.8	268		22 Su	0223	10.0	305							
	0831	3.0	91			0833	1.9	58			0924	2.1	64			0959	0.5	15			0825	1.4	43			0851	-0.3	-9							
	1413	8.9	271			1422	10.1	308			1512	8.2	250			1600	8.9	271			1424	8.4	256			1459	9.1	277							
	2104	0.0	0			2104	-0.9	-27			2131	0.9	27			2205	0.7	21			2032	1.2	37			2057	0.9	27							
8 Th	0334	8.3	253		23 F	0329	9.3	283		8 Su	0352	8.6	262		23 M	0420	9.7	296		8 Su	0241	8.8	268		23 M	0303	10.0	305							
	0910	2.9	88			0924	1.6	49			1000	2.0	61			1053	0.6	18			0859	1.3	40			0940	-0.3	-9							
	1450	8.6	262			1514	9.6	293			1551	7.8	238			1657	8.1	247			1500	8.2	250			1551	8.6	262							
	2134	0.3	9			2147	-0.5	-15			2200	1.3	40			2250	1.4	43			2100	1.5	46			2141	1.4	43							
9 F	0407	8.3	253		24 Sa	0412	9.4	287		9 M	0419	8.6	262		24 Tu	0506	9.4	287		9 M	0306	8.9	271		24 Tu	0345	9.7	296							
	0951	2.8	85			1017	1.4	43			1040	2.0	61			1151	0.8	24			0932	1.2	37			1030	0.0	0							
	1528	8.1	247			1608	8.9	271			1635	7.2	219			1801	7.4	226			1539	7.8	238			1646	8.1	247							
	2204	0.7	21			2230	0.1	3			2233	1.8	55			2341	2.2	67			2131	1.8	55			2227	2.0	61							
10 Sa	0440	8.2	250		25 Su	0456	9.4	287		10 Tu	0451	8.5	259		25 W	0557	8.9	271		10 Tu	0333	8.9	271		25 W	0429	9.2	280							
	1033	2.7	82			1115	1.3	40			1127	1.9	58			1257	1.0	30			1009	1.1	34			1123	0.3	9							
	1610	7.6	232			1708	8.1	247			1730	6.7	204			1912	6.9	210			1621	7.4	226			1745	7.5	229							
	2236	1.1	34			2317	0.8	24			2314	2.3	70								2204	2.2	67			2318	2.6	79							
11 Su	0514	8.1	247		26 M	0545	9.3	283		11 W	0531	8.5	259		26 Th	0042	2.8	85		11 W	0404	8.8	268		26 Th	0519	8.5	259							
	1120	2.7	82			1218	1.3	40			1226	1.9	58			0657	8.5	259			1051	1.1	34			1223	0.7	21							
	1659	7.0	213			1815	7.3	223			1842	6.2	189			1409	1.1	34			1713	6.9	210			1851	7.1	216							
	2313	1.5	46													2027	6.8	207			2245	2.6	79												
12 M	0551	8.1	247		27 Tu	0009	1.6	49		12 Th	0006	2.8	85		27 F	0152	3.2	98		12 Th	0445	8.7	265		27 F	0019	3.0	91							
	1216	2.5	76			0638	9.1	277			0622	8.4	256			0804	8.2	250			1144	1.2	37			0618	7.9	241							
	1802	6.4	195			1327	1.2	37			1336	1.7	52			1519	0.9	27			1819	6.5	198			1329	1.0	30							
	2357	2.1	64			1931	6.8	207			2006	6.1	186			2137	7.0	213			2338	3.0	91			2000	6.9	210							
13 Tu	0635	8.1	247		28 W	0109	2.3	70		13 F	0113	3.3	101		28 Sa	0304	3.2	98		13 F	0538	8.4	256		28 Sa	0129	3.2	98							
	1320	2.3	70			0736	8.9	271			0726	8.5	259			0911	8.2	250			1252	1.2	37			0729	7.5	229							
	1921	6.1	186			1440	1.0	30			1451	1.3	40			1620	0.7	21			1937	6.3	192			1438	1.1	34							
						2048	6.7	204			2124	6.4	195			2236	7.3	223								2105	7.1	216							
14 W	0053	2.6	79		29 Th	0216	2.8	85		14 Sa	0230	3.5	107							14 Sa	0048	3.3	101		29 Su	0242	3.1	94							
	0726	8.3	253			0837	8.9	271			0835	8.7	265								0646	8.2	250			0841	7.4	226							
	1429	1.9	58			1548	0.6	18			1557	0.7	21								1409	1.0	30			1539	1.0	30							
	2043	6.1	186			2200	6.9	210			2228	6.9	210								2052	6.6	201			2201	7.4	226							
15 Th	0157	3.0	91		30 F	0324	3.0	91		15 Su	0343	3.3	101							15 Su	0210	3.3	101		30 M	0348	2.7	82							
	0820	8.5	259			0936	8.9	271			0941	9.1	277								0805	8.2	250			0945	7.5	229							
	1534	1.3	40			1647	0.3	9			1654	0.1	3								1521	0.7	21			1630	0.9	27							
	2155	6.4	195			2301	7.3	223			2322	7.5	229								2156	7.1	216			2248	7.8	238							
					31 Sa	0425	3.1	94														31 Tu	0443	2.2	67										
				1030		9.0	274														1040		7.7	235											
				1737		0.0	0														1713		0.9	27											
				2352		7.7	235														2329		8.1	247											

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.

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, 2015

Times and Heights of High and Low Waters

July						August						September																
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				
1 W ○	0658	-1.2	-37		16 Th	0042	8.8	268		1 Sa	0109	9.3	283		16 Su	0149	8.1	247		1 Tu	0243	8.8	268		16 W	0250	7.5	229
	1327	7.2	219			0742	-1.2	-37			0759	-1.6	-49			0821	-0.3	-9			0856	-0.5	-15			0845	1.2	37
	1848	2.4	73			1403	7.6	232			1423	8.1	247			1439	7.8	238			1508	9.2	280			1447	8.2	250
						1935	2.0	61			2009	1.1	34			2034	1.3	40			2132	-0.4	-12			2116	0.5	15
2 Th	0034	9.2	280		17 F	0124	8.6	262		2 Su	0159	9.2	280		17 M	0227	7.8	238		2 W	0336	8.3	253		17 Th	0328	7.2	219
	0740	-1.5	-46			0819	-1.0	-30			0840	-1.5	-46			0850	0.0	0			0939	0.1	3			0915	1.5	46
	1410	7.5	229			1442	7.7	235			1503	8.4	256			1508	7.8	238			1550	9.1	277			1512	8.2	250
	1936	2.2	67			2018	2.0	61			2059	0.7	21			2111	1.2	37			2224	-0.4	-12			2151	0.5	15
3 F	0119	9.3	283		18 Sa	0205	8.3	253		3 M	0250	8.9	271		18 Tu	0304	7.5	229		3 Th	0432	7.7	235		18 F	0409	6.8	207
	0821	-1.6	-49			0853	-0.8	-24			0922	-1.2	-37			0918	0.4	12			1025	0.7	21			0948	1.9	58
	1452	7.7	235			1518	7.7	235			1543	8.6	262			1535	7.8	238			1635	8.8	268			1542	8.1	247
	2024	2.0	61			2059	1.9	58			2150	0.5	15			2147	1.1	34			2321	-0.2	-6			2231	0.5	15
4 Sa	0206	9.2	280		19 Su	0244	7.9	241		4 Tu	0343	8.3	253		19 W	0343	7.0	213		4 F	0534	7.0	213		19 Sa	0458	6.3	192
	0902	-1.6	-49			0924	-0.4	-12			1004	-0.7	-21			0948	0.8	24			1116	1.4	43			1027	2.3	70
	1534	7.9	241			1552	7.6	232			1626	8.7	265			1602	7.8	238			1726	8.4	256			1620	7.9	241
	2113	1.7	52			2140	1.8	55			2244	0.3	9			2225	1.1	34								2319	0.6	18
5 Su	0256	8.9	271		20 M	0323	7.5	229		5 W	0440	7.6	232		20 Th	0426	6.5	198		5 Sa	0025	0.0	0		20 Su	0600	6.0	183
	0944	-1.4	-43			0955	-0.1	-3			1049	-0.1	-3			1020	1.2	37			0644	6.5	198			1118	2.7	82
	1616	8.1	247			1625	7.5	229			1712	8.6	262			1632	7.7	235			1216	2.0	61			1709	7.6	232
	2205	1.4	43			2221	1.7	52			2344	0.3	9			2309	1.1	34			1827	7.9	241					
6 M	0348	8.3	253		21 Tu	0405	6.9	210		6 Th	0544	6.9	210		21 F	0518	6.0	183		6 Su	0136	0.2	6		21 M	0022	0.7	21
	1027	-1.1	-34			1027	0.3	9			1139	0.7	21			1059	1.7	52			0758	6.3	192			0714	5.8	177
	1700	8.2	250			1658	7.5	229			1803	8.4	256			1710	7.6	232			1326	2.4	73			1226	2.9	88
	2302	1.2	37			2306	1.7	52									1935	7.6	232			1935	7.6	232			1815	7.4	226
7 Tu	0446	7.7	235		22 W	0452	6.4	195		7 F	0051	0.3	9		22 Sa	0003	1.1	34		7 M	0248	0.1	3		22 Tu	0137	0.7	21
	1113	-0.5	-15			1101	0.8	24			0657	6.3	192			0625	5.6	171			0909	6.4	195			0828	6.0	183
	1747	8.2	250			1733	7.4	226			1237	1.4	43			1149	2.2	67			1440	2.4	73			1347	2.9	88
						2357	1.6	49			1901	8.2	250			1758	7.4	226			2045	7.5	229			1935	7.3	223
8 W ○	0004	1.0	30		23 Th	0550	5.8	177		8 Sa	0203	0.1	3		23 Su	0109	1.0	30		8 Tu	0352	-0.1	-3		23 W	0250	0.4	12
	0553	6.9	210			1143	1.3	40			0814	6.0	183			0744	5.4	165			1010	6.8	207			0931	6.5	198
	1205	0.1	3			1814	7.4	226			1343	1.9	58			1253	2.6	79			1547	2.2	67			1503	2.5	76
	1839	8.3	253								2003	8.1	247			1859	7.4	226			2149	7.6	232			2054	7.6	232
9 Th	0113	0.7	21		24 F	0057	1.5	46		9 Su	0314	-0.2	-6		24 M	0223	0.7	21		9 W	0446	-0.3	-9		24 Th	0352	0.0	0
	0708	6.3	192			0702	5.4	165			0928	6.2	189			0900	5.6	171			1101	7.2	219			1023	7.1	216
	1302	0.8	24			1233	1.8	55			1453	2.1	64			1409	2.8	85			1645	1.8	55			1607	1.8	55
	1935	8.4	256			1902	7.4	226			2106	8.1	247			2009	7.5	229			2244	7.8	238			2201	8.0	244
10 F	0224	0.3	9		25 Sa	0203	1.2	37		10 M	0417	-0.5	-15		25 Tu	0330	0.3	9		10 Th	0530	-0.3	-9		25 F	0445	-0.3	-9
	0826	6.1	186			0820	5.3	162			1032	6.5	198			1004	6.0	183			1144	7.6	232			1108	7.8	238
	1405	1.4	43			1335	2.3	70			1559	2.1	64			1521	2.6	79			1734	1.4	43			1704	1.0	30
	2032	8.5	259			1956	7.5	229			2205	8.2	250			2117	7.9	241			2332	8.0	244			2301	8.5	259
11 Sa	0333	-0.2	-6		26 Su	0309	0.7	21		11 Tu	0511	-0.8	-24		26 W	0428	-0.3	-9		11 F	0609	-0.3	-9		26 Sa	0533	-0.5	-15
	0940	6.2	189			0932	5.5	168			1126	6.9	210			1058	6.6	201			1222	7.9	241			1151	8.4	256
	1510	1.7	52			1442	2.5	76			1657	2.0	61			1624	2.2	67			1817	1.1	34			1757	0.3	9
	2128	8.7	265			2052	7.8	238			2258	8.3	253			2218	8.3	253								2357	8.8	268
12 Su	0434	-0.7	-21		27 M	0409	0.2	6		12 W	0558	-0.9	-27		27 Th	0519	-0.7	-21		12 Sa	0015	8.0	244		27 Su	0619	-0.5	-15
	1046	6.5	198			1035	5.9	180			1213	7.3	223			1144	7.2	219			0644	-0.1	-3			1232	9.0	274
	1612	2.0	61			1546	2.6	79			1748	1.8	55			1720	1.7	52			1256	8.0	244			1847	-0.3	-9
	2221	8.8	268			2147	8.1	247			2345	8.4	256			2315	8.8	268			1857	0.9	27					
13 M	0529	-1.1	-34		28 Tu	0501	-0.4	-12		13 Th	0639	-0.9	-27		28 F	0605	-1.1	-34		13 Su	0056	8.0	244		28 M	0050	9.0	274
	1143	6.9	210			1128	6.4	195			1255	7.6	232			1227	7.8	238			0716	0.2	6			0703	-0.3	-9
	1709	2.1	64			1644	2.5	76			1834	1.6	49			1813	1.1	34			1328	8.2	250			1312	9.4	287
	2311	8.9	271			2239	8.5	259													1934	0.7	21			1936	-0.8	-24
14 Tu	0617	-1.3	-40		29 W	0549	-0.9	-27		14 F	0029	8.4	256		29 Sa	0008	9.1	277		14 M	0135	7.9	241		29 Tu	0142	8.9	271
	1234	7.2	219			1216	6.9	210			0716	-0.8	-24			0649	-1.2	-37			0746	0.5	15			0746	0.1	3
	1801	2.1	64			1738	2.2	67			1333	7.7	235			1308	8.3	253			1356	8.2	250			1352	9.6	293
	2358	8.9	271			2330	8.9	271			1917	1.5	46			1903	0.5	15			2009	0.6	18			2024	-1.0	-30
15 W ●	0701	-1.3	-40		30 Th	0634	-1.3	-40		15 Sa	0110	8.3	253		30 Su	0100	9.2	280		15 Tu	0212	7.8	238		30 W	0234	8.7	265
	1320	7.5	229			1300	7.4	226			0750	-0.6	-18			0732	-1.2	-37			0816	0.8	24			0830	0.5	15
	1850	2.1	64			1829	1.9	58			1407	7.8	238			1348	8.7	265			1422	8.2	250			1433	9.7	296
											1957	1.4	43			1952	0.1	3			2043	0.5	15			2113	-1.0	-30
				31 F ○	0020	9.2	280						31 M	0151	9.1	277												
					0717	-1.5	-46								0814	-0.9	-27											
					1342	7.8	238								1428	9.0	274											
					1919	1.5	46																					

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Toke Point, Willapa Bay, Washington, 2015

Times and Heights of High and Low Waters

January						February						March																
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				
1 Th	0328	3.3	101		16 F	0242	3.9	119		1 Su	0507	3.6	110		16 M	0426	3.4	104		1 Su	0358	3.7	113		16 M	0304	3.5	107
	0942	10.1	308			0900	9.4	287			1103	9.6	293			1025	9.9	302			0956	8.7	265			0904	8.8	268
	1645	0.2	6			1609	0.9	27			1759	0.0	0			1721	-0.5	-15			1651	0.8	24			1559	0.3	9
	2307	7.6	232			2232	7.1	216								2346	8.3	253			2319	7.6	232			2226	7.8	238
2 F	0427	3.5	107		17 Sa	0346	3.9	119		2 M	0027	8.1	247		17 Tu	0522	2.7	82		2 M	0453	3.3	101		17 Tu	0411	2.7	82
	1032	10.2	311			0953	9.9	302			0554	3.3	101			1120	10.3	314			1048	8.8	268			1009	9.2	280
	1733	-0.2	-6			1700	0.1	3			1147	9.6	293			1808	-1.0	-30			1733	0.6	18			1652	-0.2	-6
						2326	7.7	235			1837	-0.1	-3								2356	8.0	244			2314	8.5	259
3 Sa	0000	7.9	241		18 Su	0444	3.7	113		3 Tu	0102	8.3	253		18 W	0030	8.9	271		3 Tu	0539	2.8	85		18 W	0509	1.8	55
	0520	3.5	107			1044	10.3	314			0636	3.1	94			0615	2.0	61			1133	8.9	271			1108	9.6	293
	1118	10.2	311			1746	-0.7	-21			1228	9.6	293			1212	10.6	323			1810	0.4	12			1741	-0.5	-15
	1816	-0.5	-15						1911		-0.1	-3		●		1852	-1.3	-40								2357	9.2	280
4 Su	0045	8.2	250		19 M	0013	8.2	250		4 W	0135	8.5	259		19 Th	0111	9.5	290		4 W	0029	8.3	253		19 Th	0601	0.8	24
	0607	3.4	104			0538	3.3	101			0714	2.8	85			0705	1.3	40			0619	2.3	70			1202	9.9	302
	1200	10.2	311			1133	10.7	326			1305	9.5	290			1303	10.6	323			1214	9.0	274			1826	-0.6	-18
	1856	-0.6	-18			1831	-1.3	-40			1943	0.0	0			1935	-1.2	-37			1843	0.4	12					
5 M	0124	8.4	256		20 Tu	0058	8.7	265		5 Th	0205	8.6	262		20 F	0152	9.9	302		5 Th	0059	8.5	259		20 F	0039	9.8	299
	0650	3.4	104			0629	2.8	85			0751	2.6	79			0754	0.8	24			0655	2.0	61			0651	0.0	0
	1240	10.0	305			1222	10.9	332			1341	9.2	280			1353	10.4	317			1252	9.0	274			1254	9.9	302
	1932	-0.5	-15			●	1915	-1.6	-49			2014	0.2	6			2018	-0.8	-24			○	1914	0.5		15		●	1910	-0.4	-12
6 Tu	0201	8.5	259		21 W	0140	9.1	277		6 F	0235	8.7	265		21 Sa	0234	10.2	311		6 F	0128	8.7	265		21 Sa	0120	10.2	311
	0731	3.3	101			0718	2.4	73			0827	2.5	76			0844	0.5	15			0730	1.7	52			0739	-0.5	-15
	1318	9.8	299			1311	10.9	332			1417	8.9	271			1444	9.8	299			1328	8.9	271			1345	9.8	299
	2007	-0.4	-12			1958	-1.6	-49			2044	0.6	18			2100	-0.1	-3			1944	0.8	24			1953	0.0	0
7 W	0236	8.5	259		22 Th	0223	9.5	290		7 Sa	0305	8.8	268		22 Su	0316	10.2	311		7 Sa	0156	8.9	271		22 Su	0200	10.4	317
	0811	3.3	101			0808	2.0	61			0904	2.4	73			0935	0.4	12			0804	1.4	43			0827	-0.8	-24
	1356	9.4	287			1400	10.6	323			1454	8.5	259			1537	9.1	277			1404	8.6	262			1435	9.4	287
	2041	-0.1	-3			2041	-1.3	-40			2114	1.0	30			2144	0.7	21			2014	1.1	34			2036	0.7	21
8 Th	0311	8.5	259		23 F	0305	9.7	296		8 Su	0336	8.8	268		23 M	0400	10.1	308		8 Su	0224	8.9	271		23 M	0242	10.3	314
	0850	3.3	101			0900	1.8	55			0943	2.4	73			1029	0.6	18			0839	1.3	40			0915	-0.7	-21
	1433	9.0	274			1452	10.0	305			1534	8.0	244			1634	8.3	253			1440	8.3	253			1527	8.8	268
	2114	0.3	9			2124	-0.7	-21			2145	1.6	49			2230	1.7	52			2043	1.5	46			2120	1.4	43
9 F	0346	8.5	259		24 Sa	0350	9.8	299		9 M	0408	8.8	268		24 Tu	0448	9.8	299		9 M	0252	9.0	274		24 Tu	0325	10.0	305
	0931	3.3	101			0954	1.7	52			1026	2.4	73			1128	0.9	27			0916	1.3	40			1005	-0.3	-9
	1513	8.5	259			1547	9.3	283			1618	7.5	229			1738	7.6	232			1518	8.0	244			1622	8.2	250
	2147	0.8	24			2209	0.1	3			2219	2.2	67			2322	2.6	79			2114	2.0	61			2206	2.2	67
10 Sa	0421	8.5	259		25 Su	0436	9.9	302		10 Tu	0443	8.8	268		25 W	0541	9.4	287		10 Tu	0321	8.9	271		25 W	0411	9.5	290
	1015	3.3	101			1053	1.6	49			1116	2.4	73			1234	1.2	37			0956	1.3	40			1059	0.2	6
	1555	7.9	241			1647	8.4	256			1712	7.0	213			1850	7.0	213			1601	7.5	229			1721	7.6	232
	2222	1.4	43			2257	1.1	34			2258	2.8	85			○					2148	2.5	76			2258	2.9	88
11 Su	0459	8.5	259		26 M	0526	9.8	299		11 W	0524	8.7	265		26 Th	0022	3.4	104		11 W	0355	8.9	271		26 Th	0504	8.9	271
	1105	3.3	101			1157	1.7	52			1214	2.3	70			0641	9.0	274			1041	1.4	43			1158	0.7	21
	1645	7.3	223			1754	7.6	232			1819	6.6	201			1345	1.3	40			1652	7.1	216			1828	7.1	216
	2259	2.0	61			●	2349	2.1	64			●	2346	3.4		104		2010	6.8		207		2227	3.0		91		●	2359	3.5	107
12 M	0540	8.5	259		27 Tu	0620	9.7	296		12 Th	0615	8.7	265		27 F	0134	3.8	116		12 Th	0435	8.7	265		27 F	0604	8.3	253
	1201	3.2	98			1307	1.6	49			1321	2.1	64			0748	8.7	265			1134	1.4	43			1304	1.1	34
	1746	6.8	207			1911	7.0	213			1937	6.4	195			1457	1.2	37			1754	6.7	204			1940	6.9	210
	2342	2.6	79													2128	6.9	210			2317	3.5	107					
13 Tu	0625	8.6	262		28 W	0049	2.9	88		13 F	0050	3.9	119		28 Sa	0250	3.9	119		13 F	0528	8.6	262		28 Sa	0112	3.8	116
	1305	2.9	88			0718	9.5	290			0716	8.8	268			0855	8.6	262			1238	1.4	43			0713	7.8	238
	1858	6.4	195			1420	1.4	43			1430	1.6	49			1559	1.0	30			1908	6.6	201			1413	1.3	40
						2033	6.8	207			2055	6.6	201			2231	7.3	223			●					2051	7.0	213
14 W	0033	3.2	98		29 Th	0157	3.6	110		14 Sa	0206	4.1	125		14 Sa	0025	3.9	119		14 Sa	0025	3.9	119		29 Su	0230	3.7	113
	0714	8.8	268			0819	9.5	290			0822	9.1	277			0635	8.4	256			0635	8.4	256			0825	7.6	232
	1411	2.4	73			1528	1.0	30			1534	0.9	27			1349	1.2	37			1349	1.2	37			1517	1.3	40
	2016	6.4	195			2151	7.0	213			2203	7.0	213			2024	6.7	204			2024	6.7	204			2150	7.2	219
15 Th	0135	3.7	113		30 F	0307	3.8	116		15 Su	0321	3.9	119		15 Su	0146	3.9	119		15 Su	0146	3.9	119		30 M	0338	3.3	101
	0807	9.1	277			0919	9.5	290			0926	9.5	290			0751	8.5	259			0751	8.5	259			0930	7.7	235
	1513	1.7	52			1627	0.6	18			1631	0.2	6			1458	0.8	24			1458	0.8	24			1611	1.2	37
	2129	6.6	201			2256	7.4	226			2258	7.6	232			2130	7.2	219								2236	7.6	232
				31 Sa	0412	3.8	116																					
					1014	9.5	290																					
					1717	0.3	9																					
					2346	7.7	235																					
														</														

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.

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Toke Point, Willapa Bay, Washington, 2015

Times and Heights of High and Low Waters

October						November						December					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 Th	0304	8.7	265			16 F	0254	7.7	235			1 Tu	0509	8.3	253		
	0854	1.3	40				0831	2.7	82				1051	3.7	113		
	1456	9.9	302				1422	8.9	271				1631	8.1	247		
	2140	-1.0	-30				2113	0.2	6				2315	0.9	27		
2 F	0359	8.1	247			17 Sa	0336	7.5	229			2 W	0601	8.2	250		
	0943	2.0	61				0908	3.1	94				1154	3.8	116		
	1544	9.5	290				1455	8.7	265				1733	7.4	226		
	2234	-0.5	-15				2154	0.3	9								
3 Sa	0500	7.6	232			18 Su	0424	7.2	219			3 Th	0005	1.5	46		
	1036	2.7	82				0950	3.5	107				0653	8.2	250		
	1638	8.8	268				1535	8.4	256				1303	3.6	110		
	2332	0.0	0				2242	0.5	15				1842	6.9	210		
4 Su	0606	7.2	219			19 M	0520	7.0	213			4 F	0059	2.1	64		
	1139	3.2	98				1043	3.8	116				0744	8.3	253		
	1740	8.2	250				1628	8.1	247				1411	3.1	94		
							2338	0.8	24				1954	6.6	201		
5 M	0037	0.6	18			20 Tu	0623	7.0	213			5 Sa	0154	2.6	79		
	0717	7.0	213				1151	3.9	119				0831	8.5	259		
	1252	3.5	107				1736	7.8	238				1512	2.5	76		
	1850	7.7	235										2103	6.7	204		
6 Tu	0145	0.9	27			21 W	0041	0.9	27			6 Su	0248	3.0	91		
	0826	7.1	216				0728	7.2	219				0915	8.8	268		
	1410	3.4	104				1309	3.6	110				1604	1.8	55		
	2004	7.5	229				1857	7.6	232				2205	6.9	210		
7 W	0250	1.0	30			22 Th	0147	0.9	27			7 M	0339	3.2	98		
	0925	7.4	226				0828	7.7	235				0956	9.2	280		
	1520	2.9	88				1425	3.0	91				1648	1.1	34		
	2111	7.5	229				2016	7.7	235				2259	7.2	219		
8 Th	0346	1.0	30			23 F	0250	0.8	24			8 Tu	0426	3.3	101		
	1012	7.7	235				0920	8.3	253				1034	9.5	290		
	1616	2.3	70				1531	2.0	61				1728	0.5	15		
	2209	7.7	235				2126	8.1	247				2346	7.6	232		
9 F	0433	1.0	30			24 Sa	0347	0.7	21			9 W	0510	3.4	104		
	1051	8.1	247				1008	9.0	274				1111	9.7	296		
	1702	1.7	52				1628	1.0	30				1806	0.0	0		
	2258	7.9	241				2229	8.5	259								
10 Sa	0513	1.1	34			25 Su	0439	0.7	21			10 Th	0029	7.9	241		
	1125	8.4	256				1052	9.7	296				0551	3.5	107		
	1741	1.2	37				1720	-0.1	-3				1147	9.9	302		
	2342	8.0	244				2326	8.8	268				1843	-0.4	-12		
11 Su	0548	1.2	37			26 M	0528	0.7	21			11 F	0109	8.1	247		
	1157	8.7	265				1135	10.3	314				0632	3.5	107		
	1817	0.7	21				1809	-1.0	-30				1223	10.0	305		
													1920	-0.7	-21		
12 M	0022	8.1	247			27 Tu	0020	9.1	277			12 Sa	0149	8.3	253		
	0622	1.4	43				0614	1.0	30				0712	3.5	107		
	1226	8.9	271				1217	10.7	326				1259	10.1	308		
	1852	0.4	12				1857	-1.5	-46				1957	-0.8	-24		
13 Tu	0100	8.1	247			28 W	0112	9.1	277			13 Su	0228	8.3	253		
	0654	1.7	52				0700	1.3	40				0753	3.5	107		
	1255	9.0	274				1259	10.8	329				1337	9.9	302		
	1926	0.1	3				1943	-1.8	-55				2036	-0.8	-24		
14 W	0137	8.1	247			29 Th	0203	9.0	274			14 M	0309	8.4	256		
	0725	2.0	61				0746	1.8	55				0838	3.5	107		
	1323	9.0	274				1342	10.6	323				1419	9.7	296		
	2000	0.0	0				2030	-1.6	-49				2116	-0.6	-18		
15 Th	0215	7.9	241			30 F	0254	8.8	268			15 Tu	0352	8.5	259		
	0758	2.4	73				0833	2.3	70				0927	3.5	107		
	1352	9.0	274				1427	10.2	311				1505	9.2	280		
	2035	0.1	3				2118	-1.2	-37				2159	-0.2	-6		
						31 Sa	0347	8.4	256			31 Th	0512	8.5	259		
							0922	2.8	85				1112	3.4	104		
							1514	9.6	293				1652	7.5	229		
							2208	-0.6	-18				2314	1.7	52		

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, 2015

Times and Heights of High and Low Waters

January						February						March					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 Th	0319	3.0	91			16 F	0253	3.9	119			1 Su	0336	3.7	113		
	0946	10.9	332				0909	10.4	317				0953	9.3	283		
	1622	0.2	6				1557	0.9	27				1624	0.9	27		
	2301	8.5	259				2230	8.1	247				2311	8.5	259		
2 F	0416	3.3	101			17 Sa	0354	3.9	119			2 M	0432	3.3	101		
	1037	11.0	335				1004	10.9	332				1047	9.5	290		
	1713	-0.3	-9				1650	0.1	3				1710	0.7	21		
	2358	8.9	271				2329	8.7	265				2353	8.9	271		
3 Sa	0509	3.3	101			18 Su	0450	3.6	110			3 Tu	0521	2.8	85		
	1124	11.0	335				1056	11.3	344				1134	9.7	296		
	1759	-0.5	-15				1739	-0.7	-21				1751	0.5	15		
4 Su	0048	9.3	283			19 M	0022	9.4	287			4 W	0030	9.3	283		
	0559	3.3	101				0543	3.1	94				0604	2.3	70		
	1208	10.9	332				1148	11.7	357				1216	9.9	302		
	1841	-0.6	-18				1826	-1.3	-40				1828	0.4	12		
5 M	0131	9.5	290			20 Tu	0110	9.9	302			5 Th	0104	9.6	293		
	0644	3.3	101				0633	2.6	79				0645	1.8	55		
	1250	10.8	329				1238	11.9	363				1257	9.9	302		
	1921	-0.6	-18				1911	-1.7	-52				1905	0.5	15		
6 Tu	0210	9.6	293			21 W	0156	10.4	317			6 F	0136	9.9	302		
	0728	3.3	101				0722	2.1	64				0724	1.4	43		
	1329	10.5	320				1328	11.9	363				1335	9.9	302		
	1959	-0.4	-12				1955	-1.8	-55				1940	0.6	18		
7 W	0246	9.6	293			22 Th	0240	10.7	326			7 Sa	0207	10.0	305		
	0809	3.2	98				0811	1.7	52				0802	1.2	37		
	1407	10.2	311				1419	11.7	357				1413	9.7	296		
	2035	-0.1	-3				2039	-1.6	-49				2014	0.9	27		
8 Th	0320	9.6	293			23 F	0322	11.0	335			8 Su	0237	10.0	305		
	0850	3.2	98				0901	1.4	43				0840	1.0	30		
	1444	9.8	299				1509	11.2	341				1451	9.5	290		
	2111	0.3	9				2123	-1.1	-34				2048	1.4	43		
9 F	0353	9.6	293			24 Sa	0404	11.0	335			9 M	0305	10.0	305		
	0931	3.2	98				0952	1.2	37				0919	1.0	30		
	1523	9.4	287				1601	10.4	317				1530	9.1	277		
	2147	0.8	24				2209	-0.3	-9				2121	1.9	58		
10 Sa	0426	9.5	290			25 Su	0447	11.0	335			10 Tu	0334	9.9	302		
	1015	3.2	98				1047	1.3	40				0959	1.1	34		
	1605	8.9	271				1657	9.6	293				1611	8.6	262		
	2224	1.4	43				2257	0.7	21				2155	2.4	73		
11 Su	0502	9.5	290			26 M	0533	10.8	329			11 W	0405	9.8	299		
	1103	3.2	98				1146	1.3	40				1045	1.2	37		
	1653	8.3	253				1758	8.7	265				1658	8.1	247		
	2303	2.0	61				2350	1.7	52				2234	3.0	91		
12 M	0542	9.5	290			27 Tu	0623	10.5	320			12 Th	0443	9.6	293		
	1158	3.1	94				1249	1.4	43				1138	1.4	43		
	1750	7.8	238				1906	8.0	244				1756	7.6	232		
	2349	2.7	82										2327	3.6	110		
13 Tu	0627	9.5	290			28 W	0048	2.7	82			13 F	0535	9.4	287		
	1258	2.8	85				0719	10.3	314				1240	1.4	43		
	1857	7.4	226				1355	1.3	40				1906	7.4	226		
							2022	7.7	235								
14 W	0046	3.3	101			29 Th	0151	3.3	101			14 Sa	0039	4.0	122		
	0718	9.7	296				0820	10.2	311				0643	9.3	283		
	1401	2.4	73				1500	1.0	30				1346	1.3	40		
	2010	7.4	226				2138	7.8	238				2021	7.5	229		
15 Th	0150	3.8	116			30 F	0255	3.7	113			15 Su	0155	3.9	119		
	0813	10.0	305				0920	10.1	308				0759	9.4	287		
	1501	1.7	52				1600	0.7	21				1450	0.8	24		
	2123	7.6	232				2246	8.2	250				2131	8.1	247		
						31 Sa	0355	3.7	113			31 Tu	0408	2.8	85		
							1016	10.2	311				1020	8.6	262		
							1652	0.3	9				1633	1.2	37		
							2342	8.6	262				2308	8.9	271		

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Aberdeen, Washington, 2015

Times and Heights of High and Low Waters

April								May								June							
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				
1 W	0456	2.1	64	16 Th	0447	0.6	18	1 F	0512	0.8	24	16 Sa	0522	-1.1	-34	1 M	0610	-0.7	-21	16 Tu	0006	11.0	335
	1109	9.0	274		1104	9.9	302		1130	8.7	265		1151	9.4	287		1244	8.8	268		0640	-1.8	-55
	1715	1.1	34		1705	0.1	3		1718	1.8	55		1727	1.2	37		1811	2.7	82		1328	9.2	280
	2346	9.4	287		2333	10.7	326		2337	10.0	305		2346	11.3	344		●	1844	2.4		73		
2 Th	0540	1.5	46	17 F	0540	-0.5	-15	2 Sa	0554	0.2	6	17 Su	0611	-1.7	-52	2 Tu	0015	10.6	323	17 W	0052	10.8	329
	1155	9.3	283		1202	10.2	311		1217	9.0	274		1247	9.6	293		0652	-1.1	-34		0724	-1.7	-52
	1755	1.1	34		1754	0.1	3		1800	1.9	58		1817	1.4	43		1854	2.7	82		1415	9.3	283
3 F	0021	9.8	299	18 Sa	0018	11.2	341	3 Su	0014	10.3	314	18 M	0031	11.3	344	3 W	0054	10.7	326	18 Th	0135	10.4	317
	0621	0.9	27		0630	-1.3	-40		0635	-0.3	-9		0659	-2.0	-61		0733	-1.4	-43		0807	-1.5	-46
	1238	9.5	290		1257	10.4	317		1302	9.2	280		1340	9.7	296		1417	9.1	277		1458	9.2	280
	1833	1.1	34		●	1842	0.3		9	1840	2.1		64	1904	1.7		52	1938	2.8		85	2016	2.7	82
4 Sa	0055	10.0	305	19 Su	0102	11.5	351	4 M	0049	10.4	317	19 Tu	0115	11.2	341	4 Th	0134	10.6	323	19 F	0217	9.9	302
	0700	0.4	12		0718	-1.7	-52		0715	-0.7	-21		0744	-2.0	-61		0815	-1.6	-49		0847	-1.0	-30
	1319	9.6	293		1350	10.3	314		1346	9.2	280		1429	9.6	293		1501	9.2	280		1538	9.1	277
	1910	1.3	40		1928	0.7	21		1919	2.3	70		1951	2.1	64		2021	2.8	85		2100	2.8	85
5 Su	0128	10.2	311	20 M	0145	11.4	347	5 Tu	0123	10.4	317	20 W	0158	10.8	329	5 F	0215	10.5	320	20 Sa	0257	9.3	283
	0738	0.1	3		0804	-1.8	-55		0754	-0.9	-27		0829	-1.7	-52		0857	-1.5	-46		0927	-0.5	-15
	1400	9.5	290		1440	10.1	308		1429	9.2	280		1516	9.4	287		1544	9.1	277		1615	8.9	271
	1946	1.6	49		2013	1.2	37		1958	2.5	76		2037	2.5	76		2107	2.8	85		2145	2.9	88
6 M	0158	10.2	311	21 Tu	0227	11.1	338	6 W	0156	10.4	317	21 Th	0240	10.2	311	6 Sa	0259	10.1	308	21 Su	0338	8.8	268
	0817	0.0	0		0850	-1.6	-49		0834	-0.9	-27		0912	-1.2	-37		0941	-1.3	-40		1007	0.1	3
	1439	9.3	283		1529	9.7	296		1512	9.0	274		1601	9.1	277		1628	9.1	277		1653	8.7	265
	2022	2.0	61		2058	1.9	58		2038	2.8	85		2123	2.9	88		2157	2.7	82		2233	3.0	91
7 Tu	0228	10.2	311	22 W	0309	10.6	323	7 Th	0231	10.2	311	22 F	0323	9.5	290	7 Su	0348	9.7	296	22 M	0423	8.2	250
	0855	-0.1	-3		0937	-1.1	-34		0916	-0.8	-24		0956	-0.5	-15		1028	-0.9	-27		1048	0.7	21
	1520	9.0	274		1618	9.2	280		1555	8.8	268		1645	8.7	265		1714	9.1	277		1732	8.6	262
	2057	2.4	73		2145	2.5	76		2120	3.0	91		2211	3.2	98		2253	2.7	82		2324	3.0	91
8 W	0257	10.0	305	23 Th	0352	9.9	302	8 F	0309	9.9	302	23 Sa	0407	8.8	268	8 M	0445	9.1	277	23 Tu	0514	7.6	232
	0935	0.0	0		1024	-0.4	-12		1000	-0.6	-18		1041	0.2	6		1118	-0.3	-9		1132	1.4	43
	1602	8.6	262		1707	8.6	262		1641	8.6	262		1729	8.5	259		1804	9.2	280		1814	8.6	262
	2135	2.8	85		2235	3.1	94		2208	3.2	98		2303	3.4	104		2356	2.4	73				
9 Th	0330	9.8	299	24 F	0438	9.1	277	9 Sa	0354	9.6	293	24 Su	0455	8.1	247	9 Tu	0551	8.5	259	24 W	0021	2.9	88
	1020	0.2	6		1114	0.4	12		1048	-0.3	-9		1128	0.8	24		1214	0.3	9		0612	7.2	219
	1648	8.2	250		1759	8.2	250		1732	8.4	256		1815	8.3	253		1857	9.4	287		1222	2.0	61
	2218	3.2	98		2331	3.6	110		2305	3.3	101				●		1900	8.8	268		1900	8.8	268
10 F	0410	9.6	293	25 Sa	0531	8.4	256	10 Su	0452	9.1	277	25 M	0001	3.5	107	10 W	0102	2.0	61	25 Th	0121	2.5	76
	1110	0.5	15		1208	1.0	30		1143	0.1	3		0551	7.6	232		0704	8.1	247		0718	6.9	210
	1743	7.9	241		1854	7.9	241		1827	8.4	256		1219	1.4	43		1313	0.8	24		1316	2.5	76
	2314	3.6	110		●						1904		8.3	253	1904		8.3	253	1952		9.8	299	1950	9.0	274
11 Sa	0505	9.2	280	26 Su	0033	3.7	113	11 M	0011	3.2	98	26 Tu	0103	3.3	101	11 Th	0208	1.2	37	26 F	0221	2.0	61
	1209	0.7	21		0632	7.8	238		0602	8.7	265		0655	7.2	219		0819	7.9	241		0826	6.9	210
	1846	7.8	238		1305	1.5	46		1242	0.4	12		1313	1.9	58		1413	1.3	40		1413	2.9	88
	●				1952	7.9	241		●	1926	8.7		265	1954	8.5		259	2047	10.2		311	2040	9.4	287
12 Su	0024	3.7	113	27 M	0139	3.6	110	12 Tu	0120	2.7	82	27 W	0204	2.8	85	12 F	0312	0.4	12	27 Sa	0317	1.3	40
	0617	8.9	271		0739	7.5	229		0719	8.4	256		0802	7.1	216		0932	8.0	244		0933	7.2	219
	1313	0.8	24		1403	1.8	55		1344	0.6	18		1408	2.2	67		1512	1.6	49		1510	3.1	94
	1954	8.0	244		2047	8.2	250		2025	9.2	280		2043	8.8	268		2140	10.6	323		2129	9.8	299
13 M	0137	3.4	104	28 Tu	0242	3.1	94	13 W	0228	1.9	58	28 Th	0302	2.1	64	13 Sa	0410	-0.5	-15	28 Su	0409	0.5	15
	0736	8.9	271		0845	7.6	232		0835	8.4	256		0907	7.3	223		1039	8.4	256		1034	7.7	235
	1417	0.7	21		1458	1.8	55		1444	0.8	24		1501	2.4	73		1609	1.9	58		1604	3.1	94
	2058	8.5	259		2136	8.6	262		2120	9.8	299		2129	9.3	283		2231	10.9	332		2217	10.2	311
14 Tu	0246	2.7	82	29 W	0338	2.3	70	14 Th	0331	0.9	27	29 F	0354	1.3	40	14 Su	0504	-1.2	-37	29 M	0458	-0.2	-6
	0853	9.1	277		0946	8.7	265		0946	8.7	265		1007	7.7	235		1141	8.7	265		1130	8.2	250
	1517	0.4	12		1549	1.8	55		1542	0.9	27		1552	2.5	76		1703	2.1	64		1655	3.1	94
	2155	9.2	280		2219	9.1	277		2211	10.4	317		2213	9.8	299		2319	11.1	338		2303	10.5	320
15 W	0349	1.7	52	30 Th	0427	1.6	49	15 F	0428	-0.2	-6	30 Sa	0442	0.5	15	15 M	0554	-1.6	-49	30 Tu	0544	-0.8	-24
	1002	9.5	290		1040	8.3	253		1051	9.1	277		1102	8.1	247		1237	9.0	274		1223	8.6	262
	1613	0.2	6		1635	1.8	55		1636	1.0	30		1640	2.6	79		1755	2.2	67		1744	2.9	88
	2246	10.0	305		2259	9.6	293		2259	11.0	335		2255	10.2	311						2348	10.8	329
												31 Su	0526	-0.1	-3								
													1154	8.5	259								
													1726	2.6	79								
													2336	10.4	317								

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, 2015

Times and Heights of High and Low Waters

July								August								September							
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		h m	ft cm			
1 W ○	0628	-1.4	-43	16 Th	0034	10.4	317	1 Sa	0105	11.1	338	16 Su	0137	9.7	296	1 Tu	0235	10.7	326	16 W	0236	9.2	280
	1312	9.0	274		0703	-1.2	-37		0732	-1.9	-58		0752	-0.1	-3		0834	-0.7	-21		0830	1.5	46
	1832	2.7	82		1353	9.1	277		1414	10.0	305		1427	9.4	287		1502	11.0	335		1443	9.7	296
					1911	2.4	73		1947	1.2	37		2010	1.6	49		2106	-0.6	-18		2101	0.7	21
2 Th	0033	10.9	332	17 F	0116	10.1	308	2 Su	0154	11.0	335	17 M	0215	9.4	287	2 W	0326	10.1	308	17 Th	0315	8.8	268
	0711	-1.7	-52		0743	-1.0	-30		0815	-1.8	-55		0826	0.3	9		0919	0.0	0		0904	2.0	61
	1358	9.3	283		1431	9.2	280		1455	10.3	314		1457	9.4	287		1545	10.9	332		1512	9.6	293
	1918	2.5	76		1954	2.4	73		2036	0.8	24		2049	1.5	46		2157	-0.4	-12		2141	0.8	21
3 F	0118	10.9	332	18 Sa	0156	9.7	296	3 M	0244	10.7	326	18 Tu	0253	9.0	274	3 Th	0420	9.4	287	18 F	0357	8.4	256
	0754	-1.9	-58		0820	-0.7	-21		0858	-1.4	-43		0901	0.8	24		1006	0.9	27		0938	2.6	79
	1442	9.5	290		1506	9.2	280		1536	10.4	317		1527	9.3	283		1630	10.6	323		1543	9.4	287
	2005	2.2	67		2036	2.4	73		2126	0.6	18		2129	1.5	46		2252	-0.1	-3		2224	1.0	30
4 Sa	0204	10.8	329	19 Su	0235	9.3	283	4 Tu	0336	10.1	308	19 W	0332	8.6	262	4 F	0518	8.6	262	19 Sa	0444	7.9	241
	0837	-1.9	-58		0857	-0.3	-9		0943	-0.7	-21		0934	1.3	40		1057	1.9	58		1016	3.2	98
	1524	9.7	296		1539	9.1	277		1618	10.5	320		1557	9.3	283		1720	10.1	308		1620	9.2	280
	2053	2.0	61		2117	2.4	73		2218	0.5	15		2211	1.6	49		2351	0.3	9		2315	1.3	40
5 Su	0252	10.4	317	20 M	0314	8.9	271	5 W	0430	9.3	283	20 Th	0415	8.1	247	5 Sa	0622	8.0	244	20 Su	0540	7.5	229
	0921	-1.6	-49		0933	0.3	9		1030	0.1	3		1009	2.0	61		1156	2.7	82		1107	3.7	113
	1606	9.8	299		1611	9.0	274		1703	10.4	317		1631	9.2	280		1817	9.6	293		1711	9.0	274
	2143	1.8	55		2200	2.4	73		2315	0.6	18		2258	1.7	52								
6 M	0343	9.9	302	21 Tu	0355	8.4	256	6 Th	0530	8.5	259	21 F	0504	7.6	232	6 Su	0054	0.7	21	21 M	0014	1.4	43
	1006	-1.1	-34		1010	0.9	27		1121	1.1	34		1048	2.6	79		0733	7.6	232		0646	7.3	223
	1649	9.8	299		1645	8.9	271		1752	10.2	311		1711	9.0	274		1301	3.3	101		1217	4.0	122
	2237	1.7	52		2247	2.4	73						2353	1.8	55		1922	9.2	280		1819	8.8	268
7 Tu	0439	9.2	280	22 W	0441	7.8	238	7 F	0017	0.7	21	22 Sa	0604	7.2	219	7 M	0200	0.8	24	22 Tu	0119	1.4	43
	1054	-0.3	-9		1048	1.5	46		0636	7.8	238		1139	3.3	101		0846	7.7	235		0758	7.5	229
	1735	9.9	302		1723	8.9	271		1219	2.0	61		1802	8.9	271		1409	3.4	104		1332	4.0	122
	2337	1.5	46		2339	2.4	73		1848	10.0	305						2030	9.0	274		1935	8.9	271
8 W ●	0541	8.5	259	23 Th	0534	7.3	223	8 Sa	0122	0.6	18	23 Su	0054	1.8	55	8 Tu	0304	0.7	21	23 W	0223	1.0	30
	1147	0.5	15		1132	2.2	67		0750	7.5	229		0713	7.0	213		0953	8.0	244		0905	8.0	244
	1825	10.0	305		1806	8.9	271		1322	2.7	82		1247	3.7	113		1514	3.2	98		1442	3.5	107
									1949	9.8	299		1903	9.0	274		2134	9.1	277		2047	9.2	280
9 Th	0041	1.2	37	24 F	0036	2.2	67	9 Su	0228	0.4	12	24 M	0158	1.4	43	9 W	0400	0.5	15	24 Th	0322	0.5	15
	0650	7.9	241		0637	7.0	213		0905	7.5	229		0828	7.1	216		1047	8.5	259		1002	8.7	265
	1244	1.3	40		1225	2.9	88		1427	3.0	91		1358	3.8	116		1612	2.7	82		1544	2.6	79
	1919	10.1	308		1856	9.0	274		2052	9.8	299		2009	9.2	280		2229	9.3	283		2152	9.8	299
10 F	0147	0.8	24	25 Sa	0137	1.9	58	10 M	0330	0.1	3	25 Tu	0259	0.9	27	10 Th	0448	0.4	12	25 F	0416	0.0	0
	0804	7.6	232		0748	6.8	207		1015	7.8	238		0936	7.5	229		1130	8.9	271		1052	9.5	290
	1345	2.0	61		1327	3.3	101		1530	3.0	91		1505	3.6	110		1702	2.2	67		1640	1.6	49
	2017	10.2	311		1951	9.2	280		2152	9.8	299		2114	9.6	293		2317	9.4	287		2251	10.3	314
11 Sa	0251	0.2	6	26 Su	0238	1.4	43	11 Tu	0426	-0.2	-6	26 W	0356	0.2	6	11 F	0530	0.3	9	26 Sa	0507	-0.4	-12
	0919	7.6	232		0859	7.0	213		1114	8.3	253		1035	8.2	250		1207	9.2	280		1138	10.3	314
	1447	2.4	73		1431	3.5	107		1628	2.8	85		1605	3.0	91		1747	1.7	52		1732	0.5	15
	2114	10.4	317		2048	9.5	290		2246	9.9	302		2213	10.2	311						2347	10.7	326
12 Su	0351	-0.3	-9	27 M	0335	0.7	21	12 W	0515	-0.4	-12	27 Th	0448	-0.5	-15	12 Sa	0000	9.6	293	27 Su	0554	-0.6	-18
	1028	7.9	241		1006	7.5	229		1127	8.9	271		0609	0.3	9		1221	10.9	332				
	1547	2.6	79		1532	3.5	107		1700	2.5	76		1241	9.5	290		1822	-0.4	-12				
	2209	10.5	320		2143	10.0	305		2334	10.0	305		2308	10.7	326		●	1828	1.3		40	○	
13 M	0446	-0.8	-24	28 Tu	0428	0.0	0	13 Th	0558	-0.6	-18	28 F	0536	-1.0	-30	13 Su	0040	9.6	293	28 M	0040	10.9	332
	1130	8.3	253		1105	8.0	244		1244	9.0	274		1213	9.6	293		0646	0.4	12		0640	-0.5	-15
	1644	2.6	79		1628	3.2	98		1807	2.2	67		1751	1.4	43		1314	9.7	296		1304	11.3	344
	2300	10.6	323		2236	10.4	317								1907		1.0	30	1910		-1.1	-34	
14 Tu	0535	-1.1	-34	29 W	0517	-0.7	-21	14 F	0018	10.0	305	29 Sa	0001	11.0	335	14 M	0119	9.6	293	29 Tu	0133	10.9	332
	1224	8.7	265		1157	8.6	262		0638	-0.5	-15		0622	-1.4	-43		0721	0.7	21		0725	-0.2	-6
	1736	2.6	79		1721	2.8	85		1321	9.2	280		1257	10.2	311		1344	9.8	299		1346	11.6	354
	2349	10.5	320		2326	10.8	329		●	1850	2.0		61	○	1841		0.7	21	1945		0.8	24	1958
15 W ●	0621	-1.3	-40	30 Th	0603	-1.3	-40	15 Sa	0059	9.8	299	30 Su	0053	11.2	341	15 Tu	0158	9.4	287	30 W	0225	10.6	323
	1311	9.0	274		1246	9.2	280		0716	-0.4	-12		0707	-1.5	-46		0756	1.1	34		0810	0.3	9
	1825	2.5	76		1811	2.3	70		1355	9.3	283		1339	10.7	326		1414	9.8	299		1428	11.5	351
									1931	1.7	52		1929	0.0	0		2023	0.7	21		2046	-1.4	-43
			31 F ○	0016	11.1	338					31 M	0144	11.1	338									
				0648	-1.7	-52							0750	-1.2	-37								
				1331	9.6	293							1421	11.0	335								
				1900	1.7	52							2017	-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.

Aberdeen, Washington, 2015

Times and Heights of High and Low Waters

October						November						December																
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				
1 Th	0317	10.2	311		16 F	0303	9.1	277		1 Su	0449	9.2	280		16 M	0421	9.0	274		1 Tu	0513	9.3	283		16 W	0447	9.7	296
	0856	1.0	30			0839	2.8	85			1014	3.2	98			0945	3.8	116			1045	3.7	113			1024	3.3	101
	1512	11.2	341			1434	10.1	308			1618	9.7	296			1526	9.9	302			1640	8.9	271			1612	9.7	296
	2136	-1.1	-34			2116	0.1	3			2253	0.2	6			2222	0.1	3			2308	1.0	30			2248	0.1	3
2 F	0410	9.5	290		17 Sa	0345	8.7	265		2 M	0543	8.8	268		17 Tu	0508	8.8	268		2 W	0559	9.1	277		17 Th	0532	9.7	296
	0944	1.9	58			0916	3.2	98			1111	3.7	113			1038	3.9	119			1142	3.8	116			1123	3.1	94
	1558	10.6	323			1505	9.8	299			1713	8.9	271			1619	9.4	287			1734	8.2	250			1713	9.1	277
	2227	-0.5	-15			2158	0.4	12			2346	0.9	27			2313	0.5	15			2358	1.7	52			2340	0.8	24
3 Sa	0505	8.9	271		18 Su	0431	8.4	256		3 Tu	0638	8.6	262		18 W	0600	8.8	268		3 Th	0646	9.0	274		18 F	0622	9.9	302
	1036	2.7	82			0957	3.6	110			1214	3.9	119			1141	3.8	116			1243	3.7	113			1228	2.7	82
	1648	9.9	302			1543	9.5	290			1815	8.2	250			1725	8.9	271			1836	7.6	232			1823	8.6	262
	2322	0.2	6			2245	0.7	21			2253	0.2	6			2222	0.1	3			2308	1.0	30			2248	0.1	3
4 Su	0605	8.4	256		19 M	0523	8.1	247		4 W	0044	1.5	46		19 Th	0009	0.9	27		4 F	0051	2.3	70		19 Sa	0037	1.4	43
	1134	3.3	101			0735	8.5	259			0735	8.5	259			0656	9.0	274			0735	9.1	277			0715	10.2	311
	1746	9.1	277			1321	3.8	116			1321	3.8	116			1250	3.5	107			1345	3.3	101			1334	2.1	64
						1922	7.8	238			1922	7.8	238			1842	8.6	262			1942	7.4	226			1939	8.3	253
5 M	0022	0.8	24		20 Tu	0623	8.0	244		5 Th	0142	1.9	58		20 F	0110	1.2	37		5 Sa	0146	2.7	82		20 Su	0138	2.0	61
	0710	8.0	244			0830	8.7	265			0753	9.5	290			0824	9.4	287			0811	10.6	323					
	1240	3.7	113			1426	3.3	101			1358	2.7	82			1445	2.7	82			1440	1.3	40					
	1852	8.6	262			2030	7.8	238			2000	8.5	259			2049	7.5	229			2056	8.3	253					
6 Tu	0125	1.2	37		21 W	0042	1.1	34		6 F	0238	2.1	64		21 Sa	0211	1.4	43		6 Su	0240	3.0	91		21 M	0239	2.4	73
	0817	8.1	247			0918	9.1	277			0848	10.1	308			0910	9.8	299			0907	11.1	338					
	1349	3.7	113			1523	2.6	79			1502	1.6	49			1538	1.9	58			1541	0.4	12					
	2002	8.3	253			2131	8.0	244			2114	8.8	268			2151	7.9	241			2208	8.6	262					
7 W	0227	1.4	43		22 Th	0146	1.1	34		7 Sa	0329	2.2	67		22 Su	0310	1.5	46		7 M	0332	3.2	98		22 Tu	0339	2.6	79
	0918	8.3	253			0830	8.7	265			0940	10.8	329			0955	10.2	311			1001	11.5	351					
	1455	3.2	98			1420	3.2	98			1601	0.5	15			1626	1.2	37			1638	-0.5	-15					
	2108	8.3	253			2023	8.9	271			2221	9.2	280			2247	8.3	253			2313	9.1	277					
8 Th	0323	1.4	43		23 F	0247	0.9	27		8 Su	0415	2.3	70		23 M	0406	1.6	49		8 Tu	0422	3.3	101		23 W	0436	2.7	82
	1007	8.8	268			0926	9.4	287			1029	11.5	351			1037	10.6	323			1053	11.8	360					
	1552	2.6	79			1523	2.1	64			1655	-0.5	-15			1711	0.5	15			1730	-1.1	-34					
	2205	8.6	262			2133	9.3	283			2322	9.6	293			2339	8.8	268										
9 F	0412	1.3	40		24 Sa	0343	0.7	21		9 M	0459	2.4	73		24 Tu	0459	1.7	52		9 W	0508	3.4	104		24 Th	0012	9.5	290
	1048	9.2	280			1016	10.2	311			1116	11.9	363			1118	10.9	332			0530	2.8	85					
	1640	1.9	58			1620	0.9	27			1746	-1.3	-40			1754	-0.1	-3			1143	11.8	360					
	2254	8.9	271			2235	9.8	299													1819	-1.4	-43					
10 Sa	0455	1.2	37		25 Su	0436	0.5	15		10 Tu	0000	9.1	277		25 W	0020	10.0	305		10 Th	0028	9.1	277		25 F	0106	9.8	299
	1125	9.6	293			1102	11.0	335			0550	1.9	58			0553	3.4	104			0622	2.8	85					
	1724	1.3	40			1713	-0.2	-6			1203	12.1	369			1158	11.1	338			1232	11.7	357					
	2339	9.2	280			2334	10.2	311			1835	-1.8	-55			1835	-0.5	-15			1905	-1.5	-46					
11 Su	0535	1.3	40		26 M	0526	0.5	15		11 W	0045	9.3	283		26 Th	0115	10.2	311		11 F	0115	9.4	287		26 Sa	0155	10.0	305
	1159	10.0	305			1146	11.6	354			0640	2.1	64			0637	3.4	104			0710	2.8	85					
	1804	0.7	21			1804	-1.1	-34			1249	12.0	366			1237	11.1	338			1318	11.4	347					
						1858	-0.3	-9			1922	-1.9	-58			1916	-0.8	-24			1948	-1.3	-40					
12 M	0021	9.4	287		27 Tu	0029	10.5	320		12 Th	0129	9.5	290		27 F	0207	10.2	311		12 Sa	0159	9.6	293		27 Su	0240	10.1	308
	0614	1.4	43			0614	0.7	21			0728	2.4	73			0720	3.4	104			0757	2.9	88					
	1232	10.2	311			1230	11.9	363			1302	10.8	329			1335	11.7	357			1402	10.9	332					
	1843	0.3	9			1852	-1.7	-52			1937	-0.5	-15			2008	-1.7	-52			1956	-0.9	-27					
13 Tu	0102	9.5	290		28 W	0123	10.6	323		13 F	0212	9.4	287		28 Sa	0256	10.1	308		13 Su	0242	9.7	296		28 M	0321	10.0	305
	0651	1.7	52			0701	1.0	30			0816	2.7	82			0802	3.4	104			0843	3.0	91					
	1304	10.3	314			1314	12.0	366			1420	11.2	341			1355	10.9	332			1445	10.3	314					
	1921	0.1	3			1940	-1.9	-58			2016	-0.5	-15			2052	-1.3	-40			2036	-0.9	-27					
14 W	0142	9.5	290		29 Th	0216	10.4	317		14 Sa	0254	9.3	283		29 Su	0343	9.9	302		14 M	0324	9.7	296		29 Tu	0359	9.8	299
	0727	2.0	61			0748	1.5	46			0903	3.1	94			0846	3.4	104			0929	3.1	94					
	1335	10.3	314			1358	11.7	357			1505	10.5	320			1436	10.7	326			1526	9.7	296					
	1959	0.0	0			2027	-1.8	-55			2055	-0.4	-12			2137	-0.6	-18			2118	-0.7	-21					
15 Th	0223	9.3	283		30 F	0307	10.1	308		15 Su	0337	9.1	277		30 M	0428	9.6	293		15 Tu	0405	9.7	296		30 W	0436	9.6	293
	0803	2.4	73			0835	2.0	61			0900	3.6	110			0952	3.4	104			0933	3.3	101			1015	3.2	98
	1404	10.2	311			1443	11.2	341			1444	10.2	311			1551	9.7	296			1521	10.3	314			1609	9.0	274
	2037	0.0	0			2114	-1.3	-40			2137	-0.2	-6			2222	0.2	6			2201	-0.4	-12			2230	1.0	30
				31 Sa	0358	9.7	296																					
					0923	2.6	79																					
					1529	10.5	320																					
					2202	-0.6	-18																					

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Neah Bay, Washington, 2015

Times and Heights of High and Low Waters

July					August					September																			
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 W ○	0629	-1.7	-52		16 Th	0001	8.3	253		1 Sa	0022	8.8	268		16 Su	0106	7.4	226		1 Tu	0157	8.0	244		16 W	0207	6.7	204	
	1255	6.1	186			0710	-1.6	-49			0724	-1.9	-58			0747	-0.2	-6			0815	-0.1	-3			0801	1.7	52	
	1749	3.1	94			1336	6.4	195			1343	7.1	216			1404	6.8	207			1425	8.4	256			1407	7.3	223	
	2348	8.7	265			1854	2.9	88			1920	1.8	55			1955	1.9	58			2054	-0.1	-3			2045	0.9	27	
2 Th	0708	-2.0	-61		17 F	0041	8.0	244		2 Su	0111	8.6	262		17 M	0142	7.1	216		2 W	0252	7.4	226		17 Th	0245	6.4	195	
	1335	6.4	195			0746	-1.3	-40			0804	-1.7	-52			0814	0.2	6			0855	0.7	21			0827	2.2	67	
	1838	2.9	88			1413	6.5	198			1423	7.4	226			1432	6.8	207			1508	8.4	256			1434	7.3	223	
						1936	2.8	85			2013	1.5	46			2033	1.8	55			2151	-0.1	-3			2125	0.9	27	
3 F	0031	8.7	265		18 Sa	0119	7.7	235		3 M	0201	8.1	247		18 Tu	0219	6.7	204		3 Th	0350	6.7	204		18 F	0328	6.0	183	
	0748	-2.1	-64			0819	-1.0	-30			0843	-1.2	-37			0840	0.7	21			0938	1.5	46			0857	2.7	82	
	1416	6.6	201			1448	6.5	198			1504	7.7	235			1500	6.8	207			1554	8.2	250			1504	7.2	219	
	1928	2.8	85			2017	2.7	82			2109	1.2	37			2113	1.8	55			2253	0.1	3			2210	1.0	30	
4 Sa	0117	8.6	262		19 Su	0157	7.2	219		4 Tu	0255	7.5	229		19 W	0258	6.2	189		4 F	0458	6.0	183		19 Sa	0419	5.6	171	
	0828	-2.0	-61			0850	-0.5	-15			0924	-0.4	-12			0906	1.3	40			1024	2.4	73			0931	3.2	98	
	1457	6.8	207			1522	6.5	198			1547	7.8	238			1528	6.8	207			1647	7.9	241			1541	7.1	216	
	2021	2.6	79			2100	2.6	79			2210	1.0	30			2157	1.7	52								2304	1.1	34	
5 Su	0205	8.1	247		20 M	0235	6.7	204		5 W	0354	6.6	201		20 Th	0342	5.7	174		5 Sa	0002	0.3	9		20 Su	0524	5.3	162	
	0909	-1.6	-49			0920	0.0	0			1005	0.5	15			0934	1.8	55			0618	5.5	168			1014	3.6	110	
	1540	7.0	213			1556	6.5	198			1634	7.8	238			1600	6.8	207			1122	3.1	94			1629	6.9	210	
	2120	2.4	73			2146	2.6	79			2318	0.9	27			2249	1.7	52			1749	7.5	229						
6 M	0258	7.5	229		21 Tu	0317	6.1	186		6 Th	0502	5.8	177		21 F	0435	5.2	158		6 Su	0116	0.4	12		21 M	0009	1.1	34	
	0951	-1.0	-30			0949	0.6	18			1050	1.4	43			1006	2.4	73			0745	5.4	165			0647	5.2	158	
	1626	7.2	219			1630	6.5	198			1727	7.8	238			1637	6.7	204			1243	3.6	110			1114	3.9	119	
	2225	2.2	67			2239	2.5	76								2350	1.7	52			1903	7.2	219			1733	6.8	207	
7 Tu	0356	6.7	204		22 W	0404	5.5	168		7 F	0031	0.7	21		22 Sa	0543	4.7	143		7 M	0227	0.4	12		22 Tu	0121	1.0	30	
	1034	-0.2	-6			1018	1.2	37			0624	5.2	158			1045	2.9	88			0903	5.5	168			0808	5.4	165	
	1714	7.4	226			1707	6.5	198			1142	2.3	70			1724	6.7	204			1419	3.7	113			1241	4.0	122	
	2338	1.8	55			2340	2.4	73			1825	7.7	235								2017	7.1	216			1853	6.8	207	
8 W ○	0505	5.9	180		23 Th	0501	4.9	149		8 Sa	0147	0.4	12		23 Su	0101	1.4	43		8 Tu	0330	0.3	9		23 W	0228	0.6	18	
	1121	0.6	18			1051	1.9	58			0755	4.9	149			0713	4.6	140			1002	5.8	177			0908	5.8	177	
	1806	7.6	232			1746	6.6	201			1248	3.0	91			1138	3.4	104			1534	3.4	104			1417	3.6	110	
											1929	7.7	235			1823	6.8	207			2122	7.1	216			2014	7.0	213	
9 Th	0056	1.4	43		24 F	0049	2.1	64		9 Su	0257	0.0	0		24 M	0212	1.0	30		9 W	0422	0.2	6		24 Th	0325	0.3	9	
	0628	5.2	158			0617	4.4	134			0918	5.1	155			0841	4.8	146			1047	6.1	186			0954	6.4	195	
	1212	1.5	46			1130	2.4	73			1410	3.4	104			1250	3.7	113			1630	3.0	91			1531	2.9	88	
	1901	7.8	238			1832	6.7	204			2034	7.7	235			1931	7.0	213			2216	7.2	219			2123	7.5	229	
10 F	0211	0.7	21		25 Sa	0200	1.6	49		10 M	0357	-0.3	-9		25 Tu	0314	0.4	12		10 Th	0505	0.1	3		25 F	0415	0.0	0	
	0800	4.9	149			0751	4.3	131			1024	5.4	165			0945	5.2	158			1124	6.4	195			1034	7.0	213	
	1311	2.2	67			1220	2.9	88			1529	3.4	104			1417	3.6	110			1715	2.5	76			1630	2.0	61	
	1957	8.0	244			1923	6.9	210			2132	7.8	238			2038	7.4	226			2302	7.3	223			2222	7.9	241	
11 Sa	0318	0.0	0		26 Su	0302	1.0	30		11 Tu	0448	-0.6	-18		26 W	0406	-0.2	-6		11 F	0542	0.2	6		26 Sa	0500	-0.2	-6	
	0924	5.0	152			0914	4.5	137			1115	5.7	174			1032	5.7	174			1155	6.7	204			1112	7.7	235	
	1419	2.8	85			1323	3.3	101			1631	3.2	98			1533	3.2	98			1753	2.0	61			1721	1.0	30	
	2052	8.2	250			2016	7.2	219			2224	7.8	238			2138	7.8	238			2342	7.3	223			2317	8.2	250	
12 Su	0416	-0.7	-21		27 M	0354	0.3	9		12 W	0532	-0.8	-24		27 Th	0452	-0.7	-21		12 Sa	0615	0.3	9		27 Su	0543	-0.1	-3	
	1033	5.3	162			1017	4.9	149			1156	6.0	183			1113	6.2	189			1224	6.9	210			1150	8.3	253	
	1528	3.1	94			1435	3.4	104			1721	2.9	88			1635	2.6	79			1827	1.6	49			1810	0.1	3	
	2145	8.3	253			2108	7.6	232			2310	7.9	241			2233	8.3	253											
13 M	0506	-1.2	-37		28 Tu	0440	-0.5	-15		13 Th	0611	-0.9	-27		28 F	0535	-1.1	-34		13 Su	0019	7.3	223		28 M	0010	8.3	253	
	1129	5.6	171			1106	5.3	162			1232	6.3	192			1151	6.8	207			0644	0.6	18			0624	0.1	3	
	1630	3.2	98			1543	3.3	101			1804	2.6	79			1729	1.9	58			1251	7.1	216						

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Port Townsend, Washington, 2015

Times and Heights of High and Low Waters

July						August						September					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 W ○	0157	8.0	244			16 Th	0255	7.6	232			1 Tu	0543	7.7	235		
	0907	-2.0	-61				0947	-1.4	-43				1121	1.3	40		
	1721	8.3	253				1754	8.6	262				1809	8.7	265		
	2131	6.2	189				2233	5.5	168								
2 Th	0242	8.0	244			17 F	0340	7.3	223			2 W	0002	1.0	30		
	0947	-2.4	-73				1025	-1.1	-34				0648	7.4	226		
	1754	8.6	262				1825	8.6	262				1210	2.4	73		
	2220	6.0	183				2320	5.2	158				1847	8.6	262		
3 F	0331	7.8	238			18 Sa	0426	7.0	213			3 Th	0057	0.5	15		
	1029	-2.4	-73				1103	-0.6	-18				0800	7.2	219		
	1829	8.8	268				1854	8.5	259				1303	3.5	107		
	2312	5.6	171										1927	8.4	256		
4 Sa	0425	7.5	229			19 Su	0007	4.8	146			4 F	0155	0.3	9		
	1113	-2.1	-64				0513	6.6	201				0922	7.0	213		
	1906	8.9	271				1141	0.0	0				1404	4.5	137		
							1921	8.5	259				2012	8.1	247		
5 Su	0008	5.1	155			20 M	0057	4.3	131			5 Sa	0258	0.2	6		
	0524	7.0	213				0605	6.2	189				1057	7.0	213		
	1158	-1.5	-46				1220	0.8	24			●	1520	5.2	158		
	1943	9.0	274				1947	8.4	256				2102	7.7	235		
6 M	0110	4.4	134			21 Tu	0147	3.8	116			6 Su	0405	0.3	9		
	0630	6.5	198				0700	5.7	174				1224	7.4	226		
	1245	-0.6	-18				1259	1.7	52				1652	5.6	171		
	2021	9.1	277				2015	8.3	253				2202	7.3	223		
7 Tu	0215	3.6	110			22 W	0239	3.3	101			7 M	0513	0.4	12		
	0742	5.9	180				0804	5.3	162				1329	7.7	235		
	1334	0.6	18				1339	2.7	82				1824	5.5	168		
	2059	9.0	274				2045	8.2	250				2312	7.0	213		
8 W ●	0322	2.6	79			23 Th	0331	2.6	79			8 Tu	0616	0.5	15		
	0908	5.4	165				0921	5.1	155				1419	8.0	244		
	1427	2.0	61				1424	3.7	113				1929	5.1	155		
	2139	9.0	274			●	2117	8.1	247								
9 Th	0426	1.6	49			24 F	0421	2.0	61			9 W	0026	6.9	210		
	1055	5.3	162				1120	5.1	155				0710	0.6	18		
	1527	3.3	101				1518	4.6	140				1459	8.1	247		
	2220	8.8	268				2152	7.9	241				2014	4.7	143		
10 F	0524	0.6	18			25 Sa	0509	1.3	40			10 Th	0131	6.9	210		
	1250	5.8	177				1339	5.7	174				0755	0.8	24		
	1634	4.5	137				1625	5.4	165				1533	8.1	247		
	2303	8.7	265				2230	7.8	238				2046	4.2	128		
11 Sa	0617	-0.3	-9			26 Su	0554	0.6	18			11 F	0225	7.0	213		
	1412	6.7	204				1437	6.4	195				0833	1.0	30		
	1746	5.3	162				1736	5.9	180				1559	8.0	244		
	2349	8.5	259				2313	7.8	238				2114	3.7	113		
12 Su	0705	-0.9	-27			27 M	0638	-0.1	-3			12 Sa	0312	7.1	216		
	1512	7.5	229				1516	7.0	213				0909	1.3	40		
	1856	5.8	177				1840	6.1	186			●	1620	7.9	241		
							2359	7.8	238				2142	3.2	98		
13 M	0036	8.3	253			28 Tu	0720	-0.8	-24			13 Su	0355	7.2	219		
	0749	-1.4	-43				1547	7.5	229				0943	1.7	52		
	1600	8.1	247				1933	6.1	186				1639	7.9	241		
	2000	6.0	183										2212	2.7	82		
14 Tu	0123	8.1	247			29 W	0049	7.9	241			14 M	0436	7.2	219		
	0830	-1.6	-49				0802	-1.4	-43				1017	2.2	67		
	1642	8.4	256				1616	7.9	241				1659	7.8	238		
	2056	6.0	183				2021	5.9	180				2244	2.2	67		
15 W ●	0209	7.9	241			30 Th	0142	8.0	244			15 Tu	0519	7.2	219		
	0909	-1.6	-49				0844	-1.9	-58				1053	2.8	85		
	1720	8.6	262				1646	8.2	250				1722	7.8	238		
	2146	5.8	177				2108	5.5	168				2318	1.7	52		
						31 F ○	0236	8.0	244			30 W	0554	8.3	253		
							0927	-2.0	-61				1103	3.3	101		
							1716	8.5	259				1718	8.6	262		
							2155	5.0	152				2332	-0.7	-21		

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Seattle, Washington, 2015

Times and Heights of High and Low Waters

January								February								March							
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				
1 Th	0305	10.2	311	16 F	0237	9.5	290	1 Su	0434	11.5	351	16 M	0332	11.0	335	1 Su	0321	10.9	332	16 M	0159	10.4	317
	0752	6.8	207		0705	7.7	235		0953	6.7	204		0851	6.9	210		0856	6.1	186		0739	6.4	195
	1315	11.8	360		1233	11.0	335		1439	10.5	320		1358	11.0	335		1345	9.7	296		1247	9.9	302
	2026	-0.6	-18		1949	0.0	0		2131	-0.4	-12		2055	-1.3	-40		2027	0.8	24		1936	0.0	0
2 F	0403	11.1	338	17 Sa	0328	10.4	317	2 M	0507	11.7	357	17 Tu	0408	11.6	354	2 M	0359	11.1	338	17 Tu	0244	11.0	335
	0859	7.0	213		0813	7.8	238		1034	6.3	192		0939	6.1	186		0939	5.6	171		0832	5.4	165
	1402	11.5	351		1322	11.2	341		1524	10.4	317		1454	11.3	344		1438	9.8	299		1354	10.3	314
	2108	-1.1	-34		2034	-1.0	-30		2208	-0.3	-9		2143	-1.6	-49		2110	0.8	24		2031	-0.2	-6
3 Sa	0448	11.7	357	18 Su	0408	11.1	338	3 Tu	0533	11.8	360	18 W	0442	12.2	372	3 Tu	0427	11.2	341	18 W	0322	11.5	351
	0955	7.1	216		0909	7.6	232		1109	6.0	183		1024	5.1	155		1013	5.0	152		0918	4.2	128
	1446	11.2	341		1411	11.4	347		1606	10.3	314		1549	11.6	354		1524	9.9	302		1454	10.8	329
	2147	-1.3	-40		2118	-1.8	-55		2243	-0.1	-3		2229	-1.5	-46		2148	0.9	27		2122	-0.1	-3
4 Su O	0527	12.0	366	19 M	0443	11.8	360	4 W	0555	11.8	360	19 Th	0517	12.6	384	4 W	0449	11.2	341	19 Th	0358	12.0	366
	1044	7.0	213		0958	7.2	219		1140	5.6	171		1109	4.0	122		1042	4.5	137		1002	2.9	88
	1529	10.9	332		1500	11.5	351		1646	10.2	311		1644	11.6	354		1605	10.0	305		1551	11.3	344
	2224	-1.3	-40		2203	-2.3	-70		2316	0.2	6		2315	-1.0	-30		2223	1.2	37		2210	0.2	6
5 M	0600	12.2	372	20 Tu	0519	12.3	375	5 Th	0616	11.8	360	20 F	0553	12.8	390	5 Th	0508	11.2	341	20 F	0434	12.3	375
	1126	6.8	207		1044	6.6	201		1211	5.1	155		1156	3.0	91		1108	4.0	122		1046	1.7	52
	1610	10.6	323		1551	11.6	354		1726	10.0	305		1740	11.5	351		1643	10.1	308		1647	11.5	351
	2300	-1.1	-34		2247	-2.5	-76		2350	0.7	21		2350	0.7	21		2256	1.5	46		2257	0.9	27
6 Tu	0628	12.2	372	21 W	0555	12.7	387	6 F	0640	11.9	363	21 Sa	0001	0.0	0	6 F	0528	11.3	344	21 Sa	0510	12.4	378
	1206	6.6	201		1132	5.9	180		1243	4.6	140		0631	12.9	393		1135	3.4	104		1130	0.7	21
	1652	10.3	314		1644	11.5	351		1808	9.8	299		1243	2.1	64		1721	10.2	311		1742	11.6	354
	2336	-0.8	-24		2332	-2.2	-67				1838		11.1	338	2328		2.0	61	2344		1.9	58	
7 W	0655	12.2	372	22 Th	0632	12.0	396	7 Sa	0024	1.4	43	22 Su	0048	1.2	37	7 Sa	0552	11.3	344	22 Su	0548	12.4	378
	1244	6.3	192		1230	5.1	155		0706	11.9	363		0710	12.8	390		1204	2.8	85		1215	-0.1	-3
	1735	9.9	302		1739	11.2	341		1318	4.1	125		1333	1.5	46		1801	10.2	311		1839	11.5	351
									1853	9.6	293		1940	10.6	323								
8 Th	0012	-0.2	-6	23 F	0018	-1.4	-43	8 Su	0059	2.2	67	23 M	0136	2.7	82	8 Su	0002	2.7	82	23 M	0033	3.0	91
	0722	12.2	372		0710	13.2	402		0736	11.8	360		0752	12.5	381		0618	11.3	344		0628	12.1	369
	1323	5.9	180		1311	4.3	131		1356	3.6	110		1425	1.1	34		1237	2.3	70		1301	-0.4	-12
	1819	9.5	290		1838	10.7	326		1941	9.3	283		2047	10.1	308		1843	10.1	308		1937	11.2	341
9 F	0048	0.5	15	24 Sa	0104	-0.3	-9	9 M	0135	3.2	98	24 Tu	0229	4.2	128	9 M	0037	3.4	104	24 Tu	0124	4.1	125
	0752	12.2	372		0750	13.2	402		0808	11.6	354		0837	12.0	366		0647	11.2	341		0711	11.6	354
	1404	5.4	165		1405	3.5	107		1438	3.1	94		1521	0.9	27		1313	1.8	55		1350	-0.4	-12
	1908	9.0	274		1942	10.1	308		2035	8.9	271		2206	9.7	296		1927	10.0	305		2039	10.8	329
10 Sa	0125	1.4	43	25 Su	0152	1.2	37	10 Tu	0214	4.3	131	25 W	0331	5.5	168	10 Tu	0114	4.2	128	25 W	0220	5.2	158
	0824	12.1	369		0832	13.0	396		0843	11.4	347		0927	11.3	344		0719	11.0	335		0757	10.9	332
	1448	4.9	149		1502	2.7	82		1525	2.6	79		1622	1.0	30		1353	1.4	43		1442	0.0	0
	2001	8.5	259		2053	9.4	287		2139	8.7	265		2343	9.6	293		2017	9.8	299		2149	10.4	317
11 Su	0203	2.5	76	26 M	0244	2.9	88	11 W	0258	5.5	168	26 Th	0452	6.6	201	11 W	0155	5.1	155	26 Th	0327	6.0	183
	0859	11.9	363		0917	12.7	387		0921	11.0	335		1025	10.6	323		0752	10.7	326		0850	10.1	308
	1535	4.3	131		1603	2.1	64		1617	2.1	64		1729	1.0	30		1438	1.2	37		1538	0.6	18
	2103	8.1	247		2218	9.0	274		2256	8.6	262				2114		9.6	293	2310		10.2	311	
12 M	0244	3.7	113	27 Tu	0343	4.7	143	12 Th	0354	6.6	201	27 F	0120	9.9	302	12 Th	0241	6.0	183	27 F	0454	6.4	195
	0936	11.7	357		1005	12.2	372		1005	10.7	326		0632	6.9	210		0831	10.3	314		0953	9.3	283
	1626	3.7	113		1707	1.5	46		1715	1.6	49		1131	10.0	305		1529	1.1	34		1641	1.2	37
	2217	7.9	241								1835		1.0	30				2222	9.5		290		
13 Tu O	0331	5.0	152	28 W	0002	9.0	274	13 F	0027	8.9	271	28 Sa	0231	10.5	320	13 F	0341	6.8	207	28 Sa	0033	10.2	311
	1017	11.4	347		0457	6.1	186		0511	7.4	226		0757	6.6	201		0919	9.9	302		0631	6.2	189
	1719	2.9	88		1059	11.7	357		1058	10.5	320		1241	9.7	296		1627	0.9	27		1108	8.8	268
	2344	8.0	244		1811	0.9	27		1814	0.9	27		1936	0.9	27		2341	9.5	290		1749	1.6	49
14 W	0430	6.2	189	29 Th	0146	9.6	293	14 Sa	0153	9.6	293					14 Sa	0501	7.2	219	29 Su	0140	10.4	317
	1100	11.2	341		0628	7.0	213		0640	7.7	235		1022	9.7	296		0744	5.6	171				
	1812	2.0	61		1156	11.2	341		1158	10.5	320		1731	0.7	21		1227	8.6	262				
					1911	0.4	12		1912	0.1	3						1856	1.9	58				
15 Th	0120	8.6	262	30 F	0300	10.5	320	15 Su	0251	10.3	314					15 Su	0059	9.9	302	30 M	0228	10.6	323
	0545	7.2	219		0755	7.2	219		0754	7.5	229		0629	7.1	216		0834	4.9	149				
	1146	11.1	338		1254	10.9	332		1259	10.6	323		1135	9.6	293		1337	8.7	265				
	1902	1.0	30		2004	0.0	0		2006	-0.6	-18		1836	0.4	12		1953	2.0	61				
			31 Sa	0353	11.1	338													31 Tu	0304	10.7	326	
				0902	7.0	213										0912	4.2	128					
				1350	10.7	326										1435	9.1	277					
				2050	-0.3	-9										2041	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.

Seattle, Washington, 2015

Times and Heights of High and Low Waters

April						May						June																	
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					
1 W	0330	10.7	326		16 Th	0233	11.6	354		1 F	0249	10.6	323		16 Sa	0230	11.9	363		1 M	0256	10.6	323		16 Tu	0323	11.2	341	
	0942	3.5	107			0858	2.0	61			0930	1.4	43			0919	-1.0	-30			0954	-1.1	-34			1023	-2.5	-76	
	1522	9.4	287			1459	10.3	314			1559	9.6	293			1609	10.7	326			1710	10.7	326			1754	11.7	357	
	2121	2.4	73			2059	1.8	55			2128	4.5	137			2134	4.6	140			2223	6.5	198			2313	6.4	195	
2 Th	0351	10.7	326		17 F	0312	11.9	363		2 Sa	0316	10.6	323		17 Su	0310	11.8	360		2 Tu	0330	10.5	320		17 W	0407	10.8	329	
	1008	2.9	88			0940	0.7	21			0957	0.6	18			1001	-1.9	-58			1029	-1.8	-55			1104	-2.4	-73	
	1603	9.8	299			1557	10.9	332			1638	10.1	308			1702	11.3	344			1746	11.2	341			1834	11.9	363	
	2158	2.8	85			2150	2.4	73			2207	4.9	149			2228	5.1	155			2306	6.7	204						
3 F	0412	10.8	329		18 Sa	0349	12.0	366		3 Su	0343	10.6	323		18 M	0350	11.6	354		3 W	0406	10.5	320		18 Th	0003	6.3	192	
	1033	2.2	67			1022	-0.5	-15			1025	-0.1	-3			1042	-2.4	-73			1107	-2.2	-67			0452	10.3	314	
	1641	10.1	308			1653	11.4	347			1715	10.5	320			1752	11.7	357			1824	11.5	351			1144	-2.0	-61	
	2232	3.2	98			2240	3.2	98			2245	5.3	162			2320	5.6	171			2350	6.7	204			1911	11.9	363	
4 Sa	0436	10.8	329		19 Su	0427	12.0	366		4 M	0412	10.5	320		19 Tu	0432	11.2	341		4 Th	0445	10.3	314		19 F	0052	6.1	186	
	1059	1.5	46			1105	-1.3	-40			1057	-0.7	-21			1124	-2.5	-76			1148	-2.4	-73			0538	9.7	296	
	1718	10.3	314			1747	11.7	357			1752	10.9	332			1840	11.9	363			1904	11.8	360			1224	-1.4	-43	
	2307	3.7	113			2330	3.9	119			2324	5.7	174										1947	11.8		360			
5 Su	0501	10.8	329		20 M	0507	11.8	360		5 Tu	0443	10.4	317		20 W	0013	5.9	180		5 F	0037	6.6	201		20 Sa	0142	5.9	180	
	1129	0.9	27			1148	-1.7	-52			1132	-1.2	-37			0515	10.7	326			0529	10.1	308			0627	9.1	277	
	1756	10.5	320			1840	11.7	357			1832	11.2	341			1206	-2.2	-67			1231	-2.3	-70			1304	-0.6	-18	
	2342	4.2	128								1927	11.9	363			1927	11.9	363			1946	12.0	366			2022	11.7	357	
6 M	0529	10.7	326		21 Tu	0021	4.7	143		6 W	0005	6.0	183		21 Th	0107	6.1	186		6 Sa	0128	6.3	192		21 Su	0232	5.5	168	
	1201	0.4	12			0549	11.3	344			0516	10.3	314			0601	10.0	305			0619	9.7	296			0719	8.5	259	
	1836	10.7	326			1232	-1.7	-52			1210	-1.5	-46			1249	-1.7	-52			1317	-1.8	-55			1346	0.3	9	
						1934	11.6	354			1913	11.3	344			2013	11.8	360			2030	12.1	369			2059	11.6	354	
7 Tu	0020	4.8	146		22 W	0115	5.3	162		7 Th	0050	6.3	192		22 F	0205	6.1	186		7 Su	0224	5.9	180		22 M	0325	5.0	152	
	0600	10.6	323			0633	10.7	326			0553	10.0	305			0651	9.3	283			0718	9.1	277			0818	7.9	241	
	1238	0.0	0			1318	-1.3	-40			1251	-1.5	-46			1333	-0.9	-27			1405	-1.0	-30			1428	1.4	43	
	1919	10.7	326			2029	11.4	347			1959	11.4	347			2059	11.5	351			2115	12.1	369			2137	11.4	347	
8 W	0100	5.4	165		23 Th	0215	5.8	177		8 F	0139	6.4	195		23 Sa	0308	5.9	180		8 M	0326	5.2	158		23 Tu	0420	4.4	134	
	0632	10.3	314			0721	9.9	302			0636	9.7	296			0746	8.5	259			0826	8.5	259			0924	7.4	226	
	1318	-0.2	-6			1405	-0.6	-18			1337	-1.3	-40			1419	0.1	3			1457	0.1	3			1514	2.7	82	
	2007	10.7	326			2127	11.1	338			2048	11.4	347			2145	11.3	344			2202	12.1	369			2216	11.2	341	
9 Th	0145	5.9	180		24 F	0324	6.1	186		9 Sa	0235	6.4	195		24 Su	0416	5.5	168		9 Tu	0431	4.3	131		9 W	0515	3.7	113	
	0708	10.0	305			0817	9.1	277			0727	9.2	280			0849	7.8	238			0946	8.0	244			1041	7.2	219	
	1402	-0.2	-6			1456	0.3	9			1426	-0.8	-24			1508	1.2	37			1554	1.4	43			1605	3.9	119	
	2100	10.5	320			2229	10.8	329			2140	11.3	344			2232	11.1	338			2250	12.0	366			2257	11.0	335	
10 F	0237	6.4	195		25 Sa	0447	6.0	183		10 Su	0340	6.2	189		25 M	0525	4.9	149		10 W	0536	3.1	94		25 Th	0605	2.9	88	
	0751	9.6	293			0922	8.3	253			0831	8.7	265			1003	7.3	223			1115	7.9	241			1208	7.3	223	
	1453	0.0	0			1553	1.2	37			1521	-0.1	-3			1602	2.3	70			1658	2.8	85			1705	5.1	155	
	2200	10.4	317			2332	10.6	323			2235	11.3	344			2318	10.9	332			2338	12.0	366			2338	10.8	329	
11 Sa	0342	6.7	204		26 Su	0610	5.5	168		11 M	0452	5.5	168		26 Tu	0624	4.1	125		11 Th	0635	1.7	52		26 F	0651	2.0	61	
	0847	9.2	280			1039	7.8	238			0950	8.2	250			1126	7.2	219			1249	8.3	253			1336	7.9	241	
	1550	0.3	9			1656	2.1	64			1622	0.8	24			1701	3.4	104			1807	4.1	125			1814	6.0	183	
	2306	10.4	317								2329	11.4	347																
12 Su	0500	6.6	201		27 M	0029	10.5	320		12 Tu	0602	4.5	137		27 W	0001	10.8	329		12 F	0025	11.9	363		27 Sa	0019	10.6	323	
	1000	8.8	268			0713	4.7	143			0711	3.2	98			0728	0.4	12			0731	1.0	30						
	1654	0.6	18			1203	7.7	235			1252	7.4	226			1414	9.1	277			1447	8.7	265						
						1802	2.7	82			1805	4.3	131			1918	5.0	152			1923	6.6	201						
13 M	0011	10.6	323		28 Tu	0116	10.5	320		13 W	0019	11.5	351		28 Th	0040	10.7	326		13 Sa	0111	11.9	363		28 Su	0100	10.6	323	
	0619	5.9	180			0800	3.9	119			0701	3.1	94			0748	2.3	70			0816	-0.8	-24			0810	0.1	3	
	1123	8.7	265			1321	8.0	244			1244	8.4	256			1406	8.0	244											

Seattle, Washington, 2015

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0259 10.7 326	16 Th	0355 10.4 317	1 Sa	0423 10.9 332	16 Su	0516 9.8 299	1 Tu	0013 1.5 46	16 W	0016 1.6 49
	1005 -2.2 -67		1046 -1.6 -49		1110 -2.1 -64		1138 0.6 18		0613 11.0 335		0631 10.1 308
	1729 11.3 344		1813 11.6 354		1806 12.1 369		1821 11.1 338		1223 1.1 34		1225 3.6 110
○	2245 6.9 210		2346 5.9 180		2353 4.6 140				1839 12.2 372		1825 10.5 320
2 Th	0342 10.7 326	17 F	0439 10.0 305	2 Su	0516 10.8 329	17 M	0024 3.8 116	2 W	0101 0.8 24	17 Th	0051 1.3 40
	1046 -2.6 -79		1123 -1.2 -37		1155 -1.6 -49		0558 9.6 293		0713 10.7 326		0715 10.0 305
	1805 11.7 357		1841 11.6 354		1843 12.3 375		1213 1.3 40		1312 2.4 73		1303 4.4 134
	2331 6.5 198						1848 11.1 338		1921 11.9 363		1857 10.3 314
3 F	0429 10.6 323	18 Sa	0026 5.5 168	3 M	0041 3.7 113	18 Tu	0059 3.3 101	3 Th	0153 0.3 9	18 F	0130 1.0 30
	1129 -2.6 -79		0524 9.7 296		0613 10.5 320		0642 9.4 287		0819 10.2 311		0803 9.8 299
	1842 12.0 366		1201 -0.7 -21		1241 -0.6 -18		1248 2.1 64		1406 3.7 113		1344 5.2 158
			1909 11.6 354		1922 12.4 378		1917 11.0 335		2007 11.5 351		1931 9.9 302
4 Sa	0018 6.0 183	19 Su	0106 5.1 155	4 Tu	0133 2.8 85	19 W	0136 2.8 85	4 F	0248 0.2 6	19 Sa	0214 0.9 27
	0519 10.4 317		0610 9.3 283		0714 10.0 305		0730 9.1 277		0933 9.8 299		0857 9.7 296
	1213 -2.3 -70		1238 0.1 3		1328 0.7 21		1325 3.1 94		1507 5.0 152		1432 5.9 180
	1920 12.3 375		1938 11.5 351		2003 12.4 378		1950 10.8 329		2058 10.9 332		2010 9.5 290
5 Su	0108 5.4 165	20 M	0146 4.7 143	5 W	0227 2.1 64	20 Th	0217 2.4 73	5 Sa	0348 0.3 9	20 Su	0303 0.9 27
	0614 10.0 305		0658 8.8 268		0822 9.4 287		0822 8.9 271		1100 9.6 293		1001 9.5 290
	1258 -1.6 -49		1315 1.0 30		1419 2.2 67		1405 4.1 125	●	1624 5.9 180		1532 6.5 198
	2001 12.4 378		2009 11.4 347		2047 12.1 369		2025 10.5 320		2157 10.2 311		2059 9.1 277
6 M	0202 4.7 143	21 Tu	0228 4.2 128	6 Th	0325 1.4 43	21 F	0302 2.1 64	6 Su	0453 0.4 12	21 M	0359 1.0 30
	0715 9.4 287		0751 8.4 256		0939 8.9 271		0923 8.6 262		1234 9.8 299		1113 9.5 290
	1346 -0.5 -15		1354 2.0 61	●	1515 3.8 116		1450 5.2 158		1759 6.3 192	●	1650 6.8 207
	2042 12.5 381		2043 11.3 344		2135 11.8 360		2104 10.2 311		2306 9.7 296		2203 8.9 271
7 Tu	0259 3.8 116	22 W	0314 3.6 110	7 F	0427 0.9 27	22 Sa	0353 1.8 55	7 M	0602 0.6 18	22 Tu	0502 0.9 27
	0824 8.8 268		0850 8.0 244		1111 8.8 268		1034 8.5 259		1351 10.2 311		1226 9.8 299
	1436 0.9 27		1435 3.2 98		1624 5.2 158		1546 6.1 186		1925 6.0 183		1814 6.6 201
	2126 12.4 378		2120 11.0 335		2228 11.3 344	●	2149 9.8 299				2316 8.8 268
8 W	0400 2.8 85	23 Th	0403 3.1 94	8 Sa	0531 0.4 12	23 Su	0449 1.4 43	8 Tu	0019 9.4 287	23 W	0607 0.7 21
	0943 8.3 253		0958 7.7 235		1254 9.1 277		1157 8.6 262		0707 0.6 18		1325 10.2 311
●	1531 2.5 76	●	1520 4.5 137		1748 6.2 189		1700 8.8 207		1446 10.6 323		1920 5.9 180
	2212 12.2 372		2159 10.8 329		2326 10.8 329		2243 9.6 293		2027 5.4 165		
9 Th	0503 1.8 55	24 F	0455 2.5 76	9 Su	0635 0.0 0	24 M	0549 1.0 30	9 W	0126 9.4 287	24 Th	0028 9.1 277
	1114 8.2 250		1118 7.7 235		1418 9.8 299		1321 9.1 277		0803 0.6 18		0708 0.5 15
	1635 4.1 125		1616 5.6 171		1917 6.5 198		1826 7.1 216		1528 10.8 329		1411 10.7 326
	2301 12.0 366		2242 10.5 320				2343 9.6 293		2114 4.8 146		2010 4.9 149
10 F	0605 0.8 24	25 Sa	0548 1.8 55	10 M	0027 10.5 320	25 Tu	0647 0.3 9	10 Th	0224 9.5 290	25 F	0134 9.7 296
	1255 8.5 259		1250 8.1 247		0734 -0.4 -12		1421 9.7 296		0850 0.7 21		0804 0.3 9
	1750 5.4 165		1727 6.6 201		1519 10.5 320		1937 6.8 207		1559 10.9 332		1449 11.1 338
	2352 11.7 357		2328 10.3 314		2030 6.3 192				2151 4.2 128		2053 3.7 113
11 Sa	0703 -0.2 -6	26 Su	0640 1.0 30	11 Tu	0127 10.3 314	26 W	0043 9.8 299	11 F	0312 9.7 296	26 Sa	0233 10.3 314
	1425 9.4 287		1413 8.8 268		0825 -0.6 -18		0742 -0.3 -9		0931 0.9 27		0855 0.3 9
	1910 6.2 189		1847 7.1 216		1605 10.9 332		1504 10.3 314		1624 10.8 329		1525 11.6 354
					2125 6.0 183		2030 6.2 189		2221 3.7 113		2135 2.4 73
12 Su	0044 11.4 347	27 M	0017 10.2 311	12 W	0221 10.2 311	27 Th	0141 10.1 308	12 Sa	0355 9.9 302	27 Su	0329 10.9 332
	0755 -1.0 -30		0728 0.1 3		0910 -0.7 -21		0832 -0.9 -27		1008 1.2 37		0943 0.6 18
	1531 10.2 311		1509 9.6 293		1641 11.1 338		1539 10.9 332		1644 10.8 329		1601 11.9 363
	2024 6.5 198		1956 7.2 219		2209 5.6 171		2115 5.4 165	●	2249 3.2 98	○	2217 1.2 37
13 M	0135 11.2 341	28 Tu	0106 10.3 314	13 Th	0309 10.1 308	28 F	0235 10.6 323	13 Su	0434 10.0 305	28 M	0424 11.3 344
	0843 -1.5 -46		0814 -0.7 -21		0951 -0.7 -21		0919 -1.2 -37		1042 1.7 52		1031 1.3 40
	1623 10.9 332		1550 10.2 311		1710 11.2 341		1613 11.3 344		1705 10.8 329		1637 12.1 369
	2126 6.5 198		2051 7.0 213		2247 5.1 155		2158 4.5 137		2316 2.6 79		2300 0.1 3
14 Tu	0224 10.9 332	29 W	0154 10.5 320	14 F	0353 10.0 305	29 Sa	0328 10.9 332	14 M	0512 10.0 305	29 Tu	0518 11.6 354
	0926 -1.8 -55		0859 -1.5 -46		1028 -0.4 -12		1005 -1.2 -37		1115 2.2 67		1118 2.1 64
	1705 11.3 344		1624 10.8 329		1735 11.2 341		1647 11.7 357		1729 10.8 329		1716 12.1 369
	2218 6.4 195		2138 6.7 204	●	2320 4.7 143	○	2241 3.4 104		2345 2.1 64		2345 -0.7 -21
15 W	0310 10.6 323	30 Th	0243 10.7 326	15 Sa	0435 9.9 302	30 Su	0422 11.2 341	15 Tu	0550 10.1 308	30 W	0614 11.6 354
	1007 -1.8 -55		0942 -2.0 -61		1103 0.0 0		1051 -0.8 -24		1150 2.9 88		1208 3.1 94
	1741 11.5 351		1657 11.3 344		1757 11.1 338		1723 12.0 366		1755 10.7 326		1756 11.8 360
●	2304 6.2 189		2222 6.1 186		2352 4.3 131		2326 2.4 73				
		31 F	0332 10.9 332			31 M	0516 11.2 341				
			1026 -2.3 -70				1136 0.0 0				
		○	1731 11.7 357				1800 12.2 372				
			2307 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.

Seattle, Washington, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0032	-1.1	-34	16 F	0016	-0.2	-6	1 Tu	0158	0.1	3
	0712	11.4	347		0705	10.9	332		0923	12.0	366
	1300	4.1	125		1247	5.7	174		1550	5.8	177
	1840	11.4	347		1807	9.9	302		2027	8.3	253
2 F	0120	-1.1	-34	17 Sa	0054	-0.3	-9	2 W	0247	1.3	40
	0814	11.1	338		0750	10.8	329		1009	11.8	360
	1357	5.1	155		1331	6.2	189		1700	5.1	155
	1928	10.7	326		1843	9.6	293		2142	7.7	235
3 Sa	0212	-0.7	-21	18 Su	0137	-0.2	-6	3 Th	0339	2.6	79
	0922	10.8	329		0840	10.7	326		1055	11.5	351
	1505	5.8	177		1423	6.5	198		1803	4.3	131
	2023	9.9	302		1924	9.2	280		2310	7.5	229
4 Su	0309	0.0	0	19 M	0225	0.1	3	4 F	0439	3.9	119
	1038	10.5	320		0936	10.6	323		1139	11.3	344
	1630	6.1	186		1526	6.7	204		1854	3.4	104
	2128	9.1	277		2019	8.7	265				
5 M	0411	0.7	21	20 Tu	0319	0.5	15	5 Sa	0043	7.7	235
	1157	10.5	320		1037	10.6	323		0546	5.0	152
	1804	5.9	180		1642	6.5	198		1221	11.2	341
	2246	8.6	262		2132	8.3	253		1935	2.5	76
6 Tu	0520	1.3	40	21 W	0421	0.9	27	6 Su	0205	8.4	256
	1304	10.6	323		1138	10.7	326		0655	5.8	177
	1918	5.2	158		1759	5.9	180		1259	11.0	335
					2257	8.3	253		2009	1.6	49
7 W	0009	8.4	256	22 Th	0527	1.3	40	7 M	0306	9.3	283
	0629	1.8	55		1233	11.0	335		0757	6.3	192
	1356	10.7	326		1859	4.8	146		1334	11.0	335
	2011	4.3	131						2040	0.7	21
8 Th	0124	8.6	262	23 F	0018	8.6	262	8 Tu	0353	10.0	305
	0731	2.1	64		0632	1.6	49		0850	6.7	204
	1435	10.8	329		1319	11.3	344		1408	10.9	332
	2051	3.6	110		1948	3.4	104		2110	0.0	0
9 F	0225	9.0	274	24 Sa	0132	9.3	283	9 W	0431	10.7	326
	0822	2.4	73		0734	2.0	61		0936	7.0	213
	1504	10.8	329		1400	11.7	357		1441	10.8	329
	2124	2.9	88		2031	1.9	58		2141	-0.7	-21
10 Sa	0314	9.4	287	25 Su	0236	10.1	308	10 Th	0505	11.2	341
	0906	2.7	82		0830	2.4	73		1017	7.2	219
	1527	10.7	326		1439	12.0	366		1515	10.8	329
	2151	2.2	67		2113	0.5	15		2214	-1.2	-37
11 Su	0356	9.8	299	26 M	0334	10.9	332	11 F	0537	11.6	354
	0944	3.1	94		0922	3.0	91		1056	7.2	219
	1549	10.7	326		1517	12.2	372		1550	10.7	326
	2216	1.6	49		2155	-0.8	-24		2250	-1.6	-49
12 M	0434	10.1	308	27 Tu	0429	11.5	351	12 Sa	0610	12.0	366
	1019	3.6	110		1013	3.6	110		1137	7.2	219
	1612	10.7	326		1555	12.2	372		1627	10.6	323
	2242	1.0	30		2237	-1.7	-52		2328	-1.8	-55
13 Tu	0510	10.4	317	28 W	0523	11.9	363	13 Su	0645	12.2	372
	1054	4.1	125		1104	4.3	131		1219	7.1	216
	1638	10.6	323		1636	12.0	366		1708	10.3	314
	2310	0.5	15		2321	-2.2	-67				
14 W	0546	10.6	323	29 Th	0616	12.1	369	14 M	0008	-1.7	-52
	1129	4.7	143		1156	5.0	152		0723	12.4	378
	1705	10.5	320		1718	11.6	354		1306	6.8	207
	2341	0.1	3						1754	10.0	305
15 Th	0624	10.8	329	30 F	0005	-2.2	-67	15 Tu	0051	-1.3	-40
	1207	5.2	158		0710	12.1	369		0802	12.5	381
	1735	10.2	311		1251	5.6	171		1357	6.3	192
					1804	11.0	335		1847	9.5	290
				31 Sa	0052	-1.8	-55	30 W	0128	0.5	15
					0806	11.9	363		0837	12.3	375
					1351	6.0	183		1459	5.2	158
					1853	10.2	311		1958	8.6	262
								31 Th	0209	1.8	55
									0913	12.0	366
									1554	4.7	143
									2104	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.

Cherry Point, Washington, 2015

Times and Heights of High and Low Waters

January					February					March																			
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 Th	0346	8.1	247		16 F	0336	7.6	232		1 Su	0504	9.3	283		16 M	0419	9.0	274		1 Su	0348	8.7	265		16 M	0248	8.5	259	
	0756	6.5	198			0711	6.9	210			1013	6.5	198			0913	6.5	198			0915	5.9	180			0805	5.9	180	
	1315	9.2	280			1217	8.8	268			1433	8.0	244			1351	8.4	256			1340	7.3	223			1239	7.5	229	
	2056	-0.8	-24			2018	-0.3	-9			2157	-0.5	-15			2120	-1.2	-37			2051	0.5	15			1959	-0.1	-3	
2 F	0440	8.9	271		17 Sa	0419	8.4	256		2 M	0537	9.4	287		17 Tu	0453	9.4	287		2 M	0424	8.8	268		17 Tu	0327	8.8	268	
	0910	6.8	207			0826	7.1	216			1058	6.2	189			1006	5.9	180			1000	5.4	165			0859	5.1	155	
	1358	8.9	271			1305	8.8	268			1522	7.8	238			1457	8.5	259			1440	7.3	223			1359	7.7	235	
	2136	-1.2	-37			2101	-1.1	-34			2233	-0.4	-12			2207	-1.3	-40			2134	0.6	18			2053	-0.1	-3	
3 Sa	0524	9.4	287		18 Su	0457	9.1	277		3 Tu	0606	9.5	290		18 W	0526	9.7	296		3 Tu	0454	8.8	268		18 W	0402	9.1	277	
	1014	6.9	210			0930	7.1	216			1135	5.8	177			1054	5.1	155			1035	4.9	149			0947	4.1	125	
	1440	8.6	262			1358	8.9	271			1608	7.7	235			1600	8.6	262			1532	7.3	223			1510	8.0	244	
	2214	-1.3	-40			2144	-1.7	-52			2306	-0.2	-6			2252	-1.1	-34			2211	0.8	24			2144	0.1	3	
4 Su	0602	9.8	299		19 M	0532	9.6	293		4 W	0632	9.4	287		19 Th	0559	9.9	302		4 W	0519	8.8	268		19 Th	0435	9.3	283	
	1108	6.8	207			1024	6.9	210			1209	5.3	162			1141	4.2	128			1105	4.4	134			1032	3.1	94	
	1522	8.3	253			1453	8.9	271			1653	7.5	229			1702	8.6	262			1619	7.4	226			1616	8.3	253	
	2250	-1.3	-40			2227	-2.1	-64			2339	0.2	6			2337	-0.5	-15			2245	1.1	34			2232	0.6	18	
5 M	0636	9.9	302		20 Tu	0607	10.0	305		5 Th	0656	9.4	287		20 F	0632	10.0	305		5 Th	0542	8.8	268		20 F	0508	9.5	290	
	1155	6.6	201			1116	6.5	198			1243	4.9	149			1229	3.2	98			1134	3.9	119			1116	2.0	61	
	1604	8.0	244			1550	8.8	268			1737	7.3	223			1805	8.4	256			1703	7.5	229			1718	8.6	262	
	2324	-1.1	-34			2310	-2.1	-64													2318	1.5	46			2320	1.4	43	
6 Tu	0707	10.0	305		21 W	0641	10.3	314		6 F	0011	0.7	21		21 Sa	0022	0.4	12		6 F	0603	8.7	265		21 Sa	0541	9.5	290	
	1239	6.3	192			1206	5.9	180			0719	9.3	283			0705	10.0	305			1204	3.4	104			1201	1.1	34	
	1646	7.6	232			1648	8.6	262			1318	4.4	134			1319	2.4	73			1747	7.5	229			1818	8.7	265	
	2358	-0.7	-21			2354	-1.8	-55			1824	7.1	216			1909	8.1	247			2350	2.0	61						
7 W	0737	9.9	302		22 Th	0716	10.5	320		7 Sa	0043	1.3	40		22 Su	0108	1.5	46		7 Sa	0624	8.7	265		22 Su	0007	2.3	70	
	1321	5.9	180			1258	5.1	155			0743	9.3	283			0740	9.9	302			1235	2.8	85			0615	9.4	287	
	1730	7.3	223			1750	8.2	250			1355	3.9	119			1409	1.6	49			1832	7.5	229			1246	0.3	9	
											1913	6.9	210			2017	7.8	238								1919	8.7	265	
8 Th	0032	-0.2	-6		23 F	0038	-1.1	-34		8 Su	0115	2.1	64		23 M	0155	2.8	85		8 Su	0023	2.6	79		23 M	0055	3.3	101	
	0806	9.8	299			0751	10.5	320			0806	9.2	280			0815	9.7	296			0645	8.6	262			0650	9.2	280	
	1404	5.5	168			1351	4.3	131			1434	3.4	104			1503	1.1	34			1307	2.3	70			1333	-0.1	-3	
	1817	6.9	210			1855	7.7	235			2008	6.6	201			2131	7.5	229			1918	7.5	229			2022	8.6	262	
9 F	0105	0.4	12		24 Sa	0122	0.0	0		9 M	0149	2.9	88		24 Tu	0246	4.1	125		9 M	0057	3.3	101		24 Tu	0147	4.2	128	
	0834	9.7	296			0827	10.4	317			0831	9.0	274			0853	9.3	283			0708	8.5	259			0726	8.8	268	
	1449	5.0	152			1447	3.4	104			1516	2.9	88			1600	0.8	24			1342	1.9	58			1422	-0.2	-6	
	1910	6.4	195			2007	7.2	219			2113	6.4	195			2255	7.4	226			2009	7.4	226			2127	8.5	259	
10 Sa	0139	1.2	37		25 Su	0208	1.4	43		10 Tu	0224	3.9	119		25 W	0346	5.2	158		10 Tu	0134	4.0	122		25 W	0244	5.0	152	
	0902	9.5	290			0903	10.3	314			0856	8.9	271			0934	8.8	268			0731	8.4	256			0805	8.3	253	
	1536	4.4	134			1546	2.5	76			1603	2.3	70			1701	0.6	18			1421	1.5	46			1514	0.0	0	
	2011	6.0	183			2128	6.7	204			2231	6.3	192						2106		7.4	226		2238		8.3	253		
11 Su	0213	2.2	67		26 M	0256	2.9	88		11 W	0305	4.9	149		26 Th	0029	7.6	232		11 W	0213	4.8	146		26 Th	0351	5.6	171	
	0930	9.4	287			0941	10.0	305			0924	8.7	265			0503	6.0	183			0756	8.3	253			0849	7.7	235	
	1625	3.8	116			1647	1.7	52			1654	1.8	55			1023	8.3	253			1505	1.2	37			1610	0.4	12	
	2126	5.6	171			2303	6.5	198								1804	0.6	18			2212	7.3	223			2353	8.3	253	
12 M	0249	3.2	98		27 Tu	0351	4.3	131		12 Th	0006	6.5	198		27 F	0156	8.0	244		12 Th	0301	5.5	168		27 F	0516	5.9	180	
	0959	9.2	280			1021	9.7	296			0359	5.8	177			0638	6.4	195			0826	8.1	247			0943	7.1	216	
	1714	3.1	94			1749	1.0	30			0957	8.6	262			1122	7.8	238			1556	0.9	27			1712	0.8	24	
	2301	5.6	171								1750	1.2	37			1906	0.5	15			2329	7.4	226						
13 Tu	0330	4.3	131		28 W	0052	6.9	210		13 F	0145	7.1	216		28 Sa	0301	8.4	256		13 F	0403	6.1	186		28 Sa	0105	8.3	253	
	1028	9.1	277			0501	5.6	171			0520	6.5	198			0810	6.2	189			0904	7.9	241			0651	5.7	174	
	1803	2.3	70			1105	9.3	283			1039	8.4	256			1231	7.4	226			1654	0.7	21			1056	6.6	201	
						1848	0.4	12			1846	0.5	15			2002	0.5	15								1816	1.1	34	
14 W	0051	5.9	180		29 Th	0229	7.6	232		14 Sa	0255	7.8	238							14 Sa	0050	7.7	235		29 Su	0205	8.4	256	
	0425	5.4	165			0628	6.5	198			0653	6.9	210						0527		6.4	195		0808		5.2	158		
	1100	8.9	271			1153	8.8	268			1135	8.4	256						0957		7.7	235		1222		6.3	192		
	1850	1.5	46			1943	-0.1	-3			1940	-0.2	-6						1757		0.4	12		1918		1.4	43		
15 Th	0232	6.7	204		30 F	0337	8.3	253		15 Su	0342	8.4	256							15 Su	0158	8.1	247		30 M	0251	8.4	256	
	0544	6.3	192			0759	6.8	207			0812	6.8	207						0654		6.4	195		0858		4.7	143		
	1135	8.8	268			1246	8.5	259			1242	8.3	253						1113		7.5	229		1342		6.4	195		
	1935	0.6	18			2033	-0.4	-12			2031	-0.8	-24						1900		0.2	6		2013		1.7	52		
				31 Sa	0425	8.9	271															31 Tu	0326	8.4	256				
					0916	6.7	204																0934	4.0	122				
					1341	8.2	250																1447	6.6	201				
					2117	-0.5	-15																	2100	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.

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, 2015

Times and Heights of High and Low Waters

July						August						September																	
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					
1 W ○	0247	8.4	256		16 Th	0353	7.9	241		1 Sa	0428	8.3	253		16 Su	0020	4.3	131		1 Tu	0044	2.0	61		16 W	0043	1.9	58	
	1031	-1.9	-58			1113	-1.4	-43			1134	-1.6	-49			0532	7.3	223			0646	8.3	253			0710	7.7	235	
	1820	9.3	283			1851	9.4	287			1852	9.6	293			1202	0.7	21			1246	1.6	49			1250	3.5	107	
	2313	6.6	201								1900	8.7	265			1909	9.4	287			1909	9.4	287			1844	8.0	244	
2 Th	0333	8.4	256		17 F	0015	5.8	177		2 Su	0026	4.8	146		17 M	0055	3.9	119		2 W	0134	1.2	37		17 Th	0117	1.6	49	
	1110	-2.2	-67			0440	7.6	232			0528	8.1	247			0619	7.2	219			0751	8.1	247			0758	7.7	235	
	1856	9.6	293			1149	-1.0	-30			1217	-1.1	-34			1235	1.4	43			1334	2.7	82			1328	4.2	128	
						1922	9.4	287			1926	9.8	299			1924	8.6	262			1945	9.2	280			1908	7.8	238	
3 F	0003	6.4	195		18 Sa	0058	5.5	168		3 M	0117	4.0	122		18 Tu	0131	3.4	104		3 Th	0227	0.7	21		18 F	0155	1.3	40	
	0422	8.2	250			0526	7.2	219			0632	7.8	238			0708	7.0	213			0902	7.9	241			0852	7.6	232	
	1152	-2.2	-67			1224	-0.5	-15			1301	-0.2	-6			1309	2.1	64			1427	3.8	116			1410	4.8	146	
	1932	9.8	299			1952	9.3	283			2000	9.8	299			1948	8.5	259			2024	8.9	271			1934	7.7	235	
4 Sa	0055	6.0	183		19 Su	0142	5.0	152		4 Tu	0211	3.1	94		19 W	0209	2.9	88		4 F	0323	0.4	12		19 Sa	0237	1.1	34	
	0516	7.9	241			0615	6.9	210			0740	7.3	223			0801	6.8	207			1020	7.7	235			0952	7.6	232	
	1234	-1.9	-58			1259	0.2	6			1347	1.0	30			1344	2.9	88			1528	4.9	149			1500	5.4	165	
	2008	10.0	305			2020	9.2	280			2035	9.7	296			2013	8.4	256			2108	8.5	259			2004	7.5	229	
5 Su	0149	5.4	165		20 M	0226	4.5	137		5 W	0307	2.3	70		20 Th	0251	2.5	76		5 Sa	0424	0.3	9		20 Su	0326	1.0	30	
	0616	7.5	229			0707	6.4	195			0855	6.9	210			0901	6.6	201			1145	7.8	238			1101	7.6	232	
	1318	-1.2	-37			1334	1.0	30			1435	2.4	73			1422	3.8	116			1643	5.6	171			1604	5.9	180	
	2045	10.0	305			2048	9.1	277			2113	9.6	293			2040	8.2	250			2159	8.0	244			2042	7.3	223	
6 M	0247	4.7	143		21 Tu	0311	4.0	122		6 Th	0406	1.5	46		21 F	0336	2.1	64		6 Su	0528	0.3	9		21 M	0423	0.9	27	
	0723	6.9	210			0806	6.0	183			1021	6.7	204			1011	6.5	198			1309	8.0	244			1214	7.7	235	
	1402	-0.2	-6			1409	1.9	58			1529	3.7	113			1506	4.7	143			1812	5.9	180			1723	6.1	186	
	2121	10.0	305			2116	8.9	271			2153	9.3	283			2108	8.0	244			2302	7.5	229			2137	7.1	216	
7 Tu	0347	3.7	113		22 W	0358	3.4	104		7 F	0508	0.8	24		22 Sa	0427	1.8	55		7 M	0633	0.4	12		22 Tu	0526	0.8	24	
	0841	6.3	192			0915	5.7	174			1158	6.8	207			1134	6.6	201			1418	8.3	253			1320	8.0	244	
	1450	1.0	30			1446	2.9	88			1634	5.0	152			1601	5.4	165			1939	5.7	174			1842	5.9	180	
	2159	9.9	302			2144	8.7	265			2237	9.0	274			2142	7.9	241						2256		6.9	210		
8 W ○	0448	2.7	82		23 Th	0447	2.8	85		8 Sa	0610	0.3	9		23 Su	0522	1.3	40		8 Tu	0015	7.2	219		23 W	0630	0.7	21	
	1013	5.9	180			1037	5.6	171			1337	7.3	223			1304	6.9	210			0734	0.4	12			1411	8.2	250	
	1541	2.5	76			1528	3.9	119			1754	5.8	177			1715	6.0	183			1510	8.5	259			1945	5.4	165	
	2238	9.7	296			2214	8.5	259			2327	8.6	262			2225	7.8	238			2044	5.3	162						
9 Th	0549	1.6	49		24 F	0537	2.2	67		9 Su	0710	-0.2	-6		24 M	0620	0.8	24		9 W	0127	7.1	216		24 Th	0023	7.0	213	
	1157	5.9	180			1215	5.8	177			1454	7.9	241			1418	7.4	226			0828	0.5	15			0730	0.5	15	
	1641	3.9	119			1619	4.9	149			1921	6.2	189			1839	6.3	192			1551	8.6	262			1452	8.5	259	
	2318	9.5	290			2245	8.4	256								2322	7.7	235			2132	4.8	146			2035	4.7	143	
10 F	0646	0.6	18		25 Sa	0627	1.5	46		10 M	0024	8.3	253		25 Tu	0716	0.3	9		10 Th	0231	7.2	219		25 F	0142	7.3	223	
	1342	6.5	198			1355	6.3	192			0804	-0.5	-15			1510	7.9	241			0915	0.7	21			0825	0.5	15	
	1753	5.1	155			1729	5.8	177			1550	8.4	256			1951	6.2	189			1624	8.6	262			1527	8.8	268	
						2321	8.3	253			2039	6.2	189								2210	4.3	131			2119	3.7	113	
11 Sa	0001	9.3	283		26 Su	0714	0.8	24		11 Tu	0122	8.0	244		26 W	0028	7.7	235		11 F	0325	7.3	223		26 Sa	0251	7.8	238	
	0739	-0.3	-9			1509	7.1	216			0854	-0.6	-18			0808	-0.3	-9			0955	1.0	30			0917	0.7	21	
	1508	7.4	226			1849	6.3	192			1634	8.7	265			1549	8.3	253			1652	8.5	259			1601	9.0	274	
	1912	6.0	183								2140	6.0	183			2049	5.9	180			2242	3.8	116			2202	2.7	82	
12 Su	0046	9.1	277		27 M	0002	8.2	250		12 W	0219	7.9	241		27 Th	0135	7.9	241		12 Sa	0413	7.4	226		27 Su	0355	8.2	250	
	0828	-1.0	-30			0759	0.0	0			0938	-0.6	-18			0857	-0.7	-21			1031	1.3	40			1006	1.1	34	
	1610	8.2	250			1558	7.8	238			1711	8.9	271			1624	8.7	265			1716	8.4	256			1633	9.1	277	
	2030	6.4	195			2003	6.6	201			2228	5.6	171			2138	5.3	162			2312	3.3	101			2245	1.6	49	
13 M	0133	8.8	268		28 Tu	0049	8.3	253		13 Th	0312	7.7	235		28 F	0239	8.1	247		13 Su	0457	7.5	229		28 M	0456	8.6	262	
	0913	-1.4	-43			0843	-0.7	-21			0944	-0.8	-24			1106	1.8	55			1054	1.8	55						
	1659	8.8	268			1637	8.3	253			1657	9.0	274			1738	8.3	253			1706	9.2	280						
	2138	6.5	198			2105	6.6	201			2308	5.2	158			2224	4.6	140			2341	2.8	85			2329	0.6	18	
14 Tu	0220	8.5	259		29 W	0141	8.3	253		14 F	0400	7.6	232		29 Sa	0341	8.3	253		14 M	0541	7.6	232		29 Tu	0556	8.9	271	
	0955	-1.6	-49			0925	-1.3	-40			1054	-0.2	-6			1029	-0.7	-21			1139	2.3	70			1143	2.6	79	
	1740	9.2	280			1712	8.8	268			1810	8.9	271			1729	9.2	280			1759	8.2	250			1740	9.1	277	
	2237	6.4	195			2159	6.4	195			2345	4.8	146			2310	3.7	113											
15 W ●	0307	8.2	250		30 Th	0235	8.4	256		15 Sa	0447	7.5	229		30 Su	0442	8.4	256		15 Tu	0011	7.3	70		30 W	0014	-0.1	-3	
	1035	-1.6	-49			1008	-1.7	-52			1128	0.2	6			1114	-0.2	-6			0625	2.7	235			0656	9.0	274	
	1817	9.4	287			1745	9.2	280			1836	8.8	268			1801	9.3	283			1214	2.9	88			1233	3.5	107	
	2328	6.2	189			2248	6.0	183								2356	2.8	85			1821	8.1	247			1816	9.0	274	
				31 F ○	0331	8.4	256							31 M	0543	8.4	256												

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, 2015

Times and Heights of High and Low Waters

October						November						December					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 Th	0101	-0.5	-15			16 Su	0205	-0.8	-24			1 Tu	0217	0.1	3		
	0757	9.1	277				0948	9.6	293			16 W	0929	10.1	308		
	1326	4.4	134				1541	5.8	177				1547	5.2	158		
	1854	8.6	262				1942	6.9	210				2021	5.9	180		
2 F	0149	-0.6	-18			17 M	0255	0.0	0			2 W	0302	1.1	34		
	0901	9.0	274				1045	9.4	287			17 Th	1008	10.1	308		
	1426	5.1	155				1705	5.5	168				1649	4.3	131		
	1935	8.2	250				2048	6.2	189			17 F	2117	5.9	180		
3 Sa	0242	-0.4	-12			18 Tu	0350	0.8	24			3 Th	0351	2.2	67		
	1009	8.8	268				1140	9.2	280				1127	9.3	283		
	1535	5.6	171				1826	4.9	149				1845	3.6	110		
	2023	7.6	232				2218	5.7	174				2335	5.2	158		
4 Su	0338	0.0	0			19 W	0450	1.7	52			4 F	0446	3.3	101		
	1119	8.7	265				1230	9.0	274				1204	9.1	277		
5 M	1659	5.7	174				1927	4.1	125				1928	2.8	85		
	2122	7.0	213									5 Sa	0123	5.6	171		
													0549	4.3	131		
													1238	8.8	268		
													2004	2.0	61		
6 Tu	0547	1.1	34			20 Th	0001	5.5	168			6 Su	0248	6.3	192		
	1328	8.6	262				0554	2.6	79				0656	5.2	158		
	1944	4.8	146				1313	8.8	268				1309	8.7	265		
							2010	3.3	101				2035	1.2	37		
7 W	0012	6.2	189			21 F	0135	5.8	177			7 M	0349	7.2	219		
	0652	1.5	46				0657	3.3	101				0801	5.8	177		
	1416	8.6	262				1349	8.6	262				1337	8.5	259		
	2035	4.2	128				2044	2.5	76				2106	0.5	15		
8 Th	0135	6.4	195			22 Sa	0248	6.4	195			8 Tu	0435	7.9	241		
	0751	1.9	58				0755	3.9	119				0859	6.2	189		
	1455	8.5	259				1419	8.5	259				1405	8.5	259		
	2113	3.5	107				2113	1.8	55				2135	-0.2	-6		
9 F	0242	6.7	204			23 Su	0345	7.0	213			9 W	0514	8.6	262		
	0841	2.3	70				0846	4.4	134				0951	6.6	201		
	1525	8.4	256				1444	8.4	256				1433	8.4	256		
	2144	2.9	88				2140	1.1	34				2206	-0.7	-21		
10 Sa	0337	7.1	216			24 M	0432	7.7	235			10 Th	0551	9.1	277		
	0925	2.7	82				0933	4.9	149				1040	6.7	204		
	1551	8.3	253				1508	8.3	253				1503	8.3	253		
	2212	2.3	70				2207	0.5	15				2238	-1.1	-34		
11 Su	0424	7.4	226			25 Tu	0514	8.2	250			11 F	0626	9.5	290		
	1004	3.1	94				1016	5.3	162				1126	6.8	207		
	1613	8.2	250				1530	8.2	250				1536	8.3	253		
	2239	1.7	52				2234	0.0	0				2312	-1.4	-43		
12 M	0507	7.8	238			26 W	0553	8.7	265			12 Sa	0701	9.8	299		
	1042	3.6	110				1059	5.7	174				1212	6.8	207		
	1634	8.1	247				1553	8.1	247				1612	8.1	247		
13 Tu	2306	1.2	37				2304	-0.4	-12				2348	-1.6	-49		
												13 Su	0737	10.0	305		
													1300	6.7	204		
													1653	7.9	241		
14 W	0549	8.1	247			27 Th	0632	9.1	277			14 M	0026	-1.5	-46		
	1118	4.1	125				1141	6.0	183				0814	10.1	308		
	1655	8.0	244				1618	8.0	244				1351	6.4	195		
	2334	0.8	24				2335	-0.8	-24				1740	7.6	232		
15 Th	0630	8.4	256			28 F	0711	9.3	283			15 Tu	0106	-1.1	-34		
	1156	4.6	140				1225	6.2	189				0851	10.2	311		
	1717	7.9	241				1645	7.9	241				1447	5.9	180		
													1837	7.1	216		
												30 W	0145	0.5	15		
													0917	9.9	302		
													1548	4.7	143		
													2005	6.1	186		
												31 Th	0222	1.6	49		
													0950	9.6	293		
													1644	4.1	125		
													2122	5.6	171		

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, 2015

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Th	h m 1049 ft 1855 cm 2.3 70	16 F	h m 0940 ft 1834 cm 2.6 80	1 Su	h m 0503 ft 0705 cm 8.2 250 1157 8.9 270 1959 2.3 70	16 M	h m 0438 ft 0606 cm 7.9 240 1039 9.2 280 1925 1.6 50	1 Su	h m 0335 ft 0617 cm 7.9 240 1106 7.9 240 1856 3.0 90	16 M	h m 0237 ft 0520 cm 7.9 240 0914 8.2 250 1806 2.6 80
2 F	0446 8.2 250 0607 7.9 240 1125 9.5 290 1934 1.6 50	17 Sa	1010 9.5 290 1911 2.0 60	2 M	0538 8.2 250 0754 7.9 240 1248 8.5 260 2035 2.3 70	17 Tu	0448 7.9 240 0715 7.5 230 1203 9.2 280 2007 1.6 50	2 M	0409 7.9 240 0705 7.2 220 1211 7.9 240 1935 3.0 90	17 Tu	0237 7.5 230 0622 6.9 210 1107 8.2 250 1854 2.6 80
3 Sa	0527 8.5 260 0708 8.2 250 1159 9.2 280 2013 1.6 50	18 Su	1050 9.5 290 1950 1.3 40	3 Tu	0608 8.2 250 0840 7.5 230 1333 8.5 260 2109 2.3 70	18 W	0318 7.9 240 0810 6.9 210 1324 8.9 270 2047 1.6 50	3 Tu	0437 7.9 240 0747 6.9 210 1303 7.9 240 2010 3.3 100	18 W	0147 7.9 240 0713 6.2 190 1236 8.2 250 1938 2.6 80
4 Su	0607 8.5 260 0802 8.2 250 1228 9.2 280 2051 1.6 50	19 M	0601 8.2 250 0706 8.2 250 1141 9.8 300 2029 1.0 30	4 W	0631 8.2 250 0922 7.2 220 1415 8.2 250 2141 2.6 80	19 Th	0333 8.2 250 0903 6.2 190 1429 8.9 270 2127 2.3 70	4 W	0448 7.5 230 0824 6.6 200 1349 7.9 240 2043 3.6 110	19 Th	0207 7.9 240 0802 5.2 160 1343 8.2 250 2020 3.3 100
5 M	0644 8.5 260 0854 8.2 250 1233 8.9 270 2128 1.6 50	20 Tu	0615 8.2 250 0815 7.9 240 1243 9.5 290 2109 1.0 30	5 Th	0642 7.9 240 1003 6.9 210 1455 7.9 240 2211 3.3 100	20 F	0403 8.5 260 0954 5.6 170 1530 8.2 250 2208 3.0 90	5 Th	0323 7.5 230 0900 5.9 180 1432 7.5 230 2113 3.9 120	20 F	0237 8.2 250 0849 4.3 130 1444 7.9 240 2101 3.6 110
6 Tu	0717 8.5 260 0944 8.2 250 1256 8.9 270 2203 2.0 60	21 W	0633 8.2 250 0913 7.5 230 1358 9.2 280 2150 1.3 40	6 F	0525 7.9 240 1044 6.6 200 1537 7.5 230 2237 3.6 110	21 Sa	0438 8.5 260 1047 4.9 150 1632 7.9 240 2248 3.9 120	6 F	0340 7.5 230 0935 5.6 170 1515 7.5 230 2140 4.3 130	21 Sa	0310 8.5 260 0936 3.6 110 1544 7.9 240 2142 4.6 140
7 W	0745 8.5 260 1035 7.9 240 1327 8.2 250 2236 2.3 70	22 Th	0509 8.2 250 1010 7.2 220 1508 8.9 270 2231 1.6 50	7 Sa	0540 8.2 250 1127 6.2 190 1623 7.2 220 2300 4.3 130	22 Su	0516 8.9 270 1142 4.3 130 1741 7.2 220 2329 4.9 150	7 Sa	0402 7.9 240 1010 5.2 160 1559 7.2 220 2205 4.9 150	22 Su	0346 8.9 270 1024 3.0 90 1648 7.5 230 2224 5.2 160
8 Th	0803 8.5 260 1128 7.5 230 1401 7.9 240 2306 3.0 90	23 F	0537 8.5 260 1108 6.6 200 1613 8.2 250 2312 2.6 80	8 Su	0601 8.2 250 1214 5.9 180 1717 6.6 200 2322 4.9 150	23 M	0555 8.9 270 1243 3.9 120 1914 6.6 200	8 Su	0426 7.9 240 1047 4.6 140 1647 7.2 220 2229 5.2 160	23 M	0423 8.9 270 1115 2.6 80 1808 7.2 220 2309 6.2 190
9 F	0808 8.5 260 1230 7.2 220 1433 7.5 230 2332 3.6 110	24 Sa	0614 8.9 270 1211 5.9 180 1721 7.2 220 2353 3.6 110	9 M	0625 8.2 250 1307 5.2 160 1827 6.2 190 2340 5.6 170	24 Tu	0010 5.9 180 0635 8.9 270 1352 3.6 110 2305 6.9 210	9 M	0451 8.2 250 1127 4.3 130 1743 6.9 210 2254 5.9 180	24 Tu	0500 8.9 270 1208 2.6 80 2103 7.2 220
10 Sa	0749 8.5 260 2353 4.3 130	25 Su	0652 9.2 280 1322 5.2 160 1845 6.6 200	10 Tu	0650 8.5 260 1407 4.9 150 2048 5.9 180 2335 5.9 180	25 W	0053 6.6 200 0716 8.9 270 1504 3.3 100	10 Tu	0516 8.2 250 1211 3.9 120 1859 6.6 200 2318 6.2 190	25 W	0001 6.9 210 0536 8.5 260 1307 2.6 80 2251 7.5 230
11 Su	0751 8.5 260	26 M	0033 4.6 140 0732 9.2 280 1440 4.6 140 2058 6.2 190	11 W	0715 8.5 260 1511 4.3 130	26 Th	0756 8.5 260 1615 3.3 100	11 W	0540 8.2 250 1302 3.6 110	26 Th	0116 7.2 220 0606 8.2 250 1412 3.0 90
12 M	0010 4.9 150 0806 8.5 260 1630 5.6 170 2015 5.6 170	27 Tu	0108 5.9 180 0812 9.2 280 1557 3.9 120	12 Th	0741 8.5 260 1611 3.6 110	27 F	0213 7.9 240 0355 7.5 230 0839 8.2 250 1718 3.0 90	12 Th	0602 8.2 250 1359 3.6 110	27 F	0014 7.9 240 0302 7.5 230 0616 7.9 240 1519 3.3 100
13 Tu	0014 5.6 170 0827 8.9 270 1658 4.6 140	28 W	0852 9.2 280 1702 3.3 100	13 F	0809 8.9 270 1707 3.3 100	28 Sa	0255 7.9 240 0516 7.9 240 0940 8.2 250 1811 3.0 90	13 F	0622 8.2 250 1501 3.3 100	28 Sa	0106 7.9 240 0433 7.2 220 0620 7.5 230 1625 3.3 100
14 W	0850 8.9 270 1728 3.9 120	29 Th	0933 9.2 280 1755 3.0 90	14 Sa	0845 8.9 270 1757 2.6 80	15 Su	0935 9.2 280 1843 2.0 60	14 Sa	0654 8.2 250 1607 3.0 90	29 Su	0146 7.9 240 0543 7.2 220 0703 7.2 220 1725 3.6 110
15 Th	0914 9.2 280 1759 3.3 100	30 F	1015 8.9 270 1840 2.6 80	15 Su	0935 9.2 280 1843 2.0 60			15 Su	0225 7.9 240 0348 7.5 230 0752 8.2 250 1710 2.6 80	30 M	0215 7.9 240 0627 6.6 200 1111 6.9 210 1815 3.9 120
		31 Sa	0426 8.2 250 0606 8.2 250 1103 8.9 270 1920 2.3 70							31 Tu	0211 7.5 230 0702 6.2 190 1218 6.9 210 1858 3.9 120

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, 2015

Times and Heights of High and Low Waters

April				May				June			
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
1 W	0139 0734 1311 1935	7.5 5.6 6.9 4.3	230 170 210 130	16 Th	0043 0705 1254 1905	8.2 4.6 7.2 4.3	250 140 220 130	1 M	0021 0817 1804 1931	8.5 1.6 7.2 7.2	260 50 220 220
2 Th	0152 0806 1359 2008	7.5 4.9 6.9 4.6	230 150 210 140	17 F	0113 0750 1358 1949	8.5 3.3 7.2 4.6	260 100 220 140	2 Tu	0043 0851 1840 2019	8.5 1.3 7.5 7.5	260 40 230 230
3 F	0212 0837 1445 2037	7.5 4.6 7.2 5.2	230 140 220 160	18 Sa	0146 0834 1459 2033	8.5 2.6 7.2 5.2	260 80 220 160	3 W	0105 0928 1918 2109	8.9 1.0 7.5 7.5	270 30 230 230
4 Sa	0234 0908 1530 2104	7.9 3.9 7.2 5.6	240 120 220 170	19 Su	0221 0918 1603 2117	8.9 1.6 7.5 5.9	270 50 230 180	4 Th	0130 1008 1956 2205	8.9 0.7 7.9 7.5	270 20 240 230
5 Su	0258 0941 1617 2130	7.9 3.3 7.2 5.9	240 100 220 180	20 M	0257 1003 1724 2204	8.9 1.3 7.5 6.6	270 40 230 200	5 F	0204 1050 2032 2307	8.5 1.0 7.9 7.5	260 30 240 230
6 M	0322 1016 1710 2159	7.9 3.0 7.2 6.2	240 90 220 190	21 Tu	0333 1049 1959 2257	8.9 1.3 7.5 7.2	270 40 230 220	6 Sa	0245 1134 2102	8.2 1.0 7.9	250 30 240
7 Tu	0346 1054 1821 2230	8.2 2.6 7.2 6.9	250 80 220 210	22 W	0406 1137 2110	8.5 1.6 7.9	260 50 240	7 Su	0017 0331 1221 2112	7.2 7.9 1.6 7.9	220 240 50 240
8 W	0408 1136 2105 2307	8.2 2.6 7.2 7.2	250 80 220 220	23 Th	0005 0432 1229 2217	7.5 8.2 2.0 7.9	230 250 60 240	8 M	0135 0426 1309 2100	6.9 7.2 2.3 8.2	210 220 70 250
9 Th	0422 1222 2230 2357	8.2 2.6 7.5 7.5	250 80 230 230	24 F	0144 0431 1323 2312	7.5 7.5 2.6 8.2	230 230 80 250	9 Tu	0255 0638 1358 2126	5.9 6.2 3.3 8.2	180 190 100 250
10 F	0423 1315 2335	8.2 2.6 7.5	250 80 230	25 Sa	1420 2351	3.0 7.9	90 240	10 W	0406 0859 1451 2157	5.2 5.9 4.3 8.5	160 180 130 260
11 Sa	0125 0447 1413	7.5 7.9 2.6	230 240 80	26 Su	1519	3.6	110	11 Th	0503 1054 1548 2230	3.9 5.6 4.9 8.5	120 170 150 260
12 Su	0016 0313 0540 1515	7.9 7.5 7.5 2.6	240 230 230 80	27 M	0009 1619	7.9 3.9	240 120	12 F	0552 1429 1653 2304	3.0 6.2 5.9 8.9	90 190 180 270
13 M	0042 0433 0710 1620	7.9 7.2 7.2 3.0	240 220 220 90	28 Tu	0001 0629 1107 1716	7.9 5.6 5.9 4.6	240 170 180 140	13 Sa	0637 1555 1755 2340	2.3 6.6 6.6 8.9	70 200 200 270
14 Tu	0028 0531 0951 1722	7.9 6.2 6.9 3.3	240 190 210 100	29 W	0008 0648 1221 1806	7.9 4.9 6.2 4.9	240 150 190 150	14 Su	0720 1652 1853	1.3 7.2 6.9	40 220 210
15 W	0020 0619 1140 1816	7.9 5.6 6.9 3.6	240 170 210 110	30 Th	0025 0715 1322 1847	7.9 4.3 6.2 5.2	240 130 190 160	15 M	0018 0802 1741 1946	9.2 1.0 7.5 7.2	280 30 230 220
16 Th	0043 0705 1254 1905	8.2 4.6 7.2 4.3	250 140 220 130	1 F	0045 0743 1418 1921	7.9 3.6 6.6 5.9	240 110 200 180	16 Sa	0023 0735 1427 1919	8.9 2.0 6.9 5.9	270 60 210 180
17 F	0107 0812 1513 1951	7.9 3.3 6.9 6.2	240 100 210 190	2 Sa	0107 0812 1513 1951	7.9 3.3 6.9 6.2	240 100 210 190	17 Su	0059 0817 1719 2007	8.9 1.3 7.2 6.6	270 40 220 200
18 M	0130 0842 1618 2021	8.2 2.6 6.9 6.6	250 80 210 200	3 Su	0130 0842 1618 2021	8.2 2.6 6.9 6.6	250 80 210 200	18 M	0135 0859 1818 2056	8.9 1.0 7.5 6.9	270 30 230 210
19 Tu	0212 0943 1912 2148	8.9 0.7 7.9 7.2	270 20 240 220	4 M	0153 0915 1812 2054	8.2 2.0 7.2 6.9	250 60 220 210	19 Tu	0212 0943 1912 2148	8.9 0.7 7.9 7.2	270 20 240 220
20 W	0247 1027 2004 2247	8.5 1.0 7.9 7.5	260 30 240 230	5 Tu	0216 0950 1911 2131	8.2 1.6 7.5 7.2	250 50 230 220	20 W	0247 1027 2004 2247	8.5 1.0 7.9 7.5	260 30 240 230
21 Th	0316 1111 2053 2359	8.2 1.3 8.2 7.5	250 40 250 230	6 W	0235 1028 2007 2215	8.2 1.3 7.5 7.5	250 40 230 230	21 Th	0316 1111 2053 2359	8.2 1.3 8.2 7.5	250 40 250 230
22 F	0323 1156 2136	7.9 1.6 8.2	240 50 250	7 Th	0239 1110 2102 2310	8.2 1.3 7.9 7.5	250 40 230 230	22 F	0323 1156 2136	7.9 1.6 8.2	240 50 250
23 Sa	0134 0323 1240 2207	7.2 7.5 2.3 8.2	220 230 70 250	8 F	0252 1155 2151	8.2 1.6 7.9	250 50 240	23 Sa	0134 0323 1240 2207	7.2 7.5 2.3 8.2	220 230 70 250
24 Su	1323 2221	3.0 7.9	90 240	9 Sa	0024 0325 1245 2232	7.5 7.9 2.0 7.9	230 240 60 240	24 Su	1323 2221	3.0 7.9	90 240
25 M	1402 2225	3.6 7.9	110 240	10 Su	0154 0409 1337 2258	7.5 7.5 2.3 7.9	230 230 70 240	25 M	1402 2225	3.6 7.9	110 240
26 Tu	1435 2238	4.3 7.9	130 240	11 M	0322 0511 1434 2243	6.9 6.9 3.0 7.9	210 210 90 240	26 Tu	1435 2238	4.3 7.9	130 240
27 W	0559 1058 1452 2256	4.9 5.6 4.9 7.9	150 170 150 240	12 Tu	0430 0804 1533 2253	6.2 6.2 3.6 8.2	190 190 110 250	27 W	0559 1058 1452 2256	4.9 5.6 4.9 7.9	150 170 150 240
28 Th	0621 1232 1445 2316	4.3 5.6 5.6 8.2	130 170 170 250	13 W	0522 1029 1635 2319	5.2 6.2 4.3 8.2	160 190 130 250	28 Th	0621 1232 1445 2316	4.3 5.6 5.6 8.2	130 170 170 250
29 F	0648 2336	3.6 8.2	110 250	14 Th	0608 1200 1735 2350	3.9 6.2 4.9 8.5	120 190 150 260	29 F	0648 2336	3.6 8.2	110 250
30 Sa	0716 2358	3.0 8.2	90 250	15 F	0652 1315 1829	3.0 6.6 5.6	90 200 170	30 Sa	0716 2358	3.0 8.2	90 250
31 Su	0746 1735 1845	2.3 6.9 6.9	70 210 210								

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

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Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
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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, 2015

Times and Heights of High and Low Waters

January						February						March																
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	0351	13.5	410		16 F	0338	12.8	390		1 Su	0508	14.8	450	16 M	0429	14.4	440		1 Su	0348	14.1	430	16 M	0255	14.1	430		
	0838	10.8	330			0746	11.5	350			1031	10.8	330			0946	10.5	320			0932	10.2		310		0839	9.8	300
	1348	14.4	440			1255	14.1	430			1515	13.5	410			1432	13.8	420			1420	12.5		380		1317	12.5	380
	2121	2.6	80			2049	3.6	110			2231	3.0	90			2157	2.3	70			2120	4.3		130		2032	3.9	120
2 F	0445	14.4	440		17 Sa	0425	13.8	420		2 M	0542	14.8	450		17 Tu	0506	14.8	450		2 M	0428	14.4	440		17 Tu	0340	14.4	440
	0944	11.2	340			0901	11.5	350			1114	10.2	310			1037	9.8	300			1016	9.5	290			0932	9.2	280
	1436	14.1	430			1347	14.4	440			1605	13.5	410			1538	14.1	430			1520	12.5	380			1436	13.1	410
	2206	2.3	70			2136	2.6	80			2309	3.3	100			2246	2.0	60			2206	4.3	130			2129	3.6	110
3 Sa	0529	14.8	450		18 Su	0506	14.4	440		3 Tu	0614	15.1	460		18 W	0542	15.4	470		3 Tu	0501	14.4	440		18 W	0419	14.8	450
	1039	11.2	340			1001	11.5	350			1152	9.8	300			1125	8.9	270			1053	8.9	270			1020	7.9	240
	1523	14.1	430			1442	14.4	440			1649	13.1	400			1640	14.4	440			1610	12.8	390			1546	13.5	410
	2249	2.3	70			2222	1.6	50			2344	3.3	100			2331	2.3	70			2245	4.6	140			2221	3.6	110
4 Su	0608	15.1	460		19 M	0543	15.1	460		4 W	0642	15.1	460		19 Th	0616	15.7	480		4 W	0530	14.4	440		19 Th	0455	15.1	460
	1127	10.8	330			1053	11.2	340			1229	9.5	290			1212	7.9	240			1128	8.2	250			1105	6.6	200
	1608	13.8	420			1538	14.4	440			1731	13.1	400			1739	14.4	440			1653	12.8	390			1648	14.1	430
	2328	2.3	70			2307	1.3	40													2320	4.9	150			2309	4.3	130
5 M	0643	15.4	470		20 Tu	0620	15.4	470		5 Th	0017	3.6	110		20 F	0015	3.0	90		5 Th	0556	14.4	440		20 F	0531	15.4	470
	1212	10.8	330			1142	10.5	320			0708	15.1	460			0651	15.7	480			1200	7.9	240			1150	5.6	170
	1651	13.5	410			1636	14.8	450			1306	8.9	270			1300	6.9	210			1734	13.1	400			1745	14.4	440
						2351	1.3	40			1812	12.8	390			1837	14.1	430			2353	5.2	160			2354	4.9	150
6 Tu	0005	2.3	70		21 W	0655	15.7	480		6 F	0047	4.3	130		21 Sa	0058	3.9	120		6 F	0620	14.4	440		21 Sa	0606	15.4	470
	0716	15.4	470			1232	9.8	300			0733	15.1	460			0726	16.1	490			1232	7.2	220			1235	4.3	130
	1254	10.5	320			1733	14.4	440			1342	8.5	260			1349	5.9	180			1813	13.1	400			1841	14.4	440
	1732	13.1	400								1854	12.8	390			1935	13.8	420										
7 W	0038	3.0	90		22 Th	0034	1.6	50		7 Sa	0116	5.2	160		22 Su	0142	5.2	160		7 Sa	0023	5.9	180		22 Su	0039	5.9	180
	0747	15.4	470			0731	16.1	490			0757	14.8	450			0802	15.7	480			0643	14.4	440			0641	15.4	470
	1337	10.2	310			1323	8.9	270			1419	7.9	240			1439	4.9	150			1305	6.6	200			1320	3.6	110
	1813	12.8	390			1831	14.1	430			1940	12.5	380			2039	13.5	410			1854	13.1	400			1939	14.4	440
8 Th	0110	3.6	110		23 F	0117	2.3	70		8 Su	0146	5.9	180		23 M	0228	6.6	200		8 Su	0054	6.6	200		23 M	0126	6.9	210
	0817	15.4	470			0807	16.4	500			0822	14.8	450			0839	15.4	470			0706	14.1	430			0718	15.1	460
	1421	9.5	290			1416	7.9	240			1458	7.2	220			1531	4.6	140			1338	5.9	180			1407	3.3	100
	1857	12.1	370			1932	13.5	410			2030	12.1	370			2151	13.1	400			1937	13.1	400			2039	14.1	430
9 F	0140	4.3	130		24 Sa	0159	3.6	110		9 M	0219	7.2	220		24 Tu	0319	8.2	250		9 M	0127	7.2	220		24 Tu	0215	8.2	250
	0845	15.4	470			0844	16.4	500			0849	14.4	440			0919	14.8	450			0731	14.1	430			0755	14.4	440
	1507	9.2	280			1511	6.9	210			1540	6.9	210			1625	4.3	130			1413	5.6	170			1454	3.3	100
	1946	11.8	360			2037	12.8	390			2129	11.8	360			2313	13.1	400			2025	13.1	400			2144	14.1	430
10 Sa	0210	5.2	160		25 Su	0244	5.2	160		10 Tu	0255	8.2	250		25 W	0422	9.5	290		10 Tu	0202	8.2	250		25 W	0312	9.2	280
	0913	15.1	460			0923	16.1	490			0918	14.4	440			1002	14.1	430			0758	13.8	420			0835	13.8	420
	1554	8.5	260			1609	6.2	190			1626	6.2	190			1723	4.3	130			1451	5.2	160			1544	3.6	110
	2041	11.2	340			2153	12.1	370			2243	11.5	350								2119	12.8	390			2253	14.1	430
11 Su	0242	6.6	200		26 M	0333	6.9	210		11 W	0339	9.2	280		26 Th	0038	13.1	400		11 W	0242	9.2	280		26 Th	0422	9.8	300
	0942	15.1	460			1003	15.7	480			0952	14.1	430			0543	10.5	320			0827	13.8	420			0920	12.8	390
	1644	7.9	240			1708	5.2	160			1717	5.6	170			1052	13.5	410			1533	4.9	150			1637	4.3	130
	2149	10.8	330			2325	11.8	360								1825	4.3	130			2223	12.8	390					
12 M	0318	7.5	230		27 Tu	0431	8.5	260		12 Th	0017	11.8	360		27 F	0154	13.5	410		12 Th	0331	9.8	300		27 F	0002	13.8	420
	1013	14.8	450			1045	15.1	460			0436	10.2	310			0716	10.8	330			0901	13.5	410			0549	10.2	310
	1734	6.9	210			1807	4.6	140			1031	13.8	420			1153	12.8	390			1622	4.9	150			1015	12.1	370
	2319	10.5	320								1813	5.2	160			1927	4.6	140			2337	12.8	390			1736	4.9	150
13 Tu	0402	8.9	270		28 W	0103	12.5	380		13 F	0148	12.5	380		28 Sa	0258	13.8	420		13 F	0434	10.5	320		28 Sa	0107	13.8	420
	1047	14.4	440			0544	11.2	340			0554	11.2	340			0835	10.5	320			0945	12.8	390			0717	9.8	300
	1824	6.2	190			1132	14.4	440			1120	13.8	420			1306	12.5	380			1718	4.6	140			1129	11.5	350
						1906	4.3	130			1911	4.6	140			2027	4.6	140								1840	5.2	160
14 W	0114	11.2	340		29 Th	0228	13.1	400		14 Sa	0255	13.1	400							14 Sa	0055	13.1	400		29 Su	0205	14.1	430
	0459	9.8	300			0712	10.8	330			0729	11.5	350								0601	10.8	330			0825	9.5	290
	1125	14.4	440			1224	14.1	430			1218	13.5	410								1043	12.5	380			1301	11.2	340
	1913	5.2	160			2004	3.6	110			2010	3.6	110								1822	4.3	130			1944	5.6	170
15 Th	0239	11.8	360		30 F	0335	13.8	420		15 Su	0346	13.8	420		15 Su	0201	13.5	410		15 Su	0201	13.5	410		30 M	0254	14.1	430
	0617	10.8	330			0835	11.2	340			0847	11.2	340			0731	10.5	320			0731	10.5	320			0914	8.5	260
	1208	14.1	430			1321	13.5	410			1324	13.8	420			1157	12.5	380			1157	12.5	380			1423	11.2	340
	2002	4.6	140			2058	3.3	100			2106	3.0	90								1928	4.3	130			2042	5.9	180
				31 Sa	0427	14.4	440																					
					0940	10.8	330																					
					1420	13.5	410																					
					2147	3.3	100																					

Time meridian 120° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

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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, 2015

Times and Heights of High and Low Waters

July				August				September			
Time		Height		Time		Height		Time		Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
1 W ○	0336	14.1	430	16 Th	0440	13.5	410	1 Su	0005	9.5	290
	1110	1.6	50		1152	2.3	70		0510	14.1	430
	1828	14.4	440		1858	14.8	450		1214	1.6	50
	2336	10.5	320						1908	15.1	460
2 Th	0423	14.1	430	17 F	0032	9.8	300	16 Su	0047	8.5	260
	1151	1.3	40		0524	13.1	400		0603	12.8	390
	1905	14.8	450		1229	2.6	80		1238	4.3	130
					1931	14.8	450		1918	14.4	440
3 F	0023	10.5	320	18 Sa	0116	9.5	290	17 M	0124	7.9	240
	0513	13.8	420		0608	12.8	390		0645	12.8	390
	1233	1.3	40		1303	3.3	100		1308	4.9	150
	1942	15.1	460		2002	14.8	450		1943	14.1	430
4 Sa	0114	9.8	300	19 Su	0159	9.2	280	18 Tu	0202	7.5	230
	0606	13.5	410		0652	12.5	380		0730	12.5	380
	1315	1.6	50		1335	3.9	120		1339	5.9	180
	2019	15.4	470		2032	14.8	450		2008	14.1	430
5 Su	0208	9.2	280	20 M	0245	8.5	260	19 W	0240	7.2	220
	0703	13.1	400		0739	11.8	360		0818	12.1	370
	1358	2.6	80		1407	4.9	150		1411	6.9	210
	2058	15.4	470		2101	14.4	440		2035	13.8	420
6 M	0305	8.5	260	21 Tu	0331	8.2	250	20 Th	0321	6.6	200
	0805	12.5	380		0832	11.2	340		0915	11.8	360
	1442	3.6	110		1439	6.2	190		1447	7.9	240
	2138	15.4	470		2130	14.4	440		2104	13.8	420
7 Tu	0405	7.5	230	22 W	0420	7.5	230	21 F	0406	6.2	190
	0915	11.8	360		0935	10.8	330		1024	11.5	350
	1530	4.9	150		1514	7.2	220		1529	8.9	270
	2219	15.4	470		2159	14.1	430		2137	13.5	410
8 W	0506	6.6	200	23 Th	0509	6.9	210	22 Sa	0455	5.9	180
	1037	11.5	350		1055	10.8	330		1151	11.8	360
	1623	6.6	200		1555	8.5	260		1623	9.8	300
	2301	15.1	460		2232	13.8	420		2216	13.1	400
9 Th	0606	5.6	170	24 F	0559	6.2	190	23 Su	0549	5.2	160
	1214	11.5	350		1237	10.8	330		1318	12.1	370
	1725	8.2	250		1647	9.5	290		1736	10.5	320
	2345	14.8	450		2309	13.8	420		2303	13.1	400
10 F	0704	4.6	140	25 Sa	0650	5.6	170	24 M	0647	4.9	150
	1349	11.8	360		1405	11.5	350		1427	12.8	390
	1839	9.2	280		1757	10.2	310		1907	10.8	330
					2351	13.5	410		2024	10.8	330
11 Sa	0032	14.4	440	26 Su	0740	4.9	150	25 Tu	0000	12.8	390
	0759	3.6	110		1510	12.1	370		0745	4.3	130
	1507	12.8	390		1921	10.8	330		1520	13.1	400
	1957	10.2	310						2024	10.8	330
12 Su	0121	14.1	430	27 M	0038	13.5	410	26 W	0103	13.1	400
	0852	3.0	90		0829	3.9	120		0842	3.6	110
	1609	13.5	410		1601	13.1	400		1604	13.8	420
	2108	10.5	320		2037	10.8	330		2122	10.2	310
13 M	0212	14.1	430	28 Tu	0129	13.5	410	27 Th	0209	13.5	410
	0942	2.3	70		0916	3.3	100		0934	3.0	90
	1700	14.1	430		1644	13.8	420		1642	14.1	430
	2208	10.5	320		2137	10.8	330		2212	9.5	290
14 Tu	0303	13.8	420	29 W	0222	13.8	420	28 F	0314	13.8	420
	1028	2.3	70		1003	2.3	70		1023	2.6	80
	1744	14.4	440		1722	14.1	430		1717	14.4	440
	2300	10.5	320		2229	10.5	320		2259	8.9	270
15 W	0353	13.8	420	30 Th	0318	14.1	430	29 Sa	0415	14.1	430
	1112	2.0	60		1047	2.0	60		1109	2.6	80
	1822	14.8	450		1758	14.4	440		1752	14.8	450
	2347	10.2	310		2317	10.2	310		2345	7.9	240
				31 F	0414	14.1	430	30 Su	0514	14.1	430
					1131	1.6	50		1153	3.0	90
					1833	14.8	450		1826	15.1	460
								31 M	0032	6.9	210
									0611	14.1	430
									1236	3.6	110
									1901	15.4	470

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.

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, 2015

Times and Heights of High and Low Waters

January								February								March							
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		h m	ft cm			
1 Th	0315	4.1	125	16 F	0231	5.3	162	1 Su	0453	4.2	128	16 M	0410	3.6	110	1 Su	0350	4.8	146	16 M	0248	4.4	134
	0937	16.4	500		0850	14.9	454		1102	15.9	485		1018	16.5	503		0959	14.2	433		0857	14.5	442
	1615	0.1	3		1543	1.6	49		1732	-0.5	-15		1655	-1.3	-40		1629	1.0	30		1536	0.4	12
	2237	13.6	415		2207	12.4	378		2357	14.3	436		2321	14.9	454		2255	13.2	402		2206	13.7	418
2 F	0413	4.0	122	17 Sa	0334	4.8	146	2 M	0536	3.5	107	17 Tu	0503	2.1	64	2 M	0441	3.9	119	17 Tu	0353	2.8	85
	1028	16.8	512		0946	16.0	488		1143	16.3	497		1111	17.7	539		1047	14.7	448		1001	15.7	479
	1703	-0.7	-21		1632	0.1	3		1809	-0.9	-27		1740	-2.5	-76		1710	0.3	9		1629	-0.9	-27
	2327	14.3	436		2258	13.6	415						2332	14.0	427		2253	15.3	466				
3 Sa	0503	3.8	116	18 Su	0429	3.9	119	3 Tu	0032	14.8	451	18 W	0005	16.3	497	3 Tu	0521	3.0	91	18 W	0447	0.9	27
	1114	17.1	521		1037	17.1	521		0614	2.9	88		0551	0.6	18		1128	15.3	466		1056	16.9	515
	1746	-1.3	-40		1718	-1.4	-43		1220	16.5	503		1200	18.5	564		1745	-0.2	-6		1715	-1.9	-58
					2344	14.8	451		1842	-1.1	-34		1823	-3.3	-101						2337	16.8	512
4 Su	0011	14.8	451	19 M	0519	2.9	88	4 W	0104	15.2	463	19 Th	0046	17.4	530	4 W	0004	14.7	448	19 Th	0536	-0.8	-24
	0547	3.5	107		1126	18.1	552		0648	2.5	76		0638	-0.6	-18		0556	2.1	64		1146	17.8	543
	1155	17.2	524		1801	-2.6	-79		1255	16.4	500		1248	18.9	576		1204	15.7	479		1759	-2.5	-76
	1825	-1.6	-49				1913		-1.1	-34	1904		-3.5	-107	1817		-0.5	-15					
5 M	0050	15.2	463	20 Tu	0028	15.9	485	5 Th	0134	15.5	472	20 F	0127	18.2	555	5 Th	0034	15.2	463	20 F	0019	17.9	546
	0627	3.3	101		0606	1.9	58		0722	2.2	67		0724	-1.4	-43		0629	1.4	43		0622	-2.1	-64
	1234	17.1	521		1213	18.8	573		1328	16.2	494		1334	18.7	570		1237	15.8	482		1234	18.2	555
	1901	-1.6	-49		1843	-3.4	-104		1943	-0.8	-24		1946	-3.1	-94		1846	-0.5	-15		1841	-2.6	-79
6 Tu	0126	15.4	469	21 W	0110	16.8	512	6 F	0203	15.6	475	21 Sa	0208	18.5	564	6 F	0102	15.6	475	21 Sa	0100	18.6	567
	0704	3.2	98		0652	1.0	30		0754	2.1	64		0811	-1.6	-49		0700	0.9	27		0707	-2.9	-88
	1310	16.9	515		1259	19.1	582		1400	15.7	479		1421	17.9	546		1309	15.8	482		1321	18.1	552
	1935	-1.4	-43		1924	-3.6	-110		2013	-0.3	-9		2027	-2.1	-64		1915	-0.3	-9		1922	-2.1	-64
7 W	0200	15.4	469	22 Th	0152	17.4	530	7 Sa	0232	15.5	472	22 Su	0250	18.2	555	7 Sa	0130	15.9	485	22 Su	0141	18.8	573
	0741	3.2	98		0739	0.5	15		0828	2.1	64		0859	-1.2	-37		0731	0.7	21		0752	-3.0	-91
	1345	16.4	500		1346	18.8	573		1433	15.0	457		1509	16.7	509		1341	15.5	472		1407	17.4	530
	2009	-0.9	-27		2007	-3.3	-101		2042	0.5	15		2110	-0.6	-18		1943	0.1	3		2004	-1.1	-34
8 Th	0233	15.2	463	23 F	0234	17.7	539	8 Su	0302	15.3	466	23 M	0334	17.5	533	8 Su	0157	15.9	485	23 M	0222	18.4	561
	0817	3.4	104		0827	0.4	12		0903	2.4	73		0950	-0.4	-12		0802	0.6	18		0838	-2.5	-76
	1420	15.7	479		1433	18.0	549		1508	14.2	433		1600	15.0	457		1413	15.0	457		1454	16.3	497
	2042	-0.2	-6		2050	-2.4	-73		2113	1.4	43		2156	1.1	34		2012	0.7	21		2047	0.3	9
9 F	0307	15.0	457	24 Sa	0318	17.5	533	9 M	0334	15.0	457	24 Tu	0421	16.4	500	9 M	0226	15.8	482	24 Tu	0304	17.4	530
	0854	3.7	113		0918	0.6	18		0941	2.8	85		1047	0.6	18		0835	0.8	24		0927	-1.5	-46
	1456	14.8	451		1523	16.7	509		1546	13.1	399		1658	13.3	405		1447	14.3	436		1543	14.8	451
	2115	0.7	21		2135	-1.0	-30		2146	2.5	76		2248	3.0	91		2042	1.6	49		2132	1.9	58
10 Sa	0341	14.6	445	25 Su	0405	17.1	521	10 Tu	0409	14.5	442	25 W	0516	15.2	463	10 Tu	0256	15.4	469	25 W	0350	16.1	491
	0935	4.0	122		1013	1.1	34		1027	3.2	98		1154	1.7	52		0911	1.2	37		1019	-0.1	-3
	1534	13.7	418		1617	15.1	460		1632	12.0	366		1809	12.0	366		1524	13.4	408		1638	13.3	405
	2150	1.7	52		2223	0.7	21		2226	3.6	110		2352	4.5	137		2115	2.6	79		2223	3.5	107
11 Su	0418	14.3	436	26 M	0455	16.4	500	11 W	0452	14.1	430	26 Th	0623	14.1	430	11 W	0330	15.0	457	26 Th	0441	14.6	445
	1020	4.4	134		1116	1.7	52		1123	3.6	110		1312	2.3	70		0953	1.7	52		1120	1.2	37
	1618	12.6	384		1720	13.4	408		1734	11.1	338		1937	11.3	344		1608	12.4	378		1744	12.1	369
	2228	2.8	85		2318	2.4	73		2317	4.7	143		2156	1.1	34		2154	3.6	110		2326	4.9	149
12 M	0500	14.0	427	27 Tu	0553	15.6	475	12 Th	0547	13.8	421	27 F	0115	5.5	168	12 Th	0411	14.4	439	27 F	0546	13.3	405
	1115	4.6	140		1227	2.2	67		1236	3.6	110		0742	13.6	415		1045	2.3	70		1233	2.2	67
	1712	11.6	354		1835	12.2	372		1856	10.6	323		1431	2.2	67		1705	11.4	347		1905	11.4	347
	2314	3.9	119							2103	11.6		354	2103	11.6		354	2244	4.7		143		
13 Tu	0549	13.7	418	28 W	0023	4.0	122	13 F	0027	5.5	168	28 Sa	0242	5.5	168	13 F	0504	13.8	421	28 Sa	0050	5.6	171
	1221	4.6	140		0700	15.0	457		0656	13.7	418		0858	13.7	418		1152	2.7	82		0706	12.5	381
	1823	10.9	332		1345	2.2	67		1357	3.0	91		1537	1.7	52		1823	10.9	332		1351	2.6	79
					2002	11.7	357		2027	10.9	332		2208	12.3	375		2356	5.4	165		2028	11.5	351
14 W	0011	4.8	146	29 Th	0140	4.9	149	14 Sa	0151	5.6	171	14 Sa	0617	13.4	408	14 Sa	0617	13.4	408	29 Su	0219	5.5	168
	0646	13.8	421		0812	14.9	454		0812	14.2	433		1314	2.5	76		1314	2.5	76		0828	12.4	378
	1335	4.1	125		1459	1.7	52		1509	1.8	55		1953	11.1	338		1953	11.1	338		1500	2.3	70
	1946	10.7	326		2123	12.0	366		2139	12.0	366						2132	12.2	372		2132	12.2	372
15 Th	0119	5.3	162	30 F	0257	5.1	155	15 Su	0308	4.9	149	15 Su	0126	5.4	165	15 Su	0126	5.4	165	30 M	0328	4.6	140
	0749	14.2	433		0918	15.1	460		0920	15.2	463		0741	13.6	415		0741	13.6	415		0933	12.9	393
	1445	3.0	91		1600	0.9	27		1606	0.2	6		1433	1.7	52		1433	1.7	52		1554	1.8	55
	2104	11.3	344		2227	12.8	390		2234	13.4	408		2108	12.2	372		2108	12.2	372		2219	13.0	396
			31 Sa	0402	4.8	146										31 Tu	0418	3.5	107				
				1015	15.5	472												1023	13.5	411			
				1650	0.2	6												1636	1.3	40			
				2316	13.6	415												2256	13.8	421			

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.

Times and Heights of High and Low Waters

Ketchikan, Alaska, 2015

Times and Heights of High and Low Waters

July					August					September																			
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 W ○	0603	-2.1	-64		16 Th	0019	16.5	503		1 Sa	0038	17.9	546		16 Su	0116	15.8	482		1 Tu	0156	17.7	539		16 W	0200	14.8	451	
	1230	14.2	433			0646	-2.4	-73			0703	-3.6	-110			0729	-1.2	-37			0801	-2.3	-70			0756	1.0	30	
	1803	2.4	73			1310	14.7	448			1328	16.3	497			1347	15.1	460			1422	17.9	546			1407	15.5	472	
						1851	2.1	64			1916	-0.1	-3			1941	1.1	34			2031	-2.1	-64			2019	0.4	12	
2 Th	0009	17.1	521		17 F	0059	16.4	500		2 Su	0124	17.9	546		17 M	0150	15.3	466		2 W	0244	16.7	509		17 Th	0234	14.1	430	
	0642	-2.8	-85			0722	-2.2	-67			0744	-3.5	-107			0759	-0.6	-18			0844	-1.0	-30			0826	1.9	58	
	1311	14.8	451			1346	14.8	451			1409	16.8	512			1417	15.0	457			1506	17.4	530			1437	15.1	460	
	1846	1.9	58			1929	2.1	64			2002	-0.5	-15			2015	1.2	37			2122	-1.5	-46			2053	0.9	27	
3 F	0052	17.4	530		18 Sa	0136	15.9	485		3 M	0210	17.4	530		18 Tu	0223	14.7	448		3 Th	0335	15.3	466		18 F	0311	13.3	405	
	0723	-3.2	-98			0757	-1.8	-55			0825	-2.9	-88			0830	0.2	6			0930	0.5	15			0858	2.8	85	
	1352	15.3	466			1421	14.7	448			1452	16.9	515			1447	14.8	451			1553	16.5	503			1510	14.5	442	
	1931	1.5	46			2007	2.1	64			2051	-0.5	-15			2049	1.5	46			2217	-0.4	-12			2133	1.5	46	
4 Sa	0136	17.3	527		19 Su	0212	15.3	466		4 Tu	0259	16.5	503		19 W	0258	13.8	421		4 F	0432	13.7	418		19 Sa	0353	12.3	375	
	0804	-3.2	-98			0831	-1.1	-34			0909	-1.8	-55			0900	1.1	34			1022	2.3	70			0936	3.9	119	
	1434	15.6	475			1454	14.5	442			1536	16.6	506			1518	14.4	439			1647	15.3	466			1549	13.9	424	
	2017	1.3	40			2044	2.4	73			2143	-0.1	-3			2127	2.0	61			2321	0.7	21			2221	2.2	67	
5 Su	0222	16.9	515		20 M	0249	14.4	439		5 W	0350	15.1	460		20 Th	0336	12.8	390		5 Sa	0540	12.4	378		20 Su	0447	11.4	347	
	0847	-2.7	-82			0905	-0.2	-6			0956	-0.3	-9			0933	2.2	67			1126	3.8	116			1025	4.9	149	
	1518	15.7	479			1528	14.2	433			1624	16.1	491			1552	13.9	424			1752	14.2	433			1640	13.2	402	
	2107	1.3	40			2124	2.7	82			2242	0.4	12			2209	2.5	76		○					2325	2.7	82		
6 M	0311	16.0	488		21 Tu	0327	13.4	408		6 Th	0449	13.6	415		21 F	0420	11.8	360		6 Su	0037	1.5	46		21 M	0600	10.8	329	
	0932	-1.9	-58			0940	0.8	24			1048	1.3	40			1012	3.3	101			0703	11.6	354			1133	5.6	171	
	1604	15.5	472			1604	13.8	421			1719	15.4	469			1633	13.4	408			1246	4.8	146			1749	12.7	387	
	2203	1.5	46			2207	3.1	94		○	2349	1.0	30			2302	3.0	91			1911	13.5	411						
7 Tu	0405	14.8	451		22 W	0408	12.4	378		7 F	0558	12.3	375		22 Sa	0516	10.8	329		7 M	0157	1.7	52		22 Tu	0044	2.8	85	
	1021	-0.6	-18			1017	1.9	58			1149	2.8	85			1100	4.4	134			0829	11.7	357			0727	11.0	335	
	1655	15.3	466			1643	13.4	408			1822	14.7	448			1725	12.9	393			1414	4.9	149			1302	5.6	171	
	2305	1.7	52			2257	3.5	107						○						2030	13.5	411			1913	12.8	390		
8 W ○	0506	13.5	411		23 Th	0458	11.3	344		8 Sa	0104	1.3	40		23 Su	0010	3.3	101		8 Tu	0307	1.3	40		23 W	0203	2.2	67	
	1115	0.7	21			1059	3.1	94			0720	11.5	351			0633	10.2	311			0938	12.4	378			0841	12.0	366	
	1752	15.1	460			1728	13.1	399			1303	3.9	119			1206	5.2	158			1526	4.2	128			1425	4.7	143	
				○		2357	3.7	113			1934	14.4	439			1832	12.8	390			2136	13.9	424			2031	13.7	418	
9 Th	0014	1.7	52		24 F	0601	10.4	317		9 Su	0220	1.1	34		24 M	0130	3.0	91		9 W	0403	0.7	21		24 Th	0308	1.1	34	
	0617	12.4	378			1151	4.1	125			0844	11.6	354			0800	10.4	317			1029	13.2	402			0938	13.4	408	
	1216	2.0	61			1822	12.9	393			1422	4.3	131			1328	5.4	165			1620	3.3	101			1529	3.0	91	
	1854	15.0	457								2045	14.5	442			1947	13.1	399			2228	14.5	442			2135	14.9	454	
10 F	0128	1.4	43		25 Sa	0108	3.5	107		10 M	0328	0.4	12		25 Tu	0243	2.0	61		10 Th	0448	0.1	3		25 F	0401	-0.2	-6	
	0737	11.8	360			0719	10.1	308			0954	12.2	372			0914	11.3	344			1109	14.0	427			1025	14.9	454	
	1325	2.9	88			1255	4.7	143			1533	4.0	122			1446	4.7	143			1703	2.3	70			1622	1.2	37	
	1959	15.1	460			1924	13.1	399			2148	14.9	454			2056	14.0	427			2311	15.0	457			2230	16.2	494	
11 Sa	0239	0.7	21		26 Su	0219	2.8	85		11 Tu	0424	-0.3	-9		26 W	0342	0.7	21		11 F	0525	-0.3	-9		26 Sa	0448	-1.2	-37	
	0855	11.9	363			0838	10.4	317			1049	13.0	396			1010	12.6	384			1143	14.7	448			1108	16.4	500	
	1435	3.4	104			1406	4.9	149			1630	3.4	104			1548	3.5	107			1739	1.5	46			1710	-0.6	-18	
	2102	15.4	469			2026	13.6	415			2240	15.3	466			2155	15.2	463			2348	15.4	469			2320	17.3	527	
12 Su	0343	-0.3	-9		27 M	0321	1.7	52		12 W	0510	-0.9	-27		27 Th	0431	-0.7	-21		12 Sa	0558	-0.5	-15		27 Su	0531	-1.9	-58	
	1004	12.5	381			0944	11.2	341			1134	13.8	421			1056	14.0	427			1214	15.2	463			1150	17.7	539	
	1540	3.4	104			1512	4.5	137			1716	2.7	82			1640	2.0	61			1813	0.8	24			1756	-2.1	-64	
	2159	15.9	485			2124	14.4	439			2326	15.7	479			2248	16.4	500		●			○						
13 M	0437	-1.1	-34		28 Tu	0413	0.4	12		13 Th	0549	-1.4	-43		28 F	0516	-2.0	-61		13 Su	0023	15.6	475		28 M	0008	17.9	546	
	1101	13.3	405			1038	12.3	375			1212	14.4	439			1139	15.4	469			0629	-0.4	-12			0613	-2.1	-64	
	1637	3.1	94			1608	3.7	113			1757</																		

Ketchikan, Alaska, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0230	16.7	509	16 F	0216	14.4	439	1 Tu	0426	14.3	436
	0821	0.2	6		0758	2.8	85		1014	4.8	146
	1437	17.9	546		1404	15.8	482		1614	13.9	424
	2100	-2.2	-67		2029	0.0	0		2244	1.6	49
2 F	0320	15.4	469	17 Sa	0254	13.7	418	2 W	0519	13.7	418
	0907	1.7	52		0833	3.6	110		1119	5.4	165
	1523	16.6	506		1438	15.2	463		1714	12.6	384
	2153	-0.9	-27		2108	0.6	18		2339	2.8	85
3 Sa	0415	14.0	427	18 Su	0337	13.0	396	3 Th	0618	13.4	408
	1000	3.3	101		0913	4.4	134		1233	5.4	165
	1616	15.2	462		1519	14.5	442		1826	11.6	354
	2253	0.6	18		2155	1.4	43				
4 Su	0521	12.8	390	19 M	0430	12.3	375	4 F	0040	3.7	113
	1105	4.7	143		1005	5.2	158		0718	13.4	408
	1721	13.7	418		1610	13.7	418		1347	4.9	149
					2253	2.0	61		1944	11.4	347
5 M	0004	1.7	52	20 Tu	0537	11.9	363	5 Sa	0142	4.2	128
	0639	12.1	369		1115	5.7	174		0814	13.8	421
	1229	5.4	165		1719	13.0	396		1450	4.0	122
	1842	12.8	390						2053	11.6	354
6 Tu	0123	2.3	70	21 W	0005	2.4	73	6 Su	0240	4.4	134
	0801	12.2	372		0654	12.1	369		0902	14.4	439
	1359	5.2	158		1242	5.5	168		1540	2.9	88
	2006	12.6	384		1844	12.8	390		2150	12.2	372
7 W	0234	2.2	67	22 Th	0122	2.2	67	7 M	0330	4.3	131
	0907	12.8	390		0805	13.1	399		0944	15.0	457
	1510	4.3	131		1404	4.3	131		1622	1.8	55
	2114	13.1	399		2006	13.4	408		2237	12.9	393
8 Th	0331	1.9	58	23 F	0230	1.6	49	8 Tu	0414	4.1	125
	0956	13.6	415		0903	14.4	439		1023	15.7	479
	1601	3.2	98		1509	2.5	76		1700	0.7	21
	2207	13.7	418		2115	14.4	439		2319	13.6	415
9 F	0416	1.5	46	24 Sa	0328	0.8	24	9 W	0454	3.9	119
	1035	14.4	439		0953	16.0	488		1100	16.4	500
	1642	2.1	64		1604	0.5	15		1735	-0.2	-6
	2250	14.3	436		2213	15.6	475		2358	14.3	436
10 Sa	0453	1.1	34	25 Su	0418	0.1	3	10 Th	0531	3.6	110
	1108	15.1	460		1038	17.4	530		1136	16.9	515
	1717	1.2	37		1653	-1.3	-40		1810	-0.9	-27
	2327	14.8	451		2305	16.6	506				
11 Su	0526	1.0	30	26 M	0504	-0.4	-12	11 F	0035	14.8	451
	1138	15.6	475		1121	18.5	564		0608	3.4	104
	1749	0.4	12		1739	-2.8	-85		1212	17.3	527
					2355	17.3	527		1845	-1.4	-43
12 M	0002	15.1	460	27 Tu	0549	-0.4	-12	12 Sa	0113	15.1	460
	0557	1.0	30		1203	19.2	585		0646	3.3	101
	1207	16.1	491		1824	-3.6	-110		1249	17.4	530
	1820	-0.2	-6						1921	-1.6	-49
13 Tu	0035	15.2	463	28 W	0042	17.5	533	13 Su	0151	15.3	466
	0627	1.2	37		0632	-0.1	-3		0724	3.3	101
	1235	16.3	497		1246	19.4	591		1327	17.3	527
	1851	-0.5	-15		1909	-3.9	-119		1958	-1.6	-49
14 W	0108	15.2	463	29 Th	0129	17.2	524	14 M	0230	15.3	466
	0657	1.5	46		0716	0.5	15		0806	3.4	104
	1304	16.3	497		1328	19.0	579		1408	16.9	515
	1922	-0.6	-18		1954	-3.4	-104		2037	-1.3	-40
15 Th	0142	14.9	454	30 F	0217	16.6	506	15 Tu	0311	15.2	463
	0727	2.1	64		0800	1.5	46		0851	3.6	110
	1333	16.2	494		1412	18.1	552		1452	16.2	494
	1954	-0.4	-12		2040	-2.4	-73		2120	-0.6	-18
				31 Sa	0305	15.6	475	30 W	0349	15.0	457
					0847	2.7	82		0942	4.0	122
					1458	16.7	509		1541	14.3	436
					2130	-1.0	-30		2201	1.2	37
								31 Th	0431	14.4	439
									1032	4.5	137
									1628	12.9	393
									2244	2.5	76

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, 2015

Times and Heights of High and Low Waters

January					February					March																								
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	0346	4.0	122		16 F	0304	5.5	168		1 Su	0524	3.9	119		16 M	0444	3.5	107		1 Su	0419	4.8	146		16 M	0322	4.6	140						
	1002	17.0	518				0917	15.5	472				1045	17.3		527			1022		14.8	451				0924	15.3	466						
	1639	0.0	0				1604	1.6	49				1720	-1.4		-43			1653		1.2	37				1600	0.6	18						
	2308	14.2	433				2236	12.9	393				2351	15.7		479			2327		14.0	427				2236	14.5	442						
2 F	0444	3.8	116		17 Sa	0408	4.8	146		2 M	0029	15.0	457		17 Tu	0536	1.9	58		2 M	0509	3.8	116		17 Tu	0425	2.7	82						
	1053	17.4	530				1012	16.6	506				0607	3.2		98			1138		18.6	567				1111	15.5	472			1028	16.6	506	
	1727	-0.9	-27				1655	0.0	0				1208	17.0		518			1805		-2.7	-82				1735	0.5	15			1654	-0.9	-27	
	2359	14.9	454				2328	14.2	433				1833	-1.0		-30															2323	16.2	491	
3 Sa	0534	3.4	104		18 Su	0503	3.8	116		3 Tu	0103	15.6	475		18 W	0034	17.2	524		3 Tu	0003	14.8	451		18 W	0518	0.7	21						
	1138	17.7	539				1103	17.8	543				0645	2.5		76			0623		0.2	6				0550	2.7	82			1123	17.9	546	
	1810	-1.5	-46				1741	-1.6	-49				1245	17.3		527			1227		19.5	594				1152	16.1	491			1741	-2.1	-64	
												1907	-1.3	-40				1848	-3.6		-110			1810		-0.1	-3							
4 Su	0042	15.5	472		19 M	0014	15.5	472		4 W	0133	16.0	488		19 Th	0114	18.4	561		4 W	0034	15.5	472		19 Th	0005	17.7	539						
	0618	3.1	94				0552	2.6	79				0719	2.1		64			0708		-1.1	-34				0625	1.8	55			0605	-1.1	-34	
	1219	17.9	546				1152	18.9	576				1319	17.3		527			1314		19.9	607				1228	16.6	506			1213	18.8	573	
	1849	-1.8	-55				1825	-2.9	-88				1938	-1.3		-40			1930		-3.9	-119				1842	-0.5	-15			1826	-2.8	-85	
5 M	0121	15.8	482		20 Tu	0057	16.6	506		5 Th	0202	16.3	497		20 F	0154	19.1	582		5 Th	0103	16.1	491		20 F	0046	19.0	579						
	0659	2.8	85				0638	1.5	46				0752	1.8		55			0753		-1.9	-58				0658	1.1	34			0651	-2.5	-76	
	1258	17.9	546				1239	19.6	597				1352	17.1		521			1400		19.7	600				1302	16.8	512			1301	19.3	588	
	1925	-1.9	-58				1907	-3.8	-116				2008	-1.0		-30			2012		-3.5	-107				1913	-0.6	-18			1908	-2.9	-88	
6 Tu	0156	16.0	488		21 W	0138	17.6	536		6 F	0230	16.3	497		21 Sa	0235	19.4	591		6 F	0129	16.5	503		21 Sa	0126	19.7	600						
	0737	2.8	85				0724	0.6	18				0824	1.8		55			0729		0.6	18				0735	-3.4	-104						
	1334	17.6	536				1325	19.9	607				1425	16.6		506			1334		16.7	509				1347	19.1	582						
	1959	-1.6	-49				1950	-4.1	-125				2038	-0.4		-12			2055		-2.4	-73				1942	-0.4	-12			1951	-2.4	-73	
7 W	0229	16.0	488		22 Th	0219	18.2	555		7 Sa	0258	16.3	497		22 Su	0315	19.1	582		7 Sa	0156	16.8	512		22 Su	0206	19.8	604						
	0813	2.8	85				0809	0.0	0				0856	1.9		58			0925		-1.6	-49				0759	0.4	12			0819	-3.4	-104	
	1409	17.1	521				1412	19.6	597				1457	15.9		485			1534		17.5	533				1406	16.5	503			1433	18.4	561	
	2033	-1.1	-34				2032	-3.7	-113				2108	0.4		12			2138		-0.8	-24				2010	0.0	0			2033	-1.4	-43	
8 Th	0301	15.8	482		23 F	0301	18.4	561		8 Su	0326	16.0	488		23 M	0358	18.4	561		8 Su	0222	16.8	512		23 M	0246	19.4	591						
	0849	3.1	94				0856	-0.1	-3				0930	2.2		67			1015		-0.7	-21				0829	0.4	12			0903	-2.8	-85	
	1444	16.4	500				1459	18.8	573				1530	14.9		454			1625		15.8	482				1437	15.9	485			1520	17.2	524	
	2105	-0.4	-12				2115	-2.8	-85				2138	1.4		43			2225		1.1	34				2039	0.7	21			2116	0.1	3	
9 F	0332	15.6	475		24 Sa	0344	18.3	558		9 M	0356	15.7	479		24 Tu	0445	17.2	524		9 M	0249	16.7	509		24 Tu	0328	18.4	561						
	0925	3.4	104				1006	2.6	79				1110	0.5		15			0900		0.6	18				0950	-1.7	-52						
	1519	15.5	472				1606	13.8	421				1723	14.0		427			1509		15.1	460				1609	15.6	475						
	2138	0.6	18				2201	-1.3	-40				2212	2.6		79			2109		1.7	52				2109	1.7	52			2202	1.9	58	
10 Sa	0405	15.2	463		25 Su	0429	17.8	543		10 Tu	0431	15.2	463		25 W	0539	15.9	485		10 Tu	0319	16.3	497		25 W	0413	17.0	518						
	1003	3.8	116				1039	0.8	24				1049	3.1		94			0935		1.0	30				1041	-0.1	-3						
	1557	14.4	439				1642	15.7	479				1650	12.7		387			1543		14.2	433				1704	14.0	427						
	2213	1.7	52				2250	0.5	15				2252	3.8		116			2142		2.7	82				2255	3.6	110						
11 Su	0441	14.8	451		26 M	0520	17.0	518		11 W	0514	14.8	451		26 Th	0025	4.7	143		11 W	0352	15.8	482		26 Th	0504	15.4	469						
	1047	4.2	128				1140	1.5	46				1143	3.5		107			0646		14.8	451				1015	1.6	49			1140	1.4	43	
	1639	13.2	402				1745	14.0	427				1750	11.6		354			1331		2.5	76				1624	13.1	399			1813	12.6	384	
	2252	2.8	85				2346	2.4	73				2344	5.0		152			2011		11.9	363				2222	3.9	119						
12 M	0522	14.5	442		27 Tu	0618	16.2	494		12 Th	0610	14.4	439		27 F	0149	5.7	174		12 Th	0433	15.1	460		27 F	0001	5.1	155						
	1138	4.6	140				1253	3.7	113				0805	14.2		433			1105		2.3	70				0608	14.0	427						
	1732	12.1	369				1918	11.0	335				1452	2.6		79			1720		12.0	366				1251	2.6	79						
	2338	4.0	122										2139	12.3		375			2313		5.0	152				1940	12.0	366						
13 Tu	0612	14.2	433		28 W	0053	4.0	122		13 F	0057	5.9	180		28 Sa	0313	5.6	171		13 F	0527	14.5	442		28 Sa	0124	5.8	177						
	1241	4.6	140				0722	14.3	436				0921	14.3		436			1210		2.8	85				0729	13.1	399						
	1844	11.3	344				1414	3.1	94				1600	2.0		61			1843		11.4	347				1412	3.0	91						
							2057	11.4	347				2242	13.1		399										2104	12.2	372						
14 W	0036	5.0	152		29 Th	0212	5.0	152		14 Sa	0226	5.9	180		14 Sa	0028	5.8	177		14 Sa	0028	5.8	177		29 Su	0250	5.6	171						
	0711	14.3	436				0839	14.9	454				0642	14.0		427			0642		14.0	427				0851	13.1	399						
	1354	4.1	125				1529	1.9	58				1331	2.7		82			1331		2.7	82				1524	2.8	85						
	2012	11.1	338				2157	12.6	384				2210	12.6		384			2024		11.7	357				2206	13.0	396						
15 Th	0149	5.6	171		30 F	0329	5.1	155		15 Su	0343	5.0	152		15 Su	0201	5.7	174		15 Su	0201	5.7	174		30 M	0356	4.6	140						
	0815	14.7	448				0946	16.0	488				0808	14.3		436			0808		14.3	436				0956	13.6	415						
	1504	3.1	94				1629	0.3	9				1453	1.9		58			1453		1.9	58				1619	2.2	67						
	2133	11.8	360				2305	14.1	430				2140	12.9		393			2140		12.9	393				2250	13.9	424						
				31 Sa	0432	4.6	140																											
						1038	16.1	491								</																		

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, 2015

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0526 2.2 67 1129 15.0 457 1739 1.0 30 2356 15.5 472	16 Th	0459 -0.3 -9 1108 16.8 512 1715 -0.9 -27 2335 18.1 552	1 F	0530 0.9 27 1141 14.5 442 1736 1.9 58 2343 16.2 494	16 Sa	0529 -2.4 -73 1147 16.2 494 1739 0.4 12 2350 18.9 576	1 M	0611 -1.2 -37 1236 14.6 445 1817 2.6 79	16 Tu	0014 18.3 558 0644 -3.2 -98 1315 15.8 482 1855 1.8 55
2 Th	0600 1.2 37 1207 15.6 475 1812 0.6 18	17 F	0547 -2.1 -64 1159 17.6 536 1802 -1.3 -40	2 Sa	0604 -0.1 -3 1219 15.0 457 1810 1.7 52	17 Su	0615 -3.5 -107 1237 16.7 509 1825 0.4 12	2 Tu	0016 17.3 527 0647 -2.0 -61 1316 15.0 457 1856 2.4 73	17 W	0057 18.2 555 0726 -3.2 -98 1358 15.9 485 1938 2.0 61
3 F	0025 16.2 494 0633 0.3 9 1241 16.0 488 1843 0.4 12	18 Sa	0017 19.2 585 0632 -3.4 -104 1248 18.1 552 1846 -1.3 -40	3 Su	0015 16.8 512 0637 -1.0 -30 1255 15.3 466 1844 1.7 52	18 M	0033 19.2 585 0659 -3.9 -119 1324 16.8 512 1910 0.7 21	3 W	0054 17.7 539 0724 -2.5 -76 1355 15.3 466 1935 2.4 73	18 Th	0139 17.8 543 0806 -2.8 -85 1439 15.7 479 2021 2.3 70
4 Sa	0053 16.7 509 0703 -0.4 -12 1315 16.1 491 1913 0.5 15	19 Su	0058 19.7 600 0716 -4.1 -125 1335 18.0 549 1929 -0.9 -27	4 M	0046 17.2 524 0709 -1.5 -46 1331 15.5 472 1918 1.8 55	19 Tu	0115 19.0 579 0742 -3.8 -116 1410 16.6 506 1954 1.3 40	4 Th	0132 17.8 543 0802 -2.7 -82 1435 15.4 469 2016 2.4 73	19 F	0219 17.1 521 0845 -2.1 -64 1518 15.4 469 2102 2.8 85
5 Su	0120 17.1 521 0733 -0.8 -24 1347 16.0 488 1943 0.9 27	20 M	0139 19.6 597 0759 -4.0 -122 1421 17.5 533 2012 0.0 0	5 Tu	0118 17.4 530 0743 -1.8 -55 1407 15.4 469 1952 2.1 64	20 W	0157 18.4 561 0824 -3.2 -98 1454 16.0 488 2038 2.0 61	5 F	0213 17.6 536 0843 -2.6 -79 1517 15.3 466 2100 2.6 79	20 Sa	0258 16.2 494 0924 -1.1 -34 1556 14.9 454 2145 3.3 101
6 M	0148 17.2 524 0804 -0.9 -27 1420 15.7 479 2014 1.4 43	21 Tu	0220 19.0 579 0843 -3.3 -101 1507 16.6 506 2056 1.2 37	6 W	0151 17.4 530 0818 -1.9 -58 1444 15.1 460 2029 2.6 79	21 Th	0238 17.5 533 0906 -2.2 -67 1538 15.3 466 2123 3.0 91	6 Sa	0257 17.1 521 0926 -2.1 -64 1602 15.2 463 2150 2.9 88	21 Su	0339 15.1 460 1003 0.0 0 1636 14.4 439 2231 3.9 119
7 Tu	0217 17.1 521 0836 -0.8 -24 1454 15.1 460 2046 2.2 67	22 W	0301 18.0 549 0927 -2.1 -64 1524 15.4 469 2142 2.6 79	7 Th	0227 17.1 521 0856 -1.6 -49 1524 14.6 445 2110 3.2 98	22 F	0321 16.2 494 0950 -1.0 -30 1624 14.4 439 2212 3.9 119	7 Su	0345 16.2 494 1014 -1.3 -40 1652 15.0 457 2247 3.1 94	22 M	0422 13.9 424 1044 1.2 37 1718 13.9 424 2322 4.3 131
8 W	0249 16.7 509 0912 -0.4 -12 1530 14.3 436 2122 3.1 94	23 Th	0345 16.6 506 1015 -0.6 -18 1646 14.1 430 2234 4.0 122	8 F	0307 16.5 503 0939 -1.0 -30 1610 14.1 430 2157 3.8 116	23 Sa	0406 14.9 454 1035 0.4 12 1714 13.7 418 2306 4.7 143	8 M	0440 15.1 460 1107 -0.3 -9 1749 14.9 454 2352 3.2 98	23 Tu	0511 12.7 387 1128 2.4 73 1805 13.6 415
9 Th	0324 16.2 494 0953 0.2 6 1614 13.5 411 2205 4.1 125	24 F	0433 15.0 457 1107 0.9 27 1746 13.1 399 2336 5.1 155	9 Sa	0353 15.7 479 1028 -0.3 -9 1705 13.6 415 2255 4.4 134	24 Su	0457 13.5 411 1126 1.7 52 1809 13.1 399	9 Tu	0546 14.0 427 1206 0.8 24 1851 15.1 460	24 W	0020 4.5 137 0611 11.7 357 1220 3.4 104 1857 13.5 411
10 F	0407 15.4 469 1042 1.0 30 1710 12.6 384 2300 4.9 149	25 Sa	0532 13.5 411 1209 2.3 70 1858 12.4 378	10 Su	0450 14.7 448 1125 0.6 18 1811 13.4 408	25 M	0010 5.1 155 0558 12.4 378 1223 2.7 82 1909 12.9 393	10 W	0104 2.8 85 0703 13.3 405 1313 1.6 49 1954 15.5 472	25 Th	0125 4.3 131 0723 11.1 338 1319 4.2 128 1952 13.7 418
11 Sa	0502 14.5 442 1144 1.7 52 1826 12.2 372	26 Su	0052 5.6 171 0646 12.5 381 1320 3.1 94 2012 12.5 381	11 M	0006 4.5 137 0601 13.9 424 1232 1.2 37 1923 13.8 421	26 Tu	0121 5.1 155 0710 11.6 354 1325 3.5 107 2007 13.2 402	11 Th	0216 1.9 58 0824 13.1 399 1421 2.2 67 2054 16.2 494	26 F	0231 3.7 113 0838 11.1 338 1423 4.6 140 2046 14.2 433
12 Su	0015 5.4 165 0617 13.9 424 1259 2.0 61 1954 12.5 381	27 M	0213 5.4 165 0806 12.1 369 1430 3.3 101 2113 13.0 396	12 Tu	0125 3.9 119 0723 13.5 411 1344 1.5 46 2030 14.7 448	27 W	0229 4.4 134 0824 11.5 351 1428 3.7 113 2059 13.7 418	12 F	0323 0.6 18 0938 13.5 411 1527 2.3 70 2149 17.0 518	27 Sa	0329 2.7 82 0946 11.6 354 1525 4.6 140 2136 15.0 457
13 M	0143 5.0 152 0744 13.8 421 1418 1.7 52 2106 13.7 418	28 Tu	0320 4.5 137 0917 12.4 378 1530 3.1 94 2200 13.8 421	13 W	0240 2.6 79 0843 13.8 421 1453 1.4 43 2127 15.9 485	28 Th	0327 3.4 104 0930 11.9 363 1524 3.7 113 2143 14.5 442	13 Sa	0421 -0.8 -24 1042 14.2 433 1627 2.2 67 2240 17.7 539	28 Su	0420 1.5 46 1043 12.4 378 1620 4.3 131 2223 15.8 482
14 Tu	0302 3.7 113 0904 14.5 442 1527 0.9 27 2202 15.2 463	29 W	0412 3.3 101 1013 13.1 399 1618 2.6 79 2238 14.6 445	14 Th	0344 0.9 27 0953 14.6 445 1555 1.0 30 2218 17.1 521	29 F	0415 2.2 67 1025 12.6 384 1614 3.5 107 2224 15.3 466	14 Su	0513 -1.9 -58 1139 14.9 454 1720 2.0 61 2328 18.1 552	29 M	0505 0.2 6 1132 13.3 405 1708 3.7 113 2308 16.7 509
15 W	0405 1.7 52 1010 15.7 479 1625 -0.1 -3 2250 16.8 512	30 Th	0454 2.0 61 1100 13.8 421 1659 2.2 67 2311 15.4 469	15 F	0439 -0.9 -27 1053 15.4 469 1649 0.6 18 2305 18.1 552	30 Sa	0457 1.0 30 1112 13.3 405 1657 3.2 98 2302 16.1 491	15 M	0600 -2.8 -85 1229 15.5 472 1809 1.9 58	30 Tu	0546 -1.1 -34 1217 14.2 433 1753 3.1 94 2351 17.5 533
						31 Su	0535 -0.1 -3 1155 14.0 427 1738 2.9 88 2339 16.8 512				

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, 2015

Times and Heights of High and Low Waters

July				August				September			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 W ○	0626	-2.2	-67	16 Th	0043	17.6	536	1 Su	0141	16.9	515
	1259	15.0	457		0710	-2.4	-73		0755	-1.1	-34
	1836	2.4	73		1341	15.7	479		1415	16.2	494
					1923	2.0	61		2011	1.1	34
2 Th	0034	18.1	552	17 F	0123	17.4	530	17 M	0214	16.4	500
	0706	-3.0	-91		0747	-2.2	-67		0825	-0.5	-15
	1339	15.7	479		1416	15.8	482		1443	16.2	494
	1919	1.9	58		2001	2.0	61		2044	1.3	40
3 F	0118	18.4	561	18 Sa	0200	17.0	518	18 Tu	0247	15.7	479
	0747	-3.4	-104		0822	-1.7	-52		0856	0.3	9
	1420	16.2	494		1449	15.7	479		1511	15.9	485
	2003	1.5	46		2038	2.1	64		2117	1.6	49
4 Sa	0202	18.3	558	19 Su	0236	16.3	497	19 W	0320	14.8	451
	0828	-3.4	-104		0856	-1.0	-30		0927	1.4	43
	1501	16.5	503		1522	15.5	472		1542	15.5	472
	2048	1.3	40		2115	2.4	73		2152	2.1	64
5 Su	0247	17.8	543	20 M	0312	15.4	469	20 Th	0356	13.8	421
	0911	-2.9	-88		0929	-0.1	-3		1000	2.6	79
	1544	16.6	506		1554	15.1	460		1615	15.0	457
	2137	1.3	40		2153	2.8	85		2233	2.7	82
6 M	0336	16.9	515	21 Tu	0349	14.4	439	21 F	0438	12.7	387
	0956	-1.9	-58		1004	1.0	30		1038	3.8	116
	1630	16.5	503		1628	14.7	448		1656	14.4	439
	2231	1.5	46		2234	3.3	101		2322	3.3	101
7 Tu	0429	15.6	475	22 W	0430	13.2	402	22 Sa	0533	11.6	354
	1046	-0.6	-18		1041	2.3	70		1126	5.0	152
	1720	16.2	494		1707	14.3	436		1748	13.9	424
	2331	1.7	52		2322	3.7	113				
8 W ●	0531	14.3	436	23 Th ○	0519	12.1	369	23 Su	0027	3.6	110
	1141	0.9	27		1123	3.5	107		0653	10.9	332
	1817	16.0	488		1752	14.0	427		1235	5.8	177
									1857	13.7	418
9 Th	0039	1.8	55	24 F	0018	4.0	122	24 M	0145	3.4	104
	0644	13.1	399		0622	11.2	341		0830	11.1	338
	1244	2.2	67		1216	4.6	140		1401	6.0	183
	1919	15.9	485		1847	13.8	421		2013	14.1	430
10 F	0151	1.5	46	25 Sa	0126	3.9	119	25 Tu	0302	2.5	76
	0806	12.6	384		0743	10.8	329		0945	12.1	369
	1354	3.2	98		1323	5.3	162		1520	5.3	162
	2024	16.0	488		1949	14.0	427		2122	15.0	457
11 Sa	0302	0.8	24	26 Su	0238	3.2	98	26 W	0404	1.1	34
	0926	12.7	387		0907	11.1	338		1041	13.5	411
	1506	3.6	110		1439	5.5	168		1621	3.9	119
	2126	16.4	500		2052	14.5	442		2222	16.3	497
12 Su	0405	-0.1	-3	27 M	0341	2.1	64	27 Th	0455	-0.5	-15
	1035	13.4	408		1014	12.0	366		1126	15.0	457
	1612	3.5	107		1546	5.0	152		1713	2.2	67
	2223	16.8	512		2150	15.4	469		2314	17.6	536
13 M	0500	-1.0	-30	28 Tu	0435	0.7	21	28 F	0541	-1.9	-58
	1132	14.2	433		1108	13.1	399		1208	16.5	503
	1708	3.1	94		1643	4.1	125		1759	0.6	18
	2314	17.2	524		2243	16.5	503				
14 Tu	0548	-1.7	-52	29 W	0522	-0.8	-24	29 Sa	0003	18.6	567
	1221	14.9	454		1154	14.4	439		0624	-2.9	-88
	1758	2.6	79		1732	2.9	88		1248	17.8	543
					2332	17.6	536		1844	-0.9	-27
15 W ●	0001	17.5	533	30 Th	0605	-2.2	-67	30 Su	0050	19.3	588
	0631	-2.2	-67		1236	15.6	475		0705	-3.4	-104
	1303	15.4	469		1818	1.7	52		1327	18.7	570
	1842	2.2	67						1928	-1.9	-58
				31 F ○	0018	18.5	564	31 M	0136	19.4	591
					0647	-3.2	-98		0747	-3.2	-98
					1316	16.6	506		1407	19.2	585
					1902	0.7	21		2012	-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.

Juneau, Alaska, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0256	17.7	539	16 F	0239	15.2	463	1 Tu	0454	14.8	451
	0851	0.1	3		0829	2.9	88		1046	4.7	143
	1501	19.1	582		1428	16.8	512		1637	14.5	442
	2125	-2.3	-70		2053	-0.1	-3		2305	1.6	49
2 F	0346	16.4	500	17 Sa	0314	14.5	442	2 W	0548	14.1	430
	0938	1.8	55		0903	3.8	116		1148	5.3	162
	1547	17.7	539		1502	16.2	494		1737	13.1	399
	2216	-0.9	-27		2131	0.6	18	3 Th	0001	2.9	88
3 Sa	0442	14.9	454	18 Su	0354	13.7	418		0647	13.8	421
	1032	3.5	107		0943	4.7	143		1300	5.4	165
	1639	16.2	494		1542	15.4	469		1849	12.1	369
	2314	0.7	21		2216	1.3	40	4 F	0103	3.9	119
4 Su	0550	13.5	411	19 M	0446	12.9	393		0748	13.8	421
	1137	4.9	149		1035	5.5	168		1412	4.9	149
	1744	14.6	445		1633	14.5	442		2008	11.8	360
5 M	0023	2.1	64		2313	2.1	64	5 Sa	0208	4.4	134
	0713	12.8	390	20 Tu	0557	12.5	381		0842	14.3	436
	1300	5.7	174		1146	6.1	186		1514	4.0	122
	1905	13.6	415		1743	13.8	421		2118	12.1	369
6 Tu	0142	2.8	85	21 W	0024	2.6	79	6 Su	0308	4.5	137
	0837	13.0	396		0722	12.7	387		0929	14.9	454
	1426	5.5	168		1312	5.8	177		1604	2.9	88
	2028	13.4	408		1910	13.5	411		2215	12.8	390
7 W	0257	2.8	85	22 Th	0142	2.5	76	7 M	0400	4.4	134
	0941	13.7	418		0835	13.7	418		1011	15.6	475
	1535	4.5	137		1433	4.5	137		1647	1.7	52
	2137	13.9	424		2033	14.2	433		2304	13.5	411
8 Th	0356	2.3	70	23 F	0254	1.8	55	8 Tu	0446	4.1	125
	1028	14.5	442		0933	15.2	463		1049	16.4	500
	1627	3.3	101		1538	2.6	79		1725	0.6	18
	2230	14.5	442		2142	15.3	466		2346	14.2	433
9 F	0442	1.8	55	24 Sa	0354	0.9	27	9 W	0526	3.8	116
	1105	15.3	466		1021	16.8	512		1126	17.1	521
	1709	2.1	64		1632	0.5	15		1800	-0.4	-12
	2314	15.2	463		2240	16.5	503	10 Th	0026	14.9	454
10 Sa	0520	1.4	43	25 Su	0446	0.1	3		0605	3.4	104
	1137	16.0	488		1105	18.3	558		1202	17.6	536
	1745	1.1	34		1721	-1.5	-46		1835	-1.2	-37
	2352	15.7	479		2332	17.6	536	11 F	0103	15.4	469
11 Su	0554	1.1	34	26 M	0533	-0.5	-15		0642	3.2	98
	1206	16.6	506		1147	19.5	594		1238	18.0	549
	1817	0.3	9		1806	-3.1	-94		1909	-1.7	-52
12 M	0027	16.1	491	27 Tu	0022	18.2	555	12 Sa	0140	15.7	479
	0626	1.0	30		0619	-0.7	-21		0719	3.1	94
	1234	17.1	521		1229	20.3	619		1315	18.2	555
	1848	-0.3	-9		1851	-4.0	-122		1945	-2.0	-61
13 Tu	0101	16.2	494	28 W	0110	18.4	561	13 Su	0217	15.8	482
	0657	1.2	37		0703	-0.5	-15		0757	3.1	94
	1301	17.3	527		1311	20.4	622		1353	18.0	549
	1918	-0.6	-18		1935	-4.3	-131		2022	-2.0	-61
14 W	0133	16.1	491	29 Th	0157	18.2	555	14 M	0255	15.8	482
	0727	1.5	46		0747	0.2	6		0837	3.2	98
	1329	17.4	530		1353	20.0	610		1433	17.6	536
	1948	-0.7	-21		2019	-3.8	-116		2101	-1.6	-49
15 Th	0206	15.8	482	30 F	0244	17.4	530	15 Tu	0336	15.7	479
	0757	2.1	64		0832	1.3	40		0922	3.4	104
	1358	17.2	524		1437	19.1	582		1516	16.8	512
	2019	-0.5	-15		2104	-2.7	-82		2144	-0.9	-27
				31 Sa	0333	16.4	500	16 W	0416	15.5	472
					0920	2.6	79		1012	3.7	113
					1522	17.7	539		1605	14.9	454
					2152	-1.2	-37		2225	1.1	34
								31 Th	0457	14.9	454
									1101	4.3	131
									1651	13.5	411
									2307	2.5	76

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.

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.

Times and Heights of High and Low Waters

Sitka, Alaska, 2015

Times and Heights of High and Low Waters

July					August					September														
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					
1 W ○	0614	-1.7	-52	16 Th	0013	10.4	317	1 Sa	0035	11.2	341	16 Su	0114	9.8	299	1 Tu	0201	10.8	329	16 W	0206	9.1	277	
	1243	8.4	256		0658	-1.7	-52		0713	-2.3	-70		0739	-0.5	-15		0811	-0.8	-24		0804	1.4	43	
	1805	2.6	79		1326	8.9	271		1337	9.9	302		1358	9.3	283		1426	11.2	341		1412	9.7	296	
					1858	2.3	70		1923	1.0	30		1952	1.5	46		2043	-0.7	-21		2032	0.7	21	
2 Th	0004	10.8	329	17 F	0053	10.2	311	2 Su	0123	11.1	338	17 M	0149	9.4	287	2 W	0252	10.1	308	17 Th	0242	8.7	265	
	0654	-2.2	-67		0734	-1.5	-46		0754	-2.2	-67		0808	-0.1	-3		0854	0.1	3		0833	2.0	61	
	1324	8.9	271		1401	8.9	271		1418	10.2	311		1427	9.3	283		1509	11.0	335		1441	9.6	293	
	1850	2.3	70		1938	2.2	67		2011	0.7	21		2027	1.4	43		2135	-0.5	-15		2109	0.9	27	
3 F	0047	10.9	332	18 Sa	0131	9.9	302	3 M	0211	10.6	323	18 Tu	0225	9.0	274	3 Th	0346	9.2	280	18 F	0321	8.2	250	
	0735	-2.4	-73		0808	-1.2	-37		0836	-1.7	-52		0838	0.5	15		0940	1.1	34		0904	2.6	79	
	1404	9.2	280		1435	8.9	271		1459	10.4	317		1456	9.2	280		1556	10.6	323		1513	9.3	283	
	1937	2.1	64		2017	2.2	67		2102	0.5	15		2103	1.5	46		2232	0.0	0		2150	1.2	37	
4 Sa	0132	10.8	329	19 Su	0209	9.4	287	4 Tu	0302	9.9	302	19 W	0302	8.4	256	4 F	0448	8.3	253	19 Sa	0407	7.6	232	
	0816	-2.3	-70		0841	-0.7	-21		0919	-0.9	-27		0908	1.2	37		1031	2.2	67		0941	3.3	101	
	1446	9.4	287		1509	8.9	271		1543	10.4	317		1527	9.0	274		1648	10.0	305		1551	9.0	274	
	2025	1.9	58		2057	2.2	67		2157	0.5	15		2143	1.6	49		2338	0.5	15		2241	1.5	46	
5 Su	0220	10.4	317	20 M	0247	8.8	268	5 W	0357	9.0	274	20 Th	0342	7.8	238	5 Sa	0601	7.5	229	20 Su	0505	7.1	216	
	0858	-1.9	-58		0914	-0.1	-3		1004	0.2	6		0939	1.9	58		1133	3.2	98		1027	3.9	119	
	1530	9.6	293		1543	8.7	265		1631	10.2	311		1600	8.8	268		1751	9.3	283		1640	8.7	265	
	2118	1.7	52		2139	2.3	70		2258	0.6	18		2228	1.8	55		○				2344	1.7	52	
6 M	0310	9.7	296	21 Tu	0326	8.1	247	6 Th	0500	8.0	244	21 F	0429	7.1	216	6 Su	0053	0.9	27	21 M	0620	6.8	207	
	0942	-1.3	-40		0947	0.6	18		1055	1.3	40		1015	2.6	79		0727	7.2	219		1134	4.3	131	
	1616	9.6	293		1618	8.6	262		1723	9.9	302		1640	8.6	262		1252	3.8	116		1746	8.4	256	
	2216	1.6	49		2225	2.4	73		○				2323	2.0	61		1905	8.9	271					
7 Tu	0407	8.8	268	22 W	0411	7.4	226	7 F	0006	0.7	21	22 Sa	0530	6.5	198	7 M	0211	1.0	30	22 Tu	0059	1.6	49	
	1030	-0.4	-12		0615	7.2	219		1100	3.3	101		0851	7.4	226		0745	7.0	213					
	1705	9.6	293		1154	2.3	70		1729	8.5	259		1419	3.9	119		1303	4.4	134					
	2320	1.5	46		2317	2.5	76		1823	9.6	293		○				2022	8.8	268		1908	8.4	256	
8 W ○	0511	7.9	241	23 Th	0503	6.7	204	8 Sa	0122	0.7	21	23 Su	0031	2.0	61	8 Tu	0322	0.8	24	23 W	0213	1.3	40	
	1122	0.6	18		1101	2.2	67		0741	6.9	210		0650	6.2	189		0956	7.8	238		0855	7.6	232	
	1759	9.7	296		1739	8.4	256		1305	3.1	94		1202	3.9	119		1531	3.5	107		1428	3.8	116	
					○				1930	9.4	287		1831	8.4	256		2130	8.9	271		2027	8.8	268	
9 Th	0032	1.3	40	24 F	0019	2.4	73	9 Su	0237	0.5	15	24 M	0146	1.7	52	9 W	0414	0.5	15	24 Th	0316	0.7	21	
	0628	7.2	219		0610	6.2	189		0907	7.0	213		0819	6.4	195		1044	8.3	253		0948	8.4	256	
	1220	1.5	46		1148	2.9	88		1424	3.5	107		1323	4.1	125		1626	2.9	88		1534	2.8	85	
	1857	9.7	296		1828	8.4	256		2039	9.4	287		1943	8.6	262		2224	9.2	280		2134	9.5	290	
10 F	0146	0.8	24	25 Sa	0128	2.1	64	10 M	0342	0.1	3	25 Tu	0255	1.0	30	10 Th	0458	0.3	9	25 F	0408	0.1	3	
	0753	6.9	210		0733	5.9	180		1015	7.5	229		0930	6.9	210		1122	8.7	265		1032	9.3	283	
	1326	2.3	70		1248	3.4	104		1535	3.4	104		1443	3.9	119		1710	2.3	70		1628	1.6	49	
	1957	9.8	299		1925	8.5	259		2141	9.6	293		2051	9.1	277		2309	9.4	287		2232	10.2	311	
11 Sa	0256	0.2	6	26 Su	0235	1.5	46	11 Tu	0437	-0.3	-9	26 W	0352	0.2	6	11 F	0535	0.1	3	26 Sa	0455	-0.4	-12	
	0915	7.0	213		0856	6.1	186		1108	8.0	244		1023	7.7	235		1154	9.1	277		1113	10.3	314	
	1436	2.8	85		1359	3.7	113		1634	3.1	94		1548	3.2	98		1748	1.7	52		1717	0.4	12	
	2057	10.0	305		2024	8.9	271		2234	9.8	299		2152	9.8	299		2348	9.6	293		2324	10.7	326	
12 Su	0358	-0.4	-12	27 M	0334	0.8	24	12 W	0522	-0.7	-21	27 Th	0441	-0.6	-18	12 Sa	0608	0.1	3	27 Su	0539	-0.6	-18	
	1024	7.4	226		1002	6.7	204		1150	8.4	256		1107	8.6	262		1223	9.4	287		1153	11.1	338	
	1542	2.9	88		1507	3.7	113		1722	2.6	79		1643	2.3	70		1821	1.3	40		1804	-0.6	-18	
	2153	10.2	311		2120	9.4	287		2320	9.9	302		2246	10.4	317		●				○			
13 M	0451	-1.0	-30	28 Tu	0424	-0.1	-3	13 Th	0601	-0.9	-27	28 F	0525	-1.2	-37	13 Su	0024	9.7	296	28 M	0014	11.0	335	
	1120	7.9	241		1054	7.3	223		1226	8.8	268		1147	9.4	287		0638	0.3	9		0621	-0.6	-18	
	1640	2.9	88		1607	3.3	101		1804	2.2	67		1733	1.4	43		1250	9.6	293		1232	11.6	354	
	2244	10.4	317		2212	9.9	302					2336	11.0	335		1854	0.9	27		1850	-1.3	-40		
14 Tu	0537	-1.4	-43	29 W	0509	-0.9	-27	14 F	0001	10.0	305	29 Sa	0607	-1.6	-49	14 M	0058	9.6	293	29 Tu	0102	11.0	335	
	1207	8.3	253		1138	8.1	247		0636	-0.9	-27		1226	10.1	308		0707	0.5	15		0703	-0.2	-6	
	1731	2.7	82		1659	2.8	85		1258	9.0	274		1820	0.5	15		1317	9.8	299		1312	11.9	363	
	2330	10.5	320		2302	10.5	320		●	1841	1.9	58		○				1926	0.7	21		1936	-1.7	-52
15 W ●	0619	-1.6	-49	30 Th	0552	-1.7	-52	15 Sa	0039	10.0	305	30 Su	0024	11.2	341	15 Tu	0132	9.4	287	30 W	0151	10.7	326	
	1248	8.7	265		1218	8.7	265		0708	-0.8	-24		0648	-1.7	-52		0735	0.9	27		0746	0.4	12	
	1816	2.5	76		1748	2.2	67		1328	9.2	280		1305	10.7	326		1344	9.8	299		1354	11.8	360	
					2349	11.0	335		1917	1.6	49		1907	-0.2	-6		1958	0.6	18		2023	-1.6	-49	
				31 F ○	0633	-2.1	-64					31 M	0112	11.2	341									
					1258	9.4	287						0729	-1.4	-43									
					1835	1.6	49						1345	11.1	338									
													1954	-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.

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.

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.

Elfin Cove, Port Althorp, Alaska, 2015

Times and Heights of High and Low Waters

April			May			June			
Time	Height		Time	Height		Time	Height		
	h	m	ft	cm		h	m	ft	cm
1 W	0506	2.2	67		16 Th	0442	0.6	18	
	1109	10.1	308			1049	11.1	338	
	1723	1.1	34			1658	0.2	6	
	2337	10.2	311			2314	12.1	369	
2 Th	0542	1.5	46		17 F	0532	-0.6	-18	
	1148	10.4	317			1143	11.5	351	
	1755	1.0	30			1744	0.2	6	
						2357	12.7	387	
3 F	0006	10.6	323		18 Sa	0619	-1.5	-46	
	0616	0.9	27			1233	11.7	357	
	1224	10.6	323			1829	0.4	12	
	1827	1.0	30						
4 Sa	0035	11.0	335		19 Su	0038	13.1	399	
	0649	0.4	12			0705	-2.0	-61	
	1259	10.6	323			1321	11.6	354	
	1857	1.2	37			1912	0.8	24	
5 Su	0104	11.2	341		20 M	0120	13.0	396	
	0722	0.1	3			0750	-2.1	-64	
	1334	10.5	320			1409	11.2	341	
	1928	1.5	46			1956	1.4	43	
6 M	0133	11.3	344		21 Tu	0201	12.7	387	
	0756	0.0	0			0836	-1.8	-55	
	1409	10.2	311			1458	10.6	323	
	1959	1.9	58			2042	2.2	67	
7 Tu	0203	11.3	344		22 W	0244	12.0	366	
	0831	0.0	0			0923	-1.1	-34	
	1447	9.8	299			1409	9.9	302	
	2032	2.4	73			2129	2.9	88	
8 W	0236	11.1	338		23 Th	0330	11.1	338	
	0910	0.1	3			1012	-0.3	-9	
	1529	9.3	283			1643	9.3	283	
	2108	2.9	88			2222	3.6	110	
9 Th	0312	10.8	329		24 F	0420	10.2	311	
	0953	0.4	12			1105	0.6	18	
	1617	8.8	268			1743	8.7	265	
	2151	3.5	107			2323	4.1	125	
10 F	0357	10.4	317		25 Sa	0519	9.3	283	
	1045	0.7	21			1205	1.4	43	
	1716	8.4	256			1849	8.5	259	
	2246	4.0	122						
11 Sa	0452	10.0	305		26 Su	0037	4.3	131	
	1146	1.0	30			0629	8.6	262	
	1827	8.3	253			1310	1.9	58	
	2358	4.2	128			1955	8.5	259	
12 Su	0603	9.6	293		27 M	0155	4.1	125	
	1258	1.2	37			0745	8.4	256	
	1941	8.6	262			1414	2.2	67	
						2051	8.8	268	
13 M	0125	3.9	119		28 Tu	0301	3.5	107	
	0725	9.5	290			0854	8.5	259	
	1410	1.0	30			1509	2.3	70	
	2046	9.3	283			2136	9.3	283	
14 Tu	0243	3.1	94		29 W	0353	2.7	82	
	0843	9.9	302			0952	8.8	268	
	1514	0.7	21			1556	2.2	67	
	2141	10.2	311			2215	9.8	299	
15 W	0347	1.9	58		30 Th	0436	1.8	55	
	0950	10.5	320			1041	9.1	277	
	1608	0.4	12			1637	2.2	67	
	2229	11.2	341			2250	10.4	317	
					1 F	0514	1.0	30	
						1124	9.5	290	
						1714	2.1	64	
						2323	10.8	329	
					2 Sa	0550	0.4	12	
						1204	9.8	299	
						1750	2.1	64	
						2355	11.2	341	
					3 Su	0625	-0.2	-6	
						1242	10.0	305	
						1825	2.2	67	
					4 M	0028	11.5	351	
						0700	-0.6	-18	
						1320	10.1	308	
						1900	2.4	73	
					5 Tu	0101	11.6	354	
						0736	-0.9	-27	
						1358	10.0	305	
						1936	2.7	82	
					6 W	0135	11.6	354	
						0813	-0.9	-27	
						1439	9.8	299	
						2014	3.0	91	
					7 Th	0212	11.4	347	
						0854	-0.8	-24	
						1523	9.6	293	
						2056	3.3	101	
					8 F	0253	11.1	338	
						0938	-0.6	-18	
						1612	9.4	287	
						2146	3.6	110	
					9 Sa	0341	10.6	323	
						1028	-0.2	-6	
						1706	9.3	283	
						2245	3.8	116	
					10 Su	0438	10.1	308	
						1123	0.3	9	
						1807	9.3	283	
						2355	3.7	113	
					11 M	0547	9.5	290	
						1225	0.8	24	
						1909	9.7	296	
					12 Tu	0113	3.2	98	
						0706	9.2	280	
						1331	1.1	34	
						2009	10.2	311	
					13 W	0227	2.3	70	
						0824	9.2	280	
						1435	1.3	40	
						2104	11.0	335	
					14 Th	0330	1.1	34	
						0934	9.6	293	
						1533	1.4	43	
						2155	11.7	357	
					15 F	0426	-0.1	-3	
						1037	10.0	305	
						1627	1.5	46	
						2242	12.3	375	
					16 Sa	0517	-1.1	-34	
						1133	10.4	317	
						1717	1.6	49	
						2328	12.7	387	
					17 Su	0604	-1.8	-55	
						1225	10.6	323	
						1805	1.8	55	
					18 M	0012	12.9	393	
						0650	-2.2	-67	
						1313	10.7	326	
						1851	2.1	64	
					19 Tu	0055	12.7	387	
						0734	-2.2	-67	
						1400	10.6	323	
						1937	2.5	76	
					20 W	0137	12.3	375	
						0818	-1.8	-55	
						1446	10.3	314	
						2024	2.9	88	
					21 Th	0220	11.7	357	
						0902	-1.3	-40	
						1533	10.0	305	
						2111	3.3	101	
					22 F	0304	10.9	332	
						0947	-0.6	-18	
						1621	9.6	293	
						2202	3.7	113	
					23 Sa	0351	10.1	308	
						1032	0.2	6	
						1711	9.3	283	
						2258	4.0	122	
					24 Su	0444	9.2	280	
						1120	1.1	34	
						1804	9.1	277	
					25 M	0000	4.0	122	
						0544	8.5	259	
						1212	1.8	55	
						1857	9.1	277	
					26 Tu	0109	3.8	116	
						0653	8.0	244	
						1308	2.4	73	
						1949	9.3	283	
					27 W	0215	3.3	101	
						0805	7.8	238	
						1404	2.7	82	
						2037	9.6	293	
					28 Th	0312	2.5	76	
						0911	7.9	241	
						1457	2.9	88	
						2120	10.0	305	
					29 F	0400	1.7	52	
						1008	8.2	250	
						1545	3.0	91	
						2201	10.5	320	
					30 Sa	0443	0.9	27	
						1058	8.6	262	
						1630	3.1	94	
						2240	11.0	335	
					31 Su	0523	0.1	3	
						1143	9.0	274	
						1712	3.1	94	
						2318	11.4	347	

Elfin Cove, Port Althorp, Alaska, 2015

Times and Heights of High and Low Waters

July						August						September																
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				
1 W ○	0620	-1.4	-43		16 Th	0021	11.9	363		1 Sa	0045	12.8	390		16 Su	0122	11.2	341		1 Tu	0207	12.3	375		16 W	0211	10.3	314
	1248	9.7	296			0703	-1.4	-43			0720	-2.2	-67			0745	-0.3	-9			0817	-0.9	-27			0811	1.3	40
	1813	3.1	94			1330	10.1	308			1343	11.4	347			1402	10.6	323			1433	12.8	390			1419	10.9	332
						1905	2.9	88			1931	1.3	40			1958	1.8	55			2049	-0.8	-24			2038	0.8	24
2 Th	0014	12.3	375		17 F	0102	11.7	357		2 Su	0131	12.7	387		17 M	0157	10.9	332		2 W	0256	11.5	351		17 Th	0246	9.7	296
	0700	-1.9	-58			0740	-1.2	-37			0801	-2.1	-64			0815	0.1	3			0900	0.0	0			0841	1.9	58
	1328	10.2	311			1405	10.2	311			1423	11.8	360			1432	10.6	323			1516	12.5	381			1449	10.7	326
	1859	2.8	85			1946	2.8	85			2019	0.9	27			2034	1.7	52			2141	-0.5	-15			2115	1.0	30
3 F	0058	12.5	381		18 Sa	0140	11.4	347		3 M	0219	12.3	375		18 Tu	0232	10.3	314		3 Th	0349	10.4	317		18 F	0325	9.1	277
	0741	-2.1	-64			0815	-0.9	-27			0843	-1.6	-49			0846	0.6	18			0945	1.1	34			0912	2.6	79
	1410	10.6	323			1440	10.3	314			1505	12.1	369			1502	10.6	323			1603	12.0	366			1522	10.4	317
	1946	2.5	76			2026	2.7	82			2110	0.7	21			2111	1.8	55			2237	0.0	0			2156	1.3	40
4 Sa	0143	12.4	378		19 Su	0218	10.9	332		4 Tu	0309	11.5	351		19 W	0309	9.7	296		4 F	0449	9.3	283		19 Sa	0409	8.4	256
	0823	-2.1	-64			0849	-0.4	-12			0925	-0.7	-21			0916	1.3	40			1035	2.3	70			0948	3.3	101
	1452	11.0	335			1514	10.2	311			1550	12.1	369			1534	10.4	317			1656	11.2	341			1600	10.0	305
	2036	2.3	70			2106	2.7	82			2204	0.7	21			2150	1.9	58			2340	0.6	18			2245	1.6	49
5 Su	0230	12.0	366		20 M	0257	10.3	314		5 W	0403	10.5	320		20 Th	0348	8.9	271		5 Sa	0600	8.4	256		20 Su	0506	7.8	238
	0906	-1.7	-52			0922	0.2	6			1010	0.3	9			0949	2.1	64			1135	3.4	104			1034	4.0	122
	1535	11.2	341			1548	10.2	311			1637	11.8	360			1608	10.1	308			1758	10.5	320			1650	9.6	293
	2128	2.1	64			2148	2.7	82			2302	0.8	24			2235	2.2	67		●					2348	1.9	58	
6 M	0321	11.3	344		21 Tu	0337	9.5	290		6 Th	0504	9.3	283		21 F	0434	8.2	250		6 Su	0054	1.1	34		21 M	0622	7.4	226
	0950	-1.0	-30			0956	0.9	27			1059	1.5	46			1024	2.8	85			0724	7.9	241			1140	4.5	137
	1621	11.3	344			1624	10.0	305			1729	11.5	351			1648	9.9	302			1253	4.1	125			1757	9.3	283
	2224	1.9	58			2233	2.8	85		○					2328	2.3	70			1911	10.0	305						
7 Tu	0416	10.4	317		22 W	0421	8.7	265		7 F	0008	1.0	30		22 Sa	0533	7.5	229		7 M	0214	1.2	37		22 Tu	0105	1.9	58
	1036	-0.2	-6			1031	1.7	52			0615	8.4	256			1108	3.6	110			0850	8.0	244			0748	7.6	232
	1710	11.3	344			1702	9.9	302			1156	2.6	79			1737	9.6	293			1421	4.2	128			1312	4.6	140
	2326	1.8	55			2323	2.9	88			1829	11.1	338		○					2026	9.8	299			1919	9.3	283	
8 W ○	0518	9.4	287		23 Th	0511	7.9	241		8 Sa	0122	1.1	34		23 Su	0035	2.4	73		8 Tu	0324	1.0	30		23 W	0221	1.4	43
	1126	0.9	27			1110	2.5	76			0738	7.8	238			0652	7.0	213			0958	8.5	259			0858	8.3	253
	1803	11.3	344			1745	9.8	299			1306	3.5	107			1209	4.2	128			1534	3.8	116			1436	4.0	122
											1935	10.8	329			1840	9.5	290			2133	10.0	305			2037	9.8	299
9 Th	0034	1.6	49		24 F	0022	2.8	85		9 Su	0238	0.8	24		24 M	0151	2.0	61		9 W	0419	0.7	21		24 Th	0323	0.7	21
	0630	8.5	259			0615	7.3	223			0903	7.8	238			0820	7.1	216			1047	9.1	277			0952	9.3	283
	1223	1.9	58			1157	3.2	98			1425	3.9	119			1332	4.5	137			1630	3.2	98			1541	2.9	88
	1901	11.3	344			1834	9.7	296			2042	10.7	326			1952	9.8	299			2228	10.4	317			2142	10.6	323
10 F	0146	1.2	37		25 Sa	0130	2.6	79		10 M	0345	0.4	12		25 Tu	0301	1.3	40		10 Th	0503	0.4	12		25 F	0415	0.0	0
	0751	8.1	247			0734	7.0	213			1015	8.3	253			0932	7.8	238			1125	9.6	293			1038	10.4	317
	1328	2.8	85			1257	3.9	119			1538	3.9	119			1452	4.2	128			1714	2.5	76			1635	1.6	49
	2001	11.3	344			1931	9.8	299			2145	10.9	332			2100	10.3	314			2314	10.7	326			2239	11.4	347
11 Sa	0256	0.6	18		26 Su	0237	2.0	61		11 Tu	0440	-0.1	-3		26 W	0358	0.5	15		11 F	0540	0.2	6		26 Sa	0501	-0.5	-15
	0910	8.1	247			0854	7.1	216			1110	8.9	271			1027	8.6	262			1158	10.1	308			1120	11.4	347
	1437	3.3	101			1407	4.2	128			1638	3.5	107			1556	3.5	107			1752	1.9	58			1723	0.3	9
	2100	11.4	347			2030	10.2	311			2239	11.1	338			2200	11.1	338			2353	10.9	332			2331	12.1	369
12 Su	0359	0.0	0		27 M	0337	1.2	37		12 W	0526	-0.4	-12		27 Th	0447	-0.4	-12		12 Sa	0612	0.2	6		27 Su	0545	-0.8	-24
	1021	8.4	256			1002	7.6	232			1153	9.4	287			1112	9.6	293			1227	10.5	320			1200	12.4	378
	1543	3.5	107			1514	4.1	125			1727	3.1	94			1650	2.5	76			1826	1.4	43			1810	-0.8	-24
	2157	11.6	354			2127	10.7	326			2326	11.3	344			2254	11.9	363		●				○				
13 M	0453	-0.6	-18		28 Tu	0428	0.2	6		13 Th	0606	-0.6	-18		28 F	0531	-1.2	-37		13 Su	0030	11.0	335		28 M	0020	12.4	378
	1121	8.9	271			1056	8.4	256			1153	10.6	323			1153	10.6	323			0643	0.2	6			0627	-0.8	

Elfin Cove, Port Althorp, Alaska, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0244	11.3	344	16 F	0230	9.7	296	1 Tu	0446	9.5	290
	0835	1.0	30		0811	2.6	79		1031	3.9	119
	1444	12.7	387		1413	11.1	338		1617	9.5	290
	2118	-1.4	-43		2048	0.0	0		2255	0.8	24
2 F	0336	10.3	314	17 Sa	0310	9.3	283	2 W	0540	9.2	280
	0922	2.0	61		0846	3.2	98		1136	4.1	125
	1531	11.9	363		1447	10.7	326		1717	8.5	259
	2211	-0.6	-18		2129	0.3	9	3 Th	2348	1.7	52
3 Sa	0434	9.4	287	18 Su	0355	8.8	268	3 Th	0637	9.1	277
	1014	3.0	91		0925	3.7	113		1251	4.0	122
	1623	10.9	332		1527	10.2	311		1831	7.7	235
	2310	0.3	9		2216	0.8	24	4 F	0046	2.4	73
4 Su	0542	8.6	262	19 M	0450	8.3	253		0735	9.2	280
	1118	3.9	119		1016	4.2	128		1407	3.5	107
5 M	1725	9.9	302		1617	9.7	296		1952	7.4	226
					2313	1.2	37	5 Sa	0148	2.9	88
6 Tu	0137	1.5	46	20 Tu	0558	8.1	247		0826	9.6	293
	0823	8.4	256		1127	4.6	140		1508	2.7	82
	1411	4.2	128		1725	9.2	280		2105	7.6	232
	2004	9.0	274	21 W	0023	1.4	43	6 Su	0246	3.2	98
7 W	0248	1.6	49		0713	8.4	256		0912	10.0	305
	0925	8.8	268		1257	4.4	134		1558	1.8	55
	1521	3.6	110		1850	9.0	274		2205	8.0	244
	2114	9.2	280	22 Th	0137	1.4	43	7 M	0337	3.2	98
8 Th	0344	1.5	46		0820	9.1	277		0953	10.5	320
	1011	9.4	287		1420	3.5	107		1639	0.9	27
	1613	2.8	85		2014	9.3	283		2254	8.5	259
	2210	9.5	290	23 F	0244	1.1	34	8 Tu	0421	3.2	98
9 F	0428	1.3	40		0915	10.0	305		1032	11.0	335
	1048	9.9	302		1525	2.2	67		1717	0.1	3
	1655	2.0	61		2124	9.9	302		2336	8.9	271
	2256	9.9	302	24 Sa	0340	0.8	24	9 W	0503	3.1	94
10 Sa	0505	1.2	37		1003	11.1	338		1108	11.4	347
	1119	10.4	317		1619	0.7	21		1753	-0.6	-18
	1731	1.2	37		2225	10.6	323	10 Th	0015	9.4	287
	2336	10.2	311	25 Su	0430	0.5	15		0542	3.0	91
11 Su	0538	1.2	37		1047	12.1	369		1144	11.8	360
	1149	10.9	332		1708	-0.6	-18		1828	-1.2	-37
	1804	0.6	18		2319	11.2	341	11 F	0052	9.7	296
12 M	0012	10.4	317	26 M	0516	0.4	12		0619	3.0	91
	0609	1.2	37		1129	12.9	393		1219	12.0	366
	1217	11.2	341		1754	-1.8	-55		1903	-1.5	-46
	1835	0.1	3	27 Tu	0009	11.6	354	12 Sa	0129	9.9	302
13 Tu	0046	10.5	320		0601	0.4	12		0657	3.0	91
	0639	1.4	43		1211	13.4	408		1255	12.1	369
	1245	11.4	347		1839	-2.5	-76		1939	-1.7	-52
	1907	-0.2	-6	28 W	0057	11.7	357	13 Su	0206	10.1	308
14 W	0120	10.4	317		0644	0.8	24		0736	3.0	91
	0710	1.7	52		1252	13.6	415		1333	12.0	366
	1313	11.5	351		1924	-2.7	-82		2016	-1.6	-49
	1939	-0.3	-9	29 Th	0144	11.5	351	14 M	0246	10.1	308
15 Th	0155	10.1	308		0728	1.3	40		0818	3.1	94
	0740	2.1	64		1334	13.3	405		1412	11.7	357
	1342	11.3	344		2010	-2.5	-76		2055	-1.4	-43
	2012	-0.2	-6	30 F	0233	11.0	335	15 Tu	0328	10.2	311
					0814	2.0	61		0906	3.1	94
					1417	12.6	384		1457	11.1	338
					2057	-1.9	-58		2137	-0.9	-27
				31 Sa	0323	10.3	314	30 W	0407	10.0	305
					0902	2.7	82		0959	3.3	101
					1503	11.7	357		1545	9.6	293
					2146	-1.0	-30		2214	0.6	18
								31 Th	0449	9.7	296
									1051	3.5	107
									1634	8.6	262
									2254	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.

Yakutat, Alaska, 2015

Times and Heights of High and Low Waters

January						February						March					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 Th	0332	3.5	107			16 Su	0514	3.6	110			1 Su	0411	3.9	119		
	0950	10.9	332				1114	10.5	320				1010	9.3	283		
	1648	0.1	3				1802	-0.2	-6				1659	0.7	21		
	2312	8.3	253										2328	8.3	253		
2 F	0431	3.5	107			17 M	0029	8.9	271			2 M	0503	3.3	101		
	1040	11.1	338				0558	3.2	98				1101	9.6	293		
	1735	-0.4	-12				1156	10.7	326				1739	0.4	12		
							1838	-0.5	-15								
3 Sa	0002	8.7	265			18 Tu	0102	9.2	280			3 Tu	0002	8.7	265		
	0522	3.5	107				0636	2.8	85				0544	2.7	82		
	1125	11.3	344				1233	10.7	326				1142	9.9	302		
	1816	-0.8	-24				1910	-0.5	-15				1813	0.1	3		
4 Su	0044	9.1	277			19 W	0132	9.5	290			4 W	0032	9.2	280		
	0607	3.3	101				0712	2.5	76				0620	2.1	64		
	1206	11.4	347				1308	10.7	326				1219	10.0	305		
	1854	-0.9	-27				1940	-0.5	-15				1843	0.0	0		
5 M	0121	9.3	283			20 Th	0201	9.6	293			5 Th	0100	9.5	290		
	0648	3.2	98				0746	2.3	70				0653	1.6	49		
	1245	11.3	344				1342	10.4	317				1254	10.1	308		
	1929	-0.9	-27				2009	-0.2	-6				1912	0.1	3		
6 Tu	0156	9.5	290			21 F	0229	9.7	296			6 F	0126	9.8	299		
	0726	3.1	94				0820	2.1	64				0725	1.2	37		
	1322	11.0	335				1416	10.1	308				1327	10.0	305		
	2003	-0.8	-24				2038	0.1	3				1940	0.3	9		
7 W	0230	9.5	290			22 Sa	0258	9.8	299			7 Sa	0152	10.0	305		
	0804	3.1	94				0855	2.1	64				0757	1.0	30		
	1357	10.7	326				1450	9.6	293				1400	9.8	299		
	2035	-0.4	-12				2106	0.7	21				2007	0.6	18		
8 Th	0303	9.5	290			23 Su	0327	9.7	296			8 Su	0219	10.1	308		
	0841	3.1	94				0932	2.2	67				0830	0.9	27		
	1433	10.1	308				1526	8.9	271				1433	9.4	287		
	2107	0.0	0				2135	1.3	40				2035	1.1	34		
9 F	0336	9.4	287			24 M	0358	9.6	293			9 M	0247	10.1	308		
	0921	3.2	98				1013	2.3	70				0904	0.9	27		
	1510	9.5	290				1607	8.2	250				1509	8.9	271		
	2139	0.6	18				2207	2.0	61				2103	1.6	49		
10 Sa	0410	9.3	283			25 Tu	0433	9.5	290			10 Tu	0316	10.0	305		
	1003	3.3	101				1101	2.4	73				0942	1.1	34		
	1549	8.8	268				1655	7.5	229				1548	8.3	253		
	2213	1.3	40				2243	2.8	85				2135	2.3	70		
11 Su	0447	9.2	280			26 W	0514	9.3	283			11 W	0350	9.8	299		
	1052	3.4	104				1201	2.5	76				1026	1.3	40		
	1635	8.0	244				1800	6.8	207				1635	7.7	235		
	2249	2.1	64				2330	3.5	107				2211	3.0	91		
12 M	0528	9.1	277			27 Th	0607	9.2	280			12 Th	0430	9.5	290		
	1150	3.4	104				1314	2.4	73				1120	1.5	46		
	1731	7.3	223				1927	6.5	198				1735	7.1	216		
	2331	2.8	85										2258	3.6	110		
13 Tu	0614	9.1	277			28 F	0035	4.1	125			13 F	0522	9.2	280		
	1259	3.2	98				0713	9.3	283				1229	1.7	52		
	1846	6.7	204				1433	1.8	55				1856	6.7	204		
							2100	6.7	204								
14 W	0023	3.5	107			29 Sa	0200	4.3	131			14 Sa	0007	4.1	125		
	0708	9.2	280				0826	9.6	293				0632	9.0	274		
	1412	2.7	82				1541	1.0	30				1349	1.5	46		
	2014	6.6	201				2211	7.4	226				2026	6.9	210		
15 Th	0128	4.0	122			30 Su	0321	4.0	122			15 Su	0138	4.2	128		
	0807	9.5	290				0934	10.2	311				0754	9.0	274		
	1519	1.9	58				1636	0.0	0				1503	0.9	27		
	2136	7.0	213				2304	8.3	253				2138	7.6	232		
						31 Sa	0420	3.9	119			31 Tu	0443	2.8	85		
							1026	10.3	314				1040	8.6	262		
							1722	0.1	3				1703	1.0	30		
							2351	8.4	256				2323	8.7	265		

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.

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.

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.

Yakutat, Alaska, 2015

Times and Heights of High and Low Waters

October						November						December					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 Th	0256	10.2	311			16 F	0242	9.0	274			1 Tu	0500	9.0	274		
	0844	1.2	37				0819	2.7	82				1041	3.9	119		
	1453	11.7	357				1421	10.3	314				1626	9.0	274		
	2129	-1.1	-34				2100	0.2	6				2309	1.1	34		
2 F	0349	9.4	287			17 Sa	0322	8.6	262			2 W	0555	8.8	268		
	0931	2.1	64				0853	3.2	98				1148	4.1	125		
	1539	11.0	335				1455	10.0	305				1727	8.1	247		
	2223	-0.4	-12				2141	0.5	15				2328	1.0	30		
3 Sa	0448	8.6	262			18 Su	0407	8.1	247			3 Th	0001	1.9	58		
	1024	3.0	91				0932	3.7	113				0652	8.7	265		
	1632	10.1	308				1535	9.6	293				1305	4.0	122		
	2324	0.5	15				2230	0.9	27				1841	7.4	226		
4 Su	0557	8.0	244			19 M	0503	7.8	238			4 F	0059	2.6	79		
	1129	3.8	116				1023	4.2	128				0749	8.8	268		
	1735	9.2	280				1625	9.1	277				1420	3.5	107		
							2328	1.3	40				2003	7.1	216		
5 M	0034	1.1	34			20 Tu	0611	7.6	232			5 Sa	0158	3.0	91		
	0719	7.7	235				1134	4.4	134				0840	9.1	277		
	1253	4.2	128				1733	8.6	262				1521	2.8	85		
	1853	8.5	259										2117	7.2	219		
6 Tu	0151	1.5	46			21 W	0038	1.5	46			6 Su	0255	3.3	101		
	0838	7.8	238				0725	7.8	238				0925	9.5	290		
	1422	4.0	122				1303	4.2	128				1611	2.0	61		
	2016	8.3	253				1858	8.4	256				2217	7.5	229		
7 W	0301	1.6	49			22 Th	0150	1.4	43			7 M	0345	3.4	104		
	0939	8.2	250				0832	8.4	256				1004	9.9	302		
	1533	3.4	104				1426	3.4	104				1652	1.3	40		
	2127	8.4	256				2022	8.6	262				2306	8.0	244		
8 Th	0356	1.4	43			23 F	0255	1.2	37			8 Tu	0430	3.5	107		
	1025	8.7	265				0926	9.3	283				1041	10.4	317		
	1626	2.7	82				1533	2.3	70				1729	0.5	15		
	2223	8.7	265				2134	9.1	277				2348	8.4	256		
9 F	0440	1.3	40			24 Sa	0350	0.9	27			9 W	0511	3.4	104		
	1101	9.2	280				1013	10.3	314				1116	10.8	329		
	1707	1.9	58				1629	0.9	27				1805	-0.1	-3		
	2308	9.1	277				2235	9.8	299								
10 Sa	0517	1.3	40			25 Su	0440	0.7	21			10 Th	0026	8.8	268		
	1132	9.6	293				1056	11.2	341				0549	3.4	104		
	1743	1.3	40				1718	-0.3	-9				1151	11.1	338		
	2347	9.3	283				2329	10.3	314				1840	-0.6	-18		
11 Su	0550	1.3	40			26 M	0526	0.6	18			11 F	0104	9.1	277		
	1200	10.0	305				1138	12.0	366				0626	3.3	101		
	1816	0.7	21				1805	-1.3	-40				1226	11.4	347		
													1915	-0.9	-27		
12 M	0023	9.5	290			27 Tu	0020	10.6	323			12 Sa	0141	9.3	283		
	0620	1.4	43				0610	0.7	21				0704	3.3	101		
	1227	10.3	314				1219	12.5	381				1302	11.4	347		
	1847	0.3	9				1851	-2.0	-61				1951	-1.1	-34		
13 Tu	0057	9.6	293			28 W	0108	10.7	326			13 Su	0218	9.4	287		
	0649	1.6	49				0654	1.0	30				0743	3.2	98		
	1254	10.5	320				1300	12.6	384				1340	11.3	344		
	1918	0.1	3				1936	-2.2	-67				2028	-1.1	-34		
14 W	0131	9.5	290			29 Th	0157	10.5	320			14 M	0258	9.5	290		
	0718	1.9	58				0738	1.5	46				0826	3.3	101		
	1322	10.5	320				1342	12.4	378				1421	11.0	335		
	1950	0.0	0				2022	-2.0	-61				2108	-0.9	-27		
15 Th	0206	9.3	283			30 F	0245	10.1	308			15 Tu	0340	9.5	290		
	0748	2.3	70				0823	2.2	67				0913	3.3	101		
	1350	10.5	320				1426	11.9	363				1505	10.5	320		
	2024	0.0	0				2109	-1.4	-43				2150	-0.4	-12		
						31 Sa	0336	9.6	293			31 Th	0502	9.2	280		
							0911	2.9	88				1102	3.5	107		
							1511	11.0	335				1644	8.2	250		
							2158	-0.6	-18				2305	1.8	55		

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, 2015

Times and Heights of High and Low Waters

January						February						March																
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				
1 Th	0348	3.9	119		16 F	0302	4.9	149		1 Su	0013	10.7	326		16 M	0448	3.6	110		1 Su	0428	4.5	137		16 M	0321	4.2	128
	1012	13.6	415			0929	12.5	381			0530	3.9	119			1055	13.5	411			1031	11.6	354			0938	11.9	363
	1659	0.3	9			1628	1.4	43			1136	13.1	399			1738	-1.1	-34			1714	0.9	27			1619	0.3	9
	2329	10.6	323			2250	9.8	299			1813	-0.3	-9			2349	10.5	320			2349	10.5	320			2250	10.9	332
2 F	0449	3.8	116		17 Sa	0410	4.5	137		2 M	0053	11.3	344		17 Tu	0008	11.7	357		2 M	0519	3.7	113		17 Tu	0431	2.8	85
	1101	13.9	424			1021	13.3	405			0612	3.3	101			0541	2.3	70			1121	12.0	366			1040	12.8	390
	1745	-0.5	-15			1717	0.0	0			1218	13.3	405			1149	14.3	436			1752	0.4	12			1711	-0.7	-21
						2344	10.7	326			1847	-0.7	-21			1821	-2.1	-64								2338	12.1	369
3 Sa	0023	11.2	341		18 Su	0507	3.8	116		3 Tu	0126	11.7	357		18 W	0052	12.8	390		3 Tu	0025	11.1	338		18 W	0526	1.2	37
	0539	3.6	110			1112	14.1	430			0650	2.8	85			0629	1.0	30			0559	2.8	85			1136	13.5	411
	1147	14.0	427			1800	-1.2	-37			1256	13.4	408			1240	14.9	454			1203	12.4	378			1756	-1.6	-49
	1826	-1.0	-30						1920		-0.9	-27		1903		-2.7	-82		1824		-0.1	-3						
4 Su	0107	11.6	354		19 M	0033	11.6	354		4 W	0155	12.0	366		19 Th	0133	13.7	418		4 W	0055	11.6	354		19 Th	0021	13.2	402
	0623	3.4	104			0557	3.0	91			0726	2.4	73			0716	0.0	0			0634	2.1	64			0614	-0.3	-9
	1230	14.1	430			1202	14.8	451			1331	13.3	405			1329	15.1	460			1241	12.6	384			1229	14.1	430
	1903	-1.3	-40			1842	-2.3	-70			1951	-0.9	-27			1945	-2.9	-88			1854	-0.3	-9			1839	-2.0	-61
5 M	0145	11.9	363		20 Tu	0117	12.5	381		5 Th	0223	12.2	372		20 F	0213	14.4	439		5 Th	0122	12.0	366		20 F	0103	14.2	433
	0703	3.2	98			0644	2.2	67			0801	2.2	67			0803	-0.7	-21			0707	1.4	43			0700	-1.4	-43
	1308	14.0	427			1250	15.3	466			1404	13.1	399			1416	14.8	451			1315	12.7	387			1318	14.3	436
	1939	-1.3	-40			1924	-2.9	-88			2023	-0.7	-21			2027	-2.5	-76			1924	-0.3	-9			1921	-2.0	-61
6 Tu	0219	12.0	366		21 W	0159	13.2	402		6 F	0249	12.3	375		21 Sa	0252	14.6	445		6 F	0148	12.4	378		21 Sa	0143	14.8	451
	0742	3.1	94			0730	1.5	46			0837	2.1	64			0850	-0.9	-27			0740	1.0	30			0746	-2.1	-64
	1344	13.8	421			1338	15.4	469			1435	12.7	387			1502	14.1	430			1348	12.7	387			1406	-1.4	430
	2014	-1.1	-34			2006	-3.1	-94			2054	-0.2	-6			2109	-1.6	-49			1954	-0.2	-6			2003	-1.6	-49
7 W	0251	12.1	369		22 Th	0239	13.7	418		7 Sa	0315	12.3	375		22 Su	0332	14.5	442		7 Sa	0213	12.6	384		22 Su	0222	15.0	457
	0821	3.1	94			0818	1.0	30			0913	2.1	64			0939	-0.7	-21			0813	0.7	21			0832	-2.3	-70
	1418	13.3	405			1424	15.1	460			1507	12.1	369			1550	12.9	393			1419	12.4	378			1452	13.5	411
	2049	-0.8	-24			2049	-2.8	-85			2126	0.4	12			2153	-0.4	-12			2024	0.2	6			2045	-0.7	-21
8 Th	0322	12.0	366		23 F	0320	13.9	424		8 Su	0342	12.2	372		23 M	0414	14.0	427		8 Su	0237	12.7	387		23 M	0301	14.7	448
	0900	3.2	98			0907	0.8	24			0951	2.2	67			1029	-0.2	-6			0847	0.7	21			0918	-1.9	-58
	1451	12.7	387			1511	14.3	436			1540	11.3	344			1643	11.5	351			1451	12.0	366			1539	12.5	381
	2123	-0.2	-6			2133	-2.0	-61			2159	1.2	37			2238	1.0	30			2056	0.8	24			2129	0.4	12
9 F	0352	11.8	360		24 Sa	0403	13.9	424		9 M	0410	12.0	366		24 Tu	0501	13.2	402		9 M	0302	12.6	384		24 Tu	0341	14.0	427
	0940	3.4	104			0958	0.9	27			1031	2.5	76			1124	0.6	18			0923	0.8	24			1006	-1.2	-37
	1525	12.0	366			1601	13.1	399			1617	10.4	317			1749	10.2	311			1523	11.3	344			1630	11.3	344
	2158	0.5	15			2217	-0.8	-24			2233	2.1	64			2327	2.5	76			2128	1.5	46			2214	1.7	52
10 Sa	0425	11.6	354		25 Su	0449	13.6	415		10 Tu	0444	11.7	357		25 W	0559	12.4	378		10 Tu	0329	12.5	381		25 W	0425	13.0	396
	1022	3.6	110			1052	1.2	37			1116	2.8	85			1224	1.5	46			1001	1.0	30			1057	-0.1	-3
	1602	11.1	338			1658	11.7	357			1706	9.4	287			1913	9.2	280			1559	10.5	320			1731	10.1	308
	2234	1.3	40			2304	0.6	18			2311	3.1	94								2202	2.3	70			2303	3.0	91
11 Su	0502	11.4	347		26 M	0542	13.2	402		11 W	0528	11.4	347		26 Th	0024	3.9	119		11 W	0359	12.1	369		26 Th	0517	11.8	360
	1107	3.8	116			1150	1.6	49			1209	3.0	91			0710	11.6	354			1044	1.4	43			1153	1.0	30
	1647	10.1	308			1810	10.3	314			1821	8.6	262			1338	2.1	64			1643	9.6	293			1848	9.3	283
	2311	2.3	70			2355	2.0	61			2357	4.0	122			2041	9.0	274			2241	3.2	98					
12 M	0546	11.2	341		27 Tu	0642	12.7	387		12 Th	0629	11.3	344		27 F	0136	4.9	149		12 Th	0437	11.7	357		27 F	0000	4.2	128
	1158	4.0	122			1256	2.1	64			1315	3.0	91			0824	11.3	344			1135	1.8	55			0629	10.8	329
	1750	9.1	277			1936	9.4	287			1957	8.3	253			1510	2.2	67			1751	8.8	268			1258	1.9	58
	2353	3.2	98													2159	9.3	283			2328	4.1	125			2013	9.0	274
13 Tu	0639	11.2	341		28 W	0053	3.4	104		13 F	0059	4.8	146		28 Sa	0309	5.1	155		13 F	0534	11.2	341		28 Sa	0110	5.0	152
	1258	4.0	122			0748	12.5	381			0744	11.4	347			0932	11.4	347			1236	2.1	64			0751	10.2	311
	1916	8.6	262			1416	2.2	67			1435	2.6	79			1625	1.6	49			1928	8.5	259			1420	2.4	73
						2100	9.2	280			2119	8.7	265			2302	9.9	302								2126	9.3	283
14 W	0043	4.1	125		29 Th	0205	4.4	134		14 Sa	0220	5.1	155							14 Sa	0031	4.7	143		29 Su	0245	5.0	152
	0738	11.4	347			0852	12.4	378			0854	11.9	363								0700	10.9	332			0905	10.2	311
	1410	3.6	110			1542	1.7	52			1552	1.5	46								1351	2.1	64			1543	2.2	67
	2039	8.5	259			2217	9.5	290			2225	9.5	290								2051	8.9	271			2223	9.8	299
15 Th	0147	4.7	143		30 F	0327	4.7	143		15 Su	0342	4.6	140		15 Su	0154	4.9	149		15 Su	0154	4.9	149		30 M	0410	4.2	128
	0835	11.8	360			0952	12.6	384			0957	12.7	387			0826	11.2	341			0826	11.2	341			1006	10.5	320
	1526	2.7	82			1647	1.0	30			1650	0.2	6			1512	1.4	43			1512	1.4	43			1639	1.7	52
	2149	9.0	274			2322	10.1	308			2320	10.6	323								2156	9.7	296			2307	10.4	317
				31 Sa	0438	4.4	134																					
					1047	12.8	390																					
					1734	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.

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, 2015

Times and Heights of High and Low Waters

July						August						September																	
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					
1 W ○	0001	13.4	408		16 Th	0055	13.4	408		1 Sa	0117	14.4	439		16 Su	0154	12.8	390		1 Tu	0239	14.0	427		16 W	0239	12.0	366	
	0645	-1.9	-58			0723	-2.0	-61			0744	-2.9	-88			0808	-0.8	-24			0844	-1.5	-46			0839	1.3	40	
	1318	10.9	332			1404	11.4	347			1415	12.8	390			1433	12.0	366			1503	14.4	439			1443	12.6	384	
	1841	2.4	73			1927	2.1	64			1955	0.5	15			2022	1.3	40			2112	-1.3	-40			2106	0.7	21	
2 Th	0045	13.8	421		17 F	0135	13.2	402		2 Su	0203	14.3	436		17 M	0226	12.4	378		2 W	0327	13.1	399		17 Th	0312	11.4	347	
	0724	-2.6	-79			0800	-1.8	-55			0826	-2.8	-85			0840	-0.3	-9			0928	-0.4	-12			0912	2.1	64	
	1400	11.4	347			1438	11.5	351			1455	13.2	402			1459	12.0	366			1545	14.1	430			1509	12.4	378	
	1925	2.0	61			2008	2.0	61			2042	0.1	3			2059	1.4	43			2203	-0.9	-27			2144	1.0	31	
3 F	0128	14.0	427		18 Sa	0211	12.8	390		3 M	0249	13.8	421		18 Tu	0259	11.8	360		3 Th	0420	12.0	366		18 F	0347	10.7	326	
	0805	-2.9	-88			0836	-1.5	-46			0909	-2.3	-70			0913	0.4	12			1014	0.9	27			0947	2.9	88	
	1440	11.8	360			1510	11.5	351			1535	13.3	405			1526	11.9	363			1631	13.4	408			1538	12.0	366	
	2010	1.7	52			2047	2.1	64			2132	0.0	0			2136	1.6	49			2256	-0.1	-3			2225	1.5	46	
4 Sa	0212	13.9	424		19 Su	0246	12.3	375		4 Tu	0337	12.9	393		19 W	0332	11.1	338		4 F	0523	10.7	326		19 Sa	0430	9.9	302	
	0848	-2.9	-88			0912	-0.9	-27			0953	-1.4	-43			0946	1.2	37			1104	2.2	67			1025	3.7	113	
	1521	12.1	369			1541	11.3	344			1619	13.2	402			1554	11.6	354			1727	12.6	384			1614	11.5	351	
	2058	1.5	46			2128	2.2	67			2224	0.2	6			2216	1.9	58			2355	0.8	24			2313	2.0	61	
5 Su	0257	13.4	408		20 M	0321	11.6	354		5 W	0431	11.7	357		20 Th	0409	10.3	314		5 Sa	0642	9.8	299		20 Su	0533	9.1	277	
	0931	-2.5	-76			0947	-0.2	-6			1039	-0.2	-6			1021	2.1	64			1201	3.5	107			1112	4.5	137	
	1604	12.1	369			1612	11.1	338			1708	12.9	393			1626	11.3	344			1838	11.8	360			1705	11.0	335	
	2149	1.4	43			2209	2.5	76			2319	0.6	18			2259	2.2	67			2					2			
6 M	0345	12.6	384		21 Tu	0358	10.7	326		6 Th	0537	10.5	320		21 F	0456	9.4	287		6 Su	0103	1.5	46		21 M	0010	2.4	73	
	1016	-1.7	-52			1023	0.6	18			1128	1.2	37			1058	3.0	91			0809	9.4	287			0705	8.8	268	
	1651	12.1	369			1647	10.9	332			1805	12.5	381			1706	11.0	335			1310	4.5	137			1212	5.1	155	
	2243	1.5	46			2253	2.7	82			2349	2.6	79			2349	2.6	79			1956	11.4	347			1829	10.6	323	
7 Tu	0441	11.5	351		22 W	0441	9.8	299		7 F	0021	1.0	30		22 Sa	0604	8.6	262		7 M	0227	1.9	58		22 Tu	0120	2.5	76	
	1104	-0.7	-21			1100	1.6	49			0657	9.5	290			1143	3.9	119			0926	9.7	296			0827	9.1	277	
	1744	12.1	369			1727	10.7	326			1224	2.5	76			1804	10.7	326			1438	4.8	146			1330	5.2	158	
	2341	1.5	46			2341	3.0	91			1911	12.1	369			○					2108	11.4	347			2001	10.8	329	
8 W ○	0551	10.3	314		23 Th	0537	8.9	271		8 Sa	0132	1.4	43		23 Su	0049	2.8	85		8 Tu	0349	1.6	49		23 W	0238	2.1	64	
	1154	0.4	12			1140	2.5	76			0821	9.1	277			0735	8.2	250			1029	10.2	311			0930	9.9	302	
	1843	12.1	369			1816	10.5	320			1330	3.6	110			1240	4.7	143			1602	4.2	128			1455	4.6	140	
						2019	12.0	366			2019	12.0	366			1920	10.7	326			2209	11.6	354			2113	11.5	351	
9 Th	0045	1.6	49		24 F	0035	3.1	94		9 Su	0255	1.3	40		24 M	0204	2.7	82		9 W	0447	1.0	30		24 Th	0348	1.2	37	
	0712	9.5	290			0653	8.2	250			0939	9.3	283			0854	8.5	259			1119	10.8	329			1021	11.0	335	
	1250	1.6	49			1226	3.4	104			1450	4.1	125			1356	5.0	152			1659	3.4	104			1606	3.3	101	
	1944	12.2	372			1914	10.6	323			2123	12.1	369			2032	11.1	338			2302	12.0	366			2214	12.3	375	
10 F	0158	1.4	43		25 Sa	0141	3.0	91		10 M	0411	0.7	21		25 Tu	0322	1.9	58		10 Th	0529	0.5	15		25 F	0442	0.2	6	
	0833	9.2	280			0813	8.0	244			1046	9.8	299			0959	9.2	280			1158	11.3	344			1107	12.2	372	
	1355	2.6	79			1324	4.1	125			1607	3.9	119			1518	4.6	140			1741	2.5	76			1701	1.7	52	
	2043	12.5	381			2012	10.8	329			2221	12.4	378			2135	11.8	360			2347	12.3	375			2310	13.2	402	
11 Sa	0317	0.8	24		26 Su	0257	2.5	76		11 Tu	0507	0.0	0		26 W	0425	0.8	24		11 F	0604	0.2	6		26 Sa	0529	-0.6	-18	
	0947	9.3	283			0924	8.3	253			1142	10.4	317			1053	10.1	308			1231	11.8	360			1150	13.3	405	
	1508	3.1	94			1435	4.5	137			1706	3.3	101			1625	3.6	110			1817	1.7	52			1749	0.1	3	
	2140	12.8	390			2108	11.4	347			2314	12.6	384			2232	12.7	387											
12 Su	0425	0.0	0		27 M	0404	1.5	46		12 W	0551	-0.5	-15		27 Th	0514	-0.4	-12		12 Sa	0026	12.5	381		27 Su	0002	13.9	424	
	1054	9.7	296			1026	8.9	271			1227	10.9	332			1140	11.2	341			0636	0.0	0			0612	-1.2	-37	
	1616	3.1	94			1547	4.3	131			1753	2.7	82			1718	2.4	73			1300	12.2	372			1231	14.3	436	
	2233	13.0	396			2201	12.0	366								2325	13.5	411			●	1851	1.1	34			1835	-1.2	-37
13 M	0519	-0.9	-27		28 Tu	0457	0.3	9		13 Th	0001	12.9	393		28 F	0557	-1.5	-46		13 Su	0102	12.6	384		28 M	0052	14.3	436	
	1153	10.3	314			1121	9.7	296			0628	-0.9	-27			1223	12.2	372			0706	0.1	3			0654	-1.3	-40	
	1713	2.9	88			1646	3.6	110			1305	11.4	347			1806	1.1	34			1327	12.5	381			1312	15.0	457	
	2324	13.3	405			2252	12.8	390			1833	2.1	64								1924	0.7	21			1920	-2.1	-64	
14 Tu	0604	-1.5	-46		29 W	0541	-0.8	-24		14 F	0042	13.0	396		29 Sa	0016	14.2	433		14 M	0135	12.6	384		29 Tu	0141	14.3	436	
	1244	10.8	329			1210	10.5	320			0702	-1.1	-34			0639	-2.1	-64			0737	0.3	9			0736	-0.9	-27	
	1802	2.6	79			1736	2.8	85			1337	11.7	357			1304	13.2	402			1352	12.7	387			1352	15.3	466	
						2342	13.5	411			●	1910	1.7	52			○	1852	-0.1		-3		1957	0.5		15		2006	-2.4	-73
15 W ●	0012	13.4	408		30 Th	0622	-1.9	-58		15 Sa	0119	13.0	396		30 Su	0105	14.5	442		15 Tu	0207	12.4	378		30 W	0228	13.9	424	
	0645	-1.9	-58			1254	11.4	347			0735	-1.0	-30			0720	-2.4	-73			0808	0.7	21			0819	-0.2	-6	
	1327	11.2	341			1823	1.9	58			1405	11.9	363			1344	13.9	424			1418	12.7	387			1432	15.2	463	
	1846	2.3	70								1946	1.4	43			1937	-0.9	-27			2031	0.5	15			2052	-2.2	-67	
				31 F ○	0030	14.1	430						31 M	0152	14.5	442													
					0703	-2.6	-79							0801	-2.2	-67													
					1335	12.2	372							1423	14.4	439													
					19																								

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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Times and Heights of High and Low Waters

October										November										December														
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										
1 Th	0316	13.1	399		16 F	0258	11.5	351		1 Su	0452	11.4	347		16 M	0412	11.0	335		1 Tu	0522	11.3	344		16 W	0445	11.9	363						
	0904	0.8	24				0844	3.0	91				1022	3.8		116			0948		4.3	131				1054	4.4	134			1028	3.6	110	
	1513	14.6	445				1435	13.1	399				1620	12.5		381			1526		12.6	384				1645	11.2	341			1610	12.2	372	
	2141	-1.6	-49				2119	0.2	6				2301	0.4		12			2227		0.2	6				2319	1.2	37			2255	0.1	3	
2 F	0408	12.1	369		17 Sa	0335	11.0	335		2 M	0559	10.8	329		17 Tu	0506	10.7	326		2 W	0621	11.0	335		17 Th	0539	11.9	363						
	0951	2.0	61				1119	4.7	143				1040	4.6		140			1152		4.8	146				1125	3.6	110						
	1558	13.7	418				1723	11.2	341				1615	11.8		360			1752		10.1	308				1715	11.1	338						
	2233	-0.5	-15				2356	1.5	46				2317	0.8		24			2345		1.0	30												
3 Sa	0509	11.0	335		18 Su	0419	10.4	317		3 Tu	0712	10.5	320		18 W	0612	10.7	326		3 Th	0008	2.3	70		18 F	0639	12.1	369						
	1042	3.2	98				1226	5.2	158				1141	4.7		143			0720		10.9	332				1230	3.4	104						
	1651	12.5	381				1847	10.2	311				1728	10.9		332			1258		4.9	149				1842	10.2	311						
	2328	0.6	18															1913	9.4		287													
4 Su	0625	10.2	311		19 M	0519	9.8	299		4 W	0058	2.4	73		19 Th	0014	1.4	43		4 F	0103	3.2	98		19 Sa	0042	1.9	58						
	1141	4.3	131				0819	10.6	323				0720	11.1		338			0814		11.1	338				0740	12.5	381						
	1802	11.4	347				1348	5.2	158				1251	4.5		137			1418		4.6	140				1343	2.9	88						
							2008	9.9	302				1906	10.4		317			2027		9.2	280				2009	10.0	305						
5 M	0031	1.6	49		20 Tu	0640	9.6	293		5 Th	0209	3.0	91		20 F	0117	1.9	58		5 Sa	0205	3.8	116		20 Su	0146	2.7	82						
	0748	9.9	302				0912	11.0	335				0820	11.8		360			0900		11.5	351				0838	13.1	399						
	1251	5.1	155				1517	4.5	137				1409	3.7		113			1534		3.7	113				1501	1.9	58						
	1928	10.7	326				2115	10.0	305				2030	10.5		320			2131		9.3	283				2125	10.2	311						
6 Tu	0147	2.3	70		21 W	0044	2.0	61		6 F	0317	3.1	94		21 Sa	0225	2.1	64		6 Su	0309	4.1	125		21 M	0255	3.1	94						
	0900	10.2	311				0956	11.5	351				0912	12.8		390			0942		12.0	366				0932	13.8	421						
	1422	5.1	155				1618	3.4	104				1525	2.3		70			1627		2.7	82				1610	0.7	21						
	2045	10.6	323				2211	10.3	314				2140	11.0		335			2226		9.7	296				2233	10.7	326						
7 W	0309	2.4	73		22 Th	0156	2.0	61		7 Sa	0411	3.0	91		22 Su	0330	2.1	64		7 M	0404	4.1	125		22 Tu	0402	3.2	98						
	0958	10.7	326				1032	12.0	366				1001	13.8		421			1020		12.5	381				1023	14.4	439						
	1549	4.3	131				1659	2.3	70				1626	0.7		21			1708		1.6	49				1706	-0.6	-18						
	2149	10.9	332				2259	10.7	326				2242	11.6		354			2316		10.2	311				2334	11.3	344						
8 Th	0413	2.1	64		23 F	0307	1.6	49		8 Su	0453	2.8	85		23 M	0429	1.9	58		8 Tu	0451	3.9	119		23 W	0501	3.0	91						
	1043	11.2	341				1105	12.6	384				1047	14.7		448			1057		13.0	396				1113	14.9	454						
	1644	3.3	101				1734	1.3	40				1718	-0.9		-27			1743		0.7	21				1754	-1.6	-49						
	2241	11.2	341				2342	11.1	338				2340	12.2		372																		
9 F	0457	1.7	52		24 Sa	0407	1.1	34		9 M	0529	2.7	82		24 Tu	0520	1.7	52		9 W	0001	10.8	329		24 Th	0029	11.9	363						
	1119	11.8	360				1137	13.1	399				1133	15.3		466			0531		3.7	113				0552	2.8	85						
	1724	2.3	70				1807	0.5	15				1805	-2.0		-61			1134		13.5	411				1202	15.2	463						
	2326	11.6	354															1818	-0.2		-6			1838		-2.2	-67							
10 Sa	0532	1.5	46		25 Su	0458	0.5	15		10 Tu	0022	11.5	351		25 W	0034	12.7	387		10 Th	0043	11.2	341		25 F	0118	12.4	378						
	1150	12.3	375				0603	2.6	79				0607	1.7		52			0609		3.6	110				0639	2.6	79						
	1757	1.4	43				1208	13.5	411				1218	15.7		479			1211		13.9	424				1248	15.2	463						
							1839	-0.2	-6				1850	-2.7		-82			1852		-0.8	-24				1921	-2.4	-73						
11 Su	0006	11.9	363		26 M	0544	0.2	6		11 W	0100	11.8	360		26 Th	0124	13.0	396		11 F	0123	11.6	354		26 Sa	0203	12.7	387						
	0604	1.3	40				0636	2.7	82				0653	1.8		55			0647		3.4	104				0724	2.6	79						
	1219	12.7	387				1239	13.8	421				1302	15.8		482			1247		14.2	433				1331	14.9	454						
	1829	0.6	18				1911	-0.6	-18				1934	-2.9		-88			1928		-1.2	-37				2002	-2.3	-70						
12 M	0042	12.2	372		27 Tu	0041	13.6	415		12 Th	0136	11.9	363		27 F	0211	13.0	396		12 Sa	0201	11.9	363		27 Su	0243	12.7	387						
	0635	1.3	40				0710	2.9	88				0738	2.1		64			0725		3.4	104				0808	2.7	82						
	1246	13.1	399				1310	13.9	424				1345	15.4		469			1323		14.3	436				1412	14.4	439						
	1901	0.1	3				1946	-0.8	-24				2018	-2.6		-79			2005		-1.5	-46				2042	-1.8	-55						
13 Tu	0117	12.3	375		28 W	0131	13.7	418		13 F	0212	11.9	363		28 Sa	0257	12.8	390		13 Su	0239	12.0	366		28 M	0322	12.5	381						
	0706	1.5	46				0745	3.1	94				0824	2.6		79			0806		3.4	104				0853	2.9	88						
	1313	13.3	405				1341	13.9	424				1427	14.7		448			1400		14.1	430				1451	13.6	415						
	1933	-0.2	-6				2022	-0.8	-24				2102	-1.9		-58			2044		-1.5	-46				2122	-1.1	-34						
14 W	0151	12.2	372		29 Th	0219	13.5	411		14 Sa	0249	11.7	357		29 Su	0342	12.4	378		14 M	0318	12.0	366		29 Tu	0400	12.2	372						
	0737	1.9	58				0822	3.5	107				0911	3.2		98			0849		3.4	104				0938	3.2	98						
	1340	13.4	408				1412	13.7	418				1509	13.7		418			1438		13.8	421				1530	12.6	384						
	2006	-0.3	-9				2100	-0.6	-18				2147	-1.0		-30			2125		-1.2	-37				2202	-0.1	-3						
15 Th	0224	12.0	366		30 F	0306	13.0	396		15 Su	0328	11.4	347		30 M	0430	11.8	360		15 Tu	0359	12.0	366		30 W	0439	11.8	360						
	0809	2.4	73				0902	3.9	119				1001	3.8		116			0936		3.5	107				1024	3.6	110						
	1407	13.3	405				1447	13.3	405				1553	12.5		381			1520		13.1	399				1611	11.5	351						
	2041	-0.1	-3				2121	-1.9	-58				2142	-0.3		-9			2208		-0.7	-21				2241	0.9	27						
				31 Sa	0356	12.2	372																											
						0930	2.9	88																										
						1530	13.7	418																										
						2210	-0.8	-24																										

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Valdez, Alaska, 2015

Times and Heights of High and Low Waters

April								May								June							
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				
1 W	0537	2.1	64	16 Th	0510	0.2	6	1 F	0546	0.7	21	16 Sa	0543	-1.7	-52	1 M	0629	-1.1	-34	16 Tu	0018	13.6	415
	1138	10.8	329		1118	11.8	360		1151	10.1	308		1202	11.1	338		1251	10.1	308		0659	-2.6	-79
	1751	0.8	24		1727	-0.4	-12		1745	1.8	55		1747	0.9	27		1821	2.6	79		1335	10.9	332
					2342	13.1	399		2350	11.7	357		2355	13.9	424		●	1900	2.1	64			
2 Th	0007	11.1	338	17 F	0558	-1.3	-40	2 Sa	0619	-0.1	-3	17 Su	0629	-2.6	-79	2 Tu	0018	12.8	390	17 W	0101	13.5	411
	0612	1.2	37		1212	12.3	375		1231	10.5	320		1254	11.5	351		0706	-1.7	-52		0741	-2.7	-82
	1216	11.1	338		1812	-0.6	-18		1818	1.7	52		1832	1.0	30		1331	10.5	320		1417	11.1	338
	1822	0.6	18									●	1900	2.5	76		1944	2.2	67				
3 F	0035	11.6	354	18 Sa	0023	13.9	424	3 Su	0021	12.2	372	18 M	0038	14.1	430	3 W	0055	13.1	399	18 Th	0141	13.2	402
	0644	0.4	12		0644	-2.4	-73		0653	-0.8	-24		0713	-3.1	-94		0743	-2.2	-67		0821	-2.4	-73
	1251	11.3	344		1302	12.6	384		1308	10.7	326		1342	11.6	354		1411	10.7	326		1457	11.0	335
	1853	0.6	18	●	1855	-0.5	-15	○	1851	1.8	55		1917	1.2	37		1940	2.5	76		2027	2.4	73
4 Sa	0101	12.0	366	19 Su	0104	14.3	436	4 M	0050	12.6	384	19 Tu	0119	14.0	427	4 Th	0132	13.2	402	19 F	0220	12.6	384
	0716	-0.1	-3		0728	-3.0	-91		0726	-1.3	-40		0756	-3.1	-94		0822	-2.4	-73		0901	-1.9	-58
	1325	11.4	347		1349	12.5	381		1345	10.8	329		1427	11.5	351		1451	10.8	329		1536	10.8	329
	1923	0.7	21		1938	-0.1	-3		1925	1.9	58		2001	1.6	49		2022	2.5	76		2110	2.7	82
5 Su	0127	12.3	375	20 M	0144	14.3	436	5 Tu	0121	12.8	390	20 W	0159	13.6	415	5 F	0211	13.0	396	20 Sa	0258	11.8	360
	0748	-0.5	-15		1436	-3.0	-91		0801	-1.5	-46		0839	-2.7	-82		0903	-2.3	-70		0940	-1.2	-37
	1358	11.4	347		1436	12.2	372		1421	10.8	329		1512	11.2	341		1534	10.8	329		1616	10.5	320
	1953	1.1	34		2021	0.6	18		2000	2.2	67		2045	2.2	67		2108	2.6	79		2154	3.0	91
6 M	0153	12.5	381	21 Tu	0224	13.9	424	6 W	0152	12.8	390	21 Th	0239	12.8	390	6 Sa	0252	12.6	384	21 Su	0337	10.9	332
	0822	-0.6	-18		0857	-2.6	-79		0838	-1.6	-49		0922	-2.0	-61		0947	-2.0	-61		1018	-0.4	-12
	1431	11.1	338		1522	11.5	351		1459	10.6	323		1558	10.7	326		1621	10.7	326		1657	10.3	314
	2024	1.5	46		2105	1.5	46		2037	2.5	76		2131	2.8	85		2157	2.7	82		2240	3.3	101
7 Tu	0219	12.4	378	22 W	0304	13.2	402	7 Th	0224	12.6	384	22 F	0320	11.9	363	7 Su	0340	11.8	360	22 M	0421	10.0	305
	0857	-0.6	-18		0918	-1.5	-46		1005	-1.1	-34		1033	-1.4	-43		1057	0.5	15				
	1505	10.7	326		1541	10.3	314		1646	10.2	311		1714	10.7	326		1743	10.0	305				
	2057	2.1	64		2150	2.4	73		2119	2.9	88		2218	3.4	104		2253	2.8	85		2330	3.6	110
8 W	0247	12.3	375	23 Th	0346	12.1	369	8 F	0301	12.2	372	23 Sa	0404	10.8	329	8 M	0438	10.8	329	23 Tu	0515	9.0	274
	0934	-0.4	-12		1030	-0.8	-24		1001	-1.1	-34		1050	-0.2	-6		1122	-0.6	-18		1137	1.5	46
	1543	10.1	308		1709	9.9	302		1630	9.9	302		1741	9.7	296		1813	10.8	329		1832	9.9	302
	2133	2.7	82		2239	3.3	101		2205	3.3	101		2310	9.7	119		2355	2.8	85				
9 Th	0319	11.9	363	24 F	0434	10.9	332	9 Sa	0345	11.5	351	24 Su	0457	9.7	296	9 Tu	0554	9.8	299	24 W	0026	3.7	113
	1017	0.0	0		1120	0.3	9		1049	-0.6	-18		1136	0.8	24		1215	0.3	9		0625	8.2	250
	1631	9.4	287		1817	9.3	283		1731	9.6	293		1840	9.5	290		1913	11.1	338		1221	2.4	73
	2215	3.3	101		2335	4.1	125		2300	3.6	110				○		○	1923	10.0	305			
10 F	0359	11.4	347	25 Sa	0539	9.8	299	10 Su	0442	10.7	326	25 M	0009	4.2	128	10 W	0106	2.5	76	25 Th	0134	3.5	107
	1105	0.5	15		1216	1.3	40		1142	0.0	0		0608	8.8	268		0720	9.2	280		0743	7.8	238
	1737	8.8	268		1929	9.0	274		1841	9.7	296		1226	1.7	52		1316	1.2	37		1313	3.1	94
	2305	3.9	119	○							○	1937	9.5	290		2011	11.6	354		2012	10.3	314	
11 Sa	0454	10.7	326	26 Su	0044	4.6	140	11 M	0005	3.7	113	26 Tu	0120	4.2	128	11 Th	0225	1.8	55	26 F	0249	3.0	91
	1203	1.0	30		0702	9.0	274		0604	9.9	302		0727	8.2	250		0841	9.1	277		0853	7.8	238
	1902	8.7	265		1323	2.1	64		1243	0.6	18		1324	2.4	73		1424	1.8	55		1416	3.7	113
					2033	9.2	280	○	1947	10.1	308		2027	9.8	299		2105	12.1	369		2059	10.7	326
12 Su	0010	4.4	134	27 M	0212	4.5	137	12 Tu	0123	3.4	104	27 W	0240	3.7	113	12 F	0338	0.7	21	27 Sa	0354	2.1	64
	0620	10.1	308		0820	8.8	268		0737	9.6	293		0838	8.1	247		0952	9.3	283		0957	8.1	247
	1313	1.2	37		1437	2.4	73		1352	1.0	30		1428	2.9	88		1533	2.2	67		1523	3.9	119
	2018	9.1	277		2126	9.5	290		2045	10.8	329		2112	10.2	311		2156	12.7	387		2143	11.2	341
13 M	0135	4.3	131	28 Tu	0334	3.8	116	13 W	0246	2.5	76	28 Th	0347	2.8	85	13 Sa	0439	-0.5	-15	28 Su	0444	1.0	30
	0756	10.0	305		0926	8.9	271		0857	9.7	296		0939	8.3	253		1057	9.7	296		1054	8.6	262
	1432	1.1	34		1541	2.3	70		1502	1.1	34		1529	3.0	91		1633	2.2	67		1621	3.8	116
	2119	10.0	305		2209	10.0	305		2137	11.7	357		2152	10.7	326		2245	13.2	402		2227	11.8	360
14 Tu	0305	3.4	104	29 W	0429	2.8	85	14 Th	0357	1.1	34	29 F	0436	1.8	55	14 Su	0530	-1.5	-46	29 M	0527	0.0	0
	0914	10.5	320		1021	9.2	280		1005	10.2	311		1034	8.7	265		1156	10.2	311		1145	9.2	280
	1432	0.6	18		1630	2.1	64		1605	1.0	30		1620	3.0	91		1726	2.2	67		1710	3.5	107
	2211	11.0	335		2246	10.6	323		2225	12.6	384		2230	11.3	344		2332	13.5	411		2310	12.4	378
15 W	0415	1.8	55	30 Th	0510	1.7	52	15 F	0454	-0.4	-12	30 Sa	0517	0.7	21	15 M	0616	-2.2	-67	30 Tu	0606	-1.0	-30
	1019	11.2	341		1109	9.7	296		1106	10.7	326		1123	9.2	280		1248	10.7	326		1231	9.9	302
	1639	0.0	0		1710	1.9	58		1659	0.9	27		1703	2.9	88		1814	2.1	64		1756	3.1	94
	2258	12.1	369		2319	11.2	341		2311	13.3	405		2306	11.8	360					2353	13.0	396	

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Valdez, Alaska, 2015

Times and Heights of High and Low Waters

October						November						December																	
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					
1 Th	0308	12.6	384		16 F	0250	11.1	338		1 Su	0447	10.9	332		16 M	0404	10.5	320		1 Tu	0518	10.8	329		16 W	0438	11.3	344	
	0901	0.9	27			0839	2.9	88			1019	3.8	116			0941	4.2	128			1051	4.3	131			1022	3.5	107	
	1505	14.2	433			1427	12.6	384			1612	12.0	366			1516	12.1	369			1638	10.7	326			1600	11.6	354	
	2139	-1.4	-43			2115	0.2	6			2259	0.4	12			2222	0.2	6			2317	1.2	37			2250	0.0	0	
2 F	0401	11.6	354		17 Sa	0327	10.5	320		2 M	0555	10.3	314		17 Tu	0459	10.3	314		2 W	0618	10.5	320		17 Th	0533	11.3	344	
	0947	2.0	61			0914	3.5	107			1116	4.5	137			1033	4.5	137			1150	4.7	143			1120	3.5	107	
	1551	13.3	405			1457	12.3	375			1717	10.7	326			1605	11.3	344			1748	9.6	293			1706	10.6	323	
	2231	-0.5	-15			2156	0.7	21			2355	1.5	46			2312	0.8	24								2340	0.9	27	
3 Sa	0503	10.6	323		18 Su	0411	9.9	302		3 Tu	0708	10.1	308		18 W	0607	10.2	311		3 Th	0007	2.2	67		18 F	0634	11.5	351	
	1038	3.2	98			0954	4.2	128			1226	5.0	152			1134	4.6	140			0718	10.4	317			1227	3.3	101	
	1645	12.1	369			1532	11.7	357			1843	9.8	299			1718	10.4	317			1301	4.7	143			1834	9.7	296	
	2327	0.7	21			2242	1.2	37										1910	8.9		271								
4 Su	0620	9.8	299		19 M	0511	9.4	287		4 W	0100	2.4	73		19 Th	0009	1.4	43		4 F	0103	3.1	94		19 Sa	0037	1.9	58	
	1137	4.3	131			1043	4.7	143			0814	10.2	311			0715	10.6	323			0811	10.6	323			0735	12.0	366	
	1757	11.0	335			1621	11.0	335			1352	5.0	152			1248	4.4	134			1422	4.3	131			1344	2.8	85	
						2336	1.6	49			2005	9.5	290			1857	9.9	302			2025	8.7	265			2003	9.4	287	
5 M	0032	1.7	52		20 Tu	0635	9.2	280		5 Th	0212	2.9	88		20 F	0114	1.9	58		5 Sa	0208	3.7	113		20 Su	0143	2.7	82	
	0743	9.5	290			1145	5.1	155			0908	10.6	323			0815	11.3	344			0858	11.0	335			0832	12.6	384	
	1251	5.0	152			1739	10.3	314			1516	4.3	131			1411	3.6	110			1534	3.5	107			1503	1.8	55	
	1923	10.4	317				2112	9.6	293			2024	10.0	305			2130	8.9	271			2121	9.7	296					
6 Tu	0150	2.3	70		21 W	0041	2.0	61		6 F	0319	3.0	91		21 Sa	0224	2.1	64		6 Su	0312	3.9	119		21 M	0255	3.1	94	
	0855	9.8	299			0752	9.6	293			0952	11.0	335			0907	12.2	372			0939	11.4	347			0926	13.2	402	
	1425	5.0	152			1305	5.0	152			1614	3.2	98			1526	2.2	67			1626	2.5	76			1610	0.5	15	
	2041	10.2	311			1924	10.1	308			2209	9.9	302			2135	10.5	320			2225	9.3	283			2229	10.2	311	
7 W	0310	2.3	70		22 Th	0156	2.0	61		7 Sa	0411	2.9	88		22 Su	0331	2.1	64		7 M	0406	3.9	119		22 Tu	0403	3.1	94	
	0953	10.2	311			0853	10.4	317			1030	11.6	354			0955	13.2	402			1017	12.0	366			1017	13.8	421	
	1546	4.2	128			1434	4.2	128			1657	2.2	67			1626	0.6	18			1706	1.5	46			1705	-0.7	-21	
	2145	10.5	320			2045	10.6	323			2257	10.3	314			2238	11.1	338			2314	9.7	296			2330	10.8	329	
8 Th	0411	2.0	61		23 F	0308	1.6	49		8 Su	0453	2.7	82		23 M	0428	1.9	58		8 Tu	0451	3.8	116		23 W	0500	2.9	88	
	1038	10.8	329			0943	11.5	351			1102	12.1	369			1041	14.1	430			1054	12.5	381			1107	14.3	436	
	1640	3.2	98			1547	2.8	85			1733	1.2	37			1717	-0.9	-27			1743	0.6	18			1753	-1.7	-52	
	2238	10.8	329			2151	11.3	344			2339	10.7	326			2335	11.7	357			2358	10.2	311						
9 F	0455	1.7	52		24 Sa	0408	1.1	34		9 M	0529	2.6	79		24 Tu	0519	1.8	55		9 W	0531	3.2	113		24 Th	0024	11.4	347	
	1115	11.3	344			1028	12.6	384			1133	12.5	381			1126	14.8	451			1129	13.0	396			0551	2.7	82	
	1721	2.2	67			1643	1.0	30			1806	0.5	15			1804	-2.0	-61			1817	-0.2	-6			1155	14.6	445	
	2322	11.2	341			2250	12.0	366															1838	-2.3		-70			
10 Sa	0532	1.4	43		25 Su	0458	0.6	18		10 Tu	0018	11.0	335		25 W	0027	12.2	372		10 Th	0039	10.7	326		25 F	0112	11.8	360	
	1146	11.8	360			1111	13.7	418			0602	2.6	79			0606	1.7	52			0608	3.5	107			0638	2.5	76	
	1756	1.4	43			1732	-0.6	-18			1203	12.9	393			1210	15.2	463			1204	13.3	405			1240	14.6	445	
						2343	12.7	387			1838	-0.2	-6			1849	-2.7	-82			1852	-0.8	-24			1920	-2.5	-76	
11 Su	0001	11.5	351		26 M	0544	0.3	9		11 W	0054	11.3	344		26 Th	0117	12.4	378		11 F	0117	11.1	338		26 Sa	0155	12.1	369	
	0604	1.3	40			1153	14.6	445			0635	2.7	82			0652	1.8	55			0645	3.4	104			0723	2.5	76	
	1214	12.2	372			1818	-1.8	-55			1232	13.2	402			1254	15.2	463			1239	13.6	415			1323	14.3	436	
	1829	0.7	21				1911	-0.6	-18			1911	-0.6	-18			1933	-2.9	-88			1927	-1.3	-40			2001	-2.3	-70
12 M	0037	11.7	357		27 Tu	0034	13.1	399		12 Th	0130	11.4	347		27 F	0204	12.4	378		12 Sa	0154	11.3	344		27 Su	0236	12.1	369	
	0635	1.4	43			0627	0.3	9			0708	2.9	88			0737	2.1	64			0722	3.3	101			0807	2.6	79	
	1241	12.6	384			1234	15.1	460			1302	13.4	408			1336	14.8	451			1314	13.7	418			1404	13.8	421	
	1900	0.2	6			1902	-2.6	-79			1945	-0.8	-24			2017	-2.6	-79			2004	-1.5	-46			2041	-1.8	-55	
13 Tu	0111	11.8	360		28 W	0123	13.2	402		13 F	0205	11.3	344		28 Sa	0249	12.2	372		13 Su	0231	11.4	347		28 M	0315	11.9	363	
	0705	1.6	49			0711	0.6	18			0741	3.1	94			0823	2.6	79			0802	3.3	101			0851	2.8	85	
	1307	12.8	390			1315	15.3	466			1332	13.4	408			1418	14.2	433			1350	13.6	415			1443	13.0	396	
	1932	-0.1	-3			1947	-2.8	-85			2020	-0.8	-24			2101	-1.9	-58			2042	-1.5	-46			2121	-1.1	-34	
14 W	0143	11.7	357		29 Th	0211	13.0	396		14 Sa	0241	11.2	341		29 Su	0336	11.8	360		14 M	0310	11.4	347		29 Tu	0354	11.6	354	
	0735	1.9	58			0755	1.2	37			0817	3.4	104			0909	3.1	94			0844	3.3	101			0936	3.1	94	
	1333	12.9	393			1357	15.0	457			1403	13.2	402			1501	13.2	402			1428	13.2	402			1522	12.0	366	
	2005	-0.2	-6			2033	-2.5	-76			2057	-0.6	-18			2145	-1.0	-30			2122	-1.2	-37			2159	-0.2	-6	
15 Th	0216	11.5	351		30 F	0259	12.4	378		15 Su	0320	10.9	332		30 M	0424	11.3	344		15 Tu	0351	11.4	347		30 W	0435	11.3	344	
	0806	2.4	73			0840	1.9	58			0856	3.8	116			0958	3.7	113			0931	3.4	104			1021	3.5	107	
	1359	12.9	393			1438	14.3	436			1437	12.8	390			1546	12.0	366			1510	12.6	384			1604	10.9	332	
	2039	0.0	0			2119	-1.8	-55			2138	-0.3	-9			2230	0.1	3			2204	-0.7	-21			2238	0.8	24	
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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.

Seward, Alaska, 2015

Times and Heights of High and Low Waters

January					February					March													
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 Th	0346	3.5	107	16 F	0253	4.3	131	1 Su	0009	8.8	268	16 M	0441	3.3	101	1 Su	0427	3.9	119	16 M	0318	3.7	113
	1006	11.4	347		0920	10.4	317		0529	3.6	110		1048	11.4	347		1028	9.7	296		0928	9.9	302
	1703	0.1	3		1630	1.0	30		1130	11.0	335		1739	-1.0	-30		1715	0.7	21		1620	0.2	6
	2329	8.7	265		2254	7.9	241		1817	-0.4	-12		2346	8.6	262		2346	8.6	262		2248	8.8	268
2 F	0446	3.5	107	17 Sa	0401	4.1	125	2 M	0046	9.3	283	17 Tu	0003	9.6	293	2 M	0519	3.3	101	17 Tu	0427	2.6	79
	1056	11.7	357		1015	11.1	338		0612	3.1	94		0536	2.2	67		1117	10.0	305		1033	10.6	323
	1749	-0.5	-15		1718	-0.1	-3		1211	11.2	341		1141	12.1	369		1754	0.3	9		1711	-0.6	-18
					2343	8.7	265		1851	-0.6	-18		1822	-1.8	-55		2333	9.9	302				
3 Sa	0018	9.2	280	18 Su	0458	3.5	107	3 Tu	0117	9.6	293	18 W	0043	10.6	323	3 Tu	0019	9.1	277	18 W	0523	1.3	40
	0537	3.4	104		1106	11.9	363		0650	2.7	82		0626	1.2	37		0559	2.6	79		1129	11.3	344
	1141	11.9	363		1801	-1.1	-34		1247	11.3	344		1230	12.6	384		1158	10.3	314		1756	-1.2	-37
	1830	-0.9	-27				1923		-0.8	-24	1903		-2.2	-67	1827		0.0	0					
4 Su	0059	9.6	293	19 M	0027	9.5	290	4 W	0146	9.9	302	19 Th	0122	11.4	347	4 W	0047	9.6	293	19 Th	0013	11.0	335
	0621	3.2	98		0550	2.9	88		0724	2.3	70		0713	0.3	9		0634	2.0	61		0612	0.0	0
	1221	11.9	363		1154	12.5	381		1321	11.2	341		1318	12.7	387		1233	10.5	320		1220	11.8	360
	1907	-1.1	-34		1843	-1.9	-58		1952	-0.7	-21		1944	-2.3	-70		1856	-0.2	-6		1838	-1.5	-46
5 M	0136	9.8	299	20 Tu	0108	10.3	314	5 Th	0213	10.1	308	20 F	0202	11.9	363	5 Th	0113	10.0	305	20 F	0053	11.8	360
	0702	3.1	94		0638	2.2	67		0758	2.1	64		0800	-0.3	-9		0706	1.4	43		0659	-1.0	-30
	1259	11.9	363		1241	13.0	396		1354	11.0	335		1405	12.5	381		1306	10.6	323		1308	12.0	366
	1942	-1.1	-34		1924	-2.4	-73		2021	-0.5	-15		2024	-1.9	-58		1924	-0.2	-6		1919	-1.4	-43
6 Tu	0210	9.9	302	21 W	0148	10.9	332	6 F	0240	10.2	311	21 Sa	0241	12.2	372	6 F	0138	10.3	314	21 Sa	0132	12.4	378
	0739	3.0	91		0725	1.6	49		0831	1.9	58		0847	-0.6	-18		0737	1.0	30		0745	-1.6	-49
	1334	11.6	354		1327	13.1	399		1427	10.6	323		1452	11.8	360		1338	10.5	320		1355	11.8	360
	2015	-1.0	-30		2005	-2.5	-76		2049	-0.1	-3		2104	-1.1	-34		1951	0.0	0		2000	-1.0	-30
7 W	0242	10.0	305	22 Th	0228	11.3	344	7 Sa	0308	10.3	314	22 Su	0322	12.2	372	7 Sa	0203	10.5	320	22 Su	0211	12.6	384
	0816	2.9	88		0813	1.1	34		0906	1.9	58		0936	-0.4	-12		0809	0.8	24		0830	-1.8	-55
	1409	11.2	341		1414	12.7	387		1501	10.1	308		1541	10.8	329		1410	10.3	314		1442	11.2	341
	2047	-0.6	-18		2046	-2.2	-67		2118	0.5	15		2146	-0.1	-3		2019	0.3	9		2040	-0.3	-9
8 Th	0314	9.9	302	23 F	0310	11.6	354	8 Su	0337	10.2	311	23 M	0405	11.9	363	8 Su	0230	10.6	323	23 M	0251	12.4	378
	0853	3.0	91		0902	0.9	27		0942	2.0	61		1027	0.0	0		0841	0.7	21		0917	-1.5	-46
	1444	10.7	326		1502	12.0	366		1536	9.4	287		1634	9.6	293		1443	9.9	302		1530	10.4	317
	2119	-0.1	-3		2128	-1.5	-46		2148	1.2	37		2230	1.2	37		2047	0.8	24		2122	0.7	21
9 F	0346	9.8	299	24 Sa	0353	11.6	354	9 M	0408	10.1	308	24 Tu	0452	11.3	344	9 M	0257	10.6	323	24 Tu	0333	11.9	363
	0931	3.1	94		0953	1.0	30		1023	2.2	67		1125	0.7	21		0915	0.8	24		1005	-0.9	-27
	1521	10.0	305		1553	11.0	335		1616	8.6	262		1736	8.4	256		1518	9.4	287		1621	9.4	287
	2151	0.5	15		2211	-0.5	-15		2220	1.9	58		2319	2.4	73		2116	1.4	43		2205	1.8	55
10 Sa	0420	9.7	296	25 Su	0439	11.5	351	10 Tu	0443	9.9	302	25 W	0545	10.5	320	10 Tu	0327	10.4	317	25 W	0418	11.0	335
	1013	9.3	101		1050	1.2	37		1110	2.5	76		1233	1.3	40		0953	1.0	30		1058	-0.1	-3
	1600	10.2	280		1649	9.8	299		1704	7.8	238		1854	7.5	229		1557	8.7	265		1720	8.4	256
	2224	1.2	37		2257	0.7	21		2256	2.8	85		●				2148	2.1	64		2254	2.8	85
11 Su	0457	9.6	293	26 M	0529	11.2	341	11 W	0525	9.7	296	26 Th	0019	3.5	107	11 W	0401	10.2	311	26 Th	0509	10.1	308
	1100	3.4	104		1153	1.6	49		1208	2.6	79		0650	9.8	299		1037	1.3	40		1158	0.8	24
	1645	8.4	256		1754	8.6	262		1808	7.1	216		1355	1.7	52		1643	8.0	244		1832	7.6	232
	2300	2.0	61		2349	2.0	61		2343	3.6	110		2033	7.2	219		2225	2.9	88		2355	3.8	116
12 M	0538	9.5	290	27 Tu	0625	10.8	329	12 Th	0619	9.5	290	27 F	0141	4.3	131	12 Th	0441	9.9	302	27 F	0611	9.2	280
	1157	3.5	107		1308	1.8	55		1322	2.5	76		0808	9.4	287		1130	1.6	49		1312	1.5	46
	1741	7.6	232		1917	7.7	235		1937	6.7	204		1520	1.5	46		1744	7.3	223		2002	7.3	223
	2342	2.8	85								2202		7.5	229	2312		3.6	110					
13 Tu	0625	9.4	287	28 W	0050	3.1	94	13 F	0048	4.2	128	28 Sa	0314	4.3	131	13 F	0534	9.5	290	28 Sa	0118	4.3	131
	1305	3.4	104		0730	10.5	320		0727	9.6	293		0925	9.4	287		1238	1.8	55		0730	8.5	259
	1855	7.0	213		1431	1.7	52		1445	2.0	61		1626	1.1	34		1906	6.9	210		1435	1.7	52
					2054	7.4	226		2115	6.9	210		2303	8.1	247		●				2126	7.5	229
14 W	0034	3.6	110	29 Th	0206	3.9	119	14 Sa	0213	4.4	134	14 Sa	0019	9.2	128	14 Sa	0019	9.2	128	29 Su	0256	4.2	128
	0721	9.6	293		0840	10.4	317		0841	9.9	302		0645	9.2	280		0645	9.2	280		0855	8.4	256
	1422	2.9	88		1548	1.2	37		1556	1.1	34		1359	1.6	49		1359	1.6	49		1545	1.6	49
	2026	6.8	207		2220	7.7	235		2228	7.7	235		2041	7.1	216		2041	7.1	216		2225	8.0	244
15 Th	0140	4.1	125	30 F	0328	4.1	125	15 Su	0335	4.1	125	15 Su	0150	4.3	131	15 Su	0150	4.3	131	30 M	0409	3.6	110
	0821	9.9	302		0946	10.5	320		0949	10.6	323		0809	9.3	283		0809	9.3	283		1004	8.6	262
	1533	2.1	64		1649	0.6	18		1652	0.0	0		1518	1.0	30		1518	1.0	30		1638	1.3	40
	2150	7.2	219		2322	8.3	253		2320	8.6	262		2155	7.8	238				2307		8.5	259	
			31 Sa	0436	4.0	122										31 Tu	0459	2.8	85				
				1043	10.7	326											1056	9.0	274				
				1737	0.1	3											1718	1.0	30				
																	2340	9.1	277				

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.

Seward, Alaska, 2015

Times and Heights of High and Low Waters

April								May								June							
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		h m	ft cm			
1 W	0538	2.0	61	16 Th	0509	0.3	9	1 F	0546	0.7	21	16 Sa	0545	-1.4	-43	1 M	0629	-0.9	-27	16 Tu	0016	11.9	363
	1138	9.3	283		1117	10.3	314		1152	8.7	265		1201	9.6	293		1248	8.6	262		0703	-2.3	-70
	1752	0.8	24		1726	-0.3	-9		1741	1.6	49		1744	0.9	27		1815	2.3	70		1331	9.3	283
			2341		11.3	344	2350		10.2	311	2354		12.1	369					1857		2.1	64	
2 Th	0007	9.6	293	17 F	0559	-1.0	-30	2 Sa	0619	0.0	0	17 Su	0632	-2.2	-67	2 Tu	0018	11.1	338	17 W	0058	11.8	360
	0612	1.2	37		1210	10.7	326		1229	9.0	274		1251	9.8	299		0705	-1.5	-46		0744	-2.3	-70
	1215	9.6	293		1811	-0.4	-12		1814	1.6	49		1830	1.0	30		1327	8.9	271		1413	9.4	287
	1822	0.7	21						●	●	●		1854	2.3	70		1854	2.3	70		1940	2.1	64
3 F	0033	10.1	308	18 Sa	0022	12.1	369	3 Su	0019	10.6	323	18 M	0036	12.3	375	3 W	0054	11.4	347	18 Th	0139	11.5	351
	0644	0.6	18		0645	-1.9	-58		0652	-0.6	-18		0716	-2.6	-79		0742	-1.9	-58		0824	-2.1	-64
	1249	9.8	299		1259	10.9	332		1305	9.2	280		1338	9.9	302		1407	9.1	277		1453	9.3	283
	1851	0.7	21		●	1853	-0.2		-6	1846	1.6		49	1914	1.3		40	1934	2.3		70	2023	2.3	70
4 Sa	0059	10.5	320	19 Su	0102	12.5	381	4 M	0049	10.9	332	19 Tu	0117	12.2	372	4 Th	0133	11.5	351	19 F	0219	10.9	332
	0715	0.1	3		0730	-2.4	-73		0725	-1.0	-30		0759	-2.6	-79		0821	-2.1	-64		0902	-1.7	-52
	1322	9.9	302		1346	10.8	329		1341	9.3	283		1424	9.8	299		1448	9.2	280		1533	9.2	280
	1919	0.8	24		1935	0.2	6		1919	1.8	55		1957	1.6	49		2016	2.3	70		2105	2.5	76
5 Su	0125	10.7	326	20 M	0142	12.6	384	5 Tu	0121	11.1	338	20 W	0158	11.9	363	5 F	0213	11.3	344	20 Sa	0259	10.3	314
	0746	-0.3	-9		0814	-2.5	-76		0759	-1.3	-40		0841	-2.3	-70		0902	-2.1	-64		0939	-1.1	-34
	1355	9.8	299		1433	10.5	320		1418	9.2	280		1509	9.5	290		1531	9.2	280		1613	9.0	274
	1948	1.0	30		2017	0.8	24		1954	2.0	61		2041	2.1	64		2101	2.4	73		2149	2.8	85
6 M	0153	10.9	332	21 Tu	0223	12.2	372	6 W	0154	11.2	341	21 Th	0239	11.2	341	6 Sa	0257	10.9	332	21 Su	0340	9.5	290
	0819	-0.4	-12		0858	-2.2	-67		0836	-1.4	-43		0923	-1.7	-52		0945	-1.8	-55		1017	-0.3	-9
	1429	9.6	293		1520	9.9	302		1457	9.0	274		1555	9.1	277		1617	9.1	277		1654	8.8	268
	2018	1.4	43		2100	1.5	46		2030	2.3	70		2125	2.6	79		2152	2.5	76		2237	3.0	91
7 Tu	0222	10.9	332	22 W	0304	11.6	354	7 Th	0229	11.0	335	22 F	0322	10.4	317	7 Su	0346	10.3	314	22 M	0424	8.6	262
	0853	-0.4	-12		0944	-1.5	-46		0916	-1.3	-40		1006	-1.0	-30		1032	-1.2	-37		1056	0.4	12
	1506	9.2	280		1609	9.2	280		1540	8.8	268		1642	8.7	265		1708	9.1	277		1737	8.6	262
	2050	1.9	58		2144	2.3	70		2111	2.6	79		2213	3.1	94		2250	2.6	79		2330	3.2	98
8 W	0254	10.7	326	23 Th	0348	10.7	326	8 F	0309	10.6	323	23 Sa	0407	9.4	287	8 M	0443	9.5	290	23 Tu	0514	7.8	238
	0931	-0.2	-6		1032	-0.6	-18		0959	-1.0	-30		1051	-0.1	-3		1122	-0.5	-15		1138	1.2	37
	1547	8.7	265		1703	8.5	259		1629	8.5	259		1734	8.3	253		1803	9.2	280		1823	8.5	259
	2125	2.5	76		2234	3.1	94		2158	3.0	91		2308	3.5	107		2357	2.5	76				
9 Th	0329	10.4	317	24 F	0436	9.7	296	9 Sa	0356	10.1	308	24 Su	0457	8.5	259	9 Tu	0550	8.6	262	24 W	0033	3.2	98
	1015	0.1	3		1124	0.3	9		1049	-0.5	-15		1140	0.7	21		1218	0.2	6		0615	7.0	213
	1634	8.1	247		1806	7.9	241		1725	8.2	250		1829	8.1	247		1902	9.5	290		1224	2.0	61
	2207	3.1	94		2333	3.8	116		2255	3.3	101				●		●	●	1912		8.6	262	
10 F	0412	10.0	305	25 Sa	0533	8.7	265	10 Su	0452	9.4	287	25 M	0013	3.7	113	10 W	0113	2.2	67	25 Th	0144	3.0	91
	1106	0.5	15		1225	1.1	34		1145	0.0	0		0558	7.6	232		0708	8.0	244		0728	6.5	198
	1733	7.6	232		1919	7.6	232		1829	8.2	250		1233	1.4	43		1320	0.9	27		1317	2.6	79
	2259	3.6	110		●					●	●		1927	8.1	247		2002	9.9	302		2004	8.8	268
11 Sa	0506	9.4	287	26 Su	0051	4.1	125	11 M	0006	3.4	104	26 Tu	0130	3.6	110	11 Th	0232	1.4	43	26 F	0254	2.4	73
	1208	0.8	24		0645	7.9	241		0602	8.7	265		0711	7.0	213		0833	7.7	235		0848	6.4	195
	1848	7.4	226		1334	1.7	52		1249	0.4	12		1331	2.0	61		1425	1.5	46		1416	3.1	94
	●				2032	7.7	235		●	1936	8.5		259	2023	8.3		253	2100	10.4		317	2054	9.1	277
12 Su	0010	3.9	119	27 M	0221	3.9	119	12 Tu	0129	3.0	91	27 W	0246	3.1	94	12 F	0342	0.5	15	27 Sa	0354	1.6	49
	0618	8.9	271		0809	7.5	229		0725	8.3	253		0830	6.8	207		0951	7.8	238		1000	6.7	204
	1321	1.0	30		1444	1.9	58		1357	0.7	21		1430	2.3	70		1529	1.8	55		1516	3.2	98
	2008	7.7	235		2130	8.1	247		2039	9.2	280		2111	8.6	262		2154	10.9	332		2142	9.6	293
13 M	0139	3.8	116	28 Tu	0335	3.3	101	13 W	0250	2.1	64	28 Th	0347	2.3	70	13 Sa	0442	-0.5	-15	28 Su	0443	0.8	24
	0745	8.8	268		0849	8.3	253		0940	7.0	213		1059	8.2	250		1058	7.2	219				
	1437	0.8	24		1503	0.9	27		1524	2.5	76		1628	2.0	61		1612	3.2	98				
	2117	8.4	256		2135	10.0	305		2153	9.1	277		2245	11.4	347		2227	10.2	311				
14 Tu	0305	2.9	88	29 W	0428	2.4	73	14 Th	0358	0.9	27	29 F	0435	1.5	46	14 Su	0534	-1.4	-43	29 M	0526	-0.1	-3
	0908	9.1	277		1003	8.7	265		1038	7.3	223		1156	8.7	265		1147	7.8	238				
	1542	0.4	12		1602	0.9	27		1613	2.5	76		1722	2.0	61		1702	3.0	91				
	2212	9.4	287		2225	10.8	329		2231	9.7	296		2332	11.8	360		2310	10.8	329				
15 W	0413	1.7	52	30 Th	0510	1.6	49	15 F	0455	-0.4	-12	30 Sa	0515	0.6	18	15 M	0620	-2.0	-61	30 Tu	0606	-1.0	-30
	1018	9.7	296		1111	8.3	253		1106	9.1	277		1126	7.8	238		1246	9.1	277		1229	8.4	256
	1637	0.0	0		1706	1.7	52		1655	0.9	27		1656	2.5	76		1811	2.0	61		1748	2.7	82
	2259	10.4	317		2321	9.6	293		2310	11.5	351		2307	10.2	311						2353	11.3	344
												31 Su	0553	-0.2	-6								
														1208	8.2	250							
														1736	2.4	73							
													2342	10.7	326								

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Seldovia, Alaska, 2015

Times and Heights of High and Low Waters

January								February								March												
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									
1 Th	0508	5.0	152	16 F	0426	6.6	201	1 Su	0115	16.3	497	16 M	0031	16.2	494	1 Su	0011	14.7	448	16 M	0444	5.3	162					
	1124	18.3	558			1036	16.6		506		0648		4.7	143			0606	4.1	125			0548	5.8	177		1049	16.2	494
	1807	0.2	6			1733	2.0		61		1252		17.9	546			1210	18.7	570			1152	15.8	482		1729	0.7	21
									1924	-0.5	-15		1847	-1.6	-49		1828	1.5	46									
2 F	0035	16.2	494	17 Sa	0003	14.7	448	2 M	0154	17.2	524	17 Tu	0116	18.1	552	2 M	0055	15.7	479	17 Tu	0002	16.4	500					
	0606	4.6	140			0530	5.7		174		0729		3.7	113			0658	2.0	61			0636	4.5	137		0548	3.2	98
	1216	18.9	576			1134	17.9		546		1333		18.6	567			1303	20.3	619			1240	16.7	509		1154	17.9	546
	1854	-0.9	-27		1823	0.0	0		1959	-1.2	-37		1931	-3.3	-101		1905	0.6	18		1822	-1.1	-34					
3 Sa	0124	17.1	521	18 Su	0053	16.4	500	3 Tu	0227	18.0	549	18 W	0158	19.9	607	3 Tu	0130	16.7	509	18 W	0048	18.3	558					
	0656	4.1	125			0625	4.4		134		0806		2.8	85			0745	0.0	0			0714	3.2	98		0641	0.8	24
	1302	19.3	588			1227	19.3		588		1409		19.0	579			1352	21.7	661			1319	17.6	536		1249	19.7	600
	1935	-1.6	-49		1908	-1.9	-58		2030	-1.6	-49		2013	-4.5	-137		1937	-0.2	-6		1907	-2.5	-76					
4 Su	0206	17.9	546	19 M	0138	18.1	552	4 W	0257	18.5	564	19 Th	0238	21.3	649	4 W	0159	17.6	536	19 Th	0130	20.2	616					
	0739	3.5	107			0714	2.9		88		0840		2.1	64			0830	-1.6	-49			0748	2.0	61		0728	-1.5	-46
	1343	19.6	597			1316	20.7		631		1444		19.3	588			1439	22.4	683			1353	18.3	558		1339	21.0	640
	2013	-2.1	-64		1950	-3.5	-107		2100	-1.7	-52		2054	-4.9	-149		2006	-0.7	-21		1950	-3.5	-107					
5 M	0244	18.4	561	20 Tu	0220	19.5	594	5 Th	0326	18.8	573	20 F	0317	22.1	674	5 Th	0227	18.3	558	20 F	0210	21.6	658					
	0819	3.1	94			0800	1.4		43		0913		1.6	49			0915	-2.6	-79			0819	1.0	30		0813	-3.2	-98
	1421	19.7	600			1403	21.7		661		1517		19.2	585			1525	22.3	680			1426	18.8	573		1426	21.8	664
	2048	-2.2	-67		2032	-4.6	-140		2130	-1.4	-43		2135	-4.4	-134		2034	-1.0	-30		2032	-3.8	-116					
6 Tu	0319	18.7	570	21 W	0301	20.7	631	6 F	0354	18.9	576	21 Sa	0357	22.3	680	6 F	0253	18.9	576	21 Sa	0249	22.4	683					
	0857	2.8	85			0846	0.3		9		0947		1.5	46			0959	-2.8	-85			0850	0.3	9		0856	-4.2	-128
	1458	19.6	597			1450	22.2		677		1550		18.7	570			1611	21.5	655			1459	19.0	579		1512	21.8	664
	2122	-2.0	-61		2114	-5.0	-152		2201	-0.8	-24		2217	-3.1	-94		2103	-0.9	-27		2113	-3.3	-101					
7 W	0352	18.7	570	22 Th	0342	21.3	649	7 Sa	0422	18.7	570	22 Su	0438	21.9	668	7 Sa	0320	19.1	582	22 Su	0329	22.5	686					
	0934	2.8	85			0931	-0.4		-12		1021		1.7	52			1046	-2.2	-67			0922	-0.1	-3		0940	-4.4	-134
	1533	19.1	582			1536	22.1		674		1624		17.9	546			1659	19.9	607			1531	18.8	573		1558	21.1	643
	2155	-1.4	-43		2156	-4.6	-140		2231	0.2	6		2300	-1.2	-37		2133	-0.5	-15		2155	-2.1	-64					
8 Th	0425	18.4	561	23 F	0424	21.5	655	8 Su	0451	18.2	555	23 M	0520	20.8	634	8 Su	0346	19.1	582	23 M	0409	21.9	668					
	1010	3.1	94			1017	-0.6		-18		1055		2.2	67			1135	-1.1	-34			0954	0.0	0		1024	-3.6	-110
	1609	18.3	558			1624	21.2		646		1700		16.7	509			1750	17.9	546			1604	18.1	552		1644	19.7	600
	2228	-0.5	-15		2239	-3.4	-104		2303	1.5	46		2346	1.0	30		2203	0.3	9		2237	-0.3	-9					
9 F	0457	17.9	546	24 Sa	0506	21.1	643	9 M	0521	17.6	536	24 Tu	0605	19.2	585	9 M	0414	18.7	570	24 Tu	0450	20.6	628					
	1048	3.5	107			1106	-0.2		-6		1133		2.9	88			1229	0.5	15			1027	0.3	9		1111	-2.2	-67
	1646	17.2	524			1713	19.6		597		1739		15.4	469			1849	15.8	482			1639	17.2	524		1734	17.9	546
	2302	0.7	21		2323	-1.5	-46		2338	3.0	91						2235	1.5	46		2322	1.8	55					
10 Sa	0530	17.3	527	25 Su	0551	20.3	619	10 Tu	0554	16.8	512	25 W	0037	3.4	104	10 Tu	0443	18.1	552	25 W	0533	18.8	573					
	1128	4.1	125			1159	0.7		21		1216		3.6	110			0657	17.5	533			1102	1.0	30		1201	-0.3	-9
	1725	15.9	485			1808	17.7		539		1826		14.0	427			1334	2.1	64			1717	16.0	488		1829	15.9	485
	2337	2.0	61										2002	14.0	427		2309	2.9	88									
11 Su	0606	16.6	506	26 M	0012	0.7	21	11 W	0017	4.5	137	26 Th	0141	5.5	168	11 W	0515	17.4	530	26 Th	0013	3.9	119					
	1213	4.8	146			0634	16.1		491		0801		15.9	485			1142	1.9	58			0622	16.8	512				
	1810	14.6	445			1310	4.2		128		1455		3.1	94			1801	14.6	445			1300	1.7	52				
					1911	15.7	479		1928	12.8	390		2135	13.2	402		2348	4.4	134		1936	14.2	433					
12 M	0016	3.5	107	27 Tu	0106	2.9	88	12 Th	0109	5.9	180	27 F	0303	6.7	204	12 Th	0554	16.5	503	27 F	0115	5.8	177					
	0645	16.0	488			0728	15.5		472		0924		15.0	457			1231	2.8	85			0725	15.0	457				
	1305	5.3	162			1422	4.4		134		1626		3.1	94			1859	13.4	408			1414	3.1	94				
	1905	13.3	405		2028	14.2	433		2054	12.3	375		2306	13.6	415						2102	13.3	405					
13 Tu	0102	4.9	149	28 W	0211	4.9	149	13 F	0223	6.9	210	28 Sa	0436	6.7	204	13 F	0039	5.8	177	28 Sa	0237	6.8	207					
	0732	15.6	475			0838	15.3		466		0646		15.5	472			0646	15.5	472			0848	13.8	421				
	1409	5.4	165			1545	3.8		116		1338		3.4	104			1338	3.4	104			1544	3.7	113				
	2018	12.5	381		2200	13.7	418		2226	12.8	390		1738	2.4	73		2020	12.7	387		2231	13.5	411					
14 W	0201	6.1	186	29 Th	0329	6.1	186	14 Sa	0349	7.0	213	29 Su	0153	6.7	204	14 Sa	0153	6.7	204	29 Su	0415	6.6	201					
	0829	15.4	469			0958	15.8		482		0759		14.9	454			0759	14.9	454			1019	13.8	421				
	1522	4.9	149			1700	2.3		70		1502		3.4	104			1502	3.4	104			1702	3.3	101				
	2143	12.5	381		2324	14.2	433		2337	14.3	436		2152	13.1	399		2152	13.1	399		2335	14.3	436					
15 Th	0313	6.7	204	30 F	0450	6.2	189	15 Su	0505	5.9	180	30 M	0323	6.7	204	15 Su	0323	6.7	204	30 M	0527	5.5	168					
	0933	15.8	482			1109	17.0		518		0928		15.1	460			0928	15.1	460			1128	14.5	442				
	1634	3.7	113			1758	0.4		12		1624		2.4	73			1624	2.4	73			1755	2.6	79				
	2301	13.3	405										2306	14.5	442		2306	14.5	442									
				31 Sa	0028	15.2	463																					
						0557	5.6	171																				
						1204	17.3	527																				
					1845	0.3	9																					

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Times and Heights of High and Low Waters

July				August				September			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 W ○	0114	19.0	579	16 Th	0207	19.3	588	1 Su	0305	19.0	579
	0751	-2.8	-85		0833	-2.9	-88		0916	-1.5	-46
	1422	17.6	536		1504	18.2	555		1538	18.6	567
	1958	2.2	67		2042	1.9	58		2132	0.8	24
2 Th	0158	19.8	604	17 F	0246	19.2	585	17 M	0339	18.6	567
	0831	-3.8	-116		0909	-2.8	-85		0947	-0.9	-27
	1502	18.4	561		1539	18.3	558		1606	18.4	561
	2041	1.5	46		2121	1.7	52		2206	1.0	30
3 F	0241	20.3	619	18 Sa	0324	18.9	576	18 Tu	0413	17.8	543
	0911	-4.3	-131		0943	-2.3	-70		1018	0.1	3
	1543	19.0	579		1612	18.1	552		1635	17.9	546
	2125	1.0	30		2159	1.9	58		2241	1.6	49
4 Sa	0326	20.3	619	19 Su	0401	18.2	555	19 W	0449	16.7	509
	0952	-4.3	-131		1017	-1.4	-43		1051	1.4	43
	1624	19.2	585		1645	17.7	539		1705	17.3	527
	2210	0.8	24		2237	2.3	70		2318	2.3	70
5 Su	0412	19.8	604	20 M	0438	17.2	524	20 Th	0527	15.4	469
	1035	-3.6	-110		1052	-0.2	-6		1125	2.9	88
	1707	19.1	582		1718	17.1	521		1738	16.5	503
	2259	1.0	30		2316	2.9	88		2359	3.2	98
6 M	0501	18.7	570	21 Tu	0517	15.9	485	21 F	0612	14.1	430
	1120	-2.3	-70		1127	1.1	34		1204	4.4	134
	1753	18.7	570		1752	16.4	500		1817	15.6	475
	2352	1.3	40		2359	3.6	110		1902	18.1	552
7 Tu	0555	17.3	527	22 W	0600	14.6	445	22 Sa	0050	4.0	122
	1209	-0.7	-21		1204	2.6	79		0711	12.8	390
	1842	18.2	555		1830	15.7	479		1253	5.8	177
8 W	0051	1.8	55	23 Th	0047	4.2	128	23 Su	0156	4.5	137
	0657	15.7	479		0650	13.3	405		0830	12.2	372
	1304	1.1	34		1247	4.1	125		1401	6.8	207
	1937	17.7	539		1913	15.1	460		2014	14.6	445
9 Th	0159	2.0	61	24 F	0145	4.6	140	24 M	0318	4.2	128
	0810	14.5	442		0755	12.3	375		1000	12.5	381
	1406	2.7	82		1341	5.4	165		1525	7.0	213
	2038	17.3	527		2005	14.7	448		2133	14.9	454
10 F	0313	1.8	55	25 Sa	0254	4.6	140	25 Tu	0435	3.1	94
	0932	13.9	424		0915	11.9	363		1113	13.7	418
	1516	3.9	119		1447	6.2	189		1642	6.1	186
	2144	17.2	524		2107	14.8	451		2246	16.0	488
11 Sa	0427	1.1	34	26 Su	0408	3.8	116	26 W	0535	1.3	40
	1053	14.2	433		1035	12.4	378		1206	15.4	469
	1628	4.3	131		1600	6.4	195		1743	4.5	137
	2247	17.5	533		2212	15.4	469		2346	17.6	536
12 Su	0533	0.0	0	27 M	0512	2.4	73	27 Th	0623	-0.5	-15
	1202	15.1	460		1141	13.5	411		1251	17.2	524
	1734	4.2	128		1707	5.7	174		1835	2.4	73
	2346	18.0	549		2312	16.4	500		1909	3.1	94
13 M	0628	-1.1	-34	28 Tu	0604	0.7	21	28 F	0039	19.3	588
	1258	16.1	491		1233	15.0	457		0707	-2.2	-67
	1830	3.6	110		1804	4.6	140		1332	19.0	579
14 Tu	0038	18.6	567	29 W	0006	17.8	543		1921	0.4	12
	0714	-2.0	-61		0649	-1.1	-34	29 Sa	0128	20.8	634
	1345	17.0	518		1318	16.6	506		0748	-3.5	-107
	1919	2.9	88		1854	3.1	94		1411	20.5	625
15 W	0125	19.0	579	30 Th	0055	19.2	585		2005	-1.4	-43
	0756	-2.6	-79		0731	-2.7	-82	30 Su	0215	21.7	661
	1426	17.7	539		1359	18.1	552		0829	-4.2	-128
	2002	2.3	70		1939	1.6	49		1450	21.6	658
16 Th	0143	20.4	622	31 F	0143	19.4	591		2049	-2.6	-79
	0811	-3.9	-119		1439	19.4	591	31 M	0301	22.0	671
	1439	19.4	591		2024	0.2	6		0910	-4.0	-122
	2024	0.2	6						1530	22.0	671
									2134	-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.

Seldovia, Alaska, 2015

Times and Heights of High and Low Waters

October								November								December							
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					
1 Th	0420	20.6	628	16 F	0407	17.8	543	1 Su	0549	17.6	536	16 M	0517	16.9	515	1 Tu	0617	17.0	518	16 W	0547	18.0	549
	1013	-0.2	-6		0954	2.9	88		1131	4.3	131		1058	4.8	146		1204	5.2	158		1137	3.9	119
	1623	21.4	652		1552	18.7	570		1733	17.6	536		1650	17.6	536		1801	15.9	485		1733	17.4	530
	2245	-2.7	-82		2219	-0.1	-3						2326	0.5	15						2358	0.3	9
2 F	0510	18.9	576	17 Sa	0445	16.9	515	2 M	0006	0.8	24	17 Tu	0607	16.3	497	2 W	0026	2.1	64	17 Th	0636	17.6	536
	1059	1.7	52		1030	4.0	122		0648	16.2	494		1151	5.6	171		0711	16.1	491		1236	4.2	128
	1708	19.7	600		1525	16.9	546		1232	5.8	177		1742	16.4	500		1306	6.0	183		1833	16.1	491
	2336	-0.9	-27		2257	0.9	27		1832	15.7	479						1901	14.3	436				
3 Sa	0606	17.1	521	18 Su	0529	15.8	482	3 Tu	0108	2.7	82	18 W	0019	1.6	49	3 Th	0122	3.8	116	18 F	0052	1.7	52
	1151	3.8	116		1111	5.2	158		0758	15.2	463		0706	15.8	482		0810	15.4	469		0732	17.4	530
	1759	17.8	543		1705	16.8	512		1347	6.7	204		1255	6.0	183		1420	6.3	192		1344	4.1	125
					2343	1.9	58		1947	14.2	433		1848	15.3	466		2015	13.2	402		1946	15.0	457
4 Su	0034	1.1	34	19 M	0623	14.8	451	4 W	0221	4.0	122	19 Th	0122	2.6	79	4 F	0225	5.0	152	19 Sa	0155	3.0	91
	0713	15.4	469		1203	6.3	192		0913	15.0	457		0811	15.9	485		0910	15.3	466		0834	17.5	533
	1254	5.6	171		1755	15.7	479		1517	6.5	198		1411	5.6	171		1539	5.8	177		1459	3.4	104
	1902	15.9	485				2115		13.6	415	2010		14.7	448	2136		13.0	396	2110		14.6	445	
5 M	0146	2.8	85	20 Tu	0041	2.9	88	5 Th	0338	4.5	137	20 F	0233	3.1	94	5 Sa	0331	5.6	171	20 Su	0305	3.9	119
	0835	14.5	442		0732	14.2	433		1019	15.3	466		0917	16.6	506		1006	15.6	475		0937	18.0	549
	1416	6.7	204		1312	7.0	213		1634	5.5	168		1529	4.4	134		1644	4.7	143		1612	2.1	64
	2026	14.6	445		1906	14.7	448		2233	14.0	427		2135	15.0	457		2248	13.4	408		2231	15.1	460
6 Tu	0313	3.6	110	21 W	0154	3.5	107	6 F	0441	4.4	134	21 Sa	0344	3.1	94	6 Su	0431	5.7	174	21 M	0415	4.1	125
	1001	14.6	445		0850	14.4	439		1109	16.0	488		1017	17.8	543		1053	16.1	491		1038	18.8	573
	1552	6.5	198		1436	6.7	204		1728	4.2	128		1638	2.5	76		1733	3.4	104		1717	0.5	15
	2157	14.4	439		2035	14.5	442		2331	14.8	451		2250	16.1	491		2344	14.3	436		2341	16.2	494
7 W	0433	3.5	107	22 Th	0313	3.3	101	7 Sa	0529	4.1	125	22 Su	0447	2.7	82	7 M	0522	5.4	165	22 Tu	0520	3.9	119
	1108	15.3	466		1000	15.5	472		1147	16.8	512		1110	19.2	585		1134	16.9	515		1134	19.7	600
	1707	5.4	165		1556	5.3	162		1808	2.8	85		1735	0.2	6		1813	2.1	64		1813	-1.2	-37
	2309	15.1	460		2200	15.4	469						2352	17.4	530								
8 Th	0531	2.9	88	23 F	0423	2.5	76	8 Su	0016	15.7	479	23 M	0544	2.1	64	8 Tu	0030	15.3	466	23 W	0040	17.4	530
	1156	16.2	494		1057	17.1	521		0608	3.7	113		1159	20.5	625		0606	5.0	152		0617	3.3	101
	1757	4.0	122		1701	3.1	94		1220	17.6	536		1826	-1.8	-55		1211	17.8	543		1226	20.5	625
					2309	16.9	515		1842	1.4	43						1849	0.7	21		1902	-2.6	-79
9 F	0001	16.0	488	24 Sa	0521	1.3	40	9 M	0054	16.6	506	24 Tu	0047	18.8	573	9 W	0110	16.4	500	24 Th	0132	18.6	567
	0613	2.3	70		1145	18.9	576		0642	3.2	98		0634	1.5	46		0646	4.4	134		0708	2.7	82
	1232	17.1	521		1755	0.6	18		1250	18.4	561		1245	21.6	658		1247	18.7	570		1314	21.1	643
	1835	2.6	79				1914		0.2	6	1913		-3.5	-107	1913		-0.5	-15	1924		-0.5	-15	1947	-3.5	-107
10 Sa	0042	16.9	515	25 Su	0007	18.5	564	10 Tu	0130	17.5	533	25 W	0137	19.8	604	10 Th	0149	17.3	527	25 F	0218	19.4	591
	0646	1.8	55		0611	0.2	6		0715	2.8	85		0722	1.1	34		0724	3.8	116		0755	2.2	67
	1302	17.9	546		1228	20.6	628		1320	19.1	582		1329	22.3	680		1324	19.4	591		1400	21.4	652
	1908	1.3	40		1843	-1.7	-52		1945	-0.7	-21		1958	-4.5	-137		1958	-1.5	-46		2030	-3.9	-119
11 Su	0118	17.7	539	26 M	0059	20.0	610	11 W	0205	18.1	552	26 Th	0225	20.4	622	11 F	0226	18.1	552	26 Sa	0301	19.8	604
	0717	1.4	43		0657	-0.6	-18		0749	2.6	79		0807	1.0	30		0802	3.3	101		0839	1.9	58
	1329	18.6	567		1311	21.9	668		1351	19.6	597		1413	22.4	683		1400	19.9	607		1444	21.2	646
	1939	0.3	9		1928	-3.6	-110		2017	-1.4	-43		2041	-4.7	-143		2033	-2.2	-67		2110	-3.7	-113
12 M	0151	18.3	558	27 Tu	0147	21.0	640	12 Th	0241	18.4	561	27 F	0311	20.5	625	12 Sa	0304	18.6	567	27 Su	0342	19.8	604
	0747	1.1	34		0742	-1.0	-30		0823	2.6	79		0852	1.2	37		0841	3.0	91		0922	2.0	61
	1356	19.2	585		1352	22.8	695		1422	19.8	604		1457	22.0	671		1438	20.2	616		1525	20.6	628
	2009	-0.5	-15		2012	-4.7	-143		2050	-1.7	-52		2124	-4.2	-128		2109	-2.5	-76		2149	-3.0	-91
13 Tu	0224	18.7	570	28 W	0234	21.4	652	13 F	0317	18.5	564	28 Sa	0356	20.1	613	13 Su	0342	18.8	573	28 M	0422	19.5	594
	0817	1.1	34		0825	-0.8	-24		0858	2.8	85		0937	1.9	58		0920	3.0	91		1005	2.4	73
	1424	19.5	594		1434	23.0	701		1455	19.8	604		1540	21.0	640		1516	20.1	613		1606	19.5	594
	2040	-1.0	-30		2056	-5.0	-152		2125	-1.7	-52		2207	-3.1	-94		2147	-2.4	-73		2228	-1.8	-55
14 W	0257	18.8	573	29 Th	0321	21.2	646	14 Sa	0354	18.2	555	29 Su	0441	19.3	588	14 M	0421	18.7	570	29 Tu	0501	18.8	573
	0848	1.4	43		0909	-0.1	-3		0935	3.3	101		1022	2.9	88		1002	3.1	94		1048	3.1	94
	1452	19.6	597		1515	22.5	686		1530	19.3	588		1624	19.5	594		1557	19.5	594		1647	18.1	552
	2111	-1.1	-34		2140	-4.4	-134		2201	-1.2	-37		2251	-1.5	-46		2227	-1.9	-58		2307	-0.3	-9
15 Th	0331	18.5	564	30 F	0408	20.4	622	15 Su	0434	17.6	536	30 M	0528	18.2	555	15 Tu	0502	18.4	561	30 W	0540	17.9	546
	0920	2.0	61		0953	1.1	34		1014	4.0	122		1111	4.1	125		1047	3.5	107		1133	4.0	122
	1521	19.3	588		1558	21.3	649		1607	18.6	567		1710	17.8	543		1642	18.6	567		1730	16.5	503
	2144	-0.7	-21		2225	-3.1	-94		2241	-0.5	-15		2337	0.3	9		2310	-0.9	-27		2346	1.4	43
				31 Sa	0456	19.1	582																
					1040	2.6	79																
					1643	19.6	597																
					2313	-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.

Nikiski, Alaska, 2015

Times and Heights of High and Low Waters

January						February						March																
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				
1 Th	0145	18.2	555		16 F	0131	16.4	500		1 Su	0317	19.3	588		16 M	0244	19.2	585		1 Su	0212	17.9	546		16 M	0125	17.7	539
	0740	5.3	162			0715	7.6	232			0911	5.1	155			0840	4.7	143			0807	6.0	183			0723	5.8	177
	1342	21.1	643			1310	18.9	576			1505	20.4	622			1427	21.0	640			1408	18.4	561			1315	18.7	570
	2027	-0.4	-12			2007	1.5	46			2143	-1.0	-30			2115	-2.0	-61			2040	0.9	27			2000	0.3	9
2 F	0240	19.2	585		17 Sa	0223	17.8	543		2 M	0356	20.1	613		17 Tu	0326	20.9	637		2 M	0257	18.9	576		17 Tu	0215	19.4	591
	0835	5.0	152			0810	6.6	201			0954	4.1	125			0929	2.6	79			0856	4.7	143			0819	3.5	107
	1430	21.5	655			1358	20.1	613			1544	20.8	634			1515	22.6	689			1453	19.2	585			1412	20.4	622
	2115	-1.4	-43			2054	-0.4	-12			2220	-1.5	-46			2159	-3.5	-107			2121	0.2	6			2050	-1.3	-40
3 Sa	0328	20.0	610		18 Su	0308	19.3	588		3 Tu	0431	20.8	634		18 W	0406	22.4	683		3 Tu	0333	19.8	604		18 W	0258	21.2	646
	0923	4.6	140			0900	5.3	162			1032	3.3	101			1015	0.6	18			0936	3.5	107			0909	1.0	30
	1513	21.8	664			1443	21.5	655			1620	21.2	646			1601	23.8	725			1531	20.0	610			1502	22.1	674
	2158	-2.1	-64			2138	-2.2	-67			2255	-1.7	-52			2242	-4.5	-137			2157	-0.4	-12			2135	-2.6	-79
4 Su	0409	20.7	631		19 M	0349	20.7	631		4 W	0503	21.2	646		19 Th	0445	23.7	722		4 W	0405	20.5	625		19 Th	0338	22.8	695
	1007	4.1	125			0947	3.8	116			1109	2.6	79			1100	-1.1	-34			1013	2.3	70			0956	-1.2	-37
	1553	21.9	668			1527	22.8	695			1656	21.3	649			1647	24.5	747			1606	20.6	628			1548	23.4	713
	2237	-2.4	-73			2220	-3.6	-110			2329	-1.7	-52			2324	-4.7	-143			2231	-0.7	-21			2219	-3.4	-104
5 M	0448	21.1	643		20 Tu	0429	22.0	671		5 Th	0536	21.5	655		20 F	0526	24.4	744		5 Th	0435	21.1	643		20 F	0417	24.0	732
	1048	3.8	116			1032	2.3	70			1145	2.1	64			1145	-2.2	-67			1047	1.3	40			1041	-2.9	-88
	1631	21.8	664			1611	23.7	722			1732	21.2	646			1734	24.4	744			1640	21.0	640			1634	24.1	735
	2315	-2.4	-73			2302	-4.6	-140													2303	-0.7	-21			2301	-3.5	-107
6 Tu	0525	21.4	652		21 W	0510	23.0	701		6 F	0002	-1.3	-40		21 Sa	0006	-4.1	-125		6 F	0504	21.5	655		21 Sa	0457	24.7	753
	1128	3.5	107			1117	1.0	30			0608	21.6	658			0607	24.6	750			1121	0.6	18			1126	-4.0	-122
	1709	21.6	658			1657	24.2	738			1221	1.9	58			1231	-2.5	-76			1713	21.1	643			1721	24.1	735
	2352	-2.1	-64			2345	-4.9	-149			1808	20.8	634			1823	23.6	719			2334	-0.5	-15			2343	-2.8	-85
7 W	0603	21.4	652		22 Th	0552	23.7	722		7 Sa	0034	-0.5	-15		22 Su	0049	-2.8	-85		7 Sa	0533	21.6	658		22 Su	0537	24.8	756
	1206	3.4	104			1203	0.1	3			0641	21.3	649			0650	24.2	738			1155	0.2	6			1211	-4.2	-128
	1748	21.1	643			1745	24.1	735			1257	2.0	61			1319	-2.0	-61			1748	21.0	640			1809	23.4	713
											1847	20.1	613			1916	22.2	677										
8 Th	0028	-1.4	-43		23 F	0027	-4.4	-134		8 Su	0107	0.6	18		23 M	0134	-0.8	-24		8 Su	0006	0.1	3		23 M	0026	-1.5	-46
	0640	21.3	649			0635	23.8	725			0713	20.8	634			0736	23.1	704			0602	21.5	655			0620	24.1	735
	1246	3.5	107			1250	-0.2	-6			1335	2.4	73			1410	-0.9	-27			1230	0.2	6			1257	-3.5	-107
	1828	20.3	619			1836	23.2	707			1928	19.0	579			2013	20.3	619			1825	20.4	622			1900	22.1	674
9 F	0103	-0.4	-12		24 Sa	0112	-3.2	-98		9 M	0139	2.1	64		24 Tu	0223	1.7	52		9 M	0037	1.0	30		24 Tu	0111	0.3	9
	0719	20.8	634			0721	23.6	719			0746	20.1	613			0827	21.6	658			0630	21.2	646			0705	22.8	695
	1326	3.9	119			1340	0.1	3			1416	3.1	94			1509	0.6	18			1305	0.5	15			1347	-2.1	-64
	1911	19.3	588			1931	21.8	664			2015	17.6	536			2117	18.4	561			1904	19.6	597			1955	20.4	622
10 Sa	0140	0.9	27		25 Su	0158	-1.2	-37		10 Tu	0214	3.9	119		25 W	0320	4.3	131		10 Tu	0109	2.3	70		25 W	0159	2.5	76
	0759	20.2	616			0810	22.8	695			0821	19.2	585			0927	19.8	604			0657	20.6	628			0754	21.0	640
	1410	4.5	137			1435	0.8	24			1506	4.0	122			1616	2.1	64			1343	1.2	37			1441	-0.2	-6
	1959	18.0	549			2031	20.0	610			2114	16.3	497			2231	16.9	515			1947	18.4	561			2056	18.7	570
11 Su	0217	2.6	79		26 M	0250	1.2	37		11 W	0257	5.7	174		26 Th	0429	6.4	195		11 W	0144	3.9	119		26 Th	0255	4.8	146
	0842	19.4	591			0903	21.7	661			0903	18.2	555			1037	18.3	558			0727	19.7	600			0853	19.0	579
	1459	5.1	155			1537	1.8	55			1610	4.6	140			1731	2.8	85			1427	2.2	67			1544	1.7	52
	2055	16.7	509			2140	18.2	555			2227	15.3	466			2352	16.4	500			2041	17.1	521			2205	17.3	527
12 M	0300	4.3	131		27 Tu	0349	3.6	110		12 Th	0359	7.4	226		27 F	0548	7.4	226		12 Th	0225	5.6	171		27 F	0403	6.6	201
	0928	18.6	567			1004	20.5	625			1004	17.4	530			1156	17.6	536			0805	18.6	567			1005	17.2	524
	1558	5.5	168			1647	2.4	73			1725	4.5	137			1845	2.6	79			1525	3.2	98			1655	3.0	91
	2202	15.6	475			2257	17.0	518			2346	15.2	463								2150	16.0	488			2322	16.6	506
13 Tu	0353	6.1	186		28 W	0458	5.6	171		13 F	0525	8.3	253		28 Sa	0110	16.9	515		13 F	0324	7.1	216		28 Sa	0521	7.4	226
	1020	18.0	549			1111	19.6	597			1122	17.3	527			0704	7.1	216			0902	17.5	533			1127	16.3	497
	1706	5.5	168			1801	2.4	73			1836	3.5	107			1309	17.8	543			1640	3.7	113			1810	3.3	101
	2316	15.1	460																		2309	15.6	475					
14 W	0500	7.4	226		29 Th	0017	16.7	509		14 Sa	0058	16.0	488		14 Sa	0452	8.0	244		14 Sa	0452	8.0	244		29 Su			

Nikiski, Alaska, 2015

Times and Heights of High and Low Waters

April												May												June																																																																																																																																																																																																																																																																																																					
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		h m	ft	cm																																																																																																																																																																																																																																																																																																		
1 W	0301	19.5	594	16 Th	0227	21.6	658	1 F	0254	19.7	600	16 Sa	0240	22.7	692	1 M	0319	20.4	622	16 Tu	0346	22.4	683																																																																																																																																																																																																																																																																																																						
	0913	2.7	82		0849	-0.4	-12		0920	0.9	27		0919	-3.0	-91		1007	-1.6	-49		1035	-4.1	-125																																																																																																																																																																																																																																																																																																						
	1512	19.1	582		1447	21.3	649		1523	18.8	573		1522	21.1	643		1615	19.5	594		1643	21.0	640																																																																																																																																																																																																																																																																																																						
	2128	1.2	37		2109	-1.1	-34		2128	2.7	82		2132	0.8	24		2213	3.8	116		2246	2.5	76																																																																																																																																																																																																																																																																																																						
2 Th	0332	20.2	616	17 F	0308	23.0	701	2 Sa	0324	20.3	619	17 Su	0322	23.3	710	2 Tu	0351	21.0	640	17 W	0428	22.2	677																																																																																																																																																																																																																																																																																																						
	0948	1.4	43		0937	-2.5	-76		0956	-0.3	-9		1005	-4.2	-128		1045	-2.5	-76		1117	-4.1	-125																																																																																																																																																																																																																																																																																																						
	1546	19.8	604		1535	22.4	683		1559	19.5	594		1609	21.7	661		1654	20.0	610		1727	21.1	643																																																																																																																																																																																																																																																																																																						
	2201	0.9	27		2154	-1.5	-46		2203	2.5	76		2218	0.8	24		2252	3.5	107		2330	2.6	79																																																																																																																																																																																																																																																																																																						
3 F	0401	20.8	634	18 Sa	0348	23.9	728	3 Su	0353	20.8	634	18 M	0404	23.5	716	3 W	0424	21.4	652	18 Th	0511	21.7	661																																																																																																																																																																																																																																																																																																						
	1023	0.3	9		1023	-4.1	-125		1031	-1.3	-40		1050	-4.8	-146		1123	-3.2	-98		1159	-3.6	-110																																																																																																																																																																																																																																																																																																						
	1620	20.4	622		1621	23.0	701		1635	20.0	610		1655	21.9	668		1733	20.4	622		1811	21.0	640																																																																																																																																																																																																																																																																																																						
	2234	0.8	24		2238	-1.4	-43		2238	2.5	76		2302	1.1	34		2332	3.2	98		2332	3.2	98																																																																																																																																																																																																																																																																																																						
4 Sa O	0429	21.2	646	19 Su	0428	24.4	744	4 M	0421	21.2	646	19 Tu	0445	23.2	707	4 Th	0501	21.6	658	19 F	0013	2.8	85																																																																																																																																																																																																																																																																																																						
	1056	-0.6	-18		1107	-4.9	-149		1107	-2.0	-61		1134	-4.8	-146		1203	-3.4	-104		0554	20.9	637																																																																																																																																																																																																																																																																																																						
	1654	20.7	631		1707	23.1	704		1711	20.3	619		1741	21.7	661		1815	20.6	628		1239	-2.7	-82																																																																																																																																																																																																																																																																																																						
	2306	0.9	27		2322	-0.9	-27		2314	2.6	79		2347	1.7	52		2347	1.7	52		1855	20.7	631																																																																																																																																																																																																																																																																																																						
5 Su	0456	21.5	655	20 M	0509	24.2	738	5 Tu	0450	21.4	652	20 W	0528	22.5	686	5 F	0015	3.0	91	20 Sa	0057	3.2	98																																																																																																																																																																																																																																																																																																						
	1130	-1.1	-34		1152	-4.9	-149		1143	-2.4	-73		1218	-4.1	-125		0542	21.5	655		0640	19.9	607																																																																																																																																																																																																																																																																																																						
	1729	20.7	631		1755	22.6	689		1749	20.3	619		1829	21.2	646		1245	-3.2	-98		1320	-1.5	-46																																																																																																																																																																																																																																																																																																						
	2339	1.3	40		2351	2.8	85		2351	2.8	85		1900	20.6	628		1900	20.6	628		1940	20.1	613																																																																																																																																																																																																																																																																																																						
6 M	0524	21.5	655	21 Tu	0005	0.2	6	6 W	0521	21.4	652	21 Th	0032	2.5	76	6 Sa	0100	3.1	94	21 Su	0142	3.8	116																																																																																																																																																																																																																																																																																																						
	1205	-1.3	-40		0552	23.4	713		1221	-2.4	-73		0614	21.3	649		0629	20.9	637		0729	18.7	570																																																																																																																																																																																																																																																																																																						
	1806	20.5	625		1237	-4.1	-125		1831	20.1	613		1302	-2.9	-88		1329	-2.5	-76		1403	0.1	3																																																																																																																																																																																																																																																																																																						
					1844	21.7	661						1918	20.5	625		1949	20.4	622		2026	19.5	594																																																																																																																																																																																																																																																																																																						
7 Tu	0012	1.9	58	22 W	0050	1.6	49	7 Th	0029	3.3	101	22 F	0119	3.5	107	7 Su	0150	3.3	101	22 M	0231	4.4	134																																																																																																																																																																																																																																																																																																						
	0551	21.3	649		0537	22.0	671		0555	21.0	640		0702	19.8	604		0723	19.9	607		0823	17.3	527																																																																																																																																																																																																																																																																																																						
	1240	-1.1	-34		1324	-2.7	-82		1301	-1.9	-58		1348	-1.3	-40		1418	-1.4	-43		1447	1.8	55																																																																																																																																																																																																																																																																																																						
	1845	19.9	607		1937	20.4	622		1916	19.6	597		2010	19.6	597		2041	20.0	610		2115	18.7	570																																																																																																																																																																																																																																																																																																						
8 W	0046	2.9	88	23 Th	0138	3.3	101	8 F	0112	4.0	122	23 Sa	0209	4.6	140	8 M	0248	3.6	110	23 Tu	0326	5.0	152																																																																																																																																																																																																																																																																																																						
	0620	20.8	634		0726	20.3	619		0636	20.3	619		0757	18.2	555		0828	18.7	570		0924	16.1	491																																																																																																																																																																																																																																																																																																						
	1319	-0.5	-15		1414	-0.8	-24		1345	-1.1	-34		1437	0.5	15		1513	0.0	0		1537	3.5	107																																																																																																																																																																																																																																																																																																						
	1929	19.0	579		2035	19.1	582		2007	19.0	579		2105	18.7	570		2138	19.8	604		2207	18.1	552																																																																																																																																																																																																																																																																																																						
9 Th	0124	4.1	125	24 F	0232	4.9	149	9 Sa	0202	4.7	143	24 Su	0305	5.5	168	9 Tu	0353	3.7	113	24 W	0428	5.3	162																																																																																																																																																																																																																																																																																																						
	0653	20.0	610		0824	18.3	558		0726	19.2	585		0859	16.7	509		0942	17.6	536		1030	15.2	463																																																																																																																																																																																																																																																																																																						
	1402	0.5	15		1511	1.1	34		1437	0.0	0		1532	2.2	67		1615	1.4	43		1634	5.0	152																																																																																																																																																																																																																																																																																																						
	2022	17.9	546		2137	17.9	546		2105	18.4	561		2202	18.0	549		2238	19.7	600		2301	17.6	536																																																																																																																																																																																																																																																																																																						
10 F	0210	5.4	165	25 Sa	0336	6.3	192	10 Su	0302	5.4	165	25 M	0410	6.1	186	10 W	0503	3.1	94	25 Th	0533	5.0	152																																																																																																																																																																																																																																																																																																						
	0736	18.9	576		0933	16.6	506		0833	18.0	549		1008	15.6	475		1100	17.1	521		1140	14.9	454																																																																																																																																																																																																																																																																																																						
	1457	1.6	49		1615	2.7	82		1538	1.1	34		1631	3.6	110		1721	2.5	76		1735	6.0	183																																																																																																																																																																																																																																																																																																						
	2125	17.0	518		2245	17.2	524		2208	18.2	555		2301	17.6	536		2338	20.0	610		2355	17.6	536																																																																																																																																																																																																																																																																																																						
11 Sa O	0312	6.5	198	26 Su	0449	6.9	210	11 M	0414	5.5	168	26 Tu	0518	5.9	180	11 Th	0612	2.0	61	26 F	0636	4.1	125																																																																																																																																																																																																																																																																																																						
	0838	17.6	536		1050	15.6	475		0957	17.0	518		1120	15.1	460		1215	17.2	524		1245	15.2	463																																																																																																																																																																																																																																																																																																						
	1606	2.4	73		1724	3.7	113		1647	1.8	55		1734	4.6	140		1826	3.1	94		1836	6.5	198																																																																																																																																																																																																																																																																																																						
	2238	16.7	509		2352	17.1	521		2313	18.5	564		2359	17.6	536																																																																																																																																																																																																																																																																																																														
12 Su	0432	7.0	213	27 M	0604	6.5	198	12 Tu	0528	4.7	143	27 W	0624	5.1	155	12 F	0036	20.5	625	27 Sa	0046	17.9	546																																																																																																																																																																																																																																																																																																						
	1012	16.7	509		1206	15.5	472		1121	17.0	518		1227	15.3	466		0715	0.4	12		0731	2.8	85																																																																																																																																																																																																																																																																																																						
	1721	2.6	79		1829	3.9	119		1755	2.0	61		1833	5.0	152		1321	18.0	549		1343	16.1	491																																																																																																																																																																																																																																																																																																						
	2348	17.2	524												1926		3.2	98	1931		6.5	198																																																																																																																																																																																																																																																																																																							
13 M	0551	6.2	189	28 Tu	0052	17.6	536	13 W	0014	19.3	588	28 Th	0050	18.0	549	13 Sa	0129	21.2	646	28 Su	0131	18.4	561																																																																																																																																																																																																																																																																																																						
	1143	17.0	518		0709	5.3	162		0636	3.0	91		0721	3.8	116		0812	-1.2	-37		0819	1.4	43																																																																																																																																																																																																																																																																																																						
	1830	2.0	61		1311	16.1	491		1235	17.7	539		1326	16.0	488		1420	18.9	576		1432	17.1	521																																																																																																																																																																																																																																																																																																						
					1925	3.7	113		1857	1.8	55		1925	5.0	152		2022	3.1	94		2021	6.0	183																																																																																																																																																																																																																																																																																																						
14 Tu	0050	18.4	561	29 W	0140	18.3	558	14 Th	0108	20.4	622	29 F	0134	18.5	564	14 Su	0217	21.9	668	29 M	0212	19.2	585																																																																																																																																																																																																																																																																																																						
	0700	4.4	134		0800	3.7	113		0736	0.9	27		0808	2.3	70		0903	-2.6	-79		0903	-0.1	-3																																																																																																																																																																																																																																																																																																						
	1256	18.2	555		1403	17.0	518		1338	18.9	576		1415	16.9	515		1511	19.8	604		1515	18.2	555																																																																																																																																																																																																																																																																																																						
	1929	0.9	27		2012	3.3	101		1953	1.4	43		2012	4.8	146		2113	2.8	85		2106	5.3	162																																																																																																																																																																																																																																																																																																						
15 W	0142	20.0	610	30 Th	0220	19.1	582	15 F	0156	21.6	658	30 Sa	0213	19.1	582	15 M	0303	22.3	680	30 Tu	0250	20.1	613																																																																																																																																																																																																																																																																																																						
	0758	2.0	61		0843	2.2	67		0830	-1.2	-37		0850	0.9	27		0950	-3.6	-110		0944	-1.5	-46																																																																																																																																																																																																																																																																																																						
	1355	19.8	604		1445	18.0	549		1432	20.1	613		1458	17.8	543		1558	20.5	625		1555	19.2	585																																																																																																																																																																																																																																																																																																						
	2022	-0.2	-6		2052	3.0	91		2044	1.0	30		2054	4.6	140		2201	2.6	79		2149	4.4	134																																																																																																																																																																																																																																																																																																						

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.

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, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0031	-3.7	-113	16 F	0022	-0.5	-15	1 Tu	0215	0.4	12
	0633	22.9	698		0628	20.3	619		0841	20.0	610
	1245	0.6	18		1228	4.0	122		1443	5.7	174
	1834	23.7	722		1758	21.0	640		2034	18.0	549
2 F	0121	-2.5	-76	17 Sa	0059	0.2	6	2 W	0308	2.3	70
	0728	21.4	652		0711	19.4	591		0938	19.2	585
	1334	2.6	79		1306	5.1	155		1547	6.4	195
	1924	22.0	671		1829	20.2	616	3 Th	2144	16.6	506
3 Sa	0214	-0.7	-21	18 Su	0140	1.2	37	4 F	0408	4.0	122
	0830	19.8	604		0802	18.4	561		1038	18.7	570
	1430	4.8	146		1350	6.3	192		1656	6.4	195
	2024	19.9	607		1907	19.1	582		2258	15.9	485
4 Su	0316	1.2	37	19 M	0231	2.3	70	5 Sa	0511	5.2	158
	0939	18.4	561		0904	17.6	536		1138	18.6	567
	1537	6.5	198		1448	7.4	226		1805	5.7	174
5 M	2137	18.1	552		2003	17.7	539	6 Su	0111	16.6	506
	0427	2.7	82	20 Tu	0336	3.3	101		0709	6.1	186
	1056	17.7	539		1014	17.2	524		1319	19.3	588
	1655	7.3	223		1606	7.9	241		1956	3.1	94
	2301	17.1	521	21 W	2139	16.7	509	7 M	0203	17.5	533
6 Tu	0541	3.3	101		0450	3.7	113	8 Tu	0247	18.4	561
	1211	17.9	546		1124	17.6	536		0840	5.7	174
	1815	6.9	210		1726	7.3	223		1435	20.4	622
7 W	0021	17.2	524		2316	16.8	512		2117	0.4	12
	0650	3.1	94	22 Th	0600	3.2	98	9 W	0326	19.3	588
	1314	18.7	570		1225	18.7	570		0920	5.4	165
	1922	5.6	171		1835	5.5	168		1508	21.0	640
8 Th	0126	17.9	546	23 F	0031	18.0	549		2154	-0.6	-18
	0746	2.6	79		0701	2.3	70	10 Th	0403	20.1	613
	1402	19.6	597		1316	20.3	619		0958	5.0	152
	2014	4.0	122		1933	3.1	94		1539	21.5	655
9 F	0216	18.9	576	24 Sa	0131	19.6	597		2230	-1.5	-46
	0831	2.1	64		0754	1.2	37	11 F	0440	20.6	628
	1440	20.4	622		1401	21.9	668		1036	4.6	140
	2055	2.6	79		2024	0.6	18		1611	21.9	668
10 Sa	0256	19.7	600	25 Su	0222	21.3	649	12 Sa	0517	21.0	640
	0909	1.7	52		0842	0.3	9		1115	4.2	128
	1513	21.1	643		1441	23.5	716		1644	22.1	674
	2132	1.4	43		2111	-1.7	-52		2344	-2.4	-73
11 Su	0331	20.4	622	26 M	0310	22.7	692	13 Su	0556	21.3	649
	0943	1.6	49		0927	-0.3	-9		1155	4.0	122
	1542	21.5	655		1521	24.7	753		1721	22.0	671
	2206	0.4	12		2157	-3.5	-107	14 M	0023	-2.3	-70
12 M	0404	20.9	637	27 Tu	0355	23.6	719		0637	21.3	649
	1016	1.7	52		1012	-0.4	-12		1238	4.0	122
	1610	21.9	668		1600	25.3	771		1803	21.6	658
13 Tu	2240	-0.3	-9		2242	-4.6	-140	15 Tu	0104	-1.8	-55
	0438	21.2	646	28 W	0441	23.9	728		0721	21.1	643
	1049	1.9	58		1056	-0.1	-3		1324	4.1	125
	1637	22.0	671		1641	25.4	774		1851	20.7	631
	2313	-0.7	-21		2327	-4.9	-149	30 Th	0226	1.8	55
14 W	0513	21.2	646	29 Th	0529	23.6	719		0850	19.9	607
	1121	2.4	73		1140	0.7	21		1503	5.1	155
	1704	21.9	668		1723	24.7	753		2059	17.2	524
	2347	-0.8	-24	30 F	0013	-4.3	-131	31 Th			
15 Th	0549	20.9	637		0618	22.8	695				
	1154	3.1	94		1226	2.0	61				
	1730	21.6	658		1808	23.5	716				
				31 Sa	0100	-3.0	-91				
					0712	21.7	661				
					1315	3.5	107				
					1858	21.7	661				

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, 2015

Times and Heights of High and Low Waters

January								February								March							
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				
1 Th	0433	27.0	823	16 F	0402	23.9	728	1 Su	0010	-0.9	-27	16 M	0524	27.7	844	1 Su	0457	26.9	820	16 M	0356	26.3	802
	1048	5.6	171		1002	8.5	259		0608	28.2	860		1130	5.5	168		1113	6.1	186		0958	7.0	213
	1627	29.1	887		1545	26.7	814		1224	4.8	146		1707	29.6	902		1644	26.0	792		1537	27.4	835
	2337	-1.5	-46		2249	1.2	37		1749	28.1	856		2343	1.0	30		2240	0.9	27				
2 F	0533	28.0	853	17 Sa	0501	25.7	783	2 M	0053	-1.4	-43	17 Tu	0014	-1.7	-52	2 M	0544	27.9	850	17 Tu	0454	28.4	866
	1151	5.1	155		1100	7.3	223		0646	28.6	872		0609	29.5	899		1202	4.4	134		1109	4.4	134
	1719	29.3	893		1639	28.2	860		1305	4.1	125		1229	3.2	98		1731	27.2	829		1647	29.6	902
					2346	-0.5	-15		1828	28.9	881		1759	31.6	963						2346	-0.9	-2
3 Sa	0028	-2.2	-67	18 Su	0549	27.5	838	3 Tu	0131	-1.3	-40	18 W	0105	-3.4	-104	3 Tu	0026	0.1	3	18 W	0542	30.3	924
	0621	28.7	875		1155	5.8	177		0717	29.0	884		0650	30.9	942		0621	28.6	872		1212	1.7	52
	1240	4.7	143		1728	29.8	908		1342	3.6	110		1322	1.0	30		1243	3.2	98		1742	31.6	963
	1803	29.5	899						1904	29.5	899		1848	33.0	1006		1811	28.3	863				
4 Su	0113	-2.3	-70	19 M	0038	-2.1	-64	4 W	0204	-1.1	-34	19 Th	0152	-4.6	-140	4 W	0102	-0.3	-9	19 Th	0041	-2.4	-73
	0701	29.1	887		0631	29.0	884		0743	29.3	893		0730	32.0	975		0650	29.1	887		0625	31.7	966
	1323	4.5	137		1247	4.2	128		1415	3.2	98		1410	-1.0	-30		1319	2.4	73		1305	-0.8	-24
	1842	29.8	908		1816	31.3	954		1938	30.0	914		1934	33.8	1030		1846	29.3	893		1832	32.9	1003
5 M	0152	-1.8	-55	20 Tu	0127	-3.6	-110	5 Th	0234	-0.9	-27	20 F	0236	-5.0	-152	5 Th	0136	-0.4	-12	20 F	0129	-3.3	-101
	0736	29.3	893		0712	30.2	920		0810	29.8	908		0809	32.9	1003		0714	29.6	902		0704	32.8	1000
	1401	4.5	137		1337	2.6	79		1445	2.7	82		1456	-2.4	-73		1352	1.7	52		1354	-2.7	-82
	1919	30.0	914		1902	32.5	991		2012	30.0	914		2020	34.0	1036		1920	30.0	914		1920	33.7	1027
6 Tu	0226	-1.3	-40	21 W	0212	-4.6	-140	6 F	0304	-0.6	-18	21 Sa	0318	-4.6	-140	6 F	0208	-0.3	-9	21 Sa	0214	-3.5	-107
	0806	29.4	896		0753	31.1	948		0839	30.1	917		0848	33.6	1024		0741	30.2	920		0743	33.6	1024
	1434	4.4	134		1425	1.2	37		1516	2.0	61		1541	-3.2	-98		1423	1.1	34		1440	-3.9	-119
	1954	29.9	911		1948	33.1	1009		2046	29.6	902		2106	33.6	1024		1954	30.4	927		2006	33.9	1033
7 W	0257	-0.8	-24	22 Th	0255	-5.1	-155	7 Sa	0334	-0.1	-3	22 Su	0359	-3.5	-107	7 Sa	0239	0.0	0	22 Su	0257	-2.9	-88
	0836	29.6	902		0832	31.8	969		0911	30.2	920		0929	33.7	1027		0810	30.7	936		0822	34.1	1039
	1504	4.2	128		1511	0.0	0		1550	1.5	46		1626	-3.1	-94		1455	0.4	12		1523	-4.3	-131
	2029	29.5	899		2034	33.2	1012		2120	29.0	884		2154	32.4	988		2028	30.3	924		2052	33.5	1021
8 Th	0327	-0.4	-12	23 F	0338	-4.9	-149	8 Su	0405	0.7	21	23 M	0440	-1.5	-46	8 Su	0310	0.6	18	23 M	0338	-1.6	-49
	0907	29.6	902		0913	32.4	988		0942	29.9	911		1012	33.1	1009		0841	30.8	939		0902	33.9	1033
	1536	3.9	119		1557	-0.8	-24		1626	1.3	40		1711	-2.3	-70		1529	-0.1	-3		1606	-3.8	-116
	2103	28.7	875		2120	32.7	997		2155	28.0	853		2245	30.6	933		2102	29.8	908		2139	32.5	991
9 F	0358	0.0	0	24 Sa	0419	-4.0	-122	9 M	0435	1.9	58	24 Tu	0522	1.2	37	9 M	0339	1.5	46	24 Tu	0418	0.3	9
	0940	29.5	899		0955	32.7	997		1013	29.3	893		1059	31.5	960		0910	30.4	927		0943	32.8	1000
	1611	3.6	110		1643	-1.1	-34		1706	1.4	43		1759	-0.6	-18		1604	-0.2	-6		1648	-2.5	-76
	2138	27.8	847		2208	31.6	963		2235	26.7	814		2345	28.3	863		2136	28.9	881		2229	30.8	939
10 Sa	0431	0.8	24	25 Su	0502	-2.3	-70	10 Tu	0509	3.5	107	25 W	0608	4.4	134	10 Tu	0408	2.6	79	25 W	0457	2.8	85
	1016	29.1	887		1041	32.4	988		1048	28.3	863		1154	29.1	887		0939	29.8	908		1027	30.8	939
	1649	3.4	104		1732	-0.7	-21		1749	2.0	61		1853	1.4	43		1642	0.1	3		1731	-0.6	-18
	2216	26.6	811		2301	29.9	911		2322	25.1	765						2214	27.7	844		2325	28.8	878
11 Su	0505	2.0	61	26 M	0546	0.1	3	11 W	0548	5.5	168	26 Th	0102	26.2	799	11 W	0441	4.0	122	26 Th	0540	5.6	171
	1054	28.4	866		1132	31.4	957		1130	27.0	823		0711	7.4	226		1011	28.8	878		1117	28.1	856
	1732	3.5	107		1825	0.1	3		1838	2.9	88		1304	26.7	814		1722	0.8	24		1818	1.8	55
	2301	25.3	771										2001	3.1	94		2258	26.3	802				
12 M	0542	3.7	113	27 Tu	0004	27.8	847	12 Th	0023	23.6	719	27 F	0230	25.2	768	12 Th	0520	5.7	174	27 F	0031	26.8	817
	1137	27.5	838		0637	7.7	235		0841	8.8	268		1052	27.5	838		0636	8.3	253				
	1820	3.8	116		1232	29.8	908		1423	25.2	768		1808	1.8	55		1223	25.4	774				
	2357	23.8	725		1928	1.2	37		1937	3.6	110		2130	3.6	110		2353	24.9	759		1915	3.9	119
13 Tu	0625	5.8	177	28 W	0128	26.0	792	13 F	0144	22.9	698	28 Sa	0354	25.7	783	13 F	0608	7.6	232	28 Sa	0146	25.5	777
	1231	26.4	805		0743	5.8	177		0740	9.4	287		1010	8.1	247		1147	26.1	796		0809	9.5	290
	1918	4.2	128		1342	28.2	860		1339	25.1	765		1543	25.1	765		1901	2.8	85		1344	27.3	722
					2043	1.9	58		2053	3.4	104		2251	2.4	73						2028	5.0	152
14 W	0110	22.7	692	29 Th	0300	25.4	774	14 Sa	0320	23.8	725					14 Sa	0104	24.1	735	29 Su	0313	25.4	774
	0720	7.9	241		0910	9.4	287						0709	9.0	274		0937	8.4	256				
	1339	25.7	783		1456	27.1	826						1255	25.3	771		1511	23.6	719				
	2033	4.0	122		2210	1.4	43						2009	3.3	101		2155	4.7	143				
15 Th	0238	22.7	692	30 F	0419	26.2	799	15 Su	0431	25.6	780					15 Su	0237	24.6	750	30 M	0420	26.5	808
	0843	9.1	277		1031	7.2	219		1025	7.7	235		0833	8.9	271		1043	6.1	186				
	1445	25.8	786		1606	27.0	823		1606	27.6	841		1415	25.7	783		1620	24.8	756				
	2147	2.8	85		2318	0.1	3		2314	0.2	6		2128	2.5	76		2302	3.2	98				
			31 Sa	0520	27.3	832										31 Tu	0508	27.6	841				
				1134	6.0	183											1133	3.9	119				
				1702	27.4	835											1710	26.4	805				
																	2348	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.

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Times and Heights of High and Low Waters

April								May								June							
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				
1 W	0545	28.5	869	16 Th	0512	31.0	945	1 F	0532	28.9	881	16 Sa	0530	31.9	972	1 M	0038	4.5	137	16 Tu	0117	3.5	107
	1215	2.2	67		1154	0.0	0		1221	0.3	9		1233	-2.9	-88		0606	29.6	902		0636	31.0	945
	1750	27.7	844		1727	30.9	942		1803	27.8	847		1809	30.5	930		1310	-1.4	-43		1856	28.4	866	●	1933	29.7	905
2 Th	0027	1.1	34	17 F	0015	-0.7	-21	2 Sa	0030	2.6	79	17 Su	0045	1.4	43	2 Tu	0118	4.5	137	17 W	0201	3.6	110
	0614	29.1	887		0557	32.2	981		0604	29.6	902		0613	32.3	985		0642	30.1	917		0717	30.9	942
	1252	1.2	37		1249	-2.2	-67		1259	-0.5	-15		1322	-3.8	-116		1350	-1.9	-58		1432	-2.6	-79
3 F	1825	28.8	878	18 Sa	1819	32.0	975	3 Su	1838	28.7	875	18 M	1858	31.0	945	3 W	1935	29.0	884	18 Th	2012	29.8	908
	0104	0.8	24		0106	-1.1	-34		0109	2.7	82		0133	1.6	49		0156	4.4	134		0240	3.9	119
	0640	29.8	908		0638	33.0	1006		0637	30.3	924		0654	32.5	991		0718	30.5	930		0757	30.5	930
4 Sa	1327	0.4	12	19 Su	1337	-3.6	-110	4 M	1335	-1.0	-30	19 Tu	1407	-3.9	-119	4 Th	1429	-2.3	-70	19 F	1508	-1.7	-52
	1859	29.6	902		1907	32.6	994		1914	29.4	896		1943	31.1	948		2014	29.3	893		2049	29.7	905
	0139	0.9	27		0152	-1.1	-30		0145	3.1	94		0217	2.1	64		0314	4.2	128		0317	4.2	128
5 Su	0709	30.5	930	20 M	0717	33.5	1021	5 Tu	0740	30.6	933	20 W	0734	32.3	985	5 F	0755	30.4	927	20 Sa	0836	29.7	905
	1400	-0.2	-6		1423	-4.3	-131		1412	-1.5	-46		1448	-3.5	-107		1508	-2.5	-76		1541	-0.9	-27
	1934	30.2	920		1953	32.7	997		1952	29.7	905		2026	31.0	945		2054	29.3	893		2124	29.4	896
6 M	2010	30.3	924	21 Tu	2036	-0.4	-12	6 W	2019	3.5	107	21 Th	0257	2.8	85	6 Sa	0314	4.2	128	21 Su	0351	4.6	140
	0740	30.9	942		0756	33.6	1024		0743	30.7	936		0814	31.7	966		0835	30.0	914		0915	28.5	869
	1433	-0.7	-21		1505	-4.2	-128		1448	-1.7	-52		1527	-2.5	-76		1548	-2.3	-70		1612	-0.1	-3
7 Tu	2010	30.3	924	22 W	2038	32.5	991	7 Th	2030	29.6	902	22 F	2108	30.6	933	7 Su	2133	29.2	890	22 M	2200	28.9	881
	0244	2.0	61		0317	0.8	24		0253	4.0	122		0336	3.8	116		0356	4.2	128		0425	4.8	146
	0811	30.9	942		0836	33.1	1009		0814	30.4	927		0854	30.5	930		0918	29.5	899		0953	27.1	826
8 W	1508	-1.1	-34	23 Th	1546	-3.4	-104	8 F	1525	-1.7	-52	23 Sa	1603	-1.3	-40	8 M	1628	-1.9	-58	23 Tu	1646	0.8	24
	2046	30.0	914		2124	31.7	966		2108	29.2	890		2150	29.9	911		2215	29.1	887		2238	28.4	866
	0314	2.8	85		0356	2.4	73		0327	4.4	134		0413	4.9	149		0442	4.1	125		0503	5.0	152
9 Th	0840	30.5	930	24 F	0917	31.8	969	9 Sa	0848	29.8	908	24 Su	0935	28.8	878	9 Tu	1005	28.7	875	24 W	1034	25.7	783
	1543	-1.1	-34		1625	-2.0	-61		1603	-1.4	-43		1638	0.0	0		1711	-1.3	-40		1723	1.9	58
	2121	29.2	890		2211	30.5	930		2147	28.6	872		2232	28.9	881		2301	29.1	887		2321	27.8	847
10 F	0345	3.7	113	25 Sa	0434	4.3	131	10 Su	0405	5.0	152	25 M	0449	6.0	183	10 W	0531	4.0	122	25 Th	0546	5.1	155
	0910	29.9	911		0959	29.8	908		0927	29.0	884		1017	26.8	817		1058	27.9	850		1123	24.3	741
	1621	-0.7	-21		1703	-0.2	-6		1643	-0.8	-24		1714	1.4	43		1758	-0.3	-9		1805	3.4	104
11 Sa	2159	28.2	860	26 Su	2301	28.9	881	11 M	2230	28.0	853	26 Tu	2317	27.8	847	11 Th	2354	29.2	890	26 F	1805	3.4	104
	0420	4.7	143		0514	6.3	192		0449	5.6	171		0531	6.9	210		0629	3.7	113		0012	27.1	826
	0944	28.9	881		1044	27.2	829		1013	28.0	853		1105	24.8	756		1158	27.0	823		0639	5.1	155
12 Su	1700	0.0	0	27 M	1744	1.8	55	12 Tu	1726	0.0	0	27 W	1755	2.8	85	12 F	1852	1.0	30	27 Sa	1226	23.1	704
	2242	27.2	829		2355	27.3	832		2318	27.6	841		2317	27.8	847		2354	29.2	890		1856	5.2	158
	0500	5.9	180		0601	8.1	247		0449	5.6	171		0531	6.9	210		0629	3.7	113		0012	27.1	826
13 M	1028	27.7	844	28 Tu	1141	24.7	753	13 W	1109	27.0	823	28 Th	1105	24.8	756	13 Sa	1158	27.0	823	28 Su	0639	5.1	155
	1744	1.0	30		1832	3.7	113		1726	0.0	0		1755	2.8	85		1852	1.0	30		1226	23.1	704
	2333	26.2	799		2355	27.3	832		2318	27.6	841		2317	27.8	847		2354	29.2	890		1856	5.2	158
14 Tu	0549	7.2	219	29 W	0601	8.1	247	14 Th	0538	6.1	186	29 F	0008	26.9	820	14 Su	0057	29.3	893	29 M	0111	26.5	808
	1123	26.5	808		1141	24.7	753		0538	6.1	186		0623	7.4	226		0739	3.0	91		0750	4.7	143
	1835	2.0	61		1832	3.7	113		1109	27.0	823		1207	23.2	707		1311	26.4	805		1341	22.6	689
15 W	2333	26.2	799	30 Th	●			15 F	1815	0.9	27	30 Sa	●			15 M	1957	2.3	70	30 Tu	2009	6.7	204
	0549	7.2	219		0601	8.1	247		0538	6.1	186		0623	7.4	226		0739	3.0	91		0750	4.7	143
	1123	26.5	808		1141	24.7	753		1109	27.0	823		1207	23.2	707		1311	26.4	805		1341	22.6	689
16 Th	1835	2.0	61	31 F	●			16 Sa	1815	0.9	27	31 Su	●			16 M	1957	2.3	70	31 Tu	2009	6.7	204
	0037	25.7	783		0056	26.1	796		0016	27.5	838		0104	26.4	805		0208	29.6	902		0212	26.3	802
	0650	8.0	244		0718	9.1	277		0638	6.2	189		0741	7.1	216		0855	1.6	49		0908	3.5	107
17 F	1230	25.7	783	1 M	1258	23.0	701	1 Tu	1212	26.3	802	1 W	1321	22.5	686	1 Th	1442	26.4	805	1 F	1503	23.0	701
	1938	2.7	82		1935	5.1	155		1914	1.8	55		1954	5.4	165		2107	3.1	94		2125	7.1	216
	0037	25.7	783		0056	26.1	796		0016	27.5	838		0104	26.4	805		0208	29.6	902		0212	26.3	802
18 Sa	0037	25.7	783	2 Tu	0718	9.1	277	2 W	0638	6.2	189	2 Th	0741	7.1	216	2 F	0855	1.6	49	2 Sa	0908	3.5	107
	1230	25.7	783		1258	23.0	701		1212	26.3	802		1321	22.5	686		1442	26.4	805		1503	23.0	701
	1938	2.7	82		1935	5.1	155		1914	1.8	55		1954	5.4	165		2107	3.1	94		2125	7.1	216
19 Su	0037	25.7	783	3 W	0203	25.6	780	3 Th	0128	27.8	847	3 F	0204	26.3	802	3 Sa	0314	30.1	917	3 Su	0311	26.5	808
	0650	8.0	244		0848	8.2	250		0755	5.4	165		0900	5.5	168		1011	0.0	0		1012	2.0	61
	1230	25.7	783		1419	22.7	692		1327	26.2	799		1439	22.8	695		1603	27.3	832		1623	24.2	738
20 M	1938	2.7	82	4 Th	2047	5.4	165	4 F	2025	2.2	67	4 Sa	2106	5.6	171	4 M	2218	3.6	110	4 Tu	2226	6.9	210
	0159	26.1	796		0319	26.1	796		0242	28.8	878		0305	26.7	814		0414	30.5	930		0405	27.1	826
	0810	7.6	232		0958	5.9	180		0916	3.4	104		1003	3.4	104		1121	-1.7	-52		1108	0.7	21
21 Tu	1347	25.9	789	5 Th	1544	23.7	722	5 F	1455	27.0	823	5 Sa	1603	23.9	728								

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, 2015

Times and Heights of High and Low Waters

July						August						September					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 W ○	0052	5.2	158			16 Th	0146	3.8	116			1 Su	0235	2.6	79		
	0617	29.9	911				0703	30.0	914				0759	30.1	917		
	1328	-2.2	-67				1414	-1.9	-58				1451	-0.1	-3		
	1915	28.8	878				1954	29.2	890				2023	29.9	911		
2 Th	0136	4.4	134			17 F	0223	3.8	116			17 M	0306	2.2	67		
	0659	30.6	933				0742	30.0	914				0834	29.8	908		
	1411	-2.9	-88				1447	-1.2	-37				1521	0.3	9		
	1955	29.4	896				2024	29.3	893				2053	30.1	917		
3 F	0219	3.6	110			18 Sa	0257	3.7	113			18 Tu	0337	1.7	52		
	0741	31.0	945				0819	29.7	905				0908	29.2	890		
	1452	-3.4	-104				1517	-0.6	-18				1551	1.1	34		
	2034	29.9	911				2055	29.4	896				2124	29.9	911		
4 Sa	0303	2.8	85			19 Su	0329	3.6	110			19 W	0411	1.4	43		
	0825	31.0	945				0855	29.0	884				0943	28.3	863		
	1531	-3.1	-104				1547	-0.1	-3				1622	2.2	67		
	2114	30.2	920				2126	29.3	893				2156	29.3	893		
5 Su	0347	2.2	67			20 M	0401	3.3	101			20 Th	0449	1.3	40		
	0910	30.7	936				0930	28.0	853				1021	27.1	826		
	1614	-3.1	-94				1619	0.6	18				1655	3.7	113		
	2155	30.6	933				2200	29.1	887				2230	28.3	863		
6 M	0433	1.6	49			21 Tu	0437	3.0	91			21 F	0530	1.7	52		
	0957	30.1	917				1007	26.9	820				1106	25.6	780		
	1655	-2.3	-70				1652	1.6	49				1732	5.6	171		
	2239	30.8	939				2237	28.6	872				2310	27.0	823		
7 Tu	0521	1.3	40			22 W	0516	2.9	88			22 Sa	0616	2.6	79		
	1047	29.2	890				1049	25.7	783				1205	24.0	732		
	1740	-0.9	-27				1728	3.2	98				1817	7.8	238		
	2328	30.7	936				2317	27.7	844								
8 W ●	0615	1.1	34			23 Th	0601	3.1	94			23 Su	0003	25.5	777		
	1145	27.9	850				1140	24.3	741				0710	3.5	107		
	1830	1.0	30				1809	5.2	158				1328	23.2	707		
9 Th	0026	30.3	924			24 F	0007	26.6	811				1915	9.6	293		
	0718	1.1	34				0653	3.5	107			24 M	0115	24.6	750		
	1258	26.6	811				1250	23.1	704				0821	3.8	116		
	1931	3.1	94				1859	7.4	226				1456	23.8	725		
10 F	0134	29.7	905			25 Sa	0112	25.6	780			25 Tu	0235	25.0	762		
	0831	0.7	21				0801	3.7	113				0940	2.9	88		
	1431	26.0	792				1413	22.7	692				1609	25.4	774		
	2043	4.7	143				2016	9.0	274				2208	8.4	256		
11 Sa	0244	29.3	893			26 Su	0220	25.3	771			26 W	0344	26.5	808		
	0950	0.0	0				0920	3.0	91				1047	1.3	40		
	1554	26.6	811				1539	23.6	719				1702	27.3	832		
	2200	5.5	168				2144	8.8	268				2308	6.2	189		
12 Su	0351	29.1	887			27 M	0323	25.8	786			27 Th	0444	28.6	872		
	1105	-1.2	-37				1026	1.8	55				1146	-0.4	-12		
	1702	27.6	841				1644	25.1	765				1746	29.0	884		
	2317	5.3	162				2244	7.8	238								
13 M	0449	29.2	890			28 Tu	0419	27.0	823			28 F	0005	4.0	122		
	1204	-2.3	-70				1124	0.4	12				0536	30.7	936		
	1757	28.4	866				1731	26.7	814				1239	-2.0	-61		
14 Tu	0015	4.6	140				2337	6.4	195				1827	30.5	930		
	0539	29.5	899			29 W	0509	28.6	872			29 Sa	0057	1.8	55		
	1253	-2.7	-82				1217	-1.0	-30				0624	32.3	985		
	1842	28.8	878				1813	28.1	856				1326	-3.1	-94		
15 W ●	0103	4.1	125			30 Th	0028	5.0	152				1905	31.7	966		
	0623	29.7	905				0556	30.1	917			30 Su	0146	-0.2	-6		
	1336	-2.5	-76				1305	-2.3	-70				0711	33.3	1015		
	1920	29.0	884				1853	29.3	893				1411	-3.7	-113		
													1944	32.6	994		
						31 F	0116	3.4	104			31 M	0233	-1.7	-52		
							0641	31.4	957				0757	33.6	1024		
							1350	-3.4	-104				1454	-3.7	-113		
							1932	30.3	924				2022	33.3	1015		

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, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0344	-4.0	-122	16 F	0326	-0.5	-15	1 Tu	0501	0.9	27
	0915	32.9	1003		0906	29.6	902		1059	28.8	878
	1556	0.3	9		1530	4.5	137		1723	6.4	195
	2118	33.6	1024		2050	30.0	914		2251	26.1	796
2 F	0428	-3.0	-91	17 Sa	0402	-0.1	-3	2 W	0540	2.6	79
	1005	31.6	963		0942	28.6	872		1148	27.7	844
	1638	2.5	76		1603	5.5	168		1812	7.2	219
	2203	32.0	975		2123	28.9	881	3 Th	2348	24.1	735
3 Sa	0511	-1.3	-40	18 Su	0440	0.6	18	3 Th	0627	4.3	131
	1101	29.9	911		1022	27.4	835		1242	26.8	817
	1724	5.0	152		1641	6.7	204		1919	7.3	223
	2253	29.5	899		2204	27.5	838	4 F	0059	22.9	698
4 Su	0559	0.9	27	19 M	0521	1.5	46		0726	5.8	177
	1207	28.1	856		1111	26.3	802		1341	26.4	805
	1820	7.5	229		1727	7.9	241		2036	6.1	186
5 M	2357	26.8	817		2256	26.1	796	5 Sa	0219	22.7	692
	0654	3.1	94	20 Tu	0609	2.6	79		0836	6.5	198
	1321	26.8	817		1210	25.7	783		1443	26.5	808
	1942	8.8	268	21 W	0623	8.7	265		2143	4.2	128
6 Tu	0120	24.8	756		0001	25.1	765	6 Su	0353	23.8	725
	0804	4.6	140		0705	3.4	104		0943	6.3	192
	1442	26.5	808		1327	25.9	789		1542	27.2	829
	2108	8.0	244		1934	8.5	259		2241	2.1	64
7 W	0246	24.5	747	22 Th	0115	25.1	765	7 M	0452	25.4	774
	0929	4.7	143		0816	3.5	107		1043	5.7	174
	1553	27.3	832		1447	27.2	829		1631	28.0	853
	2219	5.8	177		2103	6.6	201		2331	0.5	15
8 Th	0358	25.4	774	23 F	0238	26.4	805	8 Tu	0535	26.8	817
	1042	3.6	110		0929	2.6	79		1136	5.2	158
	1647	28.4	866		1550	29.1	887		1713	28.8	878
	2314	3.6	110		2217	3.6	110	9 W	0016	-0.6	-18
9 F	0452	26.8	817	24 Sa	0356	28.5	869		0611	27.8	847
	1132	2.5	76		1036	1.4	43		1221	4.9	149
	1727	29.1	887		1642	31.0	945		1751	29.5	899
	2359	1.9	58		2322	0.8	24	10 Th	0057	-1.2	-37
10 Sa	0536	28.1	856	25 Su	0459	30.5	930		0645	28.6	872
	1212	1.8	55		1139	0.4	12		1302	4.8	146
	1759	29.7	905		1728	32.5	991		1828	30.1	917
11 Su	0038	0.9	27	26 M	0020	-1.6	-49	11 F	0135	-1.6	-49
	0612	29.1	887		0552	32.0	975		0721	29.2	890
	1248	1.7	52		1235	-0.2	-6		1341	4.7	143
	1825	30.2	920		1810	33.5	1021	12 Sa	1904	30.5	930
12 M	0113	0.4	12	27 Tu	0111	-3.3	-101		0213	-1.8	-55
	0645	29.9	911		0642	32.8	1000		0759	29.6	902
	1322	1.8	55		1325	-0.4	-12		1419	4.6	140
13 Tu	1851	30.7	936		1850	34.2	1042		1940	30.6	933
	0147	0.0	0	28 W	0159	-4.3	-131	13 Su	0250	-1.9	-58
	0719	30.4	927		0729	33.1	1009		0836	29.6	902
	1355	2.1	64		1411	0.0	0		1457	4.5	137
	1920	31.1	948		1931	34.4	1049		2017	30.3	924
14 W	0219	-0.3	-9	29 Th	0244	-4.5	-137	14 M	0328	-1.8	-55
	0754	30.5	930		0815	32.9	1003		0914	29.5	899
	1427	2.8	85		1454	0.8	24		1537	4.5	137
	1951	31.2	951		2012	34.1	1039		2057	29.6	902
15 Th	0252	-0.5	-15	30 F	0326	-4.0	-122	15 Tu	0406	-1.4	-43
	0830	30.2	920		0901	32.4	988		0951	29.3	893
	1459	3.6	110		1537	2.1	64		1619	4.5	137
	2021	30.8	939		2054	33.0	1006		2141	28.9	881
				31 Sa	0408	-2.7	-82	30 M	0425	-0.8	-24
					0949	31.4	957		1014	30.0	914
					1619	3.8	116		1641	5.3	162
					2139	31.2	951		2204	28.4	866
								31 Th	0507	1.7	52
									1059	28.4	866
									1732	4.9	149
									2306	25.2	768

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Times and Heights of High and Low Waters

Kodiak, Alaska, 2015

Times and Heights of High and Low Waters

July				August				September															
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									
1 W ○	0035	9.5	290	16 Th	0127	9.5	290	1 Sa	0149	10.1	308	16 Su	0226	8.8	268	1 Tu	0313	9.4	287	16 W	0314	8.0	244
	0727	-1.3	-40		0812	-1.3	-40		0824	-2.0	-61		0849	-0.4	-12		0919	-0.9	-27		0911	1.1	34
	1355	7.0	213		1443	7.5	229		1449	8.3	253		1509	8.0	244		1537	9.7	296		1521	8.6	262
	1910	2.0	61		2002	1.8	55		2028	0.6	18		2056	1.2	37		2149	-0.8	-24		2138	0.6	18
2 Th	0118	9.8	299	17 F	0206	9.3	283	2 Su	0236	10.0	305	17 M	0259	8.5	259	2 W	0402	8.7	265	17 Th	0349	7.5	229
	0806	-1.8	-55		0846	-1.2	-37		0904	-1.9	-58		0917	0.0	0		1001	-0.2	-6		0940	1.6	49
	1435	7.4	226		1516	7.6	232		1528	8.7	265		1535	8.0	244		1620	9.6	293		1552	8.5	259
	1955	1.7	52		2041	1.8	55		2116	0.3	9		2130	1.2	37		2241	-0.5	-15		2215	0.7	21
3 F	0202	10.0	305	18 Sa	0243	9.0	274	3 M	0323	9.5	290	18 Tu	0333	8.1	247	3 Th	0455	7.8	238	18 F	0427	7.0	213
	0846	-2.0	-61		0919	-0.9	-27		0945	-1.5	-46		0946	0.4	12		1045	0.7	21		1012	2.0	61
	1515	7.7	235		1547	7.6	232		1610	8.9	271		1604	8.0	244		1706	9.3	283		1626	8.3	253
	2041	1.5	46		2119	1.8	55		2206	0.2	6		2206	1.3	40		2338	-0.1	-3		2257	1.0	30
4 Sa	0247	9.8	299	19 Su	0319	8.6	262	4 Tu	0413	8.8	268	19 W	0409	7.5	229	4 F	0554	6.9	210	19 Sa	0510	6.4	195
	0926	-2.0	-61		0950	-0.5	-15		1027	-0.9	-27		1016	0.9	27		1134	1.6	49		1048	2.6	79
	1556	7.9	241		1618	7.6	232		1653	8.9	271		1635	8.0	244		1759	8.7	265		1706	8.0	244
	2129	1.3	40		2158	1.9	58		2300	0.3	9		2246	1.4	43		2246	1.4	43		2347	1.2	37
5 Su	0333	9.4	287	20 M	0356	8.1	247	5 W	0506	7.9	241	20 Th	0448	6.9	210	5 Sa	0044	0.5	15	20 Su	0605	5.9	180
	1008	-1.7	-52		1022	0.0	0		1111	-0.1	-3		1048	1.5	46		0708	6.1	186		1133	3.0	91
	1639	8.0	244		1650	7.5	229		1741	8.8	268		1710	7.8	238		1233	2.4	73		1756	7.7	235
	2220	1.3	40		2238	2.0	61		2331	1.6	49		2331	1.6	49		1901	8.2	250		1901	8.2	250
6 M	0423	8.8	268	21 Tu	0434	7.4	226	6 Th	0001	0.5	15	21 F	0532	6.2	189	6 Su	0203	0.9	27	21 M	0049	1.4	43
	1052	-1.2	-37		1055	0.5	15		0606	6.9	210		1123	2.1	64		0842	5.8	177		0718	5.5	168
	1725	8.1	247		1724	7.5	229		1200	0.8	24		1751	7.7	235		1349	3.0	91		1236	3.4	104
	2317	1.3	40		2323	2.1	64		1833	8.6	262						2015	7.8	238		1901	7.5	229
7 Tu	0517	7.9	241	22 W	0516	6.7	204	7 F	0110	0.7	21	22 Sa	0025	1.8	55	7 M	0329	0.9	27	22 Tu	0205	1.4	43
	1138	-0.5	-15		1129	1.1	34		0719	6.0	183		0628	5.6	171		1012	6.0	183		0847	5.6	171
	1815	8.2	250		1802	7.4	226		1257	1.7	52		1207	2.6	79		1520	3.1	94		1400	3.5	107
									1934	8.4	256		1841	7.5	229		2136	7.7	235		2019	7.4	226
8 W ○	0021	1.3	40	23 Th	0014	2.2	67	8 Sa	0231	0.8	24	23 Su	0132	1.8	55	8 Tu	0439	0.7	21	23 W	0323	1.0	30
	0619	7.0	213		0605	6.0	183		0851	5.6	171		0743	5.2	158		1117	6.4	195		1005	6.1	186
	1229	0.3	9		1208	1.7	52		1405	2.4	73		1306	3.1	94		1637	2.8	85		1527	3.0	91
	1909	8.3	253		1846	7.4	226		2042	8.3	253		1943	7.5	229		2246	7.9	241		2137	7.8	238
9 Th	0134	1.2	37	24 F	0116	2.2	67	9 Su	0354	0.6	18	24 M	0251	1.6	49	9 W	0533	0.4	12	24 Th	0427	0.5	15
	0732	6.2	189		0706	5.4	165		1025	5.7	174		0918	5.2	158		1204	6.9	210		1100	6.9	210
	1326	1.1	34		1255	2.3	70		1525	2.7	82		1424	3.3	101		1734	2.3	70		1637	2.2	67
	2007	8.4	256		1936	7.4	226		2153	8.3	253		2054	7.7	235		2340	8.1	247		2245	8.3	253
10 F	0254	0.9	27	25 Sa	0228	2.0	61	10 M	0502	0.2	6	25 Tu	0406	1.0	30	10 Th	0615	0.2	6	25 F	0520	-0.1	-3
	0859	5.7	174		0825	5.0	152		1135	6.1	186		1040	5.6	171		1241	7.4	226		1145	7.8	238
	1430	1.7	52		1353	2.7	82		1639	2.7	82		1544	3.0	91		1818	1.8	55		1734	1.1	34
	2110	8.5	259		2034	7.6	232		2257	8.5	259		2203	8.1	247						2344	8.9	271
11 Sa	0410	0.4	12	26 Su	0343	1.6	49	11 Tu	0556	-0.2	-6	26 W	0505	0.2	6	11 F	0024	8.4	256	26 Sa	0606	-0.5	-15
	1029	5.7	174		0955	5.1	155		1228	6.6	201		1136	6.3	192		0649	0.1	3		1225	8.7	265
	1539	2.1	64		1501	3.0	91		1739	2.4	73		1651	2.5	76		1311	7.8	238		1825	0.1	3
	2211	8.8	268		2134	7.9	241		2351	8.7	265		2304	8.7	265		1855	1.3	40				
12 Su	0515	-0.2	-6	27 M	0446	0.9	27	12 W	0639	-0.5	-15	27 Th	0554	-0.5	-15	12 Sa	0102	8.6	262	27 Su	0037	9.3	283
	1142	6.1	186		1112	5.5	168		1309	7.0	213		1220	7.0	213		0720	0.1	3		0648	-0.7	-21
	1646	2.3	70		1610	2.9	88		1828	2.0	61		1748	1.7	52		1338	8.1	247		1305	9.5	290
	2308	9.1	277		2232	8.4	256						2359	9.3	283		●	1929	1.0		30	○	1912	-0.8	-24
13 M	0608	-0.7	-21	28 Tu	0538	0.1	3	13 Th	0036	8.9	271	28 F	0637	-1.1	-34	13 Su	0136	8.6	262	28 M	0126	9.6	293
	1239	6.5	198		1207	6.0	183		0717	-0.7	-21		1300	7.8	238		0748	0.2	6		0730	-0.7	-21
	1744	2.2	67		1710	2.6	79		1344	7.4	226		1838	0.8	24		1403	8.4	256		1344	10.1	308
					2326	9.0	274		1910	1.7	52						2001	0.7	21		1958	-1.4	-43
14 Tu	0000	9.3	283	29 W	0623	-0.7	-21	14 F	0116	9.0	274	29 Sa	0049	9.8	299	14 M	0209	8.5	259	29 Tu	0215	9.5	290
	0654	-1.1	-34		1251	6.6	201		0750	-0.7	-21		0718	-1.5	-46		0815	0.4	12		0811	-0.4	-12
	1326	6.9	210		1804	2.1	64		1414	7.7	235		1338	8.6	262		1427	8.5	259		1424	10.4	317
	1835	2.1	64		●	1947	1.5		46	●	1926		0.1	3	○		1926	0.1	3		2032	0.5	15	2045	-1.6	-49
15 W ●	0046	9.5	290	30 Th	0015	9.5	290	15 Sa	0152	9.0	274	30 Su	0137	10.0	305	15 Tu	0241	8.3	253	30 W	0303	9.1	277
	0735	-1.3	-40		0704	-1.4	-43		0820	-0.6	-18		0758	-1.6	-49		0843	0.7	21		0852	0.1	3
	1406	7.2	219		1331	7.3	223		1442	7.9	241		1417	9.2	280		1453	8.6	262		1505	10.4	317
	1920	1.9	58		1853	1.5	46		2022	1.3	40		2013	-0.5	-15		2104	0.5	15		2132	-1.5	-46
				31 F ○	0103	9.9	302					31 M	0225	9.8	299								
			0744		-1.8	-55				0838	-1.4		-43										
			1410		7.8	238				1456	9.6		293										
			1940		1.0	30				2101	-0.8		-24										

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, 2015

Times and Heights of High and Low Waters

October						November						December					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 Th	0352	8.5	259			16 F	0335	7.6	232			1 Tu	0557	7.5	229		
	0935	0.8	24				0911	2.2	67				1125	3.3	101		
	1548	10.1	308				1517	9.1	277				1717	7.9	241		
	2221	-1.0	-30				2152	0.1	3				2359	0.9	27		
2 F	0444	7.8	238			17 Sa	0413	7.2	219			2 W	0651	7.3	223		
	1020	1.6	49				0945	2.6	79				1230	3.5	107		
	1634	9.5	290				1552	8.8	268				1814	7.0	213		
	2314	-0.4	-12				2233	0.4	12								
3 Sa	0543	7.1	216			18 Su	0458	6.7	204			3 Th	0051	1.5	46		
	1111	2.4	73				1024	3.0	91				0748	7.3	223		
	1725	8.8	268				1633	8.4	256				1349	3.5	107		
							2321	0.7	21				1924	6.4	195		
4 Su	0015	0.4	12			19 M	0552	6.4	195			4 F	0147	2.1	64		
	0654	6.5	198				1114	3.4	104				0844	7.4	226		
	1212	3.1	94				1724	8.0	244				1512	3.1	94		
	1827	8.0	244										2047	6.0	183		
5 M	0127	1.0	30			20 Tu	0018	0.9	27			5 Sa	0247	2.5	76		
	0821	6.3	192				0659	6.2	189				0935	7.7	235		
	1334	3.5	107				1221	3.6	110				1618	2.5	76		
	1943	7.4	226				1830	7.5	229				2209	6.0	183		
6 Tu	0249	1.3	40			21 W	0126	1.1	34			6 Su	0344	2.7	82		
	0943	6.4	195				0816	6.3	192				1019	8.1	247		
	1511	3.4	104				1346	3.5	107				1708	1.8	55		
	2110	7.1	216				1950	7.3	223				2314	6.3	192		
7 W	0401	1.3	40			22 Th	0239	1.1	34			7 M	0434	2.8	85		
	1044	6.9	210				0926	6.9	210				1058	8.6	262		
	1627	2.9	88				1512	2.8	85				1749	1.1	34		
	2225	7.2	219				2113	7.4	226								
8 Th	0456	1.2	37			23 F	0345	0.8	24			8 Tu	0004	6.6	201		
	1128	7.3	223				1021	7.7	235				0519	2.9	88		
	1720	2.2	67				1624	1.8	55				1134	9.1	277		
	2322	7.5	229				2227	7.8	238				1825	0.5	15		
9 F	0538	1.1	34			24 Sa	0442	0.6	18			9 W	0047	7.0	213		
	1202	7.8	238				1109	8.6	262				0600	2.8	85		
	1801	1.6	49				1721	0.6	18				1210	9.5	290		
							2330	8.3	253				1900	0.0	0		
10 Sa	0007	7.8	238			25 Su	0532	0.4	12			10 Th	0125	7.3	223		
	0613	1.0	30				1152	9.5	290				0638	2.8	85		
	1231	8.2	250				1812	-0.4	-12				1246	9.8	299		
	1837	1.0	30										1934	-0.5	-15		
11 Su	0045	8.0	244			26 M	0026	8.7	265			11 F	0201	7.6	232		
	0643	1.0	30				0618	0.3	9				0716	2.7	82		
	1257	8.6	262				1233	10.2	311				1322	10.1	308		
	1909	0.6	18				1859	-1.3	-40				2008	-0.8	-24		
12 M	0120	8.1	247			27 Tu	0117	8.9	271			12 Sa	0237	7.7	235		
	0712	1.1	34				0702	0.4	12				0754	2.7	82		
	1322	8.9	271				1315	10.8	329				1359	10.1	308		
	1940	0.2	6				1945	-1.8	-55				2044	-1.0	-30		
13 Tu	0153	8.2	250			28 W	0206	9.0	274			13 Su	0314	7.8	238		
	0741	1.3	40				0745	0.7	21				0834	2.6	79		
	1348	9.2	280				1356	11.0	335				1437	10.0	305		
	2010	0.0	0				2030	-2.0	-61				2121	-1.0	-30		
14 W	0226	8.1	247			29 Th	0254	8.8	268			14 M	0353	7.8	238		
	0810	1.6	49				0828	1.1	34				0916	2.6	79		
	1416	9.3	283				1438	10.8	329				1518	9.7	296		
	2042	-0.1	-3				2116	-1.8	-55				2201	-0.9	-27		
15 Th	0259	7.9	241			30 F	0343	8.4	256			15 Tu	0435	7.8	238		
	0839	1.9	58				0913	1.7	52				1002	2.7	82		
	1445	9.2	280				1521	10.4	317				1602	9.2	280		
	2116	0.0	0				2202	-1.2	-37				2243	-0.5	-15		
						31 Sa	0434	7.9	241			31 Th	0555	7.8	238		
							0959	2.3	70				1146	3.0	91		
							1606	9.7	296				1732	7.2	219		
							2251	-0.5	-15				2355	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.

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.

Times and Heights of High and Low Waters

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.

Times and Heights of High and Low Waters

October										November										December										
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						
1 Th	0355	12.5	381		16 F	0337	11.0	335		1 Su	0523	10.6	323		16 M	0445	10.5	320		1 Tu	0551	10.4	317		16 W	0516	11.2	341		
	0956	1.1	34																											
	1553	13.8	421																											
	2240	-1.6	-49																											
2 F	0444	11.4	347		17 Sa	0414	10.5	320		2 M	0001	0.2	6		17 Tu	0534	10.1	308		2 W	0014	1.1	34		17 Th	0606	11.1	338		
	1039	2.2	67																											
	1637	12.7	387																											
	2332	-0.6	-18																											
3 Sa	0539	10.3	314		18 Su	0456	9.9	302		3 Tu	0101	1.3	40		18 W	0007	0.8	24		3 Th	0105	2.1	64		18 F	0034	1.1	34		
	1127	3.4	104																											
	1726	11.5	351																											
4 Su	0032	0.5	15		19 M	0548	9.3	283		4 W	0211	2.1	64		19 Th	0108	1.4	43		4 F	0202	3.0	91		19 Sa	0133	2.0	61		
	0647	9.3	283																											
	1228	4.4	134																											
	1828	10.3	314																											
5 M	0144	1.4	43		20 Tu	0032	1.6	49		5 Th	0322	2.5	76		20 F	0215	1.8	55		5 Sa	0303	3.5	107		20 Su	0239	2.7	82		
	0812	8.8	268																											
	1357	4.9	149																											
	1952	9.4	287																											
6 Tu	0307	1.8	55		21 W	0144	1.8	55		6 F	0422	2.7	82		21 Sa	0323	2.0	61		6 Su	0402	3.8	116		21 M	0349	3.1	94		
	0935	8.9	271																											
	1543	4.6	140																											
	2127	9.2	280																											
7 W	0419	1.8	55		22 Th	0259	1.7	52		7 Sa	0509	2.7	82		22 Su	0426	2.0	61		7 M	0453	3.9	119		22 Tu	0455	3.2	98		
	1039	9.4	287																											
	1655	3.8	116																											
	2241	9.5	290																											
8 Th	0514	1.6	49		23 F	0407	1.3	40		8 Su	0548	2.7	82		23 M	0522	1.9	58		8 Tu	0010	9.4	287		23 W	0019	10.3	314		
	1125	10.1	308																											
	1744	2.9	88																											
	2334	10.1	308																											
9 F	0557	1.4	43		24 Sa	0504	0.9	27		9 M	0033	10.3	314		24 Tu	0026	11.3	344		9 W	0050	10.0	305		24 Th	0109	11.0	335		
	1202	10.7	326																											
	1823	2.0	61																											
10 Sa	0017	10.6	323		25 Su	0554	0.5	15		10 Tu	0109	10.8	329		25 W	0116	11.9	363		10 Th	0127	10.6	323		25 F	0154	11.5	351		
	0632	1.3	40																											
	1234	11.4	347																											
	1856	1.3	40																											
11 Su	0054	11.1	338		26 M	0036	12.3	375		11 W	0143	11.1	338		26 Th	0202	12.2	372		11 F	0203	11.1	338		26 Sa	0237	11.8	360		
	0703	1.3	40																											
	1304	11.9	363																											
	1927	0.6	18																											
12 M	0128	11.4	347		27 Tu	0125	12.8	390		12 Th	0217	11.3	344		27 F	0247	12.3	375		12 Sa	0238	11.3	344		27 Su	0317	11.9	363		
	0732	1.5	46																											
	1331	12.3	375																											
	1957	0.1	3																											
13 Tu	0200	11.6	354		28 W	0211	13.0	396		13 F	0251	11.4	347		28 Sa	0331	12.0	366		13 Su	0314	11.5	351		28 M	0356	11.7	357		
	0800	1.7	52																											
	1358	12.5	381																											
	2028	-0.2	-6																											
14 W	0232	11.6	354		29 Th	0257	12.8	390		14 Sa	0325	11.2	341		29 Su	0415	11.6	354		14 M	0351	11.5	351		29 Tu	0434	11.4	347		
	0828	2.1	64																								</			

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, 2015

Times and Heights of High and Low Waters

January						February						March																	
Time		Height				Time		Height				Time		Height				Time		Height									
1 Th	h	m	ft	cm	16 F	h	m	ft	cm	1 Su	h	m	ft	cm	16 M	h	m	ft	cm	1 Su	h	m	ft	cm	16 M	h	m	ft	cm
	0455	3.2	98	0346		3.7	113	0128	6.1		186	0046	5.9	180		0021	5.6	171	0431		3.2	98							
	1111	8.1	247	1019		7.5	229	0638	3.4		104	0548	3.1	94		0538	3.4	104	1030		6.9	210							
	1820	-0.1	-3			1749	0.5	15			1232	7.7	235			1149	8.0	244			1132	6.8	207			1735	0.1	3	
												-0.3	-9			1853	-0.7	-21			1827	0.4	12						
2 F	0052	5.9	180		17 Sa	0027	5.4	165		2 M	0204	6.4	195		17 Tu	0125	6.6	201		2 M	0101	6.0	183		17 Tu	0010	6.1	186	
	0554	3.3	101			0500	3.7	113			0722	3.1	94			0644	2.5	76			0628	3.0	91			0540	2.5	76	
	1158	8.2	250			1113	7.9	241			1313	7.8	238			1243	8.4	256			1221	7.0	213			1138	7.4	226	
	1905	-0.5	-15			1834	-0.2	-6			2005	-0.4	-12		1935	-1.1	-34		1906	0.3	9		1824	-0.3	-3				
3 Sa	0140	6.3	192		18 Su	0113	6.0	183		3 Tu ○	0236	6.6	201		18 W ●	0203	7.1	216		3 Tu	0134	6.3	192		18 W	0050	6.8	207	
	0645	3.3	101			0601	3.4	104			0800	2.9	88			0735	1.8	55			0709	2.5	76			0635	1.6	49	
	1242	8.3	253			1204	8.4	256			1349	7.7	235			1334	8.7	265			1303	7.1	216			1236	7.8	238	
	1945	-0.7	-21			1916	-0.9	-27			2037	-0.3	-9		2016	-1.2	-37		1939	0.2	6		1908	-0.5	-15				
4 Su ○	0222	6.5	198		19 M	0153	6.5	198		4 W	0306	6.7	204		19 Th	0240	7.6	232		4 W	0203	6.6	201		19 Th	0128	7.4	226	
	0730	3.3	101			0654	3.1	94			0834	2.6	79			0823	1.2	37			0745	2.1	64			0724	0.7	21	
	1321	8.3	253			1252	8.8	268			1423	7.6	232			1424	8.6	262			1340	7.2	219			1329	8.0	244	
	2023	-0.8	-24			1957	-1.3	-40			2106	-0.1	-3		2056	-1.0	-30		2009	0.3	9		1949	-0.5	-15				
5 M	0259	6.7	204		20 Tu ●	0232	6.9	210		5 Th	0334	6.9	210		20 F	0317	8.0	244		5 Th ○	0229	6.8	207		20 F	0205	7.9	241	
	0810	3.2	98			0743	2.7	82			0908	2.4	73			0912	0.7	21			0817	1.8	55			0812	0.0	0	
	1358	8.1	247			1340	9.0	274			1456	7.4	226			1513	8.3	253			1414	7.2	219			1420	8.0	244	
	2057	-0.7	-21			2038	-1.5	-46			2132	0.1	3		2135	-0.6	-18		2037	0.4	12		2030	-0.2	-6				
6 Tu	0334	6.7	204		21 W	0310	7.3	223		6 F	0400	6.9	210		21 Sa	0355	8.2	250		6 F	0253	6.9	210		21 Sa	0242	8.3	253	
	0848	3.2	98			0832	2.3	70			0941	2.3	70			1002	0.5	15			0849	1.5	46			0859	-0.5	-15	
	1433	7.9	241			1428	8.9	271			1528	7.1	216			1604	7.8	238			1446	7.0	213			1510	7.8	238	
	2129	-0.5	-15			2118	-1.5	-46			2158	0.5	15		2214	0.0	0		2102	0.6	18		2109	0.2	6				
7 W	0407	6.8	207		22 Th	0349	7.6	232		7 Sa	0425	6.9	210		22 Su	0435	8.2	250		7 Sa	0317	7.0	213		22 Su	0320	8.4	256	
	0924	3.2	98			0922	2.0	61			1015	2.2	67			1054	0.4	12			0919	1.3	40			0946	-0.7	-21	
	1506	7.6	232			1516	8.6	262			1601	6.7	204			1657	7.0	213			1519	6.8	207			1600	7.3	223	
	2200	-0.1	-3			2158	-1.1	-34			2222	0.9	27		2255	0.8	24		2126	1.0	30		2149	0.8	24				
8 Th	0439	6.8	207		23 F	0429	7.8	238		8 Su	0450	6.9	210		23 M	0516	8.1	247		8 Su	0339	7.1	216		23 M	0358	8.3	253	
	1001	3.1	94			1015	1.8	55			1052	2.2	67			1151	0.6	18			0951	1.1	34			1035	-0.7	-21	
	1540	7.2	219			1607	8.0	244			1637	6.2	189			1756	6.2	189			1552	6.5	198			1652	6.7	204	
	2229	0.3	9			2239	-0.5	-15			2247	1.4	43		2337	1.7	52		2149	1.3	40		2229	1.5	46				
9 F	0511	6.7	204		24 Sa	0511	7.9	241		9 M	0516	6.9	210		24 Tu	0602	7.7	235		9 M	0402	7.1	216		24 Tu	0439	8.0	244	
	1041	3.1	94			1111	1.6	49			1135	2.2	67			1255	0.8	24			1025	1.1	34			1126	-0.3	-9	
	1615	6.7	204			1701	7.2	219			1719	5.6	171			1908	5.4	165			1627	6.1	186			1749	6.0	183	
	2257	0.8	24			2321	0.3	9			2314	2.0	61						2214	1.8	55		2312	2.2	67				
10 Sa	0542	6.7	204		25 Su	0556	7.9	241		10 Tu	0548	6.9	210		25 W ○	0025	2.5	76		10 Tu	0428	7.1	216		25 W	0522	7.5	229	
	1126	3.1	94			1215	1.6	49			1227	2.1	64			0655	7.3	223			1103	1.1	34			1223	0.1	3	
	1654	6.2	189			1803	6.3	192			1811	5.1	155			1410	1.0	30			1708	5.6	171			1855	5.5	168	
	2326	1.3	40							2347	2.5	76		2038	5.0	152		2242	2.2	67									
11 Su	0615	6.7	204		26 M ○	0005	1.2	37		11 W ○	0627	6.8	207		26 Th	0130	3.2	98		11 W	0500	7.0	213		26 Th ○	0002	2.9	88	
	1219	3.1	94			0645	7.8	238			1334	2.1	64			0801	6.9	210			1149	1.1	34			0612	6.9	210	
	1741	5.5	168			1327	1.5	46			1928	4.6	140			1529	1.0	30			1759	5.1	155			1330	0.6	18	
	2357	1.9	58			1920	5.5	168		○				2212	5.0	152		2316	2.7	82		○	2016	5.1	155				
12 M	0651	6.7	204		27 Tu	0056	2.1	64		12 Th	0029	3.1	94		27 F	0303	3.7	113		12 Th	0539	6.9	210		27 F	0112	3.4	104	
	1326	3.0	91			0740	7.6	232			0717	6.8	207			0918	6.7	204			1247	1.2	37			0717	6.3	192	
	1842	5.0	152			1446	1.4	43			1458	1.8	55			1641	0.8	24			1911	4.7	143			1445	0.9	27	
						2056	5.1	155			2129	4.4	134		2328	5.3	162						2140	5.1	155				
13 Tu ○	0034	2.5	76		28 W	0159	2.9	88		13 F	0131	3.5	107		28 Sa	0432	3.6	110		13 F ○	0001	3.2	98		28 Sa	0251	3.6	110	
	0734	6.7	204			0843	7.5	229			0822	6.9	210			1031	6.7	204			0630	6.7	204			0841	5.9	180	
	1446	2.6	79			1603	1.0	30			1615	1.2	37			1740	0.6	18			1403	1.2	37			1558	1.0	30	
	2018	4.5	137			2231	5.0	152			2302	4.8	146						2056	4.6	140			2250	5.3	162			
14 W	0122	3.0	91		29 Th	0320	3.5	107		14 Sa	0303	3.8	116		14 Sa	0108	3.5	107		14 Sa	0108	3.5	107		29 Su	0419	3.4	104	
	0825	6.9	210			0949	7.4	226			0937	7.1	216			0739	6.6	201			0739	6.6	201			1005	5.8	177	
	1600	2.0	61			1710	0.6	18			1717	0.5	15			1527	1.0	30			1527	1.0	30			1700	1.0	30	
	2213	4.6	140			2348	5.3	162						2226	4.9	149						2341	5.6	171					
15 Th	0226	3.5	107		30 F	0441	3.6	110		15 Su	0001	5.3	162		15 Su	0251	3.6	110		15 Su	0251	3.6	110		30 M	0523	2.9	88	
	0922	7.1	216			1051	7.5	229			0438	3.6	110			0906	6.6	201			0906	6.6	201			1111	5.9	180	
	1700	1.3	40			1805	0.2	6			1048	7.5	229			1638	0.5	15			1638	0.5	15			1749	0.9	27	
	2332	4.9	149							1808	-0.2	-6			2325	5.5	168												
					31 Sa	0044	5.7	174																					
						0546	3.6	110																					
						1145	7.6	232																					
						1851	-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, 2015

Times and Heights of High and Low Waters

April				May				June			
Time	Height			Time	Height			Time	Height		
h m	ft	cm		h m	ft	cm		h m	ft	cm	
1 W	0052 0650 1248 1904	6.3 1.8 6.3 0.9	192 55 192 27	16 Th	0011 0624 1230 1836	7.1 0.6 6.9 0.3	216 18 210 9	1 M	0043 0744 1416 1918	7.2 -0.9 5.5 2.4	219 -27 168 73
2 Th	0120 0725 1326 1934	6.5 1.3 6.5 0.9	198 40 198 27	17 F	0051 0713 1325 1920	7.7 -0.4 7.1 0.5	235 -12 216 15	2 Tu	0116 0820 1455 1956	7.4 -1.3 5.7 2.4	226 -40 174 73
3 F	0145 0757 1402 2002	6.8 0.9 6.5 1.1	207 27 198 34	18 Sa	0130 0800 1416 2002	8.1 -1.1 7.2 0.7	247 -34 219 21	3 W	0151 0856 1535 2034	7.6 -1.6 5.8 2.5	232 -49 177 76
4 Sa	0209 0828 1437 2028	7.0 0.5 6.5 1.3	213 15 198 40	19 Su	0208 0845 1506 2044	8.4 -1.5 7.0 1.1	256 -46 207 34	4 Th	0228 0934 1616 2116	7.6 -1.7 5.9 2.5	232 -52 180 76
5 Su	0232 0858 1511 2053	7.1 0.2 6.4 1.5	216 6 195 46	20 M	0247 0930 1555 2125	8.4 -1.6 6.8 1.5	256 -49 207 46	5 F	0308 1014 1700 2204	7.5 -1.6 5.9 2.6	229 -49 180 79
6 M	0256 0930 1546 2119	7.2 0.0 6.2 1.8	219 0 189 55	21 Tu	0325 1016 1646 2207	8.1 -1.4 6.4 2.0	247 -43 195 61	6 Sa	0353 1057 1746 2258	7.2 -1.3 5.9 2.6	219 -40 180 79
7 Tu	0322 1004 1624 2147	7.2 0.0 5.9 2.2	219 0 180 67	22 W	0405 1103 1740 2253	7.7 -1.0 5.9 2.5	235 -30 180 76	7 Su	0443 1143 1836	6.7 -0.9 6.0	204 -27 183
8 W	0351 1041 1707 2220	7.2 0.0 5.6 2.5	219 0 171 76	23 Th	0447 1153 1839 2346	7.1 -0.4 5.5 3.0	216 -12 168 91	8 M	0004 0541 1233 1929	2.5 6.1 -0.3 6.2	76 186 -9 189
9 Th	0425 1126 1800 2300	7.1 0.1 5.2 2.9	216 3 158 88	24 F	0534 1249 1946	6.4 0.2 5.3	195 6 162	9 Tu	0124 0654 1329 2024	2.2 5.5 0.3 6.4	67 168 9 195
10 F	0507 1220 1907 2353	6.8 0.3 5.0 3.2	207 9 152 98	25 Sa	0056 0632 1353 2056	3.3 5.8 0.7 5.3	101 171 21 162	10 W	0247 0825 1430 2119	1.7 5.0 0.9 6.8	52 152 27 207
11 Sa	0601 1326 2030	6.5 0.5 5.0	198 15 152	26 Su	0228 0753 1500 2158	3.4 5.2 1.1 5.4	104 158 34 165	11 Th	0402 0958 1535 2211	1.0 4.8 1.4 7.1	30 146 43 216
12 Su	0111 0713 1443 2145	3.4 6.2 0.6 5.3	104 189 18 162	27 M	0352 0924 1603 2248	3.0 5.0 1.3 5.6	91 152 40 171	12 F	0506 1118 1638 2302	0.1 5.0 1.7 7.5	3 152 52 229
13 M	0258 0846 1555 2243	3.2 6.0 0.5 5.8	98 183 15 177	28 Tu	0456 1040 1656 2328	2.5 5.1 1.4 5.9	76 155 43 180	13 Sa	0602 1224 1736 2349	-0.7 5.3 2.0 7.7	-21 162 61 235
14 Tu	0426 1016 1657 2330	2.5 6.2 0.4 6.5	76 189 12 198	29 W	0544 1139 1740	1.9 5.3 1.5	58 162 46	14 Su	0651 1320 1829	-1.3 5.6 2.1	-40 171 64
15 W	0531 1129 1749	1.6 6.5 0.3	49 198 9	30 Th	0001 0625 1228 1818	6.3 1.2 5.5 1.6	192 37 168 49	15 M	0034 0737 1410 1919	7.9 -1.7 5.8 2.2	241 -52 177 67
				31 F	0613 1226 1804	-0.3 6.0 1.2	-9 183 37	16 Sa	0633 1252 1803	0.2 5.0 2.3	6 152 70
								31 Su	0011 0709 1335 1841	6.9 -0.4 5.3 2.3	210 -12 162 70

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, 2015

Times and Heights of High and Low Waters

July								August								September							
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				
1 W ○	0050	7.6	232	16 Th	0146	7.5	229	1 Sa	0207	8.0	244	16 Su	0248	6.9	210	1 Tu	0340	7.5	229	16 W	0343	6.3	192
	0800	-1.6	-49		0843	-1.4	-43		0856	-1.7	-52		0920	-0.2	-6		0949	-0.1	-3		0934	1.5	46
	1438	5.7	174		1518	6.0	183		1524	6.7	204		1542	6.4	195		1604	7.9	241		1542	6.9	210
	1935	2.4	73		2035	2.2	67		2058	1.3	40		2129	1.5	46		2225	-0.2	-6		2209	0.8	24
2 Th	0132	7.8	238	17 F	0224	7.3	223	2 Su	0255	7.9	241	17 M	0322	6.6	201	2 W	0434	6.9	210	17 Th	0419	5.9	180
	0839	-1.9	-58		0918	-1.2	-37		0935	-1.5	-46		0946	0.2	6		1030	0.6	18		0959	1.9	58
	1517	6.0	183		1552	6.1	186		1603	7.0	213		1608	6.4	195		1646	7.8	238		1608	6.8	207
	2021	2.3	70		2115	2.2	67		2148	1.0	30		2203	1.5	46		2320	-0.1	-3		2245	0.8	24
3 F	0215	7.9	241	18 Sa	0301	7.0	213	3 M	0344	7.5	229	18 Tu	0356	6.2	189	3 Th	0532	6.2	189	18 F	0459	5.5	168
	0918	-1.9	-58		0951	-0.9	-27		1015	-1.0	-30		1012	0.6	18		1114	1.4	43		1027	2.4	73
	1556	6.2	189		1625	6.1	186		1642	7.2	219		1633	6.4	195		1732	7.5	229		1638	6.7	204
	2108	2.1	64		2153	2.1	64		2242	0.8	24		2240	1.5	46						2328	1.0	30
4 Sa	0300	7.7	235	19 Su	0337	6.6	201	4 Tu	0437	6.8	207	19 W	0432	5.7	174	4 F	0022	0.1	3	19 Sa	0548	5.1	155
	0957	-1.8	-55		1021	-0.5	-15		1056	-0.3	-9		1037	1.1	34		0641	5.5	168		1101	2.8	85
	1636	6.4	195		1657	6.1	186		1725	7.3	223		1700	6.3	192		1204	2.1	64		1715	6.5	198
	2159	1.9	58		2233	2.1	64		2341	0.7	21		2320	1.5	46		1825	7.1	216				
5 Su	0348	7.4	226	20 M	0413	6.1	186	5 W	0536	6.1	186	20 Th	0513	5.2	158	5 Sa	0133	0.4	12	20 Su	0022	1.1	34
	1039	-1.4	-43		1051	0.1	3		1140	0.5	15		1104	1.7	52		0805	5.0	152		0656	4.7	143
	1718	6.5	198		1729	6.0	183		1812	7.2	219		1730	6.3	192		1309	2.8	85		1145	3.2	98
	2254	1.8	55		2317	2.1	64								1930		6.7	204	1804		6.3	192	
6 M	0440	6.8	207	21 Tu	0452	5.6	171	6 Th	0048	0.7	21	21 F	0009	1.5	46	6 Su	0251	0.5	15	21 M	0133	1.2	37
	1121	-0.9	-27		1119	0.6	18		0646	5.3	162		0604	4.7	143		0934	5.0	152		0833	4.6	140
	1803	6.7	204		1801	6.0	183		1228	1.3	40		1136	2.2	67		1438	3.2	98		1251	3.6	110
	2358	1.6	49		1904	7.1	216		1808	6.2	189		2048	6.5	198		2048	6.5	198		1911	6.2	189
7 Tu	0539	6.0	183	22 W	0006	2.1	64	7 F	0203	0.6	18	22 Sa	0111	1.6	49	7 M	0406	0.5	15	22 Tu	0255	1.1	34
	1207	-0.1	-3		0537	5.0	152		0813	4.7	143		0715	4.3	131		1051	5.2	158		0959	4.9	149
	1851	6.8	207		1149	1.2	37		1327	2.1	64		1217	2.7	82		1606	3.2	98		1433	3.6	110
					1835	6.0	183		2005	7.0	213		1856	6.1	186		2205	6.4	195		2037	6.2	189
8 W ○	0110	1.4	43	23 Th	0106	2.0	61	8 Sa	0321	0.4	12	23 Su	0229	1.4	43	8 Tu	0509	0.3	9	23 W	0407	0.8	24
	0650	5.3	162		0634	4.4	134		0946	4.6	140		0903	4.1	125		1149	5.5	168		1057	5.4	165
	1257	0.6	18		1223	1.7	52		1443	2.7	82		1315	3.1	94		1715	2.9	88		1610	3.2	98
	1944	6.9	210		1915	6.0	183		2112	6.9	210		1958	6.1	186		2310	6.5	198		2203	6.5	198
9 Th	0228	1.0	30	24 F	0218	1.8	55	9 Su	0432	0.0	0	24 M	0347	1.0	30	9 W	0600	0.2	6	24 Th	0505	0.4	12
	0819	4.7	143		0755	4.0	122		1108	4.8	146		1035	4.3	131		1232	5.9	180		1141	6.0	183
	1355	1.4	43		1306	2.3	70		1606	2.9	88		1443	3.3	101		1808	2.5	76		1716	2.4	73
	2041	7.0	213		2003	6.0	183		2219	6.9	210		2113	6.3	192						2312	6.9	210
10 F	0344	0.5	15	25 Sa	0332	1.5	46	10 M	0533	-0.3	-9	25 Tu	0451	0.5	15	10 Th	0003	6.7	204	25 F	0554	0.1	3
	0953	4.5	137		0942	3.9	119		1211	5.1	155		1135	4.8	146		0642	0.1	3		1220	6.6	201
	1502	2.0	61		1403	2.7	82		1717	2.8	85		1616	3.2	98		1308	6.2	189		1809	1.6	49
	2139	7.1	216		2058	6.2	189		2319	7.0	213		2224	6.7	204		1851	2.0	61				
11 Sa	0451	-0.1	-3	26 Su	0436	0.9	27	11 Tu	0624	-0.6	-18	26 W	0543	-0.1	-3	11 F	0047	6.8	207	26 Sa	0011	7.4	226
	1115	4.7	143		1107	4.1	125		1300	5.5	168		1220	5.4	165		0718	0.2	6		0638	-0.1	-3
	1614	2.4	73		1519	3.0	91		1814	2.6	79		1725	2.7	82		1339	6.4	195		1256	7.3	223
	2237	7.3	223		2157	6.5	198						2326	7.2	219		1928	1.6	49		1858	0.7	21
12 Su	0549	-0.7	-21	27 M	0529	0.2	6	12 W	0011	7.1	216	27 Th	0628	-0.6	-18	12 Sa	0127	6.9	210	27 Su	0104	7.7	235
	1221	5.0	152		1206	4.5	137		0708	-0.7	-21		1259	5.9	180		0750	0.3	9		0720	-0.1	-3
	1720	2.6	79		1635	3.0	91		1340	5.8	177		1820	2.1	64		1406	6.6	201		1333	7.9	241
	2330	7.4	226		2252	6.8	207		1901	2.4	73				2002		1.3	40	1945		-0.1	-3	
13 M	0640	-1.1	-34	28 Tu	0615	-0.4	-12	13 Th	0056	7.2	219	28 F	0020	7.6	232	13 Su	0203	6.9	210	28 M	0155	7.8	238
	1315	5.3	162		1253	5.0	152		0746	-0.8	-24		0710	-1.0	-30		0819	0.5	15		0801	0.1	3
	1818	2.5	76		1738	2.8	85		1414	6.0	183		1335	6.5	198		1432	6.8	207		1410	8.3	253
					2344	7.3	223		1943	2.1	64		1909	1.4	43		2034	1.0	30		2031	-0.7	-21
14 Tu	0019	7.5	229	29 W	0657	-1.0	-30	14 F	0137	7.2	219	29 Sa	0111	8.0	244	14 M	0237	6.8	207	29 Tu	0245	7.7	235
	0725	-1.4	-43		1333	5.5	168		0820	-0.7	-21		0750	-1.1	-34		0846	0.7	21		0841	0.4	12
	1400	5.6	171		1832	2.5	76		1446	6.2	189		1411	7.0	213		1455	6.8	207		1448	8.5	259
	1908	2.5	76				2020		1.8	55	1957		0.8	24	2104		0.9	27	2118		-1.0	-30	
15 W ●	0104	7.5	229	30 Th	0032	7.7	235	15 Sa	0213	7.1	216	30 Su	0201	8.1	247	15 Tu	0310	6.6	201	30 W	0336	7.4	226
	0805	-1.5	-46		0737	-1.5	-46		0851	-0.5	-15		0830	-1.0	-30		0910	1.1	34		0922	1.0	30
	1440	5.9	180		1410	5.9	180		1515	6.3	192		1447	7.5	229		1518	6.9	210		1528	8.5	259
	1954	2.3	70		1921	2.1	64		2055	1.7	52		2045	0.2	6		2136	0.8	24		2207	-1.0	-30
				31 F ○	0120	7.9	241					31 M	0250	7.9	241								
			0817		-1.7	-52				0909	-0.7		-21										
			1447		6.4	195				1525	7.8		238										
			2009		1.7	52				2134	-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.

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, 2015

Times and Heights of High and Low Waters

January				February				March			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0421	3.4	104	16 F	0421	3.0	91	1 Su	0426	3.4	104
	0816	2.8	85		0628	2.9	88		0923	2.4	73
	1404	4.5	137		1246	4.3	131		1430	3.5	107
	2148	-0.3	-9		2100	0.1	3		2149	0.1	3
2 F	0536	3.6	110	17 Sa	1319	4.5	137	2 M	0514	3.3	101
	0918	3.1	94		2138	-0.1	-3		1013	2.4	73
	1441	4.3	131						1512	3.3	101
	2236	-0.3	-9						2230	0.4	12
3 Sa	0645	3.7	113	18 Su	0559	3.3	101	3 Tu	0556	3.1	94
	1027	3.4	104		0751	3.2	98		1100	2.3	70
	1516	4.1	125		1400	4.6	140		1555	3.1	94
	2321	-0.2	-6		2219	-0.3	-9		2308	0.6	18
4 Su	0745	3.9	119	19 M	0631	3.4	104	4 W	0630	3.0	91
	1145	3.5	107		0902	3.3	101		1145	2.2	67
	1550	3.9	119		1451	4.6	140		1642	2.9	88
					2305	-0.4	-12		2345	0.9	27
5 M	0005	0.0	0	20 Tu	0703	3.5	107	5 Th	0655	2.9	88
	0835	3.9	119		1023	3.2	98		1230	2.1	64
	1311	3.5	107		1549	4.4	134		1738	2.7	82
	1625	3.6	110		2353	-0.4	-12				
6 Tu	0047	0.2	6	21 W	0737	3.7	113	6 F	0021	1.1	34
	0916	4.0	122		1149	3.0	91		0716	2.8	85
	1438	3.3	101		1658	4.1	125		1317	1.8	55
	1705	3.4	104						1845	2.6	79
7 W	0127	0.4	12	22 Th	0044	-0.2	-6	7 Sa	0100	1.4	43
	0949	4.0	122		0813	3.8	116		0736	2.8	85
	1550	3.0	91		1316	2.6	79		1403	1.6	49
	1802	3.1	94		1817	3.8	116		2000	2.5	76
8 Th	0207	0.6	18	23 F	0137	0.1	3	8 Su	0144	1.6	49
	1015	3.9	119		0852	4.0	122		0757	2.8	85
	1641	2.8	85		1437	2.1	64		1449	1.3	40
	1920	2.9	88		1946	3.5	107		2117	2.6	79
9 F	0246	0.8	24	24 Sa	0232	0.5	15	9 M	0230	1.9	58
	1038	3.9	119		0933	4.2	128		0821	2.8	85
	1719	2.4	73		1551	1.5	46		1533	1.0	30
	2048	2.7	82		2121	3.2	98		2230	2.7	82
10 Sa	0325	1.1	34	25 Su	0329	0.9	27	10 Tu	0318	2.1	64
	1059	3.9	119		1016	4.4	134		0846	2.9	88
	1752	2.1	64		1657	0.9	27		1615	0.8	24
	2214	2.6	79		2255	3.1	94		2334	2.8	85
11 Su	0403	1.4	43	26 M	0427	1.4	43	11 W	0402	2.3	70
	1118	3.8	116		1059	4.5	137		0913	3.0	91
	1824	1.7	52		1759	0.4	12		1656	0.5	15
	2336	2.5	76								
12 M	0439	1.8	55	27 Tu	0023	3.2	98	12 Th	0029	2.9	88
	1134	3.8	116		0527	1.8	55		0441	2.5	76
	1854	1.4	43		1144	4.5	137		0945	3.2	98
					1856	0.0	0		1736	0.3	9
13 Tu	0054	2.6	79	28 W	0145	3.3	101	13 F	0116	3.0	91
	0512	2.1	64		0626	2.2	67		0515	2.6	79
	1149	3.9	119		1228	4.5	137		1022	3.4	104
	1925	1.0	30		1950	-0.2	-6		1816	0.1	3
14 W	0207	2.7	82	29 Th	0259	3.4	104	14 Sa	0155	3.0	91
	0540	2.4	73		0726	2.5	76		0550	2.6	79
	1204	4.0	122		1312	4.4	134		1105	3.5	107
	1955	0.7	21		2042	-0.3	-9		1857	-0.1	-3
15 Th	0316	2.9	88	30 F	0407	3.5	107	15 Su	0227	3.0	91
	0604	2.7	82		0825	2.8	85		0631	2.5	76
	1222	4.1	125		1354	4.3	131		1156	3.7	113
	2026	0.4	12		2131	-0.2	-6		1939	-0.2	-6
				31 Sa	0511	3.6	110	30 M	0330	3.2	98
					0924	3.0	91		0914	1.7	52
					1433	4.1	125		1426	2.9	88
					2217	-0.1	-3		2108	0.4	12
								31 Tu	0406	3.0	91
									0957	1.6	49
									1517	2.7	82
									2148	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.

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Unalaska, Alaska, 2015

Times and Heights of High and Low Waters

April				May				June			
Time		Height		Time		Height		Time		Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
1 W	0433 1035 1611 2225	2.8 1.5 2.6 1.0	85 46 79 30	16 Th	0306 0924 1529 2127	3.2 0.6 2.9 0.8	98 18 88 24	1 F	0324 1041 1738 2202	2.8 0.5 2.3 1.8	85 15 70 55
2 Th	0453 1112 1710 2301	2.7 1.3 2.5 1.3	82 40 76 40	17 F	0343 1024 1653 2225	3.3 0.1 2.8 1.2	101 3 85 37	2 Sa	0335 1114 1848 2243	2.7 0.3 2.5 2.1	82 9 76 64
3 F	0508 1148 1815 2340	2.6 1.1 2.4 1.6	79 34 73 49	18 Sa	0426 1125 1818 2331	3.4 -0.3 2.9 1.6	104 -9 88 49	3 Su	0347 1149 1956 2333	2.8 0.1 2.6 2.4	85 3 79 73
4 Sa O	0523 1226 1924	2.6 0.9 2.5	79 27 76	19 Su	0513 1226 1941	3.4 -0.6 3.1	104 -18 94	4 M	0405 1227 2055	2.8 -0.1 2.8	85 -3 85
5 Su	0025 0541 1307 2034	1.9 2.6 0.7 2.6	58 79 21 79	20 M	0045 0606 1327 2056	1.9 3.3 -0.8 3.3	58 101 -24 101	5 Tu	0034 0430 1308 2144	2.6 2.9 -0.2 3.0	79 88 -6 91
6 M	0117 0604 1350 2138	2.1 2.6 0.5 2.7	64 79 15 82	21 Tu	0204 0705 1427 2202	2.1 3.3 -0.9 3.5	64 101 -27 107	6 W	0141 0505 1350 2225	2.7 2.9 -0.4 3.1	82 88 -12 94
7 Tu	0214 0633 1433 2235	2.3 2.7 0.3 2.9	70 82 9 88	22 W	0323 0807 1526 2300	2.1 3.1 -0.8 3.6	64 94 -24 110	7 Th	0245 0553 1434 2259	2.8 2.9 -0.5 3.2	85 88 -15 98
8 W	0309 0708 1517 2323	2.4 2.7 0.1 3.0	73 82 3 91	23 Th	0435 0912 1622 2353	2.0 3.0 -0.7 3.7	61 91 -21 113	8 F	0340 0654 1519 2329	2.7 2.9 -0.5 3.3	82 88 -15 101
9 Th	0358 0751 1601	2.5 2.8 -0.1	76 85 -3	24 F	0540 1017 1715	1.9 2.9 -0.5	58 88 -15	9 Sa	0429 0804 1605 2356	2.5 2.8 -0.5 3.3	76 85 -15 101
10 F	0004 0439 0843 1645	3.1 2.5 2.9 -0.2	94 76 88 -6	25 Sa	0040 0638 1120 1805	3.6 1.7 2.7 -0.2	110 52 82 -6	10 Su	0516 0919 1650	2.2 2.7 -0.4	67 82 -12
11 Sa O	0038 0518 0940 1729	3.1 2.5 3.0 -0.3	94 76 91 -9	26 Su	0123 0729 1221 1852	3.5 1.5 2.6 0.1	107 46 79 3	11 M	0022 0603 1037 1736	3.3 1.8 2.6 -0.1	101 55 79 -3
12 Su	0107 0558 1042 1813	3.1 2.3 3.1 -0.2	94 70 94 -6	27 M	0200 0816 1321 1935	3.4 1.3 2.4 0.4	104 40 73 12	12 Tu	0049 0652 1156 1822	3.4 1.3 2.5 0.2	104 40 76 6
13 M	0135 0643 1147 1859	3.1 1.9 3.1 -0.1	94 58 94 -3	28 Tu	0231 0858 1422 2015	3.2 1.1 2.3 0.8	98 34 70 24	13 W	0117 0743 1318 1910	3.4 0.8 2.4 0.6	104 24 73 18
14 Tu	0202 0733 1257 1945	3.1 1.5 3.0 0.1	94 46 91 3	29 W	0255 0935 1524 2052	3.0 0.9 2.3 1.2	91 27 70 37	14 Th	0149 0835 1443 2000	3.5 0.2 2.4 1.1	107 6 73 34
15 W	0232 0827 1411 2034	3.2 1.1 2.9 0.4	98 34 88 12	30 Th	0312 1009 1630 2127	2.8 0.7 2.3 1.5	85 21 70 46	15 F	0223 0929 1609 2055	3.6 -0.3 2.5 1.5	110 -9 76 46
16 Th	0243 0839 1425 2047	3.2 1.1 2.7 2.3	98 34 82 70	17 F	0301 1023 1734 2313	3.6 -0.7 2.7 2.3	110 -21 82 61	16 Sa	0226 0942 1613 2121	3.1 -0.2 2.6 2.5	94 -6 79 76
17 F	0308 0854 1440 2056	3.3 -0.5 3.0 2.9	101 -15 91 88	18 Sa	0429 1213 2004	3.5 -1.1 3.2	107 -34 98	17 Su	0037 0521 1308 2105	2.5 3.3 -1.1 3.4	76 101 -34 104
18 Sa	0343 0938 1534 2127	3.3 -0.7 -0.8 3.3	101 -21 -24 101	19 Su	0037 0521 1308 2105	2.5 3.3 -1.1 3.4	76 101 -34 104	18 M	0203 0619 1402 2158	2.5 3.1 -1.0 3.6	76 94 -30 110
19 Su	0303 0638 1448 2244	2.7 3.0 -0.7 3.4	82 91 -21 104	19 Tu	0324 0723 1455 2245	2.4 2.9 -0.8 3.7	73 88 -24 113	19 W	0324 0723 1455 2245	2.4 2.9 -0.8 3.7	73 88 -24 113
20 M	0405 0759 1535 2311	2.3 2.8 -0.5 3.5	70 85 -15 107	20 Th	0435 0830 1545 2328	2.2 2.7 -0.6 3.7	67 82 -18 113	20 F	0435 0830 1545 2328	2.2 2.7 -0.6 3.7	67 82 -18 113
21 Tu	0502 0925 1621 2340	1.8 2.5 -0.2 3.6	55 76 -6 110	21 F	0535 0939 1633	1.9 2.5 -0.3	58 76 -9	21 Sa	0535 0939 1633	1.9 2.5 -0.3	58 76 -9
22 W	0557 1053 1708	1.3 2.4 0.2	40 73 6	22 Sa	0006 0628 1048 1719	3.6 1.6 2.3 0.0	110 49 70 0	22 Su	0040 0628 1048 1719	3.6 1.6 2.3 0.0	110 49 70 0
23 Th	0010 0650 1223 1756	3.7 0.7 2.3 0.7	113 21 70 21	23 M	0109 0755 1306 1839	3.4 1.0 2.1 0.8	104 30 64 24	23 Tu	0132 0832 1416 1915	3.2 0.8 2.1 1.2	98 24 64 37
24 F	0042 0743 1352 1845	3.8 0.1 2.3 1.2	116 3 70 37	24 W	0132 0832 1416 1915	3.2 0.8 2.1 1.2	98 24 64 37	24 Th	0149 0906 1529 1947	3.1 0.5 2.1 1.6	94 15 64 49
25 Sa	0153 0927 1646 2036	3.9 -0.8 2.6 2.1	119 -24 79 64	25 F	0202 0938 1643 2017	3.1 0.2 2.2 2.0	94 6 67 61	25 Sa	0213 1009 1759 2047	3.1 0.0 2.4 2.3	94 0 73 70
26 Su	0232 1018 1805 2144	3.8 -1.0 2.9 2.5	116 -30 88 76	26 Su	0213 1009 1759 2047	3.1 0.0 2.4 2.3	94 0 73 70	26 M	0226 1042 1913 2303	3.1 -0.2 2.6 2.7	94 -6 79 82
27 M	0314 1110 1913 2303	3.7 -1.1 3.1 2.7	113 -34 94 82	27 Tu	0314 1110 1913 2303	3.7 -1.1 3.1 2.7	113 -34 94 82	27 W	0314 1110 1913 2303	3.7 -1.1 3.1 2.7	113 -34 94 82
28 Th	0359 1200 2011	3.6 -1.1 3.3	110 -34 101	28 Th	0359 1200 2011	3.6 -1.1 3.3	110 -34 101	28 F	0359 1200 2011	3.6 -1.1 3.3	110 -34 101
29 F	0030 0448 1250 2101	2.8 3.3 -0.9 3.5	85 101 -27 107	29 F	0030 0448 1250 2101	2.8 3.3 -0.9 3.5	85 101 -27 107	29 Sa	0030 0448 1250 2101	2.8 3.3 -0.9 3.5	85 101 -27 107
30 Sa	0157 0542 1338 2144	2.7 3.1 -0.8 3.6	82 94 -24 110	30 Sa	0157 0542 1338 2144	2.7 3.1 -0.8 3.6	82 94 -24 110	30 Su	0157 0542 1338 2144	2.7 3.1 -0.8 3.6	82 94 -24 110
31 Su	0316 0643 1425 2223	2.5 2.8 -0.5 3.6	76 85 -15 110	31 Su	0316 0643 1425 2223	2.5 2.8 -0.5 3.6	76 85 -15 110	31 M	0316 0643 1425 2223	2.5 2.8 -0.5 3.6	76 85 -15 110

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Unalaska, Alaska, 2015

Times and Heights of High and Low Waters

July				August				September															
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									
1 W ○	0242	3.7	113	16 Th	0019	2.7	82	1 Sa	0433	3.5	107	16 Su	0158	2.0	61	1 Tu	0130	0.6	18	16 W	0228	0.9	27
	1122	-0.7	-21		0431	3.2	98		1220	-0.5	-15		0631	2.5	76		0743	3.0	91		0922	2.6	79
					1230	-0.5	-15		1944	3.0	91		1329	0.6	18		1346	0.8	24		1442	1.8	55
					2039	3.3	101						2048	2.8	85		2002	3.4	104		1959	2.5	76
2 Th	0328	3.6	110	17 F	0137	2.6	79	2 Su	0036	2.0	61	17 M	0248	1.7	52	2 W	0240	0.1	3	17 Th	0311	0.7	21
	1204	-0.8	-24		0522	2.9	88		0549	3.2	98		0743	2.3	70		0911	3.0	91		1025	2.7	82
	2034	3.1	94		1314	-0.3	-9		1310	-0.3	-9		1411	0.8	24		1450	1.2	37		1533	2.0	61
	2341	2.9	88		2116	3.3	101		2019	3.2	98		2110	2.8	85		2053	3.5	107		2028	2.6	79
3 F	0424	3.5	107	18 Sa	0248	2.4	73	3 M	0154	1.6	49	18 Tu	0334	1.4	43	3 Th	0347	-0.3	-9	18 F	0353	0.5	15
	1249	-0.8	-24		0622	2.6	79		0714	3.0	91		0859	2.3	70		1033	3.1	94		1120	2.8	85
	2057	3.2	98		1357	-0.1	-3		1403	0.0	0		1454	1.1	34		1555	1.4	43		1619	2.1	64
					2148	3.3	101		2057	3.4	104		2132	2.8	85		2146	3.6	110		2058	2.7	82
4 Sa	0106	2.7	82	19 Su	0348	2.1	64	4 Tu	0307	1.0	30	19 W	0415	1.1	34	4 F	0449	-0.6	-18	19 Sa	0433	0.3	9
	0532	3.3	101		0731	2.4	73		0844	2.8	85		1013	2.3	70		1147	3.2	98		1210	2.9	88
	1335	-0.7	-21		1438	0.2	6		1458	0.4	12		1537	1.4	43		1700	1.7	52		1658	2.3	70
	2123	3.3	101		2215	3.2	98		2138	3.6	110		2155	2.8	85		2241	3.7	113		2130	2.8	85
5 Su	0225	2.3	70	20 M	0436	1.7	52	5 W	0414	0.4	12	20 Th	0455	0.8	24	5 Sa	0549	-0.7	-21	20 Su	0513	0.2	6
	0650	3.0	91		0848	2.2	67		1015	2.7	82		1122	2.4	73		1254	3.3	101		1253	3.0	91
	1423	-0.5	-15		1518	0.5	15		1554	0.9	27		1619	1.6	49		1803	1.8	55		1730	2.4	73
	2153	3.5	107		2239	3.2	98		2222	3.8	116		2217	2.9	88		2336	3.7	113		2206	3.0	91
6 M	0336	1.8	55	21 Tu	0518	1.4	43	6 Th	0517	-0.1	-3	21 F	0533	0.6	18	6 Su	0646	-0.7	-21	21 M	0552	0.1	3
	0817	2.7	82		1007	2.1	64		1142	2.7	82		1225	2.5	76		1355	3.3	101		1330	3.0	91
	1512	-0.2	-6		1558	0.8	24		1652	1.3	40		1658	1.9	58		1904	1.9	58		1758	2.4	73
	2225	3.6	110		2301	3.2	98		2307	3.9	119		2239	3.0	91						2247	3.1	94
7 Tu	0440	1.2	37	22 W	0556	1.1	34	7 F	0616	-0.5	-15	22 Sa	0610	0.3	9	7 M	0030	3.6	110	22 Tu	0631	0.0	0
	0948	2.5	76		1124	2.1	64		1302	2.8	85		1323	2.6	79		0740	-0.6	-18		1401	2.9	88
	1602	0.3	9		1636	1.2	37		1752	1.6	49		1731	2.1	64		1452	3.3	101		1829	2.3	70
	2300	3.8	116		2321	3.2	98		2354	3.9	119		2302	3.1	94		2002	1.9	58		2334	3.2	98
8 W ○	0540	0.6	18	23 Th	0632	0.8	24	8 Sa	0712	-0.7	-21	23 Su	0647	0.1	3	8 Tu	0123	3.4	104	23 W	0710	-0.1	-3
	1121	2.4	73		1238	2.2	67		1416	2.9	88		1415	2.6	79		0833	-0.4	-12		1428	2.9	88
	1653	0.8	24		1713	1.5	46		1851	1.9	58		1759	2.3	70		1545	3.2	98		1907	2.1	64
	2336	3.9	119		2339	3.2	98						2329	3.3	101		2058	1.9	58				
9 Th	0637	0.0	0	24 F	0707	0.5	15	9 Su	0041	3.9	119	24 M	0723	0.0	0	9 W	0215	3.2	98	24 Th	0028	3.3	101
	1251	2.4	73		1349	2.2	67		0807	-0.8	-24		1501	2.6	79		0922	-0.1	-3		0752	0.0	0
	1745	1.2	37		1745	1.9	58		1524	3.0	91		1827	2.4	73		1634	3.0	91		1455	2.9	88
					2356	3.3	101		1951	2.1	64						2152	1.9	58		1954	1.8	55
10 F	0015	4.0	122	25 Sa	0741	0.2	6	10 M	0128	3.8	116	25 Tu	0002	3.4	104	10 Th	0306	3.0	91	25 F	0129	3.3	101
	0732	-0.4	-12		1457	2.4	73		0900	-0.8	-24		0800	-0.2	-6		1009	0.2	6		0837	0.1	3
	1417	2.5	76		1812	2.1	64		1628	3.0	91		1539	2.6	79		1718	2.9	88		1524	2.9	88
	1840	1.7	52						2051	2.3	70		1901	2.4	73		2243	1.8	55		2050	1.4	43
11 Sa	0055	4.0	122	26 Su	0015	3.4	104	11 Tu	0214	3.6	110	26 W	0043	3.6	110	11 F	0358	2.8	85	26 Sa	0237	3.2	98
	0825	-0.7	-21		0814	0.0	0		0950	-0.6	-18		0840	-0.3	-9		1053	0.5	15		0925	0.3	9
	1539	2.7	82		1602	2.5	76		1727	3.0	91		1611	2.6	79		1755	2.7	82		1557	3.0	91
	1937	2.1	64		1835	2.4	73		2153	2.4	73		1946	2.3	70		2332	1.7	52		2151	1.0	30
12 Su	0136	4.0	122	27 M	0037	3.5	107	12 W	0300	3.4	104	27 Th	0132	3.6	110	12 Sa	0453	2.6	79	27 Su	0353	3.1	94
	0917	-0.9	-27		0849	-0.2	-6		1038	-0.4	-12		0922	-0.3	-9		1135	0.8	24		1017	0.7	21
	1654	2.9	88		1701	2.6	79		1822	3.0	91		1641	2.7	82		1825	2.6	79		1637	3.1	94
	2039	2.4	73		1900	2.5	76		2255	2.4	73		2044	2.1	64		●				2256	0.6	18
13 M	0218	3.9	119	28 Tu	0106	3.7	113	13 Th	0346	3.2	98	28 F	0229	3.6	110	13 Su	0018	1.6	49	28 M	0517	3.1	94
	1008	-0.9	-27		0925	-0.4	-12		1124	-0.2	-6		1007	-0.3	-9		0555	2.5	76		1116	1.0	30
	1803	3.0	91				1910		3.0	91	1713		2.7	82	1217		1.1	34	1721		3.3	101	
	2146	2.6	79		2358	2.3	70						2150	1.8	55		1849	2.5	76				
14 Tu	0301	3.7	113	29 W	0144	3.8	116	14 F	0434	2.9	88	29 Sa	0335	3.5	107	14 M	0102	1.4	43	29 Tu	0003	0.1	3
	1057	-0.9	-27		1004	-0.6	-18		1207	0.1	3		1056	-0.1	-3		0703	2.4	73		0644	3.1	94
	1903	3.2	98		1819	2.7	82		1950	2.9	88		1749	2.8	85		1302	1.3	40		1222	1.4	43
	2300	2.7	82		2039	2.6	79		●				2303	1.5	46		1910	2.5	76		1812	3.4	104
15 W ●	0345	3.5	107	30 Th	0231	3.8	116	15 Sa	0101	2.2	67	30 Su	0450	3.3	101	15 Tu	0145	1.1	34	30 W	0110	-0.3	-9
	1145	-0.7	-21		1046	-0.6	-18		0528	2.7	82		1149	0.1	3		0814	2.5	76		0810	3.2	98
	1955	3.2	98		1845	2.8	85		1248	0.3	9		1829	3.0	91		1350	1.6	49		1334	1.7	52
					2153	2.6	79		2022	2.8	85						1933	2.5	76		1908	3.4	104
			31 F ○	0327	3.7	113				31 M	0017	1.1	34										
				1132	-0.6	-18					0614	3.1	94										
				1913	2.9	88					1245	0.5	15										
				2314	2.4	73					1914	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.

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, 2015

Times and Heights of High and Low Waters

January					February					March													
Time		Height			Time		Height			Time		Height			Time		Height						
1 Th	h	m	ft	cm	16 F	h	m	ft	cm	1 Su	h	m	ft	cm	16 M	h	m	ft	cm				
	1239	4.6	140	1130		4.5	137	2222	-0.1		125	1222	4.5	137		2102	3.7	113	1118	3.9	119		
	2114	-0.3	-9			2039	0.0	0			2221	-0.4	-12			1948	-0.1	-3					
2 F	1304	4.5	137	17 Sa	1157	4.7	143	2 M	1332	3.9	119	17 Tu	1319	4.3	131	2 M	1309	3.5	107	17 Tu	1222	3.7	113
	2201	-0.4	-12			2117	-0.3		-9		2304		0.0	0			2208	-0.3	-9			2146	0.3	9		2036	0.1	3
3 Sa	1326	4.4	134	18 Su	1233	4.8	146	3 Tu	1347	3.7	113	18 W	1426	4.1	125	3 Tu	1347	3.2	98	18 W	0407	2.6	79
	2246	-0.4	-12			2159	-0.5		-15		2342		0.2	6			2256	0.0	0			2227	0.6	18		0737	2.3	70
4 Su	1342	4.3	131	19 M	1316	4.8	146	4 W	1022	3.5	107	19 Th	0651	2.9	88	4 W	0741	2.8	85	19 Th	0426	2.7	82
	2328	-0.3	-9			2242	-0.6		-18		1546		3.7	113			1006	2.7	82			1004	2.7	82		0909	1.9	58
5 M	1340	4.1	125	20 Tu	1409	4.6	140	5 Th	0017	0.5	15	20 F	0703	3.1	94	5 Th	0740	2.7	82	20 F	0452	2.8	85
						2327	-0.6		-18		0949		3.4	104			1157	2.3	70			1134	2.6	79		1036	1.5	46
6 Tu	0008	-0.2	-6	21 W	1511	4.3	131	6 F	0050	0.7	21	21 Sa	0033	0.7	21	6 F	0734	2.7	82	21 Sa	0525	3.0	91
	1055	4.0	122			0937	3.3		101		1326		1.7	52			1243	2.3	70			1243	2.3
7 W	0045	0.0	0	22 Th	0013	-0.4	-12	7 Sa	0121	1.0	30	22 Su	0123	1.2	37	7 Sa	0016	1.4	43	22 Su	0004	1.6	49
	1040	3.9	119			0930	3.3		101		0800		3.5	107			0730	2.7	82			0604	3.2	98
8 Th	0119	0.2	6	23 F	0059	-0.1	-3	8 Su	0149	1.3	40	23 M	0212	1.6	49	8 Su	0049	1.7	52	23 M	0103	2.0	61
	1039	3.9	119			0928	3.3		101		1440		1.1	34			0730	2.7	82			0646	3.4	104
9 F	0151	0.5	15	24 Sa	0854	3.6	110	9 M	0149	1.3	40	24 Tu	0836	3.8	116	9 M	0730	2.7	82	24 Tu	0141	0.0	0
	1040	3.8	116			1622	2.0		61		1544		0.5	15			1419	1.6	49			1410	3.0	91
10 Sa	0221	0.8	24	25 Su	1804	3.4	104	10 Tu	2039	2.3	70	25 W	2223	2.8	85	10 Tu	2023	2.4	73	25 W	2133	3.0	91
	1042	3.7	113			0215	1.6		49		0301		2.0	61			0122	1.9	58			0204	2.3	70
11 Su	0248	1.1	34	26 M	0911	3.8	116	11 W	0930	3.4	104	26 Th	0915	3.9	119	11 W	0736	2.9	88	26 Th	0733	3.5	107
	1811	2.1	64			1652	1.6		49		1644		0.1	3			1459	1.2	37			1509	-0.3	-9
12 M	0308	1.5	46	27 Tu	1950	2.9	88	12 Th	2223	2.3	70	27 F	2351	2.8	85	12 Th	2151	2.5	76	27 F	2247	3.0	91
	1049	3.8	116			0234	1.9		58		0349		2.3	70			0122	1.9	58			0204	2.3	70
13 Tu	1833	1.6	49	28 W	0935	4.0	122	13 F	0936	3.5	107	28 Sa	0956	4.0	122	13 F	0736	2.9	88	28 Sa	0733	3.5	107
	2329	2.1	64			1724	1.2		37		1740		-0.1	-3			1459	1.2	37			1509	-0.3	-9
14 W	0318	1.9	58	29 Th	2139	2.6	79	14 Sa	1758	0.8	24	29 Su	0114	2.8	85	14 Sa	2314	2.6	79	29 Su	2352	3.1	94
	1054	3.9	119			0008	2.3		70		0114		2.8	85			0151	2.2	67			0305	2.5	76
15 Th	1900	1.2	37	30 F	0309	1.4	43	15 Su	0239	2.2	67	30 M	0436	2.6	79	15 Su	0151	2.2	67	30 M	0821	3.5	107
						1719	0.9		27		1037		4.0	122			0956	4.0	122			0746	3.0	91		0821	3.5	107
				31 Sa	2327	2.5	76		1758	0.8	24		1833	-0.2	-6		1538	0.8	24		1605	-0.4	-12
						0348	1.9	58		1001	3.9	119		0114	2.8	85		2314	2.6	79		2352	3.1	94
					1037	4.4	134		1834	0.4	12		0436	2.6	79		0151	2.2	67		0821	3.5	107
					1816	0.4	12						1037	4.0	122		1538	0.8	24		1605	-0.4	-12
													1833	-0.2	-6		2314	2.6	79		2352	3.1	94
													1925	-0.2	-6		2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
																	2314	2.6	79		2352	3.1	94
												</											

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.

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.

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.

* Neither a high or low water but an intermediate value to show the period of an approximate stand.

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, 2015

Times and Heights of High and Low Waters

January				February				March																
Time		Height		Time		Height		Time		Height		Time		Height										
1 Th	h	m	ft	cm	16 F	h	m	ft	cm	1 Su	h	m	ft	cm	16 M	h	m	ft	cm					
	1311	4.4	134	1213		4.2	128	0657	3.1		94	1319	3.8	116		0441	2.6	79	0351	2.2	67			
	2135	0.0	0	2104		0.2	6	0857	3.0		91	2202	-0.2	-6		0751	2.4	73	0555	2.1	64			
								1422	3.7		113					1323	3.1	94	1208	3.1	94			
2 F	1351	4.3	131	17 Sa	1247	4.2	128	2 M	0729	3.2	98	17 Tu	1430	3.6	110	2 M	0533	2.6	79	17 Tu	0414	2.3	70	
	2226	-0.2	-6		2150	0.0	0		1041	3.1	94		2252	-0.2	-6		0919	2.3	70		0738	-2.0	61	
									1514	3.5	107						1425	2.9	88		1327	3.0	91	
									2340	0.0	0						2226	0.1	3		2120	0.0	0	
3 Sa	1434	4.2	128	18 Su	1330	4.3	131	3 Tu	0758	3.3	101	18 W	0644	2.8	85	3 Tu	0613	2.6	79	18 W	0436	2.3	70	
	2314	-0.2	-6		2236	-0.2	-6		1204	2.9	88		1020	2.5	76		1038	2.2	67		0912	1.7	52	
									1610	3.3	101		1550	3.4	104		1531	2.8	85		1456	2.8	85	
									○				2339	0.0	0		2314	0.3	9		2215	0.2	6	
4 Su	0808	3.7	113	19 M	1424	4.2	128	4 W	0021	0.1	3	19 Th	0656	2.9	88	4 W	0644	2.7	82	19 Th	0501	2.4	73	
	1047	3.6	110		2321	-0.3	-9		0823	3.3	101		1143	2.1	64		1142	2.0	61		1029	1.3	40	
	1518	4.0	122						1308	2.7	82		1711	3.3	101		1637	2.6	79		1626	2.7	82	
	2358	-0.2	-6						1707	3.1	94						2357	0.4	12		●	2307	0.5	15
5 M	0838	3.8	116	20 Tu	1528	4.1	125	5 Th	0058	0.3	9	20 F	0024	0.2	6	5 Th	0708	2.6	79	20 F	0530	2.6	79	
	1221	3.5	107		0843	3.3	101		0717	3.0	91		1232	1.8	55		1136	0.8	24					
	1603	3.8	116						1359	2.5	76		1831	3.1	94		1741	2.5	76		1750	2.7	82	
					●				1805	2.9	88								2357		0.8	24		
6 Tu	0039	-0.1	-3	21 W	0005	-0.3	-9	6 F	0131	0.5	15	21 Sa	0108	0.5	15	6 F	0035	0.6	18	21 Sa	0602	2.8	85	
	0906	3.8	116		0822	3.5	107		0900	3.3	101		0743	3.2	98		0727	2.6	79		1235	0.2	6	
	1337	3.4	104		1151	3.2	98		1441	2.2	67		1354	1.0	30		1313	1.5	46		1907	2.7	82	
	1650	3.6	110		1640	3.9	119		1903	2.7	82		1948	2.9	88		1842	2.5	76					
7 W	0117	0.1	3	22 Th	0047	-0.2	-6	7 Sa	0200	0.8	24	22 Su	0150	0.9	27	7 Sa	0109	0.9	27	22 Su	0046	1.1	34	
	0932	3.8	116		0832	3.5	107		0914	3.3	101		0814	3.4	104		0743	2.6	79		0637	3.0	91	
	1439	3.2	98		1310	2.8	85		1518	2.0	61		1452	0.6	18		1350	1.2	37		1330	-0.2	-6	
	1741	3.3	101		1757	3.6	110		2003	2.6	79		2103	2.8	85		1939	2.4	73		2017	2.7	82	
8 Th	0151	0.3	9	23 F	0129	0.1	3	8 Su	0227	1.1	34	23 M	0232	1.2	37	8 Su	0140	1.1	34	23 M	0133	1.4	43	
	0954	3.8	116		0849	3.7	113		0926	3.3	101		0848	3.6	110		0757	2.6	79		0716	3.1	94	
	1531	2.9	88		1418	2.3	70		1554	1.6	49		1549	0.2	6		1424	1.0	30		1424	-0.5	-15	
	1835	3.1	94		1915	3.3	101		2106	2.5	76		2217	2.6	79		2035	2.4	73		2123	2.7	82	
9 F	0222	0.6	18	24 Sa	0209	0.5	15	9 M	0251	1.4	43	24 Tu	0313	1.5	46	9 M	0208	1.3	40	24 Tu	0220	1.6	49	
	1013	3.8	116		0912	3.8	116		0938	3.3	101		0926	3.7	113		0810	2.7	82		0757	3.2	98	
	1614	2.7	82		1520	1.8	55		1631	1.3	40		1645	0.0	0		1459	0.7	21		1517	-0.6	-18	
	1936	2.9	88		2035	3.0	91		2212	2.3	70		2332	2.5	76		2131	2.3	70		2225	2.7	82	
10 Sa	0250	0.9	27	25 Su	0247	0.9	27	10 Tu	0311	1.7	52	25 W	0356	1.8	55	10 Tu	0233	1.6	49	25 W	0308	1.7	52	
	1028	3.8	116		0939	4.0	122		0952	3.4	104		1006	3.7	113		0825	2.8	85		0841	3.2	98	
	1655	2.3	70		1620	1.2	37		1711	1.0	30		1742	-0.2	-6		1535	0.4	12		1609	-0.7	-21	
	2043	2.7	82		2158	2.8	85		2328	2.3	70		○				2229	2.3	70		2327	2.6	79	
11 Su	0316	1.2	37	26 M	0325	1.3	40	11 W	0327	1.9	58	26 Th	0049	2.5	76	11 W	0255	1.8	55	26 Th	0359	1.8	55	
	1042	3.8	116		1010	4.1	125		1008	3.5	107		0441	2.0	61		0842	2.9	88		0927	3.1	94	
	1733	2.0	61		1720	0.8	24		1753	0.7	21		1050	3.7	113		1614	0.2	6		1702	-0.6	-18	
	2158	2.5	76		○	2325	2.6		79	○				1840	-0.2		-6	2331	2.3		70	○		
12 M	0338	1.5	46	27 Tu	0403	1.8	55	12 Th	0100	2.2	67	27 F	0211	2.5	76	12 Th	0314	2.0	61	27 F	0027	2.5	76	
	1055	3.8	116		1045	4.2	128		0333	2.1	64		0531	2.2	67		0905	3.0	91		0453	1.9	58	
	1813	1.6	49		1818	0.4	12		1030	3.6	110		1137	3.5	107		1657	0.0	0		1016	3.0	91	
	2326	2.3	70						1838	0.4	12								1756		-0.4	-12		
13 Tu	0355	1.9	58	28 W	0100	2.5	76	13 F	1057	3.7	113	28 Sa	0331	2.5	76	13 F	0041	2.2	67	28 Sa	0128	2.5	76	
	1109	3.9	119		0439	2.2	67		1927	0.2	6		0633	2.3	70		0332	2.1	64		0553	1.9	58	
	1853	1.3	40		1122	4.3	131						1227	3.3	101		0935	3.1	94		1109	2.8	85	
					1917	0.2	6						2037	-0.1	-3		○	1743	-0.1		-3	1852	-0.2	-6
14 W	0116	2.3	70	29 Th	0246	2.6	79	14 Sa	1134	3.8	116				14 Sa	1014	3.2	98	29 Su	0226	2.4	73		
	0400	2.2	67		0516	2.5	76		2019	0.0	0					1834	-0.2	-6		0702	1.9	58		
	1126	3.9	119		1203	4.2	128											1210		2.6	79			
	1935	0.9	27		2015	0.0	0											1948		0.0	0			
15 Th	1147	4.0	122	30 F	1247	4.1	125	15 Su	1220	3.8	116			15 Su	1104	3.2	98	30 M	0319	2.4	73			
	2019	0.6	18		2111	-0.1	-3		2111	-0.2	-6								1929	-0.2	-6	0816	1.8	55
																				1319	2.4	73		
																				2045	0.3	9		
				31 Sa	1333	3.9	119											31 Tu	0403	2.3	70			
			2205		-0.1	-3													0926	1.6	49			
																			1437	2.2	67			
																			2139	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.

* Neither a high or low water but an intermediate value to show the period of an approximate stand.

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, 2015

Times and Heights of High and Low Waters

July				August				September																
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 W ○	0228	3.5	107	16 Th F	0401	3.3	101	1 Sa Su	0426	3.2	98	16 Su M	0125	1.8	55	1 Tu W	0119	0.6	18	16 W Th	0201	0.6	18	
	1133	-0.7	-21		1221	-0.6	-18		1229	-0.4	-12		0618	2.6	79		0733	2.7	82		0841	2.5	76	
					2033	3.1	94		2007	2.8	85		1323	0.3	9		1329	0.9	27		1411	1.5	46	
2 Th ○	0315	3.5	107	17 F Sa	0050	2.7	82	2 Su M	0037	2.2	67	17 M Tu	0209	1.6	49	2 W Th	0215	0.2	6	17 Th F	0235	0.4	12	
	1213	-0.8	-24		0456	3.1	94		0541	3.1	94		0716	2.4	73		0844	2.7	82		0933	2.5	76	
	2117	3.1	94		1303	-0.4	-12		1310	-0.2	-6		1356	0.6	18		1412	1.2	37		1440	1.7	52	
3 F ○	2344	3.0	91	18 Sa Su	2102	3.2	98	3 M Tu	2021	2.9	88	18 Tu W	2047	2.7	82	3 Th F	2010	3.2	98	18 F Sa	1958	2.5	76	
	0410	3.4	104		0154	2.5	76		0142	1.7	52		0248	1.3	40		0310	-0.2	-6		0310	0.3	9	
	1253	-0.7	-21		0553	2.9	88		0658	2.9	88		0814	2.3	70		0954	2.6	79		1024	2.5	76	
4 Sa ○	2121	3.1	94	1341	-0.2	-6	1350	0.2	6	1426	0.9	27	1455	1.5	46	1506	1.9	58						
					2127	3.1	94	2042	3.1	94	2102	2.7	82	2049	3.3	101	2016	2.6	79					
	0101	2.8	85		0248	2.2	67	0242	1.2	37	0325	1.1	34	0405	-0.4	-12	0347	0.1	3					
5 Su ○	0514	3.3	101	0650	2.6	79	4 Tu W	0814	2.7	82	19 W Th	0911	2.2	67	4 F Sa	1103	2.5	76	19 Sa Su	1118	2.4	73		
	1332	-0.6	-18		1415	0.1		3	1428	0.6		18	1453	1.1		34	1540	1.7		52	1530	2.0	61	
	2131	3.2	98		2148	3.1		94	2107	3.3		101	2117	2.8		85	2131	3.4		104	2040	2.7	82	
6 M ○	0207	2.5	76	20 M Tu	0335	2.0	61	5 W Th	0340	0.7	21	20 Th F	0402	0.8	24	5 Sa Su	0501	-0.5	-15	20 Su M	0427	0.0	0	
	0624	3.0	91		0750	2.4	73		0932	2.5	76		1011	2.2	67		1213	2.5	76		1215	2.4	73	
	1410	-0.3	-9		1447	0.4	12		1506	1.0	30		1517	1.4	43		1628	1.9	58		1554	2.2	67	
7 Tu ○	2145	3.2	98	2207	3.1	94	2137	3.5	107	2132	2.8	85	2218	3.3	101	2218	3.3	101	2109	2.8	85			
	0309	2.1	64		0419	1.7		52	0438		0.3	9		0441	0.6		18	0559		-0.5	-15	0511	-0.1	-3
	0739	2.8	85		0852	2.2		67	1053		2.3	70		1116	2.1		64	1323		2.4	73	1315	2.4	73
8 W ○	1447	0.0	0	1515	0.7	21	1544	1.3	40	1538	1.6	49	2150	2.9	88	6 Su M	1722	2.0	61	21 M Tu	1623	2.2	67	
	2204	3.3	101		2223	3.1		94	2212		3.6	110		2150	2.9		88	2309	3.2		98	2148	2.9	88
	0409	1.6	49		0500	1.4		43	0536		-0.1	-3		0523	0.4		12	0658	-0.4		-12	0559	-0.1	-3
9 Th ○	0900	2.5	76	1000	2.1	64	1218	2.2	67	22 Sa Su	1230	2.1	64	7 M Tu	1433	2.4	73	22 Tu W	1410	2.3	70			
	1524	0.5	15		1540	1.1		34	1623		1.7	52	1554		1.9	58	1827		2.0	61	1707	2.2	67	
	2227	3.5	107		2238	3.1		94	2250		3.7	113	2212		3.0	91	1827		2.0	61	2238	2.9	88	
10 F ○	0508	1.1	34	23 Th ○	0542	1.1	34	8 Sa Su	0635	-0.3	-9	23 Su M	0609	0.2	6	8 Tu W	0005	3.1	94	23 W Th	0651	0.0	0	
	1028	2.2	67		1116	2.0	61		1349	2.2	67		2241	3.1	94		0758	-0.2	-6		1453	2.3	70	
	1600	0.9	27		1601	1.4	43		1705	2.0	61						1538	2.4	73		1814	2.1	64	
11 Th ○	2254	3.6	110	2255	3.2	98	2333	3.7	113	0658	-0.4	-12	24 M Tu	0658	0.0	0	9 W W	1943	2.0	61	24 Th F	2344	2.8	85
	0607	0.6	18		0625	0.8		24	0735		-0.4	-12		0658	0.0	0		0108	2.9	88		0746	0.1	3
	1205	2.1	64		1247	1.9		58	1525		2.3	70		2317	3.2	98		0858	0.0	0		1524	2.3	70
12 F ○	1635	1.4	43	1615	1.7	52	1754	2.2	67	1651	2.4	73	25 Tu W	2317	3.2	98	1633	2.4	73	24 Th F	1936	1.9	58	
	2326	3.8	116		2313	3.3		101	1902		2.3	70						2104	1.9		58	2056	1.6	49
	0705	0.1	3		0710	0.5		15	0834		-0.5	-15		0750	-0.1	-3		0956	0.1		3	0106	2.7	82
13 Sa ○	1353	2.1	64	2335	3.3	101	1651	2.4	73	1902	2.3	70	25 Tu W	0219	2.7	82	10 Th F	0843	0.3	9				
	1710	1.8	55													1718		2.5	76	1550	2.3	70		
																2218		1.8	55	2056	1.6	49		
14 Su ○	0002	3.9	119	0756	0.2	6	0113	3.4	104	0932	-0.4	-12	26 W Th	0003	3.2	98	11 F Sa	0333	2.5	76	26 Sa Su	0239	2.6	79
	0804	-0.2	-6						1752		2.5	76		0843	-0.2	-6		1049	0.3	9		0939	0.6	18
					2034	2.4		73						1755	2.5	76		2319	1.6	49		1616	2.4	73
15 M ○	0042	3.9	119	0002	3.4	104	0210	3.2	98	0103	3.2	98	26 W Th	0843	-0.2	-6	11 F Sa	2205	1.1	34	26 Sa Su	2205	1.1	34
	0900	-0.5	-15						1207		-0.4	-12		0103	3.2	98		0333	2.5	76		0239	2.6	79
					1836	2.7		82	0936		-0.2	-6		0138	0.5	15		1049	0.3	9		0939	0.6	18
16 Tu ○	2209	2.4	73	2209	2.4	73	0311	3.0	91	0936	-0.2	-6	27 Th F	0103	3.2	98	12 Sa Su	1616	2.4	73	27 Su M	1616	2.4	73
	0042	3.9	119						1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
					2209	2.4		73	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
17 W ○	0042	3.9	119	0042	3.9	119	0311	3.0	91	0936	-0.2	-6	27 Th F	0103	3.2	98	12 Sa Su	1616	2.4	73	27 Su M	1616	2.4	73
	0900	-0.5	-15						1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
					2209	2.4		73	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
18 Th ○	0127	3.8	116	0036	3.5	107	0311	3.0	91	0936	-0.2	-6	28 F Sa	0127	3.2	98	13 Su M	0445	2.5	76	28 M Tu	0412	2.6	79
	0955	-0.7	-21						1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
					2329	2.3		70	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
19 F ○	0215	3.7	113	0118	3.5	107	0414	2.9	88	0936	-0.2	-6	28 F Sa	0127	3.2	98	13 Su M	0445	2.5	76	28 M Tu	0412	2.6	79
	1047	-0.7	-21						1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
	1931	2.9	88		1942	2.7		82	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
20 Sa ○	2155	2.8	85	2155	2.8	85	0414	2.9	88	0936	-0.2	-6	28 F Sa	0127	3.2	98	13 Su M	0445	2.5	76	28 M Tu	0412	2.6	79
					1942	2.7		82	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
					1942	2.7		82	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
21 Su ○	0307	3.5	107	0211	3.5	107	0414	2.9	88	0936	-0.2	-6	28 F Sa	0127	3.2	98	13 Su M	0445	2.5	76	28 M Tu	0412	2.6	79
	1136	-0.7	-21						1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
	2003	3.0	91		2008	2.8		85	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
22 M ○	2332	2.8	85	2332	2.8	85	0414	2.9	88	0936	-0.2	-6	28 F Sa	0127	3.2	98	13 Su M	0445	2.5	76	28 M Tu	0412	2.6	79
					1836	2.7		82	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
					1836	2.7		82	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
23 W ○	0307	3.5	107	0211	3.5	107	0414	2.9	88	0936	-0.2	-6	28 F Sa	0127	3.2	98	13 Su M	0445	2.5	76	28 M Tu	0412	2.6	79
	1136	-0.7	-21						1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
	2003	3.0	91		2008	2.8		85	1836		2.7	82		0936	-0.2	-6		0333	2.5	76		0239	2.6	79
24 Th ○	2332	2.8	85	2332	2.8	85	0414	2.9	88	0936	-0.2	-6	28 F Sa	0127	3.2	98	13 Su M							

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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.
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Village Cove, St. Paul Island, Alaska, 2015

Times and Heights of High and Low Waters

January					February					March																			
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	0456	2.8	85		16 F	0436	2.4	73		1 Su	0641	3.0	91		16 M	0519	2.7	82		1 Su	0458	2.9	88		16 M	0339	2.8	85	
	0903	2.3	70			0647	2.3	70			1058	2.5	76			0858	2.4	73			0948	2.2	67			0806	2.1	64	
	1440	3.6	110			1310	3.5	107			1541	3.1	94			1428	3.6	110			1500	3.0	91			1325	3.3	101	
	2223	-0.6	-18			2139	-0.2	-6			2334	-0.2	-6			2233	-0.4	-12			2220	0.1	3			2111	0.0	0	
2 F	0609	2.9	88		17 Sa	0535	2.6	79		2 M	0725	3.0	91		17 Tu	0558	2.9	88		2 M	0546	2.9	88		17 Tu	0416	2.9	88	
	1007	2.5	76			0747	2.5	76			1155	2.5	76			1009	2.2	67			1039	2.1	64			0909	1.9	58	
	1516	3.4	104			1349	3.6	110			1618	3.0	91			1532	3.5	107			1544	2.9	88			1436	3.3	101	
	2310	-0.6	-18			2220	-0.4	-12								2323	-0.3	-9			2304	0.3	9			2201	0.1		
3 Sa	0709	3.1	94		18 Su	0620	2.7	82		3 Tu	0015	-0.1	-3		18 W	0635	3.0	91		3 Tu	0625	2.8	85		18 W	0454	2.9	88	
	1114	2.6	79			0856	2.6	79			0801	3.0	91			1124	2.0	61			1127	2.1	64			1013	1.6	49	
	1549	3.3	101			1435	3.7	113			1247	2.4	73			1644	3.4	104			1629	2.8	85			1551	3.2	98	
	2356	-0.5	-15			2304	-0.6	-18			1700	2.8	85				2344	0.5	15			2344	0.5	15			2254	0.3	9
4 Su	0758	3.2	98		19 M	0657	2.9	88		4 W	0052	0.1	3		19 Th	0014	-0.2	-6		4 W	0656	2.7	82		19 Th	0534	3.1	94	
	1221	2.7	82			1011	2.6	79			0831	2.9	88			0713	3.1	94			1212	2.0	61			1119	1.2	37	
	1623	3.1	94			1528	3.6	110			1336	2.3	70			1236	1.6	49			1722	2.7	82			1713	3.1	94	
						2350	-0.7	-21			1752	2.7	82			1807	3.2	98								2349	0.5	15	
5 M	0038	-0.4	-12		20 Tu	0732	3.1	94		5 Th	0128	0.3	9		20 F	0105	0.1	3		5 Th	0022	0.7	21		20 F	0615	3.2	98	
	0842	3.2	98			1135	2.5	76			0857	2.9	88			0752	3.3	101			0721	2.7	82			1223	0.8	24	
	1322	2.6	79			1630	3.5	107			1426	2.1	64			1344	1.2	37			1255	1.8	55			1836	3.1	94	
	1701	2.9	88						1849		2.5	76		1928		3.1	94		1818		2.6	79							
6 Tu	0118	-0.3	-9		21 W	0037	-0.6	-18		6 F	0203	0.6	18		21 Sa	0158	0.4	12		6 F	0058	0.9	27		21 Sa	0044	0.8	24	
	0919	3.2	98			0808	3.2	98			0921	2.9	88			0834	3.4	104			0744	2.7	82			0657	3.3	101	
	1422	2.6	79			1252	2.3	70			1517	1.9	58			1451	0.8	24			1337	1.6	49			1325	0.4	12	
	1748	2.8	85			1743	3.3	101			1949	2.4	73			2051	3.0	91			1914	2.5	76			1953	3.1	94	
7 W	0157	-0.1	-3		22 Th	0126	-0.5	-15		7 Sa	0238	0.8	24		22 Su	0255	0.8	24		7 Sa	0133	1.1	34		22 Su	0142	1.2	37	
	0950	3.2	98			0846	3.4	104			0945	2.9	88			0918	3.5	107			0806	2.7	82			0742	3.4	104	
	1521	2.4	73			1405	2.0	61			1605	1.6	49			1557	0.4	12			1422	1.4	43			1427	0.1	3	
	1841	2.6	79			1903	3.1	94			2058	2.3	70			2213	2.9	88			2013	2.5	76			2108	3.1	94	
8 Th	0234	0.1	3		23 F	0217	-0.2	-6		8 Su	0313	1.1	34		23 M	0354	1.1	34		8 Su	0208	1.4	43		23 M	0243	1.4	43	
	1017	3.2	98			0925	3.5	107			1007	2.9	88			1005	3.6	110			0827	2.7	82			0830	3.4	104	
	1613	2.2	67			1518	1.5	46			1649	1.4	43			1658	0.1	3			1508	1.2	37			1528	-0.2	-6	
	1938	2.4	73			2026	2.9	88			2213	2.2	67			2331	2.9	88			2117	2.5	76			2220	3.2	98	
9 F	0311	0.4	12		24 Sa	0310	0.1	3		9 M	0347	1.3	40		24 Tu	0452	1.5	46		9 M	0246	1.6	49		24 Tu	0347	1.7	52	
	1042	3.2	98			1005	3.6	110			1026	3.0	91			1052	3.6	110			0846	2.7	82			0921	3.4	104	
	1658	1.9	58			1625	1.0	30			1730	1.1	34			1756	-0.2	-6			1554	1.0	30			1627	-0.3	-9	
	2048	2.3	70			2157	2.7	82			2326	2.2	67						2222		2.5	76		2327		3.2	98		
10 Sa	0347	0.7	21		25 Su	0404	0.6	18		10 Tu	0418	1.6	49		25 W	0048	2.9	88		10 Tu	0325	1.8	55		25 W	0450	1.8	55	
	1106	3.2	98			1046	3.7	113			1042	3.0	91			0551	1.7	52			0904	2.8	85			1015	3.3	101	
	1740	1.6	49			1726	0.6	18			1812	0.8	24			1141	3.5	107			1636	0.7	21			1723	-0.3	-9	
	2210	2.1	64			2325	2.6	79								1854	-0.3	-9			2324	2.5	76						
11 Su	0420	1.0	30		26 M	0458	1.0	30		11 W	0042	2.2	67		26 Th	0201	2.9	88		11 W	0404	2.0	61		26 Th	0031	3.2	98	
	1128	3.2	98			1128	3.8	116			0447	1.8	55			0653	1.9	58			0927	2.9	88			0550	1.9	58	
	1822	1.3	40			1826	0.2	6			1059	3.1	94			1232	3.4	104			1718	0.5	15			1109	3.2	98	
	2331	2.0	61						1854		0.6	18		1951		-0.3	-9							1818		-0.2	-6		
12 M	0450	1.3	40		27 Tu	0052	2.6	79		12 Th	0157	2.3	70		27 F	0305	3.0	91		12 Th	0026	2.5	76		27 F	0133	3.2	98	
	1147	3.2	98			0554	1.4	43			0516	2.1	64			0755	2.1	64			0441	2.1	64			0650	1.9	58	
	1904	1.0	30			1211	3.8	116			1123	3.2	98			1324	3.3	101			0957	3.0	91			1205	3.0	91	
						1925	-0.1	-3			1937	0.3	9			2044	-0.2	-6			1801	0.3	9			1913	-0.1	-3	
13 Tu	0057	2.0	61		28 W	0217	2.7	82		13 F	0259	2.4	73		28 Sa	0403	3.0	91		13 F	0127	2.6	79		28 Sa	0228	3.1	94	
	0515	1.6	49			0654	1.8	55			0552	2.2	67			0854	3.1	64			0519	2.3	70			0750	1.9	58	
	1203	3.2	98			1257	3.7	113			1156	3.4	104			1414	2.2	98			1035	3.1	94			1304	2.9	88	
	1945	0.7	21			2021	-0.3	-9			2019	0.0	0			2134	-0.1	-3			1846	0.2	6			2006	0.1	3	
14 W	0220	2.1	64		29 Th	0331	2.8	85		14 Sa	0350	2.5	76		14 Sa	0218	2.7	82		14 Sa	0218	2.7	82		29 Su	0316	3.0	91	
	0539	1.9	58			0757	2.1	64			0643	2.4	73			0604	2.3	70			0604	2.3	70			0845	1.9	58	
	1218	3.3	101			1342	3.6	110			1239	3.5	107			1122	3.2	98			1122	3.2	98			1401	2.8	85	
	2024	0.4	12			2113	-0.4	-12			2102	-0.2	-6				1934	0.0	0								2055	0.3	9
15 Th	0331	2.2	67		30 F	0440	2.9	88		15 Su	0436	2.6	79		15 Su	0301	2.7	82		15 Su	0301	2.7	82		30 M	0358	2.9	88	
	0607	2.1	64			0859	2.3	70			0749	2.4	73			0702	2.3	70			0702	2.3	70			0933	1.8	55	
	1240	3.4	104			1425	3.4	104			1331	3.5	107			1218	3.3	101			1218	3.3	101			1455	2.7	82	
	2101	0.1	3			2202	-0.4	-12			2146	-0.3	-9			2022	0.0	0								2140	0.6	18	
				31 Sa	0546	2.9	88																						
					0958	2.4	73																						
					1505	3.3	101																						
					2249	-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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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, 2015

Times and Heights of High and Low Waters

July					August					September													
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 W ○	0333	6.3	192	16 Th	0447	4.9	149	1 Sa	0442	4.7	143	16 Su	0557	3.9	119	1 Tu	0605	1.1	34	16 W	0006	8.4	256
	0739	8.8	268		0949	8.5	259		0937	9.1	277		1134	8.1	247		1216	10.1	308		0633	2.4	73
	1522	-0.8	-24		1640	-0.7	-21		1639	-0.8	-24		1748	1.6	49		1823	1.3	40		1308	8.9	271
	2259	10.3	314		2352	10.9	332		2342	10.9	332								1858		3.8	116	
2 Th	0425	6.1	186	17 F	0540	4.7	143	2 Su	0539	3.8	116	17 M	0029	9.7	296	2 W	0034	10.8	329	17 Th	0037	8.3	253
	0833	8.8	268		1046	8.2	250		1056	9.1	277		0641	3.5	107		0703	0.2	6		0710	2.1	64
	1608	-1.0	-30		1725	-0.2	-6		1736	-0.4	-12		1228	8.1	247		1328	10.5	320		1356	9.1	277
	2341	10.7	326						1832	2.1	64		1832	2.1	64		1925	1.9	58		1943	4.2	128
3 F	0518	5.6	171	18 Sa	0032	10.9	332	3 M	0027	11.2	341	18 Tu	0101	9.6	293	3 Th	0127	10.8	329	18 F	0108	8.2	250
	0937	8.6	262		0631	4.3	131		0636	2.7	82		0723	3.1	94		0801	-0.6	-18		0747	1.7	52
	1658	-1.1	-34		1143	7.9	241		1214	9.2	280		1322	8.2	250		1436	10.8	329		1443	9.3	283
					1811	0.4	12		1834	0.2	6		1917	2.7	82		2027	2.4	73		2028	4.5	137
4 Sa	0023	11.1	338	19 Su	0110	10.8	329	4 Tu	0113	11.4	347	19 W	0133	9.4	287	4 F	0221	10.7	326	19 Sa	0140	8.1	247
	0612	5.0	152		0719	3.9	119		0734	1.6	49		0803	2.6	79		0859	-1.1	-34		0824	1.4	43
	1051	8.5	259		1241	7.8	238		1330	9.4	287		1416	8.4	256		1540	11.0	335		1528	9.5	290
	1751	-0.9	-27		1856	1.0	30		1934	0.9	27		2001	3.3	101		2128	2.8	85		2112	4.7	143
5 Su	0105	11.4	347	20 M	0145	10.6	323	5 W	0200	11.5	351	20 Th	0204	9.2	280	5 Sa	0317	10.6	323	20 Su	0212	8.2	250
	0708	4.0	122		0806	3.4	104		0830	0.5	15		0841	2.2	67		0956	-1.3	-40		0902	1.1	34
	1209	8.5	259		1339	7.8	238		1443	9.7	296		1508	8.5	259		1642	11.1	338		1613	9.6	293
	1847	-0.5	-15		1941	1.7	52		2035	1.7	52		2046	3.9	119		2229	3.1	94		2155	4.9	149
6 M	0149	11.7	357	21 Tu	0219	10.4	317	6 Th	0248	11.4	347	21 F	0233	9.0	274	6 Su	0413	10.3	314	21 M	0249	8.3	253
	0803	3.0	91		0849	2.9	88		0926	-0.3	-9		0918	1.8	55		1053	-1.2	-37		0943	0.8	24
	1327	8.5	259		1438	7.8	238		1553	10.0	305		1559	8.7	265		1742	11.1	338		1656	9.7	296
	1944	0.2	6		2026	2.4	73		2136	2.5	76		2130	4.4	134		2329	3.4	104		2239	5.0	152
7 Tu	0232	11.8	360	22 W	0252	10.2	311	7 F	0338	11.2	341	22 Sa	0302	8.9	271	7 M	0510	10.0	305	22 Tu	0331	8.4	256
	0857	1.9	58		0931	2.4	73		1022	-1.0	-30		0955	1.4	43		1149	-0.9	-27		1029	0.6	18
	1444	8.7	265		1535	7.9	241		1700	10.2	311		1648	8.8	268		1840	10.9	332		1739	9.7	296
	2043	1.0	30		2111	3.2	98		2238	3.2	98		2215	4.9	149				2325		4.8	146	
8 W ○	0316	11.7	357	23 Th	0323	9.9	302	8 Sa	0429	10.9	332	23 Su	0330	8.8	268	8 Tu	0028	3.5	107	23 W	0421	8.7	265
	0951	0.8	24		1010	1.9	58		1118	-1.3	-40		1032	1.0	30		0606	9.6	293		1119	0.5	15
	1558	9.0	274		1631	8.1	247		1805	10.4	317		1737	9.0	274		1244	-0.5	-15		1821	9.8	299
	2143	2.0	61		2157	4.0	122		2340	3.8	116		2300	5.3	162		1934	10.7	326				
9 Th	0401	11.5	351	24 F	0352	9.5	290	9 Su	0521	10.5	320	24 M	0401	8.9	271	9 W	0124	3.6	110	24 Th	0012	4.5	137
	1045	-0.1	-3		1049	1.5	46		1213	-1.4	-43		1113	0.6	18		0702	9.3	283		0518	8.9	271
	1710	9.3	283		1727	8.3	253		1907	10.6	323		1824	9.1	277		1336	0.0	0		1212	0.5	15
	2245	2.9	88		2244	4.7	143				2347		5.5	168	2025		10.3	314	1902		9.9	302	
10 F	0447	11.2	341	25 Sa	0418	9.3	283	10 M	0042	4.2	128	25 Tu	0438	9.0	274	10 Th	0217	3.6	110	25 F	0102	3.9	119
	1140	-0.8	-24		1126	1.1	34		0614	10.0	305		1157	0.3	9		0756	9.0	274		0621	9.2	280
	1819	9.7	296		1820	8.5	259		1307	-1.3	-40		1909	9.3	283		1425	0.6	18		1308	0.6	18
	2349	3.7	113		2332	5.3	162		2006	10.6	323				2112		10.0	305	1944		9.9	302	
11 Sa	0534	10.8	329	26 Su	0443	9.1	277	11 Tu	0141	4.4	134	26 W	0035	5.5	168	11 F	0307	3.6	110	26 Sa	0153	3.1	94
	1233	-1.3	-40		1203	0.7	21		0706	9.6	293		0524	9.2	280		0850	8.7	265		0729	9.4	287
	1924	10.1	308		1911	8.8	268		1358	-1.0	-30		1244	-0.1	-3		1513	1.2	37		1405	0.9	27
									2101	10.5	320		1953	9.5	290		2154	9.6	293		2027	10.0	305
12 Su	0053	4.4	134	27 M	0021	5.8	177	12 W	0238	4.5	137	27 Th	0125	5.2	158	12 Sa	0353	3.5	107	27 Su	0246	2.2	67
	0623	10.3	314		0511	9.1	277		0758	9.1	277		0618	9.3	283		0944	8.5	259		0840	9.7	296
	1325	-1.6	-49		1241	0.2	6		1448	-0.6	-18		1335	-0.2	-6		1558	1.8	55		1505	1.3	40
	2026	10.5	320		1959	9.1	277		2152	10.4	317		2036	9.7	296		2231	9.2	280		2115	10.1	308
13 M	0154	4.8	146	28 Tu	0110	6.0	183	13 Th	0332	4.5	137	28 F	0217	4.8	146	13 Su	0437	3.3	101	28 M	0342	1.3	40
	0712	9.8	299		0545	9.2	280		0851	8.7	265		0719	9.4	287		1037	8.5	259		0954	10.1	308
	1416	-1.6	-49		1321	-0.2	-6		1535	-0.1	-3		1428	-0.3	-9		1643	2.4	73		1607	1.8	55
	2125	10.7	326		2045	9.4	287		2239	10.3	314		2121	10.0	305		2304	8.9	271		2206	10.1	308
14 Tu	0254	5.0	152	29 W	0159	6.1	186	14 F	0423	4.4	134	29 Sa	0312	4.1	125	14 M	0517	3.1	94	29 Tu	0438	0.3	9
	0802	9.4	287		0629	9.2	280		0945	8.4	256		0829	9.5	290		1128	8.5	259		1106	10.6	323
	1505	-1.4	-43		1405	-0.6	-18		1620	0.4	12		1524	-0.1	-3		1727	3.0	91		1709	2.3	70
	2218	10.8	329		2130	9.7	296		2319	10.1	308		2207	10.2	311		2336	8.6	262		2300	10.1	308
15 W ●	0351	5.0	152	30 Th	0251	5.9	180	15 Sa	0511	4.2	128	30 Su	0409	3.2	98	15 Tu	0556	2.8	85	30 W	0536	-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.

Platinum, Alaska, 2015

Times and Heights of High and Low Waters

January					February					March													
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					
1 Th	0511	5.1	155	16 F	0456	4.2	128	1 Su	0146	1.4	43	16 M	0053	1.7	52	1 Su	0010	1.3	40	16 M	0457	4.3	131
	1057	-0.7	-21		1018	0.3	9		0652	4.2	128		0607	3.7	113		0535	4.8	146		0958	0.6	18
	1815	9.7	296		1758	8.7	265		1217	0.2	6		1110	0.2	6		1108	0.4	12		1729	8.7	265
2 F	0103	1.6	49	17 Sa	0041	2.1	64	2 M	0244	1.3	40	17 Tu	0142	1.6	49	2 M	0107	1.4	43	17 Tu	0005	1.4	43
	0611	4.5	137		0546	3.7	113		0751	4.1	125		0705	3.9	119		0632	4.7	143		0549	4.5	137
	1145	-0.5	-15		1054	0.2	6		1309	0.6	18		1210	0.2	6		1203	0.8	24		1058	0.6	18
	1908	10.0	305	1844	9.1	277	2026	9.2	280	1948	9.3	283	1907	8.6	262	1822	8.5	259					
3 Sa	0209	1.3	40	18 Su	0139	1.9	58	3 Tu	0337	1.2	37	18 W	0229	1.3	40	3 Tu	0159	1.4	43	18 W	0051	1.3	40
	0713	4.0	122		0641	3.4	104		0849	4.1	125		0806	4.3	131		0728	4.7	143		0646	5.0	152
	1235	-0.1	-3		1137	0.2	6		1401	1.0	30		1315	0.2	6		1258	1.1	34		1207	0.6	18
	1959	10.0	305	1931	9.6	293	2115	9.0	274	2041	9.2	280	1958	8.2	250	1917	8.2	250					
4 Su	0311	1.1	34	19 M	0232	1.5	46	4 W	0424	1.1	34	19 Th	0315	1.0	30	4 W	0247	1.5	46	19 Th	0136	1.1	34
	0814	3.8	116		0739	3.2	98		0945	4.3	131		0906	4.9	149		0823	4.9	149		0744	5.7	174
	1325	0.3	9		1454	1.3	40		1424	0.3	9		1424	0.3	9		1353	1.4	43		1319	0.6	18
	2050	10.0	305	2019	9.9	302	2202	8.7	265	2134	8.9	271	2048	7.8	238	2013	7.9	241					
5 M	0408	0.8	24	20 Tu	0321	1.2	37	5 Th	0504	1.0	30	20 F	0400	0.6	18	5 Th	0330	1.5	46	20 F	0222	0.8	24
	0914	3.8	116		0838	3.4	104		1037	4.6	140		1005	5.8	177		0916	5.2	158		0843	6.6	201
	1415	0.6	18		1323	0.2	6		1550	1.6	49		1536	0.4	12		1449	1.5	46		1431	0.6	18
	2139	9.8	299	2109	10.0	305	2247	8.3	253	2227	8.5	259	2136	7.5	229	2110	7.4	226					
6 Tu	0457	0.6	18	21 W	0407	0.8	24	6 F	0538	0.9	27	21 Sa	0445	0.3	9	6 F	0409	1.4	43	21 Sa	0308	0.6	18
	1011	3.9	119		0936	3.8	116		1126	5.0	152		1102	6.8	207		1006	5.6	171		0941	7.5	229
	1507	1.0	30		1424	0.3	9		1645	1.7	52		1648	0.5	15		1547	1.6	49		1543	0.5	15
	2225	9.6	293	2159	10.0	305	2330	7.9	241	2319	8.0	244	2223	7.1	216	2206	7.0	213					
7 W	0540	0.4	12	22 Th	0450	0.5	15	7 Sa	0610	0.8	24	22 Su	0529	-0.1	-3	7 Sa	0444	1.4	43	22 Su	0357	0.3	9
	1105	4.2	128		1034	4.4	134		1212	5.5	168		1157	7.8	238		1052	6.0	183		1037	8.4	256
	1601	1.4	43		1532	0.5	15		1740	1.9	58		1756	0.5	15		1643	1.6	49		1653	0.3	9
	2310	9.3	283	2248	9.7	296						2308	6.7	204	2301	6.6	201						
8 Th	0617	0.3	9	23 F	0531	0.1	3	8 Su	0013	7.4	226	23 M	0011	7.4	226	8 Su	0517	1.3	40	23 M	0446	0.0	0
	1156	4.5	137		1129	5.3	162		0640	0.8	24		0614	-0.4	-12		1136	6.5	198		1131	9.2	280
	1655	1.7	52		1643	0.7	21		1257	6.0	183		1253	8.6	262		1737	1.6	49		1757	0.1	3
	2353	8.8	268	2338	9.2	280	1833	1.9	58	1902	0.6	18	1902	0.6	18	2352	6.3	192	2355	6.2	189		
9 F	0651	0.3	9	24 Sa	0611	-0.3	-9	9 M	0056	6.9	210	24 Tu	0104	6.8	207	9 M	0549	1.3	40	24 Tu	0536	-0.1	-3
	1244	4.9	149		1224	6.3	192		0709	0.7	21		0700	-0.6	-18		1219	6.9	210		1225	9.7	296
	1749	1.9	58		1753	0.9	27		1341	6.5	198		1348	9.2	280		1827	1.5	46		1858	0.1	3
												2006	0.7	21									
10 Sa	0036	8.3	253	25 Su	0028	8.5	259	10 Tu	0139	6.3	192	25 W	0158	6.3	192	10 Tu	0036	5.9	180	25 W	0050	5.9	180
	0723	0.3	9		0652	-0.6	-18		0738	0.7	21		0747	-0.7	-21		0619	1.2	37		0626	-0.2	-6
	1332	5.4	165		1320	7.2	219		1425	7.0	213		1442	9.5	290		1302	7.4	226		1319	9.9	302
	1843	2.2	67	1902	1.1	34	2019	2.0	61	2108	0.8	24	2108	0.8	24	1916	1.4	43	1955	0.1	3		
11 Su	0119	7.7	235	26 M	0120	7.8	238	11 W	0222	5.7	174	26 Th	0252	5.8	177	11 W	0120	5.5	168	26 Th	0144	5.7	174
	0753	0.3	9		0734	-0.8	-24		0806	0.7	21		0835	-0.6	-18		0650	1.2	37		0717	-0.1	-3
	1419	5.9	180		1416	8.1	247		1507	7.5	229		1536	9.6	293		1344	7.8	238		1412	9.8	299
	1938	2.3	70	2011	1.2	37	2113	2.0	61	2208	0.9	27	2208	0.9	27	2005	1.3	40	2051	0.2	6		
12 M	0202	7.0	213	27 Tu	0212	7.0	213	12 Th	0304	5.1	155	27 F	0346	5.4	165	12 Th	0204	5.1	155	27 F	0239	5.5	168
	0822	0.3	9		0817	-1.0	-30		0835	0.6	18		0924	-0.3	-9		0720	1.1	34		0808	0.1	3
	1503	6.5	198		1510	8.9	271		1550	8.0	244		1629	9.5	290		1427	8.1	247		1505	9.6	293
	2035	2.5	76	2119	1.4	43	2207	2.0	61	2310	1.1	34	2310	1.1	34	2053	1.3	40	2144	0.4	12		
13 Tu	0245	6.3	192	28 W	0306	6.2	189	13 F	0346	4.6	140	28 Sa	0440	5.1	155	13 F	0246	4.7	143	28 Sa	0332	5.4	165
	0851	0.4	12		0901	-1.0	-30		0905	0.5	15		1015	0.0	0		0752	0.9	27		0900	0.4	12
	1546	7.0	213		1604	9.4	287		1633	8.4	256		1722	9.3	283		1510	8.4	256		1557	9.2	280
	2134	2.5	76	2227	1.5	46	2303	2.0	61				2140	1.3	40	2237	0.7	21					
14 W	0327	5.6	171	29 Th	0400	5.5	168	14 Sa	0428	4.1	125	14 Sa	0328	4.4	134	14 Sa	0328	4.4	134	29 Su	0425	5.3	162
	0919	0.4	12		0947	-0.8	-24		0939	0.4	12		0827	0.8	24		0827	0.8	24		0954	0.8	24
	1629	7.6	232		1657	9.6	293		1718	8.8	268		1554	8.6	262		1554	8.6	262		1648	8.6	262
	2235	2.5	76	2336	1.5	46	2359	1.9	58				2228	1.4	43	2228	1.4	43	2329	0.9	27		
15 Th	0410	4.9	149	30 F	0455	4.9	149	15 Su	0514	3.8	116	15 Su	0411	4.2	128	15 Su	0411	4.2	128	30 M	0518	5.3	162
	0947	0.4	12		1035	-0.5	-15		1020	0.2	6		0909	0.7	21		1050	1.1	34		1050	1.1	34
	1713	8.1	247		1751	9.7	296		1806	9.1	277		1640	8.7	265		1740	8.1	247				
	2339	2.4	73									2317	1.4	43									
				31 Sa	0043	1.5	46												31 Tu	0019	1.2	37	
					0553	4.5	137													0612	5.4	165	
					1125	-0.2	-6													1149	1.4	43	
				1844	9.6	293													1832	7.5	229		

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.

Times and Heights of High and Low Waters

April								May								June							
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				
1 W	0105	1.3	40	16 Th	0004	0.7	21	1 F	0045	1.2	37	16 Sa	0007	-0.1	-3	1 M	0055	1.0	30	16 Tu	0115	-0.2	-6
	0705	5.6	171		0633	6.4	195		0727	6.9	210		0714	8.8	268		0824	8.7	265		0842	10.5	320
	1249	1.6	49		1215	1.2	37		1342	2.0	61		1339	1.3	40		1525	1.5	46		1550	0.6	18
	1924	7.0	213		1847	7.0	213		1937	5.4	165		1920	5.1	155		2044	3.7	113		2103	3.9	119
2 Th	0146	1.5	46	17 F	0048	0.5	15	2 Sa	0120	1.3	40	17 Su	0054	-0.1	-3	2 Tu	0131	1.0	30	17 W	0207	0.1	3
	0756	5.9	180		0729	7.3	223		0813	7.4	226		0807	9.6	293		0908	9.1	277		0933	10.6	323
	1349	1.7	52		1329	1.0	30		1442	1.8	55		1448	0.9	27		1618	1.1	34		1645	0.3	9
	2015	6.5	198		1946	6.4	195		2030	4.9	149		2023	4.6	140		2139	3.5	107		2204	3.9	119
3 F	0225	1.6	49	18 Sa	0133	0.4	12	3 Su	0155	1.4	43	18 M	0143	-0.1	-3	3 W	0209	1.1	34	18 Th	0302	0.4	12
	0845	6.3	192		0825	8.3	253		0858	7.9	241		0901	10.2	311		0952	9.5	290		1023	10.4	317
	1448	1.7	52		1441	0.8	24		1541	1.5	46		1554	0.5	15		1705	0.7	21		1735	0.1	3
	2106	6.1	186		2046	5.9	180		2123	4.6	140		2124	4.4	134		2231	3.4	104		2301	4.2	128
4 Sa	0302	1.6	49	19 Su	0221	0.2	6	4 M	0231	1.5	46	19 Tu	0234	0.0	0	4 Th	0251	1.1	34	19 F	0358	0.8	24
	0933	6.7	204		0920	9.1	277		0942	8.3	253		0953	10.5	320		1035	9.7	296		1111	10.1	308
	1546	1.6	49		1550	0.5	15		1635	1.1	34		1654	0.1	3		1747	0.4	12		1819	-0.1	-3
	2156	5.8	177		2145	5.5	168		2215	4.3	131		2224	4.4	134		2320	3.5	107		2356	4.4	134
5 Su	0338	1.6	49	20 M	0312	0.1	3	5 Tu	0308	1.5	46	20 W	0329	0.2	6	5 F	0340	1.2	37	20 Sa	0455	1.2	37
	1017	7.2	219		1014	9.8	299		1025	8.7	265		1044	10.6	323		1118	9.8	299		1158	9.7	296
	1642	1.4	43		1655	0.1	3		1723	0.8	24		1747	-0.2	-6		1826	0.1	3		1901	-0.2	-6
	2244	5.5	168		2243	5.3	162		2304	4.2	128		2321	4.5	137								
6 M	0415	1.6	49	21 Tu	0405	0.1	3	6 W	0347	1.5	46	21 Th	0425	0.5	15	6 Sa	0009	3.8	116	21 Su	0049	4.8	146
	1100	7.6	232		1107	10.2	311		1107	9.0	274		1134	10.5	320		0434	1.3	40		0551	1.6	49
	1733	1.1	34		1754	-0.1	-3		1808	0.5	15		1837	-0.3	-9		1201	9.8	299		1244	9.1	277
	2330	5.2	158		2339	5.2	158		2351	4.1	125						1904	-0.1	-3		1939	-0.2	-6
7 Tu	0450	1.6	49	22 W	0459	0.2	6	7 Th	0427	1.5	46	22 F	0016	4.6	140	7 Su	0058	4.2	128	22 M	0141	5.2	158
	1142	8.0	244		1159	10.3	314		1148	9.2	280		0521	0.8	24		0531	1.4	43		0647	1.9	58
	1820	0.9	27		1849	-0.3	-9		1850	0.3	9		1223	10.1	308		1246	9.5	290		1330	8.4	256
													1923	-0.4	-12		1940	-0.2	-6		2015	-0.1	-3
8 W	0016	4.9	149	23 Th	0034	5.1	155	8 F	0038	4.0	122	23 Sa	0111	4.9	149	8 M	0148	4.8	146	23 Tu	0231	5.7	174
	0524	1.6	49		0509	1.5	46		0616	1.1	34		0632	1.5	46		0745	2.2	67				
	1223	8.3	253		1230	9.3	283		1312	9.6	293		1333	8.9	271		1415	7.7	235				
	1905	0.8	24		1941	-0.3	-9		1930	0.2	6		2007	-0.3	-9		2016	-0.3	-9		2048	0.0	0
9 Th	0101	4.7	143	24 F	0129	5.2	158	9 Sa	0124	4.1	125	24 Su	0205	5.2	158	9 Tu	0238	5.5	168	24 W	0319	6.2	189
	0558	1.5	46		0646	0.6	18		0554	1.5	46		0712	1.5	46		0738	1.7	52		0844	2.4	73
	1305	8.6	262		1342	9.8	299		1314	9.3	283		1400	8.9	271		1421	8.3	253		1500	6.9	210
	1949	0.7	21		2030	-0.2	-6		2009	0.1	3		2048	-0.2	-6		2052	-0.5	-15		2120	0.2	6
10 F	0146	4.5	137	25 Sa	0223	5.3	162	10 Su	0211	4.3	131	25 M	0257	5.5	168	10 W	0328	6.4	195	25 Th	0404	6.7	204
	0634	1.4	43		0740	0.9	27		0644	1.5	46		0809	1.9	58		0848	1.9	58		0945	2.6	79
	1348	8.8	268		1433	9.3	283		1359	9.1	277		1448	8.2	250		1510	7.4	226		1545	6.1	186
	2032	0.6	18		2117	0.0	0		2047	0.1	3		2126	0.0	0		2129	-0.6	-18		2151	0.3	9
11 Sa	0230	4.4	134	26 Su	0316	5.4	165	11 M	0258	4.8	146	26 Tu	0346	5.9	180	11 Th	0419	7.4	226	26 F	0449	7.2	219
	0713	1.3	40		0835	1.2	37		0741	1.5	46		0907	2.2	67		1000	2.0	61		1050	2.6	79
	1432	8.8	268		1522	8.7	265		1446	8.6	262		1535	7.4	226		1602	6.5	198		1631	5.3	162
	2114	0.7	21		2202	0.3	9		2124	0.1	3		2203	0.2	6		2208	-0.6	-18		2222	0.4	12
12 Su	0314	4.4	134	27 M	0407	5.6	171	12 Tu	0345	5.4	165	27 W	0434	6.3	192	12 F	0511	8.3	253	27 Sa	0534	7.8	238
	0758	1.2	37		0931	1.6	49		0844	1.6	49		1009	2.4	73		1116	1.9	58		1157	2.5	76
	1517	8.7	265		1612	8.0	244		1534	8.1	247		1621	6.6	201		1657	5.7	174		1719	4.6	140
	2156	0.7	21		2246	0.5	15		2202	0.0	0		2238	0.4	12		2250	-0.6	-18		2253	0.5	15
13 M	0358	4.6	140	28 Tu	0458	5.8	177	13 W	0435	6.1	186	28 Th	0522	6.8	207	13 Sa	0604	9.1	277	28 Su	0619	8.3	253
	0850	1.1	34		1030	1.9	58		0953	1.7	52		1115	2.5	76		1232	1.7	52		1301	2.3	70
	1604	8.5	259		1701	7.3	223		1625	7.3	223		1710	5.8	177		1756	4.9	149		1811	4.0	122
	2237	0.8	24		2328	0.8	24		2241	0.0	0		2312	0.6	18		2336	-0.6	-18		2327	0.5	15
14 Tu	0446	5.0	152	29 W	0549	6.1	186	14 Th	0526	7.0	213	29 F	0609	7.3	223	14 Su	0657	9.8	299	29 M	0704	8.7	265
	0950	1.2	37		1134	2.1	64		1109	1.8	55		1223	2.4	73		1342	1.4	43		1400	1.9	58
	1655	8.1	247		1752	6.6	201		1720	6.5	198		1801	5.1	155		1858	4.3	131		1906	3.6	110
	2320	0.7	21						2323	-0.1	-3		2346	0.8	24								
15 W	0538	5.6	171	30 Th	0007	1.0	30	15 F	0620	7.9	241	30 Sa	0655	7.8	238	15 M	0025	-0.5	-15	30 Tu	0003	0.6	18
	1100	1.2	37		0639	6.5	198		1226	1.6	49		1328	2.2	67		0750	10.3	314		0749	9.2	280
	1749	7.5	229		1239	2.1	64		1819	5.7	174		1855	4.5	137		1448	1.0	30		1455	1.6	49
					1844	5.9	180								2001		4.0	122	2001		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.

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.

Times and Heights of High and Low Waters

October								November								December							
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		h m	ft cm			
1 Th	0532	0.1	3	16 F	0609	0.8	24	1 Su	0022	10.6	323	16 M	0012	9.3	283	1 Tu	0048	10.0	305	16 W	0026	9.3	283
	1128	5.9	180		1200	4.8	146		0715	-0.5	-15		0715	0.2	6		0743	-0.5	-15		0722	-0.1	-3
	1700	-0.1	-3		1704	1.6	49		1302	5.1	155		1308	4.0	122		1340	5.2	158		1328	4.6	140
	2355	9.9	302		1815	0.4	12		1733	1.7	52		1849	1.3	40		1807	1.7	52				
2 F	0632	-0.1	-3	17 Sa	0004	8.4	256	2 M	0114	10.3	314	17 Tu	0053	9.2	280	2 W	0137	9.3	283	17 Th	0109	8.8	268
	1222	5.6	171		0652	0.7	21		0805	-0.5	-15		0752	0.1	3		0826	-0.5	-15		0755	-0.2	-6
	1751	-0.2	-6		1245	4.6	140		1358	5.3	162		1354	4.2	128		1434	5.6	171		1416	5.3	162
					1739	1.6	49		1912	0.7	21		1821	1.7	52		1949	1.7	52		1910	1.9	58
3 Sa	0048	10.2	311	18 Su	0045	8.6	262	3 Tu	0206	9.7	296	18 W	0136	8.9	271	3 Th	0226	8.5	259	18 F	0155	8.1	247
	0729	-0.1	-3		0734	0.6	18		0853	-0.3	-9		0828	0.1	3		0906	-0.3	-9		0828	-0.3	-9
	1317	5.5	168		1330	4.4	134		1453	5.5	168		1440	4.6	140		1526	6.1	186		1505	6.2	189
	1844	-0.1	-3		1814	1.6	49		2011	1.1	34		1915	1.8	55		2050	2.1	64		2018	2.0	61
4 Su	0143	10.2	311	19 M	0127	8.7	265	4 W	0258	9.0	274	19 Th	0221	8.5	259	4 F	0314	7.6	232	19 Sa	0242	7.4	226
	0824	-0.1	-3		0816	0.6	18		0939	-0.1	-3		0902	0.1	3		0944	-0.1	-3		0902	-0.4	-12
	1413	5.4	165		1415	4.3	131		1547	5.8	177		1526	5.2	158		1616	6.5	198		1553	7.2	219
	1938	0.1	3		1852	1.5	46		2110	1.5	46		2016	1.9	58		2153	2.3	70		2128	2.1	64
5 M	0236	9.9	302	20 Tu	0210	8.7	265	5 Th	0348	8.2	250	20 F	0306	7.9	241	5 Sa	0402	6.7	204	20 Su	0331	6.5	198
	0917	0.1	3		0856	0.6	18		1023	0.2	6		0937	0.1	3		1020	0.2	6		0938	-0.6	-18
	1508	5.4	165		1459	4.4	134		1639	6.1	186		1613	6.0	183		1704	7.0	213		1643	8.1	247
	2033	0.4	12		1936	1.5	46		2213	1.9	58		2124	2.0	61		2300	2.5	76		2242	2.1	64
6 Tu	0329	9.4	287	21 W	0254	8.5	259	6 F	0439	7.4	226	21 Sa	0354	7.2	219	6 Su	0451	5.9	180	21 M	0423	5.6	171
	1010	0.3	9		0935	0.6	18		1106	0.4	12		1012	0.0	0		1055	0.4	12		1018	-0.7	-21
	1602	5.5	168		1543	4.6	140		1731	6.4	195		1702	6.9	210		1752	7.5	229		1735	9.0	274
	2130	0.7	21		2026	1.5	46		2320	2.1	64		2238	2.0	61						2358	1.9	58
7 W	0422	8.9	271	22 Th	0339	8.2	250	7 Sa	0530	6.6	201	22 Su	0446	6.4	195	7 M	0011	2.4	73	22 Tu	0520	4.9	149
	1102	0.6	18		1014	0.7	21		1147	0.7	21		1051	-0.1	-3		0542	5.1	155		1101	-0.7	-21
	1657	5.6	171		1629	5.0	152		1822	6.8	207		1753	7.8	238		1130	0.6	18		1827	9.7	296
	2229	1.1	34		2125	1.5	46						2355	1.9	58		1839	7.9	241				
8 Th	0515	8.2	250	23 F	0427	7.8	238	8 Su	0028	2.2	67	23 M	0544	5.6	171	8 Tu	0117	2.2	67	23 W	0110	1.6	49
	1152	0.8	24		1053	0.7	21		0623	5.9	180		1133	-0.2	-6		0635	4.5	137		0622	4.3	131
	1752	5.7	174		1717	5.6	171		1225	0.9	27		1846	8.8	268		1205	0.8	24		1150	-0.6	-18
	2333	1.4	43		2233	1.6	49		1911	7.2	219						1924	8.3	253		1921	10.3	314
9 F	0608	7.5	229	24 Sa	0518	7.3	223	9 M	0134	2.1	64	24 Tu	0110	1.5	46	9 W	0218	1.9	58	24 Th	0216	1.2	37
	1239	1.0	30		1133	0.7	21		0717	5.2	158		0645	4.9	149		0730	4.0	122		0726	3.9	119
	1846	6.0	183		1809	6.4	195		1302	1.1	34		1218	-0.3	-9		1240	0.9	27		1242	-0.5	-15
					2348	1.5	46		1958	7.7	235		1939	9.6	293		2009	8.7	265		2014	10.6	323
10 Sa	0037	1.7	52	25 Su	0615	6.6	201	10 Tu	0235	1.8	55	25 W	0219	1.1	34	10 Th	0316	1.6	49	25 F	0318	0.8	24
	0702	6.9	210		1215	0.5	15		0811	4.7	143		0748	4.4	134		0825	3.6	110		0830	3.8	116
	1322	1.2	37		1903	7.3	223		1337	1.3	40		1307	-0.3	-9		1316	1.0	30		1336	-0.3	-9
	1939	6.3	192						2042	8.1	247		2032	10.3	314		2053	9.1	277		2106	10.7	326
11 Su	0139	1.7	52	26 M	0103	1.3	40	11 W	0334	1.5	46	26 Th	0325	0.6	18	11 F	0408	1.2	37	26 Sa	0415	0.4	12
	0754	6.4	195		0714	6.0	183		0904	4.4	134		0851	4.2	128		0920	3.5	107		0932	3.9	119
	1401	1.4	43		1259	0.4	12		1413	1.4	43		1359	-0.2	-6		1354	1.1	34		1432	0.1	3
	2028	6.7	204		1957	8.3	253		2126	8.5	259		2125	10.8	329		2136	9.4	287		2158	10.7	326
12 M	0240	1.7	52	27 Tu	0215	1.0	30	12 Th	0427	1.2	37	27 F	0426	0.2	6	12 Sa	0454	0.9	27	27 Su	0507	0.1	3
	0846	5.9	180		0814	5.5	168		0957	4.2	128		0953	4.1	125		1013	3.4	104		1032	4.1	125
	1439	1.5	46		1345	0.2	6		1449	1.5	46		1455	-0.1	-3		1435	1.2	37		1532	0.5	15
	2115	7.1	216		2051	9.2	280		2209	8.8	268		2217	10.9	332		2219	9.6	293		2248	10.4	317
13 Tu	0338	1.5	46	28 W	0324	0.6	18	13 F	0514	0.8	24	28 Sa	0521	-0.2	-6	13 Su	0535	0.5	15	28 M	0553	-0.1	-3
	0938	5.5	168		0914	5.1	155		1047	4.0	122		1052	4.3	131		1103	3.5	107		1129	4.5	137
	1516	1.6	49		1435	0.1	3		1528	1.5	46		1553	0.2	6		1522	1.3	40		1632	0.9	27
	2159	7.5	229		2145	10.0	305		2250	9.1	277		2308	10.9	332		2301	9.6	293		2336	9.9	302
14 W	0433	1.3	40	29 Th	0429	0.2	6	14 Sa	0556	0.5	15	29 Su	0611	-0.4	-12	14 M	0612	0.3	9	29 Tu	0636	-0.3	-9
	1027	5.2	158		1013	4.9	149		1135	4.0	122		1148	4.5	137		1152	3.7	113		1224	4.9	149
	1552	1.6	49		1528	0.0	0		1608	1.6	49		1652	0.5	15		1613	1.4	43		1732	1.3	40
	2242	7.9	241		2238	10.5	320		2331	9.2	280		2358	10.5	320		2343	9.6	293				
15 Th	0523	1.1	34	30 F	0529	-0.2	-6	15 Su	0636	0.3	9	30 M	0658	-0.5	-15	15 Tu	0647	0.1	3	30 W	0023	9.3	283
	1114	5.0	152		1110	4.9	149		1221	3.9	119		1244	4.9	149		1239	4.1	125		0716	-0.3	-9
	1628	1.6	49		1623	0.0	0		1649	1.6	49		1751	0.9	27		1709	1.5	46		1317	5.4	165
	2323	8.2	250		2330	10.7	326											1831	1.6		49		
				31 Sa	0624	-0.4	-12										31 Th	0110	8.6	262			
					1206	4.9	149												0754	-0.2	-6		
					1719	0.1	3											1409	5.9	180			
																		1930	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.

Bethel, Kuskokwim River, Alaska, 2015

Times and Heights of High and Low Waters

January				February				March															
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									
1 Th	0129	3.2	98	16 F	0130	3.4	104	1 Su	0234	3.4	104	16 M	0214	4.1	125	1 Su	0112	3.2	98	16 M	0052	4.1	125
	0935	0.8	24		0921	1.2	37		1133	0.9	27		1024	1.1	34		1015	0.7	21		0906	0.8	24
	1338	2.2	67		1323	1.7	52		1512	1.9	58		1407	1.6	49		1418	2.0	61		1321	1.7	52
	2057	-0.4	-12		2035	-0.2	-6		2156	-0.3	-9		2121	-0.4	-12		2052	-0.1	-3		2017	-0.1	-3
2 F	0218	3.4	104	17 Sa	0209	3.7	113	2 M	0322	3.4	104	17 Tu	0301	4.2	128	2 M	0203	3.2	98	17 Tu	0142	4.1	125
	1041	0.8	24		1018	1.3	40		1231	0.9	27		1105	1.2	37		1103	0.8	24		0942	0.8	24
	1431	2.0	61		1348	1.5	46		1603	1.8	55		1451	1.7	52		1505	2.1	64		1405	2.0	61
	2137	-0.4	-12		2108	-0.3	-9		2236	-0.3	-9		2207	-0.4	-12		2137	-0.1	-3		2108	-0.2	-6
3 Sa	0304	3.6	110	18 Su	0250	4.0	122	3 Tu	0412	3.4	104	18 W	0351	4.1	125	3 Tu	0254	3.1	94	18 W	0232	3.9	119
	1147	0.9	27		1113	1.3	40		1327	1.0	30		1148	1.2	37		1149	0.9	27		1019	0.8	24
	1523	1.8	55		1401	1.4	43		1654	1.8	55		1545	1.9	58		1551	2.1	64		1454	2.3	70
	2217	-0.4	-12		2142	-0.4	-12		2317	-0.2	-6		2258	-0.4	-12		2221	-0.1	-3		2203	-0.2	-6
4 Su	0350	3.7	113	19 M	0333	4.2	128	4 W	0503	3.3	101	19 Th	0443	3.9	119	4 W	0345	3.0	91	19 Th	0324	3.6	110
	1256	0.9	27		2218	-0.4	-12		1417	1.0	30		1234	1.2	37		1233	1.0	30		1057	0.8	24
	1616	1.7	52		1745	1.8	55		1645	2.1	64		1638	2.2	67		1638	2.2	67		1546	2.6	79
	2255	-0.3	-9		2255	-0.3	-9		2357	-0.2	-6		2306	0.0	0		2306	0.0	0		2302	-0.1	-3
5 M	0438	3.7	113	20 Tu	0419	4.3	131	5 Th	0000	0.0	0	20 F	0536	3.6	110	5 Th	0439	2.9	88	20 F	0418	3.3	101
	1401	0.9	27		2259	-0.4	-12		0555	3.3	101		1323	1.1	34		1314	1.0	30		1139	0.8	24
	1711	1.6	49		1835	1.9	58		1746	2.4	73		1725	2.3	70		1640	2.9	88				
	2334	-0.2	-6		2334	-0.2	-6		1835	1.9	58		1845	2.6	79		1854	2.6	79		1854	2.6	79
6 Tu	0526	3.7	113	21 W	0508	4.3	131	6 F	0047	0.1	3	21 Sa	0106	0.0	0	6 F	0534	2.7	82	21 Sa	0007	0.0	0
	1459	0.8	24		1355	1.3	40		0647	3.2	98		0631	3.3	101		1350	1.0	30		0513	2.9	88
	1805	1.5	46		1632	1.4	43		1535	0.9	27		1413	1.0	30		1810	2.4	73		1225	0.8	24
					2349	-0.3	-9		1923	2.0	61		1845	2.6	79						1735	3.2	98
7 W	0013	-0.1	-3	22 Th	0559	4.2	128	7 Sa	0139	0.3	9	22 Su	0222	0.2	6	7 Sa	0047	0.3	9	22 Su	0119	0.2	6
	0615	3.7	113		1436	1.2	37		0737	3.0	91		0725	2.9	88		0629	2.6	79		0610	2.5	76
	1547	0.8	24		1751	1.6	49		1603	0.9	27		1503	0.9	27		1422	1.0	30		1316	0.7	21
	1859	1.5	46		2010	2.2	67		2010	2.2	67		1942	2.9	88		1854	2.6	79		1828	3.4	104
8 Th	0057	0.0	0	23 F	0050	-0.1	-3	8 Su	0239	0.5	15	23 M	0339	0.4	12	8 Su	0146	0.5	15	23 M	0235	0.3	9
	0705	3.7	113		0651	4.0	122		0827	2.8	85		0820	2.6	79		0721	2.4	73		0707	2.2	67
	1628	0.7	21		1516	1.1	34		1631	0.8	24		1554	0.7	21		1453	1.0	30		1409	0.7	21
	1951	1.6	49		1858	1.8	55		2057	2.4	73		2038	3.0	91		1935	2.8	85		1920	3.6	110
9 F	0147	0.2	6	24 Sa	0207	0.1	3	9 M	0343	0.7	21	24 Tu	0455	0.5	15	9 M	0250	0.7	21	24 Tu	0351	0.4	12
	0754	3.6	110		0743	3.7	113		0917	2.6	79		0918	2.3	70		0811	2.1	64		0804	1.9	58
	1702	0.7	21		1558	0.9	27		1700	0.6	18		1645	0.5	15		1524	0.9	27		1505	0.6	18
	2044	1.7	52		2002	2.1	64		2143	2.6	79		2134	3.1	94		2017	2.9	88		2011	3.6	110
10 Sa	0244	0.4	12	25 Su	0328	0.4	12	10 Tu	0450	0.9	27	25 W	0609	0.6	18	10 Tu	0355	0.8	24	25 W	0503	0.4	12
	0844	3.4	104		0837	3.3	101		1008	2.3	70		1020	2.0	61		0859	1.9	58		0904	1.7	52
	1731	0.6	18		1642	0.7	21		1732	0.5	15		1736	0.3	9		1557	0.8	24		1600	0.5	15
	2137	1.9	58		2104	2.4	73		2230	2.8	85		2230	3.2	98		2058	3.2	98		2103	3.5	107
11 Su	0348	0.6	18	26 M	0447	0.6	18	11 W	0558	1.0	30	26 Th	0721	0.6	18	11 W	0500	0.8	24	26 Th	0612	0.5	15
	0935	3.1	94		0933	2.9	88		1058	2.1	64		1125	1.9	58		0947	1.7	52		1008	1.7	52
	1759	0.5	15		1727	0.4	12		1807	0.3	9		1828	0.2	6		1634	0.7	21		1656	0.5	15
	2231	2.1	64		2205	2.6	79		2315	3.1	94		2325	3.2	98		2142	3.4	104		2155	3.4	104
12 M	0456	0.8	24	27 Tu	0604	0.7	21	12 Th	0705	1.0	30	27 F	0826	0.6	18	12 Th	0603	0.9	27	27 F	0715	0.5	15
	1028	2.9	88		1032	2.6	79		1145	1.9	58		1229	1.9	58		1034	1.5	46		1118	1.7	52
	1828	0.3	9		1814	0.2	6		1843	0.2	6		1918	0.0	0		1713	0.5	15		1751	0.4	12
	2322	2.4	73		2306	2.8	85								2227		3.6	110	2249		3.3	101	
13 Tu	0606	1.0	30	28 W	0719	0.7	21	13 F	0000	3.4	104	28 Sa	0020	3.2	98	13 F	0701	0.9	27	28 Sa	0811	0.5	15
	1120	2.6	79		1133	2.3	70		0806	1.0	30		0923	0.7	21		1119	1.4	43		1229	1.8	55
	1859	0.2	6		1901	0.0	0		1224	1.7	52		1327	2.0	61		1755	0.4	12		1846	0.3	9
					1920	0.0	0		1920	0.0	0		2006	-0.1	-3		2315	3.8	116		2344	3.2	98
14 W	0009	2.7	82	29 Th	0003	0.1	94	14 Sa	0044	3.7	113	15 Su	0129	4.0	122	14 Sa	0749	0.8	24	29 Su	0900	0.5	15
	0715	1.1	34		0830	0.7	21		0859	1.1	34		0829	4.0	122		1200	1.4	43		1326	2.0	61
	1209	2.3	70		1233	2.1	64		1258	1.6	49		1240	1.5	46		1840	0.2	6		1938	0.3	9
	1931	0.0	0		1947	-0.2	-6		1958	-0.2	-6		1927	0.0	0								
15 Th	0051	3.1	94	30 F	0056	3.2	98	15 Su	0129	4.0	122	15 Su	0003	4.0	122	15 Su	0003	4.0	122	30 M	0038	3.1	94
	0821	1.1	34		0934	0.8	24		0943	1.1	34		0829	0.8	24		0829	0.8	24		0943	0.5	15
	1250	2.0	61		1330	2.0	61		1331	1.6	49		1240	1.5	46		1412	2.2	67		1412	2.2	67
	2003	-0.1	-3		2032	-0.3	-9		2038	-0.3	-9		1927	0.0	0		2029	0.2	6		2029	0.2	6
			31 Sa	0146	3.3	101												31 Tu	0132	3.0	91		
				1035	0.8	24													1022	0.6	18		
				1422	1.9	58													1455	2.3	70		
				2115	-0.4	-12													2119	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.

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.
* See Page 276 for the remaining tides on this day.

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.

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.
* See Page 276 for the remaining tides on this day.

Unalakleet, Alaska, 2015

Times and Heights of High and Low Waters

January				February				March			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	1052	0.4	12	16 F	0943	0.5	15	1 Su	0414	0.3	9
	2005	4.2	128		1915	3.8	116		1939	3.8	116
2 F	0546	0.3	9	17 Sa	0908	0.4	12	16 M	0307	0.4	12
	2047	4.4	134		1951	4.2	128		2031	3.6	110
3 Sa	0626	-0.1	-3	18 Su	0641	0.1	3	17 Tu	0352	0.4	12
	2130	4.5	137		2033	4.4	134		1919	3.8	116
4 Su	0706	-0.3	-9	19 M	0655	-0.2	-6	18 W	0424	0.4	12
○	2213	4.5	137		2120	4.6	140		2023	3.5	107
5 M	0742	-0.5	-15	20 Tu	0719	-0.4	-12	19 Th	0450	0.5	15
	2254	4.4	134		2211	4.7	143		1122	1.5	46
6 Tu	0816	-0.5	-15	21 W	0743	-0.5	-15		1413	1.4	43
	2332	4.3	131		2303	4.6	140		2136	3.2	98
7 W	0846	-0.5	-15	22 Th	0806	-0.5	-15	20 F	0512	0.7	21
8 Th	0006	4.1	125	23 F	0826	-0.4	-12		1132	2.0	61
	0912	-0.4	-12						1616	1.3	40
9 F	0038	3.8	116	24 Sa	0043	4.0	122		2255	2.9	88
	0932	-0.2	-6		0846	-0.2	-6	21 Sa	0535	0.8	24
10 Sa	0108	3.6	110		1539	1.9	58		1202	2.5	76
	0946	-0.1	-3		1854	1.7	52		1752	1.0	30
11 Su	0135	3.2	98	25 Su	0130	3.5	107	22 Su	0009	2.5	76
	0953	0.1	3		0905	-0.1	-3		0600	1.0	30
12 M	0158	2.8	85		1602	2.5	76		1237	3.0	91
	0959	0.3	9		2050	1.7	52		1921	0.7	21
	1809	2.5	76	26 M	0217	2.8	85	23 M	0114	2.2	67
	2212	2.2	67		0924	0.1	3		0626	1.0	30
13 Tu	0208	2.4	73		1637	3.0	91		1316	3.5	107
	1004	0.4	12	○	2233	1.6	49		2037	0.4	12
	1811	2.8	85	27 Tu	0304	2.2	67	24 Tu	0217	1.9	58
14 W	1006	0.5	15		0943	0.3	9		0653	1.1	34
	1824	3.1	94		1718	3.5	107		1357	3.8	116
15 Th	1000	0.6	18	28 W	0035	1.3	40		2142	0.2	6
	1846	3.5	107		0357	1.5	46	25 W	0323	1.6	49
16 F					0959	0.4	12		0721	1.1	34
					1802	3.8	116		1440	4.0	122
17 Sa				29 Th	0250	0.9	27		2241	0.1	3
					0506	1.0	30	26 Th	0441	1.4	43
18 Su					1008	0.5	15		0748	1.2	37
					1846	4.1	125	○	1525	4.0	122
19 M				30 F	0416	0.5	15		2340	0.1	3
					0658	0.6	18	27 F	1613	3.9	119
20 Tu					0951	0.5	15				
					1931	4.2	128	28 Sa	0045	0.2	6
21 W				31 Sa	0513	0.2	6		1703	3.7	113
					2017	4.2	128				
22 Th								29 Su	0154	0.3	9
									1755	3.5	107
23 F								30 M	0256	0.5	15
									1847	3.2	98
24 Sa								31 Tu	0347	0.6	18
									1941	2.9	88

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.

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.

Unalakleet, Alaska, 2015

Times and Heights of High and Low Waters

July					August					September													
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 W	0933	4.4	134	16 Th	1032	4.5	137	1 Sa	1039	4.4	134	16 Su	1147	3.4	104	1 Tu	0104	2.1	64	16 W	0126	2.4	73
	1939	-0.3	-9		1954	-0.5	-15		1947	-0.2	-6		2015	0.3	9		0558	1.2	37		0742	1.3	40
2 Th	1014	4.6	140	17 F	1115	4.3	131	2 Su	1131	4.2	128	17 M	1225	3.2	98	2 W	0134	2.7	82	17 Th	0139	2.7	82
	2004	-0.5	-15		2026	-0.4	-12		2005	-0.1	-3		2031	0.4	12		0735	1.1	34		0838	1.1	34
3 F	1057	4.6	140	18 Sa	1154	4.1	125	3 M	1221	3.9	119	18 Tu	0318	1.9	58	3 Th	0211	3.2	98	18 F	0157	2.9	88
	2029	-0.6	-18		2054	-0.3	-9		2021	0.0	0		0622	1.8	55		0901	0.8	24		0926	0.9	27
4 Sa	1141	4.6	140	19 Su	1229	3.8	116	4 Tu	0301	1.9	58	19 W	0320	2.2	67	4 F	0253	3.6	110	19 Sa	0221	3.1	94
	2051	-0.6	-18		2117	-0.2	-6		0624	1.6	49		0755	1.7	52		1018	0.6	18		1012	0.8	24
5 Su	1224	4.4	134	20 M	1302	3.5	107	5 W	1309	3.4	104	20 Th	1335	2.5	76	5 Sa	1524	1.6	49	20 Su	1540	1.5	46
	2111	-0.5	-15		2133	0.0	0		2039	0.1	3		2041	0.8	24		2019	0.8	24		1908	1.3	40
6 M	1307	4.1	125	21 Tu	1332	3.1	94	6 Th	0323	2.4	73	21 F	0330	2.4	73	6 Su	0340	3.9	119	21 M	0250	3.4	104
	2129	-0.4	-12		2142	0.2	6		0820	1.6	49		0912	1.6	49		1133	0.5	15		1100	0.7	21
7 Tu	1349	3.5	107	22 W	0546	2.2	67	7 F	1357	2.8	85	22 Sa	1408	2.2	67	7 M	1639	1.2	37	22 Tu	0324	3.5	107
	2147	-0.2	-6		0838	2.1	64		2057	0.3	9		2045	0.9	27		2041	0.9	27		1155	0.6	18
8 W	0525	2.4	73	23 Th	0543	2.5	76	8 Sa	1447	2.2	67	23 Su	0347	2.7	82	8 Tu	0431	4.0	122	23 W	0405	3.6	110
	0910	2.0	61		1452	1.6	49		1021	1.5	46		1136	1.3	40		1256	0.4	12		1305	0.5	15
9 Th	1431	2.9	88	24 F	1420	2.3	70	9 Su	2148	0.4	12	24 M	1442	1.8	55	9 W	1815	1.0	30	24 Th	0453	3.7	113
	2205	0.0	0		2148	0.4	12		2146	0.6	18		2050	0.9	27		2057	0.9	27		1419	0.5	15
10 F	0544	2.9	88	25 Sa	0551	2.8	85	10 M	0524	3.8	116	25 Tu	0442	3.2	98	10 Th	0617	3.9	119	25 F	0547	3.7	113
	1111	1.9	58		0543	2.5	76		0611	4.1	125		0442	3.2	98		0711	3.8	116		1510	0.5	15
11 Sa	1514	2.2	67	26 Su	0551	2.8	85	11 Tu	1524	0.5	15	26 W	1353	1.0	30	11 F	1528	0.3	9	26 Sa	1419	0.5	15
	2221	0.2	6		2156	0.6	18		1836	0.7	21		1603	1.1	34		1623	0.3	9		2236	1.6	49
12 Su	0615	3.4	104	27 M	0608	3.1	94	12 W	2146	0.6	18	27 Th	2043	0.9	27	12 Sa	0711	3.8	116	27 Su	0547	3.7	113
	2234	0.3	9		2151	0.6	18		0658	4.2	128		2043	0.9	27		1623	0.3	9		1510	0.5	15
13 M	0652	3.9	119	28 Tu	0631	3.4	104	13 Th	1629	0.2	6	28 F	0558	3.7	113	13 Su	0805	3.5	107	28 M	0645	3.5	107
	2237	0.4	12		2134	0.6	18		1628	0.6	18		1708	0.4	12		1543	0.6	18				
14 Tu	0732	4.2	128	29 W	0631	3.4	104	14 F	0747	4.3	131	29 Sa	0643	3.9	119	14 M	0903	3.3	101	29 Tu	0749	3.3	101
	1713	0.3	9		2134	0.6	18		1721	0.1	3		1702	0.4	12		1746	0.5	15		1607	0.7	21
15 W	1941	0.4	12	30 Th	0700	3.7	113	15 Sa	0836	4.2	128	30 Su	0731	4.0	122	15 Tu	0903	3.3	101	30 W	0749	3.3	101
	2156	0.3	9		2100	0.5	15		1805	0.0	0		1731	0.3	9		1746	0.5	15		2236	1.6	49
16 Th	0815	4.5	137	31 F	0734	4.0	122	31 M	0836	4.2	128	31 Tu	0731	4.0	122	16 W	1004	3.0	91	31 Th	0159	1.5	46
	1757	0.0	0		1827	0.2	6		0927	4.1	125		1731	0.3	9		1819	0.6	18		0901	3.0	91
17 F	0900	4.6	140	32 Sa	0814	4.2	128	32 Su	1845	0.0	0	32 M	0824	4.0	122	17 Th	●			32 Tu	1629	0.8	24
	1839	-0.3	-9		1842	0.0	0		1845	0.0	0		1755	0.2	6		1843	0.8	24		2251	2.1	64
18 Sa	0946	4.6	140	33 Su	0858	4.4	134	33 M	1017	3.9	119	33 Tu	0924	3.9	119	18 F	0113	1.8	55	33 Th	0402	1.3	40
	1918	-0.4	-12		1905	-0.2	-6		1921	0.0	0		1814	0.3	9		0355	1.7	52		1024	2.6	79
19 Su	0947	4.4	134	34 Th	0947	4.4	134	34 M	1105	3.7	113	34 Tu	1027	3.7	113	19 Sa	0118	2.2	67	34 W	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		0635	1.5	46		1145	2.3	70
20 M	0947	4.4	134	35 F	0947	4.4	134	35 M	1130	3.4	104	35 Tu	1027	3.7	113	20 Th	0118	2.2	67	35 Th	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
21 Tu	0947	4.4	134	36 Sa	0947	4.4	134	36 M	1130	3.4	104	36 Tu	1027	3.7	113	21 F	0118	2.2	67	36 F	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
22 W	0947	4.4	134	37 Su	0947	4.4	134	37 M	1130	3.4	104	37 Tu	1027	3.7	113	22 Sa	0118	2.2	67	37 Sa	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
23 Th	0947	4.4	134	38 M	0947	4.4	134	38 Tu	1130	3.4	104	38 W	1027	3.7	113	23 Su	0118	2.2	67	38 Su	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
24 F	0947	4.4	134	39 Th	0947	4.4	134	39 M	1130	3.4	104	39 Tu	1027	3.7	113	24 M	0118	2.2	67	39 M	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
25 Sa	0947	4.4	134	40 Su	0947	4.4	134	40 M	1130	3.4	104	40 Tu	1027	3.7	113	25 W	0118	2.2	67	40 Th	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
26 M	0947	4.4	134	41 Th	0947	4.4	134	41 M	1130	3.4	104	41 Tu	1027	3.7	113	26 F	0118	2.2	67	41 F	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
27 Tu	0947	4.4	134	42 Sa	0947	4.4	134	42 M	1130	3.4	104	42 Tu	1027	3.7	113	27 Sa	0118	2.2	67	42 Sa	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
28 W	0947	4.4	134	43 Su	0947	4.4	134	43 M	1130	3.4	104	43 Tu	1027	3.7	113	28 Su	0118	2.2	67	43 Su	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
29 Th	0947	4.4	134	44 M	0947	4.4	134	44 Tu	1130	3.4	104	44 W	1027	3.7	113	29 M	0118	2.2	67	44 M	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
30 F	0947	4.4	134	45 Th	0947	4.4	134	45 M	1130	3.4	104	45 Tu	1027	3.7	113	30 Tu	0118	2.2	67	45 Th	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
31 Sa	0947	4.4	134	46 Su	0947	4.4	134	46 M	1130	3.4	104	46 Tu	1027	3.7	113	31 W	0118	2.2	67	46 F	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
32 M	0947	4.4	134	47 Th	0947	4.4	134	47 M	1130	3.4	104	47 Tu	1027	3.7	113	32 Th	0118	2.2	67	47 Sa	0535	1.0	30
	1927	-0.2	-6		1927	-0.2	-6		1130	0.1	3		1849	0.5	15		1243	2.4	73		1715	1.1	34
33 Tu	0947	4.4	134	48 Sa	0947	4.4	134	48 M	1130	3.4	104	48 Tu	1027	3.7	113	33 F	0118	2.2	67	48 			

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.

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.

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.

Times and Heights of High and Low Waters

April						May						June																
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				
1 W	0300	1.1	34		16 Th	0143	1.2	37		1 F	0330	1.1	34		16 Sa	0255	1.2	37		1 M	0502	1.1	34		16 Tu	0525	1.2	37
	0855	0.3	9			0801	0.1	3			0843	0.5	15			0821	0.4	12			0906	0.8	24			0942	0.9	27
	1547	1.3	40			1438	1.4	43			1515	1.3	40			1442	1.6	49			1456	1.3	40			1538	1.5	46
	2204	0.6	18			2047	0.4	12			2202	0.4	12			2133	0.1	3			2229	0.1	3			●	2306	-0.2	-6
2 Th	0352	1.1	34		17 F	0255	1.3	40		2 Sa	0422	1.1	34		17 Su	0405	1.2	37		2 Tu	0553	1.1	34		17 W	0629	1.3	40
	0938	0.3	9			0854	0.2	6			0924	0.6	18			0914	0.5	15			0948	0.9	27			1040	0.9	27
	1616	1.3	40			1520	1.5	46			1539	1.3	40			1523	1.6	49			1509	1.3	40			1626	1.4	43
	2231	0.5	15			2142	0.2	6			2231	0.3	9			●	2225	-0.1	-3			○	2304	0.0		0		2353	-0.2	-6
3 F	0438	1.2	37		18 Sa	0402	1.3	40		3 Su	0512	1.1	34		18 M	0512	1.3	40		3 W	0637	1.2	37		18 Th	0723	1.3	40
	1017	0.4	12			0946	0.3	9			1003	0.7	21			1007	0.7	21			1032	1.0	30			1141	1.0	30
	1641	1.3	40			1602	1.5	46			1601	1.3	40			1606	1.5	46			1524	1.3	40			1717	1.4	43
	2300	0.4	12			●	2236	0.1	3			○	2301	0.2		6		2315	-0.2		-6		2342	-0.1		-3		
4 Sa	0523	1.2	37		19 Su	0506	1.4	43		4 M	0559	1.2	37		19 Tu	0615	1.3	40		4 Th	0716	1.2	37		19 F	0039	-0.2	-6
	1054	0.5	15			1038	0.4	12			1042	0.8	24			1102	0.8	24			1121	1.0	30			0810	1.3	40
	1705	1.2	37			1644	1.5	46			1620	1.3	40			1650	1.5	46			1555	1.4	43			1242	1.0	30
	2331	0.3	9			2328	0.0	0			2333	0.1	3											1811		1.3	40	
5 Su	0607	1.2	37		20 M	0608	1.4	43		5 Tu	0644	1.2	37		20 W	0004	-0.2	-6		5 F	0023	-0.1	-3		20 Sa	0123	-0.1	-3
	1130	0.6	18			1130	0.5	15			1121	0.9	27			0715	1.4	43			0755	1.3	40			0851	1.4	43
	1728	1.2	37			1727	1.5	46			1635	1.3	40			1200	0.8	24			1215	1.0	30			1345	0.9	27
																1737	1.4	43			1644	1.4	43			1908	1.2	37
6 M	0004	0.3	9		21 Tu	0019	-0.1	-3		6 W	0008	0.0	0		21 Th	0053	-0.2	-6		6 Sa	0108	-0.2	-6		21 Su	0206	-0.1	-3
	0651	1.2	37			0708	1.4	43			0727	1.2	37			0811	1.4	43			0835	1.3	40			0929	1.4	43
	1207	0.7	21			1224	0.6	18			1202	0.9	27			1300	0.9	27			1314	1.0	30			1447	0.9	27
	1749	1.2	37			1812	1.5	46			1646	1.3	40			1829	1.3	40			1749	1.3	40			2005	1.2	37
7 Tu	0038	0.2	6		22 W	0110	-0.2	-6		7 Th	0046	0.0	0		22 F	0142	-0.2	-6		7 Su	0156	-0.2	-6		22 M	0248	0.0	0
	0735	1.2	37			0808	1.4	43			0810	1.3	40			0903	1.4	43			0916	1.4	43			1005	1.4	43
	1243	0.7	21			1320	0.7	21			1246	1.0	30			1404	0.9	27			1416	1.0	30			1549	0.8	24
	1807	1.2	37			1901	1.4	43			1708	1.3	40			1926	1.2	37			1906	1.3	40			2104	1.1	34
8 W	0115	0.1	3		23 Th	0201	-0.1	-3		8 F	0128	-0.1	-3		23 Sa	0230	-0.1	-3		8 M	0245	-0.2	-6		23 Tu	0330	0.0	0
	0820	1.2	37			0907	1.4	43			0854	1.3	40			0953	1.4	43			0959	1.5	46			1040	1.5	46
	1322	0.8	24			1421	0.8	24			1335	1.0	30			1511	0.9	27			1521	0.9	27			1648	0.7	21
	1820	1.2	37			1954	1.3	40			1746	1.3	40			2028	1.2	37			2028	1.3	40			2205	1.0	30
9 Th	0154	0.1	3		24 F	0254	-0.1	-3		9 Sa	0214	-0.1	-3		24 Su	0319	0.0	0		9 Tu	0335	-0.2	-6		24 W	0411	0.1	3
	0906	1.2	37			1006	1.4	43			0939	1.3	40			1040	1.4	43			1042	1.5	46			1115	1.5	46
	1403	0.9	27			1526	0.8	24			1430	1.0	30			1623	0.8	24			1626	0.7	21			1745	0.6	18
	1835	1.2	37			2054	1.2	37			1841	1.3	40			2133	1.1	34			●	2148	1.2	37			●	2307
10 F	0237	0.1	3		25 Sa	0347	0.0	0		10 Su	0304	-0.1	-3		25 M	0406	0.0	0		10 W	0426	-0.1	-3		25 Th	0451	0.3	9
	0954	1.2	37			1104	1.4	43			1124	1.5	46			1124	1.6	49			1124	1.6	49			1148	1.5	46
	1448	0.9	27			1639	0.8	24			1736	0.7	21			1736	0.7	21			1730	0.6	18			1838	0.5	15
	1904	1.2	37			●	2201	1.1	34			1957	0.9	27			●	2239	1.0		30		○	2306		1.2	37	
11 Sa	0325	0.0	0		26 Su	0441	0.1	3		11 M	0356	-0.1	-3		26 Tu	0453	0.1	3		11 Th	0517	0.0	0		26 F	0012	0.9	27
	1043	1.3	40			1200	1.4	43			1205	1.5	46			1206	1.6	49			0531	0.4	12					
	1539	0.9	27			1801	0.8	24			1842	0.7	21			1833	0.4	12			1219	1.4	43					
	●	1953	1.2	37			2313	1.1	34			●	2135	1.2		37		2346	1.0		30			1925		0.4	12	
12 Su	0418	0.0	0		27 M	0535	0.1	3		12 Tu	0450	-0.1	-3		27 W	0538	0.2	6		12 F	0024	1.1	34		27 Sa	0120	0.9	27
	1133	1.3	40			1250	1.4	43			1243	1.5	46			0608	0.2	6			0610	0.6	18					
	1638	0.9	27			1922	0.7	21			1739	0.8	24			1247	1.6	49			1248	1.4	43					
	2107	1.2	37			2305	1.1	34			2305	1.1	34			1935	0.6	18			1933	0.2	6			2006	0.3	9
13 M	0513	0.0	0		28 Tu	0024	1.0	30		13 W	0543	0.0	0		28 Th	0053	1.0	30		13 Sa	0141	1.1	34		28 Su	0231	0.9	27
	1222	1.3	40			0626	0.2	6			0622	0.3	9			0659	0.4	12			0648	0.7	21					
	1741	0.8	24			1336	1.4	43			1317	1.4	43			1328	1.6	49			1313	1.4	43					
	2254	1.2	37			2020	0.6	18			2018	0.5	15			2030	0.1	3			2044	0.2	6					
14 Tu	0610	0.0	0		29 W	0131	1.0	30		14 Th	0026	1.1	34		29 F	0158	1.0	30		14 Su	0259	1.1	34		29 M	0343	0.9	27
	1309	1.3	40			0715	0.3	9			0636	0.1	3			0704	0.5	15			0752	0.6	18			0727	0.8	24
	1846	0.7	21			1414	1.4	43			1321	1.5	46			1347	1.4	43			1410	1.6	49			1334	1.4	43
						2102	0.5	15			1943	0.4	12			2054	0.4	12			2124	-0.1	-3			2120	0.2	6
15 W	0025	1.2	37		30 Th	0233	1.0	30		15 F	0143	1.2	37		30 Sa	0303	1.0	30		15 M	0414	1.2	37		30 Tu	0450	1.0	30
	0707	0.1	3			0801	0.4	12			0729	0.2	6			0746	0.6	18			0846	0.7	21			0807	0.9	27
	1354	1.4	43			1447	1.4	43			1402	1.6	49			1414	1.4	43			1453	1.5	46			1351	1.4	43
	1948	0.6	18			2134	0.4	12			2040	0.2	6			2126	0.3	9			2216	-0.1	-3			2157	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 low water which is the chart datum of soundings.

Nome, Alaska, 2015

Times and Heights of High and Low Waters

July				August				September			
Time		Height		Time		Height		Time		Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
1 W ○	0540 0855 1414 2236	1.1 1.0 1.4 0.0	34 30 43 0	16 Th	0633 1029 1620 2343	1.2 1.0 1.4 -0.1	37 30 43 -3	1 Su	0635 1224 1827	1.5 0.4 1.5	46 12 46
2 Th	0615 0950 1456 2318	1.1 1.0 1.4 -0.1	34 30 43 -3	17 F	0717 1129 1712	1.3 1.0 1.3	40 30 40	16 Su	0711 1206 1757	1.2 0.8 1.3	37 24 40
3 F	0648 1050 1555	1.2 1.0 1.4	37 30 43	18 Sa	0023 0752 1226 1804	-0.1 1.3 0.9 1.3	-3 40 27 40	17 M	0033 0732 1251 1843	0.0 1.3 0.7 1.3	0 40 21 40
4 Sa	0002 0724 1154 1704	-0.2 1.3 1.0 1.4	-6 40 30 43	19 Su	0101 0821 1320 1855	-0.1 1.3 0.9 1.3	-3 40 27 40	18 Tu	0107 0756 1336 1930	0.1 1.3 0.6 1.2	3 40 18 37
5 Su	0049 0802 1257 1815	-0.3 1.4 0.9 1.4	-9 43 27 43	20 M	0139 0849 1413 1946	0.0 1.4 0.8 1.2	0 43 24 37	19 W	0141 0822 1421 2020	0.2 1.3 0.6 1.2	6 40 18 37
6 M	0136 0843 1401 1926	-0.3 1.5 0.8 1.4	-9 46 24 43	21 Tu	0216 0918 1505 2039	0.0 1.4 0.7 1.1	0 43 21 34	20 Th	0217 0851 1508 2111	0.3 1.3 0.5 1.1	9 40 15 34
7 Tu	0224 0924 1505 2037	-0.3 1.5 0.7 1.3	-9 46 21 40	22 W	0253 0948 1557 2135	0.1 1.4 0.6 1.1	3 43 18 34	21 F	0252 0920 1555 2205	0.4 1.3 0.4 1.0	12 40 12 30
8 W ●	0313 1007 1609 2149	-0.2 1.6 0.5 1.2	-6 49 15 37	23 Th ○	0330 1020 1648 2233	0.2 1.4 0.5 1.0	6 43 15 30	22 Sa	0327 0948 1642 2303	0.5 1.3 0.4 1.0	15 40 12 30
9 Th	0402 1049 1712 2303	0.0 1.6 0.4 1.2	0 49 12 37	24 F	0407 1050 1738 2335	0.4 1.4 0.5 0.9	12 43 15 27	23 Su	0401 1015 1731	0.6 1.3 0.3	18 40 9
10 F	0451 1132 1815	0.2 1.6 0.2	6 49 6	25 Sa	0444 1120 1827	0.5 1.4 0.4	15 43 12	24 M	0004 0434 1039 1821	0.9 0.7 1.3 0.3	27 21 40 9
11 Sa	0020 0542 1216 1917	1.1 0.4 1.6 0.1	34 12 49 3	26 Su	0041 0519 1147 1913	0.9 0.7 1.3 0.3	27 21 40 9	25 Tu	0109 0510 1106 1911	0.9 0.8 1.3 0.2	27 24 40 6
12 Su	0141 0635 1301 2018	1.1 0.6 1.6 0.0	34 18 49 0	27 M	0152 0553 1210 1957	0.9 0.8 1.3 0.2	27 24 40 6	26 W	0214 0557 1150 2001	0.9 0.8 1.3 0.1	27 24 40 3
13 M	0305 0730 1348 2116	1.1 0.7 1.5 -0.1	34 21 46 -3	28 Tu	0307 0630 1233 2041	0.9 0.8 1.3 0.2	27 24 40 6	27 Th	0309 0700 1256 2050	1.0 0.9 1.3 0.1	30 27 40 3
14 Tu	0426 0828 1437 2209	1.1 0.9 1.5 -0.1	34 27 46 -3	29 W	0412 0718 1306 2124	1.0 0.9 1.4 0.1	30 27 43 3	28 F	0353 0810 1408 2138	1.1 0.9 1.4 0.0	34 27 43 0
15 W ●	0537 0928 1528 2258	1.2 0.9 1.4 -0.1	37 27 43 -3	30 Th	0453 0820 1359 2208	1.0 0.9 1.4 -0.1	30 27 43 -3	29 Sa	0433 0919 1517 2225	1.2 0.8 1.4 -0.1	37 24 43 -3
				31 F ○	0527 0927 1506 2253	1.1 1.0 1.4 -0.2	34 30 43 -6	30 Su	0513 1023 1622 2312	1.3 0.7 1.5 -0.2	40 21 46 -6
								31 M	0553 1124 1725 2359	1.4 0.6 1.5 -0.1	43 18 46 -3

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.

Cape Krusenstern, Alaska, 2015

Times and Heights of High and Low Waters

January				February				March			
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
1 Th	0139 0.0 0 0750 0.2 6 1015 0.1 3 1849 0.5 15	16 F	0143 0.1 3 1728 0.4 12	1 Su	0158 0.0 0 0923 0.4 12 1341 0.3 9 1911 0.4 12	16 M	0108 0.1 3 0916 0.4 12 1343 0.2 6 1814 0.3 9	1 Su	0012 0.1 3 0743 0.4 12 1240 0.2 6 1912 0.3 9	16 M	0732 0.4 12 1253 0.1 3 1622 0.2 6 2347 0.1 3
2 F	0216 0.0 0 0856 0.2 6 1148 0.1 3 1920 0.5 15	17 Sa	0202 0.0 0 0914 0.2 6 1127 0.1 3 1810 0.4 12	2 M	0245 0.0 0 1014 0.4 12 1609 0.2 6 2120 0.3 9	17 Tu	0144 0.0 0 1002 0.4 12 1617 0.2 6 1906 0.3 9	2 M	0059 0.0 0 0842 0.4 12 1446 0.2 6 2019 0.3 9	17 Tu	0824 0.4 12 1530 0.1 3 1741 0.2 6
3 Sa	0255 0.0 0 0954 0.3 9 1321 0.2 6 1936 0.4 12	18 Su	0225 0.0 0 1001 0.3 9 1311 0.2 6 1851 0.4 12	3 Tu	0329 0.0 0 1057 0.5 15 1711 0.2 6 2216 0.3 9	18 W	0230 0.0 0 1043 0.5 15 1704 0.1 3 2004 0.2 6	3 Tu	0145 0.0 0 0936 0.4 12 1619 0.2 6 2126 0.3 9	18 W	0038 0.1 3 0917 0.5 15 1622 0.1 3 2123 0.2 6
4 Su	0331 0.0 0 1041 0.4 12 1530 0.3 9 2008 0.4 12	19 M	0255 0.0 0 1040 0.4 12 1537 0.2 6 1933 0.3 9	4 W	0406 0.0 0 1138 0.5 15 1801 0.2 6 2301 0.3 9	19 Th	0322 0.0 0 1122 0.5 15 1742 0.1 3 2120 0.2 6	4 W	0239 0.0 0 1022 0.5 15 1704 0.2 6 2220 0.3 9	19 Th	0131 0.0 0 1003 0.5 15 1651 0.1 3 2214 0.2 6
5 M	0403 -0.1 -3 1123 0.4 12 1656 0.2 6 2056 0.3 9	20 Tu	0328 0.0 0 1117 0.5 15 1658 0.2 6 2022 0.3 9	5 Th	0438 0.0 0 1219 0.5 15 1855 0.1 3 2343 0.2 6	20 F	0408 0.0 0 1202 0.6 18 1822 0.1 3 2223 0.2 6	5 Th	0331 0.0 0 1103 0.5 15 1742 0.1 3 2306 0.3 9	20 F	0235 0.0 0 1044 0.5 15 1717 0.1 3 2256 0.2 6
6 Tu	0432 -0.1 -3 1206 0.5 15 1759 0.2 6 2143 0.3 9	21 W	0401 -0.1 -3 1156 0.5 15 1754 0.2 6 2119 0.3 9	6 F	0506 0.0 0 1301 0.6 18 1946 0.1 3	21 Sa	0448 -0.1 -3 1244 0.6 18 1904 0.1 3 2309 0.2 6	6 F	0412 0.0 0 1142 0.5 15 1819 0.1 3 2351 0.3 9	21 Sa	0341 0.0 0 1122 0.5 15 1744 0.1 3 2336 0.3 9
7 W	0500 -0.1 -3 1250 0.5 15 1912 0.2 6 2220 0.3 9	22 Th	0433 -0.1 -3 1237 0.6 18 1856 0.1 3 2210 0.2 6	7 Sa	0030 0.2 6 0534 0.0 0 1341 0.6 18 2028 0.1 3 2341 0.2 6	22 Su	0528 -0.1 -3 1326 0.6 18 1945 0.1 3 2359 0.2 6	7 Sa	0445 0.0 0 1222 0.5 15 1857 0.1 3	22 Su	0432 0.0 0 1200 0.5 15 1816 0.1 3
8 Th	0527 -0.1 -3 1333 0.6 18 2016 0.1 3 2253 0.2 6	23 F	0506 -0.1 -3 1320 0.6 18 1953 0.1 3 2255 0.2 6	8 Su	0601 0.0 0 1419 0.6 18 2104 0.1 3	23 M	0611 0.0 0 1405 0.6 18 2023 0.1 3	8 Su	0038 0.2 6 0516 0.0 0 1302 0.5 15 1933 0.1 3	23 M	0023 0.3 9 0518 0.0 0 1240 0.5 15 1851 0.0 0
9 F	0553 -0.1 -3 1413 0.6 18 2106 0.1 3 2328 0.2 6	24 Sa	0540 -0.1 -3 1401 0.6 18 2038 0.1 3 2342 0.2 6	9 M	0214 0.2 6 0631 0.0 0 1451 0.6 18 2139 0.1 3	24 Tu	0110 0.2 6 0658 0.0 0 1439 0.5 15 2100 0.1 3	9 M	0127 0.2 6 0547 0.0 0 1340 0.5 15 2002 0.1 3	24 Tu	0117 0.3 9 0606 0.0 0 1320 0.5 15 1929 0.0 0
10 Sa	0619 -0.1 -3 1450 0.6 18 2159 0.1 3	25 Su	0619 -0.1 -3 1438 0.6 18 2118 0.1 3	10 Tu	0109 0.2 6 0704 0.0 0 1516 0.5 15 2216 0.1 3	25 W	0233 0.3 9 0748 0.0 0 1505 0.5 15 2138 0.1 3	10 Tu	0210 0.2 6 0621 0.1 3 1412 0.5 15 2028 0.1 3	25 W	0208 0.3 9 0700 0.1 3 1353 0.5 15 2006 0.0 0
11 Su	0008 0.2 6 0647 0.0 0 1524 0.6 18	26 M	0037 0.2 6 0702 -0.1 -3 1513 0.6 18 2203 0.1 3	11 W	0158 0.2 6 0742 0.1 3 1511 0.5 15 2259 0.1 3	26 Th	0353 0.3 9 0837 0.1 3 1520 0.5 15 2224 0.1 3	11 W	0248 0.2 6 0702 0.1 3 1421 0.5 15 2052 0.1 3	26 Th	0257 0.4 12 0758 0.1 3 1412 0.4 12 2041 0.0 0
12 M	0718 0.0 0 1558 0.6 18	27 Tu	0143 0.2 6 0747 0.0 0 1545 0.6 18 2300 0.1 3	12 Th	0520 0.2 6 0822 0.1 3 1523 0.5 15 2338 0.1 3	27 F	0533 0.3 9 0929 0.1 3 1544 0.4 12 2319 0.1 3	12 Th	0320 0.3 9 0747 0.1 3 1417 0.4 12 2115 0.1 3	27 F	0350 0.4 12 0854 0.1 3 1432 0.4 12 2117 0.0 0
13 Tu	0752 0.0 0 1626 0.5 15	28 W	0243 0.2 6 0831 0.0 0 1616 0.5 15 2355 0.1 3	13 F	0631 0.2 6 0905 0.1 3 1550 0.4 12	28 Sa	0643 0.3 9 1051 0.2 6 1620 0.3 9	13 F	0252 0.3 9 0833 0.1 3 1439 0.4 12 2140 0.1 3	28 Sa	0459 0.4 12 1000 0.2 6 1500 0.3 9 2156 0.0 0
14 W	0429 0.1 3 0613 0.1 3 0828 0.0 0 1618 0.5 15	29 Th	0609 0.2 6 0916 0.1 3 1655 0.5 15	14 Sa	0008 0.1 3 0727 0.2 6 1002 0.1 3 1628 0.4 12	14 Sa	0540 0.3 9 0925 0.2 6 1506 0.3 9 2210 0.1 3	14 Sa	0540 0.3 9 0925 0.2 6 1506 0.3 9 2210 0.1 3	29 Su	0607 0.4 12 1152 0.2 6 1758 0.2 6 2246 0.1 3
15 Th	0120 0.0 0 0716 0.1 3 0907 0.1 3 1646 0.5 15	30 F	0038 0.1 3 0717 0.2 6 1014 0.1 3 1815 0.4 12	15 Su	0037 0.1 3 0822 0.3 9 1155 0.2 6 1718 0.3 9	15 Su	0640 0.3 9 1057 0.2 6 1538 0.3 9 2253 0.1 3	15 Su	0640 0.3 9 1057 0.2 6 1538 0.3 9 2253 0.1 3	30 M	0704 0.4 12 1331 0.1 3 1912 0.2 6 2347 0.1 3
		31 Sa	0117 0.0 0 0821 0.3 9 1203 0.2 6 1900 0.4 12							31 Tu	0757 0.5 15 1509 0.1 3 2019 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.

Cape Krusenstern, Alaska, 2015

Times and Heights of High and Low Waters

April				May				June			
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
1 W	0041 0.1 3 0850 0.5 15 1608 0.1 3 2123 0.2 6	16 Th	0825 0.5 15 1603 0.1 3 2123 0.2 6	1 F	0016 0.1 3 0849 0.5 15 1618 0.0 0 2209 0.2 6	16 Sa	0818 0.5 15 1552 0.0 0 2204 0.2 6	1 M	0121 0.2 6 0903 0.5 15 1626 0.0 0 2317 0.3 9	16 Tu	0221 0.2 6 0815 0.4 12 1607 -0.1 -3 2320 0.4 12
2 Th	0132 0.1 3 0939 0.5 15 1644 0.1 3 2217 0.2 6	17 F	0040 0.1 3 0915 0.5 15 1626 0.1 3 2213 0.2 6	2 Sa	0115 0.1 3 0934 0.5 15 1644 0.0 0 2253 0.3 9	17 Su	0110 0.1 3 0906 0.5 15 1614 0.0 0 2249 0.3 9	2 Tu	0312 0.2 6 0855 0.4 12 1642 0.0 0 2356 0.4 12	17 W	0410 0.2 6 0858 0.4 12 1635 -0.1 -3
3 F	0232 0.1 3 1022 0.5 15 1714 0.1 3 2302 0.3 9	18 Sa	0148 0.1 3 1001 0.5 15 1647 0.0 0 2257 0.3 9	3 Su	0230 0.2 6 1014 0.5 15 1704 0.0 0 2334 0.3 9	18 M	0239 0.2 6 0947 0.5 15 1638 0.0 0 2333 0.4 12	3 W	0432 0.2 6 0928 0.4 12 1701 -0.1 -3	18 Th	0004 0.5 15 0520 0.2 6 0942 0.3 9 1704 -0.1 -3
4 Sa	0334 0.1 3 1100 0.5 15 1741 0.0 0 2345 0.3 9	19 Su	0310 0.1 3 1039 0.5 15 1710 0.0 0 2339 0.3 9	4 M	0349 0.2 6 1046 0.5 15 1723 0.0 0	19 Tu	0408 0.2 6 1013 0.4 12 1704 -0.1 -3	4 Th	0037 0.4 12 0531 0.2 6 1001 0.3 9 1721 -0.1 -3	19 F	0051 0.5 15 0632 0.2 6 1019 0.3 9 1733 -0.1 -3
5 Su	0421 0.1 3 1137 0.5 15 1806 0.0 0	20 M	0418 0.1 3 1112 0.5 15 1736 0.0 0	5 Tu	0016 0.3 9 0443 0.2 6 1100 0.4 12 1742 0.0 0	20 W	0019 0.4 12 0510 0.2 6 1032 0.4 12 1732 -0.1 -3	5 F	0119 0.5 15 0640 0.2 6 1034 0.3 9 1742 -0.1 -3	20 Sa	0136 0.6 18 0758 0.2 6 1054 0.3 9 1802 -0.1 -3
6 M	0030 0.3 9 0459 0.1 3 1211 0.5 15 1831 0.0 0	21 Tu	0026 0.3 9 0511 0.1 3 1138 0.5 15 1807 0.0 0	6 W	0059 0.4 12 0531 0.2 6 1058 0.4 12 1803 0.0 0	21 Th	0107 0.5 15 0612 0.2 6 1058 0.4 12 1802 -0.1 -3	6 Sa	0200 0.5 15 0806 0.2 6 1106 0.3 9 1807 -0.1 -3	21 Su	0219 0.6 18 0902 0.1 3 1129 0.2 6 1832 -0.1 -3
7 Tu	0115 0.3 9 0537 0.1 3 1241 0.4 12 1857 0.0 0	22 W	0116 0.4 12 0605 0.1 3 1158 0.4 12 1840 0.0 0	7 Th	0142 0.4 12 0626 0.2 6 1120 0.3 9 1825 0.0 0	22 F	0154 0.5 15 0730 0.2 6 1129 0.3 9 1834 -0.1 -3	7 Su	0237 0.6 18 0914 0.1 3 1138 0.2 6 1836 -0.1 -3	22 M	0258 0.6 18 1005 0.1 3 1209 0.2 6 1904 0.0 0
8 W	0158 0.3 9 0620 0.1 3 1232 0.4 12 1922 0.0 0	23 Th	0205 0.4 12 0709 0.1 3 1226 0.4 12 1916 0.0 0	8 F	0221 0.4 12 0735 0.2 6 1149 0.3 9 1848 0.0 0	23 Sa	0238 0.5 15 0844 0.2 6 1204 0.3 9 1907 -0.1 -3	8 M	0313 0.6 18 1911 -0.1 -3	23 Tu	0338 0.6 18 1935 0.0 0
9 Th	0237 0.3 9 0713 0.1 3 1249 0.4 12 1946 0.0 0	24 F	0250 0.5 15 0816 0.2 6 1302 0.3 9 1951 0.0 0	9 Sa	0257 0.5 15 0842 0.2 6 1222 0.3 9 1913 0.0 0	24 Su	0320 0.6 18 0958 0.1 3 1247 0.2 6 1939 0.0 0	9 Tu	0350 0.6 18 1950 0.0 0	24 W	0419 0.6 18 1606 0.1 3 1652 0.1 3 2007 0.0 0
10 F	0313 0.4 12 0810 0.2 6 1319 0.3 9 2008 0.0 0	25 Sa	0337 0.5 15 0920 0.2 6 1341 0.3 9 2024 0.0 0	10 Su	0333 0.5 15 0953 0.1 3 1300 0.2 6 1943 0.0 0	25 M	0404 0.6 18 2010 0.0 0	10 W	0432 0.6 18 2030 0.0 0	25 Th	0504 0.6 18 1621 0.1 3 1820 0.1 3 2040 0.0 0
11 Sa	0349 0.4 12 0906 0.2 6 1352 0.3 9 2031 0.0 0	26 Su	0430 0.5 15 1058 0.1 3 1418 0.2 6 2055 0.0 0	11 M	0414 0.5 15 2017 0.0 0	26 Tu	0454 0.6 18 1626 0.1 3 1728 0.1 3 2040 0.0 0	11 Th	0524 0.6 18 1711 0.1 3 1842 0.1 3 2113 0.0 0	26 F	0550 0.5 15 1345 0.0 0
12 Su	0447 0.4 12 1023 0.1 3 1424 0.2 6 2059 0.0 0	27 M	0531 0.5 15 1243 0.1 3 1749 0.2 6 2127 0.1 3	12 Tu	0510 0.5 15 2054 0.0 0	27 W	0546 0.6 18 1638 0.0 0 1847 0.1 3 2111 0.0 0	12 F	0612 0.6 18 1402 0.0 0 1946 0.1 3 2205 0.0 0	27 Sa	0629 0.5 15 1421 0.0 0
13 M	0554 0.4 12 1244 0.1 3 1456 0.2 6 2135 0.1 3	28 Tu	0625 0.5 15 1658 0.1 3 1904 0.2 6 2207 0.1 3	13 W	0605 0.5 15 1740 0.1 3 1905 0.1 3 2138 0.0 0	28 Th	0633 0.5 15 1426 0.0 0	13 Sa	0650 0.5 15 1435 0.0 0 2051 0.2 6 2322 0.1 3	28 Su	0650 0.5 15 1454 0.0 0
14 Tu	0647 0.5 15 1817 0.1 3 1915 0.1 3 2224 0.0 0	29 W	0714 0.5 15 1456 0.1 3 2010 0.2 6 2307 0.1 3	14 Th	0651 0.5 15 1455 0.0 0 2009 0.1 3 2238 0.0 0	29 F	0714 0.5 15 1511 0.0 0	14 Su	0718 0.5 15 1508 0.0 0 2149 0.3 9	29 M	0645 0.5 15 1518 0.0 0 2214 0.3 9
15 W	0735 0.5 15 1836 0.1 3 2021 0.1 3 2333 0.0 0	30 Th	0801 0.5 15 1545 0.1 3 2115 0.2 6	15 F	0734 0.5 15 1527 0.0 0 2112 0.2 6 2356 0.1 3	30 Sa	0753 0.5 15 1544 0.0 0 2156 0.2 6	15 M	0046 0.2 6 0741 0.5 15 1538 0.0 0 2236 0.3 9	30 Tu	0050 0.2 6 0713 0.4 12 1537 0.0 0 2253 0.3 9
						31 Su	0009 0.1 3 0832 0.5 15 1608 0.0 0 2238 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.

Cape Krusenstern, Alaska, 2015

Times and Heights of High and Low Waters

July				August				September			
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
1 W	0248	0.3	9	16 Th	0432	0.2	6	1 Sa	0626	0.1	3
	0748	0.4	12		0817	0.3	9		1130	0.2	6
	1558	0.0	0		1608	-0.1	-3		1650	0.0	0
	2330	0.4	12		2343	0.5	15		1707	0.0	0
2 Th	0434	0.2	6	17 F	0537	0.2	6	17 M	0037	0.6	18
	0831	0.3	9		0913	0.3	9		0716	0.1	3
	1621	-0.1	-3		1640	-0.1	-3		1218	0.2	6
									1720	0.0	0
3 F	0009	0.5	15	18 Sa	0026	0.5	15	18 Tu	0119	0.6	18
	0539	0.2	6		0645	0.2	6		0801	0.1	3
	0918	0.3	9		1003	0.3	9		1315	0.2	6
	1646	-0.1	-3		1710	-0.1	-3		1750	0.0	0
4 Sa	0051	0.5	15	19 Su	0111	0.6	18	19 W	0159	0.6	18
	0655	0.2	6		0753	0.1	3		0838	0.1	3
	1002	0.3	9		1042	0.2	6		1406	0.2	6
	1711	-0.1	-3		1739	-0.1	-3		1821	0.0	0
5 Su	0132	0.6	18	20 M	0153	0.6	18	20 Th	0234	0.5	15
	0812	0.1	3		0844	0.1	3		0911	0.1	3
	1042	0.2	6		1119	0.2	6		1450	0.2	6
	1740	-0.1	-3		1808	-0.1	-3		1856	0.0	0
6 M	0212	0.6	18	21 Tu	0232	0.6	18	21 F	0304	0.5	15
	0903	0.1	3		0931	0.1	3		0943	0.1	3
	1122	0.2	6		1201	0.2	6		1534	0.2	6
	1813	-0.1	-3		1838	0.0	0		1935	0.1	3
7 Tu	0249	0.6	18	22 W	0308	0.6	18	22 Sa	0311	0.5	15
	0955	0.1	3		1025	0.0	0		1018	0.1	3
	1208	0.2	6		1255	0.1	3		1650	0.2	6
	1852	-0.1	-3		1911	0.0	0		2016	0.1	3
8 W	0324	0.6	18	23 Th	0343	0.6	18	23 Su	0310	0.4	12
	1101	0.0	0		1129	0.0	0		1058	0.1	3
	1311	0.1	3		1354	0.1	3		1805	0.2	6
	1935	0.0	0		1946	0.0	0		2100	0.1	3
9 Th	0358	0.6	18	24 F	0415	0.5	15	24 M	0333	0.4	12
	1157	0.0	0		1216	0.0	0		1137	0.1	3
	1416	0.1	3		1741	0.1	3		1902	0.3	9
	2018	0.0	0		2021	0.0	0		2156	0.2	6
10 F	0437	0.6	18	25 Sa	0421	0.5	15	25 Tu	0406	0.4	12
	1234	0.0	0		1250	0.1	3		1210	0.1	3
	1809	0.1	3		1848	0.2	6		1954	0.3	9
	2102	0.0	0		2100	0.1	3		2355	0.2	6
11 Sa	0526	0.5	15	26 Su	0429	0.5	15	26 W	0452	0.3	9
	1306	0.1	3		1314	0.1	3		1242	0.1	3
	1917	0.2	6		1946	0.2	6		2047	0.4	12
	2152	0.1	3		2147	0.1	3				
12 Su	0609	0.5	15	27 M	0505	0.4	12	27 Th	0133	0.2	6
	1337	0.0	0		1335	0.1	3		0552	0.3	9
	2021	0.2	6		2044	0.2	6		1317	0.1	3
	2309	0.1	3		2308	0.1	3		2136	0.4	12
13 M	0633	0.5	15	28 Tu	0549	0.4	12	28 F	0405	0.1	3
	1414	0.0	0		1358	0.0	0		0649	0.2	6
	2123	0.3	9		2136	0.3	9		1358	0.0	0
									2219	0.5	15
14 Tu	0047	0.2	6	29 W	0055	0.2	6	29 Sa	0451	0.1	3
	0658	0.4	12		0631	0.4	12		0745	0.2	6
	1454	0.0	0		1428	0.0	0		1450	0.0	0
	2215	0.4	12		2219	0.4	12		2258	0.5	15
15 W	0235	0.3	9	30 Th	0309	0.2	6	30 Su	0525	0.1	3
	0733	0.4	12		0712	0.3	9		0901	0.2	6
	1533	-0.1	-3		1503	0.0	0		1542	0.0	0
	2300	0.4	12		2258	0.4	12		2337	0.5	15
				31 F	0448	0.2	6	31 M	0558	0.1	3
					0757	0.3	9		1019	0.2	6
					1539	0.0	0		1626	0.0	0
					2336	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.

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, 2015

Times and Heights of High and Low Waters

January				February				March			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0447	0.0	0	16 F	0426	0.0	0	1 Su	0457	-0.2	-6
	0924	0.1	3		0841	0.1	3		1003	0.0	0
	1541	-0.2	-6		1500	-0.1	-3		1632	-0.3	-9
	2303	0.4	12		2233	0.4	12		2325	0.1	3
2 F	0537	-0.1	-3	17 Sa	0522	0.0	0	2 M	0531	-0.2	-6
	1028	0.1	3		0957	0.1	3		1100	0.0	0
	1640	-0.3	-9		1607	-0.2	-6		1723	-0.4	-12
	2350	0.4	12		2324	0.5	15		2359	0.1	3
3 Sa	0615	-0.1	-3	18 Su	0601	0.0	0	3 Tu	0559	-0.3	-9
	1119	0.2	6		1054	0.2	6		1142	0.1	3
	1730	-0.3	-9		1703	-0.2	-6		1803	-0.4	-12
4 Su	0030	0.4	12	19 M	0008	0.5	15	4 W	0027	0.1	3
	0647	-0.1	-3		0635	-0.1	-3		0625	-0.3	-9
	1201	0.2	6		1142	0.2	6		1218	0.1	3
	1813	-0.3	-9		1754	-0.3	-9		1837	-0.5	-15
5 M	0105	0.4	12	20 Tu	0047	0.5	15	5 Th	0052	0.1	3
	0717	-0.1	-3		0706	-0.1	-3		0649	-0.4	-12
	1240	0.3	9		1228	0.3	9		1250	0.1	3
	1852	-0.3	-9		1842	-0.3	-9		1907	-0.5	-15
6 Tu	0136	0.4	12	21 W	0124	0.5	15	6 F	0117	0.1	3
	0744	-0.1	-3		0736	-0.2	-6		0712	-0.4	-12
	1315	0.3	9		1312	0.3	9		1320	0.2	6
	1928	-0.3	-9		1928	-0.4	-12		1937	-0.5	-15
7 W	0205	0.4	12	22 Th	0200	0.4	12	7 Sa	0140	0.1	3
	0811	-0.1	-3		0807	-0.2	-6		0736	-0.4	-12
	1351	0.3	9		1357	0.3	9		1350	0.2	6
	2002	-0.2	-6		2014	-0.4	-12		2006	-0.4	-12
8 Th	0232	0.4	12	23 F	0234	0.4	12	8 Su	0204	0.1	3
	0839	-0.1	-3		0840	-0.3	-9		0759	-0.4	-12
	1426	0.3	9		1444	0.3	9		1420	0.2	6
	2037	-0.2	-6		2100	-0.3	-9		2036	-0.4	-12
9 F	0300	0.4	12	24 Sa	0307	0.3	9	9 M	0228	0.1	3
	0907	-0.1	-3		0915	-0.3	-9		0824	-0.4	-12
	1503	0.3	9		1533	0.3	9		1452	0.2	6
	2112	-0.2	-6		2147	-0.3	-9		2108	-0.3	-9
10 Sa	0327	0.3	9	25 Su	0341	0.2	6	10 Tu	0252	0.1	3
	0936	-0.1	-3		0952	-0.3	-9		0851	-0.4	-12
	1543	0.3	9		1626	0.3	9		1528	0.2	6
	2151	-0.1	-3		2239	-0.2	-6		2144	-0.3	-9
11 Su	0356	0.3	9	26 M	0415	0.1	3	11 W	0317	0.1	3
	1009	-0.1	-3		1035	-0.3	-9		0922	-0.4	-12
	1628	0.3	9		1728	0.3	9		1610	0.2	6
	2235	-0.1	-3		2339	-0.1	-3		2226	-0.2	-6
12 M	0428	0.2	6	27 Tu	0453	0.1	3	12 Th	0344	0.1	3
	1045	-0.1	-3		1126	-0.3	-9		1000	-0.3	-9
	1723	0.3	9		1844	0.2	6		1705	0.2	6
	2331	0.0	0						2323	-0.1	-3
13 Tu	0505	0.2	6	28 W	0102	-0.1	-3	13 F	0417	0.0	0
	1129	-0.1	-3		0541	0.0	0		1051	-0.3	-9
	1834	0.3	9		1232	-0.3	-9		1821	0.2	6
					2019	0.2	6				
14 W	0054	0.0	0	29 Th	0259	-0.1	-3	14 Sa	0057	-0.1	-3
	0553	0.2	6		0700	0.0	0		0511	0.0	0
	1228	-0.1	-3		1359	-0.3	-9		1212	-0.3	-9
	2003	0.3	9		2151	0.2	6		2006	0.1	3
15 Th	0250	0.0	0	30 F	0434	-0.1	-3	15 Su	0303	-0.2	-6
	0707	0.1	3		0850	0.0	0		0714	-0.1	-3
	1342	-0.1	-3		1527	-0.3	-9		1407	-0.3	-9
	2128	0.4	12		2257	0.3	9		2138	0.1	3
				31 Sa	0526	-0.1	-3				
					1014	0.1	3	31 Tu	0444	-0.3	-9
					1636	-0.3	-9		1041	0.0	0
					2344	0.3	9		1707	-0.4	-12
									2322	0.0	0

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, 2015

Times and Heights of High and Low Waters

April					May					June																			
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											
1 W	0516	-0.3	-9		16 Th	0441	-0.4	-12		16 Sa	0446	-0.2	-6		1 M	0524	0.2	6		16 Tu	0600	0.2	6						
	1122	0.1	3				1108	0.2	6				1143	0.6		18			1220		0.9	27			1300	1.0	30		
	1746	-0.4	-12				1740	-0.4	-12				1816	-0.1		-3			1850		0.3	9			1919	0.5	15		
	2352	0.0	0				2328	0.0	0				2334	0.3		9													
2 Th	0544	-0.4	-12		17 F	0520	-0.5	-15		2 Sa	0528	-0.2	-6		17 Su	0530	-0.2	-6		2 Tu	0008	0.6	18		17 W	0034	0.8	24	
	1157	0.1	3				1206	0.4	12				1228	0.6		18			0600		0.2	6				0643	0.3	9	
	1820	-0.4	-12				1832	-0.2	-6				1856	-0.1		-3			1257		0.9	27				1338	1.1	34	
3 F	0019	0.0	0		18 Sa	0006	0.0	0		3 Su	0010	0.2	6		18 M	0013	0.3	9		3 W	0041	0.7	21		18 Th	0114	0.9	27	
	0610	-0.4	-12				0558	-0.2	-6				0613	-0.2		-6			0637		0.2	6				0724	0.3	9	
	1229	0.2	6				1238	0.5	15				1310	0.7		21			1333		1.0	30				1413	1.1	34	
	1851	-0.4	-12				1904	-0.2	-6				1933	0.0		0			1959		0.4	12				2023	0.5	15	
4 Sa	0045	0.0	0		19 Su	0041	0.0	0		4 M	0039	0.2	6		19 Tu	0051	0.4	12		4 Th	0115	0.7	21		19 F	0152	0.9	27	
	0635	-0.4	-12				0627	-0.2	-6				0654	-0.2		-6			0716		0.2	6				0804	0.4	12	
	1259	0.2	6				1311	0.5	15				1349	0.7		21			1411		1.0	30				1446	1.0	30	
	1920	-0.4	-12				1936	-0.1	-3				2007	0.0		0			2034		0.4	12				2054	0.5	15	
5 Su	0110	0.1	3		20 M	0115	0.1	3		5 Tu	0106	0.3	9		20 W	0128	0.4	12		5 F	0152	0.7	21		20 Sa	0232	0.9	27	
	0700	-0.4	-12				0657	-0.2	-6				0735	-0.1		-3			0757		0.2	6				0844	0.4	12	
	1329	0.3	9				1345	0.6	18				1428	0.7		21			1450		1.0	30				1519	1.0	30	
	1950	-0.4	-12				2010	-0.1	-3				2041	0.1		3			2110		0.4	12				2126	0.5	15	
6 M	0135	0.1	3		21 Tu	0148	0.1	3		6 W	0134	0.3	9		21 Th	0205	0.5	15		6 Sa	0234	0.7	21		21 Su	0314	0.9	27	
	0726	-0.4	-12				0729	-0.2	-6				0815	-0.1		-3			0843		0.2	6				0925	0.5	15	
	1400	0.3	9				1420	0.6	18				1506	0.7		21			1530		0.9	27				1551	1.0	30	
	2021	-0.3	-9				2045	0.0	0				2116	0.2		6			2149		0.4	12				2200	0.6	18	
7 Tu	0200	0.1	3		22 W	0222	0.1	3		7 Th	0204	0.3	9		22 F	0244	0.5	15		7 Su	0323	0.8	24		22 M	0400	0.9	27	
	0753	-0.4	-12				0804	-0.2	-6				0857	0.0		0			0934		0.3	9				1009	0.5	15	
	1433	0.3	9				1459	0.6	18				1544	0.6		18			1612		0.9	27				1625	0.9	27	
	2054	-0.3	-9				2123	0.0	0				2152	0.2		6			2231		0.4	12				2238	0.6	18	
8 W	0225	0.1	3		23 Th	0258	0.1	3		8 F	0238	0.3	9		23 Sa	0328	0.5	15		8 M	0423	0.8	24		23 Tu	0453	0.9	27	
	0822	-0.4	-12				0845	-0.1	-3				0942	0.1		3			1035		0.3	9				1100	0.6	18	
	1510	0.3	9				1542	0.6	18				1623	0.6		18			1658		0.8	24				1703	0.9	27	
	2131	-0.2	-6				2205	0.1	3				2233	0.2		6			2318		0.4	12				2322	0.6	18	
9 Th	0252	0.1	3		24 F	0338	0.1	3		9 Sa	0320	0.3	9		24 Su	0420	0.5	15		9 Tu	0535	0.8	24		24 W	0557	0.9	27	
	0857	-0.3	-9				0933	-0.1	-3				1035	0.2		6			1151		0.4	12				1204	0.7	21	
	1553	0.3	9				1630	0.5	15				1707	0.5		15			1751		0.7	21				1749	0.9	27	
	2214	-0.2	-6				2254	0.1	3				2321	0.2		6													
10 F	0324	0.1	3		25 Sa	0430	0.1	3		10 Su	0416	0.3	9		25 M	0526	0.5	15		10 W	0014	0.3	9		25 Th	0013	0.6	18	
	0939	-0.3	-9				1034	0.0	0				1141	0.2		6			0700		0.8	24				0713	0.9	27	
	1645	0.3	9				1727	0.4	12				1800	0.5		15			1325		0.4	12				1329	0.7	21	
	2308	-0.1	-3				2353	0.1	3									1854	0.6		18			1848		0.9	27		
11 Sa	0408	0.1	3		26 Su	0004	0.0	0		11 M	0535	0.3	9		26 Tu	0019	0.2	6		11 Th	0117	0.3	9		26 F	0114	0.6	18	
	1036	-0.3	-9				1158	0.0	0				0650	0.5		15			0826		0.8	24				0833	1.0	30	
	1753	0.2	6				1836	0.4	12				1309	0.3		9			1503		0.4	12				1504	0.7	21	
													1906	0.5		15			2006		0.6	18				2002	0.9	27	
12 Su	0024	-0.1	-3		27 M	0129	-0.1	-3		12 Tu	0101	0.0	0		27 W	0126	0.2	6		12 F	0222	0.3	9		27 Sa	0218	0.6	18	
	0520	0.0	0				0715	0.3	9				0817	0.5		15			0941		0.9	27				0941	1.1	34	
	1201	-0.2	-6				1345	0.0	0				1444	0.3		9			1622		0.4	12				1620	0.7	21	
	1921	0.1	3				1953	0.3	9				2019	0.4		12			2116		0.6	18				2113	0.9	27	
13 M	0157	-0.1	-3		28 Tu	0246	-0.1	-3		13 W	0208	0.0	0		28 Th	0229	0.2	6		13 Sa	0325	0.2	6		28 Su	0318	0.6	18	
	0718	0.0	0				0847	0.4	12				0927	0.6		18			1042		0.9	27				1037	1.1	34	
	1357	-0.3	-9				1523	0.0	0				1558	0.3		9			1720		0.4	12				1715	0.7	21	
	2050	0.1	3				2104	0.2	6				2122	0.5		15			2216		0.6	18				2212	0.9	27	
14 Tu	0309	-0.2	-6		29 W	0341	-0.1	-3		14 Th	0307	-0.1	-3		29 F	0322	0.2	6		14 Su	0421	0.2	6		29 M	0411	0.6	18	
	0903	0.1	3				0958	0.4	12				1020	0.7		21			1134		1.0	30				1123	1.2	37	
	1536	-0.3	-9				1635	-0.1	-3				1652	0.3		9			1806		0.4	12				1759	0.7	21	
	2157	0.1	3				2202	0.2	6				2214	0.5		15			2307		0.7	21				2300	0.9	27	
15 W	0359	-0.3	-9		30 Th	0422	-0.2	-6		15 F	0359	-0.2	-6		30 Sa	0407	0.2	6		15 M	0513	0.2	6		30 Tu	0459	0.6	18	
	1014	0.1	3				1055	0.3	9				1104	0.7		21			1219		1.0	30				1205	1.3	40	
	1646	-0																											

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, 2015

Times and Heights of High and Low Waters

July				August				September															
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 W ○	0543	0.5	15	16 Th	0024	1.1	34	1 Sa	0052	1.3	40	16 Su	0124	1.2	37	1 Tu	0208	1.2	37	16 W	0204	1.1	34
	1244	1.3	40		0638	0.6	18		0708	0.6	18		0740	0.6	18		0829	0.5	15		0821	0.4	12
	1910	0.7	21		1324	1.3	40		1339	1.4	43		1353	1.2	37		1416	1.0	30		1410	0.9	27
					1931	0.8	24		1945	0.7	21		1952	0.7	21		2018	0.4	12		2006	0.4	12
2 Th	0022	1.0	30	17 F	0103	1.2	37	2 Su	0136	1.3	40	17 M	0156	1.2	37	2 W	0253	1.2	37	17 Th	0235	1.1	34
	0627	0.5	15		0717	0.6	18		0753	0.6	18		0811	0.6	18		0912	0.5	15		0852	0.5	15
	1322	1.3	40		1354	1.3	40		1412	1.3	40		1418	1.2	37		1448	1.0	30		1435	0.9	27
	1943	0.7	21		1959	0.8	24		2017	0.7	21		2017	0.7	21		2055	0.4	12		2033	0.4	12
3 F	0102	1.1	34	18 Sa	0140	1.2	37	3 M	0221	1.3	40	18 Tu	0229	1.2	37	3 Th	0340	1.2	37	18 F	0309	1.1	34
	0711	0.5	15		0753	0.6	18		0839	0.6	18		0842	0.7	21		0956	0.6	18		0926	0.6	18
	1358	1.3	40		1422	1.3	40		1445	1.3	40		1443	1.2	37		1521	1.0	30		1500	0.9	27
	2015	0.7	21		2026	0.7	21		2050	0.6	18		2043	0.7	21		2136	0.4	12		2103	0.5	15
4 Sa	0145	1.1	34	19 Su	0216	1.2	37	4 Tu	0309	1.3	40	19 W	0302	1.2	37	4 F	0433	1.1	34	19 Sa	0349	1.0	30
	0756	0.5	15		0829	0.7	21		0925	0.7	21		0915	0.7	21		1045	0.7	21		1006	0.6	18
	1435	1.3	40		1450	1.2	37		1518	1.2	37		1508	1.2	37		1556	0.9	27		1527	0.9	27
	2048	0.7	21		2054	0.7	21		2127	0.6	18		2111	0.7	21		2225	0.5	15		2140	0.5	15
5 Su	0230	1.1	34	20 M	0254	1.2	37	5 W	0400	1.3	40	20 Th	0339	1.2	37	5 Sa	0536	1.1	34	20 Su	0439	1.0	30
	0843	0.6	18		0904	0.7	21		1015	0.8	24		0950	0.8	24		1148	0.8	24		1100	0.7	21
	1511	1.2	37		1517	1.2	37		1552	1.1	34		1535	1.1	34		1640	0.9	27		1559	0.8	24
	2122	0.6	18		2123	0.7	21		2208	0.6	18		2142	0.7	21	●	2327	0.5	15	●	2228	0.5	15
6 M	0320	1.1	34	21 Tu	0333	1.2	37	6 Th	0458	1.3	40	21 F	0422	1.2	37	6 Su	0703	1.0	30	21 M	0550	1.0	30
	0933	0.6	18		0941	0.8	24		1112	0.8	24		1032	0.9	27		1327	0.8	24		1225	0.7	21
	1548	1.1	34		1545	1.2	37		1629	1.1	34		1603	1.1	34		1751	0.9	27		1652	0.8	24
	2200	0.6	18		2154	0.8	24	●	2256	0.6	18		2219	0.8	24					2344	0.5	15	
7 Tu	0416	1.1	34	22 W	0416	1.2	37	7 F	0608	1.2	37	22 Sa	0516	1.2	37	7 M	0100	0.6	18	22 Tu	0729	0.9	27
	1029	0.7	21		1022	0.8	24		1224	0.9	27		1130	0.9	27		0849	1.0	30		1427	0.6	18
	1626	1.1	34		1616	1.2	37		1714	1.0	30		1637	1.1	34		1523	0.7	21		1848	0.7	21
	2243	0.6	18		2229	0.8	24		2358	0.7	21	●	2308	0.8	24		1957	0.8	24				
8 W ●	0521	1.1	34	23 Th	0506	1.2	37	8 Sa	0735	1.2	37	23 Su	0633	1.2	37	8 Tu	0248	0.6	18	23 W	0138	0.5	15
	1135	0.7	21		1112	0.9	27		1407	0.9	27		1305	0.9	27		1008	1.0	30		0904	0.9	27
	1708	1.0	30		1650	1.1	34		1822	1.0	30		1727	1.0	30		1627	0.7	21		1542	0.6	18
	2333	0.6	18	●	2311	0.8	24						2137	0.9	27		2049	0.8	24				
9 Th	0636	1.1	34	24 F	0609	1.2	37	9 Su	0120	0.7	21	24 M	0021	0.8	24	9 W	0409	0.5	15	24 Th	0319	0.4	12
	1258	0.8	24		1220	1.0	30		0911	1.2	37		0816	1.2	37		1059	1.0	30		1008	0.9	27
	1800	1.0	30		1733	1.1	34		1553	0.9	27		1518	0.9	27		1706	0.7	21		1624	0.5	15
					2006	1.0	30		2006	1.0	30		1911	1.0	30		2238	0.9	27		2203	0.8	24
10 F	0034	0.6	18	25 Sa	0005	0.8	24	10 M	0252	0.7	21	25 Tu	0201	0.8	24	10 Th	0504	0.5	15	25 F	0429	0.3	9
	0802	1.1	34		0731	1.2	37		1026	1.2	37		0943	1.2	37		1136	1.0	30		1055	0.8	24
	1438	0.8	24		1402	1.0	30		1657	0.9	27		1631	0.9	27		1736	0.6	18		1658	0.4	12
	1910	0.9	27		1836	1.1	34		2141	1.0	30		2104	1.0	30		2323	1.0	30		2257	0.9	27
11 Sa	0146	0.6	18	26 Su	0115	0.9	27	11 Tu	0409	0.7	21	26 W	0330	0.7	21	11 F	0546	0.4	12	26 Sa	0524	0.3	9
	0925	1.2	37		0900	1.3	40		1120	1.3	40		1042	1.2	37		1206	1.0	30		1134	0.8	24
	1608	0.8	24		1550	1.0	30		1737	0.9	27		1710	0.8	24		1803	0.5	15		1730	0.3	9
	2034	0.9	27		2008	1.1	34		2245	1.1	34		2216	1.1	34					2343	0.9	27	
12 Su	0302	0.6	18	27 M	0235	0.8	24	12 W	0507	0.7	21	27 Th	0436	0.6	18	12 Sa	0000	1.0	30	27 Su	0612	0.2	6
	1034	1.2	37		1011	1.3	40		1200	1.3	40		1126	1.2	37		0622	0.4	12		1209	0.8	24
	1711	0.8	24		1657	1.0	30		1809	0.8	24		1741	0.8	24		1233	1.0	30		1803	0.2	6
	2151	1.0	30		2131	1.1	34		2334	1.1	34		2310	1.1	34	●	1828	0.5	15	○			
13 M	0409	0.6	18	28 Tu	0345	0.8	24	13 Th	0553	0.6	18	28 F	0530	0.6	18	13 Su	0033	1.0	30	28 M	0027	1.0	30
	1128	1.3	40		1105	1.4	43		1233	1.3	40		1205	1.2	37		0653	0.4	12		0655	0.2	6
	1755	0.8	24		1741	0.9	27		1837	0.8	24		1810	0.7	21		1258	0.9	27		1243	0.7	21
	2252	1.0	30		2233	1.1	34						2356	1.2	37		1852	0.4	12		1837	0.1	3
14 Tu	0507	0.6	18	29 W	0444	0.8	24	14 F	0014	1.2	37	29 Sa	0618	0.5	15	14 M	0104	1.0	30	29 Tu	0110	1.0	30
	1212	1.3	40		1149	1.4	43		0632	0.6	18		1240	1.2	37		0723	0.4	12		0736	0.2	6
	1831	0.8	24		1815	0.9	27		1302	1.2	37		1840	0.6	18		1322	0.9	27		1315	0.7	21
	2341	1.1	34		2323	1.2	37	●	1902	0.7	21	○				1916	0.4	12		1913	0.1	3	
15 W ●	0555	0.6	18	30 Th	0535	0.7	21	15 Sa	0050	1.2	37	30 Su	0041	1.2	37	15 Tu	0134	1.0	30	30 W	0153	1.0	30
	1250	1.3	40		1228	1.4	43		0707	0.6	18		0703	0.4	12		0752	0.4	12		0816	0.2	6
	1902	0.8	24		1845	0.9	27		1328	1.2	37		1313	1.1	34		1346	0.9	27		1348	0.7	21
									1927	0.7	21		1911	0.5	15		1941	0.4	12		1950	0.1	3
				31 F ○	0008	1.2	37					31 M	0124	1.2	37								
					0622	0.6	18							0747	0.4	12							
					1304	1.4	43							1345	1.1	34							
				○	1915	0.8	24						1943	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.

Times and Heights of High and Low Waters

October								November								December							
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				
1 Th	0236	1.0	30	16 F	0214	0.8	24	1 Su	0347	0.6	18	16 M	0317	0.6	18	1 Tu	0404	0.4	12	16 W	0343	0.5	15
	0855	0.3	9		0836	0.2	6		0958	0.2	6		0940	0.1	3		1015	0.0	0		1001	0.0	0
	1420	0.7	21		1406	0.6	18		1519	0.4	12		1457	0.4	12		1600	0.3	9		1550	0.3	9
	2029	0.1	3		2004	0.2	6		2141	0.0	0		2108	0.0	0		2216	-0.1	-3		2202	-0.1	-3
2 F	0320	0.9	27	17 Sa	0249	0.8	24	2 M	0434	0.5	15	17 Tu	0400	0.6	18	2 W	0445	0.3	9	17 Th	0424	0.4	12
	0936	0.3	9		0911	0.3	9		1045	0.2	6		1025	0.1	3		1100	0.0	0		1043	-0.1	-3
	1455	0.7	21		1433	0.6	18		1611	0.4	12		1547	0.4	12		1703	0.3	9		1654	0.3	9
	2111	0.2	6		2036	0.2	6		2239	0.1	3		2203	0.0	0		2319	0.0	0		2309	-0.1	-3
3 Sa	0408	0.8	24	18 Su	0329	0.8	24	3 Tu	0532	0.4	12	18 W	0451	0.5	15	3 Th	0533	0.3	9	18 F	0509	0.3	9
	1020	0.4	12		0951	0.3	9		1147	0.2	6		1118	0.1	3		1154	0.0	0		1132	-0.1	-3
	1533	0.7	21		1504	0.6	18		1727	0.4	12		1658	0.4	12		1823	0.3	9		1813	0.3	9
	2159	0.2	6		2116	0.2	6		●	●	2319		0.0	0	●		●						
4 Su	0505	0.8	24	19 M	0417	0.8	24	4 W	0002	0.1	3	19 Th	0553	0.4	12	4 F	0043	0.0	0	19 Sa	0036	0.0	0
	1115	0.5	15		1042	0.4	12		0647	0.4	12		1222	0.1	3		0634	0.2	6		0605	0.2	6
	1621	0.6	18		1545	0.5	15		1307	0.2	6		1834	0.3	9		1259	0.0	0		1232	-0.2	-6
	2302	0.3	9		2208	0.2	6		1915	0.4	12		●	●	1954		0.3	9	1943		0.3	9	
5 M	0621	0.7	21	20 Tu	0518	0.7	21	5 Th	0153	0.1	3	20 F	0102	0.0	0	5 Sa	0223	0.0	0	20 Su	0221	0.0	0
	1238	0.5	15		1152	0.4	12		0811	0.3	9		0707	0.3	9		0748	0.2	6		0715	0.1	3
	1739	0.6	18		1651	0.5	15		1424	0.1	3		1330	0.0	0		1406	0.0	0		1341	-0.2	-6
	●	2327	0.2		6	2050	0.4		12	2011	0.4		12	2011	0.3		9	2111	0.3		9	2107	0.4	12
6 Tu	0037	0.3	9	21 W	0641	0.6	18	6 F	0325	0.1	3	21 Sa	0248	0.0	0	6 Su	0345	0.0	0	21 M	0354	0.0	0
	0802	0.6	18		1322	0.3	9		0919	0.3	9		0823	0.2	6		0859	0.2	6		0834	0.1	3
	1425	0.5	15		1844	0.5	15		1521	0.1	3		1433	-0.1	-3		1506	-0.1	-3		1451	-0.2	-6
	1946	0.6	18		2154	0.4	12		2128	0.4	12		2209	0.4	12		2216	0.4	12				
7 W	0234	0.3	9	22 Th	0121	0.2	6	7 Sa	0425	0.1	3	22 Su	0409	0.0	0	7 M	0442	0.0	0	22 Tu	0500	-0.1	-3
	0926	0.6	18		0811	0.5	15		1008	0.3	9		0928	0.2	6		0956	0.2	6		0944	0.1	3
	1536	0.4	12		1436	0.3	9		1604	0.0	0		1528	-0.2	-6		1555	-0.1	-3		1554	-0.3	-9
	2123	0.6	18		2033	0.5	15		2240	0.5	15		2228	0.5	15		2254	0.4	12		2312	0.5	15
8 Th	0357	0.3	9	23 F	0307	0.2	6	8 Su	0509	0.5	0	23 M	0508	-0.1	-3	8 Tu	0525	0.0	0	23 W	0549	-0.1	-3
	1020	0.6	18		0922	0.5	15		1047	0.3	9		1021	0.2	6		1042	0.2	6		1042	0.1	3
	1620	0.3	9		1529	0.2	6		1640	0.0	0		1618	-0.2	-6		1637	-0.1	-3		1651	-0.3	-9
	2222	0.6	18		2147	0.6	18		2318	0.5	15		2319	0.5	15		2333	0.5	15				
9 F	0451	0.2	6	24 Sa	0421	0.1	3	9 M	0545	0.0	0	24 Tu	0555	-0.1	-3	9 W	0603	0.0	0	24 Th	0001	0.5	15
	1059	0.6	18		1015	0.5	15		1121	0.3	9		1106	0.2	6		1120	0.3	9		0629	-0.1	-3
	1654	0.2	6		1612	0.0	0		1713	-0.1	-3		1705	-0.3	-9		1715	-0.1	-3		1132	0.2	6
	2305	0.7	21		2242	0.6	18		2352	0.6	18		●	●	1741		-0.3	-9					
10 Sa	0531	0.2	6	25 Su	0516	0.0	0	10 Tu	0618	0.0	0	25 W	0006	0.6	18	10 Th	0009	0.5	15	25 F	0043	0.5	15
	1130	0.6	18		1058	0.4	12		1152	0.4	12		0637	-0.1	-3		0637	0.0	0		0704	-0.1	-3
	1723	0.2	6		1652	-0.1	-3		1743	-0.1	-3		1148	0.2	6		1155	0.3	9		1216	0.2	6
	2341	0.7	21		2330	0.7	21		●	●	1750		-0.3	-9	1751		-0.1	-3	1828		-0.3	-9	
11 Su	0605	0.1	3	26 M	0603	0.0	0	11 W	0024	0.6	18	26 Th	0049	0.6	18	11 F	0044	0.6	18	26 Sa	0122	0.5	15
	1158	0.6	18		1137	0.4	12		0649	0.0	0		0714	-0.1	-3		0711	0.0	0		0737	-0.1	-3
	1750	0.1	3		1730	-0.1	-3		1221	0.4	12		1228	0.3	9		1228	0.3	9		1258	0.3	9
	●	●	●		1813	-0.1	-3		●	●	1833		-0.3	-9	●		●	1826	-0.2		-6	1911	-0.3	-9
12 M	0013	0.7	21	27 Tu	0015	0.7	21	12 Th	0056	0.6	18	27 F	0130	0.6	18	12 Sa	0118	0.6	18	27 Su	0158	0.5	15
	0636	0.1	3		0646	-0.1	-3		0720	0.0	0		0750	-0.1	-3		0743	0.0	0		0808	-0.1	-3
	1225	0.6	18		1213	0.4	12		1249	0.4	12		1306	0.3	9		1301	0.3	9		1338	0.3	9
	1816	0.1	3		1809	-0.2	-6		1842	-0.1	-3		1916	-0.3	-9		1902	-0.2	-6		1951	-0.3	-9
13 Tu	0043	0.8	24	28 W	0058	0.7	21	13 F	0128	0.7	21	28 Sa	0209	0.6	18	13 Su	0153	0.6	18	28 M	0231	0.4	12
	0705	0.1	3		0725	0.0	0		0752	0.1	3		0825	0.0	0		0816	0.0	0		0839	-0.1	-3
	1251	0.6	18		1248	0.4	12		1317	0.4	12		1345	0.3	9		1335	0.4	12		1417	0.3	9
	1842	0.1	3		1849	-0.2	-6		1913	-0.1	-3		1958	-0.2	-6		1940	-0.2	-6		2031	-0.2	-6
14 W	0113	0.8	24	29 Th	0140	0.7	21	14 Sa	0202	0.7	21	29 Su	0248	0.5	15	14 M	0228	0.6	18	29 Tu	0302	0.4	12
	0734	0.2	6		0802	0.0	0		0826	0.1	3		0859	0.0	0		0849	0.0	0		0909	-0.1	-3
	1316	0.6	18		1323	0.4	12		1346	0.4	12		1426	0.3	9		1414	0.4	12		1458	0.3	9
	1908	0.1	3		1928	-0.2	-6		1946	0.0	0		2041	-0.2	-6		2022	-0.2	-6		2111	-0.2	-6
15 Th	0143	0.8	24	30 F	0221	0.7	21	15 Su	0238	0.7	21	30 M	0326	0.5	15	15 Tu	0305	0.5	15	30 W	0333	0.3	9
	0804	0.2	6		0839	0.1	3		0901	0.1	3		0935	0.0	0		0923	0.0	0		0941	-0.1	-3
	1341	0.6	18		1359	0.4	12		1418	0.4	12		1510	0.3	9		1458	0.4	12		1542	0.3	9
	1935	0.1	3		2009	-0.1	-3		2024	0.0	0		2126	-0.1	-3		2108	-0.1	-3		2152	-0.1	-3
				31 Sa	0303	0.7	21										31 Th	0404	0.3	9			
					0917	0.1	3											1016	-0.1	-3			
					1437	0.4	12											1630	0.3	9			
					2053	-0.1	-3											2238	-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 Island, Midway Islands, 2015

Times and Heights of High and Low Waters

January					February					March																			
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	0157	1.3	40		16 F	0134	1.3	40		1 Su	0325	1.4	43		16 M	0246	1.4	43		1 Su	0154	1.2	37		16 M	0104	1.2	37	
	0804	0.7	21			0729	0.8	24			0954	0.7	21			0852	0.7	21			0817	0.6	18			0711	0.5	15	
	1248	1.0	30			1145	1.0	30			1432	0.9	27			1330	1.0	30			1316	0.9	27			1211	0.9	27	
	1935	0.0	0			1845	1.0	30	0		2059	0.1	3			2014	0.0	0			1944	0.2	6			1849	0.0	0	
2 F	0256	1.4	43		17 Sa	0231	1.4	43		2 M	0413	1.4	43		17 Tu	0337	1.4	43		2 M	0250	1.2	37		17 Tu	0201	1.2	37	
	0916	0.7	21			0837	0.7	21			1043	0.6	18			0944	0.6	18			0916	0.5	15			0808	0.4	12	
	1348	0.9	27			1242	1.0	30			1532	0.9	27			1444	1.0	30			1424	0.9	27			1331	0.9	27	
	2027	0.0	0			1939	0.0	0			2149	0.2	6			2117	0.0	0			2042	0.2	6			2001	0.1	3	
3 Sa	0348	1.4	43		18 Su	0323	1.5	46		3 Tu	0454	1.4	43		18 W	0423	1.4	43		3 Tu	0339	1.2	37		18 W	0254	1.1	34	
	1017	0.6	18			0936	0.7	21			1124	0.6	18			1031	0.4	12			1002	0.5	15			0902	0.3	9	
	1448	0.9	27			1345	1.0	30			1626	1.0	30			1555	1.1	34			1525	0.9	27			1447	1.0	30	
	2116	0.0	0			2034	0.0	0			2235	0.2	6			2218	0.1	3			2136	0.2	6			2110	0.1	3	
4 Su	0435	1.4	43		19 M	0411	1.5	46		4 W	0530	1.4	43		19 Th	0506	1.4	43		4 W	0419	1.2	37		19 Th	0342	1.1	34	
	1108	0.6	18			1026	0.6	18			1158	0.5	15			1116	0.3	9			1040	0.4	12			0951	0.1	3	
	1544	0.9	27			1452	1.0	30			1716	1.0	30			1701	1.2	37			1619	1.0	30			1556	1.1	34	
	2203	0.0	0			2130	0.0	0			2319	0.2	6			2316	0.1	3			2226	0.2	6			2214	0.1	3	
5 M	0517	1.5	46		20 Tu	0456	1.5	46		5 Th	0602	1.3	40		20 F	0547	1.4	43		5 Th	0455	1.1	34		20 F	0428	1.1	34	
	1152	0.6	18			1111	0.6	18			1228	0.5	15			1200	0.2	6			1113	0.4	12			1038	0.0	0	
	1636	0.9	27			1558	1.0	30			1803	1.0	30			1802	1.3	40			1707	1.0	30			1658	1.2	37	
	2248	0.1	3			2225	0.0	0									2311	0.2	6			2313	0.1	3					
6 Tu	0555	1.5	46		21 W	0538	1.5	46		6 F	0001	0.3	9		21 Sa	0011	0.2	6		6 F	0526	1.1	34		21 Sa	0512	1.1	34	
	1230	0.5	15			1153	0.5	15			0632	1.3	40			0627	1.3	40			1142	0.3	9			1125	-0.1	-3	
	1726	0.9	27			1702	1.1	34			1257	0.4	12			1245	0.1	3			1751	1.1	34			1755	1.3	40	
	2331	0.1	3			2320	0.0	0			1848	1.1	34			1901	1.3	40			2353	0.3	9						
7 W	0630	1.4	43		22 Th	0618	1.5	46		7 Sa	0043	0.3	9		22 Su	0105	0.3	9		7 Sa	0555	1.1	34		22 Su	0008	0.2	6	
	1304	0.5	15			1235	0.4	12			0700	1.3	40			0707	1.3	40			1211	0.2	6			0555	1.1	34	
	1814	0.9	27			1805	1.2	37			1325	0.3	9			1330	0.0	0			1832	1.1	34			1211	-0.2	-6	
											1933	1.1	34			1958	1.4	43								1848	1.3	40	
8 Th	0013	0.2	6		23 F	0014	0.1	3		8 Su	0124	0.4	12		23 M	0159	0.3	9		8 Su	0034	0.3	9		23 M	0101	0.2	6	
	0702	1.4	43			0657	1.5	46			0728	1.2	37			0749	1.2	37			0624	1.1	34			0639	1.0	30	
	1336	0.4	12			1318	0.2	6			1354	0.3	9			1416	-0.1	-3			1239	0.2	6			1257	-0.2	-6	
	1902	1.0	30			1908	1.2	37			2018	1.1	34			2054	1.4	43			1912	1.2	37			1939	1.3	40	
9 F	0055	0.2	6		24 Sa	0108	0.2	6		9 M	0207	0.5	15		24 Tu	0253	0.4	12		9 M	0114	0.3	9		24 Tu	0152	0.2	6	
	0733	1.4	43			0736	1.4	43			0756	1.2	37			0832	1.2	37			0652	1.0	30			0723	1.0	30	
	1407	0.4	12			1402	0.1	3			1426	0.2	6			1504	-0.1	-3			1309	0.1	3			1343	-0.2	-6	
	1951	1.0	30			2010	1.3	40			2105	1.2	37			2150	1.3	40			1953	1.2	37			2030	1.3	40	
10 Sa	0138	0.3	9		25 Su	0204	0.3	9		10 Tu	0252	0.5	15		25 W	0350	0.5	15		10 Tu	0155	0.4	12		25 W	0242	0.3	9	
	0803	1.3	40			0816	1.4	43			0827	1.2	37			0918	1.1	34			0721	1.0	30			0809	1.0	30	
	1439	0.3	9			1448	0.1	3			1500	0.2	6			1554	0.0	0			1341	0.1	3			1431	-0.2	-6	
	2043	1.0	30			2112	1.3	40			2155	1.2	37			2249	1.3	40			2035	1.2	37			2121	1.3	40	
11 Su	0223	0.4	12		26 M	0301	0.5	15		11 W	0341	0.6	18		26 Th	0450	0.6	18		11 W	0237	0.4	12		26 Th	0335	0.3	9	
	0834	1.3	40			0857	1.3	40			0859	1.1	34			1008	1.0	30			0752	1.0	30			0857	0.9	27	
	1512	0.3	9			1536	0.0	0			1538	0.1	3			1648	0.0	0			1416	0.0	0			1521	-0.1	-3	
	2137	1.1	34			2216	1.3	40			2249	1.2	37			2350	1.3	40			2120	1.2	37			2213	1.2	37	
12 M	0312	0.5	15		27 Tu	0402	0.6	18		12 Th	0436	0.7	21		27 F	0557	0.6	18		12 Th	0323	0.5	15		27 F	0430	0.4	12	
	0905	1.2	37			0941	1.2	37			0935	1.1	34			1104	1.0	30			0827	0.9	27			0950	0.8	24	
	1548	0.2	6			1626	0.0	0			1622	0.1	3			1744	0.1	3			1456	0.0	0			1614	0.0	0	
	2234	1.1	34			2320	1.3	40			2348	1.3	40								2210	1.2	37			2309	1.1	34	
13 Tu	0407	0.6	18		28 W	0509	0.7	21		13 F	0538	0.7	21		28 Sa	0053	1.2	37		13 F	0413	0.5	15		28 Sa	0530	0.4	12	
	0938	1.1	34			1029	1.1	34			1018	1.0	30			0709	0.6	18			0907	0.9	27			1050	0.8	24	
	1626	0.2	6			1719	0.0	0			1712	0.1	3			1208	0.9	27			1542	0.0	0			1711	0.0	0	
	2333	1.2	37													1844	0.1	3			2305	1.2	37						
14 W	0508	0.7	21		29 Th	0026	1.3	40		14 Sa	0049	1.3	40							14 Sa	0509	0.5	15		29 Su	0006	1.0	30	
	1015	1.1	34			0623	0.7	21			0645	0.7	21								0955	0.9	27			0632	0.4	12	
	1708	0.1	3			1123	1.1	34			1111	1.0	30								1637	0.0	0			1157	0.8	24	
						1814	0.0	0			1808	0.0	0											1814		0.1	3		
15 Th	0034	1.2	37		30 F	0131	1.3	40		15 Su	0150	1.3	40							15 Su	0004	1.2	37		30 M	0104	1.0	30	
	0617	0.7	21			0740	0.7	21			0752	0.7	21								0609	0.5	15			0732	0.4	12	
	1057	1.0	30			1223	1.0	30			1216	1.0	30								1057	0.9	27			1308	0.8	24	
	1755	0.1	3			1910	0.1	3			1910	0.0	0								1739	0.0	0			1919	0.1	3	
				31 Sa	0231	1.3	40																						
					0853	0.7	21																						
					1328	1.0	30																						
					2005	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.

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, 2015

Times and Heights of High and Low Waters

July					August					September																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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1 W ○	0253	0.7 21	16 Th	0415	0.8 24	1 Sa	0438	1.0 30	16 Su	0006	0.4 12	1 Tu	0014	0.1 3	16 W	0018	0.3 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0929	-0.2 -6		1030	-0.1 -3		1056	0.0 0		0548	1.1 34		0634	1.4 43		0656	1.3 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1704	1.3 40		1736	1.3 40		1754	1.4 43		1149	0.3 9		1241	0.3 9		1302	0.4 12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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2 Th	0349	0.7 21	17 F	0008	0.4 12	2 Su	0009	0.3 9	17 M	0036	0.4 12	2 W	0059	0.0 0	17 Th	0048	0.2 6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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	1745	1.4 43		1116	0.0 0		1150	0.1 3		1232	0.3 9		1335	0.4 12		1342	0.5 15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
				1813	1.3 40		1832	1.4 43		1844	1.2 37		1920	1.3 40		1904	1.1 34																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
3 F	0008	0.4 12	18 Sa	0045	0.4 12	3 M	0050	0.2 6	18 Tu	0106	0.3 9	3 Th	0145	0.0 0	18 F	0120	0.2 6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0445	0.8 24		0600	0.9 27		0641	1.2 37		0718	1.2 37		0826	1.5 46		0817	1.3 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1105	-0.2 -6		1200	0.1 3		1244	0.2 6		1314	0.4 12		1428	0.5 15		1424	0.5 15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1824	1.4 43		1848	1.3 40		1910	1.4 43		1913	1.2 37		2004	1.2 37		1936	1.0 30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
4 Sa	0047	0.3 9	19 Su	0119	0.3 9	4 Tu	0133	0.1 3	19 W	0136	0.3 9	4 F ○	0234	0.0 0	19 Sa	0155	0.2 6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0544	0.8 24		0649	0.9 27		0742	1.2 37		0803	1.2 37		0922	1.4 43		0900	1.3 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1155	-0.1 -3		1244	0.1 3		1339	0.3 9		1356	0.5 15		1524	0.5 15		1508	0.6 18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1902	1.3 40		1920	1.3 40		1949	1.3 40		1942	1.2 37		2051	1.2 37		2010	1.0 30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
5 Su	0126	0.2 6	20 M	0151	0.3 9	5 W	0218	0.0 0	20 Th	0207	0.2 6	5 Sa	0325	0.0 0	20 Su ○	0234	0.1 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0644	0.9 27		0739	0.9 27		0843	1.3 40		0848	1.2 37		1020	1.4 43		0948	1.3 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1247	0.0 0		1328	0.2 6		1435	0.4 12		1440	0.5 15		1624	0.6 18		1556	0.6 18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1940	1.3 40		1951	1.2 37		2029	1.3 40		2012	1.1 34		2143	1.1 34		2050	1.0 30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
6 M	0207	0.1 3	21 Tu	0223	0.2 6	6 Th ○	0305	0.0 0	21 F	0242	0.2 6	6 Su	0420	0.1 3	21 M	0319	0.1 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0747	0.9 27		0830	1.0 30		0945	1.3 40		0937	1.2 37		1120	1.4 43		1040	1.3 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1341	0.1 3		1413	0.3 9		1534	0.5 15		1527	0.6 18		1729	0.6 18		1649	0.6 18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2018	1.2 37		2021	1.2 37		2113	1.2 37		2045	1.1 34		2241	1.1 34		2138	1.0 30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
7 Tu	0249	0.0 0	22 W	0256	0.2 6	7 F	0355	-0.1 -3	22 Sa ○	0320	0.2 6	7 M	0518	0.1 3	22 Tu	0411	0.2 6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0852	1.0 30		0922	1.0 30		1048	1.3 40		1029	1.2 37		1222	1.3 40		1136	1.3 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1438	0.2 6		1501	0.4 12		1638	0.6 18		1620	0.7 21		1838	0.6 18		1747	0.6 18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2057	1.2 37		2052	1.1 34		2200	1.1 34		2121	1.1 34		2347	1.0 30		2238	1.0 30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
8 W ○	0335	-0.1 -3	23 Th ○	0331	0.1 3	8 Sa	0448	0.0 0	23 Su	0403	0.2 6	8 Tu	0619	0.2 6	23 W	0512	0.2 6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0959	1.0 30		1017	1.0 30		1152	1.3 40		1125	1.3 40		1324	1.3 40		1234	1.3 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1541	0.3 9		1553	0.5 15		1747	0.7 21		1718	0.7 21		1946	0.6 18		1846	0.6 18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2138	1.1 34		2125	1.1 34		2254	1.1 34		2204	1.0 30					2350	1.0 30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
9 Th	0423	-0.1 -3	24 F	0410	0.1 3	9 Su	0544	0.0 0	24 M	0451	0.1 3	9 W	0058	1.0 30	24 Th	0621	0.2 6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1108	1.1 34		1114	1.1 34		1257	1.3 40		1224	1.3 40		0722	0.2 6		1331	1.2 37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1649	0.5 15		1651	0.6 18		1902	0.7 21		1822	0.7 21		1422	1.3 40		1941	0.5 15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2224	1.0 30		2201	1.0 30		2354	1.0 30		2255	1.0 30		2046	0.6 18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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	1216	1.2 37		1213	1.1 34		1359	1.3 40		1324	1.3 40		0823	0.3 9		0733	0.2 6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1803	0.5 15		1756	0.6 18		2015	0.7 21		1927	0.7 21		1512	1.2 37		1423	1.2 37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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11 Sa	0608	-0.2 -6	26 Su	0537	0.0 0	11 Tu	0101	1.0 30	26 W	0646	0.1 3	11 F	0310	1.0 30	26 Sa	0223	1.1 34																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1322	1.2 37		1312	1.2 37		0740	0.1 3		1420	1.3 40		0919	0.3 9		0843	0.3 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1921	0.6 18		1904	0.7 21		1456	1.3 40		2026	0.7 21		1556	1.2 37		1511	1.2 37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
				2328	0.9 27		2119	0.6 18					2215	0.5 15		2120	0.3 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
12 Su	0010	0.9 27	27 M	0626	0.0 0	12 W	0208	1.0 30	27 Th	0108	1.0 30	12 Sa ●	0404	1.1 34	27 Su ○	0330	1.3 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0703	-0.2 -6		1409	1.3 40		0836	0.1 3		0749	0.1 3		1011	0.3 9		0948	0.3 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1424	1.3 40		2012	0.7 21		1547	1.3 40		1510	1.4 43		1633	1.2 37		1556	1.2 37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2036	0.6 18					2213	0.6 18		2117	0.6 18		2249	0.4 12		2207	0.1 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
13 M	0112	0.9 27	28 Tu	0022	0.9 27	13 Th	0312	1.0 30	28 F	0221	1.1 34	13 Su	0452	1.2 37	28 M	0432	1.4 43																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0758	-0.2 -6		0718	0.0 0		0930	0.1 3		0852	0.1 3		1058	0.3 9		1048	0.3 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1519	1.3 40		1502	1.3 40		1631	1.3 40		1556	1.4 43		1706	1.2 37		1640	1.2 37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2142	0.5 15		2112	0.6 18		2257	0.5 15		2203	0.5 15		2320	0.4 12		2253	0.0 0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
14 Tu	0216	0.8 24	29 W	0123	0.9 27	14 F ●	0409	1.0 30	29 Sa ○	0331	1.1 34	14 M	0536	1.2 37	29 Tu	0528	1.5 46																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0851	-0.1 -3		0812	0.0 0		1019	0.2 6		0953	0.2 6		1141	0.4 12		1143	0.3 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1610	1.3 40		1550	1.4 43		1710	1.3 40		1638	1.4 43		1737	1.1 34		1723	1.2 37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2238	0.5 15		2203	0.6 18		2334	0.5 15		2247	0.4 12		2349	0.3 9		2339	-0.1 -3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
15 W ●	0317	0.8 24	30 Th ○	0229	0.9 27	15 Sa	0501	1.0 30	30 Su	0435	1.2 37	15 Tu	0617	1.3 40	30 W	0622	1.5 46																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	0942	-0.1 -3		0907	0.0 0		1105	0.2 6		1051	0.2 6		1222	0.4 12		1236	0.4 12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1655	1.3 40		1634	1.4 43		1744	1.3 40		1719	1.4 43		1806	1.1 34		1807	1.2 37																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2327	0.4 12		2248	0.5 15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
31 F	0334	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.

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, 2015

Times and Heights of High and Low Waters

January								February								March							
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				
1 Th	0153	2.0	61	16 F	0127	1.8	55	1 Su	0249	1.9	58	16 M	0219	2.0	61	1 Su	0147	1.7	52	16 M	0105	1.8	55
	0852	0.6	18		0827	0.6	18		0944	0.3	9		0903	0.2	6		0844	0.3	9		0752	0.2	6
	1253	0.8	24		1210	0.7	21		1424	0.8	24		1400	0.8	24		1341	0.8	24		1309	0.8	24
	1850	-0.2	-6		1819	-0.2	-6		1957	-0.1	-3		1943	-0.3	-9		1909	0.0	0		1841	-0.1	-3
2 F	0231	2.1	64	17 Sa	0205	2.0	61	2 M	0320	2.0	61	17 Tu	0258	2.1	64	2 M	0221	1.7	52	17 Tu	0148	1.8	55
	0933	0.5	15		0901	0.5	15		1006	0.3	9		0934	0.1	3		0902	0.2	6		0822	0.1	3
	1343	0.8	24		1310	0.8	24		1500	0.8	24		1448	1.0	30		1417	0.9	27		1358	1.0	30
	1929	-0.2	-6		1906	-0.3	-9		2034	-0.1	-3		2032	-0.3	-9		1950	0.0	0		1937	-0.2	-6
3 Sa	0306	2.1	64	18 Su	0243	2.2	67	3 Tu	0350	1.9	58	18 W	0336	2.1	64	3 Tu	0252	1.7	52	18 W	0228	1.8	55
	1006	0.4	12		0935	0.4	12		1028	0.2	6		1007	0.0	0		0921	0.2	6		0852	0.0	0
	1427	0.8	24		1402	0.8	24		1536	0.9	27		1537	1.1	34		1451	1.0	30		1444	1.2	37
	2006	-0.2	-6		1952	-0.3	-9		2110	-0.1	-3		2121	-0.3	-9		2028	0.0	0		2031	-0.2	-6
4 Su	0340	2.1	64	19 M	0321	2.3	70	4 W	0418	1.9	58	19 Th	0413	2.0	61	4 W	0320	1.7	52	19 Th	0306	1.7	52
	1037	0.4	12		1009	0.3	9		1051	0.2	6		1040	-0.1	-3		0940	0.1	3		0923	-0.1	-3
	1507	0.8	24		1451	0.8	24		1611	0.9	27		1626	1.2	37		1523	1.1	34		1530	1.4	43
	2043	-0.1	-3		2037	-0.4	-12		2146	0.0	0		2211	-0.2	-6		2105	0.0	0		2123	-0.1	-3
5 M	0412	2.1	64	20 Tu	0400	2.3	70	5 Th	0445	1.8	55	20 F	0450	1.8	55	5 Th	0346	1.6	49	20 F	0343	1.6	49
	1106	0.3	9		1045	0.2	6		1116	0.2	6		1114	-0.1	-3		1001	0.1	3		0955	-0.2	-6
	1546	0.8	24		1541	0.9	27		1648	1.0	30		1719	1.3	40		1556	1.2	37		1616	1.5	46
	2118	-0.1	-3		2123	-0.3	-9		2222	0.1	3		2303	0.0	0		2141	0.0	0		2215	0.0	0
6 Tu	0444	2.1	64	21 W	0438	2.2	67	6 F	0510	1.7	52	21 Sa	0526	1.6	49	6 F	0410	1.5	46	21 Sa	0420	1.4	43
	1136	0.3	9		1122	0.1	3		1142	0.2	6		1150	-0.1	-3		1024	0.0	0		1028	-0.2	-6
	1625	0.8	24		1633	0.9	27		1729	1.0	30		1815	1.3	40		1630	1.2	37		1704	1.6	49
	2154	0.0	0		2211	-0.2	-6		2300	0.2	6		2359	0.2	6		2218	0.1	3		2309	0.1	3
7 W	0515	2.0	61	22 Th	0517	2.1	64	7 Sa	0534	1.5	46	22 Su	0602	1.4	43	7 Sa	0434	1.4	43	22 Su	0456	1.2	37
	1207	0.3	9		1200	0.1	3		1211	0.1	3		1229	-0.1	-3		1048	0.0	0		1102	-0.2	-6
	1707	0.8	24		1730	1.0	30		1815	1.0	30		1920	1.4	43		1707	1.3	40		1755	1.6	49
	2231	0.1	3		2300	0.0	0		2342	0.4	12						2258	0.2	6				
8 Th	0545	1.9	58	23 F	0556	1.9	58	8 Su	0557	1.4	43	23 M	0105	0.4	12	8 Su	0457	1.3	40	23 M	0007	0.2	6
	1239	0.3	9		1240	0.0	0		1241	0.1	3		0638	1.1	34		1114	0.0	0		0532	1.0	30
	1755	0.8	24		1835	1.0	30		1911	1.1	34		1311	-0.1	-3		1746	1.3	40		1138	-0.2	-6
	2309	0.2	6		2355	0.2	6						2034	1.4	43		2342	0.3	9		1850	1.6	49
9 F	0614	1.7	52	24 Sa	0635	1.7	52	9 M	0032	0.5	15	24 Tu	0235	0.6	18	9 M	0519	1.1	34	24 Tu	0114	0.4	12
	1313	0.3	9		1323	0.0	0		0617	1.2	37		0719	0.9	27		1143	0.0	0		0611	0.8	24
	1854	0.8	24		1950	1.1	34		1316	0.1	3		1400	0.0	0		1833	1.3	40		1218	-0.1	-3
	2351	0.4	12						2023	1.1	34		2157	1.4	43						1953	1.6	49
10 Sa	0642	1.5	46	25 Su	0100	0.5	15	10 Tu	0141	0.7	21	25 W	0504	0.6	18	10 Tu	0034	0.5	15	25 W	0242	0.5	15
	1349	0.3	9		0714	1.4	43		0637	1.0	30		0824	0.7	21		0541	1.0	30		0700	0.7	21
	2010	0.9	27		1408	0.0	0		1357	0.1	3		1500	0.1	3		1216	0.0	0		1305	0.0	0
					2117	1.2	37		2149	1.2	37		2315	1.5	46		1930	1.3	40		2105	1.5	46
11 Su	0042	0.6	18	26 M	0228	0.7	21	11 W	0330	0.8	24	26 Th	0712	0.5	15	11 W	0144	0.6	18	26 Th	0449	0.4	12
	0709	1.4	43		0757	1.2	37		0658	0.9	27		1024	0.6	18		0604	0.8	24		0832	0.5	15
	1428	0.2	6		1458	0.0	0		1449	0.1	3		1611	0.1	3		1257	0.1	3		1406	0.2	6
	2143	1.0	30		2243	1.4	43		2308	1.4	43						2043	1.3	40		2221	1.5	46
12 M	0158	0.8	24	27 Tu	0443	0.8	24	12 Th	1551	0.0	0	27 F	0017	1.6	49	12 Th	0328	0.6	18	27 F	0621	0.4	12
	0737	1.2	37		0854	0.9	27		0755	0.4	12		0634	0.7	21		1036	0.6	18				
	1511	0.2	6		1553	0.0	0		1156	0.6	18		1351	0.1	3		1527	0.2	6				
	2304	1.2	37		2355	1.6	49		1722	0.1	3		2206	1.4	43		2328	1.5	46				
13 Tu	0356	0.9	27	28 W	0711	0.7	21	13 F	0008	1.6	49	28 Sa	0107	1.7	52	13 F	0552	0.5	15	28 Sa	0703	0.3	9
	0811	1.0	30		1021	0.8	24		0740	0.5	15		0822	0.3	9		0806	0.6	18		1158	0.6	18
	1556	0.1	3		1650	0.0	0		1032	0.6	18		1257	0.7	21		1504	0.1	3		1653	0.3	9
									1655	0.0	0		1821	0.1	3		2318	1.5	46				
14 W	0003	1.4	43	29 Th	0050	1.7	52	14 Sa	0056	1.7	52	14 Sa	0652	0.4	12	14 Sa	0652	0.4	12	29 Su	0023	1.5	46
	0622	0.8	24		0817	0.6	18		0806	0.5	15		1052	0.6	18		0730	0.3	9				
	0915	0.9	27		1148	0.7	21		1206	0.7	21		1624	0.1	3		1251	0.8	24				
	1644	0.0	0		1744	-0.1	-3		1756	-0.1	-3						1803	0.2	6				
15 Th	0048	1.6	49	30 F	0136	1.8	55	15 Su	0139	1.9	58	15 Su	0016	1.7	52	15 Su	0016	1.7	52	30 M	0106	1.5	46
	0746	0.7	21		0854	0.5	15		0834	0.3	9		0723	0.3	9		0750	0.2	6				
	1053	0.8	24		1253	0.7	21		1308	0.7	21		1212	0.7	21		1331	0.9	27				
	1732	-0.1	-3		1834	-0.1	-3		1851	-0.2	-6		1737	0.0	0		1857	0.2	6				
			31 Sa	0214	1.9	58										31 Tu	0142	1.4	43				
				0921	0.4	12											0809	0.1	3				
				1343	0.7	21											1406	1.1	34				
				1917	-0.1	-3											1942	0.2	6				

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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, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0624	2.0	61	16 F	0548	1.9	58	1 Tu	0013	0.4	12
	1256	0.6	18		1231	0.7	21		0755	1.8	55
	1748	1.1	34		1654	1.0	30		1531	0.4	12
	2350	0.1	3		2303	0.2	6		2126	0.8	24
2 F	0725	1.9	58	17 Sa	0634	1.9	58	2 W	0116	0.6	18
	1422	0.7	21		1338	0.7	21		0847	1.6	49
	1843	0.9	27		1729	0.9	27		1618	0.4	12
					2342	0.3	9		2257	1.0	30
3 Sa	0038	0.3	9	18 Su	0731	1.8	55	3 Th	0248	0.8	24
	0835	1.9	58		1504	0.7	21		0941	1.4	43
	1615	0.7	21		1829	0.8	24		1656	0.3	9
	2018	0.8	24						2359	1.2	37
4 Su	0139	0.4	12	19 M	0033	0.4	12	4 F	0440	0.9	27
	0950	1.8	55		0839	1.8	55		1034	1.3	40
	1745	0.6	18		1632	0.6	18		1728	0.2	6
	2218	0.8	24		2053	0.7	21				
5 M	0301	0.5	15	20 Tu	0148	0.5	15	5 Sa	0044	1.4	43
	1058	1.8	55		0951	1.8	55		0618	0.8	24
	1832	0.5	15		1726	0.5	15		1124	1.2	37
	2342	0.9	27		2250	0.8	24		1757	0.2	6
6 Tu	0430	0.6	18	21 W	0322	0.5	15	6 Su	0121	1.6	49
	1155	1.8	55		1055	1.8	55		0728	0.8	24
	1903	0.5	15		1803	0.4	12		1209	1.1	34
					2356	1.0	30		1826	0.1	3
7 W	0036	1.1	34	22 Th	0451	0.5	15	7 M	0154	1.8	55
	0545	0.5	15		1149	1.8	55		0820	0.7	21
	1241	1.7	52		1835	0.3	9		1249	1.0	30
	1926	0.4	12						1855	0.0	0
8 Th	0118	1.2	37	23 F	0047	1.3	40	8 Tu	0226	1.9	58
	0642	0.5	15		0607	0.5	15		0902	0.6	18
	1319	1.7	52		1237	1.8	55		1326	0.9	27
	1946	0.4	12		1906	0.2	6		1925	-0.1	-3
9 F	0153	1.4	43	24 Sa	0132	1.5	46	9 W	0257	2.0	61
	0730	0.5	15		0712	0.4	12		0939	0.5	15
	1351	1.6	49		1320	1.7	52		1402	0.9	27
	2006	0.3	9		1938	0.0	0		1957	-0.1	-3
10 Sa	0225	1.5	46	25 Su	0215	1.8	55	10 Th	0329	2.1	64
	0811	0.5	15		0811	0.4	12		1016	0.5	15
	1420	1.6	49		1401	1.6	49		1438	0.9	27
	2026	0.2	6		2010	-0.1	-3		2031	-0.1	-3
11 Su	0256	1.7	52	26 M	0258	2.0	61	11 F	0402	2.2	67
	0851	0.4	12		0907	0.4	12		1053	0.4	12
	1447	1.5	46		1441	1.4	43		1516	0.8	24
	2047	0.2	6		2043	-0.1	-3		2106	-0.1	-3
12 M	0327	1.8	55	27 Tu	0341	2.2	67	12 Sa	0437	2.2	67
	0929	0.5	15		1002	0.4	12		1133	0.4	12
	1512	1.4	43		1520	1.3	40		1557	0.8	24
	2110	0.2	6		2117	-0.1	-3		2143	-0.1	-3
13 Tu	0359	1.8	55	28 W	0426	2.3	70	13 Su	0514	2.2	67
	1009	0.5	15		1057	0.4	12		1216	0.4	12
	1537	1.3	40		1559	1.1	34		1644	0.8	24
	2135	0.1	3		2153	-0.1	-3		2223	0.0	0
14 W	0432	1.9	58	29 Th	0512	2.3	70	14 M	0553	2.1	64
	1051	0.5	15		1155	0.5	15		1303	0.3	9
	1601	1.2	37		1641	1.0	30		1743	0.7	21
	2202	0.1	3		2230	0.0	0		2306	0.1	3
15 Th	0508	1.9	58	30 F	0600	2.2	67	15 Tu	0635	2.0	61
	1137	0.6	18		1259	0.5	15		1351	0.3	9
	1627	1.1	34		1729	0.9	27		1900	0.8	24
	2231	0.2	6		2310	0.1	3		2358	0.3	9
				31 Sa	0652	2.1	64				
					1413	0.6	18				
					1833	0.8	24				
					2355	0.3	9				
								31 Th	0041	0.6	18
									0736	1.5	46
									1453	0.3	9
									2152	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.

Honolulu, Oahu Island, Hawaii, 2015

Times and Heights of High and Low Waters

January				February				March			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0159	2.1	64	16 F	0129	2.0	61	1 Su	0155	1.8	55
	0857	0.4	12		0829	0.4	12		0852	0.1	3
	1320	0.8	24		1243	0.8	24		1404	0.8	24
	1913	-0.2	-6		1841	-0.2	-6		1933	0.0	0
2 F	0238	2.2	67	17 Sa	0209	2.2	67	2 M	0230	1.8	55
	0941	0.3	9		0911	0.3	9		0917	0.1	3
	1411	0.8	24		1340	0.8	24		1440	0.9	27
	1951	-0.2	-6		1926	-0.3	-9		2015	-0.1	-3
3 Sa	0315	2.3	70	18 Su	0249	2.3	70	3 Tu	0302	1.8	55
	1019	0.2	6		0950	0.1	3		0941	0.0	0
	1456	0.8	24		1432	0.8	24		1512	1.0	30
	2029	-0.2	-6		2012	-0.4	-12		2053	-0.1	-3
4 Su	0349	2.3	70	19 M	0329	2.4	73	4 W	0331	1.8	55
	1054	0.2	6		1028	0.0	0		1003	0.0	0
	1537	0.8	24		1522	0.8	24		1544	1.1	34
	2105	-0.2	-6		2058	-0.4	-12		2129	-0.1	-3
5 M	0422	2.3	70	20 Tu	0410	2.5	76	5 Th	0359	1.7	52
	1127	0.1	3		1107	-0.1	-3		1026	0.0	0
	1618	0.8	24		1612	0.9	27		1617	1.2	37
	2141	-0.1	-3		2146	-0.3	-9		2206	0.0	0
6 Tu	0455	2.2	67	21 W	0451	2.4	73	6 F	0427	1.6	49
	1200	0.1	3		1146	-0.1	-3		1050	-0.1	-3
	1659	0.8	24		1704	1.0	30		1651	1.3	40
	2217	0.0	0		2235	-0.2	-6		2245	0.1	3
7 W	0528	2.1	64	22 Th	0532	2.3	70	7 Sa	0455	1.5	46
	1234	0.1	3		1226	-0.1	-3		1115	-0.1	-3
	1743	0.8	24		1801	1.1	34		1728	1.4	43
	2254	0.1	3		2328	0.0	0		2326	0.2	6
8 Th	0600	2.0	61	23 F	0614	2.1	64	8 Su	0523	1.4	43
	1308	0.1	3		1307	-0.1	-3		1141	0.0	0
	1832	0.8	24		1903	1.1	34		1808	1.4	43
	2335	0.3	9								
9 F	0633	1.8	55	24 Sa	0028	0.2	6	9 M	0012	0.3	9
	1344	0.1	3		0657	1.8	55		0553	1.2	37
	1929	0.9	27		1351	-0.1	-3		1210	0.0	0
					2014	1.2	37		1854	1.4	43
10 Sa	0021	0.4	12	25 Su	0141	0.4	12	10 Tu	0107	0.4	12
	0707	1.6	49		0742	1.5	46		0626	1.0	30
	1421	0.1	3		1437	-0.1	-3		1243	0.0	0
	2037	1.0	30		2132	1.4	43		1948	1.4	43
11 Su	0121	0.6	18	26 M	0316	0.6	18	11 W	0220	0.5	15
	0743	1.5	46		0834	1.2	37		0707	0.8	24
	1500	0.1	3		1527	-0.1	-3		1323	0.0	0
	2153	1.1	34		2250	1.5	46		2053	1.5	46
12 M	0247	0.8	24	27 Tu	0514	0.7	21	12 Th	0359	0.5	15
	0825	1.3	40		0939	1.0	30		0808	0.7	21
	1541	0.1	3		1620	-0.1	-3		1418	0.1	3
	2303	1.3	40		2359	1.7	52		2207	1.5	46
13 Tu	0443	0.8	24	28 W	0657	0.5	15	13 F	0538	0.4	12
	0917	1.1	34		1059	0.8	24		0945	0.6	18
	1624	0.0	0		1716	-0.1	-3		1530	0.1	3
									2317	1.7	52
14 W	0000	1.5	46	29 Th	0055	1.9	58	14 Sa	0643	0.2	6
	0628	0.7	21		0805	0.4	12		1123	0.6	18
	1025	0.9	27		1217	0.7	21		1649	0.0	0
	1709	0.0	0		1809	-0.1	-3				
15 Th	0047	1.7	52	30 F	0142	2.0	61	15 Su	0017	1.8	55
	0740	0.6	18		0851	0.3	9		0728	0.1	3
	1138	0.8	24		1320	0.7	21		1234	0.7	21
	1755	-0.1	-3		1857	-0.1	-3		1801	-0.1	-3
				31 Sa	0221	2.0	61				
					0926	0.2	6				
					1409	0.7	21				
					1941	-0.1	-3				
								30 M	0115	1.6	49
									0803	0.0	0
									1352	1.0	30
									1923	0.1	3
								31 Tu	0152	1.5	46
									0828	0.0	0
									1424	1.1	34
									2007	0.1	3

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, 2015

Times and Heights of High and Low Waters

April				May				June			
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
1 W	0225 1.5 46 0850 -0.1 -3 1454 1.3 40 2047 0.1 3	16 Th	0206 1.6 49 0829 -0.3 -9 1453 1.7 52 2100 0.0 0	1 F	0212 1.2 37 0820 -0.2 -6 1504 1.7 52 2125 0.2 6	16 Sa	0220 1.1 34 0822 -0.4 -12 1523 2.2 67 2204 0.1 3	1 M	0246 0.8 24 0834 -0.3 -9 1551 2.2 67 2248 0.2 6	16 Tu	0335 0.7 21 0906 -0.3 -9 1628 2.4 73 2338 0.1 3
2 Th	0255 1.5 46 0912 -0.1 -3 1525 1.4 43 2126 0.1 3	17 F	0250 1.5 46 0902 -0.4 -12 1536 1.9 58 2155 -0.1 -3	2 Sa	0245 1.1 34 0845 -0.2 -6 1536 1.8 55 2206 0.2 6	17 Su	0306 1.0 30 0857 -0.4 -12 1605 2.3 70 2256 0.0 0	2 Tu	0328 0.8 24 0907 -0.3 -9 1628 2.2 67 2333 0.1 3	17 W	0422 0.7 21 0944 -0.2 -6 1706 2.3 70
3 F	0324 1.4 43 0935 -0.1 -3 1556 1.5 46 2205 0.1 3	18 Sa	0333 1.3 40 0936 -0.4 -12 1620 2.0 61 2250 0.0 0	3 Su	0318 1.0 30 0911 -0.2 -6 1609 1.9 58 2249 0.1 3	18 M	0352 0.8 24 0932 -0.4 -12 1646 2.3 70 2348 0.0 0	3 W	0412 0.7 21 0944 -0.3 -9 1707 2.3 70	18 Th	0021 0.1 3 0510 0.7 21 1023 -0.1 -3 1744 2.2 67
4 Sa	0353 1.3 40 0958 -0.1 -3 1629 1.6 49 2246 0.1 3	19 Su	0416 1.1 34 1010 -0.4 -12 1704 2.1 64 2346 0.0 0	4 M	0352 0.9 27 0940 -0.2 -6 1645 2.0 61 2334 0.1 3	19 Tu	0439 0.7 21 1009 -0.3 -9 1728 2.2 67	4 Th	0019 0.1 3 0501 0.7 21 1023 -0.2 -6 1749 2.2 67	19 F	0103 0.1 3 0602 0.7 21 1103 0.1 3 1822 2.0 61
5 Su	0422 1.2 37 1023 -0.1 -3 1704 1.7 52 2329 0.1 3	20 M	0459 1.0 30 1045 -0.3 -9 1750 2.1 64	5 Tu	0429 0.8 24 1010 -0.2 -6 1723 2.0 61	20 W	0040 0.0 0 0529 0.6 18 1046 -0.1 -3 1811 2.1 64	5 F	0108 0.0 0 0557 0.6 18 1107 -0.1 -3 1834 2.2 67	20 Sa	0145 0.1 3 0700 0.7 21 1146 0.2 6 1901 1.9 58
6 M	0454 1.1 34 1050 -0.1 -3 1742 1.7 52	21 Tu	0045 0.1 3 0546 0.8 24 1122 -0.2 -6 1837 2.0 61	6 W	0024 0.1 3 0511 0.7 21 1044 -0.2 -6 1805 2.0 61	21 Th	0134 0.0 0 0625 0.6 18 1126 0.0 0 1855 2.0 61	6 Sa	0159 0.0 0 0704 0.6 18 1158 0.1 3 1922 2.1 64	21 Su	0227 0.1 3 0807 0.8 24 1237 0.4 12 1941 1.7 52
7 Tu	0018 0.2 6 0528 0.9 27 1120 -0.1 -3 1825 1.7 52	22 W	0149 0.1 3 0641 0.6 18 1202 0.0 0 1929 1.9 58	7 Th	0119 0.1 3 0600 0.6 18 1122 -0.1 -3 1852 2.0 61	22 F	0229 0.1 3 0733 0.6 18 1211 0.2 6 1942 1.8 55	7 Su	0250 0.0 0 0824 0.7 21 1303 0.3 9 2013 1.9 58	22 M	0309 0.1 3 0922 0.9 27 1342 0.6 18 2023 1.5 46
8 W	0115 0.2 6 0608 0.8 24 1154 -0.1 -3 1914 1.7 52	23 Th	0300 0.1 3 0751 0.5 15 1248 0.1 3 2027 1.7 52	8 F	0220 0.1 3 0704 0.5 15 1209 0.0 0 1945 1.9 58	23 Sa	0324 0.1 3 0856 0.6 18 1307 0.4 12 2032 1.7 52	8 M	0340 -0.1 -3 0950 0.9 27 1427 0.5 15 2108 1.7 52	23 Tu	0349 0.1 3 1036 1.0 30 1512 0.7 21 2109 1.4 43
9 Th	0225 0.3 9 0700 0.6 18 1236 0.0 0 2013 1.7 52	24 F	0412 0.1 3 0926 0.5 15 1351 0.3 9 2129 1.6 49	9 Sa	0324 0.1 3 0829 0.5 15 1310 0.2 6 2044 1.8 55	24 Su	0414 0.1 3 1024 0.7 21 1426 0.5 15 2125 1.5 46	9 Tu	0427 -0.1 -3 1106 1.1 34 1609 0.6 18 2207 1.5 46	24 W	0428 0.1 3 1137 1.2 37 1655 0.8 24 2200 1.2 37
10 F	0347 0.3 9 0817 0.5 15 1334 0.1 3 2121 1.7 52	25 Sa	0515 0.1 3 1102 0.6 18 1519 0.4 12 2233 1.5 46	10 Su	0423 0.0 0 1003 0.6 18 1434 0.3 9 2147 1.7 52	25 M	0458 0.0 0 1134 0.9 27 1603 0.6 18 2219 1.4 43	10 W	0511 -0.2 -6 1208 1.4 43 1749 0.6 18 2307 1.3 40	25 Th	0504 0.0 0 1225 1.5 46 1828 0.7 21 2255 1.1 34
11 Sa	0503 0.2 6 0959 0.5 15 1455 0.2 6 2230 1.7 52	26 Su	0602 0.1 3 1210 0.8 24 1652 0.4 12 2330 1.4 43	11 M	0514 -0.1 -3 1123 0.9 27 1613 0.4 12 2249 1.6 49	26 Tu	0535 0.0 0 1224 1.1 34 1734 0.6 18 2311 1.2 37	11 Th	0552 -0.3 -9 1300 1.7 52 1913 0.5 15	26 F	0540 0.0 0 1306 1.7 52 1937 0.6 18 2351 0.9 27
12 Su	0559 0.1 3 1128 0.7 21 1627 0.2 6 2334 1.7 52	27 M	0638 0.0 0 1255 1.0 30 1808 0.4 12	12 Tu	0557 -0.2 -6 1223 1.2 37 1745 0.4 12 2348 1.5 46	27 W	0606 0.0 0 1303 1.3 40 1848 0.6 18 2359 1.1 34	12 F	0007 1.1 34 0632 -0.3 -9 1347 2.0 61 2022 0.4 12	27 Sa	0615 -0.1 -3 1343 1.9 58 2031 0.5 15
13 M	0643 -0.1 -3 1232 0.9 27 1750 0.1 3	28 Tu	0019 1.4 43 0707 0.0 0 1331 1.2 37 1908 0.4 12	13 W	0635 -0.3 -9 1313 1.5 46 1903 0.3 9	28 Th	0635 -0.1 -3 1337 1.5 46 1948 0.5 15	13 Sa	0104 1.0 30 0711 -0.3 -9 1429 2.2 67 2119 0.3 9	28 Su	0045 0.9 27 0651 -0.2 -6 1418 2.1 64 2115 0.4 12
14 Tu	0030 1.7 52 0720 -0.2 -6 1323 1.2 37 1900 0.1 3	29 W	0101 1.3 40 0732 -0.1 -3 1403 1.3 40 1958 0.3 9	14 Th	0042 1.4 43 0711 -0.3 -9 1359 1.7 52 2009 0.2 6	29 F	0044 1.1 34 0703 -0.1 -3 1410 1.7 52 2038 0.4 12	14 Su	0157 0.9 27 0750 -0.3 -9 1510 2.3 70 2209 0.2 6	29 M	0135 0.8 24 0729 -0.2 -6 1455 2.2 67 2156 0.3 9
15 W	0120 1.7 52 0755 -0.3 -9 1409 1.4 43 2002 0.0 0	30 Th	0138 1.2 37 0756 -0.1 -3 1434 1.5 46 2042 0.3 9	15 F	0132 1.3 40 0747 -0.4 -12 1441 2.0 61 2109 0.1 3	30 Sa	0126 1.0 30 0732 -0.2 -6 1442 1.9 58 2123 0.3 9	15 M	0247 0.8 24 0828 -0.3 -9 1550 2.4 73 2255 0.1 3	30 Tu	0223 0.8 24 0808 -0.3 -9 1532 2.3 70 2235 0.2 6
						31 Su	0206 0.9 27 0802 -0.2 -6 1516 2.1 64 2206 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, 2015

Times and Heights of High and Low Waters

July				August				September															
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 W ○	0311	0.8	24	16 Th	0406	0.8	24	1 Sa	0439	1.1	34	16 Su	0503	1.3	40	1 Tu	0609	1.8	55	16 W	0550	1.7	52
	0848	-0.3	-9		0931	-0.1	-3		1013	-0.1	-3		1040	0.2	6		1211	0.3	9		1203	0.5	15
	1610	2.4	73		1643	2.2	67		1708	2.3	70		1714	1.9	58		1805	1.6	49		1737	1.4	43
	2315	0.1	3		2345	0.1	3		2357	0.0	0		2351	0.2	6						2346	0.2	6
2 Th	0400	0.8	24	17 F	0448	0.9	27	2 Su	0533	1.2	37	17 M	0543	1.3	40	2 W	0026	0.0	0	17 Th	0634	1.7	52
	0930	-0.3	-9		1009	0.0	0		1106	0.0	0		1121	0.4	12		0707	1.8	55		1258	0.6	18
	1650	2.4	73		1716	2.2	67		1749	2.2	67		1744	1.7	52		1322	0.5	15		1811	1.2	37
	2357	0.0	0												1851		1.4	43					
3 F	0451	0.8	24	18 Sa	0018	0.1	3	3 M	0037	0.0	0	18 Tu	0019	0.2	6	3 Th	0109	0.1	3	18 F	0017	0.3	9
	1015	-0.2	-6		0533	0.9	27		0632	1.3	40		0627	1.4	43		0814	1.9	58		0725	1.7	52
	1731	2.4	73		1048	0.1	3		1204	0.3	9		1207	0.5	15		1450	0.6	18		1409	0.7	21
					1749	2.0	61		1831	1.9	58		1814	1.6	49		1947	1.1	34		1853	1.0	30
4 Sa	0039	0.0	0	19 Su	0051	0.1	3	4 Tu	0118	0.0	0	19 W	0050	0.2	6	4 F ●	0200	0.2	6	19 Sa	0056	0.3	9
	0548	0.8	24		0620	1.0	30		0737	1.4	43		0718	1.4	43		0927	1.9	58		0827	1.7	52
	1104	0.0	0		1130	0.3	9		1313	0.5	15		1302	0.7	21		1634	0.6	18		1541	0.7	21
	1813	2.3	70		1822	1.9	58		1916	1.7	52		1846	1.4	43		2103	0.9	27		1955	0.9	27
5 Su	0123	0.0	0	20 M	0125	0.2	6	5 W	0202	0.0	0	20 Th	0124	0.3	9	5 Sa	0301	0.2	6	20 Su ●	0149	0.4	12
	0652	0.9	27		0714	1.0	30		0849	1.6	49		0817	1.5	46		1042	1.9	58		0937	1.8	55
	1159	0.2	6		1217	0.5	15		1439	0.7	21		1414	0.8	24		1807	0.5	15		1715	0.6	18
	1857	2.1	64		1855	1.7	52		2006	1.4	43		1924	1.2	37		2240	0.9	27		2131	0.8	24
6 M	0207	-0.1	-3	21 Tu	0200	0.2	6	6 Th ●	0251	0.0	0	21 F	0204	0.3	9	6 Su	0413	0.3	9	21 M	0301	0.4	12
	0804	1.0	30		0815	1.1	34		1006	1.7	52		0925	1.5	46		1149	2.0	61		1047	1.8	55
	1305	0.4	12		1315	0.6	18		1627	0.7	21		1555	0.8	24		1910	0.4	12		1818	0.5	15
	1944	1.8	55		1930	1.5	46		2108	1.1	34		2014	1.0	30						2307	0.9	27
7 Tu	0253	-0.1	-3	22 W	0237	0.2	6	7 F	0344	0.0	0	22 Sa ●	0253	0.3	9	7 M	0004	0.9	27	22 Tu	0422	0.4	12
	0923	1.2	37		0925	1.2	37		1118	1.8	55		1036	1.6	49		0525	0.3	9		1148	2.0	61
	1430	0.6	18		1434	0.8	24		1814	0.7	21		1744	0.8	24		1245	2.0	61		1901	0.4	12
	2034	1.6	49		2009	1.3	40		2226	0.9	27		2132	0.9	27		1953	0.4	12				
8 W ●	0340	-0.1	-3	23 Th ●	0317	0.2	6	8 Sa	0442	0.0	0	23 Su	0353	0.3	9	8 Tu	0104	1.0	30	23 W	0015	1.0	30
	1040	1.4	43		1035	1.4	43		1221	2.0	61		1139	1.8	55		0626	0.3	9		0536	0.3	9
	1615	0.7	21		1619	0.9	27		1931	0.5	15		1856	0.6	18		1330	2.0	61		1240	2.1	64
	2131	1.3	40		2058	1.1	34		2347	0.9	27		2302	0.9	27		2026	0.3	9		1936	0.2	6
9 Th	0427	-0.1	-3	24 F	0400	0.2	6	9 Su	0540	0.0	0	24 M	0456	0.2	6	9 W	0148	1.1	34	24 Th	0108	1.2	37
	1147	1.7	52		1136	1.5	46		1313	2.1	64		1232	2.0	61		0717	0.2	6		0639	0.2	6
	1802	0.7	21		1806	0.8	24		2023	0.4	12		1942	0.5	15		1408	2.0	61		1326	2.1	64
	2236	1.1	34		2201	1.0	30								2053		0.3	9	2010		0.1	3	
10 F	0514	-0.2	-6	25 Sa	0446	0.1	3	10 M	0055	0.9	27	25 Tu	0015	0.9	27	10 Th	0225	1.2	37	25 F	0154	1.4	43
	1243	1.9	58		1226	1.7	52		0633	0.0	0		0555	0.1	3		0801	0.2	6		0737	0.1	3
	1928	0.6	18		1922	0.7	21		1357	2.2	67		1318	2.1	64		1442	2.0	61		1410	2.1	64
	2345	0.9	27		2314	0.9	27		2102	0.3	9		2019	0.4	12		2118	0.2	6		2042	0.0	0
11 Sa	0601	-0.2	-6	26 Su	0533	0.0	0	11 Tu	0149	0.9	27	26 W	0112	1.0	30	11 F	0258	1.3	40	26 Sa	0239	1.6	49
	1332	2.1	64		1310	1.9	58		0722	0.0	0		0650	0.0	0		0840	0.2	6		0831	0.1	3
	2032	0.4	12		2013	0.5	15		1436	2.2	67		1401	2.3	70		1512	1.9	58		1452	2.1	64
					2134	0.3	9		2134	0.3	9		2053	0.2	6		2141	0.2	6		2115	-0.1	-3
12 Su	0050	0.8	24	27 M	0021	0.8	24	12 W	0233	1.0	30	27 Th	0202	1.1	34	12 Sa ●	0330	1.4	43	27 Su ○	0324	1.8	55
	0647	-0.2	-6		0620	0.0	0		0805	0.0	0		0742	-0.1	-3		0918	0.2	6		0925	0.1	3
	1416	2.2	67		1351	2.1	64		1511	2.2	67		1442	2.3	70		1541	1.9	58		1533	1.9	58
	2121	0.3	9		2054	0.4	12		2203	0.2	6		2126	0.1	3		2204	0.2	6		2149	-0.1	-3
13 M	0147	0.8	24	28 Tu	0119	0.8	24	13 Th	0312	1.0	30	28 F	0250	1.3	40	13 Su	0402	1.5	46	28 M	0409	2.0	61
	0730	-0.2	-6		0706	-0.1	-3		0845	0.0	0		0832	-0.1	-3		0956	0.3	9		1020	0.1	3
	1456	2.3	70		1430	2.3	70		1544	2.2	67		1522	2.3	70		1609	1.8	55		1614	1.8	55
	2201	0.2	6		2130	0.3	9		2230	0.2	6		2200	0.0	0		2227	0.2	6		2223	-0.1	-3
14 Tu	0237	0.8	24	29 W	0210	0.9	27	14 F ●	0348	1.1	34	29 Sa ○	0336	1.4	43	14 M	0436	1.6	49	29 Tu	0456	2.1	64
	0812	-0.2	-6		0752	-0.2	-6		0923	0.1	3		0923	-0.1	-3		1035	0.3	9		1117	0.2	6
	1533	2.3	70		1509	2.4	73		1614	2.1	64		1602	2.3	70		1638	1.7	52		1656	1.5	46
	2238	0.2	6		2206	0.2	6		2257	0.2	6		2235	0.0	0		2252	0.2	6		2259	-0.1	-3
15 W ●	0323	0.8	24	30 Th	0300	1.0	30	15 Sa	0425	1.2	37	30 Su	0424	1.6	49	15 Tu	0512	1.7	52	30 W	0546	2.2	67
	0852	-0.1	-3		0838	-0.2	-6		1001	0.1	3		1015	0.0	0		1117	0.4	12		1219	0.3	9
	1608	2.3	70		1548	2.5	76		1644	2.0	61		1642	2.1	64		1707	1.5	46		1741	1.3	40
	2312	0.1	3		2242	0.1	3		2324	0.2	6		2310	0.0	0		2318	0.2	6		2337	0.0	0
				31 F ○	0348	1.0	30					31 M	0515	1.7	52								
			0924		-0.2	-6				1110	0.1		3										
			1628		2.4	73				1723	1.9		58										
			2319		0.0	0				2347	0.0		0										

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
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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, 2015

Times and Heights of High and Low Waters

January				February				March			
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
1 Th	0119 2.2 67 0745 1.0 30 1114 1.3 40 1812 -0.3 -9	16 F	0055 2.0 61 0729 1.1 34 1025 1.2 37 1739 -0.2 -6	1 Su	0208 2.3 70 0843 0.8 24 1250 1.2 37 1912 -0.2 -6	16 M	0135 2.4 73 0805 0.7 21 1234 1.3 40 1855 -0.4 -12	1 Su	0114 2.1 64 0755 0.8 24 1219 1.2 37 1826 0.1 3	16 M	0022 2.2 67 0703 0.7 21 1144 1.2 37 1752 0.0 0
2 F	0153 2.3 70 0825 1.0 30 1203 1.2 37 1847 -0.3 -9	17 Sa	0126 2.3 70 0800 1.0 30 1134 1.2 37 1823 -0.4 -12	2 M	0233 2.3 70 0901 0.7 21 1328 1.3 40 1944 -0.2 -6	17 Tu	0209 2.5 76 0832 0.6 18 1326 1.5 46 1940 -0.4 -12	2 M	0138 2.1 64 0807 0.7 21 1256 1.3 40 1901 0.1 3	17 Tu	0059 2.3 70 0726 0.5 15 1239 1.5 46 1844 -0.1 -3
3 Sa	0224 2.4 73 0857 0.9 27 1246 1.2 37 1921 -0.3 -9	18 Su	0200 2.5 76 0831 0.9 27 1230 1.3 40 1905 -0.5 -15	3 Tu	0257 2.3 70 0921 0.7 21 1404 1.4 43 2016 -0.1 -3	18 W	0242 2.6 79 0903 0.4 12 1415 1.6 49 2024 -0.3 -9	3 Tu	0200 2.1 64 0821 0.6 18 1330 1.4 43 1934 0.1 3	18 W	0133 2.3 70 0753 0.3 9 1329 1.7 52 1933 -0.1 -3
4 Su	0253 2.5 76 0926 0.8 24 1326 1.2 37 1954 -0.3 -9	19 M	0234 2.6 79 0903 0.8 24 1321 1.3 40 1947 -0.6 -18	4 W	0320 2.3 70 0943 0.6 18 1439 1.4 43 2046 -0.1 -3	19 Th	0315 2.5 76 0935 0.3 9 1504 1.7 52 2108 -0.2 -6	4 W	0221 2.1 64 0837 0.5 15 1402 1.5 46 2005 0.1 3	19 Th	0205 2.3 70 0823 0.1 3 1417 1.9 58 2020 0.0 0
5 M	0321 2.5 76 0955 0.8 24 1403 1.2 37 2025 -0.3 -9	20 Tu	0309 2.7 82 0938 0.7 21 1410 1.4 43 2029 -0.5 -15	5 Th	0343 2.2 67 1006 0.5 15 1515 1.4 43 2116 0.1 3	20 F	0347 2.3 70 1009 0.2 6 1556 1.7 52 2152 0.1 3	5 Th	0242 2.1 64 0856 0.4 12 1435 1.6 49 2036 0.1 3	20 F	0237 2.2 67 0854 0.0 0 1504 2.0 61 2106 0.2 6
6 Tu	0350 2.4 73 1024 0.8 24 1440 1.2 37 2056 -0.2 -6	21 W	0345 2.7 82 1014 0.6 18 1500 1.4 43 2111 -0.4 -12	6 F	0406 2.1 64 1031 0.5 15 1553 1.4 43 2145 0.2 6	21 Sa	0417 2.1 64 1045 0.1 3 1651 1.7 52 2237 0.4 12	6 F	0302 2.0 61 0917 0.3 9 1509 1.7 52 2107 0.3 9	21 Sa	0308 2.0 61 0927 -0.1 -3 1553 2.1 64 2153 0.4 12
7 W	0417 2.3 70 1054 0.7 21 1517 1.2 37 2127 0.0 0	22 Th	0420 2.6 79 1052 0.5 15 1553 1.4 43 2153 -0.1 -3	7 Sa	0427 2.0 61 1057 0.4 12 1635 1.4 43 2215 0.5 15	22 Su	0446 1.9 58 1123 0.1 3 1755 1.6 49 2328 0.8 24	7 Sa	0323 1.9 58 0940 0.2 6 1545 1.7 52 2138 0.4 12	22 Su	0337 1.8 55 1000 -0.1 -3 1644 2.0 61 2243 0.7 21
8 Th	0445 2.2 67 1126 0.7 21 1558 1.2 37 2156 0.2 6	23 F	0454 2.4 73 1133 0.4 12 1652 1.3 40 2237 0.2 6	8 Su	0446 1.9 58 1126 0.4 12 1724 1.3 40 2245 0.7 21	23 M	0511 1.7 52 1206 0.1 3 1917 1.6 49	8 Su	0342 1.8 55 1004 0.2 6 1624 1.7 52 2212 0.6 18	23 M	0403 1.6 49 1035 -0.1 -3 1740 2.0 61 2341 0.9 27
9 F	0511 2.1 64 1201 0.7 21 1645 1.1 34 2224 0.4 12	24 Sa	0528 2.2 67 1218 0.3 9 1805 1.3 40 2324 0.6 18	9 M	0503 1.7 52 1200 0.4 12 1832 1.3 40 2321 1.0 30	24 Tu	0038 1.1 34 0528 1.4 43 1258 0.2 6 2115 1.6 49	9 M	0400 1.7 52 1031 0.2 6 1708 1.7 52 2248 0.8 24	24 Tu	0426 1.4 43 1112 0.0 0 1847 1.9 58
10 Sa	0536 1.9 58 1240 0.6 18 1748 1.1 34 2252 0.6 18	25 Su	0559 1.9 58 1308 0.3 9 1947 1.3 40	10 Tu	0517 1.6 49 1243 0.3 9 2023 1.3 40	25 W	1408 0.3 9 2305 1.8 55 O	10 Tu	0417 1.6 49 1101 0.2 6 1804 1.6 49 2336 1.0 30	25 W	0108 1.1 34 0437 1.2 37 1156 0.2 6 2016 1.8 55
11 Su	0559 1.8 55 1324 0.5 15 1929 1.1 34 2323 0.9 27	26 M	0026 1.0 30 0629 1.7 52 1407 0.2 6 2206 1.5 46	11 W	0022 1.2 37 0525 1.4 43 1342 0.3 9 2244 1.5 46	26 Th	1534 0.3 9	11 W	0430 1.4 43 1139 0.2 6 1925 1.6 49	26 Th	1255 0.4 12 2157 1.8 55 O
12 M	0621 1.6 49 1416 0.4 12 2225 1.2 37	27 Tu	0239 1.3 40 0655 1.4 43 1513 0.2 6 2344 1.7 52	12 Th	1459 0.2 6 2347 1.8 55	27 F	0005 1.9 58 0754 0.9 27 0955 1.0 30 1649 0.2 6	12 Th	0105 1.2 37 0430 1.3 40 1233 0.3 9 2119 1.7 52	27 F	1433 0.5 15 2308 1.8 55
13 Tu	0025 1.1 34 0645 1.5 46 1511 0.3 9 2350 1.5 46	28 W	1617 0.1 3	13 F	1613 0.1 3	28 Sa	0044 2.0 61 0747 0.8 24 1129 1.0 30 1743 0.2 6	13 F	1355 0.3 9 2248 1.8 55 O	28 Sa	0658 0.8 24 1034 0.9 27 1613 0.5 15 2354 1.9 58
14 W	0439 1.3 40 0720 1.4 43 1605 0.2 6	29 Th	0035 2.0 61 1712 0.0 0	14 Sa	0026 2.0 61 0727 1.0 30 1012 1.1 34 1715 -0.1 -3			14 Sa	1533 0.2 6 2342 2.0 61	29 Su	0659 0.7 21 1142 1.1 34 1720 0.5 15
15 Th	0024 1.8 55 0651 1.2 37 0851 1.3 40 1654 0.0 0	30 F	0111 2.1 64 0808 1.0 30 1107 1.1 34 1757 -0.1 -3	15 Su	0101 2.3 70 0741 0.9 27 1135 1.2 37 1807 -0.2 -6			15 Su	0648 0.9 27 1029 1.0 30 1651 0.1 3	30 M	0026 1.9 58 0708 0.6 18 1223 1.2 37 1807 0.4 12
		31 Sa	0142 2.2 67 0825 0.9 27 1206 1.1 34 1837 -0.1 -3							31 Tu	0052 1.9 58 0719 0.5 15 1255 1.4 43 1846 0.4 12

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Moku O Loe, Oahu Island, Hawaii, 2015

Times and Heights of High and Low Waters

July						August						September																
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				
1 W ○	0058	1.3	40		16 Th	0151	1.2	37		1 Sa	0237	1.4	43		16 Su	0303	1.5	46		1 Tu	0424	1.8	55		16 W	0407	1.8	55
	0737	-0.5	-15			0814	-0.3	-9			0849	-0.3	-9			0904	0.1	3			1016	0.4	12			0959	0.7	21
	1510	2.6	79			1537	2.4	73			1555	2.5	76			1548	2.1	64			1618	1.9	58			1536	1.6	49
	2143	0.8	24			2210	0.7	21			2223	0.5	15			2210	0.5	15			2251	0.1	3			2204	0.2	6
2 Th	0144	1.3	40		17 F	0231	1.2	37		2 Su	0329	1.4	43		17 M	0341	1.5	46		2 W	0526	1.7	52		17 Th	0450	1.7	52
	0815	-0.5	-15			0847	-0.2	-6			0932	-0.1	-3			0935	0.3	9			1110	0.7	21			1037	0.8	24
	1546	2.6	79			1606	2.3	70			1628	2.4	73			1609	1.9	58			1645	1.6	49			1551	1.5	46
	2223	0.8	24			2240	0.7	21			2302	0.4	12			2236	0.4	12			2333	0.1	3			2233	0.2	6
3 F	0231	1.2	37		18 Sa	0311	1.2	37		3 M	0426	1.4	43		18 Tu	0423	1.5	46		3 Th	0644	1.7	52		18 F	0543	1.7	52
	0855	-0.4	-12			0919	0.0	0			1016	0.2	6			1006	0.5	15			1223	1.0	30			1125	1.0	30
	1624	2.6	79			1633	2.2	67			1702	2.1	64			1628	1.8	55			1708	1.4	43			1601	1.4	43
	2306	0.7	21			2312	0.7	21			2344	0.3	9			2304	0.4	12								2307	0.2	6
4 Sa	0322	1.2	37		19 Su	0354	1.2	37		4 Tu	0535	1.4	43		19 W	0511	1.4	43		4 F	0024	0.2	6		19 Sa	0658	1.6	49
	0936	-0.2	-6			0950	0.2	6			1105	0.5	15			1039	0.7	21			0829	1.7	52			1301	1.2	37
	1702	2.5	76			1659	2.1	64			1734	1.9	58			1645	1.6	49								1549	1.3	40
	2352	0.6	18			2345	0.6	18								2336	0.4	12			●					2356	0.3	9
5 Su	0421	1.1	34		20 M	0442	1.2	37		5 W	0032	0.2	6		20 Th	0616	1.4	43		5 Sa	0133	0.2	6		20 Su	0848	1.7	52
	1019	0.0	0			1021	0.4	12			0703	1.4	43			1117	1.0	30			1019	1.8	55			●		
	1741	2.3	70			1724	1.9	58			1206	0.9	27			1658	1.5	46										
											1805	1.7	52															
6 M	0041	0.5	15		21 Tu	0021	0.6	18		6 Th	0128	0.2	6		21 F	0017	0.4	12		6 Su	0302	0.3	9		21 M	0117	0.4	12
	0535	1.1	34			0543	1.1	34			0903	1.5	46			0757	1.4	43			1129	1.9	58			1020	1.8	55
	1107	0.3	9			1052	0.7	21			1356	1.2	37			1224	1.2	37			1908	0.9	27					
	1820	2.1	64			1747	1.8	55			●	1836	1.4	43			1700	1.4	43			2148	1.0	30				
7 Tu	0134	0.4	12		22 W	0102	0.5	15		7 F	0232	0.1	3		22 Sa	0114	0.4	12		7 M	0423	0.2	6		22 Tu	0303	0.3	9
	0716	1.1	34			0712	1.1	34			1053	1.7	52			1014	1.5	46			1214	2.0	61			1114	2.0	61
	1206	0.7	21			1128	0.9	27								1914	0.8	24			1914	0.8	24			1827	0.8	24
	1900	1.9	58			1807	1.6	49			●						2316	1.1	34			2316	1.1	34			2217	1.0	30
8 W ○	0229	0.3	9		23 Th	0150	0.4	12		8 Sa	0340	0.1	3		23 Su	0232	0.3	9		8 Tu	0523	0.2	6		23 W	0425	0.2	6
	0922	1.3	40			0934	1.2	37			1158	1.9	58			1123	1.7	52			1247	2.1	64			1154	2.1	64
	1339	1.0	30			1233	1.1	34											1928		0.7	21		1838		0.7	21	
	1943	1.7	52			●	1827	1.5	46															2327		1.2	37	
9 Th	0323	0.1	3		24 F	0244	0.3	9		9 Su	0442	0.0	0		24 M	0350	0.2	6		9 W	0007	1.2	37		24 Th	0527	0.1	3
	1105	1.6	49			1123	1.5	46			1242	2.1	64			1203	2.0	61			0608	0.1	3			1229	2.2	67
	1603	1.2	37			1611	1.3	40			1937	1.0	30			1907	1.0	30			1314	2.1	64			1859	0.5	15
	2033	1.5	46			1848	1.4	43			2243	1.1	34			2156	1.1	34			1942	0.6	18					
10 F	0415	0.0	0		25 Sa	0340	0.2	6		10 M	0533	-0.1	-3		25 Tu	0453	0.0	0		10 Th	0044	1.3	40		25 F	0020	1.5	46
	1208	1.9	58			1206	1.7	52			1317	2.2	67			1237	2.2	67			0646	0.1	3			0620	0.0	0
	1807	1.2	37						1959		0.9	27		1917		0.9	27		1338		2.1	64		1303		2.2	67	
	2133	1.3	40						2347		1.2	37		2316		1.2	37		1958		0.5	15		1924		0.3	9	
11 Sa	0502	-0.2	-6		26 Su	0431	0.1	3		11 Tu	0617	-0.1	-3		26 W	0545	-0.1	-3		11 F	0118	1.5	46		26 Sa	0107	1.7	52
	1254	2.1	64			1238	1.9	58			1346	2.3	70			1310	2.3	70			0719	0.1	3			0708	0.0	0
	1920	1.1	34			1919	1.1	34			2020	0.8	24			1938	0.7	21			1359	2.1	64			1335	2.2	67
	2237	1.3	40			2154	1.2	37											2015		0.4	12		1953		0.1	3	
12 Su	0545	-0.3	-9		27 M	0518	-0.1	-3		12 W	0034	1.2	37		27 Th	0013	1.3	40		12 Sa	0150	1.6	49		27 Su	0153	1.9	58
	1332	2.3	70			1309	2.2	67			0655	-0.2	-6			0632	-0.2	-6			0751	0.1	3			0755	0.1	3
	2006	1.0	30			1943	1.0	30			1413	2.3	70			1342	2.4	73			1420	2.0	61			1406	2.1	64
	2334	1.2	37			2309	1.2	37			2040	0.7	21			2004	0.6	18			●	2033	0.3	9		○	2023	-0.1	-3
13 M	0626	-0.3	-9		28 Tu	0602	-0.3	-9		13 Th	0114	1.3	40		28 F	0103	1.5	46		13 Su	0222	1.7	52		28 M	0240	2.1	64
	1406	2.4	73			1340	2.4	73			0729	-0.2	-6			0716	-0.3	-9			0822	0.2	6			0842	0.2	6
	2041	0.9	27			2011	0.9	27			1438	2.3	70			1414	2.5	76			1440	1.9	58			1437	2.0	61
											2100	0.7	21			2033	0.4	12			2054	0.3	9			2056	-0.2	-6
14 Tu	0025	1.2	37		29 W	0007	1.3	40		14 F	0151	1.4	43		29 Sa	0151	1.6	49		14 M	0255	1.8	55		29 Tu	0328	2.2	67
	0703	-0.4	-12			0644	-0.4	-12			0802	-0.1	-3			0800	-0.3	-9			0853	0.3	9			0930	0.4	12
	1438	2.5	76			1413	2																					

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Kahului, Maui Island, Hawaii, 2015

Times and Heights of High and Low Waters

January					February					March																			
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	0059	2.3	70		16 F	0039	2.1	64		1 Su	0153	2.4	73		16 M	0123	2.5	76		1 Su	0101	2.1	64		16 M	0013	2.2	67	
	0719	1.0	30			0706	1.1	34			0823	0.7	21			0752	0.6	18			0738	0.6	18			0654	0.5	15	
	1124	1.4	43			1038	1.3	40			1256	1.3	40			1237	1.4	43			1221	1.2	37			1147	1.2	37	
	1806	-0.4	-6			1735	-0.3	-6			1909	-0.3	-9			1850	-0.5	-15			1823	0.0	0			1748	-0.1	-3	
2 F	0134	2.5	76		17 Sa	0112	2.4	73		2 M	0220	2.5	76		17 Tu	0157	2.7	82		2 M	0127	2.2	67		17 Tu	0050	2.3	70	
	0800	0.9	27			0740	0.9	27			0845	0.6	18			0820	0.4	12			0753	0.5	15			0718	0.3	9	
	1212	1.4	43			1142	1.3	40			1332	1.4	43			1325	1.6	49			1257	1.4	43			1239	1.5	46	
	1842	-0.3	-9			1818	-0.4	-12			1942	-0.3	-9			1935	-0.5	-15			1859	-0.1	-3			1840	-0.2	-6	
3 Sa	0206	2.6	79		18 Su	0145	2.6	79		3 Tu	0245	2.5	76		18 W	0230	2.7	82		3 Tu	0151	2.2	67		18 W	0124	2.4	73	
	0834	0.8	24			0813	0.8	24			0907	0.5	15			0851	0.2	6			0810	0.4	12			0745	0.1	3	
	1254	1.4	43			1235	1.4	43			1407	1.5	46			1412	1.7	52			1330	1.5	46			1325	1.8	55	
	1917	-0.4	-12			1901	-0.5	-15			2014	-0.3	-9			2018	-0.5	-15			1932	-0.1	-3			1927	-0.3	-9	
4 Su	0237	2.7	82		19 M	0220	2.8	85		4 W	0310	2.5	76		19 Th	0303	2.7	82		4 W	0214	2.2	67		19 Th	0157	2.4	73	
	0905	0.7	21			0846	0.6	18			0931	0.5	15			0923	0.1	3			0829	0.3	9			0814	-0.1	-3	
	1332	1.4	43			1323	1.5	46			1440	1.5	46			1458	1.8	55			1401	1.6	49			1410	2.0	61	
	1950	-0.4	-12			1942	-0.6	-18			2044	-0.2	-6			2101	-0.3	-9			2003	-0.1	-3			2012	-0.2	-6	
5 M	0307	2.7	82		20 Tu	0255	2.9	88		5 Th	0335	2.4	73		20 F	0336	2.5	76		5 Th	0236	2.2	67		20 F	0229	2.3	70	
	0935	0.7	21			0921	0.5	15			0955	0.4	12			0956	0.0	0			0850	0.2	6			0845	-0.2	-6	
	1408	1.4	43			1410	1.5	46			1514	1.6	49			1545	1.9	58			1433	1.7	52			1454	2.1	64	
	2023	-0.3	-9			2024	-0.6	-18			2114	-0.1	-3			2143	-0.1	-3			2034	0.0	0			2057	-0.1	-3	
6 Tu	0336	2.6	79		21 W	0331	2.9	88		6 F	0358	2.3	70		21 Sa	0407	2.3	70		6 F	0258	2.2	67		21 Sa	0301	2.2	67	
	1005	0.7	21			0957	0.4	12			1020	0.4	12			1031	0.0	0			0911	0.1	3			0917	-0.3	-9	
	1444	1.4	43			1458	1.6	49			1549	1.6	49			1635	1.8	55			1505	1.8	55			1538	2.2	67	
	2054	-0.2	-6			2105	-0.5	-15			2143	0.1	3			2227	0.2	6			2104	0.1	3			2141	0.1	3	
7 W	0405	2.5	76		22 Th	0406	2.8	85		7 Sa	0419	2.2	67		22 Su	0437	2.0	61		7 Sa	0319	2.1	64		22 Su	0331	2.0	61	
	1036	0.7	21			1035	0.4	12			1046	0.4	12			1107	0.0	0			0934	0.1	3			0949	-0.3	-9	
	1520	1.4	43			1547	1.6	49			1626	1.5	46			1731	1.8	55			1538	1.8	55			1624	2.2	67	
	2124	-0.1	-3			2147	-0.2	-6			2211	0.3	9			2314	0.6	18			2134	0.2	6			2227	0.4	12	
8 Th	0433	2.4	73		23 F	0441	2.6	79		8 Su	0439	2.0	61		23 M	0504	1.8	55		8 Su	0339	1.9	58		23 M	0359	1.7	52	
	1108	0.6	18			1115	0.3	9			1113	0.3	9			1147	0.0	0			0957	0.1	3			1022	-0.2	-6	
	1557	1.3	40			1641	1.5	46			1709	1.5	46			1840	1.7	52			1612	1.8	55			1714	2.1	64	
	2154	0.1	3			2230	0.1	3			2240	0.6	18								2204	0.4	12			2317	0.7	21	
9 F	0500	2.3	70		24 Sa	0515	2.3	70		9 M	0457	1.8	55		24 Tu	0013	0.9	27		9 M	0357	1.8	55		24 Tu	0424	1.5	46	
	1143	0.6	18			1158	0.3	9			1145	0.3	9			0526	1.5	46			1022	0.1	3			1057	-0.1	-3	
	1640	1.3	40			1746	1.5	46			1806	1.4	43			1234	0.1	3			1651	1.7	52			1812	1.9	58	
	2222	0.4	12			2316	0.5	15			2313	0.9	27			2022	1.6	49			2237	0.6	18						
10 Sa	0526	2.1	64		25 Su	0548	2.0	61		10 Tu	0513	1.7	52		25 W	0215	1.2	37		10 Tu	0414	1.6	49		25 W	0023	0.9	27	
	1220	0.6	18			1246	0.3	9			1224	0.3	9			0531	1.3	40			1050	0.1	3			0443	1.2	37	
	1734	1.2	37			1911	1.4	43			1936	1.4	43			1341	0.2	6			1739	1.7	52			1136	0.1	3	
	2252	0.6	18											2230		1.7	52		2317		0.9	27		1931		1.7	52		
11 Su	0550	1.9	58		26 M	0015	0.9	27		11 W	0003	1.1	34		26 Th	1516	0.3	9		11 W	0428	1.5	46		26 Th	1229	0.3	9	
	1304	0.6	18			0621	1.8	55			0524	1.5	46			2346	1.9	58			1123	0.1	3			2120	1.7	52	
	1857	1.2	37			1343	0.2	6			1321	0.3	9								1848	1.6	49						
	2325	0.9	27			2115	1.5	46			2207	1.5	46																
12 M	0615	1.8	55		27 Tu	0204	1.2	37		12 Th	1443	0.2	6		27 F	0722	0.8	24		12 Th	0023	1.1	34		27 F	1407	0.4	12	
	1356	0.5	15			0656	1.5	46			2331	1.8	55			1003	0.9	27			0436	1.3	40			2250	1.7	52	
	2123	1.3	40			1452	0.2	6								1641	0.2	6			1211	0.2	6						
						2310	1.7	52													2041	1.6	49						
13 Tu	0028	1.2	37		28 W	0537	1.2	37		13 F	1606	0.1	3		28 Sa	0029	2.0	61		13 F	1332	0.2	6		28 Sa	0642	0.7	21	
	0644	1.6	49			0757	1.3	40			0709	0.9	27			0725	0.7	21			2232	1.8	55			1027	0.8	24	
	1457	0.4	12			1603	0.1	3			1023	1.1	34			1133	1.0	30								1604	0.4	12	
	2321	1.5	46								1710	-0.1	-3			1740	0.1	3								2342	1.8	55	
14 W	0404	1.3	40		29 Th	0012	2.0	61		14 Sa	0014	2.0	61							14 Sa	1522	0.2	6		29 Su	0645	0.6	18	
	0733	1.4	43			0706	1.0	30			0709	0.9	27								2331	2.0	61			1140	1.0	30	
	1556	0.2	6			0955	1.1	34			1023	1.1	34											1716		0.4	12		
						1704	0.0	0			1710	-0.1	-3																
15 Th	0005	1.8	55		30 F	0052	2.2	67		15 Su	0049	2.3	70							15 Su	0638	0.7	21		30 M	0018	1.9	58	
	0619	1.2	37			0738	0.9	27			0727	0.8	24								1034	1.0	30			0656	0.5	15	
	0911	1.3	40			1119	1.1	34			1141	1.2	37								1647	0.1	3			1219	1.3	40	
	1648	0.0	0			1752	-0.1	-3			1803	-0.3	-9											1805		0.3	9		
				31 Sa	0125	2.3	70																						
					0801	0.8	24																						
					1213	1.2	37																						
					1833	-0.2	-6																						

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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, 2015

Times and Heights of High and Low Waters

July						August						September					
Time			Height			Time			Height			Time			Height		
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm	
1 W ○	0107	1.4	43			16 Th	0158	1.4	43			1 Su	0303	1.7	52		
	0734	-0.5	-15				0812	-0.3	-9				0904	0.1	3		
	1457	2.7	82				1525	2.6	79				1542	2.4	73		
	2126	0.7	21				2154	0.7	21				2202	0.5	15		
2 Th	0151	1.4	43			17 F	0237	1.4	43			17 M	0339	1.7	52		
	0813	-0.5	-15				0846	-0.2	-6				0934	0.3	9		
	1533	2.8	85				1554	2.6	79				1604	2.2	67		
	2205	0.6	18				2224	0.6	18				2227	0.5	15		
3 F	0236	1.4	43			18 Sa	0315	1.4	43			18 Tu	0416	1.7	52		
	0852	-0.5	-15				0918	-0.1	-3				1005	0.5	15		
	1610	2.8	85				1623	2.4	73				1625	2.1	64		
	2246	0.6	18				2255	0.6	18				2254	0.5	15		
4 Sa	0324	1.3	40			19 Su	0354	1.4	43			19 W	0459	1.7	52		
	0932	-0.3	-9				0950	0.1	3				1036	0.8	24		
	1648	2.7	82				1650	2.3	70				1643	1.9	58		
	2330	0.5	15				2327	0.6	18				2324	0.5	15		
5 Su	0419	1.3	40			20 M	0437	1.4	43			20 Th	0552	1.6	49		
	1014	-0.1	-3				1021	0.4	12				1111	1.0	30		
	1726	2.5	76				1715	2.1	64				1658	1.7	52		
6 M	0018	0.5	15			21 Tu	0002	0.6	18			21 F	0001	0.5	15		
	0524	1.3	40				0529	1.3	40				0712	1.6	49		
	1101	0.3	9				1053	0.6	18				1204	1.3	40		
	1805	2.3	70				1739	2.0	61				1708	1.6	49		
7 Tu	0109	0.4	12			22 W	0041	0.6	18			22 Sa	0053	0.5	15		
	0650	1.3	40				0640	1.3	40				0925	1.6	49		
	1158	0.7	21				1129	0.9	27				1854	0.9	27		
	1847	2.0	61				1802	1.8	55				2314	1.2	37		
8 W	0205	0.3	9			23 Th	0127	0.5	15			23 Su	0211	0.5	15		
	0843	1.4	43				0832	1.3	40				1103	1.8	55		
	1323	1.0	30				1226	1.2	37				1854	0.9	27		
	1933	1.8	55				1825	1.6	49				2113	1.3	40		
9 Th	0304	0.2	6			24 F	0223	0.4	12			24 M	0338	0.3	9		
	1032	1.6	49				1043	1.5	46				1150	2.1	64		
	1536	1.2	37				1512	1.4	43				1850	1.1	34		
	2029	1.6	49				1857	1.5	46				2158	1.2	37		
10 F	0400	0.0	0			25 Sa	0325	0.3	9			25 Tu	0446	0.2	6		
	1144	1.9	58				1145	1.8	55				1226	2.3	70		
	1741	1.2	37				1807	1.2	37				1904	0.9	27		
	2138	1.4	43				2020	1.3	40				2319	1.3	40		
11 Sa	0452	-0.1	-3			26 Su	0422	0.2	6			26 W	0540	0.0	0		
	1234	2.2	67				1223	2.0	61				1259	2.5	76		
	1856	1.1	34				1856	1.2	37				1927	0.8	24		
	2246	1.3	40				2204	1.3	40				2003	0.8	24		
12 Su	0538	-0.2	-6			27 M	0513	0.0	0			27 Th	0015	1.5	46		
	1314	2.4	73				1256	2.3	70				0627	-0.2	-6		
	1944	0.9	27				1927	1.0	30				1331	2.7	82		
	2345	1.3	40				2317	1.3	40				1954	0.6	18		
13 M	0621	-0.3	-9			28 Tu	0558	-0.2	-6			28 F	0103	1.7	52		
	1350	2.6	79				1328	2.5	76				0711	-0.2	-6		
	2021	0.8	24				1956	0.9	27				1404	2.8	85		
14 Tu	0034	1.3	40			29 W	0013	1.4	43				2023	0.4	12		
	0700	-0.4	-12				0641	-0.3	-9			29 Sa	0149	1.9	58		
	1423	2.6	79				1401	2.7	82				0755	-0.2	-6		
	2053	0.8	24				2027	0.7	21				1437	2.7	82		
15 W	0118	1.4	43			30 Th	0103	1.5	46				2055	0.3	9		
	0737	-0.4	-12				0722	-0.4	-12			30 Su	0234	2.0	61		
	1455	2.7	82				1435	2.8	85				0838	-0.1	-3		
	2123	0.7	21				2100	0.6	18				1509	2.6	79		
16 Th	0150	1.6	49			31 F	0150	1.6	49				2127	0.2	6		
	0803	-0.4	-12				0803	-0.4	-12			31 M	0321	2.1	64		
	1509	2.8	85				1509	2.8	85				0922	0.1	3		
	2134	0.5	15				2134	0.5	15				1541	2.4	73		
													2202	0.1	3		

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 Heights are referred to mean lower low water which is the chart datum of soundings.

Kahului, Maui Island, Hawaii, 2015

Times and Heights of High and Low Waters

October				November				December			
Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft
1 Th	0452	2.4	73	16 F	0422	2.3	70	1 Tu	0637	2.2	67
	1101	0.9	27		1032	1.0	30		1425	0.9	27
	1601	1.7	52		1515	1.6	49		1809	1.0	30
	2231	0.0	0		2146	0.1	3		2326	0.7	21
2 F	0550	2.3	70	17 Sa	0506	2.2	67	2 W	0729	2.0	61
	1212	1.1	34		1124	1.1	34		1534	0.8	24
	1625	1.5	46		1531	1.4	43		2059	1.0	30
	2312	0.2	6		2217	0.2	6	3 Th	0037	0.9	27
3 Sa	0706	2.1	64	18 Su	0602	2.1	64		0826	1.9	58
	1430	1.1	34		1253	1.2	37		1618	0.6	18
	1633	1.2	37		1539	1.3	40		2301	1.3	40
4 Su	0006	0.4	12		2256	0.3	9	4 F	0257	1.1	34
	0845	2.0	61	19 M	0718	2.1	64		0922	1.8	55
5 M	0140	0.6	18		2359	0.5	15		1649	0.5	15
	1014	2.1	64	20 Tu	0848	2.1	64		2349	1.6	49
	1804	0.9	27		1724	0.9	27	5 Sa	0449	1.2	37
	2215	1.1	34		2005	1.0	30		1011	1.7	52
6 Tu	0338	0.7	21	21 W	0154	0.7	21		1716	0.3	9
	1112	2.1	64		1000	2.2	67	6 Su	0023	1.8	55
	1817	0.8	24		1725	0.8	24		0558	1.1	34
	2326	1.3	40		2227	1.2	37		1052	1.6	49
7 W	0455	0.6	18	22 Th	0346	0.7	21		1742	0.1	3
	1151	2.2	67		1052	2.2	67	7 M	0053	2.1	64
	1833	0.6	18		1746	0.5	15		0648	1.0	30
8 Th	0007	1.5	46		2329	1.6	49		1129	1.6	49
	0547	0.6	18	23 F	0503	0.6	18		1809	0.0	0
	1220	2.2	67		1135	2.3	70	8 Tu	0122	2.3	70
	1849	0.5	15		1811	0.3	9		0728	1.0	30
9 F	0039	1.8	55	24 Sa	0017	1.9	58		1204	1.6	49
	0628	0.5	15		0603	0.5	15		1837	-0.2	-6
	1246	2.2	67		1212	2.3	70	9 W	0151	2.5	76
	1906	0.4	12		1839	0.1	3		0805	0.9	27
10 Sa	0109	2.0	61	25 Su	0100	2.2	67		1237	1.5	46
	0703	0.5	15		0656	0.5	15		1906	-0.3	-9
	1309	2.2	67		1248	2.2	67	10 Th	0222	2.6	79
	1925	0.3	9		1909	-0.1	-3		0841	0.9	27
11 Su	0138	2.1	64	26 M	0142	2.5	76		1311	1.5	46
	0736	0.5	15		0745	0.5	15		1937	-0.4	-12
	1331	2.1	64		1322	2.2	67	11 F	0255	2.7	82
	1945	0.2	6		1941	-0.3	-9		0918	0.8	24
12 M	0208	2.3	70	27 Tu	0225	2.7	82		1344	1.5	46
	0809	0.5	15		0832	0.5	15		2009	-0.4	-12
	1353	2.0	61		1355	2.0	61	12 Sa	0329	2.7	82
	2007	0.1	3		2014	-0.4	-12		0957	0.8	24
13 Tu	0239	2.4	73	28 W	0308	2.8	85		1419	1.4	43
	0842	0.6	18		0920	0.7	21		2041	-0.3	-9
	1415	2.0	61		1428	1.8	55	13 Su	0404	2.7	82
	2030	0.0	0		2047	-0.4	-12		1039	0.8	24
14 W	0311	2.4	73	29 Th	0352	2.8	85		1456	1.4	43
	0916	0.7	21		1010	0.8	24		2116	-0.2	-6
	1436	1.8	55		1459	1.7	52	14 M	0442	2.6	79
	2054	0.0	0		2122	-0.3	-9		1126	0.8	24
15 Th	0345	2.4	73	30 F	0438	2.7	82		1539	1.3	40
	0951	0.8	24		1106	0.9	27		2152	-0.1	-3
	1457	1.7	52		1530	1.5	46	15 Tu	0522	2.5	76
	2119	0.0	0		2157	-0.1	-3		1220	0.8	24
				31 Sa	0529	2.5	76		1634	1.2	37
					1217	1.1	34		2232	0.2	6
					1559	1.3	40	30 W	0543	2.2	67
					2233	0.2	6		1245	0.7	21
									1736	1.1	34
									2258	0.6	18
								31 Th	0614	2.0	61
									1336	0.7	21
									1907	1.1	34
									2335	0.9	27

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Hilo, Hawaii Island, Hawaii, 2015

Times and Heights of High and Low Waters

January				February				March															
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									
1 Th	0117	2.5	76	16 F	0048	2.3	70	1 Su	0217	2.6	79	16 M	0145	2.7	82	1 Su	0118	2.2	67	16 M	0030	2.4	73
	0742	0.9	27		0714	0.9	27		0849	0.5	15		0815	0.3	9		0754	0.5	15		0707	0.3	9
	1217	1.5	46		1138	1.4	43		1345	1.4	43		1323	1.6	49		1302	1.3	40		1226	1.4	43
	1840	-0.2	-6		1808	-0.2	-6		1946	-0.2	-6		1927	-0.5	-15		1857	0.0	0		1823	-0.2	-6
2 F	0156	2.7	82	17 Sa	0128	2.6	79	2 M	0247	2.6	79	17 Tu	0224	2.9	88	2 M	0150	2.3	70	17 Tu	0113	2.5	76
	0827	0.7	21		0758	0.7	21		0915	0.4	12		0850	0.2	6		0818	0.4	12		0742	0.1	3
	1305	1.5	46		1237	1.4	43		1422	1.5	46		1412	1.8	55		1340	1.5	46		1318	1.7	52
	1919	-0.3	-9		1854	-0.4	-12		2022	-0.2	-6		2015	-0.6	-18		1936	-0.1	-3		1917	-0.3	-9
3 Sa	0232	2.8	85	18 Su	0208	2.8	85	3 Tu	0315	2.6	79	18 W	0302	2.9	88	3 Tu	0218	2.4	73	18 W	0153	2.6	79
	0904	0.6	18		0838	0.5	15		0941	0.3	9		0925	0.0	0		0840	0.3	9		0815	-0.1	-3
	1348	1.5	46		1328	1.5	46		1457	1.6	49		1459	1.9	58		1413	1.7	52		1405	2.0	61
	1956	-0.3	-9		1939	-0.5	-15		2055	-0.2	-6		2101	-0.5	-15		2011	-0.1	-3		2007	-0.3	-9
4 Su	0305	2.8	85	19 M	0246	3.0	91	4 W	0343	2.6	79	19 Th	0339	2.9	88	4 W	0245	2.4	73	19 Th	0231	2.6	79
	0938	0.6	18		0917	0.4	12		1007	0.3	9		1001	-0.1	-3		0903	0.2	6		0849	-0.3	-9
	1428	1.5	46		1417	1.6	49		1531	1.7	52		1546	2.0	61		1445	1.8	55		1451	2.2	67
	2031	-0.3	-9		2023	-0.6	-18		2128	-0.1	-3		2147	-0.4	-12		2044	-0.1	-3		2054	-0.3	-9
5 M	0337	2.8	85	20 Tu	0325	3.1	94	5 Th	0410	2.5	76	20 F	0416	2.7	82	5 Th	0310	2.3	70	20 F	0308	2.5	76
	1010	0.5	15		0955	0.3	9		1034	0.3	9		1038	-0.2	-6		0927	0.1	3		0924	-0.4	-12
	1506	1.5	46		1505	1.7	52		1607	1.7	52		1635	2.1	64		1517	1.9	58		1536	2.4	73
	2106	-0.2	-6		2107	-0.6	-18		2200	0.0	0		2234	-0.1	-3		2116	0.0	0		2142	-0.2	-6
6 Tu	0409	2.8	85	21 W	0404	3.1	94	6 F	0436	2.4	73	21 Sa	0452	2.5	76	6 F	0335	2.3	70	21 Sa	0344	2.3	70
	1042	0.5	15		1035	0.2	6		1102	0.2	6		1116	-0.2	-6		0951	0.0	0		0959	-0.4	-12
	1543	1.5	46		1554	1.7	52		1643	1.7	52		1727	2.1	64		1550	2.0	61		1623	2.4	73
	2139	-0.1	-3		2152	-0.4	-12		2233	0.2	6		2324	0.2	6		2149	0.1	3		2230	0.0	0
7 W	0440	2.7	82	22 Th	0444	3.0	91	7 Sa	0502	2.3	70	22 Su	0529	2.2	67	7 Sa	0400	2.2	67	22 Su	0420	2.1	64
	1115	0.5	15		1115	0.1	3		1131	0.2	6		1155	-0.1	-3		1016	0.0	0		1035	-0.4	-12
	1622	1.5	46		1645	1.8	55		1723	1.7	52		1824	2.0	61		1625	2.0	61		1710	2.4	73
	2213	0.0	0		2239	-0.2	-6		2307	0.4	12						2222	0.2	6		2321	0.3	9
8 Th	0510	2.6	79	23 F	0523	2.8	85	8 Su	0528	2.1	64	23 M	0020	0.5	15	8 Su	0425	2.0	61	23 M	0456	1.8	55
	1149	0.5	15		1157	0.1	3		1201	0.2	6		0605	1.8	55		1042	0.0	0		1112	-0.3	-9
	1703	1.5	46		1742	1.8	55		1809	1.6	49		1239	-0.1	-3		1701	2.0	61		1802	2.3	70
	2247	0.2	6		2328	0.1	3		2346	0.6	18		1932	1.9	58		2258	0.4	12				
9 F	0541	2.4	73	24 Sa	0602	2.5	76	9 M	0553	1.9	58	24 Tu	0132	0.8	24	9 M	0449	1.9	58	24 Tu	0018	0.5	15
	1225	0.5	15		1242	0.1	3		1236	0.2	6		0646	1.5	46		1110	0.0	0		0533	1.5	46
	1750	1.4	43		1847	1.7	52		1906	1.6	49		1331	0.1	3		1742	1.9	58		1152	-0.1	-3
	2323	0.4	12								2057		1.9	58	2339		0.6	18	1900		2.1	64	
10 Sa	0611	2.2	67	25 Su	0025	0.5	15	10 Tu	0035	0.9	27	25 W	0322	1.0	30	10 Tu	0515	1.7	52	25 W	0130	0.7	21
	1304	0.5	15		0643	2.2	67		0622	1.7	52		0740	1.3	40		1142	0.0	0		0615	1.2	37
	1848	1.4	43		1332	0.1	3		1319	0.3	9		1437	0.2	6		1832	1.9	58		1239	0.1	3
					2006	1.7	52		2025	1.6	49		2231	1.9	58						2012	2.0	61
11 Su	0005	0.7	21	26 M	0138	0.8	24	11 W	0154	1.1	34	26 Th	0537	0.9	27	11 W	0031	0.8	24	26 Th	0313	0.8	24
	0643	2.0	61		0728	1.8	55		0659	1.5	46		0919	1.1	34		0544	1.5	46		0717	1.0	30
	1347	0.4	12		1428	0.1	3		1415	0.2	6		1559	0.2	6		1221	0.1	3		1341	0.2	6
	2004	1.4	43		2140	1.8	55		2201	1.7	52		2346	2.0	61		1937	1.8	55		2137	1.9	58
12 M	0101	1.0	30	27 Tu	0325	1.1	34	12 Th	0412	1.1	34	27 F	0649	0.8	24	12 Th	0151	0.9	27	27 F	0508	0.7	21
	0719	1.9	58		0823	1.6	49		0804	1.3	40		1107	1.1	34		0622	1.3	40		0916	0.9	27
	1436	0.4	12		1531	0.1	3		1527	0.2	6		1714	0.2	6		1315	0.2	6		1511	0.4	12
	2138	1.5	46		2309	2.0	61		2321	2.0	61						2104	1.8	55		2255	1.9	58
13 Tu	0234	1.2	37	28 W	0532	1.1	34	13 F	0605	1.0	30	28 Sa	0039	2.2	67	13 F	0401	0.9	27	28 Sa	0611	0.6	18
	0805	1.7	52		0940	1.3	40		0953	1.2	37		0727	0.6	18		0737	1.1	34		1108	1.0	30
	1531	0.3	9		1636	0.1	3		1640	0.0	0		1216	1.2	37		1434	0.2	6		1642	0.4	12
	2303	1.7	52								1812		0.1	3	2232		2.0	61	2353		2.0	61	
14 W	0441	1.2	37	29 Th	0016	2.2	67	14 Sa	0018	2.2	67	15 Su	0039	2.2	67	14 Sa	0541	0.8	24	29 Su	0646	0.4	12
	0911	1.5	46		0657	0.9	27		0700	0.8	24		0727	0.6	18		0947	1.0	30		1210	1.2	37
	1627	0.2	6		1105	1.3	40		1124	1.2	37		1216	1.2	37		1605	0.1	3		1749	0.3	9
					1735	0.0	0		1743	-0.1	-3						2339	2.2	67				
15 Th	0002	2.0	61	30 F	0105	2.4	73	15 Su	0104	2.5	76	16 M	0145	2.7	82	15 Su	0631	0.6	18	30 M	0036	2.0	61
	0615	1.1	34		0746	0.8	24		0739	0.6	18		0815	0.3	9		1122	1.2	37		0712	0.3	9
	1029	1.4	43		1212	1.3	40		1229	1.4	43		1323	1.6	49		1722	0.0	0		1253	1.4	43
	1719	0.0	0		1825	-0.1	-3		1838	-0.3	-9								1839		0.2	6	
			31 Sa	0143	2.5	76										31 Tu	0109	2.0	61				
				0820	0.6	18											0735	0.2	6				
				1303	1.3	40											1327	1.6	49				
				1908	-0.2	-6											1919	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.

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, 2015

Times and Heights of High and Low Waters

July					August					September													
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 W ○	0204	1.4	43	16 Th F	0254	1.5	46	1 Sa Su	0331	1.8	55	16 Su M	0354	1.8	55	1 Tu W	0501	2.4	73	16 W Th	0446	2.2	67
	0814	-0.5	-15		0853	-0.3	-9		0930	-0.4	-12		0949	0.1	3		1101	0.3	9		1046	0.6	18
	1526	2.9	88		1557	2.8	85		1620	3.0	91		1621	2.5	76		1703	2.3	70		1631	2.0	61
	2200	0.4	12		2231	0.4	12		2250	0.2	6		2245	0.3	9		2327	0.0	0		2249	0.2	6
2 Th F	0250	1.4	43	17 F Sa	0334	1.5	46	2 Su M	0421	1.8	55	17 M Tu	0431	1.9	58	2 W Th	0558	2.3	70	17 Th F	0526	2.2	67
	0855	-0.5	-15		0929	-0.2	-6		1016	-0.2	-6		1023	0.3	9		1158	0.6	18		1127	0.8	24
	1605	3.0	91		1628	2.7	82		1658	2.8	85		1647	2.3	70		1742	2.0	61		1656	1.8	55
	2242	0.4	12		2303	0.4	12		2330	0.1	3		2313	0.3	9		2320	0.3	9		2320	0.3	9
3 F Sa	0337	1.4	43	18 Sa Su	0414	1.5	46	3 M Tu	0516	1.9	58	18 Tu W	0511	1.8	55	3 Th F	0011	0.1	3	18 F Sa	0613	2.1	64
	0938	-0.5	-15		1005	0.0	0		1105	0.1	3		1058	0.5	15		0703	2.2	67		1218	1.0	30
	1645	2.9	88		1659	2.6	79		1737	2.6	79		1713	2.2	67		1308	0.9	27		1724	1.6	49
	2325	0.3	9		2336	0.4	12		2344	0.3	9		2344	0.3	9		1824	1.7	52		2357	0.4	12
4 Sa Su	0429	1.4	43	19 Su M	0456	1.5	46	4 Tu W	0013	0.1	3	19 W Th	0556	1.8	55	4 F ○	0102	0.2	6	19 Sa ○	0715	2.0	61
	1022	-0.3	-9		1040	0.2	6		0617	1.9	58		1137	0.7	21		0823	2.2	67		1335	1.1	34
	1726	2.8	85		1729	2.4	73		1200	0.4	12		1739	2.0	61		1449	1.1	34		1800	1.4	43
									1817	2.3	70						1921	1.5	46				
5 Su M	0010	0.3	9	20 M Tu	0010	0.4	12	5 W Th	0100	0.1	3	20 Th F	0017	0.4	12	5 Sa ○	0207	0.3	9	20 Su ○	0048	0.4	12
	0526	1.4	43		0543	1.5	46		0729	1.9	58		0651	1.8	55		0953	2.2	67		0837	2.0	61
	1110	0.0	0		1117	0.4	12		1307	0.8	24		1226	1.0	30		1653	1.1	34		1540	1.2	37
	1808	2.7	82		1759	2.2	67		1900	2.0	61		1807	1.8	55		2054	1.3	40		1912	1.3	40
6 M Tu	0058	0.2	6	21 Tu W	0047	0.4	12	6 Th ○	0152	0.1	3	21 F ○	0058	0.4	12	6 Su ○	0327	0.4	12	21 M ○	0204	0.5	15
	0632	1.4	43		0637	1.5	46		0855	1.9	58		0803	1.8	55		1112	2.3	70		1004	2.1	64
	1204	0.3	9		1159	0.7	21		1440	1.1	34		1340	1.2	37		1814	0.9	27		1719	1.0	30
	1852	2.4	73		1830	2.1	64		1952	1.7	52		1841	1.6	49		2241	1.3	40		2123	1.2	37
7 Tu W	0148	0.2	6	22 W Th	0127	0.4	12	7 F ○	0253	0.1	3	22 Sa ○	0151	0.4	12	7 M ○	0446	0.3	9	22 Tu ○	0335	0.5	15
	0752	1.5	46		0745	1.5	46		1025	2.1	64		0935	1.8	55		1210	2.4	73		1111	2.3	70
	1311	0.6	18		1251	0.9	27		1642	1.1	34		1547	1.3	40		1859	0.8	24		1806	0.8	24
	1939	2.2	67		1902	1.9	58		2102	1.5	46		1940	1.4	43		2354	1.4	43		2259	1.4	43
8 W ○	0242	0.1	3	23 Th ○	0212	0.4	12	8 Sa ○	0400	0.1	3	23 Su ○	0301	0.4	12	8 Tu ○	0548	0.3	9	23 W ○	0454	0.3	9
	0922	1.6	49		0910	1.5	46		1140	2.3	70		1057	2.0	61		1253	2.5	76		1202	2.5	76
	1440	0.9	27		1411	1.1	34		1820	1.0	30		1743	1.1	34		1930	0.6	18		1841	0.6	18
	2031	1.9	58		1942	1.7	52		2228	1.3	40		2125	1.3	40								
9 Th ○	0337	0.0	0	24 F ○	0304	0.3	9	9 Su ○	0504	0.0	0	24 M ○	0414	0.3	9	9 W ○	0044	1.6	49	24 Th ○	0002	1.6	49
	1048	1.9	58		1037	1.7	52		1236	2.4	73		1155	2.3	70		0637	0.2	6		0556	0.2	6
	1628	1.0	30		1610	1.2	37		1918	0.9	27		1838	1.0	30		1328	2.5	76		1245	2.7	82
	2132	1.7	52		2038	1.5	46		2344	1.3	40		2259	1.3	40		1956	0.5	15		1914	0.4	12
10 F ○	0432	-0.1	-3	25 Sa ○	0400	0.2	6	10 M ○	0559	0.0	0	25 Tu ○	0519	0.1	3	10 Th ○	0123	1.7	52	25 F ○	0053	1.9	58
	1156	2.2	67		1142	2.0	61		1320	2.6	79		1240	2.5	76		0718	0.2	6		0650	0.1	3
	1806	1.0	30		1755	1.1	34		1958	0.7	21		1916	0.8	24		1358	2.5	76		1324	2.7	82
	2238	1.5	46		2155	1.4	43								2020		0.4	12	1947		0.2	6	
11 Sa ○	0524	-0.2	-6	26 Su ○	0455	0.1	3	11 Tu ○	0041	1.4	43	26 W ○	0005	1.5	46	11 F ○	0157	1.9	58	26 Sa ○	0140	2.2	67
	1250	2.4	73		1230	2.2	67		0647	-0.1	-3		0614	-0.1	-3		0754	0.1	3		0740	0.0	0
	1916	0.9	27		1858	1.0	30		1357	2.7	82		1320	2.7	82		1425	2.5	76		1402	2.8	85
	2342	1.4	43		2310	1.4	43		2029	0.6	18		1950	0.6	18		2043	0.3	9		2021	0.0	0
12 Su ○	0612	-0.3	-9	27 M ○	0545	-0.1	-3	12 W ○	0127	1.5	46	27 Th ○	0059	1.7	52	12 Sa ○	0230	2.0	61	27 Su ○	0225	2.5	76
	1335	2.6	79		1311	2.5	76		0728	-0.1	-3		0703	-0.2	-6		0828	0.2	6		0829	0.0	0
	2008	0.7	21		1942	0.8	24		1429	2.7	82		1359	2.9	88		1451	2.5	76		1440	2.7	82
					2057	0.5	15		2057	0.5	15		2024	0.4	12		2106	0.3	9		2055	-0.2	-6
13 M ○	0039	1.4	43	28 Tu ○	0012	1.4	43	13 Th ○	0206	1.6	49	28 F ○	0147	1.9	58	13 Su ○	0302	2.1	64	28 M ○	0311	2.7	82
	0656	-0.3	-9		0632	-0.2	-6		0806	-0.1	-3		0750	-0.3	-9		0902	0.2	6		0917	0.1	3
	1414	2.7	82		1349	2.7	82		1459	2.7	82		1436	3.0	91		1516	2.4	73		1516	2.5	76
	2049	0.6	18		2020	0.7	21		2124	0.4	12		2058	0.2	6		2131	0.2	6		2131	-0.2	-6
14 Tu ○	0128	1.4	43	29 W ○	0105	1.5	46	14 F ○	0243	1.7	52	29 Sa ○	0234	2.1	64	14 M ○	0335	2.2	67	29 Tu ○	0357	2.8	85
	0738	-0.4	-12		0717	-0.4	-12		0841	-0.1	-3		0836	-0.3	-9		0935	0.3	9		1006	0.3	9
	1451	2.8	85		1427	2.9	88		1527	2.7	82		1513	2.9	88		1541	2.3	70		1553	2.3	70
	2125	0.5	15		2057	0.5	15		2150	0.4	12		2133	0.1	3		2156	0.2	6		2207	-0.2	-6
15 W ○	0212	1.4	43	30 Th ○	0155	1.6	49	15 Sa ○	0318	1.8	55	30 Su ○	0321	2.2	67	15 Tu ○	0409	2.2	67	30 W ○	0446	2.8	85
	0816	-0.4	-12		0801	-0.5	-15		0915	0.0	0		0923	-0.2	-6		1009	0.5	15		1059	0.5	15
	1524	2.8	85		1504	3.0	91		1554	2.6	79		1549	2.8	85		1606	2.2	67		1631	2.0	61
	2158	0.5	15		2133	0.4	12		2217	0.3	9		2210	0.0	0		2222	0.2	6		2246	-0.1	-3
				31 F ○	0242	1.7	52				31 M ○	0410	2.3	70									
			0845		-0.5	-15				1010		0.0	0										
			1542		3.0	91				1626		2.6	79										
			2211		0.2	6				2247		-0.1	-3										

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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, 2015

Times and Heights of High and Low Waters

January						February						March																
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				
1 Th	0305	2.3	70		16 F	0225	2.1	64		1 Su	0419	2.2	67		16 M	0350	2.3	70		1 Su	0316	1.8	55		16 M	0230	2.0	61
	0947	0.1	3			0913	0.2	6			1051	-0.1	-3			1024	-0.4	-12			0952	0.0	0			0909	-0.2	-6
	1538	1.6	49			1456	1.5	46			1655	1.7	52			1627	1.9	58			1558	1.5	46			1516	1.7	52
	2123	0.2	6			2048	0.2	6			2237	0.1	3			2221	-0.2	-6			2145	0.2	6			2115	0.0	0
2 F	0352	2.4	73		17 Sa	0320	2.3	70		2 M	0456	2.3	70		17 Tu	0438	2.5	76		2 M	0400	1.9	58		17 Tu	0328	2.1	64
	1030	0.0	0			1001	0.0	0			1123	-0.2	-6			1105	-0.6	-18			1026	-0.1	-3			0956	-0.4	-12
	1626	1.7	52			1554	1.7	52			1728	1.8	55			1713	2.1	64			1633	1.7	52			1607	2.0	61
	2208	0.1	3			2142	0.0	0			2313	0.0	0			2308	-0.4	-12			2224	0.0	0			2209	-0.3	-9
3 Sa	0433	2.5	76		18 Su	0409	2.5	76		3 Tu	0530	2.3	70		18 W	0523	2.6	79		3 Tu	0436	2.0	61		18 W	0419	2.3	70
	1107	-0.1	-3			1044	-0.3	-9			1153	-0.3	-9			1145	-0.7	-21			1056	-0.2	-6			1039	-0.6	-18
	1707	1.8	55			1643	1.9	58			1800	1.9	58			1756	2.3	70			1705	1.8	55			1652	2.3	70
	2248	0.1	3			2231	-0.1	-3			2347	-0.1	-3			2354	-0.5	-15			2259	-0.1	-3			2257	-0.4	-12
4 Su	0510	2.5	76		19 M	0454	2.7	82		4 W	0601	2.3	70		19 Th	0606	2.6	79		4 W	0509	2.1	64		19 Th	0505	2.4	73
	1141	-0.2	-6			1126	-0.5	-15			1221	-0.3	-9			1224	-0.7	-21			1125	-0.3	-9			1118	-0.7	-21
	1707	1.8	55			1729	2.0	61			1830	2.0	61			1838	2.4	73			1735	2.0	61			1735	2.5	76
	2325	0.1	3			2318	-0.2	-6													2332	-0.2	-6			2342	-0.5	-15
5 M	0545	2.5	76		20 Tu	0538	2.8	85		5 Th	0020	-0.1	-3		20 F	0038	-0.4	-12		5 Th	0540	2.2	67		20 F	0548	2.4	73
	1213	-0.2	-6			1206	-0.6	-18			0631	2.3	70			0648	2.5	76			1152	-0.3	-9			1157	-0.7	-21
	1818	1.9	58			1813	2.2	67			1249	-0.3	-9			1302	-0.7	-21			1804	2.1	64			1815	2.6	79
						●					1900	2.0	61			1920	2.5	76			○							
6 Tu	0000	0.1	3		21 W	0003	-0.3	-9		6 F	0052	0.0	0		21 Sa	0123	-0.4	-12		6 F	0003	-0.2	-6		21 Sa	0025	-0.6	-18
	0618	2.5	76			0621	2.8	85			0701	2.2	67			0729	2.3	70			0610	2.1	64			0630	2.3	70
	1245	-0.2	-6			1246	-0.6	-18			1317	-0.3	-9			1339	-0.6	-18			1219	-0.4	-12			1234	-0.7	-21
	1852	1.9	58			1857	2.3	70			1931	2.0	61			2003	2.4	73			1832	2.1	64			1855	2.6	79
7 W	0034	0.1	3		22 Th	0048	-0.3	-9		7 Sa	0125	0.0	0		22 Su	0209	-0.2	-6		7 Sa	0034	-0.2	-6		22 Su	0108	-0.5	-15
	0651	2.4	73			0703	2.7	82			0731	2.1	64			0811	2.1	64			0639	2.1	64			0711	2.1	64
	1315	-0.2	-6			1326	-0.6	-18			1344	-0.2	-6			1418	-0.4	-12			1246	-0.3	-9			1311	-0.5	-15
	1925	1.9	58			1942	2.3	70			2003	2.0	61			2046	2.3	70			1902	2.2	67			1935	2.5	76
8 Th	0108	0.2	6		23 F	0135	-0.2	-6		8 Su	0159	0.1	3		23 M	0257	0.0	0		8 Su	0106	-0.2	-6		23 M	0151	-0.4	-12
	0723	2.3	70			0746	2.5	76			0802	2.0	61			0856	1.8	55			0708	2.0	61			0753	1.9	58
	1346	-0.1	-3			1406	-0.5	-15			1414	-0.1	-3			1458	-0.1	-3			1313	-0.3	-9			1349	-0.3	-9
	2000	1.9	58			2028	2.3	70			2038	2.0	61			2134	2.1	64			1932	2.2	67			2016	2.3	70
9 F	0144	0.3	9		24 Sa	0224	0.0	0		9 M	0238	0.2	6		24 Tu	0353	0.2	6		9 M	0139	-0.1	-3		24 Tu	0236	-0.2	-6
	0756	2.2	67			0830	2.2	67			0837	1.8	55			0946	1.5	46			0739	1.9	58			0837	1.7	52
	1417	0.0	0			1448	-0.3	-9			1446	0.0	0			1544	0.1	3			1341	-0.2	-6			1427	-0.1	-3
	2037	1.9	58			2117	2.2	67			2119	1.9	58			2229	1.9	58			2005	2.1	64			2100	2.1	64
10 Sa	0222	0.4	12		25 Su	0318	0.2	6		10 Tu	0323	0.3	9		25 W	0505	0.4	12		10 Tu	0215	0.0	0		25 W	0326	0.0	0
	0830	2.0	61			0918	1.9	58			0918	1.6	49			1051	1.3	40			0814	1.7	52			0926	1.4	43
	1451	0.1	3			1533	-0.1	-3			1525	0.1	3			1644	0.3	9			1413	-0.1	-3			1510	0.1	3
	2118	1.9	58			2211	2.1	64			2209	1.9	58			2338	1.7	52			2043	2.0	61			2149	1.8	55
11 Su	0307	0.5	15		26 M	0423	0.4	12		11 W	0425	0.5	15		26 Th	0641	0.4	12		11 W	0258	0.1	3		26 Th	0427	0.2	6
	0909	1.8	55			1013	1.6	49			1014	1.4	43			1221	1.1	34			0855	1.5	46			1027	1.2	37
	1528	0.2	6			1624	0.1	3			1616	0.2	6			1814	0.5	15			1451	0.0	0			1606	0.4	12
	2206	1.8	55			2313	2.0	61			2314	1.8	55			○					2130	1.9	58			2251	1.6	49
12 M	0403	0.6	18		27 Tu	0546	0.5	15		12 Th	0553	0.5	15		27 F	0100	1.7	52		12 Th	0353	0.2	6		27 F	0550	0.3	9
	0958	1.6	49			1123	1.4	43			1133	1.3	40			0809	0.3	9			0950	1.3	40			1151	1.1	34
	1614	0.3	9			1730	0.3	9			1733	0.3	9			1401	1.2	37			1542	0.2	6			1736	0.5	15
	2304	1.8	55													1949	0.5	15			2232	1.8	55					
13 Tu	0520	0.7	21		28 W	0024	1.9	58		13 F	0032	1.8	55		28 Sa	0218	1.7	52		13 F	0512	0.3	9		28 Sa	0011	1.5	46
	1101	1.5	46			0721	0.5	15			0731	0.4	12			0909	0.2	6			1108	1.2	37			0720	0.3	9
	1714	0.4	12			1252	1.3	40			1309	1.2	37			1512	1.3	40			1658	0.3	9			1327	1.2	37
						1852	0.4	12			1907	0.3	9			2056	0.3	9			2352	1.7	52			1921	0.5	15
14 W	0012	1.9	58		29 Th	0139	1.9	58		14 Sa	0150	1.9	58							14 Sa	0651	0.3	9		29 Su	0135	1.5	46
	0654	0.6	18			0838	0.3	9			0844	0.2	6								1246	1.2	37			0826	0.2	6
	1222	1.4	43			1421	1.3	40			1433	1.4	43								1842	0.3	9			1438	1.3	40
	1830	0.4	12			2009	0.4	12			2026	0.2	6											2034		0.4	12	
15 Th	0121	2.0	61		30 F	0245	2.0	61		15 Su	0255	2.1	64		15 Su	0117	1.8	55		15 Su	0811	0.1	3		30 M	0240	1.6	49
	0813	0.4	12			0934	0.2	6			0938	-0.1	-3			1412	1.4	43			0912	0.1	3			0912	0.1	3
	1346	1.4	43			1528	1.4	43			1536	1.6	49			2010	0.2	6			1525	1.5	46			1525	1.5	46
	1945	0.3	9			2109	0.3	9			2128	0.0	0								2124	0.2	6			2124	0.2	6
				31 Sa	0337	2.1	64																					
					1016	0.0	0																					
					1616	1.5	46																					
					2157	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.

Times and Heights of High and Low Waters

April								May								June							
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				
1 W	0407	1.8	55	16 Th	0357	2.0	61	1 F	0409	1.7	52	16 Sa	0425	1.8	55	1 M	0457	1.7	52	16 Tu	0542	1.7	52
	1020	-0.2	-6		1008	-0.5	-15		1009	-0.2	-6		1021	-0.4	-12		1045	-0.2	-6		1122	-0.1	-3
	1634	1.9	58		1628	2.4	73		1630	2.2	67		1647	2.6	79		1710	2.4	73		1748	2.5	76
	2239	-0.1	-3		2244	-0.4	-12		2250	-0.2	-6		2315	-0.5	-15		2341	-0.3	-9		●		
2 Th	0442	1.9	58	17 F	0445	2.1	64	2 Sa	0445	1.7	52	17 Su	0512	1.8	55	2 Tu	0537	1.7	52	17 W	0020	-0.4	-12
	1050	-0.3	-9		1049	-0.6	-18		1042	-0.2	-6		1102	-0.4	-12		1123	-0.2	-6		0623	1.7	52
	1704	2.1	64		1711	2.5	76		1703	2.3	70		1728	2.6	79		1748	2.5	76		1202	-0.1	-3
	2312	-0.2	-6		2328	-0.5	-15		2324	-0.3	-9		●	2356	-0.5		-15	○				1825	2.4	73
3 F	0514	2.0	61	18 Sa	0529	2.1	64	3 Su	0520	1.8	55	18 M	0556	1.8	55	3 W	0019	-0.4	-12	18 Th	0057	-0.3	-9
	1118	-0.3	-9		1129	-0.6	-18		1114	-0.3	-9		1142	-0.3	-9		0618	1.7	52		0703	1.7	52
	1734	2.2	67		1751	2.6	79		1735	2.3	70		1807	2.5	76		1202	-0.2	-6		1240	0.0	0
	2344	-0.3	-9		●				2358	-0.3	-9						1827	2.5	76		1902	2.3	70
4 Sa ○	0545	2.0	61	19 Su	0612	-0.6	-18	4 M	0556	1.8	55	19 Tu	0037	-0.5	-15	4 Th	0059	-0.4	-12	19 F	0133	-0.3	-9
	1146	-0.3	-9		0612	2.0	61		1146	-0.3	-9		0638	1.8	55		0701	1.7	52		0742	1.7	52
	1803	2.3	70		1207	-0.5	-15		1808	2.4	73		1221	-0.2	-6		1243	-0.1	-3		1318	0.1	3
					1830	2.6	79						1846	2.4	73		1907	2.4	73		1939	2.2	67
5 Su	0016	-0.3	-9	20 M	0053	-0.5	-15	5 Tu	0033	-0.4	-12	20 W	0116	-0.4	-12	5 F	0140	-0.4	-12	20 Sa	0209	-0.2	-6
	0616	1.9	58		0654	1.9	58		0632	1.7	52		0720	1.7	52		0747	1.7	52		0823	1.7	52
	1214	-0.3	-9		1245	-0.4	-12		1219	-0.2	-6		1259	-0.1	-3		1327	0.0	0		1358	0.3	9
	1833	2.3	70		1909	2.5	76		1843	2.4	73		1924	2.3	70		1951	2.3	70		2016	2.0	61
6 M	0048	-0.3	-9	21 Tu	0134	-0.4	-12	6 W	0110	-0.4	-12	21 Th	0156	-0.3	-9	6 Sa	0224	-0.3	-9	21 Su	0246	-0.1	-3
	0648	1.8	55		0736	1.7	52		0710	1.7	52		0803	1.6	49		0838	1.7	52		0906	1.6	49
	1243	-0.3	-9		1322	-0.2	-6		1255	-0.2	-6		1339	0.1	3		1417	0.1	3		1442	0.4	12
	1905	2.3	70		1948	2.3	70		1920	2.3	70		2003	2.1	64		2039	2.2	67		2056	1.9	58
7 Tu	0122	-0.3	-9	22 W	0216	-0.3	-9	7 Th	0150	-0.3	-9	22 F	0236	-0.2	-6	7 Su	0313	-0.3	-9	22 M	0326	0.0	0
	0722	1.7	52		0820	1.6	49		0753	1.6	49		0849	1.5	46		0935	1.7	52		0954	1.6	49
	1315	-0.2	-6		1401	0.0	0		1335	-0.1	-3		1421	0.2	6		1516	0.2	6		1534	0.5	15
	1939	2.2	67		2029	2.1	64		2003	2.2	67		2045	1.9	58		2133	2.0	61		2141	1.7	52
8 W	0200	-0.2	-6	23 Th	0301	-0.1	-3	8 F	0235	-0.2	-6	23 Sa	0321	0.0	0	8 M	0408	-0.2	-6	23 Tu	0410	0.1	3
	0800	1.6	49		0908	1.4	43		0843	1.5	46		0940	1.4	43		1039	1.7	52		1048	1.6	49
	1349	-0.1	-3		1444	0.2	6		1421	0.1	3		1510	0.4	12		1629	0.4	12		1640	0.6	18
	2018	2.1	64		2115	1.8	55		2051	2.1	64		2132	1.7	52		2235	1.8	55		2234	1.6	49
9 Th	0243	-0.1	-3	24 F	0353	0.1	3	9 Sa	0327	-0.1	-3	24 Su	0411	0.1	3	9 Tu	0510	-0.1	-3	24 W	0501	0.2	6
	0845	1.5	46		1006	1.3	40		0943	1.5	46		1038	1.4	43		1148	1.8	55		1147	1.7	52
	1431	0.0	0		1537	0.4	12		1520	0.2	6		1615	0.5	15		1756	0.4	12		1801	0.6	18
	2106	2.0	61		2209	1.6	49		2149	1.9	58		2227	1.6	49		2345	1.7	52		2337	1.4	43
10 F	0337	0.0	0	25 Sa	0458	0.2	6	10 Su	0430	-0.1	-3	25 M	0509	0.2	6	10 W	0615	-0.1	-3	25 Th	0600	0.3	9
	0943	1.3	40		1117	1.2	37		1054	1.5	46		1144	1.4	43		1256	2.0	61		1248	1.8	55
	1525	0.2	6		1656	0.5	15		1638	0.3	9		1739	0.6	18		1921	0.3	9		1921	0.6	18
	2206	1.8	55		●	2318	1.5		46	2258	1.8		55	●	2332		1.5	46	○				
11 Sa ○	0449	0.1	3	26 Su	0615	0.2	6	11 M	0543	0.0	0	26 Tu	0612	0.2	6	11 Th	0100	1.6	49	26 F	0047	1.4	43
	1101	1.3	40		1238	1.3	40		1212	1.6	49		1249	1.5	46		0719	0.0	0		0702	0.3	9
	1644	0.3	9		1837	0.6	18		1813	0.4	12		1905	0.6	18		1358	2.1	64		1345	1.9	58
	2322	1.7	52										2031	0.2	6		2031	0.2	6		2026	0.4	12
12 Su	0615	0.1	3	27 M	0035	1.4	43	12 Tu	0015	1.7	52	27 W	0041	1.4	43	12 F	0211	1.6	49	27 Sa	0155	1.4	43
	1230	1.4	43		0724	0.2	6		0654	-0.1	-3		0711	0.2	6		0817	-0.1	-3		0759	0.2	6
	1826	0.3	9		1348	1.4	43		1324	1.8	55		1346	1.7	52		1453	2.3	70		1437	2.1	64
					1957	0.5	15		1939	0.2	6		2012	0.4	12		2129	0.0	0		2118	0.2	6
13 M	0045	1.7	52	28 Tu	0146	1.5	46	13 W	0130	1.7	52	28 Th	0147	1.4	43	13 Sa	0314	1.6	49	28 Su	0256	1.5	46
	0733	0.0	0		0817	0.1	3		0756	-0.2	-6		0802	0.1	3		0910	-0.1	-3		0851	0.1	3
	1350	1.6	49		1440	1.6	49		1425	2.0	61		1435	1.9	58		1542	2.4	73		1524	2.2	67
	1955	0.2	6		2052	0.3	9		2046	0.0	0		2103	0.3	9		2218	-0.2	-6		2203	0.0	0
14 Tu	0200	1.8	55	29 W	0243	1.5	46	14 Th	0236	1.7	52	29 F	0243	1.5	46	14 Su	0409	1.6	49	29 M	0348	1.5	46
	0834	-0.2	-6		0859	0.0	0		0849	-0.3	-9		0847	0.1	3		0957	-0.1	-3		0938	0.0	0
	1452	1.9	58		1521	1.8	55		1517	2.3	70		1517	2.1	64		1627	2.5	76		1608	2.4	73
	2101	0.0	0		2136	0.1	3		2142	-0.2	-6		2147	0.1	3		2302	-0.3	-9		2244	-0.1	-3
15 W	0303	1.9	58	30 Th	0329	1.6	49	15 F	0334	1.8	55	30 Sa	0332	1.5	46	15 M	0458	1.7	52	30 Tu	0436	1.7	52
	0924	-0.4	-12		0936	-0.1	-3		0937	-0.3	-9		0928	0.0	0		1041	-0.1	-3		1022	-0.1	-3
	1543	2.1	64		1557	2.0	61		1604	2.4	73		1556	2.2	67		1709	2.5	76		1650	2.5	76
	2156	-0.3	-9		2215	0.0	0		2230	-0.3	-9		2226	-0.1	-3		2342	-0.4	-12		2324	-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, 2015

Times and Heights of High and Low Waters

July						August						September						
Time			Height			Time			Height			Time			Height			
	h	m	ft	cm			h	m	ft	cm			h	m	ft	cm		
1 W ○	0521	1.8	55		16 Th	0001	-0.2	-6		1 Sa	0023	-0.5	-15	16 Su	0034	-0.1	-3	
	1106	-0.1	-3			0632	2.3	70			0644	2.2	67					
	1731	2.6	79			1224	-0.2	-6			1237	0.1	3					
						1806	2.5	76			1839	2.7	82			1847	2.4	73
2 Th	0004	-0.4	-12		17 F	0034	-0.2	-6		2 Su	0102	-0.5	-15	17 M	0102	-0.1	-3	
	0605	1.9	58			0640	1.9	58			0716	2.2	67					
	1149	-0.2	-6			1222	0.1	3			1310	0.2	6					
	1813	2.6	79			1840	2.4	73			1922	2.6	79			1917	2.3	70
3 F	0044	-0.5	-15		18 Sa	0105	-0.2	-6		3 M	0142	-0.4	-12	18 Tu	0130	0.0	0	
	0650	1.9	58			0715	1.9	58			0802	2.4	73					
	1234	-0.1	-3			1258	0.1	3			1358	0.0	0					
	1855	2.6	79			1913	2.3	70			2007	2.4	73			1949	2.1	64
4 Sa	0125	-0.5	-15		19 Su	0137	-0.1	-3		4 Tu	0224	-0.3	-9	19 W	0200	0.1	3	
	0736	2.0	61			0751	1.9	58			0851	2.3	70					
	1320	0.0	0			1334	0.2	6			1451	0.2	6					
	1938	2.5	76			1947	2.2	67			2054	2.1	64			2023	2.0	61
5 Su	0207	-0.4	-12		20 M	0209	-0.1	-3		5 W	0309	-0.1	-3	20 Th	0232	0.2	6	
	0825	2.0	61			0828	1.9	58			0944	2.3	70					
	1410	0.1	3			1413	0.4	12			1553	0.4	12					
	2025	2.3	70			2021	2.0	61			2148	1.9	58			2103	1.8	55
6 M	0252	-0.3	-9		21 Tu	0242	0.0	0		6 Th	0359	0.1	3	21 F	0309	0.3	9	
	0917	2.0	61			0908	1.9	58			1044	2.2	67					
	1507	0.2	6			1456	0.5	15			1709	0.5	15					
	2115	2.1	64			2059	1.9	58		●	2253	1.6	49			2156	1.6	49
7 Tu	0340	-0.2	-6		22 W	0318	0.2	6		7 F	0501	0.3	9	22 Sa	0359	0.4	12	
	1015	2.0	61			0954	1.9	58			1152	2.1	64					
	1614	0.4	12			1548	0.6	18			1840	0.5	15					
	2211	1.9	58			2144	1.7	52						●	2310	1.5	46	
8 W ○	0435	0.0	0		23 Th	0400	0.3	9		8 Sa	0014	1.5	46	23 Su	0510	0.5	15	
	1118	2.0	61			1047	1.8	55			0618	0.4	12					
	1735	0.5	15			1657	0.7	21			1306	2.1	64					
	2318	1.6	49		●	2240	1.5	46			2002	0.5	15			1903	0.6	18
9 Th	0537	0.1	3		24 F	0454	0.4	12		9 Su	0142	1.4	43	24 M	0040	1.4	43	
	1225	2.1	64			1149	1.9	58			0737	0.4	12					
	1902	0.4	12			1823	0.7	21			1415	2.1	64					
						2352	1.4	43			2105	0.3	9			2018	0.4	12
10 F	0034	1.5	46		25 Sa	0602	0.4	12		10 M	0255	1.5	46	25 Tu	0203	1.6	49	
	0646	0.2	6			1256	1.9	58			0842	0.4	12					
	1332	2.2	67			1946	0.6	18			1511	2.2	67					
	2017	0.3	9							2152	0.2	6			2112	0.2	6	
11 Sa	0152	1.5	46		26 Su	0113	1.4	43		11 Tu	0349	1.7	52	26 W	0307	1.8	55	
	0752	0.2	6			0715	0.4	12			0934	0.3	9					
	1432	2.3	70			1400	2.1	64			1558	2.3	70					
	2117	0.2	6			2049	0.4	12			2231	0.0	0			2158	0.0	0
12 Su	0302	1.5	46		27 M	0226	1.5	46		12 W	0432	1.8	55	27 Th	0358	2.0	61	
	0851	0.1	3			0821	0.3	9			1017	0.2	6					
	1525	2.3	70			1456	2.3	70			1637	2.4	73					
	2206	0.0	0			2139	0.1	3			2305	-0.1	-3			2239	-0.2	-6
13 M	0359	1.6	49		28 Tu	0326	1.6	49		13 Th	0508	1.9	58	28 F	0444	2.3	70	
	0942	0.1	3			0917	0.1	3			1041	-0.1	-3					
	1612	2.4	73			1546	2.4	73			1656	2.8	85					
	2248	-0.1	-3			2223	-0.1	-3			2336	-0.1	-3			2318	-0.4	-12
14 Tu	0446	1.7	52		29 W	0417	1.8	55		14 F	0542	2.0	61	29 Sa	0527	2.5	76	
	1027	0.1	3			1006	0.0	0			1130	0.1	3					
	1653	2.5	76			1631	2.6	79			1745	2.5	76					
	2326	-0.2	-6			2304	-0.3	-9		●				○	2357	-0.4	-12	
15 W ●	0527	1.8	55		30 Th	0504	2.0	61		15 Sa	0005	-0.1	-3	30 Su	0610	2.6	79	
	1108	0.0	0			1053	-0.1	-3			0613	2.1	64					
	1731	2.5	76			1715	2.7	82			1204	0.1	3					
						2343	-0.4	-12			1816	2.4	73			1821	2.7	82
					31 F ○	0548	2.1	64					31 M	0035	-0.4	-12		
						1138	-0.2	-6							0652	2.7	82	
						1757	2.8	85							1256	-0.2	-6	
														1904	2.6	79		

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.

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, 2015

Punta Arenas, Chile

January

4	1839	0.9	30
20	1852	1.3	42
21	1948	1.2	38
22	2037	1.1	36
23	2123	1.2	39

February

18	1844	1.6	51
19	1939	1.4	46

March

1	2250	5.5	182
2	2348	5.7	188

May

8	2227	2.7	88
18	2303	4.1	135

June

6	2223	2.6	86
7	2304	2.5	82
8	2346	2.3	76
14	2316	4.4	144
16	2302	3.7	121

July

2	2343	3.9	128
5	2208	2.4	78
6	2247	2.1	70
13	2245	3.9	127
14	2348	3.7	123
30	2359	3.8	124

August

3	2145	2.0	66
11	2227	3.5	116
12	2337	3.6	117
28	2356	3.8	125

September

9	1933	3.4	112
	2042	3.3	108
	2223	3.5	116
25	2212	3.7	121

November

15	2047	0.9	28
16	2053	0.9	28

December

14	2044	0.9	31
15	2113	1.0	33
17	2127	1.3	42
25	1856	0.7	24
26	1939	0.6	20

Bethel, Kuskokwim River, Alaska

May

7	1942	4.2	128
8	2026	4.3	131
9	2114	4.3	131

November

17	2338	0.6	18

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.

TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

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)		
<i>Time h.m.</i>	<i>Height ft.</i>	<i>Time Corrections</i>	<i>Height Corrections</i>	<i>Time h.m.</i>	<i>Height ft.</i>	<i>Height centimeters</i>
0313	3.8	+0 ^h 46 ^m	x0.48 + 2.8	0359	4.6	140
0921	15.2	+0 ^h 34 ^m	x0.48 + 2.8	0955	10.1	308
1601	-0.4	+0 ^h 46 ^m	x0.48 + 2.8	1647	2.6	79
2230	14.1	+0 ^h 34 ^m	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 regard to current chart datums and the 1983-2001 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 previous National Tidal Datum Epochs. 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.

TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

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		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	ARGENTINA, Tierra del Fuego <1> Time meridian, 60° W	South	West	h m	h m	ft	ft	ft	ft	ft
				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 Guambin	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		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	CHILE, Coast-cont. Time meridian, 60° W	South	West	h m	h m	ft	ft	ft	ft	ft
				on Valparaíso, p.16						
129	Ancud	41° 52'	73° 50'	+2 00	+1 59	+1.4	−0.2	4.6	6.0	3.6
131	Caremapu, Canal Chacao	41° 45'	73° 42'	+3 12	+3 10	*1.93	*1.20	6.9	8.8	5.3
133	Maulin, 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	Paíta	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

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	ECUADOR Time meridian, 75° W	South	West	h m	h m	ft	ft	ft	ft	ft
				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

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		
		Latitude	Longitude	Time		Height		Mean	Spring	Mean Tide Level
				High Water	Low Water	High Water	Low Water			
		North	West	h m	h m	ft	ft	ft	ft	ft
	GUATEMALA <2> Time meridian, 90° W									
				on La Union, p.60						
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>							Mean Diurnal		
				on Salina Cruz, p.64						
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	Ballast Point, San Diego Bay	32° 41.2'	117° 14.0'	-0 03	-0 04	*0.96	*0.91	3.91	5.49	2.81
411	San Diego, Quarantine Station	32° 42'	117° 14'	-0 04	+0 02	*0.96	*0.96	3.9	5.6	2.9
413	SAN DIEGO (Broadway)	32° 42.8'	117° 10.4'			Daily predictions		4.05	5.73	2.96
415	National City, San Diego Bay	32° 40'	117° 07'	+0 04	+0 10	+0.2	0.0	4.3	5.9	3.0
417	Sweetwater Channel, San Diego Bay	32° 38.9'	117° 06.7'	+0 00	-0 01	*1.02	*0.93	4.20	5.80	2.97
419	Quivira Basin, Mission Bay	32° 46'	117° 14'	+0 05	+0 04	*0.95	*0.95	3.8	5.4	2.8
421	Crown Point, Mission Bay	32° 46.8'	117° 14.1'	-0 03	+0 16	*0.96	*0.96	3.9	5.5	2.8
423	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
425	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						
427	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
429	Balboa Pier, Newport Beach	33° 35.9'	117° 54.0'	-0 09	+0 00	*0.96	*0.96	3.65	5.33	2.74
431	Santa Ana River entrance (inside)	33° 38'	117° 57'	+0 23	+1 47	*0.54	*0.20	2.4	3.3	1.4
433	Los Patos (highway bridge)	33° 43'	118° 03'	+1 00	+1 12	*0.83	*0.60	3.4	4.7	2.3
435	Long Beach, Terminal Island	33° 45.1'	118° 13.7'	-0 01	+0 00	*1.01	*1.01	3.9	5.6	2.9
437	Long Beach, Inner Harbor	33° 46.3'	118° 12.6'	+0 04	+0 05	*0.96	*0.96	3.7	5.3	2.7
439	Cabrillo Beach	33° 42.4'	118° 16.4'	+0 00	+0 00	*1.00	*1.00	3.81	5.48	2.82
441	LOS ANGELES (Outer Harbor)	33° 43.2'	118° 16.3'			Daily predictions		3.81	5.49	2.85
443	Los Angeles Harbor, Mormon Island	33° 45'	118° 16'	+0 04	+0 02	-0.1	0.0	3.8	5.4	2.8
445	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
447	El Segundo, Santa Monica Bay	33° 55'	118° 26'	+0 13	+0 13	*0.96	*0.96	3.7	5.3	2.7
449	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									
451	Mugu Lagoon (ocean pier)	34° 06'	119° 06'	+0 03	+0 11	*0.96	*0.96	3.7	5.3	2.7
453	Port Hueneme	34° 09'	119° 12'	+0 10	+0 13	-0.1	0.0	3.7	5.4	2.8
455	Ventura	34° 16'	119° 17'	+0 09	+0 16	-0.1	0.0	3.7	5.4	2.8
457	Rincon Island, Mussel Shoals	34° 20.9'	119° 26.6'	+0 20	+0 18	*0.99	*1.05	3.72	5.46	2.83
459	Santa Barbara	34° 24.5'	119° 41.1'	+0 23	+0 21	*0.98	*1.04	3.66	5.39	2.79
461	Gaviota State Park	34° 28.1'	120° 13.7'	+0 27	+0 25	*0.96	*1.04	3.58	5.29	2.76
463	Oil Platform Harvet	34° 28.1'	120° 40.4'	+0 37	+0 35	*0.95	*1.06	3.51	5.24	2.75
	Channel Islands									
465	Wilson Cove, San Clemente Island	33° 00'	118° 33'	-0 03	-0 03	*0.94	*0.94	3.6	5.2	2.7
467	Catalina Harbor, Santa Catalina Island	33° 26'	118° 30'	+0 11	+0 17	*0.94	*0.94	3.6	5.2	2.7
469	Avalon, Santa Catalina Island	33° 21'	118° 19'	+0 06	+0 09	*0.96	*0.96	3.7	5.3	2.7
471	Santa Barbara Island	33° 29'	119° 02'	-0 02	+0 04	*0.92	*0.92	3.5	5.1	2.6

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	CALIFORNIA Channel Islands—cont. Time meridian, 120° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Los Angeles, p.76						
473	San Nicolas Island	33° 16'	119° 30'	+0 10	+0 21	*0.88	*0.88	3.3	4.9	2.5
475	Prisoners Harbor, Santa Cruz Island	34° 01.2'	119° 41.0'	+0 19	+0 18	*0.94	*1.01	3.54	5.25	2.72
477	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
479	Cuyler Harbor, San Miguel Island	34° 03'	120° 21'	+0 33	+0 34	*0.94	*0.94	3.5	5.2	2.7
	Outer Coast			on Port San Luis, p.80						
481	Point Arguello	34° 35'	120° 39'	−0 03	−0 08	*0.96	*0.96	3.5	5.2	2.7
483	PORT SAN LUIS	35° 10.1'	120° 45.1'	Daily predictions				3.58	5.33	2.83
485	San Simeon	35° 38'	121° 11'	+0 08	+0 07	*0.99	*1.00	3.6	5.3	2.8
487	Mansfield Cone	35° 57.0'	121° 28.9'	+0 16	+0 16	*0.98	*0.99	3.50	5.24	2.78
				on Monterey, p.84						
489	Carmel Cove, Carmel Bay Monterey Bay	36° 31'	121° 56'	−0 03	−0 04	*0.97	*0.99	3.5	5.2	2.8
491	MONTEREY, MONTEREY BAY	36° 36.3'	121° 53.3'	Daily predictions				3.54	5.34	2.86
493	General Fish Company Pier	36° 48.1'	121° 47.2'	+0 01	+0 01	*0.98	*0.95	3.56	5.31	2.84
495	Moss Landing, Ocean Pier	36° 48'	121° 47'	−0 01	−0 01	*0.95	*0.90	3.5	5.2	2.8
497	Elkhorn Yacht Club	36° 48.8'	121° 47.2'	+0 00	+0 02	*0.97	*0.95	3.52	5.27	2.82
499	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
501	Pacific Mariculture Dock	36° 49'	121° 46'	+0 15	+0 07	*1.00	*0.98	3.6	5.4	2.9
503	Elkhorn, Elkhorn Slough	36° 49.1'	121° 44.8'	+0 21	+0 05	*0.98	*0.97	3.54	5.32	2.85
505	Kirby Park, Elkhorn Slough	36° 50'	121° 45'	+0 26	+0 08	*1.02	*0.96	3.7	5.5	2.9
507	Elkhorn Slough railroad bridge	36° 51.4'	121° 45.3'	+0 33	+0 08	*1.02	*0.96	3.74	5.52	2.94
509	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						
511	Ano Nuevo Island	37° 06'	122° 20'	−1 24	−1 04	−0.7	−0.1	3.5	5.2	2.7
513	Pillar Point Harbor, Half Moon Bay	37° 30.1'	122° 28.9'	−1 04	−0 43	*0.95	*0.97	3.85	5.60	3.03
515	Southeast Farallon Island	37° 42'	123° 00'	−0 39	−0 19	−0.3	0.0	3.8	5.6	3.0
517	San Francisco Bar	37° 46'	122° 38'	−0 35	−0 31	−0.2	0.0	3.9	5.6	3.0
519	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									
521	Point Bonita, Bonita Cove	37° 49'	122° 32'	−0 17	−0 10	+0.3	0.0	4.3	6.0	3.3
523	SAN FRANCISCO (Golden Gate)	37° 48.4'	122° 27.9'	Daily predictions				4.10	5.84	3.18
525	Alcatraz Island	37° 50'	122° 25'	+0 14	+0 18	0.0	0.0	4.1	5.8	3.1
527	San Francisco, North Point, Pier 41	37° 49'	122° 25'	+0 13	+0 11	+0.2	0.0	4.3	6.1	3.3
529	Rincon Point, Pier 22 1/2	37° 47'	122° 23'	+0 23	+0 25	+0.4	0.0	4.6	6.3	3.4
531	Yerba Buena Island	37° 48.6'	122° 21.6'	+0 25	+0 33	*1.06	*0.99	4.43	6.16	3.34
533	Oakland, Matsun Wharf	37° 49'	122° 20'	+0 28	+0 36	+0.3	0.0	4.4	6.2	3.3
535	Oakland Middle Harbor	37° 48.3'	122° 20.3'	+0 21	+0 31	*1.07	*0.96	4.52	6.22	3.36
537	Oakland Pier	37° 48'	122° 20'	+0 33	+0 48	+0.2	0.0	4.3	6.0	3.2
539	Oakland Inner Harbor	37° 47.7'	122° 16.9'	+0 24	+0 31	*1.12	*0.99	4.71	6.45	3.49
541	Alameda Naval Air Station	37° 47.6'	122° 18.9'	+0 24	+0 33	*1.11	*1.00	4.65	6.40	3.46
543	Alameda	37° 46.3'	122° 17.9'	+0 29	+0 39	*1.11	*0.99	4.84	6.60	3.55
545	Oakland Harbor, Grove Street	37° 48'	122° 17'	+0 33	+0 42	+0.4	0.0	4.5	6.2	3.3
547	Oakland Harbor, Park Street Bridge	37° 46.3'	122° 14.1'	+0 24	+0 32	*1.13	*0.98	4.77	6.51	3.50
549	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
551	Oakland Airport	37° 43.9'	122° 12.5'	+0 40	+0 45	*1.15	*0.96	4.95	6.65	3.56
553	Potrero Point	37° 46'	122° 23'	+0 33	+0 46	+0.5	0.0	4.6	6.3	3.4
555	Hunters Point	37° 43.8'	122° 21.4'	+0 28	+0 43	*1.18	*1.00	5.03	6.80	3.66
557	San Leandro Marina	37° 41.7'	122° 11.5'	+0 54	+1 23	*1.28	*1.01	5.55	7.31	3.92
559	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
561	South San Francisco	37° 40'	122° 23'	+0 38	+0 56	+1.2	0.0	5.3	7.0	3.8
563	Oyster Point Marina	37° 39.9'	122° 22.6'	+0 41	+1 00	*1.23	*1.00	5.30	7.06	3.78
565	Point San Bruno	37° 39'	122° 23'	+0 38	+1 10	+1.1	+0.1	5.1	6.9	3.7
567	Seaplane Harbor	37° 38'	122° 23'	+0 42	+1 03	+1.4	0.0	5.4	7.2	3.9
569	Coyote Point Marina	37° 35.5'	122° 18.8'	+0 42	+1 08	*1.29	*1.01	5.61	7.37	3.94
571	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
573	San Mateo Bridge (east end)	37° 36'	122° 11'	+0 48	+1 19	+1.8	0.0	5.9	7.7	4.1
575	Alameda Creek	37° 35.7'	122° 08.7'	+0 57	+2 25	*1.05	*0.27	5.20	6.12	2.91
577	Coyote Hills Slough entrance	37° 33.8'	122° 07.7'	+0 52	+2 21	*1.17	*0.45	5.63	6.74	3.33
579	Bay Slough, west end	37° 33.1'	122° 14.6'	+0 48	+1 28	*1.35	*1.00	5.91	7.66	4.09
581	Bay Slough, east end	37° 32.7'	122° 13.3'	+0 49	+1 52	*1.27	*0.77	5.79	7.28	3.77
583	Redwood Creek Marker 8	37° 32'	122° 12'	+0 53	+1 28	*1.41	*1.05	6.2	8.0	4.3
585	Redwood Creek entrance (inside)	37° 31'	122° 12'	+1 06	+1 38	+2.1	+0.1	6.1	7.9	4.2
587	South Bay Wreck	37° 33'	122° 10'	+1 02	+1 37	+2.2	+0.1	6.2	8.0	4.3
589	Corkscrew Slough	37° 30'	122° 13'	+1 03	+1 42	+2.2	+0.1	6.2	8.0	4.3
591	Redwood City, Wharf 5	37° 30.4'	122° 12.6'	+0 48	+1 15	*1.45	*1.05	6.39	8.22	4.41
593	West Point Slough	37° 30.3'	122° 11.5'	+0 56	+1 30	*1.44	*1.04	6.33	8.14	4.34
595	Smith Slough	37° 30'	122° 14'	+1 15	+1 58	+2.1	0.0	6.2	7.9	4.2
597	Newark Slough	37° 31'	122° 05'	+1 11	+1 58	+2.6	+0.1	6.6	8.4	4.2
599	Dumbarton Highway Bridge	37° 30.4'	122° 06.9'	+0 47	+1 14	*1.53	*1.10	6.74	8.61	4.63
601	Ravenswood Slough <17>	37° 29.8'	122° 10.3'	+0 58	—	—	—	—	—	—
603	Granite Rock, Redwood Creek	37° 29.7'	122° 12.8'	+0 55	+1 31	*1.43	*1.04	6.28	8.08	4.32
605	Palo Alto Marker 8 <18>	37° 28.1'	122° 05.8'	+1 01	—	—	—	—	—	—
607	Palo Alto Yacht Harbor	37° 27.5'	122° 06.3'	+0 59	+2 14	*1.34	*0.68	6.22	7.62	3.88
609	Mowry Slough	37° 30'	122° 02'	+1 12	+2 07	+2.6	0.0	6.7	8.4	4.4
611	Calaveras Point, west of	37° 28'	122° 04'	+1 05	+1 49	+2.8	+0.1	6.8	8.5	4.6

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	CALIFORNIA San Francisco Bay—cont. Time meridian, 120° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on San Francisco, p.88						
613	Mud Slough railroad bridge <18>	37° 28.1'	121° 59.2'	+1 12	---	---	---	---	---	---
615	Guadalupe Slough	37° 27.2'	122° 02.0'	+1 06	---	---	---	---	---	---
617	Upper Guadalupe Slough	37° 26.1'	122° 00.4'	+1 14	+2 13	*1.66	*1.13	7.40	9.29	4.98
619	Coyote Creek, Alviso Slough	37° 27.8'	122° 01.4'	+0 59	+1 49	*1.61	*1.09	7.18	9.00	4.83
621	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
623	Coyote Creek, Tributary no.1	37° 27'	121° 58'	+1 21	+2 45	+2.6	-0.3	7.0	8.4	4.3
625	Coyote Creek, Tributary no.2 <18>	37° 27.6'	121° 57.2'	+1 18	---	---	---	---	---	---
627	Coyote Creek, Tributary no.3 <18>	37° 27.7'	121° 57.1'	+1 15	---	---	---	---	---	---
629	Sausalito	37° 50.8'	122° 28.6'	+0 10	+0 14	*0.97	*1.00	3.95	5.69	3.12
631	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
633	Angel Island (west side)	37° 52'	122° 27'	+0 13	+0 21	-0.2	0.0	3.9	5.6	3.0
635	Angel Island, East Garrison	37° 51.8'	122° 25.1'	+0 16	+0 20	*1.02	*1.04	4.16	5.92	3.25
637	Point Chauncey	37° 53.5'	122° 26.6'	+0 28	+0 32	*0.98	*0.96	4.05	5.72	3.10
639	Berkeley	37° 52'	122° 18'	+0 21	+0 38	+0.1	0.0	4.2	5.9	3.2
641	Point Isabel	37° 54'	122° 19'	+0 23	+0 33	+0.1	0.0	4.2	5.9	3.2
643	Richmond Inner Harbor	37° 54.6'	122° 21.5'	+0 16	+0 30	*1.04	*0.98	4.30	6.04	3.27
645	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
647	Point Orient	37° 57.5'	122° 25.5'	+0 50	+0 52	*1.03	*0.96	4.28	5.98	3.24
649	Corte Madera Creek	37° 56.6'	122° 30.8'	+0 36	+0 51	*0.99	*0.95	4.12	5.80	3.14
651	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									
653	Point San Pedro	37° 59.6'	122° 26.8'	+1 02	+1 07	*1.01	*0.92	4.22	5.87	3.16
655	Pinole Point	38° 00.9'	122° 21.7'	+1 16	+1 25	*1.03	*0.89	4.34	5.98	3.20
657	Hercules, Refugio Landing	38° 01.4'	122° 17.5'	+1 15	+1 39	*1.05	*0.85	4.52	6.08	3.23
659	Petaluma River entrance	38° 06.7'	122° 29.9'	+1 23	+2 08	*1.06	*0.86	4.55	6.13	3.28
661	Lakeville, Petaluma River	38° 12'	122° 34'	+1 59	+2 50	*1.11	*0.81	4.9	6.3	3.4
663	Upper drawbridge, Petaluma River	38° 13.7'	122° 36.8'	+2 11	+2 59	*1.15	*0.82	5.10	6.59	3.47
665	Gallinas, Gallinas Creek	38° 00.9'	122° 30.2'	+1 18	+1 25	*1.02	*0.89	4.30	5.92	3.16
667	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
669	Sonoma Creek Entrance	38° 09.4'	122° 24.4'	+1 22	+2 46	*0.93	*0.59	4.17	5.43	2.75
671	Wingo, Sonoma Creek	38° 13'	122° 26'	+2 12	+3 11	+0.1	-0.3	4.5	5.9	3.1
	Carquinez Strait									
673	Mare Island	38° 04.2'	122° 15.0'	+1 34	+1 57	*0.99	*0.84	4.24	5.76	3.07
675	Vallejo, Mare Island Strait	38° 06.7'	122° 16.4'	+1 47	+2 12	*1.02	*0.84	4.41	5.92	3.15
677	Edgerley Island, Napa River	38° 11.6'	122° 18.8'	+2 02	+2 29	*1.06	*0.76	4.69	6.13	3.20
679	Brazos Drawbridge, Napa River	38° 12.5'	122° 18.2'	+2 02	+2 29	*1.14	*0.86	4.98	6.50	3.46
681	Napa, Napa River	38° 17.9'	122° 16.8'	+2 05	+2 37	*1.22	*0.90	5.35	6.86	3.71
683	Selby	38° 03'	122° 15'	+1 29	+2 04	+0.6	0.0	4.7	6.3	3.4
				on Port Chicago, p.92						
685	Crockett	38° 03.5'	122° 13.4'	-0 58	-1 05	*1.22	*1.31	4.40	5.94	3.17
687	Benicia	38° 02.6'	122° 07.8'	-0 24	-0 33	*1.09	*1.18	3.93	5.33	2.93
689	Martinez – Amoroco Pier	38° 02.0'	122° 07.5'	-0 26	-0 30	*1.09	*1.18	3.93	5.31	2.83
	Suisun Bay									
691	Suisun Slough entrance	38° 07.3'	122° 04.4'	+0 13	+0 26	*0.97	*0.93	3.53	4.72	2.45
693	Pierce Harbor, Goodyear Slough	38° 07.6'	122° 06.0'	+0 27	+0 41	*1.00	*0.96	3.72	4.92	2.57
695	Joice Island, Suisun Slough	38° 10.8'	122° 02.7'	+0 21	+0 41	*1.07	*1.00	3.97	5.21	2.73
697	Suisun City, Suisun Slough	38° 14.2'	122° 01.8'	+0 36	+1 01	*1.11	*1.00	4.17	5.40	2.82
699	PORT CHICAGO, SUISUN BAY	38° 03.4'	122° 02.3'					3.67	4.91	2.57
701	Montezuma Slough Bridge	38° 11.2'	121° 58.8'	+0 37	+0 46	*1.01	*0.95	3.71	4.91	2.56
703	Bradmoor Island, Nurse Slough	38° 11.0'	121° 55.4'	+0 59	+1 06	*1.07	*0.99	3.92	5.17	2.69
705	Meins Landing, Montezuma Slough	38° 08.2'	121° 54.4'	+0 57	+1 11	*1.01	*0.93	3.70	4.90	2.54
707	Montezuma Slough	38° 04.6'	121° 53.1'	+1 16	+1 27	*0.84	*0.82	3.06	4.15	2.14
709	Point Buckler	38° 06.0'	122° 01.0'	+0 13	+0 22	*1.12	*1.08	4.10	5.50	2.80
711	Mallard Island Ferry Wharf	38° 02.6'	121° 55.1'	+0 54	+0 57	*0.83	*0.81	3.01	4.10	2.10
713	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									
715	Antioch	38° 01.2'	121° 48.9'	+1 12	+1 26	*0.77	*0.78	2.82	3.88	2.03
717	Threemile Slough entrance	38° 05.0'	121° 41.0'	+2 27	+2 52	*0.71	*0.68	2.60	3.60	1.80
719	Prisoners Point	38° 03.7'	121° 33.3'	+3 25	+3 29	*0.73	*0.69	2.71	3.66	1.86
721	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
723	Blackslough Landing	37° 59.7'	121° 25.3'	+4 00	+4 15	*0.75	*0.62	2.82	3.73	1.87
725	Stockton	37° 57.5'	121° 17.4'	+4 06	+4 33	*0.81	*0.66	3.06	3.98	2.02
	Mokelumne River									
727	Georgiana Slough entrance	38° 07.6'	121° 34.7'	+3 29	+3 41	*0.67	*0.59	2.46	3.34	1.67
729	Terminus, South Fork	38° 06.6'	121° 29.9'	+3 53	+4 11	*0.70	*0.59	2.62	3.50	1.75
731	New Hope Bridge <4>	38° 14.0'	121° 29.0'	+4 22	+4 56	*0.73	*0.68	2.70	3.60	1.80
733	Bishop Cut, Disappointment Slough	38° 02.6'	121° 25.1'	+4 12	+4 12	*0.79	*0.66	2.94	3.86	1.96
735	False River	38° 03.3'	121° 39.3'	+2 45	+2 45	*0.66	*0.64	2.40	3.31	1.67
737	Dutch Slough	38° 00.7'	121° 38.3'	+2 33	+2 46	*0.68	*0.72	2.46	3.45	1.76
739	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
741	Orwood, Old River	37° 56.0'	121° 34.0'	+4 32	+4 33	*0.76	*0.68	2.80	3.70	1.90
743	Holt, Whiskey Slough	37° 56.0'	121° 26.0'	+4 18	+4 39	*0.80	*0.68	3.00	3.90	2.00

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	CALIFORNIA San Joaquin River—cont. Time meridian, 120° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Port Chicago, p.92						
745	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
747	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
749	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
751	Grant Line Canal (drawbridge)	37° 49.0'	121° 27.0'	+6 14	+6 20	*0.76	*0.68	2.80	3.70	1.90
	Sacramento River									
753	Collinsville	38° 04.4'	121° 50.9'	+1 11	+1 20	*0.80	*0.80	2.89	3.96	2.03
755	Threemile Slough	38° 06.4'	121° 42.0'	+1 49	+1 58	*0.82	*0.78	3.01	4.05	2.08
757	Rio Vista	38° 08.8'	121° 41.4'	+1 51	+2 02	*0.88	*0.78	3.25	4.31	2.20
759	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
761	Snodgrass Slough	38° 16.5'	121° 29.2'	+5 00	+5 36	*0.49	*0.39	1.83	2.48	1.21
763	Clarksburg <4>	38° 25.0'	121° 31.0'	+3 58	+5 02	*0.60	*0.41	2.30	2.90	1.40
765	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						
767	Bolinas Lagoon	37° 54.4'	122° 40.7'	+0 01	+0 34	*0.74	*0.71	3.05	4.48	2.34
769	Point Reyes	37° 59.8'	122° 58.5'	−0 51	−0 31	*0.98	*1.04	3.91	5.77	3.14
	Tomales Bay									
771	Tomales Bay entrance	38° 14'	122° 59'	−0 12	+0 20	*0.87	*0.91	3.5	5.2	2.7
773	Sand Point, Tomales Bay	38° 13.9'	122° 58.0'	−0 04	+0 17	*0.85	*0.86	3.47	5.16	2.71
775	Blakes Landing, Tomales Bay	38° 11.4'	122° 55.0'	+0 32	+1 15	*0.86	*0.79	3.63	5.22	2.70
777	Marshall, Tomales Bay	38° 10'	122° 54'	+0 38	+1 16	−0.6	−0.1	3.6	5.4	2.8
779	Reynolds, Tomales Bay	38° 08.8'	122° 53.0'	+0 26	+1 59	*0.89	*0.83	3.73	5.41	2.82
781	Inverness, Tomales Bay	38° 06.8'	122° 52.1'	+0 29	+1 08	*0.94	*0.91	3.89	5.66	2.98
783	Bodega Harbor entrance	38° 18'	123° 03'	−0 38	−0 16	−0.2	+0.1	3.8	5.7	3.1
785	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						
787	Green Cove	38° 42.2'	123° 26.9'	+0 01	−0 01	*0.88	*0.81	3.63	5.23	2.62
789	ARENA COVE	38° 54.8'	123° 42.5'			Daily predictions		4.05	5.88	3.19
791	Point Arena	38° 57'	123° 44'	+0 03	+0 01	*0.98	*0.95	4.0	5.8	3.1
793	Mendocino, Mendocino Bay	39° 18'	123° 48'	+0 07	+0 01	*0.98	*0.95	4.0	5.8	3.1
795	Noyo Harbor	39° 25.5'	123° 48.3'	+0 03	+0 03	*1.04	*1.04	4.22	6.11	3.33
797	Westport	39° 38'	123° 47'	+0 14	+0 00	*0.98	*0.95	4.0	5.8	3.1
799	Shelter Cove	40° 02'	124° 04'	+0 06	+0 05	*1.04	*1.03	4.2	6.0	3.3
	Humboldt Bay									
				on Humboldt Bay, p.100						
801	HUMBOLDT BAY (North Spit)	40° 46.0'	124° 13.0'			Daily predictions		4.89	6.86	3.70
803	Fields Landing	40° 43.4'	124° 13.3'	−0 03	+0 14	*1.00	*0.99	4.92	6.85	3.69
805	Hookton Slough	40° 41.2'	124° 13.3'	+0 06	+0 15	*1.01	*0.98	4.98	6.94	3.72
807	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
809	Bucksport	40° 46.7'	124° 11.8'	+0 17	+0 16	*1.01	*1.00	4.98	6.97	3.75
811	Eureka	40° 48.4'	124° 10.0'	+0 26	+0 13	*1.06	*1.03	5.33	7.32	3.94
813	Eureka Slough Bridge	40° 48.4'	124° 08.5'	+0 33	+0 19	*1.08	*1.02	5.37	7.40	3.97
815	Samoa	40° 49.6'	124° 10.8'	+0 22	+0 11	*1.07	*1.04	5.31	7.34	3.96
817	Arcata Wharf	40° 51'	124° 07'	+0 48	+0 54	+0.1	+0.1	5.0	7.0	3.8
819	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						
821	Trinidad Harbor	41° 03.4'	124° 08.8'	−0 02	−0 03	*0.97	*0.98	4.83	6.73	3.63
823	CRESCENT CITY	41° 44.7'	124° 11.0'			Daily predictions		4.99	6.87	3.74
825	Pyramid Point, Smith River	41° 56.7'	124° 12.0'	+0 12	+0 11	*0.93	*0.90	4.68	6.41	3.46
	OREGON									
827	Brookings, Chetco Cove	42° 03'	124° 17'	+0 01	+0 04	*1.00	*1.00	5.1	6.9	3.7
829	Gold Beach, Rogue River	42° 25.3'	124° 25.1'	+0 15	+0 16	*1.04	*1.09	5.13	7.16	3.93
831	Wedderburn, Rogue River	42° 26'	124° 25'	+0 09	+0 16	*0.95	*0.92	4.9	6.7	3.6
833	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						
835	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									
837	CHARLESTON	43° 20.7'	124° 19.3'			Daily predictions		5.69	7.62	4.11
839	Sitka Dock	43° 22.6'	124° 17.8'	+0 07	+0 08	*1.01	*1.01	5.78	7.72	4.17
841	Empire	43° 24'	124° 17'	+0 37	+0 50	*0.86	*0.88	4.9	6.7	3.5
843	Coos Bay	43° 23'	124° 13'	+1 26	+1 28	*0.96	*0.88	5.6	7.3	3.9
	Umpqua River									
845	Entrance, Half Moon Bay	43° 40.5'	124° 11.5'	+0 11	+0 15	*0.93	*0.95	5.29	7.14	3.85
847	Gardiner	43° 44'	124° 07'	+0 56	+1 09	*0.88	*0.80	5.1	6.7	3.5
849	Reedsport	43° 42'	124° 06'	+1 11	+1 24	*0.88	*0.80	5.1	6.7	3.6
	Siuslaw River									
851	Entrance	44° 01'	124° 08'	−0 06	+0 03	*0.96	*0.96	5.5	7.3	4.0
853	Florence, USCG pier	44° 00.1'	124° 07.4'	+0 10	+0 15	*0.97	*0.98	5.53	7.41	4.01
855	Florence	43° 58'	124° 06'	+0 44	+0 58	*0.86	*0.80	5.0	6.6	3.5
857	Waldport, Alsea Bay	44° 26.1'	124° 03.5'	+0 34	+0 45	*0.99	*0.98	5.62	7.59	4.07
859	Drift Creek, Alsea River	44° 24.8'	123° 59.4'	+0 44	+1 51	*0.83	*0.53	5.10	6.45	3.21

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	OREGON—cont. Time meridian, 120° W	North	West	h m	h m	ft	ft	ft	ft	ft
	<i>Yaquina Bay and River</i>			on Crescent City, p.104						
861	Newport, Yaquina USCG Station	44° 37.6'	124° 03.3'	+0 39	+0 35	*1.22	*1.11	6.22	8.21	4.49
863	Southbeach	44° 37.5'	124° 02.6'	+0 41	+0 34	*1.23	*1.10	6.27	8.34	4.51
865	Weiser Point	44° 35.6'	124° 00.4'	+0 46	+0 40	*1.25	*1.07	6.46	8.47	4.57
867	Toledo	44° 37.0'	123° 56.2'	+1 02	+1 17	*1.31	*1.02	6.87	8.83	4.71
869	Depoe Bay	44° 48.6'	124° 03.5'	+0 27	+0 27	*1.21	*1.10	6.16	8.24	4.45
871	Taft, Siletz Bay	44° 56'	124° 01'	+0 48	+1 13	*0.94	*0.75	5.0	6.6	3.4
873	Kernville, Siletz River	44° 54'	124° 00'	+1 24	+1 53	*0.86	*0.67	4.6	6.1	3.1
875	Cascade Head, Salmon River	45° 02.8'	124° 00.4'	+0 35	+1 02	*1.03	*0.77	5.47	7.13	3.71
877	Nestucca Bay entrance	45° 10'	123° 58'	+0 55	+1 12	*1.10	*0.92	5.8	7.6	4.0
879	Netarts, Netarts Bay	45° 25.8'	123° 56.7'	+1 17	+1 38	*0.98	*0.85	5.02	6.86	3.58
	<i>Tillamook Bay</i>									
881	Barview	45° 34'	123° 57'	+0 42	+0 56	*1.08	*0.92	5.7	7.5	3.9
883	Garibaldi	45° 33.3'	123° 55.1'	+1 12	+0 59	*1.22	*1.09	6.24	8.31	4.48
885	Miami Cove	45° 33'	123° 54'	+1 15	+1 26	*1.06	*0.92	5.6	7.4	3.9
887	Bay City	45° 31'	123° 54'	+1 33	+2 00	*1.02	*0.83	5.4	7.1	3.7
889	Dick Point	45° 28.9'	123° 54.1'	+1 29	+2 19	*1.00	*0.57	5.54	6.95	3.48
891	Tillamook, Hoquarten Slough	45° 28'	123° 51'	+1 52	+3 15	*0.94	*0.58	5.2	6.6	3.3
	<i>Nehalem River</i>									
893	Brighton	45° 40'	123° 56'	+0 51	+0 54	*1.13	*1.00	5.9	7.8	4.1
895	Nehalem	45° 43'	123° 53'	+1 17	+1 56	*1.03	*0.75	5.6	7.2	3.7
	OREGON and WASHINGTON Columbia River <5>			on Astoria, p.112						
897	Columbia River entrance (N. Jetty)	46° 16'	124° 04'	-0 44	-1 00	-1.0	+0.1	5.6	7.5	4.0
899	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
901	Ilwaco, Baker Bay, Wash.	46° 18'	124° 02'	-0 13	+0 01	-0.8	-0.1	6.0	7.6	4.0
903	Chinook, Baker Bay, Wash.	46° 16'	123° 57'	-0 30	-0 52	*0.95	*1.12	6.1	8.1	4.3
905	Hungry Harbor, Wash.	46° 16'	123° 51'	+0 04	-0 09	-0.2	+0.1	6.4	8.2	4.4
907	Point Adams, Oreg.	46° 12'	123° 57'	-0 25	-0 38	-0.2	+0.1	6.4	8.3	4.4
909	Hammond, Oreg.	46° 12.1'	123° 56.7'	-0 38	-0 30	*0.96	*1.08	6.38	8.32	4.45
911	Warrenton, Skipanon River, Oreg.	46° 10'	123° 55'	-0 13	-0 19	-0.1	+0.1	6.5	8.3	4.4
913	Astoria, Youngs Bay, Oreg.	46° 10'	123° 50'	-0 13	-0 14	+0.1	+0.1	6.7	8.6	4.5
915	Cathcart Landing, Youngs River, Oreg.	46° 07.5'	123° 48.3'	-0 08	-0 06	*1.03	*0.98	7.00	8.83	4.64
917	Astoria (Port Docks), Oreg.	46° 11'	123° 52'	-0 08	-0 03	-0.5	0.0	6.2	8.0	4.2
919	ASTORIA (Tongue Point), Oreg.	46° 12.5'	123° 46.0'	Daily predictions				6.77	8.61	4.55
921	Knappa, Knappa Slough	46° 11'	123° 35'	+0 29	+0 58	*0.97	*0.86	6.5	8.2	4.2
923	Settlers Point, Oreg.	46° 10'	123° 41'	+0 22	+0 53	-0.5	-0.1	6.3	8.0	4.1
925	Harrington Point, Wash.	46° 16'	123° 39'	+0 21	+0 52	-0.8	-0.2	6.1	7.7	3.9
927	Skamokawa, Steamboat Slough, Wash.	46° 16.0'	123° 27.1'	+0 45	+1 22	--	--	6.12	7.56	3.86
929	Cathlamet, Wash.	46° 12'	123° 23'	+1 15	+2 15	--	--	5.2	6.4	--
931	Wauna, Oreg.	46° 09.6'	123° 24.3'	+1 03	+1 45	--	--	5.77	7.06	3.57
933	Eagle Cliff, Wash.	46° 10'	123° 14'	+1 43	+3 01	--	--	4.5	5.5	--
935	Stella, Wash.	46° 11'	123° 07'	+2 01	+3 30	--	--	4.0	4.9	--
937	Longview, Wash.	46° 06.4'	122° 57.3'	+1 59	+3 31	--	--	3.78	4.61	2.24
939	Kalama, Wash.	46° 00'	122° 51'	+2 54	+4 55	--	--	2.6	3.2	--
941	Saint Helens, Oreg.	45° 51.9'	122° 47.8'	+3 19	+4 49	--	--	2.60	3.33	1.54
943	Knapp Landing, Wash.	45° 44'	122° 45'	+4 26	+6 28	--	--	1.5	2.0	--
945	Rocky Point, Multnomah Channel, Oreg.	45° 41.8'	122° 50.1'	+4 19	+6 02	--	--	2.52	3.32	1.49
947	Kelley Point, Oreg.	45° 39'	122° 46'	+5 26	+7 16	--	--	1.4	2.0	--
949	St. Johns, Willamette River, Oreg.	45° 35'	122° 46'	+5 08	+7 26	--	--	1.7	2.2	--
951	Portland, Willamette River, Oreg.	45° 30.6'	122° 40.4'	+4 21	+6 33	--	--	2.85	3.62	1.68
953	Vancouver, Wash.	45° 37.9'	122° 41.8'	+4 32	+6 14	--	--	2.57	3.33	1.51
955	Ellsworth, Wash.	45° 36'	122° 33'	+6 11	+8 03	--	--	1.0	1.4	--
957	Washougal, Wash.	45° 35'	122° 23'	--	--	--	--	0.5	0.9	--
959	Warrendale, Oreg.	45° 37'	122° 00'	--	--	--	--	0.4	0.6	--
	WASHINGTON			on Toke Point, p.116						
	<i>Willapa Bay</i>									
961	Nahcotta	46° 30.1'	124° 01.8'	+0 29	+0 28	*1.13	*1.01	7.89	10.03	5.33
963	Tarlatt Slough	46° 22.2'	124° 00.3'	+0 45	+1 14	*1.05	*1.05	7.9	9.4	4.6
965	Paradise Point, Long Island	46° 28.1'	123° 56.7'	+0 43	+0 41	*1.15	*1.04	8.0	10.2	5.4
967	Naselle River, swing bridge	46° 25.8'	123° 54.2'	+0 42	+0 37	*1.22	*1.08	8.48	10.72	5.72
969	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
971	Bay Center, Palix River	46° 37.4'	123° 56.7'	+0 09	+0 22	*1.04	*1.03	7.07	9.21	4.94
973	Palix River, south fork	46° 35.2'	123° 54.6'	+0 25	+0 31	*1.04	*0.96	7.17	9.28	4.90
975	TOKE POINT	46° 42.5'	123° 57.9'	Daily predictions				6.81	8.92	4.78
977	Mailboat Slough, Willapa River	46° 41.3'	123° 49.0'	+0 18	+0 11	*1.07	*1.02	7.36	9.52	5.08
979	South Bend, Willapa River	46° 39.8'	123° 47.9'	+0 14	+0 15	*1.11	*1.05	7.66	9.82	5.27
981	Raymond, Willapa River	46° 41.0'	123° 45.3'	+0 27	+0 17	*1.13	*1.04	7.85	10.01	5.30
	<i>Grays Harbor</i>									
983	Westport, Point Chehalis	46° 54.5'	124° 06.6'	-0 18	-0 33	*1.03	*1.02	7.02	9.15	4.91
985	Point Brown	46° 56.9'	124° 07.7'	-0 09	-0 24	*1.06	*1.04	7.22	9.38	5.04
987	Bay City, South Bay	46° 51.7'	124° 04.0'	-0 01	-0 26	*1.10	*1.13	7.41	9.69	5.25
989	Markham	46° 54.4'	123° 59.9'	+0 05	-0 15	*1.06	*1.02	7.3	9.4	5.1
991	ABERDEEN	46° 58.1'	123° 51.2'	Daily predictions, p.120				7.94	10.11	5.44
993	Cosmopolis, Chehalis River	46° 58.0'	123° 46.7'	+0 26	+0 15	*1.23	*1.12	8.53	10.73	5.80
995	Montesano, Chehalis River	46° 58.1'	123° 36.0'	+1 34	+1 45	*0.94	*0.94	6.78	8.23	4.27
997	Point Grenville	47° 18.2'	124° 16.2'	-0 37	-0 44	*0.92	*0.90	6.30	8.19	4.38

Endnotes can be found at the end of table 2.

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No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	WASHINGTON—cont. Time meridian, 120° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Toke Point, p.116						
999	Destruction Island	47° 40'	124° 29'	−0 37	−0 43	*0.98	*1.02	6.6	8.7	4.7
1001	James Island	47° 54.4'	124° 38.8'	−0 39	−0 32	*0.92	*0.96	6.22	8.21	4.42
1003	La Push, Quillayute River	47° 54.8'	124° 38.2'	−0 37	−0 35	*0.94	*1.00	6.37	8.44	4.55
1005	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>									
1007	Tatoosh Island, Cape Flattery	48° 23.5'	124° 44.2'	−0 22	−0 25	*0.88	*1.12	5.63	8.00	4.35
1009	NEAH BAY	48° 22.1'	124° 37.0'	Daily predictions, p.124				5.52	7.96	4.35
1011	Seki, Clallam Bay	48° 15.8'	124° 17.8'	+0 21	+0 02	*0.81	*0.81	4.88	7.50	4.21
1013	Twin Rivers	48° 10.5'	123° 57.0'	+0 33	+0 44	*0.77	*0.77	4.41	7.01	4.12
				on Port Townsend, p.128						
1015	Crescent Bay	48° 10'	123° 44'	−2 41	−2 02	*0.80	*0.80	4.1	6.7	4.1
1017	Port Angeles	48° 07.5'	123° 26.4'	−1 45	−1 14	*0.83	*0.77	4.60	7.06	4.22
1019	Ediz Hook, Port Angeles	48° 08.4'	123° 24.8'	−1 37	−1 13	*0.81	*0.90	4.08	7.01	4.28
1021	Dungeness	48° 10'	123° 07'	−0 54	−0 38	*0.90	*0.90	4.4	7.6	4.7
1023	Sequim Bay entrance	48° 05'	123° 03'	−0 39	−0 07	*0.94	*0.94	4.8	7.9	4.8
1025	Gardiner, Discovery Bay	48° 04'	122° 55'	−0 47	−0 17	*0.94	*0.94	4.8	7.9	4.8
1027	Smith Island	48° 19'	122° 50'	−0 13	−0 25	*0.83	*0.83	4.2	7.0	4.5
1029	Point Partridge, Whidbey Island	48° 14'	122° 46'	−0 11	−0 15	*0.92	*0.92	4.5	7.7	4.7
1031	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									
1033	Admiralty Head	48° 10'	122° 40'	−0 11	+0 20	0.0	−0.1	5.2	8.4	5.1
1035	PORT TOWNSEND	48° 06.7'	122° 45.5'	Daily predictions				5.34	8.52	5.17
1037	Marrowstone Point	48° 06'	122° 41'	+0 02	+0 05	+0.4	−0.1	5.6	8.8	5.3
1039	Mystery Bay, Marrowstone Island	48° 03.5'	122° 41.5'	+0 15	+0 52	*0.95	*0.99	5.01	8.19	4.97
1041	Bush Point, Whidbey Island	48° 02.0'	122° 36.4'	+0 10	+0 45	*1.09	*1.08	5.87	9.35	5.64
	Hood Canal			on Seattle, p.132						
1043	Port Ludlow	47° 55.5'	122° 40.8'	−0 14	−0 14	*0.87	*0.95	6.4	9.9	5.9
1045	Foulweather Bluff, Twin Spit	47° 55.6'	122° 37.0'	−0 16	−0 14	*0.88	*0.95	6.46	10.00	5.95
1047	Port Gamble	47° 51.5'	122° 34.8'	−0 09	−0 05	*0.90	*0.95	6.7	10.3	6.1
1049	Lofall	47° 48.9'	122° 39.4'	−0 08	−0 06	*0.94	*1.01	6.96	10.71	6.34
1051	Bangor Wharf	47° 44.9'	122° 43.6'	−0 06	+0 01	*0.97	*1.03	7.31	11.13	6.57
1053	Zelatched Point, Dabob Bay	47° 42.7'	122° 49.3'	−0 09	−0 05	*1.00	*1.02	7.6	11.5	6.7
1055	Whitney Point, Dabob Bay	47° 45.7'	122° 51.0'	−0 05	+0 02	*1.01	*1.06	7.59	11.55	6.80
1057	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
1059	Seabeck, Seabeck Bay	47° 38.5'	122° 49.7'	−0 04	+0 01	*1.01	*1.06	7.58	11.53	6.79
1061	Pleasant Harbor	47° 39.9'	122° 54.7'	−0 14	−0 01	*1.01	*1.02	7.7	11.6	6.8
1063	Triton Head	47° 36.2'	122° 58.9'	−0 06	+0 06	*1.00	*1.02	7.61	11.38	6.69
1065	Ayock Point	47° 30.5'	123° 03.2'	−0 03	+0 05	*0.99	*1.07	7.38	11.37	6.73
1067	Union	47° 21.5'	123° 05.9'	+0 01	+0 10	*1.04	*1.06	7.86	11.84	6.93
1069	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									
1071	Hansville	47° 55.1'	122° 32.7'	−0 07	−0 08	*0.92	*0.98	6.83	10.44	6.19
1073	Edmonds	47° 48.8'	122° 23.0'	+0 00	−0 04	*0.96	*0.99	7.26	10.91	6.43
1075	Kingston, Appletree Cove	47° 47.8'	122° 29.7'	−0 05	−0 05	*0.97	*1.00	7.32	10.99	6.48
1077	Port Jefferson	47° 44.7'	122° 28.6'	−0 03	−0 04	*0.95	*0.98	7.20	10.83	6.37
1079	Port Madison	47° 42.3'	122° 31.5'	+0 09	−0 03	*1.00	*0.99	7.7	11.4	6.6
1081	Meadow Point, Shilshole Bay	47° 41.3'	122° 24.2'	+0 00	−0 01	*0.98	*0.99	7.51	11.18	6.57
1083	Poulsbo, Liberty Bay	47° 43.5'	122° 38.3'	+0 05	+0 12	*1.03	*1.01	7.99	11.73	6.85
1085	Brownsville, Port Orchard	47° 39.2'	122° 36.9'	+0 07	+0 09	*1.04	*1.03	8.04	11.82	6.93
1087	SEATTLE (Madison St.), Elliott Bay	47° 36.3'	122° 20.3'	Daily predictions				7.66	11.36	6.67
1089	Lockheed Shipyard, Harbor Island	47° 35.1'	122° 21.7'	−0 01	−0 01	*1.00	*1.00	7.67	11.39	6.68
1091	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
1093	Eagle Harbor, Bainbridge Island	47° 37.2'	122° 30.9'	+0 04	+0 05	*1.00	*1.02	7.6	11.3	6.7
1095	Port Blakely	47° 35.8'	122° 30.6'	+0 04	+0 04	*1.01	*0.99	7.8	11.5	6.7
1097	Clam Bay, Rich Passage	47° 34.5'	122° 32.6'	+0 03	+0 04	*1.01	*1.00	7.78	11.46	6.71
1099	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
1101	Tracyton, Dyes Inlet	47° 36.6'	122° 39.6'	+0 28	+0 53	*1.06	*0.95	8.4	12.0	6.9
1103	Harper, Yukon Harbor	47° 31.4'	122° 31.0'	−0 06	−0 01	*1.02	*0.99	7.9	11.6	6.7
1105	Point Vashon, Vashon Island	47° 30.7'	122° 27.8'	+0 02	+0 02	*1.02	*1.01	7.80	11.53	6.76
1107	Des Moines, East Passage	47° 24.0'	122° 19.7'	+0 05	+0 08	*1.03	*1.01	7.91	11.66	6.82
1109	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
1111	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
1113	Gig Harbor	47° 20.4'	122° 35.3'	+0 18	+0 22	*1.05	*0.99	8.2	11.8	6.9
1115	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
1117	Tacoma Narrows Bridge	47° 16.3'	122° 33.1'	+0 28	+0 23	*1.11	*1.02	8.79	12.59	7.30
1119	Arlotta, Hale Passage	47° 16.8'	122° 39.1'	+0 31	+0 40	*1.18	*1.04	9.46	13.31	7.67
1121	Horsehead Bay, Carr Inlet	47° 18.1'	122° 40.9'	+0 38	+0 46	*1.20	*1.05	9.58	13.48	7.76
1123	Wauna, Carr Inlet	47° 22.7'	122° 38.4'	+0 31	+0 44	*1.16	*0.99	9.4	13.1	7.5
1125	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
1127	Steilacoom, Cormorant Passage	47° 10.4'	122° 36.2'	+0 37	+0 45	*1.20	*1.05	9.59	13.48	7.77
1129	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
1131	Dupont Wharf, Nisqually Reach	47° 07.1'	122° 40.0'	+0 41	+0 49	*1.20	*1.04	9.63	13.51	7.77
1133	Longbranch, Filucy Bay	47° 12.6'	122° 45.2'	+0 38	+0 47	*1.20	*1.02	9.7	13.5	7.7
1135	Devils Head, Drayton Passage	47° 10.0'	122° 45.8'	+0 40	+0 50	*1.25	*1.10	9.98	14.18	8.09

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		
		Latitude	Longitude	Time		Height		Mean	Diurnal	Mean Tide Level
				High Water	Low Water	High Water	Low Water			
	WASHINGTON Puget Sound—cont. Time meridian, 120° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Seattle, p.132						
1137	Henderson Inlet	47° 09.3'	122° 50.3'	+0 47	+0 58	*1.24	*1.06	10.0	14.0	8.0
1139	McMicken Island, Case Inlet	47° 14.8'	122° 51.7'	+0 40	+0 52	*1.24	*1.06	10.00	13.96	8.01
1141	Vaughn, Case Inlet	47° 20.5'	122° 46.5'	+0 51	+0 57	*1.26	*1.06	10.2	14.1	8.1
1143	Allyn, Case Inlet	47° 23.0'	122° 49.4'	+0 48	+0 59	*1.26	*1.07	10.20	14.16	8.13
1145	Walkers Landing, Pickering Passage	47° 16.9'	122° 55.4'	+0 44	+0 55	*1.26	*1.07	10.20	14.15	8.12
1147	Shelton, Oakland Bay	47° 12.9'	123° 05.0'	+1 26	+2 05	*1.26	*0.92	10.6	14.2	7.9
1149	Arcadia, Totten Inlet	47° 11.8'	122° 56.3'	+0 49	+1 05	*1.28	*1.06	10.4	14.4	8.2
1151	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
1153	Burns Point, Totten Inlet	47° 07.3'	123° 03.4'	+0 54	+1 07	*1.33	*1.06	11.0	15.0	8.5
1155	Rocky Point, Eld Inlet	47° 04.9'	123° 00.3'	+0 39	+0 56	*1.31	*1.10	10.6	14.7	8.4
1157	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
1159	Budd Inlet, Olympia Shoal	47° 05.9'	122° 53.7'	+0 43	+0 55	*1.29	*1.08	10.46	14.48	8.30
1161	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									
1163	Glendale, Whidbey Island	47° 56.4'	122° 21.4'	+0 01	-0 03	*0.97	*0.99	7.38	11.02	6.50
1165	Everett	47° 58.8'	122° 13.4'	+0 01	-0 01	*0.97	*0.99	7.41	11.09	6.51
1167	Marysville, Quilceda Creek	48° 02.7'	122° 12.7'	+0 09	+0 29	*0.95	*0.89	7.47	10.83	6.25
1169	Tulalip, Tulalip Bay	48° 03.9'	122° 17.3'	+0 01	-0 02	*0.97	*0.98	7.44	11.06	6.50
1171	Tulare Beach	48° 06.4'	122° 20.8'	-0 02	-0 03	*0.97	*0.97	7.48	11.08	6.48
1173	Kayak Point	48° 08.2'	122° 22.1'	+0 00	-0 02	*0.99	*0.99	7.56	11.24	6.58
1175	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									
1177	Sandy Point, Whidbey Island	48° 02.1'	122° 22.6'	+0 03	-0 01	*0.99	*1.00	7.56	11.25	6.60
1179	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
1181	Greenbank, Whidbey Island	48° 06.3'	122° 34.2'	-0 03	-0 06	*0.99	*0.99	7.6	11.3	6.6
1183	Crescent Harbor, N. Whidbey Island	48° 17'	122° 37'	+0 04	-0 04	*1.03	*0.99	8.0	11.6	6.8
1185	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
1187	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
1189	Sneeoosh Point	48° 24.0'	122° 32.9'	+0 32	+0 39	*0.97	*0.90	7.64	11.05	6.38
1191	Turner Bay, Similk Bay	48° 26.7'	122° 33.3'	+0 34	+0 36	*0.90	*0.88	6.98	10.34	5.99
1193	Ala Spit, Whidbey Island	48° 23.8'	122° 35.2'	+0 12	+0 26	*0.92	*0.95	6.9	10.5	6.1
1195	Yokeko Point, Deception Pass	48° 24.8'	122° 36.9'	+0 26	+0 38	-1.0	-0.2	6.9	10.5	6.1
1197	Comet 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						
1199	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
1201	Aleck Bay, Lopez Island	48° 26'	122° 51'	-0 18	-0 08	*0.88	*0.88	4.2	7.4	4.6
1203	Burrows Bay (Allan Island)	48° 28'	122° 42'	+0 09	+0 03	*0.95	*0.88	5.0	8.1	4.8
1205	Ship Harbor, Fidalgo Island	48° 30.4'	122° 40.6'	+0 18	+0 29	*0.93	*1.02	4.75	8.05	4.93
1207	Anacortes, Guemes Channel	48° 31'	122° 37'	+0 22	+0 33	*0.96	*1.00	4.8	8.2	5.0
1209	Swinomish Channel ent., Padilla Bay	48° 28'	122° 31'	+0 36	+1 17	0.0	0.0	5.1	8.4	5.1
1211	Armitage Island, Thatcher Pass	48° 32.1'	122° 47.8'	+0 22	+0 29	*0.92	*0.93	4.91	7.84	4.78
1213	Strawberry Bay, Cypress Island	48° 34'	122° 43'	+0 34	+0 52	*0.95	*0.95	4.8	8.0	4.9
1215	Peavine Pass	48° 36'	122° 48'	+0 34	+0 18	*0.98	*0.92	5.0	8.2	4.9
1217	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									
1219	Chuckanut Bay	48° 40'	122° 30'	+0 33	+0 53	0.0	-0.1	5.2	8.4	5.1
1221	Bellingham	48° 44.7'	122° 29.7'	+0 43	+1 11	*0.99	*0.94	5.44	8.51	5.07
	Hale Passage									
1223	Gooseberry Point	48° 43.9'	122° 40.2'	+0 41	+1 10	*1.04	*0.97	5.57	8.83	5.26
1225	Point Migley	48° 45'	122° 43'	+0 56	+0 51	+0.1	0.0	5.2	8.6	5.2
1227	Village Point, Lummi Island	48° 43.0'	122° 42.5'	+0 44	+1 12	*1.01	*1.02	5.22	8.62	5.20
1229	Sandy Point, Lummi Bay	48° 47.4'	122° 42.5'	+0 52	+1 24	*1.05	*1.03	5.50	8.97	5.18
1231	Rosario, East Sound, Orcas Island	48° 39'	122° 52'	+0 27	+1 04	*0.96	*0.96	4.9	8.1	4.9
1233	Upright Head, Lopez Island	48° 34'	122° 53'	+0 26	+0 44	*0.93	*0.93	4.6	7.8	4.8
1235	Orcas, Orcas Island	48° 36'	122° 57'	+0 33	+0 56	*0.90	*0.90	4.5	7.6	4.7
	San Juan Channel									
1237	Richardson, Lopez Island	48° 26.8'	122° 54.0'	-0 27	-0 12	*0.85	*0.84	4.55	7.17	4.36
1239	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
1241	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									
1243	Echo Bay, Sucia Islands	48° 45'	122° 54'	+1 01	+1 34	+0.1	0.0	5.2	8.6	5.2
1245	Ferndale	48° 50'	122° 43'	+0 49	+1 20	+0.5	0.0	5.6	9.0	5.4
1247	CHERRY POINT	48° 51.8'	122° 45.5'	Daily predictions, p.136				5.71	9.15	5.47
1249	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									
1251	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
1253	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
1255	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
1257	Turn Point, Stuart Island	48° 41'	123° 14'	+0 24	+0 47	*0.90	*0.90	4.4	7.5	4.7
	Boundary Pass									
1259	Patos Island Wharf	48° 47'	122° 58'	+1 03	+1 30	+0.2	0.0	5.3	8.6	5.2

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	BRITISH COLUMBIA Time meridian, 120° W	North	West	h m	h m	ft	ft	ft	ft	ft
	Passages inside Vancouver Island <16>			on Victoria, p.140						
1261	Sooke, Vancouver Island	48° 22'	123° 44'	-0 11	-0 33	+0.8	+0.5	--	6.4	6.6
1263	Esquimalt, Vancouver Island	48° 26'	123° 26'	+0 12	+0 17	0.0	-0.1	--	6.2	6.3
1265	VICTORIA, Vancouver Island	48° 26'	123° 23'	Daily predictions				--	6.1	6.3
				on Vancouver, p.144						
1267	Sidney, Haro Strait	48° 39'	123° 24'	-1 01	-1 12	*0.71	*0.61	--	7.8	7.1
1269	Fulford Harbor, Saltspring Island	48° 46'	123° 27'	-0 55	-1 08	-3.5	-1.0	--	8.0	7.6
1271	Active Pass, Mayne Island	48° 52'	123° 20'	-0 16	-0 30	-1.5	-0.8	--	9.8	8.6
1273	Cowichan Bay	48° 45'	123° 37'	-0 53	-1 09	-3.0	-0.6	--	8.0	8.1
1275	Chemainus, Stuart Channel	48° 55'	123° 42'	-0 51	-1 03	-2.2	-1.0	--	9.3	8.3
1277	Ladysmith	48° 59'	123° 47'	-0 53	-1 02	-2.3	-0.8	--	9.0	8.4
1279	Sand Heads, Fraser River	49° 07'	123° 18'	-0 25	-0 27	-1.2	-1.1	--	10.4	8.7
1281	Atkinson Point, Burrard Inlet	49° 19'	123° 15'	-0 25	-0 27	-1.2	-1.1	--	10.4	8.7
1283	VANCOUVER, Burrard Inlet	49° 18'	123° 07'	Daily predictions				--	10.5	9.9
1285	Squamish, Howe Sound	49° 41'	123° 10'	-0 24	-0 24	-0.8	-1.2	--	10.9	8.9
1287	Nanaimo	49° 10'	123° 57'	-0 20	-0 20	0.0	+0.1	--	10.4	10.0
1289	Pender Harbor, Malaspina Strait	49° 38'	124° 02'	-0 22	-0 22	-1.1	-1.2	--	10.6	8.8
1291	Comox, Baynes Sound	49° 40'	124° 55'	-0 18	-0 20	-0.4	-1.5	--	11.6	9.0
1293	Whaletown, Cortes Island	50° 06'	125° 03'	-0 15	-0 17	+0.5	-0.2	--	11.2	10.0
1295	Duncan Bay, Discovery Passage	50° 05'	125° 18'	-1 03	-1 16	-3.7	-1.5	--	8.3	7.4
1297	Redonda Bay, Deer Passage	50° 16'	124° 59'	-0 07	-0 08	+1.2	+0.5	--	11.2	10.8
1299	Yuculta, Cordero Channel	50° 24'	125° 08'	-0 59	-0 36	-0.2	+1.0	--	9.3	10.4
1301	Waddington Harbor, Bute Inlet	50° 56'	124° 51'	-0 12	-0 08	+0.6	-0.4	--	11.5	10.1
1303	Gowlland Harbor, Discovery Passage	50° 04'	125° 14'	-1 09	-1 18	-3.0	-0.9	--	8.4	8.0
1305	Seymour Narrows (Canoe Pass)	50° 08'	125° 21'	-2 30	-3 30	0.0	+0.5	--	10.0	10.0
1307	Owen Bay, Okisollo Channel	50° 19'	125° 13'	-3 01	-3 02	-1.4	-0.2	--	9.3	8.9
				on Sitka, p.156						
1309	Turn Island, Johnstone Strait	50° 21'	125° 29'	+1 56	+2 02	+0.6	+0.9	--	9.6	6.3
1311	Knox Bay, West Thurlow Island	50° 24'	125° 36'	+1 30	+1 40	+2.9	+3.1	--	9.7	8.5
1313	Kelsey Bay, Johnstone Strait	50° 24'	125° 58'	+0 54	+1 05	+4.3	+3.6	--	10.6	9.4
1315	Port Neville, Johnstone Strait	50° 30'	126° 05'	+0 54	+0 59	+5.1	+3.8	--	11.2	9.8
1317	Port Harvey, Johnstone Strait	50° 34'	126° 17'	+0 38	+0 47	+4.0	+3.2	--	10.7	8.9
1319	Chatham Channel (Root Point)	50° 35'	126° 12'	+0 43	+0 57	+5.1	+3.4	--	11.6	9.5
1321	Glendale Cove, Knight Inlet	50° 40'	125° 44'	+0 21	+0 31	+6.6	+3.7	--	12.8	10.6
1323	Farewell Harbor, Blackfish Sound	50° 36'	126° 42'	+0 37	+0 58	+3.9	+2.9	--	10.9	8.5
1325	Blunden Harbor	50° 54'	127° 17'	+0 19	+0 20	+4.9	+3.3	--	11.5	9.4
1327	Alert Bay, Cormorant Island	50° 35'	126° 56'	+0 29	+0 35	+4.8	+3.3	--	11.4	9.4
1329	Port Hardy, Vancouver Island	50° 43'	127° 29'	+0 08	+0 14	+4.7	+3.3	--	11.3	9.4
1331	Shushartie Bay, Goletas Channel	50° 51'	127° 52'	+0 02	+0 08	+4.0	+2.7	--	11.2	8.7
	Vancouver Island, Southwest Coast									
1333	Port San Juan	48° 33'	124° 25'	-0 11	-0 10	(*0.65+3.4)		5.0	7.2	6.8
1335	Carmanah Point	48° 37'	124° 45'	-0 16	-0 14	(*0.75+2.3)		6.0	7.4	6.2
1337	Bamfield, Barkley Sound	48° 50'	125° 08'	-0 29	-0 23	(*0.86+2.5)		6.6	8.7	7.1
1339	Port Alberni	49° 14'	124° 49'	-0 20	-0 19	(*0.87+2.5)		6.7	8.6	7.1
1341	Clayoquot	49° 09'	125° 55'	-0 16	-0 11	+1.7	+2.4	7.0	8.8	7.3
1343	Riley Cove	49° 23'	126° 13'	-0 14	-0 09	+1.5	+2.3	6.9	8.8	7.2
1345	Nootka Sound	49° 37'	126° 37'	-0 14	-0 13	+1.2	+2.0	6.9	8.9	6.9
1347	Esperanza Inlet	49° 52'	126° 43'	-0 16	-0 11	+2.0	+1.9	7.8	9.4	7.2
1349	Kyuquot Sound	50° 08'	127° 18'	-0 11	-0 06	+1.8	+2.5	7.0	8.8	7.4
1351	Nasparti Inlet	50° 06'	127° 43'	-0 09	-0 05	+2.1	+2.6	7.2	9.1	7.6
1353	Klaskish Inlet	50° 15'	127° 44'	-0 06	-0 03	+2.1	+2.6	7.2	9.1	7.6
1355	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		
1357	Treadwell Bay, Slingsby Channel	51° 06'	127° 32'	+0 34	+0 46	(*0.48+2.8)		6.3	7.9	6.6
1359	Wadhams, Rivers Inlet	51° 31'	127° 31'	+0 08	+0 15	(*0.68+3.3)		8.9	11.3	8.7
1361	Namu Harbor	51° 52'	127° 52'	+0 18	+0 21	(*0.69+3.0)		9.0	11.3	8.5
1363	Addenbroke Island	51° 36'	127° 49'	+0 09	+0 21	(*0.66+3.4)		8.6	10.9	8.7
1365	Ocean Falls, Fisher Channel	52° 21'	127° 41'	+0 09	+0 21	(*0.74+3.7)		9.5	12.0	9.6
1367	Bella Bella, Lama Passage, Campbell Island	52° 08'	128° 08'	+0 11	+0 17	(*0.70+3.7)		9.1	11.8	9.3
1369	Port Blackney, Milbanke Sound	52° 19'	128° 21'	+0 11	+0 19	(*0.72+3.1)		9.3	11.8	8.9
1371	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									
1373	Klemtu Passage	52° 36'	128° 31'	+0 14	+0 25	(*0.72+3.8)		9.3	11.6	9.6
1375	Carter Bay	52° 50'	128° 24'	+0 17	+0 23	(*0.78+3.1)		10.1	13.2	9.3
1377	Barnard Harbor, Whale Channel	53° 05'	129° 07'	+0 24	+0 35	+0.7	+2.8	10.9	13.9	9.8
1379	Hartley Bay, Wright Sound	53° 26'	129° 15'	+0 20	+0 31	+1.6	+3.4	11.2	14.3	10.5
1381	Kitimat, Douglas Channel	53° 59'	128° 42'	+0 24	+0 40	+2.4	+3.6	11.8	15.1	11.0
1383	Kemano Bay, Gardner Canal	53° 31'	128° 07'	+0 24	+0 40	+2.7	+3.6	12.1	15.5	11.2
1385	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.									
1387	Port Stephens	53° 21'	129° 43'	+0 22	+0 32	+0.5	+3.2	10.3	13.2	9.9
1389	Port Canaveral	53° 35'	130° 09'	+0 29	+0 38	+0.5	+3.2	10.3	13.2	9.9
1391	Beaver Passage	53° 48'	130° 21'	+0 38	+0 50	+3.7	+3.5	13.2	17.1	11.6

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		
		Latitude	Longitude	Time		Height		Mean	Spring	Mean Tide Level
				High Water	Low Water	High Water	Low Water			
	BRITISH COLUMBIA Prince Rupert—cont. Time meridian, 120° W	North	West	h m	h m	ft	ft	ft	ft	ft
	<i>Chatam Sound</i>			on Ketchikan, p.148						
1393	Porcher Island	54° 05'	130° 24'	+0 34	+0 46	+3.6	+4.6	12.0	15.2	12.1
1395	Qlawdzeit Anchorage	54° 12'	130° 46'	+0 43	+0 49	+4.2	+4.3	12.9	16.6	12.3
1397	Prince Rupert	54° 19'	130° 20'	+0 51	+0 57	+4.6	+4.3	13.3	17.3	12.5
1399	Port Simpson	54° 34'	130° 26'	+0 51	+0 57	+3.9	+4.2	12.7	16.5	12.1
	<i>Queen Charlotte Island</i>									
1401	Skidegate Inlet	53° 15'	132° 04'	+1 01	+1 07	+5.5	+4.8	13.7	17.7	13.2
1403	Tasu Sound	52° 45'	132° 01'	+0 22	+0 29	(*0.58+3.6)		7.5	9.4	8.2
	BRITISH COLUMBIA and ALASKA Dixon Entrance									
	<i>Graham Island, B.C.</i>									
1405	Parry Passage	54° 11'	132° 59'	+0 20	+0 30	(*0.68+4.2)		8.9	11.2	9.6
1407	Wiah Point	54° 07'	132° 19'	+0 36	+0 40	(*0.79+3.8)		10.3	12.9	10.1
1409	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		
1411	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
1413	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
1415	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									
1417	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.									
1419	Wales Island (Cannery), Pearse Canal <9>	54° 47'	130° 33'	+0 57	+1 04	-0.1	0.0	12.9	15.3	7.9
1421	Kumeon Bay, B.C. <9>	54° 43'	130° 14'	+0 53	+0 56	+0.2	0.0	13.2	15.6	8.1
1423	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
1425	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									
1427	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									
1429	Morse Cove, Duke Island	54° 55.2'	131° 15.3'	+0 03	+0 15	*0.96	*0.96	12.43	14.80	7.70
1431	Kah Shakes Cove	55° 02.5'	130° 58.8'	+0 00	+0 06	*0.97	*0.96	12.60	14.98	7.80
1433	Boca de Quadra	55° 07.0'	130° 47.9'	+0 00	+0 02	*0.98	*0.98	12.72	15.14	7.70
1435	Custom House Cove, Mary Island	55° 06.0'	131° 13.0'	+0 00	-0 01	*0.99	*0.99	12.78	15.24	7.95
1437	Mop Point, Thorne Arm	55° 23.0'	131° 14.1'	-0 05	-0 03	*0.98	*0.98	12.80	15.20	7.90
1439	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									
1441	KETCHIKAN	55° 20.0'	131° 37.5'		<i>Daily predictions</i>			12.97	15.45	8.06
1443	Ward Cove	55° 23.9'	131° 43.6'	-0 05	-0 03	*1.02	*0.96	13.28	15.70	8.10
	Behm Canal									
1445	Alva Bay, Revillagigedo Island	55° 14.0'	131° 08.0'	-0 05	-0 03	*0.98	*0.96	12.80	15.20	7.90
1447	Vallenar Point	55° 25.6'	131° 50.8'	-0 01	-0 06	*0.99	*0.96	12.90	15.30	7.90
1449	Rudyard Bay	55° 38.5'	130° 38.7'	+0 01	+0 02	*1.02	*0.96	13.30	15.70	8.10
1451	Fitzgibbon Cove	55° 59.0'	131° 10.5'	-0 05	-0 01	*1.02	*0.96	13.40	15.80	8.20
1453	Burroughs Bay, Behm Canal	55° 02.3'	131° 05.7'	-0 01	+0 00	*1.03	*0.99	13.45	15.90	8.28
1455	Yes Cannery, Yes Bay	55° 54.8'	131° 47.8'	+0 00	+0 01	*1.02	*0.96	13.30	15.70	8.10
1457	Loring, Naha Bay	55° 36.1'	131° 37.9'	-0 02	-0 06	*1.02	*0.96	13.16	15.70	8.20
1459	Tamgas Harbor, Annette Island	55° 04.0'	131° 32.5'	-0 09	-0 08	*0.98	*0.89	12.80	15.00	7.80
1461	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
1463	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
1465	Niblack Anchorage, Moira Sound	55° 04.0'	132° 07.2'	+0 03	+0 09	*0.94	*0.96	12.20	14.60	7.60
1467	Metlakatla, Port Chester	55° 07.7'	131° 34.3'	-0 04	-0 02	*0.96	*0.99	12.43	14.87	7.77
	Clarence Strait									
1469	Nehenta Bay, Gravina Island	55° 10.0'	131° 47.8'	-0 01	-0 01	*0.95	*0.96	12.30	14.70	7.70
1471	Lancaster Cove, Cholmondeley Sound	55° 12.8'	132° 05.7'	+0 05	+0 03	*0.98	*0.96	12.70	15.10	7.90
1473	Divide Head, Cholmondeley Sound	55° 15.1'	132° 18.0'	-0 05	-0 08	*0.98	*0.96	12.70	15.10	7.90
	<i>Kasaan Bay</i>									
1475	Saltery Cove, Skowl Arm	55° 24.1'	132° 19.7'	+0 04	+0 02	*1.01	*1.01	13.07	15.57	8.13
1477	Kasaan	55° 32.1'	132° 23.8'	+0 05	+0 03	*1.02	*1.01	13.20	15.69	7.84
1479	Lindeman Cove	55° 36.1'	132° 30.7'	+0 06	+0 03	*1.02	*1.01	13.27	15.75	8.22
1481	Hollis Anchorage	55° 28.8'	132° 38.7'	+0 06	+0 02	*1.03	*1.01	13.39	15.88	7.94
1483	Bradfield Canal, Ernest Sound	56° 11.0'	131° 34.3'	+0 11	+0 05	*1.08	*0.99	14.09	16.59	8.60
1485	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
1487	Lake Bay	56° 01.0'	132° 55.0'	+0 10	+0 01	*1.03	*0.89	13.60	15.90	8.20
1489	Beck Island	56° 02.8'	132° 51.72'	+0 10	+0 05	*1.05	*1.01	13.65	16.14	8.41

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	ALASKA Clarence Strait-cont. Time meridian, 135° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Ketchikan, p.148						
1491	Thorne Island, Whale Passage	56° 03.5'	132° 59.1'	+0 12	+0 01	*1.04	*0.98	13.52	15.93	8.30
1493	Blashke Island	56° 07.6'	132° 53.7'	+0 13	+0 24	*1.03	*0.93	13.46	15.82	8.20
1495	Point Harrington	56° 10.7'	132° 41.8'	+0 09	+0 01	*1.04	*0.97	13.55	15.96	8.29
1497	Thoms Point, Zimovia Strait	56° 07.1'	132° 04.7'	+0 07	+0 01	*1.06	*0.99	13.90	16.33	8.50
1499	Village Rock, Zimovia Strait	56° 13.2'	132° 17.8'	+0 09	+0 01	*1.05	*0.97	13.75	16.13	8.40
1501	Madan Bay	56° 23.5'	132° 10.1'	+0 12	+0 04	*1.05	*0.98	13.81	16.23	8.42
1503	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						
1505	Minnie Bay	54° 43'	132° 18'	-0 05	+0 00	+2.7	+0.1	10.3	12.7	6.6
1507	Tah Bay	54° 50'	132° 20'	-0 04	+0 03	+2.6	+0.1	10.2	12.5	6.6
1509	Hunter Bay	54° 52'	132° 19'	-0 02	+0 03	+2.7	+0.1	10.3	12.7	6.6
1511	Kassa Inlet entrance	54° 56'	132° 31'	-0 03	+0 01	+2.6	+0.1	10.2	12.5	6.6
1513	Elbow Bay	54° 54'	132° 39'	-0 04	-0 04	+2.6	+0.1	10.2	12.6	6.6
1515	Mabel Island	55° 00'	132° 36'	-0 10	-0 01	+2.8	+0.1	10.4	12.8	6.7
1517	Keete Island, Nutkwa Inlets	55° 03'	132° 35'	-0 13	-0 05	+2.8	+0.1	10.4	12.8	6.7
1519	Keete Inlet	55° 05'	132° 29'	-0 11	-0 01	+2.9	+0.1	10.5	12.9	6.7
	Hetta Inlet									
1521	Mud Bay	55° 05'	132° 38'	-0 05	+0 01	+2.8	+0.1	10.4	12.8	6.7
1523	Copper Harbor	55° 13'	132° 37'	-0 10	-0 08	+2.8	+0.1	10.4	12.8	6.7
1525	Sulzer	55° 17'	132° 37'	-0 02	+0 08	+2.9	+0.1	10.5	12.9	6.7
1527	American Bay, Kaigani Strait	54° 51'	132° 50'	+0 01	+0 01	+2.5	0.0	10.2	12.4	6.5
	Tlevak Strait									
1529	Kasook Inlet, Sukkwan Island	55° 01'	132° 47'	-0 13	-0 05	+2.8	0.0	10.5	12.6	6.6
1531	View Cove	55° 05'	133° 01'	-0 02	+0 02	+2.8	0.0	10.5	12.7	6.6
1533	South Pass, Sukkwan Strait	55° 10'	132° 52'	-0 02	+0 02	+2.9	+0.1	10.5	12.9	6.8
1535	Saltery Point	55° 11'	132° 48'	-0 08	-0 05	+2.9	+0.1	10.5	12.9	6.8
1537	North Pass, West End	55° 12'	132° 56'	-0 12	-0 06	+3.0	+0.1	10.6	13.0	6.8
1539	Natalia Point	55° 14'	133° 03'	-0 05	+0 01	+2.9	+0.1	10.5	12.9	6.8
1541	Soda Bay	55° 16'	132° 58'	+0 03	+0 07	+3.0	+0.1	10.6	13.0	6.8
1543	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'	-- --	-- --	--	--	--	--	--
1545	Security Cove	54° 45'	132° 51'	-0 20	-0 24	+1.0	0.0	8.7	10.8	5.7
1547	Sakie Bay	55° 04'	133° 12'	+0 01	+0 05	+0.3	0.0	8.0	10.3	5.4
1549	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									
1551	Craig, Klawock Inlet	55° 29.3'	133° 08.5'	-0 08	-0 08	*1.02	*0.94	7.95	10.15	5.35
1553	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									
1555	Steamboat Bay, Noyes Island	55° 32.0'	133° 38.2'	-0 12	-0 13	*1.04	*0.93	8.16	10.33	5.44
1557	Anguilla Island	55° 41'	133° 35'	-0 18	-0 14	+0.4	-0.1	8.2	10.3	5.4
1559	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									
1561	Port Alice, Heceta Island	55° 49'	133° 36'	-0 20	-0 14	+0.9	0.0	8.6	10.8	5.7
1563	Tuxekan, 0.5 mile south of	55° 53'	133° 15'	-0 17	-0 07	+0.9	-0.1	8.7	10.9	5.6
1565	El Capitan Island	55° 56'	133° 20'	-0 11	-0 10	+0.9	-0.1	8.7	10.8	5.6
1567	Cyrus Cove, Sea Otter Sound	55° 55'	133° 24'	-0 16	-0 12	+1.1	0.0	8.8	10.9	5.8
1569	Marble Island	56° 00'	133° 28'	-0 19	-0 15	+0.8	-0.1	8.6	10.7	5.6
1571	Edna Bay	55° 57'	133° 40'	-0 20	-0 08	+0.9	0.0	8.6	10.8	5.7
	Sumner Strait									
1573	Coronation Island	55° 54'	134° 07'	-0 16	-0 17	+0.8	0.0	8.5	10.7	5.6
1575	Pole Anchorage, Kosciusko Island	55° 57'	133° 49'	-0 22	-0 22	+1.4	-0.1	9.2	11.4	5.9
1577	Port McArthur, Kuiu Island	56° 04'	134° 07'	-0 11	-0 07	+0.6	-0.1	8.4	10.6	5.5
1579	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
1581	Kell Bay, Affleck Canal, Kuiu Island	56° 09'	134° 08'	+0 01	+0 01	+1.3	0.0	9.0	11.2	5.9
1583	Point St. Albans	56° 05'	133° 58'	-0 17	-0 13	+1.4	0.0	9.1	11.3	5.9
1585	Shakan Bay Entrance	56° 08'	133° 37'	-0 13	-0 12	+1.8	0.0	9.5	11.7	6.2
1587	Shakan Strait, Kosciusko Island	56° 08.9'	133° 27.6'	-0 07	-0 10	*1.16	*0.95	9.28	11.49	6.02
1589	El Capitan Passage	56° 04'	133° 19'	-0 05	+0 02	+0.9	-0.1	8.7	10.8	5.6
1591	Port Beauclerc, Kuiu Island	56° 17'	133° 57'	-0 14	-0 12	+1.9	-0.1	9.7	11.9	6.2
1593	Port Protection, Prince of Wales Island.	56° 19'	133° 36'	-0 13	-0 11	+2.4	0.0	10.1	12.4	6.4
1595	Reid Bay	56° 23'	133° 53'	-0 11	-0 19	+2.5	0.0	10.2	12.4	6.5
1597	Sumner Island	56° 25'	133° 48'	-0 19	-0 12	+2.6	0.0	10.3	12.6	6.6
				on Ketchikan, p.148						
1599	Bushy Island, Snow Passage	56° 16.6'	132° 59.1'	+0 03	+0 01	*0.95	*0.93	12.41	14.74	7.66
1601	Reef Point, Stikine Strait	56° 21.2'	132° 33.2'	+0 09	+0 02	*1.04	*0.96	13.57	15.96	8.28
1603	Greys Island	56° 31.3'	132° 32.5'	+0 11	+0 05	*1.01	*0.94	13.20	15.57	8.08

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	ALASKA Wrangell Narrows Time meridian, 135° W	North	West	h m	h m	ft	ft	ft	ft	
on Ketchikan, p.148										
1605	Point Lockwood, Woewodski Island	56° 33.5'	132° 57.8'	+0 15	+0 08	*0.98	*0.98	12.67	15.09	7.87
1607	Beecher Pass	56° 35.7'	132° 59.2'	+0 22	+0 14	*1.00	*0.98	13.05	15.47	8.06
1609	Anchor Point	56° 38.3'	132° 55.6'	+0 31	+0 40	*1.04	*0.99	13.56	15.99	8.00
1611	Papke's Landing	56° 40.6'	132° 55.9'	+0 33	+0 50	*1.00	*1.01	13.92	16.39	8.54
1613	Turn Point	56° 48.0'	132° 58.8'	+0 25	+0 38	*1.04	*0.96	13.68	16.07	8.34
1615	Petersburg	56° 48.9'	132° 57.4'	+0 28	+0 37	*1.04	*0.97	13.56	15.99	8.00
Keku Strait										
1617	Monte Carlo Island	56° 32.1'	133° 45.9'	+0 03	+0 03	*0.80	*0.89	10.30	12.50	6.60
1619	The Summit	56° 40.9'	133° 44.1'	+0 19	+0 23	*0.98	*0.99	12.63	15.04	7.86
1621	Entrance Island	56° 48.7'	133° 47.2'	+0 18	+0 20	*0.94	*0.98	12.17	14.56	7.62
1623	Kake Harbor	56° 56.9'	133° 53.6'	+0 16	+0 20	*0.92	*0.97	11.81	14.24	7.43
Frederick Sound										
on Juneau, p.152										
1625	Dry Strait	56° 37'	132° 34'	-0 18	-0 03	-0.2	0.0	13.5	16.1	8.3
1627	Cosmos Point	56° 39.8'	132° 37.0'	-0 05	-0 05	*0.98	*0.99	13.47	16.00	8.43
1629	Ideal Cove, Mitkof Island	56° 40'	132° 38'	-0 09	-0 05	-0.2	0.0	13.5	16.1	8.3
1631	Leconte Bay	56° 47.3'	132° 30.1'	-0 01	+0 02	*0.98	*0.99	13.47	16.01	8.31
1633	Brown Cove	56° 53'	132° 48'	-0 14	-0 10	-0.3	-0.1	13.5	15.8	8.2
1635	Thomas Bay	57° 00'	132° 47'	+0 07	+0 07	-0.8	-0.1	13.0	15.4	8.0
1637	Portage Bay, Kupreanof Island	57° 00'	133° 19'	-0 19	-0 15	-0.7	0.0	13.0	15.5	8.1
1639	Cleveland Passage, Whitney Island	57° 13'	133° 30'	-0 01	+0 03	-1.2	-0.1	12.6	15.0	7.8
1641	Cannery Cove, Pybus Bay	57° 18.4'	134° 08.0'	-0 08	-0 06	*0.90	*0.94	12.24	14.63	7.60
1643	Eliza Harbor, Liesnoi Island	57° 10'	134° 17'	-0 19	-0 19	-1.9	-0.1	11.9	14.3	7.4
1645	Eliza Harbor, Admiralty Island	57° 11.3'	134° 17.2'	-0 06	-0 04	*0.87	*0.92	11.79	14.10	7.35
1647	Herring Bay	57° 06.8'	134° 22.8'	-0 08	-0 07	*0.84	*0.91	11.44	13.70	7.16
1649	Saginaw Bay, Kuiu Island	56° 54.2'	134° 18.1'	-0 24	-0 21	*0.84	*0.96	11.36	13.73	7.21
Stephens Passage										
1651	The Brothers	57° 17.7'	133° 47.8'	-0 07	-0 04	*0.91	*0.98	12.34	14.85	7.73
1653	Port Houghton, Robert Islands	57° 18'	133° 28'	-0 21	-0 17	-0.8	-0.1	13.0	15.4	8.0
1655	Hobart Bay	57° 24'	133° 25'	-0 06	+0 03	-1.1	-0.1	12.7	15.1	7.8
1657	Good Island, Gambier Bay	57° 29.2'	133° 53.9'	-0 05	-0 04	*0.93	*0.96	12.77	15.25	7.91
1659	Gambier Bay (cannery wharf)	57° 29.0'	133° 57.6'	-0 01	-0 01	*0.92	*0.96	12.63	15.08	7.86
1661	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
1663	Windham Bay	57° 33'	133° 30'	+0 00	+0 00	-1.1	-0.1	12.7	15.1	7.8
1665	Rasp Ledge, Seymour Canal	57° 41'	134° 02'	+0 06	+0 05	-0.7	+0.1	12.9	15.6	8.2
1667	Windfall Harbor, Seymour Canal	57° 52'	134° 16'	+0 14	+0 18	-0.2	0.0	13.5	16.0	8.3
1669	Holkham Bay, Wood Spit	57° 43'	133° 35'	+0 03	+0 06	-0.8	-0.1	13.0	15.4	8.0
1671	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
1673	Sawyer Island, Tracy Arm	57° 52.7'	133° 11.4'	+0 02	+0 06	*0.97	*1.01	13.32	15.83	8.25
1675	Port Snettisham, Point Styleman	57° 58'	133° 53'	-0 12	-0 06	-0.4	-0.1	13.4	15.8	8.2
1677	Port Snettisham, Crib Point	58° 05.7'	133° 44.3'	-0 03	-0 03	*0.98	*0.97	13.40	15.86	8.23
1679	Taku Harbor	58° 04.1'	134° 00.6'	-0 03	-0 04	*0.97	*1.00	13.29	15.71	8.22
1681	Greely Point, Taku Inlet	58° 13'	134° 04'	-0 01	-0 04	-0.6	-0.1	13.2	15.7	8.1
1683	Taku Point, Taku Inlet	58° 24'	134° 01'	+0 14	+0 13	+0.4	0.0	14.1	16.7	8.6
1685	JUNEAU	58° 17.9'	134° 24.7'	Daily predictions				13.74	16.31	8.47
1687	Young Bay	58° 11.0'	134° 35.2'	+0 00	+0 02	*1.00	*1.00	13.80	16.39	8.49
1689	Fritz Cove, Douglas Island	58° 19'	134° 36'	-0 01	+0 05	-0.3	-0.1	13.5	15.9	8.2
1691	Auke Bay	58° 23'	134° 39'	-0 06	-0 03	-0.4	0.0	13.3	15.9	8.2
Lynn Canal										
1693	Funter, Funter Bay	58° 15'	134° 54'	+0 00	+0 01	-1.1	0.0	12.6	15.1	7.9
1695	Barlow Cove, Mansfield Peninsula	58° 19.3'	134° 52.7'	-0 04	-0 01	*0.96	*0.99	13.22	15.75	8.19
1697	Lincoln Island	58° 29.9'	134° 57.9'	-0 03	+0 01	*0.98	*1.00	13.49	15.98	8.33
1699	William Henry Bay	58° 43'	135° 14'	+0 02	+0 09	-0.5	0.0	13.2	15.7	8.2
1701	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
1703	Chilkat Inlet	59° 10.2'	135° 24.0'	-0 04	-0 01	*1.01	*1.00	13.89	16.49	8.53
1705	Haines Inlet	59° 14'	135° 26'	-0 09	-0 06	+0.5	0.0	14.2	16.8	8.7
1707	Taiyasanka Harbor, Taiya Inlet	59° 18.1'	135° 25.7'	-0 04	-0 02	*1.03	*1.01	14.20	16.89	8.72
1709	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										
1711	Port Alexander, Baranof Island	56° 14.8'	134° 38.8'	+0 07	+0 10	*1.14	*1.01	8.59	10.93	5.76
1713	Port Walter, Baranof Island	56° 23'	134° 40'	+0 04	+0 13	+1.5	+0.1	9.1	11.5	6.0
1715	Table Bay, Kuiu Island	56° 10'	134° 15'	-0 15	-0 13	+1.1	0.0	8.8	11.1	5.8
1717	Port Malmesbury, Kuiu Island	56° 18'	134° 14'	+0 04	+0 13	+1.2	+0.1	8.8	11.2	5.9
1719	Tebenkof Bay, Kuiu Island	56° 25'	134° 08'	+0 04	+0 11	+1.8	+0.1	9.4	11.8	6.2
1721	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)										
1723	Baranof, Warm Spring Bay	57° 05'	134° 50'	-0 07	-0 04	-2.8	-0.1	11.0	13.4	7.0
1725	Whitewater Bay, Admiralty Island	57° 14'	134° 36'	-0 19	-0 15	-2.0	+0.3	11.4	13.9	7.6
1727	Kasnyku Bay	57° 13'	134° 52'	-0 10	-0 06	-2.4	-0.1	11.4	13.8	7.2
1729	Point Thatcher	57° 25'	134° 51'	-0 15	-0 11	-1.9	+0.2	11.6	14.2	7.6
Peril Strait (see Index)										

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	ALASKA Chatham Strait—cont. Time meridian, 135° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Juneau, p.152						
1731	Killisnoo	57° 28'	134° 34'	−0 06	−0 04	−2.1	0.0	11.6	14.1	7.4
	<i>Kootznahoo Inlet</i>									
1733	Favorite Bay	57° 29'	134° 33'	+0 11	+0 15	−2.8	+0.3	10.6	13.0	7.2
1735	Mitchell Bay	57° 32'	134° 24'	+1 22	+1 31	*0.67	*0.62	9.2	11.0	5.6
1737	Tenakee Springs, Tenakee Inlet	57° 47'	135° 13'	−0 04	+0 05	−1.5	−0.1	12.3	14.7	7.7
1739	Freshwater Bay, Chichagof Island	57° 51'	135° 01'	−0 08	+0 00	−1.5	+0.3	11.9	14.4	7.8
1741	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						
1743	Dorothy Cove, Necker Bay	56° 43.3'	135° 04.5'	−0 02	−0 02	*0.97	*0.95	7.48	9.61	5.12
1745	Golf Island, Necker Island	56° 47.2'	135° 23.5'	−0 02	−0 01	*0.98	*0.97	7.53	9.70	5.18
	<i>Sitka Sound</i>									
1747	Symonds Bay, Biorka Island	56° 51'	135° 31'	−0 15	−0 16	−0.1	0.0	7.6	9.8	5.2
1749	SITKA	57° 03.1'	135° 20.5'		<i>Daily predictions</i>			7.70	9.94	5.31
1751	Olga Point, Olga Strait	57° 14'	135° 32'	+0 00	+0 14	0.0	0.0	7.7	9.9	5.3
	Salisbury Sound and Peril Strait									
1753	Klokachef Island	57° 25'	135° 53'	−0 10	−0 06	−0.1	+0.1	7.5	9.9	5.2
1755	Scraggy Point	57° 20'	135° 43'	−0 09	+0 00	−0.1	+0.1	7.5	9.8	5.2
1757	Scraggy Island	57° 20.4'	135° 42.4'	+0 00	−0 01	*1.00	*1.03	7.62	9.97	5.31
1759	Haley Anchorage, Fish Bay	57° 22'	135° 37'	+0 03	+0 12	+0.2	+0.1	7.8	10.1	5.4
1761	Serguis Narrows	57° 24.6'	135° 37.6'	+0 19	+0 24	*1.33	*1.05	10.62	13.04	6.86
1763	Bear Bay	57° 25'	135° 35'	+0 18	+0 29	+3.7	+0.2	11.2	13.6	7.2
				on Juneau, p.152						
1765	Povorotni Island, Pogibshi Point	57° 31'	135° 33'	−0 09	+0 02	−1.3	−0.1	12.5	14.9	7.7
1767	Nismeni Cove	57° 34'	135° 25'	−0 15	−0 03	−1.3	−0.1	12.5	15.0	7.7
1769	Point Elizabeth	57° 31'	135° 17'	−0 15	−0 05	−1.6	0.0	12.1	14.7	7.6
1771	Lindenbug Head	57° 27'	135° 02'	−0 15	−0 05	−1.8	0.0	11.9	14.5	7.5
1773	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 Elfin Cove, p.160						
1775	Falcon Arm, Slocum Arm	57° 33'	135° 56'	−0 05	−0 07	*0.96	*1.10	8.1	10.2	5.6
1777	Elbow Passage, Klag Bay	57° 37'	136° 05'	+0 08	+0 13	*0.98	*1.03	8.4	10.7	5.7
1779	Kimshan Cove, Ogden Passage	57° 41'	136° 06'	+0 05	+0 06	*0.92	*1.03	7.8	10.1	5.4
	<i>Lisianski Strait and Inlet</i>									
1781	Canoe Cove, North Pass	57° 51'	136° 25'	+0 02	−0 01	*0.91	*0.89	7.9	10.1	5.2
1783	Miner Island	58° 01'	136° 20'	−0 08	−0 06	*0.94	*0.96	8.1	10.4	5.5
1785	Pelican Harbor	57° 57.4'	136° 13.6'	+0 02	+0 00	*0.96	*1.00	8.27	10.61	5.31
	<i>Yakobi Island, outer coast</i>									
1787	Takanis Bay	57° 55'	136° 31'	−0 04	−0 01	*0.90	*1.03	7.6	10.1	5.3
1789	Surge Bay	58° 01.0'	136° 31.8'	+0 00	+0 02	*0.88	*0.96	7.5	9.9	5.1
	Cross Sound									
1791	ELFIN COVE, Port Althorp	58° 11.6'	136° 20.5'		<i>Daily predictions</i>			8.68	11.02	5.80
1793	Inian Cove, North Inian Pass	58° 15.8'	136° 19.5'	+0 12	+0 03	*1.05	*1.01	9.12	11.18	6.04
	Icy Strait									
1795	Mud Bay, Goose Island	58° 12.7'	136° 02.1'	+0 06	+0 06	*1.20	*0.96	10.6	12.9	6.7
1797	Point Adolphus	58° 17.2'	135° 48.2'	+0 29	+0 35	*1.31	*1.11	11.62	14.14	7.43
1799	Excursion Inlet Entrance	58° 25.0'	135° 26.8'	+0 15	+0 16	*1.38	*1.05	12.44	14.88	7.76
1801	Excursion Inlet, north end	58° 29.8'	135° 29.3'	+0 26	+0 24	*1.36	*1.07	12.17	14.62	7.64
1803	Hoonah, Port Frederick	58° 06.4'	135° 26.6'	+0 11	+0 19	*1.40	*1.09	12.55	15.08	7.87
1805	Swanson Harbor, Ansley Island	58° 12.3'	135° 06.5'	+0 14	+0 11	*1.41	*1.08	12.70	15.30	7.93
	<i>Glacier Bay</i>									
1807	Bartlett Cove	58° 27.4'	135° 53.0'	+0 19	+0 22	*1.36	*1.11	12.19	14.72	7.72
1809	Willoughby Island	58° 36.4'	136° 07.2'	+0 41	+0 50	*1.50	*1.16	13.4	16.0	8.4
1811	Muir Inlet	58° 54.8'	136° 06.6'	+0 39	+0 49	*1.55	*1.19	13.97	16.65	8.72
1813	Wachusett Inlet	58° 56.8'	136° 19.9'	+0 39	+0 50	*1.57	*1.20	14.17	16.84	8.83
1815	Composite Island	58° 53.3'	136° 34.4'	+0 45	+0 51	*1.54	*1.20	13.9	16.5	8.6
1817	Tarr Inlet	58° 57.8'	136° 52.6'	+0 41	+0 51	*1.60	*1.20	14.18	16.87	8.38
	Gulf of Alaska									
1819	Graves Harbor	58° 16.6'	136° 40.7'	+0 04	+0 07	*0.91	*1.03	7.6	10.0	5.3
1821	Dixon Harbor	58° 23'	136° 52'	+0 07	+0 07	*0.89	*0.96	7.6	9.9	5.2
1823	Lituya Bay, 2 miles inside entrance	58° 37'	137° 37'	+0 06	+0 36	*0.87	*0.89	7.5	9.7	5.0
				on Yakutat, p.164						
1825	Yakutat, Yakutat Bay	59° 32.9'	139° 44.1'		<i>Daily predictions</i>			7.82	10.07	5.30
1827	Johnstone Passage, Yakutat Bay	59° 34.9'	139° 42.2'	+0 01	+0 03	*1.00	*1.00	7.76	9.97	5.27
1829	Redfield Cove, Yakutat Bay	59° 36.9'	139° 34.8'	+0 01	+0 00	*1.00	*0.92	7.82	9.97	5.19
1831	Point Latouche, Yakutat Bay	59° 54.2'	139° 37.6'	+0 06	+0 03	*1.00	*0.93	7.84	10.00	5.21
1833	Riou Bay, Icy Bay	59° 53.1'	141° 27.4'	+0 02	+0 03	*0.98	*1.01	7.6	9.9	5.2
1835	Tyndall Glacier, Icy Bay	60° 04.7'	141° 16.5'	+0 20	+0 17	*0.96	*0.97	7.50	9.67	5.10
1837	Wingham Island, Controller Bay	60° 03'	144° 24'	+0 05	+0 08	*0.99	*1.01	7.7	10.1	5.2

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		
		Latitude	Longitude	Time		Height		Mean	Diurnal	Mean Tide Level
				High Water	Low Water	High Water	Low Water			
	ALASKA Gulf of Alaska—cont. Time meridian, 135° W	North	West	h m	h m	ft	ft	ft	ft	ft
	<i>Copper River Delta</i>			on Cordova, p.168						
1839	Kokinhenik Island <10>	60° 18'	145° 05'	+0 08	---	--	--	--	--	--
1841	Pete Dahl Slough	60° 23'	145° 24'	+0 06	+0 38	-2.4	0.0	7.7	10.0	5.3
1843	Eyak River entrance	60° 28'	145° 40'	+0 14	+0 58	-1.6	-0.1	8.6	10.8	5.7
1845	Middleton Island (north end)	59° 27.6'	146° 18.6'	-0 21	-0 14	-2.2	-0.1	8.0	10.3	5.4
	Prince William Sound									
	<i>Orca Inlet</i>									
1847	Shag Rock	60° 28'	145° 59'	-0 11	-0 16	-1.1	-0.1	9.1	11.4	6.0
1849	Gravel Point	60° 28'	145° 58'	+0 01	+0 31	-0.1	0.0	10.0	12.3	6.5
1851	CORDOVA	60° 33.5'	145° 45.2'					10.17	12.59	6.59
1853	Orca	60° 35'	145° 43'	+0 01	+0 01	-0.2	0.0	9.9	12.4	6.4
1855	Windy Bay, Hawkins Island	60° 34'	145° 58'	-0 08	-0 01	-0.5	0.0	9.6	12.1	6.3
1857	Comfort Cove, Port Gravina	60° 43'	146° 05'	-0 16	-0 06	-0.7	-0.1	9.5	11.8	6.2
	<i>Hinchinbrook Island</i>									
1859	Johnstone Point	60° 29'	146° 37'	-0 07	+0 02	-0.8	-0.1	9.4	11.8	6.1
1861	Port Etches	60° 19.7'	146° 33'	-0 09	+0 01	-1.3	-0.2	9.0	11.2	5.8
1863	Cape Hinchinbrook	60° 14.3'	146° 38.8'	-3 36	-3 28	*0.88	*0.98	8.86	11.24	5.90
	<i>Montague Island</i>									
1865	Wooded Islands	59° 52.5'	147° 24.2'	-0 02	+0 00	*0.80	*0.95	7.90	10.24	5.39
1867	Patton Bay	59° 54'	147° 26'	-0 12	-0 05	-2.3	-0.1	7.9	10.2	5.3
1869	Macleod Harbor	59° 53.4'	147° 46.7'	+0 10	-0 04	*0.89	*0.96	8.90	11.19	5.90
1871	Hanning Bay	59° 57'	147° 41'	-0 08	-0 05	-1.0	-0.1	9.2	11.5	6.0
1873	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
1875	Perch Point	60° 07.6'	147° 23.7'	-0 08	-0 03	*0.92	*0.94	9.31	11.72	6.08
1877	Port Chalmers	60° 14.5'	147° 14.9'	-0 02	-0 01	*0.94	*0.97	9.53	11.91	6.22
1879	Gibbon Anchorage, Green Island	60° 16'	147° 26'	-0 21	-0 06	-0.8	-0.2	9.5	11.5	6.1
1881	Seal Island	60° 25.5'	147° 24.6'	-0 01	+0 02	*0.93	*0.98	9.40	11.79	6.18
1883	Latouche, Latouche Island	60° 03'	147° 54'	-0 05	-0 02	-1.0	0.0	9.1	11.5	6.0
1885	Guguak	60° 06.0'	148° 02.2'	-0 07	-0 03	*0.91	*0.95	9.19	11.57	6.04
1887	Sawmill Bay, Evans Island	60° 03'	148° 04'	-0 03	+0 03	-1.2	0.0	8.9	11.3	5.9
1889	Point Elrington, Elrington Island	59° 56.3'	148° 13.6'	-0 13	-0 02	*0.84	*0.94	8.44	10.83	5.64
	<i>Knight Island</i>									
1891	Point Helen	60° 09.2'	147° 47.0'	-0 03	-0 01	*0.92	*1.00	9.21	11.63	6.11
1893	Snug Harbor	60° 15.0'	147° 43.0'	-0 03	+0 00	*0.91	*0.97	9.17	11.54	6.06
1895	Bay of Isles, South Arm	60° 22.0'	147° 42.0'	+0 00	+0 02	*0.94	*1.01	9.43	11.88	6.24
1897	Port Audrey	60° 20.6'	147° 46.1'	+0 00	+0 03	*0.92	*0.95	9.27	11.58	6.07
1899	Louis Bay	60° 27.7'	147° 40.3'	+0 00	+0 03	*0.96	*1.04	9.61	12.06	6.37
1901	Herring Point	60° 28.5'	147° 47.5'	-0 04	+0 01	*0.95	*1.01	9.55	11.95	6.26
1903	Smith Island	60° 32'	147° 19'	-0 05	-0 04	-0.8	-0.1	9.4	11.8	6.1
1905	Snug Corner Cove, Port Fidalgo	60° 44'	146° 39'	-0 07	-0 06	-0.6	0.0	9.5	12.0	6.2
1907	Landlocked Bay, Port Fidalgo	60° 51'	146° 32'	-0 12	-0 08	-0.7	-0.1	9.5	11.9	6.1
	<i>Valdez Arm</i>									
1909	Busby Island	60° 53.9'	146° 46.9'	-0 02	-0 02	*0.98	*0.98	9.54	11.89	6.25
1911	Rocky Point	60° 56.8'	146° 45.3'	+0 00	-0 03	*0.99	*0.99	9.60	12.10	6.30
1913	Jack Bay	61° 02.4'	146° 36.9'	-0 01	-0 02	*0.99	*0.99	9.63	12.10	6.30
1915	VALDEZ, Port Valdez	61° 07.5'	146° 21.7'					9.70	12.15	6.36
	<i>Daily predictions</i>									
	<i>on Cordova, p.168</i>									
1917	Columbia Glacier, Columbia Bay	61° 01.4'	147° 05.1'	-0 01	+0 01	*0.95	*0.99	9.60	12.01	6.30
1919	Jackson Cove, Glacier Island	60° 53'	147° 14'	-0 10	-0 02	-0.6	0.0	9.5	11.9	6.2
1921	Naked Island, McPherson Passage	60° 40'	147° 24'	-0 18	-0 08	-0.7	-0.1	9.5	11.8	6.1
1923	Kings Bay, Port Nellie Juan	60° 32'	148° 28'	-0 01	+0 09	-0.6	0.0	9.5	11.9	6.2
1925	Culross Bay, Wells Passage	60° 44'	148° 11'	-0 15	-0 01	-0.4	0.0	9.7	12.1	6.3
1927	Long Bay Entrance, Culross Passage	60° 42'	148° 16'	+0 03	+0 09	-0.9	-0.1	9.3	11.6	6.1
1929	Whittier, Passage Canal	60° 47'	148° 40'	-0 05	+0 01	-0.3	0.0	9.8	12.3	6.4
1931	Applegate Island	60° 38'	148° 10'	-0 01	+0 06	-0.6	0.0	9.5	11.9	6.2
1933	Perry Island, South Bay	60° 40.3'	147° 55.9'	-0 02	-0 01	*0.94	*0.98	9.53	11.96	6.24
1935	Eshamy Bay, Knight Island Passage	60° 27'	147° 59'	+0 01	+0 04	-0.4	0.0	9.7	12.1	6.4
1937	Eshamy Lagoon	60° 27.7'	147° 02.7'	-0 11	+0 00	*0.92	*1.03	9.11	11.51	6.06
1939	Chenega Island, Dangerous Passage	60° 20'	148° 09'	-0 01	+0 06	-0.9	0.0	9.2	11.6	6.1
1941	Chenega Island, southwest end	60° 17.2'	148° 07.2'	-0 03	+0 00	*0.94	*1.00	9.37	11.71	6.14
1943	Bainbridge Point, Bainbridge Island	60° 11.8'	148° 02.5'	-0 06	+0 01	*0.93	*0.98	9.36	11.79	6.16
1945	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									
	<i>on Seward, p. 176</i>									
1947	Day Harbor	60° 00.6'	149° 03.7'	-0 02	+0 00	*0.99	*1.01	8.2	10.5	5.5
1949	SEWARD, Resurrection Bay	60° 07.2'	149° 25.6'					8.33	10.62	5.55
1951	Aialik Bay, North end	59° 57.2'	149° 42.9'	+0 00	+0 02	*1.00	*0.99	8.38	10.62	5.53
1953	Aialik Sill, Aialik Bay	59° 53.1'	149° 43.1'	+0 01	+0 01	*1.00	*0.98	8.38	10.65	5.55
1955	Bear Cove, Aialik Peninsula	59° 48.1'	149° 36.9'	+0 01	+0 01	*1.00	*0.97	8.34	10.57	5.51
1957	Agnes Cove, Aialik Peninsula	59° 46.4'	149° 35.3'	+0 00	+0 01	*1.01	*1.00	8.39	10.69	5.57
1959	Camp Cove, Aialik Bay	59° 41.6'	149° 44.9'	+0 00	+0 01	*1.01	*0.98	8.40	10.66	5.57
1961	Crater Bay, Harris Bay	59° 42.8'	149° 47.2'	+0 03	+0 02	*1.01	*0.95	8.49	10.72	5.56
1963	Upper Northwestern Fiord, Harris Bay	59° 47.4'	150° 01.9'	+0 07	+0 12	*1.02	*0.99	8.59	10.84	5.65
1965	Two Arm Bay, Harris Bay	59° 39.7'	150° 06.5'	-0 10	-0 05	*1.03	*0.94	8.7	11.0	5.7
1967	Chance Cove (Lagoon)	59° 29.3'	150° 18.7'	+0 00	+0 01	*1.04	*1.01	8.7	11.0	5.7

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	ALASKA Kenai Peninsula, outer coast—cont. Time meridian, 135° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Seward, p. 176						
1969	Beauty Bay, Nuka Bay	59° 31.6'	150° 37.7'	+0 12	+0 14	*1.08	*1.01	9.1	11.4	5.9
1971	Nuka Passage	59° 24.5'	150° 40.0'	+0 11	+0 12	*1.09	*1.01	9.2	11.5	6.0
1973	Takoma Cove, Port Dick	59° 15.7'	150° 58.9'	+0 23	+0 18	*1.15	*1.01	9.8	12.1	6.3
1975	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.180						
1977	Ushagat Island, Barren Islands	58° 57'	152° 16'	−0 08	−0 04	*0.76	*0.76	11.4	13.7	7.2
1979	Port Chatham	59° 13'	151° 44'	−0 28	−0 34	*0.78	*0.92	11.9	14.3	7.5
1981	Port Graham	59° 21'	151° 49'	−0 08	−0 14	−1.0	0.0	14.5	16.9	8.9
	Kachemak Bay									
1983	SELDOVIA	59° 26.4'	151° 43.2'	Daily predictions				15.54	18.04	9.46
1985	Kasitsna Bay	59° 28.1'	151° 33.9'	+0 01	+0 01	*1.01	*0.99	15.66	18.15	9.52
1987	Tutka Bay	59° 26'	151° 21'	−0 01	−0 01	+0.2	0.0	15.7	18.1	9.5
1989	Sadie Cove	59° 29'	151° 22'	−0 04	−0 04	+0.1	−0.1	15.6	18.0	9.4
1991	Halibut Cove	59° 36'	151° 13'	−0 03	−0 05	+0.7	0.0	16.2	18.7	9.7
1993	Homer	59° 36.2'	151° 25.2'	+0 05	+0 03	*1.01	*0.97	15.83	18.32	9.57
1995	Bear Cove	59° 44'	151° 01'	−0 04	−0 05	+0.4	−0.1	16.0	18.4	9.6
1997	Anchor Point	59° 46'	151° 53'	+0 29	+0 21	+0.4	0.0	15.9	18.3	9.6
1999	Cape Ninilchik	60° 01'	151° 43'	+0 41	+0 54	+1.2	+0.2	16.5	19.1	10.1
2001	Ninilchik	60° 03'	151° 40'	+0 41	+1 04	+1.2	0.0	16.7	19.1	10.0
2003	Cape Kasilof	60° 20.2'	151° 22.8'	+1 31	+1 54	*1.12	*1.18	17.27	19.95	10.64
2005	Chinulna Point	60° 30.2'	151° 16.9'	+1 54	+2 22	*1.17	*1.25	18.02	20.88	11.12
2007	Kenai River entrance	60° 33'	151° 17'	+1 52	+2 18	+2.7	+0.5	17.7	20.7	11.0
2009	Kenai City Pier	60° 33'	151° 14'	+1 54	+2 55	+1.9	−0.1	17.5	19.8	10.4
2011	NIKISKI	60° 41.0'	151° 23.9'	Daily predictions, p.184				17.63	20.42	10.86
2013	East Foreland	60° 43'	151° 25'	+2 37	+2 58	+3.0	+0.5	18.0	21.0	11.2
				on Anchorage, p.188						
2015	North Foreland	61° 02.6'	151° 09.7'	−1 02	−1 27	*0.71	*0.96	18.14	20.99	11.23
2017	Point Possession	61° 02.2'	150° 24.7'	−0 41	−0 49	*0.89	*0.98	23.15	26.04	13.79
2019	Fire Island	61° 10.4'	150° 12.2'	−0 17	−0 27	*0.92	*0.98	23.97	26.91	14.20
2021	ANCHORAGE, Knik Arm	61° 14.3'	149° 53.4'	Daily predictions				26.19	29.16	15.34
2023	Port Mackenzie	61° 16.1'	149° 55.0'	+0 07	+0 03	*1.00	*0.99	26.15	29.10	15.30
2025	Goose Creek	61° 23.5'	149° 51.0'	+0 22	+0 38	*1.06	*0.99	28.03	31.02	16.25
				on Seldovia, p.180						
2027	Kaligan Island (north end)	60° 30.7'	151° 57.1'	+1 48	+1 55	*1.04	*1.17	16.00	18.74	10.00
2029	Drift River Terminal	60° 34'	152° 08'	+1 39	+2 04	*1.01	*1.18	15.4	18.1	9.7
2031	Tuxedni Channel	60° 09.2'	152° 38.1'	+1 09	+1 15	*0.90	*1.05	13.80	16.34	8.68
2033	Snug Harbor	60° 06'	152° 34'	+1 04	+1 15	−2.3	0.0	13.2	15.7	8.3
2035	Oil Bay, Kamishak Bay	59° 38'	153° 16'	+1 15	+1 16	*0.77	*0.83	12.6	13.9	7.3
2037	Iliamna Bay	59° 37'	153° 35'	+0 12	+0 16	*0.80	*0.82	12.3	14.5	7.5
2039	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.192						
2041	Tonki Bay	58° 19.0'	152° 04.0'	+0 14	+0 21	*1.30	*1.18	8.90	11.20	5.75
2043	Kizhuyak Point	57° 54'	152° 39'	+0 05	+0 09	+0.6	+0.1	7.3	9.4	4.8
2045	Port Lions	57° 52.4'	152° 52.0'	−0 03	−0 01	*1.07	*1.05	7.28	9.36	4.80
2047	Ouzinkie, Spruce Island	57° 55.3'	152° 29.8'	−0 08	−0 10	*1.02	*1.03	6.93	8.90	4.59
2049	Kodiak, Port of Kodiak	57° 47.0'	152° 25.7'	−0 03	−0 02	0.0	0.0	6.78	8.76	4.48
2051	Kodiak, St. Paul Harbor	57° 44.7'	152° 29.0'	−0 03	−0 01	*0.99	*1.03	6.65	8.70	4.45
2053	KODIAK, Womens Bay	57° 43.9'	152° 30.7'	Daily predictions				6.78	8.78	4.49
2055	Ugak Bay (Saltery Cove)	57° 29'	152° 44'	−0 29	−0 20	−0.3	−0.1	6.6	8.4	4.3
2057	Port Hobron, Sitkalidak Island	57° 10'	153° 09'	−0 18	−0 06	−0.3	+0.1	6.4	8.3	4.4
2059	Old Harbor	57° 12.1'	153° 18.2'	−0 19	−0 08	*0.98	*1.12	6.45	8.32	4.45
2061	Three Saints Bay	57° 07'	153° 31'	−0 22	−0 13	−0.2	+0.1	6.5	8.3	4.4
2063	Japanese Bay	56° 58'	153° 42'	−0 17	−0 10	−0.3	+0.1	6.4	8.2	4.4
2065	Sitkinak Lagoon	56° 30'	154° 08'	−0 20	+0 07	−1.0	+0.2	5.6	7.5	4.1
				on Alitak, p.196						
2067	ALITAK, Lazy Bay	56° 53.9'	154° 14.8'	Daily predictions				9.25	11.63	6.20
2069	Moser Bay (Trap Point)	56° 59.0'	154° 09.3'	+0 11	+0 10	*0.99	*1.01	9.3	11.6	6.2
2071	Olga Bay (A. P. A. Cannery)	57° 09.5'	154° 14.3'	+3 46	+3 54	*0.10	*0.06	1.0	1.4	0.6
				on Seldovia, p.180						
2073	Uyak Bay									
2075	Uyak	57° 38.1'	154° 00.4'	−0 17	−0 03	*0.75	*0.98	11.26	13.78	7.28
2077	Larsen Bay	57° 32.0'	153° 59.4'	−0 09	+0 03	*0.74	*0.95	11.20	13.74	7.22
2077	Mining Camp	57° 28'	153° 49'	−0 37	−0 10	−4.1	−0.1	11.5	13.9	7.3
2079	Zachar Bay	57° 33'	153° 44'	−0 09	+0 00	*0.77	*0.77	11.3	13.8	7.3
	Uganik Bay									
2081	Village Islands	57° 47'	153° 33'	−0 15	−0 02	*0.80	*0.80	11.7	14.4	7.5
2083	Northeast Arm	57° 44'	153° 20'	−0 12	−0 01	*0.77	*0.77	11.4	13.9	7.3
2085	Uganik Passage	57° 48'	153° 18'	−0 07	+0 02	*0.81	*0.81	11.9	14.6	7.6
2087	Viekoda Bay	57° 54'	153° 10'	−0 11	−0 03	*0.80	*0.80	11.8	14.4	7.6

Endnotes can be found at the end of table 2.

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No.	PLACE	POSITION		DIFFERENCES				RANGES		
		Latitude	Longitude	Time		Height		Mean	Diurnal	Mean Tide Level
				High Water	Low Water	High Water	Low Water			
	ALASKA Kodiak and Afognak Islands—cont. Time meridian, 135° W	North	West	h m	h m	ft	ft	ft	ft	ft
	<i>Kupreanof Strait</i>									
2089	Onion Bay	58° 03'	153° 14'	+0 00	−0 01	*0.80	*0.80	11.8	14.4	7.6
2091	Dry Spruce Island	57° 57'	153° 02'	+0 02	+0 13	*0.77	*0.77	11.4	13.9	7.4
2093	Nachalni Island	57° 59'	152° 56'	+0 10	+0 24	*0.76	*0.76	11.2	13.6	7.2
2095	Uzkosti Point	57° 56'	152° 49'	−0 43	+0 34	*0.64	*0.64	8.8	11.6	6.2
2097	Dolphin Point, Raspberry Strait	58° 07'	153° 09'	−0 25	−0 05	−4.1	−0.1	11.5	14.0	7.3
2099	Malina Bay, Shelikof Strait	58° 11'	152° 57'	−0 14	+0 00	*0.81	*0.81	12.0	14.5	7.7
2101	Redfox Bay, Shuyak Strait	58° 27'	152° 36'	−0 14	−0 02	−4.4	−0.2	11.3	13.7	7.2
	<i>Shuyak Island</i>									
2103	Big Bay	58° 33'	152° 37'	+0 10	+0 15	*0.77	*0.77	11.5	13.9	7.3
2105	Carry Inlet	58° 35'	152° 31'	+0 06	+0 07	*0.73	*0.73	10.7	13.1	6.9
	Alaska Peninsula									
2107	Nukshak Island, Shelikof Strait	58° 23.5'	153° 57.5'	−0 01	+0 07	*0.76	*0.95	11.42	13.82	7.32
2109	Kukak, Kukak Bay	58° 20'	154° 07'	−0 08	+0 05	*0.74	*0.74	11.1	13.3	6.9
2111	Aguchik Island, Kukak Bay	58° 17.4'	154° 16.2'	−0 04	+0 06	*0.75	*0.94	11.35	13.76	7.27
2113	Takli Island, Shelikof Strait	58° 03.8'	154° 28.6'	−0 09	+0 03	*0.73	*1.00	10.95	13.59	7.18
2115	Katmai Bay, Shelikof Strait	58° 00'	154° 59'	−0 14	+0 01	*0.71	*0.71	10.5	12.8	6.6
2117	Puale Bay	57° 42'	155° 23'	−0 22	−0 03	*0.67	*0.67	9.8	12.1	6.4
	<i>on Kodiak, p.192</i>									
2119	Kanatak Lagoon, Portage Bay	57° 31'	156° 04'	+0 21	+0 51	+3.0	+0.3	9.5	11.8	6.1
2121	Lees Cabins, Wide Bay	57° 26'	156° 18'	+0 21	+0 32	+3.2	+0.2	9.8	11.9	6.2
2123	Kujulik Bay (North Shore)	56° 36.8'	157° 59.0'	+0 31	+0 46	*1.10	*1.35	7.18	9.50	5.08
2125	Unavikshak Island	56° 29.5'	157° 44.4'	+0 31	+0 44	*1.05	*1.24	6.86	9.08	4.80
2127	Nakchamik Island	56° 21.1'	157° 48.7'	+0 29	+0 41	*1.04	*1.33	6.73	8.99	4.82
2129	Chignik, Anchorage Bay	56° 17.8'	158° 24.0'	+0 34	+0 44	*1.04	*1.28	6.77	8.96	4.78
2131	Castle Bay, Northwest Arm	56° 13.9'	158° 20.8'	+0 32	+0 47	*1.02	*1.30	6.58	8.82	4.72
2133	Chankliut Island	56° 08.8'	158° 06.4'	+0 32	+0 43	*0.98	*1.27	6.32	8.50	4.55
2135	Chowiet Island, Semidi Island	56° 03.1'	156° 41.9'	+0 15	+0 25	*1.04	*1.29	6.75	8.95	4.79
2137	Hump Island, Kuiu Bay	56° 06.8'	158° 35.8'	+0 35	+0 42	*0.91	*1.23	5.78	7.93	4.24
2139	Three Star Point	55° 54'	159° 10'	+0 28	+0 37	*0.90	*1.28	5.7	7.9	4.2
2141	Mitrofan Island	55° 53.4'	158° 49.2'	+0 32	+0 39	*0.88	*1.23	5.62	7.73	4.15
2143	Chiachi Island (east side)	55° 51'	159° 06'	+0 22	+0 37	*0.89	*1.28	5.6	7.8	4.2
2145	Kupreanof Harbor, Paul Island	55° 47'	159° 21'	+0 19	+0 35	*0.89	*1.28	5.6	7.8	4.2
2147	Fox Bay, Kupreanof Peninsula	55° 38'	159° 37'	+0 18	+0 33	*0.86	*1.19	5.5	7.6	4.0
2149	Dent Point, Stepovak Bay	55° 47'	159° 53'	+0 17	+0 33	*0.86	*1.19	5.5	7.6	4.0
	<i>on Sand Point, p.200</i>									
2151	<i>Shumagin Islands</i>									
2153	Herendeen Island	55° 03.9'	159° 25.1'	−0 01	−0 02	*1.02	*1.02	5.27	7.39	3.99
2155	Bird Island	54° 50.1'	159° 45.5'	−0 06	−0 09	*0.97	*1.03	4.96	7.05	3.85
2155	Sanborn Harbor, Nagai Island	55° 09'	159° 59'	+0 03	−0 03	*1.00	*0.98	5.2	7.2	3.9
2157	Mist Harbor, Nagai Island	55° 08'	159° 51'	+0 01	−0 02	*0.97	*0.90	5.1	7.0	3.7
2159	Pirate Cove, Popof Island	55° 22'	160° 22'	+0 08	+0 03	*1.03	*0.98	5.4	7.4	4.0
2161	SAND POINT, POPOF ISLAND	55° 20.2'	160° 30.1'					5.19	7.23	3.93
2163	Zachary Bay, Unga Island	55° 20'	160° 37'	+0 00	+0 09	*1.03	*0.98	5.4	7.5	4.0
2165	Albatross Anchorage, Balboa Bay	55° 35'	160° 37'	−0 02	+0 03	*1.06	*1.05	5.5	7.6	4.1
2167	Beaver Bay	55° 28'	160° 50'	+0 03	+0 02	*1.01	*1.05	5.2	7.3	4.0
2169	Seal Cape, Coal Bay	55° 22'	161° 20'	+0 00	+0 05	*0.98	*1.05	5.0	7.0	3.9
2171	Ukolnoi Island	55° 16'	161° 32'	+0 07	+0 00	*0.97	*0.98	5.0	7.0	3.8
2173	Dolgoi Harbor, Dolgoi Island	55° 07.3'	161° 47.5'	+0 10	+0 02	*0.94	*0.98	4.80	6.78	3.71
2175	Settlement Point, Pavlof Bay	55° 30'	161° 28'	+0 09	+0 08	*0.98	*0.90	5.2	7.2	3.8
2177	King Cove	55° 03.7'	162° 19.6'	+0 11	+0 03	*0.94	*1.00	4.83	6.83	3.74
2179	Lenard Harbor, Cold Bay	55° 07'	162° 23'	+0 12	+0 17	*0.98	*0.98	5.1	7.2	3.8
2181	Cold Bay	55° 12.5'	162° 41.8'	+0 14	+0 11	*1.03	*1.01	5.38	7.42	4.03
	<i>Sanak Islands</i>									
2183	Peterson Bay	54° 24'	162° 38'	−0 05	−0 08	*0.83	*1.05	4.0	6.2	3.4
2185	Sanak Harbor	54° 29'	162° 49'	+0 14	+0 03	*0.89	*1.05	4.4	6.6	3.6
	Aleutian Islands									
2187	<i>Unimak Island</i>									
2189	Dora Harbor	54° 42'	163° 16'	+0 15	+0 15	*0.87	*1.05	4.3	6.5	3.5
	Ikatan Bay	54° 45'	163° 19'	+0 09	+0 05	*0.90	*0.98	4.6	6.5	3.6
	<i>on Unalaska, p.204</i>									
2191	False Pass, Isanotski Strait	54° 52'	163° 24'	−1 47	−2 25	*1.02	*1.19	2.1	4.1	2.4
2193	St. Catherine Cove	55° 01'	163° 30'	+0 04	−0 18	*1.23	*1.36	2.6	4.7	2.9
2195	Cape Mordvinof	54° 56'	164° 28'	+0 26	+0 19	*1.73	*1.36	4.3	6.4	3.7
2197	Cape Sarichef	54° 36'	164° 55'	−0 24	−0 56	*1.37	*1.27	3.2	5.0	3.1
2199	Scotch Cap	54° 23.6'	164° 44.7'	−2 45	−2 53	*1.69	*1.74	4.00	6.18	3.62
2201	Tigalda Bay, Tigalda Island	54° 07.2'	164° 58.6'	−2 40	−1 11	*0.91	*0.91	1.8	3.3	1.9
2203	Southeast Tigalda Island	54° 06.1'	164° 56.5'	−3 34	−3 42	*1.42	*1.42	3.39	5.30	3.02
2205	Rootok Island, Rootok Strait	54° 03.1'	165° 30.8'	−3 38	−3 28	*1.36	*1.32	3.28	5.06	2.87
2207	Trident Bay, Akun Island	54° 08.4'	165° 31.6'	−3 53	−2 57	*1.12	*0.60	3.17	4.13	2.14
2209	Akun Bay, Akun Island	54° 14.0'	165° 32.0'	−0 15	−0 36	*0.87	*0.53	2.40	3.08	1.69
2211	Surf Bay, Akun Island	54° 09.0'	165° 36.9'	+0 08	+0 11	*1.05	*1.08	2.47	3.76	2.23

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	ALASKA Aleutian Islands—cont. Time meridian, 135° W	North	West	h m	h m	ft	ft	ft	ft	ft
	<i>Akutan Island</i>									
2213	Akutan	54° 08.0'	165° 46.6'	+0 02	+0 03	*1.03	*0.97	2.53	3.73	2.16
2215	Akutan Harbor	54° 08'	165° 48'	−0 17	−0 07	*1.08	*1.10	2.4	3.9	2.5
2217	Green Bight	54° 06.6'	165° 39.7'	−2 32	−2 59	*1.35	*1.42	3.17	5.01	2.9
2219	Broad Bight	54° 03.8'	165° 56.2'	−3 10	−3 25	*1.52	*1.55	3.59	5.56	3.24
2221	Reef Bight	54° 07.8'	166° 05.9'	−0 23	−0 37	*1.00	*1.04	2.34	3.60	2.14
2223	Malga Bay, Unalga Island	53° 59'	166° 10'	−0 18	−1 05	*0.85	*0.93	1.8	3.3	2.0
	<i>Unalaska Island</i>									
2225	English Bay	53° 56'	166° 15'	+0 16	−0 01	*0.79	*0.76	1.8	3.0	1.8
2227	Dutch Harbor, Amaknak Island	53° 54'	166° 32'	+0 00	−0 07	*1.00	*1.00	2.2	3.7	2.3
2229	UNALASKA	53° 52.8'	166° 32.2'			<i>Daily predictions</i>		2.39	3.60	2.12
2231	Anderson Bay	53° 41'	166° 50'	−0 01	+0 28	*1.08	*1.10	2.4	4.0	2.5
2233	Skan Bay	53° 37'	167° 03'	−0 07	−0 19	*1.05	*1.10	2.3	4.0	2.4
2235	Kashega Bay	53° 28'	167° 05'	−0 08	−0 24	*1.08	*1.19	2.3	4.0	2.5
2237	Chernofski Harbor	53° 24'	167° 32'	−0 10	−0 29	*1.02	*1.10	2.2	3.8	2.4
2239	Kuliliak Bay	53° 28'	167° 01'	−3 10	−3 35	*1.46	*1.27	3.5	5.6	3.2
2241	Eagle Bay	53° 29'	166° 56'	−2 56	−3 16	*1.46	*1.02	3.8	5.4	3.1
2243	Raven Bay	53° 28'	166° 52'	−3 16	−3 48	*1.49	*1.27	3.6	5.7	3.3
2245	Usof Bay	53° 31'	166° 48'	−3 30	−3 45	*1.55	*1.19	3.9	6.1	3.3
2247	Udamat Bay, Sedanka Island	53° 50'	166° 13'	−3 13	−3 25	*1.35	*1.35	3.3	5.1	2.9
2249	Udagak Strait	53° 44'	166° 18'	−3 32	−3 59	*1.37	*1.02	3.5	5.5	2.9
2251	Kisselen Bay, Beaver Inlet	53° 43'	166° 34'	−2 59	−3 14	*1.40	*1.10	3.5	5.2	3.0
2253	Bogoslof Island	53° 55'	168° 02'	−0 30	−0 55	*1.08	*1.10	2.4	3.9	2.5
	<i>Umnak Island</i>									
2255	Otter Point	53° 24'	167° 51'	−0 27	−0 40	*0.88	*0.93	1.9	3.4	2.0
2257	Inanudak Bay	53° 18'	168° 21'	−0 06	−0 30	*0.96	*0.93	2.2	3.7	2.2
2259	Okee Bay	53° 01'	168° 50'	−0 07	−0 43	*0.99	*1.10	2.1	3.7	2.3
2261	Adugak Islands	52° 55'	169° 10'	−0 33	−0 56	*1.02	*1.10	2.2	4.0	2.4
2263	Cape Sagak	52° 50'	169° 03'	−3 03	−3 16	*1.20	*1.02	2.9	4.9	2.6
2265	Driftwood Bay	52° 57'	168° 43'	−2 56	−3 22	*1.35	*1.10	3.3	5.3	2.9
2267	Nikolski	52° 56.5'	168° 52.3'	−0 24	−0 19	*1.11	*0.99	2.76	4.02	2.30
2269	Kigul Island	53° 03'	168° 26'	−3 04	−3 42	*1.37	*1.27	3.2	5.5	3.1
	Time meridian, 150° W									
2271	Applegate Cove, Chuginadak Island	52° 52'	169° 52'	−1 21	−1 58	*1.08	*1.27	2.2	4.2	2.6
2273	Herbert Island, west side	52° 43'	170° 09'	−2 40	−2 51	*1.14	*0.93	2.8	4.4	2.5
	<i>Yunaska Island</i>									
2275	East Cove	52° 40'	170° 34'	−2 36	−3 35	*0.88	*0.85	2.0	3.7	2.0
2277	North side	52° 41'	170° 42'	−2 05	−2 29	*1.02	*1.19	2.1	4.0	2.4
2279	Amukta Island, north side	52° 31'	171° 14'	−2 32	−3 03	*0.94	*1.10	1.9	3.6	2.2
	<i>on Sweeper Cove, p.208</i>									
2281	Finch Cove, Seguam Island †	52° 23'	172° 24'	−1 00	+0 07	*0.87	*0.87	--	3.2	1.6
	<i>Atka Island</i>									
2283	Martin Harbor, Korovin Bay †	52° 14'	174° 18'	+0 19	+0 21	*0.87	*0.87	--	3.2	1.6
2285	Atka, Nazan Bay †	52° 13.9'	174° 10.3'	−0 11	+0 18	*0.92	*0.92	2.66	3.38	1.84
2287	Cape Utalug (4 miles west of) †	52° 07'	174° 12'	−1 38	−2 32	*1.19	*1.19	--	4.4	2.2
2289	Atka Pass, east end †	52° 00'	175° 19'	−1 07	−2 10	*1.24	*1.24	--	4.6	2.3
2291	Sagchudak Island †	52° 02'	174° 29'	−1 26	−2 25	*1.24	*1.24	--	4.6	2.3
2293	Explorer Bay †	52° 04'	174° 34'	−2 43	−2 24	*1.24	*1.24	--	4.6	2.3
2295	Bechevin Bay †	52° 02'	175° 07'	+0 11	+0 04	*0.95	*0.95	--	3.5	1.7
2297	Fenimore Pass †	51° 58'	175° 35'	−0 04	−0 13	*0.89	*0.89	--	3.3	1.6
2299	Bugle Point, Great Sitkin Island †	52° 02'	175° 59'	+0 01	−0 05	*0.89	*0.89	--	3.3	1.6
2301	Sand Bay, Great Sitkin Island †	51° 58'	176° 05'	−0 05	−0 20	*0.97	*0.97	--	3.6	1.8
2303	Tanager Point, Chugul Island †	51° 57'	175° 52'	--	−2 08	*1.00	*1.00	--	3.7	1.9
2305	Laska Cove, Kagalaska Island †	51° 50'	176° 24'	−0 04	+0 07	*0.97	*0.97	--	3.6	1.8
	<i>Adak Island</i>									
2307	SWEEPER COVE, Kuluk Bay †	51° 51.8'	176° 37.9'			<i>Daily predictions</i>		2.90	3.71	2.01
2309	Adak Bight †	51° 46'	176° 26'	−1 24	−2 02	*1.00	*1.00	--	3.7	1.8
2311	Boot Bay †	51° 43'	176° 32'	−1 38	−2 09	*0.97	*0.97	--	3.6	1.8
2313	Bay of Waterfalls †	51° 39'	176° 50'	−1 20	−2 04	*0.95	*0.95	--	3.5	1.7
2315	Unalga Bight †	51° 47'	176° 48'	−0 07	−0 21	*0.97	*0.97	--	3.6	1.8
	<i>Kanaga Island</i>									
2317	Shoal Point	51° 52'	177° 04'	+0 01	−0 16	*0.86	*0.86	--	3.2	1.6
2319	Cape Chlanak	51° 43'	177° 09'	−1 22	−1 34	*0.92	*0.92	--	3.4	1.7
2321	Kanaga Bay †	51° 43'	177° 12'	−1 39	−1 44	*1.05	*1.05	--	3.9	1.9
2323	Cape Chunu †	51° 40'	177° 38'	−1 44	−1 54	*1.11	*1.11	--	4.1	2.0
	<i>Tanaga Island</i>									
2325	Hot Springs Bay †	51° 47'	177° 48'	−0 40	−0 12	*0.84	*0.84	--	3.1	1.5
2327	Tanaga Bay †	51° 43'	178° 00'	−0 06	−0 32	*1.08	*1.08	--	4.0	2.0
2329	Lash Bay †	51° 40'	178° 03'	−0 56	−1 39	*1.14	*1.14	--	4.2	2.1
	<i>Delarof Islands</i>									
2331	Ogliuga Island (east coast) †	51° 36'	178° 37'	+0 01	−0 43	*0.95	*0.95	--	3.5	1.7
2333	Gareloi Island †	51° 45'	178° 48'	−0 08	−0 30	*1.00	*1.00	--	3.7	1.8
	<i>Rat Islands</i>	North	East							
2335	Constantine Harbor, Amchitka Island †	51° 25'	179° 17'	+0 19	−0 06	*0.76	*0.76	--	2.8	1.4
2337	Gertrude Cove, Kiska Island †	51° 56'	177° 27'	+0 02	−0 19	*0.86	*0.86	--	3.2	1.6
2339	Kiska Harbor, Kiska Island †	51° 59'	177° 33'	+0 24	−0 13	*0.97	*0.97	--	3.6	1.8

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		
		Latitude	Longitude	Time		Height		Mean	Diurnal	Mean Tide Level
				High Water	Low Water	High Water	Low Water			
	ALASKA Aleutian Islands—cont. Time meridian, 150° W	North	East	h m	h m	ft	ft	ft	ft	ft
		on Massacre Bay, p.212								
2341	Alcan Harbor, Shemya Island †	52° 44'	174° 04'	+0 00	−0 03	*1.03	*1.03	—	3.4	1.7
2343	Otkriti Bay, Agattu Island †	52° 23'	173° 38'	−0 14	−0 13	*1.03	*1.03	—	3.4	1.7
	Attu Island									
2345	MASSACRE BAY †	52° 50'	173° 12'			Daily predictions		—	3.3	1.6
2347	Chichagof Harbor †	52° 56'	173° 14'	+0 13	+0 16	*1.09	*1.09	—	3.6	1.8
2349	Holtz Bay †	52° 56'	173° 10'	−0 04	+0 18	*1.12	*1.12	—	3.7	1.8
2351	Steller Cove †	52° 59'	172° 54'	−0 13	+0 11	*1.12	*1.12	—	3.7	1.8
2353	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.204						
2355	Amak Island	55° 25'	163° 07'	+1 47	+1 48	*2.13	*1.78	5.2	7.7	4.7
2357	Grant Point, Izembek Lagoon	55° 16'	162° 54'	+3 03	+4 05	*1.23	*0.85	3.2	4.5	2.6
		on Port Moller, p.220								
2359	PORT MOLLER	55° 59.4'	160° 33.7'			Daily predictions		7.39	10.42	5.89
2361	Port Heiden	56° 56.0'	158° 43.7'	+1 43	+2 05	*1.15	*1.18	8.5	12.3	6.9
	Egegik River									
2363	Entrance	58° 14.3'	157° 30.0'	+3 16	+3 47	*1.69	*1.14	13.8	18.2	9.4
2365	Egegik	58° 13.0'	157° 22.5'	+3 42	+5 36	*1.20	*0.36	10.8	13.3	6.2
2367	Middle Bluff, Kvichak Bay	58° 27.2'	157° 30.0'	+3 56	+4 10	*1.84	*1.14	15.2	19.6	10.1
	Naknek River									
2369	Entrance <13>	58° 43.3'	157° 03.4'	+4 27	+5 26	*2.15	*1.00	18.5	22.6	11.4
2371	Omakstalia Point	58° 42.4'	156° 45.4'	+4 58	+8 35	*0.69	*0.14	6.3	8.1	3.4
2373	King Salmon Airport	58° 40.3'	156° 39.4'	+5 43	+9 46	*0.24	*0.09	2.1	3.2	1.2
	Kvichak River									
2375	Kvichak	58° 58.2'	156° 56.8'	+5 21	+7 49	*1.54	*0.41	13.9	16.5	7.8
2377	Levelock	59° 06.8'	156° 49.9'	+6 13	+9 34	*0.90	*0.23	8.2	10.3	4.6
	Nushagak Bay									
2379	Protection Point	58° 30.0'	158° 42.7'	+4 24	+4 25	*1.66	*1.27	13.15	17.74	9.36
2381	Clarks Point	58° 50.9'	158° 33.1'	+4 33	+4 59	*1.96	*1.21	16.22	20.67	10.78
2383	Snag Point	59° 02.4'	158° 26.8'	+5 15	+6 04	*1.96	*1.05	16.58	20.64	10.60
2385	Black Rock, Walrus Islands <14>	58° 42.5'	160° 11.3'	+4 53	+4 53	*0.80	*0.82	5.9	9.5	4.7
	Kuskokwim Bay and River			on Platinum, p.224						
2387	PLATINUM	59° 02.8'	161° 49.0'			Daily predictions		6.12	9.44	3.68
2389	Goodnews Bay entrance	59° 02.7'	161° 48.5'	+0 04	+0 11	*1.01	*0.95	6.2	8.9	3.7
2391	Carter Bay, Kuskokwim Bay	59° 22.6'	162° 01.7'	+0 42	+0 45	*1.24	*1.05	7.67	10.68	4.50
2393	Quinhagak (Kwinak), Kanektok River	59° 45.0'	161° 54.9'	+1 38	+2 06	*1.44	*1.06	9.03	11.93	5.18
2395	Apokak Creek entrance	60° 08.2'	162° 09.5'	+3 18	+4 30	*1.47	*0.79	9.4	12.0	5.2
2397	Popokamute	60° 07.4'	162° 30.0'	+3 04	+4 12	*1.32	*0.97	8.30	11.02	4.77
2399	Helmick Point, southeast of	60° 16.2'	162° 24.6'	+3 56	+5 10	*1.23	*1.02	7.62	10.18	4.45
2401	Lomavik	60° 33.2'	162° 17.8'	+5 57	+7 31	*0.94	*1.11	5.64	7.92	3.52
2403	BETHEL, KUSKOKWIM RIVER	60° 48.0'	161° 45.0'			Daily predictions p.228		2.42	3.67	1.56
2405	Mekoryuk, Nunivak Island	60° 25.0'	166° 10.0'	+2 05	+2 25	*1.05	*1.02	6.41	7.62	3.85
2407	Nelson Island, Tooksook Bay	60° 31.0'	165° 08.0'	+2 48	+3 09	*1.31	*1.65	7.76	9.21	4.92
	Bering Sea			on Unalaska, p.204						
2409	Zapadni Bay, St. George Island	56° 34'	169° 41'	+1 15	+1 18	*0.89	*0.89	—	3.3	1.7
2411	VILLAGE COVE, St. Paul Island	57° 07.5'	170° 16.5'			Daily predictions, p. 216		2.10	3.30	2.03
2413	St. Matthew Island	60° 22'	172° 43'	+0 22	+0 50	*0.57	*0.57	1.3	2.1	1.2
	St. Lawrence Island			on Nome, p.236						
2415	Northeast Cape	63° 19.0'	168° 58.0'	−2 38	−3 47	*1.65	*0.71	2.01	2.46	1.22
2417	Fossil River entrance	63° 28.0'	170° 01.0'	−2 39	−3 56	*1.11	*0.65	1.3	1.7	0.8
2419	Niyrapak Lagoon entrance	63° 37.2'	171° 23.0'	−3 06	−4 19	*0.81	*0.65	0.9	1.2	0.6
	Norton Sound			on Unalakleet, p.232						
2421	Numam Iqua (Sheldon Pt.), Kwemeluk Pass †	62° 31.9'	164° 50.7'	−5 28	−6 20	*0.57	*0.68	1.81	2.64	1.07
2423	Apoon Mouth, Yukon River †	63° 03'	163° 23'	−1 30	−1 30	*1.03	*1.03	—	4.0	2.0
2425	Pikmiktalik River entrance †	63° 16'	162° 36'	−1 13	−1 13	*1.08	*1.08	—	4.2	2.1
2427	St. Michael †	63° 29'	162° 02'	−0 11	−2 16	*1.00	*1.00	—	3.9	2.0
2429	North Bay, Stuart Island †	63° 37'	162° 30'	−0 28	−0 28	*0.72	*0.72	—	2.8	1.4
2431	UNALAKLEET †	63° 52.5'	160° 47.2'			Daily predictions		3.17	3.89	1.84
2433	Shaktoolik †	64° 22.8'	161° 14.1'	+0 17	+0 03	*0.97	*0.97	2.43	3.76	1.84
				on Nome, p.236						
2435	NOME	64° 30.0'	165° 25.8'			Daily predictions		1.04	1.54	0.83
2437	Point Spencer, Port Clarence	65° 15.4'	166° 50.8'	+4 56	+5 10	*0.88	*0.42	1.06	1.28	0.66
2439	Teller, Port Clarence	65° 16.0'	166° 21.1'	+4 01	+4 13	*0.80	*0.87	0.80	1.18	0.67
2441	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 Cape Krusenstern, p.240						
2443	Tin City	65° 33.5'	167° 58.5'	+0 15	+0 57	*1.38	*0.83	1.02	0.73	0.46
2445	Shishmaref Inlet	66° 15.8'	166° 01.2'	+2 18	+2 32	*1.45	*0.92	0.76	1.03	0.49

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	ALASKA Kotzebue Sound Time meridian, 135° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Cape Krusenstern, p.240						
2447	Deering	66° 05.8'	162° 44.4'	+7 35	+9 28	*2.71	*2.33	1.36	1.83	0.96
2449	Kotzebue	66° 54.1'	162° 34.9'	+9 58	+11 23	*0.95	*1.42	0.40	0.66	0.37
2451	CAPE KRUSENSTERN	67° 03.3'	163° 19.3'	cDaily	predicti	ons		0.48	0.66	0.36
2453	Red Dog Dock	67° 34.6'	164° 03.9'	+2 04	+2 51	*1.20	*1.08	0.66	0.88	0.46
2455	Kivalina	67° 43.6'	164° 35.5'	+1 24	+4 38	*1.28	*0.83	0.67	0.90	0.43
2457	Point Hope	68° 20.5'	166° 48.4'	+4 12	+3 54	*0.99	*0.81	0.50	0.67	0.35
	Arctic Ocean <15>									
				on Kodiak, p.192						
2459	Barrow offshore	71° 21.6'	156° 43.8'	-1 12	-1 53	*0.07	*0.05	0.49	0.66	0.30
2461	Point Barrow	71° 22'	156° 22'	-0 37	-0 26	*0.04	*0.04	0.3	0.4	0.2
2463	PRUDHOE BAY	70° 24.0'	148° 31.6'	Daily predictions, p.244				0.51	0.70	0.34
2465	Flaxman Island	70° 11'	145° 50'	-0 57	-0 28	*0.08	*0.09	0.5	0.7	0.3
2467	Herschel Island, Mackenzie Bay	69° 34'	138° 55'	-1 36	-1 42	--	--	0.6	0.7	1.5
2469	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.256						
2471	SAND ISLAND, MIDWAY ISLANDS	28° 12.7'	177° 21.6'	Daily predictions, p.248				0.9	1.3	0.7
2473	Lisianski Island	26° 04'	173° 58'	--	--	--	--	0.5	0.8	0.3
	Time meridian, 150° W									
2475	Laysan Island	25° 46'	171° 45'	+1 02	+1 12	*0.53	*0.50	0.7	1.0	0.4
2477	East Island, French Frigate Shoals	23° 47'	166° 13'	+0 03	+0 08	*0.73	*0.73	0.9	1.4	0.6
2479	Nonopapa, Niihau Island	21° 52'	160° 14'	-0 16	-0 11	*0.77	*0.77	1.0	1.6	0.7
	Kauai Island									
2481	Waimea Bay	21° 57'	159° 40'	+0 07	+0 18	*0.86	*0.91	1.0	1.6	0.7
2483	Port Allen, Hanapepe Bay	21° 54.2'	159° 3.5'	-0 15	-0 10	*1.01	*1.00	1.24	1.84	0.82
2485	NAWILIWILI BAY	21° 57.4'	159° 21.6'	Daily predictions				1.2	1.8	0.8
2487	Hanamaulu Bay	22° 00'	159° 20'	+0 10	+0 04	*1.00	*0.91	1.2	1.8	0.8
2489	Hanalei Bay	22° 13'	159° 30'	-1 01	-1 22	*1.07	*0.91	1.3	1.8	0.8
	Oahu Island									
2491	Haleiwa, Waialua Bay †	21° 36'	158° 07'	-1 02	-2 05	*0.80	*0.80	--	1.6	0.7
2493	Waianae	21° 27'	158° 12'	+0 20	+0 18	*0.93	*1.00	1.2	1.8	0.8
2495	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
2497	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
2499	HONOLULU	21° 18.5'	157° 52.0'	Daily predictions				1.28	1.64	0.80
2501	Hanauma Bay	21° 17'	157° 42'	-0 59	-0 45	*1.00	*1.00	1.3	1.9	0.8
				on Moku O Loe, p.260						
2503	Waimanalo	21° 20'	157° 42'	+0 11	+0 05	*0.88	*0.75	1.1	1.8	0.8
2505	MOKU O LOE	21° 26.2'	157° 47.6'	Daily predictions				1.5	2.1	1.0
2507	Waikane, Kaneohe Bay	21° 30'	157° 51'	-0 22	-0 04	*1.13	*1.00	1.4	2.2	1.1
2509	Laiemaloo	21° 38.2'	157° 55.3'	+0 43	+0 00	*1.05	*1.08	1.05	2.29	1.11
2511	Laie Bay	21° 39'	157° 56'	-0 21	-0 32	*1.00	*0.75	1.3	2.2	0.9
	Molokai Island									
2513	Kolo	21° 06'	157° 12'	+0 05	+0 01	0.0	0.0	1.3	2.0	0.8
2515	Kaunakakai Harbor	21° 05.1'	157° 01.9'	-0 10	-0 14	*1.13	*1.25	1.42	1.82	0.91
2517	Kamalo Harbor	21° 03'	156° 53'	-0 37	-0 16	+0.1	0.0	1.4	2.1	0.9
2519	Pukoo Harbor	21° 04'	156° 48'	-1 03	-0 48	+0.1	0.0	1.4	2.1	0.9
2521	Kaunapalapau, Lanai Island	20° 47'	157° 00'	+0 02	+0 03	+0.2	0.0	1.5	2.2	0.9
	Kahoolawe Island									
2523	Kuheia Bay	20° 36'	156° 36'	-0 09	-0 09	+0.2	0.0	1.5	2.1	0.9
2525	Smuggler Cove	20° 31'	156° 41'	-0 15	+0 03	+0.2	0.0	1.5	2.2	0.9
	Maui Island									
2527	KAHULUI	20° 53.9'	156° 28.3'	Daily predictions				1.6	2.3	1.1
2529	Hana	20° 46'	155° 59'	+0 40	+0 18	*1.05	*0.54	1.8	2.5	1.1
2531	Makena	20° 39'	156° 27'	+1 21	+1 09	*0.73	*0.54	1.2	1.8	0.8
2533	Kihei, Maalaea Bay	20° 47'	156° 28'	+1 52	+1 19	*0.94	*0.54	1.6	2.3	1.0
2535	Lahaina	20° 53'	156° 41'	+1 18	+1 01	*0.89	*0.81	1.4	2.2	1.0
	Hawaii Island									
2537	Mahukona	20° 11'	155° 54'	+0 38	+0 42	*0.80	*0.67	1.4	2.1	0.9
2539	Kawaihae	20° 02.4'	155° 49.9'	+1 01	+0 57	*0.83	*0.60	1.46	2.14	0.91
2541	Kailua Kona	19° 39'	156° 00'	+0 38	+0 37	*0.80	*0.67	1.4	2.1	0.9
2543	Napoopoo, Kealahou Bay	19° 28'	155° 55'	+0 48	+0 47	*0.80	*0.67	1.4	2.1	0.9
2545	Honuaupo	19° 05'	155° 33'	+0 38	+0 33	*1.01	*1.00	1.7	2.5	1.1
2547	HILO	19° 43.8'	155° 03.4'	Daily predictions				1.67	2.40	1.13
2549	JOHNSTON ATOLL	16° 44.3'	169° 31.8'	Daily predictions p.272				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 277 and 278.
- † The tide at this place is chiefly diurnal. See caution note on page 277 .
- <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 290 and 291.
- <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 Port Moller is less than 4 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:

<i>Low Water</i>		<i>High Water</i>	
<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft</i>	<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft</i>
0500	3.1	1114	14.7
1746	2.5	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 $11^{\text{h}} 14^{\text{m}} - 5^{\text{h}} 00^{\text{m}} = 6^{\text{h}} 14^{\text{m}}$.

The time after low water for which the height is required is $7^{\text{h}} 35^{\text{m}} - 5^{\text{h}} 00^{\text{m}} = 2^{\text{h}} 35^{\text{m}}$.

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 $4^{\text{h}} 00^{\text{m}}$ to $10^{\text{h}} 40^{\text{m}}$. The nearest tabular value to $6^{\text{h}} 14^{\text{m}}$, the above duration of rise, is $6^{\text{h}} 20^{\text{m}}$; and on the horizontal line of $6^{\text{h}} 20^{\text{m}}$, the nearest tabular time to $2^{\text{h}} 35^{\text{m}}$ after low water for which the height is required is $2^{\text{h}} 32^{\text{m}}$. Following down the column in which this $2^{\text{h}} 32^{\text{m}}$ 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:

<i>High Water</i>		<i>Low Water</i>	
<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft</i>	<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft</i>
0039	4.9	0814	0.2
1510	3.1	1933	2.4

The duration of fall is $8^{\text{h}} 14^{\text{m}} - 00^{\text{h}} 39^{\text{m}} = 7^{\text{h}} 35^{\text{m}}$.

The time after high water for which the height is required is $3^{\text{h}} 00^{\text{m}} - 00^{\text{h}} 39^{\text{m}} = 02^{\text{h}} 21^{\text{m}}$.

The range of tide is $4.9 - 0.2 = 4.7$ feet.

Entering Table 3 at the duration of fall of $7^{\text{h}} 40^{\text{m}}$, which is the nearest value to $7^{\text{h}} 35^{\text{m}}$, the nearest value on the horizontal line to $2^{\text{h}} 21^{\text{m}}$ is $2^{\text{h}} 18^{\text{m}}$ 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 $03^{\text{h}} 00^{\text{m}}$ is, therefore, $4.9 - 0.9 = 4.0$ feet or 122 centimeters.

When the duration of rise or fall is greater than $10^{\text{h}} 40^{\text{m}}$, 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.

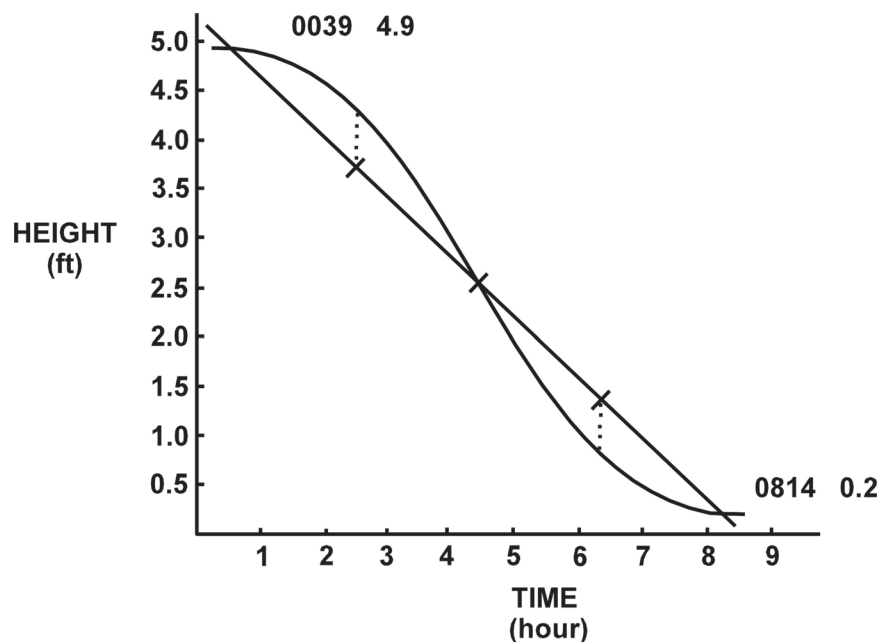


TABLE 3.—HEIGHT OF TIDE AT ANY TIME

	<i>h. m.</i>	Time from the nearest high water or low water														
		<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>
Duration of rise or fall, see footnote	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
	<i>Ft.</i>	Correction to height														
		<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>
Range of tide, see footnote	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	0.4	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	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	1.6	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 $90^{\circ} 50', 34'$ 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.

TABLE 4.-SUNRISE AND SUNSET, 2015

Date	0°		5° N.		10° N.		15° N.		20° N.		25° N.	
	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.
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 09	06 10	18 01	06 19	17 53	06 27	17 44	06 36	17 35	06 46	17 25
11	06 04	18 11	06 12	18 03	06 20	17 55	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 36
26	06 09	18 16	06 16	18 09	06 23	18 02	06 30	17 55	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 47
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 35	17 54
20	06 10	18 17	06 14	18 13	06 18	18 09	06 22	18 05	06 26	18 01	06 31	17 57
25	06 10	18 16	06 13	18 13	06 16	18 10	06 20	18 07	06 23	18 03	06 27	18 00
Mar. 2	06 09	18 15	06 11	18 13	06 14	18 10	06 17	18 08	06 19	18 05	06 22	18 02
7	06 08	18 14	06 10	18 13	06 12	18 11	06 13	18 09	06 15	18 07	06 18	18 05
12	06 07	18 13	06 08	18 12	06 09	18 11	06 10	18 10	06 11	18 09	06 13	18 07
17	06 05	18 12	06 06	18 11	06 06	18 11	06 07	18 10	06 07	18 10	06 08	18 10
22	06 04	18 10	06 04	18 10	06 03	18 11	06 03	18 11	06 03	18 11	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 58	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 46	18 17	05 42	18 21
16	05 57	18 03	05 53	18 07	05 49	18 10	05 46	18 14	05 42	18 18	05 37	18 23
21	05 55	18 02	05 51	18 06	05 47	18 11	05 43	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 29	18 27
May 1	05 54	18 01	05 48	18 06	05 43	18 12	05 37	18 17	05 31	18 23	05 25	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 32
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 38	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 40	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 53	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 19	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 26	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 44	18 26	05 38	18 33	05 31	18 40
14	06 01	18 08	05 56	18 13	05 51	18 18	05 45	18 24	05 40	18 30	05 33	18 36
19	06 00	18 07	05 56	18 12	05 51	18 16	05 46	18 21	05 41	18 26	05 36	18 32
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 08	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 41	18 17
8	05 55	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 01	05 50	18 02	05 48	18 03	05 47	18 05	05 45	18 07
18	05 51	17 57	05 50	17 58	05 50	17 59	05 49	18 00	05 48	18 00	05 47	18 01
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 48	17 54	05 48	17 53	05 49	17 53	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 50	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 45	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 35	05 59	17 31
23	05 41	17 48	05 45	17 44	05 49	17 40	05 53	17 35	05 57	17 31	06 02	17 26
28	05 40	17 47	05 45	17 43	05 50	17 38	05 54	17 33	05 59	17 28	06 05	17 23
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 48	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 07	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 28	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.

TABLE 4.-SUNRISE AND SUNSET, 2015

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Date	30° N.		32° N.		34° N.		36° N.		38° N.		40° N.	
	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.
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
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 14	07 06	17 10	07 11	17 05	07 16	17 00	07 21	16 54
16	06 57	17 23	07 01	17 19	07 05	17 14	07 10	17 10	07 15	17 05	07 20	17 00
21	06 55	17 27	06 59	17 23	07 03	17 19	07 08	17 15	07 12	17 10	07 17	17 06
26	06 54	17 32	06 57	17 28	07 01	17 24	07 05	17 20	07 09	17 16	07 14	17 11
31	06 51	17 36	06 54	17 33	06 58	17 29	07 02	17 25	07 06	17 22	07 10	17 17
Feb. 5	06 48	17 40	06 51	17 37	06 54	17 34	06 58	17 31	07 01	17 27	07 05	17 23
10	06 44	17 44	06 47	17 42	06 50	17 39	06 53	17 36	06 56	17 33	06 59	17 29
15	06 40	17 48	06 43	17 46	06 45	17 44	06 48	17 41	06 50	17 38	06 53	17 35
20	06 36	17 52	06 38	17 50	06 40	17 48	06 42	17 46	06 44	17 44	06 47	17 41
25	06 31	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	17 59	06 27	17 58	06 28	17 57	06 29	17 55	06 31	17 54	06 33	17 52
7	06 20	18 03	06 21	18 02	06 22	18 01	06 23	18 00	06 24	17 59	06 25	17 58
12	06 14	18 06	06 15	18 06	06 15	18 05	06 16	18 04	06 16	18 04	06 17	18 03
17	06 08	18 09	06 08	18 09	06 08	18 09	06 09	18 09	06 09	18 09	06 09	18 08
22	06 02	18 12	06 02	18 13	06 02	18 13	06 01	18 13	06 01	18 13	06 01	18 14
27	05 56	18 15	05 55	18 16	05 55	18 17	05 54	18 17	05 54	18 18	05 53	18 19
Apr. 1	05 50	18 18	05 49	18 19	05 48	18 20	05 47	18 21	05 46	18 23	05 45	18 24
6	05 44	18 21	05 43	18 23	05 41	18 24	05 40	18 26	05 38	18 27	05 37	18 29
11	05 38	18 24	05 37	18 26	05 35	18 28	05 33	18 30	05 31	18 32	05 29	18 34
16	05 33	18 28	05 31	18 30	05 28	18 32	05 26	18 34	05 24	18 36	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 20	18 37	05 17	18 40	05 14	18 43	05 11	18 46	05 07	18 49
May 1	05 18	18 37	05 15	18 40	05 11	18 43	05 08	18 47	05 04	18 50	05 01	18 54
6	05 13	18 40	05 10	18 44	05 06	18 47	05 03	18 51	04 59	18 55	04 55	18 59
11	05 10	18 44	05 06	18 47	05 02	18 51	04 58	18 55	04 54	19 00	04 49	19 04
16	05 06	18 47	05 02	18 51	04 58	18 55	04 54	18 59	04 49	19 04	04 44	19 09
21	05 04	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 37	19 18
31	05 00	18 56	04 55	19 00	04 50	19 05	04 45	19 10	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 13	04 38	19 19	04 32	19 25
10	04 58	19 01	04 53	19 05	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 26	04 32	19 33
30	05 02	19 05	04 57	19 10	04 52	19 15	04 46	19 21	04 40	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 51	19 19	04 46	19 25	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 43	19 28
20	05 12	19 01	05 07	19 05	05 03	19 10	04 58	19 14	04 53	19 19	04 47	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 05	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 09	19 02	05 05	19 06	05 01	19 11
9	05 24	18 47	05 20	18 50	05 17	18 54	05 13	18 57	05 10	19 01	05 05	19 05
14	05 27	18 42	05 24	18 45	05 21	18 48	05 17	18 52	05 14	18 55	05 10	18 59
19	05 29	18 37	05 27	18 40	05 24	18 43	05 21	18 46	05 18	18 49	05 15	18 52
24	05 32	18 32	05 30	18 34	05 28	18 37	05 25	18 39	05 23	18 42	05 20	18 44
29	05 35	18 26	05 33	18 28	05 31	18 30	05 29	18 32	05 27	18 35	05 24	18 37
Sept. 3	05 38	18 21	05 36	18 22	05 35	18 24	05 33	18 25	05 31	18 27	05 29	18 29
8	05 41	18 15	05 39	18 16	05 38	18 17	05 37	18 18	05 35	18 20	05 34	18 21
13	05 43	18 08	05 42	18 09	05 42	18 10	05 41	18 11	05 40	18 12	05 39	18 13
18	05 46	18 02	05 45	18 03	05 45	18 03	05 44	18 03	05 44	18 04	05 43	18 04
23	05 49	17 56	05 49	17 56	05 48	17 56	05 48	17 56	05 48	17 56	05 48	17 56
28	05 51	17 50	05 52	17 49	05 52	17 49	05 52	17 49	05 53	17 48	05 53	17 48
Oct. 3	05 54	17 44	05 55	17 43	05 56	17 42	05 56	17 41	05 57	17 41	05 58	17 40
8	05 57	17 38	05 58	17 37	05 59	17 35	06 00	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 25	06 07	17 23	06 09	17 21	06 11	17 19	06 13	17 17
23	06 07	17 21	06 09	17 19	06 11	17 17	06 14	17 15	06 16	17 12	06 19	17 10
28	06 11	17 17	06 13	17 14	06 16	17 12	06 18	17 09	06 21	17 06	06 24	17 03
Nov. 2	06 14	17 12	06 17	17 10	06 20	17 07	06 23	17 04	06 26	17 00	06 30	16 57
7	06 18	17 09	06 21	17 06	06 25	17 02	06 28	16 59	06 32	16 55	06 35	16 51
12	06 22	17 06	06 26	17 02	06 29	16 59	06 33	16 55	06 37	16 51	06 41	16 47
17	06 26	17 03	06 30	16 59	06 34	16 56	06 38	16 51	06 42	16 47	06 47	16 43
22	06 30	17 01	06 34	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 52	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 42	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 01	07 10	16 56	07 16	16 51	07 22	16 45

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2015

Date	42° N.		44° N.		46° N.		48° N.		50° N.		52° N.	
	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.
Jan. 1	07 28	16 39	07 35	16 32	07 42	16 25	07 50	16 17	07 58	16 09	08 08	15 59
6	07 28	16 44	07 35	16 37	07 42	16 30	07 49	16 22	07 58	16 14	08 07	16 05
11	07 27	16 49	07 33	16 42	07 40	16 36	07 47	16 28	07 55	16 20	08 04	16 12
16	07 25	16 54	07 31	16 48	07 38	16 42	07 44	16 35	07 52	16 28	08 00	16 19
21	07 22	17 00	07 28	16 55	07 34	16 49	07 40	16 42	07 48	16 35	07 55	16 28
26	07 19	17 07	07 24	17 02	07 29	16 56	07 35	16 50	07 42	16 43	07 49	16 36
31	07 14	17 13	07 19	17 08	07 24	17 03	07 29	16 58	07 35	16 52	07 42	16 45
Feb. 5	07 09	17 19	07 13	17 15	07 18	17 11	07 23	17 06	07 28	17 00	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 32	07 00	17 29	07 03	17 26	07 07	17 22	07 11	17 18	07 16	17 13
20	06 49	17 39	06 52	17 36	06 55	17 33	06 58	17 30	07 02	17 26	07 06	17 23
25	06 42	17 45	06 44	17 43	06 47	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 38	17 47	06 40	17 45	06 42	17 43	06 44	17 41
7	06 26	17 57	06 27	17 56	06 29	17 54	06 30	17 53	06 32	17 51	06 33	17 50
12	06 18	18 03	06 18	18 02	06 19	18 01	06 20	18 00	06 21	17 59	06 22	17 59
17	06 09	18 08	06 09	18 08	06 10	18 08	06 10	18 08	06 10	18 08	06 11	18 07
22	06 01	18 14	06 00	18 14	06 00	18 15	06 00	18 15	05 59	18 15	05 59	18 16
27	05 52	18 20	05 51	18 20	05 50	18 21	05 50	18 22	05 49	18 23	05 47	18 25
Apr. 1	05 44	18 25	05 42	18 26	05 41	18 28	05 39	18 30	05 38	18 31	05 36	18 33
6	05 35	18 31	05 33	18 33	05 31	18 35	05 29	18 37	05 27	18 39	05 24	18 42
11	05 27	18 36	05 24	18 39	05 22	18 41	05 19	18 44	05 16	18 47	05 13	18 50
16	05 19	18 42	05 16	18 45	05 13	18 48	05 10	18 51	05 06	18 55	05 02	18 59
21	05 11	18 47	05 08	18 51	05 04	18 54	05 00	18 58	04 56	19 03	04 51	19 07
26	05 04	18 53	05 00	18 57	04 56	19 01	04 51	19 05	04 46	19 10	04 41	19 16
May 1	04 57	18 58	04 52	19 03	04 48	19 07	04 43	19 13	04 37	19 18	04 31	19 24
6	04 50	19 04	04 45	19 09	04 40	19 14	04 35	19 19	04 29	19 26	04 22	19 32
11	04 44	19 09	04 39	19 14	04 33	19 20	04 27	19 26	04 21	19 33	04 13	19 41
16	04 39	19 14	04 33	19 20	04 27	19 26	04 21	19 33	04 13	19 40	04 05	19 48
21	04 34	19 19	04 28	19 25	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 53	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 26	19 32	04 19	19 39	04 11	19 46	04 03	19 55	03 54	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 18
15	04 24	19 37	04 17	19 44	04 09	19 52	04 00	20 01	03 50	20 11	03 40	20 21
20	04 24	19 39	04 17	19 46	04 09	19 54	04 00	20 03	03 50	20 13	03 40	20 23
25	04 26	19 40	04 18	19 47	04 10	19 55	04 01	20 04	03 52	20 13	03 41	20 24
30	04 28	19 40	04 20	19 47	04 12	19 55	04 04	20 03	03 54	20 13	03 43	20 23
July 5	04 30	19 39	04 23	19 46	04 15	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 37	19 34	04 31	19 41	04 24	19 48	04 16	19 56	04 07	20 04	03 58	20 14
20	04 42	19 31	04 35	19 37	04 29	19 44	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 19	19 53	04 11	20 01
30	04 51	19 21	04 46	19 27	04 40	19 33	04 33	19 39	04 26	19 46	04 18	19 54
Aug. 4	04 56	19 16	04 51	19 21	04 45	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 19	04 46	19 24	04 40	19 30	04 34	19 36
14	05 06	19 02	05 02	19 06	04 58	19 11	04 53	19 16	04 48	19 21	04 42	19 27
19	05 12	18 55	05 08	18 59	05 04	19 03	05 00	19 07	04 55	19 11	04 50	19 16
24	05 17	18 47	05 14	18 50	05 10	18 54	05 06	18 57	05 02	19 01	04 58	19 06
29	05 22	18 39	05 19	18 42	05 16	18 45	05 13	18 48	05 10	18 51	05 06	18 55
Sept. 3	05 27	18 31	05 25	18 33	05 23	18 35	05 20	18 38	05 17	18 41	05 14	18 43
8	05 32	18 22	05 31	18 24	05 29	18 26	05 27	18 28	05 25	18 30	05 22	18 32
13	05 38	18 14	05 36	18 15	05 35	18 16	05 34	18 17	05 32	18 19	05 31	18 20
18	05 43	18 05	05 42	18 06	05 41	18 06	05 41	18 07	05 40	18 08	05 39	18 09
23	05 48	17 56	05 48	17 56	05 48	17 57	05 47	17 57	05 47	17 57	05 47	17 57
28	05 53	17 48	05 54	17 47	05 54	17 47	05 54	17 46	05 55	17 46	05 55	17 45
Oct. 3	05 59	17 39	05 59	17 38	06 00	17 37	06 01	17 36	06 02	17 35	06 04	17 34
8	06 04	17 31	06 05	17 29	06 07	17 28	06 08	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 14	06 21	17 11
18	06 15	17 14	06 18	17 12	06 20	17 09	06 23	17 07	06 26	17 04	06 29	17 00
23	06 21	17 07	06 24	17 04	06 27	17 01	06 31	16 58	06 34	16 54	06 38	16 50
28	06 27	17 00	06 31	16 56	06 34	16 53	06 38	16 49	06 42	16 45	06 47	16 40
Nov. 2	06 33	16 53	06 37	16 49	06 41	16 45	06 46	16 41	06 51	16 36	06 56	16 30
7	06 39	16 47	06 44	16 43	06 48	16 38	06 53	16 33	06 59	16 28	07 05	16 22
12	06 46	16 42	06 50	16 37	06 56	16 32	07 01	16 27	07 07	16 20	07 14	16 14
17	06 52	16 38	06 57	16 32	07 03	16 27	07 09	16 21	07 15	16 14	07 23	16 07
22	06 58	16 34	07 03	16 28	07 09	16 22	07 16	16 16	07 23	16 08	07 31	16 01
27	07 04	16 31	07 10	16 25	07 16	16 19	07 23	16 12	07 31	16 04	07 39	15 56
Dec. 2	07 09	16 29	07 15	16 23	07 22	16 16	07 29	16 09	07 37	16 01	07 46	15 52
7	07 14	16 28	07 20	16 22	07 27	16 15	07 35	16 07	07 44	15 59	07 53	15 49
12	07 18	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.

TABLE 4.-SUNRISE AND SUNSET, 2015

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Date	54° N.		56° N.		58° N.		60° N.		62° N.		64° N.	
	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.
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 17
6	08 17	15 54	08 29	15 42	08 43	15 29	08 59	15 13	09 19	14 53	09 43	14 28
11	08 14	16 02	08 26	15 50	08 38	15 38	08 54	15 22	09 12	15 04	09 35	14 41
16	08 10	16 10	08 20	15 59	08 32	15 47	08 47	15 33	09 03	15 17	09 24	14 56
21	08 04	16 19	08 14	16 09	08 25	15 58	08 38	15 45	08 53	15 30	09 12	15 12
26	07 57	16 28	08 06	16 19	08 16	16 09	08 28	15 58	08 42	15 44	08 58	15 28
31	07 49	16 38	07 57	16 30	08 06	16 21	08 17	16 11	08 29	15 59	08 43	15 44
Feb. 5	07 40	16 48	07 48	16 41	07 56	16 33	08 05	16 24	08 16	16 13	08 28	16 01
10	07 31	16 58	07 37	16 52	07 44	16 45	07 52	16 37	08 02	16 28	08 12	16 17
15	07 21	17 08	07 26	17 03	07 32	16 57	07 39	16 50	07 47	16 42	07 56	16 33
20	07 10	17 18	07 14	17 14	07 20	17 09	07 25	17 03	07 32	16 57	07 39	16 49
25	06 59	17 28	07 02	17 25	07 06	17 21	07 11	17 16	07 16	17 11	07 22	17 05
Mar. 2	06 47	17 38	06 50	17 35	06 53	17 32	06 57	17 29	07 01	17 25	07 05	17 21
7	06 35	17 48	06 37	17 46	06 39	17 44	06 42	17 41	06 45	17 39	06 48	17 36
12	06 23	17 58	06 24	17 56	06 26	17 55	06 27	17 54	06 29	17 52	06 30	17 51
17	06 11	18 07	06 11	18 07	06 12	18 07	06 12	18 06	06 12	18 06	06 13	18 06
22	05 59	18 16	05 58	18 17	05 57	18 18	05 57	18 19	05 56	18 19	05 55	18 20
27	05 46	18 26	05 45	18 27	05 43	18 29	05 42	18 31	05 40	18 33	05 38	18 35
Apr. 1	05 34	18 35	05 32	18 37	05 29	18 40	05 27	18 43	05 23	18 46	05 20	18 50
6	05 22	18 44	05 19	18 48	05 15	18 51	05 11	18 55	05 07	19 00	05 02	19 05
11	05 10	18 54	05 06	18 58	05 01	19 02	04 56	19 07	04 51	19 13	04 45	19 20
16	04 58	19 03	04 53	19 08	04 48	19 13	04 42	19 20	04 35	19 27	04 27	19 35
21	04 46	19 12	04 41	19 18	04 34	19 25	04 27	19 32	04 19	19 40	04 09	19 50
26	04 35	19 22	04 29	19 28	04 21	19 36	04 13	19 44	04 03	19 54	03 52	20 06
May 1	04 24	19 31	04 17	19 39	04 09	19 47	03 59	19 57	03 48	20 08	03 35	20 22
6	04 14	19 40	04 06	19 49	03 57	19 58	03 46	20 09	03 33	20 22	03 18	20 38
11	04 05	19 49	03 56	19 58	03 45	20 09	03 33	20 21	03 19	20 36	03 01	20 54
16	03 56	19 58	03 46	20 08	03 35	20 20	03 21	20 33	03 05	20 50	02 45	21 10
21	03 49	20 06	03 38	20 17	03 25	20 30	03 10	20 45	02 52	21 03	02 30	21 26
26	03 42	20 13	03 30	20 25	03 16	20 39	03 00	20 55	02 40	21 16	02 15	21 41
31	03 36	20 20	03 24	20 33	03 09	20 47	02 51	21 05	02 30	21 27	02 01	21 56
June 5	03 32	20 26	03 19	20 39	03 03	20 55	02 45	21 13	02 21	21 37	01 50	22 09
10	03 29	20 30	03 15	20 44	02 59	21 00	02 39	21 20	02 15	21 45	01 40	22 20
15	03 27	20 34	03 13	20 48	02 57	21 05	02 36	21 25	02 11	21 51	01 34	22 28
20	03 27	20 36	03 13	20 50	02 56	21 07	02 36	21 27	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 32
30	03 31	20 36	03 17	20 49	03 01	21 06	02 41	21 26	02 15	21 51	01 39	22 27
July 5	03 35	20 33	03 22	20 47	03 06	21 02	02 47	21 22	02 22	21 46	01 49	22 19
10	03 41	20 29	03 28	20 42	03 12	20 57	02 54	21 15	02 31	21 38	02 01	22 08
15	03 47	20 24	03 34	20 37	03 20	20 51	03 03	21 08	02 42	21 28	02 15	21 55
20	03 54	20 18	03 42	20 29	03 29	20 43	03 13	20 58	02 54	21 17	02 29	21 41
25	04 01	20 11	03 51	20 21	03 38	20 33	03 24	20 48	03 06	21 05	02 45	21 26
30	04 09	20 02	04 00	20 12	03 48	20 23	03 35	20 36	03 20	20 51	03 01	21 10
Aug. 4	04 18	19 53	04 09	20 02	03 59	20 12	03 47	20 24	03 33	20 37	03 16	20 53
9	04 27	19 43	04 18	19 51	04 09	20 00	03 59	20 11	03 47	20 22	03 32	20 37
14	04 35	19 33	04 28	19 40	04 20	19 48	04 11	19 57	04 00	20 07	03 48	20 20
19	04 44	19 22	04 38	19 28	04 31	19 35	04 23	19 43	04 14	19 52	04 03	20 02
24	04 53	19 10	04 48	19 16	04 42	19 22	04 35	19 28	04 27	19 36	04 18	19 45
29	05 02	18 59	04 58	19 03	04 53	19 08	04 47	19 14	04 40	19 20	04 33	19 27
Sept. 3	05 11	18 47	05 07	18 50	05 03	18 54	04 59	18 59	04 53	19 04	04 47	19 10
8	05 20	18 34	05 17	18 37	05 14	18 40	05 10	18 44	05 06	18 47	05 02	18 52
13	05 29	18 22	05 27	18 24	05 25	18 26	05 22	18 28	05 19	18 31	05 16	18 34
18	05 38	18 10	05 37	18 11	05 35	18 12	05 34	18 13	05 32	18 15	05 30	18 16
23	05 47	17 57	05 46	17 57	05 46	17 58	05 46	17 58	05 45	17 58	05 45	17 59
28	05 56	17 45	05 56	17 44	05 57	17 43	05 57	17 43	05 58	17 42	05 59	17 41
Oct. 3	06 05	17 32	06 06	17 31	06 08	17 29	06 09	17 28	06 11	17 26	06 13	17 23
8	06 14	17 20	06 16	17 18	06 19	17 16	06 21	17 13	06 24	17 10	06 28	17 06
13	06 23	17 08	06 26	17 05	06 30	17 02	06 33	16 58	06 38	16 54	06 43	16 49
18	06 33	16 57	06 37	16 53	06 41	16 48	06 46	16 44	06 51	16 38	06 58	16 32
23	06 42	16 46	06 47	16 41	06 52	16 35	06 58	16 29	07 05	16 23	07 13	16 15
28	06 52	16 35	06 58	16 29	07 04	16 23	07 11	16 16	07 19	16 08	07 28	15 58
Nov. 2	07 02	16 25	07 08	16 18	07 16	16 11	07 24	16 02	07 33	15 53	07 44	15 42
7	07 12	16 15	07 19	16 08	07 27	15 59	07 37	15 50	07 47	15 39	08 00	15 26
12	07 21	16 06	07 29	15 58	07 39	15 49	07 49	15 38	08 02	15 26	08 16	15 11
17	07 31	15 58	07 40	15 49	07 50	15 39	08 02	15 27	08 16	15 13	08 33	14 56
22	07 40	15 52	07 50	15 42	08 01	15 30	08 14	15 17	08 30	15 02	08 48	14 43
27	07 49	15 46	07 59	15 35	08 11	15 23	08 26	15 09	08 43	14 52	09 04	14 31
Dec. 2	07 56	15 42	08 08	15 30	08 21	15 17	08 36	15 02	08 55	14 44	09 18	14 20
7	08 03	15 39	08 15	15 27	08 29	15 13	08 45	14 57	09 05	14 37	09 30	14 12
12	08 09	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 41	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 31	15 30	08 46	15 16	09 03	14 58	09 25	14 37	09 53	14 09
Jan. 1	08 19	15 48	08 31	15 36	08 46	15 21	09 02	15 04	09 23	14 44	09 50	14 17

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2015

Date	66° N.		68° N.		70° N.		72° N.		74° N.		76° N.	
	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.
Jan. 1	10 28	13 39	11 23	12 48	Sun does not rise until 17 January		Sun does not rise until 26 January		Sun does not rise until 2 February		Sun does not rise until 9 February	
6	10 18	13 54	10 54	13 22								
11	10 05	14 11	10 29	13 51								
16	09 51	14 29	10 07	14 17	10 59	13 25	11 46	12 40	.. ..	.. ..	.. ..	.. ..
21	09 35	14 48	09 44	14 41	10 22	14 04	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
26	09 18	15 08	09 23	15 05	09 53	14 35	10 38	13 50	.. ..	.. ..	.. ..	.. ..
31	09 01	15 27							.. ..	.. ..	.. ..	.. ..
Feb. 5	08 43	15 46	09 02	15 27	09 25	15 04	09 59	14 30	10 55	13 34	.. ..	.. ..
10	08 25	16 05	08 40	15 49	09 00	15 30	09 26	15 04	10 03	14 27	11 14	13 16
15	08 07	16 23	08 19	16 10	08 35	15 54	08 55	15 34	09 23	15 07	10 04	14 26
20	07 48	16 41	07 58	16 30	08 11	16 18	08 27	16 02	08 48	15 42	09 17	15 13
25	07 29	16 58	07 38	16 50	07 48	16 40	08 00	16 28	08 15	16 13	08 36	15 52
Mar. 2	07 10	17 15	07 17	17 09	07 24	17 02	07 33	16 53	07 45	16 42	08 00	16 27
7	06 52	17 32	06 56	17 28	07 01	17 23	07 07	17 17	07 15	17 10	07 25	17 00
12	06 33	17 49	06 35	17 46	06 38	17 44	06 41	17 40	06 46	17 36	06 51	17 31
17	06 13	18 05	06 14	18 05	06 15	18 04	06 16	18 04	06 17	18 03	06 18	18 02
22	05 54	18 22	05 53	18 23	05 52	18 25	05 50	18 27	05 48	18 29	05 45	18 32
27	05 35	18 38	05 32	18 41	05 28	18 45	05 24	18 50	05 19	18 55	05 12	19 03
Apr. 1	05 16	18 54	05 11	18 59	05 05	19 05	04 58	19 13	04 49	19 22	04 37	19 35
6	04 56	19 11	04 50	19 18	04 41	19 26	04 31	19 37	04 18	19 50	04 02	20 08
11	04 37	19 27	04 28	19 37	04 17	19 48	04 04	20 02	03 47	20 20	03 23	20 45
16	04 18	19 44	04 06	19 56	03 53	20 10	03 36	20 28	03 13	20 52	02 40	21 27
21	03 58	20 02	03 44	20 16	03 28	20 34	03 06	20 57	02 35	21 29	01 47	22 22
26	03 39	20 20	03 22	20 37	03 01	20 58	02 33	21 28	01 50	22 14	.. ..	.. ..
May 1	03 19	20 38	02 59	20 58	02 33	21 26	01 56	22 06	00 39	.. ..	.. ..	.. ..
6	02 59	20 57	02 36	21 21	02 03	21 56	01 06	23 00	.. ..	.. ..	.. ..	.. ..
11	02 40	21 16	02 11	21 46	01 26	22 34	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
16	02 20	21 36	01 44	22 14	00 30	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
21	02 00	21 57	01 12	22 48	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
26	01 39	22 18	00 24	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
31	01 18	22 41	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
June 5	00 56	23 05										
10	00 31	23 34										
15	Sun rises 12 June		Sun rises 26 May		Sun rises 16 May		Sun rises 8 May		Sun rises 1 May		Sun rises 25 April	
20	.. ..	.. ..	Sun sets 17 July		Sun sets 27 July		Sun sets 4 August		Sun sets 11 August		Sun sets 18 August	
25	.. ..	23 51										
30	.. ..	23 51										
July 5	00 46	23 18	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
10	01 11	22 55	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
15	01 34	22 34	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
20	01 56	22 14	00 54	23 10	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
25	02 16	21 53	01 33	22 34	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
30	02 36	21 33	02 03	22 06	01 02	23 00	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Aug. 4	02 56	21 14	02 28	21 40	01 48	22 18	.. ..	23 47	.. ..	.. ..	.. ..	.. ..
9	03 14	20 54	02 52	21 16	02 21	21 45	01 32	22 31	.. ..	.. ..	.. ..	.. ..
14	03 33	20 34	03 14	20 52	02 49	21 16	02 15	21 49	01 13	22 44	.. ..	.. ..
19	03 50	20 15	03 35	20 30	03 15	20 49	02 48	21 14	02 09	21 51	00 47	22 58
24	04 07	19 55	03 54	20 08	03 38	20 23	03 18	20 43	02 49	21 10	02 06	21 50
29	04 24	19 36	04 13	19 46	04 01	19 58	03 44	20 14	03 23	20 34	02 53	21 03
Sept. 3	04 40	19 16	04 32	19 24	04 22	19 34	04 09	19 46	03 53	20 02	03 32	20 22
8	04 57	18 57	04 50	19 03	04 43	19 10	04 33	19 19	04 21	19 30	04 06	19 45
13	05 12	18 38	05 08	18 42	05 03	18 47	04 56	18 53	04 48	19 00	04 38	19 10
18	05 28	18 18	05 26	18 21	05 23	18 23	05 19	18 27	05 14	18 31	05 08	18 37
23	05 44	17 59	05 43	18 00	05 42	18 00	05 41	18 01	05 40	18 02	05 38	18 04
28	06 00	17 40	06 01	17 39	06 02	17 37	06 04	17 36	06 05	17 33	06 08	17 31
Oct. 3	06 16	17 21	06 19	17 18	06 22	17 14	06 26	17 10	06 31	17 05	06 38	16 58
8	06 32	17 02	06 37	16 57	06 42	16 51	06 49	16 44	06 58	16 35	07 09	16 24
13	06 48	16 43	06 55	16 36	07 03	16 28	07 13	16 18	07 25	16 05	07 41	15 49
18	07 05	16 24	07 14	16 15	07 24	16 05	07 37	15 51	07 54	15 35	08 17	15 12
23	07 22	16 05	07 33	15 54	07 46	15 41	08 03	15 24	08 25	15 02	08 56	14 30
28	07 39	15 47	07 53	15 34	08 09	15 17	08 31	14 55	09 00	14 26	09 45	13 40
Nov. 2	07 57	15 29	08 13	15 12	08 34	14 52	09 01	14 25	09 41	13 45	11 14	12 12
7	08 16	15 11	08 35	14 51	09 00	14 26	09 35	13 51	10 39	12 46	.. ..	.. ..
12	08 34	14 53	08 57	14 30	09 28	13 59	10 18	13 09	.. ..	.. ..	.. ..	.. ..
17	08 53	14 36	09 21	14 08	10 01	13 28	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
22	09 12	14 19	09 45	13 46	10 41	12 50	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
27	09 31	14 03	10 11	13 23	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Dec. 2	09 49	13 49	10 40	12 58	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
7	10 06	13 37	11 15	12 27	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
12	10 20	13 27										
17	10 30	13 22	Sun does not rise after 9 December		Sun does not rise after 25 November		Sun does not rise after 16 November		Sun does not rise after 8 November		Sun does not rise after 2 November	
22	10 35	13 22										
27	10 34	13 28										
Jan. 1	10 28	13 38	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2015

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Date	0°		5° S.		10° S.		15° S.		20° S.		25° S.	
	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.
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
6	06 02	18 09	05 54	18 18	05 45	18 26	05 36	18 35	05 27	18 44	05 17	18 54
11	06 04	18 11	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 50	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 29	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 45	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 01	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 21	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 07	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 03	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 10	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 06	18 04
Apr. 1	06 01	18 07	06 02	18 06	06 04	18 04	06 05	18 02	06 07	18 01	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 52	06 09	17 47	06 14	17 41	06 20	17 36
May 1	05 54	18 01	05 59	17 55	06 04	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 24	17 29
11	05 53	18 00	05 59	17 53	06 06	17 47	06 13	17 40	06 19	17 33	06 27	17 26
16	05 53	18 00	06 00	17 53	06 07	17 46	06 14	17 39	06 21	17 31	06 29	17 23
21	05 53	18 00	06 00	17 53	06 08	17 45	06 15	17 38	06 23	17 30	06 32	17 21
26	05 53	18 01	06 01	17 53	06 09	17 45	06 17	17 37	06 25	17 28	06 34	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 56	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 42	06 36	17 33	06 46	17 23
10	06 02	18 09	06 10	18 01	06 18	17 52	06 27	17 44	06 36	17 35	06 45	17 25
15	06 02	18 10	06 10	18 02	06 18	17 54	06 27	17 45	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 40	06 41	17 32
30	06 03	18 10	06 10	18 03	06 16	17 56	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 20	17 52	06 26	17 46	06 32	17 39
14	06 01	18 08	06 07	18 03	06 12	17 58	06 17	17 53	06 23	17 47	06 29	17 41
19	06 00	18 07	06 05	18 03	06 10	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 02	17 57	06 04	17 55	06 07	17 52	06 10	17 49
8	05 55	18 01	05 57	17 59	05 59	17 57	06 01	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 54	17 55	05 54	17 54
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 48	17 54	05 47	17 55	05 46	17 56	05 45	17 56	05 45	17 57	05 44	17 58
Oct. 3	05 46	17 52	05 44	17 54	05 43	17 55	05 42	17 57	05 40	17 58	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 02
13	05 43	17 50	05 40	17 52	05 38	17 55	05 35	17 58	05 32	18 01	05 28	18 05
18	05 42	17 49	05 39	17 52	05 35	17 56	05 31	17 59	05 28	18 03	05 24	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 30	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 07	05 14	18 15	05 06	18 22
17	05 41	17 48	05 34	17 55	05 27	18 02	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 12	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 37	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 03	05 31	18 12	05 22	18 21	05 12	18 30	05 02	18 40
12	05 50	17 57	05 41	18 06	05 33	18 15	05 23	18 24	05 14	18 33	05 04	18 44
17	05 52	18 00	05 44	18 08	05 35	18 17	05 25	18 26	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 48	18 13	05 40	18 22	05 30	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.

TABLE 4.-SUNRISE AND SUNSET, 2015

Date		30° S.		32° S.		34° S.		36° S.		38° S.		40° S.	
		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.
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
	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 00	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 49	19 29
	21	05 18	19 04	05 14	19 08	05 10	19 12	05 05	19 17	05 00	19 21	04 55	19 27
	26	05 23	19 02	05 19	19 05	05 15	19 10	05 11	19 14	05 06	19 18	05 01	19 23
Feb.	31	05 27	18 59	05 24	19 03	05 20	19 06	05 16	19 10	05 12	19 14	05 07	19 19
	5	05 32	18 56	05 28	18 59	05 25	19 02	05 21	19 06	05 18	19 10	05 13	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 37	18 50	05 35	18 53	05 32	18 56	05 29	18 59	05 26	19 02
	20	05 44	18 43	05 42	18 45	05 39	18 47	05 37	18 50	05 34	18 52	05 32	18 55
Mar.	25	05 48	18 38	05 46	18 40	05 44	18 42	05 42	18 44	05 40	18 46	05 37	18 48
	2	05 51	18 33	05 50	18 34	05 48	18 36	05 47	18 37	05 45	18 39	05 43	18 41
	7	05 55	18 27	05 54	18 28	05 52	18 29	05 51	18 30	05 50	18 32	05 49	18 33
	12	05 58	18 21	05 57	18 22	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 16	06 00	18 16	06 00	18 17	05 59	18 17
Apr.	22	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09
	27	06 07	18 03	06 08	18 03	06 08	18 02	06 09	18 02	06 09	18 01	06 10	18 01
	1	06 10	17 57	06 11	17 56	06 12	17 55	06 13	17 55	06 14	17 54	06 15	17 53
	6	06 13	17 51	06 15	17 50	06 16	17 49	06 17	17 47	06 18	17 46	06 20	17 45
May	11	06 16	17 45	06 18	17 44	06 19	17 42	06 21	17 41	06 23	17 39	06 25	17 37
	16	06 19	17 40	06 21	17 38	06 23	17 36	06 25	17 34	06 27	17 32	06 30	17 30
	21	06 22	17 35	06 25	17 32	06 27	17 30	06 29	17 28	06 32	17 25	06 35	17 22
	26	06 26	17 30	06 28	17 27	06 31	17 24	06 34	17 22	06 36	17 19	06 40	17 16
	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
June	6	06 32	17 21	06 35	17 18	06 38	17 15	06 42	17 11	06 46	17 07	06 49	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 07	06 50	17 02	06 54	16 58	06 59	16 53
	21	06 41	17 12	06 45	17 08	06 49	17 03	06 54	16 59	06 58	16 54	07 03	16 49
	26	06 44	17 10	06 48	17 05	06 53	17 01	06 57	16 56	07 02	16 51	07 08	16 46
July	31	06 47	17 08	06 51	17 04	06 56	16 59	07 01	16 54	07 06	16 49	07 11	16 44
	5	06 50	17 07	06 54	17 03	06 59	16 58	07 04	16 53	07 09	16 48	07 15	16 42
	10	06 52	17 07	06 56	17 02	07 01	16 57	07 06	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
August	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
	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
Sept.	20	06 53	17 20	06 57	17 16	07 01	17 12	07 06	17 07	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 12	17 02
	30	06 47	17 26	06 51	17 22	06 55	17 19	06 59	17 15	07 03	17 11	07 07	17 06
	4	06 44	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 43	17 29	06 46	17 26	06 49	17 22	06 53	17 19	06 56	17 15
Oct.	14	06 35	17 35	06 38	17 32	06 41	17 29	06 44	17 26	06 47	17 23	06 50	17 20
	19	06 30	17 38	06 32	17 35	06 35	17 33	06 38	17 30	06 40	17 27	06 43	17 25
	24	06 25	17 40	06 27	17 38	06 29	17 36	06 31	17 34	06 34	17 32	06 36	17 29
	29	06 19	17 43	06 21	17 41	06 23	17 40	06 25	17 38	06 27	17 36	06 29	17 34
	3	06 13	17 46	06 15	17 45	06 16	17 43	06 18	17 42	06 19	17 40	06 21	17 38
Nov.	8	06 07	17 49	06 08	17 48	06 10	17 46	06 11	17 45	06 12	17 44	06 13	17 43
	13	06 01	17 51	06 02	17 51	06 03	17 50	06 03	17 49	06 04	17 49	06 05	17 48
	18	05 55	17 54	05 55	17 54	05 56	17 53	05 56	17 53	05 56	17 53	05 57	17 52
	23	05 49	17 57	05 49	17 57	05 49	17 57	05 49	17 57	05 48	17 57	05 48	17 57
	28	05 43	17 59	05 42	18 00	05 42	18 00	05 41	18 01	05 41	18 01	05 40	18 02
Dec.	3	05 36	18 02	05 36	18 03	05 35	18 04	05 34	18 05	05 33	18 06	05 32	18 07
	8	05 30	18 05	05 29	18 06	05 28	18 08	05 27	18 09	05 25	18 11	05 24	18 12
	13	05 25	18 08	05 23	18 10	05 22	18 12	05 20	18 13	05 18	18 15	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 09	18 23
	23	05 14	18 15	05 12	18 18	05 09	18 20	05 07	18 23	05 04	18 25	05 01	18 28
Jan.	28	05 09	18 19	05 07	18 22	05 04	18 24	05 01	18 27	04 58	18 30	04 55	18 34
	2	05 05	18 23	05 02	18 26	04 59	18 29	04 55	18 32	04 52	18 36	04 48	18 39
	7	05 01	18 27	04 58	18 30	04 54	18 34	04 51	18 37	04 47	18 41	04 43	18 45
	12	04 58	18 31	04 54	18 35	04 50	18 38	04 46	18 42	04 42	18 47	04 38	18 51
	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
Feb.	22	04 53	18 39	04 49	18 44	04 45	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 08
	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 51	04 47	18 56	04 42	19 01	04 36	19 07	04 31	19 12	04 25	19 18
	12	04 52	18 55	04 47	19 00	04 42	19 05	04 37	19 11	04 31	19 16	04 25	19 23
Mar.	17	04 54	18 58	04 49	19 03	04 44	19 08	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 48	19 13	04 43	19 19	04 37	19 25	04 31	19 31
	1	05 02	19 05	04 57	19 09	04 52	19 15	04 46	19 20	04 41	19 26	04 34	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

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2015

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Date	42° S.		44° S.		46° S.		48° S.		50° S.		52° S.	
	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.
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
6	04 33	19 38	04 26	19 45	04 18	19 53	04 10	20 01	04 00	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 57	20 18
16	04 44	19 35	04 37	19 42	04 30	19 48	04 23	19 56	04 14	20 04	04 05	20 13
21	04 50	19 32	04 44	19 38	04 37	19 45	04 30	19 52	04 22	19 59	04 14	20 08
26	04 56	19 28	04 50	19 34	04 44	19 40	04 38	19 46	04 31	19 53	04 23	20 01
31	05 03	19 23	04 57	19 29	04 52	19 34	04 46	19 40	04 39	19 46	04 32	19 54
Feb. 5	05 09	19 18	05 04	19 23	04 59	19 28	04 54	19 33	04 48	19 39	04 42	19 45
10	05 16	19 12	05 12	19 16	05 07	19 20	05 02	19 25	04 57	19 30	04 51	19 36
15	05 22	19 05	05 19	19 09	05 15	19 13	05 10	19 17	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 12	05 10	19 16
25	05 35	18 50	05 32	18 53	05 30	18 56	05 26	18 59	05 23	19 02	05 20	19 05
Mar. 2	05 41	18 42	05 39	18 45	05 37	18 47	05 34	18 49	05 32	18 52	05 29	18 54
7	05 47	18 34	05 46	18 36	05 44	18 37	05 42	18 39	05 40	18 41	05 38	18 43
12	05 53	18 26	05 52	18 27	05 51	18 28	05 50	18 29	05 48	18 30	05 47	18 32
17	05 59	18 17	05 58	18 18	05 58	18 18	05 57	18 19	05 56	18 20	05 56	18 20
22	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09
27	06 10	18 00	06 11	18 00	06 11	17 59	06 12	17 58	06 12	17 58	06 13	17 57
Apr. 1	06 16	17 52	06 17	17 51	06 18	17 49	06 19	17 48	06 20	17 47	06 21	17 46
6	06 21	17 43	06 23	17 42	06 24	17 40	06 26	17 38	06 28	17 36	06 30	17 34
11	06 26	17 35	06 29	17 33	06 31	17 31	06 33	17 28	06 36	17 26	06 38	17 23
16	06 32	17 27	06 34	17 25	06 37	17 22	06 40	17 19	06 43	17 16	06 47	17 12
21	06 37	17 20	06 40	17 16	06 44	17 13	06 47	17 10	06 51	17 06	06 55	17 02
26	06 43	17 12	06 46	17 09	06 50	17 05	06 54	17 01	06 59	16 56	07 03	16 52
May 1	06 48	17 06	06 52	17 02	06 56	16 57	07 01	16 53	07 06	16 48	07 11	16 42
6	06 54	16 59	06 58	16 55	07 03	16 50	07 08	16 45	07 13	16 39	07 20	16 33
11	06 59	16 54	07 04	16 49	07 09	16 43	07 14	16 38	07 21	16 32	07 27	16 25
16	07 04	16 48	07 09	16 43	07 15	16 38	07 21	16 31	07 28	16 25	07 35	16 17
21	07 09	16 44	07 14	16 38	07 20	16 32	07 27	16 26	07 34	16 19	07 42	16 11
26	07 13	16 41	07 19	16 35	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 27	16 29	07 34	16 22	07 42	16 15	07 50	16 06	08 00	15 57
10	07 24	16 35	07 31	16 28	07 38	16 21	07 46	16 13	07 54	16 04	08 04	15 55
15	07 26	16 34	07 33	16 28	07 41	16 20	07 49	16 12	07 57	16 03	08 07	15 54
20	07 28	16 35	07 35	16 28	07 42	16 21	07 50	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 07	08 10	15 58
July 5	07 28	16 41	07 35	16 34	07 42	16 27	07 50	16 19	07 58	16 11	08 08	16 01
10	07 27	16 44	07 33	16 38	07 40	16 31	07 47	16 23	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 46	07 33	16 40	07 40	16 33	07 47	16 26	07 55	16 18
25	07 17	16 57	07 22	16 51	07 28	16 45	07 35	16 39	07 42	16 32	07 49	16 24
30	07 12	17 01	07 17	16 56	07 23	16 51	07 28	16 45	07 35	16 39	07 42	16 31
Aug. 4	07 06	17 06	07 11	17 02	07 16	16 57	07 22	16 51	07 27	16 45	07 34	16 39
9	07 00	17 11	07 05	17 07	07 09	17 03	07 14	16 58	07 19	16 52	07 25	16 47
14	06 54	17 16	06 57	17 13	07 01	17 09	07 06	17 04	07 11	16 59	07 16	16 54
19	06 46	17 21	06 50	17 18	06 53	17 15	06 57	17 11	07 01	17 07	07 06	17 02
24	06 39	17 27	06 42	17 24	06 45	17 21	06 48	17 17	06 52	17 14	06 55	17 10
29	06 31	17 32	06 33	17 29	06 36	17 27	06 39	17 24	06 42	17 21	06 45	17 18
Sept. 3	06 23	17 37	06 25	17 35	06 27	17 33	06 29	17 31	06 31	17 29	06 34	17 26
8	06 14	17 42	06 16	17 41	06 17	17 39	06 19	17 38	06 20	17 36	06 22	17 34
13	06 06	17 47	06 07	17 46	06 08	17 45	06 09	17 44	06 10	17 43	06 11	17 42
18	05 57	17 52	05 57	17 52	05 58	17 52	05 58	17 51	05 59	17 51	05 59	17 50
23	05 48	17 57	05 48	17 58	05 48	17 58	05 48	17 58	05 48	17 58	05 47	17 59
28	05 39	18 03	05 39	18 03	05 38	18 04	05 37	18 05	05 37	18 06	05 36	18 07
Oct. 3	05 31	18 08	05 30	18 09	05 28	18 11	05 27	18 12	05 26	18 14	05 24	18 15
8	05 22	18 14	05 21	18 15	05 19	18 17	05 17	18 19	05 15	18 21	05 13	18 24
13	05 14	18 19	05 12	18 22	05 10	18 24	05 07	18 27	05 04	18 29	05 01	18 32
18	05 06	18 25	05 03	18 28	05 00	18 31	04 57	18 34	04 54	18 38	04 50	18 41
23	04 58	18 31	04 55	18 34	04 52	18 38	04 48	18 42	04 44	18 46	04 40	18 50
28	04 51	18 37	04 47	18 41	04 43	18 45	04 39	18 49	04 34	18 54	04 29	18 59
Nov. 2	04 44	18 43	04 40	18 48	04 36	18 52	04 31	18 57	04 25	19 03	04 20	19 09
7	04 38	18 50	04 34	18 55	04 29	19 00	04 23	19 05	04 17	19 11	04 10	19 18
12	04 33	18 56	04 28	19 01	04 22	19 07	04 16	19 13	04 09	19 20	04 02	19 27
17	04 28	19 02	04 22	19 08	04 16	19 14	04 10	19 21	04 03	19 28	03 55	19 36
22	04 24	19 09	04 18	19 15	04 12	19 21	04 04	19 28	03 57	19 36	03 48	19 45
27	04 21	19 14	04 15	19 21	04 08	19 28	04 00	19 35	03 52	19 44	03 43	19 53
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 07
12	04 18	19 29	04 11	19 37	04 03	19 44	03 54	19 53	03 45	20 02	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 39	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.

TABLE 4.-SUNRISE AND SUNSET, 2015

Date	54° S.		56° S.		58° S.		60° S.	
	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan. 1	03 32	20 34	03 18	20 48	03 02	21 04	02 43	21 23
6	03 39	20 32	03 25	20 45	03 10	21 01	02 51	21 19
11	03 46	20 29	03 34	20 41	03 19	20 56	03 01	21 13
16	03 55	20 24	03 43	20 35	03 29	20 49	03 13	21 05
21	04 04	20 17	03 53	20 28	03 40	20 41	03 26	20 55
26	04 14	20 10	04 04	20 20	03 52	20 31	03 39	20 44
31	04 24	20 02	04 15	20 10	04 05	20 21	03 53	20 32
Feb. 5	04 34	19 52	04 26	20 00	04 17	20 09	04 06	20 20
10	04 45	19 42	04 38	19 49	04 29	19 57	04 20	20 06
15	04 55	19 32	04 49	19 38	04 42	19 45	04 34	19 52
20	05 05	19 21	05 00	19 26	04 54	19 32	04 47	19 38
25	05 16	19 09	05 11	19 14	05 06	19 18	05 01	19 24
Mar. 2	05 26	18 57	05 22	19 01	05 18	19 05	05 14	19 09
7	05 35	18 45	05 33	18 48	05 30	18 51	05 27	18 54
12	05 45	18 33	05 43	18 35	05 41	18 37	05 39	18 39
17	05 55	18 21	05 54	18 22	05 53	18 23	05 52	18 24
22	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09
27	06 14	17 56	06 14	17 55	06 15	17 55	06 16	17 53
Apr. 1	06 23	17 44	06 24	17 42	06 26	17 41	06 28	17 38
6	06 32	17 32	06 34	17 29	06 37	17 27	06 40	17 24
11	06 41	17 20	06 44	17 17	06 48	17 13	06 52	17 09
16	06 50	17 08	06 54	17 04	06 59	17 00	07 04	16 54
21	06 59	16 57	07 04	16 52	07 10	16 47	07 16	16 40
26	07 09	16 46	07 14	16 40	07 21	16 34	07 28	16 27
May 1	07 17	16 36	07 24	16 29	07 32	16 22	07 40	16 13
6	07 26	16 26	07 34	16 19	07 42	16 10	07 52	16 01
11	07 35	16 17	07 43	16 09	07 53	15 59	08 03	15 49
16	07 43	16 09	07 52	16 00	08 03	15 49	08 15	15 37
21	07 51	16 02	08 01	15 52	08 12	15 40	08 25	15 27
26	07 58	15 55	08 09	15 45	08 21	15 32	08 35	15 18
31	08 05	15 50	08 16	15 39	08 29	15 26	08 44	15 11
June 5	08 10	15 46	08 22	15 34	08 36	15 21	08 52	15 05
10	08 15	15 44	08 27	15 31	08 41	15 17	08 58	15 00
15	08 18	15 42	08 31	15 30	08 45	15 15	09 03	14 58
20	08 20	15 43	08 33	15 30	08 48	15 15	09 05	14 58
25	08 21	15 44	08 34	15 31	08 49	15 17	09 06	14 59
30	08 21	15 47	08 33	15 34	08 47	15 20	09 05	15 03
July 5	08 18	15 51	08 31	15 39	08 45	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 22	15 51	08 34	15 38	08 49	15 23
20	08 05	16 08	08 15	15 58	08 27	15 46	08 41	15 33
25	07 58	16 16	08 07	16 06	08 18	15 55	08 31	15 43
30	07 50	16 24	07 59	16 15	08 09	16 05	08 20	15 53
Aug. 4	07 41	16 32	07 49	16 24	07 58	16 15	08 08	16 05
9	07 32	16 40	07 39	16 33	07 47	16 25	07 56	16 16
14	07 22	16 49	07 28	16 42	07 35	16 35	07 43	16 27
19	07 11	16 57	07 16	16 52	07 22	16 46	07 29	16 39
24	07 00	17 06	07 04	17 01	07 10	16 56	07 15	16 51
29	06 48	17 15	06 52	17 11	06 56	17 07	07 01	17 02
Sept. 3	06 36	17 23	06 39	17 21	06 43	17 17	06 46	17 14
8	06 24	17 32	06 26	17 30	06 29	17 28	06 32	17 25
13	06 12	17 41	06 13	17 40	06 15	17 38	06 17	17 37
18	06 00	17 50	06 00	17 49	06 01	17 49	06 01	17 48
23	05 47	17 59	05 47	17 59	05 47	18 00	05 46	18 00
28	05 35	18 08	05 34	18 09	05 32	18 10	05 31	18 12
Oct. 3	05 22	18 17	05 20	18 19	05 18	18 21	05 16	18 24
8	05 10	18 26	05 07	18 29	05 04	18 32	05 01	18 36
13	04 58	18 36	04 54	18 40	04 50	18 44	04 46	18 49
18	04 46	18 46	04 42	18 50	04 37	18 55	04 31	19 01
23	04 35	18 55	04 29	19 01	04 23	19 07	04 16	19 14
28	04 24	19 05	04 17	19 12	04 10	19 19	04 02	19 27
Nov. 2	04 13	19 15	04 06	19 23	03 58	19 31	03 48	19 41
7	04 03	19 25	03 55	19 34	03 46	19 43	03 35	19 54
12	03 54	19 35	03 45	19 45	03 34	19 55	03 22	20 08
17	03 46	19 45	03 36	19 56	03 24	20 07	03 11	20 21
22	03 38	19 55	03 27	20 06	03 15	20 19	03 00	20 34
27	03 32	20 04	03 20	20 16	03 07	20 30	02 50	20 46
Dec. 2	03 27	20 12	03 15	20 25	03 00	20 40	02 43	20 57
7	03 24	20 19	03 11	20 33	02 55	20 48	02 37	21 07
12	03 22	20 25	03 09	20 39	02 52	20 55	02 33	21 15
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 48	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

<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>	<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>	<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>
° ' ° '	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	41	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.

TABLE 6-MOONRISE AND MOONSET, 2015

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	1528	0316	1644	0442	1530	0327	1632	0417	1644	0415	1754	0506	1
2	1616	0414	1733	0529	1617	0413	1717	0457	1731	0457	1848	0556	2
3	1707	0506	1820	0614	1704	0456	1802	0537	1820	0540	1943	0649	3
4	1758	0557	1907	0657	1750	0538	1848	0618	1910	0625	2038	0744	4
5	1848	0646	1952	0739	1835	0618	1936	0659	2002	0713	2132	0840	5
6	1937	0733	2037	0819	1920	0658	2024	0743	2055	0803	2224	0937	6
7	2024	0817	2122	0859	2005	0738	2115	0828	2149	0856	2315	1034	7
8	2111	0900	2207	0938	2051	0819	2206	0916	2243	0950	....	1129	8
9	2156	0940	2254	1019	2138	0900	2259	1007	2335	1046	0005	1224	9
10	2240	1020	2342	1102	2227	0944	2353	1100	....	1142	0054	1319	10
11	2326	1100	....	1147	2318	1030	....	1154	0027	1238	0142	1414	11
12	....	1140	0032	1234	....	1119	0046	1250	0117	1333	0232	1510	12
13	0012	1222	0125	1326	0010	1211	0139	1347	0207	1429	0322	1606	13
14	0100	1306	0219	1421	0104	1305	0231	1445	0257	1525	0414	1703	14
15	0150	1354	0316	1519	0159	1402	0323	1542	0347	1622	0508	1759	15
16	0243	1445	0413	1619	0254	1501	0415	1640	0438	1720	0602	1853	16
17	0338	1540	0510	1720	0349	1600	0506	1738	0531	1817	0656	1946	17
18	0436	1638	0606	1821	0443	1700	0558	1837	0625	1915	0749	2035	18
19	0534	1739	0701	1921	0536	1759	0651	1936	0719	2011	0840	2122	19
20	0633	1840	0754	2020	0629	1859	0745	2034	0814	2105	0929	2206	20
21	0729	1941	0845	2118	0722	1958	0840	2130	0907	2156	1016	2248	21
22	0823	2040	0937	2215	0814	2056	0934	2225	0959	2244	1102	2329	22
23	0916	2138	1028	2311	0907	2153	1027	2316	1049	2329	1147	....	23
24	1006	2234	1119	....	1000	2249	1118	....	1137	....	1232	0008	24
25	1055	2330	1210	0005	1053	2343	1208	0005	1223	0011	1318	0048	25
26	1144	....	1301	0059	1145	....	1256	0050	1308	0052	1404	0129	26
27	1234	0024	1351	0150	1236	0035	1343	0133	1353	0132	1453	0212	27
28	1323	0118	1441	0240	1326	0124	1428	0215	1438	0212	1544	0258	28
29	1413	0211	....	0327	1414	0210	1513	0255	1525	0253	1637	0346	29
30	1504	0303	....	....	1501	0254	1558	0335	1613	0335	1732	0438	30
31	1554	0353	....	....	1547	0336	....	....	1703	0419	....	....	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	1828	0533	1954	0711	2110	0850	2138	0930	2303	1059	2323	1114	1
2	1923	0630	2046	0810	2202	0948	2232	1028	2354	1149	....	1157	2
3	2018	0728	2137	0908	2254	1045	2326	1123	....	1235	0010	1238	3
4	2111	0826	2227	1005	2347	1142	....	1217	0043	1319	0056	1318	4
5	2202	0924	2317	1101	....	1237	0019	1307	0130	1401	0140	1358	5
6	2252	1020	....	1157	0040	1330	0110	1354	0215	1441	0225	1438	6
7	2341	1116	0008	1252	0132	1421	0159	1439	0300	1521	0311	1520	7
8	....	1211	0059	1347	0223	1510	0247	1521	0345	1601	0358	1603	8
9	0030	1306	0151	1441	0313	1556	0333	1602	0430	1641	0446	1649	9
10	0120	1401	0243	1533	0402	1640	0418	1642	0516	1724	0537	1737	10
11	0210	1456	0335	1624	0449	1722	0503	1722	0604	1808	0628	1828	11
12	0302	1551	0426	1712	0535	1803	0548	1802	0653	1854	0721	1921	12
13	0354	1645	0516	1758	0620	1843	0633	1843	0743	1943	0814	2015	13
14	0447	1738	0605	1841	0705	1922	0720	1926	0834	2034	0906	2110	14
15	0540	1828	0652	1923	0750	2003	0807	2010	0926	2126	0957	2205	15
16	0632	1916	0738	2004	0836	2044	0856	2057	1017	2220	1047	2300	16
17	0722	2001	0823	2043	0922	2127	0946	2146	1108	2314	1135	2354	17
18	0810	2044	0908	2123	1010	2212	1037	2237	1159	....	1224	....	18
19	0856	2125	0953	2204	1059	2300	1129	2330	1248	0008	1312	0048	19
20	0942	2205	1039	2246	1150	2350	1221	....	1338	0103	1402	0143	20
21	1027	2245	1126	2330	1242	....	1312	0024	1427	0159	1453	0240	21
22	1112	2325	1215	....	1335	0043	1404	0120	1518	0255	1547	0337	22
23	1157	....	1306	0017	1429	0138	1455	0216	1610	0353	1642	0435	23
24	1244	0007	1359	0107	1523	0235	1546	0313	1704	0451	1738	0534	24
25	1333	0050	1453	0200	1616	0333	1638	0412	1800	0551	1834	0631	25
26	1424	0136	1549	0256	1709	0432	1731	0511	1857	0651	1930	0725	26
27	1518	0226	1644	0354	1802	0532	1826	0610	1954	0750	2023	0817	27
28	1613	0319	1739	0453	1855	0631	1922	0711	2050	0846	2114	0906	28
29	1709	0415	1833	0553	1949	0731	2018	0811	2143	0939	2202	0951	29
30	1805	0513	1925	0652	2043	0831	2114	0910	2235	1028	2249	1034	30
31	1900	0612	2018	0751	....	....	2209	1006	....	....	2249	1115	31

Time meridian 75° W. 0000 is midnight. 1200 is noon.

TABLE 6-MOONRISE AND MOONSET, 2015

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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	1427	0337	1546	0500	1436	0342	1603	0407	1636	0345	1811	0411	1
2	1515	0434	1640	0542	1529	0421	1656	0440	1731	0419	1908	0457	2
3	1606	0527	1734	0621	1622	0458	1749	0512	1827	0454	2004	0548	3
4	1659	0617	1827	0658	1715	0533	1843	0544	1924	0533	2056	0644	4
5	1753	0703	1920	0731	1808	0606	1938	0619	2020	0616	2145	0744	5
6	1847	0744	2013	0804	1901	0638	2034	0655	2116	0703	2231	0846	6
7	1941	0822	2106	0836	1955	0710	2130	0735	2209	0755	2313	0950	7
8	2034	0857	2200	0908	2048	0743	2225	0819	2259	0851	2354	1055	8
9	2127	0930	2254	0941	2143	0817	2319	0907	2346	0951	....	1200	9
10	2220	1002	2349	1016	2238	0855	....	0959	....	1053	0033	1304	10
11	2313	1034	....	1055	2334	0935	0011	1057	0031	1157	0112	1409	11
12	....	1106	0046	1138	....	1020	0101	1158	0112	1302	0153	1513	12
13	0008	1141	0143	1226	0030	1111	0148	1302	0153	1408	0235	1617	13
14	0103	1218	0240	1320	0124	1206	0232	1408	0233	1514	0321	1719	14
15	0201	1259	0336	1420	0217	1306	0315	1515	0313	1620	0409	1819	15
16	0300	1346	0430	1526	0307	1411	0356	1623	0356	1727	0501	1913	16
17	0359	1439	0520	1634	0355	1519	0438	1732	0441	1831	0556	2004	17
18	0457	1538	0608	1744	0440	1628	0521	1840	0529	1933	0651	2049	18
19	0554	1643	0652	1854	0523	1738	0605	1947	0620	2031	0747	2129	19
20	0646	1751	0735	2004	0606	1847	0652	2050	0713	2124	0843	2206	20
21	0735	1900	0816	2112	0648	1956	0742	2150	0809	2211	0937	2241	21
22	0819	2009	0858	2218	0732	2103	0834	2254	0904	2254	1031	2313	22
23	0901	2117	0941	2321	0817	2207	0927	2333	0959	2332	1124	2345	23
24	0942	2223	1025	....	0904	2307	1021	....	1054	....	1217	....	24
25	1022	2327	1112	0021	0954	....	1116	0018	1147	0008	1310	0017	25
26	1102	....	1200	0118	1045	0003	1210	0057	1240	0041	1405	0051	26
27	1143	0030	1251	0210	1137	0053	1303	0134	1333	0113	1501	0126	27
28	1227	0130	1343	0258	1230	0139	1356	0208	1427	0145	1558	0206	28
29	1314	0228	....	....	1324	0221	1449	0240	1521	0218	1656	0249	29
30	1403	0323	....	....	1417	0259	1542	0313	1617	0252	1752	0338	30
31	1454	0413	....	....	1510	0334	....	....	1714	0330	....	....	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	1848	0432	1951	0630	2032	0843	2042	0944	2206	1116	2242	1117	1
2	1940	0531	2033	0738	2116	0951	2133	1046	2302	1201	2336	1152	2
3	2028	0635	2114	0846	2201	1056	2227	1143	2358	1241	....	1225	3
4	2113	0740	2154	0953	2250	1158	2321	1235	....	1318	0030	1258	4
5	2155	0846	2236	1058	2340	1256	....	1322	0052	1352	0123	1329	5
6	2235	0952	2319	1202	....	1350	0016	1404	0145	1425	0216	1402	6
7	2314	1057	....	1305	0032	1439	0110	1442	0238	1456	0309	1436	7
8	2354	1202	0004	1404	0126	1523	0204	1517	0331	1529	0403	1513	8
9	....	1306	0052	1501	0221	1604	0258	1551	0424	1602	0458	1554	9
10	0035	1409	0143	1553	0315	1641	0351	1623	0517	1637	0553	1638	10
11	0118	1511	0236	1641	0409	1716	0443	1655	0612	1715	0648	1727	11
12	0205	1610	0330	1724	0502	1749	0536	1727	0706	1757	0741	1821	12
13	0254	1705	0425	1804	0555	1821	0630	1801	0801	1843	0832	1918	13
14	0347	1757	0520	1840	0648	1853	0723	1837	0854	1933	0920	2019	14
15	0441	1844	0614	1914	0741	1926	0817	1916	0945	2027	1004	2121	15
16	0537	1926	0708	1947	0834	2000	0911	1959	1034	2125	1046	2224	16
17	0632	2005	0801	2019	0928	2037	1005	2046	1120	2225	1125	2328	17
18	0727	2040	0854	2051	1021	2117	1057	2137	1203	2327	1204	....	18
19	0822	2113	0946	2124	1116	2201	1147	2232	1244	....	1243	0032	19
20	0915	2146	1040	2159	1209	2250	1235	2331	1324	0031	1324	0137	20
21	1008	2217	1134	2238	1302	2344	1321	....	1404	0136	1407	0242	21
22	1101	2250	1229	2320	1353	....	1405	0034	1445	0243	1453	0348	22
23	1154	2324	1324	....	1442	0042	1447	0139	1528	0350	1544	0452	23
24	1249	....	1419	0007	1528	0145	1529	0246	1614	0458	1638	0554	24
25	1344	0001	1513	0100	1613	0251	1611	0354	1704	0605	1735	0651	25
26	1441	0042	1605	0158	1656	0400	1654	0504	1758	0710	1833	0743	26
27	1537	0127	1654	0300	1739	0510	1740	0613	1854	0810	1931	0830	27
28	1633	0218	1740	0407	1822	0620	1828	0722	1951	0905	2029	0912	28
29	1727	0315	1825	0516	1907	0730	1920	0828	2049	0954	2125	0950	29
30	1818	0417	1907	0625	1953	0838	2014	0929	2146	1038	2219	1025	30
31	1906	0522	1949	0735	....	....	2110	1026	....	....	2219	1058	31

Time meridian 120° W. 0000 is midnight. 1200 is noon.

TABLE 6-MOONRISE AND MOONSET, 2015

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	1437	0401	1556	0525	1446	0406	1619	0427	1657	0400	1837	0421	1
2	1524	0459	1651	0607	1540	0445	1713	0458	1753	0432	1934	0506	2
3	1615	0553	1746	0645	1635	0521	1808	0528	1851	0507	2030	0557	3
4	1708	0643	1841	0719	1730	0554	1904	0559	1949	0544	2122	0653	4
5	1802	0728	1935	0752	1824	0625	2001	0632	2046	0626	2210	0753	5
6	1858	0808	2030	0822	1919	0655	2058	0707	2142	0712	2254	0857	6
7	1953	0845	2125	0852	2014	0726	2155	0745	2235	0804	2335	1003	7
8	2048	0918	2220	0923	2110	0757	2251	0828	2325	0900	....	1109	8
9	2143	0950	2316	0954	2206	0830	2345	0915	....	1001	0013	1216	9
10	2237	1020	....	1028	2303	0906	....	1008	0010	1105	0050	1323	10
11	2333	1050	0013	1106	....	0945	0037	1106	0053	1210	0127	1430	11
12	....	1121	0111	1147	0000	1029	0126	1208	0133	1317	0206	1536	12
13	0029	1153	0209	1235	0056	1119	0211	1314	0211	1425	0247	1642	13
14	0126	1229	0307	1329	0151	1215	0254	1422	0249	1533	0331	1745	14
15	0225	1309	0402	1430	0243	1316	0335	1531	0328	1642	0418	1845	15
16	0325	1355	0455	1536	0332	1422	0414	1642	0408	1750	0510	1940	16
17	0425	1448	0544	1646	0418	1531	0453	1752	0452	1856	0604	2029	17
18	0524	1547	0630	1758	0501	1643	0534	1902	0538	1959	0701	2113	18
19	0619	1652	0712	1911	0542	1755	0617	2011	0629	2057	0758	2153	19
20	0711	1802	0752	2022	0622	1907	0702	2116	0722	2150	0855	2228	20
21	0757	1913	0832	2132	0703	2018	0751	2216	0818	2237	0951	2301	21
22	0840	2024	0912	2240	0744	2126	0842	2310	0914	2318	1046	2332	22
23	0920	2134	0952	2345	0828	2232	0936	2359	1011	2355	1141	....	23
24	0958	2243	1035	....	0914	2333	1031	....	1106	....	1236	0002	24
25	1036	2349	1121	0046	1002	....	1126	0042	1202	0029	1331	0032	25
26	1114	....	1209	0144	1054	0029	1222	0121	1256	0100	1427	0104	26
27	1154	0053	1259	0236	1146	0119	1317	0156	1351	0131	1525	0138	27
28	1237	0155	1352	0323	1240	0204	1411	0228	1446	0201	1623	0216	28
29	1323	0254	....	....	1335	0245	1506	0259	1543	0232	1721	0259	29
30	1411	0349	....	....	1429	0321	1601	0329	1640	0305	1819	0347	30
31	1503	0439	....	....	1524	0355	....	....	1738	0341	....	....	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	1914	0441	2012	0642	2046	0904	2052	1009	2216	1142	2255	1139	1
2	2005	0541	2052	0753	2128	1013	2142	1112	2313	1226	2351	1213	2
3	2052	0645	2130	0903	2212	1120	2235	1209	....	1304	....	1244	3
4	2135	0752	2209	1012	2259	1223	2330	1301	0010	1340	0046	1315	4
5	2215	0900	2248	1119	2349	1322	....	1347	0105	1412	0141	1345	5
6	2253	1008	2330	1226	....	1416	0026	1428	0200	1443	0235	1416	6
7	2330	1115	....	1329	0041	1504	0122	1504	0255	1513	0331	1449	7
8	....	1222	0014	1430	0136	1548	0217	1538	0349	1544	0426	1524	8
9	0008	1328	0101	1527	0231	1627	0312	1610	0444	1615	0523	1603	9
10	0047	1433	0152	1619	0327	1703	0407	1640	0540	1649	0619	1647	10
11	0129	1536	0245	1706	0422	1736	0501	1711	0636	1726	0714	1736	11
12	0214	1636	0340	1748	0517	1807	0556	1742	0731	1807	0808	1830	12
13	0303	1732	0436	1827	0612	1838	0651	1814	0827	1852	0858	1928	13
14	0356	1823	0532	1902	0707	1908	0746	1849	0920	1942	0944	2029	14
15	0450	1909	0628	1934	0801	1939	0841	1926	1011	2036	1027	2133	15
16	0547	1950	0723	2005	0856	2012	0936	2008	1059	2134	1107	2238	16
17	0644	2027	0818	2035	0951	2048	1030	2054	1144	2236	1145	2344	17
18	0740	2101	0912	2106	1046	2127	1123	2146	1226	2340	1222	....	18
19	0836	2133	1007	2137	1141	2210	1213	2241	1305	....	1259	0050	19
20	0931	2203	1102	2211	1235	2259	1300	2342	1343	0046	1338	0157	20
21	1026	2233	1158	2248	1328	2353	1345	....	1421	0153	1419	0305	21
22	1120	2304	1254	2329	1418	....	1427	0046	1500	0302	1504	0412	22
23	1216	2337	1350	....	1506	0052	1507	0153	1541	0412	1553	0517	23
24	1312	....	1445	0016	1551	0156	1547	0302	1625	0522	1646	0620	24
25	1409	0012	1539	0108	1634	0304	1627	0412	1714	0630	1743	0717	25
26	1506	0052	1630	0207	1715	0415	1708	0524	1806	0736	1842	0809	26
27	1604	0136	1718	0311	1756	0527	1752	0636	1902	0837	1942	0855	27
28	1700	0227	1802	0419	1837	0639	1839	0746	2001	0931	2041	0935	28
29	1753	0324	1845	0529	1919	0751	1929	0853	2059	1019	2139	1011	29
30	1843	0426	1925	0641	2004	0901	2023	0956	2158	1101	2235	1044	30
31	1929	0533	2005	0753	....	....	2119	1052	....	....	2235	1116	31

Time meridian 120° W. 0000 is midnight. 1200 is noon.

TABLE 6-MOONRISE AND MOONSET, 2015

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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	1412	0424	1531	0550	1424	0429	1613	0434	1704	0354	1900	0359	1
2	1457	0524	1629	0628	1522	0504	1713	0459	1806	0421	2000	0441	2
3	1547	0620	1729	0702	1621	0535	1813	0525	1908	0451	2056	0530	3
4	1641	0709	1828	0732	1721	0604	1914	0551	2010	0524	2147	0626	4
5	1739	0751	1928	0800	1820	0630	2015	0619	2111	0602	2231	0728	5
6	1838	0828	2028	0826	1920	0656	2117	0649	2208	0646	2311	0836	6
7	1938	0901	2128	0851	2021	0721	2217	0724	2301	0737	2346	0947	7
8	2038	0930	2228	0916	2121	0747	2316	0803	2348	0834	....	1059	8
9	2137	0956	2329	0943	2222	0816	....	0849	....	0938	0019	1212	9
10	2237	1021	....	1012	2323	0847	0011	0941	0030	1045	0050	1325	10
11	2338	1046	0031	1045	....	0923	0102	1041	0108	1157	0121	1438	11
12	....	1112	0133	1123	0023	1004	0148	1146	0142	1309	0154	1551	12
13	0039	1140	0234	1208	0122	1052	0229	1256	0215	1424	0229	1701	13
14	0142	1211	0333	1302	0216	1148	0307	1410	0246	1538	0308	1808	14
15	0245	1247	0428	1403	0307	1252	0341	1526	0319	1653	0353	1910	15
16	0349	1330	0518	1513	0353	1402	0415	1643	0354	1807	0443	2005	16
17	0451	1420	0603	1628	0434	1517	0448	1800	0432	1918	0538	2053	17
18	0550	1520	0643	1746	0511	1634	0522	1916	0514	2024	0636	2135	18
19	0644	1628	0719	1906	0546	1753	0600	2030	0602	2123	0737	2210	19
20	0731	1741	0753	2024	0620	1912	0640	2139	0655	2215	0838	2241	20
21	0813	1858	0826	2141	0654	2029	0726	2241	0752	2259	0939	2309	21
22	0850	2016	0900	2254	0730	2143	0816	2336	0851	2337	1039	2335	22
23	0924	2133	0935	....	0808	2253	0910	....	0951	....	1139	....	23
24	0956	2247	1014	0004	0850	2357	1007	0023	1052	0010	1239	0000	24
25	1027	....	1056	0109	0936	....	1105	0103	1152	0039	1339	0026	25
26	1100	0000	1142	0209	1027	0054	1205	0138	1252	0106	1441	0052	26
27	1135	0110	1233	0302	1121	0144	1304	0209	1352	0131	1543	0122	27
28	1214	0216	1327	0348	1217	0227	1404	0237	1452	0157	1645	0155	28
29	1256	0318	....	....	1315	0305	1503	0303	1553	0223	1747	0234	29
30	1344	0415	....	....	1414	0337	1604	0328	1656	0251	1845	0320	30
31	1436	0505	....	....	1513	0407	....	....	1758	0323	....	....	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	1939	0413	2022	0628	2034	0912	2028	1030	2152	1205	2241	1153	1
2	2028	0514	2056	0744	2111	1027	2116	1136	2253	1246	2342	1222	2
3	2110	0622	2128	0900	2150	1139	2209	1235	2354	1321	....	1249	3
4	2148	0734	2201	1016	2234	1246	2305	1325	....	1352	0043	1315	4
5	2222	0847	2234	1130	2322	1347	....	1409	0054	1420	0142	1340	5
6	2254	1002	2311	1242	....	1441	0003	1447	0154	1445	0242	1406	6
7	2326	1116	2351	1350	0015	1528	0103	1519	0254	1511	0342	1434	7
8	2357	1229	....	1454	0111	1609	0203	1549	0353	1536	0443	1505	8
9	....	1341	0035	1552	0210	1645	0303	1616	0453	1603	0543	1540	9
10	0031	1451	0125	1644	0309	1716	0402	1641	0553	1633	0643	1621	10
11	0108	1558	0219	1730	0409	1745	0502	1707	0654	1705	0740	1709	11
12	0150	1701	0316	1809	0509	1812	0601	1733	0753	1742	0834	1803	12
13	0237	1758	0416	1843	0609	1837	0701	1800	0851	1825	0922	1903	13
14	0329	1848	0516	1914	0709	1903	0801	1831	0946	1914	1006	2008	14
15	0425	1931	0617	1942	0808	1929	0901	1905	1037	2010	1044	2117	15
16	0524	2009	0717	2008	0908	1957	0959	1943	1123	2111	1119	2227	16
17	0625	2042	0817	2033	1007	2029	1056	2028	1204	2217	1151	2339	17
18	0726	2111	0916	2059	1107	2104	1149	2119	1241	2326	1222	....	18
19	0827	2138	1016	2125	1205	2145	1238	2216	1315	....	1253	0052	19
20	0927	2204	1116	2155	1301	2232	1323	2320	1347	0038	1326	0205	20
21	1027	2229	1216	2227	1354	2326	1403	....	1419	0151	1402	0319	21
22	1126	2255	1316	2305	1442	....	1440	0028	1452	0306	1442	0431	22
23	1227	2323	1414	2350	1527	0028	1514	0141	1527	0422	1527	0541	23
24	1328	2354	1511	....	1607	0136	1548	0256	1606	0538	1619	0645	24
25	1429	....	1604	0041	1645	0249	1622	0413	1650	0652	1717	0743	25
26	1530	0029	1652	0141	1720	0406	1657	0531	1740	0801	1818	0833	26
27	1629	0111	1736	0248	1754	0524	1735	0649	1835	0902	1921	0916	27
28	1726	0200	1815	0401	1828	0643	1817	0805	1935	0956	2025	0952	28
29	1817	0257	1852	0518	1905	0802	1904	0916	2037	1042	2127	1023	29
30	1904	0402	1926	0636	1945	0918	1956	1021	2139	1120	2229	1052	30
31	1945	0513	2000	0754	....	....	2053	1117	....	....	2229	1118	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	1407	0615	1528	0743	1427	0615	1657	0542	1820	0433	2056	0358	1
2	1446	0723	1635	0813	1535	0641	1809	0556	1934	0448	2201	0432	2
3	1535	0821	1745	0836	1646	0702	1921	0611	2048	0507	2257	0517	3
4	1633	0906	1857	0855	1757	0719	2034	0626	2200	0529	2341	0615	4
5	1738	0942	2008	0912	1908	0734	2147	0642	2308	0558	....	0725	5
6	1848	1009	2120	0926	2020	0749	2300	0702	....	0636	0016	0844	6
7	1959	1030	2232	0940	2132	0803	....	0726	0009	0725	0043	1008	7
8	2111	1048	2344	0954	2245	0818	0010	0757	0059	0826	0105	1134	8
9	2222	1103	....	1010	2357	0835	0115	0838	0139	0938	0124	1302	9
10	2334	1117	0057	1028	....	0856	0211	0930	0210	1058	0141	1429	10
11	....	1131	0210	1050	0109	0922	0258	1035	0235	1222	0159	1557	11
12	0047	1145	0323	1119	0218	0956	0336	1150	0256	1350	0219	1723	12
13	0200	1202	0432	1158	0321	1041	0405	1313	0315	1518	0241	1846	13
14	0315	1222	0534	1249	0416	1138	0429	1441	0333	1648	0310	2003	14
15	0431	1247	0626	1356	0501	1249	0450	1612	0352	1817	0346	2110	15
16	0545	1321	0708	1515	0536	1411	0510	1745	0414	1945	0431	2205	16
17	0653	1407	0740	1644	0604	1540	0529	1917	0439	2108	0528	2247	17
18	0752	1509	0806	1818	0627	1713	0549	2048	0511	2221	0633	2319	18
19	0839	1624	0827	1953	0648	1847	0613	2214	0553	2323	0743	2344	19
20	0915	1751	0847	2127	0708	2021	0642	2333	0644	....	0855	....	20
21	0943	1923	0906	2258	0728	2153	0719	....	0745	0012	1008	0003	21
22	1005	2056	0926	....	0750	2321	0805	0040	0852	0048	1120	0020	22
23	1024	2228	0949	0026	0816	....	0900	0134	1003	0116	1232	0034	23
24	1042	2357	1016	0148	0848	0042	1003	0216	1115	0138	1343	0049	24
25	1100	....	1050	0302	0927	0154	1111	0248	1226	0156	1456	0103	25
26	1120	0124	1132	0407	1016	0253	1221	0312	1338	0212	1609	0119	26
27	1143	0246	1223	0501	1114	0341	1332	0332	1450	0226	1723	0137	27
28	1212	0404	1322	0543	1217	0417	1443	0349	1602	0240	1836	0200	28
29	1247	0514	....	....	1325	0445	1555	0404	1716	0255	1945	0229	29
30	1332	0615	....	....	1435	0507	1707	0418	1830	0312	2047	0309	30
31	1426	0704	....	....	1546	0526	....	....	1944	0333	....	....	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	2137	0401	2138	0651	2101	1028	2026	1219	2151	1357	2307	1319	1
2	2217	0507	2158	0822	2125	1157	2108	1332	2301	1429	....	1337	2
3	2248	0624	2217	0954	2153	1322	2159	1433	....	1453	0020	1352	3
4	2312	0749	2235	1124	2228	1438	2259	1521	0013	1512	0132	1407	4
5	2332	0917	2256	1252	2313	1545	....	1557	0125	1529	0243	1421	5
6	2351	1046	2320	1417	....	1639	0005	1625	0236	1544	0355	1436	6
7	....	1215	2350	1537	0006	1722	0115	1647	0348	1558	0507	1453	7
8	0008	1342	....	1649	0108	1754	0226	1705	0459	1613	0619	1513	8
9	0027	1508	0027	1751	0215	1820	0337	1721	0611	1629	0730	1539	9
10	0048	1631	0114	1842	0325	1841	0449	1736	0723	1647	0839	1613	10
11	0114	1749	0210	1921	0436	1858	0600	1750	0834	1710	0941	1656	11
12	0146	1859	0315	1951	0548	1913	0711	1805	0944	1738	1034	1752	12
13	0226	1957	0424	2015	0659	1928	0823	1822	1049	1815	1117	1859	13
14	0317	2044	0535	2034	0811	1942	0934	1842	1147	1903	1151	2015	14
15	0418	2120	0648	2051	0922	1958	1044	1906	1235	2001	1217	2136	15
16	0526	2148	0800	2106	1033	2016	1152	1937	1314	2111	1239	2301	16
17	0637	2210	0911	2120	1144	2037	1254	2017	1344	2228	1258	....	17
18	0750	2227	1022	2135	1253	2103	1348	2108	1409	2350	1316	0027	18
19	0902	2243	1134	2151	1359	2137	1433	2211	1430	....	1333	0154	19
20	1014	2257	1245	2209	1500	2221	1510	2324	1449	0116	1353	0322	20
21	1126	2311	1356	2232	1552	2317	1539	....	1507	0244	1416	0449	21
22	1237	2326	1506	2301	1635	....	1603	0044	1526	0414	1444	0615	22
23	1350	2343	1612	2340	1710	0026	1624	0211	1548	0545	1521	0735	23
24	1502	....	1711	....	1738	0145	1644	0341	1614	0715	1608	0845	24
25	1615	0003	1801	0030	1801	0312	1703	0514	1647	0841	1707	0942	25
26	1725	0029	1841	0134	1822	0444	1724	0647	1730	0958	1815	1026	26
27	1830	0103	1913	0251	1842	0618	1749	0820	1825	1103	1929	1059	27
28	1926	0148	1939	0417	1903	0752	1819	0949	1929	1152	2044	1124	28
29	2012	0247	2001	0548	1925	0926	1858	1111	2040	1230	2159	1144	29
30	2047	0359	2021	0722	1952	1056	1946	1220	2153	1258	2312	1200	30
31	2115	0522	2040	0856	....	....	2045	1315	....	....	2312	1215	31

Time meridian 135° W. 0000 is midnight. 1200 is noon.

TABLE 6-MOONRISE AND MOONSET, 2015

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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	1532	0401	1651	0522	1538	0406	1651	0443	1713	0432	1835	0514	1
2	1622	0456	1741	0607	1628	0448	1740	0520	1804	0510	1931	0602	2
3	1713	0549	1832	0649	1717	0528	1829	0556	1856	0551	2026	0655	3
4	1804	0639	1921	0728	1806	0606	1919	0633	1949	0633	2119	0751	4
5	1856	0726	2010	0806	1855	0643	2009	0712	2043	0720	2211	0849	5
6	1947	0809	2058	0843	1944	0719	2101	0753	2138	0809	2300	0948	6
7	2037	0850	2147	0919	2033	0756	2154	0836	2231	0902	2347	1048	7
8	2126	0929	2236	0955	2122	0833	2248	0923	2323	0957	....	1148	8
9	2215	1006	2326	1033	2213	0912	2341	1013	....	1055	0032	1247	9
10	2303	1042	....	1112	2305	0953	....	1106	0013	1154	0116	1346	10
11	2352	1119	0018	1155	2358	1037	0034	1202	0101	1253	0201	1446	11
12	....	1156	0111	1241	....	1125	0126	1301	0147	1353	0246	1546	12
13	0042	1235	0206	1332	0052	1217	0216	1401	0233	1454	0334	1645	13
14	0134	1316	0302	1428	0147	1313	0304	1502	0318	1554	0423	1744	14
15	0228	1402	0359	1527	0240	1411	0352	1605	0404	1656	0515	1841	15
16	0324	1452	0454	1630	0333	1513	0439	1707	0452	1757	0608	1935	16
17	0422	1547	0548	1734	0425	1616	0526	1810	0541	1858	0702	2026	17
18	0520	1646	0640	1839	0514	1720	0614	1913	0633	1957	0756	2113	18
19	0617	1749	0729	1944	0603	1824	0703	2015	0726	2053	0849	2157	19
20	0712	1853	0818	2047	0651	1928	0754	2115	0820	2146	0941	2237	20
21	0805	1957	0905	2149	0739	2031	0847	2213	0914	2235	1031	2315	21
22	0854	2101	0952	2250	0828	2133	0940	2306	1007	2320	1120	2352	22
23	0941	2203	1039	2349	0917	2233	1033	2356	1059	....	1209	....	23
24	1027	2303	1127	....	1008	2331	1126	....	1150	0001	1257	0028	24
25	1112	....	1216	0046	1059	....	1217	0042	1239	0040	1347	0105	25
26	1157	0002	1306	0140	1151	0025	1308	0125	1328	0117	1437	0143	26
27	1243	0100	1357	0232	1242	0116	1357	0205	1416	0154	1529	0223	27
28	1330	0157	1447	0320	1334	0203	1446	0242	1505	0230	1623	0306	28
29	1419	0252	....	....	1424	0246	1534	0319	1556	0308	1719	0353	29
30	1509	0344	....	....	1513	0327	1623	0355	1647	0347	1815	0444	30
31	1600	0435	....	....	1602	0406	....	....	1741	0429	....	....	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	1910	0539	2025	0727	2125	0921	2146	1010	2310	1139	2337	1146	1
2	2004	0638	2112	0830	2214	1023	2239	1110	....	1226	....	1226	2
3	2055	0738	2159	0932	2303	1124	2333	1206	0003	1309	0027	1303	3
4	2144	0840	2244	1033	2354	1223	....	1257	0055	1350	0116	1339	4
5	2231	0941	2331	1134	....	1319	0026	1345	0145	1427	0205	1416	5
6	2316	1041	....	1233	0046	1412	0118	1430	0234	1504	0253	1453	6
7	....	1141	0018	1332	0138	1501	0210	1511	0322	1540	0342	1531	7
8	0001	1241	0107	1428	0231	1548	0300	1550	0411	1617	0433	1612	8
9	0046	1340	0157	1523	0322	1631	0349	1627	0500	1654	0525	1656	9
10	0132	1438	0249	1615	0413	1711	0438	1704	0549	1734	0617	1743	10
11	0219	1536	0341	1704	0503	1750	0526	1740	0640	1816	0710	1834	11
12	0309	1633	0434	1749	0553	1827	0615	1817	0732	1901	0803	1928	12
13	0400	1727	0526	1832	0641	1903	0704	1855	0824	1948	0855	2023	13
14	0453	1819	0617	1912	0730	1940	0754	1935	0916	2039	0945	2121	14
15	0547	1907	0707	1950	0818	2017	0844	2018	1007	2133	1032	2219	15
16	0640	1952	0756	2027	0907	2055	0936	2103	1058	2229	1118	2317	16
17	0732	2034	0845	2103	0957	2136	1027	2151	1146	2326	1203	....	17
18	0823	2113	0933	2139	1048	2219	1119	2243	1233	....	1247	0016	18
19	0913	2151	1022	2217	1139	2306	1210	2337	1318	0024	1331	0115	19
20	1002	2227	1112	2256	1232	2356	1300	....	1404	0123	1417	0215	20
21	1050	2303	1202	2338	1324	....	1349	0034	1449	0223	1505	0315	21
22	1139	2340	1254	....	1416	0050	1437	0133	1535	0324	1556	0416	22
23	1228	....	1347	0023	1508	0147	1524	0234	1624	0426	1649	0517	23
24	1319	0019	1441	0113	1558	0247	1611	0335	1715	0529	1745	0617	24
25	1411	0100	1535	0206	1647	0349	1658	0438	1808	0632	1841	0713	25
26	1505	0144	1629	0304	1736	0452	1747	0542	1904	0734	1938	0806	26
27	1600	0232	1722	0404	1824	0556	1838	0647	2000	0833	2033	0855	27
28	1656	0325	1812	0507	1913	0701	1931	0751	2057	0928	2126	0940	28
29	1751	0422	1902	0611	2003	0805	2025	0853	2152	1018	2218	1022	29
30	1844	0522	1950	0715	2054	0909	2121	0952	2246	1104	2308	1100	30
31	1936	0624	2037	0818	....	....	2216	1048	....	....	2308	1137	31

Time meridian 150° W. 0000 is midnight. 1200 is noon.

TABLE 7.—CONVERSION OF FEET TO CENTIMETERS

Feet	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	
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
50	1524	1527	1530	1533	1536	1539	1542	1545	1548	1551	50

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

Station ID	Station Name	Year	90% Distribution Level						Standard Deviation of Differences						Average Differences					
			Time Differences			Height Differences			Times			Heights			Times			Heights		
			High Water (Hours)	Low Water (Hours)	High Water (Feet)	Low Water (Feet)	High Water (Feet)	Low Water (Feet)	High Water (Hours)	Low Water (Hours)	High Water (Hours)	High Water (Feet)	Low Water (Feet)	High Water (Feet)	High Water (Hours)	Low Water (Hours)	High Water (Hours)	High Water (Feet)	Low Water (Feet)	Low Water (Feet)
161-2340	Honolulu, HI	1995	0.6	0.5	0.3	0.3	0.3	0.3	0.39	0.37	0.21	0.20	0.20	0.21	0.01	0.03	0.01	-0.03	0.02	0.02
941-0170	San Diego, CA	1995	0.4	0.3	0.3	0.3	0.3	0.3	0.17	0.17	0.17	0.18	0.18	0.17	0.20	0.16	0.20	0.06	-0.07	-0.07
941-0660	Los Angeles, CA	2004	0.2	0.1	0.3	0.3	0.3	0.3	0.11	0.11	0.19	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00
941-4290	San Francisco, CA	1995	0.3	0.4	0.4	0.6	0.6	0.6	0.18	0.25	0.31	0.39	0.39	0.31	-0.12	-0.03	-0.12	0.03	-0.02	-0.02
941-8767	Humbolt Bay, CA	2004	0.2	0.2	0.5	0.5	0.5	0.5	0.10	0.11	0.29	0.31	0.31	0.29	-0.05	0.04	-0.05	0.00	-0.01	-0.01
941-9750	Crescent City, CA	2004	0.2	0.2	0.6	0.6	0.6	0.6	0.11	0.11	0.35	0.34	0.34	0.35	-0.01	-0.01	-0.01	-0.01	0.00	0.00
943-9040	Astoria, OR	1995	0.2	0.3	0.7	0.9	0.9	0.9	0.11	0.17	0.48	0.55	0.55	0.48	-0.02	0.04	-0.02	-0.04	0.07	0.07
944-1187	Aberdeen, WA	1982	0.4	0.7	1.0	>1.0	>1.0	>1.0	0.26	0.31	0.58	0.76	0.76	0.58	0.04	0.34	0.04	-0.29	-0.10	-0.10
944-3090	Neah Bay, WA	2004	0.2	0.2	0.7	0.8	0.8	0.8	0.13	0.17	0.42	0.44	0.44	0.42	-0.02	0.00	-0.02	0.00	-0.01	-0.01
44-4900	Port Townsend, WA	2004	0.3	0.3	0.7	0.7	0.7	0.7	0.21	0.46	0.40	0.50	0.50	0.40	-0.04	0.02	-0.04	0.01	0.00	0.00
944-7130	Seattle, WA	2004	0.3	0.2	0.7	0.7	0.7	0.7	0.16	0.14	0.41	0.40	0.40	0.41	0.05	0.04	0.05	0.01	0.01	0.01
945-0460	Ketchikan, AK	2004	0.1	0.1	0.7	0.7	0.7	0.7	0.08	0.09	0.42	0.42	0.42	0.42	0.00	0.00	0.00	-0.01	0.00	0.00
945-1600	Sitka, AK	2004	0.1	0.1	0.7	0.7	0.7	0.7	0.09	0.09	0.40	0.39	0.39	0.40	0.00	0.01	0.00	-0.01	0.00	0.00
945-2210	Juneau, AK	2004	0.1	0.1	0.8	0.7	0.7	0.7	0.10	0.10	0.49	0.47	0.47	0.49	0.00	0.00	0.00	0.08	-0.08	-0.08
945-4050	Cordova, AK	2004	0.2	0.2	0.7	0.7	0.7	0.7	0.15	0.14	0.43	0.44	0.44	0.43	0.04	0.05	0.04	-0.02	0.03	0.03
945-4240	Valdez, AK	2004	0.2	0.2	0.7	0.7	0.7	0.7	0.14	0.12	0.42	0.44	0.44	0.42	-0.01	0.00	-0.01	-0.01	0.01	0.01
945-5500	Seldovia, AK	1995	0.1	0.1	0.8	0.9	0.9	0.9	0.08	0.09	0.52	0.56	0.56	0.52	-0.01	0.03	-0.01	-0.04	0.07	0.07
945-5760	Nikishki, AK	2004	0.3	0.3	0.9	1.0	1.0	1.0	0.15	0.17	0.51	0.55	0.55	0.51	-0.13	-0.13	-0.13	-0.03	0.14	0.14
945-5920	Anchorage, AK	1995	0.2	0.2	>1.0	>1.0	>1.0	>1.0	0.12	0.12	0.70	0.78	0.78	0.70	0.08	0.02	0.08	0.06	0.20	0.20
945-7283	Kodiak, AK	1983	0.2	0.2	0.9	0.9	0.9	0.9	0.16	0.15	0.55	0.55	0.55	0.55	0.01	0.04	0.01	-0.09	-0.23	-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	0.8	0.8	0.33	0.23	0.47	0.48	0.48	0.47	0.09	0.07	0.09	-0.02	0.04	0.04
946-2620	Unalaska, AK	2004	0.4	0.4	0.7	0.7	0.7	0.7	0.47	0.20	0.46	0.45	0.45	0.46	0.01	0.02	0.01	-0.02	0.00	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).

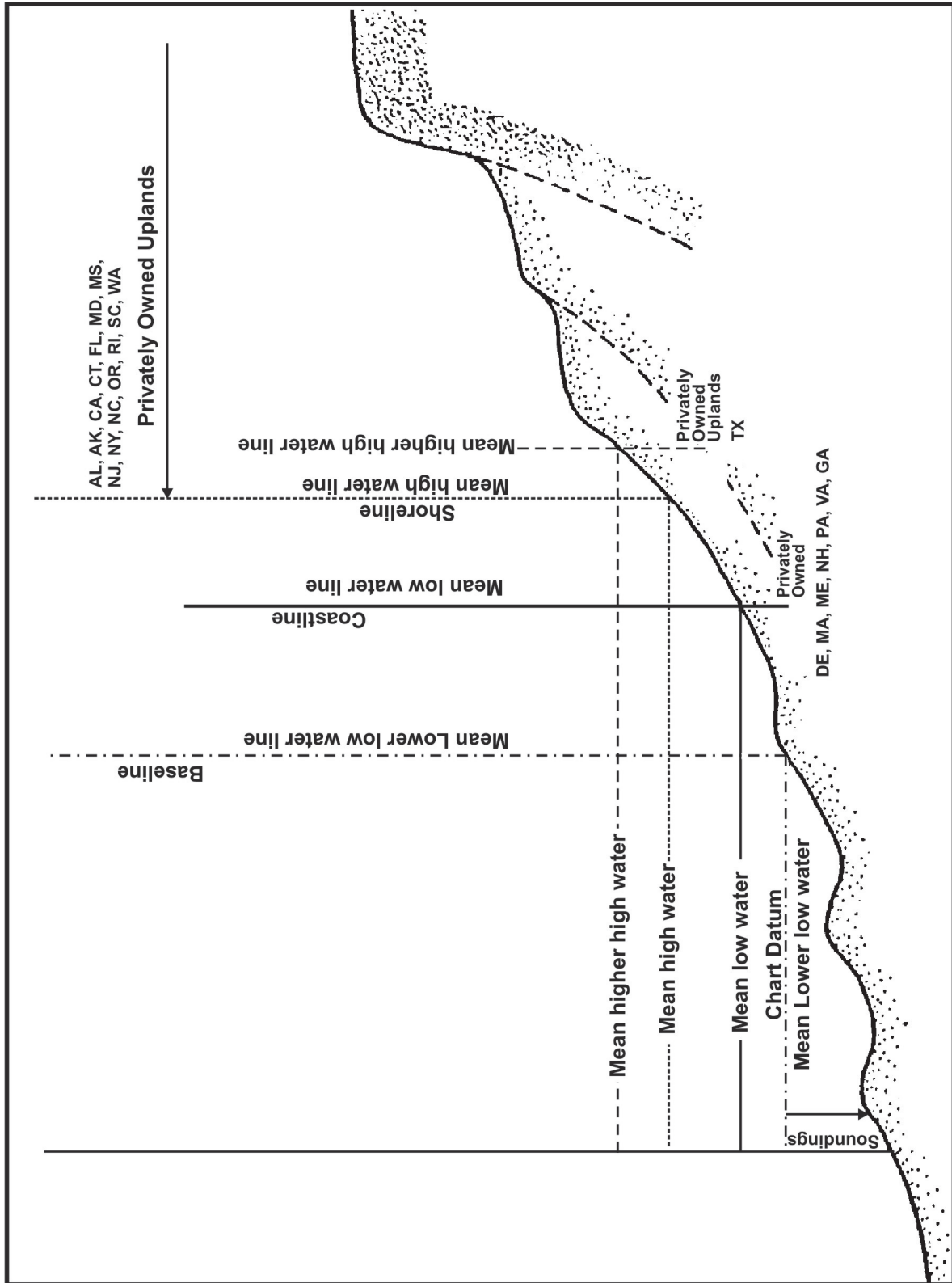
TIDAL CURRENT TABLES

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, 2015
Lat. 61° 14 N Long. 149° 53 W

JANUARY

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 107/22	Hours 117/23
1 Th	6.7 10.1	14.5 17.2	20.0 22.1	23.8 26.2	26.5 28.7	26.7 28.5	23.9 24.9	19.1 20.0	14.1 14.8	10.0 9.7	6.7 4.5	5.7 -0.1
2 F	-0.8 5.2	6.5 10.6	14.4 17.7	20.2 22.7	24.2 26.7	27.4 29.1	27.7 28.2	24.7 24.2	19.6 19.1	14.5 14.1	10.2 9.0	6.9 4.2
3 Sa	-1.1 6.3	-0.6 5.2	7.8 12.3	15.7 19.0	21.4 24.1	25.4 27.8	28.5 29.5	27.9 27.5	24.3 22.8	18.9 17.6	13.6 12.7	9.7 7.8
4 Su	3.2 8.7	-2.0 5.1	1.2 6.5	10.2 14.6	17.9 21.0	23.3 25.9	27.0 28.9	29.1 29.6	27.3 26.2	22.9 20.9	17.3 15.8	11.9 10.7
5 M	6.4 10.1	1.5 7.2	-1.7 4.5	4.6 9.2	13.2 17.2	20.6 23.1	25.4 27.5	28.6 29.8	28.9 28.9	25.8 24.4	20.9 18.7	15.1 13.6
6 Tu	8.6 12.7	4.5 8.3	-0.3 5.4	0.5 5.3	8.7 12.5	16.6 19.7	23.2 25.0	27.4 28.6	29.4 29.9	28.0 27.4	23.7 22.1	18.5 16.3
7 W	11.2 15.8	6.5 10.4	2.3 6.6	-0.8 4.2	4.4 7.7	13.0 15.8	19.9 21.8	25.5 26.4	28.9 29.1	29.3 28.9	26.2 25.1	21.2 19.4
8 Th	13.7 18.5	8.7 13.2	4.5 8.4	0.4 4.9	1.0 4.5	9.2 11.0	17.0 18.3	22.9 23.5	27.4 27.1	29.6 28.7	28.2 27.0	23.9 22.5
9 F	16.7 21.2	11.1 15.8	6.5 10.8	2.6 6.7	0.0 3.7	4.8 6.2	13.8 13.7	20.5 20.0	25.2 24.4	28.6 27.1	29.3 27.5	26.3 24.6
10 Sa	19.8 24.2	14.2 18.7	8.8 13.4	4.9 9.0	1.6 5.3	1.8 3.5	9.2 8.3	17.5 15.3	23.1 20.8	26.7 24.5	29.0 26.5	28.1 25.7
11 Su	22.3 26.5	17.7 22.1	12.5 16.7	7.6 11.7	4.2 8.0	2.0 4.4	5.0 4.3	12.8 9.6	20.0 15.5	24.6 20.5	27.3 23.8	28.4 25.3
12 M	23.9 27.3	20.6 25.0	16.5 20.6	11.9 15.5	7.6 11.0	4.7 7.5	4.0 4.2	8.3 5.1	15.0 9.6	21.2 14.8	25.0 19.4	27.0 22.6
13 Tu	23.8 26.1	22.6 26.1	19.9 23.9	16.6 19.7	12.5 15.0	8.7 11.0	6.2 7.4	6.6 4.4	10.4 5.2	15.9 8.6	21.3 13.5	24.4 17.9
14 W	21.2 23.6	22.7 25.3	22.1 25.5	20.2 23.5	17.6 19.6	14.0 15.1	10.4 11.3	8.1 7.5	8.5 4.5	11.1 4.3	16.0 7.2	20.8 12.0
15 Th	16.6 20.2	20.4 23.2	22.4 25.2	22.6 25.7	21.5 23.8	19.1 19.8	15.6 15.3	11.9 11.3	9.5 7.3	9.1 3.8	10.9 2.9	15.7 5.8
16 F	10.9 15.5	16.0 20.3	20.5 23.6	23.1 26.1	23.9 26.6	23.1 24.5	20.6 20.0	16.7 15.3	12.7 10.9	9.8 6.7	8.5 2.6	10.3 1.3
17 Sa	4.7 9.8	10.7 16.0	16.5 21.0	21.7 25.0	24.6 27.7	25.7 28.0	24.5 25.1	21.3 20.0	16.9 14.7	12.5 10.2	8.9 5.6	7.3 1.0
18 Su	-0.3 5.8	4.5 9.7	11.6 17.2	18.1 22.5	23.5 27.0	26.5 29.5	27.4 29.3	25.3 25.3	21.3 19.5	16.2 13.8	11.3 9.1	7.4 4.2
19 M	-0.7 5.8	-1.5 4.4	5.4 10.4	13.3 18.9	20.3 24.3	25.5 29.0	28.4 31.2	28.5 30.1	25.4 25.0	20.5 18.8	15.0 12.8	9.7 7.9
20 Tu	2.8 8.1	-2.6 4.0	-1.7 3.4	7.5 12.1	15.5 20.5	22.7 26.2	27.5 30.6	30.1 32.5	28.9 30.0	24.9 24.2	19.2 17.7	13.5 11.7
21 W	6.5 11.9	1.2 6.7	-4.3 2.0	-0.2 3.4	10.3 14.1	18.2 22.0	24.9 27.7	29.4 31.7	31.1 33.0	28.6 29.2	23.8 23.0	17.8 16.4
22 Th	10.4 16.2	5.0 10.2	-0.7 5.1	-5.0 0.2	2.8 4.6	13.4 15.8	21.0 23.2	27.0 28.7	31.1 32.3	31.3 32.6	27.8 27.9	22.2 21.5
23 F	14.9 20.5	8.7 14.4	3.4 8.6	-2.6 3.2	-3.8 -0.8	6.7 6.3	16.6 16.9	23.7 24.1	29.0 29.1	32.3 32.4	31.0 31.4	26.5 26.3
24 Sa	19.8 24.9	13.3 18.6	7.0 12.6	2.0 7.1	-3.3 1.4	-0.8 -0.6	10.4 7.7	19.6 17.3	25.8 24.3	30.6 28.9	32.7 31.6	30.2 29.8
25 Su	24.8 29.0	18.3 23.2	12.0 17.1	5.9 11.2	1.2 5.9	-2.3 0.5	2.9 0.4	13.4 8.2	21.8 17.0	27.2 23.6	31.3 27.9	32.2 29.9
26 M	28.1 31.0	23.5 27.7	17.5 21.9	11.4 16.1	5.8 10.6	1.8 5.4	0.3 0.8	6.2 1.4	15.4 7.9	22.8 15.8	27.5 22.0	30.8 26.1
27 Tu	27.8 29.4	26.6 29.5	22.8 26.4	17.7 21.1	12.0 15.9	7.0 10.7	3.9 5.9	3.4 1.8	8.3 2.0	16.0 6.8	22.5 13.9	26.7 19.9
28 W	23.8 24.9	25.7 27.5	25.6 28.0	23.0 25.6	18.8 21.1	13.7 16.4	9.3 11.5	6.7 6.9	6.0 2.9	9.2 2.0	15.4 5.2	21.2 11.6
29 Th	17.6 19.6	21.7 23.2	24.3 26.0	25.4 27.1	24.0 25.4	20.6 21.5	15.8 17.1	11.8 12.4	9.0 7.8	7.4 3.6	8.9 1.5	14.1 3.3
30 F	10.0 13.0	16.1 18.5	20.5 22.2	23.8 25.4	26.0 26.9	25.5 25.5	22.3 21.9	17.6 17.4	13.6 12.9	10.2 8.1	7.7 3.8	7.8 0.4
31 Sa	2.2 6.7	9.5 12.8	15.9 18.3	20.7 22.5	24.4 25.8	27.1 27.4	26.6 25.7	23.2 21.7	18.3 17.1	13.9 12.5	10.2 7.7	6.9 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).

ANCHORAGE, ALASKA, 2015
Lat. 61° 14 N Long. 149° 53 W

337

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 Su	-0.8 5.5	2.5 6.6	10.5 13.8	17.1 19.4	21.9 23.8	25.8 27.0	28.1 28.1	26.9 25.3	22.8 20.8	17.6 16.1	12.8 11.2	9.2 6.7
2 M	1.8 7.6	-1.3 4.1	4.6 8.1	12.8 15.8	19.4 21.4	23.9 25.7	27.5 28.4	28.5 28.2	26.1 24.3	21.3 19.2	15.7 14.3	11.0 9.4
3 Tu	5.1 9.0	-0.1 5.4	0.0 4.1	8.0 11.0	15.9 18.3	22.2 23.7	26.3 27.6	28.8 29.5	28.0 27.6	24.3 22.7	19.0 17.2	13.2 12.2
4 W	7.4 10.6	2.9 6.8	-1.1 3.5	3.4 6.0	12.1 14.3	19.4 20.9	25.0 25.9	28.4 29.2	29.2 29.7	26.5 26.1	21.8 20.5	16.2 14.8
5 Th	9.7 13.4	5.3 8.3	0.5 4.4	0.1 3.0	8.2 9.3	16.3 17.4	22.6 23.2	27.4 27.5	29.8 29.9	28.5 28.6	24.3 23.9	18.9 17.9
6 F	12.2 15.9	7.3 10.6	3.0 6.0	-0.6 2.3	3.8 4.5	13.1 13.0	20.1 20.0	25.5 25.1	29.3 28.5	29.9 29.5	26.7 26.6	21.5 21.3
7 Sa	15.2 18.4	9.5 13.0	5.1 8.2	1.1 3.8	0.8 1.6	8.9 7.6	17.6 16.0	23.5 22.0	27.7 26.3	30.1 28.8	28.7 28.0	24.2 24.1
8 Su	18.6 21.3	12.6 15.4	7.3 10.3	3.5 6.2	0.7 2.0	4.6 2.8	13.9 10.7	21.1 17.9	26.0 23.3	29.0 26.7	29.7 28.0	26.7 25.9
9 M	21.5 24.1	16.2 18.5	10.6 12.9	5.9 8.5	2.8 4.7	2.6 1.5	9.4 5.0	17.6 12.8	23.6 18.9	27.3 23.5	29.2 26.2	28.2 26.4
10 Tu	23.7 26.1	19.5 21.8	14.7 16.3	9.7 11.3	5.8 7.5	3.6 3.9	6.1 2.1	13.4 7.0	19.8 13.4	24.8 18.9	27.5 22.7	28.2 24.9
11 W	24.5 26.6	22.0 24.2	18.4 20.1	14.3 15.1	10.0 10.7	6.8 7.4	5.6 3.9	9.6 3.3	15.5 7.6	20.8 13.0	24.8 17.8	26.7 21.2
12 Th	23.4 25.5	23.2 25.3	21.4 23.3	18.5 19.5	15.1 14.9	11.4 11.0	8.4 7.7	8.1 4.4	11.5 3.9	15.9 7.0	20.6 11.8	23.8 16.2
13 F	19.8 22.7	22.4 24.7	22.9 25.0	21.9 23.4	19.7 20.0	16.6 15.5	13.1 11.6	10.1 8.1	9.5 4.7	11.6 3.4	15.2 5.5	19.7 10.2
14 Sa	14.8 18.7	19.1 22.2	22.5 24.9	23.7 25.8	23.4 24.7	21.4 21.1	18.2 16.4	14.3 12.1	10.9 8.2	9.4 4.3	10.2 2.1	13.9 3.7
15 Su	8.8 12.6	14.2 18.4	19.6 22.7	23.6 26.2	25.3 27.5	25.3 26.4	22.9 22.3	19.1 17.0	14.6 12.2	10.6 7.9	8.0 3.3	8.3 0.4
16 M	1.9 6.2	8.3 12.0	14.8 19.0	21.1 24.0	25.3 28.1	27.4 29.6	27.0 28.1	23.9 23.1	19.1 17.2	14.0 11.9	9.2 7.2	6.0 2.1
17 Tu	-1.5 3.9	0.9 4.3	9.2 12.5	16.6 20.2	23.2 25.8	27.3 30.0	29.4 31.6	28.0 29.0	23.9 23.3	18.3 16.9	12.8 11.3	7.6 6.2
18 W	0.8 6.0	-3.4 1.6	1.4 3.4	11.3 13.8	19.0 21.6	25.5 27.6	29.4 31.6	30.8 32.9	28.2 29.1	23.2 22.9	17.1 16.1	11.3 10.4
19 Th	5.1 9.7	-0.8 4.3	-4.4 -0.8	3.8 4.0	14.2 15.6	21.7 23.1	27.7 29.0	31.4 32.9	31.4 33.2	27.6 28.5	21.8 21.9	15.6 15.1
20 F	9.1 13.9	3.8 8.1	-2.7 2.1	-3.7 -2.4	7.6 5.7	17.3 17.1	24.4 24.4	29.9 30.0	32.9 33.6	31.1 32.6	26.4 27.3	20.1 20.5
21 Sa	13.7 18.1	7.5 12.0	2.2 6.3	-4.0 -0.3	-0.7 -2.4	11.7 8.0	20.4 18.4	26.9 25.4	31.8 30.5	33.5 33.5	30.2 31.3	24.6 25.7
22 Su	18.9 22.4	12.1 16.1	5.9 10.0	0.8 4.4	-3.5 -2.0	3.6 -0.8	15.3 9.9	23.1 19.2	28.9 25.8	33.0 30.5	33.0 32.4	28.7 29.6
23 M	24.0 26.7	17.3 20.2	10.6 14.3	4.9 8.5	0.3 2.9	-0.9 -2.1	7.9 1.4	18.0 11.0	25.1 19.5	29.9 25.4	33.0 29.4	31.6 30.5
24 Tu	27.8 29.5	22.4 24.5	16.2 18.5	9.8 13.0	5.0 7.7	1.6 2.5	2.9 -0.6	11.1 3.5	19.6 11.3	25.7 18.8	29.7 24.1	31.5 27.5
25 W	28.2 29.1	26.1 27.3	21.5 22.8	16.1 17.6	10.3 12.7	6.4 7.8	4.4 3.4	6.4 1.4	12.8 4.6	19.8 10.8	24.9 17.2	28.0 22.0
26 Th	25.1 25.5	26.2 26.7	25.0 25.5	21.6 22.0	17.0 17.6	12.0 13.2	8.9 8.8	7.4 5.0	8.5 3.1	12.8 4.8	18.7 9.3	23.0 15.2
27 F	19.8 20.8	23.1 23.3	24.9 25.0	24.9 24.7	22.6 22.1	18.6 18.3	14.2 14.2	11.4 10.1	9.4 6.3	9.0 3.9	11.6 3.9	16.7 7.5
28 Sa	13.5 15.1	18.4 19.1	22.1 22.2	24.7 24.5	25.7 25.0	24.1 22.8	20.3 19.2	16.0 15.1	12.9 10.9	9.9 6.8	8.1 3.7	9.7 2.5

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, 2015

Lat. 61° 14 N Long. 149° 53 W

MARCH

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 107/22	Hours 117/23
1 Su	6.4 8.3	13.0 14.4	18.3 18.8	22.3 22.5	25.5 25.2	26.9 25.9	25.2 23.4	21.2 19.5	16.6 15.2	12.7 10.7	9.1 6.3	6.3 2.5
2 M	1.3 4.4	6.9 8.3	13.9 15.1	19.5 19.9	23.6 24.0	26.9 26.7	27.8 26.7	25.4 23.5	20.8 19.1	15.7 14.5	11.2 9.6	7.3 5.1
3 Tu	0.8 5.0	1.6 3.6	9.0 10.1	16.1 17.0	21.7 22.1	25.6 26.1	28.4 28.3	27.8 26.9	24.4 22.7	19.1 17.8	13.6 12.9	9.2 8.0
4 W	3.3 6.9	-0.3 2.8	4.1 4.7	12.4 13.0	19.1 19.5	24.4 24.6	27.8 28.2	29.0 29.2	26.7 26.2	22.2 21.1	16.5 15.8	11.0 10.8
5 Th	6.1 8.5	1.1 4.2	0.4 1.8	8.2 7.7	16.2 16.2	22.4 22.3	27.0 26.9	29.5 29.8	28.5 29.0	24.7 24.7	19.4 19.0	13.6 13.5
6 F	8.6 10.8	3.9 6.0	-0.3 1.7	3.7 3.0	13.0 11.6	20.0 19.2	25.5 24.7	29.3 28.8	30.0 30.3	27.0 27.8	21.9 22.6	16.3 16.5
7 Sa	10.9 13.3	6.3 8.2	1.7 3.4	0.6 0.5	8.7 6.2	17.4 15.2	23.4 21.8	28.0 26.7	30.6 29.8	29.1 29.6	24.5 25.7	18.8 20.1
8 Su	13.9 15.7	8.4 10.5	4.3 5.8	0.7 1.0	4.3 1.4	13.9 10.2	21.2 18.1	26.3 23.9	29.8 27.9	30.5 29.8	27.1 27.9	21.5 23.3
9 M	17.5 18.3	11.4 12.7	6.4 8.0	2.8 3.5	2.1 -0.2	9.6 4.4	18.3 13.6	24.1 20.2	28.3 25.2	30.4 28.2	28.9 28.6	24.2 25.6
10 Tu	20.8 21.0	15.1 15.2	9.4 10.2	5.2 6.1	2.7 1.9	5.8 0.6	14.7 7.9	21.3 15.9	26.2 21.5	29.1 25.5	29.5 27.6	26.3 26.7
11 W	23.3 23.5	18.6 18.2	13.5 12.9	8.4 8.5	5.0 5.0	4.4 1.3	10.4 2.7	18.1 10.4	23.1 16.9	27.0 21.8	28.7 24.9	27.6 26.3
12 Th	24.8 25.4	21.6 21.3	17.3 16.4	12.8 11.6	8.6 7.9	6.0 4.7	7.2 1.9	13.8 4.7	19.5 11.3	23.8 16.9	26.6 21.0	27.5 23.8
13 F	24.9 26.0	23.6 24.0	20.9 20.5	17.2 15.9	13.3 11.6	9.7 8.2	7.6 5.0	9.6 2.9	14.9 5.4	19.4 10.7	23.2 15.9	25.4 19.6
14 Sa	22.7 24.2	24.1 25.3	23.5 23.9	21.4 21.0	18.1 16.7	14.6 12.5	11.1 9.0	9.0 5.6	10.4 3.3	13.9 4.7	18.1 9.1	21.9 14.2
15 Su	18.3 20.5	22.3 23.7	24.4 25.6	24.5 25.2	22.9 22.7	19.7 18.3	15.9 13.7	12.1 9.7	9.4 6.0	9.2 2.9	11.7 3.1	16.3 7.2
16 M	12.8 14.5	18.0 19.9	22.9 24.2	25.6 27.0	26.3 27.2	24.8 24.8	21.2 19.9	16.7 14.8	12.2 10.2	8.5 5.9	7.0 1.9	9.0 1.2
17 Tu	5.5 6.4	12.5 13.7	18.9 20.3	24.4 25.5	27.4 28.8	28.4 29.5	26.3 26.6	22.0 21.1	16.6 15.3	11.5 10.3	6.8 5.3	4.4 0.7
18 W	-0.7 1.8	5.1 4.7	13.7 14.0	20.6 21.4	26.3 27.1	29.4 30.6	30.1 31.3	27.0 27.6	21.8 21.6	15.8 15.3	10.2 9.9	5.1 4.6
19 Th	-0.5 3.4	-1.9 -0.7	6.6 4.4	15.9 15.3	22.9 22.8	28.3 28.6	31.4 32.2	30.9 32.3	26.8 27.7	20.7 21.3	14.6 14.8	8.8 9.2
20 F	3.8 7.4	-2.0 1.4	-1.4 -2.6	9.6 5.8	18.6 16.9	25.4 24.2	30.4 29.9	32.8 33.4	30.8 32.4	25.7 27.2	19.1 20.4	13.1 13.9
21 Sa	8.1 11.5	2.8 5.8	-3.1 -1.1	1.1 -2.9	13.3 8.1	21.4 18.4	27.8 25.5	32.3 30.9	33.4 33.8	29.8 31.6	23.9 26.0	17.4 19.1
22 Su	12.6 15.5	6.8 9.6	1.4 3.8	-2.9 -3.2	5.2 -1.3	16.8 10.6	24.0 19.8	29.8 26.5	33.7 31.5	32.9 33.4	28.1 30.3	21.7 24.4
23 M	17.6 19.4	10.9 13.5	5.5 7.7	0.4 1.7	-0.6 -3.8	9.7 1.6	19.7 12.7	26.2 20.9	31.3 27.1	33.9 31.4	31.4 32.2	25.9 28.7
24 Tu	22.6 23.3	16.0 17.1	9.5 11.6	4.7 6.0	0.7 0.3	3.2 -2.3	13.4 4.8	21.7 14.2	27.5 21.6	31.6 26.9	32.6 30.4	29.2 30.3
25 W	26.8 26.6	21.0 20.9	14.8 15.4	8.8 10.2	4.9 5.1	2.8 0.4	7.2 0.5	15.8 7.3	22.7 15.0	27.5 21.4	30.4 25.9	30.2 28.5
26 Th	28.2 27.4	25.0 24.2	19.9 19.2	14.3 14.4	9.2 9.7	6.4 5.3	5.9 2.0	10.1 3.2	16.6 8.7	22.4 14.9	26.2 20.3	28.0 24.2
27 F	26.4 25.3	26.5 25.0	23.9 22.5	19.8 18.5	14.9 14.4	10.7 10.3	8.7 6.4	8.5 4.0	11.1 5.0	15.9 8.8	20.9 13.8	23.9 18.7
28 Sa	22.4 21.5	24.9 23.2	25.4 23.7	23.9 22.1	20.5 18.9	16.2 15.2	12.6 11.4	10.6 7.9	9.5 5.4	10.5 5.4	14.2 7.8	18.7 12.4
29 Su	17.4 16.8	21.4 19.9	24.2 22.4	25.4 23.6	24.7 22.9	21.8 20.0	17.6 16.3	14.0 12.5	11.2 8.7	8.9 5.6	8.6 4.7	12.0 6.4
30 M	11.6 10.6	17.0 16.1	21.5 19.8	24.5 23.0	26.3 24.7	25.8 24.1	22.7 21.0	18.3 17.1	14.1 12.9	10.3 8.5	7.1 4.9	6.3 3.2
31 Tu	5.8 4.7	12.1 10.8	17.8 16.6	22.6 21.1	25.8 24.6	27.6 26.3	26.4 25.1	22.7 21.4	17.7 17.0	12.8 12.4	8.4 7.6	4.8 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).

ANCHORAGE, ALASKA, 2015
Lat. 61° 14 N Long. 149° 53 W

339

APRIL

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 107/22	Hours 117/23
1	2.1	6.9	14.0	19.8	24.6	27.6	28.4	26.0	21.4	15.9	10.7	6.1
W	2.5	4.8	12.5	18.4	23.2	26.6	27.7	25.3	20.9	16.0	11.1	6.1
2	1.9	2.4	9.8	16.8	22.5	26.8	29.0	28.1	24.4	19.1	13.5	8.3
Th	3.6	1.3	6.9	15.1	20.9	25.6	28.5	28.1	24.6	19.4	14.2	9.4
3	4.4	0.9	5.0	13.8	20.1	25.3	29.0	29.6	26.7	21.9	16.3	10.9
F	5.9	1.2	2.0	10.3	18.0	23.6	27.8	29.6	27.6	23.0	17.3	12.1
4	7.5	2.6	1.6	9.4	17.7	23.4	28.0	30.4	29.0	24.5	18.9	13.5
Sa	8.3	3.2	-0.2	4.8	13.9	20.8	26.0	29.5	29.7	26.3	20.9	15.0
5	9.8	5.5	1.6	4.7	14.2	21.2	26.3	29.9	30.6	27.1	21.7	16.0
Su	10.8	5.8	0.7	0.4	8.8	17.0	23.3	27.8	30.2	28.8	24.4	18.7
6	12.7	7.7	3.8	2.4	9.7	18.4	24.1	28.5	30.8	29.3	24.5	18.7
M	13.2	8.3	3.3	-1.0	3.2	12.6	19.6	25.2	28.8	29.8	27.1	22.2
7	16.4	10.5	6.0	3.0	5.6	14.8	21.4	26.4	29.8	30.3	26.8	21.4
Tu	15.6	10.6	6.0	1.1	-0.6	7.2	15.6	21.7	26.4	29.0	28.4	25.0
8	19.9	14.3	8.8	5.0	3.9	10.3	18.7	23.6	27.8	29.8	28.4	23.7
W	18.2	12.9	8.4	4.1	-0.2	1.7	11.0	17.8	23.1	26.8	28.2	26.6
9	22.8	17.8	12.6	7.9	5.0	6.5	14.7	20.9	24.9	28.1	28.8	25.8
Th	20.9	15.5	10.8	6.7	2.9	0.0	4.8	13.3	19.1	23.6	26.4	27.0
10	24.9	21.2	16.5	11.9	7.9	5.9	9.5	17.0	21.6	25.2	27.4	27.2
F	23.6	18.9	13.9	9.6	6.0	2.5	1.3	7.1	14.2	19.5	23.2	25.7
11	25.9	24.0	20.4	16.1	12.0	8.5	7.3	11.2	16.9	21.1	24.5	26.3
Sa	25.8	22.6	18.3	13.5	9.5	6.1	2.9	2.6	7.6	13.8	18.9	22.4
12	25.2	25.6	24.1	20.7	16.7	12.8	9.3	8.0	10.8	15.1	19.6	23.1
Su	25.3	25.3	22.9	19.1	14.4	10.4	6.8	3.6	3.0	6.7	12.6	17.7
13	21.8	25.2	26.1	25.2	22.0	17.9	13.6	9.7	7.6	8.6	12.3	17.5
M	21.8	25.0	25.9	24.4	20.9	16.2	11.7	7.7	4.0	2.4	5.2	11.1
14	16.9	22.0	25.9	27.5	26.9	23.5	19.0	14.0	9.5	6.1	5.7	9.4
Tu	15.8	21.3	25.5	27.2	26.6	23.0	18.0	12.9	8.4	4.0	1.4	3.5
15	10.0	17.1	22.9	27.2	29.2	28.6	24.7	19.3	13.7	8.6	4.1	2.8
W	6.8	15.0	21.6	26.5	28.9	28.7	24.8	19.4	13.7	8.7	3.7	0.5
16	2.2	10.4	18.2	24.5	28.8	30.9	29.6	24.9	18.8	13.0	7.3	2.4
Th	0.1	5.6	15.3	22.4	27.7	30.5	30.2	25.9	19.9	13.9	8.6	3.4
17	-0.4	2.2	12.3	20.1	26.3	30.5	32.2	29.6	24.2	17.7	11.9	6.2
F	0.6	-1.9	6.1	16.4	23.6	28.9	31.8	30.8	26.0	19.7	13.6	8.1
18	3.1	-1.1	4.0	15.1	22.4	28.3	32.1	32.7	28.8	22.7	16.3	10.6
Sa	5.0	-1.4	-2.6	8.0	17.8	24.9	29.9	32.6	30.6	25.4	18.9	12.8
19	7.4	2.4	-0.9	7.4	18.0	24.6	30.2	33.3	32.1	27.2	20.7	14.8
Su	9.2	3.5	-3.3	-1.2	10.4	19.3	26.1	30.9	32.7	29.8	24.2	17.7
20	11.5	6.5	1.5	0.8	11.5	20.5	26.7	31.6	33.6	30.7	25.0	18.7
M	13.0	7.4	1.5	-4.2	1.7	12.7	20.8	27.2	31.5	32.2	28.6	22.6
21	16.2	10.0	5.5	1.2	4.2	15.0	22.5	28.2	32.2	32.7	28.6	22.5
Tu	16.6	11.1	5.6	-0.4	-3.1	5.3	14.9	22.3	27.9	31.4	31.0	26.9
22	20.9	14.6	8.7	4.9	2.4	8.2	17.5	24.0	28.8	31.6	30.6	26.0
W	19.9	14.5	9.1	3.9	-1.2	-0.1	8.6	16.7	23.3	28.0	30.4	29.3
23	24.9	19.2	13.2	8.2	5.1	5.0	11.5	18.9	24.5	28.2	29.8	27.9
Th	23.3	17.6	12.6	7.6	3.0	-0.2	3.5	11.2	18.1	23.5	27.4	28.9
24	27.4	23.1	17.9	12.5	8.4	6.4	7.8	13.4	19.3	23.9	26.6	27.1
F	25.1	20.9	15.9	11.3	7.0	3.2	2.0	6.4	12.8	18.5	23.0	26.2
25	27.3	25.7	22.0	17.3	12.6	9.4	8.1	9.6	13.6	18.5	22.3	24.3
Sa	24.6	23.0	19.5	15.2	11.1	7.4	4.3	4.2	8.1	13.3	18.0	22.1
26	25.1	26.1	24.8	21.7	17.5	13.4	10.5	9.2	9.6	12.4	16.7	20.3
Su	22.3	23.0	22.0	19.4	15.6	11.9	8.4	5.7	5.4	8.4	12.7	17.3
27	21.4	24.5	25.6	24.8	22.2	18.3	14.2	11.0	8.9	8.2	10.3	14.8
M	18.7	21.2	22.6	22.3	20.3	16.7	13.1	9.5	6.4	5.5	7.7	11.9
28	16.9	21.2	24.6	26.0	25.6	22.9	18.8	14.3	10.5	7.3	5.9	8.2
Tu	13.6	18.1	21.3	23.3	23.6	21.7	18.0	14.0	10.1	6.3	4.7	6.7
29	11.8	17.3	21.9	25.5	27.0	26.4	23.1	18.5	13.6	9.1	5.1	3.6
W	7.1	13.6	18.6	22.5	24.7	25.1	22.8	18.8	14.3	9.9	5.5	3.7
30	6.5	13.0	18.6	23.4	26.9	28.1	26.4	22.4	17.3	12.1	7.0	2.8
Th	2.0	7.7	14.9	20.1	24.2	26.4	26.2	23.1	18.5	13.8	9.1	4.5

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, 2015

Lat. 61° 14 N Long. 149° 53 W

MAY

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 107/22	Hours 117/23
1 F	3.1 0.8	8.0 2.2	15.4 9.9	20.7 17.0	25.5 22.3	28.5 26.2	28.5 27.8	25.5 26.4	20.7 22.5	15.3 17.3	10.0 12.5	4.9 7.8
2 Sa	3.5 2.6	3.7 -0.5	11.2 4.2	18.3 12.9	23.3 19.5	27.6 24.6	29.6 28.0	28.0 28.5	23.6 25.7	18.3 21.0	13.0 15.5	7.9 10.8
3 Su	6.4 5.6	2.8 0.4	6.2 -0.2	15.1 7.6	21.3 15.8	26.0 22.0	29.5 26.7	29.9 29.2	26.5 28.2	21.2 24.4	15.7 19.0	10.6 13.5
4 M	8.9 8.4	4.9 3.3	3.4 -1.3	10.3 2.1	18.7 11.2	24.1 18.4	28.3 24.3	30.6 28.2	29.1 29.7	24.3 27.3	18.5 22.7	13.2 17.1
5 Tu	11.5 11.0	7.2 6.2	3.9 0.9	5.8 -1.5	14.7 5.7	21.4 14.2	26.4 20.7	29.8 26.0	30.5 29.1	27.1 29.1	21.7 25.8	16.0 20.8
6 W	15.1 13.6	9.6 8.8	5.8 4.1	4.0 -0.9	9.8 0.4	18.3 9.5	23.5 16.6	28.1 22.7	30.3 27.1	29.1 29.2	24.5 27.9	19.0 24.1
7 Th	18.9 16.3	13.3 11.4	8.2 6.8	5.0 2.2	5.7 -1.4	14.0 3.6	20.7 12.7	25.1 18.8	28.8 24.1	29.7 27.5	26.9 28.5	21.7 26.4
8 F	22.2 19.3	17.1 14.0	11.9 9.5	7.4 5.2	5.0 1.0	8.5 -0.4	17.0 6.9	22.0 14.8	26.1 20.5	28.6 24.9	28.3 27.6	24.4 27.6
9 Sa	25.0 22.5	20.6 17.6	15.7 12.5	10.9 8.2	7.1 4.3	5.7 0.6	10.9 1.5	18.0 9.0	22.4 16.0	26.1 21.4	27.9 25.1	26.7 27.4
10 Su	26.9 25.6	24.3 21.8	19.7 17.0	15.0 12.1	10.6 7.9	7.1 4.2	6.5 1.1	11.6 2.9	17.3 9.6	22.0 16.4	25.3 21.5	27.0 25.1
11 M	27.3 26.2	26.9 25.3	24.3 22.2	19.7 17.6	15.1 12.9	10.7 8.6	7.1 4.7	6.5 1.9	10.2 3.4	15.3 9.2	20.5 16.0	24.1 21.1
12 Tu	25.2 23.1	27.6 25.9	27.5 25.8	25.0 23.6	20.4 19.3	15.6 14.5	10.9 9.8	7.0 5.7	5.4 2.6	7.6 3.1	12.7 8.2	18.6 15.2
13 W	20.8 17.0	25.5 22.5	28.3 26.1	28.7 27.0	26.2 25.5	21.4 21.3	16.1 16.3	11.0 11.2	6.4 6.7	3.5 2.9	4.5 2.5	9.9 7.2
14 Th	14.8 7.8	21.1 16.2	26.1 22.5	29.3 26.6	30.0 28.3	27.2 27.2	22.0 23.1	16.2 17.7	10.7 12.2	5.5 7.4	1.6 3.1	1.7 2.0
15 F	6.7 -0.6	15.4 7.1	21.9 16.3	27.1 22.9	30.3 27.3	31.0 29.5	27.6 28.4	21.9 24.2	15.7 18.4	10.2 12.8	4.6 7.6	0.0 3.3
16 Sa	1.6 -1.5	7.5 -1.6	16.9 7.9	23.2 17.1	28.4 23.8	31.4 28.1	31.3 30.4	27.1 28.9	21.0 24.3	14.9 18.2	9.4 12.6	3.9 7.5
17 Su	3.4 3.0	1.8 -3.0	9.7 -1.0	18.8 9.7	24.8 18.4	29.7 24.9	32.2 29.0	30.8 30.9	25.8 28.7	19.5 23.6	13.8 17.5	8.4 11.8
18 M	7.2 7.2	3.0 1.7	2.9 -3.8	12.7 1.4	20.8 11.9	26.6 20.0	30.9 26.1	32.4 30.0	29.6 30.9	23.9 27.8	17.8 22.3	12.5 16.3
19 Tu	10.6 10.8	6.6 5.7	2.5 -0.1	5.4 -3.2	15.7 4.8	22.6 14.2	28.1 21.8	31.7 27.3	31.9 30.6	27.8 30.3	21.8 26.4	16.1 20.7
20 W	14.8 14.2	9.3 8.8	5.7 4.0	2.8 -1.5	8.9 -0.7	18.1 8.4	24.2 16.6	29.1 23.5	31.6 28.2	30.3 30.6	25.5 29.2	19.5 24.6
21 Th	19.0 17.1	13.0 12.1	8.2 7.0	5.0 2.3	4.6 -1.3	12.2 3.2	19.8 11.7	25.2 18.8	29.1 24.7	30.5 28.7	28.1 29.9	22.9 27.5
22 F	22.6 20.2	17.2 14.8	11.5 10.0	7.5 5.5	5.0 1.3	7.3 0.6	14.7 7.1	20.9 14.6	25.5 20.6	28.3 25.4	28.5 28.4	25.4 28.6
23 Sa	25.6 22.9	20.7 18.0	15.5 13.0	10.5 8.5	7.2 4.6	6.1 1.5	9.8 3.5	16.0 10.3	21.2 16.7	24.8 21.6	26.7 25.5	26.1 27.7
24 Su	27.1 23.9	23.8 20.9	19.2 16.6	14.3 12.0	10.1 8.1	7.4 4.6	7.4 2.8	11.1 6.0	16.1 12.2	20.6 17.7	23.6 21.9	24.8 25.3
25 M	26.9 23.2	25.9 22.5	22.7 20.0	18.3 16.3	13.9 12.1	10.1 8.5	7.6 5.4	8.0 4.4	10.8 7.4	15.2 13.0	19.3 17.9	22.1 21.7
26 Tu	24.9 20.9	26.4 22.4	25.3 22.1	22.3 20.4	18.1 17.1	13.9 13.1	10.1 9.6	7.6 6.6	7.3 5.4	9.3 7.8	13.4 12.8	17.9 17.5
27 W	21.5 16.8	24.7 20.3	26.3 22.4	25.3 22.7	22.5 21.6	18.4 18.5	14.0 14.6	9.8 10.8	6.8 7.5	5.5 5.6	7.2 7.4	11.7 12.3
28 Th	17.5 10.9	21.5 16.5	25.1 20.5	26.7 23.2	25.8 23.9	22.8 23.1	18.4 19.9	13.7 15.6	9.1 11.5	5.3 7.8	3.4 5.3	5.3 7.0
29 F	12.6 4.5	18.1 11.3	22.2 17.2	26.0 21.6	27.4 24.5	26.2 25.4	22.5 24.1	17.8 20.4	12.8 15.8	7.9 11.6	3.5 7.4	1.5 4.8
30 Sa	7.3 0.3	14.0 5.2	19.5 12.8	23.6 18.7	27.2 23.3	28.1 26.0	25.9 26.4	21.5 24.3	16.4 20.0	11.4 15.1	6.4 10.8	1.7 6.6
31 Su	4.6 0.1	8.9 0.3	16.4 7.4	21.4 14.9	25.6 20.8	28.5 25.1	28.4 27.5	24.8 26.8	19.7 23.6	14.6 18.7	9.7 13.7	4.6 9.5

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, 2015
Lat. 61° 14 N Long. 149° 53 W

341

JUNE
Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 107/22	Hours 117/23
1 M	5.7 2.8	5.1 -1.3	11.7 1.8	19.0 10.2	23.7 17.3	27.6 23.1	29.6 26.9	27.9 28.4	23.1 26.5	17.6 22.4	12.6 17.1	7.9 12.0
2 Tu	8.0 6.0	4.8 0.8	6.7 -1.8	15.1 4.6	21.4 12.9	26.1 19.8	29.3 25.1	30.0 28.3	26.6 28.6	21.2 25.6	15.6 20.9	10.7 15.4
3 W	10.2 8.8	6.5 4.0	4.4 -1.2	9.6 -0.8	18.2 7.9	23.5 15.3	28.0 22.0	30.3 26.7	29.4 29.2	24.8 28.2	19.1 24.4	13.7 19.3
4 Th	13.7 11.8	8.7 6.9	5.3 2.1	5.1 -2.4	13.1 1.9	20.4 11.0	25.3 17.7	29.1 23.9	30.4 27.8	27.9 29.3	22.7 27.2	17.1 22.9
5 F	17.7 15.0	12.1 10.0	7.5 5.1	4.4 0.3	7.1 -2.1	16.1 5.3	21.9 13.7	26.5 20.1	29.5 25.3	29.7 28.6	25.8 28.8	20.5 26.0
6 Sa	21.3 18.5	16.1 13.1	10.6 8.1	6.4 3.5	4.2 -0.9	9.5 -0.3	17.8 8.5	22.9 16.1	27.1 22.1	29.3 26.4	28.3 29.0	23.8 28.1
7 Su	24.8 22.3	19.7 16.9	14.6 11.7	9.5 6.8	5.5 2.5	4.5 -1.1	11.1 2.0	18.2 10.8	23.3 18.1	27.0 23.5	28.7 27.2	26.9 29.1
8 M	27.7 25.8	23.8 21.5	18.6 16.2	13.5 11.1	8.7 6.3	4.9 2.2	4.9 -0.3	11.1 3.9	17.5 12.0	23.0 19.3	26.3 24.1	27.9 27.8
9 Tu	29.2 27.0	27.6 25.4	23.4 21.7	18.0 16.6	12.9 11.6	8.2 6.8	4.4 2.8	4.5 1.1	9.5 4.9	16.0 12.4	21.7 19.5	25.4 24.3
10 W	28.0 24.3	29.3 26.3	27.9 25.6	23.5 22.6	18.1 18.0	12.9 13.0	8.0 8.1	4.0 4.2	3.3 2.3	7.1 5.2	13.7 12.1	20.0 19.1
11 Th	24.1 18.4	28.0 23.3	29.6 26.0	28.4 26.3	24.0 24.1	18.6 19.9	13.1 14.8	8.0 9.7	3.4 5.6	1.6 3.1	4.4 5.1	11.3 11.5
12 F	18.7 9.5	24.0 17.3	28.0 22.7	30.0 25.9	29.0 27.3	24.5 25.7	19.0 21.7	13.2 16.3	8.0 11.2	2.9 6.8	0.0 3.8	1.9 4.8
13 Sa	11.2 0.2	18.8 8.9	24.1 17.0	28.3 22.7	30.4 26.3	29.2 28.3	24.6 26.9	18.9 22.8	13.2 17.1	7.8 12.0	2.5 7.4	-1.3 4.3
14 Su	4.6 -2.5	11.8 -0.1	19.4 9.5	24.7 17.6	28.8 23.3	30.7 27.0	29.0 29.1	24.0 27.4	18.2 22.9	12.8 17.1	7.4 11.9	2.3 7.7
15 M	4.3 1.7	4.9 -3.3	13.4 1.3	20.5 11.1	25.9 19.0	29.6 24.4	30.9 28.0	28.1 29.5	22.8 27.0	17.1 22.0	11.9 16.3	6.8 11.1
16 Tu	7.5 5.9	3.9 0.5	6.4 -3.1	15.6 4.0	22.0 13.3	27.2 20.9	30.3 25.8	30.6 29.1	26.8 29.3	21.1 25.9	15.7 20.6	10.6 14.9
17 W	9.9 8.9	6.7 4.6	3.6 -1.0	9.0 -1.2	17.7 7.4	23.7 15.9	28.4 22.9	30.7 27.2	29.7 29.7	25.0 28.5	19.1 24.3	14.0 18.9
18 Th	13.1 12.1	8.8 7.1	5.5 2.7	4.5 -1.6	12.0 2.3	19.6 11.0	25.1 18.6	29.0 24.7	30.5 28.5	28.1 29.6	22.8 27.1	17.1 22.3
19 F	16.9 14.9	11.3 9.9	7.5 5.3	4.6 0.9	6.7 -0.4	14.9 6.6	21.2 14.5	26.0 21.1	29.1 26.2	29.4 29.1	25.9 28.8	20.3 25.2
20 Sa	20.1 17.8	14.8 12.5	9.7 7.8	6.3 3.6	4.7 0.1	9.6 2.7	17.0 10.9	22.4 17.7	26.3 23.1	28.4 27.2	27.4 28.9	23.4 27.3
21 Su	23.0 20.8	17.9 15.5	12.7 10.4	8.4 6.2	5.3 2.5	6.0 1.0	12.1 6.5	18.4 14.5	23.0 20.3	26.0 24.5	27.1 27.7	25.1 28.2
22 M	25.5 23.0	20.8 18.8	15.8 13.8	11.1 9.0	7.3 5.5	5.0 2.3	7.6 3.3	13.5 9.8	18.9 16.9	22.8 21.8	25.2 25.3	25.4 27.6
23 Tu	27.1 23.8	23.9 21.4	19.1 17.7	14.2 13.2	10.1 8.9	6.4 5.6	5.2 3.5	8.4 5.7	13.5 11.8	18.5 18.2	22.1 22.4	24.1 25.3
24 W	27.0 22.9	26.1 22.8	22.7 20.8	18.1 17.9	13.5 13.7	9.5 9.8	5.9 6.7	5.3 5.2	8.0 7.3	12.5 12.6	17.3 18.4	21.0 22.2
25 Th	24.9 19.9	26.5 22.1	25.5 22.5	22.2 21.3	17.8 19.0	13.4 15.1	9.3 11.2	5.7 8.2	4.8 6.8	6.6 7.9	10.9 12.6	15.9 18.0
26 F	21.8 14.8	24.5 19.2	26.2 22.0	25.3 23.0	22.2 22.5	17.8 20.4	13.5 16.6	9.1 12.6	5.3 9.5	3.6 7.4	4.9 7.9	9.4 12.4
27 Sa	17.8 8.6	21.6 14.6	24.6 19.3	26.4 22.7	25.5 24.1	22.2 23.9	17.7 21.6	13.2 17.6	8.7 13.3	4.5 10.0	2.1 7.3	3.5 7.7
28 Su	12.7 2.8	18.3 9.0	22.1 15.3	25.4 20.5	27.0 23.9	25.8 25.5	21.9 24.9	17.2 22.0	12.5 17.5	7.9 13.1	3.3 9.4	0.7 6.7
29 M	7.8 -0.4	13.9 3.2	19.6 10.4	23.5 17.0	26.8 22.3	27.9 25.6	25.7 26.8	21.1 25.3	16.0 21.6	11.3 16.6	6.7 12.1	2.0 8.3
30 Tu	5.9 0.4	8.6 -1.1	15.9 4.8	21.3 12.5	25.5 19.2	28.3 24.3	28.6 27.3	25.2 27.6	19.9 24.9	14.5 20.4	9.9 15.2	5.2 10.5

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, 2015
 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 W	6.9 3.6	5.2 -1.3	10.3 -0.8	18.2 7.3	23.3 14.9	27.6 21.7	29.7 26.2	28.8 28.6	24.2 27.7	18.4 24.1	13.0 19.0	8.4 13.6
2 Th	8.9 6.8	5.4 1.9	5.1 -2.8	12.9 1.0	20.3 10.1	25.3 17.4	29.2 23.8	30.6 27.8	28.2 29.4	22.9 27.3	16.9 23.0	11.6 17.6
3 F	12.0 10.1	7.4 5.2	4.0 0.0	6.0 -3.3	15.5 4.0	21.9 12.9	26.9 19.9	30.2 25.6	30.8 29.2	27.0 29.5	21.4 26.4	15.4 21.6
4 Sa	16.0 13.8	10.4 8.4	6.0 3.5	2.8 -1.9	7.9 -2.1	17.5 7.5	23.3 15.8	28.0 22.4	30.7 27.2	30.1 30.1	25.4 29.0	19.7 25.2
5 Su	19.9 17.9	14.4 12.2	9.0 6.7	4.5 1.9	2.4 -2.8	9.9 0.6	18.6 10.9	24.3 18.6	28.4 24.5	30.6 28.7	28.9 30.6	23.8 28.4
6 M	23.8 22.3	18.3 16.4	12.7 10.7	7.5 5.3	2.9 0.7	2.8 -2.3	11.2 3.8	19.1 13.6	24.7 21.0	28.4 26.1	30.1 29.8	27.4 30.5
7 Tu	27.7 26.3	22.5 21.3	16.8 15.5	11.2 9.9	6.3 4.7	1.8 0.5	3.3 -0.4	11.2 6.5	18.8 15.5	24.4 22.5	27.9 27.0	29.0 30.3
8 W	30.2 27.8	27.0 25.5	21.4 21.1	15.8 15.7	10.3 10.1	5.3 5.3	1.4 1.7	3.2 1.8	10.1 8.1	17.7 16.4	23.3 22.8	26.8 27.1
9 Th	30.0 25.3	29.8 26.6	26.6 25.3	21.0 21.7	15.5 16.9	10.1 11.5	5.0 6.8	1.3 3.7	2.5 3.7	8.2 8.7	15.8 16.2	21.5 22.3
10 F	26.5 19.7	29.2 23.7	29.4 25.7	26.4 25.7	21.1 23.1	15.8 18.8	10.4 13.4	5.4 9.0	1.4 5.7	1.3 4.9	6.0 8.5	13.5 15.2
11 Sa	21.3 11.6	25.5 18.2	28.5 22.6	29.2 25.4	26.5 26.6	21.6 24.7	16.3 20.6	10.9 15.2	5.9 10.9	1.4 7.2	0.1 5.5	3.8 7.7
12 Su	14.4 2.3	20.5 10.8	24.8 17.6	28.1 22.4	29.1 25.8	26.6 27.6	21.9 26.0	16.5 21.7	11.4 16.4	6.2 11.8	1.5 7.9	-1.2 5.5
13 M	7.1 -2.3	14.4 2.3	20.3 11.2	24.9 18.2	28.2 23.0	29.2 26.6	26.4 28.4	21.6 26.4	16.3 21.8	11.3 16.4	6.2 11.6	1.4 8.0
14 Tu	4.8 0.7	7.2 -2.6	15.2 3.9	21.1 12.9	25.7 19.8	28.7 24.2	29.2 27.8	25.7 28.7	20.6 25.9	15.5 20.8	10.5 15.3	5.9 10.7
15 W	7.4 5.1	4.1 -0.6	8.7 -1.5	16.9 6.9	22.6 15.4	26.9 22.0	29.4 25.9	28.9 28.8	24.5 28.2	19.1 24.4	14.2 19.1	9.2 13.4
16 Th	9.5 7.7	6.0 3.5	4.2 -1.6	11.2 1.5	18.8 10.4	24.3 18.4	28.2 24.2	30.0 27.7	27.9 29.1	22.8 27.0	17.3 22.4	12.4 16.9
17 F	11.3 10.3	8.0 5.9	4.4 1.3	5.8 -0.9	14.2 5.9	20.8 14.2	25.9 21.2	29.1 26.2	29.8 29.0	26.3 28.6	20.7 25.1	15.3 20.1
18 Sa	14.6 13.0	9.5 8.1	6.2 3.9	3.7 -0.2	8.8 2.0	16.9 10.6	22.6 17.8	27.0 23.8	29.5 27.9	28.6 29.4	24.2 27.3	18.3 22.7
19 Su	17.5 15.8	12.1 10.6	7.7 6.1	4.3 1.9	4.7 0.1	12.1 6.5	19.1 15.0	24.0 21.1	27.6 25.8	29.0 28.9	26.7 28.7	21.7 25.2
20 M	20.1 19.0	14.8 13.3	9.9 8.3	5.8 4.4	3.3 0.9	7.1 2.7	14.9 11.2	20.8 18.7	24.9 23.6	27.6 27.3	27.6 29.1	24.2 27.3
21 Tu	22.8 21.9	17.4 16.8	12.3 11.4	8.0 6.9	4.1 3.5	3.6 1.7	9.6 6.6	16.6 14.9	21.8 21.4	25.2 25.3	26.9 27.9	25.6 28.3
22 W	25.4 23.7	20.5 20.1	15.1 15.5	10.4 10.4	6.6 6.5	3.1 3.7	4.8 4.1	11.1 10.0	17.3 17.2	21.9 22.7	24.7 25.8	25.6 27.6
23 Th	27.0 24.2	23.7 22.4	18.7 19.2	13.6 15.3	9.4 10.8	5.6 7.3	3.1 5.2	5.8 7.0	11.3 12.0	16.9 18.2	21.0 22.8	23.7 25.4
24 F	26.6 22.4	25.7 23.0	22.4 21.9	17.7 19.5	13.0 16.2	9.2 12.2	5.3 8.9	3.5 7.4	5.9 8.9	10.5 12.7	15.6 18.0	19.7 22.1
25 Sa	24.4 18.3	25.6 21.4	24.9 22.7	21.8 22.3	17.5 20.7	13.2 17.7	9.4 13.9	5.4 10.6	3.7 9.1	5.1 9.5	9.1 12.4	14.0 17.4
26 Su	21.2 12.8	23.7 17.7	25.2 21.3	24.7 23.3	21.9 23.5	17.7 22.2	13.5 19.1	9.5 15.1	5.5 11.6	3.2 9.5	3.8 8.9	7.7 11.9
27 M	17.0 6.8	20.9 12.6	23.8 18.1	25.6 22.3	25.3 24.6	22.4 25.0	17.9 23.4	13.5 19.8	9.3 15.3	5.1 11.5	2.1 8.7	2.5 7.9
28 Tu	11.6 1.4	17.3 6.9	21.6 13.5	25.0 19.7	26.9 24.0	26.3 26.3	22.7 26.4	17.8 23.8	13.0 19.5	8.7 14.6	4.2 10.3	0.8 7.2
29 W	6.9 -0.7	12.0 1.0	18.5 8.3	23.1 15.4	26.9 21.9	28.5 25.9	27.2 28.0	22.6 27.0	17.1 23.5	12.1 18.4	7.6 13.2	2.9 8.7
30 Th	5.5 1.4	6.1 -2.3	13.4 1.8	20.2 10.5	25.2 17.9	28.9 24.2	30.1 27.9	27.6 29.3	22.1 27.0	16.2 22.6	11.0 17.0	6.3 11.5
31 F	7.0 5.0	3.7 -0.3	6.1 -3.2	15.4 4.2	22.0 13.3	27.2 20.6	30.5 26.3	31.1 29.6	27.3 29.8	21.3 26.4	15.1 21.2	9.8 15.4

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

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 Sa	9.9 8.5	5.4 3.6	1.9 -2.3	7.2 -2.5	17.4 7.6	23.7 16.3	28.7 23.2	31.7 28.3	31.3 31.0	26.4 29.6	20.1 25.3	13.9 19.7
2 Su	13.8 12.6	8.4 7.0	3.5 1.9	0.8 -3.7	9.1 0.1	19.0 11.4	25.0 19.3	29.7 25.6	32.4 30.1	30.6 31.6	25.1 28.8	18.7 23.9
3 M	18.0 17.2	12.1 11.0	6.8 5.4	1.3 0.2	0.8 -3.6	11.1 3.9	20.1 14.9	26.0 22.1	30.2 27.6	32.3 31.6	29.3 31.6	23.6 27.7
4 Tu	22.1 22.1	16.2 15.7	10.4 9.5	5.1 4.1	-0.4 -0.7	1.9 -1.5	12.5 7.9	20.8 17.7	26.4 24.4	30.3 29.1	31.4 32.2	27.8 30.9
5 W	26.4 26.5	20.2 20.9	14.5 14.8	8.8 8.6	3.4 3.7	-1.1 -0.2	3.2 1.6	12.8 10.8	20.8 19.6	26.1 25.6	29.7 29.8	30.0 31.8
6 Th	29.9 28.3	25.0 25.5	18.8 20.4	13.2 14.8	7.8 8.9	2.4 4.6	-0.7 1.9	3.9 4.6	12.4 12.4	20.0 20.2	25.0 25.6	28.2 29.2
7 F	30.6 26.2	28.7 26.9	23.9 25.0	18.2 20.9	12.8 15.8	7.5 10.4	2.5 6.6	0.2 4.7	3.9 6.6	11.1 12.6	18.2 19.5	23.1 24.4
8 Sa	27.6 21.0	29.1 24.3	27.7 26.0	23.4 25.3	18.3 22.3	13.2 17.6	8.1 12.6	3.5 9.2	1.1 6.8	3.1 7.3	9.1 11.6	16.0 17.9
9 Su	22.6 14.0	25.8 19.3	27.8 23.1	27.1 25.7	23.5 26.3	19.0 24.0	14.1 19.5	9.2 14.7	4.6 11.1	1.5 8.0	1.9 7.0	6.9 10.1
10 M	16.3 5.5	21.0 13.0	24.7 18.7	27.1 22.9	27.1 26.3	24.0 27.5	19.7 25.3	14.8 20.7	10.0 15.9	5.3 11.8	1.6 8.1	0.4 5.9
11 Tu	8.8 -0.7	15.6 5.6	20.5 13.5	24.5 19.5	27.2 23.7	27.4 27.4	24.3 28.3	19.9 25.7	15.0 20.7	10.1 15.6	5.5 11.2	1.0 7.4
12 W	4.5 -0.1	8.8 -0.5	16.1 7.5	21.2 15.4	25.4 21.3	28.0 25.3	27.7 28.5	24.0 28.3	19.2 24.8	14.3 19.4	9.4 14.0	5.1 10.0
13 Th	6.0 3.9	3.8 -1.2	10.4 1.7	17.7 10.6	22.9 18.2	26.8 23.6	29.0 27.2	27.5 29.1	22.9 27.3	17.9 22.9	12.9 17.2	8.2 11.8
14 F	8.4 6.6	4.1 1.9	4.8 -0.9	13.1 5.7	19.9 14.3	25.0 21.3	28.4 26.0	29.6 28.8	26.5 28.8	21.2 25.5	16.0 20.4	11.0 14.6
15 Sa	9.7 8.9	6.2 4.7	2.9 0.1	7.5 1.7	16.1 10.5	22.2 18.1	26.9 24.2	29.7 28.1	29.2 29.6	24.9 27.5	19.1 23.0	13.8 17.6
16 Su	12.0 11.5	7.6 6.8	3.9 2.4	3.5 0.0	11.2 6.3	18.9 15.2	24.4 21.6	28.4 26.7	30.1 29.6	27.9 29.2	22.7 25.4	16.7 20.1
17 M	14.7 14.2	9.5 9.0	5.3 4.8	2.3 0.8	6.1 2.6	14.8 11.7	21.3 19.3	26.0 24.5	29.2 28.5	29.4 30.0	25.8 27.6	20.1 22.6
18 Tu	17.0 17.5	11.9 11.7	7.3 7.0	3.1 3.2	2.4 1.2	9.7 7.2	17.7 16.4	23.2 22.6	27.1 26.8	29.1 29.5	27.7 29.1	23.3 25.2
19 W	19.6 20.8	14.1 15.2	9.4 9.6	5.2 5.6	1.5 2.6	4.4 3.9	12.9 12.1	19.7 19.8	24.4 24.9	27.4 28.0	28.1 29.3	25.4 27.2
20 Th	22.4 23.2	16.7 18.8	11.6 13.6	7.5 8.6	3.5 5.3	1.5 3.7	7.2 7.9	14.9 15.7	20.8 21.8	24.7 25.9	26.9 28.0	26.4 27.9
21 F	24.9 24.5	20.0 21.6	14.6 17.7	10.0 13.2	6.4 8.9	2.6 6.2	2.8 6.3	9.2 11.4	15.6 17.4	20.8 22.4	24.0 25.6	25.6 27.0
22 Sa	26.0 24.0	22.9 23.3	18.3 21.0	13.4 17.8	9.5 13.9	6.1 10.2	2.8 7.9	4.4 9.0	9.7 13.1	15.2 17.5	19.7 21.9	22.6 24.4
23 Su	25.5 21.3	24.5 23.0	21.8 23.0	17.7 21.5	13.3 18.9	9.8 15.4	6.3 11.9	3.6 9.7	5.0 10.4	9.1 12.9	13.9 16.7	18.0 20.7
24 M	23.2 16.7	24.5 20.7	24.1 23.1	21.9 23.8	18.1 22.8	14.0 20.4	10.4 16.9	6.8 13.1	4.0 10.5	4.5 10.0	7.7 11.5	12.3 15.5
25 Tu	19.6 11.1	22.6 16.3	24.6 21.2	24.8 24.2	22.9 25.3	19.0 24.5	14.7 21.7	10.8 17.6	6.9 13.3	3.7 10.0	3.1 8.4	6.1 9.8
26 W	14.6 4.9	19.5 11.1	23.3 17.3	26.0 22.8	26.5 25.9	24.4 27.3	19.9 25.8	15.1 22.2	10.7 17.2	6.4 12.4	2.5 8.3	1.5 6.2
27 Th	8.2 -0.2	14.6 4.7	20.3 12.4	24.9 19.4	28.0 25.0	28.5 28.0	25.7 28.9	20.4 26.4	14.9 21.7	10.2 16.1	5.5 10.8	1.1 6.4
28 F	4.0 -0.4	7.2 -1.4	15.6 6.2	21.9 14.8	27.1 22.0	30.1 27.2	30.3 30.1	26.3 29.8	20.4 26.1	14.3 20.5	9.3 14.5	4.3 9.1
29 Sa	4.5 3.2	1.8 -2.1	7.5 -1.1	17.3 9.2	23.8 17.7	29.0 24.6	31.9 29.4	31.3 31.6	26.2 29.8	19.8 25.1	13.5 18.9	8.3 12.9
30 Su	7.5 7.1	2.5 1.9	0.2 -3.5	9.0 1.1	19.1 12.8	25.5 20.6	30.5 27.1	33.2 31.3	31.3 32.4	25.5 29.0	18.8 23.6	12.5 17.2
31 M	11.3 11.3	6.0 5.9	0.1 0.3	-0.2 -3.6	11.2 5.1	20.6 16.4	26.9 23.5	31.5 29.2	33.6 32.9	30.4 32.2	24.4 27.7	17.6 21.6

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, 2015
Lat. 61° 14 N Long. 149° 53 W

SEPTEMBER

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 107/22	Hours 117/23
1 Tu	15.5 16.2	9.7 9.8	4.2 4.6	-2.1 -1.0	1.1 -1.6	13.3 9.6	21.8 19.5	27.7 25.9	32.1 31.0	33.2 33.7	29.2 31.3	23.0 25.9
2 W	19.6 21.4	13.7 14.8	8.0 8.5	2.1 3.6	-3.1 -1.0	3.3 2.0	14.7 13.3	22.7 21.9	28.1 27.7	32.0 32.0	32.0 33.2	27.7 29.7
3 Th	23.9 26.2	17.7 20.1	12.0 13.8	6.4 7.8	0.4 3.5	-2.4 0.7	5.4 5.9	15.5 15.7	22.9 23.2	27.8 28.2	31.0 31.7	30.3 31.7
4 F	27.9 28.6	22.0 25.0	16.2 19.6	10.7 13.7	5.4 8.2	0.0 4.8	-0.6 3.7	6.8 8.7	15.5 16.6	22.3 23.2	26.7 27.4	29.3 30.0
5 Sa	29.6 27.2	26.2 27.2	20.7 24.4	15.5 19.9	10.4 14.6	5.3 9.9	1.0 7.2	1.4 6.5	7.2 9.9	14.6 16.0	20.7 21.8	24.8 25.4
6 Su	27.6 22.7	27.6 25.4	24.9 26.4	20.3 24.8	15.8 21.2	11.0 16.3	6.3 12.2	2.7 9.7	2.7 8.1	6.6 9.5	12.8 14.2	18.6 19.6
7 M	23.0 16.7	25.4 21.1	26.2 24.5	24.5 26.4	20.8 25.9	16.7 22.9	12.1 18.2	7.8 14.2	4.2 11.0	3.1 8.2	5.2 8.0	10.8 12.0
8 Tu	17.5 9.6	21.2 15.9	24.2 20.8	25.8 24.6	25.0 27.2	21.8 27.1	17.7 24.1	13.2 19.3	8.8 15.0	4.9 11.0	2.6 7.3	3.6 6.0
9 W	10.5 2.7	16.5 9.9	20.7 16.6	24.3 21.7	26.4 25.6	25.8 28.4	22.5 27.9	18.2 24.2	13.6 19.0	8.9 14.1	4.7 9.8	1.4 5.5
10 Th	4.4 0.2	10.6 3.7	16.9 11.9	21.6 18.6	25.4 23.5	27.6 27.2	26.4 29.2	22.5 27.5	17.9 23.0	13.0 17.3	8.1 12.2	3.8 8.0
11 F	3.5 2.3	4.4 0.2	12.3 6.7	18.6 14.9	23.6 21.4	27.2 25.8	28.7 28.9	26.2 29.1	21.6 26.0	16.6 20.7	11.6 14.8	6.9 9.9
12 Sa	5.8 5.2	2.0 0.7	6.4 2.3	15.0 11.0	21.1 18.5	25.9 24.4	29.0 28.2	29.0 29.8	25.2 27.9	19.9 23.5	14.7 17.8	9.7 12.1
13 Su	7.6 7.7	3.4 3.1	2.2 0.5	9.9 6.7	18.0 15.5	23.8 22.0	28.1 27.1	30.2 30.0	28.3 29.5	23.4 25.8	17.7 20.4	12.5 14.8
14 M	9.5 10.2	5.2 5.7	1.5 1.5	4.7 2.8	13.9 12.0	20.9 19.6	26.1 25.2	29.7 29.3	30.2 30.6	26.8 28.0	21.2 22.9	15.3 17.3
15 Tu	11.9 12.8	7.1 8.0	2.6 3.9	1.3 1.4	8.6 7.5	17.3 16.9	23.4 23.0	27.8 27.7	30.4 30.6	29.1 29.8	24.6 25.5	18.6 19.7
16 W	14.2 16.1	9.3 10.4	4.7 6.2	0.7 2.8	3.5 4.0	12.8 12.9	20.1 20.7	25.3 25.7	28.9 29.2	29.9 30.4	27.2 27.7	22.1 22.4
17 Th	16.5 19.6	11.4 13.9	7.0 8.6	2.5 5.1	0.5 3.4	7.2 8.5	16.0 17.4	22.2 23.3	26.5 27.4	28.9 29.6	28.4 28.9	24.8 24.7
18 F	19.2 22.6	13.7 17.6	9.1 12.3	5.2 7.8	1.1 5.1	2.3 5.9	10.9 13.3	18.1 20.2	23.4 24.7	26.7 27.8	28.0 28.7	26.4 26.4
19 Sa	21.8 24.5	16.4 20.9	11.6 16.4	7.7 11.8	4.1 8.1	1.1 6.3	5.2 9.3	13.2 16.3	19.1 21.2	23.5 24.9	26.0 27.0	26.5 26.9
20 Su	24.0 25.0	19.6 23.3	14.7 20.1	10.5 16.3	7.1 12.3	3.8 9.2	2.3 8.2	7.5 11.9	13.9 17.0	19.0 20.8	22.5 24.0	24.8 25.6
21 M	25.2 23.7	22.4 24.2	18.6 23.1	14.2 20.5	10.5 17.2	7.4 13.5	4.2 10.5	3.7 9.7	8.2 12.4	13.4 15.8	17.9 19.6	21.2 22.5
22 Tu	24.3 20.3	24.3 23.4	22.3 24.6	19.0 24.1	14.9 21.8	11.3 18.5	8.1 14.7	4.8 11.2	4.3 9.8	7.4 10.9	12.0 13.8	16.4 18.0
23 W	21.4 15.5	24.0 20.3	24.8 24.2	23.5 25.9	20.5 25.8	16.2 23.4	12.3 19.6	8.6 15.1	5.0 11.0	3.6 8.4	5.7 8.2	10.5 11.5
24 Th	16.7 9.5	21.2 15.7	24.9 21.6	26.4 25.9	25.7 27.9	22.3 27.7	17.6 24.5	13.0 19.8	8.7 14.5	4.5 9.7	2.1 6.1	3.9 5.4
25 F	9.6 2.4	16.5 9.8	22.1 17.2	26.6 23.6	28.6 28.0	28.0 30.0	23.9 29.0	18.5 24.9	13.1 19.1	8.4 13.3	3.5 8.0	0.5 3.7
26 Sa	2.7 -1.0	8.8 2.2	17.4 11.8	23.7 19.5	28.6 26.1	30.8 30.1	29.8 31.8	24.8 29.4	18.7 24.2	12.8 17.7	7.7 11.8	2.5 6.3
27 Su	1.5 1.6	0.7 -2.1	9.4 3.9	18.9 14.8	25.5 22.2	30.4 28.4	32.6 32.1	30.5 32.6	24.9 28.8	18.2 22.8	12.2 16.1	6.8 10.3
28 M	4.8 6.0	-0.8 0.5	-0.1 -2.1	11.2 7.3	20.5 18.1	27.0 24.9	31.7 30.6	33.6 33.7	30.4 32.4	24.3 27.4	17.4 20.9	11.4 14.6
29 Tu	8.9 10.2	3.2 5.1	-3.0 -0.5	0.9 -0.4	13.4 11.6	21.9 21.0	28.2 27.3	32.6 32.3	33.6 34.4	29.5 31.3	23.2 25.5	16.3 18.9
30 W	13.0 15.1	7.3 8.9	1.2 4.1	-4.1 -0.9	3.3 3.1	15.4 15.4	23.2 23.4	29.1 29.2	33.1 33.4	32.8 33.9	28.3 29.5	21.8 23.3

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, 2015
Lat. 61° 14 N Long. 149° 53 W

345

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 Th	17.0 20.3	11.2 13.7	5.7 7.9	-0.8 3.5	-3.5 0.4	6.3 7.4	16.9 18.2	24.2 25.1	29.5 30.2	32.7 33.4	31.5 32.3	26.8 27.3
2 F	21.0 25.2	15.2 19.0	9.6 12.7	4.1 7.5	-1.9 3.8	-1.1 3.1	8.8 10.8	18.0 19.6	24.6 25.8	29.2 29.9	31.6 32.0	30.0 30.0
3 Sa	25.0 28.3	19.0 23.9	13.7 18.3	8.4 12.4	3.2 8.1	-1.2 5.4	1.8 6.3	10.5 12.7	18.4 19.8	24.2 25.1	28.2 28.3	29.9 29.5
4 Su	27.5 28.1	23.0 27.0	17.8 23.2	13.0 18.4	8.1 13.2	3.5 9.7	0.9 7.7	4.3 8.5	11.2 12.9	17.9 18.7	22.9 23.2	26.5 25.8
5 M	26.8 24.7	25.5 26.7	21.9 26.2	17.5 23.5	13.1 19.3	8.7 14.7	4.8 11.6	3.1 9.5	5.7 9.0	10.8 11.6	16.6 16.5	21.3 20.7
6 Tu	23.2 19.9	24.7 23.6	24.3 26.0	21.8 26.4	18.1 24.5	14.1 20.6	10.0 16.2	6.4 12.9	4.6 9.9	5.8 8.0	9.7 9.5	15.1 14.2
7 W	18.6 14.3	21.6 19.4	23.9 23.5	24.4 26.3	22.6 27.3	19.2 25.5	15.3 21.5	11.2 16.8	7.3 12.9	4.9 9.0	5.0 6.1	8.4 7.2
8 Th	12.7 8.1	17.6 14.7	21.4 20.1	24.3 24.4	25.4 27.4	23.8 28.3	20.3 26.0	16.1 21.4	11.6 16.2	7.3 11.6	4.4 7.1	3.8 3.8
9 F	5.9 3.3	12.8 9.5	18.1 16.4	22.5 22.0	25.7 26.1	26.8 28.8	24.6 28.6	20.6 25.3	16.0 20.0	11.1 14.4	6.4 9.4	3.2 4.8
10 Sa	1.9 2.0	6.6 4.5	14.3 12.5	19.9 19.0	24.5 24.5	27.5 28.1	27.8 29.7	24.6 27.8	19.9 23.4	15.0 17.6	9.8 12.0	5.1 7.1
11 Su	2.5 3.6	1.6 1.8	9.1 7.9	16.8 16.1	22.4 22.1	26.8 27.1	29.0 29.9	27.9 29.5	23.7 25.9	18.4 20.6	13.3 14.8	8.2 9.4
12 M	4.7 6.4	0.6 2.3	3.5 3.8	12.6 12.5	19.6 19.8	25.0 25.3	28.8 29.4	29.7 30.7	27.0 28.1	21.9 23.2	16.3 17.5	11.2 12.0
13 Tu	7.0 9.1	2.2 4.8	0.3 2.2	7.1 7.9	16.1 17.1	22.4 23.2	27.3 28.0	30.1 30.9	29.4 30.1	25.3 25.8	19.6 20.0	13.9 14.5
14 W	9.4 11.6	4.6 7.3	0.2 3.5	2.2 4.2	11.4 13.0	19.1 20.8	24.9 26.0	29.0 29.8	30.5 31.1	28.1 28.2	23.2 22.8	17.2 16.9
15 Th	11.8 14.9	7.0 9.5	2.2 5.8	-0.4 3.6	6.0 8.4	15.0 17.6	21.7 23.5	26.7 28.0	29.8 30.5	29.7 29.8	26.2 25.4	20.8 19.6
16 F	14.1 18.5	9.3 12.8	4.9 8.1	0.4 5.1	1.3 5.5	10.2 13.4	17.9 20.8	23.7 25.4	27.7 28.9	29.5 29.9	28.0 27.3	24.0 22.1
17 Sa	16.5 21.8	11.6 16.6	7.3 11.4	3.1 7.4	-0.1 5.5	4.8 9.1	13.7 17.4	19.9 22.5	24.9 26.4	27.8 28.7	28.4 28.2	26.0 24.3
18 Su	19.2 24.2	14.0 20.0	9.7 15.4	5.9 10.8	2.1 7.6	1.1 7.0	8.4 12.6	15.8 19.3	21.2 23.1	25.1 26.2	27.2 27.5	26.8 26.0
19 M	21.8 25.6	17.0 23.1	12.4 19.1	8.6 15.0	5.3 11.0	2.0 8.3	3.4 8.8	10.8 14.3	16.8 19.1	21.5 22.6	24.6 25.2	26.3 26.1
20 Tu	24.2 25.7	20.5 25.1	16.1 22.9	11.9 19.3	8.5 15.4	5.4 11.7	2.7 9.0	5.2 9.6	11.4 13.7	16.8 17.6	21.0 21.3	23.9 23.8
21 W	25.1 23.7	23.7 25.7	20.7 25.7	16.6 23.8	12.6 20.2	9.1 16.2	5.9 12.2	3.4 9.1	5.6 8.8	10.6 11.3	16.0 15.4	20.1 19.7
22 Th	23.0 19.7	25.0 24.2	24.5 26.7	22.1 27.2	18.2 25.3	13.9 21.3	10.1 16.8	6.4 12.2	3.6 8.3	4.7 6.6	9.2 8.1	15.0 13.0
23 F	18.5 14.5	22.9 20.3	25.9 25.4	26.3 28.3	24.4 29.1	20.2 26.8	15.5 22.1	10.9 16.7	6.7 11.4	3.1 6.7	3.2 3.8	7.8 4.9
24 Sa	11.1 7.1	18.2 15.2	23.7 21.7	27.5 27.2	28.5 30.2	26.6 30.8	22.0 27.6	16.6 22.1	11.4 15.9	6.5 10.3	2.3 4.9	1.8 1.2
25 Su	2.4 0.9	10.5 7.7	18.8 17.0	25.0 23.7	29.1 29.2	30.5 32.1	28.3 31.8	23.1 27.5	17.0 21.2	11.4 14.7	6.1 9.0	1.6 3.4
26 M	-1.1 1.0	0.9 0.7	11.3 10.0	19.9 19.4	26.4 25.9	30.5 31.1	31.9 33.5	29.0 31.8	23.4 26.5	16.8 19.7	11.1 13.4	5.6 7.7
27 Tu	2.0 5.2	-3.1 0.5	1.2 2.0	12.9 13.4	21.3 21.8	27.7 28.0	31.7 32.7	32.6 34.1	28.9 30.8	22.8 24.7	16.1 18.0	10.4 12.1
28 W	6.5 9.4	0.5 4.7	-4.3 0.2	3.2 4.8	14.8 16.7	22.7 24.0	28.7 29.9	32.5 33.8	32.4 33.7	28.1 29.1	21.7 22.6	15.2 16.3
29 Th	10.6 13.9	5.2 8.4	-1.4 4.0	-3.9 0.9	6.1 8.6	16.6 19.4	24.1 25.8	29.6 31.1	32.8 34.0	31.6 32.3	26.8 26.9	20.3 20.4
30 F	14.6 18.9	9.0 12.6	3.6 7.6	-2.7 3.6	-1.7 3.0	9.1 12.3	18.3 21.1	25.2 27.0	30.1 31.3	32.4 33.0	30.3 30.1	25.2 24.4
31 Sa	18.2 23.5	12.9 17.5	7.4 11.5	2.2 7.3	-2.6 4.2	1.8 6.1	11.7 14.8	19.8 22.0	25.9 27.1	30.0 30.4	31.3 30.9	28.8 27.6

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, 2015
 Lat. 61° 14 N Long. 149° 53 W

NOVEMBER

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 10/22	Hours 11/23
1 Su	22.0 27.1	16.4 22.0	11.3 16.5	6.2 11.1	1.4 7.7	-0.8 5.7	5.3 8.8	13.7 15.8	20.8 21.9	25.8 26.1	29.3 28.4	29.9 28.2
2 M	25.0 28.3	20.0 25.6	15.0 21.2	10.3 16.1	5.8 11.5	1.9 8.7	2.1 7.6	8.0 10.3	15.0 15.6	20.9 20.7	25.2 24.1	28.0 25.9
3 Tu	25.6 26.7	23.1 27.0	18.8 24.8	14.5 21.0	10.2 16.4	6.3 12.4	3.4 9.9	4.6 8.7	9.6 10.1	15.3 14.2	20.3 18.7	24.2 21.9
4 W	23.6 23.3	23.9 25.9	22.1 26.4	18.7 24.8	14.8 21.4	11.0 17.1	7.4 13.2	5.1 10.4	6.1 8.3	10.0 8.6	14.8 12.0	19.5 16.7
5 Th	20.1 19.0	22.3 23.0	23.2 25.8	22.4 26.6	19.6 25.4	15.9 22.0	12.2 17.5	8.5 13.3	6.0 9.7	6.4 6.8	9.4 6.4	14.1 10.0
6 F	15.4 14.1	19.3 19.3	22.3 23.6	23.8 26.5	23.6 27.5	20.9 25.9	17.2 22.1	13.1 17.2	9.1 12.4	6.0 8.1	5.8 4.5	8.7 4.2
7 Sa	9.1 8.8	15.3 15.2	19.8 20.4	23.3 25.0	25.2 27.7	25.0 28.3	22.1 25.8	17.9 21.3	13.4 15.9	8.8 10.8	5.3 5.9	5.0 2.2
8 Su	3.0 4.7	9.8 10.6	16.3 17.2	21.3 22.4	25.0 26.9	26.9 29.0	26.0 28.3	22.4 24.7	17.7 19.5	12.9 14.0	7.9 8.6	4.3 3.6
9 M	0.4 3.5	3.7 5.9	11.9 13.7	18.3 19.8	23.5 24.9	26.9 28.8	28.1 29.8	26.1 27.4	21.7 22.6	16.5 17.1	11.6 11.6	6.7 6.4
10 Tu	1.5 5.4	-0.2 3.4	6.2 8.9	14.6 17.2	20.8 22.7	25.7 27.4	28.6 30.3	28.4 29.6	25.2 25.4	20.1 20.0	14.8 14.5	10.0 9.3
11 W	4.2 8.2	-0.3 4.3	1.2 4.9	9.8 13.1	17.5 20.5	23.4 25.5	27.7 29.5	29.6 30.9	27.9 28.2	23.6 22.9	17.9 17.2	12.7 11.9
12 Th	7.0 10.6	2.0 6.7	-1.1 4.0	4.3 8.2	13.3 17.2	20.3 23.2	25.7 27.9	29.2 30.6	29.6 30.2	26.6 25.9	21.5 20.1	15.7 14.5
13 F	9.6 13.6	4.8 8.8	0.0 5.6	0.0 5.1	8.3 12.6	16.3 20.3	22.8 25.4	27.4 29.3	29.8 30.7	28.8 28.3	24.8 23.1	19.4 17.4
14 Sa	12.2 17.4	7.4 11.8	2.8 7.6	-1.0 5.1	3.1 8.0	12.0 16.7	18.9 22.3	24.7 26.8	28.3 29.6	29.5 29.5	27.3 25.6	22.8 20.2
15 Su	14.8 20.8	10.1 15.6	5.6 10.4	1.2 6.9	-0.3 5.8	7.1 11.6	14.9 19.3	21.0 23.6	25.9 27.4	28.5 29.0	28.4 27.4	25.5 22.8
16 M	17.6 23.8	12.6 19.1	8.2 14.2	4.2 9.7	0.3 6.7	2.0 7.3	10.6 14.4	17.2 20.3	22.6 24.2	26.4 27.1	28.2 27.8	27.1 25.2
17 Tu	20.6 26.0	15.6 22.5	11.0 17.9	7.0 13.4	3.3 9.4	0.6 6.8	4.8 8.7	12.9 15.2	18.8 20.0	23.5 23.9	26.5 26.2	27.6 26.6
18 W	23.7 27.2	19.4 25.6	14.6 22.0	10.3 17.5	6.6 13.2	3.2 9.4	1.7 6.9	6.9 8.9	13.9 14.0	19.6 18.8	23.6 22.8	26.5 25.2
19 Th	25.8 26.7	23.3 27.4	19.4 26.1	14.8 22.4	10.7 17.8	7.0 13.3	3.6 9.2	2.8 6.5	7.4 7.5	14.0 11.4	19.7 16.8	23.6 21.3
20 F	24.6 23.7	25.6 27.2	24.0 28.3	20.6 27.2	16.1 23.3	11.9 18.4	7.9 13.5	4.3 8.9	3.2 5.4	6.9 4.9	13.4 8.4	19.3 14.6
21 Sa	20.2 19.1	24.4 24.2	26.2 28.1	25.6 29.6	22.6 28.5	18.1 24.2	13.4 18.9	8.9 13.3	4.9 8.2	3.0 3.7	6.0 2.1	12.6 5.4
22 Su	12.8 12.3	19.6 19.5	24.6 25.0	27.2 29.3	27.5 31.1	24.8 29.6	20.1 24.7	14.8 18.8	9.8 12.8	5.2 7.4	2.6 2.1	5.1 -0.4
23 M	3.2 4.6	12.1 13.0	19.7 20.6	25.3 26.3	28.4 30.6	29.2 32.2	26.4 30.0	21.4 24.5	15.5 18.0	10.3 12.1	5.2 6.4	2.4 1.0
24 Tu	-2.4 2.1	2.3 5.0	12.6 14.8	20.4 22.1	26.2 27.9	29.6 31.9	30.4 32.9	27.3 29.4	21.8 23.4	15.7 16.9	10.3 11.2	5.3 5.6
25 W	-0.1 5.2	-3.8 1.9	3.2 6.7	13.8 17.1	21.6 23.8	27.2 29.5	30.6 32.9	30.9 32.7	27.3 28.2	21.3 21.8	15.2 15.6	9.7 10.1
26 Th	4.7 8.9	-1.4 4.8	-3.9 2.0	5.4 9.5	15.4 19.3	23.1 25.6	28.2 30.8	31.4 33.4	30.7 31.7	26.4 26.3	20.2 19.9	14.2 14.2
27 F	8.7 12.8	3.6 8.1	-2.8 4.1	-2.2 3.3	8.3 12.7	17.4 21.2	24.6 27.1	29.3 31.5	31.7 33.0	29.9 30.0	25.0 24.2	18.8 17.9
28 Sa	12.5 17.3	7.1 11.3	2.1 7.3	-3.3 3.6	1.0 5.8	11.2 15.4	19.5 22.5	25.9 27.9	30.1 31.3	31.4 31.7	28.6 27.8	23.3 21.8
29 Su	16.0 21.4	10.6 15.6	5.6 10.1	0.5 6.7	-2.1 4.1	5.0 8.8	14.0 17.2	21.5 23.3	26.9 27.7	30.3 30.2	30.4 29.5	26.9 25.2
30 M	19.3 25.0	14.0 19.7	8.9 14.1	4.3 9.5	0.0 6.5	0.9 5.7	8.8 11.2	16.6 18.2	22.9 23.3	27.4 26.8	29.9 28.3	29.0 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, 2015
Lat. 61° 14 N Long. 149° 53 W

347

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 Tu	22.6 27.3	17.2 23.1	12.3 18.2	7.6 13.1	3.6 9.3	0.9 6.8	4.5 7.5	12.0 12.5	18.5 18.2	23.6 22.5	27.3 25.2	28.8 26.1
2 W	24.4 27.6	20.6 25.7	15.7 21.8	11.2 17.2	7.3 12.7	3.7 9.3	2.9 7.3	7.6 8.4	14.2 12.4	19.6 17.2	23.8 21.1	26.8 23.5
3 Th	24.1 26.2	22.7 26.7	19.5 24.8	15.3 21.2	11.2 16.9	7.7 12.7	4.8 9.3	5.1 7.4	9.6 8.0	15.2 11.1	19.8 15.7	23.5 19.6
4 F	22.0 23.2	22.9 25.8	22.0 26.3	19.6 24.6	15.9 21.2	12.2 17.0	8.7 12.7	6.2 9.0	6.5 6.7	10.3 6.4	15.2 9.2	19.6 14.0
5 Sa	18.4 19.4	21.2 23.0	22.6 25.9	22.4 26.5	20.8 24.9	17.3 21.4	13.5 17.0	10.0 12.4	7.1 8.2	6.8 5.0	10.1 4.3	14.8 7.4
6 Su	13.1 14.9	17.9 19.6	21.4 23.5	23.3 26.6	23.8 27.1	22.3 25.2	18.7 21.3	14.7 16.5	10.8 11.5	7.3 6.9	6.4 3.1	9.5 2.3
7 M	6.5 9.7	13.1 15.9	18.3 20.5	22.4 24.7	24.7 27.6	25.4 27.7	23.6 24.9	19.6 20.5	15.1 15.4	10.9 10.3	6.9 5.2	5.9 1.2
8 Tu	1.2 5.7	7.2 11.1	14.2 17.7	19.7 22.2	24.0 26.4	26.3 28.7	26.5 27.7	23.9 23.9	19.3 18.9	14.7 13.7	10.1 8.6	6.1 3.4
9 W	-0.4 5.3	1.5 6.5	9.2 13.7	16.2 19.9	21.8 24.5	25.8 28.2	27.7 29.5	26.8 27.0	23.2 22.1	18.1 16.8	13.3 11.7	8.9 6.7
10 Th	1.6 7.4	-1.2 4.8	3.5 8.6	11.9 16.8	18.7 22.4	24.1 26.9	27.6 29.7	28.5 29.5	26.2 25.5	21.7 20.0	16.3 14.6	11.5 9.7
11 F	4.8 9.6	-0.2 6.0	-0.8 5.1	6.6 11.9	14.7 19.6	21.4 24.8	26.2 28.8	29.0 30.5	28.4 28.6	25.0 23.6	19.8 17.8	14.2 12.5
12 Sa	7.6 12.2	2.8 8.0	-1.6 4.9	1.3 6.8	10.0 15.4	17.5 21.8	23.8 26.7	27.8 29.9	29.6 30.3	27.7 26.8	23.4 21.3	17.9 15.6
13 Su	10.5 16.0	5.6 10.5	0.8 6.7	-1.8 4.5	4.8 9.7	13.1 18.2	20.1 23.4	25.7 27.9	28.9 30.1	29.3 29.1	26.4 24.5	21.5 19.0
14 M	13.5 19.7	8.5 14.2	3.8 9.1	-0.8 5.6	-0.1 5.2	8.6 12.8	15.9 20.0	22.5 24.7	27.0 28.3	29.4 29.6	28.4 27.2	24.7 22.2
15 Tu	16.7 23.0	11.5 17.8	6.6 12.6	2.2 8.1	-1.4 4.8	3.0 6.6	12.1 14.9	18.6 20.8	24.3 25.3	27.9 28.1	29.2 28.6	27.1 25.2
16 W	20.1 26.0	14.7 21.4	9.8 16.3	5.2 11.3	1.2 7.2	-0.5 4.4	6.4 7.8	14.8 15.3	21.0 21.0	25.6 25.2	28.6 27.6	28.8 27.5
17 Th	23.8 28.4	18.8 25.3	13.5 20.3	8.8 15.2	4.6 10.5	0.9 6.4	1.3 4.2	8.9 7.8	16.6 14.2	22.5 20.2	26.4 24.3	29.0 26.8
18 F	26.4 29.1	23.1 28.3	18.4 25.2	13.4 19.9	8.8 14.9	4.7 10.1	1.6 5.9	3.1 3.7	10.2 6.4	17.6 12.2	23.1 18.6	26.8 23.1
19 Sa	25.9 26.9	25.9 29.1	23.5 28.7	19.2 25.5	14.5 20.2	9.8 15.1	5.7 10.1	2.9 5.6	4.3 2.8	10.4 4.2	17.7 9.6	23.0 16.5
20 Su	21.7 22.6	25.1 26.8	25.9 29.3	24.6 29.4	20.9 26.2	16.4 20.9	11.5 15.5	7.3 10.2	4.2 5.3	4.7 1.5	9.9 1.7	17.1 6.9
21 M	14.6 16.4	20.6 22.3	24.7 26.8	26.4 29.8	26.1 30.1	23.1 26.8	18.5 21.5	13.2 15.7	8.8 10.3	5.1 4.9	4.7 0.5	9.1 -0.5
22 Tu	4.9 8.4	13.5 16.4	20.1 22.4	24.7 27.3	27.3 30.4	27.7 30.7	24.9 27.0	20.0 21.5	14.5 15.5	9.8 10.2	5.6 4.6	4.4 -0.3
23 W	-2.3 3.9	4.2 8.6	13.5 17.2	20.4 23.2	25.2 28.2	28.4 31.1	28.9 30.9	25.9 26.6	20.6 20.8	15.0 15.0	9.9 9.6	5.8 4.3
24 Th	-1.2 5.7	-3.1 3.5	5.1 9.9	14.4 18.6	21.5 24.5	26.2 29.3	29.5 31.7	29.5 30.5	25.9 25.5	20.1 19.5	14.5 14.0	9.5 8.6
25 F	3.7 8.8	-2.4 4.8	-2.4 3.7	7.2 12.2	16.3 20.2	23.1 26.1	27.5 30.3	30.3 32.0	29.2 29.4	24.9 23.8	19.0 17.9	13.2 12.5
26 Sa	7.3 11.6	2.5 7.8	-3.3 3.7	0.1 5.3	10.1 14.7	18.7 21.9	24.9 27.4	28.9 31.0	30.6 31.6	28.3 27.8	23.3 21.8	17.4 16.1
27 Su	10.7 15.4	5.9 10.0	0.7 6.5	-2.9 3.2	3.9 8.1	13.3 17.0	21.1 23.3	26.6 28.2	30.0 31.0	30.2 30.3	26.7 25.6	21.3 19.5
28 M	14.1 19.1	8.7 13.3	4.2 8.6	-0.8 5.2	-0.3 4.1	8.2 11.2	16.5 18.9	23.4 24.3	28.0 28.3	30.4 30.1	29.0 28.2	24.6 23.1
29 Tu	17.1 22.2	11.8 16.8	6.8 11.4	2.4 7.4	-0.8 4.4	3.8 6.2	12.5 13.7	19.5 20.2	25.1 24.7	28.9 27.8	29.8 28.5	27.2 25.6
30 W	20.4 25.0	14.7 19.8	9.7 14.6	5.3 9.9	1.4 6.3	1.3 4.6	8.4 8.6	16.1 15.4	21.9 20.8	26.4 24.5	29.1 26.7	28.5 26.3
31 Th	23.0 26.9	18.1 22.8	12.8 17.7	8.2 12.9	4.5 8.8	1.8 5.6	4.6 5.5	12.2 10.0	18.9 15.8	23.5 20.6	26.9 23.7	28.4 25.2

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

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 Th	15.0 18.1	17.6 20.6	18.2 21.0	16.9 19.3	14.5 16.1	11.8 12.2	8.6 7.6	5.9 2.9	5.4 -0.1	7.5 0.1	10.8 2.7	14.5 6.8
2 F	11.5 15.2	15.9 18.9	18.6 21.2	19.1 21.2	17.6 19.0	15.0 15.4	11.9 11.1	8.3 6.1	5.5 1.3	5.3 -1.3	7.6 -0.5	11.2 2.9
3 Sa	7.6 12.1	12.9 16.4	17.4 19.9	19.8 21.7	19.7 21.0	17.8 18.2	14.8 14.1	11.3 9.4	7.4 4.2	4.8 -0.4	5.2 -2.1	8.1 -0.2
4 Su	4.1 9.1	9.4 13.5	14.8 17.8	18.9 20.9	20.7 21.9	19.9 20.3	17.3 16.8	13.9 12.3	10.0 7.3	6.2 2.2	4.2 -1.7	5.4 -2.1
5 M	1.0 6.2	6.0 10.6	11.7 15.2	16.9 19.1	20.3 21.5	21.1 21.5	19.4 19.1	16.2 15.0	12.4 10.2	8.4 5.1	4.9 0.4	3.8 -2.3
6 Tu	-1.3 4.0	3.0 7.4	8.6 12.2	14.1 16.7	18.7 20.0	21.2 21.5	21.0 20.7	18.5 17.5	14.7 12.9	10.6 7.9	6.7 3.2	3.9 -0.7
7 W	-2.0 3.4	0.4 4.8	5.6 9.0	11.3 13.9	16.3 17.8	20.0 20.4	21.4 21.0	20.3 19.4	17.1 15.6	12.9 10.8	8.8 5.9	5.3 1.7
8 Th	-1.0 4.4	-0.9 3.6	2.9 6.1	8.4 10.6	13.7 15.1	18.0 18.3	20.7 20.1	21.1 20.0	19.1 17.7	15.4 13.6	11.1 8.8	7.2 4.4
9 F	1.1 6.2	-0.4 4.1	1.1 4.4	5.6 7.4	11.0 11.9	15.6 15.7	19.0 18.1	20.7 19.3	20.3 18.6	17.6 16.0	13.6 11.8	9.5 7.4
10 Sa	3.8 8.4	1.5 5.8	1.1 4.5	3.6 5.4	8.3 8.6	13.1 12.5	16.8 15.5	19.3 17.3	20.2 18.0	19.1 17.1	16.1 14.4	12.1 10.5
11 Su	6.7 11.0	4.0 7.9	2.7 5.9	3.1 5.1	6.1 6.2	10.6 9.2	14.6 12.5	17.3 14.8	19.0 16.2	19.3 16.7	17.8 15.8	14.7 13.2
12 M	9.8 13.6	6.9 10.4	5.0 7.9	4.3 6.2	5.3 5.5	8.2 6.6	12.2 9.2	15.3 11.8	17.3 13.7	18.5 15.0	18.4 15.6	16.7 14.9
13 Tu	12.7 15.9	10.0 13.1	7.7 10.3	6.5 8.1	6.1 6.4	7.0 5.5	9.8 6.3	13.0 8.5	15.5 10.7	17.0 12.5	17.9 14.1	17.7 15.0
14 W	14.7 17.4	13.0 15.7	10.7 13.0	8.9 10.3	7.8 8.0	7.4 6.0	8.1 4.8	10.6 5.3	13.4 7.4	15.4 9.6	16.8 11.8	17.7 13.9
15 Th	15.2 18.0	15.2 17.7	13.8 15.8	11.7 13.0	10.0 10.1	8.7 7.4	7.9 4.9	8.5 3.4	10.7 4.0	13.4 6.3	15.5 9.0	17.1 11.8
16 F	14.5 17.9	16.2 18.9	16.2 18.3	14.7 16.0	12.6 12.8	10.6 9.4	8.8 6.1	7.6 3.1	8.2 1.5	10.6 2.6	13.5 5.5	16.0 9.0
17 Sa	12.7 17.0	15.9 19.2	17.7 20.1	17.4 19.0	15.5 16.1	13.0 12.2	10.4 8.1	8.1 4.2	6.7 0.9	7.5 -0.4	10.5 1.5	14.0 5.5
18 Su	10.0 15.0	14.3 18.5	17.8 20.9	19.3 21.4	18.5 19.6	15.9 15.8	12.6 11.1	9.4 6.4	6.6 1.9	5.3 -1.5	6.8 -1.9	10.7 1.2
19 M	6.3 11.3	11.7 16.4	16.5 20.3	19.8 22.5	20.7 22.4	19.0 19.7	15.6 15.1	11.6 9.6	7.8 4.3	4.8 -0.5	3.9 -3.4	6.4 -2.7
20 Tu	1.8 6.5	8.0 12.3	14.0 17.9	18.9 21.9	21.7 23.7	21.6 22.8	19.0 19.3	14.7 13.9	10.1 7.9	5.8 2.2	2.8 -2.5	2.7 -4.6
21 W	-2.5 2.1	3.3 7.0	10.2 13.5	16.5 19.2	21.0 23.0	23.0 24.2	22.0 22.6	18.4 18.4	13.4 12.5	8.3 6.1	3.8 0.4	1.2 -3.8
22 Th	-4.8 0.1	-1.3 2.1	5.5 7.8	12.7 14.6	18.6 20.0	22.5 23.3	23.6 24.0	21.7 21.8	17.4 17.1	11.9 11.0	6.4 4.7	2.1 -0.6
23 F	-4.0 1.1	-3.8 -0.1	0.8 2.7	8.0 8.7	15.0 15.1	20.3 20.0	23.3 22.8	23.6 23.0	20.9 20.5	16.1 15.7	10.3 9.6	5.0 3.8
24 Sa	-0.7 4.2	-3.1 0.9	-1.8 0.3	3.4 3.5	10.4 9.3	16.7 15.0	21.1 19.2	23.4 21.5	23.0 21.5	19.8 19.0	14.7 14.3	9.1 8.8
25 Su	3.9 8.5	0.2 4.2	-1.2 1.4	0.8 1.1	6.0 4.2	12.3 9.3	17.5 14.1	21.1 17.7	22.8 19.7	21.9 19.7	18.5 17.5	13.6 13.4
26 M	8.8 13.0	4.8 8.6	2.1 4.9	1.2 2.3	3.4 2.0	8.1 4.6	13.4 8.7	17.6 12.6	20.5 15.7	21.7 17.8	20.6 18.1	17.4 16.4
27 Tu	13.1 16.8	9.6 13.0	6.6 9.3	4.4 5.9	3.7 3.3	5.5 2.5	9.4 4.3	13.6 7.5	17.0 10.8	19.4 13.8	20.5 16.1	19.6 17.0
28 W	16.0 18.9	13.6 16.7	11.0 13.5	8.6 10.2	6.5 6.8	5.6 3.7	6.9 2.4	9.9 3.5	13.1 6.1	16.0 9.1	18.3 12.3	19.5 15.2
29 Th	16.6 19.1	16.3 18.8	14.6 16.9	12.6 14.2	10.4 10.9	8.1 7.2	6.7 3.6	7.3 1.8	9.6 2.5	12.3 4.8	15.1 7.9	17.6 11.7
30 F	15.1 17.5	17.1 19.2	17.1 19.1	15.8 17.3	13.9 14.5	11.5 11.0	8.7 6.7	6.8 2.7	7.1 0.7	9.0 1.5	11.6 4.0	14.6 7.8
31 Sa	12.1 14.9	16.0 18.1	18.0 19.7	18.1 19.4	16.7 17.3	14.6 14.2	11.6 10.2	8.3 5.5	6.1 1.3	6.4 -0.3	8.5 1.0	11.5 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).

NIKISKI, ALASKA, 2015
Lat. 60° 41 N Long. 151° 24 W

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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 Su	8.7 12.1	13.5 15.9	17.4 19.1	19.2 20.4	18.8 19.5	17.0 16.8	14.3 13.2	10.7 8.7	7.0 3.7	5.1 -0.2	5.9 -0.9	8.6 1.4
2 M	5.5 9.3	10.6 13.4	15.6 17.4	19.0 20.2	20.1 20.7	19.0 19.0	16.4 15.6	13.0 11.4	9.0 6.5	5.4 1.6	4.1 -1.3	5.9 -0.7
3 Tu	2.8 6.5	7.7 10.8	13.1 15.2	17.8 19.0	20.4 21.0	20.5 20.6	18.3 17.9	15.0 13.8	11.1 9.1	6.9 4.1	3.8 -0.1	3.6 -1.7
4 W	0.4 3.9	5.1 7.9	10.5 12.7	15.8 17.0	19.7 20.2	21.2 21.3	20.1 19.8	17.0 16.2	13.0 11.5	8.7 6.6	4.7 2.0	2.6 -1.2
5 Th	-1.1 2.2	2.6 4.9	8.1 9.7	13.6 14.6	18.2 18.5	21.0 20.9	21.3 20.9	19.0 18.5	15.1 14.1	10.6 9.1	6.4 4.3	3.0 0.5
6 F	-1.3 2.1	0.6 2.6	5.5 6.5	11.3 11.7	16.3 16.2	19.9 19.4	21.5 20.8	20.6 19.9	17.3 16.7	12.8 11.9	8.3 6.9	4.4 2.7
7 Sa	0.0 3.2	-0.2 2.0	3.1 3.8	8.7 8.3	14.2 13.3	18.3 17.2	20.8 19.5	21.2 20.0	19.2 18.4	15.3 14.7	10.5 9.9	6.3 5.4
8 Su	2.1 5.0	0.6 2.8	1.9 2.7	6.1 5.3	11.7 9.9	16.4 14.3	19.4 17.3	20.8 18.8	20.2 18.7	17.4 16.6	13.1 12.8	8.6 8.4
9 M	4.7 7.3	2.6 4.6	2.3 3.2	4.5 3.8	9.1 6.7	14.1 10.9	17.7 14.5	19.6 16.6	20.0 17.6	18.7 17.2	15.5 15.0	11.3 11.5
10 Tu	7.7 10.1	5.1 6.8	3.9 4.8	4.4 4.0	7.1 4.7	11.4 7.5	15.5 11.1	18.1 13.8	19.1 15.5	18.9 16.2	17.1 15.8	13.9 13.9
11 W	10.9 12.9	8.0 9.6	6.3 7.0	5.7 5.4	6.5 4.6	9.1 5.2	12.9 7.5	16.1 10.5	17.7 12.7	18.2 14.2	17.7 15.2	15.9 15.1
12 Th	13.6 15.4	11.2 12.7	9.0 9.8	7.8 7.5	7.4 5.8	8.0 4.7	10.2 4.9	13.4 6.8	15.8 9.4	17.0 11.5	17.4 13.3	17.0 14.7
13 F	15.1 17.0	14.1 15.6	12.2 13.0	10.3 10.2	9.1 7.8	8.4 5.6	8.5 3.9	10.3 3.7	13.0 5.5	15.2 8.2	16.5 10.7	17.2 13.2
14 Sa	15.2 17.7	16.0 17.8	15.2 16.4	13.3 13.7	11.4 10.5	9.7 7.5	8.4 4.6	8.0 2.3	9.6 2.1	12.3 4.2	14.7 7.4	16.5 10.7
15 Su	14.0 17.3	16.6 19.0	17.5 19.2	16.4 17.4	14.2 14.2	11.7 10.4	9.3 6.6	7.3 2.9	6.7 0.3	8.5 0.4	11.7 3.2	14.8 7.4
16 M	11.8 15.5	15.8 18.8	18.5 20.7	19.1 20.6	17.5 18.2	14.5 14.2	11.2 9.6	8.0 4.9	5.4 0.7	4.9 -1.8	7.4 -0.9	11.4 3.1
17 Tu	8.4 11.8	13.7 16.7	18.1 20.6	20.6 22.5	20.5 21.8	17.9 18.6	14.0 13.7	9.8 8.2	5.8 2.9	3.0 -1.6	3.1 -3.5	6.6 -1.3
18 W	4.0 6.6	10.4 12.7	16.2 18.3	20.6 22.3	22.4 23.8	21.2 22.3	17.6 18.2	12.8 12.5	7.8 6.5	3.3 0.8	0.7 -3.4	1.8 -4.2
19 Th	-0.6 1.2	6.0 7.1	13.0 14.0	18.9 19.8	22.7 23.5	23.6 24.4	21.3 22.1	16.7 17.3	11.0 11.1	5.5 4.7	0.9 -0.8	-1.1 -4.3
20 F	-3.8 -2.0	1.2 1.5	8.6 8.2	15.7 15.2	21.2 20.7	24.1 23.9	23.9 24.1	20.6 21.2	15.1 15.9	9.0 9.5	3.3 3.3	-1.0 -1.7
21 Sa	-4.1 -1.9	-2.2 -2.0	3.8 2.4	11.4 9.3	18.0 15.9	22.7 20.8	24.6 23.4	23.4 23.1	19.3 19.8	13.4 14.3	7.1 8.2	1.7 2.6
22 Su	-1.5 0.9	-2.7 -1.8	0.3 -1.0	6.7 3.7	13.8 10.1	19.5 16.0	23.2 20.1	24.2 22.1	22.2 21.4	17.6 18.1	11.7 12.9	5.8 7.4
23 M	2.8 5.3	-0.2 1.2	-0.4 -0.8	3.2 0.4	9.4 4.8	15.4 10.4	20.0 15.2	22.6 18.7	22.9 20.3	20.5 19.6	16.0 16.5	10.5 12.0
24 Tu	7.6 10.0	4.0 5.7	1.9 2.4	2.4 0.7	5.9 1.8	11.2 5.5	16.0 10.0	19.4 13.8	21.3 16.8	21.2 18.3	18.8 17.9	14.7 15.4
25 W	11.9 14.0	8.6 10.3	6.0 6.8	4.4 3.9	4.9 2.2	7.9 2.8	12.0 5.6	15.5 8.9	18.1 12.1	19.6 14.9	19.5 16.7	17.5 16.7
26 Th	15.1 16.7	12.6 14.1	10.2 11.2	8.1 8.2	6.6 5.3	6.7 3.1	8.8 3.1	11.7 5.0	14.3 7.6	16.5 10.4	18.0 13.5	18.2 15.7
27 F	16.4 17.6	15.5 16.7	13.8 14.7	11.9 12.2	9.9 9.4	8.0 6.0	7.4 3.3	8.7 2.7	10.7 4.0	12.8 6.3	15.0 9.4	16.9 12.9
28 Sa	15.7 16.7	16.8 17.7	16.4 17.2	15.0 15.4	13.2 13.0	10.8 9.7	8.3 5.8	7.1 2.7	7.8 1.9	9.5 3.1	11.7 5.7	14.3 9.3

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

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 Su	13.4 14.5	16.5 17.2	17.8 18.4	17.4 17.8	15.9 15.8	13.7 12.9	10.6 9.1	7.5 4.7	6.0 1.6	6.7 1.1	8.6 2.8	11.3 6.1
2 M	10.4 11.9	14.8 15.6	17.9 18.4	18.9 19.2	18.0 18.0	15.9 15.5	13.0 12.0	9.2 7.6	5.9 3.0	4.7 0.4	5.9 0.8	8.5 3.5
3 Tu	7.6 9.3	12.4 13.4	16.9 17.3	19.4 19.6	19.6 19.7	17.8 17.6	15.0 14.3	11.3 10.1	7.1 5.4	4.0 1.2	3.7 -0.4	5.9 1.4
4 W	5.2 6.7	10.0 11.0	15.1 15.4	18.9 19.0	20.5 20.5	19.5 19.5	16.8 16.5	13.1 12.4	8.8 7.8	4.7 3.1	2.4 -0.2	3.3 -0.2
5 Th	3.0 3.9	7.9 8.4	13.1 13.2	17.7 17.5	20.6 20.4	20.8 20.8	18.6 18.7	14.9 14.7	10.5 10.0	6.1 5.3	2.4 1.2	1.4 -0.7
6 F	1.0 1.4	5.7 5.3	11.1 10.6	16.1 15.5	19.9 19.2	21.4 21.1	20.3 20.3	16.9 17.1	12.4 12.5	7.7 7.6	3.5 3.2	0.9 0.1
7 Sa	-0.1 0.2	3.3 2.4	8.9 7.4	14.4 12.9	18.7 17.3	21.2 20.2	21.4 20.9	18.9 19.1	14.6 15.2	9.7 10.2	5.1 5.4	1.6 1.8
8 Su	0.1 0.6	1.6 0.6	6.4 4.1	12.3 9.6	17.1 14.7	20.3 18.4	21.5 20.3	20.4 20.0	16.9 17.5	12.0 13.1	7.1 8.2	3.1 4.1
9 M	1.5 1.9	1.3 0.5	4.1 1.8	9.6 6.0	15.1 11.5	19.0 15.8	20.9 18.5	20.9 19.6	18.7 18.6	14.6 15.6	9.6 11.2	5.1 6.8
10 Tu	3.7 4.0	2.3 1.8	3.3 1.3	7.0 3.4	12.5 7.8	17.1 12.6	19.8 16.0	20.5 17.9	19.6 18.4	16.7 17.1	12.4 14.0	7.7 10.0
11 W	6.4 6.7	4.3 3.8	3.9 2.4	5.6 2.5	9.6 4.8	14.5 8.8	18.0 12.8	19.5 15.4	19.5 16.8	17.9 17.0	14.9 15.7	10.7 13.0
12 Th	9.6 9.9	6.9 6.5	5.7 4.3	5.8 3.3	7.7 3.5	11.3 5.5	15.4 9.0	17.9 12.2	18.6 14.3	18.2 15.6	16.5 16.0	13.6 15.0
13 F	12.7 13.1	10.1 9.9	8.1 7.1	7.2 5.2	7.3 4.0	8.9 3.8	12.0 5.4	15.2 8.3	17.0 11.1	17.5 13.2	17.1 14.8	15.7 15.6
14 Sa	15.1 15.8	13.3 13.6	11.1 10.7	9.4 8.0	8.3 5.8	8.0 4.1	9.0 3.3	11.6 4.5	14.3 7.2	15.9 10.0	16.7 12.5	16.8 14.8
15 Su	16.1 17.3	16.0 16.7	14.4 14.6	12.2 11.7	10.2 8.6	8.6 5.8	7.5 3.3	8.0 2.0	10.3 3.1	13.0 6.0	15.1 9.4	16.6 12.8
16 M	15.8 17.3	17.5 18.6	17.4 18.1	15.5 15.8	12.9 12.4	10.3 8.7	7.7 5.1	6.0 1.8	6.3 0.3	8.8 1.8	12.0 5.5	14.9 9.8
17 Tu	14.0 15.6	17.6 18.8	19.4 20.4	18.8 19.7	16.3 16.8	12.8 12.6	9.3 8.1	5.9 3.6	3.6 -0.1	4.2 -1.3	7.5 1.1	11.6 5.8
18 W	11.2 12.0	16.2 17.0	19.9 20.7	21.2 22.1	19.8 20.8	16.3 17.1	11.9 12.1	7.4 6.8	3.3 1.8	1.1 -1.9	2.4 -2.3	6.7 1.4
19 Th	7.3 6.8	13.5 13.1	18.8 18.6	22.2 22.4	22.6 23.3	20.1 21.2	15.5 16.7	10.2 11.0	4.9 5.2	0.5 0.0	-1.2 -3.2	1.2 -2.3
20 F	2.7 1.0	9.6 7.6	16.2 14.5	21.3 20.1	23.9 23.5	23.2 23.8	19.5 20.9	14.1 15.7	8.0 9.6	2.3 3.6	-1.9 -1.3	-2.7 -3.5
21 Sa	-1.2 -3.2	5.0 1.7	12.3 8.9	18.8 15.8	23.2 21.1	24.7 23.9	22.9 23.4	18.3 19.8	12.1 14.3	5.8 8.1	0.1 2.4	-3.5 -1.7
22 Su	-2.7 -4.1	1.0 -2.6	7.8 3.1	15.0 10.3	20.7 16.7	24.1 21.3	24.5 23.3	21.8 22.2	16.5 18.4	10.1 12.8	3.9 7.0	-1.3 2.0
23 M	-1.1 -1.7	-0.8 -3.5	3.7 -1.1	10.5 4.7	16.9 11.3	21.6 16.9	23.9 20.7	23.4 22.1	20.0 20.7	14.6 16.8	8.4 11.6	2.7 6.5
24 Tu	2.5 2.5	0.4 -1.0	1.6 -2.0	6.4 0.8	12.6 6.1	17.8 11.7	21.4 16.3	22.8 19.4	21.7 20.4	18.1 18.9	12.9 15.4	7.3 10.9
25 W	6.8 7.1	3.8 3.2	2.5 0.5	4.2 0.0	8.6 2.5	13.7 7.0	17.6 11.4	20.2 15.1	21.0 17.8	19.6 18.7	16.3 17.4	11.7 14.5
26 Th	11.0 11.3	7.9 7.7	5.7 4.6	4.8 2.3	6.4 1.8	9.9 3.7	13.7 7.1	16.5 10.5	18.3 13.6	18.9 16.1	17.8 17.2	15.0 16.5
27 F	14.3 14.5	11.7 11.7	9.5 8.9	7.6 6.3	6.6 3.9	7.6 3.0	10.1 4.2	12.7 6.6	14.8 9.4	16.4 12.3	17.2 15.0	16.5 16.5
28 Sa	16.3 16.1	14.8 14.7	12.9 12.6	11.0 10.2	9.0 7.5	7.5 4.8	7.8 3.4	9.4 4.0	11.2 5.9	13.0 8.4	14.9 11.5	16.2 14.6
29 Su	16.5 16.0	16.7 16.4	15.6 15.4	14.0 13.5	11.9 11.1	9.4 8.0	7.3 4.8	7.0 3.0	8.1 3.4	9.7 5.3	11.8 8.1	14.2 11.7
30 M	15.2 14.5	17.3 16.7	17.6 17.2	16.4 16.1	14.5 14.0	11.9 11.1	8.7 7.5	6.2 3.9	5.7 2.3	6.8 3.0	8.8 5.3	11.5 8.7
31 Tu	12.9 12.2	16.5 15.7	18.4 17.9	18.3 18.0	16.6 16.3	14.1 13.7	10.8 10.2	7.0 6.1	4.5 2.7	4.4 1.7	6.0 3.2	8.7 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).

NIKISKI, ALASKA, 2015
Lat. 60° 41 N Long. 151° 24 W

351

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 W	10.4 9.8	14.9 13.9	18.3 17.4	19.5 19.0	18.5 18.3	16.0 15.9	12.7 12.5	8.7 8.6	4.8 4.4	2.7 1.5	3.5 1.6	6.1 4.3
2 Th	8.3 7.2	12.9 11.6	17.2 16.0	19.8 19.0	19.9 19.7	17.8 18.0	14.4 14.7	10.4 10.7	6.1 6.5	2.4 2.6	1.4 0.9	3.5 2.5
3 F	6.4 4.4	11.2 9.2	15.8 14.0	19.4 18.0	20.8 20.2	19.5 19.8	16.3 17.0	12.1 12.9	7.6 8.6	3.3 4.4	0.5 1.3	1.0 1.1
4 Sa	4.3 1.5	9.3 6.3	14.3 11.6	18.4 16.3	20.9 19.6	20.8 20.7	18.3 19.1	14.1 15.4	9.3 10.8	4.7 6.4	0.9 2.8	-0.6 0.9
5 Su	2.4 -0.6	7.0 3.0	12.5 8.6	17.2 14.0	20.4 18.1	21.5 20.4	20.0 20.4	16.3 17.8	11.4 13.5	6.5 8.8	2.2 4.7	-0.7 1.9
6 M	1.5 -1.3	4.6 0.3	10.1 5.0	15.5 10.9	19.4 15.8	21.3 19.1	21.1 20.4	18.4 19.5	13.9 16.2	8.7 11.6	4.0 7.1	0.4 3.7
7 Tu	2.0 -0.5	3.0 -0.9	7.2 1.8	13.0 7.2	17.8 12.8	20.6 16.9	21.3 19.3	19.9 19.8	16.4 18.1	11.5 14.6	6.4 10.1	2.2 6.1
8 W	3.6 1.4	3.0 -0.3	5.1 0.2	9.9 3.6	15.3 9.0	19.1 13.9	20.7 17.1	20.4 18.8	18.2 18.7	14.3 16.8	9.4 13.2	4.7 9.1
9 Th	5.9 4.0	4.2 1.4	4.5 0.5	7.2 1.6	12.0 5.2	16.6 10.1	19.3 14.1	20.0 16.6	19.0 17.8	16.5 17.6	12.5 15.6	8.0 12.3
10 F	8.9 7.4	6.4 4.2	5.4 2.2	6.0 1.6	8.8 2.7	13.1 6.1	16.8 10.3	18.6 13.6	18.8 15.8	17.7 16.9	15.1 16.8	11.5 15.1
11 Sa	12.2 11.3	9.3 7.8	7.4 5.0	6.6 3.2	7.1 2.4	9.5 3.3	13.1 6.1	16.1 9.8	17.4 12.8	17.6 15.0	16.7 16.4	14.5 16.6
12 Su	15.2 14.7	12.7 11.9	10.2 8.7	8.3 6.1	7.2 4.0	7.2 2.7	9.1 3.1	12.1 5.6	14.7 9.0	16.1 12.1	16.7 14.7	16.4 16.6
13 M	17.2 16.9	16.0 15.6	13.6 13.0	11.0 9.9	8.7 6.9	6.9 4.2	6.3 2.3	7.7 2.3	10.5 4.8	13.2 8.4	15.2 11.9	16.6 15.2
14 Tu	17.7 17.4	18.4 18.2	17.0 17.0	14.4 14.2	11.3 10.7	8.3 7.1	5.6 3.7	4.4 1.3	5.7 1.3	8.8 4.2	12.1 8.3	15.1 12.7
15 W	16.7 15.8	19.4 18.7	19.8 19.7	18.0 18.4	14.7 15.1	10.8 11.0	6.9 6.7	3.5 2.6	2.0 0.0	3.7 0.5	7.5 4.2	11.8 9.2
16 Th	14.3 12.2	18.7 17.1	21.3 20.4	21.1 21.2	18.4 19.2	14.2 15.3	9.5 10.6	4.7 5.7	0.8 1.3	-0.3 -1.0	2.1 0.4	6.9 5.0
17 F	10.9 7.2	16.6 13.4	21.0 18.7	22.9 21.9	21.8 22.1	18.1 19.5	13.0 14.9	7.5 9.7	2.2 4.5	-1.7 0.1	-2.2 -1.5	1.4 1.1
18 Sa	6.7 1.6	13.2 8.3	19.0 14.9	22.9 20.1	23.9 22.8	21.7 22.4	17.1 19.0	11.2 14.0	5.2 8.5	-0.3 3.3	-3.7 -0.6	-3.2 -1.1
19 Su	2.6 -3.0	9.0 2.7	15.7 9.8	21.0 16.3	24.0 21.1	23.9 23.1	20.8 21.9	15.4 18.1	9.2 12.8	3.0 7.3	-2.2 2.5	-4.8 -0.6
20 M	0.0 -4.8	4.8 -1.9	11.5 4.3	17.7 11.3	22.2 17.3	24.2 21.3	23.1 22.6	19.2 20.9	13.5 16.8	7.2 11.6	1.3 6.5	-3.3 2.2
21 Tu	0.2 -3.3	1.9 -3.8	7.2 -0.1	13.6 6.2	18.9 12.5	22.4 17.6	23.4 20.9	21.6 21.6	17.3 19.5	11.6 15.4	5.7 10.6	0.4 6.1
22 W	2.7 0.4	1.6 -2.4	4.1 -2.0	9.4 2.0	14.9 7.7	19.1 13.1	21.6 17.3	21.9 19.9	19.6 20.2	15.3 18.1	10.0 14.3	4.8 10.1
23 Th	6.4 4.7	3.8 1.2	3.5 -0.7	6.2 0.1	10.9 3.9	15.3 8.7	18.4 13.0	20.1 16.5	19.9 18.7	17.7 18.9	13.7 16.9	9.0 13.6
24 F	10.1 8.8	7.2 5.4	5.3 2.7	5.2 1.2	7.7 2.0	11.4 5.2	14.7 9.0	16.9 12.4	18.2 15.5	18.0 17.5	16.0 17.8	12.6 16.1
25 Sa	13.4 12.3	10.7 9.3	8.4 6.7	6.7 4.3	6.5 2.8	8.4 3.4	11.1 5.8	13.4 8.7	15.2 11.7	16.4 14.6	16.5 16.7	14.9 17.1
26 Su	15.9 14.6	13.7 12.6	11.5 10.2	9.4 7.9	7.5 5.5	6.9 3.8	8.1 4.0	10.0 5.9	11.8 8.3	13.6 11.1	15.1 14.1	15.6 16.5
27 M	17.1 15.5	16.2 14.9	14.3 13.2	12.2 11.2	9.9 8.8	7.5 6.1	6.5 4.1	7.1 4.1	8.6 5.8	10.4 8.1	12.5 11.2	14.6 14.5
28 Tu	16.9 14.9	17.6 16.1	16.6 15.6	14.7 13.9	12.3 11.7	9.4 9.0	6.6 5.9	5.3 3.9	5.8 4.0	7.4 5.8	9.6 8.6	12.4 12.0
29 W	15.5 13.1	17.9 15.9	18.2 17.0	16.8 16.2	14.5 14.2	11.6 11.5	8.1 8.4	5.0 5.1	3.7 3.4	4.7 4.1	6.8 6.5	9.7 9.8
30 Th	13.6 10.8	17.1 14.6	18.9 17.3	18.6 17.9	16.5 16.5	13.4 13.8	9.9 10.6	6.0 7.1	2.9 4.0	2.3 3.0	4.1 4.7	7.1 7.9

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

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 F	11.8 8.3	15.7 12.6	18.8 16.5	19.7 18.7	18.4 18.4	15.3 16.1	11.6 12.8	7.6 9.2	3.5 5.6	1.0 3.1	1.5 3.2	4.4 6.0
2 Sa	10.1 5.6	14.3 10.3	18.0 14.8	20.1 18.3	19.9 19.5	17.4 18.3	13.5 15.1	9.2 11.3	4.8 7.5	1.1 4.2	-0.3 2.6	1.5 4.0
3 Su	8.1 2.5	12.8 7.5	16.9 12.6	19.9 16.9	20.8 19.6	19.3 19.8	15.7 17.6	11.1 13.8	6.5 9.6	2.2 5.9	-0.8 3.1	-0.9 2.7
4 M	5.7 -0.5	10.7 4.2	15.5 9.9	19.1 14.9	21.0 18.6	20.7 20.3	17.9 19.5	13.5 16.4	8.5 12.2	3.8 8.0	0.0 4.6	-2.0 2.7
5 Tu	3.6 -2.2	7.8 0.7	13.3 6.3	17.9 12.1	20.6 16.7	21.4 19.5	19.8 20.3	16.1 18.7	11.1 15.1	6.0 10.6	1.6 6.6	-1.5 3.8
6 W	2.9 -2.2	5.1 -1.6	10.1 2.4	15.7 8.4	19.5 13.9	21.2 17.7	20.9 19.8	18.4 19.8	14.1 17.6	8.9 13.7	3.9 9.3	0.0 5.7
7 Th	3.6 -0.7	3.7 -1.9	6.8 -0.4	12.2 4.3	17.3 10.2	20.2 15.0	21.0 18.1	19.9 19.5	16.8 19.0	12.2 16.5	7.0 12.5	2.5 8.5
8 F	5.4 2.0	4.0 -0.5	4.8 -1.1	8.4 1.1	13.7 5.9	17.9 11.3	20.0 15.4	20.2 17.9	18.6 19.0	15.3 18.2	10.7 15.6	5.9 11.8
9 Sa	8.2 5.6	5.7 2.3	4.7 0.3	5.9 0.1	9.5 2.4	14.1 7.0	17.6 11.7	19.1 15.2	19.0 17.5	17.4 18.4	14.2 17.6	9.9 15.1
10 Su	11.6 9.8	8.4 6.0	6.2 3.2	5.4 1.4	6.4 1.2	9.7 3.3	13.7 7.4	16.5 11.6	17.8 14.8	17.8 17.1	16.5 18.2	13.7 17.5
11 M	15.1 13.8	11.8 10.4	8.9 7.0	6.7 4.4	5.5 2.4	6.1 1.9	8.9 3.7	12.4 7.4	15.0 11.3	16.5 14.6	17.0 17.1	16.2 18.4
12 Tu	17.9 16.6	15.5 14.6	12.3 11.5	9.3 8.2	6.7 5.3	4.9 3.0	5.0 2.0	7.4 3.7	10.7 7.2	13.5 11.2	15.6 14.8	16.9 17.7
13 W	19.2 17.4	18.6 17.5	16.2 15.7	12.7 12.6	9.3 9.2	6.0 5.9	3.5 3.0	3.2 1.8	5.5 3.5	9.0 7.2	12.4 11.5	15.4 15.6
14 Th	18.9 15.9	20.4 18.4	19.5 18.7	16.6 16.8	12.7 13.4	8.6 9.6	4.5 5.9	1.5 2.6	1.2 1.4	3.8 3.4	7.8 7.7	12.0 12.5
15 F	17.1 12.5	20.5 17.0	21.6 19.7	20.1 19.8	16.6 17.5	12.0 13.7	7.2 9.5	2.5 5.3	-0.8 1.9	-0.8 1.1	2.5 3.8	7.4 8.7
16 Sa	14.1 7.8	18.8 13.6	22.0 18.4	22.5 20.9	20.2 20.5	15.9 17.7	10.7 13.5	5.3 9.0	0.2 4.5	-2.8 1.3	-2.0 1.2	2.1 4.8
17 Su	10.3 2.7	15.9 9.0	20.6 15.1	23.1 19.7	22.7 21.7	19.6 20.6	14.6 17.3	8.9 12.8	3.2 8.1	-1.8 3.7	-4.2 1.0	-2.4 1.8
18 M	6.3 -1.9	12.2 4.0	17.7 10.6	21.8 16.5	23.5 20.6	22.2 21.9	18.3 20.3	12.9 16.5	7.0 11.8	1.3 7.1	-3.3 3.0	-4.8 1.1
19 Tu	3.0 -4.3	8.1 -0.4	14.1 5.9	19.1 12.3	22.4 17.7	23.1 21.0	21.0 21.6	16.6 19.4	11.0 15.4	5.2 10.8	-0.2 6.3	-4.1 2.8
20 W	1.8 -3.9	4.6 -3.0	10.0 1.6	15.5 7.8	19.8 13.7	22.2 18.3	22.1 20.9	19.4 20.9	14.8 18.3	9.2 14.3	3.8 9.8	-1.0 5.8
21 Th	3.0 -1.0	2.9 -2.9	6.3 -1.1	11.5 3.8	16.3 9.5	19.7 14.5	21.2 18.4	20.6 20.4	17.6 19.9	13.0 17.1	7.8 13.2	2.9 9.2
22 F	5.7 2.7	3.7 -0.3	4.3 -1.2	7.9 1.1	12.5 5.8	16.3 10.7	18.8 14.9	19.8 18.1	18.9 19.5	15.8 18.8	11.4 16.0	6.8 12.4
23 Sa	8.9 6.5	6.1 3.3	4.6 1.0	5.6 0.7	8.9 3.2	12.7 7.2	15.6 11.3	17.5 14.8	18.2 17.5	17.2 18.7	14.3 17.8	10.4 15.2
24 Su	12.0 10.0	9.0 6.9	6.7 4.3	5.5 2.5	6.5 2.5	9.3 4.8	12.2 8.2	14.4 11.5	16.0 14.5	16.7 16.9	15.8 18.0	13.3 17.1
25 M	14.7 12.9	11.9 10.2	9.4 7.7	7.3 5.5	6.1 3.9	6.8 3.9	8.9 5.9	11.1 8.7	13.0 11.5	14.7 14.3	15.6 16.6	14.9 17.6
26 Tu	16.7 14.7	14.6 13.0	12.1 10.8	9.7 8.6	7.4 6.5	6.0 4.9	6.4 4.8	8.0 6.5	9.9 9.0	11.8 11.6	13.8 14.4	15.0 16.7
27 W	17.6 15.1	16.7 15.0	14.6 13.5	12.1 11.4	9.6 9.3	6.9 7.1	5.2 5.3	5.4 5.2	6.9 6.9	8.8 9.4	11.1 12.1	13.6 15.0
28 Th	17.3 14.1	18.0 15.8	16.8 15.7	14.4 14.1	11.7 11.9	8.7 9.5	5.7 7.0	3.9 5.2	4.2 5.4	6.0 7.4	8.3 10.2	11.2 13.2
29 F	16.1 12.1	18.2 15.3	18.3 16.8	16.6 16.4	13.8 14.3	10.6 11.8	7.2 9.1	4.0 6.5	2.3 4.9	3.2 5.7	5.6 8.3	8.6 11.5
30 Sa	14.7 9.8	17.6 13.7	19.1 16.8	18.5 17.8	16.0 16.7	12.5 14.2	8.9 11.2	5.1 8.3	1.9 5.6	0.9 4.6	2.7 6.2	5.9 9.6
31 Su	13.3 7.1	16.7 11.6	19.1 15.6	19.7 18.2	18.1 18.5	14.8 16.6	10.7 13.5	6.7 10.2	2.7 7.0	0.0 4.7	0.0 4.5	2.9 7.2

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

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 M	11.4 3.9	15.4 9.0	18.6 13.7	20.3 17.5	19.8 19.4	17.2 18.8	13.1 16.1	8.5 12.5	4.2 8.9	0.4 5.7	-1.6 3.9	-0.2 4.9
2 Tu	8.7 0.4	13.5 5.6	17.6 11.1	20.2 15.8	21.0 19.0	19.4 20.0	15.8 18.5	11.0 15.2	6.2 11.2	1.8 7.4	-1.6 4.5	-2.4 3.5
3 W	5.7 -2.4	10.5 1.7	15.6 7.7	19.4 13.3	21.3 17.6	21.0 20.0	18.5 20.2	14.1 17.9	8.9 14.1	3.9 9.8	-0.3 6.1	-2.9 3.6
4 Th	3.5 -3.4	6.9 -1.7	12.3 3.5	17.4 9.8	20.5 15.1	21.6 18.8	20.5 20.5	17.3 19.9	12.4 17.1	6.9 12.8	2.0 8.5	-1.7 5.0
5 F	3.1 -2.4	4.0 -3.1	8.2 -0.3	13.9 5.4	18.5 11.6	21.0 16.4	21.4 19.4	19.7 20.6	15.9 19.4	10.7 16.1	5.3 11.7	0.7 7.5
6 Sa	4.4 0.2	3.1 -2.2	4.7 -2.1	9.3 1.4	14.8 7.2	18.8 12.9	20.7 17.1	20.6 19.6	18.6 20.3	14.6 18.7	9.4 15.2	4.3 10.8
7 Su	6.9 4.0	4.2 0.6	3.4 -1.3	5.4 -0.6	10.0 3.1	14.9 8.6	18.3 13.7	19.8 17.4	19.6 19.6	17.4 19.9	13.5 18.1	8.6 14.6
8 M	10.3 8.5	6.7 4.5	4.3 1.6	3.7 0.1	5.7 0.9	9.9 4.5	14.2 9.6	17.1 14.0	18.5 17.3	18.4 19.4	16.5 19.6	12.9 17.8
9 Tu	14.3 12.9	10.3 9.0	6.9 5.6	4.5 3.0	3.7 1.5	5.3 2.2	9.0 5.5	12.8 10.0	15.5 14.1	17.2 17.3	17.5 19.3	16.0 19.6
10 W	17.7 16.1	14.3 13.4	10.6 10.1	7.2 6.9	4.5 4.3	3.2 2.6	4.4 3.1	7.6 6.1	11.1 10.2	14.0 14.1	16.2 17.4	17.1 19.6
11 Th	19.8 17.2	18.0 16.6	14.6 14.4	10.8 11.3	7.2 8.2	3.9 5.3	2.1 3.3	2.9 3.5	5.9 6.4	9.5 10.4	12.8 14.3	15.7 17.8
12 F	20.1 15.9	20.4 17.8	18.3 17.5	14.8 15.3	10.8 12.3	6.6 9.0	2.8 5.8	0.5 3.5	1.3 3.7	4.4 6.6	8.3 10.7	12.4 14.9
13 Sa	18.7 12.7	20.9 16.7	20.9 18.8	18.5 18.4	14.7 16.1	10.2 12.8	5.6 9.3	1.2 5.7	-1.2 3.3	-0.2 3.7	3.4 7.0	7.9 11.4
14 Su	15.9 8.4	19.7 13.7	21.7 17.9	21.2 19.8	18.3 19.0	14.0 16.4	9.1 12.8	4.0 9.0	-0.6 5.1	-2.6 2.9	-1.0 3.9	3.2 7.7
15 M	12.5 3.9	17.2 9.7	20.8 15.2	22.3 19.2	21.0 20.5	17.6 19.2	12.8 16.1	7.6 12.3	2.3 8.2	-2.2 4.4	-3.5 2.6	-1.0 4.4
16 Tu	8.8 -0.2	13.9 5.5	18.5 11.5	21.6 16.8	22.3 20.2	20.3 20.9	16.3 18.9	11.3 15.4	5.9 11.3	0.5 7.1	-3.4 3.6	-3.7 2.6
17 W	5.3 -3.0	10.2 1.5	15.3 7.5	19.5 13.4	21.9 18.2	21.8 20.8	19.2 20.7	14.7 18.2	9.5 14.4	4.1 10.1	-0.9 6.0	-3.9 3.0
18 Th	3.0 -3.6	6.5 -1.5	11.7 3.7	16.4 9.7	20.0 15.1	21.7 19.2	20.8 21.0	17.6 20.1	12.9 17.1	7.7 13.0	2.5 8.8	-1.8 5.0
19 F	2.9 -1.9	3.9 -2.5	8.0 0.7	13.0 6.1	17.2 11.6	20.0 16.3	20.9 19.6	19.5 20.7	15.9 19.2	11.1 15.8	6.1 11.7	1.5 7.7
20 Sa	4.5 1.0	3.2 -1.3	5.1 -0.7	9.3 3.1	13.8 8.3	17.3 13.2	19.4 17.1	19.8 19.6	17.9 20.0	14.2 18.1	9.4 14.5	4.9 10.5
21 Su	7.0 4.3	4.4 1.4	3.9 0.1	6.2 1.5	10.3 5.4	14.1 10.1	16.8 14.2	18.4 17.4	18.4 19.2	16.3 19.1	12.6 16.8	8.2 13.3
22 M	9.7 7.6	6.7 4.5	4.8 2.4	4.7 1.8	7.2 3.7	10.7 7.4	13.8 11.4	15.9 14.7	17.2 17.3	17.0 18.7	14.9 18.1	11.4 15.8
23 Tu	12.4 10.8	9.3 7.7	6.8 5.4	5.2 3.8	5.4 3.6	7.6 5.6	10.5 8.9	12.9 12.2	14.8 14.9	15.9 17.0	15.7 18.1	13.8 17.3
24 W	15.0 13.4	11.9 10.8	9.2 8.3	7.0 6.5	5.5 5.2	5.6 5.2	7.4 7.0	9.8 9.9	11.9 12.6	13.7 14.9	15.0 16.8	15.0 17.6
25 Th	16.8 14.8	14.5 13.5	11.7 11.3	9.2 9.2	7.0 7.6	5.3 6.3	5.2 6.2	6.8 7.9	8.8 10.5	10.8 12.9	12.9 15.0	14.5 16.9
26 F	17.6 14.7	16.6 15.2	14.2 14.0	11.5 12.0	8.9 10.0	6.4 8.3	4.5 6.8	4.3 6.7	5.8 8.4	8.0 10.9	10.3 13.3	12.8 15.6
27 Sa	17.3 13.4	17.8 15.6	16.5 16.0	14.0 14.7	11.0 12.6	8.2 10.4	5.3 8.4	3.2 6.7	3.1 6.7	4.9 8.7	7.5 11.5	10.4 14.1
28 Su	16.5 11.3	18.2 14.7	18.2 16.8	16.4 16.9	13.4 15.2	10.1 12.7	6.8 10.2	3.5 7.8	1.5 6.2	2.0 6.6	4.5 9.1	7.8 12.4
29 M	15.4 8.8	17.9 12.9	19.2 16.4	18.5 18.1	16.0 17.6	12.4 15.3	8.6 12.3	4.8 9.4	1.5 6.8	-0.1 5.3	1.3 6.5	4.7 9.9
30 Tu	13.8 5.7	17.1 10.5	19.4 15.0	20.1 18.2	18.6 19.2	15.2 17.9	11.0 14.9	6.7 11.4	2.6 8.1	-0.6 5.4	-1.4 4.5	1.2 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).

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 W	11.0 1.8	15.4 7.3	18.8 12.7	20.8 17.1	20.6 19.8	18.2 19.9	14.1 17.7	9.2 14.1	4.5 10.1	0.3 6.5	-2.5 3.9	-2.1 3.9
2 Th	7.2 -1.9	12.4 3.3	17.2 9.5	20.4 15.0	21.8 19.0	20.8 20.9	17.5 20.2	12.7 17.2	7.3 12.9	2.3 8.5	-1.7 4.8	-3.7 2.7
3 F	3.7 -4.1	8.1 -0.9	13.9 5.2	18.6 11.7	21.5 17.0	22.2 20.4	20.5 21.5	16.5 20.0	11.1 16.3	5.4 11.5	0.5 6.9	-3.2 3.4
4 Sa	1.9 -3.8	3.9 -3.5	9.1 0.8	15.1 7.5	19.6 13.8	22.0 18.5	22.1 21.3	19.8 21.7	15.3 19.4	9.5 15.1	3.9 10.1	-0.9 5.5
5 Su	2.3 -1.3	1.6 -3.4	4.4 -2.0	10.0 3.0	15.8 9.6	19.8 15.4	21.8 19.5	21.4 21.7	18.7 21.4	14.0 18.6	8.2 14.0	2.8 8.9
6 M	4.6 2.6	1.9 -0.8	1.7 -2.1	5.0 0.0	10.6 5.2	15.8 11.4	19.3 16.5	20.9 19.9	20.3 21.5	17.5 20.8	12.8 17.7	7.4 13.0
7 Tu	8.2 7.2	4.3 3.2	2.0 0.5	2.1 -0.2	5.4 2.1	10.5 7.1	15.1 12.5	18.1 16.9	19.5 19.8	19.1 21.1	16.4 20.1	12.1 16.9
8 W	12.5 11.9	8.1 7.9	4.5 4.6	2.3 2.3	2.3 1.8	5.3 4.0	9.7 8.4	13.6 13.1	16.5 16.8	18.1 19.4	17.9 20.5	15.6 19.5
9 Th	16.5 15.4	12.4 12.4	8.4 9.1	5.0 6.3	2.6 4.2	2.3 3.5	4.6 5.3	8.4 9.0	11.9 13.1	14.8 16.4	16.8 19.0	17.1 20.1
10 F	19.2 16.9	16.4 15.8	12.7 13.3	8.9 10.6	5.4 8.0	2.5 5.6	1.7 4.6	3.5 5.9	6.8 9.2	10.2 12.8	13.5 16.1	16.0 18.8
11 Sa	20.1 16.0	19.3 17.3	16.7 16.6	13.1 14.5	9.3 11.9	5.3 9.1	1.9 6.4	0.7 4.9	2.2 6.0	5.3 9.0	9.0 12.6	12.8 16.0
12 Su	18.9 13.1	20.3 16.6	19.5 18.2	16.9 17.5	13.3 15.4	9.2 12.7	4.7 9.5	0.9 6.3	-0.5 4.7	1.1 5.8	4.4 8.9	8.6 12.7
13 M	16.4 9.2	19.5 14.1	20.7 17.8	19.7 19.1	16.8 18.2	12.9 15.8	8.4 12.7	3.5 9.1	-0.5 5.7	-1.6 4.2	0.4 5.7	4.4 9.2
14 Tu	13.3 5.3	17.3 10.7	20.2 15.8	21.1 19.1	19.6 19.9	16.2 18.4	12.0 15.6	7.1 12.0	2.0 8.0	-1.8 4.6	-2.2 3.6	0.6 5.9
15 W	9.9 1.7	14.3 7.1	18.4 12.7	20.9 17.5	21.1 20.2	19.0 20.2	15.1 18.1	10.5 14.7	5.3 10.7	0.3 6.5	-2.8 3.5	-2.1 3.4
16 Th	6.6 -1.1	11.1 3.7	15.7 9.4	19.4 14.9	21.4 19.1	20.8 20.9	17.9 20.0	13.5 17.1	8.6 13.2	3.4 9.0	-1.2 5.0	-3.1 2.7
17 F	3.8 -2.5	7.7 0.8	12.6 6.3	17.0 12.0	20.2 16.9	21.3 20.3	19.9 21.0	16.3 19.2	11.6 15.7	6.5 11.4	1.6 7.2	-2.1 3.6
18 Sa	2.4 -2.1	4.6 -1.1	9.3 3.3	14.1 9.0	18.1 14.3	20.5 18.5	20.8 20.8	18.6 20.6	14.5 18.0	9.5 13.9	4.6 9.5	0.3 5.6
19 Su	2.8 -0.1	2.8 -1.2	6.0 1.1	10.8 6.2	15.3 11.6	18.5 16.1	20.2 19.4	19.7 20.7	16.9 19.6	12.5 16.4	7.6 12.1	3.2 7.9
20 M	4.6 2.6	2.7 0.3	3.7 0.5	7.4 3.8	12.1 8.9	15.9 13.7	18.4 17.3	19.4 19.6	18.3 20.0	15.1 18.2	10.7 14.7	6.2 10.5
21 Tu	6.8 5.5	4.2 2.9	3.2 1.7	4.8 2.8	8.7 6.5	12.8 11.2	15.8 15.0	17.7 17.7	18.2 19.2	16.8 19.0	13.5 16.8	9.3 13.1
22 W	9.3 8.6	6.3 5.7	4.3 4.0	4.0 3.5	5.9 5.1	9.4 8.8	12.8 12.7	15.1 15.6	16.6 17.6	16.8 18.5	15.3 17.8	12.2 15.4
23 Th	12.0 11.7	8.8 8.7	6.3 6.6	4.8 5.5	4.7 5.4	6.5 7.1	9.5 10.3	12.1 13.5	14.0 15.7	15.3 17.1	15.6 17.7	14.3 16.8
24 F	14.5 13.9	11.4 11.8	8.7 9.5	6.6 7.9	5.2 7.0	4.9 6.9	6.5 8.4	9.0 11.2	11.2 13.7	12.9 15.5	14.4 16.7	14.9 17.1
25 Sa	16.3 14.9	14.1 14.3	11.3 12.5	8.8 10.6	6.8 9.1	5.1 8.0	4.6 7.7	5.8 8.9	8.0 11.4	10.1 13.7	12.2 15.3	14.0 16.6
26 Su	17.1 14.5	16.3 15.6	14.1 15.1	11.3 13.4	8.8 11.4	6.4 9.7	4.3 8.3	3.6 7.6	4.8 8.8	7.1 11.3	9.5 13.7	12.1 15.6
27 M	17.1 12.9	17.7 15.7	16.6 16.8	14.2 16.1	11.2 14.1	8.2 11.8	5.3 9.6	2.8 7.6	2.1 6.9	3.7 8.4	6.5 11.3	9.7 14.1
28 Tu	16.5 10.7	18.3 14.6	18.6 17.3	17.1 18.1	14.2 16.8	10.6 14.2	7.0 11.4	3.6 8.6	0.9 6.3	0.6 5.8	3.0 7.9	6.7 11.6
29 W	15.1 7.8	18.0 12.5	19.7 16.7	19.6 19.2	17.4 19.3	13.7 17.1	9.5 13.8	5.3 10.2	1.4 6.9	-1.1 4.5	-0.5 4.6	3.0 7.8
30 Th	12.4 3.9	16.6 9.6	19.8 14.9	21.2 18.9	20.4 20.8	17.3 19.9	12.8 16.8	7.8 12.7	3.1 8.5	-0.9 4.8	-2.8 2.7	-0.9 3.8
31 F	8.1 -0.3	13.6 5.7	18.3 12.1	21.4 17.4	22.4 21.0	20.7 21.9	16.8 20.0	11.5 16.0	5.9 11.1	0.9 6.4	-2.9 2.6	-3.7 1.2

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 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 Sa	3.5 -3.6	8.9 1.2	15.1 8.1	19.9 14.7	22.7 19.7	23.0 22.4	20.5 22.4	15.8 19.5	9.9 14.7	4.0 9.3	-1.0 4.4	-4.1 0.9
2 Su	0.2 -4.3	3.7 -2.4	10.0 3.4	16.3 10.7	20.9 17.0	23.2 21.3	22.9 23.2	19.7 22.2	14.5 18.5	8.3 13.2	2.4 7.5	-2.2 2.7
3 M	-0.3 -2.3	0.0 -3.4	4.4 -0.3	11.0 6.1	17.1 13.1	21.2 18.7	23.0 22.2	22.1 23.2	18.5 21.5	13.0 17.3	6.9 11.7	1.5 6.1
4 Tu	1.7 1.5	-0.6 -1.4	0.5 -1.5	5.3 2.2	11.6 8.6	17.1 14.8	20.6 19.5	22.0 22.2	20.8 22.6	17.1 20.4	11.8 15.9	6.2 10.5
5 W	5.4 6.2	1.6 2.5	-0.2 0.4	1.3 0.9	5.9 4.8	11.6 10.5	16.3 15.7	19.3 19.5	20.5 21.6	19.3 21.6	15.8 19.2	11.0 14.9
6 Th	10.0 11.0	5.6 7.2	2.2 4.3	0.7 2.7	2.0 3.3	6.1 6.8	10.9 11.5	14.8 15.7	17.5 18.8	18.8 20.5	17.9 20.4	15.0 18.2
7 F	14.4 14.8	10.2 11.7	6.3 8.8	3.2 6.4	1.5 4.8	2.5 5.2	5.7 7.9	9.6 11.7	13.0 15.0	15.7 17.7	17.3 19.4	16.9 19.5
8 Sa	17.7 16.7	14.5 15.2	10.9 12.9	7.4 10.6	4.2 8.3	2.0 6.4	2.3 6.2	4.8 8.1	8.0 11.1	11.2 14.0	14.3 16.6	16.4 18.6
9 Su	19.0 16.3	17.7 17.1	15.0 16.2	11.8 14.3	8.3 12.0	4.6 9.4	1.9 7.0	1.7 6.2	3.6 7.7	6.5 10.2	10.0 13.1	13.6 16.0
10 M	18.4 13.9	19.1 17.0	18.0 18.0	15.6 17.2	12.4 15.3	8.6 12.8	4.4 9.6	1.2 6.6	0.7 5.6	2.5 6.9	5.7 9.6	9.8 12.8
11 Tu	16.2 10.5	18.8 15.1	19.6 18.2	18.5 19.1	15.8 17.9	12.4 15.6	8.1 12.5	3.4 8.8	0.1 5.5	-0.2 4.7	2.1 6.4	5.8 9.5
12 W	13.2 7.0	17.0 12.3	19.6 16.9	20.1 19.6	18.5 19.8	15.5 18.0	11.5 15.1	6.7 11.3	1.9 7.2	-1.0 4.1	-0.5 3.9	2.5 6.4
13 Th	10.2 4.0	14.4 9.2	18.3 14.6	20.5 18.8	20.4 20.6	18.0 19.8	14.4 17.2	9.9 13.6	4.8 9.4	0.2 5.2	-1.7 2.8	0.0 3.7
14 F	7.1 1.4	11.6 6.4	16.1 12.0	19.6 17.0	21.1 20.3	20.0 21.0	16.9 19.2	12.6 15.7	7.7 11.5	2.7 7.1	-1.1 3.3	-1.6 2.0
15 Sa	4.2 -0.5	8.6 3.9	13.4 9.4	17.8 14.8	20.6 19.1	21.1 21.3	19.1 20.7	15.1 17.8	10.4 13.6	5.4 9.2	0.9 4.9	-1.6 1.9
16 Su	2.0 -1.2	5.5 1.6	10.5 6.9	15.3 12.5	19.1 17.3	21.1 20.5	20.5 21.4	17.5 19.7	13.0 15.9	8.0 11.3	3.4 6.8	-0.2 3.1
17 M	1.3 -0.3	2.8 0.3	7.3 4.4	12.5 10.1	16.9 15.2	19.8 19.0	20.8 21.0	19.3 20.7	15.6 18.0	10.8 13.7	6.0 9.0	2.0 5.0
18 Tu	2.1 1.7	1.5 0.7	4.2 2.7	9.2 7.5	14.1 13.0	17.7 17.2	19.8 19.8	19.9 20.7	17.7 19.4	13.6 16.1	8.8 11.5	4.6 7.2
19 W	3.9 4.2	2.0 2.3	2.5 2.5	5.9 5.5	10.8 10.4	15.0 15.1	17.7 18.2	19.1 19.7	18.5 19.7	16.0 17.7	11.8 14.1	7.5 9.8
20 Th	6.1 7.0	3.6 4.7	2.6 3.9	3.9 4.8	7.5 8.1	11.8 12.6	15.0 16.2	17.0 18.2	17.8 18.9	17.0 18.3	14.4 16.1	10.6 12.5
21 F	8.7 10.2	5.8 7.5	4.1 6.0	3.6 5.7	5.1 7.0	8.4 10.1	11.9 13.8	14.4 16.4	15.9 17.6	16.5 17.9	15.7 17.0	13.3 14.8
22 Sa	11.6 13.0	8.4 10.5	6.1 8.6	4.8 7.6	4.4 7.4	5.7 8.5	8.5 11.1	11.3 14.1	13.3 15.9	14.7 16.8	15.4 16.9	14.9 16.2
23 Su	14.2 14.9	11.4 13.5	8.7 11.5	6.7 9.9	5.3 8.9	4.7 8.4	5.6 9.0	7.9 11.2	10.3 13.6	12.2 15.2	13.9 16.2	15.0 16.6
24 M	16.1 15.5	14.3 15.7	11.7 14.4	9.2 12.5	7.1 10.8	5.2 9.3	4.1 8.3	4.7 8.6	6.8 10.6	9.3 13.0	11.6 14.8	13.8 16.2
25 Tu	17.1 14.7	16.7 16.7	15.0 16.9	12.3 15.5	9.5 13.2	6.8 11.0	4.3 8.8	2.8 7.2	3.4 7.4	5.8 9.6	8.7 12.5	11.8 15.0
26 W	17.1 13.0	18.3 16.5	17.9 18.5	15.8 18.2	12.6 16.2	9.2 13.2	5.8 10.2	2.6 7.3	1.0 5.3	2.1 5.9	5.2 8.8	9.1 12.5
27 Th	15.9 10.5	18.6 15.1	19.9 18.8	19.2 20.3	16.4 19.2	12.4 16.2	8.1 12.3	4.0 8.5	0.5 5.0	-0.8 3.2	1.3 4.5	5.6 8.5
28 F	13.3 6.9	17.5 12.7	20.6 17.8	21.6 21.1	20.1 21.7	16.4 19.5	11.6 15.4	6.5 10.7	1.8 6.1	-1.6 2.4	-2.0 1.1	1.4 3.6
29 Sa	8.9 2.5	14.6 9.2	19.4 15.5	22.4 20.4	22.9 22.9	20.4 22.4	15.8 19.1	10.2 14.1	4.6 8.6	-0.3 3.6	-3.2 0.0	-2.3 -0.4
30 Su	3.4 -1.5	9.8 4.7	16.2 12.0	21.1 18.3	23.7 22.6	23.4 24.1	20.1 22.4	14.7 18.0	8.6 12.2	2.7 6.3	-1.9 1.2	-3.9 -1.8
31 M	-1.0 -3.4	4.0 0.4	11.1 7.4	17.6 14.7	22.2 20.5	24.2 23.9	23.1 24.3	19.1 21.6	13.3 16.5	7.0 10.3	1.3 4.3	-2.6 -0.4

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

SEPTEMBER

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 10/22	Hours 11/23
1 Tu	-2.7 -2.3	-0.8 -1.8	5.1 3.0	12.3 10.2	18.4 17.0	22.5 21.8	23.8 24.2	22.1 23.7	17.8 20.3	11.8 14.8	5.8 8.6	0.8 3.0
2 W	-1.1 1.2	-2.5 -0.8	0.2 0.6	6.3 5.8	13.1 12.5	18.4 18.2	21.8 22.0	22.6 23.5	20.7 22.4	16.3 18.7	10.7 13.3	5.3 7.6
3 Th	2.7 5.7	-0.8 2.6	-1.5 1.4	1.5 3.3	7.2 8.2	13.1 13.9	17.6 18.4	20.4 21.2	21.0 22.1	19.0 20.8	15.0 17.2	10.1 12.3
4 F	7.4 10.4	3.2 7.0	0.4 4.6	0.0 3.8	2.8 5.6	7.6 9.7	12.4 14.1	16.1 17.5	18.6 19.7	19.2 20.4	17.6 19.2	14.3 16.1
5 Sa	12.1 14.3	8.0 11.4	4.6 8.8	2.0 6.8	1.4 5.8	3.5 7.1	7.3 10.2	11.0 13.4	14.3 16.0	16.8 17.9	17.8 18.9	16.8 18.1
6 Su	15.8 16.7	12.5 15.0	9.3 12.9	6.2 10.7	3.4 8.5	2.3 7.0	3.6 7.5	6.4 9.6	9.5 12.0	12.6 14.3	15.4 16.5	17.0 17.9
7 M	17.7 17.0	16.0 17.3	13.5 16.1	10.6 14.3	7.4 12.0	4.2 9.3	2.5 7.2	3.1 7.0	5.2 8.5	8.1 10.6	11.6 13.1	14.9 15.7
8 Tu	17.7 15.4	18.0 17.8	16.7 18.3	14.5 17.2	11.6 15.2	7.9 12.4	4.1 9.0	1.9 6.3	2.3 5.8	4.3 7.2	7.5 9.6	11.6 12.6
9 W	15.9 12.6	18.2 16.7	18.7 19.1	17.4 19.2	15.0 17.6	11.7 15.1	7.4 11.6	3.2 7.6	1.1 4.8	1.6 4.6	4.1 6.5	8.0 9.5
10 Th	13.2 9.5	16.9 14.5	19.2 18.5	19.4 20.2	17.6 19.6	14.7 17.2	10.8 13.9	6.0 9.8	1.9 5.6	0.3 3.2	1.7 3.8	5.0 6.5
11 F	10.4 6.9	14.7 12.0	18.5 16.9	20.2 20.2	19.6 20.8	17.1 19.1	13.5 15.9	9.0 11.9	4.2 7.4	0.6 3.4	0.1 2.0	2.6 3.8
12 Sa	7.6 4.7	12.2 9.7	16.7 15.0	20.0 19.3	20.8 21.3	19.2 20.7	15.8 17.8	11.5 13.7	6.8 9.3	2.3 4.7	-0.2 1.5	0.8 1.5
13 Su	4.8 2.6	9.5 7.6	14.4 13.0	18.6 17.8	21.0 21.0	20.7 21.6	18.0 19.6	13.8 15.7	9.2 11.1	4.6 6.5	0.8 2.4	-0.1 0.5
14 M	2.1 1.1	6.6 5.4	11.9 10.9	16.6 16.1	20.1 19.9	21.3 21.7	19.9 21.0	16.2 17.8	11.5 13.2	6.9 8.3	2.8 4.0	0.3 0.9
15 Tu	0.4 0.9	3.5 3.3	8.9 8.6	14.1 14.2	18.3 18.5	20.8 21.1	20.9 21.5	18.4 19.5	14.2 15.5	9.3 10.5	5.0 5.9	1.8 2.2
16 W	0.3 1.9	1.3 2.4	5.6 6.2	11.1 11.8	15.9 16.7	19.2 19.9	20.6 21.2	19.8 20.4	16.7 17.6	12.1 13.1	7.5 8.2	3.9 4.1
17 Th	1.4 3.9	0.7 3.0	2.9 4.7	7.7 9.1	12.9 14.3	16.9 18.2	19.2 20.2	19.8 20.4	18.3 18.8	14.9 15.4	10.4 10.9	6.5 6.6
18 F	3.3 6.3	1.6 4.7	1.8 4.8	4.7 7.1	9.5 11.5	13.9 16.0	16.9 18.7	18.4 19.6	18.5 19.0	16.7 17.0	13.4 13.6	9.4 9.4
19 Sa	5.8 9.3	3.4 7.0	2.5 6.2	3.2 6.7	6.2 9.1	10.5 13.0	14.0 16.5	16.2 18.2	17.3 18.4	17.2 17.6	15.5 15.5	12.5 12.4
20 Su	8.8 12.4	5.9 9.9	4.2 8.3	3.5 7.7	4.3 8.2	7.1 10.2	10.6 13.4	13.4 16.0	15.1 17.1	16.2 17.2	16.2 16.5	14.8 14.7
21 M	12.0 15.0	9.0 12.9	6.6 10.9	5.1 9.5	4.3 8.7	4.8 8.7	7.0 10.3	10.0 12.9	12.4 15.0	14.1 16.0	15.5 16.4	15.9 16.2
22 Tu	14.8 16.5	12.4 15.8	9.7 13.9	7.5 11.8	5.7 10.1	4.3 8.7	4.3 8.1	6.2 9.3	9.0 11.7	11.5 13.9	13.7 15.4	15.7 16.5
23 W	16.8 16.7	15.7 17.8	13.4 17.0	10.6 14.8	8.0 12.2	5.5 9.8	3.5 7.5	3.2 6.5	5.1 7.6	8.1 10.3	11.2 13.1	14.2 15.6
24 Th	17.5 15.8	18.1 18.6	17.1 19.4	14.5 18.0	11.1 15.2	7.8 11.8	4.5 8.4	2.0 5.4	1.8 4.2	4.2 5.9	8.0 9.4	12.0 13.2
25 F	16.6 13.7	19.2 18.1	19.9 20.8	18.4 20.9	15.1 18.6	11.0 14.7	6.9 10.4	2.9 6.1	0.3 2.7	0.6 1.9	4.0 4.4	8.8 9.1
26 Sa	14.1 10.6	18.4 16.3	21.2 20.7	21.6 22.8	19.3 21.9	15.2 18.4	10.2 13.4	5.3 8.2	1.0 3.4	-1.3 0.0	0.1 -0.1	4.7 3.7
27 Su	9.6 6.5	15.6 13.2	20.3 19.1	23.0 23.1	22.7 24.1	19.5 22.0	14.5 17.3	8.9 11.5	3.6 5.7	-0.7 0.6	-2.2 -2.3	0.6 -1.2
28 M	3.9 2.1	10.8 9.0	17.3 16.1	22.0 21.6	24.1 24.7	23.0 24.6	19.0 21.2	13.3 15.7	7.4 9.3	2.0 3.2	-1.7 -1.6	-2.0 -3.7
29 Tu	-1.3 -0.9	4.9 4.5	12.3 11.8	18.7 18.5	23.1 23.3	24.4 25.3	22.5 24.0	17.9 19.9	12.0 13.8	6.0 7.3	1.0 1.4	-1.9 -3.0
30 W	-4.0 -1.0	-0.5 1.2	6.3 7.2	13.7 14.3	19.6 20.2	23.2 23.8	23.8 24.8	21.4 22.7	16.6 18.1	10.7 11.9	5.2 5.7	0.8 0.3

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

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 Th	-3.2 1.6	-3.2 0.7	1.0 3.7	7.8 9.6	14.5 15.9	19.6 20.7	22.5 23.3	22.6 23.4	19.9 21.0	15.2 16.3	9.8 10.5	5.0 4.9
2 F	0.4 5.7	-2.3 3.1	-1.6 2.9	2.7 6.1	8.9 11.4	14.6 16.5	18.8 20.0	21.1 21.8	21.0 21.6	18.5 19.1	14.2 14.8	9.6 9.8
3 Sa	5.1 10.1	1.4 7.0	-0.6 5.1	0.3 5.1	4.2 7.9	9.4 12.1	13.9 15.8	17.4 18.4	19.5 19.8	19.5 19.6	17.3 17.5	13.7 13.9
4 Su	9.9 14.0	6.2 11.2	3.1 8.8	1.3 6.9	2.0 6.7	5.1 8.7	9.1 11.7	12.7 14.4	15.8 16.4	17.9 17.8	18.3 18.0	16.7 16.5
5 M	13.8 16.8	10.7 14.8	7.7 12.6	4.9 10.3	2.9 8.2	3.1 7.4	5.3 8.4	8.3 10.5	11.4 12.5	14.5 14.5	16.9 16.3	17.7 17.1
6 Tu	16.4 17.9	14.4 17.4	11.9 15.8	9.3 13.7	6.3 11.2	3.8 8.5	3.4 7.0	4.9 7.4	7.4 8.9	10.4 10.8	13.8 13.3	16.6 15.7
7 W	17.1 17.2	16.8 18.6	15.3 18.2	13.1 16.6	10.3 14.2	6.8 11.0	3.9 7.7	3.1 5.7	4.4 5.9	6.8 7.5	10.1 9.9	14.0 13.0
8 Th	16.0 15.2	17.7 18.4	17.6 19.6	16.1 18.8	13.6 16.6	10.4 13.6	6.4 9.7	3.3 6.0	2.6 4.1	4.1 4.7	7.0 6.8	10.9 9.9
9 F	13.8 12.7	17.2 17.1	18.8 19.9	18.3 20.3	16.3 18.6	13.3 15.7	9.5 12.0	5.3 7.6	2.4 3.9	2.4 2.6	4.6 4.0	8.2 7.1
10 Sa	11.1 10.4	15.4 15.1	18.7 19.1	19.7 21.0	18.5 20.3	15.7 17.6	12.2 13.9	7.9 9.5	3.8 5.0	1.8 1.8	2.8 1.7	6.0 4.4
11 Su	8.5 8.4	13.1 13.2	17.4 17.8	20.0 20.9	20.1 21.4	17.9 19.4	14.4 15.7	10.3 11.3	6.0 6.7	2.5 2.5	1.8 0.4	4.2 1.8
12 M	5.7 6.5	10.6 11.5	15.5 16.3	19.3 20.1	20.9 21.8	19.8 20.9	16.6 17.6	12.5 13.1	8.2 8.4	4.2 3.9	1.8 0.5	2.6 -0.1
13 Tu	2.9 4.5	7.9 9.4	13.2 14.7	17.7 18.9	20.6 21.5	21.0 21.8	18.8 19.5	14.8 15.3	10.4 10.3	6.2 5.6	3.0 1.6	2.0 -0.6
14 W	0.4 3.1	4.8 7.0	10.4 12.6	15.5 17.4	19.3 20.7	21.1 21.9	20.4 20.8	17.2 17.5	12.8 12.7	8.4 7.6	4.8 3.3	2.6 0.2
15 Th	-0.7 3.1	1.9 5.0	7.2 9.9	12.8 15.4	17.3 19.4	20.1 21.4	20.9 21.3	19.2 19.2	15.5 15.2	11.0 10.2	6.9 5.4	4.1 1.8
16 F	-0.3 4.2	0.2 4.4	3.9 7.3	9.5 12.5	14.6 17.3	18.2 20.2	20.1 21.0	20.0 20.1	17.7 17.3	13.9 13.0	9.6 8.2	6.2 4.0
17 Sa	1.2 6.2	0.2 5.1	1.7 6.0	5.9 9.5	11.3 14.4	15.6 18.3	18.3 20.0	19.4 20.0	18.8 18.5	16.3 15.4	12.6 11.2	8.8 6.9
18 Su	3.5 8.7	1.6 6.8	1.3 6.4	3.3 7.6	7.6 11.0	12.3 15.2	15.7 18.1	17.7 19.1	18.4 18.6	17.7 17.0	15.3 14.0	11.9 10.2
19 M	6.5 11.8	3.9 9.3	2.5 7.8	2.5 7.5	4.6 8.6	8.5 11.6	12.5 15.0	15.2 17.1	16.9 17.7	17.6 17.4	16.9 16.0	14.7 13.4
20 Tu	10.1 14.9	7.0 12.3	4.8 10.1	3.5 8.6	3.4 8.0	5.2 8.7	8.6 11.1	12.0 13.9	14.5 15.8	16.2 16.6	17.2 16.7	16.8 15.8
21 W	13.7 17.3	10.7 15.6	7.9 13.1	5.8 10.7	4.2 8.8	3.7 7.5	5.1 7.6	8.2 9.7	11.3 12.4	13.9 14.5	16.1 15.9	17.5 16.8
22 Th	16.4 18.6	14.6 18.4	11.8 16.5	8.9 13.6	6.4 10.7	4.3 8.0	3.2 5.9	4.5 5.7	7.5 7.9	10.9 10.9	14.1 13.7	16.9 16.1
23 F	17.7 18.5	17.8 20.2	16.0 19.7	12.9 17.1	9.6 13.5	6.4 9.8	3.6 6.2	2.3 3.6	3.7 3.4	7.2 6.1	11.2 9.9	15.1 13.8
24 Sa	17.2 17.0	19.3 20.6	19.4 21.9	17.2 20.6	13.6 17.2	9.6 12.7	5.8 8.0	2.5 3.7	1.2 0.9	3.2 1.2	7.5 4.8	12.4 9.7
25 Su	14.7 14.4	18.8 19.4	21.1 22.8	20.8 23.3	18.0 21.0	13.7 16.4	9.0 11.1	4.6 5.7	1.2 0.9	0.4 -1.7	3.4 -0.4	8.7 4.4
26 M	10.4 10.7	16.2 16.9	20.7 21.8	22.7 24.5	21.7 24.0	18.1 20.5	13.1 15.0	8.0 9.0	3.3 3.1	0.1 -1.6	0.3 -3.5	4.5 -1.0
27 Tu	4.8 6.3	11.7 13.1	17.9 19.3	22.2 23.7	23.6 25.3	21.8 23.7	17.5 19.2	12.2 13.1	6.8 6.7	2.2 0.8	-0.4 -3.5	1.0 -4.4
28 W	-0.7 2.5	6.1 8.5	13.3 15.4	19.3 21.1	23.1 24.7	23.8 25.2	21.3 22.6	16.5 17.5	11.0 11.2	5.8 4.8	1.5 -0.8	-0.1 -4.4
29 Th	-4.1 1.0	0.6 4.5	7.8 10.8	14.7 17.2	20.2 22.0	23.3 24.5	23.2 24.2	20.2 20.9	15.4 15.6	10.0 9.4	5.1 3.4	1.6 -1.5
30 F	-4.2 2.3	-2.8 2.6	2.5 6.6	9.4 12.7	15.7 18.1	20.4 21.9	22.7 23.4	22.1 22.5	19.0 19.0	14.3 13.9	9.3 8.1	5.0 2.9
31 Sa	-1.2 5.6	-3.0 3.6	-0.9 4.5	4.4 8.5	10.6 13.7	16.0 18.0	19.8 20.7	21.6 21.7	20.8 20.5	17.7 17.2	13.4 12.5	9.1 7.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

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 Su	3.2 9.5	0.0 6.7	-1.1 5.2	1.2 6.2	6.0 9.7	11.2 13.7	15.6 16.9	18.8 18.9	20.3 19.6	19.5 18.6	16.8 15.8	13.1 11.8
2 M	7.8 13.2	4.3 10.4	1.7 8.0	0.9 6.5	3.1 7.3	7.1 9.9	11.2 12.9	14.8 15.2	17.7 16.9	19.1 17.8	18.6 17.1	16.3 14.9
3 Tu	11.8 16.3	8.7 13.8	5.8 11.4	3.5 9.0	2.7 7.3	4.4 7.5	7.5 9.3	10.7 11.4	13.9 13.3	16.7 15.2	18.3 16.4	18.1 16.4
4 W	14.8 18.1	12.4 16.6	9.9 14.5	7.3 12.1	4.9 9.4	3.9 7.3	5.0 6.9	7.4 8.0	10.2 9.7	13.3 11.7	16.3 14.1	18.1 15.9
5 Th	16.3 18.5	15.3 18.6	13.3 17.1	11.0 14.9	8.4 12.2	5.7 8.9	4.4 6.3	5.1 5.6	7.2 6.6	10.0 8.4	13.3 10.9	16.6 13.9
6 F	16.2 17.5	16.9 19.3	16.0 19.0	14.1 17.2	11.7 14.6	8.7 11.3	5.7 7.5	4.3 4.7	5.1 4.1	7.4 5.4	10.4 7.8	14.1 11.1
7 Sa	14.6 15.6	17.2 18.9	17.8 20.1	16.6 19.2	14.4 16.7	11.6 13.4	8.2 9.5	5.1 5.5	4.1 2.9	5.4 2.9	8.1 5.0	11.7 8.2
8 Su	12.3 13.7	16.1 17.6	18.4 20.2	18.5 20.6	16.7 18.6	14.0 15.3	10.7 11.4	7.1 7.1	4.4 3.1	4.1 1.3	6.3 2.4	9.7 5.5
9 M	9.7 12.0	14.1 16.1	17.9 19.6	19.5 21.2	18.8 20.3	16.2 17.3	12.9 13.2	9.3 8.9	5.8 4.4	3.8 1.0	4.7 0.3	7.9 2.8
10 Tu	7.0 10.2	11.8 14.7	16.3 18.6	19.5 21.1	20.1 21.4	18.4 19.2	15.1 15.3	11.4 10.6	7.7 6.1	4.6 1.9	-3.7 -0.5	6.0 0.3
11 W	4.2 8.0	9.2 12.9	14.2 17.3	18.4 20.5	20.5 21.9	20.1 20.8	17.4 17.5	13.6 12.8	9.7 7.9	6.2 3.5	-3.9 -0.1	-4.4 -1.2
12 Th	1.2 5.7	6.2 10.4	11.7 15.5	16.5 19.5	19.8 21.6	20.9 21.7	19.5 19.5	16.1 15.3	11.9 10.2	8.0 5.4	5.0 1.4	-3.8 -1.2
13 F	-0.9 4.4	2.9 7.5	8.7 12.8	14.1 17.7	18.2 20.8	20.6 21.9	20.7 20.8	18.4 17.7	14.5 13.0	10.3 7.9	6.7 3.4	4.4 0.0
14 Sa	-1.5 4.5	0.2 5.5	5.0 9.5	11.0 14.9	15.9 19.1	19.2 21.2	20.7 21.3	20.0 19.5	17.2 15.8	13.1 11.0	9.0 6.0	6.0 2.1
15 Su	-0.5 5.8	-0.9 5.1	1.9 6.9	7.2 11.2	12.8 16.2	16.9 19.6	19.5 20.8	20.3 20.2	19.0 18.0	15.9 14.2	11.9 9.4	8.2 4.9
16 M	1.6 8.0	-0.1 6.1	0.3 5.9	3.6 8.0	8.9 12.3	13.9 16.6	17.3 19.1	19.2 19.8	19.6 18.9	18.1 16.6	14.9 12.9	11.1 8.5
17 Tu	4.6 10.9	2.0 8.2	0.8 6.6	1.7 6.5	5.2 8.6	10.1 12.5	14.3 16.1	17.2 18.0	18.8 18.5	19.0 17.8	17.4 15.7	14.4 12.3
18 W	8.4 14.3	5.1 11.1	2.9 8.6	2.0 7.0	2.9 6.7	6.2 8.4	10.6 11.7	14.3 14.8	16.9 16.6	18.4 17.3	18.7 17.1	17.2 15.4
19 Th	12.5 17.4	9.0 14.6	6.1 11.5	4.0 8.8	2.9 6.8	3.7 6.0	6.6 7.2	10.6 10.2	14.1 13.1	16.7 15.2	18.5 16.7	18.9 17.0
20 F	15.9 19.6	13.3 18.1	10.1 15.1	7.2 11.7	5.0 8.6	3.5 5.8	3.9 4.4	6.7 5.4	10.5 8.3	14.1 11.6	17.0 14.4	19.2 16.7
21 Sa	17.7 20.3	16.9 20.7	14.5 18.8	11.3 15.4	8.2 11.5	5.4 7.6	3.5 4.1	3.7 2.3	6.6 3.3	10.6 6.6	14.5 10.5	18.0 14.3
22 Su	17.4 19.5	18.9 21.9	18.2 21.8	15.6 19.3	12.1 15.2	8.6 10.5	5.3 5.9	3.0 1.8	3.4 -0.1	6.6 1.5	11.1 5.5	15.6 10.3
23 M	15.0 17.3	18.7 21.3	20.4 23.3	19.4 22.5	16.4 19.2	12.4 14.3	8.4 9.0	4.7 3.8	2.4 -0.6	3.2 -2.1	7.1 0.2	12.3 5.2
24 Tu	10.9 13.9	16.3 19.2	20.3 23.0	21.6 24.3	20.1 22.6	16.6 18.4	12.2 12.9	7.8 7.1	3.8 1.5	-1.9 -2.7	-3.5 -3.5	-8.2 -0.1
25 W	5.8 9.7	12.2 15.7	17.9 20.9	21.7 24.2	22.4 24.6	20.3 22.0	16.2 17.1	11.5 11.1	6.9 5.1	3.0 -0.5	-1.7 -4.2	-4.2 -3.9
26 Th	0.6 5.5	7.2 11.5	13.9 17.5	19.4 22.1	22.6 24.6	22.6 24.1	19.9 20.7	15.5 15.4	10.6 9.3	6.0 3.3	-2.5 -1.9	-2.0 -4.7
27 F	-3.2 2.9	2.1 7.1	9.0 13.2	15.5 18.7	20.4 22.6	22.9 24.1	22.2 22.9	19.1 19.0	14.5 13.6	9.6 7.6	5.2 2.0	-2.4 -2.5
28 Sa	-4.2 2.8	-1.7 4.1	4.2 8.8	10.8 14.5	16.7 19.2	20.9 22.2	22.6 23.0	21.4 21.2	18.0 17.2	13.4 11.9	8.8 6.3	4.9 1.4
29 Su	-2.3 5.0	-2.9 3.7	0.4 5.6	6.3 10.2	12.3 15.1	17.4 18.8	20.8 21.1	21.9 21.3	20.4 19.4	16.8 15.4	12.5 10.5	8.3 5.7
30 M	1.5 8.2	-1.2 5.5	-1.0 4.8	2.7 6.9	8.1 11.0	13.3 15.0	17.5 17.8	20.3 19.5	20.9 19.6	19.2 17.6	15.8 14.0	11.8 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

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 Tu	5.6 11.6	2.4 8.6	0.5 6.3	1.2 5.8	4.8 7.8	9.5 11.1	13.7 14.1	17.2 16.3	19.5 17.8	19.9 17.9	18.2 16.2	15.0 13.1
2 W	9.5 14.6	6.3 11.7	3.7 9.1	2.3 7.0	3.3 6.4	6.5 8.0	10.3 10.5	13.7 12.8	16.7 14.7	18.8 16.2	19.1 16.6	17.4 15.3
3 Th	12.8 17.1	9.9 14.6	7.4 12.0	5.2 9.5	4.0 7.3	4.9 6.4	7.5 7.5	10.6 9.4	13.5 11.3	16.3 13.3	18.3 15.2	18.6 15.9
4 F	15.0 18.4	13.0 17.0	10.7 14.7	8.6 12.2	6.5 9.5	5.3 6.9	5.9 5.7	8.2 6.4	10.8 8.1	13.5 10.1	16.3 12.5	18.2 14.8
5 Sa	15.9 18.5	15.4 18.6	13.7 17.0	11.6 14.6	9.5 11.8	7.3 8.7	5.9 5.8	6.5 4.5	8.5 5.2	11.0 7.0	13.8 9.5	16.7 12.5
6 Su	15.3 17.6	16.5 19.2	16.0 18.8	14.3 16.8	12.2 14.0	9.9 10.8	7.4 7.2	6.1 4.1	6.8 3.1	9.0 4.2	11.7 6.6	14.7 9.8
7 M	13.4 16.1	16.3 18.8	17.5 19.8	16.7 18.8	14.7 16.1	12.3 12.8	9.6 9.1	7.0 5.2	6.0 2.3	7.2 1.9	9.8 3.9	12.9 7.1
8 Tu	11.0 14.6	14.9 17.8	17.7 20.0	18.4 20.2	17.0 18.2	14.5 14.8	11.7 10.9	8.8 6.8	6.3 2.9	5.9 0.6	7.9 1.2	11.1 4.3
9 W	8.4 13.0	12.9 16.6	16.8 19.6	19.1 20.9	19.0 20.1	16.8 17.1	13.8 13.0	10.6 8.6	7.6 4.3	5.5 0.7	-6.0 -0.6	9.0 1.4
10 Th	5.6 10.7	10.4 15.1	15.1 18.7	18.6 21.0	20.1 21.3	19.0 19.3	16.1 15.5	12.6 10.7	9.2 6.1	6.3 1.9	5.0 -1.1	-6.6 -1.1
11 F	2.4 7.8	7.6 12.6	12.8 17.2	17.2 20.4	20.1 21.8	20.5 21.1	18.5 18.1	15.0 13.5	11.2 8.4	7.7 3.7	5.1 -0.1	-4.8 -2.1
12 Sa	-0.6 5.2	4.1 9.3	9.9 14.6	15.1 19.0	19.0 21.5	20.9 22.0	20.4 20.3	17.6 16.5	13.6 11.4	9.6 6.2	6.2 1.7	-4.3 -1.5
13 Su	-2.3 4.0	0.6 6.0	6.3 10.9	12.3 16.3	17.1 20.2	20.2 21.9	21.3 21.6	19.9 19.1	16.5 14.8	12.2 9.5	8.1 4.4	5.1 0.3
14 M	-2.1 4.5	-1.6 4.2	2.4 7.0	8.6 12.3	14.3 17.4	18.5 20.5	20.8 21.6	21.1 20.7	19.1 17.8	15.2 13.2	10.8 7.9	7.0 3.2
15 Tu	-0.3 6.2	-1.7 4.3	-0.3 4.6	4.5 7.9	10.6 13.1	15.8 17.6	19.2 20.1	21.0 20.7	20.6 19.5	18.1 16.5	14.0 11.9	9.7 6.9
16 W	2.8 9.1	0.1 6.0	-0.7 4.5	1.5 5.1	6.5 8.4	12.2 13.2	16.7 17.0	19.5 19.0	20.8 19.5	20.0 18.4	17.2 15.4	13.1 11.2
17 Th	6.7 12.7	3.2 8.9	1.1 6.1	0.8 4.6	3.3 5.2	8.1 8.2	13.2 12.4	17.0 15.7	19.5 17.6	20.4 18.3	19.5 17.4	16.6 14.9
18 F	11.1 16.4	7.3 12.7	4.3 9.1	2.6 6.3	2.4 4.5	4.7 4.7	9.1 7.3	13.6 10.9	17.0 14.0	19.3 16.1	20.2 17.3	19.2 17.0
19 Sa	15.0 19.4	11.8 16.6	8.4 12.9	5.8 9.3	4.0 6.2	3.6 3.9	5.7 3.5	9.6 5.7	13.7 9.1	17.0 12.3	19.4 15.1	20.4 17.0
20 Su	17.2 20.8	15.7 19.8	12.9 17.0	9.8 13.2	7.2 9.3	5.1 5.6	4.3 2.6	6.1 1.9	9.8 3.9	13.7 7.4	17.1 11.1	19.7 14.7
21 M	17.3 20.5	18.0 21.6	16.7 20.4	14.1 17.3	11.1 13.1	8.1 8.8	5.5 4.4	4.5 0.9	6.2 0.1	9.8 2.3	13.9 6.3	17.6 10.7
22 Tu	15.1 18.5	18.2 21.5	19.2 22.4	17.9 20.8	15.1 17.2	11.8 12.6	8.4 7.7	5.4 2.7	4.2 -1.0	6.1 -1.5	10.0 1.3	14.4 6.0
23 W	11.2 15.4	16.2 19.7	19.5 22.6	20.3 23.0	18.7 20.7	15.6 16.6	11.9 11.5	8.1 6.1	4.8 0.8	3.8 -2.7	6.1 -2.5	10.6 1.2
24 Th	6.7 11.5	12.5 16.6	17.7 20.9	20.8 23.3	21.1 23.1	19.0 20.1	15.5 15.4	11.4 10.0	7.2 4.3	3.9 -0.9	3.5 -3.8	6.5 -2.6
25 F	2.0 7.4	8.1 12.8	14.3 17.9	19.3 21.9	21.8 23.6	21.5 22.5	18.8 19.0	14.8 13.9	10.4 8.2	6.1 2.5	3.1 -2.3	3.5 -4.2
26 Sa	-1.8 4.0	3.7 8.6	10.1 14.1	16.1 19.0	20.6 22.3	22.4 23.3	21.3 21.5	18.0 17.4	13.7 12.1	9.1 6.4	4.9 1.0	-2.7 -3.0
27 Su	-3.6 2.7	0.0 5.0	6.0 10.0	12.3 15.3	17.8 19.6	21.4 22.1	22.3 22.4	20.5 20.0	16.8 15.6	12.3 10.2	7.8 4.9	4.1 0.1
28 M	-2.8 3.6	-2.1 3.3	2.3 6.3	8.4 11.3	14.2 16.1	18.9 19.6	21.7 21.4	21.8 21.0	19.4 18.2	15.4 13.7	10.9 8.6	6.7 3.8
29 Tu	-0.1 6.1	-1.8 3.8	0.1 4.2	4.9 7.7	10.6 12.3	15.7 16.2	19.5 18.9	21.4 20.2	20.9 19.4	18.0 16.4	13.9 12.0	9.7 7.4
30 W	3.4 8.9	0.6 5.9	0.0 4.4	2.6 5.3	7.4 8.7	12.4 12.6	16.6 15.7	19.6 17.8	20.8 18.7	19.7 17.7	16.6 14.8	12.6 10.8
31 Th	6.9 11.8	3.9 8.6	2.0 6.3	2.2 5.1	5.1 6.2	9.5 9.2	13.6 12.3	16.9 14.7	19.2 16.4	19.8 17.2	18.4 16.2	15.4 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).

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 Th	15.1 18.0	13.8 16.2	11.4 12.9	8.5 8.7	6.0 4.5	5.0 1.4	5.6 0.2	7.5 0.9	10.6 3.4	13.9 7.0	16.7 10.9	18.2 14.1
2 F	15.9 18.8	16.0 18.3	14.6 16.1	11.8 12.3	8.5 7.6	5.8 3.1	4.7 0.0	5.3 -0.9	7.6 0.4	11.0 3.5	14.6 7.7	17.4 12.0
3 Sa	15.3 18.3	17.0 19.3	16.8 18.4	14.8 15.5	11.5 11.1	7.8 6.0	5.0 1.5	4.1 -1.2	5.2 -1.4	8.0 0.6	11.8 4.4	15.5 9.1
4 Su	13.5 16.7	16.7 19.1	17.9 19.6	17.1 17.9	14.4 14.3	10.6 9.4	6.6 4.1	4.0 -0.1	3.7 -2.0	5.4 -1.3	8.8 1.6	12.9 6.1
5 M	11.0 14.3	15.2 17.8	17.9 19.6	18.4 19.3	16.7 16.8	13.3 12.5	9.1 7.2	5.2 2.1	3.2 -1.3	3.6 -2.2	6.1 -0.4	10.0 3.3
6 Tu	8.2 11.4	13.0 15.6	16.8 18.5	18.6 19.6	18.2 18.4	15.7 15.1	11.7 10.3	7.3 5.0	4.0 0.5	2.8 -1.8	4.1 -1.5	7.3 1.3
7 W	5.5 8.7	10.5 12.9	14.9 16.5	17.8 18.7	18.7 18.9	17.3 16.8	14.1 12.9	9.8 8.0	5.8 3.2	3.2 -0.3	3.0 -1.4	5.2 0.1
8 Th	3.5 6.5	7.9 10.1	12.6 13.9	16.3 16.9	18.2 18.3	18.0 17.5	15.8 14.8	12.2 10.7	8.1 6.1	4.7 2.1	3.1 -0.2	3.8 -0.2
9 F	2.2 5.0	5.9 7.9	10.2 11.3	14.2 14.5	17.0 16.7	17.9 17.2	16.8 15.7	14.1 12.7	10.4 8.7	6.8 4.8	4.2 1.8	3.6 0.7
10 Sa	1.7 4.4	4.5 6.2	8.2 8.9	12.0 11.8	15.2 14.3	17.1 15.8	17.1 15.6	15.4 13.9	12.4 10.9	9.0 7.4	6.1 4.4	4.4 2.4
11 Su	2.2 4.8	3.8 5.3	6.8 7.0	10.1 9.4	13.3 11.8	15.7 13.7	16.6 14.6	16.0 14.1	13.9 12.3	11.1 9.7	8.2 6.9	5.9 4.7
12 M	3.6 6.0	3.9 5.3	5.8 5.8	8.6 7.4	11.4 9.3	13.9 11.1	15.6 12.7	16.0 13.3	15.0 12.8	12.9 11.3	10.3 9.2	7.8 7.1
13 Tu	5.6 7.8	4.9 6.1	5.5 5.4	7.4 5.8	9.8 7.0	12.1 8.6	14.2 10.2	15.4 11.7	15.4 12.4	14.3 12.2	12.3 11.2	10.0 9.6
14 W	7.9 10.0	6.6 7.8	6.1 5.9	6.6 5.0	8.2 5.1	10.3 6.1	12.4 7.5	14.2 9.3	15.3 11.1	15.3 12.2	14.2 12.4	12.2 11.7
15 Th	10.4 12.5	8.9 10.0	7.5 7.5	6.7 5.2	7.1 3.9	8.4 3.8	10.4 4.8	12.5 6.5	14.4 8.8	15.6 11.1	15.6 12.7	14.5 13.3
16 F	12.8 15.3	11.5 12.9	9.6 9.9	7.8 6.7	6.7 3.9	6.8 2.2	8.1 2.1	10.2 3.4	12.6 5.8	14.9 8.8	16.4 11.8	16.5 14.0
17 Sa	14.7 17.7	14.1 16.2	12.4 13.2	10.0 9.4	7.5 5.4	5.9 2.0	5.9 0.1	7.4 0.4	10.0 2.4	13.1 5.7	15.9 9.6	17.6 13.3
18 Su	15.7 19.1	16.4 19.0	15.3 16.9	12.9 13.1	9.6 8.4	6.4 3.5	4.6 -0.3	4.7 -1.9	6.8 -1.0	10.1 2.0	13.9 6.3	17.3 11.1
19 M	15.2 18.8	17.6 20.6	17.9 20.0	16.1 17.1	12.7 12.4	8.5 6.8	4.8 1.3	2.9 -2.5	3.6 -3.5	6.5 -1.6	10.7 2.4	15.2 7.7
20 Tu	13.1 16.5	17.3 20.3	19.4 21.7	19.0 20.5	16.2 16.8	11.8 11.2	6.9 4.9	2.9 -0.8	1.4 -4.1	2.8 -4.2	6.6 -1.3	11.5 3.7
21 W	9.6 12.6	15.2 17.7	19.2 21.3	20.7 22.2	19.3 20.3	15.6 15.7	10.3 9.5	5.0 3.0	1.2 -2.3	0.4 -4.9	2.6 -3.9	7.1 -0.1
22 Th	5.6 7.9	11.8 13.5	17.2 18.5	20.6 21.5	21.2 21.8	18.9 19.2	14.3 14.2	8.6 7.8	3.3 1.5	0.0 -3.0	0.0 -4.5	3.0 -2.6
23 F	1.9 3.7	7.8 8.7	13.8 14.0	18.7 18.5	21.2 20.9	20.9 20.6	17.8 17.6	12.8 12.4	7.0 6.4	2.1 0.9	-0.4 -2.7	0.2 -3.1
24 Sa	-0.5 1.0	4.2 4.5	9.9 9.2	15.4 13.9	19.4 17.8	21.1 19.5	20.0 18.8	16.4 15.7	11.3 11.0	5.9 5.7	1.7 1.2	-0.2 -1.3
25 Su	-1.0 0.7	1.9 1.9	6.5 5.1	11.6 9.1	16.2 13.2	19.4 16.3	20.2 17.6	18.6 16.8	15.0 14.1	10.2 10.1	5.5 5.8	1.9 2.4
26 M	0.7 2.7	1.5 1.7	4.3 2.7	8.3 5.2	12.5 8.5	16.3 11.9	18.7 14.5	19.0 15.7	17.3 15.1	14.0 13.0	9.8 10.0	5.7 6.7
27 Tu	4.1 6.4	2.9 3.7	3.7 2.5	6.1 3.1	9.3 4.9	12.8 7.5	15.8 10.3	17.6 12.7	17.8 14.0	16.3 14.0	13.4 12.7	9.9 10.6
28 W	8.1 10.4	6.0 7.2	4.9 4.4	5.4 3.0	7.1 2.9	9.6 4.1	12.4 6.2	15.0 8.9	16.6 11.4	16.9 13.1	15.8 13.7	13.5 13.1
29 Th	11.6 13.8	9.6 11.0	7.5 7.7	6.2 4.7	6.2 2.8	7.4 2.3	9.3 3.1	11.8 5.1	14.3 7.9	16.0 10.8	16.5 13.0	15.8 14.1
30 F	14.0 16.1	12.8 14.3	10.7 11.3	8.3 7.6	6.7 4.2	6.2 2.0	7.0 1.3	8.8 2.2	11.4 4.5	14.0 7.8	15.9 11.1	16.7 13.7
31 Sa	15.1 17.3	15.0 16.6	13.6 14.4	11.1 11.0	8.3 6.9	6.3 3.1	5.6 0.9	6.4 0.4	8.4 1.8	11.3 4.7	14.3 8.5	16.4 12.2

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, 2015
 Lat. 59° 27 N Long. 151° 43 W

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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 Su	15.0 17.3	16.2 17.9	15.8 16.8	13.8 14.0	10.7 9.9	7.4 5.4	5.2 1.6	4.7 -0.3	5.9 -0.2	8.5 2.0	11.9 5.7	15.1 10.1
2 M	13.9 16.3	16.5 18.3	17.2 18.4	16.1 16.5	13.3 12.9	9.5 8.2	5.9 3.4	3.9 0.0	3.9 -1.2	5.8 0.0	9.1 3.2	13.0 7.6
3 Tu	12.2 14.5	15.8 17.6	17.8 19.0	17.6 18.3	15.5 15.5	11.9 11.1	7.6 5.9	4.2 1.3	2.8 -1.3	3.7 -1.3	6.4 1.1	10.4 5.1
4 W	10.0 12.0	14.5 16.1	17.5 18.7	18.5 19.2	17.3 17.4	14.1 13.7	9.8 8.7	5.5 3.6	2.6 -0.3	2.2 -1.7	4.1 -0.4	7.7 3.0
5 Th	7.6 9.3	12.5 13.7	16.5 17.3	18.6 19.1	18.4 18.6	16.1 15.8	12.1 11.4	7.5 6.3	3.6 1.7	1.7 -1.1	2.4 -1.1	5.2 1.4
6 F	5.5 6.8	10.4 11.0	14.9 15.1	17.9 17.9	18.9 18.7	17.5 17.1	14.2 13.6	9.8 9.0	5.4 4.2	2.3 0.6	1.6 -0.8	3.3 0.5
7 Sa	3.9 4.8	8.3 8.5	12.9 12.4	16.6 15.8	18.5 17.7	18.2 17.5	15.8 15.2	11.9 11.3	7.6 6.9	3.9 2.9	1.9 0.5	2.3 0.5
8 Su	2.8 3.5	6.6 6.3	10.9 9.9	14.8 13.3	17.4 15.8	18.2 16.7	16.8 15.7	13.7 13.0	9.8 9.3	5.9 5.5	3.2 2.7	2.2 1.5
9 M	2.5 3.1	5.4 4.8	9.1 7.6	12.9 10.7	15.9 13.3	17.4 15.1	17.1 15.3	15.1 13.9	11.8 11.2	8.1 8.0	5.0 5.1	3.2 3.3
10 Tu	3.1 3.7	4.7 4.0	7.7 5.8	11.1 8.3	14.1 10.7	16.2 12.7	16.8 13.9	15.8 13.8	13.5 12.4	10.3 10.1	7.2 7.6	4.8 5.6
11 W	4.5 5.1	4.9 4.2	6.7 4.7	9.4 6.2	12.2 8.2	14.5 10.1	15.9 11.7	16.0 12.7	14.7 12.7	12.4 11.6	9.6 9.9	7.0 8.1
12 Th	6.6 7.2	5.9 5.5	6.4 4.5	8.0 4.7	10.3 5.8	12.5 7.4	14.3 9.1	15.4 10.7	15.3 11.9	14.1 12.3	12.0 11.7	9.5 10.5
13 F	9.1 10.0	7.8 7.7	7.0 5.6	7.1 4.2	8.4 3.9	10.2 4.6	12.2 6.1	13.9 8.0	15.0 10.0	15.2 11.8	14.2 12.7	12.4 12.7
14 Sa	11.7 13.3	10.3 10.8	8.6 7.9	7.3 5.1	7.0 3.1	7.8 2.3	9.5 3.0	11.5 4.7	13.6 7.2	15.2 10.1	15.8 12.6	15.1 14.0
15 Su	14.2 16.5	13.1 14.5	11.2 11.3	8.8 7.6	6.8 4.0	5.9 1.3	6.5 0.4	8.4 1.3	11.0 3.7	13.8 7.2	16.0 11.0	17.0 14.2
16 M	15.9 18.7	16.0 18.0	14.3 15.4	11.5 11.4	8.2 6.7	5.4 2.2	4.1 -0.9	4.9 -1.6	7.3 0.1	10.8 3.5	14.5 8.1	17.4 12.8
17 Tu	16.3 19.0	18.0 20.3	17.5 19.2	15.0 15.9	11.0 10.8	6.7 5.2	3.3 0.1	2.0 -2.9	3.4 -3.0	6.7 -0.3	11.1 4.3	15.7 9.8
18 W	15.0 17.1	18.6 20.6	19.9 21.6	18.5 19.8	14.8 15.6	9.7 9.6	4.5 3.2	0.9 -1.9	0.1 -4.4	2.3 -3.4	6.6 0.3	12.0 5.9
19 Th	12.1 13.1	17.5 18.4	20.7 21.7	21.1 22.2	18.5 19.6	13.7 14.5	7.7 7.9	2.2 1.4	-1.1 -3.3	-1.1 -4.8	2.0 -2.8	7.2 2.0
20 F	8.2 8.1	14.6 14.2	19.6 19.3	22.0 22.0	21.3 21.8	17.7 18.5	12.0 12.9	5.6 6.2	0.2 0.1	-2.5 -3.8	-1.6 -4.1	2.4 -1.0
21 Sa	4.4 3.3	10.7 9.1	16.7 14.9	20.9 19.4	22.3 21.4	20.6 20.5	16.2 16.7	10.0 11.1	3.7 4.9	-1.0 -0.3	-2.8 -3.0	-1.1 -2.3
22 Su	1.4 0.1	6.9 4.5	12.9 9.8	18.1 14.9	21.3 18.6	21.6 19.9	19.1 18.5	14.3 14.8	8.3 9.6	2.6 4.3	-1.3 0.3	-2.2 -1.2
23 M	0.2 -0.8	4.1 1.5	9.2 5.4	14.3 10.0	18.5 14.2	20.6 17.1	20.2 17.9	17.2 16.4	12.5 13.1	7.2 8.8	2.4 4.7	-0.6 1.8
24 Tu	1.1 0.8	2.9 0.8	6.4 2.8	10.7 6.0	14.9 9.6	18.0 13.0	19.2 15.2	18.3 15.7	15.4 14.6	11.3 12.0	6.9 8.8	3.0 5.8
25 W	3.8 4.2	3.6 2.4	5.2 2.2	8.0 3.6	11.3 5.9	14.5 8.7	16.7 11.4	17.5 13.3	16.5 14.0	14.1 13.4	10.8 11.8	7.3 9.6
26 Th	7.4 8.2	5.8 5.5	5.6 3.7	6.7 3.1	8.7 3.8	11.1 5.3	13.5 7.5	15.2 9.9	15.9 11.9	15.3 13.1	13.6 13.1	11.1 12.3
27 F	10.8 11.7	8.9 9.2	7.4 6.5	6.7 4.3	7.2 3.2	8.4 3.3	10.2 4.4	12.3 6.5	14.0 9.0	14.9 11.4	14.8 13.0	13.7 13.6
28 Sa	13.2 14.3	11.9 12.4	10.0 9.7	8.0 6.7	6.9 4.1	6.8 2.7	7.6 2.5	9.3 3.6	11.4 6.0	13.4 9.0	14.8 11.8	15.1 13.8

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

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 Su	14.6 15.8	14.2 14.9	12.6 12.8	10.2 9.6	7.7 6.0	6.2 3.1	5.8 1.6	6.6 1.7	8.6 3.4	11.2 6.4	13.7 9.9	15.3 13.0
2 M	15.1 16.3	15.7 16.6	14.8 15.3	12.6 12.4	9.4 8.6	6.5 4.6	4.8 1.7	4.6 0.6	6.0 1.4	8.6 3.9	11.8 7.6	14.6 11.6
3 Tu	14.8 16.0	16.5 17.5	16.5 17.1	14.7 14.9	11.6 11.3	7.8 6.8	4.7 2.7	3.3 0.2	3.7 0.0	5.9 1.8	9.4 5.4	13.1 9.7
4 W	13.8 14.8	16.6 17.5	17.6 18.3	16.6 17.0	13.7 13.8	9.7 9.3	5.6 4.5	2.7 0.8	2.0 -0.7	3.5 0.2	6.7 3.3	10.8 7.6
5 Th	12.3 12.7	16.1 16.5	18.1 18.6	18.0 18.4	15.7 16.1	11.9 12.0	7.2 7.0	3.2 2.3	1.1 -0.6	1.6 -0.8	4.1 1.5	8.2 5.5
6 F	10.4 10.1	14.9 14.6	17.9 17.8	18.8 19.0	17.4 17.7	14.0 14.3	9.4 9.6	4.7 4.6	1.3 0.6	0.3 -0.9	2.0 0.3	5.5 3.7
7 Sa	8.3 7.4	13.2 12.1	17.0 16.1	19.0 18.4	18.6 18.5	15.9 16.2	11.6 12.1	6.7 7.2	2.4 2.7	0.1 -0.1	0.5 -0.2	3.2 2.3
8 Su	6.4 5.0	11.2 9.4	15.5 13.6	18.4 16.8	19.0 18.1	17.3 17.2	13.7 14.1	9.0 9.8	4.4 5.3	1.0 1.8	0.0 0.4	1.5 1.5
9 M	4.9 3.1	9.3 6.9	13.6 10.9	17.1 14.5	18.7 16.7	18.1 17.1	15.3 15.3	11.2 12.0	6.7 7.9	2.8 4.2	0.6 1.9	0.7 1.7
10 Tu	3.9 2.0	7.6 4.8	11.7 8.4	15.3 11.8	17.6 14.5	18.1 15.9	16.4 15.5	13.2 13.4	9.0 10.2	5.0 6.8	2.1 4.1	1.0 2.9
11 W	3.6 2.0	6.3 3.4	9.8 6.1	13.3 9.2	16.0 11.9	17.3 13.9	16.8 14.6	14.6 13.9	11.3 11.9	7.5 9.2	4.3 6.6	2.3 4.9
12 Th	4.4 3.0	5.6 2.9	8.2 4.4	11.3 6.7	14.0 9.1	15.9 11.3	16.4 12.8	15.5 13.4	13.2 12.8	10.1 11.2	6.9 9.2	4.4 7.3
13 F	6.0 5.0	5.8 3.7	7.0 3.5	9.2 4.6	11.7 6.4	13.8 8.3	15.2 10.2	15.5 11.8	14.5 12.6	12.5 12.5	9.8 11.4	7.2 9.9
14 Sa	8.3 7.9	7.1 5.7	6.7 4.1	7.5 3.4	9.2 3.9	11.2 5.3	13.0 7.2	14.4 9.3	14.9 11.3	14.3 12.7	12.7 13.1	10.4 12.5
15 Su	11.1 11.5	9.4 8.9	7.8 6.1	6.8 3.8	6.9 2.5	8.2 2.6	10.0 3.9	12.0 6.1	13.8 8.9	14.9 11.6	14.9 13.7	13.7 14.5
16 M	14.0 15.2	12.3 12.8	10.0 9.6	7.5 6.0	5.8 2.8	5.4 0.9	6.5 0.9	8.6 2.6	11.2 5.6	13.9 9.3	15.7 12.9	16.2 15.4
17 Tu	16.4 17.9	15.5 16.8	13.2 13.8	9.8 9.7	6.4 5.1	3.9 1.2	3.2 -0.9	4.6 -0.6	7.4 1.9	11.0 5.9	14.6 10.6	17.2 14.9
18 W	17.6 18.8	18.3 19.6	16.7 18.0	13.3 14.2	8.8 9.1	4.4 3.6	1.4 -0.7	0.9 -2.5	2.9 -1.5	6.7 2.0	11.4 7.1	15.9 12.6
19 Th	17.3 17.4	19.8 20.4	19.8 20.9	17.2 18.5	12.6 13.9	7.0 7.9	1.8 1.9	-1.1 -2.3	-1.0 -3.5	1.9 -1.4	6.8 3.2	12.4 9.1
20 F	15.1 13.6	19.6 18.7	21.5 21.5	20.5 21.3	16.7 18.2	11.0 12.8	4.6 6.3	-0.7 0.3	-3.1 -3.3	-2.2 -3.4	1.8 -0.2	7.5 5.2
21 Sa	11.6 8.6	17.4 14.8	21.3 19.6	22.3 21.8	20.2 20.8	15.4 17.0	8.9 11.2	2.3 4.7	-2.6 -0.6	-4.2 -3.2	-2.3 -2.2	2.4 1.8
22 Su	7.6 3.7	13.9 9.8	19.2 15.6	22.1 19.7	22.1 21.1	19.0 19.5	13.4 15.3	6.7 9.6	0.5 3.7	-3.5 -0.7	-4.2 -2.1	-1.4 -0.2
23 M	4.3 0.1	10.0 5.1	15.7 10.7	20.0 15.7	21.8 19.0	20.8 19.6	17.0 17.6	11.3 13.5	5.0 8.3	-0.4 3.4	-3.3 0.2	-3.1 -0.1
24 Tu	2.3 -1.2	6.7 1.9	11.8 6.3	16.5 11.1	19.7 15.1	20.5 17.5	18.8 17.6	14.8 15.6	9.5 12.0	4.1 7.7	-0.2 4.0	-2.1 1.9
25 W	2.2 -0.3	4.8 0.8	8.6 3.5	12.7 7.0	16.3 10.8	18.5 13.9	18.6 15.7	16.6 15.6	13.0 14.0	8.5 11.1	4.2 8.0	0.9 5.3
26 Th	4.0 2.6	4.5 1.7	6.6 2.4	9.6 4.4	12.7 7.1	15.3 10.0	16.7 12.5	16.5 13.9	14.7 14.1	11.8 13.0	8.3 11.1	5.0 8.8
27 F	6.8 6.2	5.8 4.1	6.1 3.2	7.6 3.5	9.6 4.7	11.9 6.6	13.8 9.0	14.9 11.2	14.8 12.7	13.5 13.3	11.4 12.9	8.8 11.6
28 Sa	9.9 9.7	8.2 7.4	7.0 5.3	6.9 4.0	7.6 3.7	8.9 4.4	10.7 6.0	12.4 8.2	13.5 10.5	13.8 12.4	13.2 13.4	11.7 13.4
29 Su	12.5 12.4	10.9 10.5	8.9 8.0	7.3 5.6	6.6 3.9	6.8 3.3	7.8 3.9	9.5 5.5	11.4 8.0	12.9 10.7	13.7 12.9	13.5 14.1
30 M	14.2 14.3	13.2 13.1	11.2 10.8	8.7 7.9	6.7 5.0	5.6 3.2	5.7 2.6	6.8 3.4	8.9 5.6	11.3 8.7	13.2 11.7	14.3 14.1
31 Tu	15.2 15.4	15.0 15.1	13.4 13.3	10.7 10.4	7.6 6.9	5.2 3.8	4.1 2.1	4.5 2.0	6.2 3.6	9.0 6.5	11.9 10.2	14.2 13.5

Time meridian 135° W. 0 is midnight. 12 is noon.

Heights are referred to mean lower low water (N.O.S. chart datum).

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 W	15.6 15.6	16.3 16.4	15.2 15.5	12.7 12.9	9.2 9.3	5.7 5.3	3.3 2.3	2.6 1.1	3.8 1.9	6.4 4.5	9.9 8.3	13.3 12.3
2 Th	15.5 15.0	17.1 17.0	16.8 17.1	14.8 15.2	11.2 11.8	7.0 7.5	3.4 3.4	1.4 0.9	1.6 0.7	3.8 2.7	7.4 6.3	11.5 10.7
3 F	14.7 13.4	17.4 16.7	18.0 18.0	16.6 17.1	13.4 14.2	9.0 10.0	4.4 5.3	1.1 1.6	0.1 0.2	1.4 1.2	4.7 4.4	9.1 8.7
4 Sa	13.3 11.1	16.9 15.3	18.7 17.9	18.1 18.3	15.4 16.3	11.2 12.5	6.3 7.8	1.9 3.4	-0.6 0.5	-0.4 0.3	2.2 2.7	6.3 6.7
5 Su	11.4 8.3	15.7 13.0	18.5 16.7	19.1 18.4	17.2 17.7	13.5 14.8	8.5 10.5	3.6 5.8	-0.1 2.0	-1.4 0.4	0.1 1.5	3.7 4.9
6 M	9.4 5.6	14.0 10.3	17.6 14.5	19.2 17.4	18.5 18.0	15.5 16.4	11.0 12.9	5.9 8.5	1.4 4.3	-1.2 1.5	-1.1 1.2	1.5 3.4
7 Tu	7.4 3.2	11.9 7.5	15.9 11.8	18.5 15.3	18.9 17.2	17.0 17.0	13.3 14.7	8.4 11.0	3.7 6.9	0.2 3.6	-1.2 2.0	0.0 2.7
8 W	5.7 1.5	9.8 5.0	13.8 9.0	17.0 12.7	18.4 15.3	17.8 16.4	15.1 15.5	11.0 13.0	6.4 9.5	2.4 6.1	-0.1 3.7	-0.5 3.1
9 Th	4.6 0.7	7.8 3.0	11.6 6.3	14.9 9.8	17.1 12.7	17.6 14.7	16.3 15.2	13.2 14.1	9.2 11.8	5.1 8.8	2.0 6.2	0.4 4.6
10 F	4.5 1.3	6.3 1.9	9.3 4.1	12.4 6.9	15.0 9.8	16.5 12.2	16.4 13.8	14.8 14.2	11.8 13.2	8.2 11.2	4.8 8.9	2.3 6.8
11 Sa	5.6 3.2	5.7 2.2	7.3 2.7	9.8 4.4	12.3 6.8	14.3 9.2	15.5 11.5	15.3 13.1	13.8 13.7	11.2 13.1	8.1 11.5	5.3 9.6
12 Su	7.7 6.2	6.4 4.0	6.2 2.7	7.3 2.7	9.3 4.0	11.4 6.1	13.2 8.5	14.5 10.9	14.6 12.9	13.5 13.9	11.5 13.7	8.8 12.5
13 M	10.5 10.0	8.3 7.2	6.6 4.5	5.8 2.6	6.3 2.2	7.9 3.2	10.0 5.2	12.1 8.0	13.9 11.0	14.6 13.6	14.1 15.0	12.5 15.0
14 Tu	13.7 13.9	11.3 11.2	8.4 7.8	5.9 4.4	4.4 1.9	4.5 1.1	6.1 2.1	8.5 4.6	11.3 8.0	13.9 11.8	15.4 15.0	15.4 16.7
15 W	16.6 16.9	14.7 15.3	11.6 12.0	7.7 7.9	4.3 3.8	2.3 0.8	-2.3 -0.1	4.2 1.3	7.4 4.5	11.2 8.9	14.6 13.4	16.7 16.9
16 Th	18.6 18.2	18.0 18.4	15.3 16.3	11.1 12.3	6.3 7.4	2.0 2.6	-0.2 -0.5	0.1 -1.0	2.7 1.1	6.9 5.2	11.6 10.4	15.8 15.4
17 F	19.0 17.2	20.2 19.6	18.9 19.4	15.2 16.7	9.9 12.0	4.1 6.4	-0.5 1.3	-2.5 -1.5	-1.5 -1.3	2.0 1.7	7.1 6.7	12.7 12.5
18 Sa	17.6 14.0	20.8 18.5	21.3 20.5	18.9 19.7	14.2 16.3	8.0 11.0	1.8 5.1	-2.7 0.2	-4.1 -1.9	-2.2 -0.8	2.2 3.1	8.1 8.7
19 Su	14.6 9.3	19.4 15.2	21.8 19.3	21.4 20.7	18.1 19.2	12.5 15.2	5.8 9.6	-0.4 3.9	-4.3 -0.3	-4.8 -1.5	-2.0 0.6	3.2 5.1
20 M	10.8 4.6	16.4 10.7	20.4 16.0	22.0 19.4	20.6 20.1	16.4 18.1	10.4 13.7	3.8 8.3	-1.8 3.1	-4.8 -0.1	-4.3 -0.3	-0.8 2.5
21 Tu	7.2 1.0	12.6 6.2	17.5 11.7	20.6 16.2	21.1 18.8	18.9 18.8	14.4 16.4	8.4 12.2	2.3 7.3	-2.3 3.1	-4.2 0.9	-2.8 1.5
22 W	4.6 -0.8	9.0 2.9	13.7 7.5	17.7 12.2	19.8 15.8	19.5 17.6	16.8 17.2	12.2 14.7	6.8 11.0	1.8 6.9	-1.8 3.7	-2.6 2.4
23 Th	3.5 -0.6	6.5 1.2	10.3 4.4	14.0 8.3	17.0 12.1	18.2 14.9	17.4 16.1	14.6 15.5	10.5 13.3	6.0 10.3	2.1 7.2	-0.4 4.9
24 F	4.2 1.3	5.3 1.3	7.7 2.9	10.7 5.5	13.6 8.5	15.6 11.5	16.3 13.7	15.3 14.7	12.9 14.2	9.6 12.6	6.0 10.3	3.0 7.9
25 Sa	6.1 4.3	5.6 2.9	6.5 2.9	8.2 4.0	10.4 5.9	12.5 8.4	14.0 10.8	14.5 12.8	13.7 13.7	11.8 13.6	9.3 12.4	6.7 10.7
26 Su	8.7 7.5	7.1 5.5	6.4 4.1	6.8 3.8	7.9 4.5	9.5 6.0	11.2 8.1	12.6 10.4	13.2 12.4	12.8 13.5	11.5 13.6	9.7 12.8
27 M	11.2 10.3	9.3 8.3	7.4 6.1	6.4 4.6	6.3 4.0	7.0 4.5	8.4 5.8	10.1 8.0	11.7 10.5	12.7 12.6	12.7 13.9	11.9 14.1
28 Tu	13.2 12.5	11.5 10.9	9.2 8.6	7.0 6.1	5.6 4.3	5.2 3.7	5.9 4.3	7.5 5.9	9.6 8.5	11.6 11.3	12.9 13.6	13.2 14.8
29 W	14.7 14.1	13.5 13.1	11.2 11.0	8.3 8.2	5.7 5.5	4.1 3.6	3.9 3.2	4.9 4.3	7.1 6.6	9.8 9.7	12.3 12.8	13.8 15.0
30 Th	15.8 15.0	15.2 14.9	13.2 13.3	10.1 10.6	6.7 7.3	3.8 4.3	2.4 2.7	2.7 2.9	4.5 4.7	7.4 7.8	10.8 11.4	13.5 14.6

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

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 F	16.5 15.0	16.7 16.1	15.1 15.4	12.2 13.1	8.4 9.6	4.5 5.9	1.7 3.0	0.9 2.0	2.0 3.1	4.8 5.9	8.5 9.7	12.3 13.6
2 Sa	16.5 14.0	17.7 16.4	16.9 16.9	14.4 15.3	10.5 12.2	6.0 8.1	2.1 4.3	-0.2 1.9	-0.1 1.9	2.1 4.0	5.8 7.6	10.1 11.9
3 Su	15.7 12.0	18.1 15.7	18.3 17.5	16.5 17.1	12.9 14.6	8.2 10.8	3.4 6.4	-0.2 2.9	-1.5 1.3	-0.2 2.4	3.0 5.5	7.4 9.8
4 M	14.2 9.3	17.6 13.8	19.0 16.9	18.2 17.9	15.3 16.6	10.8 13.4	5.6 9.1	1.0 4.9	-1.8 2.0	-1.9 1.5	0.5 3.7	4.5 7.5
5 Tu	12.0 6.4	16.1 11.2	18.8 15.2	19.2 17.6	17.3 17.7	13.4 15.6	8.3 11.8	3.2 7.5	-0.8 3.7	-2.6 1.8	-1.5 2.4	1.8 5.4
6 W	9.6 3.5	14.0 8.1	17.5 12.6	19.2 16.0	18.6 17.5	15.7 16.8	11.2 14.2	6.0 10.3	1.3 6.3	-1.8 3.2	-2.4 2.3	-0.4 3.8
7 Th	7.3 1.2	11.5 5.2	15.3 9.5	18.0 13.4	18.8 16.1	17.3 16.9	13.9 15.7	9.2 12.8	4.3 9.1	0.3 5.6	-1.9 3.4	-1.5 3.2
8 F	5.3 -0.3	8.8 2.6	12.6 6.5	15.9 10.3	17.8 13.7	17.8 15.7	15.8 16.1	12.1 14.6	7.6 11.8	3.3 8.5	0.1 5.6	-1.2 4.0
9 Sa	4.3 -0.2	6.5 1.0	9.7 3.8	13.0 7.2	15.6 10.6	16.9 13.5	16.5 15.2	14.3 15.3	10.8 13.9	6.8 11.4	3.1 8.5	0.6 6.1
10 Su	4.7 1.5	5.1 0.8	7.0 2.0	9.8 4.4	12.5 7.5	14.7 10.5	15.8 13.2	15.3 14.8	13.4 15.0	10.3 13.8	6.8 11.6	3.7 8.9
11 M	6.6 4.6	5.1 2.4	5.2 1.6	6.7 2.5	9.0 4.6	11.4 7.3	13.5 10.4	14.7 13.1	14.6 14.9	13.1 15.3	10.5 14.3	7.5 12.1
12 Tu	9.4 8.5	6.8 5.5	4.9 3.1	4.5 2.0	5.5 2.5	7.5 4.4	9.9 7.1	12.3 10.4	14.0 13.5	14.4 15.5	13.5 16.1	11.3 15.2
13 W	12.8 12.5	9.7 9.6	6.5 6.3	4.0 3.4	3.1 1.8	3.8 2.1	5.8 4.1	8.6 7.2	11.5 10.9	13.9 14.4	14.9 16.7	14.4 17.4
14 Th	16.1 15.6	13.3 13.6	9.5 10.3	5.5 6.5	2.4 3.2	1.1 1.4	1.8 1.7	4.1 4.0	7.6 7.6	11.3 11.9	14.4 15.7	15.9 18.2
15 F	18.6 17.1	16.9 16.8	13.4 14.4	8.8 10.7	4.0 6.3	0.4 2.6	-1.0 0.7	0.0 1.4	3.0 4.2	7.3 8.5	11.8 13.3	15.3 17.3
16 Sa	19.6 16.5	19.5 18.3	17.1 17.6	12.8 14.8	7.4 10.4	2.0 5.6	-1.7 1.8	-2.8 0.3	-1.1 1.5	2.6 5.0	7.7 9.9	12.7 14.9
17 Su	18.9 14.0	20.7 17.7	19.9 19.1	16.7 17.9	11.6 14.5	5.6 9.6	0.0 4.6	-3.5 1.0	-3.9 0.2	-1.5 2.1	3.1 6.3	8.7 11.5
18 M	16.5 10.0	20.0 15.2	21.1 18.5	19.6 19.3	15.6 17.5	9.9 13.6	3.6 8.5	-1.8 3.7	-4.6 0.7	-4.1 0.6	-0.9 3.3	4.2 7.8
19 Tu	13.0 5.8	17.6 11.4	20.5 16.1	20.9 18.8	18.6 18.9	14.0 16.6	8.0 12.4	1.8 7.4	-2.9 3.1	-4.7 0.9	-3.4 1.6	0.4 4.8
20 W	9.4 2.2	14.3 7.4	18.2 12.6	20.3 16.6	19.8 18.5	16.9 18.0	12.0 15.2	6.1 11.0	0.6 6.5	-3.1 2.9	-3.9 1.7	-1.9 3.1
21 Th	6.4 0.1	10.7 4.1	14.9 8.9	18.1 13.3	19.3 16.5	18.1 17.6	14.8 16.6	10.0 13.8	4.7 9.9	0.1 6.0	-2.5 3.4	-2.4 2.9
22 F	4.6 -0.5	7.8 2.1	11.5 5.8	15.0 9.9	17.3 13.5	17.7 15.9	16.1 16.5	12.8 15.2	8.5 12.5	4.0 9.2	0.4 6.1	-1.2 4.2
23 Sa	4.2 0.5	5.9 1.5	8.7 3.9	11.7 7.0	14.4 10.4	16.0 13.4	15.9 15.1	14.2 15.3	11.2 14.0	7.5 11.7	4.0 9.0	1.4 6.5
24 Su	5.1 2.6	5.3 2.1	6.7 3.1	8.9 5.2	11.3 7.8	13.4 10.6	14.5 13.0	14.2 14.4	12.6 14.4	10.1 13.3	7.2 11.4	4.5 9.1
25 M	7.0 5.3	5.8 3.7	5.9 3.4	6.9 4.3	8.6 6.0	10.5 8.3	12.2 10.7	13.1 12.8	12.9 14.0	11.7 14.0	9.7 13.0	7.4 11.3
26 Tu	9.2 7.9	7.3 6.0	6.0 4.6	5.8 4.2	6.5 5.0	7.8 5.1	9.5 6.5	11.2 8.6	12.2 13.0	12.3 14.1	11.4 14.1	9.9 13.1
27 W	11.4 10.3	9.2 8.5	7.0 6.5	5.5 5.0	5.1 4.6	5.6 5.3	6.9 6.8	8.8 9.1	10.7 11.5	12.0 13.6	12.3 14.6	11.7 14.5
28 Th	13.2 12.3	11.2 10.8	8.6 8.7	6.1 6.5	4.4 4.9	3.9 4.5	4.6 5.4	6.2 7.2	8.5 9.8	10.8 12.6	12.4 14.6	12.9 15.4
29 F	14.9 13.8	13.2 13.0	10.6 11.1	7.5 8.6	4.7 6.0	2.9 4.4	2.6 4.2	3.7 5.5	5.9 8.0	8.8 11.0	11.5 13.9	13.3 15.9
30 Sa	16.3 14.6	15.2 14.8	12.8 13.5	9.5 11.0	5.8 7.9	2.8 5.1	1.2 3.7	1.4 4.0	3.2 6.0	6.2 9.1	9.7 12.6	12.8 15.6
31 Su	17.2 14.3	17.0 15.8	15.1 15.5	11.8 13.5	7.8 10.4	3.7 6.9	0.7 4.0	-0.3 3.0	0.7 4.1	3.4 6.9	7.2 10.6	11.2 14.4

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 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 M	17.2 12.9	18.2 15.8	17.2 16.8	14.4 15.8	10.3 13.1	5.6 9.3	1.4 5.5	-1.2 3.0	-1.4 2.6	0.6 4.6	4.2 8.2	8.7 12.3
2 Tu	16.1 10.4	18.5 14.5	18.8 17.1	16.9 17.4	13.2 15.6	8.4 12.2	3.3 8.0	-0.7 4.2	-2.6 2.2	-1.8 2.8	1.2 5.6	5.6 9.7
3 W	14.1 7.3	17.6 12.1	19.4 15.9	18.8 17.8	16.1 17.4	11.5 14.9	6.2 10.9	1.2 6.6	-2.4 3.2	-3.3 1.9	-1.4 3.4	2.4 6.9
4 Th	11.3 4.0	15.6 9.0	18.6 13.6	19.6 16.9	18.3 18.0	14.7 16.9	9.6 13.8	4.1 9.5	-0.5 5.4	-3.2 2.6	-3.1 2.2	-0.4 4.4
5 F	8.2 1.1	12.6 5.7	16.5 10.5	19.0 14.7	19.2 17.3	17.1 17.8	13.0 16.0	7.8 12.6	2.5 8.4	-1.5 4.7	-3.3 2.5	-2.3 2.8
6 Sa	5.4 -0.9	9.3 2.7	13.4 7.1	16.8 11.6	18.6 15.2	18.3 17.3	15.7 17.2	11.4 15.1	6.4 11.6	1.7 7.7	-1.6 4.4	-2.6 2.8
7 Su	3.5 -1.4	6.2 0.6	9.8 4.1	13.5 8.2	16.4 12.3	17.7 15.4	17.0 17.0	14.3 16.6	10.2 14.4	5.6 11.0	1.6 7.4	-1.0 4.5
8 M	3.2 0.1	4.0 0.0	6.4 2.0	9.7 5.2	12.9 9.0	15.4 12.6	16.4 15.4	15.7 16.7	13.2 16.2	9.6 14.0	5.6 10.9	2.1 7.5
9 Tu	4.7 3.2	3.4 1.3	4.0 1.3	6.0 3.0	8.8 6.0	11.7 9.4	14.1 12.8	15.2 15.4	14.7 16.6	12.7 16.1	9.6 14.1	6.2 11.1
10 W	7.7 7.2	4.8 4.3	3.2 2.4	3.4 2.2	5.0 3.7	7.5 6.3	10.3 9.6	12.8 13.0	14.2 15.7	14.2 16.9	12.8 16.5	10.2 14.5
11 Th	11.4 11.2	7.8 8.3	4.5 5.3	2.5 3.2	2.2 2.7	3.6 4.0	6.0 6.5	9.0 9.9	11.9 13.4	13.8 16.2	14.3 17.5	13.4 17.1
12 F	14.9 14.3	11.6 12.2	7.5 9.1	3.8 5.9	1.3 3.5	0.8 2.8	2.0 4.0	4.6 6.7	8.1 10.3	11.5 14.1	14.0 17.0	15.0 18.3
13 Sa	17.7 15.9	15.3 15.3	11.4 13.0	6.9 9.6	2.6 6.0	-0.2 3.3	-0.8 2.6	0.7 4.0	3.8 7.0	7.8 11.0	11.8 15.0	14.7 17.9
14 Su	19.1 15.7	18.1 16.9	15.2 16.1	10.8 13.4	5.7 9.5	1.1 5.5	-1.7 2.8	-2.1 2.3	-0.1 4.1	3.6 7.5	8.2 11.9	12.6 16.1
15 M	18.9 13.9	19.7 16.9	18.2 17.7	14.7 16.4	9.7 13.2	4.2 8.9	-0.5 4.7	-3.1 2.2	-2.8 2.2	-0.2 4.5	4.2 8.4	9.3 13.0
16 Tu	17.1 10.7	19.6 15.2	19.9 17.8	17.8 18.1	13.7 16.2	8.2 12.4	2.5 7.8	-2.0 3.8	-3.8 1.7	-2.8 2.4	0.5 5.3	5.4 9.5
17 W	14.2 7.1	18.0 12.3	19.9 16.3	19.5 18.3	16.7 17.9	12.1 15.4	6.4 11.2	0.8 6.6	-2.9 3.0	-3.9 1.7	-2.0 3.1	1.9 6.4
18 Th	10.8 3.8	15.2 8.9	18.4 13.7	19.6 17.0	18.5 18.3	15.2 17.2	10.2 14.1	4.6 9.8	-0.4 5.5	-3.2 2.6	-3.1 2.2	-0.5 4.1
19 F	7.7 1.4	11.9 5.8	15.8 10.6	18.3 14.7	18.8 17.2	17.0 17.6	13.2 15.9	8.2 12.6	3.1 8.5	-0.9 4.8	-2.6 2.7	-1.7 3.0
20 Sa	5.4 0.3	8.9 3.6	12.7 7.7	15.9 12.0	17.7 15.3	17.4 16.9	15.1 16.6	11.2 14.5	6.6 11.1	2.2 7.5	-0.8 4.6	-1.4 3.3
21 Su	4.1 0.3	6.5 2.4	9.7 5.6	13.0 9.3	15.5 12.8	16.5 15.4	15.7 16.2	13.1 15.4	9.4 13.1	5.5 10.0	2.0 7.0	0.1 4.7
22 M	4.1 1.4	5.2 2.1	7.4 4.3	10.1 7.3	12.7 10.5	14.6 13.3	15.1 15.1	13.9 15.4	11.5 14.3	8.2 12.0	5.0 9.4	2.5 6.8
23 Tu	5.1 3.4	4.8 2.9	5.8 3.8	7.7 5.9	9.9 8.5	12.1 11.2	13.5 13.5	13.6 14.7	12.5 14.7	10.3 13.5	7.7 11.4	5.2 9.0
24 W	6.9 5.8	5.4 4.4	5.1 4.2	6.0 5.2	7.5 7.0	9.4 9.3	11.2 11.6	12.4 13.6	12.5 14.5	11.6 14.3	9.9 13.0	7.8 11.1
25 Th	8.9 8.2	6.8 6.5	5.3 5.3	5.0 5.1	5.6 6.0	6.9 7.7	8.6 9.8	10.4 12.0	11.7 13.8	12.0 14.6	11.4 14.3	10.0 12.9
26 F	10.9 10.5	8.6 8.9	6.4 7.1	4.8 5.8	4.3 5.5	4.8 6.4	6.1 8.1	7.9 10.2	9.9 12.5	11.5 14.3	12.1 15.1	11.7 14.6
27 Sa	13.0 12.5	10.8 11.2	8.1 9.4	5.5 7.3	3.7 5.8	3.1 5.4	3.7 6.4	5.3 8.3	7.6 10.8	10.1 13.3	12.0 15.2	12.8 15.9
28 Su	15.1 13.9	13.1 13.5	10.3 11.8	7.2 9.5	4.2 7.0	2.2 5.2	1.7 5.0	2.7 6.2	4.9 8.6	7.8 11.6	10.8 14.5	13.0 16.4
29 M	16.8 14.4	15.6 15.2	13.0 14.3	9.5 12.1	5.7 9.1	2.3 6.1	0.4 4.3	0.3 4.3	2.0 6.2	5.0 9.2	8.6 12.7	12.1 15.9
30 Tu	17.7 13.7	17.7 16.0	15.9 16.3	12.5 14.8	8.2 11.8	3.8 8.1	0.2 4.9	-1.4 3.2	-0.7 3.8	1.9 6.4	5.7 10.1	10.0 14.1

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

JULY

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 10/22	Hours 11/23
1 W	17.4 11.8	18.9 15.5	18.4 17.4	15.7 17.1	11.5 14.8	6.5 11.0	1.6 6.8	-1.8 -3.4	-2.8 -2.2	-1.2 -3.6	2.4 7.0	7.0 11.3
2 Th	15.6 8.7	18.7 13.6	19.8 17.1	18.5 18.4	15.1 17.3	10.0 14.1	4.5 9.7	-0.5 5.2	-3.4 2.1	-3.5 1.6	-0.8 3.8	3.5 7.9
3 F	12.6 5.2	16.9 10.6	19.7 15.4	20.2 18.3	18.1 18.9	13.9 17.0	8.3 13.0	2.5 8.2	-2.1 3.8	-4.3 1.2	-3.3 1.5	0.2 4.4
4 Sa	8.9 1.8	13.7 7.1	17.8 12.4	20.1 16.7	19.9 19.0	17.2 18.8	12.4 16.1	6.5 11.7	0.9 6.8	-3.0 -2.8	-4.2 0.8	-2.3 1.8
5 Su	5.1 -0.7	9.7 3.7	14.3 8.9	18.0 13.9	19.7 17.6	19.0 19.1	15.8 18.2	10.8 15.0	5.1 10.5	0.1 5.8	-3.0 -2.3	-3.3 1.0
6 M	2.3 -1.7	5.8 1.2	10.1 5.6	14.4 10.4	17.5 14.8	18.7 17.8	17.6 18.7	14.2 17.3	9.4 14.0	4.3 9.6	0.1 5.3	-2.2 -2.3
7 Tu	1.3 -0.7	2.9 0.2	6.1 3.1	10.0 7.1	13.7 11.5	16.4 15.3	17.3 17.7	16.0 18.1	12.9 16.5	8.7 13.3	4.4 9.2	0.9 5.3
8 W	2.6 2.3	1.8 1.1	3.1 2.0	5.9 4.6	9.2 8.2	12.5 12.0	14.9 15.3	15.7 17.3	14.7 17.5	12.2 15.9	8.7 12.9	5.1 9.2
9 Th	5.6 6.3	2.9 3.8	2.0 2.7	2.9 3.5	5.1 5.7	8.0 8.7	11.1 12.1	13.4 15.1	14.5 16.9	13.9 17.2	12.0 15.8	9.2 13.0
10 F	9.5 10.2	5.9 7.6	3.1 5.2	1.8 3.9	2.3 4.3	4.0 6.1	6.7 8.8	9.7 12.0	12.3 14.9	13.7 16.8	13.8 17.2	12.5 15.9
11 Sa	13.3 13.4	9.8 11.3	6.1 8.7	2.9 6.1	1.2 4.5	1.3 4.6	2.8 6.1	5.5 8.7	8.7 11.9	11.7 15.0	13.7 17.0	14.2 17.5
12 Su	16.3 15.1	13.6 14.3	9.9 12.2	5.8 9.3	2.2 6.3	0.3 4.4	0.2 4.3	1.8 5.8	4.7 8.6	8.4 12.1	11.9 15.4	14.2 17.5
13 M	18.0 15.2	16.7 16.1	13.7 15.1	9.6 12.6	5.0 9.2	1.2 5.8	-0.9 3.8	-0.8 3.8	1.2 5.6	4.7 8.8	8.9 12.7	12.7 16.1
14 Tu	18.2 14.0	18.4 16.4	16.8 17.0	13.3 15.5	8.7 12.4	3.7 8.4	-0.2 4.8	-2.0 3.0	-1.4 3.4	1.3 5.8	5.4 9.5	10.0 13.6
15 W	17.0 11.7	18.8 15.5	18.7 17.5	16.4 17.4	12.3 15.2	7.2 11.4	2.1 7.1	-1.5 3.6	-2.6 2.3	-1.3 3.4	2.2 6.3	6.9 10.5
16 Th	14.7 8.8	17.9 13.5	19.3 16.9	18.4 18.1	15.4 17.2	10.7 14.2	5.3 9.9	0.4 5.5	-2.5 2.5	-2.6 2.0	-0.3 3.8	3.8 7.4
17 F	11.8 5.9	15.9 10.9	18.5 15.2	19.2 17.8	17.5 18.1	13.8 16.2	8.7 12.6	3.3 8.1	-0.9 4.0	-2.8 1.9	-1.8 2.2	1.3 4.8
18 Sa	8.7 3.5	13.1 8.3	16.7 12.9	18.7 16.5	18.4 18.1	16.0 17.4	11.7 14.7	6.6 10.7	1.7 6.4	-1.5 3.1	-2.2 1.9	-0.2 3.1
19 Su	6.1 1.9	10.1 6.0	14.1 10.5	17.0 14.5	18.2 17.1	17.1 17.6	14.0 16.1	9.6 12.9	4.8 8.9	0.7 5.1	-1.3 2.7	-0.8 2.4
20 M	4.3 1.2	7.5 4.4	11.2 8.3	14.6 12.3	16.7 15.4	17.0 17.0	15.3 16.6	11.9 14.5	7.6 11.1	3.6 7.5	0.6 4.5	-0.2 2.9
21 Tu	3.4 1.5	5.6 3.5	8.6 6.7	11.8 10.2	14.5 13.5	15.8 15.7	15.4 16.4	13.3 15.3	10.0 12.9	6.3 9.7	3.2 6.7	1.4 4.4
22 W	3.6 2.6	4.5 3.4	6.6 5.6	9.2 8.6	11.8 11.5	13.8 14.0	14.6 15.5	13.8 15.5	11.7 14.1	8.8 11.6	5.8 8.8	3.6 6.4
23 Th	4.7 4.5	4.3 4.1	5.2 5.2	7.1 7.3	9.3 9.8	11.3 12.2	12.8 14.2	13.2 15.1	12.4 14.7	10.6 13.2	8.2 10.9	6.1 8.5
24 F	6.4 6.8	5.0 5.7	4.7 5.5	5.5 6.5	7.0 8.3	8.8 10.4	10.5 12.5	11.8 14.1	12.2 14.7	11.7 14.3	10.2 12.8	8.5 10.7
25 Sa	8.4 9.2	6.4 7.7	5.0 6.6	4.6 6.3	5.1 7.1	6.3 8.7	7.9 10.6	9.7 12.5	11.2 14.1	11.9 14.8	11.6 14.3	10.6 12.9
26 Su	10.8 11.5	8.5 10.0	6.3 8.4	4.5 7.0	3.8 6.4	4.2 7.0	5.3 8.5	7.1 10.5	9.2 12.7	11.1 14.5	12.2 15.3	12.3 14.9
27 M	13.4 13.5	11.1 12.5	8.4 10.8	5.6 8.6	3.4 6.7	2.5 5.8	2.8 6.3	4.3 8.0	6.6 10.5	9.3 13.2	11.8 15.4	13.2 16.4
28 Tu	15.9 14.8	14.1 14.9	11.2 13.5	7.8 11.0	4.3 8.1	1.7 5.6	0.7 4.6	1.5 5.3	3.6 7.6	6.7 10.8	10.2 14.1	13.1 16.7
29 W	17.7 14.9	17.0 16.5	14.6 16.1	10.9 14.0	6.6 10.6	2.5 6.9	-0.3 4.0	-1.0 3.1	0.4 4.4	3.4 7.5	7.5 11.5	11.7 15.4
30 Th	18.2 13.7	19.1 16.9	17.9 18.1	14.7 16.9	10.0 13.8	4.9 9.5	0.3 5.1	-2.3 2.2	-2.4 1.7	0.0 3.9	4.1 7.8	9.0 12.6
31 F	16.9 11.1	19.7 15.9	20.3 18.8	18.3 19.2	14.1 17.1	8.6 12.9	2.9 7.8	-1.8 3.2	-3.9 0.5	-3.0 0.8	0.5 3.8	5.5 8.6

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 Sa	13.8 7.6	18.3 13.3	20.8 17.9	20.8 20.1	18.0 19.6	13.0 16.5	6.9 11.5	0.9 5.9	-3.3 1.4	-4.6 -0.7	-2.6 0.5	1.9 4.3
2 Su	9.5 3.9	14.9 9.8	19.2 15.4	21.3 19.3	20.5 20.7	17.0 19.2	11.5 15.3	5.1 9.8	-0.6 4.2	-4.0 0.1	-4.2 -1.2	-1.2 0.8
3 M	5.1 0.8	10.4 6.2	15.6 11.9	19.4 16.9	20.9 20.0	19.5 20.5	15.5 18.2	9.8 13.8	3.7 8.2	-1.2 3.0	-3.7 -0.4	-2.8 -0.9
4 Tu	1.5 -0.7	5.8 3.2	10.9 8.3	15.6 13.5	18.8 17.7	19.7 19.9	17.9 19.6	13.8 16.9	8.5 12.4	3.1 7.2	-0.9 2.6	-2.3 -0.1
5 W	-0.2 -0.3	2.3 1.6	6.4 5.4	10.9 9.9	14.9 14.3	17.5 17.7	18.0 19.2	16.1 18.4	12.4 15.6	7.8 11.4	3.4 6.8	0.4 2.9
6 Th	0.7 2.2	0.8 1.9	3.0 3.8	6.4 7.0	10.2 10.8	13.6 14.4	15.8 17.1	16.1 18.1	14.6 17.2	11.6 14.7	7.9 11.0	4.5 7.1
7 F	3.7 6.0	1.7 4.1	1.6 3.9	3.3 5.3	6.0 7.8	9.1 10.9	12.1 13.9	14.1 16.1	14.6 17.0	13.6 16.4	11.4 14.3	8.7 11.2
8 Sa	7.8 9.9	4.6 7.5	2.5 5.7	2.0 5.2	3.0 6.0	5.1 7.9	7.8 10.4	10.6 13.1	12.7 15.3	13.7 16.4	13.4 16.1	12.0 14.4
9 Su	11.8 13.0	8.5 11.1	5.3 8.7	2.9 6.6	1.9 5.6	2.3 6.0	4.0 7.4	6.6 9.8	9.5 12.5	12.1 14.9	13.6 16.2	13.9 16.3
10 M	14.9 14.8	12.4 14.0	9.0 12.0	5.4 9.2	2.6 6.6	1.2 5.2	1.4 5.3	3.1 6.8	5.9 9.3	9.3 12.3	12.3 15.0	14.2 16.6
11 Tu	16.8 15.4	15.4 15.9	12.7 14.7	8.9 12.1	4.8 8.8	1.7 5.9	0.3 4.3	0.6 4.5	2.7 6.3	6.1 9.3	9.9 12.8	13.2 15.7
12 W	17.4 14.7	17.4 16.6	15.7 16.6	12.4 14.8	8.0 11.5	3.6 7.6	0.5 4.5	-0.7 3.1	0.2 3.8	3.0 6.3	7.1 9.9	11.3 13.8
13 Th	16.8 13.2	18.2 16.4	17.7 17.6	15.3 16.8	11.3 14.1	6.4 10.1	1.9 5.9	-0.8 2.9	-1.2 2.2	0.6 3.7	4.3 7.0	8.9 11.1
14 F	15.2 11.1	17.9 15.3	18.8 17.8	17.5 18.1	14.2 16.2	9.5 12.6	4.4 8.0	0.2 3.9	-1.7 1.6	-1.0 1.9	1.9 4.3	6.3 8.2
15 Sa	12.7 8.8	16.6 13.5	18.8 17.0	18.8 18.5	16.5 17.7	12.5 14.8	7.3 10.5	2.3 5.8	-1.0 2.2	-1.7 1.0	0.1 2.3	3.9 5.5
16 Su	9.9 6.5	14.3 11.4	17.7 15.6	19.0 18.1	18.0 18.5	14.8 16.5	10.2 12.8	5.0 8.2	0.7 3.9	-1.4 1.2	-0.8 1.1	2.1 3.4
17 M	7.2 4.7	11.6 9.2	15.6 13.7	18.1 17.0	18.4 18.4	16.5 17.5	12.7 14.6	7.9 10.5	3.2 6.1	0.0 2.6	-0.8 1.1	1.0 2.0
18 Tu	5.0 3.4	8.9 7.4	13.0 11.7	16.2 15.3	17.8 17.6	17.1 17.7	14.5 15.9	10.4 12.5	6.0 8.4	2.2 4.6	0.2 2.1	0.7 1.7
19 W	3.4 2.9	6.6 6.0	10.3 9.8	13.7 13.4	16.1 16.1	16.7 17.3	15.4 16.5	12.4 14.0	8.5 10.5	4.8 6.8	2.2 3.9	1.4 2.4
20 Th	2.8 3.2	5.0 5.2	8.0 8.3	11.1 11.6	13.7 14.4	15.3 16.1	15.2 16.4	13.5 14.9	10.6 12.3	7.4 9.1	4.6 6.1	3.0 4.0
21 F	3.2 4.4	4.0 5.1	6.1 7.2	8.7 9.9	11.2 12.5	13.1 14.6	14.0 15.6	13.6 15.3	12.0 13.6	9.6 11.1	7.1 8.4	5.2 6.0
22 Sa	4.4 6.3	4.0 5.8	4.9 6.6	6.7 8.4	8.7 10.7	10.6 12.7	12.1 14.2	12.8 14.9	12.5 14.5	11.2 12.9	9.4 10.7	7.5 8.4
23 Su	6.4 8.5	5.0 7.3	4.5 6.8	5.1 7.4	6.4 8.8	8.0 10.6	9.7 12.4	11.2 13.8	12.1 14.5	12.1 14.2	11.2 13.0	9.9 11.0
24 M	8.8 10.9	6.8 9.4	5.1 8.0	4.3 7.1	4.5 7.2	5.5 8.3	7.0 10.0	8.8 11.8	10.7 13.6	12.0 14.7	12.5 14.8	12.1 13.7
25 Tu	11.8 13.4	9.4 12.0	6.9 10.1	4.6 8.0	3.3 6.5	3.2 6.2	4.2 7.2	6.0 9.1	8.4 11.6	10.9 13.9	12.8 15.6	13.7 16.0
26 W	14.9 15.4	12.7 14.8	9.7 12.8	6.4 10.0	3.4 7.0	1.6 4.9	1.5 4.5	2.9 5.9	5.4 8.4	8.7 11.7	12.0 14.9	14.4 17.1
27 Th	17.6 16.5	16.3 17.2	13.4 15.9	9.5 13.0	5.2 9.1	1.6 5.3	-0.4 2.8	-0.1 2.7	2.0 4.7	5.6 8.2	9.9 12.5	13.9 16.4
28 F	18.8 16.2	19.2 18.6	17.3 18.7	13.5 16.4	8.6 12.3	3.5 7.4	-0.5 3.0	-2.2 0.6	-1.2 1.0	2.0 4.0	6.7 8.6	11.9 13.7
29 Sa	18.0 14.3	20.5 18.6	20.4 20.4	17.7 19.6	13.0 16.1	7.1 10.9	1.5 5.2	-2.5 0.6	-3.5 -1.4	-1.4 0.0	3.0 3.9	8.7 9.4
30 Su	15.1 11.1	19.5 16.7	21.7 20.5	20.9 21.5	17.4 19.5	11.8 15.0	5.4 8.9	-0.4 2.9	-3.7 -1.4	-3.7 -2.6	-0.5 -0.3	4.9 4.5
31 M	10.5 7.2	16.3 13.5	20.5 18.7	22.0 21.7	20.5 21.6	16.3 18.6	10.2 13.3	3.7 6.9	-1.6 1.0	-4.0 -2.6	-2.8 -2.8	1.4 0.3

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

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 Tu	5.5 3.7	11.5 9.6	17.0 15.5	20.6 19.9	21.5 21.8	19.3 20.8	14.7 17.1	8.6 11.4	2.6 5.2	-1.8 0.0	-3.1 -2.7	-0.9 -2.1
2 W	1.4 1.5	6.6 6.2	12.2 11.6	17.0 16.6	19.9 20.0	20.1 21.0	17.6 19.3	13.0 15.3	7.4 9.9	2.3 4.3	-0.9 0.0	-1.2 -1.9
3 Th	-0.8 1.2	2.6 4.0	7.3 8.2	12.2 12.8	16.2 16.8	18.4 19.2	18.2 19.5	15.8 17.5	11.7 13.7	7.0 9.0	3.0 4.3	0.8 0.9
4 F	-0.4 2.9	0.7 3.5	3.7 5.9	7.6 9.4	11.6 13.0	14.8 16.0	16.5 17.8	16.3 17.8	14.3 16.0	11.0 12.8	7.4 8.9	4.4 5.1
5 Sa	2.3 6.1	1.2 4.9	2.0 5.3	4.2 7.1	7.2 9.6	10.4 12.4	13.1 14.8	14.7 16.2	14.8 16.3	13.4 15.0	11.1 12.5	8.5 9.5
6 Su	6.3 9.8	3.8 7.7	2.5 6.4	2.8 6.3	4.2 7.3	6.4 9.1	9.1 11.3	11.6 13.4	13.4 15.0	14.0 15.4	13.4 14.7	11.9 12.9
7 M	10.4 12.9	7.5 11.0	4.9 8.7	3.2 7.0	2.8 6.3	3.6 6.7	5.4 8.1	8.0 10.2	10.7 12.5	12.9 14.4	14.0 15.3	14.0 15.1
8 Tu	13.7 15.0	11.3 13.8	8.2 11.6	5.2 8.9	3.1 6.6	2.3 5.5	2.9 5.7	4.7 7.1	7.6 9.5	10.7 12.3	13.2 14.6	14.8 15.8
9 W	15.8 15.9	14.4 15.8	11.7 14.2	8.2 11.4	4.7 8.0	2.3 5.4	1.5 4.2	2.3 4.6	4.6 6.5	8.0 9.6	11.5 12.8	14.4 15.4
10 Th	16.8 15.9	16.5 17.0	14.6 16.3	11.3 13.8	7.2 10.2	3.5 6.4	1.2 3.7	0.8 2.9	2.3 3.9	5.4 6.7	9.4 10.4	13.2 14.1
11 F	16.7 15.2	17.7 17.4	16.8 17.7	14.1 16.0	10.1 12.5	5.6 8.2	1.9 4.3	0.2 2.0	0.6 2.0	3.1 4.0	7.0 7.7	11.4 11.9
12 Sa	15.7 13.9	17.9 17.1	18.2 18.5	16.4 17.6	12.9 14.7	8.2 10.5	3.6 5.8	0.5 2.1	-0.3 0.7	1.3 1.8	4.8 4.9	9.4 9.3
13 Su	13.8 12.1	17.2 16.2	18.8 18.6	18.1 18.7	15.3 16.6	10.9 12.7	6.0 7.9	1.7 3.3	-0.4 0.5	0.1 0.3	3.0 2.6	7.3 6.6
14 M	11.3 10.1	15.6 14.7	18.4 17.9	18.9 19.1	17.2 18.0	13.4 14.7	8.6 10.2	3.8 5.3	0.5 1.4	-0.3 -0.2	1.6 0.9	5.3 4.1
15 Tu	8.6 8.1	13.2 12.8	16.9 16.6	18.7 18.8	18.2 18.7	15.5 16.4	11.2 12.3	6.4 7.6	2.3 3.2	0.2 0.4	0.8 0.1	3.8 2.2
16 W	6.1 6.5	10.5 10.8	14.7 14.9	17.5 17.7	18.2 18.7	16.8 17.4	13.4 14.2	9.0 9.9	4.8 5.4	1.8 2.0	1.0 0.4	2.8 1.2
17 Th	4.1 5.3	8.0 9.0	12.0 12.9	15.4 16.1	17.2 17.9	17.0 17.7	14.9 15.5	11.3 11.9	7.4 7.8	4.0 4.1	2.2 1.7	2.7 1.2
18 F	2.8 4.7	5.9 7.6	9.5 11.1	12.8 14.2	15.2 16.4	16.2 17.2	15.4 16.2	13.0 13.6	9.7 10.1	6.5 6.5	4.2 3.7	3.5 2.2
19 Sa	2.4 5.1	4.4 6.7	7.3 9.4	10.2 12.3	12.8 14.6	14.5 16.0	14.8 16.1	13.8 14.7	11.6 12.1	8.9 9.0	6.5 6.1	5.1 4.0
20 Su	3.1 6.3	3.6 6.5	5.4 8.0	7.8 10.2	10.2 12.5	12.1 14.2	13.4 15.1	13.6 15.0	12.7 13.6	11.0 11.4	9.0 8.8	7.2 6.4
21 M	4.7 8.2	3.9 7.3	4.3 7.3	5.7 8.4	7.6 10.1	9.5 11.9	11.2 13.4	12.5 14.4	12.9 14.4	12.4 13.4	11.2 11.6	9.7 9.4
22 Tu	7.2 10.7	5.4 9.0	4.3 7.7	4.2 7.2	5.2 7.8	6.7 9.1	8.6 10.8	10.5 12.6	12.2 14.0	13.1 14.6	13.1 14.1	12.1 12.6
23 W	10.4 13.4	7.9 11.5	5.6 9.3	3.9 7.2	3.4 6.0	4.0 6.3	5.6 7.6	7.9 9.7	10.5 12.2	12.8 14.4	14.2 15.6	14.4 15.4
24 Th	13.9 16.0	11.4 14.6	8.3 11.9	5.2 8.6	2.8 5.7	1.9 4.0	2.6 4.2	4.7 6.0	7.8 9.0	11.2 12.4	14.2 15.4	15.9 17.2
25 F	17.1 18.0	15.3 17.6	12.1 15.3	8.0 11.5	4.0 7.1	1.1 3.4	0.2 1.6	1.5 2.1	4.4 4.8	8.5 8.8	12.9 13.3	16.3 17.0
26 Sa	19.0 18.7	18.7 19.9	16.3 18.7	12.1 15.2	7.1 10.2	2.4 4.9	-0.7 0.7	-1.1 -0.9	1.0 0.5	5.0 4.2	10.2 9.3	15.1 14.6
27 Su	18.7 17.6	20.6 20.8	19.9 21.3	16.6 19.0	11.5 14.3	5.7 8.2	0.6 2.3	-2.1 -1.8	-1.8 -2.7	1.4 -0.4	6.5 4.4	12.4 10.4
28 M	16.1 14.9	20.2 19.8	21.7 22.3	20.3 21.8	16.2 18.3	10.3 12.6	4.1 5.9	-0.8 -0.1	-2.9 -3.6	-1.4 -3.6	2.8 -0.3	8.7 5.2
29 Tu	11.6 11.1	17.4 17.0	21.1 21.3	22.0 22.9	19.8 21.3	15.0 16.9	8.8 10.6	2.7 3.8	-1.5 -1.7	-2.6 -4.4	-0.1 -3.4	4.9 0.6
30 W	6.5 7.2	12.8 13.2	18.1 18.5	21.2 21.8	21.4 22.3	18.6 19.9	13.5 15.0	7.5 8.6	2.0 2.3	-1.3 -2.4	-1.3 -4.0	2.0 -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. 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 Th	2.1 4.3	7.7 9.3	13.5 14.6	18.1 18.9	20.4 21.2	20.0 20.9	16.9 17.9	12.0 13.0	6.6 7.2	2.1 1.8	-0.1 -1.9	0.8 -2.7
2 F	-0.5 3.1	3.6 6.5	8.6 10.8	13.6 15.0	17.3 18.3	18.9 19.7	18.1 18.9	15.2 15.9	10.9 11.5	6.5 6.6	3.0 2.2	1.7 -0.4
3 Sa	-0.7 3.8	1.3 5.2	4.8 7.9	9.0 11.3	13.0 14.5	15.9 16.9	17.1 17.8	16.3 16.8	13.9 14.3	10.5 10.7	7.1 6.9	4.6 3.5
4 Su	1.4 6.3	1.3 5.6	2.8 6.5	5.5 8.5	8.7 10.9	11.9 13.3	14.3 15.1	15.4 15.9	15.0 15.3	13.3 13.4	10.9 10.8	8.3 7.8
5 M	5.0 9.5	3.2 7.7	2.8 6.7	3.7 7.0	5.6 8.1	8.1 9.8	10.8 11.8	13.0 13.5	14.3 14.5	14.4 14.4	13.4 13.3	11.7 11.4
6 Tu	9.0 12.6	6.4 10.5	4.5 8.3	3.6 6.9	3.9 6.5	5.2 7.1	7.3 8.5	9.9 10.5	12.3 12.5	14.0 13.9	14.6 14.4	14.0 13.8
7 W	12.3 14.8	9.9 13.2	7.2 10.7	4.9 8.0	3.7 6.1	3.6 5.4	4.7 5.9	7.0 7.5	9.8 9.9	12.5 12.4	14.5 14.2	15.3 15.0
8 Th	14.6 16.2	12.9 15.3	10.3 13.1	7.2 10.0	4.5 6.8	3.1 4.7	3.1 4.0	4.5 4.8	7.2 7.1	10.5 10.1	13.5 13.1	15.6 15.2
9 F	16.0 16.8	15.2 16.9	13.1 15.2	9.9 12.2	6.3 8.4	3.6 4.9	2.4 2.9	2.9 2.8	5.0 4.4	8.4 7.5	12.1 11.2	15.1 14.4
10 Sa	16.4 16.9	16.8 17.9	15.4 17.0	12.5 14.3	8.7 10.4	4.9 6.1	2.4 2.7	1.8 1.4	3.2 2.1	6.3 4.8	10.3 8.7	14.1 12.8
11 Su	16.0 16.3	17.6 18.4	17.2 18.3	14.9 16.3	11.2 12.6	6.9 7.9	3.2 3.5	1.5 0.8	1.9 0.4	4.4 2.3	8.3 6.0	12.7 10.5
12 M	14.7 15.2	17.5 18.2	18.3 19.2	16.9 17.9	13.7 14.7	9.4 10.1	5.0 5.2	1.9 1.2	1.2 -0.5	2.9 0.4	6.4 3.4	10.9 7.8
13 Tu	12.6 13.5	16.5 17.3	18.5 19.3	18.3 19.1	15.9 16.6	11.9 12.4	7.3 7.4	3.3 2.7	1.2 -0.4	1.8 -0.8	4.6 1.3	8.9 5.2
14 W	10.0 11.5	14.5 15.7	17.7 18.7	18.8 19.5	17.5 18.1	14.3 14.6	9.9 9.8	5.5 4.9	2.2 0.9	1.4 -1.0	3.3 -0.2	7.0 2.9
15 Th	7.3 9.5	11.9 13.8	15.9 17.3	18.1 19.1	18.2 18.8	16.1 16.3	12.4 12.1	8.0 7.3	4.2 2.9	2.1 0.0	2.6 -0.6	5.4 1.3
16 F	4.9 7.7	9.3 11.7	13.4 15.4	16.5 17.9	17.8 18.7	17.0 17.3	14.3 14.1	10.5 9.8	6.7 5.4	3.8 1.9	2.9 0.1	4.4 0.5
17 Sa	3.1 6.4	6.8 9.7	10.7 13.2	14.1 16.1	16.3 17.7	16.8 17.5	15.4 15.5	12.7 12.1	9.2 8.1	6.1 4.4	4.3 1.8	4.3 0.9
18 Su	2.0 5.8	4.7 8.0	8.1 11.0	11.4 13.9	14.1 15.9	15.6 16.8	15.6 16.1	14.0 13.9	11.5 10.7	8.6 7.2	6.3 4.2	5.2 2.4
19 M	2.0 6.3	3.3 7.0	5.9 8.9	8.8 11.4	11.4 13.6	13.6 15.2	14.7 15.7	14.5 14.9	13.2 12.9	11.0 10.1	8.8 7.2	7.0 4.8
20 Tu	3.3 7.8	3.0 7.0	4.2 7.4	6.3 8.9	8.7 10.8	11.0 12.7	12.9 14.1	14.0 14.7	14.1 14.3	13.1 12.7	11.3 10.4	9.4 7.9
21 W	5.6 10.1	4.0 8.2	3.5 7.0	4.3 6.8	6.0 7.9	8.1 9.5	10.4 11.4	12.6 13.2	14.0 14.3	14.4 14.4	13.7 13.4	12.1 11.4
22 Th	8.9 13.0	6.4 10.6	4.4 8.0	3.4 6.0	3.7 5.3	5.3 6.1	7.5 7.9	10.2 10.2	12.9 12.8	14.8 14.7	15.5 15.4	14.8 14.7
23 F	12.7 16.1	9.9 13.7	6.8 10.4	4.1 6.9	2.6 4.1	2.8 3.1	4.4 4.0	7.2 6.3	10.7 9.5	14.0 13.0	16.3 15.7	17.1 16.9
24 Sa	16.2 18.8	14.0 17.2	10.5 13.9	6.7 9.4	3.3 5.0	1.4 1.7	1.7 0.6	4.0 2.0	7.5 5.1	11.8 9.5	15.7 13.9	18.3 17.2
25 Su	18.5 20.3	17.7 20.2	14.8 17.7	10.6 13.2	5.9 7.8	2.1 2.5	-0.3 -0.9	-1.0 -1.6	4.1 0.5	8.6 4.8	13.6 10.1	17.9 15.2
26 M	18.8 20.0	20.0 21.9	18.7 21.0	15.1 17.4	10.1 11.9	4.8 5.6	0.8 0.0	-0.6 -3.2	1.0 -3.1	5.0 0.0	10.3 5.2	15.8 11.2
27 Tu	16.6 17.9	20.1 21.7	20.9 22.8	19.0 20.9	14.7 16.3	9.1 10.0	3.6 3.3	-0.2 -2.1	-0.8 -4.7	1.7 -3.6	6.5 0.4	12.4 6.2
28 W	12.6 14.3	17.9 19.5	21.0 22.5	21.2 22.7	18.5 19.9	13.7 14.6	7.8 8.0	2.5 1.4	-0.5 -3.4	-0.2 -5.0	3.1 -3.1	8.4 1.6
29 Th	7.6 10.3	13.8 15.9	18.6 20.3	21.0 22.4	20.6 21.7	17.4 18.2	12.4 12.6	6.7 6.1	2.0 0.2	-0.1 -3.7	1.1 -4.2	5.0 -1.6
30 F	3.2 6.9	9.0 11.8	14.6 16.6	18.7 20.1	20.4 21.3	19.4 19.9	16.0 16.2	11.1 10.8	6.1 4.9	2.3 0.0	1.1 -2.8	2.9 -2.6
31 Sa	0.3 4.8	4.9 8.4	10.0 12.6	14.8 16.5	18.1 19.0	19.1 19.5	17.8 17.8	14.5 14.2	10.2 9.4	6.0 4.6	3.2 0.7	2.8 -1.2

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

NOVEMBER

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 10/22	Hours 11/23
1 Su	-0.5 4.5	2.3 6.4	6.2 9.3	10.5 12.6	14.4 15.6	16.9 17.3	17.6 17.4	16.3 15.8	13.5 12.7	9.9 8.8	6.6 5.0	4.6 2.1
2 M	0.8 6.0	1.6 5.9	3.9 7.3	7.0 9.4	10.5 11.9	13.7 14.1	15.7 15.5	16.2 15.5	15.1 14.2	12.9 11.9	10.2 8.9	7.6 6.0
3 Tu	3.7 8.6	2.7 7.0	3.2 6.7	4.9 7.4	7.3 8.8	10.2 10.7	12.8 12.6	14.6 13.9	15.2 14.2	14.6 13.4	13.0 11.8	10.8 9.6
4 W	7.1 11.4	5.1 9.2	4.0 7.4	4.2 6.6	5.4 6.8	7.3 7.8	9.8 9.4	12.3 11.3	14.1 12.9	14.9 13.6	14.6 13.4	13.4 12.2
5 Th	10.4 13.8	8.1 11.6	6.0 9.0	4.7 6.9	4.6 5.7	5.4 5.6	7.3 6.6	9.8 8.5	12.4 10.7	14.3 12.7	15.3 13.8	15.1 13.9
6 F	12.9 15.5	11.0 13.8	8.5 11.2	6.2 8.1	4.7 5.6	4.5 4.3	5.4 4.4	7.5 5.7	10.3 8.2	13.1 11.0	15.1 13.3	16.0 14.6
7 Sa	14.6 16.8	13.4 15.7	11.1 13.3	8.2 9.9	5.7 6.4	4.3 3.8	4.3 2.8	5.7 3.4	8.3 5.5	11.5 8.7	14.5 12.0	16.3 14.5
8 Su	15.7 17.5	15.3 17.2	13.5 15.3	10.6 12.0	7.4 8.0	4.8 4.3	3.7 1.9	4.3 1.5	6.4 3.0	9.7 6.0	13.3 9.9	16.1 13.5
9 M	15.9 17.7	16.6 18.4	15.6 17.1	13.1 14.2	9.6 10.1	6.1 5.6	3.7 2.0	3.3 0.3	4.8 0.9	7.8 3.4	11.7 7.3	15.3 11.6
10 Tu	15.2 17.3	17.2 19.0	17.2 18.6	15.3 16.3	12.0 12.4	8.1 7.6	4.7 3.1	2.9 0.0	-3.4 -0.7	5.9 1.1	9.7 4.6	13.9 9.1
11 W	13.6 16.0	16.8 18.8	18.1 19.6	17.2 18.1	14.5 14.7	10.6 10.0	6.5 5.0	3.4 0.8	-2.6 -1.3	-4.3 -0.7	7.7 2.1	11.9 6.4
12 Th	11.2 14.1	15.3 17.7	17.9 19.7	18.3 19.4	16.6 16.9	13.1 12.6	8.9 7.5	5.0 2.7	-2.8 -0.7	-3.1 -1.7	5.7 0.0	9.7 3.7
13 F	8.4 11.8	13.0 15.9	16.6 18.8	18.4 19.7	17.9 18.4	15.4 15.0	11.5 10.3	7.3 5.2	4.0 1.0	-2.8 -1.4	-4.2 -1.2	7.6 1.5
14 Sa	5.6 9.5	10.2 13.6	14.4 17.0	17.3 19.1	18.2 19.1	16.9 16.9	13.9 13.0	9.9 8.1	6.2 3.5	3.7 0.1	-3.5 -1.2	5.8 0.0
15 Su	3.2 7.4	7.4 11.0	11.7 14.6	15.2 17.4	17.3 18.6	17.4 17.8	15.6 15.1	12.4 11.0	8.8 6.5	5.7 2.6	4.1 0.1	-4.7 -0.3
16 M	1.5 5.9	4.9 8.6	8.8 11.9	12.6 14.9	15.5 17.0	16.9 17.6	16.5 16.3	14.5 13.5	11.4 9.7	8.2 5.7	5.7 2.5	4.8 0.7
17 Tu	0.9 5.6	3.0 6.7	6.2 9.2	9.7 12.0	12.9 14.4	15.3 16.0	16.3 16.3	15.7 15.1	13.7 12.5	10.9 9.1	8.2 5.7	6.2 3.1
18 W	1.7 6.6	2.1 6.0	4.1 6.8	6.9 8.8	10.0 11.2	12.9 13.3	15.0 14.9	15.8 15.3	15.3 14.3	13.5 12.2	11.0 9.3	8.5 6.4
19 Th	4.0 8.8	2.7 6.7	2.9 5.7	4.6 6.1	7.2 7.7	10.0 9.8	12.8 12.0	14.9 13.8	15.9 14.7	15.5 14.3	13.8 12.6	11.4 10.1
20 F	7.4 11.9	4.9 8.9	3.4 6.2	3.3 4.6	4.7 4.6	7.1 6.0	10.0 8.2	13.0 10.8	15.4 13.3	16.5 14.8	16.2 14.9	14.5 13.6
21 Sa	11.3 15.3	8.4 12.1	5.6 8.4	3.6 5.0	3.2 2.8	4.4 2.6	6.9 4.0	10.2 6.7	13.6 10.1	16.4 13.3	17.7 15.5	17.3 16.1
22 Su	14.9 18.4	12.4 15.9	9.1 11.9	5.7 7.3	3.3 3.2	2.7 0.7	4.1 0.4	6.9 2.3	10.8 5.7	14.7 10.0	17.8 14.0	19.1 16.7
23 M	17.4 20.5	16.2 19.3	13.3 15.9	9.4 11.1	5.4 5.7	2.7 1.0	-2.1 -1.6	-3.9 -1.4	7.3 1.2	11.8 5.5	16.2 10.6	19.4 15.1
24 Tu	18.0 20.9	18.7 21.5	17.1 19.6	13.6 15.4	9.1 9.7	4.7 3.7	-1.9 -1.1	-3.4 -3.4	-4.0 -2.6	8.2 0.9	13.2 6.0	17.9 11.7
25 W	16.5 19.4	19.3 21.9	19.6 21.9	17.5 19.2	13.4 14.2	8.3 8.0	3.8 1.7	-1.3 -2.9	-1.6 -4.5	-4.7 -2.8	9.4 1.4	14.8 7.2
26 Th	13.1 16.2	17.7 20.4	20.2 22.3	19.9 21.6	17.2 18.1	12.6 12.6	7.3 6.1	2.9 0.0	-1.0 -3.9	-2.1 -4.6	-5.8 -2.0	10.9 2.7
27 F	8.7 12.3	14.4 17.3	18.6 20.8	20.5 22.0	19.6 20.5	16.3 16.4	11.4 10.7	6.3 4.4	-2.4 -1.0	-1.3 -4.0	-3.1 -3.7	-7.2 -0.5
28 Sa	4.5 8.6	10.2 13.4	15.4 17.7	19.0 20.4	20.1 20.8	18.6 18.7	15.0 14.5	10.2 8.9	5.5 3.2	-2.5 -1.2	-2.1 -3.1	-4.5 -2.0
29 Su	1.4 5.9	6.3 9.7	11.5 13.9	16.0 17.4	18.7 19.3	19.2 19.1	17.3 16.7	13.7 12.5	9.3 7.5	5.3 2.8	-3.1 -0.6	-3.4 -1.5
30 M	0.1 4.8	3.5 7.2	7.8 10.4	12.3 13.8	16.0 16.5	18.0 17.7	17.9 17.1	15.9 14.7	12.5 11.0	8.8 6.8	5.6 3.1	4.1 0.7

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 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 Tu	0.5 5.2	2.2 5.9	5.3 7.9	9.0 10.5	12.7 13.1	15.6 15.2	17.0 15.9	16.6 15.2	14.7 13.1	11.8 10.0	8.7 6.8	6.2 3.9
2 W	2.3 6.9	2.4 6.0	4.0 6.5	6.6 8.0	9.7 9.9	12.8 12.0	15.0 13.7	16.0 14.3	15.6 13.7	13.9 12.1	11.5 9.8	9.0 7.3
3 Th	5.1 9.3	3.9 7.3	4.0 6.4	5.4 6.5	7.5 7.5	10.1 9.0	12.7 10.9	14.6 12.4	15.4 13.2	15.0 13.0	13.6 11.8	11.6 10.0
4 F	8.0 11.6	6.1 9.3	5.1 7.2	5.1 6.0	6.2 5.9	8.1 6.6	10.4 8.1	12.7 10.0	14.5 11.7	15.3 12.8	14.9 12.9	13.6 12.1
5 Sa	10.6 13.6	8.7 11.4	6.9 8.8	5.7 6.5	5.7 5.0	6.7 4.8	8.4 5.6	10.8 7.3	13.1 9.6	14.9 11.7	15.5 13.1	15.1 13.4
6 Su	12.7 15.4	11.2 13.5	9.1 10.8	7.1 7.7	5.9 5.1	5.8 3.6	6.9 3.6	8.9 4.8	11.5 7.1	14.0 9.9	15.6 12.4	16.1 14.0
7 M	14.3 16.8	13.3 15.4	11.5 12.9	9.0 9.6	6.8 6.1	5.5 3.3	5.7 2.1	7.2 2.5	9.6 4.5	12.6 7.5	15.2 10.9	16.7 13.7
8 Tu	15.2 17.8	15.2 17.2	13.8 15.1	11.3 11.8	8.4 7.8	6.0 4.0	5.0 1.4	5.6 0.8	7.7 2.0	10.8 4.8	14.0 8.6	16.6 12.4
9 W	15.2 18.1	16.4 18.6	15.8 17.3	13.7 14.3	10.6 10.1	7.4 5.6	5.0 1.8	4.4 -0.3	5.8 -0.1	8.7 2.2	12.3 5.9	15.7 10.2
10 Th	14.1 17.4	16.7 19.2	17.3 19.0	16.0 16.7	13.1 12.8	9.5 8.0	6.0 3.3	4.0 -0.3	4.2 -1.5	6.5 -0.2	10.0 3.0	14.0 7.5
11 F	12.1 15.8	15.9 18.8	17.9 19.9	17.7 18.8	15.6 15.6	12.0 10.9	8.0 5.7	4.7 1.1	3.3 -1.8	4.5 -1.9	7.6 0.4	11.7 4.5
12 Sa	9.4 13.3	14.0 17.2	17.3 19.7	18.6 20.0	17.6 18.0	14.7 14.0	10.6 8.8	6.5 3.5	3.6 -0.6	3.2 -2.5	5.2 -1.5	9.0 1.8
13 Su	6.3 10.5	11.3 14.8	15.6 18.2	18.2 20.0	18.7 19.4	16.9 16.6	13.3 12.0	9.1 6.7	5.2 1.8	3.1 -1.6	3.6 -2.4	6.4 -0.4
14 M	3.5 7.6	8.2 11.7	13.0 15.6	16.7 18.5	18.6 19.5	18.2 18.3	15.8 14.9	11.9 10.2	7.8 5.1	4.5 0.8	3.1 -1.6	4.3 -1.5
15 Tu	1.2 5.2	5.3 8.5	9.9 12.4	14.2 15.8	17.3 18.1	18.4 18.5	17.4 16.8	14.6 13.3	10.7 8.8	6.9 4.2	4.2 0.7	3.5 -0.9
16 W	-0.1 4.0	2.9 5.8	7.0 9.0	11.2 12.4	15.0 15.3	17.4 17.1	18.0 17.2	16.6 15.4	13.6 12.1	9.9 8.0	6.5 4.1	4.3 1.3
17 Th	0.3 4.5	1.5 4.3	4.5 6.0	8.3 8.7	12.1 11.6	15.3 14.2	17.3 15.8	17.5 15.9	15.9 14.3	13.0 11.5	9.6 8.0	6.5 4.8
18 F	2.5 6.7	1.7 4.6	3.0 4.2	5.7 5.4	9.1 7.7	12.5 10.3	15.5 12.8	17.2 14.5	17.2 15.0	15.7 13.9	12.9 11.6	9.7 8.7
19 Sa	5.9 9.9	3.7 6.7	3.0 4.3	4.0 3.4	6.4 4.2	9.5 6.2	12.7 8.8	15.6 11.5	17.2 13.7	17.3 14.6	15.9 14.1	13.2 12.4
20 Su	9.8 13.6	7.1 10.1	4.9 6.4	3.9 3.5	4.6 2.2	6.7 2.6	9.6 4.5	12.9 7.4	15.8 10.6	17.6 13.4	17.8 14.9	16.4 14.9
21 M	13.5 17.1	11.1 14.0	8.1 9.9	5.5 5.6	4.2 2.2	4.6 0.5	6.6 0.9	9.7 3.1	13.2 6.4	16.4 10.3	18.4 13.7	18.6 15.8
22 Tu	16.1 19.5	14.7 17.6	12.1 14.0	8.7 9.3	5.6 4.4	4.0 0.6	4.3 -1.2	6.4 -0.5	9.8 2.1	13.8 6.2	17.3 10.8	19.3 14.6
23 W	17.0 20.3	17.3 20.2	15.7 17.8	12.6 13.6	8.7 8.2	5.2 2.8	3.4 -1.1	3.9 -2.6	6.4 -1.4	10.3 1.9	14.6 6.7	18.3 11.8
24 Th	15.9 19.3	18.2 21.1	18.3 20.4	16.2 17.5	12.5 12.6	8.1 6.7	4.3 1.1	2.7 -2.6	3.6 -3.5	6.6 -1.5	11.0 2.6	15.7 8.0
25 F	13.3 16.8	17.3 20.2	19.3 21.4	18.8 20.1	16.0 16.5	11.7 11.1	7.0 4.9	3.3 -0.5	2.2 -3.5	3.7 -3.5	7.3 -0.8	12.0 4.0
26 Sa	9.6 13.2	14.9 17.7	18.5 20.6	19.8 21.1	18.6 19.1	15.2 14.9	10.5 9.2	5.7 3.2	2.5 -1.6	2.1 -3.7	4.3 -2.7	8.3 0.8
27 Su	5.9 9.5	11.5 14.2	16.3 18.2	19.2 20.4	19.7 20.2	17.8 17.5	13.9 12.9	9.0 7.3	4.6 1.8	2.2 -2.0	2.5 -2.9	5.3 -1.1
28 M	2.9 6.5	8.0 10.7	13.2 14.9	17.2 18.1	19.3 19.5	19.0 18.6	16.4 15.5	12.3 10.8	7.7 5.7	4.0 1.1	2.4 -1.5	3.5 -1.4
29 Tu	1.1 4.7	5.2 7.8	10.0 11.5	14.5 15.0	17.6 17.5	18.8 18.1	17.7 16.6	14.8 13.4	10.8 9.1	6.7 4.7	3.9 1.2	3.2 -0.2
30 W	0.7 4.2	3.5 5.9	7.4 8.7	11.5 11.8	15.2 14.6	17.4 16.3	17.7 16.3	16.2 14.6	13.2 11.5	9.6 7.9	6.3 4.4	4.3 2.1
31 Th	1.5 4.9	2.9 5.2	5.7 6.7	9.1 9.1	12.6 11.6	15.4 13.7	16.8 14.8	16.5 14.5	14.8 12.9	12.0 10.3	9.0 7.4	6.4 4.9

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

JANUARY

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 107/22	Hours 117/23
1 Th	8.5 10.9	7.0 8.4	5.3 5.5	4.1 2.7	3.8 0.8	4.5 0.1	6.2 0.9	8.4 2.7	10.6 5.0	12.3 7.3	13.0 9.1	12.6 10.0
2 F	9.9 12.6	8.9 10.7	7.3 7.9	5.5 4.7	4.1 1.7	3.7 -0.2	4.5 -0.5	6.5 0.6	8.9 2.9	11.1 5.5	12.7 8.0	13.3 9.7
3 Sa	10.6 13.4	10.3 12.3	9.1 10.1	7.2 7.0	5.2 3.5	3.8 0.6	3.5 -1.0	4.7 -0.8	7.0 0.9	9.5 3.6	11.8 6.4	13.2 8.8
4 Su	10.5 13.4	11.0 13.3	10.5 11.8	8.9 9.1	6.7 5.7	4.6 2.3	3.3 -0.4	3.5 -1.4	5.2 -0.5	7.7 1.7	10.3 4.6	12.3 7.5
5 M	9.8 12.8	11.1 13.4	11.2 12.8	10.2 10.8	8.3 7.8	5.9 4.3	3.9 1.1	3.1 -1.0	3.8 -1.3	5.8 0.2	8.5 2.9	11.0 6.0
6 Tu	8.7 11.6	10.6 12.9	11.4 13.1	11.1 11.9	9.6 9.5	7.4 6.3	5.0 2.9	3.4 0.2	3.1 -1.2	4.3 -0.7	6.7 1.4	9.4 4.4
7 W	7.3 10.1	9.7 11.9	11.1 12.7	11.4 12.3	10.6 10.7	8.7 8.0	6.4 4.9	4.3 1.8	3.1 -0.3	3.3 -0.8	5.0 0.4	7.5 2.9
8 Th	5.9 8.3	8.6 10.5	10.5 11.9	11.3 12.1	11.1 11.2	9.8 9.3	7.7 6.6	5.5 3.7	3.7 1.2	3.1 -0.2	3.9 0.1	5.8 1.8
9 F	4.5 6.6	7.3 8.8	9.6 10.6	10.9 11.4	11.2 11.2	10.5 10.0	8.9 7.9	6.9 5.4	4.8 2.9	3.5 1.1	3.4 0.4	4.5 1.3
10 Sa	3.4 5.1	6.1 7.1	8.5 8.9	10.2 10.2	11.0 10.5	10.8 10.0	9.8 8.7	8.1 6.8	6.2 4.6	4.4 2.6	3.5 1.4	3.8 1.5
11 Su	2.8 4.2	5.0 5.5	7.3 7.2	9.3 8.6	10.4 9.4	10.8 9.5	10.4 9.0	9.2 7.8	7.5 6.1	5.7 4.3	4.3 2.8	3.7 2.2
12 M	2.7 3.9	4.2 4.4	6.2 5.6	8.2 6.9	9.7 7.9	10.5 8.5	10.6 8.6	10.1 8.2	8.8 7.2	7.1 5.8	5.4 4.4	4.2 3.3
13 Tu	3.1 4.2	3.8 3.8	5.3 4.2	7.1 5.1	8.7 6.2	9.9 7.1	10.5 7.7	10.6 8.1	9.9 7.9	8.6 7.1	6.9 6.0	5.3 4.8
14 W	4.1 5.1	4.0 3.9	4.7 3.4	6.0 3.6	7.6 4.3	9.0 5.3	10.1 6.4	10.7 7.3	10.8 7.9	10.0 8.0	8.6 7.4	6.8 6.4
15 Th	5.4 6.7	4.7 4.8	4.6 3.4	5.2 2.6	6.3 2.6	7.7 3.3	9.2 4.6	10.4 6.0	11.2 7.4	11.2 8.3	10.3 8.5	8.7 8.0
16 F	7.0 8.8	5.9 6.5	5.1 4.2	4.8 2.4	5.2 1.3	6.3 1.4	7.9 2.4	9.6 4.2	11.0 6.1	11.8 7.9	11.7 9.0	10.7 9.2
17 Sa	8.6 11.0	7.5 8.7	6.1 6.0	5.0 3.2	4.4 1.0	4.8 0.0	6.1 0.3	8.1 1.9	10.2 4.2	11.8 6.7	12.7 8.7	12.4 9.9
18 Su	10.1 13.0	9.3 11.2	7.7 8.4	6.0 5.1	4.4 1.9	3.7 -0.4	4.3 -1.3	6.0 -0.5	8.5 1.8	10.9 4.7	12.7 7.6	13.5 9.8
19 M	10.9 14.2	10.8 13.3	9.6 11.1	7.6 7.7	5.3 3.9	3.5 0.5	2.9 -1.8	3.9 -2.2	6.1 -0.6	9.1 2.3	11.8 5.7	13.6 8.8
20 Tu	10.9 14.3	11.8 14.6	11.4 13.3	9.6 10.6	7.1 6.8	4.4 2.6	2.5 -0.8	2.2 -2.7	3.6 -2.5	6.4 -0.2	9.7 3.2	12.5 6.9
21 W	10.0 13.0	12.0 14.6	12.5 14.5	11.5 12.8	9.2 9.7	6.2 5.6	3.4 1.5	1.6 -1.7	1.7 -3.0	3.6 -2.1	6.8 0.7	10.3 4.5
22 Th	8.3 10.6	11.2 13.2	12.8 14.4	12.8 13.9	11.3 11.9	8.6 8.6	5.3 4.5	2.5 0.6	1.0 -2.0	1.5 -2.7	3.8 -1.1	7.2 2.1
23 F	6.0 7.5	9.6 10.7	12.1 12.8	13.2 13.6	12.8 12.9	10.8 10.8	7.8 7.5	4.5 3.7	1.9 0.3	0.7 -1.7	1.6 -1.7	4.1 0.3
24 Sa	3.7 4.4	7.4 7.5	10.6 10.2	12.6 12.0	13.2 12.4	12.4 11.7	10.2 9.6	7.2 6.7	4.0 3.4	1.6 0.6	0.8 -0.8	1.9 -0.3
25 Su	2.0 2.3	5.3 4.6	8.6 7.2	11.1 9.4	12.7 10.7	12.9 11.1	11.9 10.4	9.7 8.7	6.7 6.2	3.8 3.5	1.7 1.4	1.1 0.6
26 M	1.4 1.6	3.6 2.5	6.5 4.4	9.2 6.4	11.2 8.2	12.4 9.3	12.5 9.8	11.4 9.4	9.3 8.2	6.6 6.2	3.9 4.1	2.0 2.5
27 Tu	2.0 2.5	2.9 1.9	4.8 2.5	7.2 3.9	9.3 5.5	11.0 6.9	12.0 8.1	12.1 8.8	11.2 8.9	9.2 8.0	6.7 6.6	4.2 4.9
28 W	3.7 4.6	3.4 2.8	4.0 2.0	5.5 2.2	7.3 3.1	9.1 4.4	10.7 5.9	11.7 7.3	11.9 8.4	11.0 8.7	9.3 8.3	6.9 7.2
29 Th	5.9 7.2	4.8 4.8	4.3 2.9	4.6 1.7	5.7 1.6	7.2 2.3	8.9 3.7	10.4 5.4	11.6 7.1	11.8 8.4	11.1 9.0	9.4 8.8
30 F	7.9 9.5	6.6 7.2	5.4 4.7	4.6 2.5	4.6 1.1	5.5 0.8	7.0 1.7	8.8 3.3	10.5 5.4	11.7 7.4	12.0 8.9	11.2 9.6
31 Sa	9.4 11.3	8.4 9.5	7.0 6.9	5.5 4.1	4.4 1.7	4.3 0.3	5.2 0.3	6.9 1.5	8.9 3.6	10.8 6.0	12.0 8.1	12.2 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).

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 Su	10.2 12.3	9.8 11.2	8.6 9.0	6.8 6.1	5.0 3.1	3.9 0.7	3.9 -0.4	5.1 0.1	7.1 1.9	9.4 4.4	11.3 7.0	12.3 9.1
2 M	10.4 12.7	10.7 12.3	9.9 10.7	8.2 8.1	6.1 4.9	4.1 1.8	3.2 -0.3	3.6 -0.8	5.3 0.4	7.7 2.8	10.1 5.6	11.8 8.2
3 Tu	10.1 12.4	11.1 12.8	10.9 11.9	9.5 9.8	7.4 6.8	5.0 3.4	3.2 0.6	2.7 -0.9	3.7 -0.6	5.9 1.3	8.5 4.1	10.8 7.1
4 W	9.5 11.5	11.0 12.6	11.4 12.5	10.6 11.1	8.7 8.5	6.2 5.2	3.8 2.0	2.5 -0.3	2.6 -0.9	4.2 0.2	6.7 2.7	9.4 5.8
5 Th	8.6 10.2	10.6 12.0	11.6 12.5	11.3 11.8	9.8 9.8	7.5 6.9	4.9 3.7	2.9 0.9	2.1 -0.6	2.8 -0.3	5.0 1.6	7.7 4.4
6 F	7.5 8.6	9.9 10.8	11.4 12.0	11.7 11.9	10.7 10.6	8.7 8.3	6.2 5.4	3.8 2.5	2.2 0.4	2.1 -0.2	3.5 0.8	5.9 3.3
7 Sa	6.3 6.9	9.0 9.3	10.9 11.0	11.7 11.5	11.3 10.9	9.8 9.3	7.5 6.9	5.0 4.2	2.9 1.8	2.0 0.5	2.5 0.7	4.3 2.4
8 Su	5.1 5.2	8.0 7.6	10.2 9.5	11.4 10.6	11.5 10.7	10.5 9.7	8.7 8.0	6.4 5.7	4.1 3.4	2.5 1.7	2.1 1.2	3.1 2.1
9 M	4.2 3.8	6.8 5.9	9.2 7.9	10.8 9.3	11.4 9.9	11.0 9.6	9.7 8.6	7.8 6.9	5.5 5.0	3.6 3.2	2.5 2.2	2.5 2.3
10 Tu	3.6 3.0	5.8 4.3	8.1 6.1	10.0 7.7	11.0 8.6	11.1 8.9	10.4 8.6	9.0 7.7	7.1 6.4	5.0 4.8	3.4 3.5	2.6 3.0
11 W	3.5 2.9	5.0 3.3	7.0 4.4	8.9 5.8	10.3 7.0	10.9 7.8	10.7 8.1	10.0 8.0	8.6 7.4	6.7 6.3	4.8 5.1	3.4 4.1
12 Th	3.9 3.5	4.6 2.9	5.9 3.1	7.6 4.0	9.1 5.1	10.2 6.2	10.7 7.1	10.6 7.7	9.9 7.9	8.5 7.5	6.7 6.6	4.9 5.6
13 F	4.8 4.9	4.7 3.4	5.2 2.6	6.3 2.5	7.6 3.1	9.0 4.1	10.1 5.4	10.7 6.7	10.8 7.7	10.1 8.2	8.7 8.0	6.9 7.3
14 Sa	6.3 7.1	5.4 4.9	5.0 3.0	5.2 1.8	6.0 1.4	7.3 1.9	8.8 3.3	10.1 5.1	11.1 6.8	11.3 8.3	10.7 9.0	9.2 8.9
15 Su	8.0 9.7	6.8 7.2	5.5 4.6	4.7 2.2	4.5 0.5	5.3 0.1	6.8 0.9	8.6 2.8	10.4 5.2	11.7 7.5	12.1 9.2	11.4 10.0
16 M	9.8 12.0	8.6 10.0	6.9 7.1	5.1 3.9	3.8 1.0	3.5 -0.8	4.4 -1.0	6.3 0.4	8.8 3.0	11.0 5.9	12.5 8.6	12.9 10.5
17 Tu	11.1 13.7	10.6 12.5	8.9 10.0	6.6 6.5	4.2 2.8	2.6 -0.3	2.3 -2.0	3.6 -1.7	6.2 0.5	9.2 3.7	11.7 7.1	13.4 10.0
18 W	11.8 14.0	12.1 14.1	11.0 12.5	8.7 9.5	5.7 5.6	2.9 1.6	1.2 -1.5	1.3 -2.7	3.2 -1.7	6.3 1.2	9.7 4.9	12.4 8.6
19 Th	11.5 13.0	12.9 14.3	12.8 14.1	11.0 12.1	8.1 8.7	4.6 4.5	1.6 0.5	0.0 -2.1	0.6 -2.7	3.0 -0.9	6.6 2.5	10.2 6.5
20 F	10.2 10.6	12.7 13.1	13.7 14.2	12.9 13.5	10.6 11.2	7.1 7.6	3.3 3.5	0.4 -0.1	-0.7 -2.2	0.4 -2.0	3.3 0.4	7.0 4.1
21 Sa	8.1 7.4	11.5 10.7	13.5 12.8	13.9 13.4	12.6 12.5	9.8 10.0	6.0 6.6	2.3 2.8	-0.3 -0.2	-0.9 -1.5	0.6 -0.7	3.7 2.1
22 Su	5.8 4.2	9.5 7.6	12.3 10.3	13.7 12.0	13.6 12.3	11.9 11.2	8.8 8.9	5.2 5.8	1.7 2.6	-0.4 0.3	-0.6 -0.3	1.1 1.0
23 M	3.8 1.8	7.3 4.6	10.4 7.4	12.5 9.6	13.4 10.8	12.9 10.9	11.0 10.0	8.0 8.0	4.6 5.4	1.6 3.0	-0.1 1.3	0.0 1.2
24 Tu	2.7 0.9	5.3 2.4	8.2 4.7	10.7 6.9	12.2 8.5	12.7 9.5	12.0 9.7	10.2 9.0	7.5 7.5	4.5 5.6	2.0 3.7	0.6 2.6
25 W	2.8 1.5	4.2 1.6	6.3 2.8	8.6 4.4	10.4 6.0	11.5 7.4	11.8 8.4	11.2 8.8	9.7 8.5	7.3 7.5	4.8 6.1	2.6 4.7
26 Th	3.9 3.3	4.1 2.2	5.1 2.0	6.7 2.7	8.3 3.8	9.7 5.1	10.7 6.5	11.1 7.7	10.7 8.4	9.5 8.5	7.5 7.9	5.2 6.8
27 F	5.6 5.7	4.9 3.8	4.8 2.5	5.4 2.0	6.4 2.2	7.7 3.1	9.0 4.5	10.1 6.0	10.7 7.5	10.6 8.5	9.5 8.8	7.8 8.4
28 Sa	7.5 8.1	6.3 6.0	5.3 3.9	4.9 2.3	5.0 1.5	5.9 1.7	7.1 2.7	8.6 4.3	9.9 6.2	10.7 7.9	10.7 9.0	9.7 9.4

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

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 Su	9.0 9.9	7.9 8.1	6.5 5.8	5.1 3.5	4.4 1.6	4.4 0.8	5.3 1.2	6.8 2.7	8.6 4.7	10.1 6.9	11.0 8.7	10.9 9.8
2 M	10.0 11.2	9.3 9.9	7.8 7.8	6.0 5.1	4.4 2.5	3.5 0.8	3.7 0.3	5.0 1.2	7.0 3.2	9.0 5.6	10.6 8.0	11.4 9.7
3 Tu	10.5 11.8	10.3 11.2	9.1 9.5	7.2 6.9	5.0 4.0	3.3 1.4	2.7 0.0	3.4 0.2	5.2 1.8	7.5 4.3	9.7 7.0	11.2 9.3
4 W	10.7 11.8	11.0 11.9	10.3 10.8	8.4 8.6	6.0 5.6	3.7 2.6	2.2 0.4	-2.1 -0.3	3.5 0.7	5.8 3.0	8.4 5.9	10.5 8.5
5 Th	10.5 11.3	11.4 12.1	11.1 11.7	9.6 9.9	7.3 7.2	4.6 4.1	2.3 1.4	-1.4 -0.2	2.0 0.0	4.0 1.8	6.7 4.6	9.4 7.6
6 F	10.0 10.3	11.5 11.8	11.7 12.0	10.7 10.9	8.5 8.7	5.8 5.7	3.1 2.7	1.3 0.6	-1.0 -0.1	2.4 0.9	4.9 3.4	7.8 6.5
7 Sa	9.3 8.8	11.2 10.9	12.0 11.8	11.5 11.4	9.7 9.8	7.1 7.2	4.2 4.3	1.8 1.8	0.7 0.4	1.2 0.6	3.2 2.4	6.1 5.3
8 Su	8.3 7.1	10.7 9.6	12.0 11.1	12.0 11.4	10.7 10.4	8.4 8.5	5.6 5.9	2.9 3.3	1.0 1.4	0.6 0.8	1.9 1.8	4.3 4.2
9 M	7.2 5.4	9.8 8.0	11.5 9.9	12.1 10.8	11.4 10.5	9.6 9.2	7.0 7.2	4.3 4.9	2.0 2.8	0.8 1.6	1.0 1.8	2.8 3.4
10 Tu	6.0 3.7	8.7 6.2	10.8 8.3	11.8 9.7	11.7 10.0	10.4 9.5	8.4 8.1	5.9 6.3	3.4 4.3	1.6 2.8	0.9 2.3	1.7 3.1
11 W	5.0 2.4	7.5 4.4	9.8 6.5	11.2 8.2	11.6 9.0	11.0 9.1	9.5 8.5	7.5 7.4	5.1 5.8	2.9 4.3	1.5 3.3	1.4 3.2
12 Th	4.3 1.8	6.3 2.9	8.5 4.6	10.2 6.3	11.1 7.6	11.1 8.3	10.3 8.4	8.9 8.0	6.9 7.1	4.8 5.9	2.9 4.7	1.8 4.0
13 F	4.2 2.1	5.3 2.1	7.0 3.0	8.7 4.3	10.0 5.7	10.7 6.8	10.6 7.6	9.9 8.0	8.6 8.0	6.8 7.3	4.8 6.3	3.1 5.2
14 Sa	4.6 3.4	4.8 2.3	5.6 2.0	7.0 2.5	8.4 3.6	9.5 4.9	10.2 6.3	10.4 7.4	10.0 8.2	8.9 8.4	7.1 7.9	5.1 6.9
15 Su	5.8 5.5	5.0 3.5	4.8 2.0	5.3 1.3	6.3 1.6	7.7 2.7	9.0 4.3	10.0 6.1	10.6 7.8	10.4 9.0	9.4 9.3	7.7 8.7
16 M	7.5 8.2	6.1 5.8	4.8 3.3	4.2 1.4	4.3 0.4	5.3 0.6	6.8 2.0	8.6 4.2	10.2 6.6	11.2 8.7	11.2 10.1	10.2 10.4
17 Tu	9.6 10.8	7.9 8.6	5.9 5.7	4.1 2.7	2.9 0.4	-2.9 -0.7	-4.1 -0.2	6.2 1.8	8.6 4.7	10.7 7.6	11.9 10.0	12.0 11.4
18 W	11.4 12.7	10.2 11.3	7.9 8.6	5.2 5.2	2.8 1.8	-1.3 -0.6	-1.5 -1.5	-3.2 -0.4	5.9 2.3	8.9 5.8	11.4 9.1	12.7 11.5
19 Th	12.6 13.4	12.2 13.2	10.3 11.4	7.4 8.2	4.0 4.4	1.2 0.9	-0.2 -1.4	0.3 -1.7	2.7 0.1	6.0 3.4	9.4 7.2	12.0 10.6
20 F	12.9 12.5	13.6 13.7	12.6 13.1	10.0 10.9	6.4 7.5	2.6 3.5	-0.4 0.1	-1.4 -1.7	-0.3 -1.3	2.6 1.2	6.4 4.9	9.9 8.9
21 Sa	12.0 10.4	13.9 12.7	14.0 13.5	12.3 12.6	9.2 10.1	5.1 6.5	1.2 2.7	-1.5 -0.2	-2.1 -1.4	-0.4 -0.3	3.0 2.6	6.9 6.6
22 Su	10.3 7.4	13.1 10.5	14.3 12.5	13.8 12.9	11.6 11.7	8.0 9.1	3.9 5.7	0.2 2.3	-2.0 0.0	-2.0 -0.5	0.1 1.1	3.6 4.3
23 M	8.1 4.3	11.4 7.7	13.5 10.4	14.1 11.8	13.1 11.8	10.5 10.5	6.9 8.1	3.0 5.1	-0.3 2.3	-1.9 0.7	-1.4 0.8	0.9 2.7
24 Tu	5.9 1.9	9.1 4.9	11.8 7.7	13.2 9.8	13.3 10.8	12.0 10.7	9.4 9.5	6.0 7.4	2.5 4.9	-0.2 2.8	-1.3 1.8	-0.4 2.3
25 W	4.3 0.7	7.0 2.8	9.6 5.2	11.5 7.4	12.4 8.9	12.2 9.7	10.8 9.6	8.5 8.7	5.5 7.1	2.6 5.2	0.4 3.6	-0.2 3.0
26 Th	3.7 0.9	5.4 1.7	7.5 3.3	9.5 5.1	10.8 6.7	11.3 8.0	11.0 8.7	9.9 8.9	7.9 8.4	5.4 7.2	3.0 5.7	1.3 4.5
27 F	4.1 2.3	4.6 1.8	5.9 2.2	7.4 3.3	8.8 4.7	9.7 6.0	10.3 7.3	10.2 8.2	9.3 8.7	7.7 8.4	5.7 7.5	3.7 6.4
28 Sa	5.3 4.3	4.9 2.9	5.0 2.3	5.8 2.4	6.8 3.1	7.9 4.2	8.8 5.6	9.5 7.1	9.7 8.2	9.2 8.9	7.8 8.7	6.1 8.0
29 Su	6.9 6.5	5.8 4.7	5.0 3.1	4.8 2.2	5.2 2.1	6.0 2.7	7.1 4.0	8.3 5.7	9.3 7.4	9.7 8.7	9.3 9.4	8.1 9.2
30 M	8.3 8.3	7.0 6.6	5.6 4.6	4.5 2.8	4.0 1.8	4.3 1.7	5.3 2.6	6.7 4.2	8.3 6.3	9.5 8.2	10.0 9.5	9.5 10.0
31 Tu	9.5 9.8	8.4 8.3	6.7 6.3	4.9 4.0	3.5 2.1	3.0 1.2	3.6 1.5	5.0 2.9	6.9 5.1	8.7 7.3	10.0 9.2	10.3 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).

APRIL

Predicted hourly heights in feet

Day	Hours 07/12	Hours 17/13	Hours 27/14	Hours 37/15	Hours 47/16	Hours 57/17	Hours 67/18	Hours 77/19	Hours 87/20	Hours 97/21	Hours 107/22	Hours 117/23
1 W	10.5 10.7	9.6 9.8	7.9 7.9	5.8 5.5	3.7 3.1	2.3 1.3	2.2 0.8	3.2 1.8	5.2 3.8	7.4 6.3	9.4 8.7	10.5 10.4
2 Th	11.1 11.1	10.7 10.8	9.2 9.4	6.9 7.1	4.4 4.4	2.2 2.1	1.2 0.7	1.7 0.9	3.4 2.6	5.9 5.2	8.3 7.9	10.2 10.1
3 F	11.4 10.9	11.5 11.3	10.4 10.5	8.2 8.6	5.5 6.0	2.8 3.3	0.9 1.2	0.5 0.6	1.7 1.6	4.1 4.0	6.8 6.9	9.3 9.5
4 Sa	11.3 10.2	12.0 11.3	11.4 11.2	9.5 9.9	6.8 7.5	3.8 4.7	1.2 2.3	0.0 0.9	0.4 1.1	2.3 2.9	5.1 5.7	7.9 8.6
5 Su	10.9 9.0	12.2 10.8	12.1 11.4	10.7 10.7	8.2 8.8	5.2 6.3	2.2 3.6	0.1 1.7	-0.4 1.1	0.8 2.1	3.3 4.5	6.3 7.5
6 M	10.2 7.4	11.9 9.7	12.4 10.9	11.6 10.9	9.6 9.8	6.7 7.7	3.6 5.2	0.9 2.9	-0.5 1.6	-0.3 1.8	1.6 3.5	4.4 6.2
7 Tu	9.1 5.5	11.3 8.2	12.4 10.0	12.1 10.7	10.7 10.2	8.2 8.8	5.2 6.7	2.3 4.4	0.2 2.7	-0.6 2.1	0.3 2.9	2.6 5.0
8 W	7.8 3.7	10.3 6.4	11.9 8.6	12.2 9.8	11.4 10.0	9.5 9.3	6.9 7.9	4.0 6.0	1.5 4.1	-0.1 2.9	-0.2 2.8	1.2 4.1
9 Th	6.4 2.0	8.9 4.4	10.9 6.8	11.9 8.5	11.7 9.3	10.5 9.3	8.5 8.6	6.0 7.3	3.3 5.7	1.2 4.2	0.1 3.4	0.4 3.7
10 F	5.1 1.0	7.3 2.6	9.5 4.8	10.9 6.7	11.4 8.1	10.9 8.7	9.7 8.8	7.8 8.3	5.4 7.2	3.1 5.8	1.3 4.5	0.5 3.9
11 Sa	4.4 1.0	5.8 1.5	7.6 2.9	9.3 4.6	10.4 6.3	10.7 7.6	10.3 8.4	9.2 8.7	7.5 8.4	5.4 7.4	3.2 6.1	1.6 4.9
12 Su	4.4 2.0	4.7 1.3	5.7 1.5	7.2 2.6	8.6 4.2	9.6 5.9	10.1 7.3	10.0 8.5	9.2 9.1	7.7 8.9	5.7 8.0	3.6 6.6
13 M	5.2 4.1	4.4 2.3	4.3 1.3	5.0 1.2	6.2 2.1	7.6 3.7	8.9 5.7	9.7 7.6	10.0 9.1	9.6 9.9	8.2 9.7	6.2 8.6
14 Tu	6.9 6.8	5.2 4.4	3.9 2.3	3.4 0.9	3.7 0.7	4.9 1.6	6.6 3.6	8.4 6.0	9.8 8.4	10.5 10.2	10.2 11.0	8.9 10.6
15 W	9.2 9.5	7.0 7.2	4.7 4.5	2.8 2.0	1.9 0.4	2.2 0.1	3.7 1.4	5.9 3.9	8.3 6.9	10.1 9.6	11.1 11.5	10.9 12.1
16 Th	11.4 11.5	9.4 9.9	6.6 7.3	3.7 4.2	1.3 1.4	0.2 -0.2	0.8 -0.1	2.8 1.7	5.6 4.7	8.5 8.1	10.7 11.0	11.8 12.7
17 F	13.0 12.3	11.8 11.9	9.2 10.0	5.7 7.0	2.3 3.6	-0.3 0.8	-1.3 -0.6	-0.2 0.0	2.4 2.5	5.8 6.0	9.0 9.5	11.3 12.3
18 Sa	13.8 11.8	13.6 12.6	11.7 11.9	8.5 9.6	4.5 6.4	0.8 3.0	-1.8 0.4	-2.3 -0.5	-0.7 0.7	2.5 3.7	6.2 7.4	9.5 10.9
19 Su	13.3 10.0	14.3 12.0	13.6 12.5	11.1 11.4	7.4 9.0	3.2 5.7	-0.6 2.5	-2.7 0.3	-2.6 0.1	-0.5 1.8	3.1 5.1	6.8 8.8
20 M	11.9 7.5	13.9 10.3	14.3 11.9	13.0 12.0	10.1 10.7	6.1 8.2	2.0 5.1	-1.4 2.3	-3.0 0.7	-2.3 1.0	0.2 3.2	3.9 6.5
21 Tu	9.8 4.7	12.5 7.9	13.8 10.3	13.7 11.4	11.9 11.3	8.9 9.8	5.0 7.4	1.1 4.7	-1.7 2.4	-2.6 1.5	-1.5 2.2	1.3 4.5
22 W	7.6 2.4	10.4 5.5	12.4 8.1	13.2 9.9	12.6 10.7	10.6 10.4	7.6 9.0	4.1 6.9	0.8 4.6	-1.3 2.9	-1.7 2.4	-0.3 3.4
23 Th	5.6 0.9	8.2 3.3	10.5 5.9	11.8 8.0	12.1 9.3	11.3 9.9	9.4 9.6	6.7 8.4	3.7 6.7	1.0 4.9	-0.6 3.6	-0.6 3.4
24 F	4.5 0.6	6.3 2.0	8.4 4.0	9.9 6.0	10.8 7.6	10.9 8.7	10.1 9.2	8.5 9.1	6.2 8.2	3.6 6.8	1.5 5.3	0.4 4.3
25 Sa	4.2 1.4	5.1 1.6	6.5 2.7	7.9 4.3	9.1 5.8	9.7 7.2	9.8 8.3	9.2 8.9	7.9 8.9	6.0 8.2	3.9 7.0	2.2 5.7
26 Su	4.8 2.9	4.7 2.1	5.2 2.2	6.1 3.0	7.2 4.3	8.1 5.7	8.7 7.1	9.0 8.3	8.7 9.0	7.7 9.1	6.1 8.4	4.3 7.2
27 M	6.0 4.7	5.0 3.4	4.6 2.5	4.7 2.5	5.4 3.1	6.3 4.2	7.3 5.7	8.2 7.3	8.7 8.7	8.6 9.5	7.7 9.4	6.3 8.6
28 Tu	7.3 6.5	5.9 4.9	4.6 3.5	3.9 2.5	3.9 2.4	4.5 3.1	5.6 4.5	6.9 6.2	8.1 8.1	8.8 9.4	8.8 10.0	7.9 9.7
29 W	8.6 8.1	7.0 6.6	5.3 4.8	3.8 3.2	2.9 2.3	2.9 2.3	3.8 3.3	5.3 5.1	7.0 7.2	8.4 9.1	9.2 10.3	9.1 10.6
30 Th	9.9 9.3	8.4 8.1	6.3 6.3	4.2 4.4	2.5 2.7	1.7 1.9	2.1 2.3	3.5 3.9	5.5 6.1	7.5 8.5	9.0 10.3	9.7 11.1

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

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 F	10.9 10.1	9.7 9.4	7.6 7.9	5.2 5.8	2.8 3.7	1.1 2.1	0.8 1.8	1.8 2.8	3.8 5.0	6.2 7.5	8.3 9.8	9.7 11.3
2 Sa	11.7 10.3	10.9 10.3	9.1 9.2	6.5 7.3	3.6 5.0	1.2 2.9	0.0 1.8	0.3 2.1	1.9 3.8	4.5 6.4	7.1 9.0	9.2 11.1
3 Su	12.1 9.9	11.9 10.7	10.5 10.3	8.0 8.7	5.0 6.5	2.0 4.1	-0.1 2.3	-0.8 1.8	0.3 2.8	2.6 5.1	5.5 7.9	8.1 10.4
4 M	12.1 9.0	12.5 10.5	11.7 10.8	9.6 9.9	6.6 8.0	3.3 5.6	0.5 3.4	-1.1 2.0	-1.0 2.2	0.8 3.9	3.6 6.5	6.5 9.4
5 Tu	11.6 7.6	12.7 9.7	12.5 10.7	10.9 10.5	8.3 9.2	5.0 7.1	1.8 4.8	-0.6 2.9	-1.5 2.2	-0.7 3.0	1.6 5.1	4.7 7.9
6 W	10.6 5.7	12.3 8.3	12.8 10.0	11.9 10.6	9.9 10.0	6.9 8.5	3.6 6.4	0.6 4.2	-1.2 2.8	-1.5 2.6	0.0 3.9	2.7 6.3
7 Th	9.1 3.7	11.3 6.6	12.5 8.8	12.4 10.0	11.1 10.2	8.7 9.4	5.7 7.8	2.5 5.8	-0.1 4.0	-1.4 3.0	-1.0 3.2	0.9 4.9
8 F	7.3 1.8	9.8 4.5	11.6 7.1	12.2 8.9	11.6 9.8	10.1 9.8	7.7 8.9	4.7 7.4	1.9 5.6	-0.3 4.0	-1.1 3.3	-0.3 3.8
9 Sa	5.6 0.4	7.9 2.5	10.0 5.0	11.3 7.2	11.5 8.8	10.8 9.5	9.2 9.5	6.9 8.8	4.3 7.3	1.7 5.6	-0.1 4.2	-0.6 3.6
10 Su	4.2 0.1	5.8 1.1	7.8 3.0	9.5 5.2	10.5 7.2	10.6 8.6	10.0 9.5	8.7 9.6	6.6 8.9	4.2 7.5	1.9 5.8	0.3 4.4
11 M	3.7 0.9	4.2 0.6	5.5 1.5	7.1 3.2	8.6 5.3	9.5 7.2	9.9 8.8	9.6 9.8	8.5 10.1	6.7 9.4	4.4 7.9	2.3 6.0
12 Tu	4.4 2.9	3.5 1.4	3.6 1.0	4.6 1.7	6.0 3.3	7.4 5.3	8.6 7.4	9.4 9.3	9.5 10.5	8.7 10.8	7.1 9.9	4.9 8.2
13 W	6.0 5.5	4.1 3.3	2.8 1.8	2.5 1.1	3.2 1.7	4.6 3.3	6.4 5.6	8.1 8.0	9.3 10.2	9.7 11.5	9.1 11.6	7.6 10.5
14 Th	8.4 8.1	5.8 5.9	3.4 3.6	1.7 1.8	1.1 1.0	1.8 1.6	3.5 3.5	5.7 6.2	7.9 9.0	9.5 11.2	10.2 12.5	9.7 12.3
15 F	10.9 10.2	8.3 8.6	5.2 6.2	2.3 3.6	0.2 1.6	-0.4 0.9	0.5 1.8	2.7 4.0	5.4 7.1	8.0 10.1	9.9 12.3	10.7 13.3
16 Sa	12.8 11.1	10.9 10.5	7.8 8.7	4.3 6.1	1.0 3.4	-1.2 1.4	-1.6 0.9	-0.2 2.2	2.5 4.9	5.6 8.2	8.5 11.2	10.4 13.2
17 Su	13.9 10.9	12.9 11.5	10.5 10.6	7.0 8.6	3.1 5.8	-0.4 3.0	-2.4 1.2	-2.3 1.2	-0.4 2.9	2.7 5.9	6.2 9.3	9.0 12.1
18 M	13.8 9.6	14.0 11.2	12.6 11.5	9.7 10.4	5.9 8.1	1.8 5.3	-1.5 2.7	-3.0 1.3	-2.4 1.7	0.0 3.9	3.4 7.0	6.9 10.2
19 Tu	12.7 7.6	13.9 10.0	13.6 11.3	11.8 11.3	8.6 9.9	4.6 7.5	0.7 4.8	-2.1 2.5	-3.1 1.6	-1.9 2.5	0.9 4.9	4.3 8.0
20 W	10.9 5.3	12.9 8.2	13.6 10.2	12.8 11.1	10.6 10.8	7.3 9.2	3.5 6.9	0.0 4.4	-2.3 2.6	-2.6 2.2	-1.0 3.4	2.0 5.9
21 Th	8.7 3.2	11.1 6.2	12.6 8.6	12.8 10.2	11.7 10.7	9.3 10.1	6.1 8.5	2.6 6.4	-0.3 4.3	-1.9 3.0	-1.6 2.9	0.3 4.3
22 F	6.7 1.6	9.1 4.2	10.9 6.8	11.8 8.7	11.6 9.9	10.4 10.1	8.1 9.5	5.2 8.0	2.2 6.1	-0.2 4.4	-1.1 3.4	-0.5 3.7
23 Sa	5.1 0.8	7.1 2.8	9.0 5.1	10.3 7.1	10.8 8.7	10.4 9.5	9.2 9.7	7.1 9.0	4.6 7.7	2.1 6.0	0.3 4.6	-0.1 3.9
24 Su	4.2 0.9	5.5 1.9	7.1 3.7	8.5 5.6	9.4 7.3	9.7 8.6	9.3 9.3	8.2 9.4	6.4 8.8	4.3 7.5	2.3 6.0	1.0 4.8
25 M	4.2 1.8	4.5 1.9	5.5 2.8	6.7 4.3	7.7 5.9	8.5 7.4	8.8 8.6	8.5 9.4	7.6 9.5	6.1 8.8	4.3 7.5	2.7 6.0
26 Tu	4.8 3.2	4.2 2.5	4.3 2.6	5.0 3.4	5.9 4.7	6.9 6.2	7.7 7.7	8.2 9.0	8.1 9.7	7.4 9.7	6.1 8.8	4.5 7.4
27 W	5.9 4.8	4.6 3.6	3.8 3.0	3.7 3.0	4.2 3.7	5.1 5.0	6.2 6.6	7.3 8.3	8.0 9.6	8.1 10.2	7.4 9.9	6.2 8.8
28 Th	7.2 6.4	5.5 5.0	4.0 3.8	3.0 3.1	2.8 3.1	3.4 4.0	4.5 5.5	5.9 7.4	7.3 9.1	8.1 10.3	8.3 10.7	7.6 10.1
29 F	8.7 7.9	6.8 6.6	4.7 5.1	3.0 3.8	1.9 3.0	1.8 3.2	2.7 4.4	4.3 6.2	6.1 8.3	7.6 10.1	8.6 11.2	8.6 11.1
30 Sa	10.1 9.0	8.3 8.1	6.0 6.6	3.6 4.9	1.7 3.5	0.8 2.9	1.0 3.4	2.4 5.0	4.5 7.3	6.6 9.5	8.3 11.2	9.1 11.8
31 Su	11.4 9.7	9.9 9.3	7.5 8.1	4.8 6.3	2.2 4.4	0.3 3.0	-0.2 2.8	0.6 3.8	2.6 5.9	5.1 8.5	7.4 10.7	9.0 12.1

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

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 M	12.3 9.7	11.3 10.1	9.3 9.4	6.4 7.8	3.4 5.7	0.7 3.8	-0.9 2.7	-0.9 2.9	0.7 4.5	3.2 7.0	6.0 9.7	8.3 11.7
2 Tu	12.7 9.1	12.5 10.3	10.9 10.3	8.3 9.2	5.1 7.3	1.8 5.1	-0.7 3.2	-1.7 2.5	-1.0 3.3	1.2 5.4	4.1 8.2	6.9 10.8
3 W	12.5 7.9	13.1 9.9	12.3 10.7	10.2 10.3	7.1 8.8	3.6 6.6	0.4 4.4	-1.7 2.8	-2.1 2.6	-0.7 3.9	2.0 6.4	5.1 9.2
4 Th	11.6 6.2	13.0 8.8	13.0 10.4	11.7 10.8	9.2 10.0	5.8 8.3	2.3 6.0	-0.7 3.9	-2.2 2.6	-2.0 2.8	0.0 4.6	3.0 7.2
5 F	10.0 4.0	12.1 7.1	13.0 9.4	12.6 10.6	10.9 10.7	8.1 9.6	4.7 7.7	1.3 5.5	-1.3 3.5	-2.3 2.6	-1.5 3.2	0.9 5.2
6 Sa	7.9 1.9	10.4 5.0	12.1 7.8	12.5 9.8	11.8 10.7	9.9 10.5	7.1 9.3	3.8 7.4	0.7 5.1	-1.4 3.4	-1.9 2.7	-0.7 3.5
7 Su	5.6 0.3	8.1 3.0	10.3 5.9	11.6 8.3	11.7 9.9	10.8 10.6	9.0 10.4	6.3 9.1	3.2 7.2	0.5 5.0	-1.2 3.3	-1.2 2.8
8 M	3.7 -0.3	5.6 1.3	7.8 3.8	9.6 6.5	10.6 8.6	10.8 10.1	10.0 10.7	8.3 10.5	5.9 9.2	3.1 7.2	0.8 5.0	-0.5 3.3
9 Tu	2.8 0.3	3.5 0.7	5.1 2.2	7.0 4.5	8.6 6.8	9.5 8.9	9.8 10.4	9.3 11.1	8.0 10.7	5.8 9.4	3.4 7.2	1.4 5.0
10 W	3.2 2.1	2.5 1.2	2.9 1.5	4.2 2.8	5.8 4.9	7.4 7.2	8.5 9.2	9.2 10.8	9.0 11.5	8.0 11.2	6.1 9.6	3.9 7.4
11 Th	4.9 4.6	2.9 2.9	1.9 1.9	2.0 2.0	3.0 3.2	4.6 5.2	6.3 7.5	7.9 9.8	8.9 11.4	9.0 12.1	8.2 11.6	6.6 9.9
12 F	7.4 7.1	4.6 5.2	2.3 3.5	1.0 2.3	0.8 2.3	1.8 3.4	3.5 5.5	5.6 8.1	7.6 10.5	8.9 12.2	9.3 12.7	8.6 12.0
13 Sa	10.0 9.1	7.2 7.7	4.1 5.7	1.5 3.7	-0.2 2.4	-0.4 2.4	0.8 3.7	2.9 6.0	5.4 8.8	7.7 11.2	9.2 12.8	9.7 13.1
14 Su	12.1 10.2	9.8 9.6	6.7 8.0	3.3 5.8	0.4 3.6	-1.3 2.3	-1.3 2.4	0.3 4.0	2.8 6.7	5.7 9.5	8.1 11.9	9.7 13.3
15 M	13.3 10.3	12.0 10.6	9.4 9.8	5.9 7.9	2.2 5.5	-0.7 3.3	-2.2 2.2	-1.7 2.6	0.3 4.6	3.2 7.4	6.3 10.3	8.7 12.5
16 Tu	13.6 9.4	13.3 10.7	11.5 10.8	8.6 9.7	4.8 7.6	1.1 5.0	-1.6 3.0	-2.6 2.1	-1.6 3.0	0.9 5.3	4.0 8.2	7.1 10.9
17 W	12.8 7.9	13.5 10.0	12.8 11.0	10.7 10.7	7.4 9.3	3.6 7.0	0.1 4.5	-2.2 2.7	-2.6 2.3	-1.0 3.6	1.8 6.0	5.0 8.9
18 Th	11.4 6.1	12.8 8.8	13.1 10.5	12.0 11.0	9.5 10.3	6.1 8.6	2.4 6.3	-0.6 4.0	-2.3 2.6	-2.0 2.7	0.0 4.3	3.0 6.8
19 F	9.5 4.3	11.5 7.2	12.5 9.4	12.3 10.6	10.8 10.7	8.2 9.7	4.9 7.9	1.5 5.6	-1.0 3.7	-1.9 2.7	-1.0 3.2	1.3 5.0
20 Sa	7.5 2.7	9.8 5.6	11.3 8.0	11.8 9.7	11.2 10.5	9.5 10.3	6.9 9.1	3.8 7.2	1.0 5.1	-0.8 3.5	-1.1 3.0	0.2 3.8
21 Su	5.6 1.7	7.8 4.1	9.7 6.6	10.8 8.6	10.9 9.8	10.0 10.2	8.2 9.8	5.8 8.5	3.1 6.7	0.9 4.8	-0.3 3.6	0.0 3.4
22 M	4.3 1.2	6.0 3.0	7.9 5.3	9.2 7.4	9.9 8.9	9.8 9.8	8.9 10.0	7.2 9.4	5.0 8.0	2.8 6.3	1.1 4.7	0.5 3.7
23 Tu	3.7 1.5	4.6 2.5	6.1 4.2	7.5 6.2	8.5 7.9	9.0 9.1	8.8 9.8	8.0 9.9	6.5 9.1	4.6 7.7	2.8 6.0	1.7 4.6
24 W	3.8 2.4	3.8 2.6	4.6 3.5	5.7 5.1	6.8 6.8	7.7 8.2	8.1 9.4	8.1 10.0	7.4 9.9	6.1 9.0	4.6 7.5	3.2 5.8
25 Th	4.4 3.7	3.7 3.2	3.6 3.4	4.2 4.3	5.1 5.7	6.1 7.2	7.0 8.6	7.6 9.7	7.7 10.3	7.2 10.0	6.1 9.0	4.8 7.3
26 F	5.6 5.2	4.1 4.2	3.2 3.7	3.0 3.9	3.4 4.7	4.3 6.0	5.5 7.6	6.6 9.2	7.5 10.3	7.7 10.7	7.3 10.2	6.3 8.9
27 Sa	7.1 6.7	5.2 5.5	3.5 4.5	2.4 3.9	2.1 4.0	2.6 4.9	3.7 6.4	5.2 8.2	6.7 9.9	7.7 11.0	8.1 11.2	7.7 10.4
28 Su	8.8 8.1	6.7 7.0	4.5 5.7	2.6 4.5	1.3 3.8	1.1 4.0	1.9 5.1	3.5 6.9	5.4 9.0	7.1 10.8	8.2 11.7	8.6 11.7
29 M	10.6 9.2	8.6 8.5	6.1 7.2	3.5 5.6	1.3 4.2	0.1 3.5	0.2 3.9	1.5 5.4	3.6 7.6	5.9 9.9	7.8 11.7	8.9 12.4
30 Tu	12.0 9.7	10.5 9.7	8.0 8.8	5.1 7.1	2.1 5.2	-0.1 3.6	-1.0 3.1	-0.4 3.9	1.5 5.9	4.1 8.5	6.7 10.9	8.7 12.5

Time meridian 135° W. 0 is midnight. 12 is noon.
Heights are referred to mean lower low water (N.O.S. chart datum).

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 W	13.0 9.6	12.2 10.5	10.2 10.1	7.2 8.7	3.8 6.6	0.7 4.5	-1.4 2.9	-1.8 2.7	-0.6 4.0	2.0 6.5	5.0 9.3	7.7 11.8
2 Th	13.2 8.7	13.3 10.5	12.1 11.0	9.5 10.3	6.1 8.4	2.4 6.0	-0.6 3.7	-2.3 2.3	-2.2 2.5	-0.2 4.3	2.8 7.2	6.0 10.1
3 F	12.4 7.2	13.5 9.8	13.3 11.2	11.6 11.3	8.6 10.1	4.9 7.9	1.2 5.2	-1.7 3.0	-2.8 1.9	-2.0 2.6	0.5 4.7	3.9 7.8
4 Sa	10.7 5.1	12.7 8.3	13.5 10.6	12.8 11.6	10.7 11.3	7.5 9.7	3.7 7.2	0.2 4.5	-2.2 2.4	-2.8 1.7	-1.3 2.7	1.6 5.1
5 Su	8.2 3.0	10.9 6.4	12.6 9.3	13.0 11.2	12.0 11.8	9.7 11.1	6.5 9.3	2.8 6.7	-0.3 4.0	-2.2 2.1	-2.2 1.6	-0.2 2.9
6 M	5.4 1.1	8.2 4.3	10.6 7.5	12.0 10.0	12.1 11.5	11.0 11.8	8.7 10.9	5.7 9.0	2.4 6.3	-0.3 3.7	-1.6 2.0	-1.1 1.7
7 Tu	3.0 0.2	5.4 2.5	7.9 5.5	9.9 8.3	10.9 10.4	11.0 11.6	9.9 11.7	7.9 10.8	5.2 8.8	2.3 6.1	0.1 3.6	-0.7 2.0
8 W	1.8 0.6	3.0 1.6	5.0 3.7	7.1 6.3	8.8 8.7	9.7 10.5	9.9 11.6	9.1 11.7	7.5 10.7	5.2 8.7	2.7 6.1	1.0 3.7
9 Th	2.1 2.1	1.7 1.8	2.6 2.7	4.2 4.5	6.0 6.7	7.5 8.9	8.6 10.7	9.1 11.7	8.7 11.9	7.4 10.8	5.5 8.8	3.5 6.2
10 F	3.8 4.3	2.0 3.1	1.5 2.7	2.0 3.4	3.2 4.9	4.8 6.9	6.5 9.0	7.8 10.8	8.6 11.9	8.6 12.1	7.6 11.0	6.0 8.9
11 Sa	6.3 6.7	3.7 5.1	1.8 3.8	0.9 3.3	1.1 3.7	2.2 5.0	3.9 7.0	5.8 9.2	7.5 11.1	8.6 12.2	8.8 12.3	8.1 11.2
12 Su	9.0 8.7	6.3 7.3	3.5 5.7	1.3 4.2	0.1 3.3	0.2 3.6	1.4 5.0	3.4 7.2	5.7 9.5	7.6 11.5	8.9 12.6	9.3 12.5
13 M	11.2 9.8	8.9 9.1	5.9 7.7	2.9 5.8	0.4 4.0	-0.8 3.1	-0.5 3.5	1.1 5.1	3.5 7.5	6.0 10.0	8.1 11.9	9.4 12.9
14 Tu	12.6 10.1	11.1 10.3	8.5 9.4	5.3 7.6	2.0 5.4	-0.5 3.5	-1.5 2.8	-0.8 3.5	1.3 5.4	4.0 8.0	6.7 10.5	8.8 12.3
15 W	13.0 9.6	12.5 10.7	10.6 10.5	7.7 9.2	4.2 7.1	0.9 4.7	-1.3 3.0	-1.8 2.5	-0.5 3.7	2.0 6.0	4.9 8.7	7.6 11.1
16 Th	12.6 8.7	13.0 10.4	12.0 11.0	9.8 10.4	6.6 8.7	3.0 6.3	-0.1 3.9	-1.8 2.5	-1.6 2.5	0.3 4.1	3.1 6.7	6.1 9.4
17 F	11.5 7.4	12.7 9.7	12.6 10.9	11.2 11.0	8.6 9.9	5.2 7.8	1.7 5.3	-0.9 3.2	-1.8 2.2	-0.9 2.8	1.4 4.8	4.5 7.5
18 Sa	10.0 6.0	11.8 8.6	12.5 10.4	11.9 11.1	10.0 10.6	7.2 9.1	3.8 6.8	0.8 4.4	-1.1 2.7	-1.3 2.3	0.2 3.4	2.9 5.6
19 Su	8.2 4.6	10.4 7.4	11.7 9.6	11.8 10.8	10.8 10.9	8.7 10.0	5.8 8.2	2.7 5.9	0.2 3.8	-0.9 2.5	-0.4 2.6	1.7 4.0
20 M	6.3 3.4	8.7 6.1	10.4 8.5	11.2 10.2	10.9 10.8	9.5 10.5	7.3 9.2	4.6 7.3	2.0 5.1	0.2 3.4	-0.2 2.6	1.0 3.1
21 Tu	4.7 2.6	6.9 5.0	8.8 7.4	10.0 9.3	10.3 10.4	9.7 10.6	8.3 9.9	6.1 8.5	3.8 6.6	1.8 4.6	0.7 3.2	1.0 2.8
22 W	3.6 2.3	5.2 4.1	7.1 6.3	8.5 8.3	9.3 9.7	9.3 10.4	8.6 10.3	7.3 9.5	5.4 8.0	3.5 6.1	2.0 4.4	1.6 3.3
23 Th	3.1 2.6	4.0 3.6	5.4 5.3	6.8 7.2	7.9 8.8	8.4 9.8	8.4 10.3	7.8 10.1	6.6 9.2	5.1 7.6	3.6 5.8	2.6 4.3
24 F	3.3 3.4	3.3 3.7	4.0 4.7	5.1 6.1	6.3 7.7	7.1 9.0	7.7 9.9	7.8 10.3	7.4 10.1	6.4 9.1	5.1 7.5	4.0 5.7
25 Sa	4.2 4.6	3.3 4.2	3.1 4.4	3.6 5.2	4.5 6.5	5.5 7.9	6.5 9.2	7.2 10.2	7.6 10.6	7.4 10.3	6.6 9.1	5.5 7.4
26 Su	5.6 6.0	4.0 5.1	2.9 4.6	2.5 4.6	2.8 5.3	3.7 6.5	4.9 8.0	6.2 9.5	7.2 10.6	7.8 11.1	7.7 10.6	7.0 9.3
27 M	7.4 7.6	5.3 6.5	3.5 5.4	2.1 4.6	1.5 4.4	1.9 5.1	3.0 6.5	4.6 8.3	6.3 10.0	7.6 11.3	8.4 11.7	8.3 11.1
28 Tu	9.5 9.0	7.3 8.1	4.8 6.7	2.6 5.2	0.9 4.1	0.4 3.9	1.0 4.7	2.6 6.5	4.7 8.7	6.8 10.8	8.4 12.1	9.2 12.4
29 W	11.5 10.1	9.6 9.7	6.9 8.3	4.0 6.4	1.3 4.5	-0.4 3.2	-0.7 3.1	0.5 4.4	2.7 6.7	5.3 9.4	7.7 11.6	9.4 12.9
30 Th	13.0 10.5	11.8 10.9	9.4 10.1	6.2 8.2	2.8 5.8	-0.1 3.5	-1.6 2.3	-1.4 2.5	0.4 4.3	3.3 7.1	6.3 10.1	8.9 12.4
31 F	13.6 10.2	13.4 11.5	11.7 11.5	8.8 10.1	5.1 7.7	1.4 4.8	-1.4 2.5	-2.5 1.4	-1.6 2.1	0.9 4.4	4.3 7.7	7.6 10.8

Time meridian 135° W. 0 is midnight. 12 is noon.
 Heights are referred to mean lower low water (N.O.S. chart datum).

Lat. 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 Sa	13.0 9.0	14.0 11.4	13.4 12.3	11.3 11.8	7.9 9.8	3.9 6.9	0.2 3.8	-2.2 1.5	-2.7 0.7	-1.2 1.9	2.0 4.7	5.7 8.1
2 Su	11.2 7.2	13.3 10.3	13.9 12.3	12.9 12.8	10.4 11.7	6.8 9.2	2.8 6.0	-0.6 2.9	-2.5 0.8	-2.4 0.4	-0.1 2.0	3.4 5.1
3 M	8.5 5.0	11.4 8.6	13.1 11.3	13.3 12.8	12.0 12.8	9.4 11.3	5.8 8.6	2.0 5.3	-0.9 2.2	-2.2 0.4	-1.4 0.5	1.3 2.3
4 Tu	5.3 2.9	8.5 6.5	11.0 9.7	12.4 11.9	12.3 12.9	10.9 12.5	8.3 10.7	5.0 8.0	1.7 4.8	-0.6 2.0	-1.3 0.5	0.1 0.7
5 W	2.6 1.7	5.4 4.5	8.2 7.6	10.3 10.2	11.2 12.0	11.1 12.6	9.8 12.0	7.5 10.3	4.7 7.6	2.0 4.6	0.2 2.1	0.1 0.8
6 Th	1.1 1.6	2.8 3.2	5.2 5.6	7.5 8.2	9.1 10.3	10.0 11.7	10.0 12.2	9.0 11.6	7.1 10.0	4.8 7.5	2.6 4.7	1.4 2.4
7 F	1.2 2.7	1.5 2.9	2.8 4.2	4.6 6.2	6.5 8.3	7.9 10.1	8.8 11.3	9.1 11.9	8.5 11.4	7.1 9.9	5.3 7.6	3.6 5.0
8 Sa	2.9 4.6	1.6 3.8	1.5 3.8	2.4 4.8	3.8 6.3	5.4 8.0	6.9 9.7	8.1 11.1	8.7 11.7	8.5 11.4	7.5 10.0	6.0 7.9
9 Su	5.4 6.8	3.2 5.4	1.7 4.4	1.3 4.2	1.8 4.7	3.0 6.0	4.6 7.7	6.3 9.5	7.8 11.0	8.7 11.8	8.8 11.5	8.0 10.2
10 M	8.1 8.6	5.6 7.4	3.2 5.8	1.5 4.6	0.7 4.0	1.1 4.4	2.4 5.7	4.2 7.6	6.3 9.6	8.0 11.2	9.1 12.0	9.3 11.7
11 Tu	10.4 9.9	8.1 9.1	5.4 7.5	2.8 5.7	0.8 4.1	0.0 3.4	0.6 3.9	2.2 5.5	4.4 7.7	6.7 9.9	8.6 11.5	9.7 12.3
12 W	11.9 10.4	10.3 10.3	7.8 9.1	4.8 7.2	2.0 5.0	0.0 3.4	-0.5 2.8	0.5 3.7	2.6 5.7	5.2 8.2	7.6 10.4	9.5 12.0
13 Th	12.5 10.4	11.8 10.9	9.9 10.4	7.0 8.7	3.8 6.4	0.9 4.0	-0.7 2.5	-0.6 2.5	1.0 3.9	3.5 6.3	6.3 8.9	8.7 11.1
14 F	12.4 9.9	12.5 11.1	11.3 11.1	9.0 10.0	5.8 7.8	2.5 5.2	0.0 3.0	-1.0 1.9	-0.2 2.4	2.0 4.4	4.9 7.1	7.7 9.7
15 Sa	11.7 9.1	12.6 10.9	12.2 11.5	10.5 10.9	7.7 9.1	4.3 6.6	1.3 4.0	-0.6 2.1	-0.8 1.6	0.7 2.8	3.4 5.2	6.4 8.0
16 Su	10.5 8.1	12.0 10.3	12.3 11.5	11.4 11.4	9.2 10.2	6.2 7.9	3.0 5.3	0.4 2.9	-0.7 1.6	0.0 1.8	2.2 3.5	5.1 6.2
17 M	8.9 6.9	10.9 9.5	11.9 11.1	11.7 11.6	10.2 10.9	7.7 9.1	4.8 6.7	2.0 4.1	0.1 2.2	-0.1 1.5	1.3 2.3	3.9 4.5
18 Tu	7.1 5.7	9.5 8.5	11.0 10.5	11.4 11.4	10.7 11.3	8.9 10.0	6.4 8.0	3.7 5.6	1.5 3.3	0.4 1.9	1.0 1.8	2.9 3.1
19 W	5.4 4.7	7.8 7.4	9.7 9.6	10.7 11.0	10.6 11.3	9.5 10.6	7.6 9.1	5.3 7.0	3.0 4.7	1.5 2.9	1.3 2.0	2.4 2.4
20 Th	3.9 4.0	6.1 6.3	8.1 8.6	9.5 10.2	9.9 11.0	9.5 10.8	8.3 9.9	6.6 8.3	4.6 6.3	3.0 4.3	2.1 2.8	2.5 2.3
21 F	3.0 3.8	4.6 5.4	6.4 7.4	7.9 9.2	8.8 10.3	9.0 10.7	8.5 10.4	7.5 9.4	6.1 7.8	4.5 5.9	3.3 4.1	3.0 3.0
22 Sa	2.7 4.0	3.4 4.8	4.8 6.3	6.2 8.0	7.4 9.4	8.0 10.2	8.2 10.4	7.9 10.1	7.1 9.2	6.0 7.7	4.8 5.8	4.0 4.2
23 Su	3.1 4.7	2.9 4.7	3.5 5.5	4.5 6.7	5.6 8.0	6.6 9.2	7.4 10.0	7.8 10.4	7.8 10.2	7.2 9.3	6.3 7.8	5.3 6.0
24 M	4.3 5.8	3.1 5.2	2.7 5.0	3.0 5.5	3.8 6.5	4.9 7.7	6.0 9.0	7.1 10.1	7.8 10.7	8.1 10.6	7.7 9.7	6.8 8.1
25 Tu	6.1 7.4	4.2 6.2	2.8 5.2	2.0 4.7	2.0 4.9	2.9 5.9	4.2 7.3	5.8 9.0	7.3 10.5	8.4 11.3	8.8 11.3	8.3 10.3
26 W	8.4 9.1	6.1 7.8	3.8 6.2	1.9 4.7	0.9 3.8	1.0 4.0	2.1 5.2	4.0 7.1	6.2 9.3	8.1 11.2	9.3 12.2	9.7 12.1
27 Th	10.8 10.6	8.6 9.6	5.8 7.8	3.0 5.6	0.8 3.6	-0.3 2.6	0.1 2.9	1.8 4.6	4.4 7.2	7.0 9.9	9.2 12.0	10.5 13.0
28 F	12.8 11.7	11.2 11.4	8.5 9.9	5.1 7.4	1.9 4.6	-0.5 2.3	-1.3 1.3	-0.4 2.0	2.1 4.4	5.3 7.5	8.3 10.6	10.6 12.8
29 Sa	13.7 12.0	13.2 12.7	11.1 11.9	7.9 9.6	4.1 6.5	0.7 3.2	-1.6 0.9	-1.9 0.2	-0.1 1.5	3.0 4.4	6.6 8.0	9.8 11.2
30 Su	13.4 11.3	14.1 13.1	13.2 13.3	10.7 11.9	7.0 9.0	3.0 5.3	-0.4 1.9	-2.1 -0.3	-1.7 -0.5	0.7 1.4	4.4 4.7	8.2 8.5
31 M	11.7 9.8	13.6 12.6	14.0 13.9	12.7 13.5	9.8 11.4	6.0 8.1	2.1 4.2	-0.9 0.9	-2.0 -1.0	-0.9 -0.7	2.1 1.6	6.0 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).

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 Tu	8.9 7.7	11.8 11.1	13.4 13.3	13.4 14.0	11.8 13.1	8.8 10.6	5.1 7.1	1.6 3.3	-0.8 0.3	-1.3 -1.1	0.5 -0.4	3.8 2.1
2 W	5.6 5.4	9.0 8.9	11.4 11.8	12.6 13.4	12.3 13.6	10.7 12.3	7.9 9.8	4.5 6.4	1.6 2.9	-0.2 0.3	0.0 -0.7	2.1 0.2
3 Th	2.7 3.7	5.9 6.7	8.7 9.7	10.7 11.9	11.5 13.0	11.1 12.9	9.6 11.5	7.2 9.1	4.4 6.0	2.1 2.9	0.9 0.7	1.5 0.0
4 F	1.0 3.0	3.2 5.0	5.8 7.5	8.0 9.8	9.6 11.4	10.3 12.2	10.0 12.0	8.9 10.9	7.0 8.7	4.8 6.0	3.0 3.3	2.3 1.4
5 Sa	0.9 3.6	1.7 4.2	3.4 5.7	5.4 7.6	7.1 9.3	8.4 10.6	9.2 11.4	9.3 11.4	8.6 10.5	7.1 8.7	5.4 6.3	4.0 4.0
6 Su	2.3 5.0	1.6 4.5	2.0 4.8	3.2 5.8	4.7 7.2	6.2 8.6	7.6 9.8	8.6 10.8	9.0 11.0	8.7 10.4	7.6 8.9	6.2 6.8
7 M	4.6 6.9	2.9 5.7	2.0 4.9	2.0 4.8	2.7 5.3	4.0 6.5	5.5 7.9	7.1 9.4	8.5 10.5	9.2 11.0	9.1 10.6	8.2 9.2
8 Tu	7.2 8.7	5.0 7.3	3.1 5.8	1.8 4.7	1.5 4.2	2.2 4.6	3.6 5.9	5.4 7.6	7.3 9.3	8.9 10.7	9.7 11.3	9.6 10.8
9 W	9.4 10.1	7.3 8.9	4.9 7.2	2.7 5.3	1.3 3.9	1.0 3.4	1.9 4.0	3.6 5.6	5.8 7.7	8.0 9.7	9.6 11.1	10.3 11.6
10 Th	11.0 10.9	9.4 10.3	7.0 8.7	4.3 6.5	2.0 4.3	0.7 2.9	0.7 2.6	2.1 3.8	4.3 5.8	6.8 8.2	9.0 10.3	10.5 11.6
11 F	11.9 11.2	10.9 11.2	8.9 10.0	6.2 7.9	3.3 5.3	1.1 3.0	0.2 1.9	0.9 2.2	2.9 4.0	5.5 6.5	8.1 9.1	10.2 11.1
12 Sa	12.1 11.2	11.9 11.7	10.4 11.0	8.0 9.2	5.0 6.6	2.2 3.8	0.4 1.8	0.2 1.3	1.6 2.3	4.2 4.7	7.1 7.5	9.6 10.0
13 Su	11.7 10.9	12.2 12.0	11.5 11.8	9.5 10.3	6.7 7.9	3.6 5.0	1.2 2.4	0.1 1.0	0.8 1.2	3.0 2.9	5.9 5.7	8.7 8.5
14 M	10.8 10.2	12.0 11.8	12.0 12.2	10.7 11.3	8.3 9.2	5.3 6.4	2.5 3.5	0.7 1.4	0.5 0.6	2.0 1.6	4.7 3.9	7.7 6.8
15 Tu	9.5 9.3	11.3 11.4	12.0 12.3	11.3 11.9	9.5 10.3	6.9 7.8	4.1 4.9	1.8 2.3	0.8 0.8	1.4 0.8	3.6 2.4	6.5 5.1
16 W	7.9 8.3	10.2 10.6	11.4 12.0	11.4 12.1	10.3 11.1	8.2 9.0	5.6 6.4	3.2 3.7	1.7 1.6	1.5 0.8	2.9 1.5	5.4 3.5
17 Th	6.2 7.1	8.7 9.6	10.4 11.4	11.0 12.0	10.5 11.5	9.1 10.0	7.0 7.8	4.8 5.3	2.9 2.9	2.1 1.4	2.6 1.2	4.5 2.3
18 F	4.5 6.1	7.0 8.5	9.0 10.5	10.1 11.5	10.2 11.5	9.5 10.6	8.1 9.0	6.2 6.8	4.4 4.5	3.1 2.6	2.9 1.6	4.0 1.8
19 Sa	3.2 5.3	5.3 7.3	7.3 9.3	8.8 10.7	9.4 11.2	9.3 10.9	8.6 9.9	7.4 8.3	5.8 6.3	4.4 4.3	3.7 2.7	3.9 2.0
20 Su	2.4 4.9	3.8 6.2	5.6 7.9	7.2 9.4	8.2 10.4	8.7 10.7	8.6 10.3	8.1 9.5	7.1 8.0	5.9 6.2	4.8 4.4	4.4 3.0
21 M	2.4 5.0	2.8 5.4	3.9 6.5	5.3 7.8	6.6 9.0	7.6 9.9	8.2 10.3	8.4 10.2	8.1 9.5	7.3 8.2	6.3 6.5	5.4 4.6
22 Tu	3.2 5.8	2.5 5.3	2.7 5.4	3.5 6.1	4.7 7.2	6.0 8.4	7.2 9.4	8.1 10.2	8.6 10.4	8.6 9.9	7.9 8.7	6.8 6.9
23 W	4.9 7.2	3.3 5.9	2.3 4.9	2.1 4.6	2.8 5.1	4.0 6.2	5.6 7.8	7.3 9.3	8.6 10.5	9.4 11.0	9.3 10.7	8.5 9.3
24 Th	7.3 9.1	5.0 7.3	3.0 5.5	1.6 4.0	1.2 3.4	2.0 3.8	3.6 5.3	5.8 7.4	7.9 9.5	9.6 11.2	10.5 11.9	10.3 11.5
25 F	9.9 11.1	7.5 9.4	4.8 7.0	2.3 4.5	0.6 2.5	0.3 1.8	1.5 2.5	3.7 4.6	6.5 7.4	9.1 10.0	11.0 12.0	11.7 12.7
26 Sa	12.1 12.7	10.2 11.6	7.4 9.2	4.2 6.1	1.3 3.0	-0.3 0.8	-0.3 0.3	1.5 1.6	4.5 4.3	7.8 7.7	10.6 10.7	12.4 12.8
27 Su	13.4 13.6	12.5 13.5	10.2 11.7	6.9 8.6	3.3 4.9	0.4 1.4	-1.0 -0.7	-0.3 -0.8	2.2 1.1	5.7 4.5	9.4 8.2	12.2 11.4
28 M	13.3 13.5	13.7 14.5	12.5 13.7	9.8 11.3	6.1 7.6	2.4 3.5	-0.3 0.0	-1.1 -1.8	0.3 -1.4	3.4 1.2	7.3 4.9	11.0 8.8
29 Tu	11.8 12.3	13.5 14.4	13.6 14.8	12.0 13.4	9.0 10.4	5.3 6.4	1.8 2.3	-0.4 -0.9	-0.6 -2.3	1.4 -1.3	4.9 1.6	8.9 5.5
30 W	9.2 10.2	12.0 13.1	13.3 14.6	13.0 14.4	11.2 12.6	8.1 9.4	4.6 5.3	1.6 1.4	-0.0 -1.3	-0.5 -2.1	-2.9 -0.7	6.5 2.4

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° 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 Th	6.1 7.8	9.4 11.1	11.7 13.3	12.6 14.2	12.1 13.6	10.2 11.5	7.4 8.3	4.3 4.6	1.8 1.2	0.9 -1.0	-1.8 -1.3	4.4 0.3
2 F	3.2 5.7	6.5 8.7	9.2 11.2	11.0 12.8	11.6 13.2	11.0 12.4	9.4 10.5	7.0 7.6	4.4 4.4	2.5 1.5	-2.1 -0.2	-3.2 -0.3
3 Sa	1.3 4.5	3.9 6.6	6.6 8.9	8.7 10.8	10.1 11.9	10.6 12.1	10.2 11.4	8.8 9.7	6.9 7.3	4.9 4.5	3.5 2.1	3.3 0.8
4 Su	0.9 4.4	2.2 5.3	4.2 6.8	6.3 8.5	8.0 9.9	9.2 10.7	9.8 11.0	9.6 10.6	8.7 9.3	7.2 7.3	5.6 5.0	4.5 3.0
5 M	1.8 5.3	1.8 5.0	2.7 5.5	4.2 6.5	5.8 7.7	7.2 8.8	8.5 9.7	9.3 10.3	9.5 10.2	8.9 9.3	7.7 7.6	6.3 5.6
6 Tu	3.8 6.8	2.6 5.6	2.3 5.0	2.8 5.1	3.9 5.7	5.3 6.7	6.8 8.0	8.3 9.2	9.4 10.0	9.8 10.2	9.3 9.5	8.2 8.0
7 W	6.1 8.5	4.2 6.9	2.9 5.4	2.3 4.5	2.6 4.2	3.6 4.8	5.1 6.0	7.0 7.6	8.7 9.1	9.9 10.2	10.2 10.4	9.7 9.7
8 Th	8.2 9.9	6.2 8.4	4.3 6.5	2.7 4.6	2.0 3.5	2.4 3.3	3.6 4.1	5.5 5.8	7.6 7.7	9.5 9.5	10.6 10.6	10.7 10.8
9 F	9.9 11.0	8.2 9.8	6.0 7.7	3.8 5.4	2.2 3.4	1.7 2.3	2.4 2.5	4.1 3.9	6.4 6.1	8.7 8.3	10.5 10.2	11.3 11.1
10 Sa	11.0 11.8	9.8 10.9	7.7 9.1	5.3 6.6	3.0 4.0	1.6 2.1	1.6 1.4	2.9 2.2	5.2 4.3	7.8 6.8	10.0 9.2	11.5 10.9
11 Su	11.5 12.2	10.9 11.9	9.3 10.4	6.9 7.9	4.3 5.0	2.2 2.4	1.3 0.9	2.0 0.9	4.0 2.5	6.7 5.1	9.3 7.9	11.3 10.1
12 M	11.5 12.3	11.6 12.5	10.6 11.5	8.5 9.3	5.8 6.4	3.3 3.4	1.7 1.1	1.5 0.2	3.0 1.0	5.5 3.3	8.4 6.2	10.8 8.9
13 Tu	10.9 12.0	11.8 12.8	11.4 12.3	9.8 10.5	7.4 7.8	4.7 4.7	2.5 1.9	1.6 0.2	2.3 0.1	4.4 1.7	7.3 4.4	10.0 7.4
14 W	9.9 11.4	11.4 12.7	11.7 12.8	10.7 11.6	8.7 9.2	6.2 6.2	3.8 3.2	2.2 0.8	-2.0 -0.2	3.5 0.6	6.1 2.7	9.0 5.7
15 Th	8.5 10.4	10.5 12.2	11.4 12.9	11.2 12.2	9.8 10.4	7.6 7.8	5.2 4.7	3.3 2.0	2.4 0.3	3.0 0.1	5.0 1.4	7.7 3.9
16 F	6.8 9.2	9.2 11.4	10.7 12.5	11.1 12.4	10.4 11.3	8.8 9.1	6.7 6.4	4.6 3.6	3.2 1.4	3.0 0.3	4.2 0.7	6.5 2.4
17 Sa	5.0 7.8	7.6 10.2	9.5 11.8	10.4 12.3	10.4 11.7	9.5 10.2	7.9 8.0	6.1 5.5	4.4 3.0	3.6 1.3	3.9 0.7	5.5 1.5
18 Su	3.4 6.5	5.8 8.7	8.0 10.5	9.4 11.6	9.9 11.6	9.7 10.8	8.8 9.3	7.4 7.3	5.8 5.0	4.6 2.8	4.2 1.5	4.9 1.2
19 M	2.2 5.6	4.1 7.1	6.2 8.9	7.9 10.3	9.0 11.0	9.4 10.9	9.2 10.1	8.5 8.8	7.3 7.0	6.0 4.9	5.0 3.0	4.8 1.8
20 Tu	1.7 5.1	2.7 5.8	4.3 7.1	6.1 8.5	7.6 9.6	8.6 10.2	9.1 10.3	9.1 9.8	8.6 8.8	7.5 7.1	6.3 5.2	5.4 3.4
21 W	2.2 5.5	2.0 5.1	2.8 5.4	4.2 6.3	5.8 7.5	7.3 8.7	8.5 9.6	9.3 10.1	9.6 10.0	9.1 9.2	8.0 7.6	6.6 5.6
22 Th	3.7 6.7	2.4 5.3	2.0 4.4	2.5 4.3	3.8 5.1	5.5 6.4	7.3 7.9	8.9 9.3	10.0 10.3	10.4 10.5	9.8 9.8	8.4 8.2
23 F	6.1 8.7	3.9 6.5	2.3 4.5	1.7 3.1	2.1 2.8	3.5 3.6	5.5 5.3	7.8 7.4	9.8 9.5	11.2 10.9	11.4 11.3	10.5 10.5
24 Sa	8.7 11.0	6.3 8.7	3.9 5.8	2.0 3.2	1.1 1.5	1.6 1.1	3.5 2.3	6.1 4.6	8.9 7.4	11.2 9.9	12.4 11.6	12.4 12.0
25 Su	11.1 13.2	9.1 11.2	6.3 8.2	3.5 4.7	1.4 1.6	0.6 -0.3	-1.5 -0.3	3.9 1.4	7.1 4.4	10.3 7.7	12.6 10.5	13.6 12.3
26 M	12.6 14.5	11.5 13.5	9.1 10.9	6.0 7.2	3.0 3.3	0.8 0.0	-0.4 -1.7	-1.9 -1.3	4.9 1.1	8.5 4.6	11.8 8.3	13.9 11.2
27 Tu	12.8 14.8	12.9 15.0	11.5 13.3	8.8 10.2	5.5 6.0	2.4 1.8	-0.5 -1.4	-0.6 -2.6	-2.7 -1.6	6.2 1.4	10.0 5.2	13.1 8.9
28 W	11.7 14.0	13.1 15.2	12.9 14.8	11.1 12.7	8.2 9.1	4.9 4.8	2.0 0.7	-0.6 -2.1	-1.3 -2.8	-3.9 -1.2	7.6 2.1	11.2 5.9
29 Th	9.4 12.1	11.9 14.3	12.9 15.0	12.4 14.1	10.5 11.6	7.6 7.9	4.4 3.7	2.0 0.0	-1.2 -2.2	-2.4 -2.3	-5.2 -0.3	8.8 3.0
30 F	6.7 9.7	9.8 12.4	11.8 14.0	12.4 14.2	11.7 13.0	9.8 10.4	7.0 6.8	4.3 3.1	-2.4 -0.1	-2.1 -1.7	-3.6 -1.3	6.4 0.8
31 Sa	4.0 7.3	7.2 10.0	9.8 12.1	11.3 13.2	11.7 13.0	10.9 11.7	9.1 9.3	6.7 6.1	4.4 2.9	3.0 0.3	-3.1 -0.8	-4.7 -0.1

Time meridian 135° W. 0 is midnight. 12 is noon.

Heights are referred to mean lower low water (N.O.S. chart datum).

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 Su	2.0 5.6	4.8 7.8	7.4 9.9	9.4 11.3	10.6 12.0	10.9 11.7	10.2 10.5	8.7 8.4	6.7 5.8	4.8 3.1	3.8 1.1	4.1 0.4
2 M	1.1 4.8	3.0 6.0	5.3 7.7	7.4 9.2	9.0 10.2	10.0 10.7	10.3 10.6	9.8 9.7	8.6 8.0	6.9 5.8	5.4 3.6	4.6 2.0
3 Tu	1.5 5.1	2.2 5.2	3.6 5.9	5.4 7.1	7.1 8.2	8.5 9.1	9.6 9.7	10.0 9.8	9.8 9.2	8.7 7.9	7.3 6.1	5.9 4.2
4 W	2.9 6.2	2.4 5.2	2.8 5.0	4.0 5.4	5.4 6.2	6.9 7.2	8.4 8.2	9.6 9.1	10.2 9.5	9.9 9.1	9.0 8.0	7.6 6.4
5 Th	4.8 7.6	3.5 6.0	2.9 4.8	3.1 4.3	4.0 4.5	5.4 5.2	7.1 6.4	8.7 7.8	10.0 9.0	10.5 9.6	10.2 9.3	9.1 8.3
6 F	6.7 9.1	5.1 7.2	3.7 5.4	3.0 4.0	3.2 3.3	4.1 3.5	5.7 4.6	7.6 6.2	9.4 7.9	10.7 9.3	11.0 9.9	10.4 9.5
7 Sa	8.4 10.4	6.8 8.6	5.0 6.4	3.6 4.3	2.9 2.7	3.2 2.2	4.5 2.8	6.5 4.4	8.6 6.5	10.4 8.5	11.4 9.8	11.4 10.3
8 Su	9.7 11.5	8.4 10.0	6.5 7.7	4.6 5.2	3.2 2.9	2.7 1.5	3.5 1.4	5.3 2.7	7.6 4.8	9.8 7.2	11.5 9.2	12.1 10.4
9 M	10.6 12.4	9.7 11.3	8.1 9.2	6.0 6.4	4.0 3.6	2.8 1.4	2.8 0.5	4.2 1.1	6.5 3.0	9.0 5.6	11.1 8.2	12.4 10.1
10 Tu	11.0 12.9	10.7 12.4	9.5 10.6	7.5 7.9	5.2 4.8	3.4 2.0	2.6 0.2	3.3 0.0	5.3 1.3	7.9 3.9	10.5 6.7	12.3 9.2
11 W	10.8 13.0	11.3 13.1	10.6 11.8	8.9 9.5	6.6 6.4	4.4 3.2	3.0 0.6	-2.8 -0.5	4.2 0.0	6.7 2.1	9.4 5.0	11.7 7.8
12 Th	10.0 12.7	11.2 13.4	11.2 12.8	10.1 10.9	8.1 8.0	5.7 4.8	3.8 1.7	-2.9 -0.3	-3.5 -0.7	5.4 0.6	8.2 3.1	10.8 6.2
13 F	8.8 11.9	10.7 13.2	11.3 13.2	10.9 12.0	9.3 9.6	7.2 6.5	5.0 3.3	3.5 0.7	-3.2 -0.7	4.4 -0.4	6.8 1.5	9.5 4.3
14 Sa	7.3 10.6	9.6 12.5	10.9 13.2	11.1 12.6	10.3 10.9	8.5 8.3	6.4 5.2	4.5 2.3	3.5 0.1	3.8 -0.6	5.5 0.3	8.0 2.5
15 Su	5.4 9.0	8.1 11.2	10.0 12.5	10.8 12.7	10.7 11.7	9.6 9.8	7.8 7.2	5.9 4.3	4.4 1.7	3.8 0.0	-4.6 -0.2	6.5 1.1
16 M	3.6 7.3	6.3 9.5	8.6 11.3	10.0 12.1	10.5 11.9	10.2 10.7	9.1 8.8	7.4 6.4	5.7 3.7	4.5 1.5	4.2 0.3	5.3 0.5
17 Tu	2.0 5.7	4.4 7.5	6.9 9.4	8.8 10.8	9.9 11.3	10.3 11.0	9.9 9.9	8.8 8.2	7.3 6.0	5.7 3.7	4.7 1.7	4.6 0.8
18 W	1.2 4.7	2.8 5.7	5.0 7.2	7.1 8.8	8.8 9.9	9.8 10.4	10.2 10.3	9.9 9.5	8.9 8.1	7.4 6.1	5.8 3.9	4.8 2.2
19 Th	1.4 4.7	1.8 4.4	3.3 5.0	5.2 6.3	7.2 7.7	8.8 8.8	10.0 9.6	10.6 9.9	10.3 9.5	9.3 8.3	7.6 6.4	5.9 4.4
20 F	2.7 5.8	1.9 4.3	2.2 3.6	3.5 3.9	5.3 4.9	7.3 6.4	9.1 7.9	10.6 9.2	11.3 9.9	11.0 9.8	9.7 8.8	7.8 7.0
21 Sa	4.9 7.8	3.2 5.4	2.2 3.4	2.3 2.3	3.5 2.4	5.4 3.5	7.7 5.3	9.8 7.4	11.5 9.2	12.2 10.3	11.7 10.4	10.1 9.4
22 Su	7.6 10.4	5.4 7.5	3.4 4.6	2.3 2.1	2.2 0.7	3.5 0.8	5.7 2.3	8.4 4.7	10.9 7.3	12.6 9.5	13.2 10.9	12.4 11.0
23 M	10.0 12.8	8.0 10.3	5.6 6.9	3.4 3.4	2.1 0.6	2.1 -0.8	3.7 -0.4	6.3 1.6	9.4 4.5	12.1 7.6	13.7 10.1	14.0 11.5
24 Tu	11.6 14.5	10.4 12.8	8.2 9.8	5.5 5.9	3.2 2.1	1.8 -0.8	2.2 -2.0	4.2 -1.1	7.2 1.4	10.5 4.8	13.2 8.1	14.6 10.7
25 W	12.0 15.1	12.0 14.6	10.5 12.4	8.1 8.9	5.2 4.8	2.8 0.8	1.7 -1.9	-2.5 -2.6	4.9 -1.2	8.3 1.8	11.6 5.5	14.1 8.8
26 Th	11.3 14.5	12.4 15.2	12.0 14.2	10.4 11.6	7.7 7.8	4.8 3.5	2.5 -0.2	1.8 -2.5	3.1 -2.6	5.9 -0.6	9.3 2.7	12.5 6.3
27 F	9.5 12.9	11.6 14.6	12.4 14.7	11.8 13.3	9.9 10.5	7.1 6.6	4.3 2.5	2.5 -0.8	-2.3 -2.5	3.9 -2.0	6.8 0.3	10.2 3.7
28 Sa	7.2 10.7	10.0 13.0	11.8 14.1	12.2 13.8	11.3 12.1	9.3 9.2	6.6 5.5	4.1 1.8	2.7 -0.9	2.9 -1.9	4.8 -1.0	7.7 1.6
29 Su	4.8 8.3	7.9 10.8	10.3 12.5	11.6 13.2	11.7 12.6	10.6 10.8	8.6 8.0	6.2 4.7	4.1 1.6	3.1 -0.5	3.7 -1.0	5.6 0.3
30 M	2.9 6.3	5.8 8.6	8.4 10.5	10.3 11.7	11.2 12.0	11.1 11.2	10.0 9.5	8.2 7.1	6.1 4.2	4.4 1.7	3.7 0.3	4.4 0.2

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

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 Tu	1.7 5.0	4.0 6.6	6.6 8.4	8.7 9.8	10.1 10.6	10.8 10.7	10.6 10.0	9.6 8.6	7.9 6.5	6.1 4.2	4.7 2.2	4.3 1.2
2 W	1.5 4.7	2.9 5.3	5.0 6.5	7.0 7.8	8.7 8.8	9.9 9.5	10.5 9.6	10.3 9.2	9.4 8.0	7.8 6.3	6.2 4.4	5.0 2.9
3 Th	2.2 5.1	2.6 4.7	3.9 5.1	5.6 5.9	7.3 6.9	8.7 7.8	9.8 8.6	10.4 8.9	10.2 8.7	9.3 7.8	7.8 6.3	6.3 4.8
4 F	3.6 6.2	3.1 5.0	3.5 4.4	4.5 4.5	5.9 5.1	7.5 6.0	8.9 7.1	10.1 8.1	10.6 8.7	10.3 8.6	9.3 7.8	7.8 6.6
5 Sa	5.2 7.6	4.1 5.8	3.7 4.4	4.0 3.6	4.9 3.6	6.3 4.2	7.9 5.4	9.4 6.8	10.6 8.0	11.0 8.8	10.5 8.8	9.2 8.1
6 Su	6.8 9.0	5.5 7.1	4.5 5.1	4.0 3.4	4.2 2.6	5.2 2.6	6.8 3.6	8.6 5.2	10.2 6.9	11.2 8.4	11.4 9.2	10.6 9.1
7 M	8.3 10.5	7.0 8.5	5.6 6.2	4.5 3.9	4.0 2.2	4.3 1.5	5.6 1.9	7.5 3.4	9.5 5.5	11.1 7.5	11.9 9.0	11.7 9.7
8 Tu	9.5 11.8	8.5 10.1	7.0 7.7	5.4 5.0	4.2 2.5	3.8 0.9	4.6 0.6	6.3 1.7	8.5 3.7	10.6 6.2	12.0 8.3	12.5 9.8
9 W	10.2 12.8	9.7 11.6	8.4 9.4	6.7 6.5	5.0 3.5	3.8 1.1	3.8 -0.2	5.1 0.2	7.2 1.9	9.7 4.5	11.7 7.1	12.8 9.2
10 Th	10.5 13.3	10.6 12.8	9.8 11.0	8.1 8.3	6.1 5.0	4.3 2.0	3.5 -0.2	4.0 -0.8	5.8 0.2	8.4 2.6	10.9 5.5	12.6 8.2
11 F	10.1 13.3	11.0 13.5	10.8 12.4	9.5 10.1	7.5 6.9	5.3 3.5	3.8 0.6	3.4 -1.1	4.6 -1.0	6.8 0.8	9.6 3.6	11.9 6.6
12 Sa	9.2 12.7	10.8 13.7	11.3 13.3	10.6 11.6	8.9 8.9	6.7 5.5	4.6 2.1	3.4 -0.5	3.6 -1.5	5.3 -0.7	7.9 1.7	10.6 4.8
13 Su	7.8 11.5	10.0 13.1	11.3 13.6	11.3 12.7	10.2 10.6	8.2 7.6	5.9 4.1	4.1 1.0	3.3 -1.0	4.0 -1.4	6.1 0.0	8.9 2.8
14 M	6.0 9.6	8.8 11.9	10.7 13.1	11.4 13.0	11.0 11.8	9.6 9.4	7.5 6.4	5.3 3.1	3.7 0.4	3.4 -1.1	4.5 -0.8	6.9 1.1
15 Tu	4.0 7.4	7.1 9.9	9.5 11.8	11.0 12.5	11.4 12.2	10.7 10.7	9.1 8.4	7.0 5.5	4.9 2.5	3.6 0.3	3.6 -0.7	5.0 0.0
16 W	2.2 5.3	5.1 7.5	7.9 9.7	10.0 11.1	11.1 11.6	11.3 11.2	10.4 9.8	8.8 7.7	6.7 5.0	4.7 2.4	3.6 0.6	3.8 0.1
17 Th	1.1 3.8	3.3 5.1	6.1 7.1	8.5 8.9	10.3 10.1	11.2 10.6	11.2 10.3	10.4 9.2	8.7 7.3	6.5 5.0	4.6 2.8	3.6 1.3
18 F	1.0 3.5	2.2 3.5	4.3 4.6	6.7 6.2	8.9 7.8	10.5 8.9	11.4 9.6	11.4 9.7	10.5 8.9	8.7 7.4	6.5 5.3	4.6 3.4
19 Sa	2.1 4.4	2.0 3.1	3.0 2.8	4.9 3.6	7.1 4.9	9.2 6.5	10.8 7.9	11.8 9.0	11.9 9.4	10.9 9.0	8.9 7.8	6.6 5.9
20 Su	4.2 6.5	2.9 4.1	2.7 2.4	3.5 1.8	5.2 2.3	7.4 3.6	9.5 5.4	11.3 7.3	12.4 8.8	12.4 9.6	11.3 9.4	9.1 8.3
21 M	6.7 9.2	4.9 6.3	3.5 3.5	3.1 1.4	3.7 0.5	5.4 1.0	7.6 2.5	10.0 4.8	12.0 7.1	13.1 9.0	13.0 10.0	11.6 10.0
22 Tu	9.0 11.8	7.3 9.1	5.4 5.8	3.8 2.6	3.1 0.2	3.7 -0.7	5.5 -0.1	8.0 1.9	10.7 4.6	12.7 7.4	13.8 9.5	13.5 10.6
23 W	10.6 13.7	9.5 11.8	7.6 8.7	5.5 5.0	3.7 1.5	2.9 -0.9	3.7 -1.7	5.8 -0.6	8.6 1.9	11.4 5.0	13.4 8.0	14.3 10.2
24 Th	11.3 14.6	11.1 13.7	9.8 11.4	7.6 7.9	5.2 3.9	3.3 0.4	2.7 -1.9	3.8 -2.1	6.3 -0.5	9.3 2.5	12.1 5.8	14.0 8.8
25 F	10.9 14.3	11.8 14.5	11.4 13.3	9.7 10.5	7.3 6.8	4.7 2.8	2.9 -0.6	2.6 -2.4	4.1 -2.0	6.9 0.2	10.0 3.4	12.7 6.8
26 Sa	9.6 13.0	11.5 14.2	12.0 14.1	11.3 12.4	9.3 9.4	6.6 5.5	4.1 1.7	2.6 -1.2	2.8 -2.3	4.7 -1.3	7.6 1.3	10.6 4.6
27 Su	7.9 11.1	10.4 13.0	11.8 13.8	12.0 13.2	10.8 11.2	8.6 8.0	5.9 4.3	3.6 0.9	2.6 -1.4	3.2 -1.7	5.4 -0.2	8.3 2.6
28 M	5.9 8.9	8.9 11.2	10.9 12.7	11.9 13.0	11.6 12.0	10.1 9.8	7.8 6.7	5.3 3.3	3.4 0.5	2.8 -1.0	3.8 -0.7	6.1 1.2
29 Tu	4.1 6.8	7.2 9.2	9.6 11.0	11.2 11.9	11.6 11.8	11.0 10.6	9.3 8.4	7.1 5.6	4.8 2.8	3.4 0.6	3.2 -0.2	4.5 0.6
30 W	2.8 5.1	5.6 7.1	8.2 9.1	10.1 10.4	11.1 10.9	11.2 10.5	10.3 9.3	8.6 7.3	6.5 4.9	4.6 2.6	3.6 1.1	3.7 0.9
31 Th	2.1 4.2	4.3 5.5	6.7 7.2	8.8 8.6	10.2 9.5	10.9 9.8	10.7 9.4	9.7 8.3	8.1 6.6	6.2 4.6	4.6 2.9	3.8 2.0

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

GLOSSARY OF TERMS

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 meridian. 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*.

GLOSSARY OF TERMS

- 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 19-year value.

GLOSSARY OF TERMS

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 19-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 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 19-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 19-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 19-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 19-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 19-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.

GLOSSARY OF TERMS

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.

SEMIIDIURNAL—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

GLOSSARY OF TERMS

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* (G_c), or *tropic range*, is the difference in height between tropic higher high water and tropic lower low water. The *small tropic range* (S_c) is the difference in height between tropic lower high water and tropic higher low water. The *mean tropic range* (M_c) 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* (T_cHHW), *tropic lower high water* (T_cLHW), *tropic higher low water* (T_cHLW), and *tropic lower low water* (T_cLLW).

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.

[Stations marked with an asterisk (*) are reference stations for which daily predictions are given in table 1. Page numbers of reference stations are given in parentheses.]

A	No.		No.
A.P.A. Cannery, Alaska.....	2071	Antofagasta, Chile * (20).....	213
Aberdeen, Wash * (120).....	991	Apokak Creek entrance, Alaska.....	2395
Acajutla, El Salvador.....	367	Apoon Mouth, Alaska.....	2423
Acapulco, Mexico.....	377	Applegate Cove, Alaska.....	2271
Active Pass, British Columbia.....	1271	Applegate Island, Alaska.....	1931
Adak Bight, Alaska.....	2309	Appletree Cove, Wash.....	1075
Adak Island, Alaska.....	2307-2315	Arcadia, Wash.....	1149
Addenbroke Island, British Columbia....	1363	Arcata Wharf, Calif.....	817
Admiralty Head, Wash.....	1033	Arctic Ocean.....	2461-2469
Admiralty Inlet, Wash.....	1033-1041	Arena Cove, Calif * (96).....	789
Admiralty Island, Alaska.....	1645,1725	Argentina.....	1-
Adugak Island, Alaska.....	2261	Arica, Chile.....	229
Affleck Canal, Alaska.....	1579,1581	Arletta, Wash.....	1119
Afognak Island, Alaska.....	2041-2105	Armitage Island, Wash.....	1211
Agattu Island, Alaska.....	2343	Astoria, Oreg. * (112).....	919
Agnes Cove, Alaska.....	1957	Astoria, Oreg.....	913-919
Aguchik Island, Alaska.....	2111	Atka Island, Alaska.....	2283-2295
Aialik Bay & Peninsula, Alaska....	1951-1959	Atka Pass, Alaska.....	2289
Akun Bay, Alaska.....	2209	Atkinson Point, British Columbia.....	1281
Akun Island, Alaska.....	2207-2211	Attu Island, Alaska.....	2345-2353
Akutan, Alaska.....	2213	Auke Bay, Alaska.....	1691
Akutan Harbor, Alaska.....	2215	Avalon, Calif.....	469
Akutan Island, Alaska.....	2213-2221	Ayock Point, Wash.....	1065
Alameda, Calif.....	541,543		
Alameda Creek, Calif.....	575		
Alaska.....	1411-2469	Bahia Aguirre, Argentina.....	3
Alaska Peninsula.....	2109-2185	Bahia Arauco, Chile.....	151
Ala Spit, Wash.....	1193	Bahia Borja, Chile.....	37
Alitak, Alaska * (196).....	2067	Bahia Buen Suceso, Argentina.....	1
Alva Bay, Alaska.....	1445	Bahia Columo, Chile.....	155
Albatross Anchorage, Alaska.....	2165	Bahia Concepcion, Chile.....	153
Alcan Harbor, Alaska.....	2341	Bahia Corral, Chile.....	135
Alcatraz Island, Calif.....	525	Bahia Cueva, Colombia.....	303
Aleck Bay, Wash.....	1201	Bahia Cupica, Colombia.....	309
Alert Bay, British Columbia.....	1327	Bahia de Chame, Panama.....	327
Aleutian Islands, Alaska.....	2187-2353	Bahia de Culebra, Costa Rica.....	349
Algarrobo, Chile.....	171	Bahia de Darwin, Galapagos Islands.....	293
Alitak Bay, Alaska.....	2067	Bahia de Perry, Galapagos Islands.....	289
Allan Island, Wash.....	1203	Bahia de Santa Elena, Ecuador.....	267
Allyn, Wash.....	1143	Bahia Felipe, Chile.....	17
Alsea Bay, Oreg.....	857	Bahia Gente Grande, Chile.....	23
Alsea River, Oreg.....	859	Bahia Honda, Panama.....	333
Alviso Slough, Calif.....	633,621	Bahia Huarmey, Peru.....	243
Amak Island, Alaska.....	2355	Bahia India, Chile.....	65
Amaknak Island, Alaska.....	2227	Bahia Isabela, Galapagos Islands.....	285
Amapala, Honduras.....	361	Bahia Linao, Chile.....	119
Amchitka Island, Alaska.....	2335	Bahia Lota, Chile.....	151
American Bay, Alaska.....	1527	Bahia Manta, Ecuador.....	271
Amukta Island, Alaska.....	2279	Bahia Nassau, Chile.....	57
Anacortes, Wash.....	1207	Bahia Octavia, Colombia.....	311
Anchorage, Alaska * (188).....	2021	Bahia Pina, Panama.....	313
Anchorage Bay, Alaska.....	2129	Bahia Posesion, Chile.....	11
Anchor Point, Wrangell Narrows, Alaska.	1609	Bahia San Andres, Chile.....	85
Anchor Point, Cook Inlet, Alaska.....	1997	Bahia Santiago, Chile.....	15
Ancud, Chile.....	129	Bahia Snug, Chile.....	31
Anderson Bay, Alaska.....	2231	Bahia Solano, Colombia.....	307
Anderson Island, Wash.....	1129	Bahia Swallow, Chile.....	39
Angel Island, Calif.....	633,635	Bahia Tictoc, Chile.....	107
Angostura Guia, Chile.....	73	Bahia Tongoy, Chile.....	189
Angostura Inglesa, Chile.....	77	Bahia Tuesday, Chile.....	53
Anguilla Island, Alaska.....	1557	Bahia Ushuaia, Argentina.....	5
Annette Island, Alaska.....	1459	Bahia Uvita, Costa Rica.....	341
Ano Nuevo Island, Calif.....	511	Bahia Wood, Chile.....	33
Antioch, Calif.....	715	Bainbridge Island, Alaska.....	1943
		Bainbridge Island, Wash.....	1093

	No.
Carmanah Point, British Columbia.....	1335
Carmel Bay, Calif.....	489
Carmel Cove, Calif.....	489
Carquinez Strait, Calif.....	673-689
Carr Inlet, Wash.....	1121-1125
Carrizal Bajo, Chile.....	197
Carry Inlet, Alaska.....	2105
Carter Bay, Alaska.....	2391
Carter Bay, British Columbia.....	1375
Cascade Head, Oreg.....	875
Case Inlet, Wash.....	1139-1143
Castle Bay, Alaska.....	2131
Castro, Chile.....	115
Catalina Harbor, Calif.....	467
Cathcart Landing, Oreg.....	915
Cathlamet, Wash.....	929
Champerico, Guatemala.....	371
Chanaral de las Animas, Chile.....	205
Chance Cove, Alaska.....	1967
Chankliut Island, Alaska.....	2133
Channel Islands, Calif.....	465-479
Charleston, Oreg * (108).....	837
Chatham Channel, British Columbia.....	1319
Chatham Sound, British Columbia...	1393-1399
Chatham Strait, Alaska.....	1711-1737
Chehalis River, Wash.....	993,995
Chemainus, British Columbia.....	1275
Chenega Island, Alaska.....	1939,1941
Chernofski Harbor, Alaska.....	2237
Cherry Point, Wash * (136).....	1247
Chetco Cove, Oreg.....	827
Chevron Oil Company Pier, Calif.....	645
Chiachi Island, Alaska.....	2143
Chichagof Harbor, Alaska.....	2347
Chichagof Island, Alaska.....	1739,1775-1789
Chile.....	7-229
Chilkat Inlet, Alaska.....	1703
Chilkoot Inlet, Alaska.....	1705
Chimbote, Peru.....	245
Chinook, Wash.....	903
Chinulna Point, Alaska.....	2005
Cholmondeley Sound, Alaska.....	1471,1473
Chowiet Island, Alaska.....	2135
Chuckanut Bay, Wash.....	1219
Chuginadak Island, Alaska.....	2271
Chugul Island, Alaska.....	2303
Clallam Bay, Wash.....	1011
Clam Bay, Wash.....	1097
Clarence Strait, Alaska.....	1459-1503
Clarks Point, Alaska.....	2381
Clarksburg, Calif.....	763
Clayoquot, British Columbia.....	1341
Cleveland Passage, Alaska.....	1639
Coal Bay, Alaska.....	2169
Cobija, Chile.....	217
Cocos Island, Costa Rica.....	353
Cold Bay, Alaska.....	2179,2181
Collinsville, Calif.....	753
Colombia.....	295-311
Colorado River entrance, Mexico.....	395
Columbia Glacier, Alaska.....	1917
Columbia River.....	897-959
Comfort Cove, Alaska.....	1857
Commencement Bay, Wash.....	1115
Comox, British Columbia.....	1291
Composite Island, Alaska.....	1815
Constantine Harbor, Alaska.....	2335
Constitucion, Chile.....	161
Controller Bay, Alaska.....	1837
Cook Inlet, Alaska.....	1977-2039
Coon Island, Alaska.....	1439
Coos Bay, Oreg.....	837-843
Copper Harbor, Alaska.....	1523

	No.
Copper River Delta, Alaska.....	1839-1841
Coquille River, Oreg.....	835
Coquimbo, Chile.....	191
Cordero Channel, British Columbia.....	1299
Cordova, Alaska * (168).....	1851
Cordova Bay, Alaska.....	1505-1519
Corinto, Nicaragua.....	359
Corkscrew Slough, Calif.....	589
Cormorant Island, British Columbia.....	1327
Cormorant Passage, Wash.....	1127
Cornet Bay, Wash.....	1197
Corona del Mar, Calif.....	427
Coronation Island, Alaska.....	1573
Corral, Chile.....	135
Corte Madera Creek, Calif.....	649
Cortes Island, British Columbia.....	1293
Cosmopolis, Wash.....	993
Cosmos Point, Frederick Sound, Alaska..	1627
Costa Rica.....	339-353
Coupeville, Wash.....	1185
Cove Point, Alaska.....	1701
Cowichan Bay, British Columbia.....	1273
Coyote Creek, Calif.....	619-627
Coyote Hills Slough, Calif.....	577
Coyote Point, Calif.....	569
Craig, Alaska.....	1551
Crater Bay, Alaska.....	1961
Crescent Bay, Wash.....	1015
Crescent City, Calif. * (104).....	823
Crescent Harbor, Wash.....	1183
Crib Point, Alaska.....	1677
Crockett, Calif.....	685
Cross Sound, Alaska.....	1791,1793
Crown Point, Mission Bay, Calif.....	421
Cruz Pass, Alaska.....	1553
Culross Bay, Alaska.....	1925
Culross Passage, Alaska.....	1927
Curanipe, Chile.....	159
Custom House Cove, Mary Isl., AK.....	1435
Cutuco, El Salvador.....	363
Cuyler Harbor, Calif.....	479
Cypress Island, Wash.....	1213,1217
Cyrus Cove, Alaska.....	1567

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Dabob Bay, Wash.....	1053,1055,1057
Dalco Passage, Wash.....	1111
Dall Island, Alaska.....	1411,1545-1549
Dangerous Passage, Alaska.....	1939
Davidson Inlet, Alaska.....	1561-1571
Day Harbor, Alaska.....	1947
Deception Pass, Wash.....	1195,1197,1199
Deer Passage, British Columbia.....	1297
Deering, Alaska.....	2447
Delarof Islands, Alaska.....	2331,2333
Dent Point, Alaska.....	2149
Depoe Bay, Oreg.....	869
Des Moines, Wash.....	1107
Destruction Island, Wash.....	999
Devils Head, Wash.....	1135
Dick Point, Oreg.....	889
Disappointment Slough, Calif.....	733
Discovery Bay, Wash.....	1025
Discovery Passage, B.C.....	1295,1303
Divide Head, Alaska.....	1473
Dixon Entrance.....	1405-1417
Dixon Harbor, Alaska.....	1821
Dofflemeyer Point, Wash.....	1157
Dolgoi Harbor, Alaska.....	2173
Dolgoi Island, Alaska.....	2173
Dolphin Point, Alaska.....	2097
Dora Harbor, Alaska.....	2187

	No.		No.
Dorothy Cove, Alaska.....	1743		
Douglas Channel, British Columbia.....	1381	F	
Douglas Island, Alaska.....	1689	Fairway Island, Alaska.....	1773
Drayton Passage, Wash.....	1135	Falcon Arm, Alaska.....	1775
Drift Creek, Alsea River, Oreg.....	859	False Pass, Alaska.....	2191
Drift River Terminal, Alaska.....	2029	False River, Calif.....	735
Driftwood Bay, Alaska.....	2265	Farewell Harbor, British Columbia.....	1323
Dry Spruce Island, Alaska.....	2091	Favorite Bay, Alaska.....	1733
Dry Strait, Frederick Sound, Alaska....	1625	Fenimore Pass, Alaska.....	2297
Duke Island, Alaska.....	1413,1429	Ferndale, Wash.....	1245
Dumbarton Highway Bridge, Calif.....	599	Fidalgo Island, Wash.....	1199
Duncan Bay, British Columbia.....	1295	Fields Landing, Calif.....	803
Dungeness, Chile.....	7	Filucy Bay, Wash.....	1133
Dungeness, Wash.....	1021	Finch Cove, Alaska.....	2281
Dupont Wharf, Wash.....	1131	Finlayson Channel, B.C.....	1373,1375
Dutch Harbor, Alaska.....	2227	Fire Island, Alaska.....	2019
Dutch Slough, Calif.....	737	Fish Bay, Alaska.....	1759
Duwamish Waterway, Wash.....	1091	Fisher Channel, British Columbia.....	1365
Dyes Inlet, Wash.....	1101	Fitzgibbon Cove, Alaska.....	1451
		Fitz Hugh Sound, B.C.....	1361,1363
E		Flaxman Island, Alaska.....	2465
Eagle Bay, Alaska.....	2241	Florence, Oreg.....	853,855
Eagle Cliff, Wash.....	933	Ford island, Hawaii.....	2497
Eagle Harbor, Bainbridge I., Wash.....	1093	Fords Cove, British Columbia.....	1425
East Foreland, Alaska.....	2013	Fort Canby, Wash.....	899
East Garrison, Calif.....	635	Fort Ross, Calif.....	785
East Island, Hawaiian Islands.....	2477	Fossil River, Alaska.....	2417
East Passage, Wash.....	1107	Foulweather Bluff, Wash.....	1045
Echo Bay, Wash.....	1243	Fox Bay, Alaska Peninsula.....	2147
Ecuador.....	261-293	Fraser River, British Columbia.....	1279
Edgerley Island, Calif.....	677	Frederick Sound, Alaska.....	1625-1649
Ediz Hook, Wash.....	1019	French Frigate Shoals, Hawaiian Islands	2477
Edmonds, Wash.....	1073	Freshwater Bay, Alaska.....	1739
Edna Bay, Alaska.....	1571	Friday Harbor, Wash.....	1241
Egegik, Alaska.....	2365	Fritz Cove, Alaska.....	1689
Egegik River, Alaska.....	2363,2365	Fulford Harbor, British Columbia.....	1269
El Capitan Island, Alaska.....	1565	Funter, Alaska.....	1693
El Capitan Passage.....	1589	Funter Bay, Alaska.....	1693
El Salvador.....	363-367		
El Segundo, Calif.....	447	G	
Elbow Bay, Alaska.....	1513	Galapagos Islands.....	281-293
Elbow Passage, Alaska.....	1777	Gallinas Creek, Calif.....	665
Eld Inlet, Wash.....	1155	Gambier Bay, Alaska.....	1657,1659
Eliza Harbor, Alaska.....	1643,1645	Gardiner, Oreg.....	847
Elfin Cove, Alaska * (160).....	1791	Gardiner, Wash.....	1025
Elk River, Calif.....	807	Gardner Canal, British Columbia.....	1383
Elkhorn, Calif.....	503	Gareloi Island, Alaska.....	2333
Elkhorn Slough, Calif.....	499,503-507	Garibaldi, Oreg.....	883
Elkhorn Yacht Club, Calif.....	497	Gaviota State Park, Calif.....	461
Elliott Bay, Wash.....	1087	General Fish Company Pier.....	493
Ellsworth, Wash.....	955	Georgiana Slough, Calif.....	727
Elrington Island, Alaska.....	1889	George Inlet, Alaska.....	1439
Empire, Coos Bay, Oreg.....	841	Gertrude Cove, Alaska.....	2337
Endicott Arm, Alaska.....	1661	Gibbon Anchorage, Alaska.....	1879
English Bay, Alaska.....	2225	Gig Harbor, Wash.....	1113
Ensenada, Mexico.....	403	Glacier Bay, Alaska.....	1807-1817
Ensenada Utria, Colombia.....	305	Glacier Island, Alaska.....	1919
Entrance Island, Alaska.....	1621	Glendale Cove, British Columbia.....	1321
Entrance Point, Alaska.....	2359	Gelndale, Wash.....	1163
Ernest Sound, Alaska.....	1483	Gold Beach, Oregon.....	829
Eshamy Bay, Alaska.....	1935	Gold Street Bridge, Calif.....	621
Eshmay Lagoon, Alaska.....	1937	Golden Gate, Calif.....	523
Esperanza Inlet, British Columbia.....	1347	Goletas Channel, British Columbia.....	1331
Esquimalt, British Columbia.....	1263	Golf Island, Alaska.....	1745
Etienne Bay, Alaska.....	2353	Golfito, Costa Rica.....	339
Eureka, Calif.....	811	Golfo de Ancud, Chile.....	117-123
Eureka Slough Bridge, Calif.....	813	Golfo de Penas, Chile.....	81
Evangelistas, Chile.....	71	Golfo Corcovado, Chile.....	103-115
Evans Island, Alaska.....	1887	Golfo Elena, Costa Rica.....	351
Everett, Wash.....	1165	Golfo Tres Montes, Chile.....	83
Excursion Inlet, Alaska.....	1799,1801	Golfo Trinidad, Chile.....	75
Explorer Bay, Alaska.....	2293	Good Island, Alaska.....	1657
Eyak River, Alaska.....	1843	Goodnews Bay, Alaska.....	2389

	No.
Goodyear Slough, Calif.....	693
Goose Creek, Alaska.....	2025
Goose Island, Alaska.....	1795
Gooseberry Point, Wash.....	1223
Gowlland Harbor, British Columbia.....	1303
Graham Island, British Columbia....	1405-1409
Granite Rock, Calif.....	603
Grant Line Canal, Calif.....	751
Grant Point, Alaska.....	2357
Gravel Point, Alaska.....	1849
Graves Harbor, Alaska.....	1819
Gravina Island, Alaska.....	1469
Grays Harbor, Wash.....	983-995
Great Sitkin Island, Alaska.....	2299,2301
Greely Point, Alaska.....	1681
Greenbank, Wash.....	1181
Green Bight, Alaska.....	2217
Green Cove, Calif.....	787
Green Island, Alaska.....	1879
Grenville Channel, British Columbia....	1385
Greys Island, Sumner Strait, Alaska....	1603
Grove Street, Oakland Harbor, Calif....	545
Guadalupe Slough, Calif.....	615
Guatemala.....	369,371
Guayaquil, Ecuador * (36).....	265
Guaymas, Mexico * (68).....	391
Guemes Channel, Wash.....	1207
Guguak, Alaska.....	1885
Gulf of Alaska.....	1819-1845
Gulf of California.....	387-397
Gulf of Esquibel, Alaska.....	1555-1559

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Haines Inlet, Alaska.....	1705
Hale Passage, Puget Sound.....	1119
Hale Passage, Wash.....	1223,1225
Haleiwa, Hawaii.....	2491
Haley Anchorage, Alaska.....	1759
Half Moon Bay, Calif.....	513
Half Moon Bay, Oreg.....	845
Halibut Cove, Kachemak Bay, Alaska....	1991
Hammond, Oreg.....	909
Hana, Hawaii.....	2529
Hanalei Bay, Hawaii.....	2489
Hanamaulu Bay, Hawaii.....	2487
Hanapepe Bay, Hawaii.....	2483
Hanauma Bay, Hawaii.....	2501
Hanbury Point, Wash.....	1253
Hanning Bay, Alaska.....	1871
Hansville, Wash.....	1071
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Rada Pichilemu, Chile.....	165		St. Paul Island, Alaska.....	2411	
Rada Quintay, Chile.....	173		Sakie Bay, Alaska.....	1547	
Rada Topocalma, Chile.....	167		Salina Cruz, Mexico * (64).....	375	
Rada Vallenar, Chile.....	91		Salisbury Sound, Alaska.....	1753,1755	
Raspberry Strait, Alaska.....	2097		Salmon River, Oreg.....	875	
Rasp Ledge, Alaska.....	1665		Saltery Cove, Kasaan Bay, Alaska.....	1475	
Rat Islands, Alaska.....	2335-2339		Saltery Cove, Ugak Bay, Alaska.....	2055	
Ratz Harbor, Alaska.....	1485		Saltery Point, Alaska.....	1535	
Raven Bay, Alaska.....	2243		Saltspring Island, British Columbia....	1269	
Ravenswood Slough, Calif.....	601		Samoa, Calif.....	815	
Raymond, Wash.....	981		San Antonio, Chile.....	169	
Red Bluff Bay, Alaska.....	1721		San Antonio Creek, Calif.....	667	
Red Dog Dock, Alaska.....	2453		San Carlos, Mexico.....	399	
Redfield Cove, Alaska.....	1829		San Clemente, Calif.....	425	
Redfox Bay, Alaska.....	2101		San Clemente Island, Calif.....	465	
Redonda Bay, British Columbia.....	1297		San Cristobal, Galapagos * (44).....	281	
Redwood City, Calif.....	591		San Diego, Calif. * (72).....	413	
Redwood Creek, Calif.....	583,585		San Diego, Calif.....	411	
Redwood Creek, Granite Rock, Calif.....	603		San Diego Bay, Calif.....	409-417	
Reedsport, Oreg.....	849		San Fernando Island, Alaska.....	1553	
Reef Bight, Alaska.....	2221		San Francisco Bar, Calif.....	517	
Reef Point, Alaska.....	1601		San Francisco Bay, Calif.....	521-651	
Refugio Landing, Calif.....	657		San Francisco, Calif. * (88).....	523	
Reid Bay, Sumner Strait, Alaska.....	1595		San Francisco, North Point, Calif.....	527	
Resurrection Bay, Alaska * (176).....	1949		San Joaquin River, Calif.....	715-751	
Revillagigedo Channel, Alaska.....	1429-1439		San Juan Channel, Wash.....	1237-1241	
Reynolds, Calif.....	779		San Juan Island, Wash.....	1241,1251,1255	
Rich Passage, Wash.....	1097		San Juan del Sur, Nicaragua.....	357	
Richardson, Wash.....	1237		San Leandro Bay, Calif.....	549	
Richmond, Calif.....	643,645		San Leandro Marina, Calif.....	557	
Riley Cove, British Columbia.....	1343		San Lorenzo, Ecuador.....	279	
Rincon Island, Calif.....	457		San Mateo Bridge, Calif.....	571,573	
Rincon Point, Calif.....	529		San Miguel Island, Calif.....	479	
Rio Chepo, Panama.....	319		San Nicolas Island, Calif.....	473	
Rio Chone, Ecuador.....	273		San Pablo Bay, Calif.....	653-671	
Rio Imperial, Chile.....	141		San Pedro Channel, Calif.....	427-449	
Rio Maule entrance, Chile.....	161		San Simeon, Calif.....	485	
Rio Maullin, Chile.....	133		Sanak Harbor, Alaska.....	2185	
Rio San Juan, Colombia.....	301		Sanak Islands, Alaska.....	2183,2185	
Rio Santiago, Ecuador.....	277		Sanborn Harbor, Alaska.....	2155	
Rio Valdivia, Chile.....	137		Sand Bay, Alaska.....	2301	
Rio Vista, Calif.....	757		Sand Heads, British Columbia.....	1279	
Rivers Inlet, British Columbia.....	1359		Sand Mound Slough, Calif.....	739	
Robert Islands, Alaska.....	1653		Sand Point, Alaska * (200).....	2161	
Roberts Landing, Calif.....	559		Sandy Point, Wash.....	1177,1229	
Roca Remolinos, Chile.....	127		Santa Ana River, Calif.....	431	
Roche Harbor, Wash.....	1255		Santa Barbara, Calif.....	459	
Rocky Bay, Alaska.....	1975		Santa Barbara Channel, Calif.....	451-461	
Rocky Point, Alaska.....	1911		Santa Barbara Island, Calif.....	471	
Rocky Point, Wash.....	1155		Santa Catalina Island, Calif.....	467,469	
Rocky Point, Oreg.....	945		Santa Cruz, Calif.....	509	
Rogue River, Oreg.....	829,831		Santa Cruz Island, Calif.....	475	
Root Point, British Columbia.....	1319		Santa Monica Bay, Calif.....	445,447	
Rootok Island, Rootok Strait, AK.....	2205		Santa Monica, Calif.....	449	
Rosario, Wash.....	1231		Santa Rosa Island, Calif.....	477	
Rosario Strait, Wash.....	1199-1259		Saratoga Passage, Wash.....	1177,1179,1183	
Rudyard Bay, Alaska.....	1449		Sausalito, Calif.....	629,631	
			Sawmill Bay, Alaska.....	1887	
			Sawyer Island, Alaska.....	1673	

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	No.		No.
Scraggy Island, Alaska.....	1757	Smuggler Cove, Hawaii.....	2525
Scraggy Point, Alaska.....	1755	Snag Point, Alaska.....	2383
Scrapps Institution, Calif.....	423	Sneeoosh Point, Washington.....	1189
Scotch Cap, Alaska.....	2199	Snodgrass Slough, Calif.....	761
Sea Otter Harbor, Alaska.....	1549	Snug Corner Cove, Alaska.....	1905
Sea Otter Sound, Alaska.....	1567	Snug Harbor, Knight Island, Alaska.....	1893
Seabeck, Wash.....	1059	Snug Harbor, Cook Inlet, Alaska.....	2033
Seabeck Bay, Wash.....	1059	Snug Harbor Marina, Calif.....	759
Seal Cape, Alaska.....	2169	Soda Bay, Alaska.....	1541
Seal Island, Alaska.....	1881	Sonoma Creek, Calif.....	669, 671
Seaplane Harbor, Calif.....	567	Sooke, British Columbia.....	1261
Seattle, Wash * (132).....	1087, 1091	South Bay, Greys Harbor, Wash.....	98
Security Cove, Alaska.....	1545	South Bay Wreck, Calif.....	587
Sedanka Island, Alaska.....	2247	South Bend, Wash.....	979
Seguan Island, Alaska.....	2281	South Pass, Sukkwan Strait, Alaska.....	1533
Segunda Angostura, Chile.....	19	South San Francisco, Calif.....	561
Sekiu, Wash.....	1011	Southbeach, Oreg.....	863
Selby, Calif.....	683	Southeast Farallon Island, Calif.....	515
Seldovia, Alaska * (180).....	1983	Spruce Island, Alaska.....	2047
Semiahmoo Bay, Wash.....	1249	Squamish, British Columbia.....	1285
Semidi Island, Alaska.....	2135	Stanwood, Wash.....	1175
Seno Ano Nuevo, Chile.....	65	Steamboat Bay, Alaska.....	1555
Seno Reloncavi, Chile.....	125	Steamboat Slough, Calif.....	759
Sequim Bay, Wash.....	1023	Steamboat Slough, Wash.....	927
Sergius Narrows, Alaska.....	1761	Steilacoom, Wash.....	1127
Settlement Point, Alaska.....	2175	Stella, Wash.....	935
Settlers Point, Oreg.....	923	Steller Cove, Alaska.....	2351
Seward, Alaska * (176).....	1949	Stephens Passage, Alaska.....	1653-1691
Seward Peninsula, Alaska.....	2441	Stepovak Bay, Alaska.....	2149
Seymour Canal, Alaska.....	1665, 1667	Stewart, British Columbia.....	1427
Seymour Narrows, British Columbia.....	1305	Stikine Strait, Alaska.....	1601
Shag Rock, Alaska.....	1847	Stillaguamish River, Wash.....	1175
Shakan Strait, Alaska.....	1587	Stockton, Calif.....	725
Shakan Bay Entrance, Alaska.....	1585	Strait of Georgia, Wash.....	1243-1249
Shaktoolik, Alaska.....	2433	Strait of Juan de Fuca, Wash.....	1007-1029
Shaw Island, Wash.....	1239	Strawberry Bay, Wash.....	1213
Sheldon Point, Alaska.....	2421	Stuart Channel, British Columbia.....	1275
Shelikof Strait, Alaska.....	2099-2115	Stuart Island, Alaska.....	2429
Shelter Cove, Calif.....	799	Stuart Island, Wash.....	1257
Shelton, Wash.....	1147	Sucia Islands, Wash.....	1243
Shemya Island, Alaska.....	2341	Suislaw River, Oregon.....	851-855
Shilshole Bay, Wash.....	1081	Suisun Bay, Calif.....	691-713
Ship Harbor, Wash.....	1205	Suisun City, Calif.....	697
Shishmaref Inlet, Alaska.....	2445	Suisun Slough, Calif.....	695, 697
Shoal Point, Alaska.....	2317	Suisun Slough entrance, Calif.....	691
Shumagin Islands, Alaska.....	2151-2163	Sukkwan Island, Alaska.....	1529
Shushartie Bay, British Columbia.....	1331	Sukkwan Strait, Alaska.....	1533
Shuyak Island, Alaska.....	2103, 2105	Sulzer, Alaska.....	1525
Shuyak Strait, Alaska.....	2101	Surf Bay, Alaska.....	2211
Sidney, British Columbia.....	1267	The Summit, Alaska.....	1619
Siletz Bay, Oreg.....	871	Sumner Island, Alaska.....	1597
Siletz River, Oreg.....	873	Sumner Strait, Alaska.....	1573-1603
Similk Bay, Washington.....	1191	Sunset Beach, Wash.....	1031
Sinclair Inlet, Wash.....	1099	Surge Bay, Alaska.....	1789
Sitcum Waterway, Wash.....	1115	Swanson Harbor, Alaska.....	1805
Sitka, Alaska * (156).....	1749	Sweeper Cove, Alaska * (208).....	2307
Sitka Dock, Oreg.....	839	Sweetwater Channel, California.....	417
Sitka Sound, Alaska.....	1747-1751	Swinomish Channel, Wash.....	1187, 1209
Sitkalidak Island, Alaska.....	2057	Symonds Bay, Alaska.....	1747
Sitkinak Lagoon, Alaska.....	2065		
Siuslaw River, Oreg.....	851-855		
Skagit Bay, Wash.....	1187-1197	T	
Skagway, Alaska.....	1709	Table Bay, Alaska.....	1715
Skamokawa, Wash.....	927	Taboga, Panama.....	325
Skan Bay, Alaska.....	2233	Tacoma, Wash.....	1115
Skidegate Inlet, British Columbia.....	1401	Tacoma Narrows, Wash.....	1117
Skipanon River, Oreg.....	911	Taft, Oreg.....	871
Skowl Arm, Alaska.....	1475	Tah Bay, Alaska.....	1507
Slingsby Channel, British Columbia.....	1357	Tahlequah, Wash.....	1111
Slocum Arm, Alaska.....	1775	Taiya Inlet, Alaska.....	1707, 1709
Smith Island, Alaska.....	1903	Taiyasanka Harbor, Alaska.....	1707
Smith Island, Wash.....	1027	Takanis Bay, Alaska.....	1787
Smith River, Calif.....	825	Takli Island, Alaska.....	2113
Smith Slough, Calif.....	595	Takoma Cove, Alaska.....	1973

	No.
Taku Harbor, Alaska.....	1679
Taku Inlet, Alaska.....	1681,1683
Talara, Peru * (32).....	255
Talcahuano, Chile.....	153
Taltal, Chile.....	207
Tamgas Harbor, Alaska.....	1459
Tanaga Bay, Alaska.....	2327
Tanaga Island, Alaska.....	2325-2329
Tanager Point, Alaska.....	2303
Tarlatt Slough, Wash.....	963
Tarr Inlet, Alaska.....	1817
Tasu Sound, B.C.....	1403
Tatoosh Island, Wash.....	1007
Tebenkof Bay, Alaska.....	1719
Teller, Alaska.....	2439
Tenakee Inlet, Alaska.....	1737
Tenakee Springs, Alaska.....	1737
Tepoca Bay, Mexico.....	393
Terminous, Calif.....	729
Thatcher Pass, Wash.....	1211
Thomas Bay, Alaska.....	1635
Thoms Point, Alaska.....	1497
Thorne Island, Alaska.....	1491,1437
Threemile Slough entrance, Calif....	717,755
Three Saints Bay, Alaska.....	2061
Three Star Point, Alaska.....	2139
Tide Point, Wash.....	1217
Tierra del Fuego.....	1-5
Tigalda Bay, Alaska.....	2201,2203
Tigalda Island, Alaska.....	2201
Tillamook Bay, Oreg.....	881-891
Tin City, Alaska.....	2443
Tlevak Narrows, Alaska.....	1543
Tlevak Strait, Alaska.....	1529-1543
Tocopilla, Chile.....	219
Toe Point, Wash. * (116).....	975
Toledo, Oreg.....	867
Tomales Bay, Calif.....	771-781
Tongass Narrows, Alaska.....	1441,1443
Tongue Point, Oreg.....	919
Tonki Bay, Alaska.....	2041
Tonowek Bay, Alaska.....	1559
Tooksook Bay, Alaska.....	2407
Topolobampo, Mexico.....	387
Totten Inlet, Wash.....	1149,1153
Tracy Arm, Alaska.....	1671,1673
Tracyton, Wash.....	1101
Trap Point, Alaska.....	2069
Treadwell Bay, British Columbia.....	1357
Trident Bay, Alaska.....	2207
Trinidad Harbor, Calif.....	821
Triton Head, Wash.....	1063
Tuktoyaktuk, Arctic Ocean.....	2469
Tulalip, Wash.....	1169
Tumaco, Colombia.....	295
Tulare Beach, Wash.....	1171
Turn Island, B.C.....	1309
Turn Point, Wash.....	1257
Turn Point, Wrangell Narrows, Alaska...	1613
Turner Bay, Wash.....	1191
Tutka Bay, Alaska.....	1987
Tuxedni Channel, Alaska.....	2031
Tuxekan Passage, Alaska.....	1563
Twin Rivers, Wash.....	1013
Two Arm Bay, Alaska.....	1965
Tyndall Glacier, Alaska.....	1835

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Udagak Strait, Alaska.....	2249
Udamat Bay, Alaska.....	2247
Ugak Bay, Alaska.....	2055
Uganik Bay, Alaska.....	2081-2085
Uganik Passage, Alaska.....	2085

	No.
Ukolnoi Island, Alaska.....	2171
Umnak Island, Alaska.....	2255-2269
Umpqua River, Oreg.....	845-849
Unalakleet, Alaska * (232).....	2431
Unalaska, Alaska * (204).....	2229
Unalaska Island, Alaska.....	2225-2251
Unalga Bight, Alaska.....	2315
Unalga Island, Alaska.....	2223
Unavikshak Island, Alaska.....	2125
Unga Island, Alaska.....	2163
Unimak Island, Alaska.....	2187-2199
Union, Wash.....	1067
Upper Guadalupe Slough, Calif.....	617
Upright Head, Wash.....	1233
Ushagat Island, Alaska.....	1977
Usof Bay, Alaska.....	2245
Uyak, Alaska.....	2073
Uyak Bay, Alaska.....	2073-2079
Uzkosti Point, Alaska.....	2095

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Valdez, Alaska * (172).....	1915
Valdez Arm, Alaska.....	1909-1915
Valdivia, Chile.....	137
Vallejo, Calif.....	675
Vallenar Point, Alaska.....	1447
Valparaiso, Chile * (16).....	175
Vancouver, British Columbia * (144)....	1283
Vancouver, Wash.....	953
Vancouver Island.....	1261-1355
Vashon Island, Wash.....	1105,1109,1111
Vaughn, Wash.....	1141
Ventura, Calif.....	455
Victoria, British Columbia * (140)....	1265
Viekoda Bay, Alaska.....	2087
View Cove, Alaska.....	1531
Village Cove, Alaska * (216).....	2411
Village Islands, Alaska.....	2081
Village Point, Lummi Island, Wash.....	1227
Village Rock, Alaska.....	1499

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Wachusett Inlet, Alaska.....	1813
Waddington Harbor, British Columbia....	1301
Wadhams, British Columbia.....	1359
Waialula Bay, Hawaii.....	2491
Waianae, Hawaii.....	2493
Waikane, Hawaii.....	2507
Waimanalo, Hawaii.....	2503
Waimea Bay, Hawaii.....	2481
Waldport, Oreg.....	857
Wales Island, Alaska.....	1419
Walkers Landing, Wash.....	1145
Walrus Islands, Alaska.....	2385
Ward Cove, Alaska.....	1443
Wards Island, Calif.....	721
Warm Spring Bay, Alaska.....	1723
Warrendale, Oreg.....	959
Warrenton, Oreg.....	911
Washington.....	897-1259
Washougal, Wash.....	957
Wauna, Oreg.....	931
Wauna, Wash.....	1123
Wedderburn, Oreg.....	831
Weiser Point, Wash.....	865
Wells Passage, Alaska.....	1925
West Point Slough, Calif.....	593
Westport, Calif.....	797
Westport, Wash.....	983
West Thurlow Island, B.C.....	1311
Whale Channel, British Columbia.....	1377
Whale Passage, Alaska.....	1491

	No.		No.
Whaletown, British Columbia.....	1293		
Whidbey Island, Wash....	1029,1031,1163-1193	Y	
Whiskey Slough, Calif.....	743		
Whitewater Bay, Alaska.....	1725	Yakobi Island, Alaska.....	1787,1789
Whitney Island, Alaska.....	1639	Yakutat Bay, Alaska.....	1825-1831
Whitney Point, Wash.....	1055	Yaquina Bay, Oreg.....	861-867
Whittier, Alaska.....	1929	Yaquina River, Oreg.....	861-867
Wiah Point, British Columbia.....	1407	Yerba Buena Island, Calif.....	531
Wide Bay, Alaska.....	2121	Yes, Yes Bay, Alaska.....	1455
Willamette River, Oreg.....	949,951	Yokeko Point, Wash.....	1195
Willapa Bay, Wash.....	961-981	Yoman Point, Wash.....	1129
Willapa River, Wash.....	977-981	Young Bay, Alaska.....	1687
William Henry Bay, Alaska.....	1699	Youngs Bay, Oreg.....	913
Willoughby Island, Alaska.....	1809	Youngs River, Oreg.....	915
Wilson Cove, Calif.....	465	Yuculta, British Columbia.....	1299
Windfall Harbor, Alaska.....	1667	Yukon Harbor, Wash.....	1103
Windham Bay, Alaska.....	1663	Yukon River, Alaska.....	2423
Windy Bay, Alaska.....	1855	Yunaska Island, Alaska.....	2275,2277
Wingham Island, Alaska.....	1837		
Wingo, Calif.....	671	Z	
Woewodski Island, Alaska.....	1605		
Womens Bay, Alaska.....	2053	Zachar Bay, Alaska.....	2079
Wood Spit, Alaska.....	1669	Zachary Bay, Alaska.....	2163
Wooded Islands, Alaska.....	1865	Zapadni Bay, Alaska.....	2409
Wrangell, Alaska.....	1503	Zapallar, Chile.....	179
Wrangell Island, Alaska.....	1503	Zelatched Point, Wash.....	1053
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Wright Sound, British Columbia.....	1379	Zorritos, Peru.....	259

ASTRONOMICAL DATA, 2015

January				
	d	h	m	
N	3	18	..	
○	5	04	53	
A	9	18	..	
E	11	06	..	
●	13	09	46	
S	18	07	..	
●	20	13	14	
P	21	20	..	
E	24	09	..	
●	27	04	48	
N	31	02	..	

February				
	d	h	m	
○	3	23	09	
A	6	06	..	
E	7	13	..	
●	12	03	50	
S	14	18	..	
●	18	23	47	
P	19	07	..	
E	20	19	..	
●	25	17	14	
N	27	08	..	

March				
	d	h	m	
A	5	07	..	
○	5	18	05	
E	6	20	..	
●	13	17	48	
S	14	02	..	
P	19	19	..	
E	20	07	..	
●	20	09	36	
○ _m	20	16	57	
N	26	15	..	
●	27	07	43	

April				
	d	h	m	
A	1	13	..	
E	3	02	..	
○	4	12	06	
S	10	08	..	
●	12	03	44	
E	16	17	..	
P	17	03	..	
●	18	18	57	
N	23	00	..	
●	25	23	55	
A	29	03	..	
E	30	09	..	

May				
	d	h	m	
○	4	03	42	
S	7	14	..	
●	11	10	36	
E	14	02	..	
P	15	00	..	
●	18	04	13	
N	20	10	..	
●	25	17	19	
A	26	22	..	
E	27	18	..	

June				
	d	h	m	
○	2	16	19	
S	3	22	..	
●	9	15	42	
P	10	04	..	
E	10	09	..	
●	16	14	05	
N	16	20	..	
○ _j	21	01	48	
A	23	17	..	
E	24	03	..	
●	24	11	03	

July				
	d	h	m	
S	1	07	..	
○	2	02	20	
P	5	18	..	
E	7	15	..	
●	8	20	24	
N	14	05	..	
●	16	01	24	
A	21	11	..	
●	24	04	04	
○	31	10	43	

August				
	d	h	m	
P	2	10	..	
E	3	23	..	
●	7	02	03	
N	10	12	..	
●	14	14	53	
E	17	20	..	
A	18	02	..	
●	22	19	31	
S	25	04	..	
○	29	18	35	
P	30	15	..	
E	31	09	..	

September				
	d	h	m	
●	5	09	54	
N	6	18	..	
●	13	06	41	
E	14	03	..	
A	14	11	..	
●	21	08	59	
S	21	13	..	
○ _s	23	17	27	
E	27	20	..	
P	28	01	..	
○	28	02	50	

October				
	d	h	m	
N	4	00	..	
●	4	21	06	
E	11	09	..	
A	11	13	..	
●	13	00	06	
S	18	19	..	
●	20	20	31	
E	25	07	..	
P	26	13	..	
○	27	12	05	
N	31	09	..	

November				
	d	h	m	
●	3	12	24	
E	7	16	..	
A	7	12	..	
●	11	17	47	
S	15	01	..	
●	19	06	27	
E	21	16	..	
P	23	20	..	
○	25	22	44	
N	27	21	..	

December				
	d	h	m	
●	3	07	40	
E	5	00	..	
A	5	14	..	
●	11	10	29	
S	12	09	..	
●	18	15	14	
E	18	24	..	
P	21	08	..	
○ _d	21	13	37	
N	25	08	..	
○	25	11	11	

LUNAR DATA

●	-- new Moon	A	-- Moon in apogee
●	-- first quarter	P	-- Moon in perigee
○	-- full Moon	N	-- Moon farthest north of Equator
●	-- last quarter	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.