

Tide Tables 2019 – East Coast of North and South America including Greenland

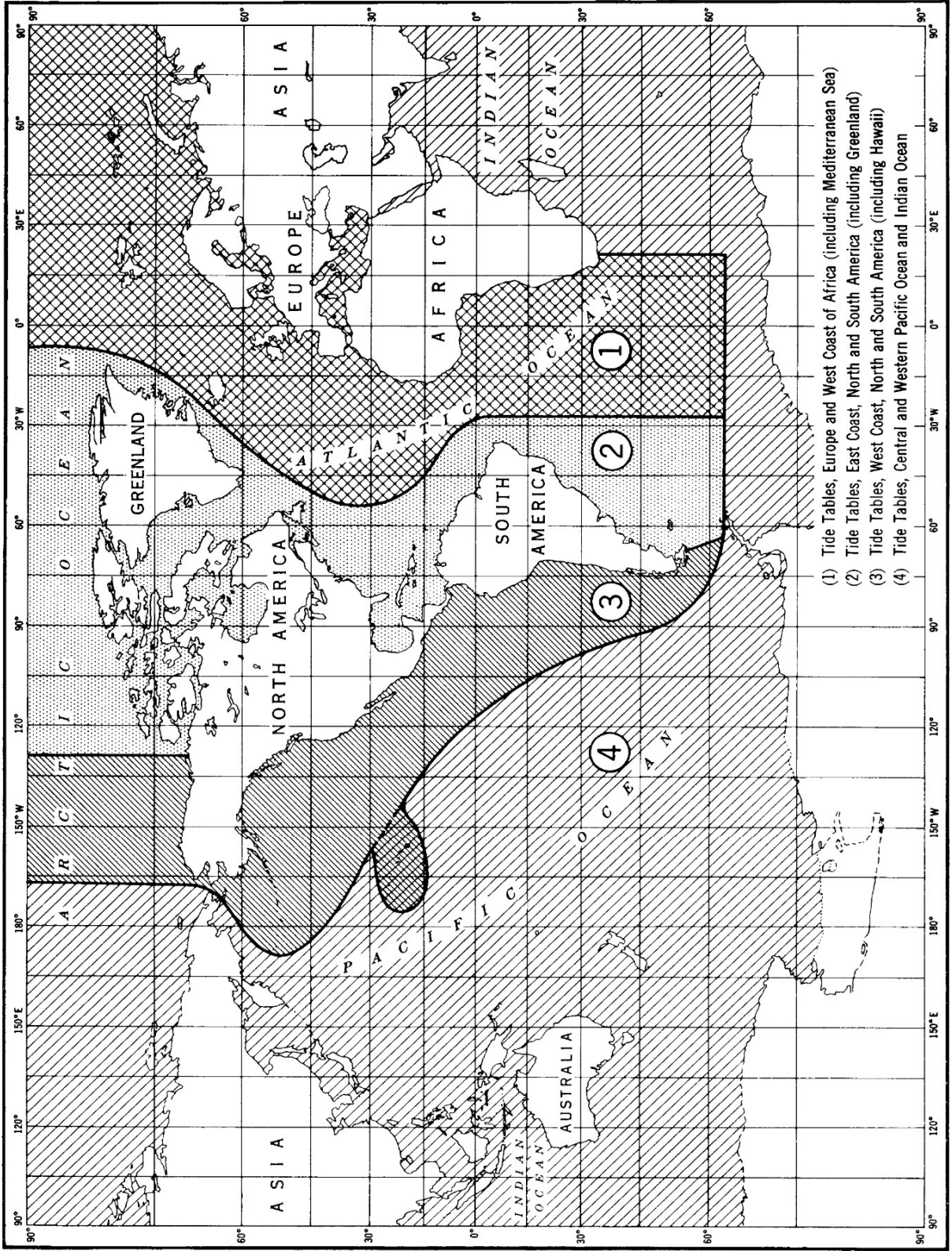
Tide Tables 2019 HIGH AND LOW WATER PREDICTIONS

East Coast of North and South America

Including Greenland



INDEX OF TIDE TABLE COVERAGE



- (1) Tide Tables, Europe and West Coast of Africa (including Mediterranean Sea)
- (2) Tide Tables, East Coast, North and South America (including Greenland)
- (3) Tide Tables, West Coast, North and South America (including Hawaii)
- (4) Tide Tables, Central and Western Pacific Ocean and Indian Ocean

Tide Tables 2019 HIGH AND LOW WATER PREDICTIONS

East Coast of North and South America

Including Greenland

Issued 2018

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) 713-2815

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)

SOURCES OF ADDITIONAL INFORMATION

WEBSITES

Center for Operational Oceanographic Products and Services
(PORTS[®] * Predictions * Observations * Bench Marks * Tides Online * Great Lakes Online)
<http://tidesandcurrents.noaa.gov>

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

Office for Coastal Management - <http://www.coast.noaa.gov>

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

National Center for Environmental Information - <https://www.ncei.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 - <http://www.usno.navy.mil/NAVO>

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.

Effective January 1, 1989, the chart datum and tidal datum chart, for all nautical charts, bathymetric maps, and tide tables covering the east coast of the United States and areas of the Caribbean Islands were changed from mean low water (MLW) to mean lower low water (MLLW). Notice of changes in tidal datums established through the "National Tidal Datum Convention of 1980" Federal Register, vol. 45, No. 207, Thursday, October 23, 1980, p. 70296-70297.

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 page 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 sites:

PORTS® SITES	VOICE ACCESS	INTERNET ACCESS
CAPE COD	888-714-2776	www.tidesandcurrents.noaa.gov
CHARLESTON HARBOR	855-216-2137	"
CHERRY POINT	888-817-7794	"
CHESAPEAKE BAY	866-CH-PORTS (866-247-6787)	"
CORPUS CHRISTI	866-728-1897	"
CUYAHOGA	800-376-1192	"
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	Not Available	"
LOWER COLUMBIA RIVER	888-53-PORTS (888-537-6787)	"

IMPORTANT NOTICES

PORTS® SITES	VOICE ACCESS	INTERNET ACCESS
LOWER COLUMBIA RIVER	888-53-PORTS (888-537-6787)	www.tidesandcurrents.noaa.gov
LOWER MISSISSIPPI RIVER	888-817-7767	“
MATAGORDA BAY	888-524-9765	“
MIAMI	888-270-6145	“
MOBILE BAY	877-84-PORTS (877-847-6787)	“
MORGAN CITY	888-312-4113	“
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	“
PORT EVERGLADES	866-213-5269	“
PORT FOURCHON	855-687-2084	“
PORT OF ANCHORAGE	866-AK-PORTS (866-257-6787)	“
SABINE NECHES	888-257-1859	“
SAN FRANCISCO BAY	866-SB-PORTS (866-727-6787)	“
SAVANNAH	855-907-3136	“
SOO LOCKS	301-713-9596	“
TACOMA	888-60-PORTS (888-607-6787)	“
TAMPA BAY	866-TB-PORTS (866-827-6787)	“
TOLEDO	888-547-9131	“



PUBLISHED CAUTIONARY NOTICES

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

DAILY TIDE PREDICTIONS UPDATED FOR CUBA

In 2016, the NOAA/National Ocean Services', Center for Operational Oceanographic Products and Services (CO-OPS) started an exchange of daily tide predictions with Servicio Hidrografico y Geodesico de La Republica de Cuba. As a result of this exchange of information, the Tide Tables – East Coast of North and South America will now include daily tide predictions for four reference stations in Cuba, beginning with the 2017 Tide Tables.

Havana; Moa, Holguin; Santiago de Cuba; Bahia de Cienfuegos

Tide predictions at these stations will be updated annually. As the exchange of tide prediction information between NOAA and authorities in Cuba matures, it is expected that subordinate stations along the coast of Cuba will be updated and there may be some changes in the stations at which daily predictions are provided. Mariners should expect changes to the tide predictions provided in Cuba for several years. It is anticipated that most of these changes will be to the subordinate stations provided.

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

(Issued: October 1, 2016)

IMPORTANT NOTICES

OBSERVED TIDAL CONDITIONS DIFFER FROM TIDAL PREDICTIONS IN THE HUDSON RIVER

The observed tides along the Hudson River have been reported to differ significantly from the published tide predictions; particularly in the northern section of the river from Newburgh to Albany, New York. Based on limited reports and comparisons to USGS stream gauges, it appears that high tides are occurring approximately 1 hour earlier than predicted.

NOAA has no information on what may be causing the difference between predictions and observations. This could be the result of natural changes (shoaling, erosion, etc) or artificial changes (dredging, construction, etc) in the Hudson River. Based on preliminary evidence, this does not appear to be a temporary condition and may indicate a long term change in the tidal conditions of the Hudson River.

NOAA does not have any water level stations operating along the length of the Hudson River, with the nearest operating station being located at The Battery, New York. Without observational data in the area, the extent of the difference between predictions and observations cannot be confirmed; neither can the areas affected by this change. Resources are not available for the installation and operation of water level stations along the Hudson River.

Mariners operating in this area are urged to use caution.

(Issued: May 24, 2010)

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)

ARANSAS PASS – CORPUS CHRISTI BAY, TX

The Aransas-Corpus Christi Pilots have reported that published tidal current predictions for Aransas Pass deviate from observations by as much as two (2) hours. The published predictions must be used with extreme caution. The Pilots should be consulted for critical transits. Tidal Current predictions of the National Ocean Service (NOS) are derived from analysis of observed data at tidal harmonic frequencies which in turn are based on predictable astronomic positions of the moon and sun. The problem in many areas of the Gulf of Mexico, including the south Texas coast, is that localized meteorological conditions can significantly effect and alter the times of maximum flood and ebb currents. Real-time observation and reporting systems, such as the Physical Oceanographic Real Time System (PORTS) installed in the Galveston-Houston area, are the only means of providing accurate tidal current data for areas such as this.

(Issued July 17, 1997)

IMPORTANT NOTICES

BISCAYNE BAY/PORT OF MIAMI, FL

The Biscayne Bay Pilots report that recent dredging and construction by the US Corps of Engineers (COE) supporting Miami port expansion has significantly effected the currents in Miami Harbor. Both flood and ebb currents should be expected to be stronger than indicated in official published predictions. The actual times for maximum and slack currents should be expected to deviate from the published predictions. Funding to support a survey to obtain new data for more accurate tidal current predictions is not available at this time. Installation of a Physical Oceanographic Real Time System (PORTS), like the one in operation in Tampa Bay, would be the best solution for long term marine safety.

(Issued July 17, 1997)

CHARLESTON HARBOR, SC

The US Army Corps of Engineers (CEO) is planning dredging and construction projects for Charleston Harbor in 1996-1997. Such projects in the past in other areas have resulted in dramatic changes in the observed tidal currents of those areas. Once dredging and/or construction operations commence, the Tidal Current predictions for this region should be considered questionable and potentially dangerous to rely upon. Tide predictions will also be affected but to a lesser degree. Funding for a real time system to monitor the Tidal Currents and a resurvey of the area after COE operations are complete is 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)

CHESAPEAKE & DELAWARE CANAL AND BALTIMORE HARBOR CONNECTING CHANNELS

The US Army Corps of Engineers (COE) is planning a project involving the Chesapeake & Delaware Canal (C&D) and the channels in the upper Chesapeake Bay connecting the canal to Baltimore, MD in 1996-1997. Such projects in the past in other areas have resulted in dramatic changes in the observed tidal currents of those areas. Once the project begins, the Tidal Current predictions for the C&D Canal and the channels connecting the canal to Baltimore should be considered questionable and potentially dangerous to rely upon. Tide predictions will be affected but to a lesser degree. Funding for a real-time system to monitor the Tidal Currents and a resurvey of these areas after COE operations are complete is 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)

ST. AUGUSTINE, FL – ATLANTIC INTRACOASTAL WATERWAY

The US Coast Guard (USCG) has reported a problem involving the Tidal Currents in the Atlantic Intracoastal Waterway (AICW) in the St. Augustine, FL area. The specific location is the Bridge of Lions over the waterway. Numerous accidents have occurred at this site which are related to the currents in the waterway. There is no National Ocean Service (NOS) Tidal Current Station at or near the Bridge of Lions. Thus the NOS cannot, at this time, make Tidal Current predictions for this location. The USCG states that the cause of the accidents is loss of maneuverability (control) as a vessel passes under the bridge. The loss of maneuverability results in the vessel striking the bridge supports. The USCG states in part:

“The affect of a ‘fair’ tide on a navigating vessel is to reduce the vessel’s ability to maneuver. When a vessel is proceeding with a current (fair tide), less water flows across the vessel’s rudders. This condition has the affect of reducing the vessel’s maneuverability for a given speed over ground (all other things being equal).

IMPORTANT NOTICES

The Bridge of Lions is a difficult bridge to navigate, even under ideal conditions. This circa 1926 Bascule bridge has a horizontal clearance of only 76' verses the 90' horizontal clearance of most of the other bridges on this section of the AICW."

In addition, according to the US Coast Pilot, Vol 4, Chapter 12, Tidal Currents in excess of 2 knots often run at right angles to the bridge opening. The Coast Pilot advises mariners to transit the bridge at minimal Tidal Current conditions. Funding for real-time monitoring of the Tidal Currents or a survey to obtain Tidal Current observations upon which to base Tidal Current predictions for this location is not presently available. A consortium of local, state, and federal officials in conjunction with the private sector and commercial shipping interests are presently studying various options to provide accurate Tidal Current predictions necessary for marine safety and navigation at this location.

(Issued June 5, 1996)

WILMINGTON AND CAPE FEAR RIVER, NC

The US Army Corps of Engineers (COE) is due to begin dredging operations in the Wilmington and Cape Fear River area in 1997. The plans call for the deepening of the channel approaching Wilmington and extending up the Cape Fear River. 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 at best and potentially dangerous to rely upon. Tide 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 is 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)

HAMPTON ROADS, VA

Tidal currents in Hampton Roads and Elizabeth River have been significantly altered by dredging and construction of a new bridge/tunnel. Recent dredging by the U.S. Army Corps of Engineers has deepened the channels by 10 feet to a depth of 50 feet. Pilots and officials at the Norfolk Naval Base report hazardous conditions including significantly higher than predicted maximum current velocities, and significant deviation in the predicted times of maximum current. Mariners should exercise EXTREME CAUTION and DISCRETION in the use of published NOS tidal current predictions for this area. Funding for a Quality Assurance study and a full scale resurvey of the area is presently not available.

(Issued March 24, 1992)

CHINCOTEAGUE CHANNEL, VA

United States Coast Guard (USCG) Personnel at the Chincoteague Coast Guard Station, VA report that the times of high and low water computed from differences in Table 2 of the East Coast Tide Tables are frequently off by as much as an hour. The channel is subject to shoaling and is frequently dredged. Exercise caution in using Table 2 Tide differences for this area.

(Issued May 17, 1991)

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 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 more than 6,500 stations.

This edition of the Tide Tables, *East Coast of North and South America*, contains full daily predictions for more than 70 reference ports and differences and other constants for more than 2,500 stations in North America, South America, and Greenland. 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 8 places, a table of the Greenwich mean time of the Moons' 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.

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.

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 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.—Harrington Harbour, Quebec, Halifax, St. John, Pictou, and Argentia.

Directoria de Hidrografia e Navegacao, Brazil.—Recife, Rio de Janeiro, and Santos.

Servicio Hidrografico, Argentina.—Buenos Aires, Puerto Ingeniero White, Comodoro Rivadiva, and Punta Loyola.

LIST OF REFERENCE STATIONS

Station Name	Page	Datum below mean sea-level	Updated	Data Series
Albany, New York.....	80	2.49	1966	3 years (1984-1987)
Amuay, Venezuela	280	0.65		
Apalachicola, Florida	192	0.92	1999	3 years (1995-1997)
Argentina, Newfoundland	4	4.30		
Atlantic City, New Jersey.....	88	2.23	2006	5 years (1999-2003)
Baltimore, Maryland	108	0.82	2001	5 years (1994-1998)
Bar Harbor, Maine	32	5.71	2003	5 years (1992-1996)
Bayonne Bridge, Staten Island, New York	76	2.78	1999	4 years (1990-1991, 1994-1995)
Boston, Massachusetts	40	5.22	2001	5 years (1994-1998)
Breakwater Harbor, Delaware	92	2.27	2001	5 years (1994-1998)
Bridgeport, Connecticut.....	64	3.61	2001	5 years (1994-1998)
Buenos Aires, Argentina.....	304	2.60		
Cape Hatteras, North Carolina	132	1.65	1998	4 years (1988-1991)
Cedar Key, Florida	184	2.03	2003	5 years (1992-1997)
Charleston, South Carolina	144	2.95	2003	5 years (1996-2000)
Charlotte Amalie, St. Thomas Island.....	268	0.38	2002	8 years (1984-1991)
Chesapeake Bay Bridge Tunnel, Virginia.....	116	1.45	2006	5 years (1999-2003)
Cienfuegos, Cuba.....	244			
Comodoro Rivadavia, Argentina	312	10.30		
Cristobal (Colon), Panama	232	0.38		
Dauphin Island, Alabama	200	0.57	1998	4 years (1993-1996)
Duck Pier, North Carolina.....	124	1.81	2003	5 years (1996-2000)
Eastport, Maine	28	9.71	2001	5 years (1994-1998)
Fernandina Beach, Amelia River, Florida.....	152	3.35	2003	3 years (1998-2000)
Galveston (Galveston Channel), Texas	216	0.82	2006	5 years (1999-2003)
Grand Isle (East Point), Louisiana.....	212	0.56	2006	5 years (1999-2003)
Halifax, Nova Scotia	20	4.30		
Hampton Roads (Sewells Pt.), Virginia	120	1.38	2002	5 years (1995-1999)
Harrington Harbour, Quebec.....	12	3.50		
Havana, Cuba	248			
Isla Zapara (Malecon), Venezuela	276	2.70		
Key West, Florida	172	0.92	2003	5 years (1996-2000)
Kings Point, Long Island, New York.....	68	3.87	2006	5 years (1999-2003)
Lime Tree Bay, St. Croix Island.....	272	0.38	2002	3 years (1995-1997)
Magueyes Island, Puerto Rico	260	0.34	2002	3 years (1995-1997)
*Mayport, Florida	156	2.46	2019	5 years (2012-2016)
Miami, Government Cut, Florida	164	1.43	2005	2 years (1985-1986)
Moa, Holguin, Cuba.....	256			
Mobile, Alabama.....	204	0.83	2016	6 years (2008-2013)
Montauk, Fort Pond Bay, New York.....	56	1.09	2003	5 years (1996-2000)
Myrtle Beach, South Carolina.....	140	2.75	2006	5 years (1999-2003)
Nantucket, Massachusetts	44	1.79	2005	5 years (1999-2003)
*Naples, Florida.....	176	1.69	2019	5 years (2012-2016)
New London, Connecticut	60	1.55	2001	5 years (1994-1998)
New York (The Battery), New York	72	2.58	2006	5 years (1999-2003)
Newport, Rhode Island.....	52	1.77	2001	5 years (1994-1998)
Ocean City, Maryland.....	104	1.87	1999	5 years (1985-1989)
Oregon Inlet, North Carolina	128	0.66	1999	4 years (1995-1998)
Padre Island (south end), Texas	224	0.86	1998	1 year (1963)
Pensacola, Florida.....	196	0.62	2003	5 years (1996-2000)
Philadelphia, Pennsylvania	100	3.47	2006	5 years (1999-2003)
Pictou, Nova Scotia	8	3.90		

LIST OF REFERENCE STATIONS

Station Name	Page	Datum below mean sea-level	Updated	Data Series
Port Canaveral (Trident Pier), Florida	160	1.92	2003	5 years (1997-2001)
Port O'Connor, Texas.....	220	0.42	1999	29 days beginning 2/1/1989
Portland, Maine	36	4.93	2001	5 years (1993-1997)
Puerto Ingeniero White, Argentina	308	8.50		
Punta Gorda, Venezuela	284	3.30		
Punta Loyola, Argentina	316	20.30		
Quebec, Quebec	16	8.50		
Recife, Brazil	292	3.70		
Reedy Point, Delaware.....	96	2.99	2006	5 years (1999-2003)
Rio de Janeiro, Brazil	296	2.30		
Saint John, New Brunswick.....	24	14.50		
*San Juan, Puerto Rico	264	0.78	2019	4 years (2012-2016)
Sandy Hook, New Jersey	84	2.56	2006	5 years (1999-2003)
Santiago de Cuba.....	252			
Santos, Brazil	300	2.50		
Savannah River Entrance, Georgia.....	148	3.80	2003	5 years (1996-2000)
Settlement Point, Grand Bahama Island	240	1.45	2002	4 years (1986-1988,1990)
South Pass, Louisiana.....	208	0.68	1999	3 years (1989-1991)
St. Georges Island, Bermuda	236	1.35	2002	4 years (1990-1993)
St. Marks River Entrance, Florida	188	1.93	1996	358 days beginning 9/1/1970
St. Petersburg, Florida	180	1.19	2006	5 years (1999-2003)
Suriname River Entrance, Surinam.....	288	4.28		
Tampico Harbor (Madero), Mexico.....	228	0.84		
Vaca Key, Florida Bay, Florida	168	0.52	2017	6 year (2009-2014)
Washington, D.C.	112	1.56	2001	5 years (1994-1998)
Wilmington, North Carolina	136	2.33	2006	5 years (1999-2003)
Woods Hole, Massachusetts	48	1.04	2005	5 years (1999-2003)

* New or updated 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 Atlantic coast of the United States is mean lower low water (MLLW). For foreign coasts a datum approximating to mean low water springs, Indian spring low water, or the lowest possible low water is generally used. The depression of the datum below mean sea level (MSL) for each of the reference stations of this volume is given on the preceding page.

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

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

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

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

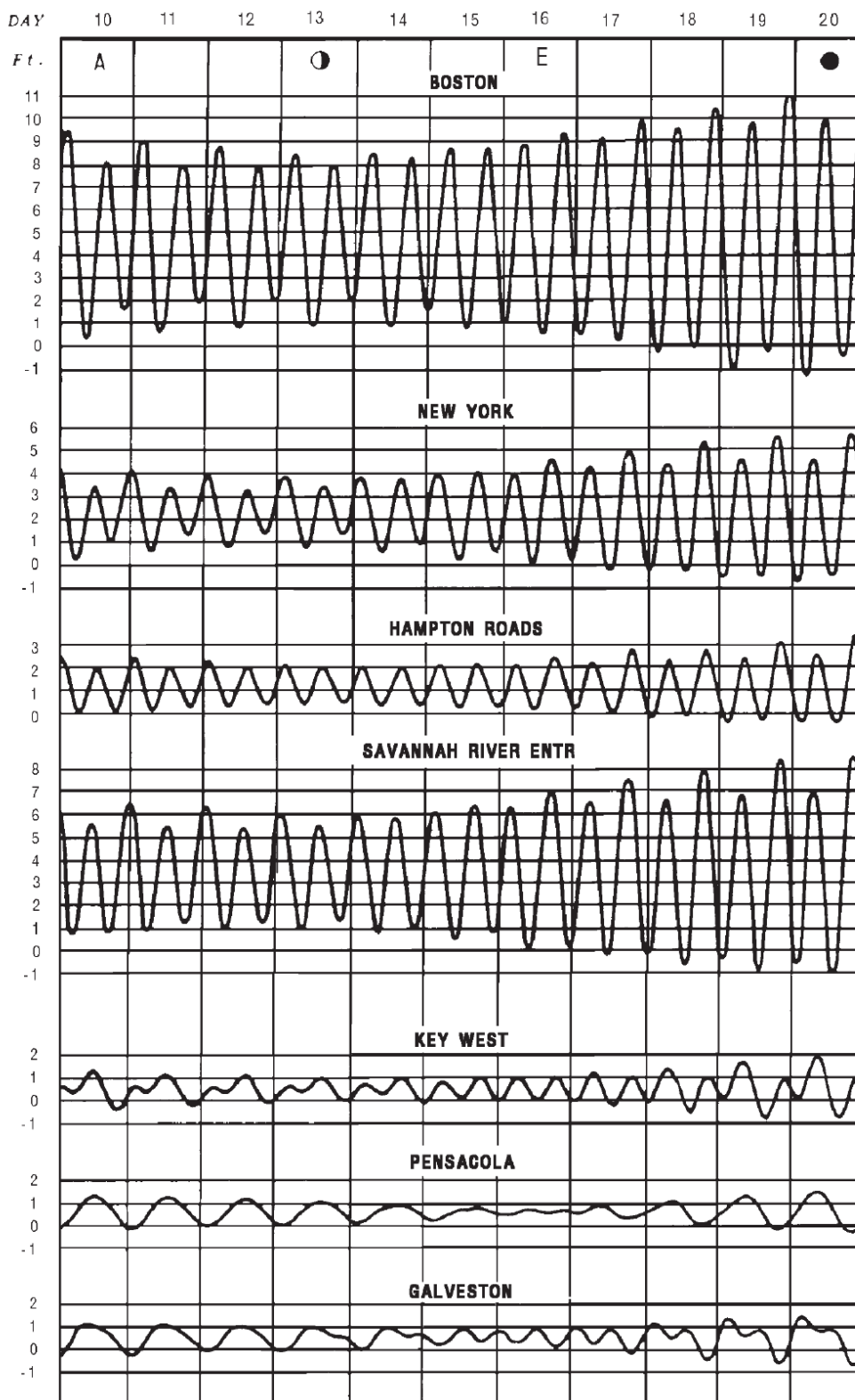
Relation of tide to current.— In using these tables of tide predictions bear in mind that they give the times and heights of high and low waters and not the times of turning of the current or slack water. For stations on the outer coast there is usually a small difference between the time of high or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

TABLE 1.—DAILY TIDE PREDICTIONS

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 Atlantic and Gulf coasts of the United States. Note that the range of tide for stations along the Atlantic coast varies from place to place but that the type is uniformly semidiurnal with the principal variations following the changes in the Moon's distance and phase. In the Gulf of Mexico, however, the type of tide differs considerably and the range of tide is uniformly small. At certain ports such as Pensacola there is usually only one high and one low water a day while at other ports such as Galveston the inequality is such that the tide 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. In the Gulf of Mexico, consequently, the principal variations in the tide are due to the changing declination of the Moon. Key West, at the entrance to the Gulf of Mexico, has a type of tide which is a mixture of semidiurnal and diurnal types. Here the tide is semidiurnal but there is considerable inequality in the heights of high and low waters. By reference to the curves it will be seen that where the inequality is large there are times when there is only a few tenths of a foot difference between high water and low water.

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

Argentina, Newfoundland, 2019

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																				
1 M	0602	6.6	200		16 Tu	0544	7.2	220		1 W	0605	6.6	200		16 Th	0624	7.2	220		1 Sa	0034	2.0	60		16 Su	0106	1.6	50						
	1205	2.6	80			1152	1.6	50			1202	2.3	70			1205	1.6	50			0643	6.6	200			0737	6.9	210						
	1829	6.2	190			1807	7.2	220			1827	6.6	200			1837	7.5	230			1906	7.2	220			1951	7.9	240						
2 Tu	0013	2.3	70		17 W	0008	1.6	50		2 Th	0025	2.0	60		17 F	0039	1.6	50		2 Su	0112	1.6	50		17 M	0143	1.6	50		17 O	0817	6.6	200	
	0645	6.9	210			0642	7.5	230			0644	6.6	200			0712	7.2	220			0721	6.6	200			1306	1.6	50			1335	1.6	50	
	1238	2.3	70			1233	1.3	40			1235	2.0	60			1242	1.3	40			1306	1.6	50			1946	7.5	230			2033	7.9	240	
3 W	0054	2.0	60		18 Th	0054	1.3	40		3 F	0104	1.6	50		18 Sa	0118	1.3	40		3 M	0149	1.6	50		18 Tu	0219	2.0	60		18 W	0853	6.6	200	
	0719	6.9	210			0731	7.9	240			0718	6.9	210			0755	7.2	220			0759	6.9	210			1342	1.3	40			1416	1.6	50	
	1310	2.0	60			1311	1.3	40			1308	1.6	50			1319	1.3	40			1342	1.3	40			2028	7.9	240			2114	7.9	240	
4 Th	0131	1.6	50		19 F	0135	1.0	30		4 Sa	0139	1.6	50		19 Su	0156	1.3	40		4 Tu	0225	1.3	40		19 W	0255	2.0	60		19 O	0930	6.6	200	
	0750	7.2	220			0815	7.9	240			0751	6.9	210			0835	7.2	220			0838	6.9	210			1419	1.3	40			1457	1.6	50	
	1341	1.6	50			1347	1.0	30			1339	1.3	40			1356	1.3	40			1419	1.3	40			2111	7.9	240			2153	7.9	240	
5 F	0205	1.6	50		20 Sa	0214	1.0	30		5 Su	0212	1.3	40		20 M	0232	1.3	40		5 W	0302	1.3	40		20 Th	0331	2.0	60		20 F	1009	6.6	200	
	0821	7.2	220			0856	7.9	240			0825	6.9	210			0913	6.9	210			0921	6.9	210			1458	1.3	40			1537	2.0	60	
	1412	1.3	40			1423	1.0	30			1410	1.3	40			1434	1.3	40			1458	1.3	40			2157	8.2	250			2232	7.5	230	
6 Sa	0237	1.3	40		21 Su	0251	1.0	30		6 M	0244	1.3	40		21 Tu	0309	1.6	50		6 Th	0341	1.6	50		21 F	0409	2.3	70		21 O	1051	6.2	190	
	0852	7.2	220			0936	7.5	230			0900	6.9	210			0951	6.6	200			1008	6.9	210			1539	1.6	50			1618	2.3	70	
	1441	1.3	40			1459	1.3	40			1442	1.3	40			1512	1.6	50			1539	1.6	50			2247	7.9	240			2312	7.2	220	
7 Su	0308	1.3	40		22 M	0327	1.3	40		7 Tu	0317	1.3	40		22 W	0346	2.0	60		7 F	0423	1.6	50		22 Sa	0448	2.6	80		22 Su	1136	6.2	190	
	0925	7.2	220			1017	6.9	210			0938	6.9	210			1034	6.6	200			1103	6.9	210			1624	2.0	60			1659	2.6	80	
	1510	1.3	40			1535	1.3	40			1516	1.3	40			1552	2.0	60			1624	2.0	60			2340	7.9	240			2353	6.9	210	
8 M	0338	1.3	40		23 Tu	0404	1.6	50		8 W	0352	1.6	50		23 Th	0425	2.3	70		8 Sa	0508	2.0	60		23 Su	0529	2.6	80		23 O	1223	5.9	180	
	1000	6.9	210			1103	6.6	200			1020	6.6	200			1122	6.2	190			1204	6.6	200			1713	2.3	70			1743	3.0	90	
	1540	1.3	40			1613	2.0	60			1552	1.6	50			1633	2.3	70			1713	2.3	70											
9 Tu	0410	1.6	50		24 W	0443	2.3	70		9 Th	0431	2.0	60		24 F	0507	2.6	80		9 Su	0037	7.5	230		24 M	0037	6.9	210		24 O	0615	3.0	90	
	1038	6.6	200			1157	6.2	190			1110	6.6	200			1218	5.9	180			0601	2.3	70			1308	6.6	200			1313	5.9	180	
	1613	1.6	50			1653	2.3	70			1633	2.0	60			1718	2.6	80			1811	2.6	80			1811	2.6	80			1835	3.0	90	
10 W	0446	2.0	60		25 Th	0016	6.9	210		10 F	0516	2.3	70		25 Sa	0033	6.9	210		10 M	0140	7.2	220		25 Tu	0126	6.6	200		25 O	0710	3.0	90	
	1122	6.6	200			0526	2.6	80			1210	6.2	190			0556	3.0	90			0708	2.6	80			1413	6.6	200			1406	5.9	180	
	1650	2.0	60			1302	5.9	180			1719	2.3	70			1314	5.9	180			1927	2.6	80			1927	2.6	80			1947	3.3	100	
11 Th	0528	2.3	70		26 F	0112	6.6	200		11 Sa	0048	7.2	220		26 Su	0124	6.6	200		11 Tu	0247	6.9	210		26 W	0222	6.2	190		26 O	0829	3.3	100	
	1216	6.2	190			0621	3.3	100			0610	2.6	80			0703	3.3	100			0906	2.6	80			1519	6.6	200			1503	5.9	180	
	1733	2.3	70			1402	5.6	170			1816	2.6	80			1409	5.6	170			2145	2.6	80			2145	2.6	80			2119	3.0	90	
12 F	0059	6.9	210		27 Sa	0210	6.6	200		12 Su	0153	6.9	210		27 M	0220	6.2	190		12 W	0358	6.6	200		27 Th	0323	5.9	180		27 O	0943	3.0	90	
	0620	2.6	80			0833	3.6	110			0731	2.6	80			0849	3.3	100			1013	2.3	70			1624	6.9	210			1602	6.2	190	
	1324	5.9	180			1459	5.6	170			1429	6.2	190			1506	5.9	180			2250	2.3	70			2250	2.3	70			2225	3.0	90	
13 Sa	0206	6.9	210		28 Su	0312	6.2	190		13 M	0303	6.9	210		28 Tu	0321	6.2	190		13 Th	0505	6.6	200		28 F	0423	5.9	180		28 O	1032	2.6	80	
	0741	3.0	90			0959	3.3	100			0945	2.6	80			0955	3.0	90			1058	2.0	60			1724	7.2	220			1659	6.6	200	
	1438	5.9	180			1601	5.6	170			1539	6.6	200			1604	5.9	180			2342	2.0	60			2342	2.0	60			2318	2.6	80	
14 Su	0319	6.9	210		29 M	0417	6.2	190		14 Tu	0417	6.9	210		29 W	0422	6.2	190		14 F	0603	6.6	200		29 Sa	0518	6.2	190		29 O	1115	2.3	70	
	1009	2.6	80			1047	3.0	90			1042	2.3	70			1041	2.6	80			1137	2.0	60			1818	7.5	230			1751	6.9	210	
	1554	6.2	190			1659	5.9	180			1648	6.9	210			1657	6.2	190			2307	2.6	80											
15 M	0435	6.9	210		30 Tu	0517	6.2	190		15 W	0526	6.9	210		30 Th	0517	6.2	190		15 Sa	0027	2.0	60		30 Su	0005	2.3	70		30 O	0607	6.2	190	
	1106	2.3	70			1126	2.6	80			1126	2.0	60																					

Argentina, Newfoundland, 2019

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 M	0048	2.0	60			1 Th	0158	1.6	50	16 F	0222	2.0	60	1 Su	0256	1.0	30	16 M	0256	1.6	50
	0652	6.6	200				0807	7.2	220		0849	6.9	210		0924	7.9	240		0923	7.2	220
	1236	1.6	50				1353	1.3	40		1433	2.0	60		1510	0.7	20		1519	1.6	50
	1926	7.9	240				2045	8.5	260		2106	7.5	230		2159	8.5	260		2137	7.2	220
2 Tu	0130	2.0	60			2 F	0239	1.3	40	17 Sa	0254	2.0	60	2 M	0333	1.0	30	17 Tu	0326	1.6	50
	0736	6.9	210				0855	7.5	230		0920	6.9	210		1011	7.9	240		0956	7.2	220
	1318	1.6	50				1440	1.0	30		1508	2.0	60		1550	1.0	30		1549	1.6	50
	2012	8.2	250				2132	8.9	270		2136	7.5	230		2247	8.2	250		2210	6.9	210
3 W	0211	1.6	50			3 Sa	0318	1.3	40	18 Su	0325	1.6	50	3 Tu	0410	1.3	40	18 W	0355	1.6	50
	0821	7.2	220				0943	7.5	230		0952	6.9	210		1101	7.9	240		1031	7.2	220
	1402	1.3	40				1525	1.0	30		1641	2.0	60		1630	1.3	40		1620	1.6	50
	2059	8.5	260				2220	8.5	260		2207	7.2	220		2337	7.5	230		2245	6.9	210
4 Th	0252	1.3	40			4 Su	0357	1.3	40	19 M	0356	2.0	60	4 W	0448	1.6	50	19 Th	0424	2.0	60
	0908	7.2	220				1033	7.5	230		1026	6.9	210		1155	7.5	230		1110	6.9	210
	1447	1.3	40				1608	1.3	40		1614	2.0	60		1711	1.6	50		1652	2.0	60
	2146	8.5	260				2309	8.2	250		2240	7.2	220				2323		6.6	200	
5 F	0332	1.3	40			5 M	0436	1.6	50	20 Tu	0427	2.0	60	5 Th	0036	6.9	210	20 F	0457	2.0	60
	0958	7.2	220				1126	7.5	230		1102	6.9	210		0528	2.3	70		1154	6.9	210
	1533	1.3	40				1651	1.3	40		1647	2.0	60		1255	7.2	220		1729	2.3	70
	2236	8.2	250								2316	6.9	210		1756	2.3	70				
6 Sa	0414	1.6	50			6 Tu	0002	7.5	230	21 W	0457	2.3	70	6 F	0142	6.2	190	21 Sa	0008	6.2	190
	1051	7.2	220				0517	2.0	60		1141	6.6	200		0614	2.6	80		0533	2.3	70
	1619	1.6	50				1222	7.2	220		1721	2.3	70		1358	6.9	210		1247	6.9	210
	2327	8.2	250				1736	2.0	60		2355	6.6	200		1855	3.0	90		1813	3.0	90
7 Su	0457	1.6	50			7 W	0101	7.2	220	22 Th	0530	2.3	70	7 Sa	0247	5.9	180	22 Su	0104	5.9	180
	1148	7.2	220				0601	2.3	70		1225	6.6	200		0717	3.3	100		0619	2.6	80
	1706	2.0	60				1323	6.9	210		1759	2.6	80		1501	6.6	200		1352	6.6	200
							1826	2.3	70						2212	3.3	100		1917	3.3	100
8 M	0022	7.5	230			8 Th	0206	6.6	200	23 F	0040	6.2	190	8 Su	0351	5.9	180	23 M	0214	5.9	180
	0543	2.0	60				0654	2.6	80		0608	2.6	80		0948	3.3	100		0722	3.0	90
	1248	6.9	210				1426	6.9	210		1318	6.6	200		1606	6.6	200		1504	6.6	200
	1758	2.3	70				1938	3.0	90		1846	3.0	90		2313	3.0	90		2156	3.3	100
9 Tu	0122	7.2	220			9 F	0312	6.2	190	24 Sa	0135	5.9	180	9 M	0458	5.9	180	24 Tu	0330	5.9	180
	0635	2.3	70				0816	3.0	90		0655	3.0	90		1047	3.0	90		0859	3.0	90
	1350	6.9	210				1530	6.9	210		1423	6.6	200		1715	6.6	200		1619	6.9	210
	1859	2.6	80				2227	3.0	90		1957	3.3	100		2358	3.0	90		2301	2.6	80
10 W	0228	6.9	210			10 Sa	0417	5.9	180	25 Su	0241	5.9	180	10 Tu	0559	5.9	180	25 W	0445	6.2	190
	0746	2.6	80				1006	3.0	90		0801	3.0	90		1138	2.6	80		1045	2.6	80
	1453	6.9	210				1634	6.9	210		1536	6.6	200		1817	6.9	210		1729	7.2	220
	2111	2.6	80				2329	3.0	90		2217	3.3	100				2350		2.3	70	
11 Th	0336	6.6	200			11 Su	0522	5.9	180	26 M	0353	5.9	180	11 W	0030	2.6	80	26 Th	0552	6.6	200
	0936	2.6	80				1058	3.0	90		0933	3.0	90		0647	6.2	190		1151	2.0	60
	1558	6.9	210				1739	6.9	210		1647	6.9	210		1223	2.3	70		1830	7.9	240
	2237	2.6	80								2322	3.0	90		1904	7.2	220				
12 F	0441	6.2	190			12 M	0019	2.6	80	27 Tu	0504	6.2	190	12 Th	0057	2.3	70	27 F	0034	1.6	50
	1029	2.6	80				0620	6.2	190		1054	2.6	80		0724	6.6	200		0647	7.2	220
	1700	6.9	210				1146	2.6	80		1752	7.5	230		1303	2.3	70		1244	1.6	50
	2335	2.6	80				1836	7.2	220						1939	7.2	220		1922	8.2	250
13 Sa	0543	6.2	190			13 Tu	0054	2.6	80	28 W	0013	2.3	70	13 F	0126	2.0	60	28 Sa	0114	1.3	40
	1112	2.3	70				0708	6.2	190		0608	6.6	200		0755	6.9	210		0734	7.9	240
	1758	7.2	220				1233	2.3	70		1158	2.0	60		1340	2.0	60		1330	1.0	30
							1924	7.5	230		1849	7.9	240		2009	7.2	220		2009	8.5	260
14 Su	0023	2.3	70			14 W	0122	2.3	70	29 Th	0058	2.0	60	14 Sa	0156	2.0	60	29 Su	0153	1.0	30
	0637	6.2	190				0746	6.6	200		0703	7.2	220		0823	6.9	210		0819	8.2	250
	1155	2.3	70				1316	2.0	60		1255	1.6	50		1415	1.6	50		1412	0.7	20
	1851	7.5	230				2003	7.5	230		1940	8.2	250		2037	7.2	220		2053	8.2	250
15 M	0102	2.3	70			15 Th	0151	2.3	70	30 F	0139	1.3	40	15 Su	0226	1.6	50	30 M	0230	1.0	30
	0723	6.6	200				0819	6.6	200		0752	7.5	230		0853	7.2	220		0903	8.2	250
	1239	2.0	60				1357	2.0	60		1344	1.3	40		1447	1.6	50		1451	0.7	20
	1938	7.5	230				2036	7.5	230		2028	8.5	260		2106	7.2	220		2137	8.2	250
16 W	0116	2.0	60			16 F	0218	1.0	30	31 Sa	0218	1.0	30	31 Su	0218	1.0	30	31 M	0218	1.0	30
	0718	6.9	210				0838	7.9	240		0838	7.9	240		0838	7.9	240		0838	7.9	240
	1303	1.6	50				1429	1.0	30		1429	1.0	30		1429	1.0	30		1429	1.0	30
	1957	8.2	250				2114	8.9	270		2114	8.9	270		2114	8.9	270		2114	8.9	270

Time meridian 52° 30' 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 1.9 feet (62 centimeters) to refer these levels to the datum of N.O.S. charts.

Argentina, Newfoundland, 2019

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															
1 Tu	0306	1.0	30		16 W	0255	1.3	40		1 F	0355	1.6	50		16 Su	0334	1.6	50		1 Su	0418	2.3	70		16 M	0404	1.6	50	
	0948	8.2	250			0930	7.2	220			1106	7.5	230			1034	7.5	230			1132	7.2	220			1112	7.9	240	
	1529	0.7	20			1525	1.3	40			1627	2.0	60			1614	2.0	60			1653	2.6	80			1647	2.0	60	
	2222	7.5	230			2142	6.9	210			2341	6.2	190			2245	6.6	200			1739	3.0	90			2331	6.6	200	
2 W	0343	1.3	40		17 Th	0325	1.6	50		2 Sa	0435	2.3	70		17 Su	0412	2.0	60		2 M	0006	6.2	190		17 Tu	0450	2.0	60	
	1036	7.9	240			1007	7.2	220			1200	7.2	220			1123	7.5	230			0503	2.6	80			1205	7.5	230	
	1608	1.3	40			1556	1.6	50			1710	2.6	80			1655	2.3	70			1220	6.9	210			1733	2.0	60	
	2311	7.2	220			2218	6.6	200								2339	6.2	190			1739	3.0	90						
3 Th	0420	1.6	50		18 F	0356	1.6	50		3 Su	0046	5.9	180		18 M	0456	2.3	70		3 Tu	0101	5.9	180		18 W	0031	6.6	200	
	1129	7.5	230			1048	7.2	220			0520	2.6	80			1217	7.2	220			0555	3.0	90			0542	2.3	70	
	1647	1.6	50			1630	2.0	60			1257	6.9	210			1744	2.3	70			1310	6.6	200			1301	7.2	220	
						2259	6.2	190			1801	3.0	90								1837	3.3	100			1828	2.3	70	
4 F	0009	6.6	200		19 Sa	0430	2.0	60		4 M	0146	5.9	180		19 Tu	0043	6.2	190		4 W	0155	5.9	180		19 Th	0133	6.6	200	
	0459	2.3	70			1134	7.2	220			0617	3.3	100			0547	2.6	80			0703	3.3	100			0643	2.6	80	
	1227	7.2	220			1708	2.3	70			1354	6.6	200			1317	6.9	210			1404	6.2	190			1404	6.9	210	
	1730	2.3	70			2348	6.2	190			1929	3.3	100			1846	2.6	80			2005	3.3	100			1938	2.6	80	
5 Sa	0117	6.2	190		20 Su	0509	2.3	70		5 Tu	0243	5.9	180		20 W	0150	6.2	190		5 Th	0249	5.9	180		20 F	0236	6.6	200	
	0543	2.6	80			1229	6.9	210			0812	3.3	100			0654	3.0	90			0840	3.3	100			0808	2.6	80	
	1328	6.9	210			1754	2.6	80			1454	6.2	190			1422	6.9	210			1502	6.2	190			1514	6.6	200	
	1824	3.0	90								2144	3.3	100			2031	2.6	80			2130	3.3	100			2119	2.3	70	
6 Su	0219	5.9	180		21 M	0050	5.9	180		6 W	0343	5.9	180		21 Th	0258	6.2	190		6 F	0346	5.9	180		21 Sa	0342	6.9	210	
	0641	3.3	100			0557	2.6	80			0943	3.3	100			0841	3.0	90			0952	3.0	90			1004	2.6	80	
	1429	6.6	200			1332	6.9	210			1558	6.2	190			1534	6.6	200			1604	5.9	180			1624	6.6	200	
	2139	3.3	100			1858	3.0	90			2231	3.0	90			2202	2.3	70			2221	3.0	90			2222	2.3	70	
7 M	0321	5.6	170		22 Tu	0201	5.9	180		7 Th	0443	5.9	180		22 F	0406	6.6	200		7 Sa	0440	6.2	190		22 Su	0447	6.9	210	
	0918	3.3	100			0702	3.0	90			1039	3.0	90			1025	2.6	80			1048	2.6	80			1108	2.3	70	
	1534	6.6	200			1441	6.6	200			1701	6.2	190			1646	6.9	210			1700	5.9	180			1728	6.6	200	
	2239	3.3	100			2127	3.0	90			2309	2.6	80			2253	2.0	60			2302	2.6	80			2308	2.0	60	
8 Tu	0426	5.9	180		23 W	0315	5.9	180		8 F	0534	6.2	190		23 Sa	0511	6.9	210		8 Su	0529	6.6	200		23 M	0546	7.2	220	
	1024	3.3	100			0850	3.0	90			1127	2.6	80			1122	2.0	60			1136	2.3	70			1201	2.0	60	
	1643	6.6	200			1555	6.9	210			1752	6.2	190			1749	6.9	210			1748	6.2	190			1824	6.6	200	
	2321	3.0	90			2235	2.6	80			2344	2.3	70			2337	1.6	50			2340	2.3	70			2351	2.0	60	
9 W	0528	5.9	180		24 Th	0428	6.2	190		9 Sa	0615	6.6	200		24 Su	0606	7.5	230		9 M	0612	6.9	210		24 Tu	0640	7.5	230	
	1115	3.0	90			1039	2.6	80			1210	2.3	70			1211	1.6	50			1219	2.3	70			1247	2.0	60	
	1747	6.6	200			1708	6.9	210			1831	6.6	200			1843	7.2	220			1828	6.2	190			1914	6.6	200	
	2353	2.6	80			2323	2.0	60																					
10 Th	0617	6.2	190		25 F	0533	6.9	210		10 Su	0018	2.0	60		25 M	0017	1.3	40		10 Tu	0017	2.0	60		25 W	0033	1.6	50	
	1159	2.6	80			1139	2.0	60			0650	6.9	210			0656	7.9	240			0653	7.2	220			0729	7.9	240	
	1833	6.6	200			1810	7.5	230			1249	2.0	60			1255	1.3	40			1259	2.0	60			1328	2.0	60	
											1905	6.6	200			1930	7.2	220			1906	6.6	200			1958	6.9	210	
11 F	0023	2.3	70		26 Sa	0006	1.6	50		11 M	0051	1.6	50		26 Tu	0056	1.3	40		11 W	0052	1.6	50		26 Th	0116	1.6	50	
	0653	6.6	200			0627	7.5	230			0723	7.2	220			0742	8.2	250			0732	7.5	230			0816	8.2	250	
	1240	2.0	60			1228	1.3	40			1325	1.6	50			1337	1.3	40			1337	1.6	50			1406	2.0	60	
	1909	6.9	210			1903	7.9	240			1937	6.6	200			2013	7.2	220			1942	6.6	200			2039	6.6	200	
12 Sa	0054	2.0	60		27 Su	0046	1.3	40		12 Tu	0124	1.6	50		27 W	0136	1.3	40		12 Th	0127	1.6	50		27 F	0159	1.6	50	
	0725	6.9	210			0715	7.9	240			0757	7.2	220			0827	8.2	250			0812	7.5	230			0859	8.2	250	
	1317	2.0	60			1312	1.0	30			1359	1.6	50			1416	1.3	40			1413	1.6	50			1442	2.0	60	
	1939	6.9	210			1949	7.9	240			2010	6.9	210			2055	6.9	210			2020	6.9	210			2119	6.6	200	
13 Su	0125	1.6	50		28 M	0124	1.0	30		13 W	0155	1.3	40		28 Th	0215	1.3	40		13 F	0203	1.6	50		28 Sa	0242	1.6	50	
	0754	7.2	220			0759	8.2	250			0832	7.5	230			0913	8.2	250			0854	7.9	240			0942	7.9	240	
	1351	1.6	50			1353	0.7	20			1432	1.6	50			1454	1.6	50			1450	1.6	50			1519	2.0	60	
	2008	6.9	210			2032	7.9	240			2043	6.9	210			2136	6.9	210			2101	6.9	210			2159	6.6	200	
14 M	0156	1.6	50		29 Tu	0202	1.0	30		14 Th	0227	1.3	40</																

Pictou, Nova Scotia, 2019

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									
1 Tu	0632	4.9	150	16 W	0526	4.6	140	1 F	0140	2.0	60	16 Sa	0022	2.0	60								
	1153	3.3	100		1029	3.6	110		0843	4.9	150		0733	4.6	140	1 F	0713	4.6	140				
	1820	5.6	170		1652	5.6	170		1316	3.9	120		1208	3.9	120		16 Sa	1142	3.9	120			
			2352	2.3	70	1924	5.6	170	1803	5.9	180	1748	5.2	160	2355			1.6	50				
2 W	0059	2.3	70	17 Th	0646	4.6	140	2 Sa	0234	1.6	50	17 Su	0129	1.3	40	2 Sa		0115	2.0	60	17 Su	0712	4.6	140
	0744	4.9	150		1133	3.6	110		0936	4.9	150		0837	4.9	150		0823	4.6	140	1156		3.6	110
	1252	3.6	110		1742	5.9	180		1411	3.9	120		1322	3.6	110		1251	3.9	120	1750		5.6	170
	1907	5.9	180				2016	5.6	170				1920	5.9	180	1858	5.2	160					
3 Th	0156	2.0	60	18 F	0054	2.0	60	3 Su	0320	1.6	50	18 M	0229	1.0	30	3 Su	0212	2.0	60	18 M	0106	1.3	40
	0848	5.2	160		0755	4.9	150		1015	4.9	150		0930	5.2	160		0911	4.6	140		0812	4.9	150
	1345	3.9	120		1839	5.9	180		1459	3.9	120		1428	3.3	100		1351	3.6	110		1313	3.3	100
	1953	5.9	180				2103	5.9	180			2032	6.2	190	1957	5.2	160	1919	5.6	170			
4 Fr	0246	1.6	50	19 Sa	0153	1.6	50	4 M	0359	1.6	50	19 Tu	0322	1.0	30	4 M	0257	2.0	60	19 Tu	0209	1.3	40
	0942	5.2	160		0856	5.2	160		1048	5.2	160		1016	5.6	170		0945	4.9	150		0902	5.2	160
	1434	3.9	120		1343	3.6	110		1542	3.6	110		1526	3.0	90		1441	3.6	110		1419	3.0	90
	2038	5.9	180		1940	6.2	190	●	2145	5.9	180	○	2135	6.6	200	2047	5.6	170	2031	5.9	180		
5 Sa	0331	1.6	50	20 Su	0247	1.0	30	5 Tu	0435	1.6	50	20 W	0411	0.7	20	5 Tu	0335	1.6	50	20 W	0302	1.0	30
	1027	5.2	160		0949	5.2	160		1119	5.2	160		1059	5.6	170		1014	4.9	150		0946	5.6	170
	1519	3.9	120		1443	3.6	110		1621	3.6	110		1619	2.6	80		1524	3.3	100		1515	2.3	70
	2120	5.9	180		2041	6.6	200		2224	5.9	180		2232	6.6	200		2132	5.6	170	○	2132	6.2	190
6 Su	0412	1.3	40	21 M	0338	0.7	20	6 W	0506	1.6	50	21 Th	0457	0.7	20	6 W	0408	1.6	50	21 Th	0350	1.0	30
	1107	5.2	160		1038	5.6	170		1148	5.2	160		1139	5.9	180		1041	4.9	150		1026	5.6	170
	1600	3.9	120		1538	3.3	100		1657	3.3	100		1708	2.3	70		1601	3.0	90		1605	1.6	50
	2159	5.9	180	○	2139	6.6	200		2301	5.9	180		2326	6.6	200	●	2212	5.6	170	2228	6.2	190	
7 M	0451	1.3	40	22 Tu	0427	0.7	20	7 Th	0535	1.6	50	22 F	0542	1.0	30	7 Th	0437	1.6	50	22 F	0435	1.3	40
	1144	5.2	160		1124	5.9	180		1216	5.2	160		1219	5.9	180		1108	5.2	160		1104	5.9	180
	1640	3.9	120		1631	3.3	100		1733	3.3	100		1756	2.0	60		1636	2.6	80		1652	1.3	40
	2235	5.9	180		2235	6.6	200		2338	5.6	170				2251	5.6	170	2321	6.2	190			
8 Tu	0527	1.6	50	23 W	0514	0.7	20	8 F	0604	2.0	60	23 Sa	0019	6.2	190	8 F	0505	2.0	60	23 Sa	0518	1.6	50
	1218	5.2	160		1209	5.9	180		1243	5.2	160		0625	1.3	40		1135	5.2	160		1141	5.9	180
	1717	3.6	110		1722	3.0	90		1809	3.0	90		1258	5.9	180		1711	2.3	70		1737	1.0	30
	2310	5.9	180		2329	6.6	200				1844	1.6	50		2330	5.6	170						
9 W	0600	1.6	50	24 Th	0601	0.7	20	9 Sa	0015	5.6	170	24 Su	0113	5.9	180	9 Sa	0533	2.0	60	24 Su	0012	5.9	180
	1252	5.2	160		1253	5.9	180		0633	2.0	60		0708	2.0	60		1200	5.2	160		0559	2.0	60
	1754	3.6	110		1813	2.6	80		1310	5.2	160		1336	5.9	180		1745	2.3	70		1217	5.9	180
	2345	5.9	180				1846	3.0	90		1933	1.6	50		1822	1.0	30	1822	1.0	30			
10 Th	0632	2.0	60	25 F	0024	6.2	190	10 Su	0055	5.2	160	25 M	0211	5.6	170	10 Su	0009	5.2	160	25 M	0105	5.6	170
	1324	5.2	160		0648	1.0	30		0703	2.3	70		0752	2.6	80		0602	2.3	70		0640	2.6	80
	1832	3.6	110		1337	5.9	180		1336	5.2	160		1414	5.6	170		1225	5.2	160		1251	5.6	170
			1904	2.6	80		1926	2.6	80		2028	2.0	60	1821	2.0	60	1909	1.3	40				
11 Fr	0021	5.6	170	26 Sa	0120	5.9	180	11 M	0139	4.9	150	26 Tu	0318	4.9	150	11 M	0050	5.2	160	26 Tu	0201	5.2	160
	0704	2.0	60		0735	1.6	50		0736	2.6	80		0837	3.0	90		0634	2.6	80		0722	3.0	90
	1355	5.2	160		1421	5.9	180		1403	5.2	160		1452	5.6	170		1251	5.6	170		1324	5.6	170
	1912	3.6	110		1958	2.6	80		2010	2.6	80	○	2132	2.0	60	1859	2.0	60	1959	1.3	40		
12 Sa	0101	5.2	160	27 Su	0222	5.6	170	12 Tu	0230	4.9	150	27 W	0435	4.6	140	12 Tu	0134	4.9	150	27 W	0304	4.9	150
	0736	2.3	70		0823	2.3	70		0811	3.0	90		0928	3.6	110		0707	2.6	80		0805	3.3	100
	1426	5.2	160		1505	5.6	170		1434	5.6	170		1537	5.2	160		1318	5.6	170		1358	5.2	160
	1955	3.3	100	●	2057	2.3	70	○	2101	2.6	80		2249	2.0	60		1942	2.0	60	2059	1.6	50	
13 Su	0147	5.2	160	28 M	0334	5.2	160	13 W	0335	4.6	140	28 Th	0553	4.6	140	13 W	0224	4.9	150	28 Th	0414	4.6	140
	0812	2.6	80		0914	3.0	90		0851	3.3	100		1030	3.9	120		0742	3.0	90		0855	3.6	110
	1457	5.2	160		1551	5.6	170		1510	5.6	170		1635	5.2	160		1349	5.6	170		1436	5.2	160
	2045	3.3	100		2207	2.3	70		2202	2.3	70				2032	2.0	60	○	2212	2.0	60		
14 M	0244	4.9	150	29 Tu	0454	4.9	150	14 Th	0456	4.6	140	29 F	0326	4.6	140	14 Th	0326	4.6	140	29 F	0525	4.6	140
	0850	3.0	90		1009	3.3	100		0942	3.6	110		1555	5.6	170		0823	3.3	100		0959	3.9	120
	1531	5.2	160		1639	5.6	170		1555	5.6	170		2311	2.0	60		1426	5.6	170		1532	4.9	150
	2142	3.0	90		2323	2.3	70					○	2131	2.0	60	1859	2.0	60	2329	2.0	60		
15 Tu	0359	4.6	140	30 W	0615	4.9	150	15 F	0618	4.6	140	15 F	0442	4.6	140	15 F	0442	4.6	140	30 Sa	0634	4.6	140
	0935	3.3	100		1111	3.6	110		1050	3.6	110		1653	5.6	170		0917	3.6	110		1116	3.9	120
	1608	5.6	170		1732	5.6	170								1515		5.6	170	1707		4.9	150	
	2246	3.0	90									2241	1.6	50		2241	1.						

Pictou, Nova Scotia, 2019

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															
1 Tu	0515	1.0	30		16 W	0507	1.6	50		1 F	0626	1.0	30		16 Su	0559	1.3	40		1 Su	0656	1.3	40		16 M	0629	1.0	30	
	1153	6.2	190			1152	5.6	170			1332	5.6	170			1308	5.6	170			1406	5.6	170			1341	5.6	170	
	1739	2.0	60			1722	3.0	90			1838	3.6	110			1806	3.6	110			1857	3.9	120			1838	3.6	110	
	2354	5.9	180			2325	5.6	170								2349	6.2	190											
2 W	0601	1.0	30		17 Th	0542	1.6	50		2 Sa	0027	5.9	180		17 Su	0642	1.3	40		2 M	0036	5.9	180		17 Tu	0023	6.2	190	
	1247	5.9	180			1233	5.6	170			0716	1.3	40			1358	5.6	170			0746	2.0	60			0717	1.3	40	
	1823	2.6	80			1754	3.3	100			1431	5.6	170			1849	3.9	120			1457	5.2	160			1429	5.6	170	
						2352	5.6	170			1924	3.9	120								1945	3.9	120			1931	3.6	110	
3 Th	0031	5.9	180		18 F	0619	1.6	50		3 Su	0105	5.6	170		18 M	0028	5.9	180		3 Tu	0118	5.6	170		18 W	0118	5.9	180	
	0648	1.0	30			1318	5.2	160			0812	1.6	50			0730	1.3	40			0838	2.3	70			0808	1.6	50	
	1344	5.6	170			1829	3.6	110			1533	5.2	160			1453	5.2	160			1547	5.2	160			1519	5.6	170	
	1907	3.0	90								2016	3.9	120			1940	3.9	120			2041	3.9	120			2031	3.6	110	
4 Fr	0109	5.9	180		19 Sa	0021	5.6	170		4 M	0149	5.6	170		19 Tu	0114	5.9	180		4 W	0212	5.2	160		19 Th	0226	5.6	170	
	0739	1.3	40			0700	1.6	50			0919	2.0	60			0825	1.6	50			0933	2.6	80			0903	2.0	60	
	1448	5.2	160			1408	5.2	160			1635	4.9	150			1551	5.2	160			1634	5.2	160			1609	5.6	170	
	1954	3.3	100			1907	3.6	110			2121	3.9	120			2042	3.9	120			2147	3.9	120			2139	3.3	100	
5 Sa	0149	5.6	170		20 Su	0053	5.6	170		5 Tu	0253	5.2	160		20 W	0216	5.6	170		5 Th	0331	4.9	150		20 F	0352	5.2	160	
	0840	1.6	50			0747	1.6	50			1030	2.3	70			0927	2.0	60			1027	3.0	90			1002	2.3	70	
	1558	5.2	160			1507	4.9	150			1733	4.9	150			1647	5.2	160			1717	5.2	160			1658	5.6	170	
	2049	3.6	110			1952	3.9	120			2238	3.9	120			2155	3.6	110			2300	3.6	110			2253	3.0	90	
6 Su	0237	5.2	160		21 M	0133	5.6	170		6 W	0432	4.9	150		21 Th	0347	5.2	160		6 F	0505	4.6	140		21 Sa	0522	5.2	160	
	0955	2.0	60			0843	1.6	50			1135	2.6	80			1033	2.3	70			1120	3.0	90			1105	3.0	90	
	1708	4.9	150			1613	4.9	150			1823	4.9	150			1740	5.6	170			1757	5.2	160			1747	5.9	180	
	2157	3.9	120			2049	3.9	120			2352	3.6	110			2313	3.3	100											
7 M	0349	5.2	160		22 Tu	0225	5.6	170		7 Th	0555	4.9	150		22 F	0527	5.2	160		7 Sa	0008	3.3	100		22 Su	0005	2.3	70	
	1113	2.0	60			0950	2.0	60			1231	2.6	80			1139	2.3	70			0622	4.6	140			0642	5.2	160	
	1815	4.9	150			1718	4.9	150			1906	4.9	150			1830	5.6	170			1210	3.3	100			1208	3.3	100	
	2312	3.9	120			2205	3.9	120													1834	5.2	160			1835	5.9	180	
8 Tu	0515	5.2	160		23 W	0343	5.2	160		8 F	0054	3.3	100		23 Sa	0024	3.0	90		8 Su	0102	3.0	90		23 M	0109	2.0	60	
	1222	2.3	70			1102	2.0	60			0702	4.9	150			0649	5.2	160			0727	4.9	150			0754	5.2	160	
	1915	4.9	150			1818	5.2	160			1320	3.0	90			1242	2.6	80			1257	3.6	110			1309	3.3	100	
						2326	3.6	110			1943	5.2	160			1917	5.9	180			1910	5.6	170			1923	5.9	180	
9 W	0022	3.6	110		24 Th	0527	5.2	160		9 Sa	0143	3.0	90		24 Su	0126	2.3	70		9 M	0146	2.6	80		24 Tu	0206	1.6	50	
	0629	5.2	160			1212	2.0	60			0759	4.9	150			0759	5.6	170			0822	4.9	150			0857	5.6	170	
	1320	2.3	70			1910	5.2	160			1401	3.0	90			1340	3.0	90			1340	3.6	110			1404	3.6	110	
	2002	4.9	150								2016	5.2	160			2001	5.9	180			1945	5.6	170			2011	6.2	190	
10 Th	0121	3.6	110		25 F	0039	3.3	100		10 Su	0223	2.6	80		25 M	0220	1.6	50		10 Tu	0225	2.3	70		25 W	0257	1.3	40	
	0731	5.2	160			0654	5.6	170			0848	5.2	160			0859	5.9	180			0911	5.2	160			0953	5.6	170	
	1408	2.3	70			1315	2.0	60			1436	3.0	90			1431	3.0	90			1421	3.6	110			1454	3.6	110	
	2039	4.9	150			1957	5.6	170			2046	5.6	170			2043	6.2	190			2020	5.9	180			2056	6.2	190	
11 Fr	0210	3.3	100		26 Sa	0141	2.6	80		11 M	0259	2.3	70		26 Tu	0309	1.3	40		11 W	0303	1.6	50		26 Th	0345	1.0	30	
	0823	5.2	160			0804	5.9	180			0932	5.2	160			0955	5.9	180			0957	5.2	160			1044	5.6	170	
	1448	2.3	70			1410	2.0	60			1509	3.3	100			1519	3.3	100			1501	3.6	110			1541	3.6	110	
	2110	5.2	160			2040	5.9	180			2115	5.6	170			2124	6.2	190			2056	5.9	180			2140	6.2	190	
12 Sa	0251	2.6	80		27 Su	0236	2.0	60		12 Tu	0333	2.0	60		27 W	0355	1.0	30		12 Th	0342	1.3	40		27 F	0430	1.0	30	
	0909	5.6	170			0905	5.9	180			1015	5.6	170			1047	5.9	180			1042	5.6	170			1130	5.6	170	
	1522	2.3	70			1459	2.3	70			1541	3.3	100			1604	3.3	100			1541	3.6	110			1625	3.6	110	
	2139	5.2	160			2121	5.9	180			2144	5.9	180			2204	6.2	190			2133	6.2	190			2223	6.2	190	
13 Su	0327	2.3	70		28 M	0325	1.3	40		13 W	0407	1.6	50		28 Th	0440	0.7	20		13 F	0421	1.3	40		28 Sa	0514	1.0	30	
	0951	5.6	170			1000	6.2	190			1056	5.6	170			1137	5.9	180			1125	5.6	170			1213	5.6	170	
	1553	2.6	80			1546	2.3	70			1615	3.3	100			1647	3.6	110			1622	3.9	120			1708	3.6	110	
	2207	5.2	160			2159	6.2	190			2213	5.9	180			2243	6.2	190			2212	6.2	190			2303	6.2	190	
14 M	0401	2.0	60		29 Tu	0411	1.0	30																					

Harrington Harbour, Quebec, 2019

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
1 Tu	0057	1.6	50		16 W	0646	5.2	160		1 F	0050	2.0	60	
	0741	5.6	170			1255	2.6	80			0801	5.2	160	
	1349	2.3	70			1835	4.6	140			1419	2.6	80	
	1939	4.9	150								1947	3.9	120	
2 W	0150	1.6	50		17 Th	0055	1.6	50		2 Sa	0156	1.6	50	
	0837	5.9	180			0749	5.6	170			0853	5.6	170	
	1449	2.3	70			1403	2.6	80			1510	2.3	70	
	2029	4.9	150			1936	4.6	140			2042	4.3	130	
3 Th	0238	1.3	40		18 F	0150	1.3	40		3 Su	0248	1.3	40	
	0924	6.2	190			0843	6.2	190			0934	5.6	170	
	1539	2.3	70			1500	2.3	70			1549	2.0	60	
	2114	4.9	150			2031	4.9	150			2124	4.6	140	
4 F	0321	1.3	40		19 Sa	0241	1.0	30		4 M	0330	1.3	40	
	1007	6.2	190			0932	6.6	200			1009	5.9	180	
	1623	2.0	60			1551	2.0	60			1622	2.0	60	
	2154	4.9	150			2122	5.2	160			2159	4.9	150	
5 Sa	0401	1.0	30		20 Su	0330	0.7	20		5 Tu	0406	1.0	30	
	1046	6.6	200			1019	6.9	210			1039	5.9	180	
	1703	2.0	60			1639	1.6	50			1652	1.6	50	
	2230	4.9	150			2211	5.2	160			2233	5.2	160	
6 Su	0438	1.0	30		21 M	0418	0.3	10		6 W	0440	1.0	30	
	1123	6.6	200			1105	7.2	220			1107	5.9	180	
	1740	2.0	60			1725	1.6	50			1720	1.6	50	
	2305	4.9	150			2259	5.6	170			2305	5.2	160	
7 M	0513	1.0	30		22 Tu	0506	0.0	0		7 Th	0512	1.0	30	
	1158	6.6	200			1151	7.2	220			1135	5.9	180	
	1816	2.0	60			1810	1.3	40			1747	1.3	40	
	2340	4.9	150			2347	5.6	170			2337	5.6	170	
8 Tu	0547	1.0	30		23 W	0554	0.3	10		8 F	0543	1.0	30	
	1232	6.2	190			1237	7.2	220			1202	5.9	180	
	1851	2.3	70			1856	1.3	40			1814	1.3	40	
9 W	0014	4.9	150		24 Th	0035	5.6	170		9 Sa	0010	5.6	170	
	0621	1.3	40			0644	0.3	10			0617	1.3	40	
	1306	6.2	190			1323	6.9	210			1229	5.6	170	
	1926	2.3	70			1942	1.3	40			1841	1.3	40	
10 Th	0050	4.9	150		25 F	0126	5.6	170		10 Su	0045	5.6	170	
	0657	1.6	50			0736	1.0	30			0652	1.3	40	
	1340	5.9	180			1409	6.2	190			1258	5.2	160	
	2002	2.3	70			2029	1.6	50			1911	1.3	40	
11 F	0129	4.9	150		26 Sa	0221	5.6	170		11 M	0122	5.6	170	
	0735	1.6	50			0833	1.3	40			0732	1.6	50	
	1415	5.6	170			1456	5.9	180			1330	5.2	160	
	2040	2.3	70			2119	1.6	50			1944	1.3	40	
12 Sa	0214	4.9	150		27 Su	0323	5.2	160		12 Tu	0204	5.2	160	
	0820	2.0	60			0936	2.0	60			0819	2.0	60	
	1454	5.2	160			1548	5.2	160			1405	4.9	150	
	2121	2.3	70			2213	1.6	50			2024	1.3	40	
13 Su	0308	4.6	140		28 M	0437	5.2	160		13 W	0256	5.2	160	
	0914	2.3	70			1049	2.3	70			0917	2.3	70	
	1538	5.2	160			1646	4.9	150			1448	4.6	140	
	2208	2.3	70			2313	2.0	60			2115	1.6	50	
14 M	0415	4.6	140		29 Tu	0600	5.2	160		14 Th	0405	5.2	160	
	1021	2.6	80			1210	2.6	80			1031	2.6	80	
	1631	4.9	150			1754	4.6	140			1548	4.3	130	
	2301	2.3	70								2221	1.6	50	
15 Tu	0532	4.9	150		30 W	0017	2.0	60		15 F	0530	5.2	160	
	1138	3.0	90			0719	5.6	170			1157	2.6	80	
	1732	4.6	140			1330	2.6	80			1715	3.9	120	
	2358	2.0	60			1905	4.3	130			2340	1.6	50	
					31 Th	0121	1.6	50		30 Sa	0013	2.0	60	
						0823	5.6	170			0724	4.9	150	
						1437	2.6	80			1344	2.6	80	
						2007	4.3	130			1921	3.9	120	
										31 Su	0126	2.0	60	
											0818	5.2	160	
											1436	2.3	70	
											2019	4.3	130	

Time meridian 60° 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.

Harrington Harbour, Quebec, 2019

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															
1 Tu	0001	5.9	180		16 W	0545	1.3	40		1 F	0050	4.9	150		16 Sa	0023	4.9	150		1 Su	0108	4.6	140		16 M	0056	4.9	150	
	0609	0.7	20			1209	6.2	190			0659	1.3	40			0626	1.3	40			0722	1.6	50			0702	1.0	30	
	1227	6.6	200			1826	2.0	60			1347	6.2	190			1316	6.2	190			1418	5.9	180			1356	6.6	200	
	1844	1.0	30								2015	2.3	70			1945	2.3	70			2046	2.6	80			2026	2.3	70	
2 W	0040	5.6	170		17 Th	0011	5.2	160		2 Sa	0132	4.6	140		17 Su	0104	4.6	140		2 M	0154	4.6	140		17 Tu	0148	4.9	150	
	0649	1.0	30			0615	1.3	40			0748	1.6	50			0710	1.3	40			0812	2.0	60			0757	1.3	40	
	1315	6.6	200			1246	5.9	180			1445	5.9	180			1407	6.2	190			1512	5.6	170			1451	6.2	190	
	1936	1.6	50			1906	2.0	60			2116	2.6	80			2042	2.6	80			2141	2.6	80			2122	2.3	70	
3 Th	0120	4.9	150		18 F	0043	4.9	150		3 Su	0223	4.3	130		18 M	0154	4.6	140		3 Tu	0251	4.3	130		18 W	0252	4.6	140	
	0733	1.3	40			0648	1.3	40			0846	2.0	60			0804	1.6	50			0913	2.3	70			0901	1.6	50	
	1408	6.2	190			1327	5.9	180			1553	5.6	170			1509	5.9	180			1611	5.2	160			1551	5.9	180	
	2034	2.0	60			1953	2.3	70			2223	3.0	90			2147	2.6	80			2238	2.6	80			2221	2.3	70	
4 F	0204	4.6	140		19 Sa	0120	4.6	140		4 M	0331	3.9	120		19 Tu	0300	4.3	130		4 W	0405	4.3	130		19 Th	0408	4.9	150	
	0822	1.6	50			0728	1.6	50			0959	2.3	70			0913	2.0	60			1024	2.6	80			1016	2.0	60	
	1510	5.6	170			1418	5.6	170			1709	5.2	160			1621	5.6	170			1713	5.2	160			1655	5.6	170	
	2141	2.6	80			2051	2.6	80			2333	3.0	90			2255	2.6	80			2337	2.6	80			2321	2.0	60	
5 Sa	0256	4.3	130		20 Su	0204	4.3	130		5 Tu	0504	3.9	120		20 W	0427	4.3	130		5 Th	0533	4.3	130		20 F	0532	4.9	150	
	0923	2.0	60			0819	2.0	60			1121	2.3	70			1035	2.0	60			1141	2.6	80			1135	2.3	70	
	1628	5.2	160			1523	5.6	170			1820	5.2	160			1733	5.6	170			1810	4.9	150			1759	5.6	170	
	2256	2.6	80			2202	2.6	80																					
6 Su	0410	3.9	120		21 M	0307	4.3	130		6 W	0039	2.6	80		21 Th	0000	2.3	70		6 F	0031	2.6	80		21 Sa	0020	2.0	60	
	1039	2.3	70			0928	2.0	60			0635	4.3	130			0556	4.6	140			0648	4.6	140			0648	5.2	160	
	1755	5.2	160			1644	5.6	170			1238	2.3	70			1157	2.0	60			1252	2.6	80			1252	2.3	70	
						2319	2.6	80			1916	5.2	160			1838	5.6	170			1901	4.9	150			1859	5.2	160	
7 M	0016	3.0	90		22 Tu	0438	4.3	130		7 Th	0132	2.3	70		22 F	0058	2.0	60		7 Sa	0119	2.3	70		22 Su	0115	1.6	50	
	0549	3.9	120			1052	2.0	60			0737	4.6	140			0709	5.2	160			0745	4.9	150			0752	5.9	180	
	1202	2.3	70			1804	5.6	170			1340	2.3	70			1310	2.0	60			1352	2.6	80			1401	2.0	60	
	1909	5.2	160								1959	5.2	160			1933	5.6	170			1945	4.9	150			1954	5.2	160	
8 Tu	0126	2.6	80		23 W	0032	2.6	80		8 F	0214	2.3	70		23 Sa	0148	1.6	50		8 Su	0159	2.0	60		23 M	0205	1.3	40	
	0713	4.3	130			0613	4.3	130			0823	4.9	150			0807	5.9	180			0829	5.6	170			0846	6.2	190	
	1315	2.0	60			1215	2.0	60			1429	2.0	60			1413	1.6	50			1440	2.3	70			1500	2.0	60	
	2003	5.6	170			1910	5.9	180			2037	5.2	160			2022	5.6	170			2024	4.9	150			2043	5.2	160	
9 W	0217	2.3	70		24 Th	0131	2.0	60		9 Sa	0248	2.0	60		24 Su	0233	1.3	40		9 M	0236	1.6	50		24 Tu	0252	1.0	30	
	0809	4.6	140			0725	4.9	150			0901	5.6	170			0857	6.2	190			0909	5.9	180			0935	6.6	200	
	1412	2.0	60			1326	1.6	50			1510	2.0	60			1508	1.3	40			1523	2.3	70			1552	2.0	60	
	2045	5.6	170			2003	5.9	180			2109	5.2	160			2106	5.6	170			2101	4.9	150			2129	4.9	150	
10 Th	0257	2.3	70		25 F	0220	1.6	50		10 Su	0319	1.6	50		25 M	0315	1.0	30		10 Tu	0309	1.3	40		25 W	0336	1.0	30	
	0851	4.9	150			0821	5.6	170			0936	5.9	180			0944	6.9	210			0946	6.2	190			1021	6.9	210	
	1457	1.6	50			1426	1.3	40			1548	2.0	60			1559	1.3	40			1603	2.0	60			1639	2.0	60	
	2119	5.6	170			2050	6.2	190			2140	5.2	160			2148	5.6	170			2137	4.9	150			2211	4.9	150	
11 F	0330	2.0	60		26 Sa	0303	1.3	40		11 M	0348	1.3	40		26 Tu	0355	0.7	20		11 W	0343	1.3	40		26 Th	0418	0.7	20	
	0927	5.2	160			0910	6.2	190			1009	6.2	190			1028	6.9	210			1022	6.6	200			1104	6.9	210	
	1535	1.6	50			1519	1.0	30			1623	1.6	50			1646	1.3	40			1641	2.0	60			1723	2.0	60	
	2150	5.6	170			2133	6.2	190			2210	5.2	160			2229	5.2	160			2213	5.2	160			2251	4.9	150	
12 Sa	0359	1.6	50		27 Su	0343	1.0	30		12 Tu	0415	1.3	40		27 W	0435	0.7	20		12 Th	0417	1.0	30		27 F	0459	0.7	20	
	0959	5.6	170			0956	6.6	200			1042	6.2	190			1112	6.9	210			1100	6.6	200			1146	6.9	210	
	1610	1.6	50			1608	1.0	30			1658	1.6	50			1733	1.6	50			1720	2.0	60			1806	2.0	60	
	2218	5.6	170			2213	5.9	180			2241	5.2	160			2308	5.2	160			2250	5.2	160			2330	4.9	150	
13 Su	0427	1.6	50		28 M	0421	0.7	20		13 W	0444	1.3	40		28 Th	0515	0.7	20		13 F	0453	1.0	30		28 Sa	0539	1.0	30	
	1031	5.9	180			1040	6.9	210			1116	6.6	200			1157	6.9	210			1140	6.9	210			1227	6.6	200	
	1643	1.6	50			1656	1.0	30			1734	2.0	60			1819	2.0	60			1802	2.0	60			1847	2.0	60	
	2245	5.6	170			2253	5.9	180			2312	5.2	160			2347	4.9	150			2329	5.2	160						
14 M	0452	1.3	40		29 Tu	0459	0.7	20		1																			

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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							
1 Tu	0233	13.8	420	16 W	0121	12.5	380	1 F	0418	12.8	390	16 Sa	0309	12.5	380	1 F	0245	12.1	370	16 Sa	0124	12.5	380
	0954	1.3	40		0839	1.6	50		1115	1.6	50		1015	1.3	40		0930	2.3	70		0827	2.0	60
	1500	15.1	460		1351	13.8	420		1630	15.1	460		1521	15.7	480		1503	13.8	420		1345	14.8	450
	2248	1.0	30		2139	1.3	40		2333	0.7	20		2333	0.7	20		2248	1.3	40		2154	1.0	30
2 W	0339	13.8	420	17 Th	0230	12.5	380	2 Sa	0021	0.7	20	17 Su	0412	13.5	410	2 Sa	0357	12.5	380	17 Su	0245	12.8	390
	1051	1.3	40		0942	1.3	40		0512	13.5	410		1130	0.7	20		1045	2.0	60		0954	1.6	50
	1557	15.7	480		1451	14.8	450		1212	1.3	40		1624	17.1	520		1606	14.4	440		1500	16.1	490
	2351	0.7	20		2254	0.7	20		1715	15.7	480		1715	17.7	540		2351	1.0	30		2312	0.7	20
3 Th	0436	13.8	420	18 F	0333	13.1	400	3 Su	0109	0.7	20	18 M	0039	0.3	10	3 Su	0454	13.1	400	18 M	0354	14.1	430
	1145	1.3	40		1048	1.0	30		0554	13.8	420		0506	14.1	430		1148	1.6	50		1115	1.0	30
	1648	16.4	500		1551	16.1	490		1300	1.0	30		1715	17.7	540		1657	15.1	460		1606	17.1	520
					2357	0.7	20		1757	16.1	490		1715	17.7	540								
4 F	0045	1.0	30	19 Sa	0430	13.5	410	4 M	0151	0.7	20	19 Tu	0130	0.3	10	4 M	0042	0.7	20	19 Tu	0015	0.7	20
	0524	14.1	430		1151	0.7	20		0630	14.1	430		0554	15.4	470		0533	14.1	430		0448	15.1	460
	1233	1.0	30		1642	17.1	520		1342	1.0	30		1806	18.7	570		1239	1.3	40		1221	0.7	20
	1733	16.4	500						1830	16.4	500		1806	18.7	570		1739	15.7	480		1703	17.7	540
5 Sa	0130	0.7	20	20 Su	0057	0.3	10	5 Tu	0227	0.7	20	20 W	0221	0.3	10	5 Tu	0124	0.7	20	20 W	0106	0.7	20
	0606	14.1	430		0518	14.1	430		0700	14.4	440		0639	16.4	500		0606	14.4	440		0536	16.4	500
	1318	1.0	30		1248	0.7	20		1418	1.0	30		1424	0.3	10		1321	1.0	30		1321	0.7	20
	1809	16.7	510		1730	18.0	550		1903	16.7	510		1851	18.7	570		1812	16.4	500		1751	18.4	560
6 Su	0209	0.7	20	21 M	0151	0.3	10	6 W	0300	0.7	20	21 Th	0306	0.3	10	6 W	0200	0.7	20	21 Th	0154	0.7	20
	0642	14.1	430		0606	14.8	450		0727	14.4	440		0724	17.1	520		0639	15.1	460		0618	17.4	530
	1357	1.0	30		1342	0.3	10		1454	0.7	20		1515	0.3	10		1357	1.0	30		1412	0.3	10
	1845	16.7	510		1818	18.7	570		1933	16.7	510		1939	18.7	570		1842	16.7	510		1836	18.4	560
7 M	0248	0.7	20	22 Tu	0239	0.3	10	7 Th	0330	0.7	20	22 F	0348	0.3	10	7 Th	0230	0.7	20	22 F	0239	0.7	20
	0715	14.1	430		0654	15.4	470		0757	14.8	450		0806	17.1	520		0703	15.4	470		0700	18.0	550
	1433	1.0	30		1433	0.3	10		1527	0.7	20		1603	0.3	10		1433	0.7	20		1500	0.3	10
	1915	17.1	520		1906	19.0	580		2003	16.7	510		2024	18.0	550		1912	16.7	510		1921	18.0	550
8 Tu	0321	0.7	20	23 W	0327	0.3	10	8 F	0400	0.7	20	23 Sa	0430	0.3	10	8 F	0300	0.7	20	23 Sa	0318	0.7	20
	0748	14.1	430		0739	15.7	480		0827	14.8	450		0851	17.1	520		0730	16.1	490		0739	18.4	560
	1509	1.0	30		1524	0.3	10		1600	0.7	20		1648	0.3	10		1509	0.7	20		1545	0.3	10
	1951	16.7	510		1954	18.7	570		2036	16.1	490		2115	17.1	520		1939	16.7	510		2006	17.4	530
9 W	0354	0.7	20	24 Th	0412	0.3	10	9 Sa	0430	0.7	20	24 Su	0509	0.7	20	9 Sa	0330	0.7	20	24 Su	0357	0.7	20
	0821	14.1	430		0827	16.1	490		0900	14.8	450		0939	16.7	510		0757	16.1	490		0821	18.0	550
	1542	1.0	30		1615	0.3	10		1633	0.7	20		1736	0.7	20		1542	0.7	20		1627	0.7	20
	2024	16.4	500		2045	18.0	550		2109	15.7	480		2206	15.7	480		2009	16.4	500		2048	16.7	510
10 Th	0427	0.7	20	25 F	0457	0.3	10	10 Su	0500	0.7	20	25 M	0548	0.7	20	10 Su	0357	0.7	20	25 M	0433	1.0	30
	0854	14.1	430		0918	16.1	490		0933	14.4	440		1030	16.1	490		0824	16.1	490		0906	17.4	530
	1618	1.0	30		1703	0.7	20		1712	0.7	20		1824	1.0	30		1615	0.7	20		1712	0.7	20
	2100	16.1	490		2139	17.1	520		2151	14.8	450		2300	14.1	430		2042	16.1	490		2136	15.4	470
11 F	0457	1.0	30	26 Sa	0539	0.7	20	11 M	0533	0.7	20	26 Tu	0627	1.0	30	11 M	0427	1.0	30	26 Tu	0509	1.0	30
	0930	13.8	420		1012	15.7	480		1015	14.4	440		1127	15.1	460		0857	16.1	490		0954	16.7	510
	1654	1.3	40		1754	0.7	20		1754	1.0	30		1918	1.0	30		1651	1.0	30		1754	1.0	30
	2139	15.1	460		2233	15.7	480		2236	14.1	430		2300	14.1	430		2118	15.1	460		2227	14.4	440
12 Sa	0533	1.0	30	27 Su	0624	0.7	20	12 Tu	0609	1.0	30	27 W	0009	13.1	400	12 Tu	0500	1.0	30	27 W	0545	1.6	50
	1015	13.8	420		1109	15.1	460		1100	14.1	430		1236	14.1	430		0933	15.7	480		1045	15.4	470
	1736	1.6	50		1851	1.0	30		1842	1.3	40		2021	1.3	40		1733	1.0	30		1842	1.3	40
	2221	14.1	430		2336	14.4	440		2330	13.1	400						2203	14.1	430		2330	13.1	400
13 Su	0609	1.0	30	28 M	0712	1.0	30	13 W	0651	1.3	40	28 Th	0124	12.1	370	13 W	0533	1.0	30	28 Th	0627	2.6	80
	1100	13.5	410		1212	14.8	450		1154	13.8	420		0815	2.3	70		1018	15.1	460		1145	14.4	440
	1821	1.6	50		1954	1.0	30		1945	1.3	40		1348	13.8	420		1818	1.0	30		1942	2.0	60
	2312	13.8	420								2136		1.3	40				2257	13.5		410		
14 M	0651	1.3	40	29 Tu	0045	13.5	410	14 Th	0036	12.5	380	14 Th	0615	1.6	50	14 Th	0615	1.6	50	29 F	0042	12.5	380
	1151	13.5	410		0806	1.3	40		0748	1.6	50		1118	14.8	450		1118	14.8	450		0724	3.3	100
	1918	2.0	60		1318	14.4	440		1300	14.1	430		1915	1.3	40		1915	1.3	40		1300	14.1	430
					2103	1.0	30		2100	1.3	40								2054		2.3	70	
15 Tu	0012	13.1	400	30 W	0203	12.8	390	15 F	0151	12.1	370	15 F	0006	12.8	390	15 F	0006	12.8	390	30 Sa	0206	12.1	370
	0739	1.6	50		0906	1.6	50		0857	1.6	50		0712	2.0	60		0712	2.0	60		0848	3.3	100
	1248	13.5	410		1427	14.4	440		1412	14.8	450		1224	14.8	450		1224	14.8	450		1418	14.1	430
	2024	1.6	50		2215	1.0	30		2218	0.7	20		2030	1.3	4								

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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																				
1 M	0412	13.8	420		16 Tu	0333	15.1	460		1 W	0415	14.8	450		16 Th	0406	17.1	520		1 Sa	0448	16.4	500		16 Su	0027	1.3	40						
	1118	2.3	70			1103	1.6	50			1136	2.3	70			1154	1.3	40			1236	1.3	40			0521	18.0	550						
	1621	14.8	450			1551	17.1	520			1627	14.8	450			1633	16.4	500			1712	14.8	450			1324	1.0	30						
2 Tu	0006	1.6	50		17 W	0424	16.4	500		2 Th	0000	1.6	50		17 F	0009	1.3	40		2 Su	0030	1.6	50		17 M	0112	1.3	40		17 O	0600	18.0	550	
	0500	14.8	450			1212	1.3	40			0457	15.4	470			0454	18.0	550			0521	17.1	520			0600	18.0	550						
	1215	2.0	60			1645	17.4	530			1227	1.6	50			1251	1.0	30			1318	1.0	30			1409	0.7	20						
3 W	0048	1.3	40		18 Th	0039	1.3	40		3 F	0039	1.6	50		18 Sa	0057	1.3	40		3 M	0112	1.3	40		18 Tu	0154	1.3	40		18 W	0642	18.0	550	
	0533	15.4	470			0512	17.7	540			0527	16.4	500			0536	18.4	560			0557	18.0	550			0642	18.0	550						
	1300	1.6	50			1309	1.3	40			1309	1.3	40			1403	1.0	30			1403	1.0	30			1448	0.7	20						
4 Th	0127	1.3	40		19 F	0127	1.3	40		4 Sa	0115	1.6	50		19 Su	0139	1.3	40		4 Tu	0151	1.3	40		19 W	0233	1.3	40		19 Th	0718	17.7	540	
	0603	16.1	490			0551	18.4	560			0557	17.1	520			0615	18.7	570			0630	18.4	560			0718	17.7	540						
	1336	1.6	50			1357	1.0	30			1348	1.3	40			1427	1.0	30			1445	1.0	30			1527	1.0	30						
5 F	0157	1.3	40		20 Sa	0209	1.3	40		5 Su	0148	1.6	50		20 M	0218	1.3	40		5 W	0230	1.3	40		20 Th	0312	1.3	40		20 F	0757	17.7	540	
	0630	16.7	510			0633	19.0	580			0624	17.7	540			0654	18.7	570			0709	18.7	570			0757	17.7	540						
	1412	1.3	40			1445	1.3	40			1424	1.3	40			1506	1.3	40			1527	1.0	30			1603	1.0	30						
6 Sa	0227	1.3	40		21 Su	0248	1.6	50		6 M	0221	1.6	50		21 Tu	0254	1.6	50		6 Th	0315	1.3	40		21 F	0348	1.3	40		21 Sa	0836	17.1	520	
	0657	17.1	520			0712	19.4	590			0654	18.0	550			0730	18.7	570			0751	18.7	570			0836	17.1	520						
	1448	1.3	40			1527	1.3	40			1503	1.3	40			1548	1.0	30			1612	1.0	30			1642	1.0	30						
7 Su	0254	1.3	40		22 M	0327	1.6	50		7 Tu	0254	1.6	50		22 W	0333	1.6	50		7 F	0400	1.3	40		22 Sa	0424	1.6	50		22 Su	0915	16.4	500	
	0724	17.4	530			0751	19.0	580			0724	18.4	560			0812	18.0	550			0839	18.0	550			0915	16.4	500						
	1521	1.0	30			1609	1.6	50			1542	1.3	40			1624	1.3	40			1700	1.0	30			1718	1.0	30						
8 M	0324	1.3	40		23 Tu	0400	1.6	50		8 W	0330	1.6	50		23 Th	0406	2.0	60		8 Sa	0448	1.3	40		23 Su	0503	2.0	60		23 M	1000	15.4	470	
	0751	17.4	530			0833	18.4	560			0803	18.0	550			0854	17.4	530			0939	17.7	540			1000	15.4	470						
	1557	1.0	30			1648	1.6	50			1621	1.3	40			1703	1.3	40			1748	1.0	30			1754	1.3	40						
9 Tu	0357	1.3	40		24 W	0436	2.0	60		9 Th	0412	1.6	50		24 F	0442	2.3	70		9 Su	0545	1.6	50		24 M	0545	2.3	70		24 Tu	1051	14.4	440	
	0824	17.4	530			0915	17.4	530			0848	18.0	550			0939	16.4	500			1036	16.7	510			1051	14.4	440						
	1633	1.0	30			1730	1.6	50			1706	1.3	40			1742	1.6	50			1845	1.3	40			1833	1.6	50						
10 W	0430	1.3	40		25 Th	0512	2.6	80		10 F	0454	2.0	60		25 Sa	0524	3.0	90		10 M	0648	2.0	60		25 Tu	0639	2.6	80		25 W	1145	14.1	430	
	0906	17.1	520			1812	2.0	60			0939	17.1	520			1030	15.4	470			1145	16.1	490			1145	14.1	430						
	1715	1.3	40			2254	13.8	420			1757	1.3	40			1824	2.0	60			1945	1.3	40			1918	2.0	60						
11 Th	0506	1.6	50		26 F	0551	3.3	100		11 Sa	0545	2.3	70		26 Su	0609	3.3	100		11 Tu	0039	14.8	450		26 W	0036	13.8	420		26 Th	0739	2.6	80	
	0954	16.4	500			1100	15.1	460			1857	1.6	50			1127	14.4	440			0803	1.6	50			0739	2.6	80						
	1803	1.3	40			1903	2.3	70			2336	14.1	430			1918	2.3	70			2045	1.3	40			1245	13.5	410						
12 F	0554	2.0	60		27 Sa	0000	12.8	390		12 Su	0651	2.6	80		27 M	0027	13.1	400		12 W	0145	15.4	470		27 Th	0133	13.8	420		27 F	0851	2.6	80	
	1054	15.7	480			0642	3.6	110			1154	15.7	480			0715	3.6	110			0921	1.6	50			0851	2.6	80						
	1903	1.6	50			1212	14.4	440			2003	1.6	50			1236	14.1	430			1412	14.8	450			1351	13.1	400						
13 Sa	0654	2.6	80		28 Su	0118	12.8	390		13 M	0054	14.4	440		28 Tu	0133	13.5	410		13 Th	0248	16.1	490		28 F	0227	14.1	430		28 Sa	0957	2.0	60	
	1206	15.4	470			0800	3.9	120			0809	2.3	70			0836	3.3	100			1033	1.3	40			0227	14.1	430						
	2015	1.6	50			1327	14.1	430			1312	15.4	470			1342	13.8	420			1518	14.8	450			1454	13.1	400						
14 Su	0106	13.1	400		29 M	0233	13.1	400		14 Tu	0206	14.8	450		29 W	0233	14.1	430		14 F	0345	17.1	520		29 Sa	0318	14.8	450		29 Su	1103	1.3	40	
	0815	2.6	80			0930	3.3	100			0933	2.0	60			0948	2.6	80			1139	1.0	30			1554	13.5	410						
	1324	15.4	470			1442	14.1	430			1430	15.7	480			1448	13.8	420			1618	14.8	450			2300	1.6	50						
15 M	0227	14.1	430		30 Tu	0330	14.1	430		15 W	0309	15.7	480		30 Th	0327	14.4	440		15 Sa	0436	17.4	530		30 Su	0406	16.1	490						
	0945	2.3	70			1039	2.6	80			1051	1.3	40			1051	2.3	70			1233	1.0	30			1200	1.0	30						
	1442	16.1	490			1539	14.1	430			1536	16.1	490			1545	14.1	430			1712	15.1	460			1642	14.1	430						
16 M	0227	14.1	430		31 F	2315	2.0	60		31 F	0409	15.4	470		31 F	0409	15.4	470		31 F	0409	15.4	470		31 F	2351	1.3	40						
	0945	2.3	70			1039	2.6	80			1145	1.6	50																					

Quebec, Quebec, 2019

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 M	0448	16.7	510		16 Tu	0054	1.3	40		1 Th	0112	0.7	20		16 F	0203	1.3	40		1 Su	0251	0.3	10		16 M	0257	1.0	30					
	1254	0.7	20			0551	17.1	520			0557	18.4	560			0651	17.1	520			0715	18.7	570			0724	16.4	500					
	1727	14.4	440			1354	0.7	20			1415	0.7	20			1448	0.7	20			1524	0.7	20			1515	1.0	30		1945	16.1	490	
					○	1830	14.4	440			1836	15.1	460								1942	17.4	530										
2 Tu	0042	1.0	30		17 W	0139	1.3	40		2 F	0209	0.3	10		17 Sa	0239	1.0	30		2 M	0339	0.3	10		17 Tu	0327	1.0	30					
	0530	17.7	540			0630	17.4	530			0642	19.0	580			0721	17.1	520			0800	18.4	560			0800	18.4	560		0754	16.1	490	
	1342	0.7	20			1433	0.7	20			1503	0.7	20			1518	0.7	20			1606	0.7	20			1606	0.7	20		1539	1.0	30		2012	16.1	490
●	1809	14.4	440		1906	14.4	440		1921	16.1	490		1948	15.1	460		2027	17.7	540														
3 W	0127	1.0	30		18 Th	0218	1.0	30		3 Sa	0300	0.7	20		18 Su	0312	1.0	30		3 Tu	0424	0.7	20		18 W	0400	1.0	30					
	0612	18.4	560			0706	17.4	530			0730	19.0	580			0751	16.7	510			0848	17.4	530			0848	17.4	530		0827	15.4	470	
	1430	0.7	20			1509	0.7	20			1548	0.3	10			1548	0.7	20			1645	0.7	20			1645	0.7	20		1609	0.7	20		2042	16.1	490
1851	14.8	450		1939	14.4	440		2006	16.4	500		2018	15.1	460		2115	17.4	530															
4 Th	0218	1.0	30		19 F	0257	1.0	30		4 Su	0348	0.7	20		19 M	0348	1.0	30		4 W	0512	1.0	30		19 Th	0433	1.0	30					
	0657	18.7	570			0739	17.4	530			0818	18.4	560			0824	16.4	500			0939	16.1	490			0900	14.8	450		0900	14.8	450	
	1518	0.7	20			1545	0.7	20			1633	0.7	20			1615	0.7	20			1724	0.7	20			1724	0.7	20		1639	1.0	30		2118	15.4	470
1936	15.1	460		2012	14.4	440		2054	16.7	510		2051	15.1	460		2206	16.7	510															
5 F	0306	0.7	20		20 Sa	0333	1.0	30		5 M	0439	0.7	20		20 Tu	0421	1.0	30		5 Th	0603	1.0	30		20 F	0509	1.0	30					
	0742	18.7	570			0815	17.1	520			0909	17.7	540			0900	15.4	470			1036	14.4	440			0945	14.1	430		0945	14.1	430	
	1603	0.7	20			1618	1.0	30			1715	0.7	20			1645	0.7	20			1806	1.0	30			1709	1.3	40		1709	1.3	40		2200	15.1	460
2024	15.4	470		2048	14.4	440		2145	16.4	500		2124	14.8	450		2303	16.1	490															
6 Sa	0354	0.7	20		21 Su	0409	1.3	40		6 Tu	0530	0.7	20		21 W	0457	1.0	30		6 F	0657	1.0	30		21 Sa	0551	1.3	40					
	0833	18.4	560			0851	16.4	500			1006	16.7	510			0936	14.8	450			1142	13.5	410			1033	13.1	400		1033	13.1	400	
	1648	0.7	20			1648	1.0	30			1800	0.7	20			1712	0.7	20			1851	1.6	50			1745	1.6	50		1745	1.6	50		2254	14.4	440
2115	15.4	470		2124	14.4	440		2239	16.4	500		2203	14.4	440																			
7 Su	0448	1.0	30		22 M	0445	1.3	40		7 W	0624	1.0	30		22 Th	0533	1.3	40		7 Sa	0006	15.1	460		22 Su	0645	1.6	50					
	0927	17.7	540			0930	15.4	470			1103	15.1	460			1018	14.1	430			0800	1.3	40			1136	12.5	380		1136	12.5	380	
	1736	0.7	20			1721	1.0	30			1845	0.7	20			1745	1.0	30			1257	12.5	380			1257	12.5	380		1836	2.3	70		1836	2.3	70
2209	15.4	470		2203	14.1	430		2342	15.7	480		2242	14.1	430		1951	2.3	70															
8 M	0539	1.0	30		23 Tu	0521	1.6	50		8 Th	0724	1.0	30		23 F	0618	1.3	40		8 Su	0121	14.4	440		23 M	0757	1.6	50					
	1027	16.7	510			1009	14.8	450			1212	13.8	420			1109	13.1	400			0912	1.3	40			1254	12.1	370		1254	12.1	370	
	1827	0.7	20			1751	1.0	30			1933	1.0	30			1824	1.6	50			1418	12.1	370			1948	2.3	70		1948	2.3	70	
2312	15.4	470		2248	14.1	430							2336	14.1	430																		
9 Tu	0642	1.0	30		24 W	0606	2.0	60		9 F	0045	15.4	470		24 Sa	0712	1.6	50		9 M	0233	14.4	440		24 Tu	0115	14.4	440					
	1130	15.7	480			1057	14.1	430			0833	1.0	30			1212	12.5	380			1027	1.3	40			0921	1.3	40		0921	1.3	40	
	1918	1.0	30			1830	1.3	40			1327	13.1	400			1915	2.0	60			1533	12.5	380			1415	12.5	380		1415	12.5	380		2115	2.0	60
○				●	2336	14.1	430		2033	1.6	50																						
10 W	0012	15.4	470		25 Th	0657	2.0	60		10 Sa	0154	15.1	460		25 Su	0033	14.1	430		10 Tu	0342	14.8	450		25 W	0230	15.4	470					
	0748	1.3	40			1154	13.1	400			0945	1.0	30			0824	1.6	50			1133	1.0	30			1039	1.0	30		1039	1.0	30	
	1239	14.4	440			1912	1.6	50			1445	12.8	390			1324	11.8	360			1630	13.5	410			1527	13.5	410		1527	13.5	410		2239	1.3	40
2015	1.0	30						2139	1.6	50		2018	2.0	60		2327	2.0	60															
11 Th	0118	15.4	470		26 F	0030	14.1	430		11 Su	0257	15.1	460		26 M	0148	14.4	440		11 W	0436	15.4	470		26 Th	0336	16.4	500					
	0900	1.3	40			0757	2.0	60			1054	1.0	30			0945	1.3	40			1227	1.0	30			1145	0.7	20		1145	0.7	20	
	1351	14.1	430			1257	12.5	380			1554	12.8	390			1439	12.1	370			1715	14.1	430			1621	14.4	440		1621	14.4	440		2351	0.7	20
2115	1.3	40		2006	2.0	60		2245	1.6	50		2136	2.0	60																			
12 F	0221	15.7	480		27 Sa	0127	13.8	420		12 M	0400	15.4	470		27 Tu	0254	15.4	470		12 Th	0024	1.6	50		27 F	0436	17.4	530					
	1012	1.0	30			0906	1.6	50			1157	0.7	20			1103	0.7	20			0521	16.1	490			1239	0.7	20		1239	0.7	20	
	1503	13.8	420			1403	12.5	380			1651	13.5	4																				

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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															
1 Tu	0321	0.3	10		16 W	0303	1.0	30		1 F	0427	0.7	20		16 Sa	0357	0.7	20		1 Su	0451	1.0	30		16 M	0433	0.3	10	
	0742	17.4	530			0730	15.7	480			0851	14.8	450			0821	14.1	430			0918	14.1	430			0857	14.1	430	
	1533	0.7	20			1503	1.0	30			1618	1.0	30			1545	1.0	30			1633	1.6	50			1624	0.7	20	
	1957	18.4	560			1942	16.7	510			2103	17.1	520			2027	17.1	520			2127	16.4	500			2109	17.1	520	
2 W	0406	0.7	20		17 Th	0336	1.0	30		2 Sa	0509	1.0	30		17 Su	0439	0.7	20		2 M	0530	1.0	30		17 Tu	0521	0.7	20	
	0824	16.7	510			0803	15.1	460			0942	14.1	430			0909	13.8	420			1012	13.5	410			0951	13.8	420	
	1612	0.7	20			1533	1.0	30			1654	1.6	50			1627	1.3	40			1712	2.0	60			1715	1.0	30	
	2042	18.0	550			2012	16.7	510			2154	16.1	490			2118	16.4	500			2215	15.1	460			2206	16.4	500	
3 Th	0451	1.0	30		18 F	0412	1.0	30		3 Su	0557	1.3	40		18 M	0527	0.7	20		3 Tu	0615	1.3	40		18 W	0612	0.7	20	
	0915	15.4	470			0839	14.4	440			1042	13.1	400			1000	13.5	410			1109	12.8	390			1051	13.8	420	
	1648	1.0	30			1606	1.0	30			1733	2.3	70			1715	1.6	50			1800	2.6	80			1815	1.0	30	
	2133	17.1	520			2045	16.4	500			2251	14.8	450			2212	15.7	480			2312	14.1	430			2309	15.7	480	
4 F	0536	1.0	30		19 Sa	0451	1.0	30		4 M	0648	1.6	50		19 Tu	0621	1.0	30		4 W	0703	1.6	50		19 Th	0709	0.7	20	
	1006	14.1	430			0921	14.1	430			1151	12.5	380			1109	13.1	400			1212	12.5	380			1157	13.8	420	
	1727	1.3	40			1642	1.3	40			1827	3.0	90			1812	2.0	60			1900	3.0	90			1924	1.3	40	
	2227	16.1	490			2133	15.7	480			●					●					●								
5 Sa	0627	1.3	40		20 Su	0533	1.3	40		5 Tu	0000	14.1	430		20 W	0724	1.0	30		5 Th	0021	13.5	410		20 F	0018	14.8	450	
	1109	13.1	400			1012	13.1	400			0751	2.0	60			1221	13.5	410			0800	2.0	60			0809	0.7	20	
	1809	2.3	70			1721	2.0	60			1306	12.1	370			1927	2.0	60			1321	12.8	390			1306	14.4	440	
	2330	14.8	450			2227	15.1	460			1942	3.3	100								2018	2.6	80			2039	1.0	30	
6 Su	0724	1.6	50		21 M	0630	1.3	40		6 W	0118	13.8	420		21 Th	0039	14.8	450		6 F	0130	13.1	400		21 Sa	0130	14.1	430	
	1224	12.5	380			1118	12.8	390			0900	2.0	60			0833	1.0	30			0900	2.0	60			0909	0.7	20	
	1909	3.0	90			1815	2.3	70			1421	12.5	380			1336	13.8	420			1424	13.1	400			1412	15.1	460	
						2336	14.8	450			2109	2.6	80			2054	1.3	40			2130	2.3	70			2154	0.7	20	
7 M	0045	14.4	440		22 Tu	0739	1.6	50		7 Th	0227	13.8	420		22 F	0154	14.8	450		7 Sa	0239	12.8	390		22 Su	0245	14.1	430	
	0836	2.0	60			1236	12.5	380			1006	1.6	50			0942	0.7	20			0957	1.6	50			1012	0.7	20	
	1348	12.1	370			1933	2.3	70			1521	13.5	410			1442	14.8	450			1515	13.8	420			1512	16.1	490	
	2027	3.0	90								2224	2.3	70			2212	1.0	30			2239	1.6	50			2303	0.7	20	
8 Tu	0200	14.1	430		23 W	0051	14.8	450		8 F	0330	14.1	430		23 Sa	0303	15.1	460		8 Su	0333	13.1	400		23 M	0348	14.1	430	
	0951	1.6	50			0857	1.3	40			1100	1.3	40			1042	0.7	20			1048	1.6	50			1109	0.7	20	
	1500	12.5	380			1357	13.1	400			1609	14.1	430			1536	16.1	490			1600	14.4	440			1606	16.7	510	
	2151	2.6	80			2103	2.0	60			2324	1.6	50			2321	0.7	20			2333	1.3	40						
9 W	0312	14.1	430		24 Th	0212	15.1	460		9 Sa	0418	14.1	430		24 Su	0406	15.4	470		9 M	0424	13.5	410		24 Tu	0006	0.3	10	
	1054	1.3	40			1012	1.0	30			1145	1.0	30			1139	0.7	20			1136	1.3	40			0448	14.1	430	
	1603	13.5	410			1506	14.1	430			1648	14.8	450			1627	17.1	520			1639	15.1	460			1200	0.7	20	
	2303	2.0	60			2227	1.0	30																1657		17.4	530		
10 Th	0409	14.4	440		25 F	0321	16.1	490		10 Su	0012	1.3	40		25 M	0021	0.7	20		10 Tu	0021	1.0	30		25 W	0100	0.3	10	
	1151	1.0	30			1115	0.7	20			0500	14.4	440			0457	15.7	480			0506	13.8	420			0536	14.4	440	
	1648	14.4	440			1600	15.4	470			1224	1.0	30			1230	0.7	20			1215	1.0	30			1251	1.0	30	
						2336	0.7	20			1721	15.7	480			1712	17.7	540			1712	16.1	490			1742	17.4	530	
11 F	0000	1.6	50		26 Sa	0421	16.7	510		11 M	0057	1.0	30		26 Tu	0115	0.3	10		11 W	0106	0.7	20		26 Th	0148	0.7	20	
	0454	15.1	460			1212	0.7	20			0536	14.8	450			0542	15.7	480			0542	13.8	420			0618	14.4	440	
	1233	1.0	30			1648	16.7	510			1300	1.0	30			1315	0.7	20			1254	1.0	30			1336	1.0	30	
	1724	14.8	450								1748	16.4	500			●	1751	18.4	560			1748	16.7	510			●	1824	17.7	540
12 Sa	0045	1.3	40		27 Su	0036	0.7	20		12 Tu	0133	1.0	30		27 W	0203	0.7	20		12 Th	0145	0.7	20		27 F	0233	0.7	20	
	0533	15.7	480			0512	17.1	520			0606	15.1	460			0627	15.7	480			0615	14.1	430			0657	14.4	440	
	1312	1.0	30			1300	0.7	20			1330	1.0	30			1357	0.7	20			1333	0.7	20			1418	1.0	30	
	1754	15.4	470			●	1730	17.7	540			○	1818	16.7		510		1833	18.4		560		○	1824		17.1	520		1903	17.7	540
13 Su	0124	1.0	30		28 M	0130	0.3	10		13 W	0209	0.7	20		28 Th	0248	0.7	20		13 F	0227	0.7	20		28 Sa	0312	0.7	20	
	0603	15.7	480			0557	17.1	520			0636	15.1	460			0709	15.1	460			0654	14.1	430			0736	14.4	440	
	1339	1.0	30			1342	0.7	20			1400	1.0	30			1436	0.7	20			1412	0.7	20			1500	1.0	30	
	1821	16.1	490			1812	18.4	560			1845	17.1	520			1915	18.0	550			1854	17.4	530			1942	17.4	530</	

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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					
1 Tu	0400	5.6	170	16 W	0256	5.6	170	1 F	0525	5.2	160	16 Sa	0421	5.9	180				
	1059	1.0	30		0953	1.6	50		1218	1.0	30		1121	1.0	30	0359	4.9	150	
	1640	4.9	150		1538	4.9	150		1812	5.2	160		1719	5.2	160	1656	4.9	150	
	2314	1.3	40		2153	2.0	60		2331	1.6	50		2323	2.0	60	2216	2.0	60	
2 W	0455	5.6	170	17 Th	0354	5.6	170	2 Sa	0038	1.6	50	17 Su	0527	6.2	190	2 Sa	0504	5.2	160
	1152	1.0	30		1049	1.3	40		0614	5.6	170		1219	0.3	10		1150	1.3	40
	1738	5.2	160		1644	4.9	150		1304	1.0	30		1818	5.6	170		1751	5.2	160
3 Th	0008	1.6	50	18 F	0451	5.9	180	3 Su	0123	2.0	60	18 M	0033	1.3	40	3 Su	0013	2.0	60
	0545	5.6	170		1145	0.7	20		0659	5.6	170		0626	6.6	200		0555	5.2	160
	1241	0.7	20		1743	5.2	160		1345	1.0	30		1314	0.0	0		1236	1.3	40
	1829	5.2	160		2350	1.6	50		1941	5.6	170		1913	5.9	180		1836	5.2	160
4 F	0059	1.6	50	19 Sa	0547	6.2	190	4 M	0200	2.0	60	19 Tu	0132	1.0	30	4 M	0056	2.0	60
	0631	5.6	170		1240	0.3	10		0740	5.9	180		0723	6.6	200		0639	5.6	170
	1326	0.7	20		1838	5.6	170		1422	1.0	30		1407	-0.3	-10		1317	1.0	30
	1916	5.6	170		●	2020	5.6		170	●	2020		5.6	170	○		2005	6.2	190	1916	5.6	170
5 Sa	0144	1.6	50	20 Su	0048	1.3	40	5 Tu	0232	2.0	60	20 W	0230	0.7	20	5 Tu	0132	1.6	50
	0715	5.9	180		0642	6.6	200		0820	5.9	180		0816	6.6	200		0719	5.6	170
	1408	0.7	20		1334	0.0	0		1454	1.0	30		1458	-0.3	-10		1352	1.0	30
	●	1959	5.6		170	1931	5.9		180	2056	5.6		170	2055	6.6		200	1952	5.6	170
6 Su	0224	2.0	60	21 M	0145	1.0	30	6 W	0302	2.0	60	21 Th	0327	0.7	20	6 W	0203	1.6	50
	0758	5.9	180		0737	6.6	200		0858	5.9	180		0908	6.6	200		0757	5.9	180
	1445	1.0	30		1427	-0.3	-10		1524	1.0	30		1549	-0.3	-10		1423	1.0	30
	2042	5.6	170		○	2023	6.2		190	2131	5.6		170	2144	6.6		200	●	2026	5.6	170
7 M	0259	2.0	60	22 Tu	0243	1.0	30	7 Th	0334	2.0	60	22 F	0424	0.7	20	7 Th	0233	1.6	50
	0839	5.9	180		0831	6.6	200		0934	5.9	180		0958	6.2	190		0833	5.9	180
	1520	1.0	30		1519	-0.3	-10		1554	1.0	30		1642	0.0	0		1452	1.0	30
	2121	5.6	170		2115	6.2	190		2205	5.6	170		2230	6.6	200		2058	5.6	170
8 Tu	0332	2.0	60	23 W	0342	1.0	30	8 F	0409	2.0	60	23 Sa	0522	0.7	20	8 F	0306	1.3	40
	0920	5.9	180		0923	6.6	200		1010	5.6	170		1047	5.9	180		0908	5.9	180
	1553	1.3	40		1612	-0.3	-10		1626	1.3	40		1736	0.3	10		1522	1.0	30
	2159	5.6	170		2206	6.2	190		2238	5.6	170		2315	6.2	190		2130	5.6	170
9 W	0406	2.3	70	24 Th	0443	1.0	30	9 Sa	0450	2.0	60	24 Su	0619	0.7	20	9 Sa	0341	1.3	40
	0959	5.9	180		1015	6.2	190		1045	5.6	170		1135	5.6	170		0943	5.6	170
	1626	1.3	40		1707	0.0	0		1701	1.3	40		1832	1.0	30		1553	1.0	30
	2235	5.6	170		2255	6.2	190		2313	5.6	170		2313	5.6	170		2203	5.6	170
10 Th	0443	2.3	70	25 F	0545	1.0	30	10 Su	0536	2.0	60	25 M	0001	5.9	180	10 Su	0420	1.3	40
	1037	5.6	170		1106	5.9	180		1122	5.2	160		0717	1.0	30		1019	5.6	170
	1700	1.3	40		1803	0.3	10		1742	1.6	50		1225	5.2	160		1628	1.3	40
	2312	5.6	170		2344	6.2	190		2348	5.6	170		1931	1.3	40		2236	5.6	170
11 F	0527	2.3	70	26 Sa	0646	1.0	30	11 M	0628	2.0	60	26 Tu	0049	5.6	170	11 M	0504	1.3	40
	1115	5.6	170		1157	5.6	170		1202	5.2	160		0813	1.3	40		1056	5.2	160
	1739	1.6	50		1900	0.7	20		1831	1.6	50		1320	4.9	150		1709	1.6	50
	2350	5.6	170		●	1958	1.0		30	○	2030		1.6	50	2030		1.6	50	2311	5.6	170
12 Sa	0617	2.3	70	27 Su	0033	5.9	180	12 Tu	0027	5.6	170	27 W	0143	5.2	160	12 Tu	0555	1.6	50
	1154	5.2	160		0745	1.0	30		0723	2.0	60		0910	1.3	40		1136	5.2	160
	1822	1.6	50		1251	5.2	160		1249	4.9	150		1424	4.6	140		1800	2.0	60
	●	1958	1.0		30	○	1926		2.0	60	1926		2.0	60	2129		2.0	60	2351	5.6	170
13 Su	0030	5.6	170	28 M	0124	5.6	170	13 W	0113	5.6	170	28 Th	0247	5.2	160	13 W	0652	1.6	50
	0710	2.3	70		0843	1.0	30		0821	1.6	50		1005	1.3	40		1222	5.2	160
	1237	4.9	150		1351	4.9	150		1345	4.9	150		1543	4.6	140		1902	2.0	60
	1911	1.6	50		2056	1.3	40		2025	2.0	60		2228	2.0	60		2228	2.0	60
14 M	0114	5.2	160	29 Tu	0222	5.2	160	14 Th	0207	5.6	170	29 F	0037	5.6	170	14 Th	0037	5.6	170
	0804	2.0	60		0940	1.3	40		0920	1.6	50		1316	4.9	150		0753	1.6	50
	1328	4.9	150		1459	4.6	140		1454	4.9	150		2007	2.3	70		1316	4.9	150
	●	2003	2.0		60	2154	1.6		50	2126	2.0		60	●	2007		2.3	70	2007	2.3	70
15 Tu	0202	5.2	160	30 W	0325	5.2	160	15 F	0312	5.6	170	15 F	0133	5.6	170	15 F	0133	5.6	170
	0858	2.0	60		1035	1.3	40		1020	1.3	40		0855	1.3	40		0855	1.3	40
	1429	4.6	140		1613	4.6	140		1610	4.9	150		1424	4.9	150		1424	4.9	150
	2057	2.0	60		2252	1.6	50		2229	2.0	60		2112	2.0	60		2112	2.0	60
31 Th	0428	5.2	160	31 Th	1128	1.0	30	31 Su	0436	4.9	150	31 Su	1112	1.6	50	31 Su	0436	4.9	150
	1718	4.9	150		1718	4.9	150		1722	5.2	160		1722	5.2	160		1722	5.2	160
	2348	1.6	50		2348	1.6	50		2343	2.0	60		2343	2.0	60		2343	2.0	60

Time meridian 60° 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.

Halifax, Nova Scotia, 2019

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															
1 M	0529	5.2	160		16 Tu	1136	0.7	20		1 W	1151	1.6	50		16 Th	1212	1.0	30		1 Sa	0028	1.0	30		16 Su	0124	0.3	10	
	1158	1.3	40			1740	5.9	180			1803	5.6	170			1805	6.2	190			0630	5.2	160			0710	5.6	170	
	1806	5.2	160																			1230	1.6	50			1340	1.3	40
																						1832	5.9	180			1913	6.2	190
2 Tu	0024	2.0	60		17 W	0011	1.0	30		2 Th	0024	1.6	50		17 F	0052	0.3	10		2 Su	0111	0.7	20		17 M	0210	0.3	10	
	0613	5.2	160			0559	5.9	180			0621	5.2	160			0637	5.9	180			0712	5.2	160			0757	5.6	170	
	1239	1.3	40			1231	0.3	10			1231	1.3	40			1305	1.0	30			1314	1.3	40			1427	1.6	50	
	1843	5.6	170			1830	6.2	190			1838	5.6	170			1851	6.6	200			1911	5.9	180			1958	6.2	190	
3 W	0059	1.6	50		18 Th	0107	0.7	20		3 F	0101	1.3	40		18 Sa	0143	0.3	10		3 M	0154	0.3	10		18 Tu	0253	0.7	20	
	0652	5.6	170			0653	6.2	190			0701	5.2	160			0726	5.9	180			0754	5.6	170			0843	5.9	180	
	1314	1.0	30			1324	0.3	10			1308	1.3	40			1355	1.0	30			1358	1.3	40			1510	1.6	50	
	1917	5.6	170			1917	6.6	200			1911	5.9	180			1936	6.6	200			1952	6.2	190			2042	5.9	180	
4 Th	0133	1.3	40		19 F	0200	0.3	10		4 Sa	0139	1.0	30		19 Su	0230	0.3	10		4 Tu	0239	0.3	10		19 W	0333	0.7	20	
	0730	5.6	170			0743	6.2	190			0740	5.6	170			0814	5.9	180			0837	5.6	170			0926	5.9	180	
	1347	1.0	30			1413	0.3	10			1345	1.3	40			1443	1.3	40			1445	1.3	40			1552	2.0	60	
	1950	5.6	170			2003	6.6	200			1945	5.9	180			2020	6.2	190			2036	6.2	190			2126	5.9	180	
5 F	0206	1.0	30		20 Sa	0250	0.3	10		5 Su	0217	0.7	20		20 M	0315	0.3	10		5 W	0326	0.3	10		20 Th	0413	1.0	30	
	0806	5.6	170			0832	6.2	190			0818	5.6	170			0900	5.9	180			0922	5.6	170			1008	5.6	170	
	1418	1.0	30			1502	0.7	20			1422	1.3	40			1529	1.6	50			1536	1.6	50			1633	2.3	70	
	2022	5.6	170			2047	6.6	200			2020	5.9	180			2103	6.2	190			2122	6.2	190			2209	5.9	180	
6 Sa	0241	1.0	30		21 Su	0338	0.3	10		6 M	0258	0.7	20		21 Tu	0358	0.7	20		6 Th	0417	0.3	10		21 F	0451	1.3	40	
	0843	5.6	170			0919	5.9	180			0858	5.6	170			0945	5.9	180			1009	5.6	170			1049	5.6	170	
	1450	1.0	30			1550	1.0	30			1502	1.3	40			1616	2.0	60			1634	1.6	50			1717	2.3	70	
	2054	5.9	180			2130	6.2	190			2058	5.9	180			2147	5.9	180			2210	6.2	190			2252	5.6	170	
7 Su	0318	1.0	30		22 M	0426	0.7	20		7 Tu	0341	0.7	20		22 W	0442	1.0	30		7 F	0511	0.3	10		22 Sa	0529	1.6	50	
	0919	5.6	170			1005	5.9	180			0938	5.6	170			1029	5.6	170			1057	5.6	170			1130	5.6	170	
	1524	1.3	40			1640	1.3	40			1547	1.6	50			1704	2.3	70			1738	1.6	50			1804	2.6	80	
	2128	5.9	180			2213	6.2	190			2139	5.9	180			2231	5.9	180			2300	5.9	180			2335	5.2	160	
8 M	0358	1.0	30		23 Tu	0515	0.7	20		8 W	0429	0.7	20		23 Th	0527	1.3	40		8 Sa	0609	0.7	20		23 Su	0610	1.6	50	
	0957	5.6	170			1050	5.6	170			1020	5.6	170			1113	5.6	170			1149	5.6	170			1213	5.6	170	
	1603	1.3	40			1733	2.0	60			1640	1.6	50			1757	2.3	70			1844	1.6	50			1854	2.6	80	
	2204	5.9	180			2257	5.9	180			2222	5.9	180			2316	5.6	170			2354	5.9	180						
9 Tu	0443	1.0	30		24 W	0605	1.3	40		9 Th	0522	1.0	30		24 F	0613	1.6	50		9 Su	0708	0.7	20		24 M	0019	5.2	160	
	1035	5.6	170			1136	5.2	160			1105	5.6	170			1158	5.2	160			1244	5.6	170			0653	2.0	60	
	1648	1.6	50			1831	2.3	70			1743	2.0	60			1852	2.6	80			1947	1.6	50			1259	5.2	160	
	2242	5.9	180			2343	5.6	170			2309	5.9	180													1945	2.6	80	
10 W	0534	1.3	40		25 Th	0657	1.6	50		10 F	0621	1.0	30		25 Sa	0004	5.2	160		10 M	0053	5.6	170		25 Tu	0107	4.9	150	
	1117	5.2	160			1224	5.2	160			1155	5.2	160			0700	2.0	60			0806	1.0	30			0739	2.0	60	
	1746	2.0	60			1930	2.3	70			1851	2.0	60			1248	5.2	160			1345	5.6	170			1351	5.2	160	
	2325	5.6	170												1947	2.6	80			2049	1.6	50			2036	2.3	70		
11 Th	0633	1.3	40		26 F	0034	5.2	160		11 Sa	0001	5.6	170		26 Su	0056	4.9	150		11 Tu	0159	5.2	160		26 W	0203	4.6	140	
	1204	5.2	160			0750	1.6	50			0722	1.0	30			0748	2.0	60			0904	1.0	30			0828	2.0	60	
	1853	2.3	70			1320	4.9	150			1252	5.2	160			1345	5.2	160			1451	5.6	170			1445	5.2	160	
						2029	2.6	80			1956	2.0	60			2039	2.6	80			2149	1.3	40			2126	2.0	60	
12 F	0014	5.6	170		27 Sa	0133	4.9	150		12 Su	0101	5.6	170		27 M	0156	4.9	150		12 W	0315	5.2	160		27 Th	0306	4.6	140	
	0735	1.3	40			0842	2.0	60			0822	1.0	30			0835	2.0	60			1002	1.0	30			0919	2.0	60	
	1259	5.2	160			1429	4.9	150			1359	5.2	160			1448	5.2	160			1554	5.6	170			1537	5.2	160	
	2000	2.3	70			2125	2.3	70			2059	2.0	60			2129	2.3	70			2247	1.0	30			2215	1.6	50	
13 Sa	0112	5.6	170		28 Su	0244	4.9	150		13 M	0212	5.2	160		28 Tu	0302	4.6	140		13 Th	0426	5.2	160		28 F	0410	4.6	140	
	0838	1.3	40			0932	2.0	60			0921	1.0	30			0923	2.0	60			1059	1.3							

Halifax, Nova Scotia, 2019

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 M	0043	0.7	20			16 Tu	0151	0.7	20			1 Su	0319	-0.3	-10
	0644	5.2	160				0742	5.6	170				0916	6.6	200
	1247	1.6	50				1409	1.6	50				1553	0.3	10
	1842	6.2	190				1942	5.9	180				2132	6.2	190
2 Tu	0132	0.3	10			17 W	0232	0.7	20			2 M	0410	0.0	0
	0731	5.6	170				0825	5.6	170				1003	6.6	200
	1337	1.3	40				1449	2.0	60				1650	0.3	10
	1930	6.2	190				2025	5.9	180				2222	6.2	190
3 W	0221	0.0	0			18 Th	0310	1.0	30			3 Tu	0504	0.3	10
	0818	5.6	170				0906	5.6	170				1049	6.2	190
	1429	1.3	40				1525	2.0	60				1748	0.7	20
	2020	6.6	200				2107	5.9	180				2311	5.6	170
4 Th	0311	0.0	0			19 F	0345	1.0	30			4 W	0602	0.7	20
	0907	5.9	180				0945	5.6	170				1135	6.2	190
	1524	1.3	40				1559	2.0	60				1846	0.7	20
	2110	6.6	200				2147	5.9	180						
5 F	0402	0.0	0			20 Sa	0417	1.3	40			5 Th	0000	5.2	160
	0956	5.9	180				1022	5.6	170				0702	1.3	40
	1624	1.3	40				1634	2.3	70				1222	5.6	170
	2200	6.2	190				2226	5.6	170				1945	1.0	30
6 Sa	0456	0.0	0			21 Su	0449	1.3	40			6 F	0053	4.9	150
	1046	5.9	180				1059	5.6	170				0803	1.6	50
	1726	1.3	40				1715	2.3	70				1314	5.2	160
	2252	6.2	190				2304	5.6	170				2042	1.3	40
7 Su	0552	0.3	10			22 M	0523	1.6	50			7 Sa	0154	4.9	150
	1136	5.9	180				1136	5.6	170				0904	1.6	50
	1830	1.3	40				1801	2.3	70				1415	5.2	160
	2344	5.9	180				2343	5.2	160				2140	1.3	40
8 M	0649	0.3	10			23 Tu	0603	1.6	50			8 Su	0310	4.6	140
	1228	5.9	180				1215	5.6	170				1005	2.0	60
	1932	1.3	40				1852	2.3	70				1529	4.9	150
													2236	1.3	40
9 Tu	0040	5.6	170			24 W	0024	4.9	150			9 M	0432	4.9	150
	0747	0.7	20				0648	2.0	60				1103	2.0	60
	1322	5.6	170				1256	5.2	160				1642	5.2	160
	2033	1.3	40				1944	2.3	70				2330	1.3	40
10 W	0142	5.2	160			25 Th	0111	4.9	150			10 Tu	0533	4.9	150
	0845	1.0	30				0739	2.0	60				1156	2.0	60
	1421	5.6	170				1342	5.2	160				1738	5.2	160
	2131	1.0	30				2037	2.0	60						
11 Th	0251	4.9	150			26 F	0207	4.6	140			11 W	0020	1.3	40
	0944	1.3	40				0834	2.0	60				0620	5.2	160
	1523	5.6	170				1433	5.2	160				1243	1.6	50
	2229	1.0	30				2131	1.6	50				1825	5.6	170
12 F	0404	4.9	150			27 Sa	0315	4.6	140			12 Th	0104	1.0	30
	1043	1.3	40				0931	2.0	60				0700	5.6	170
	1624	5.6	170				1530	5.2	160				1322	1.6	50
	2324	1.0	30				2226	1.3	40				1906	5.6	170
13 Sa	0509	4.9	150			28 Su	0423	4.9	150			13 F	0141	1.0	30
	1141	1.6	50				1029	2.0	60				0737	5.6	170
	1719	5.6	170				1628	5.6	170				1356	1.6	50
							2322	1.0	30				1944	5.9	180
14 Su	0017	0.7	20			29 M	0524	4.9	150			14 Sa	0213	1.0	30
	0606	5.2	160				1126	2.0	60				0811	5.6	170
	1235	1.6	50				1725	5.9	180				1426	1.6	50
	1809	5.6	170										2021	5.9	180
15 M	0106	0.7	20			30 Tu	0017	0.7	20			15 Su	0242	1.0	30
	0656	5.2	160				0618	5.2	160				0844	5.6	170
	1325	1.6	50				1223	1.6	50				1455	1.3	40
	1857	5.9	180				1819	6.2	190				2057	5.6	170
16 M	0110	0.3	10			31 W	0709	5.6	170			16 M	0308	1.0	30
	0709	5.6	170				1318	1.3	40				0915	5.6	170
	1318	1.3	40				1912	6.6	200				1527	1.3	40
	1912	6.6	200								2132		5.6	170	
1 Th	0201	0.0	0			2 F	0252	-0.3	-10			17 Sa	0315	1.0	30
	0759	5.9	180				0850	6.2	190				0917	5.6	170
	1414	1.0	30				1511	1.0	30				1525	1.6	50
	2005	6.6	200				2057	6.6	200				2123	5.9	180
2 F	0342	-0.3	-10			3 Sa	0342	-0.3	-10			18 Su	0343	1.0	30
	0939	6.2	190				0939	6.2	190				0951	5.6	170
	1610	0.7	20				1610	0.7	20				1557	1.6	50
	2148	6.6	200				2148	6.6	200				2159	5.6	170
3 Sa	0435	-0.3	-10			4 Su	0435	-0.3	-10			19 M	0411	1.3	40
	1028	6.2	190				1028	6.2	190				1024	5.6	170
	1710	1.0	30				1710	1.0	30				1634	1.6	50
	2238	6.2	190				2238	6.2	190				2234	5.6	170
4 Su	0529	0.0	0			5 M	0529	0.0	0			20 Tu	0442	1.3	40
	1116	6.2	190				1116	6.2	190				1058	5.6	170
	1811	1.0	30				1811	1.0	30				1716	2.0	60
	2329	5.9	180				2329	5.9	180				2310	5.2	160
5 M	0626	0.3	10			6 Tu	0626	0.3	10			21 W	0519	1.6	50
	1203	5.9	180				1203	5.9	180				1132	5.6	170
	1912	1.0	30				1912	1.0	30				1805	2.0	60
													2348	5.2	160
6 Tu	0022	5.2	160			7 W	0022	5.2	160			22 Th	0604	2.0	60
	0725	1.0	30				0725	1.0	30				1208	5.6	170
	1253	5.6	170				1253	5.6	170				1858	2.0	60
	2011	1.0	30				2011	1.0	30						
7 W	0118	4.9	150			8 Th	0118	4.9	150			23 F	0030	4.9	150
	0825	1.3	40				0825	1.3	40				0659	2.0	60
	1347	5.6	170				1347	5.6	170				1250	5.2	160
	2109	1.0	30				2109	1.0	30				1955	2.0	60
8 Th	0223	4.9	150			9 F	0223	4.9	150			24 Sa	0122	4.9	150
	0925	1.6	50				0925	1.6	50				0759	2.3	70
	1449	5.2	160				1449	5.2	160				1340	5.2	160
	2206	1.0	30				2206	1.0	30				2053	1.6	50
9 F	0338	4.6	140			10 Sa	0338	4.6	140			25 Su	0225	4.6	140
	1025	1.6	50				1025	1.6	50				0901	2.3	70</

Halifax, Nova Scotia, 2019

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															
1 Tu	0346	0.3	10		16 W	0307	1.3	40		1 F	0513	1.6	50		16 Sa	0413	2.0	60		1 Su	0544	2.3	70		16 M	0503	1.6	50	
	0935	6.6	200			0911	5.9	180			1037	5.9	180			1000	5.9	180			1100	5.6	170			1034	5.9	180	
	1627	0.3	10			1539	1.0	30			1746	1.0	30			1655	1.0	30			1801	1.3	40			1737	0.7	20	
	2203	5.9	180			2143	5.6	170			2318	5.6	170			2245	5.6	170			2343	5.6	170			2322	5.6	170	
2 W	0439	0.7	20		17 Th	0342	1.6	50		2 Sa	0613	2.0	60		17 Su	0510	2.0	60		2 M	0639	2.3	70		17 Tu	0606	2.0	60	
	1020	6.6	200			0945	5.9	180			1124	5.6	170			1044	5.9	180			1148	5.2	160			1124	5.9	180	
	1722	0.3	10			1620	1.0	30			1839	1.3	40			1750	1.0	30			1849	1.6	50			1833	0.7	20	
	2250	5.6	170			2220	5.2	160								2331	5.2	160											
3 Th	0537	1.3	40		18 F	0423	2.0	60		3 Su	0007	5.2	160		18 M	0615	2.3	70		3 Tu	0031	5.2	160		18 W	0013	5.6	170	
	1105	5.9	180			1021	5.6	170			0714	2.3	70			1133	5.6	170			0735	2.3	70			0710	1.6	50	
	1817	0.7	20			1707	1.3	40			1214	5.2	160			1240	5.2	160			1240	5.2	160			1219	5.6	170	
	2338	5.2	160			2259	5.2	160			1933	1.6	50			1848	1.0	30			1937	2.0	60			1929	1.0	30	
4 F	0638	1.6	50		19 Sa	0515	2.0	60		4 M	0101	5.2	160		19 Tu	0023	5.2	160		4 W	0125	5.2	160		19 Th	0108	5.6	170	
	1151	5.6	170			1101	5.6	170			0813	2.3	70			0720	2.3	70			0828	2.3	70			0812	1.6	50	
	1914	1.0	30			1802	1.3	40			1311	4.9	150			1228	5.6	170			1337	4.9	150			1320	5.2	160	
						2342	5.2	160			2026	1.6	50			1947	1.0	30			2024	2.0	60			2026	1.0	30	
5 Sa	0029	5.2	160		20 Su	0620	2.3	70		5 Tu	0205	4.9	150		20 W	0123	5.2	160		5 Th	0226	5.2	160		20 F	0209	5.6	170	
	0740	2.0	60			1147	5.6	170			0910	2.3	70			0823	2.0	60			0919	2.3	70			0912	1.3	40	
	1242	5.2	160			1903	1.3	40			1420	4.9	150			1332	5.6	170			1441	4.6	140			1430	5.2	160	
	2011	1.3	40								2118	2.0	60			2045	1.0	30			2111	2.0	60			2124	1.0	30	
6 Su	0127	4.9	150		21 M	0033	5.2	160		6 W	0318	5.2	160		21 Th	0232	5.2	160		6 F	0327	5.2	160		21 Sa	0312	5.6	170	
	0842	2.0	60			0727	2.3	70			1004	2.3	70			0925	1.6	50			1007	2.3	70			1011	1.0	30	
	1434	4.9	150			1240	5.6	170			1534	4.9	150			1447	5.2	160			1546	4.6	140			1544	5.2	160	
	2107	1.6	50			2004	1.3	40			2208	2.0	60			2142	1.0	30			2158	2.0	60			2223	1.3	40	
7 M	0240	4.9	150		22 Tu	0134	4.9	150		7 Th	0421	5.2	160		22 F	0341	5.6	170		7 Sa	0419	5.2	160		22 Su	0413	5.9	180	
	0941	2.3	70			0832	2.3	70			1054	2.0	60			1026	1.3	40			1052	2.0	60			1109	0.7	20	
	1458	4.9	150			1345	5.6	170			1636	4.9	150			1603	5.2	160			1643	4.9	150			1652	5.2	160	
	2202	1.6	50			2104	1.3	40			2256	1.6	50			2239	1.0	30			2246	2.0	60			2321	1.3	40	
8 Tu	0403	4.9	150		23 W	0250	5.2	160		8 F	0509	5.2	160		23 Sa	0441	5.9	180		8 Su	0502	5.2	160		23 M	0509	5.9	180	
	1038	2.0	60			0935	2.0	60			1138	2.0	60			1125	1.0	30			1134	1.6	50			1205	0.7	20	
	1615	4.9	150			1502	5.6	170			1725	4.9	150			1710	5.6	170			1733	4.9	150			1752	5.2	160	
	2255	1.6	50			2203	1.0	30			2340	1.6	50			2336	1.0	30			2332	2.0	60						
9 W	0504	5.2	160		24 Th	0406	5.6	170		9 Sa	0548	5.6	170		24 Su	0533	6.2	190		9 M	0541	5.6	170		24 Tu	0019	1.3	40	
	1129	2.0	60			1037	1.6	50			1216	1.6	50			1221	0.3	10			1216	1.3	40			0600	6.2	190	
	1713	5.2	160			1620	5.6	170			1808	5.2	160			1807	5.6	170			1818	4.9	150			1258	0.3	10	
	2344	1.6	50			2300	0.7	20																1845		5.6	170		
10 Th	0549	5.2	160		25 F	0507	5.9	180		10 Su	0020	1.6	50		25 M	0032	1.0	30		10 Tu	0016	1.6	50		25 W	0113	1.3	40	
	1214	2.0	60			1138	1.0	30			0623	5.6	170			0622	6.6	200			0617	5.6	170			0650	6.2	190	
	1759	5.2	160			1726	5.9	180			1252	1.3	40			1314	0.3	10			1257	1.0	30			1347	0.3	10	
						2356	0.7	20			1849	5.2	160			1859	5.9	180			1900	5.2	160			1935	5.6	170	
11 F	0027	1.3	40		26 Sa	0559	6.2	190		11 M	0056	1.3	40		26 Tu	0126	1.0	30		11 W	0059	1.6	50		26 Th	0204	1.3	40	
	0628	5.6	170			1236	0.7	20			0657	5.6	170			0710	6.6	200			0655	5.9	180			0738	6.2	190	
	1252	1.6	50			1823	5.9	180			1327	1.0	30			1405	0.0	0			1338	0.7	20			1434	0.3	10	
	1839	5.6	170								1928	5.2	160			1950	5.9	180			1941	5.2	160			2023	5.9	180	
12 Sa	0104	1.3	40		27 Su	0050	0.3	10		12 Tu	0131	1.3	40		27 W	0218	1.0	30		12 Th	0142	1.6	50		27 F	0252	1.6	50	
	0703	5.6	170			0648	6.6	200			0729	5.9	180			0757	6.6	200			0735	5.9	180			0824	6.2	190	
	1325	1.3	40			1331	0.3	10			1403	0.7	20			1453	0.3	10			1421	0.3	10			1518	0.7	20	
	1918	5.6	170			1916	6.2	190			2006	5.2	160			2039	5.9	180			2023	5.6	170			2109	5.9	180	
13 Su	0137	1.3	40		28 M	0143	0.3	10		13 W	0207	1.6	50		28 Th	0308	1.3	40		13 F	0226	1.6	50		28 Sa	0338	2.0	60	
	0735	5.6	170			0735	6.9	210			0804	5.9	180			0843	6.2	190			0817	6.2	190			0910	5.9	180	
	1356	1.3	40			1423	0.0	0			1441	0.7	20			1540	0.3	10			1506	0.3	10			1600	1.0	30	
	1955	5.6	170			2007	6.2	190			2045	5.6	170			2126	5.9	180			2105	5.6	170			2153	5.9	180	
14 M	0206	1.3	40		29 Tu	0234	0.7	20		14 Th	0244	1.6	50																

Saint John, New Brunswick, 2019

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 Tu	0145	4.3	130		16 W	0044	5.6	170		1 F	0315	5.2	160		16 Sa	0206	4.6	140		1 F	0152	5.9	180		16 Sa	0040	5.6	170						
	0759	24.9	760			0656	24.0	730			0926	24.6	750			0818	25.6	780			0805	23.6	720			0652	24.6	750						
	1420	3.9	120			1317	5.2	160			1547	4.3	130			1443	3.3	100			1427	5.2	160			1318	4.3	130						
	2031	24.0	730			1927	23.0	700			2158	23.6	720			2053	24.3	740			2040	22.6	690			1930	23.6	720						
2 W	0243	4.3	130		17 Th	0139	5.2	160		2 Sa	0407	5.2	160		17 Su	0307	3.6	110		2 Sa	0251	5.9	180		17 Su	0146	4.6	140		17 Su	0758	25.3	770	
	0855	25.3	770			0751	24.6	750			1016	24.9	760			0918	26.6	810			0902	24.0	730			1423	3.3	100						
	1515	3.6	110			1413	4.3	130			1635	3.9	120			1542	2.0	60			1522	4.9	150			1524	2.0	60						
	2127	24.0	730			2023	23.6	720			2245	24.0	730			2152	25.6	780			2134	23.0	700			2035	24.6	750						
3 Th	0336	4.6	140		18 F	0235	4.6	140		3 Su	0453	4.9	150		18 M	0405	2.6	80		3 Su	0343	5.6	170		18 M	0250	3.6	110		18 M	0901	26.2	800	
	0947	25.3	770			0846	25.6	780			1101	25.3	770			1015	27.6	840			0953	24.3	740			1524	2.0	60						
	1607	3.3	100			1509	3.3	100			1718	3.6	110			1638	1.0	30			1611	4.3	130			2134	25.6	780						
	2218	24.3	740			2119	24.3	740			2327	24.0	730			2247	26.6	810			2221	23.6	720			2134	25.6	780						
4 F	0426	4.6	140		19 Sa	0330	3.6	110		4 M	0535	4.9	150		19 Tu	0500	1.6	50		4 M	0430	5.2	160		19 Tu	0349	2.3	70		19 Tu	0959	27.2	830	
	1035	25.6	780			0940	26.6	810			1141	25.3	770			1110	28.5	870			1038	24.6	750			1620	1.0	30						
	1654	3.3	100			1603	2.0	60			1758	3.6	110			1731	0.0	0			1654	3.9	120			1920	1.0	30						
	2305	24.3	740			2213	25.3	770			●	●	●			2340	27.2	830			2302	24.0	730			2229	26.9	820						
5 Sa	0512	4.6	140		20 Su	0424	3.0	90		5 Tu	0006	24.3	740		20 W	0554	0.7	20		5 Tu	0510	4.9	150		20 W	0444	1.3	40		20 W	1054	27.9	850	
	1119	25.6	780			1034	27.6	840			0613	4.6	140			1203	28.9	880			1118	24.9	760			1713	0.3	10						
	1738	3.3	100			1656	1.0	30			1219	25.3	770			1823	-0.3	-10			1732	3.9	120			2321	27.6	840						
	2348	24.3	740			2305	26.2	800			1835	3.6	110			●	●	●			2339	24.3	740			●	●	●						
6 Su	0555	4.6	140		21 M	0517	2.0	60		6 W	0042	24.3	740		21 Th	0032	27.9	850		6 W	0547	4.3	130		21 Th	0537	0.7	20		21 Th	1145	28.2	860	
	1201	25.6	780			1126	28.2	860			0649	4.6	140			0646	0.7	20			1154	25.3	770			1145	28.2	860						
	1820	3.3	100			1749	0.3	10			1255	25.3	770			1914	0.0	0			1807	3.6	110			1803	0.0	0						
						2358	26.9	820			1910	3.6	110			●	●	●			●	●	●			●	●	●						
7 M	0028	24.3	740		22 Tu	0610	1.3	40		7 Th	0116	24.3	740		22 F	0123	27.9	850		7 Th	0012	24.3	740		22 F	0011	27.9	850						
	0635	4.9	150			1219	28.5	870			0724	4.6	140			0738	0.7	20			0622	4.3	130			0628	0.3	10						
	1241	25.6	780			1841	0.0	0			1330	24.9	760			1346	27.9	850			1228	25.3	770			1236	27.9	850						
	1859	3.6	110								1945	3.9	120			2005	0.7	20			1841	3.6	110			1852	0.3	10						
8 Tu	0107	24.3	740		23 W	0050	27.2	830		8 F	0150	24.3	740		23 Sa	0214	27.2	830		8 F	0045	24.6	750		23 Sa	0100	27.9	850						
	0714	4.9	150			0704	1.3	40			0759	4.6	140			0831	1.3	40			0655	3.9	120			0717	0.7	20						
	1320	25.3	770			1312	28.5	870			1405	24.6	750			1439	26.9	820			1302	24.9	760			1326	27.2	830						
	1937	3.9	120			1934	0.0	0			2019	3.9	120			2056	1.6	50			1913	3.6	110			1941	1.3	40						
9 W	0145	24.0	730		24 Th	0143	27.2	830		9 Sa	0225	24.3	740		24 Su	0307	26.6	810		9 Sa	0117	24.9	760		24 Su	0149	27.2	830						
	0752	5.2	160			0757	1.3	40			0836	4.6	140			0924	2.3	70			0729	3.6	110			0807	1.3	40						
	1358	24.9	760			1405	27.9	850			1442	24.3	740			1534	25.6	780			1335	24.9	760			1416	26.2	800						
	2015	4.3	130			2027	0.7	20			2056	4.3	130			2150	3.0	90			1947	3.6	110			2030	2.3	70						
10 Th	0222	24.0	730		25 F	0237	26.9	820		10 Su	0302	24.3	740		25 M	0401	25.6	780		10 Su	0151	24.9	760		25 M	0239	26.6	810						
	0831	5.6	170			0852	2.0	60			0915	4.9	150			1021	3.3	100			0804	3.9	120			0858	2.3	70						
	1437	24.6	750			1501	26.9	820			1521	24.0	730			1632	24.3	740			1410	24.6	750			1508	24.9	760						
	2053	4.6	140			2121	1.3	40			2136	4.6	140			2246	3.9	120			2023	3.9	120			2121	3.6	110						
11 F	0301	23.6	720		26 Sa	0333	26.2	800		11 M	0343	24.0	730		26 Tu	0459	24.9	760		11 M	0227	24.9	760		26 Tu	0331	25.6	780						
	0910	5.6	170			0949	2.6	80			0958	5.2	160			1120	4.3	130			0842	3.9	120			0952	3.3	100						
	1517	24.0	730			1558	25.9	790			1604	23.3	710			1733	23.3	710			1448	24.3	740			1603	24.0	730						
	2133	4.9	150			2217	2.6	80			2220	5.2	160			2347	5.2	160			2102	4.6	140			2216	4.6	140						
12 Sa	0342	23.6	720		27 Su	0430	25.6	780		12 Tu	0428	24.0	730		27 W	0600	24.0	730		12 Tu	0308	24.6	750		27 W	0427	24.6	750						
	0953	5.9	180			1048	3.3	100			1046	5.2	160			1223	4.9	150			0925	4.3	130			1049	4.6	140						
	1559	23.3	710			1659	24.9	760			1653	23.0	700			1836	22.6	690			1532	23.6	720			1702	23.0	700						
	2215	5.2	160			2316	3.6	110			2309	5.6	170			●	●	●			2146	4.9	150			2315	5.9	180						
13 Su	0425	23.3	710		28 M	0530	24.9	760		13 W	0519	24.0	730		28 Th	0050	5.9	180		13 W	0353	24.3	740		28 Th	0527	23.6	720						
	1038	6.2	190			1150	3.9	120			1140	5.2	160			0703	23.6	720			1014	4.6												

Saint John, New Brunswick, 2019

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 Tu	0059	27.6	840	16 W	0055	24.3	740	1 F	0220	25.3	770	16 Sa	0146	24.3	740	1 Su	0248	24.3	740	16 M	0216	24.9	760
	0714	0.7	20		0703	4.3	130		0831	3.6	110		0756	4.6	140		0858	5.2	160		0828	3.9	120
	1322	27.9	850		1306	25.3	770		1439	25.9	790		1400	25.6	780		1505	24.9	760		1434	26.2	800
	1941	0.3	10		1922	3.3	100		2101	3.0	90		2022	3.3	100		2127	4.3	130		2058	2.6	80
2 W	0150	26.9	820	17 Th	0129	24.3	740	2 Sa	0313	24.3	740	17 Su	0231	24.0	730	2 M	0339	23.6	720	17 Tu	0307	24.9	760
	0804	1.6	50		0738	4.6	140		0924	4.9	150		0843	4.9	150		0950	5.9	180		0921	3.9	120
	1412	27.2	830		1342	24.9	760		1532	24.9	760		1448	25.3	770		1558	24.0	730		1528	25.9	790
	2032	1.3	40		1959	3.6	110		2155	3.9	120		2112	3.6	110		2219	4.9	150		2152	3.0	90
3 Th	0242	25.6	780	18 F	0207	24.0	730	3 Su	0408	23.3	710	18 M	0322	24.0	730	3 Tu	0432	23.0	700	18 W	0403	24.9	760
	0855	3.0	90		0817	4.9	150		1020	5.9	180		0935	5.2	160		1044	6.6	200		1019	3.9	120
	1505	26.2	800		1421	24.9	760		1630	24.0	730		1542	24.9	760		1653	23.3	710		1627	25.6	780
	2126	2.6	80		2041	3.9	120		2253	4.9	150		2207	3.9	120		2313	5.6	170		2250	3.0	90

Time meridian 60° 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.

Eastport, Maine, 2019

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	
1 M	0206	2.5	76			16 W	0215	2.0	61			1 Sa	0308	0.6	18
	0812	17.6	536				0821	17.7	539			16 Su	0352	-1.2	-37
	1434	1.6	49				1438	1.5	46				0953	19.1	582
	2039	17.3	527				2043	18.1	552				1609	0.1	3
													2210	20.5	625
2 Tu	0254	1.8	55			2 Th	0301	1.2	37			2 Su	0354	-0.1	-3
	0859	18.1	552				0906	18.1	552			17 M	0440	-1.2	-37
	1519	1.0	30				1521	1.0	30				1041	19.0	579
	2123	17.9	546				2125	18.7	570				1656	0.4	12
													2255	20.3	619
3 W	0338	1.1	34			3 F	0344	0.5	15			3 M	0438	-0.7	-21
	0942	18.6	567				0948	18.5	564			●	1039	18.9	576
	1559	0.6	18				1603	0.7	21				1655	0.4	12
	2202	18.5	564				2204	19.3	588				2254	20.4	622
4 Th	0418	0.5	15			4 Sa	0426	-0.1	-3			4 Tu	0523	-1.2	-37
	1021	18.9	576			●	1028	18.8	573				1124	19.1	582
	1638	0.3	9				1643	0.4	12				1740	0.3	9
	2239	19.0	579				2243	19.7	600				2339	20.6	628
5 F	0456	0.1	3			5 Su	0506	-0.5	-15			5 W	0610	-1.4	-43
	1058	19.1	582				1107	19.0	579				1210	19.2	585
●	1715	0.1	3				1723	0.4	12				1827	0.2	6
	2315	19.3	588				2321	20.0	610						
6 Sa	0534	-0.2	-6			6 M	0547	-0.8	-24			6 Th	0626	20.7	631
	1135	19.2	585				1147	19.1	582				0658	-1.4	-43
	1752	0.1	3				1804	0.4	12				1258	19.2	585
	2351	19.5	594										1917	0.3	9
7 Su	0612	-0.3	-9			7 Tu	0630	-0.9	-27			7 F	0748	-1.3	-40
	1212	19.1	582				1230	19.0	579				1350	19.2	585
	1830	0.3	9				1847	0.5	15				2009	0.4	12
8 M	0652	-0.3	-9			8 W	0715	-0.8	-24			8 Sa	0841	-1.0	-30
	1251	18.9	576				1315	18.8	573				1445	19.1	582
	1909	0.6	18				1933	0.8	24				2105	0.5	15
9 Tu	0734	-0.2	-6			9 Th	0803	-0.6	-18			9 Su	0937	-0.7	-21
	1333	18.6	567				1404	18.5	564				1542	19.0	579
	1952	0.9	27				2023	1.1	34				2204	0.6	18
10 W	0819	0.1	3			10 F	0855	-0.3	-9			10 M	1035	-0.4	-12
	1420	18.2	555				1458	18.3	558			●	1642	19.1	582
	2039	1.3	40				2118	1.3	40				2305	0.6	18
11 Th	0910	0.4	12			11 Sa	0952	0.0	0			11 Tu	1135	-0.1	-3
	1512	17.8	543			●	1557	18.2	555				1742	19.3	588
	2132	1.7	52				2218	1.4	43						
12 F	1007	0.7	21			12 Su	1053	0.2	6			12 W	1234	0.0	0
	1611	17.5	533				1659	18.3	558				1842	19.6	597
○	2232	1.9	58				2321	1.2	37						
13 Sa	1109	0.8	24			13 M	1155	0.2	6			13 Th	1332	0.0	0
	1714	17.5	533				1802	18.7	570				1938	20.0	610
	2337	1.8	55												
14 Su	1214	0.5	15			14 Tu	1256	-0.1	-3			14 F	1428	0.0	0
	1819	18.0	549				1902	19.3	588				2032	20.3	619
15 M	1317	-0.1	-3			15 W	1355	-0.5	-15			15 Sa	1520	0.0	0
	1922	18.8	573				2000	20.1	613				2122	20.5	625

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

Eastport, Maine, 2019

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	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 Tu	0002 21.7 661 0624 -2.4 -73 1225 22.0 671 1852 -2.7 -82	16 W	0611 0.7 21 1210 19.3 588 1834 0.1 3	1 F	0121 19.4 591 0738 0.2 6 1339 20.1 613 2009 -0.6 -18	16 Sa	0052 18.4 561 0709 1.2 37 1307 19.6 597 1938 -0.2 -6	1 Su	0145 18.2 555 0801 1.5 46 1401 18.9 576 2030 0.5 15	16 M	0121 18.9 576 0740 0.6 18 1339 20.1 613 2011 -0.9 -27
2 W	0053 20.9 637 0714 -1.6 -49 1315 21.3 649 1943 -1.9 -58	17 Th	0033 18.4 561 0650 1.0 30 1248 19.1 582 1914 0.2 6	2 Sa	0212 18.4 561 0829 1.3 40 1431 19.0 579 2101 0.4 12	17 Su	0138 18.1 552 0756 1.4 43 1355 19.3 588 2028 0.1 3	2 M	0234 17.5 533 0850 2.2 67 1452 18.1 552 2119 1.3 40	17 Tu	0213 18.8 573 0833 0.7 21 1433 19.8 604 2105 -0.6 -18
3 Th	0145 19.9 607 0805 -0.5 -15 1407 20.4 622 2036 -0.9 -27	18 F	0114 18.0 549 0731 1.4 43 1329 18.9 576 1958 0.5 15	3 Su	0306 17.5 533 0923 2.2 67 1526 18.1 552 2155 1.3 40	18 M	0229 17.9 546 0849 1.7 52 1449 19.0 579 2122 0.3 9	3 Tu	0326 17.0 518 0941 2.8 85 1545 17.4 530 2210 1.9 58	18 W	0308 18.8 573 0930 0.8 24 1531 19.3 588 2201 -0.2 -6
4 F	0239 18.8 573 0858 0.7 21 1501 19.3 588 2131 0.1 3	19 Sa	0158 17.7 539 0816 1.8 55 1416 18.7 570 2047 0.8 24	4 M	0403 16.8 512 1019 2.8 85 1624 17.4 530 2252 1.9 58	19 Tu	0326 17.8 543 0946 1.8 55 1548 18.8 573 2221 0.4 12	4 W	0420 16.7 509 1035 3.1 94 1640 16.9 515 2303 2.2 67	19 Th	0407 18.8 573 1030 0.8 24 1632 18.9 576 2300 0.0 0
5 Sa	0336 17.8 543 0954 1.7 52 1559 18.4 561 2229 1.0 30	20 Su	0248 17.4 530 0906 2.1 64 1508 18.4 561 2141 1.0 30	5 Tu	0502 16.5 503 1117 3.1 94 1724 17.0 518 2349 2.1 64	20 W	0426 18.0 549 1048 1.6 49 1651 18.7 570 2322 0.3 9	5 Th	0514 16.7 509 1130 3.1 94 1736 16.7 509 2356 2.4 73	20 F	0507 19.0 579 1132 0.6 18 1735 18.7 570
6 Su	0436 17.0 518 1053 2.4 73 1659 17.7 539 2329 1.6 49	21 M	0344 17.2 524 1004 2.3 70 1607 18.3 558 2240 1.0 30	6 W	0600 16.6 506 1215 3.0 91 1822 17.0 518	21 Th	0528 18.4 561 1151 1.1 34 1755 18.9 576	6 F	0607 16.9 515 1225 2.8 85 1831 16.8 512	21 Sa	0001 0.1 3 0608 19.4 591 1235 0.2 6 1838 18.7 570
7 M	0538 16.6 506 1154 2.7 82 1801 17.4 530	22 Tu	0445 17.3 527 1106 2.1 64 1710 18.4 561 2342 0.7 21	7 Th	0044 2.1 64 0654 17.0 518 1310 2.6 79 1916 17.3 527	22 F	0023 0.0 0 0630 19.1 582 1254 0.3 9 1857 19.3 588	7 Sa	0048 2.3 70 0659 17.4 530 1318 2.3 70 1923 17.0 518	22 Su	0101 0.1 3 0708 19.9 607 1336 -0.3 -9 1939 18.9 576
8 Tu	0028 1.8 55 0638 16.7 509 1253 2.7 82 1900 17.5 533	23 W	0548 17.8 543 1210 1.5 46 1814 18.9 576	8 F	0135 1.8 55 0743 17.6 536 1400 1.9 58 2005 17.7 539	23 Sa	0122 -0.4 -12 0728 20.0 610 1354 -0.6 -18 1957 19.8 604	8 Su	0138 2.0 61 0747 18.0 549 1408 1.6 49 2012 17.4 530	23 M	0159 -0.1 -3 0804 20.4 622 1434 -0.9 -27 2036 19.1 582
9 W	0125 1.6 49 0733 17.0 518 1348 2.2 67 1953 17.8 543	24 Th	0044 0.1 3 0650 18.6 567 1312 0.6 18 1916 19.6 597	9 Sa	0222 1.4 43 0828 18.2 555 1446 1.3 40 2050 18.1 552	24 Su	0219 -0.9 -27 0823 20.9 637 1450 -1.5 -46 2052 20.2 616	9 M	0226 1.6 49 0832 18.6 567 1454 0.9 27 2058 17.8 543	24 Tu	0254 -0.3 -9 0857 20.8 634 1527 -1.4 -43 2129 19.3 588
10 Th	0215 1.3 40 0822 17.6 536 1437 1.7 52 2041 18.2 555	25 F	0144 -0.7 -21 0748 19.7 600 1412 -0.6 -18 2015 20.4 622	10 Su	0305 1.0 30 0910 18.8 573 1529 0.6 18 2132 18.4 561	25 M	0312 -1.2 -37 0915 21.5 655 1543 -2.1 -64 2144 20.5 625	10 Tu	0311 1.3 40 0915 19.2 585 1539 0.2 6 2141 18.2 555	25 W	0345 -0.3 -9 0947 21.0 640 1617 -1.6 -49 2218 19.4 591
11 F	0301 0.9 27 0905 18.1 552 1521 1.1 34 2124 18.6 567	26 Sa	0240 -1.4 -43 0843 20.8 634 1508 -1.7 -52 2110 21.1 643	11 M	0346 0.8 24 0949 19.2 585 1610 0.1 3 2212 18.6 567	26 Tu	0403 -1.4 -43 1004 21.8 664 1633 -2.4 -73 2234 20.4 622	11 W	0354 0.9 27 0956 19.7 600 1622 -0.3 -9 2223 18.5 564	26 Th	0434 -0.3 -9 1035 21.0 640 1704 -1.6 -49 2305 19.3 588
12 Sa	0342 0.6 18 0945 18.6 567 1601 0.6 18 2204 18.8 573	27 Su	0333 -2.0 -61 0935 21.7 661 1600 -2.5 -76 2202 21.4 652	12 Tu	0425 0.6 18 1027 19.6 597 1649 -0.2 -6 2250 18.7 570	27 W	0452 -1.2 -37 1052 21.8 664 1722 -2.3 -70 2322 20.1 613	12 Th	0437 0.7 21 1037 20.1 613 1705 -0.8 -24 2305 18.7 570	27 F	0520 0.0 0 1120 20.7 631 1749 -1.3 -40 2350 19.0 579
13 Su	0420 0.4 12 1022 19.0 579 1640 0.2 6 2242 18.9 576	28 M	0423 -2.3 -70 1024 22.2 677 1651 -2.9 -88 2252 21.4 652	13 W	0505 0.6 18 1104 19.8 604 1729 -0.4 -12 2329 18.6 567	28 Th	0539 -0.7 -21 1139 21.3 649 1809 -1.9 -58	13 F	0520 0.5 15 1119 20.3 619 1749 -1.0 -30 2348 18.9 576	28 Sa	0605 0.3 9 1204 20.2 616 1833 -0.8 -24
14 M	0457 0.3 9 1058 19.2 585 1718 0.0 0 2319 18.8 573	29 Tu	0512 -2.1 -64 1113 22.2 677 1740 -2.9 -88 2341 21.0 640	14 Th	0544 0.7 21 1143 19.8 604 1810 -0.4 -12	29 F	0009 19.6 597 0626 -0.1 -3 1225 20.7 631 1855 -1.2 -37	14 Sa	0604 0.4 12 1203 20.5 625 1834 -1.1 -34	29 Su	0034 18.6 567 0649 0.8 24 1248 19.6 597 1916 -0.3 -9
15 Tu	0534 0.5 15 1134 19.3 588 1755 0.0 0 2355 18.6 567	30 W	0601 -1.6 -49 1200 21.8 664 1829 -2.4 -73	15 F	0009 18.5 564 0625 0.9 27 1223 19.8 604 1853 -0.4 -12	30 Sa	0057 18.9 576 0713 0.7 21 1313 19.8 604 1942 -0.3 -9	15 Su	0033 18.9 576 0650 0.5 15 1249 20.4 622 1921 -1.1 -34	30 M	0117 18.2 555 0732 1.4 43 1332 19.0 579 1959 0.4 12
		31 Th	0031 20.3 619 0649 -0.8 -24 1249 21.1 643 1919 -1.6 -49							31 Tu	0202 17.8 543 0817 1.9 58 1418 18.3 558 2043 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 mean lower low water which is the chart datum of soundings.

Portland, Maine, 2019

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													
1 Tu	0058	0.4	12		16 W	0609	9.0	274		1 F	0226	1.0	30		16 Sa	0113	0.7	21		1 F	0104	1.5	46		16 Sa	0604	9.6	293	
	0720	9.8	299			1233	0.8	24			0843	9.5	290			0732	10.0	305			0722	8.9	271			1237	0.1	3	
	1342	0.0	0			1844	8.1	247			1510	0.1	3			1404	-0.4	-12			1351	0.6	18			1855	8.5	259	
	1955	8.9	271								2123	8.4	256			2018	8.8	268			2006	8.1	247						
2 W	0155	0.5	15		17 Th	0044	1.0	30		2 Sa	0316	1.0	30		17 Su	0215	0.2	6		2 Sa	0202	1.4	43		17 Su	0054	0.8	24	
	0814	9.9	302			0704	9.5	290			0931	9.6	293			0833	10.5	320			0818	9.0	274			0712	9.9	302	
	1438	-0.1	-3			1332	0.3	9			1556	0.0	0			1502	-1.0	-30			1444	0.5	15			1342	-0.3	-9	
	2051	8.8	268			1944	8.4	256			2208	8.5	259			2116	9.4	287			2058	8.3	253			1959	9.0	274	
3 Th	0247	0.6	18		18 F	0141	0.7	21		3 Su	0359	0.9	27		18 M	0313	-0.3	-9		3 Su	0253	1.2	37		18 M	0159	0.2	6	
	0904	10.0	305			0759	10.0	305			1013	9.6	293			0930	11.1	338			0907	9.2	280			0816	10.4	317	
	1528	-0.3	-9			1429	-0.3	-9			1636	-0.1	-3			1556	-1.5	-46			1530	0.4	12			1442	-0.8	-24	
	2142	8.8	268			2041	8.8	268			2248	8.6	262			2210	9.9	302			2142	8.5	259			2058	9.7	296	
4 F	0334	0.6	18		19 Sa	0236	0.3	9		4 M	0439	0.8	24		19 Tu	0409	-0.9	-27		4 M	0337	1.0	30		19 Tu	0259	-0.4	-12	
	0949	10.0	305			0853	10.6	323			1051	9.7	296			1025	11.4	347			0950	9.4	287			0916	10.9	332	
	1614	-0.4	-12			1523	-0.9	-27			1713	-0.1	-3			1648	-1.9	-58			1610	0.2	6			1537	-1.3	-40	
	2227	8.8	268			2136	9.2	280			2324	8.7	265			2302	10.4	317			2221	8.7	265			2151	10.3	314	
5 Sa	0418	0.7	21		20 Su	0330	-0.2	-6		5 Tu	0516	0.7	21		20 W	0503	-1.3	-40		5 Tu	0417	0.7	21		20 W	0355	-1.0	-30	
	1031	10.0	305			0947	11.1	338			1127	9.7	296			1118	11.6	354			1029	9.5	290			1011	11.2	341	
	1656	-0.4	-12			1615	-1.5	-46			1747	-0.1	-3			1738	-2.0	-61			1646	0.1	3			1628	-1.6	-49	
	2308	8.8	268			2229	9.7	296			2358	8.7	265			2352	10.7	326			2256	8.9	271			2242	10.8	329	

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

Portland, Maine, 2019

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 M	0326 0.0 0 0938 8.9 271 1529 0.7 21 2145 10.6 323	16 Tu	0438 -0.2 -6 1051 8.9 271 1640 0.9 27 2254 10.2 311	1 Th	0440 -1.2 -37 1054 9.8 299 1649 -0.3 -9 2305 11.5 351	16 F	0535 0.2 6 1145 8.9 271 1739 0.9 27 2351 9.8 299	1 Su	0559 -1.6 -49 1214 11.0 335 1820 -1.3 -40	16 M	0000 9.5 290 0607 0.5 15 1217 9.3 283 1823 0.6 18
2 Tu	0414 -0.5 -15 1027 9.2 280 1618 0.4 12 2233 11.0 335	17 W	0520 -0.2 -6 1133 8.9 271 1722 1.0 30 2335 10.1 308	2 F	0531 -1.5 -46 1145 10.1 308 1743 -0.6 -18 2358 11.6 354	17 Sa	0609 0.3 9 1220 8.9 271 1816 0.9 27	2 M	0036 11.4 347 0649 -1.4 -43 1305 11.0 335 1915 -1.2 -37	17 Tu	0034 9.3 283 0639 0.6 18 1249 9.3 283 1859 0.6 18
3 W	0501 -0.9 -27 1116 9.5 290 1707 0.2 6 2322 11.2 341	18 Th	0600 0.0 0 1213 8.8 268 1803 1.1 34	3 Sa	0622 -1.6 -49 1237 10.4 317 1837 -0.7 -21	18 Su	0026 9.6 293 0642 0.4 12 1253 9.0 274 1852 0.9 27	3 Tu	0130 10.9 332 0741 -1.0 -30 1357 10.9 332 2012 -0.9 -27	18 W	0110 9.1 277 0713 0.8 24 1324 9.3 283 1937 0.7 21
4 Th	0550 -1.2 -37 1206 9.7 296 1759 0.0 0	19 F	0014 9.9 302 0638 0.1 3 1251 8.8 268 1842 1.2 37	4 Su	0052 11.4 347 0713 -1.5 -46 1330 10.5 320 1933 -0.7 -21	19 M	0103 9.4 287 0715 0.5 15 1328 9.0 274 1930 1.0 30	4 W	0227 10.3 314 0834 -0.4 -12 1452 10.6 323 2111 -0.5 -15	19 Th	0149 8.8 268 0750 1.0 30 1403 9.3 283 2020 0.7 21
5 F	0013 11.3 344 0641 -1.3 -40 1257 9.9 302 1852 0.0 0	20 Sa	0052 9.7 296 0715 0.3 9 1329 8.8 268 1922 1.3 40	5 M	0148 11.0 335 0806 -1.2 -37 1424 10.5 320 2031 -0.5 -15	20 Tu	0140 9.2 280 0750 0.7 21 1404 9.0 274 2009 1.0 30	5 Th	0326 9.7 296 0931 0.2 6 1550 10.2 311 2213 0.0 0	20 F	0232 8.6 262 0833 1.2 37 1446 9.3 283 2107 0.8 24
6 Sa	0107 11.2 341 0733 -1.2 -37 1351 10.0 305 1948 0.0 0	21 Su	0132 9.5 290 0752 0.5 15 1407 8.7 265 2003 1.4 43	6 Tu	0246 10.5 320 0900 -0.7 -21 1520 10.4 317 2132 -0.3 -9	21 W	0220 8.9 271 0827 0.9 27 1442 9.0 274 2053 1.1 34	6 F	0429 9.1 277 1030 0.7 21 1650 9.8 299 2318 0.3 9	21 Sa	0321 8.4 256 0920 1.3 40 1536 9.3 283 2201 0.8 24
7 Su	0203 10.9 332 0826 -1.0 -30 1446 10.0 305 2047 0.1 3	22 M	0212 9.2 280 0830 0.7 21 1446 8.7 265 2046 1.4 43	7 W	0346 9.9 302 0956 -0.2 -6 1618 10.3 314 2236 0.0 0	22 Th	0303 8.6 262 0908 1.1 34 1524 9.0 274 2140 1.2 37	7 Sa	0535 8.7 265 1134 1.1 34 1754 9.5 290	22 Su	0416 8.3 253 1015 1.4 43 1632 9.4 287 2301 0.7 21
8 M	0301 10.5 320 0922 -0.7 -21 1543 10.1 308 2150 0.2 6	23 Tu	0255 8.9 271 0909 0.9 27 1527 8.7 265 2132 1.5 46	8 Th	0450 9.4 287 1055 0.3 9 1718 10.1 308 2341 0.2 6	23 F	0351 8.3 253 0954 1.3 40 1612 9.1 277 2233 1.1 34	8 Su	0023 0.5 15 0640 8.5 259 1237 1.4 43 1856 9.4 287	23 M	0517 8.3 253 1116 1.3 40 1734 9.5 290
9 Tu	0403 10.1 308 1019 -0.4 -12 1642 10.1 308 2255 0.2 6	24 W	0340 8.6 262 0951 1.1 34 1610 8.8 268 2221 1.5 46	9 F	0555 8.9 271 1157 0.7 21 1819 9.9 302	24 Sa	0444 8.2 250 1045 1.4 43 1704 9.2 280 2331 1.0 30	9 M	0125 0.6 18 0741 8.4 256 1337 1.4 43 1954 9.4 287	24 Tu	0005 0.5 15 0622 8.5 259 1221 1.1 34 1839 9.9 302
10 W	0507 9.6 293 1119 0.0 0 1742 10.1 308	25 Th	0429 8.3 253 1036 1.3 40 1657 8.9 271 2314 1.4 43	10 Sa	0046 0.3 9 0700 8.7 265 1258 1.0 30 1919 9.8 299	25 Su	0543 8.1 247 1142 1.3 40 1802 9.5 290	10 Tu	0220 0.6 18 0834 8.5 259 1431 1.2 37 2046 9.5 290	25 W	0109 0.1 3 0725 9.0 274 1325 0.6 18 1942 10.3 314
11 Th	0000 0.2 6 0612 9.3 283 1219 0.3 9 1842 10.2 311	26 F	0522 8.2 250 1126 1.3 40 1746 9.1 277	11 Su	0148 0.3 9 0802 8.6 262 1357 1.1 34 2016 9.8 299	26 M	0032 0.7 21 0645 8.3 253 1243 1.1 34 1902 9.9 302	11 W	0309 0.5 15 0922 8.7 265 1518 1.1 34 2132 9.6 293	26 Th	0208 -0.4 -12 0824 9.6 293 1426 -0.1 -3 2042 10.8 329
12 F	0105 0.2 6 0717 9.1 277 1318 0.5 15 1939 10.2 311	27 Sa	0010 1.2 37 0619 8.1 247 1218 1.3 40 1839 9.4 287	12 M	0244 0.2 6 0857 8.6 262 1450 1.1 34 2108 9.9 302	27 Tu	0133 0.2 6 0747 8.7 265 1343 0.7 21 2002 10.3 314	12 Th	0352 0.4 12 1003 8.9 271 1600 0.9 27 2213 9.7 296	27 F	0304 -0.9 -27 0918 10.2 311 1523 -0.7 -21 2139 11.2 341
13 Sa	0205 0.0 0 0818 9.0 274 1414 0.7 21 2034 10.3 314	28 Su	0107 0.8 24 0717 8.3 253 1313 1.2 37 1933 9.8 299	13 Tu	0334 0.1 3 0947 8.7 265 1539 1.0 30 2154 9.9 302	28 W	0231 -0.3 -9 0845 9.2 280 1442 0.2 6 2100 10.9 332	13 F	0430 0.3 9 1040 9.0 274 1638 0.7 21 2250 9.7 296	28 Sa	0356 -1.3 -40 1010 10.8 329 1617 -1.2 -37 2233 11.4 347
14 Su	0301 -0.1 -3 0914 8.9 271 1507 0.8 24 2124 10.3 314	29 M	0203 0.4 12 0814 8.5 259 1408 0.9 27 2027 10.3 314	14 W	0418 0.1 3 1030 8.8 268 1622 1.0 30 2236 9.9 302	29 Th	0326 -0.9 -27 0940 9.7 296 1538 -0.3 -9 2155 11.3 344	14 Sa	0504 0.4 12 1113 9.2 280 1714 0.6 18 2325 9.6 293	29 Su	0446 -1.4 -43 1100 11.2 341 1710 -1.5 -46 2325 11.3 344
15 M	0352 -0.2 -6 1005 8.9 271 1555 0.9 27 2211 10.3 314	30 Tu	0257 -0.2 -6 0909 8.9 271 1503 0.5 15 2120 10.8 329	15 Th	0458 0.1 3 1109 8.9 271 1702 0.9 27 2314 9.9 302	30 F	0418 -1.3 -40 1032 10.3 314 1633 -0.8 -24 2249 11.6 354	15 Su	0536 0.4 12 1145 9.2 280 1748 0.6 18	30 M	0535 -1.4 -43 1149 11.4 347 1803 -1.6 -49
		31 W	0349 -0.7 -21 1002 9.4 287 1556 0.1 3 2213 11.2 341			31 Sa	0509 -1.6 -49 1123 10.7 326 1726 -1.1 -34 2342 11.6 354				

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

Boston, Massachusetts, 2019

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 Tu	0058	0.4	12		16 W	0010	1.1	34		1 F	0224	1.2	37		16 Sa	0132	0.7	21		1 F	0100	1.6	49						
	0722	10.1	308			0625	9.5	290			0846	9.8	299			0746	10.5	320			0722	9.3	283						
	1342	0.2	6			1250	0.7	21			1511	0.3	9			1417	-0.4	-12			1351	0.9	27						
	1957	9.1	277			1859	8.6	262			2126	8.6	262			2029	9.2	280			2007	8.3	253						
2 W	0154	0.6	18		17 Th	0105	0.9	27		2 Sa	0314	1.1	34		17 Su	0231	0.2	6		2 Sa	0157	1.6	49		17 Su	0111	0.7	21	
	0817	10.2	311			0719	9.9	302			0934	9.9	302			0845	11.0	335			0819	9.3	283			0724	10.4	317	
	1439	0.0	0			1347	0.2	6			1557	0.2	6			1514	-1.0	-30			1445	0.8	24			1354	-0.3	-9	
	2054	9.1	277			1957	8.8	268			2212	8.7	265			2126	9.8	299			2100	8.5	259			2008	9.5	290	
3 Th	0247	0.7	21		18 F	0200	0.6	18		3 Su	0359	1.0	30		18 M	0328	-0.4	-12		3 Su	0249	1.4	43		18 M	0212	0.2	6	
	0907	10.3	314			0813	10.5	320			1017	10.0	305			0942	11.5	351			0909	9.5	290			0826	10.9	332	
	1530	-0.1	-3			1442	-0.4	-12			1638	0.1	3			1607	-1.6	-49			1531	0.6	18			1452	-0.8	-24	
	2145	9.1	277			2053	9.2	280			2252	8.9	271			2221	10.3	314			2145	8.7	265			2106	10.1	308	

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

Boston, Massachusetts, 2019

Times and Heights of High and Low Waters

October				November				December			
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 Tu	0028 11.5 351 0635 -1.2 -37 1248 11.8 360 1905 -1.5 -46	16 W	0022 9.6 293 0623 0.7 21 1231 10.2 311 1850 0.1 3	1 F	0152 10.0 305 0749 0.4 12 1402 10.8 329 2026 -0.4 -12	16 Sa	0122 9.3 283 0720 0.8 24 1327 10.5 320 1956 -0.3 -9	1 Su	0217 9.3 283 0812 1.1 34 1424 10.1 308 2048 0.2 6	16 M	0151 9.6 293 0751 0.4 12 1400 10.8 329 2027 -0.8 -24
2 W	0120 11.0 335 0725 -0.6 -18 1339 11.5 351 1958 -1.1 -34	17 Th	0101 9.5 290 0702 0.9 27 1310 10.2 311 1932 0.2 6	2 Sa	0245 9.5 290 0840 1.0 30 1454 10.2 311 2120 0.2 6	17 Su	0209 9.2 280 0809 1.0 30 1416 10.4 317 2046 -0.2 -6	2 M	0307 8.9 271 0902 1.5 46 1515 9.6 293 2138 0.7 21	17 Tu	0243 9.6 293 0845 0.4 12 1454 10.6 323 2120 -0.6 -18
3 Th	0214 10.4 317 0816 0.0 0 1431 11.0 335 2052 -0.5 -15	18 F	0143 9.3 283 0744 1.1 34 1351 10.1 308 2017 0.3 9	3 Su	0340 9.0 274 0935 1.5 46 1550 9.7 296 2215 0.7 21	18 M	0301 9.1 277 0902 1.1 34 1510 10.3 314 2140 0.0 0	3 Tu	0359 8.7 265 0955 1.8 55 1608 9.1 277 2230 1.0 30	18 W	0337 9.7 296 0942 0.5 15 1553 10.3 314 2216 -0.4 -12
4 F	0310 9.8 299 0909 0.7 21 1526 10.5 320 2149 0.1 3	19 Sa	0229 9.0 274 0830 1.2 37 1438 10.0 305 2106 0.4 12	4 M	0438 8.7 265 1032 1.9 58 1648 9.3 283 2313 1.1 34	19 Tu	0357 9.2 280 0959 1.1 34 1609 10.1 308 2238 0.0 0	4 W	0452 8.6 262 1051 1.9 58 1704 8.8 268 2322 1.3 40	19 Th	0435 9.8 299 1044 0.4 12 1655 10.0 305 2314 -0.2 -6
5 Sa	0409 9.2 280 1006 1.3 40 1624 9.9 302 2249 0.6 18	20 Su	0319 8.9 271 0921 1.4 43 1530 10.0 305 2201 0.5 15	5 Tu	0536 8.6 262 1132 2.0 61 1748 9.0 274	20 W	0456 9.3 283 1101 0.9 27 1712 10.0 305 2337 0.0 0	5 Th	0544 8.6 262 1147 1.9 58 1800 8.7 265	20 F	0534 10.0 305 1147 0.3 9 1759 9.8 299
6 Su	0511 8.8 268 1105 1.7 52 1725 9.5 290 2351 1.0 30	21 M	0415 8.8 268 1018 1.4 43 1628 10.0 305 2259 0.4 12	6 W	0010 1.3 40 0632 8.6 262 1231 1.9 58 1846 9.0 274	21 Th	0556 9.7 296 1205 0.6 18 1816 10.1 308	6 F	0014 1.4 43 0635 8.8 268 1243 1.7 52 1855 8.6 262	21 Sa	0013 -0.1 -3 0634 10.3 314 1250 0.0 0 1903 9.7 296
7 M	0614 8.6 262 1207 1.9 58 1827 9.3 283	22 Tu	0515 9.0 274 1119 1.3 40 1730 10.1 308	7 Th	0104 1.3 40 0724 8.8 268 1326 1.7 52 1940 9.0 274	22 F	0036 -0.1 -3 0655 10.2 311 1307 0.1 3 1919 10.2 311	7 Sa	0104 1.4 43 0724 9.1 277 1335 1.3 40 1947 8.7 265	22 Su	0111 0.0 0 0732 10.6 323 1352 -0.4 -12 2006 9.7 296
8 Tu	0053 1.1 34 0713 8.7 265 1307 1.8 55 1926 9.3 283	23 W	0000 0.2 6 0616 9.3 283 1222 0.9 27 1834 10.3 314	8 F	0152 1.2 37 0811 9.2 280 1416 1.3 40 2029 9.2 280	23 Sa	0134 -0.3 -9 0752 10.7 326 1407 -0.4 -12 2020 10.4 317	8 Su	0151 1.3 40 0809 9.4 287 1424 0.9 27 2036 8.8 268	23 M	0208 0.0 0 0827 10.9 332 1449 -0.7 -21 2104 9.7 296
9 W	0148 1.1 34 0806 8.8 268 1402 1.6 49 2019 9.4 287	24 Th	0100 -0.1 -3 0716 9.8 299 1324 0.3 9 1936 10.6 323	9 Sa	0236 1.1 34 0853 9.5 290 1501 0.9 27 2114 9.3 283	24 Su	0229 -0.5 -15 0846 11.2 341 1504 -0.9 -27 2117 10.5 320	9 M	0236 1.1 34 0852 9.8 299 1510 0.5 15 2122 9.0 274	24 Tu	0302 0.0 0 0920 11.0 338 1543 -1.0 -30 2158 9.8 299
10 Th	0236 1.0 30 0852 9.1 277 1450 1.3 40 2105 9.6 293	25 F	0157 -0.5 -15 0813 10.5 320 1423 -0.3 -9 2036 10.9 332	10 Su	0317 0.9 27 0932 9.8 299 1543 0.5 15 2156 9.5 290	25 M	0321 -0.6 -18 0937 11.5 351 1557 -1.3 -40 2211 10.5 320	10 Tu	0320 0.9 27 0934 10.1 308 1554 0.1 3 2207 9.2 280	25 W	0353 0.0 0 1009 11.2 341 1633 -1.1 -34 2249 9.8 299
11 F	0317 0.8 24 0933 9.4 287 1533 0.9 27 2148 9.7 296	26 Sa	0251 -0.8 -24 0906 11.1 338 1519 -1.0 -30 2132 11.2 341	11 M	0357 0.8 24 1010 10.1 308 1624 0.2 6 2237 9.5 290	26 Tu	0411 -0.6 -18 1026 11.7 357 1648 -1.5 -46 2302 10.5 320	11 W	0403 0.7 21 1015 10.4 317 1637 -0.3 -9 2250 9.3 283	26 Th	0441 0.0 0 1057 11.2 341 1721 -1.1 -34 2336 9.7 296
12 Sa	0356 0.7 21 1010 9.7 296 1614 0.6 18 2228 9.8 299	27 Su	0343 -1.1 -34 0957 11.6 354 1612 -1.5 -46 2226 11.3 344	12 Tu	0435 0.7 21 1047 10.3 314 1704 -0.1 -3 2316 9.5 290	27 W	0500 -0.4 -12 1114 11.7 357 1737 -1.5 -46 2352 10.3 314	12 Th	0445 0.6 18 1056 10.7 326 1720 -0.6 -18 2333 9.4 287	27 F	0528 0.2 6 1142 11.0 335 1806 -0.9 -27
13 Su	0433 0.6 18 1045 9.9 302 1653 0.4 12 2306 9.8 299	28 M	0433 -1.1 -34 1046 11.9 363 1704 -1.7 -52 2318 11.2 341	13 W	0514 0.7 21 1124 10.5 320 1744 -0.3 -9 2356 9.5 290	28 Th	0548 -0.2 -6 1201 11.5 351 1825 -1.2 -37	13 F	0529 0.4 12 1138 10.9 332 1804 -0.8 -24	28 Sa	0021 9.6 293 0613 0.4 12 1226 10.7 326 1849 -0.6 -18
14 M	0509 0.6 18 1120 10.1 308 1731 0.2 6 2343 9.8 299	29 Tu	0522 -1.0 -30 1135 12.0 366 1754 -1.7 -52	14 Th	0554 0.7 21 1202 10.6 323 1826 -0.3 -9	29 F	0040 10.0 305 0635 0.2 6 1247 11.1 338 1912 -0.8 -24	14 Sa	0017 9.5 290 0614 0.4 12 1222 11.0 335 1850 -0.9 -27	29 Su	0105 9.4 287 0658 0.6 18 1310 10.4 317 1933 -0.3 -9
15 Tu	0546 0.6 18 1155 10.2 311 1810 0.1 3	30 W	0009 10.9 332 0610 -0.7 -21 1223 11.8 360 1844 -1.5 -46	15 F	0038 9.4 287 0636 0.7 21 1243 10.6 323 1909 -0.3 -9	30 Sa	0129 9.6 293 0723 0.6 18 1335 10.6 323 2000 -0.3 -9	15 Su	0103 9.6 293 0701 0.3 9 1309 11.0 335 1937 -0.9 -27	30 M	0148 9.2 280 0743 0.9 27 1354 10.0 305 2016 0.1 3
		31 Th	0100 10.5 320 0659 -0.2 -6 1312 11.4 347 1935 -1.0 -30						31 Tu	0232 9.0 274 0830 1.2 37 1440 9.6 293 2100 0.5 15	

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

Nantucket, Massachusetts, 2019

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					
1 Tu	0138	0.2	6		16 W	0047	0.4	12		1 F	0259	0.5	15						
	0830	3.6	110			0726	3.3	101			0949	3.5	107		16 Sa	0202	0.2	6	
	1433	0.0	0			1340	0.2	6			1601	0.1	3			0844	3.7	113	
	2111	2.8	85			2002	2.6	79			2242	2.5	76			1502	-0.2	-6	
														2129		2.7	82		
2 W	0230	0.3	9		17 Th	0137	0.4	12		2 Sa	0347	0.5	15		17 Su	0259	0.0	0	
	0922	3.7	113			0817	3.5	107			1035	3.4	104			0942	3.9	119	
	1530	0.0	0			1435	0.0	0			1645	0.1	3			1557	-0.4	-12	
	2210	2.7	82			2058	2.6	79			2325	2.5	76			2226	2.8	85	
3 Th	0320	0.4	12		18 F	0229	0.3	9		3 Su	0432	0.5	15		18 M	0356	-0.1	-3	
	1011	3.7	113			0909	3.7	113			1116	3.4	104			1039	4.0	122	
	1620	0.0	0			1528	-0.2	-6			1726	0.1	3			1649	-0.5	-15	
	2302	2.7	82			2154	2.6	79								2321	3.0	91	
4 F	0408	0.4	12		19 Sa	0321	0.2	6		4 M	0001	2.5	76		19 Tu	0452	-0.3	-9	
	1056	3.6	110			1002	3.9	119			0515	0.5	15			1136	4.1	125	
	1706	-0.1	-3			1620	-0.4	-12			1155	3.4	104			1741	-0.6	-18	
	2348	2.6	79			2249	2.7	82			1804	0.1	3						
5 Sa	0453	0.5	15		20 Su	0414	0.0	0		5 Tu	0035	2.6	79		20 W	0014	3.2	98	
	1137	3.6	110			1056	4.1	125			0557	0.4	12			0549	-0.4	-12	
	1748	0.0	0			1712	-0.5	-15			1233	3.3	101			1232	4.0	122	
						2343	2.9	88			1841	0.1	3			1831	-0.6	-18	
6 Su	0028	2.6	79		21 M	0508	-0.1	-3		6 W	0109	2.6	79		21 Th	0107	3.4	104	
	0536	0.5	15			1151	4.2	128			0638	0.4	12			0645	-0.5	-15	
	1216	3.5	107			1803	-0.6	-18			1311	3.3	101			1328	3.9	119	
	1829	0.0	0								1917	0.1	3			1921	-0.6	-18	
7 M	0105	2.6	79		22 Tu	0037	3.0	91		7 Th	0145	2.7	82		22 F	0200	3.5	107	
	0618	0.5	15			0602	-0.2	-6			0719	0.4	12			0742	-0.5	-15	
	1255	3.5	107			1246	4.2	128			1350	3.2	98			1243	3.7	113	
	1909	0.0	0			1854	-0.7	-21			1953	0.2	6			2011	-0.5	-15	
8 Tu	0141	2.6	79		23 W	0130	3.2	98		8 F	0222	2.8	85		23 Sa	0252	3.6	110	
	0701	0.5	15			0658	-0.3	-9			0801	0.4	12			0839	-0.4	-12	
	1334	3.4	104			1342	4.1	125			1431	3.1	94			1520	3.5	107	
	1948	0.1	3			1945	-0.6	-18			2030	0.2	6			2103	-0.3	-9	
9 W	0218	2.6	79		24 Th	0224	3.3	101		9 Sa	0301	2.9	88		24 Su	0346	3.6	110	
	0744	0.6	18			0756	-0.3	-9			0844	0.4	12			0938	-0.3	-9	
	1415	3.3	101			1439	3.9	119			1514	3.0	91			1618	3.2	98	
	2028	0.1	3			2037	-0.5	-15			2108	0.3	9			2155	-0.1	-3	
10 Th	0257	2.7	82		25 F	0319	3.4	104		10 Su	0342	2.9	88		25 M	0440	3.6	110	
	0828	0.6	18			0855	-0.2	-6			0931	0.4	12			1039	-0.2	-6	
	1458	3.2	98			1537	3.7	113			1600	2.9	88			1718	3.0	91	
	2108	0.2	6			2130	-0.4	-12			2148	0.3	9			2250	0.1	3	
11 F	0338	2.7	82		26 Sa	0415	3.5	107		11 M	0424	3.0	91		26 Tu	0536	3.5	107	
	0915	0.6	18			0957	-0.1	-3			1020	0.3	9			1142	0.0	0	
	1543	3.1	94			1637	3.4	104			1648	2.7	82			1819	2.7	82	
	2148	0.3	9			2224	-0.2	-6			2231	0.4	12			2346	0.3	9	
12 Sa	0421	2.8	85		27 Su	0511	3.5	107		12 Tu	0510	3.1	94		27 W	0633	3.4	104	
	1004	0.6	18			1101	0.0	0			1113	0.3	9			1245	0.1	3	
	1630	2.9	88			1738	3.1	94			1740	2.6	79			1923	2.6	79	
	2230	0.3	9			2319	0.0	0			2318	0.4	12						
13 Su	0506	2.9	88		28 M	0608	3.6	110		13 W	0559	3.3	101		28 Th	0044	0.5	15	
	1055	0.6	18			1207	0.0	0			1210	0.2	6			0731	3.3	101	
	1719	2.8	85			1843	2.9	88			1835	2.5	76			1346	0.1	3	
	2314	0.4	12													2025	2.5	76	
14 M	0551	3.0	91		29 Tu	0015	0.2	6		14 Th	0010	0.4	12		14 Th	0527	3.4	104	
	1149	0.5	15			0706	3.5	107			0651	3.4	104			1141	0.0	0	
	1812	2.7	82			1312	0.1	3			1308	0.1	3			1812	2.6	79	
	2359	0.4	12			1948	2.7	82			1932	2.5	76			2342	0.4	12	
15 Tu	0638	3.2	98		30 W	0112	0.3	9		15 F	0105	0.3	9		15 F	0623	3.5	107	
	1245	0.4	12			0804	3.5	107			0746	3.6	110			1241	0.0	0	
	1906	2.6	79			1414	0.1	3			1406	-0.1	-3			1910	2.6	79	
						2052	2.6	79			2031	2.6	79						
				31 Th	0207	0.4	12												
					0858	3.5	107												
					1511	0.1	3												
					2151	2.6	79												

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

Nantucket, Massachusetts, 2019

Times and Heights of High and Low Waters

April					May					June				
Time	Height	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	h m	ft	
1 M	0259 0.5 15 0933 3.0 91 1538 0.3 9 2207 2.7 82	16 Tu	0231 -0.1 -3 0910 3.6 110 1508 -0.3 -9 2145 3.3 101	1 W	0315 0.5 15 0939 2.9 88 1533 0.4 12 2200 3.0 91	16 Th	0321 -0.2 -6 0959 3.2 98 1536 -0.1 -3 2219 3.8 116	1 Sa	0411 0.2 6 1036 2.7 82 1606 0.5 15 2241 3.5 107	16 Su	0458 -0.2 -6 1141 2.9 88 1651 0.4 12 2337 3.9 119			
2 Tu	0346 0.5 15 1018 3.0 91 1618 0.3 9 2245 2.8 85	17 W	0331 -0.2 -6 1011 3.5 107 1600 -0.3 -9 2239 3.5 107	2 Th	0400 0.4 12 1026 2.8 85 1611 0.5 15 2240 3.1 94	17 F	0418 -0.3 -9 1058 3.2 98 1625 0.0 0 2309 3.9 119	2 Su	0455 0.0 0 1124 2.7 82 1648 0.5 15 2324 3.7 113	17 M	0547 -0.2 -6 1231 2.8 85 1738 0.4 12			
3 W	0429 0.4 12 1101 3.0 91 1655 0.3 9 2321 2.9 88	18 Th	0428 -0.4 -12 1109 3.5 107 1651 -0.3 -9 2330 3.7 113	3 F	0442 0.2 6 1111 2.8 85 1648 0.4 12 2319 3.3 101	18 Sa	0511 -0.4 -12 1153 3.1 94 1714 0.1 3 2357 3.9 119	3 M	0539 -0.1 -3 1212 2.8 85 1731 0.4 12	18 Tu	0022 3.8 116 0633 -0.2 -6 1317 2.8 85 1825 0.5 15			
4 Th	0511 0.3 9 1142 3.0 91 1730 0.3 9 2357 3.0 91	19 F	0524 -0.5 -15 1206 3.4 104 1740 -0.2 -6	4 Sa	0524 0.1 3 1155 2.8 85 1726 0.4 12 2358 3.4 104	19 Su	0602 -0.4 -12 1246 3.0 91 1802 0.2 6	4 Tu	0010 3.8 116 0624 -0.2 -6 1300 2.8 85 1817 0.4 12	19 W	0106 3.7 113 0718 -0.1 -3 1359 2.8 85 1911 0.6 18			
5 F	0551 0.2 6 1223 3.0 91 1805 0.3 9	20 Sa	0019 3.8 116 0617 -0.6 -18 1300 3.3 101 1828 -0.1 -3	5 Su	0605 -0.1 -3 1239 2.8 85 1804 0.4 12	20 M	0044 3.9 119 0652 -0.4 -12 1336 2.9 88 1850 0.3 9	5 W	0057 3.9 119 0712 -0.3 -9 1349 2.8 85 1906 0.3 9	20 Th	0149 3.6 110 0802 0.0 0 1441 2.8 85 1958 0.6 18			
6 Sa	0034 3.1 94 0630 0.1 3 1304 2.9 88 1840 0.3 9	21 Su	0108 3.9 119 0710 -0.6 -18 1352 3.2 98 1916 0.0 0	6 M	0039 3.5 107 0648 -0.2 -6 1324 2.8 85 1845 0.4 12	21 Tu	0130 3.8 116 0740 -0.3 -9 1423 2.9 88 1937 0.4 12	6 Th	0147 3.9 119 0801 -0.4 -12 1440 2.9 88 1958 0.3 9	21 F	0232 3.5 107 0846 0.1 3 1522 2.8 85 2046 0.7 21			
7 Su	0112 3.2 98 0711 0.0 0 1346 2.9 88 1918 0.3 9	22 M	0156 3.8 116 0801 -0.5 -15 1444 3.0 91 2005 0.2 6	7 Tu	0121 3.6 110 0732 -0.2 -6 1410 2.8 85 1929 0.4 12	22 W	0215 3.7 113 0828 -0.2 -6 1510 2.8 85 2026 0.5 15	7 F	0240 3.9 119 0852 -0.4 -12 1533 3.0 91 2054 0.3 9	22 Sa	0316 3.4 104 0931 0.2 6 1604 2.8 85 2135 0.7 21			
8 M	0151 3.3 101 0754 -0.1 -3 1430 2.8 85 1957 0.4 12	23 Tu	0244 3.7 113 0853 -0.3 -9 1535 2.9 88 2056 0.3 9	8 W	0207 3.7 113 0820 -0.3 -9 1459 2.8 85 2017 0.4 12	23 Th	0302 3.5 107 0917 -0.1 -3 1556 2.7 82 2117 0.6 18	8 Sa	0336 3.9 119 0945 -0.3 -9 1628 3.1 94 2153 0.3 9	23 Su	0402 3.3 101 1015 0.3 9 1647 2.9 88 2227 0.8 24			
9 Tu	0233 3.4 104 0840 -0.1 -3 1516 2.7 82 2041 0.4 12	24 W	0334 3.6 110 0946 -0.2 -6 1627 2.8 85 2148 0.5 15	9 Th	0257 3.7 113 0910 -0.3 -9 1550 2.8 85 2109 0.4 12	24 F	0349 3.4 104 1006 0.1 3 1642 2.7 82 2209 0.7 21	9 Su	0434 3.7 113 1040 -0.3 -9 1724 3.2 98 2257 0.2 6	24 M	0450 3.1 94 1100 0.4 12 1732 2.9 88 2321 0.8 24			
10 W	0318 3.4 104 0929 -0.1 -3 1606 2.7 82 2129 0.4 12	25 Th	0424 3.4 104 1040 0.0 0 1718 2.7 82 2243 0.6 18	10 F	0350 3.7 113 1004 -0.3 -9 1644 2.8 85 2206 0.3 9	25 Sa	0438 3.2 98 1055 0.2 6 1729 2.7 82 2304 0.8 24	10 M	0535 3.6 110 1136 -0.2 -6 1821 3.4 104	25 Tu	0540 3.0 91 1145 0.5 15 1817 3.0 91			
11 Th	0409 3.5 107 1022 -0.1 -3 1659 2.7 82 2223 0.4 12	26 F	0517 3.2 98 1134 0.2 6 1810 2.6 79 2340 0.7 21	11 Sa	0448 3.7 113 1100 -0.2 -6 1740 2.9 88 2308 0.3 9	26 Su	0529 3.1 94 1145 0.3 9 1816 2.8 85	11 Tu	0002 0.2 6 0638 3.4 104 1232 -0.1 -3 1918 3.5 107	26 W	0015 0.7 21 0631 2.9 88 1230 0.5 15 1902 3.2 98			
12 F	0504 3.5 107 1119 -0.1 -3 1755 2.7 82 2322 0.3 9	27 Sa	0610 3.1 94 1228 0.3 9 1902 2.6 79	12 Su	0548 3.6 110 1157 -0.2 -6 1838 3.0 91	27 M	0000 0.8 24 0620 3.0 91 1233 0.4 12 1902 2.9 88	12 W	0107 0.1 3 0742 3.2 98 1327 0.0 0 2014 3.7 113	27 Th	0108 0.6 18 0724 2.8 85 1314 0.6 18 1948 3.3 101			
13 Sa	0603 3.5 107 1218 -0.1 -3 1853 2.7 82	28 Su	0037 0.7 21 0705 3.0 91 1320 0.4 12 1951 2.7 82	13 M	0013 0.2 6 0651 3.5 107 1254 -0.1 -3 1935 3.2 98	28 Tu	0056 0.7 21 0713 2.9 88 1319 0.5 15 1948 3.0 91	13 Th	0211 0.0 0 0846 3.1 94 1420 0.1 3 2108 3.8 116	28 F	0200 0.5 15 0816 2.7 82 1358 0.6 18 2033 3.4 104			
14 Su	0024 0.3 9 0705 3.5 107 1317 -0.2 -6 1952 2.9 88	29 M	0134 0.7 21 0759 2.9 88 1408 0.4 12 2037 2.8 85	14 Tu	0117 0.1 3 0754 3.4 104 1350 -0.1 -3 2032 3.4 104	29 W	0149 0.6 18 0806 2.8 85 1403 0.5 15 2033 3.1 94	14 F	0311 -0.1 -3 0948 3.0 91 1512 0.2 6 2201 3.9 119	29 Sa	0249 0.4 12 0909 2.7 82 1443 0.6 18 2120 3.6 110			
15 M	0128 0.1 3 0808 3.6 110 1414 -0.2 -6 2050 3.1 94	30 Tu	0226 0.6 18 0850 2.9 88 1452 0.4 12 2120 2.9 88	15 W	0221 0.0 0 0858 3.3 101 1444 -0.1 -3 2127 3.6 110	30 Th	0239 0.5 15 0857 2.7 82 1445 0.5 15 2116 3.2 98	15 Sa	0406 -0.2 -6 1047 2.9 88 1602 0.3 9 2250 3.9 119	30 Su	0337 0.2 6 1001 2.7 82 1528 0.5 15 2207 3.8 116			
						31 F	0326 0.4 12 0947 2.7 82 1526 0.5 15 2158 3.4 104							

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

Woods Hole, Massachusetts, 2019

Times and Heights of High and Low Waters

July				August				September																																																																																			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height																																																																																
<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>																																																																																
1 M 0143 0.0 0 0639 1.8 55 1254 0.1 3 1908 2.8 85	16 Tu 0315 0.1 3 0717 1.8 55 1402 0.5 15 1949 2.6 79	1 Th 0302 -0.3 -9 0754 2.3 70 1437 -0.1 -3 2025 3.1 94	16 F 0340 0.4 12 0823 2.0 61 1443 0.4 12 2050 2.3 70	1 Su 0410 -0.3 -9 0916 2.8 85 1633 -0.2 -6 2144 2.6 79	16 M 0323 0.4 12 0920 2.1 64 1600 0.3 9 2141 2.0 61	2 Tu 0234 -0.1 -3 0726 2.0 61 1351 0.1 3 1955 2.9 88	17 W 0353 0.2 6 0803 1.8 55 1422 0.5 15 2034 2.5 76	2 F 0351 -0.3 -9 0845 2.4 73 1538 -0.2 -6 2115 3.0 91	17 Sa 0346 0.4 12 0908 2.0 61 1528 0.5 15 2133 2.2 67	2 M 0500 -0.1 -3 1009 2.8 85 1739 -0.1 -3 2235 2.4 73	17 Tu 0401 0.4 12 1001 2.1 64 1651 0.4 12 2223 1.8 55	3 W 0325 -0.2 -6 0815 2.0 61 1448 0.0 0 2044 3.0 91	18 Th 0427 0.2 6 0849 1.8 55 1501 0.5 15 2119 2.4 73	3 Sa 0440 -0.3 -9 0938 2.5 76 1640 -0.1 -3 2207 2.8 85	18 Su 0410 0.4 12 0953 2.0 61 1616 0.5 15 2215 2.1 64	3 Tu 0554 0.0 0 1104 2.7 82 1852 0.0 0 2327 2.1 64	18 W 0442 0.5 15 1043 2.1 64 1748 0.5 15 2306 1.7 52	4 Th 0415 -0.3 -9 0906 2.1 64 1546 0.0 0 2135 2.9 88	19 F 0454 0.3 9 0937 1.8 55 1545 0.5 15 2204 2.3 70	4 Su 0532 -0.2 -6 1033 2.5 76 1748 0.0 0 2259 2.6 79	19 M 0444 0.5 15 1037 1.9 58 1708 0.6 18 2257 1.9 58	4 W 0656 0.2 6 1159 2.6 79 2005 0.1 3	19 Th 0527 0.6 18 1127 2.0 61 1851 0.5 15 2352 1.6 49	5 F 0507 -0.3 -9 0959 2.2 67 1648 0.0 0 2228 2.8 85	20 Sa 0511 0.4 12 1025 1.8 55 1634 0.6 18 2249 2.1 64	5 M 0627 -0.1 -3 1128 2.5 76 1903 0.1 3 2352 2.3 70	20 Tu 0524 0.6 18 1121 1.9 58 1807 0.6 18 2339 1.8 55	5 Th 0020 1.8 55 0805 0.4 12 1256 2.4 73 2114 0.2 6	20 F 0313 0.7 21 0439 0.8 24 0620 0.7 21 1215 2.0 61 1957 0.5 15 0042 1.5 46	6 Sa 0601 -0.3 -9 1054 2.2 67 1756 0.1 3 2321 2.6 79	21 Su 0537 0.5 15 1113 1.8 55 1729 0.7 21 2332 1.9 58	6 Tu 0726 0.0 0 1224 2.5 76 2019 0.1 3	21 W 0608 0.6 18 1205 1.9 58 1911 0.7 21	6 F 0115 1.6 49 0355 1.0 30 0508 1.1 34 0915 0.5 15 1354* 2.2 67 0211 1.5 46	21 Sa 0356 0.7 21 0530 0.8 24 0719 0.7 21 1309* 2.0 61 0137 1.5 46	7 Su 0657 -0.2 -6 1150 2.3 70 1912 0.2 6	22 M 0613 0.5 15 1200 1.7 52 1831 0.8 24	7 W 0045 2.0 61 0827 0.2 6 1321 2.4 73 2129 0.2 6	22 Th 0023 1.6 49 0657 0.7 21 1251 1.9 58 2016 0.6 18	7 Sa 0211 1.5 46 0435 1.0 30 0603 1.1 34 1022 0.5 15 1456* 2.1 64	22 Su 0137 1.5 46 0447 0.7 21 0611 0.8 24 0820 0.6 18 1411* 2.1 64	8 M 0014 2.4 73 0754 -0.1 -3 1246 2.3 70 2029 0.2 6	23 Tu 0016 1.8 55 0655 0.6 18 1247 1.7 52 1937 0.8 24	8 Th 0140 1.7 52 0928 0.3 9 1420 2.4 73 2235 0.2 6	23 F 0110 1.5 46 0424 0.8 24 0546 0.9 27 0748 0.7 21 1343* 1.9 58	8 Su 0310 1.4 43 0525 1.1 34 0648 1.2 37 1124 0.5 15 1557 2.1 64	23 M 0237 1.6 49 0919 0.5 15 1515 2.2 67 2247 0.2 6	9 Tu 0109 2.1 64 0850 0.0 0 1344 2.3 70 2140 0.2 6	24 W 0100 1.6 49 0739 0.6 18 1335 1.7 52 2040 0.7 21	9 F 0236 1.6 49 1029 0.4 12 1520 2.3 70 2338 0.2 6	24 Sa 0204 1.5 46 0841 0.6 18 1442 2.0 61 2214 0.4 12	9 M 0014 0.3 9 0407 1.5 46 1220 0.5 15 1652 2.1 64	24 Tu 0338 1.8 55 1017 0.3 9 1616 2.4 73 2338 0.0 0	10 W 0204 1.9 58 0944 0.1 3 1443 2.4 73 2247 0.1 3	25 Th 0147 1.5 46 0823 0.6 18 1426 1.8 55 2138 0.7 21	10 Sa 0334 1.5 46 1129 0.5 15 1619 2.3 70	25 Su 0303 1.5 46 0933 0.5 15 1544 2.2 67 2308 0.3 9	10 Tu 0103 0.3 9 0459 1.6 49 1308 0.5 15 1739 2.1 64	25 W 0437 2.0 61 1118 0.1 3 1712 2.6 79	11 Th 0302 1.7 52 1038 0.2 6 1543 2.4 73 2351 0.1 3	26 F 0240 1.5 46 0908 0.6 18 1521 2.0 61 2233 0.5 15	11 Su 0036 0.2 6 0430 1.5 46 1228 0.5 15 1713 2.3 70	26 M 0402 1.7 52 1027 0.3 9 1642 2.5 76	11 W 0144 0.4 12 0547 1.8 55 1345 0.5 15 1821 2.2 67	26 Th 0028 -0.1 -3 0531 2.3 70 1221 -0.1 -3 1803 2.7 82	12 F 0359 1.6 49 1133 0.3 9 1639 2.5 76	27 Sa 0336 1.5 46 0955 0.5 15 1616 2.2 67 2329 0.4 12	12 M 0127 0.2 6 0521 1.6 49 1319 0.5 15 1800 2.4 73	27 Tu 0003 0.1 3 0459 1.9 58 1124 0.2 6 1735 2.7 82	12 Th 0216 0.4 12 0631 1.9 58 1357 0.5 15 1901 2.2 67	27 F 0117 -0.2 -6 0623 2.6 79 1325 -0.3 -9 1852 2.8 85	13 Sa 0051 0.1 3 0453 1.6 49 1228 0.4 12 1731 2.6 79	28 Su 0431 1.6 49 1044 0.4 12 1709 2.4 73	13 Tu 0212 0.3 9 0609 1.7 52 1358 0.5 15 1844 2.4 73	28 W 0055 0.0 0 0552 2.1 64 1225 0.0 0 1826 2.9 88	13 F 0232 0.4 12 0714 2.0 61 1349 0.4 12 1941 2.2 67	28 Sa 0205 -0.3 -9 0713 2.8 85 1426 -0.4 -12 1940 2.7 82	14 Su 0144 0.1 3 0543 1.6 49 1320 0.4 12 1819 2.6 79	29 M 0026 0.2 6 0524 1.8 55 1138 0.2 6 1758 2.7 82	14 W 0250 0.3 9 0654 1.8 55 1405 0.5 15 1927 2.4 73	29 Th 0146 -0.2 -6 0643 2.4 73 1328 -0.2 -6 1915 3.0 91	14 Sa 0226 0.4 12 0756 2.1 64 1428 0.4 12 2020 2.2 67	29 Su 0251 -0.3 -9 0803 3.0 91 1526 -0.4 -12 2029 2.6 79	15 M 0232 0.1 3 0631 1.7 52 1401 0.4 12 1905 2.6 79	30 Tu 0121 0.0 0 0614 2.0 61 1236 0.1 3 1847 2.9 88	15 Th 0321 0.3 9 0738 1.9 58 1403 0.5 15 2009 2.4 73	30 F 0235 -0.3 -9 0733 2.6 79 1430 -0.3 -9 2003 3.0 91	15 Su 0249 0.4 12 0838 2.2 67 1512 0.3 9 2100 2.1 64	30 M 0338 -0.2 -6 0853 3.0 91 1625 -0.3 -9 2119 2.4 73	31 W 0212 -0.1 -3 0704 2.1 64 1337 -0.1 -3 1936 3.0 91	31 Sa 0322 -0.3 -9 0824 2.7 82 1531 -0.3 -9 2053 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 mean lower low water which is the chart datum of soundings.
* See Page 320 for the remaining tides on this day.

Newport, Rhode Island, 2019

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 M	0521 3.1 94 1104 0.4 12 1737 3.1 94 2314 0.2 6	16 Tu	0453 4.0 122 1059 -0.1 -3 1721 4.3 131 2315 -0.2 -6	1 W	0517 3.1 94 1051 0.4 12 1736 3.6 110 2329 0.3 9	16 Th	0528 4.0 122 1106 0.1 3 1755 4.8 146	1 Sa	0556 3.4 104 1120 0.2 6 1815 4.2 128	16 Su	0034 0.3 9 0649 3.8 116 1156 0.3 9 1913 4.6 140
2 Tu	0600 3.2 98 1136 0.2 6 1815 3.3 101 2354 0.1 3	17 W	0548 4.2 128 1139 -0.2 -6 1814 4.6 140	2 Th	0555 3.3 101 1125 0.2 6 1812 3.8 116	17 F	0000 0.0 0 0619 4.1 125 1145 0.0 0 1844 4.9 149	2 Su	0023 0.2 6 0640 3.6 110 1201 0.1 3 1857 4.4 134	17 M	0114 0.3 9 0736 3.8 116 1239 0.3 9 1958 4.5 137
3 W	0635 3.3 101 1208 0.0 0 1849 3.5 107	18 Th	0008 -0.4 -12 0639 4.3 131 1219 -0.3 -9 1903 4.9 149	3 F	0009 0.2 6 0632 3.5 107 1200 0.1 3 1848 4.0 122	18 Sa	0046 0.0 0 0708 4.1 125 1225 0.0 0 1931 4.9 149	3 M	0106 0.1 3 0726 3.8 116 1244 0.0 0 1942 4.5 137	18 Tu	0152 0.3 9 0821 3.8 116 1324 0.3 9 2042 4.3 131
4 Th	0034 -0.1 -3 0708 3.4 104 1241 -0.1 -3 1922 3.7 113	19 F	0058 -0.4 -12 0728 4.3 131 1259 -0.4 -12 1952 4.9 149	4 Sa	0049 0.0 0 0710 3.6 110 1236 0.0 0 1925 4.1 125	19 Su	0131 0.0 0 0756 4.1 125 1306 0.1 3 2018 4.8 146	4 Tu	0150 0.0 0 0813 3.9 119 1329 0.0 0 2029 4.6 140	19 W	0228 0.3 9 0906 3.7 113 1409 0.4 12 2125 4.1 125
5 F	0113 -0.2 -6 0742 3.5 107 1314 -0.2 -6 1956 3.8 116	20 Sa	0147 -0.4 -12 0816 4.2 128 1339 -0.3 -9 2039 4.8 146	5 Su	0128 0.0 0 0751 3.6 110 1313 0.0 0 2004 4.2 128	20 M	0212 0.1 3 0842 3.9 119 1349 0.2 6 2104 4.5 137	5 W	0234 0.0 0 0902 3.9 119 1417 0.0 0 2118 4.5 137	20 Th	0304 0.4 12 0950 3.5 107 1453 0.5 15 2208 3.8 116
6 Sa	0150 -0.2 -6 0817 3.5 107 1347 -0.2 -6 2031 3.8 116	21 Su	0231 -0.3 -9 0903 4.0 122 1419 -0.2 -6 2127 4.6 140	6 M	0207 0.0 0 0833 3.7 113 1352 0.0 0 2047 4.2 128	21 Tu	0250 0.2 6 0929 3.8 116 1432 0.3 9 2150 4.2 128	6 Th	0318 0.1 3 0954 3.9 119 1505 0.1 3 2212 4.4 134	21 F	0341 0.5 15 1036 3.4 104 1537 0.6 18 2252 3.5 107
7 Su	0226 -0.2 -6 0856 3.4 104 1420 -0.2 -6 2109 3.8 116	22 M	0311 -0.1 -3 0952 3.8 116 1459 0.0 0 2215 4.2 128	7 Tu	0245 0.0 0 0919 3.6 110 1433 0.0 0 2133 4.2 128	22 W	0327 0.4 12 1017 3.6 110 1515 0.5 15 2238 3.9 119	7 F	0404 0.2 6 1049 3.9 119 1557 0.2 6 2308 4.3 131	22 Sa	0420 0.6 18 1121 3.3 101 1623 0.8 24 2335 3.3 101
8 M	0300 -0.1 -3 0938 3.3 101 1455 -0.1 -3 2151 3.7 113	23 Tu	0351 0.2 6 1042 3.5 107 1540 0.3 9 2306 3.8 116	8 W	0325 0.1 3 1009 3.6 110 1516 0.1 3 2224 4.1 125	23 Th	0406 0.6 18 1107 3.4 104 1559 0.7 21 2327 3.6 110	8 Sa	0456 0.3 9 1146 4.0 122 1654 0.4 12	23 Su	0502 0.7 21 1206 3.2 98 1715 0.9 27
9 Tu	0336 0.0 0 1025 3.2 98 1533 0.0 0 2239 3.6 110	24 W	0433 0.4 12 1135 3.3 101 1624 0.6 18 2359 3.5 107	9 Th	0409 0.2 6 1103 3.5 107 1604 0.3 9 2320 4.0 122	24 F	0450 0.7 21 1157 3.2 98 1649 0.9 27	9 Su	0006 4.1 125 0559 0.4 12 1244 4.0 122 1806 0.6 18	24 M	0017 3.1 94 0548 0.7 21 1248 3.2 98 1817 1.0 30
10 W	0417 0.2 6 1117 3.1 94 1617 0.1 3 2333 3.6 110	25 Th	0522 0.7 21 1228 3.1 94 1716 0.8 24	10 F	0501 0.4 12 1200 3.5 107 1659 0.4 12	25 Sa	0015 3.3 101 0542 0.9 27 1246 3.1 94 1748 1.1 34	10 M	0104 4.0 122 0716 0.5 15 1342 4.1 125 1943 0.7 21	25 Tu	0059 3.0 91 0639 0.7 21 1331 3.2 98 1930 1.0 30
11 Th	0507 0.3 9 1213 3.1 94 1710 0.2 6	26 F	0053 3.2 98 0629 0.9 27 1321 3.0 91 1823 1.0 30	11 Sa	0020 3.9 119 0610 0.5 15 1259 3.6 110 1808 0.6 18	26 Su	0103 3.1 94 0643 0.9 27 1333 3.1 94 1904 1.1 34	11 Tu	0203 3.8 116 0822 0.4 12 1441 4.2 128 2114 0.6 18	26 W	0143 2.9 88 0731 0.7 21 1416 3.3 101 2040 0.9 27
12 F	0032 3.5 107 0615 0.5 15 1312 3.1 94 1817 0.4 12	27 Sa	0147 3.0 91 0755 0.9 27 1416 2.9 88 1951 1.0 30	12 Su	0120 3.8 116 0745 0.5 15 1359 3.8 116 1936 0.6 18	27 M	0149 3.0 91 0744 0.9 27 1422 3.2 98 2024 1.1 34	12 W	0305 3.7 113 0914 0.4 12 1543 4.3 131 2216 0.5 15	27 Th	0233 2.9 88 0822 0.6 18 1506 3.4 104 2137 0.8 24
13 Sa	0134 3.5 107 0758 0.5 15 1414 3.3 101 1938 0.4 12	28 Su	0244 2.9 88 0856 0.9 27 1513 3.0 91 2110 0.9 27	13 M	0223 3.8 116 0858 0.4 12 1501 4.0 122 2108 0.5 15	28 Tu	0238 3.0 91 0836 0.8 24 1512 3.3 101 2126 0.9 27	13 Th	0408 3.7 113 0956 0.3 9 1642 4.5 137 2307 0.4 12	28 F	0330 2.9 88 0911 0.4 12 1601 3.6 110 2226 0.5 15
14 Su	0241 3.6 110 0923 0.3 9 1519 3.5 107 2104 0.2 6	29 M	0342 2.9 88 0939 0.7 21 1609 3.1 94 2203 0.7 21	14 Tu	0328 3.8 116 0947 0.3 9 1604 4.2 128 2217 0.3 9	29 W	0331 3.0 91 0921 0.6 18 1603 3.4 104 2215 0.7 21	14 F	0507 3.7 113 1036 0.3 9 1736 4.6 140 2352 0.3 9	29 Sa	0428 3.1 94 0959 0.2 6 1654 3.9 119 2312 0.3 9
15 M	0349 3.7 113 1016 0.1 3 1623 3.9 119 2216 0.0 0	30 Tu	0434 3.0 91 1016 0.5 15 1656 3.3 101 2248 0.5 15	15 W	0431 3.9 119 1028 0.2 6 1702 4.5 137 2311 0.1 3	30 Th	0423 3.1 94 1001 0.5 15 1650 3.7 113 2259 0.5 15	15 Sa	0600 3.8 116 1115 0.3 9 1826 4.7 143	30 Su	0522 3.3 101 1045 0.1 3 1744 4.1 125 2357 0.1 3
						31 F	0511 3.2 98 1041 0.3 9 1733 3.9 119 2340 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 mean lower low water which is the chart datum of soundings.

Newport, Rhode Island, 2019

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 M	0613 3.5 107 1132 -0.1 -3 1833 4.4 134	16 Tu	0056 0.3 9 0716 3.5 107 1220 0.3 9 1939 4.1 125	1 Th	0114 -0.4 -12 0734 4.0 122 1259 -0.6 -18 1956 4.6 140	16 F	0133 0.0 0 0813 3.3 101 1332 0.0 0 2030 3.5 107	1 Su	0217 -0.8 -24 0856 4.5 137 1438 -0.7 -21 2119 4.3 131	16 M	0204 -0.2 -6 0849 3.4 104 1431 -0.1 -3 2106 3.2 98
2 Tu	0045 0.0 0 0703 3.8 116 1221 -0.2 -6 1923 4.6 140	17 W	0129 0.2 6 0759 3.5 107 1305 0.2 6 2020 4.0 122	2 F	0202 -0.5 -15 0825 4.2 128 1355 -0.6 -18 2047 4.6 140	17 Sa	0207 -0.1 -3 0849 3.3 101 1414 0.0 0 2105 3.4 104	2 M	0259 -0.7 -21 0948 4.5 137 1530 -0.5 -15 2211 4.0 122	17 Tu	0236 -0.2 -6 0923 3.3 101 1506 0.0 0 2144 3.0 91
3 W	0134 -0.1 -3 0753 4.0 122 1312 -0.3 -9 2013 4.7 143	18 Th	0204 0.2 6 0841 3.5 107 1350 0.2 6 2059 3.8 116	3 Sa	0247 -0.6 -18 0917 4.3 131 1449 -0.5 -15 2139 4.4 134	18 Su	0240 -0.1 -3 0925 3.2 98 1454 0.0 0 2140 3.2 98	3 Tu	0340 -0.5 -15 1042 4.3 131 1622 -0.2 -6 2306 3.7 113	18 W	0307 -0.1 -3 1000 3.2 98 1541 0.1 3 2226 2.9 88
4 Th	0222 -0.2 -6 0844 4.1 125 1405 -0.2 -6 2104 4.6 140	19 F	0239 0.2 6 0921 3.4 104 1434 0.3 9 2137 3.6 110	4 Su	0330 -0.5 -15 1011 4.3 131 1543 -0.3 -9 2233 4.2 128	19 M	0312 -0.1 -3 1001 3.1 94 1532 0.1 3 2216 3.0 91	4 W	0423 -0.3 -9 1138 4.1 125 1724 0.1 3	19 Th	0341 -0.1 -3 1042 3.2 98 1619 0.2 6 2313 2.7 82
5 F	0308 -0.2 -6 0937 4.1 125 1458 -0.2 -6 2157 4.5 137	20 Sa	0313 0.2 6 1001 3.3 101 1516 0.3 9 2215 3.4 104	5 M	0413 -0.4 -12 1106 4.3 131 1639 -0.1 -3 2328 3.9 119	20 Tu	0344 0.0 0 1038 3.1 94 1610 0.3 9 2257 2.8 85	5 Th	0002 3.3 101 0511 0.0 0 1236 3.8 116 1909 0.4 12	20 F	0419 0.0 0 1130 3.1 94 1705 0.4 12
6 Sa	0353 -0.1 -3 1032 4.2 128 1551 0.0 0 2252 4.3 131	21 Su	0347 0.2 6 1042 3.2 98 1558 0.5 15 2254 3.2 98	6 Tu	0459 -0.2 -6 1203 4.2 128 1749 0.2 6	21 W	0418 0.1 3 1119 3.0 91 1652 0.4 12 2341 2.7 82	6 F	0059 3.1 94 0609 0.3 9 1334 3.5 107 2040 0.4 12	21 Sa	0005 2.7 82 0506 0.1 3 1223 3.1 94 1807 0.5 15
7 Su	0440 0.0 0 1128 4.2 128 1649 0.2 6 2349 4.1 125	22 M	0422 0.3 9 1122 3.1 94 1642 0.6 18 2334 3.0 91	7 W	0024 3.6 110 0551 0.0 0 1300 4.0 122 1935 0.4 12	22 Th	0456 0.1 3 1203 3.0 91 1742 0.5 15	7 Sa	0159 2.9 88 0726 0.5 15 1436 3.3 101 2143 0.5 15	22 Su	0100 2.7 82 0606 0.2 6 1321 3.2 98 1937 0.5 15
8 M	0533 0.1 3 1225 4.2 128 1802 0.4 12	23 Tu	0500 0.4 12 1202 3.1 94 1732 0.7 21	8 Th	0121 3.3 101 0653 0.2 6 1358 3.8 116 2100 0.4 12	23 F	0029 2.6 79 0543 0.2 6 1251 3.1 94 1849 0.6 18	8 Su	0301 2.8 85 0857 0.5 15 1540 3.2 98 2229 0.4 12	23 M	0200 2.8 85 0719 0.2 6 1425 3.3 101 2108 0.3 9
9 Tu	0045 3.9 119 0635 0.2 6 1322 4.2 128 1946 0.6 18	24 W	0016 2.8 85 0543 0.4 12 1244 3.1 94 1833 0.8 24	9 F	0221 3.1 94 0802 0.4 12 1500 3.7 113 2202 0.4 12	24 Sa	0122 2.6 79 0641 0.2 6 1345 3.1 94 2012 0.5 15	9 M	0405 2.8 85 0955 0.4 12 1640 3.2 98 2304 0.3 9	24 Tu	0304 3.0 91 0836 0.1 3 1533 3.5 107 2206 0.0 0
10 W	0143 3.6 110 0739 0.3 9 1420 4.1 125 2111 0.5 15	25 Th	0101 2.8 85 0632 0.4 12 1329 3.1 94 1945 0.8 24	10 Sa	0324 3.0 91 0907 0.4 12 1603 3.6 110 2251 0.4 12	25 Su	0220 2.6 79 0747 0.1 3 1447 3.3 101 2128 0.3 9	10 Tu	0501 2.9 88 1036 0.3 9 1730 3.3 101 2330 0.2 6	25 W	0409 3.3 101 0946 -0.2 -6 1638 3.8 116 2252 -0.2 -6
11 Th	0243 3.4 104 0838 0.4 12 1522 4.1 125 2212 0.5 15	26 F	0151 2.7 82 0727 0.4 12 1419 3.2 98 2055 0.6 18	11 Su	0427 3.0 91 0959 0.4 12 1701 3.6 110 2330 0.3 9	26 M	0325 2.8 85 0855 0.0 0 1554 3.5 107 2225 0.1 3	11 W	0548 3.1 94 1114 0.2 6 1813 3.4 104 2356 0.1 3	26 Th	0509 3.8 116 1047 -0.5 -15 1735 4.1 125 2335 -0.5 -15
12 F	0346 3.3 101 0928 0.4 12 1623 4.1 125 2302 0.4 12	27 Sa	0249 2.7 82 0825 0.2 6 1518 3.4 104 2155 0.4 12	12 M	0523 3.1 94 1042 0.3 9 1752 3.7 113	27 Tu	0430 3.1 94 0958 -0.3 -9 1658 3.8 116 2314 -0.2 -6	12 Th	0630 3.2 98 1152 0.0 0 1850 3.4 104	27 F	0603 4.2 128 1143 -0.7 -21 1828 4.3 131
13 Sa	0447 3.3 101 1012 0.4 12 1719 4.2 128 2344 0.4 12	28 Su	0352 2.9 88 0922 0.1 3 1621 3.7 113 2246 0.2 6	13 Tu	0001 0.3 9 0611 3.2 98 1124 0.2 6 1836 3.7 113	28 W	0528 3.5 107 1057 -0.5 -15 1754 4.1 125	13 F	0026 0.0 0 0707 3.3 101 1233 -0.1 -3 1925 3.4 104	28 Sa	0018 -0.7 -21 0654 4.5 137 1237 -0.8 -24 1918 4.4 134
14 Su	0541 3.4 104 1054 0.3 9 1809 4.2 128	29 M	0454 3.1 94 1018 -0.1 -3 1719 4.0 122 2335 0.0 0	14 W	0030 0.2 6 0655 3.3 101 1206 0.1 3 1917 3.7 113	29 Th	0001 -0.5 -15 0622 3.9 119 1152 -0.7 -21 1847 4.4 134	14 Sa	0058 -0.1 -3 0742 3.4 104 1313 -0.2 -6 1958 3.4 104	29 Su	0101 -0.8 -24 0744 4.8 146 1331 -0.8 -24 2008 4.4 134
15 M	0021 0.3 9 0631 3.5 107 1136 0.3 9 1855 4.2 128	30 Tu	0550 3.4 104 1111 -0.3 -9 1813 4.3 131	15 Th	0100 0.1 3 0735 3.3 101 1249 0.0 0 1954 3.6 110	30 F	0048 -0.6 -18 0714 4.2 128 1248 -0.8 -24 1938 4.5 137	15 Su	0131 -0.2 -6 0816 3.4 104 1353 -0.2 -6 2032 3.3 101	30 M	0144 -0.7 -21 0834 4.8 146 1423 -0.7 -21 2058 4.2 128
		31 W	0024 -0.3 -9 0642 3.8 116 1205 -0.5 -15 1905 4.5 137			31 Sa	0134 -0.8 -24 0805 4.4 134 1344 -0.8 -24 2028 4.5 137				

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

New London, Connecticut, 2019

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 Tu	0540 2.9 88 1219 -0.1 -3 1805 2.1 64	16 W	0500 2.6 79 1136 0.1 -3 1723 2.0 61 2329 0.2 6	1 F	0055 0.2 6 0656 2.7 82 1339 -0.1 -3 1920 2.1 64	16 Sa	0000 0.0 0 0613 3.0 91 1259 -0.3 -9 1837 2.3 70	1 F	0547 2.5 76 1223 0.2 6 1814 2.1 64	16 Sa	0454 2.8 85 1139 -0.1 -3 1724 2.3 70 2344 0.1 3
2 W	0022 0.1 3 0628 2.9 88 1312 -0.1 -3 1853 2.1 64	17 Th	0548 2.8 85 1230 -0.1 -3 1812 2.1 64	2 Sa	0143 0.2 6 0739 2.7 82 1421 -0.1 -3 2001 2.2 67	17 Su	0059 -0.2 -6 0704 3.2 98 1350 -0.5 -15 1927 2.5 76	2 Sa	0034 0.4 12 0636 2.6 79 1311 0.2 6 1858 2.2 67	17 Su	0553 3.0 91 1234 -0.2 -6 1818 2.5 76
3 Th	0113 0.1 3 0712 3.0 91 1400 -0.2 -6 1937 2.1 64	18 F	0022 0.0 0 0635 3.0 91 1322 -0.4 -12 1900 2.2 67	3 Su	0226 0.1 3 0821 2.7 82 1459 -0.1 -3 2042 2.2 67	18 M	0154 -0.4 -12 0755 3.3 101 1440 -0.6 -18 2017 2.7 82	3 Su	0123 0.3 9 0720 2.6 79 1353 0.1 3 1939 2.3 70	18 M	0044 -0.1 -3 0647 3.1 94 1326 -0.4 -12 1909 2.8 85
4 F	0159 0.1 3 0755 3.0 91 1443 -0.2 -6 2019 2.2 67	19 Sa	0116 -0.1 -3 0722 3.2 98 1413 -0.5 -15 1947 2.4 73	4 M	0305 0.1 3 0901 2.7 82 1535 -0.1 -3 ● 2123 2.3 70	19 Tu	0248 -0.6 -18 0846 3.3 101 1527 -0.7 -21 ○ 2108 2.9 88	4 M	0205 0.2 6 0800 2.6 79 1430 0.1 3 2019 2.4 73	19 Tu	0141 -0.4 -12 0738 3.2 98 1416 -0.5 -15 1958 3.0 91
5 Sa	0243 0.1 3 0837 2.9 88 1523 -0.2 -6 ● 2101 2.2 67	20 Su	0209 -0.3 -9 0811 3.4 104 1502 -0.7 -21 2036 2.5 76	5 Tu	0343 0.1 3 0942 2.7 82 1611 -0.1 -3 2205 2.4 73	20 W	0341 -0.7 -21 0937 3.3 101 1615 -0.7 -21 2200 3.0 91	5 Tu	0244 0.1 3 0840 2.7 82 1505 0.0 0 2059 2.5 76	20 W	0235 -0.5 -15 0827 3.2 98 1503 -0.6 -18 ○ 2048 3.2 98
6 Su	0324 0.1 3 0919 2.9 88 1601 -0.2 -6 2145 2.3 70	21 M	0301 -0.4 -12 0902 3.4 104 1550 -0.8 -24 ○ 2128 2.6 79	6 W	0422 0.1 3 1023 2.7 82 1646 -0.1 -3 2247 2.4 73	21 Th	0434 -0.7 -21 1028 3.1 94 1703 -0.7 -21 2253 3.1 94	6 W	0321 0.0 0 0918 2.7 82 1539 0.0 0 ● 2138 2.6 79	21 Th	0327 -0.6 -18 0917 3.1 94 1549 -0.5 -15 2138 3.4 104
7 M	0404 0.2 6 1002 2.8 85 1640 -0.1 -3 2229 2.3 70	22 Tu	0354 -0.5 -15 0954 3.4 104 1639 -0.8 -24 2221 2.7 82	7 Th	0501 0.1 3 1102 2.6 79 1723 0.0 0 2328 2.5 76	22 F	0528 -0.6 -18 1119 2.9 88 1753 -0.5 -15 2346 3.1 94	7 Th	0359 0.0 0 0957 2.6 79 1613 0.0 0 2217 2.7 82	22 F	0418 -0.6 -18 1007 3.0 91 1636 -0.4 -12 2228 3.4 104
8 Tu	0444 0.2 6 1046 2.7 82 1718 -0.1 -3 2315 2.3 70	23 W	0448 -0.5 -15 1047 3.2 98 1729 -0.7 -21 2316 2.8 85	8 F	0544 0.2 6 1142 2.5 76 1801 0.0 0	23 Sa	0626 -0.4 -12 1211 2.7 82 1845 -0.3 -9	8 F	0437 0.0 0 1035 2.6 79 1648 0.0 0 2254 2.7 82	23 Sa	0510 -0.5 -15 1057 2.8 85 1724 -0.3 -9 2319 3.3 101
9 W	0527 0.3 9 1129 2.6 79 1759 0.0 0	24 Th	0545 -0.4 -12 1140 3.0 91 1821 -0.6 -18	9 Sa	0009 2.4 73 0630 0.2 6 1221 2.3 70 1842 0.1 3	24 Su	0040 3.0 91 0725 -0.2 -6 1306 2.4 73 1941 -0.1 -3	9 Sa	0518 0.0 0 1113 2.5 76 1725 0.1 3 2330 2.7 82	24 Su	0604 -0.4 -12 1148 2.6 79 1815 0.0 0
10 Th	0000 2.3 70 0613 0.4 12 1213 2.5 76 1841 0.1 3	25 F	0012 2.8 85 0646 -0.3 -9 1235 2.8 85 1916 -0.4 -12	10 Su	0049 2.4 73 0721 0.3 9 1301 2.2 67 1927 0.2 6	25 M	0137 2.9 88 0827 -0.1 -3 1404 2.2 67 2040 0.1 3	10 Su	0603 0.1 3 1150 2.4 73 1805 0.2 6	25 M	0010 3.2 98 0700 -0.2 -6 1240 2.4 73 1910 0.2 6
11 F	0047 2.3 70 0704 0.4 12 1257 2.3 70 1926 0.2 6	26 Sa	0109 2.8 85 0749 -0.2 -6 1332 2.5 76 2012 -0.2 -6	11 M	0131 2.4 73 0816 0.3 9 1347 2.1 64 2015 0.3 9	26 Tu	0238 2.7 82 0929 0.1 3 1510 2.0 61 ● 2140 0.3 9	11 M	0006 2.7 82 0652 0.1 3 1230 2.3 70 1849 0.3 9	26 Tu	0104 3.0 91 0758 0.0 0 1337 2.3 70 2009 0.4 12
12 Sa	0134 2.3 70 0757 0.4 12 1343 2.2 67 2012 0.2 6	27 Su	0209 2.8 85 0853 -0.1 -3 1434 2.2 67 ● 2109 -0.1 -3	12 Tu	0219 2.4 73 0912 0.2 6 1443 2.0 61 ● 2108 0.3 9	27 W	0343 2.6 79 1030 0.1 3 1619 1.9 58 2240 0.4 12	12 Tu	0045 2.7 82 0746 0.1 3 1315 2.1 64 1941 0.4 12	27 W	0202 2.7 82 0857 0.2 6 1439 2.1 64 ● 2111 0.6 18
13 Su	0224 2.3 70 0852 0.4 12 1434 2.1 64 2059 0.3 9	28 M	0313 2.7 82 0957 0.0 0 1540 2.0 61 2207 0.1 3	13 W	0316 2.5 76 1010 0.1 3 1547 1.9 58 2203 0.3 9	28 Th	0449 2.5 76 1129 0.2 6 1722 2.0 61 2340 0.4 12	13 W	0132 2.7 82 0844 0.1 3 1410 2.1 64 2038 0.4 12	28 Th	0307 2.6 79 0956 0.3 9 1546 2.1 64 2213 0.6 18
14 M	0317 2.4 73 0947 0.4 12 1531 2.0 61 ● 2147 0.3 9	29 Tu	0417 2.7 82 1058 0.0 0 1647 2.0 61 2305 0.2 6	14 Th	0419 2.6 79 1107 0.0 0 1649 2.0 61 2301 0.2 6	15 F	0518 2.8 85 1204 -0.1 -3 1745 2.1 64	14 Th	0233 2.7 82 0943 0.1 3 1515 2.0 61 ● 2140 0.4 12	29 F	0414 2.5 76 1053 0.4 12 1650 2.1 64 2312 0.6 18
15 Tu	0410 2.5 76 1042 0.2 6 1629 2.0 61 2237 0.2 6	30 W	0517 2.7 82 1157 0.0 0 1746 2.0 61	15 F	0518 2.8 85 1204 -0.1 -3 1745 2.1 64			15 F	0345 2.7 82 1041 0.0 0 1623 2.1 64 2242 0.3 9	30 Sa	0516 2.5 76 1145 0.4 12 1745 2.3 70
		31 Th	0002 0.2 6 0610 2.7 82 1252 0.0 0 1836 2.0 61							31 Su	0007 0.5 15 0608 2.5 76 1233 0.4 12 1831 2.4 73

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

New London, Connecticut, 2019

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	M	0216	0.0	-0	16	Tu	0307	0.1	3	1	Th	0326	-0.3	-9	16	Su	0356	0.2	6	1	Su	0435	-0.3	-9	16	M	0430	0.4	12
		0755	2.5	76			0844	2.5	76			0904	2.9	88			0948	2.8	85			1025	-0.2	-6			1038	3.0	91
		1405	0.3	9			1508	0.5	15			1528	0.0	0			1609	0.5	15			1701	-0.2	-6			1703	0.4	12
		2009	3.5	107			2101	3.2	98			2126	3.6	110			2204	3.0	91			2250	3.3	101			2256	2.7	82
2	Tu	0302	-0.2	-6	17	W	0347	0.1	3	2	F	0413	-0.4	-12	17	Sa	0431	0.3	9	2	M	0524	-0.2	-6	17	Tu	0506	0.5	15
		0840	2.6	79			0929	2.6	79			0957	3.0	91			1031	2.8	85			1119	3.5	107			1117	3.0	91
		1454	0.2	6			1551	0.5	15			1622	-0.1	-3			1649	0.5	15			1758	-0.1	-3			1747	0.4	12
		2055	3.6	110			2145	3.2	98			2219	3.6	110			2246	2.9	88			2343	3.1	94			2336	2.6	79
3	W	0349	-0.3	-9	18	Th	0426	0.1	3	3	Sa	0502	-0.4	-12	18	Su	0507	0.3	9	3	Tu	0617	0.0	0	18	W	0545	0.6	18
		0929	2.7	82			1014	2.6	79			1051	3.2	98			1114	2.9	88			1214	3.5	107			1155	3.0	91
		1545	0.2	6			1633	0.5	15			1718	-0.1	-3			1732	0.5	15			1859	0.0	0			1835	0.5	15
		2144	3.6	110			2230	3.1	94			2312	3.4	104			2327	2.8	85				0						
4	Th	0437	-0.3	-9	19	F	0505	0.2	6	4	Su	0553	-0.3	-9	19	M	0545	0.4	12	4	W	0039	2.8	85	19	Th	0018	2.5	76
		1020	2.8	85			1100	2.7	82			1145	3.2	98			1156	2.9	88			0713	0.2	6			0628	0.7	21
		1637	0.1	3			1716	0.6	18			1817	0.0	0			1817	0.6	18			1311	3.4	104			1235	2.9	88
		2237	3.5	107			2314	3.0	91													2001	0.2	6			1928	0.5	15
5	F	0527	-0.3	-9	20	Sa	0545	0.3	9	5	M	0006	3.2	98	20	Tu	0008	2.7	82	5	Th	0138	2.6	79	20	F	0103	2.4	73
		1114	2.9	88			1146	2.7	82			0646	-0.2	-6			0625	0.5	15			0812	0.4	12			0718	0.8	24
		1734	0.1	3			1802	0.6	18			1241	3.3	101			1238	2.8	85			1412	3.2	98			1319	2.9	88
		2331	3.4	104			2358	2.8	85			1920	0.1	3			1907	0.6	18			2103	0.3	9			2024	0.5	15
6	Sa	0619	-0.2	-6	21	Su	0626	0.4	12	6	Tu	0102	2.9	88	21	W	0051	2.5	76	6	F	0242	2.4	73	21	Sa	0155	2.3	70
		1208	2.9	88			1233	2.7	82			0741	0.0	0			0708	0.6	18			0913	0.5	15			0815	0.8	24
		1834	0.2	6			1852	0.7	21			1339	3.3	101			1321	2.8	85			1517	3.1	94			1415	2.9	88
												2023	0.2	6			2000	0.6	18			2205	0.4	12			2120	0.5	15
7	Su	0026	3.3	101	22	M	0042	2.7	82	7	W	0201	2.7	82	22	Th	0137	2.4	73	7	Sa	0352	2.3	70	22	Su	0256	2.3	70
		0713	-0.2	-6			0708	0.4	12			0838	0.2	6			0755	0.7	21			1014	0.6	18			0914	0.8	24
		1305	3.0	91			1320	2.7	82			1441	3.2	98			1408	2.8	85			1623	3.0	91			1521	2.9	88
		1938	0.2	6			1943	0.7	21			2126	0.2	6			2054	0.6	18			2304	0.4	12			2216	0.4	12
8	M	0123	3.0	91	23	Tu	0128	2.5	76	8	Th	0305	2.5	76	23	F	0229	2.3	70	8	Su	0458	2.3	70	23	M	0400	2.3	70
		0808	-0.1	-3			0752	0.5	15			0935	0.3	9			0845	0.7	21			1114	0.7	21			1014	0.6	18
		1404	3.1	94			1408	2.7	82			1544	3.2	98			1500	2.8	85			1723	3.0	91			1627	3.1	94
		2042	0.3	9			2036	0.7	21			2228	0.3	9			2149	0.6	18							2312	0.3	9	
9	Tu	0223	2.8	85	24	W	0218	2.4	73	9	F	0413	2.4	73	24	Sa	0328	2.2	67	9	M	0000	0.4	12	24	Tu	0500	2.5	76
		0904	0.0	0			0837	0.6	18			1034	0.4	12			0938	0.7	21			0553	2.4	73			1114	0.5	15
		1506	3.1	94			1459	2.8	85			1646	3.2	98			1558	2.9	88			1211	0.6	18			1725	3.2	98
		2145	0.3	9			2129	0.7	21			2328	0.3	9			2244	0.4	12			1814	3.0	91					
10	W	0328	2.6	79	25	Th	0312	2.3	70	10	Sa	0516	2.3	70	25	Su	0428	2.3	70	10	Tu	0050	0.4	12	25	W	0005	0.1	3
		0959	0.1	3			0924	0.6	18			1132	0.5	15			1034	0.7	21			0639	2.5	76			0553	2.7	82
		1608	3.2	98			1550	2.8	85			1743	3.2	98			1655	3.1	94			1302	0.6	18			1213	0.2	6
		2247	0.2	6			2222	0.6	18								2338	0.3	9			1859	3.0	91			1818	3.3	101
11	Th	0433	2.5	76	26	F	0409	2.2	67	11	Su	0025	0.3	9	26	M	0524	2.4	73	11	W	0134	0.4	12	26	Th	0057	-0.1	-3
		1054	0.2	6			1012	0.7	21			0611	2.4	73			1132	0.5	15			0720	2.6	79			0642	3.0	91
		1706	3.3	101			1640	2.9	88			1228	0.5	15			1748	3.3	101			1347	0.5	15			1311	0.0	0
		2347	0.2	6			2315	0.5	15			1832	3.1	94								1939	3.0	91			1907	3.4	104
12	F	0533	2.4	73	27	Sa	0503	2.3	70	12	M	0116	0.3	9	27	Tu	0032	0.1	3	12	Th	0213	0.4	12	27	F	0146	-0.2	-6
		1150	0.3	9			1102	0.6	18			0658	2.4	73			0614	2.6	79			0759	2.8	85			0730	3.3	101
		1759	3.3	101			1728	3.1	94			1320	0.5	15			1229	0.3	9			1428	0.5	15			1405	-0.2	-6
												1917	3.1	94			1838	3.4	104			2018	3.0	91			1956	3.5	107
13	Sa	0044	0.1	3	28	Su	0008	0.3	9	13	Tu	0202	0.2	6	28	W	0123	0.0	0	13	F	0248	0.3	9	28	Sa	0234	-0.3	-9
		0626	2.4	73			0553	2.3	70			0741	2.5	76			0702	2.8	85			0839	2.9	88			0819	3.5	107
		1244	0.4	12			1155	0.5</																					

Bridgeport, Connecticut, 2019

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 M	0232 0.8 24 0840 6.5 198 1455 0.5 15 2104 6.6 201	16 Tu	0214 -0.1 -3 0822 7.4 226 1445 -0.3 -9 2051 7.7 235	1 W	0242 0.7 21 0848 6.5 198 1454 0.6 18 2107 7.1 216	16 Th	0256 -0.4 -12 0900 7.3 223 1512 -0.2 -6 2121 8.2 250	1 Sa	0335 0.2 6 0940 6.6 201 1539 0.6 18 2149 7.6 232	16 Su	0420 -0.4 -12 1023 7.0 213 1626 0.3 9 2235 7.9 241
2 Tu	0317 0.5 15 0925 6.6 201 1536 0.4 12 2145 6.9 210	17 W	0312 -0.5 -15 0918 7.6 232 1536 -0.5 -15 2143 8.1 247	2 Th	0326 0.4 12 0932 6.6 201 1535 0.5 15 2146 7.3 223	17 F	0348 -0.6 -18 0952 7.4 226 1601 -0.2 -6 2209 8.3 253	2 Su	0419 -0.1 -3 1024 6.8 207 1623 0.5 15 2231 7.8 238	17 M	0506 -0.3 -9 1109 7.0 213 1712 0.5 15 2319 7.8 238
3 W	0359 0.3 9 1006 6.8 207 1614 0.2 6 2223 7.1 216	18 Th	0405 -0.8 -24 1010 7.7 235 1624 -0.6 -18 2231 8.3 253	3 F	0408 0.1 3 1013 6.8 207 1615 0.4 12 2224 7.5 229	18 Sa	0438 -0.7 -21 1041 7.3 223 1647 -0.1 -3 2255 8.3 253	3 M	0503 -0.3 -9 1109 6.9 210 1708 0.4 12 2315 7.9 241	18 Tu	0549 -0.2 -6 1153 6.9 210 1756 0.6 18
4 Th	0438 0.1 3 1044 6.9 210 1650 0.1 3 2259 7.3 223	19 F	0455 -1.0 -30 1100 7.7 235 1711 -0.6 -18 2318 8.4 256	4 Sa	0448 -0.1 -3 1053 6.9 210 1654 0.3 9 2302 7.6 232	19 Su	0525 -0.7 -21 1128 7.3 223 1733 0.1 3 2340 8.1 247	4 Tu	0548 -0.4 -12 1154 7.0 213 1754 0.4 12	19 W	0003 7.6 232 0631 0.0 0 1237 6.8 207 1839 0.7 21
5 F	0516 0.0 0 1121 6.9 210 1726 0.1 3 2333 7.4 226	20 Sa	0544 -1.0 -30 1148 7.6 232 1757 -0.4 -12	5 Su	0528 -0.2 -6 1134 6.9 210 1734 0.3 9 2340 7.7 235	20 M	0610 -0.5 -15 1214 7.1 216 1818 0.3 9	5 W	0000 8.0 244 0635 -0.5 -15 1241 7.1 216 1843 0.4 12	20 Th	0046 7.4 226 0712 0.2 6 1320 6.8 207 1923 0.9 27
6 Sa	0553 -0.1 -3 1159 6.9 210 1802 0.2 6	21 Su	0004 8.3 253 0631 -0.8 -24 1236 7.4 226 1843 -0.1 -3	6 M	0609 -0.3 -9 1215 6.9 210 1815 0.4 12	21 Tu	0025 7.9 241 0655 -0.3 -9 1300 7.0 213 1904 0.6 18	6 Th	0049 7.9 241 0724 -0.4 -12 1330 7.1 216 1935 0.4 12	21 F	0130 7.1 216 0754 0.4 12 1403 6.7 204 2009 1.0 30
7 Su	0008 7.4 226 0631 -0.2 -6 1237 6.9 210 1839 0.3 9	22 M	0050 8.1 247 0718 -0.6 -18 1323 7.1 216 1929 0.2 6	7 Tu	0020 7.7 235 0652 -0.3 -9 1259 6.9 210 1859 0.5 15	22 W	0110 7.5 229 0739 0.0 0 1346 6.8 207 1950 0.8 24	7 F	0141 7.8 238 0816 -0.3 -9 1423 7.1 216 2031 0.4 12	22 Sa	0215 6.8 207 0836 0.5 15 1448 6.6 201 2056 1.1 34
8 M	0044 7.4 226 0711 -0.1 -3 1317 6.8 207 1919 0.4 12	23 Tu	0137 7.7 235 0806 -0.2 -6 1412 6.8 207 2018 0.6 18	8 W	0104 7.7 235 0739 -0.2 -6 1346 6.8 207 1948 0.6 18	23 Th	0157 7.2 219 0825 0.3 9 1434 6.6 201 2039 1.1 34	8 Sa	0237 7.6 232 0911 -0.2 -6 1519 7.1 216 2131 0.5 15	23 Su	0301 6.6 201 0920 0.7 21 1534 6.6 201 2146 1.2 37
9 Tu	0124 7.4 226 0755 -0.1 -3 1401 6.6 201 2004 0.6 18	24 W	0226 7.2 219 0856 0.2 6 1503 6.5 198 2110 1.0 30	9 Th	0153 7.6 232 0830 -0.1 -3 1437 6.7 204 2042 0.7 21	24 F	0246 6.8 207 0912 0.6 18 1523 6.4 195 2131 1.3 40	9 Su	0336 7.4 226 1008 0.0 0 1618 7.2 219 2235 0.5 15	24 M	0350 6.3 192 1006 0.9 27 1622 6.6 201 2239 1.3 40
10 W	0209 7.3 223 0844 0.1 3 1451 6.4 195 2054 0.7 21	25 Th	0318 6.8 207 0948 0.6 18 1557 6.3 192 2206 1.2 37	10 F	0247 7.4 226 0926 0.1 3 1534 6.7 204 2142 0.8 24	25 Sa	0337 6.5 198 1001 0.8 24 1614 6.4 195 2226 1.4 43	10 M	0439 7.2 219 1106 0.1 3 1717 7.3 223 2339 0.4 12	25 Tu	0442 6.2 189 1054 0.9 27 1712 6.7 204 2333 1.2 37
11 Th	0301 7.1 216 0940 0.3 9 1547 6.3 192 2153 0.9 27	26 F	0414 6.4 195 1043 0.9 27 1654 6.1 186 2306 1.4 43	11 Sa	0348 7.2 219 1025 0.2 6 1634 6.7 204 2247 0.7 21	26 Su	0432 6.3 192 1052 1.0 30 1707 6.4 195 2323 1.4 43	11 Tu	0542 7.0 213 1205 0.1 3 1817 7.5 229	26 W	0536 6.1 186 1144 1.0 30 1802 6.8 207
12 F	0401 7.0 213 1042 0.4 12 1649 6.3 192 2259 0.9 27	27 Sa	0514 6.2 189 1139 1.0 30 1751 6.2 189	12 Su	0453 7.1 216 1127 0.2 6 1736 6.9 210 2354 0.6 18	27 M	0528 6.1 186 1143 1.0 30 1800 6.5 198	12 W	0043 0.2 6 0645 6.9 210 1302 0.2 6 1914 7.7 235	27 Th	0027 1.1 34 0630 6.1 186 1235 1.0 30 1851 6.9 210
13 Sa	0507 6.9 210 1147 0.3 9 1754 6.4 195	28 Su	0006 1.3 40 0613 6.1 186 1234 1.0 30 1846 6.3 192	13 M	0600 7.0 213 1228 0.2 6 1838 7.2 219	28 Tu	0019 1.2 37 0623 6.1 186 1234 1.0 30 1851 6.7 204	13 Th	0143 0.0 0 0745 6.9 210 1357 0.2 6 2009 7.9 241	28 F	0121 0.8 24 0724 6.1 186 1326 0.9 27 1940 7.2 219
14 Su	0007 0.7 21 0616 7.0 213 1250 0.2 6 1857 6.8 207	29 M	0103 1.2 37 0710 6.2 189 1324 0.9 27 1937 6.5 198	14 Tu	0059 0.3 9 0704 7.1 216 1326 0.0 0 1936 7.6 232	29 W	0112 1.0 30 0716 6.1 186 1323 0.9 27 1939 6.9 210	14 F	0239 -0.2 -6 0841 6.9 210 1449 0.2 6 2100 8.0 244	29 Sa	0212 0.5 15 0816 6.3 192 1416 0.8 24 2029 7.4 226
15 M	0113 0.3 9 0722 7.2 219 1350 -0.1 -3 1956 7.2 219	30 Tu	0155 0.9 27 0801 6.3 192 1411 0.8 24 2024 6.8 207	15 W	0159 0.0 0 0804 7.2 219 1420 -0.1 -3 2030 7.9 241	30 Th	0203 0.8 24 0806 6.3 192 1410 0.8 24 2024 7.2 219	15 Sa	0331 -0.3 -9 0934 7.0 213 1539 0.3 9 2149 8.0 244	30 Su	0302 0.2 6 0906 6.5 198 1506 0.6 18 2117 7.7 235
						31 F	0250 0.5 15 0854 6.4 195 1455 0.7 21 2107 7.4 226				

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

Bridgeport, Connecticut, 2019

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 M	0351	-0.1	-3		16 Tu	0446	0.0	0		1 Th	0506	-0.6	-18								
	0955	6.7	204		1049	6.8	207		1110	7.5	229	16 F	1144	7.0	213						
	1555	0.5	15		1652	0.6	18		1717	-0.2	-6	1751	0.6	18							
	2205	7.9	241		2300	7.5	229		2326	8.4	256	2358	7.2	219							
2 Tu	0439	-0.3	-9		17 W	0527	0.0	0		2 F	0556	-0.8	-24		1 Su	0000	8.3	253			
	1044	7.0	213		1131	6.8	207		1201	7.7	235	0613	0.3	9	16 M	0620	-0.8	-24			
	1645	0.3	9		1735	0.7	21		1811	-0.3	-9	1221	7.1	216	1318	8.4	256				
	2254	8.1	247		2342	7.4	226		2059	-0.1	-3	1830	0.6	18	1940	-0.5	-15				
3 W	0528	-0.5	-15		18 Th	0606	0.1	3		3 Sa	0618	8.3	253	18 Su	0036	7.1	216	2 M	0051	8.1	247
	1133	7.2	219		1212	6.8	207		0645	-0.8	-24	0648	0.4	12	0709	-0.6	-18				
	1735	0.1	3		1816	0.7	21		1251	7.9	241	1258	7.1	216	1318	8.4	256				
	2343	8.2	250						1905	-0.4	-12	1909	0.7	21	1940	-0.5	-15				
4 Th	0617	-0.6	-18		19 F	0623	7.3	223		4 Su	0111	8.1	247	19 M	0114	6.9	210	3 Tu	0144	7.8	238
	1222	7.3	223		0644	0.2	6		0735	-0.7	-21	0724	0.5	15	0800	-0.3	-9				
	1827	0.0	0		1251	6.8	207		1343	8.0	244	1335	7.1	216	1410	8.2	250				
					1857	0.8	24		2001	-0.3	-9	1949	0.7	21	2036	-0.2	-6				
5 F	0035	8.2	250		20 Sa	0103	7.1	216		5 M	0205	7.8	238	20 Tu	0153	6.7	204	4 W	0239	7.3	223
	0707	-0.6	-18		0722	0.4	12		0827	-0.5	-15	0802	0.6	18	0853	0.0	0				
	1313	7.4	226		1331	6.8	207		1437	8.0	244	1413	7.0	213	1505	7.9	241				
	1921	0.0	0		1938	0.9	27		2059	-0.1	-3	2032	0.8	24	2135	0.1	3				
6 Sa	0128	8.0	244		21 Su	0144	6.9	210		6 Tu	0302	7.4	226	21 W	0236	6.5	198	5 Th	0337	6.9	210
	0758	-0.6	-18		0800	0.5	15		0921	-0.2	-6	0843	0.8	24	0950	0.4	12				
	1406	7.5	229		1412	6.8	207		1533	7.9	241	1454	7.0	213	1603	7.6	232				
	2018	0.1	3		2022	1.0	30		2159	0.1	3	2118	0.9	27	2235	0.4	12				
7 Su	0223	7.8	238		22 M	0226	6.7	204		7 W	0400	7.1	216	22 Th	0322	6.3	192	6 F	0438	6.6	201
	0851	-0.4	-12		0840	0.6	18		1017	0.1	3	1017	0.1	3	0928	1.0	30				
	1500	7.6	232		1453	6.8	207		1630	7.7	235	1540	6.9	210	1505	7.9	241				
	2117	0.1	3		2108	1.0	30		2301	0.3	9	2210	1.0	30	1805	7.1	216				
8 M	0321	7.5	229		23 Tu	0311	6.4	195		8 Th	0502	6.7	204	23 F	0414	6.2	189	7 Sa	0541	6.4	195
	0946	-0.2	-6		0922	0.8	24		1116	0.4	12	1116	0.4	12	1019	1.1	34				
	1557	7.6	232		1537	6.8	207		1730	7.5	229	1631	6.9	210	1253	1.0	30				
	2219	0.2	6		2157	1.1	34					2307	0.9	27	1905	7.0	213				
9 Tu	0421	7.1	216		24 W	0359	6.2	189		9 F	0003	0.4	12	24 Sa	0511	6.1	186	8 Su	0039	0.7	21
	1042	0.0	0		1008	0.9	27		0604	6.5	198	1115	1.2	37	1115	1.2	37				
	1655	7.6	232		1624	6.8	207		1215	0.7	21	1728	7.0	213	1350	1.0	30				
	2322	0.3	9		2249	1.1	34		1829	7.4	226			2000	7.0	213					
10 W	0523	6.9	210		25 Th	0451	6.1	186		10 Sa	0104	0.4	12	25 Su	0007	0.8	24	9 M	0136	0.6	18
	1140	0.2	6		1058	1.0	30		0705	6.5	198	1314	0.8	24	1215	1.1	34				
	1754	7.6	232		1714	6.9	210		1314	0.8	24	1927	7.3	223	1828	7.2	219				
					2344	1.0	30		2021	0.4	12										
11 Th	0024	0.2	6		26 F	0547	6.1	186		11 Su	0201	0.4	12	26 M	0107	0.6	18	10 Tu	0227	0.6	18
	0625	6.7	204		1151	1.1	34		0803	6.5	198	0803	6.5	198	0917	6.8	207				
	1238	0.4	12		1806	7.0	213		1410	0.8	24	1410	0.8	24	1527	0.7	21				
	1852	7.7	235						2022	7.3	223	2022	7.3	223	1928	7.4	226				
12 F	0125	0.2	6		27 Sa	0041	0.8	24		12 M	0253	0.3	9	27 Tu	0205	0.3	9	11 W	0312	0.5	15
	0726	6.6	201		0644	6.1	186		0855	6.6	201	1502	0.8	24	0809	6.7	204				
	1335	0.5	15		1246	1.0	30		1502	0.8	24	2112	7.3	223	1415	0.5	15				
	1948	7.7	235		1900	7.2	219		2112	7.3	223	2112	7.3	223	2027	7.8	238				
13 Sa	0221	0.1	3		28 Su	0137	0.6	18		13 Tu	0340	0.3	9	28 W	0300	-0.1	-3	12 Th	0353	0.4	12
	0823	6.6	201		0741	6.3	192		0943	6.7	204	0904	7.1	216	0959	7.0	213				
	1429	0.5	15		1342	0.9	27		1549	0.7	21	1512	0.1	3	1609	0.6	18				
	2041	7.7	235		1955	7.4	226		2157	7.3	223	2122	8.1	247	2216	7.2	219				
14 Su	0313	0.0	0		29 M	0232	0.2	6		14 W	0422	0.2	6	29 Th	0352	-0.4	-12	13 F	0431	0.3	9
	0915	6.7	204		0835	6.5	198		1026	6.8	207	1026	6.8	207	0956	7.5	229				
	1520	0.6	18		1437	0.6	18		1632	0.6	18	1606	-0.3	-9	1609	0.6	18				
	2130	7.6	232		2049	7.7	235		2240	7.3	223	2216	8.3	253	2216	7.2	219				
15 M	0401	0.0	0		30 Tu	0325	-0.1	-3		15 Th	0501	0.2	6	30 F	0442	-0.7	-21	14 Sa	0506	0.3	9
	1004	6.7	204		0928	6.8	207		1106	6.9	210	1047	7.9	241	1113	7.2	219				
	1608	0.6	18		1531	0.3	9		1712	0.6	18	1700	-0.5	-15	1725	0.4	12				
	2216	7.6	232		2142	8.0	244		2319	7.3	223	2308	8.4	256	2331	7.2	219				
				31 W	0416	-0.4	-12		16 Th	0531	-0.8	-24	31 Sa	0531	-0.8	-24	15 Su	0540	0.3	9	
					1020	7.2	219				1137	8.2	250	1137	8.2	250	1149	7.3	223		
					1624	0.0	0				1753	-0.7	-21	1753	-0.7	-21	1802	0.4	12		
					2235	8.3	253														

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

Bridgeport, Connecticut, 2019

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 Tu	0030	7.9	241		16 W	0018	6.9	210		1 F	0150	6.9	210		16 Sa	0120	6.6	201		1 Su	0214	6.5	198		16 M	0152	6.7	204	
	0642	-0.5	-15			0619	0.6	18			0758	0.5	15			0721	0.6	18			0821	0.7	21			0759	0.2	6	
	1251	8.5	259			1226	7.4	226			1407	7.5	229			1327	7.3	223			1429	6.8	207			1405	7.3	223	
	1918	-0.6	-18			1852	0.2	6			2038	0.1	3			2003	0.0	0			2057	0.4	12			2039	-0.3	-9	
2 W	0122	7.6	232		17 Th	0057	6.7	204		2 Sa	0244	6.6	201		17 Su	0209	6.5	198		2 M	0305	6.3	192		17 Tu	0246	6.7	204	
	0733	-0.1	-3			0658	0.7	21			0852	0.8	24			0813	0.7	21			0915	0.9	27			0857	0.3	9	
	1342	8.2	250			1304	7.3	223			1501	7.0	213			1419	7.2	219			1522	6.4	195			1503	7.1	216	
	2011	-0.3	-9			1934	0.3	9			2133	0.5	15			2057	0.2	6			2147	0.6	18			2134	-0.2	-6	
3 Th	0215	7.2	219		18 F	0140	6.6	201		3 Su	0340	6.4	195		18 M	0304	6.4	195		3 Tu	0358	6.2	189		18 W	0343	6.8	207	
	0825	0.3	9			0741	0.9	27			0950	1.1	34			0911	0.8	24			1011	1.1	34			0959	0.3	9	
	1436	7.7	235			1347	7.2	219			1559	6.6	201			1517	7.0	213			1618	6.2	189			1604	6.8	207	
	2107	0.1	3			2021	0.4	12			2230	0.8	24			2155	0.2	6			2239	0.8	24			2233	-0.1	-3	
4 F	0312	6.8	207		19 Sa	0228	6.4	195		4 M	0438	6.2	189		19 Tu	0403	6.5	198		4 W	0452	6.2	189		19 Th	0443	6.9	210	
	0922	0.7	21			0830	1.0	30			1051	1.2	37			1014	0.8	24			1109	1.1	34			1104	0.2	6	
	1533	7.3	223			1436	7.1	216			1659	6.4	195			1621	6.9	210			1714	6.0	183			1708	6.7	204	
	2206	0.5	15			2115	0.5	15			2327	0.9	27			2256	0.2	6			2331	0.8	24			2332	-0.1	-3	
5 Sa	0411	6.5	198		20 Su	0322	6.3	192		5 Tu	0536	6.2	189		20 W	0504	6.6	201		5 Th	0546	6.3	192		20 F	0543	7.1	216	
	1022	1.0	30			0926	1.1	34			1152	1.2	37			1120	0.6	18			1205	1.0	30			1209	0.0	0	
	1633	7.0	213			1534	7.0	213			1759	6.3	192			1727	6.9	210			1810	5.9	180			1812	6.6	201	
	2307	0.7	21			2214	0.6	18								2356	0.1	3											
6 Su	0513	6.3	192		21 M	0422	6.3	192		6 W	0021	0.9	27		21 Th	0606	7.0	213		6 F	0022	0.8	24		21 Sa	0031	-0.1	-3	
	1125	1.2	37			1029	1.1	34			0631	6.4	195			1225	0.3	9			0637	6.4	195			0643	7.3	223	
	1735	6.7	204			1638	7.0	213			1248	1.1	34			1831	7.0	213			1259	0.8	24			1311	-0.2	-6	
						2317	0.5	15			1855	6.3	192								1903	6.0	183			1914	6.6	201	
7 M	0007	0.9	27		22 Tu	0524	6.4	195		7 Th	0111	0.8	24		22 F	0054	-0.1	-3		7 Sa	0110	0.7	21		22 Su	0127	-0.2	-6	
	0613	6.3	192			1135	0.9	27			0722	6.6	201			0704	7.4	226			0725	6.6	201			0739	7.6	232	
	1226	1.2	37			1744	7.1	216			1340	0.8	24			1327	-0.1	-3			1349	0.6	18			1410	-0.5	-15	
	1836	6.7	204								1945	6.4	195			1932	7.1	216			1953	6.1	186			2012	6.7	204	
8 Tu	0103	0.8	24		23 W	0019	0.4	12		8 F	0157	0.7	21		23 Sa	0149	-0.2	-6		8 Su	0156	0.6	18		23 M	0222	-0.2	-6	
	0710	6.5	198			0626	6.8	207			0808	6.9	210			0759	7.8	238			0811	6.9	210			0833	7.7	235	
	1323	1.1	34			1240	0.6	18			1427	0.6	18			1425	-0.5	-15			1435	0.3	9			1504	-0.7	-21	
	1932	6.7	204			1849	7.3	223			2032	6.5	198			2028	7.2	219			2040	6.2	189			2106	6.8	207	
9 W	0153	0.7	21		24 Th	0118	0.1	3		9 Sa	0239	0.5	15		24 Su	0242	-0.4	-12		9 M	0240	0.5	15		24 Tu	0314	-0.3	-9	
	0800	6.7	204			0725	7.2	219			0851	7.1	216			0851	8.1	247			0853	7.1	216			0924	7.8	238	
	1414	0.9	27			1342	0.1	3			1510	0.4	12			1519	-0.8	-24			1519	0.1	3			1555	-0.8	-24	
	2021	6.8	207			1949	7.5	229			2115	6.6	201			2122	7.3	223			2124	6.4	195			2157	6.8	207	
10 Th	0238	0.6	18		25 F	0213	-0.2	-6		10 Su	0319	0.4	12		25 M	0332	-0.5	-15		10 Tu	0323	0.4	12		25 W	0403	-0.2	-6	
	0846	6.9	210			0820	7.7	235			0930	7.3	223			0941	8.3	253			0934	7.2	219			1013	7.8	238	
	1500	0.6	18			1439	-0.3	-9			1551	0.2	6			1610	-0.9	-27			1602	-0.2	-6			1643	-0.8	-24	
	2106	6.9	210			2046	7.7	235			2156	6.7	204			2213	7.3	223			2207	6.5	198			2245	6.8	207	
11 F	0318	0.5	15		26 Sa	0304	-0.5	-15		11 M	0357	0.4	12		26 Tu	0420	-0.4	-12		11 W	0406	0.3	9		26 Th	0451	-0.2	-6	
	0927	7.1	216			0912	8.2	250			1008	7.4	226			1029	8.3	253			1015	7.4	226			1059	7.7	235	
	1541	0.5	15			1534	-0.7	-21			1630	0.0	0			1659	-1.0	-30			1644	-0.3	-9			1728	-0.7	-21	
	2147	7.0	213			2139	7.8	238			2235	6.8	207			2301	7.3	223			2249	6.6	201			2331	6.8	207	
12 Sa	0356	0.4	12		27 Su	0354	-0.6	-18		12 Tu	0435	0.3	9		27 W	0508	-0.3	-9		12 Th	0448	0.2	6		27 F	0536	-0.1	-3	
	1005	7.3	223			1001	8.5	259			1044	7.5	229			1116	8.2	250			1056	7.5	229			1144	7.5	229	
	1620	0.3	9			1626	-0.9	-27			1709	-0.1	-3			1746	-0.8	-24			1726	-0.5	-15			1812	-0.5	-15	
	2226	7.0	213			2230	7.9	241			2314	6.8	207			2349	7.1	216			2332	6.7	204						
13 Su	0432	0.4	12		28 M	0441	-0.6	-18		13 W	0514	0.4	12		28 Th	0555	-0.1	-3		13 F	0531	0.2	6		28 Sa	0015	6.7	204	
	1041	7.4	226			1050	8.6	262			1121	7.5	229			1203	7.9	241			1138	7.5	229			0621	0.1	3	
	1658	0.2	6			1716	-1.0	-30			1748	-0.1	-3			1833	-0.6	-18			1810	-0.5	-15			1228	7.3	223	
	2303	7.0	213			2320	7.8	238			2354	6.7	204											1854		-0.3	-9		
14 M	0507	0.4	12		29 Tu	0529	-0.5	-15		14 Th	0553	0.4	12																

New York (The Battery), New York, 2019

Times and Heights of High and Low Waters

January				February				March								
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height			
<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>		
1 Tu	0432 1055 1652 2308	4.8 0.0 4.0 -0.2	146 0 122 -6	16 W	0310 1021 1545 2218	4.3 0.5 3.7 0.1	131 15 113 3	1 F	0552 1213 1818	4.6 0.0 3.9	140 0 119	16 Sa	0447 1146 1733 2348	4.9 -0.2 4.2 -0.3	149 12 128 -9	
2 W	0526 1147 1748 2356	4.9 -0.1 4.0 -0.2	149 -3 122 -6	17 Th	0412 1115 1652 2312	4.6 0.1 3.9 -0.1	140 3 119 -3	2 Sa	0020 0638 1259 1903	0.1 4.7 -0.1 4.0	3 143 -3 122	17 Su	0552 1239 1831	5.2 -0.6 4.6	158 -18 140	
3 Th	0614 1236 1836	5.0 -0.2 4.1	152 -6 125	18 F	0513 1208 1752	4.9 -0.3 4.1	149 -9 125	3 Su	0105 0719 1342 1944	0.0 4.8 -0.2 4.1	0 146 -6 125	18 M	0044 0648 1331 1923	-0.7 5.6 -0.9 4.9	-21 171 -27 149	
4 F	0042 0657 1322 1921	-0.2 5.0 -0.3 4.1	-6 152 -9 125	19 Sa	0005 0609 1301 1846	-0.4 5.3 -0.6 4.4	-12 162 -18 134	4 M	0148 0758 1423 2023	0.0 4.9 -0.3 4.2	0 149 -9 128	19 Tu	0139 0740 1421 2014	-0.9 5.7 -1.2 5.2	-27 174 -37 158	
5 Sa	0127 0738 1406 2003	-0.1 5.0 -0.4 4.1	-3 152 -12 125	20 Su	0100 0701 1352 1937	-0.7 5.6 -0.9 4.6	-21 171 -27 140	5 Tu	0229 0835 1501 2101	0.0 4.8 -0.3 4.2	0 146 -9 128	20 W	0231 0831 1509 2105	-1.1 5.8 -1.3 5.3	-34 177 -40 162	
6 Su	0210 0817 1448 2045	-0.1 5.0 -0.4 4.1	-3 152 -12 125	21 M	0153 0752 1442 2029	-0.9 5.7 -1.1 4.8	-27 174 -34 146	6 W	0308 0911 1537 2138	0.0 4.7 -0.3 4.1	0 143 -9 125	21 Th	0322 0923 1555 2158	-1.1 5.6 -1.2 5.3	-34 171 -37 162	
7 M	0250 0855 1528 2127	0.0 4.9 -0.3 4.0	0 149 -9 122	22 Tu	0246 0844 1531 2124	-1.0 5.7 -1.2 4.9	-30 174 -37 149	7 Th	0344 0946 1611 2212	0.1 4.6 -0.2 4.1	3 140 -6 125	22 F	0413 1017 1642 2252	-1.0 5.4 -1.0 5.3	-30 165 -30 162	
8 Tu	0329 0934 1606 2210	0.1 4.7 -0.2 3.9	3 143 -6 119	23 W	0337 0939 1619 2221	-1.0 5.6 -1.2 4.9	-30 171 -37 149	8 F	0419 1020 1641 2245	0.2 4.4 0.0 4.0	6 134 0 122	23 Sa	0504 1112 1730 2346	-0.7 5.0 -0.6 5.1	-21 152 -18 155	
9 W	0406 1014 1642 2253	0.3 4.5 0.0 3.8	9 137 0 116	24 Th	0429 1036 1708 2319	-0.8 5.4 -1.0 4.9	-24 165 -30 149	9 Sa	0451 1054 1709 2317	0.4 4.2 0.1 4.0	12 128 3 122	24 Su	0559 1207 1822	-0.3 4.6 -0.2	-9 140 -6	
10 Th	0441 1054 1718 2334	0.5 4.3 0.1 3.7	15 131 3 113	25 F	0523 1133 1800	-0.6 5.1 -0.7	-18 155 -21	10 Su	0525 1132 1737 2352	0.5 4.0 0.3 4.1	15 122 9 125	25 M	0039 0700 1301 1920	4.9 0.1 4.3 0.2	149 3 131 6	
11 F	0516 1134 1753	0.7 4.1 0.3	21 125 9	26 Sa	0015 0623 1230 1857	4.8 -0.2 4.7 -0.4	146 -6 143 -12	11 M	0609 1215 1816	0.7 3.9 0.4	21 119 12	26 Tu	0133 0805 1358 2022	4.7 0.4 4.0 0.5	143 12 122 15	
12 Sa	0013 0557 1213 1833	3.7 0.8 4.0 0.4	113 24 122 12	27 Su	0110 0728 1326 1956	4.7 0.1 4.4 -0.2	143 3 134 -6	12 Tu	0035 0726 1304 1916	4.2 0.8 3.8 0.5	128 24 116 15	27 W	0228 0908 1458 2122	4.5 0.5 3.8 0.6	137 15 116 18	
13 Su	0049 0700 1255 1924	3.8 1.0 3.8 0.5	116 30 116 15	28 M	0205 0834 1423 2056	4.6 0.2 4.0 0.0	140 6 122 0	13 W	0125 0847 1403 2039	4.3 0.7 3.7 0.5	131 21 113 15	28 Th	0328 1006 1602 2218	4.3 0.5 3.7 0.6	131 15 113 18	
14 M	0129 0818 1343 2025	3.9 0.9 3.7 0.5	119 27 113 15	29 Tu	0303 0937 1525 2151	4.5 0.2 3.8 0.1	137 6 116 3	14 Th	0224 0952 1512 2149	4.4 0.5 3.7 0.3	134 15 113 9	14 Th	0053 0818 1344 2010	4.6 0.7 3.9 0.7	140 21 119 21	
15 Tu	0215 0924 1439 2123	4.0 0.8 3.7 0.3	122 24 113 9	30 W	0402 1033 1629 2243	4.5 0.2 3.7 0.1	137 6 113 3	15 F	0334 1051 1626 2250	4.6 0.2 3.9 0.0	140 6 119 0	15 F	0157 0928 1454 2129	4.6 0.5 3.9 0.5	140 15 119 15	
				31 Th	0500 1125 1727 2333	4.5 0.1 3.8 0.1	137 3 116 3						31 Su	0451 1113 1725 2329	4.3 0.5 4.1 0.7	131 15 125 21

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

New York (The Battery), New York, 2019

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 M	0102 0.1 3 0645 4.5 137 1254 0.2 6 1851 5.7 174	16 Tu	0149 0.0 0 0748 4.5 137 1352 0.4 12 2000 5.5 168	1 Th	0217 -0.5 -15 0804 5.1 155 1419 -0.3 -9 2013 6.1 186	16 F	0245 0.1 3 0847 4.7 143 1454 0.5 15 2055 5.2 158	1 Su	0328 -0.8 -24 0928 5.8 177 1547 -0.5 -15 2144 5.8 177	16 M	0322 0.3 9 0920 4.9 149 1545 0.6 18 2133 4.8 146
2 Tu	0151 -0.2 -6 0733 4.6 140 1344 0.0 0 1937 5.9 180	17 W	0233 0.0 0 0832 4.5 137 1436 0.5 15 2041 5.4 165	2 F	0305 -0.7 -21 0857 5.3 162 1512 -0.4 -12 2107 6.0 183	17 Sa	0322 0.1 3 0926 4.7 143 1533 0.6 18 2132 5.0 152	2 M	0415 -0.7 -21 1023 5.8 177 1639 -0.3 -9 2241 5.5 168	17 Tu	0352 0.4 12 0947 4.9 149 1620 0.7 21 2207 4.6 140
3 W	0239 -0.4 -12 0822 4.8 146 1435 -0.1 -3 2025 5.9 180	18 Th	0314 0.0 0 0916 4.5 137 1518 0.6 18 2122 5.2 158	3 Sa	0353 -0.8 -24 0952 5.4 165 1604 -0.3 -9 2203 5.8 177	18 Su	0357 0.2 6 1004 4.6 140 1610 0.7 21 2209 4.8 146	3 Tu	0503 -0.4 -12 1120 5.7 174 1734 0.0 0 2339 5.1 155	18 W	0419 0.5 15 1016 4.8 146 1656 0.9 27 2245 4.4 134
4 Th	0327 -0.5 -15 0915 4.9 149 1526 -0.1 -3 2119 5.9 180	19 F	0353 0.1 3 1001 4.4 134 1558 0.7 21 2204 5.0 152	4 Su	0441 -0.7 -21 1050 5.4 165 1657 -0.2 -6 2302 5.6 171	19 M	0429 0.4 12 1041 4.6 140 1646 0.9 27 2246 4.6 140	4 W	0554 0.0 0 1215 5.6 171 1835 0.4 12	19 Th	0445 0.7 21 1052 4.8 146 1735 1.0 30 2330 4.2 128
5 F	0415 -0.6 -18 1013 4.9 149 1617 -0.1 -3 2217 5.7 174	20 Sa	0431 0.2 6 1046 4.4 134 1636 0.9 27 2246 4.8 146	5 M	0531 -0.5 -15 1147 5.5 168 1755 0.1 3	20 Tu	0458 0.6 18 1114 4.5 137 1722 1.1 34 2324 4.4 134	5 Th	0037 4.8 146 0652 0.4 12 1310 5.4 165 1940 0.6 18	20 F	0518 0.9 27 1137 4.8 146 1834 1.2 37
6 Sa	0504 -0.5 -15 1112 5.0 152 1712 0.1 3 2318 5.5 168	21 Su	0507 0.4 12 1129 4.3 131 1715 1.1 34 2327 4.6 140	6 Tu	0000 5.3 162 0625 -0.2 -6 1243 5.4 165 1858 0.4 12	21 W	0524 0.7 21 1147 4.6 140 1806 1.2 37	6 F	0135 4.5 137 0755 0.7 21 1406 5.2 158 2045 0.7 21	21 Sa	0023 4.1 125 0605 1.0 30 1230 4.9 149 1953 1.2 37
7 Su	0556 -0.3 -9 1210 5.1 155 1812 0.3 9	22 M	0542 0.6 18 1209 4.3 131 1759 1.3 40	7 W	0057 4.9 149 0723 0.1 3 1337 5.4 165 2005 0.5 15	22 Th	0005 4.2 128 0556 0.9 27 1224 4.6 140 1911 1.3 40	7 Sa	0236 4.3 131 0857 0.9 27 1504 5.0 152 2145 0.7 21	22 Su	0121 4.0 122 0723 1.1 34 1329 4.9 149 2103 1.0 30
8 M	0017 5.3 162 0653 -0.2 -6 1306 5.2 158 1919 0.5 15	23 Tu	0007 4.4 134 0619 0.8 24 1245 4.3 131 1854 1.4 43	8 Th	0154 4.6 140 0824 0.3 9 1433 5.3 162 2109 0.6 18	23 F	0050 4.1 125 0644 1.0 30 1308 4.7 143 2025 1.3 40	8 Su	0339 4.2 128 0955 0.9 27 1605 4.9 149 2238 0.6 18	23 M	0227 4.1 125 0855 1.0 30 1437 5.0 152 2202 0.7 21
9 Tu	0114 5.0 152 0753 0.0 0 1401 5.2 158 2027 0.5 15	24 W	0047 4.2 128 0701 0.9 27 1321 4.4 134 2001 1.4 43	9 F	0255 4.4 134 0922 0.5 15 1531 5.2 158 2208 0.5 15	24 Sa	0143 4.0 122 0800 1.1 34 1400 4.8 146 2130 1.1 34	9 M	0440 4.2 128 1047 0.9 27 1702 5.0 152 2327 0.5 15	24 Tu	0337 4.3 131 1003 0.7 21 1550 5.2 158 2256 0.3 9
10 W	0212 4.8 146 0851 0.1 3 1458 5.3 162 2130 0.5 15	25 Th	0130 4.1 125 0755 0.9 27 1400 4.5 137 2104 1.3 40	10 Sa	0359 4.2 128 1017 0.5 15 1631 5.2 158 2302 0.4 12	25 Su	0245 4.0 122 0917 0.9 27 1502 5.0 152 2226 0.8 24	10 Tu	0535 4.4 134 1136 0.8 24 1752 5.1 155	25 W	0445 4.7 143 1102 0.3 9 1659 5.5 168 2348 -0.1 -3
11 Th	0314 4.5 137 0946 0.1 3 1556 5.3 162 2228 0.3 9	26 F	0220 4.0 122 0854 0.9 27 1446 4.7 143 2200 1.1 34	11 Su	0501 4.3 131 1108 0.6 18 1726 5.2 158 2352 0.3 9	26 M	0355 4.2 128 1019 0.7 21 1611 5.2 158 2320 0.4 12	11 W	0012 0.4 12 0622 4.6 140 1222 0.7 21 1835 5.2 158	26 Th	0544 5.1 155 1158 0.0 0 1758 5.8 177
12 F	0418 4.4 134 1039 0.2 6 1654 5.4 165 2322 0.2 6	27 Sa	0319 4.0 122 0949 0.8 24 1541 4.9 149 2253 0.8 24	12 M	0556 4.4 134 1158 0.6 18 1815 5.3 162	27 Tu	0503 4.4 134 1117 0.4 12 1717 5.5 168	12 Th	0054 0.3 9 0703 4.8 146 1306 0.6 18 1915 5.2 158	27 F	0038 -0.4 -12 0636 5.5 168 1253 -0.4 -12 1851 5.9 180
13 Sa	0519 4.4 134 1129 0.2 6 1747 5.5 168	28 Su	0424 4.1 125 1043 0.6 18 1641 5.2 158 2345 0.4 12	13 Tu	0039 0.3 9 0644 4.5 137 1245 0.5 15 1859 5.3 162	28 W	0012 0.0 0 0602 4.8 146 1214 0.0 0 1815 5.8 177	13 F	0134 0.2 6 0741 4.9 149 1349 0.5 15 1951 5.2 158	28 Sa	0127 -0.7 -21 0725 5.9 180 1347 -0.6 -18 1941 6.0 183
14 Su	0013 0.1 3 0614 4.4 134 1218 0.3 9 1834 5.5 168	29 M	0527 4.3 131 1137 0.4 12 1738 5.5 168	14 W	0124 0.2 6 0727 4.6 140 1330 0.5 15 1939 5.4 165	29 Th	0103 -0.3 -9 0655 5.2 158 1309 -0.3 -9 1907 6.1 186	14 Sa	0213 0.2 6 0816 4.9 149 1429 0.5 15 2026 5.1 155	29 Su	0215 -0.8 -24 0813 6.1 186 1439 -0.7 -21 2031 5.9 180
15 M	0102 0.0 0 0703 4.5 137 1306 0.3 9 1918 5.5 168	30 Tu	0036 0.1 3 0622 4.6 140 1231 0.1 3 1832 5.8 177	15 Th	0206 0.1 3 0808 4.7 143 1413 0.5 15 2017 5.3 162	30 F	0153 -0.6 -18 0745 5.5 168 1403 -0.5 -15 1958 6.2 189	15 Su	0248 0.2 6 0849 5.0 152 1508 0.5 15 2100 5.0 152	30 M	0302 -0.8 -24 0903 6.1 186 1530 -0.6 -18 2123 5.6 171
		31 W	0127 -0.2 -6 0713 4.9 149 1326 -0.1 -3 1922 6.0 183			31 Sa	0241 -0.8 -24 0835 5.7 174 1456 -0.6 -18 2050 6.1 186				

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

Bayonne Bridge, Staten Island, New York, 2019

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 M	0542 4.9 149 1205 0.4 12 1808 4.8 146	16 Tu	0515 5.7 174 1203 -0.5 -15 1756 5.8 177	1 W	0548 4.9 149 1204 0.4 12 1812 5.3 162	16 Th	0006 -0.2 -6 0552 5.6 171 1226 -0.4 -12 1826 6.4 195	1 Sa	0050 0.3 9 0634 4.9 149 1246 0.2 6 1844 6.0 183	16 Su	0133 -0.2 -6 0715 5.2 158 1337 0.1 3 1936 6.3 192
2 Tu	0022 0.5 15 0627 5.1 155 1246 0.2 6 1850 5.1 155	17 W	0023 -0.4 -12 0614 5.9 180 1254 -0.7 -21 1847 6.3 192	2 Th	0035 0.5 15 0631 5.1 155 1244 0.2 6 1849 5.6 171	17 F	0100 -0.4 -12 0646 5.7 174 1315 -0.4 -12 1913 6.5 198	2 Su	0138 0.1 3 0715 5.1 155 1332 0.1 3 1921 6.2 189	17 M	0221 -0.2 -6 0802 5.2 158 1424 0.2 6 2019 6.2 189
3 W	0106 0.3 9 0707 5.2 158 1326 0.0 0 1925 5.3 162	18 Th	0117 -0.7 -21 0706 6.1 186 1342 -0.8 -24 1935 6.5 198	3 F	0120 0.2 6 0710 5.2 158 1325 0.1 3 1921 5.8 177	18 Sa	0151 -0.5 -15 0734 5.7 174 1403 -0.3 -9 1957 6.6 201	3 M	0226 -0.1 -3 0756 5.1 155 1418 0.1 3 1959 6.3 192	18 Tu	0307 -0.2 -6 0847 5.0 152 1508 0.4 12 2100 6.0 183
4 Th	0149 0.1 3 0742 5.3 162 1404 -0.1 -3 1956 5.5 168	19 F	0210 -0.9 -27 0755 6.1 186 1430 -0.8 -24 2020 6.6 201	4 Sa	0205 0.1 3 0745 5.2 158 1405 0.1 3 1950 6.0 183	19 Su	0241 -0.5 -15 0821 5.5 168 1448 -0.2 -6 2041 6.4 195	4 Tu	0312 -0.3 -9 0839 5.1 155 1505 0.0 0 2040 6.4 195	19 W	0349 -0.1 -3 0934 4.9 149 1548 0.6 18 2143 5.7 174
5 F	0230 0.0 0 0814 5.3 162 1440 -0.1 -3 2023 5.6 171	20 Sa	0259 -0.9 -27 0841 5.9 180 1515 -0.6 -18 2105 6.5 198	5 Su	0248 -0.1 -3 0819 5.2 158 1445 0.1 3 2021 6.1 186	20 M	0327 -0.4 -12 0908 5.3 162 1532 0.1 3 2124 6.1 186	5 W	0358 -0.3 -9 0927 5.1 155 1551 0.1 3 2126 6.3 192	20 Th	0429 0.1 3 1023 4.7 143 1626 0.8 24 2227 5.4 165
6 Sa	0309 -0.1 -3 0844 5.2 158 1514 -0.1 -3 2048 5.6 171	21 Su	0346 -0.7 -21 0929 5.6 171 1557 -0.3 -9 2152 6.2 189	6 M	0330 -0.1 -3 0855 5.1 155 1524 0.1 3 2055 6.1 186	21 Tu	0411 -0.2 -6 0957 5.1 155 1612 0.4 12 2210 5.8 177	6 Th	0444 -0.3 -9 1022 5.1 155 1638 0.2 6 2220 6.1 186	21 F	0506 0.3 9 1113 4.6 140 1703 1.1 34 2313 5.2 158
7 Su	0346 -0.1 -3 0914 5.1 155 1547 0.0 0 2117 5.6 171	22 M	0432 -0.5 -15 1020 5.3 162 1639 0.1 3 2241 5.8 177	7 Tu	0411 -0.1 -3 0936 5.0 152 1603 0.2 6 2136 6.0 183	22 W	0453 0.0 0 1050 4.8 146 1652 0.8 24 2259 5.4 165	7 F	0531 -0.2 -6 1124 5.1 155 1729 0.3 9 2322 5.9 180	22 Sa	0543 0.5 15 1202 4.6 140 1740 1.3 40
8 M	0423 0.0 0 0949 4.9 149 1620 0.1 3 2153 5.6 171	23 Tu	0516 -0.1 -3 1115 4.9 149 1719 0.5 15 2333 5.5 168	8 W	0454 0.0 0 1026 4.9 149 1645 0.3 9 2225 5.9 180	23 Th	0535 0.4 12 1144 4.6 140 1731 1.1 34 2351 5.2 158	8 Sa	0624 -0.1 -3 1226 5.2 158 1828 0.5 15	23 Su	0000 4.9 149 0621 0.7 21 1247 4.6 140 1825 1.4 43
9 Tu	0501 0.2 6 1032 4.8 146 1654 0.3 9 2238 5.6 171	24 W	0603 0.3 9 1210 4.7 143 1803 1.0 30	9 Th	0540 0.2 6 1126 4.8 146 1731 0.5 15 2324 5.7 174	24 F	0618 0.7 21 1236 4.5 137 1814 1.4 43	9 Su	0026 5.8 177 0723 0.0 0 1324 5.3 162 1938 0.7 21	24 M	0044 4.8 146 0703 0.8 24 1328 4.6 140 1925 1.6 49
10 W	0543 0.4 12 1126 4.6 140 1735 0.5 15 2333 5.5 168	25 Th	0026 5.1 155 0655 0.7 21 1304 4.5 137 1856 1.3 40	10 F	0635 0.3 9 1230 4.8 146 1830 0.7 21	25 Sa	0041 4.9 149 0708 0.9 27 1325 4.5 137 1912 1.6 49	10 M	0127 5.6 171 0825 0.1 3 1420 5.5 168 2050 0.6 18	25 Tu	0127 4.6 140 0754 0.9 27 1408 4.7 143 2037 1.5 46
11 Th	0639 0.6 18 1229 4.5 137 1829 0.7 21	26 F	0118 4.9 149 0756 1.0 30 1357 4.4 134 2006 1.5 46	11 Sa	0029 5.6 171 0742 0.4 12 1332 4.9 149 1946 0.8 24	26 Su	0130 4.7 143 0804 1.0 30 1413 4.5 137 2025 1.6 49	11 Tu	0227 5.4 165 0925 0.0 0 1516 5.7 174 2156 0.4 12	26 W	0213 4.5 137 0849 0.9 27 1450 4.9 149 2142 1.3 40
12 F	0035 5.4 165 0755 0.7 21 1334 4.6 140 1950 0.8 24	27 Sa	0211 4.7 143 0858 1.0 30 1450 4.4 134 2116 1.5 46	12 Su	0135 5.5 168 0850 0.3 9 1433 5.1 155 2105 0.7 21	27 M	0218 4.6 140 0859 1.0 30 1500 4.6 140 2130 1.5 46	12 W	0327 5.3 162 1020 -0.1 -3 1614 5.9 180 2254 0.2 6	27 Th	0303 4.5 137 0941 0.8 24 1537 5.1 155 2237 1.0 30
13 Sa	0141 5.4 165 0912 0.5 15 1441 4.7 143 2117 0.7 21	28 Su	0305 4.6 140 0953 1.0 30 1545 4.5 137 2213 1.3 40	13 M	0240 5.5 168 0951 0.1 3 1535 5.4 165 2212 0.4 12	28 Tu	0309 4.6 140 0949 0.9 27 1549 4.8 146 2225 1.2 37	13 Th	0430 5.2 158 1111 -0.1 -3 1711 6.1 186 2349 0.0 0	28 F	0400 4.5 137 1031 0.6 18 1628 5.4 165 2329 0.7 21
14 Su	0252 5.4 165 1015 0.2 6 1550 5.0 152 2226 0.4 12	29 M	0402 4.6 140 1040 0.8 24 1639 4.7 143 2303 1.1 34	14 Tu	0347 5.5 168 1046 -0.1 -3 1636 5.7 174 2311 0.1 3	29 W	0403 4.6 140 1034 0.7 21 1638 5.1 155 2314 0.9 27	14 F	0530 5.2 158 1200 -0.1 -3 1804 6.2 189	29 Sa	0501 4.6 140 1120 0.4 12 1720 5.7 174
15 M	0406 5.5 168 1111 -0.1 -3 1657 5.4 165 2326 0.0 0	30 Tu	0458 4.7 143 1123 0.6 18 1729 5.0 152 2350 0.8 24	15 W	0453 5.5 168 1137 -0.3 -9 1734 6.1 186	30 Th	0458 4.7 143 1118 0.5 15 1724 5.4 165	15 Sa	0042 -0.1 -3 0625 5.2 158 1249 0.0 0 1852 6.3 192	30 Su	0021 0.4 12 0557 4.8 146 1210 0.3 9 1809 6.0 183
						31 F	0002 0.6 18 0548 4.8 146 1201 0.4 12 1806 5.7 174				

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

Bayonne Bridge, Staten Island, New York, 2019

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 M	0112	0.1	3		16 Tu	0200	0.0	0		1 Th	0231	-0.6	-18						
	0647	5.0	152			0743	5.0	152			0807	5.6	171						
	1303	0.1	3			1401	0.4	12			1432	-0.4	-12						
	1856	6.3	192			1959	5.9	180			2016	6.7	204						
2 Tu	0204	-0.2	-6		17 W	0244	0.0	0		2 F	0320	-0.8	-24		16 F	0255	0.1	3	
	0735	5.2	158			0827	5.0	152			0858	5.8	177			0843	5.1	155	
	1356	0.0	0			1445	0.5	15			1525	-0.5	-15			1502	0.6	18	
	1941	6.5	198			2039	5.8	177			2108	6.6	201			2052	5.6	171	
3 W	0253	-0.5	-15		18 Th	0325	0.0	0		3 Sa	0407	-0.9	-27		18 Su	0403	0.2	6	
	0824	5.3	162			0909	4.9	149			0953	5.9	180			0952	5.0	152	
	1448	-0.1	-3			1525	0.6	18			1616	-0.5	-15			1614	0.7	21	
	2028	6.6	201			2117	5.6	171			2203	6.4	195			2156	5.2	158	
4 Th	0341	-0.6	-18		19 F	0402	0.1	3		4 Su	0453	-0.8	-24		19 M	0433	0.3	9	
	0915	5.4	165			0952	4.8	146			1051	5.9	180			1023	5.0	152	
	1539	-0.2	-6			1603	0.8	24			1707	-0.3	-9			1647	0.9	27	
	2119	6.5	198			2156	5.4	165			2301	6.1	186			2228	5.0	152	
5 F	0428	-0.7	-21		20 Sa	0436	0.2	6		5 M	0541	-0.6	-18		20 Tu	0501	0.5	15	
	1012	5.4	165			1035	4.7	143			1149	6.0	183			1054	5.0	152	
	1629	-0.1	-3			1638	0.9	27			1802	0.0	0			1720	1.0	30	
	2215	6.3	192			2234	5.2	158								2306	4.8	146	
6 Sa	0515	-0.6	-18		21 Su	0508	0.4	12		6 Tu	0000	5.8	177		21 W	0529	0.6	18	
	1112	5.5	168			1118	4.7	143			0631	-0.3	-9			1130	5.0	152	
	1721	0.0	0			1712	1.1	34			1245	5.9	180			1758	1.2	37	
	2316	6.1	186			2313	5.0	152			1903	0.3	9			2351	4.7	143	
7 Su	0605	-0.5	-15		22 M	0538	0.5	15		7 W	0057	5.5	168		22 Th	0603	0.8	24	
	1211	5.6	171			1157	4.7	143			0727	0.0	0			1214	5.1	155	
	1818	0.2	6			1748	1.2	37			1338	5.9	180			1850	1.3	40	
						2354	4.8	146			2010	0.5	15						
8 M	0017	5.8	177		23 Tu	0611	0.7	21		8 Th	0152	5.2	158		23 F	0041	4.6	140	
	0659	-0.3	-9			1233	4.8	146			0828	0.3	9			0648	0.9	27	
	1307	5.7	174			1833	1.4	43			1432	5.8	177			1303	5.2	158	
	1922	0.4	12								2116	0.6	18			2010	1.3	40	
9 Tu	0114	5.6	171		24 W	0036	4.7	143		9 F	0249	4.9	149		24 Sa	0137	4.5	137	
	0757	-0.1	-3			0649	0.8	24			0929	0.5	15			0752	1.0	30	
	1401	5.8	177			1310	4.9	149			1527	5.7	174			1357	5.4	165	
	2032	0.5	15			1938	1.4	43			2217	0.6	18			2128	1.2	37	
10 W	0210	5.3	162		25 Th	0122	4.5	137		10 Sa	0349	4.7	143		25 Su	0238	4.5	137	
	0857	0.0	0			0741	0.9	27			1024	0.5	15			0911	0.9	27	
	1455	5.8	177			1352	5.1	155			1625	5.6	171			1458	5.5	168	
	2137	0.5	15			2055	1.4	43			2311	0.5	15			2232	0.8	24	
11 Th	0308	5.1	155		26 F	0213	4.5	137		11 Su	0450	4.7	143		26 M	0348	4.6	140	
	0954	0.1	3			0844	0.9	27			1116	0.6	18			1021	0.7	21	
	1551	5.8	177			1440	5.2	158			1722	5.6	171			1607	5.8	177	
	2236	0.4	12			2201	1.1	34								2329	0.4	12	
12 F	0409	4.9	149		27 Sa	0311	4.4	134		12 M	0001	0.4	12		27 Tu	0459	4.9	149	
	1047	0.2	6			0947	0.7	21			0548	4.8	146			1122	0.3	9	
	1648	5.9	180			1536	5.5	168			1206	0.6	18			1716	6.1	186	
	2331	0.3	9			2259	0.8	24			1813	5.7	174						
13 Sa	0510	4.9	149		28 Su	0418	4.5	137		13 Tu	0049	0.3	9		28 W	0023	0.0	0	
	1137	0.2	6			1045	0.5	15			0639	4.9	149			0602	5.3	162	
	1743	5.9	180			1638	5.7	174			1253	0.6	18			1222	0.0	0	
						2353	0.4	12			1858	5.8	177			1817	6.4	195	
14 Su	0023	0.2	6		29 M	0524	4.7	143		14 W	0134	0.2	6		29 Th	0115	-0.4	-12	
	0607	4.9	149			1142	0.3	9			0724	5.0	152			0657	5.7	174	
	1226	0.3	9			1739	6.1	186			1339	0.6	18			1319	-0.3	-9	
	1832	6.0	183								1939	5.8	177			1911	6.7	204	
15 M	0112	0.1	3		30 Tu	0047	0.0	0		15 Th	0217	0.1	3		30 F	0206	-0.7	-21	
	0657	4.9	149			0623	5.0	152			0804	5.1	155			0748	6.1	186	
	1315	0.4	12			1239	0.1	3			1422	0.6	18			1415	-0.6	-18	
	1918	6.0	183			1835	6.4	195			2017	5.7	174			2001	6.8	207	
				31 W	0140	-0.3	-9		31 Sa	0255	-0.9	-27							
					0716	5.3	162			0838	6.3	192							
					1337	-0.2	-6			1508	-0.7	-21							
					1926	6.6	201			2051	6.7	204							

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

Albany, New York, 2019

Times and Heights of High and Low Waters

July				August				September							
Time	Height			Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft		h	m	ft
1 M	0231	5.7	174	16 Tu	0332	5.7	174	1 Th	0339	5.5	168	16 Su	0002	-0.6	-18
	1017	0.1	3		1051	-0.5	-15		1131	-0.7	-21		0511	5.4	165
	1519	4.5	137		1605	4.7	143		1633	4.5	137		1238	-0.9	-27
	2158	0.4	12		2247	0.0	0		2325	-0.3	-9		1751	5.1	155
2 Tu	0308	5.9	180	17 W	0413	5.6	171	2 F	0429	5.5	168	17 Sa	0509	5.1	155
	1106	-0.1	-3		1134	-0.4	-12		1218	-0.8	-24		1221	-0.4	-12
	1604	4.5	137		1651	4.6	140		1723	4.6	140		1749	4.5	137
	2249	0.3	9		2329	0.2	6								
3 W	0348	5.9	180	18 Th	0453	5.4	165	3 Sa	0018	-0.4	-12	18 Su	0025	0.2	6
	1153	-0.3	-9		1215	-0.3	-9		0522	5.5	168		0543	4.9	149
	1652	4.6	140		1736	4.5	137		1305	-0.9	-27		1253	-0.3	-9
	2339	0.2	6						1816	4.8	146		1825	4.5	137
4 Th	0433	5.9	180	19 F	0009	0.3	9	4 Su	0111	-0.4	-12	19 M	0104	0.3	9
	1241	-0.4	-12		0532	5.2	158		0620	5.3	162		0613	4.8	146
	1743	4.7	143		1254	-0.2	-6		1353	-0.9	-27		1323	-0.2	-6
5 F	0031	0.2	6		1821	4.4	134		1911	4.9	149		1855	4.5	137
	0525	5.8	177	20 Sa	0048	0.5	15	5 M	0206	-0.4	-12	20 Tu	0145	0.4	12
	1329	-0.4	-12		0609	5.1	155		0721	5.2	158		0639	4.6	140
	1837	4.8	146		1331	-0.1	-3		1441	-0.8	-24		1349	-0.2	-6
6 Sa	0125	0.1	3		1905	4.4	134		2007	5.0	152		1912	4.6	140
	0625	5.7	174	21 Su	0127	0.6	18	6 Tu	0303	-0.3	-9	21 W	0230	0.5	15
	1418	-0.4	-12		0644	4.9	149		0823	5.0	152		0714	4.5	137
	1934	4.9	149		1405	0.0	0		1531	-0.7	-21		1416	-0.1	-3
7 Su	0221	0.1	3		1947	4.4	134		2103	5.1	155		1937	4.8	146
	0731	5.5	168	22 M	0209	0.7	21	7 W	0402	-0.2	-6	22 Th	0323	0.6	18
	1508	-0.4	-12		0717	4.8	146		0923	4.8	146		0759	4.2	128
	2032	5.1	155		1437	0.1	3		1623	-0.6	-18		1451	0.0	0
8 M	0320	0.1	3		2028	4.5	137		2200	5.2	158		2018	4.9	149
	0838	5.3	162	23 Tu	0256	0.8	24	8 Th	0503	-0.2	-6	23 F	0426	0.7	21
	1600	-0.4	-12		0754	4.6	140		1023	4.6	140		0855	4.0	122
	2129	5.2	158		1509	0.1	3		1717	-0.5	-15		1537	0.1	3
9 Tu	0421	0.1	3		2106	4.5	137		2257	5.2	158		2107	4.9	149
	0942	5.1	155	24 W	0353	0.8	24	9 F	0604	-0.2	-6	24 Sa	0533	0.7	21
	1653	-0.4	-12		0842	4.3	131		1124	4.5	137		1015	3.8	116
	2226	5.4	165		1544	0.2	6		1812	-0.4	-12		1638	0.3	9
10 W	0523	0.1	3		2143	4.6	140		2354	5.2	158		2206	4.9	149
	1044	5.0	152	25 Th	0457	0.9	27	10 Sa	0703	-0.3	-9	25 Su	0638	0.5	15
	1747	-0.4	-12		0949	4.1	125		1223	4.4	134		1138	3.7	113
	2323	5.5	168		1629	0.3	9		1907	-0.3	-9		1758	0.4	12
11 Th	0625	0.0	0		2226	4.7	143						2320	4.9	149
	1145	4.8	146	26 F	0603	0.8	24	11 Su	0049	5.3	162	26 M	0739	0.3	9
	1841	-0.3	-9		1107	3.9	119		0759	-0.4	-12		1244	3.8	116
12 F	0019	5.6	171		1727	0.3	9		1319	4.4	134		1916	0.3	9
	0725	-0.1	-3		2321	4.8	146	12 M	2000	-0.3	-9	27 Tu	0040	5.0	152
	1243	4.8	146	27 Sa	0707	0.6	18		0141	5.3	162		0835	0.0	0
	1934	-0.3	-9		1214	3.8	116		0852	-0.5	-15		1342	4.1	125
13 Sa	0112	5.7	174		1835	0.4	12		1411	4.5	137		2022	0.1	3
	0822	-0.3	-9	28 Su	0019	4.9	149	13 Tu	2051	-0.3	-9	28 W	0142	5.2	158
	1338	4.8	146		0806	0.3	9		0228	5.3	162		0928	-0.3	-9
	2026	-0.3	-9		1313	3.9	119		0941	-0.6	-18		1434	4.3	131
14 Su	0202	5.8	177		1940	0.3	9		2138	-0.2	-6		2121	-0.1	-3
	0915	-0.4	-12	29 M	0113	5.1	155	14 W	0312	5.3	162	29 Th	0237	5.3	162
	1430	4.8	146		0901	0.0	0		1025	-0.7	-21		1018	-0.6	-18
	2115	-0.2	-6		1407	4.0	122		1545	4.6	140		1523	4.6	140
15 M	0248	5.8	177		2041	0.2	6		2223	-0.1	-3		2217	-0.3	-9
	1005	-0.5	-15	30 Tu	0203	5.3	162	15 Th	0353	5.3	162	30 F	0328	5.5	168
	1518	4.8	146		0953	-0.3	-9		1107	-0.6	-18		1106	-0.8	-24
	2202	-0.1	-3		1456	4.2	128		1628	4.6	140		1611	4.8	146
16 M					2138	0.0	0		2305	-0.1	-3		2310	-0.5	-15
				31 W	0251	5.5	168								
					1043	-0.5	-15	31 Sa	0419	5.5	168		0419	5.5	168
					1544	4.3	131		1152	-0.9	-27		1152	-0.9	-27
					2233	-0.2	-6		1700	5.0	152		1700	5.0	152

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean low water during lowest river stages which is the chart datum of soundings.

Sandy Hook, New Jersey, 2019

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	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Tu	0356 4.9 149 1027 0.0 0 1614 4.2 128 2237 -0.2 -6	16 W	0249 4.5 137 0947 0.5 15 1520 3.9 119 2144 0.1 3	1 F	0516 4.8 146 1144 0.0 0 1741 4.0 122 2347 0.1 3	16 Sa	0424 5.1 155 1115 -0.2 -6 1706 4.4 134 2316 -0.4 -12	1 F	0351 4.5 137 1029 0.5 15 1622 3.8 116 2237 0.6 18	16 Sa	0252 4.9 149 0957 0.3 9 1541 4.3 131 2201 0.2 6
2 W	0451 5.0 152 1118 -0.1 -3 1710 4.2 128 2324 -0.2 -6	17 Th	0350 4.8 146 1043 0.1 3 1625 4.0 122 2239 -0.2 -6	2 Sa	0604 4.9 149 1229 -0.1 -3 1828 4.1 125	17 Su	0527 5.5 168 1210 -0.6 -18 1804 4.8 146	2 Sa	0448 4.5 137 1116 0.3 9 1717 4.0 122 2324 0.4 12	17 Su	0404 5.2 158 1054 -0.1 -3 1647 4.7 143 2302 -0.2 -6
3 Th	0540 5.1 155 1206 -0.2 -6 1801 4.2 128	18 F	0450 5.1 155 1137 -0.3 -9 1726 4.3 131 2334 -0.5 -15	3 Su	0032 0.1 3 0646 5.0 152 1312 -0.2 -6 1910 4.2 128	18 M	0013 -0.7 -21 0624 5.8 177 1302 -0.9 -27 1857 5.2 158	3 Su	0538 4.7 143 1200 0.2 6 1805 4.2 128	18 M	0509 5.5 168 1148 -0.5 -15 1746 5.1 155 2359 -0.6 -18
4 F	0009 -0.1 -3 0625 5.2 158 1252 -0.3 -9 1847 4.2 128	19 Sa	0546 5.5 168 1231 -0.6 -18 1821 4.6 140	4 M	0116 0.0 0 0726 5.0 152 1352 -0.2 -6 1950 4.3 131	19 Tu	0109 -1.0 -30 0716 6.0 183 1353 -1.1 -34 1948 5.4 165	4 M	0010 0.3 9 0622 4.9 149 1242 0.0 0 1846 4.4 134	19 Tu	0606 5.8 177 1239 -0.8 -24 1839 5.6 171
5 Sa	0053 -0.1 -3 0707 5.2 158 1336 -0.3 -9 1930 4.2 128	20 Su	0029 -0.7 -21 0639 5.8 177 1323 -0.9 -27 1913 4.8 146	5 Tu	0157 0.0 0 0804 5.0 152 1430 -0.3 -9 2028 4.3 131	20 W	0202 -1.1 -34 0806 6.1 186 1441 -1.3 -40 2038 5.6 171	5 Tu	0053 0.1 3 0702 5.0 152 1322 -0.1 -3 1924 4.6 140	20 W	0054 -0.8 -24 0658 6.0 183 1328 -1.0 -30 1928 5.9 180
6 Su	0136 -0.1 -3 0747 5.2 158 1417 -0.3 -9 2012 4.2 128	21 M	0123 -0.9 -27 0731 6.0 183 1414 -1.1 -34 2005 5.0 152	6 W	0236 0.0 0 0840 4.9 149 1506 -0.2 -6 2104 4.3 131	21 Th	0254 -1.1 -34 0856 5.9 180 1527 -1.2 -37 2130 5.6 171	6 W	0135 0.0 0 0739 5.0 152 1359 -0.2 -6 1959 4.7 143	21 Th	0147 -1.0 -30 0747 6.0 183 1415 -1.1 -34 2017 6.0 183
7 M	0217 0.0 0 0826 5.0 152 1456 -0.3 -9 2053 4.1 125	22 Tu	0217 -1.0 -30 0822 6.0 183 1503 -1.2 -37 2058 5.1 155	7 Th	0313 0.1 3 0916 4.8 146 1539 -0.2 -6 2140 4.2 128	22 F	0344 -1.0 -30 0948 5.6 171 1613 -1.0 -30 2223 5.5 168	7 Th	0214 0.0 0 0814 5.0 152 1435 -0.2 -6 2033 4.7 143	22 F	0237 -1.0 -30 0836 5.8 177 1501 -1.0 -30 2105 6.0 183
8 Tu	0257 0.1 3 0905 4.9 149 1534 -0.2 -6 2134 4.0 122	23 W	0309 -1.0 -30 0914 5.9 180 1551 -1.2 -37 2153 5.1 155	8 F	0348 0.2 6 0952 4.6 140 1611 -0.1 -3 2215 4.2 128	23 Sa	0434 -0.7 -21 1041 5.3 162 1658 -0.7 -21 2316 5.3 162	8 F	0252 0.0 0 0848 4.9 149 1508 -0.1 -3 2105 4.7 143	23 Sa	0326 -0.9 -27 0925 5.5 168 1544 -0.7 -21 2154 5.8 177
9 W	0334 0.2 6 0944 4.7 143 1609 -0.1 -3 2216 3.9 119	24 Th	0400 -0.9 -27 1009 5.6 171 1639 -1.0 -30 2249 5.1 155	9 Sa	0423 0.3 9 1029 4.4 134 1641 0.1 3 2252 4.2 128	24 Su	0526 -0.3 -9 1135 4.8 146 1747 -0.2 -6	9 Sa	0328 0.1 3 0923 4.7 143 1539 0.0 0 2136 4.7 143	24 Su	0413 -0.6 -18 1017 5.1 155 1628 -0.3 -9 2245 5.5 168
10 Th	0410 0.4 12 1024 4.5 137 1644 0.1 3 2258 3.8 116	25 F	0453 -0.6 -18 1104 5.3 162 1729 -0.8 -24 2345 5.0 152	10 Su	0459 0.5 15 1109 4.2 128 1713 0.2 6 2332 4.2 128	25 M	0009 5.1 155 0624 0.1 3 1229 4.4 134 1842 0.2 6	10 Su	0403 0.2 6 0959 4.5 137 1609 0.1 3 2211 4.7 143	25 M	0502 -0.2 -6 1110 4.7 143 1713 0.1 3 2336 5.2 158
11 F	0447 0.6 18 1105 4.3 131 1719 0.2 6 2340 3.8 116	26 Sa	0550 -0.3 -9 1159 4.9 149 1822 -0.4 -12	11 M	0543 0.7 21 1154 4.0 122 1753 0.3 9	26 Tu	0101 4.9 149 0729 0.4 12 1323 4.1 125 1944 0.5 15	11 M	0439 0.3 9 1040 4.3 131 1640 0.2 6 2252 4.7 143	26 Tu	0554 0.2 6 1203 4.4 134 1803 0.6 18
12 Sa	0529 0.8 24 1148 4.1 125 1758 0.3 9	27 Su	0039 4.9 149 0653 0.1 3 1254 4.6 140 1921 -0.1 -3	12 Tu	0017 4.3 131 0645 0.8 24 1246 3.9 119 1848 0.4 12	27 W	0155 4.6 140 0836 0.6 18 1420 3.9 119 2047 0.7 21	12 Tu	0520 0.5 15 1128 4.2 128 1719 0.4 12 2342 4.7 143	27 W	0028 4.9 149 0653 0.6 18 1257 4.1 125 1903 0.9 27
13 Su	0021 3.9 119 0622 0.9 27 1233 4.0 122 1847 0.4 12	28 M	0134 4.8 146 0801 0.3 9 1349 4.2 128 2021 0.1 3	13 W	0109 4.4 134 0805 0.7 21 1344 3.9 119 2002 0.4 12	28 Th	0252 4.5 137 0936 0.6 18 1521 3.8 116 2145 0.7 21	13 W	0617 0.7 21 1224 4.0 122 1813 0.6 18	28 Th	0120 4.6 140 0759 0.8 24 1353 3.9 119 2011 1.1 34
14 M	0105 4.0 122 0734 0.9 27 1322 3.9 119 1946 0.4 12	29 Tu	0229 4.7 143 0906 0.3 9 1447 4.0 122 2119 0.2 6	14 Th	0209 4.6 140 0917 0.5 15 1450 3.9 119 2114 0.3 9	29 F	0039 4.7 143 0735 0.7 21 1325 4.0 122 1932 0.6 18	14 Th	0039 4.7 143 0735 0.7 21 1325 4.0 122 1932 0.6 18	29 F	0215 4.4 134 0901 0.8 24 1451 3.9 119 2114 1.1 34
15 Tu	0154 4.2 128 0845 0.8 24 1418 3.8 116 2047 0.3 9	30 W	0326 4.7 143 1004 0.3 9 1548 3.8 116 2212 0.2 6	15 F	0316 4.8 146 1019 0.2 6 1600 4.1 125 2217 0.0 0	30 Sa	0142 4.8 146 0852 0.6 18 1431 4.1 125 2053 0.5 15	15 F	0142 4.8 146 0852 0.6 18 1431 4.1 125 2053 0.5 15	30 Sa	0313 4.4 134 0955 0.7 21 1550 4.0 122 2209 0.9 27
		31 Th	0423 4.7 143 1056 0.2 6 1648 3.9 119 2301 0.2 6							31 Su	0411 4.4 134 1042 0.6 18 1646 4.2 128 2257 0.7 21

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

Sandy Hook, New Jersey, 2019

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	h m	ft cm	h m	ft cm
1 M	0505 4.6 140 1125 0.4 12 1734 4.4 134 2343 0.5 15	16 Tu	0448 5.4 165 1123 -0.4 -12 1727 5.5 168 2344 -0.4 -12	1 W	0512 4.6 140 1125 0.4 12 1739 4.9 149 2356 0.5 15	16 Th	0524 5.2 158 1146 -0.4 -12 1757 6.0 183	1 Sa	0010 0.3 9 0602 4.6 140 1207 0.2 6 1818 5.5 168	16 Su	0053 -0.2 -6 0647 4.8 146 1256 0.0 0 1908 6.0 183
2 Tu	0551 4.8 146 1206 0.2 6 1816 4.7 143	17 W	0546 5.6 171 1213 -0.6 -18 1819 5.9 180	2 Th	0556 4.7 143 1205 0.2 6 1818 5.1 155	17 F	0021 -0.4 -12 0617 5.3 162 1234 -0.4 -12 1845 6.2 189	2 Su	0057 0.1 3 0647 4.7 143 1251 0.1 3 1858 5.8 177	17 M	0141 -0.2 -6 0734 4.8 146 1342 0.1 3 1951 5.9 180
3 W	0026 0.3 9 0632 4.9 149 1246 0.1 3 1853 4.9 149	18 Th	0038 -0.6 -18 0638 5.7 174 1301 -0.7 -21 1907 6.1 186	3 F	0040 0.3 9 0637 4.8 146 1245 0.1 3 1853 5.4 165	18 Sa	0112 -0.5 -15 0706 5.2 158 1321 -0.3 -9 1930 6.2 189	3 M	0144 -0.1 -3 0731 4.8 146 1337 0.1 3 1939 5.9 180	18 Tu	0226 -0.2 -6 0820 4.7 143 1426 0.3 9 2034 5.7 174
4 Th	0109 0.1 3 0710 5.0 152 1324 0.0 0 1928 5.1 155	19 F	0130 -0.8 -24 0727 5.7 174 1348 -0.7 -21 1953 6.2 189	4 Sa	0124 0.1 3 0716 4.9 149 1325 0.1 3 1928 5.5 168	19 Su	0200 -0.5 -15 0753 5.1 155 1406 -0.2 -6 2014 6.1 186	4 Tu	0230 -0.2 -6 0816 4.8 146 1423 0.0 0 2023 5.9 180	19 W	0308 -0.1 -3 0906 4.6 140 1508 0.5 15 2118 5.4 165
5 F	0150 0.0 0 0746 5.0 152 1400 0.0 0 2000 5.2 158	20 Sa	0219 -0.8 -24 0814 5.5 168 1433 -0.6 -18 2039 6.1 186	5 Su	0207 0.0 0 0755 4.8 146 1404 0.1 3 2002 5.6 171	20 M	0247 -0.4 -12 0841 4.9 149 1450 0.1 3 2059 5.8 177	5 W	0316 -0.3 -9 0905 4.8 146 1510 0.1 3 2111 5.9 180	20 Th	0349 0.1 3 0953 4.4 134 1549 0.7 21 2202 5.2 158
6 Sa	0230 0.0 0 0821 4.9 149 1435 0.0 0 2031 5.2 158	21 Su	0307 -0.6 -18 0902 5.2 158 1516 -0.3 -9 2126 5.9 180	6 M	0249 -0.1 -3 0835 4.8 146 1444 0.1 3 2040 5.6 171	21 Tu	0331 -0.2 -6 0929 4.7 143 1532 0.3 9 2145 5.5 168	6 Th	0402 -0.3 -9 1000 4.8 146 1559 0.1 3 2206 5.7 174	21 F	0428 0.3 9 1042 4.3 131 1629 0.9 27 2248 4.9 149
7 Su	0308 0.0 0 0857 4.8 146 1509 0.1 3 2104 5.2 158	22 M	0352 -0.4 -12 0953 4.9 149 1559 0.1 3 2214 5.6 171	7 Tu	0331 -0.1 -3 0920 4.7 143 1524 0.2 6 2123 5.6 171	22 W	0414 0.0 0 1020 4.5 137 1610 0.7 21 2232 5.2 158	7 F	0451 -0.2 -6 1058 4.8 146 1651 0.3 9 2305 5.6 171	22 Sa	0508 0.5 15 1129 4.2 128 1712 1.1 34 2334 4.7 143
8 M	0346 0.1 3 0936 4.6 140 1543 0.2 6 2141 5.2 158	23 Tu	0438 -0.1 -3 1045 4.6 140 1641 0.5 15 2304 5.2 158	8 W	0414 0.0 0 1011 4.5 137 1607 0.3 9 2214 5.5 168	23 Th	0457 0.3 9 1111 4.3 131 1657 1.0 30 2321 4.9 149	8 Sa	0545 0.0 0 1157 4.8 146 1751 0.5 15	23 Su	0549 0.6 18 1215 4.2 128 1801 1.3 40
9 Tu	0425 0.2 6 1022 4.4 134 1619 0.3 9 2227 5.2 158	24 W	0525 0.3 9 1138 4.3 131 1728 0.9 27 2354 4.9 149	9 Th	0502 0.2 6 1108 4.5 137 1656 0.5 15 2313 5.4 165	24 F	0542 0.6 18 1202 4.2 128 1745 1.2 37	9 Su	0005 5.4 165 0644 0.1 3 1254 4.9 149 1900 0.6 18	24 M	0019 4.5 137 0635 0.8 24 1258 4.3 131 1900 1.4 43
10 W	0509 0.4 12 1115 4.3 131 1702 0.5 15 2322 5.1 155	25 Th	0617 0.6 18 1231 4.1 125 1823 1.2 37	10 F	0557 0.3 9 1207 4.5 137 1756 0.7 21	25 Sa	0010 4.7 143 0632 0.8 24 1251 4.1 125 1844 1.4 43	10 M	0103 5.3 162 0747 0.1 3 1351 5.1 155 2012 0.6 18	25 Tu	0104 4.4 134 0726 0.8 24 1342 4.4 134 2006 1.4 43
11 Th	0605 0.5 15 1214 4.2 128 1800 0.7 21	26 F	0046 4.6 140 0717 0.9 27 1324 4.0 122 1930 1.4 43	11 Sa	0014 5.2 158 0703 0.4 12 1307 4.6 140 1911 0.7 21	26 Su	0059 4.5 137 0728 0.9 27 1340 4.1 125 1951 1.5 46	11 Tu	0202 5.1 155 0846 0.0 0 1448 5.3 162 2117 0.4 12	26 W	0150 4.3 131 0818 0.8 24 1427 4.5 137 2106 1.2 37
12 F	0023 5.0 152 0718 0.6 18 1315 4.3 131 1919 0.8 24	27 Sa	0138 4.5 137 0818 0.9 27 1417 4.0 122 2036 1.4 43	12 Su	0116 5.2 158 0811 0.3 9 1407 4.7 143 2027 0.6 18	27 M	0148 4.4 134 0823 0.9 27 1429 4.2 128 2053 1.3 40	12 W	0302 4.9 149 0941 -0.1 -3 1547 5.5 168 2216 0.2 6	27 Th	0241 4.2 128 0909 0.7 21 1515 4.7 143 2200 1.0 30
13 Sa	0127 5.0 152 0832 0.5 15 1419 4.4 134 2040 0.6 18	28 Su	0232 4.4 134 0913 0.9 27 1512 4.1 125 2134 1.2 37	13 M	0219 5.1 155 0912 0.1 3 1508 5.0 152 2133 0.4 12	28 Tu	0239 4.3 131 0913 0.8 24 1519 4.4 134 2147 1.1 34	13 Th	0403 4.8 146 1032 -0.1 -3 1643 5.7 174 2311 0.0 0	28 F	0337 4.2 128 0957 0.6 18 1606 5.0 152 2251 0.7 21
14 Su	0235 5.1 155 0935 0.2 6 1525 4.7 143 2148 0.3 9	29 M	0327 4.4 134 1001 0.7 21 1606 4.3 131 2225 1.0 30	14 Tu	0323 5.1 155 1007 -0.1 -3 1609 5.3 162 2232 0.1 3	29 W	0332 4.3 131 0958 0.6 18 1608 4.7 143 2236 0.9 27	14 F	0502 4.8 146 1121 -0.1 -3 1735 5.9 180	29 Sa	0434 4.3 131 1044 0.4 12 1657 5.3 162 2341 0.4 12
15 M	0344 5.2 158 1031 -0.1 -3 1629 5.0 152 2248 0.0 0	30 Tu	0422 4.4 134 1044 0.5 15 1655 4.6 140 2311 0.7 21	15 W	0426 5.2 158 1058 -0.3 -9 1706 5.7 174 2328 -0.2 -6	30 Th	0425 4.4 134 1041 0.5 15 1655 5.0 152 2324 0.6 18	15 Sa	0003 -0.1 -3 0557 4.8 146 1209 -0.1 -3 1824 6.0 183	30 Su	0529 4.5 137 1133 0.2 6 1746 5.6 171
						31 F	0516 4.5 137 1123 0.3 9 1738 5.3 162				

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

Sandy Hook, New Jersey, 2019

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 M	0031	0.1	3		16 Tu	0119	0.0	0		1 Th	0148	-0.5	-15	
	0620	4.6	140			0714	4.6	140			0740	5.3	162	
	1223	0.1	3			1320	0.4	12			1350	-0.4	-12	
	1833	5.9	180	○		1930	5.6	171			1954	6.4	195	
2 Tu	0121	-0.2	-6		17 W	0203	0.0	0		2 F	0238	-0.7	-21	
	0709	4.8	146			0758	4.7	143			0831	5.5	168	
	1314	-0.1	-3			1404	0.4	12			1443	-0.5	-15	
	1920	6.1	186	●		2011	5.5	168			2045	6.3	192	
3 W	0210	-0.4	-12		18 Th	0243	0.0	0		3 Sa	0325	-0.7	-21	
	0758	5.0	152			0841	4.6	140			0925	5.6	171	
	1406	-0.2	-6			1446	0.5	15			1535	-0.4	-12	
	2009	6.2	189			2052	5.4	165			2139	6.1	186	
4 Th	0259	-0.5	-15		19 F	0322	0.1	3		4 Su	0412	-0.7	-21	
	0850	5.0	152			0924	4.5	137			1020	5.6	171	
	1457	-0.2	-6			1525	0.6	18			1627	-0.2	-6	
	2100	6.1	186			2133	5.2	158			2234	5.8	177	
5 F	0346	-0.5	-15		20 Sa	0358	0.2	6		5 M	0500	-0.5	-15	
	0945	5.1	155			1007	4.5	137			1117	5.6	171	
	1549	-0.2	-6			1603	0.8	24			1723	0.0	0	
	2155	6.0	183			2214	5.0	152			2331	5.5	168	
6 Sa	0435	-0.5	-15		21 Su	0433	0.4	12		6 Tu	0552	-0.2	-6	
	1042	5.2	158			1050	4.4	134			1212	5.6	171	
	1642	0.0	0			1641	1.0	30			1824	0.3	9	
	2253	5.8	177			2256	4.8	146						
7 Su	0525	-0.3	-9		22 M	0507	0.5	15		7 W	0026	5.1	155	
	1139	5.2	158			1132	4.4	134			0648	0.1	3	
	1739	0.2	6			1722	1.2	37			1306	5.5	168	
	2350	5.5	168			2338	4.6	140			1931	0.6	18	
8 M	0620	-0.2	-6		23 Tu	0543	0.7	21		8 Th	0122	4.8	146	
	1235	5.3	162			1212	4.4	134			0749	0.4	12	
	1844	0.4	12			1811	1.3	40			1401	5.4	165	
											2038	0.6	18	
9 Tu	0046	5.2	158		24 W	0020	4.4	134		9 F	0220	4.5	137	
	0719	0.0	0			0625	0.8	24			0849	0.5	15	
	1330	5.4	165			1252	4.5	137			1457	5.3	162	
	1953	0.5	15	○		1914	1.4	43			2139	0.6	18	
10 W	0142	5.0	152		25 Th	0106	4.2	128		10 Sa	0320	4.4	134	
	0818	0.1	3			0717	0.9	27			0946	0.6	18	
	1426	5.4	165			1335	4.7	143			1555	5.3	162	
	2059	0.5	15			2022	1.3	40			2233	0.5	15	
11 Th	0240	4.7	143		26 F	0156	4.1	125		11 Su	0422	4.3	131	
	0915	0.1	3			0817	0.8	24			1037	0.6	18	
	1523	5.5	168			1424	4.8	146			1651	5.3	162	
	2159	0.4	12			2124	1.1	34			2323	0.4	12	
12 F	0341	4.6	140		27 Sa	0254	4.1	125		12 M	0519	4.4	134	
	1008	0.2	6			0915	0.7	21			1126	0.6	18	
	1619	5.5	168			1520	5.1	155			1742	5.4	165	
	2253	0.3	9			2220	0.8	24						
13 Sa	0442	4.5	137		28 Su	0357	4.2	128		13 Tu	0010	0.3	9	
	1058	0.2	6			1011	0.5	15			0609	4.6	140	
	1713	5.6	171			1620	5.4	165			1213	0.5	15	
	2344	0.2	6			2313	0.4	12			1827	5.5	168	
14 Su	0538	4.5	137		29 M	0459	4.5	137		14 W	0054	0.2	6	
	1146	0.3	9			1106	0.3	9			0653	4.7	143	
	1803	5.7	174			1718	5.7	174			1258	0.5	15	
											1908	5.5	168	
15 M	0033	0.1	3		30 Tu	0006	0.1	3		15 Th	0135	0.2	6	
	0628	4.6	140			0556	4.7	143			0735	4.8	146	
	1234	0.3	9			1201	0.0	0			1341	0.5	15	
	1848	5.7	174			1812	6.0	183			1947	5.5	168	
16 M					31 W	0058	-0.2	-6		16 F	0213	-0.8	-24	
						0649	5.1	155			0810	6.0	183	
						1256	-0.2	-6			1427	-0.6	-18	
						1903	6.3	192	●		2027	6.3	192	

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

Sandy Hook, New Jersey, 2019

Times and Heights of High and Low Waters

October			November				December						
Time	Height		Time	Height		Time	Height		Time	Height			
	h	m		h	m		h	m		h	m		
1 Tu	0319	-0.6	16 W	0249	0.3	1 F	0423	0.2	16 Sa	0341	0.3		
	0928	6.2		0846	5.3		1044	5.5		0943	5.3	0442	0.5
	1551	-0.4		1528	0.4		1708	0.2		1636	0.2	1727	0.2
	2149	5.5		2114	4.6		2318	4.4		2235	4.2	2344	4.0
2 W	0404	-0.3	17 Th	0322	0.4	2 Sa	0511	0.7	17 Su	0426	0.4		
	1020	6.0		0919	5.2		1138	5.1		1039	5.1	1156	4.6
	1641	-0.1		1606	0.5		1802	0.5		1727	0.3	1818	0.5
	2245	5.1		2156	4.4					2335	4.2		
3 Th	0451	0.1	18 F	0357	0.5	3 Su	0014	4.2	18 M	0520	0.6		
	1114	5.7		1000	5.2		0607	1.0		1140	5.0	0627	1.1
	1735	0.3		1648	0.6		1231	4.8		1243	4.2	1246	4.4
	2342	4.7		2247	4.2		1902	0.7		1928	0.4	1913	0.6

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

Atlantic City, New Jersey, 2019

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	h m	ft cm	h m	ft cm
1 Tu	0350 4.2 128 1004 0.1 -3 1605 3.5 107 2211 -0.2 -6	16 W	0241 3.8 116 0908 0.4 12 1500 3.2 98 2104 -0.1 -3	1 F	0505 4.2 128 1129 0.1 -3 1728 3.2 98 2323 0.0 0	16 Sa	0409 4.5 137 1044 -0.2 -6 1642 3.5 107 2237 -0.5 -15	1 F	0347 3.9 119 1014 0.4 12 1616 3.1 94 2212 0.4 12	16 Sa	0241 4.3 131 0921 0.2 6 1523 3.4 104 2119 0.0 0
2 W	0441 4.4 134 1058 0.0 0 1658 3.4 104 2259 -0.2 -6	17 Th	0338 4.2 128 1009 0.1 -3 1602 3.3 101 2200 -0.3 -9	2 Sa	0549 4.3 131 1213 0.0 0 1811 3.2 98	17 Su	0508 4.9 149 1139 -0.5 -15 1739 3.8 116 2335 -0.7 -21	2 Sa	0439 4.0 122 1103 0.3 9 1705 3.2 98 2301 0.3 9	17 Su	0349 4.6 140 1022 -0.1 -3 1627 3.7 113 2224 -0.3 -9
3 Th	0527 4.5 137 1148 -0.1 -3 1745 3.4 104 2344 -0.2 -6	18 F	0433 4.5 137 1105 -0.2 -6 1700 3.4 104 2255 -0.5 -15	3 Su	0006 0.0 0 0629 4.4 134 1254 -0.1 -3 1851 3.3 101	18 M	0603 5.2 158 1231 -0.8 -24 1833 4.1 125	3 Su	0524 4.2 128 1147 0.2 6 1748 3.4 104 2345 0.2 6	18 M	0450 4.9 149 1118 -0.5 -15 1724 4.1 125 2323 -0.6 -18
4 F	0609 4.6 140 1233 -0.2 -6 1829 3.4 104	19 Sa	0527 4.9 149 1159 -0.5 -15 1755 3.7 113 2349 -0.8 -24	4 M	0046 -0.1 -3 0707 4.4 134 1254 -0.2 -6 1928 3.4 104	19 Tu	0031 -1.0 -30 0655 5.4 165 1321 -1.0 -30 1925 4.4 134	4 M	0604 4.3 131 1225 0.1 3 1827 3.5 107	19 Tu	0546 5.1 155 1209 -0.7 -21 1817 4.5 137
5 Sa	0026 -0.1 -3 0649 4.6 140 1315 -0.2 -6 1910 3.4 104	20 Su	0619 5.2 158 1250 -0.8 -24 1848 3.9 119	5 Tu	0124 -0.1 -3 0743 4.4 134 1407 -0.2 -6 2004 3.4 104	20 W	0125 -1.1 -34 0745 5.4 165 1409 -1.1 -34 2015 4.5 137	5 Tu	0025 0.1 3 0642 4.4 134 1301 0.0 0 1903 3.7 113	20 W	0019 -0.8 -24 0637 5.2 158 1257 -0.9 -27 1906 4.8 146
6 Su	0105 -0.1 -3 0727 4.6 140 1355 -0.2 -6 1949 3.3 101	21 M	0043 -0.9 -27 0710 5.4 165 1341 -1.0 -30 1941 4.0 122	6 W	0201 -0.1 -3 0819 4.4 134 1441 -0.2 -6 2040 3.5 107	21 Th	0218 -1.1 -34 0834 5.2 158 1457 -1.1 -34 2105 4.6 140	6 W	0103 0.0 0 0719 4.4 134 1334 -0.1 -3 1938 3.8 116	21 Th	0112 -1.0 -30 0727 5.2 158 1344 -1.0 -30 1954 5.0 152
7 M	0144 0.0 0 0805 4.5 137 1434 -0.2 -6 2028 3.3 101	22 Tu	0137 -1.0 -30 0801 5.4 165 1431 -1.1 -34 2033 4.1 125	7 Th	0237 0.0 0 0853 4.2 128 1514 -0.1 -3 2114 3.5 107	22 F	0312 -0.9 -27 0924 4.9 149 1545 -0.9 -27 2156 4.6 140	7 Th	0140 -0.1 -3 0753 4.4 134 1406 -0.1 -3 2011 3.9 119	22 F	0204 -1.0 -30 0815 5.0 152 1430 -0.9 -27 2042 5.0 152
8 Tu	0222 0.1 3 0842 4.4 134 1512 -0.1 -3 2106 3.2 98	23 W	0231 -1.0 -30 0852 5.3 162 1522 -1.0 -30 2126 4.2 128	8 F	0314 0.1 3 0927 4.1 125 1546 0.0 0 2148 3.5 107	23 Sa	0406 -0.7 -21 1014 4.5 137 1634 -0.6 -18 2249 4.4 134	8 F	0216 0.0 0 0827 4.2 128 1437 -0.1 -3 2043 4.0 122	23 Sa	0256 -0.8 -24 0902 4.7 143 1516 -0.6 -18 2129 4.9 149
9 W	0259 0.2 6 0919 4.2 128 1549 0.0 0 2145 3.2 98	24 Th	0326 -0.8 -24 0943 5.0 152 1613 -0.9 -27 2221 4.1 125	9 Sa	0352 0.2 6 1001 3.8 116 1619 0.1 3 2225 3.5 107	24 Su	0503 -0.3 -9 1107 4.0 122 1725 -0.3 -9 2345 4.2 128	9 Sa	0252 0.0 0 0900 4.1 125 1508 0.0 0 2116 4.0 122	24 Su	0347 -0.6 -18 0951 4.3 131 1602 -0.3 -9 2218 4.7 143
10 Th	0338 0.3 9 0957 4.0 122 1626 0.1 3 2225 3.1 94	25 F	0424 -0.6 -18 1037 4.6 140 1705 -0.7 -21 2319 4.1 125	10 Su	0434 0.4 12 1038 3.6 110 1655 0.1 3 2306 3.5 107	25 M	0603 0.0 0 1204 3.6 110 1820 0.0 0	10 Su	0330 0.1 3 0933 3.9 119 1541 0.0 0 2150 4.0 122	25 M	0440 -0.2 -6 1041 3.9 119 1651 0.0 0 2309 4.4 134
11 F	0419 0.5 15 1035 3.8 116 1703 0.2 6 2307 3.1 94	26 Sa	0524 -0.3 -9 1133 4.2 128 1759 -0.5 -15	11 M	0522 0.5 15 1120 3.4 104 1737 0.2 6 2354 3.6 110	26 Tu	0044 4.0 122 0707 0.3 9 1307 3.3 101 1918 0.3 9	11 M	0411 0.3 9 1010 3.7 113 1618 0.1 3 2230 4.0 122	26 Tu	0536 0.1 3 1135 3.5 107 1743 0.4 12
12 Sa	0505 0.6 18 1116 3.6 110 1743 0.3 9 2354 3.2 98	27 Su	0019 4.0 122 0628 0.0 0 1233 3.8 116 1855 -0.3 -9	12 Tu	0620 0.6 18 1212 3.2 98 1828 0.2 6	27 W	0147 3.9 119 0812 0.4 12 1414 3.0 91 2019 0.5 15	12 Tu	0459 0.4 12 1052 3.4 104 1701 0.2 6 2318 4.0 122	27 W	0004 4.1 125 0636 0.4 12 1236 3.2 98 1841 0.7 21
13 Su	0558 0.7 21 1203 3.4 104 1826 0.3 9	28 M	0121 4.0 122 0734 0.2 6 1337 3.4 104 1953 -0.1 -3	13 W	0052 3.7 113 0727 0.6 18 1316 3.1 94 1927 0.2 6	28 Th	0249 3.9 119 0916 0.5 15 1519 3.0 91 2118 0.5 15	13 W	0556 0.5 15 1145 3.3 101 1754 0.3 9	28 Th	0105 3.9 119 0739 0.6 18 1342 3.0 91 1943 0.8 24
14 M	0046 3.3 101 0659 0.7 21 1256 3.2 98 1915 0.2 6	29 Tu	0224 4.0 122 0840 0.2 6 1442 3.2 98 2051 0.1 3	14 Th	0158 3.9 119 0837 0.4 12 1428 3.1 94 2031 0.0 0			14 Th	0017 4.1 125 0702 0.5 15 1252 3.1 94 1858 0.3 9	29 F	0209 3.8 116 0842 0.7 21 1448 3.0 91 2045 0.9 27
15 Tu	0143 3.5 107 0804 0.6 18 1357 3.2 98 2008 0.1 3	30 W	0323 4.0 122 0943 0.2 6 1544 3.1 94 2146 0.1 3	15 F	0306 4.2 128 0943 0.2 6 1538 3.2 98 2136 -0.2 -6			15 F	0127 4.1 125 0814 0.4 12 1409 3.2 98 2009 0.2 6	30 Sa	0309 3.8 116 0939 0.6 18 1546 3.1 94 2143 0.8 24
		31 Th	0417 4.1 125 1039 0.2 6 1639 3.1 94 2237 0.1 3						31 Su	0403 3.9 119 1028 0.5 15 1635 3.3 101 2233 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 mean lower low water which is the chart datum of soundings.

Atlantic City, New Jersey, 2019

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	h m	ft cm	h m	ft cm
1 M	0553 3.8 116 1144 -0.1 -3 1814 5.2 158	16 Tu	0059 0.1 3 0656 3.7 113 1250 5.3 9 1913 0.0 152	1 Th	0115 -0.4 -12 0715 4.3 131 1310 -0.4 -12 1933 5.7 174	16 F	0152 0.3 9 0751 4.0 122 1349 0.4 12 2004 4.8 146	1 Su	0228 -0.6 -18 0837 5.2 158 1444 -0.5 -15 2056 5.4 165	16 M	0220 0.4 12 0829 4.4 134 1439 0.5 15 2044 4.4 134
2 Tu	0047 -0.1 -3 0643 3.9 119 1233 -0.2 -6 1901 5.4 165	17 W	0141 0.1 3 0738 3.7 113 1332 0.3 9 1952 4.9 149	2 F	0204 -0.5 -15 0807 4.5 137 1404 -0.5 -15 2024 5.7 174	17 Sa	0227 0.3 9 0828 4.0 122 1427 0.5 15 2040 4.7 143	2 M	0316 -0.5 -15 0929 5.2 158 1540 -0.3 -9 2147 5.1 155	17 Tu	0251 0.5 15 0901 4.4 134 1516 0.7 21 2118 4.2 128
3 W	0136 -0.3 -9 0733 4.0 122 1324 -0.3 -9 1950 5.5 168	18 Th	0222 0.1 3 0818 3.7 113 1413 0.4 12 2031 4.8 146	3 Sa	0254 -0.6 -18 0859 4.6 140 1459 -0.4 -12 2115 5.5 168	18 Su	0300 0.4 12 0903 4.0 122 1505 0.6 18 2115 4.5 137	3 Tu	0406 -0.3 -9 1022 5.1 155 1637 0.0 0 2241 4.6 140	18 W	0322 0.6 18 0935 4.4 134 1557 0.8 24 2153 4.0 122
4 Th	0225 -0.4 -12 0824 4.1 125 1416 -0.3 -9 2039 5.5 168	19 F	0300 0.2 6 0858 3.7 113 1452 0.5 15 2109 4.7 143	4 Su	0344 -0.5 -15 0953 4.7 143 1556 -0.2 -6 2208 5.2 158	19 M	0332 0.5 15 0938 4.0 122 1543 0.8 24 2150 4.3 131	4 W	0457 0.0 0 1118 4.9 149 1738 0.3 9 2339 4.2 128	19 Th	0357 0.7 21 1013 4.4 134 1642 0.9 27 2234 3.7 113
5 F	0315 -0.4 -12 0917 4.1 125 1511 -0.2 -6 2131 5.4 165	20 Sa	0338 0.3 9 0937 3.7 113 1532 0.7 21 2147 4.5 137	5 M	0435 -0.4 -12 1049 4.7 143 1655 0.0 0 2303 4.8 146	20 Tu	0405 0.6 18 1014 4.0 122 1624 0.9 27 2226 4.0 122	5 Th	0553 0.3 9 1218 4.8 146 1842 0.6 18	20 F	0438 0.8 24 1057 4.4 134 1735 1.0 30 2323 3.6 110
6 Sa	0407 -0.4 -12 1012 4.2 128 1608 -0.1 -3 2225 5.1 155	21 Su	0415 0.4 12 1017 3.7 113 1613 0.8 24 2225 4.3 131	6 Tu	0527 -0.2 -6 1147 4.7 143 1758 0.2 6	21 W	0439 0.7 21 1053 4.0 122 1710 1.0 30 2306 3.8 116	6 F	0043 3.8 116 0652 0.6 18 1321 4.6 140 1948 0.7 21	21 Sa	0528 0.8 24 1152 4.4 134 1838 1.0 30
7 Su	0500 -0.3 -9 1111 4.2 128 1710 0.1 3 2322 4.8 146	22 M	0451 0.5 15 1058 3.6 110 1658 1.0 30 2305 4.0 122	7 W	0002 4.4 134 0623 0.0 0 1248 4.6 140 1903 0.5 15	22 Th	0518 0.7 21 1137 4.1 125 1803 1.1 34 2354 3.6 110	7 Sa	0151 3.6 110 0754 0.8 24 1425 4.5 137 2053 0.8 24	22 Su	0026 3.4 104 0628 0.9 27 1257 4.5 137 1945 0.9 27
8 M	0555 -0.2 -6 1212 4.3 131 1814 0.3 9	23 Tu	0528 0.6 18 1141 3.7 113 1747 1.1 34 2349 3.8 116	8 Th	0105 4.0 122 0720 0.3 9 1351 4.6 140 2010 0.6 18	23 F	0604 0.8 24 1230 4.2 128 1905 1.1 34	8 Su	0257 3.5 107 0855 0.9 27 1525 4.5 137 2151 0.8 24	23 M	0139 3.5 107 0736 0.8 24 1408 4.6 140 2051 0.7 21
9 Tu	0022 4.5 137 0651 -0.1 -3 1314 4.4 134 1921 0.4 12	24 W	0608 0.7 21 1229 3.8 116 1842 1.1 34	9 F	0211 3.8 116 0819 0.4 12 1452 4.6 140 2114 0.6 18	24 Sa	0052 3.5 107 0659 0.8 24 1331 4.3 131 2011 1.0 30	9 M	0357 3.6 110 0951 0.8 24 1618 4.6 140 2243 0.7 21	24 Tu	0252 3.7 113 0846 0.6 18 1515 4.9 149 2151 0.4 12
10 W	0126 4.2 128 0748 0.0 0 1416 4.5 137 2028 0.4 12	25 Th	0038 3.6 110 0652 0.7 21 1321 3.9 119 1943 1.1 34	10 Sa	0315 3.6 110 0917 0.5 15 1550 4.7 143 2214 0.6 18	25 Su	0200 3.4 104 0800 0.7 21 1436 4.6 140 2115 0.8 24	10 Tu	0447 3.7 113 1042 0.7 21 1704 4.7 143 2327 0.6 18	25 W	0356 4.0 122 0951 0.3 9 1616 5.1 155 2246 0.0 0
11 Th	0230 4.0 122 0844 0.1 3 1516 4.6 140 2132 0.4 12	26 F	0134 3.5 107 0742 0.6 18 1416 4.1 125 2045 1.0 30	11 Su	0415 3.6 110 1012 0.5 15 1642 4.7 143 2307 0.5 15	26 M	0309 3.6 110 0904 0.5 15 1538 4.9 149 2215 0.5 15	11 W	0531 3.9 119 1128 0.6 18 1746 4.8 146	26 Th	0453 4.4 134 1052 -0.1 -3 1712 5.4 165 2337 -0.3 -9
12 F	0332 3.8 116 0939 0.1 3 1611 4.8 146 2231 0.3 9	27 Sa	0234 3.4 104 0836 0.5 15 1512 4.4 134 2145 0.8 24	12 M	0507 3.7 113 1102 0.5 15 1728 4.8 146 2354 0.4 12	27 Tu	0412 3.8 116 1006 0.2 6 1637 5.2 158 2310 0.1 3	12 Th	0007 0.5 15 0610 4.0 122 1209 0.5 15 1824 4.8 146	27 F	0546 4.8 146 1148 -0.3 -9 1805 5.5 168
13 Sa	0430 3.7 113 1031 0.2 6 1701 4.9 149 2324 0.2 6	28 Su	0336 3.5 107 0931 0.4 12 1607 4.7 143 2241 0.5 15	13 Tu	0554 3.7 113 1148 0.5 15 1811 4.9 149	28 W	0510 4.1 125 1105 -0.1 -3 1732 5.5 168	13 F	0043 0.4 12 0647 4.2 128 1248 0.5 15 1901 4.8 146	28 Sa	0025 -0.5 -15 0636 5.2 158 1242 -0.5 -15 1855 5.5 168
14 Su	0523 3.7 113 1120 0.2 6 1748 5.0 152	29 M	0434 3.7 113 1027 0.2 6 1700 5.1 155 2334 0.2 6	14 W	0036 0.3 9 0635 3.8 116 1231 0.4 12 1850 4.9 149	29 Th	0002 -0.2 -6 0604 4.5 137 1201 -0.3 -9 1824 5.7 174	14 Sa	0117 0.3 9 0722 4.3 131 1326 0.4 12 1936 4.7 143	29 Su	0113 -0.6 -18 0725 5.4 165 1336 -0.6 -18 1945 5.4 165
15 M	0014 0.1 3 0612 3.7 113 1207 0.2 6 1832 5.0 152	30 Tu	0530 3.9 119 1122 -0.1 -3 1752 5.4 165	15 Th	0115 0.3 9 0714 3.9 119 1311 0.4 12 1928 4.9 149	30 F	0051 -0.4 -12 0656 4.8 146 1256 -0.5 -15 1915 5.8 177	15 Su	0149 0.3 9 0756 4.4 134 1402 0.5 15 2010 4.6 140	30 M	0200 -0.6 -18 0814 5.5 168 1429 -0.5 -15 2034 5.1 155
		31 W	0025 -0.1 -3 0623 4.1 125 1216 -0.3 -9 1843 5.6 171			31 Sa	0139 -0.6 -18 0747 5.0 152 1350 -0.6 -18 2005 5.7 174				

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

Breakwater Harbor, Delaware, 2019

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 Tu	0502	4.3	131	16 W	0354	4.0	122	1 F	0623	4.3	131	16 Sa	0526	4.7	143	1 F	0503	4.1	125	16 Sa	0358	4.5	137			
	1111	0.1	-3		1009	0.4	12		1240	0.1	-3		1146	-0.1	-3		1124	0.5	15		1022	0.2	6			
	1720	3.6	110		1615	3.3	101		1844	3.3	101		1754	3.6	110		1731	3.2	98		1633	3.6	110	1633	3.6	110
	2315	-0.2	-6		2214	-0.1	-3						2345	-0.5	-15		2319	0.4	12		2226	0.0	0	2226	0.0	0
2 W	0555	4.5	137	17 Th	0453	4.3	131	2 Sa	0029	0.0	0	17 Su	0625	5.0	152	2 Sa	0556	4.2	128	17 Su	0505	4.7	143			
	1207	0.0	0		1111	0.1	3		0707	4.4	134		1243	-0.4	-12		1215	0.4	12		1125	0.0	0			
	1814	3.5	107		1715	3.4	104		1926	3.4	104		1852	3.9	119		1820	3.3	101		1738	3.9	119	2329	-0.3	-9
3 Th	0003	-0.2	-6	18 F	0549	4.7	143	3 Su	0112	0.0	0	18 M	0042	-0.7	-21	3 Su	0009	0.3	9	18 M	0606	5.0	152			
	0642	4.6	140		1209	-0.2	-6		0747	4.5	137		0720	5.3	162		0642	4.3	131		1221	-0.3	-9			
	1257	-0.1	-3		1814	3.6	110		1403	0.0	0		1335	-0.7	-21		1258	0.3	9		1835	4.2	128			
4 F	0048	-0.2	-6	19 Sa	0004	-0.5	-15	4 M	0152	-0.1	-3	19 Tu	0137	-1.0	-30	4 M	0052	0.2	6	19 Tu	0029	-0.6	-18			
	0725	4.7	143		0644	5.0	152		0824	4.5	137		0812	5.4	165		0723	4.4	134		0702	5.2	158			
	1341	-0.1	-3		1303	-0.5	-15		1438	-0.1	-3		1424	-0.9	-27		1335	0.1	3		1312	-0.6	-18			
5 Sa	0130	-0.2	-6	20 Su	0058	-0.8	-24	5 Tu	0229	-0.1	-3	20 W	0230	-1.1	-34	5 Tu	0132	0.0	0	20 W	0124	-0.8	-24			
	0805	4.7	143		0736	5.3	162		0859	4.5	137		0902	5.4	165		0759	4.5	137		0754	5.3	162			
	1423	-0.2	-6		1355	-0.7	-21		1512	-0.1	-3		1512	-1.0	-30		1409	0.1	3		1400	-0.7	-21			
6 Su	0209	-0.1	-3	21 M	0151	-0.9	-27	6 W	0305	-0.1	-3	21 Th	0322	-1.1	-34	6 W	0208	-0.1	-3	21 Th	0217	-0.9	-27			
	0843	4.7	143		0828	5.5	168		0933	4.5	137		0951	5.3	162		0834	4.5	137		0843	5.2	158			
	1501	-0.2	-6		1445	-0.9	-27		1545	-0.1	-3		1559	-0.9	-27		1440	0.0	0		1446	-0.8	-24			
7 M	0248	-0.1	-3	22 Tu	0243	-1.0	-30	7 Th	0341	-0.1	-3	22 F	0415	-0.9	-27	7 Th	0244	-0.1	-3	22 F	0308	-0.9	-27			
	0919	4.6	140		0919	5.5	168		1008	4.4	134		1040	5.0	152		0908	4.5	137		0930	5.1	155			
	1538	-0.1	-3		1535	-0.9	-27		1618	-0.1	-3		1646	-0.8	-24		1511	0.0	0		1531	-0.7	-21			
8 Tu	0325	0.0	0	23 W	0336	-1.0	-30	8 F	0418	0.0	0	23 Sa	0508	-0.7	-21	8 F	0320	-0.1	-3	23 Sa	0358	-0.8	-24			
	0956	4.5	137		1009	5.4	165		1043	4.2	128		1129	4.6	140		0941	4.4	134		1017	4.8	146			
	1615	0.0	0		1624	-0.9	-27		1651	0.0	0		1734	-0.5	-15		1543	0.0	0		1616	-0.6	-18			
9 W	0403	0.0	0	24 Th	0430	-0.9	-27	9 Sa	0458	0.1	3	24 Su	0604	-0.3	-9	9 Sa	0356	0.0	0	24 Su	0449	-0.5	-15			
	1033	4.4	134		1100	5.1	155		1120	4.0	122		1220	4.2	128		1016	4.2	128		1104	4.4	134			
	1651	0.0	0		1714	-0.8	-24		1727	0.0	0		1825	-0.2	-6		1615	0.0	0		1702	-0.3	-9			
10 Th	0443	0.2	6	25 F	0526	-0.6	-18	10 Su	0541	0.2	6	25 M	0053	4.4	134	10 Su	0435	0.0	0	25 M	0541	-0.2	-6			
	1112	4.2	128		1153	4.7	143		1200	3.8	116		0703	0.0	0		1052	4.0	122		1153	4.0	122			
	1728	0.1	3		1806	-0.6	-18		1806	0.1	3		1315	3.7	113		1651	0.0	0		1651	0.0	0			
11 F	0525	0.3	9	26 Sa	0028	4.2	128	11 M	0027	3.8	116	26 Tu	0152	4.2	128	11 M	0518	0.1	3	26 Tu	0019	4.6	140			
	1152	4.0	122		0625	-0.3	-9		0630	0.4	12		0808	0.3	9		1132	3.8	116		0637	0.1	3			
	1807	0.2	6		1247	4.3	131		1245	3.6	110		1417	3.4	104		1730	0.1	3		1246	3.7	113			
12 Sa	0019	3.4	104	27 Su	0127	4.2	128	12 Tu	0117	3.9	119	27 W	0255	4.1	125	12 Tu	0607	0.3	9	27 W	0113	4.3	131			
	0611	0.4	12		0729	0.0	0		0727	0.4	12		0917	0.5	15		1218	3.6	110		0737	0.4	12			
	1235	3.8	116		1345	3.9	119		1337	3.4	104		1524	3.2	98		1816	0.2	6		1344	3.4	104			
13 Su	0107	3.4	104	28 M	0229	4.1	125	13 W	0214	4.0	122	28 Th	0401	4.0	122	13 W	0045	4.3	131	28 Th	0213	4.1	125			
	0704	0.5	15		0836	0.2	6		0831	0.5	15		1024	0.5	15		0702	0.4	12		0842	0.6	18			
	1322	3.6	110		1448	3.6	110		1437	3.3	101		1631	3.1	94		1311	3.4	104		1449	3.2	98			
14 M	0200	3.5	107	29 Tu	0333	4.1	125	14 Th	0317	4.1	125	29 F	0143	4.3	131	14 Th	0143	4.3	131	29 F	0318	4.0	122			
	0802	0.6	18		0946	0.3	9		0938	0.4	12		1544	3.3	101		0806	0.4	12		0948	0.7	21			
	1415	3.4	104		1554	3.3	101		1544	3.3	101		2141	0.0	0		1414	3.3	101		1555	3.2	98			
15 Tu	0256	3.7	113	30 W	0435	4.2	128	15 F	0422	4.4	134	30 Sa	0249	4.3	131	15 F	0249	4.3	131	30 Sa	0422	4.0	122			
	0905	0.5	15		1052	0.3	9		1045	0.2	6		1651	3.4	104		0914	0.4	12		1047	0.7	21			
	1513	3.3	101		1658	3.2	98		2244	-0.2	-6		2244	-0.2	-6		1523	3.4	104		1655	3.3	101			
16 W	0256	3.7	113	31 Th	0532	4.2	128																			
	0905	0.5	15		1150	0.2	6																			
	1513	3.3	101		1756	3.2	98																			
	2118	0.1	3		2342	0.1	3																			

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

Breakwater Harbor, Delaware, 2019

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		h m ft cm		h m ft cm
1 M	0607 4.2 128 1220 0.4 12 1828 3.7 113	16 Tu	0546 4.8 146 1156 -0.3 -9 1818 4.6 140	1 W	0606 4.1 125 1210 0.4 12 1828 4.2 128	16 Th	0003 -0.2 -6 0621 4.5 137 1220 -0.3 -9 1850 5.1 155	1 Sa	0044 0.3 9 0651 3.9 119 1240 0.1 3 1913 4.9 149	16 Su	0135 -0.1 -3 0743 3.9 119 1328 -0.1 -3 2004 5.2 158
2 Tu	0025 0.4 12 0649 4.3 131 1257 0.3 9 1907 4.0 122	17 W	0016 -0.4 -12 0642 4.9 149 1246 -0.4 -12 1909 4.9 149	2 Th	0034 0.4 12 0648 4.1 125 1246 0.3 9 1907 4.5 137	17 F	0058 -0.3 -9 0713 4.4 134 1307 -0.3 -9 1938 5.3 162	2 Su	0129 0.1 3 0736 3.9 119 1322 0.0 0 1956 5.1 155	17 M	0222 -0.1 -3 0829 3.8 116 1412 0.0 0 2047 5.1 155
3 W	0106 0.2 6 0727 4.4 134 1331 0.2 6 1943 4.2 128	18 Th	0111 -0.6 -18 0733 4.9 149 1333 -0.6 -18 1958 5.2 158	3 F	0115 0.2 6 0728 4.1 125 1321 0.1 3 1946 4.7 143	18 Sa	0149 -0.4 -12 0801 4.3 131 1352 -0.3 -9 2023 5.3 162	3 M	0214 -0.1 -3 0822 3.9 119 1406 -0.1 -3 2040 5.3 162	18 Tu	0307 -0.1 -3 0912 3.8 116 1455 0.1 3 2128 5.0 152
4 Th	0144 0.1 3 0803 4.4 134 1403 0.1 3 2018 4.4 134	19 F	0203 -0.7 -21 0822 4.8 146 1419 -0.6 -18 2044 5.3 162	4 Sa	0156 0.1 3 0808 4.1 125 1357 0.0 0 2024 4.9 149	19 Su	0237 -0.4 -12 0848 4.2 128 1436 -0.2 -6 2107 5.3 162	4 Tu	0259 -0.2 -6 0908 3.9 119 1451 -0.2 -6 2126 5.3 162	19 W	0350 0.0 0 0954 3.7 113 1538 0.3 9 2209 4.9 149
5 F	0221 0.0 0 0839 4.4 134 1435 0.0 0 2053 4.5 137	20 Sa	0253 -0.7 -21 0909 4.7 143 1503 -0.5 -15 2129 5.3 162	5 Su	0236 0.0 0 0848 4.1 125 1435 0.0 0 2103 5.0 152	20 M	0324 -0.3 -9 0933 4.0 122 1519 0.0 0 2150 5.2 158	5 W	0347 -0.2 -6 0957 3.9 119 1539 -0.1 -3 2214 5.3 162	20 Th	0432 0.1 3 1036 3.6 110 1621 0.4 12 2250 4.7 143
6 Sa	0258 -0.1 -3 0914 4.3 131 1508 0.0 0 2129 4.6 140	21 Su	0341 -0.6 -18 0954 4.4 134 1547 -0.3 -9 2214 5.2 158	6 M	0318 -0.1 -3 0929 4.0 122 1514 0.0 0 2145 5.1 155	21 Tu	0410 -0.2 -6 1017 3.9 119 1603 0.2 6 2233 5.0 152	6 Th	0436 -0.2 -6 1048 3.9 119 1631 -0.1 -3 2305 5.2 158	21 F	0514 0.2 6 1118 3.6 110 1705 0.6 18 2332 4.5 137
7 Su	0336 -0.1 -3 0951 4.2 128 1543 0.0 0 2207 4.7 143	22 M	0430 -0.3 -9 1040 4.1 125 1631 0.0 0 2259 5.0 152	7 Tu	0402 -0.1 -3 1012 3.9 119 1557 0.0 0 2229 5.1 155	22 W	0456 0.0 0 1102 3.7 113 1648 0.4 12 2317 4.7 143	7 F	0528 -0.2 -6 1142 3.9 119 1726 0.0 0	22 Sa	0557 0.4 12 1202 3.5 107 1751 0.7 21
8 M	0417 0.0 0 1030 4.0 122 1621 0.1 3 2247 4.7 143	23 Tu	0519 -0.1 -3 1127 3.9 119 1717 0.3 9 2346 4.7 143	8 W	0449 -0.1 -3 1059 3.8 116 1644 0.1 3 2317 5.0 152	23 Th	0543 0.2 6 1148 3.6 110 1735 0.6 18	8 Sa	0000 5.1 155 0622 -0.1 -3 1240 3.9 119 1826 0.1 3	23 Su	0016 4.3 131 0639 0.5 15 1249 3.6 110 1840 0.8 24
9 Tu	0502 0.1 3 1113 3.8 116 1704 0.1 3 2332 4.7 143	24 W	0610 0.2 6 1217 3.6 110 1807 0.6 18	9 Th	0540 0.0 0 1151 3.7 113 1737 0.2 6	24 F	0003 4.5 137 0631 0.4 12 1237 3.4 104 1825 0.8 24	9 Su	0057 4.9 149 0719 -0.1 -3 1341 4.0 122 1930 0.2 6	24 M	0102 4.1 125 0723 0.5 15 1338 3.6 110 1933 0.9 27
10 W	0551 0.2 6 1201 3.7 113 1752 0.3 9	25 Th	0036 4.4 134 0705 0.5 15 1311 3.4 104 1901 0.8 24	10 F	0011 4.9 149 0636 0.1 3 1249 3.7 113 1836 0.3 9	25 Sa	0052 4.3 131 0722 0.6 18 1329 3.4 104 1920 0.9 27	10 M	0158 4.6 140 0817 -0.1 -3 1444 4.2 128 2038 0.3 9	25 Tu	0150 3.9 119 0808 0.6 18 1429 3.7 113 2030 0.9 27
11 Th	0024 4.6 140 0647 0.3 9 1257 3.5 107 1849 0.4 12	26 F	0131 4.2 128 0803 0.7 21 1409 3.3 101 2002 0.9 27	11 Sa	0110 4.8 146 0736 0.2 6 1353 3.7 113 1941 0.4 12	26 Su	0145 4.1 125 0813 0.7 21 1423 3.4 104 2019 1.0 30	11 Tu	0300 4.4 134 0915 -0.1 -3 1546 4.4 134 2146 0.3 9	26 W	0241 3.8 116 0854 0.5 15 1520 3.9 119 2128 0.9 27
12 F	0123 4.6 140 0749 0.4 12 1401 3.5 107 1953 0.4 12	27 Sa	0231 4.0 122 0902 0.7 21 1510 3.3 101 2106 1.0 30	12 Su	0214 4.6 140 0838 0.1 3 1459 3.9 119 2050 0.3 9	27 M	0239 3.9 119 0903 0.7 21 1518 3.6 110 2119 1.0 30	12 W	0403 4.3 131 1011 -0.1 -3 1646 4.7 143 2250 0.2 6	27 Th	0334 3.7 113 0941 0.5 15 1612 4.2 128 2225 0.7 21
13 Sa	0229 4.5 137 0856 0.3 9 1511 3.6 110 2102 0.3 9	28 Su	0332 4.0 122 0958 0.7 21 1609 3.4 104 2207 0.9 27	13 M	0320 4.6 140 0939 0.1 3 1604 4.2 128 2159 0.2 6	28 Tu	0333 3.9 119 0951 0.6 18 1611 3.8 116 2216 0.9 27	13 Th	0503 4.1 125 1104 -0.1 -3 1741 4.9 149 2350 0.0 0	28 F	0428 3.6 110 1028 0.3 9 1703 4.4 134 2320 0.6 18
14 Su	0338 4.6 140 1001 0.2 6 1619 3.9 119 2211 0.1 3	29 M	0429 4.0 122 1048 0.7 21 1701 3.7 113 2302 0.7 21	14 Tu	0424 4.5 137 1037 -0.1 -3 1705 4.5 137 2303 0.0 0	29 W	0426 3.8 116 1036 0.5 15 1700 4.0 122 2309 0.7 21	14 F	0601 4.0 122 1154 -0.1 -3 1832 5.1 155	29 Sa	0522 3.6 110 1116 0.2 6 1753 4.7 143
15 M	0445 4.7 143 1102 0.0 0 1722 4.2 128 2316 -0.1 -3	30 Tu	0520 4.0 122 1131 0.5 15 1746 3.9 119 2350 0.6 18	15 W	0525 4.5 137 1130 -0.2 -6 1800 4.8 146	30 Th	0517 3.8 116 1118 0.4 12 1746 4.3 131 2358 0.5 15	15 Sa	0045 -0.1 -3 0654 4.0 122 1242 -0.1 -3 1919 5.2 158	30 Su	0012 0.3 9 0615 3.7 113 1204 0.0 0 1842 5.0 152
						31 F	0604 3.8 116 1159 0.2 6 1830 4.6 140				

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

Breakwater Harbor, Delaware, 2019

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 M	0102 0.1 3 0707 3.8 116 1252 -0.1 -3 1931 5.3 162	16 Tu	0205 0.1 3 0810 3.7 113 1352 0.2 6 2028 5.0 152	1 Th	0219 -0.4 -12 0829 4.3 131 1416 -0.5 -15 2052 5.7 174	16 F	0258 0.3 9 0902 4.0 122 1453 0.3 9 2119 4.8 146	1 Su	0331 -0.6 -18 0951 5.1 155 1549 -0.6 -18 2213 5.3 162	16 M	0327 0.3 9 0942 4.5 137 1544 0.4 12 2200 4.4 134
2 Tu	0151 -0.1 -3 0758 3.9 119 1342 -0.2 -6 2020 5.4 165	17 W	0247 0.1 3 0851 3.7 113 1434 0.2 6 2107 4.9 149	2 F	0308 -0.5 -15 0921 4.5 137 1510 -0.5 -15 2143 5.6 171	17 Sa	0332 0.3 9 0938 4.0 122 1531 0.4 12 2155 4.7 143	2 M	0419 -0.5 -15 1042 5.2 158 1644 -0.4 -12 2304 5.0 152	17 Tu	0359 0.4 12 1019 4.5 137 1622 0.5 15 2237 4.2 128
3 W	0240 -0.3 -9 0849 4.0 122 1432 -0.3 -9 2110 5.5 168	18 Th	0327 0.1 3 0930 3.7 113 1515 0.3 9 2145 4.8 146	3 Sa	0358 -0.5 -15 1013 4.6 140 1605 -0.5 -15 2235 5.4 165	18 Su	0405 0.3 9 1014 4.1 125 1609 0.4 12 2231 4.5 137	3 Tu	0508 -0.3 -9 1135 5.1 155 1741 -0.1 -3 2357 4.6 140	18 W	0434 0.4 12 1057 4.5 137 1704 0.6 18 2316 4.0 122
4 Th	0330 -0.4 -12 0940 4.1 125 1524 -0.4 -12 2200 5.5 168	19 F	0405 0.2 6 1008 3.7 113 1555 0.4 12 2223 4.7 143	4 Su	0447 -0.5 -15 1107 4.7 143 1701 -0.3 -9 2327 5.2 158	19 M	0439 0.4 12 1052 4.1 125 1649 0.5 15 2308 4.3 131	4 W	0559 -0.1 -3 1230 5.0 152 1841 0.2 6	19 Th	0512 0.5 15 1139 4.5 137 1751 0.7 21
5 F	0420 -0.4 -12 1033 4.2 128 1618 -0.3 -9 2252 5.4 165	20 Sa	0442 0.3 9 1047 3.8 116 1636 0.5 15 2302 4.5 137	5 M	0538 -0.4 -12 1202 4.8 146 1759 -0.1 -3	20 Tu	0514 0.4 12 1132 4.2 128 1731 0.7 21 2347 4.1 125	5 Th	0053 4.2 128 0653 0.2 6 1329 4.9 149 1945 0.4 12	20 F	0000 3.8 116 0555 0.6 18 1226 4.5 137 1843 0.8 24
6 Sa	0511 -0.4 -12 1127 4.2 128 1715 -0.2 -6 2345 5.2 158	21 Su	0519 0.3 9 1127 3.8 116 1718 0.6 18 2341 4.3 131	6 Tu	0020 4.8 146 0630 -0.2 -6 1259 4.7 143 1901 0.1 3	21 W	0551 0.5 15 1214 4.2 128 1818 0.8 24	6 F	0154 3.9 119 0751 0.5 15 1431 4.7 143 2052 0.6 18	21 Sa	0050 3.7 113 0645 0.6 18 1320 4.6 140 1942 0.8 24
7 Su	0603 -0.3 -9 1224 4.3 131 1814 0.0 0	22 M	0556 0.4 12 1209 3.8 116 1803 0.7 21	7 W	0117 4.4 134 0724 0.0 0 1358 4.7 143 2006 0.3 9	22 Th	0030 3.9 119 0632 0.5 15 1301 4.3 131 1910 0.8 24	7 Sa	0300 3.7 113 0853 0.6 18 1534 4.6 140 2158 0.7 21	22 Su	0149 3.6 110 0743 0.6 18 1421 4.6 140 2046 0.7 21
8 M	0041 4.9 149 0657 -0.3 -9 1323 4.4 134 1917 0.1 3	23 Tu	0023 4.1 125 0635 0.5 15 1254 3.9 119 1852 0.8 24	8 Th	0217 4.1 125 0820 0.1 3 1500 4.7 143 2114 0.5 15	23 F	0118 3.7 113 0719 0.6 18 1353 4.3 131 2009 0.9 27	8 Su	0406 3.6 110 0955 0.7 21 1636 4.6 140 2259 0.7 21	23 M	0253 3.6 110 0846 0.6 18 1525 4.8 146 2151 0.6 18
9 Tu	0139 4.6 140 0752 -0.2 -6 1423 4.5 137 2024 0.3 9	24 W	0107 3.9 119 0717 0.5 15 1342 4.0 122 1946 0.9 27	9 F	0321 3.8 116 0919 0.3 9 1602 4.7 143 2220 0.5 15	24 Sa	0214 3.6 110 0813 0.6 18 1450 4.5 137 2112 0.8 24	9 M	0507 3.6 110 1054 0.7 21 1731 4.6 140 2351 0.6 18	24 Tu	0400 3.8 116 0952 0.4 12 1630 5.0 152 2252 0.3 9
10 W	0239 4.2 128 0848 -0.1 -3 1525 4.6 140 2131 0.3 9	25 Th	0156 3.7 113 0803 0.5 15 1434 4.1 125 2044 0.9 27	10 Sa	0426 3.6 110 1017 0.4 12 1701 4.7 143 2320 0.5 15	25 Su	0315 3.6 110 0911 0.5 15 1551 4.7 143 2215 0.6 18	10 Tu	0559 3.7 113 1146 0.6 18 1820 4.7 143	25 W	0504 4.1 125 1056 0.1 3 1731 5.2 158 2348 0.0 0
11 Th	0341 4.0 122 0944 0.0 0 1625 4.7 143 2236 0.3 9	26 F	0249 3.6 110 0852 0.5 15 1528 4.3 131 2145 0.8 24	11 Su	0527 3.6 110 1113 0.4 12 1755 4.8 146	26 M	0419 3.6 110 1012 0.3 9 1652 4.9 149 2316 0.4 12	11 W	0036 0.5 15 0643 3.9 119 1232 0.5 15 1902 4.7 143	26 Th	0602 4.4 134 1156 -0.2 -6 1827 5.4 165
12 F	0444 3.8 116 1039 0.1 3 1721 4.8 146 2336 0.3 9	27 Sa	0346 3.5 107 0945 0.4 12 1624 4.6 140 2245 0.6 18	12 M	0014 0.4 12 0621 3.6 110 1204 0.4 12 1844 4.8 146	27 Tu	0521 3.8 116 1112 0.1 3 1752 5.2 158	12 Th	0115 0.4 12 0722 4.0 122 1314 0.4 12 1940 4.8 146	27 F	0040 -0.2 -6 0656 4.8 146 1252 -0.4 -12 1921 5.5 168
13 Sa	0543 3.7 113 1132 0.1 3 1814 4.9 149	28 Su	0446 3.6 110 1040 0.2 6 1720 4.8 146 2342 0.4 12	13 Tu	0102 0.4 12 0707 3.7 113 1251 0.4 12 1927 4.9 149	28 W	0012 0.1 3 0620 4.1 125 1211 -0.2 -6 1848 5.5 168	13 F	0151 0.4 12 0758 4.2 128 1353 0.4 12 2016 4.7 143	28 Sa	0129 -0.4 -12 0748 5.1 155 1347 -0.6 -18 2011 5.4 165
14 Su	0031 0.2 6 0637 3.7 113 1221 0.1 3 1902 5.0 152	29 M	0545 3.7 113 1134 0.0 0 1815 5.1 155	14 W	0144 0.3 9 0748 3.8 116 1334 0.3 9 2007 4.9 149	29 Th	0104 -0.2 -6 0715 4.4 134 1307 -0.4 -12 1941 5.6 171	14 Sa	0224 0.3 9 0833 4.3 131 1430 0.3 9 2051 4.7 143	29 Su	0216 -0.6 -18 0838 5.4 165 1440 -0.6 -18 2101 5.3 162
15 M	0120 0.1 3 0726 3.7 113 1308 0.2 6 1946 5.0 152	30 Tu	0036 0.1 3 0641 3.9 119 1229 -0.2 -6 1908 5.4 165	15 Th	0222 0.3 9 0826 3.9 119 1414 0.3 9 2044 4.8 146	30 F	0155 -0.4 -12 0808 4.7 143 1401 -0.6 -18 2033 5.7 174	15 Su	0255 0.3 9 0907 4.4 134 1507 0.4 12 2125 4.6 140	30 M	0303 -0.5 -15 0927 5.5 168 1533 -0.6 -18 2151 5.0 152
		31 W	0128 -0.2 -6 0736 4.1 125 1323 -0.4 -12 2001 5.6 171			31 Sa	0243 -0.5 -15 0900 5.0 152 1455 -0.6 -18 2123 5.6 171				

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

Reedy Point, Delaware, 2019

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 M	0231 0829 1509 2057	0.4 5.5 0.3 5.4	12 168 9 165	16 Tu	0234 0815 1514 2049	0.1 6.0 -0.1 6.0	3 183 -3 183	1 W	0248 0839 1512 2105	0.6 5.6 0.4 5.8	18 171 12 177	16 Th	0317 0852 1538 2120	0.0 5.9 -0.1 6.5	0 180 -3 198	1 Sa	0359 0932 1600 2148	0.4 5.4 0.4 6.2	12 165 12 189	16 Su	0445 1013 1648 2233	0.0 5.6 0.2 6.5	0 171 6 198
2 Tu	0321 0916 1554 2141	0.3 5.6 0.3 5.5	9 171 9 168	17 W	0334 0912 1606 2141	-0.1 6.1 -0.2 6.3	-3 186 -6 192	2 Th	0338 0924 1556 2146	0.4 5.6 0.4 5.9	12 171 12 180	17 F	0412 0944 1627 2209	-0.1 5.9 -0.1 6.6	-3 180 -3 201	2 Su	0449 1016 1645 2228	0.3 5.3 0.4 6.3	9 162 12 192	17 M	0534 1101 1733 2317	0.0 5.5 0.4 6.4	0 168 12 195
3 W	0408 0959 1636 2221	0.2 5.6 0.2 5.6	6 171 6 171	18 Th	0429 1005 1655 2230	-0.3 6.1 -0.3 6.4	-9 186 -9 195	3 F	0427 1006 1638 2223	0.3 5.5 0.4 6.0	9 168 12 183	18 Sa	0504 1034 1714 2255	-0.2 5.8 0.0 6.6	-6 177 0 201	3 M	0538 1100 1730 2308	0.2 5.3 0.4 6.4	6 162 12 195	18 Tu	0620 1147 1816 2359	0.1 5.4 0.5 6.3	3 165 15 192
4 Th	0454 1039 1715 2257	0.1 5.6 0.3 5.7	3 171 9 174	19 F	0522 1055 1742 2318	-0.4 6.1 -0.2 6.5	-12 186 -6 198	4 Sa	0513 1046 1718 2258	0.3 5.5 0.4 6.1	9 168 12 186	19 Su	0554 1122 1759 2339	-0.2 5.7 0.2 6.5	-6 174 6 198	4 Tu	0627 1145 1817 2350	0.2 5.3 0.5 6.5	6 162 15 198	19 W	0703 1231 1857	0.2 5.3 0.7	6 162 21
5 F	0537 1116 1752 2329	0.1 5.5 0.3 5.8	3 168 9 177	20 Sa	0613 1144 1827	-0.4 6.0 -0.1	-12 183 -3	5 Su	0559 1125 1757 2331	0.2 5.4 0.5 6.2	6 165 15 189	20 M	0641 1209 1843	-0.1 5.6 0.4	-3 171 12	5 W	0716 1231 1905	0.2 5.3 0.5	6 162 15	20 Th	0040 0745 1316 1937	6.1 0.4 5.2 0.8	186 12 158 24
6 Sa	0619 1151 1827 2359	0.2 5.5 0.4 5.8	6 168 12 177	21 Su	0003 0702 1232 1912	6.5 -0.3 5.8 0.1	198 -9 177 3	6 M	0644 1204 1836	0.3 5.3 0.5	9 162 15	21 Tu	0023 0727 1256 1925	6.4 0.1 5.4 0.6	195 3 165 18	6 Th	0036 0806 1321 1957	6.5 6 5.3 0.5	198 6 162 15	21 F	0121 0826 1400 2018	6.0 0.5 5.2 0.9	183 15 158 27
7 Su	0701 1226 1901	0.2 5.4 0.4	6 165 12	22 M	0049 0750 1320 1956	6.4 -0.1 5.6 0.3	195 -3 171 9	7 Tu	0007 0731 1246 1918	6.3 0.3 5.3 0.6	192 9 162 18	22 W	0106 0812 1343 2008	6.2 0.3 5.3 0.8	189 9 162 24	7 F	0127 0857 1415 2053	6.4 0.2 5.3 0.5	195 6 162 15	22 Sa	0204 0906 1445 2101	5.9 0.5 5.1 1.0	180 15 155 30
8 M	0030 0743 1302 1936	5.9 0.3 5.3 0.5	180 9 162 15	23 Tu	0135 0838 1410 2040	6.2 0.1 5.4 0.6	189 3 165 18	8 W	0047 0819 1332 2005	6.3 0.4 5.2 0.6	192 12 158 18	23 Th	0151 0857 1431 2051	6.0 0.4 5.2 0.9	183 12 158 27	8 Sa	0224 0949 1514 2153	6.3 0.2 5.4 0.6	192 6 165 18	23 Su	0249 0946 1533 2149	5.7 0.6 5.2 1.0	174 18 158 30
9 Tu	0104 0828 1344 2015	6.0 0.4 5.2 0.5	183 12 158 15	24 W	0222 0926 1502 2127	6.0 0.3 5.2 0.7	183 9 158 21	9 Th	0134 0910 1425 2059	6.3 0.4 5.2 0.7	192 12 158 21	24 F	0237 0941 1522 2138	5.8 0.6 5.1 1.0	177 18 155 30	9 Su	0326 1043 1616 2255	6.1 0.1 5.5 0.6	186 3 168 18	24 M	0337 1028 1622 2241	5.6 0.6 5.2 1.0	171 18 158 30
10 W	0147 0919 1434 2103	6.0 0.5 5.1 0.6	183 15 155 18	25 Th	0313 1015 1556 2216	5.8 0.5 5.1 0.9	177 15 155 27	10 F	0229 1005 1525 2200	6.2 0.4 5.2 0.7	189 12 158 21	25 Sa	0328 1027 1614 2228	5.7 0.6 5.1 1.0	174 18 155 30	10 M	0431 1137 1717 2357	6.0 0.1 5.7 0.5	183 3 174 15	25 Tu	0429 1112 1712 2338	5.5 0.6 5.4 1.0	168 18 165 30
11 Th	0238 1015 1533 2204	6.0 0.6 5.1 0.7	183 18 155 21	26 F	0408 1105 1652 2309	5.6 0.6 5.1 0.9	171 18 155 27	11 Sa	0333 1102 1629 2306	6.0 0.4 5.2 0.7	183 12 158 21	26 Su	0422 1114 1708 2323	5.6 0.7 5.2 1.0	171 21 158 30	11 Tu	0535 1232 1817	5.8 0.1 5.9	177 3 180	26 W	0525 1159 1803	5.3 0.6 5.5	162 18 168
12 F	0341 1117 1640 2313	5.8 0.6 5.0 0.7	177 18 152 21	27 Sa	0505 1157 1748	5.5 0.6 5.2	168 18 158	12 Su	0442 1200 1734	5.9 0.3 5.4	180 9 165	27 M	0518 1202 1801	5.5 0.7 5.3	168 21 162	12 W	0100 0637 1327 1915	0.4 5.8 0.0 6.2	12 177 0 189	27 Th	0037 0620 1248 1852	1.0 5.3 0.6 5.7	30 162 18 174
13 Sa	0452 1219 1748	5.8 0.5 5.1	177 15 155	28 Su	0004 0603 1248 1842	0.9 5.5 0.6 5.3	27 168 18 162	13 M	0012 0551 1257 1836	0.6 5.9 0.2 5.7	18 180 6 174	28 Tu	0019 0614 1251 1851	1.0 5.4 0.6 5.5	30 165 18 168	13 Th	0200 0736 1420 2009	0.3 5.7 0.0 6.4	9 174 0 195	28 F	0136 0715 1340 1941	0.9 5.2 0.5 5.9	27 158 15 180
14 Su	0024 0606 1320 1853	0.6 5.8 0.4 5.4	18 177 12 165	29 M	0100 0658 1338 1933	0.8 5.5 0.6 5.5	24 168 18 168	14 Tu	0116 0656 1353 1935	0.4 5.9 0.1 6.0	12 180 3 183	29 W	0116 0707 1339 1940	0.9 5.4 0.6 5.7	27 165 18 174	14 F	0258 0831 1511 2059	0.1 5.7 0.0 6.5	3 174 0 198	29 Sa	0234 0807 1432 2028	0.7 5.2 0.5 6.1	21 158 15 186
15 M	0131 0714 1419 1953	0.4 5.9 0.1 5.7	12 180 3 174	30 Tu	0155 0751 1426 2021	0.7 5.5 0.5 5.6	21 168 15 171	15 W	0218 0756 1447 2029	0.2 5.9 0.0 6.3	6 180 0 192	30 Th	0212 0758 1427 2025	0.7 5.4 0.5 5.9	21 165 15 180	15 Sa	0353 0924 1601 2147	0.0 5.6 0.1 6.5	0 171 3 198	30 Su	0331 0858 1524 2115	0.5 5.2 0.4 6.3	15 158 12 192
												31 F	0307 0846 1514 2108	0.6 5.4 0.5 6.0	18 165 15 183								

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

Philadelphia, Pennsylvania, 2019

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 Tu	0404	-0.8	-24		16 W	0318	-0.3	-9		1 F	0517	-0.6	-18		16 Sa	0448	-0.2	-6	
	0950	6.0	183			0908	5.5	168			1105	5.9	180			1029	6.1	186	
	1639	-0.6	-18			1607	-0.1	-3			1759	-0.6	-18			1741	-0.2	-6	
	2214	5.5	168			2139	5.0	152			2332	5.3	162			2304	5.3	162	
2 W	0456	-0.7	-21		17 Th	0416	-0.3	-9		2 Sa	0606	-0.5	-15		17 Su	0547	-0.4	-12	
	1041	6.1	186			1003	5.7	174			1153	5.9	180			1126	6.4	195	
	1734	-0.6	-18			1707	-0.2	-6			1848	-0.5	-15			1837	-0.4	-12	
	2305	5.5	168			2234	5.0	152							2359	5.6	171		
3 Th	0546	-0.7	-21		18 F	0513	-0.4	-12		3 Su	0019	5.3	162		18 M	0644	-0.6	-18	
	1130	6.1	186			1056	6.0	183			0653	-0.5	-15			1221	6.5	198	
	1825	-0.6	-18			1805	-0.3	-9			1238	5.9	180			1930	-0.5	-15	
	2355	5.4	165			2328	5.1	155			1933	-0.5	-15						
4 F	0633	-0.6	-18		19 Sa	0609	-0.5	-15		4 M	0104	5.2	158		19 Tu	0052	5.8	177	
	1216	6.2	189			1149	6.2	189			0737	-0.4	-12			0739	-0.7	-21	
	1914	-0.6	-18			1900	-0.5	-15		●	1320	5.9	180			1315	6.7	204	
										●	2016	-0.4	-12			2021	-0.7	-21	
5 Sa	0041	5.3	162		20 Su	0020	5.3	162		5 Tu	0146	5.2	158		20 W	0143	6.0	183	
	0719	-0.5	-15			0704	-0.7	-21			0819	-0.4	-12			0833	-0.9	-27	
	1300	6.1	186			1241	6.4	195			1402	5.8	177			1407	6.7	204	
●	2000	-0.5	-15			1953	-0.7	-21			2056	-0.3	-9			2111	-0.8	-24	
6 Su	0126	5.3	162		21 M	0112	5.4	165		6 W	0227	5.2	158		21 Th	0234	6.1	186	
	0802	-0.4	-12			0758	-0.8	-24			0900	-0.4	-12			0925	-0.9	-27	
	1342	6.0	183			1333	6.5	198			1441	5.8	177			1459	6.6	201	
	2043	-0.4	-12			2045	-0.8	-24			2135	-0.3	-9			2159	-0.8	-24	
7 M	0210	5.1	155		22 Tu	0204	5.5	168		7 Th	0307	5.1	155		22 F	0326	6.2	189	
	0844	-0.3	-9			0851	-0.9	-27			0941	-0.3	-9			1017	-0.9	-27	
	1424	5.9	180			1425	6.5	198			1520	5.7	174			1551	6.4	195	
	2125	-0.3	-9			2135	-0.9	-27			2212	-0.2	-6			2247	-0.7	-21	
8 Tu	0252	5.0	152		23 W	0256	5.5	168		8 F	0345	5.2	158		23 Sa	0417	6.2	189	
	0924	-0.3	-9			0943	-1.0	-30			1021	-0.3	-9			1110	-0.8	-24	
	1505	5.8	177			1518	6.4	195			1559	5.6	171			1643	6.2	189	
	2205	-0.3	-9			2225	-0.9	-27			2249	-0.3	-9			2335	-0.7	-21	
9 W	0334	4.9	149		24 Th	0349	5.6	171		9 Sa	0422	5.2	158		24 Su	0509	6.2	189	
	1004	-0.3	-9			1036	-1.0	-30			1102	-0.3	-9			1202	-0.6	-18	
	1546	5.7	174			1611	6.3	192			1639	5.5	168			1737	5.9	180	
	2244	-0.3	-9			2314	-1.0	-30			2326	-0.3	-9						
10 Th	0416	4.9	149		25 F	0443	5.7	174		10 Su	0500	5.3	162		25 M	0024	-0.5	-15	
	1044	-0.3	-9			1130	-0.9	-27			1147	-0.2	-6			0603	6.1	186	
	1628	5.6	171			1706	6.1	186			1722	5.4	165			1256	-0.5	-15	
	2323	-0.3	-9												1832	5.7	174		
11 F	0459	4.9	149		26 Sa	0004	-1.0	-30		11 M	0006	-0.3	-9		26 Tu	0114	-0.4	-12	
	1127	-0.3	-9			0538	5.7	174			0541	5.4	165			0657	6.0	183	
	1711	5.5	168			1225	-0.8	-24			1237	-0.1	-3			1351	-0.3	-9	
						1802	5.8	177			1811	5.2	158		○	1929	5.5	168	
12 Sa	0002	-0.3	-9		27 Su	0054	-0.9	-27		12 Tu	0050	-0.2	-6		27 W	0206	-0.2	-6	
	0543	4.9	149			0634	5.7	174			0630	5.5	168			0753	5.9	180	
	1213	-0.2	-6			1321	-0.7	-21			1334	0.0	0			1447	-0.2	-6	
	1758	5.3	162		○	1859	5.6	171		○	1908	5.1	155			2025	5.4	165	
13 Su	0044	-0.3	-9		28 M	0146	-0.8	-24		13 W	0143	-0.2	-6		28 Th	0259	-0.1	-3	
	0630	5.0	152			0730	5.7	174			0727	5.5	168			0849	5.9	180	
	1305	-0.2	-6			1418	-0.6	-18			1436	0.1	3			1543	-0.1	-3	
	1850	5.2	158			1956	5.4	165			2008	5.0	152			2121	5.4	165	
14 M	0131	-0.3	-9		29 Tu	0239	-0.7	-21		14 Th	0243	-0.1	-3		14 Th	0115	0.3	9	
	0720	5.1	155			0826	5.7	174			0829	5.7	174			0651	6.1	186	
	1403	-0.1	-3			1516	-0.5	-15			1540	0.1	3			1414	0.4	12	
○	1945	5.1	155			2053	5.3	162			2109	5.0	152		○	1942	5.4	165	
15 Tu	0222	-0.3	-9		30 W	0332	-0.7	-21		15 F	0346	-0.1	-3		15 F	0218	0.4	12	
	0814	5.3	162			0921	5.8	177			0930	5.9	180			0758	6.2	189	
	1504	-0.1	-3			1613	-0.5	-15			1642	0.0	0			1517	0.4	12	
	2042	5.0	152			2148	5.2	158			2208	5.1	155			2045	5.5	168	
					31 Th	0425	-0.6	-18											
						1014	5.8	177											
						1708	-0.5	-15											
						2241	5.2	158											

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

Ocean City, Maryland, 2019

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 Tu	0250	-0.4	-12		16 W	0226	0.4	12		1 F	0357	0.0	0		16 Sa	0322	0.2	6		1 Su	0417	0.1	3						
	0905	4.7	143			0844	4.3	131			1020	4.3	131			0949	4.3	131			1041	3.8	116		16 M	0358	-0.2	-6	
	1528	-0.3	-9			1503	0.4	12			1657	0.3	9			1620	0.3	9			1719	0.3	9			1023	4.2	128	
	2128	3.9	119			2103	3.5	107			2242	3.0	91			2210	3.1	94			2303	2.7	82			1656	-0.1	-3	
2 W	0337	-0.2	-6		17 Th	0303	0.5	15		2 Sa	0449	0.3	9		17 Su	0412	0.3	9		2 M	0509	0.4	12			17 Tu	0456	-0.1	-3
	0956	4.6	140			0925	4.3	131			1111	4.0	122			1038	4.2	128			1130	3.5	107		1116		4.0	122	
	1624	0.0	0			1547	0.5	15			1754	0.5	15			1714	0.4	12			1810	0.5	15		1750		-0.1	-3	
	2218	3.6	110			2144	3.4	104			2335	2.8	85			2302	3.0	91			2355	2.6	79		2345		3.1	94	
3 Th	0427	0.0	0		18 F	0345	0.5	15		3 Su	0544	0.6	18		18 M	0509	0.4	12		3 Tu	0604	0.6	18		18 W	0558	0.0	0	
	1047	4.4	134			1008	4.2	128			1206	3.7	113			1132	4.1	125			1221	3.3	101			1212	3.8	116	
	1722	0.3	9			1637	0.6	18			1852	0.7	21			1811	0.4	12			1900	0.6	18			1846	-0.1	-3	
	2310	3.2	98			2228	3.2	98																					

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

Baltimore, Maryland, 2019

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 Tu	0220	0.8	24		16 W	0123	0.7	21		1 F	0341	0.6	18		16 Sa	0256	0.7	21		1 F	0223	0.7	21		16 Sa	0140	0.9	27	
	0858	-0.4	-12			0749	-0.3	-9			0959	-0.4	-12			0907	-0.4	-12			0844	-0.1	-3			0748	-0.1	-3	
	1533	1.2	37			1428	1.0	30			1701	1.1	34			1554	1.3	40			1541	1.1	34			1426	1.4	43	
	2226	0.0	0			2137	0.1	3			2357	0.0	0			2311	0.0	0			2236	0.2	6			2145	0.2	6	
2 W	0312	0.7	21		17 Th	0219	0.6	18		2 Sa	0432	0.6	18		17 Su	0356	0.7	21		2 Sa	0320	0.7	21		17 Su	0242	0.9	27	
	0941	-0.4	-12			0836	-0.4	-12			1045	-0.4	-12			1011	-0.4	-12			0940	-0.1	-3			0901	-0.1	-3	
	1628	1.2	37			1524	1.2	37			1745	1.1	34			1653	1.3	40			1635	1.1	34			1633	1.4	43	
	2326	0.0	0			2242	0.0	0													2321	0.2	6			2237	0.2	6	
3 Th	0403	0.6	18		18 F	0317	0.6	18		3 Su	0039	0.0	0		18 M	0000	-0.1	-3		3 Su	0411	0.8	24		18 M	0342	1.0	30	
	1022	-0.4	-12			0927	-0.4	-12			0519	0.6	18			0454	0.8	24			1033	-0.1	-3			1010	-0.2	-6	
	1718	1.3	40			1619	1.3	40			1130	-0.4	-12			1114	-0.5	-15			1720	1.1	34			1633	1.4	43	
						2339	-0.1	-3			1825	1.1	34			1750	1.4	43			2359	0.2	6			2324	0.1	3	
4 F	0019	0.0	0		19 Sa	0415	0.6	18		4 M	0116	0.0	0		19 Tu	0046	-0.1	-3		4 M	0458	0.9	27		19 Tu	0439	1.2	37	
	0452	0.6	18			1022	-0.5	-15			0603	0.6	18			0549	0.9	27			1120	-0.2	-6			1114	-0.2	-6	
	1102	-0.4	-12			1713	1.4	43			1212	-0.3	-9			1214	-0.5	-15			1759	1.1	34			1729	1.4	43	
	1802	1.3	40								1901	1.1	34			1842	1.4	43											

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

Baltimore, Maryland, 2019

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	M	0347	1.1	34	16	Tu	0331	1.4	43	1	W	0406	1.5	46	16	Th	0416	1.8	55	1	Sa	0457	1.8	55	16	Su	0544	2.1	64
		1016	0.2	6			1011	0.1	3			1045	0.4	12			1116	0.3	9			1209	0.5	15			1306	0.4	12
		1640	1.2	37			1609	1.5	46			1626	1.3	40			1634	1.4	43			1702	1.2	37			1749	1.2	37
		2306	0.4	12			2246	0.3	9			2239	0.4	12			2249	0.2	6			2252	0.3	9			2335	0.3	9
2	Tu	0434	1.2	37	17	W	0427	1.6	49	2	Th	0449	1.5	46	17	F	0509	1.9	58	2	Su	0536	1.9	58	17	M	0629	2.1	64
		1105	0.1	3			1115	0.1	3			1135	0.4	12			1215	0.3	9			1258	0.5	15			1353	0.4	12
		1719	1.2	37			1704	1.4	43			1706	1.3	40			1725	1.3	40			1749	1.1	34			1838	1.2	37
		2339	0.3	9			2328	0.2	6			2311	0.4	12			2329	0.2	6			2331	0.3	9			2331	0.3	9
3	W	0518	1.3	40	18	Th	0521	1.7	52	3	F	0529	1.6	49	18	Sa	0558	2.0	61	3	M	0617	2.0	61	18	Tu	0711	2.0	61
		1150	0.1	3			1214	0.1	3			1222	0.4	12			1311	0.3	9			1346	0.4	12			1437	0.4	12
		1754	1.2	37			1754	1.4	43			1745	1.2	37			1813	1.3	40			1838	1.1	34			1926	1.2	37
		2306	0.4	12			2246	0.3	9			2343	0.3	9			2311	0.4	12			2343	0.3	9			2343	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 mean lower low water which is the chart datum of soundings.

Baltimore, Maryland, 2019

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 M	0507 2.0 1240 0.5 1719 1.1 2259 0.3	16 Tu 1334 0.5 1818 1.2 ○	61 15 34 9	1 Th	0623 2.1 1340 0.4 1844 1.4	64 12 43	16 F	0036 0.5 0708 1.8 1403 0.6 1923 1.4	15 55 18 43	1 Su	0143 0.4 0742 1.9 1424 0.3 2013 1.8	12 58 9 55	16 M	0151 0.6 0739 1.6 1405 0.5 2014 1.7	18 49 15 52	
2 Tu	0553 2.1 1326 0.4 1813 1.1 ● 2351 0.3	17 W	0000 0.4 0654 2.0 1411 0.5 1904 1.2	12 61 15 37	2 F	0043 0.3 0713 2.1 1422 0.4 1938 1.5	9 64 12 46	17 Sa	0118 0.5 0741 1.8 1429 0.5 2004 1.5	15 55 15 46	2 M	0246 0.4 0829 1.8 1504 0.3 2109 1.9	12 55 9 58	17 Tu	0235 0.7 0811 1.6 1431 0.4 2052 1.7	21 49 12 52
3 W	0640 2.1 1411 0.4 1906 1.2	18 Th	0045 0.4 0732 1.9 1444 0.5 1948 1.3	12 58 15 40	3 Sa	0144 0.3 0803 2.0 1504 0.4 2034 1.6	9 61 12 49	18 Su	0200 0.6 0813 1.7 1454 0.5 2044 1.5	18 52 15 46	3 Tu	0351 0.5 0917 1.7 1546 0.3 2207 1.9	15 52 9 58	18 W	0324 0.7 0846 1.5 1500 0.4 2131 1.8	21 46 12 55
4 Th	0046 0.3 0729 2.1 1454 0.4 1959 1.3	19 F	0129 0.5 0808 1.8 1514 0.5 2032 1.3	15 55 15 40	4 Su	0248 0.4 0853 1.9 1546 0.3 2131 1.7	12 58 9 52	19 M	0244 0.7 0845 1.7 1521 0.5 2126 1.6	21 52 15 49	4 W	0501 0.6 1007 1.5 1630 0.3 2306 2.0	18 46 9 61	19 Th	0419 0.8 0926 1.4 1533 0.4 2214 1.8	24 43 12 55
5 F	0145 0.3 0819 2.0 1538 0.3 2054 1.4	20 Sa	0214 0.5 0844 1.8 1543 0.5 2115 1.4	15 55 15 43	5 M	0355 0.5 0942 1.8 1629 0.3 2230 1.8	15 55 9 55	20 Tu	0332 0.7 0919 1.6 1549 0.4 2208 1.6	21 49 12 49	5 Th	0614 0.7 1059 1.4 1717 0.3 ○	21 43 9	20 F	0522 0.8 1011 1.3 1611 0.4 2301 1.9	24 40 12 58
6 Sa	0249 0.4 0911 2.0 1622 0.3 2150 1.5	21 Su	0301 0.6 0919 1.7 1611 0.5 2201 1.4	18 52 15 43	6 Tu	0507 0.6 1033 1.6 1713 0.3 2331 1.8	18 49 9 55	21 W	0427 0.8 0956 1.5 1621 0.4 2253 1.7	24 46 12 52	6 F	0007 2.0 0726 0.7 1157 1.3 1809 0.4	61 21 40 12	21 Sa	0629 0.8 1104 1.2 1657 0.4 2354 1.9	24 37 12 58
7 Su	0357 0.5 1003 1.8 1707 0.3 2250 1.6	22 M	0351 0.7 0956 1.6 1641 0.5 2248 1.5	21 49 15 46	7 W	0623 0.7 1125 1.5 1759 0.3 ○	21 46 9	22 Th	0532 0.9 1038 1.4 1656 0.4 2341 1.8	27 43 12 55	7 Sa	0110 1.9 0834 0.7 1259 1.2 1906 0.4	58 21 37 12	22 Su	0736 0.7 1204 1.2 1753 0.4	21 37 12
8 M	0510 0.5 1057 1.7 1752 0.3 2351 1.7	23 Tu	0448 0.8 1034 1.5 1714 0.4 2336 1.5	24 46 12 46	8 Th	0034 1.9 0739 0.7 1221 1.4 1847 0.3	58 21 43 9	23 F	0646 0.9 1127 1.3 1737 0.4 ○	27 40 12	8 Su	0213 1.9 0934 0.7 1403 1.2 2008 0.5	58 21 37 15	23 M	0053 1.9 0836 0.7 1309 1.2 1901 0.4	58 21 37 12
9 Tu	0628 0.6 1152 1.6 1838 0.3 ○	24 W	0554 0.8 1116 1.4 1749 0.4 ○	24 43 12	9 F	0138 1.9 0852 0.7 1320 1.3 1937 0.3	58 21 40 9	24 Sa	0032 1.8 0800 0.8 1224 1.2 1825 0.4	55 24 37 12	9 M	0312 1.9 1026 0.7 1504 1.2 2108 0.5	58 21 37 15	24 Tu	0155 1.9 0930 0.6 1414 1.3 2015 0.4	58 18 40 12
10 W	0055 1.8 0746 0.6 1248 1.4 1925 0.3	25 Th	0026 1.6 0708 0.9 1202 1.3 1827 0.4	49 27 40 12	10 Sa	0239 2.0 0958 0.7 1422 1.2 2030 0.4	61 21 37 12	25 Su	0126 1.9 0907 0.8 1326 1.2 1921 0.4	58 24 37 12	10 Tu	0405 1.9 1110 0.6 1601 1.3 2205 0.5	58 18 40 15	25 W	0256 1.9 1017 0.6 1517 1.4 2127 0.4	58 18 43 12
11 Th	0157 1.9 0901 0.6 1345 1.3 2011 0.3	26 F	0117 1.7 0824 0.8 1255 1.2 1909 0.4	52 24 37 12	11 Su	0336 2.0 1054 0.6 1522 1.2 2123 0.4	61 18 37 12	26 M	0223 2.0 1004 0.7 1431 1.2 2024 0.4	61 21 37 12	11 W	0450 1.8 1148 0.6 1651 1.4 2256 0.5	55 18 43 15	26 Th	0355 1.9 1101 0.5 1616 1.5 2235 0.4	58 15 46 12
12 F	0258 1.9 1009 0.6 1443 1.2 2057 0.3	27 Sa	0208 1.8 0934 0.8 1353 1.2 1956 0.3	55 24 37 9	12 M	0428 2.0 1143 0.6 1619 1.2 2215 0.4	61 18 37 12	27 Tu	0321 2.0 1054 0.6 1534 1.3 2130 0.4	61 18 40 12	12 Th	0530 1.8 1221 0.6 1736 1.4 2343 0.5	55 18 43 15	27 F	0450 1.9 1143 0.4 1713 1.7 2339 0.3	58 12 52 9
13 Sa	0353 2.0 1110 0.5 1541 1.2 2143 0.3	28 Su	0259 1.9 1034 0.7 1455 1.1 2048 0.3	58 21 34 9	13 Tu	0514 2.0 1225 0.6 1711 1.3 2305 0.4	61 18 40 12	28 W	0418 2.1 1139 0.6 1633 1.4 2236 0.3	64 18 43 9	13 F	0605 1.8 1249 0.6 1819 1.5 ○	55 18 46	28 Sa	0541 1.9 1223 0.3 1807 1.8 ●	58 9 55
14 Su	0444 2.0 1204 0.5 1637 1.1 2229 0.3	29 M	0350 2.0 1126 0.6 1556 1.1 2143 0.3	61 18 34 9	14 W	0556 1.9 1302 0.6 1758 1.3 2352 0.5	58 18 40 15	29 Th	0512 2.1 1222 0.5 1730 1.5 2340 0.3	64 15 46 9	14 Sa	0026 0.6 0637 1.7 1315 0.5 1859 1.6	18 52 15 49	29 Su	0041 0.3 0629 1.8 1302 0.3 1901 1.9	9 55 9 58
15 M	0531 2.0 1251 0.5 1729 1.2 2315 0.3	30 Tu	0441 2.1 1213 0.5 1654 1.2 2242 0.3	64 15 37 9	15 Th	0633 1.9 1334 0.6 1841 1.4 ○	58 18 43	30 F	0604 2.1 1303 0.4 1824 1.6 ●	64 12 49	15 Su	0108 0.6 0708 1.7 1340 0.5 1937 1.6	18 52 15 49	30 M	0142 0.4 0716 1.7 1341 0.2 1954 2.0	12 52 6 61
		31 W	0532 2.1 1257 0.5 1750 1.3 ● 2342 0.3	64 15 40 9				31 Sa	0041 0.3 0654 2.0 1343 0.4 1919 1.7	9 61 12 52						

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

Baltimore, Maryland, 2019

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					
1 Tu	0243	0.4	12		16 W	0232	0.6	18		1 F	0437	0.4	12						
	0803	1.6	49			0741	1.3	40			0916	1.1	34		16 Sa	0404	0.3	9	
	1421	0.2	6			1346	0.3	9			1509	0.1	3			0847	0.9	27	
	2047	2.0	61			2021	1.8	55			2207	1.8	55			1430	0.0	0	
												2122	1.7	52					
2 W	0347	0.5	15		17 Th	0321	0.6	18		2 Sa	0535	0.4	12		17 Su	0455	0.3	9	
	0850	1.5	46			0820	1.3	40			1010	1.0	30			0939	0.9	27	
	1502	0.2	6			1418	0.3	9			1600	0.2	6			1521	0.1	3	
	2141	2.0	61			2100	1.8	55			2301	1.7	52			2213	1.6	49	
3 Th	0452	0.6	18		18 F	0415	0.6	18		3 Su	0631	0.5	15		18 M	0547	0.3	9	
	0941	1.3	40			0904	1.2	37			1107	1.0	30			1036	0.9	27	
	1547	0.3	9			1454	0.3	9			1658	0.3	9			1623	0.1	3	
	2237	2.0	61			2143	1.8	55			2356	1.6	49			2308	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 mean lower low water which is the chart datum of soundings.

Washington, D.C., 2019
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 Tu	0406	2.5	76	16 W	0308	2.2	67	1 F	0013	-0.1	-3	16 Sa	0440	2.5	76	1 F	0412	2.5	76	16 Sa	0314	2.7	82
	1054	-0.3	-9		0934	-0.1	-3		0531	2.4	73		1123	0.0	0		1049	0.2	6		0955	0.3	9
	1631	2.8	85		1524	2.6	79		1212	-0.1	-3		1656	2.9	88		1632	2.7	82		1529	3.0	91
	2344	-0.3	-9		2255	0.0	0		1751	2.7	82						2343	0.2	6		2307	0.2	6
2 W	0502	2.4	73	17 Th	0409	2.2	67	2 Sa	0104	-0.1	-3	17 Su	0034	0.0	0	2 Sa	0506	2.5	76	17 Su	0419	2.8	85
	1147	-0.3	-9		1036	-0.1	-3		0621	2.4	73		0540	2.6	79		1145	0.2	6		1112	0.2	6
	1723	2.8	85		1622	2.7	82		1303	-0.1	-3		1233	-0.1	-3		1726	2.7	82		1638	3.1	94
3 Th	0038	-0.3	-9	18 F	0000	0.0	0	3 Su	0151	-0.1	-3	18 M	0130	-0.2	-6	3 Su	0033	0.2	6	18 M	0008	0.1	3
	0554	2.4	73		0508	2.3	70		0708	2.4	73		0636	2.7	82		0556	2.6	79		0519	2.9	88
	1238	-0.3	-9		1143	-0.1	-3		1351	-0.1	-3		1336	-0.2	-6		1238	0.1	3		1221	0.1	3
	1813	2.8	85		1720	2.8	85		1925	2.7	82		1857	3.1	94		1816	2.7	82		1742	3.1	94

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

Washington, D.C., 2019
Times and Heights of High and Low Waters

Table with 5 main columns for months (April, May, June) and 2 sub-columns for Time and Height. Each sub-column contains two columns: Time (h, m, ft, cm) and Height (ft, cm). The table lists tidal data for each day of the month, including high and low water times and heights.

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

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

Washington, D.C., 2019

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 Tu	0429 -0.1	-3	16 W	0410 0.3	9	1 F	0551 0.0	0	16 Sa	0519 0.1	3	1 Su	0612 0.0	0
	0938 3.3	101		0919 2.9	88		1059 2.8	85		1016 2.6	79		1124 2.5	76
	1635 0.0	0		1555 0.3	9		1745 0.1	3		1701 0.2	6		1807 0.1	3
	2157 3.6	110		2122 3.3	101		2312 3.2	98		2223 3.1	94		2337 2.7	82
2 W	0522 0.0	0	17 Th	0449 0.4	12	2 Sa	0642 0.2	6	17 Su	0607 0.1	3	2 M	0657 0.1	3
	1029 3.2	98		0954 2.9	88		1153 2.7	82		1103 2.6	79		1216 2.4	73
	1723 0.1	3		1630 0.3	9		1836 0.3	9		1753 0.2	6		1856 0.2	6
	2247 3.5	107		2158 3.3	101					2314 3.0	91			
3 Th	0615 0.1	3	18 F	0530 0.4	12	3 Su	0007 3.0	91	18 M	0658 0.2	6	3 Tu	0031 2.6	79
	1123 3.0	91		1033 2.8	85		0734 0.3	9		1158 2.6	79		0743 0.2	6
	1812 0.2	6		1711 0.3	9		1250 2.6	79		1852 0.2	6		1309 2.4	73
	2340 3.4	104		2241 3.3	101		1930 0.4	12					1947 0.2	6
4 F	0710 0.3	9	19 Sa	0617 0.5	15	4 M	0106 2.8	85	19 Tu	0012 3.0	91	4 W	0128 2.5	76
	1220 2.9	88		1119 2.7	82		0826 0.4	12		0753 0.1	3		0828 0.2	6
	1905 0.3	9		1758 0.4	12	☉	1349 2.6	79	☉	1259 2.6	79	☉	1404 2.4	73
				2329 3.2	98		2027 0.4	12		1959 0.2	6	☉	2043 0.3	9
5 Sa	0037 3.2	98	20 Su	0710 0.5	15	5 Tu	0209 2.7	82	20 W	0118 2.9	88	5 Th	0225 2.4	73
	0806 0.4	12		1212 2.7	82		0918 0.4	12		0851 0.1	3		0913 0.2	6
	1321 2.8	85		1854 0.4	12		1448 2.6	79		1404 2.7	82		1459 2.4	73
☉	2002 0.4	12					2126 0.4	12		2109 0.1	3		2140 0.3	9
6 Su	0140 3.1	94	21 M	0026 3.2	98	6 W	0310 2.7	82	21 Th	0228 2.8	85	6 F	0321 2.4	73
	0902 0.4	12		0811 0.5	15		1008 0.4	12		0949 0.0	0		0959 0.1	3
	1423 2.7	82	☉	1314 2.7	82		1544 2.6	79		1509 2.8	85		1550 2.5	76
	2101 0.5	15		2000 0.5	15		2224 0.4	12		2217 0.0	0		2237 0.2	6
7 M	0244 3.0	91	22 Tu	0131 3.1	94	7 Th	0406 2.7	82	22 F	0336 2.8	85	7 Sa	0414 2.4	73
	0958 0.5	15		0914 0.4	12		1057 0.3	9		1045 -0.1	-3		1046 0.1	3
	1523 2.7	82		1423 2.7	82		1636 2.7	82		1610 2.9	88		1638 2.6	79
	2201 0.5	15		2115 0.4	12		2318 0.3	9		2321 -0.1	-3		2332 0.2	6
8 Tu	0346 3.0	91	23 W	0243 3.1	94	8 F	0457 2.7	82	23 Sa	0438 2.9	88	8 Su	0503 2.4	73
	1052 0.5	15		1016 0.3	9		1142 0.3	9		1140 -0.2	-6		1132 0.0	0
	1620 2.8	85		1530 2.8	85		1723 2.8	85		1706 3.1	94		1722 2.6	79
	2259 0.5	15		2229 0.3	9									
9 W	0442 3.0	91	24 Th	0353 3.1	94	9 Sa	0010 0.3	9	24 Su	0021 -0.2	-6	9 M	0025 0.1	3
	1141 0.4	12		1114 0.2	6		0544 2.7	82		0536 2.9	88		0550 2.4	73
	1711 2.9	88		1632 3.0	91		1224 0.2	6		1232 -0.3	-9		1217 0.0	0
	2352 0.4	12		2336 0.2	6		1805 2.9	88		1759 3.2	98		1802 2.7	82
10 Th	0532 3.0	91	25 F	0457 3.2	98	10 Su	0058 0.2	6	25 M	0118 -0.3	-9	10 Tu	0115 0.0	0
	1227 0.4	12		1208 0.0	0		0627 2.7	82		0629 2.9	88		0633 2.4	73
	1758 3.0	91		1728 3.2	98		1304 0.1	3		1323 -0.3	-9		1303 0.0	0
							1844 2.9	88		1849 3.3	101		1841 2.8	85
11 F	0042 0.4	12	26 Sa	0037 0.0	0	11 M	0144 0.2	6	26 Tu	0211 -0.4	-12	11 W	0202 -0.1	-3
	0618 3.0	91		0554 3.2	98		0707 2.7	82		0720 2.9	88		0715 2.4	73
	1308 0.3	9		1259 -0.1	-3		1342 0.1	3	☉	1412 -0.3	-9		1348 -0.1	-3
	1841 3.0	91		1821 3.4	104		1918 3.0	91		1937 3.3	101		1918 2.9	88
12 Sa	0128 0.3	9	27 Su	0134 -0.1	-3	12 Tu	0228 0.1	3	27 W	0302 -0.4	-12	12 Th	0248 -0.1	-3
	0659 3.0	91		0648 3.3	101		0745 2.7	82		0810 2.8	85		0755 2.4	73
	1346 0.3	9	☉	1348 -0.2	-6	☉	1419 0.1	3		1500 -0.3	-9	☉	1433 -0.1	-3
	1919 3.1	94		1910 3.5	107		1950 3.1	94		2024 3.3	101		1957 2.9	88
13 Su	0211 0.3	9	28 M	0227 -0.2	-6	13 W	0311 0.1	3	28 Th	0351 -0.4	-12	13 F	0334 -0.2	-6
	0738 3.0	91		0739 3.2	98		0821 2.7	82		0858 2.8	85		0835 2.4	73
	1421 0.2	6		1436 -0.2	-6		1456 0.1	3		1547 -0.2	-6		1519 -0.1	-3
☉	1953 3.1	94		1958 3.6	110		2022 3.1	94		2111 3.2	98		2038 3.0	91
14 M	0252 0.3	9	29 Tu	0319 -0.2	-6	14 Th	0353 0.1	3	29 F	0439 -0.3	-9	14 Sa	0419 -0.2	-6
	0813 3.0	91		0828 3.2	98		0856 2.7	82		0946 2.7	82		0917 2.5	76
	1453 0.2	6		1522 -0.2	-6		1534 0.1	3		1633 -0.1	-3		1607 -0.1	-3
	2024 3.2	98		2045 3.6	110		2057 3.1	94		2158 3.1	94		2123 3.0	91
15 Tu	0332 0.3	9	30 W	0410 -0.2	-6	15 F	0435 0.1	3	30 Sa	0526 -0.1	-3	15 Su	0505 -0.2	-6
	0846 2.9	88		0918 3.1	94		0934 2.6	79		1035 2.6	79		1002 2.5	76
	1524 0.2	6		1609 -0.1	-3		1615 0.1	3		1720 0.0	0		1658 -0.1	-3
	2052 3.2	98		2133 3.5	107		2137 3.1	94		2247 2.9	88		2212 2.9	88
			31 Th	0501 -0.1	-3									
				1008 3.0	91									
				1656 0.0	0									
				2221 3.4	104									
												31 Tu	0618 -0.1	-3
													1139 2.4	73
													1821 0.0	0
													2355 2.5	76

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

Chesapeake Bay Bridge Tunnel, Virginia, 2019

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 Tu	0445	2.7	82		16 W	0323	2.4	73		1 F	0605	2.6	79		16 Sa	0458	2.8	85		1 F	0446	2.4	73
	1101	0.0	0			0947	0.2	6			1222	0.1	3			1122	-0.1	-3			1105	0.4	12
	1659	2.1	64			1538	1.9	58			1820	2.0	61			1721	2.2	67			1705	2.0	61
	2256	-0.2	-6			2149	-0.1	-3			2325	-0.4	-12			2301	0.2	6			2301	0.2	6
2 W	0537	2.7	82		17 Th	0423	2.6	79		2 Sa	0010	-0.1	-3		17 Su	0600	3.0	91		2 Sa	0540	2.5	76
	1155	0.0	0			1048	0.0	0			0649	2.6	79			1219	-0.3	-9			1153	0.3	9
	1753	2.1	64			1640	2.0	61			1304	0.0	0			1822	2.4	73			1755	2.1	64
	2344	-0.2	-6			2246	-0.3	-9			1902	2.1	64								2350	0.1	3
3 Th	0624	2.8	85		18 F	0522	2.8	85		3 Su	0053	-0.1	-3		18 M	0024	-0.5	-15		3 Su	0625	2.5	76
	1242	-0.1	-3			1145	-0.2	-6			0728	2.6	79			0657	3.2	98			1234	0.2	6
	1840	2.1	64			1741	2.1	64			1342	0.0	0			1312	-0.4	-12			1837	2.2	67
						2342	-0.5	-15			1941	2.1	64			1919	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 mean lower low water which is the chart datum of soundings.

Chesapeake Bay Bridge Tunnel, Virginia, 2019

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		h m ft cm		h m ft cm
1 M	0550 2.5 76 1154 0.4 12 1804 2.4 73	16 Tu	0525 2.9 88 1134 -0.1 -3 1753 3.0 91	1 W	0545 2.4 73 1141 0.3 9 1804 2.7 82	16 Th	0602 2.7 82 1201 -0.2 -6 1830 3.2 98	1 Sa	0021 0.1 3 0625 2.3 70 1215 0.1 3 1846 3.0 91	16 Su	0121 -0.1 -3 0725 2.4 73 1312 -0.1 -3 1944 3.2 98
2 Tu	0006 0.2 6 0630 2.6 79 1230 0.3 9 1843 2.6 79	17 W	0002 -0.2 -6 0622 3.0 91 1226 -0.2 -6 1847 3.2 98	2 Th	0014 0.2 6 0626 2.5 76 1218 0.2 6 1843 2.8 85	17 F	0045 -0.2 -6 0654 2.7 82 1249 -0.2 -6 1918 3.3 101	2 Su	0105 0.0 0 0709 2.4 73 1259 0.0 0 1929 3.1 94	17 M	0207 -0.1 -3 0810 2.4 73 1357 0.0 0 2026 3.1 94
3 W	0046 0.2 6 0707 2.6 79 1304 0.2 6 1920 2.7 82	18 Th	0058 -0.3 -9 0714 3.0 91 1314 -0.3 -9 1937 3.3 101	3 F	0054 0.1 3 0704 2.5 76 1255 0.1 3 1921 3.0 91	18 Sa	0136 -0.3 -9 0743 2.7 82 1335 -0.2 -6 2003 3.4 104	3 M	0149 -0.1 -3 0754 2.5 76 1344 -0.1 -3 2013 3.2 98	18 Tu	0250 -0.1 -3 0852 2.4 73 1440 0.1 3 2107 3.0 91
4 Th	0124 0.1 3 0741 2.7 82 1337 0.1 3 1955 2.8 85	19 F	0150 -0.4 -12 0803 3.0 91 1401 -0.3 -9 2024 3.4 104	4 Sa	0133 0.1 3 0742 2.5 76 1333 0.1 3 1958 3.1 94	19 Su	0224 -0.2 -6 0829 2.6 79 1420 -0.1 -3 2047 3.3 101	4 Tu	0234 -0.1 -3 0839 2.5 76 1431 -0.1 -3 2059 3.2 98	19 W	0331 0.0 0 0932 2.4 73 1523 0.1 3 2147 2.9 88
5 F	0200 0.0 0 0815 2.7 82 1410 0.1 3 2029 2.9 88	20 Sa	0240 -0.4 -12 0849 2.9 88 1446 -0.3 -9 2110 3.4 104	5 Su	0213 0.0 0 0821 2.6 79 1412 0.0 0 2037 3.1 94	20 M	0310 -0.2 -6 0913 2.6 79 1504 0.0 0 2129 3.2 98	5 W	0321 -0.2 -6 0926 2.5 76 1520 -0.1 -3 2147 3.2 98	20 Th	0411 0.1 3 1013 2.3 70 1606 0.2 6 2227 2.8 85
6 Sa	0237 0.0 0 0849 2.6 79 1444 0.1 3 2104 2.9 88	21 Su	0329 -0.3 -9 0934 2.8 85 1531 -0.1 -3 2154 3.3 101	6 M	0254 0.0 0 0900 2.5 76 1452 0.0 0 2118 3.1 94	21 Tu	0355 -0.1 -3 0956 2.5 76 1548 0.1 3 2212 3.0 91	6 Th	0410 -0.2 -6 1016 2.5 76 1613 -0.1 -3 2238 3.1 94	21 F	0450 0.2 6 1053 2.3 70 1650 0.3 9 2307 2.6 79
7 Su	0315 0.0 0 0924 2.6 79 1520 0.1 3 2141 3.0 91	22 M	0417 -0.1 -3 1019 2.6 79 1616 0.0 0 2239 3.1 94	7 Tu	0337 0.0 0 0942 2.5 76 1536 0.0 0 2201 3.1 94	22 W	0439 0.1 3 1039 2.4 73 1633 0.3 9 2255 2.8 85	7 F	0502 -0.1 -3 1109 2.5 76 1710 0.0 0 2331 3.0 91	22 Sa	0530 0.3 9 1136 2.3 70 1736 0.4 12 2349 2.5 76
8 M	0355 0.1 3 1001 2.5 76 1559 0.1 3 2220 2.9 88	23 Tu	0505 0.1 3 1104 2.5 76 1703 0.2 6 2325 2.9 88	8 W	0424 0.0 0 1027 2.5 76 1625 0.1 3 2249 3.1 94	23 Th	0523 0.2 6 1123 2.3 70 1721 0.4 12 2340 2.6 79	8 Sa	0557 -0.1 -3 1207 2.6 79 1812 0.1 3	23 Su	0610 0.4 12 1221 2.3 70 1826 0.5 15
9 Tu	0439 0.1 3 1042 2.4 73 1642 0.2 6 2304 2.9 88	24 W	0555 0.3 9 1151 2.3 70 1753 0.4 12	9 Th	0514 0.1 3 1117 2.4 73 1719 0.2 6 2342 3.0 91	24 F	0609 0.4 12 1209 2.2 67 1812 0.5 15	9 Su	0029 2.9 88 0655 0.0 0 1309 2.6 79 1919 0.1 3	24 M	0033 2.3 70 0653 0.4 12 1309 2.3 70 1919 0.6 18
10 W	0527 0.2 6 1128 2.4 73 1732 0.2 6 2355 2.9 88	25 Th	0014 2.7 82 0647 0.4 12 1242 2.2 67 1848 0.5 15	10 F	0610 0.1 3 1214 2.4 73 1820 0.2 6	25 Sa	0027 2.5 76 0656 0.5 15 1259 2.2 67 1907 0.6 18	10 M	0131 2.7 82 0755 0.0 0 1415 2.7 82 2029 0.2 6	25 Tu	0120 2.2 67 0738 0.4 12 1359 2.4 73 2015 0.6 18
11 Th	0622 0.3 9 1221 2.3 70 1829 0.3 9	26 F	0108 2.5 76 0742 0.6 18 1338 2.2 67 1949 0.6 18	11 Sa	0041 2.9 88 0711 0.2 6 1317 2.4 73 1927 0.2 6	26 Su	0118 2.3 70 0745 0.5 15 1353 2.2 67 2006 0.6 18	11 Tu	0236 2.6 79 0854 0.0 0 1521 2.8 85 2137 0.1 3	26 W	0211 2.2 67 0825 0.4 12 1451 2.5 76 2111 0.5 15
12 F	0053 2.8 85 0724 0.3 9 1323 2.3 70 1935 0.3 9	27 Sa	0208 2.4 73 0839 0.6 18 1439 2.2 67 2053 0.6 18	12 Su	0145 2.8 85 0814 0.2 6 1425 2.5 76 2038 0.2 6	27 M	0212 2.3 70 0834 0.5 15 1449 2.3 70 2105 0.6 18	12 W	0342 2.5 76 0951 -0.1 -3 1624 2.9 88 2241 0.1 3	27 Th	0304 2.1 64 0913 0.3 9 1543 2.6 79 2206 0.4 12
13 Sa	0159 2.8 85 0831 0.3 9 1432 2.4 73 2046 0.2 6	28 Su	0311 2.3 70 0932 0.6 18 1540 2.2 67 2152 0.6 18	13 M	0254 2.7 82 0917 0.1 3 1535 2.7 82 2148 0.1 3	28 Tu	0307 2.2 67 0921 0.5 15 1543 2.4 73 2200 0.5 15	13 Th	0445 2.5 76 1045 -0.1 -3 1720 3.1 94 2339 0.0 0	28 F	0359 2.1 64 1002 0.2 6 1634 2.7 82 2258 0.3 9
14 Su	0311 2.8 85 0937 0.2 6 1545 2.5 76 2157 0.1 3	29 M	0409 2.3 70 1020 0.5 15 1635 2.4 73 2245 0.5 15	14 Tu	0402 2.7 82 1015 0.0 0 1640 2.9 88 2252 0.0 0	29 W	0401 2.2 67 1006 0.4 12 1633 2.6 79 2250 0.4 12	14 F	0544 2.4 73 1136 -0.1 -3 1812 3.2 98	29 Sa	0454 2.2 67 1051 0.1 3 1725 2.9 88 2348 0.1 3
15 M	0421 2.8 85 1039 0.1 3 1653 2.7 82 2302 -0.1 -3	30 Tu	0500 2.4 73 1102 0.4 12 1722 2.5 76 2331 0.4 12	15 W	0505 2.7 82 1110 -0.1 -3 1737 3.1 94 2351 -0.1 -3	30 Th	0452 2.2 67 1050 0.3 9 1720 2.7 82 2337 0.3 9	15 Sa	0032 -0.1 -3 0637 2.4 73 1225 -0.1 -3 1859 3.2 98	30 Su	0547 2.3 70 1141 0.0 0 1814 3.1 94
						31 F	0539 2.3 70 1133 0.2 6 1803 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 mean lower low water which is the chart datum of soundings.

Chesapeake Bay Bridge Tunnel, Virginia, 2019

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 M	0037	0.0	0		16 Tu	0147	0.1	3		1 Th	0154	-0.2	-6						
	0639	2.4	73			0751	2.4	73			0801	2.9	88		16 F	0233	0.3	9	
	1231	-0.1	-3			1337	0.1	3			1359	-0.3	-9			0841	2.7	82	
	1904	3.2	98			2007	3.0	91			2027	3.5	107			1436	0.3	9	
				○									2055	2.9		88			
2 Tu	0126	-0.1	-3		17 W	0227	0.1	3		2 F	0243	-0.3	-9		17 Sa	0305	0.3	9	
	0729	2.5	76			0830	2.4	73			0854	3.0	91			0916	2.7	82	
	1322	-0.2	-6			1419	0.2	6			1454	-0.3	-9			1514	0.4	12	
	1953	3.3	101			2045	2.9	88			2118	3.4	104			2129	2.9	88	
3 W	0214	-0.2	-6		18 Th	0304	0.1	3		3 Sa	0333	-0.3	-9		18 Su	0337	0.3	9	
	0820	2.6	79			0908	2.5	76			0947	3.1	94			0951	2.7	82	
	1414	-0.2	-6			1500	0.2	6			1550	-0.2	-6			1514	0.4	12	
	2043	3.3	101			2122	2.9	88			2209	3.3	101			2203	2.8	85	
4 Th	0304	-0.3	-9		19 F	0340	0.2	6		4 Su	0424	-0.3	-9		19 M	0410	0.3	9	
	0911	2.7	82			0945	2.5	76			1041	3.1	94			1027	2.8	85	
	1507	-0.2	-6			1539	0.3	9			1648	-0.1	-3			1630	0.5	15	
	2134	3.3	101			2159	2.8	85			2300	3.1	94			2238	2.6	79	
5 F	0354	-0.3	-9		20 Sa	0415	0.2	6		5 M	0515	-0.2	-6		20 Tu	0444	0.4	12	
	1003	2.7	82			1023	2.5	76			1749	0.0	0			1105	2.8	85	
	1602	-0.2	-6			1620	0.4	12			2354	2.9	88			1712	0.6	18	
	2225	3.2	98			2235	2.7	82								2315	2.5	76	
6 Sa	0446	-0.3	-9		21 Su	0450	0.3	9		6 Tu	0608	-0.1	-3		21 W	0521	0.4	12	
	1058	2.8	85			1102	2.5	76			1234	3.1	94			1145	2.8	85	
	1701	-0.1	-3			1702	0.4	12			1853	0.2	6			1759	0.6	18	
	2318	3.0	91			2313	2.5	76								2357	2.4	73	
7 Su	0539	-0.2	-6		22 M	0526	0.3	9		7 W	0051	2.7	82		22 Th	0603	0.5	15	
	1155	2.8	85			1142	2.5	76			0704	0.0	0			1229	2.8	85	
	1803	0.0	0			1747	0.5	15			1334	3.1	94			1850	0.7	21	
						2352	2.4	73			2000	0.3	9						
8 M	0014	2.9	88		23 Tu	0605	0.4	12		8 Th	0154	2.5	76		23 F	0044	2.3	70	
	0634	-0.2	-6			1225	2.5	76			0802	0.2	6			0652	0.5	15	
	1255	2.8	85			1836	0.6	18			1438	3.0	91			1320	2.8	85	
	1909	0.1	3								2107	0.4	12			1948	0.7	21	
9 Tu	0113	2.7	82		24 W	0035	2.3	70		9 F	0301	2.3	70		24 Sa	0138	2.3	70	
	0731	-0.1	-3			0647	0.4	12			0903	0.3	9			0747	0.5	15	
	1358	2.9	88			1312	2.5	76			1542	3.0	91			1417	2.9	88	
	2017	0.2	6			1929	0.6	18			2211	0.4	12			2050	0.6	18	
10 W	0215	2.5	76		25 Th	0123	2.2	67		10 Sa	0410	2.3	70		25 Su	0240	2.3	70	
	0829	0.0	0			0734	0.4	12			1002	0.3	9			0849	0.5	15	
	1502	2.9	88			1402	2.6	79			1643	3.0	91			1520	3.0	91	
	2124	0.2	6			2026	0.6	18			2308	0.4	12			2152	0.5	15	
11 Th	0321	2.4	73		26 F	0216	2.1	64		11 Su	0511	2.3	70		26 M	0347	2.4	73	
	0926	0.0	0			0826	0.4	12			1059	0.3	9			0952	0.4	12	
	1605	3.0	91			1456	2.7	82			1738	3.0	91			1624	3.1	94	
	2228	0.2	6			2125	0.5	15			2359	0.3	9			2252	0.3	9	
12 F	0427	2.3	70		27 Sa	0314	2.1	64		12 M	0604	2.4	73		27 Tu	0452	2.5	76	
	1022	0.1	3			0921	0.3	9			1150	0.3	9			1054	0.2	6	
	1702	3.0	91			1553	2.8	85			1825	3.0	91			1725	3.3	101	
	2326	0.1	3			2223	0.4	12								2348	0.2	6	
13 Sa	0527	2.3	70		28 Su	0415	2.2	67		13 Tu	0044	0.3	9		28 W	0553	2.8	85	
	1116	0.1	3			1017	0.2	6			0649	2.5	76			1153	0.0	0	
	1755	3.0	91			1651	3.0	91			1237	0.3	9			1823	3.4	104	
						2318	0.2	6			1908	3.0	91						
14 Su	0018	0.1	3		29 M	0516	2.3	70		14 W	0123	0.3	9		29 Th	0040	0.0	0	
	0621	2.3	70			1114	0.1	3			0729	2.6	79			0650	3.0	91	
	1206	0.1	3			1747	3.2	98			1319	0.3	9			1251	-0.1	-3	
	1843	3.1	94								1946	3.0	91			1917	3.5	107	
15 M	0105	0.1	3		30 Tu	0011	0.1	3		15 Th	0159	0.3	9		30 F	0131	-0.2	-6	
	0708	2.4	73			0613	2.5	76			0806	2.6	79			0744	3.2	98	
	1253	0.1	3			1210	-0.1	-3			1359	0.3	9			1346	-0.2	-6	
	1926	3.0	91			1842	3.3	101			2021	3.0	91			2008	3.6	110	
				31 W	0103	-0.1	-3		15 Su	0220	-0.3	-9		31 Sa	0220	-0.3	-9		
					0708	2.7	82			0836	3.4	104			0836	3.4	104		
					1305	-0.2	-6			1441	-0.2	-6			1441	-0.2	-6		
					1935	3.4	104			2059	3.5	107			2059	3.5	107		

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

Hampton Roads (Sewells Pt.), Virginia, 2019

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
	<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>
1 Tu	0528 2.6 79 1148 0.0 0 1746 2.1 64 2349 -0.2 -6	16 W	0418 2.3 70 1052 0.2 6 1643 1.9 58 2250 -0.1 -3	1 F	0016 0.0 0 0651 2.5 76 1309 0.1 3 1904 2.0 61	16 Sa	0555 2.7 82 1227 -0.1 -3 1820 2.2 67	1 F	0533 2.4 73 1150 0.3 9 1747 2.0 61 2352 0.2 6	16 Sa	0428 2.6 79 1101 0.2 6 1657 2.2 67 2306 0.0 0
2 W	0621 2.6 79 1242 -0.1 -3 1838 2.0 61	17 Th	0519 2.5 76 1153 0.0 0 1744 2.0 61 2348 -0.2 -6	2 Sa	0105 -0.1 -3 0737 2.5 76 1353 0.0 0 1948 2.0 61	17 Su	0026 -0.3 -9 0656 2.9 88 1323 -0.2 -6 1919 2.4 73	2 Sa	0626 2.4 73 1240 0.3 9 1838 2.0 61	17 Su	0536 2.8 85 1203 0.0 0 1802 2.4 73
3 Th	0038 -0.2 -6 0710 2.6 79 1330 -0.1 -3 1925 2.1 64	18 F	0618 2.7 82 1250 -0.1 -3 1842 2.1 64	3 Su	0150 -0.1 -3 0818 2.6 79 1433 0.0 0 2028 2.1 64	18 M	0126 -0.5 -15 0752 3.0 91 1415 -0.4 -12 2014 2.6 79	3 Su	0044 0.1 3 0713 2.5 76 1324 0.2 6 1923 2.2 67	18 M	0012 -0.2 -6 0638 2.9 88 1259 -0.1 -3 1902 2.7 82
4 F	0125 -0.2 -6 0755 2.7 82 1414 -0.1 -3 2008 2.1 64	19 Sa	0045 -0.4 -12 0714 2.9 88 1345 -0.3 -9 1938 2.3 70	4 M	0232 -0.2 -6 0856 2.6 79 1510 -0.1 -3 ● 2106 2.2 67	19 Tu	0222 -0.6 -18 0845 3.1 94 1504 -0.5 -15 ○ 2107 2.8 85	4 M	0129 0.1 3 0754 2.5 76 1403 0.1 3 2003 2.3 70	19 Tu	0113 -0.3 -9 0734 3.0 91 1350 -0.3 -9 1956 2.9 88
5 Sa	0208 -0.2 -6 0837 2.7 82 1456 -0.1 -3 ● 2049 2.1 64	20 Su	0140 -0.5 -15 0808 3.0 91 1436 -0.5 -15 2031 2.4 73	5 Tu	0311 -0.2 -6 0932 2.5 76 1546 -0.1 -3 2142 2.2 67	20 W	0316 -0.7 -21 0935 3.1 94 1552 -0.6 -18 2158 2.9 88	5 Tu	0212 0.0 0 0831 2.6 79 1440 0.0 0 2041 2.4 73	20 W	0209 -0.5 -15 0826 3.1 94 1439 -0.4 -12 ○ 2048 3.1 94
6 Su	0249 -0.2 -6 0916 2.6 79 1535 -0.1 -3 2127 2.1 64	21 M	0235 -0.6 -18 0901 3.1 94 1526 -0.6 -18 ○ 2124 2.5 76	6 W	0349 -0.1 -3 1007 2.5 76 1621 -0.1 -3 2217 2.2 67	21 Th	0409 -0.6 -18 1025 3.0 91 1639 -0.6 -18 2249 2.9 88	6 W	0251 0.0 0 0907 2.6 79 1515 0.0 0 ● 2116 2.4 73	21 Th	0302 -0.5 -15 0915 3.0 91 1526 -0.5 -15 2137 3.2 98
7 M	0329 -0.2 -6 0954 2.6 79 1613 -0.1 -3 2205 2.1 64	22 Tu	0329 -0.7 -21 0952 3.1 94 1616 -0.6 -18 2216 2.6 79	7 Th	0426 -0.1 -3 1040 2.4 73 1654 -0.1 -3 2252 2.2 67	22 F	0502 -0.5 -15 1113 2.8 85 1726 -0.5 -15 2340 2.9 88	7 Th	0329 0.0 0 0940 2.6 79 1549 0.0 0 2151 2.5 76	22 F	0354 -0.5 -15 1003 3.0 91 1611 -0.4 -12 2226 3.2 98
8 Tu	0408 -0.1 -3 1030 2.5 76 1650 -0.1 -3 2242 2.1 64	23 W	0423 -0.7 -21 1043 3.0 91 1705 -0.6 -18 2309 2.6 79	8 F	0504 0.0 0 1113 2.3 70 1728 -0.1 -3 2328 2.2 67	23 Sa	0555 -0.4 -12 1203 2.6 79 1814 -0.4 -12	8 F	0405 0.0 0 1013 2.5 76 1621 0.0 0 2224 2.5 76	23 Sa	0444 -0.4 -12 1050 2.8 85 1657 -0.3 -9 2314 3.1 94
9 W	0447 0.0 0 1106 2.4 73 1726 0.0 0 2320 2.0 61	24 Th	0518 -0.6 -18 1134 2.8 85 1754 -0.5 -15	9 Sa	0542 0.1 3 1148 2.3 70 1803 0.0 0	24 Su	0032 2.8 85 0650 -0.2 -6 1254 2.4 73 1904 -0.2 -6	9 Sa	0442 0.0 0 1047 2.5 76 1654 0.0 0 2259 2.6 79	24 Su	0534 -0.2 -6 1137 2.6 79 1743 -0.2 -6
10 Th	0527 0.1 3 1142 2.3 70 1803 0.0 0	25 F	0003 2.6 79 0614 -0.4 -12 1227 2.6 79 1845 -0.5 -15	10 Su	0006 2.3 70 0624 0.1 3 1227 2.2 67 1841 0.0 0	25 M	0127 2.7 82 0747 0.0 0 1347 2.2 67 1957 0.0 0	10 Su	0520 0.1 3 1122 2.4 73 1729 0.0 0 2337 2.6 79	25 M	0003 2.9 88 0625 0.0 0 1225 2.4 73 1831 0.0 0
11 F	0000 2.0 61 0609 0.1 3 1220 2.2 67 1842 0.0 0	26 Sa	0059 2.6 79 0713 -0.3 -9 1321 2.4 73 1937 -0.3 -9	11 M	0049 2.3 70 0712 0.2 6 1310 2.1 64 1924 0.0 0	26 Tu	0225 2.5 76 0848 0.2 6 1445 2.0 61 ● 2054 0.1 3	11 M	0601 0.1 3 1200 2.3 70 1808 0.1 3	26 Tu	0054 2.8 85 0718 0.2 6 1315 2.2 67 1922 0.2 6
12 Sa	0042 2.0 61 0655 0.2 6 1302 2.1 64 1923 0.1 3	27 Su	0157 2.5 76 0814 -0.1 -3 1418 2.2 67 ● 2032 -0.2 -6	12 Tu	0139 2.3 70 0807 0.3 9 1402 2.0 61 ● 2015 0.1 3	27 W	0328 2.4 73 0951 0.3 9 1547 1.9 58 2155 0.2 6	12 Tu	0020 2.6 79 0648 0.2 6 1244 2.2 67 1852 0.1 3	27 W	0150 2.6 79 0814 0.3 9 1410 2.1 64 ● 2018 0.3 9
13 Su	0128 2.1 64 0746 0.3 9 1348 2.0 61 2008 0.1 3	28 M	0259 2.5 76 0918 0.0 0 1519 2.0 61 2129 -0.1 -3	13 W	0237 2.3 70 0911 0.3 9 1503 1.9 58 2114 0.0 0	28 Th	0432 2.4 73 1053 0.4 12 1650 1.9 58 2255 0.2 6	13 W	0110 2.6 79 0743 0.3 9 1336 2.1 64 1945 0.1 3	28 Th	0250 2.4 73 0913 0.5 15 1510 2.0 61 2120 0.4 12
14 M	0220 2.1 64 0845 0.3 9 1442 1.9 58 ● 2058 0.0 0	29 Tu	0401 2.4 73 1023 0.1 3 1620 1.9 58 2227 0.0 0	14 Th	0342 2.4 73 1019 0.2 6 1609 1.9 58 2218 0.0 0			14 Th	0209 2.5 76 0846 0.3 9 1438 2.1 64 ● 2048 0.1 3	29 F	0354 2.3 70 1014 0.5 15 1613 2.0 61 2223 0.4 12
15 Tu	0317 2.2 67 0948 0.3 9 1541 1.9 58 2153 0.0 0	30 W	0503 2.4 73 1124 0.1 3 1720 1.9 58 2323 0.0 0	15 F	0450 2.5 76 1125 0.1 3 1717 2.0 61 2323 -0.2 -6			15 F	0316 2.6 79 0954 0.3 9 1547 2.1 64 2157 0.1 3	30 Sa	0456 2.3 70 1110 0.5 15 1712 2.1 64 2322 0.4 12
		31 Th	0600 2.4 73 1220 0.1 3 1815 1.9 58							31 Su	0551 2.4 73 1201 0.4 12 1805 2.2 67

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

Duck Pier, North Carolina, 2019

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 Tu	0242	-0.3	-9		16 W	0213	0.3	9		1 F	0351	0.2	6		16 Sa	0311	0.2	6		1 Su	0413	0.4	12						
	0901	4.7	143			0833	4.0	122			1015	4.1	125			0934	4.0	122			1034	3.6	110		16 M	0349	-0.1	-3	
	1525	-0.1	-3			1456	0.5	15			1652	0.3	9			1608	0.2	6			1711	0.3	9			1008	3.9	119	
	2121	3.8	116			2051	3.3	101			2241	3.1	94			2202	3.0	91			2305	2.7	82			1643	-0.2	-6	
2 W	0330	-0.1	-3		17 Th	0251	0.4	12		2 Sa	0444	0.5	15		17 Su	0401	0.3	9		2 M	0505	0.6	18		17 Tu	0446	0.0	0	
	0952	4.5	137			0912	4.0	122			1108	3.8	116			1023	3.9	119			1123	3.3	101			1102	3.7	113	
	1621	0.1	3			1538	0.5	15			1749	0.5	15			1700	0.3	9			1800	0.4	12			1736	-0.2	-6	
	2213	3.5	107			2133	3.2	98			2340	2.9	88			2257	3.0	91								2343	3.1	94	
3 Th	0421	0.2	6		18 F	0332	0.5	15		3 Su	0542	0.7	21		18 M	0457	0.4	12		3 Tu	0001	2.7	82		18 W	0549	0.1	3	
	1045	4.3	131			0954	3.9	119			1205	3.5	107			1118	3.8	116			0602	0.7	21			1159	3.5	107	
	1719	0.4	12			1625	0.6	18			1849	0.7	21			1757	0.3	9			1214	3.1	94			1832	-0.2	-6	
	2308	3.2	98			2218	3.1	94								2357	3.0	91			1850	0.5	15						

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

Oregon Inlet, North Carolina, 2019

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	0419	1.0	30	16	0308	0.9	27	1	0419	0.9	27	16	0308	1.2	37
Tu	1118	0.0	0	W	1003	0.0	0	F	1120	0.1	3	Sa	1032	0.1	3
	1640	0.7	21		1529	0.7	21		1658	0.7	21		1553	0.9	27
	2314	0.0	0		2143	0.0	0		2313	0.1	3		2204	0.1	3
2	0510	1.0	30	17	0407	1.0	30	2	0509	0.9	27	17	0413	1.2	37
W	1212	0.0	0	Th	1110	0.0	0	Sa	1209	0.0	0	Su	1132	0.1	3
	1733	0.7	21		1632	0.7	21		1747	0.8	24		1658	1.0	30
					2242	0.0	0						2319	0.1	3
3	0003	0.0	0	18	0503	1.1	34	3	0000	0.1	3	18	0513	1.3	40
Th	0557	1.0	30	F	1212	0.0	0	Su	0553	0.9	27	M	1225	0.0	0
	1301	0.0	0		1730	0.8	24		1252	0.0	0		1755	1.1	34
	1821	0.7	21		2341	-0.1	-3		1830	0.8	24				
4	0048	-0.1	-3	19	0557	1.2	37	4	0043	0.1	3	19	0026	0.1	3
F	0640	1.0	30	Sa	1309	-0.1	-3	M	0632	0.9	27	Tu	0609	1.3	40
	1346	-0.1	-3		1824	0.9	27	Tu	1330	0.0	0		1314	0.0	0
	1905	0.7	21					W	1909	0.8	24		1848	1.2	37
5	0129	-0.1	-3	20	0040	-0.1	-3	5	0123	0.0	0	20	0128	0.0	0
Sa	0721	1.0	30	Su	0649	1.3	40	Tu	0706	0.9	27	W	0701	1.3	40
	1428	-0.1	-3		1403	-0.1	-3	W	1405	-0.1	-3		1401	-0.1	-3
	1947	0.7	21		1916	0.9	27	Th	1944	0.8	24		1938	1.3	40
6	0206	-0.1	-3	21	0138	-0.1	-3	5	0200	0.0	0	20	0225	0.0	0
Su	0759	1.0	30	M	0739	1.3	40	W	0738	0.9	27	Th	0751	1.2	37
	1508	-0.1	-3		1455	-0.1	-3	Th	1436	-0.1	-3		1446	-0.1	-3
	2027	0.7	21		2009	1.0	30	F	2015	0.9	27		2026	1.3	40
7	0239	-0.1	-3	22	0236	-0.1	-3	7	0236	0.0	0	22	0321	0.0	0
M	0834	1.0	30	Tu	0829	1.3	40	Th	0809	0.9	27	F	0841	1.2	37
	1546	-0.1	-3		1545	-0.1	-3		1503	0.0	0		1531	0.0	0
	2105	0.7	21		2101	1.0	30		2043	0.9	27		2113	1.4	43
8	0309	0.0	0	23	0336	-0.1	-3	8	0311	0.0	0	23	0415	0.0	0
Tu	0906	0.9	27	W	0919	1.2	37	F	0842	0.9	27	Sa	0930	1.1	34
	1622	-0.1	-3		1634	-0.1	-3		1526	0.0	0		1616	0.0	0
	2143	0.7	21		2155	1.0	30		2113	1.0	30		2201	1.3	40
9	0341	0.0	0	24	0436	-0.1	-3	9	0347	0.0	0	24	0508	0.0	0
W	0939	0.9	27	Th	1009	1.2	37	Sa	0917	0.9	27	Su	1021	1.0	30
	1656	-0.1	-3		1724	-0.1	-3		1549	0.0	0		1703	0.0	0
	2220	0.6	18		2250	1.0	30		2146	1.0	30		2250	1.3	40
10	0418	0.0	0	25	0539	0.0	0	10	0425	0.0	0	25	0603	0.1	3
Th	1013	0.8	24	F	1102	1.0	30	Su	0957	0.9	27	M	1115	0.9	27
	1727	-0.1	-3		1814	-0.1	-3		1617	0.1	3		1753	0.1	3
	2258	0.7	21		2348	1.0	30		2225	1.0	30		2342	1.2	37
11	0501	0.0	0	26	0642	0.0	0	11	0508	0.1	3	26	0659	0.1	3
F	1051	0.8	24	Sa	1159	0.9	27	M	1040	0.8	24	Tu	1214	0.8	24
	1757	-0.1	-3		1906	-0.1	-3		1653	0.1	3		1846	0.1	3
	2339	0.7	21						2308	1.1	34				
12	0550	0.1	3	27	0048	1.0	30	12	0557	0.1	3	27	0038	1.1	34
Sa	1134	0.7	21	Su	0747	0.0	0	Tu	1128	0.8	24	W	0756	0.1	3
	1830	0.0	0		1302	0.8	24	W	1738	0.1	3		1323	0.8	24
					2000	0.0	0	Th	2359	1.1	34		1944	0.2	6
13	0024	0.7	21	28	0151	1.0	30	13	0656	0.1	3	28	0139	1.0	30
Su	0645	0.1	3	M	0852	0.1	3	W	1223	0.8	24	Th	0855	0.1	3
	1223	0.7	21		1413	0.7	21		1831	0.2	6		1436	0.7	21
	1909	0.0	0		2057	0.0	0						2043	0.2	6
14	0115	0.8	24	29	0254	1.0	30	14	0056	1.1	34	29	0242	0.9	27
M	0746	0.1	3	Tu	0955	0.0	0	Th	0808	0.1	3	F	0952	0.1	3
	1319	0.7	21		1522	0.7	21	F	1327	0.8	24		1541	0.7	21
	1955	0.0	0		2155	0.0	0	Sa	1934	0.2	6		2142	0.2	6
15	0210	0.8	24	30	0353	1.0	30	15	0200	1.1	34	30	0340	0.9	27
Tu	0853	0.0	0	W	1055	0.0	0	F	0924	0.1	3	Sa	1044	0.1	3
	1423	0.7	21		1623	0.7	21		1440	0.8	24		1636	0.8	24
	2047	0.0	0		2250	0.0	0		2046	0.2	6		2237	0.2	6
				31	0447	1.0	30					31	0432	0.9	27
				Th	1149	0.0	0					Su	1131	0.0	0
					1717	0.7	21						1724	0.8	24
					2341	0.0	0						2328	0.2	6

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

Oregon Inlet, North Carolina, 2019

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	
1 M	0516	0.9	27		16 Tu	0451	1.2	37		1 W	0511	0.8	24		
	1212	0.0	0			1158	0.0	0			1159	0.0	0		
	1806	0.9	27			1741	1.2	37			1808	1.0	30		
2 Tu	0015	0.1	3		17 W	0022	0.1	3		2 Th	0028	0.1	3		
	0555	0.9	27			0547	1.2	37			0551	0.8	24		
	1248	0.0	0			1245	0.0	0			1232	0.0	0		
1 Sa	0043	0.1	3		16 Su	0148	0.1	3		1 Sa	0043	0.1	3		
	0555	0.8	24			0652	0.9	27			0555	0.8	24		
	1218	0.0	0			1326	0.0	0			1218	0.0	0		

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

Oregon Inlet, North Carolina, 2019

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 Tu	0355 0.3 9 0930 1.6 49 1636 0.2 6 2159 1.3 40	16 W	0300 0.3 9 0856 1.3 40 1544 0.2 6 2120 1.1 34	1 F	0507 0.3 9 1047 1.3 40 1806 0.2 6 2325 1.0 30	16 Sa	0346 0.2 6 1000 1.3 40 1717 0.2 6 2229 0.9 27	1 Su	0520 0.1 3 1104 1.0 30 1828 0.1 3 2356 0.8 24	16 M	0431 0.1 3 1033 1.2 37 1801 0.0 0 2313 0.9 27
2 W	0446 0.3 9 1021 1.5 46 1731 0.3 9 2252 1.3 40	17 Th	0332 0.4 12 0935 1.3 40 1624 0.3 9 2200 1.1 34	2 Sa	0601 0.3 9 1140 1.2 37 1901 0.2 6	17 Su	0436 0.2 6 1049 1.3 40 1814 0.2 6 2324 0.9 27	2 M	0611 0.2 6 1151 0.9 27 1916 0.1 3	17 Tu	0536 0.1 3 1126 1.1 34 1854 0.0 0
3 Th	0541 0.4 12 1115 1.4 43 1829 0.3 9 2350 1.2 37	18 F	0410 0.4 12 1019 1.3 40 1712 0.3 9 2246 1.1 34	3 Su	0028 1.0 30 0658 0.3 9 1238 1.1 34 1956 0.2 6	18 M	0536 0.3 9 1143 1.2 37 1913 0.2 6	3 Tu	0059 0.8 24 0705 0.2 6 1241 0.9 27 2002 0.0 0	18 W	0014 0.9 27 0650 0.1 3 1223 1.0 30 1947 0.0 0
4 F	0638 0.4 12 1214 1.3 40 1928 0.4 12	19 Sa	0457 0.4 12 1108 1.3 40 1810 0.3 9 2338 1.0 30	4 M	0137 0.9 27 0756 0.3 9 1340 1.0 30 2050 0.2 6	19 Tu	0027 1.0 30 0648 0.3 9 1242 1.2 37 2011 0.2 6	4 W	0202 0.8 24 0804 0.2 6 1337 0.8 24 2047 0.0 0	19 Th	0121 1.0 30 0808 0.1 3 1327 1.0 30 2041 0.0 0
5 Sa	0055 1.1 34 0737 0.4 12 1320 1.2 37 2029 0.4 12	20 Su	0552 0.4 12 1203 1.3 40 1918 0.4 12	5 Tu	0243 0.9 27 0854 0.3 9 1442 1.0 30 2140 0.2 6	20 W	0136 1.0 30 0809 0.3 9 1347 1.1 34 2108 0.2 6	5 Th	0259 0.8 24 0903 0.2 6 1437 0.7 21 2131 0.0 0	20 F	0228 1.0 30 0922 0.1 3 1437 0.9 27 2136 0.0 0
6 Su	0205 1.1 34 0837 0.4 12 1428 1.2 37 2128 0.4 12	21 M	0038 1.0 30 0657 0.4 12 1305 1.3 40 2028 0.4 12	6 W	0341 0.9 27 0951 0.3 9 1539 0.9 27 2226 0.2 6	21 Th	0247 1.1 34 0928 0.2 6 1456 1.1 34 2202 0.1 3	6 F	0347 0.8 24 1000 0.2 6 1537 0.7 21 2212 0.0 0	21 Sa	0331 1.1 34 1030 0.1 3 1546 0.9 27 2231 0.0 0
7 M	0311 1.1 34 0934 0.4 12 1530 1.2 37 2223 0.4 12	22 Tu	0148 1.1 34 0812 0.4 12 1412 1.3 40 2132 0.3 9	7 Th	0429 1.0 30 1043 0.3 9 1629 0.9 27 2307 0.2 6	22 F	0350 1.2 37 1038 0.2 6 1603 1.1 34 2254 0.1 3	7 Sa	0429 0.9 27 1053 0.1 3 1629 0.7 21 2252 0.0 0	22 Su	0428 1.2 37 1132 0.0 0 1649 0.9 27 2325 0.0 0
8 Tu	0408 1.1 34 1028 0.4 12 1623 1.1 34 2312 0.3 9	23 W	0300 1.2 37 0930 0.4 12 1520 1.3 40 2230 0.3 9	8 F	0511 1.0 30 1132 0.2 6 1714 0.9 27 2345 0.2 6	23 Sa	0446 1.3 40 1142 0.1 3 1704 1.1 34 2345 0.1 3	8 Su	0505 0.9 27 1141 0.1 3 1715 0.7 21 2330 0.0 0	23 M	0521 1.2 37 1228 0.0 0 1745 0.9 27
9 W	0458 1.1 34 1118 0.3 9 1710 1.1 34 2355 0.3 9	24 Th	0406 1.3 40 1043 0.3 9 1624 1.3 40 2322 0.3 9	9 Sa	0547 1.1 34 1216 0.2 6 1754 0.9 27	24 Su	0538 1.4 43 1239 0.1 3 1800 1.1 34	9 M	0540 1.0 30 1227 0.0 0 1757 0.7 21	24 Tu	0018 0.0 0 0611 1.2 37 1321 -0.1 -3 1836 0.9 27
10 Th	0541 1.1 34 1203 0.3 9 1751 1.1 34	25 F	0503 1.4 43 1148 0.2 6 1723 1.3 40	10 Su	0020 0.1 3 0619 1.1 34 1257 0.1 3 1831 0.9 27	25 M	0035 0.1 3 0627 1.4 43 1333 0.0 0 1851 1.0 30	10 Tu	0008 0.0 0 0615 1.0 30 1312 0.0 0 1836 0.8 24	25 W	0107 -0.1 -3 0659 1.2 37 1410 -0.1 -3 1924 0.8 24
11 F	0033 0.3 9 0619 1.2 37 1244 0.3 9 1829 1.1 34	26 Sa	0012 0.2 6 0555 1.5 46 1247 0.2 6 1817 1.3 40	11 M	0052 0.1 3 0649 1.1 34 1337 0.1 3 1906 0.9 27	26 Tu	0124 0.0 0 0715 1.4 43 1424 0.0 0 1941 1.0 30	11 W	0045 0.0 0 0652 1.1 34 1358 0.0 0 1915 0.8 24	26 Th	0154 -0.1 -3 0744 1.2 37 1457 -0.1 -3 2011 0.8 24
12 Sa	0107 0.3 9 0653 1.2 37 1323 0.3 9 1903 1.1 34	27 Su	0100 0.2 6 0645 1.6 49 1343 0.1 3 1909 1.3 40	12 Tu	0123 0.2 6 0720 1.2 37 1416 0.1 3 1941 0.9 27	27 W	0212 0.0 0 0801 1.4 43 1514 0.0 0 2029 1.0 30	12 Th	0124 0.0 0 0732 1.2 37 1444 0.0 0 1956 0.8 24	27 F	0239 -0.1 -3 0828 1.1 34 1542 -0.1 -3 2056 0.8 24
13 Su	0139 0.3 9 0722 1.2 37 1359 0.2 6 1936 1.1 34	28 M	0147 0.2 6 0733 1.6 49 1436 0.1 3 1959 1.3 40	13 W	0153 0.2 6 0754 1.2 37 1456 0.1 3 2018 0.9 27	28 Th	0259 0.0 0 0847 1.3 40 1602 0.0 0 2116 0.9 27	13 F	0204 0.0 0 0814 1.2 37 1531 0.0 0 2040 0.8 24	28 Sa	0321 -0.1 -3 0909 1.1 34 1626 -0.1 -3 2143 0.8 24
14 M	0207 0.3 9 0751 1.2 37 1433 0.2 6 2008 1.1 34	29 Tu	0236 0.2 6 0820 1.6 49 1528 0.1 3 2048 1.2 37	14 Th	0226 0.2 6 0832 1.3 40 1539 0.1 3 2058 0.9 27	29 F	0346 0.1 3 0933 1.2 37 1651 0.0 0 2205 0.9 27	14 Sa	0247 0.0 0 0858 1.2 37 1620 0.0 0 2126 0.8 24	29 Su	0401 0.0 0 0949 1.0 30 1708 -0.1 -3 2230 0.7 21
15 Tu	0233 0.3 9 0821 1.3 40 1508 0.2 6 2043 1.1 34	30 W	0325 0.2 6 0908 1.5 46 1620 0.1 3 2138 1.2 37	15 F	0303 0.2 6 0914 1.3 40 1625 0.1 3 2141 0.9 27	30 Sa	0433 0.1 3 1018 1.1 34 1739 0.0 0 2258 0.8 24	15 Su	0335 0.0 0 0944 1.2 37 1710 0.0 0 2217 0.9 27	30 M	0441 0.0 0 1028 0.9 27 1748 -0.1 -3 2318 0.7 21
		31 Th	0415 0.2 6 0956 1.4 43 1712 0.2 6 2229 1.1 34							31 Tu	0524 0.1 3 1107 0.8 24 1827 -0.1 -3

Time meridian 75° W. 0000 is midnight. 1200 is 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 Hatteras, North Carolina, 2019

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	Tu	0343	3.3	101	16	W	0235	2.9	88	1	F	0504	3.2	98	16	Sa	0403	3.5	107	1	F	0347	2.9	88	16	Sa	0236	3.3	101
		1008	0.1	-3			0902	0.3	-9			1135	0.0	0			1036	-0.2	-6			1020	0.3	9			0911	0.1	-3
		1557	2.5	76			1447	2.3	70			1721	2.2	67			1623	2.5	76			1611	2.1	64			1502	2.4	73
		2159	-0.2	-6			2051	-0.1	-3			2314	-0.1	-3			2223	-0.5	-15			2205	0.2	6			2103	-0.2	-6
2	W	0435	3.4	104	17	Th	0332	3.2	98	2	Sa	0548	3.2	98	17	Su	0502	3.7	113	2	Sa	0439	3.0	91	17	Su	0342	3.5	107
		1103	0.0	0			1003	0.1	-3			1217	0.0	0			1131	-0.4	-12			1108	0.2	6			1013	-0.1	-3
		1650	2.4	73			1546	2.3	70			1804	2.3	70			1721	2.7	82			1700	2.3	70			1607	2.7	82
		2246	-0.2	-6			2147	-0.3	-9			2357	-0.2	-6			2323	-0.8	-24			2255	0.1	3			2210	-0.4	-12
3	Th	0523	3.5	107	18	F	0428	3.5	107	3	Su	0628	3.2	98	18	M	0557	3.9	119	3	Su	0524	3.0	91	18	M	0442	3.6	110
		1152	0.0	0			1100	-0.2	-6			1255	-0.1	-3			1222	-0.6	-18			1149	0.1	3			1107	-0.3	-9
		1738	2.4	73			1644	2.5	76			1844	2.4	73			1817	3.0	91			1742	2.4	73			1707	3.0	91
		2331	-0.2	-6			2242	-0.6	-18			1844	2.4	73			1817	3.0	91			2339	0.0	0			2312	-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 mean lower low water which is the chart datum of soundings.

Cape Hatteras, North Carolina, 2019

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		h m ft cm		h m ft cm
1 M	0450 2.9 88	16 Tu	0421 3.5 107	1 W	0447 2.8 85	16 Th	0455 3.2 98	1 Sa	0525 2.7 82	16 Su	0032 -0.1 -3
	1110 0.3 9		1041 -0.3 -9		1057 0.2 6		1103 -0.4 -12		1122 -0.1 -3		0617 2.7 82
	1713 2.6 79		1652 3.4 104		1715 3.0 91		1729 3.8 116		1756 3.7 113		1210 -0.3 -9
	2314 0.2 6		2303 -0.3 -9		2327 0.3 9		2351 -0.2 -6		1756 3.7 113		1847 3.9 119
2 Tu	0530 3.0 91	17 W	0517 3.5 107	2 Th	0527 2.9 88	17 F	0547 3.1 94	2 Su	0023 0.0 0	17 M	0119 -0.1 -3
	1146 0.2 6		1130 -0.4 -12		1132 0.1 3		1149 -0.4 -12		0609 2.7 82		0705 2.6 79
	1751 2.8 85		1745 3.7 113		1752 3.3 101		1818 4.0 122		1203 -0.2 -6		1254 -0.2 -6
	2356 0.1 3		1745 3.7 113		1752 3.3 101		1818 4.0 122		1837 3.9 119		1930 3.9 119
3 W	0608 3.0 91	18 Th	0001 -0.5 -15	3 F	0008 0.1 3	18 Sa	0043 -0.3 -9	3 M	0108 -0.1 -3	18 Tu	0204 -0.1 -3
	1218 0.1 3		0609 3.5 107		0605 2.9 88		0637 3.0 91		0653 2.7 82		0750 2.6 79
	1826 3.0 91		1217 -0.6 -18		1206 0.0 0		1234 -0.4 -12		1246 -0.3 -9		1337 -0.1 -3
	1826 3.0 91		1836 3.9 119		1828 3.5 107		1904 4.1 125		1921 4.0 122		2012 3.8 116
4 Th	0035 0.0 0	19 F	0054 -0.6 -18	4 Sa	0049 0.0 0	19 Su	0133 -0.3 -9	4 Tu	0153 -0.2 -6	19 W	0247 0.0 0
	0643 3.0 91		0658 3.4 104		0643 2.9 88		0725 2.9 88		0739 2.7 82		0834 2.5 76
	1250 0.0 0		1302 -0.6 -18		1240 -0.1 -3		1318 -0.3 -9		1330 -0.3 -9		1419 0.0 0
	1901 3.2 98		1924 4.1 125		1905 3.6 110		1950 4.0 122		2006 4.1 125		2054 3.6 110
5 F	0113 -0.1 -3	20 Sa	0146 -0.5 -15	5 Su	0130 -0.1 -3	20 M	0221 -0.2 -6	5 W	0240 -0.2 -6	20 Th	0330 0.1 3
	0717 3.0 91		0746 3.3 101		0722 2.8 85		0811 2.8 85		0826 2.7 82		0918 2.5 76
	1320 -0.1 -3		1346 -0.5 -15		1316 -0.1 -3		1401 -0.2 -6		1417 -0.3 -9		1502 0.2 6
	1935 3.3 101		2011 4.1 125		1944 3.8 116		2034 3.9 119		2053 4.0 122		2135 3.5 107
6 Sa	0150 -0.1 -3	21 Su	0236 -0.5 -15	6 M	0211 -0.1 -3	21 Tu	0308 -0.1 -3	6 Th	0328 -0.2 -6	21 F	0411 0.2 6
	0751 2.9 88		0833 3.1 94		0802 2.8 85		0858 2.6 79		0917 2.7 82		1002 2.4 73
	1352 -0.1 -3		1430 -0.4 -12		1354 -0.1 -3		1445 0.0 0		1508 -0.2 -6		1546 0.3 9
	2010 3.4 104		2057 4.0 122		2024 3.8 116		2118 3.7 113		2143 3.9 119		2216 3.3 101
7 Su	0229 -0.1 -3	22 M	0327 -0.3 -9	7 Tu	0255 -0.1 -3	22 W	0355 0.0 0	7 F	0419 -0.2 -6	22 Sa	0453 0.3 9
	0827 2.9 88		0921 2.9 88		0844 2.7 82		0945 2.5 76		1012 2.7 82		1048 2.4 73
	1425 -0.1 -3		1514 -0.2 -6		1435 -0.1 -3		1529 0.2 6		1604 -0.1 -3		1633 0.5 15
	2047 3.5 107		2145 3.8 116		2108 3.8 116		2203 3.5 107		2237 3.8 116		2258 3.1 94
8 M	0309 0.0 0	23 Tu	0417 -0.1 -3	8 W	0341 0.0 0	23 Th	0442 0.2 6	8 Sa	0513 -0.2 -6	23 Su	0534 0.3 9
	0904 2.7 82		1010 2.6 79		0930 2.6 79		1033 2.4 73		1112 2.7 82		1137 2.4 73
	1500 0.0 0		1600 0.1 3		1521 0.0 0		1616 0.4 12		1705 0.0 0		1723 0.6 18
	2127 3.5 107		2233 3.5 107		2156 3.8 116		2250 3.3 101		2333 3.6 110		2342 2.9 88
9 Tu	0353 0.0 0	24 W	0510 0.1 3	9 Th	0431 0.0 0	24 F	0531 0.3 9	9 Su	0608 -0.1 -3	24 M	0616 0.4 12
	0945 2.6 79		1102 2.4 73		1021 2.6 79		1125 2.3 70		1215 2.8 85		1228 2.5 76
	1540 0.0 0		1649 0.3 9		1612 0.0 0		1707 0.5 15		1812 0.1 3		1819 0.7 21
	2211 3.5 107		2325 3.3 101		2248 3.7 113		2339 3.1 94		1812 0.1 3		1819 0.7 21
10 W	0442 0.1 3	25 Th	0606 0.3 9	10 F	0526 0.1 3	25 Sa	0620 0.4 12	10 M	0033 3.4 104	25 Tu	0029 2.7 82
	1032 2.5 76		1159 2.3 70		1119 2.5 76		1221 2.3 70		0705 -0.1 -3		0658 0.4 12
	1627 0.1 3		1744 0.5 15		1711 0.1 3		1804 0.7 21		1322 3.0 91		1320 2.6 79
	2302 3.4 104		1744 0.5 15		2347 3.5 107		1804 0.7 21		1924 0.2 6		1919 0.7 21
11 Th	0537 0.2 6	26 F	0021 3.0 91	11 Sa	0625 0.1 3	26 Su	0030 2.9 88	11 Tu	0136 3.2 98	26 W	0118 2.6 79
	1126 2.4 73		0704 0.5 15		1224 2.6 79		0710 0.5 15		0801 -0.2 -6		0741 0.3 9
	1722 0.1 3		1302 2.2 67		1818 0.2 6		1318 2.3 70		1426 3.2 98		1412 2.7 82
	1722 0.1 3		1847 0.7 21		1818 0.2 6		1906 0.7 21		2036 0.2 6		2020 0.7 21
12 F	0001 3.4 104	27 Sa	0121 2.9 88	12 Su	0050 3.4 104	27 M	0124 2.7 82	12 W	0238 3.0 91	27 Th	0210 2.5 76
	0639 0.2 6		0802 0.5 15		0726 0.1 3		0758 0.5 15		0855 -0.2 -6		0825 0.2 6
	1230 2.4 73		1405 2.3 70		1333 2.7 82		1414 2.5 76		1526 3.4 104		1502 3.0 91
	1826 0.2 6		1954 0.7 21		1931 0.2 6		2009 0.7 21		2144 0.1 3		2120 0.6 18
13 Sa	0106 3.4 104	28 Su	0220 2.8 85	13 M	0155 3.3 101	28 Tu	0217 2.7 82	13 Th	0338 2.9 88	28 F	0303 2.5 76
	0745 0.2 6		0855 0.5 15		0826 0.0 0		0842 0.4 12		0947 -0.3 -9		0911 0.1 3
	1340 2.5 76		1502 2.4 73		1440 3.0 91		1505 2.7 82		1622 3.6 110		1550 3.2 98
	1939 0.1 3		2057 0.7 21		2045 0.2 6		2109 0.7 21		2245 0.1 3		2215 0.4 12
14 Su	0215 3.4 104	29 M	0315 2.8 85	14 Tu	0259 3.3 101	29 W	0307 2.6 79	14 F	0435 2.8 85	29 Sa	0355 2.5 76
	0849 0.1 3		0941 0.4 12		0922 -0.2 -6		0924 0.3 9		1037 -0.3 -9		0957 0.0 0
	1451 2.7 82		1552 2.6 79		1542 3.3 101		1551 2.9 88		1713 3.8 116		1638 3.5 107
	2052 0.0 0		2153 0.6 18		2153 0.0 0		2203 0.5 15		2341 0.0 0		2307 0.2 6
15 M	0321 3.4 104	30 Tu	0403 2.8 85	15 W	0359 3.2 98	30 Th	0355 2.6 79	15 Sa	0528 2.7 82	30 Su	0446 2.5 76
	0948 -0.1 -3		1021 0.3 9		1014 -0.3 -9		1003 0.2 6		1124 -0.3 -9		1044 -0.2 -6
	1555 3.0 91		1635 2.8 85		1638 3.6 110		1633 3.2 98		1801 -3.9 119		1725 3.8 116
	2201 -0.2 -6		2242 0.4 12		2255 -0.1 -3		2252 0.4 12				2356 0.1 3
						31 F	0441 2.6 79				
							1043 0.0 0				
							1715 3.4 104				
							2338 0.2 6				

Time meridian 75° W. 0000 is midnight. 1200 is 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 Hatteras, North Carolina, 2019

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 M	0537	2.6	79		16 Tu	0102	0.1	3		1 Th	0109	-0.2	-6											
	1132	-0.3	-9	0646		2.6	79	0658	3.1		94	16 F	0151	0.3	9									
	1812	4.0	122	1235		0.0	0	1258	-0.6		-18		0743	2.9	88	0825	3.9	119						
			1911	3.7	113	1931	4.3	131	2002	3.5	107		1436	-0.4	-12	16 M	0214	0.4	12					
2 Tu	0044	-0.1	-3	17 W	0143	0.1	3	2 F	0157	-0.4	-12	17 Sa	0224	0.3	9		2 M	0305	-0.4	-12	17 Tu	0245	0.4	12
	0627	2.7	82		0729	2.6	79		0751	3.3	101		0819	2.9	88			0919	4.0	122		0858	3.4	104
	1221	-0.4	-12		1317	0.0	0		1352	-0.6	-18		1416	0.3	9	1533		-0.2	-6	1510		0.5	15	
3 W	0133	-0.2	-6	18 Th	0222	0.1	3	3 Sa	0246	-0.4	-12	18 Su	0256	0.3	9	3 Tu	0353	-0.3	-9	18 W	0317	0.5	15	
	0718	2.8	85		0809	2.6	79		0845	3.4	104		0856	2.9	88		1014	3.9	119		0935	3.4	104	
	1312	-0.5	-15		1358	0.1	3		1448	-0.5	-15		1454	0.3	9		1632	0.0	0		1551	0.6	18	
4 Th	0221	-0.3	-9	19 F	0300	0.1	3	4 Su	0335	-0.4	-12	19 M	0328	0.3	9	4 W	0444	-0.1	-3	19 Th	0352	0.5	15	
	0809	2.9	88		0849	2.6	79		0941	3.5	107		0933	3.0	91		1112	3.8	116		1107	3.4	104	
	1404	-0.5	-15		1438	0.2	6		1546	-0.3	-9		1534	0.5	15		1734	0.3	9		1637	0.7	21	
5 F	0310	-0.4	-12	20 Sa	0336	0.2	6	5 M	0424	-0.4	-12	20 Tu	0400	0.4	12	5 Th	0538	0.1	3	20 F	0432	0.6	18	
	0903	2.9	88		0929	2.6	79		1038	3.5	107		1012	3.0	91		1214	3.7	113		1104	3.4	104	
	1459	-0.4	-12		1519	0.3	9		1647	-0.1	-3		1616	0.6	18		1842	0.5	15		1729	0.8	24	
6 Sa	0400	-0.4	-12	21 Su	0411	0.2	6	6 Tu	0516	-0.3	-9	21 W	0434	0.4	12	6 F	0034	2.8	85	21 Sa	0520	0.6	18	
	0959	3.0	91		1010	2.6	79		1138	3.5	107		1054	3.0	91		1319	3.6	110		1159	3.5	107	
	1556	-0.3	-9		1601	0.4	12		1751	0.1	3		1703	0.7	21		1951	0.6	18		1830	0.8	24	
7 Su	0452	-0.3	-9	22 M	0447	0.3	9	7 W	0610	-0.1	-3	22 Th	0513	0.5	15	7 Sa	0140	2.7	82	22 Su	0016	2.6	79	
	1058	3.1	94		1053	2.6	79		1241	3.5	107		1141	3.1	94		1424	3.5	107		0618	0.6	18	
	1658	-0.1	-3		1647	0.6	18		1900	0.3	9		1757	0.8	24		2058	0.7	21		1301	3.5	107	
8 M	0544	-0.3	-9	23 Tu	0523	0.3	9	8 Th	0055	2.9	88	23 F	0558	0.5	15	8 Su	0247	2.6	79	23 M	0121	2.7	82	
	1200	3.2	98		1139	2.7	82		0706	0.0	0		1234	3.2	98		1525	3.5	107		0723	0.5	15	
	1804	0.1	3		1737	0.7	21		1345	3.5	107		1857	0.8	24		2157	0.7	21		1407	3.6	110	
9 Tu	0015	3.3	101	24 W	0602	0.4	12	9 F	0159	2.7	82	24 Sa	0042	2.5	76	9 M	0347	2.7	82	24 Tu	0229	2.8	85	
	0639	-0.2	-6		1227	2.8	85		0805	0.1	3		0650	0.4	12		0943	0.5	15		0831	0.3	9	
	1304	3.2	98		1833	0.7	21		1448	3.5	107		1333	3.3	101		1619	3.5	107		1511	3.8	116	
10 W	0115	3.0	91	25 Th	0028	2.6	79	10 Sa	0303	2.6	79	25 Su	0144	2.5	76	10 Tu	0438	2.8	85	25 W	0334	3.1	94	
	0734	-0.2	-6		0645	0.3	9		0904	0.2	6		0749	0.3	9		1035	0.5	15		0938	0.1	3	
	1408	3.4	104		1320	2.9	88		1547	3.5	107		1435	3.5	107		1706	3.5	107		1611	4.0	122	
11 Th	0217	2.8	85	26 F	0121	2.5	76	11 Su	0403	2.5	76	26 M	0248	2.6	79	11 W	0523	2.9	88	26 Th	0433	3.4	104	
	0829	-0.2	-6		0733	0.3	9		0959	0.2	6		0851	0.2	6		1120	0.4	12		1040	-0.1	-3	
	1509	3.5	107		1414	3.1	94		1641	3.6	110		1536	3.7	113		1747	3.6	110		1706	4.1	125	
12 F	0319	2.6	79	27 Sa	0218	2.4	73	12 M	0456	2.6	79	27 Tu	0351	2.8	85	12 Th	0008	0.5	15	27 F	0529	3.7	113	
	0924	-0.1	-3		0825	0.2	6		1050	0.2	6		0952	0.0	0		1202	0.4	12		1138	-0.3	-9	
	1605	3.6	110		1510	3.3	101		1728	3.6	110		1633	4.0	122		1824	3.6	110		1759	4.2	128	
13 Sa	0417	2.6	79	28 Su	0316	2.5	76	13 Tu	0544	2.6	79	28 W	0450	3.0	91	13 F	0042	0.4	12	28 Sa	0014	-0.2	-6	
	1016	-0.1	-3		0919	0.0	0		1137	0.2	6		1052	-0.2	-6		0639	3.1	94		0621	4.0	122	
	1658	3.7	113		1604	3.6	110		1811	3.6	110		1728	4.2	128		1240	0.3	9		1234	-0.4	-12	
14 Su	0511	2.5	76	29 M	0414	2.6	79	14 W	0039	0.3	9	29 Th	0546	3.3	101	14 Sa	1859	3.6	110	29 Su	0100	-0.3	-9	
	1105	-0.1	-3		1014	-0.1	-3		1219	0.2	6		1149	-0.4	-12		0714	3.2	98		0713	4.2	128	
	1745	3.7	113		1658	3.9	119		1850	3.6	110		1820	4.3	131		1317	0.3	9		1328	-0.4	-12	
15 M	0017	0.1	3	30 Tu	0510	2.7	82	15 Th	0116	0.3	9	30 F	0042	-0.2	-6	15 Su	0144	0.4	12	30 M	0147	-0.3	-9	
	0601	2.5	76		1109	-0.3	-9		0705	2.8	85		0639	3.6	110		0748	3.3	101		0804	4.4	134	
	1152	-0.1	-3		1749	4.1	125		1259	0.2	6		1245	-0.5	-15		1354	0.3	9		1422	-0.3	-9	
	1830	3.7	113	31 W	0020	-0.1	-3	15 O	1927	3.6	110	31 Sa	1911	4.3	131	15 Su	2005	3.4	104	30 M	2028	3.8	116	
			0605		2.9	88	0130		-0.3	-9	0130		-0.3	-9	0732		3.8	116						
			1203		-0.5	-15	0732		3.8	116	1340		-0.5	-15	2001		4.2	128						
			1841	4.3	131																			

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

Wilmington, North Carolina, 2019

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					
1 Tu	0552	4.6	140	16 W	0433	4.2	128	1 F	0109	-0.1	-3	16 Sa	0031	0.1	3				
	1232	-0.1	-3		1153	0.5	15		0709	4.6	140		0619	4.7	143	1 F	0547	4.5	137
	1804	4.2	128		1709	3.9	119		1350	0.1	3		1330	0.3	9		1229	0.4	12
					2352	0.1	3		1921	4.1	125		1850	4.3	131		1804	4.1	125
2 W	0047	-0.4	-12	17 Th	0541	4.4	134	2 Sa	0158	-0.1	-3	17 Su	0134	-0.1	-3		2 Sa	0040	0.3	9
	0645	4.7	143		1255	0.3	9		0757	4.6	140		0725	4.9	149	0640		4.5	137
	1325	-0.1	-3		1812	4.0	122		1437	0.1	3		1426	0.1	3	1319		0.3	9
	1856	4.2	128						2009	4.2	128		1950	4.5	137	1856		4.2	128
3 Th	0137	-0.4	-12	18 F	0053	-0.1	-3	3 Su	0244	0.0	0	18 M	0233	-0.3	-9	3 Su	0130	0.3	9
	0734	4.8	146		0645	4.6	140		0842	4.7	143		0823	5.1	155		0730	4.6	140
	1416	-0.1	-3		1353	0.2	6		1522	0.1	3		1519	-0.1	-3		1406	0.3	9
	1945	4.2	128		1911	4.1	125		2054	4.2	128		2046	4.8	146		1945	4.3	131

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

Wilmington, North Carolina, 2019

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	h m	ft cm	h m	ft cm
1 M	0249 0.1 3 0804 3.9 119 1439 -0.2 -6 2030 4.9 149	16 Tu	0332 -0.1 -3 0857 4.0 122 1534 -0.1 -3 2129 4.8 146	1 Th	0408 -0.1 -3 0927 4.4 134 1610 -0.4 -12 2154 5.2 158	16 F	0429 0.2 6 1001 4.1 125 1633 0.2 6 2224 4.7 143	1 Su	0521 -0.3 -9 1059 5.1 155 1741 -0.3 -9 2319 5.1 155	16 M	0504 0.4 12 1039 4.4 134 1725 0.5 15 2253 4.4 134
2 Tu	0341 0.0 0 0853 4.0 122 1532 -0.2 -6 2117 5.0 152	17 W	0417 -0.1 -3 0942 4.0 122 1617 0.0 0 2211 4.7 143	2 F	0458 -0.3 -9 1022 4.5 137 1704 -0.4 -12 2247 5.2 158	17 Sa	0506 0.2 6 1040 4.1 125 1711 0.3 9 2259 4.5 137	2 M	0609 -0.3 -9 1156 5.1 155 1834 -0.1 -3	17 Tu	0533 0.4 12 1051 4.4 134 1802 0.6 18 2309 4.3 131
3 W	0431 -0.1 -3 0943 4.1 125 1625 -0.3 -9 2205 5.1 155	18 Th	0459 0.0 0 1027 3.9 119 1657 0.1 3 2251 4.6 140	3 Sa	0547 -0.4 -12 1119 4.6 140 1757 -0.3 -9 2341 5.0 152	18 Su	0540 0.3 9 1116 4.0 122 1747 0.4 12 2330 4.4 134	3 Tu	0013 4.9 149 0657 -0.3 -9 1253 5.0 152 1928 0.0 0	18 W	0601 0.4 12 1111 4.5 137 1841 0.7 21 2337 4.2 128
4 Th	0520 -0.2 -6 1036 4.1 125 1717 -0.3 -9 2258 5.0 152	19 F	0539 0.1 3 1110 3.8 116 1735 0.3 9 2331 4.4 134	4 Su	0635 -0.4 -12 1219 4.6 140 1851 -0.2 -6	19 M	0610 0.3 9 1143 4.0 122 1822 0.5 15 2353 4.2 128	4 W	0108 4.7 143 0747 -0.1 -3 1350 5.0 152 2024 0.2 6	19 Th	0632 0.4 12 1150 4.6 140 1925 0.8 24
5 F	0609 -0.3 -9 1134 4.2 128 1810 -0.3 -9 2355 4.9 149	20 Sa	0615 0.2 6 1153 3.8 116 1811 0.4 12	5 M	0037 4.9 149 0724 -0.4 -12 1318 4.7 143 1947 -0.1 -3	20 Tu	0637 0.3 9 1200 4.1 125 1859 0.6 18	5 Th	0203 4.5 137 0839 0.0 0 1446 4.9 149 2122 0.4 12	20 F	0020 4.2 128 0711 0.4 12 1239 4.6 140 2019 0.9 27
6 Sa	0658 -0.3 -9 1236 4.2 128 1905 -0.2 -6	21 Su	0009 4.3 131 0649 0.2 6 1234 3.7 113 1847 0.5 15	6 Tu	0133 4.7 143 0815 -0.3 -9 1416 4.7 143 2046 0.1 3	21 W	0017 4.1 125 0707 0.3 9 1232 4.1 125 1943 0.7 21	6 F	0258 4.3 131 0934 0.1 3 1540 4.8 146 2220 0.4 12	21 Sa	0115 4.1 125 0800 0.4 12 1338 4.6 140 2126 0.9 27
7 Su	0054 4.8 146 0749 -0.3 -9 1337 4.3 131 2003 -0.1 -3	22 M	0045 4.1 125 0720 0.2 6 1315 3.7 113 1926 0.5 15	7 W	0227 4.5 137 0909 -0.3 -9 1512 4.8 146 2146 0.2 6	22 Th	0057 4.1 125 0743 0.3 9 1319 4.2 128 2039 0.8 24	7 Sa	0353 4.2 128 1030 0.2 6 1634 4.8 146 2317 0.4 12	22 Su	0220 4.0 122 0905 0.5 15 1448 4.6 140 2235 0.9 27
8 M	0152 4.7 143 0842 -0.4 -12 1436 4.4 134 2104 0.0 0	23 Tu	0120 4.0 122 0753 0.2 6 1354 3.8 116 2013 0.6 18	8 Th	0322 4.3 131 1003 -0.2 -6 1606 4.8 146 2246 0.2 6	23 F	0149 4.0 122 0830 0.3 9 1415 4.3 131 2149 0.9 27	8 Su	0447 4.2 128 1125 0.2 6 1728 4.7 143	23 M	0336 4.1 125 1023 0.4 12 1610 4.7 143 2338 0.7 21
9 Tu	0248 4.5 137 0936 -0.4 -12 1533 4.6 140 2206 0.1 3	24 W	0158 3.9 119 0830 0.2 6 1436 3.9 119 2114 0.7 21	9 F	0416 4.2 128 1058 -0.2 -6 1701 4.8 146 2343 0.2 6	24 Sa	0249 3.9 119 0931 0.3 9 1520 4.4 134 2258 0.8 24	9 M	0010 0.4 12 0541 4.2 128 1218 0.2 6 1819 4.8 146	24 Tu	0451 4.2 128 1137 0.3 9 1726 4.8 146
10 W	0343 4.4 134 1031 -0.4 -12 1629 4.7 143 2307 0.0 0	25 Th	0244 3.8 116 0917 0.2 6 1524 4.0 122 2222 0.7 21	10 Sa	0511 4.1 125 1152 -0.2 -6 1755 4.8 146	25 Su	0358 3.9 119 1042 0.3 9 1635 4.5 137	10 Tu	0101 0.3 9 0634 4.2 128 1309 0.2 6 1909 4.8 146	25 W	0037 0.5 15 0559 4.4 134 1243 0.1 3 1831 5.0 152
11 Th	0438 4.2 128 1125 -0.4 -12 1724 4.8 146	26 F	0339 3.8 116 1013 0.1 3 1618 4.2 128 2328 0.6 18	11 Su	0038 0.1 3 0605 4.1 125 1245 -0.1 -3 1846 4.8 146	26 M	0002 0.7 21 0510 4.0 122 1153 0.2 6 1747 4.7 143	11 W	0148 0.2 6 0724 4.3 131 1357 0.2 6 1955 4.9 149	26 Th	0133 0.2 6 0701 4.7 143 1344 0.0 0 1930 5.2 158
12 F	0006 0.0 0 0533 4.1 125 1218 -0.4 -12 1818 4.9 149	27 Sa	0439 3.8 116 1115 0.1 3 1717 4.4 134	12 M	0129 0.1 3 0657 4.1 125 1335 -0.1 -3 1936 4.9 149	27 Tu	0102 0.5 15 0616 4.1 125 1258 0.0 0 1852 5.0 152	12 Th	0233 0.2 6 0811 4.4 134 1443 0.2 6 2038 4.9 149	27 F	0226 0.0 0 0758 5.0 152 1442 -0.2 -6 2023 5.3 162
13 Sa	0101 -0.1 -3 0627 4.1 125 1310 -0.4 -12 1910 4.9 149	28 Su	0030 0.5 15 0541 3.8 116 1218 0.0 0 1818 4.6 140	13 Tu	0218 0.1 3 0747 4.1 125 1423 0.0 0 2022 4.9 149	28 W	0158 0.3 9 0718 4.4 134 1400 -0.1 -3 1950 5.2 158	13 F	0316 0.2 6 0855 4.5 137 1527 0.3 9 2118 4.8 146	28 Sa	0317 -0.2 -6 0852 5.2 158 1538 -0.3 -9 2114 5.3 162
14 Su	0154 -0.1 -3 0720 4.0 122 1400 -0.3 -9 1959 4.9 149	29 M	0128 0.4 12 0641 3.9 119 1318 -0.1 -3 1915 4.8 146	14 W	0305 0.1 3 0834 4.2 128 1509 0.0 0 2105 4.8 146	29 Th	0252 0.1 3 0815 4.6 140 1458 -0.3 -9 2044 5.3 162	14 Sa	0355 0.3 9 0935 4.5 137 1608 0.3 9 2155 4.7 143	29 Su	0406 -0.3 -9 0944 5.4 165 1631 -0.3 -9 2204 5.2 158
15 M	0245 -0.1 -3 0809 4.0 122 1448 -0.2 -6 2045 4.9 149	30 Tu	0224 0.2 6 0738 4.0 122 1418 -0.2 -6 2010 5.0 152	15 Th	0348 0.1 3 0919 4.2 128 1552 0.1 3 2145 4.8 146	30 F	0343 -0.1 -3 0910 4.8 146 1554 -0.3 -9 2136 5.3 162	15 Su	0431 0.3 9 1011 4.4 134 1648 0.4 12 2228 4.6 140	30 M	0454 -0.3 -9 1037 5.4 165 1723 -0.2 -6 2254 5.0 152
		31 W	0317 0.0 0 0833 4.2 128 1515 -0.3 -9 2102 5.1 155			31 Sa	0433 -0.3 -9 1004 5.0 152 1648 -0.3 -9 2227 5.3 162				

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

Wilmington, North Carolina, 2019

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 Tu	0541	-0.2	-6		16	0502	0.4	12	1	0012	4.3	131	16	0558	0.2	6
	1130	5.3	162		W	1017	4.7	143	F	0647	0.2	6	Sa	1111	4.8	146
	1815	0.0	0			1746	0.6	18		1249	4.9	149	Su	1902	0.5	15
	2346	4.8	146			2240	4.3	131		1933	0.3	9		2347	4.0	122
2 W	0628	-0.1	-3		17	0534	0.4	12	2	0107	4.2	128	17	0646	0.2	6
	1225	5.2	158		Th	1043	4.8	146	Sa	0735	0.3	9	Su	1206	4.7	143
	1906	0.2	6			1827	0.7	21		1343	4.7	143	M	1954	0.5	15
						2312	4.2	128		2024	0.5	15				
3 Th	0041	4.6	140		18	0610	0.4	12	3	0202	4.0	122	18	0052	4.0	122
	0717	0.1	3		F	1124	4.8	146	Su	0826	0.5	15	M	0743	0.3	9
	1321	5.0	152			1913	0.8	24		1436	4.5	137	Tu	1314	4.6	140
	2000	0.4	12			2357	4.1	125		2116	0.5	15		2052	0.5	15
4 Fr	0136	4.4	134		19	0652	0.4	12	4	0257	4.0	122	19	0210	4.0	122
	0807	0.3	9		Sa	1215	4.8	146	M	0921	0.6	18	Tu	0850	0.3	9
	1416	4.9	149			2007	0.8	24		1528	4.4	134	W	1434	4.6	140
	2055	0.5	15							2209	0.5	15		2152	0.4	12
5 Sa	0232	4.2	128		20	0055	4.1	125	5	0351	4.0	122	20	0322	4.1	125
	0902	0.4	12		Su	0746	0.4	12	Tu	1018	0.6	18	W	1002	0.3	9
	1510	4.7	143			1317	4.7	143		1620	4.4	134		1545	4.6	140
	2151	0.6	18			2109	0.8	24		2300	0.5	15		2252	0.2	6
6 Su	0327	4.1	125		21	0208	4.0	122	6	0444	4.0	122	21	0427	4.3	131
	0958	0.5	15		M	0854	0.5	15	W	1114	0.6	18	Th	1110	0.2	6
	1603	4.7	143			1434	4.7	143		1711	4.3	131		1650	4.6	140
	2246	0.5	15			2214	0.7	21		2349	0.4	12		2348	0.0	0
7 M	0421	4.1	125		22	0328	4.1	125	7	0536	4.1	125	22	0530	4.6	140
	1055	0.5	15		Tu	1012	0.4	12	Th	1207	0.5	15	F	1213	0.0	0
	1656	4.6	140			1557	4.7	143		1801	4.4	134		1750	4.6	140
	2339	0.5	15			2315	0.5	15								
8 Tu	0515	4.2	128		23	0439	4.3	131	8	0035	0.3	9	23	0043	-0.2	-6
	1149	0.4	12		W	1123	0.3	9	F	0627	4.3	131	Sa	0629	4.9	149
	1748	4.6	140			1708	4.8	146		1257	0.4	12		1312	-0.1	-3
										1848	4.4	134		1846	4.7	143
9 W	0028	0.4	12		24	0013	0.3	9	9	0119	0.2	6	24	0135	-0.4	-12
	0608	4.3	131		Th	0545	4.6	140	Sa	0714	4.4	134	Su	0724	5.1	155
	1240	0.4	12			1228	0.1	3		1346	0.3	9		1408	-0.2	-6
	1837	4.7	143			1811	4.9	149		1933	4.4	134		1939	4.7	143
10 Th	0114	0.3	9		25	0108	0.0	0	10	0201	0.1	3	25	0226	-0.5	-15
	0658	4.4	134		F	0645	4.9	149	Su	0758	4.6	140	M	0816	5.3	162
	1329	0.3	9			1328	-0.1	-3		1433	0.3	9		1502	-0.3	-9
	1924	4.7	143			1908	5.0	152		2015	4.4	134		2029	4.7	143
11 Fr	0158	0.3	9		26	0200	-0.2	-6	11	0241	0.1	3	26	0315	-0.5	-15
	0745	4.5	137		Sa	0741	5.2	158	M	0837	4.6	140	Tu	0905	5.3	162
	1416	0.3	9			1426	-0.2	-6		1519	0.3	9		1554	-0.3	-9
	2007	4.7	143			2001	5.1	155		2053	4.3	131		2118	4.6	140
12 Sa	0240	0.2	6		27	0251	-0.3	-9	12	0321	0.1	3	27	0403	-0.4	-12
	0828	4.6	140		Su	0834	5.4	165	Tu	0911	4.7	143	W	0953	5.3	162
	1501	0.3	9			1520	-0.3	-9		1603	0.3	9		1644	-0.2	-6
	2048	4.7	143			2051	5.0	152		2128	4.3	131		2206	4.4	134
13 Su	0319	0.2	6		28	0340	-0.4	-12	13	0359	0.1	3	28	0449	-0.3	-9
	0907	4.7	143		M	0925	5.5	168	W	0937	4.7	143	Th	1041	5.1	155
	1544	0.4	12			1613	-0.2	-6		1647	0.3	9		1731	-0.1	-3
	2124	4.6	140			2140	4.9	149		2156	4.2	128		2254	4.3	131
14 M	0355	0.3	9		29	0428	-0.3	-9	14	0437	0.2	6	29	0534	-0.1	-3
	0941	4.7	143		Tu	1014	5.5	168	Th	0958	4.8	146	F	1129	4.9	149
	1625	0.4	12			1704	-0.2	-6		1730	0.4	12		1817	0.1	3
	2157	4.5	137			2229	4.8	146		2223	4.1	125		2344	4.1	125
15 Tu	0429	0.3	9		30	0514	-0.2	-6	15	0516	0.2	6	30	0618	0.1	3
	1005	4.7	143		W	1105	5.3	162	F	1028	4.8	146	Sa	1218	4.7	143
	1706	0.5	15			1754	0.0	0		1814	0.4	12		1903	0.2	6
	2221	4.4	134			2319	4.6	140		2259	4.1	125				
				31	0600	0.0	0									
				Th	1156	5.1	155									
					1843	0.2	6									

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

Myrtle Beach, South Carolina, 2019

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		
1 M	0447	4.8	146	16 Tu	0423	5.7	174	1 W	0448	4.8	146	16 Su	0033	-0.2	-6					
	1102	0.5	15		1056	-0.3	-9		1057	0.4	12		1122	-0.5	-15	0622	4.8	146		
	1705	4.5	137		1701	5.8	177		1707	5.0	152		1737	6.3	192	1232	-0.3	-9		
	2324	0.4	12		2319	-0.6	-18		2334	0.4	12		2359	-0.5	-15	1854	6.2	189		
2 Tu	0531	5.0	152	17 W	0521	5.9	180	2 Th	0532	4.9	149	17 F	0553	5.4	165	2 Su	0029	0.1	3	
	1141	0.3	9		1146	-0.6	-18		1137	0.2	6		1209	-0.6	-18		0618	4.8	146	
	1746	4.8	146		1755	6.2	189		1747	5.3	162		1826	6.5	198		1222	-0.3	-9	
3 W	0005	0.2	6	18 Th	0013	-0.8	-24	3 F	0016	0.2	6	18 Sa	0050	-0.6	-18	3 M	0114	0.0	0	
	0611	5.1	155		0614	5.9	180		0612	5.0	152		0642	5.3	162		0703	4.9	149	
	1218	0.1	3		1234	-0.8	-24		1216	0.0	0		1255	-0.5	-15		1307	-0.4	-12	
4 Th	1823	5.0	152	19 F	1845	6.5	198	4 Sa	1825	5.6	171	O	1913	6.5	198	O	1918	6.2	189	
	0045	0.1	3		0105	-0.9	-27		0057	0.1	3		0138	-0.5	-15		4 Tu	0200	-0.2	-6
	0648	5.2	158		0703	5.8	177		0651	5.0	152		0729	5.2	158			0748	4.9	149
1254	0.0	0	1321	-0.8	-24	1255	-0.1	-3	1340	-0.4	-12	1354	-0.4	-12						
5 F	1857	5.2	158	O	1933	6.6	201	O	1902	5.8	177	O	1958	6.4	195	O	2003	6.3	192	
	0124	0.0	0		0155	-0.9	-27		0139	0.0	0		0224	-0.4	-12		5 W	0246	-0.2	-6
	0724	5.1	155		0751	5.6	171		0730	5.0	152		0815	5.0	152			0836	4.9	149
1331	-0.1	-3	1406	-0.7	-21	1335	-0.2	-6	1425	-0.2	-6	1443	-0.4	-12						
6 Sa	1931	5.4	165	2020	6.5	198	1940	5.9	180	2043	6.1	186	2052	6.2	189	6 Th	0335	-0.2	-6	
	0202	0.0	0	0244	-0.7	-21	0220	0.0	0	0308	-0.2	-6	6 Tu	0930	4.8		146			
	0759	5.1	155	0838	5.3	162	0810	4.9	149	0902	4.7	143		1534	-0.3		-9			
1407	-0.1	-3	1451	-0.4	-12	1417	-0.2	-6	1508	0.1	3	2146		6.1	186					
7 Su	2006	5.5	168	2108	6.3	192	2021	6.0	183	2129	5.8	177	7 F	0425	-0.2	-6				
	0241	0.0	0	0330	-0.4	-12	0303	0.0	0	0351	0.1	3		7 Tu	1030	4.8	146			
	0835	4.9	149	0927	5.0	152	0854	4.8	146	0950	4.5	137			1628	-0.1	-3			
1444	-0.1	-3	1535	-0.1	-3	1501	-0.1	-3	1552	0.4	12	2244	5.9		180					
8 M	2043	5.5	168	2157	5.9	180	2106	5.9	180	2217	5.4	165	8 Sa	0518	-0.1	-3				
	0320	0.1	3	0417	-0.1	-3	0348	0.1	3	0434	0.3	9		8 Tu	1132	4.9	149			
	0914	4.7	143	1019	4.7	143	0944	4.7	143	1042	4.3	131			1726	0.0	0			
1523	0.0	0	1621	0.3	9	1547	0.0	0	1637	0.7	21	2345	5.7		174					
9 Tu	2125	5.5	168	2250	5.5	168	2158	5.8	177	2308	5.1	155	9 Su	0614	-0.1	-3				
	0401	0.2	6	0503	0.3	9	0436	0.2	6	0519	0.5	15		9 M	1235	5.0	152			
	1000	4.6	140	1114	4.4	134	1041	4.6	140	1136	4.1	125			1830	0.2	6			
1605	0.1	3	1708	0.6	18	1638	0.1	3	1724	0.9	27	10 W	0046		5.5	168				
2213	5.4	165	2344	5.1	155	2256	5.7	174	2359	4.9	149		0714	-0.1	-3					
10 W	0446	0.4	12	0552	0.6	18	0529	0.2	6	0605	0.7		21	O	1334	5.3	162			
	1053	4.4	134	1210	4.2	128	1143	4.6	140	1229	4.1	125	O		1940	0.2	6			
	1652	0.2	6	1800	0.9	27	1735	0.3	9	1817	1.1	34			O	0144	5.3	162		
2309	5.4	165	0038	4.9	149	0629	0.3	9	0699	4.7	143	11 Tu		0816		-0.1	-3			
11 Th	0538	0.5	15	0646	0.8	24	1246	4.7	143	0655	0.8		24	11 W		1432	5.5	168		
	1153	4.4	134	1305	4.1	125	1840	0.3	9	1318	4.2		128		11 Tu	2049	0.2	6		
	1746	0.3	9	1901	1.1	34	0100	5.5	168	0137	4.6	140	12 W			0243	5.2	158		
12 F	0640	0.6	18	0744	0.9	27	0734	0.3	9	0747	0.8	24		12 Tu		0914	-0.2	-6		
	1255	4.4	134	1357	4.1	125	1348	4.9	149	1406	4.3	131			12 W	1529	5.7	174		
	1851	0.4	12	2007	1.2	37	1952	0.3	9	2020	1.2	37	2154			0.1	3			
13 Sa	0114	5.4	165	0222	4.6	140	0201	5.5	168	0225	4.5	137	13 Th	0340		5.0	152			
	0751	0.5	15	0841	0.9	27	0839	0.1	3	0838	0.7	21		13 F	1008	-0.3	-9			
	1358	4.6	140	1448	4.2	128	1448	5.2	158	1452	4.5	137			1625	6.0	183			
2004	0.3	9	2109	1.1	34	2103	0.1	3	2118	1.0	30	2251	-0.1		-3					
14 Su	0218	5.4	165	0312	4.6	140	0302	5.4	165	0313	4.5	137	14 Tu	0437	4.9	149				
	0900	0.3	9	0932	0.8	24	0938	-0.1	-3	0926	0.5	15		14 F	1058	-0.3	-9			
	1501	4.9	149	1537	4.4	134	1547	5.6	171	1538	4.8	146			1718	6.1	186			
2115	0.0	0	2203	0.9	27	2207	-0.1	-3	2211	0.8	24	2344	-0.1		-3					
15 M	0321	5.6	171	0402	4.7	143	0402	5.4	165	0401	4.5	137	15 Sa	0532	4.8	146				
	1002	0.0	0	1016	0.6	18	1032	-0.3	-9	1011	0.3	9		15 Tu	1146	-0.3	-9			
	1603	5.3	162	1624	4.7	143	1644	6.0	183	1624	5.1	155			1808	6.2	189			
2220	-0.3	-9	2250	0.7	21	2305	-0.3	-9	2305	-0.3	-9	31 F	0448		4.6	140				
																	1055	0.1	3	
																	1708	5.5	168	
																2344	0.4	12		

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

Myrtle Beach, South Carolina, 2019

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 M	0001	0.2	6	16 Tu	0058	0.2	6	1 Th	0117	-0.4	-12	16 F	0148	0.4	12
	0548	4.7	143		0648	4.6	140		0710	5.5	168		0743	4.9	149
	1153	-0.4	-12		1256	0.1	3		1319	-0.8	-24		1355	0.4	12
	1809	6.2	189	○	1916	5.9	180		1930	6.8	207		2006	5.7	174
2 Tu	0050	-0.1	-3	17 W	0139	0.2	6	2 F	0207	-0.6	-18	17 Sa	0224	0.4	12
	0638	4.9	149		0730	4.6	140		0803	5.7	174		0819	4.9	149
	1244	-0.6	-18		1338	0.2	6		1413	-0.8	-24		1434	0.6	18
●	1858	6.4	195		1956	5.8	177		2021	6.7	204		2043	5.5	168
3 W	0139	-0.3	-9	18 Th	0218	0.2	6	3 Sa	0257	-0.6	-18	18 Su	0300	0.4	12
	0728	5.0	152		0811	4.5	137		0857	5.8	177		0856	4.9	149
	1335	-0.6	-18		1419	0.3	9		1508	-0.7	-21		1513	0.7	21
	1947	6.5	198		2035	5.6	171		2115	6.5	198		2120	5.3	162
4 Th	0228	-0.4	-12	19 F	0256	0.2	6	4 Su	0347	-0.6	-18	19 M	0335	0.4	12
	0820	5.1	155		0851	4.5	137		0955	5.8	177		0934	4.8	146
	1428	-0.6	-18		1459	0.5	15		1603	-0.5	-15		1552	0.9	27
	2038	6.5	198		2115	5.4	165		2211	6.1	186		2159	5.0	152
5 F	0318	-0.5	-15	20 Sa	0334	0.3	9	5 M	0437	-0.5	-15	20 Tu	0411	0.5	15
	0915	5.2	158		0932	4.4	134		1056	5.8	177		1016	4.9	149
	1522	-0.6	-18		1540	0.6	18		1700	-0.2	-6		1632	1.0	30
	2132	6.3	192		2156	5.2	158		2310	5.7	174		2241	4.8	146
6 Sa	0409	-0.5	-15	21 Su	0411	0.4	12	6 Tu	0528	-0.3	-9	21 W	0448	0.6	18
	1015	5.2	158		1016	4.4	134		1156	5.9	180		1101	4.9	149
	1617	-0.4	-12		1620	0.8	24		1800	0.1	3		1715	1.2	37
	2230	6.0	183		2239	4.9	149						2327	4.6	140
7 Su	0500	-0.4	-12	22 M	0448	0.4	12	7 W	0009	5.4	165	22 Th	0528	0.7	21
	1117	5.3	162		1101	4.4	134		0623	-0.1	-3		1150	5.0	152
	1715	-0.2	-6		1703	1.0	30		1255	5.9	180		1804	1.3	40
	2329	5.7	174		2323	4.7	143	○	1906	0.4	12				
8 M	0554	-0.3	-9	23 Tu	0527	0.5	15	8 Th	0107	5.0	152	23 F	0016	4.5	137
	1218	5.4	165		1148	4.5	137		0723	0.1	3		0615	0.7	21
	1817	0.1	3		1750	1.1	34		1353	5.8	177	○	1242	5.2	158
									2014	0.6	18		1902	1.4	43
9 Tu	0029	5.4	165	24 W	0009	4.5	137	9 F	0204	4.8	146	24 Sa	0108	4.5	137
	0650	-0.2	-6		0609	0.5	15		0825	0.3	9		0709	0.7	21
	1317	5.6	171		1234	4.6	140		1449	5.8	177		1336	5.4	165
○	1925	0.3	9	○	1842	1.2	37		2119	0.7	21		2008	1.3	40
10 W	0126	5.1	155	25 Th	0055	4.4	134	10 Sa	0301	4.6	140	25 Su	0204	4.6	140
	0750	-0.1	-3		0656	0.5	15		0924	0.4	12		0810	0.6	18
	1414	5.7	174		1322	4.9	149		1545	5.7	174		1432	5.6	171
	2034	0.3	9		1942	1.2	37		2217	0.7	21		2114	1.1	34
11 Th	0223	4.9	149	26 F	0143	4.4	134	11 Su	0358	4.5	137	26 M	0302	4.7	143
	0849	-0.1	-3		0748	0.5	15		1019	0.4	12		0913	0.3	9
	1510	5.8	177		1411	5.1	155		1638	5.7	174		1531	5.9	180
	2138	0.3	9		2045	1.1	34		2307	0.6	18		2215	0.7	21
12 F	0320	4.7	143	27 Sa	0235	4.4	134	12 M	0452	4.5	137	27 Tu	0403	5.0	152
	0945	0.0	0		0844	0.3	9		1108	0.4	12		1014	0.0	0
	1606	5.9	180		1503	5.4	165		1728	5.8	177		1629	6.3	192
	2236	0.3	9		2145	0.9	27		2352	0.6	18		2310	0.3	9
13 Sa	0417	4.6	140	28 Su	0330	4.5	137	13 Tu	0542	4.6	140	28 W	0502	5.3	162
	1037	0.0	0		0940	0.1	3		1153	0.4	12		1112	-0.3	-9
	1659	5.9	180		1558	5.7	174		1812	5.8	177		1726	6.6	201
	2327	0.2	6		2241	0.6	18								
14 Su	0512	4.5	137	29 M	0426	4.7	143	14 W	0033	0.5	15	29 Th	0002	-0.1	-3
	1126	0.0	0		1036	-0.2	-6		0626	4.7	143		0558	5.7	174
	1749	5.9	180		1653	6.1	186		1235	0.4	12		1208	-0.6	-18
					2334	0.2	6		1852	5.8	177		1820	6.9	210
15 M	0014	0.2	6	30 Tu	0522	4.9	149	15 Th	0111	0.4	12	30 F	0053	-0.4	-12
	0602	4.6	140		1130	-0.4	-12		0706	4.8	146		0651	6.1	186
	1212	0.0	0		1747	6.4	195		1316	0.4	12		1303	-0.7	-21
	1834	5.9	180					○	1930	5.8	177	●	1912	6.9	210
				31 W	0026	-0.1	-3					31 Sa	0143	-0.6	-18
					0617	5.2	158						0744	6.3	192
				●	1224	-0.6	-18						1358	-0.8	-24
					1839	6.7	204						2002	6.8	207

Time meridian 75° W. 0000 is midnight. 1200 is 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, South Carolina, 2019

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		h m ft cm		h m ft cm
1	0418 5.6 171	16	0301 5.1 155	1	0537 5.4 165	16	0438 5.8 177	1	0415 5.1 155	16	0307 5.6 171
Tu	1029 0.1 3	W	0934 0.5 15	F	1149 0.1 3	Sa	1112 -0.1 -3	F	1031 0.5 15	Sa	0946 0.3 9
	1623 4.8 146		1528 4.5 137		1739 4.5 137		1706 4.8 146		1622 4.4 134		1544 4.8 146
	2240 -0.2 -6		2144 -0.2 -6		2353 -0.1 -3		2319 -0.8 -24		2239 0.4 12		2158 -0.2 -6
2	0511 5.7 174	17	0402 5.4 165	2	0623 5.5 168	17	0540 6.1 186	2	0508 5.1 155	17	0417 5.8 177
W	1123 0.0 0	Th	1037 0.2 6	Sa	1234 0.0 0	Su	1208 -0.5 -15	Sa	1120 0.4 12	Su	1049 0.0 0
	1714 4.8 146		1629 4.6 140		1825 4.6 140		1806 5.2 158		1713 4.5 137		1650 5.1 155
	2329 -0.3 -9		2242 -0.5 -15						2329 0.3 9		2302 -0.6 -18
3	0559 5.8 177	18	0502 5.8 177	3	0037 -0.1 -3	18	0017 -1.2 -37	3	0555 5.3 162	18	0520 6.1 186
Th	1213 0.0 0	F	1135 -0.1 -3	Su	0705 5.5 168	M	0638 6.4 195	Su	1205 0.2 6	M	1146 -0.4 -12
	1802 4.8 146		1728 4.8 146		1316 0.0 0		1301 -0.8 -24		1800 4.7 143		1750 5.5 168
			2338 -0.8 -24		1908 4.7 143		1903 5.5 168				
4	0015 -0.3 -9	19	0600 6.2 189	4	0118 -0.2 -6	19	0112 -1.4 -43	4	0014 0.1 3	19	0002 -0.9 -27
F	0644 5.8 177	Sa	1230 -0.4 -12	M	0745 5.5 168	Tu	0732 6.5 198	M	0638 5.4 165	Tu	0618 6.3 192
	1258 -0.1 -3		1824 5.0 152		1355 -0.1 -3		1352 -1.0 -30		1246 0.1 3		1238 -0.7 -21
	1847 4.8 146				● 1947 4.8 146		○ 1957 5.8 177		1844 4.9 149		1847 5.9 180
5	0058 -0.3 -9	20	0033 -1.1 -34	5	0156 -0.2 -6	20	0206 -1.5 -46	5	0056 0.0 0	20	0058 -1.2 -37
Sa	0726 5.8 177	Su	0655 6.4 195	Tu	0822 5.5 168	W	0823 6.5 198	Tu	0718 5.4 165	W	0711 6.4 195
●	1341 -0.1 -3		1322 -0.7 -21		1431 -0.1 -3		1441 -1.1 -34		1324 0.0 0		1328 -0.9 -27
	1929 4.8 146		1919 5.3 162		2025 4.8 146		2050 6.0 183		1924 5.0 152		○ 1940 6.2 189
6	0139 -0.2 -6	21	0127 -1.4 -43	6	0233 -0.1 -3	21	0259 -1.5 -46	6	0134 -0.1 -3	21	0151 -1.3 -40
Su	0806 5.7 174	M	0748 6.6 201	W	0857 5.4 165	Th	0913 6.4 195	W	0755 5.4 165	Th	0802 6.3 192
	1421 0.0 0		1413 -0.9 -27		1506 0.0 0		1529 -1.1 -34		1400 -0.1 -3		1415 -1.0 -30
	2009 4.7 143		○ 2012 5.4 165		2100 4.8 146		2142 6.0 183		● 2001 5.1 155		2030 6.4 195
7	0217 -0.1 -3	22	0220 -1.5 -46	7	0308 0.0 0	22	0351 -1.2 -37	7	0211 -0.1 -3	22	0243 -1.2 -37
M	0844 5.6 171	Tu	0841 6.6 201	Th	0930 5.2 158	F	1002 6.1 186	Th	0830 5.4 165	F	0850 6.1 186
	1459 0.0 0		1503 -1.0 -30		1540 0.0 0		1616 -0.9 -27		1434 -0.1 -3		1502 -1.0 -30
	2047 4.7 143		2106 5.5 168		2134 4.8 146		2234 5.9 180		2035 5.2 158		2120 6.4 195
8	0254 0.0 0	23	0313 -1.4 -43	8	0344 0.1 3	23	0444 -0.9 -27	8	0247 0.0 0	23	0334 -1.0 -30
Tu	0921 5.5 168	W	0932 6.5 198	F	1001 5.0 152	Sa	1051 5.7 174	F	0903 5.2 158	Sa	0937 5.8 177
	1536 0.1 3		1553 -1.0 -30		1613 0.1 3		1705 -0.7 -21		1507 -0.1 -3		1548 -0.7 -21
	2125 4.6 140		2200 5.6 171		2208 4.8 146		2327 5.7 174		2108 5.2 158		2209 6.3 192
9	0330 0.2 6	24	0407 -1.2 -37	9	0422 0.3 9	24	0539 -0.4 -12	9	0324 0.1 3	24	0424 -0.6 -18
W	0957 5.3 162	Th	1023 6.2 189	Sa	1033 4.9 149	Su	1141 5.2 158	Sa	0933 5.1 155	Su	1024 5.5 168
	1612 0.2 6		1643 -0.9 -27		1649 0.1 3		1755 -0.3 -9		1541 0.0 0		1634 -0.4 -12
	2202 4.5 137		2256 5.5 168		2245 4.8 146				2140 5.3 162		2259 6.0 183
10	0407 0.3 9	25	0502 -0.9 -27	10	0503 0.4 12	25	0022 5.5 168	10	0402 0.2 6	25	0516 -0.2 -6
Th	1032 5.1 155	F	1115 5.8 177	Su	1109 4.7 143	M	0636 0.0 0	Su	1005 4.9 149	M	1112 5.1 155
	1649 0.3 9		1734 -0.7 -21		1728 0.1 3		1233 4.8 146		1617 0.0 0		1722 0.0 0
	2241 4.5 137		2353 5.4 165		2327 4.8 146		1848 0.0 0		2215 5.3 162		2350 5.7 174
11	0446 0.5 15	26	0600 -0.5 -15	11	0552 0.5 15	26	0120 5.3 162	11	0444 0.3 9	26	0609 0.1 3
F	1109 4.9 149	Sa	1209 5.4 165	M	1152 4.5 137	Tu	0735 0.3 9	M	1041 4.7 143	Tu	1203 4.8 146
	1727 0.4 12		1827 -0.5 -15		1814 0.2 6		1329 4.5 137		1657 0.1 3		1812 0.4 12
	2322 4.4 134						○ 1945 0.3 9		2257 5.3 162		
12	0531 0.7 21	27	0053 5.3 162	12	0017 4.9 149	27	0219 5.1 155	12	0531 0.4 12	27	0043 5.4 165
Sa	1149 4.7 143	Su	0701 -0.1 -3	Tu	0648 0.6 18	W	0836 0.5 15	Tu	1124 4.6 140	W	0704 0.5 15
	1809 0.4 12		1304 5.0 152		1244 4.4 134		1427 4.3 131		1743 0.1 3		1256 4.5 137
			● 1923 -0.2 -6		○ 1907 0.1 3		2044 0.4 12		2347 5.3 162		○ 1907 0.7 21
13	0009 4.5 137	28	0153 5.3 162	13	0116 5.0 152	28	0319 5.0 152	13	0626 0.5 15	28	0140 5.1 155
Su	0622 0.8 24	M	0803 0.1 3	W	0753 0.6 18	Th	0935 0.6 18	W	1217 4.5 137	Th	0802 0.7 21
	1235 4.5 137		1401 4.7 143		1346 4.3 131		1526 4.3 131		1838 0.2 6		1354 4.4 134
	1856 0.4 12		2020 -0.1 -3		2007 0.1 3		2143 0.5 15				2007 0.8 24
14	0102 4.6 140	29	0254 5.2 158	14	0222 5.2 158	29	0046 5.3 162	14	0046 5.3 162	29	0239 5.0 152
M	0722 0.8 24	Tu	0906 0.3 9	Th	0903 0.5 15		0730 0.6 18	Th	0730 0.6 18	F	0859 0.8 24
○	1328 4.4 134		1459 4.5 137		1454 4.4 134		1321 4.4 134		1321 4.4 134		1452 4.4 134
	1948 0.3 9		2117 0.0 0		2112 -0.1 -3		○ 1941 0.2 6		1941 0.2 6		2108 0.9 27
15	0200 4.8 146	30	0352 5.2 158	15	0331 5.4 165	30	0155 5.4 165	15	0155 5.4 165	Sa	0336 5.0 152
Tu	0827 0.7 21	W	1005 0.3 9	F	1010 0.3 9		0839 0.5 15		0839 0.5 15		0954 0.8 24
	1427 4.4 134		1556 4.4 134		1602 4.6 140		1432 4.5 137		1432 4.5 137		1549 4.5 137
	2045 0.1 3		2213 0.0 0		2217 -0.4 -12		2050 0.0 0		2050 0.0 0		2206 0.8 24
		31	0447 5.3 162							31	0430 5.0 152
		Th	1100 0.2 6							Su	1043 0.6 18
			1650 4.4 134								1642 4.7 143
			2305 0.0 0								2258 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 mean lower low water which is the chart datum of soundings.

Charleston, South Carolina, 2019

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	h m	ft cm	h m	ft cm
1 M	0029 0.1 3 0619 4.8 146 1225 -0.5 -15 1846 6.4 195	16 Tu	0124 0.1 3 0710 4.8 146 1320 0.0 0 1950 6.0 183	1 Th	0147 -0.3 -9 0744 5.5 168 1351 -0.9 -27 2011 6.8 207	16 F	0218 0.4 12 0811 5.1 155 1419 0.5 15 2042 5.8 177	1 Su	0302 -0.6 -18 0916 6.4 195 1524 -0.6 -18 2134 6.6 201	16 M	0252 0.5 15 0855 5.7 174 1509 0.8 24 2118 5.6 171
2 Tu	0119 -0.1 -3 0711 4.9 149 1316 -0.6 -18 1937 6.5 198	17 W	0207 0.1 3 0755 4.8 146 1402 0.1 3 2031 5.9 180	2 F	0237 -0.5 -15 0840 5.6 171 1445 -0.9 -27 2104 6.8 207	17 Sa	0254 0.4 12 0850 5.1 155 1457 0.6 18 2117 5.7 174	2 M	0351 -0.5 -15 1011 6.5 198 1619 -0.4 -12 2225 6.3 192	17 Tu	0326 0.6 18 0929 5.7 174 1547 0.9 27 2151 5.4 165
3 W	0209 -0.3 -9 0803 5.0 152 1407 -0.7 -21 2028 6.6 201	18 Th	0248 0.2 6 0838 4.8 146 1443 0.3 9 2110 5.8 177	3 Sa	0327 -0.6 -18 0936 5.8 177 1540 -0.7 -21 2156 6.6 201	18 Su	0329 0.4 12 0928 5.1 155 1534 0.7 21 2151 5.5 168	3 Tu	0441 -0.4 -12 1106 6.4 195 1715 0.0 0 2317 5.9 180	18 W	0401 0.6 18 1004 5.7 174 1627 1.1 34 2225 5.2 158
4 Th	0258 -0.4 -12 0857 5.1 155 1500 -0.7 -21 2120 6.6 201	19 F	0328 0.3 9 0919 4.7 143 1522 0.5 15 2148 5.6 171	4 Su	0417 -0.6 -18 1033 5.9 180 1636 -0.5 -15 2248 6.3 192	19 M	0403 0.5 15 1004 5.1 155 1612 0.9 27 2225 5.3 162	4 W	0532 -0.1 -3 1203 6.3 192 1813 0.4 12	19 Th	0439 0.7 21 1044 5.7 174 1713 1.2 37 2305 5.0 152
5 F	0349 -0.5 -15 0952 5.2 158 1554 -0.6 -18 2212 6.4 195	20 Sa	0405 0.4 12 1000 4.7 143 1601 0.7 21 2225 5.4 165	5 M	0508 -0.5 -15 1130 5.9 180 1734 -0.2 -6 2341 6.0 183	20 Tu	0438 0.6 18 1042 5.2 158 1653 1.0 30 2300 5.1 155	5 Th	0011 5.6 171 0626 0.2 6 1302 6.1 186 1913 0.7 21	20 F	0523 0.7 21 1130 5.7 174 1804 1.3 40 2354 4.9 149
6 Sa	0440 -0.5 -15 1050 5.3 162 1650 -0.4 -12 2306 6.2 189	21 Su	0442 0.4 12 1041 4.7 143 1641 0.8 24 2302 5.2 158	6 Tu	0601 -0.4 -12 1229 5.9 180 1834 0.1 3	21 W	0515 0.6 18 1122 5.2 158 1739 1.2 37 2340 4.9 149	6 F	0107 5.2 158 0722 0.4 12 1400 6.0 183 2014 0.9 27	21 Sa	0614 0.8 24 1226 5.8 177 1904 1.3 40
7 Su	0532 -0.4 -12 1149 5.4 165 1749 -0.2 -6	22 M	0519 0.5 15 1123 4.7 143 1724 1.0 30 2341 5.0 152	7 W	0036 5.6 171 0654 -0.2 -6 1328 5.9 180 1935 0.4 12	22 Th	0557 0.6 18 1208 5.3 162 1831 1.2 37	7 Sa	0205 5.0 152 0821 0.6 18 1459 5.9 180 2113 1.0 30	22 Su	0053 4.9 149 0712 0.7 21 1329 5.9 180 2009 1.2 37
8 M	0001 5.9 180 0626 -0.4 -12 1249 5.5 168 1851 0.0 0	23 Tu	0558 0.5 15 1207 4.8 146 1812 1.1 34	8 Th	0132 5.3 162 0750 0.0 0 1427 5.9 180 2037 0.5 15	23 F	0027 4.8 146 0646 0.6 18 1301 5.5 168 1930 1.2 37	8 Su	0302 5.0 152 0919 0.7 21 1554 5.9 180 2208 0.9 27	23 M	0159 5.0 152 0817 0.6 18 1436 6.1 186 2114 1.0 30
9 Tu	0057 5.7 174 0721 -0.4 -12 1349 5.6 171 1954 0.2 6	24 W	0023 4.8 146 0640 0.5 15 1254 4.9 149 1906 1.2 37	9 F	0228 5.1 155 0847 0.1 3 1524 5.9 180 2137 0.6 18	24 Sa	0121 4.8 146 0740 0.5 15 1400 5.6 171 2034 1.2 37	9 M	0358 5.0 152 1014 0.7 21 1646 5.9 180 2259 0.9 27	24 Tu	0307 5.2 158 0923 0.4 12 1543 6.3 192 2216 0.7 21
10 W	0154 5.4 165 0816 -0.3 -9 1449 5.8 177 2057 0.2 6	25 Th	0110 4.7 143 0727 0.4 12 1345 5.1 155 2006 1.1 34	10 Sa	0325 4.9 149 0943 0.2 6 1619 5.9 180 2234 0.6 18	25 Su	0223 4.8 146 0841 0.4 12 1502 5.9 180 2139 1.0 30	10 Tu	0449 5.1 155 1105 0.7 21 1733 6.0 183 2345 0.8 24	25 W	0413 5.5 168 1027 0.1 3 1645 6.6 201 2313 0.3 9
11 Th	0251 5.2 158 0912 -0.3 -9 1546 5.9 180 2158 0.3 9	26 F	0202 4.6 140 0818 0.3 9 1439 5.4 165 2108 1.0 30	11 Su	0420 4.9 149 1037 0.2 6 1711 6.0 183 2326 0.5 15	26 M	0326 4.9 149 0943 0.2 6 1605 6.2 189 2240 0.6 18	11 W	0537 5.2 158 1152 0.6 18 1816 6.0 183	26 Th	0514 5.9 180 1128 -0.3 -9 1742 6.8 207
12 F	0347 5.0 152 1006 -0.2 -6 1641 6.0 183 2255 0.2 6	27 Sa	0258 4.6 140 0913 0.2 6 1535 5.7 174 2209 0.8 24	12 M	0512 4.9 149 1127 0.2 6 1759 6.0 183	27 Tu	0430 5.1 155 1044 -0.1 -3 1705 6.5 198 2337 0.3 9	12 Th	0028 0.6 18 0622 5.4 165 1236 0.6 18 1857 6.0 183	27 F	0007 -0.1 -3 0612 6.3 192 1225 -0.5 -15 1837 6.9 210
13 Sa	0441 4.9 149 1058 -0.2 -6 1732 6.1 186 2348 0.1 3	28 Su	0356 4.7 143 1009 0.0 0 1632 6.0 183 2307 0.5 15	13 Tu	0014 0.5 15 0601 4.9 149 1214 0.3 9 1844 6.0 183	28 W	0530 5.4 165 1143 -0.4 -12 1803 6.8 207	13 F	0107 0.5 15 0704 5.5 168 1316 0.6 18 1935 6.0 183	28 Sa	0058 -0.4 -12 0707 6.6 201 1320 -0.7 -21 1929 6.9 210
14 Su	0534 4.8 146 1148 -0.2 -6 1821 6.1 186	29 M	0454 4.8 146 1106 -0.3 -9 1728 6.3 192	14 W	0058 0.4 12 0647 5.0 152 1258 0.3 9 1925 6.0 183	29 Th	0031 0.0 0 0629 5.8 177 1240 -0.7 -21 1858 6.9 210	14 Sa	0144 0.5 15 0743 5.6 171 1355 0.6 18 2011 5.9 180	29 Su	0147 -0.5 -15 0801 6.9 210 1414 -0.6 -18 2019 6.7 204
15 M	0038 0.1 3 0623 4.8 146 1235 -0.1 -3 1906 6.1 186	30 Tu	0002 0.2 6 0551 5.0 152 1202 -0.5 -15 1824 6.6 201	15 Th	0139 0.4 12 0730 5.1 155 1340 0.4 12 2004 5.9 180	30 F	0123 -0.3 -9 0725 6.1 186 1336 -0.8 -24 1951 7.0 213	15 Su	0218 0.5 15 0820 5.6 171 1432 0.7 21 2046 5.7 174	30 M	0235 -0.5 -15 0853 6.9 210 1507 -0.5 -15 2109 6.5 198
		31 W	0055 -0.1 -3 0648 5.2 158 1257 -0.7 -21 1918 6.7 204			31 Sa	0213 -0.5 -15 0821 6.3 192 1430 -0.8 -24 2043 6.9 210				

Time meridian 75° W. 0000 is midnight. 1200 is 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, South Carolina, 2019

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 Tu	0323 -0.4 -12 0946 6.9 210 1600 -0.2 -6 2159 6.1 186	16 W	0253 0.5 15 0900 6.1 186 1526 0.8 24 2122 5.3 162	1 F	0431 0.3 9 1103 6.3 192 1721 0.6 18 2313 5.2 158	16 Sa	0351 0.2 6 1001 6.2 189 1639 0.6 18 2228 4.9 149	1 Su	0449 0.5 15 1119 5.6 171 1739 0.6 18 2330 4.7 143	16 M	0429 -0.3 -9 1042 6.0 183 1715 0.0 0 2315 4.9 149
2 W	0412 -0.1 -3 1039 6.7 204 1654 0.2 6 2250 5.8 177	17 Th	0330 0.5 15 0936 6.1 186 1607 0.9 27 2158 5.2 158	2 Sa	0522 0.7 21 1156 5.9 180 1815 0.9 27	17 Su	0441 0.3 9 1052 6.1 186 1731 0.7 21 2323 4.9 149	2 M	0537 0.8 24 1208 5.4 165 1827 0.8 24	17 Tu	0525 -0.1 -3 1138 5.8 177 1809 0.0 0
3 Th	0502 0.2 6 1134 6.4 195 1749 0.6 18 2344 5.4 165	18 F	0411 0.6 18 1017 6.0 183 1653 1.0 30 2241 5.0 152	3 Su	0007 4.9 149 0616 1.0 30 1251 5.7 174 1909 1.1 34	18 M	0536 0.4 12 1149 6.0 183 1828 0.7 21	3 Tu	0023 4.6 140 0630 1.1 34 1259 5.1 155 1917 0.9 27	18 W	0017 5.0 152 0626 0.0 0 1237 5.6 171 1907 0.0 0
4 F	0555 0.6 18 1231 6.1 186 1846 0.9 27	19 Sa	0457 0.7 21 1106 6.0 183 1746 1.1 34 2333 4.9 149	4 M	0103 4.8 146 0713 1.2 37 1346 5.5 168 1904 1.2 37	19 Tu	0026 4.9 149 0638 0.4 12 1252 5.9 180 1928 0.6 18	4 W	0117 4.6 140 0726 1.2 37 1351 5.0 152 1907 0.9 27	19 Th	0123 5.1 155 0732 0.1 3 1441 5.6 168 2006 -0.1 -3
5 Sa	0039 5.2 158 0651 0.9 27 1329 5.9 180 1945 1.1 34	20 Su	0551 0.7 21 1203 6.0 183 1845 1.1 34	5 Tu	0200 4.8 146 0813 1.3 40 1440 5.4 165 2057 1.1 34	20 W	0135 5.1 155 0746 0.4 12 1358 5.8 177 2030 0.4 12	5 Th	0213 4.7 143 0826 1.2 37 1442 4.9 149 2056 0.8 24	20 F	0228 5.3 162 0839 0.1 3 1441 5.3 162 2105 -0.2 -6
6 Su	0137 5.0 152 0750 1.1 34 1426 5.8 177 2042 1.2 37	21 M	0036 4.9 149 0652 0.7 21 1308 6.0 183 1948 1.1 34	6 W	0256 4.9 149 0912 1.3 40 1532 5.4 165 2146 1.0 30	21 Th	0243 5.4 165 0854 0.3 9 1502 5.8 177 2130 0.1 3	6 F	0307 4.8 146 0923 1.2 37 1533 4.9 149 2143 0.6 18	21 Sa	0332 5.6 171 0944 0.0 0 1541 5.3 162 2202 -0.4 -12
7 M	0235 5.0 152 0850 1.1 34 1522 5.7 174 2137 1.2 37	22 Tu	0145 5.1 155 0800 0.6 18 1416 6.1 186 2052 0.8 24	7 Th	0349 5.1 155 1006 1.2 37 1620 5.4 165 2231 0.8 24	22 F	0347 5.7 174 0959 0.1 3 1602 5.9 180 2226 -0.2 -6	7 Sa	0358 5.1 155 1018 1.0 30 1622 4.9 149 2228 0.4 12	22 Su	0431 5.9 180 1045 -0.1 -3 1639 5.2 158 2257 -0.5 -15
8 Tu	0331 5.1 155 0947 1.1 34 1613 5.7 174 2226 1.0 30	23 W	0254 5.3 162 0908 0.4 12 1522 6.2 189 2153 0.5 15	8 F	0438 5.4 165 1055 1.0 30 1705 5.5 168 2313 0.6 18	23 Sa	0446 6.1 186 1100 -0.1 -3 1659 5.9 180 2319 -0.4 -12	8 Su	0446 5.4 165 1107 0.8 24 1709 4.9 149 2312 0.2 6	23 M	0527 6.2 189 1142 -0.3 -9 1734 5.2 158 2349 -0.6 -18
9 W	0423 5.2 158 1039 1.0 30 1700 5.8 177 2311 0.9 27	24 Th	0400 5.7 174 1013 0.1 3 1624 6.4 195 2250 0.1 3	9 Sa	0523 5.6 171 1141 0.8 24 1748 5.5 168 2352 0.4 12	24 Su	0542 6.5 198 1156 -0.3 -9 1753 5.9 180	9 M	0532 5.6 171 1154 0.5 15 1754 5.0 152 2355 0.0 0	24 Tu	0619 6.3 192 1234 -0.4 -12 1826 5.2 158
10 Th	0510 5.4 165 1127 0.9 27 1743 5.9 180 2353 0.7 21	25 F	0500 6.2 189 1114 -0.2 -6 1721 6.5 198 2342 -0.2 -6	10 Su	0605 5.9 180 1224 0.7 21 1829 5.5 168	25 M	0009 -0.6 -18 0634 6.7 204 1250 -0.5 -15 1844 5.8 177	10 Tu	0615 5.9 180 1239 0.3 9 1837 5.0 152	25 W	0038 -0.7 -21 0708 6.3 192 1323 -0.5 -15 1914 5.2 158
11 F	0555 5.6 171 1210 0.8 24 1824 5.9 180	26 Sa	0556 6.6 201 1211 -0.4 -12 1814 6.5 198	11 M	0031 0.3 9 0645 6.0 183 1305 0.6 18 1908 5.4 165	26 Tu	0058 -0.7 -21 0724 6.8 207 1341 -0.5 -15 1933 5.7 174	11 W	0037 -0.2 -6 0656 6.1 186 1322 0.2 6 1919 5.0 152	26 Th	0125 -0.6 -18 0754 6.3 192 1410 -0.4 -12 2000 5.1 155
12 Sa	0031 0.6 18 0636 5.8 177 1251 0.7 21 1903 5.9 180	27 Su	0033 -0.5 -15 0650 6.9 210 1305 -0.5 -15 1906 6.5 198	12 Tu	0108 0.2 6 0723 6.2 189 1345 0.5 15 1945 5.4 165	27 W	0145 -0.6 -18 0812 6.8 207 1430 -0.4 -12 2021 5.5 168	12 Th	0120 -0.3 -9 0738 6.2 189 1406 0.0 0 2000 5.0 152	27 F	0211 -0.5 -15 0839 6.1 186 1455 -0.3 -9 2044 5.0 152
13 Su	0107 0.5 15 0715 6.0 183 1330 0.7 21 1940 5.8 177	28 M	0121 -0.6 -18 0741 7.1 216 1357 -0.5 -15 1955 6.3 192	13 W	0146 0.1 3 0800 6.2 189 1426 0.5 15 2022 5.2 158	28 Th	0232 -0.4 -12 0859 6.6 201 1517 -0.2 -6 2108 5.3 162	13 F	0204 -0.4 -12 0820 6.2 189 1450 0.0 0 2043 5.0 152	28 Sa	0254 -0.3 -9 0921 5.9 180 1538 -0.1 -3 2127 4.8 146
14 M	0143 0.4 12 0751 6.0 183 1409 0.7 21 2015 5.6 171	29 Tu	0209 -0.5 -15 0832 7.1 216 1449 -0.4 -12 2044 6.1 186	14 Th	0225 0.1 3 0837 6.2 189 1507 0.5 15 2100 5.1 155	29 F	0317 -0.1 -3 0946 6.3 192 1605 0.1 3 2154 5.1 155	14 Sa	0249 -0.4 -12 0904 6.2 189 1536 0.0 0 2129 5.0 152	29 Su	0336 0.0 0 1003 5.6 171 1620 0.1 3 2210 4.7 143
15 Tu	0217 0.4 12 0826 6.1 186 1447 0.7 21 2048 5.5 168	30 W	0256 -0.3 -9 0922 6.9 210 1539 -0.1 -3 2133 5.8 177	15 F	0307 0.2 6 0917 6.2 189 1551 0.5 15 2141 5.0 152	30 Sa	0403 0.2 6 1032 6.0 183 1651 0.4 12 2241 4.9 149	15 Su	0337 -0.4 -12 0952 6.2 189 1624 0.0 0 2219 4.9 149	30 M	0418 0.2 6 1044 5.4 165 1701 0.3 9 2253 4.6 140
		31 Th	0343 0.0 0 1012 6.6 201 1630 0.2 6 2222 5.5 168							31 Tu	0500 0.5 15 1125 5.1 155 1742 0.5 15 2339 4.5 137

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

Savannah River Entrance, Georgia, 2019

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
1 Tu	0419	7.1	216	16 W	0312	6.7	204	1 F	0541	6.9	210	16 Sa	0445	7.5	229
	1047	0.2	6		0948	0.8	24		1206	0.3	9		1126	0.0	0
	1628	6.5	198		1539	6.0	183		1747	6.1	186		1715	6.5	198
	2257	-0.1	-3		2207	0.0	0						2341	-0.8	-24
2 W	0514	7.3	223	17 Th	0411	7.1	216	2 Sa	0010	0.1	3	17 Su	0547	7.9	241
	1141	0.1	3		1051	0.4	12		0628	7.0	213		1224	-0.5	-15
	1721	6.4	195		1639	6.2	189		1251	0.1	3		1815	6.9	210
	2346	-0.2	-6		2305	-0.4	-12		1834	6.2	189				
3 Th	0604	7.4	226	18 F	0510	7.5	229	3 Su	0055	0.0	0	18 M	0039	-1.3	-40
	1230	0.0	0		1149	0.0	0		0712	7.1	216		0645	8.3	253
	1811	6.4	195		1738	6.4	195		1333	0.0	0		1318	-0.9	-27
									1918	6.4	195		1911	7.3	223
4 F	0033	-0.2	-6	19 Sa	0001	-0.8	-24	4 M	0136	-0.1	-3	19 Tu	0134	-1.6	-49
	0650	7.4	226		0608	8.0	244		0751	7.1	216		0738	8.5	259
	1316	0.0	0		1245	-0.5	-15	●	1412	-0.1	-3		1409	-1.3	-40
	1856	6.5	198		1834	6.8	207	●	1958	6.4	195	○	2004	-7.7	235
5 Sa	0117	-0.2	-6	20 Su	0056	-1.2	-37	5 Tu	0215	-0.1	-3	20 W	0228	-1.8	-55
	0732	7.4	226		0702	8.3	253		0828	7.1	216		0829	8.5	259
	1359	-0.1	-3		1338	-0.9	-27	●	1449	-0.1	-3		1458	-1.5	-46
●	1939	6.5	198		1928	7.1	216		2035	6.5	198		2056	7.8	238
6 Su	0158	-0.1	-3	21 M	0150	-1.6	-49	6 W	0252	-0.1	-3	21 Th	0319	-1.8	-55
	0812	7.4	226		0755	8.5	259		0904	7.0	213		0919	8.3	253
	1439	0.0	0		1430	-1.2	-37		1524	-0.1	-3		1545	-1.4	-43
	2019	6.4	195	○	2020	7.3	223		2111	6.5	198		2147	7.8	238
7 M	0237	0.0	0	22 Tu	0243	-1.7	-52	7 Th	0328	0.0	0	22 F	0409	-1.5	-46
	0850	7.2	219		0846	8.6	262		0938	6.8	207		1009	8.0	244
	1516	0.0	0		1520	-1.3	-40		1558	-0.1	-3		1632	-1.2	-37
	2058	6.3	192		2113	7.4	226		2147	6.4	195		2240	7.7	235
8 Tu	0314	0.1	3	23 W	0335	-1.7	-52	8 F	0404	0.1	3	23 Sa	0500	-1.1	-34
	0927	7.0	213		0938	8.4	256		1011	6.6	201		1100	7.5	229
	1552	0.1	3		1608	-1.3	-40		1632	0.0	0		1718	-0.8	-24
	2137	6.2	189		2207	7.3	223		2224	6.4	195		2335	7.4	226
9 W	0350	0.2	6	24 Th	0426	-1.5	-46	9 Sa	0441	0.3	9	24 Su	0552	-0.5	-15
	1005	6.8	207		1031	8.1	247		1047	6.4	195		1153	7.0	213
	1628	0.3	9		1657	-1.1	-34		1708	0.1	3		1807	-0.4	-12
	2217	6.1	186		2304	7.3	223		2303	6.4	195				
10 Th	0427	0.4	12	25 F	0519	-1.0	-30	10 Su	0520	0.5	15	25 M	0030	7.1	216
	1043	6.6	201		1125	7.7	235		1126	6.1	186		0647	0.1	3
	1704	0.4	12		1746	-0.8	-24		1748	0.2	6		1246	6.5	198
	2259	6.0	183						2349	6.4	195		1859	0.1	3
11 F	0505	0.6	18	26 Sa	0002	7.1	216	11 M	0606	0.7	21	26 Tu	0125	6.9	210
	1123	6.3	192		0614	-0.5	-15		1212	6.0	183		0748	0.5	15
	1742	0.5	15		1220	7.2	219		1833	0.3	9		1340	6.2	189
	2343	6.0	183		1839	-0.5	-15					○	1957	0.5	15
12 Sa	0547	0.8	24	27 Su	0100	7.0	213	12 Tu	0039	6.5	198	27 W	0222	6.6	201
	1207	6.1	186		0714	-0.1	-3		0701	0.8	24		0851	0.8	24
	1825	0.6	18	●	1315	6.8	207	○	1305	5.9	180		1435	5.9	180
					1935	-0.2	-6		1928	0.4	12		2100	0.7	21
13 Su	0031	6.0	183	28 M	0157	6.9	210	13 W	0136	6.6	201	28 Th	0319	6.5	198
	0637	1.0	30		0818	0.3	9		0806	0.9	27		0952	0.8	24
	1254	6.0	183		1410	6.4	195		1404	5.8	177		1531	5.9	180
	1913	0.6	18		2035	0.1	3		2030	0.3	9		2200	0.8	24
14 M	0122	6.2	189	29 Tu	0254	6.8	207	14 Th	0236	6.8	207	14 Th	0107	7.0	213
	0735	1.1	34		0923	0.5	15		0917	0.8	24		0742	0.8	24
	1346	5.9	180		1505	6.1	186		1506	5.9	180	●	1339	6.0	183
○	2008	0.5	15		2134	0.2	6		2136	0.1	3		2004	0.4	12
15 Tu	0216	6.4	195	30 W	0352	6.7	204	15 F	0340	7.1	216	15 F	0211	7.1	216
	0841	1.0	30		1023	0.5	15		1024	0.4	12		0853	0.8	24
	1441	5.9	180		1601	6.0	183		1611	6.1	186		1445	6.1	186
	2107	0.3	9		2231	0.2	6		2240	-0.3	-9		2114	0.2	6
				31 Th	0448	6.8	207								
					1117	0.4	12								
					1655	6.0	183								
					2322	0.2	6								
												31 Su	0434	6.5	198
													1059	0.9	27
													1648	6.3	192
													2313	0.9	27

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

Savannah River Entrance, Georgia, 2019

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 M	0525 1144 1738	6.6 0.6 6.6	201 -18 201	16 Tu	0505 1138 1741	7.7 -0.4 7.7	235 -12 235	1 W	0530 1144 1747	6.6 0.4 7.1	201 -12 216	16 Th	0538 1205 1816	7.5 -0.7 8.2	229 -21 250	1 Sa	0023 0617 1230 1836	0.5 6.5 -0.1 7.8	15 198 -3 238	16 Su	0116 0655 1317 1931	-0.3 6.8 -0.4 8.0	-9 207 -12 244
2 Tu	0000 0612 1226 1823	0.7 6.8 0.4 6.9	21 207 -12 210	17 W	0007 0603 1230 1836	-0.7 7.9 -0.8 8.1	-21 241 -30 247	2 Th	0011 0615 1226 1830	0.7 6.7 0.2 7.4	21 204 6 226	17 F	0044 0631 1254 1906	-0.6 7.4 -0.7 8.4	-18 226 -21 256	2 Su	0110 0702 1316 1920	0.2 6.6 -0.3 8.1	6 201 -9 247	17 M	0204 0742 1402 2015	-0.2 6.7 -0.2 7.9	-6 204 -6 241
3 W	0044 0654 1306 1904	0.4 6.9 0.1 7.2	12 210 -3 219	18 Th	0102 0655 1320 1926	-1.0 8.0 -1.0 8.4	-30 244 -30 256	3 F	0055 0656 1307 1910	0.4 6.8 0.0 7.7	12 207 0 235	18 Sa	0135 0720 1342 1952	-0.7 7.3 -0.7 8.4	-21 223 -21 256	3 M	0158 0745 1403 2003	-0.1 6.6 -0.4 8.2	-3 201 -12 250	18 Tu	0249 0827 1446 2057	-0.1 6.6 0.0 7.7	-3 201 0 235
4 Th	0125 0732 1344 1942	0.2 7.0 0.0 7.4	6 213 0 226	19 F	0154 0745 1408 2014	-1.1 7.9 -1.0 8.5	-34 241 -30 259	4 Sa	0139 0735 1348 1948	0.2 6.8 -0.1 7.9	6 207 -3 241	19 Su	0224 0807 1427 2037	-0.6 7.2 -0.5 8.2	-18 219 -15 250	4 Tu	0244 0830 1450 2049	-0.2 6.6 -0.5 8.3	-6 201 -15 253	19 W	0331 0911 1527 2140	0.0 6.4 0.3 7.4	0 195 9 226
5 F	0205 0808 1421 2017	0.1 7.0 -0.1 7.5	3 213 -3 229	20 Sa	0244 0832 1453 2101	-1.1 7.7 -0.9 8.4	-34 235 -27 256	5 Su	0221 0813 1429 2026	0.0 6.8 -0.2 8.0	0 207 -6 244	20 M	0311 0852 1511 2121	-0.5 6.9 -0.2 8.0	-15 210 -6 244	5 W	0331 0917 1538 2138	-0.3 6.6 -0.5 8.2	-9 201 -15 250	20 Th	0411 0956 1607 2224	0.2 6.2 0.6 7.1	6 189 18 216
6 Sa	0244 0842 1458 2051	0.0 6.9 -0.1 7.6	0 210 -3 232	21 Su	0332 0918 1537 2147	-0.8 7.4 -0.5 8.1	-24 226 -15 247	6 M	0304 0852 1511 2106	-0.1 6.7 -0.2 8.0	-3 204 -6 244	21 Tu	0355 0938 1553 2206	-0.2 6.6 0.2 7.6	-6 201 6 232	6 Th	0419 1010 1628 2231	-0.3 6.6 -0.4 8.0	-9 201 -12 244	21 F	0451 1043 1647 2309	0.4 6.1 0.9 6.8	12 186 27 207
7 Su	0323 0916 1536 2127	0.0 6.7 -0.1 7.6	0 204 -3 232	22 M	0418 1006 1620 2235	-0.5 7.0 -0.1 7.7	-15 213 -3 235	7 Tu	0347 0933 1555 2150	-0.1 6.6 -0.1 7.9	-3 201 -3 241	22 W	0438 1025 1634 2254	0.1 6.4 0.5 7.2	3 195 15 219	7 Th	0509 1108 1721 2329	-0.3 6.6 -0.2 7.9	-9 201 -6 241	22 Sa	0530 1132 1728 2355	0.6 6.0 1.1 6.6	18 183 34 201
8 M	0403 0952 1615 2207	0.1 6.6 0.0 7.5	3 201 0 229	23 Tu	0503 1055 1703 2325	0.0 6.6 0.4 7.3	0 201 12 223	8 W	0432 1021 1641 2240	0.0 6.4 0.0 7.8	0 195 0 238	23 Th	0520 1115 1716 2343	0.5 6.1 0.9 6.9	15 186 27 210	8 Sa	0601 1210 1819	-0.2 6.6 0.0	-6 201 0	23 Su	0611 1221 1813	0.7 6.0 1.3	21 183 40
9 Tu	0445 1034 1657 2254	0.2 6.4 0.1 7.5	6 195 3 229	24 W	0549 1146 1748	0.4 6.3 0.8	12 192 24	9 Th	0520 1116 1732 2338	0.1 6.4 0.1 7.7	3 195 3 235	24 F	0604 1206 1801	0.8 6.0 1.3	24 183 40	9 Su	0029 0658 1312 1922	7.7 -0.1 6.8 0.2	235 -3 207 6	24 M	0042 0655 1309 1905	6.4 0.8 6.1 1.5	195 24 186 46
10 W	0531 1125 1745 2348	0.4 6.2 0.3 7.4	12 189 9 226	25 Th	0017 0639 1238 1838	6.9 0.9 6.1 1.2	210 27 186 37	10 F	0614 1217 1829	0.3 6.4 0.3	9 195 9	25 Sa	0033 0651 1258 1852	6.6 1.0 6.0 1.5	201 30 183 46	10 M	0128 0757 1411 2029	7.5 -0.1 7.0 0.3	229 -3 213 9	25 Tu	0129 0743 1357 2003	6.2 0.8 6.3 1.5	189 24 192 46
11 Th	0624 1223 1841	0.6 6.2 0.5	18 189 15	26 F	0110 0732 1332 1935	6.6 1.1 6.0 1.5	201 34 183 46	11 Sa	0039 0713 1320 1934	7.5 0.4 6.5 0.4	229 12 198 12	26 Su	0124 0741 1349 1950	6.4 1.1 6.1 1.6	195 34 186 49	11 Tu	0225 0857 1510 2134	7.3 -0.2 7.3 0.2	223 -6 223 6	26 W	0216 0833 1445 2103	6.2 0.7 6.6 1.4	189 21 201 43
12 F	0049 0726 1327 1946	7.3 0.7 6.2 0.5	223 21 189 15	27 Sa	0203 0829 1425 2038	6.4 1.2 6.0 1.6	195 37 183 49	12 Su	0141 0817 1423 2043	7.5 0.3 6.7 0.4	229 9 204 12	27 M	0213 0833 1439 2051	6.3 1.0 6.2 1.6	192 30 189 49	12 W	0322 0954 1607 2235	7.2 -0.3 7.6 0.0	219 -9 232 0	27 Th	0305 0924 1534 2201	6.1 0.5 6.9 1.2	186 15 210 37
13 Sa	0154 0834 1432 2057	7.3 0.6 6.4 0.4	223 18 195 12	28 Su	0257 0924 1518 2140	6.4 1.2 6.2 1.5	195 37 189 46	13 M	0243 0920 1524 2150	7.4 0.1 7.1 0.1	226 3 216 3	28 Tu	0303 0924 1529 2150	6.3 0.8 6.5 1.4	192 24 198 43	13 Th	0418 1048 1703 2332	7.1 -0.5 7.8 -0.1	216 -15 238 -3	28 F	0355 1015 1624 2257	6.1 0.3 7.2 0.9	186 9 219 27
14 Su	0259 0941 1537 2205	7.4 0.4 6.7 0.1	226 12 204 3	29 M	0350 1014 1611 2235	6.4 1.0 6.4 1.2	195 30 195 37	14 Tu	0343 1019 1625 2252	7.4 -0.2 7.5 -0.1	226 -6 229 -3	29 W	0353 1012 1618 2244	6.3 0.6 6.8 1.1	192 18 207 34	14 Th	0513 1140 1755	7.0 -0.5 8.0	213 -15 244	29 Sa	0447 1106 1714 2350	6.2 0.0 7.6 0.5	189 0 232 15
15 M	0403 1042 1641 2308	7.6 0.0 7.2 -0.3	232 0 219 -9	30 Tu	0441 1100 1701 2324	6.5 0.7 6.8 1.0	198 21 207 30	15 W	0442 1113 1722 2350	7.5 -0.5 7.9 -0.4	229 -15 241 -12	30 Th	0443 1059 1706 2334	6.3 0.3 7.2 0.8	192 9 219 24	15 Sa	0025 0606 1229 1845	-0.2 6.9 -0.5 8.1	-6 210 -15 247	30 Su	0539 1157 1804	6.3 -0.2 7.9	192 -6 241
												31 F	0531 1145 1752	6.4 0.1 7.5	195 3 229								

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

Savannah River Entrance, Georgia, 2019

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	h m	ft cm	h m	ft cm
1 M	0042 0.2 6 0630 6.5 198 1248 -0.5 -15 1854 8.2 250	16 Tu	0140 0.1 3 0719 6.5 198 1339 0.1 3 1953 7.7 235	1 Th	0203 -0.5 -15 0751 7.3 223 1414 -1.0 -30 2017 8.8 268	16 F	0235 0.4 12 0819 6.8 207 1438 0.6 18 2048 7.4 226	1 Su	0319 -0.9 -27 0920 8.3 253 1544 -0.8 -24 2141 8.6 262	16 M	0313 0.6 18 0905 7.4 226 1528 0.9 27 2127 7.2 219
2 Tu	0134 -0.1 -3 0720 6.7 204 1340 -0.7 -21 1943 8.4 256	17 W	0224 0.1 3 0803 6.5 198 1422 0.3 9 2034 7.5 229	2 F	0254 -0.7 -21 0845 7.5 229 1508 -1.0 -30 2109 8.7 265	17 Sa	0311 0.4 12 0859 6.8 207 1516 0.7 21 2124 7.3 223	2 M	0408 -0.8 -24 1016 8.3 253 1636 -0.5 -15 2234 8.2 250	17 Tu	0348 0.6 18 0941 7.4 226 1605 1.1 34 2202 6.9 210
3 W	0224 -0.4 -12 0810 6.8 207 1432 -0.8 -24 2033 8.5 259	18 Th	0304 0.2 6 0845 6.4 195 1502 0.4 12 2114 7.3 223	3 Sa	0343 -0.9 -27 0941 7.6 232 1601 -0.9 -27 2203 8.5 259	18 Su	0346 0.5 15 0937 6.8 207 1553 0.9 27 2200 7.0 213	3 Tu	0456 -0.5 -15 1113 8.2 250 1730 -0.1 -3 2329 7.7 235	18 W	0424 0.7 21 1018 7.4 226 1645 1.2 37 2239 6.7 204
4 Th	0314 -0.6 -18 0902 6.9 210 1523 -0.8 -24 2125 8.4 256	19 F	0343 0.3 9 0928 6.4 195 1541 0.6 18 2154 7.1 216	4 Su	0432 -0.8 -24 1039 7.6 232 1654 -0.6 -18 2258 8.2 250	19 M	0421 0.6 18 1016 6.8 207 1630 1.1 34 2237 6.8 207	4 W	0545 -0.2 -6 1211 8.0 244 1826 0.4 12	19 Th	0502 0.9 27 1101 7.3 223 1728 1.4 43 2324 6.5 198
5 F	0403 -0.7 -21 0957 6.9 210 1615 -0.7 -21 2220 8.3 253	20 Sa	0419 0.4 12 1010 6.3 192 1619 0.8 24 2235 6.9 210	5 M	0522 -0.7 -21 1138 7.6 232 1750 -0.3 -9 2354 7.8 238	20 Tu	0456 0.7 21 1057 6.8 207 1709 1.2 37 2317 6.5 198	5 Th	0025 7.3 223 0638 0.3 9 1308 7.8 238 1926 0.8 24	20 F	0545 1.0 30 1151 7.4 226 1817 1.5 46
6 Sa	0453 -0.7 -21 1057 7.0 213 1709 -0.5 -15 2316 8.0 244	21 Su	0455 0.5 15 1054 6.3 192 1658 1.0 30 2316 6.6 201	6 Tu	0613 -0.5 -15 1237 7.6 232 1848 0.1 3	21 W	0534 0.8 24 1141 6.8 207 1753 1.4 43	6 F	0120 7.0 213 0735 0.7 21 1404 7.6 232 2029 1.1 34	21 Sa	0016 6.4 195 0635 1.1 34 1247 7.5 229 1916 1.6 49
7 Su	0544 -0.6 -18 1158 7.1 216 1806 -0.2 -6	22 M	0533 0.6 18 1140 6.3 192 1739 1.2 37 2359 6.4 195	7 W	0049 7.4 226 0707 -0.2 -6 1334 7.6 232 1951 0.5 15	22 Th	0001 6.4 195 0617 0.8 24 1229 6.9 210 1844 1.5 46	7 Sa	0215 6.8 207 0836 0.9 27 1500 7.5 229 2130 1.2 37	22 Su	0114 6.4 195 0734 1.0 30 1346 7.6 232 2022 1.5 46
8 M	0014 7.7 235 0638 -0.5 -15 1257 7.2 219 1907 0.1 3	23 Tu	0612 0.7 21 1226 6.4 195 1826 1.4 43	8 Th	0144 7.1 216 0805 0.1 3 1430 7.6 232 2055 0.7 21	23 F	0050 6.3 192 0706 0.9 27 1320 7.1 216 1943 1.5 46	8 Su	0309 6.6 201 0936 1.0 30 1554 7.4 226 2226 1.2 37	23 M	0215 6.6 201 0840 0.9 27 1448 7.8 238 2129 1.2 37
9 Tu	0110 7.4 226 0734 -0.3 -9 1355 7.4 226 2011 0.3 9	24 W	0044 6.3 192 0657 0.7 21 1313 6.5 198 1919 1.5 46	9 F	0238 6.8 207 0904 0.3 9 1525 7.6 232 2155 0.7 21	24 Sa	0143 6.3 192 0803 0.8 24 1415 7.3 223 2048 1.4 43	9 M	0403 6.6 201 1031 1.0 30 1647 7.5 229 2315 1.1 34	24 Tu	0318 6.8 207 0946 0.6 18 1550 8.1 247 2231 0.8 24
10 W	0205 7.2 219 0832 -0.3 -9 1452 7.5 229 2116 0.3 9	25 Th	0131 6.2 189 0746 0.7 21 1401 6.8 207 2019 1.4 43	10 Sa	0332 6.6 201 1001 0.4 12 1620 7.6 232 2251 0.7 21	25 Su	0239 6.3 192 0905 0.7 21 1513 7.6 232 2153 1.2 37	10 Tu	0456 6.7 204 1122 0.9 27 1737 7.5 229	25 W	0421 7.2 219 1049 0.2 6 1652 8.4 256 2329 0.3 9
11 Th	0300 6.9 210 0929 -0.2 -6 1547 7.6 232 2217 0.3 9	26 F	0220 6.1 186 0840 0.6 18 1452 7.1 216 2122 1.3 40	11 Su	0427 6.5 198 1054 0.4 12 1713 7.6 232 2342 0.6 18	26 M	0339 6.5 198 1007 0.3 9 1613 7.9 241 2254 0.8 24	11 W	0001 0.9 27 0545 6.9 210 1208 0.8 24 1822 7.6 232	26 Th	0522 7.7 235 1149 -0.3 -9 1750 8.7 265
12 F	0355 6.7 204 1024 -0.2 -6 1642 7.7 235 2313 0.2 6	27 Sa	0313 6.2 189 0937 0.4 12 1545 7.4 226 2222 1.0 30	12 M	0520 6.5 198 1144 0.4 12 1803 7.6 232	27 Tu	0440 6.8 207 1107 0.0 0 1713 8.3 253 2352 0.3 9	12 Th	0043 0.8 24 0631 7.1 216 1252 0.8 24 1904 7.7 235	27 F	0023 -0.1 -3 0620 8.2 250 1246 -0.6 -18 1845 8.9 271
13 Sa	0449 6.6 201 1116 -0.1 -3 1735 7.7 235	28 Su	0409 6.3 192 1033 0.1 3 1641 7.7 235 2320 0.6 18	13 Tu	0030 0.6 18 0609 6.6 201 1232 0.4 12 1848 7.6 232	28 W	0540 7.2 219 1205 -0.4 -12 1811 8.7 265	13 F	0123 0.6 18 0713 7.3 223 1333 0.7 21 1942 7.7 235	28 Sa	0115 -0.5 -15 0714 8.6 262 1341 -0.8 -24 1936 8.9 271
14 Su	0005 0.2 6 0542 6.5 198 1206 -0.1 -3 1824 7.8 238	29 M	0506 6.5 198 1129 -0.2 -6 1737 8.1 247	14 W	0114 0.5 15 0656 6.7 204 1316 0.4 12 1930 7.6 232	29 Th	0047 -0.1 -3 0638 7.6 232 1302 -0.7 -21 1905 8.9 271	14 Sa	0201 0.6 18 0752 7.4 226 1413 0.8 24 2019 7.6 232	29 Su	0205 -0.7 -21 0806 8.8 268 1434 -0.8 -24 2026 8.8 268
15 M	0054 0.1 3 0632 6.5 198 1254 0.0 0 1910 7.8 238	30 Tu	0016 0.2 6 0602 6.7 204 1225 -0.5 -15 1831 8.4 256	15 Th	0156 0.4 12 0739 6.8 207 1358 0.5 15 2010 7.6 232	30 F	0139 -0.5 -15 0733 8.0 244 1357 -0.9 -27 1958 9.0 274	15 Su	0238 0.5 15 0829 7.4 226 1451 0.8 24 2054 7.4 226	30 M	0254 -0.8 -24 0858 8.9 271 1526 -0.6 -18 2116 8.5 259
		31 W	0110 -0.1 -3 0657 7.0 213 1320 -0.8 -24 1925 8.7 265			31 Sa	0230 -0.8 -24 0826 8.2 250 1451 -1.0 -30 2049 8.9 271				

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

Fernandina Beach, Amelia River, Florida, 2019

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M	0607 5.9 180 1206 0.5 15 1822 5.7 174	16 Tu	0556 6.8 207 1154 -0.5 -15 1826 6.8 207	1 W	0610 5.8 177 1206 0.3 9 1832 6.2 189	16 Th	0007 -0.4 -12 0629 6.5 198 1222 -0.7 -21 1903 7.2 219	1 Sa	0048 0.3 9 0701 5.6 171 1250 -0.2 -6 1925 6.8 207	16 Su	0137 -0.4 -12 0747 5.8 177 1335 -0.6 -18 2021 7.1 216
2 Tu	0022 0.5 15 0652 6.0 183 1249 0.3 9 1906 6.0 183	17 W	0023 -0.6 -18 0653 6.9 210 1248 -0.7 -21 1922 7.2 219	2 Th	0035 0.5 15 0655 5.9 180 1248 0.1 3 1915 6.5 198	17 F	0103 -0.6 -18 0721 6.4 195 1312 -0.8 -24 1954 7.4 226	2 Su	0134 0.0 0 0747 5.7 174 1334 -0.4 -12 2010 7.0 213	17 M	0224 -0.4 -12 0834 5.7 174 1421 -0.4 -12 2107 6.9 210
3 W	0107 0.3 9 0733 6.1 186 1328 0.1 3 1948 6.2 189	18 Th	0120 -0.9 -27 0745 7.0 213 1338 -0.9 -27 2013 7.5 229	3 F	0120 0.3 9 0738 5.9 180 1328 -0.1 -3 1957 6.7 204	18 Sa	0155 -0.7 -21 0811 6.3 192 1400 -0.8 -24 2042 7.4 226	3 M	0219 -0.2 -6 0833 5.7 174 1418 -0.6 -18 2056 7.1 216	18 Tu	0309 -0.3 -9 0920 5.5 168 1504 -0.2 -6 2150 6.7 204
4 Th	0149 0.2 6 0813 6.2 189 1405 0.0 0 2028 6.4 195	19 F	0213 -1.0 -30 0835 6.9 210 1425 -1.0 -30 2104 7.6 232	4 Sa	0202 0.1 3 0820 5.9 180 1407 -0.2 -6 2038 6.8 207	19 Su	0244 -0.6 -18 0859 6.2 189 1445 -0.6 -18 2129 7.3 223	4 Tu	0303 -0.3 -9 0920 5.7 174 1503 -0.6 -18 2143 7.1 216	19 W	0351 -0.1 -3 1004 5.4 165 1546 0.1 3 2232 6.5 198
5 F	0228 0.0 0 0852 6.1 186 1440 -0.1 -3 2106 6.5 198	20 Sa	0303 -0.9 -27 0924 6.7 204 1511 -0.9 -27 2152 7.5 229	5 Su	0243 -0.1 -3 0901 5.9 180 1445 -0.3 -9 2118 6.9 210	20 M	0331 -0.5 -15 0946 6.0 183 1529 -0.4 -12 2215 7.0 213	5 W	0348 -0.4 -12 1009 5.7 174 1549 -0.6 -18 2233 7.1 216	20 Th	0433 0.1 3 1047 5.3 162 1627 0.4 12 2312 6.2 189
6 Sa	0306 0.0 0 0930 6.0 183 1515 -0.1 -3 2143 6.6 201	21 Su	0351 -0.7 -21 1011 6.5 198 1556 -0.6 -18 2239 7.3 223	6 M	0323 -0.1 -3 0943 5.8 177 1525 -0.3 -9 2201 6.9 210	21 Tu	0416 -0.2 -6 1031 5.7 174 1612 0.0 0 2259 6.7 204	6 Th	0436 -0.4 -12 1100 5.7 174 1639 -0.5 -15 2324 7.0 213	21 F	0515 0.3 9 1129 5.2 158 1710 0.6 18 2352 5.9 180
7 Su	0343 0.0 0 1007 5.9 180 1550 -0.1 -3 2221 6.6 201	22 M	0439 -0.4 -12 1057 6.1 186 1640 -0.2 -6 2325 6.9 210	7 Tu	0405 -0.1 -3 1027 5.7 174 1606 -0.2 -6 2245 6.9 210	22 W	0501 0.1 3 1115 5.5 168 1656 0.4 12 2342 6.4 195	7 F	0527 -0.3 -9 1153 5.7 174 1735 -0.3 -9	22 Sa	0558 0.5 15 1212 5.2 158 1756 0.9 27
8 M	0422 0.1 3 1046 5.8 177 1628 0.0 0 2301 6.6 201	23 Tu	0527 0.0 0 1143 5.8 177 1727 0.2 6	8 W	0451 0.0 0 1112 5.7 174 1653 -0.1 -3 2334 6.8 207	23 Th	0547 0.4 12 1159 5.3 162 1742 0.7 21	8 Sa	0017 6.8 207 0622 -0.2 -6 1249 5.8 177 1836 -0.1 -3	23 Su	0033 5.7 174 0642 0.5 15 1257 5.2 158 1848 1.1 34
9 Tu	0505 0.2 6 1127 5.6 171 1710 0.1 3 2345 6.5 198	24 W	0011 6.5 198 0618 0.4 12 1229 5.5 168 1817 0.7 21	9 Th	0541 0.1 3 1202 5.6 171 1746 0.0 0	24 F	0025 6.1 186 0636 0.6 18 1244 5.2 158 1833 1.0 30	9 Su	0111 6.6 201 0721 -0.3 -9 1347 5.9 180 1942 0.0 0	24 M	0115 5.5 168 0729 0.6 18 1343 5.3 162 1944 1.1 34
10 W	0554 0.4 12 1212 5.5 168 1800 0.2 6	25 Th	0058 6.2 189 0712 0.7 21 1316 5.3 162 1912 1.0 30	10 F	0025 6.7 204 0637 0.2 6 1256 5.6 171 1847 0.2 6	25 Sa	0109 5.8 177 0726 0.7 21 1332 5.1 155 1929 1.2 37	10 M	0209 6.4 195 0819 -0.3 -9 1449 6.1 186 2048 0.1 3	25 Tu	0200 5.4 165 0815 0.5 15 1433 5.4 165 2041 1.1 34
11 Th	0035 6.4 195 0651 0.5 15 1303 5.4 165 1859 0.3 9	26 F	0147 5.9 180 0806 0.9 27 1407 5.2 158 2010 1.2 37	11 Sa	0122 6.6 201 0738 0.2 6 1356 5.7 174 1953 0.2 6	26 Su	0156 5.6 171 0816 0.8 24 1422 5.2 158 2027 1.2 37	11 Tu	0309 6.3 192 0916 -0.5 -15 1553 6.3 192 2151 0.0 0	26 W	0250 5.3 162 0902 0.4 12 1526 5.6 171 2136 1.0 30
12 F	0132 6.4 195 0753 0.5 15 1403 5.4 165 2005 0.3 9	27 Sa	0240 5.7 174 0859 0.9 27 1502 5.2 158 2109 1.2 37	12 Su	0223 6.5 198 0839 0.1 3 1501 5.8 177 2100 0.2 6	27 M	0246 5.5 168 0904 0.7 21 1516 5.3 162 2124 1.2 37	12 W	0410 6.1 186 1011 -0.6 -18 1654 6.6 201 2252 -0.1 -3	27 Th	0343 5.2 158 0949 0.2 6 1620 5.9 180 2229 0.8 24
13 Sa	0237 6.3 192 0857 0.4 12 1510 5.6 171 2113 0.2 6	28 Su	0336 5.6 171 0949 0.8 24 1559 5.3 162 2205 1.1 34	13 M	0328 6.4 195 0938 -0.1 -3 1608 6.1 186 2205 0.0 0	28 Tu	0339 5.4 165 0950 0.5 15 1611 5.6 171 2218 1.0 30	13 Th	0509 6.0 183 1105 -0.6 -18 1751 6.9 210 2350 -0.2 -6	28 F	0438 5.2 158 1037 0.0 0 1713 6.2 189 2322 0.5 15
14 Su	0347 6.4 195 0959 0.2 6 1621 5.9 180 2219 -0.1 -3	29 M	0431 5.6 171 1037 0.7 21 1654 5.6 171 2258 1.0 30	14 Tu	0433 6.4 195 1035 -0.4 -12 1711 6.5 198 2308 -0.2 -6	29 W	0433 5.4 165 1036 0.3 9 1704 5.9 180 2309 0.8 24	14 F	0605 6.0 183 1157 -0.7 -21 1844 7.0 213	29 Sa	0532 5.3 162 1126 -0.2 -6 1805 6.5 198
15 M	0455 6.6 201 1058 -0.1 -3 1727 6.3 192 2323 -0.3 -9	30 Tu	0523 5.7 174 1122 0.5 15 1745 5.9 180 2348 0.7 21	15 W	0533 6.4 195 1129 -0.6 -18 1809 6.9 210	30 Th	0525 5.5 168 1121 0.1 3 1753 6.2 189 2359 0.5 15	15 Sa	0045 -0.3 -9 0657 5.9 180 1247 -0.6 -18 1934 7.1 216	30 Su	0014 0.2 6 0624 5.4 165 1215 -0.4 -12 1855 6.8 207
						31 F	0614 5.5 168 1206 -0.1 -3 1840 6.5 198				

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

Fernandina Beach, Amelia River, Florida, 2019

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 M	0105 0.0 0 0715 5.6 171 1305 -0.6 -18 1945 7.1 216	16 Tu	0202 -0.1 -3 0809 5.5 168 1358 -0.1 -3 2043 6.7 204	1 Th	0220 -0.6 -18 0838 6.2 189 1428 -1.0 -30 2109 7.6 232	16 F	0256 0.3 9 0908 5.8 177 1458 0.4 12 2134 6.5 198	1 Su	0335 -0.8 -24 1009 7.4 226 1600 -0.7 -21 2232 7.6 232	16 M	0332 0.5 15 0956 6.5 198 1550 0.8 24 2217 6.3 192
2 Tu	0154 -0.3 -9 0806 5.7 174 1355 -0.8 -24 2036 7.2 219	17 W	0245 0.0 0 0853 5.5 168 1441 0.0 0 2124 6.5 198	2 F	0310 -0.8 -24 0933 6.4 195 1521 -1.0 -30 2201 7.5 229	17 Sa	0331 0.3 9 0948 5.8 177 1536 0.5 15 2211 6.3 192	2 M	0424 -0.7 -21 1103 7.4 226 1654 -0.4 -12 2323 7.2 219	17 Tu	0405 0.6 18 1034 6.5 198 1627 1.0 30 2254 6.2 189
3 W	0242 -0.5 -15 0858 5.8 177 1444 -0.9 -27 2127 7.3 223	18 Th	0325 0.0 0 0936 5.4 165 1521 0.2 6 2204 6.4 195	3 Sa	0359 -0.9 -27 1029 6.6 201 1614 -0.9 -27 2254 7.4 226	18 Su	0406 0.4 12 1027 5.9 180 1614 0.7 21 2248 6.1 186	3 Tu	0514 -0.5 -15 1157 7.4 226 1751 0.0 0	18 W	0439 0.7 21 1112 6.5 198 1708 1.1 34 2332 6.0 183
4 Th	0330 -0.6 -18 0952 5.9 180 1535 -0.9 -27 2219 7.3 223	19 F	0403 0.2 6 1018 5.4 165 1601 0.4 12 2242 6.2 189	4 Su	0449 -0.8 -24 1124 6.7 204 1710 -0.6 -18 2345 7.1 216	19 M	0441 0.5 15 1106 5.9 180 1653 0.9 27 2325 6.0 183	4 W	0014 6.9 210 0607 -0.2 -6 1251 7.2 219 1851 0.4 12	19 Th	0518 0.8 24 1153 6.5 198 1754 1.3 40
5 F	0419 -0.7 -21 1046 6.0 183 1627 -0.8 -24 2311 7.2 219	20 Sa	0441 0.3 9 1059 5.4 165 1641 0.6 18 2320 6.0 183	5 M	0541 -0.7 -21 1219 6.8 207 1810 -0.3 -9	20 Tu	0517 0.6 18 1146 5.9 180 1736 1.1 34	5 Th	0106 6.5 198 0703 7.1 3 1347 0.0 213 1953 0.6 18	20 F	0013 5.9 180 0602 0.9 27 1238 6.5 198 1847 1.4 43
6 Sa	0510 -0.7 -21 1141 6.1 186 1724 -0.5 -15	21 Su	0519 0.4 12 1140 5.4 165 1723 0.8 24 2358 5.8 177	6 Tu	0037 6.8 207 0635 -0.5 -15 1315 6.8 207 1912 0.0 0	21 W	0003 5.8 177 0556 0.6 18 1227 6.0 183 1824 1.2 37	6 F	0200 6.1 186 0801 0.4 12 1445 6.8 207 2054 0.8 24	21 Sa	0059 5.8 177 0655 0.9 27 1329 6.6 201 1947 1.4 43
7 Su	0003 7.0 213 0604 -0.6 -18 1237 6.2 189 1825 -0.3 -9	22 M	0559 0.5 15 1221 5.4 165 1810 1.0 30	7 W	0130 6.4 195 0732 -0.4 -12 1412 6.7 204 2015 0.3 9	22 Th	0043 5.6 171 0640 0.7 21 1311 6.1 186 1919 1.2 37	7 Sa	0256 5.9 180 0859 0.6 18 1544 6.7 204 2151 0.9 27	22 Su	0151 5.7 174 0755 0.8 24 1428 6.7 204 2049 1.2 37
8 M	0056 6.7 204 0700 -0.6 -18 1334 6.3 192 1929 -0.1 -3	23 Tu	0037 5.6 171 0641 0.5 15 1304 5.5 168 1902 1.1 34	8 Th	0225 6.1 186 0828 -0.2 -6 1512 6.7 204 2117 0.4 12	23 F	0128 5.5 168 0731 0.6 18 1401 6.2 189 2018 1.2 37	8 Su	0354 5.8 177 0955 0.7 21 1642 6.6 201 2245 0.9 27	23 M	0252 5.8 177 0858 0.7 21 1533 6.8 207 2150 1.0 30
9 Tu	0151 6.4 195 0757 -0.5 -15 1433 6.4 195 2034 0.0 0	24 W	0119 5.4 165 0726 0.5 15 1350 5.6 171 1958 1.1 34	9 F	0322 5.8 177 0924 -0.1 -3 1611 6.6 201 2215 0.4 12	24 Sa	0220 5.5 168 0826 0.5 15 1458 6.3 192 2117 1.1 34	9 M	0451 5.8 177 1049 0.8 24 1735 6.6 201 2335 0.9 27	24 Tu	0359 6.0 183 1002 0.4 12 1640 7.1 216 2249 0.7 21
10 W	0248 6.1 186 0853 -0.5 -15 1534 6.5 198 2136 0.1 3	25 Th	0206 5.3 162 0815 0.4 12 1441 5.8 177 2055 1.0 30	10 Sa	0421 5.6 171 1019 0.0 0 1709 6.6 201 2310 0.5 15	25 Su	0318 5.5 168 0924 0.4 12 1601 6.6 201 2216 0.9 27	10 Tu	0544 5.9 180 1140 0.7 21 1823 6.7 204	25 W	0506 6.3 192 1104 0.1 3 1743 7.4 226 2346 0.3 9
11 Th	0346 5.9 180 0948 -0.5 -15 1634 6.6 201 2235 0.1 3	26 F	0258 5.2 158 0905 0.3 9 1536 6.0 183 2151 0.9 27	11 Su	0517 5.6 171 1111 0.1 3 1802 6.7 204	26 M	0422 5.6 171 1023 0.1 3 1704 6.9 210 2314 0.6 18	11 W	0022 0.8 24 0632 6.0 183 1229 0.7 21 1906 6.7 204	26 Th	0608 6.8 207 1205 -0.2 -6 1840 7.7 235
12 F	0445 5.7 174 1041 -0.5 -15 1731 6.7 204 2331 0.0 0	27 Sa	0354 5.2 158 0957 0.1 3 1634 6.3 192 2247 0.6 18	12 M	0002 0.4 12 0610 5.6 171 1203 0.2 6 1850 6.7 204	27 Tu	0525 5.9 180 1123 -0.2 -6 1804 7.2 219	12 Th	0106 0.7 21 0717 6.2 189 1314 0.7 21 1947 6.8 207	27 F	0041 -0.1 -3 0706 7.2 219 1303 -0.5 -15 1934 7.8 238
13 Sa	0541 5.6 171 1133 -0.4 -12 1824 6.8 207	28 Su	0453 5.3 162 1051 -0.1 -3 1732 6.6 201 2343 0.3 9	13 Tu	0051 0.4 12 0658 5.7 174 1251 0.2 6 1935 6.7 204	28 W	0011 0.2 6 0625 6.2 189 1221 -0.5 -15 1901 7.5 229	13 F	0146 0.6 18 0759 6.3 192 1356 0.6 18 2026 6.7 204	28 Sa	0133 -0.4 -12 0801 7.6 232 1358 -0.6 -18 2027 7.9 241
14 Su	0025 0.0 0 0634 5.6 171 1224 -0.3 -9 1913 6.8 207	29 M	0551 5.5 168 1146 -0.4 -12 1828 7.0 213	14 W	0136 0.3 9 0744 5.7 174 1337 0.2 6 2017 6.7 204	29 Th	0105 -0.2 -6 0723 6.6 201 1318 -0.7 -21 1955 7.8 238	14 Sa	0223 0.5 15 0839 6.4 195 1436 0.7 21 2104 6.7 204	29 Su	0222 -0.6 -18 0855 7.9 241 1451 -0.6 -18 2118 7.8 238
15 M	0116 0.0 0 0723 5.5 168 1313 -0.3 -9 1959 6.8 207	30 Tu	0037 0.0 0 0648 5.8 177 1241 -0.7 -21 1922 7.3 223	15 Th	0217 0.3 9 0826 5.8 177 1419 0.3 9 2056 6.6 201	30 F	0157 -0.5 -15 0819 6.9 210 1413 -0.9 -27 2048 7.8 238	15 Su	0258 0.5 15 0918 6.5 198 1513 0.7 21 2141 6.5 198	30 M	0310 -0.7 -21 0948 8.0 244 1543 -0.5 -15 2209 7.5 229
		31 W	0130 -0.3 -9 0743 6.0 183 1335 -0.9 -27 2016 7.5 229			31 Sa	0247 -0.7 -21 0914 7.2 219 1507 -0.9 -27 2141 7.8 238				

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

Mayport, Florida, 2019

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									
1 M	0606	4.3	131	16 Tu	0548	5.1	155	1 W	0606	4.3	131	16 Th	0620	4.8	146								
	1159	0.4	12		1142	-0.3	-9		1157	0.3	9		1208	-0.5	-15								
	1821	4.2	128		1819	5.1	155		1826	4.6	140		1854	5.4	165								
2 Tu	0014	0.4	12	17 W	0010	-0.5	-15	2 Th	0025	0.4	12	17 F	0049	-0.4	-12	2 Su	0120	0.0	0				
	0648	4.5	137		0643	5.2	158		0648	4.4	134		0711	4.8	146		0737	4.1	125				
	1240	0.2	6		1234	-0.5	-15		1236	0.1	3		1256	-0.6	-18		1315	-0.3	-9				
3 W	0057	0.2	6	18 Th	0105	-0.6	-18	3 F	0107	0.2	6	18 Sa	0140	-0.5	-15	3 M	0203	-0.1	-3				
	0728	4.5	137		0734	5.2	158		0729	4.4	134		0800	4.7	143		0824	4.2	128				
	1317	0.1	3		1322	-0.7	-21		1312	0.0	0		1342	-0.6	-18		1357	-0.4	-12				
4 Th	0136	0.1	3	19 F	0156	-0.7	-21	4 Sa	0147	0.1	3	19 Su	0228	-0.4	-12	4 Tu	0247	-0.2	-6				
	0806	4.6	140		0823	5.2	158		0810	4.4	134		0848	4.6	140		0911	4.2	128				
	1352	0.0	0		1408	-0.7	-21		1348	-0.1	-3		1426	-0.4	-12		1441	-0.4	-12				
5 F	0213	0.0	0	20 Sa	0246	-0.7	-21	5 Su	0226	0.0	0	20 M	0315	-0.3	-9	5 W	0333	-0.3	-9				
	0842	4.6	140		0910	5.0	152		0851	4.4	134		0934	4.4	134		1001	4.2	128				
	1424	-0.1	-3		1452	-0.6	-18		1424	-0.2	-6		1510	-0.2	-6		1529	-0.4	-12				
6 Sa	0248	0.0	0	21 Su	0334	-0.5	-15	6 M	0306	0.0	0	21 Tu	0401	-0.1	-3	6 Th	0423	-0.2	-6				
	0919	4.5	137		0957	4.8	146		0933	4.3	131		1019	4.3	131		1052	4.2	128				
	1455	-0.1	-3		1537	-0.4	-12		1502	-0.2	-6		1553	0.0	0		1621	-0.3	-9				
7 Su	0324	0.1	3	22 M	0423	-0.2	-6	7 Tu	0348	0.0	0	22 W	0448	0.1	3	7 F	0516	-0.2	-6				
	0956	4.4	134		1043	4.6	140		1017	4.2	128		1104	4.1	125		1145	4.2	128				
	1528	-0.1	-3		1622	-0.1	-3		1544	-0.1	-3		1638	0.3	9		1719	-0.2	-6				
8 M	0403	0.1	3	23 Tu	0514	0.0	0	8 W	0435	0.1	3	23 Th	0538	0.3	9	8 Sa	0005	5.1	155				
	1034	4.3	131		1130	4.3	131		1103	4.2	128		1149	3.9	119		0614	-0.2	-6				
	1606	0.0	0		1710	0.2	6		1632	0.0	0		1728	0.6	18		1242	4.3	131				
9 Tu	0447	0.2	6	24 W	0608	0.3	9	9 Th	0528	0.2	6	24 F	0013	4.5	137	9 Su	0102	4.9	149				
	1115	4.1	125		1218	4.1	125		1154	4.1	125		1236	3.8	116		0713	-0.2	-6				
	1649	0.1	3		1804	0.6	18		1728	0.1	3		1823	0.8	24		1343	4.3	131				
10 W	0538	0.3	9	25 Th	0047	4.6	140	10 F	0015	5.0	152	25 Sa	0059	4.3	131	10 M	0201	4.7	143				
	1202	4.0	122		0704	0.5	15		0628	0.2	6		0720	0.5	15		0811	-0.3	-9				
	1741	0.2	6		1309	3.9	119		1251	4.1	125		1326	3.8	116		1447	4.5	137				
11 Th	0024	4.7	143	26 F	0141	4.3	131	11 Sa	0113	4.9	149	26 Su	0149	4.1	125	11 Tu	0303	4.6	140				
	0638	0.4	12		0800	0.6	18		0730	0.2	6		0810	0.5	15		0907	-0.3	-9				
	1256	3.9	119		1405	3.8	116		1353	4.2	128		1420	3.8	116		1550	4.7	143				
12 F	0123	4.7	143	27 Sa	0239	4.2	128	12 Su	0217	4.8	146	27 M	0242	4.0	122	12 W	0405	4.5	137				
	0743	0.4	12		0853	0.7	21		0831	0.1	3		0857	0.5	15		1000	-0.4	-12				
	1400	3.9	119		1505	3.8	116		1501	4.3	131		1515	3.9	119		1650	4.9	149				
13 Sa	0231	4.7	143	28 Su	0338	4.1	125	13 M	0324	4.7	143	28 Tu	0336	3.9	119	13 Th	0503	4.4	134				
	0848	0.3	9		0943	0.7	21		0929	-0.1	-3		0942	0.4	12		1053	-0.5	-15				
	1511	4.1	125		1603	3.9	119		1606	4.6	140		1609	4.1	125		1745	5.1	155				
14 Su	0343	4.7	143	29 M	0432	4.1	125	14 Tu	0427	4.8	146	29 W	0428	3.9	119	14 F	0558	4.3	131				
	0949	0.2	6		1030	0.6	18		1024	-0.2	-6		1026	0.3	9		1144	-0.5	-15				
	1620	4.4	134		1655	4.1	125		1707	4.9	149		1700	4.3	131		1837	5.2	158				
15 M	0449	4.9	149	30 Tu	0521	4.2	128	15 W	0526	4.8	146	30 Th	0518	4.0	122	15 Sa	0033	-0.2	-6				
	1048	-0.1	-3		1115	0.4	12		1117	-0.4	-12		1109	0.1	3		0649	4.3	131				
	1722	4.7	143		1743	4.3	131		1802	5.2	158		1747	4.5	137		1232	-0.5	-15				
	2311	-0.2	-6	2340	0.6	18	2355	-0.3	-9	2355	-0.3	-9	2349	0.4	12	1925	5.3	162					

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

Mayport, Florida, 2019

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 Tu	0340 0.0 189 6.2 189 0.2 6 2244 5.7 174	16 W	0311 0.8 24 0953 5.5 168 1544 1.0 30 2214 4.9 149	1 F	0450 0.6 18 1143 5.7 174 1747 0.8 24	16 Sa	0406 0.5 15 1058 5.4 165 1657 0.8 24 2324 4.5 137	1 Su	0511 0.6 18 1159 5.0 152 1808 0.7 21	16 M	0445 -0.1 -3 1133 5.1 155 1736 0.1 3
2 W	0429 0.2 6 1118 6.1 186 1716 0.6 18 2335 5.3 162	17 Th	0346 0.8 24 1032 5.5 168 1625 1.1 34 2254 4.8 146	2 Sa	0000 4.8 146 0545 0.9 27 1234 5.4 165 1845 1.1 34	17 Su	0456 0.6 18 1147 5.3 162 1753 0.8 24	2 M	0017 4.2 128 0606 0.9 27 1246 4.7 143 1901 0.8 24	17 Tu	0004 4.3 131 0545 0.0 0 1226 5.0 152 1834 0.1 3
3 Th	0522 0.5 15 1212 5.8 177 1816 0.9 27	18 F	0426 0.9 27 1115 5.4 165 1713 1.3 40 2338 4.6 140	3 Su	0053 4.6 140 0646 1.2 37 1329 5.1 155 1943 1.2 37	18 M	0016 4.5 137 0555 0.7 21 1241 5.2 158 1854 0.8 24	3 Tu	0108 4.1 125 0705 1.0 30 1336 4.4 134 1953 0.8 24	18 W	0102 4.3 131 0651 0.1 3 1324 4.8 146 1933 0.0 0
4 F	0028 5.0 152 0620 0.8 24 1308 5.5 168 1917 1.1 34	19 Sa	0514 1.0 30 1202 5.4 165 1809 1.3 40	4 M	0150 4.5 137 0748 1.4 43 1427 4.9 149 2038 1.2 37	19 Tu	0115 4.5 137 0703 0.7 21 1342 5.2 158 1956 0.7 21	4 W	0202 4.0 122 0805 1.1 34 1429 4.3 131 2043 0.8 24	19 Th	0205 4.4 134 0800 0.2 6 1426 4.6 140 2032 -0.1 -3
5 Sa	0125 4.8 146 0721 1.1 34 1408 5.3 162 2017 1.2 37	20 Su	0029 4.6 140 0611 1.0 30 1257 5.3 162 1913 1.3 40	5 Tu	0250 4.4 134 0847 1.4 43 1524 4.8 146 2129 1.2 37	20 W	0221 4.6 140 0813 0.7 21 1447 5.1 155 2056 0.5 15	5 Th	0259 4.1 125 0902 1.1 34 1524 4.2 128 2130 0.7 21	20 F	0312 4.6 140 0906 0.1 3 1530 4.5 137 2129 -0.2 -6
6 Su	0226 4.6 140 0822 1.2 37 1510 5.2 158 2114 1.3 40	21 M	0127 4.6 140 0717 1.0 30 1400 5.3 162 2017 1.2 37	6 W	0348 4.5 137 0943 1.4 43 1618 4.8 146 2216 1.1 34	21 Th	0329 4.8 146 0920 0.5 15 1552 5.1 155 2153 0.3 9	6 F	0355 4.2 128 0956 1.0 30 1616 4.2 128 2215 0.6 18	21 Sa	0417 4.8 146 1010 0.1 3 1632 4.5 137 2225 -0.3 -9
7 M	0328 4.6 140 0921 1.3 40 1608 5.1 155 2206 1.3 40	22 Tu	0234 4.7 143 0826 0.9 27 1508 5.4 165 2118 1.0 30	7 Th	0441 4.7 143 1035 1.3 40 1706 4.8 146 2301 1.0 30	22 F	0433 5.1 155 1024 0.4 12 1653 5.2 158 2247 0.1 3	7 Sa	0447 4.4 134 1048 0.9 27 1706 4.2 128 2258 0.5 15	22 Su	0517 5.0 152 1110 -0.1 -3 1731 4.5 137 2319 -0.4 -12
8 Tu	0426 4.7 143 1016 1.3 40 1701 5.2 158 2255 1.2 37	23 W	0344 4.9 149 0933 0.8 24 1614 5.6 171 2216 0.7 21	8 F	0528 4.9 149 1124 1.1 34 1750 4.9 149 2343 0.8 24	23 Sa	0531 5.5 168 1124 0.2 6 1749 5.2 158 2340 -0.1 -3	8 Su	0535 4.6 140 1137 0.7 21 1753 4.2 128 2341 0.3 9	23 M	0612 5.2 158 1207 -0.2 -6 1825 4.5 137
9 W	0517 4.8 146 1107 1.2 37 1747 5.2 158 2341 1.1 34	24 Th	0448 5.3 162 1037 0.5 15 1714 5.7 174 2311 0.4 12	9 Sa	0612 5.1 155 1210 1.0 30 1832 4.9 149	24 Su	0626 5.8 177 1220 0.0 0 1842 5.3 162	9 M	0620 4.8 146 1223 0.6 18 1837 4.3 131	24 Tu	0011 -0.5 -15 0703 5.4 165 1259 -0.3 -9 1916 4.5 137
10 Th	0603 5.0 152 1155 1.1 34 1829 5.3 162	25 F	0546 5.6 171 1137 0.3 9 1809 5.9 180	10 Su	0022 0.7 21 0653 5.2 158 1252 0.9 27 1912 4.9 149	25 M	0030 -0.3 -9 0717 6.0 183 1313 -0.1 -3 1933 5.2 158	10 Tu	0022 0.1 3 0703 5.0 152 1306 0.4 12 1921 4.3 131	25 W	0100 -0.6 -18 0752 5.4 165 1348 -0.4 -12 2005 4.4 134
11 F	0022 1.0 30 0645 5.1 155 1239 1.0 30 1909 5.3 162	26 Sa	0003 0.2 6 0641 6.0 183 1234 0.1 3 1901 5.9 180	11 M	0059 0.6 18 0733 5.4 165 1332 0.8 24 1952 4.9 149	26 Tu	0118 -0.4 -12 0807 6.0 183 1403 -0.2 -6 2022 5.1 155	11 W	0102 0.0 0 0746 5.2 158 1347 0.2 6 2005 4.4 134	26 Th	0147 -0.5 -15 0838 5.3 162 1434 -0.4 -12 2051 4.4 134
12 Sa	0100 0.9 27 0725 5.3 162 1319 0.9 27 1946 5.3 162	27 Su	0053 -0.1 -3 0733 6.3 192 1327 0.0 0 1952 5.9 180	12 Tu	0134 0.5 15 0812 5.5 168 1410 0.7 21 2031 4.9 149	27 W	0205 -0.3 -9 0855 6.0 183 1451 -0.1 -3 2110 5.0 152	12 Th	0142 -0.2 -6 0828 5.3 162 1428 0.1 3 2049 4.4 134	27 F	0231 -0.5 -15 0922 5.2 158 1518 -0.3 -9 2135 4.3 131
13 Su	0135 0.8 24 0803 5.4 165 1357 0.9 27 2023 5.3 162	28 M	0140 -0.2 -6 0824 6.4 195 1418 0.0 0 2042 5.8 177	13 W	0208 0.4 12 0851 5.5 168 1448 0.7 21 2111 4.8 146	28 Th	0250 -0.2 -6 0942 5.8 177 1539 0.0 0 2157 4.8 146	13 F	0223 -0.2 -6 0912 5.4 165 1510 0.0 0 2134 4.4 134	28 Sa	0314 -0.3 -9 1004 5.0 152 1601 -0.1 -3 2218 4.1 125
14 M	0208 0.7 21 0840 5.5 168 1433 0.9 27 2059 5.2 158	29 Tu	0227 -0.1 -3 0914 6.4 195 1508 0.1 3 2131 5.6 171	14 Th	0244 0.4 12 0931 5.5 168 1527 0.7 21 2152 4.7 143	29 F	0335 0.0 0 1028 5.6 171 1626 0.3 9 2243 4.6 140	14 Sa	0306 -0.3 -9 0957 5.3 162 1554 0.0 0 2221 4.3 131	29 Su	0356 -0.1 -3 1045 4.8 146 1644 0.0 0 2259 4.0 122
15 Tu	0239 0.7 21 0916 5.5 168 1508 1.0 30 2136 5.1 155	30 W	0313 0.0 0 1003 6.2 189 1559 0.3 9 2220 5.4 165	15 F	0322 0.4 12 1013 5.5 168 1609 0.7 21 2236 4.6 140	30 Sa	0421 0.3 9 1113 5.3 162 1716 0.5 15 2330 4.4 134	15 Su	0352 -0.2 -6 1044 5.3 162 1642 0.0 0 2311 4.3 131	30 M	0439 0.1 3 1124 4.5 137 1728 0.2 6 2341 3.9 119
		31 Th	0400 0.3 9 1053 6.0 183 1652 0.6 18 2309 5.1 155						31 Tu	0526 0.4 12 1204 4.3 131 1813 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 mean lower low water which is the chart datum of soundings.

Port Canaveral (Trident Pier), Florida, 2019

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 Tu	0413	3.8	116	16 W	0307	3.4	104	1 F	0532	3.6	110	16 Sa	0432	4.0	122
	1025	0.3	9		0923	0.4	12		1152	0.2	6		1054	-0.1	-3
	1619	3.0	91		1517	2.8	85		1739	2.7	82		1647	3.0	91
	2222	-0.2	-6		2124	-0.3	-9		2336	-0.2	-6		2253	-0.7	-21
2 W	0505	3.9	119	17 Th	0403	3.7	113	2 Sa	0615	3.6	110	17 Su	0529	4.2	128
	1122	0.3	9		1022	0.2	6		1233	0.2	6		1150	-0.3	-9
	1710	2.9	88		1613	2.9	88		1822	2.7	82		1744	3.3	101
	2310	-0.2	-6		2218	-0.5	-15						2350	-1.0	-30
3 Th	0551	4.0	122	18 F	0457	4.0	122	3 Su	0018	-0.2	-6	18 M	0624	4.4	134
	1211	0.2	6		1119	0.0	0		0655	3.7	113		1241	-0.5	-15
	1757	2.9	88		1708	3.0	91		1309	0.1	3		1840	3.6	110
	2355	-0.2	-6		2313	-0.7	-21		1902	2.8	85		2358	0.0	0
4 F	0635	4.0	122	19 Sa	0550	4.3	131	4 M	0058	-0.3	-9	19 Tu	0046	-1.1	-34
	1254	0.2	6		1212	-0.3	-9		0733	3.7	113		0717	4.5	137
	1842	2.9	88		1803	3.2	98		1343	0.0	0		1331	-0.7	-21
									1942	2.9	88		1936	3.8	116
5 Sa	0037	-0.2	-6	20 Su	0006	-0.9	-27	5 Tu	0136	-0.3	-9	20 W	0139	-1.2	-37
	0716	4.0	122		0643	4.5	137		0810	3.7	113		0808	4.5	137
	1332	0.1	3		1303	-0.5	-15		1418	0.0	0		1419	-0.8	-24
	1924	2.9	88		1857	3.4	104		2020	2.9	88		2029	4.0	122
6 Su	0116	-0.2	-6	21 M	0059	-1.1	-34	6 W	0214	-0.2	-6	21 Th	0233	-1.1	-34
	0756	3.9	119		0735	4.6	140		0845	3.6	110		0858	4.3	131
	1409	0.1	3		1353	-0.6	-18		1453	0.0	0		1508	-0.8	-24
	2004	2.9	88		1952	3.5	107		2058	3.0	91		2122	4.0	122
7 M	0155	-0.2	-6	22 Tu	0152	-1.1	-34	7 Th	0253	-0.1	-3	22 F	0328	-0.8	-24
	0834	3.9	119		0827	4.6	140		0920	3.5	107		0947	4.1	125
	1446	0.2	6		1443	-0.7	-21		1529	0.0	0		1558	-0.7	-21
	2044	2.9	88		2046	3.6	110		2136	3.0	91		2215	4.0	122
8 Tu	0235	-0.1	-3	23 W	0246	-1.1	-34	8 F	0334	0.0	0	23 Sa	0425	-0.6	-18
	0911	3.8	116		0918	4.5	137		0955	3.4	104		1035	3.7	113
	1525	0.2	6		1534	-0.7	-21		1606	0.0	0		1649	-0.6	-18
	2123	2.8	85		2140	3.7	113		2214	3.0	91		2308	3.9	119
9 W	0316	0.1	3	24 Th	0342	-0.9	-27	9 Sa	0417	0.1	3	24 Su	0525	-0.3	-9
	0948	3.6	110		1008	4.3	131		1031	3.2	98		1125	3.3	101
	1604	0.2	6		1627	-0.6	-18		1645	0.0	0		1742	-0.4	-12
	2203	2.8	85		2235	3.7	113		2254	3.0	91				
10 Th	0359	0.2	6	25 F	0442	-0.6	-18	10 Su	0505	0.3	9	25 M	0005	3.7	113
	1025	3.5	107		1059	3.9	119		1109	3.0	91		0626	0.0	0
	1645	0.2	6		1721	-0.6	-18		1726	0.0	0		1220	3.0	91
	2244	2.8	85		2332	3.6	110		2339	3.1	94		1836	-0.2	-6
11 F	0445	0.3	9	26 Sa	0544	-0.3	-9	11 M	0556	0.4	12	26 Tu	0107	3.5	107
	1103	3.3	101		1152	3.5	107		1152	2.8	85		0729	0.3	9
	1728	0.3	9		1816	-0.5	-15		1811	0.0	0		1321	2.7	82
	2328	2.8	85										1932	0.0	0
12 Sa	0535	0.5	15	27 Su	0034	3.5	107	12 Tu	0030	3.1	94	27 W	0213	3.4	104
	1144	3.1	94		0648	0.0	0		0651	0.4	12		0833	0.4	12
	1811	0.2	6		1249	3.2	98		1242	2.7	82		1428	2.6	79
					1910	-0.3	-9		1900	0.0	0		2029	0.1	3
13 Su	0017	2.8	85	28 M	0141	3.5	107	13 W	0128	3.3	101	28 Th	0319	3.4	104
	0629	0.5	15		0754	0.2	6		0750	0.4	12		0936	0.5	15
	1230	2.9	88		1352	2.9	88		1341	2.6	79		1533	2.5	76
	1855	0.2	6		2005	-0.2	-6		1954	-0.1	-3		2128	0.2	6
14 M	0111	2.9	88	29 Tu	0248	3.5	107	14 Th	0230	3.4	104	14 Th	0056	3.5	107
	0725	0.6	18		0900	0.3	9		0852	0.3	9		0726	0.4	12
	1322	2.8	85		1457	2.7	82		1445	2.7	82		1315	2.7	82
	1942	0.1	3		2101	-0.2	-6		2052	-0.3	-9		1926	0.0	0
15 Tu	0209	3.1	94	30 W	0350	3.5	107	15 F	0333	3.7	113	15 F	0201	3.6	110
	0823	0.5	15		1006	0.3	9		0954	0.2	6		0827	0.3	9
	1419	2.7	82		1558	2.6	79		1547	2.8	85		1422	2.8	85
	2031	-0.1	-3		2156	-0.1	-3		2153	-0.5	-15		2029	-0.2	-6
				31 Th	0444	3.6	110					31 Su	0427	3.3	101
					1104	0.3	9						1039	0.5	15
					1651	2.6	79						1646	2.9	88
					2248	-0.1	-3						2244	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 mean lower low water which is the chart datum of soundings.

Port Canaveral (Trident Pier), Florida, 2019

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 M	0013 0.0 0 0600 3.0 91 1201 -0.6 -18 1839 4.3 131	16 Tu	0117 0.2 6 0706 2.9 88 1259 -0.2 -6 1940 4.0 122	1 Th	0127 -0.2 -6 0724 3.6 110 1325 -0.7 -21 2000 4.7 143	16 F	0204 0.4 12 0807 3.3 101 1400 0.3 9 2032 4.0 122	1 Su	0240 -0.3 -9 0855 4.6 140 1500 -0.3 -9 2120 4.6 140	16 M	0236 0.6 18 0855 4.0 122 1458 0.7 21 2111 3.9 119
2 Tu	0102 -0.1 -3 0652 3.0 91 1250 -0.7 -21 1929 4.4 134	17 W	0157 0.2 6 0750 2.9 88 1341 -0.1 -3 2021 4.0 122	2 F	0217 -0.3 -9 0820 3.8 116 1419 -0.7 -21 2052 4.7 143	17 Sa	0239 0.4 12 0847 3.4 104 1441 0.4 12 2108 3.9 119	2 M	0330 -0.3 -9 0949 4.7 143 1559 -0.1 -3 2210 4.4 134	17 Tu	0311 0.6 18 0933 4.0 122 1540 0.8 24 2147 3.7 113
3 W	0150 -0.2 -6 0745 3.1 94 1341 -0.7 -21 2020 4.5 137	18 Th	0236 0.2 6 0833 2.9 88 1423 0.0 0 2100 3.9 119	3 Sa	0307 -0.4 -12 0915 3.9 119 1515 -0.6 -18 2142 4.5 137	18 Su	0316 0.4 12 0926 3.4 104 1522 0.5 15 2143 3.8 116	3 Tu	0422 -0.2 -6 1044 4.6 140 1659 0.2 6 2301 4.0 122	18 W	0349 0.7 21 1012 4.1 125 1625 1.0 30 2225 3.6 110
4 Th	0240 -0.3 -9 0838 3.3 101 1433 -0.7 -21 2111 4.5 137	19 F	0315 0.2 6 0915 2.9 88 1505 0.1 3 2138 3.7 113	4 Su	0400 -0.4 -12 1010 4.0 122 1614 -0.4 -12 2233 4.3 131	19 M	0353 0.5 15 1005 3.5 107 1606 0.6 18 2219 3.6 110	4 W	0516 0.0 0 1140 4.5 137 1802 0.5 15 2355 3.7 113	19 Th	0430 0.7 21 1053 4.1 125 1715 1.1 34 2307 3.4 104
5 F	0332 -0.4 -12 0932 3.3 101 1529 -0.6 -18 2201 4.4 134	20 Sa	0355 0.3 9 0956 2.9 88 1550 0.3 9 2216 3.6 110	5 M	0453 -0.4 -12 1106 4.0 122 1716 -0.1 -3 2324 4.0 122	20 Tu	0432 0.5 15 1045 3.5 107 1653 0.8 24 2257 3.4 104	5 Th	0611 0.2 6 1241 4.3 131 1905 0.7 21	20 F	0515 0.8 24 1140 4.1 125 1808 1.1 34 2354 3.3 101
6 Sa	0426 -0.4 -12 1027 3.4 104 1628 -0.5 -15 2253 4.2 128	21 Su	0436 0.3 9 1038 3.0 91 1637 0.4 12 2253 3.4 104	6 Tu	0547 -0.3 -9 1205 4.0 122 1820 0.1 3	21 W	0512 0.5 15 1127 3.5 107 1743 0.9 27 2338 3.3 101	6 F	0055 3.4 104 0708 0.4 12 1346 4.2 128 2008 0.8 24	21 Sa	0606 0.8 24 1233 4.1 125 1903 1.1 34
7 Su	0520 -0.4 -12 1124 3.5 107 1730 -0.3 -9 2346 4.0 122	22 M	0517 0.3 9 1121 3.0 91 1726 0.6 18 2333 3.3 101	7 W	0019 3.7 113 0641 -0.2 -6 1308 4.0 122 1924 0.3 9	22 Th	0555 0.5 15 1214 3.6 110 1835 0.9 27	7 Sa	0201 3.3 101 0806 0.5 15 1452 4.1 125 2110 0.9 27	22 Su	0049 3.3 101 0701 0.7 21 1334 4.2 128 2001 1.1 34
8 M	0614 -0.4 -12 1225 3.6 110 1834 -0.1 -3	23 Tu	0558 0.3 9 1207 3.0 91 1817 0.7 21	8 Th	0119 3.4 104 0735 -0.1 -3 1414 4.0 122 2028 0.5 15	23 F	0024 3.1 94 0641 0.5 15 1307 3.7 113 1930 0.9 27	8 Su	0307 3.2 98 0904 0.6 18 1552 4.1 125 2209 1.0 30	23 M	0152 3.4 104 0800 0.6 18 1437 4.3 131 2100 0.9 27
9 Tu	0042 3.7 113 0708 -0.4 -12 1330 3.6 110 1938 0.1 3	24 W	0015 3.1 94 0639 0.3 9 1257 3.1 94 1909 0.7 21	9 F	0222 3.1 94 0830 0.0 0 1517 4.0 122 2132 0.6 18	24 Sa	0117 3.1 94 0731 0.4 12 1405 3.9 119 2027 0.9 27	9 M	0405 3.3 101 1000 0.6 18 1643 4.1 125 2300 0.9 27	24 Tu	0257 3.6 110 0902 0.4 12 1538 4.5 137 2158 0.7 21
10 W	0141 3.4 104 0800 -0.4 -12 1435 3.8 116 2043 0.2 6	25 Th	0102 3.0 91 0723 0.2 6 1350 3.3 101 2003 0.7 21	10 Sa	0324 3.0 91 0925 0.1 3 1614 4.0 122 2232 0.6 18	25 Su	0217 3.1 94 0825 0.3 9 1505 4.1 125 2125 0.8 24	10 Tu	0455 3.3 101 1052 0.6 18 1728 4.1 125 2343 0.9 27	25 W	0358 3.8 116 1004 0.2 6 1636 4.7 143 2254 0.5 15
11 Th	0242 3.2 98 0853 -0.4 -12 1536 3.9 119 2147 0.2 6	26 F	0155 2.9 88 0808 0.1 3 1444 3.5 107 2058 0.7 21	11 Su	0421 3.0 91 1020 0.1 3 1706 4.1 125 2326 0.6 18	26 M	0317 3.2 98 0922 0.1 3 1603 4.3 131 2223 0.6 18	11 W	0539 3.5 107 1139 0.6 18 1809 4.1 125	26 Th	0457 4.2 128 1104 0.0 0 1730 4.9 149 2346 0.2 6
12 F	0341 3.0 91 0946 -0.3 -9 1632 4.0 122 2249 0.3 9	27 Sa	0249 2.9 88 0858 0.0 0 1537 3.8 116 2155 0.5 15	12 M	0513 3.0 91 1111 0.2 6 1753 4.1 125	27 Tu	0415 3.4 104 1021 -0.1 -3 1658 4.6 140 2319 0.4 12	12 Th	0020 0.8 24 0621 3.6 110 1221 0.6 18 1847 4.1 125	27 F	0553 4.5 137 1202 -0.1 -3 1823 4.9 149
13 Sa	0437 2.9 88 1038 -0.3 -9 1723 4.1 125 2344 0.2 6	28 Su	0344 2.9 88 0950 -0.2 -6 1630 4.0 122 2251 0.4 12	13 Tu	0012 0.5 15 0600 3.1 94 1157 0.2 6 1836 4.1 125	28 W	0513 3.7 113 1119 -0.3 -9 1753 4.8 146	13 F	0055 0.7 21 0700 3.7 113 1300 0.5 15 1923 4.1 125	28 Sa	0035 0.0 0 0648 4.8 146 1257 -0.2 -6 1915 4.9 149
14 Su	0529 2.9 88 1128 -0.3 -9 1812 4.1 125	29 M	0439 3.0 91 1044 -0.3 -9 1723 4.3 131 2345 0.2 6	14 W	0052 0.5 15 0644 3.2 98 1240 0.2 6 1916 4.1 125	29 Th	0011 0.1 3 0609 4.0 122 1215 -0.4 -12 1846 4.9 149	14 Sa	0128 0.6 18 0739 3.8 116 1339 0.6 18 1959 4.1 125	29 Su	0123 -0.2 -6 0742 5.0 152 1351 -0.2 -6 2006 4.8 146
15 M	0033 0.2 6 0619 2.9 88 1215 -0.2 -6 1857 4.1 125	30 Tu	0533 3.2 98 1138 -0.5 -15 1815 4.5 137	15 Th	0129 0.5 15 0726 3.2 98 1321 0.2 6 1955 4.0 122	30 F	0101 -0.1 -3 0705 4.2 128 1310 -0.5 -15 1938 4.9 149	15 Su	0202 0.6 18 0817 3.9 119 1417 0.6 18 2035 4.0 122	30 M	0211 -0.2 -6 0835 5.1 155 1445 0.0 0 2056 4.5 137
		31 W	0037 0.0 0 0629 3.4 104 1231 -0.7 -21 1908 4.7 143			31 Sa	0150 -0.2 -6 0801 4.4 134 1405 -0.5 -15 2029 4.8 146				

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

Miami, Government Cut, Florida, 2019

Times and Heights of High and Low Waters

April				May				June																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1 M	0603	2.1	64		1 W	0600	2.2	67		1 Sa	0022	0.2	6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	1155	0.3	9			1819	2.1	64			2 Tu	0014	0.1	3		2 Th	0018	0.2	6		2 Su	0105	0.2	6		0645	2.2	67		1235	0.2	6		3 W	0054	0.1	3		3 F	0058	0.2	6		3 M	0148	0.1	3		0723	2.3	70		1312	0.1	3		4 Th	0131	0.0	0		4 Sa	0136	0.1	3		4 Tu	0232	0.1	3		0800	2.4	73		1347	0.0	0		5 F	0207	0.0	0		5 Su	0215	0.1	3		5 W	0319	0.0	0		0837	2.4	73		1421	-0.1	-3		6 Sa	0242	0.0	0		6 M	0254	0.1	3		6 Th	0408	0.0	0		0913	2.4	73		1455	-0.2	-6		7 Su	0318	0.0	0		7 Tu	0336	0.1	3		7 F	0502	0.0	0		0949	2.4	73		1531	-0.2	-6		8 M	0355	0.1	3		8 W	0421	0.2	6		8 Sa	0013	2.6	79		1026	2.3	70		1609	-0.2	-6		9 Tu	0436	0.2	6		9 Th	0512	0.2	6		9 Su	0107	2.5	76		1106	2.3	70		1653	-0.1	-3		10 W	0523	0.3	9		10 F	0027	2.5	76		10 M	0205	2.4	73		1151	2.2	67		1743	-0.1	-3		11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70	
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	0645	2.2	67			1235	0.2	6			3 W	0054	0.1	3		3 F	0058	0.2	6		3 M	0148	0.1	3		0723	2.3	70		1312	0.1	3		4 Th	0131	0.0	0		4 Sa	0136	0.1	3		4 Tu	0232	0.1	3		0800	2.4	73		1347	0.0	0		5 F	0207	0.0	0		5 Su	0215	0.1	3		5 W	0319	0.0	0		0837	2.4	73		1421	-0.1	-3		6 Sa	0242	0.0	0		6 M	0254	0.1	3		6 Th	0408	0.0	0		0913	2.4	73		1455	-0.2	-6		7 Su	0318	0.0	0		7 Tu	0336	0.1	3		7 F	0502	0.0	0		0949	2.4	73		1531	-0.2	-6		8 M	0355	0.1	3		8 W	0421	0.2	6		8 Sa	0013	2.6	79		1026	2.3	70		1609	-0.2	-6		9 Tu	0436	0.2	6		9 Th	0512	0.2	6		9 Su	0107	2.5	76		1106	2.3	70		1653	-0.1	-3		10 W	0523	0.3	9		10 F	0027	2.5	76		10 M	0205	2.4	73		1151	2.2	67		1743	-0.1	-3		11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																								
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	0723	2.3	70			1312	0.1	3			4 Th	0131	0.0	0		4 Sa	0136	0.1	3		4 Tu	0232	0.1	3		0800	2.4	73		1347	0.0	0		5 F	0207	0.0	0		5 Su	0215	0.1	3		5 W	0319	0.0	0		0837	2.4	73		1421	-0.1	-3		6 Sa	0242	0.0	0		6 M	0254	0.1	3		6 Th	0408	0.0	0		0913	2.4	73		1455	-0.2	-6		7 Su	0318	0.0	0		7 Tu	0336	0.1	3		7 F	0502	0.0	0		0949	2.4	73		1531	-0.2	-6		8 M	0355	0.1	3		8 W	0421	0.2	6		8 Sa	0013	2.6	79		1026	2.3	70		1609	-0.2	-6		9 Tu	0436	0.2	6		9 Th	0512	0.2	6		9 Su	0107	2.5	76		1106	2.3	70		1653	-0.1	-3		10 W	0523	0.3	9		10 F	0027	2.5	76		10 M	0205	2.4	73		1151	2.2	67		1743	-0.1	-3		11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																															
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	0837	2.4	73			1421	-0.1	-3			6 Sa	0242	0.0	0		6 M	0254	0.1	3		6 Th	0408	0.0	0		0913	2.4	73		1455	-0.2	-6		7 Su	0318	0.0	0		7 Tu	0336	0.1	3		7 F	0502	0.0	0		0949	2.4	73		1531	-0.2	-6		8 M	0355	0.1	3		8 W	0421	0.2	6		8 Sa	0013	2.6	79		1026	2.3	70		1609	-0.2	-6		9 Tu	0436	0.2	6		9 Th	0512	0.2	6		9 Su	0107	2.5	76		1106	2.3	70		1653	-0.1	-3		10 W	0523	0.3	9		10 F	0027	2.5	76		10 M	0205	2.4	73		1151	2.2	67		1743	-0.1	-3		11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																													
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	0913	2.4	73			1455	-0.2	-6			7 Su	0318	0.0	0		7 Tu	0336	0.1	3		7 F	0502	0.0	0		0949	2.4	73		1531	-0.2	-6		8 M	0355	0.1	3		8 W	0421	0.2	6		8 Sa	0013	2.6	79		1026	2.3	70		1609	-0.2	-6		9 Tu	0436	0.2	6		9 Th	0512	0.2	6		9 Su	0107	2.5	76		1106	2.3	70		1653	-0.1	-3		10 W	0523	0.3	9		10 F	0027	2.5	76		10 M	0205	2.4	73		1151	2.2	67		1743	-0.1	-3		11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																				
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	0949	2.4	73			1531	-0.2	-6			8 M	0355	0.1	3		8 W	0421	0.2	6		8 Sa	0013	2.6	79		1026	2.3	70		1609	-0.2	-6		9 Tu	0436	0.2	6		9 Th	0512	0.2	6		9 Su	0107	2.5	76		1106	2.3	70		1653	-0.1	-3		10 W	0523	0.3	9		10 F	0027	2.5	76		10 M	0205	2.4	73		1151	2.2	67		1743	-0.1	-3		11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																											
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	1026	2.3	70			1609	-0.2	-6			9 Tu	0436	0.2	6		9 Th	0512	0.2	6		9 Su	0107	2.5	76		1106	2.3	70		1653	-0.1	-3		10 W	0523	0.3	9		10 F	0027	2.5	76		10 M	0205	2.4	73		1151	2.2	67		1743	-0.1	-3		11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																		
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9 Tu	0436	0.2	6		9 Th	0512	0.2	6		9 Su		0107	2.5	76																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	1106	2.3	70			1653	-0.1	-3			10 W	0523	0.3	9		10 F	0027	2.5	76		10 M	0205	2.4	73		1151	2.2	67		1743	-0.1	-3		11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																									
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10 W	0523	0.3	9		10 F	0027	2.5	76		10 M		0205	2.4	73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	1151	2.2	67			1743	-0.1	-3			11 Th	0040	2.3	70		11 Sa	0124	2.4	73		11 Tu	0303	2.4	73		0618	0.3	9		1245	2.1	64		12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																
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	0618	0.3	9			1245	2.1	64			12 F	0139	2.3	70		12 Su	0225	2.4	73		12 W	0403	2.4	73		0722	0.4	12		1349	2.1	64		13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																							
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	0722	0.4	12			1349	2.1	64			13 Sa	0244	2.3	70		13 M	0328	2.4	73		13 Th	0500	2.4	73		0833	0.3	9		1501	2.2	67		14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																														
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	0833	0.3	9			1501	2.2	67			14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F	0555	2.4	73		0941	0.2	6		1614	2.3	70		15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																					
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14 Su	0351	2.3	70		14 Tu	0429	2.5	76		14 F		0555	2.4	73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	0941	0.2	6			1614	2.3	70			15 M	0454	2.4	73		15 W	0526	2.5	76		15 Sa	0019	0.0	0		1043	0.0	0		1720	2.5	76		16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																																												
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	1043	0.0	0			1720	2.5	76			16 Tu	0552	2.6	79		16 Th	0619	2.6	79		16 Su	0108	0.0	0		1139	-0.2	-6		1820	2.7	82		17 W	0006	-0.2	-6		17 F	0039	-0.1	-3		17 M	0154	0.1	3		0644	2.7	82		1231	-0.4	-12		18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																																																																			
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	0644	2.7	82			1231	-0.4	-12			18 Th	0059	-0.3	-9		18 Sa	0128	-0.1	-3		18 Tu	0239	0.1	3		0733	2.8	85		1320	-0.5	-15		19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																																																																																																																	
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	0733	2.8	85			1320	-0.5	-15			19 F	0148	-0.3	-9		19 Su	0215	-0.1	-3		19 W	0322	0.1	3		0820	2.8	85		1408	-0.6	-18		20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																																																																																																																																								
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	0820	2.8	85			1408	-0.6	-18			20 Sa	0236	-0.3	-9		20 M	0301	0.0	0		20 Th	0406	0.2	6		0905	2.8	85		1454	-0.6	-18		21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																																																																																																																																																															
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	0905	2.8	85			1454	-0.6	-18			21 Su	0323	-0.2	-6		21 Tu	0346	0.1	3		21 F	0449	0.2	6		0949	2.7	82		1541	-0.5	-15		22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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	0949	2.7	82			1541	-0.5	-15			22 M	0410	0.0	0		22 W	0432	0.2	6		22 Sa	0534	0.3	9		1034	2.5	76		1627	-0.3	-9		23 Tu	0458	0.1	3		23 Th	0519	0.3	9		23 Su	0020	2.1	64		1118	2.4	73		1715	-0.1	-3		24 W	0548	0.3	9		24 F	0608	0.4	12		24 M	0103	0.3	9		1204	2.2	67		1807	0.1	3		25 Th	0045	2.3	70		25 Sa	0057	2.1	64		25 Tu	0148	2.0	61		0641	0.4	12		1254	2.1	64		26 F	0137	2.1	64		26 Su	0146	2.1	64		26 W	0236	2.0	61		0740	0.5	15		1350	2.0	61		27 Sa	0232	2.0	61		27 M	0237	2.0	61		27 Th	0328	2.0	61		0840	0.6	18		1450	1.9	58		28 Su	0330	2.0	61		28 Tu	0329	2.0	61		28 F	0422	2.0	61		0938	0.5	15		1552	1.9	58		29 M	0425	2.0	61		29 W	0421	2.0	61		29 Sa	0516	2.1	64		1029	0.4	12		1650	2.0	61		30 Tu	0515	2.1	64		30 Th	0511	2.1	64		30 Su	0608	2.2	67		1115	0.3	9		1742	2.2	67		31 W	0552	2.6	79		31 F	0559	2.2	67			1119	-0.3	-9		1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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31 W	0552	2.6	79		31 F	0559	2.2	67																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	1119	-0.3	-9			1803	2.7	82		1 Th	0600	2.2	67		1 Sa	0619	2.6	79			1156	0.2	6		1829	2.3	70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	1803	2.7	82																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
1 Th	0600	2.2	67		1 Sa	0619	2.6	79																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	1156	0.2	6			1829	2.3	70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	1829	2.3	70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

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

Miami, Government Cut, Florida, 2019

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		h m ft cm		h m ft cm
1 M	0035 0.2 6 0700 2.3 70 1251 -0.4 -12 1947 2.6 79	16 Tu O	0134 0.2 6 0758 2.3 70 1349 -0.2 -6 2036 2.5 76	1 Th	0152 -0.1 -3 0825 2.7 82 1413 -0.5 -15 2103 2.9 88	16 F	0232 0.3 9 0856 2.5 76 1446 0.1 3 2122 2.6 79	1 Su	0313 -0.2 -6 0953 3.2 98 1539 -0.1 -3 2215 3.2 98	16 M	0309 0.4 12 0946 2.8 85 1527 0.5 15 2159 2.8 85
2 Tu ●	0123 0.1 3 0752 2.4 73 1340 -0.5 -15 2036 2.7 82	17 W	0217 0.2 6 0840 2.3 70 1431 -0.2 -6 2115 2.5 76	2 F	0243 -0.2 -6 0919 2.8 85 1505 -0.5 -15 2152 3.0 91	17 Sa	0309 0.3 9 0935 2.5 76 1522 0.2 6 2157 2.6 79	2 M	0404 -0.2 -6 1045 3.2 98 1631 0.0 0 2304 3.1 94	17 Tu	0342 0.4 12 1024 2.8 85 1602 0.6 18 2234 2.7 82
3 W	0212 0.0 0 0843 2.5 76 1429 -0.6 -18 2125 2.7 82	18 Th	0258 0.2 6 0921 2.3 70 1511 -0.1 -3 2152 2.4 73	3 Sa	0335 -0.3 -9 1012 2.9 88 1558 -0.4 -12 2241 2.9 88	18 Su	0344 0.3 9 1013 2.5 76 1558 0.3 9 2232 2.5 76	3 Tu	0457 -0.1 -3 1138 3.1 94 1725 0.2 6 2354 2.9 88	18 W	0417 0.5 15 1104 2.7 82 1639 0.7 21 2311 2.6 79
4 Th	0302 -0.1 -3 0934 2.5 76 1520 -0.5 -15 2214 2.8 85	19 F	0338 0.2 6 1000 2.2 67 1551 0.0 0 2229 2.4 73	4 Su	0428 -0.3 -9 1105 2.8 85 1652 -0.2 -6 2330 2.9 88	19 M	0419 0.3 9 1052 2.5 76 1633 0.4 12 2308 2.5 76	4 W	0552 0.0 0 1233 2.9 88 1823 0.4 12	19 Th	0455 0.5 15 1147 2.7 82 1721 0.8 24 2351 2.5 76
5 F	0353 -0.2 -6 1027 2.6 79 1613 -0.5 -15 2303 2.7 82	20 Sa	0418 0.2 6 1040 2.2 67 1629 0.1 3 2306 2.3 70	5 M	0522 -0.3 -9 1200 2.8 85 1748 -0.1 -3	20 Tu	0455 0.4 12 1132 2.4 73 1711 0.5 15 2344 2.4 73	5 Th ●	0047 2.8 85 0650 0.2 6 1331 2.8 85 1924 0.6 18	20 F	0540 0.5 15 1235 2.6 79 1810 0.9 27
6 Sa	0447 -0.2 -6 1122 2.5 76 1709 -0.4 -12 2354 2.7 82	21 Su	0457 0.3 9 1121 2.2 67 1709 0.2 6 2343 2.2 67	6 Tu	0021 2.7 82 0619 -0.2 -6 1258 2.7 82 1847 0.1 3	21 W	0533 0.4 12 1215 2.4 73 1753 0.6 18	6 F	0144 2.6 79 0752 0.3 9 1433 2.6 79 2027 0.7 21	21 Sa ●	0038 2.5 76 0635 0.6 18 1331 2.6 79 1911 1.0 30
7 Su	0544 -0.2 -6 1219 2.5 76 1807 -0.2 -6	22 M	0537 0.3 9 1204 2.1 64 1750 0.3 9	7 W ●	0115 2.6 79 0718 -0.1 -3 1358 2.6 79 1949 0.3 9	22 Th	0024 2.3 70 0617 0.4 12 1304 2.3 70 1843 0.7 21	7 Sa	0245 2.5 76 0855 0.4 12 1537 2.6 79 2130 0.8 24	22 Su	0135 2.5 76 0739 0.6 18 1435 2.6 79 2019 0.9 27
8 M	0046 2.6 79 0643 -0.2 -6 1318 2.5 76 1909 -0.1 -3	23 Tu	0022 2.2 67 0619 0.3 9 1250 2.1 64 1835 0.4 12	8 Th	0211 2.5 76 0819 0.0 0 1501 2.5 76 2052 0.4 12	23 F ●	0109 2.3 70 0709 0.4 12 1359 2.3 70 1941 0.8 24	8 Su	0349 2.4 73 0955 0.5 15 1639 2.6 79 2228 0.8 24	23 M	0243 2.5 76 0848 0.5 15 1541 2.7 82 2127 0.8 24
9 Tu ●	0141 2.5 76 0743 -0.2 -6 1420 2.4 73 2011 0.1 3	24 W ●	0103 2.1 64 0705 0.3 9 1340 2.1 64 1926 0.5 15	9 F	0311 2.4 73 0919 0.0 0 1604 2.4 73 2152 0.5 15	24 Sa	0202 2.3 70 0809 0.4 12 1501 2.4 73 2045 0.8 24	9 M	0450 2.5 76 1050 0.5 15 1734 2.6 79 2320 0.7 21	24 Tu	0354 2.6 79 0955 0.4 12 1645 2.8 85 2230 0.7 21
10 W	0238 2.4 73 0843 -0.2 -6 1524 2.4 73 2113 0.2 6	25 Th	0149 2.1 64 0756 0.3 9 1435 2.1 64 2023 0.5 15	10 Sa	0413 2.3 70 1017 0.1 3 1705 2.4 73 2249 0.5 15	25 Su	0304 2.3 70 0913 0.3 9 1606 2.4 73 2149 0.7 21	10 Tu	0544 2.5 76 1140 0.4 12 1821 2.6 79	25 W	0501 2.8 85 1056 0.3 9 1743 3.0 91 2327 0.4 12
11 Th	0337 2.3 70 0942 -0.2 -6 1627 2.4 73 2213 0.2 6	26 F	0240 2.1 64 0850 0.2 6 1535 2.1 64 2121 0.5 15	11 Su	0512 2.3 70 1111 0.1 3 1800 2.5 76 2341 0.5 15	26 M	0411 2.4 73 1015 0.2 6 1709 2.6 79 2250 0.5 15	11 W	0006 0.7 21 0631 2.6 79 1224 0.4 12 1902 2.7 82	26 Th	0602 3.0 91 1153 0.1 3 1836 3.2 98
12 F	0436 2.3 70 1037 -0.2 -6 1726 2.4 73 2308 0.2 6	27 Sa	0338 2.1 64 0946 0.1 3 1636 2.2 67 2219 0.5 15	12 M	0606 2.3 70 1200 0.1 3 1848 2.5 76	27 Tu	0517 2.5 76 1114 0.0 0 1807 2.8 85 2346 0.4 12	12 Th	0048 0.6 18 0713 2.7 82 1305 0.4 12 1939 2.8 85	27 F	0020 0.2 6 0659 3.3 101 1246 0.0 0 1926 3.3 101
13 Sa	0532 2.3 70 1129 -0.2 -6 1820 2.5 76	28 Su	0438 2.2 67 1042 -0.1 -3 1735 2.4 73 2315 0.4 12	13 Tu	0029 0.4 12 0654 2.4 73 1246 0.1 3 1931 2.5 76	28 W	0618 2.7 82 1210 -0.1 -3 1900 3.0 91	13 F ○	0126 0.5 15 0753 2.8 85 1343 0.4 12 2015 2.8 85	28 Sa ●	0111 0.0 0 0752 3.4 104 1337 0.0 0 2014 3.4 104
14 Su	0000 0.2 6 0625 2.3 70 1219 -0.3 -9 1909 2.5 76	29 M	0538 2.3 70 1136 -0.2 -6 1831 2.5 76	14 W	0112 0.4 12 0737 2.4 73 1328 0.1 3 2010 2.6 79	29 Th	0040 0.2 6 0715 2.9 88 1304 -0.2 -6 1951 3.1 94	14 Sa	0202 0.5 15 0831 2.8 85 1419 0.4 12 2050 2.8 85	29 Su	0200 -0.1 -3 0843 3.5 107 1428 0.0 0 2102 3.4 104
15 M	0048 0.2 6 0713 2.3 70 1305 -0.2 -6 1954 2.5 76	30 Tu	0008 0.2 6 0636 2.4 73 1229 -0.3 -9 1924 2.7 82	15 Th ○	0153 0.3 9 0818 2.5 76 1408 0.1 3 2047 2.6 79	30 F ●	0132 0.0 0 0809 3.1 94 1356 -0.3 -9 2039 3.2 98	15 Su	0236 0.4 12 0908 2.8 85 1453 0.5 15 2124 2.8 85	30 M	0249 -0.2 -6 0933 3.5 107 1517 0.1 3 2149 3.3 101
		31 W ●	0100 0.1 3 0732 2.6 79 1321 -0.5 -15 2014 2.8 85			31 Sa	0222 -0.2 -6 0901 3.2 98 1447 -0.2 -6 2127 3.2 98				

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

Miami, Government Cut, Florida, 2019

Times and Heights of High and Low Waters

Table with columns for months (October, November, December) and days. Each day entry includes time and height in feet and centimeters for high and low water.

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

Vaca Key, Florida Bay, Florida, 2019

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	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Tu	0254 0.0 0 1156 0.5 15 1409 0.4 12 2048 0.8 24	16 W	0213 -0.2 -6 2025 0.7 21	1 F	0417 -0.4 -12 1335 0.3 9 1524 0.2 6 2151 0.6 18	16 Sa	0338 -0.5 -15 2118 0.7 21	1 F	0248 -0.4 -12 2030 0.5 15	16 Sa	0208 -0.4 -12 2003 0.6 18
2 W	0353 -0.1 -3 1257 0.5 15 1500 0.4 12 2131 0.9 27	17 Th	0311 -0.3 -9 2104 0.7 21	2 Sa	0458 -0.4 -12 1419 0.3 9 1614 0.2 6 2246 0.6 18	17 Su	0432 -0.4 -12 1424 0.3 9 1553 0.3 9 2226 0.7 21	2 Sa	0345 -0.4 -12 1308 0.2 6 1510 0.1 3 2129 0.5 15	17 Su	0311 -0.4 -12 1310 0.3 9 1440 0.3 9 2109 0.6 18
3 Th	0439 -0.2 -6 1350 0.5 15 1548 0.4 12 2217 0.9 27	18 F	0404 -0.3 -9 2143 0.8 24	3 Su	0534 -0.4 -12 1458 0.3 9 1701 0.2 6 2344 0.6 18	18 M	0522 -0.4 -12 1457 0.3 9 1650 0.2 6 2349 0.7 21	3 Su	0430 -0.3 -9 1347 0.3 9 1605 0.2 6 2235 0.4 12	18 M	0407 -0.3 -9 1341 0.4 12 1545 0.2 6 2234 0.7 21
4 F	0518 -0.2 -6 1439 0.5 15 1634 0.4 12 2305 0.9 27	19 Sa	0454 -0.4 -12 2041 0.9 27	4 M	0609 -0.3 -9 1534 0.3 9 1746 0.2 6	19 Tu	0608 -0.3 -9 1527 0.3 9 1745 0.2 6	4 M	0507 -0.3 -9 1422 0.3 9 1652 0.2 6 2348 0.5 15	19 Tu	0457 -0.1 -3 1411 0.4 12 1645 0.2 6
5 Sa	0555 -0.2 -6 1524 0.5 15 1717 0.4 12 2356 0.8 24	20 Su	0542 -0.4 -12 1532 0.5 15 1702 0.4 12 2342 0.9 27	5 Tu	0042 0.6 18 0646 -0.3 -9 1604 0.3 9 1830 0.2 6	20 W	0110 0.7 21 0652 -0.2 -6 1552 0.3 9 1841 0.1 3	5 Tu	0542 -0.2 -6 1453 0.3 9 1735 0.1 3	20 W	0039 0.7 21 0541 0.0 0 1437 0.4 12 1741 0.1 3
6 Su	0632 -0.3 -9 1605 0.5 15 1801 0.4 12	21 M	0629 -0.4 -12 1608 0.5 15 1753 0.4 12	6 W	0136 0.6 18 0723 -0.3 -9 1624 0.3 9 1916 0.1 3	21 Th	0220 0.7 21 0735 -0.1 -3 1609 0.4 12 1938 0.0 0	6 W	0057 0.5 15 0617 -0.2 -6 1515 0.3 9 1817 0.1 3	21 Th	0206 0.7 21 0622 0.0 0 1455 0.5 15 1834 0.0 0
7 M	0049 0.8 24 0710 -0.3 -9 1642 0.5 15 1845 0.4 12	22 Tu	0057 0.9 27 0716 -0.3 -9 1640 0.4 12 1848 0.3 9	7 Th	0225 0.6 18 0802 -0.3 -9 1608 0.4 12 2003 0.1 3	22 F	0318 0.6 18 0817 -0.1 -3 1608 0.4 12 2035 -0.1 -3	7 Th	0149 0.5 15 0653 -0.1 -3 1516 0.4 12 1900 0.0 0	22 F	0306 0.6 18 0702 0.1 3 1455 0.5 15 1928 -0.2 -6
8 Tu	0142 0.8 24 0750 -0.3 -9 1713 0.5 15 1932 0.4 12	23 W	0203 0.9 27 0801 -0.3 -9 1707 0.4 12 1945 0.2 6	8 F	0312 0.5 15 0842 -0.2 -6 1607 0.4 12 2053 0.0 0	23 Sa	0409 0.5 15 0859 0.0 0 1616 0.5 15 2134 -0.3 -9	8 F	0233 0.5 15 0731 -0.1 -3 1459 0.4 12 1945 -0.1 -3	23 Sa	0400 0.6 18 0742 0.1 3 1500 0.6 18 2021 -0.3 -9
9 W	0232 0.8 24 0831 -0.2 -6 1731 0.5 15 2021 0.3 9	24 Th	0302 0.8 24 0846 -0.2 -6 1725 0.4 12 2045 0.1 3	9 Sa	0358 0.5 15 0923 -0.2 -6 1634 0.5 15 2144 -0.1 -3	24 Su	0458 0.4 12 0941 0.0 0 1643 0.6 18 2234 -0.3 -9	9 Sa	0316 0.5 15 0809 -0.1 -3 1521 0.5 15 2031 -0.2 -6	24 Su	0453 0.5 15 0823 0.1 3 1527 0.7 21 2114 -0.4 -12
10 Th	0320 0.7 21 0913 -0.2 -6 1657 0.5 15 2113 0.3 9	25 F	0356 0.7 21 0931 -0.1 -3 1722 0.5 15 2148 0.0 0	10 Su	0446 0.4 12 1004 -0.1 -3 1707 0.5 15 2237 -0.2 -6	25 M	0552 0.2 6 1023 0.0 0 1719 0.6 18 2336 -0.4 -12	10 Su	0359 0.4 12 0848 0.0 0 1553 0.5 15 2119 -0.3 -9	25 M	0555 0.3 9 0904 0.1 3 1602 0.7 21 2208 -0.4 -12
11 F	0408 0.7 21 0956 -0.2 -6 1715 0.5 15 2209 0.2 6	26 Sa	0448 0.5 15 1015 -0.1 -3 1732 0.5 15 2254 -0.1 -3	11 M	0536 0.3 9 1045 -0.1 -3 1744 0.5 15 2334 -0.3 -9	26 Tu	0854 0.1 3 1108 0.0 0 1800 0.6 18	11 M	0445 0.3 9 0927 0.0 0 1627 0.6 18 2210 -0.4 -12	26 Tu	0714 0.2 6 0947 0.1 3 1642 0.7 21 2304 -0.4 -12
12 Sa	0457 0.6 18 1040 -0.1 -3 1748 0.6 18 2307 0.1 3	27 Su	0541 0.4 12 1100 0.0 0 1801 0.6 18	12 Tu	0634 0.1 3 1126 0.0 0 1822 0.5 15	27 W	0039 -0.4 -12 1846 0.5 15	12 Tu	0536 0.2 6 1005 0.0 0 1704 0.6 18 2304 -0.5 -15	27 W	0840 0.2 6 1033 0.1 3 1726 0.6 18
13 Su	0548 0.5 15 1124 0.0 0 1825 0.6 18	28 M	0004 -0.2 -6 0858 0.2 6 1146 0.1 3 1839 0.6 18	13 W	0034 -0.4 -12 1902 0.5 15	28 Th	0144 -0.4 -12 1936 0.5 15	13 W	1742 0.6 18	28 Th	0001 -0.4 -12 1814 0.6 18
14 M	0009 0.0 0 0647 0.3 9 1211 0.1 3 1905 0.6 18	29 Tu	0115 -0.2 -6 1035 0.2 6 1236 0.1 3 1922 0.6 18	14 Th	0136 -0.4 -12 1943 0.6 18	14 Th	0002 -0.5 -15 1823 0.6 18	14 Th	0002 -0.5 -15 1823 0.6 18	29 F	0100 -0.4 -12 1906 0.5 15
15 Tu	0111 -0.1 -3 1053 0.3 9 1258 0.2 6 1945 0.6 18	30 W	0226 -0.3 -9 2009 0.6 18	15 F	0238 -0.5 -15 2027 0.6 18	15 F	0104 -0.5 -15 1908 0.6 18	15 F	0104 -0.5 -15 1908 0.6 18	30 Sa	0202 -0.3 -9 1149 0.3 9 1351 0.2 6 2003 0.5 15
		31 Th	0328 -0.4 -12 2059 0.6 18							31 Su	0301 -0.2 -6 1229 0.3 9 1505 0.2 6 2108 0.4 12

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

Vaca Key, Florida Bay, Florida, 2019

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 M	0245 0.7 0424 0.6 1055 1.0 1741 -0.2	16 Tu	0302 0.6 0457 0.5 1140 1.0 1816 -0.1	1 Th	0346 0.8 0531 0.7 1236 1.2 1852 0.1	16 F	0341 0.8 0614 0.6 1323 1.1 1906 0.3	1 Su	0342 1.0 0711 0.6 1505 1.3 1951 0.6	16 M	0226 1.1 0726 0.6 1507 1.2 1948 0.7
2 Tu	0919 1.1 1826 -0.2	17 W	0344 0.6 0541 0.5 1233 1.0 1855 -0.1	2 F	0417 0.8 0623 0.6 1342 1.2 1937 0.1	17 Sa	0403 0.8 0659 0.6 1412 1.1 1944 0.3	2 M	0339 1.0 0807 0.5 1601 1.2 2032 0.7	17 Tu	0252 1.2 0810 0.5 1547 1.1 2026 0.7
3 W	1000 1.1 1912 -0.2	18 Th	0421 0.6 0627 0.5 1326 1.0 1934 0.0	3 Sa	0444 0.7 0718 0.6 1443 1.2 2022 0.2	18 Su	0349 0.8 0745 0.5 1458 1.0 2023 0.3	3 Tu	0350 1.1 0904 0.4 1658 1.0 2114 0.7	18 W	0326 1.2 0856 0.4 1630 1.0 2105 0.7
4 Th	0457 0.7 0635 0.6 1343 1.1 1959 -0.2	19 F	0454 0.6 0713 0.5 1417 1.0 2015 0.0	4 Su	0500 0.8 0816 0.5 1538 1.1 2106 0.3	19 M	0342 0.9 0832 0.5 1543 1.0 2103 0.4	4 W	0419 1.2 1003 0.3 1835 0.9 2157 0.7	19 Th	0403 1.2 0945 0.3 1719 1.0 2144 0.8
5 F	0533 0.6 0727 0.6 1440 1.1 2046 -0.1	20 Sa	0516 0.6 0802 0.5 1505 0.9 2057 0.0	5 M	0459 0.8 0917 0.4 1632 1.0 2150 0.4	20 Tu	0410 1.0 0922 0.4 1630 0.9 2144 0.4	5 Th	0456 1.2 1104 0.2 2027 0.8 2242 0.7	20 F	0442 1.2 1037 0.2 2023 0.9 2223 0.8
6 Sa	0604 0.6 0824 0.5 1535 1.0 2134 0.0	21 Su	0445 0.7 0853 0.4 1552 0.9 2139 0.1	6 Tu	0510 0.9 1021 0.3 1726 0.8 2234 0.4	21 W	0445 1.0 1014 0.3 1719 0.8 2225 0.5	6 F	0539 1.2 1208 0.2	21 Sa	0523 1.2 1134 0.2
7 Su	0629 0.6 0926 0.4 1629 0.9 2222 0.1	22 M	0455 0.7 0948 0.4 1640 0.8 2222 0.1	7 W	0539 1.0 1128 0.2 1857 0.6 2320 0.5	22 Th	0523 1.0 1108 0.2 1814 0.7 2306 0.6	7 Sa	0626 1.2 1315 0.2	22 Su	0606 1.3 1234 0.2
8 M	0632 0.6 1033 0.4 1724 0.8 2310 0.2	23 Tu	0527 0.8 1045 0.3 1731 0.7 2306 0.2	8 Th	0617 1.0 1239 0.2 2205 0.6	23 F	0603 1.0 1207 0.2	8 Su	0719 1.2 1422 0.3	23 M	0655 1.3 1338 0.3
9 Tu	0635 0.7 1146 0.3 1824 0.6 2358 0.3	24 W	0604 0.8 1145 0.2 1826 0.6 2351 0.3	9 F	0009 0.5 0701 1.0 1351 0.1	24 Sa	0645 1.1 1309 0.1	9 M	0816 1.1 1523 0.3	24 Tu	0751 1.3 1442 0.4
10 W	0704 0.8 1301 0.2 2208 0.5	25 Th	0645 0.8 1247 0.2 2225 0.5	10 Sa	0750 1.1 1458 0.1	25 Su	0730 1.1 1411 0.1	10 Tu	0038 0.9 0256 0.8 0918 1.1 1612 0.4	25 W	0856 1.3 1540 0.5
11 Th	0048 0.4 0742 0.9 1416 0.1 2329 0.5	26 F	0038 0.4 0727 0.9 1349 0.1	11 Su	0842 1.1 1555 0.1	26 M	0818 1.2 1512 0.1	11 W	0118 0.9 0354 0.8 1029 1.1 1651 0.4	26 Th	0113 1.1 0326 0.9 1015 1.3 1631 0.6
12 F	0140 0.4 0826 0.9 1523 0.0	27 Sa	0810 0.9 1448 0.0	12 M	0109 0.7 0303 0.6 0937 1.1 1639 0.1	27 Tu	0912 1.2 1608 0.2	12 Th	0154 1.0 0442 0.8 1214 1.1 1726 0.5	27 F	0142 1.1 0424 0.9 1215 1.4 1716 0.7
13 Sa	0033 0.6 0232 0.5 0912 1.0 1616 0.0	28 Su	0853 1.0 1542 0.0	13 Tu	0153 0.7 0357 0.6 1034 1.1 1717 0.1	28 W	0157 0.9 0334 0.8 1014 1.3 1658 0.3	13 F	0226 1.0 0523 0.8 1317 1.2 1800 0.6	28 Sa	0208 1.1 0518 0.8 1349 1.4 1757 0.8
14 Su	0128 0.6 0323 0.5 0959 1.0 1659 -0.1	29 M	0937 1.1 1633 0.0	14 W	0233 0.8 0445 0.6 1132 1.1 1753 0.2	29 Th	0231 0.9 0429 0.8 1129 1.3 1744 0.3	14 Sa	0249 1.0 0603 0.7 1356 1.2 1835 0.6	29 Su	0223 1.2 0610 0.6 1451 1.4 1837 0.9
15 M	0217 0.6 0411 0.5 1048 1.0 1738 -0.1	30 Tu	1026 1.1 1720 0.0	15 Th	0309 0.8 0530 0.6 1230 1.1 1829 0.2	30 F	0301 0.9 0523 0.8 1249 1.3 1828 0.4	15 Su	0247 1.1 0644 0.7 1431 1.2 1911 0.7	30 M	0217 1.2 0702 0.5 1548 1.3 1916 0.9
		31 W	0309 0.8 0441 0.7 1127 1.2 1806 0.0			31 Sa	0326 0.9 0617 0.7 1402 1.3 1910 0.5				

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

Vaca Key, Florida Bay, Florida, 2019

Times and Heights of High and Low Waters

October				November				December			
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 Tu	0227 1.3 40 0754 0.4 12 1644 1.2 37 1956 0.9 27	16 W	0206 1.3 40 0748 0.4 12 1638 1.1 34 1948 0.9 27	1 F	0300 1.5 46 0916 0.2 6 1847 1.0 30 2049 0.9 27	16 Sa	0249 1.3 40 0900 0.1 3	1 Su	0321 1.2 37 0938 0.0 0 1909 0.8 24 2120 0.7 21	16 M	0021 1.1 34 0119 1.0 30 0319 1.1 34 0930 -0.1 -3 1900* 0.7 21 0411 1.1 34
2 W	0257 1.4 43 0847 0.3 9 1746 1.1 34 2038 0.9 27	17 Th	0244 1.4 43 0833 0.3 9 1726 1.1 34 2026 1.0 30	2 Sa	0347 1.4 43 1007 0.2 6	17 Su	0040 1.3 40 0950 0.1 3	2 M	0410 1.1 34 1026 0.1 3 1956 0.8 24 2222 0.7 21	17 Tu	1019 0.0 0 1935 0.7 21 2216 0.6 18
3 Th	0336 1.4 43 0941 0.3 9 1857 1.0 30 2121 0.9 27	18 F	0324 1.4 43 0921 0.2 6 1847 1.0 30 2105 0.9 27	3 Su	0435 1.3 40 1059 0.2 6	18 M	0421 1.3 40 1042 0.1 3	3 Tu	0501 1.0 30 1116 0.2 6 2040 0.8 24 2334 0.6 18	18 W	0505 1.0 30 1110 0.1 3 1959 0.7 21 2326 0.5 15
4 F	0418 1.4 43 1036 0.3 9	19 Sa	0404 1.4 43 1012 0.2 6	4 M	0525 1.2 37 1154 0.3 9 2145 0.9 27 2357 0.8 24	19 Tu	0513 1.2 37 1138 0.3 9	4 W	0554 0.9 27 1208 0.3 9 2120 0.8 24	19 Th	0603 0.8 24 1201 0.2 6 1937 0.7 21
5 Sa	0504 1.4 43 1134 0.3 9	20 Su	0446 1.4 43 1106 0.2 6	5 Tu	0620 1.1 34 1252 0.4 12 2230 1.0 30	20 W	0611 1.2 37 1235 0.4 12 2214 0.9 27	5 Th	0056 0.6 18 0652 0.8 24 1301 0.4 12 1951 0.8 24	20 F	0041 0.4 12 0712 0.7 21 1253 0.4 12 2001 0.8 24
6 Su	0554 1.3 40 1234 0.3 9	21 M	0533 1.4 43 1205 0.3 9	6 W	0129 0.8 24 0721 1.1 34 1351 0.5 15 2310 1.0 30	21 Th	0052 0.8 24 0719 1.1 34 1333 0.5 15 2247 1.0 30	6 F	0228 0.5 15 0802 0.7 21 1354 0.5 15 2032 0.9 27	21 Sa	0156 0.3 9 1107 0.6 18 1345 0.5 15 2034 0.9 27
7 M	0648 1.2 37 1338 0.4 12 2317 1.0 30	22 Tu	0627 1.3 40 1307 0.4 12	7 Th	0324 0.8 24 0833 1.0 30 1446 0.6 18 2343 1.1 34	22 F	0207 0.7 21 1047 1.0 30 1428 0.7 21 2312 1.0 30	7 Sa	0328 0.4 12 1151 0.7 21 1443 0.6 18 2112 1.0 30	22 Su	0304 0.1 3 1220 0.7 21 1435 0.5 15 2112 1.0 30
8 Tu	0139 0.9 27 0749 1.2 37 1440 0.5 15 2359 1.0 30	23 W	0731 1.3 40 1409 0.5 15 2350 1.1 34	8 F	0409 0.7 21 1157 1.0 30 1533 0.7 21	23 Sa	0315 0.6 18 1216 1.0 30 1517 0.8 24 2239 1.1 34	8 Su	0400 0.3 9 1253 0.8 24 1526 0.6 18 2152 1.0 30	23 M	0402 0.0 0 1321 0.7 21 1523 0.6 18 2153 1.0 30
9 W	0301 0.9 27 0858 1.1 34 1534 0.6 18	24 Th	0215 1.0 30 0848 1.3 40 1507 0.7 21	9 Sa	0008 1.1 34 0431 0.7 21 1258 1.1 34 1612 0.8 24 2259 1.2 37 0459 0.6 18	24 Su	0413 0.4 12 1321 1.1 34 1602 0.8 24 2243 1.2 37	9 M	0432 0.2 6 1348 0.8 24 1605 0.7 21 2232 1.1 34	24 Tu	0452 -0.1 -3 1415 0.7 21 1610 0.6 18 2239 1.0 30
10 Th	0035 1.1 34 0400 0.9 27 1154 1.2 37 1617 0.7 21	25 F	0020 1.1 34 0321 0.9 27 1154 1.3 40 1557 0.8 24	10 Su	1351 1.1 34 1648 0.9 27 2325 1.2 37	25 M	0503 0.3 9 1418 1.1 34 1644 0.9 27 2317 1.3 40	10 Tu	0507 0.1 3 1439 0.9 27 1643 0.8 24 2312 1.1 34	25 W	0536 -0.1 -3 1503 0.7 21 1655 0.6 18 2330 1.0 30
11 F	0108 1.1 34 0440 0.8 24 1257 1.2 37 1653 0.8 24	26 Sa	0046 1.2 37 0419 0.7 21 1312 1.3 40 1641 0.9 27	11 M	0531 0.5 15 1440 1.1 34 1723 0.9 27	26 Tu	0550 0.2 6 1511 1.0 30 1725 0.9 27	11 W	0545 0.0 0 1527 0.9 27 1720 0.8 24 2355 1.1 34	26 Th	0619 -0.2 -6
12 Sa	0133 1.2 37 0515 0.8 24 1348 1.2 37 1727 0.8 24	27 Su	0100 1.2 37 0512 0.6 18 1412 1.3 40 1721 1.0 30	12 Tu	0000 1.3 40 0607 0.4 12 1528 1.1 34 1758 1.0 30	27 W	0000 1.3 40 0635 0.1 3 1601 1.0 30 1807 0.9 27	12 Th	0625 0.0 0 2150 1.1 34	27 F	0025 1.0 30 0700 -0.2 -6 1631 0.6 18 1827 0.5 15
13 Su	0133 1.2 37 0550 0.7 21 1435 1.2 37 1800 0.9 27	28 M	0037 1.3 40 0602 0.5 15 1508 1.3 40 1801 1.0 30	13 W	0040 1.3 40 0646 0.3 9 1615 1.1 34 1834 1.0 30	28 Th	0050 1.3 40 0720 0.1 3 1649 0.9 27 1850 0.8 24	13 F	0708 -0.1 -3 2233 1.2 37	28 Sa	0121 1.0 30 0743 -0.2 -6 1710 0.6 18 1916 0.5 15
14 M	0101 1.2 37 0627 0.6 18 1517 1.2 37 1835 0.9 27	29 Tu	0054 1.4 43 0650 0.4 12 1602 1.2 37 1840 1.0 30	14 Th	0122 1.3 40 0728 0.2 6 1703 1.1 34 1912 1.0 30	29 F	0142 1.3 40 0805 0.0 0 1736 0.9 27 1936 0.8 24	14 Sa	0754 -0.1 -3 1741 0.8 24 1925 0.7 21	29 Su	0213 0.9 27 0826 -0.2 -6 1745 0.6 18 2007 0.4 12
15 Tu	0130 1.3 40 0706 0.5 15 1558 1.2 37 1911 0.9 27	30 W	0131 1.5 46 0738 0.3 9 1655 1.2 37 1921 1.0 30	15 F	0205 1.3 40 0812 0.1 3 1754 1.0 30 1951 0.9 27	30 Sa	0232 1.3 40 0851 0.0 0 1822 0.8 24 2025 0.7 21	15 Su	0227 1.2 37 0841 -0.1 -3	30 M	0303 0.9 27 0909 -0.2 -6 1812 0.5 15 2102 0.4 12
		31 Th	0214 1.5 46 0827 0.2 6 1749 1.1 34 2004 0.9 27							31 Tu	0352 0.8 24 0954 -0.1 -3 1733 0.5 15 2200 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 mean lower low water which is the chart datum of soundings.
 * See Page 320 for the remaining tides on this day.

Key West, Florida, 2019
Times and Heights of High and Low Waters

Table with columns for Month (October, November, December), Day, Time, and Height (ft/cm). Each day's entry includes high and low tide times and heights.

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

Naples, Florida, 2019

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										
1 Tu	0256	-0.1	-3		16 W	0219	-0.1	-3		1 F	0416	-0.5	-15		16 Sa	0344	-0.8	-24		1 F	0303	-0.1	-3		16 Sa	0224	-0.4	-12	
	1015	1.9	58			0901	1.7	52			1200	1.9	58			1052	2.0	61			1124	1.9	58			0949	2.0	61	
	1453	1.1	34			1401	1.2	37			1620	1.1	34			1541	1.2	37			1516	1.3	40			1429	1.4	43	
	2050	2.5	76			2000	2.4	73			2205	2.5	76			2132	2.7	82			2102	2.3	70			2019	2.6	79	
2 W	0347	-0.4	-12		17 Th	0313	-0.4	-12		2 Sa	0458	-0.6	-18		17 Su	0435	-1.0	-30		2 Sa	0353	-0.2	-6		17 Su	0322	-0.5	-15	
	1112	2.0	61			1009	1.8	55			1210	1.9	58			1129	2.1	64			1133	2.0	61			1027	2.1	64	
	1546	1.1	34			1502	1.2	37			1702	1.1	34			1634	1.0	30			1606	1.2	37			1530	1.2	37	
	2135	2.6	79			2051	2.5	76			2244	2.5	76			2226	2.9	88			2153	2.4	73			2129	2.8	85	
3 Th	0433	-0.6	-18		18 F	0404	-0.8	-24		3 Su	0536	-0.6	-18		18 M	0522	-1.1	-34		3 Su	0435	-0.3	-9		18 M	0413	-0.6	-18	
	1150	2.0	61			1101	2.0	61			1226	2.0	61			1204	2.2	67			1135	2.0	61			1059	2.3	70	
	1633	1.2	37			1556	1.2	37			1740	1.0	30			1722	0.8	24			1646	1.0	30			1621	0.8	24	
	2214	2.6	79			2140	2.7	82			2320	2.6	79			2315	3.1	94			2235	2.5	76			2225	3.0	91	
4 F	0515	-0.7	-21		19 Sa	0452	-1.1	-34		4 M	0612	-0.6	-18		19 Tu	0607	-1.0	-30		4 M	0512	-0.3	-9		19 Tu	0500	-0.6	-18	
	1219	2.0	61			1146	2.1	64			1249	2.0	61			1238	2.3	70			1149	2.1	64			1129	2.5	76	
	1715	1.1	34			1646	1.1	34			1816	0.9	27			1810	0.5	15			1721	0.9	27			1709	0.5	15	
	2250	2.7	82			2226	2.9	88			2353	2.6	79								2311	2.6	79			2315	3.1	94	

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

Naples, Florida, 2019

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	h m	ft cm	h m	ft cm
1 M	0403 0.1 3 1044 2.3 70 1622 1.0 30 2218 2.5 76	16 Tu	0348 -0.1 -3 1020 2.6 79 1608 0.6 18 2222 2.9 88	1 W	0400 0.6 18 1017 2.6 79 1628 0.6 18 2235 2.5 76	16 Th	0406 0.7 21 1010 2.9 88 1640 -0.1 -3 2311 2.6 79	1 Sa	0430 1.1 34 1025 2.9 88 1715 -0.2 -6 2341 2.4 73	16 Su	0001 2.3 70 0508 1.3 40 1050 3.1 94 1755 -0.5 -15
2 Tu	0440 0.2 6 1104 2.4 73 1657 0.7 21 2255 2.6 79	17 W	0434 0.1 3 1049 2.7 82 1655 0.2 6 2312 2.9 88	2 Th	0436 0.7 21 1043 2.7 82 1703 0.3 9 2314 2.5 76	17 F	0450 0.8 24 1042 3.1 94 1726 -0.3 -9 2358 2.6 79	2 Su	0506 1.2 37 1049 3.0 91 1756 -0.4 -12	17 M	0043 2.3 70 0550 1.4 43 1124 3.1 94 1838 -0.5 -15
3 W	0515 0.2 6 1127 2.5 76 1730 0.5 15 2330 2.7 82	18 Th	0518 0.2 6 1118 2.9 88 1741 -0.1 -3	3 F	0509 0.8 24 1107 2.8 85 1739 0.1 3 2352 2.6 79	18 Sa	0531 1.0 30 1112 3.1 94 1810 -0.5 -15	3 M	0026 2.4 73 0542 1.3 40 1113 3.1 94 1839 -0.6 -18	18 Tu	0125 2.3 70 0632 1.4 43 1158 3.1 94 1920 -0.4 -12
4 Th	0546 0.3 9 1151 2.6 79 1804 0.3 9	19 F	0000 2.9 88 0559 0.5 15 1147 3.0 91 1826 -0.4 -12	4 Sa	0541 0.9 27 1128 2.9 88 1816 -0.2 -6	19 Su	0045 2.5 76 0612 1.1 34 1143 3.1 94 1854 -0.5 -15	4 Tu	0116 2.4 73 0620 1.4 43 1141 3.2 98 1924 -0.7 -21	19 W	0206 2.3 70 0713 1.5 46 1235 3.0 91 2001 -0.3 -9
5 F	0005 2.6 79 0617 0.4 12 1214 2.7 82 1838 0.1 3	20 Sa	0048 2.7 82 0639 0.7 21 1217 3.0 91 1911 -0.4 -12	5 Su	0032 2.5 76 0612 1.0 30 1145 2.9 88 1855 -0.3 -9	20 M	0132 2.4 73 0653 1.3 40 1215 3.1 94 1938 -0.5 -15	5 W	0211 2.4 73 0703 1.5 46 1217 3.2 98 2011 -0.7 -21	20 Th	0248 2.3 70 0756 1.5 46 1316 2.9 88 2042 -0.1 -3
6 Sa	0040 2.6 79 0646 0.6 18 1233 2.7 82 1915 0.0 0	21 Su	0138 2.6 79 0719 0.9 27 1248 3.0 91 1957 -0.4 -12	6 M	0117 2.4 73 0644 1.2 37 1205 3.0 91 1938 -0.4 -12	21 Tu	0221 2.3 70 0733 1.4 43 1251 3.0 91 2023 -0.3 -9	6 Th	0307 2.3 70 0751 1.5 46 1303 3.1 94 2101 -0.5 -15	21 F	0331 2.3 70 0840 1.5 46 1404 2.7 82 2124 0.1 3
7 Su	0120 2.5 76 0714 0.8 24 1249 2.7 82 1954 -0.1 -3	22 M	0230 2.4 73 0758 1.1 34 1323 2.9 88 2044 -0.3 -9	7 Tu	0210 2.4 73 0717 1.3 40 1232 3.0 91 2024 -0.4 -12	22 W	0311 2.2 67 0815 1.5 46 1331 2.8 85 2108 -0.2 -6	7 F	0404 2.3 70 0846 1.6 49 1402 3.0 91 2155 -0.3 -9	22 Sa	0416 2.3 70 0929 1.6 49 1458 2.6 79 2209 0.3 9
8 M	0205 2.3 70 0741 1.0 30 1308 2.7 82 2038 -0.2 -6	23 Tu	0325 2.2 67 0838 1.4 43 1402 2.8 85 2135 -0.1 -3	8 W	0309 2.3 70 0754 1.5 46 1309 2.9 88 2115 -0.4 -12	23 Th	0404 2.2 67 0902 1.6 49 1420 2.6 79 2158 0.1 3	8 Sa	0501 2.3 70 0954 1.6 49 1522 2.7 82 2255 0.0 0	23 Su	0503 2.4 73 1032 1.5 46 1602 2.4 73 2258 0.6 18
9 Tu	0300 2.2 67 0809 1.2 37 1337 2.7 82 2128 -0.1 -3	24 W	0428 2.0 61 0923 1.6 49 1450 2.6 79 2232 0.1 3	9 Th	0415 2.2 67 0838 1.6 49 1357 2.9 88 2213 -0.3 -9	24 F	0500 2.1 64 1002 1.7 52 1524 2.4 73 2254 0.3 9	9 Su	0555 2.4 73 1118 1.4 43 1706 2.6 79 2357 0.2 6	24 M	0548 2.4 73 1145 1.4 43 1716 2.2 67 2351 0.8 24
10 W	0408 2.0 61 0838 1.4 43 1415 2.7 82 2230 -0.1 -3	25 Th	0539 2.0 61 1032 1.7 52 1559 2.4 73 2338 0.3 9	10 F	0526 2.2 67 0943 1.7 52 1459 2.7 82 2319 -0.1 -3	25 Sa	0556 2.2 67 1125 1.7 52 1647 2.3 70 2354 0.5 15	10 M	0644 2.5 76 1237 1.2 37 1836 2.4 73	25 Tu	0632 2.5 76 1249 1.2 37 1829 2.1 64
11 Th	0532 1.9 58 0915 1.6 49 1506 2.6 79 2343 -0.1 -3	26 F	0652 2.0 61 1208 1.7 52 1733 2.2 67	11 Sa	0632 2.2 67 1130 1.7 52 1650 2.5 76	26 Su	0646 2.3 70 1241 1.5 46 1807 2.2 67	11 Tu	0057 0.5 15 0729 2.6 79 1343 0.8 24 1958 2.4 73	26 W	0044 1.0 30 0715 2.5 76 1345 1.0 30 1939 2.1 64
12 F	0655 2.0 61 1117 1.7 52 1625 2.5 76	27 Sa	0044 0.4 12 0800 2.1 64 1325 1.6 49 1852 2.2 67	12 Su	0027 0.0 0 0729 2.3 70 1255 1.5 46 1843 2.5 76	27 M	0051 0.6 18 0732 2.4 73 1341 1.3 40 1917 2.2 67	12 W	0154 0.8 24 0814 2.7 82 1443 0.4 12 2117 2.3 70	27 Th	0133 1.2 37 0756 2.6 79 1436 0.6 18 2049 2.1 64
13 Sa	0054 -0.1 -3 0811 2.1 64 1307 1.6 49 1845 2.5 76	28 Su	0143 0.4 12 0847 2.2 67 1424 1.4 43 2001 2.3 70	13 M	0129 0.2 6 0819 2.4 73 1403 1.1 34 2006 2.5 76	28 Tu	0142 0.8 24 0814 2.5 76 1431 1.0 30 2022 2.2 67	13 Th	0247 1.0 30 0857 2.9 88 1537 0.1 3 2223 2.4 73	28 F	0221 1.3 40 0836 2.7 82 1523 0.3 9 2152 2.2 67
14 Su	0158 -0.1 -3 0909 2.2 67 1418 1.4 43 2014 2.6 79	29 M	0235 0.5 15 0920 2.3 70 1512 1.1 34 2103 2.3 70	14 Tu	0226 0.3 9 0900 2.6 79 1501 0.7 21 2119 2.6 79	29 W	0230 0.9 27 0853 2.6 79 1515 0.7 21 2122 2.2 67	14 F	0338 1.1 34 0937 3.0 91 1626 -0.2 -6 2316 2.4 73	29 Sa	0308 1.4 43 0914 2.9 88 1609 0.0 0 2244 2.3 70
15 M	0256 -0.1 -3 0948 2.4 73 1516 1.0 30 2124 2.8 85	30 Tu	0320 0.5 15 0949 2.5 76 1552 0.9 27 2153 2.4 73	15 W	0318 0.5 15 0937 2.8 85 1553 0.3 9 2220 2.6 79	30 Th	0313 1.0 30 0927 2.7 82 1556 0.4 12 2213 2.3 70	15 Sa	0424 1.2 37 1014 3.1 94 1712 -0.4 -12	30 Su	0353 1.4 43 0949 3.0 91 1653 -0.3 -9 2331 2.3 70
						31 F	0353 1.1 34 0958 2.8 85 1636 0.1 3 2258 2.4 73				

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

Naples, Florida, 2019

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 M	0437 1.5 46 1023 3.2 98 1737 -0.6 -18	16 Tu	0035 2.3 70 0534 1.5 46 1116 3.2 98 1820 -0.3 -9	1 Th	0044 2.6 79 0553 1.4 43 1140 3.6 110 1851 -0.5 -15	16 F	0056 2.6 79 0633 1.3 40 1220 3.2 98 1910 0.3 9	1 Su	0118 3.0 91 0719 0.7 21 1329 3.5 107 1956 0.5 15	16 M	0102 3.0 91 0720 0.9 27 1319 3.1 94 1937 1.1 34
2 Tu	0018 2.4 73 0520 1.5 46 1057 3.3 101 1823 -0.7 -21	17 W	0105 2.3 70 0615 1.5 46 1151 3.1 94 1859 -0.2 -6	2 F	0125 2.6 79 0643 1.2 37 1231 3.6 110 1937 -0.4 -12	17 Sa	0126 2.7 82 0710 1.2 37 1255 3.2 98 1943 0.5 15	2 M	0155 3.1 94 0810 0.5 15 1427 3.3 101 2039 0.9 27	17 Tu	0126 3.0 91 0757 0.8 24 1358 3.0 91 2004 1.3 40
3 W	0108 2.4 73 0605 1.5 46 1136 3.4 104 1909 -0.8 -24	18 Th	0137 2.4 73 0654 1.4 43 1228 3.1 94 1937 -0.1 -3	3 Sa	0207 2.7 82 0734 1.1 34 1328 3.4 104 2022 -0.1 -3	18 Su	0158 2.7 82 0747 1.2 37 1333 3.0 91 2014 0.7 21	3 Tu	0235 3.1 94 0904 0.5 15 1530 2.9 88 2123 1.2 37	18 W	0144 3.0 91 0837 0.8 24 1444 2.8 85 2028 1.5 46
4 Th	0158 2.4 73 0654 1.4 43 1221 3.4 104 1956 -0.7 -21	19 F	0212 2.4 73 0734 1.4 43 1307 3.0 91 2014 0.1 3	4 Su	0248 2.8 85 0828 0.9 27 1431 3.2 98 2107 0.3 9	19 M	0231 2.7 82 0825 1.1 34 1414 2.9 88 2044 0.9 27	4 W	0318 3.1 94 1004 0.6 18 1641 2.6 79 2213 1.6 49	19 Th	0204 2.9 88 0923 0.8 24 1541 2.6 79 2052 1.7 52
5 F	0246 2.5 76 0746 1.4 43 1317 3.3 101 2044 -0.5 -15	20 Sa	0249 2.5 76 0814 1.4 43 1349 2.9 88 2050 0.3 9	5 M	0330 2.8 85 0925 0.9 27 1538 2.9 88 2155 0.7 21	20 Tu	0303 2.7 82 0906 1.1 34 1459 2.7 82 2111 1.1 34	5 Th	0411 3.0 91 1113 0.6 18 1803 2.4 73 2320 1.8 55	20 F	0233 2.9 88 1022 0.8 24 1659 2.5 76 2121 1.9 58
6 Sa	0333 2.5 76 0841 1.3 40 1424 3.1 94 2133 -0.1 -3	21 Su	0327 2.5 76 0856 1.4 43 1435 2.7 82 2126 0.5 15	6 Tu	0415 2.8 85 1031 0.8 24 1653 2.6 79 2249 1.1 34	21 W	0333 2.7 82 0956 1.0 30 1555 2.5 76 2136 1.4 43	6 F	0518 2.9 88 1227 0.7 21 1942 2.3 70	21 Sa	0315 2.9 88 1135 0.7 21 1825 2.4 73 2213 2.1 64
7 Su	0420 2.5 76 0944 1.2 37 1539 2.8 85 2226 0.2 6	22 M	0407 2.5 76 0945 1.3 40 1526 2.5 76 2202 0.8 24	7 W	0505 2.9 88 1144 0.7 21 1814 2.4 73 2351 1.4 43	22 Th	0403 2.7 82 1101 1.0 30 1710 2.3 70 2206 1.6 49	7 Sa	0037 2.0 61 0631 2.9 88 1335 0.6 18 2206 2.4 73	22 Su	0421 2.9 88 1248 0.6 18 1946 2.4 73
8 M	0508 2.6 79 1057 1.1 34 1702 2.6 79 2324 0.6 18	23 Tu	0448 2.6 79 1045 1.3 40 1628 2.3 70 2242 1.0 30	8 Th	0600 2.9 88 1256 0.6 18 1946 2.2 67	23 F	0443 2.7 82 1213 0.9 27 1836 2.2 67 2304 1.8 55	8 Su	0148 1.9 58 0741 2.9 88 1437 0.6 18 2245 2.5 76	23 M	0046 2.1 64 0628 2.9 88 1353 0.5 15 2058 2.5 76
9 Tu	0556 2.7 82 1212 0.9 27 1825 2.4 73	24 W	0531 2.6 79 1154 1.1 34 1743 2.2 67 2331 1.3 40	9 F	0057 1.6 49 0659 2.9 88 1402 0.4 12 2158 2.2 67	24 Sa	0547 2.8 85 1320 0.7 21 2001 2.2 67	9 M	0250 1.8 55 0847 3.0 91 1531 0.5 15 2301 2.6 79	24 Tu	0200 2.0 61 0755 3.1 94 1452 0.3 9 2147 2.7 82
10 W	0024 0.9 27 0644 2.8 85 1321 0.6 18 1950 2.2 67	25 Th	0614 2.6 79 1258 0.9 27 1901 2.1 64	10 Sa	0201 1.7 52 0800 3.0 91 1502 0.3 9 2301 2.3 70	25 Su	0057 1.9 58 0700 2.9 88 1421 0.4 12 2121 2.3 70	10 Tu	0342 1.7 52 0941 3.1 94 1616 0.5 15 2309 2.6 79	25 W	0300 1.7 52 0904 3.3 101 1546 0.2 6 2224 2.8 85
11 Th	0123 1.2 37 0733 2.8 85 1424 0.3 9 2124 2.2 67	26 F	0031 1.5 46 0659 2.7 82 1356 0.6 18 2020 2.1 64	11 Su	0301 1.7 52 0900 3.0 91 1554 0.2 6 2334 2.4 73	26 M	0210 1.9 58 0809 3.1 94 1518 0.2 6 2216 2.5 76	11 W	0424 1.5 46 1024 3.2 98 1656 0.5 15 2324 2.7 82	26 Th	0352 1.4 43 1002 3.5 107 1634 0.2 6 2256 3.0 91
12 F	0220 1.4 43 0824 2.9 88 1521 0.1 3 2241 2.2 67	27 Sa	0131 1.6 49 0746 2.8 85 1451 0.3 9 2135 2.2 67	12 M	0354 1.7 52 0951 3.1 94 1640 0.1 3 2350 2.4 73	27 Tu	0312 1.8 55 0912 3.3 101 1610 -0.1 -3 2257 2.6 79	12 Th	0501 1.4 43 1101 3.3 101 1732 0.6 18 2346 2.8 85	27 F	0440 1.0 30 1053 3.7 113 1719 0.3 9 2326 3.1 94
13 Sa	0315 1.5 46 0914 3.0 91 1612 -0.1 -3 2330 2.3 70	28 Su	0231 1.7 52 0836 2.9 88 1543 0.0 0 2233 2.3 70	13 Tu	0439 1.6 49 1033 3.2 98 1721 0.1 3	28 W	0405 1.6 49 1006 3.5 107 1658 -0.2 -6 2333 2.8 85	13 F	0536 1.2 37 1135 3.3 101 1806 0.6 18	28 Sa	0527 0.7 21 1141 3.7 113 1803 0.5 15 2357 3.2 98
14 Su	0406 1.5 46 0959 3.1 94 1657 -0.2 -6	29 M	0327 1.7 52 0925 3.1 94 1632 -0.3 -9 2319 2.4 73	14 W	0006 2.5 76 0519 1.5 46 1110 3.2 98 1759 0.1 3	29 Th	0453 1.4 43 1055 3.7 113 1744 -0.2 -6	14 Sa	0011 2.9 88 0610 1.1 34 1208 3.3 101 1838 0.8 24	29 Su	0614 0.4 12 1231 3.6 110 1845 0.7 21
15 M	0006 2.3 70 0451 1.5 46 1039 3.1 94 1740 -0.3 -9	30 Tu	0418 1.6 49 1010 3.4 104 1719 -0.5 -15	15 Th	0029 2.5 76 0557 1.4 43 1145 3.3 101 1835 0.2 6	30 F	0007 2.9 88 0541 1.1 34 1143 3.8 116 1829 -0.1 -3	15 Su	0037 3.0 91 0645 1.0 30 1242 3.2 98 1909 0.9 27	30 M	0028 3.3 101 0702 0.2 6 1324 3.4 104 1927 1.0 30
		31 W	0002 2.5 76 0505 1.5 46 1055 3.5 107 1805 -0.6 -18			31 Sa	0042 3.0 91 0629 0.9 27 1233 3.7 113 1912 0.2 6				

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

St. Petersburg, Florida, 2019

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 M	0612	-0.1	-3		16 Tu	0557	-0.1	-3		1 W	0548	0.4	12		16 Th	0011	1.8	55		1 Sa	0115	1.5	46		16 Su	0239	1.5	46	
	1307	1.6	49			1235	1.7	52			1214	1.9	58			0545	0.6	18			0541	1.0	30			0546	1.3	40	
	1806	0.9	27			1800	0.7	21			1828	0.5	15			1159	2.2	67			1150	2.4	73			1215	2.7	82	
	2357	1.9	58													1851	0.1	3			1923	-0.1	-3			2014	-0.3	-9	
2 Tu	0644	0.0	0		17 W	0003	2.1	64		2 Th	0030	1.7	52		17 F	0115	1.7	52		2 Su	0209	1.5	46		17 M	0333	1.4	43	
	1319	1.6	49			0635	0.1	3			0616	0.5	15			0614	0.8	24			0606	1.2	37			0612	1.3	40	
	1844	0.7	21			1253	1.9	58			1227	2.0	61			1222	2.4	73			1217	2.6	79			1247	2.7	82	
						1851	0.4	12			1903	0.3	9			1937	-0.1	-3			2004	-0.3	-9			2053	-0.3	-9	
3 W	0041	1.9	58		18 Th	0104	2.0	61		3 F	0117	1.7	52		18 Sa	0214	1.6	49		3 M	0303	1.5	46		18 Tu	0421	1.4	43	
	0711	0.1	3			0706	0.3	9			0640	0.7	21			0639	1.0	30			0629	1.2	37			0640	1.3	40	
	1329	1.7	52			1311	2.0	61			1241	2.2	67			1247	2.5	76			1248	2.7	82			1322	2.7	82	
	1917	0.5	15			1939	0.1	3			1938	0.1	3			2020	-0.3	-9			2046	-0.4	-12			2131	-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 mean lower low water which is the chart datum of soundings.

St. Petersburg, Florida, 2019

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
	<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>
1 Tu	0238 2.5 76 0939 0.2 6 1620 2.1 64 2121 1.3 40	16 W	0201 2.5 76 0917 0.2 6 1554 1.9 58 2036 1.3 40	1 F	0257 2.6 79 1113 0.0 0	16 Sa	0233 2.6 79 1046 -0.3 -9 1829 1.5 46 2034 1.4 43	1 Su	0314 2.3 70 1138 -0.2 -6 1945 1.4 43 2153 1.3 40	16 M	0317 2.3 70 1132 -0.5 -15 1903 1.3 40 2203 1.2 37
2 W	0307 2.6 79 1034 0.2 6 1728 1.9 58 2144 1.5 46	17 Th	0229 2.6 79 1000 0.2 6 1647 1.8 55 2058 1.4 43	2 Sa	0337 2.5 76 1213 0.1 3	17 Su	0319 2.5 76 1146 -0.2 -6	2 M	0405 2.1 64 1229 -0.1 -3 2026 1.5 46 2343 1.3 40	17 Tu	0418 2.1 64 1225 -0.3 -9 1944 1.3 40 2348 1.1 34
3 Th	0341 2.6 79 1135 0.3 9 1859 1.7 52 2205 1.6 49	18 F	0302 2.6 79 1052 0.2 6 1756 1.7 52 2122 1.5 46	3 Su	0428 2.3 70 1318 0.2 6	18 M	0416 2.4 73 1251 -0.1 -3 2113 1.5 46 2315 1.4 43	3 Tu	0510 1.8 55 1322 0.1 3 2059 1.5 46	18 W	0535 1.8 55 1319 -0.1 -3 2021 1.5 46
4 F	0421 2.6 79 1245 0.3 9	19 Sa	0343 2.6 79 1155 0.2 6 1944 1.6 49 2144 1.5 46	4 M	0540 2.1 64 1424 0.3 9 2229 1.8 55	19 Tu	0531 2.2 67 1358 0.0 0 2141 1.6 49	4 W	0138 1.2 37 0641 1.6 49 1414 0.2 6 2127 1.6 49	19 Th	0138 0.9 27 0713 1.6 49 1411 0.1 3 2056 1.6 49
5 Sa	0512 2.5 76 1403 0.4 12	20 Su	0433 2.6 79 1309 0.2 6	5 Tu	0219 1.6 49 0731 1.9 58 1523 0.4 12 2249 1.8 55	20 W	0137 1.4 43 0712 2.0 61 1459 0.1 3 2207 1.7 52	5 Th	0310 1.0 30 0828 1.4 43 1502 0.4 12 2152 1.7 52	20 F	0313 0.5 15 0905 1.4 43 1459 0.4 12 2130 1.8 55
6 Su	0627 2.3 70 1518 0.4 12 2334 1.9 58	21 M	0542 2.4 73 1428 0.2 6 2250 1.8 55	6 W	0351 1.3 40 0918 1.9 58 1613 0.4 12 2309 1.9 58	21 Th	0319 1.1 34 0901 1.9 58 1552 0.3 9 2232 1.9 58	6 F	0415 0.7 21 1002 1.4 43 1545 0.5 15 2216 1.8 55	21 Sa	0427 0.2 6 1048 1.3 40 1544 0.6 18 2204 2.0 61
7 M	0225 1.8 55 0815 2.2 67 1621 0.4 12 2354 1.9 58	22 Tu	0113 1.7 52 0717 2.3 70 1538 0.2 6 2310 1.8 55	7 Th	0449 1.1 34 1036 1.9 58 1654 0.6 18 2328 2.0 61	22 F	0432 0.7 21 1034 1.8 55 1638 0.5 15 2257 2.0 61	7 Sa	0506 0.4 12 1118 1.4 43 1623 0.7 21 2239 2.0 61	22 Su	0528 -0.2 -6 1214 1.3 40 1624 0.8 24 2239 2.2 67
8 Tu	0404 1.6 49 0951 2.2 67 1711 0.4 12	23 W	0312 1.5 46 0902 2.3 70 1637 0.2 6 2332 1.9 58	8 F	0533 0.8 24 1137 1.9 58 1729 0.7 21 2343 2.1 64	23 Sa	0531 0.3 9 1151 1.8 55 1717 0.7 21 2322 2.2 67	8 Su	0549 0.1 3 1221 1.4 43 1656 0.9 27 2301 2.1 64	23 M	0621 -0.5 -15 1326 1.3 40 1700 1.0 30 2314 2.3 70
9 W	0014 2.0 61 0505 1.4 43 1100 2.3 70 1752 0.5 15	24 Th	0430 1.3 40 1029 2.3 70 1725 0.3 9 2353 2.0 61	9 Sa	0612 0.5 15 1228 1.9 58 1758 0.8 24 2358 2.2 67	24 Su	0622 0.0 0 1258 1.7 52 1750 0.9 27 2349 2.4 73	9 M	0628 -0.1 -3 1317 1.4 43 1725 1.0 30 2325 2.2 67	24 Tu	0708 -0.7 -21 1427 1.3 40 1733 1.1 34 2350 2.4 73
10 Th	0032 2.0 61 0549 1.2 37 1153 2.3 70 1825 0.6 18	25 F	0529 0.9 27 1141 2.3 70 1806 0.5 15	10 Su	0646 0.3 9 1315 1.8 55 1822 1.0 30	25 M	0709 -0.3 -9 1359 1.7 52 1818 1.1 34	10 Tu	0706 -0.3 -9 1408 1.4 43 1751 1.1 34 2352 2.3 70	25 W	0751 -0.8 -24 1519 1.2 37 1805 1.1 34
11 F	0046 2.1 64 0626 1.0 30 1238 2.3 70 1853 0.7 21	26 Sa	0014 2.1 64 0621 0.5 15 1243 2.3 70 1840 0.7 21	11 M	0013 2.3 70 0720 0.1 3 1358 1.8 55 1843 1.1 34	26 Tu	0016 2.5 76 0754 -0.5 -15 1457 1.6 49 1843 1.2 37	11 W	0743 -0.5 -15 1455 1.4 43 1816 1.1 34	26 Th	0026 2.4 73 0831 -0.8 -24 1603 1.2 37 1839 1.1 34
12 Sa	0058 2.1 64 0700 0.8 24 1318 2.3 70 1916 0.9 27	27 Su	0035 2.3 70 0709 0.2 6 1341 2.2 67 1910 1.0 30	12 Tu	0031 2.4 73 0754 -0.1 -3 1440 1.7 52 1903 1.2 37	27 W	0046 2.6 79 0837 -0.5 -15 1553 1.5 46 1907 1.3 40	12 Th	0023 2.4 73 0823 -0.6 -18 1542 1.3 40 1841 1.2 37	27 F	0103 2.4 73 0909 -0.7 -21 1638 1.2 37 1918 1.1 34
13 Su	0109 2.2 67 0732 0.6 18 1355 2.2 67 1937 1.0 30	28 M	0057 2.5 76 0756 0.0 0 1437 2.1 64 1936 1.2 37	13 W	0054 2.5 76 0829 -0.2 -6 1523 1.7 52 1923 1.3 40	28 Th	0118 2.6 79 0920 -0.5 -15 1649 1.4 43 1931 1.3 40	13 F	0059 2.5 76 0905 -0.7 -21 1631 1.3 40 1911 1.2 37	28 Sa	0142 2.3 70 0946 -0.6 -18 1708 1.2 37 2004 1.0 30
14 M	0121 2.3 70 0805 0.4 12 1432 2.1 64 1956 1.1 34	29 Tu	0122 2.6 79 0842 -0.1 -3 1534 1.9 58 1959 1.3 40	14 Th	0121 2.6 79 0909 -0.3 -9 1612 1.6 49 1944 1.3 40	29 F	0153 2.6 79 1004 -0.4 -12 1748 1.4 43 2000 1.3 40	14 Sa	0140 2.5 76 0951 -0.7 -21 1723 1.2 37 1949 1.1 34	29 Su	0222 2.2 67 1023 -0.5 -15 1737 1.2 37 2059 1.0 30
15 Tu	0138 2.4 73 0839 0.3 9 1511 2.0 61 2015 1.2 37	30 W	0150 2.7 82 0929 -0.2 -6 1634 1.8 55 2020 1.4 43	15 F	0154 2.6 79 0954 -0.3 -9 1711 1.5 46 2008 1.4 43	30 Sa	0231 2.4 73 1050 -0.3 -9	15 Su	0225 2.5 76 1040 -0.6 -18 1815 1.2 37 2043 1.1 34	30 M	0306 2.0 61 1100 -0.4 -12 1806 1.2 37 2204 1.0 30
		31 Th	0221 2.7 82 1019 -0.1 -3 1745 1.6 49 2040 1.5 46							31 Tu	0355 1.8 55 1139 -0.2 -6 1838 1.3 40 2320 0.9 27

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

Cedar Key, Florida, 2019

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					
1 Tu	0438	0.0	0		16 W	0345	0.1	3		1 F	0610	-0.4	-12						
	1107	2.6	79			1018	2.4	73			1254	2.6	79		16 Sa	0534	-0.7	-21	
	1617	1.3	40			1523	1.4	43			1744	1.4	43			1227	2.8	85	
	2210	3.4	104			2120	3.3	101			2322	3.4	104			1722	1.5	46	
													2300	3.7		113			
2 W	0535	-0.3	-9		17 Th	0452	-0.3	-9		2 Sa	0652	-0.5	-15		17 Su	0629	-1.0	-30	
	1210	2.7	82			1134	2.6	79			1329	2.8	85			1311	3.0	91	
	1712	1.4	43			1635	1.5	46			1831	1.3	40			1820	1.2	37	
	2256	3.6	110			2218	3.5	107											
3 Th	0622	-0.6	-18		18 F	0550	-0.7	-21		3 Su	0009	3.5	107		18 M	0001	3.9	119	
	1259	2.8	85			1236	2.8	85			0728	-0.6	-18			0717	-1.2	-37	
	1801	1.4	43			1737	1.5	46			1400	2.9	88			1349	3.1	94	
	2339	3.6	110			2313	3.7	113			1912	1.1	34			1911	0.9	27	
4 F	0704	-0.7	-21		19 Sa	0643	-1.1	-34		4 M	0051	3.6	110		19 Tu	0056	4.1	125	
	1340	2.9	88			1327	3.0	91			0800	-0.6	-18			0800	-1.2	-37	
	1845	1.3	40			1832	1.4	43			1427	2.9	88			1424	3.2	98	
											1950	1.0	30			1958	0.6	18	
5 Sa	0020	3.7	113		20 Su	0006	3.9	119		5 Tu	0129	3.6	110		20 W	0147	4.1	125	
	0742	-0.7	-21			0731	-1.3	-40			0829	-0.5	-15			0841	-1.0	-30	
	1416	2.9	88			1412	3.1	94			1453	3.0	91			1455	3.3	101	
	1925	1.3	40			1922	1.2	37			2026	0.8	24			2043	0.3	9	
6 Su	0058	3.7	113		21 M	0058	4.1	125		6 W	0206	3.6	110		21 Th	0237	4.0	122	
	0816	-0.7	-21			0817	-1.3	-40			0857	-0.5	-15			0919	-0.7	-21	
	1449	2.9	88			1453	3.1	94			1517	3.1	94			1526	3.4	104	
	2003	1.2	37			2009	1.0	30			2101	0.7	21			2128	0.1	3	
7 M	0136	3.7	113		22 Tu	0148	4.1	125		7 Th	0242	3.5	107		22 F	0326	3.8	116	
	0848	-0.6	-18			0901	-1.3	-40			0923	-0.4	-12			0955	-0.3	-9	
	1520	2.9	88			1530	3.2	98			1541	3.2	98			1556	3.5	107	
	2040	1.1	34			2056	0.8	24			2136	0.6	18			2214	-0.1	-3	
8 Tu	0213	3.6	110		23 W	0239	4.0	122		8 F	0319	3.4	104		23 Sa	0415	3.4	104	
	0919	-0.5	-15			0943	-1.0	-30			0951	-0.2	-6			1029	0.1	3	
	1550	2.9	88			1606	3.2	98			1605	3.2	98			1627	3.5	107	
	2117	1.1	34			2144	0.6	18			2212	0.4	12			2301	-0.1	-3	
9 W	0250	3.5	107		24 Th	0330	3.8	116		9 Sa	0358	3.2	98		24 Su	0507	3.0	91	
	0949	-0.4	-12			1023	-0.7	-21			1020	0.0	0			1103	0.6	18	
	1619	3.0	91			1640	3.2	98			1630	3.3	101			1700	3.5	107	
	2155	1.0	30			2233	0.5	15			2251	0.4	12			2353	0.0	0	
10 Th	0330	3.4	104		25 F	0424	3.5	107		10 Su	0441	3.0	91		25 M	0606	2.6	79	
	1020	-0.2	-6			1103	-0.2	-6			1052	0.3	9			1139	1.0	30	
	1649	3.0	91			1715	3.2	98			1700	3.3	101			1739	3.4	104	
	2236	0.9	27			2326	0.4	12			2337	0.3	9						
11 F	0412	3.2	98		26 Sa	0522	3.1	94		11 M	0534	2.7	82		26 Tu	0053	0.1	3	
	1053	0.0	0			1142	0.3	9			1128	0.6	18			0721	2.2	67	
	1721	3.0	91			1753	3.2	98			1735	3.3	101			1222	1.3	40	
	2321	0.9	27													1826	3.2	98	
12 Sa	0500	3.0	91		27 Su	0026	0.3	9		12 Tu	0032	0.3	9		27 W	0209	0.2	6	
	1130	0.2	6			0628	2.7	82			0644	2.4	73			0900	2.1	64	
	1756	3.1	94			1225	0.7	21			1213	1.0	30			1324	1.6	49	
						1836	3.2	98			1821	3.3	101			1930	3.1	94	
13 Su	0014	0.8	24		28 M	0135	0.3	9		13 W	0143	0.2	6		28 Th	0340	0.2	6	
	0600	2.7	82			0750	2.3	70			0817	2.2	67			1048	2.2	67	
	1212	0.5	15			1315	1.1	34			1315	1.4	43			1453	1.8	55	
	1838	3.1	94			1926	3.2	98			1921	3.2	98			2049	3.0	91	
14 M	0117	0.6	18		29 Tu	0254	0.2	6		14 Th	0307	0.0	0		14 Th	0110	0.0	0	
	0717	2.4	73			0928	2.2	67			1001	2.3	70			0801	2.3	70	
	1304	0.9	27			1418	1.4	43			1441	1.6	49			1241	1.6	49	
	1926	3.1	94			2025	3.2	98			2036	3.3	101			1837	3.3	101	
15 Tu	0230	0.4	12		30 W	0414	0.0	0		15 F	0428	-0.3	-9		15 F	0238	0.0	0	
	0848	2.3	70			1103	2.3	70			1127	2.5	76			0949	2.3	70	
	1409	1.2	37			1534	1.6	49			1610	1.7	52			1419	1.8	55	
	2022	3.2	98			2128	3.2	98			2152	3.4	104			2006	3.2	98	
				31 Th	0519	-0.2	-6												
					1209	2.5	76												
					1645	1.6	49												
					2228	3.3	101												

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

Cedar Key, Florida, 2019

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													
1 M	0554	0.2	6		16 Tu	0540	-0.1	-3		1 W	0540	0.6	18		16 Th	0551	0.7	21		1 Sa	0035	3.4	104		16 Su	0128	3.4	104	
	1216	3.0	91			1158	3.4	104			1148	3.4	104			1147	3.9	119			0609	1.3	40			0643	1.6	49	
	1755	1.0	30			1756	0.6	18			1808	0.5	15			1829	-0.1	-3			1157	4.1	125			1224	4.4	134	
	2343	3.3	101			2354	3.7	113								1859	-0.2	-6			1941	-0.4	-12						
2 Tu	0629	0.1	3		17 W	0626	-0.1	-3		2 Th	0008	3.3	101		17 F	0043	3.6	110		2 Su	0122	3.4	104		17 M	0211	3.4	104	
	1242	3.2	98			1231	3.6	110			0615	0.7	21			0633	0.9	27			0648	1.4	43			0722	1.6	49	
	1835	0.6	18			1844	0.1	3			1216	3.6	110			1221	4.1	125			1230	4.2	128			1300	4.4	134	
											1846	0.2	6			1913	-0.4	-12			1939	-0.4	-12			2020	-0.4	-12	
3 W	0028	3.4	104		18 Th	0048	3.8	116		3 F	0052	3.4	104		18 Sa	0132	3.6	110		3 M	0207	3.5	107		18 Tu	0251	3.4	104	
	0659	0.1	3			0706	0.1	3			0648	0.8	24			0711	1.0	30			0727	1.5	46			0800	1.7	52	
	1306	3.3	101			1302	3.8	116			1242	3.8	116			1253	4.2	128			1304	4.3	131			1336	4.3	131	
	1912	0.3	9			1928	-0.3	-9			1922	-0.1	-3			1954	-0.6	-18			2020	-0.6	-18			2056	-0.3	-9	
4 Th	0108	3.5	107		19 F	0138	3.8	116		4 Sa	0133	3.5	107		19 Su	0217	3.5	107		4 Tu	0252	3.4	104		19 W	0328	3.3	101	
	0727	0.2	6			0743	0.3	9			0721	0.9	27			0747	1.2	37			0807	1.6	49			0837	1.7	52	
	1329	3.5	107			1332	3.9	119			1308	3.9	119			1326	4.3	131			1341	4.4	134			1413	4.3	131	
	1946	0.1	3			2010	-0.5	-15			1958	-0.3	-9			2034	-0.6	-18			2103	-0.6	-18			2131	-0.1	-3	
5 F	0146	3.5	107		20 Sa	0224	3.7	113		5 Su	0214	3.4	104		20 M	0300	3.4	104		5 W	0338	3.4	104		20 Th	0404	3.2	98	
	0755	0.3	9			0818	0.6	18			0753	1.0	30			0822	1.4	43			0848	1.7	52			0915	1.7	52	
	1352	3.6	110			1401	4.0	122			1335	4.0	122			1359	4.2	128			1421	4.4	134			1451	4.1	125	
	2019	-0.1	-3			2051	-0.6	-18			2034	-0.5	-15			2112	-0.5	-15			2147	-0.6	-18			2206	0.0	0	
6 Sa	0222	3.5	107		21 Su	0308	3.5	107		6 M	0255	3.4	104		21 Tu	0341	3.3	101		6 Th	0425	3.3	101		21 F	0440	3.2	98	
	0823	0.4	12			0851	0.9	27			0827	1.2	37			0857	1.5	46			0933	1.8	55			0955	1.8	55	
	1414	3.7	113			1431	4.0	122			1404	4.1	125			1432	4.2	128			1506	4.3	131			1531	4.0	122	
	2053	-0.2	-6			2130	-0.6	-18			2112	-0.5	-15			2150	-0.3	-9			2234	-0.4	-12			2241	0.2	6	

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

St. Marks River Entrance, Florida, 2019

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 M	0137 3.4 104 0633 1.7 52 1223 3.9 119 1946 -0.5 -15	16 Tu	0214 3.2 98 0712 1.7 52 1321 3.9 119 2030 -0.3 -9	1 Th	0245 3.6 110 0751 1.5 46 1345 4.4 134 2055 -0.6 -18	16 F	0247 3.5 107 0817 1.2 37 1422 4.0 122 2104 0.1 3	1 Su	0318 3.8 116 0912 0.5 15 1522 4.3 131 2143 0.4 12	16 M	0254 3.8 116 0904 0.6 18 1515 3.9 119 2118 0.7 21
2 Tu	0221 3.5 107 0717 1.7 52 1304 4.1 131 2027 -0.7 -21	17 W	0247 3.3 101 0752 1.6 49 1357 4.0 122 2103 -0.2 -6	2 F	0322 3.6 110 0837 1.3 40 1434 4.4 134 2134 -0.5 -15	17 Sa	0313 3.5 107 0852 1.1 34 1455 3.9 119 2129 0.2 6	2 M	0347 3.8 116 0959 0.4 12 1611 4.0 122 2214 0.9 27	17 Tu	0316 3.8 116 0935 0.6 18 1550 3.8 116 2145 0.9 27
3 W	0304 3.5 107 0800 1.6 49 1347 4.3 131 2109 -0.8 -24	18 Th	0319 3.3 101 0829 1.5 46 1431 3.9 119 2134 -0.1 -3	3 Sa	0356 3.6 110 0924 1.1 34 1522 4.3 131 2211 -0.1 -3	18 Su	0339 3.6 110 0926 1.0 30 1528 3.8 116 2154 0.4 12	3 Tu	0416 3.8 116 1048 0.4 12 1702 3.6 110 2244 1.3 40	18 W	0340 3.8 116 1009 0.5 15 1631 3.6 110 2216 1.1 34
4 Th	0344 3.5 107 0844 1.6 49 1432 4.3 131 2150 -0.7 -21	19 F	0349 3.4 104 0907 1.4 43 1505 3.9 119 2202 0.0 0	4 Su	0430 3.6 110 1013 0.9 27 1612 4.0 122 2246 0.3 9	19 M	0403 3.6 110 1001 1.0 30 1603 3.7 113 2221 0.6 18	4 W	0444 3.7 113 1144 0.5 15 1801 3.1 94 2314 1.7 52	19 Th	0406 3.7 113 1049 0.6 18 1719 3.4 104 2253 1.4 43
5 F	0424 3.5 107 0930 1.5 46 1519 4.2 128 2231 -0.5 -15	20 Sa	0419 3.4 104 0944 1.4 43 1539 3.7 113 2230 0.2 6	5 M	0502 3.6 110 1106 0.8 24 1706 3.6 110 2321 0.8 24	20 Tu	0428 3.6 110 1038 1.0 30 1644 3.5 107 2251 0.8 24	5 Th	0515 3.6 110 1251 0.7 21 1917 2.7 82 2348 2.0 61	20 F	0438 3.7 113 1140 0.6 18 1822 3.1 94 2339 1.7 52
6 Sa	0504 3.4 104 1020 1.4 43 1609 4.0 122 2312 -0.1 -3	21 Su	0449 3.4 104 1024 1.3 40 1616 3.6 110 2259 0.4 12	6 Tu	0536 3.5 107 1206 0.8 24 1809 3.2 98 2356 1.3 40	21 W	0455 3.6 110 1121 1.0 30 1733 3.3 101 2327 1.1 34	6 F	0555 3.4 104 1415 0.8 24 2102 2.6 79	21 Sa	0518 3.6 110 1250 0.7 21 1949 3.0 91
7 Su	0545 3.4 104 1117 1.3 40 1705 3.6 110 2355 0.4 12	22 M	0519 3.3 101 1108 1.4 43 1659 3.3 101 2332 0.7 21	7 W	0614 3.5 107 1318 0.8 24 1930 2.8 85	22 Th	0526 3.5 107 1214 1.0 30 1837 3.0 91	7 Sa	0041 2.3 70 0704 3.2 98 1547 0.8 24 2244 2.6 79	22 Su	0041 2.0 61 0615 3.4 104 1421 0.7 21 2128 3.0 91
8 M	0628 3.3 101 1224 1.2 37 1812 3.2 98	23 Tu	0552 3.3 101 1159 1.4 43 1751 3.0 91	8 Th	0037 1.7 52 0702 3.4 104 1443 0.7 21 2116 2.6 79	23 F	0012 1.5 46 0605 3.4 104 1327 1.0 30 2008 2.8 85	8 Su	0221 2.4 73 0920 3.2 98 1700 0.7 21 2341 2.8 85	23 M	0205 2.1 64 0741 3.4 104 1550 0.5 15 2245 3.2 98
9 Tu	0040 0.8 24 0715 3.3 101 1343 1.1 34 1940 2.8 85	24 W	0010 1.0 30 0628 3.2 98 1302 1.3 40 1903 2.8 85	9 F	0131 2.0 61 0811 3.3 101 1609 0.6 18 2255 2.6 79	24 Sa	0110 1.8 55 0658 3.4 104 1457 0.8 24 2151 2.9 88	9 M	0416 2.2 67 1051 3.3 101 1754 0.5 15	24 Tu	0336 2.1 64 0927 3.5 107 1659 0.2 6 2340 3.4 104
10 W	0131 1.3 40 0810 3.4 104 1509 0.8 24 2126 2.6 79	25 Th	0057 1.3 40 0711 3.2 98 1421 1.2 37 2040 2.7 82	10 Sa	0250 2.2 67 0939 3.4 104 1720 0.4 12	25 Su	0226 2.0 61 0813 3.4 104 1622 0.5 15 2312 3.1 94	10 Tu	0018 3.0 91 0526 2.0 61 1147 3.5 107 1836 0.4 12	25 W	0451 1.8 55 1050 3.7 113 1755 0.0 0
11 Th	0231 1.7 52 0912 3.4 104 1628 0.5 15 2258 2.7 82	26 F	0155 1.6 49 0805 3.2 98 1544 0.9 27 2218 2.7 82	11 Su	0000 2.8 85 0419 2.2 67 1055 3.5 107 1814 0.2 6	26 M	0349 2.1 64 0942 3.5 107 1728 0.2 6	11 W	0048 3.2 98 0613 1.6 49 1229 3.7 113 1910 0.4 12	26 Th	0023 3.6 110 0550 1.3 40 1154 4.0 122 1842 0.0 0
12 F	0338 1.9 58 1013 3.5 107 1733 0.2 6	27 Sa	0305 1.8 55 0909 3.3 101 1655 0.5 15 2334 3.0 91	12 M	0044 2.9 88 0529 2.0 61 1152 3.7 113 1859 0.1 3	27 Tu	0010 3.3 101 0502 2.0 61 1057 3.8 116 1822 -0.2 -6	12 Th	0117 3.3 101 0652 1.4 43 1305 3.8 116 1939 0.4 12	27 F	0101 3.7 113 0641 0.9 27 1250 4.3 131 1924 0.1 3
13 Sa	0006 2.8 85 0443 2.0 61 1109 3.7 113 1826 -0.1 -3	28 Su	0415 1.9 58 1014 3.5 107 1754 0.1 3	13 Tu	0119 3.1 94 0620 1.8 55 1237 3.8 116 1936 0.0 0	28 W	0057 3.5 107 0601 1.7 52 1159 4.1 125 1910 -0.3 -9	13 F	0143 3.5 107 0727 1.1 34 1338 3.9 119 2005 0.4 12	28 Sa	0135 3.9 119 0728 0.5 15 1341 4.4 134 2003 0.3 9
14 Su	0056 3.0 91 0541 1.9 58 1158 3.8 116 1912 -0.2 -6	29 M	0033 3.2 98 0519 1.9 58 1113 3.7 113 1844 -0.2 -6	14 W	0150 3.2 98 0703 1.6 49 1315 3.9 119 2009 0.0 0	29 Th	0137 3.6 110 0653 1.4 43 1254 4.3 131 1953 -0.4 -12	14 Sa	0208 3.6 110 0800 0.9 27 1410 3.9 119 2029 0.5 15	29 Su	0206 3.9 119 0813 0.1 3 1430 4.3 131 2038 0.6 18
15 M	0138 3.1 94 0629 1.8 55 1242 3.9 119 1953 -0.3 -9	30 Tu	0122 3.4 104 0614 1.9 58 1206 4.0 122 1931 -0.5 -15	15 Th	0219 3.4 104 0741 1.4 43 1350 4.0 122 2038 0.1 3	30 F	0214 3.7 113 0741 1.1 34 1344 4.5 137 2032 -0.2 -6	15 Su	0232 3.7 113 0832 0.7 21 1442 3.9 119 2053 0.6 18	30 M	0236 4.0 122 0858 -0.1 -3 1517 4.1 125 2110 1.0 30
		31 W	0205 3.5 107 0704 1.7 52 1257 4.2 128 2014 -0.7 -21			31 Sa	0247 3.8 116 0827 0.8 24 1433 4.5 137 2109 0.0 0				

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

Apalachicola, Florida, 2019

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	h m	ft cm	h m	ft cm
1 M	0456 1.5 46 0809 1.4 43 1303 1.8 55 2149 -0.4 -12	16 Tu 0537 1.5 46 0909 1.3 40 1353 1.8 55 2239 -0.2 -6	1 Th	0546 1.6 49 0935 1.4 43 1446 2.0 61 2302 -0.3 -9	16 F	0522 1.6 49 1016 1.1 34 1533 1.8 55 2308 0.3 9	1 Su	0522 1.6 49 1102 0.8 24 1702 1.9 58 2348 0.5 15	16 M	0437 1.7 52 1102 0.7 21 1711 1.7 52 2304 0.9 27	
2 Tu	0542 1.6 49 0858 1.4 43 1349 1.9 58 2232 -0.4 -12	17 W	0601 1.5 46 0951 1.3 40 1439 1.7 52 2310 -0.1 -3	2 F	0611 1.6 49 1023 1.3 40 1545 2.0 61 2342 -0.1 -3	17 Sa	0535 1.6 49 1051 1.0 30 1616 1.7 52 2326 0.4 12	2 M	0540 1.7 52 1154 0.7 21 1805 1.8 55	17 Tu	0454 1.8 55 1133 0.6 18 1801 1.6 49 2325 1.0 30
3 W	0623 1.6 49 0944 1.4 43 1439 1.9 58 2315 -0.5 -15	18 Th	0621 1.5 46 1030 1.2 37 1525 1.7 52 2338 0.0 0	3 Sa	0633 1.5 46 1114 1.1 34 1644 1.9 58	18 Su	0548 1.6 49 1127 0.9 27 1701 1.7 52 2344 0.5 15	3 Tu	0018 0.8 24 0601 1.7 52 1253 0.6 18 1916 1.6 49	18 W	0514 1.8 55 1207 0.5 15 1858 1.6 49 2351 1.1 34
4 Th	0700 1.6 49 1031 1.4 43 1532 1.9 58 2359 -0.4 -12	19 F	0639 1.5 46 1110 1.2 37 1610 1.7 52	4 Su	0020 0.1 3 0654 1.5 46 1211 1.0 30 1747 1.7 52	19 M	0604 1.7 52 1204 0.9 27 1750 1.6 49	4 W	0047 1.0 30 0625 1.8 55 1400 0.5 15 2042 1.5 46	19 Th	0540 1.9 58 1249 0.5 15 2009 1.5 46
5 F	0732 1.5 46 1124 1.3 40 1629 1.8 55	20 Sa	0001 0.1 3 0657 1.5 46 1153 1.1 34 1657 1.6 49	5 M	0055 0.3 9 0715 1.6 49 1317 0.8 24 1858 1.6 49	20 Tu	0004 0.6 18 0624 1.7 52 1247 0.8 24 1847 1.5 46	5 Th	0115 1.2 37 0655 1.8 55 1520 0.4 12 2235 1.4 43	20 F	0021 1.2 37 0610 1.9 58 1345 0.4 12 2141 1.5 46
6 Sa	0042 -0.2 -6 0801 1.5 46 1225 1.2 37 1730 1.7 52	21 Su	0024 0.2 6 0716 1.5 46 1242 1.0 30 1748 1.5 46	6 Tu	0128 0.6 18 0738 1.6 49 1433 0.7 21 2023 1.4 43	21 W	0028 0.8 24 0647 1.8 55 1337 0.7 21 1957 1.4 43	6 F	0147 1.3 40 0733 1.8 55 1643 0.4 12	21 Sa	0057 1.4 43 0648 1.9 58 1508 0.4 12 2339 1.5 46
7 Su	0125 -0.1 -3 0828 1.5 46 1338 1.0 30 1840 1.5 46	22 M	0047 0.3 9 0737 1.6 49 1337 0.9 27 1846 1.4 43	7 W	0200 0.9 27 0805 1.7 52 1557 0.5 15 2216 1.3 40	22 Th	0056 0.9 27 0715 1.8 55 1441 0.6 18 2128 1.3 40	7 Sa	0824 1.8 55 1759 0.3 9	22 Su	0151 1.4 43 0737 1.8 55 1648 0.4 12
8 M	0207 0.2 6 0854 1.5 46 1502 0.8 24 2004 1.3 40	23 Tu	0113 0.5 15 0801 1.6 49 1440 0.8 24 1957 1.2 37	8 Th	0232 1.1 34 0838 1.7 52 1719 0.3 9	23 F	0128 1.1 34 0748 1.8 55 1604 0.5 15 2332 1.3 40	8 Su	0202 1.6 49 0451 1.5 46 0932 1.8 55 1901 0.3 9	23 M	0115 1.6 49 0354 1.5 46 0846 1.8 55 1809 0.3 9
9 Tu	0249 0.5 15 0921 1.5 46 1628 0.6 18 2152 1.2 37	24 W	0142 0.6 18 0828 1.6 49 1553 0.6 18 2129 1.1 34	9 F	0055 1.3 40 0311 1.2 37 0918 1.8 55 1830 0.2 6	24 Sa	0206 1.2 37 0829 1.8 55 1730 0.4 12	9 M	0234 1.6 49 0622 1.4 43 1056 1.7 52 1954 0.3 9	24 Tu	0200 1.7 52 0549 1.5 46 1015 1.8 55 1912 0.2 6
10 W	0332 0.7 21 0949 1.6 49 1746 0.4 12	25 Th	0216 0.8 24 0858 1.7 52 1707 0.5 15 2326 1.1 34	10 Sa	1008 1.8 55 1930 0.1 3	25 Su	0922 1.8 55 1841 0.2 6	10 Tu	0301 1.6 49 0724 1.3 40 1217 1.7 52 2037 0.3 9	25 W	0232 1.7 52 0658 1.4 43 1146 1.8 55 2005 0.2 6
11 Th	0009 1.1 34 0419 1.0 30 1021 1.6 49 1852 0.1 3	26 F	0256 1.0 30 0932 1.7 52 1814 0.3 9	11 Su	0333 1.5 46 0614 1.4 43 1108 1.8 55 2022 0.0 0	26 M	0251 1.6 49 0528 1.5 46 1028 1.9 58 1941 0.1 3	11 W	0324 1.6 49 0812 1.2 37 1322 1.8 55 2115 0.3 9	26 Th	0257 1.7 52 0751 1.2 37 1306 1.9 58 2051 0.2 6
12 F	0224 1.2 37 0515 1.1 34 1057 1.7 52 1948 0.0 0	27 Sa	0139 1.2 37 0353 1.1 34 1012 1.8 55 1911 0.1 3	12 M	0402 1.5 46 0726 1.4 43 1211 1.8 55 2106 0.0 0	27 Tu	0327 1.7 52 0654 1.5 46 1141 1.9 58 2032 0.0 0	12 Th	0344 1.6 49 0852 1.1 34 1414 1.8 55 2145 0.4 12	27 F	0319 1.6 49 0837 1.0 30 1416 1.9 58 2132 0.4 12
13 Sa	0346 1.3 40 0623 1.2 37 1137 1.7 52 2038 -0.2 -6	28 Su	0311 1.4 43 0525 1.3 40 1058 1.8 55 2003 -0.1 -3	13 Tu	0427 1.6 49 0820 1.4 43 1310 1.8 55 2145 0.0 0	28 W	0358 1.7 52 0753 1.5 46 1253 2.0 61 2118 -0.1 -3	13 F	0400 1.6 49 0928 1.0 30 1500 1.8 55 2210 0.5 15	28 Sa	0337 1.6 49 0922 0.8 24 1520 1.9 58 2209 0.5 15
14 Su	0434 1.4 43 0727 1.3 40 1221 1.7 52 2123 -0.2 -6	29 M	0402 1.5 46 0651 1.4 43 1152 1.9 58 2051 -0.2 -6	14 W	0448 1.6 49 0903 1.3 40 1402 1.8 55 2218 0.1 3	29 Th	0424 1.7 52 0842 1.3 40 1359 2.0 61 2201 0.0 0	14 Sa	0413 1.6 49 1001 0.9 27 1543 1.8 55 2230 0.6 18	29 Su	0353 1.7 52 1006 0.6 18 1621 1.9 58 2242 0.8 24
15 M	0509 1.5 46 0823 1.4 43 1307 1.8 55 2203 -0.2 -6	30 Tu	0442 1.6 49 0756 1.5 46 1249 1.9 58 2137 -0.3 -9	15 Th	0507 1.6 49 0941 1.2 37 1449 1.8 55 2246 0.2 6	30 F	0446 1.6 49 0928 1.2 37 1501 2.1 64 2240 0.1 3	15 Su	0424 1.7 52 1032 0.8 24 1626 1.7 52 2247 0.7 21	30 M	0410 1.7 52 1052 0.4 12 1722 1.8 55 2311 1.0 30
		31 W	0516 1.6 49 0848 1.5 46 1348 2.0 61 2221 -0.3 -9			31 Sa	0505 1.6 49 1014 1.0 30 1601 2.0 61 2316 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 mean lower low water which is the chart datum of soundings.

Apalachicola, Florida, 2019

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 Tu	0430	1.8	55	16 W	0350	1.8	55	1 F	0434	1.8	55	16 Sa	0410	1.7	52	1 Su	0015	1.1	34	16 M	0454	1.5	46
	1139	0.3	9		1110	0.2	6		1304	0.0	0		1222	-0.2	-6		0456	1.5	46		1310	-0.4	-12
	1825	1.7	52		1820	1.6	49		2048	1.5	46		2035	1.4	43		1325	-0.2	-6		2049	1.2	37
	2339	1.2	37		2253	1.2	37						2355	1.3	40		2056	1.3	40				
2 W	0453	1.8	55	17 Th	0415	1.8	55	2 Sa	0025	1.4	43	17 Su	0454	1.7	52	2 M	0120	1.0	30	17 Tu	0106	1.0	30
	1231	0.3	9		1143	0.2	6		0516	1.7	52		1317	-0.2	-6		0550	1.3	40		0556	1.3	40
	1934	1.6	49		1919	1.6	49		1401	0.1	3		2135	1.4	43		1410	0.0	0		1400	-0.3	-9
					2323	1.3	40		2150	1.5	46						2132	1.3	40		2124	1.2	37
3 Th	0008	1.3	40	18 F	0445	1.9	58	3 Su	0134	1.3	40	18 M	0101	1.3	40	3 Tu	0239	0.9	27	18 W	0232	0.8	24
	0521	1.9	58		1225	0.2	6		0606	1.6	49		0548	1.6	49		0655	1.2	37		0711	1.1	34
	1330	0.3	9		2028	1.5	46		1506	0.2	6		1421	-0.1	-3		1458	0.1	3		1452	-0.1	-3
	2054	1.6	49		2359	1.4	43		2245	1.4	43		2228	1.4	43		2207	1.3	40		2155	1.2	37

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

Pensacola, Florida, 2019

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 Tu	0529	-0.4	-12	34	16 W	0441	-0.4	-12	30	1 F	0652	-0.6	-18	34	16 Sa	0618	-0.8	-24	43	1 F	0538	-0.4	-12	34	16 Sa	0457	-0.5	-15	43								
2 W	0612	-0.5	-15	37	17 Th	0528	-0.6	-18	37	2 Sa	0736	-0.6	-18	34	17 Su	0713	-0.8	-24	43	2 Sa	0623	-0.4	-12	34	17 Su	0550	-0.5	-15	43								
3 Th	0657	-0.6	-18	37	18 F	0624	-0.8	-24	40	3 Su	0814	-0.6	-18	34	18 M	0803	-0.8	-24	43	3 Su	0658	-0.4	-12	34	18 M	0636	-0.4	-12	40								
4 F	0743	-0.7	-21	40	19 Sa	0722	-0.9	-27	43	4 M	0843	-0.6	-18	34	19 Tu	0846	-0.6	-18	37	4 M	0723	-0.3	-9	30	19 Tu	0714	-0.3	-9	37								
5 Sa	0828	-0.7	-21	37	20 Su	0819	-1.0	-30	46	5 Tu	0904	-0.5	-15	30	20 W	0919	-0.4	-12	37	5 Tu	0739	-0.2	-6	27	20 W	0739	0.0	0	27								
6 Su	0910	-0.7	-21	37	21 M	0913	-1.0	-30	43	6 W	0917	-0.4	-12	24	21 Th	0013	1.0	30	-3	6 W	0746	-0.1	-3	24	21 Th	0737	0.3	9	12								
7 M	0945	-0.6	-18	37	22 Tu	0959	-0.9	-27	40	7 Th	0922	-0.3	-9	9	22 F	0123	0.7	21	3	7 Th	0743	0.1	3	3	22 F	0128	0.7	21	15								
8 Tu	1013	-0.6	-18	34	23 W	1037	-0.7	-21	34	8 F	0007	0.7	21	-6	23 Sa	0309	0.4	12	9	8 F	0000	0.7	21	6	23 Sa	1157	1.0	30	-3								
9 W	1034	-0.5	-15	34	24 Th	0045	1.0	30	-12	9 Sa	0046	0.5	15	0	24 Su	0745	0.3	9	18	9 Sa	0110	0.5	15	9	24 Su	1226	1.1	34	-6								
10 Th	0007	1.0	30	-12	25 F	0137	0.7	21	-6	10 Su	0903	0.0	0	9	25 M	1406	0.6	18	0	10 Su	0654	0.3	9	18	25 M	2252	-0.2	-6	-6								
11 F	0029	0.8	24	-9	26 Sa	0238	0.4	12	3	11 M	1628	0.3	9	6	26 Tu	2247	0.0	0	34	11 M	1334	0.9	27	-3	26 Tu	1305	1.3	40	-6								
12 Sa	0039	0.6	18	-6	27 Su	0139	0.0	0	18	12 Tu	2128	0.2	6	24	27 W	0227	-0.3	-9	34	12 Tu	2338	-0.1	-3	3	27 W	0019	-0.2	-6	40								
13 Su	1012	0.0	0	15	28 M	0322	-0.2	-6	24	13 W	0204	-0.1	-3	24	28 Th	0341	-0.4	-12	34	13 W	1410	1.0	30	3	28 Th	0143	-0.2	-6	40								
14 M	0828	0.0	0	18	29 Tu	0420	-0.4	-12	30	14 Th	0204	-0.1	-3	24	29 F	0443	-0.4	-12	34	14 Th	0114	-0.2	-6	37	29 F	0256	-0.2	-6	37								
15 Tu	0414	-0.2	-6	24	30 W	0512	-0.5	-15	34	15 F	0417	-0.5	-15	34	30 Sa	0442	-0.2	-6	40	15 F	0241	-0.3	-9	40	30 Sa	0356	-0.2	-6	37								
	1813	0.8	24	34	31 Th	0603	-0.6	-18	34		1759	1.1	34		1824	1.1	34			1611	1.3	40		1709	1.2	-6	37										

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

Pensacola, Florida, 2019

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 M	0538 2034	0.0 1.0	0 30	16 Tu	0519 2128	0.1 1.0	3 30	1 W	0322 1030 1722 2216	0.4 0.8 0.5 0.6	12 24 15 18	16 Th	0907 1810	1.1 0.1	34 3	1 Sa	0849 1902	1.4 -0.1	43 -3	16 Su	0910 2017	1.7 -0.3	52 -9
2 Tu	0548 2135	0.1 0.9	3 27	17 W	0525 1115 1632 2326	0.4 0.6 0.4 0.8	12 18 12 24	2 Th	0238 0958 1809	0.5 1.0 0.3	15 30 9	17 F	0911 1905	1.4 -0.1	43 -3	2 Su	0915 1950	1.6 -0.3	49 -9	17 M	0949 2107	1.7 -0.3	52 -9
3 W	0546 1233 1626 2245	0.3 0.6 0.5 0.8	9 18 15 24	18 Th	0449 1024 1812	0.6 0.8 0.2	18 24 6	3 F	0949 1851	1.1 0.1	34 3	18 Sa	0932 1958	1.5 -0.2	46 -6	3 M	0950 2047	1.7 -0.4	52 -12	18 Tu	1030 2155	1.7 -0.3	52 -9
4 Th	0530 1137 1801	0.4 0.7 0.4	12 21 12	19 F	1018 1927	1.1 0.0	34 0	4 Sa	0956 1935	1.3 0.0	40 0	19 Su	1002 2053	1.7 -0.3	52 -9	4 Tu	1034 2148	1.8 -0.4	55 -12	19 W	1110 2236	1.7 -0.3	52 -9
5 F	0015 0451 1117 1907	0.6 0.5 0.8 0.2	18 15 24 6	20 Sa	1034 2034	1.3 -0.1	40 -3	5 Su	1015 2026	1.4 -0.1	43 -3	20 M	1038 2149	1.7 -0.3	52 -9	5 W	1122 2249	1.8 -0.5	55 -15	20 Th	1147 2310	1.6 -0.2	49 -6
6 Sa	1116 2006	1.0 0.1	30 3	21 Su	1103 2139	1.5 -0.2	46 -6	6 M	1046 2126	1.6 -0.2	49 -6	21 Tu	1118 2247	1.7 -0.3	52 -9	6 Th	1213 2343	1.8 -0.5	55 -15	21 F	1219 2334	1.5 -0.2	46 -6
7 Su	1129 2106	1.1 0.0	34 0	22 M	1140 2248	1.5 -0.2	46 -6	7 Tu	1126 2236	1.6 -0.3	49 -9	22 W	1200 2340	1.6 -0.2	49 -6	7 F	1303	1.7	52	22 Sa	1244 2349	1.4 0.0	43 0
8 M	1155 2216	1.3 -0.1	40 -3	23 Tu	1222 2358	1.5 -0.2	46 -6	8 W	1214 2347	1.7 -0.3	52 -9	23 Th	1241	1.6	49	8 Sa	0029 1353	-0.4 1.6	-12 49	23 Su	1258 2353	1.2 0.1	37 3
9 Tu	1234 2337	1.4 -0.2	43 -6	24 W	1309	1.5	46	9 Th	1308	1.7	52	24 F	0025 1319	-0.2 1.4	-6 43	9 Su	0103 1439	-0.2 1.3	-6 40	24 M	1223 2343	1.0 0.2	30 6
10 W	1324	1.4	43	25 Th	0106 1359	-0.2 1.4	-6 43	10 F	0053 1406	-0.4 1.6	-12 49	25 Sa	0059 1351	-0.1 1.3	-3 40	10 M	0121 1519	0.0 1.0	0 30	25 Tu	0906 2309	0.9 0.4	27 12
11 Th	0103 1426	-0.2 1.5	-6 46	26 F	0203 1453	-0.1 1.3	-3 40	11 Sa	0148 1508	-0.3 1.5	-9 46	26 Su	0122 1408	0.0 1.2	0 37	11 Tu	0112 0913	0.3 0.8	9 24	26 W	0749 2116	1.0 0.4	30 12
12 F	0219 1538	-0.3 1.5	-9 46	27 Sa	0246 1548	-0.1 1.2	-3 37	12 Su	0231 1617	-0.2 1.3	-6 40	27 M	0132 1304	0.1 1.0	3 30	12 W	0010 0808 1710	0.5 1.0 0.3	15 30 9	27 Th	0723 1726	1.1 0.2	34 6
13 Sa	0321 1657	-0.3 1.5	-9 46	28 Su	0315 1648	0.0 1.1	0 34	13 M	0301 1747	0.0 1.1	0 34	28 Tu	0127 1015	0.3 0.9	9 27	13 Th	0756 1753	1.3 0.0	40 0	28 F	0723 1742	1.3 0.0	40 0
14 Su	0412 1822	-0.3 1.4	-9 43	29 M	0332 1805	0.1 0.9	3 27	14 Tu	0312 1103 1515 2007	0.2 0.8 0.7 0.8	6 24 21 24	29 W	0100 0909 1803	0.4 1.0 0.4	12 30 12	14 F	0809 1839	1.5 -0.2	46 -6	29 Sa	0743 1820	1.5 -0.1	46 -3
15 M	0452 1951	-0.1 1.2	-3 37	30 Tu	0336 1146 1607 1958	0.3 0.8 0.7 0.8	9 24 21 24	15 W	0248 0933 1704	0.5 0.9 0.4	15 27 12	30 Th	0842 1756	1.1 0.3	34 9	15 Sa	0835 1927	1.6 -0.3	49 -9	30 Su	0815 1909	1.6 -0.3	49 -9
												31 F	0837 1823	1.3 0.0	40 0								

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

Pensacola, Florida, 2019

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 Tu	0858	0.3	9	52	16 W	0851	0.3	9	49	1 F	0003	1.8	55	-3	16 Sa	1122	-0.3	-9	1 Su	0031	1.5	46	16 M	0038	1.5	46					
	2352	1.7	52			2329	1.6	49			1144	-0.1	-3			1222	-0.3	-9			1213	-0.3	-9			1159	-0.6	-18			
2 W	1024	0.2	6		17 Th	0955	0.2	6		2 Sa	0052	1.7	52	0	17 Su	0041	1.7	52	2 M	0108	1.3	40	17 Tu	0125	1.3	40			1232	-0.5	-15
						0955	0.2	6			1251	0.0	0			1224	-0.3	-9			1244	-0.2	-6			1232	-0.5	-15			
3 Th	0035	1.8	55	6	18 F	0006	1.7	52	6	3 Su	0143	1.6	49	0	18 M	0135	1.6	49	3 Tu	0136	1.2	37	18 W	0210	1.0	30			1251	-0.2	-6
	1152	0.2	6			1112	0.2	6			1346	0.0	0			1316	-0.3	-9			1302	-0.1	-3			1251	-0.2	-6			
4 F	0125	1.8	55	6	19 Sa	0054	1.8	55	3	4 M	0236	1.5	46	3	19 Tu	0231	1.5	46	4 W	0142	1.0	30	19 Th	0251	0.7	21			2048	0.5	15
	1318	0.2	6			1234	0.1	3			1426	0.1	3			1357	-0.2	-6			1306	0.0	0			1245	0.0	0			
5 Sa	0225	1.8	55	6	20 Su	0153	1.8	55	0	5 Tu	0327	1.4	43	6	20 W	0334	1.3	40	5 Th	1252	0.2	6	20 F	1144	0.2	6			1938	0.7	21
	1434	0.2	6			1347	0.0	0			1452	0.2	6			1426	0.0	0			2127	0.8	24			1938	0.7	21			
6 Su	0334	1.7	52	6	21 M	0300	1.8	55	0	6 W	0420	1.2	37	9	21 Th	0500	1.0	30	6 F	1207	0.3	9	21 Sa	0436	0.0	0			1925	0.9	27
	1534	0.2	6			1447	0.0	0			1503	0.3	9			1438	0.2	6			2034	0.8	24			1925	0.9	27			
7 M	0451	1.6	49	9	22 Tu	0417	1.7	52	0	7 Th	0536	1.0	30	15	22 F	0302	0.7	21	7 Sa	0555	0.2	6	22 Su	0522	-0.3	-9			1941	1.2	37
	1620	0.3	9			1536	0.0	0			1458	0.5	15			0732	0.8	24			2015	1.0	30			1941	1.2	37			
8 Tu	0608	1.5	46	12	23 W	0542	1.6	49	6	8 F	0446	0.7	21	24	23 Sa	0442	0.3	9	8 Su	0551	0.0	0	23 M	0611	-0.5	-15			2011	1.3	40
	1651	0.4	12			1614	0.2	6			0757	0.8	24			2039	1.1	34			2015	1.1	34			2011	1.3	40			
9 W	0719	1.4	43	15	24 Th	0716	1.4	43	12	9 Sa	0533	0.6	18	18	24 Su	0545	0.0	0	9 M	0615	-0.2	-6	24 Tu	0703	-0.6	-18			2051	1.4	43
	1709	0.5	15			1641	0.4	12			1057	0.7	21			2044	1.3	40			2031	1.2	37			2051	1.4	43			
10 Th	0824	1.3	40	18	25 F	0901	1.2	37	18	10 Su	0610	0.4	12	40	25 M	0641	-0.2	-6	10 Tu	0652	-0.3	-9	25 W	0756	-0.7	-21			2135	1.4	43
	1714	0.6	18			2238	0.9	27			2124	1.3	40			2108	1.5	46			2058	1.4	43			2135	1.4	43			
11 F	0932	1.2	37	21	26 Sa	0420	0.7	21	30	11 M	0646	0.2	6	43	26 Tu	0737	-0.4	-12	11 W	0738	-0.4	-12	26 Th	0850	-0.7	-21			2219	1.4	43
	1703	0.7	21			1110	1.0	30			2134	1.4	43			2141	1.6	49			2134	1.4	43			2219	1.4	43			
12 Sa	0458	0.9	27	34	27 Su	0552	0.4	12	43	12 Tu	0726	0.0	0	46	27 W	0835	-0.4	-12	12 Th	0831	-0.5	-15	27 F	0940	-0.7	-21			2302	1.3	40
	1051	1.1	34			2147	1.4	43			2155	1.5	46			2221	1.7	52			2216	1.5	46			2302	1.3	40			
13 Su	0610	0.7	21	40	28 M	0705	0.2	6	49	13 W	0813	-0.1	-3	49	28 Th	0935	-0.5	-15	13 F	0928	-0.6	-18	28 Sa	1023	-0.7	-21			2340	1.3	40
	1246	0.9	27			2206	1.6	49			2226	1.6	49			2305	1.6	49			2303	1.6	49			2340	1.3	40			
14 M	0706	0.6	18	43	29 Tu	0812	0.0	0	55	14 Th	0910	-0.2	-6	52	29 F	1035	-0.4	-12	14 Sa	1025	-0.7	-21	29 Su	1055	-0.6	-18					
	2246	1.4	43			2238	1.8	55			2305	1.7	52			2349	1.6	49			2350	1.5	46								
15 Tu	0757	0.4	12	46	30 W	0920	-0.1	-3	55	15 F	1015	-0.2	-6	52	30 Sa	1129	-0.4	-12	15 Su	1116	-0.7	-21	30 M	0012	1.1	34					
	2302	1.5	46			2317	1.8	55			2350	1.7	52																		
					31 Th	1031	-0.1	-3															31 Tu	0037	1.0	30					

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

Dauphin Island, Alabama, 2019

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																
1 Tu	0613	-0.3	-9	30	16 W	0507	-0.4	-12	30	1 F	0712	-0.6	-18	34	16 Sa	0628	-0.7	-21	40	1 F	0554	-0.4	-12	30	16 Sa	0503	-0.5	-15	40			
2 W	0640	-0.4	-12	34	17 Th	0543	-0.6	-18	34	2 Sa	0803	-0.6	-18	30	17 Su	0733	-0.7	-21	40	2 Sa	0650	-0.3	-9	30	17 Su	0608	-0.4	-12	40			
3 Th	0718	-0.5	-15	37	18 F	0634	-0.7	-21	40	3 Su	0849	-0.5	-15	30	18 M	0836	-0.7	-21	37	3 Su	0739	-0.3	-9	30	18 M	0710	-0.4	-12	37			
4 F	0802	-0.6	-18	37	19 Sa	0734	-0.8	-24	43	4 M	0927	-0.5	-15	27	19 Tu	0936	-0.6	-18	34	4 M	0819	-0.2	-6	27	19 Tu	0811	-0.2	-6	30			
5 Sa	0849	-0.6	-18	37	20 Su	0837	-0.9	-27	43	5 Tu	0953	-0.4	-12	24	20 W	1031	-0.4	-12	27	5 Tu	0843	-0.1	-3	24	20 W	0918	0.0	0	24			
6 Su	0934	-0.5	-15	34	21 M	0939	-0.9	-27	40	6 W	1006	-0.3	-9	21	21 Th	1119	-0.1	-3		6 W	0845	0.0	0	21	21 Th	1520	0.2	6				
7 M	1013	-0.5	-15	34	22 Tu	1035	-0.8	-24	37	7 Th	1003	-0.2	-6	18	22 F	0013	0.6	18	0	7 Th	0819	0.1	3	18	22 F	0025	0.6	18	12			
8 Tu	1043	-0.5	-15	30	23 W	1122	-0.6	-18	30	8 F	0945	-0.1	-3	12	23 Sa	0117	0.4	12	9	8 F	0729	0.2	6	9	23 Sa	1108	0.8	24	3			
9 W	1103	-0.4	-12	27	24 Th	1152	-0.4	-12		9 Sa	0905	0.0	0	9	24 Su	0655	0.3	9	12	9 Sa	1310	0.3	6	6	24 Su	1159	1.0	30	-3			
10 Th	1111	-0.3	-9	21	25 F	0032	0.7	21	-3	10 Su	0747	0.1	3	12	25 M	0324	0.4	12	3	10 Su	1245	0.5	15	6	25 M	1250	1.1	34				
11 F	1106	-0.2	-6	18	26 Sa	0042	0.4	12	0	11 M	0412	0.0	0	18	26 Tu	0201	-0.1	-3	24	11 M	2057	0.2	6		26 Tu	0043	-0.1	-3	34			
12 Sa	1045	-0.1	-3	12	27 Su	0655	0.0	0	15	12 Tu	0306	-0.2	-6	21	27 W	0302	-0.3	-9	27	12 Tu	1322	0.8	24		27 W	0156	-0.2	-6	37			
13 Su	0953	0.0	0	15	28 M	0448	-0.2	-6	21	13 W	0337	-0.3	-9	27	28 Th	0359	-0.3	-9	30	13 Tu	1402	0.9	27		28 Th	0302	-0.2	-6	34			
14 M	0740	0.0	0	18	29 Tu	0500	-0.4	-12	27	14 Th	0426	-0.5	-15	34	29 F	0456	-0.4	-12	30	14 Th	0248	-0.3	-9	37	29 F	0404	-0.1	-3	34			
15 Tu	0504	-0.2	-6	24	30 W	0537	-0.5	-15	30	15 F	0524	-0.6	-18	37	30 Sa	0459	-0.1	-3	30	15 F	1556	1.2	-9	37	30 Sa	0459	-0.1	-3	30			
					31 Th	0622	-0.5	-15	30																							

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

Dauphin Island, Alabama, 2019

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 M	0824	1.6	49	-12	16 Tu	0915	1.5	46	-6	1 Th	0955	1.7	52	-9	16 F	1026	1.3	40	9	1 Su	1206	1.1	34	16 M	0659	0.8	24	
	2001	-0.4	-12			2122	-0.2	-6			2203	-0.3	-9			2148	0.3	9			2118	0.7	21		1311	0.9	27	
					○											2331	0.8	24			2331	0.8	24		1552	0.8	24	
2 Tu	0907	1.7	52	-15	17 W	0956	1.5	46	-3	2 F	1046	1.6	49	-3	17 Sa	1057	1.2	37	12	2 M	0601	0.7	21	17 Tu	0917	0.7	21	
	2101	-0.5	-15			2203	-0.1	-3			2251	-0.1	-3			2133	0.4	12			1411	0.9	27		1651	0.8	24	
●																												
3 W	0954	1.7	52	-15	18 Th	1033	1.4	43	-3	3 Sa	1134	1.4	43	3	18 Su	1122	1.0	30	15	3 Tu	0028	1.1	34	18 W	0017	1.3	40	
	2201	-0.5	-15			2233	-0.1	-3			2324	0.1	3			2055	0.5	15			1049	0.6	18		1048	0.5	15	
4 Th	1043	1.7	52	-12	19 F	1105	1.3	40	0	4 Su	1218	1.1	34	12	19 M	1139	0.9	27	18	4 W	0121	1.3	40	19 Th	0045	1.4	43	
	2257	-0.4	-12			2250	0.0	0			2309	0.4	12			1954	0.6	18			1302	0.4	12		1156	0.4	12	
5 F	1131	1.6	49	-9	20 Sa	1131	1.2	37	3	5 M	1245	0.8	24	18	20 Tu	0336	0.8	24	21	5 Th	0215	1.5	46	20 F	0124	1.5	46	
	2343	-0.3	-9			2252	0.1	3			2102	0.6	18			1803	0.7	21			1416	0.3	9		1300	0.3	9	
6 Sa	1216	1.4	43		21 Su	1146	1.0	30	9	6 Tu	0422	0.8	24	15	21 W	0304	1.0	30	15	6 F	0312	1.6	49	21 Sa	0213	1.6	49	
						2235	0.3	9			1708	0.5	15			1358	0.5	15			1520	0.2	6		1405	0.2	6	
7 Su	0014	-0.1	-3	34	22 M	1127	0.9	27	12	7 W	0358	1.0	30	9	22 Th	0312	1.1	34	12	7 Sa	0412	1.6	49	22 Su	0312	1.7	52	
	1252	1.1	34			2158	0.4	12			1540	0.3	9			1414	0.4	12			1622	0.2	6		1511	0.1	3	
8 M	0013	0.2	6	27	23 Tu	0748	0.8	24	12	8 Th	0428	1.3	40	3	23 F	0338	1.3	40	6	8 Su	0515	1.6	49	23 M	0419	1.7	52	
	1255	0.9	27	12		2048	0.4	12			1615	0.1	3			1455	0.2	6			1722	0.2	6		1616	0.1	3	
	2308	0.4	12																									
9 Tu	0756	0.7	21	12	24 W	0558	0.9	27	12	9 F	0510	1.4	43	0	24 Sa	0417	1.5	46	3	9 M	0618	1.6	49	24 Tu	0530	1.8	55	
	2036	0.4	12			1757	0.4	12			1702	0.0	0			1547	0.1	3			1820	0.2	6		1718	0.1	3	
○																												
10 W	0614	0.9	27	6	25 Th	0533	1.0	30	6	10 Sa	0557	1.5	46	0	25 Su	0507	1.6	49	0	10 Tu	0718	1.6	49	25 W	0642	1.7	52	
	1738	0.2	6			1624	0.2	6			1754	0.0	0			1646	0.0	0			1910	0.3	9		1817	0.2	6	
11 Th	0614	1.2	37	0	26 F	0539	1.2	37	3	11 Su	0647	1.6	49	0	26 M	0603	1.7	52	-3	11 W	0813	1.5	46	26 Th	0752	1.6	49	
	1739	0.0	0			1637	0.1	3			1849	0.0	0			1749	-0.1	-3			1950	0.4	12		1910	0.4	12	
12 F	0639	1.4	43	-3	27 Sa	0602	1.4	43	-3	12 M	0737	1.6	49	0	27 Tu	0702	1.8	55	-3	12 Th	0901	1.4	43	27 F	0904	1.5	46	
	1813	-0.1	-3			1715	-0.1	-3			1943	0.0	0			1853	-0.1	-3			2010	0.5	15		1956	0.6	18	
13 Sa	0714	1.5	46	-6	28 Su	0638	1.5	46	-6	13 Tu	0825	1.6	49	0	28 W	0802	1.8	55	-3	13 F	0945	1.3	40	28 Sa	1026	1.3	40	
	1856	-0.2	-6			1806	-0.2	-6			2032	0.0	0			1955	-0.1	-3			1954	0.6	18		1921	0.8	24	
14 Su	0753	1.6	49	-6	29 M	0722	1.6	49	-9	14 W	0910	1.5	46	3	29 Th	0901	1.7	52	3	14 Sa	1030	1.2	37	29 Su	0413	0.7	21	
	1945	-0.2	-6			1904	-0.3	-9			2113	0.1	3			2055	0.1	3			1902	0.7	21		1243	1.0	30	
15 M	0834	1.6	49	-6	30 Tu	0811	1.7	52	-12	15 Th	0951	1.4	43	6	30 F	1000	1.6	49	6	15 Su	0010	0.8	24	30 M	0713	0.6	18	
	2035	-0.2	-6			2006	-0.4	-12			2140	0.2	6			2152	0.2	6			0346	0.7	21		2243	1.4	43	
					31 W	0903	1.8	55	-9	○				●								1123	1.0	30		2155	0.9	27
						2107	-0.3	-9														1752	0.8	24		2158	1.1	34
																						2347	1.0	30		2158	1.1	34

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

Dauphin Island, Alabama, 2019

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													
1 Tu	0922	0.4	12	49	16 W	0925	0.3	9	49	1 F	1157	0.0	0	0	16 Sa	1125	-0.2	-6	1 Su	0008	1.4	43	16 M	1213	-0.5	-15	
	2331	1.6	49			2309	1.6	49								1229	-0.2	-6									
2 W	1059	0.3	9		17 Th	1024	0.2	6	52	2 Sa	0035	1.7	52	17 Su	0008	1.7	52	2 M	0048	1.3	40	17 Tu	0042	1.2	37		
						2346	1.7	52			1257	0.1	3		1225	-0.2	-6		1300	-0.1	-3		1247	-0.4	-12		
3 Th	0021	1.7	52	6	18 F	1127	0.2	6		3 Su	0126	1.6	49	18 M	0059	1.6	49	3 Tu	0122	1.1	34	18 W	0119	1.0	30		
	1218	0.2	6								1350	0.1	3		1318	-0.2	-6		1315	0.0	0		1301	-0.2	-6		
4 F	0115	1.7	52	6	19 Sa	0031	1.7	52	4 M	0219	1.5	46	19 Tu	0153	1.5	46	4 W	0142	0.9	27	19 Th	0129	0.7	21			
	1329	0.2	6			1234	0.1	3			1431	0.2	6		1401	-0.1	-3		1307	0.1	3		1233	0.1	3		
5 Sa	0213	1.7	52	6	20 Su	0125	1.7	52	5 Tu	0314	1.3	40	20 W	0246	1.3	40	5 Th	0055	0.7	21	20 F	1054	0.2	6			
	1434	0.2	6			1339	0.1	3		1456	0.3	9		1429	0.1	3		1234	0.3	9		1936	0.7	21			
6 Su	0316	1.6	49	9	21 M	0227	1.7	52	6 W	0409	1.2	37	21 Th	0339	1.1	34	6 F	1126	0.3	9	21 Sa	0644	0.1	3			
	1534	0.3	9			1440	0.1	3		1459	0.5	15		1426	0.3	9		2014	0.8	24		1914	0.9	27			
7 M	0424	1.6	49	12	22 Tu	0336	1.7	52	7 Th	0508	1.0	30	22 F	0417	0.8	24	7 Sa	0743	0.3	9	22 Su	0615	-0.2	-6			
	1625	0.4	12			1534	0.1	3		1433	0.6	18		1326	0.5	15		1956	0.9	27		1929	1.1	34			
8 Tu	0534	1.5	46	15	23 W	0450	1.6	49	8 F	0344	0.7	21	23 Sa	0535	0.5	15	8 Su	0621	0.1	3	23 M	0647	-0.4	-12			
	1705	0.5	15			1618	0.3	9		0637	0.8	24		2014	1.0	30		1959	1.1	34		1958	1.3	40			
9 W	0641	1.4	43	18	24 Th	0610	1.4	43	9 Sa	0535	0.6	18	24 Su	0622	0.2	6	9 M	0636	-0.1	-3	24 Tu	0731	-0.5	-15			
	1726	0.6	18			1645	0.5	15		2052	1.1	34		2023	1.3	40		2014	1.2	37		2034	1.4	43			
10 Th	0745	1.3	40	21	25 F	0743	1.2	37	10 Su	0626	0.4	12	25 M	0712	0.0	0	10 Tu	0708	-0.2	-6	25 W	0821	-0.6	-18			
	1716	0.7	21			1627	0.7	21		2058	1.3	40		2050	1.5	46		2038	1.3	40		2113	1.4	43			
11 F	0849	1.1	34	24	26 Sa	0304	0.7	21	11 M	0707	0.3	9	26 Tu	0805	-0.2	-6	11 W	0749	-0.4	-12	26 Th	0914	-0.6	-18			
	1633	0.8	24			0958	0.9	27		2113	1.4	43		2124	1.6	49		2109	1.4	43		2154	1.4	43			
12 Sa	0347	0.8	24	24	27 Su	0545	0.6	18	12 Tu	0748	0.1	3	27 W	0859	-0.3	-9	12 Th	0839	-0.5	-15	27 F	1005	-0.6	-18			
	1009	1.0	30			2111	1.3	40		2135	1.5	46		2202	1.6	49		2146	1.5	46		2234	1.3	40			
13 Su	0554	0.7	21	27	28 M	0722	0.3	9	13 W	0833	0.0	0	28 Th	0956	-0.3	-9	13 F	0935	-0.5	-15	28 Sa	1052	-0.5	-15			
	2202	1.2	37			2141	1.5	46		2204	1.6	49		2243	1.6	49		2228	1.5	46		2313	1.2	37			
14 M	0720	0.6	18	34	29 Tu	0838	0.2	6	14 Th	0925	-0.1	-3	29 F	1053	-0.3	-9	14 Sa	1033	-0.6	-18	29 Su	1128	-0.4	-12			
	2218	1.4	43			2219	1.7	52		2239	1.7	52		2326	1.5	46		2312	1.5	46		2348	1.1	34			
15 Tu	0826	0.5	15	46	30 W	0946	0.1	3	15 F	1024	-0.2	-6	30 Sa	1145	-0.3	-9	15 Su	1127	-0.6	-18	30 M	1152	-0.3	-9			
	2241	1.5	46			2301	1.8	55		2321	1.7	52						2358	1.4	43							
					31 Th	1053	0.0	0													31 Tu	0015	0.9	27			
						2346	1.8	55														1158	-0.2	-6			

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

Mobile, Alabama, 2019

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 Tu	0758	-0.4	-12	37	16 W	0706	-0.4	-12	37	1 F	0839	-0.6	-18	40	16 Sa	0812	-0.7	-21	49	1 F	0737	-0.3	-9	43	16 Sa	0701	-0.4	-12	52								
2 W	0821	-0.5	-15	40	17 Th	0740	-0.6	-18	40	2 Sa	0911	-0.6	-18	40	17 Su	0856	-0.8	-24	49	2 Sa	0811	-0.3	-9	43	17 Su	0747	-0.4	-12	49								
3 Th	0851	-0.6	-18	43	18 F	0822	-0.8	-24	46	3 Su	0940	-0.6	-18	40	18 M	0938	-0.7	-21	46	3 Su	0840	-0.3	-9	40	18 M	0828	-0.3	-9	46								
4 F	0924	-0.7	-21	43	19 Sa	0908	-0.9	-27	49	4 M	1004	-0.5	-15	37	19 Tu	1015	-0.6	-18	43	4 M	0900	-0.2	-6	40	19 Tu	0901	-0.1	-3	43								
5 Sa	0958	-0.7	-21	43	20 Su	0956	-1.0	-30	49	5 Tu	1018	-0.5	-15	43	20 W	0017	1.4	43	-9	5 Tu	0911	-0.1	-3	37	20 W	0917	0.1	3	3								
6 Su	1031	-0.7	-21	40	21 M	1042	-1.0	-30	34	6 W	0018	1.1	34	0	21 Th	0117	1.1	34	0	6 W	0909	0.0	0	0	21 Th	0113	1.2	37	12								
7 M	1101	-0.7	-21	46	22 Tu	0003	1.5	46	-27	7 Th	0057	1.0	30	-6	22 F	0231	0.9	27	6	7 Th	0029	1.0	30	6	22 F	0315	1.0	30	18								
8 Tu	0021	1.3	40	-18	23 W	0053	1.4	43	-18	8 F	0136	0.8	24	-3	23 Sa	0426	0.6	18	12	8 F	0125	0.9	27	9	23 Sa	0517	0.8	24	21								
9 W	0059	1.2	37	-15	24 Th	0140	1.1	34	-12	9 Sa	1009	-0.1	-3	15	24 Su	0929	0.4	12	24	9 Sa	0851	0.3	9	24	24 Su	0757	0.7	37	9								
10 Th	0133	1.0	30	-12	25 F	0221	0.8	24	-3	10 Su	1819	0.5	15	12	25 M	1621	0.8	24	9	10 Su	1552	0.8	24	15	25 M	1359	1.2	37	9								
11 F	0202	0.9	27	-9	26 Sa	0237	0.5	15	3	11 M	2104	0.4	12	24	26 Tu	2328	0.3	9	34	11 M	2054	0.5	15	37	26 Tu	2220	0.3	9	49								
12 Sa	0214	0.7	21	-3	27 Su	0904	0.1	3	24	12 Tu	0218	0.0	0	34	27 W	0509	-0.1	-3	43	12 Tu	0244	0.8	24	12	27 W	1429	0.9	27	52								
13 Su	1102	0.0	0	21	28 M	0641	-0.1	-3	30	13 W	0454	0.0	0	0	28 Th	0608	-0.2	-6	43	13 W	0845	0.4	12	46	28 Th	1622	1.7	52	0								
14 M	0933	0.0	0	24	29 Tu	0659	-0.3	-9	37	14 Th	0547	-0.2	-6	40	29 F	0656	-0.3	-9	43	14 Th	1950	1.6	49	49	29 F	0511	0.0	0	49								
15 Tu	0659	-0.1	-3	30	30 W	0731	-0.5	-15	40	15 F	1814	1.3	40	46	30 Sa	1824	1.7	52	52	15 F	0500	-0.1	-3	49	30 Sa	1800	1.6	49	0								
					31 Th	0805	-0.6	-18	40												31 Su	0607	-0.3	-9	52	31 Su	0652	0.0	0	3							

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

Mobile, Alabama, 2019

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
1 M	0745	0.2	6	40	16 Tu	0736	0.3	9	40	1 W	0531	0.7	21	21
	2135	1.3	40			1247	1.1	34	24	16 Th	1113	1.3	40	40
						1912	0.8	24			2016	0.5	15	15
										1 Sa	1027	1.7	52	52
											2052	0.2	6	6
2 Tu	0752	0.3	9	37	17 W	0738	0.6	18	18	2 Su	1056	1.8	55	55
	2255	1.2	37			1355	0.9	27	24		2134	0.0	0	0
						1803	0.8	24			1118	2.0	61	61
										17 M	2244	0.0	0	0
										○				
3 W	0745	0.5	15	24	18 Th	0119	1.1	34	34	3 M	1133	1.9	58	58
	1501	0.9	27	24		0700	0.8	24	24		2225	-0.1	-3	-3
	1847	0.8	24			1302	1.1	34	34		●			
						1941	0.6	18	18	18 Tu	2327	0.0	0	0
											1202	2.0	61	61
4 Th	0010	1.0	30	30	19 F	0346	1.0	30	30	4 Sa	1148	1.5	46	46
	0730	0.6	18	18		0621	0.9	27	27		2107	0.3	9	9
	1359	1.0	30	30		1216	1.3	40	40	19 Su	1140	1.9	58	58
	1951	0.7	21	21	○	2048	0.4	12	12	●	2228	0.0	0	0
										20 M	1218	1.9	58	58
5 F	0144	0.9	27	27	20 Sa	1221	1.5	46	46	5 W	2326	0.0	0	0
	0717	0.7	21	21		2148	0.2	6	6		1300	2.0	61	61
	1323	1.1	34	34						21 Tu	1300	2.0	61	61
	2038	0.5	15	15							1351	2.1	64	64
										6 Th	0027	-0.2	-6	-6
6 Sa	0351	0.9	27	27	21 Su	1250	1.7	52	52	6 Th	1351	2.1	64	64
	0705	0.8	24	24		2257	0.1	3	3		0122	-0.2	-6	-6
	1320	1.3	40	40						7 F	1440	2.0	61	61
	2123	0.4	12	12							0122	-0.2	-6	-6
										7 Su	2213	0.3	9	9
7 Su	1334	1.4	43	43	22 M	1328	1.8	55	55	7 Tu	1318	1.9	58	58
	2213	0.3	9	9							0027	0.0	0	0
										22 W	1345	1.9	58	58
											0122	0.1	3	3
8 M	1400	1.6	49	49	23 Tu	0030	0.1	3	3	8 W	0015	0.0	0	0
	2327	0.2	6	6		1411	1.9	58	58		1402	2.0	61	61
										23 Th	0122	0.1	3	3
											1431	1.9	58	58
										8 Sa	0210	-0.1	-3	-3
9 Tu	1435	1.7	52	52	24 W	0156	0.1	3	3	9 Su	0245	0.1	3	3
						1457	1.8	55	55		1607	1.6	49	49
										○				
										24 M	0105	0.5	15	15
											1549	1.3	40	40
10 W	0131	0.1	3	3	25 Th	0303	0.1	3	3	10 M	0257	0.4	12	12
	1517	1.8	55	55		1544	1.8	55	55		1633	1.3	40	40
											0048	0.6	18	18
										○				
										25 Tu	1127	1.1	34	34
11 Th	0306	0.0	0	0	26 F	0402	0.2	6	6	11 Tu	0230	0.6	18	18
	1604	1.9	58	58		1630	1.7	52	52		1114	1.1	34	34
											0012	0.7	21	21
										○				
										26 W	0824	1.2	37	37
12 F	0422	-0.1	-3	-3	27 Sa	0453	0.2	6	6	12 W	0145	0.8	24	24
	1656	1.9	58	58		1713	1.6	49	49		1007	1.2	37	37
											2020	0.6	18	18
										27 Th	0803	1.3	40	40
○											1948	0.6	18	18
13 Sa	0528	-0.1	-3	-3	28 Su	0532	0.3	9	9	13 Th	0914	1.4	43	43
	1751	1.8	55	55		1756	1.4	43	43		2024	0.4	12	12
											0820	1.5	46	46
										28 F	1952	0.3	9	9
14 Su	0622	-0.1	-3	-3	29 M	0554	0.4	12	12	14 F	0921	1.6	49	49
	1854	1.7	52	52		1842	1.3	40	40		2050	0.2	6	6
											0854	1.7	52	52
										29 Sa	2021	0.2	6	6
15 M	0706	0.1	3	3	30 Tu	0553	0.6	18	18	15 Sa	0954	1.8	55	55
	2029	1.5	46	46		1351	1.1	34	34		2123	0.0	0	0
						1737	1.0	30	30		2101	0.0	0	0
						2051	1.1	34	34					
										30 Su	0938	1.8	55	55
											2101	0.0	0	0
										31 F	1010	1.5	46	46
											2019	0.4	12	12

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

Mobile, Alabama, 2019

Times and Heights of High and Low Waters

July					August					September														
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height		Time	Height								
<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>	<small>h m</small>	<small>ft</small>	<small>cm</small>							
1 M	1027 2146	2.0 -0.2	61 -6	16 Tu	1109 2234	1.9 0.0	58 0	1 Th	1216 2308	2.1 0.0	64 0	16 F	1245 2218	1.7 0.5	52 15	1 Su	0441 0748 1542 2155	1.0 0.9 1.6 1.0	30 27 49 30	16 M	0201 0850 1611 2015	1.3 0.9 1.3 1.2	40 27 40 37	
2 Tu	1117 2236	2.1 -0.2	64 -6	17 W	1157 2304	1.9 0.1	58 3	2 F	1314 2345	2.0 0.2	61 6	17 Sa	1334 2210	1.6 0.7	49 21	2 M	0340 0910 1723 2116	1.2 0.8 1.4 1.2	37 24 43 37	17 Tu	0156 0933 1750 1950	1.5 0.7 1.2 1.1	46 21 37 34	
3 W	1209 2326	2.1 -0.3	64 -9	18 Th	1243 2326	1.9 0.2	58 6	3 Sa	1416	1.8	55	18 Su	0548 0758 1427 2159	1.1 1.0 1.5 0.8	34 30 46 24	3 Tu	0241 1029	1.5 0.7	46 21	18 W	0211 1019	1.6 0.7	49 21	
4 Th	1301	2.1	64	19 F	1326 2336	1.8 0.3	55 9	4 Su	0002 1520 2332	0.4 1.6 0.7	12 49 21	19 M	0447 0904 1527 2148	1.2 1.0 1.4 0.9	37 30 43 27	4 W	0259 1214	1.7 0.7	52 21	19 Th	0237 1121	1.8 0.6	55 18	
5 F	0014 1353	-0.2 2.0	-6 61	20 Sa	1408 2335	1.7 0.4	52 12	5 M	0614 0928 1629 2248	1.0 0.9 1.3 0.9	30 27 40 27	20 Tu	0412 1004 1637 2131	1.3 0.9 1.2 1.0	40 27 37 30	5 Th	0338 1519	1.9 0.6	58 18	20 F	0311 1312	1.9 0.5	58 15	
6 Sa	0055 1443	0.0 1.9	0 58	21 Su	1448 2325	1.5 0.6	46 18	6 Tu	0517 1123 1831 2130	1.2 0.9 1.0 0.9	37 27 30 27	21 W	0408 1115	1.5 0.8	46 24	6 F	0422 1709	2.0 0.5	61 15	21 Sa	0353 1530	2.0 0.5	61 15	
7 Su	0120 1526	0.2 1.6	6 49	22 M	1527 2310	1.3 0.7	40 21	7 W	0455 1706	1.5 0.7	46 21	22 Th	0423 1309	1.6 0.8	49 24	7 Sa	0510 1821	2.0 0.4	61 12	22 Su	0442 1705	2.0 0.4	61 12	
8 M	0109 1554	0.5 1.3	15 40	23 Tu	0622 1044 1600 2245	1.1 1.0 1.1 0.8	34 30 34 24	8 Th	0517 1819	1.7 0.5	52 15	23 F	0450 1619	1.7 0.6	52 18	8 Su	0603 1913	1.9 0.4	58 12	23 M	0538 1815	2.0 0.3	61 9	
9 Tu	0028 0809 1255 1539 2312	0.7 1.1 0.9 1.0 0.8	21 34 27 30 24	24 W	0559 2128	1.3 0.8	40 24	9 F	0556 1908	1.8 0.4	55 12	24 Sa	0527 1757	1.9 0.5	58 15	9 M	0706 1954	1.9 0.4	58 12	24 Tu	0646 1910	2.0 0.2	61 6	
10 W	0658 1935	1.3 0.6	40 18	25 Th	0605 1845	1.4 0.7	43 21	10 Sa	0644 1950	1.9 0.3	58 9	25 Su	0616 1858	2.0 0.3	61 9	10 Tu	0827 2026	1.8 0.5	55 15	25 W	0819 1955	1.9 0.3	58 9	
11 Th	0659 1944	1.5 0.4	46 12	26 F	0629 1853	1.6 0.5	49 15	11 Su	0744 2029	1.9 0.2	58 6	26 M	0720 1948	2.0 0.2	61 6	11 W	0956 2048	1.7 0.6	52 18	26 Th	1018 2034	1.8 0.5	55 15	
12 F	0735 2013	1.7 0.2	52 6	27 Sa	0706 1929	1.7 0.3	52 9	12 M	0856 2105	1.9 0.2	58 6	27 Tu	0843 2034	2.1 0.1	64 3	12 Th	1108 2058	1.7 0.7	52 21	27 F	1203 2057	1.7 0.7	52 21	
13 Sa	0824 2047	1.8 0.1	55 3	28 Su	0800 2011	1.9 0.1	58 3	13 Tu	1007 2136	1.9 0.2	58 6	28 W	1010 2117	2.1 0.1	64 3	13 F	1209 2053	1.6 0.8	49 24	28 Sa	0257 0606 1356 2042	1.1 1.0 1.5 1.0	34 30 46 30	
14 Su	0920 2123	1.9 0.0	58 0	29 M	0906 2055	2.0 0.0	61 0	14 W	1107 2201	1.9 0.3	58 9	29 Th	1127 2157	2.0 0.2	61 6	14 Sa	0353 0706 1314 2039	1.2 1.1 1.5 1.0	37 34 46 30	29 Su	0151 0739 1600 2000	1.2 0.8 1.4 1.2	37 24 43 37	
15 M	1016 2200	1.9 0.0	58 0	30 Tu	1013 2140	2.1 -0.1	64 -3	15 Th	1158 2216	1.8 0.4	55 12	30 F	1240 2229	1.9 0.5	58 15	15 Su	0252 0804 1436 2027	1.2 1.0 1.4 1.1	37 30 43 34	30 M	0030 0848	1.4 0.6	43 18	
				31 W	1116 2225	2.1 -0.1	64 -3					31 Sa	1403 2236	1.8 0.8	55 24									

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

Mobile, Alabama, 2019

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															
1 Tu	0040	1.7	52		16 W	0035	1.7	52		1 F	0123	1.9	58		16 Sa	0111	1.8	55		1 Su	0146	1.5	46		16 M	0147	1.5	46	
	0952	0.5	15			0951	0.3	9			1303	0.0	0			1236	-0.3	-9			1322	-0.3	-9			1312	-0.6	-18	
2 W	0115	1.9	58		17 Th	0104	1.8	55		2 Sa	0210	1.9	58		17 Su	0158	1.8	55		2 M	0228	1.4	43		17 Tu	0232	1.3	40	
	1106	0.4	12			1040	0.3	9			1407	0.0	0			1338	-0.3	-9			1347	-0.2	-6			1338	-0.4	-12	
3 Th	0158	2.0	61		18 F	0140	1.9	58		3 Su	0300	1.8	55		18 M	0248	1.7	52		3 Tu	0305	1.2	37		18 W	0310	1.1	34	
	1255	0.4	12			1158	0.2	6			1458	0.1	3			1429	-0.2	-6			1358	-0.1	-3			1342	-0.2	-6	
4 F	0246	2.0	61		19 Sa	0223	1.9	58		4 M	0348	1.6	49		19 Tu	0338	1.6	49		4 W	0324	1.0	30		19 Th	0326	0.7	21	
	1441	0.4	12			1341	0.2	6			1538	0.2	6			1509	-0.1	-3			1355	0.1	3			1324	0.0	0	
5 Sa	0337	2.0	61		20 Su	0313	2.0	61		5 Tu	0432	1.4	43		20 W	0424	1.3	40		5 Th	1333	0.2	6		20 F	1233	0.2	6	
	1602	0.4	12			1503	0.1	3			1604	0.3	9			1533	0.1	3			2247	0.8	24			2106	0.8	24	
6 Su	0429	1.9	58		21 M	0407	1.9	58		6 W	0509	1.2	37		21 Th	0500	1.0	30		6 F	1207	0.3	9		21 Sa	0752	0.0	0	
	1712	0.4	12			1612	0.1	3			1609	0.5	15			1529	0.3	9			2144	0.9	27			2031	1.0	30	
7 M	0522	1.8	55		22 Tu	0503	1.8	55		7 Th	0048	1.1	34		22 F	1501	0.5	15		7 Sa	0826	0.2	6		22 Su	0759	-0.3	-9	
	1807	0.5	15			1712	0.2	6			1553	0.6	18			2253	1.0	30			2116	1.1	34			2043	1.2	37	
8 Tu	0619	1.6	49		23 W	0605	1.6	49		8 F	0008	1.1	34		23 Sa	0746	0.4	12		8 Su	0757	0.0	0		23 M	0828	-0.5	-15	
	1845	0.5	15			1801	0.3	9			1511	0.7	21			2206	1.2	37			2124	1.2	37			2116	1.4	43	
9 W	0732	1.5	46		24 Th	0733	1.4	43		9 Sa	0732	0.5	15		24 Su	0805	0.0	0		9 M	0813	-0.2	-6		24 Tu	0904	-0.7	-21	
	1906	0.7	21			1833	0.5	15			2242	1.3	40			2157	1.4	43			2146	1.4	43			2157	1.5	46	
10 Th	0935	1.3	40		25 F	0127	1.1	34		10 Su	0756	0.3	9		25 M	0842	-0.2	-6		10 Tu	0842	-0.4	-12		25 W	0944	-0.7	-21	
	1907	0.8	24			0404	1.0	30			2241	1.4	43			2221	1.6	49			2217	1.5	46			2240	1.5	46	
11 F	0154	1.2	37		26 Sa	0034	1.1	34		11 M	0826	0.2	6		26 Tu	0924	-0.4	-12		11 W	0919	-0.5	-15		26 Th	1025	-0.8	-24	
	0601	1.1	34			0618	0.7	21			2257	1.5	46			2256	1.7	52			2253	1.6	49			2324	1.5	46	
12 Sa	0104	1.2	37			1354	1.1	34		12 Tu	0858	0.0	0		27 W	1012	-0.4	-12		12 Th	1003	-0.6	-18		27 F	1105	-0.7	-21	
	0710	0.9	27			1736	1.0	30			2322	1.7	52			2336	1.8	55			2333	1.6	49						
13 Su	0013	1.3	40		28 M	0837	0.2	6		13 W	0936	-0.1	-3		28 Th	1105	-0.5	-15		13 F	1052	-0.7	-21		28 Sa	0008	1.4	43	
	0757	0.7	21			2324	1.7	52			2353	1.7	52														1139	-0.7	-21
14 M	0002	1.5	46		29 Tu	0932	0.1	3		14 Th	1024	-0.2	-6		29 F	0018	1.7	52		14 Sa	0016	1.6	49		29 Su	0050	1.3	40	
	0835	0.6	18			2358	1.9	58								1158	-0.5	-15			1144	-0.7	-21			1205	-0.6	-18	
15 Tu	0013	1.6	49		30 W	1033	0.0	0		15 F	0030	1.8	55		30 Sa	0102	1.6	49		15 Su	0101	1.6	49		30 M	0129	1.2	37	
	0911	0.4	12								1126	-0.3	-9			1245	-0.4	-12			1232	-0.7	-21			1219	-0.5	-15	
					31 Th	0038	1.9	58																	31 Tu	0204	1.0	30	
						1146	0.0	0																			1221	-0.3	-9

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

South Pass, Louisiana, 2019

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 Tu	0347	-0.4	-12		16 W	0253	-0.4	-12		1 F	0439	-0.7	-21		16 Sa	0351	-0.8	-24		1 F	0324	-0.5	-15		16 Sa	0229	-0.5	-15	
	1724	0.9	27			1636	0.8	24			1811	0.9	27			1747	1.1	34			1649	0.9	27			1614	1.2	37	
2 W	0422	-0.5	-15		17 Th	0327	-0.6	-18		2 Sa	0514	-0.7	-21		17 Su	0442	-0.9	-27		2 Sa	0404	-0.4	-12		17 Su	0324	-0.5	-15	
	1756	1.0	30			1715	0.9	27			1855	0.9	27			1851	1.1	34			1750	0.9	27			1737	1.2	37	
3 Th	0458	-0.6	-18		18 F	0410	-0.8	-24		3 Su	0548	-0.7	-21		18 M	0534	-0.8	-24		3 Su	0439	-0.4	-12		18 M	0415	-0.4	-12	
	1830	1.1	34			1801	1.1	34			1936	0.8	24			1955	1.1	34			1846	0.9	27			1859	1.1	34	
4 F	0534	-0.7	-21		19 Sa	0458	-0.9	-27		4 M	0619	-0.6	-18		19 Tu	0624	-0.7	-21		4 M	0510	-0.3	-9		19 Tu	0502	-0.2	-6	
	1906	1.1	34			1853	1.2	37			2015	0.8	24			2058	1.0	30			1936	0.8	24			2020	1.0	30	
5 Sa	0609	-0.7	-21		20 Su	0549	-1.0	-30		5 Tu	0646	-0.5	-15		20 W	0708	-0.4	-12		5 Tu	0535	-0.2	-6		20 W	0541	0.0	0	
	1941	1.1	34			1946	1.2	37			2051	0.7	21			2202	0.8	24			2022	0.8	24			2147	0.8	24	
6 Su	0643	-0.6	-18		21 M	0641	-1.0	-30		6 W	0708	-0.4	-12		21 Th	0739	-0.2	-6		6 W	0550	-0.1	-3		21 Th	0554	0.3	9	
	2016	1.0	30			2040	1.2	37			2125	0.6	18			2314	0.5	15			2106	0.7	21			1015	0.4	12	
7 M	0716	-0.6	-18		22 Tu	0732	-0.9	-27		7 Th	0720	-0.3	-9		22 F	0725	0.1	3		7 Th	0551	0.1	3		22 F	0454	0.5	15	
	2051	1.0	30			2133	1.0	30			2158	0.5	15			1207	0.2	6			2153	0.6	18			0927	0.6	18	
8 Tu	0748	-0.5	-15		23 W	0820	-0.7	-21		8 F	0720	-0.2	-6		23 Sa	0119	0.3	9		8 F	0533	0.2	6		23 Sa	0939	0.8	24	
	2124	0.9	27			2224	0.8	24			2230	0.4	12			0458	0.2	6			1106	0.3	9			1938	0.0	0	
9 W	0817	-0.5	-15		24 Th	0857	-0.4	-12		9 Sa	0658	-0.1	-3		24 Su	1206	0.6	18		9 Sa	0451	0.3	9		24 Su	1014	1.0	30	
	2155	0.8	24			2312	0.5	15			1435	0.1	3			2344	-0.2	-6			1048	0.4	12			2118	-0.1	-3	
10 Th	0839	-0.4	-12		25 F	0903	-0.2	-6		10 Su	0601	0.0	0		25 M	1250	0.8	24		10 Su	0038	0.3	9		25 M	1055	1.2	37	
	2221	0.6	18			2342	0.2	6			1700	0.0	0								0308	0.2	6			2244	-0.2	-6	
11 F	0850	-0.3	-9		26 Sa	0741	0.0	0		11 M	0305	0.0	0		26 Tu	0058	-0.4	-12		11 M	1119	0.7	21		26 Tu	1140	1.2	37	
	2237	0.5	15			1510	0.2	6			1335	0.4	12			1342	0.9	27			2200	-0.1	-3			2354	-0.2	-6	
12 Sa	0841	-0.1	-3		27 Su	0148	-0.1	-3		12 Tu	0054	-0.2	-6		27 W	0153	-0.5	-15		12 Tu	1154	0.9	27		27 W	1230	1.2	37	
	2141	0.3	9			1445	0.4	12			1402	0.6	18			1441	0.9	27			2326	-0.2	-6						
13 Su	0755	0.0	0		28 M	0202	-0.3	-9		13 W	0129	-0.4	-12		28 Th	0241	-0.5	-15		13 W	1241	1.0	30		28 Th	0053	-0.2	-6	
	1650	0.3	9			1510	0.6	18			1445	0.8	24			1544	0.9	27				1.0	30			1325	1.2	37	
14 M	0509	0.0	0		29 Tu	0241	-0.5	-15		14 Th	0212	-0.6	-18		29 F	0033	-0.3	-9		14 Th	0033	-0.3	-9		29 F	0144	-0.2	-6	
	1605	0.4	12			1551	0.8	24			1540	0.9	27			1340	1.1	34			1340	1.1	34			1432	1.1	34	
15 Tu	0242	-0.2	-6		30 W	0322	-0.7	-21		15 F	0300	-0.7	-21		30 Sa	0133	-0.5	-15		15 F	0133	-0.5	-15		30 Sa	0229	-0.1	-3	
	1610	0.6	18			1637	0.8	24			1642	1.0	30			1452	1.2	37			1452	1.2	37			1552	1.0	30	
					31 Th	0401	-0.7	-21																	31 Su	0308	0.0	0	
						1725	0.9	27																		1716	1.0	30	

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

South Pass, Louisiana, 2019

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
1 M	0339	0.1	3	27	16 Tu	0320	0.2	6	30	1 W	0141	0.6	18	18
	1834	0.9	27			0823	0.8	24	24	16 Th	0705	1.1	34	34
2 Tu	0400	0.2	6	24	17 W	0341	0.4	12	12		1510	0.6	18	18
	1945	0.8	24			0928	0.6	18	18		2111	0.7	21	21
3 W	0405	0.3	9	21	18 Th	0312	0.7	21	21	2 Th	0040	0.6	18	18
	1025	0.5	15	15		0819	0.8	24	24		0744	0.9	27	27
4 Th	0348	0.5	15	21	19 F	0806	1.1	34	34		1603	0.4	12	12
	0915	0.6	18	18		1736	0.1	3	3	3 F	0737	1.1	34	34
5 F	0300	0.6	18	24	20 Sa	0825	1.3	40	40		1651	0.3	9	9
	0857	0.8	24	9		1846	0.0	0	0		0728	1.5	46	46
6 Sa	0901	0.9	27	6	21 Su	0856	1.4	43	43	18 Sa	1808	-0.1	-3	-3
	1758	0.2	6	-3		1952	-0.1	-3	-3		0757	1.6	49	49
7 Su	0919	1.0	30	3	22 M	0932	1.5	46	46		1856	-0.2	-6	-6
	1908	0.1	3	-3		2055	-0.1	-3	-3	19 Su	0831	1.6	49	49
8 M	0946	1.2	37	0	23 Tu	1010	1.5	46	46	20 M	0905	1.6	49	49
	2020	0.0	0	-3		2156	-0.1	-3	-3		2030	-0.2	-6	-6
9 Tu	1020	1.3	40	-3	24 W	1050	1.5	46	46	21 Tu	0940	1.6	49	49
	2134	-0.1	-3	-3		2253	-0.1	-3	-3		2116	-0.1	-3	-3
10 W	1103	1.4	43	-6	25 Th	1131	1.4	43	43	22 W	0940	1.6	49	49
	2246	-0.2	-6	0		2346	0.0	0	0		2116	-0.1	-3	-3
11 Th	1153	1.4	43	-6	26 F	1215	1.3	40	40	23 Th	1015	1.5	46	46
	2353	-0.2	-6	0		0033	0.1	3	3		2200	-0.1	-3	-3
12 F	1254	1.4	43	0	27 Sa	0033	0.1	3	3	24 F	1144	1.2	37	37
	0055	-0.2	-6	43		1303	1.2	37	37		2314	0.1	3	3
13 Sa	1409	1.4	43	-6	28 Su	0112	0.2	6	6	25 Sa	1107	0.9	27	27
	0151	-0.2	-6	43		1402	1.1	34	34		2312	0.3	9	9
14 Su	0151	-0.2	-6	40	29 M	0141	0.3	9	9	26 M	1107	0.9	27	27
	1543	1.3	40	27		1548	0.9	27	27		2312	0.3	9	9
15 M	0240	0.0	0	34	30 Tu	0153	0.4	12	12	27 W	0740	0.8	24	24
	1735	1.1	34	24		1006	0.8	24	24		2104	0.5	15	15
				21	13 M	1355	0.7	21	21	28 Th	0619	0.9	27	27
				24		1831	0.8	24	24		1542	0.3	9	9
				24	14 Tu	0101	0.6	18	18	29 F	0558	1.1	34	34
				12		0743	0.9	27	27		1612	0.0	0	0
				12	15 W	1529	0.4	12	12	30 Sa	0634	1.5	46	46
				9							1731	-0.3	-9	-9
				9	16 Th	0636	1.0	30	30	31 F	0632	1.1	34	34
				9		1606	0.3	9	9		1632	0.1	3	3
				9										

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

South Pass, Louisiana, 2019

Times and Heights of High and Low Waters

July				August				September															
Time		Height		Time		Height		Time		Height		Time		Height									
h m ft cm		ft cm		h m ft cm		ft cm		h m ft cm		ft cm		h m ft cm		ft cm									
1 M	0648 1743	1.5 -0.5	46 -15	16 Tu	0730 1836	1.5 -0.3	46 -9	1 Th	0820 1908	1.7 -0.3	52 -9	16 F	0841 1854	1.3 0.2	40 6	1 Su	1102 1904 2327	1.2 0.8 0.9	37 24 27	16 M	0414 1050 1602 2216	0.9 1.1 1.0 1.2	27 34 30 37
2 Tu	0729 1830	1.6 -0.5	49 -15	17 W	0806 1908	1.4 -0.2	43 -6	2 F	0913 1953	1.6 -0.1	49 -3	17 Sa	0915 1903	1.3 0.4	40 12	2 M	0526 1326 1637 2305	0.7 1.0 0.9 1.1	21 30 27 34	17 Tu	0601 2229	0.8 1.3	24 40
3 W	0814 1919	1.7 -0.5	52 -15	18 Th	0841 1937	1.4 -0.2	43 -6	3 Sa	1005 2028	1.4 0.1	43 3	18 Su	0948 1855	1.1 0.5	34 15	3 Tu	0839 2335	0.6 1.4	18 43	18 W	0752 2255	0.7 1.4	21 43
4 Th	0901 2009	1.6 -0.5	49 -15	19 F	0913 2002	1.3 -0.1	40 -3	4 Su	1057 2035	1.1 0.4	34 12	19 M	1019 1825	1.0 0.6	30 18	4 W	1101	0.4	12	19 Th	0940 2331	0.6 1.6	18 49
5 F	0947 2055	1.5 -0.3	46 -9	20 Sa	0942 2019	1.2 0.1	37 3	5 M	1147 1925	0.8 0.6	24 18	20 Tu	0130 0540 1042 1719	0.8 0.7 0.8 0.7	24 21 24 21	5 Th	0022 1225	1.5 0.3	46 9	20 F	1104	0.5	15
6 Sa	1031 2132	1.3 -0.1	40 -3	21 Su	1006 2023	1.1 0.2	34 6	6 Tu	0233 1242	0.8 0.5	24 15	21 W	0058 1432	1.0 0.6	30 18	6 F	0118 1327	1.6 0.2	49 6	21 Sa	0017 1210	1.7 0.4	52 12
7 Su	1106 2150	1.1 0.1	34 3	22 M	1016 2004	0.9 0.3	27 9	7 W	0213 1328	1.0 0.2	30 6	22 Th	0110 1246	1.1 0.5	34 15	7 Sa	0219 1420	1.7 0.2	52 6	22 Su	0115 1308	1.8 0.3	55 9
8 M	1040 2117	0.8 0.4	24 12	23 Tu	0847 1909	0.7 0.4	21 12	8 Th	0241 1415	1.2 0.0	37 0	23 F	0141 1317	1.3 0.3	40 9	8 Su	0326 1507	1.7 0.2	52 6	23 M	0225 1403	1.8 0.2	55 6
9 Tu	0550 1646	0.7 0.4	21 12	24 W	0414 1653	0.8 0.4	24 12	9 F	0325 1501	1.4 -0.1	43 -3	24 Sa	0225 1358	1.4 0.1	43 3	9 M	0434 1549	1.6 0.2	49 6	24 Tu	0345 1456	1.8 0.2	55 6
10 W	0439 1503	0.9 0.1	27 3	25 Th	0342 1453	0.9 0.3	27 9	10 Sa	0415 1544	1.5 -0.2	46 -6	25 Su	0320 1443	1.6 0.0	49 0	10 Tu	0538 1625	1.6 0.3	49 9	25 W	0509 1547	1.8 0.3	55 9
11 Th	0436 1530	1.1 -0.1	34 -3	26 F	0352 1454	1.1 0.1	34 3	11 Su	0507 1625	1.5 -0.2	46 -6	26 M	0421 1531	1.7 -0.1	52 -3	11 W	0635 1656	1.5 0.4	46 12	26 Th	0632 1633	1.7 0.4	52 12
12 F	0500 1607	1.3 -0.3	40 -9	27 Sa	0420 1522	1.3 -0.1	40 -3	12 M	0557 1704	1.5 -0.1	46 -3	27 Tu	0525 1621	1.8 -0.1	55 -3	12 Th	0726 1718	1.5 0.5	46 15	27 F	0756 1712	1.6 0.7	49 21
13 Sa	0535 1646	1.4 -0.3	43 -9	28 Su	0459 1600	1.4 -0.3	43 -9	13 Tu	0643 1738	1.5 0.0	46 0	28 W	0629 1710	1.8 -0.1	55 -3	13 F	0813 1730	1.4 0.7	43 21	28 Sa	0927 1727 2139	1.5 0.9 1.0	46 27 30
14 Su	0613 1724	1.5 -0.4	46 -12	29 M	0545 1644	1.6 -0.4	49 -12	14 W	0726 1809	1.5 0.0	46 0	29 Th	0733 1759	1.8 0.1	55 3	14 Sa	0858 1725 2327	1.3 0.8 0.9	40 24 27	29 Su	0328 1131 1627 2055	0.8 1.3 1.2 1.3	24 40 37 40
15 M	0652 1801	1.5 -0.4	46 -12	30 Tu	0635 1731	1.7 -0.4	52 -12	15 Th	0805 1835	1.4 0.1	43 3	30 F	0837 1843	1.6 0.3	49 9	15 Su	0159 0948 1657 2224	0.8 1.2 0.9 1.0	24 37 27 30	30 M	0529 2110	0.7 1.5	21 46
				31 W	0727 1820	1.7 -0.4	52 -12					31 Sa	0944 1915	1.5 0.5	46 15								

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

South Pass, Louisiana, 2019

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 Tu	0714	0.5	15	52	16 W	0656	0.6	18	52	1 F	0943	0.1	3	55	16 Sa	0857	0.0	0	52	1 Su	0953	-0.1	-3	40	16 M	0934	-0.4	-12	37	
	2147	1.7	52			2126	1.7	52			2238	1.8	55			2217	1.7	52			2243	1.3	40			2254	1.2	37		
2 W	0852	0.4	12	55	17 Th	0802	0.5	15	55	2 Sa	1042	0.2	6	52	17 Su	0956	-0.1	-3	52	2 M	1034	0.0	0	37	17 Tu	1019	-0.3	-9	30	
	2232	1.8	55			2200	1.8	55			2321	1.7	52			2304	1.7	52			2311	1.2	37			2331	1.0	30		
3 Th	1019	0.4	12	58	18 F	0912	0.4	12	55	3 Su	1136	0.3	9		18 M	1052	0.0	0	49	3 Tu	1105	0.1	3	30	18 W	1051	-0.1	-3	21	
	2320	1.9	58			2240	1.8	55								2354	1.6	49			2325	1.0	30			2333	0.7	21		
4 F	1132	0.3	9		19 Sa	1021	0.3	9	58	4 M	0004	1.6	49	12	19 Tu	1144	0.1	3		4 W	1122	0.2	6	24	19 Th	1056	0.1	3	15	
						2328	1.9	58			1222	0.4	12									2238	0.8	24			1929	0.5	15	
5 Sa	0012	1.8	55	9	20 Su	1126	0.3	9		5 Tu	0049	1.5	46	15	20 W	0048	1.4	43	6	5 Th	1112	0.4	12	21	20 F	0914	0.3	9	18	
	1234	0.3	9								1259	0.5	15			1228	0.2	6			2008	0.7	21			1750	0.6	18		
6 Su	0110	1.8	55	12	21 M	0026	1.9	58	9	6 W	0137	1.3	40	18	21 Th	0200	1.1	34	12	6 F	0959	0.5	15	24	21 Sa	0305	0.0	0	24	
	1328	0.4	12			1226	0.3	9			1324	0.6	18			1255	0.4	12	27		1842	0.8	24			1727	0.8	24		
7 M	0218	1.7	52	15	22 Tu	0136	1.8	55	9	7 Th	0315	1.1	34	21	22 F	0147	0.8	24	27	7 Sa	0356	0.3	9	27	22 Su	0338	-0.2	-6	30	
	1413	0.5	15			1321	0.3	9			1330	0.7	21			0553	0.9	27	21		1812	0.9	27			1740	1.0	30		
8 Tu	0337	1.6	49	18	23 W	0306	1.7	52	12	8 F	0230	0.9	27	30	23 Sa	0301	0.5	15	34	8 Su	0358	0.2	6	30	23 M	0421	-0.5	-15	37	
	1451	0.6	18			1410	0.4	12			0640	1.0	30			1841	1.1	34			1813	1.0	30			1810	1.2	37		
9 W	0504	1.5	46	21	24 Th	0500	1.5	46	18	9 Sa	0321	0.8	24	37	24 Su	0358	0.2	6	40	9 M	0423	0.0	0	37	24 Tu	0505	-0.6	-18	40	
	1520	0.7	21			1450	0.6	18			1920	1.2	37			1842	1.3	40			1830	1.2	37			1847	1.3	40		
10 Th	0625	1.4	43	24	25 F	0705	1.4	43	30	10 Su	0404	0.6	18	40	25 M	0452	0.0	0	46	10 Tu	0457	-0.2	-6	40	25 W	0549	-0.7	-21	40	
	1536	0.8	24			1512	0.8	24			1917	1.3	40			1905	1.5	46			1857	1.3	40			1926	1.3	40		
11 F	0740	1.3	40	27	26 Sa	0218	0.9	27	37	11 M	0447	0.5	15	43	26 Tu	0545	-0.2	-6	49	11 W	0535	-0.3	-9	43	26 Th	0633	-0.7	-21	40	
	1535	0.9	27			0929	1.2	37			1931	1.4	43			1939	1.6	49			1929	1.4	43			2005	1.3	40		
12 Sa	0858	1.2	37	30	27 Su	0356	0.7	21	43	12 Tu	0531	0.3	9	49	27 W	0637	-0.3	-9	52	12 Th	0617	-0.4	-12	43	27 F	0715	-0.6	-18	37	
	1506	1.0	30			1941	1.4	43			1954	1.6	49			2016	1.7	52			2006	1.4	43			2043	1.2	37		
13 Su	0341	0.9	27	34	28 M	0513	0.4	12	52	13 W	0616	0.2	6	49	28 Th	0728	-0.3	-9	52	13 F	0703	-0.5	-15	46	28 Sa	0755	-0.6	-18	34	
	1039	1.1	34			2001	1.7	52			2023	1.6	49			2054	1.7	52			2045	1.5	46			2119	1.1	34		
14 M	0449	0.8	24	46	29 Tu	0624	0.3	9	55	14 Th	0706	0.1	3	52	29 F	0819	-0.3	-9	49	14 Sa	0753	-0.5	-15	43	29 Su	0831	-0.5	-15	30	
	2038	1.5	46			2035	1.8	55			2057	1.7	52			2132	1.6	49			2128	1.4	43			2151	1.0	30		
15 Tu	0552	0.7	21	49	30 W	0733	0.2	6	58	15 F	0759	0.0	0	52	30 Sa	0908	-0.2	-6	46	15 Su	0844	-0.5	-15	43	30 M	0903	-0.4	-12	24	
	2058	1.6	49			2114	1.9	58			2135	1.7	52			2209	1.5	46			2211	1.4	43			2219	0.8	24		
					31 Th	0839	0.1	3	58																31 Tu	0925	-0.3	-9	21	
						2156	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 mean lower low water which is the chart datum of soundings.

Grand Isle (East Point), Louisiana, 2019

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 Tu	0512	-0.3	-9	21	16 W	0414	-0.4	-12	21	1 F	0613	-0.6	-18	24	16 Sa	0520	-0.6	-18	30	1 F	0458	-0.4	-12	24	16 Sa	0356	-0.3	-9	30									
2 W	0549	-0.5	-15	24	17 Th	0451	-0.5	-15	24	2 Sa	0654	-0.6	-18	24	17 Su	0615	-0.7	-21	30	2 Sa	0544	-0.3	-9	24	17 Su	0454	-0.3	-9	30									
3 Th	0628	-0.5	-15	27	18 F	0537	-0.7	-21	27	3 Su	0732	-0.5	-15	21	18 M	0709	-0.6	-18	27	3 Su	0625	-0.3	-9	24	18 M	0549	-0.3	-9	30									
4 F	0707	-0.6	-18	27	19 Sa	0627	-0.8	-24	30	4 M	0805	-0.5	-15	21	19 Tu	0800	-0.5	-15	24	4 M	0700	-0.2	-6	21	19 Tu	0640	-0.1	-3	27									
5 Sa	0746	-0.6	-18	27	20 Su	0720	-0.8	-24	30	5 Tu	0834	-0.4	-12	18	20 W	0847	-0.3	-9	21	5 Tu	0728	-0.1	-3	21	20 W	0725	0.1	3	21									
6 Su	0823	-0.6	-18	24	21 M	0813	-0.8	-24	30	6 W	0856	-0.3	-9	18	21 Th	0924	-0.1	-3	3	6 W	0747	0.0	0	18	21 Th	0754	0.2	6	9									
7 M	0858	-0.5	-15	24	22 Tu	0905	-0.7	-21	24	7 Th	0908	-0.2	-6	15	22 F	0054	0.5	15	3	7 Th	0751	0.1	3	15	22 F	0145	0.6	18	12									
8 Tu	0930	-0.5	-15	21	23 W	0951	-0.6	-18	21	8 F	0906	-0.1	-3	9	23 Sa	0347	0.3	9	6	8 F	0729	0.2	6	9	23 Sa	1044	0.7	21	0									
9 W	0957	-0.4	-12	21	24 Th	1027	-0.4	-12	12	9 Sa	0839	0.0	0	0	24 Su	1330	0.5	15	15	9 Sa	0040	0.4	12	9	24 Su	1123	0.9	27	-3									
10 Th	1016	-0.3	-9	15	25 F	0037	0.4	12	-6	10 Su	0029	0.2	6	3	25 M	0053	-0.2	-6	21	10 Su	1203	0.5	15	3	25 M	1210	1.0	30	-3									
11 F	1023	-0.2	-6	12	26 Sa	0112	0.2	6	0	11 M	0111	0.0	0	12	26 Tu	0210	-0.3	-9	21	11 M	1229	0.7	21	0	26 Tu	1300	1.0	30	0									
12 Sa	1009	-0.1	-3	6	27 Su	0240	-0.1	-3	12	12 Tu	0153	-0.1	-3	15	27 W	0312	-0.3	-9	24	12 Tu	1309	0.8	24	0	27 W	0109	-0.1	-3	30									
13 Su	0915	0.0	0	6	28 M	0316	-0.3	-9	15	13 W	0241	-0.3	-9	21	28 Th	0407	-0.4	-12	24	13 W	0035	-0.1	-3	27	28 Th	0214	-0.1	-3	30									
14 M	0604	0.0	0	12	29 Tu	0401	-0.4	-12	18	14 Th	0332	-0.4	-12	24	29 F	0147	-0.2	-6	30	14 Th	0147	-0.2	-6	30	29 F	0313	-0.1	-3	27									
15 Tu	0358	-0.2	-6	15	30 W	0446	-0.5	-15	21	15 F	0425	-0.6	-18	27	30 Sa	0254	-0.3	-9	30	15 F	0254	-0.3	-9	30	30 Sa	0404	0.0	0	27									
					31 Th	0530	-0.6	-18	21																													

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

Grand Isle (East Point), Louisiana, 2019

Times and Heights of High and Low Waters

April				May				June															
1	Time	Height		16	Time	Height		1	Time	Height		16	Time	Height									
		ft	cm			ft	cm			ft	cm			ft	cm								
M	0524 2000	0.1 0.8	3 24	Tu	0453 2113	0.2 0.8	6 24	W	0304 0934 1645	0.5 0.7 0.5	15 21 15	Th	0808 1752	0.9 0.2	27 6	Sa	0747 1828	1.1 0.0	34 0	Su	0817 1935	1.3 -0.2	40 -6
2	0550 2114	0.2 0.7	6 21	17	0519 1039 1612 2359	0.4 0.6 0.4 0.7	12 18 12 21	Th	0844 1734	0.8 0.4	24 12	F	0810 1842	1.1 0.0	34 0	Su	0814 1909	1.3 -0.2	40 -6	17	0854 2016	1.4 -0.2	43 -6
3	0559 1222 1433 2237	0.3 0.5 0.4 0.6	9 15 12 18	18	0449 0919 1750	0.6 0.7 0.3	18 21 9	F	0833 1818	0.9 0.2	27 6	Sa	0833 1930	1.2 -0.1	37 -3	M	0849 1955	1.4 -0.2	43 -6	18	0932 2057	1.4 -0.2	43 -6
4	0538 1022 1656	0.4 0.5 0.4	12 15 12	19	0904 1904	0.9 0.1	27 3	Sa	0845 1902	1.0 0.1	30 3	Su	0905 2018	1.3 -0.2	40 -6	Tu	0930 2045	1.4 -0.3	43 -9	19	1009 2136	1.3 -0.2	40 -6
5	0038 0419 0952 1818	0.6 0.5 0.6 0.3	18 15 18 9	20	0927 2010	1.1 0.0	34 0	Su	0909 1950	1.2 0.0	37 0	M	0942 2106	1.4 -0.2	43 -6	W	1015 2138	1.5 -0.3	46 -9	20	1044 2211	1.3 -0.1	40 -3
6	0956 1926	0.8 0.2	24 6	21	1002 2112	1.2 -0.1	37 -3	M	0942 2042	1.3 -0.1	40 -3	Tu	1021 2154	1.4 -0.1	43 -3	Th	1101 2231	1.4 -0.3	43 -9	21	1115 2241	1.2 0.0	37 0
7	1018 2031	0.9 0.1	27 3	22	1043 2213	1.2 -0.1	37 -3	Tu	1022 2138	1.3 -0.1	40 -3	W	1100 2242	1.3 -0.1	40 -3	F	1147 2320	1.3 -0.2	40 -6	22	1140 2302	1.1 0.1	34 3
8	1050 2138	1.0 0.0	30 0	23	1126 2314	1.3 -0.1	40 -3	W	1107 2239	1.4 -0.2	43 -6	Th	1138 2327	1.3 0.0	40 0	Sa	1229	1.2	37	23	1154 2308	0.9 0.2	27 6
9	1130 2248	1.1 -0.1	34 -3	24	1211	1.2	37	Th	1156 2340	1.4 -0.1	43 -3	F	1214	1.2	37	Su	0002 1256	0.0 1.0	0 30	24	1129 2249	0.8 0.3	24 9
10	1219	1.2	37	25	0014 1259	0.0 1.2	0 37	F	1248	1.3	40	Sa	0006 1245	0.1 1.1	3 34	M	0029 1142	0.2 0.8	6 24	25	0905 2134	0.7 0.4	21 12
11	0000 1315	-0.1 1.2	-3 37	26	0111 1348	0.0 1.1	0 34	Sa	0039 1342	-0.1 1.2	-3 37	Su	0037 1301	0.2 0.9	6 27	Tu	0018 0841 1751	0.4 0.7 0.5	12 21 15	26	0709 1805	0.8 0.4	24 12
12	0111 1421	-0.1 1.2	-3 37	27	0201 1440	0.1 1.0	3 30	Sa	0132 1438	0.0 1.0	0 30	M	0054 1223	0.3 0.8	9 24	W	0726 1703	0.8 0.2	24 6	27	0629 1702	0.9 0.2	27 6
13	0216 1537	-0.1 1.1	-3 34	28	0242 1537	0.2 0.9	6 27	M	0214 1547	0.2 0.8	6 24	Tu	0045 0956 2333	0.4 0.7 0.5	12 21 15	Th	0705 1733	1.0 0.0	30 0	28	0627 1713	1.0 0.0	30 0
14	0316 1709	-0.1 1.1	-3 34	29	0312 1707	0.3 0.8	9 24	Tu	0237 1029 1604 2042	0.4 0.7 0.6 0.7	12 21 18 21	W	0819 1736	0.8 0.4	24 12	F	0716 1812	1.2 -0.1	37 -3	29	0646 1742	1.1 -0.1	34 -3
15	0408 1902	0.1 0.9	3 27	30	0324 1143 1523 2006	0.4 0.7 0.6 0.7	12 21 18 21	W	0205 0848 1701	0.6 0.8 0.4	18 24 12	Th	0738 1730	0.9 0.3	27 9	Sa	0743 1853	1.3 -0.2	40 -6	30	0717 1821	1.3 -0.2	40 -6
												F	0732 1754	1.0 0.1	30 3								

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

Grand Isle (East Point), Louisiana, 2019

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 M	0757	1.4	43	-9	16 Tu	0849	1.3	40	-6	1 Th	0938	1.5	46	-6	16 F	0959	1.2	37	9	1 Su	1242	1.1	34	16 M	0557	0.8	24
	1906	-0.3	-9			2008	-0.2	-6			2035	-0.2	-6			2034	0.3	9			2043	0.7	21		1247	0.9	27
					○																				1711	0.8	24
2 Tu	0842	1.4	43	-12	17 W	0927	1.3	40	-3	2 F	1032	1.4	43	0	17 Sa	1032	1.1	34	12	2 M	0107	0.8	24	17 Tu	0752	0.7	21
	1954	-0.4	-12			2043	-0.1	-3			2119	0.0	0			2042	0.4	12			0730	0.7	21		2342	1.1	34
●																											
3 W	0930	1.5	46	-12	18 Th	1002	1.3	40	0	3 Sa	1125	1.2	37	6	18 Su	1103	1.0	30	15	3 Tu	0031	1.0	30	18 W	0931	0.6	18
	2044	-0.4	-12			2112	0.0	0			2152	0.2	6			2031	0.5	15			1021	0.5	15				
4 Th	1018	1.4	43	-9	19 F	1033	1.2	37	0	4 Su	1220	1.0	30	12	19 M	1135	0.9	27	18	4 W	0057	1.2	37	19 Th	0008	1.3	40
	2133	-0.3	-9			2135	0.0	0			2200	0.4	12			1952	0.6	18			1215	0.4	12		1059	0.5	15
5 F	1105	1.3	40	-6	20 Sa	1059	1.1	34	6	5 M	1325	0.7	21	18	20 Tu	0308	0.8	24	21	5 Th	0143	1.3	40	20 F	0047	1.4	43
	2217	-0.2	-6			2150	0.2	6			2046	0.6	18			0811	0.7	21			1336	0.3	9		1215	0.4	12
																1203	0.8	24		●							
6 Sa	1148	1.2	37	0	21 Su	1119	1.0	30	9	6 Tu	0401	0.8	24	15	21 W	0220	0.9	27	18	6 F	0239	1.4	43	21 Sa	0136	1.5	46
	2252	0.0	0			2149	0.3	9			1335	0.5	15			1317	0.6	18			1443	0.2	6		1324	0.3	9
7 Su	1218	1.0	30	6	22 M	1119	0.8	24	12	7 W	0336	1.0	30	9	22 Th	0226	1.0	30	15	7 Sa	0342	1.5	46	22 Su	0236	1.5	46
	2307	0.2	6			2124	0.4	12			1437	0.3	9			1342	0.5	15			1542	0.2	6		1427	0.3	9
8 M	1054	0.7	21	12	23 Tu	0832	0.7	21	15	8 Th	0400	1.1	34	3	23 F	0255	1.2	37	9	8 Su	0449	1.5	46	23 M	0346	1.6	49
	2226	0.4	12			2015	0.5	15			1529	0.1	3			1426	0.3	9			1635	0.2	6		1526	0.2	6
9 Tu	0654	0.7	21	12	24 W	0523	0.8	24	12	9 F	0442	1.3	40	0	24 Sa	0339	1.3	40	6	9 M	0556	1.4	43	24 Tu	0503	1.6	49
	1654	0.4	12			1729	0.4	12			1619	0.0	0			1514	0.2	6			1722	0.3	9		1622	0.2	6
○																											
10 W	0552	0.9	27	6	25 Th	0451	0.9	27	9	10 Sa	0532	1.3	40	0	25 Su	0434	1.4	43	3	10 Tu	0659	1.4	43	25 W	0625	1.5	46
	1617	0.2	6			1558	0.3	9			1707	0.0	0			1604	0.1	3			1803	0.3	9		1715	0.3	9
11 Th	0549	1.0	30	0	26 F	0459	1.0	30	3	11 Su	0624	1.4	43	0	26 M	0536	1.5	46	0	11 W	0754	1.4	43	26 Th	0749	1.5	46
	1647	0.0	0			1608	0.1	3			1753	0.0	0			1656	0.0	0			1837	0.4	12		1803	0.4	12
12 F	0612	1.2	37	-3	27 Sa	0528	1.2	37	0	12 M	0716	1.4	43	0	27 Tu	0641	1.6	49	0	12 Th	0843	1.3	40	27 F	0919	1.4	43
	1727	-0.1	-3			1640	0.0	0			1836	0.0	0			1749	0.0	0			1903	0.5	15		1845	0.6	18
13 Sa	0647	1.3	40	-6	28 Su	0609	1.3	40	-3	13 Tu	0804	1.4	43	3	28 W	0746	1.6	49	0	13 F	0930	1.2	37	28 Sa	1104	1.2	37
	1808	-0.2	-6			1722	-0.1	-3			1915	0.1	3			1840	0.0	0			1917	0.6	18		1907	0.8	24
14 Su	0728	1.3	40	-6	29 M	0657	1.4	43	-6	14 W	0847	1.3	40	3	29 Th	0851	1.5	46	3	14 Sa	1019	1.1	34	29 Su	0514	0.7	21
	1850	-0.2	-6			1809	-0.2	-6			1948	0.1	3			1929	0.1	3			1912	0.7	21		1342	1.1	34
15 M	0809	1.3	40	-6	30 Tu	0750	1.5	46	-9	15 Th	0925	1.3	40	6	30 F	0958	1.4	43	9	15 Su	1117	1.0	30	30 M	0713	0.6	18
	1930	-0.2	-6			1858	-0.3	-9			2015	0.2	6			2014	0.3	9			1835	0.8	24		2222	1.3	40
					31 W	0844	1.5	46	-6	●					●												
						1947	-0.2	-6																			
					●																						

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

Grand Isle (East Point), Louisiana, 2019

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															
1 Tu	0850	0.5	15	43	16 W	0828	0.5	15	43	1 F	1105	0.1	3		16 Sa	2339	1.4	43	1 Su	1124	-0.2	-6	16 M	1059	-0.4	-12			
2 W	1016	0.4	12	46	17 Th	0928	0.4	12	46	2 Sa	0002	1.5	46	3	17 Su	1118	-0.1	-3	2 M	0012	1.1	34	-3	17 Tu	0015	0.9	27	-9	
3 Th	1135	0.3	9		18 F	1032	0.3	9	46	3 Su	0049	1.4	43	6	18 M	0027	1.4	43	-3	3 Tu	0040	0.9	27	0	18 W	0049	0.8	24	-3
4 F	0041	1.6	49	9	19 Sa	1138	0.2	6		4 M	0136	1.3	40	9	19 Tu	0117	1.2	37	0	4 W	0052	0.8	24	3	19 Th	0028	0.5	15	3
5 Sa	0138	1.5	46	9	20 Su	0051	1.5	46	6	5 Tu	0222	1.2	37	12	20 W	0207	1.1	34	6	5 Th	0003	0.6	18	6	20 F	0914	0.2	6	15
6 Su	0240	1.5	46	9	21 M	0151	1.5	46	6	6 W	0304	1.1	34	15	21 Th	0254	0.9	27	9	6 F	1048	0.3	9	18	21 Sa	0435	0.0	0	21
7 M	0348	1.4	43	12	22 Tu	0259	1.5	46	9	7 Th	0331	0.9	27	18	22 F	0356	0.5	15	18	7 Sa	0543	0.2	6	21	22 Su	0506	-0.3	-9	24
8 Tu	0502	1.4	43	15	23 W	0422	1.4	43	12	8 F	0442	0.7	21	24	23 Sa	0442	0.4	12	27	8 Su	0534	0.1	3	24	23 M	0548	-0.4	-12	30
9 W	0618	1.3	40	18	24 Th	0611	1.2	37	15	9 Sa	0513	0.6	18	27	24 Su	0532	0.1	3	34	9 M	0554	-0.1	-3	27	24 Tu	0633	-0.5	-15	30
10 Th	0736	1.2	37	21	25 F	0831	1.1	34	27	10 Su	0548	0.5	15	30	25 M	0623	-0.1	-3	37	10 Tu	0625	-0.2	-6	30	25 W	0719	-0.6	-18	30
11 F	0858	1.1	34	24	26 Sa	0403	0.7	21	30	11 M	0624	0.3	9	37	26 Tu	0713	-0.2	-6	40	11 W	0703	-0.3	-9	34	26 Th	0805	-0.6	-18	30
12 Sa	1035	1.0	30	27	27 Su	0537	0.5	15	37	12 Tu	0703	0.2	6	40	27 W	0805	-0.3	-9	40	12 Th	0746	-0.4	-12	37	27 F	0850	-0.6	-18	30
13 Su	1635	0.9	27	30	28 M	0649	0.3	9	43	13 W	0746	0.1	3	40	28 Th	0857	-0.3	-9	40	13 F	0833	-0.5	-15	37	28 Sa	0932	-0.5	-15	27
14 M	2200	1.0	30		29 Tu	0755	0.2	6	46	14 Th	0833	0.0	0	43	29 F	0948	-0.3	-9	40	14 Sa	0922	-0.5	-15	37	29 Su	1009	-0.5	-15	24
15 Tu	0731	0.6	18	40	30 W	0859	0.1	3	46	15 F	0925	-0.1	-3	43	30 Sa	1038	-0.2	-6	37	15 Su	1012	-0.5	-15	34	30 M	1040	-0.4	-12	21
					31 Th	1002	0.1	3	46														31 Tu	1100	-0.3	-9	15		

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

Galveston (Galveston Channel), Texas, 2019

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																					
1 M	0036	1.2	37		16 Tu	0042	1.4	43		1 W	0159	1.3	40		16 Th	0247	1.5	46		1 Sa	0402	1.5	46		16 Su	0510	1.6	49							
	0806	0.2	6			0741	0.3	9			0810	0.7	21			0841	0.9	27			0922	1.1	34			2128	-0.5	-15							
	1518	1.2	37			1432	1.4	43			1412	1.3	40			1344	1.3	40			1300	1.2	37												
	2048	0.9	27			2010	0.8	24			2030	0.6	18			2034	0.1	3			2041	-0.2	-6												
2 Tu	0137	1.2	37		17 W	0206	1.5	46		2 Th	0257	1.4	43		17 F	0354	1.6	49		2 Su	0448	1.6	49		17 M	0554	1.6	49		O					
	0842	0.3	9			0842	0.4	12			0850	0.8	24			0945	1.0	30			1012	1.2	37			2204	-0.5	-15							
	1544	1.2	37			1455	1.3	40			1424	1.3	40			1402	1.3	40			1258	1.3	40												
	2057	0.8	24			2048	0.5	15			2049	0.4	12			2111	-0.1	-3			2114	-0.3	-9												
3 W	0233	1.3	40		18 Th	0319	1.6	49		3 F	0350	1.5	46		18 Sa	0454	1.7	52		3 M	0535	1.6	49		18 Tu	0637	1.6	49		O					
	0914	0.4	12			0939	0.6	18			0929	1.0	30			1048	1.2	37			2151	-0.4	-12			2240	-0.4	-12							
	1544	1.2	37			1516	1.3	40			1434	1.3	40			1418	1.3	40																	
	2116	0.7	21			2128	0.3	9			2113	0.3	9			2148	-0.2	-6																	
4 Th	0327	1.3	40		19 F	0428	1.7	52		4 Sa	0441	1.5	46		19 Su	0549	1.8	55		4 Tu	0623	1.7	52		19 W	0719	1.5	46		O					
	0945	0.5	15			1035	0.8	24			1010	1.1	34			1154	1.2	37			2233	-0.5	-15			2316	-0.3	-9							
	1557	1.2	37			1536	1.3	40			1440	1.3	40			1427	1.3	40																	
	2142	0.6	18			2209	0.1	3			2141	0.1	3			2225	-0.3	-9																	
5 F	0420	1.3	40		20 Sa	0534	1.7	52		5 Su	0531	1.6	49		20 M	0643	1.8	55		5 W	0714	1.7	52		20 Th	0802	1.4	43		O					
	1016	0.7	21			1134	1.0	30			1053	1.2	37			2304	-0.3	-9			2320	-0.5	-15			2353	-0.2	-6							
	1610	1.2	37			1554	1.3	40			1439	1.3	40																						
	2211	0.4	12			2251	0.0	0			2214	0.0	0																						
6 Sa	0514	1.4	43		21 Su	0639	1.7	52		6 M	0623	1.7	52		21 Tu	0736	1.7	52		6 Th	0808	1.6	49		21 F	0843	1.3	40		O					
	1051	0.8	24			1240	1.2	37			1139	1.2	37			2343	-0.2	-6																	
	1618	1.2	37			1606	1.3	40			1430	1.3	40																						
	2243	0.3	9			2334	-0.1	-3			2251	-0.1	-3																						
7 Su	0611	1.4	43		22 M	0744	1.7	52		7 Tu	0718	1.7	52		22 W	0830	1.6	49		7 F	0901	1.6	49		22 Sa	0031	-0.1	-3		O					
	1129	1.0	30						2333		-0.2	-6																							
	1620	1.2	37																																
	2318	0.2	6																																
8 M	0712	1.5	46		23 Tu	0018	-0.1	-3		8 W	0818	1.7	52		23 Th	0025	-0.1	-3		8 Sa	0105	-0.2	-6		23 Su	0110	0.1	3		O					
	1212	1.1	34			0851	1.7	52								0927	1.6	49			0950	1.5	46			0954	1.2	37							
	1608	1.2	37																																
	2357	0.1	3																																
9 Tu	0820	1.5	46		24 W	0106	0.0	0		9 Th	0022	-0.2	-6		24 F	0110	0.1	3		9 Su	0207	0.0	0		24 M	0152	0.3	9		O					
	1302	1.2	37			1003	1.6	49			0923	1.7	52			1022	1.5	46			1030	1.4	43			1021	1.2	37							
	1545	1.3	40																																
10 W	0044	0.0	0		25 Th	0159	0.1	3		10 F	0117	-0.1	-3		25 Sa	0201	0.2	6		10 M	0317	0.3	9		25 Tu	0239	0.5	15		O					
	0934	1.5	46			1117	1.6	49			1027	1.6	49			1108	1.4	43			1102	1.3	40			1043	1.1	34							
11 Th	0139	0.0	0		26 F	0302	0.3	9		11 Sa	0222	0.0	0		26 Su	0258	0.4	12		11 Tu	0439	0.5	15		26 W	0340	0.7	21		O					
	1053	1.5	46			1220	1.5	46			1123	1.6	49			1141	1.4	43			1129	1.3	40			1059	1.1	34							
12 F	0244	0.0	0		27 Sa	0416	0.4	12		12 Su	0336	0.2	6		27 M	0403	0.5	15		12 W	0048	1.1	34		27 Th	0125	0.9	27		O					
	1205	1.6	49			1303	1.5	46			1204	1.5	46			1205	1.3	40			0612	0.7	21			0508	0.8	24							
											1908	1.0	30			1935	0.8	24			1153	1.2	37			1110	1.1	34							
											2139	1.1	34			2338	0.9	27			1905	0.1	3			1845	0.1	3							
13 Sa	0359	0.0	0		28 Su	0530	0.5	15		13 M	0457	0.3	9		28 Tu	0516	0.7	21		13 Th	0216	1.3	40		28 F	0229	1.1	34		O					
	1259	1.5	46			1328	1.4	43			1236	1.4	43			1223	1.3	40			0740	0.9	27			0653	1.0	30							
						2021	1.0	30			1901	0.9	27			1931	0.6	18			1213	1.2	37			1115	1.1	34							
						2328	1.1	34			2355	1.2	37								1941	-0.2	-6			1908	-0.1	-3							
14 Su	0518	0.1	3		29 M	0634	0.5	15		14 Tu	0619	0.5	15		29 W	0110	1.0	30		14 F	0325	1.4	43		29 Sa	0318	1.3	40		O					
	1337	1.5	46			1345	1.3	40			1301	1.4	43			0626	0.8	24			0859	1.1	34			0823	1.0	30							
	1928	1.2	37			2015	0.9	27			1926	0.6	18			1237	1.2	37			1232	1.2	37			1113	1.1	34							
	2256	1.3	40													1938	0.4	12			2017	-0.3	-9			1937	-0.3	-9							
15 M	0633	0.2	6		30 Tu	0052	1.2	37		15 W	0130	1.3	40		30 Th	0218	1.2	37		15 Sa	0421	1.5	46		30 Su	0402	1.4	43		O					
	1407	1.4	43			0726	0.6	18			0733																								

Galveston (Galveston Channel), Texas, 2019

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 M	0444	1.5	46		16 Tu	0547	1.4	43		1 Th	0545	1.5	46		16 F	0556	1.3	40		1 Su	0549	1.5	46		16 M	0516	1.5	46						
	2053	-0.6	-18			2147	-0.4	-12			0958	1.3	40			1036	1.1	34			1118	0.8	24			1110	0.8	24		1742	1.4	43		
2 Tu	0528	1.6	49		17 W	0619	1.4	43		2 F	0621	1.4	43		17 Sa	0616	1.3	40		2 M	0613	1.4	43		17 Tu	0528	1.5	46		17 W	0532	1.5	46	
	2136	-0.7	-21			2221	-0.4	-12			1046	1.1	34			1111	1.0	30			1216	0.6	18			1146	0.7	21			1851	1.5	46	
3 W	0613	1.5	46		18 Th	0649	1.3	40		3 Sa	0653	1.4	43		18 Su	0636	1.3	40		3 Tu	0049	0.9	27		18 W	0532	1.5	46		18 Th	0019	1.3	40	
	1048	1.2	37			2253	-0.3	-9			1145	1.0	30			1155	0.9	27			0637	1.4	43			1224	0.6	18			0520	1.5	46	
4 Th	1316	1.3	40		19 F	0718	1.3	40		4 Su	0724	1.3	40		19 M	0655	1.3	40		4 W	0159	1.1	34		19 Th	0019	1.3	40		19 F	0104	1.4	43	
	2223	-0.7	-21			1221	1.0	30			1253	0.8	24			1241	0.8	24			0658	1.4	43			1851	1.5	46			0446	1.5	46	
5 F	1414	1.3	40		20 Sa	0746	1.2	37		5 M	0051	0.2	6		20 Tu	0000	0.6	18		5 Th	0405	1.3	40		20 W	0104	1.4	43		20 Th	0446	1.5	46	
	2312	-0.6	-18			2358	0.0	0			1405	0.5	15			0712	1.3	40			1318	0.4	12			0713	1.4	43			1356	0.4	12	
6 Sa	0003	-0.4	-12		21 Su	0813	1.2	37		6 Tu	0150	0.6	18		21 W	0033	0.8	24		6 F	0013	1.7	52		21 Sa	0208	1.5	46		21 M	0208	1.5	46	
	0822	1.3	40			0818	1.2	37			1416	0.5	15			0723	1.2	37			1635	0.1	3			0413	1.6	49			0413	1.6	49	
7 Su	1341	1.0	30		22 M	0030	0.2	6		7 W	0309	0.9	27		22 Th	0112	1.0	30		7 Sa	0137	1.7	52		22 Su	0032	1.7	52		22 M	0032	1.7	52	
	1655	1.1	34			0838	1.1	34			0843	1.2	37			0720	1.2	37			1739	0.1	3			1600	0.3	9			1600	0.3	9	
8 M	0155	0.1	3		23 Tu	0104	0.4	12		8 Th	0014	1.2	37		23 F	0204	1.1	34		8 Su	0236	1.7	52		23 M	0129	1.8	55		23 W	0129	1.8	55	
	0928	1.2	37			0859	1.1	34			0521	1.1	34			0641	1.3	40			1837	0.1	3			1708	0.2	6			1708	0.2	6	
9 Tu	1615	0.5	15		24 W	0141	0.6	18		9 F	0151	1.4	43		24 Sa	0106	1.4	43		9 M	0318	1.7	52		24 Tu	0209	1.8	55		24 W	0209	1.8	55	
	2133	0.9	27			0915	1.1	34			1811	-0.2	-6			0347	1.3	40			1927	0.2	6			1814	0.2	6			1814	0.2	6	
10 W	0303	0.5	15		25 Th	0231	0.8	24		10 Sa	0256	1.5	46		25 Su	0203	1.5	46		10 Tu	0348	1.7	52		25 W	0240	1.8	55		25 Th	0240	1.8	55	
	0956	1.1	34			0922	1.1	34			1900	-0.3	-9			1742	-0.1	-3			0935	1.4	43			0740	1.6	49			0740	1.6	49	
11 Th	1709	0.2	6		26 F	0127	1.0	30		11 Su	0345	1.5	46		26 M	0246	1.6	49		11 W	0408	1.6	49		26 Tu	0240	1.8	55		26 W	0240	1.8	55	
	2344	1.0	30			0916	1.1	34			1944	-0.3	-9			1837	-0.2	-6			1301	1.5	46			1110	1.7	52			1110	1.7	52	
12 F	0436	0.7	21		27 Sa	0225	1.2	37		12 M	0424	1.5	46		27 Tu	0323	1.7	52		12 Th	0421	1.6	49		27 W	0330	1.7	52		27 Th	0330	1.7	52	
	1021	1.1	34			1823	-0.2	-6			2025	-0.2	-6			0811	1.4	43			0933	1.3	40			0835	1.2	37			0835	1.2	37	
13 Sa	1756	0.0	0		28 Su	0309	1.4	43		13 Tu	0455	1.5	46		28 W	0357	1.7	52		13 F	0433	1.5	46		28 Sa	0353	1.7	52		28 M	0353	1.7	52	
	0132	1.1	34			1904	-0.4	-12			0815	1.5	46			1207	1.6	49			0943	1.2	37			0918	1.0	30			0918	1.0	30	
14 Su	0633	1.0	30		29 M	0349	1.5	46		14 W	0518	1.4	43		29 Th	0428	1.6	49		14 Sa	0447	1.5	46		29 Su	0415	1.6	49		29 M	0415	1.6	49	
	1044	1.1	34			1949	-0.6	-18			1022	1.2	37			0848	1.4	43			1006	1.1	34			1005	0.7	21			1005	0.7	21	
15 M	1840	-0.3	-9		30 Tu	0429	1.5	46		15 Th	0538	1.4	43		30 F	0456	1.6	49		15 Sa	1543	1.5	46		30 W	0436	1.6	49		30 Th	0436	1.6	49	
	0816	1.0	30			1132	1.4	43			1321	1.3	40			0932	1.2	37			2209	0.6	18			1645	1.9	58			1645	1.9	58	
	1921	-0.4	-12		31 W	0902	1.3	40		15 F	1018	1.2	37		31 Sa	0523	1.5	46			2209	0.2	6			1802	1.9	58			1802	1.9	58	
	1104	1.1	34			2037	-0.6	-18			1410	1.3	40			1023	1.0	30								2351	1.2	37			2351	1.2	37	
	1921	-0.4	-12			0508	1.5	46			2203	0.0	0			1607	1.6	49			0502	1.5	46			2237	0.8	24			2351	1.2	37	
	1921	-0.4	-12			0922	1.3	40			2208	0.0	0			1607	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 mean lower low water which is the chart datum of soundings.

On days when the tide is diurnal, high water has an approximate stand of about 7 hours. Predictions are for beginning of stand.

Galveston (Galveston Channel), Texas, 2019

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 Tu	0456 1.6 49 1144 0.3 9 1921 1.9 58	16 W	0352 1.6 49 1106 0.5 15 1902 1.7 52 2334 1.5 46	1 F	1253 0.1 3 2154 1.9 58	16 Sa	0007 1.5 46 0214 1.6 49 1200 -0.1 -3 2107 1.7 52	1 Su	1306 -0.1 -3 2221 1.4 43	16 M	0037 1.1 34 0246 1.2 37 1238 -0.4 -12 2128 1.2 37
2 W	0057 1.4 43 0512 1.6 49 1237 0.2 6 2046 1.9 58	17 Th	0341 1.6 49 1142 0.4 12 2008 1.8 55	2 Sa	1349 0.2 6 2312 1.8 55	17 Su	1251 -0.1 -3 2213 1.6 49	2 M	1357 0.1 3 2307 1.3 40	17 Tu	1334 -0.3 -9 2207 1.2 37
3 Th	0244 1.5 46 0511 1.6 49 1334 0.2 6 2217 1.9 58	18 F	0016 1.5 46 0320 1.6 49 1224 0.3 9 2122 1.8 55	3 Su	1453 0.3 9	18 M	1350 0.0 0 2307 1.6 49	3 Tu	1453 0.2 6 2337 1.3 40	18 W	1437 0.0 0 2238 1.1 34
4 F	1437 0.3 9 2349 1.9 58	19 Sa	1314 0.3 9 2243 1.8 55	4 M	0016 1.7 52 1605 0.5 15	19 Tu	1457 0.1 3 2345 1.5 46	4 W	1557 0.4 12 2357 1.2 37	19 Th	0529 0.6 18 0952 0.7 21 1552 0.2 6 2303 1.0 30
5 Sa	1547 0.3 9	20 Su	1414 0.3 9 2354 1.8 55	5 Tu	0055 1.7 52 1717 0.6 18	20 W	1613 0.3 9	5 Th	0731 0.7 21 1122 0.8 24 1706 0.5 15	20 F	0600 0.2 6 1203 0.8 24 1721 0.5 15 2327 1.0 30
6 Su	0104 1.9 58 1700 0.4 12	21 M	1524 0.3 9	6 W	0118 1.6 49 0819 1.1 34 1112 1.2 37 1819 0.7 21	21 Th	0013 1.5 46 0648 1.0 30 1106 1.2 37 1733 0.5 15	6 F	0012 1.1 34 0730 0.5 15 1300 0.9 27 1814 0.7 21	21 Sa	0637 -0.1 -3 1340 1.0 30 1854 0.7 21 2349 1.0 30
7 M	0155 1.8 55 1806 0.5 15	22 Tu	0043 1.8 55 1639 0.3 9	7 Th	0132 1.5 46 0816 1.0 30 1242 1.3 40 1909 0.8 24	22 F	0036 1.4 43 0704 0.7 21 1254 1.3 40 1849 0.7 21	7 Sa	0026 1.1 34 0738 0.3 9 1412 1.0 30 1913 0.8 24	22 Su	0716 -0.4 -12 1454 1.2 37 2015 0.8 24
8 Tu	0228 1.8 55 0857 1.4 43 1100 1.5 46 1902 0.5 15	23 W	0116 1.8 55 1753 0.4 12	8 F	0143 1.5 46 0821 0.9 27 1352 1.3 40 1951 0.9 27	23 Sa	0057 1.4 43 0735 0.4 12 1417 1.4 43 1959 0.9 27	8 Su	0037 1.1 34 0752 0.1 3 1507 1.1 34 2005 0.9 27	23 M	0012 1.0 30 0755 -0.6 -18 1554 1.3 40 2122 0.9 27
9 W	0247 1.7 52 0854 1.4 43 1222 1.5 46 1947 0.6 18	24 Th	0141 1.7 52 0724 1.3 40 1203 1.6 49 1900 0.5 15	9 Sa	0154 1.5 46 0831 0.7 21 1451 1.4 43 2027 1.0 30	24 Su	0117 1.3 40 0811 0.1 3 1527 1.6 49 2103 1.0 30	9 M	0047 1.1 34 0812 -0.1 -3 1554 1.2 37 2050 1.0 30	24 Tu	0035 1.0 30 0835 -0.7 -21 1646 1.3 40 2218 1.0 30
10 Th	0259 1.7 52 0856 1.3 40 1328 1.5 46 2023 0.7 21	25 F	0203 1.7 52 0749 1.1 34 1334 1.7 52 2002 0.7 21	10 Su	0204 1.4 43 0847 0.5 15 1543 1.5 46 2102 1.1 34	25 M	0136 1.3 40 0849 -0.2 -6 1630 1.7 52 2203 1.2 37	10 Tu	0055 1.1 34 0836 -0.3 -9 1638 1.3 40 2129 1.0 30	25 W	0059 1.1 34 0915 -0.8 -24 1733 1.3 40 ● 2304 1.0 30
11 F	0309 1.6 49 0903 1.2 37 1426 1.6 49 2053 0.8 24	26 Sa	0224 1.6 49 0824 0.8 24 1452 1.8 55 2100 0.9 27	11 M	0214 1.4 43 0908 0.3 9 1632 1.6 49 2136 1.2 37	26 Tu	0155 1.4 43 0929 -0.3 -9 1728 1.7 52 ● 2302 1.3 40	11 W	0101 1.1 34 0906 -0.4 -12 1721 1.4 43 ○ 2201 1.1 34	26 Th	0123 1.1 34 0954 -0.8 -24 1819 1.3 40 2342 1.0 30
12 Sa	0320 1.6 49 0917 1.0 30 1520 1.6 49 2121 1.0 30	27 Su	0244 1.6 49 0904 0.5 15 1604 1.9 58 ● 2157 1.1 34	12 Tu	0221 1.4 43 0934 0.2 6 1721 1.6 49 ○ 2212 1.3 40	27 W	0212 1.4 43 1009 -0.4 -12 1824 1.7 52	12 Th	0108 1.2 37 0940 -0.5 -15 1807 1.4 43 2230 1.1 34	27 F	0146 1.1 34 1033 -0.7 -21 1904 1.2 37
13 Su	0331 1.6 49 0939 0.8 24 1614 1.6 49 ○ 2150 1.1 34	28 M	0304 1.6 49 0946 0.2 6 1712 1.9 58 2254 1.3 40	13 W	0223 1.5 46 1003 0.1 3 1810 1.7 52 2249 1.4 43	28 Th	0005 1.3 40 0221 1.4 43 1051 -0.4 -12 1920 1.7 52	13 F	0123 1.2 37 1019 -0.6 -18 1856 1.4 43 2300 1.2 37	28 Sa	1112 -0.6 -18 1949 1.1 34
14 M	0343 1.6 49 1004 0.7 21 1708 1.7 52 2221 1.2 37	29 Tu	0322 1.6 49 1030 0.1 3 1819 2.0 61 2357 1.5 46	14 Th	0219 1.5 46 1037 0.0 0 1903 1.7 52 2327 1.4 43	29 F	1134 -0.4 -12 2019 1.6 49	14 Sa	0148 1.3 40 1101 -0.6 -18 1948 1.4 43 2339 1.1 34	29 Su	1151 -0.5 -15 2032 1.0 30
15 Tu	0351 1.6 49 1033 0.6 18 1803 1.7 52 2256 1.3 40	30 W	0336 1.6 49 1115 0.0 0 1926 2.0 61	15 F	0213 1.5 46 1116 -0.1 -3 2002 1.7 52	30 Sa	1219 -0.2 -6 2121 1.5 46	15 Su	0217 1.2 37 1148 -0.6 -18 2041 1.3 40	30 M	1229 -0.4 -12 2111 1.0 30
		31 Th	0121 1.5 46 0334 1.6 49 1202 0.0 0 2038 1.9 58							31 Tu	1308 -0.2 -6 2143 0.9 27

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.
On days when the tide is diurnal, high water has an approximate stand of about 7 hours. Predictions are for beginning of stand.

Port O'Connor, Texas, 2019

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 Tu	0837	-0.4	-12		16 W	0734	-0.5	-15		1 F	2203	0.2	6		16 Sa	2103	0.3	9		1 F	2029	0.3	9		16 Sa	1911	0.6	18					
2 W	0921	-0.5	-15		17 Th	0816	-0.6	-18		2 Sa	1030	-0.7	-21		17 Su	0948	-0.7	-21		2 Sa	0924	-0.4	-12		17 Su	0832	-0.2	-6		17 Su	2032	0.6	18
3 Th	1003	-0.5	-15		18 F	0904	-0.7	-21		3 Su	1106	-0.7	-21		18 M	1044	-0.7	-21		3 Su	1006	-0.4	-12		18 M	0936	-0.2	-6		18 M	2329	0.6	18
4 F	1043	-0.6	-18		19 Sa	0955	-0.8	-24		4 M	1138	-0.7	-21		19 Tu	0024	0.3	9		4 M	1042	-0.3	-9		19 Tu	1034	-0.1	-3		19 Tu	1034	-0.1	-3
5 Sa	1119	-0.6	-18		20 Su	1047	-0.8	-24		5 Tu	0033	0.1	3		20 W	0215	0.3	9		5 Tu	0006	0.3	9		20 W	0216	0.5	15		20 W	1128	0.0	0
6 Su	1153	-0.6	-18		21 M	1140	-0.8	-24		6 W	0135	0.1	3		21 Th	0408	0.2	6		6 W	0157	0.3	9		21 Th	0426	0.5	15		21 Th	1220	0.1	3
7 M	0020	0.3	9		22 Tu	0058	0.3	9		7 Th	0249	0.1	3		22 F	0012	-0.1	-3		7 Th	0338	0.3	9		22 F	0628	0.5	15		22 F	1310	0.2	6
8 Tu	0049	0.3	9		23 W	0220	0.2	6		8 F	0417	0.0	0		23 Sa	0135	-0.2	-6		8 F	0512	0.3	9		23 Sa	0014	0.1	3		23 Sa	0850	0.5	15
9 W	0100	0.3	9		24 Th	0347	0.1	3		9 Sa	0221	-0.2	-6		24 Su	0246	-0.3	-9		9 Sa	0028	0.0	0		24 Su	0111	0.0	0		24 Su	1123	0.6	18
10 Th	0056	0.2	6		25 F	0533	0.0	0		10 Su	0310	-0.2	-6		25 M	0355	-0.4	-12		10 Su	0110	0.0	0		25 M	0208	-0.1	-3		25 M	1526	0.6	18
11 F	0056	0.2	6		26 Sa	0339	-0.2	-6		11 M	0359	-0.3	-9		26 Tu	0505	-0.4	-12		11 M	0154	-0.1	-3		26 Tu	0307	-0.1	-3		26 Tu	1615	0.7	21
12 Sa	0050	0.1	3		27 Su	0455	-0.4	-12		12 Tu	0449	-0.4	-12		27 W	0616	-0.4	-12		12 Tu	0242	-0.1	-3		27 W	0410	0.0	0		27 W	1659	0.7	21
13 Su	0003	0.0	0		28 M	0603	-0.5	-15		13 W	0544	-0.5	-15		28 Th	0727	-0.4	-12		13 W	0339	-0.2	-6		28 Th	0518	0.0	0		28 Th	1739	0.7	21
14 M	0629	-0.3	-9		29 Tu	0706	-0.6	-18		14 Th	0644	-0.5	-15		29 F	0447	-0.2	-6		14 Th	0447	-0.2	-6		29 F	0630	0.1	3		29 F	1812	0.7	21
15 Tu	0657	-0.4	-12		30 W	0805	-0.7	-21		15 F	0747	-0.6	-18		30 Sa	0604	-0.2	-6		15 F	0604	-0.2	-6		30 Sa	0737	0.1	3		30 Sa	1835	0.7	21
					31 Th	0900	-0.7	-21																	31 Su	0834	0.1	3		31 Su	1849	0.6	18

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

Port O'Connor, Texas, 2019

Times and Heights of High and Low Waters

April				May				June																								
Time	Height			Time	Height			Time	Height			Time	Height																			
	<small>h m</small>	<small>ft cm</small>		<small>h m</small>	<small>ft cm</small>		<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>		<small>h m</small>	<small>ft cm</small>																			
1 M	0922	0.2	6	16 Tu	0913	0.3	9	1 W	0252	0.7	21	16 Th	0602	0.8	24																	
	1858	0.6	18		2113	0.6	18		1530	0.7	21		2144	0.2	6	1 Sa	0803	0.8	24													
2 Tu	1006	0.2	6	17 W	0232	0.7	21	2 Th	0521	0.7	21	17 F	0739	0.9	27	2 Su	0857	0.9	27													
	1902	0.6	18		1020	0.4	12		1037	0.6	18		2224	0.1	3		2235	-0.1	-3	17 M	1033	0.8	24									
3 W	0226	0.6	18	18 Th	0510	0.8	24	3 F	0653	0.8	24	18 Sa	0901	1.0	30	3 M	0950	0.9	27	18 Tu	1112	0.7	21									
	1050	0.3	9		1132	0.5	15		2223	0.3	9		2307	0.0	0		2317	-0.2	-6		●	●										
4 Th	0418	0.6	18	19 F	0716	0.8	24	4 Sa	0810	0.9	27	19 Su	1012	1.0	30	4 Tu	1045	0.9	27	19 W	0019	-0.3	-9									
	1137	0.4	12		2315	0.2	6		2255	0.2	6		2349	0.0	0		●	●	1146		0.7	21										
5 F	0557	0.6	18	20 Sa	0901	0.9	27	5 Su	0919	1.0	30	20 M	1113	1.0	30	5 W	0003	-0.2	-6	20 Th	0056	-0.2	-6									
	1231	0.4	12		●	●	2331		0.1	3	●		●	1140	0.9		27	1140	0.9		27	1213	0.7	21								
6 Sa	0739	0.7	21	21 Su	0002	0.1	3	6 M	1026	1.0	30	21 Tu	0032	0.0	0	6 Th	0053	-0.2	-6	21 F	0132	-0.2	-6									
	2355	0.2	6		1039	1.0	30		●	●	1206		1.0	30	1232		0.9	27	1234		0.6	18										
7 Su	0927	0.7	21	22 M	0049	0.1	3	7 Tu	0011	0.1	3	22 W	0115	0.0	0	7 F	0146	-0.2	-6	22 Sa	0208	-0.2	-6									
	●	●	●		1213	1.0	30		1132	1.0	30		1251	0.9	27		1316	0.8	24		1252	0.6	18									
8 M	0032	0.2	6	23 Tu	0137	0.1	3	8 W	0057	0.1	3	23 Th	0157	0.1	3	8 Sa	0240	-0.1	-3	23 Su	0245	-0.1	-3									
	1110	0.8	24		1333	1.0	30		1237	1.0	30		1328	0.9	27		1344	0.7	21		1302	0.5	15									
9 Tu	0113	0.1	3	24 W	0227	0.2	6	9 Th	0149	0.1	3	24 F	0241	0.1	3	9 Su	0334	0.0	0	24 M	0320	0.0	0									
	1242	0.8	24		1433	1.0	30		1339	1.0	30		1358	0.9	27		1352	0.6	18		1253	0.4	12									
10 W	0202	0.1	3	25 Th	0321	0.2	6	10 F	0249	0.1	3	25 Sa	0326	0.1	3	10 M	0426	0.1	3	25 Tu	0351	0.1	3									
	1402	0.9	27		1516	1.0	30		1434	1.0	30		1421	0.8	24		1330	0.5	15		1156	0.4	12									
11 Th	0302	0.1	3	26 F	0418	0.3	9	11 Sa	0354	0.1	3	26 Su	0413	0.2	6	11 Tu	0515	0.2	6	26 W	1051	0.3	9									
	1512	0.9	27		1548	0.9	27		1516	1.0	30		1438	0.7	21		1221	0.5	15		1924	0.0	0									
12 F	0413	0.1	3	27 Sa	0518	0.3	9	12 Su	0502	0.2	6	27 M	0502	0.3	9	12 W	1112	0.5	15	27 Th	0938	0.4	12									
	1614	0.9	27		1613	0.9	27		1541	0.9	27		1442	0.7	21		2010	0.0	0		1946	-0.1	-3									
13 Sa	0532	0.1	3	28 Su	0620	0.4	12	13 M	0611	0.3	9	28 Tu	0555	0.4	12	13 Th	0950	0.6	18	28 F	0802	0.5	15									
	1707	0.9	27		1632	0.8	24		1544	0.8	24		1406	0.6	18		2050	-0.1	-3		2017	-0.2	-6									
14 Su	0651	0.2	6	29 M	0720	0.4	12	14 Tu	0720	0.4	12	29 W	0358	0.5	15	14 F	0847	0.7	21	29 Sa	0747	0.6	18									
	1749	0.9	27		1644	0.8	24		1505	0.7	21		0658	0.4	12		2132	-0.2	-6		2055	-0.3	-9									
15 M	0804	0.2	6	30 Tu	0819	0.5	15	15 W	0337	0.7	21	30 Th	0552	0.6	18	15 Sa	0910	0.8	24	30 Su	0826	0.6	18									
	1807	0.8	24		1638	0.7	21		0835	0.5	15		0830	0.5	15		2216	-0.3	-9		2137	-0.4	-12									
					2131	0.6	18		1333	0.6	18																					
									2107	0.4	12																					

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

Port O'Connor, Texas, 2019

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 M	0913	0.7	21		16 Tu	1027	0.6	18		1 Th	1113	0.7	21		16 F	1005	0.6	18		1 Su	0031	0.3	9		16 M	0018	0.7	21		
	2223	-0.4	-12			2329	-0.4	-12			2356	-0.4	-12			0823	0.7	21			0620	0.9	27							
					O											1225	0.6	18			1249	0.7	21							
2 Tu	1004	0.7	21		17 W	1054	0.6	18		2 F	1212	0.6	18		17 Sa	0008	0.0	0		2 M	0115	0.5	15		17 Tu	0103	0.8	24		
	2311	-0.5	-15													1008	0.6	18			0652	0.7	21							
																1325	0.5	15			1321	0.7	21							
3 W	1057	0.7	21		18 Th	0003	-0.4	-12		3 Sa	0044	-0.3	-9		18 Su	0040	0.1	3		3 Tu	0151	0.7	21		18 W	0200	0.9	27		
						1111	0.5	15			1504	0.5	15			0958	0.6	18			0601	0.8	24							
																1425	0.3	9			1358	0.6	18							
4 Th	0001	-0.5	-15		19 F	0035	-0.3	-9		4 Su	0128	-0.1	-3		19 M	0114	0.2	6		4 W	0526	0.9	27		19 Th	0059	1.1	34		
	1146	0.6	18			1124	0.5	15			1039	0.4	12			0906	0.5	15			1525	0.2	6							
											1412	0.3	9			1437	0.4	12												
5 F	0051	-0.4	-12		20 Sa	0107	-0.3	-9		5 M	0209	0.0	0		20 Tu	0149	0.3	9		5 Th	0519	1.0	30		20 F	0226	1.2	37		
	1222	0.6	18			1134	0.4	12			0917	0.3	9			0807	0.5	15			1628	0.2	6							
											1511	0.2	6			1506	0.3	9												
6 Sa	0140	-0.4	-12		21 Su	0139	-0.2	-6		6 Tu	0239	0.2	6		21 W	0219	0.4	12		6 F	0541	1.1	34		21 Sa	0330	1.3	40		
	1232	0.5	15			1136	0.4	12			0822	0.4	12			0719	0.5	15			1733	0.2	6							
											1610	0.0	0			1542	0.2	6												
7 Su	0227	-0.3	-9		22 M	0212	-0.1	-3		7 W	0742	0.5	15		22 Th	0629	0.6	18		7 Sa	0616	1.1	34		22 Su	0428	1.3	40		
	1216	0.4	12			1112	0.3	9			1709	-0.1	-3			1624	0.2	6			1839	0.2	6							
										O																				
8 M	0309	-0.1	-3		23 Tu	0240	0.0	0		8 Th	0719	0.6	18		23 F	0527	0.7	21		8 Su	0656	1.1	34		23 M	0525	1.3	40		
	1124	0.3	9			1009	0.3	9			1809	-0.2	-6			1713	0.1	3			1943	0.3	9							
	1728	0.1	3			1718	0.0	0							O															
	2044	0.2	6			2214	0.1	3																						
9 Tu	0340	0.1	3		24 W	0017	0.0	0		9 F	0723	0.7	21		24 Sa	0529	0.8	24		9 M	0732	1.1	34		24 Tu	0619	1.4	43		
	1019	0.3	9			0915	0.3	9			1910	-0.2	-6			1807	0.1	3			2038	0.3	9							
	1803	0.0	0			1739	0.0	0													1942	0.5	15							
O					O																									
10 W	0929	0.3	9		25 Th	0818	0.3	9		10 Sa	0747	0.7	21		25 Su	0614	0.9	27		10 Tu	0758	1.1	34		25 W	0709	1.3	40		
	1850	-0.2	-6			1813	-0.1	-3			2010	-0.2	-6			1907	0.0	0			2124	0.4	12			2043	0.5	15		
11 Th	0845	0.4	12		26 F	0726	0.4	12		11 Su	0822	0.7	21		26 M	0707	0.9	27		11 W	0809	1.0	30		26 Th	0746	1.3	40		
	1939	-0.3	-9			1854	-0.2	-6			2106	-0.2	-6			2007	0.0	0			2200	0.4	12			2140	0.6	18		
12 F	0831	0.5	15		27 Sa	0703	0.5	15		12 M	0858	0.7	21		27 Tu	0803	1.0	30		12 Th	0812	1.0	30		27 F	0747	1.2	37		
	2030	-0.4	-12			1940	-0.3	-9			2155	-0.2	-6			2106	0.0	0			2232	0.5	15			0956	1.1	34		
																					1249	1.2	37							
13 Sa	0847	0.6	18		28 Su	0736	0.6	18		13 Tu	0931	0.7	21		28 W	0905	1.0	30		13 F	0815	1.0	30		28 Sa	0703	1.1	34		
	2120	-0.4	-12			2030	-0.3	-9			2235	-0.1	-3			2202	0.0	0			2304	0.5	15			1027	1.0	30		
																					1557	1.1	34							
14 Su	0917	0.6	18		29 M	0823	0.7	21		14 W	0954	0.7	21		29 Th	1021	0.9	27		14 Sa	0810	0.9	27		28 Su	●	2327	0.9	27	
	2207	-0.4	-12			2122	-0.4	-12			2309	-0.1	-3			2254	0.1	3			1212	0.8	24			●				
																1453	0.9	27			2339	0.6	18			●				
15 M	0953	0.6	18		30 Tu	0916	0.7	21		15 Th	1002	0.7	21		30 F	1258	0.9	27		15 Su	0730	0.9	27		30 M	0021	1.0	30		
	2251	-0.4	-12			2215	-0.4	-12			2338	0.0	0			2344	0.2	6			1223	0.8	24			0404	1.1	34		
										O						1719	0.9	27			1205	0.7	21			2130	1.2	37		
					31 W	1013	0.7	21		31 Sa	●																			
						2306	-0.4	-12			●																			

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

Port O'Connor, Texas, 2019

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 Tu	0117	1.1	34		16 W	1238	0.7	21	1 F	0151	1.5	46	16 Sa	0053	1.3	40	1 Su	0200	1.0	30	16 M	0138	0.8	24
	1259	0.6	18			2348	1.4	43		1427	0.5	15		1350	0.3	9		1448	0.1	3		1429	-0.2	-6
	2358	1.3	40																					
2 W	1354	0.5	15		17 Th	1319	0.7	21	2 Sa	0238	1.5	46	17 Su	0143	1.3	40	2 M	0215	1.0	30	17 Tu	0158	0.7	21
										1522	0.5	15		1442	0.3	9		1528	0.2	6		1516	-0.2	-6
3 Th	0235	1.4	43		18 F	0056	1.5	46	3 Su	0313	1.4	43	18 M	0227	1.3	40	3 Tu	0224	0.9	27	18 W	0200	0.6	18
	1452	0.5	15			1405	0.6	18		1615	0.6	18		1537	0.3	9		1605	0.2	6		1601	-0.1	-3
4 F	0332	1.5	46		19 Sa	0156	1.5	46	4 M	0335	1.4	43	19 Tu	0301	1.2	37	4 W	0230	0.8	24	19 Th	0141	0.5	15
	1553	0.5	15			1459	0.6	18		1705	0.6	18		1633	0.4	12		1640	0.3	9		1643	0.1	3
5 Sa	0419	1.5	46		20 Su	0253	1.5	46	5 Tu	0350	1.3	40	20 W	0321	1.1	34	5 Th	0229	0.8	24	20 F	0034	0.4	12
	1656	0.6	18			1558	0.6	18		1750	0.7	21		1728	0.5	15		1714	0.3	9		0744	0.1	3
6 Su	0459	1.4	43		21 M	0344	1.5	46	6 W	0401	1.3	40	21 Th	0323	1.0	30	6 F	0202	0.7	21	21 Sa	1504	0.2	6
	1759	0.6	18			1702	0.6	18		1833	0.7	21		1822	0.6	18		1740	0.4	12		1707	0.1	3
7 M	0528	1.4	43		22 Tu	0429	1.5	46	7 Th	0406	1.2	37	22 F	0246	0.9	27	7 Sa	0056	0.6	18	22 Su	2327	0.4	12
	1856	0.7	21			1806	0.7	21		1914	0.8	24		0911	0.7	21		0903	0.3	9		0755	0.0	0
8 Tu	0544	1.4	43		23 W	0504	1.4	43	8 F	0352	1.1	34	23 Sa	0126	0.9	27	8 Su	0906	0.2	6	23 M	2357	0.6	18
	1945	0.7	21			1908	0.7	21		1957	0.9	27		0900	0.6	18		2258	0.7	21		0917	-0.4	-12
9 W	0554	1.3	40		24 Th	0521	1.3	40	9 Sa	0253	1.1	34	24 Su	0015	0.9	27	9 M	0930	0.1	3	24 Tu	2152	0.6	18
	2027	0.8	24			2007	0.8	24		1000	0.9	27		0931	0.4	12		2141	0.7	21		1004	-0.5	-15
10 Th	0602	1.3	40		25 F	0510	1.2	37	10 Su	1012	1.1	34	25 M	1010	0.2	6	10 Tu	1002	0.0	0	25 W	2226	0.6	18
	2105	0.9	27			0944	1.1	34		1008	0.7	21		2221	1.1	34		2143	0.8	24		2313	0.6	18
11 F	0603	1.2	37		26 Sa	0353	1.1	34	11 M	0050	1.1	34	26 Tu	1055	0.1	3	11 W	1040	-0.1	-3	26 Th	2106	0.9	27
	2144	0.9	27			0946	1.0	30		1030	0.6	18		2307	1.2	37		2229	0.8	24		2106	0.9	27
12 Sa	0533	1.2	37		27 Su	0230	1.2	37	12 Tu	1100	0.5	15	27 W	1142	0.0	0	12 Th	1122	-0.2	-6	27 F	1651	1.2	37
	1056	1.0	30			1021	0.8	24		2206	1.2	37		2359	1.2	37		2321	0.8	24		2207	1.1	34
13 Su	0421	1.2	37		28 M	1103	0.7	21	13 W	1135	0.4	12	28 Th	1230	0.0	0	13 F	1207	-0.2	-6	28 Sa	2207	1.1	34
	1108	1.0	30			2134	1.4	43		2304	1.3	40										0945	0.6	18
14 M	0327	1.2	37		29 Tu	1151	0.5	15	14 Th	1216	0.4	12	29 F	0049	1.2	37	14 Sa	0014	0.8	24	29 Su	1305	-0.5	-15
	1133	0.9	27			2327	1.5	46						1319	0.0	0		1253	-0.3	-9		1140	-0.5	-15
15 Tu	0020	1.1	34		30 W	1240	0.5	15	15 F	0000	1.3	40	30 Sa	0131	1.1	34	15 Su	0101	0.8	24	30 M	2053	1.3	40
	0229	1.2	37							1300	0.3	9		1405	0.1	3		1341	-0.3	-9		0114	0.5	15
	1203	0.8	24		31 Th	0052	1.5	46														1340	-0.4	-12
	2228	1.3	40			1333	0.5	15														1412	-0.4	-12
																						0116	0.4	12
																						1443	-0.3	-9

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

Padre Island (south end), Texas, 2019

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 Tu	0528	-0.3	-9	40	16 W	0434	-0.3	-9	37	1 F	0638	-0.7	-21	40	16 Sa	0542	-0.8	-24	46	1 F	0523	-0.4	-12	40	16 Sa	0415	-0.5	-15	49								
2 W	0610	-0.5	-15	43	17 Th	0516	-0.6	-18	40	2 Sa	0723	-0.6	-18	40	17 Su	0640	-0.9	-27	46	2 Sa	0619	-0.3	-9	40	17 Su	0523	-0.5	-15	49								
3 Th	0653	-0.6	-18	46	18 F	0603	-0.8	-24	46	3 Su	0805	-0.6	-18	40	18 M	0736	-0.9	-27	43	3 Su	0708	-0.2	-6	40	18 M	0627	-0.4	-12	46								
4 F	0734	-0.7	-21	46	19 Sa	0653	-1.0	-30	49	4 M	0842	-0.5	-15	37	19 Tu	0830	-0.8	-24	40	4 M	0750	-0.1	-3	40	19 Tu	0728	-0.3	-9	40								
5 Sa	0814	-0.7	-21	46	20 Su	0744	-1.1	-34	49	5 Tu	0915	-0.3	-9	37	20 W	0103	1.2	37	34	5 Tu	0826	0.0	0	30	20 W	0052	1.3	40	-3								
6 Su	0852	-0.6	-18	46	21 M	0835	-1.1	-34	46	6 W	0945	-0.2	-6	34	21 Th	0239	1.1	34	30	6 W	0101	1.1	34	3	21 Th	0223	1.3	40	6								
7 M	0927	-0.5	-15	43	22 Tu	0926	-1.0	-30	43	7 Th	1013	0.0	0	34	22 F	0415	1.1	34	3	7 Th	0202	1.1	34	6	22 F	0348	1.4	43	15								
8 Tu	1000	-0.3	-9	43	23 W	1017	-0.7	-21	40	8 F	1029	1.1	34	24	23 Sa	0556	1.0	30	15	8 F	0304	1.1	34	12	23 Sa	0514	1.4	43	24								
9 W	1032	-0.2	-6	40	24 Th	1017	-0.7	-21	40	9 Sa	1116	0.3	9	27	24 Su	0752	1.0	30	21	9 Sa	0412	1.1	34	15	24 Su	1247	0.9	27	30								
10 Th	1102	0.0	0	40	25 F	0003	0.9	27	30	10 Su	1156	0.5	15	27	25 M	0110	-0.2	-6	34	10 Su	0529	1.1	34	21	25 M	0820	1.4	43	-6								
11 F	1132	0.2	6	37	26 Sa	0035	0.7	21	27	11 M	1207	0.9	27	24	26 Tu	0212	-0.3	-9	37	11 M	0700	1.1	34	24	26 Tu	0019	-0.3	-9	43								
12 Sa	1206	0.3	9	34	27 Su	0121	0.4	12	24	12 Tu	1251	0.7	21	24	27 W	0317	-0.4	-12	40	12 Tu	0850	1.2	37	0	27 W	0119	-0.2	-6	46								
13 Su	0315	0.6	18	21	28 M	0213	0.1	3	30	13 W	1750	0.8	24	27	28 Th	0422	-0.4	-12	40	13 W	0049	-0.2	-6	40	28 Th	0227	-0.1	-3	46								
14 M	0328	0.4	12	24	29 Tu	0308	-0.2	-6	30	14 Th	0246	-0.2	-6	34	29 W	0422	-0.4	-12	40	14 Th	0153	-0.3	-9	43	29 F	0338	0.0	0	46								
15 Tu	0356	0.1	3	30	30 W	0403	-0.4	-12	34	15 F	0344	-0.5	-15	40	30 Th	0422	-0.4	-12	40	15 F	0304	-0.4	-12	49	30 Sa	0447	0.1	3	46								
	1251	1.0	30	27	31 Th	0456	-0.6	-18	37		1439	1.4	43																								
	1607	0.9	27	30		0549	-0.6	-18	40																												
	1911	1.0	30	30		1538	1.3	40	40																												

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

Padre Island (south end), Texas, 2019

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 M	0423	1.4	43		16 Tu	0543	1.4	43		1 Th	0536	1.6	49		16 F	0554	1.4	43		1 Su	0447	1.3	40		16 M	0355	1.4	43	
	1935	-1.0	-30			2040	-0.7	-21			2104	-0.8	-24			1023	1.2	37			0959	0.9	27			0943	1.0	30	
2 Tu	0513	1.5	46		17 W	0623	1.4	43		2 F	0606	1.5	46		17 Sa	0602	1.4	43		2 M	0446	1.2	37		17 Tu	0342	1.4	43	
	2021	-1.1	-34			2118	-0.6	-18			2155	-0.6	-18			1034	1.2	37			1043	0.6	18			1010	0.8	24	
3 W	0602	1.6	49		18 Th	0658	1.4	43		3 Sa	0625	1.3	40		18 Su	0601	1.3	40		3 Tu	0439	1.2	37		18 W	0325	1.4	43	
	2108	-1.1	-34			2154	-0.4	-12			1113	1.1	34			1054	1.1	34			1134	0.3	9			1043	0.7	21	
4 Th	0649	1.6	49		19 F	0724	1.3	40		4 Su	0634	1.2	37		19 M	0554	1.2	37		4 W	0058	1.2	37		19 Th	0038	1.3	40	
	2157	-1.0	-30			2227	-0.2	-6			1148	0.8	24			1120	0.9	27			0422	1.3	40			0248	1.4	43	
5 F	0728	1.5	46		20 Sa	0740	1.3	40		5 M	1621	1.1	34		20 Tu	1627	1.2	37		5 Th	1230	0.1	3		20 F	1124	0.5	15	
	2247	-0.8	-24			2257	0.0	0			2336	0.1	3			1800	1.1	34			2124	1.6	49			2024	1.7	52	
6 Sa	0756	1.4	43		21 Su	0744	1.2	37		6 Tu	0637	1.1	34		21 W	0543	1.2	37		6 F	1331	0.0	0		21 Sa	1215	0.4	12	
	2338	-0.4	-12			2325	0.2	6			1234	0.5	15			1232	0.6	18			2321	1.7	52			2209	1.8	55	
7 Su	0812	1.2	37		22 M	0741	1.1	34		7 W	1824	1.0	30		22 Th	0531	1.1	34		7 Sa	1438	0.0	0		22 Su	1316	0.3	9	
						2354	0.4	12			0029	0.5	15			0034	1.0	30			0047	1.8	55			1425	0.2	6	
8 M	0819	1.1	34		23 Tu	0733	1.1	34		8 Th	0633	1.0	30		23 F	0219	1.1	34		8 Su	0146	1.8	55		23 M	1538	0.2	6	
	1452	0.5	15			1915	0.7	21			1327	0.2	6			0418	1.2	37			1654	0.1	3			1538	0.2	6	
9 Tu	0126	0.3	9		24 W	0026	0.6	18		9 F	0116	1.3	40		24 Sa	0019	1.4	43		9 M	0231	1.8	55		24 Tu	0127	2.1	64	
	0818	1.0	30			0723	1.0	30			1622	-0.4	-12			1513	0.0	0			1755	0.2	6			1650	0.2	6	
10 W	0235	0.7	21		25 Th	0106	0.7	21		10 Sa	0223	1.5	46		25 Su	0123	1.6	49		10 Tu	0308	1.8	55		25 W	0204	2.1	64	
	0811	1.0	30			0708	1.0	30			1719	-0.5	-15			1615	-0.2	-6			1849	0.3	9			1757	0.3	9	
11 Th	0424	0.9	27		26 F	0105	1.0	30		11 Su	0313	1.5	46		26 M	0214	1.7	52		11 W	0336	1.8	55		26 Th	0230	2.0	61	
	0749	1.0	30			0308	0.9	27			1814	-0.5	-15			1716	-0.3	-9			0844	1.5	46			0743	1.7	52	
12 F	0223	1.2	37		27 Sa	0158	1.2	37		12 M	0357	1.5	46		27 Tu	0259	1.8	55		12 Th	0355	1.7	52		27 F	0245	1.8	55	
	1742	-0.7	-21			1656	-0.4	-12			1904	-0.4	-12			1815	-0.4	-12			1215	1.6	49			0743	1.5	46	
13 Sa	0323	1.3	40		28 Su	0243	1.3	40		13 Tu	0436	1.5	46		28 W	0338	1.8	55		13 F	0406	1.6	49		28 Sa	0252	1.7	52	
	1828	-0.8	-24			1743	-0.6	-18			1950	-0.3	-9			1912	-0.4	-12			0846	1.4	43			0806	1.2	37	
14 Su	0413	1.4	43		29 M	0329	1.5	46		14 W	0510	1.5	46		29 Th	0410	1.8	55		14 Sa	1321	1.6	49		29 Su	1409	1.9	58	
	1914	-0.9	-27			1833	-0.8	-24			2031	-0.2	-6			2007	-0.3	-9			2053	0.7	21			2102	0.8	24	
15 M	0459	1.4	43		30 Tu	0414	1.6	49		15 Th	0536	1.5	46		30 F	0431	1.6	49		15 Su	0404	1.5	46		30 M	0247	1.4	43	
	1958	-0.8	-24			1923	-0.9	-27			2107	0.0	0			0858	1.4	43			0920	1.2	37			0920	0.5	15	
					31 W	0458	1.6	49							31 Sa	1253	1.6	49			1519	1.6	49			1658	2.0	61	
						2014	-0.9	-27			2101	0.0	0			2101	0.0	0			2201	1.0	30			2314	1.4	43	

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

Padre Island (south end), Texas, 2019

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															
1 Tu	0233	1.5	46		16 W	0930	0.6	18		1 F	1117	0.0	0		16 Sa	1033	-0.1	-3		1 Su	1142	0.0	0		16 M	1117	-0.4	-12	
	1005	0.3	9			1809	2.0	61			2115	2.2	67			2036	2.2	67			2135	1.9	58			2050	1.8	55	
	1824	2.0	61																										
2 W	1054	0.1	3		17 Th	1005	0.4	12		2 Sa	1211	0.2	6		17 Su	1124	0.0	0		2 M	1229	0.3	9		17 Tu	1210	-0.1	-3	
	1955	2.0	61			1919	2.0	61			2217	2.2	67			2131	2.2	67			2204	1.8	55			2113	1.7	52	
3 Th	1148	0.1	3		18 F	1048	0.3	9		3 Su	1310	0.4	12		18 M	1222	0.1	3		3 Tu	1318	0.5	15		18 W	1307	0.2	6	
	2128	2.1	64			2037	2.1	64			2306	2.1	64			2215	2.1	64			2222	1.7	52			2124	1.5	46	
4 F	1247	0.2	6		19 Sa	1140	0.3	9		4 M	1415	0.7	21		19 Tu	1326	0.3	9		4 W	1409	0.8	24		19 Th	0427	0.9	27	
	2253	2.1	64			2154	2.2	67			2340	2.1	64			2245	2.0	61			2230	1.6	49			0746	1.0	30	
																											1412	0.5	15
5 Sa	1353	0.3	9		20 Su	1241	0.3	9		5 Tu	1522	0.9	27		20 W	1437	0.5	15		5 Th	0606	1.1	34		20 F	0431	0.5	15	
						2259	2.3	70							2302	1.9	58			0946	1.2	37			1057	1.0	30		
																					1507	1.0	30			1533	0.9	27	
6 Su	0000	2.1	64		21 M	1351	0.4	12		6 W	0002	2.0	61		21 Th	0557	1.3	40		6 F	0551	0.9	27		21 Sa	0459	0.2	6	
	1505	0.5	15			2348	2.3	70			1629	1.1	34			0906	1.4	43			1217	1.3	40			1305	1.3	40	
																1555	0.8	24			1619	1.2	37			1724	1.1	34	
7 M	0049	2.1	64		22 Tu	1506	0.5	15		7 Th	0014	1.9	58		22 F	0546	1.0	30		7 Sa	0601	0.7	21		22 Su	0537	-0.2	-6	
	1617	0.6	18								0647	1.4	43			1144	1.5	46			1344	1.4	43			1432	1.5	46	
											1127	1.6	49			1720	1.1	34			1747	1.3	40						
8 Tu	0125	2.0	61		23 W	0023	2.2	67		8 F	0017	1.8	55		23 Sa	0607	0.6	18		8 Su	0618	0.4	12		23 M	0618	-0.5	-15	
	1723	0.8	24			1623	0.6	18			0649	1.3	40			1329	1.7	52			1443	1.5	46			1537	1.6	49	
											1257	1.7	52			1853	1.3	40											
9 W	0150	2.0	61		24 Th	0045	2.1	64		9 Sa	0012	1.7	52		24 Su	0638	0.2	6		9 M	0641	0.2	6		24 Tu	0701	-0.7	-21	
	0743	1.6	49			0650	1.6	49			0702	1.0	30			1451	1.8	55			1531	1.6	49			1633	1.7	52	
	1028	1.7	52			1007	1.7	52			1405	1.8	55																
10 Th	0205	1.9	58		25 F	0056	1.9	58		10 Su	0001	1.6	49		25 M	0716	-0.1	-3		10 Tu	0708	-0.1	-3		25 W	0745	-0.8	-24	
	0735	1.6	49			0644	1.3	40			0719	0.8	24			1602	2.0	61			1615	1.7	52			1726	1.7	52	
	1206	1.8	55			1214	1.8	55			1503	1.8	55																
11 F	0211	1.8	55		26 Sa	0058	1.7	52		11 M	0740	0.6	18		26 Tu	0756	-0.4	-12		11 W	0740	-0.3	-9		26 Th	0830	-0.8	-24	
	0744	1.5	46			0705	1.0	30			1554	1.9	58			1706	2.0	61			1701	1.7	52			1815	1.7	52	
	1318	1.8	55			1349	1.9	58																					
12 Sa	0210	1.7	52		27 Su	0054	1.6	49		12 Tu	0805	0.4	12		27 W	0839	-0.5	-15		12 Th	0816	-0.5	-15		27 F	0913	-0.7	-21	
	0758	1.3	40			0737	0.6	18			1645	1.9	58			1807	2.0	61			1750	1.8	55			1901	1.6	49	
	1419	1.9	58			1511	2.1	64																					
13 Su	0202	1.7	52		28 M	0042	1.6	49		13 W	0833	0.2	6		28 Th	0923	-0.5	-15		13 F	0856	-0.6	-18		28 Sa	0956	-0.6	-18	
	0816	1.1	34			0814	0.3	9			1737	2.0	61			1905	2.0	61			1841	1.9	58			1942	1.6	49	
	1516	1.9	58			1627	2.2	67																					
14 M	0150	1.6	49		29 Tu	0856	0.1	3		14 Th	0907	0.0	0		29 F	1009	-0.4	-12		14 Sa	0940	-0.6	-18		29 Su	1037	-0.4	-12	
	0837	0.9	27			1740	2.2	67			1834	2.1	64			2002	2.0	61			1931	1.9	58			2016	1.5	46	
	1610	1.9	58																										
15 Tu	0130	1.6	49		30 W	0940	-0.1	-3		15 F	0947	-0.1	-3		30 Sa	1055	-0.2	-6		15 Su	1027	-0.5	-15		30 M	1115	-0.1	-3	
	0901	0.7	21			1853	2.2	67			1935	2.1	64			2053	1.9	58			2015	1.9	58			2038	1.5	46	
	1707	1.9	58																										
					31 Th	1027	-0.1	-3																		31 Tu	1152	0.1	3
						2005	2.2	67																					

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

Tampico Harbor (Madero), Mexico, 2019

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 Tu	0512	-0.2	-6		16 W	0411	-0.1	-3		1 F	0613	-0.4	-12		16 Sa	0519	-0.5	-15		1 F	0452	-0.2	-6		16 Sa	0349	-0.2	-6						
	1432	1.1	34			1429	1.2	37			1558	1.2	37			1516	1.5	46			1502	1.2	37			1410	1.6	49						
2 W	0554	-0.3	-9		17 Th	0455	-0.3	-9		2 Sa	0658	-0.5	-15		17 Su	0620	-0.6	-18		2 Sa	0548	-0.2	-6		17 Su	0502	-0.2	-6		17 Su	1437	1.6	49	
	1522	1.2	37			1458	1.4	43			1622	1.1	34			1544	1.5	46			1525	1.2	37			1437	1.6	49						
3 Th	0635	-0.5	-15		18 F	0542	-0.5	-15		3 Su	0737	-0.4	-12		18 M	0720	-0.6	-18		3 Su	0640	-0.1	-3		18 M	0611	-0.2	-6		18 M	0611	-0.2	-6	
	1602	1.2	37			1531	1.5	46			1640	1.1	34			1608	1.4	43			1537	1.2	37			1454	1.5	46						
4 F	0713	-0.6	-18		19 Sa	0634	-0.7	-21		4 M	0812	-0.4	-12		19 Tu	0814	-0.5	-15		4 M	0724	-0.1	-3		19 Tu	0716	-0.1	-3		19 Tu	1503	1.3	40	
	1638	1.2	37			1607	1.5	46			1652	1.1	34			2113	1.1	34			1540	1.1	34			2014	1.1	34						
5 Sa	0748	-0.6	-18		20 Su	0726	-0.8	-24		5 Tu	0844	-0.3	-9		20 W	0119	1.2	37		5 Tu	0007	1.0	30		20 W	0046	1.3	40		20 W	0813	0.0	0	
	1709	1.2	37			1645	1.5	46			1701	1.1	34			0903	-0.4	-12			0801	0.0	0			1511	1.2	37						
6 Su	0821	-0.6	-18		21 M	0816	-0.9	-27		6 W	0122	0.9	27		21 Th	0244	1.2	37		6 W	0118	1.1	34		21 Th	0213	1.3	40		21 Th	0904	0.2	6	
	1735	1.1	34			1720	1.4	43			0914	-0.1	-3			0953	-0.1	-3			0833	0.1	3			1519	1.1	34						
7 M	0854	-0.5	-15		22 Tu	0904	-0.8	-24		7 Th	0228	0.9	27		22 F	0402	1.1	34		7 Th	0219	1.1	34		22 F	0326	1.4	43		22 F	0954	0.5	15	
	1757	1.1	34			1748	1.3	40			0945	0.0	0			1049	0.2	6			0903	0.3	9			1527	1.0	30						
8 Tu	0927	-0.4	-12		23 W	0136	1.1	34		8 F	0325	0.9	27		23 Sa	0529	1.1	34		8 F	0311	1.1	34		23 Sa	0440	1.3	40		23 Sa	1056	0.7	21	
	1816	1.1	34			0954	-0.6	-18			1018	0.2	6			1152	0.5	15			0933	0.5	15			1536	1.0	30						
9 W	1002	-0.2	-6		24 Th	0310	1.0	30		9 Sa	0431	0.9	27		24 Su	0002	0.2	6		9 Sa	0405	1.1	34		24 Su	0601	1.3	40		24 Su	1215	0.9	27	
	1834	1.1	34			1050	-0.3	-9			1054	0.4	12			0705	1.0	30			1005	0.6	18			1539	1.0	30						
10 Th	1041	0.0	0		25 F	0018	0.7	21		10 Su	0017	0.5	15		25 M	0054	0.0	0		10 Su	0511	1.1	34		25 M	0728	1.3	40		25 M	2310	0.0	0	
	1850	1.1	34			0442	0.9	27			0556	0.9	27			0958	1.1	34			1047	0.8	24											
11 F	1124	0.2	6		26 Sa	0101	0.4	12		11 M	0054	0.4	12		26 Tu	0146	-0.1	-3		11 M	0628	1.2	37		26 Tu	0005	-0.1	-3		26 Tu	1005	1.3	40	
	1904	1.1	34			0628	0.9	27			0748	0.9	27			1154	1.1	34			1159	1.0	30											
12 Sa	0144	0.7	21		27 Su	0148	0.2	6		12 Tu	0133	0.2	6		27 W	0245	-0.1	-3		12 Tu	0914	1.2	37		27 W	0057	-0.1	-3		27 W	1126	1.3	40	
	0511	0.8	24			0858	0.8	24			1655	1.1	34			1335	1.2	37			1331	1.1	34											
13 Su	0213	0.6	18		28 M	0242	0.0	0		13 W	0220	0.0	0		28 Th	0351	-0.2	-6		13 W	1600	1.1	34		28 Th	0151	0.0	0		28 Th	1230	1.3	40	
	0716	0.7	21			1140	1.0	30			1343	1.2	37			1429	1.2	37			2352	0.2	6											
14 M	0248	0.4	12		29 Tu	0341	-0.2	-6		14 Th	0317	-0.2	-6		29 F	0132	-0.1	-3		14 Th	0132	-0.1	-3		29 F	0257	0.0	0		29 F	1330	1.3	40	
	1914	1.0	30			1355	1.1	34			1414	1.4	43			1229	1.5	46			1509	1.2	37											
15 Tu	0329	0.2	6		30 W	0436	-0.3	-9		15 F	0419	-0.3	-9		15 F	0235	-0.1	-3		15 F	0235	-0.1	-3		30 Sa	0410	0.1	3		30 Sa	1404	1.3	40	
	1426	1.0	30			1450	1.2	37			1445	1.5	46			1329	1.6	49			1329	1.6	49											
31 Th	0526	-0.4	-12			1527	1.2	37																										

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

Tampico Harbor (Madero), Mexico, 2019

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	h m	ft cm	h m	ft cm
1 M	0613 0.3 9 1417 1.2 37 1949 0.9 27 2344 1.1 34	16 Tu	0604 0.2 6 1324 1.3 40 1913 0.9 27	1 W	0020 1.1 34 0639 0.7 21 1225 1.2 37 1858 0.6 18	16 Th	0114 1.2 37 0727 0.7 21 1149 1.0 30 1903 0.1 3	1 Sa	0308 1.3 40 0844 1.0 30 1055 1.1 34 1910 -0.2 -6	16 Su	0413 1.3 40 1955 -0.6 -18
2 Tu	0705 0.4 12 1416 1.2 37 1948 0.8 24	17 W	0010 1.3 40 0716 0.4 12 1332 1.2 37 1933 0.6 18	2 Th	0138 1.2 37 0736 0.8 24 1231 1.1 34 1920 0.4 12	17 F	0236 1.3 40 0834 0.8 24 1157 1.0 30 1938 -0.2 -6	2 Su	0351 1.4 43 1943 -0.4 -12	17 M	0459 1.3 40 2029 -0.6 -18
3 W	0055 1.2 37 0748 0.5 15 1418 1.2 37 2000 0.7 21	18 Th	0142 1.4 43 0817 0.5 15 1341 1.1 34 2001 0.3 9	3 F	0238 1.3 40 0821 0.9 27 1236 1.1 34 1945 0.2 6	18 Sa	0339 1.4 43 0932 0.9 27 1200 1.0 30 2012 -0.4 -12	3 M	0437 1.5 46 2018 -0.5 -15	18 Tu	0542 1.2 37 2102 -0.6 -18
4 Th	0201 1.2 37 0823 0.6 18 1422 1.2 37 2019 0.6 18	19 F	0257 1.4 43 0910 0.7 21 1350 1.0 30 2033 0.0 0	4 Sa	0327 1.4 43 0904 1.0 30 1238 1.1 34 2011 0.1 3	19 Su	0437 1.4 43 2046 -0.5 -15	4 Tu	0528 1.5 46 2056 -0.6 -18	19 W	0619 1.2 37 2138 -0.5 -15
5 F	0255 1.3 40 0857 0.7 21 1428 1.1 34 2042 0.4 12	20 Sa	0404 1.5 46 1007 0.9 27 1359 1.0 30 2108 -0.1 -3	5 Su	0416 1.4 43 0955 1.0 30 1226 1.1 34 2040 -0.1 -3	20 M	0535 1.4 43 2121 -0.5 -15	5 W	0619 1.5 46 2139 -0.6 -18	20 Th	0652 1.2 37 2217 -0.3 -9
6 Sa	0345 1.3 40 0931 0.9 27 1433 1.1 34 2109 0.3 9	21 Su	0512 1.4 43 1139 0.9 27 1401 1.0 30 2145 -0.2 -6	6 M	0512 1.5 46 2113 -0.2 -6	21 Tu	0628 1.3 40 2159 -0.4 -12	6 Th	0710 1.5 46 2230 -0.5 -15	21 F	0722 1.1 34 2303 -0.1 -3
7 Su	0441 1.3 40 1016 1.0 30 1433 1.1 34 2140 0.2 6	22 M	0621 1.4 43 2229 -0.3 -9	7 Tu	0611 1.5 46 2152 -0.3 -9	22 W	0721 1.3 40 2243 -0.3 -9	7 F	0806 1.5 46 2330 -0.4 -12	22 Sa	0750 1.1 34 2353 0.1 3
8 M	0546 1.4 43 1203 1.1 34 1419 1.2 37 2218 0.0 0	23 Tu	0733 1.3 40 2320 -0.2 -6	8 W	0715 1.6 49 2241 -0.3 -9	23 Th	0827 1.2 37 2335 -0.2 -6	8 Sa	0903 1.4 43	23 Su	0814 1.1 34
9 Tu	0657 1.4 43 2306 0.0 0	24 W	0934 1.3 40	9 Th	0852 1.6 49 2341 -0.3 -9	24 F	0941 1.2 37	9 Su	0033 -0.1 -3 0934 1.3 40	24 M	0039 0.3 9 0834 1.1 34 1531 0.7 21 1827 0.8 24
10 W	0924 1.5 46	25 Th	0013 -0.1 -3 1044 1.3 40	10 F	1013 1.6 49	25 Sa	0027 0.0 0 1011 1.2 37	10 M	0134 0.1 3 0947 1.2 37 1621 0.8 24 2006 0.9 27	25 Tu	0122 0.5 15 0849 1.1 34 1549 0.6 18 2222 0.8 24
11 Th	0002 -0.1 -3 1052 1.6 49	26 F	0106 0.0 0 1122 1.3 40	11 Sa	0043 -0.2 -6 1050 1.6 49	26 Su	0117 0.2 6 1026 1.2 37	11 Tu	0249 0.4 12 0956 1.1 34 1644 0.5 15 2256 1.0 30	26 W	0212 0.7 21 0900 1.1 34 1618 0.4 12
12 F	0101 -0.1 -3 1139 1.6 49	27 Sa	0202 0.2 6 1148 1.3 40	12 Su	0147 0.0 0 1112 1.5 46	27 M	0212 0.4 12 1034 1.2 37 1732 0.8 24 2150 0.9 27	12 W	0430 0.7 21 1005 1.0 30 1718 0.2 6	27 Th	0007 1.0 30 0408 0.9 27 0905 1.0 30 1649 0.2 6
13 Sa	0206 -0.1 -3 1222 1.6 49	28 Su	0313 0.3 9 1204 1.2 37	13 M	0306 0.2 6 1124 1.3 40 1756 0.9 27 2142 1.0 30	28 Tu	0326 0.6 18 1041 1.1 34 1727 0.7 21 2331 1.0 30	13 Th	0047 1.1 34 0620 0.8 24 1014 1.0 30 1757 -0.1 -3	28 F	0156 1.1 34 0643 0.9 27 0900 1.0 30 1723 0.0 0
14 Su	0326 0.0 0 1256 1.5 46	29 M	0429 0.5 15 1213 1.2 37 1848 0.9 27 2304 1.0 30	14 Tu	0435 0.4 12 1133 1.2 37 1803 0.7 21 2335 1.1 34	29 W	0450 0.8 24 1047 1.1 34 1745 0.5 15	14 F	0223 1.2 37 0809 0.9 27 1022 1.0 30 1838 -0.3 -9	29 Sa	0245 1.3 40 1759 -0.2 -6
15 M	0447 0.1 3 1315 1.4 43 1914 1.1 34 2236 1.2 37	30 Tu	0535 0.6 18 1219 1.2 37 1844 0.8 24	15 W	0601 0.6 18 1141 1.1 34 1829 0.4 12	30 Th	0103 1.1 34 0615 0.9 27 1053 1.1 34 1810 0.3 9	15 Sa	0323 1.3 40 1918 -0.5 -15	30 Su	0322 1.4 43 1839 -0.4 -12
						31 F	0219 1.2 37 0742 1.0 30 1056 1.1 34 1839 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.

Tampico Harbor (Madero), Mexico, 2019

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 M	0359	1.5	46		16 Tu	0457	1.2	37		1 Th	0452	1.5	46					
	1921	-0.6	-18			2016	-0.5	-15			2043	-0.5	-15		16 F	0438	1.2	37
2 Tu	0440	1.5	46		17 W	0525	1.2	37		2 F	0519	1.4	43			17 Sa	0446	1.2	37
	2004	-0.7	-21			2049	-0.4	-12			0954	1.2	37		0919		1.0	30
3 W	0523	1.5	46		18 Th	0546	1.1	34		3 Sa	1321	1.3	40		18 Su	0457	1.2	37
	2047	-0.7	-21			2122	-0.3	-9			1449	1.3	40			0950	0.9	27
4 Th	0604	1.5	46		19 F	0603	1.1	34		4 Su	1022	1.1	34		19 M	0508	1.2	37
	2133	-0.6	-18			1053	0.9	27			1114	0.9	27			1036	0.8	24
5 F	0639	1.4	43		20 Sa	1329	1.0	30		5 M	1614	1.2	37		20 Tu	1631	1.2	37
	2225	-0.4	-12			2157	-0.1	-3			2327	0.3	9			2257	0.7	21
6 Sa	0708	1.3	40		21 Su	0618	1.1	34		6 Tu	0606	1.1	34		21 W	0517	1.2	37
	2326	-0.2	-6			1140	0.9	27			1212	0.7	21			1132	0.7	21
7 Su	0728	1.2	37		22 M	1442	1.0	30		7 W	1755	1.1	34		22 Th	1752	1.2	37
	1330	0.9	27			2236	0.1	3			0032	0.6	18			2352	0.9	27
8 M	0743	1.1	34		23 Tu	0632	1.1	34		8 Th	0616	1.1	34		23 F	0522	1.2	37
	1407	0.7	21			1220	0.9	27			1305	0.4	12			1221	0.6	18
9 Tu	0755	1.0	30		24 W	1545	1.0	30		9 F	1955	1.1	34		24 Sa	1932	1.2	37
	2153	0.9	27			2321	0.3	9			0138	0.9	27			1449	0.2	6
10 W	0803	1.0	30		25 Th	0645	1.1	34		10 Sa	0209	1.4	43		25 Su	0052	1.1	34
	1552	0.2	6			1255	0.8	24			1704	-0.2	-6			1305	0.5	15
11 Th	0802	1.0	30		26 F	1714	0.9	27		11 Su	0257	1.4	43		26 M	0512	1.2	37
	1643	-0.1	-3			0007	0.5	15			1757	-0.2	-6			1305	0.5	15
12 F	0200	1.2	37		27 Sa	0655	1.1	34		12 M	0333	1.4	43		27 Tu	1352	0.3	9
	1731	-0.3	-9			1904	0.9	27			1846	-0.2	-6			2307	1.3	40
13 Sa	0300	1.3	40		28 Su	0655	1.1	34		13 W	0401	1.3	40		28 Th	0211	1.7	52
	1817	-0.4	-12			1501	0.3	9			1929	-0.2	-6			1653	-0.1	-3
14 Su	0344	1.3	40		29 M	0206	1.3	40		14 Th	0421	1.3	40		29 F	0307	1.4	43
	1902	-0.5	-15			1636	-0.1	-3			0908	1.0	30			0816	1.2	37
15 M	0423	1.3	40		30 Tu	0313	1.5	46		15 W	1127	1.1	34		30 Sa	1117	1.3	40
	1941	-0.5	-15			1813	-0.4	-12			2005	-0.1	-3			1914	0.3	9
31 W	0420	1.6	49		31 Th	0346	1.6	49		16 Sa	0431	1.2	37		31 Su	0310	1.3	40
	1955	-0.6	-18			0900	1.0	30			2041	0.0	0			0807	1.1	34

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.

Tampico Harbor (Madero), Mexico, 2019

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	Tu	0255	1.2 37	16	W	0139	1.3 40	1	F	1055	-0.1 -3	16	Sa	1008	-0.2 -6	1	Su	1117	-0.2 -6	16	M	1052	-0.3 -9	
		0943	0.2 6			0914	0.3 9			2048	1.6 49			1958	1.7 52			2052	1.3 40			2000	1.5 46	
		1742	1.7 52			1740	1.6 49																	
2	W	0025	1.1 34	17	Th	0948	0.2 6	2	Sa	1153	0.0 0	17	Su	1103	-0.1 -3	2	M	1210	0.0 0	17	Tu	1154	-0.1 -3	
		0256	1.2 37			1846	1.7 52			2209	1.5 46			2118	1.7 52			2129	1.2 37			2029	1.4 43	
		1034	0.1 3																					
		1908	1.6 49																					
3	Th	1133	0.1 3	18	F	1032	0.2 6	3	Su	1249	0.1 3	18	M	1205	0.0 0	3	Tu	1300	0.3 9	18	W	1254	0.2 6	
		2113	1.6 49			2014	1.7 52			2248	1.5 46			2204	1.7 52			2147	1.2 37			2049	1.2 37	
4	F	1233	0.1 3	19	Sa	1127	0.2 6	4	M	1344	0.3 9	19	Tu	1308	0.1 3	4	W	1350	0.5 15	19	Th	0342	0.8 24	
		2246	1.6 49			2209	1.8 55			2311	1.4 43			2227	1.6 49			2157	1.2 37			0717	0.9 27	
																							1357	0.4 12
																							2103	1.1 34
5	Sa	1330	0.2 6	20	Su	1227	0.2 6	5	Tu	1451	0.5 15	20	W	1416	0.3 9	5	Th	0453	0.8 24	20	F	0405	0.5 15	
		2339	1.6 49			2255	1.8 55			2324	1.4 43			2240	1.5 46			0958	0.9 27			1027	0.9 27	
																			1455	0.7 21			1531	0.7 21
																			2204	1.1 34			2114	1.1 34
6	Su	1435	0.3 9	21	M	1329	0.2 6	6	W	0634	1.0 30	21	Th	0524	1.0 30	6	F	0459	0.6 18	21	Sa	0441	0.2 6	
						2329	1.8 55			0936	1.1 34			0901	1.1 34			1136	1.0 30			1221	1.1 34	
										1608	0.7 21			1545	0.6 18			1627	0.9 27			1734	0.9 27	
										2331	1.3 40			2249	1.4 43			2211	1.1 34			2123	1.0 30	
7	M	0025	1.5 46	22	Tu	1441	0.3 9	7	Th	0606	1.0 30	22	F	0527	0.8 24	7	Sa	0519	0.4 12	22	Su	0522	-0.1 -3	
		1550	0.4 12			2356	1.8 55			1109	1.2 37			1112	1.2 37			1312	1.1 34			1409	1.3 40	
										1717	0.8 24			1717	0.8 24			1804	1.0 30					
										2337	1.3 40			2258	1.2 37			2215	1.1 34					
8	Tu	0103	1.5 46	23	W	1605	0.4 12	8	F	0611	0.8 24	23	Sa	0553	0.4 12	8	Su	0547	0.2 6	23	M	0606	-0.4 -12	
		1657	0.5 15							1224	1.3 40			1250	1.3 40			1427	1.3 40			1512	1.4 43	
										1826	0.9 27			1854	0.9 27			1956	1.0 30					
										2342	1.3 40			2307	1.2 37			2216	1.1 34					
9	W	0122	1.4 43	24	Th	0015	1.6 49	9	Sa	0629	0.7 21	24	Su	0628	0.1 3	9	M	0618	0.0 0	24	Tu	0651	-0.6 -18	
		0725	1.2 37			0637	1.3 40			1341	1.4 43			1419	1.5 46			1513	1.4 43			1601	1.4 43	
		1045	1.3 40			1015	1.4 43			1931	1.0 30			2019	1.0 30									
		1757	0.6 18			1724	0.5 15			2346	1.2 37			2313	1.1 34									
10	Th	0127	1.4 43	25	F	0028	1.5 46	10	Su	0654	0.5 15	25	M	0707	-0.2 -6	10	Tu	0651	-0.2 -6	25	W	0734	-0.7 -21	
		0711	1.1 34			0635	1.0 30			1441	1.5 46			1525	1.6 49			1554	1.4 43			1648	1.4 43	
		1150	1.4 43			1148	1.5 46			2022	1.1 34													
		1853	0.7 21			1842	0.7 21			2349	1.2 37													
11	F	0129	1.3 40	26	Sa	0039	1.4 43	11	M	0722	0.3 9	26	Tu	0747	-0.4 -12	11	W	0725	-0.3 -9	26	Th	0813	-0.7 -21	
		0715	1.0 30			0657	0.7 21			1529	1.5 46			1625	1.6 49			1635	1.5 46			1730	1.3 40	
		1258	1.4 43			1319	1.6 49			2109	1.1 34													
		1939	0.8 24			1953	0.8 24			2343	1.2 37													
12	Sa	0133	1.3 40	27	Su	0050	1.3 40	12	Tu	0751	0.1 3	27	W	0825	-0.5 -15	12	Th	0800	-0.5 -15	27	F	0850	-0.7 -21	
		0730	0.9 27			0728	0.4 12			1617	1.6 49			1724	1.5 46			1719	1.5 46			1807	1.2 37	
		1402	1.5 46			1438	1.7 52																	
		2018	0.9 27			2054	1.0 30																	
13	Su	0139	1.3 40	28	M	0100	1.2 37	13	W	0820	0.0 0	28	Th	0903	-0.5 -15	13	F	0835	-0.5 -15	28	Sa	0926	-0.6 -18	
		0752	0.7 21			0804	0.1 3			1708	1.6 49			1817	1.5 46			1802	1.6 49			1836	1.2 37	
		1455	1.5 46			1547	1.7 52																	
		2054	1.0 30			2158	1.1 34																	
14	M	0145	1.3 40	29	Tu	0105	1.2 37	14	Th	0851	-0.1 -3	29	F	0942	-0.5 -15	14	Sa	0914	-0.5 -15	29	Su	1004	-0.4 -12	
		0817	0.6 18			0841	-0.1 -3			1801	1.7 52			1907	1.4 43			1843	1.6 49			1900	1.1 34	
		1545	1.6 49			1657	1.7 52																	
		2131	1.2 37																					
15	Tu	0148	1.3 40	30	W	0920	-0.2 -6	15	F	0926	-0.2 -6	30	Sa	1026	-0.3 -9	15	Su	0959	-0.5 -15	30	M	1047	-0.2 -6	
		0845	0.4 12			1808	1.7 52			1855	1.7 52			1957	1.3 40			1923	1.5 46			1920	1.1 34	
		1639	1.6 49																					
		2229	1.2 37																					
				31	Th	1004	-0.2 -6																	
						1918	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.

Cristobal (Colon), Panama, 2019

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 Tu	0146	-0.1	-3		16 W	0039	-0.1	-3	1 F	0206	0.0	0	16 Sa	0124	-0.1	-3	1 F	0130	0.0	0	16 Sa	0032	-0.1	-3
	0915	1.3	40			0822	1.2	37		1009	1.2	37		0912	1.3	40		0852	1.1	34		0753	1.2	37
	1651	0.0	0			1607	0.0	0		1829	-0.2	-6		1704	-0.2	-6		1636	-0.2	-6		1524	-0.3	-9
	2133	0.2	6			2006	0.2	6						2158	0.1	3		2207	0.2	6		2051	0.2	6
2 W	0210	0.0	0		17 Th	0103	-0.1	-3	2 Sa	0009	0.1	3	17 Su	0214	-0.1	-3	2 Sa	0159	0.0	0	17 Su	0127	-0.1	-3
	0957	1.3	40			0900	1.3	40		0211	0.0	0		1002	1.3	40		0933	1.0	30		0842	1.1	34
	1801	-0.1	-3			1704	-0.1	-3		1050	1.1	34		1754	-0.3	-9		1728	-0.2	-6		1609	-0.3	-9
	2301	0.1	3			2112	0.1	3		1927	-0.2	-6		2307	0.1	3		2304	0.2	6		2144	0.3	9
3 Th	0226	0.0	0		18 F	0133	-0.1	-3	3 Su	1131	1.1	34	18 M	0314	-0.1	-3	3 Su	0226	0.1	3	18 M	0229	-0.1	-3
	1039	1.3	40			0942	1.3	40		2020	-0.2	-6		1056	1.2	37		1014	0.9	27		0936	1.1	34
	1906	-0.2	-6			1758	-0.2	-6						1843	-0.3	-9		1819	-0.1	-3		1654	-0.2	-6
						2226	0.0	0														2242	0.4	12
4 F	1121	1.3	40		19 Sa	0209	-0.1	-3	4 M	1211	1.0	30	19 Tu	0020	0.2	6	4 M	0009	0.2	6	19 Tu	0342	0.0	0
	2005	-0.2	-6			1029	1.4	43		2104	-0.2	-6		0429	0.0	0		0252	0.1	3		1034	0.9	27
						1850	-0.2	-6		●				1153	1.1	34		1055	0.8	24		1741	-0.2	-6
						2350	0.0	0		○				1931	-0.3	-9		1908	-0.1	-3		2345	0.5	15
5 Sa	1202	1.2	37		20 Su	0255	-0.1	-3	5 Tu	1252	0.9	27	20 W	0131	0.3	9	5 Tu	0124	0.2	6	20 W	0508	0.0	0
	2056	-0.2	-6	●		1119	1.4	43		2137	-0.2	-6		0600	0.1	3		0327	0.1	3		1139	0.8	24
						1939	-0.3	-9						1256	1.0	30		1139	0.8	24		1828	-0.2	-6
														2017	-0.3	-9		1951	0.0	0		○		
6 Su	1243	1.2	37		21 M	0117	0.1	3	6 W	1335	0.8	24	21 Th	0236	0.5	15	6 W	0226	0.2	6	21 Th	0048	0.6	18
	2139	-0.2	-6			0356	0.0	0		2202	-0.1	-3		0741	0.1	3		0441	0.1	3		0643	0.0	0
						1213	1.4	43		●				1403	0.8	24		1228	0.7	21		1252	0.6	18
						2024	-0.3	-9		○				2101	-0.3	-9		2024	0.0	0		1916	-0.1	-3
7 M	1322	1.1	34		22 Tu	0233	0.2	6	7 Th	1419	0.7	21	22 F	0333	0.6	18	7 Th	0258	0.3	9	22 F	0148	0.7	21
	2214	-0.2	-6			0521	0.1	3		2220	-0.1	-3		0917	0.1	3		0637	0.2	6		0817	-0.1	-3
						1310	1.3	40						1512	0.7	21		1324	0.6	18		1411	0.5	15
						2107	-0.4	-12						2144	-0.2	-6		2048	0.0	0		2004	-0.1	-3
8 Tu	1401	1.0	30		23 W	0333	0.3	9	8 F	0532	0.4	12	23 Sa	0424	0.8	24	8 F	0319	0.4	12	23 Sa	0245	0.8	24
	2242	-0.2	-6			0704	0.2	6		0908	0.3	9		1042	0.0	0		0829	0.2	6		0938	-0.2	-6
						1408	1.2	37		1507	0.6	18		1622	0.6	18		1427	0.5	15		1531	0.4	12
						2147	-0.4	-12		2233	-0.1	-3		2225	-0.2	-6		2106	0.1	3		2053	0.0	0
9 W	1439	1.0	30		24 Th	0424	0.5	15	9 Sa	0532	0.5	15	24 Su	0513	0.9	27	9 Sa	0340	0.5	15	24 Su	0338	0.9	27
	2304	-0.2	-6			0849	0.2	6		1042	0.3	9		1155	-0.1	-3		0954	0.1	3		1047	-0.3	-9
						1509	1.0	30		1556	0.5	15		1728	0.5	15		1530	0.4	12		1643	0.4	12
						2226	-0.4	-12		2245	0.0	0		2306	-0.2	-6		2120	0.1	3		2141	0.0	0
10 Th	1518	0.9	27		25 F	0510	0.7	21	10 Su	0544	0.6	18	25 M	0559	1.0	30	10 Su	0404	0.6	18	25 M	0428	1.0	30
	2322	-0.2	-6			1025	0.2	6		1154	0.2	6		1259	-0.2	-6		1058	0.0	0		1145	-0.3	-9
						1611	0.8	24		1647	0.4	12		1831	0.4	12		1628	0.3	9		1747	0.4	12
						2304	-0.3	-9		2258	0.0	0		2345	-0.1	-3		2135	0.1	3		2228	0.0	0
11 F	0651	0.5	15		26 Sa	0555	0.9	27	11 M	0605	0.8	24	26 Tu	0643	1.1	34	11 M	0432	0.7	21	26 Tu	0515	1.1	34
	1014	0.4	12			1151	0.1	3		1253	0.1	3		1356	-0.2	-6		1149	0.0	0		1237	-0.4	-12
	1559	0.8	24			1714	0.7	21		1736	0.3	9		1929	0.3	9		1719	0.3	9		1842	0.3	9
	2336	-0.1	-3			2340	-0.3	-9		2314	-0.1	-3		○				2156	0.1	3		2312	0.0	0
12 Sa	0652	0.6	18		27 Su	0638	1.0	30	12 Tu	0632	0.9	27	27 W	0022	-0.1	-3	12 Tu	0505	0.9	27	27 W	0601	1.1	34
	1143	0.4	12			1308	0.0	0		1345	0.0	0		0727	1.1	34		1234	-0.1	-3		1325	-0.4	-12
	1641	0.6	18			1817	0.5	15		1825	0.3	9		1451	-0.2	-6		1802	0.2	6		1930	0.3	9
	2350	-0.1	-3			○				2337	-0.1	-3		2023	0.3	9		2224	0.0	0		2355	0.1	3
13 Su	0704	0.8	24		28 M	0015	-0.2	-6	13 W	0705	1.1	34	28 Th	0057	0.0	0	13 W	0542	1.0	30	28 Th	0644	1.0	30
	1258	0.3	9			0721	1.1	34		1435	-0.1	-3		0810	1.1	34		1316	-0.2	-6		1410	-0.3	-9
	1727	0.5	15			1418	-0.1	-3		1913	0.2	6		1543	-0.2	-6		1842	0.2	6		2015	0.3	9
						1921	0.4	12						2115	0.2	6		2300	0.0	0				
14 M	0004	-0.1	-3		29 Tu	0048	-0.2	-6	14 Th	0006	-0.1	-3	14 Th	0622	1.1	34	14 Th	0622	1.1	34	29 F	0036	0.1	3
	0724	0.9	27			0803	1.2	37		0743	1.2	37		1358	-0.2	-6		1358	-0.2	-6		0726	1.0	30
	1405	0.2	6			1524	-0.1	-3		1524	-0.1	-3		1921	0.2	6		1921	0.2	6		1453	-0.3	-9
	1816	0.4	12			2024	0.3	9		2004	0.1	3		2343	-0.1	-3		2343	-0.1	-3		2056	0.3	9
15 Tu	0020	-0.1	-3		30 W	0119	-0.1	-3	15 F	0041	-0.1	-3	15 F	0706	1.1	34	15 F	0706	1.1	34	30 Sa	0115	0.1	3
	0750	1.0	30			0846	1.2	37		0826	1.2	37		1441	-0.3	-9		1441	-0.3	-9		0807	0.9	27
	1508	0.1	3			1626	-0.2	-6		1614	-0.2	-6		2004	0.2	6		2004	0.2	6		1534	-0.2	-6
	1908	0.3	9			2129	0.2	6		2058	0.1	3										2137	0.3	9
				31 Th	0146	0.0	0										31 Su	0155	0.1	3				
					0928	1.2	37											0847	0.8	24				
					1728	-0.2	-6											1613	-0.1	-3				
					2241	0.1	3											2218	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.

St. Georges Island, Bermuda, 2019

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				
1 M	0604	2.3	70	85	1 W	0603	2.3	70	85	1 Sa	0050	0.1	3	-3				
	1223	0.1	-3	-9		1214	0.1	-3	-9		0614	2.6	79	0643	2.3	70		
	1826	2.1	64	82		1828	2.4	73	88		1222	-0.4	-12	1243	-0.1	-3		
2 Tu	0029	0.1	3	-12	2 Th	0040	0.1	3	-9	2 Su	0133	0.0	0	-6	16 Su	0140	-0.1	-3
	0645	2.4	73	85		0643	2.3	70	88		0726	2.3	70	0733		2.4	73	
	1300	0.0	0	-15		1250	0.0	0	-12		1323	-0.2	-6	1330		-0.2	-6	
3 W	0110	0.0	0	-15	3 F	0121	0.0	0	-9	3 M	0217	-0.1	-3	17 M	0226	-0.1	-3	
	0722	2.5	76	88		0721	2.4	73	94		0808	2.3	70		0818	2.4	73	
	1333	-0.1	-3	-18		1324	-0.1	-3	-12		1405	-0.2	-6		1414	-0.2	-6	
4 Th	0148	-0.1	-3	-18	4 Sa	0200	-0.1	-3	-9	4 Tu	0301	-0.1	-3	18 Tu	0309	-0.1	-3	
	0757	2.5	76	85		0758	2.4	73	94		0852	2.4	73		0901	2.3	70	
	1405	-0.2	-6	-18		1359	-0.2	-6	-12		1448	-0.3	-9		1456	-0.1	-3	
5 F	0226	-0.2	-6	-18	5 Su	0240	-0.2	-6	-9	5 W	0346	-0.2	-6	19 W	0350	0.0	0	
	0831	2.5	76	82		0836	2.4	73	94		0938	2.4	73		0943	2.3	70	
	1436	-0.2	-6	-18		1434	-0.2	-6	-12		1534	-0.3	-9		1537	0.0	0	
6 Sa	0302	-0.2	-6	-15	6 M	0320	-0.2	-6	-9	6 Th	0434	-0.1	-3	20 Th	0431	0.1	3	
	0904	2.4	73	79		0914	2.3	70	88		1027	2.3	70		1024	2.2	67	
	1508	-0.2	-6	-15		1511	-0.2	-6	-12		1623	-0.2	-6		1619	0.1	3	
7 Su	0339	-0.2	-6	-9	7 Tu	0401	-0.2	-6	-9	7 F	0524	-0.1	-3	21 F	0512	0.2	6	
	0938	2.4	73	73		0954	2.3	70	82		1120	2.3	70		1107	2.2	67	
	1540	-0.2	-6	-9		1550	-0.2	-6	-12		1718	-0.1	-3		1701	0.2	6	
8 M	0418	-0.1	-3	-3	8 W	0446	-0.1	-3	-3	8 Sa	0618	0.0	0	22 Sa	0553	0.3	9	
	1014	2.3	70	67		1038	2.2	67	79		1219	2.3	70		1151	2.1	64	
	1614	-0.2	-6	-3		1634	-0.1	-3	-12		1818	0.0	0		1746	0.4	12	
9 Tu	0459	-0.1	-3	3	9 Th	0536	0.0	0	9	9 Su	0046	2.9	88	23 Su	0009	2.5	76	
	1053	2.1	64	61		1128	2.1	64	79		0716	0.0	0		0636	0.4	12	
	1652	-0.1	-3	3		1725	-0.1	-3	-12		1323	2.4	73		1239	2.1	64	
10 W	0547	0.0	0	9	10 F	0631	0.1	3	12	10 M	0148	2.7	82	24 M	0054	2.4	73	
	1138	2.0	61	64		1226	2.1	64	79		0815	0.0	0		0720	0.4	12	
	1737	0.0	0	3		1824	0.1	3	15		1431	2.4	73		1330	2.1	64	
11 Th	0012	2.7	82	70	11 Sa	0059	2.8	85	70	11 Tu	0252	2.6	79	25 Tu	0142	2.2	67	
	0641	0.1	3	3		0733	0.1	3	12		0914	0.0	0		0806	0.4	12	
	1232	1.9	58	64		1332	2.1	64	58		1537	2.6	79		1425	2.2	67	
12 F	0111	2.6	79	82	12 Su	0205	2.7	82	82	12 W	0356	2.5	76	26 W	0234	2.1	64	
	0746	0.2	6	3		0838	0.1	3	12		1012	-0.1	-3		0853	0.4	12	
	1338	1.9	58	67		1444	2.2	67	61		1639	2.8	85		1520	2.3	70	
13 Sa	0220	2.6	79	79	13 M	0313	2.6	79	79	13 Th	0457	2.4	73	27 Th	0328	2.1	64	
	0856	0.2	6	0		0941	0.0	0	12		1106	-0.1	-3		0942	0.4	12	
	1453	1.9	58	70		1554	2.3	70	64		1736	3.0	91		1613	2.4	73	
14 Su	0220	2.6	79	15	14 Tu	0202	0.1	3	3	14 F	2357	0.0	0	28 F	0423	2.1	64	
	0856	0.2	6	12		0941	0.0	0	12		1106	-0.1	-3		1030	0.3	9	
	1453	1.9	58	70		1554	2.3	70	64		1736	3.0	91		1704	2.6	79	
15 M	0332	2.6	79	67	15 W	0419	2.6	79	79	15 Sa	0553	2.4	73	29 Sa	0516	2.1	64	
	1005	0.1	3	9		1040	-0.1	-3	9		1157	-0.2	-6		1118	0.1	3	
	1607	2.1	64	61		1657	2.6	79	70		1827	3.1	94		1752	2.8	85	
16 M	0440	2.7	82	67	16 Th	0519	2.6	79	79	16 Su	0051	0.0	0	30 Su	0018	0.3	9	
	1106	-0.1	-3	6		1133	-0.2	-6	6		0645	2.4	73		0606	2.2	67	
	1713	2.4	73	67		1754	2.9	88	76		1245	-0.2	-6		1206	0.0	0	
17 W	0226	-0.2	-6	6	17 F	0004	0.3	9	9	17 M	0645	2.4	73	31 F	0606	2.2	67	
	0831	2.5	76	82		0600	2.2	67	67		1915	3.2	98		1840	3.1	94	
	1436	-0.2	-6	82		1203	0.1	3	3									

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

St. Georges Island, Bermuda, 2019

Times and Heights of High and Low Waters

July			August						September														
Time	Height			Time	Height			Time	Height			Time	Height										
	h	m	ft	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm								
1 M	0107	0.1	3	16 Tu	0208	0.1	3	1 Th	0220	-0.1	-3	16 F	0257	0.2	6	1 Su	0328	-0.3	-9	16 M	0325	0.2	6
	0656	2.3	70		0759	2.3	70		0815	2.7	82		0854	2.6	79		0938	3.4	104		0934	2.9	88
	1254	-0.1	-3		1356	0.0	0		1417	-0.4	-12		1456	0.1	3		1550	-0.4	-12		1546	0.2	6
	1927	3.2	98		2024	3.1	94		2045	3.6	110		2115	3.0	91		2203	3.4	104		2151	2.8	85
2 Tu	0154	0.0	0	17 W	0248	0.1	3	2 F	0307	-0.2	-6	17 Sa	0330	0.2	6	2 M	0415	-0.3	-9	17 Tu	0356	0.3	9
	0744	2.4	73		0840	2.4	73		0906	2.9	88		0930	2.6	79		1029	3.4	104		1008	2.9	88
	1342	-0.2	-6		1437	0.0	0		1510	-0.4	-12		1533	0.2	6		1644	-0.2	-6		1622	0.3	9
	2014	3.4	104		2103	3.0	91		2135	3.5	107		2149	2.9	88		2252	3.1	94		2224	2.6	79
3 W	0241	-0.1	-3	18 Th	0326	0.1	3	3 Sa	0355	-0.3	-9	18 Su	0403	0.2	6	3 Tu	0502	-0.2	-6	18 W	0427	0.4	12
	0833	2.5	76		0919	2.4	73		0958	3.0	91		1006	2.6	79		1122	3.3	101		1044	2.9	88
	1431	-0.3	-9		1516	0.1	3		1603	-0.4	-12		1610	0.2	6		1739	0.0	0		1701	0.4	12
	2102	3.4	104		2141	3.0	91		2224	3.4	104		2223	2.8	85		2344	2.9	88		2259	2.5	76
4 Th	0329	-0.2	-6	19 F	0403	0.2	6	4 Su	0443	-0.3	-9	19 M	0435	0.3	9	4 W	0552	0.0	0	19 Th	0501	0.4	12
	0922	2.6	79		0958	2.4	73		1051	3.0	91		1042	2.6	79		1217	3.2	98		1123	2.8	85
	1522	-0.3	-9		1555	0.1	3		1659	-0.2	-6		1648	0.3	9		1839	0.2	6		1744	0.5	15
	2151	3.4	104		2218	2.9	88		2315	3.2	98		2257	2.6	79						2339	2.3	70
5 F	0417	-0.2	-6	20 Sa	0439	0.2	6	5 M	0532	-0.2	-6	20 Tu	0508	0.3	9	5 Th	0039	2.6	79	20 F	0540	0.5	15
	1014	2.6	79		1037	2.4	73		1146	3.0	91		1129	2.6	79		0646	0.2	6		1209	2.8	85
	1614	-0.3	-9		1635	0.2	6		1757	0.0	0		1718	0.5	15		1317	3.0	91		1834	0.6	18
	2242	3.3	101		2255	2.8	85						2332	2.5	76		1943	0.4	12				
6 Sa	0507	-0.2	-6	21 Su	0515	0.3	9	6 Tu	0008	2.9	88	21 W	0542	0.4	12	6 F	0141	2.4	73	21 Sa	0027	2.2	67
	1108	2.6	79		1117	2.3	70		0623	-0.1	-3		1200	2.6	79		0746	0.4	12		0627	0.6	18
	1710	-0.2	-6		1716	0.4	12		1244	3.0	91		1812	0.6	18		1422	2.9	88		1304	2.8	85
	2334	3.2	98		2332	2.6	79		1859	0.2	6						2053	0.6	18		1935	0.7	21
7 Su	0558	-0.2	-6	22 M	0551	0.3	9	7 W	0104	2.7	82	22 Th	0012	2.3	70	7 Sa	0249	2.2	67	22 Su	0126	2.2	67
	1206	2.7	82		1158	2.3	70		0718	0.0	0		0620	0.5	15		0852	0.5	15		0728	0.6	18
	1810	0.0	0		1800	0.5	15		1346	2.9	88		1246	2.6	79		1530	2.8	85		1409	2.8	85
									2006	0.3	9		1904	0.7	21		2203	0.6	18		2044	0.7	21
8 M	0029	3.0	91	23 Tu	0011	2.4	73	8 Th	0205	2.4	73	23 F	0058	2.2	67	8 Su	0358	2.2	67	23 M	0236	2.2	67
	0652	-0.1	-3		0629	0.4	12		0816	0.2	6		0706	0.5	15		0959	0.5	15		0839	0.5	15
	1307	2.7	82		1243	2.3	70		1451	2.9	88		1340	2.6	79		1635	2.8	85		1520	2.8	85
	1915	0.1	3		1848	0.6	18		2116	0.4	12		2004	0.7	21		2305	0.6	18		2154	0.6	18
9 Tu	0127	2.7	82	24 W	0053	2.3	70	9 F	0311	2.3	70	24 Sa	0155	2.1	64	9 M	0500	2.2	67	24 Tu	0349	2.3	70
	0748	0.0	0		0710	0.4	12		0918	0.3	9		0801	0.5	15		1101	0.5	15		0953	0.4	12
	1411	2.7	82		1333	2.4	73		1556	2.8	85		1442	2.7	82		1731	2.8	85		1628	3.0	91
	2024	0.2	6		1943	0.7	21		2225	0.5	15		2112	0.7	21		2357	0.5	15		2257	0.4	12
10 W	0229	2.5	76	25 Th	0142	2.2	67	10 Sa	0417	2.2	67	25 Su	0300	2.1	64	10 Tu	0553	2.3	70	25 W	0455	2.5	76
	0846	0.0	0		0756	0.5	15		1020	0.3	9		0905	0.5	15		1154	0.4	12		1101	0.2	6
	1516	2.8	85		1427	2.4	73		1658	2.9	88		1548	2.8	85		1819	2.8	85		1729	3.2	98
	2135	0.3	9		2044	0.7	21		2327	0.5	15		2219	0.6	18						2352	0.2	6
11 Th	0333	2.4	73	26 F	0236	2.1	64	11 Su	0518	2.2	67	26 M	0408	2.2	67	11 W	0040	0.5	15	26 Th	0554	2.8	85
	0945	0.1	3		0847	0.4	12		1118	0.3	9		1012	0.3	9		0637	2.5	76		1202	0.0	0
	1619	2.9	88		1525	2.5	76		1753	2.9	88		1652	3.0	91		1239	0.3	9		1825	3.3	101
	2243	0.3	9		2148	0.6	18						2321	0.4	12		1901	2.9	88				
12 F	0436	2.3	70	27 Sa	0337	2.1	64	12 M	0021	0.4	12	27 Tu	0512	2.4	73	12 Th	0117	0.4	12	27 F	0042	0.0	0
	1042	0.1	3		0943	0.4	12		0612	2.3	70		1115	0.1	3		0716	2.6	79		0648	3.1	94
	1717	2.9	88		1623	2.7	82		1210	0.3	9		1751	3.2	98		1320	0.3	9		1259	-0.2	-6
	2344	0.3	9		2250	0.5	15		1842	3.0	91						1938	2.9	88		1916	3.4	104
13 Sa	0535	2.3	70	28 Su	0437	2.1	64	13 Tu	0106	0.3	9	28 W	0017	0.2	6	13 F	0151	0.3	9	28 Sa	0129	-0.2	-6
	1136	0.1	3		1040	0.2	6		0658	2.4	73		0611	2.6	79		0752	2.7	82		0739	3.4	104
	1810	3.0	91		1719	2.9	88		1257	0.2	6		1215	-0.1	-3		1357	0.2	6		1352	-0.4	-12
					2348	0.4	12		1924	3.0	91		1845	3.4	104		2012	3.0	91		2005	3.4	104
14 Su	0038	0.2	6	29 M	0536	2.2	67	14 W	0146	0.3	9	29 Th	0107	0.0	0	14 Sa	0223	0.3	9	29 Su	0215	-0.3	-9
	0628	2.3	70		1136	0.1	3		0739	2.4	73		0705	2.8	85		0827	2.8	85		0828	3.6	110
	1226	0.0	0		1813	3.1	94		1339	0.1	3		1311	-0.3	-9		1434	0.2	6		1444	-0.4	-12
	1859	3.1	94						2004	3.0	91		1937	3.5	107		2046	2.9	88		2053	3.4	104
15 M	0125	0.2	6	30 Tu	0041	0.2	6	15 Th	0223	0.2	6	30 F	0155	-0.2									

Settlement Point, Grand Bahama Island, 2019

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 Tu	0416	2.8	85		16 W	0313	2.6	79		1 F	0535	2.7	82		16 Sa	0441	3.0	91		1 F	0416	2.5	76		16 Sa	0315	2.9	88	
	1035	0.1	-3			0933	0.2	6			1200	0.1	-3			1106	-0.1	-3			1043	0.2	6			0943	0.1	-3	
	1628	2.3	70			1524	2.1	64			1750	2.0	61			1700	2.4	73			1636	2.0	61			1540	2.3	70	
	2237	-0.2	-6			2134	-0.2	-6			2349	-0.1	-3			2305	-0.4	-12			2237	0.1	3			2146	-0.1	-3	
2 W	0509	2.9	88		17 Th	0410	2.8	85		2 Sa	0620	2.7	82		17 Su	0539	3.2	98		2 Sa	0508	2.6	79		17 Su	0419	3.0	91	
	1131	0.0	0			1033	0.0	0			1244	0.0	0			1203	-0.3	-9			1132	0.2	6			1044	-0.1	-3	
	1721	2.2	67			1624	2.2	67			1835	2.1	64			1759	2.6	79			1726	2.1	64			1645	2.5	76	
	2325	-0.3	-9			2229	-0.3	-9								2327	0.0	0			2327	0.0	0			2251	-0.3	-9	
3 Th	0557	2.9	88		18 F	0505	3.0	91		3 Su	0033	-0.2	-6		18 M	0004	-0.6	-18		3 Su	0554	2.6	79		18 M	0519	3.2	98	
	1220	0.0	0			1130	-0.1	-3			0701	2.8	85			0633	3.4	104			1215	0.1	3			1140	-0.3	-9	
	1810	2.2	67			1721	2.3	70			1323	-0.1	-3			1255	-0.5	-15			1811	2.2	67			1744	2.8	85	
						2325	-0.5	-15			1916	2.2	67			1855	2.8	85								2352	-0.5	-15	
4 F	0010	-0.3	-9		19 Sa	0559	3.2	98		4 M	0114	-0.2	-6		19 Tu	0101	-0.7	-21		4 M	0011	0.0	0		19 Tu	0614	3.3	101	
	0641	2.9	88			1224	-0.3	-9			0739	2.8	85			0726	3.5	107			0635	2.7	82			1232	-0.5	-15	
	1305	-0.1	-3			1817	2.5	76		●	1400	-0.1	-3		○	1346	-0.6	-18			1254	0.0	0			1839	3.0	91	
	1855	2.2	67								1955	2.2	67			1949	3.0	91			1851	2.3	70						
5 Sa	0053	-0.3	-9		20 Su	0020	-0.6	-18		5 Tu	0153	-0.2	-6		20 W	0156	-0.8	-24		5 Tu	0053	-0.1	-3		20 W	0049	-0.6	-18	
	0722	2.9	88			0652	3.4	104			0816	2.8	85			0817	3.5	107			0713	2.8	85			0706	3.4	104	
	1346	-0.1	-3			1316	-0.5	-15			1436	-0.1	-3			1435	-0.7	-21			1329	0.0	0			1322	-0.6	-18	
●	1937	2.2	67			1911	2.6	79			2032	2.3	70			2042	3.1	94			1929	2.4	73		○	1932	3.2	98	
6 Su	0133	-0.2	-6		21 M	0114	-0.7	-21		6 W	0231	-0.2	-6		21 Th	0250	-0.7	-21		6 W	0132	-0.1	-3		21 Th	0143	-0.7	-21	
	0801	2.9	88			0743	3.5	107			0852	2.8	85			0907	3.4	104			0749	2.8	85			0756	3.3	101	
	1425	-0.1	-3		○	1407	-0.6	-18			1510	-0.1	-3			1523	-0.7	-21			1403	-0.1	-3			1409	-0.7	-21	
	2017	2.2	67			2005	2.7	82			2110	2.3	70			2134	3.2	98		●	2006	2.5	76			2022	3.3	101	
7 M	0213	-0.2	-6		22 Tu	0208	-0.8	-24		7 Th	0309	-0.1	-3		22 F	0343	-0.6	-18		7 Th	0210	-0.1	-3		22 F	0235	-0.6	-18	
	0839	2.9	88			0835	3.5	107			0927	2.7	82			0956	3.2	98			0824	2.8	85			0845	3.2	98	
	1503	-0.1	-3			1458	-0.7	-21			1544	-0.1	-3			1612	-0.7	-21			1436	-0.1	-3			1456	-0.7	-21	
	2056	2.2	67			2059	2.8	85			2147	2.3	70			2226	3.1	94			2042	2.6	79			2112	3.4	104	
8 Tu	0252	-0.1	-3		23 W	0302	-0.7	-21		8 F	0347	0.0	0		23 Sa	0438	-0.5	-15		8 F	0247	-0.1	-3		23 Sa	0327	-0.6	-18	
	0917	2.8	85			0926	3.5	107			1002	2.6	79			1047	3.0	91			0858	2.7	82			0933	3.0	91	
	1541	-0.1	-3			1548	-0.7	-21			1618	-0.1	-3			1701	-0.5	-15			1509	-0.1	-3			1542	-0.6	-18	
	2136	2.2	67			2153	2.9	88			2225	2.4	73			2320	3.0	91			2118	2.6	79			2202	3.3	101	
9 W	0331	0.0	0		24 Th	0358	-0.6	-18		9 Sa	0427	0.1	3		24 Su	0534	-0.3	-9		9 Sa	0325	-0.1	-3		24 Su	0418	-0.4	-12	
	0954	2.7	82			1018	3.3	101			1037	2.5	76			1139	2.7	82			0932	2.6	79			1022	2.8	85	
	1618	0.0	0			1639	-0.6	-18			1653	0.0	0			1752	-0.4	-12			1542	-0.1	-3			1629	-0.4	-12	
	2216	2.1	64			2249	2.9	88			2305	2.4	73								2154	2.6	79			2252	3.1	94	
10 Th	0411	0.1	3		25 F	0455	-0.4	-12		10 Su	0510	0.1	3		25 M	0016	2.9	88		10 Su	0404	0.0	0		25 M	0511	-0.2	-6	
	1032	2.6	79			1110	3.1	94			1116	2.4	73			0633	-0.1	-3			1008	2.5	76			1112	2.5	76	
	1656	0.0	0			1731	-0.5	-15			1730	0.0	0			1234	2.4	73			1616	-0.1	-3			1718	-0.2	-6	
	2258	2.1	64			2346	2.8	85			2349	2.4	73			1845	-0.2	-6			2233	2.7	82			2344	2.9	88	
11 F	0454	0.2	6		26 Sa	0555	-0.3	-9		11 M	0558	0.2	6		26 Tu	0115	2.7	82		11 M	0446	0.1	3		26 Tu	0606	0.0	0	
	1111	2.5	76			1205	2.8	85			1159	2.2	67		○	0736	0.1	3			1047	2.4	73			1205	2.3	70	
	1734	0.1	3			1824	-0.4	-12			1813	0.0	0			1333	2.2	67			1654	0.0	0			1810	0.0	0	
	2342	2.1	64												1942	0.0	0			2317	2.7	82							
12 Sa	0540	0.3	9		27 Su	0046	2.8	85		12 Tu	0038	2.4	73		27 W	0216	2.6	79		12 Tu	0533	0.1	3		27 W	0039	2.7	82	
	1153	2.4	73			0658	-0.1	-3			0653	0.3	9			0841	0.2	6			1131	2.2	67			0705	0.2	6	
	1815	0.1	3		○	1302	2.5	76		○	1249	2.1	64			1435	2.0	61			1737	0.0	0			1302	2.1	64	
						1920	-0.3	-9			1902	0.0	0			2042	0.1	3								1906	0.1	3	
13 Su	0029	2.2	67		28 M	0148	2.7	82		13 W	0135	2.5	76		28 Th	0318	2.5	76		13 W	0006	2.7	82		28 Th	0138	2.6	79	
	0632	0.3	9			0804	0.1	3			0754	0.3	9																

Settlement Point, Grand Bahama Island, 2019

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 M	0025	0.1	-3		16 Tu	0128	0.2	6		1 Th	0140	-0.1	-3						
	0616	2.5	76			0720	2.5	76			0738	3.1	94		16 F	0220	0.4	12	
	1217	-0.2	-6			1317	0.0	0			1341	-0.3	-9			0818	2.8	85	
	1849	3.4	104			1946	3.3	101			2008	3.9	119			1418	0.3	9	
				○								2037	3.3	101					
2 Tu	0114	-0.1	-3		17 W	0210	0.2	6		2 F	0230	-0.2	-6		17 Sa	0255	0.4	12	
	0706	2.6	79			0802	2.5	76			0831	3.2	98			0855	2.9	88	
	1306	-0.3	-9			1359	0.1	3			1435	-0.3	-9			1456	0.4	12	
	1937	3.6	110			2026	3.2	98			2058	3.9	119			2113	3.2	98	
3 W	0203	-0.1	-3		18 Th	0250	0.2	6		3 Sa	0319	-0.2	-6		18 Su	0329	0.4	12	
	0756	2.7	82			0844	2.5	76			0924	3.3	101			0933	2.9	88	
	1356	-0.3	-9			1440	0.2	6			1530	-0.2	-6			1535	0.5	15	
	2026	3.6	110			2105	3.2	98			2149	3.8	116			2148	3.1	94	
4 Th	0252	-0.2	-6		19 F	0328	0.2	6		4 Su	0409	-0.2	-6		19 M	0403	0.4	12	
	0848	2.8	85			0924	2.5	76			1019	3.4	104			1011	2.9	88	
	1448	-0.3	-9			1520	0.2	6			1626	-0.1	-3			1615	0.6	18	
	2116	3.6	110			2143	3.1	94			2241	3.6	110			2224	3.0	91	
5 F	0342	-0.2	-6		20 Sa	0406	0.3	9		5 M	0500	-0.1	-3		20 Tu	0438	0.5	15	
	0941	2.9	88			1005	2.5	76			1115	3.4	104			1050	2.9	88	
	1542	-0.2	-6			1601	0.4	12			1725	0.1	3			1656	0.7	21	
	2208	3.6	110			2221	3.0	91			2335	3.3	101			2302	2.8	85	
6 Sa	0433	-0.2	-6		21 Su	0443	0.3	9		6 Tu	0553	0.0	0		21 W	0514	0.5	15	
	1037	2.9	88			1046	2.5	76			1214	3.3	101			1132	2.9	88	
	1639	-0.1	-3			1644	0.5	15			1827	0.3	9			1742	0.7	21	
	2301	3.4	104			2300	2.8	85								2343	2.7	82	
7 Su	0526	-0.2	-6		22 M	0521	0.4	12		7 W	0032	3.1	94		22 Th	0554	0.6	18	
	1135	2.9	88			1129	2.5	76			0648	0.1	3			1219	2.9	88	
	1739	0.0	0			1729	0.6	18			1315	3.3	101			1834	0.8	24	
	2356	3.2	98			2340	2.7	82			1932	0.4	12						
8 M	0620	-0.1	-3		23 Tu	0600	0.4	12		8 Th	0132	2.8	85		23 F	0030	2.6	79	
	1236	3.0	91			1215	2.6	79			0746	0.2	6			0641	0.6	18	
	1843	0.2	6			1818	0.7	21			1418	3.2	98			1312	3.0	91	
											2039	0.5	15			1932	0.8	24	
9 Tu	0054	3.0	91		24 W	0023	2.6	79		9 F	0235	2.7	82		24 Sa	0125	2.5	76	
	0716	-0.1	-3			0642	0.4	12			0845	0.3	9			0734	0.6	18	
	1339	3.0	91			1304	2.6	79			1520	3.2	98			1411	3.0	91	
	1950	0.3	9			1911	0.7	21			2144	0.6	18			2035	0.8	24	
10 W	0154	2.8	85		25 Th	0111	2.5	76		10 Sa	0337	2.6	79		25 Su	0226	2.5	76	
	0813	0.0	0			0727	0.4	12			0944	0.3	9			0834	0.5	15	
	1442	3.1	94			1356	2.7	82			1619	3.2	98			1512	3.2	98	
	2057	0.3	9			2009	0.7	21			2244	0.5	15			2138	0.7	21	
11 Th	0256	2.7	82		26 F	0204	2.4	73		11 Su	0436	2.5	76		26 M	0330	2.6	79	
	0910	0.0	0			0817	0.4	12			1039	0.3	9			0936	0.4	12	
	1542	3.1	94			1451	2.8	85			1713	3.2	98			1612	3.4	104	
	2202	0.3	9			2109	0.7	21			2337	0.5	15			2238	0.5	15	
12 F	0356	2.6	79		27 Sa	0300	2.4	73		12 M	0529	2.6	79		27 Tu	0432	2.8	85	
	1005	0.0	0			0910	0.3	9			1130	0.3	9			1037	0.2	6	
	1639	3.2	98			1546	3.0	91			1801	3.3	101			1710	3.6	110	
	2301	0.3	9			2209	0.6	18								2334	0.4	12	
13 Sa	0453	2.5	76		28 Su	0358	2.5	76		13 Tu	0024	0.5	15		28 W	0530	3.0	91	
	1058	0.0	0			1004	0.2	6			0617	2.6	79			1136	0.1	3	
	1731	3.2	98			1641	3.2	98			1216	0.3	9			1804	3.8	116	
	2355	0.2	6			2305	0.4	12			1844	3.3	101						
14 Su	0546	2.5	76		29 M	0455	2.6	79		14 W	0106	0.4	12		29 Th	0026	0.2	6	
	1147	0.0	0			1059	0.1	3			0700	2.7	82			0626	3.3	101	
	1820	3.2	98			1734	3.5	107			1259	0.3	9			1232	-0.1	-3	
						2359	0.2	6			1924	3.3	101			1857	3.9	119	
15 M	0044	0.2	6		30 Tu	0551	2.7	82		15 Th	0144	0.4	12		30 F	0116	0.0	0	
	0635	2.5	76			1154	-0.1	-3			0740	2.8	85			0719	3.5	107	
	1234	0.0	0			1826	3.7	113			1339	0.3	9			1327	-0.2	-6	
	1904	3.3	101								2001	3.3	101			1947	4.0	122	
				31 W	0050	0.1	3		31 Sa	0205	-0.1	-3							
					0644	2.9	88			0812	3.7	113							
					1247	-0.2	-6			1421	-0.2	-6							
					1917	3.8	116			2038	3.9	119							

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

Settlement Point, Grand Bahama Island, 2019

Times and Heights of High and Low Waters

October					November					December					
Time	Height			Time	Height			Time	Height			Time	Height		
	h	m	ft		h	m	ft		h	m	ft		h	m	ft
1 Tu	0314	-0.2	-6	16 W	0248	0.3	9	1 F	0423	0.1	3	16 Sa	0341	0.1	3
	0934	3.9	119		0908	3.3	101		1051	3.4	104		1010	3.3	101
	1553	0.0	0		1526	0.4	12		1719	0.2	6		1638	0.2	6
	2156	3.4	104		2123	2.8	85		2316	2.6	79		2232	2.5	76
2 W	0402	0.0	0	17 Th	0324	0.4	12	2 Sa	0515	0.3	9	17 Su	0429	0.2	6
	1026	3.8	116		0947	3.3	101		1145	3.2	98		1100	3.2	98
	1647	0.2	6		1608	0.5	15		1815	0.4	12		1730	0.3	9
	2248	3.1	94		2203	2.7	82						2327	2.5	76
3 Th	0453	0.2	6	18 F	0402	0.4	12	3 Su	0014	2.4	73	18 M	0525	0.3	9
	1120	3.6	110		1029	3.3	101		0611	0.5	15		1155	3.1	94
	1744	0.4	12		1654	0.5	15		1241	3.0	91		1826	0.3	9
	2343	2.9	88		2247	2.6	79		1913	0.5	15				
4 F	0547	0.4	12	19 Sa	0447	0.5	15	4 M	0114	2.4	73	19 Tu	0028	2.5	76
	1217	3.4	104		1118	3.2	98		0712	0.6	18		0628	0.3	9
	1844	0.6	18		1745	0.6	18		1339	2.8	85		1255	3.0	91
					2339	2.5	76	☉	2011	0.6	18	☉	1926	0.2	6
5 Sa	0043	2.7	82	20 Su	0539	0.5	15	5 Tu	0216	2.4	73	20 W	0134	2.6	79
	0646	0.5	15		1213	3.2	98		0815	0.7	21		0737	0.3	9
	1318	3.2	98		1843	0.6	18		1437	2.7	82		1359	3.0	91
☉	1948	0.7	21						2105	0.6	18		2026	0.1	3
6 Su	0147	2.5	76	21 M	0040	2.5	76	6 W	0315	2.4	73	21 Th	0241	2.8	85
	0749	0.7	21		0641	0.6	18		0915	0.7	21		0848	0.3	9
	1420	3.0	91	☉	1315	3.2	98		1531	2.7	82		1502	3.0	91
	2051	0.7	21	☉	1946	0.6	18		2154	0.5	15		2124	0.0	0
7 M	0251	2.5	76	22 Tu	0147	2.6	79	7 Th	0406	2.6	79	22 F	0344	3.0	91
	0852	0.7	21		0750	0.5	15		1010	0.6	18		0955	0.2	6
	1521	3.0	91		1420	3.2	98		1620	2.7	82		1603	3.0	91
	2148	0.7	21		2049	0.5	15		2237	0.4	12		2219	-0.1	-3
8 Tu	0351	2.6	79	23 W	0255	2.8	85	8 F	0452	2.7	82	23 Sa	0442	3.2	98
	0952	0.7	21		0901	0.5	15		1059	0.5	15		1057	0.0	0
	1615	3.0	91		1525	3.3	101		1704	2.7	82		1700	3.0	91
	2238	0.7	21		2149	0.3	9		2316	0.3	9		2311	-0.3	-9
9 W	0442	2.7	82	24 Th	0359	3.0	91	9 Sa	0533	2.9	88	24 Su	0536	3.4	104
	1044	0.7	21		1007	0.3	9		1144	0.4	12		1154	-0.1	-3
	1702	3.0	91		1625	3.4	104		1745	2.7	82		1754	2.9	88
	2321	0.6	18		2244	0.1	3		2353	0.2	6				
10 Th	0527	2.8	85	25 F	0458	3.3	101	10 Su	0612	3.0	91	25 M	0001	-0.4	-12
	1131	0.6	18		1109	0.1	3		1226	0.3	9		0627	3.6	110
	1745	3.1	94		1721	3.4	104		1824	2.7	82		1248	-0.2	-6
	2359	0.5	15		2336	-0.1	-3						1845	2.9	88
11 F	0607	3.0	91	26 Sa	0552	3.6	110	11 M	0029	0.1	3	26 Tu	0049	-0.4	-12
	1213	0.5	15		1206	-0.1	-3		0649	3.1	94		0716	3.6	110
	1823	3.1	94		1814	3.5	107		1306	0.2	6		1338	-0.3	-9
									1903	2.7	82	☉	1934	2.8	85
12 Sa	0034	0.4	12	27 Su	0025	-0.2	-6	12 Tu	0105	0.1	3	27 W	0136	-0.4	-12
	0644	3.1	94		0644	3.8	116		0727	3.2	98		0804	3.6	110
	1253	0.4	12	☉	1300	-0.2	-6		1345	0.2	6		1427	-0.3	-9
	1900	3.1	94	☉	1904	3.4	104	☉	1941	2.7	82		2023	2.7	82
13 Su	0108	0.4	12	28 M	0112	-0.3	-9	13 W	0141	0.0	0	28 Th	0223	-0.4	-12
	0720	3.2	98		0734	3.9	119		0804	3.3	101		0850	3.5	107
	1331	0.4	12		1352	-0.2	-6		1426	0.1	3		1516	-0.2	-6
☉	1935	3.1	94		1954	3.3	101		2020	2.6	79		2111	2.6	79
14 M	0141	0.3	9	29 Tu	0200	-0.3	-9	14 Th	0218	0.0	0	29 F	0309	-0.2	-6
	0756	3.3	101		0823	3.9	119		0844	3.3	101		0937	3.3	101
	1409	0.4	12		1443	-0.2	-6		1507	0.1	3		1603	-0.1	-3
	2011	3.0	91		2043	3.2	98		2100	2.6	79		2159	2.5	76
15 Tu	0214	0.3	9	30 W	0247	-0.2	-6	15 F	0257	0.1	3	30 Sa	0356	0.0	0
	0831	3.3	101		0911	3.8	116		0925	3.3	101		1024	3.1	94
	1447	0.4	12		1534	-0.1	-3		1551	0.2	6		1652	0.0	0
	2046	2.9	88		2132	3.0	91		2144	2.5	76		2249	2.3	70
				31 Th	0334	-0.1	-3					15 Su	0326	-0.2	-6
					1001	3.6	110						0955	3.3	101
					1626	0.1	3						1622	-0.2	-6
					2223	2.8	85						2220	2.5	76
												30 M	0415	0.0	0
													1039	2.8	85
													1705	0.0	0
													2305	2.2	67
												31 Tu	0501	0.1	3
													1121	2.6	79
													1747	0.1	3
													2353	2.1	64

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

Pages 244 through 259 intentionally omitted

San Juan, Puerto Rico, 2019

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																			
1 Tu	0553	1.5	46		16 W	0503	1.3	40		1 F	0720	1.4	43		16 Sa	0628	1.6	49		1 F	0558	1.3	40		16 Sa	0501	1.5	46					
	1213	0.4	12			1110	0.5	15			1401	0.4	12			1302	0.4	12			1241	0.4	12			1241	0.4	12		1132	0.4	12	
	1708	1.0	30			1601	0.9	27			1816	0.7	21			1733	0.8	24			1704	0.7	21			1704	0.7	21		1618	0.8	24	
	2331	-0.2	-6			2233	-0.2	-6														2322	-0.1	-3			2322	-0.1	-3		2239	-0.3	-9
2 W	0648	1.5	46		17 Th	0559	1.5	46		2 Sa	0038	-0.2	-6		17 Su	0000	-0.4	-12		2 Sa	0649	1.3	40		17 Su	0601	1.5	46					
	1321	0.4	12			1225	0.5	15			0806	1.4	43			0725	1.7	52			1328	0.4	12			1229	0.3	9					
	1754	0.9	27			1655	0.8	24			1444	0.4	12			1354	0.3	9			1758	0.8	24			1728	0.9	27					
				2325		-0.3	-9		1905		0.7	21		1838		0.9	27							2347		-0.3	-9						
3 Th	0016	-0.2	-6		18 F	0654	1.6	49		3 Su	0125	-0.2	-6		18 M	0102	-0.5	-15		3 Su	0017	-0.1	-3		18 M	0657	1.5	46					
	0739	1.6	49			1329	0.4	12			0847	1.4	43			0818	1.7	52			0735	1.3	40			1318	0.3	9					
	1418	0.4	12			1752	0.8	24			1521	0.4	12			1440	0.3	9			1407	0.4	12			1728	0.9	27					
	1839	0.8	24								1952	0.8	24			1942	1.0	30			1850	0.8	24			1835	1.1	34					
4 F	0100	-0.2	-6		19 Sa	0019	-0.4	-12		4 M	0208	-0.2	-6		19 Tu	0202	-0.5	-15		4 M	0108	-0.1	-3		19 Tu	0054	-0.3	-9					
	0825	1.6	49			0747	1.7	52			0925	1.4	43			0908	1.7	52			0815	1.3	40			0750	1.5	46					
	1506	0.4	12			1424	0.4	12			1555	0.3	9			1525	0.2	6			1439	0.3	9			1403	0.2	6					
	1925	0.8	24			1850	0.8	24			2038	0.8	24			2044	1.1	34			1939	0.9	27			1939	1.2	37					
5 Sa	0142	-0.2	-6		20 Su	0115	-0.5	-15		5 Tu	0250	-0.2	-6		20 W	0300	-0.4	-12		5 Tu	0154	-0.1	-3		20 W	0157	-0.3	-9					
	0908	1.6	49			0840	1.8	55			1000	1.4	43			0955	1.6	49			0851	1.3	40			0838	1.5	46					
	1550	0.4	12			1513	0.3	9			1626	0.3	9			1608	0.1	3			1507	0.3	9			1445	0.1	3					
	2009	0.8	24			1949	0.9	27			2123	0.8	24			2144	1.2	37			2026	0.9	27			2040	1.3	40					
6 Su	0223	-0.2	-6		21 M	0210	-0.5	-15		6 W	0331	-0.1	-3		21 Th	0359	-0.3	-9		6 W	0238	-0.1	-3		21 Th	0257	-0.2	-6					
	0948	1.6	49			0931	1.8	55			1033	1.3	40			1040	1.5	46			0925	1.2	37			0924	1.4	43					
	1631	0.4	12			1600	0.3	9			1656	0.3	9			1652	0.0	0			1534	0.2	6			1527	0.0	0					
	2053	0.8	24			2049	0.9	27			2207	0.8	24			2245	1.3	40			2111	1.0	30			2138	1.4	43					
7 M	0304	-0.2	-6		22 Tu	0306	-0.5	-15		7 Th	0413	0.0	0		22 F	0459	-0.2	-6		7 Th	0320	0.0	0		22 F	0357	-0.2	-6					
	1026	1.5	46			1020	1.8	55			1103	1.3	40			1124	1.4	43			0956	1.2	37			1008	1.3	40					
	1710	0.4	12			1647	0.2	6			1725	0.2	6			1736	0.0	0			1601	0.2	6			1609	-0.1	-3					
	2136	0.8	24			2150	1.0	30			2251	0.9	27			2345	1.3	40			2155	1.0	30			2234	1.5	46					
8 Tu	0345	-0.1	-3		23 W	0403	-0.4	-12		8 F	0457	0.0	0		23 Sa	0600	-0.1	-3		8 F	0404	0.0	0		23 Sa	0457	-0.1	-3					
	1103	1.5	46			1107	1.7	52			1132	1.2	37			1207	1.2	37			1025	1.1	34			1050	1.1	34					
	1746	0.4	12			1733	0.2	6			1755	0.2	6			1820	-0.1	-3			1631	0.1	3			1652	-0.1	-3					
	2220	0.8	24			2252	1.1	34			2338	0.9	27								2237	1.1	34			2330	1.5	46					
9 W	0428	0.0	0		24 Th	0502	-0.3	-9		9 Sa	0544	0.1	3		24 Su	0047	1.3	40		9 Sa	0449	0.1	3		24 Su	0558	0.1	3					
	1138	1.4	43			1154	1.6	49			1200	1.1	34			0703	0.1	3			1053	1.1	34			1132	1.0	30					
	1820	0.4	12			1819	0.1	3			1826	0.1	3			1250	1.1	34			1701	0.1	3			1736	-0.2	-6					
	2306	0.8	24			2357	1.1	34								1905	-0.1	-3			2320	1.2	37										
10 Th	0512	0.0	0		25 F	0604	-0.1	-3		10 Su	0027	1.0	30		25 M	0151	1.3	40		10 Su	0537	0.2	6		25 M	0025	1.5	46					
	1211	1.4	43			1240	1.4	43			0634	0.2	6			0808	0.2	6			1121	1.0	30			0658	0.2	6					
	1851	0.3	9			1904	0.0	0			1229	1.1	34			1334	0.9	27			1734	0.0	0			1215	0.9	27					
	2357	0.8	24								1859	0.1	3			1950	-0.1	-3								1822	-0.1	-3					
11 F	0558	0.1	3		26 Sa	0105	1.2	37		11 M	0122	1.0	30		26 Tu	0257	1.3	40		11 M	0005	1.2	37		26 Tu	0123	1.5	46					
	1243	1.3	40			0708	0.0	0			0728	0.3	9			0916	0.3	9			0628	0.3	9			0759	0.3	9					
	1921	0.3	9			1325	1.3	40			1301	1.0	30			1422	0.8	24			1152	0.9	27			1300	0.8	24					
						1948	-0.1	-3			1935	0.0	0			2038	-0.1	-3			1810	0.0	0			1908	-0.1	-3					
12 Sa	0054	0.8	24		27 Su	0216	1.2	37		12 Tu	0222	1.1	34		27 W	0401	1.3	40		12 Tu	0054	1.3	40		27 W	0222	1.4	43					
	0649	0.2	6			0815	0.2	6			0828	0.4	12			1029	0.4	12			0722	0.3	9			0900	0.3	9					
	1315	1.2	37			1411	1.1	34			1340	0.9	27			1514	0.8	24			1226	0.9	27			1350	0.7	21					
	1952	0.2	6			2033	-0.1	-3			2016	-0.1	-3			2128	-0.1	-3			1851	-0.1	-3			1958	0.0	0					
13 Su	0157	0.9	27		28 M	0326	1.3	40		13 W	0325	1.2	37		28 Th	0502	1.3	40		13 W	0150	1.3	40		28 Th	0322	1.3	40					
	0744	0.3	9			0926	0.3	9			0934	0.4	12			1141	0.4	12			0820	0.4	12			1002	0.4	12					
	1348	1.1	34			1457	1.0	30			1428	0.8	24			1609	0.7	21			1309	0.8	24			1446	0.7	21					
	2026	0.1	3			2119	-0.1	-3			2103	-0.2	-6			2224	-0.1	-3			1937	-0.1	-3			2050	0.0	0					
14 M	0303	1.0	30		29 Tu	0432	1.3	40		14 Th	0428	1.4	43		29 F	0252	1.4	43		14 Th	0252	1.4	43		29 F	0420	1.3	40					

San Juan, Puerto Rico, 2019

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 M	0232 0.5 15 0646 0.9 27 1307 -0.2 -6 2037 1.8 55	16 Tu	0334 0.5 15 0753 0.9 27 1405 -0.1 -3 2132 1.7 52	1 Th	0336 0.5 15 0822 1.1 34 1437 -0.2 -6 2152 2.0 61	16 F	0409 0.6 18 0913 1.1 34 1518 0.2 6 2215 1.6 49	1 Su	0420 0.3 9 1020 1.6 49 1632 0.2 6 2253 1.7 52	16 M	0409 0.5 15 1027 1.5 46 1637 0.5 15 2232 1.4 43
2 Tu	0323 0.5 15 0740 0.9 27 1357 -0.3 -9 2125 1.9 58	17 W	0417 0.5 15 0842 0.9 27 1450 0.0 0 2212 1.7 52	2 F	0420 0.5 15 0924 1.2 37 1535 -0.1 -3 2239 1.9 58	17 Sa	0439 0.5 15 1000 1.2 37 1602 0.3 9 2247 1.5 46	2 M	0505 0.3 9 1121 1.7 52 1736 0.3 9 2337 1.5 46	17 Tu	0440 0.4 12 1110 1.5 46 1726 0.6 18 2300 1.3 40
3 W	0411 0.4 12 0836 0.9 27 1448 -0.3 -9 2214 1.9 58	18 Th	0456 0.5 15 0930 0.9 27 1534 0.0 0 2249 1.6 49	3 Sa	0505 0.4 12 1028 1.3 40 1636 0.0 0 2325 1.8 55	18 Su	0508 0.5 15 1046 1.2 37 1648 0.4 12 2316 1.5 46	3 Tu	0550 0.2 6 1224 1.8 55 1842 0.4 12	18 W	0513 0.4 12 1154 1.6 49 1818 0.7 21 2330 1.2 37
4 Th	0459 0.4 12 0934 0.9 27 1543 -0.3 -9 2302 1.9 58	19 F	0533 0.5 15 1017 0.9 27 1618 0.1 3 2324 1.6 49	4 Su	0549 0.3 9 1132 1.4 43 1738 0.1 3	19 M	0537 0.4 12 1133 1.2 37 1736 0.5 15 2344 1.4 43	4 W	0621 1.4 43 0636 0.1 3 1328 1.8 55 1949 0.5 15	19 Th	0548 0.3 9 1241 1.6 49 1912 0.7 21
5 F	0545 0.4 12 1035 1.0 30 1641 -0.2 -6 2350 1.8 55	20 Sa	0606 0.4 12 1106 0.9 27 1704 0.2 6 2358 1.5 46	5 M	0610 1.7 52 0633 0.2 6 1239 1.5 46 1843 0.3 9	20 Tu	0608 0.4 12 1222 1.3 40 1827 0.6 18	5 Th	0108 1.3 40 0724 0.1 3 1433 1.8 55 2058 0.6 18	20 F	0004 1.2 37 0627 0.3 9 1333 1.7 52 2007 0.8 24
6 Sa	0630 0.3 9 1139 1.0 30 1742 -0.1 -3	21 Su	0636 0.4 12 1157 1.0 30 1752 0.3 9	6 Tu	0055 1.5 46 0717 0.1 3 1347 1.5 46 1950 0.4 12	21 W	0013 1.3 40 0640 0.3 9 1314 1.4 43 1920 0.7 21	6 F	0158 1.2 37 0813 0.1 3 1536 1.8 55 2208 0.7 21	21 Sa	0044 1.1 34 0712 0.3 9 1430 1.7 52 2105 0.8 24
7 Su	0038 1.7 52 0713 0.2 6 1248 1.1 34 1845 0.1 3	22 M	0029 1.4 43 0705 0.4 12 1252 1.0 30 1842 0.4 12	7 W	0140 1.4 43 0802 0.1 3 1456 1.6 49 2100 0.5 15	22 Th	0043 1.2 37 0715 0.3 9 1408 1.5 46 2017 0.7 21	7 Sa	0253 1.1 34 0905 0.2 6 1637 1.8 55 2316 0.7 21	22 Su	0135 1.1 34 0803 0.2 6 1531 1.8 55 2205 0.8 24
8 M	0125 1.6 49 0756 0.1 3 1400 1.2 37 1951 0.2 6	23 Tu	0059 1.3 40 0734 0.3 9 1350 1.1 34 1936 0.5 15	8 Th	0227 1.2 37 0848 0.0 0 1601 1.7 52 2216 0.6 18	23 F	0119 1.2 37 0753 0.2 6 1506 1.6 49 2118 0.8 24	8 Su	0351 1.1 34 1000 0.2 6 1733 1.7 52	23 M	0238 1.1 34 0901 0.2 6 1631 1.8 55 2305 0.8 24
9 Tu	0211 1.5 46 0839 0.1 3 1511 1.4 43 2100 0.4 12	24 W	0130 1.2 37 0806 0.2 6 1449 1.2 37 2033 0.6 18	9 F	0316 1.1 34 0936 0.0 0 1702 1.7 52 2333 0.7 21	24 Sa	0203 1.1 34 0837 0.2 6 1604 1.7 52 2225 0.8 24	9 M	0016 0.7 21 0447 1.1 34 1058 0.2 6 1824 1.7 52	24 Tu	0348 1.2 37 1005 0.2 6 1728 1.9 58 2359 0.7 21
10 W	0258 1.3 40 0922 0.0 0 1617 1.5 46 2216 0.5 15	25 Th	0204 1.2 37 0841 0.2 6 1546 1.3 40 2137 0.7 21	10 Sa	0407 1.0 30 1027 0.0 0 1759 1.7 52	25 Su	0257 1.1 34 0928 0.1 3 1701 1.8 55 2333 0.8 24	10 Tu	0105 0.7 21 0542 1.1 34 1156 0.3 9 1910 1.7 52	25 W	0459 1.3 40 1113 0.1 3 1822 1.9 58
11 Th	0345 1.2 37 1008 -0.1 -3 1719 1.6 49 2337 0.5 15	26 F	0244 1.1 34 0920 0.1 3 1641 1.5 46 2248 0.7 21	11 Su	0041 0.7 21 0500 1.0 30 1120 0.0 0 1852 1.7 52	26 M	0358 1.1 34 1026 0.0 0 1758 1.9 58	11 W	0145 0.7 21 0634 1.2 37 1249 0.3 9 1951 1.6 49	26 Th	0047 0.6 18 0606 1.4 43 1220 0.1 3 1913 1.9 58
12 F	0432 1.0 30 1055 -0.1 -3 1817 1.7 52	27 Sa	0331 1.0 30 1005 0.0 0 1735 1.6 49	12 M	0136 0.6 18 0553 1.0 30 1213 0.1 3 1941 1.7 52	27 Tu	0034 0.7 21 0502 1.1 34 1127 0.0 0 1853 1.9 58	12 Th	0218 0.6 18 0725 1.2 37 1337 0.3 9 2028 1.6 49	27 F	0131 0.5 15 0710 1.5 46 1324 0.1 3 2002 1.8 55
13 Sa	0052 0.5 15 0521 1.0 30 1144 -0.1 -3 1912 1.7 52	28 Su	0002 0.7 21 0423 1.0 30 1055 -0.1 -3 1828 1.7 52	13 Tu	0222 0.6 18 0645 1.0 30 1304 0.1 3 2026 1.7 52	28 W	0125 0.7 21 0607 1.2 37 1230 -0.1 -3 1945 2.0 61	13 F	0247 0.6 18 0813 1.3 40 1422 0.3 9 2102 1.6 49	28 Sa	0213 0.4 12 0812 1.7 52 1426 0.2 6 2048 1.7 52
14 Su	0155 0.5 15 0612 0.9 27 1232 -0.1 -3 2002 1.7 52	29 M	0108 0.7 21 0520 1.0 30 1149 -0.1 -3 1921 1.9 58	14 W	0302 0.6 18 0736 1.0 30 1351 0.1 3 2105 1.7 52	29 Th	0211 0.6 18 0712 1.3 40 1331 -0.1 -3 2036 2.0 61	14 Sa	0313 0.6 18 0859 1.4 43 1506 0.4 12 2133 1.5 46	29 Su	0255 0.3 9 0911 1.8 55 1528 0.2 6 2133 1.6 49
15 M	0247 0.5 15 0703 0.9 27 1320 -0.1 -3 2049 1.7 52	30 Tu	0202 0.6 18 0619 1.0 30 1245 -0.2 -6 2013 1.9 58	15 Th	0337 0.6 18 0825 1.1 34 1435 0.1 3 2142 1.6 49	30 F	0254 0.5 15 0815 1.4 43 1430 0.0 0 2123 1.9 58	15 Su	0341 0.5 15 0944 1.4 43 1551 0.5 15 2203 1.5 46	30 M	0338 0.2 6 1009 1.9 58 1630 0.3 9 2217 1.5 46
		31 W	0250 0.6 18 0720 1.0 30 1341 -0.2 -6 2103 2.0 61			31 Sa	0337 0.4 12 0918 1.5 46 1530 0.0 0 2209 1.8 55				

Time meridian 60° W. 0000 is midnight. 1200 is 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 Juan, Puerto Rico, 2019

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				16				1				16				1				16				
Tu	0422	0.1	3		0350	0.3	9	F	0519	0.1	3	Sa	0436	0.0	0	Su	0539	0.1	3	M	0516	-0.1	-3	
	1106	2.0	61		1048	1.7	52		1236	1.9	58		1158	1.9	58		1257	1.7	52		1230	1.8	55	
	1734	0.4	12		1722	0.7	21		1930	0.6	18		1857	0.6	18		1953	0.5	15		1917	0.4	12	
	2301	1.4	43		2219	1.2	37						2313	0.9	27									
2				17				2				17				2				17				
W	0508	0.1	3		0425	0.3	9	Sa	0004	1.0	30	Su	0527	0.1	3	M	0028	0.9	27	Tu	0007	0.9	27	
	1204	2.0	61		1131	1.8	55		0610	0.2	6		1248	1.8	55		0630	0.2	6		0615	0.0	0	
	1839	0.5	15		1814	0.7	21		1332	1.8	55		1945	0.6	18		1344	1.5	46		1319	1.7	52	
	2347	1.2	37		2253	1.1	34		2026	0.6	18						2036	0.5	15		2000	0.3	9	
3				18				3				18				3				18				
Th	0556	0.1	3		0505	0.2	6	Su	0101	1.0	30	M	0009	0.9	27	Tu	0132	0.9	27	W	0120	1.0	30	
	1303	1.9	58		1216	1.8	55		0703	0.3	9		0624	0.1	3		0724	0.3	9		0718	0.1	3	
	1944	0.6	18		1907	0.7	21		1427	1.7	52		1342	1.8	55		1430	1.4	43		1408	1.6	49	
					2333	1.1	34		2119	0.6	18		2032	0.6	18		2114	0.4	12		2043	0.2	6	
4				19				4				19				4				19				
F	0036	1.2	37		0550	0.2	6	M	0205	1.0	30	Tu	0118	1.0	30	W	0242	0.9	27	Th	0238	1.1	34	
	0646	0.2	6		1307	1.8	55		0759	0.3	9		0725	0.2	6		0819	0.4	12		0826	0.2	6	
	1404	1.9	58		2000	0.7	21		1520	1.6	49		1437	1.8	55		1512	1.3	40		1458	1.4	43	
	2047	0.7	21					☉	2208	0.6	18	☉	2117	0.5	15	☉	2148	0.4	12	☉	2127	0.1	3	
5				20				5				20				5				20				
Sa	0131	1.1	34		0020	1.0	30	Tu	0313	1.0	30	W	0237	1.1	34	Th	0349	1.0	30	F	0352	1.3	40	
	0738	0.2	6		0641	0.2	6		0857	0.4	12		0832	0.2	6		0920	0.5	15		0938	0.3	9	
	1505	1.8	55		1404	1.8	55		1609	1.5	46		1531	1.7	52		1552	1.3	40		1547	1.3	40	
	2149	0.7	21		2052	0.7	21		2250	0.6	18		2202	0.4	12		2221	0.3	9		2212	0.0	0	
6				21				6				21				6				21				
Su	0232	1.1	34		0121	1.1	34	W	0416	1.1	34	Th	0354	1.2	37	F	0449	1.1	34	Sa	0500	1.4	43	
	0833	0.3	9		0739	0.2	6		0959	0.5	15		0943	0.3	9		1026	0.5	15		1057	0.4	12	
	1603	1.7	52		1503	1.8	55		1652	1.5	46		1622	1.6	49		1630	1.2	37		1636	1.2	37	
	2248	0.7	21	☉	2144	0.7	21	☉	2327	0.5	15		2248	0.3	9		2255	0.2	6		2259	-0.1	-3	
7				22				7				22				7				22				
M	0335	1.1	34		0234	1.1	34	Th	0514	1.2	37	F	0503	1.4	43	Sa	0543	1.2	37	Su	0601	1.6	49	
	0931	0.4	12		0843	0.2	6		1103	0.5	15		1058	0.4	12		1138	0.6	18		1217	0.4	12	
	1656	1.7	52		1601	1.8	55		1732	1.4	43		1712	1.5	46		1708	1.1	34		1725	1.1	34	
	2339	0.7	21		2235	0.6	18		2358	0.5	15		2333	0.1	3		2331	0.1	3		2347	-0.2	-6	
8				23				8				23				8				23				
Tu	0435	1.1	34		0350	1.2	37	F	0607	1.3	40	Sa	0607	1.6	49	Su	0632	1.4	43	M	0659	1.7	52	
	1032	0.4	12		0951	0.2	6		1207	0.5	15		1213	0.4	12		1246	0.6	18		1328	0.4	12	
	1744	1.6	49		1656	1.8	55		1809	1.3	40		1800	1.4	43		1747	1.0	30		1814	1.0	30	
					2324	0.5	15																	
9				24				9				24				9				24				
W	0022	0.7	21		0501	1.3	40	Sa	0028	0.4	12	Su	0018	0.0	0	M	0007	0.1	3	Tu	0035	-0.3	-9	
	0531	1.2	37		1103	0.3	9		0656	1.4	43		0706	1.8	55		0718	1.5	46		0753	1.8	55	
	1134	0.4	12		1748	1.7	52		1306	0.6	18		1324	0.4	12		1344	0.6	18		1429	0.4	12	
	1826	1.6	49						1845	1.3	40		1847	1.3	40		1827	1.0	30		1904	0.9	27	
10				25				10				25				10				25				
Th	0056	0.6	18		0009	0.4	12	Su	0058	0.3	9	M	0102	-0.1	-3	Tu	0045	0.0	0	W	0122	-0.3	-9	
	0623	1.3	40		0607	1.5	46		0742	1.5	46		0801	1.9	58		0802	1.6	49		0844	1.8	55	
	1231	0.4	12		1214	0.3	9		1358	0.6	18		1428	0.4	12		1436	0.5	15		1523	0.4	12	
	1904	1.5	46		1837	1.7	52		1920	1.2	37		1934	1.2	37		1908	0.9	27		1954	0.9	27	
11				26				11				26				11				26				
F	0125	0.6	18		0053	0.3	9	M	0130	0.2	6	Tu	0146	-0.2	-6	W	0123	-0.1	-3	Th	0208	-0.3	-9	
	0713	1.4	43		0709	1.7	52		0826	1.6	49		0854	2.0	61		0845	1.7	52		0931	1.8	55	
	1323	0.5	15		1322	0.3	9		1448	0.6	18		1528	0.4	12		1525	0.5	15		1613	0.4	12	
	1940	1.5	46		1925	1.6	49		1955	1.1	34	☉	2021	1.1	34	☉	1950	0.9	27	☉	2042	0.9	27	
12				27				12				27				12				27				
Sa	0152	0.5	15		0135	0.2	6	Tu	0202	0.1	3	W	0230	-0.2	-6	Th	0203	-0.2	-6	F	0254	-0.3	-9	
	0800	1.5	46		0807	1.9	58		0907	1.7	52		0945	2.0	61		0928	1.8	55		1017	1.7	52	
	1410	0.5	15		1426	0.3	9		1536	0.6	18		1625	0.4	12		1612	0.5	15		1700	0.4	12	
	2013	1.4	43	☉	2011	1.5	46	☉	2030	1.1	34	☉	2108	1.0	30	☉	2033	0.9	27	☉	2130	0.8	24	
13				28				13				28				13				28				
Su	0219	0.4	12		0218	0.1	3	W	0236	0.1	3	Th	0315	-0.2	-6	F	0245	-0.2	-6	Sa	0340	-0.2	-6	
	0845	1.5	46		0903	2.0	61		0948	1.8	55		1033	2.0	61		1012	1.8	55		1100	1.7	52	
	1456	0.5	15		1528	0.4	12		1625	0.6	18		1720	0.4	12		1700	0.5	15		1746	0.4	12	
	2045	1.4	43		2056	1.4	43		2106	1.0	30		2155	1.0	30		2119	0.9	27		2217	0.8	24	
14				29				14				29				14				29				
M	0248	0.4	12		0300	0.0	0	Th	0312	0.1	3	F	0401	-0.1	-3	Sa	0331	-0.2	-6	Su	0426	-0.1	-3	
	0927	1.6	49		0957	2.1	64		1029	1.8	55		1122	1.9	58		1056	1.8	55		1141	1.6	49	
	1543	0.6	18		1629	0.4	12		1716	0.6	18		1814	0.5	15		1747	0.5	15		1829	0.4	12	
	2116	1.3	40		2141	1.2	37		2144	1.0	30		2242	0.9	27		2209	0.9	27		2306	0.8	24	
15				30				15				30				15				30				

Charlotte Amalie, St. Thomas Island, 2019

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													
1 Tu	0706	0.7	21	-6	16 W	0627	0.6	18	-6	1 F	0808	0.6	18	16 Sa	0728	0.7	21	-12	1 F	0650	0.6	18	-9	16 Sa	0604	0.7	21	-6	
	2322	-0.2	-6			2223	-0.2	-6							2302	-0.3	-9								2209	-0.2	-6		
2 W	0748	0.7	21	-6	17 Th	0707	0.7	21	-9	2 Sa	0006	-0.3	-9	17 Su	0814	0.8	24		2 Sa	0732	0.6	18	-6	17 Su	0654	0.7	21	-6	
	2351	-0.2	-6			2259	-0.3	-9			0846	0.6	18								2352	-0.2	-6			2317	-0.2	-6	
3 Th	0828	0.8	24		18 F	0751	0.8	24	-12	3 Su	0045	-0.3	-9	18 M	0022	-0.4	-12		3 Su	0808	0.6	18		18 M	0738	0.7	21	3	
						2340	-0.4	-12			0920	0.6	18		0858	0.8	24								1509	0.1	3	6	
4 F	0021	-0.3	-9	24	19 Sa	0836	0.8	24		4 M	0123	-0.3	-9	19 Tu	0121	-0.3	-9		4 M	0039	-0.2	-6	18	19 Tu	0027	-0.2	-6	21	
	0906	0.8	24								0950	0.6	18		0939	0.8	24			0838	0.6	18			0817	0.7	21	6	
5 Sa	0052	-0.3	-9	24	20 Su	0026	-0.4	-12	27	5 Tu	0157	-0.2	-6	20 W	0222	-0.2	-6		5 Tu	0123	-0.2	-6	15	20 W	0137	-0.1	-3	18	
	0942	0.8	24			0922	0.9	27			1016	0.6	18		1015	0.7	21			0903	0.5	15	3		0851	0.6	18	3	
6 Su	0123	-0.3	-9	21	21 M	0115	-0.4	-12	27	6 W	0230	-0.2	-6	21 Th	0327	-0.1	-3		6 W	0205	-0.1	-3	15	21 Th	0251	0.0	0	15	
	1017	0.7	21			1008	0.9	27			1039	0.6	18		1046	0.6	18			0923	0.5	15	6		0919	0.5	15	3	
7 M	0153	-0.3	-9	21	22 Tu	0207	-0.4	-12	27	7 Th	0303	-0.1	-3	22 F	0439	0.0	0		7 Th	0250	0.0	0	15	22 F	0407	0.1	3	12	
	1050	0.7	21			1051	0.9	27			1059	0.6	18		1111	0.5	15			0942	0.5	15	3		0940	0.4	12	0	
8 Tu	0222	-0.2	-6	21	23 W	0302	-0.3	-9	24	8 F	0339	0.0	0	23 Sa	0601	0.1	3		8 F	0339	0.0	0	12	23 Sa	0528	0.1	3	9	
	1121	0.7	21			1131	0.8	24			1119	0.5	15		1127	0.4	12			1000	0.4	12	3		0955	0.3	9	0	
9 W	0249	-0.2	-6	21	24 Th	0403	-0.1	-3	21	9 Sa	0428	0.1	3	24 Su	0112	0.4	12		9 Sa	0440	0.1	3	12	24 Su	0657	0.1	3	6	
	1149	0.7	21			1206	0.7	21	3		1139	0.5	15		0736	0.2	6			1018	0.4	12	3		1001	0.2	6	3	
10 Th	0315	-0.1	-3	21	25 F	0514	0.0	0	18	10 Su	0014	0.2	6	25 M	0248	0.5	15		10 Su	0555	0.2	6	9	25 M	0048	0.6	18	-3	
	1215	0.7	21			1235	0.6	18	3		0554	0.1	3		1943	-0.1	-3			1036	0.3	9	0		1738	-0.1	-3		
11 F	0340	0.0	0	18	26 Sa	0120	0.3	9	3	11 M	0204	0.3	9	26 Tu	0406	0.5	15		11 M	0008	0.4	12	6	26 Tu	0201	0.6	18	-3	
	1239	0.6	18	3		0643	0.1	3			0755	0.2	6		2026	-0.2	-6			0727	0.2	6	9		1821	-0.1	-3		
12 Sa	0003	0.2	6	3	27 Su	0333	0.4	12	6	12 Tu	0348	0.4	12	27 W	0509	0.5	15		12 Tu	0126	0.5	15	-3	27 W	0311	0.6	18	-6	
	0403	0.1	3	18		0832	0.2	6			2016	-0.1	-3		2116	-0.2	-6			1815	-0.1	-3			1915	-0.2	-6		
13 Su	1324	0.5	15	0	28 M	0454	0.5	15	-6	13 W	0455	0.5	15	28 Th	0603	0.6	18		13 W	0250	0.5	15	-6	28 Th	0415	0.6	18	-3	
	2117	0.0	0			2129	-0.2	-6			2053	-0.2	-6		2209	-0.2	-6			1900	-0.2	-6			2020	-0.1	-3		
14 M	0519	0.4	12	9	29 Tu	0552	0.6	18	-6	14 Th	0549	0.6	18						14 Th	0405	0.6	18	-6	29 F	0510	0.6	18	-3	
	0907	0.3	9	12		2205	-0.2	-6			2139	-0.3	-9							1957	-0.2	-6			2128	-0.1	-3		
15 Tu	0550	0.5	15	-3	30 W	0642	0.6	18	-9	15 F	0639	0.7	21													0557	0.6	18	-3
	2155	-0.1	-3			2244	-0.3	-9			2230	-0.3	-9								2101	-0.2	-6		30 Sa	2232	-0.1	-3	
					31 Th	0727	0.6	18	-9																31 Su	0637	0.6	18	3
						2325	-0.3	-9																		1412	0.1	3	6
																										1647	0.2	6	-3
																										2333	-0.1	-3	

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

Charlotte Amalie, St. Thomas Island, 2019

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 M	0708	0.5	15	3	16 Tu	0644	0.6	18	3	1 W	0024	0.2	6	6	16 Th	0134	0.3	9	9	1 Sa	1223	-0.1	-3	-3	16 Su	1251	-0.2	-6	-6	
	1413	0.1	3	3		1344	0.1	3	3		0612	0.5	15	15		0552	0.4	12	12		2045	0.8	24	24		2139	0.9	27	27	
	1758	0.2	6	6		1844	0.4	12	12		1302	0.1	3	3		1252	0.0	0	0											
2 Tu	0030	0.0	0	0	17 W	0047	0.1	3	3	2 Th	0140	0.2	6	6	17 F	0318	0.2	6	6	2 Su	1245	-0.2	-6	-6	17 M	1318	-0.2	-6	-6	
	0734	0.5	15	15		0716	0.6	18	18		0633	0.4	12	12		0603	0.3	9	9		2126	0.8	24	24		2219	0.8	24	24	
	1423	0.2	6	6		1400	0.1	3	3		1313	0.1	3	3		1311	-0.1	-3	-3											
3 W	0126	0.0	0	0	18 Th	0213	0.1	3	3	3 F	0256	0.2	6	6	18 Sa	1331	-0.2	-6	-6	3 M	1313	-0.2	-6	-6	18 Tu	1347	-0.2	-6	-6	
	0755	0.5	15	15		0741	0.4	12	12		0652	0.4	12	12		2144	0.8	24	24		2210	0.9	27	27		2259	0.8	24	24	
	1436	0.1	3	3		1417	0.1	3	3		1324	0.0	0	0																
4 Th	0194	0.4	12	12	19 F	0204	0.6	18	18	4 Sa	0413	0.2	6	6	19 Su	1351	-0.2	-6	-6	4 Tu	1348	-0.3	-9	-9	19 W	1417	-0.2	-6	-6	
	0814	0.4	12	12		0800	0.3	9	9		0710	0.3	9	9		2229	0.8	24	24		2258	0.9	27	27		2337	0.8	24	24	
	1448	0.1	3	3		1435	0.0	0	0		1337	-0.1	-3	-3																
5 F	0203	0.4	12	12	20 Sa	0214	0.7	21	21	5 Su	1354	-0.1	-3	-3	20 M	1413	-0.2	-6	-6	5 W	1428	-0.3	-9	-9	20 Th	1448	-0.1	-3	-3	
	0832	0.4	12	12		0811	0.2	6	6		2214	0.7	21	21		2314	0.8	24	24		2348	0.9	27	27						
	1458	0.1	3	3		1454	-0.1	-3	-3		2233	0.7	21	21																
6 Sa	0212	0.5	15	15	21 Su	0504	0.1	3	3	6 M	1418	-0.2	-6	-6	21 Tu	1438	-0.2	-6	-6	6 Th	1513	-0.2	-6	-6	21 F	0014	0.8	24	24	
	0850	0.3	9	9		2327	0.7	21	21		2302	0.8	24	24																
	1509	0.0	0	0																										
7 Su	0546	0.2	6	6	22 M	1514	-0.1	-3	-3	7 Tu	1449	-0.2	-6	-6	22 W	0000	0.8	24	24	7 F	0038	0.9	27	27	22 Sa	0048	0.8	24	24	
	0907	0.3	9	9		1537	-0.2	-6	-6		2356	0.8	24	24		1507	-0.2	-6	-6		1604	-0.1	-3	-3		1546	0.0	0	0	
	1523	0.0	0	0																										
8 M	0230	0.6	18	18	23 Tu	0023	0.7	21	21	8 W	1529	-0.2	-6	-6	23 Th	0047	0.7	21	21	8 Sa	0127	0.9	27	27	23 Su	0118	0.7	21	21	
	0917	0.2	6	6		1605	-0.2	-6	-6		1541	-0.1	-3	-3		1707	0.0	0	0		1604	0.1	3	3		1604	0.1	3	3	
	1544	-0.1	-3	-3																										
9 Tu	0001	0.6	18	18	24 W	0121	0.7	21	21	9 Th	0054	0.8	24	24	24 F	0134	0.7	21	21	9 Su	0212	0.8	24	24	24 M	0145	0.7	21	21	
	1615	-0.1	-3	-3		1645	-0.1	-3	-3		1617	-0.2	-6	-6		1620	-0.1	-3	-3		1036	0.1	3	3		0956	0.2	6	6	
10 W	0106	0.7	21	21	25 Th	0220	0.7	21	21	10 F	0153	0.8	24	24	25 Sa	0217	0.7	21	21	10 M	0250	0.8	24	24	25 Tu	0210	0.6	18	18	
	1659	-0.2	-6	-6		1745	-0.1	-3	-3		1718	-0.1	-3	-3		1711	0.0	0	0		1041	0.1	3	3		1004	0.1	3	3	
11 Th	0217	0.7	21	21	26 F	0316	0.6	18	18	11 Sa	0251	0.8	24	24	26 Su	0255	0.7	21	21	11 Tu	0321	0.6	18	18	26 W	0231	0.6	18	18	
	1758	-0.2	-6	-6		1907	0.0	0	0		1838	0.0	0	0		1125	0.0	0	0		1056	0.1	3	3		1016	0.1	3	3	
12 F	0326	0.7	21	21	27 Sa	0406	0.6	18	18	12 Su	0342	0.8	24	24	27 M	0328	0.6	18	18	12 W	0343	0.5	15	15	27 Th	0249	0.5	15	15	
	1910	-0.1	-3	-3		2030	0.0	0	0		1203	0.1	3	3		1119	0.1	3	3		1115	0.0	0	0		1031	0.0	0	0	
13 Sa	0428	0.7	21	21	28 Su	0447	0.6	18	18	13 M	0426	0.7	21	21	28 Tu	0356	0.6	18	18	13 Th	0051	0.3	9	9	28 F	1050	0.0	0	0	
	2031	-0.1	-3	-3		1240	0.1	3	3		1205	0.1	3	3		1127	0.1	3	3		0351	0.4	12	12		1916	0.7	21	21	
						1629	0.2	6	6		1711	0.3	9	9		1818	0.4	12	12		1136	-0.1	-3	-3						
14 Su	0520	0.7	21	21	29 M	0521	0.6	18	18	14 Tu	0502	0.6	18	18	29 W	0420	0.5	15	15	14 F	1159	-0.1	-3	-3	29 Sa	1113	-0.1	-3	-3	
	1330	0.1	3	3		1241	0.1	3	3		1218	0.1	3	3		1138	0.1	3	3		2016	0.8	24	24		1952	0.8	24	24	
	1554	0.2	6	6		1744	0.3	9	9		1822	0.4	12	12		1855	0.5	15	15											
15 M	2155	0.0	0	0	30 Tu	2307	0.1	3	3	15 W	0531	0.5	15	15	30 Th	0033	0.3	9	9	15 Sa	1224	-0.2	-6	-6	30 Su	1141	-0.2	-6	-6	
	0606	0.7	21	21		0549	0.5	15	15		1234	0.0	0	0		0441	0.4	12	12		2058	0.8	24	24		2033	0.9	27	27	
	1332	0.1	3	3		1250	0.1	3	3		1919	0.6	18	18		1151	0.0	0	0											
16 M	1731	0.3	9	9	31 F	1838	0.4	12	12	16 Sa	0531	0.5	15	15	31 Su	0216	0.3	9	9	16 Su	1251	-0.2	-6	-6	16 Su	1251	-0.2	-6	-6	
	2321	0.0	0	0																										

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

Charlotte Amalie, St. Thomas Island, 2019

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 M	1215	-0.2	-6		16 Tu	1309	-0.2	-6		1 Th	1342	-0.1	-3		16 F	1426	0.2	6		1 Su	0509	0.5	15		16 M	0416	0.5	15						
	2115	0.9	27			2202	0.9	27			2222	1.1	34			2218	0.9	27			0952	0.7	21			0957	0.8	24		1648	0.5	15		
2 Tu	1255	-0.3	-9		17 W	1344	-0.1	-3		2 F	1439	0.0	0		17 Sa	0552	0.4	12		2 M	0531	0.4	12		17 Tu	0428	0.4	12		18 W	0442	0.4	12	
	2200	1.0	30			2236	0.9	27			2300	1.0	30			0824	0.5	15			1114	0.8	24			1155	0.9	27			1804	0.6	18	
3 W	1339	-0.2	-6		18 Th	1417	-0.1	-3		3 Sa	0650	0.3	9		18 Su	0604	0.4	12		3 Tu	0557	0.4	12		18 W	1155	0.9	27		19 Th	0502	0.3	9	
	2246	1.0	30			2305	0.8	24			0908	0.4	12			0933	0.5	15			1243	0.9	27			1929	0.5	15			2214	0.6	18	
4 Th	1426	-0.2	-6		19 F	1448	0.0	0		4 Su	0704	0.4	12		19 M	0618	0.4	12		4 W	0628	0.3	9		19 Th	1304	0.9	27		20 F	0534	0.3	9	
	2331	1.0	30			2332	0.8	24			1048	0.5	15			1046	0.6	18			1412	0.9	27			1420	0.9	27			0618	0.2	6	
5 F	1518	-0.1	-3		20 Sa	1519	0.1	3		5 M	0002	0.8	24		20 Tu	0634	0.4	12		5 Th	0705	0.2	6		20 F	0618	0.2	6		21 Sa	1531	1.0	30	
						2356	0.8	24			0725	0.3	9			1207	0.6	18			1530	1.0	30			1636	1.0	30			0716	0.2	6	
6 Sa	0014	1.0	30		21 Su	0810	0.2	6		6 Tu	0023	0.7	21		21 W	0651	0.3	9		6 F	0750	0.2	6		21 Sa	1531	1.0	30		22 Su	1634	1.1	34	
	1618	0.0	0			1015	0.3	9			0749	0.3	9			1342	0.7	21			1636	1.0	30			0842	0.2	6			0716	0.2	6	
7 Su	0052	0.9	27		22 M	0018	0.8	24		7 W	0032	0.6	18		22 Th	0713	0.3	9		7 Sa	0842	0.2	6		22 Su	1634	1.1	34		23 M	1728	1.1	34	
	0857	0.2	6			0816	0.3	9			0819	0.2	6			1516	0.7	21			1732	1.0	30			0821	0.2	6			0930	0.2	6	
8 M	0124	0.8	24		23 Tu	0039	0.7	21		8 Th	0852	0.1	3		23 F	0742	0.2	6		8 Su	0939	0.2	6		23 M	1728	1.1	34		24 Tu	1817	1.1	34	
	0909	0.2	6			0828	0.2	6			1716	0.9	27			1624	0.8	24			1821	1.0	30			0821	0.2	6			0930	0.2	6	
9 Tu	0148	0.7	21		24 W	0058	0.6	18		9 F	0931	0.0	0		24 Sa	0820	0.1	3		9 M	1037	0.2	6		24 Tu	1817	1.1	34		25 W	1900	1.1	34	
	0929	0.1	3			0844	0.2	6			1810	0.9	27			1719	0.9	27			1905	1.0	30			0930	0.2	6			1041	0.2	6	
10 W	0202	0.6	18		25 Th	0112	0.6	18		10 Sa	1013	0.0	0		25 Su	0906	0.1	3		10 Tu	1131	0.2	6		25 W	1900	1.1	34		26 Th	1938	1.1	34	
	0953	0.1	3			0903	0.1	3			1858	0.9	27			1810	1.0	30			1941	1.0	30			0236	0.5	15			1041	0.2	6	
11 Th	1020	0.0	0		26 F	0926	0.1	3		11 Su	1058	0.0	0		26 M	0958	0.1	3		11 W	1222	0.2	6		26 Th	1938	1.1	34		27 F	2012	0.9	27	
	1836	0.8	24			1805	0.7	21			1943	0.9	27			1857	1.1	34			2012	0.9	27			0236	0.5	15			2012	0.9	27	
12 F	1050	-0.1	-3		27 Sa	0956	0.0	0		12 M	1144	0.0	0		27 Tu	1054	0.0	0		12 Th	0329	0.5	15		27 F	0246	0.6	18		28 Sa	0302	0.5	15	
	1922	0.8	24			1846	0.8	24			1144	0.0	0			1054	0.0	0			0613	0.6	18			0652	0.7	21			0800	0.8	24	
13 Sa	1123	-0.1	-3		28 Su	1032	-0.1	-3		13 Tu	1228	0.0	0		28 W	1152	0.0	0		13 F	0338	0.5	15		28 Sa	1427	0.4	12		29 Su	1550	0.5	15	
	2006	0.9	27			1929	0.9	27			2059	0.9	27			2025	1.1	34			0713	0.6	18			2040	0.9	27			0320	0.5	15	
14 Su	1157	-0.2	-6		29 M	1113	-0.1	-3		14 W	1309	0.0	0		29 Th	1252	0.1	3		14 Sa	0350	0.5	15		29 Su	0906	0.9	27		30 M	1012	1.0	30	
	2047	0.9	27			2012	1.0	30			2130	0.9	27			2105	1.1	34			0808	0.7	21			1550	0.5	15			1012	1.0	30	
15 M	1233	-0.2	-6		30 Tu	1159	-0.1	-3		15 Th	1348	0.1	3		30 F	0435	0.5	15		15 Su	0404	0.5	15		30 M	1717	0.5	15		31 W	2118	0.7	21	
	2126	0.9	27			2057	1.1	34			2156	0.9	27			0716	0.6	18			0902	0.7	21			1543	0.5	15			2118	0.7	21	
				31 W	1249	-0.1	-3		31 Sa	0450	0.5	15		31 Su	0834	0.7	21		31 Su	2130	0.8	24		31 Su	2118	0.7	21		31 Su	2118	0.7	21		
					2140	1.1	34			2211	1.0	30			2141	1.0	30			1506	0.3	9			2130	0.8	24			2118	0.7	21		

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

Charlotte Amalie, St. Thomas Island, 2019

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																		
1 Tu	0402	0.4	12		16 W	0252	0.3	9		1 F	0340	0.1	3		16 Sa	0301	0.0	0		1 Su	0333	0.0	0		16 M	0335	-0.1	-3				
	1118	1.0	30			1052	1.0	30			1306	1.1	34			1229	1.1	34			1321	0.9	27			1257	1.0	30				
	1856	0.5	15																													
	2120	0.6	18																													
2 W	0428	0.3	9		17 Th	0311	0.3	9		2 Sa	0417	0.1	3		17 Su	0343	0.0	0		2 M	0404	0.1	3		17 Tu	0427	0.0	0				
	1227	1.1	34			1144	1.0	30			1404	1.0	30			1323	1.1	34			1402	0.9	27			1338	0.9	27		2225	0.1	3
3 Th	0500	0.2	6		18 F	0339	0.2	6		3 Su	0509	0.2	6		18 M	0433	0.1	3		3 Tu	0430	0.2	6		18 W	0028	0.2	6				
	1338	1.1	34			1243	1.0	30			1458	1.0	30			1417	1.1	34			1438	0.8	24			1438	0.8	24		1415	0.8	24		2220	0.2	6
4 F	0542	0.2	6		19 Sa	0419	0.2	6		4 M	0629	0.2	6		19 Tu	0540	0.2	6		4 W	1508	0.8	24		19 Th	0351	0.3	9				
	1447	1.0	30			1347	1.1	34			1545	0.9	27			1506	1.0	30			2306	0.2	6			0730	0.2	6		1446	0.7	21		2233	0.1	3
5 Sa	0639	0.2	6		20 Su	0511	0.2	6		5 Tu	0800	0.3	9		20 W	0224	0.4	12		5 Th	0602	0.4	12		20 F	0526	0.5	15				
	1549	1.0	30			1452	1.1	34			1625	0.9	27			0714	0.3	9			0838	0.3	9			0946	0.4	12		1509	0.6	18		2251	0.0	0
6 Su	0747	0.2	6		21 M	0619	0.2	6		6 W	0026	0.4	12		21 Th	0450	0.5	15		6 F	0631	0.5	15		21 Sa	0622	0.6	18				
	1644	1.0	30			1551	1.1	34			0504	0.5	15			0907	0.4	12			1034	0.4	12			1212	0.4	12		1519	0.5	15		2314	0.0	0
7 M	0859	0.3	9		22 Tu	0741	0.3	9		7 Th	0024	0.4	12		22 F	0604	0.6	18		7 Sa	0702	0.6	18		22 Su	0711	0.8	24				
	1730	1.0	30			1642	1.1	34			0604	0.6	18			1104	0.5	15			1612	0.5	15			1225	0.4	12		2339	-0.1	-3
8 Tu	1008	0.3	9		23 W	0109	0.4	12		8 F	0032	0.4	12		23 Sa	0009	0.2	6		8 Su	0733	0.7	21		23 M	0757	0.8	24				
	1809	1.0	30			0330	0.5	15			0649	0.7	21			0701	0.8	24			1413	0.4	12			1624	0.5	15		2354	0.0	0
9 W	0145	0.4	12		24 Th	0105	0.5	15		9 Sa	0043	0.3	9		24 Su	0027	0.1	3		9 M	0806	0.8	24		24 Tu	0008	-0.2	-6				
	0507	0.5	15			0514	0.6	18			0730	0.8	24			0752	0.9	27			1456	0.4	12			1725	0.5	15		0841	0.9	27
10 Th	0610	0.6	18		25 F	0115	0.5	15		10 Su	0054	0.3	9		25 M	0047	0.1	3		10 Tu	0013	0.0	0		25 W	0038	-0.3	-9				
	1214	0.4	12			0627	0.7	21			0808	0.8	24			0840	1.0	30			0840	0.8	24			0924	0.9	27				
11 F	0157	0.5	15		26 Sa	0129	0.4	12		11 M	0106	0.2	6		26 Tu	0110	0.0	0		11 W	0035	-0.1	-3		26 Th	0111	-0.3	-9				
	0703	0.7	21			0730	0.9	27			0846	0.9	27			0927	1.0	30			0917	0.9	27			1006	0.9	27				
12 Sa	0208	0.5	15		27 Su	0146	0.4	12		12 Tu	0119	0.2	6		27 W	0134	-0.1	-3		12 Th	0101	-0.2	-6		27 F	0145	-0.3	-9				
	0751	0.8	24			0827	1.0	30			0924	1.0	30			1014	1.0	30			0957	0.9	27			1047	0.9	27				
13 Su	0219	0.5	15		28 M	0204	0.3	9		13 W	0136	0.1	3		28 Th	0201	-0.1	-3		13 F	0133	-0.2	-6		28 Sa	0218	-0.2	-6				
	0836	0.8	24			0923	1.1	34			1004	1.0	30			1101	1.0	30			1040	1.0	30			1126	0.8	24				
14 M	0230	0.4	12		29 Tu	0224	0.2	6		14 Th	0158	0.1	3		29 F	0230	-0.1	-3		14 Sa	0210	-0.2	-6		29 Su	0251	-0.2	-6				
	0920	0.9	27			1017	1.1	34			1048	1.0	30			1148	1.0	30			1126	1.0	30			1201	0.8	24				
15 Tu	0239	0.4	12		30 W	0246	0.1	3		15 F	0226	0.0	0		30 Sa	0301	-0.1	-3		15 Su	0250	-0.2	-6		30 M	0321	-0.1	-3				
	1005	0.9	27			1112	1.1	34			1136	1.0	30			1235	0.9	27			1212	1.0	30			1234	-0.7	-21				
	1751	0.5	15		31 Th	0311	0.1	3																								
2026	0.6	18		1208		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 mean lower low water which is the chart datum of soundings.

Lime Tree Bay, St. Croix Island, 2019

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															
1 Tu	0925	0.6	18	-3	16 W	0835	0.6	18	-6	1 F	0923	0.5	15	-9	16 Sa	0850	0.7	21	-12	1 F	0814	0.5	15	-9	16 Sa	0722	0.6	18	-9
	2151	-0.1	-3			2124	-0.2	-6			2237	-0.3	-9			2214	-0.4	-12			2106	-0.3	-9			2029	-0.3	-9	
2 W	0921	0.6	18	-6	17 Th	0845	0.6	18	-9	2 Sa	0951	0.5	15	-9	17 Su	0931	0.7	21	-9	2 Sa	0845	0.5	15	-6	17 Su	0807	0.6	18	-6
	2224	-0.2	-6			2200	-0.3	-9			2323	-0.3	-9			2310	-0.3	-9			2207	-0.2	-6			2141	-0.2	-6	
3 Th	0939	0.7	21	-6	18 F	0915	0.7	21	-9	3 Su	1017	0.5	15	-9	18 M	1011	0.7	21	-9	3 Su	0911	0.5	15	-6	18 M	0845	0.6	18	-3
	2301	-0.2	-6			2241	-0.3	-9													2303	-0.2	-6			2253	-0.1	-3	
4 F	1004	0.7	21	-9	19 Sa	0953	0.8	24	-12	4 M	0005	-0.3	-9	-9	19 Tu	0005	-0.3	-9	-9	4 M	0928	0.4	12	-3	19 Tu	0913	0.5	15	-3
	2339	-0.3	-9			2326	-0.4	-12			1038	0.5	15			1043	0.6	18			2352	-0.1	-3						
5 Sa	1034	0.7	21	-9	20 Su	1034	0.8	24	-12	5 Tu	0043	-0.2	-6	-6	20 W	0057	-0.2	-6	-6	5 Tu	0935	0.4	12	-3	20 W	0004	0.0	0	-3
											1053	0.5	15			1101	0.5	15								0919	0.4	12	-3
6 Su	0016	-0.3	-9	-9	21 M	0012	-0.4	-12	-12	6 W	0118	-0.2	-6	-6	21 Th	0146	-0.1	-3	-3	6 W	0037	-0.1	-3	-3	21 Th	0115	0.1	3	-3
	1103	0.7	21	-12		1115	0.8	24	-12		1101	0.5	15		1053	0.4	12	-12		0934	0.4	12	-3		0853	0.3	9	-3	
7 M	0053	-0.3	-9	-9	22 Tu	0057	-0.4	-12	-12	7 Th	0149	-0.1	-3	-3	22 F	0231	0.0	0	0	7 Th	0120	0.0	0	0	22 F	0230	0.2	6	0
	1131	0.7	21	-12		1151	0.7	21	-12		1101	0.5	15			1014	0.3	9	9		0925	0.4	12	3		0757	0.3	9	3
8 Tu	0127	-0.2	-6	-6	23 W	0140	-0.3	-9	-9	8 F	0217	0.0	0	0	23 Sa	0311	0.2	6	6	8 F	0202	0.1	3	3	23 Sa	0414	0.2	6	6
	1154	0.6	18	-9		1215	0.7	21	-9		1053	0.4	12			0917	0.3	9	9		0910	0.3	9	9		0622	0.3	9	9
9 W	0157	-0.2	-6	-6	24 Th	0219	-0.1	-3	-3	9 Sa	0238	0.1	3	3	24 Su	0332	0.2	6	6	9 Sa	0247	0.2	6	6	24 Su	1454	-0.1	-3	-3
	1210	0.6	18	-9		1218	0.6	18	-9		1037	0.4	12			0809	0.3	9	9		0845	0.3	9	9					
10 Th	0224	-0.1	-3	-3	25 F	0250	0.0	0	0	10 Su	0239	0.1	3	3	25 M	0658	0.4	12	-3	10 Su	0341	0.2	6	6	25 M	0040	0.4	12	-6
	1218	0.6	18	-9		1152	0.5	15	-9		1007	0.3	9			1722	-0.1	-3	-3		0801	0.3	9	9		1532	-0.2	-6	-6
11 F	0243	0.0	0	0	26 Sa	0303	0.1	3	3	11 M	0912	0.3	9	9	26 Tu	0640	0.4	12	-6	11 M	0034	0.3	9	9	26 Tu	0225	0.5	15	-6
	1217	0.5	15	-6		1104	0.4	12	6		1825	0.0	0			1810	-0.2	-6	-6		1614	-0.1	-3	-3		1615	-0.2	-6	-6
12 Sa	0246	0.1	3	3	27 Su	1005	0.4	12	3	12 Tu	0748	0.4	12	-3	27 W	0705	0.4	12	-6	12 Tu	0254	0.4	12	-6	27 W	0407	0.5	15	-6
	1204	0.5	15	-6		1902	0.1	3	3		1854	-0.1	-3			1904	-0.2	-6	-6		1647	-0.2	-6	-6		1701	-0.2	-6	-6
13 Su	0120	0.2	6	6	28 M	0906	0.4	12	-3	13 W	0716	0.5	15	-6	28 Th	0739	0.5	15	-9	13 W	0437	0.5	15	-6	28 Th	0522	0.5	15	-6
	1134	0.5	15	3		1933	-0.1	-3	-3		1934	-0.2	-6			2004	-0.3	-9	-9		1729	-0.2	-6	-6		1753	-0.2	-6	-6
14 M	1037	0.5	15	0	29 Tu	0834	0.5	15	-6	14 Th	0735	0.5	15	-9	29 F	0540	0.5	15	-9	14 Th	0540	0.5	15	-9	29 F	0616	0.5	15	-6
	2044	0.0	0	-6		2014	-0.2	-6	-6		2023	-0.3	-9			1821	-0.3	-9	-9		1821	-0.3	-9	-9		1851	-0.2	-6	-6
15 Tu	0912	0.5	15	-3	30 W	0837	0.5	15	-6	15 F	0810	0.6	18	-9	30 Sa	0633	0.6	18	-9	15 F	0633	0.6	18	-9	30 Sa	0657	0.4	12	-3
	2057	-0.1	-3	-6		2101	-0.2	-6	-6		2117	-0.3	-9			1921	-0.3	-9	-9		1921	-0.3	-9	-9		1958	-0.1	-3	-3
					31 Th	0857	0.5	15	-9																31 Su	0724	0.4	12	0
						2149	-0.3	-9	-9																				

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

Lime Tree Bay, St. Croix Island, 2019

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 M	1128	-0.3	-9	27	16 Tu	1201	-0.2	-6	24	1 Th	1235	-0.1	-3	30	16 F	1305	0.1	3	24	1 Su	1412	0.4	12	21	16 M	0252	0.5	15	15	16 M	0902	0.7	21	21	16 M	1443	0.6	18	18	16 M	2011	0.7	21	21					
2 Tu	1205	-0.3	-9	27	17 W	1238	-0.2	-6	24	2 F	1317	-0.1	-3	27	17 Sa	1338	0.2	6	21	2 M	0344	0.6	18	21	17 Tu	0305	0.5	15	15	17 Tu	1035	0.7	21	21	17 Tu	1541	0.6	18	18	17 Tu	1924	0.7	21	21					
3 W	1244	-0.3	-9	27	18 Th	1312	-0.1	-3	24	3 Sa	1356	0.1	3	24	18 Su	1407	0.3	9	21	3 Tu	0349	0.4	12	21	18 W	0326	0.4	12	12	18 W	1216	0.7	21	21	18 W	1216	0.7	21	21	18 W	1216	0.7	21	21					
4 Th	1322	-0.3	-9	27	19 F	1343	-0.1	-3	21	4 Su	1428	0.2	6	21	19 M	1429	0.4	12	21	4 W	0419	0.3	9	21	19 Th	0353	0.3	9	9	19 Th	1423	0.8	24	24	19 Th	1423	0.8	24	24	19 Th	1423	0.8	24	24					
5 F	0025	0.9	27	-6	20 Sa	1410	0.0	0	0	5 M	1441	0.4	12	21	20 Tu	0533	0.4	12	15	5 Th	0500	0.2	6	24	20 F	0426	0.2	6	24	20 F	1611	0.8	24	24	20 F	1611	0.8	24	24	20 F	1611	0.8	24	24					
6 Sa	0052	0.9	27	-3	21 Su	0000	0.7	21	21	6 Tu	0643	0.4	12	21	21 W	0540	0.4	12	18	6 F	0549	0.2	6	24	21 Sa	0507	0.2	6	27	21 Sa	1717	0.9	27	27	21 Sa	1717	0.9	27	27	21 Sa	1717	0.9	27	27					
7 Su	0105	0.8	24	3	22 M	0823	0.3	9	18	7 W	0640	0.3	9	21	22 Th	0602	0.3	9	21	7 Sa	0644	0.1	3	27	22 Su	0557	0.1	3	30	22 Su	1809	1.0	30	30	22 Su	1809	1.0	30	30	22 Su	1809	1.0	30	30					
8 M	0054	0.7	21	6	23 Tu	1219	0.3	9	18	8 Th	0710	0.2	6	24	23 F	0633	0.2	6	24	8 Su	0744	0.1	3	27	23 M	0654	0.1	3	30	23 M	1857	1.0	30	30	23 M	1857	1.0	30	30	23 M	1857	1.0	30	30					
9 Tu	0017	0.6	18	9	24 W	0823	0.3	9	18	9 F	0753	0.1	3	24	24 Sa	0714	0.1	3	24	9 M	0847	0.1	3	27	24 Tu	0800	0.2	6	30	24 Tu	1940	1.0	30	30	24 Tu	1940	1.0	30	30	24 Tu	1940	1.0	30	30					
10 W	0902	0.2	6	18	25 Th	0820	0.2	6	21	10 Sa	0840	0.0	0	24	25 Su	0802	0.1	3	27	10 Tu	0949	0.2	6	24	25 W	0910	0.2	6	30	25 W	2017	1.0	30	30	25 W	2017	1.0	30	30	25 W	2017	1.0	30	30					
11 Th	0905	0.1	3	21	26 F	0838	0.1	3	21	11 Su	0930	0.0	0	24	26 M	0855	0.0	0	30	11 W	1046	0.2	6	24	26 Th	1023	0.3	9	27	26 Th	2043	0.9	27	27	26 Th	2043	0.9	27	27	26 Th	2043	0.9	27	27					
12 F	0930	0.0	0	24	27 Sa	0906	0.0	0	24	12 M	1020	-0.1	-3	24	27 Tu	0950	0.0	0	30	12 Th	1138	0.3	9	24	27 F	1137	0.4	12	24	27 F	2050	0.8	24	24	27 F	2050	0.8	24	24	27 F	2050	0.8	24	24					
13 Sa	1005	-0.1	-3	24	28 Su	0942	-0.1	-3	27	13 Tu	1107	0.0	0	24	28 W	1046	0.0	0	30	13 F	1225	0.3	9	24	28 Sa	1252	0.5	15	21	28 Sa	2025	0.7	21	21	28 Sa	2025	0.7	21	21	28 Sa	2025	0.7	21	21					
14 Su	1043	-0.2	-6	24	29 M	1023	-0.2	-6	27	14 W	1150	0.0	0	24	29 Th	1140	0.1	3	30	14 Sa	1310	0.4	12	21	29 Su	0149	0.6	18	24	29 Su	0731	0.8	24	24	29 Su	1415	0.6	18	18	29 Su	1925	0.7	21	21	29 Su	1925	0.7	21	21
15 M	1122	-0.2	-6	24	30 Tu	1106	-0.2	-6	30	15 Th	1229	0.0	0	24	30 F	1233	0.2	6	27	15 Su	0256	0.5	15	18	30 M	0139	0.5	15	24	30 M	0922	0.8	24	24	30 M	0922	0.8	24	24	30 M	0922	0.8	24	24					
					31 W	1151	-0.2	-6	30						31 Sa	1324	0.3	9	24																														

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

Lime Tree Bay, St. Croix Island, 2019

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															
1 Tu	0200	0.4	12	27	16 W	0153	0.3	9	27	1 F	0234	0.0	0	0	16 Sa	0217	0.0	0	0	1 Su	0245	-0.1	-3	24	16 M	0233	-0.1	-3	27
	1057	0.9	27			1121	0.9	27			1338	0.9	27			1318	1.0	30			1346	0.8	24			1334	0.9	27	
2 W	0234	0.3	9	27	17 Th	0220	0.2	6	27	2 Sa	0314	0.0	0	27	17 Su	0253	0.0	0	30	2 M	0318	0.0	0	24	17 Tu	0306	-0.1	-3	24
	1234	0.9	27			1226	0.9	27			1441	0.9	27			1412	1.0	30			1414	0.8	24			1358	0.8	24	
3 Th	0313	0.2	6	27	18 F	0251	0.2	6	27	3 Su	0355	0.1	3	27	18 M	0331	0.0	0	30	3 Tu	0346	0.1	3	21	18 W	0331	0.1	3	21
	1420	0.9	27			1338	0.9	27			1537	0.9	27			1501	1.0	30			1427	0.7	21			1403	0.7	21	
4 F	0357	0.1	3	27	19 Sa	0328	0.1	3	30	4 M	0436	0.2	6	24	19 Tu	0409	0.1	3	27	4 W	0402	0.2	6	21	19 Th	0332	0.2	6	18
	1600	0.9	27			1452	1.0	30			1619	0.8	24			1540	0.9	27			1423	0.7	21			1338	0.6	18	
5 Sa	0445	0.1	3	27	20 Su	0409	0.1	3	30	5 Tu	0516	0.2	6	24	20 W	0443	0.2	6	24	5 Th	0333	0.3	9	18	20 F	0050	0.3	9	18
	1713	0.9	27			1600	1.0	30			1642	0.8	24			1602	0.8	24			1359	0.6	18			1234	0.6	18	
6 Su	0537	0.2	6	27	21 M	0456	0.1	3	30	6 W	0552	0.3	9	21	21 Th	0502	0.3	9	24	6 F	1309	0.6	18	9	21 Sa	1040	0.6	18	3
	1807	0.9	27			1657	1.0	30			1646	0.7	21			1557	0.8	24			2246	0.3	9			2158	0.1	3	
7 M	0634	0.2	6	24	22 Tu	0548	0.2	6	30	7 Th	0614	0.5	15	21	22 F	0224	0.5	15	21	7 Sa	1106	0.6	18	6	22 Su	0923	0.7	21	0
	1846	0.8	24			1743	1.0	30			1630	0.7	21			1509	0.7	21			2240	0.2	6			2215	0.0	0	
8 Tu	0739	0.3	9	24	23 W	0649	0.3	9	27	8 F	0049	0.5	15	21	23 Sa	1051	0.7	21	9	8 Su	0923	0.7	21	3	23 M	0925	0.7	21	-3
	1911	0.8	24			1817	0.9	27			1555	0.7	21			2310	0.3	9			2254	0.1	3			2246	-0.1	-3	
9 W	0852	0.4	12	24	24 Th	0805	0.4	12	27	9 Sa	0825	0.7	21	12	24 Su	0907	0.8	24	6	9 M	0923	0.7	21	0	24 Tu	0950	0.8	24	-6
	1921	0.8	24			1833	0.9	27			2347	0.4	12			2320	0.2	6			2316	0.0	0			2322	-0.2	-6	
10 Th	1010	0.4	12	21	25 F	0954	0.5	15	24	10 Su	0853	0.7	21	9	25 M	0934	0.8	24	0	10 Tu	0945	0.8	24	-3	25 W	1023	0.8	24	
	1915	0.7	21			1819	0.8	24			2359	0.3	9			2345	0.0	0			2343	-0.1	-3						
11 F	1128	0.5	15	21	26 Sa	0106	0.6	18	21	11 M	0928	0.8	24	26 Tu	1013	0.9	27	11 W	1016	0.8	24	26 Th	0000	-0.3	-9	24			
	1857	0.7	21			0648	0.7	21														1058	0.8	24					
12 Sa	0112	0.6	18	21	27 Su	0018	0.5	15	24	12 Tu	0019	0.2	6	27	27 W	0018	-0.1	-3	27	12 Th	0013	-0.2	-6	27	27 F	0039	-0.3	-9	24
	0653	0.7	21			0824	0.8	24			1006	0.9	27			1055	0.9	27			1054	0.9	27			1133	0.8	24	
13 Su	0102	0.5	15	21	28 M	0022	0.4	12	27	13 W	0044	0.1	3	27	28 Th	0054	-0.1	-3	27	13 F	0046	-0.2	-6	27	28 Sa	0117	-0.3	-9	21
	0817	0.7	21			0932	0.9	27			1047	0.9	27			1139	0.9	27			1134	0.9	27			1206	0.7	21	
14 M	0111	0.4	12	24	29 Tu	0045	0.2	6	27	14 Th	0111	0.0	0	27	29 F	0131	-0.1	-3	27	14 Sa	0121	-0.2	-6	27	29 Su	0152	-0.2	-6	21
	0922	0.8	24			1033	0.9	27			1134	0.9	27			1224	0.9	27			1217	0.9	27			1232	0.7	21	
15 Tu	0130	0.4	12	24	30 W	0118	0.1	3	27	15 F	0143	0.0	0	27	30 Sa	0208	-0.1	-3	24	15 Su	0157	-0.2	-6	27	30 M	0224	-0.1	-3	18
	1021	0.8	24			1133	0.9	27			1224	0.9	27			1308	0.8	24			1258	0.9	27			1250	0.6	18	
					31 Th	0155	0.1	3	27																31 Tu	0252	0.0	0	18
						1234	0.9	27																					

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

Isla Zapara (Malecon), Venezuela, 2019

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	
1 Tu	0120	4.3	131	16 W	0011	3.8	116	1 F	0253	3.9	119	16 Sa	0126	3.9	119
	0720	1.3	40		0547	1.6	49		0850	1.6	49		0709	1.3	40
	1335	4.8	146		1218	4.3	131		1442	4.3	131		1324	4.5	137
	2005	0.6	18		1843	0.9	27		2120	0.6	18		1955	0.1	3
2 W	0218	4.2	128	17 Th	0059	3.9	119	2 Sa	0337	3.7	113	17 Su	0216	4.0	122
	0814	1.5	46		0634	1.5	46		0935	1.7	52		0804	1.2	37
	1421	4.7	143		1259	4.5	137		1522	4.2	128		1416	4.7	143
	2057	0.6	18		1930	0.6	18		2202	0.7	21		2048	0.0	0
3 Th	0313	4.0	122	18 F	0149	4.0	122	3 Su	0419	3.6	110	18 M	0309	4.1	125
	0906	1.7	52		0724	1.5	46		1016	1.8	55		0901	1.1	34
	1505	4.5	137		1344	4.6	140		1601	4.1	125		1512	4.8	146
	2146	0.6	18		2020	0.3	9		2242	0.9	27		2143	0.1	3
4 F	0405	3.9	119	19 Sa	0240	4.0	122	4 M	0458	3.6	110	19 Tu	0404	4.2	128
	0957	1.9	58		0817	1.5	46		1056	2.0	61		1002	1.1	34
	1548	4.4	134		1433	4.8	146		1640	4.0	122		1610	4.8	146
	2233	0.7	21		2111	0.2	6	●	2320	1.1	34	○	2240	0.2	6
5 Sa	0455	3.8	116	20 Su	0334	4.1	125	5 Tu	0538	3.5	107	20 W	0501	4.2	128
	1046	2.1	64		0913	1.5	46		1134	2.0	61		1105	1.0	30
	1630	4.3	131		1527	4.9	149		1720	3.9	119		1713	4.7	143
●	2318	0.8	24		2206	0.1	3		2355	1.3	40		2339	0.4	12
6 Su	0542	3.7	113	21 M	0431	4.2	128	6 W	0619	3.5	107	21 Th	0602	4.2	128
	1134	2.2	67		1014	1.5	46		1213	2.1	64		1212	0.9	27
	1712	4.1	125	○	1624	4.9	149		1803	3.8	116		1819	4.6	140
					2302	0.1	3						2302	1.4	43
7 M	0002	1.0	30	22 Tu	0530	4.2	128	7 Th	0030	1.4	43	22 F	0043	0.6	18
	0629	3.6	110		1119	1.5	46		0702	3.5	107		0706	4.2	128
	1221	2.3	70		1725	4.9	149		1254	2.1	64		1321	0.8	24
	1754	4.0	122						1848	3.7	113		1930	4.4	134
8 Tu	0043	1.2	37	23 W	0001	0.2	6	8 F	0105	1.5	46	23 Sa	0149	0.8	24
	0714	3.6	110		0632	4.3	131		0744	3.5	107		0810	4.2	128
	1307	2.4	73		1227	1.4	43		1337	2.0	61		1429	0.7	21
	1838	4.0	122		1830	4.8	146		1937	3.7	113		2042	4.3	131
9 W	0122	1.3	40	24 Th	0102	0.4	12	9 Sa	0142	1.6	49	24 Su	0257	1.0	30
	0757	3.6	110		0736	4.3	131		0826	3.5	107		0914	4.2	128
	1353	2.4	73		1338	1.3	40		1422	1.9	58		1536	0.5	15
	1923	3.9	119		1939	4.6	140		2027	3.6	110		2153	4.2	128
10 Th	0158	1.4	43	25 F	0206	0.5	15	10 Su	0222	1.7	52	25 M	0404	1.1	34
	0840	3.7	113		0840	4.4	134		0907	3.5	107		1015	4.2	128
	1436	2.4	73		1448	1.2	37		1507	1.7	52		1638	0.4	12
	2010	3.8	116		2049	4.5	137		2118	3.6	110		2259	4.1	125
11 F	0233	1.5	46	26 Sa	0310	0.7	21	11 M	0305	1.7	52	26 Tu	0508	1.2	37
	0920	3.7	113		0943	4.5	137		0946	3.6	110		1112	4.2	128
	1518	2.3	70		1556	0.9	27		1553	1.4	43		1736	0.3	9
	2057	3.8	116		2200	4.4	134		2209	3.6	110	○			
12 Sa	0307	1.6	49	27 Su	0414	0.9	27	12 Tu	0350	1.7	52	27 W	0000	4.1	125
	0957	3.8	116		1041	4.5	137		1024	3.7	113		0606	1.2	37
	1557	2.1	64		1700	0.7	21		1639	1.2	37		1204	4.2	128
	2146	3.7	113	●	2308	4.3	131	○	2259	3.6	110		1830	0.3	9
13 Su	0343	1.6	49	28 M	0517	1.1	34	13 W	0438	1.6	49	28 Th	0053	4.0	122
	1032	3.9	119		1137	4.6	140		1105	3.9	119		0658	1.3	40
	1636	1.9	58		1759	0.6	18		1726	0.8	24		1251	4.2	128
	2234	3.7	113						2348	3.7	113		1919	0.4	12
14 M	0422	1.6	49	29 Tu	0012	4.2	128	14 Th	0526	1.5	46	14 Th	0423	1.6	49
	1106	4.0	122		0616	1.2	37		1148	4.1	125		1034	3.7	113
	1716	1.6	49		1228	4.5	137		1814	0.5	15		1658	0.5	15
○	2322	3.8	116		1854	0.4	12					●	2331	3.8	116
15 Tu	0503	1.6	49	30 W	0111	4.1	125	15 F	0037	3.8	116	15 F	0515	1.5	46
	1141	4.1	125		0711	1.3	40		0617	1.4	43		1124	4.0	122
	1758	1.2	37		1316	4.5	137		1234	4.3	131		1749	0.3	9
					1946	0.4	12		1904	0.3	9				
				31 Th	0205	4.0	122								
					0803	1.4	43								
					1400	4.4	134								
					2035	0.5	15								
												31 Su	0140	3.8	116
													0759	1.3	40
													1340	3.9	119
													2000	0.9	27

Time meridian 67° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Isla Zapara (Malecon), Venezuela, 2019

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 Tu	0033	0.8	24		16 W	0012	1.6	49		1 F	0223	0.5	15		16 Sa	0113	1.0	30		1 Su	0253	0.8	24		16 M	0137	0.7	21		2 M	0344	0.9	27		17 Tu	0232	0.7	21					
	0642	4.4	134			0629	3.7	113			0900	4.2	128			0758	3.8	116			0937	4.1	125			1025	4.2	128			0824	4.1	125			1627	2.1	64		0919	4.2	128	
	1247	1.3	40			1152	2.2	67			1454	1.9	58			1315	2.4	73			1533	2.1	64			1715	2.1	64			1506	2.0	61			1627	2.1	64		1506	2.0	61	
	1905	4.7	143			1831	3.9	119			2042	4.5	137			1926	4.2	128			2103	4.3	131			2102	4.4	134			2153	4.2	128			2102	4.4	134					
2 W	0140	0.6	18		17 Th	0058	1.5	46		2 Sa	0322	0.5	15		17 Su	0204	0.9	27		2 M	0344	0.9	27		17 Tu	0232	0.7	21		3 M	0431	1.1	34		18 W	0327	0.8	24					
	0757	4.3	131			0725	3.6	110			1003	4.2	128			0853	3.9	119			1025	4.2	128			1107	4.2	128			1107	4.2	128			1107	4.2	128		1107	4.2	128	
	1357	1.5	46			1242	2.3	70			1557	1.9	58			1417	2.3	70			1627	2.1	64			1715	2.1	64			1715	2.1	64			1715	2.1	64		1715	2.1	64	
	2009	4.6	140			1915	3.9	119			2139	4.4	134			2021	4.3	131			2153	4.2	128			2241	4.1	125			2241	4.1	125			2241	4.1	125					
3 Th	0246	0.5	15		18 F	0146	1.3	40		3 Su	0418	0.6	18		18 M	0256	0.8	24		3 Tu	0431	1.1	34		18 W	0327	0.8	24		19 Th	0423	0.9	27										
	0911	4.2	128			0822	3.6	110			1058	4.3	131			0945	4.1	125			1107	4.2	128			1107	4.2	128			1107	4.2	128		1107	4.2	128						
	1507	1.7	52			1336	2.3	70			1654	1.9	58			1519	2.2	67			1715	2.1	64			1715	2.1	64			1715	2.1	64		1715	2.1	64						
	2112	4.6	140			2002	4.0	122			2232	4.4	134			2118	4.4	134			2241	4.1	125			2241	4.1	125			2241	4.1	125										
4 Fr	0349	0.4	12		19 Sa	0235	1.1	34		4 M	0508	0.8	24		19 Tu	0348	0.8	24		4 W	0512	1.3	40		19 Th	0423	0.9	27															
	1021	4.2	128			0917	3.7	113			1145	4.3	131			1034	4.3	131			1143	4.2	128			1143	4.2	128		1143	4.2	128											
	1614	1.5	46			1433	2.3	70			1745	1.9	58			1620	2.0	61			1758	2.0	61			1758	2.0	61		1758	2.0	61											
	2211	4.6	140			2051	4.1	125			2320	4.4	134			2216	4.5	137			2326	4.1	125			2326	4.1	125		2326	4.1	125											
5 Sa	0447	0.4	12		20 Su	0325	1.0	30		5 Tu	0554	0.9	27		20 W	0441	0.8	24		5 Th	0548	1.4	43		20 F	0519	1.0	30															
	1122	4.2	128			1008	3.8	116			1225	4.3	131			1122	4.4	134			1215	4.3	131			1215	4.3	131		1215	4.3	131											
	1715	1.7	52			1530	2.2	67			1831	1.9	58			1718	1.8	55			1836	1.9	58			1836	1.9	58		1836	1.9	58											
	2305	4.6	140			2141	4.3	131			2554	0.9	27			2314	4.5	137			2548	1.4	43			2548	1.4	43		2548	1.4	43											
6 Su	0541	0.4	12		21 M	0414	0.8	24		6 W	0004	4.3	131		21 Th	0533	0.8	24		6 F	0009	4.0	122		21 Sa	0012	4.4	134															
	1216	4.3	131			1056	4.0	122			0634	1.1	34			1209	4.6	140			0620	1.6	49			0620	1.6	49		0620	1.6	49											
	1809	1.8	55			1627	2.1	64			1259	4.3	131			1816	1.5	46			1247	4.3	131			1247	4.3	131		1247	4.3	131											
	2354	4.6	140			2232	4.4	134			1912	1.9	58			2106	0.7	21			1910	1.8	55			1910	1.8	55		1910	1.8	55											
7 M	0630	0.6	18		22 Tu	0503	0.7	21		7 Th	0045	4.3	131		22 F	0013	4.6	140		7 Sa	0052	4.0	122		22 Su	0114	4.4	134															
	1302	4.2	128			1141	4.2	128			0709	1.3	40			0625	0.9	27			0650	1.7	52			0712	1.3	40															
	1858	1.8	55			1723	1.9	58			1331	4.3	131			1255	4.8	146			1319	4.3	131			1332	4.9	149															
						2325	4.6	140			1949	1.8	55			1913	1.2	37			1943	1.6	49			2004	0.6	18															
8 Tu	0039	4.5	137		23 W	0553	0.6	18		8 F	0126	4.2	128		23 Sa	0112	4.6	140		8 Su	0135	4.0	122		23 M	0216	4.3	131															
	0714	0.7	21			1227	4.4	134			0740	1.5	46			0719	1.0	30			0720	1.8	55			0809	1.5	46															
	1342	4.2	128			1819	1.7	52			1403	4.3	131			1343	4.9	149			1352	4.4	134			1422	4.8	146															
	1942	1.8	55								2023	1.8	55			2009	0.9	27			2017	1.4	43			2059	0.4	12															
9 W	0120	4.4	134		24 Th	0019	4.7	143		9 Sa	0206	4.1	125		24 Su	0213	4.5	137		9 M	0219	3.9	119		24 Tu	0316	4.2	128															
	0754	0.9	27			0643	0.6	18			0809	1.6	49			0814	1.2	37			0754	1.8	55			0906	1.6	49															
	1417	4.2	128			1313	4.6	140			1435	4.3	131			1433	4.9	149			1427	4.4	134			1512	4.8	146															
	2022	1.9	58			1915	1.4	43			2057	1.7	52			2106	0.7	21			2053	1.2	37			2154	0.4	12															
10 Th	0159	4.3	131		25 F	0115	4.8	146		10 Su	0249	4.0	122		25 M	0315	4.4	134		10 Tu	0305	3.9	119		25 W	0417	4.1	125															
	0829	1.2	37			0734	0.7	21			0839	1.8	55			0911	1.4	43			0832	1.9	58			1005	1.8	55															
	1450	4.2	128			1400	4.7	143			1509	4.3	131			1525	4.9	149			1503	4.4	134			1604	4.7	143															
	2100	1.9	58			2013	1.2	37			2131	1.6	49			2204	0.5	15			2132	1.0	30			2248	0.4	12															
11 Fr	0238	4.2	128		26 Sa	0214	4.8	146		11 M	0334	4.0	122		26 Tu	0419	4.3	131		11 W	0353	3.9	119		26 Th	0517	4.1	125															
	0900	1.4	43			0827	0.8	24			0912	1.9	58			1012	1.7	52			0915	2.0	61			1104	1.9	58															
	1522	4.1	125			1450	4.8	146			1545	4.2	128			1619	4.8	146			1542	4.4	134			1656	4.5	137															
	2136	1.9	58			2112	1.0	30			2209	1.4	43			2302	0.5	15			2215	0.9	27			2343	0.5	15															
12 Sa	0318	4.1	125		27 Su	0315	4.7	143		12 Tu	0421	3.9	119		27 W	0525	4.2	128		12 Th	0443	3.9	119		27 F	0617	4.0	122															
	0929	1.6	49			0923	1.0	30			0950	2.0	61			1115	1.9	58			1002	2.1	64			1205	2.1	64															
	1556	4.1	125			1542	4.8	146			1622	4.2	128			1715	4.7	143			1625	4.4	134			1748	4.4	134															
	2212	1.9	58			2212	0.8	24			2250	1.3	40								2302	0.8	24																				
13 Su	0400	4.0	122		28 M	0419	4.5	137		13 W	0512	3.8	116		28 Th	0001	0.5	15		13 F	0536	3.9	119		28 Sa	0036	0.7	21															
	0959	1.7	52			1022	1.3	40			1032	2.1	64			0632	4.2	128			1054	2.1	64			0715	3.9	119															
	1632	4.1	125			1638	4.8	146			1702	4.2	128			1222	2.0	61			1711	4.4	134			1305	2.1	64															
	2249	1.8	55			2314	0.6	18			2335	1.2	37			1813	4.5	137			2351	0.7	21			1840	4.3	131															
14 M	0446	3.9	119		29 Tu	0527	4.4	134		14 Th	0605	3.8	116		29 F	0100	0.5	15		14 Sa	0631	3.9	119		29 Su	0129																	

Amuay, Venezuela, 2019

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							
1 Tu	0131	0.6	18	16 W	0113	0.4	12	1 F	0332	0.5	15	16 Sa	0235	0.5	15						
	0533	0.3	9		0438	0.2	6		0634	0.4	12		0558	0.2	6	1 F	0548	0.3	9		
	1241	1.3	40		1111	1.1	34		1328	1.0	30		1208	1.2	37		16 Sa	1234	1.0	30	
	1944	-0.4	-12		1844	-0.4	-12		2053	-0.6	-18		1949	-0.8	-24			1934	-0.5	-15	
2 W	0244	0.6	18	17 Th	0215	0.4	12	2 Sa	0427	0.5	15	17 Su	0316	0.5	15			2 Sa	0252	0.6	18
	0612	0.4	12		0520	0.3	9		0710	0.4	12		0654	0.2	6	17 Su			0629	0.3	9
	1314	1.3	40		1143	1.2	37		1356	1.0	30		1302	1.2	37		2 Sa		1313	0.9	27
	2033	-0.4	-12		1930	-0.6	-18		2130	-0.5	-15		2036	-0.8	-24				2012	-0.4	-12
3 Th	0354	0.6	18	18 F	0312	0.5	15	3 Su	0520	0.5	15	18 M	0358	0.5	15			3 Su	0336	0.6	18
	0649	0.5	15		0606	0.3	9		0746	0.4	12		0751	0.2	6	18 M			0707	0.3	9
	1343	1.3	40		1222	1.3	40		1415	0.9	27		1357	1.2	37		3 Su		1348	0.9	27
	2118	-0.5	-15		2017	-0.7	-21		2204	-0.5	-15		2124	-0.8	-24				2045	-0.4	-12
4 F	0502	0.7	21	19 Sa	0404	0.5	15	4 M	0611	0.5	15	19 Tu	0441	0.6	18			4 M	0417	0.5	15
	0723	0.6	18		0656	0.4	12		0824	0.4	12		0852	0.1	3	19 Tu			0746	0.3	9
	1406	1.2	37		1307	1.4	43		1423	0.9	27		1457	1.1	34		4 M		1418	0.8	24
	2200	-0.5	-15		2105	-0.8	-24		2236	-0.4	-12		2211	-0.7	-21				2117	-0.3	-9
5 Sa	1418	1.2	37	20 Su	0454	0.5	15	5 Tu	0658	0.5	15	20 W	0525	0.6	18			5 Tu	0455	0.5	15
	2238	-0.5	-15		0751	0.4	12		0907	0.4	12		0957	0.1	3	20 W			0826	0.3	9
					1355	1.4	43		1433	0.8	24		1603	1.0	30		5 Tu		1442	0.8	24
					2153	-0.8	-24		2307	-0.4	-12		2300	-0.6	-18				2147	-0.2	-6
6 Su	1422	1.1	34	21 M	0542	0.6	18	6 W	0739	0.5	15	21 Th	0610	0.7	21			6 W	0530	0.5	15
	2315	-0.4	-12		0852	0.4	12		0958	0.4	12		1106	0.0	0	21 Th			0909	0.3	9
					1448	1.3	40		1457	0.8	24		1720	0.8	24		6 W		1502	0.7	21
					2242	-0.8	-24		2338	-0.3	-9		2349	-0.4	-12				2217	-0.1	-3
7 M	1436	1.1	34	22 Tu	0629	0.6	18	7 Th	0813	0.5	15	22 F	0657	0.8	24			7 Th	0559	0.5	15
	2349	-0.4	-12		0959	0.4	12		1059	0.4	12		1219	0.0	0	22 F			0957	0.2	6
					1545	1.2	37		1530	0.7	21		1852	0.7	21		7 Th		1530	0.6	18
					2332	-0.8	-24												2248	0.0	0
8 Tu	1500	1.0	30	23 W	0715	0.7	21	8 F	0010	-0.2	-6	23 Sa	0039	-0.2	-6			8 F	0617	0.5	15
					1112	0.4	12		0838	0.5	15		0746	0.8	24	23 Sa			1050	0.2	6
					1651	1.0	30		1208	0.3	9		1335	-0.1	-3		8 F		1618	0.5	15
									1615	0.6	18		2026	0.6	18				2321	0.1	3
9 W	0023	-0.3	-9	24 Th	0021	-0.7	-21	9 Sa	0044	-0.1	-3	24 Su	0132	-0.1	-3			9 Sa	0602	0.5	15
	1533	0.9	27		0800	0.8	24		0856	0.5	15		0836	0.9	27	24 Su			1149	0.1	3
					1230	0.3	9		1320	0.2	6		1451	-0.3	-9		9 Sa		1849	0.5	15
					1814	0.8	24		1718	0.4	12		2153	0.6	18				2356	0.2	6
10 Th	0057	-0.3	-9	25 F	0111	-0.5	-15	10 Su	0120	0.0	0	25 M	0226	0.1	3			10 Su	0518	0.6	18
	0953	0.7	21		0844	0.9	27		0904	0.6	18		0926	0.9	27	25 M			1250	0.0	0
	1237	0.6	18		1352	0.2	6		1430	0.1	3		1603	-0.4	-12		10 Su		2050	0.5	15
	1613	0.8	24		1956	0.7	21		2120	0.3	9		2309	0.6	18				2202	0.8	24
11 F	0131	-0.2	-6	26 Sa	0201	-0.3	-9	11 M	0158	0.1	3	26 Tu	0321	0.2	6			11 M	0035	0.3	9
	1013	0.7	21		0928	0.9	27		0901	0.7	21		1016	0.9	27	26 Tu			0546	0.7	21
	1358	0.5	15		1514	0.0	0		1533	-0.1	-3		1707	-0.4	-12		11 M		1353	-0.1	-3
	1704	0.6	18		2135	0.6	18		2300	0.3	9		2300	0.3	9				2211	0.5	15
12 Sa	0206	-0.1	-3	27 Su	0251	-0.2	-6	12 Tu	0240	0.1	3	27 W	0016	0.6	18			12 Tu	0121	0.4	12
	1030	0.8	24		1011	1.0	30		0911	0.8	24		0415	0.3	9	27 W			0636	0.8	24
	1512	0.4	12		1631	-0.2	-6		1630	-0.2	-6		1105	1.0	30		12 Tu		1455	-0.2	-6
	1817	0.5	15		2303	0.5	15		2303	0.5	15		1802	-0.5	-15				2313	0.5	15
13 Su	0242	0.0	0	28 M	0341	0.0	0	13 W	0009	0.4	12	28 Th	0114	0.6	18			13 W	0213	0.4	12
	1041	0.8	24		1054	1.1	34		0325	0.2	6		0504	0.3	9	28 Th			0738	0.9	27
	1616	0.2	6		1737	-0.3	-9		0944	0.9	27		1151	1.0	30		13 W		1552	-0.3	-9
	2216	0.4	12						1722	-0.4	-12		1851	-0.5	-15				2313	0.5	15
14 M	0319	0.0	0	29 Tu	0021	0.5	15	14 Th	0104	0.4	12	29 F	0001	0.6	18			14 Th	0309	0.4	12
	1047	0.9	27		0428	0.1	3		0414	0.2	6		0847	1.0	30	29 F			0847	1.0	30
	1709	0.0	0		1135	1.1	34		1028	1.0	30		1647	-0.5	-15		14 Th		1647	-0.5	-15
	2359	0.4	12		1835	-0.5	-15		1812	-0.6	-18								1801	-0.3	-9
15 Tu	0357	0.1	3	30 W	0131	0.5	15	15 F	0151	0.4	12	30 Sa	0041	0.6	18			15 F	0041	0.6	18
	1053	1.0	30		0514	0.2	6		0505	0.2	6		0406	0.4	12	30 Sa			0406	0.4	12
	1758	-0.2	-6		1215	1.1	34		1117	1.1	34		0955	1.0	30		15 F		0955	1.0	30
					1926	-0.5	-15		1901	-0.7	-21		1738	-0.5	-15				1738	-0.5	-15
			31 Th	0234	0.5	15							31 Su	0204	0.8			24			
				0556	0.3	9								31 Su	0624	0.4		12			
				1253	1.1	34									31 Su	1255	0.9	27			
				2012	-0.6	-18										1916	-0.2	-6			

Time meridian 67° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Amuay, Venezuela, 2019

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 M	0239	0.8	24	16 Tu	0143	1.1	34	1 W	0200	1.0	30	16 Th	0134	1.4	43	1 Sa	0052	1.3	40	16 Su	0157	1.5	46
	0704	0.4	12		0704	0.1	3		0738	0.3	9		0806	-0.1	-3		0844	-0.1	-3		0945	-0.4	-12
	1338	0.9	27		1320	1.0	30		1427	0.8	24		1505	0.9	27		1653	0.8	24		1751	1.0	30
	1948	-0.1	-3		1925	-0.1	-3		1919	0.3	9		1931	0.4	12		1929	0.7	21		2019	0.9	27
2 Tu	0309	0.8	24	17 W	0215	1.1	34	2 Th	0209	1.0	30	17 F	0203	1.4	43	2 Su	0109	1.4	43	17 M	0218	1.4	43
	0744	0.3	9		0801	0.0	0		0818	0.1	3		0859	-0.3	-9		0927	-0.3	-9		1030	-0.4	-12
	1421	0.8	24		1433	1.0	30		1530	0.8	24		1622	0.9	27		1804	0.9	27		1857	1.0	30
	2019	0.0	0		2010	0.0	0		1951	0.4	12		2014	0.6	18		2005	0.8	24		2103	0.9	27
3 W	0334	0.7	21	18 Th	0248	1.1	34	3 F	0159	1.0	30	18 Sa	0232	1.4	43	3 M	0137	1.4	43	18 Tu	0232	1.4	43
	0825	0.2	6		0858	-0.1	-3		0900	0.0	0		0952	-0.3	-9		1011	-0.4	-12		1114	-0.4	-12
	1509	0.8	24		1549	0.9	27		1641	0.8	24		1738	1.0	30		●						
	2050	0.1	3		2055	0.2	6		2023	0.6	18		2059	0.7	21								
4 Th	0348	0.7	21	19 F	0322	1.2	37	4 Sa	0151	1.1	34	19 Su	0258	1.4	43	4 Tu	0214	1.5	46	19 W	0246	1.3	40
	0908	0.2	6		0955	-0.2	-6		0943	-0.1	-3		1043	-0.4	-12		1059	-0.4	-12		1156	-0.3	-9
	1605	0.7	21		1709	0.9	27		1757	0.8	24		1853	1.0	30		●				2047	1.1	34
	2121	0.2	6		2142	0.4	12		●	2056	0.7		21	2146	0.9		27					2256	1.0	30
5 F	0333	0.7	21	20 Sa	0356	1.2	37	5 Su	0205	1.2	37	20 M	0319	1.3	40	5 W	0258	1.5	46	20 Th	0305	1.2	37
	0953	0.1	3		1053	-0.3	-9		1028	-0.2	-6		1134	-0.4	-12		1148	-0.5	-15		1236	-0.2	-6
	1718	0.7	21		1830	0.9	27		1915	0.8	24		2002	1.0	30		2044	1.1	34		2127	1.1	34
	●	2153	0.4		12	2231	0.5		15	2132	0.7		21	2240	0.9		27	2301	1.0		30		
6 Sa	0305	0.8	24	21 Su	0431	1.1	34	6 M	0234	1.2	37	21 Tu	0337	1.2	37	6 Th	0350	1.4	43	21 F	0010	1.0	30
	1041	0.0	0		1151	-0.3	-9		1117	-0.2	-6		1225	-0.3	-9		1238	-0.5	-15		0330	1.1	34
	1844	0.7	21		1949	0.9	27		●				2101	1.1	34		2118	1.1	34		1315	-0.1	-3
	2227	0.5	15		2325	0.7	21						2344	1.0	30						2200	1.1	34
7 Su	0318	0.9	27	22 M	0510	1.1	34	7 Tu	0312	1.3	40	22 W	0356	1.2	37	7 F	0021	1.0	30	22 Sa	0131	0.9	27
	1133	-0.1	-3		1250	-0.3	-9		1208	-0.3	-9		1313	-0.3	-9		0450	1.3	40		0403	1.0	30
	2009	0.7	21		2100	1.0	30		●				2150	1.1	34		1329	-0.4	-12		1352	0.0	0
	2306	0.6	18														2151	1.2	37		2228	1.1	34
8 M	0349	0.9	27	23 Tu	0027	0.8	24	8 W	0400	1.3	40	23 Th	0058	1.0	30	8 Sa	0143	0.9	27	23 Su	1428	0.1	3
	1228	-0.2	-6		0556	1.0	30		1302	-0.4	-12		0421	1.1	34		0607	1.2	37		2253	1.2	37
	2123	0.7	21		1348	-0.3	-9		2200	1.0	30		1400	-0.2	-6		1420	-0.3	-9				
	2353	0.6	18		2200	1.0	30						2230	1.1	34		2222	1.2	37				
9 Tu	0434	1.0	30	24 W	0137	0.8	24	9 Th	0033	0.9	27	24 F	0218	0.9	27	9 Su	0303	0.7	21	24 M	1504	0.2	6
	1325	-0.2	-6		0705	1.0	30		0500	1.2	37		0458	1.0	30		0752	1.0	30		2314	1.2	37
	2220	0.8	24		1444	-0.3	-9		1356	-0.4	-12		1443	-0.1	-3		1509	-0.2	-6				
					2251	1.0	30		2233	1.1	34		2305	1.1	34		2254	1.3	40				
10 W	0052	0.7	21	25 Th	0249	0.8	24	10 F	0150	0.9	27	25 Sa	0335	0.8	24	10 M	0416	0.5	15	25 Tu	0500	0.5	15
	0531	1.0	30		0827	0.9	27		0613	1.2	37		0600	0.9	27		0952	0.9	27		1048	0.6	18
	1423	-0.3	-9		1535	-0.2	-6		1449	-0.4	-12		1523	0.0	0		1557	-0.1	-3		1541	0.3	9
	2302	0.8	24		2334	1.0	30		2303	1.1	34		2335	1.2	37		●	2326	1.4		43	●	2330
11 Th	0158	0.7	21	26 F	0355	0.7	21	11 Sa	0304	0.8	24	26 Su	0437	0.7	21	11 Tu	0522	0.3	9	26 W	0542	0.4	12
	0643	1.1	34		0940	0.9	27		0746	1.1	34		0945	0.8	24		1130	0.9	27		1215	0.6	18
	1519	-0.4	-12		1621	-0.1	-3		1540	-0.3	-9		1601	0.1	3		1644	0.1	3		1617	0.4	12
	2337	0.9	27		●				●	2333	1.2		37	●				2358	1.5		46	2340	1.3	40
12 F	0304	0.7	21	27 Sa	0012	1.0	30	12 Su	0413	0.6	18	27 M	0002	1.2	37	12 W	0622	0.1	3	27 Th	0621	0.2	6
	0807	1.1	34		0450	0.7	21		0930	1.0	30		0525	0.6	18		1255	0.8	24		1328	0.7	21
	1613	-0.4	-12		1043	0.9	27		1630	-0.2	-6		1107	0.8	24		1729	0.3	9		1654	0.5	15
	●				1702	-0.1	-3						1637	0.2	6						2343	1.3	40
13 Sa	0009	0.9	27	28 Su	0045	1.0	30	13 M	0003	1.2	37	28 Tu	0025	1.2	37	13 Th	0030	1.5	46	28 F	0700	0.0	0
	0408	0.6	18		0536	0.6	18		0516	0.4	12		0606	0.5	15		0716	-0.1	-3		1436	0.7	21
	0934	1.1	34		1140	0.9	27		1105	1.0	30		1218	0.7	21		1413	0.9	27		1731	0.6	18
	1704	-0.4	-12		1739	0.0	0		1717	-0.1	-3		1713	0.3	9		1812	0.5	15		2352	1.4	43
14 Su	0040	1.0	30	29 M	0115	1.0	30	14 Tu	0033	1.3	40	29 W	0042	1.2	37	14 F	0101	1.5	46	29 Sa	0740	-0.2	-6
	0508	0.4	12		0618	0.5	15		0615	0.2	6		0645	0.3	9		0808	-0.3	-9		1540	0.8	24
	1054	1.1	34		1235	0.8	24		1229	1.0	30		1326	0.7	21		1528	0.9	27		1809	0.7	21
	1753	-0.4	-12		1813	0.1	3		1803	0.0	0		1747	0.4	12		1855	0.6	18				
15 M	0111	1.0	30	30 Tu	0141	1.0	30	15 W	0103	1.3	40	30 Th	0052	1.2	37	15 Sa	0131	1.5	46	30 Su	0013	1.5	46
	0606	0.3	9		0658	0.4	12		0712	0.0	0		0724	0.1	3		0857	-0.4	-12		0822	-0.3	-9
	1208	1.1	34		1329	0.8	24		1348	0.9	27		1434	0.7	21		1641	0.9	27		1640	0.8	24
	1840	-0.3	-9		1847	0.2	6		1847	0.2	6		1821	0.5	15		1937	0.8	24		1850	0.7	21
									31 F	0051	1.2	37											
										0804	0.0	0											
										1543	0.8	24											
										1855	0.6	18											

Time meridian 67° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Amuay, Venezuela, 2019

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	0045	1.5	46		16	0201	1.4	43		1	0210	1.6	49		16	0222	1.2	37		1	0444	1.3	40		16	0515	1.0	30
M	0905	-0.4	-12		Tu	1010	-0.3	-9		Th	1009	-0.4	-12		F	1040	0.1	3		Su	1109	0.2	6		M	1046	0.7	21
	1735	0.9	27		O	1832	1.0	30			1759	1.1	34			1859	1.0	30			1812	1.4	43			1733	1.2	37
	1937	0.8	24			2038	0.9	27			2136	0.8	24			2209	0.9	27			2354	0.4	12			2349	0.7	21
2	0124	1.6	49		17	0212	1.3	40		2	0306	1.5	46		17	0238	1.2	37		2	0620	1.2	37		17	0731	1.0	30
Tu	0950	-0.5	-15		W	1047	-0.2	-6		F	1055	-0.4	-12		Sa	1109	0.2	6		M	1158	0.4	12		Tu	1117	0.8	24
	1824	0.9	27			1923	1.0	30			1839	1.1	34			1932	1.0	30			1858	1.5	46			1649	1.2	37
●	2033	0.8	24			2126	0.9	27			2247	0.7	21			2308	0.9	27										
3	0209	1.6	49		18	0223	1.3	40		3	0411	1.4	43		18	0308	1.1	34		3	0108	0.3	9		18	0046	0.6	18
W	1036	-0.5	-15		Th	1122	-0.2	-6		Sa	1143	-0.2	-6		Su	1139	0.3	9		Tu	0801	1.1	34		W	0912	1.0	30
	1907	1.0	30			2007	1.0	30			1920	1.2	37			1959	1.1	34			1250	0.5	15			1152	0.9	27
	2138	0.9	27			2223	0.9	27													1947	1.5	46			1710	1.3	40
4	0258	1.5	46		19	0242	1.2	37		4	0003	0.6	18		19	0012	0.8	24		4	0222	0.2	6		19	0144	0.5	15
Th	1124	-0.5	-15		F	1155	-0.1	-3		Su	0533	1.2	37		M	0350	0.9	27		W	0932	1.1	34		Th	1033	1.0	30
	1946	1.1	34			2042	1.0	30			1231	-0.1	-3			1211	0.4	12			1346	0.7	21			1234	0.9	27
	2252	0.9	27			2330	0.9	27			2001	1.3	40			2019	1.1	34			2038	1.5	46			1752	1.4	43
5	0354	1.4	43		20	0309	1.1	34		5	0123	0.5	15		20	0120	0.7	21		5	0332	0.1	3		20	0241	0.3	9
F	1212	-0.4	-12		Sa	1228	0.0	0		M	0721	1.0	30		Tu	0454	0.8	24		Th	1052	1.2	37		F	1847	1.5	46
	2023	1.1	34			2112	1.1	34			1320	0.1	3			1245	0.6	18		●	1445	0.8	24					
6	0012	0.8	24		21	0046	0.9	27		6	0242	0.3	9		21	0225	0.6	18		6	0436	0.0	0		21	0334	0.2	6
Sa	0500	1.3	40		Su	0344	1.0	30		Tu	0910	0.9	27		W	0959	0.8	24		F	1200	1.2	37		Sa	1212	1.2	37
	1301	-0.3	-9			1301	0.1	3			1411	0.3	9			1323	0.7	21			1545	0.9	27		●	1431	1.1	34
	2059	1.2	37			2138	1.1	34			2127	1.5	46			2015	1.2	37			2224	1.6	49			1952	1.5	46
7	0135	0.7	21		22	0204	0.7	21		7	0357	0.2	6		22	0325	0.4	12		7	0533	-0.1	-3		22	0425	0.1	3
Su	0630	1.1	34		M	0431	0.8	24		W	1043	0.9	27		Th	1122	0.8	24		Sa	1258	1.3	40		Su	1244	1.2	37
	1350	-0.2	-6			1336	0.2	6		●	1503	0.5	15			1405	0.7	21			1642	1.0	30			1534	1.1	34
	2136	1.3	40			2158	1.1	34			2211	1.5	46			2023	1.3	40			2315	1.6	49			2101	1.6	49
8	0256	0.5	15		23	0317	0.6	18		8	0504	0.0	0		23	0417	0.3	9		8	0624	-0.1	-3		23	0513	0.0	0
M	0833	0.9	27		Tu	0545	0.7	21		Th	1203	1.0	30		F	1224	0.9	27		Su	1349	1.3	40		M	1313	1.2	37
	1439	0.0	0			1412	0.3	9			1556	0.6	18		●	1453	0.8	24			1734	1.0	30			1635	1.0	30
	2212	1.4	43			2213	1.2	37			2255	1.6	49			2059	1.4	43								2210	1.6	49
9	0412	0.3	9		24	0415	0.5	15		9	0602	-0.1	-3		24	0505	0.1	3		9	0003	1.5	46		24	0559	0.0	0
Tu	1022	0.8	24		W	1101	0.7	21		F	1313	1.0	30		Sa	1313	0.9	27		M	0708	0.0	0		Tu	1341	1.3	40
	1528	0.2	6		●	1450	0.5	15			1647	0.8	24			1545	0.8	24			1435	1.3	40			1735	0.9	27
●	2249	1.5	46			2220	1.2	37			2338	1.6	49			2145	1.5	46			1821	1.0	30			2316	1.7	52
10	0519	0.1	3		25	0503	0.3	9		10	0654	-0.2	-6		25	0551	0.0	0		10	0047	1.5	46		25	0645	0.0	0
W	1152	0.8	24		Th	1221	0.7	21		Sa	1415	1.1	34		Su	1353	1.0	30		Tu	0747	0.0	0		W	1409	1.3	40
	1615	0.3	9			1529	0.6	18			1737	0.8	24			1639	0.9	27			1518	1.2	37			1834	0.8	24
	2325	1.5	46			2224	1.3	40							2236	1.6	49			1905	1.0	30						
11	0619	-0.1	-3		26	0546	0.1	3		11	0020	1.6	49		26	0636	-0.1	-3		11	0128	1.5	46		26	0021	1.6	49
Th	1312	0.9	27		F	1327	0.7	21		Su	0742	-0.2	-6		M	1429	1.0	30		W	0822	0.1	3		Th	0729	0.0	0
	1702	0.5	15			1611	0.6	18			1512	1.1	34			1735	0.9	27			1557	1.2	37			1439	1.4	43
						2240	1.4	43			1823	0.9	27			2329	1.7	52			1947	0.9	27			1933	0.7	21
12	0002	1.6	49		27	0628	-0.1	-3		12	0059	1.5	46		27	0721	-0.2	-6		12	0204	1.4	43		27	0128	1.6	49
F	0712	-0.3	-9		Sa	1423	0.8	24		M	0825	-0.2	-6		Tu	1503	1.1	34		Th	0852	0.2	6		F	0813	0.1	3
	1425	0.9	27			1656	0.7	21			1604	1.1	34			1831	0.8	24			1632	1.2	37			1512	1.5	46
	1748	0.7	21			2309	1.5	46			1906	0.9	27								2030	0.9	27			2033	0.6	18
13	0037	1.6	49		28	0711	-0.2	-6		13	0134	1.5	46		28	0023	1.7	52		13	0236	1.3	40		28	0239	1.5	46
Sa	0801	-0.4	-12		Su	1513	0.9	27		Tu	0904	-0.2	-6		W	0806	-0.2	-6		F	0921	0.3	9		Sa	0858	0.3	9
	1532	0.9	27			1743	0.8	24			1653	1.1	34			1537	1.1	34			1705	1						

Amuay, Venezuela, 2019

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
1 Tu	0658	1.3	40		16 W	1528	1.5	46		1 F	0131	-0.1	-3	
	1122	0.8	24			0943	1.4	43		16 Sa	0047	-0.1	-3	
	1751	1.6	49			1251	1.2	37			1627	1.6	49	
						1828	1.5	46		1 Su	0151	-0.2	-6	
2 W	0051	0.1	3		17 Th	0020	0.3	9		2 M	0105	1.2	37	
	0825	1.3	40			1605	1.5	46			1331	1.1	34	
	1218	1.0	30								1731	1.2	37	
	1843	1.6	49			2 Sa	0227	0.0	0	17 Su	0235	-0.1	-3	
3 Th	0157	0.1	3		18 F	0113	0.2	6		2 M	1053	1.2	37	
	0943	1.3	40			1654	1.6	49			1454	0.9	27	
	1321	1.1	34								1822	1.0	30	
	1942	1.6	49			3 Su	0320	0.0	0	18 M	0226	-0.1	-3	
4 F	0301	0.1	3		19 Sa	0206	0.2	6		3 Tu	1101	1.3	40	
	1049	1.4	43			1755	1.6	49			1416	1.1	34	
	1429	1.1	34								1843	1.4	43	
	2046	1.6	49			4 M	0406	0.1	3	3 Tu	2108	0.9	27	
5 Sa	0401	0.0	0		20 Su	0258	0.1	3		4 W	0352	0.1	3	
	1144	1.4	43			1143	1.3	40			1125	1.2	37	
	1536	1.1	34			1421	1.2	37			1613	0.8	24	
	2148	1.5	46			1907	1.6	49			2108	0.9	27	
6 Su	0454	0.1	3		21 M	0348	0.0	0		5 Th	0426	0.2	6	
	1232	1.4	43			1206	1.3	40			1220	1.3	40	
	1638	1.1	34			1532	1.1	34			1804	0.6	18	
	2247	1.5	46			2029	1.6	49			2354	0.8	24	
7 M	0540	0.1	3		22 Tu	0436	0.0	0		6 F	0500	0.3	9	
	1314	1.4	43			1230	1.4	43			1242	1.3	40	
	1733	1.1	34			1637	1.0	30			1845	0.4	12	
	2340	1.5	46			2154	1.5	46		7 Sa	0105	0.7	21	
8 Tu	0620	0.2	6		23 W	0522	0.0	0		7 Sa	0532	0.4	12	
	1352	1.4	43			1255	1.5	46			1259	1.3	40	
	1820	1.0	30			1739	0.9	27			1924	0.3	9	
						2315	1.5	46		8 Su	0214	0.7	21	
9 W	0031	1.4	43		24 Th	0607	0.1	3		8 Su	0604	0.5	15	
	0656	0.3	9			1321	1.5	46			1306	1.3	40	
	1426	1.4	43			1839	0.7	21			2002	0.1	3	
	1904	0.9	27							9 M	0325	0.7	21	
10 Th	0119	1.3	40		25 F	0033	1.4	43		9 M	0635	0.6	18	
	0727	0.4	12			0651	0.2	6			1305	1.3	40	
	1457	1.4	43			1350	1.6	49			2041	0.0	0	
	1946	0.9	27			1938	0.5	15		10 Tu	0437	0.7	21	
11 F	0207	1.3	40		26 Sa	0152	1.3	40		10 Tu	0705	0.6	18	
	0756	0.5	15			0735	0.4	12			1311	1.4	43	
	1523	1.4	43			1421	1.7	52			2121	-0.2	-6	
	2028	0.8	24			2036	0.3	9		11 W	1331	1.4	43	
12 Sa	0300	1.2	37		27 Su	0312	1.3	40		11 W	2203	-0.3	-9	
	0825	0.6	18			0818	0.5	15						
	1541	1.3	40			1453	1.7	52		12 Th	1402	1.5	46	
	2111	0.7	21			2134	0.2	6			2248	-0.4	-12	
13 Su	0404	1.1	34		28 M	0435	1.2	37		12 Th				
	0853	0.7	21			0903	0.7	21						
	1541	1.3	40			1528	1.7	52		13 F	1442	1.5	46	
	2155	0.6	18			2233	0.0	0			2334	-0.4	-12	
14 M	0521	1.1	34		29 Tu	0600	1.2	37		13 F				
	0920	0.9	27			0951	0.9	27						
	1507	1.4	43			1605	1.7	52		14 Sa	1528	1.4	43	
	2241	0.5	15			2332	0.0	0						
15 Tu	0651	1.1	34		30 W	0722	1.3	40		15 Su	0021	-0.4	-12	
	0948	1.0	30			1043	1.0	30			0919	1.0	30	
	1505	1.4	43			1645	1.7	52			1120	0.9	27	
	2329	0.4	12								1621	1.4	43	
					31 Th	0032	-0.1	-3		30 M	0110	-0.3	-9	
						0838	1.3	40			0943	0.9	27	
						1142	1.1	34			1247	0.8	24	
						1731	1.6	49			1627	0.9	27	
										31 Tu	0147	-0.2	-6	
											1015	0.9	27	
											1410	0.6	18	
											1700	0.7	21	

Time meridian 67° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Punta Gorda, Venezuela, 2019

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 Tu	0103	5.2	158		16 W	0647	1.1	34		1 F	0246	4.8	146		16 Sa	0156	4.9	149		1 F	0110	4.3	131		16 Sa	0015	4.7	143																
	0727	0.6	18			1212	5.4	165			0851	0.6	18			0824	0.6	18			0729	1.0	30			0659	1.1	34																
	1329	6.0	183			1930	0.3	9			1449	5.6	171			1358	5.7	174			1321	4.9	149			1223	5.3	162		1938	-0.2	-6												
	2004	-0.1	-3								2123	-0.6	-18			2100	-0.8	-24			2004	0.0	0																					
2 W	0210	5.3	162		17 Th	0111	4.9	149		2 Sa	0334	5.0	152		17 Su	0300	5.4	165		2 Sa	0219	4.5	137		17 Su	0136	5.0	152		17 Su	0805	0.6	18		17 Su	1342	5.6	171		17 Su	2039	-0.7	-21	
	0822	0.6	18			0748	1.0	30			0939	0.4	12			0920	0.1	3			0826	0.8	24			0805	0.6	18			1448	6.1	186			2039	-0.7	-21						
	1423	6.1	186			1318	5.7	174			1534	5.8	177			1501	6.2	189			1424	5.1	155			1342	5.6	171			1448	6.1	186			2039	-0.7	-21						
	2057	-0.4	-12			2028	-0.2	-6			2207	-0.8	-24			2153	-1.3	-40			2056	-0.3	-9			2039	-0.7	-21			2039	-0.7	-21			2039	-0.7	-21						
3 Th	0305	5.4	165		18 F	0218	5.2	158		3 Su	0413	5.2	158		18 M	0353	5.9	180		3 Su	0309	4.8	146		18 M	0241	5.6	171		18 M	0903	-0.1	-3		18 M	2132	-1.1	-34						
	0913	0.5	15			0845	0.7	21			1022	0.2	6			1011	-0.5	-15			0916	0.4	12			0903	-0.1	-3			2132	-1.1	-34											
	1510	6.3	192			1419	6.1	186			1613	6.0	183			1556	6.7	204			1513	5.4	165			1513	5.4	165			2132	-1.1	-34											
	2144	-0.7	-21			2121	-0.7	-21			2248	-0.9	-27			2241	-1.7	-52			2142	-0.5	-15			2142	-0.5	-15			2132	-1.1	-34											
4 F	0351	5.6	171		19 Sa	0317	5.5	168		4 M	0446	5.4	165		19 Tu	0441	6.3	192		4 M	0348	5.1	155		19 Tu	0334	6.2	189		19 Tu	0954	-0.7	-21		19 Tu	1544	6.6	201		19 Tu	2220	-1.5	-46	
	0958	0.4	12			0937	0.3	9			1101	0.1	3			1059	-0.9	-27			0959	0.1	3			0954	-0.7	-21			1544	6.6	201			2220	-1.5	-46						
	1551	6.4	195			1515	6.5	198			1647	6.1	186			1646	7.0	213			1553	5.7	174			1544	6.6	201			1544	6.6	201			2220	-1.5	-46						
	2228	-0.8	-24			2211	-1.2	-37			2326	-1.0	-30			2327	-1.9	-58			2223	-0.7	-21			2220	-1.5	-46			2220	-1.5	-46			2220	-1.5	-46						
5 Sa	0430	5.7	174		20 Su	0408	5.9	180		5 Tu	0517	5.5	168		20 W	0525	6.7	204		5 Tu	0420	5.4	165		20 W	0420	6.6	201		20 W	1042	-1.2	-37		20 W	1634	6.9	210		20 W	2306	-1.6	-49	
	1041	0.4	12			1026	-0.1	-3			1138	0.0	0			1145	-1.2	-37			1039	-0.1	-3			1042	-1.2	-37			1042	-1.2	-37			1634	6.9	210			2306	-1.6	-49	
	1629	6.5	198			1606	6.9	210			1720	6.2	189			1733	7.1	216			1629	5.9	180			1634	6.9	210			1634	6.9	210			1634	6.9	210			2306	-1.6	-49	
	2309	-0.9	-27			2258	-1.6	-49													2301	-0.8	-24			2306	-1.6	-49			2306	-1.6	-49			2306	-1.6	-49						
6 Su	0505	5.7	174		21 M	0456	6.3	192		6 W	0002	-0.9	-27		21 Th	0011	-1.9	-58		6 W	0450	5.6	171		21 Th	0503	6.9	210		21 Th	1127	-1.6	-49		21 Th	1719	7.0	213		21 Th	2349	-1.5	-46	
	1120	0.4	12			1114	-0.4	-12			0546	5.6	171			0607	6.8	207			1115	-0.3	-9			1127	-1.6	-49			1127	-1.6	-49			1719	7.0	213			2349	-1.5	-46	
	1703	6.5	198			1655	7.1	216			1213	-0.1	-3			1231	-1.4	-43			1701	6.1	186			1719	7.0	213			1719	7.0	213			1719	7.0	213			2349	-1.5	-46	
	2347	-0.8	-24			2344	-1.8	-55			1751	6.2	189			1818	7.0	213			2336	-0.8	-24			2349	-1.5	-46			2349	-1.5	-46			2349	-1.5	-46						
7 M	0537	5.7	174		22 Tu	0541	6.5	198		7 Th	0036	-0.8	-24		22 F	0055	-1.7	-52		7 Th	0518	5.8	177		22 F	0542	7.1	216		22 F	1211	-1.7	-52		22 F	1803	6.9	210		22 F				
	1157	0.4	12			1201	-0.6	-18			0614	5.7	174			0648	6.8	207			1149	-0.4	-12			1211	-1.7	-52			1211	-1.7	-52			1803	6.9	210						
	1735	6.5	198			1742	7.2	219			1246	0.0	0			1318	-1.3	-40			1732	6.2	189			1803	6.9	210			1803	6.9	210			1803	6.9	210						
											1822	6.2	189			1903	6.7	204																										
8 Tu	0024	-0.7	-21		23 W	0030	-1.8	-55		8 F	0109	-0.6	-18		23 Sa	0140	-1.2	-37		8 F	0009	-0.7	-21		23 Sa	0032	-1.2	-37		23 Sa	0621	7.0	213		23 Sa	1255	-1.6	-49		23 Sa	1845	6.7	204	
	0608	5.7	174			0626	6.6	201			0644	5.8	177			0729	6.6	201			0545	6.0	183			0621	7.0	213			0621	7.0	213			0621	7.0	213			1255	-1.6	-49	
	1234	0.5	15			1248	-0.7	-21			1319	0.0	0			1405	-1.1	-34			1222	-0.5	-15			1255	-1.6	-49			1255	-1.6	-49			1255	-1.6	-49			1255	-1.6	-49	
	1808	6.4	195			1830	7.1	216			1855	6.0	183			1949	6.3	192			1802	6.2	189			1845	6.7	204			1845	6.7	204			1845	6.7	204			1845	6.7	204	
9 W	0101	-0.5	-15		24 Th	0116	-1.6	-49		9 Sa	0141	-0.3	-9		24 Su	0226	-0.7	-21		9 Sa	0041	-0.5	-15		24 Su	0115	-0.8	-24		24 Su	0659	6.7	204		24 Su	1340	-1.3	-40		24 Su	1927	6.2	189	
	0639	5.7	174			0711	6.6	201			0716	5.8	177			0812	6.2	189			0614	6.1	186			0659	6.7	204			0659	6.7	204			0659	6.7	204			1340	-1.3	-40	
	1309	0.6	18			1338	-0.6	-18			1353	0.1	3			1456	-0.7	-21			1253	-0.4	-12			1340	-1.3	-40			1340	-1.3	-40			1340	-1.3	-40			1340	-1.3	-40	
	1841	6.3	192			1918	6.8	207			1932	5.8	177			2037	5.7	174			1834	6.1	186			1927	6.2	189			1927	6.2	189			1927	6.2	189			1927	6.2	189	
10 Th	0137	-0.3	-9		25 F	0204	-1.2	-37		10 Su	0215	0.0	0		25 M	0317	0.0	0		10 Su	0111	-0.2	-6		25 M	0159	-0.2	-6		25 M	0738	6.4	195		25 M	1427	-0.9	-27		25 M	2011	5.7	174	
	0713	5.7	174			0757	6.4	195			0752	5.7	174			0858	5.8	177			0644	6.1	186			0738	6.4	195			0738	6.4	195			0738	6.4	195			1427	-0.9	-27	
	1346</																																											

Punta Gorda, Venezuela, 2019

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 M	0229	4.9	149		16 Tu	0218	6.0	183		1 W	0223	5.5	168		16 Th	0243	6.7	204		1 Sa	0256	6.3	192		16 Su	0347	6.8	207	
	0847	0.6	18			0844	-0.2	-6			0859	0.3	9			0914	-0.8	-24			0951	-0.4	-12			1027	-1.2	-37	
	1443	5.3	162			1434	6.1	186			1451	5.5	168			1514	6.2	189			1542	5.8	177			1633	6.1	186	
	2110	-0.1	-3			2108	-0.7	-21			2116	0.2	6			2132	-0.3	-9			2204	0.6	18			2242	0.4	12	
2 Tu	0310	5.3	162		17 W	0310	6.5	198		2 Th	0302	5.8	177		17 F	0329	7.0	213		2 Su	0336	6.6	201		17 M	0428	6.8	207	
	0932	0.2	6			0935	-0.8	-24			0941	-0.1	-3			1002	-1.2	-37			1032	-0.7	-21			1110	-1.2	-37	
	1526	5.6	171			1530	6.5	198			1533	5.8	177			1603	6.4	195			1624	6.0	183			1712	6.1	186	
	2152	-0.3	-9			2157	-0.9	-27			2157	0.2	6			2219	-0.3	-9			2245	0.6	18			2325	0.5	15	
3 W	0345	5.6	171		18 Th	0355	6.9	210		3 F	0337	6.2	189		18 Sa	0411	7.1	216		3 M	0415	6.8	207		18 Tu	0505	6.8	207	
	1012	-0.2	-6			1022	-1.3	-40			1020	-0.4	-12			1047	-1.5	-46			1112	-0.9	-27			1152	-1.1	-34	
	1604	5.9	180			1619	6.8	207			1611	6.0	183			1648	6.5	198			1704	6.2	189			1749	6.1	186	
	2231	-0.4	-12			2242	-1.0	-30			2235	0.2	6			2303	-0.1	-3			2325	0.6	18			2325	0.6	18	
4 Th	0416	5.9	180		19 F	0437	7.1	216		4 Sa	0410	6.4	195		19 Su	0450	7.1	216		4 Tu	0454	6.9	210		19 W	0006	0.7	21	
	1049	-0.4	-12			1107	-1.6	-49			1057	-0.7	-21			1130	-1.5	-46			1153	-1.0	-30			0541	6.6	201	
	1637	6.1	186			1704	6.8	207			1646	6.2	189			1729	6.4	195			1746	6.3	192			1232	-0.8	-24	
	2307	-0.4	-12			2326	-0.8	-24			2311	0.2	6			2345	0.1	3			1824	6.0	183						
5 F	0445	6.1	186		20 Sa	0516	7.2	219		5 Su	0442	6.6	201		20 M	0527	7.0	213		5 W	0007	0.6	18		20 Th	0046	0.9	27	
	1124	-0.6	-18			1150	-1.7	-52			1133	-0.8	-24			1212	-1.3	-40			0536	7.0	213			0617	6.5	198	
	1710	6.2	189			1746	6.8	207			1722	6.3	192			1807	6.3	192			1235	-1.0	-30			1312	-0.6	-18	
	2340	-0.3	-9			0008	-0.6	-18			2347	0.3	9			0027	0.4	12			1829	6.3	192			1900	5.9	180	
6 Sa	0514	6.3	192		21 Su	0553	7.1	216		6 M	0516	6.8	207		21 Tu	0603	6.8	207		6 Th	0052	0.7	21		21 F	0127	1.0	30	
	1157	-0.7	-21			1233	-1.5	-46			1209	-0.8	-24			1253	-1.0	-30			0620	6.9	210			0654	6.3	192	
	1742	6.3	192			1826	6.5	198			1759	6.3	192			1845	6.1	186			1321	-0.8	-24			1352	-0.2	-6	
																										1936	5.8	177	
7 Su	0013	-0.1	-3		22 M	0050	-0.1	-3		7 Tu	0023	0.5	15		22 W	0109	0.7	21		7 F	0142	0.8	24		22 Sa	0210	1.2	37	
	0543	6.5	198			0630	6.8	207			0553	6.8	207			0640	6.5	198			0709	6.7	204			0733	6.0	183	
	1230	-0.7	-21			1316	-1.2	-37			1248	-0.8	-24			1336	-0.6	-18			1411	-0.6	-18			1435	0.1	3	
	1815	6.2	189			1906	6.2	189			1838	6.2	189			1923	5.8	177			2006	6.2	189			2015	5.7	174	
8 M	0044	0.2	6		23 Tu	0132	0.3	9		8 W	0102	0.7	21		23 Th	0152	1.0	30		8 Sa	0239	0.9	27		23 Su	0257	1.3	40	
	0616	6.5	198			0707	6.5	198			0633	6.7	204			0718	6.2	189			0803	6.4	195			0816	5.7	174	
	1303	-0.6	-18			1400	-0.8	-24			1330	-0.6	-18			1420	-0.2	-6			1507	-0.3	-9			1521	0.5	15	
	1851	6.1	186			1946	5.8	177			1922	6.0	183			2004	5.6	171			2103	6.1	186			2058	5.6	171	
9 Tu	0118	0.4	12		24 W	0218	0.8	24		9 Th	0148	1.0	30		24 F	0239	1.3	40		9 Su	0343	0.9	27		24 M	0350	1.4	43	
	0652	6.5	198			0746	6.1	186			0718	6.5	198			0800	5.8	177			0905	6.0	183			0906	5.4	165	
	1341	-0.4	-12			1448	-0.3	-9			1420	-0.4	-12			1508	0.2	6			1609	0.0	0			1611	0.8	24	
	1933	5.9	180			2030	5.4	165			2013	5.8	177			2048	5.3	162			2206	6.0	183			2146	5.5	168	
10 W	0156	0.8	24		25 Th	0308	1.2	37		10 F	0245	1.2	37		25 Sa	0333	1.5	46		10 M	0450	0.8	24		25 Tu	0449	1.4	43	
	0734	6.3	192			0831	5.6	171			0810	6.2	189			0849	5.4	165			1015	5.6	171			1004	5.1	155	
	1427	-0.2	-6			1542	0.2	6			1520	-0.1	-3			1602	0.5	15			1714	0.2	6			1707	1.0	30	
	2021	5.6	171			2121	5.0	152			2113	5.6	171			2140	5.2	158			2312	6.0	183			2239	5.5	168	
11 Th	0248	1.1	34		26 F	0408	1.5	46		11 Sa	0355	1.3	40		26 Su	0433	1.6	49		11 Tu	0557	0.6	18		26 W	0549	1.3	40	
	0823	6.0	183			0924	5.2	158			0913	5.8	177			0947	5.1	155			1132	5.4	165			1109	5.0	152	
	1529	0.1	3			1641	0.5	15			1629	0.2	6			1659	0.8	24			1818	0.3	9			1805	1.2	37	
	2120	5.2	158			2221	4.8	146			2222	5.5	168			2238	5.1	155			2206	6.0	183			2336	5.6	171	
12 F	0402	1.4	43		27 Sa	0513	1.6	49		12 Su	0509	1.2	37		27 M	0536	1.5	46		12 W	0018	6.2	189		27 Th	0648	1.0	30	
	0924	5.6	171			1031	4.9	149			1028	5.5	168			1054	4.9	149			0701	0.2	6			1218	4.9	149	
	1646	0.3	9			1745	0.7	21			1740	0.2	6			1758	0.9	27			1249	5.5	168			1902	1.3	40	
	2233	5.0	152			2331	4.7	143			2338	5.6	171			2339	5.2	158			1919	0.4	12						
13 Sa	0524	1.4	43		28 Su	0619	1.5	46		13 M	0621	0.9	27		28 Tu	0637	1.3	40		13 Th	0120	6.4	195		28 F	0033	5.7	174	
	1039	5.3	162			1149	4.8	146			1151	5.4	165			1206	4.9	149			0759	-0.3	-9			0744	0.6	18	
	1804	0.3	9			1846	0.7	21			1847	0.1	3			1855	0.9	27			1358	5.6	171			1324	5.1	155	
	2357	5.1	155																							1956	1.2	37	
14 Su	0640	1.1	34		29 M	0039	4.8	146		14 Tu	0049	5.9	180		29 W	0037	5.4	1											

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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
1 M	0306	6.6	201		16 Tu	0410	6.6	201		1 Su	0007	-0.4	-12	
	1008	-0.7	-21			1051	-0.8	-24			0551	7.8	238	
	1603	6.0	183			1656	6.0	183			1228	-0.8	-24	
	2222	0.8	24			2305	0.8	24			1823	7.8	238	
2 Tu	0353	6.9	210		17 W	0448	6.7	204		2 M	0054	-0.4	-12	
	1053	-1.0	-30			1132	-0.8	-24			0637	7.6	232	
	1649	6.2	189			1730	6.0	183			1313	-0.4	-12	
	2307	0.6	18			2346	0.8	24			1905	7.7	235	
3 W	0439	7.1	216		18 Th	0523	6.6	201		3 Tu	0142	-0.3	-9	
	1137	-1.1	-34			1210	-0.7	-21			0724	7.2	219	
	1733	6.5	198			1802	6.1	186			1359	0.1	3	
	2353	0.5	15								1948	7.5	229	
4 Th	0525	7.2	219		19 F	0024	0.8	24		4 W	0233	0.0	0	
	1222	-1.2	-37			0557	6.6	201			0814	6.6	201	
	1818	6.6	201			1247	-0.4	-12			1449	0.7	21	
						1834	6.1	186			2035	7.1	216	
5 F	0041	0.4	12		20 Sa	0102	0.9	27		5 Th	0329	0.3	9	
	0612	7.1	216			0631	6.4	195			0909	6.1	186	
	1308	-1.1	-34			1324	-0.2	-6			1546	1.3	40	
	1905	6.7	204			1906	6.1	186			2127	6.7	204	
6 Sa	0131	0.4	12		21 Su	0140	1.0	30		6 F	0431	0.6	18	
	0702	6.9	210			0707	6.3	192			1013	5.6	171	
	1357	-0.8	-24			1401	0.1	3			1649	1.8	55	
	1953	6.6	201			1940	6.1	186			2229	6.3	192	
7 Su	0225	0.4	12		22 M	0221	1.1	34		7 Sa	0536	0.8	24	
	0755	6.6	201			0745	6.0	183			1130	5.3	162	
	1449	-0.5	-15			1439	0.5	15			1758	2.0	61	
	2045	6.5	198			2017	6.1	186			2341	6.0	183	
8 M	0324	0.5	15		23 Tu	0305	1.2	37		8 Su	0642	0.8	24	
	0853	6.2	189			0829	5.8	177			1253	5.3	162	
	1545	0.0	0			1522	0.9	27			1904	2.0	61	
	2141	6.4	195			2058	6.0	183						
9 Tu	0426	0.5	15		24 W	0357	1.3	40		9 M	0055	6.0	183	
	0957	5.7	174			0919	5.4	165			0742	0.7	21	
	1646	0.4	12			1611	1.2	37			1404	5.5	168	
	2241	6.3	192			2146	5.9	180			2004	1.8	55	
10 W	0531	0.4	12		25 Th	0458	1.3	40		10 Tu	0200	6.2	189	
	1109	5.4	165			1018	5.2	158			0836	0.4	12	
	1749	0.7	21			1711	1.5	46			1456	5.8	177	
	2344	6.3	192			2240	5.9	180			2056	1.5	46	
11 Th	0635	0.2	6		26 F	0602	1.1	34		11 W	0252	6.5	198	
	1226	5.3	162			1127	5.0	152			0922	0.2	6	
	1852	0.9	27			1816	1.7	52			1535	6.1	186	
						2340	5.9	180			2141	1.2	37	
12 F	0048	6.3	192		27 Sa	0705	0.8	24		12 Th	0334	6.7	204	
	0735	-0.1	-3			1242	5.0	152			1004	0.1	3	
	1339	5.3	162			1919	1.7	52			1608	6.4	195	
	1951	0.9	27								2222	0.9	27	
13 Sa	0147	6.4	195		28 Su	0044	6.0	183		13 F	0411	6.9	210	
	0831	-0.4	-12			0804	0.4	12			1042	0.0	0	
	1442	5.5	168			1352	5.3	162			1637	6.7	204	
	2047	0.9	27			2018	1.5	46			2259	0.7	21	
14 Su	0241	6.5	198		29 M	0147	6.3	192		14 Sa	0444	7.0	213	
	0922	-0.6	-18			0857	-0.1	-3			1118	0.0	0	
	1534	5.7	174			1453	5.7	174			1705	6.9	210	
	2137	0.8	24			2112	1.2	37			2334	0.6	18	
15 M	0328	6.6	201		30 Tu	0244	6.7	204		15 Su	0515	7.0	213	
	1008	-0.8	-24			0947	-0.5	-15			1151	0.2	6	
	1618	5.9	180			1545	6.1	186			1732	7.0	213	
	2223	0.8	24			2202	0.8	24						
					31 W	0337	7.0	213		31 Sa	0504	7.8	238	
						1034	-0.9	-27			1144	-1.0	-30	
						1633	6.5	198			1741	7.7	235	
						2251	0.5	15						

Time meridian 67° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Punta Gorda, Venezuela, 2019

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 Tu	0032	-0.7	-21		16 W	0014	0.4	12		1 F	0142	-0.2	-6		16 Sa	0108	0.2	6		1 Su	0205	0.0	0		16 M	0143	-0.3	-9	
	0620	7.7	235			0555	7.0	213			0728	6.6	201			0654	6.5	198			0747	6.0	183			0732	6.3	192	
	1248	0.1	3			1224	1.1	34			1355	1.4	43			1317	1.5	46			1418	1.5	46			1402	1.0	30	
	1837	8.0	244			1758	7.5	229			1931	7.2	219			1853	7.2	219			1947	6.5	198			1932	6.8	207	
2 W	0118	-0.4	-12		17 Th	0047	0.5	15		2 Sa	0231	0.3	9		17 Su	0153	0.4	12		2 M	0253	0.4	12		17 Tu	0235	-0.1	-3	
	0705	7.3	223			0629	6.8	207			0814	6.2	189			0741	6.3	192			0832	5.7	174			0824	6.1	186	
	1333	0.6	18			1254	1.4	43			1446	1.9	58			1406	1.8	55			1510	1.8	55			1501	1.1	34	
	1918	7.7	235			1831	7.4	226			2016	6.7	204			1941	7.0	213			2033	6.1	186			2028	6.4	195	
3 Th	0207	-0.1	-3		18 F	0122	0.7	21		3 Su	0326	0.8	24		18 M	0248	0.6	18		3 Tu	0345	0.8	24		18 W	0333	0.2	6	
	0751	6.7	204			0707	6.6	201			0906	5.7	174			0836	6.1	186			0922	5.5	168			0923	6.0	183	
	1421	1.2	37			1327	1.7	52			1545	2.2	67			1511	2.0	61			1609	1.9	58			1608	1.1	34	
	2001	7.2	219			1910	7.3	223			2109	6.2	189			2037	6.6	201			2128	5.7	174			2132	6.0	183	
4 F	0300	0.4	12		19 Sa	0204	0.9	27		4 M	0425	1.1	34		19 Tu	0354	0.8	24		4 W	0442	1.0	30		19 Th	0438	0.4	12	
	0841	6.2	189			0752	6.3	192			1008	5.5	168			0942	5.9	180			1019	5.3	162			1029	6.0	183	
	1516	1.8	55			1410	2.1	64			1651	2.4	73			1628	2.0	61			1712	1.9	58			1718	0.9	27	
	2050	6.7	204			1956	7.0	213			2214	5.8	177			2146	6.2	189			2233	5.4	165			2246	5.7	174	
5 Sa	0358	0.8	24		20 Su	0301	1.1	34		5 Tu	0528	1.3	40		20 W	0506	0.9	27		5 Th	0541	1.2	37		20 F	0544	0.5	15	
	0940	5.7	174			0847	6.0	183			1119	5.4	165			1057	5.9	180			1122	5.4	165			1138	6.0	183	
	1619	2.2	67			1517	2.4	73			1758	2.3	70			1744	1.7	52			1815	1.7	52			1826	0.6	18	
	2148	6.3	192			2052	6.7	204			2330	5.7	174			2307	6.0	183			2344	5.3	162						
6 Su	0503	1.1	34		21 M	0414	1.3	40		6 W	0629	1.3	40		21 Th	0614	0.8	24		6 F	0638	1.2	37		21 Sa	0006	5.6	171	
	1052	5.4	165			0957	5.8	177			1229	5.5	168			1212	6.2	189			1223	5.5	168			0649	0.5	15	
	1728	2.4	73			1645	2.5	76			1900	2.0	61			1852	1.2	37			1913	1.4	43			1246	6.2	189	
	2301	5.9	180			2201	6.4	195																		1929	0.1	3	
7 M	0608	1.2	37		22 Tu	0532	1.3	40		7 Th	0043	5.7	174		22 F	0028	6.1	186		7 Sa	0052	5.3	162		22 Su	0122	5.6	171	
	1214	5.4	165			1120	5.8	177			0725	1.2	37			0717	0.6	18			0732	1.1	34			0749	0.4	12	
	1835	2.3	70			1806	2.2	67			1327	5.8	177			1318	6.6	201			1317	5.8	177			1347	6.5	198	
						2325	6.3	192			1954	1.6	49			1953	0.6	18			2005	1.0	30			2026	-0.4	-12	
8 Tu	0020	5.9	180		23 W	0643	1.0	30		8 F	0144	6.0	183		23 Sa	0141	6.4	195		8 Su	0152	5.5	168		23 M	0227	5.9	180	
	0710	1.1	34			1241	6.1	186			0814	1.0	30			0814	0.4	12			0821	1.0	30			0844	0.3	9	
	1326	5.6	171			1915	1.7	52			1413	6.2	189			1415	7.1	216			1404	6.1	186			1442	6.8	207	
	1936	2.0	61								2042	1.1	34			2047	-0.1	-3			2053	0.5	15			2119	-0.8	-24	
9 W	0129	6.1	186		24 Th	0048	6.5	198		9 Sa	0234	6.2	189		24 Su	0242	6.7	204		9 M	0242	5.7	174		24 Tu	0323	6.1	186	
	0804	0.9	27			0745	0.6	18			0859	0.8	24			0906	0.2	6			0907	0.9	27			0935	0.2	6	
	1419	5.9	180			1347	6.7	204			1451	6.5	198			1504	7.5	229			1446	6.4	195			1530	7.0	213	
	2028	1.6	49			2014	1.0	30			2125	0.7	21			2137	-0.6	-18			2136	0.2	6			2207	-1.1	-34	
10 Th	0224	6.3	192		25 F	0158	6.8	207		10 Su	0316	6.4	195		25 M	0335	6.9	210		10 Tu	0326	6.0	183		25 W	0412	6.2	189	
	0851	0.7	21			0839	0.2	6			0940	0.7	21			0954	0.1	3			0949	0.8	24			1022	0.2	6	
	1459	6.3	192			1441	7.3	223			1526	6.8	207			1549	7.7	235			1525	6.7	204			1614	7.0	213	
	2114	1.2	37			2107	0.3	9			2205	0.4	12			2224	-0.9	-27			2217	-0.2	-6			2253	-1.2	-37	
11 F	0308	6.6	201		26 Sa	0257	7.3	223		11 M	0354	6.6	201		26 Tu	0423	7.0	213		11 W	0407	6.1	186		26 Th	0455	6.2	189	
	0934	0.5	15			0929	-0.1	-3			1018	0.7	21			1040	0.1	3			1029	0.7	21			1106	0.2	6	
	1533	6.7	204			1528	7.8	238			1558	7.1	216			1631	7.8	238			1602	6.9	210			1654	7.0	213	
	2155	0.9	27			2156	-0.3	-9			2242	0.2	6			2309	-1.1	-34			2257	-0.4	-12			2336	-1.2	-37	
12 Sa	0346	6.8	207		27 Su	0349	7.6	232		12 Tu	0429	6.7	204		27 W	0506	7.0	213		12 Th	0445	6.3	192		27 F	0533	6.2	189	
	1012	0.4	12			1015	-0.2	-6			1054	0.8	24			1123	0.3	9			1107	0.7	21			1148	0.3	9	
	1603	6.9	210			1612	8.1	247			1629	7.3	223			1710	7.7	235			1640	7.1	216			1732	6.9	210	
	2233	0.6	18			2242	-0.7	-21			2318	0.1	3			2353	-1.0	-30			2336	-0.5	-15						
13 Su	0420	7.0	213		28 M	0436	7.7	235		13 W	0503	6.8	207		28 Th	0548	6.8	207		13 F	0524	6.4	195		28 Sa	0017	-1.1	-34	
	1048	0.5	15			1100	-0.2	-6			1128	0.9	27			1206	0.5	15			1146	0.7	21			0610	6.1	186	
	1632	7.2	219			1652	8.2	250			1700	7.4	226			1749	7.5	229			1718	7.2	219			1229	0.5	15	
	2308	0.5	15			2327	-0.9	-27			2353	0.0	0													1808	6.8	207	
14 M	0452	7.0	213		29 Tu	0520	7.6	232		14 Th	0537	6.7	204		29 F	0036	-0.8	-24		14 Sa	0016	-0.6	-18		29 Su	0057	-0.8	-24	
	1122	0.6	18			1143	0.1	3			1202	1.1	34			0627	6.6	201			0603	6.4	195			0645	5.9	180	
	1659	7.3	223			1732	8.2	250			1734	7.5	229			1248	0.8	24			1226	0.8	24			1309	0.6	18	
	2342	0.4	12													1827	7.3	223			1759	7.2	219			1844	6.5	198	
15 Tu	0523	7.0	213		30 W	0011	-0.8	-24		15 F	0029	0.1	3		30 Sa	0119	-0.4	-12		15 Su	0058	-0.5	-15		30 M	0138	-0.5	-15</	

Suriname River Entrance, Surinam, 2019

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														
1 Tu	0043	6.5	198		16 W	0603	2.1	64		1 F	0207	6.3	192		16 Sa	0748	1.9	58		1 F	0032	5.8	177		16 Sa	0005	6.2	189
	0652	2.0	61			1219	6.8	207			0810	2.3	70			1402	7.2	219			0640	2.9	88			0615	2.4	73
	1307	6.9	210			1842	1.7	52			1423	6.7	204			2027	1.1	34			1256	6.0	183			1233	6.6	201
	1927	1.7	52								2044	1.7	52								1925	2.4	73			1903	1.7	52
2 W	0140	6.7	204		17 Th	0059	6.7	204		2 Sa	0257	6.5	198		17 Su	0244	7.1	216		2 Sa	0145	6.0	183		17 Su	0127	6.6	201
	0745	1.9	58			0707	1.9	58			0900	2.0	61			0850	1.4	43			0751	2.6	79			0736	2.0	61
	1358	7.1	216			1322	7.1	216			1510	7.0	213			1502	7.7	235			1404	6.3	192			1350	7.0	213
	2018	1.4	43			1945	1.3	40			2129	1.5	46			2123	0.7	21			2026	2.1	64			2013	1.3	40
3 Th	0230	6.8	207		18 F	0201	7.0	213		3 Su	0340	6.8	207		18 M	0338	7.6	232		3 Su	0241	6.3	192		18 M	0231	7.1	216
	0833	1.7	52			0807	1.6	49			0943	1.7	52			0944	0.9	27			0846	2.2	67			0839	1.4	43
	1444	7.3	223			1420	7.5	229			1552	7.3	223			1555	8.2	250			1456	6.7	204			1451	7.6	232
	2103	1.2	37			2042	0.9	27			2209	1.2	37			2213	0.3	9			2113	1.7	52			2109	0.7	21
4 F	0313	6.9	210		19 Sa	0257	7.3	223		4 M	0418	7.1	216		19 Tu	0425	8.0	244		4 M	0325	6.7	204		19 Tu	0323	7.7	235
	0915	1.6	49			0901	1.2	37			1021	1.4	43			1032	0.5	15			0929	1.8	55			0931	0.8	24
	1525	7.4	226			1513	7.9	241			1630	7.5	229			1643	8.5	259			1538	7.1	216			1542	8.1	247
	2143	1.1	34			2134	0.5	15		●	2245	1.0	30		○	2258	0.0	0			2152	1.3	40			2156	0.3	9
5 Sa	0353	7.1	216		20 Su	0348	7.7	235		5 Tu	0454	7.3	223		20 W	0509	8.3	253		5 Tu	0401	7.1	216		20 W	0407	8.2	250
	0954	1.5	46			0952	0.9	27			1057	1.2	37			1116	0.2	6			1006	1.4	43			1016	0.3	9
	1604	7.6	232			1603	8.2	250			1706	7.7	235			1727	8.6	262			1615	7.5	229			1627	8.5	259
	2221	1.0	30			2223	0.2	6			2320	0.9	27			2341	-0.1	-3			2226	1.0	30		○	2238	0.1	3
6 Su	0431	7.2	219		21 M	0436	7.9	241		6 W	0528	7.4	226		21 Th	0551	8.4	256		6 W	0434	7.4	226		21 Th	0448	8.5	259
	1032	1.4	43			1041	0.7	21			1131	1.1	34			1159	0.1	3			1040	1.0	30			1058	-0.1	-3
	1641	7.6	232			1652	8.4	256			1741	7.8	238			1810	8.6	262			1648	7.8	238			1709	8.6	262
	2258	0.9	27		○	2311	0.0	0			2353	0.8	24							●	2258	0.8	24			2318	0.0	0
7 M	0507	7.2	219		22 Tu	0523	8.1	247		7 Th	0601	7.5	229		22 F	0022	0.1	3		7 Th	0506	7.7	235		22 F	0526	8.6	262
	1108	1.3	40			1128	8.5	259			1206	1.0	30			0631	8.3	253			1112	0.7	21			1137	-0.2	-6
	1718	7.7	235			1739	8.5	259			1815	7.8	238			1241	0.2	6			1721	7.9	241			1748	8.6	262
	2334	0.9	27			2356	0.0	0							1852	8.3	253			2330	0.7	21			2355	0.1	3	
8 Tu	0543	7.2	219		23 W	0608	8.1	247		8 F	0027	0.8	24		23 Sa	0102	0.4	12		8 F	0536	7.9	241		23 Sa	0603	8.5	259
	1145	1.3	40			1214	0.5	15			0634	7.5	229			0711	8.1	247			1143	0.6	18			1215	0.0	0
	1755	7.6	232			1825	8.4	256			1241	1.0	30			1322	0.5	15			1753	8.0	244			1826	8.3	253
											1851	7.7	235			1934	7.9	241										
9 W	0011	1.0	30		24 Th	0042	0.2	6		9 Sa	0102	1.0	30		24 Su	0142	0.9	27		9 Sa	0001	0.6	18		24 Su	0032	0.5	15
	0620	7.2	219			0654	8.0	244			0710	7.5	229			0751	7.7	235			0607	7.9	241			0639	8.3	253
	1223	1.4	43			1301	0.6	18			1317	1.0	30			1405	0.9	27			1216	0.5	15			1253	0.3	9
	1833	7.5	229			1912	8.1	247			1928	7.5	229			2017	7.4	226			1826	8.0	244			1904	7.9	241
10 Th	0049	1.1	34		25 F	0128	0.5	15		10 Su	0139	1.2	37		25 M	0224	1.4	43		10 Su	0033	0.7	21		25 M	0108	0.9	27
	0658	7.1	216			0739	7.7	235			0748	7.3	223			0834	7.2	219			0640	7.9	241			0716	7.9	241
	1302	1.5	46			1348	0.9	27			1358	1.2	37			1451	1.4	43			1250	0.6	18			1332	0.7	21
	1913	7.3	223			2000	7.7	235			2010	7.3	223			2105	6.8	207			1901	7.8	238			1943	7.3	223
11 F	0129	1.3	40		26 Sa	0215	1.0	30		11 M	0220	1.4	43		26 Tu	0311	2.0	61		11 M	0108	0.9	27		26 Tu	0146	1.5	46
	0739	6.9	210			0827	7.4	226			0830	7.1	216			0923	6.7	204			0715	7.8	238			0755	7.3	223
	1345	1.6	49			1438	1.2	37			1444	1.4	43			1544	1.9	58			1328	0.7	21			1413	1.3	40
	1956	7.1	216			2051	7.2	219			2058	7.0	213		○	2200	6.2	189			1941	7.5	229			2026	6.7	204
12 Sa	0212	1.5	46		27 Su	0305	1.5	46		12 Tu	0308	1.8	55		27 W	0407	2.5	76		12 Tu	0146	1.2	37		27 W	0228	2.0	61
	0824	6.8	207			0918	7.0	213			0921	6.9	210			1022	6.3	192			0755	7.5	229			0839	6.8	207
	1432	1.8	55			1533	1.6	49			1539	1.7	52			1650	2.3	70			1412	1.0	30			1501	1.9	58
	2045	6.9	210		●	2147	6.8	207		○	2156	6.6	201			2310	5.9	180			2026	7.1	216			2117	6.2	189
13 Su	0300	1.8	55		28 M	0359	1.9	58		13 W	0406	2.1	64		28 Th	0518	2.8	85		13 W	0232	1.7	52		28 Th	0321	2.6	79
	0914	6.7	204			1014	6.7	204			1022	6.7	204			1136												

Suriname River Entrance, Surinam, 2019

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 M	0215	6.3	192	16 Tu	0211	7.2	219	1 W	0219	6.8	207	16 Th	0232	7.7	235	1 Sa	0255	7.6	232	16 Su	0327	7.8	238
	0823	2.2	67		0822	1.3	40		0829	1.7	52		0846	0.8	24		0909	0.9	27		0945	0.7	21
	1432	6.6	201		1433	7.5	229		1438	7.0	213		1457	7.7	235		1520	7.5	229		1556	7.4	226
	2046	1.8	55		2047	0.8	24		2047	1.4	43		2104	0.8	24		2124	1.1	34		2157	1.2	37
2 Tu	0258	6.8	207	17 W	0300	7.8	238	2 Th	0257	7.3	223	17 F	0315	8.0	244	2 Su	0333	7.9	241	17 M	0406	7.8	238
	0905	1.7	52		0912	0.7	21		0908	1.2	37		0929	0.4	12		0949	0.5	15		1025	0.7	21
	1514	7.1	216		1522	8.0	244		1516	7.4	226		1540	7.9	241		1600	7.7	235		1635	7.4	226
	2125	1.4	43		2132	0.5	15		2123	1.1	34		2144	0.7	21		2203	0.9	27		2235	1.2	37
3 W	0334	7.2	219	18 Th	0343	8.2	250	3 F	0332	7.7	235	18 Sa	0354	8.2	250	3 M	0412	8.1	247	18 Tu	0444	7.8	238
	0942	1.2	37		0955	0.2	6		0943	0.8	24		1009	0.3	9		1029	0.3	9		1103	0.7	21
	1550	7.5	229		1605	8.3	253		1552	7.7	235		1619	7.9	241		1641	7.8	238		1712	7.3	223
	2159	1.0	30		2213	0.3	9		2157	0.9	27		2222	0.7	21		2243	0.8	24		2313	1.3	40
4 Th	0406	7.6	232	19 F	0422	8.5	259	4 Sa	0405	8.0	244	19 Su	0431	8.3	253	4 Tu	0452	8.2	250	19 W	0522	7.7	235
	1014	0.8	24		1035	0.0	0		1017	0.4	12		1047	0.2	6		1111	0.2	6		1141	0.9	27
	1623	7.8	238		1645	8.4	256		1627	7.9	241		1657	7.8	238		1723	7.8	238		1750	7.2	219
	2230	0.8	24		2250	0.3	9		2231	0.7	21		2258	0.8	24		2324	0.9	27		2351	1.4	43
5 F	0437	7.9	241	20 Sa	0459	8.6	262	5 Su	0438	8.2	250	20 M	0506	8.2	250	5 W	0534	8.2	250	20 Th	0601	7.6	232
	1046	0.5	15		1112	-0.1	-3		1052	0.2	6		1123	0.4	12		1154	0.3	9		1219	1.0	30
	1655	8.0	244		1722	8.3	253		1702	8.0	244		1733	7.6	232		1807	7.7	235		1830	7.0	213
	2301	0.6	18		2326	0.4	12		2305	0.7	21		2334	1.0	30								
6 Sa	0507	8.1	247	21 Su	0534	8.5	259	6 M	0513	8.3	253	21 Tu	0542	8.0	244	6 Th	0609	1.0	30	21 F	0631	1.6	49
	1118	0.3	9		1148	0.0	0		1128	0.2	6		1200	0.6	18		0619	8.1	247		0641	7.3	223
	1727	8.1	247		1759	8.0	244		1739	7.9	241		1810	7.4	226		1241	0.5	15		1300	1.3	40
	2332	0.6	18						2341	0.8	24						1855	7.4	226		1911	6.8	207
7 Su	0539	8.2	250	22 M	0601	0.7	21	7 Tu	0549	8.2	250	22 W	0610	1.3	40	7 F	0658	1.3	40	22 Sa	0724	1.8	55
	1151	0.2	6		0609	8.2	250		1207	0.2	6		0619	7.7	235		0709	7.8	238		0724	7.1	216
	1801	8.1	247		1225	0.3	9		1819	7.8	238		1238	0.9	27		1332	0.8	24		1344	1.5	46
					1835	7.7	235						1849	7.0	213		1948	7.2	219		1956	6.6	201
8 M	0612	8.2	250	23 Tu	0644	7.8	238	8 W	0629	8.0	244	23 Th	0659	7.3	223	8 Sa	0805	7.4	226	23 Su	0812	6.8	207
	1226	0.3	9		1302	0.8	24		1250	0.5	15		1319	1.3	40		1430	1.2	37		0812	6.8	207
	1837	7.9	241		1913	7.2	219		1903	7.4	226		1931	6.7	204		2048	6.9	210		1432	1.8	55
																					2046	6.5	198
9 Tu	0648	8.0	244	24 W	0722	7.3	223	9 Th	0715	7.7	235	24 F	0743	6.9	210	9 Su	0909	7.0	213	24 M	0906	6.6	201
	1305	0.5	15		1342	1.3	40		1338	0.9	27		1406	1.7	52		1534	1.5	46		0906	6.6	201
	1918	7.5	229		1955	6.7	204		1954	7.0	213		2021	6.3	192		2155	6.7	204		1525	2.0	61
																					2142	6.4	195
10 W	0730	7.7	235	25 Th	0806	6.8	207	10 F	0809	7.2	219	25 Sa	0836	6.5	198	10 M	1020	6.8	207	25 Tu	1005	6.4	195
	1350	0.9	27		1429	1.8	55		1436	1.3	40		1501	2.1	64		1643	1.6	49		1624	2.1	64
	2005	7.1	216		2045	6.2	189		2056	6.6	201		2120	6.1	186		2304	6.7	204		2241	6.4	195
11 Th	0819	7.2	219	26 F	0900	6.3	192	11 Sa	0916	6.8	207	26 Su	0940	6.2	189	11 Tu	1133	6.8	207	26 W	1108	6.4	195
	1445	1.4	43		1529	2.3	70		1546	1.7	52		1607	2.3	70		1751	1.7	52		1724	2.1	64
	2104	6.6	201		2151	5.8	177		2211	6.4	195		2230	6.0	183						2341	6.5	198
12 F	0923	6.7	204	27 Sa	1014	5.9	180	12 Su	1037	6.6	201	27 M	1054	6.1	186	12 W	1240	6.9	210	27 Th	1210	6.5	198
	1555	1.8	55		1647	2.6	79		1707	1.8	55		1718	2.3	70		1853	1.6	49		1822	2.0	61
	2220	6.2	189		2315	5.7	174		2332	6.5	198		2339	6.1	186								
13 Sa	0429	2.5	76	28 Su	0526	3.0	91	13 M	0545	2.2	67	28 Tu	0552	2.5	76	13 Th	0726	1.4	43	28 F	0655	1.8	55
	1047	6.4	195		1141	5.8	177		1200	6.7	204		1204	6.2	189		1338	7.0	213		1308	6.7	204
	1722	2.0	61		1810	2.5	76		1823	1.7	52		1822	2.2	67		1947	1.4	43		1917	1.8	55
	2350	6.3	192																				
14 Su	0602	2.4	73	29 M	0646	2.7	82	14 Tu	0658	1.8	55	29 W	0653	2.2	67	14 F	0818	1.1	34	29 Sa	0748	1.4	43
	1218	6.6	201		1257	6.1	186		1311	7.0	213		1304	6.5	198		1429	7.2	219		1401	6.9	210
	1846	1.7	52		1916	2.2	67		1926	1.4	43		1916	1.9	58		2034	1.3	40		2007	1.6	49
15 M	0721	1.9	58	30 Tu	0744	2.2	67	15 W	0757	1.2	37	30 Th	0744	1.7	52	15 Sa	0903	0.9	27	30 Su	0838	1.0	30
	1334	7.0	213		1353	6.5	198		1408	7.4	226		1354	6.9	210		1514	7.3	223		1451	7.2	219
	1954	1.3	40		2006	1.8	55		2019	1.1	34		2003	1.6	49		2117	1.2	37		2055	1.3	40
									31 F	0214	7.2	219											
										0828	1.3	40											
										1439	7.2	219											
										2045	1.3	40											

Time meridian 52° 30' 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.

Suriname River Entrance, Surinam, 2019

Times and Heights of High and Low Waters

July				August				September															
Time	Height			Time	Height			Time	Height			Time	Height										
	h	m	cm	h	m	cm	h	m	cm	h	m	cm	h	m	cm								
1 M	0306	7.7	235	16 Tu	0349	7.4	226	1 Th	0429	8.2	250	16 F	0453	7.6	232	1 Su	0547	8.6	262				
	0926	0.7	21		1008	1.1	34		1048	0.2	6		1106	1.0	30		1158	0.0	0				
	1538	7.5	229		1618	7.0	213		1700	7.9	241		1714	7.4	226		1808	8.5	259				
	2142	1.1	34		2219	1.5	46		2305	0.6	18		2318	1.1	34		2358	0.6	18				
2 Tu	0352	8.0	244	17 W	0429	7.5	229	2 F	0517	8.4	256	17 Sa	0528	7.7	235	2 M	0018	0.0	0	17 Tu	0608	7.9	241
	1012	0.4	12		1047	1.0	30		1134	0.1	3		1139	0.9	27		0630	8.5	259				
	1625	7.6	232		1656	7.1	216		1746	8.1	247		1747	7.5	229		1239	0.3	9				
	2228	0.9	27		2258	1.4	43		2352	0.5	15		2352	1.0	30		1849	8.3	253				
3 W	0438	8.2	250	18 Th	0508	7.6	232	3 Sa	0604	8.4	256	18 Su	0602	7.7	235	3 Tu	0101	0.3	9	18 W	0031	0.6	18
	1059	0.3	9		1124	1.0	30		1220	0.2	6		1213	0.9	27		0713	8.1	247				
	1711	7.7	235		1733	7.2	219		1831	8.1	247		1820	7.5	229		1321	0.7	21				
	2314	0.9	27		2336	1.3	40		1916	7.9	241		1930	7.9	241		1930	7.9	241				
4 Th	0525	8.2	250	19 F	0546	7.6	232	4 Su	0039	0.5	15	19 M	0027	0.9	27	4 W	0144	0.6	18	19 Th	0108	0.8	24
	1145	0.3	9		1201	1.0	30		0651	8.3	253		0637	7.7	235		0757	7.6	232				
	1758	7.8	238		1810	7.2	219		1305	0.4	12		1247	1.0	30		1404	1.2	37				
									1916	7.9	241		1854	7.5	229		2014	7.5	229				
5 F	0002	0.9	27	20 Sa	0014	1.3	40	5 M	0126	0.6	18	20 Tu	0102	1.0	30	5 Th	0231	1.1	34	20 F	0149	1.1	34
	0613	8.2	250		0624	7.5	229		0738	8.0	244		0713	7.5	229		0845	7.0	213				
	1234	0.4	12		1239	1.1	34		1352	0.7	21		1322	1.2	37		1451	1.8	55				
	1847	7.7	235		1848	7.2	219		2003	7.7	235		1930	7.4	226		2102	6.9	210				
6 Sa	0052	1.0	30	21 Su	0053	1.4	43	6 Tu	0215	0.9	27	21 W	0141	1.1	34	6 F	0324	1.7	52	21 Sa	0238	1.4	43
	0703	8.0	244		0703	7.4	226		0828	7.5	229		0752	7.3	223		0940	6.4	195				
	1323	0.6	18		1318	1.2	37		1440	1.2	37		1401	1.4	43		1546	2.3	70				
	1937	7.5	229		1927	7.1	216		2052	7.3	223		2010	7.2	219		2200	6.5	198				
7 Su	0144	1.1	34	22 M	0133	1.5	46	7 W	0307	1.3	40	22 Th	0224	1.4	43	7 Sa	0428	2.1	64	22 Su	0341	1.8	55
	0757	7.7	235		0744	7.2	219		0921	7.1	216		0837	7.0	213		1049	6.0	183				
	1416	0.9	27		1358	1.4	43		1532	1.7	52		1445	1.7	52		1656	2.7	82				
	2031	7.3	223		2009	6.9	210		2146	7.0	213		2056	6.9	210		2312	6.1	186				
8 M	0240	1.4	43	23 Tu	0217	1.6	49	8 Th	0405	1.6	49	23 F	0314	1.6	49	8 Su	0545	2.4	73	23 M	0502	2.0	61
	0853	7.3	223		0829	7.0	213		1021	6.6	201		0930	6.6	201		1209	5.8	177				
	1511	1.3	40		1443	1.6	49		1630	2.1	64		1538	2.1	64		1817	2.8	85				
	2127	7.1	216		2054	6.8	207		2245	6.7	204		2152	6.7	204		1931	2.6	79				
9 Tu	0340	1.6	49	24 W	0305	1.8	55	9 F	0509	1.9	58	24 Sa	0415	1.9	58	9 M	0033	6.1	186	24 Tu	0629	1.9	58
	0954	7.0	213		0919	6.8	207		1127	6.3	192		1034	6.4	195		0702	2.3	70				
	1611	1.6	49		1532	1.9	58		1735	2.4	73		1644	2.3	70		1324	6.0	183				
	2228	6.9	210		2145	6.7	204		2351	6.5	198		2301	6.5	198		1931	2.6	79				
10 W	0444	1.7	52	25 Th	0400	1.9	58	10 Sa	0618	2.0	61	25 Su	0529	1.9	58	10 Tu	0143	6.3	192	25 W	0117	6.9	210
	1059	6.8	207		1015	6.6	201		1237	6.2	189		1151	6.3	192		0805	2.1	64				
	1713	1.8	55		1627	2.1	64		1843	2.4	73		1801	2.3	70		1422	6.3	192				
	2330	6.9	210		2243	6.6	201										2027	2.2	67				
11 Th	0549	1.7	52	26 F	0502	1.9	58	11 Su	0058	6.5	198	26 M	0018	6.6	201	11 W	0237	6.7	204	26 Th	0221	7.4	226
	1205	6.6	201		1118	6.5	198		0724	2.0	61		0646	1.8	55		0854	1.7	52				
	1815	1.9	58		1729	2.1	64		1342	6.3	192		1308	6.5	198		1506	6.7	204				
					2345	6.6	201		1946	2.3	70		1916	2.1	64		2112	1.8	55				
12 F	0031	6.9	210	27 Sa	0608	1.9	58	12 M	0159	6.6	201	27 Tu	0131	6.9	210	12 Th	0321	7.1	216	27 F	0314	8.0	244
	0652	1.7	52		1225	6.5	198		0822	1.8	55		0756	1.4	43		0934	1.4	43				
	1307	6.6	201		1834	2.1	64		1437	6.5	198		1414	6.9	210		1544	7.1	216				
	1914	1.9	58						2040	2.1	64		2021	1.6	49		2150	1.4	43				
13 Sa	0128	7.0	213	28 Su	0049	6.8	207	13 Tu	0251	6.9	210	28 W	0234	7.4	226	13 F	0358	7.4	226	28 Sa	0401	8.4	256
	0749	1.5	46		0713	1.6	49		0911	1.6	49		0855	0.9	27		1009	1.1	34				
	1403	6.7	204		1330	6.7	204		1523	6.7	204		1510	7.4	226		1617	7.4	226				
	2007	1.9	58		1936	1.9	58		2126	1.8	55		2117	1.1	34		2223	1.0	30				
14 Su	0219	7.1	216	29 M	0150	7.2	219	14 W	0336	7.2	219	29 Th	0328	7.9	241	14 Sa	0432	7.7	235	29 Su	0444	8.6	262
	0840	1.4	43		0813	1.2	37		0953	1.3	40		0946	0.4	12		1041	0.9	27				
	1453	6.8	207		1429	7.0	213		1603	7.0	213		1559	7.9	241		1648	7.7	235				
	2055	1.7	52		2034	1.6	49		2207	1.5	46		2206	0.6	18		2255	0.8	24				
15 M	0306	7.3	223	30 Tu	0247	7.5	229	15 Th	0416	7.4	226	30 F	0417	8.4	256	15 Su	0504	7.9	241	30 M	0525	8.6	262
	0926	1.2	37		0908	0.9	27		1031	1.1	34		1033	0.1	3		1112	0.7	21				
	1537	6.9	210		1523	7.4	226		1640	7.2	219		1644	8.3	253		1719	7.8	238				
	2139	1.6	49		2128	1.2	37		2243	1.3	40		2252	0.2	6		2327	0.6	18				
			31 W	0339	7.9	241				31 Sa	0503	8.6	262										
				0959	0.5	15					1116	0.0	0										
			1613	7.7	235				1726	8.5	259												
			2217	0.9	27				2335	0.0	0												

Time meridian 52° 30' 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.

Suriname River Entrance, Surinam, 2019

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 Tu	0604	8.4	256		16 W	0540	7.9	241		1 F	0045	0.6	18		16 Sa	0024	0.5	15		1 Su	0104	1.2	37											
	1210	0.4	12			1144	0.8	24			0656	7.3	223			0637	7.4	226			0716	6.8	207		16 M	0104	0.7	21						
	1818	8.4	256			1750	8.1	247			1256	1.5	46			1238	1.3	40			1316	1.9	58			1927	7.0	213		0718	7.3	223		
									1905	7.5	229		1848	7.7	235													1321	1.4	43		1934	7.5	229
2 W	0033	0.1	3		17 Th	0004	0.4	12		2 Sa	0126	1.2	37		17 Su	0110	0.9	27		2 M	0149	1.6	49		17 Tu	0157	1.0	30						
	0644	8.0	244			0615	7.8	238			0739	6.7	204			0725	7.0	213			0804	6.4	195			0813	7.0	213						
	1248	0.8	24			1217	1.0	30			1339	2.0	61			1327	1.7	52			1406	2.3	70			1419	1.7	52						
	1856	8.0	244		1825	7.9	241		1950	6.9	210		1939	7.3	223		2018	6.6	201		2033	7.2	219											
3 Th	0113	0.6	18		18 F	0041	0.6	18		3 Su	0214	1.7	52		18 M	0204	1.3	40		3 Tu	0243	2.0	61		18 W	0257	1.4	43						
	0725	7.4	226			0653	7.4	226			0830	6.2	189			0822	6.7	204			0901	6.1	186			0916	6.8	207						
	1328	1.4	43			1255	1.3	40			1432	2.5	76			1427	2.1	64			1507	2.6	79			1526	1.9	58						
	1936	7.5	229		1904	7.6	232		2045	6.3	192		2041	6.9	210		2120	6.2	189		2141	6.9	210											
4 F	0156	1.1	34		19 Sa	0124	0.9	27		4 M	0314	2.2	67		19 Tu	0311	1.6	49		4 W	0346	2.3	70		19 Th	0404	1.6	49						
	0810	6.8	207			0738	7.0	213			0937	5.8	177			0933	6.4	195			1008	6.0	183			1024	6.7	204						
	1411	2.0	61			1340	1.7	52			1542	2.9	88			1542	2.3	70			1618	2.7	82			1639	1.9	58						
	2022	6.9	210		1951	7.2	219		2158	5.9	180		2158	6.6	201		2232	6.1	186		2254	6.8	207											
5 Sa	0246	1.7	52		20 Su	0215	1.4	43		5 Tu	0431	2.5	76		20 W	0428	1.8	55		5 Th	0456	2.4	73		20 F	0513	1.7	52						
	0902	6.2	189			0833	6.6	201			1059	5.7	174			1054	6.4	195			1118	6.1	186			1133	6.8	207						
	1505	2.5	76			1437	2.2	67			1710	3.0	91			1707	2.2	67			1731	2.6	79			1751	1.7	52						
	2118	6.3	192		2051	6.8	207		2325	5.9	180		2322	6.6	201		2344	6.1	186															
6 Su	0349	2.3	70		21 M	0322	1.8	55		6 W	0553	2.5	76		21 Th	0547	1.7	52		6 F	0602	2.3	70		21 Sa	0006	6.8	207						
	1012	5.8	177			0946	6.2	189			1217	5.9	180			1209	6.7	204			1221	6.3	192			0620	1.7	52						
	1618	2.9	88			1553	2.5	76			1829	2.7	82			1824	1.9	58			1835	2.3	70			1237	7.1	216						
	2235	5.9	180		2211	6.4	195													1856	1.5	46												
7 M	0511	2.6	79		22 Tu	0446	2.0	61		7 Th	0040	6.1	186		22 F	0037	6.9	210		7 Sa	0046	6.4	195		22 Su	0110	7.0	213						
	1139	5.7	174			1114	6.2	189			0659	2.2	67			0654	1.4	43			0659	2.0	61			0719	1.5	46						
	1749	3.0	91			1726	2.5	76			1317	6.4	195			1312	7.2	219			1314	6.7	204			1334	7.4	226						
				2342	6.5	198		1928	2.2	67		1927	1.3	40		1928	1.9	58		1953	1.1	34												
8 Tu	0005	5.9	180		23 W	0612	1.8	55		8 F	0137	6.5	198		23 Sa	0139	7.3	223		8 Su	0138	6.7	204		23 M	0206	7.2	219						
	0635	2.5	76			1236	6.6	201			0749	1.8	55			0750	1.1	34			0746	1.7	52			0812	1.4	43						
	1259	5.9	180			1848	2.0	61			1402	6.8	207			1404	7.7	235			1358	7.0	213			1424	7.6	232						
	1909	2.7	82					2013	1.7	52		2019	0.8	24		2013	1.4	43		2043	0.9	27												
9 W	0119	6.2	189		24 Th	0101	6.9	210		9 Sa	0221	6.9	210		24 Su	0231	7.7	235		9 M	0223	7.0	213		24 Tu	0255	7.3	223						
	0740	2.2	67			0722	1.4	43			0830	1.5	46			0838	0.8	24			0828	1.5	46			0858	1.2	37						
	1357	6.3	192			1340	7.2	219			1440	7.2	219			1450	8.1	247			1439	7.4	226			1509	7.8	238						
	2005	2.2	67		1952	1.4	43		2051	1.3	40		2105	0.4	12		2053	1.1	34		2128	0.7	21											
10 Th	0214	6.6	201		25 F	0203	7.4	226		10 Su	0259	7.3	223		25 M	0317	7.9	241		10 Tu	0303	7.3	223		25 W	0339	7.4	226						
	0827	1.8	55			0818	0.9	27			0906	1.2	37			0921	0.7	21			0907	1.2	37			0941	1.1	34						
	1440	6.8	207			1432	7.8	238			1515	7.6	232			1531	8.3	253			1517	7.7	235			1551	7.9	241						
	2048	1.7	52		2044	0.7	21		2126	0.9	27		2148	0.2	6		2132	0.7	21		2210	0.6	18											
11 F	0256	7.0	213		26 Sa	0254	7.9	241		11 M	0335	7.6	232		26 Tu	0358	8.0	244		11 W	0343	7.5	229		26 Th	0420	7.5	229						
	0906	1.4	43			0905	0.5	15			0939	0.9	27			1001	0.6	18			0945	1.0	30			1021	1.1	34						
	1516	7.2	219			1516	8.3	253			1547	7.9	241			1610	8.4	256			1554	8.0	244			1631	8.0	244						
	2124	1.2	37		2129	0.2	6		2159	0.6	18		2227	0.1	3		2211	0.5	15		2249	0.6	18											
12 Sa	0332	7.4	226		27 Su	0339	8.3	253		12 Tu	0408	7.8	238		27 W	0438	7.9	241		12 Th	0422	7.7	235		27 F	0459	7.4	226						
	0940	1.1	34			0947	0.2	6			1012	0.8	24			1039	0.7	21			1023	0.9	27			1100	1.2	37						
	1548	7.6	232			1557	8.6	262			1619	8.1	247			1648	8.4	256			1632	8.1	247			1709	7.9	241						
	2157	0.9	27		2210	-0.1	-3		2233	0.4	12		2306	0.2	6		2250	0.3	9		2327	0.7	21											
13 Su	0405	7.7	235		28 M	0421	8.4	256		13 W	0442	7.9	241		28 Th	0516	7.8	238		13 F	0501	7.7	235		28 Sa	0537	7.3	223						
	1012	0.8	24			1026	0.2	6			1045	0.8	24			1117	0.9	27			1103	0.9	27			1138	1.2	37						
	1619	7.9	241			1635	8.7	265			1652	8.2	250			1725	8.2	250			1712	8.2	250			1748	7.7	235						
	2228	0.6	18		2250	-0.2	-6		2307	0.3	9		2344	0.4	12		2332	0.3	9															
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Recife, Brazil, 2019

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	
1 Tu	0026	6.6	200	16 W	0545	2.3	70	1 F	0154	6.2	190	16 Sa	0108	6.6	200
	0656	2.0	60		1156	6.2	190		0808	2.3	70		0726	2.0	60
	1254	6.2	190		1813	2.3	70		1406	6.6	200		1330	6.9	210
	1917	2.0	60						2036	1.6	50		1956	1.3	40
2 W	0121	6.6	200	17 Th	0024	6.6	200	2 Sa	0234	6.6	200	17 Su	0206	7.2	220
	0745	2.0	60		0649	2.0	60		0847	2.0	60		0819	1.3	40
	1341	6.6	200		1254	6.6	200		1445	6.9	210		1423	7.5	230
	2004	1.6	50		1913	1.6	50		2109	1.3	40		2049	0.7	20
3 Th	0206	6.9	210	18 F	0124	6.9	210	3 Su	0308	6.9	210	18 M	0258	7.5	230
	0823	1.6	50		0743	1.6	50		0919	1.6	50		0906	0.7	20
	1421	6.9	210		1349	7.2	220		1519	7.2	220		1428	6.9	210
	2045	1.3	40		2008	1.0	30		2145	1.3	40		2136	0.0	0
4 F	0247	6.9	210	19 Sa	0217	7.2	220	4 M	0345	6.9	210	19 Tu	0345	8.2	250
	0900	1.6	50		0832	1.3	40		0953	1.3	40		0953	0.3	10
	1458	7.2	220		1438	7.5	230		1556	7.5	230		1600	8.9	270
	2121	1.3	40		2058	0.7	20		2215	1.0	30		2221	-0.3	-10
5 Sa	0323	6.9	210	20 Su	0308	7.9	240	5 Tu	0415	7.2	220	20 W	0428	8.2	250
	0934	1.3	40		0919	0.7	20		1024	1.3	40		1038	0.0	0
	1536	7.5	230		1524	8.2	250		1630	7.5	230		1647	8.9	270
	2158	1.0	30		2149	0.0	0		2249	1.0	30		2306	-0.3	-10
6 Su	0400	7.2	220	21 M	0358	8.2	250	6 W	0451	7.2	220	21 Th	0511	8.2	250
	1006	1.3	40		1006	0.7	20		1058	1.3	40		1121	0.3	10
	1609	7.5	230		1611	8.5	260		1704	7.5	230		1730	8.9	270
	2234	1.0	30		2236	0.0	0		2319	1.0	30		2353	0.0	0
7 M	0436	7.2	220	22 Tu	0445	8.2	250	7 Th	0524	7.2	220	22 F	0556	7.9	240
	1043	1.3	40		1053	0.3	10		1128	1.3	40		1204	0.3	10
	1649	7.5	230		1700	8.5	260		1739	7.5	230		1815	8.2	250
	2308	1.0	30		2323	0.0	0		2353	1.0	30				
8 Tu	0509	6.9	210	23 W	0532	7.9	240	8 F	0600	7.2	220	23 Sa	0038	0.7	20
	1115	1.3	40		1139	0.7	20		1200	1.3	40		0641	7.5	230
	1724	7.2	220		1751	8.5	260		1811	7.2	220		1253	1.0	30
	2343	1.3	40										1904	7.9	240
9 W	0551	6.9	210	24 Th	0011	0.0	0	9 Sa	0024	1.3	40	24 Su	0123	1.3	40
	1153	1.6	50		0619	7.9	240		0636	6.9	210		0726	6.9	210
	1802	7.2	220		1228	0.7	20		1234	1.6	50		1341	1.3	40
					1839	8.2	250		1851	6.9	210		1956	6.9	210
10 Th	0019	1.6	50	25 F	0104	0.7	20	10 Su	0100	1.6	50	25 M	0215	2.0	60
	0626	6.6	200		0709	7.2	220		0711	6.6	200		0817	6.6	200
	1228	2.0	60		1319	1.3	40		1309	2.0	60		1439	2.0	60
	1843	6.9	210		1932	7.5	230		1930	6.6	200		2054	6.2	190
11 F	0056	1.6	50	26 Sa	0158	1.3	40	11 M	0139	2.0	60	26 Tu	0317	2.6	80
	0708	6.2	190		0802	6.9	210		0756	6.2	190		0919	5.9	180
	1306	2.3	70		1415	1.6	50		1354	2.3	70		1553	2.6	80
	1923	6.6	200		2028	6.9	210		2017	6.2	190		2204	5.9	180
12 Sa	0138	2.0	60	27 Su	0258	1.6	50	12 Tu	0228	2.3	70	27 W	0438	3.0	90
	0754	6.2	190		0902	6.2	190		0851	5.9	180		1036	5.6	170
	1351	2.6	80		1519	2.0	60		1453	2.6	80		1723	2.6	80
	2008	6.2	190		2134	6.6	200		2121	5.9	180		2330	5.6	170
13 Su	0224	2.3	70	28 M	0408	2.3	70	13 W	0336	2.6	80	28 Th	0600	3.0	90
	0845	5.9	180		1008	5.9	180		0958	5.9	180		1158	5.6	170
	1443	2.6	80		1638	2.3	70		1611	2.6	80		1843	2.6	80
	2102	5.9	180		2247	6.2	190		2239	5.9	180				
14 M	0323	2.6	80	29 Tu	0523	2.6	80	14 Th	0502	2.6	80	14 Th	0300	2.6	80
	0945	5.6	170		1119	5.9	180		1113	5.9	180		0921	5.9	180
	1549	3.0	90		1754	2.3	70		1743	2.3	70		1545	2.6	80
	2208	5.9	180										2215	5.9	180
15 Tu	0434	2.6	80	30 W	0000	5.9	180	15 F	0000	6.2	190	15 F	0436	3.0	90
	1051	5.9	180		0630	2.6	80		0623	2.3	70		1049	5.9	180
	1704	2.6	80		1226	5.9	180		1228	6.2	190		1726	2.3	70
	2317	6.2	190		1900	2.3	70		1858	2.0	60		2345	5.9	180
				31 Th	0104	5.9	180								
					0724	2.3	70								
					1321	6.2	190								
					1953	2.0	60								
												31 Su	0109	5.6	170
													0724	2.6	80
													1321	6.2	190
													1953	2.0	60

Time meridian 45° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Recife, Brazil, 2019

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 M	0232	7.2	220		16 Tu	0319	7.2	220		1 Th	0351	8.2	250		16 F	0413	7.5	230						
	0851	1.0	30			0947	1.0	30			1009	0.0	0			1036	1.0	30						
	1458	7.5	230			1547	6.9	210			1619	7.9	240			1636	7.2	220		1 Su	1730	8.2	250	
	2109	1.0	30			2156	1.3	40			2228	0.7	20			2245	1.3	40			2339	0.3	10	
2 Tu	0317	7.5	230		17 W	0358	7.5	230		2 F	0438	8.5	260		17 Sa	0451	7.5	230		2 M	0553	8.5	260	
	0936	0.7	20			1023	1.0	30			1058	0.0	0			1106	1.0	30			1209	0.3	10	
	1547	7.9	240			1623	6.9	210			1706	7.9	240			1709	7.2	220			1815	7.9	240	
	2156	1.0	30			2232	1.3	40			2313	0.7	20			2315	1.3	40			1902	7.2	220	
3 W	0402	7.9	240		18 Th	0438	7.5	230		3 Sa	0524	8.5	260		18 Su	0523	7.5	230		3 Tu	0026	0.7	20	
	1023	0.3	10			1100	1.0	30			1147	0.0	0			1139	1.0	30			0641	7.9	240	
	1634	7.9	240			1700	6.9	210			1756	7.9	240			1745	7.2	220			1300	1.0	30	
	2243	1.0	30			2308	1.3	40			1845	7.5	230			2349	1.3	40			1902	7.2	220	
4 Th	0451	8.2	250		19 F	0513	7.5	230		4 Su	0002	0.7	20		19 M	0558	7.2	220		4 W	0115	1.3	40	
	1111	0.3	10			1136	1.3	40			0613	8.2	250			1209	1.3	40			0732	7.2	220	
	1723	7.9	240			1739	6.9	210			1238	0.3	10			1819	6.9	210			1353	1.6	50	
	2330	1.0	30			2345	1.6	50			1845	7.5	230			1856	6.6	200			1956	6.6	200	
5 F	0539	8.2	250		20 Sa	0554	7.2	220		5 M	0053	1.0	30		20 Tu	0021	1.6	50		5 Th	0213	1.6	50	
	1202	0.3	10			1211	1.3	40			0704	7.9	240			0636	6.9	210			0830	6.6	200	
	1813	7.5	230			1815	6.9	210			1330	1.0	30			1856	6.6	200			1453	2.3	70	
											1936	7.2	220			1856	6.6	200			2056	6.2	190	
6 Sa	0019	1.3	40		21 Su	0021	1.6	50		6 Tu	0147	1.3	40		21 W	0056	2.0	60		6 F	0326	2.3	70	
	0630	7.9	240			0632	6.9	210			0800	7.2	220			0711	6.6	200			0943	5.9	180	
	1256	0.7	20			1249	1.6	50			1426	1.6	50			1321	2.0	60			1609	2.6	80	
	1906	7.2	220			1856	6.6	200			2032	6.6	200			1938	6.2	190			2209	5.9	180	
7 Su	0113	1.3	40		22 M	0058	2.0	60		7 W	0249	2.0	60		22 Th	0138	2.3	70		7 Sa	0456	2.6	80	
	0724	7.5	230			0711	6.6	200			0902	6.9	210			0758	6.2	190			1106	5.6	170	
	1354	1.0	30			1326	2.0	60			1532	2.0	60			1406	2.3	70			1738	3.0	90	
	2004	6.9	210			1939	6.2	190			2136	6.2	190			2026	5.9	180			2332	5.9	180	
8 M	0213	1.6	50		23 Tu	0139	2.3	70		8 Th	0358	2.3	70		23 F	0228	2.6	80		8 Su	0615	2.3	70	
	0824	7.2	220			0756	6.2	190			1011	6.2	190			0856	5.9	180			1224	5.6	170	
	1458	1.6	50			1409	2.3	70			1647	2.3	70			1506	2.6	80			1847	2.6	80	
	2106	6.6	200			2024	5.9	180			2247	5.9	180			2128	5.6	170			2011	2.0	60	
9 Tu	0319	2.0	60		24 W	0226	2.6	80		9 F	0517	2.3	70		24 Sa	0341	2.6	80		9 M	0041	5.9	180	
	0932	6.9	210			0845	6.2	190			1126	6.2	190			1008	5.9	180			0717	2.3	70	
	1606	2.0	60			1500	2.6	80			1758	2.6	80			1626	3.0	90			1321	5.9	180	
	2209	6.2	190			2117	5.9	180			2356	5.9	180			2245	5.9	180			1936	2.3	70	
10 W	0430	2.0	60		25 Th	0323	2.6	80		10 Sa	0630	2.3	70		25 Su	0509	2.6	80		10 Tu	0132	6.2	190	
	1041	6.6	200			0943	5.9	180			1238	6.2	190			1128	5.9	180			0802	2.0	60	
	1715	2.0	60			1602	2.6	80			1900	2.3	70			1751	2.6	80			1402	6.2	190	
	2317	6.2	190			2219	5.9	180								2358	6.2	190			2011	2.0	60	
11 Th	0541	2.0	60		26 F	0432	2.6	80		11 Su	0058	6.2	190		26 M	0628	2.0	60		11 W	0209	6.9	210	
	1151	6.6	200			1051	5.9	180			0728	2.0	60			1239	6.2	190			0838	1.6	50	
	1819	2.0	60			1711	2.6	80			1334	6.2	190			1858	2.3	70			1436	6.6	200	
						2323	5.9	180			1951	2.3	70								2047	1.6	50	
12 F	0017	6.2	190		27 Sa	0543	2.6	80		12 M	0147	6.6	200		27 Tu	0100	6.6	200		12 Th	0247	7.2	220	
	0645	2.0	60			1156	6.2	190			0815	1.6	50			0728	1.3	40			0908	1.3	40	
	1251	6.6	200			1817	2.3	70			1417	6.6	200			1339	6.9	210			1506	6.9	210	
	1913	2.0	60								2030	2.0	60			1953	1.6	50			2115	1.3	40	
13 Sa	0111	6.6	200		28 Su	0024	6.2	190		13 Tu	0228	6.9	210		28 W	0156	7.2	220		13 F	0317	7.5	230	
	0739	1.6	50			0647	2.0	60			0856	1.3	40			0821	0.7	20			0938	1.0	30	
	1343	6.6	200			1258	6.6	200			1456	6.6	200			1428	7.5	230			1538	7.2	220	
	2000	2.0	60			1915	2.0	60			2104	1.6	50			2041	1.0	30			2147	1.0	30	
14 Su	0158	6.9	210		29 M	0119	6.9	210		14 W	0304	7.2	220		29 Th	0247	7.9	240		14 Sa	0351	7.5	230	
	0824	1.3	40			0743	1.6	50			0930	1.3	40			0908	0.3	10			1006	1.0	30	
	1428	6.9	210			1353	6.9	210			1528	6.9	210			1515	7.9	240			1608	7.5	230	
	2043	1.6	50			2006	1.6	50			2139	1.3	40			2126	0.7	20			2215	1.0	30	
15 M	0241	7.2	220		30 Tu	0211	7.2	220		15 Th	0341	7.5	230		30 F	0332	8.5	260		15 Su	0421	7.9	240	
	0906	1.3	40			0834	1.0	30			1002	1.0	30			0954	0.0	0			1036	1.0	30	
	1508	6.9	210			1445	7.5	230			1602	7.2	220			1602	8.2	250			1641	7.5	230	
	2119	1.6	50			2056	1.0	30			2209	1.3	40			2209	0.3	10			2247	1.0	30	
				31 W	0300	7.9	240		31 Sa	0417	8.9	270		31 Su	0417	8.9	270							
					0923	0.3	10			1041	-0.3	-10			1041	-0.3	-10							
					1532	7.9	240			1647	8.2	250			1647	8.2	250							
					2143	0.7	20	</																

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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									
1 Tu	0608	1.3	40	16 W	0521	1.3	40	1 F	0047	3.3	100	16 Sa	0136	3.6	110								
	1104	3.0	90		1106	3.0	90		0738	1.6	50		0704	1.3	40	1 F	0117	3.0	90				
	1826	1.3	40		1753	1.3	40		1234	3.3	100		1317	3.3	100	0634	1.6	50	16 Sa	0556	1.6	50	
	2343	3.3	100						1941	0.7	20		1921	0.3	10	1128	2.6	80	1300	2.6	80		
2 W	0704	1.3	40	17 Th	0015	3.3	100	2 Sa	0126	3.6	110	17 Su	0209	3.9	120	2 Sa	0102	3.3	100	17 Su	0136	3.9	120
	1200	3.0	90		0617	1.0	30		0815	1.3	40		0758	1.0	30		0715	1.6	50		0654	1.3	40
	1913	1.0	30		1217	3.0	90		1319	3.6	110		1438	3.9	120		1228	3.3	100		1317	3.3	100
3 Th	0039	3.6	110	18 F	0111	3.6	110	3 Su	0202	3.9	120	18 M	0241	4.3	130	3 Su	0121	3.6	110	18 M	0200	3.9	120
	0754	1.3	40		0713	1.0	30		0853	1.3	40		0847	1.0	30		0753	1.3	40		0743	1.0	30
	1247	3.3	100		1302	3.3	100		1400	3.9	120		1411	3.9	120		1309	3.6	110		1334	3.6	110
	1956	0.7	20		1934	0.3	10		2054	0.3	10		2100	-0.3	-10		1956	0.3	10		1958	0.0	0
4 F	0124	3.6	110	19 Sa	0158	3.9	120	4 M	0238	3.9	120	19 Tu	0308	4.3	130	4 M	0151	3.9	120	19 Tu	0223	3.9	120
	0836	1.3	40		0808	1.0	30		0924	1.3	40		0930	1.0	30		0824	1.0	30		0824	1.0	30
	1328	3.6	110		1341	3.6	110		1438	3.9	120		1441	3.9	120		1347	3.9	120		1354	3.9	120
	2038	0.3	10		2021	0.0	0		● 2128	0.3	10		○ 2147	-0.3	-10		2032	0.3	10		2045	-0.3	-10
5 Sa	0206	3.9	120	20 Su	0239	4.3	130	5 Tu	0309	3.9	120	20 W	0334	3.9	120	5 Tu	0217	3.9	120	20 W	0239	3.9	120
	0911	1.3	40		0900	1.0	30		0956	1.0	30		1011	1.0	30		0856	1.0	30		0906	0.7	20
	1408	3.9	120		1415	3.6	110		1509	4.3	130		1511	4.3	130		1419	4.3	130		1421	4.3	130
	● 2111	0.3	10		2109	0.0	0		2202	0.3	10		2234	0.0	0		2102	0.3	10		○ 2128	0.0	0
6 Su	0249	3.9	120	21 M	0317	4.3	130	6 W	0345	3.9	120	21 Th	0400	3.9	120	6 W	0249	3.9	120	21 Th	0300	3.9	120
	0951	1.3	40		0949	1.0	30		1030	1.3	40		1054	1.0	30		0926	1.0	30		0947	0.7	20
	1449	3.9	120		1453	3.9	120		1545	4.3	130		1549	4.3	130		1453	4.3	130		1454	4.3	130
	2149	0.3	10		○ 2200	-0.3	-10		2236	0.3	10		2319	0.3	10		● 2136	0.3	10		2211	0.0	0
7 M	0326	3.9	120	22 Tu	0354	3.9	120	7 Th	0413	3.9	120	22 F	0426	3.6	110	7 Th	0315	4.3	130	22 F	0323	3.9	120
	1024	1.3	40		1036	1.0	30		1100	1.3	40		1136	1.3	40		0956	1.0	30		1024	1.0	30
	1523	3.9	120		1524	3.9	120		1613	3.9	120		1621	4.3	130		1521	4.3	130		1526	4.6	140
	2224	0.3	10		2251	0.0	0		2309	0.7	20						2208	0.3	10		2258	0.3	10
8 Tu	0404	3.9	120	23 W	0424	3.9	120	8 F	0449	3.9	120	23 Sa	0008	0.7	20	8 F	0347	3.9	120	23 Sa	0354	3.6	110
	1058	1.3	40		1119	1.3	40		1134	1.3	40		0458	3.6	110		1026	1.0	30		1100	1.0	30
	1600	3.9	120		1602	3.9	120		1649	3.9	120		1213	1.3	40		1554	4.3	130		1602	4.3	130
	2300	0.7	20		2341	0.0	0		2349	0.7	20		1700	3.9	120		2241	0.7	20		2347	1.0	30
9 W	0441	3.6	110	24 Th	0500	3.6	110	9 Sa	0517	3.6	110	24 Su	0102	1.0	30	9 Sa	0411	3.9	120	24 Su	0421	3.6	110
	1138	1.6	50		1204	1.3	40		1206	1.6	50		0530	3.3	100		1053	1.0	30		1136	1.3	40
	1636	3.6	110		1641	3.9	120		1719	3.6	110		1009	1.6	50		1621	4.3	130		1641	3.9	120
	2341	0.7	20								1256		1.6	50	2317		0.7	20					
10 Th	0515	3.6	110	25 F	0036	0.3	10	10 Su	0036	1.0	30	25 M	0204	1.6	50	10 Su	0445	3.6	110	25 M	0039	1.3	40
	1215	1.6	50		0534	3.3	100		0554	3.3	100		0604	3.0	90		1123	1.3	40		0458	3.3	100
	1706	3.6	110		1254	1.6	50		1249	1.6	50		1011	1.6	50		1656	3.9	120		0939	1.3	40
					1719	3.9	120		1758	3.6	110		1217	2.0	60						1106	1.3	40
11 F	0026	1.0	30	26 Sa	0132	1.0	30	11 M	0138	1.3	40	26 Tu	0019	2.3	70	11 M	0000	1.0	30	26 Tu	0143	2.0	60
	0556	3.3	100		0608	3.3	100		0628	3.3	100		0311	2.0	60		0511	3.6	110		0532	3.0	90
	1300	2.0	60		1347	1.6	50		1353	1.6	50		0651	2.6	80		1153	1.3	40		0958	1.3	40
	1747	3.3	100		1804	3.6	110		1841	3.3	100		1049	1.6	50		1728	3.6	110		1804	3.3	100
12 Sa	0119	1.0	30	27 Su	0234	1.3	40	12 Tu	0245	1.3	40	27 W	0104	2.6	80	12 Tu	0102	1.3	40	27 W	0011	2.3	70
	0634	3.3	100		0653	3.0	90		0709	3.0	90		0428	2.0	60		0549	3.3	100		0253	2.3	70
	1354	2.0	60		1030	2.0	60		1502	1.6	50		0749	2.6	80		1300	1.6	50		0608	3.0	90
	1826	3.3	100		● 1158	2.3	70		○ 1941	3.0	90		1126	2.0	60		1808	3.3	100		1026	1.6	50
13 Su	0217	1.3	40	28 M	0341	1.6	50	13 W	0354	1.6	50	28 Th	0128	3.0	90	13 W	0215	1.6	50	28 Th	0054	2.6	80
	0717	3.0	90		0739	2.6	80		0804	2.6	80		0539	2.0	60		0623	3.0	90		0402	2.3	70
	1456	2.0	60		1106	2.0	60		1615	1.6	50		0915	2.6	80		1147	2.0	60		0702	2.6	80
	1919	3.0	90		1254	2.3	70		2253	3.0	90		1743	1.3	40		1426	1.6	50		1108	2.0	60
14 M	0319	1.3	40	29 Tu	0053	2.3	70	14 Th	0500	1.6	50	29 F	0102	2.0	60	14 Th	0336	1.6	50	29 F	0106	3.0	90
	0813	3.0	90		0451	1.6	50		0930	2.6	80		1311	2.0	60		1902	3.0	90		0509	2.0	60
	1558	1.6	50		0843	2.6	80		1724	1.3	40		1209	2.0	60		1902	3.0	90		0838	2.6	80
	● 2038	3.0	90		1206	2.3	70						1743	1.3	40		1553	1.3	40		1708	1.3	40
15 Tu	0421	1.3	40	30 W	0011	2.6	80	15 F	0054	3.3	100	30 Sa	0102	2.0	60	15 F	0024	3.0	90	30 Sa	0100	3.0	90
	0924	3.0	90		0556	1.6	50		0604	1.3	40		0428	2.0	60		0451	1.6	50		0606	2.0	60
	1658	1.6	50		1006	2.6	80		1247	3.0	90		0824	2.3	70		0824	2.3	70		1121	2.6	80
	2236	3.0	90		1804	1.3	40		1826	0.7	20		1039	2.3	70		1243	2.3	70		1806	1.0	30
			2353	3.0	90																		
			○ 1702	1.6	50																		
			1447	2.0	60																		
			● 1158	2.																			

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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	h	m	ft	cm				
1 M	0121	3.6	110	16 Tu	0147	3.6	110	1 Th	0228	3.9	120	16 F	0253	4.3	130	1 Su	0324	4.3	130	16 M	0338	4.3	130
	0808	0.3	10		0900	0.3	10		0934	-0.3	-10		0949	0.3	10		1053	0.0	0		1024	0.7	20
	1417	3.9	120		1438	3.9	120		1536	4.3	130		1528	4.3	130		1606	3.9	120		1558	4.3	130
	2047	1.0	30		2138	1.3	40		2204	1.0	30		2208	1.0	30		2304	1.0	30		2228	1.0	30
2 Tu	0158	3.6	110	17 W	0224	3.9	120	2 F	0304	3.9	120	17 Sa	0324	4.3	130	2 M	0402	4.3	130	17 Tu	0406	4.3	130
	0854	0.0	0		0939	0.3	10		1021	-0.3	-10		1021	0.3	10		1139	0.3	10		1054	0.7	20
	1500	4.3	130		1511	3.9	120		1606	4.3	130		1658	4.3	130		1636	3.6	110		1623	3.9	120
	2132	1.0	30		2208	1.3	40		2251	1.0	30		2238	1.3	40		2349	1.3	40		2249	1.0	30
3 W	0236	3.6	110	18 Th	0304	3.9	120	3 Sa	0343	3.9	120	18 Su	0400	3.9	120	3 Tu	0441	4.3	130	18 W	0441	3.9	120
	0943	0.0	0		1011	0.3	10		1108	0.0	0		1051	0.7	20		1230	1.0	30		1132	1.0	30
	1539	4.3	130		1511	3.9	120		1638	3.9	120		1626	3.9	120		1702	3.6	110		1654	3.6	110
	2219	1.0	30		2241	1.3	40		2338	1.3	40		2306	1.3	40		2306	1.3	40		2321	1.3	40
4 Th	0311	3.6	110	19 F	0345	3.9	120	4 Su	0419	3.9	120	19 M	0434	3.9	120	4 W	0036	1.3	40	19 Th	0513	3.6	110
	1034	0.0	0		1047	0.3	10		1200	0.3	10		1124	0.7	20		0519	3.9	120		1219	1.3	40
	1615	3.9	120		1623	3.9	120		1706	3.6	110		1658	3.9	120		1324	1.6	50		1723	3.6	110
	2309	1.3	40		2315	1.6	50		2351	1.6	50		2334	1.3	40		1739	3.3	100		2156*	1.6	50
5 F	0353	3.6	110	20 Sa	0419	3.9	120	5 M	0023	1.3	40	20 Tu	0504	3.6	110	5 Th	0136	1.6	50	20 F	0024	1.3	40
	1124	0.0	0		1121	0.7	20		0500	3.9	120		1156	1.0	30		0604	3.3	100		0556	3.6	110
	1656	3.9	120		1658	3.9	120		1253	0.7	20		1726	3.6	110		1006	2.0	60		1330	1.6	50
					2351	1.6	50		1739	3.3	100						1200	2.3	70		1758	3.3	100
6 Sa	0002	1.3	40	21 Su	0456	3.6	110	6 Tu	0113	1.6	50	21 W	0015	1.6	50	6 F	0136	1.6	50	21 Sa	0154	1.6	50
	0432	3.6	110		1154	1.0	30		0545	3.6	110		0543	3.6	110		0247	1.6	50		0647	3.3	100
	1217	0.3	10		1730	3.6	110		1353	1.3	40		1243	1.3	40		0700	3.0	90		1453	2.0	60
	1734	3.6	110						1811	3.0	90		1800	3.3	100		1021	2.3	70		1841	3.0	90
7 Su	0058	1.6	50	22 M	0036	1.6	50	7 W	0211	1.6	50	22 Th	0119	1.6	50	7 Sa	0058	2.0	60	22 Su	0311	1.3	40
	0513	3.6	110		0534	3.6	110		0630	3.3	100		0621	3.3	100		0358	1.6	50		0758	3.0	90
	1313	0.7	20		1238	1.0	30		1458	1.6	50		1354	1.6	50		0813	2.6	80		1002	2.6	80
	1811	3.3	100		1804	3.3	100		1856	3.0	90		1838	3.0	90		1041	2.6	80		1204	3.0	90
8 M	0156	1.6	50	23 Tu	0130	2.0	60	8 Th	2238	2.0	60	23 F	0236	1.6	50	8 Su	1336*	3.0	90	23 M	1609*	2.0	60
	0602	3.3	100		0609	3.3	100		0024	2.0	60		0709	3.0	90		0506	1.3	40		0000	2.3	70
	1415	1.0	30		1332	1.3	40		0315	1.6	50		1511	1.6	50		1351	3.0	90		0426	1.3	40
	1858	3.0	90		1845	3.3	100		0724	3.0	90		1100	2.3	70		1819	2.0	60		1245	3.3	100
9 Tu	2208	2.6	80	24 W	0230	2.0	60	9 F	1254*	2.3	70	24 Sa	0347	1.6	50	9 M	2238	2.6	80	24 Tu	1724	1.6	50
	0256	1.6	50		0700	3.0	90		0100	2.0	60		0823	3.0	90		0606	1.0	30		0023	2.6	80
	0658	3.3	100		1439	1.6	50		0424	1.6	50		1632	1.6	50		1323	3.3	100		0532	0.7	20
	1523	1.3	40		1930	3.0	90		0847	3.0	90		2032	2.6	80		1904	1.6	50		1315	3.6	110
10 W	1954	2.6	80	25 Th	0328	1.6	50	10 Sa	1117	2.6	80	25 Su	0453	1.3	40	10 Tu	2358	3.0	90	25 W	1824	1.3	40
	2243	2.6	80		0758	3.0	90		1339*	2.6	80		1245	3.0	90		0656	0.7	20		0043	3.0	90
	0000	2.6	80		1553	1.6	50		0532	1.3	40		1358	3.0	90		1313	3.6	110		0632	0.3	10
	0356	1.6	50		2032	3.0	90		1838	1.6	50		2256	2.6	80		1941	1.3	40		1345	3.9	120
11 Th	0802	3.0	90	26 F	0424	1.6	50	11 Su	0630	1.0	30	26 M	1743	1.6	50	11 W	2358	3.0	90	26 Th	1913	1.0	30
	1638	1.3	40		0923	3.0	90		1317	3.3	100		1843	1.3	40		0045	3.6	110		0106	3.6	110
	2100	2.6	80		1658	1.6	50		1924	1.6	50		2349	2.6	80		1336	3.6	110		0723	0.0	0
	0456	1.6	50		2158	3.0	90										2009	1.3	40		1408	4.3	130
12 F	0924	3.0	90	27 Sa	0519	1.3	40	12 M	0004	3.0	90	27 Tu	0553	1.0	30	12 Th	2358	3.0	90	27 F	1958	1.0	30
	1749	1.6	50		1147	3.0	90		0719	0.7	20		1323	3.6	110		0121	3.9	120		0130	3.9	120
	2219	2.6	80		1800	1.3	40		1323	3.6	110		1934	1.3	40		0813	0.3	10		0813	-0.3	-10
					2332	3.0	90		2004	1.3	40						2039	1.0	30		1428	4.3	130
13 Sa	0554	1.3	40	28 Su	0611	1.0	30	13 Tu	0054	3.6	110	28 W	0117	3.3	100	13 F	2039	1.0	30	28 Sa	2039	0.7	20
	1111	3.0	90		1302	3.6	110		0802	0.3	10		0743	0.0	0		0158	4.3	130		0200	4.3	130
	1851	1.3	40		1856	1.3	40		1354	3.6	110		1426	4.3	130		0847	0.3	10		0900	-0.3	-10
	2326	3.0	90						2039	1.3	40		2017	1.0	30		1432	4.3	130		1449	4.3	130
14 Su	0649	1.0	30	29 M	0030	3.3	100	14 W	0138	3.9	120	29 Th	0149	3.6	110	14 Sa	2108	1.0	30	29 Su	2117	0.7	20
	1228	3.3	100		0704	0.7	20		0839	0.3	10		0832	-0.3	-10		0232	4.3	130		0232	4.3	130
	1941	1.3	40		1347	3.9	120		1424	3.9	120		1454	4.3	130		0921	0.3	10		0949	0.0	0
					1947	1.0	30		2108	1.3	40		2100	1.0	30		1500	4.3	130		1508	3.9	120
15 M	0017	3.3	100	30 Tu	0113	3.3	100	15 Th	0213	3.9	120	30 F	0219	3.9	120	15 Su	2136	1.0	30	30 M	2156	0.7	20
	0738	0.7	20		0756	0.3	10		0913	0.3	10		0917	-0.3	-10		0304	4.3	130		0306	4.6	140
	1317	3.6	110		1426	3.9	120		1458	4.3	130		1517	4.3	130		0953	0.3	10		1034	0.3	10
	2021	1.3	40		2034	1.0	30		2139	1.0	30		2143	0.7	20		1528	4.3	130		1536	3.9	120
16 M	0102	3.6	110	31 W	0153	3.6	110	16 Th	0253	4.3	130	31 Sa	0253	4.3	130	16 Su	2202	1.0	30	31 M	2236	1.0	30
	0821	0.3	10		0845	0.0	0		1004	-0.3	-10		1004	-0.3	-10		0324	4.3	130		0338	4.3	130
	1400	3.9	120		1504	4.3	130		1543	4.3	130		2223	1.0	30		1606	3.9	120		1558	4.3	130
	2100	1.3	40		2119	1.0	30										2304	1.0	30		2228	1.0	30

Time meridian 45° 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 320 for the remaining tides on this day.

Rio de Janeiro, Brazil, 2019

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												
1 Tu	0345	4.3	130	16 W	0347	4.3	130	1 F	0453	3.6	110	16 Sa	0449	3.9	120	1 Su	0011	1.0	30	16 M	0004	0.3	10			
	1119	0.7	20		1036	1.0	30		1247	2.0	60		1202	1.6	50		0526	3.3	100		0532	3.6	110			
	1602	3.6	110		1556	3.9	120		1649	3.3	100		1636	3.6	110		1304	2.0	60		1251	1.6	50	1251	1.6	50
	2313	1.0	30		2232	0.7	20										1713	3.3	100		1704	3.6	110			
2 W	0419	4.3	130	17 Th	0417	3.9	120	2 Sa	0036	1.3	40	17 Su	0011	1.0	30	2 M	0106	1.0	30	17 Tu	0106	0.7	20			
	1208	1.3	40		1117	1.0	30		0539	3.3	100		0534	3.6	110		0615	3.3	100		0623	3.3	100			
	1634	3.6	110		1623	3.9	120		0923	2.3	70		1304	1.6	50		1400	2.3	70		1351	1.6	50	1351	1.6	50
	2356	1.3	40		2311	1.0	30		1113	2.3	70		1711	3.3	100		1800	3.3	100		1754	3.3	100			
3 Th	0502	3.9	120	18 F	0458	3.9	120	3 Su	1345*	2.3	70	18 M	0123	1.0	30	3 Tu	0208	1.3	40	18 W	0211	0.7	20			
	1302	1.6	50		1208	1.6	50		0632	3.0	90		0628	3.3	100		0713	3.0	90		0724	3.0	90			
	1704	3.3	100		1656	3.6	110		0951	2.3	70		1411	2.0	60		1500	2.3	70		1453	1.6	50	1453	1.6	50
	2143	1.3	40						1202	2.6	80		1800	3.0	90		1858	3.0	90		1853	3.0	90			
4 Fr	2345	1.3	40	19 Sa	0015	1.3	40	4 M	1453*	2.3	70	19 Tu	0236	1.0	30	4 W	0308	1.3	40	19 Th	0317	1.0	30			
	0058	1.3	40		0539	3.6	110		0254	1.3	40		1104	3.0	90		0826	3.0	90		1126	3.0	90			
	0551	3.3	100		1315	1.6	50		0747	2.6	80		1523	2.0	60		1604	2.0	60		1556	1.6	50	1556	1.6	50
	0939	2.3	70		1728	3.3	100		1006	2.6	80		1902	2.6	80		2019	2.6	80		2002	3.0	90			
5 Sa	1154	2.3	70	20 Su	0138	1.3	40	5 Tu	1226	2.6	80	20 W	0345	1.0	30	5 Th	0406	1.3	40	20 F	0423	1.0	30			
	1408*	2.3	70		0630	3.3	100		0358	1.3	40		1154	3.3	100		1002	3.0	90		1208	3.0	90			
	0008	1.6	50		1436	2.0	60		1217	3.0	90		1630	1.6	50		1702	1.6	50		1656	1.6	50	1656	1.6	50
	0211	1.6	50		1809	3.0	90		1704	2.0	60		2053	2.6	80		2208	3.0	90		2145	3.0	90			
6 Su	0645	3.0	90	21 M	0256	1.3	40	6 W	0456	1.0	30	21 Th	0451	0.7	20	6 F	0502	1.3	40	21 Sa	0526	1.0	30			
	0958	2.3	70		0758	3.0	90		1145	3.0	90		1230	3.3	100		1108	3.0	90		1223	3.0	90			
	1243*	2.6	80		0904	3.0	90		1754	1.6	50		1728	1.3	40		1751	1.6	50		1754	1.3	40	1754	1.3	40
	0023	2.0	60		1145	3.0	90		2308	3.0	90		2330	3.0	90		2319	3.3	100		2323	3.3	100			
7 M	0439	1.3	40	22 Tu	0404	1.0	30	7 Th	0547	1.0	30	22 F	0551	0.7	20	7 Sa	0553	1.0	30	22 Su	0626	1.0	30			
	1311	3.0	90		1221	3.3	100		1206	3.3	100		1251	3.6	110		1151	3.3	100		1209	3.0	90			
	1753	2.0	60		1702	1.6	50		1832	1.3	40		1819	1.3	40		1828	1.3	40		1849	1.0	30	1849	1.0	30
	2219	2.6	80		2358	2.6	80		2358	3.3	100															
8 Tu	0538	1.0	30	23 W	0509	0.7	20	8 F	0628	0.7	20	23 Sa	0004	3.3	100	8 Su	0008	3.3	100	23 M	0017	3.6	110			
	1243	3.3	100		1256	3.6	110		1234	3.6	110		0647	0.3	10		0636	1.0	30		0723	1.0	30			
	1836	1.6	50		1800	1.3	40		1904	1.0	30		1300	3.6	110		1224	3.6	110		1236	3.3	100	1236	3.3	100
	2341	3.0	90										1906	1.0	30		1904	1.0	30		1938	0.7	20			
9 W	0623	0.7	20	24 Th	0019	3.0	90	9 Sa	0038	3.6	110	24 Su	0038	3.6	110	9 M	0049	3.6	110	24 Tu	0104	3.6	110			
	1247	3.3	100		0609	0.3	10		0708	0.7	20		0739	0.7	20		0717	1.0	30		0815	1.0	30			
	1908	1.3	40		1321	3.9	120		1302	3.9	120		1311	3.6	110		1300	3.6	110		1309	3.3	100	1309	3.3	100
					1851	1.0	30		1938	1.0	30		1953	0.7	20		1941	0.7	20		2021	0.7	20			
10 Th	0024	3.6	110	25 F	0039	3.6	110	10 Su	0109	3.9	120	25 M	0113	3.9	120	10 Tu	0124	3.9	120	25 W	0147	3.9	120			
	0704	0.7	20		0704	0.0	0		0747	0.7	20		0828	0.7	20		0800	0.7	20		0904	1.0	30			
	1308	3.6	110		1338	3.9	120		1330	3.9	120		1338	3.6	110		1334	3.9	120		1351	3.6	110	1351	3.6	110
	1939	1.0	30		1934	1.0	30		2008	0.7	20		2036	0.7	20		2036	0.7	20		2015	0.3	10	2102	0.3	10
11 Fr	0102	3.9	120	26 Sa	0106	3.9	120	11 M	0147	4.3	130	26 Tu	0154	4.3	130	11 W	0202	3.9	120	26 Th	0226	3.9	120			
	0743	0.3	10		0756	0.0	0		0823	0.7	20		0915	0.7	20		0841	1.0	30		0951	1.3	40			
	1336	3.9	120		1353	3.9	120		1400	3.9	120		1406	3.6	110		1406	3.9	120		1426	3.9	120	1426	3.9	120
	2008	1.0	30		2013	0.7	20		2039	0.7	20		2115	0.3	10		2053	0.3	10		2053	0.3	10	2145	0.3	10
12 Sa	0138	3.9	120	27 Su	0138	4.3	130	12 Tu	0217	4.3	130	27 W	0234	4.3	130	12 Th	0243	4.3	130	27 F	0308	3.9	120			
	0817	0.3	10		0845	0.0	0		0900	0.7	20		1002	1.0	30		0924	1.0	30		1030	1.3	40			
	1402	4.3	130		1409	3.9	120		1430	4.3	130		1443	3.6	110		1441	3.9	120		1506	3.9	120	1506	3.9	120
	2038	0.7	20		2054	0.7	20		2109	0.3	10		2158	0.3	10		2132	0.3	10		2224	0.3	10			
13 Su	0208	4.3	130	28 M	0209	4.3	130	13 W	0254	4.3	130	28 Th	0313	3.9	120	13 F	0321	4.3	130	28 Sa	0353	3.9	120			
	0851	0.3	10		0932	0.3	10		0939	0.7	20		1051	1.3	40		1009	1.0	30		1106	1.6	50			
	1430	4.3	130		1438	3.9	120		1500	3.9	120		1515	3.6	110		1511	3.9	120		1547	3.9	120	1547	3.9	120
	2106	0.7	20		2134	0.7	20		2143	0.3	10		2239	0.7	20		2215	0.3	10		2302	0.3	10			
14 M	0243	4.3	130	29 Tu	0249	4.3	130	14 Th	0328	4.3	130	29 F	0358	3.9	120	14 Sa	0402	3.9	120	29 Su	0430	3.6	110			
	0924	0.3	10		1015	0.7	20		1021	1.0	30		1134	1.6	50		1100	1.3	40		1145	1.6	50			
	1458	4.3	130		1504	3.9	120		1530	3.9	120		1556	3.6	110		1551	3.6	110		1623	3.9	120	1623	3.9	120
	2134	0.7	20		2211	0.7	20		2223	0.7	20		2324	0.7	20		2306	0.3	10		2345	0.7	20			
15 Tu	0311	4.3	130	30 W	0324	4.3	130	15 F	0404	3.9	120	30 Sa	0443	3.6	110	15 Su	0447	3.9	120	30 M	0509	3.6	110			
	0958	0.7																								

Santos, Brazil, 2019

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															
1 Tu	0439	2.0	60		16 W	0453	1.3	40		1 F	0056	3.9	120		16 Sa	0141	4.6	140		1 F	0054	3.6	110		16 Sa	0051	4.3	130	
	1253	3.3	100			1141	3.3	100			0636	2.0	60			0708	1.3	40			0811	2.3	70			0643	1.6	50	
	1739	1.3	40			1751	1.6	50			1341	3.6	110			1349	3.6	110			1304	3.3	100			1256	3.3	100	
	2356	3.9	120								1900	0.7	20			1930	0.7	20			1802	1.0	30			1849	1.0	30	
2 W	0539	1.6	50		17 Th	0041	4.3	130		2 Sa	0130	4.3	130		17 Su	0226	4.9	150		2 Sa	0106	3.9	120		17 Su	0138	4.9	150	
	1317	3.6	110			0553	1.3	40			0719	1.6	50			0800	1.3	40			0723	2.0	60			0724	1.3	40	
	1823	1.0	30			1251	3.6	110			1404	3.9	120			1419	3.9	120			1328	3.6	110			1334	3.9	120	
						1836	1.0	30			1945	0.3	10			2013	0.3	10			1851	0.7	20			1932	0.7	20	
3 Th	0043	3.9	120		18 F	0132	4.6	140		3 Su	0202	4.6	140		18 M	0309	5.2	160		3 Su	0126	4.3	130		18 M	0215	5.2	160	
	0634	1.6	50			0653	1.3	40			0758	1.6	50			0843	1.0	30			0723	1.6	50			0756	1.0	30	
	1339	3.6	110			1354	3.6	110			1426	4.3	130			1441	4.3	130			1354	4.3	130			1402	4.3	130	
	1908	0.7	20			1921	0.7	20			2024	0.0	0			2058	0.0	0			1930	0.3	10			2011	0.3	10	
4 F	0124	4.3	130		19 Sa	0223	4.9	150		4 M	0234	4.6	140		19 Tu	0349	5.2	160		4 M	0154	4.6	140		19 Tu	0254	5.2	160	
	0721	1.6	50			0751	1.0	30			0834	1.3	40			0923	1.0	30			0749	1.3	40			0828	1.0	30	
	1400	3.9	120			1408	3.9	120			1451	4.3	130			1500	4.6	140			1419	4.3	130			1424	4.6	140	
	1956	0.3	10			2009	0.3	10			2108	0.0	0			2138	0.0	0			2009	0.0	0			2045	0.0	0	
5 Sa	0204	4.6	140		20 Su	0309	4.9	150		5 Tu	0302	4.6	140		20 W	0419	4.9	150		5 Tu	0219	4.6	140		20 W	0324	5.2	160	
	0806	1.6	50			0845	1.0	30			0906	1.3	40			1000	1.0	30			0819	1.3	40			0902	0.7	20	
	1421	3.9	120			1432	3.9	120			1511	4.3	130			1517	4.6	140			1447	4.6	140			1443	4.6	140	
	2041	0.3	10			2100	0.0	0			2151	0.0	0			2215	0.0	0			2051	0.0	0			2121	0.0	0	
6 Su	0241	4.6	140		21 M	0354	4.9	150		6 W	0334	4.6	140		21 Th	0434	4.6	140		6 W	0249	4.9	150		21 Th	0345	4.9	150	
	0847	1.6	50			0932	1.0	30			0936	1.3	40			1036	1.0	30			0853	1.0	30			0936	0.7	20	
	1445	4.3	130			1458	4.3	130			1536	4.3	130			1543	4.6	140			1509	4.6	140			1502	4.9	150	
	2124	0.3	10			2149	0.0	0			2228	0.3	10			2253	0.3	10			2128	0.0	0			2154	0.3	10	
7 M	0311	4.6	140		22 Tu	0436	4.9	150		7 Th	0402	4.6	140		22 F	0443	4.3	130		7 Th	0311	4.9	150		22 F	0356	4.6	140	
	0917	1.6	50			1015	1.0	30			1000	1.3	40			1106	1.0	30			0921	1.0	30			1008	0.7	20	
	1504	4.3	130			1523	4.3	130			1558	4.3	130			1606	4.6	140			1534	4.6	140			1524	4.9	150	
	2208	0.3	10			2232	0.0	0			2306	0.3	10			2323	0.7	20			2204	0.0	0			2224	0.7	20	
8 Tu	0349	4.6	140		23 W	0509	4.6	140		8 F	0434	4.6	140		23 Sa	0454	3.9	120		8 F	0341	4.6	140		23 Sa	0402	4.3	130	
	0947	1.6	50			1056	1.3	40			1021	1.3	40			1141	1.3	40			0949	1.0	30			1043	0.7	20	
	1526	4.3	130			1553	4.3	130			1623	4.3	130			1638	4.3	130			1558	4.6	140			1556	4.9	150	
	2253	0.3	10			2311	0.3	10			2345	0.7	20			2356	1.3	40			2241	0.3	10			2258	1.0	30	
9 W	0419	4.6	140		24 Th	0526	4.3	130		9 Sa	0504	4.3	130		24 Su	0504	3.6	110		9 Sa	0406	4.6	140		24 Su	0411	3.9	120	
	1008	1.6	50			1132	1.3	40			1045	1.6	50			1211	1.6	50			1011	1.0	30			1115	1.0	30	
	1551	3.9	120			1617	4.3	130			1653	3.9	120			1708	3.9	120			1621	4.6	140			1623	4.6	140	
	2336	0.7	20			2354	0.7	20													2313	0.7	20			2323	1.6	50	
10 Th	0456	4.3	130		25 F	0543	3.6	110		10 Su	0023	1.0	30		25 M	0026	1.6	50		10 Su	0434	4.3	130		25 M	0424	3.6	110	
	1028	1.6	50			1204	1.6	50			0539	3.9	120			0513	3.3	100			1038	1.3	40			1158	1.3	40	
	1609	3.9	120			1653	3.9	120			1113	1.6	50			1258	1.6	50			1653	4.3	130			1700	4.3	130	
											1726	3.6	110			1751	3.6	110			2351	1.0	30			2351	2.0	60	
11 F	0015	1.0	30		26 Sa	0028	1.0	30		11 M	0108	1.3	40		26 Tu	0104	2.3	70		11 M	0502	3.9	120		26 Tu	0432	3.3	100	
	0536	3.9	120			0600	3.3	100			0615	3.6	110			0511	3.0	90			1106	1.3	40			1245	1.3	40	
	1056	2.0	60			1247	2.0	60			1154	2.0	60			0953	2.3	70			1724	3.9	120			1739	3.6	110	
	1636	3.6	110			1726	3.6	110			1841	3.3	100			1106	2.3	70						2204		2.3	70		
12 Sa	0102	1.0	30		27 Su	0106	1.6	50		12 Tu	0206	1.6	50		27 W	0004	2.6	80		12 Tu	0032	1.3	40		27 W	0424	3.3	100	
	0615	3.6	110			0615	3.0	90			0702	3.3	100			0219	2.6	80			0536	3.6	110			1041	2.3	70	
	1134	2.0	60			1332	2.0	60			1300	2.0	60			0506	3.0	90			1149	1.6	50			1345	1.6	50	
	1706	3.3	100			1817	3.3	100			2234	3.3	100			0936	2.3	70			1815	3.6	110			1832	3.3	100	
13 Su	0154	1.3	40		28 M	0156	2.0	60		13 W	0315	2.0	60		28 Th	0043	3.3	100		13 W	0130	2.0	60		28 Th	0406	3.0	90	
	0706	3.6	110			0624	3.0	90			0806	3.0	90			0841	2.3	70			0608	3.0	90			0900	2.3	70	
	1228	2.3	70			0945	2.6	80			1541	2.0	60			1243	3.0	90			1258	2.0	60			1132	2.6	80	
	2147	3.3	100			1121	2.6	80			2349	3.6	110			1700	1.6	50			2232	3.3	100			1500	1.6	50	
14 M	0251	1.3	40		29 Tu	0258	2.3	70		14 Th	0441																		

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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 M	0106	4.3	130		16 Tu	0156	4.9	150		1 W	0104	4.3	130		16 Th	0202	4.6	140		1 Sa	0141	4.3	130		16 Su	0223	3.9	120						
	0715	1.6	50			0732	1.0	30			0708	1.3	40			0719	1.0	30			0734	0.7	20			0802	0.3	10						
	1326	4.3	130			1326	4.3	130			1326	4.6	140			1313	4.3	130			1417	4.6	140			1409	4.3	130						
	1906	0.3	10			1949	0.3	10			1909	0.3	10			1949	1.0	30			2004	0.7	20			2045	1.6	50						
2 Tu	0132	4.6	140		17 W	0228	4.9	150		2 Th	0136	4.6	140		17 F	0226	4.3	130		2 Su	0204	4.3	130		17 M	0238	3.9	120		17 O	0287	0.3	10	
	0732	1.3	40			0758	0.7	20			0730	1.0	30			0751	0.7	20			0809	0.7	20			0847	0.3	10						
	1358	4.6	140			1353	4.6	140			1402	4.6	140			1347	4.6	140			1458	4.9	150			1451	4.6	140						
	1947	0.3	10			2024	0.3	10			1954	0.3	10			2026	1.0	30			2051	0.7	20			2121	1.6	50						
3 W	0200	4.6	140		18 Th	0254	4.9	150		3 F	0202	4.6	140		18 Sa	0239	4.3	130		3 M	0226	4.3	130		18 Tu	0254	3.9	120		18 W	0293	0.3	10	
	0800	1.0	30			0826	0.7	20			0800	0.7	20			0826	0.3	10			0853	0.7	20			0934	0.3	10						
	1428	4.9	150			1413	4.6	140			1438	4.9	150			1419	4.6	140			1538	4.9	150			1524	4.6	140						
	2024	0.0	0			2056	0.3	10			2034	0.3	10			2104	1.3	40			2136	0.7	20			2154	1.6	50						
4 Th	0224	4.9	150		19 F	0309	4.6	140		4 Sa	0224	4.6	140		19 Su	0251	4.3	130		4 Tu	0254	4.3	130		19 W	0308	3.9	120		19 O	0109	0.3	10	
	0828	1.0	30			0902	0.7	20			0834	0.7	20			0908	0.3	10			0941	0.7	20			1019	0.3	10						
	1456	4.9	150			1441	4.9	150			1508	4.9	150			1456	4.6	140			1621	4.6	140			1602	4.6	140						
	2102	0.0	0			2128	0.7	20			2111	0.3	10			2141	1.3	40			2217	1.0	30			2219	1.6	50						
5 F	0251	4.9	150		20 Sa	0317	4.3	130		5 Su	0249	4.6	140		20 M	0302	3.9	120		5 W	0317	3.9	120		20 Th	0324	3.9	120		20 O	1106	0.3	10	
	0900	0.7	20			0939	0.3	10			0909	0.7	20			0956	0.3	10			1034	0.7	20			1639	4.3	130						
	1523	4.9	150			1508	4.9	150			1539	4.9	150			1532	4.6	140			1708	4.6	140			2241	2.0	60						
	2139	0.0	0			2202	1.0	30			2151	0.7	20			2209	1.6	50			2302	1.3	40											
6 Sa	0313	4.6	140		21 Su	0326	3.9	120		6 M	0309	4.3	130		21 Tu	0317	3.9	120		6 Th	0351	3.9	120		21 F	0343	3.9	120		21 O	1156	0.7	20	
	0932	1.0	30			1017	0.7	20			0951	0.7	20			1043	0.3	10			1126	0.7	20			1713	4.3	130						
	1551	4.9	150			1543	4.9	150			1611	4.6	140			1608	4.6	140			1806	4.3	130			2253	2.0	60						
	2213	0.3	10			2234	1.3	40			2228	1.0	30			2241	2.0	60			2349	1.6	50											
7 Su	0339	4.6	140		22 M	0343	3.9	120		7 Tu	0336	4.3	130		22 W	0334	3.9	120		7 Th	0417	3.6	110		22 Sa	0356	3.6	110		22 O	1243	1.0	30	
	1002	1.0	30			1100	0.7	20			1036	1.0	30			1130	0.7	20			1217	0.7	20			1756	3.9	120						
	1615	4.6	140			1613	4.6	140			1653	4.6	140			1649	4.3	130			1923	3.9	120			2304	2.0	60						
	2249	0.7	20			2300	1.6	50			2308	1.3	40			2258	2.0	60																
8 M	0402	4.3	130		23 Tu	0356	3.6	110		8 W	0402	3.9	120		23 Th	0345	3.6	110		8 Sa	0038	2.0	60		23 Su	0402	3.3	100		23 O	1326	1.0	30	
	1036	1.0	30			1147	1.0	30			1124	1.0	30			1217	1.0	30			0454	3.3	100			1838	3.6	110						
	1651	4.6	140			1654	4.3	130			1739	4.3	130			1728	3.9	120			1308	1.0	30			2326	2.3	70						
	2324	1.0	30			2319	2.3	70			2356	1.6	50			2300	2.3	70			2108	3.9	120											
9 Tu	0428	3.9	120		24 W	0400	3.6	110		9 Th	0428	3.3	100		24 F	0349	3.3	100		9 Su	0141	2.3	70		24 M	0402	3.0	90		24 O	0708	3.0	90	
	1113	1.3	40			1234	1.3	40			1219	1.0	30			1306	1.0	30			0923	3.0	90			0915	3.0	90						
	1726	3.9	120			1736	3.9	120			1902	3.6	110			1813	3.6	110			1402	1.0	30			1413	1.3	40						
						2224	2.6	80								2300	2.6	80			2239	3.6	110			1924	3.6	110						
10 W	0006	1.6	50		25 Th	0356	3.3	100		10 F	0056	2.3	70		25 Sa	0347	3.3	100		10 M	0519	2.3	70		25 Tu	0009	2.3	70		25 O	0354	3.0	90	
	0456	3.6	110			1328	1.3	40			0453	3.0	90			0808	2.6	80			1013	3.3	100			0638	2.6	80						
	1206	1.3	40			1826	3.3	100			1319	1.3	40			1400	1.3	40			1456	1.3	40			1015	3.3	100						
	1824	3.6	110			2213	2.6	80			2154	3.6	110			2334	2.6	80			2347	3.9	120			1504*	1.3	40						
11 Th	0106	2.3	70		26 F	0343	3.0	90		11 Sa	0232	2.6	80		26 Su	0334	3.0	90		11 Tu	0541	2.0	60		26 W	0621	2.3	70		26 O	1104	3.6	110	
	0523	3.0	90			0815	2.3	70			0358	2.6	80			0702	2.6	80			1054	3.3	100			1158	1.3	40						
	1315	1.6	50			1032	2.6	80			0602	2.6	80			1013	3.0	90			1551	1.3	40			1558	1.3	40						
	2221	3.6	110			1432	1.6	50			1004	3.0	90			1456	1.3	40								2208	3.3	100						
12 F	0302	2.6	80		27 Sa	0108	3.0	90		12 Su	0602	2.0	60		27 M	0649	2.3	70		12 W	0038	3.9	120		27 Th	0615	2.0	60		27 O	1151	3.9	120	
	0502	2.6	80			0724	2.3	70			1056	3.3	100			1058	3.3	100			0554	1.6	50			1654	1.3	40						
	1041	2.6	80			1106	3.0	90			1539	1.3	40			1553	1.3	40			1130	3.6	110											
	1451	1.6	50			1541	1.3	40								2230	3.3	100			1651	1.6	50											
13 Sa	0621	2.0	60		28 Su	0000	3.3	100		13 M	0009	4.3	130		28 Tu	0638	2.0	60		13 Th	0113	3.9	120		28 F	0013	3.3	100		28 O	0624	1.6	50	
	1138	3.0	90			0711	2.3	70			0623	1.6	50			1138	3.6	110			0617													

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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 M	0202	3.9	120			1 Th	0300	4.3	130			1 Su	0330	4.9	150
	0758	0.7	20				0928	0.0	0				1034	0.3	10
	1458	4.6	140				1634	4.9	150				1651	4.3	130
	2039	1.0	30				2206	1.0	30				2254	0.7	20
2 Tu	0226	4.3	130			2 F	0321	4.3	130			2 M	0356	4.6	140
	0845	0.3	10				1015	0.0	0				1108	0.7	20
	1547	4.9	150				1713	4.9	150				1658	3.9	120
	2128	1.0	30				2243	1.0	30				2324	1.0	30
3 W	0253	4.3	130			3 Sa	0347	4.3	130			3 Tu	0421	4.6	140
	0936	0.3	10				1100	0.0	0				1147	1.0	30
	1636	4.9	150				1738	4.6	140				1706	3.6	110
	2211	1.0	30				2315	1.0	30				2358	1.3	40
4 Th	0317	4.3	130			4 Su	0408	4.3	130			4 W	0453	4.3	130
	1026	0.3	10				1141	0.3	10				1219	1.6	50
	1723	4.6	140				1754	3.9	120				1715	3.3	100
	2256	1.3	40				2351	1.3	40				2311	1.6	50
5 F	0351	3.9	120			5 M	0439	4.3	130			5 Th	0038	1.6	50
	1115	0.3	10				1215	1.0	30				0524	3.6	110
	1809	4.6	140				1804	3.6	110				1300	2.3	70
	2336	1.3	40				2254	1.6	50				1713	3.3	100
6 Sa	0415	3.9	120			6 Tu	0021	1.6	50			6 F	2241	2.3	70
	1204	0.3	10				0508	3.9	120				0132	2.0	60
	1847	3.9	120				1258	1.3	40				0611	3.3	100
							1811	3.3	100				0945	2.6	80
7 Su	0011	1.6	50			7 W	0102	2.0	60			7 Sa	1151	3.0	90
	0453	3.6	110				0549	3.3	100				1400*	2.6	80
	1251	0.7	20				1341	2.0	60				0302	2.0	60
	1932	3.6	110				1815	3.0	90				1228	3.3	100
8 M	0058	2.0	60			8 Th	0202	2.3	70			8 Su	1654	3.0	90
	0532	3.3	100				0704	3.0	90				2106	2.3	70
	1330	1.0	30				1428	2.3	70				0039	3.0	90
	2136	3.3	100				1800	3.0	90				0451	1.6	50
9 Tu	0154	2.3	70			9 F	2139	2.3	70			9 M	1254	3.6	110
	0711	3.0	90				0015	2.6	80				2038	2.3	70
	1411	1.3	40				0349	2.0	60				0102	3.3	100
	2317	3.3	100				1154	3.3	100				0554	1.3	40
10 W	0313	2.3	70			10 Sa	1539	2.6	80			10 Tu	1304	3.9	120
	1009	3.3	100				1758*	2.6	80				2023	2.3	70
	1502	1.6	50				0100	3.0	90				0124	3.6	110
							0521	1.6	50				0636	0.7	20
11 Th	0023	3.3	100			11 Su	1239	3.6	110			11 W	1319	4.3	130
	0453	2.0	60				1756	2.6	80				1943	2.0	60
	1108	3.3	100				2100	2.3	70				0147	4.3	130
	1600	2.0	60				0130	3.3	100				0711	0.3	10
12 F	1949	2.3	70			12 M	0613	1.0	30			12 Th	1341	4.3	130
	0104	3.3	100				1309	3.9	120				1951	1.6	50
	0545	1.6	50				2054	2.3	70				0206	4.6	140
	1158	3.6	110				0153	3.6	110				0751	0.0	0
13 Sa	1711	2.3	70			13 Tu	0654	0.7	20			13 F	1406	4.9	150
	1906*	2.3	70				1338	3.9	120				2017	1.3	40
	0139	3.6	110				2023	2.0	60				1406	4.6	140
	0624	1.0	30				0209	3.9	120				2049	1.0	30
14 Su	1247	3.9	120			14 W	0734	0.3	10			14 Sa	0256	4.9	150
	1923	2.0	60				1404	4.3	130				0906	0.0	0
	0200	3.6	110				2019	1.6	50				1500	4.9	150
	0704	0.7	20				0228	4.3	130				2117	1.0	30
15 M	1332	3.9	120			15 Th	0811	0.0	0			15 Su	0254	4.6	140
	2006	2.0	60				1432	4.6	140				0915	-0.3	-10
	0221	3.9	120				2047	1.3	40				1611	4.9	150
	0747	0.3	10				0249	4.6	140				2149	0.7	20
16 Tu	1411	4.3	130			16 F	0854	0.0	0			16 M	0317	4.9	150
	2034	1.6	50				1500	4.6	140				0945	0.0	0
							2113	1.3	40				1526	4.6	140
							0249	4.6	140				2145	1.0	30
17 W						17 Sa	0309	4.6	140			17 Tu	0341	4.9	150
							0956	0.0	0				1019	0.3	10
							1639	4.9	150				1556	4.6	140
							2221	0.7	20				2206	1.0	30
18 Th						18 Su	0321	4.3	130			18 W	0402	4.6	140
							0928	0.0	0				1056	0.7	20
							1634	4.9	150				1621	4.3	130
							2206	1.0	30				2224	1.3	40
19 F						19 M	0347	4.3	130			19 Th	0426	4.3	130
							1100	0.0	0				1132	1.0	30
							1738	4.6	140				1651	3.9	120
							2315	1.0	30				2245	1.3	40
20 Sa						20 Tu	0408	4.3	130			20 F	0456	3.9	120
							1141	0.3	10				1304	2.0	60
							1754	3.9	120				1753	3.3	100
							2351	1.3	40				2358	1.6	50
21 Su						21 W	0439	4.3	130			21 Sa	0532	3.6	110
							1215	1.0	30				1304	2.0	60
							1804	3.6	110				1753	3.3	100
							2254	1.6	50				2358	1.6	50
22 M						22 Th	0021	1.6	50			22 Su	0954	3.3	100
							0508	3.9	120				1417	2.3	70
							1258	1.3	40				1838	3.0	90
							1811	3.3	100				2351	2.6	80
23 Tu						23 F	0102	2.0	60			23 M	0541	1.6	50
							0549	3.3	100				1215	4.3	130
							1341	2.0	60				1806	2.0	60
							1815	3.0	90				2351	2.6	80
24 W						24 Th	2151*	2.6	80			24 Tu	0541	1.6	50
							0202	2.3	70				0628	1.0	30
							0704	3.0	90				1304	4.6	140
							1428	2.3	70				1858	1.6	50
25 Th						25 F	1800	3.0	90			25 W	0109	3.9	120
							2139	2.3	70				0704	0.7	20
							0015	2.6	80				1351	4.9	150
							0349	2.0	60				1938	1.3	40
26 F						26 Sa	0521	1.6	50			26 Th	0143	4.3	130

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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	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Tu	0338 4.9 150 1039 1.0 30 1606 3.9 120 2302 0.7 20	16 W	0353 4.6 140 1021 0.7 20 1547 4.3 130 2211 1.0 30	1 F	0426 4.3 130 1106 2.3 70 1553 3.6 110	16 Sa	0458 4.3 130 1123 1.6 50 1613 3.6 110 2345 1.0 30	1 Su	0500 3.9 120 1053 2.3 70 1549 3.6 110	16 M	0613 3.9 120 1206 2.0 60 1653 3.6 110
2 W	0404 4.6 140 1109 1.6 50 1619 3.6 110 2341 1.0 30	17 Th	0419 4.6 140 1058 1.0 30 1609 3.9 120 2247 1.0 30	2 Sa	0006 1.0 30 0506 3.9 120 0930 2.6 80 1554 3.3 100	17 Su	0600 3.9 120 1219 2.0 60 1654 3.3 100	2 M	0041 1.0 30 0547 3.6 110 1043 2.3 70 1600 3.3 100	17 Tu	0036 1.0 30 0819 3.6 110 1304 2.3 70 1758 3.3 100
3 Th	0439 4.3 130 1147 2.0 60 1630 3.3 100	18 F	0456 4.3 130 1143 1.6 50 1643 3.6 110 2332 1.3 40	3 Su	0100 1.3 40 0558 3.3 100 0939 2.6 80 1554 3.3 100 2145 2.3 70	18 M	0045 1.3 40 0902 3.6 110 1338 2.3 70 1815 3.0 90	3 Tu	0132 1.3 40 0643 3.3 100 1126 2.6 80 1609 3.0 90 1932* 3.0 90	18 W	0126 1.0 30 0953 3.6 110 1413 2.3 70 2108 3.3 100
4 F	0019 1.3 40 0513 3.9 120 0921 2.6 80 1058 2.6 80 1219* 2.6 80	19 Sa	0543 3.6 110 1239 2.0 60 1713 3.3 100	4 M	0202 1.3 40 0719 3.0 90 1002 3.0 90 1211 3.0 90 1402* 3.0 90	19 Tu	0153 1.3 40 1034 3.9 120 1611 2.3 70 2209 3.0 90	4 W	0228 1.3 40 0800 3.3 100 1347 2.6 80 1619 2.6 80 1834* 2.6 80	19 Th	0221 1.3 40 1100 3.6 110 1545 2.3 70 2213 3.3 100
5 Sa	0011 1.6 50 0602 3.3 100 0923 2.6 80 1202 3.0 90 1324* 3.0 90	20 Su	0036 1.6 50 0939 3.3 100 1400 2.3 70 1808 3.0 90	5 Tu	0309 1.3 40 1119 3.3 100 1900 2.3 70 2315 3.3 100	20 W	0306 1.3 40 1132 4.3 130 1730 2.0 60 2300 3.6 110	5 Th	0326 1.3 40 0934 3.3 100 1738 2.3 70 2309 3.6 110	20 F	0321 1.3 40 1156 3.6 110 1654 2.0 60 2302 3.6 110
6 Su	0232 1.6 50 0853 3.0 90 1224 3.3 100 2019 2.3 70 2351 3.0 90	21 M	0202 1.6 50 1100 3.9 120 1649 2.3 70 2256 3.0 90	6 W	0419 1.3 40 1119 3.6 110 1832 2.3 70 2353 3.6 110	21 Th	0423 1.3 40 1217 4.3 130 1754 1.6 50 2343 3.9 120	6 F	0424 1.0 30 1053 3.6 110 1739 2.0 60 2354 3.9 120	21 Sa	0423 1.6 50 1243 3.9 120 1738 1.6 50 2347 3.9 120
7 M	0402 1.6 50 1234 3.3 100 1951 2.3 70	22 Tu	0413 1.6 50 1158 4.3 130 1804 2.0 60 2349 3.3 100	7 Th	0513 1.0 30 1154 3.9 120 1815 1.6 50	22 F	0528 1.0 30 1300 4.6 140 1823 1.3 40	7 Sa	0513 1.0 30 1147 3.9 120 1802 1.6 50	22 Su	0524 1.6 50 1317 3.9 120 1815 1.0 30
8 Tu	0015 3.3 100 0513 1.3 40 1228 3.6 110 1928 2.3 70	23 W	0543 1.0 30 1245 4.6 140 1836 1.6 50	8 F	0026 4.3 130 0600 0.7 20 1226 4.3 130 1834 1.3 40	23 Sa	0019 4.3 130 0617 1.0 30 1336 4.3 130 1851 1.0 30	8 Su	0034 4.3 130 0600 0.7 20 1228 3.9 120 1832 1.3 40	23 M	0030 3.9 120 0623 1.6 50 1347 3.9 120 1858 0.7 20
9 W	0041 3.6 110 0602 0.7 20 1241 3.9 120 1856 2.0 60	24 Th	0028 3.9 120 0630 0.7 20 1324 4.9 150 1904 1.3 40	9 Sa	0102 4.6 140 0641 0.3 10 1300 4.3 130 1902 1.0 30	24 Su	0054 4.3 130 0700 1.0 30 1402 4.3 130 1924 0.7 20	9 M	0111 4.6 140 0645 0.7 20 1302 4.3 130 1904 1.0 30	24 Tu	0111 4.3 130 0715 1.6 50 1408 3.9 120 1941 0.3 10
10 Th	0106 4.3 130 0643 0.3 10 1304 4.3 130 1911 1.3 40	25 F	0102 4.3 130 0709 0.3 10 1400 4.9 150 1934 1.0 30	10 Su	0138 4.6 140 0719 0.3 10 1330 4.6 140 1934 1.0 30	25 M	0124 4.6 140 0741 1.0 30 1421 4.3 130 2004 0.3 10	10 Tu	0151 4.6 140 0726 0.7 20 1330 4.3 130 1941 0.7 20	25 W	0151 4.3 130 0802 1.6 50 1419 3.9 120 2024 0.3 10
11 F	0138 4.6 140 0719 0.3 10 1334 4.6 140 1939 1.3 40	26 Sa	0130 4.6 140 0741 0.3 10 1434 4.6 140 2006 0.7 20	11 M	0209 4.9 150 0758 0.3 10 1358 4.6 140 2008 0.7 20	26 Tu	0200 4.6 140 0821 1.3 40 1432 3.9 120 2049 0.3 10	11 W	0226 4.9 150 0809 0.7 20 1358 4.3 130 2023 0.7 20	26 Th	0224 4.6 140 0845 1.6 50 1434 3.9 120 2109 0.3 10
12 Sa	0204 4.9 150 0756 0.0 0 1402 4.6 140 2011 1.0 30	27 Su	0156 4.9 150 0819 0.3 10 1454 4.6 140 2041 0.7 20	12 Tu	0241 4.9 150 0838 0.3 10 1421 4.6 140 2043 0.7 20	27 W	0232 4.6 140 0902 1.3 40 1447 3.9 120 2132 0.3 10	12 Th	0302 4.9 150 0856 0.7 20 1424 4.3 130 2108 0.7 20	27 F	0300 4.6 140 0921 1.6 50 1454 3.9 120 2158 0.3 10
13 Su	0236 4.9 150 0834 0.0 0 1430 4.6 140 2043 1.0 30	28 M	0221 4.9 150 0854 0.7 20 1506 4.3 130 2117 0.3 10	13 W	0309 4.9 150 0913 0.7 20 1449 4.3 130 2121 0.7 20	28 Th	0306 4.6 140 0941 1.6 50 1500 3.9 120 2215 0.3 10	13 F	0339 4.6 140 0943 1.0 30 1458 4.3 130 2200 0.7 20	28 Sa	0336 4.6 140 0954 1.6 50 1511 3.9 120 2243 0.3 10
14 M	0300 4.9 150 0909 0.3 10 1456 4.6 140 2113 1.0 30	29 Tu	0251 4.9 150 0930 1.0 30 1513 3.9 120 2158 0.3 10	14 Th	0341 4.6 140 0956 1.0 30 1511 4.3 130 2202 0.7 20	29 F	0345 4.6 140 1011 2.0 60 1517 3.9 120 2302 0.7 20	14 Sa	0419 4.6 140 1026 1.3 40 1530 3.9 120 2253 0.7 20	29 Su	0408 4.3 130 1019 2.0 60 1536 3.9 120 2326 0.7 20
15 Tu	0324 4.9 150 0947 0.3 10 1519 4.6 140 2143 1.0 30	30 W	0317 4.9 150 1004 1.3 40 1526 3.9 120 2241 0.7 20	15 F	0413 4.6 140 1038 1.3 40 1545 3.9 120 2251 1.0 30	30 Sa	0417 4.3 130 1043 2.0 60 1536 3.6 110 2353 0.7 20	15 Su	0508 4.3 130 1115 1.6 50 1606 3.6 110 2343 0.7 20	30 M	0447 4.3 130 1038 2.0 60 1558 3.9 120
		31 Th	0354 4.6 140 1041 1.6 50 1543 3.6 110 2321 0.7 20							31 Tu	0009 0.7 20 0521 3.9 120 1047 2.0 60 1619 3.6 110

Time meridian 45° 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 320 for the remaining tides on this day.

Buenos Aires, Argentina, 2019

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																
1 M	0514	3.0	90		16 Tu	0340	3.3	100		1 W	0507	2.6	80		16 Th	0434	3.0	90		1 Sa	0039	2.0	60		16 Su	0122	1.6	50		
	1118	2.0	60			1034	1.6	50			1045	1.6	50			1134	1.3	40				0514	2.6	80			0617	3.3	100	
	1756	3.6	110			1556	4.3	130			1745	3.3	100			1728	4.3	130				1142	1.3	40			1338	1.0	30	
						2359	1.6	50														1817	3.3	100			1930	3.6	110	
2 Tu	0042	2.3	70		17 W	0444	3.3	100		2 Th	0051	2.0	60		17 F	0055	1.6	50		2 Su	0116	1.6	50		17 M	0207	1.6	50		
	0606	3.0	90			1143	1.6	50			0548	2.6	80			0537	3.3	100			0558	3.0	90			0707	3.6	110		
	1215	2.0	60			1722	4.3	130			1146	1.6	50			1243	1.3	40			1247	1.3	40			1439	1.0	30		
	1855	3.6	110								1833	3.3	100			1837	4.3	130			1856	3.3	100			2022	3.6	110		
3 W	0140	2.3	70		18 Th	0108	1.6	50		3 F	0135	2.0	60		18 Sa	0149	1.6	50		3 M	0150	1.6	50		18 Tu	0248	1.6	50		
	0643	3.0	90			0548	3.3	100			0619	2.6	80			0633	3.3	100			0638	3.3	100			0753	3.6	110		
	1304	1.6	50			1251	1.3	40			0619	1.6	50			1348	1.0	30			1348	1.3	40			1534	1.3	40		
	1934	3.6	110			1839	4.6	140			1911	3.6	110			1938	4.3	130			1934	3.3	100			2109	3.3	100		
4 Th	0220	2.3	70		19 F	0209	2.0	60		4 Sa	0211	2.0	60		19 Su	0237	1.6	50		4 Tu	0225	1.6	50		19 W	0327	1.6	50		
	0706	3.0	90			0645	3.6	110			0649	3.0	90			0723	3.6	110			0717	3.6	110			0836	3.6	110		
	1346	1.6	50			1357	1.3	40			1336	1.3	40			1449	1.0	30			1445	1.3	40			1625	1.3	40		
	2003	3.6	110			1946	4.6	140			1944	3.6	110			2033	3.9	120			2014	3.3	100			2152	3.3	100		
5 F	0255	2.3	70		20 Sa	0303	2.0	60		5 Su	0243	2.0	60		20 M	0319	1.6	50		5 W	0303	1.6	50		20 Th	0405	1.6	50		
	0726	3.0	90			0737	3.6	110			0721	3.3	100			0809	3.9	120			0754	3.6	110			0919	3.6	110		
	1424	1.3	40			1459	1.0	30			1424	1.3	40			1546	1.0	30			1541	1.3	40			1710	1.3	40		
	2032	3.9	120			2046	4.6	140			2017	3.6	110			2125	3.9	120			2058	3.3	100			2231	3.0	90		
6 Sa	0327	2.0	60		21 Su	0351	2.0	60		6 M	0313	2.0	60		21 Tu	0358	1.6	50		6 Th	0345	1.6	50		21 F	0442	1.6	50		
	0752	3.3	100			0825	3.9	120			0754	3.3	100			0854	3.9	120			0835	3.9	120			1003	3.6	110		
	1459	1.3	40			1557	1.0	30			1512	1.3	40			1639	1.3	40			1637	1.3	40			1747	1.3	40		
	2101	3.9	120			2144	4.6	140			2052	3.6	110			2215	3.6	110			2148	3.3	100			2308	2.6	80		
7 Su	0357	2.0	60		22 M	0433	2.0	60		7 Tu	0343	2.0	60		22 W	0434	1.6	50		7 F	0430	1.6	50		22 Sa	0517	1.3	40		
	0822	3.3	100			0912	3.9	120			0827	3.6	110			0939	3.9	120			0921	3.9	120			1049	3.6	110		
	1535	1.3	40			1652	1.0	30			1559	1.3	40			1728	1.3	40			1735	1.3	40			1819	1.3	40		
	2134	3.9	120			2240	4.3	130			2129	3.6	110			2302	3.3	100			2243	3.3	100			2341	2.6	80		
8 M	0425	2.0	60		23 Tu	0512	2.0	60		8 W	0415	2.0	60		23 Th	0509	1.6	50		8 Sa	0518	1.3	40		23 Su	0549	1.3	40		
	0854	3.6	110			1000	3.9	120			0901	3.9	120			1026	3.9	120			1016	4.3	130			1137	3.3	100		
	1614	1.3	40			1744	1.0	30			1648	1.3	40			1813	1.3	40			1834	1.3	40			1850	1.3	40		
	2208	3.9	120			2333	3.9	120			2212	3.6	110			2346	3.3	100			2338	3.0	90							
9 Tu	0452	2.0	60		24 W	0547	2.0	60		9 Th	0452	2.0	60		24 F	0544	1.6	50		9 Su	0611	1.3	40		24 M	0011	2.3	70		
	0926	3.6	110			1050	3.9	120			0938	3.9	120			1115	3.9	120			1123	4.3	130			0617	1.3	40		
	1655	1.3	40			1833	1.3	40			1739	1.3	40			1853	1.3	40			1936	1.3	40			1226	3.3	100		
	2244	3.9	120								2300	3.6	110													1923	1.3	40		
10 W	0521	2.0	60		25 Th	0023	3.9	120		10 F	0533	1.6	50		25 Sa	0027	3.0	90		10 M	0032	3.0	90		25 Tu	0038	2.3	70		
	0959	3.6	110			0621	2.0	60			1021	3.9	120			0618	1.6	50			0708	1.3	40			0645	1.3	40		
	1739	1.3	40			1141	3.9	120			1833	1.3	40			1205	3.6	110			1238	4.3	130			1315	3.3	100		
	2324	3.9	120			1919	1.3	40			2351	3.3	100			1929	1.6	50			2038	1.3	40			2002	1.6	50		
11 Th	0556	2.0	60		26 F	0109	3.6	110		11 Sa	0619	1.6	50		26 Su	0105	2.6	80		11 Tu	0125	3.0	90		26 W	0103	2.3	70		
	1036	3.9	120			0657	2.0	60			1114	4.3	130			0650	1.6	50			0809	1.0	30			0719	1.0	30		
	1826	1.3	40			1234	3.9	120			1932	1.3	40			1256	3.6	110			1353	3.9	120			1405	3.0	90		
						2004	1.6	50							2006	1.6	50				2140	1.3	40			2044	1.6	50		
12 F	0007	3.6	110		27 Sa	0153	3.3	100		12 Su	0042	3.3	100		27 M	0140	2.6	80		12 W	0219	3.0	90		27 Th	0137	2.3	70		
	0636	2.0	60			0734	2.0	60			0711	1.6	50			0722	1.6	50			0914	1.0	30			0805	1.0	30		
	1121	3.9	120			1328	3.6	110			1217	4.3	130			1349	3.3	100			1506	3.9	120			1456	3.0	90		
	1920	1.6	50			2048	1.6	50			2036	1.3	40			2051	1.6	50			2241	1.3	40			2130	1.6	50		
13 Sa	0054	3.6	110		28 Su	0237	3.0	90		13 M	0135	3.0	90		28 Tu	0212	2.3	70		13 Th										

Buenos Aires, Argentina, 2019

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 M	0003	1.6	50			1 Th	0058	1.6	50	16 F	0236	1.6	50	1 Su	0242	1.3	40	16 M	0328	1.6	50
	0502	3.0	90				0604	3.9	120		0813	3.6	110		0802	4.6	140		0903	3.6	110
	1212	1.0	30				1404	1.0	30		1553	1.6	50		1603	1.3	40		1620	1.6	50
	1810	3.3	100				1918	3.0	90		2109	2.6	80		2047	3.3	100		2112	2.6	80
2 Tu	0050	1.6	50			2 F	0158	1.6	50	17 Sa	0318	1.6	50	2 M	0347	1.0	30	17 Tu	0402	1.6	50
	0550	3.3	100				0702	4.3	130		0848	3.6	110		0912	4.6	140		0935	3.6	110
	1317	1.0	30				1511	1.0	30		1623	1.6	50		1659	1.3	40		1648	1.6	50
	1856	3.3	100				2014	3.0	90		2129	2.6	80		2141	3.3	100		2137	3.0	90
3 W	0138	1.6	50			3 Sa	0259	1.3	40	18 Su	0356	1.3	40	3 Tu	0449	1.0	30	18 W	0434	1.3	40
	0636	3.6	110				0803	4.3	130		0924	3.3	100		1025	4.6	140		1009	3.6	110
	1421	1.0	30				1616	1.0	30		1649	1.6	50		1750	1.3	40		1713	1.6	50
	1943	3.3	100				2110	3.0	90		2149	2.6	80		2235	3.3	100		2208	3.0	90
4 Th	0228	1.6	50			4 Su	0359	1.3	40	19 M	0431	1.3	40	4 W	0549	1.0	30	19 Th	0507	1.3	40
	0723	3.9	120				0911	4.3	130		1001	3.3	100		1136	4.3	130		1044	3.6	110
	1524	1.0	30				1717	1.0	30		1717	1.3	40		1837	1.6	50		1736	1.6	50
	2035	3.3	100				2206	3.0	90		2213	2.6	80		2330	3.6	110		2240	3.3	100
5 F	0319	1.3	40			5 M	0459	1.0	30	20 Tu	0500	1.3	40	5 Th	0649	0.7	20	20 F	0543	1.3	40
	0814	3.9	120				1028	4.3	130		1041	3.3	100		1240	4.3	130		1118	3.3	100
	1626	1.0	30				1814	1.3	40		1745	1.3	40		1920	1.6	50		1758	1.6	50
	2129	3.0	90				2301	3.0	90		2241	2.6	80				2312		3.3	100	
6 Sa	0413	1.3	40			6 Tu	0600	1.0	30	21 W	0528	1.3	40	6 F	0024	3.6	110	21 Sa	0624	1.3	40
	0912	4.3	130				1145	4.3	130		1121	3.3	100		0748	0.7	20		1155	3.3	100
	1728	1.0	30				1907	1.3	40		1810	1.6	50		1340	3.9	120		1825	1.6	50
	2226	3.0	90				2355	3.3	100		2312	3.0	90		2003	1.6	50		2346	3.6	110
7 Su	0509	1.3	40			7 W	0659	0.7	20	22 Th	0600	1.3	40	7 Sa	0119	3.9	120	22 Su	0711	1.3	40
	1021	4.3	130				1254	4.3	130		1201	3.3	100		0847	1.0	30		1236	3.3	100
	1828	1.0	30				1958	1.3	40		1833	1.6	50		1437	3.6	110		1900	1.6	50
	2323	3.0	90								2345	3.0	90		2046	1.6	50				
8 M	0606	1.0	30			8 Th	0049	3.3	100	23 F	0638	1.0	30	8 Su	0216	3.9	120	23 M	0025	3.6	110
	1140	4.3	130				0800	0.7	20		1239	3.3	100		0949	1.0	30		0806	1.3	40
	1927	1.0	30				1358	3.9	120		1858	1.6	50		1535	3.3	100		1322	3.3	100
							2047	1.6	50						2133	2.0	60		1944	1.6	50
9 Tu	0017	3.0	90			9 F	0142	3.3	100	24 Sa	0020	3.0	90	9 M	0317	3.9	120	24 Tu	0115	3.9	120
	0706	1.0	30				0901	0.7	20		0724	1.3	40		1054	1.3	40		0909	1.6	50
	1255	3.9	120				1459	3.6	110		1318	3.3	100		1638	3.0	90		1415	3.0	90
	2025	1.3	40				2136	1.6	50		1930	1.6	50		2226	2.0	60		2039	1.6	50
10 W	0110	3.0	90			10 Sa	0238	3.6	110	25 Su	0058	3.3	100	10 Tu	0425	3.6	110	25 W	0213	3.9	120
	0807	0.7	20				1003	0.7	20		0817	1.3	40		1204	1.3	40		1018	1.6	50
	1404	3.9	120				1601	3.6	110		1402	3.0	90		1748	3.0	90		1516	3.0	90
	2121	1.3	40				2226	1.6	50		2013	1.6	50		2325	2.0	60		2145	1.6	50
11 Th	0203	3.0	90			11 Su	0338	3.6	110	26 M	0144	3.3	100	11 W	0537	3.6	110	26 Th	0320	4.3	130
	0909	0.7	20				1107	1.0	30		0918	1.3	40		1314	1.6	50		1130	1.3	40
	1510	3.9	120				1705	3.3	100		1452	3.0	90		1855	2.6	80		1622	3.0	90
	2215	1.3	40				2318	1.6	50		2107	1.6	50				2256		1.6	50	
12 F	0258	3.0	90			12 M	0442	3.6	110	27 Tu	0237	3.6	110	12 Th	0024	1.6	50	27 F	0432	4.3	130
	1013	0.7	20				1213	1.0	30		1024	1.3	40		0639	3.6	110		1242	1.3	40
	1616	3.6	110				1811	3.0	90		1549	3.0	90		1416	1.6	50		1730	3.0	90
	2308	1.6	50								2211	1.6	50		1946	2.6	80				
13 Sa	0358	3.3	100			13 Tu	0010	1.6	50	28 W	0337	3.9	120	13 F	0118	1.6	50	28 Sa	0008	1.6	50
	1118	0.7	20				0548	3.6	110		1133	1.3	40		0726	3.6	110		0544	4.6	140
	1722	3.6	110				1319	1.3	40		1651	3.0	90		1459	1.6	50		1350	1.3	40
							1912	3.0	90		2319	1.6	50		2019	2.6	80		1833	3.0	90
14 Su	0000	1.6	50			14 W	0102	1.6	50	29 Th	0442	3.9	120	14 Sa	0207	1.6	50	29 Su	0119	1.3	40
	0501	3.3	100				0646	3.6	110		1244	1.3	40		0801	3.6	110		0654	4.6	140
	1224	1.0	30				1421	1.3	40		1754	3.0	90		1528	1.6	50		1451	1.3	40
	1825	3.3	100				2003	3.0	90						2038	2.6	80		1930	3.3	100
15 M	0049	1.6	50			15 Th	0151	1.6	50	30 F	0027	1.6	50	15 Su	0250	1.6	50	30 M	0229	1.3	40
	0601	3.3	100				0734	3.6	110		0547	4.3	130		0832	3.6	110		0801	4.6	140
	1328	1.0	30				1513	1.3	40		1355	1.3	40		1553	1.6	50		1545	1.3	40
	1922	3.3	100				2042	2.6	80		1854	3.0	90		2053	2.6	80		2023	3.3	100
					31 W	0508	3.6	110	31 Sa	0135	1.3	40									
						1256	1.0	30		0654	4.6	140									
						1822	3.0	90	1502	1.3	40										
									1952	3.0	90										

Time meridian 45° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Buenos Aires, Argentina, 2019

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															
1 Tu	0335	1.3	40		16 W	0329	1.6	50		1 F	0524	1.3	40		16 Sa	0431	2.0	60		1 Su	0609	2.0	60		16 M	0515	2.0	60	
	0906	4.6	140			0902	3.6	110			1047	3.9	120			0925	3.6	110			1059	3.3	100			0938	3.3	100	
	1634	1.6	50			1613	1.6	50			1721	1.6	50			1628	1.6	50			1721	1.6	50			1642	1.3	40	
	2115	3.6	110			2106	3.3	100			2241	4.3	130			2146	3.9	120			2320	4.3	130			2220	4.6	140	
2 W	0437	1.0	30		17 Th	0407	1.6	50		2 Sa	0621	1.6	50		17 Su	0520	2.0	60		2 M	0704	2.0	60		17 Tu	0615	2.0	60	
	1012	4.6	140			0932	3.6	110			1142	3.6	110			1005	3.3	100			1145	3.0	90			1029	3.0	90	
	1719	1.6	50			1637	1.6	50			1757	1.6	50			1702	1.6	50			1755	1.6	50			1728	1.3	40	
	2208	3.9	120			2138	3.3	100			2337	4.3	130			2224	3.9	120								2318	4.6	140	
3 Th	0537	1.0	30		18 F	0447	1.6	50		3 Su	0717	1.6	50		18 M	0614	2.0	60		3 Tu	0012	4.3	130		18 W	0717	2.0	60	
	1116	4.3	130			1003	3.6	110			1233	3.3	100			1051	3.3	100			0758	2.0	60			1124	3.0	90	
	1800	1.6	50			1701	1.6	50			1833	1.6	50			1741	1.3	40			1227	2.6	80			1818	1.3	40	
	2303	3.9	120			2210	3.6	110								2309	4.3	130			1825	1.6	50						
4 F	0635	1.0	30		19 Sa	0529	1.6	50		4 M	0033	4.3	130		19 Tu	0712	2.0	60		4 W	0105	4.3	130		19 Th	0021	4.6	140	
	1216	3.9	120			1039	3.6	110			0815	1.6	50			1142	3.0	90			0854	2.0	60			0820	2.0	60	
	1838	1.6	50			1728	1.6	50			1322	3.0	90			1826	1.3	40			1306	2.3	70			1222	3.0	90	
	2359	3.9	120			2243	3.6	110			1908	1.6	50								1852	1.6	50			1914	1.3	40	
5 Sa	0733	1.3	40		20 Su	0615	1.6	50		5 Tu	0130	4.3	130		20 W	0004	4.3	130		5 Th	0157	3.9	120		20 F	0126	4.9	150	
	1311	3.6	110			1119	3.3	100			0916	1.6	50			0816	1.6	50			0955	2.0	60			0922	1.6	50	
	1916	1.6	50			1800	1.6	50			1410	2.6	80			1237	3.0	90			1344	2.3	70			1322	2.6	80	
						2319	3.9	120			1945	1.6	50			1917	1.3	40			1919	1.6	50			2016	1.3	40	
6 Su	0056	4.3	130		21 M	0707	1.6	50		6 W	0228	3.9	120		21 Th	0108	4.6	140		6 F	0250	3.9	120		21 Sa	0230	4.9	150	
	0832	1.3	40			1204	3.3	100			1025	2.0	60			0923	1.6	50			1058	2.0	60			1022	1.6	50	
	1404	3.3	100			1839	1.6	50			1501	2.3	70			1336	3.0	90			1427	2.0	60			1425	2.6	80	
	1954	1.6	50								2024	1.6	50			2018	1.3	40			1954	1.6	50			2122	1.3	40	
7 M	0154	3.9	120		22 Tu	0005	3.9	120		7 Th	0330	3.9	120		22 F	0218	4.6	140		7 Sa	0343	3.9	120		22 Su	0334	4.9	150	
	0933	1.6	50			0806	1.6	50			1141	2.0	60			1029	1.6	50			1150	2.0	60			1118	1.6	50	
	1458	3.0	90			1255	3.3	100			1604	2.3	70			1439	2.6	80			1531	2.0	60			1535	3.0	90	
	2038	2.0	60			1926	1.6	50			2106	1.6	50			2125	1.6	50			2043	1.6	50			2232	1.6	50	
8 Tu	0255	3.9	120		23 W	0101	4.3	130		8 F	0435	3.9	120		23 Sa	0329	4.6	140		8 Su	0434	3.9	120		23 M	0436	4.6	140	
	1040	1.6	50			0913	1.6	50			1246	2.0	60			1132	1.6	50			1226	2.0	60			1210	1.6	50	
	1557	2.6	80			1351	3.0	90			1722	2.3	70			1548	2.6	80			1648	2.3	70			1648	3.0	90	
	2127	2.0	60			2024	1.6	50			2156	1.6	50			2237	1.6	50			2144	1.6	50			2344	1.6	50	
9 W	0403	3.9	120		24 Th	0207	4.3	130		9 Sa	0533	3.6	110		24 Su	0439	4.6	140		9 M	0520	3.9	120		24 Tu	0536	4.6	140	
	1155	1.6	50			1024	1.6	50			1322	1.6	50			1230	1.6	50			1258	1.6	50			1257	1.6	50	
	1710	2.6	80			1454	3.0	90			1823	2.3	70			1658	3.0	90			1748	2.3	70			1759	3.3	100	
	2225	2.0	60			2132	1.6	50			2256	2.0	60			2350	1.6	50			2253	2.0	60						
10 Th	0516	3.6	110		25 F	0319	4.6	140		10 Su	0618	3.6	110		25 M	0545	4.6	140		10 Tu	0558	3.9	120		25 W	0054	1.6	50	
	1308	1.6	50			1134	1.6	50			1347	1.6	50			1322	1.6	50			1327	1.6	50			0632	4.6	140	
	1823	2.3	70			1602	3.0	90			1857	2.3	70			1804	3.3	100			1827	2.6	80			1342	1.6	50	
	2329	2.0	60			2243	1.6	50																1900		3.6	110		
11 F	0618	3.6	110		26 Sa	0434	4.6	140		11 M	0005	2.0	60		26 Tu	0102	1.6	50		11 W	0008	2.0	60		26 Th	0203	2.0	60	
	1400	1.6	50			1240	1.6	50			0654	3.9	120			0645	4.6	140			0632	3.9	120			0723	4.3	130	
	1914	2.3	70			1711	3.0	90			1413	1.6	50			1409	1.6	50			1354	1.6	50			1424	1.6	50	
						2357	1.6	50			1918	2.6	80			1901	3.6	110			1902	3.0	90			1954	3.9	120	
12 Sa	0031	2.0	60		27 Su	0547	4.6	140		12 Tu	0110	2.0	60		27 W	0210	1.6	50		12 Th	0119	2.0	60		27 F	0308	2.0	60	
	0703	3.6	110			1340	1.6	50			0724	3.9	120			0740	4.6	140			0703	3.9	120			0809	3.9	120	
	1430	1.6	50			1815	3.0	90			1441	1.6	50			1452	1.6	50			1420	1.6	50			1504	1.3	40	
	1943	2.6	80								1940	3.0	90			1953	3.9	120			1936	3.3	100			2044	4.3	130	
13 Su	0125	1.6	50		28 M	0109	1.3	40		13 W	0205	2.0	60		28 Th	0314	1.6	50		13 F	0222	2.0	60		28 Sa	0409	2.0	60	
	0736	3.6	110			0653	4.9	150			0752	3.9	120			0832	4.3	130			0736	3.6	110			0853	3.6	110	
	1454	1.6	50			1433	1.6	50			1507	1.6	50			1532	1.6	50			1449	1.6	50			1542	1.3	40	
	2000	2.6	80			1912	3.3	100			2007	3.3	100			2043	4.3	130			2012	3.6	110			2132	4.3	130	
14 M	0210	1.6	50		29 Tu	0219	1.3	40		14 Th	0255	2.0	60		29 F	0415	1.6	50											

Puerto Ingeniero White, Argentina, 2019

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							
1 Tu	0235	14.1	430	16 W	0103	14.8	450	1 F	0418	15.4	470	16 Sa	0158	15.1	460	1 F	0250	15.4	470	16 Sa	0023	15.1	460
	0815	2.3	70		0745	2.3	70		0958	1.0	30		0851	1.3	40		0832	0.7	20		0730	1.0	30
	1517	14.1	430		1356	14.8	450		1651	14.4	440		1458	14.1	430		1522	14.4	440		1334	14.4	440
	2037	3.0	90		1947	2.6	80		2222	3.6	110		2052	3.6	110		2049	3.6	110		1930	3.3	100
2 W	0344	14.4	440	17 Th	0151	14.8	450	2 Sa	0512	15.4	470	17 Su	0254	14.8	450	2 Sa	0347	15.4	470	17 Su	0119	14.8	450
	0920	2.0	60		0834	2.0	60		1056	1.0	30		0946	1.6	50		0929	1.0	30		0823	1.3	40
	1618	14.1	430		1444	14.4	440		1750	14.1	430		1554	13.5	410		1620	14.4	440		1428	13.8	420
	2141	3.6	110		2035	3.0	90		2325	3.9	120		2152	4.6	140		2155	3.9	120		2026	3.9	120
3 Th	0445	14.8	450	18 F	0243	14.8	450	3 Su	0602	15.1	460	18 M	0349	14.1	430	3 Su	0440	15.4	470	18 M	0222	14.4	440
	1022	1.6	50		0926	2.0	60		1151	1.0	30		1044	2.3	70		1026	1.0	30		0919	1.6	50
	1718	14.1	430		1628	13.8	420		1847	14.4	440		1655	12.8	390		1718	14.4	440		1529	13.5	410
	2247	3.9	120		2127	3.9	120		●				2257	4.9	150		2259	3.9	120		2130	4.6	140
4 F	0541	15.1	460	19 Sa	0336	14.4	440	4 M	0022	3.6	110	19 Tu	0442	13.8	420	4 M	0531	15.1	460	19 Tu	0327	13.8	420
	1120	1.6	50		1020	2.0	60		0650	15.1	460		1145	2.6	80		1122	1.3	40		1019	2.3	70
	1819	14.1	430		1628	13.8	420		1243	1.3	40		1800	12.5	380		1815	14.4	440		1638	12.8	390
	2349	3.9	120		2225	4.3	130		●				○				2357	3.6	110		2239	4.9	150
5 Sa	0631	15.1	460	20 Su	0426	14.1	430	5 Tu	0113	3.3	100	20 W	0001	4.9	150	5 Tu	0619	14.8	450	20 W	0430	13.5	410
	1215	1.3	40		1116	2.3	70		0736	14.8	450		0532	13.5	410		1215	1.6	50		1122	3.0	90
	1916	14.1	430		1725	13.1	400		1332	1.3	40		1245	3.0	90		1907	14.4	440		1753	12.5	380
	●				2326	4.9	150		2025	14.8	450		1907	12.5	380		●				○	2346	4.6	140
6 Su	0044	3.6	110	21 M	0512	14.1	430	6 W	0159	3.3	100	21 Th	0101	4.6	140	6 W	0049	3.3	100	21 Th	0533	12.8	390
	0718	14.8	450		1213	2.3	70		0821	14.4	440		0623	13.1	400		0706	14.8	450		1225	3.3	100
	1306	1.0	30		1824	12.8	390		1418	1.3	40		1343	3.0	90		1306	1.6	50		1903	12.8	390
	2007	14.4	440		○				2105	14.8	450		2007	12.8	390		●	1954	14.8		450	●	
7 M	0134	3.3	100	22 Tu	0024	4.9	150	7 Th	0242	3.0	90	22 F	0157	4.3	130	7 Th	0136	3.0	90	22 F	0047	4.3	130
	0802	14.8	450		0555	13.8	420		0904	14.4	440		0722	12.8	390		0753	14.4	440		0641	12.5	380
	1355	1.0	30		1309	2.6	80		1501	1.3	40		1437	3.0	90		1352	1.6	50		1324	3.3	100
	2052	14.4	440		1923	12.5	380		2139	14.8	450		2058	13.1	400		2034	14.8	450		2000	13.1	400
8 Tu	0219	3.0	90	23 W	0119	4.6	140	8 F	0322	3.0	90	23 Sa	0251	3.3	100	8 F	0218	3.0	90	23 Sa	0144	3.6	110
	0845	14.8	450		0637	13.5	410		0943	14.1	430		0857	12.8	390		0837	14.1	430		0808	12.5	380
	1441	1.0	30		1403	2.6	80		1539	1.3	40		1528	2.6	80		1434	1.6	50		1418	3.0	90
	2131	14.8	450		2018	12.8	390		2206	14.8	450		2147	13.5	410		2108	14.8	450		2046	13.5	410
9 W	0302	3.0	90	24 Th	0212	4.3	130	9 Sa	0359	3.0	90	24 Su	0345	2.6	80	9 Sa	0257	3.0	90	24 Su	0238	2.6	80
	0926	14.4	440		0723	13.1	400		1017	14.1	430		1042	13.1	400		0917	14.1	430		0931	12.8	390
	1525	0.7	20		1456	2.6	80		1614	1.6	50		1617	2.3	70		1510	2.0	60		1507	2.6	80
	2205	14.8	450		2109	12.8	390		2223	14.8	450		2241	14.1	430		2132	14.8	450		2129	14.1	430
10 Th	0343	3.0	90	25 F	0305	3.6	110	10 Su	0434	3.0	90	25 M	0441	2.0	60	10 Su	0333	2.6	80	25 M	0331	2.0	60
	1006	14.4	440		0821	13.1	400		1046	14.1	430		1145	13.8	420		0950	14.1	430		1031	13.5	410
	1606	1.0	30		1547	2.3	70		1645	1.6	50		1707	2.0	60		1542	2.0	60		1556	2.3	70
	2235	14.8	450		2159	13.5	410		2239	14.8	450		2341	14.8	450		2144	14.8	450		2216	14.4	440
11 F	0423	3.0	90	26 Sa	0359	3.3	100	11 M	0509	2.6	80	26 Tu	0538	1.3	40	11 M	0407	2.6	80	26 Tu	0424	1.3	40
	1043	14.4	440		1009	13.1	400		1117	14.4	440		1240	14.1	430		1018	14.1	430		1122	13.8	420
	1644	1.0	30		1637	2.0	60		1717	1.6	50		1758	2.0	60		1612	2.3	70		1644	2.3	70
	2259	14.8	450		2256	13.8	420		2303	15.1	460		○				2158	14.8	450		2312	14.8	450
12 Sa	0501	3.0	90	27 Su	0455	2.6	80	12 Tu	0546	2.3	70	27 W	0046	15.1	460	12 Tu	0440	2.3	70	27 W	0518	0.7	20
	1117	14.4	440		1156	13.5	410		1152	14.4	440		0636	1.0	30		1046	14.1	430		1212	14.4	440
	1719	1.3	40		1728	2.0	60		1751	2.0	60		1333	14.4	440		1643	2.3	70		1733	2.3	70
	2320	14.8	450		●				2337	15.1	460		1851	2.3	70		2222	15.1	460		●		
13 Su	0538	3.0	90	28 M	0001	14.1	430	13 W	0626	2.0	60	28 Th	0150	15.1	460	13 W	0516	2.0	60	28 Th	0014	15.1	460
	1152	14.4	440		0554	2.0	60		1233	14.8	450		0734	0.7	20		1120	14.4	440		0612	0.3	10
	1752	1.6	50		1301	13.8	420		1828	2.0	60		1427	14.4	440		1718	2.3	70		1302	14.4	440
	2346	14.8	450		1820	2.0	60		●				1948	3.0	90		2255	15.4	470		●	1824	2.6	80
14 M	0617	2.6	80	29 Tu	0110	14.4	440	14 Th	0017	15.1	460	29 F	0557	1.3	40	14 Th	0557	1.3	40	29 F	0117	15.1	460
	1229	14.4	440		0655	1.6	50		0711	1.6	50		1200	14.8	450		1200	14.8	450		0707	0.3	10
	1827	1.6	50		1359	14.1	430		1318	14.8	450		1757	2.3	70		1757	2.3	70		1354	14.4	440
	○				1915	2.3	70		1911	2.3	70		○				2335	15.4	470		1919	3.3	100
15 Tu	0021	14.8	450	30 W	0217	14.8	450	15 F	0105	15.1	460	15 F	0642	1.0	30	15 F	0642	1.0	30	30 Sa	0216	15.1	460
	0659	2.6	80		0757	1.3	40		0759	1.3	40		1244	14.8	450		1244	14.8	450		0801	0.7	20
	1311	14.8	450		1455	14.4	440		1406	14.4	440		1840	2.6	80		1840	2.6	80		1448	14.4	440

Puerto Ingeniero White, Argentina, 2019

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 M	0404	15.1	460		16 Tu	0207	13.8	420		1 W	0412	14.4	440		16 Th	0343	13.1	400		1 Sa	0456	13.8	420		16 Su	0602	13.1	400															
	0951	1.3	40			0857	2.0	60			1003	2.3	70			0940	3.0	90			1054	3.6	110			1131	3.9	120															
	1642	14.1	430			1517	13.1	400			1653	14.1	430			1640	13.5	410			1731	14.4	440			1731	14.4	440		1827	14.8	450											
	2228	3.9	120			2117	4.6	140			2251	3.9	120			2219	3.9	120			2347	3.0	90																				
2 Tu	0454	14.8	450		17 W	0327	13.5	410		2 Th	0459	14.1	430		17 F	0458	12.8	390		2 Su	0547	13.5	410		17 M	0008	2.0	60		17 O	0706	13.1	400		17 Su	0706	13.1	400					
	1047	1.6	50			0958	2.6	80			1057	2.6	80			1045	3.6	110			1146	3.9	120			1229	3.6	110			1229	3.6	110			1913	15.1	460					
	1738	14.4	440			1637	12.8	390			1743	14.4	440			1749	13.8	420			1811	14.4	440			1929	3.6	110			1929	3.6	110			1913	15.1	460		0101	1.6	50	
	2328	3.6	110			2228	4.6	140			2344	3.3	100			2325	3.3	100								0639	13.5	410			0804	13.5	410			1322	3.6	110		1955	15.1	460	
3 W	0543	14.4	440		18 Th	0443	12.8	390		3 F	0547	14.1	430		18 Sa	0610	12.8	390		3 M	0033	2.6	80		18 Tu	0101	1.6	50		18 W	0804	13.5	410		18 Th	0101	1.6	50					
	1141	2.0	60			1103	3.3	100			1150	3.0	90			1150	3.6	110			0639	13.5	410			0804	13.5	410			1322	3.6	110			1955	15.1	460					
	1830	14.4	440			1755	13.1	400			1829	14.4	440			1845	14.1	430			1846	14.4	440			1234	3.9	120			1409	3.3	100			1955	15.1	460		0151	1.0	30	
						2335	4.3	130																1846		14.4	440		2035		15.1	460		0852		13.5	410		2035	15.1	460		
4 Th	0020	3.3	100		19 F	0558	12.8	390		4 Sa	0032	3.0	90		19 Su	0023	2.6	80		4 Tu	0117	2.3	70		19 W	0151	1.0	30		19 Th	0852	13.5	410		19 M	0852	13.5	410					
	0631	14.4	440			1207	3.6	110			0636	13.8	420			0718	12.8	390			0730	13.1	400			0816	13.1	400			1409	3.3	100			2035	15.1	460		0151	1.0	30	
	1233	2.3	70			1858	13.5	410			1321	3.3	100			1248	3.6	110			1317	4.3	130			1357	4.3	130			2035	15.1	460			0852	13.5	410		0151	1.0	30	
	1916	14.8	450								1908	14.8	450			1932	14.4	440			1914	14.4	440			1939	14.4	440			2035	15.1	460			0852	13.5	410		0151	1.0	30	
5 F	0108	3.0	90		20 Sa	0036	3.6	110		5 Su	0115	2.6	80		20 M	0117	2.0	60		5 W	0159	2.3	70		20 Th	0239	0.7	20		20 F	0934	13.8	420		20 Sa	0239	0.7	20					
	0718	14.1	430			0715	12.5	380			0725	13.8	420			0819	13.1	400			0816	13.1	400			0816	13.1	400			1454	3.0	90			0934	13.8	420		0239	0.7	20	
	1320	2.3	70			1306	3.6	110			1321	3.3	100			1340	3.3	100			1357	4.3	130			1939	14.4	440			2114	15.1	460			0934	13.8	420		0239	0.7	20	
	1956	14.8	450			1948	13.8	420			1940	14.8	450			2012	14.8	450			2012	14.8	450								2114	15.1	460			0934	13.8	420		0239	0.7	20	
6 Sa	0150	2.6	80		21 Su	0131	3.0	90		6 M	0155	2.3	70		21 Tu	0208	1.3	40		6 Th	0240	2.0	60		21 F	0326	0.3	10		21 Sa	1012	14.1	430		21 Su	1012	14.1	430					
	0804	14.1	430			0826	12.8	390			0810	13.8	420			0909	13.5	410			0855	13.1	400			1437	3.9	120			1538	3.0	90			1012	14.1	430		1012	14.1	430	
	1401	2.6	80			1359	3.3	100			1358	3.6	110			1427	3.0	90			1437	3.9	120			2005	14.4	440			2155	15.1	460			1538	3.0	90		1012	14.1	430	
	2028	14.8	450			2029	14.1	430			2002	14.4	440			2050	14.8	450			2050	14.8	450								2155	15.1	460			1538	3.0	90		1012	14.1	430	
7 Su	0229	2.6	80		22 M	0223	2.0	60		7 Tu	0233	2.3	70		22 W	0257	0.7	20		7 Th	0321	1.6	50		22 F	0411	0.0	0		22 Sa	1049	14.4	440		22 Su	1049	14.4	440					
	0846	13.8	420			0923	13.1	400			0849	13.5	410			0952	13.8	420			0930	13.1	400			1517	3.9	120			1622	3.0	90			1049	14.4	440		1049	14.4	440	
	1437	2.6	80			1447	3.0	90			1433	3.6	110			1513	3.0	90			1517	3.9	120			2036	14.4	440			2240	14.8	450			1622	3.0	90		1049	14.4	440	
	2050	14.4	440			2108	14.4	440			2019	14.4	440			2129	15.1	460			2036	14.4	440								2240	14.8	450			1622	3.0	90		1049	14.4	440	
8 M	0304	2.6	80		23 Tu	0314	1.3	40		8 W	0309	2.0	60		23 Th	0345	0.3	10		8 Sa	0404	1.6	50		23 Su	0455	0.0	0		23 M	1125	14.4	440		23 Tu	1125	14.4	440					
	0921	13.8	420			1012	13.8	420			0922	13.5	410			1033	14.1	430			1007	13.5	410			1601	3.6	110			1707	3.3	100			1125	14.4	440		1125	14.4	440	
	1508	3.0	90			1534	2.6	80			1506	3.6	110			1558	2.6	80			1601	3.6	110			2117	14.4	440			2327	14.8	450			1707	3.3	100		1125	14.4	440	
	2101	14.4	440			2150	14.8	450			2040	14.8	450			2213	15.1	460			2117	14.4	440								2327	14.8	450			1707	3.3	100		1125	14.4	440	
9 Tu	0338	2.3	70		24 W	0405	0.7	20		9 Th	0346	1.6	50		24 F	0433	0.0	0		9 Su	0450	1.3	40		24 M	0537	1.3	40		24 Tu	1200	14.4	440		24 W	1200	14.4	440					
	0949	13.8	420			1057	14.1	430			0952	13.5	410			1114	14.4	440			1049	13.5	410			1650	3.6	110			1752	3.3	100			1200	14.4	440		1200	14.4	440	
	1539	3.0	90			1620	2.3	70			1543	3.3	100			1644	2.6	80			1650	3.6	110			2209	14.4	440			1752	3.3	100			1200	14.4	440		1200	14.4	440	
	2118	14.8	450			2240	15.1	460			2107	14.8	450			2305	15.1	460			2209	14.4	440								1752	3.3	100			1200	14.4	440		1200	14.4	440	
10 W	0412	2.0	60		25 Th	0456	0.3	10		10 F	0426	1.3	40		25 Sa	0520	0.0	0		10 M	0537	1.3	40		25 Tu	0013	14.4	440		25 W	0617	1.0	30										
	1018	13.8	420			1142	14.4	4																																			

Puerto Ingeniero White, Argentina, 2019

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 M	0455	13.5	410	16 Tu	0647	13.5	410	1 Th	0609	12.5	380	16 F	0114	1.3	40	1 Su	0123	3.0	90	16 M	0224	1.6	50
	1050	4.3	130		1211	3.9	120		1200	4.9	150		0812	14.1	430		0749	12.1	370		0904	14.4	440
	1712	14.4	440		1853	15.4	470		1753	14.1	430		1335	3.3	100		1330	4.3	130		1443	2.6	80
	2347	2.6	80		○	●	2005		15.1	460	2005		15.1	460	1915		13.5	410	2110		14.8	450	
2 Tu	0551	13.1	400	17 W	0043	1.3	40	2 F	0054	2.6	80	17 Sa	0202	1.3	40	2 M	0217	3.0	90	17 Tu	0303	1.6	50
	1145	4.6	140		0745	13.5	410		0712	12.1	370		0855	14.1	430		0840	12.8	390		0936	14.4	440
	1754	14.4	440		1304	3.6	110		1256	4.9	150		1421	3.0	90		1424	3.6	110		1521	2.6	80
●	●	1938	15.1		460	1938	15.1		460	1835	14.1		430	2048	14.8		450	2022	13.5		410	2145	14.4	440
3 W	0037	2.6	80	18 Th	0134	1.0	30	3 Sa	0148	2.6	80	18 Su	0247	1.0	30	3 Tu	0306	2.3	70	18 W	0337	1.6	50
	0648	12.8	390		0834	13.8	420		0809	12.1	370		0932	14.4	440		0923	13.1	400		0956	14.4	440
	1236	4.6	140		1352	3.3	100		1348	4.6	140		1503	3.0	90		1517	3.0	90		1557	2.6	80
	1830	14.4	440		2021	15.1	460		1918	13.8	420		2129	14.8	450		2144	13.5	410		2214	14.4	440
4 Th	0126	2.3	70	19 F	0222	1.0	30	4 Su	0238	2.3	70	19 M	0328	1.0	30	4 W	0353	2.0	60	19 Th	0407	2.0	60
	0743	12.5	380		0916	14.1	430		0856	12.5	380		1004	14.4	440		1009	13.8	420		1006	14.4	440
	1324	4.6	140		1437	3.3	100		1439	3.9	120		1543	3.0	90		1611	2.3	70		1631	2.6	80
	1903	14.1	430		2102	15.1	460		2007	13.8	420		2206	14.8	450		2253	13.8	420		2238	14.4	440
5 F	0213	2.3	70	20 Sa	0307	0.7	20	5 M	0326	2.0	60	20 Tu	0404	1.0	30	5 Th	0440	1.6	50	20 F	0436	2.0	60
	0831	12.5	380		0953	14.4	440		0940	13.1	400		1029	14.4	440		1103	14.4	440		1021	14.4	440
	1410	4.3	130		1521	3.0	90		1531	3.3	100		1622	3.0	90		1706	1.6	50		1705	2.3	70
	1936	14.1	430		2143	14.8	450		2112	13.8	420		2236	14.4	440		2352	14.1	430		2306	14.8	450
6 Sa	0259	2.0	60	21 Su	0350	0.3	10	6 Tu	0413	1.6	50	21 W	0437	1.3	40	6 F	0528	1.6	50	21 Sa	0506	2.0	60
	0912	12.8	390		1027	14.4	440		1026	13.5	410		1044	14.4	440		1206	14.8	450		1048	14.8	450
	1456	3.9	120		1603	3.0	90		1624	3.0	90		1658	3.0	90		1803	1.3	40		1742	2.0	60
	2015	14.1	430		2222	14.8	450		2244	13.8	420		2305	14.4	440		●	●	2340		14.8	450	
7 Su	0345	1.6	50	22 M	0430	0.7	20	7 W	0501	1.3	40	22 Th	0508	1.3	40	7 Sa	0047	14.4	440	22 Su	0541	2.0	60
	0952	13.1	400		1057	14.4	440		1122	14.1	430		1102	14.4	440		0619	2.0	60		1124	15.1	460
	1545	3.6	110		1644	3.3	100		1721	2.3	70		1734	2.6	80		1314	15.1	460		1823	1.6	50
	2103	14.1	430		2300	14.8	450		●	●	2336		14.8	450	1901		1.0	30	1901		1.0	30	
8 M	0431	1.3	40	23 Tu	0507	0.7	20	8 Th	0004	13.8	420	23 F	0539	1.6	50	8 Su	0143	14.1	430	23 M	0020	14.8	450
	1037	13.5	410		1122	14.4	440		0550	1.3	40		1129	14.8	450		0713	2.3	70		0621	2.3	70
	1637	3.3	100		1725	3.3	100		1228	14.4	440		1813	2.6	80		1419	15.1	460		1209	15.1	460
	2211	13.8	420		2335	14.4	440		1821	2.0	60		●	●	1959		1.3	40	1908		1.6	50	
9 Tu	0520	1.3	40	24 W	0542	1.0	30	9 F	0109	14.1	430	24 Sa	0012	14.8	450	9 M	0242	14.1	430	24 Tu	0105	14.4	440
	1132	13.8	420		1146	14.4	440		0642	1.6	50		0613	2.0	60		0812	3.0	90		0706	2.6	80
	1733	3.3	100		1806	3.3	100		1338	14.8	450		1206	14.8	450		1520	15.4	470		1302	15.1	460
	2353	13.8	420		●	●	1922		2.0	60	1855		2.3	70	1855		2.3	70	2059		1.3	40	1958
10 W	0610	1.3	40	25 Th	0012	14.4	440	10 Sa	0209	14.1	430	25 Su	0054	14.8	450	10 Tu	0343	13.8	420	25 W	0155	14.1	430
	1239	13.8	420		0616	1.3	40		0737	2.3	70		0652	2.3	70		0917	3.6	110		0758	3.3	100
	1834	3.0	90		1216	14.4	440		1446	15.1	460		1250	15.1	460		1618	15.4	470		1403	14.8	450
	●	●	1848		3.3	100	1848		3.3	100	2024		1.6	50	1941		2.0	60	2158		1.6	50	2052	2.3	70
11 Th	0119	13.8	420	26 F	0052	14.4	440	11 Su	0310	13.8	420	26 M	0140	14.4	440	11 W	0448	13.5	410	26 Th	0252	13.5	410
	0703	1.6	50		0651	2.0	60		0837	3.0	90		0736	2.6	80		1025	3.9	120		0858	3.9	120
	1355	14.1	430		1255	14.4	440		1548	15.4	470		1342	14.8	450		1712	15.4	470		1508	14.1	430
	1939	2.6	80		1933	3.0	90		2126	1.6	50		2031	2.0	60		2258	2.0	60		2151	2.6	80
12 F	0228	13.8	420	27 Sa	0135	14.4	440	12 M	0413	13.5	410	27 Tu	0230	13.8	420	12 Th	0553	13.5	410	27 F	0357	12.8	390
	0759	2.3	70		0730	2.3	70		0942	3.6	110		0826	3.3	100		1129	3.6	110		1004	4.3	130
	1508	14.4	440		1342	14.8	450		1646	15.4	470		1439	14.8	450		1804	15.1	460		1612	13.8	420
	2045	2.6	80		2021	3.0	90		2227	1.6	50		2125	2.3	70		2125	2.3	70		2254	3.3	100
13 Sa	0333	13.5	410	28 Su	0222	14.1	430	13 Tu	0518	13.5	410	28 W	0326	13.1	400	13 F	0652	13.8	420	28 Sa	0511	12.1	370
	0900	3.0	90		0814	3.0	90		1049	3.9	120		0924	3.9	120		1225	3.6	110		1112	4.6	140
	1613	14.8	450		1434	14.8	450		1740	15.4	470		1537	14.4	440		1854	15.1	460		1715	13.5	410
	2149	2.3	70		2112	2.6	80		2325	1.6	50		2223	2.6	80		●	●	2359		3.6	110	
14 Su	0438	13.5	410	29 M	0313	13.8	420	14 W	0623	13.5	410	29 Th	0427	12.8	390	14 Sa	0050	2.0	60	29 Su	0626	12.1	370
	1005	3.6	110		0905	3.6	110		1151	3.9	120		1027	4.6	140		0743	14.1	430		1215	4.3	130
	1712	15.1	460		1528	14.4	440		1831	15.4	470		1633	14.1	430		1315	3.3	100		1819	13.1	400
	2251	2.0	60		2206	2.6	80		●	●	●		2324	3.0	90		1942	14.8	450		●	●	
15 M	0543	13.1	400	30 Tu	0408	13.5	410	15 Th	0021	1.6	50	30 F	0536	12.1	370	15 Su	0139	2.0	60	30 M	0100	3.6	110
	1111	3.9	120		1001	4.3	130		0721	13.8	420		1132	4.9	150		0827	14.4	440		0729	12.5	380
	1805	15.1	460		1620	14.4	440		1246	3.6	110		1727	13.8	420		1401	3.0	90		1314	3.6	110
	2349	1.6	50		2302	2.6	80		1919	15.1	460		●	●	2028		14.8	450	1930		13.1	400	
			31 W	0506	12.8	390				31 Sa	0025	3.3	100										
				1101	4.6	140					0646	12.1	370										
				1709	14.4	440				1233	4.6	140											
				2359	2.6	80																	

Comodoro Rivadavia, Argentina, 2019

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							
1 Tu	0012	16.4	500	16 W	0544	3.9	120	1 F	0203	15.7	480	16 Sa	0056	15.4	470	1 F	0020	16.1	490	16 Sa	0519	4.3	130
	0635	3.0	90		1202	15.7	480		0757	4.6	140		0650	4.6	140		0622	4.3	130		1138	15.7	480
	1256	17.1	520		1826	4.6	140		1426	16.1	490		1315	15.7	480		1240	15.7	480		1800	3.6	110
	1912	3.9	120						2044	3.9	120		1940	3.9	120		1904	3.6	110				
2 W	0125	16.1	490	17 Th	0027	15.1	460	2 Sa	0309	15.7	480	17 Su	0205	15.7	480	2 Sa	0129	15.4	470	17 Su	0032	15.7	480
	0737	3.6	110		0639	4.3	130		0854	5.2	160		0754	4.9	150		0720	4.9	150		0623	4.6	140
	1400	17.1	520		1257	15.7	480		1526	16.1	490		1420	16.4	500		1348	15.4	470		1247	15.7	480
	2020	3.6	110		1927	4.6	140		2144	3.6	110		2046	3.6	110		2005	3.9	120		1910	3.6	110
3 Th	0235	16.1	490	18 F	0132	15.1	460	3 Su	0407	16.4	500	18 M	0313	16.4	500	3 Su	0237	15.4	470	18 M	0143	15.7	480
	0837	4.3	130		0737	4.6	140		0949	5.2	160		0856	4.6	140		0819	5.2	160		0730	4.6	140
	1500	17.1	520		1355	16.1	490		1619	16.4	500		1525	17.1	520		1454	15.4	470		1358	16.1	490
	2123	3.6	110		2027	4.3	130		2240	3.6	110		2153	3.3	100		2107	3.9	120		2019	3.3	100
4 F	0337	16.7	510	19 Sa	0236	15.7	480	4 M	0457	16.7	510	19 Tu	0416	17.7	540	4 M	0337	15.7	480	19 Tu	0253	16.7	510
	0933	4.6	140		0834	4.9	150		1042	5.2	160		1001	4.6	140		0917	5.2	160		0836	4.6	140
	1555	17.4	530		1453	16.7	510		1706	16.7	510		1626	18.0	550		1552	15.7	480		1507	17.1	520
	2219	3.3	100		2126	3.9	120		● 2329	3.3	100		○ 2302	2.6	80		2206	3.6	110		2129	3.0	90
5 Sa	0431	17.1	520	20 Su	0338	16.7	510	5 Tu	0543	17.1	520	20 W	0514	18.7	570	5 Tu	0428	16.4	500	20 W	0357	17.7	540
	1023	4.9	150		0931	4.9	150		1132	5.2	160		1109	3.9	120		1014	5.2	160		0942	3.9	120
	1643	17.4	530		1550	17.4	530		1749	17.1	520		1724	19.0	580		1641	16.1	490		1610	18.0	550
	● 2308	3.0	90		2226	3.3	100										2300	3.6	110		○ 2238	2.3	70
6 Su	0520	17.4	530	21 M	0437	17.7	540	6 W	0014	3.3	100	21 Th	0006	1.6	50	6 W	0514	16.7	510	21 Th	0453	18.7	570
	1110	4.9	150		1031	4.6	140		0624	17.4	530		0607	19.7	600		1108	4.9	150		1051	3.6	110
	1727	17.7	540		1645	18.4	560		1220	4.9	150		1215	3.3	100		1724	16.4	500		1708	19.0	580
	2353	3.0	90		○ 2326	2.6	80		1827	17.1	520		1817	20.0	610		● 2348	3.3	100		2343	2.0	60
7 M	0604	17.7	540	22 Tu	0532	18.7	570	7 Th	0056	3.0	90	22 F	0102	1.0	30	7 Th	0555	17.1	520	22 F	0545	19.7	600
	1155	4.9	150		1132	4.3	130		0702	17.7	540		0657	20.3	620		1158	4.6	140		1156	3.0	90
	1808	17.7	540		1739	19.0	580		1305	4.6	140		1313	2.6	80		1803	16.7	510		1801	20.0	610
									1903	17.4	530		1908	20.3	620								
8 Tu	0034	3.0	90	23 W	0024	2.0	60	8 F	0135	2.6	80	23 Sa	0150	0.7	20	8 F	0031	3.0	90	23 Sa	0039	1.6	50
	0646	17.7	540		0625	19.4	590		0737	17.7	540		0744	20.7	630		0632	17.4	530		0634	20.0	610
	1239	4.9	150		1232	3.6	110		1346	4.3	130		1403	2.0	60		1245	4.3	130		1254	2.3	70
	1846	17.7	540		1831	19.7	600		1938	17.4	530		1957	20.7	630		1839	17.1	520		1852	20.3	620
9 W	0114	2.6	80	24 Th	0117	1.3	40	9 Sa	0212	2.3	70	24 Su	0234	0.7	20	9 Sa	0112	3.0	90	24 Su	0127	1.3	40
	0724	17.7	540		0715	20.0	610		0810	17.7	540		0830	20.3	620		0707	17.7	540		0720	20.3	620
	1321	4.6	140		1326	3.3	100		1425	3.9	120		1449	1.6	50		1327	3.9	120		1343	1.6	50
	1922	17.4	530		1921	20.0	610		2012	17.4	530		2045	20.3	620		1913	17.4	530		1940	20.3	620
10 Th	0153	2.3	70	25 F	0205	0.7	20	10 Su	0247	2.3	70	25 M	0315	0.7	20	10 Su	0150	3.0	90	25 M	0210	1.3	40
	0801	17.7	540		0803	20.3	620		0843	17.7	540		0915	20.0	610		0739	17.7	540		0804	20.0	610
	1402	4.3	130		1416	2.6	80		1502	3.6	110		1534	1.6	50		1405	3.6	110		1428	1.3	40
	1958	17.4	530		2011	20.3	620		2047	17.1	520		2133	19.4	590		1947	17.4	530		2027	20.0	610
11 F	0230	2.3	70	26 Sa	0250	0.3	10	11 M	0319	2.3	70	26 Tu	0357	1.3	40	11 M	0224	3.0	90	26 Tu	0250	1.6	50
	0836	17.7	540		0851	20.3	620		0915	17.4	530		1000	19.0	580		0810	17.7	540		0847	19.7	600
	1442	3.9	120		1503	2.3	70		1535	3.6	110		1620	2.0	60		1440	3.3	100		1511	1.3	40
	2034	17.1	520		2100	19.7	600		2123	16.7	510		● 2224	18.4	560		2022	17.4	530		2113	19.4	590
12 Sa	0307	2.3	70	27 Su	0334	0.7	20	12 Tu	0348	2.6	80	27 W	0441	2.3	70	12 Tu	0255	3.0	90	27 W	0330	2.3	70
	0912	17.4	530		0938	19.7	600		0950	17.1	520		1047	17.7	540		0842	17.4	530		0930	18.7	570
	1521	3.9	120		1551	2.3	70		1607	3.6	110		1710	2.6	80		1511	3.3	100		1554	1.6	50
	2111	16.7	510		● 2151	19.0	580		● 2204	16.4	500		2318	17.1	520		2058	17.4	530		2201	18.4	560
13 Su	0343	2.3	70	28 M	0419	1.3	40	13 W	0417	3.3	100	28 Th	0529	3.3	100	13 W	0320	3.0	90	28 Th	0412	3.0	90
	0949	17.1	520		1027	19.0	580		1029	16.7	510		1140	16.7	510		0915	17.1	520		1015	17.4	530
	1601	3.9	120		1642	2.6	80		1644	3.9	120		1804	3.3	100		1537	3.3	100		1640	2.3	70
	2151	16.1	490		2245	18.0	550		2252	16.1	490						2139	17.1	520		● 2252	17.1	520
14 M	0419	2.6	80	29 Tu	0508	2.0	60	14 Th	0457	3.6	110	14 Th	0347	3.3	100	14 Th	0347	3.3	100	29 F	0458	3.6	110
	1028	16.7	510		1120	18.0	550		1115	16.1	490		1047	17.7	540		0953	16.7	510		1105	16.4	500
	1642	4.3	130		1738	3.0	90		1733	3.9	120		1710	2.6	80		1610	3.3	100		1731	3.0	90
	● 2235	15.7	480		2345	17.1	520		2350	15.4	470		● 2227	16.4	500		2227	16.4	500		2350	16.1	490
15 Tu	0458	3.3	100	30 W	0602	3.0	90	15 F	0549	4.3	130	15 F	0426	3.6	110	15 F	0426	3.6	110	30 Sa	0549	4.3	130
	1112	16.1	490		1218	17.1	520		1834	4.3	130		1040	16.1	490		1040	16.1	490		1202	15.4	470
	1730	4.6	140		1839	3.6	110						1657	3.6	110		1657	3.6	110		1828	3.6	110
	2327	15.1	460										2325	15.7	480		2325	15.7	480				
			31 Th	0052	16.1	490										31 Su	0055	15.4	470				
				0659	3.9	120											0646	4.9	150				
				1321	16.4	500											1309	14.8	450				
				1941	3.9	120											1928	3.9	120				

Time meridian 45° W. 0000 is midnight.

Comodoro Rivadavia, Argentina, 2019

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														
1 M	0201	15.4	470		16 Tu	0128	16.4	500		1 W	0219	15.7	480		16 Th	0216	17.7	540		1 Sa	0310	17.1	520		16 Su	0343	18.4	560
	0747	5.2	160			0718	4.6	140			0818	4.6	140			0819	3.6	110			0933	3.6	110			1000	2.6	80
	1418	14.8	450			1343	16.1	490			1437	15.1	460			1439	17.4	530			1535	16.4	500			1617	18.4	560
	2030	3.9	120			2004	3.3	100			2050	3.6	110			2054	3.0	90			2151	3.9	120			2216	3.9	120
2 Tu	0301	15.7	480		17 W	0235	17.1	520		2 Th	0311	16.4	500		17 F	0314	18.4	560		2 Su	0352	17.4	530		17 M	0431	18.7	570
	0848	4.9	150			0825	3.9	120			0915	4.3	130			0920	3.0	90			1022	3.6	110			1050	2.3	70
	1518	15.1	460			1453	17.1	520			1529	15.7	480			1539	18.4	560			1620	17.1	520			1707	18.7	570
	2129	3.6	110			2111	2.6	80			2143	3.6	110			2151	3.0	90			2237	4.3	130		○	2303	4.3	130
3 W	0352	16.1	490		18 Th	0336	18.0	550		3 F	0356	17.1	520		18 Sa	0406	19.0	580		3 M	0432	17.7	540		18 Tu	0517	18.7	570
	0946	4.6	140			0931	3.6	110			1008	3.9	120			1018	2.6	80			1109	3.3	100			1138	2.6	80
	1608	15.7	480			1555	18.0	550			1614	16.4	500		○	1633	19.0	580		●	1703	17.4	530			1755	18.7	570
	2223	3.6	110			2215	2.6	80			2233	3.6	110			2244	3.0	90			2322	4.6	140			2349	4.6	140
4 Th	0438	16.7	510		19 F	0430	19.0	580		4 Sa	0436	17.4	530		19 Su	0454	19.4	590		4 Tu	0511	17.7	540		19 W	0600	18.4	560
	1040	4.3	130			1034	3.0	90			1058	3.6	110			1112	2.3	70			1154	3.3	100			1224	2.6	80
	1652	16.4	500		○	1651	19.0	580		●	1656	17.1	520			1724	19.4	590			1747	18.0	550			1841	18.4	560
	2313	3.3	100			2315	2.3	70			2320	3.9	120			2334	3.3	100										
5 F	0518	17.1	520		20 Sa	0520	19.7	600		5 Su	0514	17.7	540		20 M	0540	19.4	590		5 W	0007	4.6	140		20 Th	0035	4.9	150
	1131	3.9	120			1135	2.6	80			1145	3.6	110			1202	2.3	70			0552	18.0	550			0643	18.0	550
	1731	16.7	510			1743	19.7	600			1735	17.4	530			1813	19.4	590			1238	3.3	100			1309	2.6	80
●	2359	3.3	100																		1832	18.4	560			1925	18.4	560
6 Sa	0555	17.4	530		21 Su	0008	2.3	70		6 M	0004	3.9	120		21 Tu	0021	3.9	120		6 Th	0050	4.9	150		21 F	0120	4.9	150
	1218	3.9	120			0607	20.0	610			0550	17.7	540			0624	19.4	590			0634	18.0	550			0724	17.4	530
	1809	17.1	520			1229	2.3	70			1229	3.6	110			1250	2.3	70			1321	3.0	90			1352	2.6	80
						1832	20.0	610			1815	17.7	540			1900	19.4	590			1918	18.4	560			2007	17.7	540
7 Su	0042	3.3	100		22 M	0056	2.6	80		7 Tu	0046	4.3	130		22 W	0106	3.9	120		7 F	0132	4.6	140		22 Sa	0204	4.9	150
	0630	17.7	540			0652	20.0	610			0625	17.7	540			0707	18.7	570			0719	18.0	550			0805	17.1	520
	1301	3.6	110			1318	2.0	60			1310	3.3	100			1335	2.3	70			1403	2.6	80			1434	2.6	80
	1845	17.4	530			1920	20.0	610			1855	18.0	550			1945	19.0	580			2005	18.4	560			2049	17.4	530
8 M	0121	3.6	110		23 Tu	0139	2.6	80		8 W	0125	4.3	130		23 Th	0149	4.3	130		8 Sa	0214	4.6	140		23 Su	0248	4.6	140
	0703	17.7	540			0736	19.4	590			0702	17.7	540			0750	18.0	550			0807	17.7	540			0847	16.4	500
	1340	3.6	110			1402	1.6	50			1348	3.3	100			1417	2.3	70			1445	2.3	70			1516	2.6	80
	1921	17.7	540			2006	19.7	600			1936	18.0	550			2030	18.4	560			2055	18.4	560			2131	17.1	520
9 Tu	0157	3.6	110		24 W	0220	3.0	90		9 Th	0200	4.3	130		24 F	0231	4.3	130		9 Su	0300	4.3	130		24 M	0334	4.6	140
	0735	17.7	540			0818	19.0	580			0741	17.7	540			0832	17.4	530			0857	17.7	540			0931	15.7	480
	1416	3.3	100			1445	2.0	60			1423	3.0	90			1500	2.6	80			1531	2.3	70			1600	3.0	90
	1958	17.7	540			2052	19.0	580			2020	18.0	550			2114	17.7	540			2147	18.0	550			2214	16.7	510
10 W	0228	3.6	110		25 Th	0301	3.3	100		10 F	0233	4.3	130		25 Sa	0315	4.6	140		10 M	0350	3.9	120		25 Tu	0422	4.3	130
	0809	17.4	530			0900	18.0	550			0823	17.4	530			0915	16.7	510			0953	17.1	520			1017	15.4	470
	1446	3.0	90			1527	2.0	60			1457	2.6	80			1543	2.6	80			1625	2.3	70			1647	3.3	100
	2037	17.7	540			2138	18.0	550			2107	17.7	540			2200	17.1	520		○	2245	17.7	540		○	2301	16.1	490
11 Th	0255	3.6	110		26 F	0343	3.6	110		11 Sa	0310	4.3	130		26 Su	0401	4.6	140		11 Tu	0449	3.9	120		26 W	0514	4.3	130
	0845	17.4	530			0944	17.1	520			0909	17.1	520			1002	15.7	480			1055	16.7	510			1109	14.8	450
	1513	3.0	90			1612	2.6	80			1538	2.6	80			1630	3.0	90			1726	2.6	80			1738	3.6	110
	2121	17.4	530		○	2227	17.1	520		○	2159	17.4	530		○	2249	16.4	500			2347	17.4	530			2350	15.7	480
12 F	0325	3.9	120		27 Sa	0428	4.3	130		12 Su	0357	4.3	130		27 M	0451	4.6	140		12 W	0556	3.9	120		27 Th	0611	4.3	130
	0927	16.7	510			1032	16.1	490			1004	16.4	500			1053	15.1	460			1204	16.4	500			1206	14.8	450
	1549	3.0	90			1700	3.0	90			1631	3.0	90			1721	3.3	100			1832	3.0	90			1832	3.9	120
○	2211	16.7	510			2320	16.1	490			2258	16.7	510			2342	16.1	490										
13 Sa	0408	3.9	120		28 Su	0519	4.6	140		13 M	0455	4.6	140		28 Tu	0547	4.6											

Punta Loyola, Argentina, 2019

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 Tu	0055	10.2	310	16 W	0532	32.5	990	1 F	0126	13.8	420	1 F	0100	15.4	470	16 Sa	0538	32.2	980				
	0649	35.4	1080		1156	13.5	410		0823	34.8	1060		0719	33.8	1030		0619	31.8	970	1242	12.8	390	
	1328	10.8	330		1811	32.2	980		1513	9.8	300		1408	10.8	330		1351	13.1	400	1847	32.5	990	
	1927	35.1	1070						2110	35.4	1080		2011	35.1	1070		1959	32.8	1000				
2 W	0156	10.2	310	17 Th	0033	13.5	410	2 Sa	0333	11.5	350	17 Su	0240	11.5	350	2 Sa	0218	14.8	450	17 Su	0121	14.1	430
	0747	36.4	1110		0636	33.8	1030		0919	35.4	1080		0830	35.8	1090		0812	32.2	980		0709	32.8	1000
	1430	9.8	300		1304	12.5	380		1605	8.5	260		1518	7.9	240		1453	11.5	350		1403	10.5	320
	2026	36.1	1100		1918	33.8	1030		2158	36.4	1110		2113	37.4	1140		2055	34.1	1040		2003	34.8	1060
3 Th	0253	9.8	300	18 F	0139	12.1	370	3 Su	0423	10.2	310	18 M	0343	8.5	260	3 Su	0315	13.1	400	18 M	0232	11.5	350
	0839	37.1	1130		0739	35.4	1080		1002	36.1	1100		0931	38.1	1160		0907	33.1	1010		0824	35.1	1070
	1527	8.5	260		1413	10.2	310		1650	7.2	220		1616	4.6	140		1543	10.2	310		1506	7.2	220
	2119	37.1	1130		2021	35.8	1090		2236	36.7	1120		2207	39.7	1210		2138	35.1	1070		2102	37.4	1140
4 F	0347	9.2	280	19 Sa	0245	10.5	320	4 M	0505	9.5	290	19 Tu	0439	5.9	180	4 M	0401	11.8	360	19 Tu	0330	8.2	250
	0927	37.7	1150		0840	37.4	1140		1036	35.8	1090		1025	40.4	1230		0946	33.8	1030		0922	37.7	1150
	1619	7.2	220		1521	7.5	230		1728	6.9	210		1709	2.0	60		1623	8.9	270		1601	4.3	130
	2207	37.7	1150		2121	38.1	1160		●	2306	36.4		1110	○	2257		41.0	1250	2210		35.4	1080	2152	39.7	1210
5 Sa	0437	8.9	270	20 Su	0349	8.2	250	5 Tu	0539	9.2	280	20 W	0529	3.6	110	5 Tu	0437	10.5	320	20 W	0422	5.6	170
	1010	38.1	1160		0937	39.0	1190		1105	35.8	1090		1115	41.7	1270		1013	34.4	1050		1012	40.0	1220
	1707	6.6	200		1624	4.9	150		1759	6.9	210		1758	0.3	10		1655	8.2	250		1650	2.0	60
	●	2249	37.7		1150	2216	39.7		1210	2331	36.1		1100	2343	42.0		1280	2233	35.8		1090	○	2238	41.3	1260
6 Su	0522	8.9	270	21 M	0449	6.2	190	6 W	0604	9.2	280	21 Th	0617	2.6	80	6 W	0503	9.8	300	21 Th	0511	3.3	100
	1047	37.4	1140		1032	40.4	1230		1135	35.4	1080		1201	42.3	1290		1039	34.8	1060		1059	41.7	1270
	1750	6.2	190		1721	2.6	80		1823	7.2	220		1844	0.0	0		1720	7.9	240		1737	1.0	30
	2325	37.1	1130		○	2309	40.7		1240						●		2258	36.1	1100		2321	42.3	1290
7 M	0601	9.2	280	22 Tu	0543	4.6	140	7 Th	0000	35.8	1090	22 F	0026	42.0	1280	7 Th	0526	8.9	270	22 F	0556	2.3	70
	1120	36.7	1120		1125	41.3	1260		0628	9.2	280		0702	2.3	70		1109	35.4	1080		1142	42.0	1280
	1826	6.6	200		1814	1.3	40		1208	35.1	1070		1245	42.0	1280		1745	7.2	220		1821	1.0	30
	2356	36.1	1100		2359	41.3	1260		1848	7.5	230		1928	1.0	30		2328	36.7	1120				
8 Tu	0633	9.8	300	23 W	0634	3.6	110	8 F	0031	35.4	1080	23 Sa	0108	41.3	1260	8 F	0554	8.2	250	23 Sa	0002	42.3	1290
	1154	35.8	1090		1215	41.7	1270		0655	9.2	280		0745	3.3	100		1143	36.1	1100		0640	2.3	70
	1855	7.5	230		1904	0.7	20		1242	35.1	1070		1328	41.0	1250		1815	6.9	210		1224	42.0	1280
									1918	8.2	250		2010	3.0	90						1903	2.0	60
9 W	0026	35.1	1070	24 Th	0047	41.0	1250	9 Sa	0106	35.4	1080	24 Su	0149	40.4	1230	9 Sa	0002	37.1	1130	24 Su	0041	42.0	1280
	0657	10.5	320		0723	3.6	110		0728	9.5	290		0827	5.2	160		0627	7.5	230		0721	3.0	90
	1228	34.4	1050		1303	41.0	1250		1319	34.8	1060		1410	39.4	1200		1219	36.7	1120		1304	41.0	1250
	1918	8.5	260		1951	1.3	40		1952	8.9	270		2051	5.6	170		1850	7.2	220		1943	3.9	120
10 Th	0059	34.1	1040	25 F	0133	40.4	1230	10 Su	0141	35.1	1070	25 M	0229	38.7	1180	10 Su	0038	37.4	1140	25 M	0118	40.7	1240
	0722	11.2	340		0810	4.6	140		0804	10.2	310		0907	7.5	230		0703	7.5	230		0800	4.9	150
	1304	33.8	1030		1350	39.7	1210		1356	34.4	1050		1454	37.1	1130		1257	37.1	1130		1343	39.4	1200
	1945	9.5	290		2038	3.0	90		2030	9.8	300		2132	8.9	270		1927	7.5	230		2020	6.6	200
11 F	0133	33.5	1020	26 Sa	0219	39.0	1190	11 M	0219	34.8	1060	26 Tu	0310	36.7	1120	11 M	0114	37.4	1140	26 Tu	0154	39.4	1200
	0753	11.8	360		0856	6.2	190		0843	10.8	330		0948	10.2	310		0741	7.9	240		0836	6.9	210
	1341	32.8	1000		1438	38.4	1170		1437	34.1	1040		1543	34.8	1060		1336	36.7	1120		1424	37.4	1140
	2018	10.5	320		2125	5.2	160		2111	11.2	340		●	2214	11.8		360	2006	8.9		270	2053	9.5	290
12 Sa	0211	32.8	1000	27 Su	0306	37.4	1140	12 Tu	0300	34.4	1050	27 W	0357	34.8	1060	12 Tu	0152	37.1	1130	27 W	0232	37.1	1130
	0829	12.5	380		0943	8.5	260		0927	11.8	360		1038	12.5	380		0821	8.9	270		0908	9.5	290
	1419	32.2	980		1529	36.4	1110		1526	33.1	1010		1643	32.8	1000		1418	36.1	1100		1508	35.1	1070
	2056	11.5	350		●	2214	8.2		250	●	2159		12.8	390	2313		14.4	440	2048		10.5	320	2126	12.5	380
13 Su	0251	32.5	990	28 M	0356	35.8	1090	13 W	0349	33.5	1020	28 Th	0454	32.8	1000	13 W	0232	36.1	1100	28 Th	0315	34.8	1060
	0910	13.1	400		1036	10.5	320		1019	12.8	390		1222	13.8	420		0905	10.2	310		0945	11.8	360
	1503	31.8	970		1626	34.8	1060		1627	32.5	990		1829	31.8	970		1505	34.8	1060		1600	32.5	990
	2140	12.5	380		2309	10.8	330		2256	14.1	430						2135	12.5	380		●	2207	15.1	460
14 M	0336	32.2	980	29 Tu	0452	34.8	1060	14 Th	0451	32.8	1000	14 Th	0318	34.8	1060	14 Th	0318	34.8	1060	29 F	0405	32.2	980
	0957	13.8	420		1141	12.1	370		1125	13.5	410		1038	11.8									

Punta Loyola, Argentina, 2019

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	h m	ft cm	h m	ft cm
1 M	0242 15.1 460 0837 30.5 930 1505 12.1 370 2101 32.8 1000	16 Tu	0214 10.8 330 0810 35.1 1070 1446 7.2 220 2042 37.4 1140	1 W	0157 15.4 470 0758 29.9 910 1421 13.1 400 2022 32.5 990	16 Th	0246 8.9 270 0841 36.7 1120 1512 6.6 200 2104 38.7 1180	1 Sa	0232 11.5 350 0844 33.8 1030 1459 10.8 330 2103 36.4 1110	16 Su	0412 7.2 220 0959 37.7 1150 1632 8.2 250 2208 38.7 1180
2 Tu	0322 13.8 420 0907 31.5 960 1539 11.2 340 2124 33.8 1030	17 W	0310 8.2 250 0905 37.4 1140 1538 4.9 150 2130 39.4 1200	2 Th	0237 13.5 410 0841 31.8 970 1500 11.5 350 2101 34.4 1050	17 F	0339 6.9 210 0931 38.4 1170 1603 5.9 180 2149 39.7 1210	2 Su	0325 9.5 290 0933 35.8 1090 1552 9.5 290 2150 38.1 1160	17 M	0504 6.2 190 1047 38.1 1160 1722 8.2 250 2251 38.7 1180
3 W	0349 12.1 370 0932 32.8 1000 1604 10.2 310 2148 35.1 1070	18 Th	0402 5.9 180 0953 39.4 1200 1627 3.3 100 2215 40.7 1240	3 F	0318 11.2 340 0923 33.8 1030 1542 9.8 300 2140 36.4 1110	18 Sa	0429 5.6 170 1017 39.4 1200 1651 5.6 170 2231 40.4 1230	3 M	0419 7.2 220 1022 37.7 1150 1646 8.2 250 2237 39.7 1210	18 Tu	0552 5.6 170 1131 37.7 1150 1808 8.2 250 2331 38.4 1170
4 Th	0412 10.5 320 1002 34.1 1040 1631 8.9 270 2220 36.1 1100	19 F	0450 4.3 130 1039 40.7 1240 1714 3.0 90 2257 41.7 1270	4 Sa	0402 9.2 280 1005 35.8 1090 1626 8.5 260 2221 38.1 1160	19 Su	0518 4.6 140 1102 39.7 1210 1738 5.9 180 2311 40.7 1240	4 Tu	0514 5.6 170 1111 39.0 1190 1740 7.2 220 2325 40.4 1230	19 W	0637 5.2 160 1212 37.4 1140 1851 8.9 270
5 F	0443 8.9 270 1038 35.8 1090 1705 7.5 230 2255 37.4 1140	20 Sa	0536 3.3 100 1121 41.3 1260 1758 3.0 90 2336 42.0 1280	5 Su	0447 7.2 220 1048 37.7 1150 1712 7.2 220 2303 39.4 1200	20 M	0604 4.3 130 1144 39.4 1200 1822 6.6 200 2349 40.0 1220	5 W	0609 4.3 130 1201 39.7 1210 1833 6.6 200	20 Th	0008 37.4 1140 0718 5.9 180 1249 36.4 1110 1928 9.8 300
6 Sa	0520 7.5 230 1116 37.1 1130 1743 6.9 210 2332 38.7 1180	21 Su	0620 3.0 90 1202 41.0 1250 1840 4.3 130	6 M	0534 5.9 180 1132 38.7 1180 1758 6.9 210 2346 40.0 1220	21 Tu	0648 4.6 140 1224 38.7 1180 1903 7.9 240	6 Th	0013 40.4 1230 0703 3.6 110 1251 39.4 1200 1926 6.6 200	21 F	0045 36.1 1100 0752 6.9 210 1324 35.1 1070 1957 10.8 330
7 Su	0559 6.2 190 1155 38.1 1160 1823 6.6 200	22 M	0013 41.3 1260 0701 3.6 110 1242 40.0 1220 1919 5.9 180	7 Tu	0621 4.9 150 1217 39.4 1200 1846 6.9 210	22 W	0025 39.0 1190 0728 5.6 170 1303 37.4 1140 1940 9.2 280	7 F	0102 39.7 1210 0756 3.6 110 1343 38.7 1180 2018 7.2 220	22 Sa	0121 34.4 1050 0819 8.5 260 1359 33.8 1030 2021 12.1 370
8 M	0011 39.4 1200 0640 5.9 180 1236 38.4 1170 1904 6.9 210	23 Tu	0049 40.4 1230 0740 4.9 150 1320 38.7 1180 1955 8.2 250	8 W	0029 40.0 1220 0709 4.9 150 1303 39.0 1190 1934 7.5 230	23 Th	0101 37.4 1140 0804 6.9 210 1341 35.8 1090 2010 11.2 340	8 Sa	0153 38.7 1180 0850 4.6 140 1437 37.7 1150 2112 8.5 260	23 Su	0159 33.1 1010 0843 9.8 300 1436 32.8 1000 2050 13.1 400
9 Tu	0050 39.4 1200 0722 6.2 190 1318 38.4 1170 1947 8.2 250	24 W	0125 38.7 1180 0814 6.9 210 1359 36.7 1120 2025 10.5 320	9 Th	0113 39.4 1200 0759 5.6 170 1351 38.1 1160 2023 8.9 270	24 F	0139 35.4 1080 0833 8.9 270 1420 34.1 1040 2038 12.8 390	9 Su	0248 37.1 1130 0946 5.9 180 1535 36.4 1110 2210 9.8 300	24 M	0239 31.8 970 0915 11.5 350 1516 31.8 970 2127 14.1 430
10 W	0130 38.7 1180 0806 6.9 210 1402 37.4 1140 2032 9.8 300	25 Th	0202 36.7 1120 0844 9.2 280 1441 34.4 1050 2055 12.8 390	10 F	0200 38.1 1160 0852 6.9 210 1444 36.4 1110 2118 10.5 320	25 Sa	0219 33.5 1020 0901 10.5 320 1503 32.5 990 2112 14.1 430	10 M	0351 35.4 1080 1046 7.2 220 1639 35.4 1080 2312 10.8 330	25 Tu	0323 30.5 930 0954 12.5 380 1601 31.2 950 2211 14.8 450
11 Th	0212 37.4 1140 0854 8.5 260 1451 35.8 1090 2122 11.8 360	26 F	0243 34.1 1040 0917 11.2 340 1529 32.5 990 2134 14.8 450	11 Sa	0251 36.1 1100 0953 8.5 260 1545 34.8 1060 2222 12.1 370	26 Su	0303 31.5 960 0939 12.5 380 1550 30.8 940 2155 15.4 470	11 Tu	0501 34.4 1050 1148 8.5 260 1744 35.1 1070	26 W	0413 29.9 910 1040 13.5 410 1650 31.2 950 2301 15.1 460
12 F	0259 35.4 1080 0950 10.5 320 1551 33.8 1030 2224 13.8 420	27 Sa	0330 31.5 960 1002 13.5 410 1627 30.5 930 2225 16.7 510	12 Su	0356 34.1 1040 1104 9.5 290 1700 33.8 1030 2336 12.8 390	27 M	0354 29.5 900 1026 13.8 420 1644 30.2 920 2246 16.4 500	12 W	0016 11.2 340 0612 34.4 1050 1249 8.9 270 1846 35.4 1080	27 Th	0511 29.9 910 1132 13.8 420 1744 31.8 970 2356 14.4 440
13 Sa	0400 33.1 1010 1108 11.8 360 1709 32.5 990 2348 14.4 440	28 Su	0428 29.5 900 1105 14.8 450 1750 29.9 910 2336 17.4 530	13 M	0521 32.8 1000 1216 9.8 300 1815 34.1 1040	28 Tu	0454 28.5 870 1121 14.4 440 1742 29.9 910 2345 16.4 500	13 Th	0119 10.8 330 0716 34.8 1060 1348 9.2 280 1942 36.4 1110	28 F	0612 30.5 930 1228 13.8 420 1839 32.8 1000
14 Su	0528 31.8 970 1236 11.5 350 1837 33.1 1010	29 M	0545 28.2 860 1253 15.1 460 1905 30.2 920	14 Tu	0046 12.1 370 0641 33.5 1020 1321 8.9 270 1920 35.4 1080	29 W	0600 28.5 870 1220 14.4 440 1836 30.8 940	14 F	0219 9.8 300 0815 35.8 1090 1445 8.9 270 2034 37.4 1140	29 Sa	0055 13.5 410 0712 32.2 980 1326 12.8 390 1934 34.4 1050
15 M	0109 13.5 410 0701 32.8 1000 1347 9.5 290 1946 35.1 1070	30 Tu	0110 16.7 510 0707 28.5 870 1343 14.4 440 1945 31.2 950	15 W	0149 10.8 330 0746 35.1 1070 1419 7.5 230 2015 37.1 1130	30 Th	0044 15.4 470 0700 29.9 910 1315 13.8 420 1927 32.5 990	15 Sa	0317 8.5 260 0909 36.7 1120 1539 8.5 260 2123 38.4 1170	30 Su	0155 11.8 360 0810 33.8 1030 1424 11.8 360 2029 36.1 1100
						31 F	0139 13.8 420 0754 31.5 960 1407 12.1 370 2015 34.4 1050				

Time meridian 45° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Punta Loyola, Argentina, 2019

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 M	0256	9.8	300	16 Tu	0450	6.9	210	1 Th	0453	4.6	140	16 F	0553	6.6	200	1 Su	0619	0.7	20	16 M	0605	8.2	250
	0906	35.8	1090		1036	37.1	1130		1043	39.0	1190		1130	36.1	1100		1203	41.7	1270		1149	35.8	1090
	1525	10.2	310		1707	9.5	290		1716	6.2	190		1804	9.2	280		1838	3.0	90		1814	9.2	280
	2123	37.7	1150		2239	37.1	1130		2259	40.0	1220		2333	35.1	1070								
2 Tu	0400	7.5	230	17 W	0537	6.2	190	2 F	0549	2.3	70	17 Sa	0625	6.9	210	2 M	0023	41.7	1270	17 Tu	0005	35.1	1070
	1002	37.4	1140		1120	37.1	1130		1135	40.4	1230		1157	35.4	1080		0705	1.0	30		0636	8.5	260
	1627	8.5	260		1753	9.2	280		1810	4.6	140		1831	9.5	290		1247	41.3	1260		1223	36.1	1100
	2217	39.0	1190		2319	36.7	1120		2352	41.0	1250						1924	3.3	100		1848	9.2	280
3 W	0503	5.2	160	18 Th	0620	5.9	180	3 Sa	0640	1.0	30	18 Su	0003	34.8	1060	3 Tu	0108	41.3	1260	18 W	0042	35.4	1080
	1056	39.0	1190		1157	36.4	1110		1225	41.0	1250		0650	7.5	230		0750	2.3	70		0711	9.2	280
	1727	7.2	220		1833	9.2	280		1900	3.6	110		1226	35.1	1070		1330	40.7	1240		1258	36.1	1100
	2310	40.0	1220		2355	36.1	1100						1854	9.8	300		2008	4.6	140		1925	9.2	280
4 Th	0601	3.3	100	19 F	0657	6.2	190	4 Su	0042	41.3	1260	19 M	0036	34.4	1050	4 W	0152	40.0	1220	19 Th	0120	35.1	1070
	1149	39.7	1210		1230	35.8	1090		0729	0.7	20		0714	8.2	250		0834	4.6	140		0748	9.8	300
	1824	5.9	180		1906	9.5	290		1313	40.7	1240		1258	34.8	1060		1412	39.4	1200		1235	35.8	1090
									1948	3.9	120		1922	10.2	310		2052	6.6	200		2004	9.8	300
5 F	0003	40.4	1230	20 Sa	0028	35.1	1070	5 M	0130	40.7	1240	20 Tu	0111	34.1	1040	5 Th	0237	38.1	1160	20 F	0201	34.8	1060
	0655	2.3	70		0727	7.2	220		0816	1.6	50		0744	9.2	280		0917	7.2	220		0829	11.2	340
	1241	40.0	1220		1300	34.8	1060		1359	40.0	1220		1332	34.8	1060		1454	37.7	1150		1414	35.4	1080
	1916	5.2	160		1931	10.5	320		2034	4.9	150		1954	10.5	320		2138	8.9	270		2046	10.5	320
6 Sa	0054	40.4	1230	21 Su	0102	34.1	1040	6 Tu	0218	39.7	1210	21 W	0147	33.8	1030	6 F	0326	36.1	1100	21 Sa	0245	34.1	1040
	0747	1.6	50		0751	8.2	250		0902	3.6	110		0817	10.2	310		1002	10.5	320		0913	12.5	380
	1332	39.7	1210		1331	34.1	1040		1445	39.0	1190		1408	34.4	1050		1540	36.1	1100		1457	34.4	1050
	2007	5.2	160		1954	11.2	340		2121	6.6	200		2030	11.2	340		2230	10.8	330		2134	11.5	350
7 Su	0146	39.7	1210	22 M	0137	33.5	1020	7 W	0307	38.1	1160	22 Th	0226	33.5	1020	7 Sa	0423	34.1	1040	22 Su	0338	33.1	1010
	0837	2.3	70		0816	9.5	290		0949	6.2	190		0855	11.2	340		1058	12.8	390		1005	13.8	420
	1423	39.0	1190		1405	33.5	1020		1532	37.4	1140		1446	34.1	1040		1634	34.1	1040		1550	33.5	1020
	2057	6.2	190		2024	11.8	360		2210	8.9	270		2110	11.8	360		2350	12.5	380		2234	12.5	380
8 M	0238	38.4	1170	23 Tu	0214	32.5	990	8 Th	0359	36.4	1110	23 F	0309	33.1	1010	8 Su	0546	32.8	1000	23 M	0443	32.5	990
	0927	3.9	120		0847	10.5	320		1039	8.9	270		0937	12.5	380		1223	14.4	440		1005	14.4	440
	1514	37.7	1150		1442	33.1	1010		1623	36.1	1100		1529	33.8	1030		1748	32.8	1000		1659	32.8	1000
	2148	7.9	240		2059	12.5	380		2306	10.8	330		2155	12.5	380						2354	12.5	380
9 Tu	0333	37.1	1130	24 W	0254	32.2	980	9 F	0459	34.8	1060	24 Sa	0400	32.5	990	9 M	0116	12.1	370	24 Tu	0603	32.5	990
	1020	5.9	180		0924	11.8	360		1137	11.5	350		1026	13.5	410		0722	33.1	1010		1232	14.1	430
	1608	36.7	1120		1522	32.8	1000		1720	35.1	1070		1620	33.5	1020		1342	14.1	430		1823	32.8	1000
	2242	9.5	290		2139	13.1	400						2250	13.1	400		1934	32.8	1000				
10 W	0432	35.8	1090	25 Th	0339	31.5	960	10 Sa	0017	11.8	360	25 Su	0503	32.2	980	10 Tu	0221	11.2	340	25 W	0119	10.8	330
	1115	8.2	250		1006	12.8	390		1247	12.8	390		1124	14.4	440		0824	34.4	1050		0919	38.7	1180
	1705	35.8	1090		1607	32.5	990		1828	34.4	1050		1722	33.1	1010		1444	13.1	400		1349	12.1	370
	2342	10.8	330		2225	13.8	420						2357	13.1	400		2037	33.8	1030		1942	34.8	1060
11 Th	0537	34.8	1060	26 F	0432	31.5	960	11 Su	0134	11.8	360	26 M	0615	32.5	990	11 W	0315	9.5	290	26 Th	0227	8.2	250
	1215	9.8	300		1056	13.5	410		0733	33.8	1030		1235	14.1	430		0912	35.1	1070		0825	36.4	1110
	1805	35.4	1080		1659	32.8	1000		1400	13.1	400		1834	33.5	1020		1535	11.5	350		1452	9.2	280
					2319	13.8	420		1944	34.4	1050						2125	34.4	1050		2046	37.1	1130
12 F	0047	11.5	350	27 Sa	0533	31.5	960	12 M	0242	10.5	320	27 Tu	0118	11.8	360	12 Th	0401	8.5	260	27 F	0325	5.6	170
	0644	34.4	1050		1152	13.8	420		0840	34.8	1060		0729	33.8	1030		0952	35.8	1090		0919	38.7	1180
	1317	10.8	330		1757	33.1	1010		1504	12.1	370		1352	12.8	390		1618	10.5	320		1547	6.6	200
	1906	35.8	1090						2050	35.1	1070		1947	34.8	1060		2202	34.8	1060		2140	39.4	1200
13 Sa	0155	11.2	340	28 Su	0020	13.1	400	13 Tu	0340	8.9	270	28 W	0236	9.5	290	13 F	0441	7.9	240	28 Sa	0418	3.3	100
	0750	34.8	1060		0638	32.5	990		0934	35.8	1090		0836	35.8	1090		1023	35.8	1090		1008	40.4	1230
	1420	11.2	340		1254	13.5	410		1559	11.2	340		1503	10.2	310		1653	9.8	300		1639	4.6	140
	2006	36.1	1100		1859	34.1	1040		2143	35.8	1090		2054	36.7	1120		2231	35.1	1070		2229	41.0	1250
14 Su	0259	9.8	300	29 M	0128	11.8	360	14 W	0430	7.5	230	29 Th	0341	6.2	190	14 Sa	0513	7.9	240	29 Su	0507	2.0	60
	0852	35.8	1090		0744	33.8	1030		1019	36.4	1110		0935	38.1	1160		1049	35.8	1090		1053	41.3	1260
	1520	10.8	330		1401	12.5	380		1647	10.2	310		1605	7.5	230		1721	9.5	290		1727	3.3	100
	2102	36.7	1120		2002	35.4	1080		2227	35.8	1090		2153	39.0	1190		2259	35.1	1070		2315	41.7	1270
15 M	0357	8.5	260	30 Tu	0240	9.8	300	15 Th	0514	6.6	200	30 F	0438	3.6	110	15 Su	0539	7.9	240	30 M	0554	1.6	50
	0947	36.4	1110		0847	35.8	1090		1058	36.4</													

EXTRA TIDES, 2019

Woods Hole, Massachusetts	January	3 2127 0.2 06	March	13 2338 2.6 80	September	4 2351 1.6 50	May	11 2313 3.9 120
	h m ft cm	4 2221 0.3 09	h m ft cm	15 1704 1.3 40	h m ft cm	5 1811 3.0 90	h m ft cm	
	13 2007 0.3 09	5 2308 0.3 09	25 2141 2.0 60	25 2141 2.0 60	2215 1.6 50		June	
	February	December	27 1436 1.6 50	27 1436 1.6 50	6 1556 2.3 70	25 2026 3.3 100	h m ft cm	
	h m ft cm	h m ft cm	1902 3.0 90	1902 3.0 90	1900 2.6 80		25 2026 3.3 100	
	26 2151 0.2 06	4 2217 0.4 12	2204 2.3 70	2204 2.3 70	7 1713 2.3 70		July	
	27 2257 0.2 06	Vaca Key, Florida	28 1558 1.6 50	28 1558 1.6 50	2013 2.6 80	12 2024 2.3 70	h m ft cm	
	28 2357 0.3 09		2156 2.6 80	2156 2.6 80	22 1943 2.6 80	25 2008 3.3 100	h m ft cm	
	March		April	April	2256 2.3 70		August	
	h m ft cm		h m ft cm	h m ft cm	October		h m ft cm	
13 1949 0.3 09	December	11 2328 3.0 90	11 2328 3.0 90	h m ft cm	7 2258 2.6 80	7 2258 2.6 80		
27 2132 0.5 15	h m ft cm	13 1649 1.0 30	13 1649 1.0 30	4 1747 3.0 90	9 2115 2.3 70	9 2115 2.3 70		
28 2239 0.5 15	16 2111 0.6 18	23 2300 2.3 70	23 2300 2.3 70	2208 1.6 50	24 2026 2.6 80	24 2026 2.6 80		
29 2338 0.4 12	Rio de Janeiro, Brazil	24 2354 2.3 70	24 2354 2.3 70	5 1526 2.3 70	2223 2.6 80	2223 2.6 80		
April		25 1845 3.0 90	25 1845 3.0 90	1828 2.6 80		September		
h m ft cm		2153 2.3 70	2153 2.3 70	2253 1.6 50		h m ft cm		
13 1931 0.3 09	January	26 2151 2.6 80	26 2151 2.6 80	6 1651 2.3 70	6 1700 3.0 90	6 1700 3.0 90		
25 2103 0.6 18	h m ft cm	May	May	1947 2.6 80	2134 2.3 70	2134 2.3 70		
26 2209 0.6 18	27 1858 3.3 100	h m ft cm	h m ft cm	2191 2.6 80	2358 2.6 80	2358 2.6 80		
27 2306 0.6 18	2354 2.3 70	10 2300 3.0 90	10 2300 3.0 90	2338 2.3 70		October		
May	28 2002 3.0 90	23 2300 2.3 70	23 2300 2.3 70	November		h m ft cm		
h m ft cm	29 2147 3.0 90	24 2336 2.6 80	24 2336 2.6 80	h m ft cm	2 1724 3.3 100	4 1623 3.3 100		
25 2115 0.8 24	February	June	June	3 1809 3.0 90	4 1921 2.6 80	5 1608 3.0 90		
August	h m ft cm	h m ft cm	h m ft cm	4 1921 2.6 80		2106 2.3 70		
h m ft cm	24 2223 2.0 60	8 2215 3.0 90	8 2215 3.0 90	Santos, Brazil		2304 2.3 70		
23 2117 0.6 18	25 1826 3.3 100	9 2321 3.0 90	9 2321 3.0 90	Brazil		November		
September	2221 2.0 60	August	August			h m ft cm		
h m ft cm	26 1509 1.6 50	h m ft cm	h m ft cm	6 2315 2.0 60		4 1551 3.0 90		
6 2219 0.2 06	1926 3.0 90	6 2315 2.0 60	6 2315 2.0 60	8 1611 2.0 60		1936 2.6 80		
7 2319 0.2 06	2245 2.3 70	8 1611 2.0 60	8 1611 2.0 60	1951 2.6 80		2239 3.0 90		
21 2059 0.4 12	27 1634 1.6 50	2315 2.0 60	2315 2.0 60	2315 2.0 60		December		
22 2155 0.3 09	2111 2.6 80	9 1734 2.0 60	9 1734 2.0 60	2106 2.6 80		h m ft cm		
October	2253 2.6 80	2106 2.6 80	2106 2.6 80	February		3 2117 3.0 90		
h m ft cm				h m ft cm		4 2223 3.3 100		
5 2156 0.2 06				26 1849 3.3 100				
6 2254 0.3 09				2219 2.6 80				
7 2345 0.3 09				27 1528 2.0 60				
20 2040 0.2 06				April				
21 2134 0.1 03				h m ft cm				
				26 2238 3.0 90				

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.

TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

For some subordinate stations there is given in parentheses a ratio as well as a correction in feet. In those instances, each predicted high and low water at the reference station should first be multiplied by the ratio and then the correction in feet is added to or subtracted from each product as indicated.

As an example, at Port of Spain, Trinidad, the values in the time and height difference columns in Table 2 are given as -0 44, -1 12, and (*0.31 + 1.4) as referred to the reference station at Punta Gorda, Venezuela. 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</i> <i>h.m.</i>	<i>Height</i> <i>ft.</i>	<i>Time</i> <i>Corrections</i>	<i>Height</i> <i>Corrections</i>	<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft.</i>	<i>Height</i> <i>centimeters</i>
0326	0.6	-1 ^h 12 ^m	x0.31 + 1.4	0214	1.6	49
0900	5.1	-0 ^h 44 ^m	x0.31 + 1.4	0816	3.0	91
1608	-0.3	-1 ^h 12 ^m	x0.31 + 1.4	1456	1.3	40
2148	5.4	-0 ^h 44 ^m	x0.31 + 1.4	2104	3.1	94

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 the previous National Tidal Datum Epochs. Finally, stations whose positions are 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			
	ARCTIC ARCHIPELAGO Time meridian, local	North	West	h m	h m	ft	ft	ft	ft	ft
				on Hampton Roads, p.120						
1	Princess Royal Islands	72° 45'	117° 45'	+3 14	+3 32	0.0	+0.2	2.3	3.0	1.4
3	Mercy Bay, Banks Island	74° 07'	118° 15'	+4 05	+4 05	-0.8	+0.1	1.6	2.0	1.0
5	Winter Harbour, Melville Island	74° 47'	110° 48'	+4 44	+4 40	+0.2	+0.2	2.5	3.2	1.6
7	Bridport Inlet, Melville Island	74° 56'	108° 49'	+4 33	+4 33	+1.3	+1.0	2.8	4.1	2.5
9	Byam Martin Island	75° 10'	103° 34'	+3 42	+3 42	+1.8	+1.5	2.8	3.7	3.0
11	Cambridge Bay, Dease Strait	69° 07'	105° 07'	+2 35	+2 30	-0.4	+1.2	1.0	1.3	1.7
	Time meridian, 75° W			on Harrington Harbour, p.12						
13	Igloolik, Fury and Hecla Strait	69° 21'	81° 37'	+9 12	+9 12	+1.6	+0.8	4.6	6.0	4.7
15	Hall Beach, Foxe Basin	68° 45'	81° 13'	+9 45	+10 15	(*0.45+0.5)		1.7	2.0	2.1
	Time meridian, local									
17	Port Kennedy, Bellot Strait	72° 01'	94° 12'	+1 35	+1 44	+0.5	+0.8	3.5	4.5	4.2
19	Port Bowen, Prince Regent Inlet	73° 14'	88° 55'	+1 01	+1 06	+0.9	+1.3	3.4	4.5	4.6
21	Port Leopold, Prince Regent Inlet	73° 48'	90° 15'	+0 50	+0 45	+0.9	+0.1	4.6	5.9	4.0
23	Beechy Island, Barrow Strait	74° 43'	91° 54'	+1 30	+1 35	+1.0	-0.1	4.9	6.4	4.0
25	Assistance Bay, Barrow Strait	74° 37'	94° 15'	+1 56	+1 57	-0.1	+0.6	3.1	4.1	3.8
27	Griffith Island, Barrow Strait	74° 35'	95° 30'	+2 12	+2 13	-0.3	+0.5	3.0	3.9	3.6
29	Refuge Cove, Wellington Channel	75° 31'	92° 10'	+1 23	+1 38	+0.6	+0.2	4.2	5.5	3.9
31	Penny Strait	76° 52'	97° 00'	+1 53	+2 03	*0.39	*0.38	1.5	1.9	1.4
				on Hampton Roads, p.120						
33	Cape Columbia, Lincoln Sea	83° 14'	69° 55'	-0 55	-0 55	-1.8	0.0	0.8	1.1	0.5
35	Alert, Lincoln Sea	82° 30'	62° 20'	+1 26	+1 17	-0.4	+0.6	1.6	2.2	1.5
37	Cape Sheridan, Lincoln Sea	82° 29'	61° 30'	+1 37	+1 28	-0.5	+0.2	1.8	2.5	1.2
39	Cape Bryant, North Greenland	82° 21'	55° 30'	+3 33	+3 35	-1.4	+0.2	1.1	1.5	0.7
41	Cape Morris Jesup, North Greenland	83° 40'	34° 15'	+1 51	+1 43	-2.0	0.0	0.4	0.6	0.3
	GREENLAND East Coast			on Harrington Harbour, p.12						
43	Danmarks Havn	76° 46'	18° 46'	-12 41	-12 32	-0.8	-0.6	3.6	4.7	2.8
45	Cape Borgen	75° 26'	18° 05'	-11 04	-11 03	*0.80	*0.81	3.0	3.9	2.8
47	Lille Pendulum	74° 37'	18° 29'	-11 40	-11 39	*0.80	*0.81	3.0	4.0	2.8
49	Finsch Islands	73° 59'	21° 08'	-12 18	-12 18	*0.81	*0.75	3.2	4.3	2.8
51	Myggbukta, Foster Bay	73° 28'	21° 33'	-11 57	-12 00	-0.9	-0.5	3.4	4.4	2.8
53	Blomsterbugten	73° 21'	25° 17'	-12 15	-12 27	-0.4	-0.3	3.7	4.8	3.2
	Time meridian, 30° W									
55	Danmarks Island, Scoresby Sound	70° 27'	26° 12'	-11 45	-11 45	*0.63	*0.62	2.4	3.3	2.2
	Time meridian, 45° W									
57	Angmagssalik (Kulusuk)	65° 36'	37° 09'	-7 00	-6 50	(*1.71-0.8)		6.5	8.8	5.2
				on Argentina, p.4						
59	Finnsbu	63° 24'	41° 17'	-4 09	-3 42	+0.8	-0.4	6.1	8.1	4.6
61	Kap Farvel	59° 45'	43° 53'	-2 21	-1 53	+0.2	-0.9	6.0	8.0	4.0
	West Coast									
63	Frederiksdal	60° 00'	44° 40'	-2 10	-1 41	+1.5	-0.7	7.1	9.5	4.7
65	Nanortalik	60° 07'	45° 15'	-2 43	-2 16	+0.5	-0.9	6.3	8.4	4.2
67	Julianehaab	60° 43'	46° 01'	-2 09	-1 46	+0.3	-0.9	6.1	8.0	4.0
69	Narsarsuaq	61° 08'	45° 25'	-2 15	-1 46	+1.8	+0.1	6.6	8.6	5.3
71	Ivigut, Arsuk Fjord	61° 12'	48° 11'	-1 49	-1 24	+0.7	-0.9	6.5	8.6	4.3
73	Frederikshaab	62° 00'	49° 43'	-1 22	-1 00	+3.0	-0.6	8.5	11.1	5.6
75	Godthaab	64° 10'	51° 44'	-1 21	-0 46	(*2.00-2.1)		9.8	13.0	6.5
77	Fishmaster's Harbour, Sondre Stromfjord	66° 01'	53° 29'	-1 41	-1 16	+3.6	-0.1	8.6	10.2	6.1
79	Camp Lloyd, Sondre Stromfjord	66° 58'	50° 57'	+2 21	+2 51	+1.7	-1.1	7.7	9.4	4.7
81	Holsteinsborg	66° 56'	53° 42'	-1 29	-1 00	+2.0	-0.8	7.7	10.0	5.0
83	Camp Michigan, Maligiak Fjord	66° 56'	52° 37'	-0 22	+0 10	+2.2	-0.8	7.9	10.2	5.1
				on Harrington Harbour, p.12						
85	Aninga, Rifkol	67° 55'	53° 50'	-1 42	-1 42	+1.0	-0.8	5.6	7.4	3.6
87	Nunarssuaq, Kronprinsens Ejländen	68° 59'	53° 21'	-0 48	-0 52	-0.5	-0.9	4.2	5.7	2.8
89	Godhavn, Disko Island	69° 15'	53° 33'	-1 37	-1 32	-0.4	-0.9	4.3	5.7	2.9
91	Ingnerit, Umanak Fjord	71° 00'	51° 00'	+0 00	+0 00	-1.6	-1.1	3.3	4.3	2.2
	Time meridian, local									
93	North Star Bay, Wolstenholme Fjord	76° 32'	68° 50'	+0 30	+0 32	*1.33	*1.12	5.4	7.0	4.5
95	Port Foulke	78° 18'	72° 45'	+0 28	+0 26	(*2.08-0.8)		7.9	10.7	6.5
97	Rensselaer Bugt	78° 37'	70° 53'	+1 05	+0 58	(*2.08-1.1)		7.9	10.8	6.2
99	Thank God Harbor, Polaris Bugt	81° 36'	61° 40'	+1 34	+1 31	-0.3	-0.4	3.9	5.4	3.2

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	NORTHERN CANADA Baffin Bay, etc., West Side Time meridian, local	North	West	h	m	h	m	ft	ft	ft
				on Halifax, p.20						
101	Fort Conger, Discovery Harbor	81° 44'	64° 44'	+3 48	+3 25	-1.4	-1.3	4.3	5.9	3.0
103	Cape Lawrence	80° 21'	69° 15'	+3 46	+3 40	-0.2	-1.3	5.5	7.2	3.6
105	Payer Harbour, Cape Sabine	78° 43'	74° 25'	+3 36	+3 30	+1.7	-0.9	7.0	9.4	4.7
107	Cape Adair	71° 33'	71° 30'	+3 06	+3 06	+0.4	-1.2	6.0	7.8	3.9
109	Cape Hewett	70° 16'	67° 47'	+2 56	+2 56	+0.6	-0.5	5.5	7.2	4.4
	Davis Strait, West Side Time meridian, 60° W			on Pictou, p.8						
111	Cape Hooper, Baffin Island	68° 23'	66° 45'	-5 52	-5 41	*0.47	*0.43	1.6	1.9	1.8
113	Kivitoo, Baffin Island	67° 56'	64° 56'	-5 17	-5 10	*0.51	*0.43	1.8	2.4	1.9
				on Saint John, N. B., p.24						
115	Cape Dyer, Baffin Island	66° 34'	61° 40'	-6 19	-6 21	*0.31	*0.45	5.8	7.3	4.7
117	Clearwater Fiord, Cumberland Sound	66° 36'	67° 20'	-5 36	-5 38	-5.5	-0.6	15.9	20.6	11.4
119	Frobisher Bay	63° 29'	68° 02'	-4 13	-4 15	+5.5	+3.3	23.0	29.8	18.8
	Hudson Strait and Bay									
121	Pikyulik Island, Payne River	60° 00'	69° 55'	-2 15	-1 54	+3.7	+3.2	21.3	26.8	17.9
	Time meridian, 75° W									
123	Sorry Harbor, Resolution Island	61° 37'	64° 44'	-5 30	-5 30	-8.3	-0.9	13.4	17.6	9.8
125	Lower Savage Islands	61° 46'	65° 51'	-4 46	-4 55	-1.2	+2.0	17.6	25.4	14.8
127	Ashe Inlet, Big Island	62° 33'	70° 35'	-3 46	-3 43	+4.2	+2.2	22.8	30.9	17.6
129	Schooner Harbour, Baffin Island	64° 24'	77° 52'	-0 49	-0 44	-6.2	+0.4	14.2	18.9	11.5
131	Winter Island, Foxe Basin	66° 11'	83° 10'	+1 02	+1 10	-12.1	-0.8	9.5	12.4	8.0
	Time meridian, 90° W									
133	Coral Harbour, Southampton Island	64° 08'	83° 10'	-0 25	+0 04	-14.4	-1.5	7.9	10.3	6.5
135	Chesterfield Inlet	63° 20'	90° 42'	-8 17	-8 20	-12.4	-0.8	9.2	11.8	7.8
137	Churchill	58° 47'	94° 12'	-4 25	-4 36	-11.5	-1.4	10.7	13.4	7.9
				on Quebec, p.16						
139	Port Nelson, Nelson River entrance	57° 05'	92° 36'	+3 56	+4 35	-3.1	-0.9	11.5	12.9	6.4
	Time meridian, 75° W									
141	Moosonee, James Bay	51° 17'	80° 38'	+9 29	+9 32	*0.48	*1.81	4.5	5.4	5.2
143	Moose Factory, James Bay	51° 16'	80° 35'	+9 33	+10 37	*0.42	*1.56	4.0	5.4	4.5
145	Charlton Island, James Bay	51° 57'	79° 16'	+8 00	+6 38	*0.39	*1.06	4.3	5.3	3.9
				on Saint John, N. B., p.24						
147	Digges Harbour	62° 30'	77° 42'	-2 11	-2 05	*0.39	*0.62	7.1	9.3	6.1
149	Port de Boucherville, Nottingham Island	63° 12'	77° 28'	-2 07	-2 02	-11.6	-1.2	10.4	14.0	8.0
151	Wakeham Bay	61° 43'	71° 57'	-3 52	-3 55	-0.4	+2.2	18.2	27.0	15.3
153	Stupart Bay	61° 35'	71° 32'	-4 10	-4 17	0.0	+2.4	18.4	27.2	15.6
155	Diana Bay	60° 52'	70° 04'	-4 00	-4 03	+2.8	+3.1	20.5	26.8	17.4
157	Hopes Advance Bay, Ungava Bay	59° 21'	69° 38'	-3 59	-4 00	*1.44	*2.20	27.0	34.4	22.3
159	Leaf Bay, Ungava Bay	58° 55'	69° 00'	-4 00	-4 00	*1.49	*2.25	28.0	36.0	23.0
161	Leaf Lake, Ungava Bay	58° 45'	69° 40'	-3 00	-3 00	(*1.54+5.8)		32.0	40.0	28.0
163	Koksoak River entrance	58° 32'	68° 11'	-3 50	-3 53	*1.47	*2.00	28.5	36.4	22.3
165	Port Burwell, Ungava Bay	60° 25'	64° 52'	-4 13	-4 13	-6.5	-0.9	15.2	19.9	10.7
	LABRADOR Time meridian, 52° 30' W									
167	Button Islands	60° 37'	64° 44'	-2 38	-2 38	-9.5	-0.3	11.6	15.4	9.5
169	Williams Harbour	60° 00'	64° 19'	-3 07	-3 27	*0.32	*0.30	6.8	8.2	4.6
				on Halifax, p.20						
171	Eclipse Harbour	59° 48'	64° 09'	+0 25	+0 02	-2.4	-1.0	3.0	3.7	2.6
173	Kangalaksiorvik Fiord	59° 23'	63° 47'	+1 00	+0 42	-2.6	-1.5	3.3	4.1	2.2
175	Nachvak Bay	59° 03'	63° 35'	+0 04	-0 20	-1.5	-1.1	4.0	5.0	3.0
177	Port Manvers	56° 57'	61° 25'	-0 55	-0 55	-2.3	-1.2	3.3	4.2	2.6
179	Hebron, Hebron Fjord	58° 12'	62° 38'	-0 49	-1 05	-1.4	-0.9	3.9	4.7	3.2
181	Nain	56° 33'	61° 41'	-0 32	-0 54	+0.3	-0.5	5.2	6.5	4.2
183	Hopedale Harbour	55° 27'	60° 13'	-0 46	-1 09	-0.4	-0.3	4.3	5.6	4.0
185	Webeck Harbour	54° 54'	58° 02'	-1 07	-1 38	-1.3	-0.8	3.9	5.0	3.3
	<i>Hamilton Inlet and Lake Melville</i>									
187	Indian Harbour	54° 27'	57° 12'	-0 37	-1 33	-1.0	-0.9	4.3	5.7	3.4
189	Ticoralak Island	54° 17'	58° 12'	-0 35	-0 55	-0.9	-0.5	4.0	4.9	3.7
191	Rigolet	54° 11'	58° 25'	-0 02	-0 17	-1.9	-1.0	3.5	4.5	2.8
193	Goose Bay	53° 21'	60° 24'	+4 22	+4 24	(*0.27+0.4)		1.2	1.7	1.6
195	Cartwright Harbour	53° 42'	57° 02'	-0 03	-0 34	-1.3	-0.6	3.7	4.9	3.4
197	Curlew Harbour	53° 45'	56° 33'	-0 07	-0 38	-1.6	-0.9	3.7	4.9	3.1
199	Comfort Bight	53° 09'	55° 46'	-0 32	-1 03	-1.9	-1.0	3.5	4.6	2.9

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			
	LABRADOR Time meridian, 52° 30' W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Halifax, p.20						
201	Square Island Harbour	52° 44'	55° 49'	-0 34	-1 05	-2.0	-1.1	3.5	4.7	2.8
203	Port Marnham	52° 23'	55° 44'	-0 43	-1 14	-2.7	-1.0	2.7	3.6	2.5
205	Battle Harbour	52° 16'	55° 36'	-1 03	-1 30	-2.1	-0.3	2.6	3.8	3.1
	<i>Strait of Bell Isle</i>			on Harrington Harbour, p.12						
207	Chateau Bay	52° 00'	55° 50'	-3 08	-3 19	*0.69	*0.81	2.4	3.1	2.5
209	Red Bay	51° 43'	56° 25'	-2 00	-1 55	*0.56	*0.56	2.1	2.6	2.0
211	Forteau Bay	51° 27'	56° 53'	-0 26	-0 17	*0.78	*0.81	2.9	3.7	2.8
	NEWFOUNDLAND East Coast			on Halifax, p.20						
213	Pistolet Bay	51° 30'	55° 44'	-0 14	-0 28	*0.46	*0.29	2.4	3.1	1.8
215	Ariège Bay	51° 10'	56° 00'	-0 34	-0 34	-2.6	-1.5	3.3	4.3	2.3
217	Wild Cove	50° 42'	56° 10'	-0 49	-1 01	-2.0	-1.1	3.5	4.7	2.8
219	Sops Island, White Bay	49° 50'	56° 46'	-0 49	-1 24	*0.46	*0.29	2.4	3.4	1.8
221	Exploits Lower Harbour	49° 32'	55° 04'	-0 34	-1 09	-3.1	-1.3	2.6	3.5	2.1
223	Fogo Harbour	49° 43'	54° 16'	-0 34	-0 42	-2.6	-1.3	3.1	4.2	2.4
225	Valleyfield	49° 10'	53° 37'	-0 46	-1 13	*0.45	*0.33	2.2	2.9	1.8
227	Port Union	48° 30'	53° 05'	-0 53	-1 15	*0.49	*0.48	2.2	3.0	2.1
229	Random Head Harbour, Trinity Bay	48° 06'	53° 34'	-0 53	-1 05	*0.48	*0.33	2.4	3.2	1.9
231	Harbour Grace, Conception Bay	47° 41'	53° 12'	-0 28	-0 46	*0.51	*0.33	2.6	3.5	2.0
233	St. John's	47° 34'	52° 42'	-0 34	-0 46	*0.52	*0.38	2.6	3.5	2.1
	South Coast			on Argentia, p.4						
235	Trepassey Harbour	46° 43'	53° 23'	-0 19	-0 11	-1.2	-0.5	4.2	5.6	3.5
237	St. Mary Harbour, St. Mary Bay	46° 55'	53° 35'	-0 14	-0 06	-1.2	-0.5	4.2	5.6	3.5
	<i>Placentia Bay</i>			<i>Daily predictions</i>						
239	ARGENTIA	47° 18'	53° 59'	+0 09	+0 09	-0.5	-0.3	4.9	6.3	4.4
241	Woody Island	47° 47'	54° 10'	+0 15	+0 26	-1.0	-0.8	4.7	6.0	4.0
243	Mortier Bay	47° 10'	55° 09'	+0 15	+0 26	-1.0	-0.8	4.7	6.0	3.5
245	Great St. Lawrence Harbour	46° 55'	55° 22'	+0 28	+0 55	-0.7	+0.3	3.9	5.0	4.2
	Time meridian, 60° W									
247	St. Pierre Harbor, St. Pierre Island	46° 47'	56° 10'	-0 09	+0 13	-0.8	+0.2	3.9	5.0	4.1
	Time meridian, 52° 30' W									
	<i>Fortune Bay</i>									
249	Grande le Pierre Harbour	47° 40'	54° 47'	+1 09	+1 09	-1.0	+0.2	3.7	4.8	4.0
251	Belleoram	47° 32'	55° 25'	+0 57	+0 57	(*0.67+0.8)		3.3	4.3	3.8
253	Ship Cove, Bay d'Espoir	47° 52'	55° 50'	+0 45	+0 53	-0.4	0.0	4.5	5.5	4.2
255	Great Jervis Harbour, Bay d'Espoir	47° 39'	56° 11'	+0 38	+1 05	-1.1	+0.1	3.7	4.8	3.9
257	Hare Bay	47° 37'	56° 32'	+0 41	+1 08	(*0.67+0.6)		3.3	4.3	3.6
259	Grey River	47° 34'	57° 07'	+0 45	+1 12	(*0.63+0.7)		3.1	4.0	3.5
261	Connoire Bay	47° 40'	57° 54'	+0 50	+0 50	(*0.59+0.7)		2.9	3.8	3.3
263	La Poile Bay	47° 40'	58° 24'	+1 15	+1 15	(*0.63+0.6)		3.1	4.0	3.4
				on Harrington Harbour, p.12						
265	Port Aux Basques	47° 35'	59° 09'	-1 24	-1 28	*0.80	*0.75	3.1	4.0	2.8
267	Codroy Road	47° 53'	59° 24'	-1 22	-1 27	*0.74	*0.75	2.8	3.7	2.6
	West Coast									
269	St. Georges Harbour	48° 27'	58° 30'	-0 28	-0 38	*0.78	*0.88	2.8	3.5	2.8
271	Port-au-Port	48° 33'	58° 45'	+0 05	+0 10	-1.3	-1.0	3.5	4.5	2.4
273	Frenchman's Cove, Bay of Islands	49° 04'	58° 10'	+0 10	+0 10	-0.5	0.0	3.3	4.2	3.3
275	Norris Cove, Bonne Bay	49° 31'	57° 52'	+0 10	+0 10	-0.7	-0.4	3.5	4.4	3.0
277	Portland Cove	50° 11'	57° 36'	+0 19	+0 19	-0.6	-0.4	3.6	4.6	3.0
279	Port Saunders	50° 39'	57° 18'	+0 07	+0 03	-0.3	-0.3	3.8	4.9	3.2
281	Castors Harbour, St. John Bay	50° 55'	56° 59'	+0 10	+0 10	*0.78	*0.75	3.0	4.1	2.7
283	St. Barbe Bay	51° 12'	56° 46'	+0 00	+0 00	*0.78	*0.56	3.3	4.4	2.6
	QUEBEC Gulf of St. Lawrence Time meridian, 60° W									
285	Bradore Bay	51° 28'	57° 15'	-0 35	-0 30	-0.6	-0.1	3.3	4.4	3.1
287	Mistanoque Harbour	51° 16'	58° 12'	-0 15	-0 15	-0.4	-0.1	3.5	4.6	3.3
289	HARRINGTON HARBOUR	50° 30'	59° 28'	<i>Daily predictions</i>						
291	Wapitagan Harbour	50° 12'	60° 01'	+0 15	+0 15	-0.3	+0.1	3.4	4.4	3.4
293	Kegaska	50° 12'	61° 14'	+0 40	+0 40	-0.9	-0.2	3.1	4.0	3.0
295	Natashquan	50° 12'	61° 50'	+1 00	+1 10	-0.8	-0.1	3.1	4.0	3.1
297	Betchewun Harbour	50° 14'	63° 11'	+2 09	+2 13	-0.7	-0.4	3.5	4.6	3.0
299	Havre St. Pierre	50° 14'	63° 36'	+2 23	+2 32	0.0	-0.1	3.9	4.8	3.5
301	Mingan	50° 18'	64° 03'	+2 35	+2 40	+0.9	0.0	4.7	5.8	3.9

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			
	QUEBEC Gulf of St. Lawrence-cont. Time meridian, 60° W	North	West	h	m	h	m	ft	ft	ft
				on Harrington Harbour, p.12						
303	<i>Anticosti Island</i> Heath Point	49° 05'	61° 42'	+0 51	+0 52	(*0.61+0.3)		2.3	3.0	2.4
305	Southwest Point	49° 24'	63° 36'	+3 21	+3 26	-0.3	0.0	3.5	4.4	3.4
307	Ellis Bay	49° 48'	64° 22'	+3 37	+3 38	+0.3	-0.5	4.6	5.7	3.4
309	Moisie Bay	50° 12'	66° 05'	+3 43	+3 49	+2.3	+0.5	5.6	7.2	4.9
311	Sept Iles	50° 13'	66° 24'	+3 54	+3 58	+2.7	-0.1	6.6	8.6	4.8
313	Cawee Islands	49° 50'	67° 00'	+4 01	+4 07	+3.0	+0.6	6.2	8.0	5.3
	St. Lawrence River Time meridian, 75° W									
315	Ste. Anne des Monts	49° 08'	66° 29'	+3 17	+3 19	+3.4	+0.6	6.6	8.6	5.5
317	Cap Chat	49° 06'	66° 45'	+3 17	+3 21	+4.2	+1.0	7.0	9.0	6.1
319	Pointe des Monts	49° 20'	67° 22'	+3 10	+3 16	+4.3	+0.8	7.3	9.6	6.1
321	Matane	48° 51'	67° 32'	+3 18	+3 22	+4.7	+0.9	7.6	9.9	6.3
323	Metis-sur-Mer	48° 41'	68° 02'	+3 24	+3 28	+5.4	+1.1	8.1	10.6	6.8
				on Quebec, p.16						
325	Betsiamites River	48° 53'	68° 39'	-4 20	-5 08	-3.8	+1.4	8.5	11.2	7.3
327	Father Point	48° 31'	68° 28'	-4 22	-5 29	-3.4	+1.4	8.9	11.7	7.5
329	Old Bic Harbour	48° 22'	68° 44'	-4 12	-5 14	-3.3	+1.4	9.0	11.8	7.5
331	Tadoussac, Saguenay River	48° 08'	69° 43'	-3 47	-4 54	-1.8	+0.8	11.1	14.0	8.0
333	Chicoutimi, Saguenay River	48° 26'	71° 03'	-3 28	-3 40	-1.4	+1.3	11.0	14.4	8.4
335	Brandypt Islands	47° 52'	69° 41'	-3 36	-4 40	-0.5	+2.2	11.0	14.5	9.3
337	Murray Bay	47° 39'	70° 08'	-3 20	-4 22	+0.4	+2.3	11.8	15.3	9.8
339	Pointe aux Orignaux	47° 29'	70° 01'	-2 47	-3 41	-0.3	+2.2	11.2	14.7	9.4
341	Ile aux Coudres	47° 26'	70° 19'	-2 10	-3 21	+1.2	+2.0	12.9	15.8	10.1
343	L' Islet	47° 08'	70° 22'	-1 17	-2 05	0.0	+0.9	12.8	15.3	9.0
345	Beaujeu Channel	47° 05'	70° 29'	-1 10	-1 43	+0.6	+0.5	13.8	15.7	9.0
347	Grosse Ile	47° 02'	70° 40'	-0 57	-1 19	+1.3	0.0	15.0	17.1	9.1
349	Berthier	46° 56'	70° 44'	-0 47	-1 08	+1.3	0.0	15.0	16.9	9.1
351	St. Laurent d' Orleans	46° 52'	71° 00'	-0 20	-0 30	+0.3	+0.2	13.8	15.6	8.7
353	QUEBEC	46° 49'	71° 11'	<i>Daily predictions</i>				13.7	15.5	8.5
355	St. Nicolas	46° 43'	71° 24'	+0 35	+0 32	-0.7	---	12.6	14.3	--
357	St. Augustin	46° 43'	71° 28'	+0 54	+0 53	-1.6	---	11.8	13.3	--
359	Ste. Croix <1>	46° 37'	71° 45'	+1 31	+2 00	---	---	11.8	13.3	--
361	Pointe Platon <1>	46° 40'	71° 51'	+1 43	+2 11	---	---	11.4	12.9	--
363	Grondines <1>	46° 36'	72° 04'	+2 14	+3 18	---	---	6.7	8.1	--
365	Cap a la Roche <1>	46° 33'	72° 10'	+2 37	+3 48	---	---	5.4	6.7	--
367	Batiscan <1>	46° 31'	72° 15'	+3 32	+4 49	---	---	2.3	3.3	--
369	Champlain <1>	46° 26'	72° 21'	+4 08	+5 30	---	---	1.8	2.8	--
371	Trois Rivieres <1>	46° 20'	72° 33'	+4 45	+6 15	---	---	0.7	1.0	--
	QUEBEC and NEW BRUNSWICK Gulf of St. Lawrence Time meridian, 60° W			on Pictou, p.8						
373	Gaspé Bay	48° 50'	64° 29'	+4 43	+4 58	-1.1	-0.5	2.6	3.3	3.1
375	Point St. Peter	48° 38'	64° 10'	+4 59	+5 11	*0.67	*0.52	2.5	3.2	2.5
	<i>Chaleur Bay</i>									
377	Port Daniel	48° 10'	64° 57'	+5 27	+5 42	-0.7	-0.6	3.1	3.8	3.3
379	Paspebiac	48° 01'	65° 14'	+5 22	+5 34	-0.4	-1.0	3.8	4.6	3.2
381	Carleton Point	48° 05'	66° 07'	+5 31	+5 36	+0.8	-0.7	4.7	6.2	4.0
383	Campbellton	48° 01'	66° 40'	+6 04	+6 40	+3.5	+0.9	5.8	7.2	6.1
385	Dalhousie	48° 04'	66° 22'	+5 42	+5 52	+2.2	-0.2	5.6	7.1	4.9
387	Bathurst	47° 37'	65° 39'	+6 04	+6 50	-0.3	-1.1	4.0	4.8	3.2
389	Caraquet Harbour	47° 48'	64° 56'	+5 49	+5 50	-1.0	-1.1	3.3	4.0	2.9
391	Miscou Harbour	47° 54'	64° 35'	+5 45	+5 57	-0.5	-1.1	3.8	5.0	3.1
393	Old Tracadie Gully entrance	47° 31'	64° 52'	+6 25	+6 36	-1.6	-1.2	2.8	3.5	2.5
395	Tracadie	47° 31'	64° 55'	+6 55	+7 06	*0.55	*0.35	2.2	2.8	1.9
				Mean Diurnal						
397	Portage Island, Miramichi Bay #	47° 09'	65° 03'	-5 11	-4 59	-1.7	-0.8	--	3.3	2.2
399	Newcastle, Miramichi River #	47° 00'	65° 34'	-3 53	-3 13	-0.7	-0.5	--	4.0	--
401	Richibucto River entrance #	46° 43'	64° 48'	-4 45	---	-2.7	-0.8	--	2.3	1.8
403	Shediac Bay #	46° 15'	64° 32'	---	+0 18	-1.9	-0.5	--	2.8	2.8
				Mean Spring						
405	Cape Tormentine	46° 08'	63° 47'	+0 41	+1 03	+1.5	-0.1	4.8	5.7	4.6
407	Tidnish Head, Baie Verte	46° 01'	64° 01'	+0 33	+0 54	+1.7	-0.2	5.1	6.3	4.7
	PRINCE EDWARD ISLAND			Mean Diurnal						
409	Tignish #	46° 58'	64° 00'	-4 59	-5 27	-2.5	-0.8	--	2.5	1.7
411	Alberton #	46° 49'	64° 03'	-4 27	-4 10	-2.8	-0.7	--	2.1	1.7
413	Malpeque Bay #	46° 35'	63° 40'	-3 29	-3 13	-2.5	-0.8	--	2.5	1.8
415	North Rustico #	46° 28'	63° 17'	-4 10	-4 04	-2.7	-1.0	--	2.5	1.6
417	St. Peters Bay #	46° 26'	62° 44'	-3 52	-3 37	-3.3	-1.0	--	1.9	1.5
419	Naufrage #	46° 28'	62° 25'	-3 09	-3 27	-2.6	-0.8	--	2.4	2.0

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			
	PRINCE EDWARD ISLAND Time meridian, 60° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Pictou, p.8						
421	Souris Head	46° 20'	62° 17'	-1 23	-1 25	-0.6	-0.2	2.8	3.5	3.5
423	Georgetown Harbour	46° 11'	62° 32'	-1 03	-1 00	-0.5	-0.1	2.8	3.5	3.6
425	Cape Bear	46° 00'	62° 27'	-0 42	-0 40	-0.6	-0.5	3.1	4.0	3.4
427	Charlottetown	46° 13'	63° 08'	+0 33	+0 42	+2.5	+0.5	5.2	6.4	5.4
429	Summerside Harbour	46° 24'	63° 47'	+0 57	+1 19	+0.9	+0.3	3.8	4.5	4.5
	NOVA SCOTIA Gulf of St. Lawrence									
431	St. Paul Island	47° 12'	60° 09'	-1 25	-1 22	*0.64	*0.57	2.2	2.8	2.4
433	Amherst Harbour, Magdalen Islands	47° 14'	61° 50'	-1 05	-1 07	*0.53	*0.57	1.6	2.0	2.1
435	Pugwash	45° 51'	63° 40'	+1 00	+1 03	+1.8	0.0	5.0	6.0	4.8
437	PICTOU	45° 41'	62° 42'			<i>Daily predictions</i>		3.2	3.9	3.9
439	Merigomish Harbour	45° 39'	62° 27'	-0 13	-0 01	-0.3	0.0	2.9	3.4	3.8
441	Cape George	45° 53'	61° 53'	-0 54	-0 51	-1.6	-0.8	2.4	3.2	2.7
443	Antigonish Harbour	45° 40'	61° 53'	+0 09	+0 17	-1.7	-0.5	2.0	2.5	2.8
445	Cape Jack	45° 42'	61° 33'	-1 11	-1 18	-1.8	-0.7	2.1	2.6	2.7
447	Auld Cove	45° 39'	61° 26'	-0 27	-0 33	(*0.62+1.3)		2.0	2.6	3.7
	<i>Cape Breton Island</i>									
449	Port Hood	46° 01'	61° 32'	-0 46	-0 45	-1.6	-0.9	2.5	3.2	2.7
451	Mabou River entrance	46° 06'	61° 28'	-0 53	-1 04	*0.66	*0.61	2.2	2.9	2.5
453	Cheticamp	46° 37'	61° 02'	-1 23	-1 20	*0.56	*0.74	1.4	1.8	2.4
	Outer Coast									
	<i>Cape Breton Island-cont.</i>									
455	Neil Harbour	46° 48'	60° 20'	-1 44	-1 45	*0.69	*0.65	2.4	3.1	2.7
457	Ingonish Island	46° 40'	60° 23'	-1 40	-1 33	-1.5	-0.9	2.6	3.2	2.7
459	St. Anns Harbour	46° 15'	60° 34'	-1 37	-1 40	-1.4	-1.0	2.8	3.5	2.7
461	North Sydney	46° 13'	60° 15'	-1 54	-1 49	*0.73	*0.61	2.6	3.2	2.7
463	Glace Bay	46° 12'	59° 55'	-1 59	-1 54	-1.6	-0.9	2.5	3.2	2.7
				on Halifax, p.20						
465	Louisburg Harbour	45° 54'	59° 59'	-0 08	-0 14	-1.6	-0.7	3.5	4.2	3.2
467	Gabarus Cove	45° 51'	60° 10'	+0 08	+0 10	-1.4	-0.7	3.7	4.4	3.3
469	St. Peter Bay	45° 38'	60° 52'	-0 12	-0 07	-0.6	-0.4	4.2	5.1	3.8
471	Arichat	45° 31'	61° 02'	-0 25	-0 14	-0.9	-0.5	4.0	4.8	3.6
473	Port Hastings, Strait of Canso	45° 39'	61° 24'	-0 16	-0 12	0.0	+0.2	4.2	5.1	4.4
475	Guysborough	45° 23'	61° 29'	+0 06	+0 18	-1.1	-0.5	3.8	4.6	3.5
477	Canso Harbour	45° 21'	61° 00'	-0 05	-0 04	-1.1	-0.6	3.9	4.7	3.5
479	Whitehaven Harbour	45° 14'	61° 12'	-0 10	-0 02	-1.1	-0.4	3.7	4.7	3.6
481	Isaacs Harbour	45° 11'	61° 40'	-0 03	+0 04	-0.6	-0.1	3.9	4.6	4.0
483	Sonora, St. Mary River	45° 03'	61° 55'	-0 02	+0 09	-0.7	-0.6	4.3	5.2	3.7
485	Liscomb Harbour	45° 00'	62° 02'	-0 11	-0 05	-0.6	-0.4	4.2	5.0	3.8
487	Sheet Harbour	44° 54'	62° 30'	-0 08	-0 04	-1.1	-0.9	4.2	5.0	3.3
489	Ship Harbour	44° 47'	62° 49'	-0 07	-0 04	-0.6	-0.4	4.2	5.1	3.8
491	Jeddore Harbour	44° 45'	63° 01'	-0 06	-0 03	-0.5	-0.4	4.3	5.2	3.9
493	HALIFAX	44° 40'	63° 34'			<i>Daily predictions</i>		4.4	5.3	4.3
495	Sable Island, north side	43° 57'	60° 06'	-0 06	-0 12	-2.7	-0.9	2.6	3.2	2.5
497	Sable Island, south side	43° 56'	59° 54'	-0 02	-0 06	-2.1	-1.6	3.9	4.8	2.5
499	St. Margarets Bay	44° 31'	63° 56'	+0 08	+0 07	-0.5	-0.3	4.2	4.9	3.9
501	Chester, Mahone Bay	44° 34'	64° 18'	+0 01	-0 04	-0.2	-0.2	4.4	5.3	4.1
503	Mahone Harbour, Mahone Bay	44° 27'	64° 22'	+0 03	-0 01	-0.1	-0.2	4.5	5.5	4.2
505	Lunenburg	44° 22'	64° 19'	+0 07	+0 07	-0.1	+0.1	4.2	4.9	4.3
507	Riverport, La Have River	44° 17'	64° 20'	+0 12	+0 05	-0.3	-0.4	4.5	5.3	4.0
509	Bridgewater, La Have River	44° 23'	64° 31'	+0 09	+0 06	-0.2	-0.3	4.5	5.5	4.1
511	Liverpool Bay	44° 02'	64° 41'	+0 14	+0 04	-0.5	-0.4	4.3	5.1	3.9
513	Lockeport	43° 44'	65° 05'	+0 27	+0 02	-0.2	-0.4	4.6	5.4	4.0
515	Shelburne	43° 45'	65° 18'	+0 30	+0 35	+0.1	-0.3	4.8	5.8	4.2
517	Barrington Passage	43° 32'	65° 36'	+0 51	+0 30	+1.6	+0.6	5.4	6.2	5.4
519	Swim Point	43° 26'	65° 38'	+1 41	+1 03	+2.9	+0.1	7.2	8.4	5.8
	NOVA SCOTIA and NEW BRUNSWICK Bay of Fundy			on Saint John, N. B., p.24						
521	Lower East Pubnico	43° 38'	65° 46'	-1 52	-2 07	*0.43	*0.48	8.7	10.0	6.3
523	Yarmouth Harbour	43° 48'	66° 08'	-1 07	-1 15	*0.53	*0.42	11.5	13.4	7.5
525	Westport, St. Mary Bay	44° 16'	66° 21'	-0 35	-0 30	*0.72	*0.72	15.0	16.7	10.4
527	Tiverton, St. Mary Bay	44° 24'	66° 13'	-0 38	-0 30	-5.6	-0.7	15.9	18.3	11.3
529	Weymouth, St. Mary Bay	44° 27'	66° 01'	-0 26	-0 22	-6.5	-0.7	15.0	17.0	10.8
531	Digby, Annapolis Basin	44° 38'	65° 45'	-0 09	-0 07	+0.7	+0.3	21.2	24.6	14.9
533	Annapolis Royal, Annapolis River	44° 45'	65° 30'	+0 06	+0 10	+2.2	+0.4	22.6	25.7	15.7
535	Port George	45° 01'	65° 10'	-0 06	-0 06	+6.7	+0.8	26.7	30.5	18.2
537	Ile Haute	45° 15'	65° 00'	-0 02	-0 02	+7.4	+0.7	27.5	31.5	18.5
539	Spencer Island	45° 20'	64° 42'	+0 17	+0 21	*1.47	*1.50	30.5	35.0	21.2
	<i>Minas Basin</i>									
541	Parrsboro (Partridge Island) <2>	45° 22'	64° 20'	+0 51	+0 49	+14.7	---	34.4	39.0	22.3
543	Horton Bluff, Avon River	45° 06'	64° 13'	+0 58	+1 02	*1.76	*1.38	38.1	43.6	24.6
545	Windsor <2>	45° 00'	64° 08'	+1 03	---	+19.5	---	---	---	---
547	Burntcoat Head	45° 18'	63° 49'	+1 06	+1 12	*1.90	*2.18	38.4	43.5	27.9
549	Truro <2>	45° 22'	63° 20'	+1 43	---	+26.1	---	---	---	---
551	Spicer Cove, Chignecto Bay	45° 26'	64° 54'	+0 12	+0 16	+7.0	+0.8	27.0	30.0	18.3
553	Joggins <2>	45° 41'	64° 28'	+0 14	+0 26	+14.2	+1.8	33.2	37.0	22.4
555	Amherst Point, Cumberland Basin	45° 50'	64° 17'	+0 33	+0 45	*1.69	*1.55	35.6	40.5	24.0

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			
	NOVA SCOTIA and NEW BRUNSWICK Bay of Fundy-cont. Time meridian, 60° W	North	West	h	m	h	m	ft	ft	ft
				on Saint John, N. B., p.24						
	<i>Petitcodiac River <3></i>									
557	Grindstone Island	45° 43'	64° 37'	+0 21		+0 28		*1.49	*1.45	31.1 35.6
559	Hopewell Cape	45° 52'	64° 35'	+0 14		+0 39		*1.64	*1.85	33.2 38.0
561	Moncton <2> <3>	46° 05'	64° 46'	+0 46		---		+17.2	---	-- --
563	Salisbury	46° 01'	65° 03'	+1 31		---		+18.2	---	-- --
565	Herring Cove	45° 35'	64° 58'	+0 22		+0 20		+8.4	+0.9	28.3 32.4
567	Quaco Bay	45° 20'	65° 32'	+0 11		+0 12		+2.0	-0.3	23.1 26.3
569	SAINT JOHN <4>	45° 15'	66° 04'							20.8 23.7
571	Indiantown, St. John River	45° 16'	66° 05'	+1 30		+2 25		---	---	1.2 1.4
573	Lepreau Harbour	45° 07'	66° 29'	-0 01		+0 03		-2.3	-0.5	19.0 21.7
575	L' Etang Harbour	45° 02'	66° 49'	+0 01		+0 05		-3.2	-0.8	18.4 21.0
577	North Head, Grand Manan Island	44° 46'	66° 45'	-0 05		-0 05		-4.5	-0.9	17.2 19.3
579	Seal Cove, Grand Manan Island	44° 37'	66° 51'	-0 15		-0 17		*0.68	*0.65	14.3 16.3
581	Outer Wood Island <5>	44° 36'	66° 48'	-0 25		-0 27		-7.8	-0.8	13.8 16.2
583	Machias Seal Island <5>	44° 30'	67° 06'	-0 01		---		-9.6	-1.7	12.9 14.5
585	Welshpool, Campobello Island <5>	44° 53'	66° 57'	-0 01		+0 06		-3.5	-1.0	18.3 21.2
587	Wilson's Beach, Campobello Island <5>	44° 56'	66° 56'	+0 00		+0 01		-3.7	+0.1	17.0 19.4
589	Back Bay, Letite Harbour <5>	45° 03'	66° 52'	+0 00		-0 03		-3.5	0.0	17.3 20.1
591	Midjik Bluff, Passamaquoddy Bay <5>	45° 07'	66° 54'	+0 12		+0 17		-2.0	-0.5	19.3 22.0
593	St. Andrews, Passamaquoddy Bay <5>	45° 04'	67° 03'	+0 14		+0 20		-2.3	0.0	18.5 21.2
	MAINE Time meridian, 75° W									
				on Eastport, p.28						
595	Pettegrove Point, Dochet Island	45° 07.7'	67° 08.6'	+0 08		+0 12		*1.07	*1.00	19.57 22.12
597	EASTPORT	44° 54.2'	66° 59.1'							18.35 21.18
	<i>Cobscook Bay</i>									
599	Garnet Point, Pennamquan River	44° 55.4'	67° 07.8'	+0 11		+0 14		*1.04	*1.00	19.17 22.05
601	Coffins Point	44° 52.2'	67° 06.5'	+0 31		+0 33		*0.94	*0.77	17.3 19.7
603	Birch Islands, Whiting Bay	44° 52.5'	67° 09.5'	+0 59		+1 13		*0.94	*0.75	17.4 19.8
605	Gravelly Point, Whiting Bay	44° 49.4'	67° 09.1'	+1 07		+1 18		*0.97	*0.73	17.90 19.06
607	Cutler, Little River	44° 39.4'	67° 12.6'	-0 10		-0 19		*0.74	*0.74	13.5 15.4
609	Cutler, Naval Radio Station	44° 38.5'	67° 17.8'	-0 07		-0 14		*0.70	*0.84	12.78 14.67
611	Stone Island, Machias Bay	44° 36.2'	67° 22.1'	-0 11		-0 28		*0.68	*0.68	12.4 14.1
613	Machiasport, Machias River	44° 41.9'	67° 23.6'	+0 01		-0 09		*0.69	*0.69	12.6 14.4
615	Shoppee Point, Englishman Bay	44° 36.9'	67° 29.8'	-0 05		-0 13		*0.66	*0.66	12.1 13.8
				on Portland, p.36						
617	Steele Harbor Island	44° 29.6'	67° 32.6'	-0 28		-0 20		*1.27	*1.27	11.6 13.3
619	Millbridge, Narraguagus River, Maine	44° 32.4'	67° 52.5'	-0 15		+0 05		*1.23	*1.09	11.31 12.89
621	Green Island, Petit Manan Bar	44° 22.3'	67° 52.2'	-0 28		-0 24		*1.16	*1.16	10.6 12.2
623	Prospect Harbor	44° 24'	68° 01'	-0 24		-0 15		*1.15	*1.15	10.5 12.1
				on Bar Harbor, p.32						
625	Winter Harbor, Frenchman Bay	44° 23.3'	68° 05.2'	-0 01		+0 10		*0.95	*0.95	10.1 11.6
	<i>Mount Desert Island</i>									
627	BAR HARBOR	44° 23.5'	68° 12.3'							10.56 12.25
629	Southwest Harbor	44° 16.5'	68° 18.8'	+0 00		-0 27		*0.96	*0.95	10.2 11.7
631	Bass Harbor	44° 14.5'	68° 21.2'	+0 04		-0 27		*0.93	*0.93	9.9 11.3
	<i>Blue Hill Bay</i>									
633	Blue Hill Harbor	44° 24.5'	68° 33.8'	+0 09		+0 11		*0.95	*0.95	10.1 11.6
635	Mackerel Cove	44° 10.2'	68° 26.1'	+0 02		-0 27		*0.94	*0.93	10.0 11.5
637	Ellsworth, Union River	44° 32.1'	68° 25.3'	+0 15		+0 16		*1.00	*0.97	10.59 12.07
639	Burnt Coat Harbor, Swans Island	44° 08.7'	68° 27.0'	-0 01		+0 06		*0.89	*0.88	9.5 10.8
	Penobscot Bay									
	<i>Eggemoggin Reach</i>									
641	Center Harbor	44° 15.8'	68° 35.2'	+0 09		+0 12		*0.95	*0.95	10.1 11.5
643	Little Deer Isle	44° 17.5'	68° 41.6'	+0 16		+0 14		*0.94	*0.93	10.0 11.5
645	Isle Au Haut	44° 04.4'	68° 38.2'	-0 01		-0 27		*0.87	*0.88	9.3 10.7
647	Oceanville, Deer Isle	44° 11.5'	68° 37.2'	+0 08		+0 05		*0.93	*0.95	9.86 11.62
649	Stonington, Deer Isle	44° 09.2'	68° 39.7'	+0 08		+0 06		*0.91	*0.90	9.7 11.2
651	Matinicus Harbor, Wheaton Island	43° 51.7'	68° 52.9'	+0 05		-0 27		*0.85	*0.85	9.0 10.4
653	Vinalhaven, Vinalhaven Island	44° 02.6'	68° 50.4'	+0 09		+0 10		*0.87	*0.88	9.3 10.7
655	North Haven	44° 07.6'	68° 52.4'	+0 13		+0 10		*0.91	*0.90	9.7 11.2
657	Pulpit Harbor, North Haven Island	44° 09.4'	68° 53.2'	+0 12		+0 10		*0.93	*0.97	9.85 11.43
659	Castine	44° 23.2'	68° 47.8'	+0 15		+0 11		*0.95	*1.00	10.1 11.6
	<i>Penobscot River</i>									
661	Fort Point	44° 28.3'	68° 44.80'	+0 09		+0 06		*0.98	*0.95	10.39 11.67
663	Gross Point, Eastern Channel	44° 32.2'	68° 45.5'	-0 06		+0 10		*0.99	*0.98	10.4 12.0
665	Bucksport	44° 34.3'	68° 48.1'	-0 04		+0 11		*1.01	*1.00	10.8 12.4
667	Winterport	44° 38.2'	68° 50.5'	-0 09		+0 04		*1.11	*0.92	11.76 13.64
669	Sandy Point	44° 40.3'	68° 48.3'	+0 06		+0 08		*0.99	*0.98	10.5 12.1
671	Bangor	44° 47.7'	68° 46.3'	-0 06		+0 18		*1.25	*0.87	13.40 14.97
673	Belfast	44° 25.6'	69° 00.3'	+0 09		+0 04		*0.97	*1.03	10.23 11.66
675	Rockland	44° 06.3'	69° 06.1'	+0 09		+0 06		*0.93	*1.03	9.78 11.15

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			
	MAINE Outer Coast Time meridian, 75° W	North	West	h	m	ft	ft	ft	ft	ft
				on Portland, p.36						
677	Tenants Harbor	43° 57.9'	69° 13.0'	-0 11	-0 11	*1.02	*1.02	9.3	10.6	5.0
679	Monhegan Island	43° 45.9'	69° 19.3'	-0 13	-0 09	*0.97	*0.97	8.8	10.1	4.7
681	Burnt Island, Georges Islands <i>St. George River</i>	43° 52.3'	69° 17.7'	-0 13	-0 12	*0.98	*0.98	8.9	10.2	4.8
683	Port Clyde	43° 55.5'	69° 15.6'	-0 11	-0 07	*0.98	*0.98	8.9	10.2	4.8
685	Otis Cove	43° 59.2'	69° 14.2'	-0 15	-0 14	*1.00	*1.00	9.1	10.5	4.9
687	Thomaston	44° 04.3'	69° 10.9'	-0 04	-0 03	*1.03	*1.03	9.4	10.8	5.0
689	New Harbor, Muscongus Bay	43° 52.5'	69° 29.4'	-0 10	-0 08	*0.97	*0.97	8.8	10.1	4.7
691	Muscongus Harbor, Muscongus Sound	43° 58.0'	69° 26.5'	-0 09	-0 03	*0.99	*0.99	9.0	10.4	4.8
693	Friendship Harbor <i>Medomak River</i>	43° 58.2'	69° 20.5'	-0 18	-0 11	*0.99	*0.99	9.0	10.4	4.8
695	Jones Neck	44° 00.9'	69° 22.8'	-0 10	-0 05	*1.00	*1.00	9.1	10.5	4.9
697	Waldoboro	44° 05.6'	69° 22.6'	-0 16	-0 04	*1.04	*1.04	9.5	10.9	5.1
699	Pemaquid Harbor, Johns Bay <i>Damariscotta River</i>	43° 52.6'	69° 31.5'	-0 05	-0 04	*0.97	*0.97	8.8	10.1	4.7
701	East Boothbay	43° 51.9'	69° 35.0'	-0 02	+0 01	*0.98	*0.98	8.9	10.2	4.8
703	Walpole	43° 56.0'	69° 34.8'	+0 06	+0 14	*1.03	*1.06	9.35	10.66	5.05
705	Newcastle	44° 02.0'	69° 32.2'	+0 16	+0 25	*1.02	*1.02	9.3	10.7	5.0
707	Damariscove Harbor, Damariscove Island	43° 45.5'	69° 36.9'	-0 09	-0 10	*0.97	*0.97	8.8	10.1	4.7
709	Boothbay Harbor	43° 51.1'	69° 37.7'	-0 06	-0 08	*0.97	*0.97	8.8	10.1	4.7
711	Southport, Townsend Gut <i>Sheepscot River</i>	43° 50.8'	69° 39.7'	+0 01	+0 01	*0.98	*0.98	8.9	10.2	4.8
713	Isle of Springs	43° 51.6'	69° 41.2'	-0 02	-0 04	*0.98	*0.98	8.9	10.3	4.8
715	Cross River entrance	43° 55.5'	69° 40.2'	+0 07	+0 04	*1.00	*1.00	9.1	10.5	4.9
717	Wiscasset	44° 00.0'	69° 40.0'	+0 16	+0 04	*1.03	*1.03	9.4	10.8	5.0
719	Sheepscot (below rapids)	44° 03.0'	69° 37.1'	+0 20	+0 20	*1.05	*1.05	9.6	11.0	5.2
721	Back River	43° 57.5'	69° 41.1'	+0 34	+0 31	*1.00	*1.00	9.1	10.5	4.9
723	Robinhood, Sasanoa River	43° 51.2'	69° 44.0'	+0 14	+0 14	*0.97	*0.97	8.8	10.1	4.7
725	Mill Point, Sasanoa River	43° 53.2'	69° 45.8'	+0 35	+0 43	*0.97	*0.97	8.8	10.1	4.7
	<i>Kennebec River</i>									
727	Fort Popham, Hunniwell Point	43° 45.3'	69° 47.3'	+0 09	+0 04	*0.92	*0.92	8.4	9.7	4.5
729	Phippsburg	43° 49.1'	69° 48.6'	+0 26	+0 28	*0.88	*0.88	8.0	9.2	4.3
731	Bath	43° 55.1'	69° 48.8'	+1 01	+1 17	*0.70	*0.70	6.4	7.4	3.4
733	Sturgeon Island, Merrymeeting Bay	43° 58.9'	69° 50.1'	+2 00	+2 04	*0.58	*0.58	5.3	6.1	2.8
735	Androscoggin River entrance	43° 57.0'	69° 53.3'	+2 24	+3 26	*0.52	*0.52	4.7	5.4	2.5
737	Brunswick, Androscoggin River	43° 55.3'	69° 57.8'	+2 35	+4 36	*0.42	*0.42	3.8	4.4	2.0
739	Bowdoinham, Cathance River	44° 00.5'	69° 53.7'	+2 34	+2 42	*0.63	*0.63	5.7	6.6	3.1
	Casco Bay									
741	Cundy Harbor, New Meadows River	43° 47.3'	69° 53.6'	-0 01	-0 02	*0.98	*0.98	8.9	10.2	4.8
743	Howard Point, New Meadows River	43° 53.4'	69° 53.0'	-0 05	+0 01	*0.99	*0.99	9.0	10.3	4.8
745	South Harpswell, Potts Harbor	43° 44.3'	70° 01.4'	+0 02	+0 01	*0.98	*0.98	8.9	10.2	4.8
747	Wilson Cove, Middle Bay	43° 49.5'	69° 58.6'	+0 02	+0 02	*1.00	*1.00	9.1	10.5	4.9
749	South Freeport	43° 49.2'	70° 06.2'	+0 12	+0 10	*0.99	*0.99	9.0	10.3	4.8
751	Prince Point	43° 45.7'	70° 10.4'	+0 00	+0 01	*1.00	*0.99	9.19	10.57	4.90
753	Doyle Point	43° 45.1'	70° 08.4'	-0 02	-0 03	*1.00	*0.88	9.2	10.5	4.9
755	Falmouth Foreside	43° 43.9'	70° 12.3'	+0 01	+0 01	*1.00	*0.97	9.16	10.53	4.91
757	Great Chebeague Island	43° 43.3'	70° 08.5'	+0 02	+0 02	*1.00	*1.03	9.11	10.48	4.91
759	Cliff Island, Luckse Sound	43° 41.7'	70° 06.6'	-0 02	-0 02	*1.00	*1.00	9.1	10.4	4.9
761	Vaill Island	43° 40.6'	70° 09.3'	+0 05	+0 01	*0.98	*1.03	9.0	10.3	4.8
763	Long Island	43° 41.4'	70° 10.2'	-0 01	-0 01	*1.00	*1.00	9.09	10.45	4.89
765	Cow Island	43° 41.4'	70° 11.4'	-0 01	+0 00	*1.00	*1.00	9.11	10.48	4.89
767	Presumpscot River Bridge	43° 41.4'	70° 14.8'	+0 01	+0 04	*1.01	*1.06	9.2	10.6	5.0
769	Back Cove	43° 41'	70° 15'	+0 02	+0 06	*0.97	*0.97	9.1	10.5	4.9
771	Great Diamond Island	43° 40.2'	70° 12.0'	+0 00	+0 00	*1.00	*1.03	9.08	10.44	4.89
773	Peak Island	43° 39.3'	70° 12.0'	-0 04	-0 08	*0.99	*0.99	9.0	10.4	4.8
775	Cushing Island	43° 38.7'	70° 11.9'	+0 01	+0 01	*0.99	*1.03	9.02	10.37	4.87
777	PORTLAND	43° 39.6'	70° 14.8'			<i>Daily predictions</i>		9.12	10.53	4.91
779	Fore River	43° 38.5'	70° 17.1'	+0 02	+0 02	*1.00	*1.03	9.16	10.53	4.93
781	Portland Head Light	43° 37.4'	70° 12.4'	-0 02	-0 01	*0.97	*1.00	8.89	10.13	4.78
	Outer Coast									
783	Pine Point, Scarborough River	43° 32.7'	70° 20.0'	+0 06	+0 16	*0.96	*0.97	8.77	9.72	4.71
785	Old Orchard Beach	43° 31'	70° 22'	+0 00	-0 06	*0.97	*0.97	8.8	10.1	4.7
787	Camp Ellis, Saco River Entrance	43° 27.7'	70° 22.9'	+0 03	+0 10	*0.97	*1.00	8.92	10.17	4.79
789	Biddeford, Saco River	43° 29.5'	70° 26.8'	+0 12	+0 26	*0.99	*0.97	9.06	10.33	4.86
791	Cape Porpoise	43° 22.0'	70° 25.9'	+0 12	+0 14	*0.95	*0.95	8.7	9.9	4.7
793	Kennebunkport	43° 21.5'	70° 28.6'	+0 07	+0 05	*0.97	*1.00	8.84	10.08	4.76
795	Wells, Webhannet River	43° 19.2'	70° 33.8'	+0 06	+0 02	*0.96	*1.00	8.77	10.09	4.72
797	Cape Neddick	43° 10.0'	70° 35.6'	+0 02	+0 08	*0.95	*1.00	8.69	9.99	4.68
799	York Harbor	43° 07.9'	70° 38.5'	+0 03	+0 13	*0.95	*0.95	8.6	9.9	4.6
801	Fort Point, York Harbor	43° 07.8'	70° 38.3'	-0 04	+0 10	*0.95	*0.94	8.69	9.99	4.66
803	Seapoint, Cutts Island	43° 05.1'	70° 39.7'	+0 01	-0 04	*0.96	*0.96	8.8	10.1	4.7

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	Spring	
				High Water	Low Water	High Water	Low Water			
	MAINE and NEW HAMPSHIRE Time meridian, 75° W	North	West	h	m	ft	ft	ft	ft	ft
				on Portland, p.36						
805	Portsmouth Harbor Jaffrey Point	43° 03.4'	70° 43.9'	-0 03	-0 05	*0.95	*0.95	8.7	10.0	4.7
807	Gerrish Island	43° 04.0'	70° 41.7'	-0 02	-0 03	*0.95	*0.95	8.7	10.0	4.7
809	Fort Point	43° 04.3'	70° 42.7'	+0 09	+0 05	*0.95	*1.00	8.63	9.92	4.65
811	Kittery Point	43° 04.9'	70° 42.2'	-0 07	+0 01	*0.96	*0.96	8.7	10.0	4.7
813	Seavey Island	43° 05'	70° 45'	+0 20	+0 18	*0.89	*0.89	8.1	9.4	4.4
815	Portsmouth	43° 04.7'	70° 45.1'	+0 22	+0 17	*0.86	*0.86	7.8	9.0	4.2
	<i>Piscataqua River</i>									
817	Atlantic Heights	43° 05.4'	70° 46.0'	+0 37	+0 28	*0.82	*0.82	7.5	8.6	4.0
819	Dover Point	43° 07'	70° 50'	+1 33	+1 27	*0.70	*0.70	6.4	7.4	3.4
821	Dover, Cocheco River	43° 11.9'	70° 52.1'	+1 45	+1 39	*0.77	*0.76	7.04	8.03	3.78
823	Salmon Falls River	43° 11.4'	70° 49.5'	+1 35	+1 52	*0.75	*0.75	6.8	7.8	3.6
825	Squamscott River RR. Bridge	43° 03.2'	70° 54.8'	+2 19	+2 41	*0.75	*0.75	6.8	7.8	3.6
827	Gosport Harbor, Isles of Shoals	42° 58.7'	70° 36.9'	+0 02	-0 02	*0.93	*0.93	8.5	9.8	4.5
829	Hampton Harbor	42° 54'	70° 49'	+0 14	+0 32	*0.91	*0.91	8.3	9.5	4.5
	MASSACHUSETTS									
	<i>Merrimack River</i>									
831	Plum Island, Merrimack River Entrance	42° 49.0'	70° 49.2'	+0 06	+0 29	*0.88	*0.88	8.00	9.12	4.30
833	Newburyport	42° 48.7'	70° 51.9'	+0 31	+1 11	*0.86	*0.86	7.8	9.0	4.2
835	Salisbury Point	42° 50.3'	70° 54.5'	+0 55	+1 18	*0.83	*0.56	7.64	8.71	4.01
837	Merrimacport	42° 49.5'	70° 59.3'	+1 26	+2 08	*0.76	*0.50	7.05	8.04	3.70
839	Riverside	42° 45.8'	71° 04.6'	+1 56	+3 30	*0.62	*0.35	5.72	6.52	2.80
841	Plum Island Sound (south end)	42° 42.6'	70° 47.3'	+0 12	+0 37	*0.94	*0.94	8.6	9.9	4.6
843	Essex	42° 37.9'	70° 46.6'	+0 22	+0 31	*1.00	*0.94	9.18	10.47	4.90
845	Annisquam, Lobster Cove	42° 39.3'	70° 40.6'	+0 11	+0 03	*0.97	*0.97	8.81	10.04	4.74
847	Rockport	42° 39.5'	70° 36.9'	+0 06	+0 06	*0.95	*0.97	8.70	9.92	4.71
				on Boston, p.40						
849	Gloucester Harbor	42° 36.6'	70° 39.6'	+0 00	-0 04	*0.93	*0.97	8.80	10.03	4.73
851	Salem, Salem Harbor	42° 31.4'	70° 52.6'	-0 02	-0 05	*0.94	*0.97	8.93	10.18	4.79
853	Lynn, Lynn Harbor	42° 27.5'	70° 56.6'	+0 01	-0 03	*0.97	*1.00	9.16	10.44	4.92
	Boston Harbor									
855	Boston Light	42° 19.7'	70° 53.5'	-0 01	-0 02	*0.95	*0.97	9.05	10.03	4.85
857	Deer Island (south end)	42° 20.7'	70° 57.5'	+0 01	+0 00	*0.97	*0.97	9.3	10.8	4.9
859	BOSTON	42° 21.3'	71° 03.2'			<i>Daily predictions</i>		9.49	11.07	5.09
861	Charlestown, Charles River entrance	42° 22.5'	71° 03.0'	+0 00	+0 01	*1.00	*1.00	9.5	11.0	5.0
863	Amelia Earhart Dam, Mystic River	42° 23.7'	71° 04.6'	+0 01	+0 02	*1.01	*0.97	9.56	10.89	5.11
865	Chelsea St. Bridge, Chelsea River	42° 23.2'	71° 01.4'	+0 01	+0 06	*1.01	*1.01	9.6	11.1	5.1
867	Neponset, Neponset River	42° 17.1'	71° 02.4'	-0 02	+0 03	*1.00	*1.00	9.5	11.0	5.0
869	Moon Head	42° 18.5'	70° 59.3'	+0 01	+0 04	*0.99	*0.99	9.4	10.9	5.0
	Hingham Bay									
871	Nut Island, Quincy Bay	42° 16.8'	70° 57.3'	+0 01	+0 01	*0.99	*1.00	9.42	10.74	5.05
873	Weymouth Fore River Bridge	42° 14.7'	70° 58.1'	+0 09	+0 06	*1.00	*1.00	9.5	11.0	5.0
875	Crow Point, Hingham Harbor entrance	42° 15.7'	70° 53.6'	+0 02	+0 05	*0.99	*0.99	9.4	10.9	5.0
877	Hingham	42° 14.8'	70° 53.1'	+0 09	+0 08	*1.00	*1.00	9.5	11.0	5.0
879	Nantasket Beach, Weir River	42° 16.2'	70° 51.6'	+0 06	+0 07	*0.99	*0.99	9.4	10.9	5.0
881	Hull	42° 18.2'	70° 55.2'	+0 05	+0 07	*0.97	*0.97	9.3	10.8	5.0
	Cohasset Harbor to Davis Bank									
883	Cohasset Harbor (White Head)	42° 14.9'	70° 47.0'	+0 04	-0 02	*0.92	*0.92	8.8	10.2	4.7
885	Scituate, Scituate Harbor	42° 12.1'	70° 43.6'	+0 03	-0 01	*0.95	*1.03	8.94	10.19	4.83
887	Damons Point, North River	42° 09.6'	70° 44.0'	+0 20	+0 36	*0.89	*0.89	8.5	9.9	4.5
889	Brant Rock, Green Harbor River	42° 05.0'	70° 38.8'	+0 05	+0 03	*0.96	*1.03	9.08	10.35	4.89
	<i>Cape Cod Bay</i>									
891	Duxbury, Duxbury Harbor	42° 02.3'	70° 40.2'	+0 06	+0 33	*1.04	*1.03	9.89	11.27	5.30
893	Plymouth	41° 57.6'	70° 39.7'	+0 04	+0 18	*1.03	*1.00	9.76	11.13	5.22
895	Cape Cod Canal, east entrance	41° 46.3'	70° 30.4'	-0 01	-0 03	*0.91	*0.68	8.74	9.96	4.59
897	Cape Cod Canal, Sagamore (Sta. 115)	41° 46.5'	70° 32.1'	-0 15	-0 06	*0.83	*0.88	7.90	9.01	4.25
899	Cape Cod Canal, Bourmedale (Sta. 200)	41° 46.2'	70° 33.7'	-0 29	-0 21	*0.66	*0.79	6.18	7.05	3.37
901	Cape Cod Canal, Bourne Bridge (Sta. 320)	41° 44.7'	70° 35.6'	-1 13	-0 24	*0.46	*0.79	4.29	4.89	2.42
903	Barnstable Harbor, Beach Point	41° 43.3'	70° 17.1'	+0 11	+0 30	*1.00	*1.00	9.5	11.0	5.0
905	Sesuit Harbor, East Dennis	41° 45.1'	70° 09.3'	+0 02	-0 01	*1.02	*0.82	9.73	11.09	5.14
907	Wellfleet	41° 55.8'	70° 02.5'	+0 14	+0 30	*1.05	*1.05	10.0	11.6	5.4
909	Provincetown	42° 03'	70° 11'	+0 16	+0 18	*0.95	*0.95	9.1	10.6	4.8
	<i>Cape Cod</i>									
911	Chatham, Stage Harbor	41° 40.0'	69° 58.0'	+0 46	+0 19	*0.43	*0.43	3.95	4.50	2.23
913	Chatham Harbor, Aunt Lydias Cove	41° 41.6'	69° 57.0'	+0 56	+1 10	*0.61	*0.71	5.77	6.58	3.12
915	Pleasant Bay	41° 44.2'	69° 58.9'	+2 28	+3 27	*0.34	*0.34	3.2	3.7	1.7
917	Georges Shoal, Texas Tower	41° 41.3'	67° 45.6'	-0 47	-0 43	*0.44	*0.44	4.2	4.8	2.2
	Nantucket Sound, north side									
919	Saquetucket Harbor	41° 40.1'	70° 03.4'	+0 46	+0 16	*0.41	*0.41	3.72	4.24	2.14
921	Wychmere Harbor	41° 39.9'	70° 03.9'	+0 52	+0 25	*0.39	*0.39	3.7	4.3	1.9
923	Dennisport	41° 39.5'	70° 06.9'	+1 03	+0 38	*0.36	*0.36	3.4	4.1	1.8
925	South Yarmouth, Bass River	41° 39.9'	70° 11.0'	+1 48	+1 46	*0.29	*0.29	2.8	3.4	1.5
927	Hyannis Port	41° 37.9'	70° 18.0'	+1 00	+0 26	*0.35	*0.76	3.20	3.80	1.85

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			
	MASSACHUSETTS Nantucket Sound, north side-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Boston, p.40						
929	Cotuit Highlands	41° 36.5'	70° 26.2'	+1 17		+0 47		*0.26	*0.26	2.5 3.0
931	Poponneset Island, Poponneset Bay	41° 35.2'	70° 27.8'	+2 03		+1 52		*0.24	*0.24	2.3 2.8
933	Falmouth Heights	41° 32.7'	70° 35.9'	-0 16		-0 09		*0.14	*0.14	1.3 1.6
	Nantucket Island									
935	Great Point	41° 23.2'	70° 02.8'	+0 43		+0 28		*0.32	*0.32	3.1 3.7
937	NANTUCKET	41° 17.1'	70° 05.8'	<i>Daily predictions, p.44</i>						3.0 3.36
939	Eel Point	41° 17.5'	70° 12.5'	+0 39		+0 07		*0.24	*0.24	2.3 2.7
941	Muskeget Island, north side	41° 20.2'	70° 18.3'	+0 25		+0 15		*0.21	*0.21	2.0 2.4
	Martha's Vineyard									
				on Newport, p.52						
943	Vineyard Haven	41° 27.5'	70° 36.0'	+3 39		+3 27		*0.48	*1.14	1.58 1.69
945	Oak Bluffs	41° 27.5'	70° 33.3'	+3 59		+3 47		*0.50	*0.71	1.7 2.0
947	Edgartown	41° 23.3'	70° 30.7'	+4 26		+4 16		*0.65	*1.64	2.13 2.68
949	Wasque Point, Chappaquiddick Island	41° 21.8'	70° 27.0'	+2 02		+3 20		*0.31	*0.31	1.1 1.4
951	Southshore (buoy)	41° 19.6'	70° 35.4'	-0 28		-0 03		*0.80	*0.86	2.78 3.38
953	Squibnocket Point	41° 18.7'	70° 46.1'	-0 45		-0 02		*0.82	*0.82	2.9 3.7
955	Nomans Land	41° 15.7'	70° 49.0'	-0 19		+0 18		*0.85	*0.85	3.0 3.6
957	Gay Head	41° 21.2'	70° 49.8'	-0 06		+0 45		*0.82	*0.82	2.9 3.5
959	Cedar Tree Neck	41° 26.1'	70° 41.8'	+0 10		+1 32		*0.62	*0.62	2.2 2.8
	Vineyard Sound									
	<i>Woods Hole</i>									
961	Little Harbor	41° 31.2'	70° 39.9'	+0 32		+2 21		*0.40	*0.40	1.4 1.8
963	OCEANOGRAPHIC INSTITUTION	41° 31.4'	70° 40.3'	<i>Daily predictions, p.48</i>						1.8 2.33
965	Uncatena Island (south side)	41° 30.9'	70° 42.2'	+0 12		+0 22		*1.02	*1.02	3.6 4.5
967	Quicks Hole, North side	41° 26.9'	70° 51.4'	-0 08		-0 08		*0.99	*0.99	3.5 4.4
969	Cuttyhunk	41° 25.5'	70° 55.0'	+1 20		+1 15		*0.97	*0.93	3.37 4.25
	Buzzards Bay									
971	Penikese Island	41° 27.0'	70° 55.3'	+0 02		+0 12		*0.98	*0.96	3.42 4.30
973	Chappaquitt Point, West Falmouth Harbor	41° 36.3'	70° 39.1'	+0 06		+0 08		*1.11	*1.14	3.82 4.70
975	Monument Beach	41° 42.9'	70° 37.0'	+0 16		+0 30		*1.15	*1.15	3.97 5.00
977	Gray Gables	41° 44.1'	70° 37.4'	+0 37		+1 16		*1.05	*1.21	3.62 4.45
979	Cape Cod Canal, RR. bridge <6>	41° 44.5'	70° 37.0'	+1 17		+2 50		*1.01	*1.01	3.43 4.22
981	Onset Beach, Onset Bay	41° 44.5'	70° 39.5'	+0 41		+1 25		*1.03	*1.03	3.50 4.41
983	Great Hill	41° 42.7'	70° 42.9'	+0 12		+0 12		*1.14	*1.21	3.96 4.99
985	Marion, Sippican Harbor	41° 43.2'	70° 45.6'	+0 10		+0 12		*1.13	*1.29	4.0 4.9
987	Piney Point	41° 41.7'	70° 43.2'	+0 10		+0 10		*1.13	*1.21	3.91 4.81
989	Mattapoisett, Mattapoisett Harbor	41° 39'	70° 49'	+0 11		+0 20		*1.09	*1.00	3.9 4.8
991	Clarks Point	41° 35.6'	70° 54.0'	+0 14		+0 23		*1.03	*1.07	3.56 4.49
993	New Bedford	41° 38.4'	70° 55.1'	+0 07		+0 07		*1.05	*1.05	3.7 4.6
995	Round Hill Point	41° 32.3'	70° 55.7'	+0 14		+0 22		*0.99	*1.00	3.43 4.32
	<i>Westport River</i>									
997	Westport Harbor	41° 31'	71° 05'	+0 09		+0 33		*0.85	*0.85	3.0 3.7
999	Hix Bridge, East Branch	41° 34.2'	71° 04.4'	+1 40		+2 30		*0.77	*0.77	2.7 3.4
	RHODE ISLAND, and MASSACHUSETTS Narragansett Bay									
	<i>Sakonnet River</i>									
1001	Sakonnet	41° 27.9'	71° 11.6'	-0 09		+0 13		*0.91	*0.86	3.17 3.99
1003	Sachuest, Flint Point	41° 29.2'	71° 14.3'	-0 05		+0 15		*0.90	*0.93	3.13 3.94
1005	The Glen	41° 33.5'	71° 14.2'	-0 13		-0 03		*0.98	*1.00	3.40 4.28
1007	Nannaquaket Neck	41° 37.1'	71° 12.2'	-0 12		-0 13		*1.01	*1.01	3.50 4.41
1009	Anthony Point	41° 38.3'	71° 12.7'	+0 00		-0 01		*1.09	*1.09	3.75 4.73
1011	North End, Bay Oil pier	41° 39.1'	71° 12.6'	+0 20		+0 01		*1.20	*1.07	4.17 5.25
1013	Castle Hill	41° 27.8'	71° 21.7'	-0 05		+0 13		*0.94	*1.00	3.25 4.10
1015	NEWPORT	41° 30.3'	71° 19.6'	<i>Daily predictions</i>						3.47 4.38
	<i>Conanicut Island</i>									
1017	Beavertail Point	41° 27.1'	71° 24.1'	-0 05		+0 04		*0.98	*0.98	3.34 4.21
1019	West Jamestown, Dutch Island Harbor	41° 29.8'	71° 23.2'	+0 05		+0 04		*1.00	*1.00	3.46 4.36
1021	Conanicut Point	41° 34.4'	71° 22.3'	+0 07		-0 06		*1.07	*1.07	3.8 4.7
1023	Prudence Island, (south end)	41° 34.8'	71° 19.3'	+0 08		-0 03		*1.08	*1.14	3.74 4.71
1025	Bristol Ferry	41° 38.2'	71° 15.3'	+0 15		+0 00		*1.17	*1.14	4.08 5.14
1027	Bristol, Bristol Harbor	41° 40.1'	71° 16.7'	+0 13		+0 00		*1.16	*1.14	4.1 5.1
1029	Bristol Highlands	41° 41.8'	71° 17.6'	+0 11		-0 04		*1.19	*1.21	4.13 5.03
1031	Kickamuit River	41° 42.5'	71° 14.5'	+0 22		+0 14		*1.24	*1.29	4.30 5.01
1033	Fall River, Massachusetts	41° 42.3'	71° 09.8'	+0 18		+0 03		*1.25	*1.21	4.36 5.41
1035	Steep Brook, Taunton River	41° 44.4'	71° 07.9'	+0 26		+0 05		*1.30	*1.29	4.51 5.68
1037	Conimicut Light	41° 43.0'	71° 20.6'	+0 11		-0 02		*1.20	*1.19	4.17 5.25
1039	Bay Spring, Bullock Cove	41° 45.1'	71° 21.1'	+0 12		+0 01		*1.22	*1.21	4.25 5.23
1041	Pawtuxet, Pawtuxet Cove	41° 45.7'	71° 23.3'	+0 06		-0 11		*1.25	*1.29	4.35 5.35
1043	Providence, State Pier no.1	41° 48.4'	71° 24.1'	+0 13		+0 00		*1.27	*1.29	4.41 5.63
1045	Rumford, Seekonk River	41° 50.4'	71° 22.4'	+0 12		+0 06		*1.34	*1.29	4.66 5.73
1047	Pawtucket, Seekonk River	41° 52.1'	71° 22.8'	+0 18		+0 09		*1.31	*1.29	4.6 5.8
1049	Quonset Point	41° 35.2'	71° 24.7'	+0 06		-0 01		*1.07	*1.10	3.70 4.66
1051	East Greenwich	41° 39.9'	71° 26.7'	+0 12		+0 03		*1.18	*1.21	4.06 4.93

Endnotes can be found at the end of table 2.

CAUTION

Cape Cod Canal, Railroad Bridge

Predictions of the times of low water must be used with caution because of the peculiarities in the behavior of the tide. Since the tide may be practically at a stand for as much as two hours before or after the predicted times of low water, the levels at other than high and low water times cannot be obtained in the usual way as in Table 3 (Height of Tide at Any Time). The peculiar behavior of the tide near low water, which is prevalent at this place, is illustrated by the first three curves; however there are brief periods each month when the behavior is as depicted by the fourth curve.

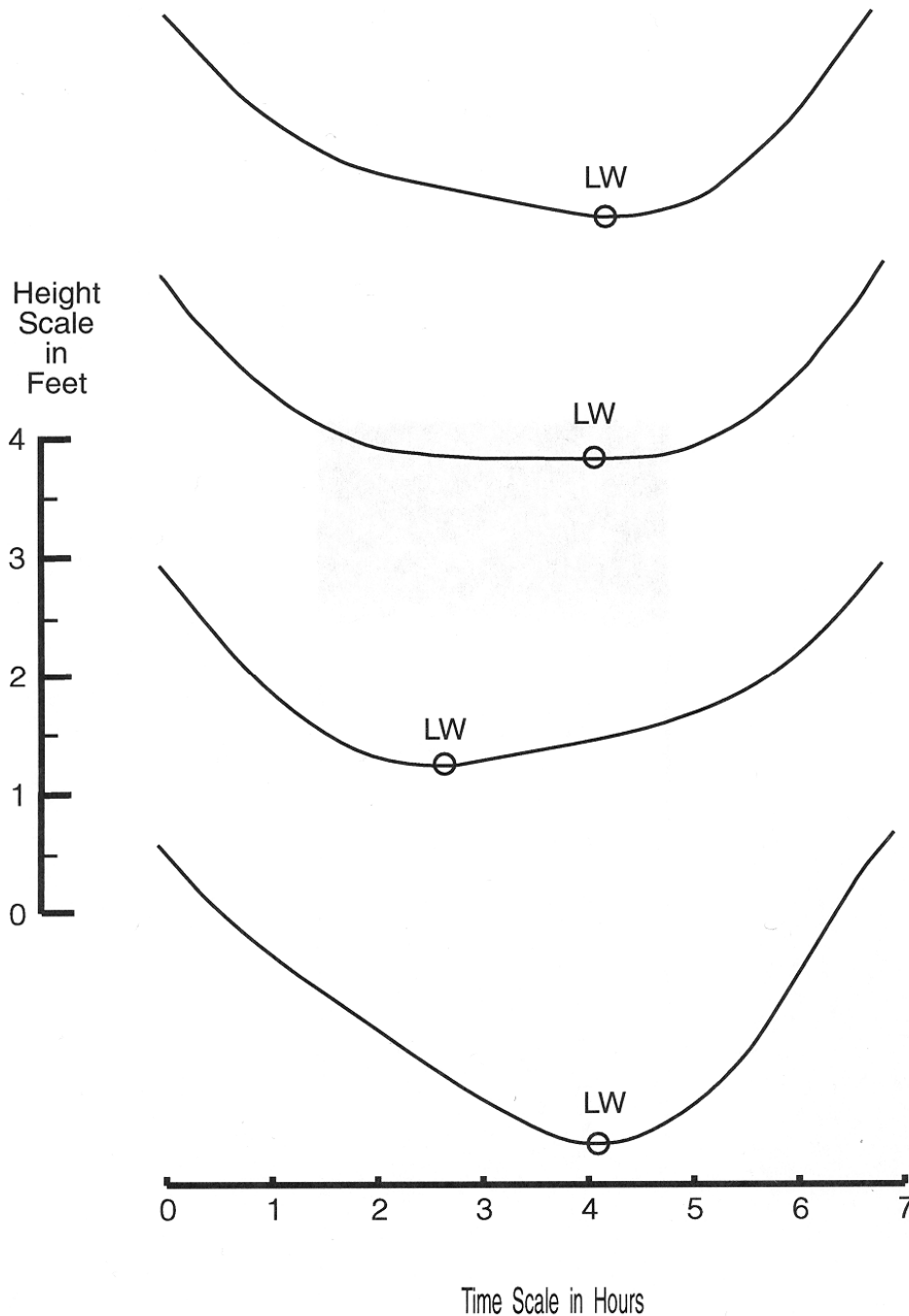


TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	RHODE ISLAND, and MASSACHUSETTS Narragansett Bay-cont. Time meridian, 75° W	North	West	h	m	ft	ft	ft	ft	ft
				on Newport, p.52						
1053	Wickford	41° 34.3'	71° 26.7'	+0 03	-0 06	*1.07	*1.07	3.71	4.56	2.01
1055	Watson Pier, Boston Neck	41° 27.6'	71° 25.7'	-0 03	+0 16	*0.96	*0.93	3.32	4.18	1.79
1057	Narragansett Pier	41° 25.3'	71° 27.3'	-0 11	+0 11	*0.91	*0.93	3.2	4.0	1.7
	RHODE ISLAND, Outer Coast									
1059	Point Judith, Harbor of Refuge	41° 21.8'	71° 29.4'	+0 00	+0 33	*0.87	*0.93	3.00	3.13	1.63
1061	Block Island (Old Harbor)	41° 10.4'	71° 33.4'	-0 13	+0 15	*0.82	*0.86	2.85	3.51	1.54
1063	Southwest Point, Block Island	41° 09.8'	71° 36.6'	+0 05	+0 42	*0.75	*0.79	2.60	3.20	1.41
1065	Weekapaug Point, Block Island Sound	41° 19.7'	71° 45.7'	+0 41	+1 06	*0.74	*0.93	2.53	3.11	1.39
1067	Watch Hill Point	41° 18.3'	71° 51.6'	+0 41	+1 16	*0.74	*0.71	2.6	3.2	1.4
				on New London, p.60						
1069	Westerly, Pawcatuck River	41° 22.9'	71° 49.9'	-0 21	+0 03	*1.02	*1.00	2.6	3.1	1.5
	CONNECTICUT Long Island Sound									
1071	West Mystic, Mystic River	41° 20.6'	71° 58.5'	-0 20	-0 16	*0.97	*1.00	2.50	2.97	1.44
1073	Silver Eel Pond, Fishers Island, N.Y. Thames River	41° 15.4'	72° 01.8'	-0 04	-0 04	*0.91	*1.00	2.33	2.83	1.37
1075	NEW LONDON, State Pier	41° 21.6'	72° 05.5'			<i>Daily predictions</i>		2.56	3.09	1.47
1077	Yale boathouse	41° 25.8'	72° 05.6'	+0 14	+0 10	*1.07	*1.11	2.73	3.22	1.57
1079	Norwich	41° 31.4'	72° 04.7'	+0 24	+0 19	*1.18	*1.21	3.03	3.57	1.75
1081	Niantic, Niantic River Connecticut River	41° 19.5'	72° 11.2'	+0 52	+0 57	*0.99	*0.84	2.58	3.04	1.44
1083	Saybrook Jetty	41° 15.8'	72° 20.6'	+1 11	+0 45	*1.36	*1.35	3.5	4.2	2.0
1085	Saybrook Point	41° 17.0'	72° 21.0'	+1 11	+0 53	*1.24	*1.25	3.2	3.8	1.8
1087	Lyme, highway bridge	41° 19.3'	72° 21.0'	+1 36	+1 09	*1.26	*0.95	3.31	3.91	1.83
1089	Essex <7>	41° 20.9'	72° 23.1'	+1 39	+1 38	*1.16	*1.15	3.0	3.6	1.7
1091	Hadlyme <7>	41° 25.2'	72° 25.7'	+2 19	+2 23	*1.05	*1.05	2.7	3.2	1.5
1093	Tylerville <7>	41° 27.1'	72° 27.9'	+2 38	+2 51	*1.02	*1.02	2.71	3.20	1.46
1095	Haddam <7>	41° 28.9'	72° 30.4'	+2 48	+3 08	*0.97	*0.95	2.5	3.0	1.4
1097	Higganum Creek <7>	41° 30.2'	72° 33.2'	+3 08	+3 40	*0.91	*0.91	2.40	2.83	1.30
1099	Maromas <7>	41° 32.5'	72° 33.1'	+3 25	+4 01	*0.91	*0.91	2.41	2.84	1.31
1101	Middletown <7>	41° 33.6'	72° 38.7'	+3 54	+4 39	*0.83	*0.83	2.17	2.56	1.19
1103	Rocky Hill <7>	41° 39.8'	72° 37.8'	+4 30	+5 36	*0.72	*0.63	1.88	2.22	1.07
1105	South Hartford <7>	41° 45.3'	72° 39.5'	+5 24	+6 54	*0.74	*0.58	1.94	2.29	1.07
				on Bridgeport, p.64						
1107	Westbrook, Duck Island Roads	41° 16.4'	72° 28.5'	-0 24	-0 32	*0.61	*0.60	4.1	4.7	2.2
1109	Clinton, Clinton Harbor	41° 16.1'	72° 31.9'	-0 11	-0 16	*0.67	*1.00	4.55	5.27	2.51
1111	Madison	41° 16.2'	72° 36.2'	-0 21	-0 30	*0.73	*0.72	4.9	5.6	2.6
1113	Guilford Harbor	41° 16.3'	72° 40.0'	-0 11	-0 21	*0.77	*0.96	5.19	5.92	2.83
1115	Sachem Head	41° 14.7'	72° 42.5'	-0 11	-0 15	*0.80	*0.80	5.4	6.2	2.9
1117	Branford, Branford River	41° 15.7'	72° 49.1'	-0 05	-0 13	*0.87	*0.96	5.85	6.67	3.15
1119	Lighthouse Point, New Haven Harbor	41° 15.1'	72° 54.3'	-0 04	-0 07	*0.91	*0.96	6.12	6.98	3.29
1121	New Haven Harbor, New Haven Reach	41° 17.0'	72° 54.5'	-0 01	-0 06	*0.92	*1.00	6.15	7.11	3.32
1123	Gulf Beach	41° 12.3'	73° 02.5'	-0 05	-0 08	*0.94	*1.04	6.29	7.17	3.40
1125	Milford Harbor Housatonic River	41° 13.1'	73° 03.3'	-0 02	-0 03	*0.94	*1.04	6.32	7.20	3.41
1127	Sniffens Point	41° 11.2'	73° 06.8'	+0 10	+0 09	*0.96	*1.00	6.43	7.33	3.46
1129	Stratford, I-95 bridge	41° 12.2'	73° 06.7'	+0 23	+0 23	*0.98	*1.00	6.58	7.50	3.53
1131	Long Hill	41° 16.5'	73° 05.3'	+0 43	+1 13	*1.02	*1.04	6.85	7.81	3.67
1133	Shelton	41° 18.1'	73° 04.3'	+0 46	+1 19	*1.04	*0.96	7.01	7.99	3.74
1135	BRIDGEPORT	41° 10.4'	73° 10.9'			<i>Daily predictions</i>		6.74	7.80	3.61
1137	Black Rock Harbor	41° 09.4'	73° 12.8'	+0 00	+0 01	*1.00	*1.04	6.75	7.75	3.63
1139	Southport, Southport Harbor	41° 08.0'	73° 17.0'	-0 02	+0 02	*1.01	*1.00	6.84	8.18	3.66
1141	Saugatuck, Saugatuck River	41° 07.2'	73° 22.1'	+0 01	+0 09	*1.04	*1.00	6.99	8.14	3.74
1143	South Norwalk	41° 05.9'	73° 24.9'	+0 09	+0 15	*1.05	*1.04	7.1	8.2	3.8
1145	Rowayton, Fivemile River	41° 03.9'	73° 26.7'	+0 00	+0 05	*1.05	*1.08	7.09	8.08	3.80
1147	Long Neck Point	41° 02.3'	73° 28.8'	-0 09	+0 01	*1.06	*0.96	7.17	8.17	3.82
1149	Stamford	41° 02.3'	73° 32.8'	+0 03	+0 08	*1.07	*1.08	7.2	8.3	3.9
1151	Cos Cob Harbor	41° 01.0'	73° 35.8'	+0 05	+0 11	*1.07	*1.08	7.2	8.3	3.9
	NEW YORK Long Island Sound, north side			on Kings Point, p.68						
1153	Rye Beach	40° 57.7'	73° 40.3'	-0 20	-0 27	*1.00	*0.86	7.29	7.89	3.88
1155	New Rochelle	40° 53.6'	73° 46.9'	-0 16	-0 18	*1.01	*0.93	7.29	8.46	3.90
1157	Throgs Neck, Fort Schuyler	40° 48.3'	73° 47.7'	+0 01	+0 04	*1.00	*1.00	7.13	8.62	3.84
	East River									
1159	Whitestone	40° 47.9'	73° 48.8'	+0 07	+0 09	*1.00	*1.04	7.1	8.3	3.8
1161	College Point, Flushing Bay	40° 47.0'	73° 51.4'	+0 17	+0 16	*0.95	*1.04	6.8	7.9	3.7
1163	Worlds Fair Marina, Flushing Bay	40° 45.7'	73° 51.0'	+0 10	+0 16	*0.94	*1.00	6.75	8.10	3.65
1165	Hunts Point	40° 48.0'	73° 52.4'	+0 12	+0 10	*0.97	*1.07	6.92	7.57	3.75
1167	North Brother Island	40° 48.1'	73° 54.0'	+0 18	+0 18	*0.93	*1.11	6.6	7.8	3.6
1169	Port Morris (Stony Point)	40° 48.1'	73° 54.4'	+0 07	+0 10	*0.87	*0.96	6.24	6.85	3.39

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			
	NEW YORK East River-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on New York, p.72						
1171	Hell Gate, Wards Island	40° 47.2'	73° 55.3'	+2 58	+3 45	*1.33	*1.59	6.0	7.3	3.4
1173	Horns Hook, East 90th Street	40° 46.6'	73° 56.5'	+1 54	+1 34	*1.03	*0.90	4.68	5.18	2.53
1175	Queensboro Bridge	40° 45.5'	73° 57.5'	+1 23	+0 57	*0.96	*1.00	4.33	5.24	2.38
1177	East 41st Street, New York City	40° 44.8'	73° 58.1'	+1 03	+0 46	*0.95	*1.09	4.31	4.89	2.40
1179	Hunters Point, Newtown Creek	40° 44.4'	73° 57.7'	+1 22	+0 56	*0.89	*0.90	4.1	4.9	2.2
1181	Williamsburg Bridge	40° 42.7'	73° 58.1'	+0 45	+0 28	*0.93	*0.95	4.22	5.11	2.31
1183	Wallabout Bay, Brooklyn Navy Yard	40° 42.4'	73° 58.5'	+0 32	+0 22	*0.94	*1.05	4.3	5.2	2.4
1185	Brooklyn Bridge	40° 42.2'	73° 59.3'	+0 24	-0 04	*0.99	*1.00	4.53	5.13	2.48
1187	Harlem River, Randalls Island	40° 48.0'	73° 55.6'	+1 55	+1 30	*1.00	*0.86	4.56	5.31	2.46
	Long Island, Long Island Sound			on Kings Point, p.68						
1189	Willets Point	40° 47.6'	73° 46.9'	-0 01	+0 00	*1.00	*1.04	7.15	8.21	3.88
1191	KINGS POINT	40° 48.6'	73° 45.9'			<i>Daily predictions</i>		7.16	8.46	3.86
1193	Port Washington, Manhasset Bay	40° 49.9'	73° 42.2'	-0 12	-0 12	*1.02	*0.96	7.29	8.46	3.92
1195	Glen Cove, Hempstead Harbor	40° 51.8'	73° 39.3'	-0 22	-0 26	*1.01	*0.82	7.27	7.87	3.87
1197	Harry Tappen Marina, Hempstead Harbor	40° 50.1'	73° 39.1'	-0 20	-0 23	*1.01	*0.82	7.29	8.87	3.88
	Oyster Bay			on Bridgeport, p.64						
1199	Oyster Bay Harbor	40° 53'	73° 32'	+0 07	+0 13	*1.08	*1.08	7.3	8.4	3.9
1201	Bayville Bridge	40° 54.2'	73° 33.0'	-0 06	+0 04	*1.09	*1.04	7.37	7.99	3.94
1203	Cold Spring Harbor	40° 52.4'	73° 28.2'	-0 07	+0 02	*1.07	*0.92	7.27	7.86	3.86
1205	Eatons Neck Point	40° 57.2'	73° 24.0'	+0 02	+0 08	*1.05	*1.04	7.1	8.2	3.9
1207	Lloyd Harbor, Huntington Bay	40° 54.6'	73° 25.9'	-0 01	+0 07	*1.04	*0.88	7.02	7.60	3.73
1209	Northport, Northport Bay	40° 54.0'	73° 21.2'	-0 05	+0 04	*1.07	*0.92	7.25	7.84	3.86
1211	Port Jefferson Harbor entrance	40° 58'	73° 05'	+0 02	+0 01	*0.98	*0.98	6.6	7.6	3.5
1213	Port Jefferson	40° 57.0'	73° 04.6'	+0 04	+0 05	*0.98	*0.92	6.61	7.70	3.53
1215	Cedar Beach	40° 57.9'	73° 02.6'	+0 07	+0 05	*0.96	*1.00	6.43	7.01	3.46
1217	Mount Sinai Harbor	40° 57.8'	73° 02.4'	+0 04	+0 18	*0.89	*0.88	6.0	6.9	3.2
1219	Northville	40° 58.9'	72° 38.7'	+0 05	-0 03	*0.80	*0.92	5.35	6.10	2.89
1221	Mattituck Inlet	41° 00.9'	72° 33.7'	+0 11	+0 02	*0.76	*0.85	5.08	5.79	2.75
1223	Hashamomuck Beach	41° 05.7'	72° 23.9'	+0 03	-0 13	*0.64	*0.64	4.2	4.8	2.3
				on New London, p.60						
1225	Plum Gut Harbor, Plum Island	41° 10.3'	72° 12.3'	+0 33	+0 24	*1.01	*1.04	2.60	3.07	1.50
1227	Little Gull Island Shelter Island Sound	41° 12.4'	72° 06.1'	+0 13	-0 22	*0.85	*0.85	2.2	2.6	1.3
1229	Orient	41° 08'	72° 18'	+0 37	+0 36	*0.97	*0.97	2.5	3.0	1.4
1231	Greenport	41° 06.1'	72° 21.7'	+1 12	+0 48	*0.95	*0.95	2.44	2.81	1.40
1233	Southold	41° 04'	72° 25'	+1 44	+1 33	*0.89	*0.89	2.3	2.7	1.3
1235	Noyack Bay	41° 00'	72° 20'	+2 06	+1 44	*0.89	*0.89	2.3	2.7	1.3
1237	Sag Harbor	41° 00.2'	72° 17.8'	+1 00	+0 48	*0.93	*0.89	2.41	2.78	1.37
	Peconic Bays			on Sandy Hook, p.84						
1239	New Suffolk	41° 00'	72° 28'	+2 27	+2 11	*1.01	*1.00	2.6	3.1	1.5
1241	South Jamesport	40° 56.1'	72° 34.9'	+2 34	+2 43	*1.07	*0.95	2.79	3.29	1.57
1243	Threemile Harbor entrance, Gardiners Bay	41° 02.1'	72° 11.4'	+0 39	+0 19	*0.96	*1.00	2.48	2.98	1.44
1245	Lake Montauk	41° 04.4'	71° 56.1'	-0 26	-0 22	*0.77	*0.89	2.01	2.37	1.18
1247	Montauk Harbor entrance	41° 04.5'	71° 56.2'	-0 24	-0 16	*0.74	*0.75	1.9	2.3	1.0
1249	MONTAUK, FORT POND BAY	41° 02.9'	71° 57.6'			<i>Daily Predictions, p.56</i>		2.07	2.66	1.21
	Long Island, south shore			on Sandy Hook, p.84						
1251	Shinnecock Inlet (ocean) Shinnecock Bay	40° 50.2'	72° 28.8'	-0 16	-1 11	*0.66	*0.68	3.08	3.68	1.67
1253	Shinnecock Bay entrance	40° 49.2'	72° 33.7'	+1 12	+1 51	*0.51	*0.37	2.41	2.89	1.27
1255	Ponquoque Point	40° 51.0'	72° 30.2'	-0 06	+0 03	*0.60	*0.65	2.81	3.20	1.53
1257	Shinnecock Yacht Club, Penniman Creek	40° 49.1'	72° 33.2'	+1 01	+1 45	*0.55	*0.55	2.56	2.93	1.39
1259	Moriches Inlet	40° 45.8'	72° 45.3'	-0 10	-1 08	*0.61	*0.79	2.83	3.40	1.56
1261	Moriches Inlet Coast Guard Station	40° 47.2'	72° 45.0'	+0 42	+0 48	*0.46	*0.63	2.15	2.51	1.19
1263	Smith Point Bridge, Narrow Bay	40° 44.3'	72° 52.1'	+1 58	+2 34	*0.27	*0.60	1.19	1.47	0.71
1265	Democrat Point, Fire Island Inlet Great South Bay	40° 38'	73° 18'	-0 39	-0 27	*0.56	*0.55	2.6	3.1	1.4
1267	Fire Island Coast Guard Station	40° 37.6'	73° 15.6'	-0 04	-0 01	*0.42	*0.74	1.89	2.19	1.08
1269	Fire Island Light	40° 38.1'	73° 13.2'	+0 46	+1 22	*0.15	*0.15	0.7	0.8	0.3
1271	West Fire Island	40° 39.4'	73° 12.3'	+2 10	+2 18	*0.13	*0.13	0.6	0.7	0.3
1273	Seaview Ferry Dock	40° 38.9'	73° 09.0'	+2 20	+2 23	*0.27	*0.68	1.18	1.31	0.72
1275	Patchogue	40° 45.0'	73° 00.0'	+3 14	+3 33	*0.25	*0.53	1.11	1.33	0.66
1277	Great River, Connetquot River	40° 43.4'	73° 09.1'	+3 19	+3 32	*0.15	*0.15	0.7	0.8	0.3
1279	Bay Shore, Watchogue Creek Entrance	40° 43.0'	73° 14.4'	+2 15	+2 27	*0.22	*0.37	0.99	1.19	0.57
1281	Oak Beach	40° 38.5'	73° 17.2'	+2 23	+2 58	*0.15	*0.15	0.7	0.8	0.3
1283	Babylon	40° 41.1'	73° 18.9'	+2 11	+2 41	*0.13	*0.15	0.6	0.7	0.3
1285	Gilgo Heading	40° 37.2'	73° 23.7'	+2 22	+2 58	*0.24	*0.25	1.1	1.3	0.5
1287	Amityville	40° 39.3'	73° 25.1'	+2 20	+3 05	*0.26	*0.25	1.2	1.4	0.7
1289	Biltmore Shores, South Oyster Bay	40° 40'	73° 28'	+2 04	+2 32	*0.30	*0.30	1.4	1.7	0.8
1291	Point Lookout, Jones Inlet	40° 35.2'	73° 34.7'	-0 20	-0 25	*0.77	*0.75	3.6	4.3	2.0
1293	Point Lookout (marina), Jones Inlet Hempstead Bay	40° 35.6'	73° 35.0'	-0 02	-0 15	*0.89	*0.75	4.14	4.86	2.26
1295	Deep Creek Meadow	40° 36.2'	73° 31.5'	+1 01	+1 11	*0.51	*0.50	2.4	2.9	1.3
1297	Green Island Drawbridge	40° 37.4'	73° 30.1'	+0 33	+0 31	*0.67	*0.89	3.11	3.56	1.72
1299	Cuba Island	40° 37.2'	73° 31.4'	+1 07	+1 22	*0.49	*0.50	2.3	2.8	1.2
1301	Bellmore, Bellmore Creek	40° 39.8'	73° 31.2'	+1 28	+1 58	*0.43	*0.45	2.0	2.4	1.1
1303	Neds Creek	40° 37.4'	73° 33.3'	+0 49	+0 54	*0.58	*0.60	2.7	3.3	1.4

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			
	NEW YORK Long Island, south shore-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Sandy Hook, p.84						
1305	<i>Hempstead Bay-cont.</i> Freeport, Baldwin Bay	40° 38.0'	73° 35.2'	+0 37		+0 55		*0.64	*0.65	3.0 3.6
1307	Baldwin, Parsonage Cove	40° 38.0'	73° 37.0'	+0 10		+0 20		*0.93	*0.95	4.35 5.08
1309	Long Beach (Inside)	40° 36'	73° 39'	+0 18		+0 02		*0.84	*0.85	3.9 4.7
1311	Long Beach, Bridgewater Yacht Club	40° 35.7'	73° 39.3'	+0 06		+0 08		*0.94	*0.89	4.43 5.14
1313	Bay Park, Hewlett Bay	40° 37.7'	73° 40.1'	+0 20		+0 25		*0.99	*1.00	4.63 5.33
1315	Woodmere, Brosewre Bay	40° 37'	73° 42'	+0 34		+0 50		*0.84	*0.85	3.9 4.7
1317	East Rockaway Inlet, Atlantic Beach	40° 35.6'	73° 44.4'	-0 05		-0 21		*0.93	*1.00	4.37 5.16
	<i>Jamaica Bay</i>									
1319	Kingsborough, Sheepshead Bay	40° 34.9'	73° 56.0'	+0 05		-0 03		*1.05	*1.11	4.92 5.82
1321	Plumb Beach Channel	40° 35.1'	73° 55.5'	+0 02		-0 03		*1.05	*1.05	4.9 5.9
1323	Barren Island, Rockaway Inlet	40° 34.7'	73° 53.3'	-0 01		-0 04		*1.07	*1.05	5.0 6.0
1325	Beach Channel (bridge)	40° 35'	73° 49'	+0 37		+0 24		*1.09	*1.10	5.1 6.2
1327	Motts Basin	40° 37.0'	73° 45.5'	+0 39		+0 48		*1.16	*1.15	5.4 6.5
1329	Norton Point, Hook Creek	40° 38.1'	73° 44.8'	+0 38		+0 45		*1.16	*1.16	5.4 6.5
1331	J.F.K. International Airport	40° 37.4'	73° 47.0'	+0 25		+0 45		*1.14	*1.15	5.3 6.4
1333	North Channel Bridge, Grassy Bay	40° 38.7'	73° 50.2'	+0 21		+0 27		*1.18	*1.16	5.56 6.42
1335	Canarsie	40° 37.8'	73° 53.1'	+0 27		+0 08		*1.12	*1.10	5.2 6.3
1337	Mill Basin	40° 37'	73° 55'	+0 28		+0 04		*1.12	*1.10	5.2 6.3
	NEW YORK and NEW JERSEY New York Harbor									
1339	Coney Island	40° 34'	73° 59'	-0 04		-0 17		*1.01	*1.00	4.7 5.7
1341	Norton Point, Gravesend Bay	40° 35.4'	73° 59.9'	-0 01		+0 03		*1.02	*1.15	4.7 5.7
1343	Fort Wadsworth, The Narrows	40° 36.4'	74° 03.3'	+0 06		+0 06		*0.98	*1.05	4.8 5.4
1345	Fort Hamilton, The Narrows	40° 36.5'	74° 02.1'	+0 02		+0 07		*1.01	*1.00	4.7 5.7
1347	U.S. Coast Guard Station, Staten Island	40° 36.7'	74° 03.6'	+0 12		+0 11		*0.96	*1.05	4.47 5.35
				on New York, p.72						
1349	St. George, Staten Island	40° 38.6'	74° 04.4'	-0 17		-0 15		*0.99	*0.99	4.5 5.4
1351	Gowanus Bay	40° 39.9'	74° 00.8'	-0 18		-0 12		*1.03	*0.95	4.7 5.7
1353	NEW YORK (The Battery)	40° 42.0'	74° 00.9'	<i>Daily Predictions</i>				4.53	5.50	2.47
	Hudson River <8>									
1355	Weehawken, Union City, N.J.	40° 45.9'	74° 01.1'	+0 13		+0 15		*0.96	*0.96	4.37 5.29
1357	Edgewater, N.J.	40° 48.8'	73° 58.7'	+0 31		+0 28		*0.93	*0.93	4.24 5.13
1359	Dyckman Street, Ferry Slip, N.Y.	40° 52.0'	73° 56.0'	+0 51		+0 44		*0.88	*0.81	3.98 4.66
1361	Spuytten Duyvil Creek ent., N.Y.	40° 52.7'	73° 55.5'	+0 52		+0 48		*0.84	*0.84	3.85 4.66
1363	Riverdale, N.Y.	40° 54.2'	73° 54.9'	+0 48		+0 49		*0.85	*0.85	3.86 4.67
1365	Alpine, N.J.	40° 56.7'	73° 55.1'	+1 05		+1 02		*0.83	*0.90	3.75 4.54
1367	Tarrytown	41° 04.7'	73° 52.2'	+1 49		+1 57		*0.70	*0.70	3.2 3.7
1369	Haverstraw	41° 13.1'	73° 57.8'	+2 15		+2 42		*0.72	*0.81	3.23 3.91
1371	Peekskill	41° 17'	73° 56'	+2 28		+3 03		*0.64	*0.64	2.9 3.4
1373	Newburgh	41° 30.0'	74° 00.4'	+3 46		+4 03		*0.62	*0.64	2.8 3.2
1375	Beacon	41° 30.3'	73° 58.2'	+3 37		+3 49		*0.70	*0.90	3.13 3.68
1377	New Hamburg	41° 35'	73° 57'	+4 04		+4 28		*0.64	*0.64	2.9 3.3
1379	Poughkeepsie	41° 42'	73° 57'	+4 34		+4 46		*0.68	*0.68	3.1 3.5
1381	Hyde Park	41° 47.2'	73° 57.8'	+5 00		+5 12		*0.70	*0.68	3.2 3.6
1383	Kingston	41° 55'	73° 59'	+5 20		+5 34		*0.81	*1.02	3.7 4.2
1385	Turkey Point	42° 00.8'	73° 56.3'	+5 29		+5 47		*0.87	*1.00	3.90 4.50
1387	Tivoli	42° 04'	73° 56'	+5 50		+6 04		*0.86	*0.86	3.9 4.4
1389	Hudson	42° 15'	73° 48'	+6 58		+7 12		*0.88	*0.86	4.0 4.4
				on Albany, p.80						
1391	Castleton	42° 32'	73° 46'	-0 17		-0 29		-0.2	+0.1	4.3 4.7
1393	ALBANY	42° 39.0'	73° 44.8'	<i>Daily predictions</i>				4.6	5.0	2.5
1395	Troy	42° 44'	73° 42'	+0 08		+0 10		*1.00	*1.00	4.7 5.1
	The Kills and Newark Bay			on New York, p.72						
	<i>Kill Van Kull</i>									
1397	Constable Hook	40° 39.3'	74° 05.2'	-0 18		-0 08		*1.02	*1.02	4.63 5.60
1399	BAYONNE BRIDGE, STATEN ISLAND	40° 38.4'	74° 08.8'	<i>Daily predictions, p.76</i>				4.98	5.52	2.70
1401	Port Elizabeth	40° 40.4'	74° 08.4'	-0 02		+0 13		*1.11	*0.95	5.05 6.11
1403	Port Newark Terminal	40° 41'	74° 08'	+0 03		+0 21		*1.12	*1.12	5.1 6.1
	<i>Passaic River</i>									
1405	Point No Point	40° 43.9'	74° 07.0'	+0 00		+0 22		*1.15	*1.04	5.21 6.30
1407	Belleville	40° 47.2'	74° 08.8'	+0 09		+0 49		*1.23	*1.19	5.60 6.78
1409	East Rutherford	40° 50.8'	74° 07.2'	+0 09		+1 06		*1.29	*1.29	5.87 7.10
1411	Garfield	40° 52.1'	74° 06.7'	+0 08		---		---	---	---
	<i>Hackensack River</i>									
1413	Kearny Point	40° 43.7'	74° 06.2'	+0 11		+0 22		*1.15	*1.14	5.21 6.30
1415	Amtrak RR, swing bridge	40° 45.1'	74° 05.8'	+0 33		+0 39		*1.16	*1.10	5.27 6.38
1417	Fish Creek, Berrys Creek	40° 47.6'	74° 05.5'	+1 02		+1 00		*1.16	*1.00	5.31 6.43
1419	Carlstadt, Garretts Reach	40° 48.4'	74° 03.6'	+0 59		+0 45		*1.26	*1.29	5.71 6.29
1421	North Secaucus, Garretts Reach	40° 48.4'	74° 02.6'	+0 57		+0 57		*1.23	*1.23	5.61 6.79
1423	Mill Creek, 0.8 n.mi. above entrance	40° 47.9'	74° 03.0'	+1 34		---		---	---	---
1425	Cromackill Creek, N.J. Turnpike	40° 48.2'	74° 02.0'	+1 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	Spring	
				High Water	Low Water	High Water	Low Water			
	NEW YORK and NEW JERSEY The Kills and Newark Bay-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on New York, p.72						
	<i>Hackensack River-cont.</i>									
1427	Ridgefield Park	40° 51.0'	74° 01.8'	+1 00	+1 00	*1.26	*1.26	5.73	6.93	--
1429	Hackensack	40° 52.8'	74° 02.4'	+1 06	+1 00	*1.33	*1.38	6.01	7.27	3.29
1431	New Millford	40° 56.1'	74° 01.8'	+1 17	+2 49	*1.02	*1.02	4.76	5.76	2.44
				on Sandy Hook, p.84						
	<i>Arthur Kill</i>									
1433	Port Ivory, Howland Hook, N.Y.	40° 38.7'	74° 10.8'	+0 27	+0 39	*1.09	*1.09	5.10	6.12	2.78
1435	Rahway River, RR. Bridge	40° 35.9'	74° 13.9'	+0 17	+0 30	*1.14	*1.16	5.36	6.49	2.91
1437	Chelsea	40° 36'	74° 12'	+0 23	+0 37	*1.07	*1.05	5.0	6.0	2.7
1439	Carteret	40° 35.2'	74° 12.6'	+0 22	+0 33	*1.09	*1.09	5.1	6.2	2.8
1441	Rossville, N.Y.	40° 33.3'	74° 13.4'	+0 20	+0 29	*1.12	*1.12	5.22	5.84	2.89
1443	Port Reading	40° 33.3'	74° 14.7'	+0 14	+0 24	*1.13	*1.32	5.29	6.24	2.89
1445	Woodbridge Creek, 0.8 n.mi. above entrance ..	40° 32.7'	74° 15.9'	+0 09	+0 21	*1.10	*1.00	5.20	6.29	2.79
	Lower New York Bay, Raritan Bay, etc.									
1447	Great Kills Harbor	40° 32.6'	74° 08.4'	-0 01	+0 04	*1.05	*1.16	4.91	5.79	2.67
1449	Princes Bay	40° 30.7'	74° 12.0'	+0 00	+0 06	*1.05	*1.05	4.9	5.9	2.6
	<i>Raritan River</i>									
1451	South Amboy	40° 29.5'	74° 16.9'	-0 04	+0 08	*1.09	*1.09	5.09	6.11	2.77
1453	Keasbey	40° 30.5'	74° 18.7'	+0 06	+0 18	*1.10	*1.00	5.21	6.25	2.85
1455	Sayreville	40° 28.7'	74° 21.4'	+0 11	+0 25	*1.14	*1.21	5.43	6.57	2.95
1457	Old Bridge, South River	40° 25.0'	74° 21.8'	+0 48	+0 59	*1.18	*1.16	5.58	6.75	3.01
1459	New Brunswick	40° 29.3'	74° 26.1'	+0 32	+0 48	*1.21	*1.16	5.71	6.91	3.08
1461	Cheesequake Creek, Garden State Parkway	40° 27.2'	74° 16.4'	+0 12	+0 13	*1.09	*1.05	5.12	6.20	2.77
1463	Keyport	40° 26.4'	74° 11.9'	-0 04	+0 06	*1.08	*1.10	5.05	6.06	2.74
1465	Matawan Creek, Route 35 bridge	40° 26.0'	74° 13.1'	-0 01	+0 07	*1.08	*1.08	5.06	6.12	2.77
1467	Waackaack Creek	40° 26.9'	74° 08.6'	-0 06	+0 21	*0.99	*0.99	4.62	5.54	2.47
	NEW JERSEY Sandy Hook Bay									
1469	Pews Creek	40° 26.5'	74° 06.3'	-0 08	---	---	---	--	--	--
1471	Compton Creek	40° 25.9'	74° 05.1'	+0 13	---	---	---	--	--	--
1473	Atlantic Highlands	40° 25.1'	74° 02.1'	-0 10	-0 10	*1.01	*1.01	4.71	5.65	2.55
1475	SANDY HOOK (Fort Hancock)	40° 28.0'	74° 00.6'					4.70	5.71	2.54
	<i>Shrewsbury River</i>									
1477	Highlands, Route 36 bridge	40° 23.8'	73° 58.9'	+0 17	+0 14	*0.90	*0.90	4.19	5.03	2.27
1479	Oceanic Bridge, Navesink River	40° 22.6'	74° 00.9'	+1 13	+1 45	*0.72	*0.63	3.41	4.13	1.82
1481	Red Bank, Navesink River	40° 21.3'	74° 03.9'	+1 17	+1 57	*0.74	*0.63	3.51	4.25	1.87
1483	Sea Bright	40° 21.9'	73° 58.5'	+1 15	+1 07	*0.68	*0.68	3.15	3.78	1.74
1485	Gooseneck Point, bridge	40° 19.6'	74° 01.0'	+2 18	+2 41	*0.55	*0.55	2.57	3.08	1.44
1487	Long Branch Reach	40° 19.5'	73° 59.8'	+2 18	+2 41	*0.56	*0.63	2.60	3.15	1.42
	Outer Coast									
1489	Long Branch (fishing pier)	40° 18.2'	73° 58.6'	-0 26	-0 36	*0.94	*1.00	4.40	5.28	2.39
	<i>Shark River</i>									
1491	Shark River Island, fixed RR. bridge	40° 11.2'	74° 01.6'	-0 13	-0 08	*0.93	*0.93	4.32	5.18	2.32
1493	Shark River Hills	40° 11.6'	74° 02.3'	-0 13	-0 09	*0.94	*0.94	4.40	5.28	2.38
1495	New Bedford	40° 10.7'	74° 02.8'	-0 13	-0 07	*0.95	*0.95	4.41	5.29	2.40
1497	Belmar, Atlantic Ocean	40° 11.1'	74° 00.5'	-0 35	-0 45	*0.95	*0.95	4.43	5.32	2.38
1499	Manasquan Inlet, USCG Station	40° 06.1'	74° 02.1'	-0 12	-0 24	*0.86	*0.95	4.02	4.82	2.19
	<i>Manasquan River</i>									
1501	Brielle, Route 35 bridge	40° 06.3'	74° 03.3'	-0 06	-0 20	*0.83	*0.83	3.86	4.63	2.10
1503	Riviera Beach	40° 05.8'	74° 05.2'	+0 08	+0 38	*0.73	*0.73	3.39	4.07	1.83
	<i>Metedeconk River</i>									
1505	Beaverdam Creek entrance	40° 03.7'	74° 03.7'	+2 41	+2 40	*0.07	*0.37	0.30	0.36	0.22
1507	Beaverdam Creek, inside	40° 03.7'	74° 04.4'	+2 49	+2 47	*0.06	*0.06	0.29	0.35	0.25
1509	Forge Pond	40° 03.9'	74° 08.1'	+2 17	+2 07	*0.07	*0.07	0.31	0.37	0.23
1511	Tall Pines Camp	40° 03.5'	74° 07.0'	+2 23	+2 24	*0.06	*0.06	0.30	0.36	0.23
1513	Seaside Heights, ocean	39° 56.5'	74° 04.1'	-0 30	-0 32	*0.92	*0.92	4.29	5.15	2.33
	<i>Barnegat Bay</i>									
1515	Mantoloking	40° 02.2'	74° 03.2'	+4 28	+4 39	*0.07	*0.07	0.33	0.40	0.25
1517	Kettle Creek, Green Island	40° 00.8'	74° 06.8'	+4 23	+4 41	*0.08	*0.08	0.38	0.46	0.28
1519	Ocean Beach	39° 59.3'	74° 04.1'	+4 17	+4 36	*0.08	*0.08	0.37	0.44	0.27
1521	Silver Bay, Silver Bay Marina	39° 59.8'	74° 08.9'	+4 26	+4 39	*0.08	*0.08	0.37	0.44	0.27
1523	Goose Creek entrance	39° 57.8'	74° 06.9'	+4 06	+4 29	*0.08	*0.08	0.35	0.42	0.25
1525	Coates Point	39° 56.9'	74° 06.9'	+4 00	+4 21	*0.08	*0.08	0.37	0.44	0.25
1527	Toms River (town), Toms River	39° 57.0'	74° 11.9'	+3 33	+3 48	*0.18	*0.47	0.78	0.83	0.48
1529	Seaside Park	39° 55.3'	74° 05.0'	+3 40	+4 05	*0.08	*0.08	0.38	0.46	0.25
1531	Barnegat Pier	39° 55.1'	74° 06.6'	+3 35	+3 55	*0.08	*0.08	0.36	0.43	0.23
1533	Sloop Creek	39° 54.3'	74° 08.0'	+3 38	+4 01	*0.08	*0.08	0.35	0.42	0.22
1535	Cedar Creek	39° 52.2'	74° 09.3'	+3 23	+3 45	*0.08	*0.08	0.35	0.42	0.23
1537	Island Beach	39° 51.1'	74° 05.4'	+3 04	+3 28	*0.08	*0.08	0.35	0.42	0.24
1539	Stouts Creek	39° 50.7'	74° 09.1'	+3 16	+3 33	*0.06	*0.06	0.30	0.36	0.20
1541	Forked River	39° 49.5'	74° 10.4'	+3 08	+3 20	*0.07	*0.07	0.32	0.38	0.24
1543	Oyster Creek	39° 48.5'	74° 11.3'	+3 30	+3 36	*0.06	*0.06	0.29	0.35	0.20
1545	Island Beach, Sedge Islands	39° 47.3'	74° 05.9'	+3 00	+3 56	*0.07	*0.07	0.34	0.41	0.24
1547	Waretown	39° 47.5'	74° 10.9'	+2 43	+3 00	*0.07	*0.07	0.34	0.41	0.24
1549	Barnegat Inlet, USCG Station	39° 45.7'	74° 06.7'	-0 12	+0 02	*0.47	*0.63	2.16	2.59	1.20

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			
	NEW JERSEY Outer Coast-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Sandy Hook, p.84						
	<i>Barnegat Bay-cont.</i>									
1551	High Bar	39° 45.4'	74° 07.7'	+1 04		+1 55		*0.12	*0.12	0.54 0.65
1553	Double Creek	39° 44.7'	74° 12.1'	+3 03		+3 33		*0.07	*0.07	0.31 0.37
1555	Loveladies Harbor	39° 43.5'	74° 08.2'	+3 02		+3 39		*0.10	*0.10	0.46 0.55
	<i>Manahawkin Bay</i>									
1557	Flat Creek	39° 42.4'	74° 11.5'	+3 33		+4 35		*0.18	*0.18	0.84 1.01
1559	North Beach	39° 40.5'	74° 09.6'	+3 02		+4 07		*0.22	*0.22	1.02 1.22
1561	Manahawkin Creek	39° 40.0'	74° 12.9'	+2 50		+3 51		*0.27	*0.27	1.25 1.50
1563	Manahawkin Drawbridge	39° 39.2'	74° 11.1'	+2 47		+3 39		*0.27	*0.27	1.26 1.51
	<i>Little Egg Harbor</i>									
1565	Mill Creek, 1 n.mi. above entrance	39° 39.9'	74° 13.9'	+2 32		+3 33		*0.35	*0.35	1.61 1.93
1567	Cedar Run	39° 39.2'	74° 15.4'	+2 10		+2 56		*0.40	*0.40	1.86 2.23
1569	Dinner Point Creek, upper end	39° 39.4'	74° 16.2'	+2 41		+3 17		*0.40	*0.40	1.88 2.26
1571	Beach Haven Crest	39° 36.8'	74° 12.6'	+2 13		+2 59		*0.38	*0.32	1.81 2.19
1573	Westcunk Creek entrance, Long Point	39° 36.8'	74° 15.8'	+2 00		+2 40		*0.42	*0.47	1.97 2.38
1575	West Creek, Westcunk Creek	39° 37.9'	74° 17.8'	+2 10		+2 40		*0.44	*0.47	2.08 2.52
1577	Parker Run, upper end	39° 37.0'	74° 18.6'	+2 05		+2 39		*0.45	*0.47	2.09 2.53
1579	Tuckerton Creek entrance	39° 34.6'	74° 19.9'	+1 32		+1 59		*0.45	*0.45	2.11 2.53
1581	Tuckerton, Tuckerton Creek	39° 36.1'	74° 20.5'	+1 45		+2 15		*0.45	*0.47	2.11 2.55
1583	Beach Haven Coast Guard Station	39° 32.9'	74° 15.4'	+1 18		+1 23		*0.46	*0.58	2.15 2.60
	<i>Great Bay</i>									
1585	Shooting Thorofare, Little Egg Inlet	39° 30.5'	74° 19.5'	+0 38		+0 21		*0.62	*0.79	2.88 3.24
1587	Little Sheepshead Creek	39° 31.1'	74° 19.2'	+0 35		+0 44		*0.66	*0.68	3.10 3.75
1589	Seven Island, Newmans Thorofare	39° 31.0'	74° 20.2'	+0 32		+0 28		*0.73	*0.73	3.4 4.1
1591	Graveling Point	39° 32.4'	74° 23.2'	+0 44		+1 14		*0.68	*0.68	3.18 3.82
	<i>Mullica River</i>									
1593	Nacote Creek, U.S. Highway 9 bridge	39° 32.1'	74° 27.8'	+1 34		+1 55		*0.66	*0.68	3.09 3.74
1595	Chestnut Neck Boat Yard	39° 32.9'	74° 27.7'	+1 27		+2 01		*0.63	*0.79	2.94 3.53
1597	New Gretna, Bass River	39° 35.5'	74° 26.5'	+1 52		+2 06		*0.66	*0.74	3.10 3.75
1599	Wading River (town), Wading River	39° 37.1'	74° 29.8'	+2 48		+2 44		*0.64	*0.79	2.98 3.61
1601	Green Bank	39° 36.7'	74° 35.4'	+2 59		+3 16		*0.66	*0.66	3.07 3.68
1603	Sweetwater, Mullica River Marina	39° 37.5'	74° 38.5'	+3 23		+4 21		*0.56	*0.56	2.42 3.14
				on Atlantic City, p.88						
1605	Main Marsh Thorofare	39° 28.7'	74° 23.0'	+1 10		+1 52		*0.80	*0.76	3.21 3.92
1607	Brigantine Channel @ Hoffman Thorofare	39° 26.1'	74° 21.8'	+0 59		+0 58		*0.90	*0.88	3.63 4.43
1609	Reed Bay, Turtle Cove	39° 27.2'	74° 25.6'	+1 07		---		---	---	---
1611	Absecon, Absecon Creek, U.S. Hwy. 30 bridge	39° 25.4'	74° 30.0'	+1 28		+1 37		*0.96	*0.94	3.87 4.72
1613	Absecon Channel, State Route 87 bridge	39° 23.1'	74° 25.5'	+0 38		+0 26		*0.96	*1.13	3.90 4.68
1615	ATLANTIC CITY, OCEAN	39° 21.3'	74° 25.1'							<i>Daily predictions</i>
1617	Ventnor City, ocean pier	39° 20.1'	74° 28.6'	-0 02		-0 02		*1.00	*1.00	4.02 4.90
1619	Longport (inside), Great Egg Harbor Inlet	39° 18.5'	74° 32.0'	+0 26		+0 32		*0.94	*0.88	4.04 4.92
1621	Dock Thorofare, Risley Channel	39° 21.1'	74° 32.4'	+0 55		+1 00		*0.98	*0.94	3.78 4.61
1623	Pleasantville, Lakes Bay, Great Egg Harbor Inlet	39° 22.9'	74° 31.1'	+1 00		+1 37		*0.98	*0.82	3.92 4.78
	<i>Great Egg Harbor Bay</i>									
1625	Beesleys Point	39° 17.3'	74° 37.7'	+0 55		+1 32		*0.87	*1.00	3.96 4.83
1627	Steelmanville, Patcong Ck., 2.5 nm above ent.	39° 20.1'	74° 35.8'	+1 28		+1 50		*0.92	*0.94	3.55 4.26
1629	Tuckahoe, Tuckahoe River	39° 17.7'	74° 44.9'	+2 12		+2 40		*0.86	*1.25	3.70 4.51
1631	Cedar Swamp Creek, Tuckahoe River	39° 14.8'	74° 43.1'	+3 14		+3 03		*0.78	*1.53	3.47 4.16
1633	River Bend Marina, Great Egg Harbor River	39° 22.1'	74° 43.0'	+2 12		+2 25		*0.87	*1.00	2.99 3.65
1635	Mays Landing, Great Egg Harbor River	39° 26.9'	74° 43.7'	+2 50		+3 10		*1.01	*1.12	3.47 4.23
	<i>Corson Inlet</i>									
1637	Strathmere, Strathmere Bay	39° 12.0'	74° 39.4'	+0 31		+0 38		*0.95	*1.00	4.06 4.95
1639	Middle Thorofare, Ocean Drive bridge	39° 12.9'	74° 38.9'	+0 31		+0 30		*0.95	*0.94	3.81 4.65
1641	Ludlam Bay, west side	39° 10.6'	74° 42.6'	+0 56		+1 12		*0.98	*0.94	3.80 4.64
	<i>Townsend Inlet</i>									
1643	Ocean Drive bridge	39° 07.3'	74° 43.0'	+0 29		+0 21		*0.99	*1.06	3.94 4.81
1645	Townsend Sound	39° 08.8'	74° 45.0'	+1 08		+1 39		*0.90	*0.59	3.96 4.62
1647	Stites Sound	39° 07.2'	74° 45.3'	+0 49		+1 04		*0.97	*1.00	3.69 4.50
1649	Ingram Thorofare	39° 06.6'	74° 44.4'	+0 44		+0 50		*0.96	*1.00	3.98 4.78
1651	Long Reach, Ingram Thorofare	39° 06.1'	74° 45.3'	+1 06		+1 11		*0.98	*1.06	3.93 4.72
	<i>Hereford Inlet</i>									
1653	Great Sound, west side	39° 06.1'	74° 47.3'	+0 56		---		---	---	4.00 4.80
1655	Stone Harbor, Great Channel	39° 03.4'	74° 45.9'	+0 56		+0 57		*1.04	*0.94	4.19 4.72
1657	Jenkins Sound	39° 03.9'	74° 48.5'	+0 52		---		---	---	4.19 4.72
1659	Nummy Island, Grassy Sound Channel	39° 01.7'	74° 48.1'	+0 32		+0 45		*1.00	*1.00	4.09 4.91
1661	West Wildwood, Grassy Sound	39° 00.3'	74° 49.6'	+0 57		+1 11		*1.04	*1.00	4.09 4.91
1663	Old Turtle Thorofare, RR. bridge	39° 01.1'	74° 50.5'	+0 56		+1 10		*1.06	*1.00	4.27 5.12
1665	Wildwood Crest, ocean pier	38° 58.5'	74° 49.4'	+0 03		+0 03		*1.07	*1.06	4.33 5.20
	<i>Cape May Inlet</i>									
1667	Swain Channel, Taylor Sound	38° 58.8'	74° 51.8'	+0 55		+0 40		*1.09	*1.06	4.31 5.15
1669	Wildwood Crest, Sunset Lake	38° 58.7'	74° 50.2'	+0 52		+0 47		*1.10	*1.06	4.46 5.35
1671	Cape May Harbor	38° 56.9'	74° 53.5'	+0 33		+0 19		*1.10	*1.06	4.50 5.40
1673	Cape Island Creek, Cape May	38° 56.8'	74° 54.8'	+0 40		+0 20		*1.11	*1.19	4.49 5.39
1675	Cape May, Atlantic Ocean	38° 55.8'	74° 56.1'	+0 34		+0 21		*1.12	*1.06	4.51 5.41
	Delaware Bay, Eastern Shore			on Breakwater Harbor, p.92						
1677	Brandywine Shoal Light	38° 59.2'	75° 06.8'	+0 12		+0 17		*1.19	*1.06	4.59 5.51
1679	Cape May Point, Sunset Beach	38° 56.8'	74° 58.3'	-0 05		-0 08		*1.16	*1.16	4.89 5.77
1681	Cape May, ferry terminal	38° 58.1'	74° 57.5'	-0 06		-0 05		*1.18	*1.00	4.80 5.66
1683	North Highlands Beach	39° 01.1'	74° 57.2'	+0 04		+0 14		*1.26	*1.26	4.85 5.73
1685	Dias Creek, Route 47 bridge	39° 05.0'	74° 53.2'	+1 09		+3 18		*0.46	*0.46	5.24 6.18

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			
	NEW JERSEY Delaware Bay, Eastern Shore-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Breakwater Harbor, p.92						
1687	Bidwell Creek entrance	39° 07.7'	74° 53.5'	+0 15	+0 46	*1.39	*1.19	5.67	6.69	3.03
1689	Bidwell Creek, Route 47 bridge	39° 07.1'	74° 52.1'	+0 36	+0 48	*1.36	*1.36	5.66	6.68	3.01
1691	Dennis Creek, 2.5 n.mi. above entrance	39° 10.7'	74° 51.1'	+0 55	+1 17	*1.26	*1.26	5.23	6.17	2.88
1693	Sluice Creek, Route 47 bridge, Dennis Creek	39° 09.7'	74° 49.9'	+1 49	+1 36	*1.22	*1.22	5.05	5.96	2.82
1695	Dennis Creek, Route 47 bridge	39° 11.0'	74° 49.3'	+2 01	+1 30	*1.20	*1.20	4.96	5.85	2.79
1697	East Creek, Route 47 bridge	39° 12.5'	74° 54.1'	+1 46	+2 24	*0.94	*0.94	3.92	4.63	2.20
1699	West Creek, 0.7 n.mi. above entrance	39° 11.3'	74° 54.9'	+0 20	+1 31	*1.15	*1.15	4.76	5.33	2.55
1701	West Creek, Route 47 bridge	39° 13.0'	74° 55.5'	+2 20	+3 17	*0.58	*0.58	2.40	2.83	1.51
1703	Riggins Ditch, 0.5 n.mi. above entrance	39° 12.0'	74° 58.2'	+0 29	+1 29	*1.24	*1.24	5.14	6.07	2.79
1705	Riggins Ditch, Heislerville	39° 13.1'	74° 58.8'	+1 36	+1 40	*1.12	*1.12	4.65	5.49	2.55
1707	East Point, Maurice River Cove	39° 12.0'	75° 01.2'	+0 40	+1 08	*1.39	*1.39	5.75	6.78	3.08
	<i>Maurice River</i>									
1709	Bivalve	39° 13.9'	75° 02.0'	+0 35	+1 11	*1.38	*1.19	5.66	6.26	3.02
1711	Mauricetown	39° 17.1'	74° 59.5'	+2 17	+2 30	*1.05	*1.05	4.36	5.14	2.42
1713	Port Elizabeth, Manumuskin River	39° 18.8'	74° 59.1'	+2 52	+2 58	*1.05	*1.05	4.34	5.12	2.42
1715	Menantico Creek entrance	39° 20.6'	75° 00.5'	+3 06	+3 09	*1.10	*1.10	4.58	5.40	2.52
1717	Millville	39° 23.5'	75° 02.5'	+3 33	+3 36	*1.21	*1.21	5.01	5.91	2.75
1719	Dividing Creek entrance	39° 13.0'	75° 06.4'	+0 29	+1 05	*1.35	*1.35	5.62	6.63	2.99
1721	Weir Creek bridge, Dividing Creek	39° 15.0'	75° 07.7'	+1 38	+2 33	*0.71	*0.71	2.96	3.49	1.69
1723	Dividing Creek (town), Dividing Creek	39° 16.0'	75° 05.7'	+3 07	---	---	---	---	---	---
				on Reedy Point, p.96						
1725	Fishing Creek entrance	39° 12.9'	75° 09.6'	-1 51	-2 10	*1.02	*1.02	5.63	6.14	3.00
1727	Fortescue Creek	39° 14.3'	75° 10.5'	-1 57	-2 13	*1.09	*0.94	5.85	7.06	3.10
1729	Hollywood Beach, The Glades	39° 16.5'	75° 08.5'	+1 45	+1 13	*0.21	*0.21	1.16	1.26	0.71
1731	Money Island, Nantuxent Creek entrance	39° 17.1'	75° 14.3'	-1 43	-1 58	*1.10	*1.10	6.07	6.62	3.21
1733	Newport Landing, Nantuxent Creek	39° 17.5'	75° 11.9'	-0 03	-0 28	*0.74	*0.74	4.06	4.43	2.38
1735	Cedar Creek entrance, Nantuxent Cove	39° 17.9'	75° 14.8'	-1 37	-1 51	*1.08	*1.08	5.96	6.50	3.17
1737	Cedarville, Cedar Creek, Nantuxent Cove	39° 19.8'	75° 12.7'	-0 37	---	---	---	---	---	---
1739	Back Creek entrance, Nantuxent Cove	39° 18.3'	75° 16.7'	-1 29	-1 34	*1.07	*1.07	5.91	6.44	3.11
1741	Husted Landing, Ogdens Creek, Back Creek	39° 21.1'	75° 15.1'	-0 47	---	---	---	---	---	---
1743	Greenwich Pier, Cohanse River	39° 23.0'	75° 21.0'	-0 42	-0 54	*0.99	*0.99	5.47	5.96	2.94
1745	Tindalls Wharf, Cohanse River	39° 22.7'	75° 14.1'	+1 01	-0 02	*1.09	*1.09	5.98	6.52	3.20
	DELAWARE Delaware Bay, Western Shore			on Breakwater Harbor, p.92						
1747	LEWES (BREAKWATER HARBOR)	38° 46.9'	75° 07.2'	<i>Daily predictions</i>				4.08	4.94	2.19
1749	Mispiration River entrance	38° 56.9'	75° 18.9'	+0 22	+0 50	*1.13	*1.00	4.63	5.46	2.48
1751	Murderkill River entrance	39° 03.5'	75° 23.8'	+0 39	+1 11	*1.25	*0.94	5.12	6.04	2.71
1753	Mahon River entrance	39° 11.1'	75° 24.0'	+0 58	+1 29	*1.30	*1.13	5.33	6.29	2.84
1755	Leipsic, Leipsic River	39° 14.6'	75° 31.1'	+3 35	+3 49	*0.85	*0.63	3.50	4.13	1.80
	DELAWARE and NEW JERSEY Delaware River			on Reedy Point, p.96						
1757	Stathems Neck, Stow Creek, N.J.	39° 24.4'	75° 24.3'	-0 22	-0 37	*0.88	*0.88	4.85	5.29	2.65
1759	Woodland Beach, Del.	39° 20.2'	75° 28.3'	-1 07	-1 10	*1.11	*1.11	5.90	6.80	3.00
1761	Raccoon Ditch, Newport Meadows, Stow Creek, N.J.	39° 25.3'	75° 22.9'	+1 08	+0 33	*0.76	*0.76	4.17	4.55	2.30
1763	Canton, Stow Creek, N.J. <i>Mad Horse Creek</i>	39° 27.7'	75° 24.2'	+1 36	+0 45	*0.80	*0.80	4.42	4.82	2.49
1765	1 n.mi. above entrance, N.J.	39° 25.9'	75° 26.8'	-0 20	-0 47	*1.07	*1.07	5.86	6.39	3.12
1767	Pine Island, Malapartis Creek, N.J.	39° 25.3'	75° 25.7'	+0 21	-0 18	*0.92	*0.92	5.08	5.54	2.76
1769	Silver Lake Fork, N.J.	39° 27.2'	75° 27.4'	+0 04	---	---	---	---	---	---
1771	Hope Creek, 0.6 n.mi. above entrance, N.J.	39° 27.5'	75° 29.7'	-0 25	-0 36	*1.05	*1.05	5.78	6.30	3.07
1773	Hope Creek, upper end, N.J.	39° 29.1'	75° 29.6'	+0 49	---	---	---	---	---	---
1775	Taylor's Bridge, Blackbird Creek, Del.	39° 24.0'	75° 36.0'	+1 53	+0 57	*0.54	*0.56	2.90	3.30	1.50
1777	Artificial Island, Salem Nuclear Plant, N.J. <i>Alloway Creek, New Jersey</i>	39° 27.7'	75° 31.9'	-0 35	-0 33	*1.08	*1.08	5.93	6.46	3.16
1779	0.8 n.mi. above entrance	39° 29.8'	75° 31.0'	+0 21	-0 10	*0.99	*0.99	5.44	5.93	3.18
1781	Abbots Meadow	39° 30.7'	75° 29.6'	+0 44	+0 12	*0.94	*0.94	5.15	5.61	2.76
1783	2.5 n.mi. above entrance	39° 30.3'	75° 29.0'	+0 51	+0 15	*0.90	*0.90	4.95	5.40	2.67
1785	Coopers Creek bridge	39° 30.8'	75° 26.8'	+1 51	+1 00	*0.78	*0.78	4.30	4.69	2.37
1787	Quinton	39° 32.9'	75° 24.9'	+2 24	+1 30	*0.69	*0.69	3.79	4.13	2.17
1789	Alloway	39° 33.9'	75° 21.8'	+3 37	---	---	---	---	---	---
1791	Mill Creek, Elsinboro, N.J. <i>Salem River, New Jersey</i>	39° 32.1'	75° 30.7'	-0 04	---	---	---	---	---	---
1793	Sinnickson Landing	39° 34.2'	75° 29.9'	+0 04	+0 19	*0.97	*0.97	5.32	5.80	2.83
1795	Salem	39° 34.6'	75° 28.6'	+0 49	+0 41	*0.76	*0.76	4.19	4.57	2.29
1797	Kates Creek Meadow	39° 37.5'	75° 27.2'	+1 54	---	---	---	---	---	---
1799	Winslow Farms	39° 37.7'	75° 28.9'	+2 09	---	---	---	---	---	---
1801	Beaver Dam	39° 39.0'	75° 29.2'	+2 32	---	---	---	---	---	---
1803	REEDY POINT <i>Chesapeake and Delaware Canal</i>	39° 33.5'	75° 34.4'	<i>Daily predictions</i>				5.34	5.81	2.85
1805	St. Georges, Delaware	39° 33.3'	75° 38.9'	-0 16	-0 17	*0.83	*1.00	4.41	4.81	2.39
1807	Summit Bridge, Delaware	39° 32.0'	75° 44.0'	-0 28	-0 52	*0.65	*0.56	3.50	3.90	1.80
1809	Chesapeake City, Maryland	39° 31.6'	75° 48.6'	-0 45	-1 12	*0.56	*1.28	2.86	3.14	1.66
1811	Delaware City Branch Channel bridge	39° 34.2'	75° 35.4'	+0 00	+0 05	*1.02	*0.89	5.45	5.94	2.88
1813	Delaware City	39° 34.9'	75° 35.3'	+0 11	+0 14	*1.02	*1.00	5.44	5.93	2.90
1815	Pea Patch Island, Bulkhead Shoal Channel, Del.	39° 35.1'	75° 34.4'	+0 03	+0 00	*1.05	*1.00	5.62	6.13	2.99
1817	Mill Creek, Penns Neck, N.J.	39° 36.6'	75° 31.2'	+0 08	---	---	---	---	---	---
1819	New Castle, Delaware	39° 39.4'	75° 33.7'	+0 29	+0 40	*0.98	*1.00	5.21	5.68	2.78
1821	Salem Canal entrance, N.J.	39° 41.0'	75° 30.6'	+0 36	+0 52	*1.00	*1.00	5.52	6.02	2.94

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			
	DELAWARE and NEW JERSEY Delaware River-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Reedy Point, p.96						
	<i>Christina River, Delaware</i>									
1823	Wilmington Marine Terminal	39° 43.1'	75° 31.2'	+0 50	+1 06	*0.99	*1.11	5.27	5.74	2.83
1825	Millside, RR. bridge	39° 43.5'	75° 33.6'	+1 08	+1 19	*0.99	*1.06	5.30	5.78	2.84
1827	Edgemoor, Del.	39° 45.0'	75° 29.6'	+0 52	+1 11	*1.02	*1.17	5.52	6.02	2.97
1829	Pedricktown, Oldmans Creek, N.J.	39° 45.7'	75° 24.2'	+2 11	+2 07	*0.75	*0.75	4.13	4.50	2.32
1831	Auburn, Oldmans Creek, N.J.	39° 42.9'	75° 21.6'	+4 12	+3 30	*0.55	*0.55	2.74	2.99	1.65
	NEW JERSEY and PENNSYLVANIA Delaware River			on Philadelphia, p.100						
1833	Marcus Hook, Pa.	39° 48.7'	75° 24.7'	-1 23	-1 07	*0.92	*0.95	5.53	5.86	2.96
1835	Bridgeport, Raccoon Creek, N.J.	39° 48.4'	75° 21.3'	-1 11	-0 50	*0.91	*1.00	5.42	5.66	2.91
1837	Swedesboro, Raccoon Creek, N.J.	39° 45.1'	75° 18.4'	+0 40	---	---	---	---	---	---
	<i>Darby Creek, Pennsylvania</i>									
1839	Wanamaker Bridge	39° 52.6'	75° 18.3'	-0 46	-0 34	*0.95	*0.95	5.71	6.05	3.05
1841	Norwood City	39° 52.8'	75° 17.4'	-0 42	-0 35	*0.97	*1.00	5.79	6.13	3.09
1843	Tinicum National Wildlife Refuge	39° 52.7'	75° 16.6'	-0 22	-0 08	*0.91	*0.90	5.47	5.80	2.91
1845	Tinicum National Wildlife Refuge	39° 53.2'	75° 15.9'	-0 24	+0 27	*0.74	*0.74	4.51	4.78	2.33
1847	Tinicum Nat. Wildlife Refuge, Visitor Center	39° 53.5'	75° 15.5'	-0 10	---	---	---	---	---	---
1849	Billingsport, N.J.	39° 51.0'	75° 15.0'	-0 35	-0 28	*0.93	*0.95	5.59	5.93	2.99
1851	Paulsboro, Mantua Creek, N.J.	39° 50.1'	75° 14.3'	-0 24	-0 19	*0.94	*0.90	5.64	5.88	3.01
1853	Mantua, Mantua Creek, N.J.	39° 47.8'	75° 10.6'	+1 28	+0 56	*0.71	*0.71	4.19	4.37	2.31
1855	Woodbury Creek, N.J.	39° 51.6'	75° 11.2'	-0 13	-0 14	*0.96	*0.95	5.75	6.10	3.07
	<i>Schuylkill River, Pennsylvania</i>									
1857	Penrose Avenue Bridge	39° 53.9'	75° 12.7'	-0 22	-0 11	*0.96	*0.85	5.79	6.14	3.07
1859	Market Street Bridge	39° 57.3'	75° 10.8'	-0 20	+0 00	*0.99	*0.80	5.94	6.30	3.13
1861	Westville, Rt. 47 bridge, Big Timber Creek, N.J.	39° 52.5'	75° 07.4'	+0 02	+0 03	*0.97	*1.00	5.80	6.15	3.10
1863	Sunset Beach, Big Timber Creek, N.J.	39° 48.9'	75° 05.3'	+1 32	---	---	---	---	---	---
1865	Philadelphia, Municipal Pier 11, Pa.	39° 57.2'	75° 08.3'	+0 02	+0 05	*1.04	*0.95	6.24	6.61	3.32
1867	PHILADELPHIA, US Coast Guard Station, Pa.	39° 56.0'	75° 08.5'	---	---	---	---	5.99	6.32	3.30
1869	Pavonia, Cooper River, RR. bridge, N.J.	39° 56.8'	75° 06.3'	+0 14	+0 23	*1.04	*1.00	6.24	6.61	3.32
1871	Bridesburg, Philadelphia, Pa.	39° 59.0'	75° 04.5'	+0 12	+0 15	*1.06	*0.90	6.39	6.50	3.38
1873	Palmyra, Pennsauken Creek, Route 73 bridge, N.J.	39° 59.6'	75° 01.7'	+0 51	+1 03	*0.89	*0.89	5.25	5.48	2.86
1875	Cinnaminson, Pennsauken Ck., Rt. 130 bridge, N.J.	39° 59.1'	75° 00.9'	+1 37	---	---	---	---	---	---
1877	Tacony-Palmyra Bridge	40° 00.7'	75° 02.6'	+0 24	+0 25	*1.10	*0.95	6.60	7.00	3.49
1879	Pompeston Creek, N.J.	40° 00.8'	75° 00.5'	+0 21	+0 43	*1.05	*1.05	6.39	6.68	3.30
	<i>Rancocas Creek, New Jersey</i>									
1881	Bridgeboro	40° 01.7'	74° 55.9'	+1 15	+1 18	*1.06	*1.00	6.35	6.73	3.38
1883	North Branch	39° 59.9'	74° 49.1'	+2 58	+3 29	*0.48	*0.60	2.86	3.03	1.55
1885	Hainesport, South Branch	39° 58.7'	74° 49.4'	+2 58	+3 05	*0.62	*0.62	3.63	3.85	2.05
1887	Cornwells Heights, Pa.	40° 04.1'	74° 56.3'	+0 46	+0 58	*1.17	*1.00	7.02	7.44	3.71
1889	Burlington, N.J.	40° 04.8'	74° 52.5'	+0 53	+1 07	*1.20	*1.00	7.24	7.63	3.83
1891	Assiscunk Creek, Route 130 bridge, N.J.	40° 04.4'	74° 50.9'	+1 04	+1 31	*1.12	*0.85	6.75	7.16	3.54
1893	Edgely, Pa.	40° 07.7'	74° 49.4'	+1 08	+1 28	*1.27	*1.15	7.64	8.10	4.05
1895	Fieldsboro, N.J.	40° 08.2'	74° 44.2'	+1 07	+1 39	*1.29	*1.10	7.78	8.25	4.11
1897	Newbold, Pa.	40° 08.2'	74° 45.1'	+1 10	+1 31	*1.30	*1.00	7.86	8.33	4.13
1899	Blacks Creek, Route 130 bridge, N.J.	40° 08.3'	74° 42.7'	+1 13	---	---	---	---	---	---
1901	Sylvan Glen, Crosswicks Ck., Rt. 206 bridge, N.J.	40° 10.9'	74° 42.3'	+2 03	---	---	---	---	---	---
1903	Crosswicks Creek, Route 130 bridge, N.J.	40° 10.4'	74° 40.8'	+3 07	---	---	---	---	---	---
1905	Trenton, N.J.	40° 11.3'	74° 45.3'	+1 13	+1 54	*1.35	*1.00	8.18	8.47	4.29
	DELAWARE and MARYLAND Outer Coast			on Ocean City, p.104						
1907	Rehoboth Beach	38° 43.2'	75° 04.6'	+0 15	+0 08	*1.13	*1.33	3.9	4.7	2.1
1909	Indian River Inlet (Coast Guard Station)	38° 36.6'	75° 04.2'	+1 14	+0 45	*0.76	*1.00	2.51	2.94	1.41
1911	OCEAN CITY (FISHING PIER)	38° 19.6'	75° 05.0'	---	---	---	---	3.36	4.00	1.84
1913	Ocean City Inlet	38° 19.7'	75° 05.5'	+0 28	+0 14	*0.65	*1.00	2.13	2.62	1.23
1915	Ocean City (Isle of Wight Bay)	38° 19.9'	75° 05.4'	+0 25	+0 23	*0.67	*0.94	2.20	2.61	1.25
1917	Keydash, Isle of Wight Bay	38° 20.5'	75° 05.1'	-0 57	+0 54	*0.47	*0.81	1.53	1.82	0.89
	MARYLAND and VIRGINIA Chincoteague Bay									
1919	Assateague Beach, Toms Cove	37° 52.0'	75° 22.0'	+0 35	+0 48	*1.08	*1.25	3.60	4.28	2.00
1921	Harbor of Refuge	37° 54.2'	75° 24.4'	+0 31	+0 35	*0.73	*0.88	2.43	2.89	1.35
1923	Chincoteague Channel (south end)	37° 54.4'	75° 24.3'	+0 39	+0 47	*0.64	*0.69	2.16	2.57	1.19
1925	Wishart Point, Bogues Bay	37° 52.9'	75° 29.5'	+0 52	+1 13	*0.77	*0.63	2.60	3.09	1.40
1927	Chincoteague Island, USCG Station	37° 55.9'	75° 23.0'	+0 56	+1 11	*0.48	*0.56	1.59	1.89	0.89
1929	Chincoteague Island, Lewis Creek	37° 56.3'	75° 22.4'	+1 17	+1 38	*0.40	*0.63	1.32	1.57	0.76
1931	Chincoteague Island, Oyster Bay	37° 56.5'	75° 20.8'	+1 44	+2 05	*0.46	*0.56	1.54	1.83	0.86
1933	Chincoteague Island, Blake Cove	37° 57.1'	75° 21.3'	+1 51	+2 32	*0.28	*0.56	0.89	1.06	0.53
1935	Jesters Island	37° 58.9'	75° 18.1'	+2 32	+3 24	*0.24	*0.24	0.76	0.90	0.48
1937	Franklin City	38° 00.4'	75° 23.0'	+2 20	+3 00	*0.22	*0.63	0.66	0.79	0.43
1939	Public Landing	38° 08.9'	75° 17.1'	+4 41	+5 21	*0.18	*0.18	0.53	0.63	0.36
1941	Buntings Bridge	38° 08.3'	75° 11.0'	+4 25	+4 56	*0.20	*0.69	0.61	0.82	0.41
1943	South Point, Sinepuxent Neck	38° 12.9'	75° 11.5'	+5 16	+5 02	*0.16	*0.16	0.46	0.54	0.33
	VIRGINIA Outer Coast									
1945	Wallops Island	37° 50.5'	75° 28.7'	+0 04	-0 04	*1.06	*0.31	3.67	4.37	1.89
1947	Gargathy Neck	37° 46.6'	75° 33.7'	+1 31	+1 27	*0.88	*0.63	3.01	3.58	1.60
1949	Metompkin Inlet	37° 40.3'	75° 35.7'	+1 01	+0 44	*1.08	*1.25	3.60	4.28	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	Spring	
				High Water	Low Water	High Water	Low Water			
	VIRGINIA Outer Coast-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Ocean City, p.104						
1951	Folly Creek, Metompkin Inlet	37° 41.8'	75° 38.1'	+1 24	+1 12	*0.97	*0.63	3.30	3.93	1.80
1953	Wachapreague, Wachapreague Channel	37° 36.4'	75° 41.2'	+1 10	+0 56	*1.19	*1.06	4.02	4.85	2.18
1955	Revel Creek, Revel Island	37° 29.8'	75° 41.0'	+0 35	+0 27	*1.19	*1.00	4.04	4.81	2.18
1957	Great Machipongo Inlet (inside)	37° 23.6'	75° 42.8'	+1 05	+0 56	*1.16	*1.25	3.86	4.59	2.10
1959	Upshur Neck, south end	37° 28.0'	75° 48.0'	+1 09	+1 14	*1.31	*1.25	4.40	5.24	2.40
1961	Sand Shoal Inlet (Coast Guard Station)	37° 18.1'	75° 46.7'	+0 32	+0 17	*1.18	*1.00	4.00	4.76	2.16
1963	Oyster Harbor	37° 17.3'	75° 55.5'	+1 00	+0 36	*1.34	*1.13	4.52	5.38	2.40
1965	Smith Island (Coast Guard Station)	37° 07.4'	75° 54.7'	+0 52	+1 29	*1.05	*1.25	3.50	4.17	1.90
	Chesapeake Bay, Eastern Shore			on Ches. Bay Bridge Tunnel, p.116						
1967	Fishermans Island	37° 05.8'	75° 58.9'	+0 02	+0 11	*1.19	*1.25	3.02	3.62	1.71
1969	Kiptopeke Beach	37° 10.0'	75° 59.3'	+0 23	+0 32	*1.01	*0.92	2.60	3.09	1.41
1971	Old Plantation Light	37° 14'	76° 03'	+0 33	+0 52	*0.92	*0.83	2.4	2.9	1.3
1973	Cape Charles Harbor	37° 15.8'	76° 00.9'	+0 45	+1 03	*0.90	*0.92	2.3	2.8	1.3
1975	Gaskins Point, Occohannock Creek	37° 33.3'	75° 55.2'	+2 35	+3 13	*0.66	*0.83	1.70	2.00	0.94
1977	Harborton, Pungoteague Creek	37° 40.0'	75° 50.0'	+3 11	+3 33	*0.70	*0.83	1.76	2.11	0.98
1979	Onancock, Onancock Creek	37° 42.7'	75° 45.4'	+3 55	+4 19	*0.71	*0.83	1.80	2.16	1.00
1981	Chesconessex Creek, Schooner Bay	37° 45.8'	75° 46.4'	+3 41	+3 59	*0.78	*1.25	1.94	2.33	1.12
1983	Watts Island	37° 47.9'	75° 53.8'	+4 02	+4 12	*0.64	*0.83	1.60	1.92	0.90
1985	Tangier Island	37° 49.7'	75° 59.6'	+3 58	+4 16	*0.60	*0.75	1.41	1.69	0.80
1987	Muddy Creek Entrance	37° 51.3'	75° 40.5'	+4 14	+4 51	*0.86	*0.83	2.20	2.64	1.20
1989	Guard Shore	37° 51.0'	75° 42.0'	+4 06	+4 47	*0.90	*0.83	2.30	2.76	1.27
1991	Saxis, Starling Creek, Pocomoke Sound	37° 55.3'	75° 43.7'	+3 52	+4 36	*0.89	*1.17	2.24	2.69	1.26
	MARYLAND Chesapeake Bay, Eastern Shore									
1993	Ape Hole Creek, Pocomoke Sound	37° 57.7'	75° 49.3'	+4 27	+4 58	*0.90	*0.83	2.30	2.80	1.20
	<i>Pocomoke River</i>									
1995	Shelldown	37° 58.8'	75° 38.3'	+4 32	+5 16	*0.94	*1.00	2.40	2.90	1.30
1997	Snow Hill, city park	38° 10.7'	75° 23.8'	+7 26	+7 36	*0.70	*1.33	1.62	1.96	0.98
1999	Crisfield, Little Annemessex River	37° 58.6'	75° 51.8'	+4 34	+4 51	*0.75	*1.00	1.86	2.23	1.05
2001	Colburn Creek, Big Annemessex River	38° 02.9'	75° 48.2'	+4 59	+5 30	*0.78	*1.17	1.94	2.33	1.11
2003	Long Point, Big Annemessex River	38° 03.4'	75° 48.2'	+5 19	+5 47	*0.82	*0.83	2.10	2.50	1.10
2005	Teague Creek, Manokin River	38° 06.5'	75° 50.3'	+5 38	+6 05	*0.82	*0.83	2.10	2.50	1.10
2007	Ewell, Smith Island	37° 59.7'	76° 01.9'	+4 56	+5 19	*0.61	*1.00	1.53	1.84	0.88
2009	Holland Island Bar Light	38° 04.1'	76° 05.8'	+5 16	+5 30	*0.56	*0.58	1.40	1.70	0.80
2011	Chance	38° 10.2'	75° 56.8'	+5 29	+5 57	*0.78	*1.17	1.94	2.33	1.11
2013	Sharkfin Shoal Light	38° 12.1'	75° 59.2'	+5 46	+6 06	*0.86	*0.92	2.20	2.64	1.20
2015	Great Shoals Light, Monie Bay	38° 13.0'	75° 53.0'	+6 00	+6 22	*0.90	*0.92	2.30	2.80	1.30
	<i>Wicomico River</i>									
2017	Whitehaven	38° 16.0'	75° 47.0'	+6 26	+6 46	*0.94	*1.00	2.40	2.90	1.30
2019	Salisbury	38° 22.0'	75° 36.0'	+7 21	+7 24	*1.20	*1.25	3.00	3.60	1.70
	<i>Nanticoke River</i>									
2021	Roaring Point	38° 15.7'	75° 55.2'	+6 00	+6 35	*0.90	*0.92	2.30	2.76	1.30
2023	Vienna	38° 29.0'	75° 49.1'	+8 25	+8 32	*0.79	*1.33	1.94	2.33	1.13
2025	Sharptown	38° 32.5'	75° 43.4'	+9 19	+9 28	*0.97	*1.00	2.50	3.00	1.40
2027	McCreeley's Creek, Fishing Bay	38° 18.0'	76° 00.4'	+5 49	+6 22	*0.82	*1.17	2.05	2.46	1.16
2029	Hooper Strait Light	38° 13.6'	76° 04.6'	+5 26	+5 51	*0.61	*1.17	1.48	1.77	0.88
2031	Bishops Head, Hooper Strait	38° 13.2'	76° 02.3'	+5 32	+6 04	*0.70	*1.08	1.73	2.08	0.99
				on Baltimore, p.108						
2033	Middle Hooper Island	38° 17.8'	76° 12.3'	-4 40	-4 39	*1.32	*1.50	1.51	1.71	1.09
2035	Barren Island	38° 20.5'	76° 15.9'	-4 45	-4 56	*1.01	*0.68	1.22	1.38	0.77
	<i>Little Choptank River</i>									
2037	Smithville Road Bridge, Beaverdam Creek	38° 25.7'	76° 14.2'	-2 26	-2 49	*1.01	*0.82	1.19	1.34	0.78
2039	Taylor's Island, Slaughter Creek	38° 28.0'	76° 17.7'	-3 15	-3 00	*1.10	*1.18	1.30	1.47	0.88
2041	Woolford, Church Creek	38° 30.4'	76° 10.4'	-3 11	-2 55	*1.25	*1.41	1.40	1.58	1.00
2043	Cherry Island, Beckwith's Creek	38° 33.7'	76° 12.5'	-3 07	-2 57	*1.18	*1.27	1.34	1.51	0.90
	<i>Choptank River</i>									
2045	Cambridge	38° 34.4'	76° 04.1'	-2 42	-2 28	*1.23	*0.95	1.62	1.83	1.02
2047	Dover Bridge	38° 45.4'	75° 59.9'	-0 18	-0 41	*1.54	*1.68	1.70	1.92	1.24
2049	Hillsboro, Tuckahoe Creek	38° 55.0'	75° 56.7'	+1 29	+1 19	*1.82	*0.86	2.29	2.59	1.33
	<i>Tred Avon River</i>									
2051	Oxford	38° 42.0'	76° 10.4'	-2 50	-2 45	*1.25	*1.41	1.40	1.58	1.00
2053	Easton Point	38° 46.1'	76° 05.9'	-2 45	-2 35	*1.47	*1.59	1.60	1.81	1.20
2055	Deep Neck Point, Broad Creek	38° 43.9'	76° 16.1'	-2 57	-2 47	*1.25	*1.41	1.40	1.58	1.00
2057	St. Michaels, San Domingo Creek	38° 46.5'	76° 14.0'	-2 55	-2 52	*1.25	*1.41	1.40	1.58	1.00
2059	Avalon, Dogwood Harbor	38° 42.5'	76° 19.8'	-2 54	-2 48	*1.18	*1.36	1.30	1.47	0.90
2061	Tilghman Island, Ferry Cove, Eastern Bay	38° 45.9'	76° 19.7'	-2 33	-2 42	*0.98	*1.00	1.10	1.24	0.78
2063	Poplar Island	38° 45.5'	76° 22.6'	-2 33	-2 41	*0.97	*0.95	1.10	1.54	0.77
2065	Claiborne, Eastern Bay	38° 50.2'	76° 16.8'	-2 26	-2 28	*0.96	*1.09	1.10	1.24	0.70
2067	St. Michaels, Miles River	38° 47.2'	76° 13.3'	-2 12	-2 02	*1.22	*1.18	1.40	1.58	0.96
2069	Kent Island Narrows	38° 58.0'	76° 14.6'	-1 30	-1 23	*1.10	*1.18	1.20	1.36	0.90
2071	Matapeake, Kent Island	38° 57.4'	76° 21.3'	-1 30	-1 49	*0.90	*0.95	1.02	1.15	0.72
2073	Kent Point Marina	38° 50.2'	76° 22.4'	-2 21	-2 29	*0.97	*0.95	1.11	1.25	0.76
	<i>Chester River</i>									
2075	Love Point	39° 01.9'	76° 18.1'	-0 25	-0 41	*1.03	*0.95	1.19	1.34	0.84
2077	Queenstown	38° 59.8'	76° 09.5'	+0 05	-0 08	*1.18	*1.27	1.30	1.47	0.90
2079	Centreville Landing, Corsica River	39° 03.2'	76° 04.5'	+0 20	+0 14	*1.47	*1.89	1.60	1.81	1.20
2081	Cliffs Point	39° 06.4'	76° 08.5'	+0 12	-0 02	*1.32	*1.50	1.50	1.70	1.00
2083	Cliffs Wharf	39° 06.7'	76° 08.3'	+0 09	-0 08	*1.33	*1.27	1.53	1.73	1.05

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			
	MARYLAND	North	West	h	m	ft	ft	ft	ft	ft
	Chesapeake Bay, Eastern Shore-cont. Time meridian, 75° W									
	<i>Chester River-cont.</i>									
2085	Chestertown	39° 12.4'	76° 03.8'	+1 03	+0 36	*1.62	*1.77	1.80	2.03	1.31
2087	Crumpton	39° 14.7'	75° 55.5'	+1 10	+1 04	*1.82	*0.91	2.28	2.58	1.34
2089	Deep Landing, Swan Creek	39° 08.7'	76° 15.6'	+0 02	-0 04	*0.96	*1.09	1.13	1.28	0.70
2091	Tolchester Beach	39° 12.8'	76° 14.7'	+0 18	+0 11	*1.04	*0.95	1.21	1.35	0.81
2093	Worton Creek entrance	39° 17.8'	76° 10.3'	+1 22	+1 19	*1.18	*1.27	1.30	1.47	0.90
2095	Sassafras River, Betterton	39° 22.3'	76° 03.8'	+2 35	+2 15	*1.34	*1.00	1.60	1.81	1.02
	<i>Elk River</i>									
2097	Town Point Wharf	39° 30.2'	75° 55.0'	+3 18	+2 59	*1.74	*0.86	2.17	2.45	1.28
	C & D Canal (see Delaware River)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	Chesapeake City, Maryland (see C & D Canal)	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2099	Old Frenchtown Wharf	39° 34.5'	75° 50.6'	+3 13	+3 00	*2.06	*2.27	2.30	2.60	1.60
2101	Charlestown, Northeast River	39° 34.4'	75° 58.2'	+3 52	+4 03	*1.69	*1.86	1.90	2.15	1.30
	Chesapeake Bay, western shore									
	<i>Susquehanna River</i>									
2103	Havre de Grace	39° 32.2'	76° 05.4'	+3 13	+3 27	*1.55	*0.95	1.90	2.15	1.16
2105	Port Deposit	39° 36.0'	76° 06.8'	+3 24	+3 49	*1.51	*1.14	1.81	2.04	1.16
2107	Pond Point, Bush River	39° 23.3'	76° 15.3'	+1 52	+1 31	*1.06	*0.86	1.25	1.41	0.81
	<i>Patapsco River</i>									
2109	North Point	39° 11.8'	76° 26.8'	+0 12	+0 04	*0.93	*1.09	1.03	1.16	0.75
2111	Stony Creek	39° 09.8'	76° 31.6'	+0 03	-0 05	*0.95	*0.91	1.09	1.23	0.75
2113	Hawkins Point	39° 12.5'	76° 32.0'	+0 00	+0 06	*1.03	*0.95	1.19	1.34	0.80
2115	Curtis Creek, US Coast Guard Station	39° 11.7'	76° 34.6'	+0 12	+0 08	*0.96	*1.14	1.06	1.20	0.78
2117	BALTIMORE, Fort McHenry	39° 16.0'	76° 34.7'					1.14	1.25	0.79
2119	Fort McHenry Marsh	39° 15.7'	76° 35.1'	-0 01	-0 01	*1.00	*1.00	1.14	1.29	0.78
2121	Mountain Point, Gibson Is., Magothy River	39° 03.7'	76° 26.0'	-0 04	-0 04	*0.74	*0.77	0.80	0.90	0.60
2123	Cornfield Creek, Magothy River	39° 06.0'	76° 26.7'	-0 29	-0 38	*0.89	*0.95	0.99	1.12	0.71
	<i>Severn River</i>									
2125	Brewer Point	39° 01.6'	76° 32.0'	-0 45	-0 54	*0.74	*0.91	0.80	0.90	0.60
2127	Annapolis (US Naval Academy)	39° 09.8'	76° 28.8'	-1 30	-1 44	*0.88	*1.00	0.97	1.12	0.71
2129	Thomas Point Shoal Light	38° 54.0'	76° 26.0'	-1 56	-2 11	*0.81	*0.91	0.90	1.02	0.60
2131	Edgewater, South River	38° 57.0'	76° 33.0'	-1 51	-2 07	*0.81	*0.91	0.90	1.02	0.60
2133	Gingerville Creek, South River	38° 57.5'	76° 33.3'	-2 01	-2 06	*0.92	*1.00	1.03	1.16	0.74
2135	Rhode River (County Wharf)	38° 53.2'	76° 32.4'	-2 07	-2 17	*0.88	*1.00	0.98	1.10	0.70
2137	Galesville, West River	38° 50.0'	76° 32.0'	-1 39	-1 34	*0.81	*0.91	0.90	1.01	0.60
2139	Rose Haven, Herring Bay	38° 43.5'	76° 32.5'	-2 37	-2 44	*0.81	*0.91	0.90	1.01	0.60
2141	Chesapeake Beach	38° 41.0'	76° 32.0'	-2 47	-3 05	*0.88	*1.00	1.00	1.13	0.70
2143	Long Beach	38° 27.9'	76° 28.4'	-3 47	-4 04	*0.87	*0.77	1.01	1.14	0.67
2145	Cove Point	38° 23.5'	76° 23.9'	-4 10	-4 25	*0.83	*0.83	1.04	1.18	0.61
	<i>Patuxent River</i>									
2147	Solomons Island	38° 19.0'	76° 27.1'	-4 38	-4 46	*0.98	*0.73	1.17	1.34	0.74
2149	Broomes Island	38° 24.9'	76° 32.7'	-4 13	-4 19	*1.18	*1.36	1.30	1.47	0.94
2151	Benedict	38° 30.8'	76° 40.2'	-3 54	-3 54	*1.47	*1.82	1.60	1.81	0.81
2153	Lower Marlboro	38° 39.3'	76° 41.0'	-2 46	-2 54	*1.47	*0.77	1.82	2.06	1.09
2155	Point Lookout	38° 02.4'	76° 1.4'	-5 28	-5 37	*1.02	*0.77	1.22	1.38	0.78
	MD., VA. and DISTRICT OF COLUMBIA									
	Potomac River									
	<i>on Washington, p.112</i>									
2157	Cornfield Harbor, Md.	38° 03.7'	76° 21.5'	-6 16	-7 35	*0.48	*0.53	1.30	1.43	0.76
2159	Lewisetta, Va.	37° 59.7'	76° 27.9'	-6 19	-7 31	*0.46	*0.80	1.25	1.42	0.74
2161	Travis Point, Coan River, Va.	37° 59.8'	76° 28.0'	-6 00	-7 05	*0.44	*0.67	1.20	1.32	0.70
2163	Kinsale, Yeocomico River, Va.	38° 01.9'	76° 34.6'	-5 46	-6 53	*0.44	*0.67	1.20	1.32	0.70
2165	Piney Point, Md.	38° 08.0'	76° 32.0'	-5 54	-7 16	*0.51	*0.60	1.40	1.54	0.80
2167	Ragged Point, Coles Neck, Va.	38° 08.5'	76° 36.8'	-5 35	-7 03	*0.54	*0.67	1.50	1.65	0.85
2169	Mount Holly, Nomini Creek, Va.	38° 05.9'	76° 44.1'	-4 51	-6 14	*0.54	*0.67	1.50	1.65	0.80
2171	Colton Point, Md.	38° 13.2'	76° 45.0'	-5 18	-6 43	*0.65	*0.73	1.80	1.98	1.03
2173	Mills Point (south of), Wicomico Riv., Md.	38° 19.6'	76° 50.0'	-5 05	-6 05	*0.65	*0.73	1.80	1.98	1.00
2175	Colonial Beach, Va.	38° 15.1'	76° 57.6'	-5 08	-6 13	*0.61	*0.93	1.63	1.79	0.96
2177	Dahlgren, Upper Machodoc Creek, Va.	38° 19.2'	77° 02.2'	-4 53	-5 59	*0.56	*0.93	1.58	1.87	0.93
2179	Lower Cedar Point, Md.	38° 20.5'	76° 58.6'	-4 48	-5 56	*0.54	*0.60	1.50	1.65	0.80
2181	Mathias Point, Va.	38° 23.9'	77° 03.2'	-4 00	-4 56	*0.44	*0.67	1.20	1.32	0.70
2183	Goose Creek, Port Tobacco River, Md.	38° 27.2'	77° 03.3'	-4 08	-5 07	*0.54	*0.60	1.46	1.61	0.82
2185	Riverside, Md.	38° 23.2'	77° 08.7'	-3 23	-4 24	*0.48	*0.53	1.28	1.41	0.78
2187	Aquia Creek, Va.	38° 25.1'	77° 21.2'	-1 28	-2 32	*0.48	*0.67	1.26	1.39	0.71
2189	Clifton Beach, Smith Point, Md.	38° 24.8'	77° 16.0'	-1 42	-2 46	*0.41	*0.67	1.10	1.21	0.60
2191	Liverpool Point, Md.	38° 27.6'	77° 16.2'	-0 39	-1 58	*0.44	*0.67	1.20	1.32	0.70
2193	Quantico, Va.	38° 31.2'	77° 17.2'	-0 52	-2 04	*0.51	*0.67	1.40	1.54	0.80
2195	Indian Head, Md.	38° 36.1'	77° 11.1'	-0 14	-1 33	*0.65	*0.73	1.80	1.98	1.03
2197	Marshall Hall, Md.	38° 41.2'	77° 06.1'	+0 10	-0 55	*0.82	*0.93	2.30	2.53	1.27
2199	Alexandria, Va.	38° 48.3'	77° 02.3'	+0 18	-0 11	*0.96	*1.33	2.62	2.88	1.51
2201	Bellevue, D.C.	38° 49.6'	77° 01.6'	+0 34	-0 11	*1.02	*1.33	2.80	3.08	1.60
2203	WASHINGTON, Washington Channel, D.C.	38° 52.3'	77° 01.2'					2.77	3.07	1.55
	<i>Anacostia River</i>									
2205	Washington Naval Yard	38° 52.3'	76° 59.7'	+0 18	-0 06	*1.01	*1.20	2.80	3.08	1.57
2207	Kingman Lake	38° 53.7'	76° 58.1'	+0 22	+0 04	*1.03	*1.20	2.84	3.12	1.60
2209	Kenilworth Aquatic Garden	38° 54.6'	76° 57.3'	+0 29	+0 10	*1.05	*1.07	2.92	3.21	1.62
2211	Bladensburg, Md.	38° 56.0'	76° 56.3'	+0 31	+0 25	*1.06	*1.13	2.95	3.25	1.64

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			
	VIRGINIA Chesapeake Bay, western shore Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Ches. Bay Bridge Tunnel, p.116						
2213	Sunnybank, Little Wicomico River	37° 53.2'	76° 16.0'	+6 41	+6 45	*0.30	*0.30	0.80	0.96	0.40
2215	Great Wicomico River Light	37° 48.3'	76° 16.1'	+3 58	+4 11	*0.41	*0.41	1.10	1.32	0.50
2217	Fleeton Point	37° 48.8'	76° 16.5'	+3 58	+4 14	*0.41	*0.41	1.10	1.32	0.59
2219	Glebe Point, Great Wicomico River	37° 50.8'	76° 22.1'	+4 15	+4 37	*0.49	*0.83	1.20	1.44	0.70
2221	Windmill Point Light	37° 35.8'	76° 14.2'	+2 48	+3 12	*0.41	*0.41	1.10	1.32	0.50
	<i>Rappahannock River</i>			on Hampton Roads, p.120						
2223	Windmill Point	37° 36.9'	76° 17.4'	+1 55	+2 14	*0.49	*0.83	1.16	1.40	0.68
2225	Mill Creek (Grey Point)	37° 35.0'	76° 25.1'	+2 28	+2 42	*0.55	*0.83	1.30	1.57	0.69
2227	Millenbeck, Corrotoman River	37° 40.1'	76° 29.2'	+2 37	+3 05	*0.55	*0.83	1.30	1.57	0.70
2229	Urbanna	37° 39.0'	76° 34.5'	+2 50	+3 09	*0.59	*0.83	1.40	1.69	0.79
2231	Bayport	37° 45.3'	76° 40.4'	+3 22	+3 51	*0.67	*0.83	1.60	1.94	0.90
2233	Wares Wharf	37° 52.4'	76° 47.0'	+4 04	+4 34	*0.75	*0.33	1.88	2.27	0.98
2235	Tappahannock	37° 55.8'	76° 51.4'	+4 40	+5 18	*0.71	*0.83	1.74	2.11	0.95
				on Washington, p.112						
2237	Saunders Wharf	38° 05.4'	77° 02.0'	-3 53	-4 41	*0.54	*0.66	1.50	1.65	0.85
2239	Port Royal	38° 10.4'	77° 11.4'	-2 19	-3 02	*0.68	*0.67	1.90	2.09	1.10
2241	Park Turn	38° 12.8'	77° 14.6'	-1 35	-2 30	*0.73	*0.20	2.13	2.34	1.09
2243	Hopyard Landing	38° 14.6'	77° 13.6'	-1 07	-1 57	*0.75	*0.67	2.10	2.31	1.19
2245	Massaponax Sand & Gravel	38° 15.3'	77° 24.6'	-0 39	-0 41	*0.88	*1.33	2.50	2.75	1.39
				on Hampton Roads, p.120						
	<i>Piankatank River</i>									
2247	Jackson Creek, Deltaville	37° 32.9'	76° 19.9'	+1 36	+2 04	*0.51	*0.83	1.20	1.45	0.70
2249	Dixie	37° 30.5'	76° 25.0'	+1 34	+2 14	*0.55	*0.83	1.30	1.57	0.72
2251	Wolf Trap Light	37° 23.4'	76° 11.4'	-0 02	+0 32	*0.67	*0.83	1.60	1.94	0.90
	<i>Mobjack Bay</i>									
2253	Mobjack, East River	37° 22.4'	76° 20.8'	-0 17	+0 02	*0.98	*0.83	2.40	2.90	1.30
2255	Belleville	37° 24.7'	76° 26.3'	-0 06	+0 00	*1.02	*0.83	2.48	3.00	1.36
2257	Browns Bay	37° 18.1'	76° 24.2'	-0 11	-0 03	*0.98	*1.58	2.32	2.81	1.35
	York River									
2259	Tue Marshes Light	37° 14.1'	76° 23.1'	+0 03	+0 03	*0.90	*0.83	2.17	2.63	1.19
2261	Yorktown, Goodwin Neck	37° 13.4'	76° 26.4'	+0 18	+0 15	*0.90	*0.83	2.20	2.66	1.23
2263	Yorktown, USCG Training Center	37° 13.6'	76° 28.7'	+0 10	+0 15	*0.95	*1.08	2.29	2.77	1.28
2265	Gloucester Point	37° 14.8'	76° 30.0'	+0 10	+0 11	*0.98	*1.00	2.38	2.93	1.30
2267	Cheatham Annex	37° 17.5'	76° 35.2'	+0 48	+0 40	*1.02	*0.83	2.50	3.03	1.34
2269	Roane Point	37° 26.9'	76° 42.4'	+1 47	+1 50	*1.14	*0.83	2.81	3.40	1.54
2271	West Point	37° 32.1'	76° 47.6'	+2 12	+2 38	*1.14	*0.83	2.80	3.39	1.50
2273	Wakema (Fraziers Ferry), Mattaponi River	37° 39.0'	76° 54.0'	+3 34	+3 57	*1.41	*1.67	3.42	4.14	1.90
	<i>Pamunkey River</i>									
2275	Lester Manor	37° 35.0'	76° 59.4'	+4 45	+5 00	*1.05	*0.83	2.80	3.39	1.50
2277	Northbury	37° 37.5'	77° 07.3'	+6 03	+6 18	*1.37	*1.67	3.30	4.01	1.80
	Chesapeake Bay, western shore									
2279	Messick Point, Back River	37° 06.5'	76° 19.1'	-0 07	+0 02	*0.97	*0.97	2.30	2.78	1.33
	<i>Hampton Roads</i>									
2281	Old Point Comfort	37° 00.2'	76° 18.9'	+0 01	+0 09	*1.02	*0.83	2.52	3.05	1.38
2283	HAMPTON ROADS (Sewells Point)	36° 56.8'	76° 19.8'					2.43	2.95	1.34
	<i>Elizabeth River</i>									
2285	Craney Island Light	36° 53.5'	76° 20.3'	+0 18	+0 04	*1.06	*0.83	2.60	3.15	1.40
2287	Lafayette River	36° 53.0'	76° 16.5'	+0 06	+0 10	*1.10	*1.17	2.67	3.14	1.47
2289	Western Branch, Rt 337 bridge	36° 49.3'	76° 23.9'	+0 11	+0 13	*1.14	*1.17	2.77	3.26	1.53
2291	Norfolk	36° 51.1'	76° 17.9'	+0 23	+0 20	*1.14	*0.83	2.82	3.41	1.50
2293	Portsmouth, Naval Shipyard	36° 49.3'	76° 17.6'	+0 08	+0 10	*1.13	*1.17	2.76	3.26	1.52
2295	Money Point	36° 46.7'	76° 18.1'	+0 15	+0 12	*1.18	*1.17	2.86	3.46	1.57
2297	Deep Creek Entrance	36° 45.3'	76° 17.6'	+0 22	+0 18	*1.21	*1.25	2.92	3.53	1.61
	<i>Nansemond River</i>									
2299	Pig Point	36° 55.0'	76° 26.1'	+0 42	+0 40	*1.05	*0.83	2.80	3.39	1.50
2301	Town Point	36° 53.0'	76° 30.5'	+0 37	+0 44	*1.22	*0.83	3.00	3.63	1.60
2303	Hollidays Point (Kings Highway bridge)	36° 50.3'	76° 33.0'	+0 56	+1 03	*1.25	*1.67	3.00	3.63	1.63
	James River									
2305	Newport News	36° 58.4'	76° 26.0'	+0 29	+0 28	*1.08	*0.83	2.60	3.15	1.40
2307	Huntington Park	37° 00.8'	76° 27.5'	+0 38	+0 39	*1.07	*0.92	2.62	3.17	1.42
2309	Menchville	37° 04.9'	76° 31.5'	+1 03	+1 19	*1.06	*0.83	2.60	3.15	1.40
2311	Smithfield, Pagan River	36° 59.1'	76° 37.8'	+1 34	+1 38	*1.14	*0.83	2.78	3.36	1.50
2313	Burwell Bay	37° 03.4'	76° 40.1'	+1 17	+1 39	*1.00	*1.17	2.42	2.93	1.35
2315	Fort Eustis	37° 08.2'	76° 37.3'	+1 44	+1 51	*0.92	*1.25	2.19	2.52	1.25
2317	Kingsmill	37° 13.2'	76° 39.8'	+2 05	+2 26	*0.94	*1.33	2.26	2.73	1.29
2319	Scotland	37° 11.1'	76° 47.0'	+2 44	+3 13	*0.78	*1.08	1.84	2.22	1.06
2321	Jamestown Wharf	37° 13.2'	76° 47.4'	+2 59	+3 15	*0.78	*1.42	1.81	2.09	1.08
	<i>Chickahominy River</i>									
2323	Ferry Point (bridge)	37° 15.8'	76° 52.7'	+4 01	+4 26	*0.78	*0.83	1.90	2.30	1.04
2325	Wright Island Landing	37° 20.7'	76° 52.5'	+4 44	+5 03	*0.90	*0.83	2.20	2.66	1.20
2327	Lanexa	37° 24.2'	76° 54.7'	+5 00	+4 51	*1.05	*1.08	2.56	2.77	1.41
2329	Claremont	37° 13.9'	76° 56.9'	+3 51	+4 25	*0.76	*1.17	1.79	2.11	1.06
2331	Tettington	37° 14.4'	76° 56.6'	+3 52	+4 17	*0.79	*1.13	1.87	2.26	1.07

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					
	VIRGINIA James River-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft		
				on Hampton Roads, p.120								
2333	Sturgeon Point	37° 18.4'	77° 00.4'	+4	37	+5	09	*0.86	*0.83	2.10	2.54	1.10
2335	Willcox Wharf, Charles City	37° 19.0'	77° 05.9'	+5	30	+5	33	*0.89	*1.33	2.12	2.52	1.22
2337	Jordan Point	37° 18.8'	77° 13.4'	+6	16	+6	39	*1.02	*0.83	2.50	3.02	1.40
				on Washington, p.112								
2339	City Point, Hopewell	37° 18.8'	77° 16.2'	-4	31	-5	36	*0.87	*0.80	2.45	2.58	1.35
2341	Puddledock, Appomattox River	37° 16.0'	77° 22.3'	-3	49	-4	32	*1.00	*1.07	2.80	3.08	1.55
2343	Haxall	37° 22.4'	77° 14.6'	-4	10	-4	53	*0.99	*1.33	2.70	2.97	1.60
2345	Chester	37° 23.0'	77° 22.7'	-3	39	-3	59	*1.02	*0.67	2.90	3.19	1.60
2347	Meadowville	37° 22.7'	77° 19.4'	-3	46	-4	17	*1.05	*1.33	2.90	3.19	1.60
2349	Richmond Deepwater Terminal	37° 27.5'	77° 25.2'	-3	39	-3	51	*1.08	*0.93	3.05	3.25	1.66
2351	Richmond (river locks)	37° 31.5'	77° 25.2'	-3	16	-3	26	*1.16	*1.33	3.20	3.52	1.80
	Chesapeake Bay, southern shore			on Ches. Bay Bridge Tunnel, p.116								
2353	Little Creek, NAB	36° 54.7'	76° 10.5'	+0	08	+0	09	*1.01	*1.17	2.57	3.08	1.42
2355	CHESAPEAKE BAY BRIDGE TUNNEL	36° 58.0'	76° 06.8'					<i>Daily predictions</i>		2.55	3.07	1.40
2357	Lynnhaven Inlet, Virginia Pilots Dock <i>Lynnhaven Bay</i>	36° 54.4'	76° 05.4'	+0	40	+0	38	*0.88	*1.08	2.22	2.66	1.24
2359	Bayville	36° 53.6'	76° 06.3'	+1	52	+2	48	*0.67	*0.83	1.70	2.04	1.00
2361	Buchanan Creek entrance	36° 51.7'	76° 06.9'	+2	02	+2	56	*0.75	*0.83	1.90	2.28	1.00
2363	Brown Cove	36° 52.5'	76° 03.7'	+2	05	+2	43	*0.65	*0.83	1.64	1.96	0.92
2365	Broad Bay Canal	36° 54.1'	76° 03.7'	+2	05	+2	00	*0.56	*0.92	1.38	1.66	0.80
2367	Long Creek	36° 54.2'	76° 04.2'	+1	15	+1	15	*0.68	*1.08	1.68	2.02	0.97
	Outer Coast			on Duck Pier, p.124								
2369	Cape Henry	36° 55.8'	76° 00.4'	+0	31	+0	36	*0.96	*0.93	3.12	3.71	1.68
2371	Virginia Beach	36° 50.6'	75° 58.3'	+0	15	+0	16	*1.07	*1.07	3.34	3.97	1.85
2373	Rudee Inlet entrance	36° 49.9'	75° 58.1'	+0	02	+0	02	*1.01	*0.86	3.28	3.90	1.77
2375	Rudee Inlet, interior channel	36° 49.9'	75° 58.4'	+0	17	+0	17	*1.02	*0.94	3.29	3.92	1.78
2377	Rudee Heights, Lake Wesley	36° 49.5'	75° 58.5'	+0	18	+0	16	*1.03	*1.00	3.32	3.95	1.81
2379	Lake Rudee, south end	36° 49.5'	75° 58.9'	+0	20	+0	19	*1.05	*1.07	3.39	4.03	1.85
2381	Sandbridge	36° 41.5'	75° 55.2'	+0	07	+0	07	*1.04	*1.04	3.35	3.99	1.85
	NORTH CAROLINA			on Oregon Inlet, p.128								
2383	DUCK PIER	36° 11.0'	75° 44.8'					<i>Daily predictions</i>		3.22	3.96	1.75
2385	Albemarle and Pamlico Sounds <9>	-	-	-	-	-	-	-	-	-	-	-
2387	Kitty Hawk (ocean)	36° 06.1'	75° 42.6'	-0	01	+0	02	*1.01	*1.43	3.19	3.80	1.80
2389	Jennettes Pier, Nags Head (ocean)	35° 54.6'	75° 35.5'	-0	05	+0	01	*1.04	*1.43	3.26	3.88	1.80
				on Cape Hatteras, p.132								
2391	Roanoke Sound Channel	35° 48'	75° 35'	+1	37	+1	17	*0.47	*0.14	0.5	0.6	0.3
2393	OREGON INLET MARINA	35° 47.7'	75° 32.9'					<i>Daily predictions</i>		0.89	1.08	0.58
2395	Oregon Inlet	35° 46'	75° 31'	-0	03	-0	27	*1.98	*0.71	2.0	2.4	1.1
2397	Oregon Inlet (USCG Station)	35° 46.1'	75° 31.6'	-0	22	-0	51	*2.00	*0.69	1.97	2.30	1.07
2399	Oregon Inlet Bridge	35° 46.4'	75° 32.3'	-0	17	-0	55	*1.89	*0.64	1.9	2.3	1.1
2401	Oregon Inlet Channel	35° 46.5'	75° 33.5'	-0	09	-0	34	*1.23	*0.43	1.2	1.4	0.7
2403	Old House Channel	35° 46.5'	75° 34.9'	+0	34	+0	28	*0.66	*0.21	0.7	0.8	0.4
2405	Davis Slough	35° 44.9'	75° 33.2'	+0	09	-0	01	*0.85	*0.29	0.9	1.1	0.5
2407	Rodanthe, Pamlico Sound	35° 35.7'	75° 28.3'	+2	03	+1	36	*0.79	*0.69	0.72	0.84	0.45
2409	Roanoke Marshes Light, Croatan Sound	35° 48.7'	75° 42.0'	+2	10	+2	04	*0.50	*0.85	0.40	0.59	0.31
2411	Oyster Creek, Croatan Sound	35° 50.7'	75° 39.3'	+2	12	+2	06	*0.51	*0.77	0.41	0.60	0.31
2413	Manns Harbor, Croatan Sound	35° 54.2'	75° 46.2'	+2	31	+2	26	*0.37	*0.54	0.37	0.40	0.23
				on Oregon Inlet, p.128								
2391	Roanoke Sound Channel	35° 48'	75° 35'	+1	37	+1	17	*0.47	*0.14	0.5	0.6	0.3
2393	OREGON INLET MARINA	35° 47.7'	75° 32.9'					<i>Daily predictions</i>		0.89	1.08	0.58
2395	Oregon Inlet	35° 46'	75° 31'	-0	03	-0	27	*1.98	*0.71	2.0	2.4	1.1
2397	Oregon Inlet (USCG Station)	35° 46.1'	75° 31.6'	-0	22	-0	51	*2.00	*0.69	1.97	2.30	1.07
2399	Oregon Inlet Bridge	35° 46.4'	75° 32.3'	-0	17	-0	55	*1.89	*0.64	1.9	2.3	1.1
2401	Oregon Inlet Channel	35° 46.5'	75° 33.5'	-0	09	-0	34	*1.23	*0.43	1.2	1.4	0.7
2403	Old House Channel	35° 46.5'	75° 34.9'	+0	34	+0	28	*0.66	*0.21	0.7	0.8	0.4
2405	Davis Slough	35° 44.9'	75° 33.2'	+0	09	-0	01	*0.85	*0.29	0.9	1.1	0.5
2407	Rodanthe, Pamlico Sound	35° 35.7'	75° 28.3'	+2	03	+1	36	*0.79	*0.69	0.72	0.84	0.45
2409	Roanoke Marshes Light, Croatan Sound	35° 48.7'	75° 42.0'	+2	10	+2	04	*0.50	*0.85	0.40	0.59	0.31
2411	Oyster Creek, Croatan Sound	35° 50.7'	75° 39.3'	+2	12	+2	06	*0.51	*0.77	0.41	0.60	0.31
2413	Manns Harbor, Croatan Sound	35° 54.2'	75° 46.2'	+2	31	+2	26	*0.37	*0.54	0.37	0.40	0.23
				on Cape Hatteras, p.132								
2415	Cape Hatteras	35° 14'	75° 31'	+0	01	+0	01	*1.00	*1.08	3.6	4.3	2.0
2417	CAPE HATTERAS FISHING PIER	35° 13.4'	75° 38.1'					<i>Daily predictions</i>		2.99	3.60	1.61
2419	Peters Ditch, Avon, Pamlico Sound	35° 21.0'	75° 30.7'	+3	20	+3	40	*0.17	*0.17	0.43	0.61	0.30
2421	Hatteras, Pamlico Sound	35° 12.3'	75° 42.2'	+1	16	+1	25	*0.17	*1.08	0.41	0.49	0.33
2423	Hatteras Inlet	35° 12'	75° 44'	+0	08	+0	13	*0.66	*0.83	2.0	2.4	1.1
2425	Ocracoke Inlet	35° 04'	76° 01'	+0	09	+0	11	*0.63	*0.83	1.9	2.3	1.0
2427	Ocracoke, Ocracoke Island	35° 06.9'	75° 59.3'	+0	15	+0	47	*0.34	*0.50	0.99	1.19	0.56
2429	Cape Lookout Bight	34° 36.8'	76° 32.3'	-0	17	-0	12	*1.35	*1.33	4.05	4.86	2.19
2431	Cape Lookout (ocean)	34° 36.5'	76° 31.7'	-0	22	-0	22	*1.15	*1.25	3.44	4.13	1.87
2433	Shell Point, Harkers Island	34° 41'	76° 32'	+1	52	+2	34	*0.54	*0.83	1.6	1.8	0.9
2435	Harkers Island Bridge	34° 43'	76° 35'	+2	08	+2	31	*0.52	*0.67	1.6	1.7	0.9
2437	Davis, Core Sound	34° 47.8'	76° 27.3'	+3	13	+3	39	*0.38	*0.75	1.08	1.23	0.64
2439	Channel Marker Lt. 59	34° 42'	76° 37'	+1	25	+1	27	*0.66	*0.83	2.0	2.3	1.1
2441	Lenoxville Point	34° 42.5'	76° 37.2'	+1	18	+1	11	*0.80	*1.00	2.37	2.84	1.31
2443	North River Bridge	34° 47'	76° 37'	+2	25	+3	08	*0.59	*0.67	1.8	2.0	1.0
2445	Beaufort Inlet Channel Range	34° 42'	76° 40'	+0	07	+0	11	*1.07	*1.07	3.2	3.8	1.6
2447	Beaufort, Taylor Creek	34° 42.7'	76° 38.7'	+0	52	+0	48	*0.95	*1.17	2.82	3.38	1.55
2449	Beaufort, Duke Marine Lab	34° 43.2'	76° 40.2'	+0	39	+0	36	*1.05	*1.17	3.11	3.58	1.70
2451	Gallant Channel	34° 44'	76° 40'	+0	49	+0	44	*1.01	*1.25	3.0	3.5	1.7
2453	Newport River (Yacht Club)	34° 46.1'	76° 40.3'	+1	03	+1	13	*1.03	*1.00	3.08	3.70	1.66
2455	Core Creek Bridge	34° 50'	76° 42'	+1	26	+1	46	*0.68	*0.83	2.1	2.3	1.1
2457	Fort Macon, USCG Station	34° 42'	76° 41'	+0	17	+0	18	*1.03	*1.25	3.1	3.7	1.7
2459	Morehead City	34° 43'	76° 42'	+0	26	+0	27	*1.04	*1.25	3.1	3.7	1.7
2461	Morehead City Harbor	34° 43.2'	76° 43.7'	+0	35	+0	37	*1.04	*1.17	3.08	3.70	1.68

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			
	NORTH CAROLINA Time meridian, 75° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Cape Hatteras, p.132						
2463	Atlantic Beach	34° 41.6'	76° 42.7'	-0 02	+0 01	*1.23	*1.25	3.65	4.38	1.98
2465	Triple S Marina, Bogue Sd.	34° 41.7'	76° 42.7'	+0 35	+0 28	*0.93	*1.17	2.8	3.3	1.5
2467	Atlantic Beach Bridge	34° 43'	76° 44'	+0 48	+1 02	*0.79	*0.83	2.4	2.8	1.2
2469	N.C. State Fisheries	34° 43'	76° 45'	+1 05	+1 32	*0.66	*0.83	2.0	2.3	1.1
2471	Coral Bay, Atlantic Beach	34° 42'	76° 46'	+1 47	+2 14	*0.53	*0.83	1.6	1.8	0.9
2473	Spooner Creek	34° 43.5'	76° 48.2'	+2 06	+2 20	*0.56	*1.08	1.27	1.85	0.94
2475	Bogue Inlet	34° 39'	77° 06'	+0 13	+0 15	*0.73	*0.83	2.2	2.6	1.2
2477	New River Inlet	34° 32'	77° 20'	+0 16	+0 17	*0.98	*0.83	3.0	3.6	1.6
2479	Ocean City Beach (fishing pier)	34° 27.1'	77° 29.7'	+0 03	-0 01	*1.40	*1.33	4.20	5.04	2.25
2481	Wrightsville Beach	34° 12.8'	77° 47.2'	+0 18	+0 23	*1.27	*1.25	3.80	4.56	2.05
2483	Wilmington Beach	34° 01.9'	77° 53.6'	+0 18	+0 10	*1.40	*1.25	4.21	5.05	2.26
2485	Cape Fear	33° 51'	77° 58'	+0 04	+0 07	*1.47	*1.33	4.5	5.1	2.3
				on Wilmington, p.136						
2487	Cape Fear River									
2487	Bald Head	33° 52.8'	78° 00.1'	-2 06	-2 43	*1.05	*1.13	4.49	4.89	2.41
2489	Fort Caswell	33° 54'	78° 01'	-2 02	-2 45	*1.03	*1.25	4.2	4.8	2.3
2491	Southport	33° 54.9'	78° 01.1'	-1 49	-2 22	*0.99	*1.00	4.24	4.62	2.28
2493	Zekes Island	33° 57.0'	77° 57.1'	-1 12	-1 43	*0.96	*1.07	4.09	4.46	2.20
2495	Federal Point	33° 57.7'	77° 56.4'	-1 17	-1 52	*0.94	*0.93	4.04	4.40	2.16
2497	Sunny Point Army Base, Wharf no.1	33° 59.4'	77° 57.4'	-1 03	-1 45	*0.95	*0.93	4.06	4.43	2.17
2499	Reaves Point	34° 00.2'	77° 57.3'	-0 54	-1 18	*0.96	*1.07	4.09	4.46	2.21
2501	Sunny Point Army Base, Wharf no.3	34° 01.4'	77° 56.8'	-0 57	-1 15	*0.97	*1.07	4.15	4.52	2.24
2503	Orton Point	34° 03.4'	77° 56.4'	-0 36	-0 58	*0.98	*1.00	4.17	4.55	2.24
2505	WILMINGTON	34° 13.6'	77° 57.2'			Daily predictions		4.28	4.70	2.29
2507	Castle Hayne, Northeast River	34° 21'	77° 56'	+2 44	+2 54	*0.42	*0.42	1.7	1.9	0.9
2509	Bannermans Branch, Northeast River	34° 35'	77° 46'	+5 58	+6 08	*0.32	*0.31	1.3	1.4	0.6
				on Myrtle Beach, p.140						
2511	Oak Island	33° 54.1'	78° 04.9'	-0 05	-0 05	*0.94	*0.84	4.72	5.57	2.53
2513	Lockwoods Folly Inlet	33° 55'	78° 14'	+0 04	+0 15	*0.84	*1.00	4.2	4.8	2.3
2515	Shallotte Inlet (Bowen Point)	33° 55'	78° 22'	+0 43	+0 55	*0.91	*1.00	4.6	5.4	2.5
2517	Sunset Beach Pier	33° 51.9'	78° 30.4'	+0 02	-0 03	*0.97	*1.11	4.82	5.78	2.62
2519	Sunset Beach Bridge	33° 52.9'	78° 30.6'	+0 34	+0 56	*0.94	*0.84	4.72	5.57	2.52
	SOUTH CAROLINA									
2521	Dunn Sound, Little River Inlet	33° 51.5'	78° 34.2'	+0 15	+0 41	*0.91	*0.80	4.64	5.52	2.48
2523	Dunn Sound, north end	33° 51.6'	78° 34.8'	+0 25	+0 40	*0.93	*0.84	4.67	5.51	2.50
2525	Dunn Sound, west end	33° 51.1'	78° 35.3'	+0 29	+0 36	*0.96	*1.00	4.85	5.58	2.63
2527	Little River Neck, north end	33° 52.2'	78° 34.4'	+0 32	+0 46	*0.92	*0.84	4.63	5.56	2.47
2529	Cherry Grove (inside)	33° 50.1'	78° 38.0'	+0 40	+0 44	*0.92	*0.74	4.67	5.51	2.47
2531	Hog Inlet Pier	33° 50.2'	78° 36.4'	-0 06	-0 07	*0.99	*0.90	5.0	5.7	2.7
2533	MYRTLE BEACH, SPRINGMAID PIER	33° 39.3'	78° 55.1'			Daily predictions		5.02	6.00	2.70
2535	Garden City Pier (ocean)	33° 34.5'	78° 59.8'	+0 00	+0 00	*1.00	*1.00	5.07	5.88	2.74
	Murrells Inlet									
2537	Garden City Bridge, Main Creek	33° 34.7'	79° 00.2'	+1 19	+2 09	*0.84	*0.68	4.26	5.03	2.25
2539	Divine's Dock	33° 32.5'	79° 01.7'	+0 40	+1 18	*0.84	*0.84	4.22	5.06	2.27
2541	Smith's Dock	33° 32.7'	79° 02.7'	+1 01	+1 36	*0.86	*0.95	4.29	5.06	2.32
2543	Captain Alex's Marina, Parsonage Creek	33° 33.1'	79° 02.2'	+0 57	+1 28	*0.85	*0.68	4.30	5.16	2.28
2545	Oaks Creek, 0.5 mi. above entrance	33° 31.8'	79° 02.6'	+0 38	+1 03	*0.85	*0.95	4.27	5.12	2.32
2547	Allston Creek	33° 31.9'	79° 03.2'	+0 52	+1 32	*0.84	*0.95	4.24	4.92	2.31
2549	Oaks Creek, upper end	33° 30.7'	79° 04.1'	+1 10	+1 43	*0.87	*1.05	4.35	5.22	2.37
2551	Litchfield Beach bridge	33° 28.3'	79° 06.1'	+1 10	+3 02	*0.58	*0.75	2.89	3.35	1.59
2553	Midway Inlet North, Pawleys Island	33° 26.9'	79° 06.7'	+0 16	+0 42	*0.87	*1.00	4.40	5.10	2.40
2555	Bennet's Dock, Pawleys Island Creek	33° 26.1'	79° 07.6'	+0 55	+1 35	*0.78	*1.21	3.84	4.61	2.15
2557	Pawleys Island Pier (ocean)	33° 25.9'	79° 07.0'	+0 06	+0 06	*0.98	*0.95	4.92	5.81	2.65
2559	Ward's Dock, Pawleys Inlet	33° 24.7'	79° 08.1'	+0 35	+2 07	*0.67	*0.95	3.32	3.98	1.84
2561	Oyster Landing, Crab Haul Creek, North Inlet	33° 21.1'	79° 11.2'	+1 08	+0 52	*0.92	*1.00	4.58	5.50	2.48
2563	Clambank Creek, Goat Island, North Inlet	33° 20.0'	79° 11.6'	+1 01	+0 36	*0.94	*1.00	4.69	5.53	2.54
	Intercoastal Waterway Little River Inlet to Winyah Bay			on Charleston, p.144						
2565	Little River (town)	33° 52.2'	78° 36.5'	+0 13	+0 39	*0.84	*0.79	4.41	5.07	2.35
2567	Nixon Crossroads	33° 51.3'	78° 38.9'	+0 27	+0 51	*0.78	*0.68	4.10	4.55	2.18
2569	Myrtle Beach Airport	33° 49.2'	78° 43.1'	+1 09	+1 47	*0.56	*0.84	2.88	3.34	1.60
2571	North Myrtle Beach	33° 46.0'	78° 48.9'	+2 15	+3 12	*0.36	*0.84	1.78	2.10	1.25
2573	Myrtle Beach, Combination Bridge	33° 42.8'	78° 55.3'	+2 56	+4 18	*0.35	*0.89	1.71	2.02	1.03
2575	Socastee Bridge	33° 41.2'	79° 00.3'	+3 27	+4 41	*0.41	*0.74	2.08	2.45	1.18
	Winyah Bay									
2577	Winyah Bay Entrance (South Jetty)	33° 11'	79° 09'	-0 21	-0 24	*0.87	*0.89	4.6	5.4	2.5
2579	Georgetown Lighthouse	33° 13.4'	79° 11.1'	+0 26	+0 25	*0.75	*1.05	3.89	4.51	2.15
2581	South Island Plantation (C.G. Station)	33° 14.1'	79° 12.2'	+0 35	+0 36	*0.74	*0.84	3.81	4.38	2.07
2583	South Island Ferry, Intracoastal Waterway	33° 15.1'	79° 16.1'	+0 54	+1 25	*0.71	*0.74	3.69	4.24	1.99
2585	Frazier Point	33° 19'	79° 17'	+1 26	+2 07	*0.66	*0.68	3.5	4.1	1.8
	Sampit River									
2587	Georgetown	33° 21.7'	79° 16.8'	+1 25	+2 09	*0.71	*0.79	3.72	4.32	2.01
2589	Jacobs Wharf	33° 21.8'	79° 21.3'	+2 15	+2 22	*0.73	*0.74	3.84	4.45	2.06
2591	Cumberland	33° 22.2'	79° 26.0'	+2 42	+2 29	*0.77	*0.74	4.02	4.74	2.15

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			
	SOUTH CAROLINA Winyah Bay-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Charleston, p.144						
	<i>Great Pee Dee River</i>									
2593	Windsor Plantation, Black River	33° 24.9'	79° 15.0'	+2 00	+2 45	*0.66	*0.74	3.45	3.97	1.86
2595	Black River (south of Dunbar)	33° 30.7'	79° 20.5'	+3 29	+4 09	*0.47	*0.89	2.42	2.81	1.38
2597	Winea Plantation, Black River	33° 32.1'	79° 23.3'	+4 23	+4 39	*0.47	*0.84	2.37	2.73	1.34
2599	Mt. Pleasant Plantation, Black River	33° 29.7'	79° 27.7'	+5 38	+6 04	*0.37	*1.05	1.82	2.11	1.11
2601	Rhems, Black Mingo Creek, Black River	33° 36.2'	79° 25.6'	+6 00	+6 13	*0.36	*1.05	1.75	2.03	1.08
2603	Weymouth Plantation	33° 27.3'	79° 12.3'	+2 16	+3 02	*0.68	*0.89	3.56	4.13	1.95
2605	Carr Creek, 1 mile above entrance	33° 27.9'	79° 11.2'	+2 13	+3 00	*0.69	*0.84	3.62	4.20	1.97
2607	South of Sam Worth Game Management Area	33° 28.1'	79° 11.3'	+2 21	+3 06	*0.69	*0.68	3.66	4.25	1.96
2609	Arundel Plantation	33° 29.0'	79° 10.7'	+2 38	+3 39	*0.53	*0.79	2.75	3.19	1.53
2611	Holly Grove Plantation	33° 33.1'	79° 10.6'	+3 20	+4 12	*0.50	*0.68	2.59	3.00	1.43
2613	Lower Topsaw Landing	33° 36.5'	79° 09.1'	+4 48	+5 20	*0.20	*0.53	0.96	1.13	0.58
2615	Yauhannah Bridge	33° 39.6'	79° 09.3'	+4 33	+5 24	*0.33	*0.68	1.66	1.91	0.96
	<i>Waccamaw River</i>									
2617	Entrance	33° 22.0'	79° 15.3'	+1 19	+2 11	*0.69	*0.58	3.60	4.14	1.91
2619	Hagley Landing	33° 26.1'	79° 10.9'	+1 58	+2 53	*0.67	*0.79	3.47	3.99	1.88
2621	Thoroughfare Creek entrance	33° 30.4'	79° 08.8'	+2 32	+3 15	*0.64	*0.89	3.34	3.94	1.84
2623	Wachesaw Landing	33° 33.6'	79° 05.1'	+3 11	+4 00	*0.53	*0.84	2.74	3.18	1.53
2625	Bull Creek entrance	33° 35.8'	79° 05.9'	+3 36	+4 22	*0.48	*0.79	2.46	2.85	1.38
2627	Little Bull Creek entrance, Bull Creek	33° 36.1'	79° 07.1'	+3 59	+4 43	*0.46	*0.84	2.35	2.73	1.33
2629	Bucksport	33° 38.8'	79° 05.7'	+4 23	+4 53	*0.43	*0.89	2.16	2.48	1.25
2631	Enterprise Landing	33° 40'	79° 04'	+5 01	+5 35	*0.38	*0.37	2.0	2.4	1.1
2633	Keysfield	33° 44.7'	79° 03.9'	+6 09	+6 20	*0.28	*0.89	1.37	1.59	0.85
2635	Pitch Landing	33° 48.0'	79° 03.3'	+7 25	+7 30	*0.20	*0.74	0.94	1.09	0.61
2637	Conway, RR. bridge	33° 50.1'	79° 02.5'	+7 19	+7 28	*0.25	*0.74	1.24	1.44	0.76
2639	Grahamville	33° 49.8'	78° 57.2'	+8 17	+8 32	*0.20	*0.58	0.97	1.13	0.60
2641	North Santee River Inlet	33° 08'	79° 15'	-0 09	+0 04	*0.85	*0.84	4.5	5.3	2.3
2643	Cedar Island, North Santee Bay	33° 08.4'	79° 14.7'	-0 03	+0 17	*0.80	*0.95	4.19	4.86	2.28
2645	Minim Creek ent., ICWW, North Santee Bay	33° 11.7'	79° 16.5'	+0 16	+1 00	*0.77	*0.95	3.98	4.70	2.18
2647	North Santee Bridge	33° 12.6'	79° 23.1'	+1 09	+1 54	*0.72	*0.74	3.8	4.2	2.0
2649	Cedar Island Point, South Santee River	33° 07.2'	79° 16.2'	-0 16	+0 08	*0.78	*0.79	4.1	4.8	2.1
2651	Brown Island, South Santee River	33° 09'	79° 20'	+0 27	+1 31	*0.78	*0.79	4.1	4.8	2.1
2653	U.S. Highway 17 bridge, South Santee River	33° 11.1'	79° 24.4'	+0 43	+1 43	*0.78	*0.95	4.07	4.68	2.20
2655	Pleasant Hill Landing, Santee River	33° 14.7'	79° 31.3'	+2 28	+3 47	*0.45	*0.74	2.30	2.71	1.29
2657	Jamestown Bridge, Santee River	33° 18.3'	79° 40.7'	+4 15	+6 30	*0.22	*0.37	1.12	1.29	0.63
2659	Cape Romain	33° 01'	79° 21'	-0 22	-0 17	*0.89	*0.89	4.7	5.5	2.5
2661	Cape Romain, 46 miles east of	33° 06'	78° 26'	-1 05	-1 13	*0.78	*0.79	4.1	4.8	2.1
2663	Casino Creek, ICWW	33° 06.5'	79° 23.6'	+0 40	+0 53	*0.87	*0.79	4.55	5.37	2.42
	<i>Bulls Bay</i>									
2665	Five Fathom Creek entrance	33° 00'	79° 30'	-0 06	-0 07	*0.93	*0.95	4.9	5.8	2.6
2667	McClellanville, Jeremy Creek	33° 04.7'	79° 27.6'	+0 31	+0 24	*0.93	*0.89	4.86	5.59	2.60
2669	Harbor River entrance	33° 02.0'	79° 32.1'	+0 03	+0 36	*0.93	*0.95	4.9	5.8	2.6
2671	Buck Hall, Awendaw Creek	33° 02.4'	79° 33.6'	+0 22	+0 37	*0.95	*1.00	4.97	5.77	2.67
2673	Jack Creek entrance	32° 56'	79° 35'	-0 14	-0 15	*0.95	*0.95	5.0	5.9	2.7
2675	Wharf Creek entrance	32° 55'	79° 37'	+0 12	-0 08	*0.97	*0.95	5.1	6.0	2.7
2677	Moore's Landing, ICWW, Sewee Bay	32° 56.2'	79° 39.3'	+0 11	+0 08	*0.96	*1.00	5.04	5.85	2.71
2679	Price Creek, North Capers Island	32° 52.9'	79° 39.5'	-0 01	-0 21	*0.92	*0.89	4.80	5.52	2.57
2681	Old Capers Landing, Santee Pass, Capers Island	32° 52.2'	79° 41.2'	+0 21	-0 09	*0.94	*0.84	4.93	5.67	2.62
2683	North Dewees Island, Capers Inlet	32° 51.0'	79° 42.2'	-0 02	-0 11	*0.91	*0.95	4.76	5.62	2.56
2685	Capers Creek, South Capers Island	32° 51.4'	79° 42.4'	+0 04	-0 15	*0.94	*0.95	4.89	5.62	2.63
2687	South Dewees Island, Dewees Inlet	32° 50.0'	79° 43.6'	-0 01	-0 17	*0.94	*0.89	4.93	5.67	2.63
2689	Hamlin Sound	32° 49.6'	79° 47.2'	+0 13	-0 13	*0.99	*1.00	5.19	5.97	2.78
2691	Isle of Palms Pier	32° 47.0'	79° 47.1'	-0 25	-0 28	*0.95	*0.89	4.94	5.68	2.65
2693	Hamlin Creek, Isle of Palms	32° 47.2'	79° 47.5'	+0 06	-0 12	*0.97	*1.00	5.04	5.80	2.71
2695	Breach Inlet, Isle of Palms	32° 46.6'	79° 48.7'	-0 05	-0 14	*0.95	*1.05	4.94	5.68	2.66
2697	Sullivans Island (outer coast)	32° 46'	79° 50'	-0 08	-0 12	*0.99	*1.00	5.2	6.1	2.8
2699	Ben Sawyer Bridge, ICWW	32° 46.4'	79° 50.5'	+0 06	-0 12	*0.97	*1.00	5.05	5.81	2.71
	<i>Charleston Harbor</i>									
2701	Fort Sumter	32° 45.2'	79° 52.6'	+0 02	-0 01	*0.97	*0.95	5.09	5.90	2.72
2703	The Cove, Fort Moultrie	32° 45.8'	79° 51.4'	-0 01	-0 10	*0.97	*0.95	5.08	5.84	2.72
2705	Fort Johnson	32° 45.1'	79° 53.9'	-0 05	-0 02	*0.97	*1.00	5.09	5.90	2.74
2707	Shem Creek	32° 47.6'	79° 52.9'	-0 02	-0 03	*0.99	*1.00	5.20	6.03	2.79
2709	CHARLESTON (Customhouse Wharf)	32° 46.9'	79° 55.5'			<i>Daily predictions</i>		5.22	6.15	2.80
2711	Shipyard Creek, 0.8 mile above entrance.	32° 50'	79° 57'	+0 34	+0 20	*1.01	*1.00	5.3	6.1	2.8
	<i>Cooper River</i>									
2713	Clouter Creek, south entrance	32° 51.6'	79° 56.3'	+0 25	+0 19	*1.02	*1.00	5.35	6.31	2.87
2715	Goose Creek entrance	32° 54.6'	79° 57.1'	+0 42	+0 33	*1.04	*1.00	5.41	6.22	2.90
2717	Yeamans Hall, Goose Creek	32° 55.5'	79° 59.2'	+2 06	+1 31	*1.00	*1.37	5.14	6.07	2.84
2719	Hanahan, Turkey Creek, Goose Creek	32° 55.1'	80° 00.7'	+2 51	+2 13	*0.90	*0.79	4.70	5.55	2.50
2721	Clouter Creek, north entrance	32° 54.4'	79° 56.1'	+0 45	+0 33	*1.04	*1.00	5.43	6.41	2.91
2723	Snow Point, 0.4 mi. North of	32° 56.9'	79° 55.9'	+0 59	+0 45	*1.02	*1.05	5.31	6.10	2.86
2725	General Dynamics Pier	33° 00.5'	79° 55.4'	+1 40	+1 24	*0.84	*1.11	4.35	5.03	2.39
2727	Dupont, Dean Hall	33° 03.5'	79° 56.2'	+2 21	+2 07	*0.68	*1.58	3.43	3.98	2.01
2729	Bonneau Ferry, East Branch	33° 04.3'	79° 53.0'	+3 14	+2 49	*0.63	*1.79	3.11	3.61	1.90
2731	Blessing Plantation, East Branch	33° 03.3'	79° 52.8'	+3 24	+3 20	*0.56	*1.32	2.79	3.29	1.64
2733	Richmond Plantation, East Branch	33° 04.6'	79° 51.3'	+3 43	+3 43	*0.54	*1.37	2.67	3.07	1.59
2735	Quinby Creek bridge, East Branch	33° 05.7'	79° 48.5'	+4 37	+4 12	*0.56	*1.42	2.75	3.25	1.65
2737	Huger Landing, East Branch	33° 07.8'	79° 48.7'	+4 46	---	---	---	---	---	---
2739	Old Rice Mill, West Branch	33° 04.7'	79° 55.5'	+2 56	+2 51	*0.53	*1.63	2.60	3.02	1.61
2741	Back River Reservoir, West Branch	32° 59.7'	79° 56.2'	+5 44	+5 57	*0.17	*0.79	0.78	0.90	0.54
2743	Pimlico, West Branch	33° 05.7'	79° 57.2'	+3 19	+3 53	*0.34	*0.89	1.69	1.94	1.01

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			
	SOUTH CAROLINA Charleston Harbor-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Charleston, p.144						
	<i>Wando River</i>									
2745	Hobcaw Point	32° 49.3'	79° 54.0'	+0 19	+0 13	*1.03	*0.95	5.39	6.20	2.88
2747	Parker Island, Horlbeck Creek	32° 53.1'	79° 50.7'	+0 43	+0 27	*1.09	*1.11	5.70	6.73	3.06
2749	Nowell Creek	32° 54.0'	79° 54.0'	+0 47	+0 23	*1.13	*1.05	5.91	6.80	3.16
2751	Cainhoy	32° 55.6'	79° 49.8'	+0 49	+0 31	*1.15	*1.00	6.02	6.92	3.20
2753	Big Paradise Island	32° 54.9'	79° 44.8'	+1 24	+0 52	*1.24	*1.11	6.48	7.45	3.45
2755	Woodville	32° 55.2'	79° 44.0'	+2 07	+1 22	*1.19	*1.19	6.3	7.3	3.4
	<i>Ashley River</i>									
2757	James Island Creek, 1 mi. above ent.	32° 44.7'	79° 56.9'	+0 17	+0 07	*1.02	*1.05	5.36	6.22	2.88
2759	Wappoo Creek, highway bridge	32° 46.0'	79° 58.4'	+0 22	+0 22	*0.99	*0.99	5.2	6.0	2.8
2761	South Ashley Bridge	32° 47.0'	79° 57.4'	+0 04	+0 07	*1.01	*1.05	5.34	6.19	2.87
2763	Duck Island	32° 49.8'	79° 58.0'	+0 23	+0 17	*1.06	*1.06	5.6	6.5	3.0
2765	Cosgrove Bridge	32° 50.1'	79° 59.2'	+0 25	+0 17	*1.07	*1.05	5.57	6.57	2.99
2767	I-526 bridge	32° 50.2'	80° 01.3'	+0 30	+0 29	*1.08	*1.11	5.68	6.53	3.05
2769	Drayton, Bee's Ferry	32° 50.9'	80° 03.1'	+0 41	+0 39	*1.09	*1.05	5.69	6.54	3.05
2771	Magnolia Gardens	32° 52.6'	80° 04.9'	+1 02	+0 54	*1.10	*1.05	5.79	6.72	3.10
2773	Greggs Landing, Mateeba Gardens	32° 55.7'	80° 09.3'	+2 06	+1 42	*1.15	*1.16	6.06	7.03	3.25
2775	Bacon Bridge	32° 57.5'	80° 12.2'	+2 45	+3 41	*0.39	*0.16	2.10	2.48	1.08
	Outer Coast									
2777	Secessionville, Secessionville Creek	32° 42.4'	79° 56.2'	+0 22	---	---	---	--	--	--
2779	Folly Island (outer coast)	32° 39'	79° 56'	-0 08	-0 14	*0.98	*1.00	5.2	6.1	2.8
2781	Folly River Bridge, Folly Island	32° 39.7'	79° 56.7'	+0 21	-0 03	*1.01	*0.95	5.27	6.06	2.22
2783	Folly Creek, Hwy. 171 bridge	32° 40.5'	79° 57.1'	+0 25	-0 06	*1.04	*1.00	5.41	6.22	2.89
2785	Folly River, north, Folly Island	32° 40.2'	79° 55.0'	+0 24	-0 05	*1.03	*0.95	5.38	6.19	2.87
	<i>Stono River</i>									
2787	Snake Island	32° 38.4'	80° 00.9'	+0 01	-0 12	*1.01	*1.00	5.27	6.06	2.83
2789	Abbapoola Creek entrance	32° 40.6'	80° 00.4'	+0 17	+0 02	*1.01	*0.95	5.36	6.22	2.86
2791	Elliott Cut entrance	32° 45.8'	80° 00.1'	+0 48	+0 52	*0.99	*1.16	5.14	5.91	2.79
2793	Pennys Creek, west entrance	32° 46.1'	80° 04.2'	+1 23	+1 20	*1.03	*1.32	5.32	6.12	2.91
2795	Sandblasters, Pennys Creek	32° 46.2'	80° 03.8'	+1 30	+1 18	*1.02	*1.02	5.26	6.21	2.91
2797	Limehouse Bridge	32° 47.2'	80° 06.3'	+1 43	+1 34	*1.08	*1.08	5.58	6.58	3.04
2799	Church Flats	32° 44.8'	80° 09.9'	+1 51	+1 14	*1.22	*1.16	6.37	7.33	3.41
2801	Kiawah River Bridge	32° 36.2'	80° 07.9'	+0 14	+0 06	*1.07	*0.89	5.60	6.44	2.97
	<i>North Edisto River</i>									
2803	Ocella Creek, 2 mi. above entrance	32° 33.7'	80° 14.3'	+0 32	+0 09	*1.08	*1.08	5.7	6.6	3.0
2805	Rockville, Bohicket Creek	32° 35.9'	80° 11.7'	+0 19	+0 07	*1.09	*1.11	5.76	6.68	3.09
2807	Ho-Non-Wah Boy Scout Camp, Bohicket Creek	32° 37.5'	80° 10.0'	+0 49	+0 30	*1.13	*1.11	5.93	6.82	3.17
2809	Oak Branch, Bohicket Creek	32° 41.0'	80° 05.8'	+1 39	+0 57	*1.26	*1.16	6.66	7.73	3.55
2811	Point of Pines	32° 35.1'	80° 13.7'	+0 15	+0 11	*1.08	*1.05	5.66	6.51	3.04
2813	Leadenwah Creek, 3 mi. above entrance	32° 38.2'	80° 12.1'	+0 54	+0 23	*1.15	*1.11	5.99	6.89	3.21
2815	Steamboat Landing, Steamboat Creek	32° 36.2'	80° 17.2'	+0 45	+0 25	*1.15	*1.11	6.02	6.92	3.22
2817	Windsor Plantation, Russel Creek	32° 35.9'	80° 20.7'	+1 16	+0 35	*1.21	*1.11	6.40	7.42	3.41
2819	Dawho Bridge, Dawho River	32° 38.2'	80° 20.5'	+0 56	+0 47	*1.18	*1.11	6.17	7.10	3.29
2821	Park Island, Tom Point Creek	32° 39.9'	80° 19.0'	+1 19	+0 34	*1.21	*1.21	6.40	7.42	3.43
2823	Toogoodoo Creek, 2 mi. above entrance	32° 40.1'	80° 17.6'	+1 06	+0 38	*1.21	*1.05	6.36	7.31	3.38
2825	Lower Toogoodoo Creek, 2 mi. above entrance	32° 42.2'	80° 16.7'	+1 26	+0 47	*1.29	*1.26	6.73	7.94	3.61
	<i>Wadmalaw River</i>									
2827	Bluff Point	32° 38.8'	80° 15.4'	+0 58	+0 31	*1.17	*1.11	6.13	7.05	3.28
2829	Yonges Island	32° 41.7'	80° 13.4'	+1 22	+0 45	*1.24	*1.16	6.50	7.48	3.47
2831	Johns Island, Church Creek	32° 42.4'	80° 09.4'	+1 43	+1 00	*1.30	*1.16	6.85	7.88	3.64
2833	Church Creek bridge	32° 42.9'	80° 05.5'	+1 58	+0 58	*1.30	*1.00	6.93	8.04	3.66
	on Savannah River Ent., p.148									
2835	Edisto Beach, Edisto Island	32° 30.1'	80° 17.8'	-0 21	-0 29	*0.84	*0.95	5.75	6.61	3.08
	<i>South Edisto River</i>									
2837	Edisto Marina, Big Bay Creek entrance	32° 29.6'	80° 20.4'	-0 06	-0 13	*0.86	*0.91	5.96	6.85	3.18
2839	Carters Dock, Big Bay Creek	32° 29.6'	80° 19.6'	+0 08	-0 07	*0.87	*0.91	5.97	6.87	3.18
2841	Scott Creek, 0.5 mi. above ent., Big Bay Creek	32° 30.1'	80° 19.1'	+0 29	---	---	---	--	--	--
2843	Peters Point, St. Pierre Creek	32° 32.4'	80° 20.4'	+0 22	+0 09	*0.88	*0.95	6.09	7.00	3.25
2845	Fenwick Island	32° 33.6'	80° 25.1'	+0 15	+0 25	*0.90	*1.09	6.19	7.12	3.32
2847	Pine Landing	32° 36.2'	80° 23.3'	+0 29	+0 45	*0.92	*0.95	6.29	7.30	3.36
2849	Dawho River	32° 39.4'	80° 23.5'	+1 07	+1 31	*0.89	*0.95	6.15	7.07	3.29
2851	Willtown Bluff, Edisto River	32° 40.9'	80° 25.0'	+1 34	+2 03	*0.83	*1.00	5.69	6.54	3.06
2853	Hope Creek, Edisto River	32° 42.0'	80° 25.6'	+1 46	+2 13	*0.82	*1.05	5.62	6.46	3.04
2855	Penny Creek, south of, Edisto River	32° 42.9'	80° 26.2'	+2 10	+2 43	*0.73	*1.18	4.97	5.72	2.75
2857	Jacksonboro Camp	32° 45.2'	80° 27.0'	+2 46	+3 34	*0.59	*0.86	4.04	4.65	2.21
2859	Canaday Landing, south of, Edisto River	32° 48.8'	80° 24.4'	+4 20	+5 34	*0.13	*0.32	0.84	0.97	0.49
2861	Hart Bluff, Edisto River <24>	32° 55.6'	80° 23.9'	---	---	---	---	--	--	--
	St. Helena Sound									
2863	Otter Island	32° 28.6'	80° 25.2'	+0 04	+0 07	*0.87	*0.95	6.01	6.91	3.21
2865	Johnson Creek Bridge, Hunting Island	32° 23.5'	80° 26.3'	+0 03	+0 03	*0.85	*0.86	5.88	6.76	3.13
2867	Harbor River Bridge	32° 24.2'	80° 27.2'	+0 03	-0 06	*0.88	*0.95	6.09	7.00	3.25
	<i>Ashepoo River</i>									
2869	Seabrook	32° 31.4'	80° 24.4'	+0 11	+0 18	*0.90	*0.91	6.2	7.3	3.3
2871	Ashepoo-Coosaw Cutoff, ICWW	32° 31.5'	80° 27.1'	+0 15	+0 23	*0.90	*0.91	6.20	7.19	3.30
2873	Musselboro Island, Mosquito Creek	32° 34.7'	80° 26.9'	+1 21	+0 57	*0.90	*0.91	6.22	7.15	3.31
2875	Hutchinson Island	32° 33.1'	80° 28.9'	+0 31	+0 44	*0.87	*0.91	6.01	6.97	3.20
2877	Bluff Islands	32° 34.7'	80° 29.6'	+0 46	+1 04	*0.84	*0.91	5.79	6.72	3.10

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			
	SOUTH CAROLINA St. Helena Sound-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
	on Savannah River Ent., p.148									
	<i>Ashepoo River-cont.</i>									
2879	Brickyard Ferry, swing bridge	32° 36.8'	80° 28.9'	+1 27	+1 34	*0.71	*0.86	4.82	5.59	2.60
2881	Airy Hall Plantation	32° 37.9'	80° 28.3'	+1 57	+1 59	*0.60	*1.00	4.16	4.71	2.25
2883	Ashepoo	32° 44.6'	80° 33.4'	+4 18	+4 00	*0.34	*1.05	2.18	2.53	1.32
	<i>Morgan River</i>									
2885	Village Creek Entrance	32° 26.7'	80° 30.2'	+0 17	+0 07	*0.93	*1.00	6.35	7.37	3.40
2887	Village Creek Cemetery	32° 25.0'	80° 31.2'	+0 36	+0 15	*0.94	*0.95	6.45	7.48	3.43
2889	Edding Point, Edding Creek	32° 26.8'	80° 32.0'	+0 31	+0 14	*0.93	*0.95	6.41	7.37	3.42
2891	Jenkins Creek, 1 mi. above entrance	32° 26.4'	80° 33.2'	+0 41	+0 17	*0.98	*0.95	6.80	7.82	3.61
2893	Jenkins Creek, Polawana Island	32° 25.2'	80° 34.6'	+0 55	+0 27	*1.01	*1.05	6.91	8.02	3.69
2895	Lucy Point Creek entrance	32° 27.1'	80° 36.6'	+0 53	+0 33	*0.90	*0.88	6.32	7.33	3.21
	<i>Combahee River</i>									
2897	Bowles Island, New Chehaw River	32° 33.9'	80° 31.0'	+1 02	+0 42	*0.96	*1.00	6.59	7.64	3.51
2899	Wiggins, Chehaw River	32° 36.1'	80° 32.5'	+1 45	+1 20	*0.88	*1.18	6.03	6.93	3.28
2901	Fields Point	32° 34.0'	80° 33.7'	+0 42	+0 52	*0.91	*0.91	6.2	7.3	3.3
2903	Railroad Bridge	32° 35.4'	80° 37.8'	+1 37	---	---	---	---	---	---
2905	U.S. 17 Bridge	32° 39.1'	80° 41.0'	+3 00	+2 29	*0.71	*1.14	4.83	5.55	2.66
2907	Bluff Plantation	32° 41.0'	80° 44.3'	+4 17	+3 51	*0.50	*1.59	3.12	3.59	1.95
2909	Cuckolds Creek	32° 42.8'	80° 41.7'	+4 45	+4 12	*0.51	*1.73	3.26	3.81	2.01
	<i>Coosaw River</i>									
2911	Summerhouse Point, Bull River	32° 31.6'	80° 34.4'	+0 55	+0 37	*0.96	*0.95	6.58	7.63	3.50
2913	Briars Creek ent., Wimbee Creek, Bull River	32° 34.7'	80° 40.2'	+2 06	+1 24	*0.93	*0.95	6.39	7.35	3.41
2915	Sams Point, Lucy Point Creek	32° 29.0'	80° 35.9'	+0 55	+0 45	*0.97	*0.91	6.71	7.78	3.55
2917	Brickyard Point, Brickyard Creek	32° 29.6'	80° 41.1'	+1 27	+1 19	*1.08	*0.95	7.45	8.64	3.94
2919	Whale Branch entrance	32° 31.5'	80° 40.5'	+1 27	+1 20	*1.06	*0.95	7.32	8.49	3.87
2921	Lobeco, Whale Branch	32° 34.4'	80° 44.7'	+1 40	+1 28	*1.11	*0.95	7.75	8.91	4.08
2923	Sheldon, Huspa Creek, Whale Branch	32° 35.0'	80° 47.0'	+2 11	+1 52	*1.16	*0.77	8.07	9.28	4.21
2925	Fripps Inlet, Hunting Island Bridge	32° 20.4'	80° 27.9'	-0 10	-0 22	*0.88	*0.91	6.10	7.02	3.25
	Port Royal Sound									
2927	Capers Island, Trenchards Inlet	32° 16.4'	80° 35.1'	-0 01	-0 18	*0.93	*0.95	6.37	7.39	3.39
2929	Club Bridge Creek ent., Trenchards Inlet	32° 20.1'	80° 32.5'	+0 15	-0 24	*0.99	*1.00	6.78	7.86	3.61
2931	Port Royal Plantation, Hilton Head Island	32° 13.2'	80° 40.1'	+0 01	-0 11	*0.88	*1.00	6.10	7.02	3.27
2933	The Folly, Hilton Head Island	32° 11.4'	80° 42.1'	+0 03	---	---	---	---	---	---
2935	Station Creek, west end	32° 16.8'	80° 38.3'	+0 16	+0 13	*0.96	*0.91	6.62	7.68	3.51
2937	Station Creek, County Landing	32° 19.5'	80° 36.1'	+0 27	-0 16	*0.99	*1.00	6.84	7.87	3.64
	<i>Beaufort River</i>									
2939	Fort Fremont	32° 18.4'	80° 38.7'	+0 19	+0 17	*0.95	*0.64	6.63	7.69	3.45
2941	Parris Island, Marine Corps Recruit Depot	32° 21.0'	80° 40.1'	+0 37	+0 26	*1.02	*0.91	7.02	8.14	3.71
2943	Distant Island, Cowen Creek	32° 22.7'	80° 38.0'	+0 43	+0 27	*1.06	*1.05	7.29	8.46	3.87
2945	Distant Island Creek, upper end, Cowen Creek	32° 24.1'	80° 39.2'	+1 00	+1 08	*0.98	*0.36	6.92	7.96	3.54
2947	Capers Creek, Cowen Creek, St. Helena Island	32° 22.3'	80° 36.3'	+0 58	+0 34	*1.08	*0.95	7.44	8.63	3.93
2949	Cowen Creek, Rt. 21 bridge	32° 23.9'	80° 37.0'	+0 55	+0 58	*1.00	*0.55	6.97	8.09	3.61
2951	Battery Creek, 4 mi. above entrance	32° 24.8'	80° 42.0'	+1 14	+0 37	*1.10	*0.91	7.64	8.79	4.02
2953	Beaufort	32° 25.8'	80° 40.5'	+1 09	+0 51	*1.07	*0.95	7.39	8.17	3.90
2955	Marine Corps Air Station, Brickyard Creek	32° 27.9'	80° 41.5'	+1 27	+1 11	*1.10	*0.95	7.62	8.84	4.02
2957	Albergottie Creek, Rt. 21 bridge	32° 27.0'	80° 43.9'	+1 48	+2 02	*0.98	*0.45	6.83	7.92	3.52
2959	Skull Creek, north entrance, Hilton Head Island	32° 16.0'	80° 44.2'	+0 15	+0 16	*0.99	*0.91	6.83	7.85	3.62
2961	Skull Creek, south entrance, Hilton Head Island	32° 13.4'	80° 46.3'	+0 34	+0 23	*1.05	*1.05	7.28	8.37	3.87
2963	Pinckney Island, Mackay Creek, Chechessee River	32° 15.6'	80° 46.0'	+0 36	+0 25	*1.04	*0.91	7.21	8.36	3.80
2965	Colleton River Entrance	32° 19.3'	80° 47.5'	+0 49	+0 37	*1.05	*1.05	7.2	8.4	3.8
2967	Callawassie Creek, Colleton River	32° 19.0'	80° 50.5'	+1 15	+0 53	*1.13	*1.14	7.8	9.1	4.1
2969	Callawassie Island, south, Colleton River	32° 18.8'	80° 51.6'	+1 09	+0 40	*1.19	*1.11	7.7	9.0	4.1
2971	Callawassie Island Bridge, Colleton River	32° 20.5'	80° 51.4'	+1 12	+0 49	*1.13	*1.14	7.8	9.1	4.2
2973	Baileys Landing, Okatee River, Colleton River	32° 20.8'	80° 53.4'	+1 25	+0 57	*1.17	*1.05	8.09	9.30	4.28
2975	Chechessee Bluff, Chechessee River	32° 22.4'	80° 50.2'	+1 06	+0 48	*1.10	*1.00	7.62	8.84	4.03
	<i>Broad River</i>									
2977	Hwy. 170 bridge	32° 23.2'	80° 46.6'	+0 51	+0 45	*1.06	*0.91	7.35	8.45	3.88
2979	Broughton Point, Hazzard Creek	32° 24.6'	80° 53.1'	+1 34	+1 30	*1.10	*0.82	7.61	8.83	3.99
2981	Euhaw Creek, 2.5 mi. above entrance	32° 26.1'	80° 51.1'	+1 33	+1 09	*1.14	*0.91	7.92	9.19	4.16
2983	Salvesbarg Landing, West Branch Boyds Creek	32° 28.5'	80° 51.0'	+1 29	---	---	---	---	---	---
2985	Pilot Island, West Branch Boyds Creek	32° 30.3'	80° 51.8'	+1 50	+1 24	*1.15	*0.91	7.98	9.26	4.19
2987	Corning Landing, Whale Branch	32° 30.0'	80° 47.1'	+1 37	+1 25	*1.15	*0.77	8.00	9.28	4.17
2989	RR. Bridge, Hall Island	32° 31.3'	80° 50.3'	+1 39	+1 24	*1.17	*1.05	8.08	9.37	4.27
2991	Pocotaligo River, 4 mi. above entrance	32° 35.7'	80° 49.9'	+2 21	+1 48	---	---	---	---	---
2993	North Dawson Landing, Coosawhatchie River	32° 33.7'	80° 54.6'	+2 34	+2 10	*1.12	*1.14	7.71	8.94	4.10
2995	Tulifiny River, I-95 bridge	32° 36.1'	80° 54.2'	+3 24	+3 31	*0.73	*0.73	5.01	5.81	2.66
	Calibogue Sound									
2997	Braddock Point, Hilton Head Island	32° 06.8'	80° 49.8'	+0 05	-0 02	*0.98	*1.00	6.74	7.82	3.59
2999	Calibogue Cay, Broad Creek, Hilton Head Island	32° 09.2'	80° 47.7'	+0 20	+0 09	*1.04	*1.00	7.13	8.27	3.79
3001	Broad Creek, Hilton Head Island	32° 11.1'	80° 45.2'	+0 33	+0 17	*1.08	*1.05	7.48	8.60	3.97
3003	Haig Point, Daufuskie Island, Cooper River	32° 08.8'	80° 50.2'	+0 20	+0 10	*1.02	*1.00	7.05	8.18	3.74
3005	Bull Creek, Bull Island South, Cooper River	32° 09.9'	80° 51.4'	+0 28	+0 12	*1.05	*1.05	7.23	8.39	3.84
3007	Pine Island, Ramshorn Creek, Cooper River	32° 07.3'	80° 53.9'	+0 34	+0 28	*1.03	*0.91	7.17	8.25	3.78
3009	Savage I., Savage Creek, Bull Creek	32° 11.1'	80° 51.6'	+0 46	+0 19	*1.10	*1.00	7.56	8.77	4.00
	<i>May River</i>									
3011	Moreland Cemetery	32° 10.5'	80° 53.5'	+0 49	+0 23	*1.11	*0.77	7.73	8.97	4.04
3013	Bull Island North	32° 12.0'	80° 48.9'	+0 40	+0 25	*1.09	*1.05	7.52	8.72	3.99
3015	Bluffton	32° 13.8'	80° 51.7'	+1 00	+0 37	*1.16	*1.05	8.01	9.29	4.23
3017	Rose Dew Creek	32° 13.2'	80° 55.2'	+1 19	---	---	---	---	---	---

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			
	SOUTH CAROLINA Calibogue Sound-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
	<i>New River</i>			on Savannah River Ent., p.148						
3019	Bloody Point, Daufuskie Island	32° 04.9'	80° 52.7'	+0 01	+0 19	*0.98	*0.91	6.77	7.79	3.59
3021	Hargray Pier, Daufuskie Island	32° 05.9'	80° 53.9'	+0 19	+0 27	*1.01	*1.05	6.96	8.07	3.71
3023	Daufuskie Landing, Daufuskie Island	32° 06.2'	80° 53.7'	+0 30	+0 33	*1.01	*0.95	7.02	8.07	3.72
3025	Doughboy Island	32° 08.3'	80° 55.9'	+1 04	+1 06	*1.01	*1.05	6.96	8.07	3.71
3027	Good Hope Landing, south of	32° 10.6'	80° 58.0'	+2 19	+2 06	*0.85	*1.55	5.71	6.62	3.20
3029	Cook Landing Cemetery	32° 11.7'	81° 00.0'	+3 09	+3 00	*0.69	*1.41	4.58	5.31	2.60
3031	Rt. 170 bridge	32° 14.2'	81° 00.7'	+4 12	+3 53	*0.51	*0.51	3.33	3.83	2.01
3033	Fields Cut, Wright River	32° 05.2'	80° 56.0'	+0 16	+0 29	*1.02	*1.05	6.98	8.10	3.72
3035	Turnbridge Landing, Salt Water Creek	32° 07.7'	81° 00.7'	+1 41	+0 59	*1.06	*1.09	7.27	8.43	3.87
	GEORGIA Savannah River									
3037	Tybee Light	32° 02'	80° 51'	-0 10	-0 12	*0.99	*0.99	6.8	8.0	3.6
3039	SAVANNAH RIVER ENTRANCE, FORT PULASKI	32° 02.0'	80° 54.1'			<i>Daily predictions</i>		6.92	8.03	3.67
3041	Fort Jackson	32° 04.9'	81° 02.2'	+0 29	+0 42	*1.09	*1.09	7.50	8.70	4.04
3043	Savannah, Bull Street	32° 05'	81° 05'	+0 44	+0 33	*1.14	*1.14	7.9	8.8	4.2
3045	Port Wentworth	32° 08.6'	81° 08.5'	+0 44	+0 41	*1.17	*0.95	8.14	9.12	4.28
3047	Little Back River, Hwy. 17, Back River, S.C.	32° 09.9'	81° 07.8'	+1 28	+1 41	*1.10	*1.14	7.63	8.55	4.06
3049	S.C.L. RR. bridge	32° 14'	81° 09'	+1 51	+3 08	*0.90	*0.91	6.2	7.2	3.3
3051	Purrysburg Landing, S.C.	32° 18.2'	81° 07.3'	+2 14	+3 38	*0.44	*0.41	3.03	3.48	1.60
	<i>Tybee Creek and Wassaw Sound</i>									
3053	Tybee Creek entrance	31° 59'	80° 51'	-0 09	+0 05	*0.99	*1.00	6.8	8.0	3.6
3055	Beach Hammock	31° 57'	80° 56'	-0 01	-0 07	*1.00	*1.00	6.9	8.1	3.7
3057	Romerly Marsh Creek	31° 56'	81° 00'	+0 08	-0 03	*1.03	*1.03	7.1	8.3	3.7
	<i>Wilmington River</i>									
3059	Savannah Sheraton Resort Hotel	32° 00'	81° 00'	+0 14	+0 06	*1.13	*1.14	7.8	9.1	4.2
3061	Thunderbolt	32° 02'	81° 03'	+0 32	+0 12	*1.15	*1.14	7.9	9.2	4.2
3063	North entrance	32° 04'	81° 00'	+0 40	+0 44	*1.10	*1.09	7.6	8.9	4.0
3065	Isle of Hope, Skidaway River	31° 59'	81° 03'	+0 50	+0 28	*1.13	*1.13	7.8	9.1	4.1
	<i>Ossabaw Sound</i>									
3067	Egg Islands	31° 50'	81° 05'	+0 04	+0 10	*1.04	*1.04	7.2	8.4	3.8
3069	Vernon View, Burnside River	31° 56'	81° 06'	+0 40	+0 31	*1.09	*1.09	7.5	8.8	4.0
3071	Coffee Bluff, Forest River	31° 56'	81° 09'	+1 05	+0 42	*1.09	*1.09	7.5	8.8	3.9
3073	Fort McAllister, Ogeechee River	31° 53'	81° 13'	+0 48	+1 16	*1.00	*1.00	6.9	8.1	3.6
3075	Highway bridge, Ogeechee River	31° 59'	81° 17'	+3 19	+4 25	*0.15	*0.14	1.0	1.2	0.5
3077	Florida Passage, Ogeechee River	31° 51'	81° 09'	+0 34	+0 46	*1.05	*0.91	7.3	8.5	3.8
3079	Florida Passage, Bear River	31° 49'	81° 10'	+0 46	+0 49	*1.09	*0.95	7.6	8.8	4.0
3081	Cane Patch Creek entrance	31° 49'	81° 09'	+0 55	+0 43	*1.05	*1.05	7.2	8.4	3.8
3083	Bradley Point, Bradley River	31° 49'	81° 03'	+0 04	+0 13	*1.02	*0.95	7.0	8.2	3.7
	<i>St. Catherines and Sapelo Sounds</i>									
3085	Walburg Creek entrance	31° 42'	81° 09'	+0 16	+0 21	*1.03	*1.00	7.1	8.3	3.8
3087	Kilkenny Club, Kilkenny Creek	31° 47'	81° 12'	+0 48	+0 37	*1.09	*0.91	7.5	8.8	4.0
3089	Bear River, (Range 'A' Light)	31° 47.6'	81° 10.9'	+0 42	+0 29	*1.06	*0.95	7.36	8.46	3.89
3091	Bear River Entrance	31° 43.3'	81° 08.5'	+0 10	+0 13	*1.00	*0.86	6.97	8.12	3.67
3093	Sunbury, Medway River	31° 46.0'	81° 16.7'	+0 55	+0 49	*1.05	*1.00	7.28	8.27	3.87
3095	Belfast, Belfast River	31° 49'	81° 18'	+1 23	+1 10	*1.13	*1.14	7.8	9.1	4.2
3097	North Newport River (Daymark 119)	31° 41'	81° 12'	+0 35	+0 31	*1.05	*1.00	7.2	8.4	3.8
3099	North Newport River	31° 40'	81° 16'	+0 56	+0 36	*1.10	*1.09	7.6	8.9	4.0
3101	South Newport Cut, N. Newport River	31° 40'	81° 16'	+1 01	+0 54	*1.08	*1.04	7.5	8.7	4.0
3103	Halfmoon, Timmons River	31° 41.7'	81° 16.3'	+1 21	+1 09	*1.06	*1.05	7.35	8.45	3.90
3105	Eagle Neck, South Newport River	31° 39'	81° 18'	+1 16	+1 06	*1.09	*1.00	7.5	8.8	4.0
3107	Thomas Landing, S. Newport River	31° 39'	81° 15'	+0 57	+0 46	*1.06	*0.95	7.4	8.6	3.9
3109	South Newport River (Daymark 135)	31° 34.5'	81° 11.4'	+0 22	+0 13	*1.00	*0.95	7.11	7.99	3.66
3111	Dallas Bluff, Julienton River	31° 35'	81° 19'	+0 48	+1 04	*1.10	*1.09	7.6	8.9	4.0
3113	Harris Neck, Barbour Island River	31° 37'	81° 16'	+0 54	+0 32	*1.08	*1.00	7.5	8.8	4.0
3115	Barbour Island, Barbour Island River	31° 35'	81° 14'	+0 36	+0 24	*1.06	*1.00	7.3	8.5	3.9
3117	Blackbeard Island	31° 32'	81° 12'	+0 18	+0 22	*1.00	*1.00	6.9	8.1	3.6
3119	Dog Hammock, Sapelo River	31° 32'	81° 16'	+0 33	+0 22	*1.04	*0.91	7.2	8.4	3.8
3121	Bellville Point, Sapelo River	31° 32'	81° 22'	+1 12	+1 02	*1.08	*0.86	7.5	8.8	3.9
3123	Pine Harbor, Sapelo River	31° 33'	81° 22'	+1 03	+1 04	*1.05	*1.05	7.2	8.4	3.8
3125	Eagle Creek, Mud River	31° 31'	81° 17'	+0 21	+0 19	*1.05	*1.05	7.2	8.4	3.8
3127	Creighton Narrows Entrance, Crescent River	31° 29'	81° 20'	+0 49	+0 37	*1.08	*1.09	7.4	8.6	4.0
3129	Mud River, Old Teakettle Cr.(Daymark 156)	31° 29.2'	81° 19.2'	+0 46	+0 33	*1.08	*1.00	7.50	8.43	3.97
	<i>Doboy and Altamaha Sounds</i>									
3131	Old Tea Kettle Creek (Daymark 173)	31° 26'	81° 18'	+0 39	+0 39	*0.96	*0.82	6.7	7.8	3.5
3133	Blackbeard Creek, Blackbeard Island	31° 29'	81° 13'	+0 19	+0 47	*0.94	*0.95	6.5	7.6	3.5
3135	Old Tower, Sapelo Island	31° 23.4'	81° 17.3'	+0 15	+0 14	*0.99	*0.95	6.82	7.84	3.62
3137	Hudson Creek entrance	31° 27'	81° 21'	+0 37	+0 31	*1.05	*1.05	7.2	8.4	3.8
3139	Threemile Cut entrance, Darien River	31° 21'	81° 23'	+0 44	+0 55	*1.03	*1.05	7.1	8.3	3.7
3141	Darien, Darien River	31° 22'	81° 26'	+1 08	+1 15	*1.06	*1.05	7.3	8.5	3.9
3143	Rockdedundy River (Daymark 185)	31° 22.4'	81° 20.0'	+0 25	+0 26	*1.00	*1.00	6.86	8.03	3.68
3145	Wolf Island, south end	31° 20'	81° 19'	+0 25	+0 45	*0.97	*1.09	6.7	7.8	3.6

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	Spring	
				High Water	Low Water	High Water	Low Water			
	GEORGIA Doboy and Altamaha Sounds-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Savannah River Ent., p.148						
3147	Champney Island, South Altamaha River	31° 20'	81° 28'	+1 10	+2 33	*0.76	*0.77	5.2	6.1	2.8
3149	Hampton River entrance	31° 13'	81° 19'	+0 16	+0 04	*0.96	*0.95	6.6	7.8	3.5
3151	Jones Creek entrance, Hampton River	31° 18'	81° 20'	+1 03	+0 13	*1.05	*1.05	7.2	8.5	3.8
	St. Simons Sound									
3153	St. Simons Sound Bar	31° 06'	81° 19'	-0 01	-0 02	*0.95	*0.95	6.5	7.6	3.4
3155	St. Simons Light	31° 07.9'	81° 23.8'	+0 14	+0 16	*0.95	*0.91	6.60	7.72	3.50
3157	Frederick River Bridge	31° 10'	81° 25'	+0 43	+0 45	*1.00	*1.09	6.9	8.0	3.7
3159	Frederica River	31° 13'	81° 24'	+0 48	+0 56	*1.05	*1.05	7.2	8.4	3.8
3161	Mackay River (Daymark 239)	31° 13'	81° 26'	+0 58	+0 56	*1.03	*1.09	7.1	8.3	3.8
3163	Mackay River (ICWW), Buttermilk Sound	31° 17.1'	81° 23.1'	+0 58	+1 23	*1.00	*1.09	6.87	7.90	3.68
3165	Brunswick, East River, Howe Street Pier	31° 08.6'	81° 29.8'	+0 44	+0 35	*1.03	*1.00	7.13	8.27	3.78
	Turtle River									
3167	Crispen Island	31° 13'	81° 33'	+1 33	+0 55	*1.15	*1.05	7.9	9.3	4.2
3169	Allied Chemical Corp. docks	31° 11'	81° 31'	+1 03	+0 42	*1.10	*1.09	7.6	8.9	4.0
3171	Dillard Creek	31° 14'	81° 34'	+1 32	+1 02	*1.16	*1.18	8.0	9.4	4.3
3173	Buffalo River entrance	31° 13'	81° 35'	+1 37	+0 58	*1.16	*1.18	8.0	9.4	4.3
3175	Highway bridge, South Brunswick River	31° 09'	81° 34'	+1 07	+0 49	*1.10	*1.09	7.6	8.9	4.0
	St. Andrew Sound									
				on Fernandina Beach, p.152						
3177	Raccoon Key Spit	31° 00.8'	81° 27.3'	-0 19	+0 09	*1.09	*1.11	6.56	7.63	3.49
3179	Jekyll Island Marina, Jekyll Creek	31° 03.4'	81° 25.4'	+0 03	+0 36	*1.13	*1.16	6.83	7.85	3.63
3181	Jointer Island, Jointer Creek	31° 06'	81° 30'	+0 11	+0 31	*1.18	*1.18	7.2	8.4	3.8
	Little Satilla River									
3183	2.5 miles above mouth	31° 04'	81° 30'	-0 04	+0 31	*1.12	*1.12	6.8	7.9	3.6
3185	8 miles above mouth	31° 06'	81° 34'	+0 24	+1 02	*1.20	*1.20	7.3	8.5	3.8
3187	Below Spring Bluff	31° 10'	81° 37'	+1 09	+1 31	*1.23	*1.23	7.5	8.7	3.9
3189	Dover Bluff, Dover Creek	31° 01'	81° 32'	+0 06	+0 31	*1.15	*1.15	7.0	8.1	3.7
	Satilla River									
3191	Todd Creek entrance	30° 58'	81° 31'	-0 08	+0 41	*1.10	*1.10	6.7	7.8	3.5
3193	Bailey Cut, 0.8 mile west of	30° 59.1'	81° 35.5'	+0 28	+1 12	*1.13	*1.21	6.80	7.39	3.62
3195	Ceylon	30° 58'	81° 39'	+0 34	+1 35	*1.09	*1.09	6.6	7.7	3.5
3197	Burnt Fort	30° 57'	81° 54'	+3 55	+5 05	*0.53	*0.53	3.2	3.7	1.7
3199	Cumberland Wharf, Cumberland River	30° 55.8'	81° 26.8'	+0 00	+0 26	*1.12	*1.12	6.8	7.9	3.6
3201	Floyd Creek, 2.8 miles above entrance	30° 56'	81° 30'	+0 08	+0 21	*1.17	*1.17	7.1	8.2	3.7
	GEORGIA and FLORIDA Cumberland Sound									
3203	St. Marys Entrance, North Jetty	30° 43'	81° 26'	-0 36	-0 03	*0.96	*0.96	5.8	6.7	3.1
3205	Kings Bay, Navy Base	30° 48.1'	81° 30.9'	+0 12	+0 10	*1.09	*1.05	6.43	7.39	3.42
3207	Beach Creek ent., Cumberland Island	30° 43.6'	81° 28.6'	+0 00	-0 04	*0.98	*0.95	5.92	6.81	3.14
3209	Seacamp Dock, Cumberland Island	30° 45.8'	81° 28.3'	+0 12	+0 16	*1.04	*1.05	6.23	7.16	3.31
3211	Crooked River, Cumberland Dividings	30° 50.6'	81° 29.2'	+0 44	+0 56	*1.12	*1.12	6.8	7.9	3.6
3213	Harrietts Bluff, Crooked River	30° 52.2'	81° 35.1'	+1 29	+1 56	*1.05	*1.05	6.4	7.4	3.4
	St. Marys River									
3215	St. Marys	30° 43.2'	81° 32.9'	+0 38	+0 45	*0.98	*1.05	5.86	6.74	3.13
3217	Crandall	30° 43.3'	81° 37.3'	+1 06	+1 25	*0.81	*1.00	4.84	5.57	2.61
3219	U.S. Highway 17	30° 44.5'	81° 41.3'	+2 30	---	---	---	---	---	---
3221	Little St. Marys River	30° 43.9'	81° 43.6'	+2 49	+2 36	*0.71	*0.79	4.27	4.91	2.29
3223	Kings Ferry	30° 47.2'	81° 50.4'	+4 05	+4 09	*0.49	*1.16	2.83	3.25	1.63
3225	Chester, Bells River	30° 41.0'	81° 32.0'	+0 27	+0 19	*1.04	*1.11	6.27	7.21	3.34
3227	Roses Bluff, Bells River	30° 42.2'	81° 34.6'	+0 35	+0 35	*1.03	*0.95	6.18	7.11	3.28
3229	Lofton, Lanceford Creek	30° 38.6'	81° 31.4'	+0 18	-0 01	*1.05	*1.05	6.33	7.28	3.36
3231	FERNANDINA BEACH, Amelia River	30° 40.5'	81° 27.9'	<i>Daily Predictions</i>				6.02	7.07	3.20
3233	Kingsley Creek, RR. bridge	30° 37.9'	81° 28.6'	+0 27	+0 25	*0.99	*1.00	5.97	6.87	3.18
	FLORIDA Nassau Sound and Fort George River									
3235	Amelia City, South Amelia River	30° 35.2'	81° 27.8'	+0 21	+0 42	*0.89	*0.89	5.39	6.20	2.86
	Nassau River									
3237	entrance	30° 31.1'	81° 27.2'	-0 18	+0 41	*0.86	*1.00	5.16	5.93	2.77
3239	Nassauville	30° 34.1'	81° 30.9'	+0 24	+1 09	*0.80	*1.00	4.75	5.46	2.56
3241	Tiger Point, Pumpkin Hill Creek	30° 30.1'	81° 29.7'	+1 22	+1 46	*0.82	*0.95	4.89	5.62	2.63
3243	Edwards Creek, 1 mi. above entrance	30° 30.1'	81° 32.5'	+1 24	+1 51	*0.77	*0.85	4.62	5.36	2.48
3245	Cuno, Lofton Creek	30° 34.6'	81° 34.3'	+2 14	+2 48	*0.60	*1.05	3.55	4.12	1.98
3247	Mink Creek entrance	30° 32.2'	81° 34.9'	+1 13	+2 05	*0.72	*1.05	4.26	4.90	2.33
3249	Halfmoon Island, highway bridge	30° 34.6'	81° 36.5'	+2 00	+2 39	*0.70	*1.05	4.16	4.78	2.28
3251	Boggy Creek, 2 mi. above entrance	30° 35.3'	81° 39.8'	+3 29	+3 50	*0.49	*0.89	2.90	3.34	1.62
3253	Sawpit Creek entrance, bridge	30° 30.8'	81° 27.4'	-0 14	+0 21	*0.84	*1.00	5.05	5.81	2.71
3255	Sawpit Creek, 1 mi. above entrance	30° 30.2'	81° 28.3'	+0 05	+0 31	*0.84	*0.74	5.08	5.84	2.68
3257	Simpson Creek, A1A highway bridge	30° 27.9'	81° 25.9'	+0 04	+0 17	*0.84	*0.63	5.08	5.84	2.66
3259	Little Talbot Island, ocean	30° 25.8'	81° 24.3'	-0 36	-0 13	*0.91	*1.00	5.45	6.27	2.91
3261	Fort George Island, Fort George River	30° 26.4'	81° 26.3'	+0 10	+0 33	*0.79	*0.74	4.78	5.50	2.53
	St. Johns River									
				on Mayport, p.156						
3263	Mayport Naval Station, Degausing Structure	30° 23.8'	81° 23.7'	-0 21	-0 04	*1.07	*1.13	4.87	5.36	2.61
3265	Mayport Naval Station, Water Treatment Dock	30° 24.0'	81° 24.8'	-0 12	-0 06	*1.03	*1.00	4.72	5.17	2.51
3267	MAYPORT (BAR PILOT DOCK)	30° 23.8'	81° 25.8'	<i>Daily predictions</i>				4.57	5.32	2.44
3269	Pablo Creek entrance	30° 22.6'	81° 26.9'	+0 29	+0 33	*0.85	*0.73	3.89	4.24	2.05

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			
	FLORIDA St. Johns River-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Mayport, p.156						
3271	Pablo Creek, ICWW bridge	30° 19.4'	81° 26.3'	+1 14	+1 20	*0.84	*1.00	3.82	4.16	2.06
3273	Sisters Creek	30° 25.0'	81° 27.2'	+0 32	+0 50	*0.95	*0.93	4.34	4.70	2.31
3275	Clapboard Creek, Pelotes Island	30° 24.4'	81° 30.6'	+0 32	+0 56	*0.79	*0.80	3.64	3.94	1.94
3277	Fulton	30° 23.4'	81° 30.4'	+0 24	+0 40	*0.80	*0.73	3.66	3.97	1.94
3279	Blount Island Bridge	30° 24.8'	81° 32.7'	+0 42	+1 05	*0.77	*0.73	3.51	3.80	1.87
3281	Dame Point	30° 23.2'	81° 33.5'	+0 42	+1 12	*0.70	*0.67	3.19	3.44	1.70
3283	Mill Cove	30° 22.2'	81° 33.5'	+0 51	---	---	---	---	---	---
3285	Cedar Heights, Broward River	30° 26.2'	81° 38.5'	+1 08	+1 53	*0.65	*0.53	2.99	3.47	1.58
3287	Jacksonville, Navy Fuel Depot	30° 24.0'	81° 37.6'	+1 14	+1 48	*0.56	*0.53	2.60	2.81	1.37
	<i>Trout River</i>									
3289	Moncrief Creek entrance	30° 23.5'	81° 39.7'	+1 11	+1 53	*0.55	*0.53	2.51	2.91	1.34
3291	Lake Forest, Ribault River	30° 23.9'	81° 41.9'	+1 13	+2 10	*0.58	*0.60	2.64	2.82	1.41
3293	Sherwood Forest	30° 25.2'	81° 43.7'	+1 42	+2 13	*0.58	*0.67	2.65	2.88	1.43
3295	Phoenix Park	30° 23.0'	81° 38.2'	+1 02	+1 47	*0.56	*0.60	2.54	2.75	1.36
3297	Jacksonville, Long Branch	30° 21.6'	81° 37.2'	+1 15	+1 54	*0.55	*0.73	2.49	2.89	1.35
3299	Little Pottsborg Creek	30° 18.6'	81° 36.6'	+1 31	+2 09	*0.44	*0.53	2.02	2.34	1.09
3301	Jacksonville, Main Street Bridge	30° 19.2'	81° 39.5'	+1 42	+2 13	*0.41	*0.73	1.83	2.03	1.03
3303	Ortega River entrance	30° 16.7'	81° 42.3'	+2 09	+2 47	*0.25	*0.47	1.11	1.26	0.63
3305	Piney Point	30° 13.7'	81° 39.8'	+2 39	+3 36	*0.20	*0.40	0.87	1.01	0.49
3307	I-295 bridge (west end)	30° 11.5'	81° 41.5'	+2 56	+3 43	*0.21	*0.21	0.91	1.06	0.55
3309	Orange Park Landing, Orange Park	30° 10.1'	81° 41.7'	+3 24	+4 44	*0.17	*0.17	0.74	0.87	0.45
3311	Peoria Point, Doctors Lake	30° 07.2'	81° 45.5'	+3 36	+4 56	*0.18	*0.18	0.80	0.93	0.45
3313	Julington Creek	30° 08.1'	81° 37.8'	+3 58	+5 13	*0.16	*0.16	0.71	0.83	0.43
3315	Black Creek, S.C.L. RR. bridge	30° 04.8'	81° 45.7'	+4 46	+5 52	*0.18	*0.18	0.82	0.92	0.46
3317	Green Cove Springs	29° 59.4'	81° 39.8'	+4 57	+5 55	*0.17	*0.27	0.78	0.90	0.43
3319	Tocoi	29° 51.5'	81° 33.2'	+6 02	+7 03	*0.21	*0.27	0.95	1.10	0.51
3321	Palmetto Bluff	29° 45.8'	81° 33.7'	+6 35	+7 36	*0.23	*0.47	1.04	1.18	0.59
3323	Palatka	29° 38.6'	81° 37.9'	+7 11	+8 38	*0.25	*0.53	1.09	1.22	0.63
3325	Sutherlands Still, Dunns Creek	29° 34.3'	81° 36.4'	+7 35	+9 05	*0.18	*0.20	0.84	0.97	0.45
3327	Buffalo Bluff	29° 35.7'	81° 40.9'	+7 27	+8 58	*0.21	*0.40	0.93	1.03	0.52
3329	Welaka	29° 28.6'	81° 40.5'	+7 16	+8 07	*0.10	*0.27	0.43	0.50	0.25
3331	Georgetown <24>	29° 23.1'	81° 38.2'	---	---	---	---	---	---	---
	Atlantic Coast			on Fernandina Beach, p.152						
3333	Atlantic Beach	30° 20.1'	81° 23.7'	-0 41	-0 23	*0.86	*0.86	5.2	6.0	2.8
3335	Jacksonville Beach	30° 17.0'	81° 23.2'	-0 50	-0 27	*0.84	*0.84	5.07	5.83	2.70
3337	Oak Landing, ICWW	30° 15.2'	81° 25.8'	+2 15	+2 03	*0.68	*0.80	4.07	4.72	2.20
3339	Palm Valley, ICWW	30° 08.0'	81° 23.2'	+2 00	+1 49	*0.79	*0.75	4.79	5.56	2.55
3341	Vilano Beach, Tolomato River	29° 55.0'	81° 18.0'	-0 20	-0 05	*0.74	*0.90	4.48	5.20	2.42
3343	St. Augustine, city dock	29° 53.5'	81° 18.6'	-0 20	+0 01	*0.75	*0.89	4.48	5.15	2.41
3345	St. Augustine Beach	29° 51.4'	81° 15.8'	-0 51	-0 32	*0.77	*0.84	4.61	5.48	2.47
	<i>Matanzas River, ICWW</i>									
3347	State Road 312	29° 52.0'	81° 18.4'	-0 03	+0 15	*0.72	*1.00	4.31	5.04	2.34
3349	Crescent Beach	29° 46.1'	81° 15.5'	+0 39	+1 14	*0.69	*0.95	4.09	4.79	2.23
3351	Fort Matanzas	29° 42.9'	81° 14.3'	+0 03	+0 49	*0.65	*0.95	3.86	4.44	2.11
3353	Matanzas Inlet, A1A bridge	29° 42.3'	81° 13.7'	-0 26	+0 00	*0.61	*0.84	3.64	4.21	2.05
3355	Bing Landing	29° 36.9'	81° 12.3'	+2 15	+2 52	*0.26	*0.68	1.46	1.71	0.86
3357	Smith Creek, Flagler Beach	29° 28.7'	81° 08.2'	+4 33	+5 00	*0.15	*0.30	0.86	1.00	0.49
3359	Ormond Beach, Halifax River	29° 17.1'	81° 03.2'	+3 17	+4 31	*0.11	*0.45	0.60	0.70	0.39
3361	Daytona Beach Shores, Sunglow Pier	29° 08.8'	80° 57.8'	-0 56	-0 42	*0.65	*0.84	3.90	4.49	2.11
				on Miami, Government Cut, p.164						
3363	Ponce de Leon Inlet	29° 03.8'	80° 54.9'	-0 11	+0 19	*1.17	*0.92	2.76	3.37	1.48
3365	Ponce Inlet, Halifax River	29° 04.9'	80° 56.2'	+0 05	+0 33	*1.18	*1.00	2.75	3.36	1.52
	<i>Mosquito Lagoon</i>									
3367	New Smyrna Beach	29° 01.4'	80° 55.1'	+0 19	+0 49	*1.04	*1.00	2.43	2.77	1.36
3369	Packwood Place	28° 56.4'	80° 52.2'	+1 43	+2 40	*0.44	*0.44	1.06	1.24	0.56
3371	Turtle Mound	28° 55.6'	80° 49.5'	+3 01	+4 30	*0.17	*0.17	0.45	0.51	0.23
3373	Oak Hill <21>	28° 52'	80° 50'	---	---	---	---	---	---	---
3375	Cape Canaveral	28° 26'	80° 34'	-1 06	-0 44	*1.50	*1.42	3.5	4.1	2.0
3377	PORT CANAVERAL (TRIDENT PIER)	28° 24.9'	80° 35.6'	<i>Daily predictions, p.160</i>						
3379	Cocoa Beach	28° 22.1'	80° 36.0'	-1 01	-0 38	*1.47	*1.14	3.46	4.22	1.89
3381	Patrick Air Force Base	28° 14.7'	80° 36.0'	-1 04	-0 38	*1.50	*1.43	3.50	4.20	1.95
	<i>Banana River</i>									
3383	Kennedy Pkwy., Banana Creek, Merritt I. <22>	28° 35.4'	80° 39.5'	---	---	---	---	---	---	---
3385	VAB Turning Basin, Merritt Island <22>	28° 35.1'	80° 38.6'	---	---	---	---	---	---	---
3387	Orsino Causeway <22>	28° 30.8'	80° 36.7'	---	---	---	---	---	---	---
3389	Port Canaveral locks <22>	28° 24.5'	80° 38.3'	---	---	---	---	---	---	---
3391	Sykes Creek <22>	28° 24.3'	80° 41.8'	---	---	---	---	---	---	---
3393	Carter's Cut, Merritt Island <22>	28° 09.5'	80° 36.7'	---	---	---	---	---	---	---
	<i>Indian River</i>									
3395	Titusville <22>	28° 37.2'	80° 48.0'	---	---	---	---	---	---	---
3397	Williams Point <22>	28° 27.4'	80° 45.6'	---	---	---	---	---	---	---
3399	Pineda <22>	28° 12.7'	80° 39.8'	---	---	---	---	---	---	---
3401	Canova Beach	28° 08.3'	80° 34.7'	-0 53	-0 26	*1.49	*1.50	3.45	4.14	1.93
	<i>Indian River - cont.</i>									
3403	Eau Gallie <22>	28° 08.0'	80° 37.5'	---	---	---	---	---	---	---
3405	Melbourne <22>	28° 06.0'	80° 36.7'	---	---	---	---	---	---	---
3407	Palm Bay <22>	28° 02.5'	80° 34.9'	---	---	---	---	---	---	---
3409	Micco	27° 52.4'	80° 29.8'	+1 14	+2 19	*0.14	*0.57	0.26	0.31	0.21
3411	Sebastian Inlet bridge	27° 51.6'	80° 26.9'	-0 48	-0 24	*0.93	*1.00	2.16	2.64	1.22

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			
	FLORIDA Atlantic Coast-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Miami, Government Cut, p.164						
	<i>Indian River - cont.</i>									
3413	Sebastian	27° 48.7'	80° 27.8'	+1 32	+2 36	*0.15	*0.50	0.30	0.36	0.22
3415	Wabasso	27° 45.3'	80° 25.6'	+2 20	+3 24	*0.17	*0.42	0.37	0.44	0.25
3417	Vero Beach	27° 38.0'	80° 22.5'	+2 56	+3 41	*0.37	*0.79	0.80	0.96	0.51
3419	Oslo	27° 35.6'	80° 21.4'	+3 00	+3 59	*0.34	*0.50	0.77	0.92	0.46
3421	St. Lucie	27° 28.7'	80° 20.0'	+0 41	+1 46	*0.48	*1.00	1.05	1.26	0.66
3423	Vero Beach (ocean)	27° 40.2'	80° 21.6'	-0 55	-0 35	*1.45	*1.36	3.39	4.03	1.88
3425	Fort Pierce Inlet, south jetty	27° 28.2'	80° 17.3'	-0 31	-0 18	*1.14	*1.50	2.61	3.13	1.52
3427	Fort Pierce Inlet, Binney dock	27° 28.1'	80° 17.8'	-0 14	-0 01	*0.82	*1.28	1.85	2.22	1.11
	<i>Indian River - cont.</i>									
3429	Fort Pierce, North Beach Causeway	27° 28.3'	80° 19.5'	+0 21	+0 45	*0.67	*1.14	1.50	1.79	0.91
3431	Fort Pierce, South Beach Causeway	27° 27.4'	80° 19.4'	+0 35	+0 44	*0.64	*1.00	1.43	1.64	0.85
3433	Ankona	27° 21.3'	80° 16.5'	+2 16	+3 03	*0.52	*0.85	1.10	1.32	0.67
3435	Eden, Nettles Island	27° 17.2'	80° 13.6'	+2 35	+3 31	*0.45	*0.92	0.98	1.18	0.62
3437	Jensen Beach	27° 14.1'	80° 12.6'	+2 17	+3 04	*0.48	*0.92	1.05	1.26	0.65
	<i>St. Lucie River</i>									
3439	North Fork	27° 14.6'	80° 18.8'	+2 28	+3 28	*0.46	*0.92	0.99	1.19	0.63
3441	Stuart	27° 12.0'	80° 15.5'	+2 13	+3 30	*0.40	*0.86	0.88	1.06	0.56
3443	South Fork	27° 09.9'	80° 15.3'	+2 35	+3 32	*0.43	*0.92	0.93	1.12	0.59
3445	Sewall Point	27° 10.5'	80° 11.3'	+1 13	+2 10	*0.43	*0.93	0.93	1.11	0.59
3447	Port Salerno, Manatee Pocket	27° 09.1'	80° 11.7'	+0 51	+1 46	*0.42	*0.92	0.90	1.08	0.58
3449	Seminole Shores	27° 11.0'	80° 09.5'	-0 59	-0 35	*1.29	*1.28	3.00	3.60	1.68
3451	Great Pocket	27° 09.1'	80° 10.3'	+0 55	+1 42	*0.50	*1.00	1.08	1.30	0.68
3453	Peck Lake, ICWW	27° 06.8'	80° 08.7'	+1 13	+2 10	*0.58	*1.00	1.28	1.54	0.78
3455	Gomez, South Jupiter Narrows	27° 05.7'	80° 08.2'	+1 33	+2 37	*0.60	*1.07	1.32	1.58	0.81
3457	Hobe Sound bridge	27° 03.8'	80° 07.4'	+1 28	+2 25	*0.68	*1.00	1.53	1.84	0.90
3459	Hobe Sound, Jupiter Island	27° 02.2'	80° 06.4'	+1 16	+2 12	*0.75	*1.00	1.72	2.06	1.00
3461	Conch Bar, Jupiter Sound	26° 59.3'	80° 05.6'	+0 56	+1 34	*0.74	*1.07	1.68	2.02	0.99
3463	Jupiter Sound, south end	26° 57.1'	80° 04.7'	+0 22	+0 45	*0.88	*1.36	1.98	2.38	1.18
3465	Jupiter Inlet, south jetty	26° 56.6'	80° 04.4'	-0 10	-0 09	*1.08	*1.42	2.46	2.95	1.43
3467	Jupiter Inlet, U.S. Highway 1 Bridge	26° 56.9'	80° 05.1'	+0 28	+1 05	*0.86	*1.14	1.96	2.35	1.14
	<i>Loxahatchee River</i>									
3469	A1A highway bridge	26° 56.8'	80° 05.4'	+0 34	+0 54	*0.87	*1.14	2.00	2.40	1.16
3471	Tequesta	26° 57.0'	80° 06.1'	+0 59	+1 58	*0.80	*1.14	1.83	2.20	1.08
3473	Tequesta, North Fork entrance	26° 57.1'	80° 06.1'	+0 51	+1 42	*0.78	*0.92	1.80	2.16	1.03
3475	Tequesta, North Fork	26° 57.6'	80° 06.3'	+1 14	+2 13	*0.75	*1.00	1.72	2.06	1.00
3477	North Fork, 2 miles above entrance	26° 58.6'	80° 06.9'	+1 04	+1 55	*0.86	*1.14	1.95	2.34	1.14
3479	3 miles above A1A highway bridge	26° 58.2'	80° 07.5'	+0 56	+1 49	*0.86	*1.14	1.98	2.38	1.15
3481	Boy Scout Dock	26° 59.2'	80° 08.5'	+1 01	+1 57	*0.92	*1.36	2.09	2.51	1.23
3483	Southwest Fork, 0.5 mile above entrance	26° 56.6'	80° 07.2'	+0 41	+1 35	*0.89	*1.42	2.00	2.40	1.20
3485	Southwest Fork (spillway)	26° 56.1'	80° 08.6'	+0 52	+1 45	*0.86	*1.28	1.94	2.33	1.15
3487	Jupiter, Lake Worth Creek, ICWW	26° 56.1'	80° 05.1'	+0 34	+1 12	*0.91	*1.28	2.06	2.47	1.21
3489	Lake Worth Creek, Day Beacon 19, ICWW	26° 54.7'	80° 04.8'	+0 29	+1 08	*0.92	*1.21	2.10	2.52	1.22
3491	Donald Ross Bridge, ICWW	26° 52.9'	80° 04.2'	+0 20	+0 50	*1.00	*1.21	2.31	2.77	1.32
3493	PGA Boulevard Bridge, ICWW	26° 50.6'	80° 04.0'	-0 02	+0 31	*1.16	*1.36	2.68	3.22	1.53
	<i>Lake Worth</i>									
3495	North Palm Beach	26° 49.6'	80° 03.3'	-0 17	+0 15	*1.22	*1.29	2.81	3.34	1.59
3497	Port of Palm Beach	26° 46.2'	80° 03.1'	-0 21	+0 04	*1.18	*1.36	2.72	3.26	1.55
3499	Palm Beach	26° 44.0'	80° 02.5'	-0 11	+0 16	*1.17	*1.29	2.69	3.20	1.54
3501	Palm Beach, Highway 704 bridge	26° 42.3'	80° 02.7'	+0 18	+0 40	*1.10	*1.07	2.57	3.06	1.44
3503	West Palm Beach Canal	26° 38.7'	80° 02.7'	+0 48	+1 35	*1.07	*1.14	2.46	2.92	1.40
3505	Rt. 802 bridge	26° 36.8'	80° 02.8'	+0 42	+1 26	*1.18	*1.07	2.75	3.27	1.52
3507	Boynton Beach	26° 32.9'	80° 03.2'	+1 05	+2 07	*1.06	*1.07	2.47	2.94	1.38
3509	Lake Worth Pier (ocean)	26° 36.7'	80° 02.0'	-0 45	-0 19	*1.16	*1.00	2.73	3.25	1.50
3511	Ocean Ridge, ICWW	26° 31.6'	80° 03.2'	+1 16	+2 10	*1.10	*1.21	2.54	3.05	1.44
3513	Delray Beach, ICWW	26° 28.4'	80° 03.7'	+1 24	+2 07	*1.07	*1.14	2.47	2.94	1.40
3515	South Delray Beach, ICWW	26° 26.8'	80° 03.9'	+1 28	+2 03	*1.03	*1.10	2.37	2.82	1.34
3517	Yamato, ICWW	26° 24.2'	80° 04.2'	+1 22	+1 57	*1.02	*1.14	2.35	2.80	1.34
3519	Lake Wyman, ICWW	26° 22.2'	80° 04.2'	+1 24	+1 54	*0.93	*1.06	2.14	2.55	1.22
3521	Boca Raton, Lake Boca Raton	26° 20.6'	80° 04.6'	+0 23	+1 07	*0.97	*1.14	2.23	2.68	1.27
3523	Deerfield Beach, Hillsboro River	26° 18.8'	80° 04.9'	+0 28	+1 03	*1.02	*1.07	2.36	2.83	1.33
3525	Hillsboro Beach, ICWW	26° 16.5'	80° 04.8'	+0 02	+0 34	*1.06	*1.07	2.47	2.96	1.39
3527	Hillsboro Inlet, Coast Guard Light Station	26° 15.5'	80° 04.9'	-0 16	+0 03	*1.08	*1.14	2.49	2.96	1.41
3529	Hillsboro Inlet Marina	26° 15.6'	80° 05.1'	-0 06	+0 24	*1.06	*1.14	2.45	2.94	1.38
3531	Hillsboro Inlet (ocean)	26° 15.4'	80° 04.8'	-0 23	+0 00	*1.12	*1.21	2.60	3.12	1.47
3533	Lauderdale-by-the-Sea, Anglin Fishing Pier	26° 11.3'	80° 05.6'	-0 34	-0 13	*1.14	*1.28	2.64	3.17	1.50
	<i>Fort Lauderdale</i>									
3535	Bahia Mar Yacht Club	26° 06.8'	80° 06.5'	-0 05	+0 33	*1.05	*1.21	2.42	2.90	1.38
3537	Andrews Avenue bridge, New River	26° 07.1'	80° 08.7'	+0 15	+0 51	*0.92	*1.07	2.13	2.56	1.22
3539	Mayan Lake	26° 06.0'	80° 06.5'	+0 20	+1 02	*0.91	*1.00	2.11	2.53	1.19
3541	Port Everglades, Turning Basin	26° 05.5'	80° 07.4'	-0 29	-0 09	*1.09	*1.14	2.53	3.01	1.43
3543	South Port Everglades, ICWW	26° 04.9'	80° 07.0'	-0 23	-0 03	*1.10	*1.42	2.52	3.02	1.46
3545	Whiskey Creek, north end	26° 04.8'	80° 06.7'	-0 23	-0 06	*1.10	*1.28	2.52	3.02	1.44
3547	Port Laudania, Dania cut-off Canal	26° 03.6'	80° 07.8'	+0 01	+0 11	*1.00	*1.21	2.30	2.76	1.32
3549	Whiskey Creek, south entrance, ICWW	26° 03.3'	80° 06.8'	+0 04	+0 31	*0.96	*1.14	2.21	2.63	1.27
3551	Hollywood Beach, West Lake, north end	26° 02.6'	80° 07.6'	+1 08	+1 42	*0.85	*1.07	1.94	2.33	1.12
3553	Hollywood Beach, West Lake, south end	26° 02.0'	80° 07.4'	+1 02	+1 45	*0.88	*1.14	2.02	2.42	1.17
3555	Hollywood Beach	26° 02.4'	80° 06.9'	+0 37	+1 41	*0.91	*1.14	2.08	2.50	1.20
3557	Golden Beach, ICWW	25° 58.0'	80° 07.4'	+1 13	+1 57	*0.91	*1.07	2.10	2.52	1.20
3559	Dumfoundling Bay	25° 56.5'	80° 07.5'	+1 17	+2 07	*0.88	*1.00	2.02	2.40	1.15
3561	Sunny Isles, Biscayne Creek	25° 55.7'	80° 07.8'	+2 00	+2 24	*0.77	*0.71	1.8	2.2	1.0
3563	Biscayne Creek, ICWW	25° 52.8'	80° 09.8'	+0 47	+1 39	*0.93	*1.00	2.15	2.56	1.21
3565	North Miami Beach, Newport Fishing Pier	25° 55.8'	80° 07.2'	-0 22	+0 00	*1.08	*1.21	2.49	2.96	1.41
3567	Haulover Pier, N. Miami Beach	25° 54.2'	80° 07.2'	-0 29	-0 06	*1.06	*1.00	2.48	2.95	1.37

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			
	FLORIDA Atlantic Coast-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Miami, Government Cut, p.164						
3569	Bakers Haulover Inlet (inside)	25° 54.2'	80° 07.5'	+0 57	+1 37	*0.87	*0.92	2.01	2.20	1.13
3571	Indian Creek Golf Club, ICWW	25° 52.5'	80° 08.6'	+1 13	+1 46	*0.92	*0.92	2.13	2.56	1.20
3573	Miami Harbor Entrance	25° 46.1'	80° 07.9'	-0 22	-0 02	*1.07	*1.14	2.46	2.93	1.39
3575	GOVERNMENT CUT, MIAMI HARBOR ENTRANCE	25° 45.8'	80° 07.8'			<i>Daily predictions</i>		2.32	2.83	1.32
	<i>Biscayne Bay</i>									
3577	San Marino Island	25° 47.6'	80° 09.8'	+0 37	+0 58	*0.92	*1.00	2.14	2.57	1.21
3579	Miami, Miamarina	25° 46.7'	80° 11.1'	+0 20	+0 49	*0.94	*0.92	2.18	2.59	1.22
3581	Dodge Island, Fishermans Channel	25° 46.2'	80° 10.1'	+0 34	+1 10	*0.91	*1.00	2.10	2.52	1.19
3583	Dinner Key Marina	25° 43.6'	80° 14.2'	+0 54	+1 48	*0.84	*0.92	1.94	2.33	1.10
	Florida Keys									
3585	Bear Cut, Virginia Key	25° 43.9'	80° 09.7'	+0 28	+0 51	*0.88	*0.86	2.05	2.44	1.15
3587	Key Biscayne Yacht Club, Biscayne Bay	25° 41.9'	80° 10.2'	+0 44	+1 31	*0.86	*0.92	2.00	2.40	1.13
3589	Coral Shoal, Biscayne Channel	25° 39.1'	80° 09.4'	+0 11	+0 37	*0.88	*0.92	2.05	2.46	1.15
3591	Cutler, Biscayne Bay	25° 36.9'	80° 18.3'	+1 01	+1 58	*0.84	*0.92	1.94	2.22	1.10
3593	Soldier Key	25° 35'	80° 10'	+0 30	+1 16	*0.81	*0.71	1.9	2.3	1.0
3595	Ragged Keys, Biscayne Bay	25° 32.0'	80° 10.3'	+0 43	+1 18	*0.73	*1.00	1.65	1.96	0.96
3597	Boca Chita Key, Biscayne Bay	25° 31.4'	80° 10.6'	+1 01	+1 39	*0.70	*1.14	1.57	1.88	0.94
3599	Sands Key, northwest point, Biscayne Bay	25° 30.3'	80° 11.3'	+1 25	+2 26	*0.63	*0.64	1.46	1.64	0.82
3601	Coon Point, Elliott Key, Biscayne Bay	25° 28.7'	80° 11.4'	+1 55	+2 56	*0.63	*0.71	1.44	1.63	0.82
3603	Elliott Key Harbor, Elliott Key, Biscayne Bay	25° 27.2'	80° 11.8'	+1 56	+3 00	*0.64	*0.64	1.48	1.67	0.83
3605	Turkey Point, Biscayne Bay	25° 26.2'	80° 19.7'	+2 11	+3 21	*0.70	*0.79	1.61	1.71	0.92
3607	Billys Point, south of, Elliott Key, Biscayne Bay	25° 24.9'	80° 12.6'	+2 08	+3 20	*0.63	*0.64	1.46	1.65	0.82
3609	Sea Grape Point, Elliott Key	25° 28.6'	80° 10.8'	-0 25	-0 05	*1.03	*1.03	2.30	2.74	1.39
3611	Christmas Point, Elliott Key	25° 23.5'	80° 13.8'	+0 13	+0 37	*0.80	*1.07	1.82	2.13	1.06
3613	Adams Key, south end, Biscayne Bay	25° 23.8'	80° 14.0'	+1 01	+1 08	*0.67	*1.00	1.52	1.75	0.90
3615	Totten Key, west side, Biscayne Bay	25° 22.7'	80° 15.4'	+2 19	+3 21	*0.54	*0.57	1.26	1.41	0.71
3617	East Arsenicker, Card Sound	25° 22.4'	80° 17.5'	+2 26	+3 09	*0.40	*0.64	0.91	1.04	0.54
3619	Card Sound, western side	25° 20.7'	80° 19.9'	+2 51	+3 40	*0.30	*0.43	0.68	0.77	0.40
3621	Pumpkin Key, south end, Card Sound	25° 19.5'	80° 17.6'	+2 35	+2 52	*0.30	*0.78	0.63	0.71	0.43
3623	Wednesday Point, Key Largo, Card Sound	25° 18.6'	80° 17.9'	+2 38	+3 30	*0.34	*0.57	0.77	0.88	0.46
3625	Cormorant Point, Key Largo, Card Sound	25° 17.4'	80° 20.3'	+2 45	+3 01	*0.32	*0.50	0.73	0.82	0.43
3627	Little Card Sound bridge	25° 17.3'	80° 22.2'	+3 30	+4 03	*0.24	*0.43	0.53	0.63	0.33
3629	Ocean Reef Harbor, Key Largo	25° 18.6'	80° 16.8'	-0 08	+0 17	*1.02	*1.50	2.30	2.74	1.36
3631	Main Key, Barnes Sound	25° 14.4'	80° 24.0'	+5 04	+6 16	*0.19	*0.36	0.41	0.46	0.26
3633	Manatee Creek, Manatee Bay, Barnes Sound	25° 14.1'	80° 25.8'	+5 14	+6 20	*0.18	*0.36	0.39	0.44	0.25
3635	Manatee Creek, Hwy. 1 bridge, Long Sound <26>	25° 14.1'	80° 26.1'	---	---	---	---	---	---	---
3637	Carysfort Reef	25° 13.3'	80° 12.7'	+0 19	+0 39	*1.03	*1.36	2.34	2.60	1.36
3639	Jewfish Creek entrance, Blackwater Sound <26>	25° 11.0'	80° 23.2'	---	---	---	---	---	---	---
3641	Deep Six Marina, Blackwater Sound <26>	25° 08.4'	80° 24.2'	---	---	---	---	---	---	---
3643	Garden Cove, Key Largo	25° 10.3'	80° 22.0'	-0 11	+0 25	*0.94	*1.14	2.16	2.53	1.24
3645	Largo Sound, Key Largo	25° 08.4'	80° 23.7'	+2 13	+3 03	*0.35	*0.50	0.80	0.96	0.47
3647	Key Largo, South Sound, Key Largo	25° 06.8'	80° 25.0'	+0 23	+1 49	*0.66	*0.64	1.55	1.86	0.85
3649	Point Charles, Key Largo	25° 04.9'	80° 27.0'	+0 25	+1 53	*0.77	*0.64	1.80	2.14	0.99
3651	Rock Harbor, Key Largo	25° 04.9'	80° 26.8'	+0 22	+0 36	*0.94	*1.21	2.14	2.57	1.24
3653	Sunset Cove, Key Largo, Buttonwood Sound <26>	25° 05.7'	80° 26.6'	---	---	---	---	---	---	---
3655	Hammer Point, Key Largo, Florida Bay <26>	25° 02.1'	80° 30.3'	---	---	---	---	---	---	---
3657	Tavernier, Key Largo, Florida Bay <26>	25° 00.9'	80° 30.9'	---	---	---	---	---	---	---
3659	Tavernier Harbor, Hawk Channel	25° 00.3'	80° 31.0'	+0 07	+0 26	*0.90	*1.36	2.04	2.43	1.21
3661	Tavernier Creek, Hwy. 1 bridge, Hawk Channel	25° 00.2'	80° 31.8'	+0 25	+0 52	*0.60	*1.07	1.32	1.58	0.81
3663	Plantation Key, northern end, Florida Bay <26>	25° 00.1'	80° 32.6'	---	---	---	---	---	---	---
3665	Crane Keys, north side, Florida Bay	25° 00.3'	80° 37.1'	+2 52	+4 35	*0.17	*0.21	0.39	0.46	0.22
3667	East Key, southern end, Florida Bay	24° 59.8'	80° 36.6'	+2 43	+4 06	*0.22	*0.14	0.52	0.62	0.28
3669	Plantation Key, Hawk Channel	24° 58.4'	80° 33.0'	+0 05	+0 12	*0.96	*1.21	2.20	2.64	1.27
3671	Yacht Harbor, Cowpens Anchorage, Plantation Key	24° 57.9'	80° 34.1'	+2 45	+4 00	*0.23	*0.29	0.53	0.64	0.31
3673	Snake Creek, Hwy. 1 bridge, Windley Key	24° 57.1'	80° 35.3'	+0 49	+0 56	*0.46	*0.50	1.07	1.28	0.61
3675	Snake Creek, USCG Station, Plantation Key	24° 57.2'	80° 35.2'	+1 08	+1 56	*0.36	*0.50	0.82	0.98	0.48
3677	Whale Harbor, Windley Key, Hawk Channel	24° 56.4'	80° 36.5'	+0 07	+0 51	*0.65	*0.36	1.56	1.87	0.83
3679	Whale Harbor Channel, Hwy. 1 bridge, Windley Key	24° 56.3'	80° 36.6'	+0 16	+1 00	*0.59	*0.71	1.36	1.63	0.78
3681	Upper Matecumbe Key, Hawk Channel	24° 54.9'	80° 37.9'	+0 34	+0 49	*0.87	*1.21	1.98	2.38	1.16
3683	Alligator Reef, Hawk Channel	24° 51.0'	80° 37.1'	+0 08	+0 24	*0.86	*1.36	1.93	2.37	1.15
				on Key West, p.172						
3685	Flamingo, Florida Bay	25° 08.5'	80° 55.4'	+5 28	+7 20	*1.47	*1.08	2.02	2.52	1.27
3687	Upper Matecumbe Key, west end, Hawk Channel	24° 53.8'	80° 39.5'	-1 00	+0 14	*0.98	*0.33	1.44	1.80	0.80
3689	Indian Key, Hawk Channel	24° 52.6'	80° 40.6'	-0 58	-0 35	*1.30	*0.71	1.84	2.30	1.09
3691	Shell Key Channel, Florida Bay	24° 54.8'	80° 39.6'	-0 20	+0 45	*0.78	*0.78	1.02	1.28	0.58
3693	Lignumvitae Key, NE side, Florida Bay	24° 54.2'	80° 41.7'	+0 09	+1 31	*0.52	*0.52	0.68	0.85	0.37
3695	Lignumvitae Key, west side, Florida Bay	24° 54.0'	80° 42.3'	+0 32	+1 54	*0.47	*0.47	0.62	0.74	0.35
3697	Little Basin, Upper Matecumbe Key, Florida Bay	24° 54.9'	80° 38.4'	+0 08	+1 15	*0.61	*0.61	0.80	1.00	0.40
3699	Shell Key, northwest side, Lignumvitae Basin	24° 55.4'	80° 40.3'	+0 31	+1 57	*0.46	*0.46	0.60	0.75	0.33
3701	Islamorada, Upper Matecumbe Key, Florida Bay	24° 55.5'	80° 37.9'	+0 39	+2 07	*0.37	*0.37	0.49	0.57	0.30
3703	Indian Key Anchorage, Lower Matecumbe Key	24° 52.1'	80° 42.2'	-1 25	-0 54	*1.38	*0.88	1.89	2.34	1.16
3705	Matecumbe Bight, Lower Matecumbe Key, Fla. Bay	24° 51.9'	80° 43.0'	-0 18	+0 33	*0.55	*0.38	0.75	0.93	0.47
3707	Matecumbe Harbor, Lower Matecumbe Key, Fla. Bay	24° 51.1'	80° 44.4'	-0 25	+0 23	*0.59	*0.33	0.83	1.04	0.50
3709	Channel Two, east, Lower Matecumbe Key, Fla. Bay	24° 50.7'	80° 44.9'	-0 49	-0 42	*0.85	*0.54	1.18	1.48	0.72
3711	Channel Two, west side, Hawk Channel	24° 50.5'	80° 45.2'	-1 06	-0 54	*1.12	*0.75	1.55	1.94	0.96
3713	Channel Five, east side, Hawk Channel	24° 50.2'	80° 46.0'	-0 54	-0 42	*0.90	*0.58	1.25	1.56	0.77
3715	Channel Five, west side, Hawk Channel	24° 50.4'	80° 46.8'	-0 58	-0 41	*1.00	*0.67	1.39	1.74	0.85
3717	Jewfish Hole, Long Key, Florida Bay	24° 50.3'	80° 47.9'	-0 11	+1 32	*0.42	*0.38	0.56	0.70	0.37
3719	Long Key Bight, Long Key	24° 49.7'	80° 48.5'	-0 59	-0 43	*1.03	*0.62	1.44	1.80	0.87
3721	Long Key Lake, Long Key	24° 49.2'	80° 49.0'	+0 33	+0 57	*0.62	*0.46	0.85	1.06	0.53

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					
	FLORIDA Florida Keys-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft		
				<i>on Key West, p.172</i>								
3723	Long Key, western end	24° 48.1'	80° 51.0'	-1	01	-0	54	*0.82	*0.33	1.19	1.49	0.67
3725	Conch Key, eastern end	24° 47.5'	80° 53.0'	-1	09	-0	45	*0.85	*0.54	1.18	1.48	0.72
3727	Toms Harbor Cut	24° 47.0'	80° 54.4'	-1	19	-0	30	*0.37	*0.38	0.48	0.60	0.33
3729	Toms Harbor, Duck Key <26>	24° 46.4'	80° 54.9'	---	---	---	---	---	---	---	---	---
3731	Duck Key, Hawk Channel	24° 45.9'	80° 54.8'	-1	11	-0	40	*0.97	*0.55	1.34	1.66	0.80
3733	Toms Harbor Channel, Hwy. 1 bridge	24° 46.6'	80° 55.4'	+5	07	+4	49	*0.38	*0.38	0.50	0.62	0.45
3735	Grassy Key, north side, Florida Bay	24° 46.3'	80° 56.4'	+5	40	+6	48	*0.73	*1.04	0.86	1.07	0.68
3737	Grassy Key, south side, Hawk Channel	24° 45.3'	80° 57.5'	-0	52	-0	26	*1.22	*0.71	1.72	2.15	1.03
3739	Fat Deer Key, Florida Bay	24° 44.0'	81° 01.1'	+5	09	+6	26	*0.87	*0.87	1.14	1.42	0.82
3741	Vaca Key-Fat Deer Key bridge	24° 43.8'	81° 01.8'	-1	11	-0	36	*0.95	*0.71	1.31	1.64	0.83
3743	Key Colony Beach	24° 43.1'	81° 01.0'	-1	17	-0	53	*1.22	*0.83	1.66	2.06	1.03
3745	VACA KEY, USCG STATION, FLORIDA BAY	24° 42.7'	81° 06.3'	<i>Daily predictions, p.168</i>						0.72	0.97	0.51
3747	Boot Key Harbor bridge, Boot Key	24° 42.2'	81° 06.3'	-1	03	-0	37	*1.13	*0.75	1.57	1.96	0.96
3749	Sombrero Key, Hawk Channel	24° 37.6'	81° 06.7'	-1	03	-0	39	*1.18	*0.79	1.64	2.02	1.01
3751	Knight Key Channel, Knight Key, Florida Bay	24° 42.4'	81° 07.5'	-0	02	-0	18	*0.54	*0.50	0.72	0.90	0.48
3753	Pigeon Key, south side, Hawk Channel	24° 42.2'	81° 09.3'	-0	55	-0	26	*0.81	*0.50	1.14	1.42	0.69
3755	Pigeon Key, north side, Florida Bay	24° 42.3'	81° 09.4'	-0	10	+0	45	*0.46	*0.46	0.60	0.75	0.44
3757	Molasses Key Channel, Molasses Keys	24° 41.0'	81° 11.5'	-0	56	-0	16	*0.79	*0.50	1.10	1.38	0.67
3759	Money Key	24° 41.0'	81° 12.9'	+0	03	+1	17	*0.58	*0.58	0.76	0.95	0.54
3761	Little Duck Key, east end, Hawk Channel	24° 40.9'	81° 13.7'	-0	49	+0	05	*0.67	*0.67	0.88	1.10	0.60
3763	East Bahia Honda Key, south end, Florida Bay	24° 46.5'	81° 13.6'	+4	04	+2	49	*0.69	*0.69	0.90	1.12	0.77
3765	Cocoanut Key, Florida Bay	24° 44.7'	81° 14.2'	+3	52	+2	50	*0.55	*0.55	0.72	0.90	0.66
3767	West Bahia Honda Key	24° 46.8'	81° 16.3'	+3	59	+4	01	*0.97	*1.00	1.27	1.59	0.88
3769	Horseshoe Keys, south end	24° 46.0'	81° 17.0'	+3	54	+3	09	*0.86	*1.00	1.09	1.36	0.79
3771	Johnson Keys, south end	24° 44.6'	81° 18.0'	+3	36	+2	33	*0.72	*0.96	0.88	1.10	0.67
3773	Johnson Keys, north end	24° 46.0'	81° 19.4'	+3	35	+4	22	*1.31	*1.38	1.70	2.12	1.18
3775	Missouri Key-Little Duck Key Channel	24° 40.8'	81° 14.1'	-0	52	+0	36	*0.70	*0.46	0.98	1.22	0.60
3777	Missouri Key-Ohio Key Channel, west side	24° 40.4'	81° 14.6'	-0	47	-0	22	*0.77	*0.50	1.08	1.35	0.66
3779	Ohio Key-Bahia Honda Key Channel, west side	24° 40.2'	81° 15.1'	-0	57	-0	14	*0.81	*0.62	1.10	1.38	0.70
3781	Bahia Honda Key, Bahia Honda Channel	24° 39.3'	81° 16.9'	-0	46	-0	28	*0.86	*0.63	1.16	1.44	0.73
3783	Big Pine Key, Spanish Harbor	24° 38.9'	81° 19.8'	-0	44	-0	03	*0.75	*0.42	1.07	1.34	0.64
3785	Big Pine Key, Doctors Arm, Bogie Channel	24° 41.4'	81° 21.4'	+0	41	+1	47	*0.63	*0.71	0.80	1.00	0.57
3787	Big Pine Key, Bogie Channel Bridge	24° 41.9'	81° 20.9'	+2	10	+2	11	*0.65	*0.83	0.80	1.00	0.60
3789	No Name Key, east side, Bahia Honda Channel	24° 41.9'	81° 19.1'	+1	35	+1	33	*0.58	*0.83	0.70	0.88	0.55
3791	Little Pine Key, south end	24° 42.8'	81° 18.2'	+1	07	+1	07	*0.56	*0.79	0.68	0.85	0.53
3793	Porpoise Key, Big Spanish Channel	24° 43.1'	81° 21.1'	+3	23	+2	29	*0.72	*1.00	0.88	1.10	0.68
3795	Water Key, west end, Big Spanish Channel	24° 44.4'	81° 20.5'	+3	23	+2	37	*0.81	*1.04	1.00	1.25	0.75
3797	Mayo Key, Big Spanish Channel	24° 44.0'	81° 21.7'	+3	35	+3	01	*0.92	*1.08	1.17	1.46	0.85
3799	Little Pine Key, north end	24° 45.0'	81° 19.7'	+3	38	+3	28	*1.05	*1.21	1.33	1.66	0.96
3801	Big Pine Key, northeast shore	24° 43.7'	81° 23.2'	+3	19	+2	30	*0.86	*1.08	1.08	1.35	0.80
3803	Crawl Key, Big Spanish Channel	24° 45.4'	81° 21.5'	+3	34	+4	13	*1.33	*1.33	1.74	2.18	1.19
3805	Big Pine Key, north end	24° 44.7'	81° 23.7'	+4	24	+5	56	*0.96	*0.83	1.29	1.61	0.85
3807	Annette Key, north end, Big Spanish Channel	24° 45.5'	81° 23.4'	+3	30	+4	33	*1.44	*1.29	1.92	2.40	1.27
3809	Little Spanish Key, Spanish Banks	24° 46.5'	81° 22.2'	+3	25	+4	30	*1.74	*1.62	2.30	2.88	1.54
3811	Big Spanish Key	24° 47.3'	81° 24.7'	+3	19	+4	29	*1.97	*1.50	2.69	3.36	1.71
3813	Munson Island, Newfound Harbor Channel	24° 37.4'	81° 24.2'	-0	40	-0	12	*0.98	*0.67	1.36	1.70	0.84
3815	Ramrod Key, Newfound Harbor	24° 39.0'	81° 24.2'	-0	41	+0	05	*0.90	*0.50	1.28	1.60	0.76
3817	Middle Torch Key, Torch Ramrod Channel	24° 39.7'	81° 24.1'	-0	16	+1	29	*0.69	*0.38	0.98	1.22	0.58
3819	Little Torch Key, Torch Channel	24° 39.9'	81° 23.7'	+0	11	+1	45	*0.57	*0.33	0.80	1.00	0.48
3821	Big Pine Key, Newfound Harbor Channel	24° 39.1'	81° 22.5'	-0	09	+0	44	*0.82	*0.46	1.16	1.45	0.69
3823	Big Pine Key, Coupon Bight	24° 39.1'	81° 21.0'	-0	20	+0	49	*0.87	*0.50	1.19	1.48	0.72
3825	Little Torch Key, Pine Channel Bridge, south side	24° 39.9'	81° 23.3'	-0	15	+0	57	*0.68	*0.33	0.97	1.21	0.56
3827	Big Pine Key, Pine Channel Bridge, south side	24° 40.1'	81° 22.3'	-0	13	+1	03	*0.67	*0.33	0.96	1.20	0.56
3829	Big Pine Key, Pine Channel Bridge, north side	24° 40.2'	81° 22.1'	+0	03	+1	43	*0.57	*0.33	0.79	0.98	0.47
3831	Big Pine Key, west side, Pine Channel	24° 41.4'	81° 23.0'	+0	21	+1	52	*0.52	*0.42	0.71	0.89	0.45
3833	Howe Key, south end, Harbor Channel	24° 43.5'	81° 24.4'	+4	43	+4	49	*0.72	*0.62	0.96	1.20	0.63
3835	Big Torch Key, Harbor Channel	24° 44.3'	81° 26.6'	+3	47	+5	51	*1.58	*1.29	2.14	2.68	1.38
3837	Water Keys, south end, Harbor Channel	24° 44.8'	81° 27.0'	+3	42	+5	41	*1.52	*1.00	2.11	2.64	1.29
3839	Howe Key, northwest end	24° 45.5'	81° 25.7'	+3	29	+5	22	*1.68	*1.33	2.28	2.85	1.46
3841	Summerland Key, Niles Channel South	24° 39.1'	81° 26.1'	-0	36	+0	11	*0.85	*0.71	1.14	1.42	0.74
3843	Summerland Key, Niles Channel Bridge	24° 39.6'	81° 26.2'	-0	10	+0	56	*0.67	*0.58	0.90	1.12	0.59
3845	Ramrod Key, Niles Channel Bridge	24° 39.6'	81° 25.4'	-0	13	+1	12	*0.67	*0.46	0.93	1.16	0.58
3847	Big Torch Key, Niles Channel	24° 42.3'	81° 26.0'	+3	15	+2	05	*0.61	*0.71	0.77	0.96	0.56
3849	Knockemdown Key, north end	24° 42.9'	81° 28.7'	+3	30	+4	54	*1.35	*1.21	1.80	2.25	1.19
3851	Raccoon Key, east side	24° 44.5'	81° 29.0'	+3	20	+5	09	*1.50	*1.21	2.04	2.55	1.31
3853	Content Keys, Content Passage	24° 47.4'	81° 29.0'	+2	46	+3	49	*2.13	*1.83	2.79	3.46	1.84
3855	Key Lois, southeast end	24° 36.4'	81° 28.2'	-1	15	-0	45	*1.06	*0.75	1.46	1.82	0.91
3857	Sugarloaf Key, east side, Tarpon Creek	24° 37.7'	81° 30.6'	-0	41	+0	15	*0.89	*0.58	1.24	1.55	0.76
3859	Gopher Key, Cudjoe Bay	24° 38.5'	81° 29.1'	-0	46	+0	17	*0.90	*0.71	1.22	1.52	0.78
3861	Sugarloaf Key, Pirates Cove	24° 39.2'	81° 30.9'	-0	48	+1	41	*0.59	*0.75	0.74	0.92	0.55
3863	Cudjoe Key, Cudjoe Bay	24° 39.6'	81° 29.5'	-0	38	+0	41	*0.87	*0.71	1.18	1.48	0.76
3865	Summerland Key, southwest side, Kemp Channel	24° 39.0'	81° 26.8'	-0	26	+0	50	*0.81	*0.54	1.12	1.40	0.69
3867	Kemp Channel Viaduct, Hwy A1A bridge	24° 39.1'	81° 28.1'	+0	47	+2	04	*0.58	*0.46	0.77	0.95	0.50
3869	Cudjoe Key, Kemp Channel Bridge	24° 39.7'	81° 28.1'	---	---	---	---	*0.59	*0.50	0.79	0.99	0.52
3871	Cudjoe Key, northeast side, Kemp Channel	24° 41.2'	81° 29.0'	+3	45	---	---	---	---	---	---	---
3873	Cudjoe Key, north end, Kemp Channel	24° 42.0'	81° 30.3'	+3	33	+4	40	*1.61	*1.46	2.10	2.60	1.41
3875	Sugarloaf Key, northeast side, Bow Channel	24° 40.3'	81° 32.0'	+3	47	+3	24	*1.01	*0.71	1.40	1.75	0.87
3877	Cudjoe Key, Pirates Cove	24° 39.7'	81° 30.9'	+3	50	+2	54	*0.77	*0.79	0.98	1.21	0.68
3879	Sugarloaf Key, north end, Bow Channel	24° 41.6'	81° 33.3'	+3	37	+5	20	*1.29	*0.75	1.82	2.28	1.09
3881	Pumpkin Key, Bow Channel	24° 43.0'	81° 33.7'	+3	17	+4	39	*1.56	*1.17	2.14	2.68	1.35
3883	Sawyer Key, outside, Cudjoe Channel	24° 45.5'	81° 33.7'	+2	45	+5	24	*1.57	*0.50	2.32	2.90	1.28
3885	Sawyer Key, inside, Cudjoe Channel	24° 45.5'	81° 33.7'	+2	37	+5	19	*1.43	*0.50	2.10	2.62	1.17
3887	Johnston Key, southwest end, Turkey Basin	24° 42.6'	81° 35.6'	+3	26	+5	38	*1.10	*0.50	1.59	1.99	0.92

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			
	FLORIDA Florida Keys-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Key West, p.172						
	<i>Upper Sugarloaf Sound</i>									
3889	Perky	24° 38.9'	81° 34.2'	+5 37	+8 25	*0.28	*0.08	0.42	0.52	0.23
3891	Park Channel Bridge	24° 39.3'	81° 32.4'	+5 47	+8 33	*0.26	*0.29	0.34	0.42	0.24
3893	North Harris Channel	24° 39.0'	81° 33.2'	+5 32	+8 04	*0.25	*0.25	0.33	0.41	0.22
3895	Sugarloaf Shores East <26>	24° 38.6'	81° 33.6'	---	---	---	---	---	---	---
3897	Tarpon Creek	24° 37.8'	81° 31.0'	-0 29	+0 17	*0.35	*0.38	0.46	0.58	0.32
	<i>Lower Sugarloaf Sound <27></i>									
3899	Sugarloaf Shores <27>	24° 38.0'	81° 33.1'	---	---	---	---	---	---	---
3901	Sugarloaf Beach <27>	24° 36.4'	81° 34.0'	---	---	---	---	---	---	---
3903	Sugarloaf Shores North <27>	24° 38.4'	81° 34.2'	---	---	---	---	---	---	---
3905	Saddlebunch Keys, south end <27>	24° 36.1'	81° 34.9'	---	---	---	---	---	---	---
3907	Lower Sugarloaf Channel Bridge <27>	24° 38.0'	81° 35.2'	---	---	---	---	---	---	---
3909	Saddlebunch Keys, Channel No. 2 <27>	24° 37.6'	81° 35.9'	---	---	---	---	---	---	---
3911	Saddlebunch Keys <27>	24° 37.1'	81° 36.1'	---	---	---	---	---	---	---
3913	Snipe Keys, southeast end, Inner Narrows	24° 39.5'	81° 36.5'	+3 25	+5 39	*1.28	*0.83	1.79	2.24	1.10
3915	Snipe Keys, Middle Narrows	24° 40.0'	81° 37.8'	+3 44	+5 54	*1.02	*0.67	1.42	1.78	0.87
3917	Snipe Keys, Snipe Point	24° 41.5'	81° 40.4'	+2 15	+3 33	*1.69	*1.29	2.31	2.89	1.47
3919	Waltz Key, Waltz Key Basin	24° 38.8'	81° 39.2'	+3 53	+5 33	*1.03	*0.96	1.36	1.70	0.91
3921	Duck Key Point, Duck Key, Waltz Key Basin	24° 37.4'	81° 41.1'	+3 27	+4 57	*1.19	*0.96	1.61	2.01	1.03
3923	O'Hara Key, north end, Waltz Key Basin	24° 37.0'	81° 38.7'	+3 53	+5 39	*1.03	*0.83	1.40	1.75	0.90
3925	Saddlebunch Keys, Channel No. 5	24° 36.7'	81° 37.5'	+4 32	+6 58	*0.66	*1.12	0.76	0.95	0.65
3927	Saddlebunch Keys, Channel No. 4	24° 36.9'	81° 37.0'	+4 35	+5 36	*0.54	*0.29	0.76	0.95	0.45
3929	Saddlebunch Keys, Channel No. 3	24° 37.4'	81° 36.2'	+1 44	-0 10	*0.43	*0.21	0.62	0.78	0.36
3931	Bird Key, Similar Sound	24° 35.3'	81° 38.3'	-0 21	+1 03	*0.59	*0.42	0.82	1.02	0.51
3933	Shark Key, southeast end, Similar Sound	24° 36.2'	81° 38.7'	+0 18	+1 51	*0.52	*0.46	0.70	0.88	0.46
3935	Saddlebunch Keys, Similar Sound	24° 36.0'	81° 37.3'	+0 39	+2 41	*0.37	*0.21	0.52	0.65	0.31
3937	Geiger Key, inside <26>	24° 35.0'	81° 39.3'	---	---	---	---	---	---	---
3939	Big Coppitt Key, northeast side, Waltz Key Basin	24° 36.1'	81° 39.3'	+4 21	+6 54	*0.84	*0.33	1.22	1.52	0.69
3941	Rockland Key, Rockland Channel Bridge	24° 35.5'	81° 40.1'	+5 02	+6 06	*0.76	*0.88	0.97	1.21	0.69
3943	Boca Chica Key, Long Point	24° 36.2'	81° 41.9'	+3 54	+5 22	*0.94	*0.71	1.28	1.60	0.81
3945	Channel Key, west side	24° 36.2'	81° 43.5'	+3 09	+3 07	*0.70	*0.71	0.91	1.14	0.62
3947	Boca Chica Marina	24° 34.5'	81° 42.5'	+0 20	+1 11	*0.66	*0.71	0.83	1.03	0.58
3949	Boca Chica Key, Southwest end	24° 33.8'	81° 42.8'	-0 14	+0 16	*0.66	*0.63	0.87	1.08	0.58
3951	Boca Chica Channel Bridge	24° 34.6'	81° 43.2'	+1 23	+1 29	*0.57	*0.67	0.72	0.90	0.52
3953	Key Haven - Stock Island Channel	24° 34.8'	81° 44.3'	+2 25	+2 57	*0.73	*0.79	0.94	1.18	0.66
3955	Cow Key Channel	24° 34.2'	81° 45.0'	+1 55	+2 05	*0.65	*0.71	0.82	1.01	0.58
3957	Sigsbee Park, Garrison Bight Channel	24° 35.1'	81° 46.5'	+1 59	+2 06	*0.81	*0.88	1.04	1.30	0.73
3959	Fleming Key, north end	24° 35.5'	81° 47.7'	+1 38	+1 54	*0.79	*0.79	1.01	1.25	0.69
3961	Riveria Canal, Key West	24° 33.9'	81° 45.1'	-0 12	+1 00	*0.65	*0.63	0.84	1.04	0.57
3963	Key West, south side, White Street Pier	24° 32.7'	81° 47.0'	-0 53	-0 31	*1.07	*0.92	1.41	1.75	0.92
3965	KEY WEST	24° 33.2'	81° 48.5'	---	---	---	---	1.28	1.65	0.88
3967	Sand Key Lighthouse, Sand Key Channel	24° 27.2'	81° 52.6'	-0 43	-0 32	*0.95	*0.88	1.23	1.53	0.83
3969	Garden Key, Dry Tortugas	24° 37.6'	82° 52.3'	+0 29	+0 33	*0.94	*1.33	1.14	1.42	0.89
3971	Loggerhead Key, Dry Tortugas	24° 37.9'	82° 55.2'	+0 19	+0 24	*0.91	*1.13	1.12	1.38	0.83
3973	Smith Shoal Light	24° 43.1'	81° 55.2'	+1 43	+2 20	*2.10	*2.37	2.63	3.44	1.88
	<i>Southern Gulf Coast</i>									
				on Naples, p. 176						
								MeanDiurnal		
3975	Cape Sable, East Cape	25° 07'	81° 05'	+1 33	+1 50	*1.30	*0.98	2.9	3.8	2.0
3977	Shark River entrance	25° 21'	81° 08'	+0 57	+1 45	*1.43	*0.98	3.6	4.5	2.4
3979	Whitewater Bay	25° 19'	81° 02'	+3 53	+4 38	*0.26	*0.33	0.5	0.8	0.4
3981	Lostmans River entrance	25° 33'	81° 13'	+1 09	+1 59	*1.33	*0.98	3.0	3.9	2.1
3983	Onion Key, Lostmans River	25° 37'	81° 08'	+3 09	+4 53	*0.26	*0.16	0.6	0.9	0.4
3985	Chatham River entrance	25° 41'	81° 17'	+0 59	+1 53	*1.43	*0.66	3.3	4.2	2.1
3987	Chokoloskee	25° 48.8'	81° 21.8'	+2 15	+3 14	*1.11	*0.62	2.53	3.18	1.63
3989	Everglades City, Barron River	25° 51.5'	81° 23.2'	+2 25	+3 26	*0.99	*0.57	2.26	2.84	1.47
3991	Indian Key	25° 48'	81° 28'	+0 55	+1 19	*1.48	*0.98	3.4	4.3	2.3
3993	Round Key	25° 50'	81° 32'	+0 54	+1 12	*1.48	*0.98	3.4	4.3	2.3
3995	Pumpkin Bay	25° 55'	81° 33'	+2 39	+3 07	*0.89	*0.49	2.1	2.7	1.3
3997	Marco Island, Caxambas Pass	25° 54.5'	81° 43.7'	+0 25	+0 18	*1.07	*0.98	2.22	3.05	1.70
3999	Coon Key	25° 53.8'	81° 38.2'	+1 06	+1 25	*1.34	*1.03	2.90	3.86	2.07
4001	Cape Romano	25° 51'	81° 41'	+0 43	+1 04	*1.19	*0.98	2.6	3.5	1.9
4003	Marco, Big Marco River	25° 58.3'	81° 43.7'	+1 00	+0 46	*0.98	*0.85	2.04	2.78	1.53
4005	Mclvanine Bay	25° 59.1'	81° 42.1'	+1 39	+1 55	*0.90	*0.75	1.92	2.61	1.41
4007	Keewaydin Island (inside)	26° 01.5'	81° 46.1'	+0 58	+0 55	*0.90	*0.78	1.90	2.61	1.42
4009	Naples, Naples Bay, north end	26° 08.2'	81° 47.3'	+0 43	+0 56	*0.97	*0.90	2.06	2.85	1.58
4011	NAPLES (outer coast)	26° 07.8'	81° 48.4'	---	---	---	---	2.01	2.87	1.61
4013	Wiggins Pass, Cocohatchee River	26° 17.4'	81° 49.1'	+0 44	+0 59	*0.77	*0.73	1.59	2.26	1.23
4015	Cocohatchee River, U.S. 41 bridge	26° 16.9'	81° 48.1'	+1 10	+1 28	*0.74	*0.65	1.54	2.18	1.17
				on St. Petersburg, p.180						
	<i>Estero Bay</i>									
4017	Little Hickory Island	26° 21'	81° 51'	-0 58	-1 05	*1.09	*1.09	---	2.5	1.3
4019	Coconut Point	26° 24.0'	81° 50.6'	-1 21	-0 44	*1.12	*1.21	1.75	2.48	1.34
4021	Carlos Point	26° 24'	81° 53'	-1 08	-1 28	*1.17	*1.17	---	2.7	1.4
4023	Estero River	26° 25.8'	81° 51.4'	-0 45	-0 10	*1.09	*1.11	1.74	2.45	1.29
4025	Hendry Creek	26° 28.2'	81° 52.6'	-0 25	+0 28	*0.89	*0.68	1.51	2.06	1.01
4027	Estero Island	26° 26.3'	81° 55.1'	-1 08	-0 43	*1.14	*1.30	1.77	2.52	1.37
4029	Matanzas Pass (fixed bridge) Estero Island	26° 27'	81° 57'	-1 10	-1 34	*1.22	*1.22	---	2.8	1.4
4031	Point Ybel, San Carlos Bay entrance	26° 27'	82° 01'	-1 50	-1 12	*1.21	*1.21	---	2.6	1.4
4033	Punta Rassa, San Carlos Bay	26° 29.3'	82° 00.8'	-1 06	-0 59	*1.02	*1.26	1.54	2.26	1.25

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			
	FLORIDA Southern Gulf Coast-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on St. Petersburg, p.180						
	<i>Caloosahatchee River</i>									
4035	Iona Shores	26° 31'	81° 58'	+1 08	+1 40	*0.43	*0.43	--	1.0	0.5
4037	Cape Coral Bridge	26° 34'	81° 56'	+1 15	+2 02	*0.43	*0.43	--	1.0	0.5
4039	Fort Myers	26° 38.8'	81° 52.3'	+1 56	+2 23	*0.56	*0.39	0.95	1.32	0.63
4041	Tarpon Bay, Sanibel Island	26° 26.6'	82° 04.9'	-0 46	-0 18	*1.02	*1.18	1.57	2.27	1.23
4043	St. James City, Pine Island	26° 30'	82° 05'	-0 30	-0 44	*1.04	*1.04	--	2.4	1.2
4045	Galt Island, Pine Island Sound	26° 31'	82° 06'	-0 25	+0 16	*0.91	*0.91	--	2.1	1.1
4047	Captiva Island (outside)	26° 29'	82° 11'	-2 20	-2 28	*1.13	*1.13	--	2.6	1.3
4049	Captiva Island, Pine Island Sound	26° 31'	82° 11'	-0 46	-0 20	*0.91	*0.91	--	2.1	1.1
4051	North Captiva Island	26° 36.3'	82° 12.1'	-1 42	-1 17	*0.92	*0.71	1.54	2.02	1.05
4053	Redfish Pass, Captiva Island (north end)	26° 33'	82° 12'	-0 55	-1 14	*0.91	*0.91	--	2.1	1.0
4055	Tropical Homesites Landing, Pine Island	26° 33'	82° 05'	-0 08	+0 22	*0.87	*0.87	--	2.0	1.0
4057	Matlacha Pass (bascule bridge)	26° 38'	82° 04'	+0 43	+1 28	*0.83	*0.83	--	1.9	1.0
4059	Pineland, Pine Island	26° 40'	82° 09'	-0 19	+0 26	*0.83	*0.83	--	1.9	0.9
	<i>Charlotte Harbor</i>									
4061	Port Boca Grande	26° 43.1'	82° 15.5'	-0 50	-1 42	*0.67	*1.03	0.93	1.56	0.86
4063	Bokeelia	26° 42.4'	82° 09.8'	-0 35	-0 09	*0.80	*0.63	1.34	1.73	0.91
4065	Turtle Bay	26° 47.8'	82° 11.0'	+0 51	+0 35	*0.69	*0.95	1.02	1.56	0.86
4067	Punta Gorda	26° 56'	82° 04'	+1 06	+1 27	*0.83	*0.83	--	1.9	1.0
4069	Shell Point (Harbor Heights), Peace River	26° 59.3'	81° 59.6'	+1 42	+2 10	*0.89	*0.89	1.32	2.02	1.10
4071	Locust Point, Hog Island	26° 55.8'	82° 08.2'	+1 15	+1 27	*0.82	*0.82	1.22	1.95	1.03
4073	El Jobean, Myakka River	26° 58'	82° 13'	+1 38	+1 56	*0.83	*0.83	--	1.9	1.0
4075	Myakka River, US 41 bridge	27° 02.7'	82° 17.6'	+2 48	+3 01	*0.83	*0.97	1.31	1.90	1.00
4077	Placida, Gasparilla Sound	26° 50.0'	82° 15.9'	-0 43	-0 56	*0.59	*0.94	0.82	1.41	0.77
4079	Don Pedro Island State Park, Cutoff (south)	26° 51.3'	82° 18.2'	-0 54	-0 53	*0.63	*0.84	0.91	1.49	0.78
4081	Englewood, Lemon Bay	26° 56.0'	82° 21.2'	-0 17	-0 17	*0.66	*0.82	1.00	1.57	0.81
4083	Manasota, Lemon Bay	27° 00.7'	82° 24.6'	-0 24	-0 11	*0.70	*0.89	1.05	1.68	0.86
4085	Venice Municipal Airport	27° 04.3'	82° 27.2'	-2 33	-2 43	*0.97	*0.97	1.56	2.20	1.15
4087	Venice Inlet (inside)	27° 07'	82° 28'	-2 02	-1 38	*0.91	*0.91	--	2.1	1.1
4089	Sarasota, Sarasota Bay	27° 20'	82° 33'	-1 38	-0 58	*0.91	*0.91	--	2.1	1.1
4091	Cortez, Sarasota Bay	27° 28'	82° 41'	-2 00	-1 25	*0.96	*0.96	--	2.2	1.1
	Tampa Bay									
4093	Egmont Key, Egmont Channel	27° 36.1'	82° 45.6'	-2 15	-3 20	*0.96	*1.00	--	2.16	1.14
4095	Anna Maria Key, Bradenton Beach	27° 29.8'	82° 42.8'	-2 27	-3 32	*0.99	*1.00	1.58	2.25	1.17
4097	Anna Maria Key, city pier	27° 32.0'	82° 43.8'	-2 10	-2 19	*0.99	*0.99	--	2.22	1.11
4099	Bradenton, Manatee River	27° 30'	82° 34'	-1 24	-0 55	*0.97	*0.95	--	2.3	1.2
4101	Redfish Point, Manatee River	27° 32'	82° 29'	-0 30	+0 14	*0.92	*1.00	--	2.2	1.1
4103	Mullet Key Channel (Skyway)	27° 36.9'	82° 43.6'	-2 03	-2 01	*0.92	*0.92	1.48	2.08	1.09
4105	Port Manatee	27° 38.2'	82° 33.8'	-1 00	-0 48	*0.97	*0.95	1.56	2.19	1.14
4107	Shell Point	27° 43'	82° 29'	+0 08	+0 17	*0.91	*0.91	--	2.3	1.2
4109	Little Manatee River, US 41 Bridge	27° 42.3'	82° 26.9'	+0 51	+1 15	*0.91	*0.68	1.55	1.99	1.03
4111	Point Pinellas	27° 42'	82° 38'	-0 22	-0 29	*0.86	*0.86	--	2.0	1.0
4113	ST. PETERSBURG	27° 46.4'	82° 37.3'					1.59	2.26	1.18
4115	Apollo Beach	27° 47.2'	82° 25.6'	-0 53	-0 32	*1.10	*1.18	1.72	2.46	1.31
4117	Newman Branch	27° 47.0'	82° 24.4'	-0 02	+0 12	*1.17	*1.11	1.89	2.61	1.37
4119	Ballast Point	27° 53.4'	82° 28.8'	+0 20	+0 23	*1.22	*1.16	1.98	2.73	1.43
4121	Pendola Point, Hillsborough Bay	27° 53.9'	82° 25.6'	+0 21	+0 05	*1.14	*1.18	1.81	2.61	1.36
4123	Davis Island, Hillsborough Bay	27° 54.5'	82° 27.1'	+0 03	+0 32	*1.16	*1.24	1.82	2.63	1.38
4125	McKay Bay entrance	27° 54.8'	82° 25.5'	+0 02	+0 28	*1.19	*1.26	1.89	2.69	1.42
4127	Old Port Tampa	27° 51.5'	82° 33.2'	+0 25	+0 39	*1.10	*1.18	1.73	2.48	1.31
4129	Gandy Bridge, Old Tampa Bay	27° 53.6'	82° 32.3'	+0 59	+0 57	*1.12	*1.24	1.75	2.55	1.35
4131	Bay Aristocrat Village, Old Tampa Bay	27° 56.5'	82° 43.2'	+1 01	+1 32	*1.24	*1.37	1.95	2.81	1.49
4133	Safety Harbor, Old Tampa Bay	27° 59.3'	82° 41.1'	+1 32	+1 34	*1.23	*1.39	1.91	2.79	1.48
4135	Mobbly Bayou	28° 01.3'	82° 39.3'	+2 38	+2 54	*0.71	*0.45	1.24	1.77	0.79
	<i>Boca Ciega Bay</i>									
4137	Pass-a-Grille Beach	27° 41'	82° 44'	-1 34	-1 30	*0.87	*0.87	--	2.1	1.0
4139	Gulfport	27° 44'	82° 42'	-1 32	-1 05	*0.96	*0.96	--	2.3	1.2
4141	Long Key, 0.5mi N. of Corey Causeway	27° 44.7'	82° 44.8'	-1 18	-0 44	*0.92	*1.00	--	2.2	1.1
4143	Johns Pass	27° 47'	82° 47'	-2 14	-2 04	*0.97	*1.02	--	2.3	1.2
4145	Madeira Beach Causeway	27° 48.5'	82° 47.7'	-1 32	-1 45	*1.08	*1.18	--	2.42	1.29
	Northern Gulf Coast									
				on Cedar Key, p.184						
4147	Indian Rocks Beach (inside)	27° 52'	82° 51'	-0 57	-0 53	*0.65	*0.63	1.8	2.6	1.3
4149	Clearwater	27° 57'	82° 48'	-1 48	-1 35	*0.65	*0.63	1.8	2.6	1.3
4151	Clearwater Beach	27° 58.7'	82° 49.9'	-2 07	-2 19	*0.69	*0.84	1.87	2.74	1.46
4153	Dunedin, St. Joseph Sound	28° 01'	82° 48'	-1 50	-1 45	*0.70	*0.79	1.9	2.8	1.4
4155	Anclote Key, southern end	28° 09.9'	82° 50.6'	-2 16	-2 11	*0.88	*0.60	2.65	3.32	1.71
4157	Anclote, Anclote River	28° 10.3'	82° 47.1'	-1 28	-1 24	*0.78	*0.87	2.16	3.07	1.63
4159	Tarpon Springs, Anclote River	28° 09.6'	82° 46.1'	-1 16	-1 03	*0.77	*0.83	2.10	3.00	1.57
4161	North Anclote Key	28° 12.6'	82° 50.4'	-1 55	-1 38	*0.80	*0.86	2.20	3.11	1.64
4163	Gulf Harbors	28° 14.6'	82° 45.8'	-1 15	-0 52	*0.84	*0.90	2.30	3.26	1.72
4165	Hwy. 19 bridge, Pithlachascotee River	28° 16.1'	82° 43.6'	-1 16	-0 40	*0.85	*0.84	2.36	3.27	1.71
4167	New Port Richey, Pithlachascotee River	28° 14.9'	82° 43.4'	-0 58	-0 11	*0.88	*0.87	2.44	3.40	1.77
4169	Hudson, Hudson Creek	28° 21.7'	82° 42.6'	-1 12	-1 02	*0.91	*0.89	2.53	3.48	1.82
4171	Aripeka, Hammock Creek	28° 26.0'	82° 40.1'	-0 37	+0 23	*0.81	*0.63	2.37	3.15	1.58
4173	Hernando Beach, Rocky Creek, Little Pine I. Bay	28° 29.2'	82° 39.7'	-0 20	+0 58	*0.83	*0.83	2.16	--	--
4175	Bayport	28° 32.0'	82° 39.0'	-0 01	+0 43	*0.80	*0.71	2.33	3.16	1.61
4177	Johns Island, Chassahowitzka Bay	28° 41.5'	82° 38.3'	+1 09	+2 14	*0.62	*0.49	1.81	2.53	1.22
4179	Chassahowitzka, Chassahowitzka River	28° 42.9'	82° 34.6'	+3 09	+5 45	*0.14	*0.16	0.39	0.60	0.30
4181	Mason Creek, Homosassa Bay	28° 45.7'	82° 38.3'	+3 59	+4 44	*0.32	*0.25	0.96	1.35	0.64
4183	Tuckers Island, Homosassa River	28° 46.3'	82° 41.7'	+1 26	+2 23	*0.47	*0.33	1.38	1.92	0.90

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					
	FLORIDA Northern Gulf Coast-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft		
				on Cedar Key, p.184								
4185	Halls River bridge, Homosassa River	28° 48.0'	82° 36.2'	+4	30	+5	41	*0.16	*0.13	0.45	0.72	0.30
4187	Ozello, St. Martins River	28° 49.5'	82° 39.5'	+4	25	+5	21	*0.17	*0.14	0.49	0.74	0.33
4189	Mangrove Pt., Crystal Bay	28° 52.2'	82° 43.4'	+0	22	+0	41	*0.95	*0.76	2.82	3.65	1.89
4191	Ozello north, Crystal Bay	28° 51.8'	82° 40.0'	+1	25	+3	17	*0.50	*0.25	1.53	2.03	0.93
4193	Dixie Bay, Salt River, Crystal Bay	28° 52.9'	82° 38.1'	+2	00	+3	06	*0.55	*0.33	1.66	2.15	1.04
	<i>Crystal River</i>											
4195	Florida Power	28° 57.6'	82° 43.5'	-0	03	+0	30	*1.04	*0.89	3.00	3.90	2.06
4197	Shell Island, north end	28° 55.4'	82° 41.5'	+0	36	+1	30	*0.79	*0.59	2.32	3.01	1.53
4199	Twin Rivers Marina	28° 54.3'	82° 38.3'	+1	46	+2	30	*0.64	*0.49	1.90	2.53	1.26
4201	Kings Bay	28° 53.9'	82° 35.9'	+2	20	+3	07	*0.59	*0.41	1.76	2.31	1.14
4203	Withlacoochee River entrance	29° 00'	82° 46'	+0	07	+0	55	*0.91	*0.95	2.5	3.5	1.8
4205	CEDAR KEY	29° 08.1'	83° 01.9'	<i>Daily predictions</i>				2.83	3.80	2.05		
4207	Suwannee River entrance	29° 17'	83° 09'	+0	06	+0	18	*0.88	*0.95	2.4	3.4	1.8
4209	Suwannee, Salt Creek	29° 19.7'	83° 09.1'	-0	07	+0	24	*0.91	*0.83	2.65	3.47	1.84
4211	Horseshoe Point	29° 26.2'	83° 17.6'	-0	21	+0	08	*0.95	*0.94	2.69	3.58	1.94
4213	Pepperfish Keys	29° 30'	83° 22'	+0	12	+0	24	*0.88	*0.95	2.4	3.4	1.8
4215	Steinhatchee River ent., Deadman Bay	29° 40.3'	83° 23.4'	+0	02	+0	00	*1.03	*1.08	2.87	3.83	2.12
				on St. Marks River Ent., p.188								
4217	Fishermans Rest	29° 44'	83° 32'	-0	14	-0	02	*0.93	*0.86	2.4	3.4	1.8
4219	Spring Warrior Creek	29° 55.2'	83° 40.3'	-0	25	-0	06	*0.98	*0.84	2.68	3.46	1.86
4221	Rock Islands	29° 58'	83° 50'	-0	03	+0	04	*0.93	*0.91	2.4	3.3	1.8
	<i>Apalachee Bay</i>											
4223	Mandalay, Aucilla River	30° 07.6'	83° 58.5'	+0	25	+0	57	*0.69	*0.55	1.92	2.47	1.30
4225	ST. MARKS RIVER ENTRANCE	30° 04.7'	84° 10.7'	<i>Daily predictions</i>				2.63	3.49	1.94		
4227	St. Marks, St. Marks River	30° 09'	84° 12'	+0	36	+1	04	*0.93	*0.91	2.4	3.3	1.8
4229	Shell Point, Walker Creek	30° 03.6'	84° 17.4'	-0	03	-0	03	*1.02	*1.08	2.65	3.56	2.00
4231	Bald Point, Ochlockonee Bay	29° 56.9'	84° 20.5'	+0	33	+0	19	*0.85	*0.70	2.28	3.07	1.60
4233	Panacea, Dickerson Bay	30° 01.7'	84° 23.2'	+0	16	+0	20	*1.01	*0.82	2.73	3.66	1.90
4235	Alligator Point, St. James Island	29° 54.2'	84° 24.8'	-0	08	+0	11	*0.75	*0.73	1.95	2.82	1.45
4237	Turkey Point, St. James Island	29° 54.9'	84° 30.7'	-0	16	-0	21	*0.78	*0.98	1.92	2.74	1.57
				on Apalachicola, p.192								
	<i>St. George Sound</i>											
4239	Dog Island, east end	29° 48.6'	84° 35.1'	-1	43	-2	00	*1.50	*1.40	1.70	2.46	1.41
4241	Dog Island, west end	29° 47'	84° 40'	-1	53	-2	38	*1.73	*1.40	--	2.6	1.3
4243	Lanark	29° 52.7'	84° 35.7'	-1	38	-1	48	*1.60	*1.53	1.81	2.62	1.51
4245	Carrabelle, Carrabelle River	29° 51'	84° 40'	-1	25	-2	13	*1.60	*1.60	--	2.6	1.3
4247	South Carabelle Beach	29° 48.1'	84° 44.2'	-1	16	-1	21	*1.50	*1.53	1.66	2.46	1.44
4249	St. George Island, Northeast End	29° 46.0'	84° 42.0'	+0	13	+0	05	*1.36	*1.25	1.56	2.20	1.28
4251	St. George Island, East End	29° 41.2'	84° 47.2'	-2	02	-2	48	*1.13	*1.00	--	1.9	1.1
4253	St. George Island, Rattlesnake Cove	29° 41.5'	84° 47.5'	-1	00	-1	35	*1.33	*1.20	--	2.2	1.3
4255	St. George Island, 12th St. W (Bayside)	29° 39'	84° 54'	-0	55	-1	08	*1.26	*1.26	--	2.2	1.1
4257	St. George Island, Sikes Cut	29° 36.8'	84° 57.5'	+0	07	+0	07	*1.15	*1.30	1.22	1.97	1.13
	<i>Apalachicola Bay</i>											
4259	Cat Point	29° 43'	84° 53'	-0	40	-1	17	*1.07	*0.60	--	2.2	1.1
4261	White Beach, East Bay	29° 47.1'	84° 53.9'	-0	11	+0	10	*1.21	*1.40	1.27	1.98	1.19
4263	APALACHICOLA	29° 43.6'	84° 58.9'	<i>Daily predictions</i>				1.11	1.61	0.96		
4265	Apalachicola River (A&N RR bridge)	29° 45.8'	85° 02.0'	+0	28	+0	35	*0.85	*0.83	0.97	1.39	0.81
4267	Huckleberry Landing, Jackson River	29° 46.2'	85° 05.1'	+2	07	+1	52	*0.73	*0.95	0.72	1.21	0.74
4269	Lower Anchorage	29° 36'	85° 03'	-0	17	-0	35	*0.93	*1.00	--	1.5	0.8
4271	West Pass, St. Vincent Island	29° 38'	85° 06'	-0	27	-0	27	*0.87	*1.00	--	1.4	0.7
4273	Eleven Mile, St. Vincent Sound	29° 42.4'	85° 09.2'	+1	44	+1	31	*1.02	*1.03	1.12	1.67	0.97
				on Pensacola, p.196								
	<i>St. Joseph Bay</i>											
4275	Port Saint Joe #	29° 48.9'	85° 18.8'	-1	06	-1	45	*1.11	*1.11	1.15	1.65	0.78
4277	St. Joseph Point #	29° 52.4'	85° 23.4'	-2	17	-2	48	*1.02	*1.02	1.17	1.56	0.67
4279	White City, ICWW #	29° 52.8'	85° 13.3'	-0	40	+1	31	*0.77	*0.77	0.86	1.01	0.52
	Time meridian, 90° W											
	<i>St. Andrew Bay</i>											
4281	Channel entrance #	30° 07.5'	85° 43.8'	-1	39	-1	50	*1.02	*1.02	1.20	1.29	0.67
4283	Panama City #	30° 09.1'	85° 40.0'	-0	57	-1	11	*1.05	*1.66	1.25	1.34	0.7
4285	Panama City Beach (outside) #	30° 12.8'	85° 52.7'	-2	17	-2	44	*1.05	*1.05	1.22	1.37	0.68
4287	Parker #	30° 08'	85° 37'	-0	05	+0	22	*1.20	*1.20	--	1.5	0.7
4289	Laird Bayou, East Bay #	30° 07.3'	85° 32.7'	-0	28	-1	05	*1.13	*1.13	1.28	1.47	0.75
4291	Farmdale, East Bay #	30° 01.0'	85° 28.2'	-0	16	-0	59	*1.17	*1.17	1.31	1.56	0.78
4293	Allanton, East Bay #	30° 01.8'	85° 27.9'	-0	16	-1	01	*1.15	*1.15	1.30	1.53	0.76
4295	Wetappo Creek, East Bay #	30° 02'	85° 24'	+1	01	+1	40	*1.10	*1.10	--	1.4	0.7
4297	Overstreet, East Bay #	29° 59.8'	85° 22.2'	+0	17	+0	04	*1.20	*1.20	1.34	1.58	0.82
4299	Alligator Bayou #	30° 10.2'	85° 45.3'	-0	47	-1	10	*1.07	*1.07	1.25	1.37	0.68
4301	Lynn Haven, North Bay #	30° 15.3'	85° 38.9'	-0	31	-1	01	*1.10	*1.10	1.25	1.47	0.73
4303	West Bay Creek, West Bay #	30° 17.6'	85° 51.5'	-0	10	-0	47	*1.13	*1.13	1.30	1.46	0.74
	<i>Choctawhatchee Bay <11></i>											
4305	East Pass (Destin)	30° 23.7'	86° 30.8'	-0	33	-0	34	*0.49	*0.33	0.59	0.61	0.31
4307	Shalimar, Garnier Bayou #	30° 26.1'	86° 35.2'	+3	33	+3	03	*0.32	*0.32	0.36	0.41	0.21
4309	Harris, The Narrows#	30° 24'	86° 44'	+1	37	+2	51	*1.10	*1.10	--	1.4	0.7
4311	Navarre Beach	30° 22.6'	86° 51.9'	-2	07	-2	26	*1.07	*1.67	1.26	1.38	0.69
4313	Fishing Bend, Santa Rosa Sound #	30° 20'	87° 08'	+0	41	+0	51	*1.10	*1.10	--	1.4	0.7

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			
	FLORIDA Northern Gulf Coast-cont. Time meridian, 90° W	North	West	h	m	h	m	ft	ft	ft
				on Pensacola, p.196						
	<i>Pensacola Bay</i>									
4315	Entrance #	30° 20'	87° 19'	-1 23	-0 34	*0.80	*0.80	--	1.1	0.5
4317	Warrington, 2 miles south of #	30° 21'	87° 16'	-0 27	-0 30	*1.00	*1.00	--	1.3	0.6
4319	PENSACOLA #	30° 24.2'	87° 13.8'	<i>Daily predictions</i>				1.20	1.26	0.63
4321	Lora Point, Escambia Bay #	30° 31'	87° 10'	+0 36	+1 03	*1.20	*1.20	--	1.5	0.7
4323	East Bay #	30° 27'	86° 55'	+0 44	+1 17	*1.20	*1.20	--	1.6	0.8
4325	Bay Point, Blackwater River #	30° 34'	87° 00'	+1 23	+1 27	*1.20	*1.20	--	1.6	0.8
4327	Milton, Blackwater River #	30° 37'	87° 02'	+1 40	+1 47	*1.20	*1.20	--	1.6	0.8
	<i>Perdido Bay</i>									
4329	Blue Angels Park #	30° 23.2'	87° 25.7'	+2 36	+4 00	*0.58	*0.58	0.71	0.73	0.35
4331	Nix Point #	30° 23.6'	87° 25.5'	+2 29	+3 37	*0.57	*0.57	0.69	0.71	0.35
4333	Millview #	30° 25.1'	87° 21.4'	+2 33	+4 33	*0.67	*0.67	0.82	0.85	0.41
4335	Alabama Point, Perdido Pass, Alabama	30° 16.7'	87° 33.3'	-1 26	-1 24	*0.67	*0.67	0.78	0.86	0.42
	ALABAMA			on Mobile, p.204						
4337	Mobile Point (Fort Morgan) #	30° 14'	88° 01'	-1 46	-1 32	*0.80	*0.80	--	1.2	0.6
4339	DAUPHIN ISLAND #	30° 15.0'	88° 04.5'	<i>Daily predictions, p.200</i>				1.18	1.20	0.60
4341	Gulf Shores, ICWW #	30° 16.8'	87° 41.1'	-0 41	-0 16	*0.75	*0.90	1.03	1.15	0.60
4343	Bon Secour, Bon Secour River #	30° 18'	87° 44'	-1 13	-1 17	*1.07	*1.07	--	1.6	0.8
4345	East Fowl River, Hwy 193 bridge, Mobile Bay #	30° 26.6'	88° 06.8'	-0 53	-0 58	*0.88	*0.30	1.28	1.36	0.68
4347	West Fowl River, Hwy 188 bridge #	30° 22.6'	88° 09.5'	-2 00	-2 01	*0.94	*1.48	1.33	1.61	0.79
4349	Point Clear, Mobile Bay #	30° 29.2'	87° 56.1'	-1 03	-0 34	*1.00	*1.00	1.50	1.52	0.77
4351	Dog River, Hwy 163 bridge, Mobile Bay #	30° 33.9'	88° 05.2'	-0 38	-0 47	*0.93	*0.60	1.39	1.44	0.72
4353	Meaher State Park, Mobile Bay #	30° 40.0'	87° 56.1'	-0 38	+0 25	*1.03	*0.50	1.48	1.54	0.79
4355	Coast Guard Station, Mobile Bay #	30° 38.9'	88° 03.5'	-0 38	-0 38	*1.03	*0.90	1.45	1.63	0.82
4357	MOBILE, Mobile River (State Dock) #	30° 42.3'	88° 02.4'	<i>Daily predictions</i>				1.38	1.61	0.80
4359	William Brooks Park, Chickasaw Creek #	30° 46.9'	88° 04.4'	-0 05	-0 07	*0.99	*1.00	1.39	1.56	0.79
4361	Lower Hall Landing, Tensaw River #	30° 49'	87° 55'	+2 16	+3 05	*0.87	*0.87	--	1.3	0.6
				on South Pass, p.208						
4363	Bayou La Batre, Mississippi Sound #	30° 22'	88° 16'	+1 52	+1 14	*1.23	*1.23	--	1.5	0.8
4365	Bayou La Batre, Hwy 188 Bridge #	30° 24.3'	88° 14.8'	+1 29	+0 56	*1.28	*1.28	1.46	1.60	0.82
	MISSISSIPPI									
4367	Grand Bay NERR #	30° 24.8'	88° 24.2'	+1 38	+0 54	*1.25	*1.25	1.37	1.59	0.81
4369	Point of Pines, Bayou Cumbeest #	30° 23.2'	88° 26.4'	+1 49	+1 09	*1.25	*1.25	1.37	1.62	0.81
4371	Hollingsworth Point, Davis Bayou #	30° 23.2'	88° 46.4'	+2 24	+1 52	*1.42	*1.42	1.59	1.80	0.91
4373	Petit Bois Island, Mississippi Sound #	30° 12.2'	88° 26.5'	+1 14	+0 41	*1.18	*1.18	1.37	1.47	0.73
4375	Horn Island, Mississippi Sound #	30° 14.3'	88° 40.0'	+1 34	+0 59	*1.25	*1.25	1.38	1.60	0.81
4377	Ship Island, Mississippi Sound #	30° 12.8'	88° 58.3'	+1 48	+1 05	*1.32	*1.32	1.49	1.60	0.83
4379	Port of Pascagoula, Dock E #	30° 20.8'	88° 30.3'	+1 08	+0 44	*1.22	*1.22	1.37	1.55	0.78
4381	Pascagoula, Mississippi Sound #	30° 20.4'	88° 32.0'	+1 20	+0 48	*1.21	*1.21	1.37	1.53	0.86
4383	Graveline Bayou Entrance #	30° 21.7'	88° 39.8'	+1 43	+1 04	*1.29	*1.29	1.44	1.63	0.82
4385	Gulfpport Harbor, Mississippi Sound #	30° 21.6'	88° 04.9'	+2 09	+1 09	*1.29	*1.29	1.38	1.64	0.86
4387	Biloxi (Cadet Point), Biloxi Bay #	30° 23.4'	88° 51.4'	+2 04	+1 30	*1.38	*1.38	1.55	1.76	0.88
4389	Turkey Creek, Bernard Bayou #	30° 25.6'	89° 03.2'	+3 23	+2 27	*1.54	*1.54	1.65	2.00	1.02
4391	Handsboro Bridge, Bernard Bayou #	30° 24.4'	89° 01.6'	+3 40	+2 06	*1.53	*1.53	1.64	1.98	1.01
4393	Cat Island #	30° 13.9'	89° 07.0'	+2 13	+2 00	*1.23	*1.23	1.39	1.57	0.78
4395	Pass Christian Yacht Club, Mississippi Sound #	30° 18.6'	89° 14.7'	+2 36	+2 04	*1.37	*1.37	1.53	1.73	0.87
4397	Wolf River, Henderson Avenue bridge	30° 21.5'	89° 16.4'	+3 18	+2 51	*1.36	*1.36	1.47	1.80	0.90
4399	St. Louis Bay entrance #	30° 19.5'	89° 19.5'	+3 17	+2 57	*1.36	*1.36	1.52	1.73	0.87
4401	Waveland #	30° 16.9'	89° 22.0'	+3 09	+2 49	*1.28	*1.28	1.44	1.60	0.81
4403	Pearlington, Pearl River #	30° 14.4'	89° 36.9'	+5 51	+5 31	*0.99	*0.99	1.15	1.23	0.62
	LOUISIANA									
4405	The Rigolets #	30° 09.9'	89° 44.4'	+6 22	+5 35	*0.64	*0.50	0.76	0.79	0.39
4407	Bayou BonFouca, Route 433 #	30° 16.3'	89° 47.6'	+11 12	+11 31	*0.43	*0.43	0.53	0.53	0.26
4409	Tchefuncta River, Lake Pontchartrain	30° 22.7'	90° 09.6'	+11 36	+12 21	*0.48	*0.48	0.57	0.57	0.28
4411	New Canal USCG station, Lake Pontchartrain	30° 01.6'	90° 06.8'	+11 47	+12 09	*0.43	*0.43	0.51	0.52	0.26
4413	Chef Menteur, Chef Menteur Pass #	30° 03.9'	89° 48.0'	+6 25	+6 27	*0.88	*0.88	0.97	1.06	0.56
4415	Michoud Substation, ICWW #	30° 00.4'	89° 56.2'	+6 37	+6 22	*1.09	*1.09	1.23	1.39	0.70
4417	Shell Beach, Lake Borgne #	29° 52.0'	89° 40.3'	+5 34	+5 13	*1.17	*1.17	1.35	1.45	0.73
4419	Grand Pass #	30° 07.6'	89° 13.3'	+3 01	+2 36	*1.18	*1.18	1.14	1.47	0.73
4421	Chandeleur Light #	30° 03'	88° 52'	+1 50	+1 54	*0.98	*0.98	--	1.2	0.6
4423	Comfort Island #	29° 49.4'	89° 16.2'	+2 47	+2 14	*1.28	*1.28	1.45	1.57	0.80
4425	Bay Gardene #	29° 35.9'	89° 37.1'	+4 04	+4 04	*1.16	*1.16	1.34	1.44	0.75
4427	Breton Islands #	29° 29.6'	89° 10.4'	+2 07	+2 08	*1.14	*1.14	1.37	1.37	0.69
4429	Jack Bay #	29° 22.0'	89° 20.7'	+3 12	+2 48	*1.00	*1.00	--	1.2	0.6
4431	Grand Bay #	29° 23.1'	89° 22.8'	+2 54	+2 56	*1.08	*1.08	1.25	1.34	0.67
4433	Lonesome Bayou (Thomasin) #	29° 14'	89° 03'	+0 34	-0 29	*0.90	*0.90	--	1.1	0.5
	<i>Mississippi River</i>									
4435	North Pass, Pass a Loutre #	29° 12.3'	89° 02.2'	+0 42	+0 43	*0.91	*0.91	1.08	1.10	0.55
4437	Venice, Grand Pass #	29° 16.4'	89° 21.1'	+2 38	+2 54	*0.82	*0.82	0.98	0.98	0.50
4439	Pilottown #	29° 10.7'	89° 15.5'	+1 59	+2 15	*0.82	*1.00	0.96	1.06	0.50
4441	Southeast Pass #	29° 07.0'	89° 02.7'	+0 37	-0 28	*0.98	*0.98	--	1.2	0.6
4443	SOUTH PASS #	28° 59.4'	89° 08.4'	<i>Daily predictions</i>				1.18	1.22	0.61
4445	Port Eads, South Pass #	29° 00.9'	89° 09.6'	+0 56	-0 17	*0.90	*0.90	--	1.1	0.5

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			
	LOUISIANA Time meridian, 90° W	North	West	h m	h m	ft	ft	ft	ft	ft
	<i>Mississippi River-cont.</i>			on South Pass, p.208						
4447	Southwest Pass #	28° 55.9'	89° 25.7'	+0 35	-0 13	*1.07	*1.07	--	1.3	0.6
4449	Joseph Bayou #	29° 03.5'	89° 16.3'	+0 37	-0 17	*1.15	*1.15	--	1.4	0.7
4451	New Orleans <12> #	29° 55'	90° 04'	---	---	---	---	--	--	--
				on Grand Isle, p.212						
4453	Paris Road Bridge (ICWW) #	30° 00'	89° 56'	+5 53	+5 58	*1.04	*1.04	--	1.1	0.6
4455	Empire Jetty #	29° 15.0'	89° 36.5'	-1 03	-1 45	*1.23	*1.23	--	1.3	0.7
4457	Bastian Island #	29° 17.2'	89° 39.8'	+0 41	+0 12	*1.13	*1.13	--	1.2	0.6
4459	Quatre Bayous Pass #	29° 18.6'	89° 51.2'	+2 18	+0 17	*1.23	*1.23	--	1.3	0.6
4461	Barataria Pass #	29° 16'	89° 57'	+1 00	-0 10	*1.13	*1.13	--	1.2	0.6
	<i>Barataria Bay</i>									
4463	EAST POINT, GRAND ISLE	29° 15.8'	89° 57.4'			<i>Daily predictions</i>		1.04	1.06	0.53
4465	Bayou Rigaud, Grand Isle #	29° 16'	89° 58'	+1 32	+0 46	*0.94	*0.94	--	1.0	0.5
4467	Independence Island #	29° 18.6'	89° 56.3'	+2 29	+1 59	*0.85	*0.85	--	0.9	0.4
4469	Mendicant Island #	29° 19.1'	89° 58.8'	+0 51	+1 16	*0.94	*1.00	0.98	1.00	0.50
4471	Manilla #	29° 25.6'	89° 58.6'	+2 32	+3 13	*0.94	*0.94	--	1.0	0.5
4473	Caminada Pass (bridge) #	29° 12.6'	90° 02.4'	+0 20	+0 12	*0.94	*0.94	0.99	0.99	0.50
4475	Port Fourchon, Belle Pass #	29° 06.8'	90° 11.9'	-0 27	-0 29	*1.16	*1.16	1.21	1.23	0.62
4477	Leeville, Bayou Lafourche #	29° 14.9'	90° 12.7'	+3 00	+3 00	*0.83	*0.83	0.85	0.88	0.44
4479	East Timbalier Island, Timbalier Bay#	29° 04.6'	90° 17.1'	+0 07	+0 53	*1.22	*1.22	1.25	1.32	0.66
4481	Timbalier Island, Timbalier Bay #	29° 05'	90° 32'	+0 19	+0 23	*1.13	*1.13	--	1.2	0.6
4483	Pelican Islands, Timbalier Bay #	29° 07.7'	90° 25.4'	+2 26	+2 26	*1.13	*1.13	--	1.2	0.6
4485	Wine Island, Terrebonne Bay #	29° 04.7'	90° 37.1'	+1 08	+1 02	*1.23	*1.23	--	1.3	0.6
4487	Cocodrie, Terrebonne Bay #	29° 14.7'	90° 39.7'	+1 22	+1 33	*0.98	*0.98	1.01	1.05	0.53
4489	East Isle Dernieres, Lake Pelto #	29° 04.3'	90° 38.40'	-0 55	-0 43	*1.19	*1.19	1.22	1.28	0.64
4491	Caillou Boca #	29° 03.8'	90° 48.4'	+0 40	+0 48	*1.32	*1.32	--	1.4	0.7
4493	Raccoon Point, Caillou Bay #	29° 03.5'	90° 57.7'	-0 03	-0 20	*1.60	*1.60	--	1.7	0.8
4495	Texas Gas Platform, Caillou Bay #	29° 10.4'	90° 58.5'	-0 49	-0 20	*1.35	*1.35	1.22	1.51	0.81
4497	Ship Shoal Light #	28° 55'	91° 04'	-1 54	-1 50	*1.51	*1.51	--	1.6	0.8
				on Galveston, p.216						
	<i>Atchafalaya Bay</i>									
4499	Eugene Island, north of	29° 22.4'	91° 23.0'	-1 48	-1 51	*1.34	*1.23	1.39	1.96	1.07
4501	Point Au Fer #	29° 20'	91° 21'	-0 21	-2 26	*1.40	*1.40	--	2.0	1.0
4503	Shell Island #	29° 28'	91° 18'	+0 54	-0 39	*1.07	*1.07	--	1.5	0.7
4505	Stouts Pass, Six Mile Lake #	29° 44.6'	91° 13.8'	+2 09	+2 32	*0.61	*0.23	0.74	0.89	0.44
4507	Point Chevreuil #	29° 31'	91° 33'	+1 02	-0 54	*1.07	*1.07	--	1.5	0.8
4509	Rabbit Island, 5 miles south of #	29° 25'	91° 36'	-0 13	-2 00	*1.40	*1.40	--	2.0	1.0
4511	South Point, Marsh Island #	29° 29'	91° 46'	-0 19	-1 57	*1.30	*1.30	--	1.8	0.9
4513	Lighthouse Point #	29° 31'	92° 03'	-1 16	-2 17	*1.40	*1.40	--	2.0	1.0
4515	Cote Blanche Island, West Cote Blanche Bay #	29° 44'	91° 43'	+2 19	+2 16	*1.00	*1.00	--	1.4	0.7
4517	Southwest Pass, Vermilion Bay #	29° 35'	92° 02'	-0 32	-0 33	*1.14	*1.14	--	1.6	0.8
4519	Cypremort Point, Vermilion Bay #	29° 42.8'	91° 52.8'	+2 18	+1 52	*1.18	*0.80	1.32	1.70	0.90
4521	Weeks Bay, Vermilion Bay #	29° 50.2'	91° 50.3'	+3 47	+2 30	*1.15	*0.83	1.27	1.61	0.88
4523	Freshwater Canal Locks #	29° 33.3'	92° 18.3'	-2 32	-2 17	*1.52	*1.73	1.48	2.16	1.26
4525	Mermentau River entrance #	29° 45'	93° 06'	-1 54	-0 59	*1.79	*1.79	--	2.5	1.2
4527	Calcasieu Pass, East Jetty #	29° 46.1'	93° 20.6'	-2 27	-1 23	*1.38	*1.80	1.28	1.93	1.18
4529	Calcasieu Ship Channel, Bulk Terminal #	30° 11.4'	93° 18.0'	+3 48	+3 59	*0.94	*0.91	1.03	1.33	0.73
4531	Lake Charles, Calcasieu River #	30° 13.4'	93° 13.3'	+3 03	+3 54	*0.99	*0.81	1.06	1.40	0.77
	TEXAS									
4533	Sabine Pass, Texas Point #	29° 40.6'	93° 50.2'	-1 51	-1 03	*1.41	*1.66	1.36	1.98	1.18
4535	Sabine Pass #	29° 43.8'	93° 52.2'	-1 18	-0 38	*1.14	*1.14	1.09	1.60	0.96
4537	Port Arthur, Sabine Naches Canal #	29° 52.0'	93° 55.8'	+1 08	+1 08	*0.75	*0.53	0.83	1.04	0.57
4539	Rainbow Bridge, Neches River #	29° 58.8'	93° 52.9'	+4 04	+3 23	*0.75	*0.33	0.90	1.06	0.55
4541	High Island, ICWW #	29° 35.7'	94° 23.4'	+3 33	+3 55	*1.00	*0.73	1.09	1.41	0.77
4543	Galveston Bay Entrance, north jetty #	29° 21.2'	94° 43.4'	-1 06	-0 42	*1.20	*1.17	1.23	1.70	0.96
4545	GALVESTON, Galveston Channel #	29° 18.6'	94° 47.6'			<i>Daily predictions</i>		1.02	1.41	0.81
	<i>Galveston Bay</i>									
4547	Port Bolivar #	29° 21.9'	94° 46.8'	+0 57	+0 09	*1.00	*0.63	1.13	1.40	0.85
4549	Texas City, Turning Basin #	29° 23'	94° 53'	+0 33	+0 41	*1.00	*1.00	--	1.4	0.7
4551	Eagle Point <20> #	29° 28.8'	94° 55.1'	+5 34	+2 38	*0.80	*0.80	1.01	1.09	0.60
4553	Clear Lake <20> #	29° 33.8'	95° 04.0'	+6 57	+5 19	*0.83	*0.83	1.05	1.16	0.63
4555	Morgans Point, Barbours Cut <20> #	29° 40.9'	94° 59.1'	+5 11	+4 17	*0.95	*0.40	1.14	1.31	0.72
4557	Lynchburg Landing, San Jacinto River <20> #	29° 45.9'	95° 04.7'	+4 55	+4 51	*1.06	*0.67	1.20	1.50	0.80
4559	Annie's Landing, San Jacinto River <20> #	29° 49.1'	95° 04.7'	+5 20	+5 16	*1.14	*0.83	1.26	1.59	0.88
4561	Manchester, Houston Ship Channel <20> #	29° 43.1'	95° 15.1'	+4 55	+5 05	*1.15	*0.83	1.27	1.64	0.90
4563	Round Point, Trinity Bay <20> #	29° 44'	94° 42'	+10 39	+5 15	*0.71	*0.71	--	1.0	0.5
4565	Umbrella Point, Trinity Bay <20> #	29° 40.8'	94° 52.1'	+4 41	+3 39	*0.93	*0.33	1.14	1.27	0.67
4567	Point Barrow, Trinity Bay #	29° 44'	94° 50'	+5 48	+4 43	*0.79	*0.79	--	1.1	0.5
4569	Rollover Pass, East Bay #	29° 30.9'	94° 30.8'	+4 25	+3 16	*0.95	*0.53	1.10	1.35	0.71
4571	Gilchrist, East Bay #	29° 31'	94° 29'	+3 16	+4 18	*0.86	*0.86	--	1.2	0.6
4573	Galveston Railroad Bridge #	29° 18.1'	94° 53.8'	+2 10	+0 58	*0.88	*0.67	0.97	1.25	0.68
4575	Jamaica Beach, West Bay #	29° 12'	94° 59'	+2 38	+3 31	*0.71	*0.71	--	1.0	0.5
4577	Alligator Point, West Bay #	29° 10'	95° 08'	+2 39	+2 33	*0.64	*0.64	--	0.9	0.4
4579	Christmas Bay #	29° 02.5'	95° 10.5'	+4 47	+2 37	*0.58	*0.23	0.71	0.82	0.42
4581	Galveston Pleasure Pier #	29° 17.1'	94° 47.3'	-1 33	-1 03	*1.40	*1.30	1.46	2.04	1.12
4583	San Luis Pass #	29° 05.7'	95° 06.8'	+0 10	+0 11	*1.06	*0.80	1.16	1.50	0.81
4585	Freeport SPIP (ocean) #	29° 56.14'	95° 17.65'	-1 20	-1 07	*1.26	*0.83	1.42	1.80	0.95
4587	Freeport, US Coast Guard Station #	28° 56.6'	95° 18.1'	-1 18	-1 08	*1.25	*0.87	1.39	1.80	0.95
4589	Sargent, ICWW #	28° 46.3'	95° 37.0'	+3 04	+0 17	*0.51	*0.13	0.64	0.72	0.36
4591	Matagorda City, ICWW #	28° 46.2'	95° 54.8'	+3 13	+0 51	*0.41	*0.17	0.49	0.54	0.30

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			
	TEXAS Time meridian, 90° W	North	West	h	m	h	m	ft	ft	ft
				on Galveston, p.216						
4593	Matagorda Bay Entrance Channel #	28° 25.6'	96° 19.7'	-2 48	-2 48	*0.91	*0.37	1.09	1.23	0.65
4595	PORT O'CONNOR, MATAGORDA BAY #	28° 27'	96° 24'	<i>Daily predictions, p.220</i>				--	0.5	0.2
4597	Port Lavaca, Matagorda Bay #	28° 37'	96° 37'	---	---	---	---	--	0.7	0.3
4599	Rockport, Aransas Bay #	28° 01.3'	97° 02.8'	---	---	---	---	0.36	0.36	0.18
4601	Aransas, Aransas Pass #	27° 50.2'	97° 02.3'	-1 12	-1 17	*0.99	*0.63	1.11	1.37	0.75
4603	Corpus Christi #	27° 34.8'	97° 13.0'	-1 09	-1 30	*1.17	*0.73	1.31	1.63	0.93
4605	Riviera Beach, Baffin Bay #	27° 17'	97° 40'	---	---	---	---	--	0.3	0.1
				on Padre Island, p.224						
4607	South Padre Island, Brazos Santiago Pass #	26° 04.1'	97° 09.3'	-0 04	-0 02	*0.96	*0.88	1.22	1.43	0.75
4609	PADRE ISLAND (south end) #	26° 04.1'	97° 09.4'	<i>Daily predictions</i>				1.25	1.47	0.87
4611	Queen Isabella Causeway (east end) #	26° 04.7'	97° 10.2'	+0 24	+0 21	*0.87	*0.75	1.11	1.28	0.68
4613	Queen Isabella Causeway (west end) #	26° 04.3'	97° 11.5'	+0 52	+0 30	*0.81	*0.63	1.05	1.19	0.62
4615	Port Isabel #	26° 03.6'	97° 12.9'	+0 10	+0 26	*0.92	*1.00	1.15	1.37	0.74
4617	South Bay entrance #	26° 03.1'	97° 10.9'	+0 14	+0 21	*0.91	*0.94	1.14	1.35	0.72
	MEXICO <13> Gulf of Mexico			on Tampico Harbor, p.228						
4619	Matamoros #	25° 53'	97° 31'	+0 55	+0 40	*1.00	*1.00	--	1.4	0.7
4621	TAMPICO HARBOR (Madero) #	22° 13'	97° 51'	<i>Daily predictions</i>				--	1.4	0.7
4623	Tuxpan #	21° 00'	97° 20'	+0 02	+0 04	*1.21	*1.21	--	1.7	0.8
4625	Veracruz #	19° 12'	96° 08'	-0 19	-0 12	*1.21	*1.21	--	1.7	0.8
4627	Alvarado #	18° 46'	95° 46'	+0 51	+0 27	*0.93	*0.93	--	1.3	0.6
4629	Coatzacoalcos #	18° 09'	94° 25'	-0 40	+0 05	*1.07	*1.07	--	1.5	0.7
4631	Frontera #	18° 32'	92° 39'	-0 18	-0 27	*1.14	*1.14	--	1.6	0.8
4633	Progreso #	21° 18'	89° 40'	+1 19	+0 23	*1.29	*1.29	--	1.8	0.9
	BELIZE			on Key West, p.172						
4635	Belize City	17° 30'	88° 11'	+0 14	+0 47	*0.46	*0.46	0.6	0.7	0.4
4637	Punta Gorda	16° 06'	88° 49'	-0 27	+0 30	*0.46	*0.46	0.6	0.8	0.4
	GUATEMALA <13>									
4639	Rio Dulce entrance	15° 50'	88° 49'	-1 25	-1 35	*0.92	*0.92	1.2	1.5	0.7
	HONDURAS <13>									
4641	Puerto Cortes	15° 50'	87° 57'	-0 43	-0 02	*0.38	*0.38	0.5	0.6	0.2
4643	Port Royal, Isla de Roatan	16° 24'	86° 20'	-2 41	-2 35	*0.92	*0.92	1.2	1.4	0.6
4645	Puerto Castilla	16° 00'	86° 02'	-0 48	-0 13	*0.46	*0.46	0.6	0.8	0.4
4647	Isla de Guanaja	16° 29'	85° 54'	-1 26	-1 42	*0.72	*0.72	1.0	1.3	0.6
4649	Harbor Bay, Great Swan Island	17° 24'	83° 56'	-1 18	-0 33	*0.51	*0.51	0.7	0.9	0.4
	NICARAGUA <13>			on Hampton Roads, p.120						
4651	Cabo Gracias a Dios	15° 00'	83° 10'	+0 23	-0 32	*0.57	*0.57	1.2	1.6	0.8
4653	Puerto Cabezas	14° 01'	83° 23'	+3 05	+3 11	*0.56	*0.56	1.4	1.9	0.9
4655	Cayos de Perlas	12° 25'	83° 25'	+4 53	+4 33	*0.46	*0.46	0.9	1.3	0.6
4657	Isla del Maiz Grande	12° 10'	83° 03'	+4 38	+4 13	*0.46	*0.46	0.9	1.3	0.3
4659	Bluefields Lagoon entrance	12° 00'	83° 42'	+3 54	+3 27	*0.28	*0.28	0.7	1.0	0.4
4661	San Juan del Norte (Greytown)	10° 55'	83° 42'	+4 03	+4 03	*0.28	*0.28	0.7	1.1	0.5
	COSTA RICA <13>			on Cristobal, p.232						
4663	Limon	10° 00'	83° 02'	-0 32	-0 29	*1.00	*1.00	0.7	1.2	0.5
	PANAMA <13> Time meridian, 75° W									
4665	Bocas del Toro, Almirante Bay	9° 21'	82° 15'	+0 21	+0 24	*1.14	*1.14	0.8	1.2	0.6
4667	CRISTOBAL (COLON)	9° 21'	79° 55'	<i>Daily Predictions</i>				0.7	1.1	0.4
4669	Bahia de Caledonia	8° 54'	77° 41'	+0 12	+0 00	*1.00	*1.00	0.7	1.1	0.4
	BERMUDA ISLANDS Time meridian, 60° W			on St. Georges Island, p.236				Mean Spring		
4671	Ireland Island	32° 19'	64° 50'	+0 11	+0 13	*1.07	*1.23	2.6	3.1	1.6
4673	Ferry Reach (Biological Station)	32° 22.2'	64° 41.7'	-0 04	+0 03	*0.93	*1.00	2.4	2.9	1.3
4675	ST. GEORGES ISLAND	32° 22.4'	64° 42.2'	<i>Daily Predictions</i>				2.5	3.0	1.3
	BAHAMAS Time meridian, 75° W			on Settlement Point, p.240						
4677	Guinchos Cay	22° 45'	78° 07'	+0 06	+0 16	*0.79	*1.11	2.1	2.6	1.2
4679	Elbow Cay, Cay Sai Bank	23° 57'	80° 28'	+1 18	+1 28	*0.79	*1.11	2.1	2.6	1.2
4681	Fresh Creek, Andros Island	24° 44'	77° 48'	+0 05	-0 08	*0.97	*1.11	2.4	2.9	1.3
4683	North Cat Cay	25° 33'	79° 17'	+0 22	+0 32	*0.86	*1.11	2.3	2.8	1.3
4685	North Bimini	25° 44'	79° 18'	+0 05	+0 22	*0.90	*1.11	2.4	2.9	1.3
4687	Memory Rock	26° 57'	79° 07'	+0 16	+0 26	*0.86	*1.11	2.3	2.7	1.3
4689	SETTLEMENT POINT, GRAND BAHAMAS ISLAND	26° 42.6'	78° 59.8'	<i>Daily predictions</i>				2.7	3.1	1.4
4691	Pelican Harbor	26° 23'	76° 58'	+0 18	+0 28	*0.97	*1.11	2.6	3.1	1.4
4693	Nassau, New Providence Island	25° 05'	77° 21'	-0 08	-0 03	*0.98	*1.44	2.6	3.1	1.9

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			
	BAHAMAS Time meridian, 75° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Settlement Point, p.240						
4695	Eleuthera Island, west coast	25° 15'	76° 19'	+2 09	+2 33	*0.94	*1.11	2.4	2.9	1.3
4697	Eleuthera Island, east coast	24° 56'	76° 09'	+0 11	+0 23	*0.82	*1.11	2.2	2.6	1.2
4699	The Bight, Cat Island	24° 19'	75° 26'	-0 37	-0 27	*0.97	*1.11	2.6	3.1	1.4
4701	San Salvador	24° 03'	74° 33'	-0 08	-0 06	*0.86	*1.11	2.3	2.8	1.3
4703	Clarence Harbor, Long Island	23° 06'	74° 59'	+0 41	+0 51	*0.97	*1.11	2.6	3.1	1.4
4705	Nurse Channel	22° 31'	75° 51'	+0 00	+0 10	*0.79	*1.11	2.1	2.6	1.1
4707	Datum Bay, Acklin Island	22° 10'	74° 18'	-0 21	-0 11	*0.75	*1.11	2.0	2.6	1.1
4709	Mathew Town, Great Inagua Island	20° 57'	73° 41'	+0 08	+0 28	*0.79	*1.11	2.1	2.6	1.2
4711	Abraham Bay, Mayaguana Island	22° 22'	73° 00'	+0 02	-0 10	*0.79	*1.11	2.0	2.5	1.1
4713	Hawks Nest Anchorage, Turks Islands	21° 26'	71° 07'	-0 27	-0 17	*0.79	*1.11	2.1	2.6	1.1
	CUBA			on Hampton Roads, p.120						
4715	La Isabela	22° 56'	80° 00'	+0 20	+0 16	*0.64	*0.64	1.6	2.0	0.9
4717	Bahia de Nuevitas entrance	21° 38'	77° 07'	-0 05	-0 46	*0.52	*0.52	1.3	1.5	0.7
4719	Nuevitas, Bahia de Nuevitas	21° 35'	77° 15'	+1 32	+1 33	*0.56	*0.56	1.4	1.6	0.7
4721	Puerto Padre	21° 14'	76° 33'	-0 05	-0 10	*0.84	*0.84	2.1	2.4	1.1
4723	Puerto de Gibara	21° 07'	76° 07'	-1 06	-1 03	*0.76	*0.76	1.9	2.2	1.0
4725	Bahia de Nipe entrance	20° 47'	75° 34'	-0 55	-1 01	*0.81	*0.81	2.0	2.3	1.1
4727	Antilla, Bahia de Nipe	20° 50'	75° 44'	-0 37	-0 44	*0.89	*0.89	2.2	2.5	1.2
4729	Bahia de Levisa entrance	20° 45'	75° 28'	-1 03	-1 07	*0.77	*0.77	1.9	2.2	1.0
4731	Sagua de Tanamo, Bahia de	20° 43'	75° 19'	-1 00	-1 08	*0.76	*0.76	1.9	2.2	1.0
4733	MÓA, HOLGUIN	20° 39.2'	74° 54.6'	<i>Daily predictions, p.256</i>				1.74	--	--
4735	Baracoa	20° 21'	74° 30'	-1 14	-1 18	*0.68	*0.68	1.7	2.0	0.9
4737	Punta Maisi	20° 15'	74° 08'	-1 16	-1 20	*0.88	*0.88	2.2	2.8	1.2
				on San Juan, p.264				MeanDiurnal		
4739	Guantanamo Bay	19° 54'	75° 09'	-0 17	-0 23	*0.89	*0.89	--	1.4	0.7
4741	SANTIAGO DE CUBA	19° 59.1'	75° 52.5'	<i>Daily predictions, p.252</i>				1.01	--	--
4743	Puerto de Pilon	19° 54'	77° 19'	+0 11	+0 13	*0.72	*0.72	--	1.2	0.6
4745	Manzanillo, Golfo de Guacanayabo	20° 21'	77° 07'	+1 41	+1 38	+1.39	+1.39	--	2.2	1.1
4747	Casilda	21° 45'	79° 59'	+1 04	+0 52	*0.65	*0.65	--	1.0	0.5
	<i>Bahia de Cienfuegos</i>									
4749	Punta Pasacaballos	22° 04'	80° 27'	+0 49	+0 58	*0.80	*0.80	--	1.3	0.6
4751	CIENFUEGOS	22° 09.1'	80° 27.3'	<i>Daily predictions, p.244</i>				0.89	--	--
4753	Carapachibey, Isla de Pinos	21° 27'	82° 55'	+0 43	+0 52	*0.54	*0.54	--	0.9	0.4
4755	La Coloma	22° 14'	83° 34'	+2 04	+2 23	*0.54	*0.54	--	0.9	0.4
4757	Cabo San Antonio	21° 52'	84° 58'	-0 50	-0 07	*0.92	*0.92	1.2	1.5	0.8
				on Key West, p.172				Mean Spring		
4759	Bahia Honda	22° 58'	83° 13'	-1 04	-0 23	*0.76	*0.76	1.0	1.4	0.7
4761	HAVANA	23° 08.9'	82° 20.2'	<i>Daily predictions, p. 248</i>				0.95	--	--
4763	Matanzas	23° 04'	81° 32'	-0 59	-0 59	*0.92	*0.92	1.2	1.5	0.8
4765	Cardenas	23° 04'	81° 12'	-0 11	+0 34	*1.08	*1.08	1.4	1.8	1.0
	JAMAICA			on Galveston, p.216				MeanDiurnal		
4767	Port Morant	17° 53'	76° 20'	-7 45	-7 45	*0.57	*0.57	--	0.8	0.4
4769	Port Royal #	17° 56'	76° 51'	-7 07	-8 14	*0.50	*0.50	--	0.7	0.3
4771	Galleon Harbour	17° 54'	77° 04'	--	--	--	--	--	0.8	0.4
4773	South Negril Point #	18° 18'	78° 24'	-2 47	-2 47	*1.21	*1.21	--	1.7	0.8
4775	Montego Bay	18° 28'	77° 55'	-6 44	-6 40	*0.71	*0.71	--	1.0	0.5
4777	St. Anns Bay	18° 25'	77° 14'	-7 17	-7 17	*0.57	*0.57	--	0.8	0.4
4779	Grand Cayman #	19° 20'	81° 20'	-8 01	-8 01	*0.93	*0.93	--	1.3	0.6
	HAITI and DOMINICAN REPUBLIC			on San Juan, p.264						
4781	Port-au-Prince	18° 33'	72° 21'	-0 35	-0 38	*0.99	*0.99	--	1.6	0.8
4783	Massacre, Riviere du entrance	19° 43'	71° 46'	-1 04	-1 07	*1.44	*1.44	--	2.3	1.2
4785	Puerto Plata	19° 49'	70° 42'	-1 12	-1 20	*1.44	*1.44	--	2.3	1.2
4787	Santa Barbara de Samana	19° 12'	69° 20'	-0 54	-0 53	*1.25	*1.25	--	2.0	1.0
4789	Sanchez	19° 13'	69° 36'	-0 40	-0 43	*2.05	*2.05	--	3.3	1.6
				on Galveston, p.216						
4791	Saona, Isla #	18° 10'	68° 40'	--	--	--	--	--	0.6	0.3
4793	La Romana #	18° 25'	68° 57'	--	--	--	--	--	0.6	--
4795	Santo Domingo #	18° 27'	69° 53'	-6 28	-11 01	*0.57	*0.57	--	0.8	0.4
4797	Barahona #	18° 12'	71° 05'	--	--	--	--	--	0.7	0.3
4799	Jacmel #	18° 13'	72° 34'	-10 00	-10 00	*1.43	*1.43	--	2.0	1.0
	PUERTO RICO Time meridian, 60° W			on Magueyes, p.260						
4801	MAGUEYES ISLAND #	17° 58.3'	67° 02.8'	<i>Daily predictions</i>				0.65	0.67	0.34
4803	Guánica #	17° 58'	66° 55'	-1 22	+0 18	*1.00	*1.00	--	0.7	0.3
4805	Playa de Ponce #	17° 58'	66° 37'	-0 39	-0 13	*1.14	*1.14	--	0.8	0.4
4807	Playa Cortada #	17° 59'	66° 27'	+0 16	-0 37	*1.14	*1.14	--	0.8	0.4
4809	Arroyo #	17° 58'	66° 04'	+0 52	+0 13	*1.14	*1.14	--	0.8	0.4
4811	Puerto Maunabo #	18° 00'	65° 53'	-0 56	+1 13	*1.00	*1.00	--	0.7	0.4
4813	Culebrita, Isla #	18° 19'	65° 14'	-2 34	+2 40	*1.57	*1.57	--	1.1	0.6
4815	Puerto Ferro, Isla de Vieques #	18° 06'	65° 26'	-2 26	+3 01	*1.14	*1.14	--	0.8	0.4

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			
	PUERTO RICO Time meridian, 60° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on San Juan, p.264						
4817	Punta Mulás, Isla de Vieques	18° 09'	65° 26'	-0 14	-0 17	*0.72	*0.72	--	1.2	0.6
4819	Roosevelt Roads	18° 14'	65° 37'	+0 02	+0 20	*0.63	*0.63	--	1.0	0.5
4821	Ensenada Honda, Culebra Island	18° 18'	65° 17'	-0 34	-0 15	*0.63	*0.63	--	1.0	0.5
4823	Culebra	18° 18.05'	65° 18.15'	-0 19	+0 08	*0.72	*0.73	0.78	1.14	0.55
4825	Playa de Fajardo	18° 20'	65° 38'	-0 10	-0 13	*0.99	*0.99	--	1.6	0.8
4827	SAN JUAN	18° 27.5'	66° 07.0'	<i>Daily predictions</i>				1.10	1.58	0.76
4829	Mayaguez	18° 13.2'	67° 09.6'	-0 09	-0 11	*0.93	*0.76	1.06	1.40	0.69
4831	Puerto Real	18° 05'	67° 11'	-0 33	-0 26	*0.72	*0.72	--	1.2	0.6
	LESSER ANTILLES & VIRGIN ISLANDS			on Charlotte Amalie, p.268						
	<i>St. Thomas Island</i>									
4833	Botany Bay #	18° 21.8'	65° 02.1'	+0 01	-0 17	*1.39	*1.39	0.90	1.28	0.58
4835	Dorothea Bay, Ruy Point #	18° 22.2'	64° 57.8'	+0 03	-0 17	*1.41	*1.41	0.93	1.29	0.58
4837	Magens Bay #	18° 22'	64° 55'	-0 06	-0 17	*1.59	*1.59	1.0	1.4	0.7
4839	Water Bay #	18° 20.9'	64° 51.8'	-0 11	-0 14	*1.30	*1.30	0.81	1.19	0.56
4841	Redhook Bay #	18° 19.1'	64° 51.1'	-0 46	+0 44	*1.28	*1.28	0.82	1.09	0.54
4843	CHARLOTTE AMALIE #	18° 20.1'	64° 55.2'	<i>Daily predictions</i>				0.70	0.79	0.40
4845	Dog Island #	18° 17.8'	64° 49.0'	-0 09	+0 06	*0.97	*0.97	0.63	0.80	0.40
	<i>St. Johns Island</i>									
4847	Lovango Cay #	18° 21.6'	64° 48.2'	-0 27	-0 31	*1.13	*1.13	0.61	1.06	0.49
4849	Leinster Point #	18° 22.0'	64° 43.2'	-0 12	-0 20	*1.22	*1.22	0.90	1.12	0.51
4851	Coral Harbor #	18° 20.9'	64° 43.0'	-0 13	-0 13	*1.08	*1.08	0.72	0.90	0.44
4853	Lameshur Bay #	18° 19.0'	64° 43.4'	-0 04	-0 06	*1.04	*1.14	0.72	0.82	0.41
				on Lime Tree Bay, p.272						
4855	<i>St. Croix Island</i> Christiansted Harbor #	17° 45.0'	64° 42.3'	-1 37	+0 23	*1.03	*1.03	0.69	0.73	0.37
4857	LIME TREE BAY, ST.CROIX ISLAND #	17° 41.8'	64° 45.2'	<i>Daily predictions</i>				0.69	0.71	0.36
4859	Fredericsted #	17° 42.8'	64° 53.0'	-0 14	+0 59	*1.01	*1.00	0.70	0.73	0.36
4861	St. Barthelemy #	17° 54'	62° 51'	-3 26	-1 11	*1.87	*1.00	--	1.4	0.7
4863	Pointe-a-Pitre, Guadeloupe	16° 14'	61° 32'	-4 28	-0 33	*3.24	*1.80	--	1.0	0.5
				on Key West, p.172						
4865	Roseau, Dominica	15° 18'	61° 24'	-6 29	-6 05	*0.65	*0.65	0.7	1.2	0.6
4867	Fort-de-France, Martinique	14° 35'	61° 03'	-6 55	-6 18	*0.38	*0.38	0.5	--	0.5
4869	Castries, St. Lucia	14° 01'	61° 00'	-7 09	-7 05	*0.62	*0.62	0.8	1.2	0.6
4871	Vieux Fort Bay, St. Lucia	13° 44'	60° 58'	-6 02	-5 38	*0.69	*0.69	0.9	--	0.7
4873	Kingstown, St. Vincent <15>	13° 10'	61° 13'	-7 09	-6 38	*1.53	*1.53	2.0	2.7	1.4
4875	Bridgetown, Barbados	13° 06'	59° 38'	-6 28	-5 47	*1.30	*1.30	1.7	2.1	1.0
4877	Grenada	12° 04'	61° 45'	-7 26	-6 51	*0.92	*0.92	1.2	1.5	0.8
4879	Scarborough, Tobago	11° 11'	60° 44'	-6 40	-6 22	*1.60	*1.60	2.1	2.7	1.4
				on Cristobal, p.232						
4881	Schottegat, Curacao #	12° 07'	68° 56'	+0 25	+1 09	*0.82	*0.82	--	0.9	0.5
4883	St. Nicolaas Bay, Aruba #	12° 26'	69° 54'	---	---	---	---	--	0.8	0.4
	COLOMBIA <13> Time meridian, 75° W			on Hampton Roads, p.120						
4885	Isla de Providencia	13° 20'	81° 23'	+7 53	+7 53	*0.28	*0.28	0.7	1.1	0.4
				on Cristobal, p.232						
4887	Turbo	8° 10'	76° 45'	-0 49	-0 30	*1.43	*1.43	1.0	1.4	0.6
4889	Covenas	9° 20'	75° 40'	-1 06	-0 46	*1.14	*1.14	0.8	1.2	0.5
4891	Cartagena, Bahia de Cartagena	10° 24'	75° 33'	-1 16	-0 48	*1.00	*1.00	0.7	1.1	0.4
4893	Puerto Colombia	11° 00'	74° 58'	-0 52	-1 08	*1.29	*1.29	0.9	1.3	0.5
4895	Santa Marta	11° 18'	74° 12'	-1 19	-1 08	*1.00	*1.00	0.7	1.1	0.4
4897	Riohacha	11° 33'	72° 55'	-1 54	-1 09	*1.00	*1.00	0.7	1.1	0.4
	VENEZUELA Time meridian, 60° 30' W			on Isla Zapara, p.276				Mean Spring		
4899	ISLA ZAPARA, Lake Maracaibo	11° 00'	71° 35'	<i>Daily predictions</i>				2.8	3.0	2.7
4901	Bahia de Tablazos, Lake Maracaibo	10° 53'	71° 35'	+0 30	+0 11	*0.61	*0.31	2.1	2.3	1.5
4903	Punta de Palmas	10° 48'	71° 37'	+0 35	+0 16	*0.49	*0.31	1.6	1.8	1.2
				on Amuay, p.280				Mean Diurnal		
4905	AMUAY	11° 45'	70° 13'	<i>Daily predictions</i>				--	1.2	0.6
4907	La Guaira #	10° 36'	66° 56'	-2 29	-1 59	+0.8	+1.0	--	1.0	1.5
4909	Carenero #	10° 32'	66° 07'	-1 51	-1 59	+0.8	+1.0	--	1.0	1.5
4911	Cumana #	10° 28'	64° 11'	-2 37	-1 02	-0.1	0.0	--	1.1	0.5
4913	Porlamar, Isla de Margarita #	10° 57'	63° 51'	-1 19	-0 59	+0.6	0.0	--	1.8	0.9
4915	Carupano #	10° 40'	63° 15'	-1 17	-0 42	+0.2	0.0	--	1.4	0.7

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No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	VENEZUELA Time meridian, 60° 30' W	North	West	h m	h m	ft	ft	ft	ft	ft
	<i>Gulf of Paria</i>			on Punta Gorda, p.284						
4917	Macuro	10° 39'	61° 56'	-1 15	-2 05	*0.38	*0.38	2.2	2.7	1.4
4919	Puerto de Hierro	10° 37'	62° 05'	-0 46	-1 19	*0.59	*0.59	3.3	4.2	2.0
4921	Barra de Maturin, channel entrance	10° 18'	62° 31'	-0 22	-0 45	-1.0	+0.2	4.6	5.7	2.8
4923	PUNTA GORDA, Rio San Juan	10° 10'	62° 38'	<i>Daily predictions</i>				5.8	7.1	3.2
4925	Boca Pedernales entrance	10° 01'	62° 12'	-0 03	-0 34	-1.3	+0.2	4.3	5.4	2.6
4927	Rio Orinoco entrance, Isla Ramon Isidro	8° 39'	60° 35'	+0 07	-0 12	+0.2	+1.0	5.0	6.7	3.8
	TRINIDAD Time meridian, 60° W									
4929	Staubles Bay	10° 41'	61° 39'	-0 37	-1 32	(*0.33+1.7)		1.9	2.5	2.8
4931	Carenage Bay	10° 41'	61° 36'	-0 28	-1 10	(*0.34+1.6)		2.0	2.6	2.7
4933	Port of Spain	10° 39'	61° 31'	-0 14	-0 42	(*0.31+1.4)		1.8	2.3	2.4
4935	Bonasse pier	10° 05'	61° 52'	-0 13	-0 45	-1.0	+1.4	3.4	4.4	3.4
4937	Erin Bay	10° 04'	61° 39'	-0 20	-1 11	-0.3	+1.2	4.3	5.6	3.6
4939	Guayaguayare Bay	10° 09'	61° 01'	-1 02	-1 39	(*0.53+1.3)		3.1	3.8	3.0
4941	Nariva River	10° 24'	61° 02'	-0 36	-1 46	(*0.41+1.3)		2.4	3.1	2.5
	GUYANA Time meridian, 56° 15' W			on Suriname Rivier, p.288						
4943	Parika, Essequibo River	6° 52'	58° 25'	+0 07	+0 31	+1.6	+1.0	6.6	8.3	5.6
4945	Georgetown	6° 48'	58° 10'	-0 13	-0 29	+0.9	+1.1	5.8	8.0	5.3
	SURINAM Time meridian, 45° W									
4947	Nickerie River	5° 57'	56° 59'	+0 09	+0 21	+1.1	0.0	7.1	9.2	4.9
4949	SURINAME RIVIER ENTRANCE	6° 00'	55° 14'	<i>Daily predictions</i>				6.0	7.6	4.3
4951	Paramaribo, Suriname Rivier	5° 49'	55° 09'	+1 09	+1 42	0.0	0.0	6.0	7.3	4.3
	FRENCH GUIANA Time meridian, 60° W									
4953	Rio Maroni entrance	5° 45'	53° 58'	+0 18	+0 24	+0.7	+1.2	5.5	7.2	5.2
4955	Iles du Salut	5° 17'	52° 35'	-0 07	-0 07	+1.7	+2.2	5.5	7.2	6.2
4957	Cayenne	4° 56'	52° 20'	+0 15	+0 15	+2.4	+1.8	6.6	7.8	6.4
	BRAZIL <16> Time meridian, 45° W									
4959	Cape Cassipore	3° 49'	51° 01'	+1 24	+1 19	+1.5	+0.3	7.2	9.5	5.2
4961	Rio Cunani entrance	2° 50'	50° 53'	+2 10	+2 24	(*2.42-0.2)		14.5	19.0	10.1
	South West									
4963	Ilha de Maraca anchorage	2° 09'	50° 30'	+1 40	+1 52	(*2.42-0.2)		14.5	19.0	10.1
4965	Ilha do Brigue, Amazon River	0° 55'	50° 05'	+7 09	+7 40	+8.3	+1.1	13.2	15.7	9.0
4967	Ponta Pedreira, Amazon River	0° 11'	50° 43'	+6 31	+6 43	*2.08	*2.23	12.3	16.2	9.0
4969	Macapa, Amazon River	0° 03'	51° 11'	+10 57	+12 13	+2.8	+0.4	8.4	9.5	5.9
4971	Canal de Braganca, Rio Para entrance	0° 23'	47° 55'	+6 09	+6 09	+1.8	-0.1	7.9	10.4	5.1
4973	Salinopolis	0° 39'	47° 23'	+2 38	+2 52	*1.99	*1.54	12.5	15.9	8.3
4975	Belem (Para)	1° 27'	48° 30'	+6 34	+7 37	+2.9	+0.7	8.2	10.1	6.1
4977	Ilhas de Sao Joao	1° 17'	44° 55'	+1 31	+1 31	*1.70	*1.31	10.7	14.1	7.0
4979	Sao Luiz	2° 32'	44° 18'	+2 28	+2 25	(*2.35-0.7)		14.1	17.1	9.3
4981	Santana, Recife's de	2° 16'	43° 36'	+0 46	+0 45	*1.58	*1.15	10.0	13.1	6.5
4983	Tutoia, Baia da	2° 46'	42° 14'	+0 11	+0 10	+2.4	+0.4	8.0	10.0	5.7
4985	Luis Correia	2° 53'	41° 40'	+0 01	+0 13	+1.8	+0.4	7.4	9.4	5.4
4987	Camocim	2° 53'	40° 52'	+1 07	+1 06	+2.0	+0.4	7.6	9.7	5.5
4989	Rio Ceara (bar)	3° 41'	38° 37'	-0 13	-0 21	+0.2	-0.1	6.3	8.3	4.3
4991	Fortaleza	3° 43'	38° 29'	-0 08	-0 12	+0.2	-0.3	6.5	8.5	4.2
	Time meridian, 30° W			on Recife, p.292						
4993	Fernando de Noronha	3° 50'	32° 25'	+1 32	+1 33	-1.2	-0.5	4.5	6.0	2.9
4995	Rocas, Atol das	3° 51'	33° 49'	+1 43	+1 44	+2.3	0.0	7.5	10.0	4.9
	Time meridian, 45° W									
4997	Macau, Rio Acu	5° 06'	36° 41'	+1 29	+1 58	+0.6	-0.1	5.9	7.6	4.1
4999	Natal	5° 47'	35° 12'	+0 28	+0 30	+0.1	-0.2	5.5	7.3	3.7
5001	Cabedelo	6° 58'	34° 50'	+0 36	+0 37	+0.1	-0.2	5.5	7.2	3.7
5003	Tambau	7° 06'	34° 50'	-0 04	-0 03	+0.7	-0.1	6.0	7.6	4.1
5005	RECIFE	8° 03'	34° 52'	<i>Daily predictions</i>				5.3	7.1	3.8
5007	Maceio	9° 40'	35° 43'	+0 10	+0 14	-0.3	-0.2	5.1	6.8	3.6
5009	Rio Sao Francisco (bar)	10° 31'	36° 24'	+0 06	+0 14	-0.7	0.0	4.5	6.0	3.5
5011	Aracaju	10° 56'	37° 03'	+0 33	+0 48	-0.8	-0.3	4.7	6.1	3.3
5013	Salvador	12° 58'	38° 31'	-0 02	-0 08	+0.6	+0.4	5.5	7.4	4.3
5015	Ponta da Areia	12° 47'	38° 30'	+0 10	+0 06	+0.6	-0.1	5.9	7.6	4.0
5017	Morro de Sao Paulo	13° 21'	38° 54'	-0 11	-0 13	-0.6	0.0	4.6	6.0	3.5
5019	Camamu	13° 54'	38° 58'	-0 08	-0 04	-0.2	+0.1	4.9	6.5	3.8
5021	Ilheus	14° 48'	39° 02'	-0 33	-0 32	-0.9	-0.3	4.6	5.8	3.2
5023	Canaveiras	15° 40'	38° 56'	+0 16	+0 22	-1.0	-0.2	4.5	5.8	3.1
5025	Santa Cruz Cabralia	16° 17'	39° 02'	-0 35	-0 35	-1.2	-0.5	4.5	6.0	2.9
5027	Cumuruxatiba	17° 06'	39° 11'	-0 23	-0 09	+0.4	+0.3	5.3	7.2	4.2
5029	Caravelas	17° 43'	39° 09'	-0 50	-0 49	-0.8	-0.5	4.9	6.4	3.1

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			
	BRAZIL <16> Time meridian, 45° W	South	West	h m	h m	ft	ft	ft	ft	ft
				on Recife, p.292						
5031	Abrolhos Anchorage	17° 58'	38° 42'	-0 01	+0 04	+0.6	+0.1	5.7	7.6	4.2
5033	Vitoria	20° 19'	40° 19'	-0 34	-0 35	*0.66	*0.75	3.3	4.6	2.6
5035	Guarapari	20° 40'	40° 30'	+0 12	+0 17	*0.62	*0.75	3.1	4.2	2.5
				on Rio de Janeiro, p.296						
5037	Sao Joao da Barra	21° 38'	41° 03'	+0 34	-0 42	-0.1	-0.2	2.6	3.6	2.1
5039	Macaé (Imbitiba Bay)	22° 23'	41° 46'	-0 23	-1 08	0.0	-0.2	2.7	3.6	2.1
5041	Armação dos Buzios	22° 45'	41° 53'	-0 01	-0 55	-0.1	-0.1	2.5	3.4	2.1
5043	Cabo Frio	23° 00'	42° 03'	-0 03	-0 05	*0.91	*0.90	2.3	3.2	2.0
5045	RIO DE JANEIRO	22° 54'	43° 10'	Daily predictions				2.5	3.5	2.2
5047	Itacurussa	22° 56'	43° 55'	+0 50	-0 26	0.0	-0.1	2.6	3.3	2.2
5049	Angra dos Reis	23° 01'	44° 19'	-0 35	-0 40	*0.86	*0.86	2.1	3.0	1.9
5051	Parati	23° 14'	44° 43'	-0 09	-1 25	-0.1	0.0	2.4	3.4	2.2
5053	Sao Sebastião	23° 49'	45° 24'	-0 28	-1 24	*0.94	*1.00	2.3	3.3	2.2
5055	SANTOS	23° 57'	46° 19'	Daily predictions, p.300				2.6	3.8	2.4
5057	Cananeia	25° 01'	47° 56'	+1 09	-1 09	+0.4	+0.2	2.7	4.1	2.6
5059	Paranaguá	25° 31'	48° 27'	+1 51	-1 32	+1.8	+0.2	4.1	6.0	3.2
5061	Sao Francisco do Sul	26° 15'	48° 38'	+0 38	- - -	+0.8	-0.1	3.4	4.8	2.6
5063	Itajaí	26° 54'	48° 39'	-0 08	-0 16	(*0.76+0.4)		1.9	2.8	2.1
5065	Porto Belo	27° 09'	48° 33'	-0 38	-0 28	*0.74	*0.74	1.8	2.5	1.7
5067	Florianópolis	27° 36'	48° 34'	-0 14	+0 15	*0.69	*0.70	1.7	2.4	1.6
5069	Imbituba	28° 14'	48° 39'	-0 17	-1 10	*0.54	*0.50	1.4	2.0	1.2
5071	Laguna	28° 30'	48° 47'	+1 10	-1 31	(*0.32+0.4)		0.8	1.2	1.1
5073	Barra do Rio Grande <18> #	32° 10'	52° 05'	- - -	- - -	- - -	- - -	- -	0.8	0.3
	URUGUAY			on Buenos Aires, p.304						
5075	Montevideo	34° 55'	56° 13'	-5 10	-7 11	(*0.52+1.6)		1.1	1.4	3.0
5077	Colonia, Rio de la Plata	34° 28'	57° 51'	+0 17	-0 33	(*0.52+1.2)		1.1	1.3	2.6
	ARGENTINA									
	Rio de la Plata									
5079	BUENOS AIRES	34° 34'	58° 23'	Daily predictions				2.1	2.5	2.6
5081	La Plata	34° 50'	57° 53'	-1 50	-2 04	+0.2	+0.6	1.7	2.0	3.0
5083	Banco Chico	34° 50'	57° 30'	-3 00	-3 24	+0.8	+0.8	2.1	2.5	3.4
5085	Banco Cuirassier	35° 06'	57° 08'	-5 25	-5 39	+0.8	+0.8	2.1	2.5	3.4
5087	Punta Piedras	35° 26'	57° 07'	-7 10	-7 23	+2.2	+1.1	3.2	3.8	4.2
5089	Punta Norte del Cabo San Antonio <17>	36° 18'	56° 47'	-8 50	-9 26	+1.2	+0.3	3.0	3.7	3.3
5091	Mar del Plata <17>	38° 03'	57° 33'	-0 02	+0 14	+0.7	+0.2	2.6	3.0	3.0
5093	Quequen <17>	38° 35'	58° 42'	-0 18	-0 22	+1.5	-0.3	3.9	4.2	3.2
				on Puerto Ingeniero White, p.308						
5095	Faro Recalada	39° 00'	61° 16'	-0 48	-0 28	-4.9	-1.3	6.5	7.1	5.3
5097	Monte Hermoso	38° 59'	61° 41'	-0 46	-0 40	-3.4	-1.2	7.9	9.1	6.2
	Bahia Blanca									
5099	Punta Ancla	38° 57'	62° 00'	-0 57	-0 21	-1.9	-0.9	9.1	9.9	7.1
5101	Puerto Rosales	38° 55'	62° 04'	-0 28	-0 06	-0.5	-0.5	10.1	11.0	8.0
5103	Puerto Belgrano	38° 53'	62° 06'	-0 22	-0 07	-0.5	-0.3	9.9	11.0	8.0
5105	PUERTO INGENIERO WHITE	38° 47'	62° 16'	Daily Predictions				10.1	11.6	8.5
5107	General Daniel Cerri	38° 45'	62° 24'	+0 16	+0 20	+1.8	+0.1	11.8	12.9	9.4
5109	Canal del Sur, Isla Bermejo	39° 01'	61° 58'	-0 55	-0 24	-2.2	-0.9	8.8	9.6	6.9
5111	Canal Bermejo, Isla Trinidad	39° 05'	61° 58'	-0 57	-0 26	-2.7	-1.0	8.4	9.2	6.6
5113	Punta Lobos, Isla Trinidad	39° 11'	61° 52'	-0 58	-0 41	-3.3	-1.2	8.0	8.8	6.2
5115	El Chara (Punta Laberinto)	39° 26'	62° 03'	-1 19	-0 51	-2.9	-1.0	8.3	9.2	6.5
5117	Bahia Anegada, Islote NW	40° 01'	62° 10'	-2 07	-2 00	(*0.63-0.6)		6.4	7.1	4.8
5119	Bahia San Blas	40° 33'	62° 14'	-3 47	-3 41	*0.50	*0.35	5.6	6.0	4.0
5121	Faro Segunda Barranca	40° 47'	62° 17'	-4 51	-4 40	(*0.53-0.5)		5.4	5.9	4.0
5123	Punta Redonda, Rio Negro entrance	41° 02'	62° 46'	-6 16	-6 10	-1.6	-1.4	9.9	11.2	7.0
				on Comodoro Rivadavia, p.312						
5125	Golfo San Matias									
	Caleta de los Loros	41° 02'	64° 06'	+7 14	+7 08	*1.45	*1.39	20.3	24.0	14.8
5127	Puerto San Antonio	40° 48'	64° 52'	+7 30	+7 23	(*1.57-1.6)		21.9	25.6	14.6
	Golfo San Jose									
5129	San Roman	42° 15'	64° 14'	+7 15	+7 18	(*1.42-1.1)		19.8	23.4	13.5
5131	Pueyrredon (Fondeadero)	42° 24'	64° 09'	+7 46	+7 40	(*1.52-2.2)		21.2	24.6	13.5
5133	La Argentina (Fondeadero)	42° 23'	64° 34'	+7 04	+6 58	*1.31	*1.36	18.0	23.3	13.5
5135	Punta Norte	42° 05'	63° 46'	+6 50	+6 44	-0.8	-1.4	14.5	17.0	9.5
5137	Caleta Valdes	42° 31'	63° 36'	+5 04	+4 58	-5.2	-1.9	10.6	12.4	6.7
5139	Punta Delgada	42° 46'	63° 38'	+4 08	+4 02	-5.8	-2.0	10.1	11.7	6.4
	Golfo Nuevo									
5141	Punta Ninfas (Fondeadero)	42° 57'	64° 25'	+2 48	+3 31	-2.3	-1.0	12.6	15.4	8.6
5143	Puerto Piramides	42° 35'	64° 17'	+2 56	+3 33	-2.7	-1.3	12.5	15.0	8.3
5145	Puerto Madryn	42° 46'	65° 02'	+3 08	+3 42	-0.8	-0.1	13.2	16.0	9.8
5147	Bahia Engano	43° 20'	65° 04'	+2 06	+2 00	-2.7	-1.3	12.5	15.2	8.2
5149	Isla Escondida	43° 43'	65° 17'	+2 10	+2 05	-3.3	-0.3	10.9	13.1	8.5
5151	Bahia Janssen	44° 02'	65° 14'	+1 48	+2 03	-4.1	-1.9	11.7	13.9	7.3
5153	Cabo Raso	44° 20'	65° 14'	+1 41	+1 26	-4.8	-1.6	10.7	12.4	7.0
5155	Bahia Cruz	44° 27'	65° 19'	+2 13	+2 07	-6.1	-2.1	9.9	11.5	6.2
5157	Santa Elena, Puerto	44° 31'	65° 22'	+1 45	+1 40	-3.1	-0.4	11.2	13.6	8.5
5159	Bahia Camarones	44° 54'	65° 36'	+1 10	+1 14	-2.3	+0.1	11.5	13.7	9.2

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	Spring	
				High Water	Low Water	High Water	Low Water			
	ARGENTINA Time meridian, 45° W	South	West	h m	h m	ft	ft	ft	ft	ft
				on Comodoro Rivadavia, p.312						
	<i>Golfo San Jorge</i>									
5161	Caleta Leones	45° 03'	65° 37'	+1 11	+1 05	-0.7	-0.2	13.4	14.7	9.8
5163	Bahia Gil (Caleta Horno)	45° 02'	65° 41'	+0 42	+0 36	-1.7	+0.3	11.9	14.1	9.6
5165	Puerto Melo	45° 01'	65° 50'	+0 27	+0 24	-1.5	+0.1	12.3	14.6	9.6
5167	Isla Tova	45° 06'	65° 59'	+0 27	+0 24	-1.5	+0.1	12.3	14.6	9.6
5169	Bahia Bustamante	45° 07'	66° 32'	+0 28	+0 23	-0.8	+0.7	12.4	14.7	10.2
5171	COMODORO RIVADAVIA	45° 52'	67° 29'					14.0	16.3	10.3
5173	Cabo Blanco	47° 12'	65° 45'	-1 15	-1 20	-2.3	-0.3	11.9	13.2	9.0
5175	Puerto Deseado	47° 45'	65° 55'	-2 52	-2 44	-0.6	+1.0	12.4	14.5	10.5
5177	Bahia Oso Marino	47° 56'	65° 48'	-3 35	-3 40	-1.2	+1.2	11.5	14.1	10.3
5179	Bahia de los Nodales	48° 01'	65° 57'	-3 01	-3 06	-1.2	+0.1	12.6	15.3	9.7
5181	Bahia Laura	48° 23'	66° 29'	-5 28	-5 28	+6.7	-1.9	22.5	25.4	12.7
5183	Bahia San Julian (Punta Pena)	49° 15'	67° 40'	-4 58	-5 04	(*1.40-1.4)		19.5	23.6	13.0
				on Punta Loyola, p.316						
5185	Santa Cruz (Punta Quilla)	50° 07'	68° 25'	+0 43	+0 44	+0.2	+0.1	26.0	32.4	20.4
5187	Ria Coig	50° 57'	69° 10'	-0 05	-0 04	0.0	-0.7	26.6	32.2	19.9
5189	PUNTA LOYOLA	51° 36'	69° 01'					25.9	32.4	20.3
5191	Rio Gallegos (Reduccion Beacon)	51° 37'	69° 13'	+0 21	+0 30	+4.2	+1.1	29.0	36.2	22.9
5193	Cabo Virgenes	52° 21'	68° 22'	-0 36	-0 55	-2.1	0.0	23.8	29.8	19.2
	Tierra del Fuego <19>			on Comodoro Rivadavia, p.312						
5195	Bahia San Sebastian	53° 10'	68° 30'	-7 50	-7 55	*1.69	*1.91	22.8	28.6	17.7
5197	Rio Grande (Muelle)	53° 48'	67° 41'	-7 50	-7 55	*1.15	*1.18	15.8	19.2	11.8
5199	Cabo San Pablo	54° 17'	66° 42'	-8 48	-8 53	*1.17	*1.27	16.0	19.3	12.2
				on Puerto Ingeniero White, p.308						
5201	Bahia Thetis	54° 38'	65° 15'	+1 00	+1 07	-2.0	-0.6	8.7	10.6	7.2
	SOUTH ATLANTIC OCEAN ISLANDS Time meridian, 60° W			on Pictou, p.8						
	<i>Falkland Islands</i>									
5203	Port Louis (Berkeley Sound)	51° 33'	58° 09'	+7 50	+7 47	-0.9	-1.0	3.3	4.2	3.0
5205	Stanley Harbor	51° 42'	57° 51'	+7 51	+7 48	-1.0	-1.0	3.2	4.2	2.9
	<i>South Georgia</i>									
5207	Royal Bay (Moltke Harbor)	54° 31'	36° 01'	+9 58	+10 19	*0.36	*0.13	1.7	2.3	1.2
5209	Leith Harbor	54° 08'	36° 41'	+9 15	+9 35	*0.64	*0.65	2.0	2.7	2.5
	Time meridian, local									
	<i>South Orkneys</i>									
5211	Scotia Bay, Laurie Island	60° 44'	44° 39'	+8 21	+8 32	-0.3	-0.6	3.5	5.0	3.5
	<i>South Shetlands</i>									
5213	Port Foster, Deception Island	62° 58'	60° 34'	+8 26	+8 38	0.0	-0.1	3.3	4.3	3.9
	Time meridian, 45° W									
5215	Admiralty Bay	62° 03'	58° 24'	+9 49	+10 05	-0.5	-0.4	3.1	4.4	3.5

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.

- # The tide at this location is chiefly diurnal. SEE CAUTION NOTE.
- <1> Neap low water falls lower than spring low water.
- <2> Wharves are dry at low water.
- <3> There is a bore in the Petitcodiac River. It arrives at Moncton about 1h 38m before high water at St. John: its height is about 3 to 3 1/2 feet on average spring tides, but it sometimes exceeds 5 feet on highest tides. On small tides it is not much more than a large ripple.
- <4> The Reversing Falls at St. John—The most turbulence in the gorge occurs on days when the tides are largest. On largest tides the outward fall is between 15 and 16 1/2 feet and is accompanied by a greater turbulence than the inward fall which is between 11 and 12 1/2 feet. The outward fall is at its greatest between 2 hours before and 1 hour after low water at St John: the inward fall is greater just before the time of high water.
- <5> For Eastern Standard, time subtract one hour from the predictions obtained using these differences.
- <6> Low water time difference is +2h 47m. SEE CAUTION NOTE ON PAGE FOLLOWING LISTING.
- <8> Values for the Hudson River above the George Washington Bridge are based upon averages for the six months May to October, when the freshwater discharge is at a minimum.
- <9> In Albermarle and Pamlico Sounds, except near the inlets, the periodic tide has a mean range of less than 0.5 foot.
- <11> In Choctawhatchee and Perdido Bays the periodic tide has a mean range of less than 0.5 foot.
- <12> At New Orleans the diurnal range of the tide during low river stages averages 0.8 foot. There is no periodic tide at high river stages.
- <13> For places on the Pacific coast, see "Tide Tables, West Coast of North and South America."
- <15> Spring range is given instead of diurnal range.
- <16> A "Pororoca", a bore, reported to vary from 5 to 15 feet at spring tides, occurs in the Araguay, Guama and Guajara Rivers.
- <17> Predictions will be approximate.
- <18> Diurnal range is given instead of spring range.
- <19> For places in Magellan Strait, on the south coast of Tierra del Fuego and on the Pacific coast, see "Tide Tables, West Coast of North and South America."
- <20> The time differences should be applied only to the higher high and the lower low water times of the reference station.
- <21> From Oak Hill southward in Mosquito Lagoon the periodic tide is negligible.
- <22> In Indian River north of Palm Bay, in Banana River and in Banana Creek, the periodic tides are negligible.
- <24> The periodic tide is negligible, at this location and above.
- <26> The periodic range of the tide is negligible at this location.
- <27> The periodic range of the tide is negligible inside Sugarloaf Sound.

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 0755 at New York (The Battery), N.Y., 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>Height</i>	<i>Time</i>	<i>Height</i>
<i>h.m.</i>	<i>ft</i>	<i>h.m.</i>	<i>ft</i>
0522	0.1	1114	4.2
1741	0.6	2310	4.1

An inspection of the above example shows that the desired time falls between the two morning tides

The duration of rise is $11^{\text{h}} 14^{\text{m}} - 5^{\text{h}} 22^{\text{m}} = 5^{\text{h}} 52^{\text{m}}$.

The time after low water for which the height is required is $7^{\text{h}} 55^{\text{m}} - 5^{\text{h}} 22^{\text{m}} = 2^{\text{h}} 33^{\text{m}}$.

The range of tide is $4.2 - 0.1 = 4.1$ feet.

The duration of rise or fall in Table 3 is given in heavy-faced type for each 20 minutes from $4^{\text{h}} 10^{\text{m}}$ to $10^{\text{h}} 40^{\text{m}}$. The nearest tabular value to $5^{\text{h}} 52^{\text{m}}$, the above duration of rise, is $6^{\text{h}} 00^{\text{m}}$; and on the horizontal line of $6^{\text{h}} 00^{\text{m}}$, the nearest tabular time to $2^{\text{h}} 33^{\text{m}}$ after low water for which the height is required is $2^{\text{h}} 36^{\text{m}}$. Following down the column in which this $2^{\text{h}} 36^{\text{m}}$ is found to its intersection with the line of the range 4.0 feet (the nearest tabular value to the above range of 4.1 feet), the correction is found to be 1.6 feet, which being reckoned from low water, must be added, making $0.1 + 1.6 = 1.7$ feet or 52 centimeters which is the required height above mean lower low water, the datum for New York.

Example 2. —Find the height of the tide at 0300 at Somewhere, U.S.A. on a day when the predicted tides are given as:

<i>High Water</i>		<i>Low Water</i>	
<i>Time</i>	<i>Height</i>	<i>Time</i>	<i>Height</i>
<i>h.m.</i>	<i>ft</i>	<i>h.m.</i>	<i>ft</i>
0012	11.3	0638	-2.0
1251	11.0	1853	-0.8

The duration of fall is $6^{\text{h}} 38^{\text{m}} - 00^{\text{h}} 12^{\text{m}} = 6^{\text{h}} 26^{\text{m}}$.

The time after high water for which the height is required is $3^{\text{h}} 00^{\text{m}} - 00^{\text{h}} 12^{\text{m}} = 2^{\text{h}} 48^{\text{m}}$.

The range of tide is $11.3 - (-2.0) = 13.3$ feet.

Entering Table 3 at the duration of fall of $6^{\text{h}} 20^{\text{m}}$, which is the nearest value to $6^{\text{h}} 26^{\text{m}}$, the nearest value on the horizontal line to $2^{\text{h}} 48^{\text{m}}$ is $2^{\text{h}} 45^{\text{m}}$ after high water. Follow down this column to its intersection with a range of 13.5 feet which is the nearest tabular value to 13.3 feet, one obtains 5.3 which, being calculated from high water, must be subtracted from it. The approximate height at $03^{\text{h}} 00^{\text{m}}$ is, therefore, $11.3 - 5.3 = 6.0$ feet or 183 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.

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

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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.

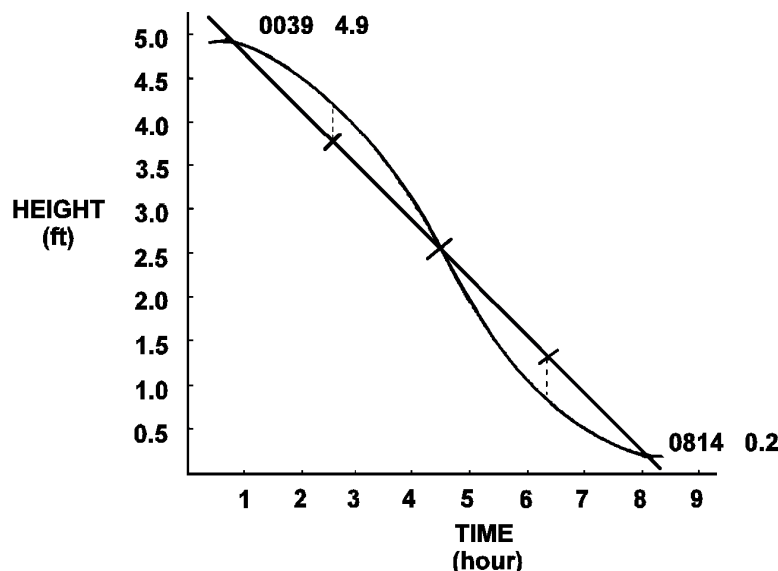


TABLE 3.—HEIGHT OF TIDE AT ANY TIME

<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>
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>
0.5	0.0	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
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.8	2.0
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.0
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.2
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.7	2.3	2.8	3.3	3.8	4.4	4.9	5.5
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.8	2.3	2.9	3.4	4.0	4.6	5.1	5.8
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.5	3.0	3.6	4.1	4.8	5.4	6.0
12.5	0.0	0.1	0.3	0.5	0.8	1.2	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, 2019

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

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

TABLE 4.—SUNRISE AND SUNSET, 2019

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 55
16	06 57	17 23	07 01	17 19	07 05	17 15	07 10	17 10	07 15	17 05	07 20	17 00
21	06 55	17 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 30
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	18 00	06 27	17 58	06 28	17 57	06 29	17 56	06 31	17 54	06 33	17 53
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 05	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 09
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 22	05 46	18 23	05 45	18 24
6	05 44	18 22	05 43	18 23	05 41	18 24	05 40	18 26	05 38	18 27	05 37	18 29
11	05 38	18 25	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 37	05 21	18 39
21	05 27	18 31	05 25	18 33	05 22	18 36	05 20	18 38	05 17	18 41	05 14	18 44
26	05 22	18 34	05 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
Jun. 5	04 59	18 58	04 54	19 03	04 49	19 08	04 44	19 14	04 38	19 19	04 32	19 25
10	04 58	19 01	04 54	19 06	04 48	19 11	04 43	19 16	04 37	19 22	04 31	19 28
15	04 59	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 41	19 27	04 34	19 33
Jul. 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 44	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 06	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 25	18 37
Sep. 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 14	05 39	18 16	05 38	18 17	05 37	18 18	05 35	18 19	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 02	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 42
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 43	17 00	06 47	16 55	06 52	16 51	06 57	16 46	07 02	16 40	07 08	16 35
12	06 46	17 01	06 51	16 56	06 56	16 51	07 01	16 46	07 06	16 41	07 12	16 35
17	06 49	17 03	06 54	16 58	06 59	16 53	07 04	16 48	07 10	16 42	07 16	16 36
22	06 52	17 05	06 57	17 00	07 02	16 55	07 07	16 50	07 13	16 44	07 19	16 38
27	06 54	17 08	06 59	17 03	07 04	16 58	07 09	16 53	07 15	16 47	07 21	16 41

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

Date	42°N.		44°N.		46°N.		48°N.		50°N.		52°N.	
	Rise 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 59	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 43	07 40	16 36	07 47	16 29	07 56	16 21	08 04	16 12
16	07 25	16 54	07 31	16 49	07 38	16 42	07 45	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 44	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 20	07 13	17 15	07 18	17 11	07 23	17 06	07 28	17 01	07 34	16 55
10	07 03	17 26	07 07	17 22	07 11	17 18	07 15	17 14	07 20	17 09	07 25	17 04
15	06 56	17 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	18 00	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 10	18 07
22	06 01	18 14	06 00	18 14	06 00	18 15	06 00	18 15	05 59	18 16	05 59	18 16
27	05 52	18 20	05 51	18 20	05 50	18 21	05 50	18 22	05 48	18 23	05 47	18 25
Apr. 1	05 44	18 25	05 42	18 27	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 20	04 29	19 26	04 22	19 33
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 49
21	04 35	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
Jun. 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 22
20	04 24	19 39	04 17	19 46	04 09	19 54	04 00	20 03	03 50	20 13	03 40	20 24
25	04 26	19 40	04 18	19 47	04 10	19 55	04 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 44	20 23
Jul. 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 46	19 26	04 40	19 32	04 33	19 38	04 26	19 45
9	05 01	19 09	04 57	19 14	04 52	19 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
Sep. 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 23	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 56	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 30	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 57	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 54	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 26	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 00
27	07 04	16 31	07 10	16 25	07 16	16 19	07 23	16 12	07 31	16 04	07 39	15 56
Dec. 2	07 09	16 29	07 15	16 23	07 22	16 16	07 29	16 09	07 38	16 01	07 46	15 52
7	07 14	16 28	07 20	16 22	07 28	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

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

TABLE 4.-SUNRISE AND SUNSET, 2019

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

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

TABLE 4.—SUNRISE AND SUNSET, 2019

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

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

TABLE 4.—SUNRISE AND SUNSET, 2019

Date	0° S.		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 12	05 56	18 20	05 48	18 28	05 39	18 36	05 30	18 45	05 21	18 55
16	06 06	18 13	05 58	18 21	05 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 30	05 45	18 37	05 37	18 45	05 28	18 54
26	06 09	18 16	06 02	18 23	05 55	18 30	05 48	18 37	05 40	18 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 02	18 27	05 57	18 31	05 52	18 36	05 46	18 42
20	06 10	18 17	06 06	18 21	06 02	18 25	05 58	18 29	05 54	18 33	05 49	18 38
25	06 10	18 16	06 06	18 20	06 03	18 23	06 00	18 26	05 56	18 30	05 52	18 34
Mar. 2	06 09	18 15	06 06	18 18	06 04	18 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 04	18 13	06 03	18 14	06 02	18 14
22	06 04	18 10	06 04	18 10	06 04	18 10	06 04	18 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 07	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 59	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 05	17 50	06 10	17 44	06 16	17 38	06 22	17 32
6	05 53	18 00	05 59	17 54	06 05	17 48	06 11	17 42	06 18	17 35	06 25	17 29
11	05 53	18 00	05 59	17 53	06 06	17 47	06 13	17 40	06 20	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 30	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
Jun. 5	05 55	18 02	06 03	17 54	06 12	17 45	06 20	17 37	06 29	17 28	06 39	17 18
10	05 56	18 03	06 04	17 55	06 13	17 46	06 22	17 37	06 31	17 28	06 41	17 18
15	05 57	18 04	06 05	17 55	06 14	17 47	06 23	17 38	06 33	17 28	06 43	17 18
20	05 58	18 05	06 07	17 57	06 15	17 48	06 24	17 39	06 34	17 29	06 44	17 19
25	05 59	18 06	06 08	17 58	06 16	17 49	06 25	17 40	06 35	17 30	06 45	17 20
30	06 00	18 07	06 09	17 59	06 17	17 50	06 26	17 41	06 36	17 32	06 46	17 22
Jul. 5	06 01	18 08	06 09	18 00	06 18	17 51	06 27	17 43	06 36	17 33	06 46	17 24
10	06 02	18 09	06 10	18 01	06 18	17 53	06 27	17 44	06 36	17 35	06 45	17 26
15	06 02	18 10	06 10	18 02	06 18	17 54	06 27	17 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 41	06 41	17 32
30	06 03	18 10	06 10	18 03	06 17	17 57	06 24	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
Sep. 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 47	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 45	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 55	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 38	18 01	05 29	18 09	05 21	18 18	05 12	18 27	05 02	18 37
7	05 48	17 55	05 39	18 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

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

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

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

TABLE 4.—SUNRISE AND SUNSET, 2019

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 39	04 26	19 45	04 18	19 53	04 10	20 01	04 01	20 10	03 50	20 21
11	04 38	19 37	04 31	19 44	04 24	19 51	04 16	19 59	04 07	20 08	03 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 51	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 05	19 23	05 00	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 27	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 19	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 27	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 35	17 25	06 37	17 22	06 40	17 19	06 43	17 16	06 47	17 12
21	06 37	17 19	06 41	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 05	06 52	17 01	06 57	16 57	07 01	16 53	07 06	16 48	07 12	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 15	16 38	07 21	16 32	07 27	16 25
16	07 04	16 49	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 39	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
Jun. 5	07 21	16 36	07 27	16 29	07 34	16 22	07 42	16 15	07 51	16 06	08 00	15 57
10	07 24	16 35	07 31	16 28	07 38	16 21	07 46	16 13	07 55	16 04	08 04	15 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 08	08 10	15 58
Jul. 5	07 28	16 41	07 35	16 34	07 42	16 27	07 50	16 20	07 58	16 11	08 08	16 01
10	07 27	16 44	07 33	16 38	07 40	16 31	07 48	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 22	16 51	07 28	16 45	07 35	16 39	07 42	16 32
Aug. 4	07 06	17 06	07 11	17 02	07 16	16 57	07 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	17 00	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 18	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 41	17 21	06 45	17 18
Sep. 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 07	17 45	06 08	17 44	06 09	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 12	18 24
13	05 14	18 19	05 12	18 22	05 09	18 24	05 07	18 27	05 04	18 29	05 01	18 33
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 39	18 50
28	04 51	18 37	04 47	18 41	04 43	18 45	04 39	18 50	04 34	18 54	04 29	19 00
Nov. 2	04 44	18 44	04 40	18 48	04 36	18 52	04 31	18 57	04 25	19 03	04 19	19 09
7	04 38	18 50	04 34	18 55	04 28	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 02	19 28	03 55	19 36
22	04 24	19 08	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 36	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 08
12	04 18	19 29	04 11	19 37	04 03	19 44	03 54	19 53	03 45	20 03	03 34	20 13
17	04 19	19 33	04 12	19 40	04 04	19 48	03 55	19 57	03 45	20 07	03 35	20 18
22	04 21	19 36	04 14	19 43	04 06	19 51	03 57	20 00	03 47	20 10	03 36	20 21
27	04 24	19 38	04 17	19 45	04 09	19 53	04 00	20 02	03 50	20 11	03 39	20 22

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

Date	54° S.		56° S.		58° S.		60° S.	
	Rise 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 19	20 48	03 02	21 04	02 43	21 24
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 07	20 20
10	04 45	19 42	04 38	19 49	04 30	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 06	19 21	05 00	19 26	04 54	19 32	04 48	19 38
25	05 16	19 09	05 11	19 13	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 36	18 45	05 33	18 48	05 30	18 51	05 27	18 54
12	05 45	18 33	05 44	18 35	05 42	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 54	06 16	17 53
Apr. 1	06 23	17 44	06 25	17 42	06 26	17 40	06 28	17 38
6	06 32	17 32	06 35	17 29	06 37	17 27	06 40	17 23
11	06 41	17 20	06 45	17 17	06 48	17 13	06 52	17 09
16	06 51	17 08	06 55	17 04	06 59	17 00	07 04	16 54
21	07 00	16 57	07 05	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 26
May. 1	07 18	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 00
11	07 35	16 17	07 43	16 09	07 53	15 59	08 04	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
Jun. 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 43	08 31	15 30	08 46	15 15	09 03	14 58
20	08 20	15 43	08 33	15 30	08 48	15 15	09 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
Jul. 5	08 19	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 21	15 51	08 34	15 38	08 49	15 23
20	08 05	16 09	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 54
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 21	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 09	16 56	07 15	16 51
29	06 48	17 15	06 52	17 11	06 56	17 07	07 01	17 02
Sep. 3	06 36	17 24	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 31	17 25
13	06 12	17 41	06 13	17 40	06 15	17 38	06 16	17 37
18	06 00	17 50	06 00	17 50	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 33	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 36	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 36	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

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:

Boston, Massachusetts	New York, New York	Baltimore, Maryland
Washington, D.C.	Charleston, South Carolina	Savannah, Georgia
Galveston, Texas	Panama Canal	

All of Table 6 was supplied by the Nautical Almanac Office of the United States Naval Observatory. Since Baltimore, Md., and Washington, D.C., are comparatively near to each other, a single table was compiled for a point midway between the two cities. The difference in time of moonrise and moonset at the point selected and at either city may vary between 0 and 2 minutes. In a similar way, a single table was made for Charleston, S.C., and Savannah, Ga.; and the difference in time of the moonrise or moonset at the point selected and at either city may vary between 0 and 4 minutes, which differences are of no practical importance in this table. 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, 2019

Boston, MA

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	0249	1332	0442	1412	0330	1258	0405	1435	0330	1523	0318	1722	1
2	0353	1407	0532	1503	0416	1351	0434	1535	0355	1624	0351	1829	2
3	0454	1445	0616	1557	0456	1447	0501	1634	0421	1727	0429	1937	3
4	0553	1528	0655	1654	0531	1545	0527	1734	0448	1831	0516	2042	4
5	0647	1616	0730	1752	0603	1644	0552	1836	0518	1937	0611	2141	5
6	0735	1708	0800	1851	0631	1743	0618	1938	0553	2044	0713	2233	6
7	0818	1804	0828	1949	0658	1842	0647	2042	0634	2149	0822	2317	7
8	0855	1901	0854	2048	0723	1942	0718	2147	0723	2250	0934	2355	8
9	0928	1959	0919	2148	0748	2043	0754	2252	0820	2346	1047	....	9
10	0957	2058	0945	2249	0815	2145	0837	2355	0923	....	1159	0028	10
11	1024	2157	1012	2352	0844	2249	0928	....	1032	0034	1310	0058	11
12	1050	2256	1043	....	0917	2353	1026	0054	1144	0115	1420	0127	12
13	1116	2357	1118	0057	0955	....	1132	0147	1256	0152	1529	0157	13
14	1142	....	1200	0203	1040	0058	1243	0233	1409	0224	1638	0227	14
15	1211	0100	1250	0309	1134	0200	1356	0314	1520	0254	1745	0301	15
16	1245	0206	1350	0413	1237	0259	1511	0350	1632	0324	1849	0339	16
17	1324	0313	1459	0511	1347	0351	1625	0423	1743	0355	1948	0422	17
18	1412	0423	1614	0603	1502	0437	1739	0454	1852	0427	2041	0511	18
19	1509	0530	1731	0647	1619	0517	1852	0525	1959	0503	2126	0605	19
20	1615	0633	1849	0725	1735	0553	2003	0557	2102	0544	2206	0701	20
21	1728	0729	2004	0800	1851	0626	2111	0632	2158	0630	2239	0800	21
22	1845	0816	2117	0832	2004	0658	2216	0710	2248	0721	2309	0900	22
23	2001	0857	2227	0903	2115	0730	2315	0753	2331	0816	2335	0959	23
24	2115	0932	2335	0934	2224	0803	....	0841	....	0914	....	1058	24
25	2226	1004	....	1008	2329	0839	0008	0933	0007	1012	0000	1157	25
26	2335	1034	0040	1044	....	0919	0054	1029	0039	1111	0025	1257	26
27	....	1104	0141	1124	0030	1003	0133	1126	0107	1211	0050	1359	27
28	0042	1135	0238	1209	0125	1051	0207	1225	0133	1310	0117	1503	28
29	0146	1208	....	....	0213	1144	0237	1324	0158	1410	0147	1610	29
30	0248	1245	....	....	0256	1239	0304	1423	0223	1512	0223	1717	30
31	0347	1326	....	....	0333	1337	....	....	0249	1616	....	....	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	0305	1825	0457	1948	0738	2001	0857	1934	1105	2022	1117	2102	1
2	0357	1928	0613	2028	0853	2032	1009	2011	1157	2117	1152	2203	2
3	0458	2025	0730	2102	1006	2104	1117	2054	1242	2216	1221	2303	3
4	0606	2113	0846	2133	1117	2139	1219	2141	1319	2316	1247	....	4
5	0720	2155	0959	2203	1225	2217	1314	2233	1351	....	1312	0003	5
6	0835	2230	1111	2233	1328	2300	1402	2329	1419	0016	1335	0102	6
7	0948	2302	1220	2305	1426	2348	1443	....	1444	0115	1358	0201	7
8	1101	2332	1328	2340	1518	....	1518	0027	1508	0215	1423	0302	8
9	1211	....	1433	....	1603	0040	1548	0126	1532	0314	1451	0404	9
10	1320	0001	1534	0018	1642	0136	1615	0226	1556	0414	1523	0508	10
11	1429	0031	1630	0102	1715	0235	1640	0325	1622	0516	1601	0614	11
12	1535	0103	1720	0152	1744	0334	1704	0424	1651	0619	1647	0719	12
13	1639	0139	1803	0246	1811	0433	1728	0524	1725	0723	1741	0822	13
14	1740	0219	1840	0343	1835	0532	1752	0624	1806	0828	1844	0918	14
15	1834	0305	1912	0441	1859	0631	1819	0725	1854	0931	1952	1008	15
16	1922	0356	1941	0541	1923	0731	1850	0828	1950	1030	2104	1050	16
17	2004	0452	2007	0640	1949	0831	1926	0931	2053	1122	2217	1126	17
18	2039	0550	2031	0739	2017	0932	2008	1034	2202	1208	2329	1158	18
19	2110	0649	2055	0838	2049	1034	2058	1135	2313	1248	....	1227	19
20	2138	0749	2119	0937	2126	1137	2156	1232	....	1322	0041	1255	20
21	2203	0848	2146	1037	2211	1240	2302	1323	0026	1354	0152	1324	21
22	2227	0947	2215	1139	2305	1341	....	1408	0139	1423	0304	1355	22
23	2252	1046	2250	1242	....	1437	0013	1447	0253	1452	0415	1430	23
24	2317	1146	2331	1347	0008	1527	0127	1521	0407	1523	0526	1510	24
25	2345	1247	....	1451	0118	1611	0243	1553	0521	1556	0632	1556	25
26	....	1351	0021	1552	0234	1650	0359	1623	0634	1634	0733	1648	26
27	0017	1457	0121	1648	0351	1724	0515	1654	0744	1718	0827	1746	27
28	0056	1604	0230	1737	0509	1756	0631	1727	0849	1807	0912	1847	28
29	0142	1709	0345	1820	0627	1828	0745	1803	0947	1902	0950	1948	29
30	0238	1809	0503	1857	0743	1900	0857	1844	1036	2001	1022	2050	30
31	0344	1903	0621	1930	....	....	1005	1930	....	....	1049	2150	31

Local Standard Time. Not adjusted for Daylight Savings Time.

New York, NY

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	0259	1347	0450	1430	0337	1316	0414	1451	0341	1536	0332	1731	1
2	0402	1423	0539	1520	0423	1409	0444	1549	0407	1636	0406	1837	2
3	0502	1502	0624	1614	0504	1504	0512	1648	0434	1738	0446	1944	3
4	0600	1545	0703	1710	0540	1601	0538	1747	0502	1841	0533	2049	4
5	0654	1633	0738	1808	0612	1659	0605	1847	0534	1946	0628	2148	5
6	0742	1725	0809	1905	0641	1757	0632	1949	0610	2052	0731	2240	6
7	0825	1820	0838	2003	0708	1855	0701	2052	0651	2156	0839	2325	7
8	0903	1917	0905	2101	0735	1954	0733	2156	0741	2257	0950	....	8
9	0937	2014	0931	2200	0801	2054	0811	2300	0837	2353	1102	0004	9
10	1007	2112	0958	2300	0829	2155	0854	....	0941	....	1213	0038	10
11	1035	2210	1026	....	0859	2258	0945	0002	1049	0042	1322	0110	11
12	1101	2309	1058	0002	0933	....	1044	0101	1200	0124	1431	0140	12
13	1128	....	1134	0106	1012	0001	1149	0154	1311	0201	1539	0210	13
14	1156	0009	1216	0211	1058	0105	1259	0241	1422	0235	1647	0242	14
15	1226	0111	1307	0317	1152	0207	1412	0323	1532	0306	1753	0317	15
16	1300	0215	1407	0420	1255	0306	1525	0400	1643	0337	1856	0356	16
17	1341	0322	1516	0519	1404	0359	1638	0434	1752	0409	1955	0440	17
18	1429	0430	1630	0611	1518	0446	1751	0506	1901	0442	2047	0529	18
19	1526	0538	1747	0656	1633	0527	1902	0538	2007	0520	2134	0622	19
20	1632	0641	1903	0736	1749	0604	2012	0612	2109	0601	2213	0719	20
21	1745	0737	2017	0811	1903	0638	2120	0648	2205	0648	2248	0817	21
22	1901	0825	2128	0844	2015	0711	2224	0727	2255	0739	2318	0915	22
23	2016	0907	2238	0916	2125	0744	2322	0811	2338	0834	2345	1014	23
24	2128	0943	2344	0949	2233	0818	....	0859	....	0931	....	1112	24
25	2238	1016	....	1023	2337	0855	0015	0951	0015	1029	0011	1210	25
26	2346	1047	0048	1100	....	0935	0101	1046	0047	1127	0037	1309	26
27	....	1118	0149	1141	0037	1020	0141	1143	0116	1225	0103	1410	27
28	0052	1150	0245	1226	0132	1109	0215	1240	0143	1324	0131	1513	28
29	0155	1224	....	....	0221	1201	0246	1339	0209	1423	0202	1618	29
30	0256	1302	....	....	0303	1256	0314	1437	0235	1523	0239	1725	30
31	0355	1344	....	....	0341	1353	....	....	0302	1626	....	....	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	0322	1832	0513	1957	0751	2014	0907	1949	1112	2039	1125	2119	1
2	0414	1935	0629	2037	0905	2046	1017	2028	1204	2135	1200	2219	2
3	0515	2032	0745	2112	1016	2119	1125	2111	1249	2233	1230	2318	3
4	0624	2121	0859	2145	1126	2155	1226	2159	1327	2332	1257	....	4
5	0736	2204	1011	2216	1233	2234	1321	2251	1400	....	1323	0017	5
6	0850	2240	1122	2247	1336	2317	1409	2346	1428	0031	1347	0115	6
7	1003	2313	1230	2320	1433	....	1451	....	1455	0130	1411	0213	7
8	1114	2344	1337	2356	1525	0005	1526	0044	1519	0228	1437	0313	8
9	1223	....	1441	....	1610	0058	1557	0142	1544	0326	1506	0414	9
10	1331	0014	1541	0035	1649	0154	1625	0241	1609	0426	1539	0517	10
11	1438	0045	1637	0120	1724	0251	1651	0339	1636	0526	1618	0622	11
12	1544	0118	1727	0209	1754	0350	1716	0437	1707	0628	1705	0726	12
13	1647	0155	1810	0303	1821	0448	1740	0536	1742	0731	1759	0828	13
14	1747	0236	1848	0400	1846	0546	1806	0635	1823	0835	1902	0925	14
15	1841	0323	1921	0458	1911	0644	1834	0735	1911	0938	2009	1015	15
16	1929	0414	1950	0556	1936	0742	1906	0837	2008	1036	2120	1058	16
17	2011	0509	2017	0655	2003	0841	1942	0939	2111	1129	2232	1135	17
18	2048	0607	2042	0752	2032	0941	2025	1042	2218	1216	2343	1208	18
19	2119	0705	2107	0850	2105	1043	2116	1142	2329	1256	....	1238	19
20	2148	0804	2133	0948	2143	1145	2214	1239	....	1332	0053	1308	20
21	2214	0902	2200	1048	2229	1247	2319	1330	0041	1404	0204	1338	21
22	2239	1000	2231	1148	2323	1348	....	1416	0153	1435	0314	1410	22
23	2304	1058	2306	1251	....	1444	0029	1455	0305	1505	0424	1446	23
24	2331	1157	2348	1355	0026	1535	0143	1531	0417	1537	0533	1527	24
25	2400	1258	....	1458	0135	1620	0257	1604	0530	1612	0639	1614	25
26	....	1400	0039	1559	0250	1659	0412	1636	0642	1651	0740	1706	26
27	0033	1505	0139	1655	0406	1735	0526	1708	0751	1735	0833	1804	27
28	0112	1611	0247	1745	0523	1808	0641	1742	0856	1825	0919	1904	28
29	0159	1716	0401	1829	0639	1841	0754	1819	0953	1920	0957	2005	29
30	0256	1816	0518	1907	0754	1914	0905	1901	1043	2019	1030	2105	30
31	0401	1910	0635	1941	....	....	1012	1948	....	....	1059	2204	31

Local Standard Time. Not adjusted for Daylight Savings Time.

Baltimore, MD/Washington, DC

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	0308	1402	0456	1446	0343	1332	0422	1505	0351	1548	0346	1740	1
2	0410	1438	0546	1537	0430	1425	0453	1603	0418	1647	0421	1845	2
3	0510	1517	0631	1630	0511	1520	0522	1700	0446	1748	0502	1951	3
4	0607	1601	0711	1726	0548	1616	0549	1759	0515	1850	0549	2055	4
5	0700	1650	0746	1822	0620	1713	0616	1858	0548	1954	0645	2155	5
6	0749	1742	0818	1919	0650	1810	0644	1958	0625	2059	0748	2247	6
7	0832	1836	0847	2016	0719	1908	0715	2100	0707	2203	0855	2333	7
8	0911	1932	0915	2113	0746	2006	0748	2203	0757	2304	1006	....	8
9	0945	2029	0942	2211	0813	2105	0826	2307	0854	2400	1116	0013	9
10	1016	2126	1010	2310	0842	2205	0910	....	0957	....	1226	0048	10
11	1045	2223	1039	....	0913	2306	1002	0009	1105	0049	1334	0121	11
12	1112	2320	1112	0011	0947	....	1100	0108	1214	0132	1442	0152	12
13	1140	....	1149	0114	1027	0009	1205	0201	1325	0210	1549	0223	13
14	1208	0019	1232	0219	1114	0112	1315	0249	1434	0245	1655	0256	14
15	1239	0120	1324	0324	1208	0214	1426	0331	1544	0317	1800	0332	15
16	1315	0224	1424	0427	1311	0313	1538	0409	1653	0349	1903	0412	16
17	1356	0330	1532	0526	1420	0406	1650	0444	1801	0422	2001	0456	17
18	1445	0438	1646	0618	1533	0454	1801	0518	1909	0457	2054	0545	18
19	1543	0544	1801	0704	1647	0536	1912	0551	2014	0535	2140	0639	19
20	1649	0647	1916	0745	1801	0614	2021	0625	2116	0617	2221	0735	20
21	1801	0744	2029	0822	1914	0649	2127	0702	2212	0704	2256	0832	21
22	1915	0833	2139	0856	2025	0723	2231	0743	2302	0755	2327	0930	22
23	2029	0916	2247	0929	2135	0757	2329	0827	2345	0850	2355	1027	23
24	2141	0953	2353	1002	2241	0832	....	0915	....	0946	....	1125	24
25	2250	1027	....	1038	2345	0910	0021	1007	0023	1044	0022	1222	25
26	2356	1059	0056	1116	....	0951	0107	1102	0056	1141	0048	1320	26
27	....	1131	0156	1157	0044	1036	0148	1158	0126	1239	0115	1420	27
28	0101	1204	0252	1243	0139	1125	0223	1255	0153	1336	0144	1522	28
29	0204	1239	....	....	0227	1218	0255	1353	0220	1434	0217	1626	29
30	0304	1317	....	....	0310	1312	0324	1450	0247	1534	0254	1733	30
31	0402	1400	....	....	0348	1408	....	....	0315	1636	....	....	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	0339	1839	0529	2005	0803	2026	0916	2004	1118	2056	1132	2135	1
2	0431	1941	0644	2046	0915	2059	1025	2043	1211	2152	1208	2234	2
3	0532	2039	0759	2123	1026	2133	1132	2127	1256	2250	1239	2332	3
4	0640	2129	0912	2156	1135	2209	1233	2215	1334	2348	1307	....	4
5	0752	2212	1023	2228	1240	2249	1328	2308	1408	....	1333	0030	5
6	0904	2250	1132	2301	1343	2334	1416	....	1437	0046	1358	0127	6
7	1016	2324	1239	2334	1440	....	1458	0003	1504	0144	1424	0224	7
8	1126	2355	1345	....	1531	0022	1534	0100	1530	0241	1451	0323	8
9	1234	....	1448	0011	1617	0115	1606	0158	1556	0338	1520	0423	9
10	1341	0027	1548	0051	1657	0210	1634	0255	1622	0436	1554	0525	10
11	1447	0059	1643	0136	1731	0307	1701	0353	1650	0536	1634	0629	11
12	1552	0133	1733	0226	1802	0405	1727	0450	1721	0637	1721	0733	12
13	1654	0210	1817	0320	1831	0502	1752	0547	1757	0739	1816	0835	13
14	1753	0252	1856	0416	1857	0559	1819	0645	1839	0842	1918	0932	14
15	1848	0339	1929	0513	1923	0656	1848	0745	1928	0944	2026	1022	15
16	1936	0431	1959	0611	1949	0753	1921	0845	2024	1043	2135	1106	16
17	2018	0526	2027	0708	2016	0851	1958	0947	2127	1136	2246	1144	17
18	2055	0623	2053	0805	2046	0951	2042	1049	2234	1223	2356	1218	18
19	2128	0720	2119	0902	2120	1051	2132	1149	2344	1304	....	1249	19
20	2157	0818	2145	0959	2159	1153	2231	1245	....	1341	0105	1320	20
21	2224	0915	2214	1057	2246	1254	2335	1337	0054	1414	0214	1351	21
22	2250	1012	2245	1157	2340	1354	....	1423	0205	1446	0323	1424	22
23	2316	1109	2322	1259	....	1451	0045	1504	0316	1518	0432	1501	23
24	2344	1207	....	1402	0042	1542	0157	1540	0427	1551	0541	1543	24
25	....	1307	0004	1505	0151	1628	0310	1615	0539	1627	0646	1630	25
26	0014	1409	0055	1606	0305	1708	0424	1648	0650	1706	0746	1723	26
27	0048	1513	0155	1702	0420	1745	0537	1721	0758	1752	0840	1821	27
28	0128	1618	0303	1753	0535	1819	0650	1756	0902	1842	0926	1920	28
29	0216	1723	0417	1837	0650	1853	0803	1834	1000	1937	1005	2020	29
30	0313	1823	0533	1916	0804	1927	0913	1917	1049	2036	1038	2120	30
31	0418	1917	0648	1952	....	....	1018	2004	....	....	1108	2218	31

Local Standard Time. Not adjusted for Daylight Savings Time.

Charleston, SC/Savannah, GA

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	0314	1427	0455	1519	0341	1405	0426	1531	0403	1605	0410	1744	1
2	0413	1506	0544	1609	0428	1456	0500	1625	0434	1701	0448	1847	2
3	0510	1548	0630	1701	0511	1549	0531	1719	0505	1758	0532	1950	3
4	0606	1634	0711	1755	0550	1643	0602	1814	0537	1857	0622	2053	4
5	0659	1722	0749	1849	0625	1737	0633	1910	0613	1958	0718	2152	5
6	0747	1814	0824	1943	0658	1832	0704	2007	0653	2100	0821	2246	6
7	0832	1907	0856	2036	0730	1926	0738	2106	0739	2202	0926	2335	7
8	0912	2000	0927	2130	0800	2020	0815	2206	0830	2302	1033	....	8
9	0949	2054	0958	2225	0831	2116	0856	2307	0927	2358	1140	0018	9
10	1023	2148	1028	2321	0903	2213	0942	....	1029	....	1245	0057	10
11	1054	2242	1101	....	0937	2311	1035	0007	1134	0049	1350	0133	11
12	1125	2336	1137	0018	1015	....	1133	0105	1241	0135	1453	0209	12
13	1156	....	1217	0118	1057	0011	1237	0200	1347	0217	1557	0244	13
14	1228	0032	1303	0220	1146	0112	1343	0250	1453	0255	1659	0320	14
15	1302	0129	1356	0323	1241	0212	1451	0336	1558	0331	1801	0400	15
16	1341	0230	1457	0425	1343	0311	1559	0417	1703	0407	1902	0442	16
17	1425	0333	1603	0524	1450	0406	1707	0456	1808	0444	1959	0529	17
18	1516	0438	1714	0619	1600	0456	1814	0534	1912	0523	2051	0619	18
19	1615	0543	1826	0709	1711	0542	1920	0611	2014	0604	2139	0712	19
20	1721	0646	1937	0753	1820	0624	2025	0649	2114	0649	2221	0807	20
21	1831	0744	2046	0834	1929	0703	2129	0730	2209	0737	2259	0902	21
22	1942	0836	2152	0912	2036	0741	2230	0813	2259	0829	2333	0957	22
23	2052	0922	2256	0949	2141	0819	2327	0859	2344	0923	....	1051	23
24	2200	1003	2358	1026	2244	0858	....	0948	....	1017	0004	1145	24
25	2305	1041	....	1104	2345	0939	0019	1040	0024	1112	0034	1239	25
26	....	1117	0058	1145	....	1022	0106	1134	0100	1206	0104	1333	26
27	0007	1152	0156	1229	0043	1109	0148	1228	0133	1301	0134	1430	27
28	0108	1229	0251	1315	0136	1158	0226	1322	0204	1355	0207	1528	28
29	0208	1307	....	....	0225	1250	0300	1416	0234	1450	0242	1629	29
30	0306	1347	....	....	0310	1343	0332	1511	0304	1546	0323	1733	30
31	0401	1431	....	....	0350	1437	....	....	0336	1644	....	....	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	0410	1837	0600	2007	0819	2042	0921	2030	1115	2130	1131	2205	1
2	0504	1939	0711	2052	0927	2119	1027	2113	1207	2225	1209	2302	2
3	0605	2037	0822	2133	1034	2157	1131	2200	1254	2321	1244	2357	3
4	0712	2129	0931	2210	1138	2237	1230	2249	1335	....	1315	....	4
5	0821	2216	1037	2246	1241	2320	1324	2341	1411	0017	1344	0051	5
6	0930	2257	1142	2323	1341	....	1413	....	1444	0112	1413	0144	6
7	1037	2335	1246	2400	1437	0006	1457	0036	1514	0206	1442	0238	7
8	1143	....	1348	....	1529	0056	1535	0130	1543	0300	1512	0333	8
9	1247	0011	1448	0040	1615	0148	1610	0225	1612	0354	1546	0430	9
10	1350	0046	1546	0123	1657	0242	1642	0320	1642	0449	1623	0529	10
11	1452	0122	1641	0209	1734	0337	1712	0414	1713	0544	1706	0629	11
12	1554	0159	1731	0300	1808	0431	1741	0508	1748	0642	1755	0731	12
13	1654	0240	1816	0352	1839	0526	1810	0602	1827	0741	1850	0831	13
14	1751	0324	1856	0447	1909	0619	1840	0656	1912	0841	1952	0928	14
15	1845	0413	1933	0542	1938	0713	1913	0752	2002	0941	2057	1021	15
16	1934	0504	2006	0637	2007	0807	1949	0849	2058	1039	2203	1107	16
17	2018	0558	2037	0731	2038	0901	2029	0948	2200	1133	2310	1149	17
18	2057	0653	2106	0824	2111	0957	2114	1047	2304	1223	....	1227	18
19	2132	0748	2135	0918	2148	1054	2206	1146	....	1307	0015	1302	19
20	2205	0843	2205	1011	2230	1153	2304	1242	0011	1347	0121	1337	20
21	2235	0937	2237	1106	2319	1252	....	1335	0117	1425	0225	1412	21
22	2304	1030	2312	1203	....	1351	0007	1424	0224	1501	0330	1449	22
23	2334	1124	2351	1301	0014	1448	0114	1508	0330	1536	0436	1530	23
24	....	1218	....	1402	0115	1541	0222	1548	0437	1614	0541	1615	24
25	0005	1315	0036	1503	0222	1630	0331	1627	0544	1653	0644	1704	25
26	0038	1413	0129	1603	0332	1714	0440	1704	0652	1737	0743	1758	26
27	0115	1514	0229	1701	0443	1755	0549	1741	0757	1824	0836	1854	27
28	0158	1617	0335	1753	0554	1834	0658	1821	0859	1916	0924	1952	28
29	0248	1720	0446	1841	0704	1912	0806	1903	0956	2011	1005	2049	29
30	0346	1821	0558	1924	0813	1950	0913	1948	1047	2108	1042	2145	30
31	0451	1917	0709	2004	....	....	1016	2038	....	....	1115	2240	31

Local Standard Time. Not adjusted for Daylight Savings Time.

Galveston, TX

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	0310	1430	0447	1525	0333	1411	0420	1534	0400	1605	0412	1739	1
2	0407	1510	0536	1615	0420	1502	0455	1627	0432	1700	0452	1840	2
3	0504	1553	0622	1707	0503	1555	0528	1720	0505	1755	0537	1943	3
4	0558	1640	0704	1800	0543	1648	0600	1814	0539	1853	0628	2045	4
5	0651	1729	0743	1853	0620	1741	0632	1908	0616	1952	0725	2144	5
6	0739	1820	0819	1945	0654	1833	0705	2004	0658	2053	0827	2239	6
7	0824	1912	0852	2038	0726	1926	0740	2101	0744	2154	0932	2328	7
8	0905	2005	0924	2130	0758	2019	0818	2200	0837	2254	1038	....	8
9	0943	2058	0956	2223	0830	2113	0900	2300	0934	2350	1143	0013	9
10	1018	2150	1028	2318	0904	2209	0948	2359	1036	....	1247	0053	10
11	1051	2243	1102	....	0939	2306	1041	....	1140	0042	1350	0131	11
12	1123	2336	1140	0014	1018	....	1140	0057	1245	0129	1451	0208	12
13	1155	....	1221	0112	1102	0005	1243	0152	1350	0212	1553	0245	13
14	1228	0030	1308	0213	1152	0105	1348	0243	1454	0252	1654	0323	14
15	1304	0126	1402	0315	1248	0205	1455	0330	1558	0330	1755	0404	15
16	1345	0225	1503	0417	1350	0303	1601	0413	1701	0407	1854	0447	16
17	1430	0327	1610	0517	1456	0359	1707	0454	1804	0446	1951	0535	17
18	1523	0431	1720	0613	1605	0450	1813	0533	1906	0526	2043	0625	18
19	1622	0536	1830	0703	1714	0537	1917	0612	2007	0609	2131	0718	19
20	1728	0638	1939	0749	1822	0620	2021	0652	2106	0655	2213	0813	20
21	1837	0737	2046	0831	1928	0701	2123	0733	2201	0744	2252	0907	21
22	1947	0830	2150	0911	2034	0741	2223	0818	2251	0836	2327	1001	22
23	2055	0917	2253	0949	2137	0820	2319	0905	2336	0929	2400	1054	23
24	2201	1000	2353	1028	2239	0901	....	0955	....	1023	....	1146	24
25	2304	1039	....	1108	2339	0943	0011	1047	0017	1117	0031	1238	25
26	....	1116	0052	1150	....	1028	0058	1140	0054	1210	0102	1332	26
27	0005	1153	0149	1234	0035	1115	0141	1233	0128	1303	0134	1427	27
28	0104	1231	0243	1321	0128	1205	0219	1326	0200	1355	0208	1524	28
29	0202	1311	....	....	0217	1256	0255	1419	0231	1449	0246	1624	29
30	0259	1352	....	....	0302	1348	0328	1512	0303	1543	0328	1726	30
31	0354	1437	....	....	0343	1441	....	....	0337	1640	....	....	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	0416	1829	0606	2001	0819	2041	0917	2034	1106	2138	1123	2211	1
2	0511	1931	0716	2047	0926	2120	1021	2118	1159	2232	1203	2306	2
3	0613	2029	0825	2129	1030	2200	1123	2206	1246	2327	1238	2400	3
4	0718	2123	0932	2208	1133	2242	1222	2256	1327	....	1311	....	4
5	0826	2210	1037	2246	1235	2326	1316	2348	1405	0022	1341	0052	5
6	0934	2253	1140	2324	1333	....	1405	....	1439	0116	1411	0144	6
7	1039	2332	1242	....	1429	0013	1449	0042	1510	0209	1442	0237	7
8	1143	....	1342	0003	1520	0102	1528	0136	1541	0301	1514	0330	8
9	1246	0010	1441	0044	1607	0154	1604	0230	1611	0353	1549	0426	9
10	1347	0046	1538	0128	1649	0248	1637	0323	1642	0447	1627	0523	10
11	1448	0124	1632	0216	1728	0342	1709	0416	1715	0541	1711	0623	11
12	1548	0203	1722	0306	1803	0435	1739	0508	1752	0637	1802	0723	12
13	1646	0245	1808	0359	1835	0528	1810	0600	1832	0735	1858	0823	13
14	1743	0330	1849	0453	1906	0621	1841	0654	1918	0834	1959	0920	14
15	1836	0419	1927	0547	1937	0713	1915	0748	2009	0933	2103	1013	15
16	1926	0511	2001	0640	2007	0805	1952	0844	2106	1031	2208	1100	16
17	2010	0604	2033	0733	2040	0858	2034	0941	2207	1125	2313	1143	17
18	2050	0659	2104	0825	2114	0953	2121	1040	2310	1215	....	1223	18
19	2127	0753	2134	0917	2153	1048	2213	1138	....	1301	0017	1300	19
20	2200	0846	2206	1009	2236	1146	2311	1234	0015	1342	0120	1336	20
21	2232	0938	2239	1103	2325	1245	....	1327	0120	1421	0223	1413	21
22	2302	1030	2315	1158	....	1343	0014	1417	0225	1459	0327	1452	22
23	2333	1123	2356	1255	0021	1440	0119	1502	0329	1537	0430	1534	23
24	....	1216	....	1355	0122	1534	0226	1544	0434	1616	0534	1621	24
25	0006	1311	0042	1455	0228	1623	0333	1624	0540	1657	0636	1711	25
26	0041	1408	0136	1555	0337	1709	0440	1703	0646	1742	0734	1805	26
27	0119	1508	0236	1653	0446	1752	0547	1743	0750	1831	0828	1901	27
28	0204	1610	0342	1747	0555	1832	0654	1824	0851	1923	0916	1958	28
29	0255	1712	0451	1836	0703	1912	0801	1907	0948	2019	0958	2054	29
30	0353	1813	0602	1920	0811	1952	0906	1954	1038	2115	1036	2149	30
31	0458	1909	0711	2002	....	....	1008	2045	....	....	1110	2242	31

Local Standard Time. Not adjusted for Daylight Savings Time.

Panama Canal East

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	0247	1452	0407	1601	0253	1446	0353	1555	0351	1607	0431	1712	1
2	0338	1538	0456	1650	0341	1536	0434	1641	0431	1653	0518	1806	2
3	0429	1626	0544	1739	0428	1624	0514	1726	0511	1740	0609	1904	3
4	0520	1715	0630	1827	0512	1712	0554	1812	0553	1830	0704	2003	4
5	0610	1804	0714	1915	0555	1758	0633	1858	0638	1922	0802	2102	5
6	0700	1854	0756	2001	0636	1844	0714	1946	0726	2017	0903	2201	6
7	0747	1943	0836	2046	0715	1930	0757	2036	0818	2114	1003	2256	7
8	0833	2031	0915	2131	0755	2015	0842	2128	0913	2212	1102	2348	8
9	0916	2118	0955	2217	0834	2101	0930	2222	1011	2309	1159	....	9
10	0957	2204	1034	2303	0915	2149	1022	2318	1110	....	1254	0037	10
11	1037	2249	1116	2352	0958	2239	1117	....	1209	0005	1348	0124	11
12	1116	2334	1200	....	1044	2331	1215	0016	1307	0059	1440	0210	12
13	1156	....	1248	0043	1133	....	1315	0113	1403	0150	1533	0255	13
14	1237	0021	1340	0138	1227	0026	1415	0209	1458	0239	1626	0342	14
15	1321	0109	1437	0236	1324	0124	1513	0303	1552	0326	1721	0430	15
16	1408	0200	1538	0336	1424	0223	1611	0354	1646	0412	1815	0519	16
17	1500	0255	1642	0438	1526	0321	1707	0444	1741	0459	1909	0611	17
18	1556	0353	1746	0538	1627	0419	1803	0533	1835	0548	2001	0703	18
19	1657	0455	1848	0636	1728	0513	1858	0621	1931	0637	2051	0755	19
20	1801	0558	1948	0730	1826	0606	1954	0709	2025	0728	2138	0846	20
21	1906	0700	2046	0822	1924	0656	2049	0759	2119	0820	2223	0935	21
22	2009	0759	2141	0911	2019	0745	2144	0849	2210	0913	2304	1023	22
23	2109	0854	2235	0958	2115	0834	2238	0940	2259	1004	2344	1109	23
24	2206	0946	2328	1045	2209	0922	2329	1032	2344	1054	....	1154	24
25	2300	1034	....	1132	2303	1011	....	1123	....	1143	0023	1239	25
26	2352	1120	0020	1220	2356	1101	0019	1213	0027	1229	0102	1324	26
27	....	1206	0112	1308	....	1151	0105	1302	0108	1315	0141	1411	27
28	0044	1251	0203	1357	0047	1241	0149	1349	0147	1400	0223	1500	28
29	0135	1337	....	....	0137	1331	0231	1436	0227	1446	0308	1553	29
30	0225	1423	....	....	0224	1420	0311	1521	0306	1532	0357	1649	30
31	0316	1512	....	....	0310	1508	....	....	0347	1621	....	....	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	0450	1748	0636	1929	0818	2043	0852	2058	1023	2216	1046	2242	1
2	0548	1848	0738	2024	0915	2131	0948	2149	1116	2309	1131	2330	2
3	0649	1949	0838	2116	1010	2219	1045	2241	1206	....	1213	....	3
4	0751	2047	0936	2204	1105	2308	1140	2334	1253	0001	1253	0017	4
5	0853	2142	1031	2251	1200	2358	1233	....	1336	0050	1332	0102	5
6	0953	2234	1125	2338	1254	....	1324	0026	1417	0137	1409	0146	6
7	1049	2322	1219	....	1347	0049	1412	0117	1456	0223	1448	0231	7
8	1144	....	1312	0025	1438	0140	1456	0207	1534	0308	1528	0316	8
9	1237	0009	1405	0113	1527	0231	1539	0255	1613	0352	1610	0403	9
10	1330	0054	1458	0202	1614	0322	1619	0342	1652	0437	1656	0453	10
11	1422	0140	1550	0252	1658	0411	1658	0427	1733	0523	1745	0546	11
12	1515	0227	1641	0344	1739	0458	1736	0511	1816	0611	1839	0642	12
13	1609	0315	1730	0435	1819	0544	1814	0556	1903	0702	1936	0739	13
14	1702	0405	1816	0525	1858	0629	1854	0641	1953	0755	2035	0837	14
15	1754	0456	1859	0614	1936	0714	1935	0728	2047	0851	2135	0934	15
16	1845	0548	1940	0701	2014	0758	2019	0816	2144	0947	2233	1028	16
17	1933	0639	2019	0746	2054	0843	2106	0907	2242	1043	2329	1119	17
18	2018	0729	2058	0831	2136	0930	2157	1000	2340	1138	....	1207	18
19	2101	0818	2136	0915	2221	1019	2252	1055	....	1230	0024	1253	19
20	2141	0904	2215	1000	2309	1110	2349	1151	0037	1320	0117	1339	20
21	2220	0950	2255	1046	....	1204	....	1247	0133	1408	0211	1425	21
22	2259	1034	2338	1133	0002	1300	0047	1342	0228	1456	0305	1513	22
23	2337	1119	....	1223	0058	1358	0146	1435	0323	1543	0400	1603	23
24	....	1204	0025	1317	0158	1455	0245	1526	0418	1631	0457	1655	24
25	0017	1251	0117	1414	0259	1552	0342	1615	0515	1721	0554	1749	25
26	0100	1341	0213	1513	0400	1646	0439	1704	0612	1813	0650	1844	26
27	0145	1434	0312	1612	0500	1738	0536	1753	0710	1907	0745	1938	27
28	0236	1530	0415	1711	0559	1828	0634	1843	0808	2002	0836	2031	28
29	0331	1630	0518	1808	0657	1918	0731	1935	0904	2057	0924	2122	29
30	0430	1731	0620	1902	0755	2008	0829	2028	0956	2150	1008	2210	30
31	0533	1831	0720	1953	....	....	0927	2122	....	....	1049	2255	31

Local Standard Time. Not adjusted for Daylight Savings Time.

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.

Notes

Albany—This station, located on the Hudson River, experiences a significant change in river level and corresponding times and heights of high and low waters throughout the year.

Baltimore—Winds greatly affect the times and heights of the high and low tides, owing to the large shallow bay and small tidal range.

Gulf of Mexico locations—Water level is difficult to predict because the Gulf, being large, relatively shallow, and with a small tidal range, is greatly influenced by weather conditions.

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 (Hours)	Low Water (Hours)	High Water (Feet)	Low Water (Feet)	High Water (Hours)	Low Water (Hours)	High Water (Feet)	Low Water (Feet)
841-0140	Eastport, ME	1998	0.2	0.2	0.7	0.6	0.09	0.11	0.41	0.40	-0.07	-0.10	-0.08	-0.10
841-8150	Portland, ME	1998	0.3	0.2	0.6	0.6	0.14	0.13	0.40	0.39	-0.10	-0.07	-0.11	0.06
844-3970	Boston, MA	1998	0.3	0.3	0.8	0.7	0.14	0.14	0.49	0.48	-0.10	-0.10	-0.10	-0.09
844-7930	Woods Hole, MA	2003	0.5	>1.0	0.7	0.7	0.48	0.77	0.43	0.40	-0.03	0.01	-0.02	-0.01
844-9130	Nantucket, Ma	2003	0.3	0.3	0.6	0.6	0.23	0.21	0.40	0.39	-0.03	0.03	-0.03	0.03
845-2660	Newport, RI	1997	0.3	0.6	0.7	0.7	0.19	0.14	0.41	0.40	-0.06	-0.04	-0.07	-0.05
846-1490	New London, CT	1998	0.4	0.3	0.7	0.7	0.25	0.22	0.47	0.47	-0.11	-0.08	-0.10	-0.09
846-7150	Bridgeport, CT	1998	0.3	0.3	0.8	0.8	0.13	0.13	0.55	0.56	-0.12	-0.15	-0.11	-0.16
841-6945	Kings Point, NY	1999	0.9	>1.0	0.8	0.8	0.59	0.54	0.55	0.56	-0.12	-0.15	-0.11	-0.16
851-8750	The Battery, NY	2003	0.6	0.5	0.9	0.9	0.37	0.31	0.59	0.60	-0.07	-0.06	0.03	-0.02
853-1680	Sandy Hook, NJ	2002	0.4	0.4	0.8	0.8	0.25	0.25	0.51	0.54	-0.13	-0.12	0.19	0.21
853-4720	Atlantic City, NJ	2000	0.3	0.4	0.9	0.9	0.24	0.24	0.57	0.57	-0.02	-0.01	0.02	-0.02
854-5530	Philadelphia, PA	1989	0.5	0.6	1.0	1.0	0.30	0.36	0.72	0.65	0.14	0.11	-0.12	0.28
855-1910	Reedy Point, DE	2002	0.5	0.7	0.9	0.9	0.23	0.31	0.55	0.56	-0.18	-0.35	0.09	-0.02
855-7380	Breakwater Harbor, DE	1998	0.3	0.3	0.9	0.9	0.18	0.18	0.62	0.68	-0.06	-0.03	-0.03	-0.01
857-4680	Baltimore, MD	1998	0.8	1.0	1.0	1.0	1.38	1.43	0.64	0.62	-0.21	-0.09	-0.21	-0.11
859-4900	Washington, DC	1998	0.5	0.8	1.0	1.0	0.33	0.48	0.73	0.83	-0.05	-0.19	-0.03	-0.23
863-8863	Chesapeake Bay Bri Tunnel	2002	0.3	0.4	0.8	0.8	0.25	0.27	0.50	0.52	-0.06	-0.08	-0.07	-0.08
863-8610	Hampton Roads, VA	1995	0.4	0.4	0.8	0.8	0.27	0.25	0.51	0.56	0.07	0.05	0.03	-0.01
865-8120	Wilmington, NC	2003	0.5	0.5	0.6	0.8	0.34	0.29	0.38	0.46	-0.01	-0.08	0.11	0.16
8661070	Myrtle Beach, SC	2003	0.4	0.4	0.8	0.8	0.28	0.29	0.48	0.50	0.00	0.01	0.00	0.00
866-5530	Charleston, SC	2000	0.4	0.4	0.6	0.7	0.19	0.20	0.42	0.47	0.14	-0.10	0.05	-0.02
867-0870	Savannah R. Ent., GA	1995	0.3	0.3	0.7	0.9	0.21	0.19	0.47	0.58	-0.01	-0.07	0.05	0.03
872-0030	Fernandina Beach, FL	1995	0.2	0.3	0.9	0.9	0.15	0.19	0.48	0.56	-0.02	0.06	0.33	0.30
872-0218	Mayport, FL	2003	0.2	0.3	0.6	0.8	0.14	0.21	0.41	0.51	-0.04	0.01	-0.02	0.01
872-3178	Miami, Government Cut, FL	1985	0.3	0.3	0.4	0.4	0.18	0.17	0.25	0.24	-0.07	0.01	-0.02	-0.01
872-4580	Key West, FL	2000	0.5	0.4	0.3	0.3	0.29	0.25	0.19	0.20	-0.18	-0.06	-0.15	-0.10
872-6520	St. Petersburg, FL	2003	0.7	0.7	0.6	0.5	0.56	0.44	0.38	0.34	0.07	0.00	0.01	0.2
872-9840	Pensacola, FL	1995	>1.0	>1.0	0.6	0.9	2.61	2.72	0.48	0.41	0.04	0.10	-0.04	0.07
873-7048	Mobile, AL	1984	>1.0	>1.0	0.8	0.7	2.56	2.49	0.48	0.45	0.05	-0.09	-0.05	0.04
876-1724	Grand Isle, LA	2003	>1.0	>1.0	0.5	0.5	1.21	1.22	0.30	0.30	-0.24	-0.33	0.00	0.00
877-1450	Galveston, TX	1995	>1.0	>1.0	0.7	0.8	1.29	1.25	0.50	0.54	-0.15	-0.12	-0.03	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
8410140	Eastport, Maine	-3.4	0.4	18.8	19.3	22.9
8413320	Bar Harbor, Maine	-2.2	0.4	10.9	11.4	13.7
8418150	Portland, Maine	-2.0	0.3	9.5	9.9	11.9
8443970	Boston, Massachusetts	-2.2	0.3	9.8	10.3	12.4
8449130	Nantucket Island, Massachusetts	-0.8	0.2	3.2	3.6	4.5
8447930	Woods Hole, Massachusetts	-0.7	0.1	1.9	2.2	3.2
8452660	Newport, Rhode Island	-1.0	0.1	3.6	3.9	5.2
8510560	Montauk, Fort Pond, New York	-0.9	0.2	2.2	2.5	3.5
8461490	New London, Connecticut	-0.8	0.2	2.8	3.1	3.9
8467150	Bridgeport, Connecticut	-1.4	0.2	7.0	7.3	8.8
8516945	Kings Point, New York	-1.5	0.3	7.4	7.8	9.7
8518750	New York (The Battery), New York	-1.5	0.2	4.7	5.1	6.4
8519483	Bayonne Bridge, New York	-1.6	0.2	5.2	5.5	6.9
8518995	Albany, New York	-1.1	0.2	5.1	5.5	6.3
8531680	Sandy Hook, New Jersey	-1.4	0.2	4.9	5.2	6.6
8534720	Atlantic City, New Jersey	-1.3	0.2	4.2	4.6	5.8
8557380	Breakwater Harbor, Delaware	-1.1	0.2	4.2	4.7	5.8
8551910	Reedy Point, Delaware	-1.0	0.2	5.5	5.8	6.9
8545530	Philadelphia, Pennsylvania	-0.6	0.2	6.4	6.8	8.0
8570280	Ocean City, Maryland	-1.2	0.2	3.5	3.9	5.1
8574680	Baltimore, Maryland	-0.6	0.2	1.4	1.7	2.3
8594900	Washington, DC	-0.6	0.2	2.9	3.2	3.8
8638863	Chesapeake Bay Bridge Tunnel, Virginia	-0.9	0.1	2.7	2.9	4.0
8638610	Hampton Roads, Sewells Point, Virginia	-0.7	0.1	2.6	2.8	3.6
8651370	Duck Pier, North Carolina	-1.0	0.1	3.4	3.7	4.9
8652587	Oregon Inlet Marina, North Carolina	-0.2	0.1	1.0	1.2	1.7
8654400	Cape Hatteras, North Carolina	-1.0	0.1	3.1	3.5	4.7
8658120	Wilmington, North Carolina	-0.4	0.2	4.4	4.7	5.4
8661070	Myrtle Beach, South Carolina	-1.5	0.2	5.2	5.6	7.2
8665530	Charleston, South Carolina	-1.5	0.2	5.4	5.8	7.3
8670870	Savannah River Entrance, Georgia	-1.7	0.2	7.1	7.5	9.2
8670681	Savannah, Georgia	-1.9	0.3	8.1	8.6	10.1
8720030	Fernandina Beach, Florida	-1.7	0.2	6.2	6.6	8.2
8720218	Mayport, Florida	-1.6	0.2	4.7	5.0	6.4
8721604	Port Canaveral, Florida	-1.2	0.2	3.6	4.0	5.4
8723178	Miami, Government Cut, Florida	-0.9	0.1	2.5	2.5	3.6
8723970	Vaca Key, Florida	-0.5	0.2	0.9	1.0	1.7
8724580	Key West, Florida	-0.8	0.2	1.5	1.8	2.6
8725110	Naples, Florida	-1.4	0.6	2.6	2.9	3.8
8726520	St. Petersburg, Florida	-1.1	0.4	2.0	2.3	3.1
8727520	Cedar Key, Florida	-1.4	0.6	3.5	3.8	4.8
8728130	St. Marks River Entrance, Florida	-1.6	0.6	3.3	3.5	4.5
8728690	Apalachicola, Florida	-1.0	0.4	1.5	1.6	2.1
8729840	Pensacola, Florida	-1.2	0.0	1.2	1.3	2.2
8735180	Dauphin Island, Alabama	-1.0	0.0	1.2	1.2	2.0
8737048	Mobile, Alabama	-1.2	0.1	1.5	1.6	2.4
8760551	South Pass, Louisiana	-1.2	0.0	1.2	1.2	2.2
8761724	Grand Isle, Louisiana	-0.9	0.0	1.1	1.1	1.8
8771450	Galveston, Texas	-1.2	0.3	1.3	1.4	2.0
8773701	Port O'Connor, Texas	-0.9	0.0	0.8	0.8	1.7
8779750	Padre Island, Texas	-1.5	0.2	1.4	1.5	2.4
2695540	Bermuda Esso Pier, Bermuda	-0.8	0.1	2.6	2.9	3.9
9710441	Settlement Point, Grand Bahamas Island	-0.8	0.1	2.8	3.1	4.1
9759110	Magueyes Island, Puerto Rico	-0.5	0.0	0.7	0.7	1.1
9755371	San Juan, Puerto Rico	-0.6	0.2	1.3	1.6	2.2
9751639	Charlotte Amalie, St. Thomas Island	-0.5	0.0	0.7	0.8	1.2
9751401	Lime Tree Bay, St. Croix Island	-0.5	0.0	0.7	0.7	1.1

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).

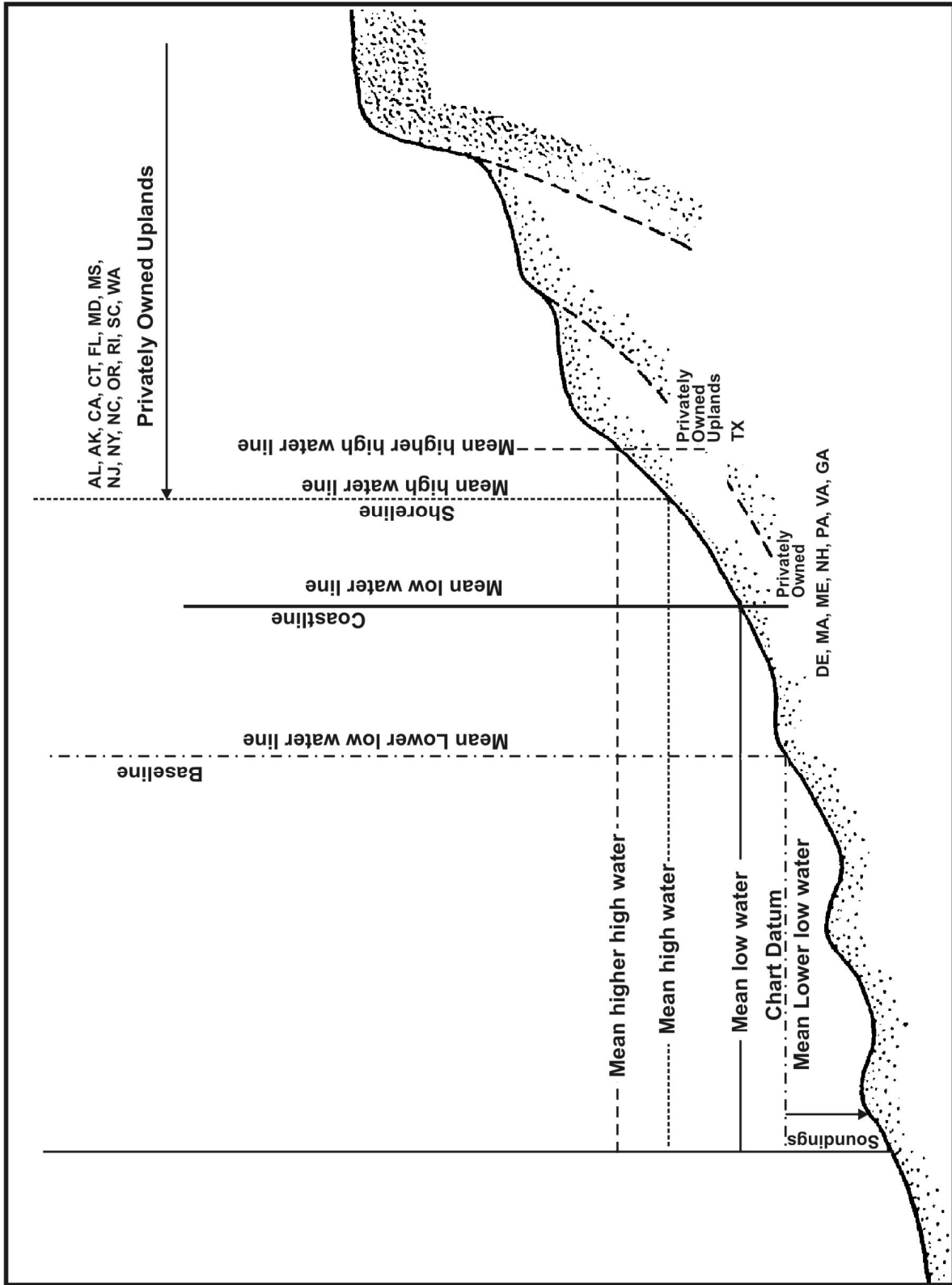
TIDAL CURRENT TABLES

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



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

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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*.

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- 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.

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- 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* (N_p) 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* (P_n) 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.

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For other ranges, see great diurnal, spring, neap, perigean, apogean, and tropic tides.

REFERENCE STATION—A tide or current station for which independent daily predictions are given in the *Tide Tables and Tidal Current Tables*, and from which corresponding predictions are obtained for subordinate stations by means of differences and ratios.

REVERSING CURRENT—A tidal current which flows alternately in approximately opposite directions with a slack water at each reversal of direction. Currents of this type usually occur in rivers and straits where the direction of flow is more or less restricted to certain channels. When the movement is towards the shore or up a stream, the current is said to be flooding, and when in the opposite direction it is said to be ebbing. The combined flood and ebb movement including the slack water covers, on an average, 12.42 hours for the semidiurnal current. If unaffected by a nontidal flow, the flood and ebb movements will each last about 6 hours, but when combined with such a flow, the durations of flood and ebb may be quite unequal. During the flow in each direction the speed of the current will vary from zero at the time of slack water to a maximum about midway between the slacks.

ROTARY CURRENT—A tidal current that flows continually with the direction of flow changing through all points of the compass during the tidal period. Rotary currents are usually found offshore where the direction of flow is not restricted by any barriers. The tendency for the rotation in direction has its origin in the Coriolis force and, unless modified by local conditions, the change is clockwise in the Northern Hemisphere and counterclockwise in the Southern. The speed of the current usually varies throughout the tidal cycle, passing through the two maxima in approximately opposite directions and the two minima with the direction of the current at approximately 90° from the direction at time of maximum speed.

SEMIDIURNAL—Having a period or cycle of approximately one-half of a tidal day. The predominating type of tide throughout the world is semidiurnal, with two high waters and two low waters each tidal day. The tidal current is said to be semidiurnal when there are two flood and two ebb periods each day.

SET (OF CURRENT)—The direction *towards* which the current flows.

SLACK WATER—The state of a tidal current when its speed is near zero, especially the moment when a

reversing current changes direction and its speed is zero. The term is also applied to the entire period of low speed near the time of turning of the current when it is too weak to be of any practical importance in navigation. The relation of the time of slack water to the tidal phases varies in different localities. For standing tidal waves, slack water occurs near the times of high and low water, while for progressive tidal waves, slack water occurs midway between high and low water.

SPRING TIDES OR TIDAL CURRENTS—Tides of increased range or tidal currents of increased speed occurring semimonthly as the result of the Moon being new or full. The *spring range* (Sg) of tide is the average semidiurnal range occurring at the time of spring tides and is most conveniently computed from the harmonic constants. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal. The mean of the high waters of the spring tide is called *spring high water or mean high water springs* (MHWS), and the average height of the corresponding low waters is called *spring low water or mean low water springs* (MLWS).

STAND OF TIDE—Sometimes called a platform tide. An interval at high or low water when there is no sensible change in the height of the tide. The water level is stationary at high and low water for only an instant, but the change in level near these times is so slow that it is not usually perceptible. In general, the duration of the apparent stand will depend upon the range of tide, being longer for a small range than for a large range, but where there is a tendency for a double tide the stand may last for several hours even with a large range of tide.

STANDARD TIME—A kind of time based upon the transit of the Sun over a certain specified meridian, called the *time meridian*, and adopted for use over a considerable area. With a few exceptions, standard time is based upon some meridian which differs by a multiple of 15° from the meridian of Greenwich.

STRENGTH OF CURRENT—Phase of tidal current in which the speed is a maximum; also the speed at this time. Beginning with slack before flood in the period of a reversing tidal current (or minimum before flood in a rotary current), the speed gradually increases to flood strength and then diminishes to slack before ebb (or minimum before ebb in a rotary current), after which the current turns in direction, the speed increases to ebb strength and then diminishes to slack before flood completing the cycle. If it is assumed that the speed throughout the cycle varies as the ordinates of a cosine curve, it can

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.

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Squamscott River, N.H.....	825	Tangier Island, Va.....	1985
Square Island Harbour, Labrador.....	201	Tappahannock, Va.....	2235
Squibnocket Point, Mass.....	953	Tarpon Bay, Fla.....	4041
Stage Harbor, Mass.....	911	Tarpon Creek, Fla.....	3857,3897
Stamford, Conn.....	1149	Tarpon Springs, Fla.....	4159
Stanley Harbor, Falkland Islands.....	5205	Tarrytown, N.Y.....	1367
Staten Island, N.Y.....	1347-1401	Taunton River, Mass.....	1035
Stathems Neck, N.J.....	1757	Tavernier, Fla.....	3657-3661
Station Creek, S.C.....	2935,2937	Taylor Sound, N.J.....	1667
Staubles Bay, Trinidad.....	4929	Taylor's Bridge, Del.....	1775
Steamboat Creek Landing, S.C.....	2815	Taylor's Island, Md.....	2039
Steelemanville, N.J.....	1627	Tchefuncta River, La.....	4409
Steele Harbor Island, Maine.....	617	Teague Creek, Md.....	2005
Steep Brook, Mass.....	1035		

	No.		No.
Tenants Harbor, Maine.....	677	Tuckahoe, N.J.....	1629
Tensaw River, Ala.....	4361	Tuckahoe Creek, Md.....	2049
Tequesta, Fla.....	3471-3475	Tuckahoe River, N.J.....	1629,1631
Terrebonne Bay, La.....	4485,4487	Tuckers Island, Fla.....	4183
Tetlington, VA.....	2331	Tuckerton, Tuckerton Creek, N.J.....	1581
Texas.....	4533-4617	Tuckerton Creek, N.J.....	1579,1581
Texas City, Texas.....	4549	Tue Marshes Light, Va.....	2259
Texas Gas Platform, La.....	4495	Tulifiny River, S.C.....	2995
Thames River, Conn.....	1075-1079	Turbo, Colombia.....	4887
Thank God Harbor, Greenland.....	99	Turkey Basin, Fla.....	3887
The Bight, Cat Island, Bahamas.....	4699	Turkey Creek, S.C.....	2719
The Battery, N.Y.....	1353	Turkey Creek, Miss.....	4389
The Cove, Charleston Harbor, S.C.....	2703	Turkey Point, Apalachee Bay, Fla.....	4237
The Folly, S.C.....	2933	Turkey Point, Biscayne Bay, Fla.....	3605
The Glades, Del.....	1729	Turkey Point, Hudson River, NY.....	1385
The Glen, R.I.....	1005	Turks Island, Bahamas.....	4713
The Narrows, Harris, Fla.....	4309	Turnbridge Landing, S.C.....	3035
The Narrows, N.Y.....	1343,1345	Turning Basin, Port Everglades, Fla....	3541
Thomas Landing, Ga.....	3107	Turning Basin, Texas City, Texas.....	4549
Thomas Point Shoal Light, Md.....	2129	Turtle Bay, Fla.....	4065
Thomasin, La.....	4433	Turtle Cove, N.J.....	1609
Thomaston, Maine.....	687	Turtle River, Ga.....	3167-3173
Thoroughfare Creek, S.C.....	2621	Turtle Mound, Fla.....	3371
Threemile Cut, Ga.....	3139	Tutoia, Baia da, Brazil.....	4983
Threemile Harbor entrance, N.Y.....	1243	Tuxpan, Mexico.....	4623
Throgs Neck, N.Y.....	1157	Twin Rivers Marina, Fla.....	4199
Thunderbolt, Ga.....	3061	Tybee Creek, Ga.....	3053
Ticoralak Island, Labrador.....	189	Tybee Light, Ga.....	3037
Tidnish Head, New Brunswick.....	407	Tylerville, Conn.....	1093
Tierra Del Fuego.....	5195-5201		
Tiger Point, Fla.....	3241	U	
Tignish, Prince Edward Island.....	409	Umananak Fjord, Greenland.....	91
Tilghman Island, Md.....	2061	Umbrella Point, Texas.....	4565
Timbalier Bay, La.....	4479-4483	Uncatena Island, Mass.....	965
Timbalier Island, La.....	4479,4481	Ungava Bay, Canada.....	159-165
Timmons River, Ga.....	3103	Union City, N.J.....	1355
Tinicum Nat. Wildlife Refuge, Pa..	1843-1847	Union River, Maine.....	637
Titusville, Fla.....	3395	Upper Machodoc Creek, Va.....	2177
Tiverton, Nova Scotia.....	527	Upper Matecumbe Key, Fl. 3681,3687,3697,3701	
Tivoli, N.Y.....	1387	Upper Sugarloaf Sound, Fla.....	3889-3897
Tocoi, Fla.....	3319	Upshur Neck, Va.....	1959
Todd Creek, Ga.....	3191	Urbanna, Va.....	2229
Tolchester, Md.....	2091	Uruguay.....	5075,5077
Tolomato River, Fla.....	3341	U.S. Hwy 9 Bridge, Nacote Creek, N.J... 1593	
Tom Point Creek, S.C.....	2821	U.S. Hwy 30 Bridge, Abesccon Creek, N.J. 1611	
Toms Cove, Assateague Beach, Md.....	1919	US Coast Guard Station	
Toms Harbor, Fla.....	3729	Chincoteague Island, Va.....	1927
Toms Harbor Channel, Fla.....	3733	Fort Macon, N.C.....	2457
Toms Harbor Cut, Fla.....	3727	Hillsboro Inlet, Fla.....	3527
Toms River, N.J.....	1527	Indian River Inlet, Del.....	1909
Toogoodoo Creek, S.C.....	2823	Manasquan Inlet, N.J.....	1499
Torch Channel, Fla.....	3819	Oregon Inlet, N.C.....	2397
Torch Ramrod Channel, Fla.....	3817	Sand Shoal Inlet, Va.....	1961
Totten Key, Fla.....	3615	Smith Island, Va.....	1965
Town Point, Va.....	2301	South Island Plantation, S.C.....	2581
Town Point Wharf, Md.....	2097		
Townsend Gut, Maine.....	711	V	
Townsend Sound, N.J.....	1645	VAB Turning Basin, Fla.....	3385
Townsend's Inlet, N.J.....	1643-1651	Vaca Key, Fla.....	3741
Tracadie, New Brunswick.....	395	Vaca Key, USCG Station, Fla * (168)....	3745
Travis Point, Va.....	2161	Vaill Island, Maine.....	761
Tred Avon River, Md.....	2051,2053	Valleyfield, Newfoundland.....	225
Trenchards Inlet, S.C.....	2927,2929	Venezuela.....	4899-4903
Trenton, N.J.....	1905	Venice, La.....	4437
Trepassey Harbour, Newfoundland.....	235	Venice Inlet, Fla.....	4087
Trinidad.....	4929-4939	Venice Airport, Fla.....	4085
Trinity Bay, Newfoundland.....	229	Ventnor City, N.J.....	1617
Trinity Bay, Texas.....	4563-4567	Veracruz, Mexico.....	4625
Triple ESS Marina, N.C.....	2465	Vermilion Bay, La.....	4517-4521
Trois Rivieres, Quebec.....	371	Vernon View, Ga.....	3069
Tropical Homesites Landing, Fla.....	4055	Vero Beach, Fla.....	3417
Trout River, Fla.....	3289-3293	Vero Beach (ocean), Fla.....	3423
Troy, N.Y.....	1395		
Truro, Nova Scotia.....	549		

	No.		No.
Vienna, Md.....	2023	West Falmouth Harbor, Mass.....	973
Vieux Fort Bay, St. Lucia.....	4871	West Fire Island, N.Y.....	1271
Vilano Beach, Fla.....	3341	West Lake, Fla.....	3551, 3553
Village Creek Cemetery, S.C.....	2887	West Mystic, Conn.....	1071
Village Creek Entrance, S.C.....	2885	West Palm Beach Canal, Fla.....	3503
Vinalhaven, Maine.....	653	West Point, Va.....	2271
Vineyard Haven, Mass.....	943	West River, Md.....	2137
Vineyard Sound.....	959-967	West Wildwood, N.J.....	1661
Virgin Islands.....	4817-4839	Westbrook, Duck I. Roads, Conn.....	1107
Virginia.....	1945-2381	Westecunk Creek, N.J.....	1573, 1575
Virginia Beach, Va.....	2371	Westerly, Pawcatuck River, R.I.....	1069
Virginia Key, Fla.....	3585	Western Branch, Va.....	2289
Vitoria, Brazil.....	5033	Westport, Nova Scotia.....	525
		Westport Harbor, Mass.....	997
		Westport River, Mass.....	997, 999
		Westville, N.J.....	1861
		Wetappo Creek, Fla.....	4295
		Weymouth, Nova Scotia.....	529
		Weymouth Fore River Bridge.....	873
		Weymouth Plantation, S.C.....	2603
		Whale Branch, S.C.....	2919-2923
		Whale Harbor, Fla.....	3677, 3679
		Wharf Creek, S.C.....	2675
		Whiskey Creek, Fla.....	3545, 3549
		White Bay, Newfoundland.....	219
		White Beach, Fla.....	4261
		White City, Fla.....	4279
		Whitehaven, Md.....	2017
		Whitehaven Harbour, Nova Scotia.....	479
		Whitestone, N.Y.....	1159
		Whitewater Bay, Fla.....	3979
		Whiting Bay, Maine.....	603, 605
		Wickford, R.I.....	1053
		Wicomico River, Md.....	2017, 2019
		Wicomico River, Potomac River.....	2173
		Wiggins, S.C.....	2899
		Wiggins Pass, Fla.....	4013
		Wild Cove, Newfoundland.....	217
		Wildwood Crest, N.J.....	1665, 1669
		Willcox Wharf, Va.....	2335
		Willetts Point, N.Y.....	1189
		William Brooks Park, Ala.....	4359
		Williams Harbour, Labrador.....	169
		Williams Point, Fla.....	3397
		Williamsburg Bridge, N.Y.....	1181
		Willtown Bluff, S.C.....	2851
		Wilmington Beach, N.C.....	2481
		Wilmington Marine Terminal, Del.....	1823
		Wilmington, N.C. * (136).....	2505
		Wilmington River, Ga.....	3059-3063
		Wilson Cove, Maine.....	747
		Wilsons Beach, New Brunswick.....	587
		Wimbee Creek, S.C.....	2913
		Windley Key, Fla.....	3673, 3677, 3679
		Windmill Point, Rappahannock River, Va.....	2223
		Windmill Point Light, Va.....	2221
		Windsor, Nova Scotia.....	545
		Windsor Plantation, N. Edisto R., S.C..	2817
		Windsor Plantation, Black R., S.C.....	2593
		Wine Island, La.....	4485
		Winea Plantation, S.C.....	2597
		Winslow Farms, N.J.....	1799
		Winter Harbor, Maine.....	625
		Winter Harbour, Melville Island.....	5
		Winter Island, Fox Channel.....	131
		Winterport, Maine.....	667
		Winyah Bay, S.C.....	2577-2699
		Winyah Bay Entrance, S.C.....	2577
		Wiscasset, Maine.....	717
		Wishart Point, Va.....	1925
		Withlacoochee River entrance, Fla.....	4203
		Wolf Island, Ga.....	3145
		Wolf River, Miss.....	4397
		Wolf Trap Light, Va.....	2251

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	No.
Wolstenholme Fjord, Greenland.....	93
Woodbridge Creek, N.J.....	1445
Woodbury Creek, N.J.....	1855
Woodland Beach, Del.....	1759
Woodmere, N.Y.....	1315
Woods Hole, Mass.....	961-969
Woods Hole Oceanographic Inst. * (48)..	963
Woodville, S.C.....	2755
Woody Island, Newfoundland.....	241
Woolford, Md.....	2041
Worlds Fair Marina, N.Y.....	1163
Worton Creek, Md.....	2093
Wrightsville Beach, N.C.....	2481
Wright Island Landing, Va.....	2325
Wright River, S.C.....	3033
Wychmere Harbor, Mass.....	921

Y

Yale, Conn.....	1077
Yamato, Fla.....	3517
Yarmouth Harbour, Nova Scotia.....	523
Yauhannah Bridge, S.C.....	2615
Yeaman's Hall, S.C.....	2717
Yeocomico River, Va.....	2163
Yonges Island, S.C.....	2829
York Harbor, Maine.....	799,801
York River, Va.....	2259-2277
Yorktown, Va.....	2261,2263

Z

Zekes Island, N.C.....	2493
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ASTRONOMICAL DATA, 2019

January			
	d	h	m
S	5	19	..
●	6	01	28
A	9	04	..
E	13	08	..
☉	14	06	46
N	20	00	..
○	21	05	16
P	21	20	..
E	26	01	..
●	27	21	10

February			
	d	h	m
S	2	01	..
●	4	21	04
A	5	09	..
E	9	15	..
☉	12	22	26
N	16	10	..
P	19	09	..
○	19	15	54
E	22	10	..
●	26	11	28

March			
	d	h	m
S	1	07	..
A	4	11	..
●	6	16	04
E	8	20	..
☉	14	10	27
N	15	19	..
P	19	20	..
☉ _m	20	21	58
○	21	01	43
E	21	20	..
●	28	04	10
S	28	13	..

April			
	d	h	m
A	1	00	..
E	5	02	..
●	5	08	50
N	12	00	..
☉	12	19	06
P	16	22	..
E	18	07	..
○	19	11	12
S	24	22	..
●	26	22	18
A	28	18	..

May			
	d	h	m
E	2	10	..
●	4	22	45
N	9	06	..
☉	12	01	12
P	13	22	..
E	15	15	..
○	18	21	11
S	22	07	..
A	26	13	..
●	26	16	34
E	29	19	..

June			
	d	h	m
●	3	10	02
N	5	13	..
P	7	23	..
☉	10	05	59
E	11	22	..
○	17	08	31
S	18	16	..
☉ _j	21	15	54
A	23	08	..
●	25	09	46
E	26	04	..

July			
	d	h	m
●	2	19	16
N	2	23	..
P	5	05	..
E	9	03	..
☉	9	10	55
S	15	23	..
○	16	21	38
A	21	00	..
E	23	11	..
●	25	01	18
N	30	09	..

August			
	d	h	m
●	1	03	12
P	2	07	..
E	5	10	..
☉	7	17	31
S	12	05	..
○	15	12	29
A	17	11	..
E	19	17	..
●	23	14	56
N	26	18	..
●	30	10	37
P	30	16	..

September			
	d	h	m
E	1	18	..
●	6	03	10
S	8	10	..
A	13	14	..
○	14	04	33
E	15	23	..
☉	22	02	41
N	23	02	..
☉ _s	23	07	50
P	28	02	..
●	28	18	26
E	29	05	..

October			
	d	h	m
☉	5	16	47
S	5	17	..
A	10	18	..
E	13	05	..
○	13	21	08
N	20	09	..
☉	21	12	39
P	26	11	..
E	26	16	..
●	28	03	38

November			
	d	h	m
S	2	01	..
●	4	10	23
A	7	09	..
E	9	12	..
○	12	13	34
N	16	14	..
☉	19	21	11
E	23	01	..
P	23	08	..
●	26	15	06
S	29	11	..

December			
	d	h	m
☉	4	06	58
A	5	04	..
E	6	21	..
○	12	05	12
N	13	21	..
P	18	20	..
☉	19	04	57
E	20	07	..
☉ _d	22	04	19
●	26	05	13
S	26	21	..
P	31	23	..

LUNAR DATA

- | | |
|--|---|
| <ul style="list-style-type: none"> ● -- new Moon ☉ -- first quarter ○ -- full Moon ☾ -- last quarter | <ul style="list-style-type: none"> A -- Moon in apogee P -- Moon in perigee N -- Moon farthest north of Equator E -- Moon on Equator S -- Moon farthest south of Equator |
|--|---|

SOLAR DATA

- ☉_m -- March equinox
- ☉_j -- June solstice
- ☉_s -- September equinox
- ☉_d -- December solstice

Greenwich mean time (GMT) or universal time (UT) is the mean solar time on the Greenwich meridian reckoned in days of 24 mean solar hours written as 00^h at midnight and 12^h at noon. To convert the above times to those of other standard time meridians, add 1 hour for each 15° of east longitude of the desired meridian and subtract 1 hour for each 15° of west longitude. This table was compiled from data supplied by the Nautical Almanac Office, United States Naval Observatory.



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