

## **Tidal Current Tables 2017 – Atlantic Coast of North America**



Tidal Current Tables 2017

# Atlantic Coast of North America





Tidal Current Tables 2017

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Issued 2016



## 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<sup>®</sup> \* 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

Daylight-saving time is not used in this publication. All daily tidal current 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 numbers:

PORTS® SITES	VOICE ACCESS	INTERNET ACCESS
CAPE COD	Not Available	<a href="http://www.tidesandcurrents.noaa.gov">www.tidesandcurrents.noaa.gov</a>
CHARLESTON HARBOR	855-216-2137	“
CHERRY POINT	888-817-7794	“
CHESAPEAKE BAY	866-CH-PORTS (866-247-6787)	“
DELAWARE RIVER & BAY	866-30-PORTS (866-307-6787)	“
HOUSTON/GALVESTON	866-HG-PORTS (866-447-6787)	“
HUMBOLDT BAY	855-876-5015	“
JACKSONVILLE	855-901-1549	“
LAKE CHARLES	888-817-7692	“
LOS ANGELES/ LONG BEACH	Not Available	“
LOWER COLUMBIA RIVER	888-53-PORTS (888-537-6787)	“
LOWER MISSISSIPPI RIVER	888-817-7767	“
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 OF ANCHORAGE	866-AK-PORTS (866-257-6787)	“
PORT FOURCHON	855-687-2084	“
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)	“

## IMPORTANT NOTICES

### PUBLISHED CAUTIONARY NOTICES

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

#### UPDATE TO THE 2012 EDITION OF THE NOS TIDAL CURRENT TABLES

The NOAA National Ocean Service's Center for Operational Oceanographic Products and Services (CO-OPS) is updating the tidal current predictions published for the Long Island Sound within the 2012 Tidal Current Tables – Atlantic Coast of North America. Reference stations in this area have been updated with new data; historic secondary stations have been updated; and a number of new stations have been added.

(Issued: October 1, 2011)

#### 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)

#### CHANGES TO 2008 EDITIONS OF THE NOS TIDAL CURRENT TABLES

Three new tidal current reference stations have been added to the National Ocean Service tidal Current Tables for 2008. Table 2 "time" and "velocity" correction factors at secondary stations which are affected by these changes have been updated based on the new reference station data.

##### Tidal Current Tables - 2008 - Atlantic Coast of North America

1. Bucksport, Penobscot Bay, Maine (new)
2. George Washington Bridge, Hudson River (new)
3. Kingston-Rhinecliff, Bridge, Hudson River (new)

(Issued October 1, 2006)

#### TIDAL CURRENT PREDICTIONS INSIDE U.S. ESTUARIES

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

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

(Issued October 1, 1999)

## IMPORTANT NOTICES

### 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)

### 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

## IMPORTANT NOTICES

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).

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

Current tables for the use of mariners have been published by the National Ocean Service (formerly the Coast and Geodetic Survey) since 1890. Tables for the Atlantic coast first appeared as a part of the tide tables and consisted of brief directions for obtaining the times of the current for a few locations from the times of high and low waters. Daily predictions of slack water for five stations were given for the year 1916, and by 1923 the tables had so expanded that they were then issued as a separate publication entitled Current Tables, Atlantic Coast. A companion volume, Current Tables, Pacific Coast, was also issued that year. In 1930 the predictions for the Atlantic coast were extended to include the times and velocities of maximum current.

In the preparation of these tables, all available observations were used. In some cases, however, the observations were insufficient for obtaining final results, and 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 data for lightship stations are based on observations obtained through the cooperation of the U.S. Coast Guard. By cooperative arrangements, full predictions for Bay of Fundy Entrance (Grand Manan Channel) were furnished by the Canadian Hydrographic Service.

Daily predicted times of slack water and predicted times and velocities of maximum current (flood and ebb) are presented in table 1 for a number of reference stations. Similar predictions for many other locations may be obtained by applying the correction factors listed in Table 2 to the predictions of the appropriate reference station. The speed of a current at times between slack water and maximum current may be approximated by the use of table 3. The duration of weak current near the time of slack water may be computed by the use of Table 4.

## LIST OF REFERENCE STATIONS

Station Name	Page	Updated	Data Series
Aransas Pass (between jetties), Texas.....	180	1995	1 Month (4/9/1990-5/7/1990)
Baltimore Harbor Approach (off Sandy Pt), Maryland	96	1965	29 Days Beginning 8/14/1963
*Bath Iron Works, Kennebec River .....	16	2017	1 Month (6/20-8/1/2015)
Bay of Fundy Entrance (Grand Manan Channel).....	4		
Bergen Point Reach (Bayonne Bridge), New York ...	72	1999	4 Months (1/1/1998-4/30/1998)
Bolivar Roads, Galveston Bay, Texas .....	176	2000	453 Days (5/22/1997-9/9/1998)
Boston Harbor (Deer Island Light), Massachusetts ..	28	2013	2 Months (5/14/2011-7/1/2011)
Brandywine Shoal Light, Delaware Bay.....	80	2004	1 Month (11/22/2002-12/23/2002)
Bucksport, Penobscot Bay, Maine.....	12	2008	1 Months (7/14/2006-8/22/2006)
Calcasieu Pass, Louisiana.....	164	2016	5 months (9/18/2009-2/28/2010)
Cape Cod Canal (RR. Bridge), Massachusetts .....	36	2014	3 Months (6/19/2009-9/4/2009)
Charleston Harbor (off Ft. Sumter), South Carolina..	104	1997	2 Months (5/26/1987-7/28/1987)
Chesapeake and Delaware Canal (Chesapeake City)	100	2016	5 months (1/1/2009-6/1/2009)
Chesapeake Bay Entrance, Virginia .....	92	2016	5 months (8/27/2009-1/13/2010)
Delaware Bay Entrance .....	76	2016	1 month (7/13/2000-8/16/2000)
Estes Head, Eastport, Maine .....	8	2000	16 Months (5/22/1997-9/9/1998)
Fort Pierce Inlet Entrance, Florida .....	120	2011	2 Months (11/14/2008-1/11/2009)
Galveston Bay Entrance (between jetties), Texas ....	172	1970	58 Days Beginning 4/5/1935
George Washington Bridge, Hudson River.....	64	2008	3 Months (8/14/2006-11/01/2006)
Hell Gate (off Mill Rock), East River, New York.....	56	1970	35 Days (1932)
Johns Pass Entrance, Florida.....	152	2013	1 Month (11/15/2011-12/13/2011)
Key West, Florida.....	136	2014	3 Months (1/26/2013-4/10/2013)
Kingston-Rhinecliff Bridge, Hudson River.....	68	2008	3 Months (8/14/2006-11/01/2006)
Lake Worth Inlet Entrance, Florida .....	124	2011	1 Month (12/17/2008-1/19/2009)
Miami Harbor Entrance, Florida.....	132	2011	4 Months (11/15/2008-3/18/2009)
Mobile Bay Entrance, Alabama.....	160	1944	29 Days (1935)
Old Tampa Bay Entrance (Port Tampa), Florida .....	148	2016	5 months (3/1/2009-8/26/2009)
Philadelphia (Penns Landing), Delaware River .....	88	2004	1 Month (3/25/2003-4/25/2003)
Pollock Rip Channel, Massachusetts.....	44	1965	2 Years (1934-1936)
Port Everglades Entrance, Florida.....	128	2011	4 Months (11/15/2008-3/18/3009)
Portland Harbor Entrance .....	20	2016	2 months (5/10/2014-7/30/2014)
Portsmouth Harbor Entrance, N.H.....	24	1953	15 Days beginning 9/16/1953
Quonset Point, Narragansett Bay, Rhode Island.....	40	2003	1 Year (7/1/2000-6/29/2001)
Reedy Point, Delaware Bay.....	84	2004	1 Month (3/11/2003-4/21/2003)
Sabine Pass, Texas .....	168	2016	5 months (5/5/2010-11/5/2010)
Savannah River Entrance (between jetties), Georgia	108	1999	2 Months (5/7/1997-7/20/1997)
St. Andrew Bay Entrance, Florida.....	156	2010	2 Months (1/11/2008-3/6/2008)
St. Johns River Entrance, Florida .....	116	2000	3 Months (4/16/1998-7/21/1998)
St. Marys River Entrance, Georgia .....	112	2013	1 Month (11/3/2011-12/27/2011)
Tampa Bay (Sunshine Skyway Bridge), Florida .....	144	2016	5 months (3/11/2009-8/23/2009)
Tampa Bay Entrance (Egmont Channel), Florida.....	140	1994	13 Months (8/20/1990-9/25/1991)
The Narrows, New York Harbor, New York .....	60	2003	6 Months (10/19/2001-4/30/2002)
The Race, Long Island Sound .....	48	2012	4 Months (4/28/2010-9/2/2010)
Throgs Neck Bridge, Long Island Sound, New York.	52	2012	3 Months (5/27/2010-9/1/2010)
Vieques Passage, Puerto Rico .....	184	1967	15 Days Beginning 4/8/1965
Woods Hole, The Strait, Massachusetts.....	32	2011	2 Months (6/3/2009-8/20/2009)

\* New or updated station





# TABLE 1.— DAILY CURRENT PREDICTIONS

## EXPLANATION OF TABLE

This table gives the predicted times of slack water and the predicted times and speeds of maximum current (flood and ebb) for each day of the year at a number of stations on the Atlantic coast of North America. The times are given in hours and minutes and the speeds in knots.

**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.

**Slack water and maximum current.**— The columns headed "Slack" contain the predicted times at which there is no current; or, in other words, the times at which the current has stopped setting in a given direction and is about to begin to set in the opposite direction. Offshore, where the current is rotary, slack water denotes the time of minimum current. Beginning with the slack water before flood, the current increases in speed until the strength or maximum speed of the flood current is reached; it then decreases until the following slack water, or slack before ebb. The ebb current then begins, increases to a maximum speed, and then decreases to the next slack. The predicted times and speeds of maximum current are given in the columns headed "Maximum." Flood speeds are marked with an "F," the ebb speeds with an "E." An entry in the "Slack" column will be slack, flood begins if the maximum current which follows it is marked "F." Otherwise the entry will be slack, ebb begins.

**Direction of set.**— The terms flood and ebb do not in all cases clearly indicate the direction of the current, the approximate direction toward which the currents flow are given at the top of each page to distinguish the two streams.

**Number of slacks and strengths.**— There are usually four slacks and four maximums each day. If one is missing in a given day, it will occur soon after midnight as the first slack or maximum of the following day. At some stations where the diurnal inequality is large, there may be on certain days a continuous flood or ebb current with varying speed throughout half the day giving only two slacks and two maximums on that particular day.

**Current and tide.**— It is important to note that the predicted slacks and strengths given in this table refer to the horizontal motion of the water and not to the vertical rise and fall of the tide. The relation of current to tide is not constant, but varies from place to place, and the time of slack water does not generally coincide with the time of high or low water, nor does the time of maximum speed of the current usually coincide with the time of most rapid change in the vertical height of the tide. At stations located on a tidal river or bay the time of slack water may differ from 1 to 3 hours from the time of high or low water. The times of high and low waters are given in the Tide Tables published by the National Ocean Service.

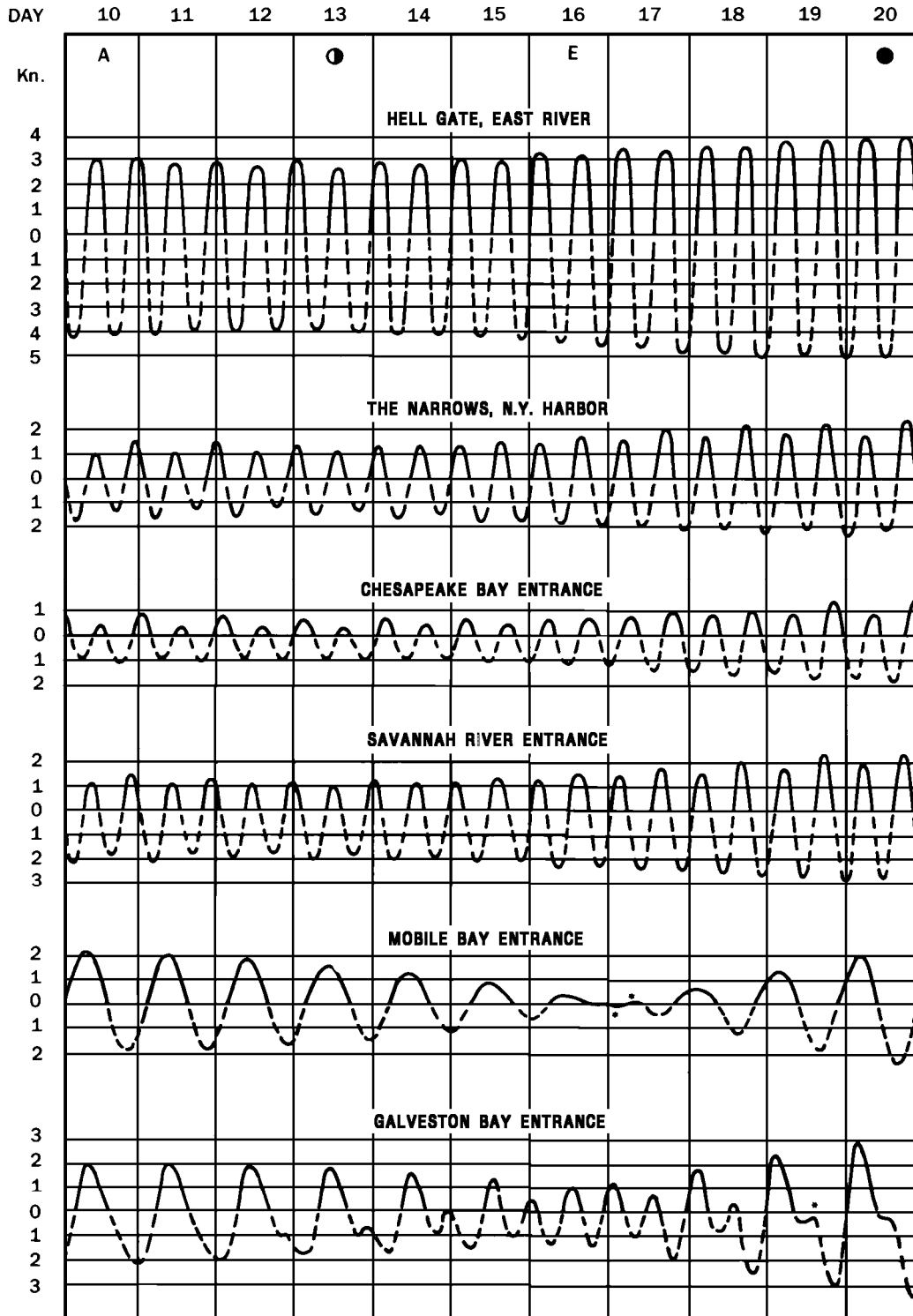
**Variations from predictions.**— In using this table, bear in mind that actual times of slack or maximum occasionally differ from the predicted times by as much as half an hour and in rare instances the difference may be as much as an hour. Comparisons of predicted with observed times of slack water indicate that more than 90 percent of the slack waters occurred within half an hour of the predicted times. To make sure, therefore, of getting the full advantage of a favorable current or slack water, the navigator should reach the entrance or strait at least half an hour before the predicted time of the desired condition of current. Currents are frequently disturbed by wind or variations in river discharge. On days when the current is affected by such disturbing influences, the times and speeds will differ from those given in the table, but local knowledge will enable one to make proper allowance for these effects.

## TABLE 1.—DAILY CURRENT PREDICTIONS

**Typical current curves.**— The variations in the tidal current from day to day and from place to place are illustrated on the opposite page by the current curves for representative ports along the Atlantic and Gulf Coasts of the United States. Flood current is represented by the solid line curve above the zero speed (slack water) line and the ebb current by the broken line curve below the slack water line. The curves show clearly that the currents along the Atlantic coast are semi-diurnal (two floods and two ebbs in a day) in character with their principal variations following changes in the Moon's distance and phase. In the Gulf of Mexico, however, the currents are diurnal in character. Because the dominant factor is the change in the Moon's declination, the currents in the Gulf tend to become semi-diurnal when the Moon is near the Equator. By reference to the curves, it will be noted that with this diurnal type of current there are times when the current may be erratic (marked with an asterisk), or one flood or ebb current of the day may be quite weak. Therefore, in using the predictions of the current, it is essential to carefully note the speeds as well as the times.

### TYPICAL CURRENT CURVES FOR REFERENCE STATIONS

(Flood: Solid Line, Ebb: Broken Line)



\*Current weak and variable.

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

# Bay of Fundy Entrance (Grand Manan Channel), 2017

F—Flood, Dir. 032° True    E—Ebb, Dir. 212° True

January				February				March																
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum										
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
<b>1</b> Su	0138	0443	2.5E	<b>16</b> M	0229	0534	2.8E	<b>1</b> W	0240	0549	3.1E	<b>16</b> Th	0309	0621	2.5E	<b>16</b> Th	0203	0514	2.9E					
	0737	1035	2.9F		0828	1123	2.8F		0850	1146	3.2F		0919	1211	2.4F		0813	1107	2.8F					
	1340	1657	2.9E		1434	1747	2.8E		1453	1804	3.0E		1522	1830	2.1E		1418	1724	2.5E					
	1959	2302	3.2F		2043	2346	3.0F		2103				2121				2015	2316	2.9F					
<b>2</b> M	0218	0525	2.6E	<b>17</b> Tu	0308	0616	2.6E	<b>2</b> Th	0322	0633	3.0E	<b>17</b> F	0340	0655	2.2E	<b>2</b> Th	0215	0526	3.5E	<b>17</b> F	0230	0544	2.6E	
	0821	1118	2.9F		0910	1203	2.6F		0936	1231	3.1F		0956	1246	2.1F		0829	1125	3.5F		0845	1138	2.6F	
	1423	1739	2.8E		1514	1828	2.4E		1540	1850	2.8E		1558	1905	1.7E		1434	1742	3.2E		1448	1753	2.1E	
	2041	2344	3.2F		2122				2148				2155				2039	2343	3.7F		2044	2346	2.6F	
<b>3</b> Tu	0301	0609	2.6E	<b>18</b> W		0024	2.7F	<b>3</b> F	0408	0722	2.8E	<b>18</b> Sa	0413	0731	1.9E	<b>3</b> F	0256	0608	3.3E	<b>18</b> Sa	0258	0613	2.3E	
	0907	1204	2.8F		0347	0657	2.3E		1025	1321	2.8F	☉	1035	1325	1.8F		0912	1209	3.3F		0918	1210	2.3F	
	1509	1825	2.7E		0952	1243	2.3E		1632	1942	2.4E	☾	1638	1944	1.3E		1519	1826	2.9E		1521	1823	1.8E	
	2125				1556	1909	2.1E		2237				2231				2122				2115			
<b>4</b> W	0347	0658	2.5E	<b>19</b> Th	0427	0740	2.0E	<b>4</b> Sa	0459	0816	2.6E	<b>19</b> Su	0451	0815	1.5E	<b>4</b> Sa	0339	0654	3.0E	<b>19</b> Su	0327	0645	2.0E	
	0957	1253	2.7F		1036	1325	1.9F	☉	1121	1417	2.5F		1121	1411	1.5E		0959	1255	3.0F		0954	1247	2.0F	
	1600	1915	2.5E	☾	1640	1953	1.7E	☾	1734	2042	2.1E		1731	2035	1.0E		1609	1915	2.5E		1558	1858	1.4E	
	2214				2241				2334				2317				2210				2150			
<b>5</b> Th	0439	0751	2.4E	<b>20</b> F	0509	0826	1.7E	<b>5</b> Su	0559	0920	2.3E	<b>20</b> M	0539	0913	1.3E	<b>5</b> Su	0428	0746	2.6E	<b>20</b> M	0402	0723	1.7E	
	1052	1347	2.5F		1124	1411	1.6F		1225	1522	2.2F		1219	1511	1.3F	☉	1053	1349	2.6F		1037	1330	1.7F	
	1658	2012	2.3E		1731	2042	1.3E		1847	2153	1.8E		1847	2149	0.8E	☾	1708	2014	2.0E		1647	1945	1.1E	
	2308				2325												2306				2234			
<b>6</b> F	0535	0851	2.3E	<b>21</b> Sa	0557	0919	1.5E	<b>6</b> M	0647	1032	2.2E	<b>21</b> Tu	0647	1029	1.2E	<b>6</b> M	0526	0849	2.2E	<b>21</b> Tu	0449	0818	1.4E	
	1153	1448	2.3F		1217	1506	1.4F		1336	1639	2.1F		1330	1630	1.2F		1155	1453	2.2F		1132	1428	1.4F	
	1804	2116	2.1E		1834	2141	1.0E		2009	2311	1.7E		2022	2317	0.8E		1823	2128	1.6E		1758	2101	0.8E	
<b>7</b> Sa	0639	0956	2.3E	<b>22</b> Su	0653	1020	1.3E	<b>7</b> Tu	0825	1146	2.2E	<b>22</b> W	0811	1146	1.3E	<b>7</b> Tu	0639	1006	2.0E	<b>22</b> W	0556	0940	1.2E	
	1258	1556	2.2F		1319	1611	1.2F		1448	1758	2.2F		1443	1753	1.4F		1309	1614	1.9F		1245	1546	1.3F	
	1917	2225	2.0E		1950	2249	0.9E		2127				2137				1953	2253	1.5E		1938	2240	0.8E	
<b>8</b> Su	0746	1104	2.3E	<b>23</b> M	0756	1124	1.4E	<b>8</b> W	0936	1253	2.4E	<b>23</b> Th	0925	1249	1.6E	<b>8</b> W	0804	1126	2.0E	<b>23</b> Th	0731	1109	1.3E	
	1407	1709	2.2F		1423	1724	1.3F		1555	1907	2.5F		1545	1857	1.8F		1427	1742	2.0F		1404	1716	1.5F	
	2031	2335	2.0E		2104	2357	1.0E		2232				2228				2116				2102			
<b>9</b> M	0852	1209	2.5E	<b>24</b> Tu	0859	1224	1.5E	<b>9</b> Th	1038	1351	2.7E	<b>24</b> F	1021	1340	2.1E	<b>9</b> Th	0302	0610	1.9F	<b>24</b> F	0241	0542	1.4F	
	1512	1818	2.4F		1523	1830	1.5F		1652	2003	2.8F		1635	1946	2.3F		0923	1238	2.2E		0856	1219	1.6E	
	2140				2204				2326				2310				1537	1855	2.3F		1512	1827	1.9F	
<b>10</b> Tu	0953	1309	2.7E	<b>25</b> W	0954	1316	1.8E	<b>10</b> F	1130	1442	2.9E	<b>25</b> Sa	1108	1424	2.5E	<b>10</b> F	0411	0718	2.2F	<b>25</b> Sa	0348	0649	1.8F	
	1612	1919	2.7F		1615	1922	1.9F	☉	1741	2051	3.1F		1719	2028	2.8F		1026	1337	2.5E		0958	1314	2.1E	
	2240				2251								2348				1634	1950	2.7F		1607	1919	2.5F	
<b>11</b> W	1049	1404	2.9E	<b>26</b> Th	1042	1402	2.1E	<b>11</b> Sa	1216	1527	3.1E	<b>26</b> Su	1151	1504	2.9E	<b>11</b> Sa	0506	0810	2.5F	<b>26</b> Su	0439	0740	2.4F	
	1706	2013	3.0F		1700	2007	2.3F		1824	2132	3.3F	☉	1800	2107	3.3F		1118	1426	2.8E		1048	1359	2.6E	
	2334				2331												1722	2034	3.0F		1653	2003	3.0F	
<b>12</b> Th	1140	1454	3.1E	<b>27</b> F	1126	1444	2.4E	<b>12</b> Su	1258	1608	3.1E	<b>27</b> M	1231	1543	3.2E	<b>12</b> Su	1201	1508	2.9E	<b>27</b> M	1131	1441	3.0E	
	1755	2102	3.2F	☉	1742	2047	2.7F		1904	2210	3.4F		1839	2145	3.6F	☉	1803	2112	3.2F		1735	2043	3.4F	
																					2358			
<b>13</b> F	1227	1541	3.2E	<b>28</b> Sa	1207	1523	2.7E	<b>13</b> M	1336	1646	3.0E	<b>28</b> Tu	1311	1622	3.3E	<b>13</b> M	1240	1546	3.0E	<b>28</b> Tu	1212	1521	3.3E	
	1840	2146	3.3F		1821	2126	3.1F		1941	2245	3.3F		1918	2223	3.8F		1840	2146	3.3F		1816	2122	3.8F	
<b>14</b> Sa	1311	1625	3.2E	<b>29</b> Su	1247	1602	3.0E	<b>14</b> Tu	1413	1722	2.8E	<b>29</b> W	1413	1722	2.8E	<b>14</b> Tu	1314	1621	2.9E	<b>29</b> W	1252	1559	3.4E	
	1923	2227	3.3F		1901	2205	3.3F		2015	2318	3.1F		2015	2318	3.1F		1913	2217	3.3F		1855	2200	3.9F	
<b>15</b> Su	1419	1707	3.0E	<b>30</b> M	1327	1641	3.1E	<b>15</b> W	1447	1757	2.5E	<b>30</b> Th	1447	1757	2.5E	<b>15</b> W	1347	1653	2.7E	<b>30</b> Th	1333	1639	3.4E	
	2004	2307	3.2F		1940	2244	3.5F		2049	2351	2.9F		2049	2351	2.9F		1945	2247	3.1F		1935	2239	3.9F	
				<b>31</b> Tu	0159	0508	3.1E														<b>31</b> F	0151	0503	3.7E
					0806	1103	3.2F															0807	1104	3.6F
					1409	1722	3.1E															1415	1721	3.2E
					2020	2325	3.6F															2016	2320	3.7F

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

# Bay of Fundy Entrance (Grand Manan Channel), 2017

F—Flood, Dir. 032° True    E—Ebb, Dir. 212° True

April				May				June																
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum										
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
<b>1</b> Sa	0231	0545	3.4E	<b>16</b> Su	0222	0538	2.4E	<b>1</b> M	0254	0612	3.0E	<b>16</b> Tu	0231	0549	2.3E	<b>1</b> Th	0427	0748	2.2E	<b>16</b> F	0351	0710	2.2E	
	0850	1147	3.4F		0846	1141	2.4F		0918	1216	3.0F		0859	1158	2.4F		1046	1349	2.3F		1013	1317	2.5F	
	1459	1805	2.9E		1452	1753	1.8E		1537	1841	2.3E		1514	1815	1.7E		1724	2030	1.8E		1639	1950	2.0E	
	2059				2045	2348	2.4F		2133				2109				2321					2247		
<b>2</b> Su		0002	3.3F	<b>17</b> M	0253	0611	2.1E	<b>2</b> Tu	0032	2.7F	<b>17</b> W	0010	2.2F	<b>2</b> F	0213	1.8F	<b>17</b> Sa	0142	2.1F	<b>17</b> Su	0450	0809	2.0E	
	0314	0630	3.1E		0922	1218	2.2F		0344	0705		2.6E	0313		0633	2.0E		0532	0852		1.8E	1108	1414	2.4F
	0937	1234	3.0F		1531	1830	1.5E		1010	1309		2.6F	0943		1244	2.2F		1145	1452		2.0F	1739	2053	1.9E
	1550	1855	2.4E		2123				1636	1941		1.9E	1604		1907	1.5E		1832	2138		1.7E	2351		
<b>3</b> M		0049	2.8F	<b>18</b> Tu		0027	2.0F	<b>3</b> W	0128	2.2F	<b>18</b> Th	0100	1.9F	<b>3</b> Sa	0324	1.6F	<b>18</b> Su	0245	2.0F	<b>18</b> M	0558	0916	1.9E	
	0402	0722	2.6E		0331	0651	1.8E		0443	0808		2.1E	0404		0728	1.8E		0648	1001		1.6E	1209	1517	2.3F
	1029	1326	2.6F		1005	1303	1.9F		1109	1411		2.2F	1036		1339	2.0F		1249	1602		1.9F	1844	2159	2.0E
	1650	1955	1.9E		1620	1920	1.2E		1749	2054		1.6E	1705		2014	1.4E		1940	2245		1.7E			
<b>4</b> Tu		0145	2.3F	<b>19</b> W		0115	1.7F	<b>4</b> Th	0236	1.7F	<b>19</b> F	0202	1.7F	<b>4</b> Su	0441	1.5F	<b>19</b> M	0058	0355	2.0F				
	0501	0826	2.2E		0420	0746	1.5E		0557	0922		1.8E	0510		0838	1.6E		0803	1107	1.6E	0712	1025	1.9E	
	1131	1430	2.1F		1059	1359	1.7F		1218	1527		1.9F	1138		1444	1.9F		1354	1710	1.9F	1315	1625	2.3F	
	1806	2110	1.6E		1729	2034	1.0E		1911	2213		1.5E	1817		2130	1.5E		2041	2346	1.8E	1949	2305	2.2E	
<b>5</b> W		0255	1.8F	<b>20</b> Th		0219	1.4F	<b>5</b> F	0400	1.5F	<b>20</b> Sa	0315	1.6F	<b>5</b> M	0550	1.6F	<b>20</b> Tu	0206	0506	2.2F				
	0616	0944	1.8E		0528	0905	1.3E		0723	1039		1.7E	0629		0954	1.6E		0908	1207	1.7E	0824	1131	2.0E	
	1245	1552	1.9F		1209	1514	1.5F		1331	1650		1.9F	1247		1557	2.0F		1453	1809	2.0F	1420	1731	2.5F	
	1937	2236	1.5E		1857	2205	1.1E		2027	2326		1.7E	1931		2243	1.7E		2133			2051			
<b>6</b> Th	0122	0424	1.6F	<b>21</b> F	0046	0343	1.3F	<b>6</b> Sa	0526	1.6F	<b>21</b> Su	0433	1.8F	<b>6</b> Tu	0039	2.0E	<b>21</b> W	0006	2.5E	<b>21</b> Th	0308	0611	2.4F	
	0746	1106	1.8E		0659	1032	1.4E		0841	1148		1.8E	0749		1105	1.8E		0340	0645		1.8F	0929	1232	2.3E
	1403	1722	1.9F		1326	1637	1.7F		1439	1800		2.1F	1355		1708	2.2F		1544	1857		2.1F	1522	1832	2.7F
	2058	2355	1.7E		2018	2324	1.4E		2127				2035		2346	2.1E		2216				2147		
<b>7</b> F	0247	0554	1.7F	<b>22</b> Sa	0211	0510	1.5F	<b>7</b> Su	0027	2.0E	<b>22</b> M	0543	2.1F	<b>7</b> W	0125	2.2E	<b>22</b> Th	0102	2.8E	<b>22</b> F	0405	0709	2.8F	
	0907	1217	2.0E		0825	1144	1.7E		0943	1245		2.0E	0858		1207	2.1E		1047	1343		1.9E	1026	1329	2.5E
	1513	1834	2.2F		1435	1750	2.1F		1536	1854		2.3F	1457		1809	2.6F		1629	1937		2.2F	1619	1927	2.9F
	2159				2119				2215				2129					2253				2239		
<b>8</b> Sa		0058	2.1E	<b>23</b> Su		0025	1.9E	<b>8</b> M	0117	2.3E	<b>23</b> Tu	0041	2.5E	<b>8</b> Th	0205	2.3E	<b>23</b> F	0154	3.1E	<b>23</b> Sa	0457	0801	3.1F	
	0354	0701	2.0F		0318	0619	2.0F		0417	0722		2.2F	0340		0642	2.5F		0505	0807		2.2F	1119	1421	2.7E
	1009	1315	2.3E		0930	1242	2.1E		1033	1333		2.2E	0955		1301	2.5E		1126	1423		2.0E	1712	2017	3.1F
	1610	1927	2.6F		1533	1846	2.6F		1623	1937		2.5F	1552		1902	3.0F		1708	2013		2.3F	2328		
<b>9</b> Su		0148	2.4E	<b>24</b> M		0115	2.4E	<b>9</b> Tu	0159	2.5E	<b>24</b> W	0130	3.0E	<b>9</b> F	0241	2.4E	<b>24</b> Sa	0243	3.3E	<b>24</b> Su	0546	0850	3.3F	
	0446	0750	2.4F		0412	0713	2.5F		0459	0802		2.4F	0431		0733	2.9F		0541	0842		2.4F	1208	1510	2.9E
	1058	1402	2.5E		1022	1331	2.6E		1114	1414		2.3E	1046		1350	2.8E		1201	1459		2.1E	1802	2105	3.2F
	1656	2009	2.9F		1623	1933	3.1F		1703	2013		2.7F	1642		1950	3.3F		1745	2047		2.4F			
<b>10</b> M		0230	2.7E	<b>25</b> Tu		0159	3.0E	<b>10</b> W	0237	2.7E	<b>25</b> Th	0216	3.3E	<b>10</b> Sa	0315	2.5E	<b>25</b> Su	0330	3.4E	<b>25</b> M	0615	0936	3.4F	
	0529	0830	2.6F		0458	0759	3.0F		0537	0837		2.6F	0518		0820	3.0F		0615	0915		2.6F	1255	1557	3.0E
	1140	1443	2.7E		1108	1415	3.0E		1151	1451		2.4E	1133		1437	3.0E		1234	1534		2.1E	1850	2151	3.3F
	1736	2045	3.0F		1708	2016	3.5F		1739	2045		2.8F	1729		2035	3.5F		1821	2121		2.5F			
<b>11</b> Tu	0002	0308	2.9E	<b>26</b> W		0241	3.4E	<b>11</b> Th	0311	2.8E	<b>26</b> F	0259	3.5E	<b>11</b> Su	0348	2.6E	<b>26</b> M	0100	0416	3.4E				
	0606	0905	2.8F		0542	0841	3.4F		0610	0909		2.7F	0603		0904	3.5F		0649	0949	2.7F	0717	1020	3.5F	
	1216	1520	2.8E		1151	1457	3.2E		1223	1524		2.4E	1218		1522	3.1E		1306	1608	2.1E	1340	1644	2.9E	
	1811	2117	3.1F		1751	2057	3.7F		1812	2115		2.8F	1815		2119	3.6F		1857	2156	2.6F	1937	2236	3.2F	
<b>12</b> W	0033	0341	3.0E	<b>27</b> Th	0010	0321	3.6E	<b>12</b> F	0342	2.8E	<b>27</b> Sa	0344	3.6E	<b>12</b> M	0421	2.6E	<b>27</b> Tu	0145	0501	3.2E				
	0640	0937	2.9F		0623	0923	3.6F		0642	0939		2.7F	0647		0948	3.6F		0724	1024	2.7F	0802	1104	3.3F	
	1249	1553	2.7E		1234	1539	3.3E		1254	1556		2.3E	1303		1607	3.1E		1341	1644	2.2E	1426	1730	2.8E	
	1843	2146	3.1F		1833	2138	3.8F		1844	2146		2.8F	1859		2202	3.5F		1934	2233	2.6F	2024	2320	3.0F	
<b>13</b> Th	0101	0412	3.0E	<b>28</b> F	0049	0402	3.7E	<b>13</b> Sa	0412	2.7E	<b>28</b> Su	0427	3.5E	<b>13</b> Tu	0457	2.6E	<b>28</b> W	0231	0547	3.0E				
	0712	1007	2.9F		0705	1004	3.7F		0714	1010		2.7F	0731		1031	3.5F		0801	1102	2.8F	0846	1148	3.1F	
	1320	1623	2.6E		1316	1620	3.3E		1325	1627		2.2E	1349		1652	3.0E		1418	1722	2.1E	1512	1818	2.6E	
	1913	2215	3.0F		1915	2218	3.8F		1916	2217		2.7F	1945		2246	3.3F		2015	2314	2.5F	2111			
<b>14</b> F	0128	0441	2.8E	<b>29</b> Sa	0129	0443	3.6E	<b>14</b> Su	0442	2.6E	<b>29</b> M	0512	3.3E	<b>14</b> W	0536	2.5E	<b>29</b> Th	0006	2.7F	<b>29</b> F	0317	0634	2.6E	
	0742	1037	2.8F		0747	1046	3.6F		0746	1043		2.7F	0816		1116	3.3F		0840	1142		2.7F	0931	1233	2.8F
	1349	1653	2.4E		1359	1704	3.1E		1357	1659		2.1E	1436		1740	2.7E		1459	1805		2.1E	1559	1907	2.3E
	1942	2244	2.9F		1958	2259	3.5F		1949	2250		2.6F	2033		2331	3.0F		2059	2357		2.4F	2200		
<b>15</b> Sa	0154	0510	2.6E	<b>30</b> Su	0210	0526	3.4E	<b>15</b> M	0513	2.5E	<b>30</b> Tu	0559	3.0E	<b>15</b> Th	0620	2.3E	<b>30</b> F	0053	2.3F	<b>30</b>				

# Bay of Fundy Entrance (Grand Manan Channel), 2017

F—Flood, Dir. 032° True    E—Ebb, Dir. 212° True

July				August				September															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Sa	0500	0816	1.9E	<b>16</b> Su	0427	0740	2.3E	<b>1</b> Tu	0611	0918	1.1E	<b>16</b> W	0607	0914	1.8E	<b>1</b> F	0107	0404	1.1F	<b>16</b> Sa	0150	0502	2.0F
	1106	1410	2.2F		1037	1343	2.8F		1156	1459	1.5F		1203	1508	2.3F		0806	1057	0.7E		0840	1138	1.6E
	1743	2054	1.8E		1702	2017	2.4E		1829	2156	1.4E		1829	2153	2.2E		1320	1622	1.0F		1426	1732	1.8F
	2349				2320												1948	2327	1.2E		2049		
<b>2</b> Su	0602	0914	1.6E	<b>17</b> M	0527	0839	2.1E	<b>2</b> W	0055	0347	1.3F	<b>17</b> Th	0058	0358	2.1F	<b>2</b> Sa	0223	0535	1.2F	<b>17</b> Su	0305	0623	2.3F
	1159	1505	1.9F		1133	1440	2.5F		1257	1602	1.3F		1318	1624	2.0F		0928	1217	0.9E		0951	1249	2.0E
	1841	2154	1.6E		1801	2119	2.3E		1933	2303	1.3E		1945	2309	2.1E		2109	1751	1.1F		1542	1849	2.1F
																						2158	
<b>3</b> M	0050	0343	1.5F	<b>18</b> Tu	0022	0318	2.2F	<b>3</b> Th	0202	0502	1.2F	<b>18</b> F	0213	0520	2.1F	<b>3</b> Su	0329	0644	1.6F	<b>18</b> M	0408	0724	2.7F
	0712	1017	1.3E		0637	0946	1.9E		0850	1140	0.9E		0852	1152	1.7E		1020	1314	1.3E		1046	1346	2.4E
	1257	1606	1.6F		1236	1544	2.4F		1409	1715	1.2F		1439	1746	2.0F		1556	1858	1.5F		1641	1946	2.5F
	1942	2256	1.6E		1906	2226	2.2E		2042				2103				2208				2254		
<b>4</b> Tu	0154	0453	1.4F	<b>19</b> W	0130	0430	2.2F	<b>4</b> F	0307	0616	1.4E	<b>19</b> Sa	0324	0637	2.4F	<b>4</b> M	0420	0733	2.1F	<b>19</b> Tu	0459	0812	3.0F
	0824	1121	1.2E		0753	1058	1.9E		0956	1245	1.1E		1004	1302	2.1E		1059	1359	1.8E		1131	1433	2.8E
	1359	1710	1.6F		1346	1655	2.3F		1519	1825	1.3F		1552	1859	2.3F		1647	1947	2.0F		1730	2032	2.8F
	2040	2355	1.6E		2015	2335	2.3E		2142				2210				2255				2341		
<b>5</b> W	0254	0559	1.5F	<b>20</b> Th	0238	0543	2.3F	<b>5</b> Sa	0402	0713	1.7F	<b>20</b> Su	0426	0738	2.7F	<b>5</b> Tu	0504	0813	2.6F	<b>20</b> W	0543	0853	3.3F
	0928	1221	1.3E		0907	1209	2.0E		1045	1338	1.4E		1101	1401	2.4E		1135	1438	2.3E		1211	1515	3.1E
	1459	1810	1.6F		1457	1805	2.4F		1618	1921	1.6F		1653	1958	2.6F		1730	2029	2.5F		1812	2112	3.0F
	2132				2122				2232				2307				2336						
<b>6</b> Th	0348	0654	1.7F	<b>21</b> F	0343	0650	2.5F	<b>6</b> Su	0448	0757	2.1F	<b>21</b> M	0518	0829	3.1F	<b>6</b> W	0543	0850	3.1F	<b>21</b> Th	0622	0929	3.4F
	1021	1313	1.4E		1013	1313	2.2E		1124	1421	1.7E		1150	1451	2.8E		1208	1515	2.8E		1246	1552	3.2E
	1553	1901	1.7F		1603	1910	2.6F		1706	2007	2.0F		1745	2047	2.9F		1810	2108	2.9F		1850	2148	3.1F
	2217				2222				2315				2356										
<b>7</b> F	0134	0439	1.9E	<b>22</b> Sa	0138	0439	2.9F	<b>7</b> M	0529	0836	2.5F	<b>22</b> Tu	0604	0913	3.4F	<b>7</b> Th	0621	0927	3.4F	<b>22</b> F	0657	1002	3.4F
	0433	0739	1.9F		1110	1410	2.5E		1159	1500	2.1E		1232	1535	3.1E		1242	1551	3.1E		1319	1627	3.2E
	1104	1359	1.6E		1701	2006	2.8F		1749	2048	2.4F		1831	2130	3.1F		1848	2146	3.3F		1926	2222	3.1F
	1640	1945	1.9F		2316				2354														
<b>8</b> Sa	0215	0518	2.1E	<b>23</b> Su	0231	0530	3.0E	<b>8</b> Tu	0311	0607	2.5E	<b>23</b> W	0349	0645	3.2E	<b>8</b> F	0402	0658	3.7F	<b>23</b> Sa	0439	0731	3.3F
	0514	0818	2.2F		0532	0840	3.2F		0607	0913	2.9F		0645	0952	3.5F		0658	1003	3.7F		0731	1034	3.3F
	1142	1439	1.8E		1200	1501	2.8E		1233	1537	2.5E		1311	1616	3.2E		1317	1627	3.4E		1349	1700	3.0E
	1723	2025	2.1F		1754	2056	3.0F		1829	2127	2.7F		1912	2210	3.2F		1927	2224	3.5F		1959	2254	2.9F
<b>9</b> Su	0253	0555	2.3E	<b>24</b> M	0320	0619	3.2E	<b>9</b> W	0347	0644	2.8E	<b>24</b> Th	0429	0723	3.2E	<b>9</b> Sa	0440	0736	3.8F	<b>24</b> Su	0511	0802	3.0F
	0552	0855	2.5F		1246	1549	3.0E		1307	1613	2.8E		1347	1654	3.2E		1353	1704	3.5E		1418	1731	2.8E
	1217	1517	2.0E		1842	2142	3.1F		1908	2205	3.0F		1951	2247	3.1F		2007	2303	3.5F		2032	2326	2.7F
	1804	2103	2.4F																				
<b>10</b> M	0010	0329	2.5E	<b>25</b> Tu	0051	0405	3.3E	<b>10</b> Th	0111	0424	3.0E	<b>25</b> F	0157	0506	3.0E	<b>10</b> Su	0211	0519	3.2E	<b>25</b> M	0238	0542	2.3E
	0628	0931	2.7F		0703	1009	3.5F		0722	1026	3.4F		0759	1103	3.3F		0815	1120	3.7F		0833	1134	2.7F
	1251	1554	2.2E		1329	1633	3.0E		1342	1650	3.0E		1421	1730	3.0E		1431	1744	3.4E		1446	1802	2.5E
	1843	2141	2.6F		1927	2225	3.1F		1948	2244	3.2F		2028	2322	2.9F		2048	2345	3.4F		2106	2358	2.4F
<b>11</b> Tu	0047	0405	2.7E	<b>26</b> W	0135	0448	3.2E	<b>11</b> F	0150	0502	3.1E	<b>26</b> Sa	0233	0542	2.7E	<b>11</b> M	0254	0600	3.0E	<b>26</b> Tu	0311	0613	1.9E
	0705	1008	2.9F		0745	1049	3.4F		0759	1104	3.5F		0834	1136	3.1F		0857	1201	3.5F		0903	1205	2.4F
	1326	1631	2.4E		1410	1715	3.0E		1419	1728	3.1E		1454	1805	2.7E		1512	1827	3.2E		1515	1833	2.1E
	1923	2220	2.7F		2011	2307	3.0F		2028	2325	3.2F		2104	2357	2.7F		2133				2141		
<b>12</b> W	0125	0442	2.7E	<b>27</b> Th	0217	0529	3.0E	<b>12</b> Sa	0231	0541	3.0E	<b>27</b> Su	0309	0616	2.3E	<b>12</b> Tu	0341	0646	2.6E	<b>27</b> W	0333	0633	2.1F
	0742	1046	3.1F		0825	1129	3.3F		0840	1144	3.5F		0908	1209	2.8F		0942	1246	3.1F		0937	1240	2.0F
	1402	1709	2.5E		1450	1757	2.8E		1458	1809	3.1E		1526	1840	2.4E		1558	1915	2.8E		1547	1909	1.7E
	2004	2301	2.8F		2053	2347	2.8F		2111				2141				2223				2221		
<b>13</b> Th	0205	0521	2.8E	<b>28</b> F	0258	0610	2.7E	<b>13</b> Su	0315	0624	2.8E	<b>28</b> M	0345	0652	1.9E	<b>13</b> W	0436	0741	2.2E	<b>28</b> Th	0414	0730	1.1E
	0821	1125	3.1F		0904	1207	3.0F		0922	1227	3.3F		0941	1243	2.4F		1034	1337	2.6F		1017	1321	1.6F
	1442	1749	2.6E		1529	1838	2.6E		1540	1853	2.9E		1559	1917	2.0E		1652	2014	2.4E		1628	1957	1.4E
	2047	2343	2.8F		2135				2158				2220				2321				2311		
<b>14</b> F	0248	0603	2.7E	<b>29</b> Sa	0340	0651	2.3E	<b>14</b> M	0403	0711	2.5E	<b>29</b> Tu	0425	0730	1.5E	<b>14</b> Th	0544	0849	1.7E	<b>29</b> F	0536	0838	0.8E
	0903	1207	3.1F		0943	1245	2.7F		1008	1313	3.0F		1017	1319	1.9F		1138	1440	2.1F		1116	1418	1.2F
	1524	1833	2.6E		1608	1921	2.3E		1628	1944	2.7E		1634	1958	1.6E		1759	2126	2.0E		1728	2113	1.1E
	2133				2218				2250				2304										
<b>15</b> Sa	0335	0648	2.5E	<b>30</b> Su	0423	0734	1.9E	<b>15</b> Tu	0459	0807	2.2E	<b>30</b> W	0514	0817	1.0E	<b>15</b> F	0711	1013	1.5E	<b>30</b> Sa	0715	1016	0.7E
	0948	1253	3.0F		1023	1325	2.3F		1101	1406	2.6F		1059	1402	1.5F		1258	1601	1.8F		1243	1540	1.0F
	1610	1922	2.5E		1608	1921	2.3E																

# Bay of Fundy Entrance (Grand Manan Channel), 2017

F—Flood, Dir. 032° True    E—Ebb, Dir. 212° True

October				November				December															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Su	0139	0450	1.3F	<b>16</b> M	0240	0601	2.2F	<b>1</b> W	0307	0621	2.3F	<b>16</b> Th	0359	0714	2.5F	<b>1</b> F	0323	0634	2.7F	<b>16</b> Sa	0411	0721	2.2F
	0846	1142	1.0E		0929	1228	2.0E		0945	1253	2.2E		1032	1338	2.5E		0951	1304	2.7E		1037	1349	2.3E
	1418	1717	1.1F		1524	1830	2.0F		1548	1849	2.2F		1639	1943	2.4F		1605	1907	2.7F		1650	1954	2.2F
	2034	2359	1.4E		2140				2159				2256				2221				2314		
<b>2</b> M	0250	0607	1.7F	<b>17</b> Tu	0342	0700	2.5F	<b>2</b> Th	0359	0710	2.8F	<b>17</b> F	0445	0755	2.7F	<b>2</b> Sa	0415	0724	3.0F	<b>17</b> Su	0455	0801	2.3F
	0943	1242	1.4E		1022	1323	2.4E		1028	1337	2.7E		1111	1419	2.7E		1038	1351	3.1E		1115	1429	2.4E
	1529	1830	1.6F		1621	1926	2.4F		1636	1936	2.7F		1720	2021	2.6F		1654	1956	3.1F		1729	2032	2.3F
	2140				2235				2246				2336				2309				2353		
<b>3</b> Tu		0055	1.8E	<b>18</b> W	0433	0747	2.9F	<b>3</b> F	0445	0753	3.2F	<b>18</b> Sa	0524	0831	2.8F	<b>3</b> Su	0504	0811	3.3F	<b>18</b> M	0535	0838	2.3F
	0346	0701	2.2F		1105	1408	2.8E		1108	1419	3.1E		1145	1456	2.8E		1122	1437	3.3E		1149	1505	2.5E
	1026	1329	2.0E		1708	2010	2.7F		1719	2019	3.2F		● 1757	2056	2.7F		○ 1740	2041	3.3F		● 1805	2106	2.5F
	1621	1921	2.1F		2320				2330								2356						
<b>4</b> W		0141	2.3E	<b>19</b> Th	0516	0826	3.1F	<b>4</b> Sa	0528	0835	3.5F	<b>19</b> Su	0012	0312	2.4E	<b>4</b> M	0551	0856	3.4F	<b>19</b> Tu	0612	0912	2.4F
	0433	0744	2.7F		1143	1449	3.0E		1147	1459	3.5E		0559	0904	2.8F		1206	1521	3.5E		1222	1539	2.5E
	1103	1410	2.5E		● 1748	2048	2.9F		○ 1801	2101	3.5F		1217	1530	2.8E		1824	2126	3.5F		1840	2140	2.6F
	1705	2005	2.6F		2359								1831	2129	2.7F								
<b>5</b> Th		0222	2.7E	<b>20</b> F	0554	0901	3.1E	<b>5</b> Su	0012	0317	3.2E	<b>20</b> M	0046	0346	2.3E	<b>5</b> Tu	0041	0344	3.0E	<b>20</b> W	0648	0947	2.4F
	0515	0823	3.2F		1217	1525	3.1E		0610	0915	3.7F		0634	0935	2.7F		0638	0940	3.5F		1254	1613	2.5E
	1139	1448	3.0E		1824	2123	3.0F		1226	1539	3.6E		1246	1602	2.7E		1250	1605	3.5E		1914	2214	2.6F
	1746	2045	3.1F						1843	2142	3.6F		1903	2201	2.7F		1909	2210	3.5F				
<b>6</b> F		0301	3.1E	<b>21</b> Sa	0035	0338	2.8E	<b>6</b> M	0054	0358	3.2E	<b>21</b> Tu	0118	0419	2.2E	<b>6</b> W	0127	0430	3.0E	<b>21</b> Th	0134	0436	2.1E
	0554	0901	3.6F		0629	0933	3.2F		0652	0956	3.7F		0706	1007	2.6F		0724	1025	3.4F		0725	1022	2.5F
	1215	1525	3.4E		1248	1558	3.1E		1306	1620	3.6E		1315	1633	2.6E		1334	1650	3.4E		1328	1647	2.5E
	1825	2123	3.4F		1858	2155	3.0F		1925	2224	3.6F		1936	2233	2.6F		1954	2255	3.4F		1949	2250	2.7F
<b>7</b> Sa	0032	0339	3.3E	<b>22</b> Su	0108	0411	2.6E	<b>7</b> Tu	0137	0441	3.1E	<b>22</b> W	0150	0451	2.0E	<b>7</b> Th	0214	0518	2.8E	<b>22</b> F	0208	0512	2.1E
	0633	0939	3.8F		0701	1003	3.1F		0735	1038	3.6F		0740	1039	2.5F		0811	1110	3.1F		0803	1100	2.4F
	1251	1602	3.6E		1316	1630	2.9E		1347	1703	3.5E		1346	1705	2.4E		1420	1737	3.1E		1404	1723	2.4E
	1904	2202	3.6F		1930	2226	2.8F		2008	2307	3.5F		2009	2307	2.5F		2040	2341	3.2F		2026	2327	2.7F
<b>8</b> Su	0111	0417	3.3E	<b>23</b> M	0140	0443	2.4E	<b>8</b> W	0222	0526	2.9E	<b>23</b> Th	0224	0525	1.9E	<b>8</b> F	0303	0608	2.6E	<b>23</b> Sa	0246	0551	2.1E
	0713	1017	3.9F		0732	1033	2.9F		0821	1122	3.3F		0815	1115	2.3F		0901	1158	2.8F		0845	1141	2.4F
	1328	1640	3.6E		1344	1659	2.7E		1431	1748	3.2E		1419	1739	2.2E		1508	1827	2.8E		1444	1803	2.3E
	1944	2242	3.7F		2002	2257	2.7F		2054	2353	3.2F		2046	2345	2.4F		2128				2106		
<b>9</b> M	0152	0457	3.2E	<b>24</b> Tu	0211	0513	2.1E	<b>9</b> Th	0312	0616	2.5E	<b>24</b> F	0302	0604	1.7E	<b>9</b> Sa		0030	2.9F	<b>24</b> Su	0327	0635	2.0E
	0753	1057	3.7F		0802	1103	2.6F		0910	1209	2.9F		0856	1154	2.1F		0356	0702	2.3E		0931	1226	2.3F
	1407	1721	3.5E		1412	1729	2.4E		1519	1839	2.8E		1457	1818	2.0E		0955	1250	2.5F		1530	1848	2.2E
	2026	2324	3.5F		2034	2329	2.5F		2144				2126				1602	1922	2.4E		2150		
<b>10</b> Tu	0236	0540	3.0E	<b>25</b> W	0243	0544	1.8E	<b>10</b> F	0408	0713	2.8F	<b>25</b> Sa	0347	0651	1.5E	<b>10</b> Su		0123	2.6F	<b>25</b> M	0414	0724	2.5F
	0836	1139	3.4F		0834	1136	2.3F		1005	1302	2.4F		0943	1241	1.9F		0453	0801	2.1E		1022	1317	2.1F
	1449	1804	3.2E		1441	1800	2.1E		● 1615	1938	2.3E		1544	1907	1.8E		○ 1703	2022	2.1E		1623	1940	2.0E
	2111				2109				2241				2214				2317				2240		
<b>11</b> W		0009	3.2F	<b>26</b> Th	0005	0308	2.2F	<b>11</b> Sa	0515	0821	1.8E	<b>26</b> Su	0441	0749	1.4E	<b>11</b> M		0222	2.3F	<b>26</b> Tu	0508	0821	1.9E
	0323	0628	2.6E		0320	0619	1.5E		1110	1405	2.0F		1041	1336	1.7F		0557	0905	1.9E		1120	1414	2.0F
	0922	1224	3.0F		0910	1212	2.0F		1723	2047	2.0E		○ 1642	2008	1.6E		1158	1452	1.8F		1724	2041	1.8E
	1535	1854	2.8E		1516	1837	1.8E		2345				2310				1813	2128	1.8E		2336		
<b>12</b> Th		0059	2.8F	<b>27</b> F	0405	0704	1.2E	<b>12</b> Su	0631	0936	1.7E	<b>27</b> M	0546	0859	1.4E	<b>12</b> Tu	0018	0327	2.1F	<b>27</b> W	0608	0924	1.9E
	0419	0724	2.1E		0955	1256	1.7F		1226	1522	1.7F		1150	1443	1.6F		0704	1012	1.8E		1224	1519	2.0F
	1016	1317	2.5F		○ 1559	1926	1.5E		1844	2203	1.8E		1754	2120	1.5E		1307	1605	1.7F		1834	2148	1.8E
	1629	1953	2.3E		2238												1928	2235	1.7E				
<b>13</b> F		0159	2.3F	<b>28</b> Sa	0506	0810	1.0E	<b>13</b> M	0056	0410	2.0F	<b>28</b> Tu	0014	0323	1.9F	<b>13</b> W	0122	0436	2.0F	<b>28</b> Th	0038	0347	2.2F
	0529	0834	1.7E		1056	1354	1.4F		0749	1051	1.8E		0657	1010	1.6E		0808	1116	1.9E		0712	1030	2.1E
	1122	1421	2.0F		1659	2036	1.3E		1345	1647	1.7F		1303	1558	1.6F		1414	1717	1.7F		1331	1629	2.0F
	1739	2107	2.0E		2341				2005	2314	1.9E		1914	2232	1.6E		2038	2338	1.7E		1947	2256	1.8E
<b>14</b> Sa	0009	0313	2.0F	<b>29</b> Su	0628	0937	1.0E	<b>14</b> Tu	0206	0525	2.1F	<b>29</b> W	0122	0433	2.1F	<b>14</b> Th	0224	0540	2.0F	<b>29</b> F	0144	0454	2.3F
	06																						

# Estes Head, Eastport, Maine, 2017

F—Flood, Dir. 263° True    E—Ebb, Dir. 088° True

January				February				March															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Su	0116	0439	2.2E	<b>16</b> M	0200	0537	2.7E	<b>1</b> W	0217	0530	2.5E	<b>16</b> Th	0034	2.1F	<b>1</b> W	0108	0430	2.8E	<b>16</b> Th	0140	0520	2.5E	
	0727	0944	2.2F		0815	1154	2.4F		0831	1050	2.6F		0257	0637		2.3E	0723	0944		2.7F	0801	1133	2.1F
	1331	1655	2.5E		1417	1759	2.7E		1436	1748	2.6E		0919	1157		2.0F	1328	1650		2.9E	1400	1738	2.3E
	1953	2208	2.3F		2041				2056	2316	2.6F		1517	1857		2.2E	1946	2208		2.8F	2020	2243	2.1F
<b>2</b> M	0158	0512	2.2E	<b>17</b> Tu	0247	0626	2.5E	<b>2</b> Th	0304	0614	2.5E	<b>17</b> F	0000	1.9F	<b>2</b> Th	0153	0513	2.8E	<b>17</b> F	0221	0558	2.3E	
	0809	1026	2.3F		0904	1245	2.2F		0920	1138	2.6F		0342	0724		2.1E	0810	1031		2.7F	0844	1100	2.0F
	1413	1728	2.4E		1505	1848	2.5E		1526	1835	2.5E		1006	1219		1.8F	1416	1734		2.8E	1443	1816	2.1E
	2035	2252	2.4F		2129				2145				1311	1.8F		2034	2255	2.8F		2103	2317	2.0F	
<b>3</b> Tu	0242	0546	2.2E	<b>18</b> W	0334	0716	2.3E	<b>3</b> F	0004	2.6F	<b>18</b> Sa	0042	1.8F	<b>3</b> F	0241	0600	2.8E	<b>18</b> Sa	0304	0639	2.1E		
	0854	1112	2.4E		0954	1339	2.0F		1014	1230		2.5F	0430		0815	2.0E	0901		1119	2.7F	0930	1139	1.9F
	1459	1803	2.4E		1553	1939	2.3E		1619	1936		2.4E	1057		1308	1.7F	1507		1825	2.6E	1528	1859	1.9E
	2120	2338	2.4F		2218				2239				1354		1.7F	2125	2344		2.7F	2149			

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 † See page 188 for the remaining currents on this day.



# Estes Head, Eastport, Maine, 2017

F—Flood, Dir. 263° True    E—Ebb, Dir. 088° True

April				May				June															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Sa	0221	0547	3.0E	<b>16</b> Su	0232	0601	2.2E	<b>1</b> M	0257	0633	3.0E	<b>16</b> Tu	0248	0605	2.1E	<b>1</b> Th	0435	0819	2.6E	<b>16</b> F	0352	0646	2.2E
	0843	1103	2.7F		0857	1108	2.0F		0923	1153	2.4F		0913	1123	2.0F	<b>○</b>	1059	1448	2.3F		1014	1230	2.2F
	1450	1815	2.7E		1457	1816	1.9E		1532	1906	2.6E		1515	1819	1.8E		1711	2053	2.5E		1623	1916	2.0E
	2106	2327	2.6F		2114	2327	2.0F		2147				2130	2343	2.0F		2329				2238		
<b>2</b> Su	0314	0645	2.8E	<b>17</b> M	0317	0640	2.0E	<b>2</b> Tu	0355	0736	2.8E	<b>17</b> W	0335	0642	2.0E	<b>2</b> F	0534	0920	2.5E	<b>17</b> Sa	0443	0741	2.1E
	0939	1157	2.5F		0944	1152	1.9F	<b>○</b>	1022	1408	2.3F		0959	1209	2.0F		1158	1545	2.3F	<b>○</b>	1104	1321	2.2F
	1547	1918	2.5E		1544	1858	1.8E		1632	2011	2.5E		1604	1902	1.8E		1811	2152	2.5E		1158	1416	2.3F
	2203				2202				2248				2219								2332		
<b>3</b> M	0412	0750	2.7E	<b>18</b> Tu	0407	0730	1.9E	<b>3</b> W	0456	0841	2.6E	<b>18</b> Th	0424	0733	2.0E	<b>3</b> Sa	0635	1018	2.5E	<b>18</b> Su	0536	0847	2.2E
<b>○</b>	1039	1259	2.2F		1033	1240	1.8F		1123	1512	2.3F	<b>○</b>	1048	1259	2.0F		1255	1639	2.3F		1158	1416	2.3F
	1647	2025	2.4E		1635	1956	1.7E		1734	2116	2.4E		1655	2005	1.8E		1909	2249	2.5E		1808	2126	2.2E
	2304				2254				2351				2312										
<b>4</b> Tu	0513	0858	2.6E	<b>19</b> W	0459	0829	1.9E	<b>4</b> Th	0600	0945	2.6E	<b>19</b> F	0516	0835	2.0E	<b>4</b> Su	0733	1114	2.4E	<b>19</b> M	0633	0953	2.3E
	1142	1531	2.2F	<b>○</b>	1126	1333	1.8F		1225	1612	2.3F		1141	1353	2.0F		1350	1732	2.4F		1254	1513	2.4F
	1751	2133	2.4E		1729	2058	1.7E		1839	2218	2.5E		1748	2108	1.9E		2002	2343	2.6E		1904	2229	2.4E
					2349																		
<b>5</b> W	0008	0359	2.2F	<b>20</b> Th	0554	0927	1.9E	<b>5</b> F	0054	0438	2.3F	<b>20</b> Sa	0007	0219	2.0F	<b>5</b> M	0220	0558	2.3F	<b>20</b> Tu	0127	0342	2.3F
	0618	1003	2.6E		0554	0927	1.9E		0704	1046	2.6E		0611	0935	2.1E		0827	1207	2.5E		0731	1058	2.4E
	1245	1633	2.3F		1221	1429	1.8F		1325	1708	2.4F		1235	1449	2.1F		1441	1822	2.4F		1351	1611	2.5F
	1857	2238	2.4E		1825	2157	1.8E		1940	2317	2.6E		1843	2208	2.1E		2051				2000	2331	2.7E
<b>6</b> Th	0113	0500	2.3F	<b>21</b> F	0045	0256	1.8F	<b>6</b> Sa	0154	0534	2.4F	<b>21</b> Su	0103	0316	2.1F	<b>6</b> Tu	0310	0647	2.4F	<b>21</b> W	0224	0443	2.4F
	0723	1107	2.7E		0649	1024	2.1E		0804	1143	2.6E		0707	1034	2.2E		0915	1255	2.5E		0829	1200	2.6E
	1347	1732	2.4F		1315	1527	1.9F		1420	1801	2.5F		1329	1545	2.2F		1528	1910	2.4F		1447	1711	2.6F
	2001	2339	2.6E		1920	2254	2.0E		2035				1937	2306	2.3E		2135				2055		
<b>7</b> F	0214	0557	2.4F	<b>22</b> Sa	0140	0354	1.9F	<b>7</b> Su	0248	0626	2.5F	<b>22</b> M	0158	0413	2.2F	<b>7</b> W	0356	0734	2.4F	<b>22</b> Th	0321	0548	2.6F
	0825	1206	2.8E		0744	1119	2.2E		0858	1235	2.7E		0802	1132	2.4E		1000	1340	2.4E		0926	1258	2.8E
	1444	1826	2.5F		1408	1625	2.0F		1511	1850	2.5F		1422	1643	2.4F		1613	1955	2.4F		1542	1814	2.7F
	2059				2013	2347	2.3E		2124				2030				2217				2151		
<b>8</b> Sa	0035	0310	2.7E	<b>23</b> Su	0232	0452	2.1F	<b>8</b> M	0338	0714	2.5F	<b>23</b> Tu	0252	0512	2.4F	<b>8</b> Th	0440	0819	2.4F	<b>23</b> F	0417	0659	2.7F
	0650	0921	2.8E		0836	1211	2.5E		0946	1323	2.7E		0856	1227	2.7E		1042	1421	2.4E	<b>●</b>	1023	1354	2.9E
	1259	1537	2.6F		1458	1723	2.3F		1558	1937	2.6F		1515	1740	2.6F		1656	2039	2.4F		1637	1918	2.8F
	2150				2104				2207				2122				2258				2245		
<b>9</b> Su	0124	0401	2.8E	<b>24</b> M	0323	0549	2.3F	<b>9</b> Tu	0424	0800	2.5F	<b>24</b> W	0345	0611	2.6F	<b>9</b> F	0522	0903	2.3F	<b>24</b> Sa	0511	0827	2.8F
	0739	1010	2.8E		0927	1259	2.7E		1029	1406	2.6E		0950	1319	2.9E	<b>○</b>	1123	1501	2.3E		1118	1449	3.0E
	1347	1625	2.6F		1547	1816	2.5F		1642	2021	2.5F		1607	1837	2.8F		1737	2121	2.3F		1732	2026	2.9F
	2235				2153				2247				2214				2338				2339		
<b>10</b> M	0210	0448	2.8E	<b>25</b> Tu	0412	0641	2.8E	<b>10</b> W	0506	0844	2.5F	<b>25</b> Th	0437	0708	3.1E	<b>10</b> Sa	0603	0946	2.2F	<b>25</b> Su	0605	0932	2.8F
	0825	1054	2.8E		1017	1346	2.9E	<b>○</b>	1109	1448	2.5E	<b>●</b>	1043	1411	3.0E		1203	1540	2.2E		1213	1544	3.0E
	1431	1709	2.6F		1635	1905	2.7F		1723	2104	2.4F		1658	1930	2.9F		1817	2202	2.1F		1825	2149	2.8F
	2315				2242				2325				2306										
<b>11</b> Tu	0253	0531	2.8E	<b>26</b> W	0501	0729	2.8F	<b>11</b> Th	0547	0927	2.3F	<b>26</b> F	0530	0802	2.9F	<b>11</b> Su	0018	0358	2.5E	<b>26</b> M	0033	0410	3.3E
	0909	1135	2.7E		1107	1433	3.0E		1148	1527	2.4E		1137	1504	3.0E		0643	1025	2.1F		0658	1031	2.8F
	1513	1750	2.5F	<b>●</b>	1723	1951	2.9F		1803	2146	2.3F		1750	2022	3.0F		1243	1617	2.2E		1306	1639	3.0E
	2353				2330								2358				1857	2117	2.1F		1919	2251	2.8F
<b>12</b> W	0334	0612	2.7E	<b>27</b> Th	0551	0817	2.9F	<b>12</b> F	0003	0345	2.6E	<b>27</b> Sa	0622	0857	2.9F	<b>12</b> M	0058	0434	2.4E	<b>27</b> Tu	0126	0504	3.2E
	0952	1213	2.5E		1157	1523	3.1E		0627	1008	2.2F		1230	1559	3.0E		0723	0939	2.0F		0751	1127	2.7F
	1553	1830	2.3F		1812	2039	3.0F		1226	1605	2.3E		1843	2117	2.9F		1323	1652	2.1E		1359	1733	2.9E
									1842	2223	2.1F						1937	2152	2.1F		2013	2349	2.6F
<b>13</b> Th	0030	0412	2.6E	<b>28</b> F	0019	0348	3.3E	<b>13</b> Sa	0042	0422	2.5E	<b>28</b> Su	0050	0425	3.3E	<b>13</b> Tu	0139	0508	2.3E	<b>28</b> W	0219	0558	

# Estes Head, Eastport, Maine, 2017

F—Flood, Dir. 263° True    E—Ebb, Dir. 088° True

July				August				September																										
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum																				
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots															
<b>1</b> Sa		0245	0849	2.2F	<b>16</b> Su		0026	0707	2.3F	<b>1</b> Tu		0013	0400	1.9F	<b>16</b> W		0544	0911	2.2E	<b>1</b> F		0124	0515	1.8F	<b>16</b> Sa		0129	0517	2.2F					
	0502	1125	1514	2.2F		0414	1033	1253	2.4F		0612	1235	1626	2.0F		0544	1203	1421	2.3F		0724	1345	1739	1.9F		0738	1355	1743	2.3F					
	1734	2120	2.4E	1644		1946	2.3E	1839	2230		2.2E	1813	2148	2.5E		1949	2338	2.2E	0218		0607	2.0F	0819	1205		2.0E	0938	1405	2.0E	0938	1405	2.0E		
	2356			2302															2041		1438	1830	2.1F	1527		1917	2.2F	1551	1933	2.7F	2004	2349	2.8E	
<b>2</b> Su		0341	0945	2.1F	<b>17</b> M		0119	0813	2.3E	<b>2</b> W		0108	0455	1.9F	<b>17</b> Th		0041	0255	2.2F	<b>2</b> Sa		0218	0607	2.0F	<b>17</b> Su		0230	0616	2.4F					
	0558	1220	1608	2.2F		0507	1127	1347	2.4F		0708	1329	1720	2.0F		0647	1306	1526	2.3F		0819	1438	1830	2.1F		0840	1455	1841	2.5F					
	1829	2215	2.3E	1738		2055	2.3E	1933	2324		2.2E	1915	2256	2.6E		2041																		
<b>3</b> M		0052	0654	2.1F	<b>18</b> Tu		0216	0925	2.3E	<b>3</b> Th		0202	0548	2.0F	<b>18</b> F		0144	0410	2.2F	<b>3</b> Su		0309	0656	2.1F	<b>18</b> M		0327	0710	2.6F					
	0654	1314	1700	2.2F		0605	1225	1445	2.4F		0803	1421	1811	2.1F		0751	1408	1750	2.3F		0910	1252	2.2E	1527		1917	2.2F	1551	1933	2.7F				
	1922	2309	2.4E	1836		2203	2.5E	2025								2017																		
<b>4</b> Tu		0146	0749	2.1F	<b>19</b> W		0316	1034	2.3E	<b>4</b> F		0254	0638	2.1F	<b>19</b> Sa		0245	0629	2.4F	<b>4</b> M		0356	0742	2.2F	<b>19</b> Tu		0420	0800	2.7F					
	0749	1406	1752	2.2F		0706	1325	1545	2.4F		0855	1511	1900	2.2F		0853	1508	1853	2.5F		0957	1335	2.4E	1614		2001	2.3F	1644	2022	2.8F				
	2013			1935		2310	2.7E	2115								2117																		
<b>5</b> W		0238	0840	2.2F	<b>20</b> Th		0420	1141	2.5E	<b>5</b> Sa		0343	0726	2.2F	<b>20</b> Su		0343	0725	2.6F	<b>5</b> Tu		0440	0824	2.3F	<b>20</b> W		0509	0848	2.8F					
	0840	1456	1841	2.3F		0807	1424	1650	2.5F		0944	1559	1947	2.3F		0952	1605	1947	2.7F		1042	1416	2.5E	1658		2041	2.3F	1118	1453	3.0E				
	2101			2034												2202																		
<b>6</b> Th		0326	0929	2.3E	<b>21</b> F		0613	1243	2.7E	<b>6</b> Su		0428	0812	2.3F	<b>21</b> M		0438	0817	2.7F	<b>6</b> W		0522	0900	2.4F	<b>21</b> Th		0555	0934	2.7F					
	0929	1543	1928	2.3F		0907	1523	1850	2.6F		1130	1644	2031	2.3F		1047	1700	2039	2.8F		1125	1455	2.6E	1740		2014	2.3F	1202	1539	2.9E				
	2147			2132												2247																		
<b>7</b> F		0413	1014	2.3E	<b>22</b> Sa		0734	1341	2.8E	<b>7</b> M		0512	0855	2.3F	<b>22</b> Tu		0530	0908	2.8F	<b>7</b> Th		0602	0829	2.4F	<b>22</b> F		0639	1019	2.5F					
	1014	1628	2013	2.3F		1006	1620	1954	2.7F		1113	1447	2.4E	1138		1513	3.0E	1206	1533		2.7E	1821	2042	2.5F		1243	1623	2.8E						
	2231			2229												2329																		
<b>8</b> Sa		0214	0457	2.6E	<b>23</b> Su		0207	0830	3.2E	<b>8</b> Tu		0306	0552	2.6E	<b>23</b> W		0336	0618	3.1E	<b>8</b> F		0351	0642	2.8E	<b>23</b> Sa		0443	0721	2.4F					
	0457	1058	1436	2.3E		0455	1102	1436	3.0E		0552	1154	1526	2.4E		0618	1226	1602	3.0E		0642	0903	2.6F	1247		1610	2.7E	1323	1704	2.6E				
	1711	2313	2.3F	1715		2050	2.8F	1808	2145		2.2F	1840	2219	2.7F		1840	2219	2.7F	1902		2122	2.6F	1902	2122		2.6F	1945	2321	2.2F					
<b>9</b> Su		0255	0539	2.6E	<b>24</b> M		0301	0924	3.3E	<b>9</b> W		0343	0632	2.6E	<b>24</b> Th		0424	0705	3.0E	<b>9</b> Sa		0428	0724	2.7E	<b>24</b> Su		0524	0804	2.4E					
	0539	1139	1515	2.2F		0548	1156	1529	3.0E		0632	1234	1602	2.4E		0705	1311	1649	2.9E		0724	1330	1648	2.7E		0804	1404	1745	2.4E					
	1753	2355	2.2F	1809		2145	2.8F	1847	2107		2.3F	1847	2107	2.3F		1927	2305	2.6F	1946		2206	2.7F	1946	2206		2.7F	2028	2255	2.0F					
<b>10</b> M		0334	0619	2.6E	<b>25</b> Tu		0354	1017	3.3E	<b>10</b> Th		0419	0710	2.6E	<b>25</b> F		0510	0750	2.8E	<b>10</b> Su		0507	0788	2.7E	<b>10</b> M		0550	0847	2.2E					
	0619	1220	1553	2.3E		0639	1247	1622	3.0E		0710	1315	1637	2.4E		0750	1355	1734	2.7E		0808	1415	1730	2.7E		0856	1116	2.7F						
	1833	2101	2.1F	1901		2238	2.8F	1928	2146		2.4F	1928	2146	2.4F		2014	2351	2.3F	2033		2253	2.7F	2033	2253		2.7F	2114	2326	1.9F					
<b>11</b> Tu		0035	0659	2.5E	<b>26</b> W		0446	1108	2.7F	<b>11</b> F		0452	0750	2.6E	<b>26</b> Sa		0555	0836	2.6E	<b>11</b> M		0550	0856	2.6E	<b>26</b> Tu		0649	0933	2.1E					
	0659	1300	1629	2.2E		0729	1337	1713	2.9E		0832	1356	1710	2.5E		0836	1439	1819	2.5E		0856	1504	1818	2.7E		0933	1144	1.9F						
	1913	2130	2.2F	1952		2329	2.6F	2010	2228		2.5F	2010	2228	2.5F		2101																		
<b>12</b> W		0115	0737	2.4E	<b>27</b> Th		0535	1158	2.6F	<b>12</b> Sa		0525	0832	2.5E	<b>27</b> Su		0641	0922	2.1F	<b>12</b> Tu		0644	0948	2.4E	<b>27</b> W		0739	1021	1.8F					
	0737	1340	1701	2.2E		0818	1426	1803	2.7E		0832	1440	1745	2.5E		0922	1524	1907	2.3E		0948	1557	1919	2.6E		1021	1231	1.8F						
	1953	2209	2.2F	2042												2149																		
<b>13</b> Th		0156	0817	2.4E	<b>28</b> F		0625	1250	2.4F	<b>13</b> Su		0601	0918	2.5E	<b>28</b> M		0731	1010	1.9F	<b>13</b> W		0752	1045	2.3E	<b>28</b> Th		0835	1114	1.7E					
	0817	1422	1732	2.2E		0245	0908	1250	2.4F		0601	1527	1829	2.5E		0731	1612	1958	2.1E		0752	1654	2028	2.5E		0835	1114	1.7E						
	2035	2251	2.3F	2133																														

# Estes Head, Eastport, Maine, 2017

F—Flood, Dir. 263° True    E—Ebb, Dir. 088° True

October				November				December															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Su	0139	0533	1.9F	<b>16</b> M	0213	0557	2.5F	<b>1</b> W	0239	0506	2.1F	<b>16</b> Th	0335	0715	2.7E	<b>1</b> F	0251	0513	2.5E	<b>16</b> Sa	0354	0736	2.4F
	0740	1124	2.0E		0826	1204	2.7E		0844	1219	2.4E		0946	1324	2.8E		0858	1230	2.7E		1001	1344	2.7E
	1401	1757	1.9F		1440	1823	2.5F		1504	1732	2.2F		1603	1939	2.5F		1521	1743	2.4F		1623	2001	2.4F
	2004	2349	2.2E		2050				2107				2210				2125				2227		
<b>2</b> M	0230	0622	2.0F	<b>17</b> Tu	0308	0650	2.6F	<b>2</b> Th	0327	0558	2.3F	<b>17</b> F	0422	0801	2.6F	<b>2</b> Sa	0342	0608	2.6F	<b>17</b> Su	0439	0821	2.4F
	0833	1214	2.2E		0921	1258	2.9E		0933	1305	2.7E		1029	1408	2.8E		0949	1321	3.0E		1042	1426	2.7E
	1452	1844	2.1F		1535	1914	2.6F		1552	1821	2.4F		1648	2025	2.5F		1612	1839	2.6F		1707	2046	2.3F
	2055				2144				2156				2253				2218				2309		
<b>3</b> Tu	0318	0707	2.2F	<b>18</b> W	0359	0739	2.7F	<b>3</b> F	0414	0643	2.6F	<b>18</b> Sa	0505	0845	2.5F	<b>3</b> Su	0433	0701	2.8F	<b>18</b> M	0521	0905	2.3F
	0922	1259	2.4E		1010	1346	2.9E		1020	1349	2.9E		1109	1451	2.7E		1040	1411	3.2E		1122	1506	2.6E
	1540	1927	2.2F		1625	2002	2.7F		1640	1907	2.6F		● 1731	2109	2.4F		○ 1704	1932	2.8F		● 1748	2130	2.3F
	2143				2233				2245				2333				2310				2349		
<b>4</b> W	0404	0120	2.6E	<b>19</b> Th	0447	0825	2.7F	<b>4</b> Sa	0501	0728	2.7E	<b>19</b> Su	0546	0929	2.3F	<b>4</b> M	0524	0752	2.9F	<b>19</b> Tu	0602	0947	2.2F
	1008	1341	2.6E		1055	1432	2.9E		1107	1434	3.1E		1147	1531	2.6E		1132	1502	3.3E		1202	1546	2.5E
	1625	2002	2.3F		● 1711	2048	2.6F		1727	1952	2.8F		1812	2152	2.3F		1756	2024	2.9F		1829	2212	2.2F
	2229				2317				2333														
<b>5</b> Th	0448	0733	2.4F	<b>20</b> F	0531	0910	2.6F	<b>5</b> Su	0548	0813	2.9F	<b>20</b> M	0627	1010	2.2E	<b>5</b> Tu	0616	0845	2.9F	<b>20</b> W	0642	1026	2.1F
	1053	1422	2.8E		1135	1515	2.8E		1154	1522	3.2E		1226	1610	2.5E		1223	1556	3.3E		1243	1623	2.5E
	1710	1939	2.5F		1754	2133	2.5F		1816	2040	2.9F		1852	2233	2.1F		1848	2119	2.8F		1909	2249	2.0F
	2314				2357																		
<b>6</b> F	0531	0241	2.8E	<b>21</b> Sa	0612	0953	2.4F	<b>6</b> M	0636	0901	2.9F	<b>21</b> Tu	0706	1045	2.0F	<b>6</b> W	0709	0939	2.8F	<b>21</b> Th	0722	0941	2.0F
	1136	1502	2.9E		1214	1556	2.7E		1243	1611	3.2E		1306	1647	2.4E		1316	1651	3.3E		1323	1659	2.4E
	1753	2017	2.7F		1836	2216	2.3F		1906	2129	2.9F		1933	2154	2.0F		1941	2219	2.7F		1949	2204	2.0F
	2358																						
<b>7</b> Sa	0614	0323	2.9E	<b>22</b> Su	0653	1034	2.3F	<b>7</b> Tu	0726	0951	2.9F	<b>22</b> W	0747	1003	2.0F	<b>7</b> Th	0803	1038	2.7F	<b>22</b> F	0803	1018	2.1F
	1220	1544	3.0E		1253	1636	2.5E		1334	1704	3.1E		1347	1723	2.3E		1410	1746	3.1E		1405	1732	2.3E
	1838	2100	2.8F		1917	2255	2.2F		1958	2221	2.8F		2014	2227	2.0F		2036	2359	2.6F		2029	2242	2.1F
<b>8</b> Su	0659	0406	2.9E	<b>23</b> M	0733	1003	2.1F	<b>8</b> W	0819	1043	2.7F	<b>23</b> Th	0830	1043	2.0F	<b>8</b> F	0900	1223	2.5F	<b>23</b> Sa	0846	1100	2.1E
	1305	1629	3.0E		1253	1714	2.4E		1427	1759	3.0E		1431	1759	2.2E		1507	1845	3.0E		1448	1803	2.2E
	1925	2146	2.8F		1959	2219	2.0F		2053	2315	2.6F		2058	2308	2.0F		2132				2111	2324	2.1F
<b>9</b> M	0746	0452	2.8E	<b>24</b> Tu	0815	1031	2.0F	<b>9</b> Th	0916	1139	2.5F	<b>24</b> F	0915	1127	2.0F	<b>9</b> Sa	0958	1341	2.4F	<b>24</b> Su	0931	1144	2.1F
	1353	1716	2.9E		1415	1752	2.2E		1523	1900	2.9E		1517	1838	2.1E		1605	1946	2.8E		1534	1834	2.1E
	2015	2235	2.7F		2042	2254	2.0F		2150				2143	2352	1.9F		2229				2155		
<b>10</b> Tu	0836	0542	2.7E	<b>25</b> W	0859	1111	1.9F	<b>10</b> F	0939	0735	2.5E	<b>25</b> Sa	1003	1213	1.9F	<b>10</b> Su	1058	1445	2.3F	<b>25</b> M	1018	1232	2.1F
	1444	1809	2.8E		1500	1833	2.1E		1016	1257	2.2F		1606	1924	2.0E		1704	2048	2.6E		1622	1917	2.1E
	2108	2326	2.6F		2128	2336	1.9F		● 1623	2005	2.7E		2231				2328				2243		
									2250														
<b>11</b> W	0931	0640	2.5E	<b>26</b> Th	0946	1156	1.9F	<b>11</b> Sa	1050	0841	2.5E	<b>26</b> Su	1054	1304	1.9F	<b>11</b> M	1159	1544	2.3F	<b>26</b> Tu	1109	1323	2.1F
	1539	1911	2.7E		1549	1921	2.0E		1118	1507	2.2F		1657	2019	2.0E		1805	2149	2.5E		1173	2016	2.1E
	2206				2217				1725	2110	2.6E		2321								2333		
									2351														
<b>12</b> Th	1030	0021	2.4F	<b>27</b> F	1037	1246	1.8F	<b>12</b> Su	1221	1608	2.3F	<b>27</b> M	1147	1358	1.9F	<b>12</b> Tu	1259	1640	2.3F	<b>27</b> W	1204	1417	2.1F
	1638	0746	2.4E		1640	2016	1.9E		1829	2213	2.6E		1750	2115	2.0E		1906	2247	2.5E		1807	2120	2.1E
	2307				2309																		
<b>13</b> F	1133	0127	2.1F	<b>28</b> Sa	1131	1340	1.7F	<b>13</b> M	1323	1706	2.4F	<b>28</b> Tu	1242	1453	1.9F	<b>13</b> W	1356	1735	2.3F	<b>28</b> Th	1300	1514	2.2F
	1741	0855	2.3E		1734	2113	1.9E		1933	2313	2.6E		1844	2211	2.1E		2004	2343	2.5E		1904	2224	2.2E
<b>14</b> Sa	1238	0359	2.2F	<b>29</b> Su	1227	1438	1.7F	<b>14</b> Tu	1421	1801	2.5F	<b>29</b> W	1336	1549	2.1F	<b>14</b> Th	1448	1826	2.4F	<b>29</b> F	1357	1612	2.3F
	1847	0620	2.4E		1830	2208	2.0E		2031				1939	2307	2.3E		2056				2001	2328	2.4E
<b>15</b> Su	1341	0501	2.3F	<b>30</b> M	1322	1536†	1.8F	<b>15</b> W	1514	1851	2.5F	<b>30</b> Th	1429	1645	2.2F	<b>15</b> F	1537	1914	2.4F	<b>30</b> Sa	1453	1713	2.4F
	1951	0725	2.5E		1322	1536†	1.8F		2123				2032								2058		
		1105	2.5E		1499																		
		1341	2.4F		1536†																		
		1951	2.7E		1536†																		

# Bucksport, Penobscot Bay, Maine, 2017

F—Flood, Dir. 292° True E—Ebb, Dir. 113° True

January				February				March															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots												
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m												
<b>1</b> Su	0030 0706 1247 1937	0445 1102 1707 2328	1.9E 2.1F 2.1E 2.2F	<b>16</b> M	0118 0803 1334 2034	0513 1124 1736 2351	2.6E 2.8F 2.7E 2.8F	<b>1</b> W	0139 0816 1400 2043	0551 1212 1813	2.1E 2.3F 2.2E	<b>16</b> Th	0212 0909 1432 2129	0620 1236 1843	2.5F 2.3E 2.4F 2.1E	<b>1</b> W	0028 0709 1251 1932	0437 1057 1701 2322	2.4E 2.6F 2.4E 2.6F	<b>16</b> Th	0056 0750 1317 2005	0505 1119 1727 2342	2.4E 2.5F 2.2E 2.4F
<b>2</b> M	0116 0750 1333	0531 1150 1507 1544 1752†	1.9E 2.1F 1.4E 1.4E 2.1E	<b>17</b> Tu	0203 0855 1420 2123	0602 1214 1825	2.5E 2.7F 2.5E	<b>2</b> Th	0228 0909 1451 2134	0639 1303 1904	2.1E 2.3F 2.1E	<b>17</b> F	0256 0959 1518 2216	0709 1326 1935	2.1E 2.2F 1.9E	<b>2</b> Th	0116 0757 1340 2019	0525 1147 1749	2.5E 2.6F 2.4E	<b>17</b> F	0137 0831 1400 2047	0550 1207 1813	2.2E 2.3F 2.0E
<b>3</b> Tu	0203 0838 1422 2108	0617 1239 1840	1.8E 2.1F 2.0E	<b>18</b> W	0249 0949 1507 2213	0651 1305 1916	2.3E 2.5F 2.2E	<b>3</b> F	0319 1007 1545 2229	0733 1355 2000	2.2E 2.3F 2.1E	<b>18</b> Sa	0342 1050 1606	0803 1417 1718 1759†	1.9E 2.0F 0.8E 0.7E	<b>3</b> F	0205 0850 1431 2112	0614 1237 1840	2.6F 2.4E 2.3E	<b>18</b> Sa	0220 0917 1445 2133	0637 1256 1901	2.0E 2.1F 1.8E
<b>4</b> W	0252 0932 1513 2200	0707 1329 1932	1.8E 2.1F 1.9E	<b>19</b> Th	0335 1044 1555 2303	0744 1356 2010	2.1E 2.3F 2.0E	<b>4</b> Sa	0413 1107 1641 2327	0830 1450 2058	2.2E 2.3F 2.1E	<b>19</b> Su	0431 1144 1657	0857 1510 1802 1855†	1.9E 2.0F 0.7E 0.6E	<b>4</b> Sa	0257 0948 1525 2209	0707 1330 1935	2.4E 2.5F 2.2E	<b>19</b> Su	0306 1007 1532	0728 1347 1648 1739†	1.8E 2.0F 0.9E 0.8E
<b>5</b> Th	0343	0156 0514 0552 0801 1028	2.2F 1.3E 1.2E 1.9E	<b>20</b> F	0423 1139 1644 2353	0839 1449 2104	2.0E 2.2F 1.9E	<b>5</b> Su	0509 1209 1739	0927 1544 2153	2.4E 2.4F 2.2E	<b>20</b> M	0521 1241 1749	0949 1601 1850 1943†	1.9E 1.9F 0.6E 0.5E	<b>5</b> Su	0351 1050 1622 2309	0805 1425 2034	2.4E 2.5F 2.2E	<b>20</b> M	0354 1059	0513 1439†	1.0E 0.9E
<b>6</b> F	0248 0437 1127 1702 2349	0857 1515 2123	2.2F 2.1E 2.2F 2.1E	<b>21</b> Sa	0511 1236 1735	0931 1540 2155	2.0E 2.1F 1.9E	<b>6</b> M	0608 1316 1841	1021 1637 2247	2.5E 2.6F 2.3E	<b>21</b> Tu	0614 1341 1940	0720 1463 2148 2355	0.6E 0.6E 1.9E 2.0F	<b>6</b> M	0448 1154 1721	0904 1520 2132	2.5E 2.5F 2.3E	<b>21</b> Tu	0445 1154 1809 2538	0559 1304 1917 2535	0.9E 0.8E 1.7E 1.9F
<b>7</b> Sa	0532 1228 1801	0951 1608 2215	2.3E 2.4F 2.2E	<b>22</b> Su	0602 1336 1829	1021 1631 2245	2.0E 2.1F 1.8E	<b>7</b> Tu	0709 1421 1946	1116 1731 2343	2.7E 2.7F 2.4E	<b>22</b> W	0709 1436 1940	1130 1744 2355	2.0E 2.0F 1.8E	<b>7</b> Tu	0548 1302 1824	1001 1614 2228	2.5E 2.6F 2.3E	<b>22</b> W	0538 1252 1808 2538	0649 1623† 1008 2535	0.8E 1.9F 1.8E 1.9F
<b>8</b> Su	0630 1332 1901	1043 1701 2309	2.5E 2.5F 2.3E	<b>23</b> M	0654 1430 1924	1111 1722 2335	2.0E 2.1F 1.8E	<b>8</b> W	0811 1522 2047	1211 1825	2.8E 2.9F	<b>23</b> Th	0803 1523 2032	1221 1835	2.1E 2.2F	<b>8</b> W	0652 1410 1933	1056 1708 2323	2.6E 2.7F 2.4E	<b>23</b> Th	0634 1349 1905	1058 1714 2013	1.9E 2.0F 0.6E
<b>9</b> M	0729 1434 2002	1137 1755	2.7E 2.7F	<b>24</b> Tu	0746 1517 2016	1202 1813	2.1E 2.1F	<b>9</b> Th	0834 1517 2143	0649 1305 1917	3.0F 2.9E 3.0F	<b>24</b> F	0853 1605 2121	1310 1923	2.2E 2.3F	<b>9</b> Th	0758 1510 2039	1151 1801	2.7E 2.8F	<b>24</b> F	0729 1440 2000	1149 1805	2.0E 2.2F
<b>10</b> Tu	0827 1532 2101	0619 1232 1848	2.9F 2.8E 2.9F	<b>25</b> W	0835 1600 2103	1251 1903	2.1E 2.2F	<b>10</b> F	0908 1709 2235	1305 2006	3.0F 3.1F	<b>25</b> Sa	0941 1646 2208	1356 2010	2.3E 2.5F	<b>10</b> F	0858 1604 2133	1245 1853	2.8E 2.9F	<b>25</b> Sa	0823 1526 2051	1239 1855	2.2E 2.4F
<b>11</b> W	0922 1628 2156	0711 1325 1939	3.1F 3.0E 3.1F	<b>26</b> Th	0921 1640 2149	1339 1951	2.2E 2.3F	<b>11</b> Sa	1052 1756 2323	1445 2055	3.0E 3.1F	<b>26</b> Su	1028 1726 2254	1441 2056	2.4E 2.5F	<b>11</b> Sa	0949 1653 2219	1335 1942	2.8E 3.0F	<b>26</b> Su	0913 1610 2139	1327 1942	2.3E 2.5F
<b>12</b> Th	1016 1721 2250	0801 1416 2029	3.2F 3.1E 3.2F	<b>27</b> F	1007 1718 2235	1424 2037	2.3E 2.4F	<b>12</b> Su	1139 1839	1533 2144	2.9E 3.0F	<b>27</b> M	1115 1807 2341	1527 2144	2.4E 2.6F	<b>12</b> Su	1035 1736 2300	1423 2030	2.8E 3.0F	<b>27</b> M	1002 1654 2227	1413 2028	2.5E 2.7F
<b>13</b> F	1108 1812 2342	0851 1506 2119	3.2F 3.1E 3.1F	<b>28</b> Sa	1053 1755 2321	1508 2124	2.3E 2.4F	<b>13</b> M	1223 1920	1622 2234	2.8E 2.9F	<b>28</b> Tu	1203 1848	1613 2233	2.5E 2.6F	<b>13</b> M	1117 1816 2338	1509 2118	2.7E 2.9F	<b>28</b> Tu	1051 1738 2315	1459 2116	2.5E 2.8F
<b>14</b> Sa	1159 1859	0942 2210	3.1F 3.1F	<b>29</b> Su	1139 1833	1554 2212	2.3E 2.4F	<b>14</b> Tu	1306 2001	1709 2323	2.6E 2.7F	<b>29</b> M	1203 1848	1613 2233	2.5E 2.6F	<b>14</b> Tu	1157 1852	1555 2206	2.6E 2.7F	<b>29</b> W	1141 1822	1547 2205	2.6E 2.8F
<b>15</b> Su	1247 1946	1647 2301	2.9E 3.0F	<b>30</b> M	1225 1913	1640 2301	2.3E 2.4F	<b>15</b> W	1348 2044	1756	2.4E	<b>30</b> Th	1237 1928	1642 2254	2.4E 2.6F	<b>15</b> W	1237 1928	1642 2254	2.4E 2.6F	<b>30</b> Th	1231 1909	1636 2255	2.6E 2.8F
				<b>31</b> Tu	0052 0729 1312 1956	0504 1124 1726 2349	2.1E 2.3F 2.3E 2.4F													<b>31</b> F	0053 0739 1321 1958	0501 1122 1726 2346	2.7E 2.8F 2.5E 2.8F

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

† See page 188 for the remaining currents on this day.

# Bucksport, Penobscot Bay, Maine, 2017

F—Flood, Dir. 292° True E—Ebb, Dir. 113° True

April				May				June															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Sa	0143	0551	2.7E	<b>16</b> Su	0147	0607	2.0E	<b>1</b> M	0216	0623	2.8E	<b>16</b> Tu	0204	0627	1.9E	<b>1</b> Th	0349	0752	2.6E	<b>16</b> F	0315	0443	1.3E
	0833	1214	2.8F		0842	1228	2.1F		0916	1243	2.9F		0858	1250	2.0F		1100	1405	2.8F		0541	0739	1.8E
	1413	1817	2.5E		1414	1832	1.7E		1451	1851	2.5E		1433	1552	1.0E		1627	2023	2.4E		1005	1402†	2.0F
	2052				2056				2137				1649†	0.9E		2329							
<b>2</b> Su		0038	2.7F	<b>17</b> M	0233	0358	1.2E	<b>2</b> Tu	0312	0719	2.7E	<b>17</b> W	0252	0418	1.2E	<b>2</b> F	0446	0850	2.5E	<b>17</b> Sa	0406	0833	1.8E
	0236	0644	2.6E		0446	1.1E			1019	1337	2.8F		0516	1.1E		1200	1458	2.7F		1056	1453	2.0F	
	0932	1306	2.7F		0656	1.8E			1548	1949	2.4E		0717	1.7E		1725	2119	2.4E		1637	1800	1.2E	
	1508	1913	2.4E		0930	1318†	1.9F	<b>3</b> W	0202	2.7F		<b>18</b> Th	0947	1341†	1.9F	<b>3</b> Sa	0034	0324	2.6F	<b>18</b> Su	0500	0925	1.9E
<b>3</b> M	0331	0742	2.6E		0321	0444	1.2E		0410	0818	2.6E		1013	1.8F		0545	0944	2.4E		1730	2152	2.0E	
	1035	1401	2.7F		0542	1.0E			1123	1431	2.7F		0342	0507	1.2E		1259	1550	2.6F				
	1605	2012	2.3E		0749	1.7E			1648	2049	2.4E		1038	1432†	1.9F		1827	2212	2.4E				
	2255				1021	1410†	1.8F	<b>4</b> Th	0257	2.7F		<b>19</b> F	1038	1432†	1.9F	<b>4</b> Su	0137	0416	2.5F	<b>19</b> M	0021	0410	2.1F
<b>4</b> Tu	0429	0842	2.5E		0234	1.8F			0511	0916	2.6E		0256	1.8F		0649	1035	2.3E		0556	1016	2.0E	
	1140	1456	2.6F		0532	1.1E			1123	1431	2.7F		0434	0557	1.2E		1356	1641	2.6F		1242	1635	2.3F
	1705	2111	2.3E		0636	1.0E			1752	2145	2.4E		1130	0659	1.0E		1928	2302	2.4E		1826	2242	2.2E
<b>5</b> W	0002	0322	2.6F		0844	1.7E			0057	0351	2.6F		1130	0905	1.7E	<b>5</b> M	0234	0508	2.5F	<b>20</b> Tu	0120	0502	2.3F
	0530	0940	2.6E		1114	1502†	1.8F		0616	1011	2.5E		1523†	1.9F		0754	1126	2.3E		0654	1106	2.1E	
	1248	1550	2.7F		0326	1.8F			1331	1618	2.7F		0348	0348	1.9F		1447	1732	2.5F		1338	1726	2.5F
	1810	2207	2.4E		0505	0621	1.0E	<b>5</b> F	1907	2238	2.5E		0528	0649	1.1E		2013	2352	2.4E		1922	2334	2.4E
<b>6</b> Th	0112	0415	2.7F		0937	1.7E			0202	0443	2.6F		1223	1613†	2.1F	<b>6</b> Tu	0324	0559	2.4F	<b>21</b> W	0219	0554	2.5F
	0636	1034	2.6E		1208	1553†	1.9F		0730	1103	2.5E		0051	0438	2.1F		0838	1216	2.2E		0752	1159	2.3E
	1354	1643	2.7F		0029	0417	1.9F		1428	1710	2.7F		0624	1045	2.0E		1531	1822	2.5F		1434	1818	2.7F
	1924	2301	2.5E		0600	0715	0.9E	<b>6</b> Sa	2016	2330	2.5E		1317	1704	2.2F		2048				2017		
<b>7</b> F	0218	0509	2.7F		0805	0.9E			0259	0536	2.6F		1855	2311	2.1E	<b>7</b> W	0408	0042	2.4E	<b>22</b> Th	0315	0027	2.7E
	0748	1128	2.6E		1027	1.9E			0835	1155	2.5E		0149	0530	2.3F		0913	0649	2.5F		0848	0646	2.8F
	1453	1736	2.7F		1303	1644†	2.0F		1519	1801	2.7F		0722	1135	2.1E		1611	1911	2.5F		1529	1909	2.9F
	2034	2355	2.5E		1927	2342	2.0E		2057				1410	1755	2.4F		2124				2111		
<b>8</b> Sa	0316	0602	2.8F		0126	0508	2.0F		0349	0021	2.5E		1950			<b>8</b> Th	0128	2.4E	<b>23</b> F	0411	0119	2.9E	
	0850	1221	2.6E		0656	1116	2.0E		0915	1245	2.4E		0243	0002	2.3E		0448	0736	2.5F		0943	0737	3.0F
	1545	1828	2.8F		1357	1734	2.2F		1603	1850	2.7F		0817	0243	2.5F		0949	1351	2.1E		1623	1345	2.6E
	2121				1927	2342	2.0E		2126				1502	1845	2.7F		1648	1958	2.5F		2205	1959	3.1F
<b>9</b> Su	0408	0047	2.6E		1303	1644†	2.0F		0110	2.5E			2043			<b>9</b> Th	2202	2.4E	<b>24</b> Sa	0505	0211	3.0E	
	0936	0653	2.8F		0126	0508	2.0F		0433	0716	2.6F		0053	0053	2.6E		0524	0213	2.3E		1038	0827	3.1F
	1631	1312	2.6E		0656	1116	2.0E		0947	1332	2.4E		0337	0712	2.7F		1029	1435	2.1E		1718	1436	2.7E
	2157				1357	1734	2.2F		1643	1938	2.7F		0911	1318	2.5E		1724	2044	2.4F		2259	2049	3.2F
<b>10</b> M	0454	0136	2.6E		1927	2342	2.0E		2157				1553	1934	2.9F		2243				2259		
	1014	0741	2.8F		0221	0559	2.2F		0110	2.5E			2134			<b>10</b> Sa	0558	0258	2.3E	<b>25</b> Su	0559	0302	3.1E
	1712	1358	2.6E		0752	1207	2.1E		0513	0802	2.6F		0143	0143	2.8E		1110	0910	2.3F		1133	0918	3.2F
	2230				1447	1825	2.4F		1021	1417	2.3E		0429	0801	2.9F		1800	1520	2.0E		1812	1528	2.8E
<b>11</b> Tu	0535	0221	2.6E		2020				1719	2024	2.6F		1644	2023	3.0F		2325				2352		
	1051	0828	2.8F		0312	0649	2.5F		2233				2226			<b>11</b> Su	0632	0343	2.2E	<b>26</b> M	0651	0354	3.1E
	1749	1443	2.5E		0845	1257	2.3E		0239	2.4E			0232	3.0E		1153	0958	2.2F		1227	1010	3.2F	
	2306				1535	1913	2.6F		0548	0849	2.5F		1058	1457	2.7E		1837	1606	1.9E		1906	1621	2.8E
<b>12</b> W	0611	0306	2.5E		2110				1753	2110	2.5F		1736	2113	3.1F		2220	2.2F			2224	2234	3.1F
	1128	0915	2.7F		0312	0649	2.5F		2312				2318			<b>12</b> Th	0008	0343	2.2E	<b>27</b> Tu	0743	0447	3.1E
	1822	1528	2.4E		0845	1257	2.3E		0621	0936	2.4F		0522	0850	3.1F		0708	0429	2.1E		1319	1103	3.1F
	2344				1535	1913	2.6F		1138	1547	2.1E		1058	1457	2.7E		1237	1653	1.8E		2000	1713	2.8E
<b>13</b> Th	0646	0351	2.4E		1622	2001	2.8F		1827	2158	2.3F		1736	2113	3.1F		1915	2308	2.1F				
	1207	0915	2.7F		2200				2353				2318			<b>13</b> M	0008	0429	2.1E	<b>28</b> W	0837	0539	3.0E
	1856	1528	2.4E		0402	0738	2.7F		0655	1025	2.3F		0522	0850	3.1F		0747	1135	2.1F		1411	1154	3.0F
<b>14</b> F	0023	0436	2.3E		0936	1345	2.5E		1220	1633	1.9E		1058	1457	2.7E		1321	1739	1.7E		2059	1805	2.7E
	0721	1052	2.4F		1622	2001	2.8F		1902	2247	2.2F		1736	2113	3.1F		1957	2357	2.0F				
	1248	1659	2.1E		2200				0409	2.2E			1058	1457	2.7E								
	1931	2314	2.3F		0209	0209	2.7E		0655	1025	2.3F		1736	2113	3.1F								
<b>15</b> Sa	0104	0522	2.2E		0451	0826	2.9F		1220	1633	1.9E		1736	2113	3.1F								
	0759	1140	2.2F		1027	1432	2.6E		1902	2247	2.2F		2318										

# Bucksport, Penobscot Bay, Maine, 2017

F—Flood, Dir. 292° True E—Ebb, Dir. 113° True

July				August				September																
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum										
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
1 Sa	0415	0820	2.4E	16 Su	0341	0512	1.4E	1 Tu	0019	0318	2.2F	16 W	0509	0926	2.1E	1 F	0129	0431	2.0F	16 Sa	0132	0442	2.7F	
	1125	1430	2.6F		0602	0602	1.3E		1230	1543	2.2F		1154	1543	2.4F		0627	1045	1.8E		0656	1055	2.4E	
	1648	2050	2.3E		0801	0801	1.9E		1745	2202	2.1E		1736	2154	2.4E		1337	1655	2.1F		1351	1707	2.8F	1923
2 Su	0002	0256	2.4F	17 M	1026	1424†	2.1F	2 W	0119	0410	2.1F	17 Th	0039	0411	2.4F	2 Sa	0224	0523	2.1F	17 Su	0234	0535	2.8F	
	0508	0915	2.2E		0251	0251	2.1F		0612	1025	1.9E		0608	1020	2.2E		0722	1135	1.8E		0801	1150	2.6E	
	1221	1522	2.5F		0650	0650	1.2E		1325	1633	2.2F		1256	1636	2.6F		1429	1746	2.1F		1453	1801	2.9F	
3 M	0103	0348	2.4F	18 Tu	0856	1.9E	3 Th	0216	0501	2.1F	18 F	0144	0505	2.6F	3 Su	0310	0614	2.2F	18 M	0330	0628	2.9F		
	0602	1006	2.2E		1119	1516†		2.2F	0706	1115		1.9E	0711	1114		2.4E	0814	1226		1.9E	0859	1243	2.7E	
	1316	1612	2.4F		0530	0949		2.0E	1417	1724		2.2F	1359	1730		2.7F	1516	1837		2.3F	1549	1853	3.0F	
4 Tu	0201	0439	2.3F	19 W	1759	2217	2.3E	4 F	0305	0552	2.1F	19 Sa	0246	0559	2.8F	4 M	0001	2.1E	19 Tu	0421	0719	3.1F		
	0657	1055	2.1E		0057	0436	2.4F		0759	1206	1.9E		0813	1210	2.5E		0351	0703		2.3F	0902	1314	2.0E	
	1409	1703	2.4F		0629	1042	2.2E		1504	1815	2.2F		1500	1823	2.9F		1559	1925		2.4F	1641	1942	3.1F	
5 W	0253	0530	2.3F	20 Th	1857	2309	2.5E	5 Sa	0032	2.1E	20 Su	0038	2.9E	5 Tu	0137	2.2E	20 W	0158	2.9E					
	0750	1145	2.0E		0159	0529	2.5F		0348	0642		2.2F	0343		0651	3.0F		0430	0750	2.4F	0509	0807	3.1F	
	1456	1753	2.3F		0729	1135	2.3E		0847	1255		1.9E	0911		1304	2.7E		0948	1400	2.1E	1035	1422	2.8E	
6 Th	0339	0621	2.3F	21 F	1956	2367	2.7F	6 Su	1547	1904	2.3F	21 M	1557	1915	3.1F	6 W	1641	2011	2.5F	21 Th	1729	2031	3.1F	
	0836	1236	2.0E		0004	2.7E	0120		2.2E	2104	0120		2.2E	0437	0742		3.1F	2208	0222		2.3E	0246	2.8E	
	1538	1843	2.4F		0258	0622	2.8F		0428	0730	2.3F		1004	1355	2.8E		0509	0836	2.5F		0552	0855	3.0F	
7 F	0101	2.2E	22 Sa	0829	1230	2.5E	7 M	0932	1342	2.0E	22 Tu	1652	2005	3.2F	7 Th	1722	2058	2.5F	22 F	1118	1509	2.8E		
	0420	0710		2.3F	1511	1846		2.9F	1629	1952		2.4F	2225	0220		3.0E	1804	2146		2.5F	1813	2119	3.0F	
	0918	1324		2.0E	2052	0058		2.9E	2149	0205		2.2E	0527	0831		3.2F	2340	0306		2.3E	2339	0333	2.7E	
8 Sa	0147	2.3E	23 Su	0356	0714	3.0F	8 Tu	0505	0817	2.4F	23 W	1743	2054	3.2F	8 F	0547	0922	2.5F	23 Sa	0632	0943	2.9F		
	0458	0757		2.3F	0925	1324		2.6E	1016	1427		2.0E	1056	1445		2.9E	1118	1529		2.3E	1159	1557	2.7E	
	1000	1409		2.0E	1608	1937		3.1F	1709	2038		2.4F	2316	0309		3.0E	1804	2146		2.5F	1854	2208	2.8F	
9 Su	01656	2018	2.4F	24 M	2147	0150	3.0E	9 W	0250	2.3E	24 Th	0614	0920	3.1F	9 Sa	0626	1010	2.5F	24 Su	0711	1032	2.7F		
	2215	0451	0805		3.1F	0541	0904		2.4F	1144		1534	2.8E	1204		1616	2.3E	1239		1644	2.5E	1320	1731	2.3E
	2259	1115	1506		2.8E	1748	2125		2.3F	1832		2144	3.1F	1846		2235	2.5F	1935		2258	2.6F	2017	2347	2.4F
10 M	0534	0844	2.3F	25 Tu	2241	0241	3.1E	10 W	0617	0951	2.3F	25 Th	0004	0359	2.9E	10 Sa	0027	0439	2.3E	25 Su	0102	0508	2.3E	
	1043	1454	2.0E		0544	0855	3.2F		1146	1558	2.0E		0658	1010	3.0F		0708	1059	2.5F		0750	1121	2.5F	
	1735	2105	2.3F		1115	1506	2.8E		1828	2214	2.3F		1229	1624	2.8E		1250	1703	2.3E		1320	1731	2.3E	
11 Tu	0609	0931	2.3F	26 W	2334	0332	3.1E	11 F	0004	0421	2.2E	26 Sa	0049	0448	2.7E	11 M	0115	0526	2.2E	26 Tu	0144	0554	2.1E	
	1127	1540	1.9E		0634	0946	3.2F		0655	1040	2.3F		0742	1101	2.9F		0752	1148	2.4F		0832	1210	2.3F	
	1813	2153	2.2F		1207	1558	2.8E		1909	2302	2.3F		1312	1712	2.6E		1338	1751	2.3E		1403	1818	2.1E	
12 W	0403	2.2E	27 Th	1849	2210	3.1F	12 Sa	0050	0506	2.2E	27 Su	0132	0536	2.5E	12 Tu	0204	0615	2.2E	27 W	0228	0642	1.9E		
	0644	1019		2.2F	0025	0424		3.0E	0735	1128		2.3F	0826	1150		2.7F	0842	1238		2.4F	0919	1259	2.1F	
	1212	1626		1.9E	0722	1037		3.1F	1316	1730		2.1E	1355	1800		2.4E	1428	1841		2.3E	1448	1908	2.0E	
13 Th	0802	1156	2.1F	28 F	1940	2301	3.0F	13 Su	0137	0552	2.1E	28 M	2053	0105	2.5F	13 W	2117	0105	2.4F	28 Th	0216	0636	2.1F	
	1342	1506	1.2E		0114	0514	2.9E		0226	0640	2.0E		0913	1239	2.5F		0352	0806	2.1E		0405	0514	0.7E	
	1549	1.1E	0811		1128	3.0F	0907		1305	2.2F	1440		1849	2.2E	1002		1329	2.3F	1037		1424	2.4F	0606	0.7E
14 F	0200	0619	2.0E	29 Sa	2129	0219	2.9E	14 M	1452	1907	2.0E	29 Tu	2238	0156	2.2F	14 W	1618	2036	2.3E	29 Th	0830	1.6E		
	0846	1244	2.1F		0202	0603	2.7E		2137	0131	2.2F		1526	1942	2.1E		2319	0159	2.4F		1102	1443†	1.9F	
	1429	1556	1.2E		0902	1218	2.8F		0318	0733	2.0E		1526	1942	2.1E		2319	0159	2.4F		1311	1643	1.6E	
15 Sa	0935	1333†	2.1F	30 Su	0225	0043	2.7F	15 Tu	0959	1356	2.3F	30 W	0351	0808	1.9E	15 F	0254	0708	2.1E	30 Sa	0311	0735	1.7E	
	0107	0422	1.4E		0954	1308	2.6F		1545	2002	2.1E		1052	1421	2.1F		0937	1330	2.4F		0601	0.7E		
	0422	1.4E	0509		1.3E	2225	0134		2.5F	0224	2.2F		1614	2037	1.9E		1522	1937	2.3E		0658	0.6E		
16 Su	0708	1.9E	31 M	2322	0226	2.3F	16 Tu	0412	0830	2.0E	31 Th	0441	0903	1.8E	16 F	1244	1613	2.6F	31 Sa	0743	0.5E			
	0935	1333†		2.1F	0429	0842		2.0E	1055	1449		2.3F	1144	1513		2.1F	1818	2228		2.6E	1015	1.7E		
	1137	1452		2.3F	1607	2016		2.2E	2335	0224		2.2F	1704	1810		0.6E	1818	2228		2.6E	1255	1626†	2.0F	

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

† See page 188 for the remaining currents on this day.

# Bucksport, Penobscot Bay, Maine, 2017

F—Flood, Dir. 292° True    E—Ebb, Dir. 113° True

October				November				December															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots												
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m												
<b>1</b> Su	0135	0453	2.0F	<b>16</b> M	0219	0511	2.8F	<b>1</b> W	0228	0603	2.3F	<b>16</b> Th	0339	0628	2.8F	<b>1</b> F	0238	0623	2.5F	<b>16</b> Sa	0357	0650	2.6F
	0646	1105	1.8E		0753	1128	2.6E		0758	1212	2.1E		0911	1247	2.6E		0818	1231	2.4E		0914	1309	2.5E
	1351	1717	2.1F		1445	1737	2.8F		1454	1828	2.4F		1612	1854	2.7F		1513	1850	2.6F		1635	1916	2.5F
	1910	2329	2.0E		2016	2355	2.7E		2023				2135				2046				2141		
<b>2</b> M	0226	0544	2.1F	<b>17</b> Tu	0313	0603	2.9F	<b>2</b> Th	0314	0652	2.5F	<b>17</b> F	0423	0717	2.8F	<b>2</b> Sa	0328	0712	2.7F	<b>17</b> Su	0437	0738	2.6F
	0741	1154	1.9E		0849	1221	2.7E		0848	1300	2.3E		0944	1335	2.6E		0909	1320	2.6E		0949	1355	2.4E
	1441	1808	2.2F		1539	1829	2.9F		1541	1917	2.6F		1655	1942	2.7F		1604	1939	2.8F		1714	2003	2.5F
	2003				2110				2113				2209				2138				2217		
<b>3</b> Tu		0019	2.1E	<b>18</b> W	0402	0654	3.0F	<b>3</b> F	0359	0739	2.7F	<b>18</b> Sa	0502	0803	2.7F	<b>3</b> Su	0418	0800	2.9F	<b>18</b> M	0513	0824	2.5F
	0831	1244	2.1E		0933	1312	2.8E		0936	1347	2.5E		1019	1420	2.6E		1000	1409	2.8E		1028	1439	2.4E
	1527	1857	2.4F		1628	1919	2.9F		1628	2004	2.7F		1734	2028	2.7F		1656	2027	2.9F		1748	2050	2.4F
	2053				2154				2203				2244				2231				2256		
<b>4</b> W		0107	2.2E	<b>19</b> Th	0447	0742	3.0F	<b>4</b> Sa	0445	0826	2.8F	<b>19</b> Su	0538	0850	2.6F	<b>4</b> M	0509	0849	3.0F	<b>19</b> Tu	0548	0911	2.4F
	0352	0721	2.5F		1011	1359	2.8E		1024	1434	2.7E		1056	1504	2.5E		1051	1458	3.0E		1109	1524	2.3E
	0918	1330	2.2E		1713	2006	2.9F		1716	2052	2.8F		1809	2115	2.5F		1747	2117	3.0F		1821	2137	2.3F
	1611	1944	2.5F		2233				2253				2323				2324				2337		
	2140				2312				2344				2344				2324				2337		
<b>5</b> Th		0153	2.3E	<b>20</b> F	0527	0829	2.9F	<b>5</b> Su	0532	0914	2.8F	<b>20</b> M	0613	0937	2.4F	<b>5</b> Tu	0600	0940	3.0F	<b>20</b> W	0624	0959	2.3F
	1004	1415	2.4E		1049	1445	2.7E		1113	1522	2.8E		1136	1549	2.3E		1144	1550	3.0E		1151	1610	2.2E
	1655	2031	2.6F		1753	2053	2.8F		1805	2141	2.8F		1843	2203	2.4F		1838	2209	3.0F		1855	2225	2.2F
	2228				2312				2344				2344				2324				2337		
<b>6</b> F		0238	2.4E	<b>21</b> Sa	0605	0916	2.7F	<b>6</b> M	0620	1004	2.8F	<b>21</b> Tu	0648	1025	2.3F	<b>6</b> W	0652	1032	3.0F	<b>21</b> Th	0701	1047	2.1F
	0515	0854	2.6F		1127	1530	2.6E		1204	1612	2.8E		1218	1636	2.2E		1236	1642	3.0E		1234	1655	2.1E
	1051	1500	2.5E		1831	2141	2.6F		1854	2233	2.9F		1918	2252	2.2F		1931	2302	3.0F		1931	2314	2.1F
	1739	2118	2.7F		2351																		
	2316																						
<b>7</b> Sa		0324	2.4E	<b>22</b> Su	0640	1004	2.5F	<b>7</b> Tu	0709	1057	2.8F	<b>22</b> W	0726	1114	2.1F	<b>7</b> Th	0747	1125	3.0F	<b>22</b> F	0741	1136	2.0F
	0558	0941	2.6F		1206	1616	2.4E		1255	1704	2.8E		1300	1722	2.1E		1329	1735	3.0E		1319	1741	2.0E
	1138	1548	2.6E		1907	2230	2.5F		1946	2326	2.9F		1957	2341	2.1F		2026	2354	3.0F		2011		
	1825	2207	2.7F																				
<b>8</b> Su		0005	2.4E	<b>23</b> M	0717	1053	2.4F	<b>8</b> W	0803	1149	2.8F	<b>23</b> Th	0808	1203	2.0F	<b>8</b> F	0846	1218	2.9F	<b>23</b> Sa	0825	1224†	1.9F
	0642	1031	2.6F		1247	1703	2.3E		1347	1756	2.8E		1345	1510	1.2E		1424	1828	2.8E		0825	1224†	1.9F
	1226	1637	2.6E		1945	2319	2.3F		2043				1554	1.1E		2125					0605	1.7E	
	1912	2258	2.7F										1808†	1.9E							0652	1.6E	
<b>9</b> M		0054	2.4E	<b>24</b> Tu	0756	1142	2.2F	<b>9</b> Th	0902	1242	2.8F	<b>24</b> F	0855	1252	1.9F	<b>9</b> Sa	0950	1311	2.8F	<b>24</b> Su	0913	1313†	1.9F
	0729	1122	2.6F		1330	1749	2.1E		1442	1851	2.7E		1432	1556	1.2E		1520	1924	2.7E		0913	1313†	1.9F
	1315	1726	2.6E		2027				2145				1649†	1.1E		2227					0913	1313†	1.9F
	2003	2349	2.6F										1649†	1.1E							0913	1313†	1.9F
<b>10</b> Tu		0145	2.3E	<b>25</b> W	0840	1231†	2.0F	<b>10</b> F	0902	1242	2.8F	<b>25</b> Sa	0947	1343†	1.8F	<b>10</b> Su	0950	1311	2.8F	<b>25</b> M	1006	1404†	1.8F
	0821	1213	2.6F		1231†	1.8E			1442	1851	2.7E		1432	1556	1.2E		1520	1924	2.7E		1006	1404†	1.8F
	1407	1818	2.5E		0057	2.0F			2145				1649†	1.1E		2227					1006	1404†	1.8F
	2059				0057	2.0F							1649†	1.1E							1006	1404†	1.8F
<b>11</b> W		0041	2.6F	<b>26</b> Th	0930	1321†	1.9F	<b>11</b> Sa	1040	1435†	1.8F	<b>26</b> Su	1040	1435†	1.8F	<b>11</b> M	1040	1435†	1.8F	<b>26</b> Tu	1040	1435†	1.8F
	0238	0645	2.3E		1321†	1.8E			1435†	1.8F			1435†	1.8F							1040	1435†	1.8F
	0919	1306	2.6F		0057	2.0F			1435†	1.8F			1435†	1.8F							1040	1435†	1.8F
	1501	1913	2.5E		0057	2.0F			1435†	1.8F			1435†	1.8F							1040	1435†	1.8F
	2201				0057	2.0F			1435†	1.8F			1435†	1.8F							1040	1435†	1.8F
<b>12</b> Th		0135	2.6F	<b>27</b> F	1049	1499	1.9F	<b>12</b> Su	1049	1499	1.9F	<b>27</b> M	1049	1499	1.9F	<b>12</b> Tu	1049	1499	1.9F	<b>27</b> W	1049	1499	1.9F
	0335	0743	2.2E		1499	1.9E			1499	1.9E			1499	1.9E							1049	1499	1.9F
	1021	1400	2.6F		0057	2.0F			1499	1.9E			1499	1.9E							1049	1499	1.9F
	1558	2013	2.5E		0057	2.0F			1499	1.9E			1499	1.9E							1049	1499	1.9F
	2305				0057	2.0F			1499	1.9E			1499	1.9E							1049	1499	1.9F
<b>13</b> F		0230	2.6F	<b>28</b> Sa	1049	1499	1.9F	<b>13</b> M	1049	1499	1.9F	<b>28</b> Tu	1049	1499	1.9F	<b>13</b> W	1049	1499	1.9F	<b>28</b> Th	1049	1499	1.9F
	0434	0843	2.3E		1499	1.8E			1499	1.9E			1499	1.9E							1049	1499	1.9F
	1127	1456	2.6F		0057	2.0F			1499	1.9E			1499	1.9E							1049	1499	1.9F
	1658	2112	2.5E		0057	2.0F			1499	1.9E			1499	1.9E							1049	1499	1.9F
<b>14</b> Sa		0011	2.6F	<b>29</b> Su	1049	1499	1.9F	<b>14</b> Tu	1049	1499	1.9F	<b>29</b> W	1049	1499	1.9								

# Bath Iron Works, Kennebec River, 2017

F—Flood, Dir. 001° True    E—Ebb, Dir. 178° True

January				February				March																			
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum													
	h	m	knots		h	m	knots		h	m	knots		h	m	knots												
<b>1</b> Su	0313	0542	2.1E	<b>16</b> M	0416	0650	2.1E	<b>1</b> W	0416	0651	2.5E	<b>16</b> Th	0520	0756	1.9E	<b>1</b> W	0302	0537	2.7E	<b>16</b> Th	0400	0638	2.1E				
	0921	1206	2.3F		1035	1338	2.0F		1038	1323	2.3F		1149	1420	1.6F		0927	1211	2.4F		1525	1801	2.6E	1031	1308	1.7F	
	1523	1804	2.4E		1634	1916	2.1E		1635	1914	2.5E		1740	2013	1.8E		2150				1623	1854	1.9E	1623	1854	1.9E	
	2210				2312					2307												2242			2242		
<b>2</b> M		0043	2.1F	<b>17</b> Tu	0506	0742	2.0E	<b>2</b> Th	0506	0741	2.5E	<b>17</b> F	0605	0841	1.8E	<b>2</b> Th	0350	0626	2.7E	<b>17</b> F		0113	1.8F	<b>17</b> F	0442	0719	2.0E
	0358	0628	2.2E		1128	1421	1.8F		1135	1416	2.2F		1240	1458	1.5F		1020	1303	2.3F		1119	1342	1.6F		1119	1342	1.6F
	1009	1255	2.3F		1724	2005	2.0E		1729	2005	2.4E		1828	2057	1.7E		1616	1851	2.5E		1707	1936	1.8E		1707	1936	1.8E
	1609	1851	2.5E		2359				2357								2238				2324				2324		
<b>3</b> Tu		0130	2.2F	<b>18</b> W	0555	0832	1.9E	<b>3</b> F	0559	0834	2.4E	<b>18</b> Sa	0651	0928	1.7E	<b>3</b> F	0441	0717	2.6E	<b>18</b> Sa	0524	0801	1.9E	<b>18</b> Sa	0524	0801	1.9E
	0444	0717	2.3E		1220	1501	1.7F		1236	1510	2.1F		1331	1542	1.4F		1118	1356	2.2F		1257	1422	1.5F		1257	1422	1.5F
	1101	1346	2.3F		1813	2052	1.8E		1826	2059	2.3E		1916	2145	1.5E		1711	1943	2.4E		1752	2018	1.6E		1752	2018	1.6E
	1657	1940	2.4E						0051	0335	2.3F		0055	0930	2.3E		0134	0353	1.6F		0217	2.4F	0217		2.4F	0007	0231
<b>4</b> W	0534	0807	2.3E	<b>19</b> Th	0644	0923	1.8E	<b>4</b> Sa	0655	0930	2.3E	<b>19</b> Su	0738	1019	1.6E	<b>4</b> Sa	0535	0811	2.5E	<b>19</b> Su	0608	0844	1.8E	<b>19</b> Su	0608	0844	1.8E
	1156	1438	2.2F		1313	1543	1.5F		1340	1609	1.9F		1423	1630	1.3F		1220	1452	2.0F		1220	1452	2.0F		1220	1452	2.0F
	1750	2030	2.4E		1903	2141	1.7E		1928	2158	2.1E		2007	2236	1.4E		1810	2038	2.2E		1810	2038	2.2E		1810	2038	2.2E
									0150	0431	2.2F		0154	1714	1.8F		0220	0440	1.6F		0028	0311	2.2F		0028	0311	2.2F
<b>5</b> Th	0626	0900	2.3E	<b>20</b> F	0733	1018	1.7E	<b>5</b> Su	0756	1032	2.2E	<b>20</b> M	0827	1112	1.6E	<b>5</b> Su	0633	0908	2.3E	<b>20</b> M	0654	0932	1.7E	<b>20</b> M	0654	0932	1.7E
	1256	1532	2.1F		1405	1628	1.4F		1446	1714	1.8F		1514	1721	1.3F		1325	1553	1.8F		1325	1553	1.8F		1325	1553	1.8F
	1847	2124	2.3E		1954	2232	1.6E		2033	2301	2.0E		2058	2328	1.4E		1912	2137	2.0E		1912	2137	2.0E		1912	2137	2.0E
									0251	0531	2.1F		0259	1138	2.2E		0308	0529	1.7F		0130	0409	2.1F		0130	0409	2.1F
<b>6</b> F	0722	0956	2.3E	<b>21</b> Sa	0822	1114	1.6E	<b>6</b> M	0859	1138	2.2E	<b>21</b> Tu	0916	1203	1.7E	<b>6</b> M	0736	1011	2.1E	<b>21</b> Tu	0743	1023	1.6E	<b>21</b> Tu	0743	1023	1.6E
	1358	1629	2.0F		1458	1716	1.3F		1550	1829	1.7F		1604	1812	1.3F		1430	1705	1.7F		1430	1705	1.7F		1430	1705	1.7F
	1948	2222	2.2E		2046	2324	1.5E		2139				2148				2018	2244	1.9E		2018	2244	1.9E		2018	2244	1.9E
																						1438	1645		1.4F	1438	1645
<b>7</b> Sa	0216	0456	2.2F	<b>22</b> Su	0301	0523	1.6F	<b>7</b> Tu	0353	0635	2.1F	<b>22</b> W	0357	0619	1.7F	<b>7</b> Tu	0235	0514	2.0F	<b>22</b> W	0233	0456	1.7F	<b>22</b> W	0233	0456	1.7F
	0820	1056	2.3E		0910	1206	1.7E		1002	1244	2.2E		1004	1250	1.8E		0842	1122	2.1E		0834	1117	1.7E		0834	1117	1.7E
	1502	1730	1.9F		1549	1805	1.3F		1652	2003	1.8F		1651	1903	1.4F		1535	1841	1.7F		1527	1737	1.4F		1527	1737	1.4F
	2051	2323	2.1E		2137				2241				2236				2123	2354	1.8E		2111	2341	1.6E		2111	2341	1.6E
<b>8</b> Su	0312	0553	2.2F	<b>23</b> M		0012	1.5E	<b>8</b> W	0453	0748	2.1F	<b>23</b> Th	0444	0710	1.9F	<b>8</b> W	0339	0628	1.9F	<b>23</b> Th	0324	0548	1.8F	<b>23</b> Th	0324	0548	1.8F
	0920	1158	2.3E		0346	0607	1.6F		1103	1349	2.3E		1051	1334	2.0E		0947	1236	2.1E		0926	1209	1.8E		0926	1209	1.8E
	1605	1835	1.9F		0957	1250	1.7E		1750	2113	2.0F		1735	1953	1.6F		1635	1959	1.9F		1614	1829	1.6F		1614	1829	1.6F
	2155				1638	1853	1.3F		2339				2322				2225				2201				2201		
<b>9</b> M		0024	2.1E	<b>24</b> Tu	0431	0654	1.7F	<b>9</b> Th	0551	0908	2.2F	<b>24</b> F	0530	0801	2.0F	<b>9</b> Th		0103	1.9E	<b>24</b> F		0032	1.8E	<b>24</b> F		0032	1.8E
	0410	0651	2.2F		1042	1331	1.8E		1200	1450	2.3E		1136	1417	2.1E		0440	0801	2.0F		0440	0801	2.0F		0440	0801	2.0F
	1019	1258	2.4E		1725	1941	1.4F		1844	2209	2.1F		1818	2043	1.8F		1731	2059	2.0F		1731	2059	2.0F		1731	2059	2.0F
	1706	1949	1.9F		2311												2321				2249				2249		
<b>10</b> Tu		0124	2.1E	<b>25</b> W	0514	0741	1.8F	<b>10</b> F	0647	1011	2.3F	<b>25</b> Sa	0616	0852	2.2E	<b>10</b> F		0206	2.1E	<b>25</b> Sa		0121	2.0E	<b>25</b> Sa		0121	2.0E
	0507	0754	2.2F		1125	1410	2.0E		1254	1544	2.4E		1220	1500	2.3E		0538	0910	2.1F		0504	0734	2.0F		0504	0734	2.0F
	1117	1358	2.4E		1809	2028	1.5F		1936	2259	2.2F		1859	2130	2.1F		1144	1446	2.2E		1105	1344	2.2E		1105	1344	2.2E
	1805	2112	2.0F		2354												1822	2152	2.2F		1742	2011	2.0F		1742	2011	2.0F
<b>11</b> W		0222	2.1E	<b>26</b> Th	0558	0830	2.0F	<b>11</b> Sa	0125	0402	2.2E	<b>26</b> Su	0702	0942	2.3F	<b>11</b> Sa	0014	0301	2.2E	<b>26</b> Su		0208	2.2E	<b>26</b> Su		0208	2.2E
	0603	0859	2.3F		1207	1449	2.1E		1345	1633	2.4E		1304	1543	2.5E		0631	1004	2.2F		0552	0827	2.2F		0552	0827	2.2F
	1214	1456	2.5E		1851	2114	1.7F		2024	2347	2.2F		1941	2216	2.2F		1236	1534	2.3E		1152	1430	2.4E		1152	1430	2.4E
	1901	2217	2.1F														1910	2239	2.2F		1824	2100	2.2F		1824	2100	2.2F
<b>12</b> Th	0049	0318	2.2E	<b>27</b> F	0036	0305	2.0E	<b>12</b> Su	0214	0451	2.2E	<b>27</b> M	0132	0405	2.5E	<b>12</b> Su	0103	0349	2.3E	<b>27</b> M	0019	0254	2.4E	<b>27</b> M	0019	0254	2.4E
	0659	1004	2.3F		0642	0919	2.1F		0832	1151	2.2F		0749	1031	2.4F		0722	1051	2.2F		0640	0919	2.3F		0640	0919	2.3F
	1308	1551	2.5E		1248	1529	2.3E		1434	1719	2.3E		1350	1627	2.6E		1325	1616	2.3E		1239	1516	2.5E		1239	1516	2.5E
	1955	2312	2.1F		1933	2159	1.9F		2110				2022	2302	2.4F		1956	2322	2.2F		1907	2148	2.4F		1907	2148	2.4F
<b>13</b> F	0143	0412	2.2E	<b>28</b> Sa	0118	0348	2.1E	<b>13</b> M	0302	0539	2.2E	<b>28</b> Tu	0217	0450	2.6E	<b>13</b> M	0150	0433	2.3E	<b>28</b> Tu	0104	0340	2.6E	<b>28</b> Tu	0104	0340	2.6E
	0755	1102	2.3F		0726	1006	2.3F		0922	1236	2.1F		0837	1121	2.5F		0811	1135	2.2F		0728	1010	2.4F		0728	1010	2.4F
	1401	1643	2.4E		1331	1611																					



# Bath Iron Works, Kennebec River, 2017

F—Flood, Dir. 001° True    E—Ebb, Dir. 178° True

April				May				June															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Sa	0419	0656	2.6E	<b>16</b> Su	0445	0723	1.9E	<b>1</b> M	0459	0734	2.4E	<b>16</b> Tu	0451	0733	2.0E	<b>1</b> Th	0044	0330	1.9F	<b>16</b> F	0001	0239	2.1F
	1104	1341	2.1F		1135	1350	1.6F		1153	1434	1.9F		1147	1406	1.7F		0642	0923	2.0E		0552	0835	2.2E
	1656	1923	2.3E		1718	1943	1.7E		1741	2004	2.0E		1729	1956	1.7E		1327	1646	1.8F		1240	1512	2.0F
	2309				2328				2357				2341				1920	2158	1.8E		1831	2103	2.0E
<b>2</b> Su	0156	0751	2.5E	<b>17</b> M	0527	0806	1.9E	<b>2</b> Tu	0559	0834	2.2E	<b>17</b> W	0536	0818	2.0E	<b>2</b> F	0144	0451	1.8F	<b>17</b> Sa	0056	0330	2.0F
	1206	1440	1.9F		1222	1435	1.5F		1253	1545	1.8F		1233	1453	1.7F		0741	1033	1.9E		0645	0926	2.2E
	1756	2019	2.1E		1804	2028	1.6E		1842	2106	1.9E		1816	2044	1.8E		1420	1748	1.8F		1328	1603	2.1F
																	2018	2313	1.8E		1923	2157	2.1E
<b>3</b> M	0011	0252	2.1F	<b>18</b> Tu	0015	0244	1.8F	<b>3</b> W	0101	0340	1.9F	<b>18</b> Th	0033	0305	1.9F	<b>3</b> Sa	0243	0608	1.7F	<b>18</b> Su	0153	0424	2.0F
	0615	0849	2.3E		0613	0852	1.8E		0702	0940	2.0E		0625	0907	2.0E		0840	1145	1.8E		0741	1021	2.1E
	1310	1545	1.8F		1310	1523	1.5F		1353	1707	1.8F		1320	1542	1.8F		1512	1845	1.8F		1417	1655	2.2F
	1858	2121	1.9E		1852	2117	1.6E		1943	2216	1.8E		1906	2135	1.8E		2113				2017	2254	2.2E
<b>4</b> Tu	0115	0352	2.0F	<b>19</b> W	0106	0333	1.8F	<b>4</b> Th	0205	0500	1.8F	<b>19</b> F	0127	0357	1.9F	<b>4</b> Su	0340	0711	1.7F	<b>19</b> M	0253	0521	2.0F
	0719	0954	2.1E		0701	0942	1.8E		0805	1057	1.9E		0717	0959	2.0E		0936	1242	1.8E		0840	1118	2.1E
	1413	1711	1.7F		1359	1613	1.6F		1450	1816	1.8F		1407	1633	1.9F		1600	1937	1.9F		1509	1748	2.2F
	2002	2230	1.8E		1942	2210	1.6E		2044	2334	1.8E		1958	2230	1.9E		2206				2113	2351	2.3E
<b>5</b> W	0221	0503	1.9F	<b>20</b> Th	0159	0426	1.8F	<b>5</b> F	0306	0630	1.8F	<b>20</b> Sa	0223	0451	1.9F	<b>5</b> M	0434	0807	1.7F	<b>20</b> Tu	0352	0619	2.0F
	0825	1110	2.0E		0754	1036	1.8E		0907	1219	1.9E		0812	1054	2.0E		1029	1327	1.8E		0941	1215	2.2E
	1515	1836	1.8F		1448	1705	1.6F		1545	1916	1.9F		1456	1725	2.0F		1646	2025	1.9F		1601	1842	2.3F
	2105	2345	1.8E		2034	2305	1.7E		2142				2051	2326	2.0E		2254				2209		
<b>6</b> Th	0325	0638	1.9F	<b>21</b> F	0253	0519	1.8F	<b>6</b> Sa	0405	0737	1.9F	<b>21</b> Su	0319	0547	2.0F	<b>6</b> Tu	0524	0858	1.7F	<b>21</b> W	0450	0719	2.0F
	0929	1232	2.0E		0848	1130	1.9E		1005	1318	2.0E		0909	1149	2.1E		1118	1407	1.8E		1041	1311	2.2E
	1613	1941	1.9F		1535	1757	1.8F		1635	2010	2.0F		1544	1818	2.1F		1729	2105	1.8F		1654	1938	2.4F
	2205				2125	2359	1.9E		2235				2143				2339				2304		
<b>7</b> F	0057	0756	2.0F	<b>22</b> Sa	0347	0614	1.9F	<b>7</b> Su	0459	0834	1.9F	<b>22</b> M	0414	0642	2.0F	<b>7</b> W	0611	0943	1.7F	<b>22</b> Th	0548	0823	2.0F
	1029	1341	2.1E		0942	1223	2.1E		1059	1404	2.0E		1006	1243	2.2E		1204	1444	1.8E		1138	1406	2.3E
	1706	2038	2.0F		1621	1849	2.0F		1722	2059	2.0F		1632	1910	2.3F		1811	2117	1.8F		1747	2035	2.4F
	2300				2216				2324				2235								2358		
<b>8</b> Sa	0157	0855	2.1E	<b>23</b> Su	0438	0708	2.1F	<b>8</b> M	0549	0924	1.9F	<b>23</b> Tu	0508	0739	2.1F	<b>8</b> Th	0656	1020	1.7F	<b>23</b> F	0644	0929	2.1F
	1124	1432	2.1E		1034	1313	2.2E		1147	1443	2.0E		1101	1335	2.3E		1247	1520	1.8E		1234	1500	2.3E
	1754	2128	2.1F		1706	1940	2.2F		1805	2142	2.0F		1720	2002	2.4F		1851	2130	1.9F		1842	2132	2.4F
	2351				2304								2326										
<b>9</b> Su	0248	0947	2.1F	<b>24</b> M	0529	0802	2.2F	<b>9</b> Tu	0009	0308	2.2E	<b>24</b> W	0602	0837	2.2F	<b>9</b> Th	0100	0348	2.1E	<b>24</b> Sa	0052	0330	2.7E
	1214	1513	2.2E		1126	1402	2.4E		0637	1009	1.9F		1156	1426	2.4E		0740	1035	1.6F		0740	1032	2.1F
	1840	2213	2.2F		1750	2030	2.3F		1233	1518	2.0E		1808	2055	2.5F		1329	1556	1.8E		1329	1554	2.3E
					2351				1847	2216	2.0F						1931	2205	1.9F		1937	2229	2.4F
<b>10</b> M	0038	0701	2.3E	<b>25</b> Tu	0620	0857	2.3F	<b>10</b> W	0052	0344	2.2E	<b>25</b> Th	0016	0254	2.7E	<b>10</b> Sa	0139	0422	2.1E	<b>25</b> Su	0146	0423	2.6E
	1300	1550	2.2E		1216	1450	2.5E		0723	1047	1.8F		0657	0935	2.2F		0823	1052	1.7F		0835	1132	2.1F
	1923	2252	2.1F		1835	2120	2.5F		1317	1553	2.0E		1249	1518	2.4E		1409	1634	1.8E		1423	1648	2.3E
									1927	2225	1.9F		1858	2148	2.5F		2012	2245	2.0F		2034	2325	2.4F
<b>11</b> Tu	0122	0410	2.3E	<b>26</b> W	0039	0316	2.7E	<b>11</b> Th	0133	0418	2.2E	<b>26</b> F	0107	0345	2.8E	<b>11</b> Su	0218	0458	2.2E	<b>26</b> M	0240	0517	2.5E
	0748	1113	2.0F		0711	0950	2.3F		0807	1114	1.8F		0752	1032	2.2F		0905	1127	1.7F		0929	1231	2.1F
	1345	1626	2.1E		1307	1539	2.5E		1359	1629	1.9E		1343	1609	2.4E		1450	1714	1.9E		1517	1742	2.2E
	2004	2321	2.0F		1921	2210	2.6F		2007	2244	1.9F		1951	2241	2.5F		2053	2328	2.1F		2131		
<b>12</b> W	0204	0448	2.2E	<b>27</b> Th	0127	0404	2.8E	<b>12</b> F	0212	0453	2.2E	<b>27</b> Sa	0200	0436	2.8E	<b>12</b> M	0257	0537	2.2E	<b>27</b> Tu	0335	0611	2.4E
	0834	1145	1.9F		0804	1043	2.3F		0851	1127	1.7F		0847	1130	2.2F		0947	1208	1.8F		1022	1328	2.1F
	1428	1702	2.0E		1358	1628	2.5E		1440	1706	1.9E		1438	1701	2.3E		1530	1756	1.9E		1611	1838	2.1E
	2044	2332	2.0F		2010	2259	2.6F		2046	2318	1.9F		2046	2334	2.4F		2136				2228		
<b>13</b> Th	0245	0525	2.2E	<b>28</b> F	0217	0453	2.8E	<b>13</b> Sa	0251	0530	2.1E	<b>28</b> Su	0253	0529	2.7E	<b>13</b> Tu	0337	0618	2.2E	<b>28</b> W	0429	0707	2.3E
	0918	1204	1.8F		0858	1137	2.3F		0935	1158	1.7F		0943	1229	2.1F		1028	1252	1.8F		1114	1423	2.0F
	1510	1739	1.9E		1451	1718	2.4E		1521	1745	1.8E		1532	1755	2.2E		1612	1840	1.9E		1705	1935	2.1E
	2123	2357	1.9F		2101	2351	2.5F		2126	2358	2.0F		2143				2221				2325		
<b>14</b> F	0325	0603	2.1E	<b>29</b> Sa	0308	0544	2.7E	<b>14</b> Su	0329	0608	2.1E	<b>29</b> M	0348	0624	2.5E	<b>14</b> W	0419	0701	2.1F	<b>29</b> Th	0524	0803</	

# Bath Iron Works, Kennebec River, 2017

F—Flood, Dir. 001° True    E—Ebb, Dir. 178° True

July				August				September																
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum										
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
<b>1</b> Sa	0120	0423	1.7F	<b>16</b> Su	0028	0305	2.1F	<b>1</b> Tu	0240	0555	1.3F	<b>16</b> W	0211	0438	1.8F	<b>16</b> Sa	0402	0711	1.8F					
	0714	0958	1.8E		0617	0857	2.3E		0829	1109	1.5E		0758	1027	2.0E		0937	1209	1.5E	0952	1225	1.9E		
	1346	1709	1.8F		1251	1533	2.3F		1445	1711	1.5F		1416	1657	2.2F		1544	1803	1.6F	1609	1901	2.0F		
	1947	2239	1.8E		1851	2127	2.3E		2054	2359	1.7E		2024	2301	2.2E		2152			2216				
<b>2</b> Su	0216	0536	1.6F	<b>17</b> M	0128	0400	2.0F	<b>2</b> W	0334	0656	1.3F	<b>17</b> Th	0316	0545	1.8F	<b>2</b> Sa		0044	1.7E	<b>17</b> Su		0104	2.1E	
	0809	1100	1.7E		0715	0952	2.2E		0922	1202	1.5E		0904	1132	1.9E		0437	0652	1.4F		0500	0823	2.0F	
	1435	1803	1.7E		1343	1626	2.2F		1532	1755	1.5F		1519	1758	2.1F		1024	1256	1.6E		1051	1330	2.1E	
	2040	2347	1.8E		1947	2224	2.2E		2143				2128				1631	1853	1.7F		1709	2029	2.1F	
<b>3</b> M	0312	0639	1.5F	<b>18</b> Tu	0230	0458	1.9F	<b>3</b> Th		0049	1.7E	<b>18</b> F		0007	2.2E	<b>3</b> Su		0125	1.8E	<b>18</b> M		0208	2.2E	
	0904	1157	1.7E		0817	1051	2.1E		0424	0748	1.3F		0420	0702	1.8F		0521	0739	1.5F		0553	0920	2.1F	
	1523	1852	1.7F		1439	1721	2.2F		1013	1249	1.5E		1008	1236	2.0E		1109	1340	1.8E		1146	1429	2.2E	
	2132				2046	2324	2.3E		1618	1840	1.6F		1621	1904	2.1F		1717	1943	1.9F		1805	2133	2.2F	
<b>4</b> Tu		0044	1.8E	<b>19</b> W	0333	0559	1.9F	<b>4</b> F		0129	1.8E	<b>19</b> Sa		0112	2.3E	<b>4</b> M		0205	2.0E	<b>19</b> Tu		0302	2.3E	
	0405	0736	1.5F		0921	1151	2.1E		0512	0825	1.3F		0519	0830	1.9F		0602	0825	1.7F		0643	1011	2.2F	
	0957	1246	1.6E		1537	1818	2.2F		1100	1332	1.6E		1108	1339	2.1E		1151	1422	2.0E		1237	1522	2.2E	
	1609	1929	1.6F		2146				1703	1927	1.7F		1721	2018	2.2F		1802	2033	2.0F		1858	2226	2.3F	
<b>5</b> W		0130	1.9E	<b>20</b> Th		0025	2.3E	<b>5</b> Sa		0206	1.9E	<b>20</b> Su		0214	2.3E	<b>5</b> Tu		0245	2.2E	<b>20</b> W		0349	2.3E	
	0455	0828	1.5F		0435	0705	1.8F		0556	0828	1.4F		0615	0935	2.1F		0642	0910	1.9F		0730	1056	2.3F	
	1047	1328	1.7E		1024	1251	2.1E		1143	1414	1.7E		1204	1438	2.2E		1232	1505	2.2E		1325	1609	2.3F	
	1653	1932	1.7F		1635	1917	2.2F		1747	2015	1.8F		1818	2132	2.3F		1847	2122	2.2F		1949	2313	2.3F	
<b>6</b> Th		0208	1.9E	<b>21</b> F		0125	2.4E	<b>6</b> Su		0242	2.0E	<b>21</b> M		0026	0312	2.4E	<b>6</b> W		0326	2.4E	<b>21</b> Th		0432	2.3E
	0543	0913	1.5F		0534	0820	1.9F		0638	0904	1.6F		0707	1029	2.2F	0722		0955	2.2F	0816		1138	2.2F	
	1133	1408	1.7E		1123	1350	2.1E		1225	1454	1.9E		1257	1533	2.3E	1313		1547	2.4E	1412		1654	2.3E	
	1736	2008	1.7F		1733	2020	2.3F		1830	2102	2.0F		1914	2232	2.3F	1931		2210	2.3F	2039		2358	2.1F	
<b>7</b> F		0242	2.0E	<b>22</b> Sa		0223	2.5E	<b>7</b> M		0319	2.1E	<b>22</b> Tu		0119	0404	2.4E	<b>7</b> Th		0408	2.5E	<b>22</b> F		0514	2.2E
	0628	0944	1.5F		0631	0936	2.0F		0719	0944	1.8F		0757	1117	2.2F	0801		1039	2.3F	0859		1215	2.1F	
	1216	1447	1.7E		1220	1447	2.2E		1305	1534	2.0E		1348	1624	2.3E	1356		1630	2.5E	1457		1737	2.3E	
	1818	2049	1.8F		1830	2125	2.3F		1913	2149	2.1F		2007	2324	2.3F	2017		2258	2.4F	2127				
<b>8</b> Sa	0028	0316	2.1E	<b>23</b> Su	0039	0320	2.5E	<b>8</b> Tu	0117	0357	2.3E	<b>23</b> W	0210	0452	2.4E	<b>8</b> F	0214	0451	2.6E	<b>23</b> Sa	0039	0399	2.0F	
	0711	0948	1.6F		0726	1037	2.1F		0758	1026	2.0F		0845	1204	2.2F		0842	1124	2.5F		0322	0556	2.1E	
	1257	1525	1.8E		1314	1543	2.3E		1346	1615	2.2E		1437	1713	2.3E		1439	1715	2.6E		0942	1241	2.0F	
	1859	2132	2.0F		1926	2226	2.4F		1957	2235	2.3F		2059				2104	2346	2.4F		1542	1821	2.2E	
<b>9</b> Su	0108	0351	2.1E	<b>24</b> M	0133	0413	2.5E	<b>9</b> W	0158	0437	2.4E	<b>24</b> Th		0013	2.2F	<b>9</b> Sa	0300	0537	2.6E	<b>24</b> Su	0114	0399	1.8F	
	0753	1018	1.7F		0819	1131	2.2F		0838	1109	2.1F		0259	0538	2.3E		0923	1211	2.5F		0407	0638	1.9E	
	1338	1604	1.9E		1407	1636	2.3E		1427	1658	2.3E		0931	1248	2.2F		1524	1801	2.7E		1025	1304	1.9F	
	1941	2216	2.1F		2022	2324	2.3F		2041	2322	2.3F		1525	1802	2.3E		2154				1626	1904	2.0E	
<b>10</b> M	0147	0427	2.2E	<b>25</b> Tu	0227	0506	2.5E	<b>10</b> Th	0240	0519	2.5E	<b>25</b> F		0059	2.1F	<b>10</b> Su		0037	2.3F	<b>25</b> M		0142	1.6F	
	0833	1057	1.8F		0910	1223	2.2F		0917	1153	2.3F		0347	0625	2.2E		0349	0625	2.5E		0453	0721	1.8E	
	1418	1644	2.0E		1459	1729	2.3E		1509	1742	2.4E		1016	1327	2.0E		1008	1259	2.5F		1108	1338	1.8F	
	2024	2301	2.2F		2116				2127				1612	1850	2.1E		1612	1850	2.6E		1710	1948	1.9E	
<b>11</b> Tu	0227	0506	2.3E	<b>26</b> W	0019	0239	2.3F	<b>11</b> F	0010	0249	2.4F	<b>26</b> Sa	0141	0370	1.9F	<b>11</b> M	0129	0367	2.2F	<b>26</b> Tu	0216	0457	1.5F	
	0913	1138	1.9F		0319	0557	2.4E		0324	0604	2.5E		0435	0710	2.0E		0441	0715	2.4E		0540	0805	1.6E	
	1458	1726	2.1E		0959	1313	2.2F		0958	1239	2.4F		1101	1356	1.9F		1058	1349	2.4F		1153	1417	1.7F	
	2107	2347	2.2F		1549	1822	2.2E		1553	1828	2.5E		1659	1937	2.0E		1703	1942	2.6E		1755	2032	1.8E	
<b>12</b> W	0308	0548	2.3E	<b>27</b> Th	0113	0219	2.1F	<b>12</b> Sa	0059	0239	2.3F	<b>27</b> Su	0218	0457	1.7F	<b>12</b> Tu	0223	0502	2.1F	<b>27</b> W	0257	0547	1.4F	
	0953	1222	2.0F		0410	0649	2.2E		0410	0650	2.5E		0523	0755	1.9E		0538	0808	2.2E		0628	0852	1.5E	
	1540	1810	2.2E		1047	1400	2.1F		1040	1326	2.4F		1146	1423	1.8F		1153	1441	2.3F		1240	1500	1.6F	
	2153				1640	1915	2.1E		1639	1916	2.5E		1746	2024	1.9E		1759	2036	2.4E		1841	2119	1.7E	
<b>13</b> Th		0034	2.2F	<b>28</b> F	0203	0309	2.0F	<b>13</b> Su	0150	0350	2.2F	<b>28</b> M	0224	0424	1.5F	<b>13</b> W	0050	0320	1.9F	<b>28</b> Th	0133	0342	1.3F	
	0350	0632	2.4E		0500	0739	2.1E		0500	0739	2.4E		0612	0841	1.7E		0638	0905	2.1E		0717	0941	1.4E	
	1034	1308	2.1F		1135	1443	2.0F		1127	1415	2.4F		1231	1458	1.7F		1254	1537	2.2F		1329	1547	1.6F	
	1624	1856	2.2E		1731	2007	2.0E		1729	2006	2.5E		1834	2113	1.7E		1900	2136	2.2E		1930	2211	1.6E	
<b>14</b> F		0123	2.2F	<b>29</b> Sa	0251	0359	1.8F	<b>14</b> M	0005	0242	2.1F	<b>29</b> Tu	0115	0335	1.4F	<b>14</b> Th	0155	0424	1.8F	<b>29</b> F	0223	0431	1.3F	
	0435	0718	2.4E		0551	0829	1.9E		0555	0831	2.3E		0702	0930	1.5E		0743	1008	1.9E		0807	1034	1.4E	
	1116	1355	2.2F		1222	1521	1.8F		1218	1506	2.3F		1318	1539	1.6F		1400	1638	2.1F		1420	1637	1.6F	
	1710	1944	2.3E		1821	2100	1.9E		1823	2100	2.4E		1923	2205	1.6E		2005	2242	2.1E		2020	2305	1.6E	
<b>15</b> Sa		0213	2.2F	<b>30</b> Su	0052	0339	1.6F	<b>15</b> Tu	0107	0338	2.0F	<b>30</b> W	0207	0422	1.3F									

# Bath Iron Works, Kennebec River, 2017

F—Flood, Dir. 001° True    E—Ebb, Dir. 178° True

October				November				December															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots												
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m												
<b>1</b> Su	0358 0946 1600 2200	0611 1219 1821	1.5F 1.6E 1.8F	<b>16</b> M	0436 1031 1653 2256	0804 1321 2023	2.0E 2.1E 2.0F	<b>1</b> W	0444 1042 1709 2302	0714 1318 1937	2.1E 2.2E 2.0F	<b>16</b> Th	0543 1148 1818	0921 1449 2151	2.1F 2.2E 2.0F	<b>1</b> F	0453 1100 1737 2328	0734 1338 2007	2.3F 2.5E 2.1F	<b>16</b> Sa	0555 1205 1842	0930 1507 2214	1.8E 1.9F 2.1E 1.7F
<b>2</b> M	0442 1032 1648 2248	0700 1305 1913	1.9E 1.7F 1.9E 1.9F	<b>17</b> Tu	0527 1124 1748 2349	0859 1418 2120	2.1E 2.1F 2.2E 2.1F	<b>2</b> Th	0527 1128 1758 2351	0804 1405 2030	2.3E 2.3F 2.4E 2.6E	<b>17</b> F	0614 1233 1906	0300 1003 2236	2.0E 2.1F 2.2E 1.9F	<b>2</b> Sa	0540 1149 1830	0826 1428 2105	2.4F 2.6E 2.1F	<b>17</b> Su	0637 1248 1927	0945 1542 2252	1.8E 1.8F 2.1E 1.7F
<b>3</b> Tu	0524 1117 1735 2333	0749 1350 2005	1.9F 2.1E 2.1F	<b>18</b> W	0615 1214 1840	0947 1507 2211	2.2F 2.3E 2.2F	<b>3</b> F	0610 1214 1847	0854 1452 2123	2.4E 2.4F 2.6E 2.2F	<b>18</b> Sa	0710 1317 1953	1034 1607 2317	2.0F 2.2E 1.8F	<b>3</b> Su	0629 1240 1924	0919 1518 2201	2.5F 2.7E 2.2F	<b>18</b> M	0719 1328 2011	1000 1616 2315	1.9F 2.1E 1.6F
<b>4</b> W	0604 1200 1821	0836 1435 2056	2.2E 2.1F 2.2F	<b>19</b> Th	0700 1300 1929	1031 1551 2256	2.2F 2.3E 2.1F	<b>4</b> Sa	0654 1301 1938	0943 1539 2216	2.5F 2.5E 2.3F	<b>19</b> Su	0752 1358 2038	1044 1644 2349	1.9F 2.2E 1.7F	<b>4</b> M	0720 1331 2018	1012 1609 2257	2.5F 2.8E 2.2F	<b>19</b> Tu	0801 1408 2053	1034 1650 2326	1.9F 2.1E 1.7F
<b>5</b> Th	0645 1243 1908	0923 1519 2146	2.3F 2.5E 2.3F	<b>20</b> F	0743 1345 2017	1109 1632 2338	2.1F 2.3E 2.0F	<b>5</b> Su	0741 1349 2031	1032 1627 2309	2.6F 2.8E 2.3F	<b>20</b> M	0833 1439 2122	1109 1720	1.9F 2.1E	<b>5</b> Tu	0815 1424 2113	1105 1701 2354	2.5F 2.7E 2.2F	<b>20</b> W	0843 1447 2134	1114 1727 2358	2.0F 2.1E 1.7F
<b>6</b> F	0726 1327 1956	1010 1604 2235	2.5F 2.7E 2.4F	<b>21</b> Sa	0826 1428 2103	1134 1711	2.0F 2.2E	<b>6</b> M	0831 1439 2125	1122 1717	2.6F 2.8E	<b>21</b> Tu	0915 1519 2206	1146 1759	1.8E 1.9F 2.1E	<b>6</b> W	0911 1518 2209	1159 1754	2.4F 2.6E	<b>21</b> Th	0925 1527 2215	1157 1806	2.0F 2.1E
<b>7</b> Sa	0809 1412 2045	1057 1650 2326	2.6F 2.8E 2.4F	<b>22</b> Su	0907 1510 2149	1150 1751	1.9F 2.1E	<b>7</b> Tu	0924 1532 2222	1214 1809	2.4E 2.5F 2.7E	<b>22</b> W	0957 1559 2249	1227 1839	1.9F 2.0E	<b>7</b> Th	1010 1614 2305	1256 1850	2.3F 2.5E	<b>22</b> F	1009 1607 2256	1243 1847	2.0F 2.1E
<b>8</b> Su	0854 1459 2138	1145 1737	2.6F 2.8E	<b>23</b> M	0949 1552 2235	1221 1831	1.9F 2.0E	<b>8</b> W	1021 1627 2320	1309 1904	2.3E 2.4F 2.5E	<b>23</b> Th	1041 1640 2333	1311 1921	1.9F 2.0E	<b>8</b> F	1110 1712	1354 1947	2.2F 2.3E	<b>23</b> Sa	1055 1649 2337	1330 1931	2.0F 2.1E
<b>9</b> M	0942 1549 2234	1235 1828	2.5F 2.7E	<b>24</b> Tu	1032 1634 2322	1300 1913	1.8F 1.9E	<b>9</b> Th	1123 1726	1406 2001	2.2F 2.3E	<b>24</b> F	1128 1723	1358 2004	1.9F 1.9E	<b>9</b> Sa	1212 1811	1454 2046	2.0F 2.1E	<b>24</b> Su	1143 1733	1418 2016	2.0F 2.1E
<b>10</b> Tu	1036 1643 2333	1327 1921	2.3F 2.6E	<b>25</b> W	1116 1716	1342 1955	1.8F 1.8E	<b>10</b> Th	1227 1828	1505 2102	2.0F 2.1E	<b>25</b> Sa	1217 1809	1446 2050	1.9F 1.9E	<b>10</b> Su	1314 1910	1601 2150	1.9F 2.0E	<b>25</b> M	1235 1822	1507 2104	2.0F 2.1E
<b>11</b> W	1135 1741	1421 2017	2.3F 2.4E	<b>26</b> Th	1203 1801	1427 2040	1.7F 1.8E	<b>11</b> Sa	1332 1931	1611 2210	1.9F 2.0E	<b>26</b> Su	1309 1858	1536 2139	1.8F 1.9E	<b>11</b> M	1415 2010	1726 2300	1.8F 1.9E	<b>26</b> Tu	1330 1914	1559 2155	1.9F 2.1E
<b>12</b> Th	1240 1844	1519 2118	2.1F 2.2E	<b>27</b> F	1253 1848	1515 2128	1.7F 1.7E	<b>12</b> Su	1435 2034	1737 2326	1.8F 1.9E	<b>27</b> M	1403 1949	1628 2231	1.8F 1.9E	<b>12</b> Tu	1611 2109	1942 2507	1.7F 1.7F	<b>27</b> W	1427 2011	1654 2250	1.9F 2.1E
<b>13</b> F	1346 1949	1623 2226	2.0F 2.0E	<b>28</b> Sa	1344 1938	1606 2219	1.7F 1.7E	<b>13</b> M	1537 2135	1900 2135	1.9F 1.9F	<b>28</b> Tu	1457 2044	1722 2325	1.9F 2.0E	<b>13</b> W	1611 2205	1942 2507	1.7F 1.7F	<b>28</b> Th	1525 2110	1750 2347	1.9F 2.1E
<b>14</b> Sa	1452 2055	1737 2342	1.9F 2.0E	<b>29</b> Su	1437 2029	1658 2312	1.7F 1.8E	<b>14</b> Tu	1634 2232	2005 2232	1.9F 1.9F	<b>29</b> W	1551 2139	1816	1.9F	<b>14</b> Th	1705 2258	2039 2558	1.7F	<b>29</b> F	1622 2210	1848 2510	1.9F
<b>15</b> Su	1555 2158	1910	1.9F 1.9F	<b>30</b> M	1529 2121	1751 2121	1.8F 1.8E	<b>15</b> W	1100 1728 2325	1403 2101	2.2E 2.0F	<b>30</b> Th	1009 1644 2234	1247 1911	2.3E 2.0F	<b>15</b> F	1120 1755 2347	1429 2129	2.1E 1.8F	<b>30</b> Sa	1035 1719 2309	1313 1948	2.5E 2.0F
				<b>31</b> Tu	0401 0955 1619 2212	0625 1230 1844	1.9F 2.0E 1.9F													<b>31</b> Su	0517 1129 1815	0803 1407 2052	2.2E 2.4F 2.0F

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

# Portland Harbor Entrance 2017

F—Flood, Dir. 310° True E—Ebb, Dir. 138° True

January				February				March							
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum	
	h	m	knots		h	m	knots		h	m	knots		h	m	knots
<b>1</b> Su	0110	0420	1.0E	<b>16</b> M	0220	0502	1.0E	<b>1</b> W	0204	0526	1.2E	<b>16</b> Th	0314	0611	1.0E
	0735	1016	0.7F		0844	1102	0.6F		0843	1132	0.8F		1006	1215	0.6F
	1301	1644	1.2E		1423	1726	1.1E		1419	1751	1.3E		1525	1832	1.0E
	2022	2256	0.7F		2123	2343	0.6F		2114				2226		
<b>2</b> M	0154	0506	1.1E	<b>17</b> Tu	0310	0553	1.0E	<b>2</b> Th	0248	0615	1.2E	<b>17</b> F	0351	0700	0.9E
	0823	1107	0.7F		0943	1155	0.6F		0938	1225	0.8F		1057	1303	0.5F
	1348	1730	1.2E		1511	1815	1.1E		1513	1842	1.2E		1608	1920	0.9E
	2106	2344	0.8F		2214				2205				2313		
<b>3</b> Tu	0238	0554	1.1E	<b>18</b> W		0029	0.6F	<b>3</b> F	0049	0099	0.9F	<b>18</b> Sa	0428	0750	0.9E
	0914	1159	0.7F		0356	0644	0.9E		0334	0707	1.3E		1148	1350	0.5F
	1437	1818	1.2E		1039	1245	0.5F		1035	1317	0.9F		1652	2011	0.8E
	2151				1558	1905	1.0E		1609	1936	1.2E		2226		
<b>4</b> W		0032	0.8F	<b>19</b> Th	0440	0736	0.9E	<b>4</b> Sa	0424	0802	1.3E	<b>19</b> Su	0510	0843	0.9E
	0322	0643	1.1E		1132	1333	0.5F		1135	1410	0.8F		1241	1439	0.5F
	1008	1250	0.7F		1645	1956	0.9E		1708	2033	1.2E		1742	2103	0.8E
	1529	1909	1.2E		2350				2355						
<b>5</b> Th	0406	0735	1.2E	<b>20</b> F	0522	0828	0.9E	<b>5</b> Su	0521	0901	1.2E	<b>20</b> M	0601	0937	0.9E
	1103	1341	0.8F		1224	1421	0.5F		1238	1506	0.8F		1335	1531	0.5F
	1625	2003	1.2E		1735	2047	0.9E		1815	2132	1.1E		1840	2156	0.8E
	2328														
<b>6</b> F	0454	0830	1.2E	<b>21</b> Sa	0037	0241	0.5F	<b>6</b> M	0056	0326	0.8F	<b>21</b> Tu	0140	0346	0.5F
	1200	1434	0.8F		0606	0920	0.9E		0629	1002	1.2E		0700	1030	0.9E
	1727	2059	1.2E		1316	1511	0.5F		1344	1606	0.7F		1428	1625	0.5F
					1830	2139	0.8E		1927	2232	1.1E		1942	2248	0.8E
<b>7</b> Sa	0021	0257	0.8F	<b>22</b> Su	0126	0328	0.5F	<b>7</b> Tu	0158	0425	0.8F	<b>22</b> W	0230	0440	0.5F
	0548	0926	1.2E		0655	1013	0.9E		0744	1103	1.2E		0758	1121	1.0E
	1300	1530	0.8F		1408	1603	0.5F		1450	1709	0.7F		1518	1720	0.5F
	1835	2156	1.1E		1928	2231	0.8E		2036	2331	1.1E		2039	2339	0.9E
<b>8</b> Su	0118	0350	0.8F	<b>23</b> M	0215	0419	0.5F	<b>8</b> W	0300	0526	0.8F	<b>23</b> Th	0317	0532	0.6F
	0649	1024	1.3E		0748	1104	0.9E		0854	1202	1.3E		0849	1209	1.1E
	1402	1629	0.8F		1500	1657	0.5F		1552	1811	0.7F		1603	1811	0.6F
	1946	2254	1.2E		2024	2321	0.9E		2139				2128		
<b>9</b> M	0217	0447	0.8F	<b>24</b> Tu	0303	0511	0.6F	<b>9</b> Th		0028	1.2E	<b>24</b> F	0401	0621	0.7F
	0756	1122	1.3E		0838	1153	1.0E		0358	0624	0.8F		0932	1255	1.2E
	1503	1728	0.8F		1548	1750	0.5F		0956	1259	1.3E		1642	1857	0.7F
	2052	2351	1.2E		2114				1648	1909	0.7F		2211		
<b>10</b> Tu	0315	0544	0.8F	<b>25</b> W		0009	0.9E	<b>10</b> F		0122	1.2E	<b>25</b> Sa	0441	0707	0.7F
	0901	1219	1.4E		0347	0601	0.6F		0453	0718	0.8F		1011	1338	1.2E
	1602	1826	0.8F		0923	1240	1.1E		1051	1352	1.3E		1719	1940	0.8F
	2152				1632	1839	0.6F		1739	2000	0.7F		2250		
<b>11</b> W	0410	0640	0.9F	<b>26</b> Th	0428	0648	0.7F	<b>11</b> Sa	0544	0808	0.8F	<b>26</b> Su	0519	0751	1.1E
	1002	1314	1.4E		1002	1324	1.1E		1141	1441	1.3E		1051	1421	1.3E
	1658	1921	0.8F		1713	1925	0.7F		1827	2048	0.7F		1754	2022	0.8F
	2248				2240								2327		
<b>12</b> Th	0503	0732	0.9F	<b>27</b> F	0507	0732	0.7F	<b>12</b> Su	0019	0303	1.2E	<b>27</b> M	0557	0836	0.9F
	1058	1407	1.4E		1039	1407	1.2E		0635	0856	0.7F		1134	1505	1.3E
	1751	2014	0.8F		1751	2008	0.7F		1914	2134	0.7F		1830	2105	0.9F
	2342				2320										
<b>13</b> F	0555	0823	0.8F	<b>28</b> Sa	0544	0816	0.8F	<b>13</b> M	0106	0351	1.1E	<b>28</b> Tu	0005	0325	1.3E
	1152	1458	1.4E		1115	1449	1.3E		0726	0945	0.7F		0639	0923	0.9F
	1844	2106	0.8F		1827	2052	0.8F		1314	1613	1.2E		1220	1550	1.4E
					2359				2002	2220	0.6F		1909	2151	0.9F
<b>14</b> Sa	0035	0322	1.2E	<b>29</b> Su	0623	0901	0.8F	<b>14</b> Tu	0152	0438	1.1E	<b>14</b> Tu	0037	0326	1.1E
	0649	0915	0.8F		1154	1532	1.3E		0819	1035	0.6F		0704	0920	0.7F
	1243	1548	1.3E		1905	2137	0.8F		1359	1659	1.1E		1250	1546	1.1E
	1937	2158	0.7F						2050	2307	0.6F		1929	2144	0.6F
<b>15</b> Su	0128	0412	1.1E	<b>30</b> M	0040	0353	1.1E	<b>15</b> W	0235	0524	1.0E	<b>15</b> W	0115	0410	1.1E
	0745	1008	0.7F		0705	0949	0.8F		0913	1126	0.6F		0751	1006	0.6F
	1334	1637	1.2E		1239	1616	1.3E		1443	1745	1.0E		1331	1630	1.1E
	2030	2252	0.6F		1945	2223	0.8F		2138	2352	0.6F		2014	2228	0.6F
				<b>31</b> Tu	0121	0438	1.2E								
					0752	1039	0.8F								
					1327	1702	1.3E								
					2028	2311	0.8F								
				<b>31</b> F	0100	0434	1.4E								
					0754	1043	0.9F								
					1349	1703	1.3E								
					2017	2302	0.9F								

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

# Portland Harbor Entrance 2017

F—Flood, Dir. 310° True    E—Ebb, Dir. 138° True

April				May				June															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots												
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m												
<b>1</b> Sa	0152	0525	1.4E	<b>16</b> Su	0222	0553	1.0E	<b>1</b> M	0236	0601	1.3E	<b>16</b> Th	0427	0738	1.1E	<b>16</b> F	0330	0717	1.1E				
	0852	1138	0.9F		0950	1204	0.6F		0946	1217	0.8F		1135	1351	0.6F		1059	1330	0.7F				
	1443	1755	1.3E		1503	1815	0.9E		1529	1831	1.1E		1719	2009	1.0E		1621	1944	1.0E				
	2115	2357	0.8F		2159				2202				2359				2319						
<b>2</b> Su	0248	0620	1.3E	<b>17</b> M	0303	0642	1.0E	<b>2</b> Tu	0338	0659	1.2E	<b>17</b> W	0314	0700	1.0E	<b>2</b> F	0529	0836	1.0E	<b>17</b> Sa	0421	0808	1.1E
	0956	1234	0.8F		1042	1254	0.6F		1052	1314	0.7F		1057	1315	0.6F		1231	1442	0.6F		1143	1416	0.8F
	1540	1851	1.2E		1547	1904	0.9E		1630	1929	1.1E		1608	1924	0.9E		1819	2109	0.9E		1705	2036	1.0E
	2217				2249				2308				2305										
<b>3</b> M	0348	0718	1.2E	<b>18</b> Tu	0347	0733	0.9E	<b>3</b> W	0443	0800	1.1E	<b>18</b> Th	0359	0751	1.0E	<b>3</b> Sa	0059	0301	0.5F	<b>18</b> Su	0010	0237	0.7F
	1103	1330	0.8F		1134	1342	0.6F		1156	1411	0.7F		1143	1402	0.6F		0632	0934	1.0E		0518	0902	1.1E
	1640	1949	1.1E		1634	1956	0.8E		1736	2031	1.0E		1656	2017	0.9E		1324	1533	0.6F		1753	2129	1.1E
	2321				2340								2356				1916	2208	0.9E				
<b>4</b> Tu	0453	0819	1.2E	<b>19</b> W	0434	0826	0.9E	<b>4</b> Th	0014	0227	0.6F	<b>19</b> F	0449	0843	1.0E	<b>4</b> Su	0158	0357	0.5F	<b>19</b> M	0103	0330	0.7F
	1210	1428	0.7F		1224	1432	0.6F		0551	0902	1.1E		1228	1449	0.7F		0735	1029	0.9E		0622	0956	1.1E
	1746	2050	1.0E		1727	2049	0.8E		1257	1508	0.6F		1746	2110	0.9E		1417	1624	0.5F		1320	1553	0.8F
									1843	2133	1.0E						2009	2302	1.0E		1846	2223	1.2E
<b>5</b> W	0026	0246	0.7F	<b>20</b> Th	0031	0245	0.5F	<b>5</b> F	0118	0326	0.6F	<b>20</b> Sa	0048	0307	0.6F	<b>5</b> M	0252	0454	0.5F	<b>20</b> Tu	0157	0426	0.8F
	0607	0923	1.1E		0526	0919	0.9E		0701	1003	1.0E		0547	0935	1.0E		0832	1122	0.9E		0731	1051	1.1E
	1317	1528	0.6F		1313	1522	0.6F		1355	1606	0.6F		1314	1538	0.7F		1506	1714	0.5F		1413	1646	0.8F
	1858	2153	1.0E		1825	2143	0.9E		1946	2234	1.0E		1837	2202	1.0E		2057	2352	1.0E		1943	2317	1.3E
<b>6</b> Th	0132	0346	0.6F	<b>21</b> F	0124	0337	0.6F	<b>6</b> Sa	0220	0426	0.5F	<b>21</b> Su	0139	0400	0.6F	<b>6</b> Tu	0341	0547	0.5F	<b>21</b> W	0252	0522	0.8F
	0722	1026	1.1E		0625	1011	1.0E		0806	1101	1.0E		0652	1028	1.1E		0923	1210	1.0E		0835	1145	1.2E
	1420	1632	0.6F		1400	1613	0.6F		1450	1704	0.6F		1401	1628	0.7F		1552	1801	0.6F		1505	1739	0.9F
	2007	2254	1.0E		1922	2236	0.9E		2043	2331	1.0E		1929	2254	1.1E		2139				2040		
<b>7</b> F	0236	0450	0.6F	<b>22</b> Sa	0215	0431	0.6F	<b>7</b> Su	0317	0527	0.5F	<b>22</b> M	0229	0455	0.7F	<b>7</b> W	0426	0634	0.6F	<b>22</b> Th	0010	0237	0.7F
	0829	1126	1.1E		0728	1102	1.1E		0903	1154	1.0E		0758	1120	1.1E		1008	1255	1.0E		0345	0616	0.9F
	1518	1736	0.6F		1444	1704	0.7F		1540	1756	0.6F		1447	1718	0.8F		1634	1844	0.6F		0934	1238	1.3E
	2108	2353	1.0E		2013	2326	1.0E		2132				2018	2345	1.3E		2217				1557	1831	0.9F
<b>8</b> Sa	0335	0552	0.6F	<b>23</b> Su	0302	0524	0.7F	<b>8</b> M	0407	0620	0.6F	<b>23</b> Tu	0318	0548	0.8F	<b>8</b> Th	0508	0717	0.6F	<b>23</b> F	0103	0330	0.7F
	0927	1221	1.1E		0827	1151	1.2E		0953	1242	1.0E		0858	1211	1.2E		1048	1338	1.0E		0438	0709	0.9F
	1609	1831	0.6F		1527	1752	0.8F		1624	1839	0.6F		1534	1807	0.9F		1713	1926	0.6F		1029	1330	1.3E
	2200				2058				2214				2106				2251				1647	1922	0.9F
<b>9</b> Su	0427	0645	0.7F	<b>24</b> M	0346	0615	0.8F	<b>9</b> Tu	0451	0704	0.6F	<b>24</b> W	0405	0639	0.9F	<b>9</b> F	0549	0800	0.7F	<b>24</b> Sa	0155	0382	1.1E
	1018	1310	1.1E		0921	1239	1.2E		1037	1326	1.1E		0952	1301	1.3E		1126	1420	1.0E		0530	0800	0.9F
	1654	1914	0.7F		1607	1837	0.9F		1705	1918	0.6F		1619	1854	0.9F		1751	2008	0.7F		1122	1421	1.3E
	2245				2139				2251				2153				2325				1737	2013	0.9F
<b>10</b> M	0513	0730	0.7F	<b>25</b> Tu	0428	0703	0.9F	<b>10</b> W	0532	0745	0.7F	<b>25</b> Th	0452	0728	1.0F	<b>10</b> Sa	0630	0843	0.7F	<b>25</b> Su	0247	0474	1.5E
	1103	1354	1.2E		1011	1327	1.3E		1118	1408	1.1E		1044	1351	1.3E		1204	1503	1.0E		0624	0853	0.9F
	1736	1952	0.7F		1647	1921	0.9F		1744	1956	0.7F		1705	1942	1.0F		1829	2051	0.7F		1216	1513	1.3E
	2325				2220				2324				2242				2359				1830	2105	0.9F
<b>11</b> Tu	0556	0812	0.7F	<b>26</b> W	0511	0749	1.0F	<b>11</b> Th	0613	0826	0.7F	<b>26</b> F	0540	0817	1.0F	<b>11</b> Su	0714	0929	0.7F	<b>26</b> M	0328	0555	1.2E
	1144	1437	1.1E		1100	1414	1.4E		1156	1449	1.1E		1135	1441	1.3E		1244	1546	1.0E		0720	0947	0.8F
	1815	2029	0.7F		1729	2006	1.0F		1822	2037	0.7F		1753	2031	1.0F		1910	2138	0.7F		1312	1605	1.2E
					2302				2356				2333								1927	2200	0.8F
<b>12</b> W	0001	0259	1.2E	<b>27</b> Th	0555	0837	1.0F	<b>12</b> F	0654	0909	0.7F	<b>27</b> Sa	0632	0909	0.9F	<b>12</b> M	0037	0411	1.1E	<b>27</b> Tu	0120	0432	1.3E
	0638	0853	0.7F		1149	1502	1.4E		1233	1531	1.0E		1227	1531	1.3E		0759	1018	0.6F		0818	1045	0.7F
	1224	1518	1.1E		1813	2053	1.0F		1902	2120	0.6F		1844	2122	0.9F		1326	1630	1.0E		1409	1658	1.1E
	1855	2109	0.6F		2348												1955	2227	0.6F		2029	2258	0.7F
<b>13</b> Th	0034	0340	1.1E	<b>28</b> F	0644	0928	1.0F	<b>13</b> Sa	0029	0355	1.1E	<b>28</b> Su	0028	0355	1.4E	<b>13</b> Tu	0117	0456	1.1E	<b>28</b> W	0216	0524	1.3E
	0721	0937	0.7F		1241	1551	1.3E		0739	0956	0.6F		0729	1004	0.9F		0846	1108	0.6F		0918	1142	0.7F
	1303	1600	1.0E		1902	2143	0.9F		1312	1614	1.0E		1323	1623	1.3E		1410	1716	0.9E		1506	1752	1.1E
	1937	2152	0.6F						1944	2207	0.6F		1940	2218	0.8F		2045	2318	0.6F		2134	2356	0.7F
<b>14</b> F	0108	0423	1.1E	<b>29</b> Sa	0040	0413	1.5E	<b>14</b> Su	0107	0439	1.1E	<b>29</b> M	0127	0449	1.4E	<b>14</b> W	0200	0541	1.1E	<b>29</b> Th	0312	0617	1.2E
	0807	1024	0.6F		0738	1022	0.9F		0828	1045	0.6F		0830	1102	0.8F		0932	1157	0.7F		1015	1236	0.7F
	1342																						

# Portland Harbor Entrance 2017

F—Flood, Dir. 310° True    E—Ebb, Dir. 138° True

July				August				September																		
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum												
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	h	m	knots										
<b>1</b> Sa	0501	0806	1.0E	0.5F	<b>16</b> Su	0358	0737	1.1E	0.7F	<b>1</b> Tu	0055	0250	0.5F	<b>16</b> W	0004	0237	0.8F	<b>1</b> F	0211	0404	0.4F	<b>16</b> Sa	0201	0417	0.7F	
	1200	1411	0.6F	0.9E		1103	1343	0.8F	0.8E		0613	0919	0.8E		0536	0902	1.1E		0727	1030	0.8E		0743	1041	1.1E	
	1745	2040	0.9E	0.9E		1626	2003	1.1E	1.1E		1307	1508	0.5F		1222	1456	0.8F		1414	1619	0.5F		1413	1636	0.7F	
<b>2</b> Su	0034	0232	0.5F	0.9E	<b>17</b> M	0455	0831	1.1E	0.8F	<b>2</b> W	0149	0342	0.5F	0.9E	<b>17</b> Th	0109	0335	0.8F	<b>2</b> Sa	0303	0500	0.5F	<b>17</b> Su	0305	0522	0.7F
	0558	0901	0.9E	0.9E		1153	1431	0.8F	0.8E		0711	1011	0.8E	0645		1001	1.1E	0826		1121	0.8E	0851		1141	1.1E	
	1251	1456	0.5F	0.9E		1715	2058	1.2E	1.2E		1357	1558	0.5F	1900		2231	1.2E	1503		1713	0.6F	1516		1739	0.7F	
<b>3</b> M	0128	0324	0.5F	0.9E	<b>18</b> Tu	0030	0302	0.8F	1.0E	<b>3</b> Th	0242	0437	0.5F	1.0E	<b>18</b> F	0215	0436	0.7F	<b>3</b> Su	0349	0553	0.6F	<b>18</b> M	0401	0623	0.7F
	0657	0955	0.9E	0.9E		0557	0927	1.1E	0.8E		0808	1103	0.8E	0757		1100	1.1E	0916		1210	0.9E	0950		1238	1.2E	
	1342	1544	0.5F	0.9E		1247	1522	0.8F	1.0E		1446	1651	0.5F	1426		1654	0.8F	1549		1804	0.6F	1614		1838	0.8F	
<b>4</b> Tu	0221	0417	0.5F	0.9E	<b>19</b> W	0129	0359	0.8F	1.0E	<b>4</b> F	0333	0531	0.5F	1.0E	<b>19</b> Sa	0319	0539	0.7F	<b>4</b> M	0430	0641	0.7F	<b>19</b> Tu	0452	0715	0.7F
	0755	1047	0.9E	0.9E		0706	1025	1.1E	0.9E		0901	1152	0.9E	0904		1158	1.2E	1000		1257	1.0E	1043		1330	1.2E	
	1432	1634	0.5F	0.9E		1345	1617	0.8F	1.0E		1533	1743	0.6F	1527		1755	0.8F	1631		1851	0.7F	1706		1929	0.8F	
<b>5</b> W	0312	0511	0.5F	0.9E	<b>20</b> Th	0231	0457	0.8F	1.0E	<b>5</b> Sa	0419	0623	0.6F	1.0E	<b>20</b> Su	0417	0638	0.8F	<b>5</b> Tu	0506	0724	0.7F	<b>20</b> W	0538	0800	0.8F
	0848	1137	0.9E	0.9E		0814	1121	1.2E	0.9E		0948	1240	0.9E	1004		1254	1.2E	1038		1341	1.1E	1130		1419	1.2E	
	1519	1725	0.5F	0.9E		1443	1715	0.8F	1.0E		1616	1831	0.6F	1623		1851	0.8F	1709		1935	0.8F	1755		2016	0.8F	
<b>6</b> Th	0400	0603	0.5F	0.9E	<b>21</b> F	0331	0556	0.8F	1.0E	<b>6</b> Su	0501	0709	0.6F	1.0E	<b>21</b> M	0510	0733	0.8F	<b>6</b> W	0541	0805	0.8F	<b>21</b> Th	0622	0842	0.7F
	0935	1224	0.9E	0.9E		0918	1217	1.2E	0.9E		1030	1325	1.0E	1059		1348	1.2E	1113		1424	1.2E	1214		1505	1.2E	
	1603	1813	0.6F	0.9E		1539	1811	0.9F	1.0E		1656	1917	0.7F	1717		1944	0.8F	1747		2019	0.8F	1842		2102	0.7F	
<b>7</b> F	0444	0650	0.6F	0.9E	<b>22</b> Sa	0428	0653	0.8F	1.0E	<b>7</b> M	0540	0753	0.7F	1.0E	<b>22</b> Tu	0559	0822	0.8F	<b>7</b> Th	0615	0846	0.8F	<b>22</b> F	0706	0924	0.7F
	1018	1309	1.0E	0.9E		1016	1311	1.2E	0.9E		1110	1409	1.0E	1151		1439	1.2E	1148		1507	1.2E	1255		1550	1.2E	
	1644	1858	0.6F	0.9E		1633	1905	0.9F	1.0E		1735	2000	0.7F	1809		2034	0.8F	1825		2104	0.8F	1930		2147	0.7F	
<b>8</b> Sa	0526	0735	0.6F	0.9E	<b>23</b> Su	0522	0746	0.8F	1.0E	<b>8</b> Tu	0616	0835	0.7F	1.0E	<b>23</b> W	0647	0909	0.8F	<b>8</b> F	0651	0929	0.9F	<b>23</b> Sa	0752	1007	0.6F
	1058	1352	1.0E	0.9E		1111	1404	1.3E	1.0E		1148	1452	1.1E	1240		1528	1.2E	1224		1550	1.3E	1335		1634	1.1E	
	1722	1942	0.7F	0.9E		1726	1958	0.9F	1.0E		1813	2044	0.8F	1901		2124	0.7F	1906		2151	0.9F	2019		2235	0.6F	
<b>9</b> Su	0607	0818	0.7F	0.9E	<b>24</b> M	0615	0838	0.8F	1.0E	<b>9</b> W	0652	0919	0.8F	1.0E	<b>24</b> Th	0735	0956	0.7F	<b>9</b> Sa	0731	1015	0.9F	<b>24</b> Su	0840	1053	0.6F
	1137	1435	1.0E	0.9E		1205	1456	1.2E	1.0E		1225	1535	1.1E	1327		1615	1.1E	1304		1636	1.3E	1413		1719	1.0E	
	1801	2025	0.7F	0.9E		1820	2049	0.9F	1.0E		1853	2130	0.8F	1954		2214	0.7F	1952		2242	0.9F	2110		2324	0.6F	
<b>10</b> M	0647	0903	0.7F	0.9E	<b>25</b> Tu	0707	0931	0.8F	1.0E	<b>10</b> Th	0729	1003	0.8F	1.0E	<b>25</b> F	0824	1044	0.6F	<b>10</b> Su	0817	1104	0.8F	<b>25</b> M	0929	1141	0.5F
	1217	1519	1.0E	0.9E		1259	1547	1.2E	1.0E		1304	1619	1.1E	1412		1703	1.1E	1348		1723	1.3E	1450		1806	1.0E	
	1840	2110	0.7F	0.9E		1915	2143	0.8F	1.0E		1936	2219	0.8F	2048		2305	0.6F	2043		2334	0.9F	2203				
<b>11</b> Tu	0009	0344	1.2E	0.7F	<b>26</b> W	0108	0413	1.3E	0.8F	<b>11</b> F	0108	0442	1.3E	0.8F	<b>26</b> Sa	0227	0524	1.1E	<b>11</b> M	0229	0552	1.3E	<b>26</b> Tu	0014	0614	0.6F
	0728	0949	0.7F	0.9E		0800	1024	0.7F	0.8F		0809	1050	0.8F	0914		1131	0.6F	0907		1154	0.8F	0323		0628	0.9E	
	1258	1603	1.0E	0.7F		1352	1638	1.1E	0.8F		1343	1704	1.2E	1455		1750	1.0E	1436		1814	1.3E	1019		1229	0.5F	
<b>12</b> W	0049	0427	1.2E	0.7F	<b>27</b> Th	0200	0502	1.2E	0.8F	<b>12</b> Sa	0157	0529	1.2E	0.8F	<b>27</b> Su	0312	0611	1.0E	<b>12</b> Tu	0322	0644	1.2E	<b>27</b> W	0102	0717	0.8E
	0809	1037	0.7F	0.9E		0853	1117	0.7F	0.8F		0852	1137	0.8F	1005		1217	0.6F	1002		1246	0.8F	1108		1316	0.5F	
	1340	1648	1.0E	0.7F		1443	1729	1.1E	0.8F		1424	1751	1.2E	1535		1839	1.0E	1528		1908	1.3E	1611		1948	0.9E	
<b>13</b> Th	0132	0511	1.2E	0.7F	<b>28</b> F	0251	0552	1.1E	0.8F	<b>13</b> Su	0247	0617	1.2E	0.8F	<b>28</b> M	0356	0700	0.9E	<b>13</b> W	0418	0740	1.2E	<b>28</b> Th	0452	0809	0.8E
	0850	1125	0.7F	0.9E		0947	1206	0.6F	0.8F		0939	1224	0.8F	1054		1302	0.5F	1101		1339	0.8F	1158		1405	0.5F	
	1421	1734	1.0E	0.7F		1532	1821	1.0E	0.8F		1507	1841	1.2E	1614		1930	0.9E	1626		2007	1.2E	1659		2042	0.9E	
<b>14</b> F	0218	0557	1.2E	0.7F	<b>29</b> Sa	0340	0642	1.0E	0.8F	<b>14</b> M	0339	0709	1.2E	0.8F	<b>29</b> Tu	0440	0751	0.8E	<b>14</b> Th	0519	0839	1.1E	<b>29</b> F	0044	0241	0.5F
	0933	1211	0.8F	0.9E		1038	1252	0.6F	0.8F		1029	1313	0.8F	1143		1347	0.5F	1203		1435	0.8F	0548		0903	0.8E	
	1502	1822	1.1E	0.9E		1618	1913	1.0E	0.8F		1553	1934	1.2E	1656		2022	0.9E	1733		2109	1.2E	1250		1455	0.5F	
<b>15</b> Sa	0307	0646	1.2E	0.7F	<b>30</b> Su	0429	0733	0.9E	0.8F	<b>15</b> Tu	0435	0804	1.2E	0.8F	<b>30</b> W	0022	0219	0.5F	<b>15</b> F	0054	0314	0.7F	<b>30</b> Sa	0137	0334	0.5F
	1017	1257	0.8F	0.9E		1128	1336	0.6F	0.8F		1123	1403	0.8F	1232		1435	0.5F	1308		1534	0.7F	0648		0957	0.8E	
	1543	1911	1.1E	0.9E		1702	2005	0.9E	0.9E		1646	2030	1.2E	1746		2117	0.9E	1851		2212	1.2E	1342		1548	0.5F	
<b>31</b> M	0002	0202	0.5F	0.9E	<b>31</b> M	0002	0202	0.5F	0.9E	<b>31</b> Th	0117	0310	0.5F	0.9E	<b>31</b> F	0117	0310	0.5F	<b>31</b> Sa	0137	0334	0.5F				
	0519	0826	0.9E	0.9E		0519	0826	0.9E	0.9E		0625	0936	0.8E	0625		0936	0.8E	0629		0940	1.1E	0546	0957	0.8E		
	1217	1421	0.5F	0.9E		1217	1421	0.5F	0.9E		1323	1525	0.5F	1323		1525	0.5F	1308		1534	0.7F	1342	1548	0.5F		
	1748	2059	0.9E	0.9E		1748	2059	0.9E																		

# Portland Harbor Entrance 2017

F—Flood, Dir. 310° True    E—Ebb, Dir. 138° True

October				November				December																				
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots																	
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m																	
<b>1</b> Su	0226	0428	0.5F	<b>16</b> M	0244	0501	0.6F	<b>1</b> W	0310	0531	0.7F	<b>16</b> Th	0401	0617	0.6F	<b>1</b> F	0312	0543	0.8F	<b>16</b> Sa	0417	0627	0.6F					
	0749	1050	0.9E		0835	1123	1.1E		0840	1155	1.1E		0953	1246	1.1E		0840	1211	1.3E		1004	1305	1.1E		1653	1902	0.6F	
	1434	1643	0.5F		1505	1722	0.7F		1533	1755	0.7F		1632	1847	0.6F		1544	1816	0.9F		1653	1902	0.6F		2236			
	1955	2319	1.0E		2057	2352	1.1E		2101				2220				2126				2236							
<b>2</b> M	0312	0520	0.6F	<b>17</b> Tu	0339	0600	0.7F	<b>2</b> Th	0349	0617	0.8F	<b>17</b> F	0446	0700	0.6F	<b>2</b> Sa	0356	0631	0.9F	<b>17</b> Su	0458	0709	0.6F		0121	1.0E		
	0840	1140	0.9E		0931	1219	1.1E		0919	1241	1.2E		1034	1331	1.2E		0926	1300	1.4E		1042	1348	1.1E		1042	1348	1.1E	
	1521	1735	0.6F		1601	1821	0.7F		1613	1843	0.8F		1715	1929	0.7F		1629	1904	0.9F		1735	1944	0.6F		1735	1944	0.6F	
	2046				2153				2150				2303				2216				2316				2316			
<b>3</b> Tu	0352	0608	0.7F	<b>18</b> W	0428	0650	0.7F	<b>3</b> F	0428	0700	0.9F	<b>18</b> Sa	0527	0739	0.6F	<b>3</b> Su	0441	0718	0.9F	<b>18</b> M	0537	0751	0.6F		0204	1.0E		
	0923	1227	1.0E		1020	1310	1.2E		0958	1326	1.4E		1112	1414	1.2E		1014	1348	1.5E		1117	1431	1.1E		1117	1431	1.1E	
	1604	1824	0.7F		1651	1911	0.7F		1652	1928	0.9F		● 1757	2010	0.7F		○ 1716	1953	1.0F		● 1817	2027	0.6F		1817	2027	0.6F	
	2132				2243				2236				2343				2306				2354				2354			
<b>4</b> W	0429	0651	0.8F	<b>19</b> Th	0513	0732	0.7F	<b>4</b> Sa	0507	0744	0.9F	<b>19</b> Su	0607	0819	0.6F	<b>4</b> M	0526	0805	1.0F	<b>19</b> Tu	0616	0834	0.7F		0247	1.0E		
	1000	1311	1.2E		1104	1357	1.2E		1037	1412	1.4E		1146	1456	1.1E		1103	1438	1.5E		1152	1513	1.1E		1152	1513	1.1E	
	1642	1909	0.8F		● 1737	1955	0.7F		○ 1734	2014	1.0F		1840	2052	0.7F		1805	2042	1.0F		1901	2112	0.6F		1901	2112	0.6F	
	2214				2327				2323								2357				2357				2357			
<b>5</b> Th	0504	0732	0.9F	<b>20</b> F	0555	0811	0.7F	<b>5</b> Su	0549	0829	0.9F	<b>20</b> M	0647	0901	0.6F	<b>5</b> Tu	0614	0855	0.9F	<b>20</b> W	0657	0919	0.6F		0034	0.330	1.0E	
	1035	1355	1.3E		1143	1440	1.2E		1121	1459	1.5E		1220	1539	1.1E		1157	1529	1.5E		1228	1556	1.1E		1228	1556	1.1E	
	1719	1953	0.9F		1820	2036	0.7F		1819	2102	1.0F		1924	2137	0.6F		1858	2135	0.9F		1946	2200	0.6F		1946	2200	0.6F	
	2257																											
<b>6</b> F	0539	0814	0.9F	<b>21</b> Sa	0637	0850	0.7F	<b>6</b> M	0634	0917	0.9F	<b>21</b> Tu	0729	0947	0.6F	<b>6</b> W	0707	0949	0.9F	<b>21</b> Th	0741	1008	0.6F		0116	0.414	1.0E	
	1110	1438	1.4E		1220	1523	1.2E		1209	1547	1.5E		1257	1622	1.1E		1254	1621	1.4E		1307	1640	1.1E		0741	1008	0.6F	
	1757	2038	0.9F		1904	2119	0.7F		1909	2154	0.9F		2013	2226	0.6F		1957	2232	0.8F		2032	2250	0.6F		1307	1640	1.1E	
	2342																				2032	2250	0.6F		2032	2250	0.6F	
<b>7</b> Sa	0617	0857	0.9F	<b>22</b> Su	0719	0933	0.6F	<b>7</b> Tu	0724	1009	0.9F	<b>22</b> W	0815	1036	0.6F	<b>7</b> Th	0806	1047	0.8F	<b>22</b> F	0831	1059	0.6F		0159	0.500	0.9E	
	1148	1523	1.4E		1255	1606	1.1E		1303	1639	1.4E		1336	1708	1.1E		1353	1715	1.4E		1348	1724	1.1E		1348	1724	1.1E	
	1839	2126	0.9F		1950	2205	0.6F		2006	2250	0.9F		2104	2318	0.6F		2059	2331	0.8F		2118	2339	0.6F		2118	2339	0.6F	
<b>8</b> Su	0030	0350	1.3E	<b>23</b> M	0131	0426	1.0E	<b>8</b> W	0159	0507	1.2E	<b>23</b> Th	0226	0528	0.9E	<b>8</b> F	0246	0543	1.2E	<b>23</b> Sa	0242	0546	0.9E		0242	0.546	0.9E	
	0700	0943	0.9F		0804	1018	0.6F		0821	1106	0.8F		0905	1128	0.6F		0912	1146	0.8F		0923	1150	0.6F		0923	1150	0.6F	
	1232	1610	1.4E		1331	1650	1.0E		1401	1733	1.4E		1418	1754	1.0E		1454	1810	1.3E		1430	1810	1.1E		1430	1810	1.1E	
	1927	2216	0.9F		2040	2254	0.6F		2110	2347	0.8F		2155				2201				2202				2202			
<b>9</b> M	0120	0438	1.3E	<b>24</b> Tu	0211	0510	0.9E	<b>9</b> Th	0256	0602	1.2E	<b>24</b> F	0311	0616	0.6F	<b>9</b> Sa	0346	0640	1.1E	<b>24</b> Su	0324	0634	0.9E		0026	0.7F		
	0748	1034	0.9F		0852	1107	0.5F		0925	1204	0.8F		0958	1219	0.6F		1019	1244	0.7F		1015	1239	0.6F		1015	1239	0.6F	
	1321	1659	1.4E		1410	1736	1.0E		1502	1829	1.3E		1501	1843	1.0E		1555	1907	1.2E		1514	1858	1.1E		1514	1858	1.1E	
	2021	2310	0.9F		2133	2345	0.6F		2216				2243				2301				2244				2244			
<b>10</b> Tu	0213	0528	1.3E	<b>25</b> W	0253	0557	0.9E	<b>10</b> F	0356	0659	1.1E	<b>25</b> Sa	0357	0706	0.9E	<b>10</b> Su	0445	0739	1.1E	<b>25</b> M	0404	0724	1.0E		0111	0.7F		
	0842	1128	0.8F		0942	1158	0.5F		1031	1302	0.8F		1051	1308	0.6F		1125	1340	0.7F		1104	1328	0.6F		1104	1328	0.6F	
	1415	1751	1.3E		1451	1824	1.0E		1606	1928	1.2E		1545	1932	1.0E		1656	2006	1.1E		1602	1947	1.1E		1602	1947	1.1E	
	2121				2227				2320				2328				2358				2326				2326			
<b>11</b> W	0307	0622	1.2E	<b>26</b> Th	0337	0646	0.8E	<b>11</b> Sa	0459	0759	1.1E	<b>26</b> Su	0442	0757	0.9E	<b>11</b> M	0544	0839	1.0E	<b>26</b> Tu	0445	0814	1.0E		0156	0.7F		
	0941	1223	0.8F		1033	1247	0.5F		1138	1359	0.7F		1143	1357	0.6F		1228	1436	0.6F		1153	1417	0.6F		1153	1417	0.6F	
	1512	1848	1.3E		1534	1915	0.9E		1713	2029	1.1E		1632	2023	1.0E		1801	2104	1.0E		1654	2039	1.0E		1654	2039	1.0E	
	2227				2319																							
<b>12</b> Th	0405	0718	1.1E	<b>27</b> F	0423	0737	0.8E	<b>12</b> Su	0605	0901	1.0E	<b>27</b> M	0529	0850	0.9E	<b>12</b> Tu	0644	0939	1.0E	<b>27</b> W	0529	0906	1.1E		0241	0.7F		
	1044	1319	0.8F		1125	1337	0.5F		1244	1457	0.6F		1234	1447	0.6F		1329	1532	0.5F		1243	1507	0.7F		1243	1507	0.7F	
	1615	1947	1.2E		1620	2007	0.9E		1823	2131	1.1E		1726	2114	1.0E		1906	2202	1.0E		1753	2132	1.0E		1753	2132	1.0E	
	2333																											
<b>13</b> F	0508	0818	1.1E	<b>28</b> Sa	0009	0214	0.5F	<b>13</b> M	0121	0334	0.6																	

# Portsmouth Harbor Entrance, N.H., 2017

F—Flood, Dir. 342° True    E—Ebb, Dir. 194° True

January				February				March																													
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots																						
h m	h m	h m		h m	h m	h m		h m	h m	h m		h m	h m	h m																							
<b>1</b> Su	0247	0509	1.5E	<b>16</b> M	0336	0553	1.5E	<b>1</b> W	0335	0618	1.7E	<b>16</b> Th	0445	0705	1.4E	<b>1</b> W	0220	0503	1.8E	<b>16</b> Th	0325	0548	1.5E	0945	1149	1.1F	1554	1810	1.4E	2201							
	0849	1100	1.3F		0938	1141	1.2F		0953	1210	1.4F		1102	1301	1.0F		0840	1055	1.4F		0840	1055	1.4F		0945	1149	1.1F		1554	1810	1.4E	2201					
	1444	1732	1.7E		1553	1820	1.6E		1550	1843	1.8E		1710	1928	1.4E		1443	1728	1.8E		1443	1728	1.8E		0945	1149	1.1F		1554	1810	1.4E	2201					
	2127	2332	1.2F		2213				2221				2321				2104	2319	1.4F		2104	2319	1.4F		0945	1149	1.1F		1554	1810	1.4E	2201					
<b>2</b> M	0328	0556	1.5E	<b>17</b> Tu	0426	0644	1.4E	<b>2</b> Th	0421	0709	1.7E	<b>17</b> F	0533	0753	1.4E	<b>2</b> Th	0304	0553	1.8E	<b>17</b> F	0304	0553	1.8E		0410	0633	1.5E		1035	1235	1.0F		1641	1856	1.4E	2249	
	0933	1147	1.3F		1033	1233	1.1F		1046	1300	1.3F		1155	1349	1.0F		0931	1145	1.4F		0931	1145	1.4F		0410	0633	1.5E		1035	1235	1.0F		1641	1856	1.4E	2249	
	1525	1820	1.7E		1645	1910	1.5E		1644	1934	1.7E		1801	2015	1.3E		1534	1818	1.8E		1534	1818	1.8E		0410	0633	1.5E		1035	1235	1.0F		1641	1856	1.4E	2249	
	2210				2303				2310								2152				2152				0410	0633	1.5E		1035	1235	1.0F		1641	1856	1.4E	2249	
<b>3</b> Tu	0410	0645	1.6E	<b>18</b> W	0517	0735	1.4E	<b>3</b> F	0512	0801	1.7E	<b>18</b> Sa	0622	0840	1.3E	<b>3</b> F	0352	0644	1.8E	<b>18</b> Sa	0352	0644	1.8E		0456	0719	1.4E		1124	1321	1.0F		1729	1942	1.3E		2336
	1021	1235	1.3F		1128	1325	1.0F		1143	1352	1.3F		1247	1438	0.9F		1025	1237	1.4F		1025	1237	1.4F		0456	0719	1.4E		1124	1321	1.0F		1729	1942	1.3E		2336
	1611	1909	1.7E		1738	1959	1.4E		1744	2027	1.7E		1851	2102	1.2E		1628	1910	1.7E		1628	1910	1.7E		0456	0719	1.4E		1124	1321	1.0F		1729	1942	1.3E		2336
	2254				2352				2352								2243				2243				0456	0719	1.4E		1124	1321	1.0F		1729	1942	1.3E		2336
<b>4</b> W	0455	0735	1.6E	<b>19</b> Th	0608	0826	1.3E	<b>4</b> Sa	0609	0855	1.7E	<b>19</b> Su	0710	0928	1.3E	<b>4</b> Sa	0445	0737	1.8E	<b>19</b> Su	0445	0737	1.8E		0542	0805	1.3E		1214	1407	0.9F		1818	2029	1.2E		
	1112	1325	1.3F		1223	1417	0.9F		1242	1445	1.2F		1338	1529	0.8F		1122	1329	1.3F		1122	1329	1.3F		0542	0805	1.3E		1214	1407	0.9F		1818	2029	1.2E		
	1611	1909	1.7E		1738	1959	1.4E		1847	2121	1.6E		1942	2151	1.2E		1729	2003	1.6E		1729	2003	1.6E		0542	0805	1.3E		1214	1407	0.9F		1818	2029	1.2E		
	2254				2352				2352								2338				2338				0542	0805	1.3E		1214	1407	0.9F		1818	2029	1.2E		
<b>5</b> Th	0544	0827	1.6E	<b>20</b> F	0658	0916	1.3E	<b>5</b> Su	0710	0951	1.6E	<b>20</b> M	0759	1017	1.3E	<b>5</b> Su	0545	0831	1.7E	<b>20</b> M	0545	0831	1.7E		0630	0852	1.3E		1304	1455	0.9F		1908	2117	1.2E		
	1207	1416	1.2F		1318	1510	0.9F		1343	1542	1.1F		1429	1621	0.8F		1222	1423	1.2F		1222	1423	1.2F		0630	0852	1.3E		1304	1455	0.9F		1908	2117	1.2E		
	1802	2052	1.6E		1924	2138	1.2E		1952	2217	1.5E		2032	2241	1.2E		1832	2058	1.5E		1832	2058	1.5E		0630	0852	1.3E		1304	1455	0.9F		1908	2117	1.2E		
<b>6</b> F	0638	0920	1.6E	<b>21</b> Sa	0748	1007	1.3E	<b>6</b> M	0813	1048	1.6E	<b>21</b> Tu	0847	1106	1.3E	<b>6</b> M	0649	0928	1.6E	<b>21</b> Tu	0649	0928	1.6E		0718	0941	1.3E		1353	1544	0.9F		1957	2207	1.2E		
	1305	1510	1.2F		1411	1605	0.8F		1444	1641	1.1F		1519	1711	0.8F		1323	1520	1.1F		1323	1520	1.1F		0718	0941	1.3E		1353	1544	0.9F		1957	2207	1.2E		
	1905	2146	1.6E		2016	2227	1.2E		2056	2315	1.5E		2122	2330	1.2E		1936	2155	1.5E		1936	2155	1.5E		0718	0941	1.3E		1353	1544	0.9F		1957	2207	1.2E		
<b>7</b> Sa	0735	1015	1.6E	<b>22</b> Su	0837	1056	1.3E	<b>7</b> Tu	0915	1146	1.6E	<b>22</b> W	0933	1155	1.3E	<b>7</b> Tu	0755	1026	1.6E	<b>22</b> W	0755	1026	1.6E		0806	1030	1.3E		1441	1634	0.9F		2046	2256	1.2E		
	1404	1606	1.2F		1503	1659	0.8F		1544	1740	1.0F		1606	1759	0.9F		1425	1620	1.0F		1425	1620	1.0F		0806	1030	1.3E		1441	1634	0.9F		2046	2256	1.2E		
	2009	2241	1.6E		2107	2316	1.2E		2157				2209				2039	2254	1.4E		2039	2254	1.4E		0806	1030	1.3E		1441	1634	0.9F		2046	2256	1.2E		
<b>8</b> Su	0834	1111	1.7E	<b>23</b> M	0925	1144	1.3E	<b>8</b> W	1016	1245	1.7E	<b>23</b> Th	1019	1243	1.4E	<b>8</b> W	0859	1126	1.6E	<b>23</b> Th	0859	1126	1.6E		0854	1120	1.4E		1529	1723	0.9F		2133	2346	1.3E		
	1504	1703	1.1F		1553	1750	0.8F		1641	1839	1.0F		1650	1845	1.0F		1525	1721	1.0F		1525	1721	1.0F		0854	1120	1.4E		1529	1723	0.9F		2133	2346	1.3E		
	2113	2337	1.5E		2156				2255				2254				2139	2353	1.4E		2139	2353	1.4E		0854	1120	1.4E		1529	1723	0.9F		2133	2346	1.3E		
<b>9</b> M	0933	1207	1.7E	<b>24</b> Tu	1010	1231	1.3E	<b>9</b> Th	1113	1344	1.7E	<b>24</b> F	1102	1331	1.5E	<b>9</b> Th	1000	1227	1.6E	<b>24</b> F	1000	1227	1.6E		0942	1210	1.4E		1614	1810	1.0F		2218				
	1603	1800	1.1F		1640	1836	0.9F		1736	1939	1.1F		1733	1931	1.0F		1621	1822	1.0F		1621	1822	1.0F		0942	1210	1.4E		1614	1810	1.0F		2218				
	2214				2243				2350				2337				2236				2236				0942	1210	1.4E		1614	1810	1.0F		2218				
<b>10</b> Tu	0411	0617	1.3F	<b>25</b> W	0444	0641	1.1F	<b>10</b> F	0545	0750	1.2F	<b>25</b> Sa	0540	0744	1.2F	<b>10</b> F	0434	0636	1.1F	<b>25</b> Sa	0434	0636	1.1F		0426	0626	1.1F		1030	1259	1.5E		1657	1857	1.1F		
	1031	1304	1.7E		1054	1317	1.4E		1208	1440	1.7E		1145	1418	1.6E		1057	1328	1.6E		1057	1328	1.6E		0426	0626	1.1F		1030	1259	1.5E		1657	1857	1.1F		
	1659	1858	1.1F		1724	1922	0.9F		1829	2037	1.1F		1815	2016	1.1F		1715	1923	1.0F		1715	1923	1.0F		0426	0626	1.1F		1030	1259	1.5E		1657	1857	1.1F		
	2312				2328				2350				2337				2329				2329				0426	0626	1.1F		1030	1259	1.5E		1657	1857	1.1F		
<b>11</b> W	0506	0712	1.3F	<b>26</b> Th	0528	0728	1.1F	<b>11</b> Sa	0639	0846	1.2F	<b>26</b> Su	0623	0832	1.3F</																						





# Portsmouth Harbor Entrance, N.H., 2017

F—Flood, Dir. 342° True E—Ebb, Dir. 194° True

July				August				September																
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum										
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
<b>1</b> Sa	0022	0216	1.0F	<b>16</b> Su	0537	0827	1.6E	<b>1</b> Tu	0149	0344	0.8F	<b>16</b> W	0112	0314	1.2F	<b>1</b> F	0301	0456	0.8F	<b>16</b> Sa	0252	0448	1.0F	
	0634	0855	1.4E		1207	1419	1.3F		0756	1009	1.2E		0717	0949	1.5E		0906	1113	1.2E		0907	1122	1.4E	
	1248	1445	1.0F		1809	2054	1.6E		1400	1556	1.0F		1324	1534	1.3F		1510	1704	0.9F		1506	1706	1.2F	
	1906	2126	1.3E		●					2018	2240		1.3E	1936	2218		1.6E	2120	2339		1.3E	2127	2354	1.6E
<b>2</b> Su	0120	0313	0.9F	<b>17</b> M	0039	0245	1.2F	<b>2</b> W	0243	0442	0.8F	<b>17</b> Th	0213	0411	1.1F	<b>2</b> Sa	0349	0545	0.9F	<b>17</b> Su	0351	0548	1.0F	
	0731	0950	1.3E		0635	0920	1.6E		0848	1059	1.2E		0822	1045	1.5E		0954	1202	1.2E		1005	1221	1.5E	
	1340	1538	1.0F		1257	1509	1.3F		1451	1647	1.0F		1423	1630	1.3F		1558	1753	1.0F		1605	1805	1.2F	
	1959	2257	1.3E		1903	2148	1.6E		2107	2330	1.3E		2040	2316	1.6E		2206				2227			
<b>3</b> M	0217	0415	0.8F	<b>18</b> Tu	0136	0339	1.2F	<b>3</b> Th	0335	0536	0.8F	<b>18</b> F	0313	0509	1.1F	<b>3</b> Su		0026	1.3E	<b>18</b> M		0054	1.6E	
	0826	1044	1.3E		0737	1014	1.6E		0939	1148	1.2E		0924	1142	1.5E		0435	0631	0.9F		0446	0647	1.1F	
	1432	1631	1.0F		1350	1601	1.3F		1541	1737	1.0F		1522	1727	1.3F		1040	1250	1.3E		1101	1320	1.5E	
	2051				2000	2243	1.6E		2155				2143				1644	1841	1.0F		1702	1905	1.2F	
<b>4</b> Tu		0050	1.3E	<b>19</b> W	0235	0435	1.1F	<b>4</b> F		0017	1.3E	<b>19</b> Sa		0014	1.7E	<b>4</b> M		0113	1.4E	<b>19</b> Tu		0153	1.6E	
	0312	0712	0.9F		0840	1109	1.5E		0423	0625	0.9F		0411	0608	1.1F		0518	0715	1.0F		0538	0744	1.1F	
	0920	1136	1.2E		1445	1655	1.3F		1027	1236	1.2E		1024	1240	1.5E		1123	1337	1.4E		1153	1417	1.6E	
	1522	1722	1.0F		2100	2338	1.7E		1629	1825	1.0F		1620	1823	1.3F		1728	1928	1.1F		1757	2004	1.2F	
<b>5</b> W		0142	1.4E	<b>20</b> Th	0333	0532	1.1F	<b>5</b> Sa		0103	1.4E	<b>20</b> Su		0112	1.7E	<b>5</b> Tu		0200	1.5E	<b>20</b> W		0247	1.6E	
	0405	0802	0.9F		0942	1204	1.5E		0509	0709	0.9F		0507	0706	1.1F		0559	0759	1.1F		0628	0837	1.1F	
	1011	1225	1.2E		1541	1749	1.3F		1113	1323	1.3E		1120	1337	1.5E		1204	1423	1.5E		1243	1510	1.6E	
	1611	1811	1.0F		2159				1714	1912	1.1F		1717	1920	1.3F		1810	2015	1.2F		1850	2100	1.2F	
<b>6</b> Th		0058	1.4E	<b>21</b> F	0430	0628	1.1F	<b>6</b> Su		0147	1.4E	<b>21</b> M		0209	1.7E	<b>6</b> W		0246	1.6E	<b>21</b> Th		0336	1.6E	
	0454	0846	0.9F		1041	1300	1.5E		0553	0753	1.0F		0600	0803	1.1F		0640	0843	1.2F		0717	0925	1.2F	
	1059	1312	1.3E		1637	1844	1.3F		1157	1409	1.3E		1214	1433	1.6E		1244	1509	1.6E		1331	1558	1.6E	
	1658	1858	1.1F		2257				1758	1958	1.1F		●	1812	2017		1.3F	○	1853		2101	1.3F	1942	2153
<b>7</b> F		0140	1.4E	<b>22</b> Sa	0131	1.8E	<b>7</b> M		0232	1.5E	<b>22</b> Tu		0304	1.7E	<b>7</b> Th		0332	1.7E	<b>22</b> F		0421	1.6E		
	0540	0749	0.9F		0525	0724		1.2F	0635	0835		1.0F	0652	0858		1.1F	0720	0927		1.3F	0805	1010	1.2F	
	1145	1357	1.3E		1138	1356		1.6E	1239	1453		1.4E	1306	1526		1.6E	1322	1554		1.7E	1418	1644	1.6E	
	1744	1944	1.1F		1732	1939		1.4F	○	1841		2044	1.2F	1906		2113	1.3F	1936		2148	1.4F	2033	2242	1.1F
<b>8</b> Sa		0222	1.5E	<b>23</b> Su	0227	1.8E	<b>8</b> Tu		0316	1.6E	<b>23</b> W		0354	1.7E	<b>8</b> F		0418	1.8E	<b>23</b> Sa		0506	1.5E		
	0624	0830	1.0F		0619	0821		1.2F	0716	0917		1.1F	0742	0948		1.2F	0801	1011		1.4F	0852	1055	1.2F	
	1230	1441	1.3E		1233	1450		1.6E	1319	1538		1.5E	1356	1616		1.6E	1401	1641		1.8E	1504	1729	1.6E	
	○	1828	2029		1.1F	●		1826	2033	1.4F		1923	2129	1.3F		2000	2206	1.2F		2021	2235	1.4F	2124	2330
<b>9</b> Su	0037	0303	1.5E	<b>24</b> M	0048	0320	1.8E	<b>9</b> W	0126	0400	1.7E	<b>24</b> Th	0218	0443	1.7E	<b>9</b> Sa	0224	0505	1.8E	<b>24</b> Su	0335	0552	1.4E	
	0707	0910	1.0F		0712	0915	1.2F		0756	0959	1.2F		0831	1036	1.2F		0843	1057	1.4F		0940	1141	1.1F	
	1312	1524	1.4E		1326	1543	1.6E		1358	1622	1.6E		1444	1706	1.6E		1440	1729	1.8E		1550	1815	1.5E	
	1911	2114	1.2F		1921	2128	1.3F		2005	2215	1.3F		2053	2259	1.2F		2109	2323	1.4F		2215			
<b>10</b> M	0117	0346	1.6E	<b>25</b> Tu	0142	0412	1.8E	<b>10</b> Th	0206	0445	1.7E	<b>25</b> F	0308	0532	1.6E	<b>10</b> Su	0310	0554	1.8E	<b>25</b> M	0017	1.1F		
	0750	0951	1.1F		0804	1008	1.2F		0836	1043	1.3F		0920	1123	1.2F		0927	1144	1.4F		0423	0638	1.4E	
	1354	1607	1.4E		1418	1635	1.6E		1437	1708	1.6E		1533	1755	1.5E		1523	1819	1.8E		1028	1226	1.1F	
	1954	2158	1.2F		2016	2221	1.3F		2049	2301	1.3F		2146	2350	1.1F		2159				1637	1902	1.4E	
<b>11</b> Tu	0156	0429	1.7E	<b>26</b> W	0234	0503	1.8E	<b>11</b> F	0247	0532	1.8E	<b>26</b> Sa	0359	0620	1.5E	<b>11</b> M		0013	1.4F	<b>26</b> Tu		0104	1.0F	
	0831	1032	1.1F		0855	1059	1.2F		0917	1127	1.3F		1009	1210	1.1F		0401	0645	1.7E		0512	0724	1.3E	
	1434	1651	1.5E		1509	1727	1.6E		1515	1756	1.7E		1621	1845	1.5E		1015	1233	1.4F		1117	1313	1.1F	
	2037	2243	1.2F		2111	2315	1.2F		2135	2349	1.3F		2239				1612	1910	1.8E		1725	1948	1.4E	
<b>12</b> W	0234	0513	1.7E	<b>27</b> Th	0327	0554	1.7E	<b>12</b> Sa	0331	0620	1.7E	<b>27</b> Su	0450	0708	1.4E	<b>12</b> Tu		0104	1.3F	<b>27</b> W		0150	0.9F	
	0912	1115	1.2F		0946	1149	1.2F		1000	1213	1.4F		1058	1257	1.1F		0457	0737	1.6E		0602	0812	1.2E	
	1514	1737	1.5E		1600	1819	1.5E		1556	1845	1.7E		1711	1933	1.4E		1107	1323	1.4F		1207	1400	1.0F	
	2120	2329	1.3F		2206				2224				2333				1708	2003	1.7E		1814	2035	1.3E	
<b>13</b> Th	0314	0600	1.7E	<b>28</b> F	0008	1.2F	<b>13</b> Su	0038	1.3F	<b>28</b> M	0130	1.0F	<b>13</b> W	0156	1.2F	<b>13</b> Th	0238	0.9F	<b>28</b> F	0327	0.9F			
	0953	1159	1.2F		0421	0645		1.6E	0419		0710	1.7E		0541	0756		1.3E	0558		0830	1.6E	0652	0900	1.2E
	1554	1824	1.5E		1037	1238		1.1F	1045		1301	1.4F		1148	1344		1.1F	1204		1415	1.3F	1257	1448	1.0F
	2205				1651	1911		1.4E	1642		1936	1.7E		1801	2022		1.3E	○		1811	2058	1.7E	1903	2124
<b>14</b> F		0016	1.3F	<b>29</b> Sa	0101	1.1F	<b>14</b> M	0128	1.3F	<b>29</b> Tu	0226	0219	0.9F	<b>14</b> Th	0051	0251	1.2F	<b>29</b> F	0136	0327	0.9F			
	0356	0648	1.7E		0515	0736		1.5E	0514		0801	1.7E	0633		0844	1.2E	0701		0926	1.5E	0742	0949	1.2E	
	1036	1244	1.3F		1127	1326		1.1F	1134		1350	1.4F	1238		1432	1.0F	1303		1510	1.3F	1348	1539	0.9F	
	1635	1913	1.5E		1743	2003		1.4E	○		1735	2028	1.7E		○	1851	2111		1.3E	1917	2156	1.6E	1952	2213
<b>15</b> Sa		0104	1.3F	<b>30</b> Su	0154	1.0F	<b>15</b> Tu	0220	1.2F	<b>30</b> W	0118	0311	0.8F	<b>15</b> F	0152	0348	1.1F</							

# Portsmouth Harbor Entrance, N.H., 2017

F—Flood, Dir. 342° True    E—Ebb, Dir. 194° True

October				November				December																
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum										
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
<b>1</b> Su	0312	0507	0.9F	<b>16</b> M	0328	0528	1.0F	<b>1</b> W	0402	0604	1.1F	<b>16</b> Th	0446	0652	1.1F	<b>1</b> F	0410	0619	1.3F	<b>16</b> Sa	0507	0710	1.1F	
	0918	1128	1.2E		0945	1203	1.4E		1009	1234	1.5E		1104	1444	1.5E		1018	1256	1.7E		1125	1517	1.5E	
	1526	1720	1.0F		1549	1749	1.1F		1627	1827	1.1F		1721	2119	1.0F		1648	1850	1.2F		1749	2142	1.0F	2357
	2129	2351	1.4E		2209				2229				2335				2252							
<b>2</b> M	0358	0553	1.0F	<b>17</b> Tu	0422	0626	1.0F	<b>2</b> Th	0445	0650	1.2F	<b>17</b> F	0534	0741	1.1F	<b>2</b> Sa	0456	0708	1.4F	<b>17</b> Su	0554	0758	1.1F	
	1004	1217	1.3E		1039	1304	1.5E		1051	1324	1.6E		1152	1441	1.6E		1105	1348	1.8E		1210	1446	1.5E	
	1612	1809	1.0F		1646	1851	1.1F		1713	1917	1.2F		1812	2203	1.1F		1737	1941	1.3F		1836	2110	1.0F	
	2216				2305	0134	1.5E		2318	0148	1.6E		2335	0204	1.4E		2345	0212	1.7E		2357	0217	1.3E	
<b>3</b> Tu	0441	0639	1.1F	<b>18</b> W	0513	0721	1.1F	<b>3</b> F	0528	0737	1.3F	<b>18</b> Sa	0622	0828	1.1F	<b>3</b> Su	0543	0758	1.4F	<b>18</b> M	0640	0843	1.1F	
	1046	1305	1.4E		1130	1403	1.6E		1134	1413	1.8E		1238	1515	1.6E		1154	1439	1.9E		1254	1523	1.6E	
	1657	1857	1.1F		1740	1953	1.1F		1800	2007	1.3F		1900	2128	1.1F		1828	2033	1.3F		1921	2134	1.0F	
	2301				2357	0228	1.5E		2318	0237	1.7E		2335	0328	1.4E		2345	0303	1.7E		2357	0340	1.4E	
<b>4</b> W	0522	0724	1.2F	<b>19</b> Th	0602	0811	1.1F	<b>4</b> Sa	0612	0825	1.4F	<b>19</b> Su	0708	0912	1.2F	<b>4</b> M	0633	0848	1.5F	<b>19</b> Tu	0726	0928	1.2F	
	1127	1353	1.6E		1218	1454	1.6E		1218	1503	1.9E		1323	1552	1.6E		1244	1530	2.0E		1336	1602	1.6E	
	1741	1945	1.2F		1832	2051	1.1F		1848	2057	1.4F		1948	2202	1.1F		1919	2125	1.3F		2006	2211	1.0F	
	2346				2357	0048	0314		1.5E	2318	0056		0327	1.7E	2335		0157	0410	1.4E		2345	0212	1.4E	
<b>5</b> Th	0603	0809	1.3F	<b>20</b> F	0650	0857	1.2F	<b>5</b> Su	0657	0913	1.5F	<b>20</b> M	0754	0957	1.2F	<b>5</b> Tu	0724	0939	1.5F	<b>20</b> W	0811	1012	1.2F	
	1208	1441	1.7E		1305	1537	1.6E		1303	1552	1.9E		1406	1632	1.6E		1336	1621	2.0E		1417	1644	1.6E	
	1825	2034	1.3F		1922	2140	1.1F		1937	2147	1.4F		2034	2241	1.1F		2011	2217	1.3F		2049	2251	1.1F	
					2357	0136	0356		1.5E	2318	0146		0416	1.7E	2335		0241	0452	1.4E		2345	0222	0446	1.7E
<b>6</b> F	0645	0855	1.4F	<b>21</b> Sa	0736	0942	1.2F	<b>6</b> M	0745	1001	1.5F	<b>21</b> Tu	0840	1041	1.2F	<b>6</b> W	0817	1030	1.5F	<b>21</b> Th	0856	1057	1.2F	
	1248	1528	1.8E		1351	1619	1.6E		1350	1642	2.0E		1448	1714	1.5E		1429	1713	1.9E		1457	1727	1.6E	
	1911	2122	1.4F		2012	2224	1.1F		2028	2237	1.4F		2120	2323	1.1F		2105	2309	1.3F		2132	2333	1.1F	
					2357	0223	0439		1.5E	2318	0237		0507	1.7E	2335		0326	0536	1.3E		2345	0317	0538	1.6E
<b>7</b> Sa	0727	0941	1.4F	<b>22</b> Su	0823	1026	1.2F	<b>7</b> Tu	0836	1052	1.5F	<b>22</b> W	0927	1126	1.1F	<b>7</b> Th	0913	1123	1.4F	<b>22</b> F	0941	1142	1.1F	
	1329	1615	1.9E		1435	1701	1.6E		1441	1733	1.9E		1529	1758	1.5E		1525	1806	1.8E		1537	1812	1.6E	
	1958	2210	1.4F		2100	2307	1.1F		2122	2329	1.3F		2205				2159				2215			
					2357	0309	0522		1.4E	2318	0331		0559	1.7E	2335		0410	0005	1.0F		2345	0002	1.2F	
<b>8</b> Su	0811	1028	1.5F	<b>23</b> M	0910	1110	1.2F	<b>8</b> W	0930	1144	1.4F	<b>23</b> Th	1013	1212	1.1F	<b>8</b> F	1011	1217	1.3F	<b>23</b> Sa	1026	1228	1.1F	
	1412	1704	1.9E		1519	1745	1.5E		1536	1826	1.9E		1612	1843	1.5E		1624	1900	1.7E		1618	1858	1.5E	
	2047	2259	1.4F		2148	2351	1.0F		2217				2250				2255				2258			
					2357	0355	0607		1.3E	2318	0428		0653	1.6E	2335		0456	0708	1.3E		2345	0510	0727	1.5E
<b>9</b> M	0859	1117	1.5F	<b>24</b> Tu	0957	1156	1.1F	<b>9</b> Th	1027	1237	1.4F	<b>24</b> F	1101	1258	1.1F	<b>9</b> Sa	1111	1312	1.2F	<b>24</b> Su	1113	1315	1.1F	
	1458	1755	1.9E		1603	1829	1.5E		1636	1920	1.8E		1655	1929	1.5E		1725	1955	1.6E		1702	1945	1.5E	
	2139	2350	1.4F		2236				2314				2335				2350				2342			
					2357	0442	0653		1.3E	2318	0528		0748	1.5E	2335		0541	0755	1.3E		2345	0607	0824	1.4E
<b>10</b> Tu	0950	1207	1.5F	<b>25</b> W	1046	1242	1.1F	<b>10</b> F	1127	1331	1.3F	<b>25</b> Sa	1149	1345	1.0F	<b>10</b> Su	1211	1408	1.1F	<b>25</b> M	1201	1402	1.1F	
	1550	1847	1.8E		1648	1915	1.4E		1740	2016	1.7E		1741	2016	1.4E		1827	2052	1.5E		1750	2034	1.5E	
	2234				2324	0120	1.0F		2318	0012	0209		1.1F	2335	0021		0218	1.0F	2345		0046	0242	1.1F	
					2357	0530	0740		1.2E	2318	0628		0844	1.4E	2335		0627	0843	1.3E		2345	0705	0921	1.4E
<b>11</b> W	0442	0714	1.6E	<b>26</b> Th	1134	1329	1.0F	<b>11</b> Sa	1229	1427	1.1F	<b>26</b> Su	1237	1433	1.0F	<b>11</b> M	1312	1506	1.0F	<b>26</b> Tu	1251	1452	1.1F	
	1045	1259	1.4F		1735	2001	1.4E		1845	2113	1.6E		1829	2105	1.4E		1927	2149	1.4E		1842	2124	1.5E	
	1649	1941	1.8E		2357	0011	0205		1.0F	2318	0109		0305	1.1F	2335		0106	0304	1.0F		2345	0141	0338	1.0F
	2332				2357	0618	0827		1.2E	2318	0728		0943	1.4E	2335		0713	0932	1.3E		2345	0801	1022	1.4E
<b>12</b> Th	1144	1352	1.3F	<b>27</b> F	1224	1416	1.0F	<b>12</b> Su	1331	1526	1.1F	<b>27</b> M	1327	1523	1.0F	<b>12</b> Tu	1413	1608	0.9F	<b>27</b> W	1343	1544	1.1F	
	1754	2037	1.7E		1822	2049	1.3E		1948	2213	1.5E		1919	2155	1.4E		2027	2248	1.4E		1937	2216	1.5E	
					2357	0059	0252		0.9F	2318	0207		0404	1.0F	2335		0152	0352	1.1F		2345	0235	0435	1.0F
					2357	0706	0916		1.2E	2318	0826		1043	1.4E	2335		0759	1023	1.4E		2345	0855	1124	1.4E
<b>13</b> F	0646	0905	1.5E	<b>28</b> Sa	1313	1505	1.0F	<b>13</b> M	1432	1628	1.0F	<b>28</b> Tu	1417	1615	1.0F	<b>13</b> W	1511	1715	0.9F	<b>28</b> Th	1436	1637	1.1F	
	1245	1447	1.2F		1911	2138	1.3E		2050	2313	1.4E		2012	2246	1.5E		1814	0.9F	1914†		0.9F	2035	2309	1.5E
	1901	2134	1.6E		2357	0146	0340		0.9F	2318	0302		0504	1.0F	2335		0238	0441	1.1F		2345	0327	0530	1.0F
					2357	0753	1005		1.2E	2318	0921		1145	1.4E	2335		0845	1114	1.5E		2345	0948	1339	1.4E
<b>14</b> Sa	0747	1003	1.4E	<b>29</b> Su	1403	1556	1.0F	<b>14</b> Tu	1532	1733	1.0F	<b>29</b> W	1508	1707	1.1F	<b>14</b> Th	1607	2010	0.9F	<b>29</b> F	1530	1731	1.1F	
	1348	1546	1.1F		2000	2228	1.4E		2148				2106	2337	1.5E		2218				2133			
	2007	2234	1.5E		2357	0233	0429		1.0F	2318	0355		0600	1.0F	2335		0324	0530	1.2F		2345	0418	0622	1.1F
					2357	0840	1055		1.3E	2318	1014		1249	1.5E	2335		0931	1205	1.6E		2345	1038	1432	1.5E
<b>15</b> Su	0848	1103	1.4E	<b>30</b> M	1452	1647	1.0F	<b>15</b> W	1628	1857	1.0F													



# Boston Harbor (Deer Island Light), Massachusetts, 2017

F—Flood, Dir. 264° True    E—Ebb, Dir. 112° True

April				May				June															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Sa	0126	0540	1.4E	<b>16</b> Su	0210	0616	1.1E	<b>1</b> M	0200	0640	1.4E	<b>16</b> Tu	0221	0611	1.1E	<b>1</b> Th	0340	0822	1.3E	<b>16</b> F	0318	0711	1.1E
	0831	1040	1.6F		0904	1121	1.0F		0909	1119	1.5F		0913	1117	1.0F		1043	1334	1.3F		1007	1217	1.1F
	1401	1750	1.2E		1441	1800	0.9E		1442	1853	1.1E		1500	1824	1.0E	●	1625	2044	1.2E		1601	1941	1.1E
	2041	2254	1.7F		2104	2310	1.1F		2118	2330	1.5F		2119	2322	1.1F		2305				2230		
<b>2</b> Su	0218	0649	1.4E	<b>17</b> M	0254	0658	1.0E	<b>2</b> Tu	0257	0742	1.4E	<b>17</b> W	0306	0700	1.0E	<b>2</b> F	0445	0922	1.2E	<b>17</b> Sa	0409	0757	1.1E
	0926	1134	1.5F		0948	1201	0.9F		1006	1227	1.3F		0956	1203	1.0F		1143	1439	1.2F	●	1059	1311	1.2F
	1458	1859	1.1E		1530	1854	0.9E	●	1542	1956	1.1E		1549	1918	1.0E		1728	2152	1.2E		1552	2028	1.1E
	2135	2349	1.5F		2150	2355	0.9F		2218				2208								2328		
<b>3</b> M	0314	0752	1.3E	<b>18</b> Tu	0341	0737	1.0E	<b>3</b> W		0036	1.3F	<b>18</b> Th		0013	1.0F	<b>3</b> Sa	0010	0304	1.1F	<b>18</b> Su	0506	0843	1.1E
	1025	1241	1.3F		1036	1348	0.8F		0358	0842	1.3E		0353	0744	1.0E		0551	1029	1.2E		0506	0843	1.1E
	1558	2002	1.1E		1624	1943	0.9E		1108	1350	1.3F	●	1046	1257	1.0F		1241	1541	1.2F		1744	2125	1.1E
	2235				2242				1647	2101	1.1E		1642	2006	1.0E		1828	2259	1.2E				
<b>4</b> Tu		0053	1.4F	<b>19</b> W		0049	0.9F	<b>4</b> Th		0156	1.2F	<b>19</b> F		0109	1.0F	<b>4</b> Su	0111	0412	1.2F	<b>19</b> M	0026	0230	1.2F
	0415	0856	1.3E		0433	0817	1.0E		0505	0950	1.3E		0446	0827	1.0E		0651	1126	1.2E		0604	0943	1.1E
	1130	1357	1.2F	●	1129	1359	0.8F		1211	1500	1.2F		1139	1348	1.0F		1334	1642	1.2F		1247	1455	1.3F
	1706	2112	1.0E		1721	2032	0.9E		1755	2218	1.1E		1736	2057	1.0E		1920	2353	1.3E		1835	2242	1.1E
	2342				2339																		
<b>5</b> W		0202	1.3F	<b>20</b> Th		0143	0.9F	<b>5</b> F	0030	0318	1.2F	<b>20</b> Sa	0001	0203	1.0F	<b>5</b> M	0207	0511	1.2F	<b>20</b> Tu	0122	0330	1.2F
	0523	1014	1.3E		0527	0904	1.0E		0613	1057	1.3E		0542	0919	1.0E		0744	1214	1.2E		0659	1058	1.1E
	1234	1515	1.2F		1220	1436	0.9F		1309	1608	1.3F		1231	1438	1.1F		1425	1733	1.3F		1340	1553	1.3F
	1815	2239	1.1E		1815	2130	0.9E		1856	2323	1.2E		1826	2203	1.0E		2009				1924	2344	1.3E
<b>6</b> Th	0048	0321	1.2F	<b>21</b> F	0035	0234	0.9F	<b>6</b> Sa	0132	0433	1.2F	<b>21</b> Su	0055	0257	1.1F	<b>6</b> Tu		0040	1.3E	<b>21</b> W	0218	0436	1.3F
	0631	1120	1.4E		0620	1011	1.0E		0714	1152	1.3E		0635	1028	1.1E		0301	0601	1.3F		0753	1155	1.2E
	1333	1630	1.3F		1309	1525	1.0F		1404	1707	1.3F		1321	1531	1.2F		0836	1258	1.1E		1433	1653	1.4F
	1917	2342	1.2E		1904	2244	1.0E		1950				1912	2311	1.1E		1513	1819	1.3F		2014		
<b>7</b> F	0149	0448	1.3F	<b>22</b> Sa	0127	0329	1.0F	<b>7</b> Su		0015	1.3E	<b>22</b> M	0148	0357	1.2F	<b>7</b> W		0128	1.3E	<b>22</b> Th	0315	0538	1.4F
	0732	1214	1.5E		0708	1114	1.1E		0230	0531	1.3F		0726	1127	1.2E		0352	0647	1.3F		0850	1246	1.2E
	1429	1729	1.4F		1356	1623	1.1F		0810	1240	1.3E		1411	1628	1.3F		0926	1341	1.1E		1528	1748	1.5F
	2015				1950	2339	1.1E		1456	1757	1.4F		1958				1559	1903	1.3F		2108		
<b>8</b> Sa		0035	1.3E	<b>23</b> Su	0217	0431	1.1F	<b>8</b> M		0104	1.4E	<b>23</b> Tu		0002	1.2E	<b>8</b> Th		0216	1.3E	<b>23</b> F	0411	0632	1.5F
	0249	0547	1.3F		0756	1157	1.2E		0325	0621	1.3F		0242	0500	1.3F		0438	0736	1.3F		0947	1346	1.3E
	0832	1304	1.5E		1444	1710	1.2F		0905	1328	1.3E		0818	1214	1.2E		1012	1425	1.1E		1622	1840	1.6F
	1523	1818	1.5F		2035				1545	1843	1.4F		1501	1721	1.4F		1642	1949	1.2F	●	2202		
	2111								2132				2045				2228						
<b>9</b> Su		0127	1.4E	<b>24</b> M		0024	1.2E	<b>9</b> Tu		0155	1.4E	<b>24</b> W		0050	1.3E	<b>9</b> F		0302	1.3E	<b>24</b> Sa	0505	0730	1.6F
	0346	0638	1.4F		0309	0525	1.3F		0417	0709	1.4F		0336	0554	1.4F		0521	0825	1.3F		1041	1453	1.3E
	0929	1356	1.4E		0846	1238	1.3E		0955	1416	1.2E		0912	1301	1.3E	○	1055	1502	1.1E		1715	1936	1.7F
	1613	1907	1.5F		1532	1752	1.4F		1631	1930	1.4F		1553	1810	1.5F		1722	2033	1.2F		2254		
	2201				2121				2216				2135				2308						
<b>10</b> M		0221	1.5E	<b>25</b> Tu		0110	1.3E	<b>10</b> W		0246	1.4E	<b>25</b> Th		0147	1.4E	<b>10</b> Sa		0339	1.3E	<b>25</b> Su	0557	0830	1.6F
	0438	0730	1.4F		0400	0614	1.4F		0504	0800	1.3F		0429	0645	1.5F		0601	0909	1.3F		1132	1548	1.4E
	1020	1447	1.4E		0937	1324	1.3E		1039	1502	1.2E		1005	1359	1.3E		1136	1529	1.1E		1807	2034	1.7F
	1659	1956	1.5F		1620	1835	1.5F		1713	2018	1.4F	●	1643	1859	1.6F		1802	2105	1.2F		2344		
	2245				2205				2257				2223				2347						
<b>11</b> Tu		0311	1.5E	<b>26</b> W		0206	1.4E	<b>11</b> Th		0330	1.4E	<b>26</b> F		0250	1.5E	<b>11</b> Su		0406	1.3E	<b>26</b> M	0649	0923	1.7F
	0527	0823	1.4F		0449	0703	1.5F		0548	0849	1.3F		0521	0740	1.6F		0641	0944	1.2F		1223	1637	1.4E
	1104	1531	1.3E		1026	1420	1.3E		1120	1537	1.2E		1056	1501	1.3E		1217	1555	1.1E		1901	2127	1.7F
	1743	2045	1.5F	●	1707	1923	1.6F		1753	2101	1.3F		1732	1952	1.7F		1843	2116	1.2F				
	2325				2248				2336				2310										
<b>12</b> W		0355	1.4E	<b>27</b> Th		0303	1.5E	<b>12</b> F		0407	1.3E	<b>27</b> Sa		0344	1.6E	<b>12</b> M		0427	1.2E	<b>27</b> Tu	0036	0514	1.6E
	0613	0911	1.4F		0539	0756	1.6F		0630	0932	1.3F		0613	0838	1.7F		0720	1000	1.2F		0741	1009	1.6F
	1145	1608	1.3E		1113	1513	1.4E		1201	1602	1.1E		1145	1552	1.4E		1300	1627	1.1E		1316	1730	1.4E
	1824	2126	1.4F		1753	2013	1.7F		1832	2133	1.3F		1823	2046	1.8F		1925	2140	1.2F		1955	2215	1.6F
					2331								2358										
<b>13</b> Th	0004	0433	1.4E	<b>28</b> F		0352	1.5E	<b>13</b> Sa	0015	0436	1.3E	<b>28</b> Su	0706	0929	1.7F	<b>13</b> Tu	0106	0454	1.2E	<b>28</b> W	0130	0610	



# Boston Harbor (Deer Island Light), Massachusetts, 2017

F—Flood, Dir. 264° True    E—Ebb, Dir. 112° True

October				November				December															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots								
h m	h m	h m		h m	h m	h m		h m	h m	h m		h m	h m	h m									
<b>1</b> Su	0133 0722 1344 1929	0503 1108 1708 2343	1.0F 0.9E 0.9F 1.0E	<b>16</b> M	0157 0742 1418 2000	0456 1206 1715 2000	1.4F 1.3E 1.3F	<b>1</b> W	0223 0817 1449 2028	0459 1205 1708 2028	1.1F 1.2E 1.1F	<b>16</b> Th	0320 0906 1553 2133	0103 0618 1332 1845	1.3E 1.4F 1.4E 1.4F	<b>1</b> F	0236 0823 1512 2048	0455 1226 1730 2048	1.3F 1.3E 1.3F	<b>16</b> Sa	0340 0926 1621 2156	0642 1359 1914 2156	1.1E 1.3F 1.4E 1.3F
<b>2</b> M	0217 0810 1433 2015	0543 1152 1734 2015	1.1F 1.0E 1.0F	<b>17</b> Tu	0253 0839 1517 2059	0550 1259 1810 2059	1.5E 1.5F 1.4E 1.4F	<b>2</b> Th	0310 0902 1539 2117	0533 1248 1755 2117	1.3F 1.2E 1.3E 1.3F	<b>17</b> F	0409 0955 1644 2221	0154 0705 1425 1936	1.3E 1.4F 1.4E 1.4F	<b>2</b> Sa	0327 0910 1604 2141	0544 1316 1820 2141	1.4F 1.3E 1.4E 1.4F	<b>17</b> Su	0426 1012 1706 2241	0728 1448 2005 2241	1.3F 1.3E 1.3F
<b>3</b> Tu	0302 0856 1521 2102	0611 1232 1746 2102	1.1F 1.1E 1.1F	<b>18</b> W	0346 0934 1613 2155	0639 1354 1902 2155	1.5F 1.5E 1.5F	<b>3</b> F	0357 0945 1628 2205	0613 1337 1840 2205	1.4F 1.3E 1.4F	<b>18</b> Sa	0454 1039 1731 2305	0244 0754 1514 2028	1.2E 1.4F 1.4E 1.4F	<b>3</b> Su	0417 0958 1656 2232	0632 1417 1911 2232	1.6F 1.4E 1.5F	<b>18</b> M	0509 1053 1748 2322	0817 1530 2053 2322	1.2F 1.3E 1.3F
<b>4</b> W	0346 0940 1608 2148	0618 1315 1822 2148	1.2E 1.2E 1.2F	<b>19</b> Th	0435 1022 1704 2244	0728 1448 1956 2244	1.5F 1.5E 1.5F	<b>4</b> Sa	0443 1027 1716 2252	0657 1435 1930 2252	1.5F 1.5E 1.5F	<b>19</b> Su	0537 1120 1815 2346	0327 0842 1556 2115	1.2E 1.4F 1.4E 1.4F	<b>4</b> M	0506 1045 1747 2321	0722 1515 2007 2321	1.6F 1.6E 1.6F	<b>19</b> Tu	0550 1133 1828 2134	0859 1604 2134 2134	1.2F 1.3E 1.3F
<b>5</b> Th	0429 1021 1654 2232	0647 1406 1905 2232	1.4F 1.3E 1.4F	<b>20</b> F	0521 1105 1753 2328	0819 1537 2049 2328	1.5F 1.5E 1.5F	<b>5</b> Su	0529 1109 1805 2338	0746 1526 2023 2338	1.6F 1.5E 1.6F	<b>20</b> M	0618 1200 1858	0401 0923 1566	1.1E 1.3F 1.3E	<b>5</b> Tu	0556 1132 1838	0816 1604 2101	1.7F 1.6E 1.7F	<b>20</b> W	0631 1212 1908	0928 1629 2206	1.2F 1.2E 1.3F
<b>6</b> F	0512 1059 1739 2314	0728 1458 1953 2314	1.5F 1.4E 1.5F	<b>21</b> Sa	0605 1146 1839	0906 1619 2135	1.5F 1.5E 1.4F	<b>6</b> M	0616 1152 1855	0836 1612 2114	1.7F 1.5E 1.7F	<b>21</b> Tu	0700 1240 1940	0425 0951 1703	1.1E 1.3F 1.2E	<b>6</b> W	0647 1221 1930	0909 1652 2149	1.8F 1.6E 1.7F	<b>21</b> Th	0713 1253 1946	0939 1649 2218	1.2F 1.2E 1.2F
<b>7</b> Sa	0555 1137 1825 2357	0813 1542 2043 2357	1.6F 1.4E 1.6F	<b>22</b> Su	0647 1227 1925	0944 1659 2215	1.4F 1.4E 1.3F	<b>7</b> Tu	0704 1238 1947	0924 1659 2201	1.8F 1.5E 1.7F	<b>22</b> W	0741 1323 2020	0445 1005 2252	1.1E 1.2F 1.1F	<b>7</b> Th	0740 1314 2023	0957 1749 2237	1.7F 1.5E 1.6F	<b>22</b> F	0755 1335 2025	1005 1717 2235	1.2F 1.1E 1.2F
<b>8</b> Su	0639 1216 1914	0859 1622 2129	1.7F 1.4E 1.7F	<b>23</b> M	0729 1309 2009	1013 1739 2253	1.3F 1.2E 1.2F	<b>8</b> W	0756 1330 2040	1011 1759 2249	1.8F 1.4E 1.6F	<b>23</b> Th	0823 1407 2059	0518 1031 2311	1.0E 1.1F 1.0F	<b>8</b> F	0835 1410 2115	1047 1852 2330	1.6F 1.4E 1.5F	<b>23</b> Sa	0837 1418 2104	1040 1800 2310	1.2F 1.1E 1.2F
<b>9</b> M	0726 1300 2004	0943 1708 2215	1.8F 1.4E 1.7F	<b>24</b> Tu	0810 1353 2051	1032 1820 2332	1.2F 1.1E 1.1F	<b>9</b> Th	0849 1425 2135	1101 1906 2346	1.6F 1.4E 1.4F	<b>24</b> F	0906 1451 2141	0607 1108 2349	1.0E 1.0F 1.0F	<b>9</b> Sa	0931 1508 2210	1144 1949 2210	1.4F 1.4E	<b>24</b> Su	0922 1503 2147	1123 1850 2355	1.1F 1.1E 1.1F
<b>10</b> Tu	0814 1349 2057	0515 1029 1808 2304	1.2E 1.7F 1.4E 1.6F	<b>25</b> W	0852 1438 2134	1100 1900 2134	1.1F 1.0E	<b>10</b> Th	0946 1524 2233	1159 2005 2233	1.4F 1.3E	<b>25</b> Sa	0952 1538 2227	0701 1155 1928	1.0E 1.0F 1.0E	<b>10</b> Su	1032 1610 2309	0811 1301 2046	1.2E 1.3F 1.3E	<b>25</b> M	1010 1551 2235	1215 1935 2235	1.1F 1.1E
<b>11</b> W	0905 1443 2153	0619 1118 1916	1.1E 1.6F 1.3E	<b>26</b> Th	0936 1525 2221	1141 1933 2221	0.9F 0.9E 1.0E	<b>11</b> Sa	1049 1628 2336	1310 2108	1.3F 1.3E	<b>26</b> Su	1045 1629 2317	0040 0749 1250	0.9F 1.0E 0.9F	<b>11</b> M	1137 1717	1422 2152	1.2F 1.2E	<b>26</b> Tu	1105 1644 2328	1312 2019	1.1F 1.1E
<b>12</b> Th	1002 1541 2255	0727 1217 2017	1.1E 1.4F 1.3E	<b>27</b> F	1026 1616 2311	1234 2006	0.8F 0.9E	<b>12</b> Su	1156 1737	1427 2220	1.2F 1.3E	<b>27</b> M	1141 1724	0131 0836 1344 2053	1.0F 1.0E 0.9F 1.0E	<b>12</b> Tu	1241 1822	1535 2258	1.2F 1.2E	<b>27</b> W	1202 1741	1406 2109	1.1F 1.0E
<b>13</b> F	1106 1646 2359	0829 1323 2127	1.1E 1.3F 1.3E	<b>28</b> Sa	1122 1710	1329 2046	0.8F 0.9E	<b>13</b> M	1301 1842	1551 2323	1.2F 1.3E	<b>28</b> Tu	1236 1817	0217 0932 1436 2153	1.0F 1.0E 1.0F	<b>13</b> W	1341 1919	1642 2351	1.2F 1.2E	<b>28</b> Th	1257 1836	1502 2219	1.1F 1.1E
<b>14</b> Sa	1214 1754	0225 0950 1431 2244	1.3F 1.1E 1.3F 1.3E	<b>29</b> Su	1218 1804	1420 2142	0.8F 0.9E	<b>14</b> Tu	1401 1941	1701 2149	1.3F 1.3E	<b>29</b> W	1327 1906	0059 0653 1327 2259	1.1F 1.0E 1.1F 1.1E	<b>14</b> Th	1437 2013	0507 1219 1737	1.3F 1.3E	<b>29</b> F	1352 1929	1604 2325	1.2F 1.1E
<b>15</b> Su	1317 1859	0345 1109 1558 2344	1.3F 1.2E 1.3F 1.4E	<b>30</b> M	1310 1853	1512 2251	0.9F 1.0E	<b>15</b> W	1458 2038	1755 2038	1.4F 1.4E	<b>30</b> Th	1419 1956	0147 0738 1419 2349	1.2F 1.2E 1.2F 1.2E	<b>15</b> F	1531 2106	0038 0556 1308 1826	1.2E 1.3F 1.4E 1.3F	<b>30</b> Sa	1448 2024	1709 2024	1.3F 1.3E
				<b>31</b> Tu	1359 1940	1613 2337	1.0F 1.0E 1.0F 1.1E													<b>31</b> Su	1544 2120	0016 0519 1301 1804	1.2E 1.4F 1.4E 1.4F

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





# Woods Hole, The Strait, Massachusetts, 2017

F—Flood, Dir. 079° True    E—Ebb, Dir. 267° True

April				May				June																
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum										
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
<b>1</b> Sa	0121	0338	3.9E	<b>16</b> Su	0150	0356	2.8E	<b>1</b> M	0157	0409	3.6E	<b>16</b> Tu	0156	0409	3.0E	<b>1</b> Th	0134	0514	3.3E					
	0732	1031	2.5F		0811	1051	1.7F		0819	1210	2.4F		0821	1100	1.8F		0332	0535	2.9E	<b>16</b> F	0250	0514	3.3E	
	1353	1603	3.7E		1422	1620	2.6E		1435	1637	3.2E		1435	1636	2.7E		1007	1411	2.4F		0915	1201	2.2F	
	1945	2241	2.3F		2024	2253	1.7F		2035	2342	2.0F		2036	2308	1.9F		1610	1808	2.6E		1533	1743	3.0E	
												2231			2144									
<b>2</b> Su	0215	0429	3.7E	<b>17</b> M	0233	0440	2.7E	<b>2</b> Tu	0254	0502	3.3E	<b>17</b> W	0239	0454	3.0E	<b>2</b> F	0236	0526	2.0F	<b>17</b> Sa	0202	0529	2.2F	
	0834	1141	2.3F		0901	1136	1.7F		0925	1325	2.3F		0909	1147	1.9F		0430	0632	2.6E		0341	0603	3.3E	
	1451	1656	3.4E		1508	1706	2.5E		1533	1731	2.9E		1520	1723	2.6E		1105	1508	2.4F		1006	1248	2.3F	
	2049	2345	2.2F		2115	2340	1.7F		2143				2128	2358	1.9F		1706	1910	2.4E		1622	1834	3.0E	
													2330			2240								
<b>3</b> M	0313	0522	3.4E	<b>18</b> Tu	0317	0525	2.6E	<b>3</b> W	0354	0557	2.9E	<b>18</b> Th	0325	0542	2.9E	<b>3</b> Sa	0335	0528	2.1F	<b>18</b> Su	0112	0529	2.2F	
	0942	1300	2.2F		0952	1220	1.7F		1030	1431	2.3F		0959	1233	1.9F		0528	0757	2.3E		0436	0656	3.2E	
	1550	1750	3.1E		1555	1753	2.4E		1632	1829	2.6E		1608	1812	2.6E		1158	1604	2.4F		1058	1337	2.3F	
	2157				2207				2250				2221				1801	2140	2.5E		1715	1929	3.1E	
																2335								
<b>4</b> Tu	0413	0618	3.0E	<b>19</b> W	0403	0613	2.6E	<b>4</b> Th	0454	0657	2.6E	<b>19</b> F	0414	0632	2.9E	<b>4</b> Su	0432	0625	2.1F	<b>19</b> M	0207	0529	2.2F	
	1049	1443	2.2F		1042	1305	1.7F		1131	1533	2.4F		1048	1320	2.0F		0625	1006	2.5E		0535	0753	3.2E	
	1651	1849	2.7E		1643	1843	2.3E		1731	1936	2.5E		1657	1904	2.7E		1248	1659	2.3F		1149	1428	2.4F	
	2305				2258				2351				2313				1855	2231	2.7E		1810	2026	3.2E	
<b>5</b> W	0515	0720	2.7E	<b>20</b> Th	0452	0704	2.6E	<b>5</b> F	0554	0813	2.5E	<b>20</b> Sa	0507	0726	3.0E	<b>5</b> M	0528	0720	2.5E	<b>20</b> Tu	0303	0529	2.2F	
	1152	1554	2.3F		1129	1352	1.8F		1227	1631	2.5F		1136	1408	2.1F		0720	1052	2.5E		0636	0851	3.2E	
	1753	1956	2.6E		1734	1936	2.4E		1829	2158	2.6E		1749	2000	2.8E		1335	1752	2.3F		1242	1521	2.4F	
					2347				0207	0207	2.0F		1829	2158	2.6E		1946	2316	2.8E		1906	2124	3.4E	
<b>6</b> Th	0617	0835	2.6E	<b>21</b> F	0544	0758	2.7E	<b>6</b> Sa	0653	1031	2.6E	<b>21</b> Su	0604	0822	3.1E	<b>6</b> Tu	0620	0812	2.5E	<b>21</b> W	0402	0620	2.4F	
	1252	1656	2.5F		1216	1441	1.9F		1320	1727	2.5F		1224	1458	2.3F		0812	1133	2.5E		0737	0947	3.3E	
	1853	2129	2.6E		1825	2032	2.6E		1924	2250	2.8E		1841	2056	3.1E		1420	1841	2.3F		1335	1615	2.5F	
																	2033	2357	2.8E		2002	2219	3.6E	
<b>7</b> F	0717	1048	2.8E	<b>22</b> Sa	0637	0853	2.9E	<b>7</b> Su	0748	1117	2.7E	<b>22</b> M	0702	0918	3.3E	<b>7</b> W	0709	0900	2.5E	<b>22</b> Th	0506	0720	2.4F	
	1347	1753	2.1F		1301	1530	2.1F		1408	1820	2.6F		1312	1548	2.4F		1205	1503	2.2F		0835	1043	3.4E	
	1950	2259	2.8E		1916	2126	2.9E		2016	2336	2.9E		1934	2150	3.3E		2117				1429	1712	2.5F	
																						2056	2312	3.7E
<b>8</b> Sa	0813	1136	2.9E	<b>23</b> Su	0731	0946	3.2E	<b>8</b> M	0839	1159	2.8E	<b>23</b> Tu	0758	1012	3.5E	<b>8</b> Th	0753	0945	2.3E	<b>23</b> F	0628	0835	2.5F	
	1438	1846	2.8F		1346	1619	2.3F		1453	1909	2.6F		1401	1640	2.5F		1203	1545	2.0F		0931	1137	3.5E	
	2042	2349	2.9E		2005	2217	3.2E		2103				2025	2242	3.6E		2159				1523	1814	2.5F	
																						2149		
<b>9</b> Su	0904	1220	3.0E	<b>24</b> M	0822	1038	3.5E	<b>9</b> Tu	0939	0733	2.5F	<b>24</b> W	0853	1104	3.6E	<b>9</b> F	0834	1029	2.6E	<b>24</b> Sa	0509	0756	2.6F	
	1525	1935	2.8F		1431	1709	2.5F		1536	1954	2.5F		1450	1733	2.6F		1238	1626	1.9F		1025	1232	3.5E	
	2131				2052	2307	3.5E		2147				2116	2334	3.8E		2240				1617	1916	2.5F	
																						2242		
<b>10</b> M	0952	1253	3.0E	<b>25</b> Tu	0913	1128	3.7E	<b>10</b> W	1013	1239	2.8E	<b>25</b> Th	0947	1157	3.7E	<b>10</b> Sa	0910	1112	2.7E	<b>25</b> Su	0504	0900	2.7F	
	1608	2020	2.7F		2140	2357	3.8E		1617	2035	2.3F		1540	1828	2.6F		1707	1935	2.0F		1119	1325	3.5E	
																						1712	2016	2.4F
																						2335		
<b>11</b> Tu	1039	1309	3.0E	<b>26</b> W	1004	1219	3.9E	<b>11</b> Th	1057	1309	2.8E	<b>26</b> F	1040	1250	3.7E	<b>11</b> Su	1155	1357	2.8E	<b>26</b> M	0150	0331	3.7E	
	1650	2104	2.5F		1602	1850	2.7F		1658	2111	2.0F		1631	1922	2.6F		1748	2014	2.1F		0558	1003	2.7F	
	2301				2228				2312				2258									1213	1417	3.4E
																						1808	2206	2.3F
<b>12</b> W	1124	1339	2.9E	<b>27</b> Th	1056	1310	3.9E	<b>12</b> F	1141	1346	2.8E	<b>27</b> Sa	1134	1342	3.7E	<b>12</b> M	1237	1439	2.8E	<b>27</b> Tu	0229	0421	3.6E	
	1731	2146	2.3F		1650	1938	2.7F		1739	2010	2.0F		1725	2014	2.5F		1829	2057	2.1F		0651	1103	2.7F	
	2344				2317				2353				2351									1306	1508	3.3E
																						1904	2320	2.2F
<b>13</b> Th	1209	1416	2.9E	<b>28</b> F	1149	1401	3.9E	<b>13</b> Sa	1224	1426	2.7E	<b>28</b> Su	1229	1433	3.6E	<b>13</b> Tu	1522	1719	2.9E	<b>28</b> W	0331	0528	3.4E	
	1812	2102	2.0F		1740	2028	2.6F		1820	2045	1.9F		1820	2112	2.3F		1912	2145	2.1F		0746	1159	2.6F	
																						1358	1559	3.1E
																						2003		
<b>14</b> F	1253	1455	2.8E	<b>29</b> Sa	1243	1451	3.8E	<b>14</b> Su	1307	1507	2.7E	<b>29</b> M	1323	1525	3.4E	<b>14</b> W	1608	1808	2.9E	<b>29</b> Th	0118	0315	3.1E	
	1853	2124	1.9F		1833	2122	2.4F		1902	2128	1.9F		1918	2231	2.1F									

# Woods Hole, The Strait, Massachusetts, 2017

F—Flood, Dir. 079° True    E—Ebb, Dir. 267° True

July				August				September																		
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum												
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots							
<b>1</b> Sa	0210	0604	2.0F	<b>16</b> Su ●	0314	0537	3.5E	<b>1</b> Tu	0522	0720	2.1E	<b>16</b> W	0452	0701	3.2E	<b>1</b> F	0034	0445	1.6F	<b>16</b> Sa	0037	0436	2.2F			
	1033	1440	2.3F		0928	1218	2.4F		1139	1554	1.8F		1058	1339	2.3F		0634	0834	2.0E		0642	0847	2.8E			
	1637	1839	2.4E		1551	1807	3.3E		1746	2143	2.2E		1719	1933	3.2E		1241	1455	1.6F		1249	1658	2.1F	1906	2122	2.9E
	2303				2209								2351				1849	2057	2.2E							
<b>2</b> Su	0307	0700	2.0F	<b>17</b> M	0411	0629	3.4E	<b>2</b> W	0019	0428	1.7F	<b>17</b> Th	0556	0802	3.0E	<b>2</b> Sa	0120	0357	1.5F	<b>17</b> Su	0136	0543	2.5F			
	0459	0700	2.3E		0411	0629	3.4E		0616	0959	2.0E		0556	0802	3.0E		0724	0928	2.1E		0742	0955	2.9E			
	1125	1535	2.2F		1024	1309	2.4F		1226	1646	1.7F		1200	1439	2.2F		1327	1542	1.7F		1349	1807	2.3F	2005	2230	3.0E
	1730	2116	2.4E		1645	1901	3.2E		1837	2230	2.3E		1822	2035	3.1E		1937	2146	2.4E							
<b>3</b> M	0404	0939	1.9F	<b>18</b> Tu	0512	0726	3.2E	<b>3</b> Th	0108	0521	1.8F	<b>18</b> F	0053	0358	2.2F	<b>3</b> Su	0203	0457	1.6F	<b>18</b> M	0232	0641	2.7F			
	0554	0939	2.2E		0512	0726	3.2E		0709	1041	2.1E		0700	0905	2.9E		0811	1015	2.4E		0838	1058	3.0E			
	1213	1628	2.1F		1120	1401	2.4F		1313	1534	1.6F		1301	1545	2.2F		1411	1630	1.9F		1445	1903	2.6F	2100	2331	3.1E
	1822	2208	2.5E		1742	1959	3.2E		1926	2157	2.3E		1924	2139	3.2E		2022	2231	2.7E							
<b>4</b> Tu	0050	0459	2.0F	<b>19</b> W	0009	0245	2.2F	<b>4</b> F	0155	0612	1.8F	<b>19</b> Sa	0152	0558	2.4F	<b>4</b> M	0244	0513	1.8F	<b>19</b> Tu	0324	0732	2.9F			
	0649	1026	2.3E		0615	0825	3.1E		0759	1010	2.2E		0801	1007	3.0E		0855	1059	2.6E		0930	1156	3.1E			
	1300	1721	2.0F		1218	1457	2.4F		1359	1617	1.7F		1401	1817	2.2F		1454	1718	2.1F		1538	1953	2.7F	2151		
	1913	2254	2.6E		1842	2059	3.3E		2012	2227	2.5E		2022	2239	3.3E		2104	2316	3.0E							
<b>5</b> W	0139	0552	2.0F	<b>20</b> Th	0108	0349	2.2F	<b>5</b> Sa	0238	0657	1.9F	<b>20</b> Su	0249	0659	2.7F	<b>5</b> Tu	0324	0557	2.1F	<b>20</b> W	0412	0821	2.9F			
	0742	1107	2.3E		0718	0925	3.1E		0845	1050	2.3E		0857	1106	3.1E		0937	1143	2.9E		1019	1246	3.2E			
	1346	1811	1.9F		1316	1555	2.3F		1442	1703	1.8F		1458	1918	2.5F		1535	1807	2.3F		1628	2041	2.7F	2240		
	2001	2335	2.6E		1942	2157	3.4E		2055	2307	2.7E		2117	2337	3.3E		2146									
<b>6</b> Th	0225	0642	2.0F	<b>21</b> F	0207	0524	2.3F	<b>6</b> Su	0320	0734	1.9F	<b>21</b> M	0343	0751	2.9F	<b>6</b> W	0001	0348	3.4E	<b>21</b> Th	0107	0328	3.2E			
	0831	1104	2.3E		0818	1023	3.2E		0928	1132	2.5E		0951	1203	3.2E		0402	0640	2.3F		0458	0908	2.8F			
	1430	1856	1.9F		1413	1700	2.3F		1524	1750	2.0F		1553	2009	2.6F		1018	1229	3.2E		1107	1330	3.2E			
	2045	2314	2.6E		2039	2254	3.5E		2136	2348	3.0E		2210				1616	1854	2.5F		1716	2129	2.6F	2329		
<b>7</b> F	0309	0727	2.1F	<b>22</b> Sa	0303	0708	2.5F	<b>7</b> M	0359	0640	2.0F	<b>22</b> Tu	0031	0348	3.4E	<b>7</b> Th	0048	0378	3.7E	<b>22</b> F	0147	0328	3.2E			
	0916	1126	2.4E		0915	1120	3.3E		1010	1215	2.8E		0434	0841	2.9F		0440	0721	2.5F		0543	0956	2.6F			
	1513	1743	1.8F		1510	1911	2.4F		1605	1836	2.2F		1042	1257	3.2E		1100	1314	3.5E		1154	1410	3.2E			
	2127	2343	2.8E		2133	2349	3.6E		2217				1646	2059	2.6F		1659	1940	2.7F		1804	2219	2.4F	2312		
<b>8</b> Sa	0351	0806	2.0F	<b>23</b> Su	0358	0804	2.7F	<b>8</b> Tu	0437	0715	2.2F	<b>23</b> W	0121	0348	3.4E	<b>8</b> F	0134	0398	3.9E	<b>23</b> Sa	0016	0227	3.1E			
	1000	1205	2.5E		1009	1216	3.3E		1051	1258	3.0E		0523	0931	2.9F		0519	0803	2.6F		0626	1044	2.4F			
	1555	1824	2.0F		1605	2014	2.5F		1646	1920	2.4F		1132	1346	3.2E		1143	1400	3.7E		1239	1449	3.1E			
	2208				2226				2257				1736	2150	2.6F		1742	2026	2.7F		1851	2309	2.2F	2359		
<b>9</b> Su	0021	0834	2.9E	<b>24</b> M	0044	0368	3.6E	<b>9</b> W	0515	0753	2.3F	<b>24</b> Th	0207	0338	3.3E	<b>9</b> Sa	0221	0408	4.0E	<b>24</b> Su	0103	0308	2.9E			
	0431	0834	2.0F		0451	0857	2.8F		1132	1342	3.3E		0610	1022	2.7F		0600	0847	2.7F		0710	1131	2.1F			
	1042	1246	2.7E		1102	1310	3.3E		1727	2004	2.5F		1221	1431	3.2E		1228	1447	3.9E		1324	1530	2.9E			
	1636	1905	2.1F		1700	2110	2.5F		2319				1826	2243	2.4F		1829	2116	2.7F		1939	2357	2.0F			
<b>10</b> M	0102	0748	3.1E	<b>25</b> Tu	0135	0368	3.6E	<b>10</b> Th	0200	0378	3.7E	<b>25</b> F	0250	0328	3.2E	<b>10</b> Su	0309	0408	4.0E	<b>25</b> M	0351	0518	2.7E			
	1124	1328	2.9E		0543	0951	2.8F		0552	0833	2.4F		0656	1112	2.5F		0644	0935	2.6F		0756	1214	1.8F			
	1717	1946	2.2F		1154	1401	3.3E		1214	1427	3.4E		1308	1516	3.0E		1315	1535	3.9E		1410	1613	2.7E			
	2328				1754	2207	2.5F		1809	2049	2.6F		1916	2334	2.3F		1920	2212	2.6F		2030					
<b>11</b> Tu	0144	0823	3.3E	<b>26</b> W	0011	0224	3.5E	<b>11</b> F	0023	0246	3.9E	<b>26</b> Sa	0128	0335	3.0E	<b>11</b> M	0358	0458	3.9E	<b>26</b> Tu	0044	0198	1.9F			
	0823	1205	3.0E		0633	1045	2.8F		0632	0917	2.5F		0742	1201	2.3F		0734	1029	2.5F		0238	0435	2.5E			
	1205	1410	3.0E		1245	1450	3.2E		1257	1513	3.6E		1356	1600	2.9E		1405	1625	3.8E		0845	1128	1.6F			
	1757	2029	2.3F		1847	2304	2.4F		1854	2140	2.5F		2008				2017	2313	2.4F		1455	1656	2.5E			
<b>12</b> W	0008	0227	3.5E	<b>27</b> Th	0102	0312	3.3E	<b>12</b> Sa	0109	0333	3.9E	<b>27</b> Su	0024	0218	2.1F	<b>12</b> Tu	0450	0540	3.7E	<b>27</b> W	0131	0178	1.7F			
	0627	0904	2.2F		0723	1137	2.6F		0714	1006	2.5F		0217	0419	2.8E		0830	1126	2.4F		0326	0521	2.3E			
	1247	1454	3.2E		1335	1539	3.0E		1342	1600	3.6E		0831	1248	2.1F		1459	1717	3.6E		0937	1205	1.6F			
	1839	2116	2.3F		1941	2357	2.3F		1943	2235	2.5F		1443	1645	2.7E		2122				1542	1741	2.4E			
<b>13</b> Th	0050	0312	3.6E	<b>28</b> F	0152	0359	3.1E	<b>13</b> Su	0159	0422	3.8E	<b>28</b> M	0114	0198	1.9F	<b>13</b> W	0013	0038	2.3F	<b>28</b> Th	0057	0158	1.5F			
	0706	0950	2.3F		0814	1228	2.5F		0801	1058	2.5F		0307	0505	2.5E		0334	0543	3.4E		0416	0608	2.1E			
	1329	1540	3.2E		1425	1627	2.8E		1431	1650	3.6E		0922	1334	1.8F		0935	1224	2.3F		1030	1247	1.6F			
	1924	2207	2.3F		2037				2040	2331	2.4F		1531	1730	2.5E		1558	1811	3.3E		1630	1829	2.2E			
<b>14</b> F	0134	0359	3.7E	<b>29</b> Sa	0049	0218	2.1F	<b>14</b> M	0252	0512	3.7E	<b>29</b> Tu	0206	0258	1.7F	<b>14</b> Th	0117	0228	2.2F	<b>29</b> F	0132	0158	1.5F			
	0748	1039	2.3F		0243	0447	2.8E		0855	1151	2.5F		0357	0552	2.3E		0436	0639	3.1E		0506	0659	2.0E			
	1413	1627	3.3E		0906	1318	2.3F		1523	1741	3.5E		1014	1257	1.6F		1042	1323	2.2F		1120	1333	1.6F			

# Woods Hole, The Strait, Massachusetts, 2017

F—Flood, Dir. 079° True    E—Ebb, Dir. 267° True

October				November				December															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Su	0041	0301	1.6F	<b>16</b> M	0116	0522	2.5F	<b>1</b> W	0127	0356	2.2F	<b>16</b> Th	0230	0646	2.6F	<b>1</b> F	0135	0411	2.4F	<b>16</b> Sa	0245	0708	2.3F
	0646	0848	2.2E		0721	0955	2.8E		0744	0955	3.0E		0840	1155	3.0E		0759	1016	3.4E		0859	1220	2.9E
	1254	1510	1.8F		1335	1749	2.4F		1353	1620	2.3F		1459	1912	2.6F		1415	1649	2.4F		1522	1936	2.4F
	1858	2107	2.5E		1945	2255	2.9E		2001	2215	3.2E		2106				2027	2239	3.5E		2129		
<b>2</b> M	0125	0346	1.8F	<b>17</b> Tu	0209	0619	2.7F	<b>2</b> Th	0210	0443	2.3F	<b>17</b> F		0012	2.8E	<b>2</b> Sa	0223	0503	2.5F	<b>17</b> Su		0022	2.5E
	0734	0939	2.5E		0816	1110	2.9E		0830	1044	3.3E		0316	0734	2.6F		0849	1107	3.7E		0329	0752	2.2F
	1339	1559	2.0F		1429	1844	2.6F		1439	1713	2.5F		0927	1234	3.0E		1505	1748	2.5F		0943	1229	2.9E
	1946	2157	2.8E		2039	2344	3.0E		2050	2304	3.5E		1546	1959	2.6F		2120	2331	3.6E		1606	2021	2.4F
<b>3</b> Tu	0206	0432	2.0F	<b>18</b> W	0259	0710	2.8F	<b>3</b> F	0253	0532	2.5F	<b>18</b> Sa		0037	2.8E	<b>3</b> Su	0312	0556	2.6F	<b>18</b> M		0032	2.6E
	0820	1027	2.8E		0906	1201	3.1E		0915	1133	3.6E		0359	0818	2.4F		0939	1159	3.9E		0412	0831	2.0F
	1423	1648	2.2F		1520	1934	2.7F		1525	1806	2.6F		1012	1252	3.0E		1556	1848	2.6F		1026	1246	2.9E
	2032	2245	3.2E		2130				2139	2354	3.7E		● 1631	2044	2.5F		○ 2213				● 1649	2103	2.2F
<b>4</b> W	0247	0518	2.2F	<b>19</b> Th		0023	3.0E	<b>4</b> Sa	0337	0621	2.7F	<b>19</b> Su		0100	2.8E	<b>4</b> M		0023	3.7E	<b>19</b> Tu		0107	2.6E
	0903	1113	3.1E		0346	0758	2.8F		1002	1222	3.9E		0442	0900	2.2F		0402	0650	2.7F		0454	0731	1.9F
	1506	1739	2.4F		0954	1240	3.1E		1613	1900	2.7F		1056	1317	3.0E		1029	1250	4.0E		1108	1322	3.0E
	2117	2332	3.5E		● 1608	2021	2.7F		○ 2230				1715	2129	2.3F		1647	1945	2.7F		1730	2142	2.1F
<b>5</b> Th	0326	0605	2.4F	<b>20</b> F		0052	3.0E	<b>5</b> Su	0423	0710	2.7F	<b>20</b> M		0135	2.7E	<b>5</b> Tu		0115	3.7E	<b>20</b> W		0145	2.7E
	0946	1200	3.5E		0430	0843	2.6F		1049	1311	4.0E		0524	0938	2.0F		0455	0743	2.6F		0536	0804	2.0F
	1549	1829	2.6F		1040	1312	3.1E		1702	1951	2.8F		1138	1352	3.0E		1122	1341	4.0E		1149	1400	3.0E
	○ 2202				1655	2107	2.6F		2322				1758	2214	2.1F		1740	2043	2.6F		1810	2053	1.9F
<b>6</b> F		0020	3.7E	<b>21</b> Sa	0125	0125	3.0E	<b>6</b> M	0511	0758	2.7F	<b>21</b> Tu	0011	0213	2.7E	<b>6</b> W	0000	0207	3.7E	<b>21</b> Th	0024	0225	2.7E
	0407	0650	2.6F		0513	0928	2.4F		1139	1401	4.1E		0607	0836	1.9F		0549	0837	2.5F		0618	0843	2.0F
	1029	1247	3.7E		1125	1345	3.1E		1753	2045	2.7F		1221	1430	3.0E		1216	1432	3.9E		1229	1441	3.1E
	1634	1918	2.8F		1740	2154	2.4F						1841	2257	2.0F		1834	2200	2.5F		1850	2126	1.9F
	2249				2352																		
<b>7</b> Sa	0109	0109	3.9E	<b>22</b> Su	0202	0202	2.9E	<b>7</b> Tu	0015	0226	3.8E	<b>22</b> W	0054	0254	2.7E	<b>7</b> Th	0055	0259	3.5E	<b>22</b> F	0106	0307	2.8E
	0449	0735	2.7F		0555	1013	2.1F		0603	0849	2.6F		0650	0915	1.8F		0646	0938	2.3F		0701	0928	2.0F
	1114	1335	4.0E		1209	1421	3.0E		1232	1451	4.0E		1302	1510	2.9E		1310	1523	3.7E		1310	1523	3.1E
	1720	2006	2.8F		1825	2243	2.2F		1847	2146	2.5F		1924	2209	1.8F		1931	2333	2.5F		1930	2209	2.0F
<b>8</b> Su	0157	0157	4.0E	<b>23</b> M	0037	0241	2.8E	<b>8</b> W	0110	0317	3.7E	<b>23</b> Th	0138	0336	2.6E	<b>8</b> F	0149	0351	3.4E	<b>23</b> Sa	0148	0350	2.8E
	0533	0820	2.7F		0638	1056	1.9F		0658	0948	2.4F		0735	1001	1.8F		0746	1059	2.1F		0745	1018	2.0F
	1201	1423	4.0E		1253	1500	2.9E		1326	1542	3.8E		1344	1553	2.9E		1406	1615	3.5E		1351	1607	3.2E
	1809	2057	2.7F		1910	2329	2.0F		1945	2303	2.4F		2008	2251	1.8F		2031				2012	2255	2.0F
<b>9</b> M	0031	0246	4.0E	<b>24</b> Tu	0123	0322	2.7E	<b>9</b> Th	0206	0410	3.5E	<b>24</b> F	0222	0420	2.6E	<b>9</b> Sa		0036	2.5F	<b>24</b> Su	0230	0436	2.8E
	0621	0909	2.6F		0722	0955	1.7F		0759	1056	2.2F		0823	1052	1.8F		0244	0445	3.1E		0833	1109	2.0F
	1251	1512	4.0E		1336	1541	2.8E		1423	1634	3.5E		1427	1637	2.8E		0851	1247	2.1F		1434	1654	3.2E
	1901	2155	2.6F		1957				2048				2055	2334	1.8F		1502	1708	3.1E		2058	2341	2.1F
<b>10</b> Tu	0124	0337	3.8E	<b>25</b> W	0012	0012	1.8F	<b>10</b> F	0303	0031	2.3F	<b>25</b> Sa	0306	0506	2.5E	<b>10</b> Su		0136	2.4F	<b>25</b> M	0314	0522	2.9E
	0713	1005	2.5F		0208	0406	2.5E		0303	0504	3.2E		0914	1141	1.8F		0340	0539	2.9E		0925	1159	2.1F
	1344	1602	3.8E		0810	1040	1.7F		0906	1207	2.1F		1511	1723	2.8E		0957	1359	2.1F		1521	1741	3.2E
	1959	2300	2.4F		1419	1624	2.7E		● 1521	1728	3.2E		2143				1600	1803	2.8E		2145		
<b>11</b> W	0220	0429	3.6E	<b>26</b> Th	0254	0450	2.4E	<b>11</b> Sa	0401	0150	2.3F	<b>26</b> Su		0016	1.9F	<b>11</b> M		0236	2.4F	<b>26</b> Tu		0026	2.2F
	0812	1107	2.3F		0900	1127	1.6F		1015	1401	2.0F		0352	0553	2.5E		0437	0637	2.6E		0401	0611	2.9E
	1440	1655	3.6E		1504	1708	2.6E		1622	1825	2.9E		1005	1229	1.9F		1100	1503	2.1F		1019	1249	2.1F
	2104				2137				2257				● 1557	1811	2.8E		1659	1901	2.5E		1612	1832	3.1E
<b>12</b> Th		0008	2.3F	<b>27</b> F		0012	1.6F	<b>12</b> Su	0500	0258	2.4F	<b>27</b> M		0100	1.9F	<b>12</b> Tu		0335	2.4F	<b>27</b> W		0112	2.3F
	0319	0523	3.3E		0341	0536	2.3E		1119	1524	2.1F		0439	0643	2.6E		0533	0746	2.5E		0449	0703	3.0E
	0919	1210	2.1F		0953	1213	1.7F		1723	1928	2.6E		1056	1318	2.0F		1159	1604	2.1F		1112	1341	2.2F
	1539	1749	3.3E		● 1550	1755	2.5E		2356				1647	1902	2.8E		1757	2016	2.4E		1707	1926	3.1E
<b>13</b> F	0126	0126	2.2F	<b>28</b> Sa	0053	0053	1.6F	<b>13</b> M	0559	0400	2.4F	<b>28</b> Tu		0146	2.0F	<b>13</b> W	0022	0432	2.4F	<b>28</b> Th		0201	2.3F
	0419	0619	3.0E		0429	0625	2.2E		1220	1627	2.2F		0527	0735	2.7E		0629	1005	2.6E		0542	0759	3.1E
	1029	1316	2.0F		1044	1300	1.7F		1823	2154	2.6E		1146	1409	2.1F		1254	1702	2.2F		1206	1435	2.2F
	1641	1847	3.0E		1638	1844	2.5E						1740	1957	2.9E		1855	2227	2.5E				

# Cape Cod Canal (RR. Bridge), Massachusetts, 2017

F—Flood, Dir. 070° True    E—Ebb, Dir. 250° True

January				February				March							
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum	
h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m
<b>1</b>				<b>16</b>				<b>1</b>				<b>1</b>			
Su	0525	0753	4.9F	M	0617	0847	4.2F	W	0625	0905	5.5F	Th	0735	1002	4.7E
	1135	1406	5.7E		1239	1506	5.2E		1246	1518	6.5E		1357	1617	4.4E
	1743	2019	5.0F		1845	2255	4.4F		1846	2128	5.6F		1957	2226	3.8F
<b>2</b>				<b>17</b>				<b>2</b>				<b>17</b>			
M	0015	0236	5.3E	Tu	0116	0341	4.9E	Th	0119	0345	6.1E	F	0222	0442	4.3E
	0607	0841	5.0F		0710	0938	3.9F		0716	0956	5.3F		0828	1054	3.5F
	1220	1453	6.0E		1331	1554	4.8E		1340	1609	6.3E		1448	1704	3.9E
	1826	2106	5.1F		1936	2348	4.2F		1938	2220	5.4F		2049	2313	3.6F
<b>3</b>				<b>18</b>				<b>3</b>				<b>18</b>			
Tu	0100	0323	5.5E	W	0206	0429	4.6E	F	0211	0436	5.9E	Sa	0310	0527	3.9E
	0653	0930	5.1F		0804	1057	3.7F		0812	1051	5.1F		0921	1157	3.2F
	1309	1541	6.1E		1424	1645	4.4E		1438	1702	5.9E		1541	1754	3.5E
	1913	2155	5.2F		2028				2035	2314	5.1F		2141		
<b>4</b>				<b>19</b>				<b>4</b>				<b>19</b>			
W	0148	0411	5.6E	Th	0256	0521	4.3E	Sa	0305	0529	5.7E	Su	0359	0614	3.6E
	0743	1022	5.0F		0859	1304	3.6F		0913	1150	4.8F		1015	1257	3.1F
	1402	1632	6.0E		1517	1739	4.0E		1539	1758	5.5E		1634	1847	3.2E
	2004	2247	5.2F		2122				2136				2234		
<b>5</b>				<b>20</b>				<b>5</b>				<b>20</b>			
Th	0239	0502	5.6E	F	0346	0616	4.0E	Su	0403	0625	5.4E	M	0448	0701	3.5E
	0839	1117	4.9F		0955	1359	3.5F		1017	1251	4.5F		1106	1357	3.0F
	1458	1725	5.9E		1612	1838	3.7E		1643	1858	5.0E		1726	1940	3.1E
	2101	2342	5.1F		2215				2240				2325		
<b>6</b>				<b>21</b>				<b>6</b>				<b>21</b>			
F	0332	0555	5.5E	Sa	0437	0720	3.8E	M	0503	0725	5.2E	Tu	0536	0749	3.5E
	0938	1214	4.9F		1050	1455	3.5F		1120	1354	4.3F		1155	1412	3.1F
	1558	1821	5.6E		1707	2028	3.5E		1747	2001	4.8E		1508	1602†	3.1F
	2200				2308				2342				1602†	1602†	3.1F
<b>7</b>				<b>22</b>				<b>7</b>				<b>22</b>			
Sa	0428	0651	5.0F	Su	0527	0904	3.7E	Tu	0604	0827	5.1E	W	0622	0837	3.7E
	1039	1312	4.8F		1142	1549	3.5F		1221	1615	4.3F		1239	1458	3.3F
	1701	1920	5.4E		1800	2134	3.5E		1849	2108	4.7E		1901	2118	3.5E
	2301				2359								1901	2118	3.5E
<b>8</b>				<b>23</b>				<b>8</b>				<b>23</b>			
Su	0526	0749	4.9F	M	0615	0954	3.7E	W	0042	0309	4.2F	Th	0058	0310	3.7F
	1140	1411	4.7F		1231	1639	3.5F		0703	0931	5.1E		0706	0924	4.1E
	1803	2020	5.2E		1851	2220	3.5E		1319	1726	4.6F		1322	1543	3.7F
									1947	2215	4.8E		1944	2201	3.9E
<b>9</b>				<b>24</b>				<b>9</b>				<b>24</b>			
M	0000	0229	4.8F	Tu	0046	0303	3.5F	Th	0139	0416	4.2F	F	0140	0358	4.1F
	0624	0848	5.5E		0700	0934	3.8E		0800	1034	5.3E		0749	1010	4.7E
	1239	1515	4.7F		1316	1722	3.5F		1414	1822	4.9F		1402	1627	4.2F
	1905	2123	5.1E		1937	2230	3.6E		2042	2316	5.0E		2026	2243	4.5E
<b>10</b>				<b>25</b>				<b>10</b>				<b>25</b>			
Tu	0058	0326	4.7F	W	0131	0347	3.7F	F	0234	0614	4.4F	Sa	0222	0445	4.6F
	0721	0948	5.6E		0743	1007	4.1E		0855	1131	5.4E		0831	1055	5.3E
	1335	1630	4.7F		1358	1625	3.7F		1507	1914	5.0F		1442	1711	4.7F
	2003	2224	5.2E		2021	2243	3.9E		2134				2107	2326	5.1E
<b>11</b>				<b>26</b>				<b>11</b>				<b>26</b>			
W	0155	0424	4.6F	Th	0214	0430	4.0F	Sa	0326	0711	4.5F	Su	0303	0530	5.1F
	0816	1045	5.7E		0824	1045	4.5E		0946	1224	5.5E		0914	1141	5.9E
	1430	1823	4.8F		1438	1701	4.0F		1556	2003	5.1F		1523	1755	5.2F
	2059	2322	5.3E		2101	2317	4.2E		2223				2148		
<b>12</b>				<b>27</b>				<b>12</b>				<b>27</b>			
Th	0249	0520	4.6F	F	0254	0513	4.4F	Su	0416	0800	4.5F	M	0344	0616	5.5F
	0910	1140	5.7E		0903	1126	5.0E		1037	1314	5.5E		0958	1228	6.3E
	1523	1924	4.9F		1516	1741	4.4F		1644	2050	4.9F		1604	1840	5.6F
	2153				2140	2356	4.7E		2312				2230		
<b>13</b>				<b>28</b>				<b>13</b>				<b>28</b>			
F	0342	0613	4.6F	Sa	0334	0557	4.8F	M	0505	0753	4.4F	Tu	0427	0703	5.8F
	1003	1233	5.7E		0943	1208	5.5E		1126	1402	5.4E		1045	1316	6.6E
	1614	2019	4.9F		1554	1823	4.8F		1731	2135	4.7F		1648	1926	5.8F
	2244				2220				2359				2315		
<b>14</b>				<b>29</b>				<b>14</b>				<b>29</b>			
Sa	0434	0705	4.5F	Su	0413	0641	5.1E	Tu	0554	0832	4.3F	W	0443	0833	4.6F
	1055	1325	5.6E		1024	1253	5.9E		1216	1447	5.1E		1104	1345	5.3E
	1704	2111	4.8F		1633	1906	5.2F		1819	2219	4.4F		1706	2102	4.7F
	2335				2301								2331		
<b>15</b>				<b>30</b>				<b>15</b>				<b>30</b>			
Su	0525	0756	4.4F	M	0454	0728	5.4F	W	0047	0317	5.0E	Th	0530	0815	4.3F
	1147	1416	5.4E		1108	1340	6.3E		1306	1532	4.8E		1152	1426	5.0E
	1754	2202	4.7F		1714	1952	5.5F		1907	2146	4.1F		1751	2031	4.4F
					2344										
				<b>31</b>								<b>31</b>			
				Tu	0538	0815	5.5F					F	0540	0820	6.6E
					1155	1429	6.5E						1211	1436	6.4E
					1758	2039	5.6F						1802	2039	5.6F

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 † See page 188 for the remaining currents on this day.

# Cape Cod Canal (RR. Bridge), Massachusetts, 2017

F—Flood, Dir. 070° True    E—Ebb, Dir. 250° True

April				May				June																	
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum											
	h	m	knots		h	m	knots		h	m	knots		h	m	knots										
<b>1</b> Sa	0029	0258	6.4E	<b>16</b> Su	0111	0327	4.4E	<b>1</b> M	0105	0329	5.8E	<b>16</b> Tu	0116	0333	4.5E	<b>1</b> Th	0244	0501	4.7E	<b>16</b> F	0208	0435	5.2E		
	0633	0912	5.3F		0720	0938	3.6F		0714	0950	4.6F		0726	0948	3.8F		0855	1312	4.2F		0815	1053	4.5F		
	1308	1528	6.0E		1347	1556	3.9E		1352	1604	5.2E		1357	1605	4.0E		1526	1744	4.4E		1448	1706	4.8E		
	1857	2130	5.1F		1941	2154	3.6F		1940	2204	4.3F		1951	2208	3.8F		2125				2047	2319	4.5F		
<b>2</b> Su	0124	0349	6.0E	<b>17</b> M	0154	0407	4.1E	<b>2</b> Tu	0203	0423	5.3E	<b>17</b> W	0159	0417	4.5E	<b>2</b> F		0008	3.5F	<b>17</b> Sa	0259	0526	5.3E		
	0731	1007	4.8F		0806	1023	3.4F		0814	1055	4.1F		0810	1036	3.8F		0343	0602	4.3E		0906	1145	4.7F		
	1407	1621	5.4E		1434	1639	3.6E		1450	1701	4.7E		1441	1649	4.0E		0954	1409	4.2F		1536	1757	5.0E		
	1956	2225	4.5F		2029	2242	3.4F		2043	2305	3.8F		2038	2259	3.8F		1622	1854	4.2E		2140				
<b>3</b> M	0221	0443	5.5E	<b>18</b> Tu	0238	0450	4.0E	<b>3</b> W	0303	0520	4.8E	<b>18</b> Th	0244	0504	4.5E	<b>3</b> Sa		0229	3.7F	<b>18</b> Su		0014	4.6F		
	0832	1109	4.3F		0853	1112	3.3F		0917	1333	4.0F		0856	1126	3.9F		0442	0714	4.1E		0354	0619	5.3E		
	1507	1718	4.9E		1520	1724	3.5E		1550	1803	4.3E		2127	2351	4.0F		1052	1503	4.3F		1000	1238	4.9F		
	2059	2324	4.1F		2119	2332	3.4F		2146				0244	0504	4.5E		1718	2029	4.3E		1628	1850	5.2E		
<b>4</b> Tu	0322	0540	5.0E	<b>19</b> W	0324	0537	3.9E	<b>4</b> Th		0015	3.6F	<b>19</b> F	0333	0555	4.7E	<b>4</b> Su		0328	3.9F	<b>19</b> M		0108	4.7F		
	0937	1224	4.0F		0941	1202	3.4F		1020	1435	4.2F		0946	1217	4.1F		0541	0900	4.2E		0452	0715	5.4E		
	1609	1820	4.4E		1607	1813	3.5E		1649	1914	4.2E		1614	1828	4.3E		1147	1556	4.3F		1056	1331	5.0F		
	2205				2208				2249				2218				1811	2137	4.6E		1722	1945	5.4E		
<b>5</b> W	0424	0642	4.6E	<b>20</b> Th	0412	0627	4.0E	<b>5</b> F		0251	3.7F	<b>20</b> Sa	0425	0648	4.9E	<b>5</b> M		0018	0423	4.2F	<b>20</b> Tu		0203	4.9F	
	1042	1455	4.1F		1030	1252	3.6F		1120	1533	4.4F		0425	0648	4.9E		0637	1003	4.4E	0551		0812	5.5E		
	1711	1929	4.2E		1654	1903	3.8E		1746	2052	4.3E		1703	1921	4.7E		1238	1646	4.4F	1816		2041	5.7E		
	2309				2258				2348				2310				1902	2230	4.8E	1902		2230	4.8E		
<b>6</b> Th	0527	0751	4.4E	<b>21</b> F	0502	0719	4.3E	<b>6</b> Sa		0353	4.0F	<b>21</b> Su	0520	0743	5.1E	<b>6</b> Tu		0109	0515	4.4F	<b>21</b> W		0028	0300	5.0F
	1144	1557	4.1F		1118	1341	4.0F		1215	1626	4.6F		0520	0743	5.1E		0730	1053	4.5E	0650		0911	5.6E		
	1811	2056	4.3E		1742	1955	4.1E		1840	2200	4.7E		1754	2015	5.1E		1327	1732	4.4F	1247		1519	5.2F		
					2346								0001	0229	4.9F		1950	2314	4.9E	1910		2138	5.9E		
<b>7</b> F	0009	0413	3.9F	<b>22</b> Sa	0206	0427	4.2F	<b>7</b> Su	0042	0448	4.3F	<b>22</b> M	0615	0838	5.5E	<b>7</b> W		0158	0603	4.5F	<b>22</b> Th		0123	0358	5.1F
	0628	0923	4.5E		0553	0813	4.7E		0702	1025	4.6E		0615	0838	5.5E		0820	1136	4.6E	0748		1009	5.7E		
	1241	1652	4.7F		1205	1432	4.4F		1307	1715	4.7F		1220	1452	5.1F		1415	1813	4.3F	1342		1613	5.2F		
	1906	2215	4.7E		1829	2047	4.7E		1931	2251	5.0E		1844	2109	5.6E		2035	2350	4.9E	2004		2232	6.1E		
<b>8</b> Sa	0104	0509	4.3F	<b>23</b> Su	0033	0258	4.7F	<b>8</b> M	0134	0538	4.6F	<b>23</b> Tu	0052	0324	5.2F	<b>8</b> Th		0244	0648	4.4F	<b>23</b> F		0216	0455	5.2F
	0724	1039	4.8E		0644	0907	5.3E		0754	1112	4.9E		0710	0934	5.8E		0907	1213	4.5E	0845		1105	5.7E		
	1333	1742	4.9F		1252	1522	4.9F		1355	1801	4.8F		1311	1545	5.4F		1500	1747	4.1F	1436		1706	5.2F		
	1958	2307	5.1E		1916	2139	5.3E		2019	2334	5.2E		1935	2202	6.0E		2118			2057		2325	6.2E		
<b>9</b> Su	0156	0559	4.6F	<b>24</b> M	0120	0349	5.1F	<b>9</b> Tu	0223	0625	4.7F	<b>24</b> W	0143	0418	5.4F	<b>9</b> F		0009	4.8E	<b>24</b> Sa		0310	0551	5.2F	
	0817	1127	5.1E		0734	1000	5.8E		0844	1154	4.9E		0805	1029	6.1E		0328	0730	4.3F		0940	1159	5.7E		
	1422	1828	5.0F		1339	1612	5.3F		1442	1843	4.7F		1402	1636	5.6F		0952	1238	4.4E		1529	1758	5.1F		
	2047	2352	5.3E		2003	2229	5.9E		2104				2025	2254	6.4E		1544	1807	4.1F		2150				
<b>10</b> M	0246	0646	4.8F	<b>25</b> Tu	0207	0440	5.5F	<b>10</b> W		0012	5.2E	<b>25</b> Th	0234	0511	5.6F	<b>10</b> Sa		0030	4.8E	<b>25</b> Su		0018	6.2E		
	0907	1209	5.2E		0825	1051	6.2E		0309	0710	4.6F		0900	1122	6.2E		0410	0646	4.1F		0402	0645	5.1F		
	1509	1912	5.0F		1426	1701	5.7F		0931	1231	4.9E		1453	1726	5.6F		1035	1302	4.3E		1034	1253	5.6E		
	2133				2050	2318	6.3E		1528	1919	4.5F		2115	2344	6.5E		1627	1844	4.1F		1622	1850	4.9F		
<b>11</b> Tu	0032	0325	5.4E	<b>26</b> W	0254	0530	5.8F	<b>11</b> Th		0041	5.1E	<b>26</b> F	0325	0602	5.6F	<b>11</b> Su		0102	4.7E	<b>26</b> M		0110	6.1E		
	0731	1048	4.7F		0916	1142	6.5E		0354	0753	4.5F		0954	1214	6.2E		0450	0714	4.1F		0454	0740	4.9F		
	0954	1248	5.2E		1514	1749	5.9F		1017	1303	4.7E		1545	1816	5.5F		1117	1334	4.2E		1127	1346	5.5E		
	1554	1952	4.8F		2137				1612	1843	4.3F		2206				1708	1924	4.1F		1715	1942	4.7F		
<b>12</b> W	0108	0325	5.3E	<b>27</b> Th	0006	0225	6.6E	<b>12</b> F		0107	5.0E	<b>27</b> Sa	0416	0654	5.5F	<b>12</b> M		0140	4.8E	<b>27</b> Tu		0203	5.8E		
	0814	1048	4.6F		0343	0620	5.9F		0438	0725	4.2F		0416	0654	5.5F		0529	0752	4.1F		0546	0836	4.7F		
	1041	1325	5.0E		1008	1233	6.5E		1102	1334	4.5E		1048	1307	6.0E		1157	1411	4.3E		1220	1439	5.3E		
	1639	1935	4.5F		1602	1837	5.9F		1655	1916	4.2F		1637	1906	5.3F		1749	2006	4.2F		1809	2035	4.4F		
<b>13</b> Th	0141	0356	5.2E	<b>28</b> F	0056	0271	6.7E	<b>13</b> Sa		0138	4.8E	<b>28</b> Su	0508	0747	5.2F	<b>13</b> Tu		0220	4.9E	<b>28</b> W		0032	0255	5.5E	
	0757	1042	4.3F		0432	0710	5.8F		0520	0747	4.1F		0508	0747	5.2F		0608	0833	4.2F		0640	1044	4.4F		
	1128	1402	4.8E		1101	1325	6.4E		1147	1408	4.3E		1143	1401	5.7E		1238	1451	4.4E		1313	1531	5.0E		
	1723	1951	4.3F		1653	1926	5.6F		1739	1955	4.0F		1730	1958	4.9F		1830	2051	4.2F		1905	2129	4.1F		
<b>14</b> F	0214	0449	4.9E	<b>29</b> Sa	0146	0366	6.6E	<b>14</b> Su		0214	4.6E	<b>29</b> M	0602	0841	4.8F	<b>14</b> W		0039	0302	5.0E	<b>29</b> Th		0127	0347	5.1E
	0818	1114	4.1F		0523	0801	5.5F		0602	0824	3.9F		0602	0841	4.8F		0647	0916	4.3F	0734		1148	4.3F		
	1214	1438	4.5E		1157	1417	6.1E		1231	1444	4.1E		1238	1454	5.4E		1319	1533	4.5E	1406		1624	4.7E		
	1808	2028	4.1F		1745	2017	5.2F		1822	2037	3.9F		1826	2051	4.5F		1912	2138	4.3F	2001		2228	3.8F		
<b>15</b> Sa	0027	0249	4.6E	<b>30</b> Su	0009	0237	6.3E	<b>15</b> M		0034															

# Cape Cod Canal (RR. Bridge), Massachusetts, 2017

F—Flood, Dir. 070° True    E—Ebb, Dir. 250° True

July				August				September															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m								
<b>1</b> Sa	0319	0539	4.3E	<b>16</b> Su	0231	0459	5.8E	<b>1</b> Tu	0446	0749	3.6E	<b>16</b> W	0410	0627	4.7F	<b>1</b> F	0602	0940	3.3E	<b>16</b> Sa	0559	0816	4.5E
	0926	1338	4.1F		0832	1114	5.1F		1046	1448	3.6F		1006	1238	4.7F		1200	1412	3.2F		1156	1422	4.0F
	1553	1824	4.3E		1503	1728	5.5E		1706	2038	3.9E		1629	1853	5.4E		1810	2031	3.5E		1815	2039	4.8E
	2158				2107	2345	4.8F		2321				2246										
<b>2</b> Su	0203	3.7F		<b>17</b> M	0328	0553	5.6E	<b>2</b> W	0331	3.6F		<b>17</b> Th	0119	4.5F		<b>2</b> Sa	0027	0439	3.4F	<b>17</b> Su	0031	0440	4.5F
	0416	0645	4.0E		0928	1209	5.1F		0542	0914	3.6E		0514	0728	4.9E		0650	1020	3.4E		0658	0928	4.7E
	1022	1431	4.0F		1556	1822	5.5E		1140	1541	3.5F		1110	1336	4.5F		1246	1459	3.4F		1254	1545	4.1F
	1647	1953	4.2E		2207				1757	2141	3.9E		1731	1953	5.2E		1856	2117	3.8E		1914	2149	5.0E
<b>3</b> M	0302	3.8F		<b>18</b> Tu	0428	0650	5.4E	<b>3</b> Th	0424	3.7F		<b>18</b> F	0224	4.4F		<b>3</b> Su	0111	0357	3.4F	<b>18</b> M	0127	0536	4.8F
	0514	0830	3.9E		1028	1303	5.0F		0635	1010	3.7E		0617	0832	4.8E		0734	1004	3.7E		0754	1036	5.0E
	1116	1524	4.0F		1653	1918	5.5E		1230	1500	3.4F		1211	1436	4.4F		1330	1546	3.8F		1349	1745	4.4F
	1739	2111	4.3E		2308				1846	2228	3.9E		1832	2056	5.2E		1939	2159	4.2E		2010	2253	5.2E
<b>4</b> Tu	0358	3.9F		<b>19</b> W	0531	0749	5.3E	<b>4</b> F	0512	3.8F		<b>19</b> Sa	0441	4.5F		<b>4</b> M	0152	0416	3.8F	<b>19</b> Tu	0220	0626	5.0F
	0610	0940	4.0E		1129	1359	4.9F		0724	1054	3.8E		0717	0938	4.9E		0815	1034	4.1E		0845	1130	5.3E
	1209	1615	4.0E		1751	2016	5.5E		1318	1541	3.5F		1310	1540	4.4F		1411	1630	4.2F		1441	1837	4.7F
	1830	2207	4.4E						1931	2240	4.0E		1930	2159	5.3E		2020	2241	4.8E		2103	2346	5.4E
<b>5</b> W	0451	4.1F		<b>20</b> Th	0607	0240	4.7F	<b>5</b> Sa	0554	3.8F		<b>20</b> Su	0548	4.8F		<b>5</b> Tu	0456	4.3F		<b>20</b> W	0309	0713	5.0F
	0704	1032	4.1E		0633	0850	5.2E		0810	1121	3.8E		0813	1041	5.1E		0853	1112	4.7E		0934	1218	5.5E
	1259	1702	3.9F		1228	1455	4.8F		1403	1622	3.7F		1406	1645	4.5F		1450	1714	4.7F		1531	1925	4.8F
	1919	2253	4.5E		1849	2115	5.6E		2014	2242	4.2E		2027	2259	5.5E		2101	2324	5.4E		2153		
<b>6</b> Th	0539	4.2F		<b>21</b> F	0105	0344	4.8F	<b>6</b> Su	0505	3.8F		<b>21</b> M	0643	5.0F		<b>6</b> W	0537	4.9F		<b>21</b> Th	0033	5.5E	
	0754	1117	4.2E		0733	0952	5.2E		0851	1119	4.0E		0907	1137	5.3E		0932	1152	5.2E		0356	0758	5.0F
	1347	1741	3.8F		1325	1554	4.8F		1444	1702	4.0F		1459	1746	4.6F		1529	1757	5.2F		1021	1302	5.5E
	2004	2326	4.5E		1946	2214	5.7E		2054	2316	4.6E		2120	2353	5.6E		2142				1619	2012	4.7F
<b>7</b> F	0623	4.1F		<b>22</b> Sa	0201	0453	4.8F	<b>7</b> M	0532	4.1F		<b>22</b> Tu	0734	5.0F		<b>7</b> Th	0008	5.9E		<b>22</b> F	0120	5.4E	
	0841	1152	4.1E		0830	1051	5.3E		0930	1148	4.3E		0957	1229	5.4E		1011	1235	5.7E		0442	0838	4.7F
	1432	1700	3.8F		1421	1651	4.8F		1524	1743	4.4F		1550	1839	4.6F		1609	1842	5.5F		1107	1345	5.4E
	2047	2328	4.5E		2042	2310	5.8E		2133	2355	5.0E		2211				2225				1707	2056	4.5F
<b>8</b> Sa	0702	4.0F		<b>23</b> Su	0255	0634	4.9F	<b>8</b> Tu	0609	4.5F		<b>23</b> W	0045	5.6E		<b>8</b> F	0054	6.3E		<b>23</b> Sa	0205	5.2E	
	0924	1204	4.1E		0925	1146	5.4E		1008	1225	4.7E		0419	0822	5.0F		0428	0704	5.7F		0529	0814	4.5F
	1516	1734	4.0F		1515	1745	4.8F		1602	1825	4.8F		1046	1319	5.5E		1053	1320	6.1E		1154	1427	5.2E
	2127	2353	4.6E		2135				2212				1640	1925	4.6F		1651	1929	5.7F		1755	2035	4.3F
<b>9</b> Su	0608	4.0F		<b>24</b> M	0004	5.9E		<b>9</b> W	0037	5.5E		<b>24</b> Th	0134	5.5E		<b>9</b> Sa	0142	6.5E		<b>24</b> Su	0249	4.9E	
	1004	1225	4.2E		0347	0741	5.0F		0421	0649	4.9F		0506	0907	4.8F		0510	0750	5.8F		0616	0845	4.2F
	1556	1813	4.2F		1017	1240	5.5E		1046	1306	5.1E		1134	1406	5.4E		1136	1407	6.4E		1240	1507	4.9E
	2206				1607	1838	4.7F		1641	1909	5.1F		1729	2009	4.5F		1736	2017	5.7F		1844	2115	4.0F
<b>10</b> M	0028	4.8E		<b>25</b> Tu	0056	5.8E		<b>10</b> Th	0121	5.9E		<b>25</b> F	0223	5.3E		<b>10</b> Su	0231	6.6E		<b>25</b> M	0332	4.5E	
	0418	0641	4.2F		0438	0837	4.9F		0459	0732	5.2F		0554	0949	4.5F		0556	0837	5.8F		0705	0927	3.9F
	1043	1259	4.4E		1108	1333	5.4E		1126	1349	5.5E		1222	1452	5.2E		1224	1455	6.4E		1328	1548	4.5E
	1636	1854	4.4F		1659	1930	4.6F		1720	1954	5.3F		1819	2054	4.2F		1824	2106	5.6F		1935	2200	3.6F
<b>11</b> Tu	0107	5.1E		<b>26</b> W	0149	5.7E		<b>11</b> F	0207	6.2E		<b>26</b> Sa	0309	5.0E		<b>11</b> M	0321	6.4E		<b>26</b> Tu	0417	4.0E	
	0455	0720	4.4F		0528	0929	4.7F		0539	0817	5.4F		0643	0922	4.2F		0646	0927	5.5F		0756	1013	3.6F
	1122	1338	4.6E		1159	1424	5.3E		1208	1434	5.8E		1311	1536	4.9E		1314	1545	6.3E		1415	1630	4.1E
	1714	1937	4.6F		1750	2021	4.4F		1803	2042	5.4F		1911	2141	3.9F		1918	2159	5.3F		2026	2251	3.3F
<b>12</b> W	0150	5.3E		<b>27</b> Th	0013	0239	5.4E	<b>12</b> Sa	0255	6.3E		<b>27</b> Su	0356	4.6E		<b>12</b> Tu	0413	6.0E		<b>27</b> W	0041	3.4F	
	0532	0802	4.7F		0618	1021	4.5F		0622	0904	5.5F		0733	1003	4.0F		0741	1020	5.2F		0252	0504	3.6E
	1201	1419	4.9E		1249	1513	5.1E		1253	1521	6.0E		1359	1621	4.6E		1409	1636	6.0E		0849	1103	3.3F
	1754	2022	4.8F		1843	2112	4.2F		1850	2131	5.4F		2004	2257	3.6F		2017	2256	4.9F		1504	1715	3.8E
<b>13</b> Th	0234	5.6E		<b>28</b> F	0106	0329	5.1E	<b>13</b> Su	0344	6.3E		<b>28</b> M	0445	4.2E		<b>13</b> W	0508	5.5E		<b>28</b> Th	0057	3.0F	
	0611	0846	4.9F		0709	1117	4.3F		0710	0953	5.4F		0826	1051	3.7F		0842	1116	4.7F		0344	0554	3.3E
	1242	1503	5.2E		1340	1602	4.9E		1342	1610	6.0E		1449	1708	4.2E		1507	1731	5.6E		0943	1155	3.1F
	1835	2109	4.9F		1937	2206	3.9F		1942	2223	5.2F		2059				2120	2358	4.5F		1553	1802	3.5E
<b>14</b> F	0320	5.8E		<b>29</b> Sa	0159	0419	4.7E	<b>14</b> M	0435	6.0E		<b>29</b> Tu	0538	3.7E		<b>14</b> Th	0607	5.0E		<b>29</b> F	0057	3.0F	
	0653	0933	5.0F		0802	1212	4.1F		0804	1046	5.3F		0321	0538	3.7E		0947	1216	4.4F		0435	0645	3.1E
	1326	1548	5.4E		1430	1652	4.5E		1433	1701	5.9E		0920	1144	3.4F		1609	1830	5.2E		1035	1245	3.1F
	1921	2158	4.9F		2032				2039	2319	4.9F		2154				2226				1642	1851	3.4E
<b>15</b> Sa	0408	5.9E		<b>30</b> Su	0039	3.7F		<b>15</b> Tu	0529	5.6E		<b>30</b> W	0206	3.4F		<b>15</b> F	0104	4.2F		<b>30</b> Sa	0057	3.0F	
	0740	1022	5.1F		0253	0513	4.3E		0902	1141	5.0F		0416	0639	3.4E		0457	0709	4.7E				



Quonset Point, Narragansett Bay, Rhode Island, 2017

F—Flood, Dir. 021° True E—Ebb, Dir. 200° True

Table with columns for months (January, February, March) and days of the week. Each day entry includes Slack and Maximum tide times (h m) and currents (knots) with direction (E, F). Includes moon phase symbols like circles and crescents.

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

\* Current weak and variable.

† See page 188 for the remaining currents on this day.



# Quonset Point, Narragansett Bay, Rhode Island, 2017

F—Flood, Dir. 021° True E—Ebb, Dir. 200° True

April				May				June															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
1 Sa	0440	0924	0.3F	16 Su	0210	04E	1 M	0204	05E	16 Tu	0216	04E	1 Th	0106	0332	0.4E							
	1118	1349	0.5E		0932	*		0608	*		0943	*		0711	*	16 F	1047	*					
		1809	*		1421	0.4E		0659	*		1426	0.3E		0814	*		1513	0.4E					
	1918†	*	1832	*	1005	0.3F	1855	*	1137	0.3F	2315	*											
2 Su	0538	1022	0.3F	17 M	0250	0.4E	2 Tu	0258	0.4E	17 W	0249	0.3E	2 F	0201	0428	0.4E	17 Sa	0336	0.4E				
	1215	1442	0.5E		0703	*		0647	*		1031	*		0959	1229	0.3F		1138	*				
		1851	*		0746	*		0747	*		1501	0.3E		1429	1659	0.4E		1600	0.4E				
3 M	0045	0313	0.5E	18 Tu	0325	0.3E	3 W	0325	0.3E	18 Th	0324	0.3E	3 Sa	0054	0.3F	18 Su	0007	*					
		0718	*		1107	*		0936	1158		0.3F	1120		*	1036		1318	0.3F	0427	0.4E			
		0803	*		1534	0.3E		1354	1615		0.4E	1540		0.3E	1526		1814	0.4E	1228	*			
4 Tu	0145	0411	0.4E	19 W	0401	0.3E	4 Th	0226	0458	0.4E	19 F	0405	0.3E	4 Su	0143	*	19 M	0058	0.3F				
	0950	1217	0.3F		1154	*		1027	1251	0.3F		1208	*		1049	1406		0.3F	0254	0.3F			
	1413	1635	0.4E		1615	0.3E		1452	1726	0.4E		1630	0.3E		1624	1917		0.4E	1525	1821	0.4E		
5 W	0247	0525	0.4E	20 Th	0014	*	5 F	0117	0.3F	20 Sa	0033	*	5 M	0235	*	20 Tu	0152	0.3F					
	1046	1311	0.3F		0454	0.3E		0325	0614		0.4E	0502		0.3E	0739		0.4E	0357	0648	0.4E			
	1513	1750	0.4E		1239	*		1107	1343		0.3F	1254		*	1050		1459	0.3F	1003	1413	0.3F		
6 Th	0137	0363	0.3F	21 F	0100	*	6 Sa	0210	0.3F	21 Su	0122	*	6 Tu	0330	*	21 W	0252	0.3F					
	0351	0643	0.4E		0627	0.3E		0425	0715		0.4E	0619		0.3E	0827		0.4E	0502	0747	0.5E			
	1131	1406	0.3F		1324	*		1132	1436		0.3F	1342		*	1121		1552	0.3F	1055	1518	0.3F		
7 F	0234	0453	0.3F	22 Sa	0148	*	7 Su	0306	0.3F	22 M	0215	0.3F	7 W	0419	0.3F	22 Th	0356	0.3F					
	0453	0741	0.4E		0720	0.3E		0520	0805		0.4E	0424		0.4E	0625		0912	0.5E	0602	0840	0.5E		
	1206	1503	0.3F		1412	*		1132	1532		0.3F	1034		1437	0.3F		1159	1637	0.3F	1144	1621	0.3F	
8 Sa	0334	0548	0.3F	23 Su	0243	*	8 M	0401	0.3F	23 Tu	0316	0.3F	8 Th	0459	0.3F	23 F	0454	0.4F					
	0548	0829	0.5E		0800	0.4E		0609	0851		0.5E	0525		0812	0.5E		0706	0956	0.5E	0656	0931	0.5E	
	1220	1600	0.4F		1508	0.3F		1152	1622		0.3F	1119		1540	0.3F		1240	1713	0.3F	1232	1716	0.4F	
9 Su	0010	0428	0.3F	24 M	0343	0.3F	9 Tu	0447	0.3F	24 W	0416	0.3F	9 Th	0533	0.3F	24 Sa	0546	0.4F					
	0636	0915	0.5E		0552	0841		0.4E	0652		0935	0.5E		0621	0900		0.5E	0746	1038	0.5E	0748	1022	0.6E
	1230	1649	0.4F		1149	1606		0.3F	1226		1705	0.3F		1204	1639		0.3F	1323	1745	0.3F	1321	1807	0.4F
10 M	0047	0513	0.3F	25 Tu	0025	0438	0.3F	10 W	0526	0.3F	25 Th	0510	0.4F	10 Sa	0607	0.3F	25 Su	0637	0.4F				
	0719	0959	0.5E		0642	0924	0.5E		0733	1019		0.5E	0713		0949	0.5E		0824	1118	0.5E	0841	1112	0.6E
	1258	1731	0.4F		1229	1658	0.3F		1305	1741		0.3F	1250		1730	0.4F		1407	1819	0.3F	1413	1900	0.4F
11 Tu	0128	0553	0.3F	26 W	0109	0527	0.4F	11 Th	0601	0.3F	26 F	0601	0.4F	11 Su	0645	0.3F	26 M	0732	0.4F				
	0800	1043	0.5E		0731	1010	0.5E		0813	1102		0.5E	0805		1039	0.6E		0903	1157	0.4E	0933	1202	0.5E
	1335	1810	0.4F		1313	1746	0.4F		1348	1815		0.3F	1338		1821	0.4F		1451	1857	0.3F	1504	1957	0.4F
12 W	0210	0631	0.3F	27 Th	0157	0616	0.4F	12 F	0637	0.3F	27 Sa	0654	0.4F	12 M	0525	0.5E	27 Tu	0732	0.4F				
	0841	1126	0.5E		0821	1057	0.6E		0853	1144		0.5E	0857		1128	0.6E		0729	*	0420	0829	0.3F	
	1416	1848	0.3F		1359	1836	0.4F		1432	1850		0.3F	1429		1917	0.4F		1236	0.4E	1027	1255	0.5E	
13 Th	0254	0711	0.3F	28 F	0247	0710	0.4F	13 Sa	0012	0.5E	28 Su	0000	0.5E	13 Tu	0103	0.4E	28 W	0129	0.5E				
	0922	1209	0.5E		0913	1145	0.6E		0717	*		0335	0751		0.4F	0819		*	0456	0925	0.3F		
	1458	1929	0.3F		1448	1932	0.3F		1226	0.4E		0951	1219		0.5E	1315		0.4E	1120	1350	0.5E		
14 F	0038	0756	0.5E	29 Sa	0015	0.5E	14 Su	0056	0.5E	29 M	0053	0.5E	14 W	0140	0.4E	29 Th	0220	0.4E					
	0756	1254	0.4E		0808	0.3F		0805	*		1308	0.4E		0427	0850		0.3F	0909	*	0604	*		
	1254	2015	*		1237	0.5E		1308	0.4E		2022	*		1045	1313		0.5E	1353	0.4E	0709	*		
15 Sa	0125	0844	0.4E	30 Su	0109	0.5E	15 M	0138	0.4E	30 Tu	0148	0.5E	15 Th	0216	0.4E	30 F	0309	0.4E					
	0844	1339	0.4E		0907	0.3F		0855	*		1349	0.4E		0523	0947		0.3F	0958	*	0647	*		
	1756	1903†	*		1331	0.5E		1817	*		1817	*		1141	1408		0.5E	1432	0.4E	0759	*		
				1746	*	1914†	*	1914†	*	1803	*	2222	*	1112	0.3F								
				1853†	*					1918†	*			1309	1534†	0.4E							
										0011	0.4E												
										0241	0.4E												
										0623	*												
										0728	*												
										1042	0.3F												
										1237	1501†	0.4E											

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

\* Current weak and variable.

† See page 188 for the remaining currents on this day.

# Quonset Point, Narragansett Bay, Rhode Island, 2017

F—Flood, Dir. 021° True E—Ebb, Dir. 200° True

July				August				September														
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum					
h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots				
<b>1</b> Sa	0358 0743 0843	0.4E * *		<b>16</b> Su	0312 1111 1536	0.4E * 0.4E		<b>1</b> Tu	0045 0531 1305 1824	* 0.3E * 0.3E		<b>16</b> W	0213 0439 0808 1444 1722 2202	0.3F 0.4E 0.3F 0.4E 0.4E		<b>1</b> F	0134 0715 1351 1950	* 0.3E * 0.3E		<b>16</b> Sa	0403 1014 1422 1642	0.3F 0.4E 0.3F 0.5E
<b>2</b> Su	0029 0458 1251 1455	* 0.3E 0.3F 0.3E		<b>17</b> M	0135 0729 1402 2039	0.4E 0.3F 0.4E		<b>2</b> W	0127 0645 1347 1924	* 0.3E * 0.3E		<b>17</b> Th	0315 0553 0918 1551 1847 2313	0.3F 0.4E 0.3F 0.3F 0.4E		<b>2</b> Sa	0218 0804 1438 2032	* 0.3E * 0.4E		<b>17</b> Su	0001 0507 1112 1742	0.4F 0.5E 0.4F 0.5E
<b>3</b> M	0611 1336 1852	0.3E * 0.4E		<b>18</b> Tu	0232 0836 1502 2155	0.3F 0.4E 0.3F 0.4E		<b>3</b> Th	0211 0741 1432 2013	* 0.3E * 0.4E		<b>18</b> F	0422 1021 1700	0.3F 0.5E 0.5E		<b>3</b> Su	0309 0845 1532 2109	* 0.4E * 0.4E		<b>18</b> M	0039 0604 1201 1835	0.3F 0.4E 0.4F 0.5E
<b>4</b> Tu	0201 0713 1423 1947	* 0.3E * 0.4E		<b>19</b> W	0335 0938 1609 2301	0.3F 0.4E 0.4E		<b>4</b> F	0301 0827 1523 2057	* 0.4E * 0.4E		<b>19</b> Sa	0008 0526 1117 1801	0.3F 0.5E 0.4F 0.5E		<b>4</b> M	0400 0922 1621 2143	* 0.4E 0.3F 0.4E		<b>19</b> Tu	0101 0655 1247 1923	0.4F 0.6E 0.4F 0.6E
<b>5</b> W	0251 0804 1515 2034	* 0.4E * 0.4E		<b>20</b> Th	0441 1035 1716 2358	0.3F 0.5E 0.5E		<b>5</b> Sa	0353 0910 1611 2138	* 0.4E * 0.4E		<b>20</b> Su	0056 0623 1207 1854	0.4F 0.5E 0.4F 0.5E		<b>5</b> Tu	0045 0655 1257 1916	0.4F 0.4E 0.3F 0.5E		<b>20</b> W	0121 0743 1332 2008	0.4F 0.6E 0.4F 0.6E
<b>6</b> Th	0344 0849 1605 2119	* 0.4E * 0.5E		<b>21</b> F	0543 1128 1816	0.3F 0.5E 0.5E		<b>6</b> Su	0436 0950 1651 2215	* 0.4E 0.3F 0.5E		<b>21</b> M	0139 0714 1256 1944	0.4F 0.6E 0.4F 0.6E		<b>6</b> W	0119 0734 1338 1956	0.3F 0.5E 0.3F 0.5E		<b>21</b> Th	0151 0829 1418 2052	0.4F 0.6E 0.3F 0.5E
<b>7</b> F	0429 0933 1644 1901	* 0.4E 0.3F 0.5E		<b>22</b> Sa	0052 0640 1218 1910	0.4F 0.5E 0.4F 0.6E		<b>7</b> M	0119 0726 1320 1946	0.3F 0.4E 0.3F 0.5E		<b>22</b> Tu	0211 0804 1346 2032	0.4F 0.6E 0.4F 0.6E		<b>7</b> Th	0155 0814 1420 2038	0.3F 0.5E 0.3F 0.5E		<b>22</b> F	0228 0915 1502 2136	0.4F 0.5E 0.3F
<b>8</b> Sa	0105 0718 1300 1938	0.3F 0.5E 0.3F 0.5E		<b>23</b> Su	0150 0732 1307 2002	0.4F 0.6E 0.4F 0.6E		<b>8</b> Tu	0156 0803 1403 2024	0.3F 0.5E 0.3F 0.5E		<b>23</b> W	0236 0853 1436 2119	0.4F 0.6E 0.4F 0.5E		<b>8</b> F	0233 0858 1503 2124	0.3F 0.5E 0.3F		<b>23</b> Sa	0014 0754 1242 2021	0.5E 0.3F 0.5E *
<b>9</b> Su	0146 0756 1343 2015	0.3F 0.5E 0.3F 0.5E		<b>24</b> M	0247 0823 1359 2053	0.4F 0.6E 0.4F 0.6E		<b>9</b> W	0232 0842 1446 2105	0.3F 0.5E 0.3F 0.5E		<b>24</b> Th	0306 0941 1523 2204	0.4F 0.5E 0.3F		<b>9</b> Sa	0004 0737 1228 1546 2013 2213	0.5E 0.3F 0.5E 0.3F		<b>24</b> Su	0101 0517 0604 0844 1045 1332† 1419 1549 0708 0933 1421†	0.5E * * 0.3F 0.5E 0.4E
<b>10</b> M	0228 0833 1427 2053	0.3F 0.4E 0.3F 0.5E		<b>25</b> Tu	0324 0914 1451 2143	0.4F 0.6E 0.4F		<b>10</b> Th	0308 0925 1527 2148	0.3F 0.5E 0.3F		<b>25</b> F	0340 1029 1716 1755†	0.5E 0.3F * *		<b>10</b> Su	0051 0835 1316 1630 2111 2305	0.5E 0.3F 0.5E 0.3F		<b>25</b> M	0149 0549 0708 0933 1421†	0.4E * * * 0.4E
<b>11</b> Tu	0306 0912 1510 2133	0.3F 0.4E 0.3F		<b>26</b> W	0016 0348 1005 1540 2232	0.5E 0.4F 0.5E 0.3F		<b>11</b> F	0032 0344 1009 1608 2235	0.5E 0.3F 0.5E 0.3F		<b>26</b> Sa	0417 1117 1358 1748 1900†	0.5E 0.3F 0.5E * *		<b>11</b> M	0141 0618 0722 0933 1129 1407†	0.5E * * 0.3F 0.5E		<b>26</b> Tu	0236 0629 0755 1020 1507†	0.4E 0.4E * * 0.4E
<b>12</b> W	0027 0744 0953 1551 2215	0.5E 0.3F 0.4E 0.3F		<b>27</b> Th	0106 0417 1056 1627 2320	0.5E 0.3F 0.5E 0.3F		<b>12</b> Sa	0116 0614 0650 0858 1340†	0.5E * * 0.3F 0.5E		<b>27</b> Su	0217 0606 0728 1010 1446†	0.4E * * * 0.4E		<b>12</b> Tu	0231 0700 0804 1031 1129 1459†	0.5E 0.5E * 0.3F 0.5E		<b>27</b> W	0320 0716 0835 1107 1552†	0.3E * * * 0.3E
<b>13</b> Th	0104 0835 1322 2102	0.5E * 0.4E *		<b>28</b> F	0155 0546 0650 0951 1421†	0.4E * * 0.3F 0.4E		<b>13</b> Su	0203 0645 0741 0953 1149 1427†	0.5E * * 0.3F 0.5E		<b>28</b> M	0302 0650 0815 1059 1534†	0.4E 0.4E * * 0.4E		<b>13</b> W	0323 0756 0840 1129 1553†	0.5E 0.5E * 0.3F 0.4E		<b>28</b> Th	0405 0819 0907 1153 1651 2017	0.3E * * * 0.3E *
<b>14</b> F	0926 1405 2155	0.5E 0.4E *		<b>29</b> Sa	0243 0626 0744 1042 1511†	0.4E * * 0.3F 0.4E		<b>14</b> M	0019 0554 1244 1847	0.5E 0.3F 0.5E 0.3F		<b>29</b> Tu	0349 0743 0857 1147 1628	0.3E 0.3E * * 0.3E		<b>14</b> Th	0003 0419 0745 1429 2217	0.3F 0.4E 0.3F 0.4E		<b>29</b> F	0512 1235 1819	* * 0.3E
<b>15</b> Sa	0227 0717 0755 1018 1449†	0.5E * * * 0.4E		<b>30</b> Su	0330 0714 0831 1133 1602†	0.4E 0.4E * * 0.4E		<b>15</b> Tu	0115 0657 1342 2017	0.5E 0.3F 0.4E		<b>30</b> W	0011 0447 1231 1746	0.3E * * 0.3E		<b>15</b> F	0059 0530 0903 1534 2314	0.3F 0.4E 0.3F 0.4E		<b>30</b> Sa	0058 0641 1316 1918	* * * 0.3E
				<b>31</b> M	0421 0816 0913 1221 1706	0.3E * * * 0.3E						<b>31</b> Th	0053 0610 1311 1858	* 0.3E * 0.3E								

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

\* Current weak and variable.

† See page 188 for the remaining currents on this day.

# Quonset Point, Narragansett Bay, Rhode Island, 2017

F—Flood, Dir. 021° True E—Ebb, Dir. 200° True

October				November				December															
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum						
h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots					
<b>1</b> Su	0140 0735 1400 2000	* 0.3E *		<b>16</b> M	0446 0731 1120 1720	0.3F 0.5E 0.3F 0.5E		<b>1</b> W	0239 0814 1515 2025	* 0.4E *		<b>16</b> Th	0400 0853 1221 1833	0.3F 0.5E 0.3F 0.5E		<b>1</b> F	0306 0821 1147 1753 2340	0.3F 0.4E 0.3F 0.5E		<b>16</b> Sa	0633 1232 1850	0.3F 0.5E 0.3F 0.5E	
<b>2</b> M	0226 0815 1452 2033	* 0.3E *		<b>17</b> Tu	0007 0544 1159 1812	0.4F 0.5E 0.4F 0.5E		<b>2</b> Th	0337 0851 1209 1818	0.3F 0.4E 0.3F 0.5E		<b>17</b> F	0008 0657 1253 1916	0.3F 0.6E 0.3F 0.5E		<b>2</b> Sa	0409 0908 1231 1845	0.3F 0.5E 0.3F 0.5E		<b>17</b> Su	0022 0714 1309 1932	0.3F 0.5E 0.3F 0.5E	
<b>3</b> Tu	0319 0850 1548 2104	* 0.4E *		<b>18</b> W	0017 0634 1236 1859	0.4F 0.6E 0.4F 0.5E		<b>3</b> F	0008 0640 1250 1906	0.3F 0.5E 0.3F 0.5E		<b>18</b> Sa	0046 0739 1331 1958	0.3F 0.6E 0.3F 0.5E		<b>3</b> Su	0503 0955 1318 1936	0.3F 0.5E 0.4F 0.6E		<b>18</b> M	0104 0754 1351 2012	0.3F 0.5E 0.3F 0.5E	
<b>4</b> W	0007 0623 1233 1846	0.3F 0.4E 0.3F 0.5E		<b>19</b> Th	0041 0720 1314 1942	0.4F 0.6E 0.4F 0.5E		<b>4</b> Sa	0050 0727 1334 1954	0.3F 0.5E 0.4F 0.5E		<b>19</b> Su	0128 0821 1414 2039	0.3F 0.5E 0.3F 0.5E		<b>4</b> M	0113 0801 1410 2028	0.4F 0.5E 0.4F 0.6E		<b>19</b> Tu	0149 0833 1436 2052	0.3F 0.5E 0.3F 0.5E	
<b>5</b> Th	0042 0705 1313 1929	0.3F 0.5E 0.3F 0.5E		<b>20</b> F	0115 0805 1355 2025	0.4F 0.6E 0.4F 0.5E		<b>5</b> Su	0134 0816 1422 2045	0.3F 0.5E 0.4F 0.6E		<b>20</b> M	0213 0901 1458 2121	0.3F 0.5E 0.3F 0.5E		<b>5</b> Tu	0202 0854 1505 2122	0.4F 0.5E 0.4F 0.6E		<b>20</b> W	0235 0911 1519 2132	0.3F 0.5E 0.3F 0.5E	
<b>6</b> F	0120 0749 1356 2015	0.3F 0.5E 0.3F 0.5E		<b>21</b> Sa	0155 0848 1438 2107	0.3F 0.6E 0.3F 0.5E		<b>6</b> M	0222 0908 1512 2137	0.3F 0.5E 0.3F 0.5E		<b>21</b> Tu	0258 0942 1952	0.5E 0.3F 0.5E		<b>6</b> W	0253 0949 1557 2216	0.4F 0.5E 0.3F 0.5E		<b>21</b> Th	0319 0950 2001	0.4E 0.3F 0.5E	
<b>7</b> Sa	0201 0835 1440 2103	0.3F 0.5E 0.3F 0.5E		<b>22</b> Su	0238 0931 1521 2149	0.3F 0.5E 0.3F 0.5E		<b>7</b> Tu	0311 1002 1603 2232	0.6E 0.3F 0.3F 0.5E		<b>22</b> W	0054 0809 1325 2041	0.4E 0.4E *		<b>7</b> Th	0344 1044 1648 2311	0.5E 0.3F 0.3F 0.5E		<b>22</b> F	0106 0820 1331 2049	0.4E 0.4E *	
<b>8</b> Su	0246 0924 1526 2154	0.3F 0.5E 0.3F		<b>23</b> M	0035 0804 1306 2032	0.5E *		<b>8</b> W	0102 0400 1058 1656 2328	0.5E 0.3F 0.5E 0.3F		<b>23</b> Th	0139 0602 0654 0858 1407†	0.4E *		<b>8</b> F	0140 0548 0651 0941 1140 1413†	0.5E *		<b>23</b> Sa	0145 0911 1406 2137	0.4E *	
<b>9</b> M	0331 1017 1613 2248	0.5E 0.3F 0.5E 0.3F		<b>24</b> Tu	0122 0537 0641 0852 1354†	0.4E *		<b>9</b> Th	0156 0609 0717 0959 1157 1429†	0.5E *		<b>24</b> F	0219 0638 0735 0946 1443†	0.4E *		<b>9</b> Sa	0234 0628 0739 1038 1237 1504†	0.5E *		<b>24</b> Su	0222 1001 1440 2224	0.4E *	
<b>10</b> Tu	0120 0554 0656 0916 1112	0.5E *		<b>25</b> W	0208 0612 0730 0939 1438†	0.4E *		<b>10</b> F	0250 0653 0800 1057 1256 1523†	0.5E *		<b>25</b> Sa	0255 1035 1516 2301	0.3E 0.3E 0.3E *		<b>10</b> Su	0327 0716 0822 1134 1332 1557†	0.4E 0.4E 0.3F 0.4E		<b>25</b> M	0258 1052 1517 2313	0.4E *	
<b>11</b> W	0213 0633 0742 1015 1211 1444†	0.5E *		<b>26</b> Th	0250 0654 0808 1025 1518†	0.3E *		<b>11</b> Sa	0344 0749 0839 1154 1354 1620†	0.4E *		<b>26</b> Su	0330 1124 1551 2348	0.3E 0.3E 0.3E *		<b>11</b> M	0327 0425 0820 0901 1228†	0.3F 0.4E 0.3F 0.4E		<b>26</b> Tu	0338 1143 1601	0.3E *	
<b>12</b> Th	0042 0721 0821 1114 1312 1538†	0.5E *		<b>27</b> F	0329 0750 0837 1112 1557†	0.3E *		<b>12</b> Su	0222 0950 1453 2241	0.3F 0.3F 0.4E		<b>27</b> M	0411 1212 1637	0.3E 0.3E		<b>12</b> Tu	0503 0536 1319 1811 2243	0.3F 0.4E 0.3F 0.4E		<b>27</b> W	0003 0428 1234 1658	0.3E *	
<b>13</b> F	0141 0724 1413 2211	0.4E		<b>28</b> Sa	0409 1159 1646	0.3E		<b>13</b> M	0115 0321 1049 1553 2315	0.3F 0.4E		<b>28</b> Tu	0033 0513 1300 1748	0.3E		<b>13</b> W	0143 0648 1129 1622 2241	0.3F 0.4E		<b>28</b> Th	0052 0540 1325 1812	0.3E 0.4E	
<b>14</b> Sa	0241 0859 1515 2302	0.3F 0.4E		<b>29</b> Su	0023 0514 1243 1817	0.3E		<b>14</b> Tu	0208 0711 1132 1653 2326	0.3F 0.4E		<b>29</b> W	0118 0640 1349 1858	0.3E		<b>14</b> Th	0235 0744 1154 1718 2305	0.3F 0.4E		<b>29</b> F	0143 0659 1420 1918	0.3F 0.4E	
<b>15</b> Su	0343 1027 1620 2342	0.3F 0.4E		<b>30</b> M	0105 0650 1328 1911	0.3E		<b>15</b> W	0304 0805 1159 1746 2337	0.3F 0.5E 0.3F 0.5E		<b>30</b> Th	0207 0736 1445 1949	0.4E		<b>15</b> F	0332 0833 1205 1807 2342	0.3F 0.5E 0.3F 0.5E		<b>30</b> Sa	0242 0757 1131 1730 2318	0.3F 0.4E 0.3F 0.5E	
				<b>31</b> Tu	0149 0737 1417 1949	0.3E															<b>31</b> Su	0601 1219 1827	0.3F 0.5E 0.3F 0.5E

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

\* Current weak and variable.

† See page 188 for the remaining currents on this day.

















# The Race, Long Island Sound, 2017

F—Flood, Dir. 291° True    E—Ebb, Dir. 106° True

October				November				December															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots								
h m	h m	h m		h m	h m	h m		h m	h m	h m		h m	h m	h m									
<b>1</b> Su	0159 0745 1419 2002	0449 1052 1704 2313	2.6F 3.6E 2.8F 3.7E	<b>16</b> M	0245 0842 1515 2110	0553 1152 1820 2110	3.5F 4.5E 3.5F	<b>1</b> W	0244 0840 1518 2107	0538 1150 1805 2107	3.5F 4.7E 3.5F	<b>16</b> Th	0402 0957 1640 2231	0709 1313 1943 2231	4.1E 3.6F 4.8E 3.5F	<b>1</b> F	0256 0858 1539 2131	0553 1210 1829 2131	3.9F 5.2E 3.8F	<b>16</b> Sa	0422 1014 1701 2250	0726 1331 2002 2250	3.7E 3.3F 4.5E 3.3F
<b>2</b> M	0244 0833 1505 2051	0536 1139 1753 2359	3.0F 4.0E 3.1F 4.1E	<b>17</b> Tu	0337 0934 1607 2202	0645 1244 1913 2202	3.7F 4.8E 3.7F	<b>2</b> Th	0331 0928 1605 2157	0627 1237 1855 2157	3.8F 5.1E 3.8F	<b>17</b> F	0447 1040 1723 2314	0751 1354 2024 2314	3.6F 4.7E 3.5F	<b>2</b> Sa	0348 0950 1631 2225	0646 1301 1922 2225	4.6E 5.5E 4.0F	<b>17</b> Su	0504 1053 1740 2328	0804 1409 2039 2328	3.3F 4.4E 3.3F
<b>3</b> Tu	0327 0918 1550 2139	0621 1224 1840 2139	3.3F 4.4E 3.5F	<b>18</b> W	0425 1021 1656 2250	0732 1331 2000 2250	3.9F 4.9E 3.7F	<b>3</b> F	0417 1016 1653 2247	0714 1325 1944 2247	4.1F 5.4E 4.1F	<b>18</b> Sa	0529 1119 1804 2353	0829 1433 2102 2353	3.5F 4.6E 3.4F	<b>3</b> Su	0440 1041 1722 2318	0738 1352 2015 2318	4.4F 5.7E 4.2F	<b>18</b> M	0544 1130 1817	0839 1444 2112	3.2F 4.4E 3.3F
<b>4</b> W	0409 1002 1634 2225	0704 1308 1925 2225	4.4E 3.7F 3.8F	<b>19</b> Th	0510 1104 1742 2334	0814 1415 2042 2334	3.9F 4.9E 3.7F	<b>4</b> Sa	0505 1104 1742 2337	0802 1414 2033 2337	4.3F 5.6E 4.2F	<b>19</b> Su	0610 1157 1843	0904 1510 2137	3.4F 4.5E 3.3F	<b>4</b> M	0533 1133 1814	0830 1444 2108	4.4F 5.7E 4.3F	<b>19</b> Tu	0623 1205 1853	0912 1518 2144	3.2F 4.3E 3.2F
<b>5</b> Th	0451 1046 1719 2311	0747 1353 2010 2311	4.0F 5.2E 4.0F	<b>20</b> F	0553 1145 1825	0853 1457 2122	3.8F 4.8E 3.6F	<b>5</b> Su	0554 1153 1832	0850 1504 2123	4.4F 5.7E 4.3F	<b>20</b> M	0649 1233 1921	0938 1547 2210	3.2F 4.3E 3.2F	<b>5</b> Tu	0627 1226 1907	0922 1537 2201	4.4F 5.6E 4.2F	<b>20</b> W	0701 1241 1928	0946 1554 2217	3.2F 4.2E 3.2F
<b>6</b> F	0534 1130 1804 2357	0829 1438 2055 2357	4.2F 5.4E 4.2F	<b>21</b> Sa	0634 1225 1907	0930 1536 2200	3.6F 4.7E 3.4F	<b>6</b> M	0644 1244 1924	0939 1555 2215	4.4F 5.6E 4.1F	<b>21</b> Tu	0729 1310 1958	1013 1623 2245	3.1F 4.2E 3.1F	<b>6</b> W	0723 1321 2002	1017 1632 2257	4.2F 5.4E 4.1F	<b>21</b> Th	0740 1318 2004	1021 1631 2252	3.1F 4.2E 3.2F
<b>7</b> Sa	0618 1216 1852	0913 1526 2141	4.3F 5.4E 4.2F	<b>22</b> Su	0715 1303 1948	1006 1615 2237	3.4F 4.4E 3.2F	<b>7</b> Tu	0738 1337 2019	1032 1649 2311	4.2F 5.3E 3.9F	<b>22</b> W	0809 1347 2036	1050 1701 2322	2.9F 4.0E 3.0F	<b>7</b> Th	0822 1418 2059	1114 1728 2356	3.9F 5.1E 3.9F	<b>22</b> F	0820 1357 2041	1100 1710 2330	3.0F 4.1E 3.2F
<b>8</b> Su	0705 1304 1942	1000 1615 2231	4.3F 5.4E 4.0F	<b>23</b> M	0757 1341 2029	1043 1654 2314	3.1F 4.1E 2.9F	<b>8</b> W	0836 1434 2117	1129 1745 2117	3.8F 5.0E	<b>23</b> Th	0851 1427 2116	1130 1741 2116	2.8F 3.8E	<b>8</b> F	0924 1517 2158	1217 1827 2158	3.6F 4.6E	<b>23</b> Sa	0902 1439 2120	1143 1752 2120	3.0F 4.0E
<b>9</b> M	0756 1355 2035	1049 1706 2324	4.1F 5.2E 3.8F	<b>24</b> Tu	0840 1420 2111	1121 1734 2355	2.9F 3.9E 2.7F	<b>9</b> Th	0939 1535 2219	1232 1845	3.5F 4.6E	<b>24</b> F	0936 1510 2159	1214 1824	2.7F 3.7E	<b>9</b> Sa	1029 1620 2259	1324 1929	3.2F 4.2E	<b>24</b> Su	0949 1525 2204	1229 1837	2.9F 3.9E
<b>10</b> Tu	0851 1450 2134	1144 1801	3.8F 4.9E	<b>25</b> W	0925 1502 2156	1204 1816	2.6F 3.6E	<b>10</b> F	1047 1639 2323	0719 1340 1950	4.2E 3.2F 4.3E	<b>25</b> Sa	1025 1558 2244	1302 1911	2.6F 3.6E	<b>10</b> Su	1136 1724	1433 2035	3.0F 3.9E	<b>25</b> M	1039 1615 2251	1319 1927	2.9F 3.8E
<b>11</b> W	0952 1550 2237	1244 1901	3.5F 4.6E	<b>26</b> Th	1013 1547 2243	1250 1902	2.5F 3.4E	<b>11</b> Sa	1154 1746	1452 2058	3.1F 4.0E	<b>26</b> Su	1116 1649 2333	1353 2002	2.6F 3.6E	<b>11</b> M	1242 1830	1541 2142	2.9F 3.7E	<b>26</b> Tu	1133 1710 2343	1412 2021	2.9F 3.8E
<b>12</b> Th	1058 1655 2343	1351 2006	3.3F 4.3E	<b>27</b> F	1104 1637 2331	1341 1951	2.4F 3.3E	<b>12</b> Su	1301 1853	1602 2206	3.1F 4.0E	<b>27</b> M	1210 1745	1447 2056	2.7F 3.6E	<b>12</b> Tu	1344 1933	1645 2244	3.0F 3.7E	<b>27</b> W	1229 1809	1508 2118	3.0F 3.9E
<b>13</b> F	1207 1802	1503 2115	3.1F 4.1E	<b>28</b> Sa	1157 1730	1433 2044	2.4F 3.3E	<b>13</b> M	1404 1956	1707 2307	3.2F 4.0E	<b>28</b> Tu	1303 1842	1542 2152	2.9F 3.8E	<b>13</b> W	1441 2031	1744 2340	3.0F 3.7E	<b>28</b> Th	1326 1910	1607 2217	3.1F 4.0E
<b>14</b> Sa	1314 1910	1615 2223	3.2F 4.2E	<b>29</b> Su	1249 1825	1527 2138	2.6F 3.5E	<b>14</b> Tu	1501 2053	1805 2053	3.3F 4.5E 3.3F	<b>29</b> W	1356 1940	1638 2247	3.1F 4.1E	<b>14</b> Th	1532 2122	1836 2122	3.1F	<b>29</b> F	1422 2010	1707 2314	3.3F 4.3E
<b>15</b> Su	1417 2013	1721 2324	3.3F 4.3E	<b>30</b> M	1340 1921	1621 2231	2.8F 3.7E	<b>15</b> W	0911 1552 2145	1227 1857	4.7E 3.4F	<b>30</b> Th	1448 2037	1734 2340	3.4F 4.4E	<b>15</b> F	0931 1619 2208	1251 1921	4.5E 3.2F	<b>30</b> Sa	1517 2109	1807 2109	3.6F
				<b>31</b> Tu	1429 2015	1714 2321	3.1F 4.1E													<b>31</b> Su	0929 1611 2206	1240 1905	5.4E 3.9F

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









# Hell Gate (off Mill Rock), East River, New York, 2017

F—Flood, Dir. 050° True    E—Ebb, Dir. 230° True

January				February				March																
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum										
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	h	m	knots								
<b>1</b> Su	0544	0840	3.5F	4.9E	<b>16</b> M	0030	0326	4.8E	<b>1</b> W	0030	0325	5.0E	<b>1</b> W	0542	0842	3.9F	<b>16</b> Th	0016	0302	4.7E				
	1145	1441	5.0E	4.8E		0659	0955	3.5F		0651	0949	3.6F		0758	1052	3.2F		0634	0932	3.5F	1241	1522	4.5E	
	1814	2104	3.4F	3.4F		1255	1552	4.8E		1917	2213	3.5F		1358	1641	4.4E		1805	2103	3.8F	1853	2149	3.4F	
<b>2</b> M	0007	0301	4.9E	4.9E	<b>17</b> Tu	0119	0413	4.6E	<b>2</b> Th	0119	0414	5.0E	<b>17</b> F	0218	0503	4.3E	<b>2</b> Th	0012	0304	5.1E	<b>17</b> F	0057	0341	4.6E
	0627	0923	3.5F	3.5F		0750	1045	3.3F		0742	1039	3.5F		0846	1138	3.0F		0630	0930	3.8F		0716	1011	3.3F
	1229	1525	4.9E	4.9E		1344	1638	4.5E		2008	2305	3.4F		1445	1726	4.2E		1242	1529	5.0E		1323	1602	4.4E
<b>3</b> Tu	0051	0347	4.8E	4.8E	<b>18</b> W	0208	0501	4.4E	<b>3</b> F	0213	0507	4.8E	<b>18</b> Sa	0307	0550	4.2E	<b>3</b> F	0102	0354	5.0E	<b>18</b> Sa	0140	0422	4.4E
	0713	1010	3.4F	3.4F		0842	1136	3.1F		0841	1136	3.4F		0937	1229	2.8F		0723	1021	3.7F		0800	1054	3.1F
	1316	1613	4.9E	4.9E		1434	1726	4.3E		2106	2406	4.7E		1536	1815	4.0E		1334	1620	4.8E		1408	1645	4.2E

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



# Hell Gate (off Mill Rock), East River, New York, 2017

F—Flood, Dir. 050° True E—Ebb, Dir. 230° True

April				May				June																	
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots										
h m	h m	h m		h m	h m	h m		h m	h m	h m		h m	h m	h m											
<b>1</b> Sa	0047 0709 1321 1929	0337 1006 1603 2230	5.0E 3.7F 4.8E 3.6F	<b>16</b> Su	0103 0723 1331 1938	0348 1017 1609 2235	4.5E 3.2F 4.3E 3.1F	<b>1</b> M	0131 0800 1406 2023	0421 1056 1649 2323	4.8E 3.5F 4.5E 3.4F	<b>16</b> Tu	0112 0737 1340 1951	0402 1030 1624 2249	4.5E 3.1F 4.4E 3.1F	<b>1</b> Th	0317 0952 1549 2220	0618 1255 1853 0019	4.4E 3.2F 4.3E 3.2F	<b>16</b> F	0215 0840 1442 2102	0508 1135 1733 0000	4.6E 3.1F 4.5E 3.2F		
<b>2</b> Su	0144 0809 1420 2032	0433 1105 1701 2332	4.8E 3.5F 4.5E 3.4F	<b>17</b> M	0148 0808 1417 2025	0432 1103 1655 2323	4.4E 3.0F 4.2E 3.0F	<b>2</b> Tu	0233 0904 1509 2131	0523 1203 1755 0034	4.6E 3.3F 4.3E 3.2F	<b>17</b> W	0159 0824 1428 2041	0449 1117 1712 2339	4.5E 3.0F 4.3E 3.0F	<b>2</b> F	0418 1052 1648 2321	0729 1358 2004 0228	4.3E 3.1F 4.3E 3.1F	<b>17</b> Sa	0309 0932 1536 2200	0601 1228 1828 0057	4.6E 3.2F 4.6E 3.2F		
<b>3</b> M	0247 0914 1524 2140	0533 1212 1805 0043	4.6E 3.3F 4.3E 3.2F	<b>18</b> Tu	0236 0858 1508 2117	0520 1152 1745 0015	4.2E 2.9F 4.1E 2.9F	<b>3</b> W	0338 1011 1614 2240	0633 1315 1911 0148	4.3E 3.2F 4.2E 4.3E	<b>18</b> Th	0249 0915 1519 2136	0539 1209 1805 0033	4.4E 3.0F 4.3E 3.0F	<b>3</b> Sa	0516 1148 1743 0017	0835 1455 2105 0324	4.3E 3.2F 4.3E 3.2F	<b>18</b> Su	0406 1028 1634 2301	0656 1325 1926 0156	4.6E 3.3F 4.7E 3.3F		
<b>4</b> Tu	0354 1024 1631 2252	0642 1326 1918 0043	4.4E 3.2F 4.2E 3.2F	<b>19</b> W	0329 0952 1601 2213	0613 1247 1839 0012	4.2E 2.9F 4.1E 2.9F	<b>4</b> Th	0444 1116 1716 2344	0752 1424 2030 0255	4.3E 3.2F 4.2E 3.2F	<b>19</b> F	0344 1009 1614 2234	0633 1303 1900 0131	4.4E 3.0F 4.4E 3.1F	<b>4</b> Su	0610 1239 1833 0107	0930 1546 2155 0412	4.3E 3.2F 4.4E 3.2F	<b>19</b> M	0505 1126 1732 0002	0754 1423 2025 0256	4.6E 3.3F 4.8E 3.4F		
<b>5</b> W	0503 1132 1737	0801 1441 2039	4.3E 3.2F 4.2E	<b>20</b> Th	0426 1049 1656 2311	0708 1343 1936 0210	4.2E 2.9F 4.2E 3.0F	<b>5</b> F	0546 1215 1814	0905 1525 2135	4.3E 3.3F 4.4E	<b>20</b> Sa	0442 1105 1709 2333	0729 1400 1958 0229	4.4E 3.2F 4.5E 3.3F	<b>5</b> M	0659 1325 1919	1015 1631 2235	4.4E 3.3F 4.5E	<b>20</b> Tu	0605 1224 1831	0853 1522 2124	4.7E 3.6F 4.9E		
<b>6</b> Th	0608 1235 1838	0920 1545 2151	4.3E 3.3F 4.4E	<b>21</b> F	0522 1144 1750	0806 1439 2033	4.3E 3.1F 4.3E	<b>6</b> Sa	0642 1307 1905	1002 1617 2226	4.4E 3.4F 4.5E	<b>21</b> Su	0539 1200 1804	0826 1456 2055	4.6E 3.4F 4.7E	<b>6</b> Tu	0744 1407 2002	1052 1711 2311	4.4E 3.4F 4.6E	<b>21</b> W	0703 1321 1928	0952 1620 2223	4.9E 3.7F 5.1E		
<b>7</b> F	0707 1330 1932	1023 1640 2247	4.5E 3.5F 4.5E	<b>22</b> Sa	0617 1236 1842	0902 1533 2128	4.5E 3.3F 4.6E	<b>7</b> Su	0732 1354 1952	1049 1702 2308	4.5E 3.5F 4.6E	<b>22</b> M	0635 1253 1859	0922 1551 2151	4.7E 3.6F 5.0E	<b>7</b> W	0827 1447 2043	1126 1748 2344	4.5E 3.4F 4.7E	<b>22</b> Th	0800 1417 2024	1049 1717 2320	5.0E 3.9F 5.2E		
<b>8</b> Sa	0759 1419 2020	1113 1728 2333	4.6E 3.6F 4.7E	<b>23</b> Su	0710 1325 1932	0955 1623 2220	4.7E 3.6F 4.9E	<b>8</b> M	0817 1436 2035	1127 1742 2343	4.6E 3.6F 4.7E	<b>23</b> Tu	0729 1345 1951	1017 1644 2245	4.9E 3.8F 5.1E	<b>8</b> Th	0907 1526 2123	1159 1824 0018	4.6E 3.5F 4.8E	<b>23</b> F	0855 1512 2120	1145 1813 0016	5.1E 4.0F 5.3E		
<b>9</b> Su	0846 1503 2104	1155 1810	4.7E 3.7F	<b>24</b> M	0800 1413 2020	1047 1712 2311	4.9E 3.8F 5.1E	<b>9</b> Tu	0859 1516 2115	1200 1819	4.6E 3.6F	<b>24</b> W	0822 1437 2044	1111 1736 2339	5.1E 3.9F 5.3E	<b>9</b> F	0946 1604 2202	1234 1859 0054	4.6E 3.5F 4.8E	<b>24</b> Sa	0950 1607 2214	1241 1908 0111	5.1E 4.0F 5.3E		
<b>10</b> M	0929 1544 2145	1231 1849	4.7E 3.7F	<b>25</b> Tu	0849 1500 2108	1136 1800	5.1E 4.0F	<b>10</b> W	0939 1554 2154	1232 1854	4.7E 3.6F	<b>25</b> Th	0915 1529 2136	1203 1828	5.1E 4.0F	<b>10</b> Sa	1026 1641 2241	1311 1936	4.7E 3.5F	<b>25</b> Su	1044 1702 2309	1335 2003	5.1E 3.9F		
<b>11</b> Tu	1010 1623 2225	1304 1925	4.7E 3.7F	<b>26</b> W	0938 1548 2157	1225 1848	5.2E 4.1F	<b>11</b> Th	1018 1632 2232	1305 1929	4.7E 3.6F	<b>26</b> F	1007 1621 2229	1256 1921	5.2E 4.0F	<b>11</b> Su	1105 1719 2320	1349 2013	4.7E 3.5F	<b>26</b> M	1138 1758	1430 2058	5.0E 3.8F		
<b>12</b> W	1049 1701 2304	1337 2000	4.7E 3.7F	<b>27</b> Th	1027 1637 2247	1314 1937	5.2E 4.1F	<b>12</b> F	1056 1709 2310	1340 2004	4.7E 3.5F	<b>27</b> Sa	1100 1715 2323	1348 2014	5.1E 4.0F	<b>12</b> M	1144 1757	1429 2052	4.6E 3.4F	<b>27</b> Tu	1232 1855	1524 2155	4.8E 3.7F		
<b>13</b> Th	1128 1739 2343	1411 2036	4.7E 3.6F	<b>28</b> F	1118 1727 2338	1404 2028	5.1E 4.0F	<b>13</b> Sa	1135 1746 2349	1417 2041	4.6E 3.4F	<b>28</b> Su	1154 1811	1442 2110	5.0E 3.8F	<b>13</b> Tu	1224 1837	1511 2134	4.6E 3.3F	<b>28</b> W	1327 1952	1621 2253	4.7E 3.5F		
<b>14</b> F	1208 1817	1448 2113	4.6E 3.4F	<b>29</b> Sa	1211 1821	1455 2121	5.0E 3.8F	<b>14</b> Su	1215 1825	1457 2120	4.5E 3.3F	<b>29</b> M	1250 1910	1538 2209	4.8E 3.6F	<b>14</b> W	1307 1921	1555 2219	4.6E 3.3F	<b>29</b> Th	1423 2051	1719 2353	4.5E 3.3F		
<b>15</b> Sa	1248 1856	1527 2152	4.4E 3.3F	<b>30</b> Su	1306 1920	1550 2219	4.8E 3.6F	<b>15</b> M	1256 1906	1539 2203	4.4E 3.2F	<b>30</b> Tu	1348 2012	1638 2312	4.6E 3.4F	<b>15</b> Th	1352 2009	1642 2307	4.5E 3.2F	<b>30</b> F	1519 2150	1820 0251	4.3E 4.4E		
												<b>31</b> W	0215 0850 1448 2116	0511 1149 1743	4.6E 3.3F 4.4E										

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





The Narrows, New York Harbor, New York, 2017

F-Flood, Dir. 336° True E-Ebb, Dir. 164° True

Table with 3 main columns: January, February, March. Each column contains daily tide data with sub-columns for Slack and Maximum, and further sub-columns for time (h m) and current speed (knots).

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



The Narrows, New York Harbor, New York, 2017

F—Flood, Dir. 336° True E—Ebb, Dir. 164° True

Table with 3 main columns for July, August, and September. Each month column has sub-columns for Slack and Maximum times and directions. Data is organized in rows by day of the month, showing tide heights and directions in various units (h m, knots).

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

















## Kingston–Rhinecliff Bridge, Hudson River, 2017

F–Flood, Dir. 011° True E–Ebb, Dir. 191° True

July				August				September															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots				
<b>1</b> Sa	0314 0844 1550 2143	0036 0559 1308 1853	1.1E 0.9F 1.2E 1.0F	<b>16</b> Su	0219 0746 1445 2025	0437 1104 1708 2335	1.0F 1.4E 1.2F 1.3E	<b>1</b> Tu	0502 1012 1647 2250	0745 1414 1951 2035	0.7F 1.0E 0.9F	<b>16</b> W	0407 0919 1604 2151	0006 0616 1236 1827	1.2E 0.8F 1.2E 1.2F	<b>1</b> F	0601 1120 1740 2331	0853 1432 2019 2331	0.7F 1.0E 0.9F	<b>16</b> Sa	0556 1126 1747 2339	0839 1457 2017 2339	0.9F 1.2E 1.4E 1.2F
<b>2</b> Su	0422 0948 1641 2239	0143 0708 1405 1945	1.2E 0.8F 1.2E 1.0F	<b>17</b> M	0323 0843 1538 2121	0537 1203 1801 2121	1.0F 1.3E 1.2F	<b>2</b> W	0555 1105 1732 2334	0840 1456 2035	0.7F 1.0E 1.0F	<b>17</b> Th	0512 1028 1702 2254	0726 1343 1927	0.8F 1.2E 1.3F	<b>2</b> Sa	0640 1206 1824	0933 1510 2059	0.9F 1.1E 1.0F	<b>17</b> Su	0652 1227 1846	0942 1604 2125	1.0F 1.3E 1.2F
<b>3</b> M	0525 1047 1726 2329	0811 1454 2034	0.8F 1.2E 1.1F	<b>18</b> Tu	0427 0945 1631 2220	0638 1302 1855 2220	0.9F 1.3E 1.3F	<b>3</b> Th	0640 1152 1814	0928 1527 2111	0.8F 1.0E 1.0F	<b>18</b> F	0612 1134 1800 2353	0842 1451 2029	0.9F 1.2E 1.3F	<b>3</b> Su	0718 1248 1907	1005 1549 2138	1.0F 1.2E 1.1F	<b>18</b> M	0745 1323 1943	1034 1703 2223	1.2F 1.4E 1.3F
<b>4</b> Tu	0621 1139 1809	0908 1537 2118	0.8F 1.1E 1.1F	<b>19</b> W	0529 1047 1724 2316	0741 1401 1951	0.9F 1.3E 1.3F	<b>4</b> F	0720 1236 1855	1008 1550 2141	0.8F 1.1E 1.1F	<b>19</b> Sa	0710 1235 1857	0948 1558 2130	1.0F 1.3E 1.3F	<b>4</b> M	0756 1329 1950	1033 1630 2218	1.1F 1.3E 1.3F	<b>19</b> Tu	0835 1416 2039	1121 1800 2316	1.2F 1.5E 1.3F
<b>5</b> W	0710 1225 1849	0419 0956 1612	1.4E 0.9F 1.1F	<b>20</b> Th	0628 1146 1817	0848 1500 2047	0.9F 1.3E 1.4F	<b>5</b> Sa	0757 1318 1937	1041 1622 2211	0.9F 1.2E 1.1F	<b>20</b> Su	0804 1334 1954	1043 1703 2226	1.1F 1.3E 1.4F	<b>5</b> Tu	0835 1408 2034	1101 1714 2258	1.2F 1.4E 1.4F	<b>20</b> W	0921 1507 2132	1207 1854	1.3F 1.5E
<b>6</b> Th	0753 1307 1929	0502 1037 1638	1.4E 0.9F 1.1E	<b>21</b> F	0724 1243 1911	0951 1559 2142	1.0F 1.3E 1.5F	<b>6</b> Su	0834 1400 2018	1110 1701 2245	1.0F 1.2E 1.2F	<b>21</b> M	0856 1431 2049	1134 1806 2319	1.2F 1.4E 1.4F	<b>6</b> W	0914 1448 2118	1134 1759 2341	1.3F 1.5E 1.4F	<b>21</b> Th	1006 1555 2224	1252 1944	1.2F 1.6E
<b>7</b> F	0832 1349 2008	0539 1112 1701	1.4E 0.9F 1.2F	<b>22</b> Sa	0819 1341 2006	1046 1700 2235	1.0F 1.3E 1.5F	<b>7</b> M	0911 1442 2100	1137 1744 2322	1.1F 1.3E 1.3F	<b>22</b> Tu	0945 1526 2143	1225 1905	1.2F 1.4E	<b>7</b> Th	0952 1528 2203	1211 1844	1.4F 1.5E	<b>22</b> F	1048 1643 2316	1336 2029	1.2F 1.5E
<b>8</b> Sa	0909 1431 2048	0609 1144 1736	1.4E 0.9F 1.2E	<b>23</b> Su	0912 1440 2100	1140 1805 2326	1.1F 1.3E 1.5F	<b>8</b> Tu	0948 1523 2142	1208 1829	1.1F 1.4E	<b>23</b> W	1033 1619 2236	1317 1956	1.2F 1.5E	<b>8</b> F	1032 1609 2250	1251 1928	1.4F 1.6E	<b>23</b> Sa	1130 1728	1418 2110	1.1F 1.4E
<b>9</b> Su	0945 1514 2127	0625 1213 1817	1.4E 1.0F 1.2F	<b>24</b> M	1003 1539 2154	1235 1908	1.1F 1.4E	<b>9</b> W	1026 1604 2225	1244 1912	1.2F 1.4E	<b>24</b> Th	1119 1710 2330	1408 2043	1.2F 1.4E	<b>9</b> Sa	1112 1651 2339	1334 2010	1.4F 1.6E	<b>24</b> Su	1213 1811	1458 2149	1.0F 1.3E
<b>10</b> M	1022 1557 2208	0650 1243 1859	1.5E 1.0F 1.3E	<b>25</b> Tu	1054 1637 2248	1333 2002	1.1F 1.4E	<b>10</b> Th	1106 1645 2310	1324 1954	1.3F 1.5E	<b>25</b> F	1205 1759	1458 2129	1.1F 1.4E	<b>10</b> Su	1155 1737	1420 2052	1.4F 1.5E	<b>25</b> M	1256 1853	1537 2229	0.9F 1.2E
<b>11</b> Tu	1100 1639 2249	0029 0724 1319	1.3F 1.6E 1.3E	<b>26</b> W	1145 1733 2344	1432 2052	1.1F 1.3E	<b>11</b> F	1146 1726 2359	1406 2035	1.3F 1.5E	<b>26</b> Sa	1251 1847	1548 2222	1.0F 1.3E	<b>11</b> M	1243 1825	1509 2138	1.4F 1.4E	<b>26</b> Tu	1343 1936	1619 2333	0.8F 1.0E
<b>12</b> W	1140 1721 2334	0112 0802 1358	1.3F 1.6E 1.1F	<b>27</b> Th	1236 1826	1530 2144	1.1F 1.3E	<b>12</b> Sa	1229 1810	1451 2118	1.3F 1.5E	<b>27</b> Su	1338 1934	1638 2332	1.0F 1.2E	<b>12</b> Tu	1337 1919	1603 2232	1.3F 1.3E	<b>27</b> W	1434 2020	1705 2020	0.8F
<b>13</b> Th	1222 1803	0158 0841	1.3F 1.6E	<b>28</b> F	1327 1918	1628 2251	1.0F 1.2E	<b>13</b> Su	1316 1857	1540 2206	1.3F 1.4E	<b>28</b> M	1427 2022	1728 2022	0.9F	<b>13</b> W	1437 2019	1702 2340	1.2F 1.2E	<b>28</b> Th	1526 2108	1752 2108	0.8F
<b>14</b> F	1307 1847	0247 0924	1.2F 1.6E	<b>29</b> Sa	1419 2011	1724 2011	1.0F	<b>14</b> M	1408 1949	1633 2301	1.3F 1.3E	<b>29</b> Tu	1517 2112	1814 2112	0.8F	<b>14</b> Th	1542 2126	1804 2126	1.2F	<b>29</b> F	1618 2158	1840 2158	0.8F
<b>15</b> Sa	1354 1934	0340 1011	1.1F 1.5E	<b>30</b> Su	1510 2105	1815 2105	1.0F	<b>15</b> Tu	1505 2048	1730 2048	1.2F	<b>30</b> W	1607 2202	1857 2202	0.8F	<b>15</b> F	1646 2235	1909 2235	1.1F	<b>30</b> Sa	1706 2247	1929 2247	0.9F
				<b>31</b> M	1600 2200	1904 2200	0.9F					<b>31</b> Th	1655 2249	1938 2249	0.8F								

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







Bergen Point Reach (Bayonne Bridge), New York, 2017

F-Flood, Dir. 259° True E-Ebb, Dir. 076° True

Table with columns for April, May, and June, and sub-columns for Slack and Maximum tide levels in hours, minutes, and knots. Includes day-of-week labels and tide cycle indicators.

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

# Bergen Point Reach (Bayonne Bridge), New York, 2017

F—Flood, Dir. 259° True    E—Ebb, Dir. 076° True

July				August				September																							
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots																
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m																
<b>1</b> Sa	0143 0824 1428 2054	0414 1044 1649 2302	1.5E 1.5F 1.4E 1.4F	<b>16</b> Su ●	0027 0650 1308 1935	0349 1003 1608 2233	1.7E 1.9F 1.5E 1.7F	<b>1</b> Tu	0249 0931 1526 2209	0517 1154 1809	1.3E 1.5F 1.3E	<b>16</b> W	0219 0900 1446 2202	0503 1137 1738	1.4E 1.9F 1.3E	<b>1</b> F	0402 1041 1630 2318	0658 1255 1936	1.1E 1.6F 1.4E	<b>16</b> Sa	0423 1105 1639 2343	0730 1313 1959	1.3E 1.9F 1.3E								
<b>2</b> Su	0233 0920 1516 2151	0459 1148 1748	1.4E 1.6F 1.3E	<b>17</b> M	0132 0803 1408 2105	0429 1101 1654 2335	1.6E 2.0F 1.5E 1.7F	<b>2</b> W	0342 1025 1620 2303	0629 1245 1919	1.4F 1.2E 1.6F 1.4E	<b>17</b> Th	0320 1011 1547 2306	0625 1237 1910	1.7F 1.3E 2.0F 1.3E	<b>2</b> Sa	0506 1133 1732	0758 1341 2028	1.5F 1.2E 1.7F 1.5E	<b>17</b> Su	0533 1201 1748	0830 1404 2053	1.4E 1.9F 1.4E								
<b>3</b> M	0323 1012 1607 2245	0603 1240 1901	1.5F 1.2E 1.7F 1.4E	<b>18</b> Tu	0231 0917 1504 2218	0525 1201 1812	1.5E 2.1F 1.4E	<b>3</b> Th	0443 1117 1718 2354	0735 1328 2012	1.2E 1.6F 1.5E	<b>18</b> F	0432 1117 1657	0741 1330 2014	1.3E 2.0F 1.4E	<b>3</b> Su	0604 1221 1823	0849 1427 2119	1.3E 1.7F 1.6E	<b>18</b> M	0631 1253 1843	0926 1458 2149	1.5E 1.9F 1.5E								
<b>4</b> Tu	0418 1102 1703 2336	0713 1320 1957	1.2E 1.7F 1.5E	<b>19</b> W	0332 1026 1607 2324	0649 1258 1932	1.4E 2.2F 1.5E	<b>4</b> F	0547 1205 1812	0827 1411 2102	1.3E 1.7F 1.5E	<b>19</b> Sa	0547 1215 1805	0841 1423 2113	1.4E 2.0F 1.5E	<b>4</b> M	0648 1307 1906	0941 1519 2211	1.4E 1.8F 1.7E	<b>19</b> Tu	0718 1342 1929	1021 1556 2238	1.7E 1.9F 1.6E								
<b>5</b> W	0521 1150 1757	0806 1359 2044	1.3E 1.7F 1.6E	<b>20</b> Th	0445 1130 1718	0756 1350 2032	1.5E 2.2F 1.6E	<b>5</b> Sa	0638 1250 1855	0919 1458 2153	1.3E 1.7F 1.6E	<b>20</b> Su	0647 1309 1859	0943 1520 2216	1.5E 2.0F 1.6E	<b>5</b> Tu	0726 1352 1943	1032 1613 2257	1.6E 2.0F 1.7E	<b>20</b> W	0800 1430 2011	1104 1648 2316	1.7E 2.1F 1.6E								
<b>6</b> Th	0617 1234 1842	0855 1442 2133	1.3E 1.7F 1.6E	<b>21</b> F	0022 0600 1229 1822	0225 0855 1444 2134	1.9F 1.5E 2.2F 1.6E	<b>6</b> Su	0125 0720 1334 1933	0329 1011 1551 2241	1.6F 1.4E 1.8F 1.7E	<b>21</b> M	0148 0737 1402 ● 1947	0406 1042 1620 2304	1.9F 1.7E 2.1F 1.7E	<b>6</b> W	0220 0759 1437 2018	0437 1115 1700 2337	2.0F 1.7E 2.2F 1.8E	<b>21</b> Th	0256 0841 1515 2052	0516 1142 1728 2352	2.1F 2.8E 2.2F 1.6E								
<b>7</b> F	0704 1317 1921	0946 1532 2222	1.3E 1.7F 1.7E	<b>22</b> Sa	0117 0701 1325 1915	0325 1000 1544 2237	1.9F 1.6E 2.2F 1.7E	<b>7</b> M	0209 0755 1417 ● 2006	0420 1058 1639 2322	1.8F 1.4E 2.0F 1.7E	<b>22</b> Tu	0238 0824 1453 2032	0459 1127 1709 2343	2.1F 1.7E 2.2F 1.7E	<b>7</b> Th	0302 0832 1520 2054	0520 1155 1741 2447	2.3F 1.7E 2.4F	<b>22</b> F	0337 0921 1556 2132	0550 1220 1805	2.1F 1.7E 2.2F								
<b>8</b> Sa	0744 1400 1955	1035 1621 2305	1.4E 1.8F 1.7E	<b>23</b> Su	0211 0754 1420 ● 2004	0428 1059 1641 2326	2.0F 1.7E 2.3F 1.8E	<b>8</b> Tu	0251 0827 1459 2038	0504 1137 1721	2.0F 1.5E 2.2F	<b>23</b> W	0324 0909 1539 2116	0538 1208 1750	2.2F 1.7E 2.3F	<b>8</b> F	0341 0907 1601 2131	0600 1237 1822	2.4F 1.7E 2.4F	<b>23</b> Sa	0413 1000 1632 2213	0624 1304 1842	2.1F 1.7E 2.1F								
<b>9</b> Su	0820 1441 2026	1118 1703 2343	1.4E 2.0F 1.7E	<b>24</b> M	0302 0845 1513 2052	0518 1148 1729	2.2F 1.7E 2.4F	<b>9</b> W	0329 0855 1536 2109	0542 1216 1800	2.1F 1.5E 2.3F	<b>24</b> Th	0406 0953 1620 2200	0615 1252 1828	2.2F 1.7E 2.2F	<b>9</b> Sa	0417 0947 1640 2214	0641 1327 1905	2.4F 1.7E 2.3F	<b>24</b> Su	0444 1039 1706 2256	0702 1353 1924	1.9F 1.6E 1.9F								
<b>10</b> M	0851 1518 2053	1157 1741	1.4E 2.1F	<b>25</b> Tu	0350 0936 1601 2140	0009 0559 1236 1810	1.8E 2.2F 2.3F	<b>10</b> Th	0403 0926 1611 2143	0620 1259 1840	2.2F 1.5E 2.3F	<b>25</b> F	0443 1037 1658 2244	0652 1341 1909	2.0F 1.7E 2.0F	<b>10</b> Su	0452 1032 1720 2303	0726 1418 1955	2.3F 1.7E 2.1F	<b>25</b> M	0512 1120 1741 2345	0745 1438 2011	1.7F 1.6E 1.6F								
<b>11</b> Tu	0918 1550 2120	1236 1818	1.3E 2.1F	<b>26</b> W	0432 1025 1644 2228	0054 0639 1328 1852	1.7E 2.1F 1.7E 2.2F	<b>11</b> F	0435 1002 1645 2223	0701 1348 1924	2.2F 1.5E 2.2F	<b>26</b> Sa	0518 1122 1737 2332	0735 1428 1956	1.8F 1.7E 1.8F	<b>11</b> M	0530 1125 1809	0818 1502 2051	2.1F 1.7E 1.8F	<b>26</b> Tu	0539 1209 1823	0834 1518 2104	1.5F 1.6E 1.5F								
<b>12</b> W	0945 1619 2153	1322 1858	1.3E 2.1F	<b>27</b> Th	0512 1114 1726 2317	0146 0722 1418 1938	1.7E 2.0F 1.7E 1.9F	<b>12</b> Sa	0506 1046 1722 2311	0748 1435 2016	2.1F 1.6E 2.0F	<b>27</b> Su	0553 1212 1820	0823 1509 2048	1.6F 1.6E 1.6F	<b>12</b> Tu	0619 1228 1920	0915 1541 2150	2.0F 1.6E 1.7F	<b>27</b> W	0618 1305 1926	0927 1557 2159	1.4F 1.5E 1.4F								
<b>13</b> Th	1019 1650 2235	1411 1945	1.4E 2.0F	<b>28</b> F	0553 1206 1812	0811 1500 2031	1.8F 1.7E 1.7F	<b>13</b> Su	0542 1141 1810	0842 1515 2112	2.0F 1.6E 1.8F	<b>28</b> M	0635 1306 1918	0916 1547 2142	1.5F 1.6E 1.4F	<b>13</b> W	0732 1334 2038	1013 1621 2252	1.8F 1.5E 1.6F	<b>28</b> Th	0730 1357 2037	1022 1638 2255	1.3F 1.4E 1.4F								
<b>14</b> F	1105 1727 2325	1453 2039	1.5E 1.9F	<b>29</b> Sa	0011 0640 1300 1908	0310 0905 1538 2126	1.6E 1.6F 1.6E 1.5F	<b>14</b> M	0010 0630 1245 ● 1924	0334 0938 1553 2210	1.7E 2.0F 1.6E 1.7F	<b>29</b> Tu	0123 0736 1356 ● 2025	0358 1009 1627 2238	1.4E 1.4F 1.5E 1.4F	<b>14</b> Th	0216 0852 1433 2145	0451 1115 1715 2358	1.4E 1.8F 1.3E 1.6F	<b>29</b> F	0230 0853 1446 2139	0459 1120 1736 2354	1.2E 1.4F 1.3E 1.4F								
<b>15</b> Sa	1203 1817	1531 2135	1.6E 1.8F	<b>30</b> Su	0107 0737 1351 ● 2011	0347 0959 1617 2221	1.6E 1.5F 1.5E 1.4F	<b>15</b> Tu	0117 0741 1348 2050	0413 1036 1635 2312	1.6E 1.9F 1.5E 1.7F	<b>30</b> W	0216 0843 1444 2127	0441 1105 1718 2337	1.3E 1.4F 1.3E 1.4F	<b>15</b> F	0316 1002 1532 2247	0607 1218 1847	1.2E 1.8F 1.2E	<b>30</b> Sa	0320 0958 1538 2235	0610 1219 1852	1.1E 1.5F 1.3E								
				<b>31</b> M	0200 0836 1438 2111	0427 1055 1703 2320	1.4E 1.5F 1.4E 1.4F					<b>31</b> Th	0307 0944 1533 2225	0540 1203 1831	1.1E 1.4F 1.3E																

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

## Bergen Point Reach (Bayonne Bridge), New York, 2017

F—Flood, Dir. 259° True    E—Ebb, Dir. 076° True

October				November				December															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Su		0048	1.6F	<b>16</b> M		0133	1.8F	<b>1</b> W		0151	2.0F	<b>16</b> Th		0229	2.41	1.8F							
	0415	0722	1.2E		0514	0817	1.4E		0523	0833	1.6E		0633	0925	1.6E	<b>1</b> F	0541	0853	1.7E				
	1057	1310	1.7F		1144	1346	1.8F		1207	1418	2.0F		1257	1500	1.7F	1234	1444	2.0F	<b>16</b> Sa	0650	0943	1.6E	
	1640	1952	1.4E		1727	2031	1.3E		1752	2056	1.6E		1847	2132	1.4E	1813	2115	1.7E	1909	2152	1.4E		
<b>2</b> M		0135	1.7F	<b>17</b> Tu		0219	1.8F	<b>2</b> Th		0241	2.1F	<b>17</b> F		0331	1.8F	<b>2</b> Sa		0306	2.4F				
	0516	0816	1.4E		0610	0906	1.6E		0617	0926	1.7E		0714	1011	1.7E		0636	0952	1.8E	<b>17</b> Su	0128	0347	1.8F
	1149	1358	1.8F		1233	1435	1.8F		1259	1512	2.1F		1343	1554	1.7F		1329	1543	2.1F	1404	1616	1.7F	
	1742	2042	1.5E		1823	2118	1.4E		1844	2150	1.7E		1929	2219	1.4E		1907	2215	1.7E	1951	2239	1.4E	
<b>3</b> Tu		0222	1.8F	<b>18</b> W		0310	1.8F	<b>3</b> F		0336	2.3F	<b>18</b> Sa		0420	1.9F	<b>3</b> Su		0404	2.5F				
	0609	0907	1.5E		0656	0955	1.7E		0703	1022	1.8E		0751	1053	1.7E		0725	1050	1.9E	<b>18</b> M	0211	0433	1.8F
	1237	1448	1.9F		1320	1529	1.7E		1351	1610	2.2F		1428	1642	1.8F		1424	1641	2.2F	0804	1110	1.7E	
	1832	2134	1.6E		1909	2205	1.5E		1930	2243	1.8E		● 2008	2301	1.4E		○ 1958	2310	1.8E	● 2029	2321	1.4E	

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

# Delaware Bay Entrance, 2017

F—Flood, Dir. 342° True    E—Ebb, Dir. 152° True

January				February				March																																																			
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum																																													
	h	m	knots		h	m	knots		h	m	knots		h	m	knots																																												
<b>1</b> Su	0532	0902	2.1F	<b>16</b> M	0101	0350	1.9E	<b>1</b> W	0053	0351	1.8E	<b>16</b> Th	0217	0510	1.5E	<b>1</b> W	0546	0909	2.3F	<b>16</b> Th	0102	0348	1.8E																																				
	1201	1457	2.0E		0659	1005	2.1F		0649	1013	2.0F		0821	1125	1.5F		1205	1503	2.4E		0708	1005	1.8F	1302	1600	1.8E																																	
	1808	2129	1.6F		1319	1622	1.8E		1311	1609	2.1E		1418	1727	1.5E		1806	2124	2.2F		1917	2230	2.0F	1917	2230	2.0F																																	
<b>2</b> M	0030	0324	1.7E	<b>17</b> Tu	0154	0447	1.7E	<b>2</b> Th	0139	0443	1.8E	<b>17</b> F	0303	0557	1.3E	<b>2</b> Th	0031	0330	2.1E	<b>17</b> F	0138	0426	1.6E	<b>17</b> F	0741	1108	1.9F	<b>17</b> F	0908	1214	1.3F	<b>17</b> F	0635	0953	2.2F	<b>17</b> F	0741	1047	1.5F	<b>17</b> F	1251	1548	2.3E	<b>17</b> F	1338	1640	1.6E	<b>17</b> F	1849	2207	2.2F	<b>17</b> F	1948	2310	1.8F	<b>17</b> F	1948	2310	1.8F
	0615	0943	2.0F		0755	1101	1.8F		0741	1108	1.9F		0908	1214	1.3F		0635	0953	2.2F		0741	1047	1.5F		1251	1548	2.3E		1338	1640	1.6E		1849	2207	2.2F		1948	2310	1.8F																				
	1243	1539	2.0E		1407	1717	1.6E		1402	1705	2.0E		1504	1812	1.4E		1251	1548	2.3E		1338	1640	1.6E		1849	2207	2.2F		1948	2310	1.8F		1948	2310	1.8F																								
<b>3</b> Tu	0114	0411	1.6E	<b>18</b> W	0250	0546	1.5E	<b>3</b> F	0231	0542	1.7E	<b>18</b> Sa	0352	0640	1.2E	<b>3</b> F	0116	0418	2.0E	<b>18</b> Sa	0214	0506	1.4E	<b>18</b> Sa	0813	1131	1.3F	<b>18</b> Sa	0725	1045	2.0F	<b>18</b> Sa	0813	1131	1.3F	<b>18</b> Sa	1338	1639	2.1E	<b>18</b> Sa	1415	1723	1.4E	<b>18</b> Sa	1935	2258	2.2F	<b>18</b> Sa	2019	2352	1.6F	<b>18</b> Sa	2019	2352	1.6F				
	0703	1032	1.8F		0853	1157	1.6F		0839	1208	1.8F		0352	0640	1.2E		0116	0418	2.0E		0214	0506	1.4E		0813	1131	1.3F		0725	1045	2.0F		0813	1131	1.3F		1338	1639	2.1E		1935	2258	2.2F		2019	2352	1.6F												
	1330	1630	1.9E		1459	1810	1.5E		1458	1804	1.9E		1555	1856	1.2E		1935	2258	2.2F		2019	2352	1.6F		2019	2352	1.6F		2019	2352	1.6F		2019	2352	1.6F		2019	2352	1.6F		2019	2352	1.6F																

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













# Brandywine Shoal Light, Delaware Bay, 2017

F—Flood, Dir. 330° True E—Ebb, Dir. 153° True

July				August				September																
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum							
h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots						
<b>1</b> Sa	0335 0943 1615 2213	0651 1245 1921	1.1F 1.1E 1.2F 1.1E	<b>16</b> Su ○	0223 0833 1502 2116	0526 1131 1804	1.4E 1.5F 1.2E	<b>1</b> Tu	0501 1043 1725 2343	0755 1353 2039	1.1F 1.0E 1.3F 1.3E	<b>16</b> W	0417 1012 1656 2317	0101 0709 1315 2004	1.4F 1.4E 1.6F 1.5E	<b>1</b> F	0611 1146 1823	0853 1455 2131	1.0E 1.4F 1.4E	<b>16</b> Sa	0007 0615 1200 1845	0259 0903 1510 2204	1.5F 1.4E 1.7F 1.7E	
<b>2</b> Su	0113 0436 1035 1712 2317	0747 1342 2021	1.1F 1.1E 1.3F 1.4E 1.2E	<b>17</b> M	0327 0934 1609 2224	0628 1234 1912	1.4F 1.4E 1.6F 1.3E	<b>2</b> W	0555 1133 1812	0844 1444 2126	1.1F 1.0E 1.4F 1.4E	<b>17</b> Th	0208 0526 1116 1800	0813 1420 2112	1.5F 1.5E 1.7F 1.6E	<b>2</b> Sa	0042 0654 1233 1905	0336 0937 1541 2210	1.3F 1.1E 1.5F 1.5E	<b>17</b> Su	0104 0712 1259 1940	0358 1006 1610 2259	1.6F 1.4E 1.7F 1.8E	
<b>3</b> M	0214 0533 1124 1802	0837 1433 2114	1.1F 1.1E 1.4F 1.3E	<b>18</b> Tu	0435 1036 1715 2330	0730 1336 2017	1.5E 1.5E 1.5E	<b>3</b> Th	0032 0643 1220 1855	0328 0931 1531 2210	1.3F 1.1E 1.5F 1.5E	<b>18</b> F	0020 0628 1216 1859	0312 0915 1523 2216	1.6F 1.5E 1.8F 1.8E	<b>3</b> Su	0121 0732 1317 1945	0414 1019 1622 2247	1.3F 1.2E 1.5F 1.5E	<b>18</b> M	0156 0805 1355 2031	0451 1104 1702 2348	1.6F 1.5E 1.7F 1.7E	
<b>4</b> Tu	0012 0624 1214 1846	0309 0923 1521 2201	1.2F 1.2E 1.5F 1.4E	<b>19</b> W	0540 1136 1815	0830 1438 2121	1.5E 1.5E 1.6E	<b>4</b> F	0116 0726 1305 1937	0411 1014 1614 2249	1.3F 1.2E 1.6F 1.6E	<b>19</b> Sa	0119 0725 1313 1955	0412 1017 1622 2313	1.7F 1.5E 1.9F 1.8E	<b>4</b> M	0158 0810 1400 2023	0449 1100 1701 2323	1.4F 1.3E 1.6F 1.5E	<b>19</b> Tu	0244 0858 1448 2120	0537 1157 1750	1.7F 1.5E 1.7F	
<b>5</b> W	0101 0710 1254 1927	0358 1007 1604 2243	1.3F 1.2E 1.6F 1.5E	<b>20</b> Th	0032 0640 1233 1911	0325 0930 1538 2224	1.7F 1.6E 1.9F 1.8E	<b>5</b> Sa	0157 0807 1348 2018	0450 1055 1654 2325	1.4F 1.2E 1.6F 1.6E	<b>20</b> Su	0214 0820 1408 2049	0505 1114 1715	1.7F 1.5E 1.9F	<b>5</b> Tu	0234 0848 1442 2102	0523 1140 1739	1.5F 1.3E 1.6F	<b>20</b> W	0033 0328 0948 1540 2207	0722 1272 1847 2500	1.7E 1.7F 1.5E 1.6F	
<b>6</b> Th	0146 0754 1336 2009	0441 1048 1645 2322	1.4F 1.2E 1.6F 1.6E	<b>21</b> F	0131 0737 1329 2007	0424 1029 1629 2323	1.7F 1.6E 1.9F 1.8E	<b>6</b> Su	0236 0846 1430 2059	0525 1133 1732	1.4F 1.3E 1.6F	<b>21</b> M	0006 0306 0914 1502 2141	0006 0555 1208 1805	1.8E 1.7F 1.5E 1.8F	<b>6</b> W	0309 0927 1525 2140	0559 1221 1819	1.6E 1.6F 1.4E 1.7F	<b>21</b> Th	0410 1035 1629 2251	0706 1334 1925	1.7F 1.5E 1.5F	
<b>7</b> F	0229 0837 1418 2050	0520 1127 1723	1.4F 1.3E 1.7F	<b>22</b> Sa	0227 0833 1423 2103	0518 1126 1727	1.8F 1.6E 2.0F	<b>7</b> M	0313 0924 1511 2138	0559 1212 1809	1.5F 1.3E 1.6F	<b>22</b> Tu	0056 0354 1007 1554 2230	0056 0644 1301 1855	1.8E 1.7F 1.5E 1.7F	<b>7</b> Th	0041 0347 1007 1608 2221	0176 0637 1304 1902	1.7E 1.7F 1.5E 1.7F	<b>22</b> F	0449 1119 1717 2334	0750 1418 2013	1.7F 1.5E 1.4F	
<b>8</b> Sa	0310 0919 1500 2132	0557 1205 1802	1.5F 1.3E 1.7F	<b>23</b> Su	0322 0929 1516 2158	0610 1220 1818	1.8F 1.6E 1.9F	<b>8</b> Tu	0347 1001 1551 2215	0633 1251 1848	1.5F 1.4E 1.6F	<b>23</b> W	0439 1056 1645 2316	0733 1351 1946	1.6F 1.5E 1.6F	<b>8</b> F	0425 1049 1652 2304	0720 1349 1949	1.8F 1.6E 1.7F	<b>23</b> Sa	0527 1201 1805	0833 1458 2059	1.6F 1.5E 1.4F	
<b>9</b> Su	0348 0959 1540 2212	0634 1244 1840	1.5F 1.3E 1.7F	<b>24</b> M	0414 1022 1608 2250	0702 1313 1911	1.7F 1.6E 1.8F	<b>9</b> W	0421 1037 1631 2251	0710 1331 1929	1.6F 1.4E 1.7F	<b>24</b> Th	0521 1144 1735	0820 1437 2035	1.6E 1.6F 1.5F	<b>9</b> Sa	0507 1133 1740 2350	0806 1435 2039	1.9F 1.6E 1.7F	<b>24</b> Su	0606 1243 1854	0914 1538 2145	1.6F 1.4E 1.3F	
<b>10</b> M	0425 1036 1619 2249	0711 1322 1920	1.6E 1.5F 1.6F	<b>25</b> Tu	0503 1114 1659 2339	0755 1404 2004	1.6F 1.5E 1.7F	<b>10</b> Th	0457 1115 1713 2329	0750 1412 2013	1.7F 1.5E 1.7F	<b>25</b> F	0000 0602 1229 1826	0301 0904 1520 2123	1.5E 1.6F 1.4E 1.4F	<b>10</b> Su	0553 1221 1834	0854 1523 2131	1.9F 1.6E 1.7F	<b>25</b> M	0648 1327 1946	0956 1621 2233	1.5F 1.4E 1.2F	
<b>11</b> Tu	0459 1110 1658 2325	0748 1400 2000	1.5F 1.4E 1.6F	<b>26</b> W	0550 1204 1750	0845 1452 2056	1.6F 1.4E 1.6F	<b>11</b> F	0535 1156 1758	0832 1455 2059	1.7F 1.5E 1.6F	<b>26</b> Sa	0044 0643 1315 1919	0337 0946 1604 2211	1.4E 1.5F 1.3E 1.2F	<b>11</b> M	0042 0644 1315 1935	0341 0945 1617 2229	1.7E 1.8F 1.6E 1.6F	<b>26</b> Tu	0152 0734 1415 2039	0428 1042 1713 2326	1.1E 1.4F 1.3E 1.1F	
<b>12</b> W	0532 1145 1737	0825 1438 2041	1.5F 1.4E 1.6F	<b>27</b> Th	0026 0636 1254 1844	0329 0932 1539 2145	1.6E 1.5F 1.3E 1.4F	<b>12</b> Sa	0012 0618 1242 1850	0315 0918 1541 2149	1.7E 1.7F 1.5E 1.6F	<b>27</b> Su	0131 0726 1403 2015	0418 1031 1656 2304	1.2E 1.4F 1.2E 1.1F	<b>12</b> Tu	0142 0741 1417 2042	0436 1042 1722 2334	1.6E 1.7F 1.5E 1.5F	<b>27</b> W	0247 0825 1507 2134	0522 1134 1814	0.9E 1.3F 1.2E	
<b>13</b> Th	0609 1224 1821	0301 0904 1519 2125	1.6E 1.5F 1.4E 1.5F	<b>28</b> F	0113 0721 1345 1941	0411 1019 1630 2236	1.4E 1.4F 1.2E 1.2F	<b>13</b> Su	0101 0708 1335 1950	0402 1008 1635 2246	1.6E 1.7F 1.4E 1.5F	<b>28</b> M	0224 0814 1455 2114	0507 1121 1759	1.0E 1.4F 1.2E	<b>13</b> W	0248 0844 1527 2153	0540 1147 1839	1.4E 1.6F 1.5E	<b>28</b> Th	0346 0920 1603 2228	0624 1231 1913	0.9E 1.3F 1.2E	
<b>14</b> F	0650 1308 1911	0342 0946 1604 2212	1.5E 1.5F 1.3E 1.5F	<b>29</b> Sa	0203 0808 1439 2042	0458 1108 1733 2335	1.2E 1.3F 1.1E 1.1F	<b>14</b> M	0159 0805 1437 2057	0458 1104 1741 2352	1.5E 1.6F 1.4E 1.4F	<b>29</b> Tu	0323 0906 1550 2213	0004 0609 1216 1904	1.0F 0.9E 1.3F 1.2E	<b>14</b> Th	0401 0951 1640 2303	0650 1257 1954	1.3E 1.6F 1.5E	<b>29</b> F	0443 1017 1658 2318	0722 1326 2002	1.1F 1.3F 1.3E	
<b>15</b> Sa	0738 1401 2010	0429 1035 1659 2309	1.5E 1.5F 1.2E 1.4F	<b>30</b> Su	0258 0858 1536 2146	0557 1203 1845	1.0E 1.3F 1.1E	<b>15</b> Tu	0305 0907 1546 2208	0603 1209 1854	1.4E 1.6F 1.4E	<b>30</b> W	0425 1001 1645 2309	0105 0711 1312 1959	1.0F 0.9E 1.3F 1.3E	<b>15</b> F	0512 1057 1747	0758 1405 2102	1.3E 1.6F 1.6E	<b>30</b> Sa	0534 1111 1747	0812 1417 2046	1.0E 1.3F 1.3E	
				<b>31</b> M	0359 0950 1633 2248	0039 0700 1259 1946	1.0F 1.0E 1.3F 1.2E					<b>31</b> Th	0523 1055 1737 2358	0201 0805 1406 2047	1.1F 0.9E 1.3F 1.4E									

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







Reedy Point, Delaware Bay, 2017

F—Flood, Dir. 351° True E—Ebb, Dir. 163° True

Table with columns for July, August, and September. Each month's data is organized into a grid with sub-columns for Slack and Maximum (with h, m, knots sub-columns). Rows represent days of the month, including day numbers and day-of-week abbreviations. The table contains tidal data for each day, including times for high and low water and corresponding currents.

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

# Reedy Point, Delaware Bay, 2017

F–Flood, Dir. 351° True E–Ebb, Dir. 163° True

October				November				December																						
Slack	Maximum	Slack	Maximum	Slack	Maximum	Slack	Maximum	Slack	Maximum	Slack	Maximum																			
<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>	<small>h m</small>																			
<b>1</b> Su	0258 0834 1503 2104	0453 1118 1713 1.5F	1.1F	<b>16</b> M	0413 0946 1633 2219	0139 1400 1947 2.4E	2.4E	<b>1</b> W	0408 0955 1640 2219	0118 1400 1857 1.9E	1.9E	<b>16</b> Th	0523 1107 1804 2321	0830 1518 2055 2.2F	2.4E	<b>1</b> F	0437 1037 1727 2246	0700 1452 1944 2.0E	2.0E	<b>16</b> Sa	0536 1121 1820 2327	0846 1533 2109 2.1F	2.2E	<b>17</b> Su	0614 1201 1856	0913 1614 2139	2.1E	2.0F	2.1E	2.1E
<b>2</b> M	0348 0924 1559 2155	0548 1232 1816 1.8F	1.8E	<b>17</b> Tu	0504 1038 1731 2308	0809 1451 2032 2.1F	2.1F	<b>2</b> Th	0501 1049 1741 2310	0219 1459 1956 2.0E	1.8F	<b>17</b> F	0607 1152 1848	0908 1605 2134	2.3F	2.4E	<b>2</b> Sa	0532 1133 1825 2338	0758 1549 2031 2.0F	2.0F	<b>17</b> Su	0614 1201 1856	0913 1614 2139	2.0F	2.1E	2.1E				
<b>3</b> Tu	0438 1013 1657 2245	0653 1402 1922 1.5F	1.9E	<b>18</b> W	0552 1129 1824 2355	0849 1541 2114 2.3F	2.3F	<b>3</b> F	0553 1144 1836	0811 1559 2041	2.1F	<b>18</b> Sa	0647 1233 1927	0941 1650 2213	2.2F	2.3E	<b>3</b> Su	0624 1227 1915	0842 1647 2114	2.3F	2.5E	2.5E	<b>18</b> M	0648 1237 1929	0923 1650 2152	2.0F	2.0F	2.0F	2.0E	
<b>4</b> W	0528 1104 1754 2335	0745 1459 2011 2.0F	2.0E	<b>19</b> Th	0636 1217 1910	0928 1631 2157	2.3F	<b>4</b> Sa	0642 1237 1927	0407 1700 2125	2.2E	<b>19</b> Su	0722 1310 2002	1005 1728 2248	2.1F	2.2E	<b>4</b> M	0712 1316 2004	0927 1739 2202	2.4F	2.6E	2.6E	<b>19</b> Tu	0719 1317 2000	0940 1720 2207	2.0F	2.0F	1.5F	2.0E	
<b>5</b> Th	0616 1155 1847	0828 1602 2055	2.0F	<b>20</b> F	0716 1300 1952	1007 1718 2243	2.3F	<b>5</b> Su	0729 1326 2017	0941 1752 2215	2.3F	<b>20</b> M	0754 1345 2036	1022 1758 2304	2.0F	2.2E	<b>5</b> Tu	0759 1403 2054	1017 1826 2257	2.4F	2.6E	1.6F	<b>20</b> W	0750 1347 2034	1011 1742 2239	2.1F	2.1F	1.5F	2.0E	
<b>6</b> F	0702 1246 1938	0911 1707 2140	2.2E	<b>21</b> Sa	0753 1339 2031	1045 1757 2327	2.1F	<b>6</b> M	0816 1415 2110	1032 1840 2310	2.3F	<b>21</b> Tu	0826 1419 2111	1050 1819 2324	1.9F	2.0E	<b>6</b> W	0849 1453 2147	1112 1912 2352	2.3F	2.6E	1.6F	<b>21</b> Th	0824 1424 2112	1050 1759 2318	2.2F	2.1E	1.6F	2.0E	
<b>7</b> Sa	0748 1335 2028	0958 1801 2231	2.3F	<b>22</b> Su	0829 1417 2110	1113 1830 2358	2.0F	<b>7</b> Tu	0906 1508 2206	1125 1930 24E	2.3F	<b>22</b> W	0859 1456 2149	1124 1827 2354	2.0F	2.0E	<b>7</b> Th	0943 1548 2241	1206 2004 2.5E	2.2F	2.5E	<b>22</b> F	0904 1506 2155	1133 1823 2359	2.2F	2.2E	1.6F	2.1E		
<b>8</b> Su	0835 1425 2123	1049 1850 2325	2.2E	<b>23</b> M	0906 1455 2150	1135 1856 2.1E	1.8F	<b>8</b> W	0937 1501 2302	1203 1927 2029	2.0E	<b>23</b> Th	0937 1537 2230	1202 1842 2.0E	2.0F	2.0E	<b>8</b> F	1040 1643 2335	1258 2103 2.4E	2.1E	2.1E	2.4E	<b>23</b> Sa	0952 1553 2241	1217 1857 2.1E	2.2F	2.1E	2.1E		
<b>9</b> M	0927 1521 2221	1141 1944 2.2E	2.1E	<b>24</b> Tu	0942 1534 2229	1202 1908 2.1E	1.9E	<b>9</b> Th	1059 1702 2359	1310 2130 2.3E	2.0F	<b>24</b> F	1021 1622 2314	1242 1917 2.0E	2.0F	2.0E	<b>9</b> Sa	1139 1737 2158	1403 2158 2.4E	1.9F	2.4E	<b>24</b> Su	1045 1643 2330	1303 1945 2.0E	2.1F	2.0E	1.6F	2.0E		
<b>10</b> Tu	1022 1620 2319	1232 2051 2.1E	1.6F	<b>25</b> W	1020 1614 2309	1234 1909 1.8E	1.8E	<b>10</b> F	1158 1758	1414 2224	1.8F	<b>25</b> Sa	1109 1710	1327 2012	1.9F	1.9E	<b>10</b> Su	1241 1832	1547 2247	1.7F	2.3E	<b>25</b> M	1142 1734	1354 2115	1.8F	1.9E	1.6F	1.8E		
<b>11</b> W	1119 1720	1325 2153	1.9F	<b>26</b> Th	1100 1656 2350	1312 1945 1.8E	1.7F	<b>11</b> Sa	1301 1859	1552 2315	1.7F	<b>26</b> Su	1202 1801	1420 2135	1.8F	1.9E	<b>11</b> M	1346 1930	1652 2337	1.7F	2.3E	<b>26</b> Tu	1243 1829	1454 2221	1.6F	1.9E	1.5F	1.7E		
<b>12</b> Th	1218 1820	1430 2247	1.7F	<b>27</b> F	1142 1741	1357 2054	1.7F	<b>12</b> Su	1408 2002	1709 2.1E	1.7F	<b>27</b> M	1303 1858	1520 2231	1.6F	1.9E	<b>12</b> Tu	1451 2027	1756 2.1E	1.7F	1.7F	<b>27</b> W	1353 1932	1555 2318	1.4F	1.8E	1.5F	1.7E		
<b>13</b> F	1322 1926	1552 2342	1.6F	<b>28</b> Sa	1232 1833	1452 2158	1.6F	<b>13</b> M	1513 2059	1823 2.1E	1.8F	<b>28</b> Tu	1411 2002	1618 2326	1.5F	1.8E	<b>13</b> W	1551 2117	1900 2.1E	1.7F	1.7F	<b>28</b> Th	1503 2035	1655 2.1E	1.2F	1.2F	1.5F	1.7E		
<b>14</b> Sa	1429 2031	1719 1.7F	1.3F	<b>29</b> Su	1330 1932	1548 2245	1.6F	<b>14</b> Tu	1614 2149	1925 1.9F	2.3E	<b>29</b> W	1519 2101	1717 2.1E	1.4F	1.4F	<b>14</b> Th	1647 2202	1951 2.1E	1.8F	1.8F	<b>29</b> F	1609 2132	1808 2.1E	1.2F	1.2F	1.8E	1.6F		
<b>15</b> Su	1532 2127	1849 1.8F	2.3E	<b>30</b> M	1434 2033	1643 2341	1.6F	<b>15</b> W	1712 2236	2013 2.0F	2.4E	<b>30</b> Th	1624 2154	1832 2.1E	1.3F	1.3F	<b>15</b> F	1737 2245	2033 2.1E	1.8F	1.8F	<b>30</b> Sa	1713 2225	1943 2.1E	1.3F	1.3F	2.0E	1.7F		
				<b>31</b> Tu	1537 2128	1744 1.5F	1.5F														<b>31</b> Su	1810 2318	2027 1.5F	1.5F	2.4E	2.4E	2.1E	2.0F	1.5F	

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

# Philadelphia (Penns Landing), Delaware River, 2017

F—Flood, Dir. 017° True    E—Ebb, Dir. 201° True

January				February				March							
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum	
h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m
<b>1</b>	Su	0326	0634	<b>16</b>	M	0505	0809	<b>1</b>	W	0439	0743	<b>16</b>	Th	0608	0906
		1045	1312			1211	1433			1231	1437			1327	1525
		1551	1910			1725	2132			1714	2027			1829	2136
		2351												2359	
<b>2</b>	M	0412	0723	<b>17</b>	Tu	0558	0856	<b>2</b>	Th	0536	0832	<b>17</b>	F	0652	0946
		1139	1402			1305	1520			1335	1532			1415	1602
		1637	1959			1815	2145			1809	2118			1909	2217
<b>3</b>	Tu	0503	0812	<b>18</b>	W	0652	0945	<b>3</b>	F	0641	0926	<b>18</b>	Sa	0731	1032
		1240	1454			1359	1611			1442	1632			1502	1642
		1727	2047			1903	2223			1908	2217			1946	2302
<b>4</b>	W	0601	0901	<b>19</b>	Th	0743	1041	<b>4</b>	Sa	0750	1036	<b>19</b>	Su	0810	1120
		1346	1549			1456	1711			1117	1402			1150	1726
		1821	2140			1948	2306			1553	1739†			2024	2346
<b>5</b>	Th	0705	0957	<b>20</b>	F	0831	1133	<b>5</b>	Su	0903	1450	<b>20</b>	M	0852	1204
		1457	1649			1552	1759			1701	1852			1637	1813
		1920	2241			2033	2347			2121				2107	
<b>6</b>	F	0814	1110	<b>21</b>	Sa	0918	1214	<b>6</b>	M	1014	1549	<b>21</b>	Tu	0941	1248
		1610	1754			1646	1826			1805	2020			1725	1903
		2025	2344			2117				2228				2157	
<b>7</b>	Sa	0928	1510	<b>22</b>	Su	1003	1252	<b>7</b>	Tu	1117	1642	<b>22</b>	W	1033	1333
		1722	1903			1735	1905			1905	2130			1815	1959
		2136				2201				2329				2248	
<b>8</b>	Su	1037	1613	<b>23</b>	M	1123	1412	<b>8</b>	W	1213	1732	<b>23</b>	Th	1124	1421
		1828	2031			1820	1953			1959	2223			1905	2057
		2244				2244								2337	
<b>9</b>	M	1136	1707	<b>24</b>	Tu	1202	1456	<b>9</b>	Th	1305	1820	<b>24</b>	F	1213	1510
		1929	2145			1903	2046			2049	2310			1956	2151
		2345				2326									
<b>10</b>	Tu	1230	1759	<b>25</b>	W	1202	1456	<b>10</b>	F	1355	1906	<b>25</b>	Sa	1302	1558
		2023	2238			1946	2135			2134	2356			2044	2239
<b>11</b>	W	1322	1848	<b>26</b>	Th	1242	1540	<b>11</b>	Sa	1444	1947	<b>26</b>	Su	1350	1643
		2112	2325			2029	2219			2219				2131	2326
<b>12</b>	Th	1411	1933	<b>27</b>	F	1324	1623	<b>12</b>	Su	1531	2023	<b>27</b>	M	1437	1730
		2158				2112	2303			2303				2218	
<b>13</b>	F	1459	2013	<b>28</b>	Sa	1408	1707	<b>13</b>	M	1616	2047	<b>28</b>	Tu	1029	1240
		2243				2155	2348			2347				1523	1821
<b>14</b>	Sa	1547	2050	<b>29</b>	Su	1452	1755	<b>14</b>	Tu	1702	2042	<b>29</b>	W	1552	1952
		2330				2241								2311	
<b>15</b>	Su	1636	2121	<b>30</b>	M	1537	1846	<b>15</b>	W	1746	2102	<b>15</b>	Th	1633	1952
						2330								2350	
				<b>31</b>	Tu	1624	1938								

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 † See page 188 for the remaining currents on this day.



# Philadelphia (Penns Landing), Delaware River, 2017

F—Flood, Dir. 017° True E—Ebb, Dir. 201° True

April				May				June																				
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum														
	h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots													
<b>1</b> Sa	0027 0459 1312 1747	0222 0755 1505 2039	1.7F 1.8E 1.6F 2.0E	<b>16</b> Su	0011 0449 1254 1737	0211 0820 1445 2051	1.5F 2.2E 1.3F 2.0E	<b>1</b> M	0056 0544	0254 0851	1.7F 1.9E	<b>16</b> Tu	0003 0450 1303 1735	0223 0828 1458 2056	1.9F 2.5E 1.5F 2.0E	<b>1</b> Th	0229 0729 1521 2021	0441 1228 1803 2345	1.4F 2.2E 1.6F 1.8E	<b>16</b> F	0125 0608 1419 1853	0340 0939 1615 2203	1.8F 2.4E 1.5F 1.7E					
<b>2</b> Su	0123 0559	0314 0851	1.5F 1.7E	<b>17</b> M	0048 0521 1334 1814	0252 0859 1527 2134	1.5F 2.2E 1.3F 2.0E	<b>2</b> Tu	0154 0646 1450 1937	0352 1219 1708 2230	1.5F 2.0E 1.4F 1.8E	<b>17</b> W	0052 0535 1350 1825	0310 0913 1547 2145	1.8F 2.4E 1.5F 1.9E	<b>2</b> F	0333 0829 1615 2121	0608 1302 1904 2219	1.3F 2.2E 1.6F	<b>17</b> Sa	0233 0703 1516 1958	0437 1038 1712 2309	1.5F 2.3E 1.5F 1.6E					
<b>3</b> M	0221 0705	0412 1001	1.4F 1.6E	<b>18</b> Tu	0131 0603 1419 1857	0338 0944 1614 2224	1.5F 2.2E 1.3F 1.9E	<b>3</b> W	0255 0750 1547 2040	0500 1308 1822 2353	1.4F 2.1E 1.5F 1.8E	<b>18</b> Th	0148 0627 1441 1920	0402 1006 1640 2242	1.7F 2.3E 1.5F 1.8E	<b>3</b> Sa	0438 0930 1707 2219	0724 1309 2004 2219	1.3F 2.2E 1.7F	<b>18</b> Su	0346 0805 1615 2108	0538 1139 1810 2108	1.3F 2.2E 1.4F					
<b>4</b> Tu	0321 0812 1613 2056	0520 1346 1836	1.3F 1.9E 1.4F	<b>19</b> W	0221 0654 1509 1948	0429 1039 1706 2320	1.5F 2.1E 1.3F 1.9E	<b>4</b> Th	0359 0855 1644 2143	0624 1358 1927	1.3F 2.1E 1.6F	<b>19</b> F	0252 0724 1537 2022	0459 1106 1736 2343	1.5F 2.3E 1.4F 1.8E	<b>4</b> Su	0542 1027 1756 2311	0832 1339 2101	1.3F 2.1E 1.7F	<b>19</b> M	0500 0915 1714 2219	0642 1233 1910	1.1F 2.1E 1.4F					
<b>5</b> W	0423 0921 1712 2159	0638 1442 1947	1.3F 2.0E 1.5F	<b>20</b> Th	0318 0752 1604 2048	0525 1136 1801	1.5F 2.1E 1.3F	<b>5</b> F	0502 0959 1738 2241	0746 1452 2029	1.4F 2.1E 1.7F	<b>20</b> Sa	0402 0828 1636 2131	0559 1204 1833	1.4F 2.2E 1.4F	<b>5</b> M	0642 1119 1842 2358	0929 1418 2149	1.3F 2.1E 1.7F	<b>20</b> Tu	0610 1027	0753 1324	1.0F 2.0E					
<b>6</b> Th	0524 1027 1808 2259	0806 1536 2051	1.4F 2.1E 1.7F	<b>21</b> F	0422 0900 1701 2153	0623 1230 1857 2153	1.4F 2.2E 1.3F	<b>6</b> Sa	0604 1059 1830 2335	0856 1543 2125	1.5F 2.2E 1.9F	<b>21</b> Su	0514 0942 1735 2237	0702 1256 1933	1.2F 2.1E 1.5F	<b>6</b> Tu	0736 1206 1923	1017 1457 2227	1.3F 2.0E 1.7F	<b>21</b> W	0716 1130 0016	0914 1417 0554	1.1F 2.0E 2.0E					
<b>7</b> F	0622 1127 1901 2353	0915 1626 2146	1.7F 2.2E 1.9F	<b>22</b> Sa	0528 1013 1759 2254	0724 1321 1957 2254	1.4F 2.1E 1.4F	<b>7</b> Su	0702 1152 1918	0951 1624 2212	1.6F 2.1E 1.9F	<b>22</b> M	0623 1051 1832 2335	0811 1347 2037	1.2F 2.1E 1.6F	<b>7</b> W	0822 1248 2000	1057 1535 2248	1.3F 2.0E 1.6F	<b>22</b> Th	0815 1228 2001	1017 1510 2218	1.3F 2.0E 2.0F					
<b>8</b> Sa	0719 1221 1951	1009 1712 2234	1.9F 2.3E 2.0F	<b>23</b> Su	0633 1118 1857 2349	0831 1413 2100	1.4F 2.1E 1.5F	<b>8</b> M	0023 0756 1241 2002	0503 1039 1555 2253	2.2E 1.7F 2.1E 1.9F	<b>23</b> Tu	0226 0728 1152 1929	0826 1440 2139	1.8E 1.3F 2.1E 1.7F	<b>8</b> Th	0115 0900 1326 2033	0417 1126 1611 2252	2.0E 1.2F 2.1E 1.7F	<b>23</b> F	0107 0906 1323 2050	0648 1108 1601 2306	2.2E 1.5F 2.1E 2.1F					
<b>9</b> Su	0812 1311 2037	0517 1056 1756 2316	2.3E 2.0F 2.3E 2.0F	<b>24</b> M	0736 1216 1952	0937 1506 2157	1.5F 2.1E 1.7F	<b>9</b> Tu	0107 0844 1326 2041	0550 1121 1622 2325	2.2E 1.7F 2.1E 1.8F	<b>24</b> W	0029 0827 1248 1532	0322 0435 0604 1025	1.8E 1.8E 1.9E 1.5F	<b>9</b> F	0147 0932 1401 2103	0443 1134 1647 2315	2.1E 1.2F 2.1E 1.8F	<b>24</b> Sa	0157 0954 1416 2138	0736 1156 1651 2353	2.4E 1.7F 2.1E 2.2F					
<b>10</b> M	0859 1358 2118	0609 1140 1835 2354	2.3E 2.0F 2.2E 1.9F	<b>25</b> Tu	0041 0834 1309 2043	0334 1034 1555 2247	2.0E 1.7E 2.1E 1.9F	<b>10</b> W	0147 0925 1407 2115	0501 1158 1654 2339	2.2E 1.5F 2.0E 1.7F	<b>25</b> Th	0119 0919 1342 1620	0411 0511 0703 1116	1.9E 1.8E 2.0E 1.6F	<b>10</b> Sa	0216 1003 1433 2134	0514 1152 1724 2348	2.3E 1.2F 2.1E 2.0F	<b>25</b> Su	0245 1041 1509 2225	0818 1246 1746	2.5E 1.7F 2.0E					
<b>11</b> Tu	0943 1441 2155	1221 1751	1.9F 2.1E	<b>26</b> W	0130 0927 1401 2132	0419 1125 1642 2334	2.0E 1.8F 2.1E 2.0F	<b>11</b> Th	0222 1001 1444 2146	0524 1221 1729 2354	2.2E 1.4F 2.0E 1.7F	<b>26</b> F	0208 1008 1434 1709	0456 0551 0752 1206	1.9E 1.9E 2.2E 1.7F	<b>11</b> Su	0244 1035 1504 2207	0550 1224 1805	2.4E 1.4F 2.1E	<b>26</b> M	0334 1129 1602 2315	0858 1337 1849	2.5E 1.8F 2.0E					
<b>12</b> W	1024 1521 2230	0606 1255 1822	2.2E 1.7F 2.1E	<b>27</b> Th	0218 0551 1018 1451	0502 0645 1215 1730	2.0E 1.9E 1.8F 2.1E	<b>12</b> F	0252 1035 1517 2216	0554 1233 1807	2.2E 1.3F 2.0E	<b>27</b> Sa	0256 1057 1526 2245	0837 1257 1803	2.3E 1.7F 2.0E	<b>12</b> M	0314 1111 1538 2245	0631 1304 1850	2.5E 1.5F 2.1E	<b>27</b> Tu	0424 1218 1658	0936 1428 1953	2.5E 1.7F 2.0E					
<b>13</b> Th	1103 1558 2303	0639 1317 1858	2.2E 1.5F 2.0E	<b>28</b> F	0306 0551 1109 1307	0723 0846 1307	1.9E 2.0E 1.8F	<b>13</b> Sa	0318 1108 1548 2247	0628 1259 1848	2.3E 1.3F 2.0E	<b>28</b> Su	0344 1148 1620 2336	0919 1349 1905	2.3E 1.7F 1.9E	<b>13</b> Tu	0349 1151 1616 2330	0716 1347 1936	2.6E 1.6F 2.1E	<b>28</b> W	0517 1309 1757	1014 1523 2049	2.4E 1.6F 1.9E					
<b>14</b> F	1140 1632 2336	0712 1338 1935	2.1E 1.3F 2.0E	<b>29</b> Sa	0354 0815 0933 1202	0650 0815 0933 1400	2.0E 1.9E 2.0E 1.7F	<b>14</b> Su	0343 1143 1618 2321	0706 1334 1930	2.4E 1.4F 2.0E	<b>29</b> M	0435 1239 1717	1003 1442 2006	2.2E 1.6F 1.9E	<b>14</b> W	0430 1237 1702	0802 1433 2021	2.6E 1.6F 2.0E	<b>29</b> Th	0612 1400 1856	1056 1628 2150	2.4E 1.5F 1.8E					
<b>15</b> Sa	1217 1704	0745 2012	2.1E 2.0E	<b>30</b> Su	0446 0919 1028 1257	0752 0919 1028 1454	1.9E 1.9E 1.9E 1.6F	<b>15</b> M	0413 1221 1653	0746 1414 2012	2.4E 1.4F 2.0E	<b>30</b> Tu	0031 0530 1332 1818	0237 1053 1541 2104	1.8F 2.2E 1.6F 1.8E	<b>15</b> Th	0024 0516 1326 1755	0248 0848 1522 2109	2.0F 2.6E 1.6F 1.9E	<b>30</b> F	0203 0708 1452 1955	0422 1131 1737 2318	1.5F 2.3E 1.5F 1.7E					
								<b>31</b> W	0128 0629 1426 1919	0333 1143 1652 2211	1.6F 2.2E 1.5F 1.8E																	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 † See page 188 for the remaining currents on this day.

## Philadelphia (Penns Landing), Delaware River, 2017

F—Flood, Dir. 017° True    E—Ebb, Dir. 201° True

July				August				September															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
h m		h m		h m		h m		h m		h m		h m		h m									
<b>1</b> Sa	0306	0547	1.3F	<b>16</b> Su	0218	0418	1.5F	<b>1</b> Tu	0015	1.6E	<b>16</b> W	0036	1.3E	<b>1</b> F	0516	0650	0.7F	<b>16</b> Sa	0607	0836	1.3F		
	0803	1151	2.2E		0648	1011	2.2E		0434	0725		0.8F	0212		1.4E	0516	0650		0.7F	0607	0836	1.3F	
	1544	1838	1.5F		1455	1648	1.4F		0912	1218		2.0E	0426		0610	1.0F	0954		1259	2.0E	1043	1332	1.9E
	2053				1932	2231	1.5E		1638	1938		1.0F	0843		1153	1.9E	1710		1903	1.1F	1813	2053	1.5F
<b>2</b> Su	0410	0659	1.1F	<b>17</b> M	0331	0519	1.2F	<b>2</b> W	0049	1.6E	<b>17</b> Th	0533	0725	1.0F	<b>2</b> Sa	0118	1.8E	<b>17</b> Su	0438	2.1E			
	0858	1223	2.2E		0748	1114	2.1E		0528	0822		0.7F	0320	1.6E		0600	0739		0.8F	0703	0937	1.6F	
	1634	1935	1.4F		1555	1747	1.4F		0958	1256		2.0E	0952	1248		1.9E	1038		1341	2.1E	1141	1433	2.0E
	2149				2044	2346	1.4E		1717	1918		1.0F	1734	1938		1.4F	1754		1956	1.3F	1910	2156	1.8F
<b>3</b> M	0514	0803	1.0F	<b>18</b> Tu	0444	0624	1.0F	<b>3</b> Th	0124	1.6E	<b>18</b> F	0417	1.8E	<b>3</b> Su	0202	2.0E	<b>18</b> M	0526	2.3E				
	0952	1257	2.1E		0856	1212	2.0E		0615	0909		0.6F	0635		0852	1.2F		0645	0834	1.0F	0755	1027	1.9F
	1720	2031	1.4F		1654	1848	1.4F		1042	1334		2.0E	1057		1342	2.0E		1122	1425	2.2E	1235	1539	2.2E
	2240				2158				1755	1956		1.1F	1831		2102	1.6F		1842	2053	1.6F	2003	2245	2.1F
<b>4</b> Tu	0612	0902	1.0F	<b>19</b> W	0054	1.4E	<b>4</b> F	0202	1.7E	<b>19</b> Sa	0508	2.1E	<b>4</b> M	0250	2.2E	<b>19</b> Tu	0613	2.4E					

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

† See page 188 for the remaining currents on this day.

## Philadelphia (Penns Landing), Delaware River, 2017

F—Flood, Dir. 017° True    E—Ebb, Dir. 201° True

October				November				December																			
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum													
	h	m	knots		h	m	knots		h	m	knots		h	m	knots												
<b>1</b> Su	0510	0700	1.1F	<b>16</b> M	0633	0918	1.8F	<b>1</b> W	0621	0826	1.5F	<b>16</b> Th	0019	0438	2.2E	<b>1</b> F	0654	0904	1.7F	<b>16</b> Sa	0035	0327	2.1E				
	0959	1310	2.1E		1127	1611	2.1E		1123	1420	2.0E		0741	1034	2.1F		1201	1454	1.8E		0749	1048	1.8F	0306	0327	2.1E	
	1723	1922	1.3F		1854	2142	1.7F		1906	2104	1.4F		1250	1739	2.3E		1957	2152	1.3F		1306	1759	2.1E	0327	0327	2.1E	
	2218				2352					2345							2026	2303	1.8F		2051	2322	1.4F	0404	0404	2.1E	
<b>2</b> M	0600	0756	1.2F	<b>17</b> Tu	0725	1009	2.0F	<b>2</b> Th	0717	0926	1.7F	<b>17</b> F	0108	0415	2.1E	<b>2</b> Sa	0017	0306	2.1E	<b>17</b> Su	0117	0404	2.1E				
	1052	1356	2.2E		1219	1704	2.2E		1215	1511	2.1E		0825	1113	2.1F		0749	1001	1.9F		0826	1108	1.8F	0404	0404	2.1E	
	1819	2023	1.5F		1949	2233	2.0F		2006	2205	1.6F		1333	1827	2.4E		1252	1546	1.9E		1342	1651	2.1E	1108	1108	1.8F	
	2317												2112	2345	1.7F		1705	1705	1.8E		2127	2352	1.3F	1651	1651	2.1E	
<b>3</b> Tu	0653	0855	1.4F	<b>18</b> W	0813	1054	2.1F	<b>3</b> F	0810	1018	1.9F	<b>18</b> Sa	0153	0446	2.1E	<b>3</b> Su	0111	0355	2.1E	<b>18</b> M	0156	0439	2.1E				
	1142	1444	2.2E		1309	1757	2.4E		1304	1558	2.1E		0903	1143	1.9F		0840	1051	2.1F		0859	1116	1.8F	0439	0439	2.1E	
	1917	2125	1.7F		2040	2319	2.1F		2101	2258	1.7F		●	2152				1342	1631		1.9E	1414	1713	2.2E	1116	1116	1.8F
																	1740	1740	1.9E		●	2159			1713	1713	2.2E

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 † See page 188 for the remaining currents on this day.

# Chesapeake Bay Entrance, Virginia, 2017

F—Flood, Dir. 297° True    E—Ebb, Dir. 112° True

January				February				March																
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots													
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m													
<b>1</b> Su	0100 0718 1412 2038	0406 1053 1720 2318	1.0E 1.5F 1.0E 0.8F	<b>16</b> M	0207 0822 1452 2110	0510 1137 1804 2110	1.0E 1.2F 1.1E	<b>1</b> W	0229 0830 1442 2116	0540 1151 1811	1.0E 1.3F 1.3E	<b>16</b> Th	0335 0913 1536 2208	0635 1224 1904	0.8E 0.9F 1.0E	<b>1</b> W	0118 0726 1334 1958	0412 1040 1636 2313	1.3E 1.5F 1.4E 1.5F	<b>16</b> Th	0207 0812 1422 2041	0505 1116 1743 2344	0.9E 1.0F 0.9E 1.1F	
<b>2</b> M	0147 0803 1443 2110	0502 1135 1805	0.9E 1.4F 1.0E	<b>17</b> Tu	0308 0906 1535 2159	0615 1218 1852	0.9E 1.0F 1.1E	<b>2</b> Th	0333 0923 1526 2203	0640 1237 1856	1.3F 1.2F 1.3E	<b>17</b> F	0442 1003 1626 2252	0722 1304 1946	0.7E 0.8F 0.9E	<b>2</b> Th	0214 0819 1416 2045	0517 1129 1737	1.2E 1.4F 1.3E	<b>17</b> F	0255 0858 1502 2121	0607 1159 1834	0.8E 0.9F 0.9E	
<b>3</b> Tu	0242 0848 1517 2147	0607 1217 1843	0.9E 1.3F 1.1E	<b>18</b> W	0420 0949 1621 2249	0706 1256 1934	0.8E 0.9F 1.1E	<b>3</b> F	0446 1022 1618 2253	0733 1326 1941	1.4F 1.1F 1.3E	<b>18</b> Sa	0544 1102 1717 2337	0811 1352 2031	0.7E 0.6F 0.8E	<b>3</b> F	0315 0915 1504 2137	0623 1220 1834	1.2E 1.2F 1.4E	<b>18</b> Sa	0354 0949 1548 2203	0658 1241 1916	0.8E 0.7F 0.8E	
<b>4</b> W	0349 0938 1557 2229	0659 1258 1920	0.9E 1.3F 1.2E	<b>19</b> Th	0529 1037 1709 2337	0752 1338 2018	0.7E 0.7F 1.0E	<b>4</b> Sa	0554 1130 1716 2348	0831 1429 2032	1.4F 1.0E 1.3E	<b>19</b> Su	0641 1213 1803	0911 1509 2124	0.6E 0.5F 0.8E	<b>4</b> Sa	0426 1017 1602 2233	0720 1311 1925	1.1E 1.1F 1.3E	<b>19</b> Su	0500 1047 1638 2248	0745 1324 1956	0.8E 0.8E 0.8E	
<b>5</b> Th	0502 1035 1644 2315	0748 1346	0.9E 1.0F 1.3E	<b>20</b> F	0627 1135 1755	0846 1441 2110	0.6E 0.6F 0.9E	<b>5</b> Su	0658 1246 1814	0939 1546 2135	1.0E 0.8F 1.3E	<b>20</b> M	0740 1344 1847	1017 1620 2218	0.6E 0.4F 0.8E	<b>5</b> Su	0537 1124 1707 2335	0817 1413 2019	1.1E 0.9F 1.3E	<b>20</b> M	0602 1148 1723 2338	0838 1420 2042	0.7E 0.4F 0.7E	
<b>6</b> F	0608 1140 1735	0847 1452 2052	0.9E 0.9F 1.3E	<b>21</b> Sa	0722 1252 1843	0950 1602 2204	0.6E 0.5F 0.9E	<b>6</b> M	0805 1410 1916	1045 1649 2239	1.0E 0.9F 1.3E	<b>21</b> Tu	0841 1459 1933	1115 1706 2307	0.7E 0.5F 0.8E	<b>6</b> M	0643 1235 1810	0923 1532 2125	1.0E 0.8F 1.2E	<b>21</b> Tu	0700 1253 1805	0939 1538 2137	0.6E 0.4F 0.7E	
<b>7</b> Sa	0711 1256 1829	0955 1604 2152	1.0E 0.9F 1.3E	<b>22</b> Su	0820 1426 1934	1051 1654 2255	0.7E 0.5F 0.9E	<b>7</b> Tu	0910 1517 2021	1148 1742 2339	1.1E 0.9F 1.3E	<b>22</b> W	0934 1544 2023	1211 1747 2355	0.7E 0.5F 0.9E	<b>7</b> Tu	0752 1352 1914	1030 1638 2232	1.0E 0.9F 1.2E	<b>22</b> W	0758 1400 1851	1035 1632 2230	0.6E 0.5F 0.8E	
<b>8</b> Su	0816 1421 1927	1059 1701 2250	1.1E 0.9F 1.4E	<b>23</b> M	0914 1532 2026	1150 1738 2344	0.8E 0.5F 0.9E	<b>8</b> W	1008 1607 2123	1251 1836	1.1E 1.0F	<b>23</b> Th	1016 1615 2111	1303 1830 2111	0.8E 0.6F	<b>8</b> W	0858 1457 2020	1132 1731 2333	1.0E 1.0F 1.3E	<b>23</b> Th	0849 1446 1946	1123 1713 2318	0.6E 0.6F 0.9E	
<b>9</b> M	0917 1528 2031	1201 1754 2348	1.2E 1.0F 1.4E	<b>24</b> Tu	1002 1619 2112	1251 1824	0.9E 0.6F	<b>9</b> Th	1059 1651 2219	1346 1934	1.2E 1.1F	<b>24</b> F	1051 1643 2157	1343 1919	1.0E 0.8F	<b>9</b> Th	0956 1546 2121	1233 1822	1.0E 1.0F	<b>24</b> F	0929 1518 2044	1207 1755	0.7E 0.8F	
<b>10</b> Tu	1013 1622 2131	1304 1852	1.3E 1.0F	<b>25</b> W	1045 1659 2150	1341 1913	1.0E 0.6F	<b>10</b> F	1146 1734 2312	1428 2025	1.2E 1.1F	<b>25</b> Sa	1122 1711 2243	1414 2006	1.1E 1.0F	<b>10</b> F	1044 1627 2215	1327 1916	1.1E 1.1F	<b>25</b> Sa	1000 1548 2137	1250 1841	0.9E 1.0F	
<b>11</b> W	1106 1711 2227	1358 1950	1.4E 1.1F	<b>26</b> Th	1125 1736 2227	1418 1959	1.1E 0.7F	<b>11</b> Sa	1229 1819	1506 2111	1.2E 1.2F	<b>26</b> Su	1151 1745 2333	1443 2050	1.2E 1.2F	<b>11</b> Sa	1126 1707 2305	1409 2007	1.1E 1.2F	<b>26</b> Su	1029 1620 2228	1329 1932	1.1E 1.3F	
<b>12</b> Th	1157 1759 2322	1442 2043	1.4E 1.1F	<b>27</b> F	1202 1810 2306	1449 2040	1.1E 0.8F	<b>12</b> Su	1307 1905	1545 2155	1.2E 1.2F	<b>27</b> M	1222 1826	1513 2134	1.3E 1.3F	<b>12</b> Su	1203 1748 2353	1445 2051	1.2E 1.2F	<b>27</b> M	1102 1658 2319	1405 2021	1.3E 1.5F	
<b>13</b> F	1245 1848	1524 2130	1.3E 1.1F	<b>28</b> Sa	1235 1844 2351	1519 2120	1.1E 0.9F	<b>13</b> M	1342 1951	1630 2242	1.1E 1.1F	<b>28</b> Tu	1256 1911	1549 2221	1.3E 1.4F	<b>13</b> M	1237 1832	1519 2132	1.2E 1.2F	<b>28</b> Tu	1138 1742	1440 2108	1.5E 1.6F	
<b>14</b> Sa	1330 1936	1610 2218	1.2E 1.1F	<b>29</b> Su	1305 1918	1550 2202	1.1E 1.0F	<b>14</b> Tu	1417 2037	1726 2331	1.1E 1.1F	<b>29</b> W	1311 1916	1557 2214	1.1E 1.2F	<b>14</b> Tu	1311 1916	1557 2214	1.1E 1.2F	<b>29</b> W	1220 1831	1518 2156	1.5E 1.7F	
<b>15</b> Su	1412 2023	1706 2310	1.1E 1.1F	<b>30</b> M	1334 1954	1629 2249	1.1E 1.1F	<b>15</b> W	1453 2122	1820	1.0E	<b>30</b> Th	1345 2000	1645 2259	1.0E 1.1F	<b>15</b> W	1345 2000	1645 2259	1.0E 1.1F	<b>30</b> Th	1306 1923	1604 2249	1.5E 1.7F	
				<b>31</b> Tu	0133 0742 1406 2034	0432 1106 1719 2339	1.1E 1.4F 1.2E 1.2F														<b>31</b> F	0158 0812 1354 2017	0457 1110 1705 2344	1.4E 1.3F 1.4E 1.7F

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























Chesapeake and Delaware Canal (Chesapeake City), 2017

F—Flood, Dir. 097° True E—Ebb, Dir. 278° True

Table with 3 main columns for months October, November, and December. Each column contains daily data for slack and maximum tide levels in hours, minutes, and knots. Days are labeled with their respective day of the week and include moon phase icons.

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





# Charleston Harbor (off Ft. Sumter), South Carolina, 2017

F—Flood, Dir. 313° True     E—Ebb, Dir. 127° True

April				May				June															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m								
<b>1</b> Sa			2.9E	<b>16</b> Su			2.0E	<b>1</b> M			2.8E	<b>16</b> Tu			2.0E	<b>1</b> Th			2.3E				
	0547	0810	1.8F		0551	0812	1.5F		0636	0848	1.6F		0610	0833	1.4F		0813	1026	1.3F	<b>16</b> F			1.5F
	1149	1500	2.5E		1120	1426	1.6E		1235	1544	2.3E		1140	1444	1.6E		1422	1728	2.1E		1303	1617	1.8E
	1757	2034	2.0F		1737	2032	1.4F		1846	2113	1.7F		1751	2051	1.3F		2036	2241	1.3F		1921	2205	1.4F
<b>2</b> Su			2.7E	<b>17</b> M			1.9E	<b>2</b> Tu			2.5E	<b>17</b> W			1.9E	<b>2</b> F			2.1E	<b>17</b> Sa			2.1E
	0025	0338	1.6F		0005	0329	1.4F		0737	0946	1.4F		0658	0923	1.3F		0907	1120	1.3F		0803	1037	1.6F
	0648	0904	2.3E		0639	0901	1.5E		1338	1647	2.1E		1229	1536	1.5E		1520	1828	2.1E		1401	1721	1.9E
	1246	1559	1.8F		1203	1508	1.2F		1953	2211	1.5F		1845	2142	1.3F		2134	2333	1.2F		2026	2300	1.5F
<b>3</b> M			2.5E	<b>18</b> Tu			1.7E	<b>3</b> W			2.3E	<b>18</b> Th			1.9E	<b>3</b> Sa			2.0E	<b>18</b> Su			2.2E
	0125	0440	1.4F		0052	0420	1.3F		0837	1045	1.3F		0748	1014	1.3F		0958	1212	1.3F		0856	1130	1.7F
	0752	1001	2.1E		0731	0951	1.4E		1442	1752	2.1E		1325	1638	1.5E		1615	1924	2.1E		1503	1827	2.1E
	1348	1704	1.6F		1824	2122	1.2F		2058	2309	1.3F		1948	2235	1.3F		2228				2132	2355	1.5F

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



# Charleston Harbor (off Ft. Sumter), South Carolina, 2017

F—Flood, Dir. 313° True E—Ebb, Dir. 127° True

October				November				December															
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum										
h m	h m	h m	knots	h m	h m	h m	knots	h m	h m	h m	knots	h m	h m	h m	knots								
<b>1</b> Su	0413 1054 1702 2333	0743 1315 2024	1.3F 1.6E 1.4F 2.1E	<b>16</b> M	0532 1142 1755	0840 1354 2105	1.4F 2.5E 1.5F 2.6E	<b>1</b> W	0537 1200 1802	0857 1422 2122	1.7F 2.3E 1.7F 2.6E	<b>16</b> Th	0652 1258 1853	0956 1458 2211	1.6F 2.6E 1.5F 2.3E	<b>1</b> F	0606 1226 1821	0923 1443 2141	2.0F 2.7E 1.8F 2.8E	<b>16</b> Sa	0709 1317 1902	1016 1515 2224	1.5F 2.5E 1.4F 2.1E
<b>2</b> M	0512 1143 1752	0836 1406 2111	1.4F 1.9E 1.5F 2.4E	<b>17</b> Tu	0012 0626 1233 1842	0231 0931 1443 2153	1.5F 2.7E 1.6F 2.6E	<b>2</b> Th	0022 0631 1250 1851	0247 0947 1512 2208	1.9F 2.7E 1.9F 2.8E	<b>17</b> F	0112 0734 1342 1932	0332 1040 1543 2251	1.6F 2.7E 1.6F 2.3E	<b>2</b> Sa	0036 0701 1319 1915	0310 1016 1536 2232	2.2F 3.0E 1.9F 2.9E	<b>17</b> Su	0125 0750 1400 1942	0348 1058 1601 2303	1.6F 2.6E 1.5F 2.1E
<b>3</b> Tu	0607 1230 1839	0926 1455 2155	1.6F 2.2E 1.7F 2.6E	<b>18</b> W	0058 0714 1321 1925	0318 1019 1529 2237	1.6F 2.8E 1.6F 2.6E	<b>3</b> F	0106 0722 1339 1939	0336 1036 1601 2255	2.2F 3.0E 2.0F 2.9E	<b>18</b> Sa	0151 0814 1423 ● 2008	0413 1122 1626 2329	1.7F 2.7E 1.6F 2.2E	<b>3</b> Su	0126 0755 1411 ○ 2008	0402 1107 1629 2322	2.4F 3.3E 2.0F 3.1E	<b>18</b> M	0204 0829 1441 ● 2021	0431 1138 1646 2340	1.7F 2.6E 1.6F 2.1E
<b>4</b> W	0657 1315 1924	1013 1542 2238	1.8F 2.5E 1.8F 2.8E	<b>19</b> Th	0140 0758 1405 ● 2004	0400 1104 1612 2319	1.7F 2.8E 1.7F 2.5E	<b>4</b> Sa	0150 0812 1428 ○ 2027	0425 1125 1650 2341	2.3F 3.2E 2.0F 3.0E	<b>19</b> Su	0229 0852 1504 2044	0453 1203 1710 2444	1.7F 2.6E 1.6F	<b>4</b> M	0215 0848 1503 2100	0453 1157 1721 2444	2.5F 3.4E 2.0F	<b>19</b> Tu	0241 0907 1522 2059	0512 1217 1730	1.7F 2.5E 1.6F
<b>5</b> Th	0745 1400 2007	1059 1628 2321	2.0F 2.8E 2.0F 2.9E	<b>20</b> F	0220 0839 1448 2040	0440 1147 1654 2357	1.8F 2.8E 1.7F 2.4E	<b>5</b> Su	0235 0902 1518 2116	0513 1214 1740	2.4F 3.2E 2.0F	<b>20</b> M	0305 0929 1545 2120	0005 0535 1242 1754	2.1E 1.7F 2.5E 1.6F	<b>5</b> Tu	0307 0940 1556 2154	0545 1248 1813	2.4F 3.3E 1.9F	<b>20</b> W	0316 0944 1602 2138	0554 1256 1815	1.7F 2.4E 1.6F
<b>6</b> F	0832 1446 2051	1145 1714	2.9E 2.0F	<b>21</b> Sa	0258 0917 1529 2114	0520 1228 1736	1.8F 2.7E 1.7F	<b>6</b> M	0323 0954 1610 2207	0603 1305 1830	2.4F 3.2E 1.9F	<b>21</b> Tu	0340 1007 1627 2157	0617 1322 1839 2157	1.7F 2.3E 1.5F	<b>6</b> W	0400 1033 1650 2250	0637 1341 1906	2.3F 3.2E 1.8F	<b>21</b> Th	0351 1021 1641 2217	0636 1335 1859	1.7F 2.3E 1.5F
<b>7</b> Sa	0919 1533 2135	1232 1801	3.0E 2.0F	<b>22</b> Su	0335 0955 1611 2148	0601 1309 1820 2418	1.7F 2.5E 1.6F	<b>7</b> Tu	0414 1047 1706 2302	0654 1357 1923	2.3F 3.0E 1.8F	<b>22</b> W	0416 1046 1710 2237	0700 1403 1925	1.6F 2.1E 1.4F	<b>7</b> Th	0456 1126 1747 2348	0731 1434 2002	2.1F 2.9E 1.6F	<b>22</b> F	0427 1058 1721 2258	0719 1413 1945	1.6F 2.1E 1.4F
<b>8</b> Su	1008 1624 2222	1321 1849	3.0E 1.9F	<b>23</b> M	0412 1034 1655 2223	0644 1351 1905	1.6F 2.3E 1.5F	<b>8</b> W	0510 1143 1806	0214 0748 1453 2019	2.6E 2.1F 2.8E 1.6F	<b>23</b> Th	0454 1126 1755 2320	0746 1445 2013	1.4F 2.0E 1.3F	<b>8</b> F	0556 1221 1846	0825 1530 2059	1.9F 2.7E 1.5F	<b>23</b> Sa	0508 1137 1803 2343	0804 1454 2032	1.5F 2.0E 1.4F
<b>9</b> M	1101 1719 2313	1413 1941	2.9E 1.7F	<b>24</b> Tu	0449 1114 1741 2302	0729 1434 1953	1.5F 2.1E 1.4F	<b>9</b> Th	0612 1241 1908	0312 0845 2117	2.4E 1.9F 1.4F	<b>24</b> F	0537 1209 1843	0229 0834 2103	1.6E 1.4F 1.3F	<b>9</b> Sa	0659 1316 1944	0355 0921 2157	2.3E 1.6F 1.4F	<b>24</b> Su	0555 1217 1848	0851 1538 2121	1.5F 2.0E 1.4F
<b>10</b> Tu	1156 1820	1510 2036	2.7E 1.6F	<b>25</b> W	0530 1158 1831 2347	0816 1520 2042	1.6E 1.9E 1.3F	<b>10</b> F	0718 1340 ● 2010	0414 0943 2217	2.3E 2.5E 1.3F	<b>25</b> Sa	0628 1254 1934	0317 0924 2154	1.5E 1.3F 1.2F	<b>10</b> Su	0803 1411 2042	0457 1016 2256	2.2E 1.5F 1.3F	<b>25</b> M	0649 1301 1936	0941 1627 2212	1.4F 1.9E 1.4F
<b>11</b> W	1256 1924	1610 2133	2.5E 1.4F	<b>26</b> Th	0618 1245 1924	0906 1609 2134	1.2F 1.8E 1.2F	<b>11</b> Sa	0825 1440 2110	1042 1754 2319	1.5F 2.4E 1.3F	<b>26</b> Su	0933 1343 ● 2025	1202 1711 2246	1.3F 1.8E 1.3F	<b>11</b> M	1506 2136	1825 2353	2.1E 1.3F	<b>26</b> Tu	1351 2029	1722 2304	2.0E 1.5F
<b>12</b> Th	1358 2029	1713 2233	2.5E 1.3F	<b>27</b> F	0038 0713 1336 ● 2019	0350 0959 1703 2227	1.4E 1.2F 1.7E 1.2F	<b>12</b> Su	0314 0928 1539 2205	0623 1140 1854	2.2E 1.4F 2.3E	<b>27</b> M	0830 1436 2116	0520 1109 2339	1.5E 1.3F 1.4F	<b>12</b> Tu	1558 2227	1920 2227	2.0E	<b>27</b> W	1447 2124	1821 2358	2.1E 1.7F
<b>13</b> F	1501 2131	1816 2334	2.4E 1.3F	<b>28</b> Sa	0135 0814 1429 2112	0453 1052 1758 2320	1.3E 1.2F 1.8E 1.2F	<b>13</b> M	0417 1027 1634 2257	0021 0724 1235 1949	1.3F 2.3E 1.4F 2.3E	<b>28</b> Tu	0933 1531 2207	1202 1902	1.4F 2.1E	<b>13</b> W	1649 2315	2012 2315	2.0E	<b>28</b> Th	1549 2220	1922 2320	2.2E
<b>14</b> Sa	1603 2229	1917	2.5E	<b>29</b> Su	0237 0916 1524 2203	0601 1146 1852	1.4E 1.3F 1.9E	<b>14</b> Tu	0514 1122 1725 2345	0819 1325 2040	2.4E 1.4F 2.3E	<b>29</b> W	1034 1628 2257	1256 1956	1.5F 2.3E	<b>14</b> Th	1736	2059	2.0E	<b>29</b> F	1653 2317	2021 2317	2.4E
<b>15</b> Su	1701 2322	2013	2.5E	<b>30</b> M	0340 1014 1618 2251	0705 1239 1944	1.6E 1.4F 2.1E	<b>15</b> W	0605 1211 1812	0910 1413 2127	2.5E 1.4F 2.3E	<b>30</b> Th	1131 1725 2347	1350 2049	1.7F 2.5E	<b>15</b> F	1820	2143	2.1E	<b>30</b> Sa	1755	2118	2.7E
				<b>31</b> Tu	0440 1108 1711 2337	0803 1331 2034	1.5F 2.0E 1.5F 2.3E													<b>31</b> Su	1855	2213	2.9E

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





## Savannah River Entrance (between jetties), Georgia, 2017

F—Flood, Dir. 286° True    E—Ebb, Dir. 110° True

July					August					September									
Slack	Maximum		Slack	Maximum	Slack	Maximum		Slack	Maximum	Slack	Maximum		Slack	Maximum					
h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots		
<b>1</b> Sa	0245 0854 1526 2136	0610 1140 1901 2.0E 2.1E	2.0E	<b>16</b> Su	0210 0818 1439 2056	0454 1059 1717 2327	1.8E 2.1F 1.8E 1.7F	<b>1</b> Tu	0348 1001 1634 2249	0715 1243 2020	1.6F 1.5E 1.8F 1.8E	<b>16</b> W	0348 0953 1627 2248	0648 1235 1956	1.6F 1.7E 2.2F 1.9E	<b>1</b> F	0452 1106 1735 2351	0734 1345 2119	1.4E 1.8F 1.8E
<b>2</b> Su	0337 0947 1619 2232	0710 1234 2000	1.8E 2.0F 2.1E	<b>17</b> M	0307 0914 1539 2200	0551 1156 1822	1.8E 2.1F 1.8E	<b>2</b> W	0439 1051 1724 2339	0815 1333 2111	1.6F 1.5E 1.8F 1.8E	<b>17</b> Th	0450 1053 1729 2348	0816 1336 2106	1.6F 1.8E 2.3F 2.1E	<b>2</b> Sa	0543 1154 1823 2200	0833 1434 2200	1.5E 1.9F 1.9E
<b>3</b> M	0428 1038 1711 2324	0808 1323 2054	1.7E 2.0F 2.1E	<b>18</b> Tu	0406 1012 1640 2303	0656 1253 1946	1.7E 2.2F 1.9E	<b>3</b> Th	0529 1140 1813	0905 1420 2158	1.5E 1.9F 1.9E	<b>18</b> F	0552 1152 1829	0923 1435 2204	1.6F 2.0E 2.4F 2.3E	<b>3</b> Su	0633 1241 1909	0923 1522 2236	1.7E 2.0F 2.0E
<b>4</b> Tu	0519 1127 1800	0900 1410 2144	1.7E 1.9F 2.1E	<b>19</b> W	0506 1109 1741	0813 1350 2110	1.8E 2.4F 2.1E	<b>4</b> F	0618 1226 1859	0944 1507 2240	1.5E 1.9F 1.9E	<b>19</b> Sa	0650 1249 1924	1021 1533 2256	2.2E 2.4F 2.4E	<b>4</b> M	0720 1328 1953	1009 1609 2309	1.8E 2.2F 2.2E
<b>5</b> W	0607 1214 1848	0237 1455 2231	1.7F 1.6E 2.0E	<b>20</b> Th	0605 1205 1841	0224 1448 2212	1.7F 1.9E 2.3E	<b>5</b> Sa	0706 1312 1943	1013 1553 2319	1.6E 2.0F 2.0E	<b>20</b> Su	0746 1344 2016	1115 1629 2346	2.3E 2.5F 2.5E	<b>5</b> Tu	0806 1415 2037	0436 1053 2343	2.2F 2.0E 2.3E
<b>6</b> Th	0655 1300 1933	0323 1031 1740	1.7F 1.6E 2.0E	<b>21</b> F	0703 1301 1937	0322 1027 2308	1.8F 2.1E 2.4E	<b>6</b> Su	0753 1357 2026	1043 1639 2354	1.7E 2.1F 2.1E	<b>21</b> M	0838 1438 2104	1207 1721	2.5E 2.6F	<b>6</b> W	0850 1501 2121	1139 1741	2.2E 2.4F
<b>7</b> F	0741 1344 2016	0409 1624 2357	1.7F 1.6E 2.0E	<b>22</b> Sa	0759 1357 2031	0420 1124 1642	1.9F 2.3E 2.7F	<b>7</b> M	0837 1441 2107	1122 1723	1.8E 2.2F	<b>22</b> Tu	0928 1529 2150	1257 1809	2.5E 2.5F	<b>7</b> Th	0934 1547 2204	1225 1825	2.3E 2.5F
<b>8</b> Sa	0825 1427 2057	0454 1128 1707	1.8F 1.6E 2.0F	<b>23</b> Su	0853 1451 2122	0001 0515 1735	2.6E 2.0F 2.8F	<b>8</b> Tu	0920 1525 2148	1203 1805	1.9E 2.3F	<b>23</b> W	1015 1618 2233	1345 1853	2.5E 2.5F	<b>8</b> F	1019 1634 2249	1312 1909	2.4E 2.4F
<b>9</b> Su	0908 1509 2137	0536 1151 1749	1.8F 1.6E 2.1F	<b>24</b> M	0945 1544 2210	0051 0606 1311 1825	2.2F 2.5E 2.8F	<b>9</b> W	1003 1608 2230	1247 1848	2.0E 2.3F	<b>24</b> Th	1101 1705 2316	1431 1935	2.5E 2.3F	<b>9</b> Sa	1107 1723 2337	1400 1956	2.4E 2.3F
<b>10</b> M	0949 1549 2216	0618 1227 1829	1.9F 1.7E 2.1F	<b>25</b> Tu	1036 1635 2257	0138 0653 1913	2.7E 2.3F 2.7F	<b>10</b> Th	1046 1653 2313	0714 1931	2.4F 2.3F	<b>25</b> F	1147 1752	1516 2019	2.3E 2.2F	<b>10</b> Su	1200 1815	1452 2045	2.3E 2.1F
<b>11</b> Tu	1031 1630 2255	0128 0659 1308 1910	2.1E 2.0F 1.7E 2.1F	<b>26</b> W	1125 1726 2344	0223 0738 1451 2000	2.6E 2.3F 2.5E 2.5F	<b>11</b> F	1131 1741	1418 2017	2.1E 2.2F	<b>26</b> Sa	1233 1840	1601 2104	2.1E 1.9F	<b>11</b> M	1259 1914	1547 2141	2.1E 1.8F
<b>12</b> W	1113 1713 2338	0157 0740 1352 1953	2.1E 2.1F 1.8E 2.1F	<b>27</b> Th	1216 1817	0306 0824 1540 2049	2.5E 2.3F 2.4E 2.3F	<b>12</b> Sa	1222 1833	1508 2107	2.1E 2.0F	<b>27</b> Su	1322 1930	1649 2154	1.9E 1.7F	<b>12</b> Tu	1402 2018	1652 2244	2.0E 1.6F
<b>13</b> Th	1158 1800	0234 0824 1438 2039	2.1E 2.1F 1.8E 2.0F	<b>28</b> F	1306 1910	0349 0912 1631 2139	2.3E 2.2F 2.2E 2.1F	<b>13</b> Su	1318 1932	1601 2203	2.0E 1.8F	<b>28</b> M	1412 2023	1742 2246	1.7E 1.6F	<b>13</b> W	1508 2126	1821 2351	1.9E 1.6F
<b>14</b> F	1248 1853	0316 0911 1527 2130	2.0E 2.1F 1.9E 1.9F	<b>29</b> Sa	1358 2004	0432 1003 1726 2233	2.0E 2.0F 2.0E 1.8F	<b>14</b> M	1419 2036	1701 2304	1.9E 1.6F	<b>29</b> Tu	1504 2118	1843 2341	1.6E 1.5F	<b>14</b> Th	1612 2230	1947 2230	2.0E
<b>15</b> Sa	1342 1952	0403 1003 1619 2227	1.9E 2.0F 1.8E 1.7F	<b>30</b> Su	1450 2101	0517 1057 1825 2328	1.8E 1.9F 1.9E 1.7F	<b>15</b> Tu	1523 2143	1815 2343	1.8E 1.8E	<b>30</b> W	1555 2212	1942 2212	1.6E	<b>15</b> F	1714 2329	2051 2329	2.2E
<b>16</b> Su		0258 0908 1542 2156	1.6E 1.9F 1.8E	<b>31</b> M		0611 1151 1924 2156	1.6E 1.9F 1.8E	<b>16</b> Th		0401 1015 1646 2303	1.5F 1.4E 1.7F 1.7E	<b>31</b> F		0034 0634 1256 2034	1.5F 1.4E 1.7F 1.7E				

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





















## Fort Pierce Inlet Entrance, Florida, 2017

F—Flood, Dir. 258° True    E—Ebb, Dir. 080° True

January				February				March																		
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum												
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	knots									
<b>1</b> Su	0229	0859	3.1E	<b>16</b> M	0112	0404	2.8E	<b>1</b> W	0115	0346	3.2E	<b>16</b> Th	0227	0542	2.3E	<b>1</b> W	0006	0241	3.4E	<b>16</b> Th	0110	0400	2.6E			
	0605	1508	3.0E		0735	1049	3.1F		0734	1009	3.3F		0844	1103	2.2F		0627	0903	3.4F		0732	0952	2.3F	1307	1537	2.7E
	1914	2130	2.6F		1343	1717	3.1E		1330	1605	3.4E		1425	1701	2.5E		1217	1455	3.6E		1848	2131	3.6F	1935	2210	2.8F
<b>2</b> M	0315	0944	3.5F	<b>17</b> Tu	0205	0514	2.5E	<b>2</b> Th	0211	0441	3.0E	<b>17</b> F	0314	0632	2.1E	<b>2</b> Th	0100	0331	3.4E	<b>17</b> F	0153	0431	2.3E			
	0655	1549	3.0E		0824	1134	2.7F		0829	1100	3.1F		0931	1142	1.9F		0722	0950	3.3F		0815	1023	2.1F	1344	1610	2.6E
	1956	2215	2.7F		1426	1804	2.8E		1415	1657	3.3E		1504	1742	2.4E		1303	1540	3.6E		1935	2219	3.6F	2011	2241	2.6F
<b>3</b> Tu	0404	1031	3.3F	<b>18</b> W	0257	0626	2.3E	<b>3</b> F	0311	0547	2.9E	<b>18</b> Sa	0405	0706	2.0E	<b>3</b> F	0156	0425	3.2E	<b>18</b> Sa	0236	0516	2.2E			
	0747	1400	3.1E		0913	1209	2.3F		0930	1156	2.8F		1021	1225	1.7F		0818	1041	3.0F		0858	1103	1.9F	1422	1652	2.5E
	2037	2305	2.8F		1507	1833	2.6E		1507	1754	3.3E		1548	1825	2.3E		1352	1630	3.5E		2025	2313	3.5F	2047	2321	2.5F

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



## Fort Pierce Inlet Entrance, Florida, 2017

F—Flood, Dir. 258° True E—Ebb, Dir. 080° True

April				May				June																			
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum														
	h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots												
<b>1</b> Sa	0141 0807 1335 2006	0413 1025 1609 2255	3.2E 2.9F 3.5E 3.6F	<b>16</b> Su	0159 0829 1347 2004	0426 1031 1614 2244	2.3E 2.0F 2.6E 2.7F	<b>1</b> M	0222 0852 1423 2052	0524 1113 1655 2349	3.1E 2.7F 3.0E 3.3F	<b>16</b> Tu	0204 0843 1401 2012	0433 1048 1632 2300	2.5E 2.0F 2.6E 2.9F	<b>1</b> Th	0356 1028 1620 2241	0732 1340 1934 2541	3.1E 2.6F 2.5E	<b>16</b> F	0254 0936 1523 2134	0536 1200 1759 2346	2.7E 2.4F 2.6E				
<b>2</b> Su	0238 0905 1433 2105	0523 1123 1709 2358	3.0E 2.7F 3.2E 3.4F	<b>17</b> M	0240 0914 1430 2045	0513 1117 1703 2330	2.2E 1.9F 2.4E 2.7F	<b>2</b> Tu	0321 0951 1527 2155	0648 1225 1812	3.0E 2.5F 2.8E	<b>17</b> W	0247 0928 1450 2101	0523 1137 1727 2350	2.4E 2.0F 2.4E 2.8F	<b>2</b> F	0453 1124 1726 2344	0825 1455 2051 2644	2.7F 2.9E 2.7F 2.4E	<b>17</b> Sa	0342 1024 1628 2239	0627 1252 1858 2346	2.8E 2.5F 2.5E				
<b>3</b> M	0340 1008 1538 2210	0646 1228 1818	2.9E 2.5F 2.9E	<b>18</b> Tu	0326 1003 1520 2133	0606 1207 1758	2.2E 1.8F 2.3E	<b>3</b> W	0423 1053 1637 2302	0751 1347 1929	3.0F 3.0E 2.6E	<b>18</b> Th	0334 1017 1549 2159	0615 1229 1825	2.4E 2.0F 2.4E	<b>3</b> Sa	0545 1217 1825	0925 1601 2205	2.5F 2.8E 2.5E	<b>18</b> Su	0436 1114 1733 2346	0715 1345 1955	2.9E 2.7F 2.6E				
<b>4</b> Tu	0446 1113 1649 2319	0759 1340 1926	2.9E 2.3F 2.8E	<b>19</b> W	0418 1056 1620 2230	0654 1257 1852	2.2E 1.7F 2.3E	<b>4</b> Th	0524 1153 1744	0859 1520 2105	3.0E 2.6F 2.5E	<b>19</b> F	0427 1107 1655 2303	0703 1320 1920	2.7F 2.5E 2.4E	<b>4</b> Su	0633 1305 1919	1017 1652 2259	2.7E 3.0F 2.6E	<b>19</b> M	0531 1205 1833	0805 1447 2059	3.0E 2.9F 2.6E				
<b>5</b> W	0550 1216 1757	0923 1535 2050	3.0F 2.9E 2.6E	<b>20</b> Th	0512 1148 1722 2332	0739 1349 1945	2.2E 1.8F 2.3E	<b>5</b> F	0620 1249 1845	1004 1624 2226	3.0E 2.9F 2.7E	<b>20</b> Sa	0520 1156 1756	0749 1415 2017	2.6E 2.6E 2.5E	<b>5</b> M	0718 1350 2009	1053 1736 2344	2.7E 3.1F 2.6E	<b>20</b> Tu	0625 1257 1931	0901 1557 2210	3.1E 3.2F 2.8E				
<b>6</b> Th	0648 1315 1900	1030 1642 2235	3.1E 2.8F 2.8E	<b>21</b> F	0603 1237 1819	0827 1449 2041	2.3E 1.9F 2.4E	<b>6</b> Sa	0710 1341 1941	1054 1715 2319	3.1E 3.2F 2.8E	<b>21</b> Su	0610 1242 1853	0839 1519 2120	2.8E 2.6F 2.6E	<b>6</b> Tu	0800 1431 2055	1108 1815 2346	2.6E 3.1F	<b>21</b> W	0719 1352 2028	0958 1656 2311	3.3E 3.6F 3.1E				
<b>7</b> F	0742 1411 1959	1122 1733	3.3E 3.1F	<b>22</b> Sa	0650 1323 1914	0920 1553 2143	2.5E 2.3F 2.7E	<b>7</b> Su	0757 1428 2034	1135 1800	3.0E 3.3F	<b>22</b> M	0658 1329 1949	0933 1620 2223	3.0E 3.0F 2.9E	<b>7</b> W	0841 1509 2136	1121 1850	2.1F 2.6E 3.0F	<b>22</b> Th	0816 1447 2123	1053 1749	3.5E 3.8F				
<b>8</b> Sa	0832 1501 2054	1207 1821	3.3E 3.3F	<b>23</b> Su	0735 1408 2008	1010 1645 2239	2.8E 2.8F 2.9E	<b>8</b> M	0841 1510 2121	1205 1844	2.9E 2.8F 3.3F	<b>23</b> Tu	0747 1418 2044	1025 1711 2318	3.3E 3.5F 3.1E	<b>8</b> Th	0921 1544 2215	1149 1858	2.7E 2.9F	<b>23</b> F	0912 1542 2216	1146 1847	3.6E 3.9F				
<b>9</b> Su	0917 1545 2143	1251 1910	3.2E 3.3F	<b>24</b> M	0821 1451 2101	1054 1731 2330	3.1E 3.2F 3.2E	<b>9</b> Tu	0921 1547 2205	1220 1927	2.8E 3.2F	<b>24</b> W	0837 1507 2138	1113 1800	3.5E 3.8F	<b>9</b> F	0921 1619 2253	1149 1911	2.7E 2.9F	<b>24</b> Sa	1009 1637 2308	1242 1954	3.5E 4.0F				
<b>10</b> M	0958 1624 2229	1330 1957	3.1E 3.3F	<b>25</b> Tu	0906 1534 2153	1138 1819	3.4E 3.5F	<b>10</b> W	0958 1623 2245	1236 2003	2.7E 3.1F	<b>25</b> Th	0929 1557 2230	1202 1854	3.6E 3.9F	<b>10</b> Sa	1040 1655 2332	1308 1947	2.7E 3.0F	<b>25</b> Su	1105 1733	1345 2052	3.4E 3.9F				
<b>11</b> Tu	1036 1702 2313	1353 2037	2.9E 3.2F	<b>26</b> W	0952 1618 2244	1225 1911	3.6E 3.8F	<b>11</b> Th	1035 1657 2325	1307 2011	2.7E 3.0F	<b>26</b> F	1022 1648 2323	1256 1954	3.6E 4.0F	<b>11</b> Su	1121 1734	1353 2027	2.8E 3.1F	<b>26</b> M	1203 1831	1444 2141	3.3E 3.8F				
<b>12</b> W	1113 1738 2356	1403 2102	2.8E 3.1F	<b>27</b> Th	1040 1705 2337	1317 2006	3.7E 3.9F	<b>12</b> F	1113 1732	1344 2026	2.7E 3.0F	<b>27</b> Sa	1116 1744	1354 2050	3.6E 4.0F	<b>12</b> M	1204 1816	1437 2106	2.8E 3.2F	<b>27</b> Tu	1302 1928	1540 2233	3.1E 3.5F				
<b>13</b> Th	1150 1815	1426 2108	2.8E 3.0F	<b>28</b> F	1131 1758	1410 2057	3.7E 4.0F	<b>13</b> Sa	1152 1809	1423 2057	2.8E 3.0F	<b>28</b> Su	1214 1842	1449 2141	3.5E 3.9F	<b>13</b> Tu	1249 1900	1520 2148	2.8E 3.2F	<b>28</b> W	1359 2023	1645 2337	2.8E 3.2F				
<b>14</b> F	1228 1851	1457 2130	2.8E 2.9F	<b>29</b> Sa	1225 1854	1501 2147	3.6E 3.9F	<b>14</b> Su	1234 1848	1503 2133	2.8E 3.1F	<b>29</b> M	1313 1941	1543 2236	3.2E 3.6F	<b>14</b> W	1335 1947	1606 2233	2.8E 3.1F	<b>29</b> Th	1457 2118	1822	2.6E				
<b>15</b> Sa	1307 1927	1533 2203	2.7E 2.9F	<b>30</b> Su	1323 1952	1553 2242	3.4E 3.6F	<b>15</b> M	1316 1929	1545 2214	2.7E 3.0F	<b>30</b> Tu	1412 2038	1647 2348	2.9E 3.3F	<b>15</b> Th	1425 2037	1659 2323	2.6E 3.0F	<b>30</b> F	1559 2216	1924	2.5E				
								<b>31</b> W	1514 2138	1818	2.7E	<b>31</b> Th	1514 2138	1818	2.7E												

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









# Lake Worth Inlet Entrance, Florida, 2017

F—Flood, Dir. 267° True     E—Ebb, Dir. 086° True

July					August					September												
Slack	Maximum		Slack	Maximum	Slack	Maximum		Slack	Maximum	Slack	Maximum		Slack	Maximum								
h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots					
<b>1</b> Sa	0241 0858 1522 2123	0557 1226 1831 1.1E	<b>16</b> Su	0138 0747 1421 2025	0412 1101 1656 2326	1.4E 1.8F 1.3E 1.6F	<b>1</b> Tu	0350 0955 1644 2242	0654 1327 1939 1.1E	1.1F 1.0E 1.5F 1.1E	<b>16</b> W	0315 0930 1613 2223	0607 1247 1900 1.5E	1.6F 1.5E 2.0F 1.5E	<b>1</b> F	0458 1053 1745 2345	0744 1417 2039 1.0E	0.9E 1.4F 1.0E	<b>16</b> Sa	0515 1126 1758	0811 1455 2100	1.4E 1.9F 1.5E
<b>2</b> Su	0335 0948 1621 2219	0646 1316 1920 1.1E	<b>17</b> M	0233 0844 1524 2130	0518 1201 1808 1.4E	1.4E 1.9F 1.4E	<b>2</b> W	0444 1044 1735 2334	0738 1424 2030 1.1E	1.0E 1.5F 1.1E	<b>17</b> Th	0423 1036 1717 2328	0711 1353 2005 1.5E	1.5F 2.0F 1.5E	<b>2</b> Sa	0547 1141 1826	0832 1516 2125	0.9E 1.4F 1.1E	<b>17</b> Su	0618 1228 1853	0923 1601 2202	1.4E 2.0F 1.5E
<b>3</b> M	0430 1037 1716 2314	0730 1413 2011 1.1E	<b>18</b> Tu	0335 0946 1631 2237	0623 1301 1911 1.4E	1.5E 1.9F 1.4E	<b>3</b> Th	0534 1133 1822	0828 1525 2123	1.0E 1.5F 1.1E	<b>18</b> F	0528 1141 1817	0819 1511 2116	1.5F 2.1F 1.5E	<b>3</b> Su	0633 1227 1905	0921 1557 2201	1.0E 1.4F 1.1E	<b>18</b> M	0717 1327 1945	1203 1652 2252	1.5E 2.0F 1.6E
<b>4</b> Tu	0521 1124 1806	0818 1514 2107	<b>19</b> W	0440 1051 1734 2342	0723 1408 2017 1.5E	1.5E 2.0F 1.5E	<b>4</b> F	0621 1220 1905	0920 1608 2208	1.0E 1.6F 1.2E	<b>19</b> Sa	0630 1244 1913	0933 1615 2217	1.5E 2.1F 1.6E	<b>4</b> M	0716 1312 1943	1001 1630 2229	1.1E 1.5F 1.3E	<b>19</b> Tu	0812 1422 2033	1113 1738 2337	1.5E 2.0F 1.6E
<b>5</b> W	0608 1211 1854	0911 1604 2158	<b>20</b> Th	0543 1155 1833	0829 1525 2128	1.6E 2.1F 1.6E	<b>5</b> Sa	0706 1306 1946	1004 1639 2242	1.1E 1.6F 1.2E	<b>20</b> Su	0730 1344 2007	1033 1707 2308	1.6E 2.2F 1.7E	<b>5</b> Tu	0758 1356 2019	1035 1703 2257	1.2E 1.7F 1.4E	<b>20</b> W	0902 1510 2118	1201 1822	1.5E 1.9F
<b>6</b> Th	0654 1258 1939	0958 1642 2240	<b>21</b> F	0643 1258 1931	0940 1627 2228	1.6E 2.3F 1.7E	<b>6</b> Su	0749 1350 2023	1037 1706 2310	1.1E 1.7F 1.3E	<b>21</b> M	0826 1439 2056	1125 1755 2357	1.6E 2.2F 1.7E	<b>6</b> W	0839 1438 2056	1110 1740 2330	1.4E 1.8F 1.5E	<b>21</b> Th	0948 1553 2159	1249 1906 2400	1.9F 1.8F 1.5E
<b>7</b> F	0738 1343 2021	1036 1713 2316	<b>22</b> Sa	0742 1359 2025	1040 1719 2321	1.7E 2.3F 1.7E	<b>7</b> M	0829 1429 2057	1106 1734 2336	1.2E 1.7F 1.3E	<b>22</b> Tu	0918 1528 2142	1218 1843 2142	1.6E 2.1F	<b>7</b> Th	0921 1520 2135	1152 1822	1.5E 1.8F	<b>22</b> F	1033 1636 2240	1335 1948 2416	1.4E 1.6F 1.5E
<b>8</b> Sa	0820 1425 2059	1109 1741 2349	<b>23</b> Su	0838 1454 2116	1133 1809	1.7E 2.3F	<b>8</b> Tu	0907 1505 2130	1138 1809	1.3E 1.7F	<b>23</b> W	1007 1613 2225	1310 1930	1.5E 1.9F	<b>8</b> F	1005 1604 2216	1240 1910	1.6E 1.8F	<b>23</b> Sa	1118 1720 2322	1415 2025	1.4E 1.5F
<b>9</b> Su	0859 1501 2133	1139 1809	<b>24</b> M	0931 1544 2203	1229 1901	1.7E 2.2F	<b>9</b> W	0945 1542 2205	1216 1849	1.4E 1.8F	<b>24</b> Th	1055 1658 2309	1356 2014	1.4E 1.8F	<b>9</b> Sa	1054 1654 2303	1332 2001	1.6E 1.8F	<b>24</b> Su	1206 1808	1455 2102	1.3E 1.3F
<b>10</b> M	0936 1535 2206	1211 1843	<b>25</b> Tu	1022 1631 2250	1325 1951	1.6E 2.1F	<b>10</b> Th	1026 1622 2243	1301 1934	1.4E 1.8F	<b>25</b> F	1144 1746 2355	1437 2054	1.3E 1.6F	<b>10</b> Su	1148 1751 2357	1423 2052	1.6E 1.8F	<b>25</b> M	1256 1859	1538 2142	1.2E 1.2F
<b>11</b> Tu	1012 1608 2240	1247 1921	<b>26</b> W	1114 1720 2338	1413 2037	1.5E 1.9F	<b>11</b> F	1113 1709 2328	1349 2021	1.5E 1.8F	<b>26</b> Sa	1235 1837	1520 2135	1.2E 1.4F	<b>11</b> M	1247 1854	1517 2147	1.6E 1.7F	<b>26</b> Tu	1345 1949	1636 2229	1.1E 1.1F
<b>12</b> W	1052 1645 2317	1328 2002	<b>27</b> Th	1208 1812	1457 2122	1.3E 1.7F	<b>12</b> Sa	1206 1806	1438 2110	1.5E 1.7F	<b>27</b> Su	1327 1930	1614 2222	1.1E 1.2F	<b>12</b> Tu	1347 1958	1622 2250	1.5E 1.6F	<b>27</b> W	1435 2038	1741 2321	1.0E 1.0F
<b>13</b> Th	1137 1730	1411 2046	<b>28</b> F	1302 1905	1547 2211	1.2E 1.5F	<b>13</b> Su	1303 1908	1531 2205	1.5E 1.6F	<b>28</b> M	1419 2022	1723 2317	1.1E 1.1F	<b>13</b> W	1450 2102	1743 2357	1.5E 1.6F	<b>28</b> Th	1525 2127	1830	1.0E
<b>14</b> F	1228 1824	1456 2133	<b>29</b> Sa	1356 1959	1654 2308	1.1E 1.3F	<b>14</b> M	1403 2011	1637 2307	1.4E 1.6F	<b>29</b> Tu	1512 2114	1821	1.1E	<b>14</b> Th	1555 2208	1850	1.5E	<b>29</b> F	1615 2215	1909	1.0E
<b>15</b> Sa	1322 1924	1549 2227	<b>30</b> Su	1451 2053	1801 2053	1.1E 1.1E	<b>15</b> Tu	1507 2116	1755 2116	1.4E	<b>30</b> W	1607 2207	1907 2207	1.1E	<b>15</b> F	1659 2312	1953 2312	1.5E	<b>30</b> Sa	1700 2301	1946	1.0E
			<b>31</b> M	0256 0906 1548 2148	0609 1240 1852 2148	1.2F 1.0E 1.5F 1.1E					<b>31</b> Th	0404 1004 1659 2257	0701 1324 1951 2257	1.0F 1.0E 1.4F 1.0E								

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











## Port Everglades Entrance, Florida, 2017

F—Flood, Dir. 257° True    E—Ebb, Dir. 075° True

October				November				December															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Su	0516	0749	0.3F	<b>16</b> M	0020	0349	0.6F	<b>1</b> W	0033	0315	0.5F	<b>16</b> Th	0133	0505	0.7F	<b>1</b> F	0044	0332	0.6F				
	1151	1436	0.5F		0615	0957	0.7E		0632	0905	0.6E		0740	1112	0.7E		0653	0924	0.7E	<b>16</b> Sa	0757	1127	0.6E
	1753	2024	0.5E		1241	1608	0.7F		1259	1527	0.5F		1359	1719	0.5F		1317	1540	0.5F		1416	1731	0.4F
			1840	2222	0.7E	1844	2121	0.7E	1944	2323	0.7E	1856	2139	0.7E	1956	2318	0.6E						
<b>2</b> M	0026	0309	0.4F	<b>17</b> Tu	0112	0440	0.7F	<b>2</b> Th	0119	0404	0.6F	<b>17</b> F	0214	0546	0.7F	<b>2</b> Sa	0134	0423	0.7F	<b>17</b> Su	0226	0555	0.6F
	0612	0852	0.6E		0710	1046	0.7E		0723	0956	0.7E		0822	1148	0.6E		0746	1017	0.7E		0837	1144	0.6E
	1244	1530	0.5F		1333	1656	0.7F		1348	1613	0.6F		1440	1756	0.5F		1408	1631	0.6F		1455	1753	0.4F
	1842	2117	0.6E	1928	2306	0.7E	1931	2209	0.7E	2023	2330	0.6E	1949	2230	0.8E	2034	2318	0.6E					
<b>3</b> Tu	0113	0358	0.5F	<b>18</b> W	0159	0527	0.7F	<b>3</b> F	0204	0449	0.7F	<b>18</b> Sa	0252	0623	0.6F	<b>3</b> Su	0223	0516	0.8F	<b>18</b> M	0303	0623	0.6F
	0704	0943	0.6E		0800	1130	0.7E		0812	1043	0.7E		0902	1157	0.6E		0838	1108	0.8E		0915	1150	0.6E
	1333	1611	0.6F		1420	1741	0.6F		1435	1659	0.6F		1518	1816	0.4F		1459	1724	0.6F		1533	1757	0.4F
	1927	2201	0.6E	2012	2342	0.7E	2018	2256	0.8E	2100	2340	0.6E	2041	2323	0.8E	2112	2349	0.6E					

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



# Miami Harbor Entrance, Florida, 2017

F—Flood, Dir. 293° True    E—Ebb, Dir. 113° True

April				May				June																						
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots															
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m															
<b>1</b> Sa	0049 0703 1252 1930	0337 0936 1549 2212	2.7E 2.5F 2.9E 2.8F	<b>16</b> Su	0048 0706 1249 1926	0318 0934 1530 2203	2.1E 1.8F 2.2E 2.0F	<b>1</b> M	0128 0749 1338 2015	0433 1021 1652 2300	2.5E 2.3F 2.5E 2.5F	<b>16</b> Tu	0103 0724 1307 1941	0333 0950 1547 2217	2.0E 1.8F 2.1E 2.0F	<b>1</b> Th	0259 0934 1531 2155	0651 1240 1919 2155	2.4E 2.0F 2.2E 2.0F	<b>16</b> F	0201 0834 1425 2052	0441 1102 1708 2325	2.1E 2.0F 2.0E 2.1F							
<b>2</b> Su	0144 0802 1349 2031	0435 1030 1652 2310	2.4E 2.3F 2.6E 2.5F	<b>17</b> M	0133 0755 1335 2017	0358 1018 1614 2249	1.9E 1.7F 2.0E 1.9F	<b>2</b> Tu	0226 0852 1443 2118	0600 1128 1829 2118	2.3E 2.0F 2.3E 2.3E	<b>17</b> W	0148 0814 1357 2032	0418 1038 1637 2306	1.9E 1.7F 2.0E 1.9F	<b>2</b> F	0106 0358 1033 1638 2256	0750 1351 2017 2156	2.0F 2.4E 2.0F 2.1E	<b>17</b> Sa	0250 0926 1527 2149	0541 1156 1817 2149	2.2E 2.0F 2.0E 2.0E							
<b>3</b> M	0244 0905 1453 2135	0609 1132 1834 2315	2.1E 2.0F 2.3E 2.3E	<b>18</b> Tu	0223 0847 1428 2111	0449 1107 1711 2341	1.7E 1.5F 1.8E 1.8F	<b>3</b> W	0327 0956 1553 2222	0013 0715 1254 1941	2.2F 2.3E 1.9F 2.3E	<b>18</b> Th	0237 0907 1455 2128	0515 1130 1742 2359	1.8E 1.7F 1.9E 1.9F	<b>3</b> Sa	0458 1130 1740 2353	0844 1457 2112 2353	2.4E 2.0F 2.2E 2.2E	<b>18</b> Su	0345 1022 1634 2250	0646 1254 1925 2250	2.3E 2.1F 2.1E 2.1E							
<b>4</b> Tu	0350 1011 1605 2241	0729 1248 1952 2241	2.1E 1.8F 2.3E 2.2E	<b>19</b> W	0318 0944 1530 2209	0558 1203 1825 2209	1.6E 1.5F 1.7E 1.7E	<b>4</b> Th	0432 1100 1704 2324	0136 0816 1418 2042	2.0F 2.4E 2.4E 2.3E	<b>19</b> F	0332 1003 1600 2226	0623 1227 1854 2226	1.9E 1.7F 1.9E 1.9E	<b>4</b> Su	0551 1222 1832	0936 1554 2205	2.4E 2.2F 2.2E	<b>19</b> M	0445 1120 1739 2351	0746 1355 2030 2351	2.5E 2.3F 2.2E 2.2E							
<b>5</b> W	0458 1118 1718 2345	0834 1429 2059 2345	2.3E 1.8F 2.4E 2.3E	<b>20</b> Th	0419 1043 1638 2308	0713 1302 1936 2308	1.7E 1.7E 1.8E 1.8E	<b>5</b> F	0533 1200 1807	0251 0913 1528 2140	2.0F 2.5E 2.1F 2.3E	<b>20</b> Sa	0431 1059 1707 2325	0055 0726 1327 1958	1.9F 2.1E 1.9F 2.1E	<b>5</b> M	0639 1310 1919	1024 1641 2253	2.4E 2.3F 2.3E	<b>20</b> Tu	0544 1218 1838	0846 1506 2139	2.7E 2.6F 2.4E							
<b>6</b> Th	0600 1221 1822	0935 1549 2200	2.4E 2.1F 2.5E	<b>21</b> F	0519 1140 1741	0814 1404 2039	1.9E 1.7F 2.0E	<b>6</b> Sa	0626 1254 1859	0354 1007 1623 2233	2.1F 2.6E 2.3F 2.4E	<b>21</b> Su	0528 1154 1807	0823 1429 2102	2.3E 2.2F 2.3E	<b>6</b> Tu	0722 1355 2002	1108 1720 2336	2.5E 2.4F 2.3E	<b>21</b> W	0641 1315 1935	0951 1611 2246	2.9E 2.9F 2.7E							
<b>7</b> F	0654 1318 1918	1031 1644 2255	2.6E 2.3F 2.6E	<b>22</b> Sa	0612 1233 1837	0912 1512 2143	2.1E 2.0F 2.3E	<b>7</b> Su	0713 1342 1945	1055 1707 2320	2.7E 2.5F 2.5E	<b>22</b> M	0620 1248 1903	0921 1536 2206	2.6E 2.5F 2.5E	<b>7</b> W	0803 1436 2043	1146 1753 2357	2.5E 2.5F 2.5F	<b>22</b> Th	0736 1411 2030	1055 1707 2344	3.1E 3.2F 2.9E							
<b>8</b> Sa	0742 1408 2007	1121 1727 2342	2.8E 2.5F 2.7E	<b>23</b> Su	0700 1323 1929	1008 1613 2240	2.5E 2.4F 2.6E	<b>8</b> M	0755 1425 2028	1138 1744 2328	2.7E 2.6F 2.6F	<b>23</b> Tu	0711 1341 1956	1020 1634 2305	2.9E 2.9F 2.8E	<b>8</b> Th	0303 0844 1516 2124	0558 1220 1820	2.0F 2.5E 2.5F	<b>23</b> F	0832 1505 2124	1153 1758 2124	3.3E 3.3F 3.3F							
<b>9</b> Su	0826 1453 2051	0545 1204 1805	2.5F 2.8E 2.6F	<b>24</b> M	0746 1411 2020	1057 1701 2329	2.8E 2.8F 2.9E	<b>9</b> Tu	0835 1505 2108	0555 1215 1815	2.2F 2.7E 2.6F	<b>24</b> W	0801 1432 2050	1115 1723 2358	3.2E 3.2F 3.0E	<b>9</b> F	0341 0923 1553 2203	0619 1248 1844	2.0F 2.5E 2.5F	<b>24</b> Sa	0927 1558 2216	1249 1849 2216	3.4E 3.3F 3.3F							
<b>10</b> M	0906 1532 2133	0618 1243 1838	2.5F 2.8E 2.6F	<b>25</b> Tu	0832 1458 2111	1142 1744 2111	3.1E 3.1F 3.1F	<b>10</b> W	0913 1541 2147	1248 1840 2147	2.6E 2.6E 2.6F	<b>25</b> Th	0852 1523 2142	1206 1811 2142	3.4E 3.4F 3.4F	<b>10</b> Sa	1003 1629 2241	1312 1913 2241	2.5E 2.4F 2.4F	<b>25</b> Su	1022 1649 2306	1345 1945 2306	3.3E 3.2F 3.2F							
<b>11</b> Tu	0944 1609 2211	0103 0646 1318 1906	2.7E 2.4F 2.7E 2.6F	<b>26</b> W	0327 0919 1545 2201	0600 1227 1829 2201	2.9F 3.3E 3.3F 3.3F	<b>11</b> Th	0404 0950 1617 2225	0641 1313 1905 2225	2.1F 2.5E 2.5F 2.5F	<b>26</b> F	0355 0944 1614 2233	0051 1259 1902 2233	3.1E 2.9F 3.5E 3.4F	<b>11</b> Su	0454 1041 1706 2319	0721 1338 1949	2.0F 2.5E 2.4F	<b>26</b> M	0521 1116 1741 2355	0807 1437 2041 2355	2.7F 3.2E 3.0F 3.0F							
<b>12</b> W	1021 1644 2249	0136 0711 1344 1933	2.6E 2.3F 2.6E 2.5F	<b>27</b> Th	0414 1006 1632 2250	0105 0646 1314 1918	3.2E 2.9F 3.4E 3.4F	<b>12</b> F	0440 1027 1652 2303	0710 1333 1936 2303	2.1F 2.1F 2.5E 2.4F	<b>27</b> Sa	0445 1037 1705 2324	0143 0719 1352 1957	3.1E 2.8F 3.4E 3.3F	<b>12</b> M	0532 1120 1744 2357	0801 1410 2027	2.0F 2.4E 2.3F	<b>27</b> Tu	0615 1211 1835	0906 1528 2133	2.6F 2.9E 2.8F							
<b>13</b> Th	1056 1720 2327	0201 0740 1402 2006	2.5E 2.2F 2.5E 2.4F	<b>28</b> F	0502 1054 1722 2341	0153 0736 1402 2011	3.1E 2.8F 3.4E 3.3F	<b>13</b> Sa	0516 1104 1729 2341	0745 1357 2013	2.0F 2.5E 2.4F	<b>28</b> Su	0537 1130 1759	0817 1444 2054	3.1E 3.2E 3.1F	<b>13</b> Tu	0612 1201 1824	0843 1445 2108	1.9F 2.4E 2.3F	<b>28</b> W	0712 1306 1930	1002 1623 2223	2.4F 2.5E 2.5F							
<b>14</b> F	1131 1758	0221 0815 1423 2042	2.4E 2.1F 2.4E 2.3F	<b>29</b> Sa	0553 1145 1815	0242 0829 2105	3.0E 2.7F 3.1F	<b>14</b> Su	0555 1142 1809	0825 1428 2052	1.9F 2.4E 2.3F	<b>29</b> M	0634 1226 1856	0915 1538 2149	2.5F 2.9E 2.8F	<b>14</b> W	0656 1244 1909	0927 1525 2150	1.9F 2.3E 2.2F	<b>29</b> Th	0808 1402 2026	1100 1735 2318	2.2F 2.2E 2.2F							
<b>15</b> Sa	1209 1839	0246 0853 1453 2121	2.2E 1.9F 2.3E 2.2F	<b>30</b> Su	0649 1239 1914	0924 1543 2200	2.5F 2.9E 2.8F	<b>15</b> M	0637 1222 1852	0907 1505 2134	1.9F 2.3E 2.1F	<b>30</b> Tu	0733 1325 1955	1014 1644 2246	2.3F 2.5E 2.5F	<b>15</b> Th	0744 1332 1959	1012 1611 2235	1.9F 2.1E 2.1F	<b>30</b> F	0903 1500 2123	1204 1846 2123	2.0F 2.0E 2.0E							
												<b>31</b> W	0203 0834 1426 2055	0539 1122 1809 2353	2.4E 2.1F 2.3E 2.2F															

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



# Miami Harbor Entrance, Florida, 2017

F—Flood, Dir. 293° True E—Ebb, Dir. 113° True

October				November				December																		
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum												
	h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots											
<b>1</b> Su	0004 0559 1229 1836	0242 0923 1548 2158	1.4F 1.9E 1.8F 1.9E	<b>16</b> M	0046 0650 1310 1914	0414 1025 1638 2253	2.3F 2.6E 2.4F 2.8E	<b>1</b> W	0103 0710 1330 1925	0355 1020 1614 2235	2.2F 2.4E 2.2F 2.6E	<b>16</b> Th	0204 0810 1428 2016	0526 1143 1740 2358	2.6F 2.5E 2.3F 2.7E	<b>1</b> F	0116 0732 1348 1935	0408 1037 1624 2245	2.7F 2.6E 2.4F 3.0E	<b>16</b> Sa	0220 0828 1448 2028	0542 1202 1752 2358	2.5F 2.3E 2.0F 2.0F			
<b>2</b> M	0056 0652 1319 1922	0407 1017 1631 2243	1.7F 2.2E 2.0F 2.2E	<b>17</b> Tu	0140 0743 1403 2001	0504 1117 1722 2340	2.6F 2.7E 2.5F 2.9E	<b>2</b> Th	0151 0800 1418 2010	0443 1109 1657 2319	2.6F 2.6E 2.5F 2.9E	<b>17</b> F	0247 0852 1511 2056	0602 1224 1810 222F	2.6F 2.5E 2.2F 2.2F	<b>2</b> Sa	0207 0824 1440 2026	0459 1131 1713 2338	3.0F 2.8E 2.6F 3.2E	<b>17</b> Su	0301 0909 1528 2109	0613 1240 1816 2309	2.5F 2.3E 2.0F 2.0F			
<b>3</b> Tu	0143 0741 1406 2005	0445 1102 1700 2321	2.1F 2.4E 2.3F 2.5E	<b>18</b> W	0229 0831 1450 2045	0545 1203 1759 2045	2.7F 2.8E 2.5F 2.5F	<b>3</b> F	0237 0849 1505 2055	0524 1154 1738 2055	2.9F 2.9E 2.7F 2.7F	<b>18</b> Sa	0326 0932 1550 2135	0632 1301 1835 2135	2.6F 2.5E 2.1F 2.1F	<b>3</b> Su	0258 0916 1530 2117	0546 1223 1801 2117	3.3F 3.0E 2.8F 2.8F	<b>18</b> M	0340 0949 1606 2149	0640 1313 1839 2149	2.5F 2.3E 2.0F 2.0F			
<b>4</b> W	0227 0828 1450 2047	0517 1142 1731 2356	2.4F 2.6E 2.5F 2.8E	<b>19</b> Th	0312 0915 1533 2126	0621 1245 1831 2126	2.8F 2.8E 2.5F 2.5F	<b>4</b> Sa	0322 0937 1551 2141	0606 1240 1821 2141	3.1E 3.2F 3.0E 2.8F	<b>19</b> Su	0403 1011 1628 2213	0658 1333 1900 2213	2.5F 2.4E 2.1F 2.1F	<b>4</b> M	0348 1008 1619 2209	0634 1315 1851 2209	3.4F 3.1E 2.8F 2.8F	<b>19</b> Tu	0417 1027 1642 2228	0706 1340 1911 2228	2.4F 2.4E 2.0F 2.0F			
<b>5</b> Th	0309 0914 1532 2128	0551 1220 1806 2128	2.7F 2.8E 2.7F 2.7F	<b>20</b> F	0352 0956 1613 2204	0654 1324 1900 2204	2.7F 2.7E 2.4F 2.4F	<b>5</b> Su	0407 1026 1637 2228	0652 1326 1908 2228	3.3E 3.3F 2.8F 2.8F	<b>20</b> M	0439 1049 1705 2250	0727 1358 1934 2250	2.5F 2.5F 2.0F 2.0F	<b>5</b> Tu	0438 1058 1710 2303	0727 1406 1946 2303	3.3F 3.1E 2.7F 2.7F	<b>20</b> W	0453 1105 1719 2307	0738 1402 1949 2307	2.4F 2.4E 2.0F 2.0F			
<b>6</b> F	0349 0959 1613 2208	0629 1300 1845 2208	2.9F 3.0E 2.7F 2.7F	<b>21</b> Sa	0429 1035 1651 2241	0724 1356 1929 2241	2.6F 2.6E 2.2F 2.2F	<b>6</b> M	0455 1114 1725 2317	0742 1414 1959 2317	3.3F 3.0E 2.7F 2.7F	<b>21</b> Tu	0516 1128 1743 2329	0801 1419 2012 2329	2.4E 2.4E 1.9F 1.9F	<b>6</b> W	0530 1149 1804 2358	0822 1457 2044 2358	3.2F 3.0E 2.7F 2.7F	<b>21</b> Th	0531 1143 1758 2347	0814 1427 2029 2347	2.3F 2.3E 1.9F 1.9F			
<b>7</b> Sa	0431 1044 1656 2250	0712 1341 1929 2250	3.1F 3.0E 2.7F 2.7F	<b>22</b> Su	0506 1114 1730 2318	0755 1421 2003 2318	2.5F 2.4E 2.1F 2.1F	<b>7</b> Tu	0545 1205 1818	0835 1501 2054	3.1F 2.9E 2.6F	<b>22</b> W	0555 1207 1824	0840 1446 2053	2.3F 2.2E 1.8F	<b>7</b> Th	0626 1240 1902	0918 1549 2143	2.9F 2.8E 2.5F	<b>22</b> F	0610 1221 1840	0853 1458 2111	2.3F 2.3E 1.9F			
<b>8</b> Su	0514 1131 1742 2334	0800 1423 2017 2334	3.1F 2.9E 2.7F 2.7F	<b>23</b> M	0544 1153 1810 2356	0830 1442 2041 2356	2.4F 2.2E 1.9F 1.9F	<b>8</b> W	0641 1258 1917	0928 1554 2149	2.9F 2.6E 2.4F	<b>23</b> Th	0638 1248 1909	0920 1520 2136	2.2F 2.1E 1.8F	<b>8</b> F	0724 1333 2002	1013 1655 2244	2.7F 2.6E 2.3F	<b>23</b> Sa	0653 1300 1925	0933 1535 2155	2.2F 2.2E 1.9F			
<b>9</b> M	0602 1220 1832	0849 1507 2107	3.0F 2.8E 2.5F	<b>24</b> Tu	0625 1234 1853	0908 1509 2121	2.2F 2.1E 1.8F	<b>9</b> Th	0741 1353 2018	1024 1706 2250	2.6F 2.4E 2.2F	<b>24</b> F	0725 1332 1958	1002 1601 2222	2.0F 1.9E 1.7F	<b>9</b> Sa	0824 1428 2102	1113 1812 2357	2.4F 2.5E 2.2F	<b>24</b> Su	0739 1341 2013	1016 1619 2241	2.1F 2.2E 1.9F			
<b>10</b> Tu	0022 0656 1312 1929	0318 0940 1556 2159	3.0E 2.8F 2.5E 2.4F	<b>25</b> W	0036 0711 1319 1941	0317 0949 1545 2204	2.2E 2.1F 1.9E 1.7F	<b>10</b> F	0209 0844 1452 2122	0533 1127 1834 2122	2.4E 2.3F 2.3E 2.3E	<b>25</b> Sa	0142 0815 1418 2049	0418 1048 1652 2312	2.0E 1.9F 1.8E 1.7F	<b>10</b> Su	0300 0924 1526 2203	0644 1222 1918 2203	2.3E 2.1F 2.5E 2.5E	<b>25</b> M	0204 0829 1426 2103	0442 1103 1712 2332	2.0E 2.0F 2.1E 2.0F			
<b>11</b> W	0116 0756 1409 2030	0410 1034 1703 2256	2.7E 2.6F 2.2E 2.1F	<b>26</b> Th	0121 0801 1406 2033	0358 1034 1632 2251	2.0E 1.9F 1.7E 1.5F	<b>11</b> Sa	0317 0947 1555 2226	0703 1242 1941 2226	2.0F 2.3E 2.1F 2.4E	<b>26</b> Su	0236 0908 1509 2142	0517 1138 1756 2142	1.8E 1.8F 1.8E 1.8E	<b>11</b> M	0407 1025 1626 2302	0748 1334 2015 2302	2.2E 1.9F 2.5E 2.5E	<b>26</b> Tu	0301 0923 1517 2155	0544 1154 1814 2155	1.9E 2.0F 2.2E 2.2E			
<b>12</b> Th	0217 0859 1511 2135	0526 1136 1844 2135	2.4E 2.3F 2.1E 2.1E	<b>27</b> F	0213 0855 1459 2127	0451 1124 1736 2345	1.8E 1.7F 1.6E 1.5F	<b>12</b> Su	0429 1051 1659 2328	0809 1405 2040 2328	2.0F 2.3E 2.5E 2.5E	<b>27</b> M	0338 1004 1605 2237	0628 1232 1902 2237	1.8E 1.8F 2.0E 2.0E	<b>12</b> Tu	0513 1125 1724 2357	0845 1446 2109 2357	2.2E 1.9F 2.5E 2.5E	<b>27</b> W	0404 1021 1614 2251	0652 1248 1915 2251	2.0E 1.9F 2.3E 2.3E			
<b>13</b> F	0326 1004 1618 2241	0708 1248 1956 2241	1.9F 2.3E 2.2E 2.2E	<b>28</b> Sa	0312 0951 1558 2224	0604 1219 1857 2224	1.7E 1.7F 1.6E 1.6E	<b>13</b> M	0537 1152 1756	0909 1519 2137	2.1F 2.3E 2.6E	<b>28</b> Tu	0443 1102 1702 2331	0734 1327 1957 2331	1.9E 1.8F 2.2E 2.2E	<b>13</b> W	0611 1222 1816	0941 1549 2202	2.2E 1.9F 2.5E	<b>28</b> Th	0509 1121 1714 2349	0756 1346 2012 2349	2.1E 2.0F 2.5E 2.5E			
<b>14</b> Sa	0440 1110 1724 2346	0821 1420 2059 2346	1.9F 2.3E 2.4E 2.4E	<b>29</b> Su	0419 1049 1657 2321	0722 1316 1959 2321	1.7E 1.6F 1.8E 1.8E	<b>14</b> Tu	0025 0635 1249 1847	0355 1006 1617 2229	2.3F 2.4E 2.2F 2.7E	<b>29</b> W	0544 1159 1756	0834 1425 2052	2.0F 2.1E 2.4E	<b>14</b> Th	0049 0700 1315 1903	0421 1033 1639 2250	2.3F 2.3E 1.9F 2.5E	<b>29</b> F	0610 1222 1811	0901 1449 2114	2.2F 2.1F 2.7E			
<b>15</b> Su	0550 1213 1822	0926 1542 2159	2.0F 2.4E 2.2F 2.6E	<b>30</b> M	0523 1146 1751	0824 1416 2053	1.6F 1.7F 2.0E	<b>15</b> W	0117 0725 1341 1933	0445 1057 1702 2316	2.5F 2.5E 2.2F 2.7E	<b>30</b> Th	0024 0639 1254 1846	0306 0937 1527 2150	2.3F 2.3E 2.1F 2.7E	<b>15</b> F	0136 0746 1404 1946	0505 1120 1719 2332	2.4F 2.3E 2.0F 2.5E	<b>30</b> Sa	0046 0707 1320 1907	0336 1010 1554 2220	2.6F 2.6E 2.3F 2.9E			
				<b>31</b> Tu	0014 0619 1239 1839	0251 0924 1519 2146	1.8F 2.1E 1.9F 2.3E										<b>31</b> Su	0142 0803 1417 2003	0438 1113 1653 2321	3.0F 2.7E 2.5F 3.2E						

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





# Key West, Florida, 2017

F—Flood, Dir. 020° True    E—Ebb, Dir. 195° True

April				May				June															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots								
	h m	h m		h m	h m	h m		h m	h m	h m		h m	h m	h m									
<b>1</b> Sa	0141	0422	1.8E	<b>16</b> Su	0158	0441	1.4E	<b>1</b> M	0229	0508	1.4E	<b>16</b> Tu	0219	0503	1.3E	<b>1</b> Th	0349	0658	1.2E	<b>16</b> F	0308	0605	1.3E
	0747	1018	1.4F		0816	1040	1.1F		0835	1103	1.1F		0848	1110	1.0F		1015	1304	0.9F		0955	1218	0.9F
	1327	1631	2.1E		1338	1637	1.7E		1408	1709	1.8E		1406	1659	1.5E		1608	1906	1.2E		1526	1820	1.3E
	2008	2256	1.5F		2025	2303	1.2F		2054	2350	1.2F		2045	2322	1.1F		2238				2156		
<b>2</b> Su	0244	0523	1.5E	<b>17</b> M	0251	0537	1.1E	<b>2</b> Tu	0331	0621	1.2E	<b>17</b> W	0307	0557	1.1E	<b>2</b> F	0447	0815	1.2E	<b>17</b> Sa	0402	0702	1.3E
	0850	1115	1.1F		0917	1135	0.9F		0940	1211	0.9F		0945	1205	0.8F		1118	1430	0.9F		1053	1317	0.9F
	1420	1729	1.9E		1429	1729	1.4E		1514	1817	1.5E		1500	1755	1.3E		1723	2037	1.2E		1637	1926	1.3E
	2113				2124	2359	1.0F		2204				2143				2341				2303		
<b>3</b> M	0356	0641	1.2E	<b>18</b> Tu	0353	0650	1.0E	<b>3</b> W	0439	0752	1.1E	<b>18</b> Th	0403	0658	1.0E	<b>3</b> Sa	0544	0923	1.3E	<b>18</b> Su	0504	0804	1.4E
	1002	1224	0.9F		1023	1238	0.8F		1049	1339	0.8F		1045	1305	0.8F		1218	1551	1.0F		1150	1427	1.0F
	1527	1838	1.6E		1531	1831	1.2E		1633	1941	1.3E		1606	1858	1.2E		1831	2152	1.3E		1752	2040	1.3E
	2228				2230				2318				2247										
<b>4</b> Tu	0515	0825	1.1E	<b>19</b> W	0502	0839	1.0E	<b>4</b> Th	0545	0912	1.2E	<b>19</b> F	0504	0804	1.1E	<b>4</b> Su	0635	1014	1.5E	<b>19</b> M	0604	0908	1.6E
	1118	1357	0.8F		1130	1350	0.7F		1156	1517	0.9F		1143	1412	0.8F		1309	1645	1.2F		1243	1548	1.3F
	1651	2003	1.5E		1646	1940	1.2E		1752	2119	1.4E		1718	2006	1.2E		1928	2244	1.4E		1900	2155	1.5E
	2345				2337								2349										
<b>5</b> W	0627	0947	1.3E	<b>20</b> Th	0605	0948	1.1E	<b>5</b> F	0641	1010	1.4E	<b>20</b> Sa	0602	0909	1.3E	<b>5</b> M	0720	1052	1.7E	<b>20</b> Tu	0658	1006	1.9E
	1228	1544	0.9F		1229	1513	0.8F		1254	1626	1.1F		1235	1525	1.0F		1354	1725	1.4F		1333	1649	1.6F
	1812	2142	1.6E		1757	2054	1.2E		1859	2224	1.5E		1823	2117	1.4E		2016	2327	1.6E		2000	2257	1.8E
<b>6</b> Th	0055	0449	1.2F	<b>21</b> F	0035	0407	1.0F	<b>6</b> Sa	0118	0456	1.1F	<b>21</b> Su	0045	0336	1.1F	<b>6</b> Tu	0213	0506	1.2F	<b>21</b> W	0204	0448	1.4F
	0724	1042	1.5E		0657	1029	1.3E		0727	1054	1.6E		0652	1000	1.5E		0802	1124	1.9E		0749	1057	2.2E
	1325	1649	1.2F		1317	1615	1.0F		1342	1713	1.3F		1320	1622	1.2F		1434	1758	1.6F		1420	1739	1.8F
	1919	2245	1.7E		1856	2159	1.5E		1953	2309	1.7E		1920	2218	1.6E		2101				2056	2349	2.0E
<b>7</b> F	0150	0533	1.3F	<b>22</b> Sa	0123	0443	1.2F	<b>7</b> Su	0202	0525	1.2F	<b>22</b> M	0135	0426	1.3F	<b>7</b> W	0257	0539	1.4F	<b>22</b> Th	0256	0537	1.5F
	0810	1125	1.7E		0740	1056	1.5E		0805	1128	1.8E		0737	1042	1.9E		0843	1155	2.1E		0838	1144	2.4E
	1412	1736	1.4F		1357	1656	1.2F		1424	1749	1.5F		1402	1705	1.5F		1513	1828	1.7F		1507	1826	2.0F
	2013	2330	1.9E		1946	2246	1.7E		2039	2347	1.8E		2013	2309	1.9E		2143				2147		
<b>8</b> Sa	0233	0606	1.4F	<b>23</b> Su	0205	0508	1.4F	<b>8</b> M	0241	0545	1.3F	<b>23</b> Tu	0223	0508	1.5F	<b>8</b> Th	0340	0617	1.5F	<b>23</b> F	0345	0625	1.5F
	0847	1200	1.9E		0818	1121	1.8E		0841	1157	2.0E		0820	1122	2.2E		0923	1229	2.2E		0927	1231	2.5E
	1453	1813	1.5F		1434	1729	1.5F		1502	1819	1.6F		1443	1744	1.8F		1552	1901	1.7F		1554	1915	2.0F
	2059				2032	2328	2.0E		2120				2104	2356	2.1E		2224				2237		
<b>9</b> Su	0310	0628	1.5F	<b>24</b> M	0246	0536	1.6F	<b>9</b> Tu	0319	0606	1.5F	<b>24</b> W	0309	0549	1.6F	<b>9</b> F	0424	0659	1.5F	<b>24</b> Sa	0433	0716	1.5F
	0920	1229	2.0E		0855	1152	2.1E		0916	1224	2.1E		0902	1203	2.4E		1004	1306	2.2E		1016	1318	2.5E
	1530	1844	1.6F		1510	1801	1.7F		1539	1846	1.7F		1525	1825	2.0F		1631	1937	1.7F		1642	2006	2.0F
	2141				2117				2200				2154				2306				2325		
<b>10</b> M	0345	0642	1.5F	<b>25</b> Tu	0327	0609	1.7F	<b>10</b> W	0358	0637	1.5F	<b>25</b> Th	0356	0633	2.2E	<b>10</b> Sa	0509	0745	1.4F	<b>25</b> Su	0521	0809	1.5F
	0951	1256	2.1E		0932	1228	2.3E		0951	1255	2.2E		0945	1247	2.5E		1046	1345	2.2E		1106	1406	2.4E
	1606	1911	1.6F		1548	1838	1.9F		1616	1916	1.7F		1608	1911	2.0F		1712	2015	1.7F		1732	2054	1.8F
	2220				2203				2241				2245				2347						
<b>11</b> Tu	0421	0705	1.6F	<b>26</b> W	0410	0650	1.8F	<b>11</b> Th	0440	0716	1.6F	<b>26</b> F	0444	0721	1.6F	<b>11</b> Su	0555	0831	1.4F	<b>26</b> M	0610	0900	1.4F
	1023	1325	2.2E		1010	1308	2.5E		1028	1330	2.2E		1030	1332	2.6E		1129	1425	2.1E		1157	1453	2.3E
	1643	1940	1.6F		1628	1920	2.0F		1654	1952	1.7F		1655	2003	2.0F		1754	2052	1.6F		1822	2135	1.6F
	2259				2252				2323				2336										
<b>12</b> W	0500	0739	1.6F	<b>27</b> Th	0456	0735	1.8F	<b>12</b> F	0525	0801	1.5F	<b>27</b> Sa	0534	0813	1.5F	<b>12</b> M	0642	0916	1.3F	<b>27</b> Tu	0700	0947	1.3F
	1057	1358	2.2E		1051	1351	2.5E		1107	1407	2.2E		1117	1419	2.5E		1212	1505	2.0E		1249	1540	2.0E
	1722	2014	1.6F		1712	2008	2.0F		1735	2031	1.7F		1745	2054	1.9F		1837	2128	1.5F		1913	2210	1.4F
	2340				2343																		
<b>13</b> Th	0543	0820	1.6F	<b>28</b> F	0545	0824	1.6F	<b>13</b> Sa	0613	0847	1.4F	<b>28</b> Su	0626	0905	1.4F	<b>13</b> Tu	0728	0958	1.2F	<b>28</b> W	0750	1033	1.2F
	1134	1433	2.2E		1134	1436	2.5E		1149	1447	2.1E		1208	1507	2.3E		1256	1547	1.8E		1341	1628	1.7E
	1803	2052	1.6F		1800	2058	1.9F		1819	2112	1.6F		1838	2144	1.7F		1921	2206	1.3F		2004	2243	1.2F
<b>14</b> F	0024	0310	1.8E	<b>29</b> Sa	0037	0318	2.0E	<b>14</b> Su	0050	0335	1.6E	<b>29</b> M	0117	0357	1.7E	<b>14</b> W	0144	0429	1.5E	<b>29</b> Th	0216	0507	1.5E
	0630	0905	1.5F		0638	0914	1.5F		0703	0934	1.3F		0720	0957	1.3F		0814	1041	1.1F		0841	1121	1.1F
	1212	1511	2.1E		1221	1523	2.4E		1232	1528	1.9E		1301	1557	2.1E		1340	1631					

# Key West, Florida, 2017

F—Flood, Dir. 020° True    E—Ebb, Dir. 195° True

July				August				September															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m								
1	Sa	0343	0657	16	Su	0313	0619	1	Tu	0447	0807	16	W	0446	0758	1	F	0108	0355	16	Sa	0120	0432
		1036	1320	●		1605	1854			1155	1529			1144	1513			0635	1004			0702	1025
		1644	1940			2225				1831	2156			1832	2135			1320	1708			1341	1730
		2252																1957	2321			2015	2325
2	Su	0439	0803	17	M	0413	0721	2	W	0028	0252	17	Th	0033	0308	2	Sa	0202	0456	17	Su	0213	0528
		1136	1453			1108	1345			0557	0925			0603	0916			0733	1055			0803	1121
		1756	2112			1728	2011			1252	1640			1252	1644			1409	1746			1433	1813
		2355				2339				1932	2254			1939	2248			2041	2358			2059	
3	M	0539	0915	18	Tu	0520	0828	3	Th	0129	0414	18	F	0137	0437	3	Su	0246	0539	18	M	0257	0614
		1233	1612			1211	1522			0659	1028			0712	1029			0823	1132			0856	1206
		1900	2219			1845	2140			1344	1727			2035	2340			1451	1816			1517	1849
										2023	2339							2117				2137	
4	Tu	0055	0335	19	W	0049	0323	4	F	0222	0510	19	Sa	0231	0535	4	M	0324	0615	19	Tu	0338	0654
		0636	1012			0626	0937			0753	1113			0812	1126			0906	1206			0943	1246
		1323	1702			1309	1645			1430	1805			1445	1828			1528	1838			1556	1916
		1955	2310			1951	2252			2106				2123				2151				2211	
5	W	0149	0436	20	Th	0151	0438	5	Sa	0307	0019	20	Su	0318	0023	5	Tu	0359	0646	20	W	0416	0730
		0728	1054			0726	1039			0842	0554			0907	0623			0946	1240			1026	1323
		1408	1742			1404	1742			1512	1838			1533	1910			1602	1857			1633	1935
		2042	2353			2048	2346			2146				2205				2222			●	2243	
6	Th	0239	0522	21	F	0245	0534	6	Su	0349	0052	21	M	0400	0103	6	W	0433	0717	21	Th	0454	0802
		0815	1131			0822	1132			0927	0634			0957	1259			1024	1316			1107	1359
		1450	1817			1455	1831			1551	1906			●	1617			1637	1925			1709	1956
		2126				2138				2221				2242				2254				2314	
7	F	0325	0604	22	Sa	0333	0625	7	M	0427	0121	22	Tu	0441	0139	7	Th	0507	0750	22	F	0533	0830
		0901	1208			0916	1221			1008	1303			1043	1340			1103	1355			1147	1436
		1531	1851			1544	1919			1628	1931			1658	2015			1713	2000			1748	2027
		2207				2224				2255				2317				2326				2346	
8	Sa	0408	0647	23	Su	0419	0715	8	Tu	0504	0148	23	W	0522	0212	8	F	0543	0827	23	Sa	0614	0901
		0945	1245			1007	1308			1048	1340			1128	1420			1144	1437			1228	1514
		1611	1924			●	1631			1704	1959			1737	2036			1753	2039			1830	2106
		2246				●	2307			2328				2350								1830	2106
9	Su	0451	0730	24	M	0503	0804	9	W	0541	0217	24	Th	0604	0244	9	Sa	0622	0907	24	Su	0656	0936
		1027	1324			1056	1354			1127	1419			1211	1458			1229	1521			1312	1555
		1650	1957			1717	2043			1741	2031			1817	2100			1838	2122			1918	2149
		2324				2348				1741	2031											1918	2149
10	M	0532	0813	25	Tu	0548	0849	10	Th	0618	0250	25	F	0647	0317	10	Su	0706	0951	25	M	0742	1018
		1109	1403			1145	1438			1206	1459			1253	1537			1320	1609			1359	1643
		1730	2029			1803	2112			1819	2107			1858	2133			1930	2209			2012	2237
																						2012	2237
11	Tu	0000	0248	26	W	0025	0314	11	F	0034	0326	26	Sa	0055	0352	11	M	0120	0425	26	Tu	0142	0444
		0614	0853			0633	0929			0657	0935			0731	1007			0757	1040			0833	1107
		1151	1443			1232	1521			1248	1541			1337	1619			1419	1704			1454	1742
		1809	2101			1847	2136			1901	2147			1943	2213			2029	2301			2114	2333
																						2114	2333
12	W	0035	0321	27	Th	0100	0350	12	Sa	0110	0406	27	Su	0130	0431	12	Tu	0208	0518	27	W	0232	0538
		0655	0930			0719	1005			0739	1017			0818	1048			0856	1139			0932	1206
		1231	1523			1319	1603			1335	1628			1425	1708			1529	1812			1603	1907
		1849	2136			1931	2206			1950	2232			2034	2300			2140			●	2224	
																						2224	
13	Th	0109	0357	28	F	0134	0428	13	Su	0150	0452	28	M	0210	0518	13	W	0307	0603	28	Th	0336	0642
		0736	1008			0807	1043			0828	1105			0910	1138			1006	1256			1041	1327
		1313	1605			1406	1648			1432	1723			1524	1812			1653	1939			1720	2100
		1931	2215			2016	2244			2047	2324			2137	2355			2259				2337	
																						2337	
14	F	0145	0437	29	Sa	0209	0510	14	M	0236	0545	29	Tu	0300	0613	14	Th	0424	0735	29	F	0455	0758
		0819	1049			0857	1127			0925	1203			1010	1242			1124	1508			1152	1536
		1358	1652			1457	1742			1544	1830			1640	1945			1814	2126			1828	2207
		2018	2300			2107	2330			●	2158			●	2250							1828	2207
																						1828	2207
15	Sa	0225	0524	30	Su	0250	0600	15	Tu	0333	0024	30	W	0406	0101	15	F	0016	0304	30	Sa	0042	0330
		0907	1138			0952	1220			1033	1315			1118	1425			0548	0903			0609	0930
		1453	1748			1601	1850			1710	1952			1759	2132			1237	1635			1253	1639
		2115	2353			●	2209			2317								1921	2235			1922	2255
																						1922	2255

# Key West, Florida, 2017

F—Flood, Dir. 020° True E—Ebb, Dir. 195° True

October				November				December																		
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum												
	h	m	knots		h	m	knots		h	m	knots		h	m	knots											
<b>1</b> Su	0134	0434	1.0F	<b>16</b> M	0149	0515	1.4F	<b>1</b> W	0220	0520	1.4F	<b>16</b> Th	0246	0613	1.6F	<b>1</b> F	0223	0525	1.6F	<b>16</b> Sa	0256	0621	1.6F			
	0710	1031	1.5E		0751	1110	1.9E		0817	1114	1.8E		0908	1210	1.8E		0843	1135	1.9E		0929	1231	1.8E			
	1343	1717	1.3F		1414	1748	1.4F		1430	1721	1.5F		1504	1756	1.4F		1448	1726	1.5F		1523	1801	1.4F			
	2005	2329	1.6E		2026	2341	1.9E		2034	2335	1.9E		2058					2037	2339	2.3E		2105				
<b>2</b> M	0217	0517	1.2F	<b>17</b> Tu	0233	0558	1.6F	<b>2</b> Th	0255	0548	1.6F	<b>17</b> F	0322	0641	1.6F	<b>2</b> Sa	0303	0602	1.8F	<b>17</b> Su	0334	0649	1.7F			
	0800	1108	1.7E		0842	1152	2.0E		0901	1153	2.0E		0948	1245	1.9E		0932	1220	2.1E		1009	1308	1.9E			
	1424	1743	1.4F		1454	1817	1.4F		1509	1750	1.6F		1542	1822	1.4F		1533	1808	1.6F		1606	1841	1.4F			
	2042	2353	1.7E		2102				2110				2133				2119				2146					
<b>3</b> Tu	0254	0549	1.4F	<b>18</b> W		0013	2.0E	<b>3</b> F		0007	2.2E	<b>18</b> Sa	0359	0706	1.7F	<b>3</b> Su	0344	0643	2.0F	<b>18</b> M	0413	0721	1.7F			
	0843	1141	1.9E		0313	0635	1.6F		0329	0619	1.7F		1027	1321	1.9E		1020	1307	2.1E		1049	1346	1.9E			
	1500	1801	1.5F		0927	1228	2.0E		0944	1234	2.1E		●	1623	1857	1.5F		●	1620	1854	1.6F		●	1651	1927	1.4F
	2114				1531	1836	1.5F		1549	1826	1.7F		●	2210				●	2204			2229				
<b>4</b> W		0013	1.9E	<b>19</b> Th		0041	2.1E	<b>4</b> Sa		0045	2.4E	<b>19</b> Su	0436	0736	1.7F	<b>4</b> M		0107	2.6E	<b>19</b> Tu		0454	0758	1.7F		
	0327	0617	1.5F		0350	0705	1.6F		0406	0656	1.9F		1107	1359	1.9E		0429	0731	2.0F		1110	1355	2.1E			
	0922	1215	2.1E		●	1606	1.5F		1030	1318	2.2E		1706	1940	1.5F		1110	1355	2.1E		1709	1945	1.6F			
	1535	1822	1.6F		●	2207			1633	1909	1.7F		2249				1709	1945	1.6F		2251					
	2146				●	2207			2226								2251									
<b>5</b> Th		0040	2.1E	<b>20</b> F		0109	2.2E	<b>5</b> Su		0126	2.5E	<b>20</b> M	0516	0813	1.7F	<b>5</b> Tu		0154	2.6E	<b>20</b> W		0537	0838	1.6F		
	0400	0645	1.6F		0426	0732	1.6F		0447	0740	1.9F		1149	1439	1.9E		0517	0823	2.0F		1200	1443	2.1E			
	1002	1253	2.2E		1046	1338	2.0E		1118	1405	2.2E		1753	2028	1.4F		1800	2039	1.5F		1823	2101	1.4F			
	1611	1853	1.7F		1644	1922	1.5F		1720	1957	1.6F		2331				1800	2039	1.5F		1823	2101	1.4F			
	2219				2239				2308								2342				2358					
<b>6</b> F		0113	2.2E	<b>21</b> Sa		0141	2.2E	<b>6</b> M		0211	2.5E	<b>21</b> Tu	0559	0853	1.6F	<b>6</b> W		0243	2.5E	<b>21</b> Th		0621	0916	1.5F		
	0434	0719	1.7F		0503	0759	1.6F		0532	0829	1.9F		1232	1520	1.7E		0609	0914	1.8F		1250	1537	1.7E			
	1043	1334	2.2E		1126	1415	1.9E		1209	1453	2.1E		1843	2116	1.3F		1250	1531	1.9E		1853	2132	1.4F			
	1650	1932	1.8F		1724	2000	1.5F		1811	2047	1.5F						1853	2132	1.4F							
	2254				2315				2354																	
<b>7</b> Sa		0151	2.4E	<b>22</b> Su		0216	2.2E	<b>7</b> Tu		0257	2.5E	<b>22</b> W	0015	0311	2.0E	<b>7</b> Th		0332	2.3E	<b>22</b> F		0043	0333	1.9E		
	0512	0800	1.8F		0543	0833	1.6F		0622	0919	1.8F		0645	0935	1.5F		0705	1005	1.6F		0707	0954	1.4F			
	1128	1418	2.2E		1207	1455	1.8E		1302	1543	1.9E		1316	1601	1.6E		1340	1621	1.7E		1329	1615	1.6E			
	1734	2015	1.7F		1810	2044	1.5F		1906	2139	1.4F		1935	2204	1.2F		1947	2226	1.3F		1957	2228	1.2F			
	2332				2353																					
<b>8</b> Su		0232	2.4E	<b>23</b> M		0253	2.1E	<b>8</b> W		0346	2.3E	<b>23</b> Th	0102	0355	1.8E	<b>8</b> F		0425	2.0E	<b>23</b> Sa		0128	0416	1.7E		
	0553	0844	1.8F		0625	0912	1.5F		0718	1012	1.7F		0734	1019	1.3F		0803	1056	1.4F		0753	1034	1.3F			
	1217	1505	2.1E		1251	1536	1.7E		1358	1636	1.6E		1400	1647	1.4E		1429	1715	1.5E		1407	1656	1.4E			
	1823	2102	1.6F		1900	2130	1.4F		2005	2234	1.2F		2028	2254	1.1F		2044	2325	1.1F		2044	2312	1.1F			
<b>9</b> M		0316	2.4E	<b>24</b> Tu		0334	2.0E	<b>9</b> Th		0440	2.0E	<b>24</b> F	0151	0442	1.6E	<b>9</b> Sa		0524	1.7E	<b>24</b> Su		0214	0503	1.5E		
	0641	0931	1.8F		0711	0954	1.4F		0820	1111	1.4F		0827	1106	1.2F		0904	1151	1.1F		0840	1117	1.2F			
	1311	1554	1.9E		1337	1622	1.5E		1456	1740	1.4E		1447	1738	1.2E		1521	1818	1.3E		1448	1742	1.3E			
	1917	2151	1.5F		1954	2219	1.2F		2107	2338	1.1F		2123	2348	0.9F		2144				2135					
<b>10</b> Tu		0403	2.2E	<b>25</b> W		0418	1.8E	<b>10</b> F		0543	1.7E	<b>25</b> Sa	0244	0536	1.4E	<b>10</b> Su		0333	1.0F	<b>25</b> M		0306	0557	1.3E		
	0734	1023	1.6F		0802	1041	1.3F		0928	1226	1.1F		0924	1158	1.0F		0338	0633	1.4E		0934	1207	1.0F			
	1409	1650	1.6E		1428	1715	1.3E		1601	1858	1.2E		1539	1836	1.1E		1008	1253	0.9F		1534	1835	1.3E			
	2017	2245	1.2F		2053	2314	1.0F		●	2214			2222				1616	1930	1.3E		2230					
<b>11</b> W		0457	2.0E	<b>26</b> Th		0509	1.5E	<b>11</b> Sa		0056	0.9F	<b>26</b> Su	0346	0046	0.8F	<b>11</b> M		0154	0.9F	<b>26</b> Tu		0411	0658	1.2E		
	0835	1123	1.4F		0859	1136	1.1F		0357	0659	1.5E		0636	1.2E			0454	0758	1.2E		1036	1302	1.0F			
	1516	1757	1.3E		1525	1823	1.1E		1042	1408	1.0F		1256	0.9F			1113	1406	0.8F		1630	1933	1.3E			
	2125	2348	1.0F		2157				1708	2027	1.2E		1939	1.1E			1714	2046	1.3E		2326					
									2323				2322				2351				2326					
<b>12</b> Th		0601	1.8E	<b>27</b> F		0016	0.9F	<b>12</b> Su		0233	0.9F	<b>27</b> M	0456	0150	0.8F	<b>12</b> Tu		0325	1.0F	<b>27</b> W		0525	0807	1.2E		
	0946	1243	1.2F		0311	0609	1.3E		0519	0834	1.4E		1128	1359	0.9F		0607	0926	1.2E		1141	1404	1.0F			
	1631	1924	1.2E		1004	1242	0.9F		1154	1536	1.0F		1735	2044	1.2E		1214	1527	0.8F		1730	2034	1.5E			
	2240				1632	2001	1.0E		1810	2139	1.4E						1809	2149	1.4E							
					2304																					
<b>13</b> F		0108	0.9F	<b>28</b> Sa		0127	0.8F	<b>13</b> M		0358	1.1F	<b>28</b> Tu	0016	0304	0.9F	<b>13</b> W		0431	1.1F	<b>28</b> Th		0020	0313	1.1F		
	0410	0718	1.6E		0423																					

# Tampa Bay Entrance (Egmont Channel), Florida, 2017

F—Flood, Dir. 120° True    E—Ebb, Dir. 298° True

January				February				March																		
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum												
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	h	m	knots										
<b>1</b> Su		0025	1.1F		<b>16</b> M	0411	0743	1.7E	<b>1</b> W	0457	0800	1.2F	<b>16</b> Th	0559	0839	0.9F	<b>1</b> W	0406	0659	1.5F	<b>16</b> Th	0459	0730	0.9E		
	0303	0645	2.1E	1122		1443	1.5F	1119		1445	1.5F	1121		1448	1.2F	1005		1323	1.6F	1005		1323	1.3F	1621	1936	1.6E
	1046	1411	1.6F	1813		2033	0.7E	1755		2043	1.2E	1755		2104	1.2E	1623		1924	1.6E	2251				2322		
	1806	1951	0.4E	2316																						
<b>2</b> M		0118	1.0F		<b>17</b> Tu	0507	0827	1.3E	<b>2</b> Th	0008	0315	1.1F	<b>17</b> F	0100	0402	0.8F	<b>2</b> Th	0510	0744	1.1E	<b>17</b> F	0558	0811	0.6E		
	0354	0730	1.9E	1152		1517	1.4F	1148		1523	1.4F	1141		1522	1.1F	1031		1358	1.5F	1031		1358	1.2F	1027	1356	1.2F
	1123	1452	1.6F	1842		2120	0.8E	1829		2136	1.4E	1827		2154	1.2E	1656		2008	1.7E	2357				1651	2013	1.5E
	1833	2036	0.5E																							
<b>3</b> Tu		0217	0.9F		<b>18</b> W	0609	0915	0.9E	<b>3</b> F	0129	0430	1.0F	<b>18</b> Sa	0216	0522	0.7F	<b>3</b> F	0625	0833	0.6E	<b>18</b> Sa	0016	0333	1.0F		
	0452	0818	1.6E	1221		1551	1.2F	1214		1603	1.3F	1601		0.9F	1053	1436		1.3F	0625	0833		0.6E	0714	0858	0.3E	
	1201	1532	1.5F	1913		2215	0.9E	1909		2241	1.5E	1906		2300	1.1E	1734		2059	1.7E	1734		2059	1.7E	1725	2055	1.4E
	1903	2126	0.7E																							
<b>4</b> W		0324	0.9F		<b>19</b> Th	0732	1015	0.5E	<b>4</b> Sa	0258	0604	0.9F	<b>19</b> Su	0342	0718	0.7F	<b>4</b> Sa	0114	0426	1.1F	<b>19</b> Su	0121	0442	0.9F		
	0558	0912	1.3E	1248		1626	1.1F	1113		1.1F	1215	*		0933	*	1818		2203	1.7E	0933		*	1003	*		
	1240	1612	1.4F	1948		2318	1.0E	1651		1.1F	1650	0.7F		1519	1.1F	1818		2203	1.7E	1519		1.1F	1515	0.9F		
	1936	2225	0.9E																							
<b>5</b> Th		0441	0.8F		<b>20</b> F	0815	1133	*	<b>5</b> Su	0426	0750	1.1F	<b>20</b> M	0502	0021	1.2E	<b>5</b> Su	0241	0559	1.1F	<b>20</b> M	0237	0615	0.8F		
	0723	1019	0.9E	1229		1706	0.9F	1247		*	1340	0.9F		1102	0.9F	1102		0.9F	1144	*						
	1318	1656	1.3F	2029				1756		0.9F	1803	0.6F		1611	0.9F	1606		0.7F	1606	0.7F						
	2014	2330	1.2E																							
<b>6</b> F		0614	0.8F		<b>21</b> Sa	0906	1254	0.7F	<b>6</b> M	0542	0906	1.4F	<b>21</b> Tu	0602	0935	1.2F	<b>6</b> M	0410	0742	1.2F	<b>21</b> Tu	0357	0754	0.9F		
	0921	1140	0.5E	1254		1758	0.8F	1408		1.4F	1445	1.2F		1253	*	1253		*	1316	*						
	1357	1745	1.2F	2116				1922		0.9F	1934	0.7F		1728	0.7F	1728		0.7F	1720	0.5F						
	2057																									
<b>7</b> Sa		0034	1.5E		<b>22</b> Su	0123	1.3E		<b>7</b> Tu	0641	0957	1.7F	<b>22</b> W	0646	1008	1.4F	<b>7</b> Tu	0527	0058	1.7E	<b>22</b> W	0505	0852	1.2F		
	0439	0753	1.1F	1404		1.0F	1512	1.7F		1531	*	1418		*	1418	*		1419	*							
	1126	1259	0.3E	1905		0.8F	2036	1.1F		2040	0.8F	1919		0.7F	1919	0.7F		1902	0.6F							
	1437	1844	1.1F																							
<b>8</b> Su		0131	1.8E		<b>23</b> M	0211	1.5E		<b>8</b> W	0729	0310	2.2E	<b>23</b> Th	0721	0305	1.7E	<b>8</b> W	0625	0211	1.8E	<b>23</b> Th	0556	0928	1.4F		
	0548	0906	1.4F	1502		1.3F	1604	1.9F		1431	1.6F	1516		*	1516	*		1322	1501	0.3E						
	1408	1408	1.4F	2009		0.8F	2132	1.2F		1751	2128	1.1F		2042	0.9F	2042		0.9F	1656	2022		0.8F				
	2233																									
<b>9</b> M		0223	2.2E		<b>24</b> Tu	0251	1.6E		<b>9</b> Th	0007	0359	2.3E	<b>24</b> F	0000	0342	1.8E	<b>9</b> Th	0710	0308	1.9E	<b>24</b> F	0635	0955	1.5F		
	0645	1001	1.7F	1549		1.5F	1508	1.6E		1440	1.6E	1403		1.5E	1403	1.5E		1327	1532	0.5E						
	1508	1508	1.7F	2058		1.0F	1835	2.218		1841	2.208	1811		2.137	1811	2.137		1757	2116	1.1F						
	2043	2043	1.2F																							
<b>10</b> Tu		0312	2.4E		<b>25</b> W	0326	1.8E		<b>10</b> F	0056	0443	2.2E	<b>25</b> Sa	0044	0418	1.9E	<b>10</b> F	0012	0353	1.9E	<b>25</b> Sa	0707	0315	1.7E		
	0734	1046	1.9F	1627		1.6F	1527	1.724		1452	1.702	1416		1.632	1416	1.632		1335	1559	0.8E						
	1601	1601	1.9F	2138		1.1F	1930	2300		1.4F	1926	2248		1.4F	1905	2221		1.4F	1844	2200		1.4F				
	2131	2131	1.3F																							
<b>11</b> W		0359	2.5E		<b>26</b> Th	0400	2.0E		<b>11</b> Sa	0143	0523	2.1E	<b>26</b> Su	0129	0455	2.0E	<b>11</b> Sa	0102	0432	1.8E	<b>26</b> Su	0040	0354	1.7E		
	0819	1128	2.0F	1700		*	1548	1.800		1431	1.606	1432		1.703	1432	1.703		1348	1627	1.1E						
	1650	1650	2.0F	2216		1.2F	2021	2342		1.4F	2011	2330		1.5F	1949	2301		1.5F	1928	2242		1.6F				
	2215	2215	1.4F																							
<b>12</b> Th		0446	2.5E		<b>27</b> F	0500	2.1E		<b>12</b> Su	0230	0602	2.0E	<b>27</b> M	0217	0534	1.9E	<b>12</b> Su	0148	0507	1.7E	<b>27</b> M	0130	0433	1.6E		
	0900	1208	2.0F	1554		1.732	1611	1.835		1528	1.806	1449		1.732	1449	1.732		1406	1658	1.5E						
	1736	1736	2.0F	2254		1.3F	2111			2100		2029		2338	1.5F	2029		2338	1.5F	2012		2325	1.7F			
	2259	2259	1.4F																							
<b>13</b> F		0531	2.4E		<b>28</b> Sa	0511	2.1E		<b>13</b> M	0026	1.3F		<b>28</b> Tu	0309	0016	1.6F	<b>13</b> M	0232	0542	1.6E	<b>28</b> Tu	0222	0514	1.5E		
	0939	1248	1.9F	1613		1.805	1635	1.911		1554	1.843	1508		1.801	1508	1.801		1429	1733	1.7E						
	1647	1821	0.3E	2005		2334	1.3F	2202			2152			2109		2109			2059							
	2001	2343	1.3F																							
<b>14</b> Sa		0616	2.2E		<b>29</b> Su	0550	2.1E		<b>14</b> Tu	0113	1.2F		<b>14</b> Tu	0318	0017	1.4F	<b>14</b> Tu	0319	0012	1.8F	<b>29</b> W	0319	0057	1.3E		
	1016	1328	1.7F	1635		1.840	1700	1.946		1554	1.903	1449		1.732	1449	1.732		1406	1658	1.5E						
	1717	1905	0.5E	2057			2255			2150		2150			2150			1457	1812	2.0E						
	2102																									
<b>15</b> Su		0032	1.2F		<b>30</b> M	0602	1.3F		<b>15</b> W	0204	1.1F		<b>15</b> W	0406	0059	1.4F	<b>15</b> W	0422	0104	1.7F	<b>30</b> Th	0422	0642	0.9E		
	0318	0700	2.0E	1016		1.333	1057	1.417		1057	1.417	0942		1.253	0942	1.253		1530	1855	2.1E						
	1050	1406	1.6F	1659		1.918	1726	2.024		1726	2.024	1554		1.903	1554	1.903		1530	1855	2.1E						
	1745	1948	0.6E	2153			2354			2354		2234			2234			2247								
<b>31</b> Tu		0112	1.3F		<b>31</b> Tu	0715	1.8E		<b>31</b> F	0357	0715	1.8E	<b>31</b> F	0533	0730	0.6E	<b>31</b> F	0533	0730	0.6E						
	0318	0700	2.0E	1048		1.408	1725	1.958		1725	1.958	1608		1.941	1608	1.941		1608	1.941							
	1050																									



# Tampa Bay Entrance (Egmont Channel), Florida, 2017

F—Flood, Dir. 120° True    E—Ebb, Dir. 298° True

July				August				September																
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots									
h m	h m	h m		h m	h m	h m		h m	h m	h m		h m	h m	h m										
<b>1</b> Sa	0151 0903 1545 2104	0524 1210 1823 2352	1.2F 0.8E 0.5F 0.6E	<b>16</b> Su	0100 0750 1427 2011	0430 1051 1720 2255	1.4F 1.0E 0.8F 0.7E	<b>1</b> Tu	0911 1739	1311 2053	0.9F 1.2E 0.8F	<b>16</b> W	0836 1705	1236 2026	1.0F 1.6E 1.2F	<b>1</b> F	1022 1839	1424 2152	0.7F 1.4E 1.2F	<b>16</b> Sa	1055 1846	1443 2151	1.8E 1.6F	
<b>2</b> Su	0224 0941 1710 2300	0609 1308 2003	1.1F 1.0E 0.6F	<b>17</b> M	0135 0831 1556 2213	0515 1157 1859	1.3F 1.3E 0.9F	<b>2</b> W	1004 1834	1407 2144	0.9F 1.3E 1.1F	<b>17</b> Th	0946 1814	1346 2127	1.0F 1.9E 1.5F	<b>2</b> Sa	1117 1914	1506 2220	1.5E 1.4F	<b>17</b> Su	1157 1926	1532 2225	1.9E 1.7F	
<b>3</b> M	0257 1018 1813	0658 1358 2112	0.4E 1.0F 0.9F	<b>18</b> Tu	0210 0919 1717	0607 1259 2030	1.2F 1.6E 1.1F	<b>3</b> Th	1052 1915	1452 2221	1.5E 1.2F	<b>18</b> F	1052 1908	1446 2213	2.1E 1.7F	<b>3</b> Su	0537 1201 1943	0918 1540 2244	1.2F 1.7E 1.4F	<b>18</b> M	0632 1250 1958	1001 1614 2253	1.6F 1.9E 1.7F	
<b>4</b> Tu	1052 1859	0158 0748 1439 2159	* 1.0F 1.5E 1.1F	<b>19</b> W	1010 1822	0123 0709 1356 2134	* 1.2F 2.0E 1.5F	<b>4</b> F	1134 1949	1528 2251	1.7E 1.4F	<b>19</b> Sa	1150 1952	1538 2251	2.2E 1.8F	<b>4</b> M	0208 0622 1242 2009	0409 0957 1611 2307	0.5E 1.4F 1.8E 1.5F	<b>19</b> Tu	0719 1337 2024	1042 1651 2319	1.7E 1.7F 1.6F	
<b>5</b> W	1124 1936	0250 0831 1514 2237	* 1.1F 1.7E 1.3F	<b>20</b> Th	1101 1917	0226 0811 1449 2224	* 1.3F 2.3E 1.7F	<b>5</b> Sa	1212 2018	1608 2319	1.8E 1.4F	<b>20</b> Su	1242 2029	1624 2325	2.3E 1.8F	<b>5</b> Tu	0221 0703 1323 2033	0436 1034 1644 2331	0.7E 1.5F 1.8E 1.5F	<b>20</b> W	0801 1422 2047	1121 1727 2343	1.7F 1.6E 1.5F	
<b>6</b> Th	1155 2008	0336 0908 1545 2310	* 1.2F 1.8E 1.4F	<b>21</b> F	1150 2005	0322 0905 1539 2308	* 1.4F 2.5E 1.8F	<b>6</b> Su	1249 2045	1632 2345	1.9E 1.5F	<b>21</b> M	1331 2103	1707 2358	2.2E 1.7F	<b>6</b> W	0237 0745 1406 2058	0504 1112 1720 2357	0.9E 1.6F 1.8E 1.5F	<b>21</b> Th	0842 1508 2109	1200 1803	1.6F 1.4E	
<b>7</b> F	1226 2039	0417 0941 1615 2342	* 1.2F 1.9E 1.4F	<b>22</b> Sa	1239 2048	0413 0953 1628 2349	* 1.6F 2.5E 1.8F	<b>7</b> M	0331 0651 1326 2112	0509 1041 1705	0.3E 1.4F 2.0E	<b>22</b> Tu	0317 0748 1418 2133	0527 1124 1748	0.7E 1.7F 2.0E	<b>7</b> Th	0257 0829 1453 2124	0536 1153 1758	1.1E 1.7F 1.7E	<b>22</b> F	0259 0923 1556 2132	0604 1241 1840	1.5E 1.5F 1.1E	
<b>8</b> Sa	1258 2108	0456 1014 1646	* 1.3F 2.0E	<b>23</b> Su	1327 2129	0502 1038 1716	* 1.6F 2.5E	<b>8</b> Tu	0350 0737 1406 2139	0013 0541 1119 1741	1.5F 0.4E 1.4F 2.0E	<b>23</b> W	0341 0839 1506 2200	0029 0605 1207 1827	1.6F 0.9E 1.6F 1.8E	<b>8</b> F	0322 0917 1545 2150	0026 0611 1240 1839	1.5F 1.3E 1.6F 1.4E	<b>23</b> Sa	0326 1006 1648 2156	0637 1326 1919	1.5E 1.4F 0.9E	
<b>9</b> Su	1333 2138	0013 0534 1049 1720	1.5F 1.3F 2.1E	<b>24</b> M	0424 0721 1416 2208	0030 0550 1124 1803	1.8F 0.3E 1.6F 2.4E	<b>9</b> W	0411 0826 1451 2207	0042 0614 1201 1819	1.5F 0.6E 1.4F 1.9E	<b>24</b> Th	0407 0931 1556 2227	0059 0643 1254 1907	1.5F 1.0E 1.5E	<b>9</b> Sa	0351 1011 1644 2218	0058 0651 1334 1923	1.4F 1.5E 1.5F 1.1E	<b>24</b> Su	0356 1053 1746 2223	0713 1417 2001	1.2F 1.5E 0.6E	
<b>10</b> M	1411 2210	0046 0612 1127 1758	1.5F 1.3F 2.1E	<b>25</b> Tu	0454 0824 1506 2244	0110 0636 1212 1848	1.7F 0.4E 1.4F 2.1E	<b>10</b> Th	0434 0919 1540 2237	0114 0650 1248 1900	1.5F 0.7E 1.4F 1.8E	<b>25</b> F	0436 1025 1649 2252	0130 0721 1344 1947	1.4F 1.1E 1.2F 1.2E	<b>10</b> Su	0426 1112 1752 2244	0134 0734 1435 2010	1.4F 1.6E 1.4F 0.8E	<b>25</b> M	0430 1147 1855 2250	0751 1514 2050	1.1F 1.0F 0.4E	
<b>11</b> Tu	1454 2242	0122 0651 1209 1838	1.5F 1.3F 2.1E	<b>26</b> W	0524 0930 1559 2317	0150 0722 1305 1932	1.6F 0.5E 1.3F 1.8E	<b>11</b> F	0501 1017 1634 2307	0148 0729 1341 1942	1.5F 0.9E 1.3F 1.6E	<b>26</b> Sa	0506 1123 1746 2318	0203 0800 1440 2029	1.3F 1.1E 1.0F 0.9E	<b>11</b> M	0505 1224 1915 2308	0214 0823 1546 2106	1.2F 1.7E 1.2F 0.4E	<b>26</b> Tu	0508 1252 2155	0834 1621 2155	1.3E 0.9F *	
<b>12</b> W	0554 0914 1541 2316	0158 0730 1257 1919	1.5F 0.3E 1.2F 2.0E	<b>27</b> Th	0555 1039 1654 2348	0228 0808 1403 2016	1.5F 0.7E 1.1F 1.5E	<b>12</b> Sa	0531 1123 1735 2337	0224 0812 1441 2028	1.5F 1.1E 1.2F 1.2E	<b>27</b> Su	0538 1229 1853 2345	0236 0843 1542 2118	1.2F 1.1E 0.9F 0.5E	<b>12</b> Tu	0551 1349	0259 0923 1709	1.1F 1.6E 1.1F *	<b>27</b> W	0553 1410	0308 1746	0.8F *	
<b>13</b> Th	0618 1020 1632 2351	0236 0812 1352 2003	1.5F 0.5E 1.1F 1.8E	<b>28</b> F	0626 1155 1752	0304 0856 1506 2102	1.4F 0.8E 0.9F 1.1E	<b>13</b> Su	0605 1238 1849	0302 0901 1549 2122	1.4F 1.3E 1.0F 0.8E	<b>28</b> M	0615 1347	0313 0933 1657 2224	1.0F 1.1E 0.7F *	<b>13</b> W	0648 1522	0353 1044 1847	1.0F 1.5E 1.1F	<b>28</b> Th	0651 1534	0406 1922	0.6F 0.9F	
<b>14</b> F	0645 1134 1730	0313 0857 1452 2050	1.5F 0.6E 1.0F 1.5E	<b>29</b> Sa	0017 0659 1319 1902	0339 0949 1615 2155	1.3F 0.8E 0.7F 0.7E	<b>14</b> M	0007 0644 1406 2032	0342 1001 1711 2231	1.3F 1.4E 0.9F 0.4E	<b>29</b> Tu	0659 1517	0355 1043 1840 2352	0.9F 1.0E 0.7F *	<b>14</b> Th	0804 1647	0005 0505 1221 2013	* 0.8F 1.5E 1.2F	<b>29</b> F	0814 1647	0054 0524 1238 2027	* 0.5F 1.1E 1.0F	
<b>15</b> Sa	0715 1258 1838	0351 0950 1600 2146	1.5F 0.8E 0.9F 1.1E	<b>30</b> Su	0045 0736 1450 2043	0415 1053 1739 2304	1.1F 0.9E 0.6F 0.4E	<b>15</b> Tu	0035 0734 1539	0428 1116 1853	1.2F 1.5E 0.9F *	<b>30</b> W	0758 1645	0447 1213 2020	0.8F 1.0E 0.8F	<b>15</b> F	0935 1754	0131 0645 1342 2110	* 0.8F 1.7E 1.5F	<b>30</b> Sa	0946 1742	0154 0700 1344 2107	* 0.6F 1.2E 1.2F	
				<b>31</b> M	0113 0820 1622	0455 1205 1929	1.0F 1.0E 0.6F						<b>31</b> Th	0912 1752	0114 0600 1329 2116	* 0.7F 1.2E 1.0F								

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.

# Tampa Bay Entrance (Egmont Channel), Florida, 2017

F—Flood, Dir. 120° True    E—Ebb, Dir. 298° True

October				November				December															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Su	0039	0237	0.4E	<b>16</b> M	0028	0303	0.9E	<b>1</b> W	0002	0258	1.3E	<b>16</b> Th	0019	0342	1.7E	<b>1</b> F	0655	1012	1.8F	<b>16</b> Sa	0003	0347	1.9E
	0450	0814	0.9F		0602	0918	1.3F		0620	0935	1.5F		0731	1039	1.6F		1337	1530	0.6E		0800	1109	1.6F
	1056	1430	1.3E		1206	1516	1.4E		1232	1513	1.1E		1357	1610	0.7E		1744	2124	1.4F		1503	1632	0.3E
	1822	2136	1.3F		1845	2150	1.5F		1821	2136	1.4F		1840	2159	1.3F						1810	2153	1.2F
<b>2</b> M	0052	0309	0.7E	<b>17</b> Tu	0047	0337	1.2E	<b>2</b> Th	0020	0326	1.7E	<b>17</b> F	0039	0407	1.9E	<b>2</b> Sa	0002	0333	2.4E	<b>17</b> Su	0030	0415	2.0E
	0543	0905	1.2F		0650	1002	1.5F		0701	1017	1.8F		0804	1113	1.7F		0740	1056	2.0F		0830	1142	1.6F
	1150	1508	1.5E		1258	1555	1.3E		1324	1553	1.1E		1442	1645	0.6E		1436	1617	0.5E		1710	*	
	1854	2200	1.4F		1913	2216	1.5F		1847	2203	1.5F		1901	2222	1.3F		1813	2159	1.5F		2222	1.2F	
<b>3</b> Tu	0103	0335	0.9E	<b>18</b> W	0105	0406	1.4E	<b>3</b> F	0042	0357	2.0E	<b>18</b> Sa	0100	0433	2.0E	<b>3</b> Su	0036	0414	2.6E	<b>18</b> M	0059	0444	2.0E
	0626	0947	1.4F		0729	1041	1.7F		0742	1059	1.9F		0834	1147	1.7F		0826	1142	2.1F		0859	1214	1.6F
	1236	1543	1.5E		1345	1630	1.2E		1418	1634	0.9E		1527	1721	0.5E		1537	1704	0.3E		1747	*	
	1920	2223	1.5F		1936	2238	1.5F		1912	2231	1.5F		1923	2246	1.3F		1842	2235	1.5F		2253	1.2F	
<b>4</b> W	0117	0400	1.2E	<b>19</b> Th	0123	0433	1.6E	<b>4</b> Sa	0108	0433	2.3E	<b>19</b> Su	0124	0501	2.0E	<b>4</b> M	0114	0459	2.7E	<b>19</b> Tu	0131	0518	2.0E
	0705	1025	1.7F		0805	1117	1.7F		0826	1144	2.0F		0905	1222	1.6F		0913	1230	2.0F		0930	1248	1.6F
	1321	1619	1.5E		1429	1704	1.1E		1515	1718	0.7E		1615	1759	0.4E		1755	*			1826	*	
	1945	2246	1.5F		1955	2300	1.4F		1936	2301	1.5F		1948	2314	1.2F		2314	1.4F			2329	1.1F	
<b>5</b> Th	0134	0428	1.5E	<b>20</b> F	0143	0500	1.7E	<b>5</b> Su	0140	0514	2.4E	<b>20</b> M	0153	0533	2.0E	<b>5</b> Tu	0157	0548	2.6E	<b>20</b> W	0207	0554	2.0E
	0745	1105	1.8F		0838	1153	1.7F		0913	1233	1.9F		0939	1301	1.5F		1004	1324	1.9F		1003	1326	1.5F
	1408	1656	1.4E		1514	1739	0.9E		1619	1805	0.5E		1706	1840	0.3E		1848	*			1907	*	
	2008	2312	1.5F		2015	2322	1.3F		2001	2336	1.4F		2017	2346	1.1F								
<b>6</b> F	0155	0501	1.7E	<b>21</b> Sa	0205	0529	1.8E	<b>6</b> M	0218	0559	2.4E	<b>21</b> Tu	0226	0610	2.0E	<b>6</b> W	0246	0000	1.3F	<b>21</b> Th	0247	0010	1.1F
	0827	1147	1.9F		0913	1230	1.6F		1005	1329	1.8F		1017	1344	1.5F		1056	0639	2.4E		1038	0634	2.0E
	1500	1737	1.2E		1602	1816	0.7E		1732	1856	0.3E		1924	*			1944	*			1815	1948	0.3E
	2033	2340	1.5F		2038	2348	1.3F		2027												2128		
<b>7</b> Sa	0223	0538	1.9E	<b>22</b> Su	0231	0600	1.8E	<b>7</b> Tu	0301	0016	1.3F	<b>22</b> W	0304	0025	1.0F	<b>7</b> Th	0341	0055	1.1F	<b>22</b> F	0332	0056	1.0F
	0914	1235	1.8F		0950	1311	1.5F		1103	0648	2.3E		1058	0650	1.9E		1150	0733	2.1E		1115	0715	1.8E
	1558	1820	1.0E		1655	1856	0.5E		1951	1432	1.7F		2012	1432	1.4F		2045	*			1846	2031	0.3E
	2057				2103																2229		
<b>8</b> Su	0012	0147	1.4F	<b>23</b> M	0018	0118	1.1F	<b>8</b> W	0104	0112	1.1F	<b>23</b> Th	0112	0112	0.9F	<b>8</b> F	0202	0202	0.9F	<b>23</b> Sa	0422	0150	0.9F
	0256	0620	2.1E		0302	0635	1.8E		0352	0742	2.1E		0348	0733	1.7E		0442	0831	1.8E		0422	0759	1.7E
	1007	1330	1.7F		1031	1359	1.3F		1207	1538	1.5F		1144	1522	1.3F		1243	1610	1.5F		1153	1525	1.5F
	1704	1907	0.7E		1754	1940	0.4E		2057	*			2106	*			2015	2157	0.3E		1916	2119	0.4E
<b>9</b> M	0049	0131	1.3F	<b>24</b> Tu	0055	0107	1.0F	<b>9</b> Th	0207	0207	0.9F	<b>24</b> F	0207	0207	0.7F	<b>9</b> Sa	0321	0321	0.7F	<b>24</b> Su	0250	0250	0.8F
	0335	0706	2.1E		0338	0714	1.7E		0450	0844	1.8E		0436	0820	1.5E		0552	0937	1.4E		0517	0847	1.4E
	1106	1434	1.5F		1118	1453	1.2F		1315	1645	1.4F		1233	1611	1.3F		1334	1702	1.3F		1231	1604	1.4F
	1820	1958	0.4E		2030	*			2225	*			2212	*			2053	2317	0.5E		1946	2213	0.6E
<b>10</b> Tu	0132	0132	1.1F	<b>25</b> W	0139	0139	0.9F	<b>10</b> F	0326	0326	0.7F	<b>25</b> Sa	0311	0311	0.6F	<b>10</b> Su	0451	0451	0.6F	<b>25</b> M	0356	0356	0.7F
	0420	0757	2.0E		0419	0757	1.5E		0600	1003	1.5E		0532	0917	1.3E		0721	1056	1.0E		0623	0944	1.1E
	1216	1545	1.4F		1213	1552	1.1F		1423	1752	1.3F		1324	1700	1.2F		1422	1753	1.2F		1311	1645	1.3F
	2100				2133	*							2118	2323	0.3E		2131				2017	2312	0.8E
<b>11</b> W	0224	0224	1.0F	<b>26</b> Th	0232	0232	0.7F	<b>11</b> Sa	0001	0001	*	<b>26</b> Su	0423	0423	0.5F	<b>11</b> M	0028	0028	0.8E	<b>26</b> Tu	0513	0513	0.7F
	0512	0859	1.7E		0506	0848	1.3E		0502	0607	0.6F		0643	1030	1.1E		0347	0633	0.6F		0754	1056	0.8E
	1335	1704	1.2F		1316	1657	1.0F		0733	1139	1.2E		1415	1752	1.2F		0918	1218	0.7E		1351	1729	1.2F
	2227	*			2258	*			1526	1856	1.3F		2148	*			1507	1846	1.1F		2052	*	
<b>12</b> Th	0332	0332	0.8F	<b>27</b> F	0335	0335	0.6F	<b>12</b> Su	0110	0110	0.5E	<b>27</b> M	0023	0023	0.6E	<b>12</b> Tu	0125	0125	1.1E	<b>27</b> W	0009	0009	1.1E
	0617	1022	1.5E		0603	0958	1.1E		0352	0650	0.7F		0307	0547	0.6F		0507	0807	0.8F		0350	0647	0.8F
	1458	1828	1.2F		1424	1807	1.0F		0929	1301	1.1E		0821	1151	0.9E		1108	1326	0.5E		0952	1214	0.5E
									1623	1951	1.3F		1506	1843	1.2F		1551	1937	1.1F		1433	1819	1.2F
<b>13</b> F	0015	0015	*	<b>28</b> Sa	0020	0020	*	<b>13</b> M	0201	0201	0.9E	<b>28</b> Tu	0109	0109	0.9E	<b>13</b> W	0210	0210	1.4E	<b>28</b> Th	0101	0101	1.5E
	0502	0707	0.7F		0452	0507	0.5F		0514	0817	0.9F		0421	0718	0.8F		0606	0911	1.1F		0500	0815	1.1F
	0745	1207	1.4E		0721	1132	1.0E		1105	1402	1.0E		1006	1259	0.8E		1229	1423	0.4E		1137	1323	0.4E
	1615	1944	1.3F		1529	1913	1.1F		1710	2035	1.3F		1553	1931	1.2F		1631	2020	1.1F		1516	1914	1.2F
<b>14</b> Sa	0131	0131	0.3E	<b>29</b> Su	0118	0118	0.4E	<b>14</b> Tu	0240	0240	1.2E	<b>29</b> W	0146	0146	1.2E	<b>14</b> Th	0248	0248	1.6E	<b>29</b> F	0148	0148	1.8E
	0322	0652	0.7F		0332	0625	0.5F		0611	0916	1.2F		0520	0831	1.1F		0651	0958	1.4F		0559	0918	1.5F
	0933	1329	1.4E		0903	1250	1.0E		1214	1451	0.9E		1130	1355	0.8E		1329	1511	0.3E		1257	1422	0.3E
	1718	2038	1.4F		1626	2003	1.2F		1748	2108	1.3F		1636	2013	1.3F		1707	2055	1.1F		1558	2007	1.2F
<b>15</b> Su	0009	0223	0.6E	<b>30</b> M	0158	0158	0.6E	<b>15</b> W	0313	0313	1.5E	<b>30</b> Th	0221	0221	1.6E	<b>15</b> F	0319	0319	1.8E	<b>30</b> Sa	0233	0233	2.2E
	0458	0819	1.0F		0443	0749	0.8F																

# Tampa Bay (Sunshine Skyway Bridge), Florida, 2017

F—Flood, Dir. 059° True    E—Ebb, Dir. 238° True

January				February				March																					
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum															
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots															
<b>1</b>	Su	0319	0706	1.9E	<b>16</b>	M	0417	0756	1.6E	<b>1</b>	W	0506	0817	1.3E	<b>16</b>	Th	0555	0839	0.7E	<b>1</b>	W	0417	0712	1.2E	<b>16</b>	Th	0455	0725	0.8E
		1108	1421	1.4F			1138	1446	1.3F			1138	1445	1.2F			1130	1444	1.1F			1019	1321	1.3F			1005	1317	1.2F
		1823	2001	0.3E			1824	2042	0.6E			1806	2056	0.9E			1754	2104	1.0E			1628	1933	1.3E			1617	1933	1.3E
		2148					2312															2255					2319		
<b>2</b>	M	0408	0750	1.7E	<b>17</b>	Tu	0510	0839	1.2E	<b>2</b>	Th	0611	0907	0.9E	<b>17</b>	F	0703	0923	0.4E	<b>2</b>	Th	0518	0755	0.9E	<b>17</b>	F	0550	0801	0.5E
		1146	1500	1.3F			1210	1522	1.2F			1208	1522	1.1F			1145	1517	1.0F			1045	1354	1.2F			1021	1346	1.1F
		1855	2050	0.4E			1856	2132	0.6E			1837	2148	1.0E			1824	2149	1.0E			1657	2015	1.3E			1644	2007	1.3E
		2257																				2358							
<b>3</b>	Tu	0502	0838	1.5E	<b>18</b>	W	0608	0926	0.9E	<b>3</b>	F	0734	1004	0.6E	<b>18</b>	Sa	0820	1018	*	<b>3</b>	F	0630	0845	0.6E	<b>18</b>	Sa	0702	0845	0.3E
		1224	1539	1.3F			1240	1557	1.1F			1237	1603	1.0F			1556	0.8F				1109	1431	1.1F			1034	1420	1.0F
		1926	2143	0.5E			1927	2224	0.7E			1915	2247	1.1E			1902	2244	1.0E			1732	2107	1.3E			1718	2051	1.3E
																						0304					0011	0318	0.9F
<b>4</b>	W	0604	0931	1.2E	<b>19</b>	Th	0720	1016	0.6E	<b>4</b>	Sa	0926	1112	0.3E	<b>19</b>	Su	1132	*	<b>4</b>	Sa	0110	0419	1.0F	<b>19</b>	Su	0946	*		
		1301	1618	1.2F			1306	1631	1.0F			1305	1651	0.9F			1645	0.8F				1515	1.0F				1503	0.9F	
		1957	2238	0.7E			1959	2318	0.8E			2002	2359	1.2E			1952	2358	1.0E			1816	2211	1.3E			1800	2148	1.2E
<b>5</b>	Th	0721	1030	0.9E	<b>20</b>	F	0903	1114	0.3E	<b>5</b>	Su	1239	*	<b>20</b>	M	1318	*	<b>5</b>	Su	0234	0550	0.9F	<b>20</b>	M	1105	*			
		1339	1659	1.1F			1327	1709	0.8F			1751	0.9F			1750	0.7F					1611	0.8F				1559	0.7F	
		2030	2335	0.9E			2034					2101				2056						1914	2333	1.3E			1854	2258	1.2E
																						0359	0727	1.0F			0349	0733	0.8F
<b>6</b>	F	0859	1135	0.6E	<b>21</b>	Sa	1229	*	<b>6</b>	M	1410	1.1F	<b>21</b>	Tu	0551	0918	0.9F	<b>6</b>	M	0359	0727	1.0F	<b>21</b>	Tu	1249	*			
		1418	1744	1.0F			1229	1753	0.8F			1903	0.9F			1438	1908	0.7F				1724	0.7F				1712	0.6F	
		2106					2114				2205				2205							2029					2006		
<b>7</b>	Sa	0426	0729	0.8F	<b>22</b>	Su	0852	0.7F	<b>7</b>	Tu	0629	0944	1.3F	<b>22</b>	W	0640	1000	1.1F	<b>7</b>	Tu	0513	0838	1.2F	<b>22</b>	W	1419	*		
		1050	1252	0.4E			1355	1848	0.8F			1516	2012	1.0F			1530	2017	0.9F			1858	0.7F				1842	0.6F	
		1458	1835	1.0F			2158				2309				2309							2154					2130		
		2147																											
<b>8</b>	Su	0537	0846	1.1F	<b>23</b>	M	0946	0.9F	<b>8</b>	W	1438	1.6E	<b>23</b>	Th	0720	1035	1.3F	<b>8</b>	W	0611	0930	1.4F	<b>23</b>	Th	1518	0.3E			
		1408	1929	1.0F			1458	1944	0.8F			1738	2111	1.1F			1611	2112	1.0F			1656	2020	0.9F			2002	0.8F	
		2232					2245				0008	0418	1.9E			0005	0405	1.7E				2310					2247		
<b>9</b>	M	0636	0947	1.3F	<b>24</b>	Tu	1029	1.1F	<b>9</b>	Th	1503	1.6F	<b>24</b>	F	0754	1106	1.4F	<b>9</b>	Th	0659	1011	1.5F	<b>24</b>	F	1400	1604	0.5E		
		1511	2022	1.1F			1546	2035	0.9F			1841	2203	1.2F			1450	1647	0.4E			1809	2120	1.0F			1754	2102	1.0F
		2320					2333				0102	0501	2.0E			0057	0442	1.7E				0325	1.7E			2353			
<b>10</b>	Tu	0728	1039	1.5F	<b>25</b>	W	1106	1.2F	<b>10</b>	F	1528	1.7F	<b>25</b>	Sa	0826	1134	1.4F	<b>10</b>	F	0014	0410	1.7E	<b>25</b>	Sa	1420	1643	0.7E		
		1605	2111	1.2F			1628	2121	1.1F			1935	2252	1.3F			1506	1720	0.6E			1904	2210	1.2F			1847	2153	1.2F
																						0659	1011	1.5F			0635	0952	1.3F
<b>11</b>	W	0816	1127	1.6F	<b>26</b>	Th	1139	1.3F	<b>11</b>	Sa	1553	1.8E	<b>26</b>	Su	0855	1200	1.4F	<b>11</b>	Sa	0108	0449	1.7E	<b>26</b>	Su	1440	1717	0.9E		
		1655	2200	1.3F			1705	2207	1.2F			2025	2339	1.3F			2020	2334	1.4F			1951	2255	1.3F			1934	2241	1.4F
																						0659	1011	1.5F			1337	1545	0.5E
<b>12</b>	Th	0909	1210	1.6F	<b>27</b>	F	1210	1.4F	<b>12</b>	Su	1618	1.8E	<b>27</b>	M	0924	1226	1.4F	<b>12</b>	Su	0155	0523	1.6E	<b>27</b>	M	1500	1747	1.1E		
		1610	1741	0.3E			1604	1742	0.3E			2114				1542	1823	1.0E				2033	2337	1.3F			1420	1719	1.2E
		1913	2250	1.4F			1919	2252	1.2F													0203	2337	1.3F			1754	2102	1.0F
																						1809	2120	1.0F			2353		
<b>13</b>	F	0943	1251	1.6F	<b>28</b>	Sa	1240	1.4F	<b>13</b>	M	1642	1.9E	<b>28</b>	Tu	0952	1252	1.4F	<b>13</b>	M	0238	0554	1.4E	<b>28</b>	Tu	1518	1814	1.2E		
		1644	1825	0.4E			1626	1817	0.4E			2203				1604	1856	1.1E				2112					2105		
		2007	2340	1.3F			2011	2339	1.3F													2112					2105		
<b>14</b>	Sa	1024	1330	1.5F	<b>29</b>	Su	1309	1.4F	<b>14</b>	Tu	1706	1.9E	<b>29</b>	W	1019	0725	1.2F	<b>14</b>	Tu	0321	0624	1.3F	<b>29</b>	W	1536	1838	1.2E		
		1718	1909	0.4E			1649	1853	0.5E			2254				1045	1347	1.3F				0926	1229	1.3F			1501	1823	1.6E
		2105					2103															2152					2155		
<b>15</b>	Su	0327	0714	1.8E	<b>30</b>	M	0319	0652	1.7E	<b>15</b>	W	1109	1.2F	<b>30</b>	Th	0924	1226	1.4F	<b>15</b>	W	0406								



# Tampa Bay (Sunshine Skyway Bridge), Florida, 2017

F—Flood, Dir. 059° True E—Ebb, Dir. 238° True

April				May				June													
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots						
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m						
<b>1</b> Sa	0303 0830 1350 2039	1.2F *	1.6E	<b>16</b> Su	0300 0822 1342 2018	1.0F *	1.6E	<b>1</b> M	0050 0413 0939 1423 2137	1.2F *	0.9F 1.6E	<b>16</b> Tu	0019 0343 0912 1411 2053	1.2F *	0.9F 1.6E	<b>1</b> Th	0218 0543 1202 1707 2346	1.2F 0.4E 0.5F 1.0E	<b>16</b> F	0119 0441 1052 1515 2229	1.2F 0.4E 0.7F 1.2E
<b>2</b> Su	0101 0940 1440 1738	1.1F *	1.5E	<b>17</b> M	0043 0405 0925 1429 2114	1.0F *	1.5E	<b>2</b> Tu	0158 0525 1110 1540 2302	1.2F *	0.7F 1.3E	<b>17</b> W	0111 0440 1024 1515 2155	1.2F *	0.7F 1.4E	<b>2</b> F	0308 0638 1025 1314 1607 2131	1.2F 0.7E 0.5F	<b>17</b> Sa	0203 0526 0915 1151 1449 2020	1.2F 0.6E 0.7F 0.9E
<b>3</b> M	0220 1112 1548 1843	1.1F *	1.3E	<b>18</b> Tu	0147 0518 1045 1532 2222	1.0F *	1.3E	<b>3</b> W	0304 0635 1241 1718 2002	1.2F *	0.5F	<b>18</b> Th	0206 0537 1138 1631 2302	1.2F *	1.3E	<b>3</b> Sa	0100 0355 0727 1058 1413 1726 2308	0.8E 1.2F 0.9E 0.7F	<b>18</b> Su	0248 0611 0945 1252 1611 2200	1.1F 0.7F 0.9E
<b>4</b> Tu	0337 1258 1718 2012	1.1F *	0.6F	<b>19</b> W	0255 0635 1217 1649 2340	1.0F *	1.2E	<b>4</b> Th	0029 0403 1132 1353 1615 2145	1.2E 1.3F 0.5E 0.6F	<b>19</b> F	0300 0632 1038 1249 1507 2035	1.2F 0.4E 0.6F	<b>4</b> Su	0205 0436 0807 1127 1459 1825 2117	0.6E 1.1F 0.8F	<b>19</b> M	0044 0331 1014 1346 1721 2337	0.7E 1.1F 1.1E 0.9F		
<b>5</b> W	0445 0814 1415 1906 2151	1.3E 1.3F *	0.6F	<b>20</b> Th	0359 0739 1338 1819 2100	1.1F *	0.6F	<b>5</b> F	0144 0454 1158 1445 1735 2027 2313	1.1E 1.3F 0.8E 0.7F	<b>20</b> Sa	0014 0351 1101 1346 1632 1924 2208	1.1E 1.2F 0.7E 0.7F	<b>5</b> M	0030 0511 1151 1537 1910 2206	0.5E 1.1F 1.3E 1.0F	<b>20</b> Tu	0154 0411 1046 1434 1820 2125	0.5E 1.1F 1.5E 1.2F		
<b>6</b> Th	0540 1252 1726 2029 2314	1.4E 1.4F 0.5E 0.8F		<b>21</b> F	0453 0824 1216 1431 1645 1944 2226	1.2E 1.2F 0.4E 0.8F		<b>6</b> Sa	0241 0537 1223 1528 1833 2125	1.0E 1.3F 1.1E 0.9F	<b>21</b> Su	0125 0437 1123 1430 1737 2034 2333	1.0E 1.2F 1.0E 1.0F	<b>6</b> Tu	0136 0538 1212 1607 1947 2249	0.4E 1.1F 1.4E 1.1F	<b>21</b> W	0103 0448 1121 1518 1912 2221	0.4E 1.2F 1.8E 1.4F		
<b>7</b> F	0624 1313 1828 2127	1.4E 1.5F 0.8E 1.0F		<b>22</b> Sa	0209 0539 1231 1510 1750 2049 2341	1.2E 1.3F 0.8E 1.0F		<b>7</b> Su	0023 0612 1245 1603 1918 2212	0.9E 1.3F 1.3E 1.1F	<b>22</b> M	0225 0517 1144 1507 1831 2132	0.9E 1.2F 1.3E 1.2F	<b>7</b> W	0231 0559 1231 1630 2019 2326	0.3E 1.1F 1.6E 1.2F	<b>22</b> Th	0214 0524 1201 1602 2001 2312	0.3E 1.3F 2.0E 1.5F		
<b>8</b> Sa	0020 0700 1334 1626 1916 2214	1.4E 1.5F 1.1E 1.1F		<b>23</b> Su	0301 0617 1247 1544 1842 2142	1.2E 1.3F 1.1E 1.2F		<b>8</b> M	0121 0639 1303 1632 1955 2253	0.8E 1.3F 1.4E 1.2F	<b>23</b> Tu	0047 0551 1207 1542 1919 2224	0.8E 1.3F 1.6E 1.4F	<b>8</b> Th	0447 0953 1253 1650 2050	* 1.1F 1.7E	<b>23</b> F	0436 0946 1244 1647 2050	* 1.3F 2.2E		
<b>9</b> Su	0113 0729 1352 1656 1956 2255	1.3E 1.4F 1.2E 1.2F		<b>24</b> M	0046 0650 1303 1615 1928 2232	1.2E 1.3F 1.4E 1.4F		<b>9</b> Tu	0209 0700 1318 1654 2027 2329	0.7E 1.2F 1.5E 1.2F	<b>24</b> W	0154 0620 1234 1619 2007 2315	0.6E 1.3F 1.9E 1.5F	<b>9</b> F	0000 0518 1022 1319 1713 2122	1.2F 1.2F 1.8E	<b>24</b> Sa	0001 0525 1032 1330 1734 2138	1.6F 1.4F 2.3E		
<b>10</b> M	0159 0753 1408 1721 2032 2333	1.1E 1.4F 1.3E 1.3F		<b>25</b> Tu	0145 0717 1322 1646 2013 2320	1.0E 1.4F 1.6E 1.5F		<b>10</b> W	0253 0716 1333 1713 2058	0.5E 1.2F 1.6E	<b>25</b> Th	0257 0646 1307 1658 2055	0.5E 1.4F 2.1E	<b>10</b> Sa	0033 0550 1057 1351 1743 2155	1.2F 1.2F 1.9E	<b>25</b> Su	0048 0613 1121 1419 1821 2225	1.6F 1.4F 2.2E		
<b>11</b> Tu	0242 0812 1422 1742 2106	1.0E 1.3F 1.4E		<b>26</b> W	0243 0741 1345 1720 2059	0.9E 1.4F 1.8E		<b>11</b> Th	0003 0337 0730 1055 1351 1733 2130	1.2F 0.4E 1.2F 1.7E	<b>26</b> F	0006 0401 0711 1049 1344 1741 2146	1.6F 0.3E 1.4F 2.2E	<b>11</b> Su	0107 0627 1136 1428 1819 2232	1.3F 1.2F 1.9E	<b>26</b> M	0134 0702 1214 1511 1909 2312	1.6F 1.3F 2.1E		
<b>12</b> W	0324 0829 1438 1802 2140	0.8E 1.3F 1.5E		<b>27</b> Th	0009 0343 0804 1122 1414 1757 2150	1.6F 0.7E 1.4F 2.0E		<b>12</b> F	0037 0423 0745 1123 1416 1759 2205	1.2F 0.3E 1.2F 1.8E	<b>27</b> Sa	0057 0622 1132 1427 1827 2239	1.6F 1.4F 2.2E	<b>12</b> M	0145 0709 1220 1509 1859 2312	1.3F 1.2F 1.9E	<b>27</b> Tu	0222 0623 0934 1310 1607 2000 2357	1.5F 0.3E 1.2F 1.8E		
<b>13</b> Th	0409 0845 1458 1826 2217	1.2F 0.6E 1.6E		<b>28</b> F	0100 0449 0825 1157 1450 1839 2245	1.5F 0.4E 1.3F 2.0E		<b>13</b> Sa	0114 0637 1156 1488 1832 2245	1.2F 1.8E	<b>28</b> Su	0151 0713 1220 1516 1918 2334	1.5F 1.3F 2.1E	<b>13</b> Tu	0227 0757 1308 1555 1944 2353	1.3F 1.1F 1.8E	<b>28</b> W	0309 0856 1054 1411 1706 2055	1.4F 0.4E 1.0F 1.5E		
<b>14</b> F	0459 0901 1523 1856 2258	1.2F 0.5E 1.6E		<b>29</b> Sa	0157 0722 1238 1532 1927 2345	1.4F 1.2F 1.9E		<b>14</b> Su	0157 0718 1235 1525 1912 2330	1.2F 1.1F 1.8E	<b>29</b> M	0249 0813 1313 1610 2015 2349	1.4F 1.1F 1.8E	<b>14</b> W	0312 0852 1401 1646 2034 2349	1.3F 0.9F 1.7E	<b>29</b> Th	0041 0744 1222 1522 1811 2154	1.3F 0.5E 0.8F 1.2E		
<b>15</b> Sa	0558 0917 1555 1932 2347	1.1F 0.3E 1.1F 1.6E		<b>30</b> Su	0302 0821 1324 1621 2025 2385	1.3F 1.1F 1.8E		<b>15</b> M	0247 0809 1319 1608 1958 2385	1.2F 1.0F 1.7E	<b>30</b> Tu	0029 0349 0926 1417 1710 2121 2436	1.4F 0.9F 1.6E	<b>15</b> Th	0035 0809 1143 1504 1743 2129 2436	1.3F 0.3E 0.8F 1.4E	<b>30</b> F	0122 0441 1358 1643 1931 2255	1.2F 0.6E 0.6F 0.8E		
												<b>31</b> W	0124 0447 1045 1535 1821 2233	1.3F *	0.7F 1.3E						

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.

# Tampa Bay (Sunshine Skyway Bridge), Florida, 2017

F—Flood, Dir. 059° True    E—Ebb, Dir. 238° True

July				August				September															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots												
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m											
<b>1 Sa</b>	0202	0525	1.1F	<b>16 Su</b>	0107	0426	1.1F	<b>1 Tu</b>	0018	*	<b>16 W</b>	0818	1233	1.3E	<b>1 F</b>	0235	*	<b>16 Sa</b>	0250	*			
	0905	1216	0.8E		0752	1055	0.9E		0530	0.7F		0511	0.9F	0646		0.6F	0744		0.8F				
	1535	1817	0.5F		1425	1717	0.7F		1319	1.0E		1652	2016	1.0F		1425	1.2E		1453	1.6E			
	2112				2021	2259	0.6E		1726	2044		0.9F	1825	2148		1.1F	1828		2144	1.4F			
<b>2 Su</b>		0002	0.5E	<b>17 M</b>	0142	0508	1.0F	<b>2 W</b>	0151	*	<b>17 Th</b>	0133	*	<b>2 Sa</b>	0324	*	<b>17 Su</b>	0134	0337	0.5E			
	0240	0611	1.0F		0829	1156	1.0E		0626	0.7F		0621	0.8F		0802	0.7F		0542	0854	1.0F			
	0943	1325	0.9E		1549	1850	0.8F		1423	1.1E		0925	1357		1.5E	1513		1.4E	1146	1542	1.7E		
	1658	1953	0.6F		2212				1823	2140		0.9F	1759		2118	1.2F		1904	2221	1.2F	1910	2220	1.5F
<b>3 M</b>		0118	0.3E	<b>18 Tu</b>	0219	0557	1.0F	<b>3 Th</b>	0258	*	<b>18 F</b>	0248	*	<b>3 Su</b>	0224	0401	0.3E	<b>18 M</b>	0153	0418	0.8E		
	0315	0657	0.9F		0911	1304	1.3E		0728	0.7F		0739	0.9F		0538	0859	0.9F		0642	0949	1.2F		
	1017	1421	1.1E		1706	2017	1.0F		1028	1509		1.3E	1035		1500	1.7E	1151		1551	1.5E	1246	1625	1.7E
	1803	2104	0.8F						1906	2223		1.1F	1852		2207	1.4F	1936		2249	1.3F	1945	2251	1.6F

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

If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.

\* Current weak and variable.

# Tampa Bay (Sunshine Skyway Bridge), Florida, 2017

F—Flood, Dir. 059° True E—Ebb, Dir. 238° True

October				November				December							
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum	
h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m
<b>1</b>		0252	*	<b>16</b>		<b>1</b>		<b>16</b>		<b>1</b>		<b>16</b>			
Su		0742	0.7F	M		W		Th		F		Sa			
	1024	1430	1.3E		1153	1524	1.3E		1228	1524	1.0E		0812	1120	1.2F
	1811	2132	1.2F		1831	2144	1.5F		1823	2132	1.3F		1644	*	1.1F
<b>2</b>		0116	0.5E	<b>17</b>		<b>2</b>		<b>17</b>		<b>2</b>		<b>17</b>			
M		0543	0.9F	Tu		Th		F		Sa		Su			
	1135	1517	1.4E		0105	0401	1.1E		0100	0443	1.6E		0042	0448	1.7E
	1847	2200	1.3F		0656	0954	1.2F		0818	1121	1.2F		0844	1155	1.2F
<b>3</b>		0128	0.8E	<b>18</b>		<b>3</b>		<b>18</b>		<b>3</b>		<b>18</b>			
Tu		0637	0.9F	W		F		Sa		Su		M			
	1235	1557	1.3E		0126	0435	1.3E		0119	0506	1.7E		0108	0509	1.7E
	1918	2225	1.4F		0740	1040	1.3F		0852	1158	1.3F		0915	1228	1.2F
<b>4</b>		0142	0.4E	<b>19</b>		<b>4</b>		<b>19</b>		<b>4</b>		<b>19</b>			
W		0723	1.0E	Th		Sa		Su		M		Tu			
	1329	1635	1.3E		0145	0504	1.5E		0138	0527	1.7E		0138	0535	1.8E
	1946	2249	1.4F		0820	1121	1.3F		0924	1233	1.2F		0946	1259	1.3F
<b>5</b>		0158	0.5E	<b>20</b>		<b>5</b>		<b>20</b>		<b>5</b>		<b>20</b>			
Th		0807	1.1F	F		Su		M		Tu		W			
	1421	1713	1.2E		0203	0530	1.6E		0202	0550	1.8E		0213	0607	1.9E
	2011	2314	1.4F		0857	1200	1.3F		0958	1309	1.2F		1019	1332	1.3F
<b>6</b>		0216	0.5E	<b>21</b>		<b>6</b>		<b>21</b>		<b>6</b>		<b>21</b>			
F		0851	1.5F	Sa		M		Tu		W		Th			
	1514	1751	1.0E		0221	0552	1.6E		0232	0620	1.8E		0253	0644	1.9E
	2035	2342	1.3F		0933	1238	1.3F		1035	1348	1.2F		1054	1408	1.3F
<b>7</b>		0239	0.6E	<b>22</b>		<b>7</b>		<b>22</b>		<b>7</b>		<b>22</b>			
Sa		0937	1.5F	Su		Tu		W		Th		F			
	1612	1831	0.8E		0241	0616	1.6E		0307	0703	2.0E		0338	0726	1.8E
	2057				1010	1317	1.2F		1120	1435	1.4F		1131	1447	1.3F
<b>8</b>		0306	0.6E	<b>23</b>		<b>8</b>		<b>23</b>		<b>8</b>		<b>23</b>			
Su		0937	1.5F	M		W		Th		F		Sa			
	1717	1913	0.5E		0306	0644	1.7E		0349	0740	1.8E		0428	0812	1.7E
	2118				1050	1400	1.1F		1200	1522	1.2F		1210	1528	1.3F
<b>9</b>		0045	1.2F	<b>24</b>		<b>9</b>		<b>24</b>		<b>9</b>		<b>24</b>			
M		0338	0.7E	Tu		Th		F		Sa		Su			
	1125	1437	1.3F		0045	0718	1.7E		0437	0830	0.9F		0523	0903	1.5E
	2002				1135	1451	1.1F		1247	1613	1.2F		1250	1609	1.3F
<b>10</b>		0123	1.1F	<b>25</b>		<b>10</b>		<b>25</b>		<b>10</b>		<b>25</b>			
Tu		0418	0.8E	W		F		Sa		Su		M			
	1229	1548	1.2F		0122	0759	1.6E		0532	0928	1.5E		0043	0347	0.8F
	2106				1227	1551	1.0F		1337	1704	1.2F		0627	0959	1.2E
<b>11</b>		0209	1.0F	<b>26</b>		<b>11</b>		<b>26</b>		<b>11</b>		<b>26</b>			
W		0505	0.9E	Th		Sa		Su		M		Tu			
	1341	1707	1.1F		0207	0851	1.5E		0638	1032	1.3E		0213	0502	0.7F
	2230				1325	1656	1.0F		1427	1755	1.2F		0747	1100	0.9E
<b>12</b>		0310	0.8F	<b>27</b>		<b>12</b>		<b>27</b>		<b>12</b>		<b>27</b>			
Th		0604	1.4E	F		Su		M		Tu		W			
	1456	1829	1.1F		0306	0707	1.3E		0802	1139	1.1E		0339	0628	0.7F
					1427	1805	1.0F		1516	1844	1.2F		0926	1207	0.7E
<b>13</b>		0010	*	<b>28</b>		<b>13</b>		<b>28</b>		<b>13</b>		<b>28</b>			
F		0433	0.6F	Sa		M		Tu		W		Th			
	0723	1203	1.3E		0421	0707	0.6F		0406	0653	0.7F		0454	0755	0.9F
	1605	1938	1.2F		1108	1208	1.1E		0937	1251	0.9E		1109	1321	0.4E
<b>14</b>		0138	0.6F	<b>29</b>		<b>14</b>		<b>29</b>		<b>14</b>		<b>29</b>			
Sa		0617	*	Su		Tu		W		Th		F			
	0904	1331	1.3E		0111	0549	0.6F		0517	0811	0.9E		0558	0904	1.1F
	1704	2030	1.3F		0827	1228	1.1E		1107	1357	0.8E		1244	1428	0.3E
<b>15</b>		0023	0.5E	<b>30</b>		<b>15</b>		<b>30</b>		<b>15</b>		<b>30</b>			
Su		0452	0.7F	M		W		Th		F		Sa			
	1037	1435	1.3E		0209	0720	0.4E		1644	2007	1.2F		0653	0256	1.7E
	1752	2110	1.4F		0425	0720	0.7F		1721	2041	1.2F		1002	1302	1.3F
					0959	1340	1.1E						1525	*	
					1709	2034	1.2F						2040	1.2F	
				<b>31</b>		<b>31</b>		<b>31</b>		<b>31</b>		<b>31</b>			
				Tu		W		Th		F		Su			
					0006	0251	0.7E						0341	1.9E	
					0535	0830	0.9F						1054	1.5F	
					1119	1437	1.1E						1616	*	
					1749	2105	1.3F						2124	1.3F	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.

# Old Tampa Bay Entrance (Port Tampa), Florida, 2017

F—Flood, Dir. 025° True    E—Ebb, Dir. 211° True

January				February				March																					
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum															
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots										
<b>1</b> Su		0359	0750	1.5E	<b>16</b> M		0504	0903	1.3E	<b>1</b> W		0012	0258	1.0F	<b>16</b> Th		0058	0340	0.8F	<b>1</b> W		0501	0808	1.1E	<b>16</b> Th		0541	0824	0.8E
		1211	1516	1.2F			1241	1538	1.2F			1238	1529	1.0F			1233	1526	0.9F			1121	1411	1.1F			1110	1404	1.0F
		1850	2104	0.6E			1901	2141	0.8E			1847	2155	0.9E			1831	2152	0.9E			1711	2037	1.1E			1654	2024	1.1E
		2318																											
<b>2</b> M		0449	0834	1.4E	<b>17</b> Tu		0027	0304	0.9F	<b>2</b> Th		0114	0357	0.9F	<b>17</b> F		0157	0443	0.7F	<b>2</b> Th		0003	0253	1.1F	<b>17</b> F		0029	0321	0.9F
		1248	1551	1.1F			0559	0938	1.1E			0659	0955	0.9E			0749	1016	0.6E			0602	0849	0.9E			0635	0900	0.6E
		1927	2150	0.6E			1314	1610	1.0F			1309	1601	0.9F			1255	1554	0.8F			1147	1439	1.0F			1130	1431	1.0F
							1934	2229	0.8E			1912	2238	0.9E			1853	2220	0.9E			1732	2108	1.1E			1715	2044	1.1E
<b>3</b> Tu		0019	0305	0.9F	<b>18</b> W		0130	0403	0.7F	<b>3</b> F		0225	0513	0.8F	<b>18</b> Sa		0308	0607	0.6F	<b>3</b> F		0104	0353	0.9F	<b>18</b> Sa		0121	0419	0.8F
		0546	0922	1.2E			0700	1018	0.9E			0818	1052	0.6E			0906	1111	0.4E			0712	0936	0.6E			0739	0943	0.5E
		1325	1627	1.0F			1344	1642	0.9F			1340	1640	0.8F			1924	2300	0.9E			1214	1511	0.9F			1155	1503	0.9F
		2001	2241	0.7E			2004	2321	0.8E			1941	2336	0.9E			1924	2300	0.9E			1800	2143	1.1E			1745	2114	1.1E

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.





# Old Tampa Bay Entrance (Port Tampa), Florida, 2017

F—Flood, Dir. 025° True    E—Ebb, Dir. 211° True

October				November				December															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots				
<b>1</b> Su	0059	0311	0.4E	<b>16</b> M	0115	0409	0.8E	<b>1</b> W	0102	0420	1.1E	<b>16</b> Th	0127	0520	1.3E	<b>1</b> F	0026	0435	1.3E	<b>16</b> Sa	0058	0550	1.3E
	0525	0800	0.6F		0652	0936	0.8F		0721	1005	1.0F		0832	1119	1.1F		0803	1054	1.2F		0908	1159	1.1F
	1047	1545	1.0E		1231	1641	1.2E		1303	1619	1.0E		1432	1719	0.7E		1410	1637	0.6E		1530	1731	0.4E
	1911	2220	1.1F		1935	2236	1.3F		1926	2224	1.1F		1953	2246	1.0F		1905	2203	1.0F		1933	2225	0.8F
<b>2</b> M	0131	0406	0.7E	<b>17</b> Tu	0146	0454	1.1E	<b>2</b> Th	0127	0501	1.2E	<b>17</b> F	0149	0558	1.4E	<b>2</b> Sa	0055	0515	1.4E	<b>17</b> Su	0117	0623	1.3E
	0635	0915	0.8F		0748	1034	1.0F		0813	1100	1.2F		0915	1204	1.2F		0855	1148	1.3F		0947	1243	1.2F
	1205	1624	1.1E		1335	1716	1.1E		1407	1702	0.9E		1522	1751	0.6E		1515	1724	0.5E		1614	1805	0.4E
	1947	2251	1.2F		2009	2307	1.3F		1958	2250	1.1F		2018	2306	1.0F		1940	2239	1.1F		2001	2254	0.9F
<b>3</b> Tu	0200	0451	0.9E	<b>18</b> W	0213	0534	1.3E	<b>3</b> F	0150	0536	1.4E	<b>18</b> Sa	0205	0629	1.3E	<b>3</b> Su	0126	0551	1.5E	<b>18</b> M	0140	0643	1.3E
	0733	1016	1.0F		0836	1122	1.1F		0902	1151	1.3F		0955	1249	1.2F		0945	1242	1.3F		1023	1324	1.2F
	1311	1658	1.2E		1429	1747	1.1E		1507	1743	0.8E		1608	1822	0.5E		1615	1812	0.5E		1653	1841	0.3E
	2020	2317	1.2F		2039	2332	1.2F		2028	2318	1.1F		2039	2328	1.0F		2015	2317	1.1F		2031	2328	0.9F

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.





# Johns Pass Entrance, Florida, 2017

F—Flood, Dir. 053° True    E—Ebb, Dir. 222° True

April				May				June											
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum					
	h	m	knots		h	m	knots		h	m	knots		h	m	knots				
<b>1</b> Sa	0423	0635	0.4E	<b>16</b> Su	0103	0.3F	<b>1</b> M	0202	0.4F	<b>16</b> Tu	0418	0635	0.3E	<b>1</b> Th	0155	*			
	0840	1120	0.5F		1113	*		0715	*		0501	0.4F	1018		0.5E	<b>16</b> F	0451	0828	0.6E
	1418	1939	1.7E		1939	1.3E		1154	0.3F		1149	*	1416		*		1406	*	
	2341				2357			2006	1.6E		1937	1.2E	2133		0.9E		2037	0.9E	
<b>2</b> Su	0234	0.4F	<b>17</b> M	0200	0.3F	<b>2</b> Tu	0011	0.3F	<b>17</b> W	2352	<b>2</b> F	0245	*	<b>17</b> Sa	0036		0.3F		
	0725	*		0642	*		0829	*		0500		0.3E	1123		0.7E	0531	0.9E		
	1213	0.4F		1004	*		1302	*		1301		*	1551		*	1522	*		
	1459	1.6E		1103	*		2107	1.4E		2024		1.1E	2251		0.8E	2147	0.8E		
<b>3</b> M	0045	0.4F	<b>18</b> Tu	0047	0.3F	<b>3</b> W	0109	0.4F	<b>18</b> Th	0041	0.3F	<b>3</b> Sa	0332	*	<b>18</b> Su	0127	0.3F		
	0840	*		0724	*		1102	0.3E		0544	0.3E		1211	0.9E		0618	1.1E		
	1319	0.3F		1021	*		1421	*		1420	*		1703	*		1444	1.6E		
	1547	1.5E		1151	*		2216	1.2E		2124	1.0E					1927	2.5E		

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.  
 † See page 188 for the remaining currents on this day.





St. Andrew Bay Entrance, Florida, 2017

F—Flood, Dir. 046° True E—Ebb, Dir. 225° True

Table with 3 main columns: January, February, and March. Each column contains tide data for days 1-31, including Slack and Maximum times and heights in feet and meters, and current speeds in knots.

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern. \* Current weak and variable. † See page 188 for the remaining currents on this day.



# St. Andrew Bay Entrance, Florida, 2017

F—Flood, Dir. 046° True E—Ebb, Dir. 225° True

July				August				September																
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum											
h m	h m	h m	knots	h m	h m	h m	knots	h m	h m	h m	knots	h m	h m	h m	knots									
<b>1</b> Sa	0715	0956 1258 1732	0.8F * 0.6E	<b>16</b> Su	0556	0826 1244 1520 1655†	0.9F 0.6E * *	<b>1</b> Tu	0534 1747	1129 15E	1.5F	<b>16</b> W	0458 1640	1013 1954 2304	1.3F 1.9E 1.4F 1.0F	<b>1</b> F	0547 1727	1202 2029	1.6E 1.1F	<b>16</b> Sa	0623 1741	1149 2036	2.1E 1.5F	
	2114	0149 1050 1436 1609	1.2F 1.1E 0.4E 0.5E	<b>17</b> M	0606 1653	0944 1916 2110	1.1E 0.4F 0.4F	<b>2</b> W	0612 1808	1204 1.6F 1.7E		<b>17</b> Th	0553 1733	1116 2035 2355	2.2E 1.6F 1.1F	<b>2</b> Sa	0643 1750	1217 2052	1.7E 1.2F	<b>17</b> Su	0745 1820	1235 2110	1.9E 1.2F	
<b>3</b> M	0706 1847	0219 1136	1.5F 1.5E	<b>18</b> Tu	0623 1719	0214 1040 2007 2247	1.3F 1.7E 1.0F 0.8F	<b>3</b> Th	0654 1832	1240 1.7F 1.8E		<b>18</b> F	0659 1821	1212 2119	2.4E 1.6F	<b>3</b> Su	0739 1808	1234 2122	1.8E 1.2F	<b>18</b> M	0853 1834	1317 2142	1.7E 0.9F	
<b>4</b> Tu	0723 1853	0252 1219	1.7F 1.8E	<b>19</b> W	0651 1800	0246 1132 2058 2356	1.5F 2.1E 1.4F 1.1F	<b>4</b> F	0736 1855	1308 2212	1.9E 1.1F	<b>19</b> Sa	0802 1905	1301 2204	2.5E 1.5F	<b>4</b> M	0832 1821	1304 2155	1.8E 1.1F	<b>19</b> Tu	0957 1752	1358 2207	1.3E 0.6F	
<b>5</b> W	0746 1914	0326 1258	1.9F 2.0E	<b>20</b> Th	0730 1844	0323 1224 2152	1.8F 2.5E 1.6F	<b>5</b> Sa	0816 1916	1328 2232	2.0E 1.2F	<b>20</b> Su	0858 1945	1348 2246	2.4E 1.4F	<b>5</b> Tu	0925 1830	1344 2227	1.8E 1.0F	<b>20</b> W	1106 1730	1438 1931	0.9E 0.6F	
<b>6</b> Th	0814 1937	0403 1332	1.9F 2.1E	<b>21</b> F	0815 1928	0052 0408 1315 2245	1.3F 1.9F 2.7E 1.8F	<b>6</b> Su	0855 1932	1348 2301	2.2E 1.3F	<b>21</b> M	0950 2014	1434 2322	2.2E 1.1F	<b>6</b> W	1022 1836	1431 2251	1.6E 0.7F	<b>21</b> Th	1226 1717 2339	1516 1949	0.9E 1.0F	
<b>7</b> F	0844 2000	0449 1402	1.9F 2.2E	<b>22</b> Sa	0902 2013	0145 0506 1405 2331	1.3F 2.0F 2.8E 1.8F	<b>7</b> M	0935 1944	1418 2333	1.6F 1.3F	<b>22</b> Tu	1040 1950	1516 2353	1.9E 0.8F	<b>7</b> Th	1129 1840	1522 2049	1.3E 0.7F	<b>22</b> F	1544 2013	* 1.3F		
<b>8</b> Sa	0917 2021	0545 1425	1.8F 2.3E	<b>23</b> Su	0949 2056	0239 0609 1455	1.3F 2.1F 2.8E	<b>8</b> Tu	1016 1953	1458 2.2E		<b>23</b> W	1126 1914	1551 2049	1.5E 0.4F	<b>8</b> F	1258 1842	1609 2057	1.0E 0.8F	<b>23</b> Sa	1226 1334 1601† 1727†	1516 1949	0.9E 1.0F	
<b>9</b> Su	0950 2039	0003 0247 0635	1.4F 1.3F 1.8F	<b>24</b> M	1034 2133	0013 0331 0703	1.6F 1.0F 2.1F	<b>9</b> W	1059 2000	1539 2.1E		<b>24</b> Th	1205 1900	1615 2102	1.1E 0.7F	<b>9</b> Sa	1455 1833	1650 2115	0.5E 1.0F	<b>24</b> Su	1452 1613† 1727†	1949	0.5F 0.5F	
<b>10</b> M	1025 2055	0029 0346 0716	1.5F 1.1F 1.8F	<b>25</b> Tu	1115 2142	0051 0416 0749	1.4F 2.0F 2.4E	<b>10</b> Th	1141 2006	1618 1.9E		<b>25</b> F	1224 1844	1629 2128	0.6E 1.0F	<b>10</b> Su	1439 1727†	1639 2115	0.6F *	<b>25</b> M	1613† 1727†	2013	1.5F	
<b>11</b> Tu	1101 2111	0101 0423 0751	1.5F 1.0F 1.8F	<b>26</b> W	1150 2052	0126 0454 0832	1.2F 0.4F 1.7F	<b>11</b> F	1223 2010	1655 2242	1.4E 0.6F	<b>26</b> Sa	1224 1556	1629 2128	0.6E 1.0F	<b>11</b> M	1439 1727†	1639 2115	0.6F *	<b>26</b> Tu	1613† 1727†	2013	1.5F	
<b>12</b> W	1137 2126	0136 0454 0826	1.4F 0.7F 1.6F	<b>27</b> Th	1216 2031	0156 0529 0918	0.9F * 1.2F	<b>12</b> Sa	1223 2010	1655 2242	1.4E 0.6F	<b>27</b> Su	1224 1556	1629 2128	0.6E 1.0F	<b>12</b> Tu	1439 1727†	1639 2115	0.6F *	<b>27</b> W	1613† 1727†	2013	1.5F	
<b>13</b> Th	1213 2140	0210 0527 0903	1.3F 0.5F 1.3F	<b>28</b> F	1229 2108†	0007 0218 0606	0.5F 0.7F *	<b>13</b> Su	1223 2010	1655 2242	1.4E 0.6F	<b>28</b> M	1224 1556	1629 2128	0.6E 1.0F	<b>13</b> W	1439 1727†	1639 2115	0.6F *	<b>28</b> Th	1613† 1727†	2013	1.5F	
<b>14</b> F	1247 2150	0240 0605 0950	1.2F * 0.9F	<b>29</b> Sa	1334 2242	0007 0218 0606	0.5F 0.7F *	<b>14</b> M	1223 2010	1655 2242	1.4E 0.6F	<b>29</b> Tu	1224 1556	1629 2128	0.6E 1.0F	<b>14</b> Th	1439 1727†	1639 2115	0.6F *	<b>29</b> F	1613† 1727†	2013	1.5F	
<b>15</b> Sa	1313 2153	0303 0657 1058	1.0F * 0.4F	<b>30</b> Su	1334 2242	0007 0218 0606	0.5F 0.7F *	<b>15</b> Tu	1223 2010	1655 2242	1.4E 0.6F	<b>30</b> W	1224 1556	1629 2128	0.6E 1.0F	<b>15</b> F	1439 1727†	1639 2115	0.6F *	<b>30</b> Sa	1613† 1727†	2013	1.5F	
		0657 1058	0.4F 1.0E	<b>31</b> M	1334 2242	0007 0218 0606	0.5F 0.7F *	<b>16</b> Th	1223 2010	1655 2242	1.4E 0.6F	<b>31</b> Th	1224 1556	1629 2128	0.6E 1.0F									

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.  
 † See page 188 for the remaining currents on this day.

# St. Andrew Bay Entrance, Florida, 2017

F—Flood, Dir. 046° True    E—Ebb, Dir. 225° True

October				November				December															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots												
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m												
<b>1</b> Su	0535 1558	1039 1956	0.9F 1.5E 1.2F	<b>16</b> M	0709 1530 2244	1154 2010	0.9F 1.2E 0.9F	<b>1</b> W	0302 0823 1425 2154	0442 1137 1754	0.3F 0.7E 0.9F	<b>16</b> Th	0648 2108	0107 1007 1052 1655	1.7E 0.4F 0.4F 1.5F	<b>1</b> F	0619 2053	0932 1226 1653	0.8F 0.5F 1.5F	<b>16</b> Sa	0745 2056	1659	2.0F
<b>2</b> M	0647 1616	0023 0349 1128 2021	* 0.8F 1.4E 1.1F	<b>17</b> Tu	0236 0855 1513 2228	0441 1233 2014	0.7F 0.8E 0.6F	<b>2</b> Th	0425 2153	0841 0131	0.4F 1.7E	<b>17</b> F	0724 2124	0148 1740	2.0E 1.7F	<b>2</b> Sa	0656 2113	0111 1043 1340 1736	2.3E 1.3F 0.9F 1.6F	<b>17</b> Su	0816 2126	1752	2.0F
<b>3</b> Tu	0810 1632 2326	0051 0452 1219 2039	* 0.8F 1.3E 0.9F	<b>18</b> W	0405 1043 1456 2215	0604 1309 1759	0.5F 0.3E 0.9F	<b>3</b> F	0538 2153	1019 0131	0.7F 1.7E	<b>18</b> Sa	0806 2149	0230 1825	2.2E 1.9F	<b>3</b> Su	0743 2143	1143 1456 1822	1.6F 1.2F 1.8F	<b>18</b> M	0845	1316 1453 1840	1.4F 1.4F 2.0F
<b>4</b> W	0936 1644 2322	0122 0607 1311 1948	0.5E 0.8F 1.1E 0.8F	<b>19</b> Th	0529 ●	0721 0858 0955 1342†	0.5F 0.4F 0.4F	<b>4</b> Sa	0638 2206	1135 1503 1858	1.1F 0.6F 1.5F	<b>19</b> Su	0851 2220	0311 1903	2.4E 2.0F	<b>4</b> M	0839 2221	1238 1600 1904	1.9F 1.4F 2.0F	<b>19</b> Tu	0912 2230	1310 1600 1918	1.5F 1.3F 1.9F
<b>5</b> Th	1120 1653 2319	0157 0440 1120 1653 2319	0.9E 0.9F 0.7E 0.9F	<b>20</b> F	0638 2222	1137 1416 1904	0.6F 0.5F 1.5F	<b>5</b> Su	0739 2235	1241 1608 1928	1.5F 0.9F 1.7F	<b>20</b> M	0936 2251	0342 1404 1606 1937	2.4E 1.3F 1.3F 2.0F	<b>5</b> Tu	0941 2303	1331 1645 1943	2.0F 1.4F 2.1F	<b>20</b> W	0934 2302	1334 1637 1951	1.5F 1.2F 1.8F
<b>6</b> F	1317 1653 2306	0237 0759 1317 1653 2306	1.4E 0.8F 0.3E 1.1F	<b>21</b> Sa	0740 2248	1300 1503 1935	0.8F 0.7F 1.7F	<b>6</b> M	0858 2312	1343 1655 1959	1.7F 1.1F 1.8F	<b>21</b> Tu	1016 2323	0401 1420 1643 2005	2.4E 1.4F 1.3F 1.9F	<b>6</b> W	1039 2346	1418 1724 2021	2.0F 1.4F 2.0F	<b>21</b> Th	0952 2333	1403 1706 2019	1.5F 1.1F 1.6F
<b>7</b> Sa	1418 1607†	0320 0846 1019 1221 1607†	1.8E 0.7F 0.6F 0.8F	<b>22</b> Su	0858 2320	1413 1550 2003	0.9F 0.9F 1.8F	<b>7</b> Tu	1039 2355	1438 1736 2030	1.9F 1.3F 1.9F	<b>22</b> W	1051 2355	0420 1447 1714 2028	2.4E 1.5F 1.2F 1.7F	<b>7</b> Th	1130 2102	1500 1804 2102	1.9F 1.3F 1.8F	<b>22</b> F	1008 2047	1433 1736 2047	1.5F 0.9F 1.4F
<b>8</b> Su	1749 2336	0402 1340 1652 2028	2.1E 1.1F 0.5F 1.4F	<b>23</b> M	1047 2353	1452 1621 2029	1.1F 1.0F 1.8F	<b>8</b> W	1154	0509 1527 1823 2105	2.8E 1.9F 1.4F 1.7F	<b>23</b> Th	1120	0446 1516 1749 2041	2.3E 1.5F 1.2F 1.4F	<b>8</b> F	0028 1209	0532 1538 1903 2153	2.5E 1.7F 1.1F 1.3F	<b>23</b> Sa	0004 1023	0459 1503 1815 2117	2.3E 1.5F 0.7F 1.0F
<b>9</b> M	1925 2054	0443 1446 1733 2054	2.4E 1.4F 0.9F 1.5F	<b>24</b> Tu	1150	1525 1651 2049	1.2F 1.1F 1.6F	<b>9</b> Th	1250	0548 1616 2006 2152	2.5E 1.8F 1.4F 1.4F	<b>24</b> F	1144	0516 1547 1850 1955	2.2E 1.5F 1.1F 1.1F	<b>9</b> Sa	0109 1219	0602 1613 2048 2307	2.0E 1.4F 0.6F 0.8F	<b>24</b> Su	0036 1037	0533 1529 1919 2211	2.0E 1.3F 0.5F 0.6F
<b>10</b> Tu	2124	0016 1210 1545 1821 2124	2.4E 1.6F 1.2F 1.5F	<b>25</b> W	0028 1233	0507 1600 1726 2047	2.0E 1.2F 1.2F 1.4F	<b>10</b> F	0134 1333 ●	0631 1706 2143 2319	2.1E 1.7F 1.0F 1.0F	<b>25</b> Sa	1202	0552 1619	2.0E 1.5F	<b>10</b> Su	0149 1152	0629 1644 2156	1.4E 1.1F *	<b>25</b> M	0107 1048	0610 1546 2122	1.6E 1.2F *
<b>11</b> W	2207	0105 1323	2.3E 1.7F 1.4F 1.4F	<b>26</b> Th	0106 1304	0537 1640 1821 1936	1.9E 1.3F 1.2F 1.3F	<b>11</b> Sa	0231 1354	0730 1752 2227	1.7E 1.5F 0.4F	<b>26</b> Su	1216	0633 1651 2251	1.7E 1.4F *	<b>11</b> M	0220 1130 2019	0039 0652 1656 2244	0.3F 0.9E 0.9F 0.7E	<b>26</b> Tu	1055 1922	0500 0653 1505 2206	* 1.0E 1.1F 0.6E
<b>12</b> Th	2343	0206 1418	2.0E 1.7F 1.1F 1.2F	<b>27</b> F	0149 1326	0615 1722	1.8E 1.4F	<b>12</b> Su	0327 1341	0059 0913 1826 2307	0.7F 1.3E 1.2F *	<b>27</b> M	1227	0027 0731 1719 2259	0.3F 1.3E 1.2F *	<b>12</b> Tu	1058 2001	0210 0515 1443 2328	* 0.4E 1.1F 1.3E	<b>27</b> W	1044 0600	0204 0446 0619 0806 1453†	* 0.4E 0.3E 0.4E 1.2F
<b>13</b> F	2250	0313 1505	1.8E 1.7F 0.8F	<b>28</b> Sa	0239 1342	0706 1801 2326	1.6E 1.4F 0.5F	<b>13</b> M	0417 1322 2127	0222 1009 1849 2347	0.5F 0.9E 0.9F 0.8E	<b>28</b> Tu	1234 2045	0214 0850 1610 2323	* 0.9E 1.1F 0.8E	<b>13</b> W	0716 1959	0324 0455 1506	0.3E 0.4E 1.5F	<b>28</b> Th	1932	0743 0944 1509 2326	0.3F * 1.4F 1.8E
<b>14</b> Sa	2327	0420 1544	1.1F 1.7E 1.5F 0.4F	<b>29</b> Su	0333 1356	0824 1833 2336	0.5F 1.4E 1.3F *	<b>14</b> Tu	0214 1303	0327 0613 0707 1047 1553†	0.3F * * 0.4E 0.9F	<b>29</b> W	1231 0619	0324 0548 0713 1000 1603†	* * * 0.5E 1.2F	<b>14</b> Th	0658 2009	0011 1537	1.7E 1.8F	<b>29</b> F	1950	0839 1110 1535	0.8F 0.7F 1.6F
<b>15</b> Su	1558	0530 1558	1.0F 1.5E 1.2F	<b>30</b> M	0428 1408 2216	0937 1859 2357	1.3E 1.2F 0.3E	<b>15</b> W	0439 0601 0826 1111†	0027 0439 * *	1.3E * * *	<b>30</b> Th	2045	0822 1108 1621	0.3F * 1.3F	<b>15</b> F	0717 2029	0053 1613	2.1E 1.9F	<b>30</b> Sa	0634 2018	0939 1230 1611	1.3F 1.0F 1.8F
				<b>31</b> Tu	0139 0534 1418 2156	0334 1036 1914	0.4F 1.0E 1.0F													<b>31</b> Su	0714 2054	0059 1038 1335 1700	2.6E 1.6F 1.3F 1.9F

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.  
 † See page 188 for the remaining currents on this day.





# Mobile Bay Entrance, Alabama, 2017

F—Flood, Dir. 025° True    E—Ebb, Dir. 190° True

April				May				June																	
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots										
	h	m		h	m	h	m		h	m		h	m	h	m										
<b>1</b> Sa	0154	0633	1.5F	<b>16</b> Su	0142	0658	1.5F	<b>1</b> M	0218	0656	1.8F	<b>16</b> Tu	0148	0709	1.7F	<b>1</b> Th	0231	0641	1.0F	<b>16</b> F	0117	0722	0.9F		
	1431	1900	1.7E		1414	1915	1.6E		1450	1911	1.8E		1404	1922	1.6E		1419	1841	0.9E		1242	1847	0.8E		
<b>2</b> Su	0259	0749	1.7F	<b>17</b> M	0244	0757	1.5F	<b>2</b> Tu	0313	0745	1.6F	<b>17</b> W	0228	0758	1.4F	<b>2</b> F	0201	0610	0.7F	<b>17</b> Sa	0048	0509	0.6F		
	1539	1958	1.7E		1522	2007	1.5E		1546	1945	1.5E		1444	1958	1.3E		1122	1845	0.7E		1151	1631	0.5E		
<b>3</b> M	0403	0857	1.7F	<b>18</b> Tu	0344	0854	1.5F	<b>3</b> W	0403	0822	1.2F	<b>18</b> Th	0300	0843	1.1F	<b>3</b> Sa		0011	0.3F	<b>18</b> Su		0817	1455	0.6F	
	1642	2057	1.6E		1624	2101	1.4E		1634	2006	1.1E		1513	2020	1.0E			0127	*			2006		0.7E	
<b>4</b> Tu	0506	0953	1.6F	<b>19</b> W	0442	0946	1.3F	<b>4</b> Th		0050	0.8E	<b>19</b> F	0316	0922	0.8F	<b>4</b> Su		0550	0.6F	<b>19</b> M		0734	1431	1.0E	
	1741	2156	1.4E		1719	2159	1.2E		0446	0849	0.9F		1513	2022	0.6E			1336	0.5E			1946		0.8F	
<b>5</b> W	0607	1034	1.3F	<b>20</b> Th	0538	1035	1.1F	<b>5</b> F		0017	0.4E	<b>20</b> Sa	0308	0657	0.3F	<b>5</b> M		1547†	0.5E	<b>20</b> Tu		0747	1315	1.5E	
	1835	2257	1.1E		1811	2309	1.0E		0516	0902	0.5F			0755	0.3F			1547†	0.5E			2008		1.2F	
<b>6</b> Th	0705	1100	1.0F	<b>21</b> F	0636	1121	0.9F	<b>6</b> Sa		1342	*	<b>21</b> Su	0016	0513	0.3F	<b>6</b> Tu		1547†	0.5E	<b>6</b> W		0819	1342	2.0E	
	1926	1342	0.9F		1903					1546†	*		0838	1518	0.3E			1547†	0.5E			2046		0.045	
<b>7</b> F	0800	1245	0.8F	<b>22</b> Sa	0748	1208	0.6F	<b>7</b> Su		1546†	*	<b>22</b> M		0757	0.7E	<b>7</b> W		1547†	0.5E	<b>22</b> Th		0901	1423	2.4E	
	2013	1654	0.8F		2009	0040	0.7E		0916	1350	0.6E		2016	1329	0.7E			1547†	0.5E			2131		0.125	
<b>8</b> Sa	0856	1406	0.6E	<b>23</b> Su	0808	1417	0.8E	<b>8</b> M		1701†	*	<b>23</b> Tu		0008	0.5F	<b>8</b> Th		1701†	0.5E	<b>23</b> F		0948	1506	2.6E	
		1752†	0.5F			0243	0.4E		0838	1411	0.9E		0757	1329	0.7E			1701†	0.5E			2219		0.211	
<b>9</b> Su	0916	1438	0.3F	<b>24</b> M	0908	1417	0.8E	<b>9</b> Tu		1701†	*	<b>24</b> W		0322	0.4F	<b>9</b> F		1701†	0.5E	<b>24</b> Sa		1037	2307	2.6E	
		1849†	0.3F			0432	*		0843	1439	1.3E		2016	0458	0.4F			1701†	0.5E			2307		0.257	
<b>10</b> M	1052	1510	0.5E	<b>25</b> Tu	0808	1417	0.8E	<b>10</b> W		1701†	*	<b>25</b> Th		0757	1329	0.7E	<b>10</b> Sa		1701†	0.5E	<b>25</b> Su		1123	1628	2.4E
		1951†	*			0625	*		0910	1512	1.5E		2130	0458	0.4F			1701†	0.5E			2351		0.341	
<b>11</b> Tu	0748	1543	0.8E	<b>26</b> W	0922	1509	1.3E	<b>11</b> Th		1701†	*	<b>26</b> F		0038	1.0F	<b>11</b> Su		1701†	0.5E	<b>26</b> M		1205	1659	2.1E	
		1849†	0.3F			0159	1.1F		0948	1549	1.8E		2220	0038	1.0F			1701†	0.5E			2159		0.419	
<b>12</b> W	0916	1618	1.0E	<b>27</b> Th	1030	1600	1.7E	<b>12</b> F		1701†	*	<b>27</b> Sa		1346	1.3E	<b>12</b> Tu		1701†	0.5E	<b>27</b> W		1252	1722	1.3E	
		1849†	0.3F			0257	1.5F		0948	1549	1.8E		2220	1346	1.3E			1701†	0.5E			2159		0.447	
<b>13</b> Th	1027	1657	1.3E	<b>28</b> F	1137	1651	2.0E	<b>13</b> Sa		1701†	*	<b>28</b> Su		0038	1.0F	<b>13</b> Tu		1701†	0.5E	<b>28</b> W		1252	1722	1.3E	
		1849†	0.3F			0357	1.8F		1128	1713	2.0E		2220	0038	1.0F			1701†	0.5E			2159		0.506	
<b>14</b> F	1140	1740	1.5E	<b>29</b> Sa	0020	0458	2.0F	<b>14</b> Su		1701†	*	<b>29</b> M		0458	2.0F	<b>14</b> W		1701†	0.5E	<b>29</b> Th		1231	1724	1.0E	
		1849†	0.3F			0102	0.6F		1223	1757	2.0E		2220	0458	2.0F			1701†	0.5E			2159		0.506	
<b>15</b> Sa	0040	0558	1.4F	<b>30</b> Su	0120	0559	2.0F	<b>15</b> M		1701†	*	<b>30</b> Tu		0526	2.1F	<b>15</b> Th		1701†	0.5E	<b>30</b> F		1029	1722	0.8E	
		1849†	0.3F			0102	0.6F		1223	1757	2.0E		2220	0526	2.1F			1701†	0.5E			2108		0.9F	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			0120	2.0F		1316	1841	1.8E		2220	0526	2.1F			1701†	0.5E			2108		0.8E	
		1849†	0.3F			012																			



# Mobile Bay Entrance, Alabama, 2017

F—Flood, Dir. 025° True    E—Ebb, Dir. 190° True

October				November				December															
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum										
	h	m	knots		h	m	knots		h	m	knots		h	m	knots								
<b>1</b> Su	0741	1303	1.1E	<b>16</b> M	0126	0436	0.5F	<b>1</b> W	0321	0604	*	<b>16</b> Th	0908	1347	1.2F	<b>1</b> F	0841	1308	1.6F	<b>16</b> Sa	0910	1354	2.0F
	2021				0749	1001	0.4E		0719	1210	0.3F		2058				2048				2114		
<b>2</b> M	0835	0047	1.0F	<b>17</b> Tu	0146	0541	0.4F	<b>2</b> Th	0824	1258	0.8F	<b>17</b> F	0925	1414	1.5F	<b>2</b> Sa	0917	0210	1.8E	<b>17</b> Su	0941	1430	2.1F
	2124	1417	0.9E		0959	1314	*		2028				2120				2129	1352	2.0F		2147		
<b>3</b> Tu	0937	0211	0.8F	<b>18</b> W	0219	0647	0.4E	<b>3</b> F	0911	1348	1.2F	<b>18</b> Sa	0951	1447	1.7F	<b>3</b> Su	1002	0251	2.2E	<b>18</b> M	1017	1511	2.2F
	2244	1526	0.7E		0926	1353	0.5F		2118				2149				2217	1439	2.3F		2225		
<b>4</b> W	1148	0538	0.5F	<b>19</b> Th	0254	0859	0.7E	<b>4</b> Sa	1002	0254	1.4E	<b>19</b> Su	1024	0334	1.9E	<b>4</b> M	1051	0335	2.4E	<b>19</b> Tu	1058	1556	2.2F
	1646	1646	0.4E		2049	1431	0.8F		2213	1439	1.6F		2226	1526	1.9F		2308	1529	2.5F		2306		
<b>5</b> Th	0138	0701	0.3F	<b>20</b> F	0328	1002	1.0E	<b>5</b> Su	1056	0340	1.8E	<b>20</b> M	1104	0413	2.0E	<b>5</b> Tu	1141	0420	2.5E	<b>20</b> W	1138	1641	2.1F
	0950	1305	0.3F		1510	2144	1.1F		2311	1534	1.9F		2310	1611	2.0F		1619	2.4F			2345		
<b>6</b> F	0637	0150	0.4E	<b>21</b> Sa	0402	1042	1.3E	<b>6</b> M	1152	0428	2.1E	<b>21</b> Tu	1149	0453	2.1E	<b>6</b> W	0000	0502	2.5E	<b>21</b> Th	1215	0519	2.1E
	2133	1426	0.6F		1552	2232	1.3F		1630	1630	2.1F		2357	1659	2.0F		1705	2.2F			1725		
<b>7</b> Sa	1103	0343	0.8E	<b>22</b> Su	0439	1125	1.5E	<b>7</b> Tu	0012	0516	2.2E	<b>22</b> W	1235	0536	2.1E	<b>7</b> Th	0049	0539	2.2E	<b>22</b> F	0017	0555	1.8E
	2313	1535	1.0F		1638	2324	1.5F		1729	1729	2.1F		1750	1750	1.9F		1744	1.9F			1805		
<b>8</b> Su	1213	0440	1.2E	<b>23</b> M	0519	1214	1.6E	<b>8</b> W	0114	0604	2.2E	<b>23</b> Th	0045	0618	1.9E	<b>8</b> F	0132	0606	1.8E	<b>23</b> Sa	0038	0624	1.5E
	1643	1643	1.3F		1729	1729	1.6F		1825	1825	2.0F		1840	1840	1.7F		1352	1812	1.5F		1257	1836	1.2F
<b>9</b> M	0034	0534	1.6E	<b>24</b> Tu	0602	0023	1.7E	<b>9</b> Th	0214	0647	2.0E	<b>24</b> F	0130	0657	1.7E	<b>9</b> Sa	0202	0617	1.3E	<b>24</b> Su	0038	0633	1.1E
	1317	1753	1.6F		1825	1308	1.6F		1915	1915	1.7F		1356	1927	1.4F		1819	1.0F			1248	1829	0.8F
<b>10</b> Tu	0148	0629	1.8E	<b>25</b> W	0648	0128	1.7E	<b>10</b> F	0310	0722	1.6E	<b>25</b> Sa	0204	0729	1.3E	<b>10</b> Su	0200	0621	0.9E	<b>25</b> M	0009	0618	0.8E
	1420	1904	1.7F		1922	1405	1.6F		1955	1955	1.4F		1421	2009	1.1F		1743	0.7F			1202	1640	0.7F
<b>11</b> W	0257	0724	1.8E	<b>26</b> Th	0736	0235	1.6E	<b>11</b> Sa	0400	0743	1.2E	<b>26</b> Su	0217	0745	1.0E	<b>11</b> M	0934	0619	0.7E	<b>26</b> Tu	0931	0353	0.6E
	1523	2011	1.8F		2019	1502	1.5F		2020	2020	0.9F		2042	2042	0.7F		1303	0.3F			2003	1556	0.7F
<b>12</b> Th	0402	0819	1.7E	<b>27</b> F	0825	0338	1.4E	<b>12</b> Su	0438	0752	0.8E	<b>27</b> M	0141	0742	0.6E	<b>12</b> Tu	2101	1153	0.3F	<b>27</b> W	0757	0253	0.8E
	1626	2111	1.6F		2112	1557	1.3F		2020	2020	0.5F		1755	1755	0.4F		1721	0.6F			1927	1545	0.9F
<b>13</b> F	0504	0912	1.5E	<b>28</b> Sa	0915	0436	1.2E	<b>13</b> M	0134	0321	*	<b>28</b> Tu	0032	0537	0.4E	<b>13</b> W	0832	0126	0.6E	<b>28</b> Th	0739	0232	1.0E
	1148	1448	1.4E		2201	1650	1.1F		0321	0756	0.5E		2032	1647	0.4F		1240	0.6E			1938	1224	1.2F
<b>14</b> Sa	0602	1000	1.1E	<b>29</b> Su	1009	0528	0.9E	<b>14</b> Tu	0133	0450	0.4E	<b>29</b> W	0833	0309	0.5E	<b>14</b> Th	0834	1216	0.8F	<b>29</b> F	0757	0124	1.4E
	1831	1158	1.1E		2245	1741	0.7F		0450	0736	0.3E		2003	1448	0.5F		2015	1429†	0.7F		2007	1233	1.7F
<b>15</b> Su	0657	0324	0.9F	<b>30</b> M	1134	0615	0.5E	<b>15</b> W	0139	0910	0.8E	<b>30</b> Th	0818	0153	0.8E	<b>15</b> F	0847	0124	1.0E	<b>30</b> Sa	0831	0128	1.9E
	1502†	1013	0.9F		2324	1833	0.4F		1324	2045	0.9F		2017	1233	1.1F		2047	1240	1.1F		2045	1309	2.1F
		1213	0.7E	<b>31</b> Tu	0934		*		2052								0135	1.6E			2129	0206	2.3E
		1502†	0.8E		1119		*										1325	1.7F				1352	2.4F
					1426		*																
					1801		*																
					2141†		*																

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (F) or (E) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 \* Current weak and variable.  
 † See page 188 for the remaining currents on this day.

# Calcasieu Pass, Louisiana 2017

F—Flood, Dir. 356° True    E—Ebb, Dir. 175° True

January				February				March																
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum											
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
<b>1</b> Su	1521	1913	1.9F	<b>16</b> M	0109	08E	*	<b>1</b> W	0124	1.2E	*	<b>16</b> Th	0555	0816	0.5F	<b>1</b> W	0318	0532	0.8F	<b>16</b> Th	0352	0645	0.9F	
	2353				0542	*			0652	*			1100	1347	0.5E		0754	1124	1.3E		1005	1232	0.6E	
					1212	2.1E			1215	1.3E			1644	1901	0.4F		1454	1717	0.8F		1537	1722	0.3F	
					1631	1.5F			1602	1.849	0.9F		2042				1927	2342	1.9E		1848	2345	2.1E	
					2248				2121															
<b>2</b> M		0324	0.8E	<b>17</b> Tu	0149	1.0E	*	<b>2</b> Th	0612	0806	0.5F	<b>17</b> F	0649	0935	0.7F	<b>2</b> Th	0404	0644	1.1F	<b>17</b> F	0446	0756	1.0F	
		0504	0.8E		0711	*			1014	1330	0.7E			1458	*		0944	1227	0.8E		1144	1339	0.3E	
		1116	2.1E		1311	1.5E			1636	1909	0.6F			1909	*		1535	1741	0.5F		1733		*	
	1601	1939	1.6F		1715	1.1F			2108								1927							
					2248																			
<b>3</b> Tu	0003	0326	0.9E	<b>18</b> W	0220	1.3E	*	<b>3</b> F	0650	0920	0.9F	<b>18</b> Sa	0743	0210	2.1E	<b>3</b> F	0458	0756	1.3F	<b>18</b> Sa	0542	0903	1.0F	
		0648	0.7E		0835	*			1304	1501	0.3E			1120	0.9F		1144	1349	0.4E		0903	1500	*	
		1205	1.7E		1416	0.9E			1710	1925	0.3F			1628	*		1802	*			1500	*		
	1638	1959	1.3F		1752	2020	0.7F		2104					1853	*						1729	*		
	2347				2240																			
<b>4</b> W		0330	1.1E	<b>19</b> Th	0249	1.6E	*	<b>4</b> Sa	0740	0239	2.3E	<b>19</b> Su	0837	0301	2.2E	<b>4</b> Sa	0559	0909	1.6F	<b>19</b> Su	0640	1029	1.1F	
		0809	0.3E		0810	1019	0.3F			1053	1.3F			1225	1.2F			1528	*		0640	1029	1.1F	
		1318	1.2E		1244	1525	0.5E			1645	*			1736				1813	*		1523			
	1715	2017	0.9F		1821	2036	0.4F			1937	*													
	2314				2226																			
<b>5</b> Th		0337	1.4E	<b>20</b> F	0323	1.9E	*	<b>5</b> Su	0837	0334	2.6E	<b>20</b> M	0927	0400	2.3E	<b>5</b> Su	0707	1038	1.8F	<b>20</b> M	0738	1148	1.4F	
		0930	0.7E		0852	1159	0.7F			1211	1.9F			1308	1.6F						1611			
		1449	0.7E		1648	*			1843	*				1739										
	1756	2037	0.6F		2049	*			1939	*														
	2252																							
<b>6</b> F		0352	1.8E	<b>21</b> Sa	0403	2.1E	*	<b>6</b> M	0936	0440	2.9E	<b>21</b> Tu	1010	0501	2.4E	<b>6</b> M	0818	0309	2.6E	<b>21</b> Tu	0834	0314	2.1E	
		0835	1.1E		1253	1.2F			1808	1305	2.4F			1343	1.9F			1200	2.1F		1643	1237	1.6F	
		1416	1.6E		1821	*								1800	2.126	0.5E								
		1846	2.102		2050	*								2331	0.4E									
	2251																							
<b>7</b> Sa		0422	2.3E	<b>22</b> Su	0449	2.4E	*	<b>7</b> Tu	1032	0545	3.1E	<b>22</b> W	1046	0553	2.6E	<b>7</b> Tu	0926	0440	2.7E	<b>22</b> W	0924	0425	2.1E	
		0907	1.5F		1332	1.6F			1841	1351	2.7F			1414	2.2F			1257	2.4F		1710	1312	1.9F	
		1614	1.750		2124	*				2111	0.4E			1826	2.123	0.7E		2105	0.5E		2049	08E		
		2146	0.3*		2228	*												2253	0.5E		2325	0.6E		
<b>8</b> Su		0503	2.9E	<b>23</b> M	0534	2.6E	*	<b>8</b> W		0006	*	<b>23</b> Th		0034	0.3E	<b>8</b> W	1026	0600	2.8E	<b>23</b> Th	1006	0526	2.2E	
		0950	2.2F		1406	1.9F			1122	0645	3.3E			0638	2.7E			1342	2.6F		1731	1339	2.1F	
		1732	1.906		2119	0.3E			1914	1434	2.9F			1442	2.3F			2103	0.7E		2039	0.9E		
		2304	0.3*		2352	*				2132	0.5E			1855	2.141	0.8E								
<b>9</b> M		0550	3.3E	<b>24</b> Tu	0617	2.8E	*	<b>9</b> Th		0104	*	<b>24</b> F		0119	*	<b>9</b> Th		0026	*	<b>24</b> F		0031	0.3E	
		1036	2.7F		1438	2.1F			1210	0743	3.4E			0720	2.8E			0703	2.9E		1044	0616	2.4E	
		1830	2.018		2138	0.4E			1945	1516	2.8F			1508	2.3F			1421	2.6F		1747	1401	2.1F	
														1921	2.204	0.9E		2116	0.8E		2048	2048	1.1E	
<b>10</b> Tu		0008	3.6E	<b>25</b> W	0042	2.9E	*	<b>10</b> F	0029	0153	0.3F	<b>25</b> Sa		0159	*	<b>10</b> F		0121	*	<b>25</b> Sa		0115	*	
		0638	3.0F		0657	2.9E			0306	0841	3.3E			0803	2.7E			0759	2.9E		1118	0700	2.4E	
		1438	3.0F		1511	2.3F			1256	1557	2.6F			1534	2.2F			1456	2.4F		1753	1420	2.0F	
		1923	2.118		1945	0.6E			2013	2229	0.7E			1942	2.228	1.0E		1843	2.132	0.9E		2101	2101	1.3E
<b>11</b> W		0059	3.7E	<b>26</b> Th	0122	2.9E	*	<b>11</b> Sa	0105	0242	0.4F	<b>26</b> Su		0242	2.5E	<b>11</b> Sa	0027	0207	0.5F	<b>26</b> Su	0025	0156	0.5F	
		0729	3.0F		0737	2.9E			0405	0935	3.0E			0850	2.5E			0346	0.8E		0440	0837	2.1E	
		1212	3.0F		1545	2.4F			1342	1638	2.2F			1600	1.9F			1527	2.0F		1151	1440	1.8F	
		2015	2.206		2026	0.7E			2036	2258	0.8E			1952	2.249	1.1E		1853	2.150	1.1E		1751	2114	1.5E
<b>12</b> Th	0017	0145	0.3F	<b>27</b> F	0200	2.9E	*	<b>12</b> Su	0154	0333	0.4F	<b>27</b> M	0206	0331	0.3F	<b>12</b> Su	0054	0253	0.7F	<b>27</b> M	0035	0239	0.9F	
	0254	0828	3.6E		0818	2.9E			0502	1024	2.6E			0448	0.940	2.2E		0450	0.936	2.4E		0440	0837	2.1E
	1302	1615	2.9F		1255	1621	2.3F		1428	1717	1.8F			1336	1625	1.5F		1323	1556	1.6F		1225	1501	1.4F
	2104	2250	0.4E		2106	2324	0.7E		2050	2327	1.0E			1948	2307	1.3E		1859	2208	1.3E		1743	2128	1.8E
<b>13</b> F		0232	3.4E	<b>28</b> Sa	0239	0.3E	*	<b>13</b> M	0254	0432	0.4F	<b>28</b> Tu	0238	0427	0.5F	<b>13</b> M	0130	0340	0.8F	<b>28</b> Tu	0100	0327	1.2F	
		0929	3.4E		0902	2.8E			0606	1109	2.1E			0612	1030	1.8E		0555	1017	2.0E		0557	0933	1.7E
		1355	1707		1656																			



# Calcasieu Pass, Louisiana 2017

F—Flood, Dir. 356° True    E—Ebb, Dir. 175° True

July				August				September																	
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum												
	h	m	knots		h	m	knots		h	m	knots		h	m	knots										
<b>1</b> Sa	0724	0945	0.7F	<b>16</b> Su	0520	0802	0.6F	<b>1</b> Tu	0557	1625	2.3E	<b>16</b> W	0743	1552	2.8E	<b>1</b> F	0547	0928	0.5E	<b>16</b> Sa	0536	0829	0.6E		
	1215	1625	1.6E	●	1012	1521	1.7E		2156				2103				1110	0.4E			1152	*			
	2124	2359	0.6F		2015	2238	0.6F										1741	2.4E			1828	2.8E			
<b>2</b> Su	0226	0517	0.6E	<b>17</b> M	0157	0350	0.3E	<b>2</b> W	0641	1716	2.5E	<b>17</b> Th	0614	1705	3.0E	<b>2</b> Sa	0603	0906	0.7E	<b>17</b> Su	0551	0837	0.8E		
	0831	1019	0.3F		0554	0812	0.3F		2236				2201				1228	0.3E			1259	*			
	1204	1655	1.9E		1001	1545	2.2E										1830	2.5E			1928	2.9E			
	2159				2042	2358	1.3F														2334	2.9E			
<b>3</b> M	0429	0648	0.4E	<b>18</b> Tu	0524	*		<b>3</b> Th	0648	0158	1.8F	<b>18</b> F	0625	0127	2.6F	<b>3</b> Su	0624	0228	2.2F	<b>18</b> M	0605	0857	1.1E		
		1056	*		0830	*				0951	0.3E			0902	0.3E			1315	*			1202	1350		
		1725	2.2E		1626	2.7E			2310	1129	*			1120	*			1914	2.6E			1536	2024		
	2232				2123					1804	2.6E			1812	3.2E							1536	2024		
<b>4</b> Tu	0557	0836	0.3E	<b>19</b> W	0049	1.9F		<b>4</b> F	0701	0230	2.1F	<b>19</b> Sa	0645	0208	2.8F	<b>4</b> M	0647	0253	2.2F	<b>19</b> Tu	0617	0920	1.3E		
		1135	*		0643	*				0942	0.4E			0859	0.4E			1357	*			1230	1438		
		1756	2.5E		0915	*			2341	1231	*			1238	*			1957	2.5E		●	1647	2116		
	2303				1716	3.2E				1848	2.8E			1912	3.4E							1647	2116		
<b>5</b> W	0655	0216	1.8F	<b>20</b> Th	0132	2.5F		<b>5</b> Sa	0725	0300	2.2F	<b>20</b> Su	0708	0249	2.8F	<b>5</b> Tu	0707	0317	2.1F	<b>20</b> W	0625	0942	1.5E		
		0929	0.3E		0752	*				0955	0.6E			0925	0.6E			1439	*			0625	0942		
		1212	*		1120	*				1315	*			1200	3.3E			2042	2.3E			1305	1526		
		1829	2.8E		1807	3.5E				1930	2.8E			1453	2.012	3.3E						1755	2203		
	2334				2258					0012	0.331	2.3F	<b>21</b> M	0030	0328	2.6F	<b>6</b> W	0044	0341	1.8F	<b>21</b> Th	0140	0358	1.2F	
<b>6</b> Th	0734	0249	2.0F	<b>21</b> F	0707	0215	2.9F	<b>6</b> Su	0755	0331	2.3F			0731	0956	0.8E		0719	1031	1.3E			0628	1004	
		0950	0.3E		1228	*				1024	0.7E			1234	1425	0.6F			1355	1524	0.4F			1346	1618
		1247	*		1900	3.7E				1356	*			1602	2111	3.1E		○	1651	2130	2.0E			1911	2248
		1904	2.9E		2346					2013	2.8E			●									1911	2248	
<b>7</b> F	0809	0322	2.1F	<b>22</b> Sa	0748	0936	0.4E	<b>7</b> M	0830	0403	2.2F	<b>22</b> Tu	0753	0408	2.3F	<b>7</b> Th	0717	0404	1.4F	<b>22</b> F	0624	1027	2.0E		
		1013	0.4E		1142	1321	0.3F			1058	0.8E			1319	1027	1.0E		1424	1615	0.6F			1432	1717	
		1321	*		1435	1958	3.7E		○	1438	*			1706	2204	2.8E		1807	2219	1.7E			2036	2334	
		1942	3.0E							2057	2.6E			1706	2204	2.8E							2036	2334	
<b>8</b> Sa	0847	0358	2.2F	<b>23</b> Su	0036	0346	3.0F	<b>8</b> Tu	0901	0117	0.436	2.1F	<b>23</b> W	0202	0446	1.9F	<b>8</b> F	0702	1103	1.6E	<b>23</b> Sa	0615	1052	2.1E	
		1048	0.5E		0828	1018	0.5E			0901	1135	0.9E			0811	1058	1.2E		1458	1714	0.8F			1523	1827
		1355	*	●	1228	1412	0.4F			1525	*			1413	1616	0.7F		1944	2310	1.2E			2204		
		2024	2.9E		1534	2101	3.6E			2142	2.4E			1816	2254	2.2E							2204		
<b>9</b> Su	0927	0439	2.2F	<b>24</b> M	0127	0435	2.7F	<b>9</b> W	0925	0153	0508	1.8F	<b>24</b> Th	0249	0523	1.4F	<b>9</b> Sa	0648	1115	1.9E	<b>24</b> Su	0501	0927	0.6E	
		1133	0.5E		0904	1101	0.6E			0925	1211	1.0E			0822	1127	1.4E		1538	1820	1.1F			0501	*
		1431	*		1327	1507	0.4F			2225	2.1E			1514	1722	0.6F		2131				1121	2.3E		
		2109	2.8E		1628	2203	3.3E							1941	2343	1.7E						1618	1940		
																						2342	1940		
<b>10</b> M	1008	0523	2.1F	<b>25</b> Tu	0220	0525	2.4F	<b>10</b> Th	0932	0229	0537	1.5F	<b>25</b> F	0335	0556	0.9F	<b>10</b> Su	0312	0008	0.8E	<b>25</b> M	0505	0134	0.3E	
		1230	0.6E		0935	1145	0.7E			0932	1241	1.1E			0825	1156	1.6E		0641	1134	2.2E			0505	*
		1511	0.5E		1444	1610	0.3F				1722	*			1615	1839	0.7F		1625	1930	1.3F			1155	2.3E
		2152	2.6E		1723	2259	2.8E				2309	1.7E			2117				2326				1716	2046	
																							1716	2046	
<b>11</b> Tu	1046	0610	2.0F	<b>26</b> W	0313	0615	2.0F	<b>11</b> F	0917	0306	0602	1.1F	<b>26</b> Sa	0419	0038	1.1E	<b>11</b> M	0125	0.3E	<b>26</b> Tu	0444	0256	*		
		1337	0.8E		0959	1229	0.9E				1300	1.2E			0623	0.5F		0516	*			0444	*		
		1603	0.7E			1722	*				1834	*			0819	1225	1.8E		1205	2.5E			1237	2.2E	
		2232	2.3E			2355	2.3E				2359	1.2E			1715	1958	0.8F		1721	2038	1.6F			1816	2201
																							1816	2201	
<b>12</b> W	1115	0649	1.9F	<b>27</b> Th	0405	0700	1.6F	<b>12</b> Sa	0848	0341	0621	0.8F	<b>27</b> Su	0456	0142	0.6E	<b>12</b> Tu	0300	*	<b>27</b> W	0520	0317	1.3E		
		1427	0.9E		1014	1312	1.1E				1308	1.5E			0642	0.3F		0520	*			1917	2322		
		1715	0.7E			1848	*				1748	0.5F			0806	1258	2.0E		1254	2.6E			●		
		2311	2.0E								2155				1815	2113	0.9F		1826	2155	1.7F			●	
																							●		
<b>13</b> Th	1129	0717	1.6F	<b>28</b> F	0455	0735	1.1F	<b>13</b> Su	0410	0105	0633	0.7E	<b>28</b> M	0255	*	<b>13</b> W	0451	1409	2.6E	<b>13</b> Th	0355	1449	2.0E		
		1453	1.0E		1020	1350	1.4E				0828	1.8E			0646	*		1937	2324	2.0F					
		1839	0.6E		1830	2013	0.3F				1820	2052	0.8F		1339	2.1E									
		2355	1.6E		2207										1915	2250	1.0F								
<b>14</b> F	1119	0736	1.3F	<b>29</b> Sa	0542	0801	0.7F	<b>14</b> M	0819	0039	0231	0.3E	<b>29</b> Tu	0652	1431	2.1E	<b>14</b> Th	0504	1544	2.6E	<b>29</b> F	0419	0016	1.5F	
		1507	1.1E		1013	1423	1.6E				0431	0.3F			2015				</						

# Calcasieu Pass, Louisiana 2017

F—Flood, Dir. 356° True    E—Ebb, Dir. 175° True

October				November				December																
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum											
	h	m	knots		h	m	knots		h	m	knots		h	m	knots									
<b>1</b> Su	0501	0809	1.9F	<b>16</b> M	0444	0756	1.3E	<b>1</b> W	0350	0730	1.9E	<b>16</b> Th	0325	0737	2.3E	<b>1</b> F	0200	0638	2.9E	<b>16</b> Sa	1214	1528	2.1F	
	1229	030E	2.1E		1133	1320	0.6F		1132	1345	1.0F		1200	1454	1.8F		1109	1412	2.2F		2019	2224	0.4E	
	1806	2.1E			1508	1935	2.2E		1610	1920	1.4E		1829	2130	0.9E		1802	2010	0.6E					
	2228				2320				2258				2257											
<b>2</b> M	0516	0825	2.0F	<b>17</b> Tu	0452	0814	1.6E	<b>2</b> Th	0341	0739	2.3E	<b>17</b> F	0028	0155	0.4F	<b>2</b> Sa	0217	0705	3.4E	<b>17</b> Su	1247	1606	2.0F	
	1231	1353	0.5F		1151	1405	1.0F		1145	1423	1.6F		0318	0754	2.6E		1142	1455	2.7F		2110	2254	0.3E	
	1852	2.2E			1628	2030	2.0E		1723	2015	1.2E		1229	1532	1.9F		1913	2112	0.5E					
	2302				2320				2333				1939	2212	0.7E		2331							
<b>3</b> Tu	0204	0842	1.9F	<b>18</b> W	0003	0222	1.4F	<b>3</b> F	0337	0753	2.7E	<b>18</b> Sa	0211	*		<b>3</b> Su	0243	0741	3.7E	<b>18</b> M	1322	1649	2.0F	
	1231	1353	0.5F		0455	0831	1.9E		1209	1505	2.1F		1302	1614	1.9F		1224	1543	2.9F		●	2153	2333	0.3E
	1528	1937	2.1E		1217	1448	1.4F		1837	2114	1.0E		●	2051	2251	0.4E		2029	2211	0.4E				
	2335				1737	2120	1.6E		●															
<b>4</b> W	0527	0858	1.6E	<b>19</b> Th	0042	0244	1.0F	<b>4</b> Sa	0007	0205	0.6F	<b>19</b> Su	0225	*		<b>4</b> M	0007	0152	0.4F	<b>19</b> Tu	1401	1738	1.9F	
	1231	1433	0.9F		0452	0848	2.1E		0342	0818	3.1E		0848	2.8E			0313	0828	3.8E					
	1640	2027	1.8E		1247	1531	1.5F		1244	1553	2.4F		1339	1702	1.8F		1314	1637	2.9F					
					●	1847	2205	1.3E		2000	2214	0.7E		2200	2335	0.3E		2141	2308	0.3E				
<b>5</b> Th	0009	0242	1.3F	<b>20</b> F	0118	0304	0.6F	<b>5</b> Su	0043	0228	0.4F	<b>20</b> M	0235	*		<b>5</b> Tu	0230	*		<b>20</b> W	0029	0409	1.1E	
	0519	0912	1.9E		0445	0907	2.3E		0353	0853	3.3E		0926	2.8E			0925	3.7E						
	1251	1516	1.2F		1321	1617	1.6F		1329	1649	2.5F		1422	1801	1.7F		1411	1738	2.8F					
	1752	2121	1.5E		2003	2247	0.9E		2127	2313	0.5E						2244				1441	1832	1.9F	
																					2309			
<b>6</b> F	0043	0302	1.0F	<b>21</b> Sa	0155	0321	0.3F	<b>6</b> M	0253	*		<b>21</b> Tu	0037	*		<b>6</b> W	0011	0.3E		<b>21</b> Th	0156	0506	1.3E	
	0510	0925	2.2E		0435	0932	2.5E		0938	3.4E			0237	*			0318	*						
	1320	1605	1.5F		1401	1710	1.5F		1423	1752	2.5F		1007	2.6E			1026	3.5E						
	1915	2216	1.2E		2124	2332	0.5E		2253				1508	1905	1.7F		1514	1844	2.7F					
													2353				2336							
<b>7</b> Sa	0120	0322	0.6F	<b>22</b> Su	0334	*		<b>7</b> Tu	0021	0.3E		<b>22</b> W	1049	1958	1.7F	<b>7</b> Th	0126	0.4E		<b>22</b> F	0310	0808	1.3E	
	0506	0945	2.5E		1002	2.5E			0323	3.3E			1555				0423	*						
	1359	1701	1.7F		1447	1814	1.5F		1029	3.3E							1130	3.1E						
	2049	2312	0.8E		2245				1526	1903	2.5F						1618	1946	2.5F					
<b>8</b> Su	0202	0342	0.3F	<b>23</b> M	0028	0.3E		<b>8</b> W	0152	*		<b>23</b> Th	0035	1131	2.3E	<b>8</b> F	0016	0239	0.6E	<b>23</b> Sa	0012	0345	1.0E	
	0507	1013	2.8E		0338	*			0358	*			1640	2041	1.7F		0557	0.3E						
	1448	1806	1.9F		1036	2.5E			1124	3.1E							1245	2.6E						
	2226				1537	1924	1.5F		1634	2009	2.4F						1722	2040	2.2F					
<b>9</b> M	0018	0402	0.4E	<b>24</b> Tu	0149	*		<b>9</b> Th	0118	0336	0.3E	<b>24</b> F	0111	1219	2.0E	<b>9</b> Sa	0049	0338	0.8E	<b>24</b> Su	0033	0409	1.1E	
	1049	2.9E			0331	*			0437	0.3E			1724	2120	1.7F		0741	0.3E						
	1545	1916	2.0F		1113	2.4E			1236	2.7E							1415	2.1E						
					1631	2024	1.5F		1744	2112	2.3F						1826	2131	1.8F					
<b>10</b> Tu	0145	*		<b>25</b> W	0119	1156	2.3E	<b>10</b> F	0202	0508	0.5E	<b>25</b> Sa	0142	0550	1.0E	<b>10</b> Su	0114	0429	1.1E	<b>25</b> M	0040	0426	1.3E	
	0420	*			1725	2119	1.5F		0705	0.5E			0734	0.9E			0923	*						
	1133	2.9E							1417	2.3E			1324	1.7E			1543	1.6E						
	1651	2025	2.1F						●	1854	2217	2.1F		1807	2158	1.5F		1930	2223	1.4F				
<b>11</b> W	0204	1232	2.7E	<b>26</b> Th	0206	1251	2.1E	<b>11</b> Sa	0234	0545	0.8E	<b>26</b> Su	0207	0548	1.1E	<b>11</b> M	0133	0511	1.4E	<b>26</b> Tu	0023	0438	1.4E	
	1803	2136	2.1F		1818	2221	1.5F		0900	0.5E			0910	0.9E			1134	*						
									1557	2.1E			1442	1.4E			1710	1.2E						
									2003	2321	1.8F		●	1852	2236	1.3F		2039	2314	0.9F				
<b>12</b> Th	0310	1406	2.5E	<b>27</b> F	0242	1406	1.9E	<b>12</b> Su	0259	0617	1.1E	<b>27</b> M	0220	0556	1.3E	<b>12</b> Tu	0144	0544	1.7E	<b>27</b> W	0936	1205	0.6F	
	1917	2256	2.1F		1910	2321	1.5F		1124	*			1119	0.5E			1012	1246	0.9F					
									1724	1.8E			1559	1.2E			1521	1832	0.9E					
									2110				1942	2309	1.0F		2154	2356	0.6F					
<b>13</b> F	0348	1556	2.4E	<b>28</b> Sa	0312	0708	0.9E	<b>13</b> M	0011	1.6F		<b>28</b> Tu	0219	0605	1.6E	<b>13</b> W	0147	0610	2.1E	<b>28</b> Th	0944	1246	1.4F	
	2029				0850	0.8E			0315	0644	1.4E			1221	*			1042	1335	1.4F				
					1524	1.7E			1056	1244	0.4F			1711	1.0E			1657	1952	0.7E				
					2001				1426	1835	1.7E			2035	2336	0.8F		2304						
									2212															
<b>14</b> Sa	0413	0001	2.1F	<b>29</b> Su	0336	0003	1.6F	<b>14</b> Tu	0048	1.3F		<b>29</b> W	0206											









# Sabine Pass, Texas, 2017

F—Flood, Dir. 321° True    E—Ebb, Dir. 143° True

October				November				December															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots												
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m												
<b>1</b> Su	0632	0847	1.2F	<b>16</b> M	0541	0834	0.5E	<b>1</b> W	0423	0805	0.8E	<b>16</b> Th	0359	0804	0.6F	<b>1</b> F	0308	0729	1.4E	<b>16</b> Sa	0339	0801	0.5F
	1244	*	0.3E		1119	1332	0.6F		1113	1355	0.9F		1149	1503	1.3F		1112	1425	1.6F		1158	1527	1.5F
	1844	0.8E	*		1618	2015	0.8E		1733	2008	0.4E		2159	*	*		2104	*	*		2213	*	*
	2226				2311				2235														
<b>2</b> M	0639	0855	1.1F	<b>17</b> Tu	0526	0839	0.7E	<b>2</b> Th	0413	0813	1.1E	<b>17</b> F	0408	0816	1.3E	<b>2</b> Sa	0327	0752	1.7E	<b>17</b> Su	0400	0824	1.5E
	1125	1322	0.3E		1137	1415	0.8F		1135	1438	1.2F		1210	1541	1.4F		1147	1512	1.9F		1223	1604	1.5F
	1523	1932	0.8E		1749	2111	0.6E		1845	2105	0.3E		2228	*	*		2156	*	*		2241	*	*
	2302				2350				2310														
<b>3</b> Tu	0626	0909	1.0F	<b>18</b> W	0513	0844	0.8F	<b>3</b> F	0419	0826	1.3E	<b>18</b> Sa	0421	0835	1.4E	<b>3</b> Su	0352	0824	2.0E	<b>18</b> M	0417	0849	1.6E
	1137	1402	0.5E		1157	1500	1.0E		1205	1526	1.5F		1233	1617	1.4F		1226	1603	2.1F		1250	1641	1.5F
	1642	2017	0.7E		1904	2156	0.5E		1958	2158	0.3E		2256	*	*		2242	*	*		2314	*	*
	2330				2014				2344														
<b>4</b> W	0603	0923	0.8F	<b>19</b> Th	0508	0847	1.0E	<b>4</b> Sa	0434	0850	1.5E	<b>19</b> Su	0433	0901	1.5E	<b>4</b> M	0420	0903	2.1E	<b>19</b> Tu	0417	0849	1.6E
	1157	1447	0.6E		1218	1545	1.1F		1241	1616	1.7F		1258	1653	1.4F		1311	1654	2.2F		1320	1718	1.4F
	1754	2106	0.6E		2014	2231	0.3E		2247	*	*		2329	*	*		2329	*	*		2358	*	*
	2354				2014				2247														
<b>5</b> Th	0547	0931	0.7F	<b>20</b> F	0510	0900	1.1E	<b>5</b> Su	0451	0924	1.7E	<b>20</b> M	0433	0901	1.5E	<b>5</b> Tu	0448	0945	2.1E	<b>20</b> W	0417	0849	1.6E
	1225	1537	0.8E		1241	1626	1.2F		1323	1707	1.9F		1328	1733	1.4F		1402	1747	2.1F		1352	1759	1.3F
	1905	2154	0.5E		2301	*	*		2340	*	*												
					2301				2340														
<b>6</b> F	0020	0317	0.6F	<b>21</b> Sa	0517	0924	1.2E	<b>6</b> M	0451	0924	1.7E	<b>21</b> Tu	0433	0901	1.5E	<b>6</b> W	0448	0945	2.1E	<b>21</b> Th	0417	0849	1.6E
	0545	0940	1.0E		1309	1705	1.3F		1323	1707	1.9F		1404	1820	1.3F		1402	1747	2.1F		1352	1759	1.3F
	1259	1628	1.2F		2334	*	*		2340	*	*												
	2024	2239	0.3E		2334				2340														
<b>7</b> Sa	0049	0345	0.5F	<b>22</b> Su	0517	0924	1.2E	<b>7</b> Tu	0451	0924	1.7E	<b>22</b> W	0433	0901	1.5E	<b>7</b> Th	0448	0945	2.1E	<b>22</b> F	0417	0849	1.6E
	0553	0959	1.2E		1342	1746	1.3F		1323	1707	1.9F		1404	1820	1.3F		1402	1747	2.1F		1352	1759	1.3F
	1340	1718	1.4F		2342	*	*		2340	*	*												
	2328	*	*		2342				2340														
<b>8</b> Su	0604	0412	0.3F	<b>23</b> M	0517	0924	1.2E	<b>8</b> W	0451	0924	1.7E	<b>23</b> Th	0433	0901	1.5E	<b>8</b> F	0448	0945	2.1E	<b>23</b> Sa	0417	0849	1.6E
	1428	1815	1.5F		1422	1839	1.2F		1612	2020	1.8F		1531	2037	1.1F		1402	1747	2.1F		1352	1759	1.3F
					1422				1612														
					1839				2020														
<b>9</b> M	0100	*	*	<b>24</b> Tu	0426	1058	1.2E	<b>9</b> Th	0355	1208	1.3E	<b>24</b> F	0437	1113	1.1E	<b>9</b> Sa	0707	*	*	<b>24</b> Su	0442	1053	0.8E
	0432	*	*		1510	1949	1.2F		1721	2128	1.6F		1617	2143	1.0F		0745	*	*		1545	2110	0.6F
	1100	1.4E	1.5F		2426				1721								1312	0.7E	1.1F		2110		
	1524	1923	1.5F		1949				2128								1817	2201	1.1F		2110		
<b>10</b> Tu	0320	*	*	<b>25</b> W	0416	1132	1.1E	<b>10</b> F	0408	1404	0.9E	<b>25</b> Sa	0445	1133	0.8E	<b>10</b> Su	0326	0646	0.4E	<b>25</b> M	0402	0758	0.4E
	0423	*	*		1605	2102	1.1F		1839	2239	1.5F		1703	2300	0.9F		1044	*	*		0901	1105	0.4E
	1140	1.3E	1.6F		2102				2239								1639	0.4E	0.9F		1105	1558	0.5F
	1626	2035	1.6F		2102				2239								1936	2302	0.9F		1558	2148	0.5F
<b>11</b> W	0335	1241	1.2E	<b>26</b> Th	0432	1215	1.0E	<b>11</b> Sa	0420	0723	0.5E	<b>26</b> Su	0440	1156	0.5E	<b>11</b> M	0303	0651	0.6E	<b>26</b> Tu	0256	0645	0.4E
	1738	2146	1.6F		1707	2225	1.1F		1018	0.3E	0.8F		1753	2335	0.8F		0951	1234	0.4F		1224	*	*
					2225				1620	0.7E	0.8F						1600	1844	0.3E		1449	*	*
					2225				1955	2341	1.3F						2044	2349	0.7F		2237	0.4F	0.4F
<b>12</b> Th	0421	1427	1.1E	<b>27</b> F	0454	1341	0.8E	<b>12</b> Su	0425	0733	0.6E	<b>27</b> M	0420	0742	0.4E	<b>12</b> Tu	0247	0656	0.8E	<b>27</b> W	0158	0615	0.6E
	1857	2302	1.6F		1820	2346	1.1F		1219	*	*		1211	*	*		1012	1313	0.8F		0935	1227	0.5F
					2346				1821	0.6E	0.7F		1515	0.3E	0.7F		1746	1948	0.3E		1828	*	*
					2346				2102	0.6E	0.7F		1852	2351	0.7F		2141	*	*		2324	0.4F	0.4F
<b>13</b> F	0459	0752	0.4E	<b>28</b> Sa	0512	0838	0.4E	<b>13</b> M	0416	0023	1.1F	<b>28</b> Tu	0338	0708	0.6E	<b>13</b> W	0247	0707	1.0E	<b>28</b> Th	0146	0622	0.9E
	1002	0.3E	1.0E		1002	0.4E	0.7E		0741	0.7E	0.8F		1035	1238	0.3F		1040	1347	1.1F		0947	1255	1.1F
	1603	1.0E	*		1500	0.7E	*		1045	1308	0.5F		1800	*	*		2038	*	*		1924	*	*
	2013				1932				1622	1932	0.5E												
					1932				2201														
<b>14</b> Sa	0527	0006	1.6F	<b>29</b> Su	0520	0818	1.1F	<b>14</b> Tu	0402	0054	0.9F	<b>29</b> W	0306	0011	0.7F	<b>14</b> Th	0258	0050	0.6F	<b>29</b> F	0159	0003	0.4F
	1148	*	0.4E		1156	*	0.4E		1104	0747	0.9E		1028	0708	0.8E		1107	0722	1.2E		1015	0638	1.3E
	1803	0.9E	*		1613	0.5E	0.5E		1803	1347	0.9F		1914	0.8F	0.8F		2117	*	*		1330	1.5F	*
	2121				2031		0.5E		2247	2031	0.4E										2012	*	*
<b>15</b> Su	0542	0050	1.5F	<b>30</b> M	0513	0755	1.0E	<b>15</b> W	0356	0119	0.7F	<b>30</b> Th	0258	0034	0.6F	<b>15</b> F	0317	0116	0.5F	<b>30</b> Sa	0224	0037	0.5F
	1111	0825	0.5E		1241	*	0.5E		1126	0755	1.0E		1045										

# Galveston Bay Entrance (between jetties), Texas, 2017

F—Flood, Dir. 277° True    E—Ebb, Dir. 088° True

January				February				March														
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots											
h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m											
<b>1</b> Su	0147	1001	1.4E	<b>16</b> M	0318	0.1E	<b>1</b> W	0436	0658	0.5F	<b>16</b> Th	0529	0816	0.8F	<b>1</b> W	0257	0547	1.0F	<b>16</b> Th	0342	0645	1.2F
	1524	1904	1.7F		1155	0.8E		0858	1219	0.6E		0840	1116	0.6E		1501	1759	0.8F		1314	1740	0.0
					2016	1.0F		1559	1928	1.0F		1935	2348	1.0E		2024	2348	1.0E		1740	0.0	0.2F
<b>2</b> M	0153	1038	1.2E	<b>17</b> Tu	0115	0.3E	<b>2</b> Th	0524	0811	0.8F	<b>17</b> F	0626	0234	1.0E	<b>2</b> Th	0337	0649	1.3F	<b>17</b> F	0429	0040	1.1E
	1554	1942	1.5F		0726	0.2F		1138	1345	0.4E		0942	1513	0.2F		1039	1306	0.3E		0747	1418	1.2F
					1301	0.5E		1648	2011	0.6F		1653	2021	0.2F		1545	1834	0.5F		1418	1607	0.1F
<b>3</b> Tu	0141	0348	0.3E	<b>18</b> W	0033	0.3E	<b>3</b> F	0618	0927	1.2F	<b>18</b> Sa	0721	0315	1.1E	<b>3</b> F	0428	0024	1.2E	<b>18</b> Sa	0527	0123	1.2E
		0654	0.2E		0655	0.8E		1625	2058	0.3F		1929	1101	1.3F		1505	1912	0.1F		0904	1.3F	
		1205	0.9E		1351	0.2E	<b>4</b> Sa	0715	1043	1.7F	<b>19</b> Su	0814	0416	1.2E		1912	0109	1.4E	<b>19</b> Su	0631	0209	1.2E
		1630	1.3F		2112	0.5F		1923	2151	0.0		1941	1155	1.5F	<b>4</b> Sa	0533	0912	1.8F		1811	1039	1.5F
<b>4</b> W	0108	0402	0.5E	<b>19</b> Th	0023	0.7E	<b>5</b> Su	0817	1150	2.0F	<b>20</b> M	0906	0518	1.3E	<b>5</b> Su	0647	0159	1.6E	<b>20</b> M	0734	0304	1.2E
		0826	0.1F		0739	0.6F		2103	2245	0.1E		2008	1248	1.7F		1745	1037	2.0F		1829	1141	1.7F
		1331	0.6E	<b>20</b> F	0024	1.0E	<b>6</b> M	0923	1256	2.2F	<b>21</b> Tu	0957	0611	1.4E	<b>6</b> M	0805	0255	1.6E	<b>21</b> Tu	0832	0447	1.1E
		1716	1.1F		0818	1.0F		2004	2336	0.2E		2039	1344	1.8F		1846	1152	2.1F		1852	1231	1.8F
<b>5</b> Th	0049	0419	0.7E	<b>21</b> Sa	0858	1.2E	<b>7</b> Tu	1030	1409	2.3F	<b>22</b> W	1046	0659	1.4E	<b>7</b> Tu	0920	0414	1.6E	<b>22</b> W	0925	0552	1.2E
		0948	0.5F		1214	1.3F		2110	2254	0.3E		2108	1438	1.9F		1945	1300	2.2F		1917	1317	1.8F
		1244	0.4E		2113	0.0	<b>8</b> W	1136	1517	2.3F	<b>23</b> Th	1130	0746	1.4E		2330	2143	0.4E		2212	2212	0.5E
		1816	0.8F		2218	0.2F		2343	0.2E		2131	1520	1.9F	<b>8</b> W	1030	0631	1.6E	<b>23</b> Th	1011	0640	1.1E	
<b>6</b> F	0039	0429	1.0E	<b>22</b> Su	0940	1.6F	<b>9</b> Th	1241	1612	2.1F	<b>24</b> F	1211	0009	0.3E	<b>9</b> Th	1135	0032	0.1E	<b>24</b> F	1051	0718	1.0E
		1058	1.1F		1025	1.8F		0132	0843	1.8E		2145	0121	0.3E		2253	0759	1.6E		1946	1427	1.6F
		1742	0.2E		1400	1.8F		1612	0229	0.1F		1547	0820	1.3E		0225	1509	1.9F		1936	2224	0.4E
		2236	0.5F		2149	1.8F		0029	0651	1.8E	<b>25</b> Sa	1247	0019	0.3E	<b>10</b> F	1234	0138	0.2F	<b>25</b> Sa	1128	0126	0.1E
<b>7</b> Sa	0034	0441	1.3E	<b>23</b> M	1025	1.8F	<b>10</b> F	1339	1658	1.9F		2147	0227	0.1E		1554	0908	1.5E		1936	1451	1.5F
		1158	1.7F		1400	1.8F		0056	0335	0.3F		2354	0819	1.2E		2320	1554	1.6F		1936	2210	0.5E
		1930	0.1E		1400	1.8F		0335	0847	1.2E	<b>26</b> Su	1319	1630	1.6F	<b>11</b> Sa	0446	0244	0.4F	<b>26</b> Su	1204	0224	0.2F
		2319	0.3F		2149	1.8F		1430	1736	1.6F		2121	2355	0.4E		1327	1626	1.4F		1910	1516	1.4F
<b>8</b> Su	0035	0513	1.6E	<b>24</b> Tu	1111	1.9F	<b>11</b> Sa	0459	1047	1.4E	<b>27</b> M	0218	0407	0.4F	<b>11</b> Sa	2126	2332	0.3E	<b>27</b> M	0103	0315	0.6F
		1258	2.1F		1457	1.9F		1430	1736	1.6F		0540	0927	1.1E		0216	0332	0.3E		0530	0847	0.8E
		2142	0.2E		2220	1.9F		0056	0335	0.3F		1350	1656	1.5F		2126	2332	0.3E		1242	1543	1.2F
<b>9</b> M		0000	0.0	<b>25</b> W	1157	2.0F	<b>12</b> Su	0617	1135	1.1E	<b>28</b> Tu	0230	0004	0.5E	<b>12</b> Su	0121	0337	0.7F	<b>28</b> Tu	0118	0401	1.1F
		0554	1.9E		1543	2.0F		1511	1804	1.2F		0454	0927	1.1E		0606	1047	1.0E		0655	0938	0.7E
		1405	2.3F		2252	2.0F		0116	0424	0.4F		0704	1014	0.9E		1409	1647	1.1F		1325	1613	1.0F
		2302	0.2E		2252	2.0F		0424	0847	1.2E		2035	2340	0.7E		2039	2333	0.4E		1844	2154	1.1E
<b>10</b> Tu		0045	0.1E	<b>26</b> Th	1241	2.0F	<b>13</b> M	0732	1212	0.8E	<b>29</b> W	0227	0505	1.0F	<b>13</b> M	0154	0422	0.9F	<b>29</b> W	0145	0447	1.5F
		0640	2.0E		1620	2.0F		1543	1824	0.9F		0827	1149	0.5E		0718	1123	0.7E		0820	1041	0.5E
		1512	2.5F		2321	2.0F		0126	0606	0.6F		1500	1717	0.6F		1441	1701	0.8F		1411	1643	0.7F
<b>11</b> W		0013	0.3E	<b>27</b> F	1320	2.0F	<b>14</b> Tu	0854	1148	0.5E	<b>30</b> M	0302	0552	1.1F	<b>14</b> Tu	2010	2341	0.6E	<b>30</b> M	0221	0539	1.8F
		0139	0.2E		1648	2.0F		1559	1845	0.6F		1938	1220	0.2E		0210	2341	0.6E		0958	1252	0.3E
		0735	2.0E		2321	2.0F		0126	0606	0.6F			1735	0.4F		0210	2341	0.6E		1502	1712	0.4F
		1237	2.4F		2321	2.0F		0126	0606	0.6F						0210	2341	0.6E		1840	2244	1.6E
<b>12</b> Th		0106	0.2E	<b>28</b> Sa	0159	0.2E	<b>15</b> W	0433	0708	0.7F	<b>31</b> F				<b>15</b> W	0302	0552	1.1F	<b>31</b> F	0306	0638	2.0F
		0239	0.1E		0313	0.2E		1248	1909	0.4F						1220	0.2E			1418	1732	0.0
		0838	1.9E		0900	1.4E		2157								1735	0.4F			1732	2326	1.7E
		1339	2.3F		1354	1.9F																
<b>13</b> F		0146	0.2E	<b>29</b> Su	0151	0.2E																
		0332	0.0		0400	0.1E																
		0936	1.8E		0929	1.4E																
		1437	2.0F		1422	1.7F																
<b>14</b> Sa		0222	0.1E	<b>30</b> M	0138	0.2E																
		0420	0.1F		0449	0.1F																
		1020	1.5E		1007	1.2E																
		1528	1.6F		1450	1.5F																
<b>15</b> Su		0255	0.1E	<b>31</b> Tu	0149	0.3E																
		0511	0.1F		0549	0.2F																
		1100	1.2E		1101	1.0E																
		1615	1.3F		1521	1.3F																
					2252																	

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (E) the middle one is not a true maximum but an intermediate value to show the current pattern.



# Galveston Bay Entrance (between jetties), Texas, 2017

F—Flood, Dir. 277° True    E—Ebb, Dir. 088° True

July				August				September																					
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum															
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots										
<b>1</b> Sa		0602	1101	0.2E	<b>16</b> Su		0216	0913	0.2E	<b>1</b> Tu		0917	1019	0.0	<b>16</b> W		0859	0957	0.1E	<b>1</b> F		0809	1845	1.4E	<b>16</b> Sa		0754	0948	0.3E
	1337	1739	0.8E	1159		1546	1.0E	1723	1.3E		1548	1.7E	2228			1206	0.0	2301	0233		2.0F	1916	1.6E						
	2051	2344	0.8F	1943		2232	1.0F	2120			2044		2044			1916	0.0	2301	0233		2.0F	1916	1.6E						
<b>2</b> Su		0738	1109	0.1E	<b>17</b> M		0456	0956	0.0	<b>2</b> W		0044	1012	0.1E	<b>17</b> Th		0020	0944	0.2E	<b>2</b> Sa		0827	1056	0.3E	<b>17</b> Su		0830	1017	0.3E
	1328	1752	1.0E	1152		1557	1.3E	1054	0.1E		1101	0.2E	1101	0.2E		1222	0.3E	1222	1423		0.5F	1317	0.2F						
	2124			2019		2331	1.5F	1806	1.4E		1806	1.4E	1655	1.8E		1941	1.3E	2038	2038		1.5E	2038	1.5E						
<b>3</b> M		0024	0853	1.1F	<b>18</b> Tu		0653	1040	0.0	<b>3</b> Th		0137	0935	1.7F	<b>18</b> F		0129	1026	0.2E	<b>3</b> Su		0844	1121	0.3E	<b>18</b> M		0005	0848	1.7F
	0853	1125	0.3F	1040		1633	1.6E	1852	1.5E		1200	0.2E	1200	0.2E		1325	0.2E	1423	0.5F		1041	0.3E							
	1317	1812	1.3E	2106			2253		1808		1.9E	1808	1.9E	2032		1.3E	2032	1.3E	1635		2144	1.4E	2144	1.4E					
<b>4</b> Tu		0107	0957	1.3F	<b>19</b> W		0028	0929	1.9F	<b>4</b> F		0236	0959	1.9F	<b>19</b> Sa		0241	1107	0.2E	<b>4</b> M		0858	1131	0.4E	<b>19</b> Tu		0104	0844	1.4F
	0957	1147	0.2F	0929		1123	0.1F	1945	1.6E		1304	0.1E	1304	0.1E		1427	0.1E	1427	0.1E		1057	0.4E							
	1147	1837	1.4E	1718		1.9E	2341		1953		1.8E	1953	1.8E	2112		1.2E	2112	1.2E	1256		1522	0.8F	1522	0.8F					
<b>5</b> W		0157	1103	1.6F	<b>20</b> Th		0130	1040	2.2F	<b>5</b> Sa		0327	1020	2.0F	<b>20</b> Su		0341	1144	0.2E	<b>5</b> Tu		0037	0903	1.7F	<b>20</b> W		0155	0805	1.0F
	1103	1210	0.0	1040		1808	2.0E	2039	1.5E		1415	0.1F	1415	0.1F		1517	0.2F	1332	1610		1.0F	1332	1610						
	1210	1908	1.6E	1808		2.0E	2300		2125		1.7E	2125	1.7E	2128		1.0E	2128	1.0E	1922		2335	0.8E	1922	2335					
<b>6</b> Th		0249	1116	1.8F	<b>21</b> F		0238	1144	2.4F	<b>6</b> Su		0408	1037	2.0F	<b>21</b> M		0430	1216	0.2E	<b>6</b> W		0110	0846	1.5F	<b>21</b> Th		0237	0736	0.7F
	0249	1147	0.2F	1144		1303	0.1E	2119	1.5E		1517	0.4F	1517	0.4F		1749	2131	0.9E	1409		1653	1.2F	1409	1653					
	1147	1837	1.4E	1904		2.1E	2119		2119		1.5E	2229	1.6E	2229		1.6E	2131	0.9E	2038		2038	1.2F	2038	1.2F					
<b>7</b> F		0000	1135	2.0F	<b>22</b> Sa		0341	1234	2.5F	<b>7</b> M		0440	1053	2.0F	<b>22</b> Tu		0510	1238	0.2E	<b>7</b> Th		0137	0822	1.3F	<b>22</b> F		0024	0308	0.4E
	0337	2033	1.7E	1411		2009	2.0E	2132	1.4E		1610	0.6F	1610	0.6F		1908	2203	0.7E	0438		1143	0.6E	0438	1143					
	2033			2009		2.0E	2132		2132		1.4E	2328	1.3E	2328		1.3E	1908	2203	0.7E		1424	1643	0.7F	1424		1643			
<b>8</b> Sa		0046	1157	2.1F	<b>23</b> Su		0436	1312	2.4F	<b>8</b> Tu		0505	1106	1.8F	<b>23</b> W		0541	1251	0.3E	<b>8</b> F		0201	0759	1.1F	<b>23</b> Sa		0101	0513	0.1E
	0421	2110	1.7E	1512		2123	1.9E	2140	1.2E		1439	0.7F	1439	0.7F		1729	1.0F	1108	1522		1.3F	1108	1522						
	2110			2123		1.9E	2140		2140		1.2E	1941		1941			2035	2252	0.5E		1522	1828	1.3F	1522		1828			
<b>9</b> Su		0131	1220	2.1F	<b>24</b> M		0529	1344	2.1F	<b>9</b> W		0528	1108	1.6F	<b>24</b> Th		0604	1304	0.4E	<b>9</b> Sa		0227	0744	0.8F	<b>24</b> Su		0132	0357	0.1F
	0502	2134	1.6E	1606		2239	1.6E	2206	1.0E		1519	0.8F	1519	0.8F		1823	1.3F	1823	1.3F		1112	1142	1.1E	1142		1.1E			
	2134			2239		1.6E	2206		2206		1.0E	2103		2103			1823	1.3F	1823		1.3F	1515	1823	1.3F		1515	1823		
<b>10</b> M		0212	1241	2.0F	<b>25</b> Tu		0621	1411	1.8F	<b>10</b> Th		0554	1042	1.4F	<b>25</b> F		0510	0623	0.5F	<b>10</b> Su		0014	0552	0.2E	<b>25</b> M		0217	0324	0.2F
	0541	2153	1.4E	1659		1824	0.3F	2246	0.8E		1604	0.9F	1604	0.9F		1925	1.5F	1925	1.5F		0552	1232	1.2E	0552		1232			
	2153			1824		0.3F	2246		2246		0.8E	1850		1850			1557	1925	1.5F		1557	1925	1.5F	1557		1925			
<b>11</b> Tu		0247	1259	1.9F	<b>26</b> W		0016	0708	1.3E	<b>11</b> F		0623	1013	1.2F	<b>26</b> Sa		0216	0643	0.3F	<b>11</b> M		0224	0557	0.2F	<b>26</b> Tu		0550	1801	1.2E
	0617	2215	1.3E	1430		1758	0.3F	2350	0.5E		0845	1334	0.8E	1334		0.8E	1653	1953	0.9F		1653	1953	0.9F	2034		1.8F			
	2215			1758		0.3F	2350		2350		0.5E	1656		1656			1953	0.9F	1953		0.9F	2034	1.8F	2034		1.8F			
<b>12</b> W		0317	1508	1.6F	<b>27</b> Th		0116	0445	0.9E	<b>12</b> Sa		0654	0948	0.9F	<b>27</b> Su		0159	0413	0.2F	<b>12</b> Tu		0540	1803	1.6E	<b>27</b> W		0601	1907	1.6F
	1508	1712	0.2E	0746		1706	0.4F	1944	0.8F		0604	0.1F	0604	0.1F		2154	1.9F	2154	1.9F		2319	1.6F							
	1712	2243	1.0E	1907		2137	0.4F	1944	0.8F		0654	0.1F	0654	0.1F		2154	1.9F	2154	1.9F		2319	1.6F							
<b>13</b> Th		0343	1307	1.4F	<b>28</b> F		0159	0530	0.5E	<b>13</b> Su		0111	0938	0.2E	<b>28</b> M		0302	0355	0.3F	<b>13</b> W		0537	1920	1.7E	<b>28</b> Th		0611	2009	1.1E
	1515	1843	0.2E	0814		1158	0.5E	2054	1.2F		0711	1425	1.1E	1425		1.1E	2313	2.1F	2313		2.1F	1603	1.1E						
	1843	2344	0.8E	1810		2025	0.5F	2054	1.2F		1852	2237	1.2F	2237		1.2F	2313	2.1F	2313		2.1F	1603	1.1E						
<b>14</b> F		0406	1241	1.2F	<b>29</b> Sa		0229	0840	0.1E	<b>14</b> M		0242	0941	0.0	<b>29</b> Tu		0707	1517	1.2E	<b>14</b> Th		0619	2038	1.7E	<b>29</b> F		0010	0621	1.8F
	1534	2004	0.1F	1140		1905	0.7F	2208	1.6F		1949	2336	1.5F	2336		1.5F	2038		2105		1735	1.1E	1735	1.1E					
	2004			1905		0.7F	2208		2208		1.6F	2336		2336			2038		2105		1735	1.1E	2105	1735					
<b>15</b> Sa		0105	0432	0.5E	<b>30</b> Su		0649	0908	0.0	<b>15</b> Tu		0743	1939	0.0	<b>30</b> W		0727	1642	1.2E	<b>15</b> F		0022	0918	2.2F	<b>30</b> Sa		0057	0635	1.8F
	0833	1218	0.7E	0908		1603	0.9E	2317	1.9F		2044		2044			1717	1.6E	1717	1.6E		1136	1831	1.1E	1136		1831			
	1218	1919	0.4F	1952		2312	1.0F	2317	1.9F		2044		2044			1717	1.6E	1717	1.6E		1136	1831	1.1E	1136		1831			
<b>15</b> Su		0105	0432	0.5E	<b>31</b> M		0810	0942	0.0	<b>15</b> Tu		0743	1939	0.0	<b>31</b> W		0727	1642	1.2E	<b>15</b> F		0022	0918	2.2F	<b>30</b> Sa		0057	0635	1.8F
	0833	1218	0.7E	0942		1642	1.1E	2317	1.9F		2044		2044			1717	1.6E	1717	1.6E		1136	1831	1.1E	1136		1831			
	1218	1919	0.4F	2036		2358	1.3F	2317	1.9F		2044		2044			1717	1.6E	1717	1.6E		1136	1831	1.1E	1136		1831			

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three consecutive entries are marked (E) the middle one is not a true maximum but an intermediate value to show the current pattern.  
 † See page 188 for the remaining currents on this day.

# Galveston Bay Entrance (between jetties), Texas, 2017

F—Flood, Dir. 277° True    E—Ebb, Dir. 088° True

October				November				December																				
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum														
	h	m	knots		h	m	knots		h	m	knots		h	m	knots													
<b>1</b> Su	0652	0954	0.5E	<b>16</b> M	0649	0918	0.5E	<b>1</b> W	0454	0834	0.9E	<b>16</b> Th	0015	0200	0.3F	<b>1</b> F	0242	0653	1.5E	<b>16</b> Sa	0003	0003	0.0					
		1231	0.2E			1118	1324		0.6F		1146		1404	0.7F			1158	1510	1.5F			1114	1430	1.8F		0744	1.6E	
		1922	1.0E			1603	2051		1.1E		1730		2034	0.3E			2336	2336	0.2E			2153	0.0		1208	1534	1.8F	
	2238					2351					2247																	
<b>2</b> M	0703	0953	0.5E	<b>17</b> Tu	0628	0930	0.6E	<b>2</b> Th	0438	0832	1.1E	<b>17</b> F	0223	0223	0.2F	<b>2</b> Sa	0130	0130	0.3F	<b>17</b> Su	0019	0818	1.7E					
		1327	0.0			1151	1428		0.9F		1200		1450	1.2F			0838	1.4E			0718	1.8E		1249	1615	2.0F		
		2011	0.9E			1738	2155		0.8E		2130		2130	0.2E			1549	1.7F			1520	2.2F		1150	1520	2.2F		
	2316																											
<b>3</b> Tu	0659	0950	0.6E	<b>18</b> W	0045	0315	0.8F	<b>3</b> F	0428	0815	1.4E	<b>18</b> Sa	0052	0052	0.1E	<b>3</b> Su	0213	0213	0.1F	<b>18</b> M	0051	0856	1.7E					
		1422	0.2F			0559	0940		0.8E		1223		1534	1.7F			0247	0.1F			0755	2.1E		1332	1657	2.0F		
		2052	0.7E			1227	1520		1.2F		2230		2230	0.2E			0848	1.5E			1609	2.5F		●	●	●		
	2350					1907	2255		0.6E		○		○	○			1311	1626	1.8F			○	○		○	○	○	
<b>4</b> W	0643	0959	0.7E	<b>19</b> Th	0133	0331	0.5F	<b>4</b> Sa	0301	0301	0.4F	<b>19</b> Su	0156	0156	0.0	<b>4</b> M	0126	0126	0.1E	<b>19</b> Tu	0118	0933	1.7E					
		1259	1.5F			0545	0950		1.0E		0431		0834	1.7E			0310	0.0			0257	0.0		1415	1743	2.0F		
		1747	0.6E			1303	1602		1.4F		1255		1618	2.1F			0914	1.6E			0838	2.3E		●	●	●		
	●	2045	●			2045	●				2352		2352	0.1E			1349	1707	1.9F			1328	1700	2.6F				
<b>5</b> Th	0022	0323	1.1F	<b>20</b> F	0007	0007	0.3E	<b>5</b> Su	0332	0332	0.2F	<b>20</b> M	0234	0234	0.946	<b>5</b> Tu	0225	0225	0.1E	<b>20</b> W	0139	1009	1.6E					
		0626	1.0F			0212	0347		0.3F		0904		0904	2.0E			0335	0.1E			0335	0.1E		1457	1833	1.9F		
		1311	1.0F			0526	0947		1.2E		1336		1706	2.4F			0923	2.3E			1425	1758	2.5F		●	●		
	1903	2142	0.5E			1339	1641		1.6F		○		○	○			1429	1753	1.9F			○	○		○	○	○	
<b>6</b> F	0055	0349	0.9F	<b>21</b> Sa	0118	0118	0.1E	<b>6</b> M	0124	0124	0.1E	<b>21</b> Tu	0311	0311	1.6E	<b>6</b> W	0154	0154	2.1E	<b>21</b> Th	0149	1045	1.4E					
		0610	1.1E			0403	0403		0.2F		0357		0357	0.1F			1512	1848	1.9F			1527	1904	2.3F		1538	1925	1.8F
		1332	1.5F			0950	0950		1.3E		0940		0940	2.1E			1600	1954	1.8F			1635	2021	2.0F		●	●	
	2020	2224	0.3E			1413	1721		1.7F		1425		1801	2.4F			1747	2224	1.7F			1906	2252	1.4F		1618	2014	1.6F
<b>7</b> Sa	0132	0415	0.6F	<b>22</b> Su	0230	0230	0.0	<b>7</b> Tu	0157	0157	2.1E	<b>22</b> W	0331	0331	1.4E	<b>7</b> Th	0255	0255	1.8E	<b>22</b> F	0158	1126	1.1E					
		0605	1.4E			0412	0412		0.1F		1522		1905	2.3F			1635	2021	2.0F			1618	2014	1.6F		1618	2014	1.6F
		1401	1.8F			1015	1015		1.4E		1450		1807	1.7F			1751	2149	1.7F			1751	2149	1.7F		●	●	
	●	1717	●			1450	1807		1.7F		○		○	○			1906	2252	1.4F			○	○		○	○	○	
<b>8</b> Su	0027	0439	0.4F	<b>23</b> M	0453	1049	1.4E	<b>8</b> W	0320	0320	2.0E	<b>23</b> Th	0338	0338	1.2E	<b>8</b> F	0332	0332	1.4E	<b>23</b> Sa	0210	1225	0.8E					
		0608	1.7E			1532	1903		1.6F		1630		2021	2.2F			1751	2149	1.7F			1654	2055	1.4F		1654	2055	1.4F
		1440	2.0F			●	●				1752		2159	2.0F			1906	2252	1.4F			●	●		●	●	●	
	1810					1450	1807		1.7F		○		○	○			2224	1.7F			○	○		○	○	○		
<b>9</b> M	0150	0447	0.1F	<b>24</b> Tu	0442	1135	1.4E	<b>9</b> Th	0408	0408	1.232	<b>24</b> F	0336	0336	1.0E	<b>9</b> Sa	0602	0602	0.3E	<b>24</b> Su	0215	0600	0.5E					
		1049	1.8E			1622	2011		1.6F		1752		2159	2.0F			1503	1.0E			0812	0.1E		0810	0.4E			
		1529	2.1F			●	●				1915		2314	1.9F			1906	2252	1.4F			1503	1.0E		1015	0.5E		
	1912					1450	1807		1.7F		○		○	○			2252	1.4F			1906	2252	1.4F		1122	0.5E		
<b>10</b> Tu	0420	1139	1.8E	<b>25</b> W	0450	1241	1.2E	<b>10</b> F	0440	0440	0.711	<b>25</b> Sa	0341	0341	0.7E	<b>10</b> Su	0623	0623	0.5E	<b>25</b> M	0205	0523	0.6E					
		1632	2.1F			1724	2146		1.6F		0758		0758	0.4E			1106	0.9E			1009	0.1F		0949	0.1E			
		●	●			●	●				1357		1.4E		1312		1.0E		1713		0.7E		1415	0.3E				
	1529	1912	2.1F			1915	2314		1.9F		1831		1.0E		1747		2224	1.7F			2015	2333	1.1F		1415	0.3E		
<b>11</b> W	0433	1246	1.8E	<b>26</b> Th	0455	1349	1.1E	<b>11</b> Sa	0501	0501	0.722	<b>26</b> Su	0347	0347	0.7E	<b>11</b> M	0637	0637	0.6E	<b>26</b> Tu	0146	0529	0.8E					
		1751	2.1F			1830	2259		1.7F		0953		0953	0.2E			0908	1.136	0.6F			0908	1059	0.3F				
		●	●			2030	●				1703		1.1E		1500		0.5E		1426		1851	0.5E		1519	0.1E			
	2152					2030	●				2030		●		1918		2319	1.4F			2115	2359	0.8F		2226	0.8F		
<b>12</b> Th	0510	1357	1.6E	<b>27</b> F	0456	1052	0.8E	<b>12</b> Su	0004	0004	1.6F	<b>27</b> M	0343	0343	0.7E	<b>12</b> Tu	0644	0644	0.9E	<b>27</b> W	0124	0539	1.0E					
		1917	2.1F			1153	0.8E			0742	0.5E			1153	0.1E			0941	1.227		0.9F		0911	1140	0.8F			
		●	●			1502	1.0E			1126	0.2F			1725	0.4E			1722	2022		0.3E		1805	0.1F				
	2318					1930	2346		1.7F		1831		1.0E		1949		2333	1.2F			2208	●		2257	0.6F			
<b>13</b> F	0547	0814	0.4E	<b>28</b> Sa	0504	0835	0.6E	<b>13</b> M	0044	0044	1.3F	<b>28</b> Tu	0326	0326	0.9E	<b>13</b> W	0013	0013	0.5F	<b>28</b> Th	0104	0528	1.3E					
		0941	0.4E			1057	0.6E			0503	0758		0.6E		1212		0.3F		0656		1.1E		0930	1225	1.3F			
		1523	1.4E			1708	0.9E			1018	1230		0.6F		1817		0.2E		1316		1.2F		1930	0.1F				
	2037					2022	●			1520	1952		0.8E		2355		0.9F		2136		0.2E		2328	0.4F				
<b>14</b> Sa	0620	0835	0.4E	<b>29</b> Su	0019	0019	1.7F	<b>14</b> Tu	0117	0117	0.9F	<b>29</b> W	0309	0309	1.0E	<b>14</b> Th	0026	0026	0.2F	<b>29</b> F	0102	0533	1.6E					
		1110	0.1E			0840	0.6E			0434	0807		0.8E		0710		1.3E		1001		1316	1.8F						
		1818	1.4E			1153	0.3E			1048	1328		0.9F		1405		1.4F		2142		0.1F							
	2149					1805	0.7E			1720	2110		0.5E		2245		0.1E		●		●							
<b>15</b> Su	0642	0859	0.4E	<b>30</b> M	0041	0041	1.5F	<b>15</b> W	0141	0141	0.6F	<b>30</b> Th	0022	0022	0.7F	<b>15</b> F	0046	0046	0.1F	<b>30</b> Sa	0001	0001	0.2F					
		1218	0.2F			0829	0.7E			0414	0818																	





# Bolivar Roads, Galveston Bay, Texas, 2017

F—Flood, Dir. 306° True    E—Ebb, Dir. 116° True

April				May				June							
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum	
h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m
1 Sa	0437 1338	0034 0802 1653 1908	1.8E 2.2F 0.5E 0.4E	16 Su	0440 1454	0016 0822	1.5E 1.6F	1 M	0529 1555	0057 0905	1.9E 2.0F	16 Tu	0453 1526	0847 2311	1.5F 1.3E
2 Su	0542 1537	0128 0914	1.8E 2.0F	17 M	0531 1609	0049 0928	1.4E 1.5F	2 Tu	0644 1653	0222 1032 2010 2056	1.7E 1.7F 0.7E 0.7E	17 W	0542 1600	0948 2357	1.4F 1.1E
3 M	0656 1716	0236 1038	1.8E 1.9F	18 Tu	0629 1709	0128 1050	1.3E 1.4F	3 W	0759 1727	0353 1146 2022 2354	1.5E 1.6F 0.8E 0.5E	18 Th	0635 1615	1041 2031 2216	1.4F 0.8E 0.8E
4 Tu	0816 1824	0358 1203 2115 2257	1.7E 1.7F 0.7E 0.6E	19 W	0732 1753	0228 1200 1753	1.2E 1.3F	4 Th	0907 1736	0522 1238 2045	1.2E 1.4F 0.9E	19 F	0731 1607	1124 2006	1.3F 0.8E
5 W	0932 1910	0524 1311 2142	1.6E 1.6F 0.7E	20 Th	0835 1817	0345 1244 2156	1.1E 1.3F 0.8E	5 F	1005 1720	0108 0649 1316 2105	* 1.0E 1.2F 1.0E	20 Sa	0835 1547	1203 1939	1.1F 0.9E
6 Th	1036 1935	0043 0647 1401 2208	0.4E 1.5E 1.5F 0.7E	21 F	0934 1815	0019 0506 1315 2143	0.7E 1.0E 1.3F 0.7E	6 Sa	0021 0352 1056 1651	0202 0809 1346 2116	0.3F 0.8E 1.0F 1.2E	21 Su	0948 1533 2301	0051 0617 1241 1929	* 0.7E 0.9F 1.1E
7 F	1129 1933	0148 0759 1437 2230	* 1.4E 1.4F 0.8E	22 Sa	1030 1746	0108 0627 1342 2125	0.3E 1.0E 1.2F 0.7E	7 Su	0023 0549 1145 1639	0247 0919 1412 2114	0.7F 0.6E 0.8F 1.4E	22 M	0439 1109 1525 2317	0756 1319 1932	0.7E 0.6F 1.5E
8 Sa	1213 1858	0240 0859 1504 2242	* 1.2E 1.2F 0.9E	23 Su	1127 1723	0152 0746 1412 2107	* 1.0E 1.1F 0.9E	8 M	0037 0724 1238 1634	0325 1021 1438 2110	1.1F 0.5E 0.5F 1.6E	23 Tu	0612 1236 1515 2347	0219 0930 1357 1949	1.7F 0.7E 0.3F 1.8E
9 Su	0126 0532 1252 1828	0325 0951 1528 2239	0.5F 1.0E 1.0F 1.1E	24 M	0012 0517 1227 1714	0236 0903 1445 2105	0.9F 1.0E 1.2F 1.2E	9 Tu	0055 0838	0359 1121 1504 2118	1.5F 0.5E 0.5E 1.8E	24 W	0737	0305 1054 1435 2017	2.3F 0.7E * 2.2E
10 M	0140 0658 1332 1820	0406 1042 1552 2231	0.8F 0.8E 0.8F 1.3E	25 Tu	0028 0644 1334 1709	0321 1017 1520 2116	1.5F 1.0E 0.5F 1.6E	10 W	0116 0939	0432 1221 1531 2134	1.8F 0.5E * 1.9E	25 Th	0027 0902	0353 1212 1512 2054	2.7F 0.7E 0.3E 2.4E
11 Tu	0159 0819 1420 1816	0445 1135 1617 2236	1.2F 0.7E 0.5F 1.5E	26 W	0057 0805	0408 1130 1557 2140	2.1F 0.9E * 1.9E	11 Th	0141 1033	0504 1325 1557 2156	2.0F 0.5E 0.3E 1.9E	26 F	0114 1033	0443 1330 1546 2138	2.8F 0.6E 0.4E 2.5E
12 W	0222 0938	0523 1235 1644 2253	1.5F 0.5E * 1.7E	27 Th	0136 0928	0457 1245 1633 2215	2.5F 0.8E * 2.1E	12 F	0209 1130	0539 1443 1617 2220	2.1F 0.6E 0.5E 1.8E	27 Sa	0208 1210	0537 1457 1616 2230	2.7F 0.5E 0.5E 2.4E
13 Th	0249 1054	0602 1345 1710 2317	1.7F 0.5E * 1.7E	28 F	0222 1101	0549 1410 1708 2257	2.6F 0.7E 0.3E 2.2E	13 Sa	0243 1231	0618 2245	2.0F 1.7E	28 Su	0308 1340	0636 2330	2.5F 2.2E
14 F	0320 1212	0643 1521 1729 2345	1.8F 0.4E 0.4E 1.7E	29 Sa	0317 1244	0645 1551 1740 2350	2.5F 0.6E 0.5E 2.1E	14 Su	0322 1336	0701 2308	1.9F 1.6E	29 M	0412 1450	0742	2.2F
15 Sa	0357 1332	0729 1908	1.8F	30 Su	0419 1429	0749	2.3F	15 M	0405 1437	0751 2325	1.7F 1.5E	30 Tu	0518 1532	0045 0856	1.9E 1.9F
												31 W	0622 1549	0210 1006 1855 2208	1.6E 1.6F 0.7E 0.6E

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
\* Current weak and variable.

## Bolivar Roads, Galveston Bay, Texas, 2017

F—Flood, Dir. 306° True    E—Ebb, Dir. 116° True

July				August				September															
Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots	Slack	Maximum		knots								
	h m	h m			h m	h m			h m	h m			h m	h m									
<b>1</b> Sa	0146	0445	0.4E	<b>16</b> Su ☉	0009	0328	0.6E	<b>1</b> Tu	0652	0915	0.3E	<b>16</b> W	0526	0842	0.4E	<b>1</b> F	0754	1108	0.8E	<b>16</b> Sa	0815	1028	0.5E
	0719	1031	0.8F		0635	0932	0.7F		1041	0.3E	1021		0.4E	1304	0.7E		1240	0.4E					
	1321	1750	1.4E		1219	1629	1.3E		1723	1.8E	1646		1.9E	1838	1.5E		1915	1.9E					
	2149				2010	2253	1.0F		2146		2105			2255			2319						
<b>2</b> Su		0037	0.8F	<b>17</b> M	0233	0510	0.4E	<b>2</b> W	0739	1027	0.5E	<b>17</b> Th	0716	1005	0.5E	<b>2</b> Sa	0838	1133	0.7E	<b>17</b> Su	0855	1059	0.5E
		0657	*		0811	1016	0.3F		1141	0.5E	1115		0.5E	1343	0.7E		1345	0.7E					
	1317	1802	1.6E		1204	1648	1.6E		1807	1.8E	1744		2.1E	1936	1.4E		2022	1.8E					
<b>3</b> M		0124	1.3F	<b>18</b> Tu	0437	0732	0.3E	<b>3</b> Th	0825	1119	0.6E	<b>18</b> F	0840	1102	0.5E	<b>3</b> Su	0914	1156	0.7E	<b>18</b> M	0912	1123	0.5E
		0846	*		1102	*	1240		0.6E	0825	1199		0.6E	1102	0.5E		1413	0.5E	1442		*		
		1147	*		1717	1.9E	1855		1.8E	2317			1848	2.2E	2023		1.4E	2120	1.6E				
	2237				2125		2027		1.7E	2317			2318		2023		1.4E	2120	1.6E				
<b>4</b> Tu		0205	1.6F	<b>19</b> W	0051	2.0F	<b>4</b> F	0912	1205	0.7E	<b>19</b> Sa	0948	1146	0.4E	<b>4</b> M	0935	1213	0.6E	<b>19</b> Tu	0850	1138	0.6E	
	0802	1004	0.3E		0635	0938		0.4E	1324	0.7E		1312	0.3E	1448		0.4E	1413	0.5E		1535	0.4F		
	2308				1756	2.2E		2027	1.7E	1943		1.7E	1954	2.2E		2102	1.4E	2102		1.4E	1721	2211	1.4E
<b>5</b> W		0244	1.9F	<b>20</b> Th	0147	2.3F	<b>5</b> Sa	0957	1247	0.7E	<b>20</b> Su	1042	1221	0.3E	<b>5</b> Tu	0936	1220	0.6E	<b>20</b> W	0753	1137	0.7E	
		1109	0.5E		0815	1056		0.5E	1358	0.6E		1410	*	1530		*	1530	*		1413	1625	0.7F	
		1307	0.4E		1843	2.4E		2027	1.7E	2102		1.7E	2055	2.2E		2139	1.3E	1849		2300	1.1E		
<b>6</b> Th		0322	2.0F	<b>21</b> F	0243	2.5F	<b>6</b> Su	1037	1323	0.6E	<b>21</b> M	1116	1250	0.3E	<b>6</b> W	0912	1216	0.6E	<b>21</b> Th	0730	1125	1.0E	
		1207	0.6E		0941	1202		0.4E	1433	0.6E		1508	*	1615		*	1615	*		1440	1713	1.0F	
		1343	0.5E		1936	2.5E		2102	1.7E	2102		1.7E	2150	2.0E		2224	1.2E	2016		2353	0.8E		
<b>7</b> F		0018	0.400	<b>22</b> Sa	0014	0.339	<b>7</b> M	1107	1349	0.6E	<b>22</b> Tu	1116	1310	0.3E	<b>7</b> Th	0843	1214	0.8E	<b>22</b> F	0724	1128	1.3E	
		1012	1305		0.7E	1059		1300	0.3E	1517		0.5E	1608	*		1504	1704	0.6F		1510	1801	1.2F	
		1411	1922		1.9E	2033		2.5E	2129	1.6E		2241	1.7E	2241		1.7E	1914	2322		1.1E	2148		
<b>8</b> Sa		0056	0.437	<b>23</b> Su	0112	0.433	<b>8</b> Tu	1122	1404	0.5E	<b>23</b> W	1030	1319	0.5E	<b>8</b> F	0831	1221	1.0E	<b>23</b> Sa	0349	0535	0.4F	
		1059	2101		1.8E	1443		*	1607	0.4E		1537	1709	0.3F		1524	1755	1.0F		0717	1148	1.5E	
	☉				2131	2.4E		2201	1.5E	1844		2334	1.3E	2049			2049			1544	1850	1.4F	
<b>9</b> Su		0134	0.513	<b>24</b> M	0208	0.525	<b>9</b> W	1120	1408	0.6E	<b>24</b> Th	1615	1813	0.5F	<b>9</b> Sa	0350	0605	0.7F	<b>24</b> Su	0208	0.4E		
		1144	2127		1.7E	1542		*	1704	*		2030		1615		1813	0.5F	0826		1236	1.2E	0602	*
					2229	2.2E		2246	1.3E	2241		1.7E	2241	1.7E		1556	1848	1.4F		2224		1219	1.6E
<b>10</b> M		0212	0.548	<b>25</b> Tu	0258	0.612	<b>10</b> Th	1101	1409	0.7E	<b>25</b> F	0927	1323	1.0E	<b>10</b> Su	0820	1301	1.5E	<b>25</b> M	0407	0.3E		
		1221	2152		1.7E	1650		1.8E	2348	1.1E		1655	1920	0.7F		1638	1946	1.7F		1257	1.6E		
					2327	1.8E		0344	0.648	0344		0.648	0344	0.648		0344	0.648	0344		0.648	1706	2042	1.6F
<b>11</b> Tu		0247	0.621	<b>26</b> W	0344	0.653	<b>11</b> F	1727	1905	0.4F	<b>26</b> Sa	1736	2031	1.0F	<b>11</b> M	1729	2050	1.9F	<b>26</b> Tu	1343	1.5E		
		1247	2225		1.5E	1515		0.4E	0648	1.3F		0438	0.700	0923		1.3E	1337	1.6E		1759	2154	1.5F	
					1808	0.4E		2058		1417		0.9E	0923	1.3E		1736	2031	1.0F		2050	1.9F		
<b>12</b> W		0322	0.655	<b>27</b> Th	0425	0.730	<b>12</b> Sa	1748	2010	0.8F	<b>27</b> Su	1819	2143	1.2F	<b>12</b> Tu	1831	2201	1.9F	<b>27</b> W	1439	1.5F		
		1258	1620		0.7E	1200		1526	0.7E	2311			0438	0.700		0923	1.3E	1426		1.7E	1901	2319	1.5F
					2313	1.4E		1940	*	1748		2010	0.8F	2311			1819	2143		1.2F	2201	1.9F	
<b>13</b> Th		0358	0.730	<b>28</b> F	0138	0.9E	<b>13</b> Su	1822	2115	1.2F	<b>28</b> M	1906	2253	1.4F	<b>13</b> W	1943	2320	1.9F	<b>28</b> Th	1545	1.3E		
		1255	1612		0.7E	0804		1.0F	0542	0.805		0548	*	0757		*	0848	0.5E		0522	1545	1.3E	
					1908	0.5E		1135	1532	1.0E		1027	1452	1.3E		1455	1.6E	1527		1.8E	2012		
<b>14</b> F		0023	1.1E	<b>29</b> Sa	0259	0.4E	<b>14</b> M	1907	2223	1.6F	<b>29</b> Tu	1959			<b>14</b> Th	2100			<b>29</b> F	0035	1.4F		
		0440	0.808		0544	0.838		0.7F	0548	0.848		0459	1541	1.6E		0949	0.6E	0619		1040	0.9E		
		1241	1609		0.8E	1129		1547	1.3E	1822		2115	1.2F	1906		2253	1.4F	1639		1.8E	1255	0.8E	
<b>15</b> Sa		0152	0.8E	<b>30</b> Su	0447	*	<b>15</b> Tu	2002	2331	1.9F	<b>30</b> W	2058			<b>15</b> F	2214			<b>30</b> Sa	0134	1.4F		
		0530	0.849		0914	0.3F		0615	0.4E	0607		1634	1.5E	0000		1.5F	0953	0.6E		0703	1027	0.8E	
		1229	1615		1.1E	1123		1612	1.6E	1558		1.8E	2058			0607	1634	1.5E		1120	0.5E	1341	0.7E
	1956	2146	0.4F	2026	2351	1.2F	2002	2331	1.9F	2002	2331	1.9F	2058		1758	1.9E	1811	1.1E					
				<b>31</b> M	0731	*				<b>31</b> Th	0703	0103	1.6F					2219					
				2104	0954	1.7E				2159	1735	1.5E											

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 \* Current weak and variable.

# Bolivar Roads, Galveston Bay, Texas, 2017

F—Flood, Dir. 306° True    E—Ebb, Dir. 116° True

October				November				December																			
Slack	Maximum		Slack	Maximum		Slack	Maximum		Slack	Maximum		Slack	Maximum														
	h	m	knots	h	m	knots	h	m	knots	h	m	knots	h	m	knots	h	m	knots									
<b>1</b> Su	0732	1039	0.8E	<b>16</b> M	0658	1000	0.8E	<b>1</b> W	0447	0849	1.0E	<b>16</b> Th	0355	0842	1.7E	<b>1</b> F	1126	1445	2.1F	<b>16</b> Sa	1224	1557	2.1F				
	1914	1405	0.5E		1248	1420	0.3F		1207	1432	0.8F		1232	1541	1.6F		1931	2241	0.6E		2159						
	2307		1.1E		1550	2046	1.2E		1727	2100	0.7E		2043	2316	0.5E												
<b>2</b> M	0743	1047	0.7E	<b>17</b> Tu	0622	1013	0.9E	<b>2</b> Th	0006	0219	0.6F	<b>17</b> F	0240	*	*	<b>2</b> Sa	0205	*	*	<b>17</b> Su	0035	0635	0.6E				
	1422	1422	0.3E		1254	1506	0.6F		0434	0841	1.3E		0847	1.9E	1.9F		0751	2.2E	2.2E		0232	0.4E	0.4E				
	2007	1449	1.1E		1732	2146	1.0E		1214	1507	1.4F		1254	1613	1.9F		1203	1529	2.6F		0834	2.1E	2.1E				
									1845	2207	0.7E		2138				2043	2351	0.6E		1256	1631	2.2F				
<b>3</b> Tu	0725	1044	0.7E	<b>18</b> W	0040	0306	0.9F	<b>3</b> F	0113	0251	0.4F	<b>18</b> Sa	0014	0.5E	0.5E	<b>3</b> Su	0243	0.3E	0.3E	<b>18</b> M	0132	0.6E	0.6E				
	1449	1449	*		0550	1009	1.1E		0427	0847	1.6E		0307	2.0E	2.0E		0829	2.4E	2.4E		0301	0.6E	0.6E				
	2057	1499	1.0E		1311	1547	1.0F		1237	1548	2.0F		0905	2.0E	2.0E		1248	1618	2.8F		0906	2.0E	2.0E				
					1901	2241	0.8E	<b>0</b>	1956	2313	0.8E	<b>•</b>	1320	1645	2.1F	<b>0</b>	2204			<b>•</b>	1332	1708	2.2F				
<b>4</b> W	0029	0316	1.1F	<b>19</b> Th	0123	0329	0.6F	<b>4</b> Sa	0326	*	*	<b>19</b> Su	0114	0.5E	0.5E	<b>4</b> M	0101	0.6E	0.6E	<b>19</b> Tu	0939	1.9E	1.9E				
	0650	1030	0.8E		0539	0956	1.3E		0909	2.0E	2.0E		0334	0.3E	0.3E		0320	0.4E	0.4E		1411	1749	2.1F				
	1322	1525	0.6F	<b>•</b>	1332	1625	1.4F		1632	2.5F	2.5F		0930	2.0E	2.0E		0914	2.6E	2.6E								
	1745	2150	1.0E	<b>•</b>	2022	2335	0.6E		2108				1349	1720	2.2F		1341	1710	2.8F								
<b>5</b> Th	0113	0341	0.9F	<b>20</b> F	0212	0352	0.4F	<b>5</b> Su	0022	0.7E	0.7E	<b>20</b> M	0224	0.5E	0.5E	<b>5</b> Tu	0217	0.5E	0.5E	<b>20</b> W	0016	1010	1.8E				
	0631	1023	1.0E		0532	0958	1.6E		0402	2.2E	2.2E		0358	0.5E	0.5E		0356	0.4E	0.4E		1451	1831	1.9F				
	1330	1606	1.1F		1355	1702	1.7F		0942	*	*		1000	2.0E	2.0E		1005	2.5E	2.5E								
<b>6</b> F	0205	0411	0.7F		2136				1353	1721	2.7F		1424	1759	2.1F		1440	1807	2.6F	<b>20</b> W	0016	1010	1.8E				
	0624	1025	1.3E						2229												1451	1831	1.9F				
	1353	1650	1.6F					<b>6</b> M	0138	0.7E	0.7E	<b>21</b> Tu	0014	1032	1.8E	<b>6</b> W	0104	1105	2.4E	<b>21</b> Th	0100	1038	1.6E				
	2024	2351	0.9E						0439	0.3E	0.3E		1505	1844	2.0F		1544	1910	2.3F		1531	1914	1.8F				
<b>7</b> Sa	0308	0446	0.4F						1025	2.3E	2.3E																
	0621	1041	1.6E	<b>22</b> Su	0140	0.4E	0.4E	<b>7</b> Tu	0004	0310	0.6E	<b>22</b> W	0115	1104	1.7E	<b>7</b> Th	0216	1216	2.1E	<b>22</b> F	0136	1100	1.4E				
	1426	1738	2.0F		0444	*	*		0513	0.4E	0.4E		1550	1936	1.8F		1649	2019	2.0F		1608	1956	1.6F				
	2143				1042	1.9E	1.9E		1116	2.2E	2.2E																
<b>8</b> Su	0101	0822	0.8E		1454	1821	1.9F		1545	1915	2.4F	<b>23</b> Th	0213	1131	1.5E	<b>8</b> F	0302	1340	1.7E	<b>23</b> Sa	0158	1125	1.2E				
	1111	1829	2.3F	<b>23</b> M	0311	0.4E	0.4E	<b>8</b> W	0146	1220	2.1E		1638	2035	1.6F		1753	2129	1.7F		1644	2034	1.4F				
	1508	1829	2.3F		0505	0.4E	0.4E		1654	2026	2.1F	<b>23</b> Th	0213	1131	1.5E												
	2309				1115	1.8E	1.8E																				
<b>9</b> M	0220	0600	0.7E		1533	1906	1.9F	<b>9</b> Th	0315	1343	1.8E	<b>24</b> F	0300	1035	1.3E	<b>9</b> Sa	0321	0618	0.7E	<b>24</b> Su	0204	0606	0.8E				
	1152	1152	1.9E	<b>24</b> Tu	0112	1152	1.7E		1808	2149	1.9F		1726	2138	1.4F		0851	0.5E	0.5E		0812	0.8E	0.8E				
	1600	1927	2.3F		1618	2001	1.7F										1509	1.3E	1.3E		1235	0.9E	0.9E				
<b>10</b> Tu	0050	0406	0.6E	<b>25</b> W	0229	1233	1.5E	<b>10</b> F	0416	1518	1.6E	<b>25</b> Sa	0332	1009	1.1E	<b>9</b> Sa	1856	2228	1.4F					<b>24</b> Su	0812	0.8E	0.8E
	0637	0406	0.6E		1711	2109	1.6F		1924	2310	1.7F		1814	2231	1.3F						1126	*	*				
	1245	1245	1.9E														1641	0.8E	0.8E	<b>25</b> M	0153	0547	0.9E				
	1702	2033	2.2F					<b>0</b>									1956	2314	1.1F		1019	0.4E	0.4E				
<b>11</b> W	0243	1353	1.8E	<b>26</b> Th	0339	1323	1.3E	<b>11</b> Sa	0452	0750	0.7E	<b>26</b> Su	0347	0805	0.9E	<b>11</b> M	0254	0702	1.1E	<b>26</b> Tu	0134	0534	1.0E				
	1815	2152	2.0F		1812	2238	1.4F		1113	0.5E	0.5E		1302	0.7E	0.7E		1040	1240	0.4F	<b>26</b> W	1123	*	*				
									1652	1.3E	1.3E		1430	0.7E	0.7E		1503	1829	0.5E		1610	0.3E	0.3E				
<b>12</b> Th	0427	1518	1.7E						2035			<b>0</b>	1903	2308	1.1F		2057	2350	0.8F	<b>0</b>	1901	2226	0.7F				
	1936	2321	1.8F	<b>27</b> F	0435	1032	1.1E	<b>12</b> Su	0009	1.4F	1.4F	<b>27</b> M	0340	0750	0.9E	<b>12</b> Tu	0233	0715	1.4E	<b>27</b> W	0115	0533	1.2E				
<b>0</b>					1224	1.0E	1.0E		0815	0.9E	0.9E		1259	0.3E	0.3E		0928	1207	0.8F	<b>27</b> Th	0056	0542	1.5E				
					1431	1.1E	1.1E		1242	*	*		1621	0.5E	0.5E		1808	*	*		0943	1251	1.5F				
<b>13</b> F	0542	0843	0.6E	<b>0</b>	1917	2353	1.3F		1824	1.0E	1.0E		1959	2339	0.9F		2206				1808	*	*		1740	2033	0.3E
	1009	1009	0.6E	<b>28</b> Sa	0516	0944	1.0E	<b>13</b> M	0051	1.2F	1.2F	<b>28</b> Tu	0318	0726	1.0E	<b>13</b> W	0222	0719	1.6E	<b>28</b> Th	0056	0542	1.5E				
	1649	1649	1.6E		1315	0.8E	0.8E		0450	0836	1.0E		1305	*	*		0943	1251	1.5F		0943	1251	1.5F				
	2055				1554	0.9E	0.9E		1150	1341	0.4F		1808	0.4E	0.4E		1740	2033	0.3E		1740	2033	0.3E				
<b>14</b> Sa	0632	0911	0.7E		2020				1544	1953	0.8E		2112				1934	2135	0.3E		2353	*	*				
	1211	1211	0.4E	<b>29</b> Su	0538	0924	0.9E	<b>14</b> Tu	0421	0849	1.2E	<b>29</b> W	0258	0711	1.2E												
	1817	1817	1.5E		1341	0.6E	0.6E		1156	1428	0.8F		1054	1329	0.8F	<b>14</b> Th	0054	*	*	<b>29</b> F	0603	0603	1.9E				
					1718	0.8E	0.8E		1751	2110	0.6E		1653	1951	0.4E		1130	1450	1.7F		1014	1337	2.0F				
<b>15</b> Su	0132	0938	1.6F		2118			<b>15</b> W	0149	0.6F	0.6F		2242				2035	2241	0.4E		1905	2211	0.4E				
	0938	0938	0.7E	<b>30</b> M	0538	0109	1.2F		0404	0847	1.4E	<b>30</b> Th	0243	0710	1.5E												
	1324	1324	*		1351	*	*		1212	1507	1.3F		1102	1404	1.5F	<b>15</b> F	0126	*	*								
	1937	1937	1.4E		1837	0.7E	0.7E		1930	2216	0.5E		1818	2124	0.5E		1155	1524	2.0F	<b>30</b> Sa	0038	*	*				
	2305																2119	2339	0.5E		0637	2.2E	2.2E				
				<b>31</b> Tu	0513	0128	1.0F														1057	1426	2.5F				
					0910	0.9E	0.9E														2024	2320	0.5E				
					1404	*	*																				
					1951	0.7E	0.7E														1148	1517</					

# Aransas Pass (between jetties), Texas, 2017

F—Flood, Dir. 300° True      E—Ebb, Dir. 120° True

January				February				March																																							
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum																																	
	h	m	knots		h	m	knots		h	m	knots		h	m	knots																																
<b>1</b> Su	0229	0915	1.7E	<b>16</b> M	0247	1044	1.1E	<b>1</b> W	0432	*	*	<b>16</b> Th	0519	0749	0.4F	<b>1</b> W	0752	1120	0.4E	<b>16</b> Th	0226	0619	0.7F																								
	1431	1903	1.6F		1521	1916	1.1F		0619	*	*		0752	1200	*		1435	1747	0.3F		1623	*	*		1723	*	*		1958	2329	0.5E		1723	*	*		2304	0.7E		2304	0.7E						
									1104	0.6E	0.6E		1409	*	*		1958	2329	0.5E		1625†	*		0253	0643	0.6F		0611	0913	0.6F		0643	1218	*		0328	0726	0.8F		0726	0.8F						
<b>2</b> M	0256	1004	1.4E	<b>17</b> Tu	0217	0444	0.3E	<b>2</b> Th	0340	0.3E	0.3E	<b>17</b> F	0611	0913	0.6F	<b>2</b> Th	0253	0643	0.6F	<b>17</b> F	0555	0039	0.5E		0625	1004	1.4E		0913	0611	0.6F		1218	*		1551	2324	0.9E		1427	*		1551	2324	0.9E		
	1504	1938	1.5F		0620	*	*		0809	*	*		0611	1158	0.5F		0643	1218	*		0255	0039	0.5E		0625	1004	1.4E		1158	0.5F		1427	*		1551	2324	0.9E		1609	*		1551	2324	0.9E			
					1114	0.7E	0.7E		1140	*	*		0611	1339	0.5F		0643	1427	*		0255	0039	0.5E		0625	1004	1.4E		1339	0.5F		1609	*		1551	2324	0.9E		1757†	*		1551	2324	0.9E			
					1542	0.9F	0.9F		1936	0.4F	0.4F		0611	2055	0100	0.7E		0643	1757†	*		0255	0039	0.5E		0625	1004	1.4E		2055	0100	0.7E		1757†	*		1551	2324	0.9E		1757†	*		1551	2324	0.9E	
<b>3</b> Tu	0309	1050	1.1E	<b>18</b> W	0112	0437	0.4E	<b>3</b> F	0648	0.6E	0.6E	<b>18</b> Sa	0701	1019	0.7F	<b>3</b> F	0426	0812	0.9F	<b>18</b> Sa	0434	0838	1.0F		0426	0812	0.9F		0701	1138	0.7F		0426	0812	0.9F		0812	0.9F		0434	0838	1.0F		0812	0.9F		
	1533	2011	1.2F		0808	*	*		0938	0.6F	0.6F		0701	1339	0.8F		0426	0812	0.9F		0434	0838	1.0F		0426	0812	0.9F		1019	0.7F		0426	0812	0.9F		0812	0.9F		0434	0838	1.0F		0812	0.9F			
					1126	*	*		1200	0.5F	0.5F		0701	2041	0309	0.9E		0426	0812	0.9F		0434	0838	1.0F		0426	0812	0.9F		1138	0.7F		0426	0812	0.9F		0812	0.9F		0434	0838	1.0F		0812	0.9F		
					2010	0.7F	0.7F		1411	0.5F	0.5F		0701	2041	0309	0.9E		0426	0812	0.9F		0434	0838	1.0F		0426	0812	0.9F		1339	0.8F		0426	0812	0.9F		0812	0.9F		0434	0838	1.0F		0812	0.9F		
<b>4</b> W	0254	0603	0.4E	<b>19</b> Th	0440	0516	1.4E	<b>4</b> Sa	0733	1344	1.0F	<b>19</b> Su	0749	1353	1.0F	<b>4</b> Sa	0537	0934	1.2F	<b>19</b> Su	0536	0936	1.1F		0537	0934	1.2F		0749	1353	1.0F		0537	0934	1.2F		0934	1.2F		0536	0936	1.1F		0934	1.2F		
	0754	0.4E			0940	*	*		2127	0254	1.0E		0749	2038	0309	0.9E		0537	0934	1.2F		0536	0936	1.1F		0537	0934	1.2F		1353	1.0F		0537	0934	1.2F		0934	1.2F		0536	0936	1.1F		0934	1.2F		
	1127	0.7E			1123	*	*			0254	1.0E		0749	2038	0309	0.9E		0537	0934	1.2F		0536	0936	1.1F		0537	0934	1.2F		1353	1.0F		0537	0934	1.2F		0934	1.2F		0536	0936	1.1F		0934	1.2F		
	1541	2040	0.9F		1437	0.3F	0.3F			0254	1.0E		0749	2038	0309	0.9E		0537	0934	1.2F		0536	0936	1.1F		0537	0934	1.2F		1353	1.0F		0537	0934	1.2F		0934	1.2F		0536	0936	1.1F		0934	1.2F		
					1700†	*	*			0254	1.0E		0749	2038	0309	0.9E		0537	0934	1.2F		0536	0936	1.1F		0537	0934	1.2F		1353	1.0F		0537	0934	1.2F		0934	1.2F		0536	0936	1.1F		0934	1.2F		
<b>5</b> Th	0117	0520	0.5E	<b>20</b> F	0819	0444	0.7E	<b>5</b> Su	0822	1356	1.5F	<b>20</b> M	0837	1411	1.2F	<b>5</b> Su	0643	1050	1.4F	<b>20</b> M	0636	1030	1.1F		0643	1050	1.4F		0837	1411	1.2F		0643	1050	1.4F		1050	1.4F		0636	1030	1.1F		1050	1.4F		
	0934	*	*		0444	0.7E	0.7E		2137	0342	1.4E		0837	1411	1.2F		0643	1050	1.4F		0636	1030	1.1F		0643	1050	1.4F		0837	1411	1.2F		0643	1050	1.4F		1050	1.4F		0636	1030	1.1F		1050	1.4F		
	1154	*	*		1421	0.6F	0.6F			0342	1.4E		0837	1411	1.2F		0643	1050	1.4F		0636	1030	1.1F		0643	1050	1.4F		0837	1411	1.2F		0643	1050	1.4F		1050	1.4F		0636	1030	1.1F		1050	1.4F		
	2101	0.6F	0.6F		1923	0.3F	0.3F			0342	1.4E		0837	1411	1.2F		0643	1050	1.4F		0636	1030	1.1F		0643	1050	1.4F		0837	1411	1.2F		0643	1050	1.4F		1050	1.4F		0636	1030	1.1F		1050	1.4F		
	2347				2047	0.3F	0.3F			0342	1.4E		0837	1411	1.2F		0643	1050	1.4F		0636	1030	1.1F		0643	1050	1.4F		0837	1411	1.2F		0643	1050	1.4F		1050	1.4F		0636	1030	1.1F		1050	1.4F		
<b>6</b> F	0836	0450	0.7E	<b>21</b> Sa	0850	0450	0.9E	<b>6</b> M	0913	0424	1.7E	<b>21</b> Tu	0924	0434	1.3E	<b>6</b> M	0746	0224	1.5E	<b>21</b> Tu	0735	0112	1.1E		0746	0224	1.5E		0924	0434	1.3E		0746	0224	1.5E		0924	0434	1.3E		0735	0112	1.1E		0924	0434	1.3E
	1200	0.4F	0.4F		1426	1.0F	1.0F		2212	0424	1.7E		0924	0434	1.3E		0746	0224	1.5E		0735	0112	1.1E		0746	0224	1.5E		0924	0434	1.3E		0746	0224	1.5E		0924	0434	1.3E		0735	0112	1.1E		0924	0434	1.3E
	1437	0.5F	0.5F		1426	1.0F	1.0F			0424	1.7E		0924	0434	1.3E		0746	0224	1.5E		0735	0112	1.1E		0746	0224	1.5E		0924	0434	1.3E		0746	0224	1.5E		0924	0434	1.3E		0735	0112	1.1E		0924	0434	1.3E
	1924†	0.4F	0.4F		1426	1.0F	1.0F			0424	1.7E		0924	0434	1.3E		0746	0224	1.5E		0735	0112	1.1E		0746	0224	1.5E		0924	0434	1.3E		0746	0224	1.5E		0924	0434	1.3E		0735	0112	1.1E		0924	0434	1.3E
	0440	1.1E	1.1E		1426	1.0F	1.0F			0424	1.7E		0924	0434	1.3E		0746	0224	1.5E		0735	0112	1.1E		0746	0224	1.5E		0924	0434	1.3E		0746	0224	1.5E		0924	0434	1.3E		0735	0112	1.1E		0924	0434	1.3E
<b>7</b> Sa	0859	1413	1.1F	<b>22</b> Su	0926	0459	1.2E	<b>7</b> Tu	1006	0508	1.9E	<b>22</b> W	1011	0511	1.4E	<b>7</b> Tu	0845	0359	1.6E	<b>22</b> W	0830	0333	1.1E		0845	0359	1.6E		1011	0511	1.4E		0845	0359	1.6E		1011	0511	1.4E		0830	0333	1.1E		1011	0511	1.4E
	2257				1439	1.2F	1.2F		2258	0508	1.9E		1011	0511	1.4E		0845	0359	1.6E		0830	0333	1.1E		0845	0359	1.6E		1011	0511	1.4E		0845	0359	1.6E		1011	0511	1.4E		0830	0333	1.1E		1011	0511	1.4E
					2245				2258	0508	1.9E		1011	0511	1.4E		0845	0359	1.6E		0830	0333	1.1E		0845	0359	1.6E		1011	0511	1.4E		0845	0359	1.6E		1011	0511	1.4E		0830	0333	1.1E		1011	0511	1.4E
<b>8</b> Su	0936	1425	1.6F	<b>23</b> M	1005	0516	1.4E	<b>8</b> W	1100	0558	2.0E																																				

# Aransas Pass (between jetties), Texas, 2017

F—Flood, Dir. 300° True    E—Ebb, Dir. 120° True

April				May				June																		
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum													
	h	m	knots		h	m	knots		h	m	knots		h	m	knots											
<b>1</b> Sa	0343	0810	1.6F	<b>16</b> Su	0327	0807	1.3F	<b>1</b> M	0425	0901	1.9F	<b>16</b> Tu	0340	0829	1.6F	<b>1</b> Th	0535	0932	1.3F	<b>16</b> F	0418	0904	1.2F			
	1609	2334	1.6E		1543	2304	1.2E		1618	2351	1.6E		1546	2310	1.4E		1539	1826	0.5E		1524	1848	0.5E			
<b>2</b> Su	0455	0921	1.7F	<b>17</b> M	0426	0901	1.3F	<b>2</b> Tu	0527	0945	1.7F	<b>17</b> W	0429	0910	1.5F	<b>2</b> F		0014	0.5E	<b>17</b> Sa	0435	0931	1.0F			
	1702				1625	2342	1.2E		1651				1615	2347	1.2E		0608	0956	1.0F		1428	1813	0.5E			
																	1510	1826	0.6E		2220		*			
																			*							
<b>3</b> M		0016	1.6E	<b>18</b> Tu	0525	0947	1.3F	<b>3</b> W		0029	1.3E	<b>18</b> Th	0517	0946	1.4F	<b>3</b> Sa		0007	*	<b>18</b> Su		0024	*			
		1019	1.7F		1708				0625	1021	1.5F		1636				0228	*			1300	1734	0.7E			
									1710	1946	0.4E						0457	*			2125		0.7E			
										2050	0.3E								*							
																			*							
																			*							
<b>4</b> Tu		0109	1.5E	<b>19</b> W		0021	1.2E	<b>4</b> Th		0117	0.9E	<b>19</b> F		0024	0.9E	<b>4</b> Su		1421	1830†	0.8E	<b>19</b> M		0223	0.5F		
	0708	1130	1.6F		0624	1031	1.3F		0720	1057	1.2F		0603	1019	1.2F				0226	0.5F			0722	0.3F		
	1845				1751				1709	1934	0.4E		1636	1943	0.4E				0713	*			0948	0.4F		
										2215	*			2208	0.3E				1037	0.4F			1217	1716		
																			1327	1834	1.0E		2140	1.1E		
																			2221							
<b>5</b> W		0332	1.3E	<b>20</b> Th		0110	1.0E	<b>5</b> F		0442	0.6E	<b>20</b> Sa		0110	0.5E	<b>5</b> M		1259	1836	1.1E	<b>20</b> Tu		0158	1.0F		
	0810	1309	1.4F		0721	1121	1.2F		0811	1134	0.9F		0645	1053	0.9F		1250					1139	1727	1.5E		
	1926				1828				1646	1935	0.4E		1554	1916	0.4E		2250					2213				
										2358	*			2338	*											
<b>6</b> Th		0449	1.1E	<b>21</b> F		0336	0.8E	<b>6</b> Sa		0624	0.3E	<b>21</b> Su		0431	*	<b>6</b> Tu		1229	1838	1.3E	<b>21</b> W		0227	1.5F		
	0908	1336	1.2F		0817	1218	1.0F		0855	1212	0.6F		1445	1126	0.6F		2321					1110	1755	1.9E		
		2102	*			2056	*		1602	1937	0.6E		2212	1837	0.6E							2256				
		2256	*			2302	*		2244																	
<b>7</b> F		0602	0.9E	<b>22</b> Sa		0451	0.7E	<b>7</b> Su		0140	0.5F	<b>22</b> M		0117	0.5F	<b>7</b> W		1136	1849	1.5E	<b>22</b> Th		0307	1.9F		
	1004	1349	1.0F		0912	1300	0.9F		0802	1246	0.4F		0742	*	*		2353					1130	1834	2.2E		
		2103	*			2026	*		1246	1936	0.7E		1154	0.3F	0.9E							2343				
									1510				1355	1815	0.9E											
									2310				2231													
<b>8</b> Sa		0048	*	<b>23</b> Su		0049	*	<b>8</b> M		0219	0.8F	<b>23</b> Tu		0207	1.1F	<b>8</b> Th		1150	1907	1.6E	<b>23</b> F		0358	2.2F		
	1101	0719	0.7E		1013	1329	0.6F		1016	*	*		1234	1826	1.3E							1211	1917	2.4E		
		1402	0.8F		1650	1944	0.3E		1312	*	0.9E		2306													
		2104	*		2238				1928	0.9E																
									2339																	
<b>9</b> Su		0149	0.5F	<b>24</b> M		0149	0.6F	<b>9</b> Tu		0255	1.1F	<b>24</b> W		0254	1.5F	<b>9</b> F		0024	0430	1.6F	<b>24</b> Sa		0031	0458		
	0430	0831	0.5E		0459	0803	0.3E		1148	*	*		1118	1853	1.7E		1222	1931	1.7E		1304	2001	2.4E			
	1157	1419	0.5F		1134	1352	0.4F		1332	*	1.1E		2350													
	1742	2056	0.3E		1545	1920	0.6E		1925	1.1E																
	2345				2310																					
<b>10</b> M		0236	0.7F	<b>25</b> Tu		0239	1.0F	<b>10</b> W		0007	0.336	<b>25</b> Th		0348	1.9F	<b>10</b> Sa		0055	0515	1.7F	<b>25</b> Su		0118	0552		
	0646	1025	0.3E		1111	*	*		1127	1933	1.2E		1158	1928	2.0E		1303	1958	1.7E		1357	2048	2.2E			
	1249	1438	0.3F		1408	*	*																			
	1636	2033	0.5E		1929	1.0E																				
					2353																					
<b>11</b> Tu		0322	0.9F	<b>26</b> W		0333	1.3F	<b>11</b> Th		0036	0425	<b>26</b> F		0035	0452	2.1F	<b>11</b> Su		0127	0556	1.7F	<b>26</b> M		0204	0636	
	0017	1142	*		1242	*	*		1212	1950	1.4E		1254	2008	2.2E		1344	2031	1.7E		1438	2144	1.9E			
		1455	*		1400	*	*																			
		2023	0.7E		1953	1.3E																				
<b>12</b> W		0048	1.0F	<b>27</b> Th		0039	0440	1.6F	<b>12</b> F		0106	0516	<b>27</b> Sa		0123	0555	2.2F	<b>12</b> M		0159	0635	1.7F	<b>27</b> Tu		0251	0715
		1246	*		1227	2028	1.7E		1303	2015	1.5E		1351	2055	2.2E		1421	2111	1.6E		1421	2111	1.6E		1500	2240
		1458	*																							
		2030	0.9E																							
<b>13</b> Th		0120	0516	<b>28</b> F		0127	0549	1.8F	<b>13</b> Sa		0137	0604	<b>28</b> Su		0213	0650	2.2F	<b>13</b> Tu		0233	0715	1.7F	<b>28</b> W		0335	0748
	1244	2053	1.0E		1352	2115	1.8E		1352	2049	1.5E		1439	2153	2.1E		1453	2159	1.5E		1453	2159	1.5E		1501	2319
<b>14</b> F		0154	0612	<b>29</b> Sa		0221	0654	2.0																		

# Aransas Pass (between jetties), Texas, 2017

F—Flood, Dir. 300° True    E—Ebb, Dir. 120° True

July				August				September															
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum									
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	h	m	knots							
<b>1</b> Sa	1243	1722	0.8E	<b>16</b> Su	1121	1629	0.6E	<b>1</b> Tu	1025	1645	1.2E	<b>16</b> W	0850	1548	1.6E	<b>1</b> F	0940	1702	1.3E	<b>16</b> Sa	0956	1724	1.5E
	2057				2009	2225	0.4F		2106				2039		2151				2206				
<b>2</b> Su	0231	0555	0.4F	<b>17</b> M	0003	0248	0.4F	<b>2</b> W	1032	1706	1.3E	<b>17</b> Th	0936	1637	1.9E	<b>2</b> Sa	1037	1744	1.3E	<b>17</b> Su	1206	1830	1.4E
	0923	1729	1.0E		0711	0837	0.4F		2147				2133		2240				2304				
<b>3</b> M	0232	0811	0.8F	<b>18</b> Tu	1053	1613†	1.0E	<b>3</b> Th	1047	1733	1.5E	<b>18</b> F	1031	1728	2.0E	<b>3</b> Su	1140	1827	1.3E	<b>18</b> M	0236	1057	1.3F
	0925	1737	1.2E		1627	1.4E	2230				2229			2326				1933	1301		*	1933	1.1E
<b>4</b> Tu	0247	1136	1.1F	<b>19</b> W	1027	1657	1.8E	<b>4</b> F	1113	1806	1.5E	<b>19</b> Sa	1131	1824	2.0E	<b>4</b> M	1349	1909	1.3E	<b>19</b> Tu	0254	1047	1.0F
	2222				2154				2313				2324		1909				2035		1402	0.4F	1603
<b>5</b> W	0304	1126	1.3F	<b>20</b> Th	1049	1737	2.1E	<b>5</b> Sa	1149	1842	1.6E	<b>20</b> Su	1304	1918	1.8E	<b>5</b> Tu	0008	0322	1.1F	<b>20</b> W	0044	0315	0.7F
	2259				2244				2353				1918		1918				1219		*	1454	0.6F
<b>6</b> Th	0324	1129	1.5F	<b>21</b> F	1129	1825	2.3E	<b>6</b> Su	1235	1915	1.6E	<b>21</b> M	0015	0358	1.6F	<b>6</b> W	0047	0350	1.0F	<b>21</b> Th	0128	0338	0.4F
	2335				2336				1915				2008		2008				1206		*	1552	0.7F
<b>7</b> F	0349	1152	1.6F	<b>22</b> Sa	1222	1914	2.3E	<b>7</b> M	0030	0420	1.5F	<b>22</b> Tu	0100	0429	1.3F	<b>7</b> Th	0123	0421	0.7F	<b>22</b> F	0402	1010	0.4E
	1852				2336				1948				2103		2151				1527		0.4F	1325	1702
<b>8</b> Sa	0011	0424	1.7F	<b>23</b> Su	0025	0446	2.1F	<b>8</b> Tu	0103	0455	1.4F	<b>23</b> W	0141	0458	1.0F	<b>8</b> F	0158	0451	0.5F	<b>23</b> Sa	0043	0422	*
	1225	1921	1.7E		2001	2.1E	1424		2021	1.4E	1714		2222	0.9E	2001		2324	0.3E	1411		1808	0.9F	
<b>9</b> Su	0044	0503	1.7F	<b>24</b> M	0111	0530	1.9F	<b>9</b> W	0135	0527	1.3F	<b>24</b> Th	0218	0525	0.8F	<b>9</b> Sa	0515	*	0211	1035	0.8E		
	1306	1951	1.7E		2049	1.9E	1503		2101	1.2E	1854		2324	0.5E	1818		1818	0.7F	1505	1913	1.0F		
<b>10</b> M	0117	0538	1.7F	<b>25</b> Tu	0154	0603	1.7F	<b>10</b> Th	0204	0557	1.1F	<b>25</b> F	0252	0552	0.5F	<b>10</b> Su	0034	*	0319	1103	1.0E		
	1345	2023	1.7E		2147	1.5E	1535		2156	0.9E	1811		0.4F	1219	0.4F		1111	0.8E	1607	2024	1.1F		
<b>11</b> Tu	0147	0610	1.6F	<b>26</b> W	0234	0629	1.4F	<b>11</b> F	0229	0625	0.9F	<b>26</b> Sa	0008	*	<b>11</b> M	0430	1142	1.2E	<b>26</b> Tu	0405	1133	1.0E	
	1418	2059	1.5E		2245	1.1E	1606		*	0834	1213		0.4E	1634		1933	0.5F	1652		2102	1.2F	1710	2122
<b>12</b> W	0218	0642	1.5F	<b>27</b> Th	0310	0654	1.1F	<b>12</b> Sa	0235	0651	0.6F	<b>27</b> Su	0429	*	<b>12</b> Tu	0520	1219	1.4E	<b>27</b> W	0452	1206	1.1E	
	1443	2145	1.3E		1803	*	1936		0.3F	1735	2059		0.7F	2059		0.7F	1800	2208		1.4F	1810	2210	1.2F
<b>13</b> Th	0247	0715	1.4F	<b>28</b> F	0336	0719	0.8F	<b>13</b> Su	0926	1242	0.6E	<b>28</b> M	0745	1238	0.8E	<b>13</b> W	0617	1310	1.5E	<b>28</b> Th	0542	1246	1.0E
	1456	2234	1.0E		2343	*	1804		2108	0.6F	1829		2203	0.9F	1905		2337	1.6F	1909		2305	1.2F	
<b>14</b> F	0311	0747	1.1F	<b>29</b> Sa	0746	067	0.6F	<b>14</b> M	0007	0204	0.4F	<b>29</b> Tu	0652	1316	0.9E	<b>14</b> Th	0718	1507	1.5E	<b>29</b> F	0634	1500	1.0E
	1439	1742	0.4E		1607	0.5E	0900		1315	0.9E	1922			2008			2008		2005				
<b>15</b> Sa	0314	0815	0.9F	<b>30</b> Su	0213	0456	0.3F	<b>15</b> Tu	0016	0124	0.9F	<b>30</b> W	0733	0128	1.0F	<b>15</b> F	0827	0125	1.7F	<b>30</b> Sa	0727	0107	1.2F
	1241	1702	0.4E		0810	0.4F	0836		1441	1.3E	2013		1.0E	2108	1.6E		2108	1.6E	2058		1621	1.0E	
				<b>31</b> M	1022	1629	1.0E					<b>31</b> Th	0833	0153	1.2F								
					2026								2103	1623	1.2E								

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three or more consecutive entries are marked (F) or (E) the middle ones are not true maximums but intermediate values to show the current pattern.  
 \* Current weak and variable.  
 † See page 188 for the remaining currents on this day.

# Aransas Pass (between jetties), Texas, 2017

F—Flood, Dir. 300° True    E—Ebb, Dir. 120° True

October				November				December														
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum								
	h	m		h	m	knots		h	m	h	m	knots		h	m	h	m	knots				
<b>1</b> Su	0825	1711	1.0E	<b>16</b> M	0114	1.0F	<b>1</b> W	0357	0722	0.4E	<b>16</b> Th	1125	1453	1.2F	<b>1</b> F	0026	0607	1.4E	<b>16</b> Sa	1142	1547	1.6F
	2149				0827	*			1039	1342		0.6F		0712		1.1E		1050		1441	1.5F	
<b>2</b> M	0143	1.1F	<b>17</b> Tu	0133	0.7F	<b>2</b> Th	0124	0.3F	<b>17</b> F	0056	*	<b>2</b> Sa	0633	1.8E	<b>17</b> Su	0702	1.6E					
	1032	*		0545	0.3E		0308	0.7E		0714	1.2E		1131	1.9F		1214	1.7F					
	1210	*		1057	0.5F		1102	1.0F		1531	1.4F		1529			1624						
	1808	0.9E		1643	0.4E		2323						2349			1624						
2242		2324		<b>3</b> Tu	0153	0.5F	<b>3</b> F	0140	*	<b>18</b> Sa	0724	1.4E	<b>3</b> Su	0707	2.1E	<b>18</b> M	0018	0.7E				
0204	0.9F	0436	0.5E		1138	1.1E		1227	1.5F		1215	2.1F		1246	1.7F							
1007	0.3F	1131	0.8F	<b>4</b> W	0212	0.3F	<b>4</b> Sa	0729	1.4E	<b>19</b> Su	0741	1.5E	<b>4</b> M	0746	2.3E	<b>19</b> Tu	0056	0.7E				
1323	0.3F	1205	0.7E		0349	0.7E		1220	1.6F		1257	1.6F		1301	2.2F		1318	1.7F				
1500	0.7E	1910		1205	1.0F	<b>5</b> Su	0801	1.7E	<b>20</b> M	0804	1.6E	<b>5</b> Tu	0830	2.3E	<b>20</b> W	0137	0.8E					
2337		2219		0804	0.9E		1305	1.9F		1328	1.6F		1349	2.3F		1350	1.7F					
<b>4</b> W	0226	0.7F	<b>19</b> Th	0212	0.3F	<b>5</b> Su	0801	1.7E	<b>20</b> M	0804	1.6E	<b>5</b> Tu	0830	2.3E	<b>20</b> W	0137	0.8E					
	0849	0.5F		0349	0.7E		0804	0.9E		1305	1.9F		1328	1.6F		1349	2.3F	1350	1.7F			
<b>5</b> Th	0031	0.5F	<b>20</b> F	0227	*	<b>6</b> M	0842	1.9E	<b>21</b> Tu	0834	1.6E	<b>6</b> W	0922	2.2E	<b>21</b> Th	0213	0.8E					
	0527	0.3E		0804	0.9E		1354	2.0F		1402	1.6F		1440	2.1F		1422	1.6F					
1129	0.8F	1851	0.3E	1238	1.1F	<b>7</b> Tu	0935	2.0E	<b>22</b> W	0914	1.5E	<b>7</b> Th	1022	1.9E	<b>22</b> F	0243	0.9E					
1851	0.3E			1607	1.1F		1450	2.1F		1440	1.6F		1532	2.0E		1454	1.5F					
<b>6</b> F	0304	*	<b>21</b> Sa	0059	*	<b>8</b> W	1035	2.0E	<b>23</b> Th	1004	1.5E	<b>8</b> F	1111	1.6E	<b>23</b> Sa	0305	1.3E					
	0810	0.6E		0223	1.0E		1551	2.0F		1522	1.5F		1623	1.6F		1525	1.4F					
1219	1.0F		0813	1.0E	<b>9</b> Th	1125	1.8E	<b>24</b> F	1051	1.3E	<b>9</b> Sa	1145	1.1E	<b>24</b> Su	0317	1.1E						
			1310	1.3F		1652	1.8F		1607	1.5F		1708	1.3F		1550	1.2F						
<b>7</b> Sa	0018	*	<b>22</b> Su	0046	0.8E	<b>10</b> F	1206	1.4E	<b>25</b> Sa	1128	1.1E	<b>10</b> Su	0608	0.5E	<b>25</b> M	0630	0.5E					
	0300	0.9E		1344	1.3F		1750	1.6F		1650	1.3F		0852	0.3E			0844	0.4E				
0834	0.9E			1802	1.4F	<b>11</b> Sa	1243	1.0E	<b>26</b> Su	0740	0.6E	<b>11</b> M	1203	0.6E	<b>26</b> Tu	1137	0.6E					
1308	1.2F			0401	1.2E		1844	1.3F		1729	1.1F		0246	0.6E		1137	0.6E	1203	*			
<b>8</b> Su	0108	0.914	<b>23</b> M	0905	1.3E	<b>11</b> W	1243	1.0E	<b>26</b> Th	0740	0.6E	<b>11</b> M	1158	*	<b>26</b> Tu	1203	*					
	1401	1.5F		1423	1.4F		1551	2.0F		2228	1.3F		1202	0.9E		1436	*	2129	0.7F			
<b>9</b> M	0243	1.009	<b>24</b> Tu	0953	1.3E	<b>12</b> Su	1243	1.0E	<b>27</b> M	0720	0.5E	<b>12</b> Tu	1636†	*	<b>27</b> W	0523	0.7E					
	1504	1.6F		1510	1.4F		1933	0.9F		1757	0.9F		1000	0.3E		0940	0.8E	0912	0.5F			
<b>10</b> Tu	0336	1.102	<b>25</b> W	1043	1.3E	<b>13</b> M	1243	1.0E	<b>28</b> Tu	0658	0.5E	<b>13</b> W	1856	*	<b>28</b> Th	0501	1.0E					
	1614	1.7F		1605	1.4F		1752	*		1752	0.6F		1123	*		1004	1.0E	2322	1.0F			
<b>11</b> W	0426	1.147	<b>26</b> Th	1124	1.2E	<b>14</b> Tu	1243	1.0E	<b>29</b> W	0720	0.5E	<b>14</b> Th	2107	0.3F	<b>29</b> F	0508	1.4E					
	1722	1.8F		1702	1.4F		1345	0.5F		1425	*		1235	0.5E		2200	0.3F	1420	1.5F			
<b>12</b> Th	0515	1.232	<b>27</b> F	1201	1.1E	<b>15</b> W	1345	0.5F	<b>30</b> Th	0623	0.6E	<b>15</b> F	0630	1.4E	<b>30</b> Sa	0534	1.8E					
	1828	1.7F		1758	1.3F		1945	*		1606	0.5E		1317	0.5F		1108	1.4F	1452	1.9F			
<b>13</b> F	0602	1.348	<b>28</b> Sa	1241	0.9E	<b>16</b> M	1606	0.5E	<b>31</b> Su	0559	1.0E	<b>15</b> F	1520	1.4F	<b>31</b> Su	0612	2.2E					
	1932	1.5F		1852	1.2F		2331	0.6F		2259	0.9F		2204	*		2343		2354	2.1F			
<b>14</b> Sa	0639	1.612	<b>29</b> Su	0821	0.3E	<b>17</b> Tu	2259	0.9F	<b>31</b> Su	0559	1.0E	<b>17</b> Th	2200	0.3F	<b>31</b> Su	0612	2.2E					
	2031			0947	0.3E		0326	0.7E		0214	0.6E		0126	1.0E								
<b>15</b> Su	0048	1.2F	<b>30</b> M	0815	0.3E	<b>18</b> W	0712	0.5E	<b>31</b> Su	0559	1.0E	<b>18</b> F	2200	0.3F	<b>31</b> Su	0612	2.2E					
	0831	*		1103	0.3E		1028	0.5F		1131	*		0109	1.0E								
1038	*	2034	0.5E	1401	0.7E	<b>19</b> Th	1131	*	<b>31</b> Su	1400	1.0F	<b>19</b> Sa	0621	1.2E	<b>31</b> Su	1535	2.1F					
1726	0.9E	1634	0.5E	1945	1.0F		2331	0.6F		1425	*											
2126				2335	1.0F	<b>20</b> F	0004	0.4F	<b>31</b> Su	0004	0.4F	<b>20</b> M	1458	1.2F	<b>31</b> Su	1535	2.1F					
				0507	0.8F		0237	0.9E		0559	1.0E											
				1242	0.3E	1054	0.9F	1400	1.0F													
				1758	0.3E																	
				2124	0.3E																	

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 If three or more consecutive entries are marked (F) or (E) the middle ones are not true maximums but intermediate values to show the current pattern.  
 \* Current weak and variable.  
 † See page 188 for the remaining currents on this day.

## Vieques Passage, Puerto Rico, 2017

F—Flood, Dir. 250° True E—Ebb, Dir. 055° True

January				February				March																					
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum																
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots										
<b>1</b> Su	0428	0704	0.4	0.5F	<b>16</b> M	0518	0807	0.6	0.7F	<b>1</b> W	0523	0824	0.6	0.7F	<b>16</b> Th	0612	0918	0.6	0.7F	<b>1</b> W	0403	0713	0.8	0.8E	<b>16</b> Th	0444	0758	0.7	0.7E
	0936	1258	0.6	0.6F		1101	1401	0.6	0.6F		1132	1423	0.6	0.6F		1240	1516	0.4	0.4F		1027	1320	0.6	0.6F		1124	1405	0.5	0.5F
	1600	1934	0.9	0.9E		1654	2022	0.9	0.9E		1712	2032	0.8	0.8E		1755	2111	0.6	0.6E		1613	1924	0.7	0.7E		1651	1956	0.6	0.6E
	2314					2346					2344												2229					2253	
<b>2</b> M		0204	0.6	0.6F	<b>17</b> Tu	0608	0901	0.6	0.6E	<b>2</b> Th	0613	0919	0.7	0.7E	<b>17</b> F	0016	0336	0.7	0.7F	<b>2</b> Th	0452	0804	0.8	0.8E	<b>17</b> F	0524	0841	0.7	0.7E
	0511	0752	0.4	0.4E		1203	1453	0.5	0.5F		1236	1518	0.5	0.5F		1338	1607	0.4	0.4F		1126	1412	0.6	0.6F		1214	1450	0.4	0.4F
	1034	1345	0.6	0.6F		1738	2105	0.8	0.8E		1801	2118	0.7	0.7E		1841	2155	0.5	0.5E		1702	2010	0.7	0.7E		1734	2037	0.5	0.5E
	1642	2014	0.8	0.8E																			2310					2330	
<b>3</b> Tu		0244	0.6	0.6F	<b>18</b> W	0024	0336	0.7	0.7F	<b>3</b> F	0025	0345	0.8	0.8F	<b>18</b> Sa	0054	0420	0.7	0.7F	<b>3</b> F	0543	0858	0.8	0.8E	<b>18</b> Sa	0605	0926	0.7	0.7E
	0556	0844	0.5	0.5E		0657	0955	0.6	0.6E		0705	1016	0.7	0.7E		0742	1058	0.6	0.6E		1227	1507	0.5	0.5F		1356	1628	0.4	0.4F
	1137	1437	0.5	0.5F		1307	1545	0.4	0.4F		1344	1618	0.5	0.5F		1437	1701	0.3	0.3F		1753	2059	0.7	0.7E		1821	2120	0.5	0.5E
	1728	2057	0.8	0.8E		1822	2148	0.7	0.7E		1855	2209	0.6	0.6E		1931	2241	0.5	0.5E		2356					2356			
<b>4</b> W	0021	0327	0.7	0.7F	<b>19</b> Th	0102	0421	0.7	0.7F	<b>4</b> Sa	0109	0437	0.8	0.8F	<b>19</b> Su	0134	0505	0.7	0.7F	<b>4</b> Sa	0637	0955	0.9	0.9E	<b>19</b> Su	0009	0334	0.6	0.6F
	0643	0939	0.6	0.6E		0745	1049	0.6	0.6E		0800	1116	0.8	0.8E		0828	1150	0.7	0.7E		1330	1605	0.5	0.5F		0649	1013	0.7	0.7E
	1244	1533	0.5	0.5F		1412	1640	0.4	0.4F		1454	1721	0.4	0.4F		1537	1758	0.3	0.3F		1848	2152	0.6	0.6E		1356	1628	0.4	0.4F
	1816	2142	0.7	0.7E		1909	2233	0.6	0.6E		1954	2304	0.6	0.6E		2027	2331	0.4	0.4E							1912	2207	0.4	0.4E
<b>5</b> Th	0058	0413	0.7	0.7F	<b>20</b> F	0139	0505	0.7	0.7F	<b>5</b> Su	0158	0532	0.9	0.9F	<b>20</b> M	0218	0553	0.7	0.7F	<b>5</b> Su	0046	0413	0.8	0.8F	<b>20</b> M	0053	0420	0.6	0.6F
	0734	1038	0.6	0.6E		0832	1143	0.6	0.6E		0857	1218	0.8	0.8E		0915	1242	0.7	0.7E		0733	1055	0.8	0.8E		0735	1103	0.7	0.7E
	1356	1633	0.4	0.4F		1519	1738	0.3	0.3F		1603	1826	0.4	0.4F		1634	1855	0.3	0.3F		1435	1707	0.5	0.5F		1449	1721	0.4	0.4F
	1910	2232	0.7	0.7E		2001	2320	0.5	0.5E		2058					2128					1948	2251	0.6	0.6E		2006	2259	0.4	0.4E
<b>6</b> F	0139	0503	0.8	0.8F	<b>21</b> Sa	0218	0551	0.7	0.7F	<b>6</b> M	0253	0630	0.9	0.9F	<b>21</b> Tu	0306	0643	0.6	0.6F	<b>6</b> M	0141	0512	0.8	0.8F	<b>21</b> Tu	0142	0510	0.6	0.6F
	0827	1138	0.7	0.7E		0918	1236	0.6	0.6E		0955	1320	0.9	0.9E		1003	1334	0.7	0.7E		0832	1156	0.8	0.8E		0824	1154	0.7	0.7E
	1509	1737	0.4	0.4F		1623	1837	0.3	0.3F		1708	1932	0.4	0.4F		1727	1951	0.3	0.3F		1539	1811	0.4	0.4F		1539	1811	0.4	0.4F
	2009	2325	0.6	0.6E		2057					2206					2228					2054	2354	0.5	0.5E		2103	2355	0.4	0.4E
<b>7</b> Sa	0224	0556	0.9	0.9F	<b>22</b> Su	0259	0637	0.7	0.7F	<b>7</b> Tu	0351	0730	0.9	0.9F	<b>22</b> W	0357	0734	0.6	0.6F	<b>7</b> Tu	0242	0613	0.8	0.8F	<b>22</b> W	0237	0604	0.6	0.6F
	0921	1239	0.8	0.8E		1003	1328	0.7	0.7E		1053	1420	0.9	0.9E		1051	1423	0.7	0.7E		0933	1258	0.8	0.8E		0915	1246	0.7	0.7E
	1621	1843	0.4	0.4F		1723	1936	0.3	0.3F		1808	2036	0.4	0.4F		1814	2043	0.4	0.4F		1641	1915	0.5	0.5F		1629	1908	0.4	0.4F
	2113					2158					2315					2326					2201					2159			
<b>8</b> Su		0022	0.6	0.6E	<b>23</b> M	0341	0723	0.7	0.7F	<b>8</b> W	0453	0829	0.9	0.9F	<b>23</b> Th	0452	0825	0.7	0.7F	<b>8</b> W	0348	0716	0.8	0.8F	<b>23</b> Th	0337	0700	0.6	0.6F
	0313	0651	0.9	0.9E		1047	1417	0.7	0.7E		1149	1516	0.9	0.9E		1139	1510	0.8	0.8E		1032	1358	0.8	0.8E		1008	1337	0.7	0.7E
	1017	1340	0.9	0.9E		1816	2032	0.3	0.3F		1901	2135	0.5	0.5F		1856	2130	0.4	0.4F		1737	2017	0.5	0.5F		1715	1958	0.4	0.4F
	1728	1949	0.4	0.4F		2301															2306					2252			
<b>9</b> M		0122	0.5	0.5E	<b>24</b> Tu	0152	0421	0.4	0.4E	<b>9</b> Th	0020	0313	0.5	0.5E	<b>24</b> F	0018	0307	0.4	0.4E	<b>9</b> Th	0455	0818	0.7	0.7F	<b>24</b> F	0439	0756	0.6	0.6F
	0407	0747	0.9	0.9F		0425	0809	0.7	0.7F		0556	0927	0.8	0.8F		0548	0915	0.7	0.7F		1130	1454	0.8	0.8E		1101	1427	0.7	0.7E
	1112	1439	1.0	1.0E		1131	1504	0.8	0.8E		1242	1609	0.9	0.9E		1226	1554	0.8	0.8E		1828	2113	0.5	0.5F		1756	2045	0.5	0.5F
	1829	2053	0.4	0.4F		1903	2124	0.3	0.3F		1950	2229	0.5	0.5F		1933	2214	0.5	0.5F							2342			
<b>10</b> Tu		0223	0.5	0.5E	<b>25</b> W	0000	0243	0.3	0.3E	<b>10</b> F	0120	0413	0.6	0.6E	<b>25</b> Sa	0105	0358	0.5	0.5E	<b>10</b> F	0007	0307	0.6	0.6E	<b>25</b> Sa	0541	0851	0.6	0.6F
	0503	0843	0.9	0.9F		0512	0855	0.7	0.7F		0658	1022	0.8	0.8F		0644	1004	0.7	0.7F		0601	0917	0.7	0.7F		1154	1514	0.7	0.7E
	1206	1535	1.0	1.0E		1213	1549	0.8	0.8E		1333	1658	0.9	0.9E		1312	1637	0.8	0.8E		1225	1546	0.8	0.8E		1835	2130	0.6	0.6F
	1925	2153	0.5	0.5F		1945	2211	0.4	0.4F		2034	2319	0.6	0.6F		2008	2254	0.5	0.5F		1914	2204	0.6	0.6F					
<b>11</b> W	0034	0324	0.5	0.5E	<b>26</b> Th	0054	0333	0.3	0.3E	<b>11</b> Sa	0216	0509	0.6	0.6E	<b>26</b> Su	0149	0447	0.5	0.5E	<b>11</b> Sa	0102	0404	0.6	0.6E	<b>26</b> Su	0028	0335	0.6	0.6E
	0601	0939	0.9	0.9F		0601	0940	0.7	0.7F		0758	1114	0.8	0.8F		0739	1053	0.7	0.7F		0703	1012	0.7	0.7F		0640	0944	0.6	0.6F
	1258	1628	1.0	1.0E		1255	1630	0.8	0.8E		1420	1745	0.9	0.9E		1357	1718	0.8	0.8E		1315	1634	0.8	0.8E		1245	1559	0.7	0.7E
	2015	2249	0.5	0.5F		2023	2254	0.4	0.4F		2114					2042	2334	0.6	0.6F		1955	2251	0.6	0.6F		1912	2213	0.6	0.6F
<b>12</b> Th	0137	0424	0.5	0.5E	<b>27</b> F	0143	0422	0.4	0.4E	<b>12</b> Su	0308	0602	0.6	0.6E	<b>27</b> M	0233	0535	0.6	0.6E	<b>12</b> Su	0153	0456	0.6	0.6E	<b>27</b> M	0114	0425	0.7	0.7E
	0701	1034	0.9	0.9F		0651	1025	0.7	0.7F		0856	1205	0.7	0.7F		0835	1141	0.7	0.7F		0801	1103	0.6	0.6F		0737	1035	0.6	0.6F
	1349	1718	1.1	1.1E		1337	1711																						



# Vieques Passage, Puerto Rico, 2017

F—Flood, Dir. 250° True      E—Ebb, Dir. 055° True

April				May				June																					
Slack		Maximum		Slack		Maximum		Slack		Maximum		Slack		Maximum															
h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots	h	m	h	m	knots										
<b>1</b> Sa		0202	09F		<b>16</b> Su		0208	06F		<b>1</b> M		0544	0913	1.0E	<b>16</b> Tu		0215	06F		<b>1</b> Th		0117	0416	0.6F	<b>16</b> F		0031	0328	0.5F
	0515	0838	1.0E			0517	0849	0.8E			0544	0913	1.0E			0518	0856	0.8E			0707	1036	0.8E			0615	0949	0.7E	
	1215	1456	0.6F			1233	1512	0.4F			1252	1540	0.6F			1242	1529	0.5F			1401	1709	0.7F			1314	1622	0.6F	
	1748	2043	0.6E			1807	2049	0.4E			1842	2130	0.5E			1837	2112	0.3E			2028	2325	0.6E			1941	2236	0.5E	
<b>2</b> Su		0255	0.9F		<b>17</b> M		0251	0.6F		<b>2</b> Tu		0015	0333	0.7F	<b>17</b> W		0303	0.5F		<b>2</b> F		0232	0519	0.5F	<b>17</b> Sa		0141	0426	0.4F
	0609	0934	0.9E			0559	0932	0.8E			0639	1009	0.9E			0601	0940	0.8E			0802	1129	0.7E			0706	1035	0.7E	
	1313	1553	0.6F			1318	1558	0.4F			1345	1637	0.6F			1320	1613	0.5F			1445	1801	0.7F			1351	1708	0.7F	
	1846	2140	0.6E			1856	2138	0.4E			1944	2234	0.5E			1925	2205	0.4E			2123					2029	2334	0.6E	
<b>3</b> M		0353	0.8F		<b>18</b> Tu		0338	0.6F		<b>3</b> W		0125	0436	0.7F	<b>18</b> Th		0356	0.5F		<b>3</b> Sa		0027	0.6E	<b>18</b> Su		0253	0528	0.4F	
	0706	1032	0.9E			0644	1019	0.7E			0737	1106	0.8E			0649	1025	0.7E			0348	0623	0.4F			0802	1125	0.6E	
	1412	1654	0.5F			1403	1647	0.4F			1437	1735	0.6F			1359	1659	0.5F			0900	1221	0.6E			0903	1218	0.6E	
	1948	2242	0.5E			1947	2231	0.4E			2045	2340	0.5E			2012	2302	0.4E			1529	1852	0.7F			1431	1756	0.8F	
<b>4</b> Tu		0454	0.7F		<b>19</b> W		0430	0.5F		<b>4</b> Th		0239	0541	0.6F	<b>19</b> F		0454	0.4F		<b>4</b> Su		0127	0.7E	<b>19</b> M		0032	0.7E		
	0806	1132	0.8E			0733	1108	0.7E			0836	1203	0.8E			0742	1114	0.7E			0459	0726	0.4F			0405	0632	0.4F	
	1510	1755	0.5F			1448	1736	0.4F			1527	1831	0.6F			1438	1745	0.6F			0958	1313	0.5E			0903	1218	0.6E	
	2052	2348	0.5E			2040	2328	0.4E			2145					2101					1610	1939	0.7F			1515	1847	0.8F	
<b>5</b> W		0558	0.7F		<b>20</b> Th		0527	0.5F		<b>5</b> F			0046	0.6E	<b>20</b> Sa			0.5E		<b>5</b> M			0.7E	<b>20</b> Tu			0.8E		
	0907	1233	0.8E			0827	1158	0.7E			0354	0647	0.5F			0308	0556	0.4F			0603	0826	0.3F			0512	0737	0.4F	
	1606	1856	0.5F			1531	1826	0.5F			0937	1259	0.7E			0839	1204	0.6E			1057	1402	0.5E			1008	1314	0.6E	
	2156					2131					1614	1925	0.7F			1518	1833	0.7F			1651	2024	0.7F			1603	1940	0.9F	
<b>6</b> Th		0055	0.5E		<b>21</b> F		0026	0.4E		<b>6</b> Sa			0147	0.6E	<b>21</b> Su			0.6E		<b>6</b> Tu			0.8E	<b>21</b> W			0.9E		
	0351	0703	0.6F			0322	0627	0.5F			0505	0750	0.5F			0419	0659	0.4F			0659	0921	0.3F			0615	0839	0.4F	
	1008	1331	0.7E			0923	1249	0.7E			1036	1352	0.6E			0940	1256	0.6E			1155	1450	0.4E			1113	1412	0.5E	
	1658	1953	0.6F			1614	1914	0.5F			1659	2015	0.7F			1600	1921	0.7F			1730	2106	0.7F			1654	2033	1.0F	
<b>7</b> F		0159	0.6E		<b>22</b> Sa		0124	0.5E		<b>7</b> Su			0244	0.7E	<b>22</b> M			0.7E		<b>7</b> W			0.8E	<b>22</b> Th			1.0E		
	0502	0807	0.6F			0429	0727	0.5F			0611	0850	0.4F			0525	0801	0.4F			0748	1012	0.4F			0712	0939	0.5F	
	1107	1426	0.7E			1021	1340	0.6E			1134	1442	0.6E			1042	1349	0.6E			1249	1535	0.4E			1218	1510	0.5E	
	1746	2046	0.6F			1655	2001	0.6F			1740	2101	0.7F			1644	2011	0.8F			1808	2147	0.7F			1748	2127	1.0F	
<b>8</b> Sa		0258	0.6E		<b>23</b> Su		0219	0.6E		<b>8</b> M			0335	0.7E	<b>23</b> Tu			0.9E		<b>8</b> Th			0.8E	<b>23</b> F			1.1E		
	0608	0906	0.6F			0534	0826	0.5F			0709	0944	0.4F			0627	0901	0.5F			0832	1058	0.4F			0805	1036	0.5F	
	1203	1517	0.7E			1118	1431	0.6E			1228	1528	0.5E			1143	1443	0.6E			1341	1619	0.4E			1321	1608	0.6E	
	1829	2135	0.6F			1736	2048	0.7F			1819	2143	0.7F			1730	2100	0.9F			1846	2225	0.7F			1844	2221	1.0F	
<b>9</b> Su		0352	0.7E		<b>24</b> M		0312	0.7E		<b>9</b> Tu			0421	0.8E	<b>24</b> W			1.0E		<b>9</b> F			0.9E	<b>24</b> Sa			1.1E		
	0708	1000	0.6F			0635	0923	0.6F			0800	1033	0.4F			0724	0958	0.5F			0912	1141	0.4F			0855	1131	0.6F	
	1254	1604	0.6E			1215	1520	0.6E			1318	1612	0.5E			1243	1536	0.6E			1431	1702	0.3E			1422	1707	0.6E	
	1909	2219	0.7F			1817	2134	0.8F			1855	2222	0.7F			1818	2151	0.9F			1924	2303	0.7F			1942	2315	1.0F	
<b>10</b> M		0441	0.7E		<b>25</b> Tu		0404	0.9E		<b>10</b> W			0503	0.8E	<b>25</b> Th			1.1E		<b>10</b> Sa			0.9E	<b>25</b> Su			1.1E		
	0803	1050	0.5F			0732	1017	0.6F			0846	1119	0.4F			0818	1053	0.6F			0949	1222	0.4F			0943	1224	0.6F	
	1342	1647	0.6E			1309	1609	0.6E			1406	1653	0.4E			1341	1630	0.6E			1517	1745	0.3E			1521	1805	0.6E	
	1946	2259	0.7F			1900	2221	0.9F			1931	2300	0.7F			1909	2241	1.0F			2005	2342	0.7F			2042			
<b>11</b> Tu		0525	0.8E		<b>26</b> W		0454	1.0E		<b>11</b> Th			0542	0.8E	<b>26</b> F			1.1E		<b>11</b> Su			0.9E	<b>26</b> M			0.9F		
	0853	1136	0.5F			0827	1110	0.6F			0928	1202	0.4F			0911	1148	0.6F			1025	1302	0.4F			0319	0649	1.1E	
	1427	1727	0.6E			1403	1658	0.6E			1451	1733	0.4E			1439	1725	0.6E			1602	1828	0.3E			1029	1316	0.7F	
	2021	2337	0.7F			1945	2308	0.9F			2006	2337	0.7F			2002	2333	1.0F			2048					1618	1903	0.6E	
<b>12</b> W		0607	0.8E		<b>27</b> Th		0544	1.0E		<b>12</b> F			0620	0.9E	<b>27</b> Sa			1.1E		<b>12</b> M			0.7F	<b>27</b> Tu			0.8F		
	0939	1220	0.5F			0921	1203	0.6F			1009	1243	0.4F			1001	1241	0.6F			0328	0708	0.9E			0408	0739	1.0E	
	1510	1806	0.5E			1456	1747	0.6E			1536	1813	0.4E			1537	1820	0.6E			1059	1341	0.5F			1114	1407	0.7F	
	2055					2031	2357	0.9F			2043					2057					1645	1912	0.3E			1715	2001	0.6E	
<b>13</b> Th		0014	0.7F		<b>28</b> F		0635	1.1E		<b>13</b> Sa			0013	0.7F	<b>28</b> Su			0.9F		<b>13</b> Tu			0.6F	<b>28</b> W			0.7F		
	0324	0647	0.8E			1014	1255	0.6F			0323	0658	0.9E			0337	0708	1.1E			0406	0746	0.9E			0458	0827	1.0E	
	1023	1302	0.5F			1550	1839	0.6E			1047	1324	0.4F			1051	1334	0.7F			1133	1419	0.5F			1158	1457	0.7F	
	1552	1844	0.5E			2121					1621	1854	0.4E			1634	1917	0.6E			1727	1958	0.3E			1811	2100	0.6E	
<b>14</b> F		0051	0.7																										

# Vieques Passage, Puerto Rico, 2017

F—Flood, Dir. 250° True    E—Ebb, Dir. 055° True

July				August				September																	
Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum			Slack	Maximum								
	h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots		h m	h m	knots						
<b>1</b> Sa	0216 0727 1403 2052	0452 1052 1726 2359	0.4F 0.7E 0.8F 0.6E	<b>16</b> Su	0127 0641 1312 1958	0404 1004 1634 2308	0.4F 0.7E 0.8F 0.7E	<b>1</b> Tu	0402 0842 1442 2145	0016 0618 1152 1819	0.7E 0.3F 0.5E 0.7F	<b>16</b> W	0326 0823 1420 2121	0551 1130 1756	0.4F 0.5E 0.9F	<b>1</b> F	0505 1016 1547 2233	0734 1307 1919	0.3F 0.4E 0.6F	<b>16</b> Sa	0459 1033 1626 2258	0741 1333 1947	0.5F 0.6E 0.7F		
<b>2</b> Su	0328 0821 1444 2141	0553 1142 1814	0.3F 0.6E 0.7F	<b>17</b> M	0237 0736 1354 2051	0505 1054 1725	0.4F 0.6E 0.8F	<b>2</b> W	0502 0942 1526 2231	0109 0717 1244 1907	0.7E 0.3F 0.4E 0.7F	<b>17</b> Th	0431 0930 1519 2219	0656 1233 1856	0.4F 0.5E 0.9F	<b>2</b> Sa	0553 1113 1642 2322	0826 1402 2011	0.4F 0.4E 0.6F	<b>17</b> Su	0552 1135 1734 2356	0839 1437 2049	0.6F 0.6E 0.7F		
<b>3</b> M	0438 0918 1525 2227	0655 1231 1901	0.3F 0.5E 0.7F	<b>18</b> Tu	0347 0837 1442 2145	0609 1149 1819	0.4F 0.6E 0.9F	<b>3</b> Th	0557 1045 1613 2315	0815 1337 1954	0.3F 0.4E 0.7F	<b>18</b> F	0532 1039 1623 2317	0800 1338 1957	0.4F 0.5E 0.9F	<b>3</b> Su	0635 1204 1739	0914 1455 2101	0.4F 0.4E 0.6F	<b>18</b> M	0640 1232 1840	0933 1537 2147	0.6F 0.7E 0.7F		
<b>4</b> Tu	0541 1018 1605 2311	0755 1322 1946	0.3F 0.4E 0.7F	<b>19</b> W	0455 0943 1535 2241	0715 1248 1915	0.4F 0.5E 0.9F	<b>4</b> F	0645 1145 1701 2358	0907 1430 2041	0.3F 0.4E 0.7F	<b>19</b> Sa	0627 1145 1728	0901 1442 2058	0.5F 0.6E 0.8F	<b>4</b> M	0713 1251 1834	0957 1545 2150	0.5F 0.5E 0.6F	<b>19</b> Tu	0724 1325 1941	1203 1632 2241	0.7E 0.7F 0.7F		
<b>5</b> W	0636 1119 1647 2352	0851 1412 2030	0.3F 0.4E 0.7F	<b>20</b> Th	0557 1051 1631 2336	0819 1350 2012	0.4F 0.5E 0.9F	<b>5</b> Sa	0728 1240 1751	0956 1521 2127	0.4F 0.3E 0.7F	<b>20</b> Su	0717 1248 1833	0957 1544 2156	0.6F 0.6E 0.8F	<b>5</b> Tu	0748 1333 1928	1037 1632 2238	0.5F 0.5E 0.6F	<b>20</b> W	0805 1413 2037	1109 1723 2332	0.7F 0.7E 0.6F		
<b>6</b> Th	0724 1218 1729	0943 1501 2113	0.3F 0.3E 0.7F	<b>21</b> F	0653 1159 1731	0920 1452 2110	0.5F 0.5E 0.9F	<b>6</b> Su	0806 1329 1841	1039 1609 2212	0.4F 0.4E 0.7F	<b>21</b> M	0803 1345 1936	1049 1643 2251	0.6F 0.6E 0.8F	<b>6</b> W	0821 1415 2021	1115 1718 2324	0.6F 0.6E 0.6F	<b>21</b> Th	0844 1459 2131	1152 1811	0.7F 0.8E		
<b>7</b> F	0807 1313 1812	1031 1548 2155	0.3F 0.6E 0.7F	<b>22</b> Sa	0745 1303 1833	1018 1553 2206	0.5F 0.6E 0.9F	<b>7</b> M	0841 1413 1932	1119 1656 2257	0.5F 0.4E 0.7F	<b>22</b> Tu	0845 1439 2036	1138 1738 2344	0.7F 0.7E 0.7F	<b>7</b> Th	0854 1456 2114	1154 1804	0.7F 0.7E	<b>22</b> F	0921 1542 2221	1233 1857	0.7F 0.8E		
<b>8</b> Sa	0845 1404 1856	1114 1634 2236	0.9E 0.3E 0.7F	<b>23</b> Su	0833 1404 1935	1112 1653 2301	0.6F 0.6E 0.9F	<b>8</b> Tu	0913 1454 2024	1157 1741 2341	0.5F 0.5E 0.6F	<b>23</b> W	0926 1529 2134	1224 1830	0.7F 0.7E	<b>8</b> F	0927 1539 2208	1233 1850	0.7F 0.8E	<b>23</b> Sa	0958 1624 2311	1313 1941	0.7F 0.8E		
<b>9</b> Su	0921 1450 1942	1155 1719 2317	0.9E 0.4F 0.7F	<b>24</b> M	0918 1501 2036	1203 1751 2355	0.7F 0.6E 0.8F	<b>9</b> W	0944 1534 2117	1233 1826	0.6F 0.5E	<b>24</b> Th	0932 1505 2231	1249 1921	0.7E	<b>9</b> Sa	1003 1624 2302	1315 1939	0.8F 0.8E	<b>24</b> Su	1034 1705 2359	1353 2025	0.6E 0.8E		
<b>10</b> M	0954 1532 2030	1233 1804 2359	0.5F 0.4E 0.7F	<b>25</b> Tu	1001 1556 2138	1253 1847	0.7F 0.6E	<b>10</b> Th	1014 1615 2212	1310 1912	0.8E 0.6E	<b>25</b> F	1043 1704 2327	1352 2010	0.8F 0.7E	<b>10</b> Su	1041 1712 2359	1359 2029	0.8F 0.8E	<b>25</b> M	1112 1746	1434 2110	0.7F 0.7E		
<b>11</b> Tu	1026 1613 2122	1310 1849	0.5F 0.4E	<b>26</b> W	1043 1650 2239	1340 1943	0.7F 0.6E	<b>11</b> F	1045 1658 2309	1349 2001	0.7F 0.6E	<b>26</b> Sa	1050 1120 1750	1813 1434 2059	0.5F 0.7E 0.7E	<b>11</b> M	1125 1803	1447 2123	0.8F 0.9E	<b>26</b> Tu	1153 1829	1517 2156	0.6F 0.7E		
<b>12</b> W	1057 1654 2217	1347 1935	0.6F 0.6E 0.4E	<b>27</b> Th	1123 1741 2342	1427 2038	0.8F 0.6E	<b>12</b> Sa	1119 1744	1431 2051	0.7F 0.7E	<b>27</b> Su	1158 1835	1517 2149	0.7F 0.7E	<b>12</b> Tu	1213 1858	1540 2220	0.8F 0.9E	<b>27</b> W	1238 1915	1603 2244	0.6F 0.7E		
<b>13</b> Th	1127 1735 2316	1425 2024	0.6F 0.5E	<b>28</b> F	1202 1832	1513 2132	0.8F 0.6E	<b>13</b> Su	1157 1834	1516 2146	0.8F 0.7E	<b>28</b> M	1237 1921	1602 2239	0.7F 0.7E	<b>13</b> W	1308 1956	1637 2320	0.8F 0.8E	<b>28</b> Th	1329 2003	1653 2334	0.6F 0.7E		
<b>14</b> F	1159 1820	1504 2115	0.7F 0.5E	<b>29</b> Sa	1241 1921	1559 2227	0.8F 0.6E	<b>14</b> M	1239 1927	1605 2243	0.8F 0.8E	<b>29</b> Tu	1319 2008	1648 2331	0.7F 0.7E	<b>14</b> Th	1409 2056	1738	0.8F	<b>29</b> F	1425 2054	1747	0.5F		
<b>15</b> Sa	1233 1907	1548 2210	0.7F 0.6E	<b>30</b> Su	1321 2010	1645 2322	0.7F 0.6E	<b>15</b> Tu	1327 2023	1659 2343	0.8F 0.8E	<b>30</b> W	1404 2056	1736 2056	0.6F	<b>15</b> F	1516 2157	1842	0.8F	<b>30</b> Sa	1526 2147	1843	0.5F		
				<b>31</b> M	1401 2058	1732 2058	0.7F					<b>31</b> Th	1453 2144	1827	0.6F										

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.



## EXTRA CURRENTS, 2017

	March			June			November			December						
<b>Estes Head, Maine</b>	February			Slack    Maximum			Slack    Maximum			Slack    Maximum						
	Slack	Maximum		h m	h m	knots	h m	h m	knots	h m	h m	knots				
	17	1604	1946	2.0E	2222	1955	1.6E	14	2044		23	2041				
	18	1655	2039	1.8E	20	1622	1733	0.9E	15	1455	1617	1.1E	24	2129	1856	1.8E
		2318			21	1714	1821	0.8E	16	1546	1708	1.2E	25	1521	1645	1.2E
					22	1809	1913	0.7E	17	2229	1714	1.0E	26	2219	1745	1.0E
					23	2314	1924	0.6E	16	2135	1806	1.1E	27	1706	1949	1.7E
					22	1903	2143	1.6E	17	2324	2008	1.7E	28	2310	1824	1.1E
					29	1813	2007	0.6E	13	2018	2101	1.8E	29	1706	1923	0.9E
					30	1925	2233	1.7E	14	2108	2201		30	1404	2135	1.8E
<b>Woods Hole, Massachusetts</b>	March			April			July			December						
	Slack	Maximum		Slack	Maximum		Slack	Maximum		Slack	Maximum					
	21	1806	2146	1.7E	17	1501	1619	1.0E	13	2018	1845	1.8E	23	1404	1827	1.9E
	22	1903	2244	1.8E	18	1551	1706	1.0E	14	2108	1936	1.8E	24	2055	1620	1.3E
					19	1643	1755	0.9E	15	1518	2031	1.9E	25	1717	1717	1.2E
					20	1737	1846	0.8E	16	1610	2257		26	1916	1916	1.8E
					21	1832	1945	0.7E	17	1703	2125	2.1E	27	2143	1709	1.3E
					22	2253	2203	1.6E	18	2017	2355		28	1543	1812	1.1E
					23	2332	2203	1.6E	19	2238	2355		29	2232	2009	1.7E
					29	1813	2200	2.0E	30	1643	2355		30	2232	2009	1.7E
<b>Cape Cod Canal, Massachusetts</b>	February			May			August			September						
	Slack	Maximum		Slack	Maximum		Slack	Maximum		Slack	Maximum					
	20	1757	1953	2.0E	15	2024	1853	1.6E	25	1503	1928	1.8E	26	1635	1759	1.2E
	31	2327	2045	2.2E	16	2113	1641	1.0E	26	2206	1711	1.0E	27	2154	1901	1.1E
					17	1523	1744	0.9E	27	1553	1809	0.9E	28	2154	2103	1.7E
					18	1614	1731	1.0E	28	2259	2024	1.7E	29	2232	2154	1.8E
					19	1706	1835	0.9E	29	1720	2150	1.8E	30	1814	2240	1.9E
					20	1800	2040	1.6E	30	1814	2240	1.9E	31	1815	2031	3.2E
					21	2354	1919	1.0E	31	2327	2045	2.2E	31	2202	2202	2.0E
					22	2253	2203	1.6E	31	2327	2045	2.2E	31	2202	2202	2.0E
<b>Portsmouth Harbor, New Hampshire</b>	January			October			November			December						
	Slack	Maximum		Slack	Maximum		Slack	Maximum		Slack	Maximum					
	2	2021	2027	2.0E	25	1415	1837	1.9E	28	1627	2058	1.8E	28	1635	1759	1.2E
	5	1607	2027	2.0E	26	1503	1928	1.8E	29	1720	2150	1.8E	29	1635	1901	1.1E
	18	2305	2123	1.7E	27	1553	1711	1.0E	30	1814	2240	1.9E	30	2154	2103	1.7E
	19	2356	2214	1.7E	28	1645	1800	0.9E	31	1814	2240	1.9E	31	2154	2103	1.7E
	20	1845	2304	1.7E	29	1739	1851	0.9E	31	1814	2240	1.9E	31	2154	2103	1.7E
					30	1835	2257	1.9E	31	1814	2240	1.9E	31	2154	2103	1.7E
					31	2356	2214	1.7E	31	1814	2240	1.9E	31	2154	2103	1.7E
					31	2356	2214	1.7E	31	1814	2240	1.9E	31	2154	2103	1.7E



**EXTRA CURRENTS, 2017**

<b>St. Andrew Bay, Florida</b>				<b>Mobile Bay, Alabama</b>				<b>Sabine Pass, Texas</b>				<b>Galveston Bay, Texas</b>				<b>Aransas Pass, Texas</b>			
<b>(Continued)</b>				<b>November</b>				<b>September</b>				<b>January</b>							
				Slack	Maximum			Slack	Maximum			Slack	Maximum						
				h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots				
February				14	2111		9	2212 *		6	2101	0.4F							
				15	1618	1.3F	20	2253 *		19	2034	0.5F							
Slack				29	2105		21	2004	0.4E										
Maximum				29	2041	2353	22	2149 *											
13	1804	2045	1.2F																
2352				<b>December</b>				<b>October</b>				<b>February</b>							
				Slack	Maximum			Slack	Maximum			Slack	Maximum						
				h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots				
14	1918	2130	0.7F	27	1921	2244	15	1932	2252	16	1907 *								
28	1812	2043	1.2F					16	2303 *										
								17	2215 *										
<b>March</b>				<b>February</b>				<b>November</b>				<b>March</b>							
				Slack	Maximum			Slack	Maximum			Slack	Maximum						
				h m	h m	knots	h m	h m	knots	h m	h m	knots	h m	h m	knots				
16		2224	*	15	2112 *		1	1751 *		2	2345	0.8E							
30		2252	0.4F	16	2228	0.5E	13	1909	0.3F	<b>June</b>									
								2214				Slack	Maximum						
												h m	h m	knots					
												3	2200						
												<b>July</b>							
												Slack	Maximum						
												h m	h m	knots					
												17	2031						
												<b>November</b>							
												Slack	Maximum						
												h m	h m	knots					
												28	2251	0.6F					
												<b>December</b>							
												Slack	Maximum						
												h m	h m	knots					
												11	2156	0.7F					
												<b>January</b>							
												Slack	Maximum						
												h m	h m	knots					
												18	2100	0.4F					
												<b>August</b>							
												Slack	Maximum						
												h m	h m	knots					
												27	1754	2110	1.0F				
												<b>December</b>							
												Slack	Maximum						
												h m	h m	knots					
												24	1725	2127	1.2F				
												<b>August</b>							
												Slack	Maximum						
												h m	h m	knots					
												24	2053	*					
												25	2213	*					
												26	2327	0.3F					
												<b>October</b>							
												Slack	Maximum						
												h m	h m	knots					
												7	2005	1.3F					
												19	1831	1.2F					
												<b>August</b>							
												Slack	Maximum						
												h m	h m	knots					
												24	2053	*					
												25	2213	*					
												26	2327	0.3F					
												<b>October</b>							
												Slack	Maximum						
												h m	h m	knots					
												7	2005	1.3F					
												19	1831	1.2F					
												<b>August</b>							
												Slack	Maximum						
												h m	h m	knots					
												24	2053	*					
												25	2213	*					
												26	2327	0.3F					
												<b>October</b>							
												Slack	Maximum						
												h m	h m	knots					
												7	2005	1.3F					
												19	1831	1.2F					
												<b>August</b>							
												Slack	Maximum						
												h m	h m	knots					
												24	2053	*					
												25	2213	*					
												26	2327	0.3F					
												<b>October</b>							
												Slack	Maximum						
												h m	h m	knots					
												7	2005	1.3F					
												19	1831	1.2F					
												<b>August</b>							
												Slack	Maximum						
												h m	h m	knots					
												24	2053	*					
												25	2213	*					
												26	2327	0.3F					
												<b>October</b>							
												Slack	Maximum						
												h m	h m	knots					
												7	2005	1.3F					
												19	1831	1.2F					
												<b>August</b>							
												Slack	Maximum						
												h m	h m	knots					
												24	2053	*					
												25	2213	*					
												26	2327	0.3F					

## TABLE 2. — CURRENT DIFFERENCES AND OTHER CONSTANTS AND ROTARY TIDAL CURRENTS

### EXPLANATION OF TABLE

In this publication, reference stations are those for which daily predictions are listed in Table 1. Those stations appearing in Table 2 are called subordinate stations. The principal purpose of Table 2 is to present data that will enable one to determine the approximate times of minimum currents (slack waters) and the times and speeds of maximum currents at numerous subordinate stations on the Atlantic Coast of North America. By applying specific corrections given in Table 2 to the predicted times and speeds of the current at the appropriate reference station, reasonable approximations of the current at the subordinate station may be compiled.

#### Locations and Depths

Because the latitude and longitude are listed according to the exactness recorded in the original survey records, the locations of the subordinate stations are presented in varying degrees of accuracy. Since a minute of latitude is nearly equivalent to a mile, a location given to the nearest minute may not indicate the exact position of the station. This should be noted, especially in the case of a narrow stream, where the nearest minute of latitude or longitude may locate a station inland. In such cases, unless the description locates the station elsewhere, reference is made to the current in the center of the channel. In some instances, the charts may not present a convenient name for locating a station. In those cases, the position may be described by a bearing from some prominent place on the chart.

Although current measurements may have been recorded at various depths in the past, the data listed here for most of the subordinate stations are mean values determined to have been representative of the current at each location. For that reason, no specific current meter depths for those stations are given in Table 2. Beginning with the Boston Harbor tidal current survey in 1971, data for individual meter depths were published and subsequent new data may be presented in a similar manner.

Since most of the current data in Table 2 came from meters suspended from survey vessels or anchored buoys, the listed depths are those measured downward from the surface. Some later data have come from meters anchored at fixed depths from the bottom. Those meter positions were defined as depths below chart datum. Such defined depths in this and subsequent editions will be accompanied by the small letter "d."

#### Minimum Currents

The reader may note that at many locations the current may not diminish to a true slack water or zero speed stage. For that reason, the phrases, "minimum before flood" and "minimum before ebb" are used in Table 2 rather than "slack water" although either or both minimums may actually reach a zero speed value at some locations. Table 2 lists the average speeds and directions of the minimums.

#### Maximum Currents

Near the coast and in inland tidal waters, the current increases from minimum current (slack water) for a period of about 3 hours until the maximum speed or the strength of the current is reached. The speed then decreases for another period of about 3 hours when minimum current is again reached and the current begins a similar cycle in the opposite direction. The current that flows toward the coast or up a stream is known as the flood current; the opposite flow is known as the ebb current. Table 2 lists the average speeds and directions of the maximum floods and maximum ebbs. The directions are given in degrees, true, reading clockwise from 000° at north to 359° and are the directions toward which the current flows.

TABLE 2. — CURRENT DIFFERENCES AND OTHER CONSTANTS AND ROTARY TIDAL CURRENTS

### **Differences and Speed Ratios**

Table 2 contains mean time differences by which the reader can compile approximate times for the minimum and maximum current phases at the subordinate stations. Time differences for those phases should be applied to the corresponding phases at the reference station. It will be seen upon inspection that some subordinate stations exhibit either a double flood or a double ebb stage, or both. Explanations of these stages can be found in the glossary located elsewhere in this publication. In those cases, a separate time difference is listed for each of the three flood (or ebb) phases and these should be applied only to the daily maximum flood (or ebb) phase at the reference station. The results obtained by the application of the time differences will be based upon the time meridian shown above the name of the subordinate station. Differences of time meridians between a subordinate station and its reference station have been accounted for and no further adjustment by the reader is needed. Summer or daylight-saving time is not used in this publication.

The speed ratios are used to compile approximations of the daily current speeds at the subordinate stations and refer only to the maximum floods and ebbs. No attempt is made to predict the speeds of the minimum currents. Normally, the ratios should be applied to the corresponding maximum current phases at the reference station. As mentioned above, however, some subordinate stations may exhibit either a double flood or a double ebb or both. As with the time differences, separate ratios are listed for each of the three flood (or ebb phases) and should be applied only to the daily maximum flood (or ebb) speed at the reference station. It should be noted that although the speed of a given current phase at a subordinate station is obtained by reference to the corresponding phase at the reference station, the directions of the current at the two places may differ considerably. Table 2 lists the average directions of the various current phases at the subordinate stations.

### **Rotary Tidal Currents**

Table 5 contains listings of data for those stations which exhibit rotary current patterns. Briefly, a rotary current can be described as one which flows continually with the direction of flow changing through all points of the compass during the tidal period. A more complete description can be found in the glossary located elsewhere in this publication. The average speeds and directions are listed in hourly increments as referred to the predicted times of a particular current phase at a reference station in Table 1. The Moon, at times of new, full, or perigee may increase speeds 15 to 20 percent above average; or 30 to 40 percent if perigee occurs at or near the time of new or full Moon. Conversely, the Moon at times of quadrature or apogee may decrease the speeds 15 to 20 percent or 30 to 40 percent if they occur together. Near average speeds may be expected when apogee occurs near or at new or full Moon, or when perigee occurs at or near quadrature. The directions of the currents are given in degrees true, reading clockwise from 000° at north to 359° and are the directions toward which the current flows.



TABLE 2. — CURRENT DIFFERENCES AND OTHER CONSTANTS AND ROTARY TIDAL CURRENTS

## EXAMPLE OF THE USE OF TABLE 2

Suppose we wish to calculate the times of the minimum currents and the times and speeds of the maximum currents on a particular morning at the location listed in Table 2 as Winthrop Head, 1.1 n. mi. east of. From Table 2 we learn that the reference station is Boston Harbor whose morning currents are listed below. Currents for Winthrop Head can be approximated by using the Table 2 corrections as indicated.

	<i>Minimum before Flood h.m.</i>	<i>Maximum flood h.m.</i>	<i>kn.</i>	<i>Minimum before ebb h.m.</i>	<i>Maximum ebb h.m.</i>	<i>kn.</i>
Boston Harbor .....	0052	0419	1.2	0645	1109	1.4
Table 2 corrections .....	-0112	+0019	x0.4 ratio	+0031	-0146	x0.3 ratio
Winthrop Point .....	2340*	0438	0.5	0716	0923	0.4

\* this minimum current phase is seen to occur just before midnight of the previous day.

Table 2 states that the average speeds and directions of the minimums before flood and ebb are 0.3 knots at 103° and 0.2 knots at 297°, respectively. The average directions of the maximum flood and maximum ebb are 205° and 019°; respectively.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS												
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb						
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.					
	BAY OF FUNDY Time meridian, 60°W	ft	North	West	h	m	h	m	h	m	h	m											
			<b>on Portland Harbor Entrance, p.20</b>																				
1	Brazil Rock, 6 miles east of		43° 22'	65° 18'	-2	12	-1	36	-0	27	-1	31	1.5	0.9	--	--	1.0	275°	--	--	1.0	050°	
3	Cape Sable, 3 miles south of		43° 20'	65° 38'	-3	12	-1	46	-0	58	-1	41	3.3	1.8	--	--	2.2	275°	--	--	2.0	095°	
5	Cape Sable, 12 miles south of		43° 11'	65° 37'	-1	22	-0	36	-0	23	-0	37	2.5	1.5	--	--	1.7	285°	--	--	1.6	090°	
7	Blonde Rock, 5 miles south of		43° 15'	65° 59'	-1	12	-0	26	-0	13	-0	21	3.0	1.8	--	--	2.0	310°	--	--	2.0	125°	
9	Seal Island, 13 miles southwest of		43° 16'	66° 15'	-0	27	+0	34	+1	02	+0	39	3.8	1.5	--	--	2.6	325°	--	--	1.6	140°	
11	Cape Fourchu, 17 miles southwest of		43° 34'	66° 24'	+0	28	+1	09	+1	07	+1	14	1.8	1.1	--	--	1.2	355°	--	--	1.2	145°	
13	Cape Fourchu, 4 miles west of		43° 47'	66° 15'	-0	22	+0	24	+0	32	+0	29	3.0	1.6	--	--	2.0	000°	--	--	1.7	175°	
15	Lurcher Shoal, 6 miles east of		43° 52'	66° 21'	-0	02	+0	54	+1	02	+0	59	3.0	1.7	--	--	2.0	355°	--	--	1.8	175°	
17	Lurcher Shoal, 10 miles west of		43° 46'	66° 42'	+0	13	+0	54	-0	11	+0	59	2.1	1.5	--	--	1.4	000°	--	--	1.6	160°	
19	Lurcher Shoal, 10 miles northwest of		43° 59'	66° 37'	-0	12	+0	54	+1	12	+0	59	2.7	1.1	--	--	1.8	005°	--	--	1.2	175°	
21	Brier Island, 5 miles west of		44° 13'	66° 30'	+0	33	+1	14	+1	17	+1	19	4.0	2.3	--	--	2.7	005°	--	--	2.5	185°	
23	Brier Island, 15 miles west of		44° 17'	66° 44'	-0	52	+0	09	+0	37	+0	14	2.1	1.1	--	--	1.4	060°	--	--	1.2	250°	
25	Gannet Rock, 5 miles southeast of		44° 29'	66° 41'	+0	28	+0	54	+0	32	+0	59	3.8	3.6	--	--	2.6	040°	--	--	3.9	230°	
27	Boars Head, 10 miles northwest of		44° 31'	66° 23'	+0	38	+1	19	+1	22	+1	24	2.8	1.8	--	--	1.9	020°	--	--	2.0	205°	
29	Prim Point, 20 miles west of		44° 44'	66° 15'	+0	28	+1	09	+1	17	+1	14	2.4	1.3	--	--	1.6	040°	--	--	1.4	235°	
31	Cape Spencer, 14 miles south of		44° 58'	65° 57'	+0	41	+1	19	+1	20	+1	24	2.5	1.5	--	--	1.7	050°	--	--	1.6	245°	
33	BAY OF FUNDY ENTRANCE		44° 45.2'	66° 55.9'											--	--	2.3	032°	--	--	2.4	212°	
			<b>Daily predictions</b>																				
	MAINE COAST Time meridian, 75°W		<b>on Estes Head, p.8</b>																				
			<b>Daily predictions</b>																				
35	ESTES HEAD, EASTPORT	32d	44° 53.28'	66° 59.74'	+0	00	+0	00	+0	00	-0	04	1.0	1.1	0.1	175°	2.2	263°	--	--	2.4	088°	
	... do.	13d	44° 53.28'	66° 59.74'	+0	00	+0	00	+0	00	-0	04	1.0	1.1	0.1	174°	2.3	260°	--	--	2.6	090°	
	... do.	52d	44° 53.28'	66° 59.74'	-0	03	-0	02	+0	01	+0	01	1.0	0.9	--	--	2.1	266°	0.1	354°	2.3	085°	
	... do.	78d	44° 53.28'	66° 59.74'	-0	06	-0	01	+0	01	+0	00	0.9	0.8	--	--	2.0	271°	0.1	355°	2.0	079°	
37	Eastport, Friar Roads		44° 54'	66° 59'	+0	00	+0	00	+0	00	+0	00	1.2	1.2	--	--	3.0	210°	--	--	3.0	040°	
39	Robbinston, St. Croix River	12d	45° 04.58'	67° 06.06'	-0	27	-0	10	-0	17	-0	13	0.5	0.5	--	--	1.0	349°	--	--	1.1	165°	
	... do.	32d	45° 04.58'	67° 06.06'	-0	19	-0	07	-0	07	+0	00	0.5	0.4	--	--	1.1	344°	--	--	0.9	166°	
	... do.	58d	45° 04.58'	67° 06.06'	-0	54	-0	24	-0	21	-1	06	0.4	0.3	--	--	0.9	340°	--	--	0.6	171°	
41	Western Passage, off Kendall Head		44° 55.9'	67° 00.0'	+0	27	+0	11	+0	13	+0	40	1.4	1.3	--	--	3.2	319°	--	--	3.1	142°	
43	Western Passage, off Frost Ledge		44° 57.9'	67° 01.9'	+0	33	+0	04	-0	16	+0	15	0.9	0.7	--	--	2.1	330°	--	--	1.7	150°	
			<b>on Portland Harbor Entrance, p.20</b>																				
45	Pond Point, 7.6 miles SSE of		44° 20.1'	67° 30.2'	+0	03	+0	04	-1	10	+0	24	0.7	1.1	--	--	0.5	015°	--	--	1.2	215°	
47	Moosabec Reach, east end		44° 31.71'	67° 34.36'	-2	55	-2	44	-2	50	-3	10	1.5	0.9	--	--	1.0	110°	--	--	1.0	258°	
49	Moosabec Reach, west end		44° 31.25'	67° 39.00'	-1	53	-1	19	-1	37	-1	15	1.5	1.1	--	--	1.0	092°	--	--	1.2	253°	
51	Bar Harbor, 1.2 miles east of <1>		44° 23.0'	68° 10.0'	--	--	+0	54	--	--	+1	17	0.3	0.6	--	--	0.2	328°	--	--	0.7	148°	
53	Casco Passage, east end, Blue Hill Bay		44° 11.7'	68° 27.9'	-1	59	-1	20	-0	39	-1	29	1.0	0.6	--	--	0.7	086°	--	--	0.7	284°	
55	Hat Island, SE of, Jericho Bay		44° 08.0'	68° 29.7'	-1	12	-0	11	-0	27	-0	51	1.3	1.2	--	--	0.9	318°	--	--	1.3	124°	
57	Clam I., NW of, Deer I. Thorofare	14	44° 09.87'	68° 36.23'	-2	24	+0	09	-0	34	-2	17	0.3	0.2	--	--	0.2	004°	--	--	0.2	199°	
59	Grog Island, E of, Deer Island Thorofare	14	44° 09.72'	68° 37.23'	-2	26	-1	58	-2	04	-3	02	0.3	0.3	--	--	0.2	020°	0.1	302°	0.3	235°	
61	Russ Island, N of, Deer Island Thorofare	14	44° 09.18'	68° 38.78'	-2	22	-1	46	-2	06	-2	47	0.6	0.6	--	--	0.4	074°	--	--	0.6	265°	
63	Crotch Island-Moose Island, between <49>	14	44° 08.85'	68° 40.58'	Currents are unidirectional																		
65	Isle au Haut, 0.8 mile E of Rich's Pt East Penobscot Bay	11	44° 05'	68° 35'	-1	03	-0	43	-0	44	-0	50	2.1	1.4	--	--	1.4	336°	--	--	1.5	139°	
67	Mark Island, north of	14	44° 08.20'	68° 42.17'	-0	28	-0	37	-2	04	+0	07	0.4	0.4	--	--	0.3	013°	0.1	300°	0.4	164°	
69	Widow Island-Stimpson Island, between	14	44° 07.95'	68° 49.50'	-0	53	-0	25	+0	27	-0	39	0.9	0.5	--	--	0.6	302°	--	--	0.5	118°	
71	Eagle Island, 0.4 nautical mile S of	14	44° 11.63'	68° 46.93'	-0	28	-0	31	-1	57	-1	17	1.3	0.9	0.2	030°	0.9	336°	0.3	050°	1.0	147°	
73	Burnt Island-Oak Island, between	14	44° 11.47'	68° 49.13'	-0	28	-0	55	-1	59	-0	28	0.3	0.5	0.1	347°	0.7	290°	--	--	1.3	098°	
75	Butter I., 0.3 nautical mile SE of	14	44° 13.33'	68° 46.67'	-2	53	-1	50	-0	02	-1	07	0.4	0.6	--	--	0.3	050°	0.1	150°	0.6	194°	
77	Bradbury Island, ESE of	14	44° 14.03'	68° 44.07'	+0	01	+0	07	-0	30	-0	27	0.7	0.6	0.2	305°	0.5	025°	0.1	304°	0.7	225°	
79	Compass Island, 0.4 nmi. ENE of	14	44° 13.00'	68° 51.33'	-1	54	-0	58	-1	02	-0	32	0.4	0.3	0.2	092°	0.3	015°	--	--	0.3	175°	
81	Scrag Island, 0.3 nautical mile SW of	14	44° 13.33'	68° 50.62'	-0	55	-0	03	-0	32	-0	26	0.6	0.3	--	--	0.4	010°	0.1	078°	0.3	197°	
83	Great Spruce Head Island, west of	14	44° 14.30'	68° 50.18'	-1	24	-0	30	-0	03	-0	50	0.4	0.3	--	--	0.3	003°	--	--	0.3	174°	
85	Horse Head Island, 0.2 nmi. ENE of	14	44° 15.07'	68° 50.67'	Current weak and variable																		
87	Pickering Island, south of	14	44° 15.63'	68° 45.38'	-2	55	-1	13	-1	33	-2	08	0.9	0.6	0.2	203°	0.6	300°	0.3	201°	0.6	150°	

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	MAINE COAST Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m							
					<b>on Portland Harbor Entrance, p.20</b>														
	<i>East Penobscot Bay-cont.</i>																		
89	Little Eaton Island, NNE of	14	44° 16.45'	68° 43.87'	-0 53	+0 36	+0 25	+0 10	0.6	0.3	--	--	0.4	300°	0.2	224°	0.3	106°	
91	Pickering Island, north of	14	44° 16.48'	68° 45.28'	See Table 5.														
93	Hog Island, ESE of	14	44° 16.52'	68° 46.87'	-0 23	+0 22	-0 10	-0 22	0.4	0.5	--	--	0.3	024°	0.2	105°	0.5	180°	
95	Little Deer I.-Sheep I., between	14	44° 16.78'	68° 43.43'	-0 23	-0 13	+0 56	-0 23	0.9	0.6	0.1	231°	0.6	310°	--	--	0.6	124°	
97	Swains Ledge, WSW of	14	44° 16.97'	68° 45.28'	See Table 5.														
99	Swains Ledge, 0.3 nautical mile SW of	14	44° 17.13'	68° 43.87'	-0 56	+0 02	-0 32	-0 38	0.7	0.4	--	--	0.5	358°	--	--	0.4	170°	
101	Pond Island-Western Island, between	14	44° 17.58'	68° 49.00'	-1 54	-0 49	-1 33	-1 05	0.6	0.6	--	--	0.4	356°	--	--	0.6	172°	
103	Birch Island, northwest of	14	44° 18.17'	68° 45.35'	-1 54	-1 07	-0 33	-1 01	0.4	0.2	--	--	0.3	022°	--	--	0.2	200°	
105	Pond Island, north of	14	44° 18.17'	68° 48.60'	Current weak and variable														
107	Howard Ledges, ENE of, Eggemoggin Reach	14	44° 18.28'	68° 42.63'	Current weak and variable														
109	Howard Ledges, NE of, Eggemoggin Reach	14	44° 18.30'	68° 42.08'	Current weak and variable														
111	Spectacle Island, 0.2 nmi. NW of	14	44° 18.47'	68° 47.33'	Current weak and variable														
113	Pumpkin Island, north of	14	44° 18.80'	68° 44.42'	-3 24	-1 46	-1 31	-2 14	0.4	0.3	--	--	0.3	290°	0.1	340°	0.3	090°	
115	Islesboro Harbor, Penobscot Bay	14	44° 18.86'	68° 53.35'	See Table 5.														
117	Islesboro Harbor, NE of, Penobscot Bay	75	44° 18.97'	68° 52.78'	-1 14	-0 36	-1 13	-0 56	0.4	0.3	--	--	0.3	004°	--	--	0.3	166°	
119	Islesboro Harbor, NE of, Penobscot Bay	15	44° 19.03'	68° 52.67'	+0 16	-0 30	-0 59	-0 54	0.1	0.3	--	--	0.1	334°	0.1	248°	0.3	154°	
121	Islesboro Ledge	14	44° 21.00'	68° 50.57'	See Table 5.														
123	Thrum Cap I., E of, East Penobscot Bay	14	44° 19.40'	68° 44.80'	Current weak and variable														
					<b>on Bucksport, p.12</b>														
125	Turtle Head Pt., ESE of, Penobscot Bay	15	44° 22.57'	68° 51.28'	-0 36	-1 10	+0 24	-1 02	0.3	0.4	--	--	0.7	338°	--	--	0.8	171°	
	do.	40	44° 22.57'	68° 51.28'	-0 55	-1 18	-0 31	-0 32	0.2	0.4	--	--	0.4	319°	--	--	0.8	155°	
127	Hosmer Ledge, Castine Harbor	13d	44° 23.01'	68° 47.40'	+0 15	-0 10	+0 37	-0 08	0.5	0.6	--	--	1.2	061°	--	--	1.2	240°	
	do.	33d	44° 23.01'	68° 47.40'	+0 02	-0 17	+0 41	-0 03	0.5	0.6	0.1	330°	1.3	060°	--	--	1.2	241°	
	do.	52d	44° 23.01'	68° 47.40'	-0 12	-0 31	+0 38	-0 14	0.5	0.5	0.1	332°	1.2	052°	--	--	1.1	245°	
129	Dice Head, west of, Penobscot Bay	15	44° 22.77'	68° 50.72'	-1 52	-1 23	-0 27	-0 48	0.2	0.3	--	--	0.4	028°	--	--	0.5	198°	
	do.	58	44° 22.77'	68° 50.72'	-0 09	-0 39	+0 25	+0 34	0.2	0.3	--	--	0.5	334°	--	--	0.5	178°	
	do.	96	44° 22.77'	68° 50.72'	+0 37	-0 32	+0 34	+0 24	0.3	0.3	--	--	0.6	312°	--	--	0.6	135°	
131	Sears Island, S of, Penobscot Bay <53>	15	44° 25.12'	68° 53.25'	--	+0 04	--	+0 27	0.2	0.2	--	--	0.4	012°	--	--	0.4	237°	
	do.	40	44° 25.12'	68° 53.25'	--	-1 50	--	-0 15	0.2	0.2	--	--	0.4	080°	--	--	0.4	270°	
133	Jones Point, Bagaduce River <51>	15	44° 25.55'	68° 45.50'	-0 13	-0 03	+0 21	+0 21	1.8	2.1	--	--	4.2	053°	--	--	4.2	237°	
135	Fort Point Ledge, Penobscot Bay	25d	44° 27.85'	68° 48.69'	-0 44	-0 35	+0 28	-0 15	0.5	0.4	0.1	323°	1.2	053°	0.1	332°	0.9	248°	
	do.	45d	44° 27.86'	68° 48.69'	-1 26	-0 46	+0 25	-0 06	0.5	0.4	0.1	346°	1.2	052°	0.1	330°	0.8	258°	
	do.	71d	44° 27.85'	68° 48.69'	-1 46	-0 55	+0 46	+0 01	0.5	0.4	0.1	349°	1.3	062°	0.1	342°	0.7	273°	
137	Odom Ledge, Penobscot River	16d	44° 31.00'	68° 48.19'	-0 21	-0 10	-0 12	-0 41	0.4	0.4	0.1	276°	1.1	358°	--	--	0.8	177°	
	do.	29d	44° 31.00'	68° 48.19'	-1 22	-0 44	+0 33	-0 05	0.5	0.2	0.2	282°	1.3	007°	--	--	0.4	193°	
139	Verona I., N of, Easter Ch., Penobscot R <52>	10	44° 34.07'	68° 46.87'	+2 18	+0 07	-0 54	+0 18	0.3	0.9	--	--	0.7	273°	--	--	1.8	116°	
141	Penobscot Narrows Bridge	13d	44° 33.74'	68° 48.03'	+0 27	-0 01	+0 10	+0 22	1.2	1.2	--	--	2.8	034°	--	--	2.4	210°	
	do.	26d	44° 33.74'	68° 48.03'	-0 17	-0 20	+0 13	+0 03	1.1	1.0	0.1	106°	2.7	033°	--	--	2.1	201°	
	do.	36d	44° 33.74'	68° 48.03'	-0 44	-0 37	+0 17	+0 04	1.0	0.9	0.1	113°	2.5	029°	--	--	1.9	201°	
143	BUCKSPORT, Penobscot River	12d	44° 34.28'	68° 48.46'	<b>Daily Predictions</b>														
	do.	32d	44° 34.28'	68° 48.46'	-0 23	-0 04	-0 05	-0 21	1.1	0.9	--	--	2.4	292°	0.1	202°	2.0	113°	
	do.	45d	44° 34.28'	68° 48.46'	-0 34	-0 01	-0 03	-0 23	1.0	0.9	--	--	2.5	290°	0.2	204°	1.8	118°	
145	Frankfort Flats at Marsh River, Penobscot River	11d	44° 36.29'	68° 50.80'	-0 25	+0 04	-0 06	+0 42	0.3	0.5	0.1	015°	0.7	273°	--	--	1.8	123°	
147	Winterport, Penobscot River <51>	7d	44° 37.88'	68° 50.54'	+0 15	+0 10	+0 16	-0 06	0.7	0.8	--	--	1.6	033°	--	--	1.6	212°	
	do.	14d	44° 37.88'	68° 50.54'	-0 27	+0 10	+0 43	+0 04	0.7	0.5	--	--	1.6	036°	--	--	1.0	210°	
149	Oak Point, Penobscot River <51>	15	44° 40.10'	68° 48.78'	+0 05	+0 16	+0 21	+1 09	0.6	0.9	--	--	1.5	026°	--	--	1.8	219°	
	do.	35	44° 40.10'	68° 48.78'	-0 53	+0 10	+0 01	-0 50	0.7	0.9	--	--	1.6	337°	--	--	1.7	258°	
151	Snub Point, Penobscot River <51>	7d	44° 42.57'	68° 50.46'	+0 31	+0 22	-0 06	-0 26	0.5	0.7	--	--	1.3	002°	--	--	1.3	182°	
	do.	17d	44° 42.57'	68° 50.46'	+0 18	+0 17	-0 05	-0 47	0.5	0.5	--	--	1.3	003°	--	--	1.0	179°	
	do.	26d	44° 42.57'	68° 50.46'	+0 04	+0 22	+0 53	-0 08	0.3	0.4	--	--	0.8	003°	--	--	0.9	176°	

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	MAINE COAST Time meridian, 75°W	ft	North	West	h m	h m	h m	h m			knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
					<b>on Portland Harbor Entrance, p.20</b>													
	<i>West Penobscot Bay</i>																	
153	Andrews Island, ESE of	15	43° 59.65'	69° 00.78'	-0 30	-0 20	-0 32	-0 45	0.6	0.6	--	--	0.4	011°	--	--	0.7	155°
	do.	75	43° 59.65'	69° 00.78'	-1 25	-0 32	+0 03	-0 38	1.2	0.6	--	--	0.8	342°	--	--	0.6	188°
155	Little Hurricane Island, southwest of	15	44° 01.38'	68° 55.07'	-0 15	-0 26	+0 05	+0 16	0.7	0.7	--	--	0.5	331°	--	--	0.8	157°
	do.	40	44° 01.38'	68° 55.07'	-0 28	-0 11	-0 04	-0 06	0.9	0.6	--	--	0.6	300°	--	--	0.7	125°
157	Heron Neck, Green Island	14	44° 01.78'	68° 52.38'	-1 57	-0 35	-0 35	-1 14	1.5	0.6	--	--	1.0	344°	0.2	218°	0.6	165°
159	The Reach, Norton Point	14	44° 02.25'	68° 50.90'	Current weak and variable													
	<i>Isle au Haut Bay</i>																	
161	Triangle Ledge, SSE of	15	44° 02.47'	68° 45.48'	+0 04	+0 07	-0 03	+0 12	1.0	0.9	--	--	0.7	354°	--	--	1.0	197°
	do.	40	44° 02.47'	68° 45.48'	-1 30	-0 15	-0 09	-0 46	0.9	0.6	--	--	0.6	317°	--	--	0.6	180°
163	Moore Harbor, W of	15	44° 02.53'	68° 41.55'	-0 10	+0 44	+0 07	-0 09	0.6	1.0	--	--	0.4	344°	0.1	063°	1.1	135°
	do.	75	44° 02.53'	68° 41.55'	-1 43	-0 31	-0 17	-0 25	0.9	0.5	--	--	0.6	337°	--	--	0.5	165°
	do.	120	44° 02.53'	68° 41.55'	-2 44	-0 19	-1 02	-0 50	1.0	0.3	--	--	0.7	345°	--	--	0.3	215°
	<i>West Penobscot Bay</i>																	
165	The Reach, NNE of, Green Island	14	44° 02.57'	68° 51.58'	-3 33	-0 46	-1 32	-2 26	0.6	0.4	--	--	0.4	284°	0.1	150°	0.4	111°
167	White Islands, northeast of	14	44° 03.00'	68° 54.40'	-1 58	-1 54	-1 32	-1 39	0.6	0.6	0.2	262°	0.4	322°	0.3	258°	0.6	165°
169	Fisherman Island Passage	14	44° 03.12'	69° 02.70'	-2 54	-2 13	-2 03	-1 59	0.9	0.6	0.1	136°	0.6	053°	0.2	312°	0.7	240°
171	Crotch Island, east of	14	44° 03.62'	68° 54.43'	-0 59	-0 31	-0 58	-0 40	1.8	1.8	--	--	1.9	343°	--	--	2.0	163°
173	Laireys Island, south of	14	44° 03.62'	68° 53.78'	-0 58	+0 06	-0 28	-1 22	0.6	0.8	0.1	073°	0.4	335°	--	--	0.9	155°
175	Sheep Island	14	44° 03.88'	69° 03.47'	-2 54	-0 55	-1 34	-1 47	0.7	0.7	--	--	0.5	023°	--	--	0.8	220°
177	Leadbetter I., SSW of southern tip	14	44° 04.07'	68° 53.90'	-0 53	-0 15	-0 05	-1 03	2.1	1.2	--	--	1.4	320°	--	--	1.3	126°
179	Leadbetter Island, E of southern tip	14	44° 04.15'	68° 53.62'	-0 28	-0 19	+1 00	+0 16	0.6	0.6	0.1	214°	0.4	360°	0.1	105°	0.6	175°
181	Leadbetter Island, northwest tip of	14	44° 05.03'	68° 54.67'	-0 58	-0 17	-0 30	-0 43	1.2	0.9	--	--	0.8	016°	0.1	135°	1.0	214°
183	Dodge Point–Monroe Island, between	14	44° 05.12'	69° 02.62'	-3 53	-1 19	-2 32	-2 38	0.6	0.5	0.2	267°	0.4	015°	0.1	092°	0.5	205°
185	Dogfish Island, NNE of	14	44° 05.52'	68° 54.80'	-2 24	-2 03	-2 32	-1 37	0.7	0.4	0.1	244°	0.5	325°	--	--	0.4	147°
187	Rockland Harbor Breakwater	14	44° 06.13'	69° 04.67'	-1 28	-0 06	-0 41	-0 10	0.4	0.4	0.1	215°	0.3	315°	--	--	0.4	097°
189	Browshead, Vinalhaven Island, NNW of	14	44° 06.78'	68° 54.73'	-1 58	-0 58	-0 32	-0 27	0.3	0.2	0.1	325°	0.2	016°	0.2	100°	0.2	221°
191	Crabtree Pt., North Haven I., NNE of	14	44° 06.90'	68° 55.42'	-0 53	-0 54	-0 32	-0 32	0.4	0.2	0.2	287°	0.3	003°	0.1	150°	0.2	228°
193	Fox Island Thorofare	14	44° 07.62'	68° 53.58'	-3 23	-2 17	-3 02	-2 56	0.3	0.4	--	--	0.2	070°	--	--	0.4	278°
195	Mark Island, 0.3 nmi., SSE of	14	44° 10.00'	68° 58.83'	-1 51	-1 07	-1 36	-0 57	0.6	0.5	0.2	331°	0.4	044°	0.1	163°	0.5	246°
197	Saddle Island, northwest of	14	44° 10.85'	68° 57.30'	-3 53	-2 07	-3 33	-1 44	0.4	0.4	0.2	272°	0.3	010°	0.1	101°	0.4	225°
199	Mark Island, 0.3 nautical mile, N of	14	44° 10.87'	68° 58.92'	See Table 5													
201	Lasell Island, SSW of	14	44° 11.20'	68° 56.82'	-1 57	-1 07	-2 31	-1 17	0.6	0.4	--	--	0.4	022°	--	--	0.4	217°
203	East Goose Rock, NNE of	14	44° 11.37'	68° 58.08'	-3 55	-2 19	-3 34	-2 44	0.6	0.4	--	--	0.4	000°	0.2	112°	0.4	210°
205	Camden Harbor Entrance	14	44° 12.17'	69° 02.80'	-2 54	-3 42	-2 03	-1 27	0.3	0.3	--	--	0.2	354°	0.1	325°	0.3	190°
207	Ensign Island, SSE of	14	44° 13.40'	68° 57.52'	-1 40	-0 36	+0 55	-0 56	0.4	0.3	--	--	0.3	022°	--	--	0.3	220°
209	Warren Island, northwest of	14	44° 16.55'	68° 57.22'	-2 27	-0 28	-1 00	-0 44	0.7	0.3	--	--	0.5	036°	--	--	0.3	248°
211	Ducktrap Harbor, northeast of	15	44° 18.00'	68° 56.38'	-1 17	-0 34	-1 00	-0 12	0.7	0.4	--	--	0.5	355°	--	--	0.4	185°
	do.	40	44° 18.00'	68° 56.38'	-2 39	-0 56	-1 24	-1 20	0.6	0.3	--	--	0.4	014°	--	--	0.3	237°
213	Ducktrap Harbor, NNE of	90	44° 18.27'	68° 57.35'	-1 09	-0 04	+0 04	-0 04	0.6	0.3	--	--	0.4	014°	--	--	0.3	203°
	do.	160	44° 18.27'	68° 57.35'	-1 12	-0 05	+0 13	+0 02	0.7	0.3	--	--	0.5	038°	--	--	0.3	233°
215	Ducktrap Harbor, NNE of	15	44° 18.30'	68° 57.55'	+0 23	+0 11	-0 33	-0 06	0.6	0.5	--	--	0.4	058°	--	--	0.5	202°
	do.	130	44° 18.30'	68° 57.55'	-1 24	-0 28	-0 25	-0 42	0.9	0.5	--	--	0.6	013°	--	--	0.5	193°
217	Flat Island, SSW of	14	44° 18.83'	68° 55.45'	-1 23	+0 01	-0 32	-1 38	0.6	0.4	--	--	0.4	045°	0.1	135°	0.4	230°
219	Head of the Cape, 0.8 nmi. W, of Penobscot Bay	15	44° 19.25'	68° 50.80'	-0 34	+0 10	-0 01	+0 01	0.6	0.4	--	--	0.4	325°	--	--	0.4	125°
	do.	130	44° 19.25'	68° 50.80'	-1 24	-0 35	-0 18	-0 22	0.6	0.3	--	--	0.4	015°	--	--	0.3	166°
221	Head of the Cape, NNW of, Penobscot Bay	15	44° 19.07'	68° 50.17'	-0 56	-0 15	+0 05	-0 24	0.9	0.4	--	--	0.6	332°	--	--	0.4	163°
	do.	30	44° 19.07'	68° 50.17'	-1 32	-0 23	-0 01	-0 30	0.7	0.3	--	--	0.5	356°	--	--	0.3	172°
	do.	130	44° 19.07'	68° 50.17'	-1 09	-0 56	-0 48	-0 30	0.4	0.4	--	--	0.3	353°	--	--	0.4	176°
223	Ram Island, west of, West Penobscot Bay	14	44° 21.28'	68° 54.95'	-3 53	-1 31	-2 30	-1 47	0.6	0.3	--	--	0.4	004°	--	--	0.3	189°
225	Temple Heights, NE of, W Penobscot Bay	15	44° 21.38'	68° 55.33'	-1 12	-0 59	-1 40	-0 49	0.6	0.4	--	--	0.4	000°	--	--	0.4	189°
	do.	65	44° 21.38'	68° 55.33'	-1 56	-0 48	-1 13	-1 04	0.6	0.3	--	--	0.4	354°	--	--	0.3	175°
227	Temple Heights, NNE of, W Penobscot Bay	15	44° 21.45'	68° 56.62'	-0 44	+0 03	-0 12	-0 36	0.9	0.6	--	--	0.6	005°	--	--	0.7	175°
	do.	30	44° 21.45'	68° 56.62'	-1 01	-0 02	+0 08	-0 14	0.9	0.4	--	--	0.6	344°	--	--	0.4	188°
	do.	50	44° 21.45'	68° 56.62'	-0 38	-0 06	-0 24	-0 10	0.7	0.5	--	--	0.5	333°	0.0	--	0.5	164°
229	Muscongus Sound		43° 56.5'	69° 26.9'	Current weak and variable													

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS									
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb			
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.		
	MAINE COAST Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m								
<b>on Bath Iron Works, p.16</b>																				
231	Damariscotta River, off Cavis Point		43° 52.5'	69° 35.0'	-1 27	-1 55	-2 10	-1 58	0.3	0.5	--	--	0.6	350°	--	--	1.0	215°		
233	Sheepscot River, off Barter Island		43° 54.0'	69° 41.5'	-1 26	-2 13	-2 01	-1 13	0.4	0.5	--	--	0.8	005°	--	--	1.1	200°		
235	Lowe Point, NE of, Sasanoa River		43° 51.1'	69° 43.3'	-1 26	-1 02	-1 32	-1 07	0.9	0.9	--	--	1.7	327°	--	--	1.8	152°		
237	Lower Hell Gate, Knubble Bay <2>		43° 52.6'	69° 43.8'	-1 01	-0 34	-1 32	-0 34	1.6	1.7	--	--	3.0	290°	--	--	3.5	155°		
239	Upper Hell Gate, Sasanoa River		43° 53.7'	69° 46.3'	+2 53	+1 37	+0 34	+1 23	0.5	0.4	--	--	1.0	307°	--	--	0.8	142°		
<b>KENNEBEC RIVER</b>																				
241	Hunniwell Point, northeast of		43° 45.4'	69° 46.9'	-0 33	-0 59	-0 41	-0 16	1.3	1.4	--	--	2.4	332°	--	--	2.9	151°		
243	Bald Head, 0.3 mile southwest of		43° 48.1'	69° 47.6'	-0 15	-0 43	-0 50	-0 17	0.8	1.1	--	--	1.6	321°	--	--	2.3	153°		
245	Bluff Head, west of		43° 51.3'	69° 47.8'	-0 05	-0 18	-0 20	-0 16	1.2	1.7	--	--	2.3	014°	--	--	3.4	184°		
247	Fiddler Ledge, north of		43° 52.8'	69° 47.8'	+0 09	+0 01	-0 24	+0 08	1.0	1.3	--	--	1.9	267°	--	--	2.6	113°		
249	Doubling Point, south of		43° 52.8'	69° 48.4'	-0 10	-0 22	-0 23	+0 13	1.4	1.5	--	--	2.6	300°	--	--	3.0	127°		
251	Bath Iron Works	16d	43° 54.23'	69° 48.56'	<b>Daily Predictions</b>						--	--	1.9	001°	0.1	085°	2.1	178°		
	do.	3d	43° 54.23'	69° 48.56'	+0 02	-0 01	-0 11	-0 14	1.0	1.2	--	--	1.9	004°	0.1	090°	2.5	178°		
	do.	39d	43° 54.23'	69° 48.56'	+0 01	-0 05	-0 06	+0 35	0.7	0.6	--	--	1.3	354°	0.2	274°	1.3	176°		
253	Goose Cove, south of Chops Passage	4d	43° 58.51'	69° 49.60'	+0 31	+0 17	+0 05	+0 41	1.3	1.5	0.1	072°	2.4	343°	0.1	252°	3.0	154°		
	do.	14d	43° 58.51'	69° 49.60'	+0 31	+0 17	+0 07	+0 41	1.2	1.5	0.1	070°	2.3	342°	0.1	252°	3.0	154°		
	do.	27d	43° 58.51'	69° 49.60'	+0 32	+0 19	+0 08	+0 39	1.0	1.3	--	--	2.0	338°	0.1	252°	2.6	158°		
255	Merrymeeting Bay, north of Chops Passage	4d	43° 59.06'	69° 50.17'	+0 22	+0 48	+0 22	+0 09	1.0	0.4	--	--	2.0	306°	0.1	031°	0.9	108°		
	do.	20d	43° 59.06'	69° 50.17'	+0 23	+0 51	+0 26	+0 09	0.9	0.4	--	--	1.7	306°	--	--	0.9	120°		
	do.	40d	43° 59.06'	69° 50.17'	+0 26	+0 52	+0 26	+0 23	0.7	0.4	0.1	219°	1.3	307°	--	--	0.9	137°		
257	Maine Kennebec Bridge, 0.2nm south of	4d	44° 05.28'	69° 47.11'	+1 40	+1 01	+0 24	+2 01	0.6	0.7	0.1	292°	1.2	016°	0.1	291°	1.5	207°		
	do.	19d	44° 05.28'	69° 47.11'	+1 40	+1 04	+0 23	+2 02	0.5	0.6	--	--	0.9	025°	--	--	1.2	202°		
<b>CASCO BAY</b>																				
<b>on Portland Harbor Entrance, p.20</b>																				
259	Broad Sound, west of Eagle Island	19d	43° 42.60'	70° 03.77'	-0 45	-0 37	-0 21	-0 16	1.6	1.0	0.1	263°	1.0	351°	--	--	1.1	187°		
	do.	39d	43° 42.60'	70° 03.77'	-0 33	-0 22	-0 22	-0 10	1.4	1.0	0.1	271°	1.0	356°	--	--	1.0	187°		
	do.	91d	43° 42.60'	70° 03.77'	-1 38	-0 28	+0 12	-0 14	1.9	0.6	0.1	271°	1.3	340°	--	--	0.6	191°		
261	Littlejohn Island, S. of Town Ledge	6d	43° 45.25'	70° 07.66'	-2 19	-0 48	+0 00	-0 58	0.6	0.3	0.1	296°	0.4	025°	0.1	299°	0.3	221°		
	do.	20d	43° 45.25'	70° 07.66'	-2 51	-0 25	+0 03	-1 03	0.5	0.3	--	--	0.3	025°	--	--	0.3	214°		
	do.	36d	43° 45.25'	70° 07.66'	-3 09	-1 09	-0 24	-1 15	0.4	0.2	--	--	0.3	033°	--	--	0.3	210°		
263	Lucksee Sound, between Hope & Cliff Is.	14d	43° 41.90'	70° 06.94'	+0 48	+0 44	+1 01	+1 12	0.6	0.5	0.1	322°	0.4	050°	--	--	0.5	227°		
	do.	27d	43° 41.90'	70° 06.94'	+0 48	+0 53	+0 59	+1 13	0.6	0.5	--	--	0.4	052°	--	--	0.5	228°		
	do.	40d	43° 41.90'	70° 06.94'	+0 09	+0 34	+0 58	+0 56	0.7	0.5	--	--	0.5	051°	--	--	0.5	227°		
265	Stepping Stones	6d	43° 41.75'	70° 07.96'	+0 13	+0 02	-0 03	-0 21	0.7	0.7	--	--	0.5	018°	--	--	0.8	197°		
	do.	19d	43° 41.75'	70° 07.96'	+0 09	+0 01	+0 02	-0 10	0.7	0.7	--	--	0.5	013°	--	--	0.8	191°		
	do.	42d	43° 41.75'	70° 07.96'	-0 53	-0 46	-1 23	-0 14	0.5	0.4	--	--	0.4	355°	--	--	0.4	169°		
267	Chandler Cove, south entrance	4d	43° 42.42'	70° 07.94'	-1 26	-0 02	-0 38	-1 18	1.0	0.8	--	--	0.7	354°	0.1	264°	0.8	179°		
	do.	17d	43° 42.42'	70° 07.94'	-1 19	-0 26	-0 37	-1 08	0.9	0.8	--	--	0.6	357°	0.1	271°	0.8	180°		
	do.	37d	43° 42.42'	70° 07.94'	-1 27	-0 58	-0 19	-0 43	0.7	0.7	--	--	0.5	001°	--	--	0.7	187°		
269	Long Island, Mariner Ledge	9d	43° 42.12'	70° 09.85'	-0 51	-0 45	+1 53	+0 45	0.4	0.3	--	--	0.3	017°	--	--	0.3	182°		
	do.	26d	43° 42.12'	70° 09.85'	-0 54	+0 15	+2 08	+0 29	0.4	0.2	--	--	0.3	026°	0.1	133°	0.3	194°		
271	Cow Island, northeast of	13d	43° 41.65'	70° 10.86'	-1 27	-1 21	-0 35	-0 30	0.6	0.8	0.1	067°	0.4	000°	--	--	0.9	144°		
	do.	39d	43° 41.65'	70° 10.86'	-1 23	-1 27	-1 07	-0 14	0.8	0.9	--	--	0.5	002°	--	--	0.9	152°		
273	Hussey Sound, Cow Island	11d	43° 41.39'	70° 10.70'	-1 19	+0 15	+0 16	-0 25	1.6	0.8	0.1	087°	1.1	012°	0.1	283°	0.8	178°		
	do.	30d	43° 41.39'	70° 10.70'	-1 02	+0 05	+0 10	-0 21	1.2	0.9	0.1	098°	0.8	012°	0.1	281°	0.9	185°		
	do.	57d	43° 41.39'	70° 10.70'	-0 44	-0 34	-0 03	-0 12	1.0	1.0	0.1	097°	0.7	018°	--	--	1.1	195°		
275	Hussey Sound, between Long & Peaks Islands	11d	43° 40.25'	70° 10.58'	-0 29	-0 08	+0 16	-0 06	1.5	1.1	--	--	1.0	325°	0.1	226°	1.2	145°		
	do.	31d	43° 40.25'	70° 10.58'	-0 26	-0 03	+0 00	-0 07	1.4	1.0	--	--	0.9	325°	0.2	229°	1.1	147°		
	do.	70d	43° 40.25'	70° 10.58'	-1 14	+0 08	+0 14	-0 06	1.5	0.6	0.1	230°	1.0	311°	--	--	0.7	140°		
277	Diamond Island Roads	7d	43° 39.75'	70° 12.94'	-0 51	-0 55	-1 17	-0 28	0.6	0.8	0.1	250°	0.4	327°	0.1	065°	0.8	164°		
	do.	17d	43° 39.75'	70° 12.94'	-0 46	-0 23	-0 58	-0 34	0.5	0.7	0.1	233°	0.3	342°	0.2	070°	0.7	165°		
	do.	34d	43° 39.75'	70° 12.94'	-1 00	+0 08	+0 06	-0 28	0.5	0.5	--	--	0.3	023°	0.1	108°	0.5	168°		
279	PORTLAND HARBOR ENTRANCE	9d	43° 37.68'	70° 12.57'	<b>Daily Predictions</b>						--	--	0.7	310°	0.1	226°	1.1	138°		
	do.	19d	43° 37.68'	70° 12.57'	-0 18	-0 02	-0 09	+0 03	1.0	1.0	--	--	0.7	313°	--	--	1.1	137°		
	do.	38d	43° 37.68'	70° 12.57'	-0 39	-0 07	-0 39	+0 03	0.8	0.9	0.1	234°	0.5	308°	--	--	0.9	140°		

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS										
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb				
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.			
CASCO BAY Time meridian, 75°W			North	West	h	m	h	m	h	m	h	m	knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
<b>on Portland Harbor Entrance, p.20</b>																					
281	Spring Point, east of	7d	43° 39.22'	70° 13.36'	-0 38	-0 22	-0 37	-0 22	1.5	0.8	--	--	1.0	343°	0.1	060°	0.9	124°			
	do.	20d	43° 39.22'	70° 13.36'	-0 57	-0 03	-0 19	-0 32	1.7	0.7	--	--	1.1	344°	0.1	056°	0.8	123°			
	do.	36d	43° 39.22'	70° 13.36'	-1 15	-0 05	-0 06	-0 36	1.4	0.6	--	--	1.0	337°	0.1	053°	0.6	113°			
283	Portland Breakwater Light, 0.3nm east of	6d	43° 39.32'	70° 13.67'	--	--	--	-0 45	--	0.5	--	--	--	--	--	--	0.5	114°			
	do.	20d	43° 39.32'	70° 13.67'	--	--	--	-1 00	--	0.4	--	--	--	--	--	--	0.4	121°			
	do.	36d	43° 39.32'	70° 13.67'	cCurrent weak and variable																
285	Ocean Gate Terminal	3d	43° 39.66'	70° 14.40'	-2 11	+1 01	+0 40	-0 28	0.5	0.3	--	--	0.4	230°	--	--	0.3	050°			
	do.	21d	43° 39.66'	70° 14.40'	--	+1 15	--	--	0.6	--	--	--	0.4	209°	--	--	--	--			
287	Portland Harbor, State Pier	3d	43° 39.28'	70° 14.70'	-0 06	+0 05	-0 09	+0 26	0.6	0.6	--	--	0.4	214°	0.1	127°	0.6	054°			
	do.	17d	43° 39.28'	70° 14.70'	-0 49	+0 14	+0 21	+0 03	0.6	0.2	--	--	0.4	221°	--	--	0.3	056°			
	do.	30d	43° 39.28'	70° 14.70'	--	-0 01	--	--	0.6	--	--	--	0.4	221°	--	--	--	--			
289	Fore River, Portland River Bridge	5d	43° 38.75'	70° 15.44'	-0 12	-0 14	-0 15	-0 13	0.8	0.4	--	--	0.5	229°	--	--	0.4	065°			
	do.	21d	43° 38.75'	70° 15.44'	-1 57	-0 16	-0 04	-0 46	0.7	0.4	0.1	149°	0.5	227°	--	--	0.5	064°			
291	Seal Cove, Cape Elizabeth	3d	43° 33.14'	70° 13.06'	+1 28	+2 10	+2 35	+2 03	0.4	0.2	0.1	021°	0.3	286°	0.1	196°	0.3	112°			
	do.	19d	43° 33.14'	70° 13.06'	cCurrent weak and variable																
293	Saco River Entrance	1d	43° 27.73'	70° 21.07'	+0 00	-0 26	-0 14	+0 51	0.4	0.5	--	--	0.3	262°	--	--	0.5	078°			
	do.	13d	43° 27.73'	70° 21.07'	cCurrent weak and variable																
PORTSMOUTH HARBOR			<b>on Portsmouth Harbor Entrance, p.24</b>																		
295	Odiornes Point, NNE of	15	43° 02.60'	70° 42.30'	+1 23	+1 54	+0 41	+2 13	0.4	0.6	--	--	0.5	339°	--	--	0.8	183°			
297	Odiornes Point, northeast of	15	43° 03.00'	70° 42.10'	+0 09	+0 14	+0 29	+1 03	0.5	0.7	0.1	238°	0.6	320°	--	--	1.0	156°			
299	Kitts Rocks, WSW of <55>	15	43° 03.10'	70° 41.80'	--	-0 04	+0 00	-0 04	0.6	0.5	0.2	191°	0.7	314°	0.1	058°	0.8	133°			
301	Little Harbor entrance	3d	43° 03.32'	70° 42.94'	-1 05	-0 30	-1 04	-1 19	0.7	0.8	--	--	0.8	321°	--	--	1.2	107°			
	do.	12d	43° 03.32'	70° 42.94'	-1 58	-0 36	-1 09	-1 23	0.6	0.7	--	--	0.7	316°	--	--	1.0	122°			
303	Whaleback Reef, west of	15	43° 03.50'	70° 42.27'	+0 09	+0 27	+0 03	+0 10	0.6	1.0	--	--	0.7	340°	--	--	1.5	144°			
305	PORTSMOUTH HARBOR ENTRANCE	8d	43° 03.74'	70° 42.32'	<b>Daily predictions</b>								0.1	282°	1.2	342°	--	--	1.5	194°	
	do.	25d	43° 03.74'	70° 42.32'	-0 34	-0 30	+0 03	+0 07	1.0	0.9	0.1	282°	1.2	346°	0.1	092°	1.3	196°			
	do.	44d	43° 03.74'	70° 42.32'	-1 03	-0 49	-0 03	+0 04	0.9	0.6	0.1	082°	1.0	007°	--	--	0.9	178°			
307	Wood Island, northwest of	15	43° 03.95'	70° 42.30'	+0 12	+0 09	+0 23	-0 44	1.0	0.8	0.2	291°	1.2	358°	0.1	278°	1.3	199°			
309	Fort Point	6d	43° 04.47'	70° 42.40'	+0 24	+0 43	-0 01	+0 20	1.3	1.3	0.1	213°	1.6	328°	0.2	043°	2.0	098°			
	do.	19d	43° 04.47'	70° 42.40'	-0 14	+0 19	+0 00	+0 15	1.4	1.1	0.2	221°	1.7	328°	0.2	052°	1.6	104°			
	do.	39d	43° 04.47'	60° 42.40'	-0 44	-0 29	+0 09	+0 07	1.4	0.5	0.1	255°	1.6	323°	0.1	047°	0.7	138°			
311	Salamander Point, north of	15	43° 04.58'	70° 43.02'	+0 24	+0 44	+0 26	+0 45	1.2	0.6	--	--	1.4	257°	0.2	167°	0.8	091°			
313	Clark Island, south of	15	43° 04.43'	70° 43.48'	+0 33	+0 31	+0 28	+0 31	1.4	1.5	--	--	1.6	270°	--	--	2.3	085°			
315	Clark Island, southwest of	15	43° 04.50'	70° 43.67'	+0 31	-0 05	+0 26	-0 06	0.6	0.6	--	--	0.7	263°	--	--	0.8	070°			
317	Henderson Point, SSW of	15	43° 04.40'	70° 44.32'	+0 14	+1 20	+0 07	+0 36	1.4	1.2	0.1	228°	1.6	306°	--	--	1.8	133°			
319	Henderson Point, west of	10d	43° 04.49'	70° 44.30'	+0 11	+1 13	+0 05	+0 08	2.1	1.9	--	--	2.4	285°	0.2	218°	2.8	138°			
	do.	32d	43° 04.49'	70° 44.30'	+0 03	+0 30	+0 06	+0 00	2.2	1.7	--	--	2.6	293°	0.2	219°	2.5	147°			
	do.	59d	43° 04.49'	70° 44.30'	-0 14	+0 21	+0 08	+0 04	1.5	1.1	0.1	244°	1.8	340°	0.2	240°	1.7	160°			
321	Shapleigh Island Bridge, south of		43° 04.18'	70° 44.30'	-0 40	-0 18	-1 01	-0 37	0.7	0.4	--	--	0.8	178°	--	--	0.7	348°			
323	Pierces Island, northeast of	15	43° 04.55'	70° 44.48'	-0 08	+0 34	+0 31	-0 21	2.4	0.8	0.1	243°	2.8	325°	--	--	1.3	144°			
PISCATAQUA RIVER and tributaries			<b>on Portsmouth Harbor Entrance, p.24</b>																		
325	Memorial Bridge	8d	43° 04.76'	70° 45.12'	+0 06	+0 28	+0 09	+0 03	2.3	2.2	--	--	2.6	277°	--	--	3.2	105°			
	do.	31d	43° 04.76'	70° 45.12'	+0 04	+0 39	+0 15	+0 03	2.4	2.1	--	--	2.8	275°	--	--	3.1	101°			
	do.	58d	43° 04.76'	70° 45.12'	+0 01	+0 46	+0 16	+0 03	2.1	1.6	--	--	2.4	275°	--	--	2.4	093°			
327	Sara Long Bridge	6d	43° 05.32'	70° 45.72'	+0 11	+0 40	+0 08	+0 18	1.9	2.1	--	--	2.2	331°	0.1	242°	3.1	153°			
	do.	19d	43° 05.32'	70° 45.72'	+0 07	+0 41	+0 11	+0 15	1.9	1.9	0.1	244°	2.2	332°	0.1	245°	2.9	155°			
	do.	33d	43° 05.32'	70° 45.72'	+0 04	+0 41	+0 13	+0 16	1.8	1.7	--	--	2.1	333°	--	--	2.6	158°			
329	I-95 Bridge	6d	43° 05.57'	70° 46.02'	+0 13	+0 42	+0 08	+0 14	2.8	2.9	0.2	033°	3.3	309°	--	--	4.3	123°			
	do.	29d	43° 05.57'	70° 46.02'	+0 06	+0 41	+0 11	+0 13	2.9	2.3	0.1	042°	3.4	317°	--	--	3.5	129°			
	do.	48d	43° 05.57'	70° 46.02'	+0 01	+0 37	+0 12	+0 10	2.2	1.6	0.1	233°	2.6	313°	0.1	226°	2.5	142°			
331	Schiller Station	9d	43° 05.84'	70° 46.86'	+0 13	+1 00	+0 17	+0 19	3.4	2.4	--	--	4.0	329°	0.1	243°	3.6	157°			
	do.	29d	43° 05.84'	70° 46.86'	+0 10	+0 55	+0 20	+0 15	3.3	2.3	0.1	--	3.8	337°	0.1	249°	3.5	162°			
	do.	52d	43° 05.84'	70° 46.86'	+0 10	+0 51	+0 23	+0 19	3.0	1.9	--	--	3.5	353°	--	--	2.9	168°			

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
			<b>PISCATAQUA RIVER and tributaries</b>															
			Time meridian, 75°W															
					<b>on Portsmouth Harbor Entrance, p.24</b>													
333	Frankfort Island, south of	7d	43° 06.85'	70° 48.32'	+0 15	+0 56	+0 21	+0 43	2.5	2.3	0.1	218°	2.9	304°	0.1	219°	3.4	130°
	do.	24d	43° 06.85'	70° 48.32'	+0 15	+0 55	+0 26	+0 42	2.4	2.2	--	--	2.8	305°	0.1	218°	3.2	130°
	do.	37d	43° 06.85'	70° 48.32'	+0 15	+0 58	+0 24	+0 42	2.0	1.9	--	--	2.3	303°	--	--	2.8	129°
335	General Sullivan Bridge	3d	43° 07.07'	70° 49.56'	+0 19	+0 42	+0 24	+1 06	3.6	2.8	0.2	158°	4.2	238°	0.1	159°	4.2	078°
	do.	8d	43° 07.07'	70° 49.56'	+0 19	+0 39	+0 24	+1 09	3.4	2.6	0.2	157°	4.0	238°	--	--	3.9	075°
	do.	15d	43° 07.07'	60° 49.56'	+0 19	+0 40	+0 25	+1 11	2.8	2.1	0.1	156°	3.2	243°	--	--	3.2	071°
337	Dover Point, west of	15	43° 07.15'	70° 50.23'	+0 07	+0 18	+0 23	-0 02	1.2	0.4	0.1	191°	1.4	283°	--	--	0.6	119°
339	Goat Island, north of	15	43° 07.62'	70° 51.37'	+0 52	+1 05	+0 20	+0 49	1.0	0.8	0.1	352°	1.2	272°	--	--	1.3	077°
341	Goat Island and Fox Point, between	15	43° 07.37'	70° 51.42'	+0 34	+1 39	+0 51	+2 30	1.0	0.4	0.1	219°	1.1	303°	--	--	0.6	142°
343	Knight Hill Township, west of	15	43° 06.47'	70° 51.50'	+0 39	+0 41	+0 54	+0 21	0.6	0.5	--	--	0.7	205°	0.1	286°	0.8	015°
345	Furber Strait	4d	43° 05.47'	70° 51.68'	+0 30	+1 10	+0 24	+1 05	1.8	1.4	0.1	289°	2.0	201°	0.1	288°	2.1	015°
	do.	14d	43° 05.47'	70° 51.68'	+0 27	+1 06	+0 27	+0 58	1.8	1.4	0.1	285°	2.0	200°	0.1	285°	2.1	007°
	do.	25d	43° 05.47'	70° 51.68'	+0 27	+1 00	+0 30	+0 55	1.6	1.3	0.2	279°	1.8	198°	--	--	1.9	001°
			<b>MASSACHUSETTS COAST</b>															
					<b>on Boston Harbor, p.28</b>													
347	Merrimack River entrance		42° 49.1'	70° 48.6'	+0 55	+1 20	+1 08	-0 46	1.7	1.1	--	--	2.2	285°	--	--	1.4	105°
349	Newburyport, Merrimack River		42° 48.8'	70° 52.1'	+1 19	+1 53	+1 42	+0 23	1.2	1.1	--	--	1.5	288°	--	--	1.4	098°
351	Plum Island Sound entrance		42° 42.3'	70° 47.3'	+0 27	+0 55	+0 43	-0 19	1.2	1.2	--	--	1.6	316°	--	--	1.5	184°
353	Annisquam Harbor Light		42° 40.1'	70° 41.1'	+0 33	+0 54	+0 53	-0 09	0.8	1.1	--	--	1.0	200°	--	--	1.3	013°
355	Gloucester Harbor entrance		42° 34.9'	70° 40.5'	-0 37	+0 06	-0 34	-0 48	0.2	0.2	--	--	0.3	340°	--	--	0.3	195°
357	Blymnan Canal ent., Gloucester Harbor		42° 36.6'	70° 40.4'	-0 15	+0 10	-0 20	-0 51	2.3	2.7	--	--	3.0	310°	--	--	3.3	130°
			<i>Salem Sound</i>															
359	Little Misery Island	5d	42° 32.53'	70° 48.01'	-0 49	-0 19	+0 18	-0 32	0.4	0.3	0.1	185°	0.5	249°	0.1	169°	0.4	105°
	do.	18d	42° 32.53'	70° 48.01'	-0 32	-0 05	+0 27	-0 17	0.4	0.3	0.1	185°	0.5	258°	0.1	174°	0.4	102°
	do.	50d	42° 32.53'	70° 48.01'	-0 33	-1 03	-0 29	-0 38	0.2	0.3	--	--	0.3	275°	--	--	0.4	090°
361	Haste Shoal	4d	42° 32.36'	70° 50.70'	+0 34	+0 29	+0 57	+0 39	0.3	0.3	--	--	0.4	273°	--	--	0.4	093°
	do.	15d	42° 32.36'	70° 50.70'	-0 12	-0 17	+0 43	+0 04	0.3	0.3	0.1	345°	0.3	268°	--	--	0.3	067°
363	Abbot Rock		42° 31.78'	70° 51.60'	Current weak and variable													
365	Fort Pickering, 0.2nm south of	6d	42° 31.34'	70° 52.08'	+0 05	+0 06	+0 50	+0 03	0.2	0.2	--	--	0.3	264°	--	--	0.3	080°
	do.	16d	42° 31.34'	70° 52.08'	-0 31	-0 50	+0 07	-0 11	0.2	0.2	--	--	0.3	268°	--	--	0.3	081°
	do.	29d	42° 31.34'	70° 52.08'	Current weak and variable													
367	Marblehead Channel	4d	42° 30.04'	70° 49.21'	+0 41	+0 10	+0 26	+1 31	0.2	0.3	0.2	228°	0.3	280°	0.1	005°	0.3	171°
	do.	17d	42° 30.04'	70° 49.21'	Current weak and variable													
	do.	30d	42° 30.04'	70° 49.21'	Current weak and variable													
369	Ram Island, 0.2 n.mi. NNE of	10	42° 28.75'	70° 51.68'	See Table 5.													
371	Ram Island, 0.2 n.mi. southeast of	10	42° 28.45'	70° 51.55'	See Table 5.													
373	Great Pig Rocks, southeast of	10	42° 27.53'	70° 50.70'	See Table 5.													
375	Galloupes Point, 0.4 n.mi. south of	10	42° 27.24'	70° 53.70'	See Table 5.													
377	Little Nahant, 0.9 n.mi. northeast of	10	42° 26.85'	70° 54.84'	See Table 5.													
379	Egg Rock, 0.2 n.mi. north of	10	42° 26.25'	70° 53.93'	See Table 5.													
381	Egg Rock, southwest of	10	42° 25.85'	70° 54.20'	See Table 5.													
383	Nahant, 1.8 n.mi. NE of East Point	10	42° 26.00'	70° 52.02'	+0 23	+0 54	+0 10	+0 48	0.5	0.1	--	--	0.7	252°	0.1	291°	0.7	144°
	do.	45	42° 26.00'	70° 52.02'	-0 30	+1 09	+1 09	-0 43	0.2	0.2	--	--	0.3	250°	--	--	0.2	070°
	do.	80	42° 26.00'	70° 52.02'	-0 34	+1 09	+1 10	-0 43	0.2	0.2	0.1	329°	0.2	238°	--	--	0.2	077°
385	Nahant, 0.4 n.mi. east of East Point	15	42° 25.23'	70° 53.63'	-0 05	-0 36	+0 10	+0 10	0.4	0.5	0.2	118°	0.5	205°	--	--	0.6	045°
	do.	25	42° 25.23'	70° 53.63'	-0 06	-0 21	+0 03	+0 17	0.3	0.4	0.1	102°	0.4	198°	0.1	282°	0.5	027°
387	Nahant, 1 n.mi. SE of East Point	45	42° 23.83'	70° 51.17'	-0 31	+0 01	+0 14	-1 13	0.2	0.2	--	--	0.3	253°	--	--	0.3	074°
	do.	70	42° 23.83'	70° 51.17'	-0 05	+1 09	+1 08	+0 02	0.2	0.2	--	--	0.2	261°	--	--	0.2	090°
389	Pea Island, 0.4 n.mi. southeast of	15	42° 24.63'	70° 54.13'	+0 44	+1 00	+0 37	-0 13	0.4	0.4	--	--	0.5	239°	0.1	161°	0.5	063°
	do.	25	42° 24.63'	70° 54.13'	+0 25	+0 39	+0 52	+0 17	0.4	0.3	--	--	0.5	224°	--	--	0.4	048°
	do.	65	42° 24.63'	70° 54.13'	-0 46	-0 54	+0 09	-0 43	0.3	0.3	0.1	332°	0.4	271°	--	--	0.3	035°
391	Bass Point, 1.2 n.mi. southeast of	10	42° 24.12'	70° 55.07'	-0 31	+1 25	+0 53	-0 26	0.6	0.6	0.1	351°	0.7	259°	--	--	0.7	066°
	do.	45	42° 24.12'	70° 55.07'	-0 38	-0 05	+0 47	-0 41	0.3	0.2	--	--	0.4	251°	--	--	0.3	086°
	do.	60	42° 24.12'	70° 55.07'	-0 38	-0 05	+0 26	-1 11	0.2	0.2	--	--	0.3	250°	--	--	0.2	091°
393	Bass Point, 0.5 n.mi. SSW of	15	42° 24.57'	70° 56.53'	See Table 5.													
395	Bass Point, 0.7 n.mi. west of	10	42° 25.13'	70° 57.25'	See Table 5.													

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	MASSACHUSETTS COAST Time meridian, 75°W	ft	North	West	h	m	h	m	h	m									
<b>on Boston Harbor, p.28</b>																			
397	Little Nahant Cupola, 0.6 n.mi. west of	10	42° 25.87'	70° 56.83'	-0 11	-0 21	+1 27	+0 34	0.3	0.4	--	--	0.4	033°	0.1	137°	0.5	219°	
399	Sand Point, Black Marsh Channel	10	42° 26.58'	70° 56.52'	-0 05	-0 12	+1 15	+0 15	0.4	0.4	--	--	0.5	013°	--	--	0.5	203°	
401	Lynn Harbor	10	42° 27.27'	70° 56.78'	+0 20	-0 21	+2 30	+1 12	0.2	0.2	--	--	0.3	274°	--	--	0.2	090°	
403	Point of Pines, 0.5 n.mi. south of	6	42° 25.97'	70° 57.53'	-0 04	+0 24	+1 03	+0 29	0.4	0.5	--	--	0.5	009°	--	--	0.6	198°	
405	Point of Pines, 0.1 n.mi. northeast of	6	42° 26.52'	70° 57.62'	+0 34	+0 24	+0 45	+0 22	0.7	1.0	--	--	0.9	296°	--	--	1.2	131°	
407	Finn's Ledge Bell, 0.2 n.mi. west of	10	42° 22.17'	70° 55.42'	-0 10	+1 10	+0 21	-0 14	0.4	0.6	--	--	0.6	226°	0.2	295°	0.8	035°	
	do.	25	42° 22.17'	70° 55.42'	-0 20	+0 55	+0 31	+0 16	0.3	0.4	--	--	0.3	229°	--	--	0.5	033°	
409	Winthrop Head, 1.1 n.mi. east of	10	42° 21.93'	70° 56.52'	-1 21	+0 24	+0 26	-1 58	0.4	0.3	0.3	103°	0.5	205°	0.2	297°	0.4	019°	
411	Lovell Island, 1.3nm north of	4d	42° 21.30'	70° 55.91'	+0 01	+0 02	+0 38	+0 19	0.8	1.1	0.2	110°	1.0	198°	0.1	298°	1.4	029°	
	do.	20d	42° 21.30'	70° 55.91'	-0 16	-0 17	+0 43	+0 26	0.7	0.9	0.2	108°	0.9	192°	0.1	111°	1.1	027°	
	do.	30d	42° 21.30'	70° 55.91'	-0 23	-0 19	+0 45	+0 22	0.6	0.6	0.2	107°	0.8	187°	--	--	0.8	027°	
<b>BOSTON HARBOR APPROACHES</b>																			
413	Stellwagen Bank, 15nm NNE of Race Point	27d	42° 18.73'	70° 06.72'	+0 55	+0 07	-0 18	+0 16	0.3	0.4	0.3	197°	0.4	254°	0.1	201°	0.5	121°	
	do.	105d	42° 18.73'	70° 06.72'	+0 01	+0 07	-0 01	-0 48	0.4	0.6	0.3	199°	0.5	265°	0.1	193°	0.7	125°	
	do.	210d	42° 18.73'	70° 06.72'	-0 05	-0 07	-0 11	-0 53	0.3	0.6	0.2	214°	0.4	275°	0.1	193°	0.8	121°	
415	Stellwagen Bank, 16nm North of Race Point	8d	42° 19.44'	70° 17.64'	-0 12	-0 33	-0 38	-0 32	0.4	0.8	0.3	178°	0.5	253°	0.1	352°	0.9	100°	
	do.	51d	42° 19.44'	70° 17.64'	+0 16	+0 13	+0 09	-0 29	0.5	0.8	0.2	171°	0.7	262°	0.2	353°	1.0	086°	
	do.	90d	42° 19.44'	70° 17.64'	-0 26	-0 42	-0 14	-0 54	0.3	0.4	--	--	0.4	268°	--	--	0.5	092°	
417	Stellwagen Bank, 17nm ESE of Eastern Pt. Light	52d	42° 28.38'	70° 18.72'	+0 35	+0 28	+0 21	+0 06	0.2	0.4	0.1	184°	0.3	269°	--	--	0.5	091°	
	do.	150d	42° 28.38'	70° 18.72'	--	--	--	-0 50	--	0.3	--	--	--	--	--	--	0.4	095°	
	do.	308d	42° 28.38'	70° 18.72'	-0 54	-0 59	-1 11	-1 04	0.2	0.3	--	--	0.3	311°	--	--	0.3	108°	
419	Stellwagen Bank, 13.4nm SE of Eastern Pt. Light	12d	42° 25.34'	70° 26.99'	-0 03	-0 22	+0 19	-0 18	0.3	0.3	0.1	170°	0.3	252°	--	--	0.3	093°	
	do.	38d	42° 25.34'	70° 26.99'	-0 03	+1 15	+1 03	-0 25	0.3	0.3	0.1	158°	0.4	236°	--	--	0.4	070°	
	do.	71d	42° 25.34'	70° 26.99'	+0 19	+1 15	+1 34	+0 32	0.3	0.4	0.1	140°	0.4	223°	--	--	0.5	049°	
421	Stellwagen Basin, 13.8nm SE of Eastern Pt. Light	35d	42° 23.29'	70° 28.98'	-4 51	-4 20	-4 42	-5 21	0.2	0.2	0.1	131°	0.2	059°	0.1	130°	0.3	195°	
	do.	100d	42° 23.29'	70° 28.98'	--	-0 30	--	--	0.2	--	--	--	0.3	305°	--	--	--	--	
	do.	245d	42° 23.29'	70° 28.98'	--	-0 23	--	--	0.2	--	--	--	0.3	296°	--	--	--	--	
423	Stellwagen Basin, east end	30d	42° 20.29'	70° 31.92'	-2 23	-3 16	-3 23	-3 59	0.2	0.3	0.1	081°	0.2	033°	0.1	084°	0.4	147°	
	do.	122d	42° 20.29'	70° 31.92'	--	--	--	-0 44	--	0.3	--	--	--	--	--	--	0.3	093°	
	do.	240d	42° 20.29'	70° 31.92'	--	--	--	-0 59	--	0.2	--	--	--	--	--	--	0.3	097°	
425	Minots Ledge Light, 6.5 miles north of		42° 21.80'	70° 44.28'	Current weak and variable														
427	Minots Ledge Light, 3.3 miles north of		42° 19.21'	70° 45.05'	Current weak and variable														
429	Northeast Grave	8d	42° 22.31'	70° 51.71'	+1 14	+0 50	+0 42	+1 06	0.2	0.3	0.1	175°	0.3	251°	--	--	0.4	086°	
	do.	25d	42° 22.31'	70° 51.71'	+0 21	+0 15	-0 01	+0 25	0.2	0.3	--	--	0.3	266°	--	--	0.4	090°	
	do.	45d	42° 22.31'	70° 51.71'	-1 12	-1 17	-1 02	-1 41	0.2	0.4	--	--	0.3	301°	--	--	0.5	114°	
431	The Graves, 0.3 n.mi. SSE of	10	42° 21.60'	70° 52.00'	+0 07	+1 13	+1 16	+0 07	0.5	0.5	0.3	171°	0.6	227°	0.1	135°	0.6	103°	
	do.	45	42° 21.60'	70° 52.00'	-0 46	-0 47	-0 15	-1 10	0.3	0.4	0.1	186°	0.4	262°	--	--	0.5	085°	
	do.	60	42° 21.60'	70° 52.00'	-0 58	-0 47	-0 21	-1 35	0.2	0.3	--	--	0.3	252°	--	--	0.4	070°	
433	Thieves Ledge	45	42° 19.28'	70° 50.28'	-0 24	-0 01	-0 45	-1 49	0.2	0.2	0.1	030°	0.2	304°	--	--	0.3	128°	
435	Little Brewster Island, 1.5 n.mi. E of	10	42° 19.68'	70° 51.43'	+2 10	+0 46	-0 45	+0 43	0.5	0.9	0.4	028°	0.6	285°	0.6	337°	1.2	080°	
	do.	35	42° 19.68'	70° 51.43'	+0 44	-0 44	-0 02	+1 15	0.3	0.4	--	--	0.3	236°	0.2	212°	0.5	076°	
	do.	60	42° 19.68'	70° 51.43'	-1 23	-1 18	+1 26	-0 57	0.2	0.2	0.2	265°	0.3	225°	--	--	0.2	047°	
437	Hypocrite Channel	10	42° 20.95'	70° 53.63'	+0 04	+0 24	+0 44	-0 43	0.7	0.8	0.1	345°	0.9	262°	0.1	351°	1.0	070°	
439	Little Calf Island, 0.4 n.mi. NW of	10	42° 21.05'	70° 54.00'	+0 14	+0 09	-0 20	-0 30	0.4	0.6	--	--	0.5	220°	0.1	290°	0.7	048°	
441	Boston Light, 0.2 n.mi. south of	10	42° 19.52'	70° 53.40'	+0 05	+0 24	+0 36	+0 28	0.8	1.1	0.1	203°	1.0	267°	--	--	1.4	100°	
443	Point Allerton, 0.65 n.mi. NNW of	4d	42° 19.16'	70° 53.22'	+0 03	-0 04	+0 47	-0 03	1.0	1.3	--	--	1.3	266°	--	--	1.6	072°	
	do.	17d	42° 19.16'	70° 53.22'	-0 03	+0 39	+0 39	+0 21	1.0	1.1	--	--	1.3	253°	--	--	1.3	071°	
	do.	30d	42° 19.16'	70° 53.22'	-0 09	-0 10	+0 19	+0 33	0.8	0.8	--	--	1.0	236°	--	--	0.9	071°	
445	Point Allerton, 0.4 n.mi. northwest of	10	42° 18.88'	70° 53.23'	-0 18	+0 58	+0 12	-1 23	0.5	0.7	--	--	0.7	265°	0.2	353°	0.8	080°	
447	Calf Island, 0.4 n.mi. west of	10	42° 20.33'	70° 54.38'	+0 07	+0 28	+0 05	-0 01	0.4	0.5	--	--	0.6	198°	--	--	0.6	037°	
	do.	25	42° 20.33'	70° 54.38'	-0 37	+0 05	+0 11	-1 48	0.4	0.3	--	--	0.5	203°	--	--	0.3	052°	
	do.	45	42° 20.33'	70° 54.38'	-1 37	+0 09	+0 00	-2 27	0.3	0.3	--	--	0.4	209°	--	--	0.3	020°	
449	South Channel Aldridge Ledge	4d	42° 20.97'	70° 54.77'	+0 28	+0 58	+0 55	+0 22	0.6	1.0	0.1	143°	0.8	229°	0.1	324°	1.2	057°	
	do.	20d	42° 20.97'	70° 54.77'	+0 15	+0 32	+0 57	+0 34	0.5	0.7	--	--	0.7	222°	0.1	130°	0.8	045°	
	do.	30d	42° 20.97'	70° 54.77'	+0 03	+0 20	+1 01	+0 36	0.4	0.5	--	--	0.5	219°	--	--	0.6	039°	

Endnotes can be found at the end of table 2.



TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	<b>BOSTON HARBOR APPROACHES</b> Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	<b>h m</b>	<b>h m</b>	<b>h m</b>	<b>h m</b>										
					<b>on Boston Harbor, p.28</b>													
451	Commissioners Ledge	6d	42° 20.15'	70° 54.78'	+0 18	+0 48	+0 57	+0 26	0.5	0.7	0.1	129°	0.7	222°	0.1	310°	0.8	037°
	do.	16d	42° 20.15'	70° 54.78'	-0 07	+0 05	+0 31	+0 19	0.4	0.4	--	--	0.5	215°	0.1	123°	0.5	029°
453	Black Rock Channel	10	42° 19.73'	70° 54.93'	-0 17	-0 06	+0 19	-0 13	0.5	0.8	0.1	325°	0.6	247°	0.2	122°	0.9	046°
455	Deer Island Light, 0.4 n.mi. NW of	35	42° 20.58'	70° 55.70'	-0 24	-2 05	-4 16	-1 58	0.2	0.5	--	--	0.2	307°	--	--	0.6	116°
457	Lovell Island, 0.4 n.mi. north of	10	42° 20.45'	70° 55.80'	+0 00	-0 06	+0 17	-0 41	0.9	1.0	0.1	330°	1.2	259°	0.1	337°	1.2	064°
	do.	25	42° 20.45'	70° 55.80'	-0 17	-0 09	+0 21	-0 23	0.9	0.8	--	--	1.2	264°	--	--	0.9	074°
459	Deer Island, 0.7 nm ESE of	7d	42° 20.65'	70° 56.33'	+0 18	+0 17	+0 37	+0 04	1.1	1.3	--	--	1.4	220°	0.1	320°	1.6	046°
	do.	16d	42° 20.65'	70° 56.33'	+0 06	+0 13	+0 39	+0 08	1.1	1.2	--	--	1.4	220°	0.1	313°	1.5	047°
	do.	36d	42° 20.65'	70° 56.33'	-0 24	-0 07	+1 06	+0 23	0.8	0.8	0.1	126°	1.1	219°	0.1	109°	1.0	035°
461	Deer Island Light, 0.8 n.mi. ESE of	10	42° 20.22'	70° 56.28'	-0 13	-0 15	+0 15	-1 35	0.7	0.8	0.2	138°	0.9	233°	--	--	0.9	066°
463	Deer Island Light, 0.4 n.mi. east of	10	42° 20.45'	70° 56.77'	-0 01	-1 08	+0 12	-0 28	0.7	0.8	0.3	319°	0.9	240°	0.2	138°	1.0	057°
	do.	35	42° 20.45'	70° 56.77'	-0 41	+0 57	+0 39	+0 04	0.9	0.6	--	--	1.1	264°	--	--	0.8	053°
465	Deer Island Light, 0.7 n.mi. ESE of	35	42° 20.25'	70° 56.38'	-0 32	-0 05	+0 20	-1 13	0.7	0.5	0.1	312°	1.0	233°	--	--	0.6	062°
	<b>BOSTON HARBOR-PRESIDENT ROADS</b>																	
467	BOSTON HARBOR (Deer Island Light)	8d	42° 20.27'	70° 57.35'							0.1	008°	1.3	264°	0.2	188°	1.2	112°
	do.	28d	42° 20.27'	70° 57.35'	-0 11	-0 02	+0 20	+0 05	1.0	1.0	0.1	187°	1.3	265°	0.1	187°	1.2	100°
	do.	51d	42° 20.27'	70° 57.35'	-0 15	+0 05	+0 42	-0 03	0.8	0.9	0.1	189°	1.0	273°	0.1	010°	1.1	102°
469	Deer Island Light, 0.3 n.mi. SSE of	10	42° 20.12'	70° 57.42'	-0 07	+0 49	+0 10	+0 16	1.1	0.9	--	--	1.4	265°	0.4	199°	1.0	082°
	do.	35	42° 20.12'	70° 57.42'	-0 20	+0 51	+0 44	+0 16	1.1	0.8	--	--	1.4	261°	--	--	1.0	090°
471	Deer Island Light, 0.4 n.mi. SSE of	10	42° 19.97'	70° 57.42'	-0 03	+0 58	+0 38	+0 18	1.2	0.9	--	--	1.5	265°	0.2	178°	1.2	073°
	do.	25	42° 19.97'	70° 57.42'	-0 11	+0 52	+0 47	+0 21	1.1	0.9	--	--	1.4	269°	--	--	1.0	081°
473	Deer Island, southwest of	10	42° 20.63'	70° 57.78'	-0 05	-0 21	-2 03	-1 20	0.3	0.5	--	--	0.4	351°	0.3	065°	0.6	137°
475	Long Island Head, 0.9 n.mi. NW of	10	42° 20.40'	70° 58.43'	-0 17	+0 35	-0 04	-0 56	0.5	0.5	0.1	175°	0.6	302°	--	--	0.6	103°
	do.	35	42° 20.40'	70° 58.43'	-0 10	+1 26	+0 45	+0 21	0.4	0.3	--	--	0.4	304°	--	--	0.4	079°
477	Deer Island Flats	10	42° 20.83'	70° 58.65'	-0 36	-1 06	-1 37	-3 16	0.4	0.4	--	--	0.4	327°	0.4	049°	0.5	107°
479	Deer Island Light, 1.3 n.mi. NW of	10	42° 21.12'	70° 58.74'														
481	Snake Island, southwest of	10	42° 21.77'	70° 59.22'	-0 14	+0 24	+0 26	+0 01	0.3	0.4	--	--	0.4	312°	--	--	0.5	134°
483	Deer Island Light, 1.0 n.mi. WSW of	10	42° 19.97'	70° 58.43'	+0 43	+1 13	+0 05	+0 53	1.0	0.7	--	--	1.3	254°	--	--	0.8	086°
	do.	35	42° 19.97'	70° 58.43'	-0 05	+1 38	+1 41	+0 11	1.0	0.3	--	--	1.2	273°	--	--	0.4	082°
485	Spectacle I. and Long I., between	10	42° 19.35'	70° 58.45'	-0 13	+0 09	-0 39	-0 34	0.4	0.5	--	--	0.5	217°	0.4	121°	0.6	038°
487	Spectacle Island, 0.2 n.mi. south of	10	42° 18.98'	70° 59.15'	-0 22	-1 00	-0 57	-1 58	0.4	0.4	0.1	349°	0.5	244°	0.1	180°	0.4	098°
489	Spectacle Island, 0.4nm north of	3d	42° 20.05'	70° 59.16'	+0 42	+1 29	+1 40	+0 26	0.7	0.6	--	--	0.9	284°	0.2	008°	0.8	091°
	do.	16d	42° 20.05'	70° 59.16'	+0 11	+0 59	+1 37	+0 27	0.6	0.6	--	--	0.8	283°	0.1	000°	0.7	086°
	do.	33d	42° 20.05'	70° 59.16'	-0 26	+0 25	+1 16	+0 13	0.4	0.3	--	--	0.5	275°	0.1	181°	0.4	099°
491	Spectacle I. and Thompson I., between	10	42° 19.25'	70° 59.57'	-1 49	-3 49	-2 35	-3 08	0.2	0.3	0.2	227°	0.2	306°	0.2	045°	0.4	127°
493	Thompson Island, 0.7 n.mi. NNE of	10	42° 19.97'	70° 59.90'	-0 37	+1 36	+1 05	-0 32	0.6	0.5	--	--	0.8	281°	0.2	003°	0.6	086°
	do.	35	42° 19.97'	70° 59.90'	-1 13	+1 36	+0 43	-0 52	0.4	0.2	--	--	0.5	277°	--	--	0.3	091°
495	Boston Channel Light No.5	3d	42° 20.15'	71° 00.02'	+0 20	+1 21	+1 48	+0 12	0.4	0.4	0.1	190°	0.6	283°	--	--	0.5	104°
	do.	15d	42° 20.15'	71° 00.02'	-0 04	+0 40	+1 57	+0 10	0.4	0.3	--	--	0.5	276°	0.1	009°	0.4	095°
	do.	33d	42° 20.15'	71° 00.02'	-0 15	+1 23	+2 42	+0 41	0.3	0.2	0.1	213°	0.3	297°	0.1	034°	0.3	119°
497	Fort Independence, 0.3 n.mi. east of	10	42° 20.33'	71° 00.22'	+0 27	+1 36	+1 25	+1 00	0.5	0.5	--	--	0.6	303°	0.2	061°	0.6	125°
499	Fort Independence, 0.1nm north of	6d	42° 20.51'	71° 00.54'	+0 43	+1 02	+0 58	+0 27	0.3	0.5	--	--	0.4	294°	0.1	294°	0.6	108°
	do.	16d	42° 20.51'	71° 00.54'	+0 04	+1 28	+2 01	+0 38	0.4	0.4	0.1	192°	0.5	297°	0.1	034°	0.4	108°
	do.	26d	42° 20.51'	71° 00.54'	-0 21	+1 02	+2 01	+0 32	0.4	0.3	--	--	0.5	300°	0.1	030°	0.3	103°
501	Ted William Tunnel	7d	42° 20.57'	71° 01.57'	+0 25	+1 07	+1 17	+0 33	0.3	0.3	--	--	0.4	312°	--	--	0.4	124°
	do.	16d	42° 20.57'	71° 01.57'	-0 19	+0 44	+1 34	+0 23	0.4	0.2	--	--	0.5	315°	--	--	0.3	136°
	do.	26d	42° 20.57'	71° 01.57'	-0 34	-0 11	+1 22	+0 08	0.3	0.2	--	--	0.4	309°	--	--	0.3	125°
503	South Boston, Pier 4, 0.2 n.mi. NNE of	10	42° 21.13'	71° 01.85'	+0 29	+1 01	+1 11	+1 01	0.2	0.3	--	--	0.3	299°	--	--	0.3	118°
	do.	25	42° 21.13'	71° 01.85'	-0 23	+0 24	+1 37	+0 03	0.3	0.1	--	--	0.4	030°	--	--	0.2	120°
505	Charles River Entrance		42° 22.23'	71° 03.11'														
507	East Boston, Pier 10, southeast of	10	42° 22.55'	71° 02.80'	+1 26	+0 55	+0 23	+0 04	0.2	0.3	--	--	0.2	017°	--	--	0.4	194°
	do.	25	42° 22.55'	71° 02.80'	-0 08	+1 10	+1 18	+0 39	0.3	0.2	--	--	0.3	030°	--	--	0.2	193°
509	Charlestown Pier 1	8d	42° 22.80'	71° 02.70'	+0 27	+1 20	+0 36	+0 15	0.1	0.3	--	--	0.1	356°	--	--	0.3	188°
	do.	31d	42° 22.80'	71° 02.70'														
	do.	57d	42° 22.80'	71° 02.70'														

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS										
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb				
											h	m	h	m	knots	Dir.	knots	Dir.	knots	Dir.	knots
	BOSTON HARBOR—PRESIDENT ROADS Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m									
					<b>on Boston Harbor, p.28</b>																
511	Chelsea River, west of bascule bridge . . . . .	10	42° 23.07'	71° 02.53'	-0 07	-0 21	+0 38	-0 58	0.2	0.2	--	--	0.2	048°	--	--	0.2	240°			
513	Chelsea River, below bascule bridge . . . . .	10	42° 23.03'	71° 01.70'	+0 20	-0 10	+0 32	-0 16	0.2	0.2	--	--	0.2	088°	--	--	0.3	272°			
515	Mystic River Bridge, 0.1 n.mi. west of . . . . .	10	42° 23.15'	71° 03.02'	+0 22	-0 05	-0 51	-0 28	0.1	0.1	--	--	0.1	267°	--	--	0.1	093°			
517	Mystic River Bridge, northwest of . . . . .	10	42° 23.15'	71° 02.95'	-0 29	+1 09	+0 17	-0 56	0.1	0.1	--	--	0.1	300°	--	--	0.1	098°			
519	City Point, 0.8 n.mi. SSE of . . . . .	10	42° 19.22'	71° 00.88'	+0 04	+0 39	+1 14	+0 51	0.5	0.5	--	--	0.6	248°	0.1	170°	0.6	069°			
521	Squantum Point, 0.8 n.mi. northeast of . . . . .	10	42° 18.63'	71° 01.70'	+0 09	+0 40	+1 11	+0 39	0.3	0.4	--	--	0.4	216°	--	--	0.5	036°			
523	Squantum Point, 0.4 n.mi. NNE of . . . . .	10	42° 18.38'	71° 02.23'	+0 05	-0 01	+0 36	+0 40	0.3	0.4	--	--	0.4	266°	--	--	0.5	091°			
525	Neponset River . . . . .	10	42° 18.25'	71° 02.58'	-0 34	-0 27	+0 40	+0 23	0.3	0.4	--	--	0.4	218°	--	--	0.4	025°			
	BOSTON HARBOR—NANTASKET ROADS																				
527	Nixes Mate . . . . .	4d	42° 19.95'	70° 56.36'	-0 18	+0 05	+0 48	-0 18	0.4	0.4	0.1	285°	0.5	180°	0.1	107°	0.5	023°			
	do. . . . .	14d	42° 19.95'	70° 56.36'	-0 06	+0 18	+0 49	-0 24	0.4	0.4	0.2	277°	0.5	176°	0.1	100°	0.5	012°			
	do. . . . .	27d	42° 19.95'	70° 56.36'	+0 27	+0 49	+0 55	-0 32	0.4	0.4	0.1	246°	0.5	147°	0.1	051°	0.5	352°			
529	Lovell Island, 0.1 n.mi. south of . . . . .	10	42° 19.40'	70° 55.48'	-0 01	-1 49	-0 35	+0 05	0.6	0.9	0.2	205°	0.7	275°	0.2	169°	1.0	092°			
	do. . . . .	24	42° 19.40'	70° 55.48'	-0 34	-2 12	-0 25	-1 13	0.6	0.7	--	--	0.7	294°	--	--	0.9	095°			
531	Georges Island, northeast of . . . . .	10	42° 19.37'	70° 55.53'	-0 22	-1 42	-0 34	-2 22	0.6	0.6	0.2	191°	0.7	279°	0.2	183°	0.8	100°			
533	Georges Island, north of . . . . .	25	42° 19.42'	70° 55.67'	-1 34	-1 36	-0 06	-1 58	0.6	0.8	--	--	0.8	298°	--	--	0.9	112°			
535	Gallops Island, 0.2 n.mi. SSE of . . . . .	10	42° 19.38'	70° 55.93'	-0 08	+0 21	-0 04	+0 09	0.9	0.8	--	--	1.1	243°	--	--	1.0	062°			
537	Gallops Island, 0.1 n.mi. southeast of . . . . .	10	42° 19.45'	70° 55.90'	-0 10	-0 33	-0 01	+0 15	0.7	0.9	--	--	0.9	225°	0.2	130°	1.0	063°			
	do. . . . .	35	42° 19.45'	70° 55.90'	-0 07	-0 38	+0 17	+0 15	0.8	0.7	--	--	0.9	255°	--	--	0.9	052°			
539	Gallops Island, The Narrows . . . . .	20	42° 19.62'	70° 56.03'	-1 34	-0 06	+1 08	-0 58	0.4	0.1	--	--	0.5	135°	--	--	0.2	262°			
541	Lovell Island Narrows . . . . .	2d	42° 19.69'	70° 55.99'	+0 28	-0 13	+1 03	+0 14	0.3	0.7	0.1	233°	0.5	142°	--	--	0.8	326°			
	do. . . . .	14d	42° 19.69'	70° 55.99'	+0 23	+0 19	+1 34	+0 17	0.4	0.8	--	--	0.5	139°	--	--	1.0	320°			
	do. . . . .	25d	42° 19.69'	70° 55.99'	+0 10	+0 33	+1 37	+0 19	0.3	0.8	0.1	062°	0.4	149°	--	--	0.9	320°			
543	Lovell Island, west of . . . . .	10	42° 19.72'	70° 55.97'	+0 07	-0 21	+0 44	+0 17	0.4	1.0	0.2	232°	0.4	134°	--	--	1.2	299°			
	do. . . . .	24	42° 19.72'	70° 55.97'	-0 13	+0 19	+1 17	-0 10	0.3	1.0	--	--	0.4	136°	--	--	1.2	313°			
545	Fort Warren, Georges Island, 0.2nm east of . . . . .		42° 19.31'	70° 55.26'	Current weak and variable																
547	Georges Island, 0.5 n.mi. ESE of . . . . .	10	42° 19.17'	70° 54.97'	+0 23	+0 51	+0 55	+0 01	0.8	1.0	0.2	165°	1.0	244°	--	--	1.2	065°			
549	Georges Island, 0.4 n.mi. east of . . . . .	10	42° 19.12'	70° 54.97'	-0 26	+0 09	+0 03	-0 23	0.8	0.9	0.3	180°	1.0	248°	--	--	1.1	057°			
551	Georges Island, 0.4nm southeast of . . . . .	7d	42° 18.78'	70° 55.20'	+0 10	+0 43	+0 39	+0 16	1.1	1.3	0.1	145°	1.5	233°	0.2	137°	1.6	051°			
	do. . . . .	33d	42° 18.78'	70° 55.20'	+0 04	+0 27	+0 46	+0 29	1.0	1.2	--	--	1.4	234°	0.1	331°	1.5	056°			
	do. . . . .	72d	42° 18.78'	70° 55.20'	-0 02	+0 14	+0 57	+0 17	0.8	1.0	0.1	159°	1.1	235°	--	--	1.2	076°			
553	Georges Island, 0.3 n.mi. SSE of . . . . .	10	42° 18.78'	70° 55.55'	+0 12	+0 29	+0 29	+0 29	0.9	1.0	0.1	159°	1.1	234°	0.4	126°	1.2	069°			
	do. . . . .	35	42° 18.78'	70° 55.55'	-0 01	+0 40	+0 53	-0 10	0.8	0.7	--	--	1.1	237°	0.2	346°	0.8	073°			
555	Georges Island, 0.4 n.mi. SSE of . . . . .	10	42° 18.67'	70° 55.53'	+0 07	+0 58	+0 27	-2 15	1.0	0.8	0.2	145°	1.3	236°	0.3	161°	0.9	046°			
	do. . . . .	35	42° 18.67'	70° 55.53'	+0 05	+1 01	+0 51	-0 12	1.0	0.8	--	--	1.2	240°	0.1	347°	1.0	065°			
557	Nubble Channel . . . . .	10	42° 19.73'	70° 56.93'	-0 21	+0 50	+0 40	+0 31	0.6	0.6	0.1	282°	0.8	187°	0.2	139°	0.8	006°			
559	Georges Island, 0.2 n.mi. WSW of . . . . .	10	42° 19.02'	70° 56.10'	See Table 5.																
	do. . . . .	20	42° 19.02'	70° 56.10'	See Table 5.																
561	Hull Gut . . . . .	9d	42° 18.20'	70° 55.50'	-0 21	-0 28	-0 16	-0 02	1.4	2.0	0.1	068°	1.9	162°	--	--	2.5	340°			
	do. . . . .	22d	42° 18.20'	70° 55.50'	-0 23	-0 30	-0 06	-0 05	1.4	2.0	--	--	1.9	159°	0.1	062°	2.5	341°			
	do. . . . .	35d	42° 18.20'	70° 55.50'	+0 36	-0 25	+0 01	-0 04	1.4	1.8	--	--	1.8	152°	0.1	064°	2.2	343°			
563	Peddocks Island, 0.2 n.mi. north of . . . . .	10	42° 18.32'	70° 56.00'	+0 28	+1 27	+1 15	-0 41	0.8	0.6	--	--	1.0	246°	--	--	0.7	257°			
	do. . . . .	25	42° 18.32'	70° 56.00'	-0 02	+1 09	+1 25	-1 05	0.8	0.5	0.1	337°	1.0	255°	0.1	178°	0.6	060°			
565	Peddocks Island, 0.3 n.mi. northwest of . . . . .	10	42° 18.40'	70° 56.13'	+0 42	+1 30	+1 20	+0 44	0.9	0.8	--	--	1.1	245°	--	--	1.0	060°			
	do. . . . .	25	42° 18.40'	70° 56.13'	+0 12	+1 14	+1 27	+0 03	0.8	0.5	0.2	342°	1.0	250°	--	--	0.6	055°			
	do. . . . .	40	42° 18.40'	70° 56.13'	-0 17	+1 11	+1 40	-0 59	0.8	0.4	--	--	1.0	261°	--	--	0.5	060°			
567	Rainsford I. and Windmill Pt., between . . . . .	10	42° 18.52'	70° 56.32'	+0 28	+0 59	+0 29	+0 34	0.6	0.8	--	--	0.8	251°	0.3	168°	1.0	056°			
	do. . . . .	25	42° 18.52'	70° 56.32'	+0 13	+1 24	+1 31	-0 07	0.6	0.4	--	--	0.8	256°	0.2	329°	0.5	053°			
569	Gallops Island, 0.5 n.mi. southwest of . . . . .	10	42° 19.13'	70° 56.82'	+0 41	+0 19	-1 02	+0 35	0.5	0.6	0.2	165°	0.6	238°	0.3	204°	0.7	074°			
	do. . . . .	25	42° 19.13'	70° 56.82'	+0 08	+0 22	-0 33	+0 58	0.4	0.3	--	--	0.5	237°	--	--	0.4	072°			
571	Rainsford Island, 0.2 n.mi. NE of . . . . .	10	42° 18.90'	70° 56.95'	-0 26	+0 23	+0 14	-1 13	0.4	0.4	--	--	0.6	239°	0.1	143°	0.5	084°			
	do. . . . .	20	42° 18.90'	70° 56.95'	-2 01	+0 46	+0 12	-1 24	0.4	0.2	--	--	0.5	237°	--	--	0.3	086°			
573	Rainsford Island, 0.4 n.mi. SE of . . . . .	10	42° 18.50'	70° 56.62'	-0 08	-0 44	+0 57	-0 11	0.5	0.6	--	--	0.6	225°	0.2	127°	0.8	055°			
575	Long I. and Rainsford I., between . . . . .	10	42° 18.70'	70° 57.78'	+0 22	+0 18	+0 34	+0 43	0.6	0.7	--	--	0.7	226°	--	--	0.9	049°			
	do. . . . .	25	42° 18.70'	70° 57.78'	+0 13	+0 43	+0 38	-0 13	0.5	0.6	--	--	0.6	229°	0.1	322°	0.8	033°			

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS									
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb			
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.		
	<b>BOSTON HARBOR–NANTASKET ROADS</b> Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>								
					<b>on Boston Harbor, p.28</b>															
577	West Head, Peddocks I., 0.1 n.mi. W of	10	42° 17.45'	70° 57.22'	-1 30	+1 02	+1 24	-1 16	0.8	0.7	--	--	1.1	208°	--	--	0.9	018°		
	do.	30	42° 17.45'	70° 57.22'	-1 35	+1 08	+1 15	-1 00	0.7	0.5	--	--	0.9	198°	--	--	0.6	038°		
579	Sunken Ledge, 0.2 n.mi. northwest of	10	42° 17.87'	70° 57.87'	+0 17	-0 31	+0 28	+0 44	0.3	0.5	0.3	304°	0.4	223°	0.1	307°	0.7	016°		
	do.	20	42° 17.87'	70° 57.87'	+0 19	+0 29	+0 33	-0 14	0.3	0.4	0.2	299°	0.3	236°	0.2	335°	0.5	030°		
581	West Head, Long I., 0.4 n.mi. south of	10	42° 18.32'	70° 58.28'	+0 24	+0 51	+1 00	+0 17	0.5	0.5	--	--	0.7	231°	--	--	0.6	060°		
	do.	20	42° 18.32'	70° 58.28'	+0 06	+1 05	+0 55	+0 13	0.4	0.4	--	--	0.5	231°	--	--	0.5	043°		
583	Moon Head, 0.4 n.mi. east of	10	42° 18.38'	70° 58.73'	-0 18	-1 49	-0 30	-1 43	0.3	0.3	0.3	310°	0.3	259°	--	--	0.4	080°		
585	West Head, 0.2 n.mi. southwest of	10	42° 17.15'	70° 57.18'	-0 13	+0 26	+1 00	-0 03	1.1	1.2	--	--	1.4	167°	--	--	1.4	322°		
587	Nut Island, 0.4 n.mi. NNE of	10	42° 17.08'	70° 57.22'	+0 11	+0 30	+1 01	+0 31	1.0	1.2	0.2	223°	1.3	158°	--	--	1.4	312°		
	do.	20	42° 17.08'	70° 57.22'	+0 11	+0 34	+1 08	+0 29	0.9	1.2	0.1	220°	1.2	155°	--	--	1.4	321°		
589	Nut Island, 0.2 n.mi. NNE of	10	42° 16.98'	70° 57.32'	+0 31	+0 40	+1 15	+0 31	0.9	1.0	0.1	245°	1.2	146°	--	--	1.2	309°		
	do.	20	42° 16.98'	70° 57.32'	+0 30	+0 43	+1 25	+0 16	0.8	0.8	0.1	216°	1.0	131°	--	--	1.0	303°		
591	Peddocks Island, west of	10	42° 17.23'	70° 57.92'	-0 42	+0 20	-0 04	-0 43	0.4	0.3	0.2	305°	0.5	187°	--	--	0.4	358°		
593	Moon Head, 0.9 n.mi. southeast of	10	42° 17.50'	70° 58.93'	+0 30	+1 09	+1 27	+0 32	0.3	0.3	0.2	314°	0.3	227°	0.2	112°	0.3	033°		
595	Squantum, 0.3 n.mi. southeast of	8	42° 17.40'	71° 00.10'	Current weak and variable															
	<b>BOSTON HARBOR–HINGHAM BAY</b>																			
597	Weir River entrance	10	42° 16.53'	70° 52.83'	+0 09	+0 39	+0 42	+0 30	0.6	0.6	--	--	0.7	076°	--	--	0.8	272°		
599	Strawberry Hill, 0.4 n.mi. west of	6	42° 17.40'	70° 53.60'	Current weak and variable															
601	Crow Point, 0.2 n.mi. north of	10	42° 15.97'	70° 53.70'	+0 05	-0 36	+0 04	+1 30	0.2	0.2	--	--	0.3	146°	--	--	0.3	319°		
603	Bumkin Island, 0.1 n.mi. west of	10	42° 16.85'	70° 54.37'	-0 02	+1 18	+0 37	+0 52	0.5	0.6	--	--	0.6	166°	0.2	241°	0.8	320°		
	do.	20	42° 16.85'	70° 54.37'	-0 23	+1 16	+0 57	+0 41	0.4	0.5	0.1	248°	0.5	161°	0.1	274°	0.6	316°		
605	Windmill Point, 0.7 n.mi. SSE of	10	42° 17.55'	70° 54.97'	-0 02	+0 40	+0 11	-1 41	0.8	0.4	--	--	1.1	128°	0.4	083°	0.4	350°		
	do.	25	42° 17.55'	70° 54.97'	-0 07	+0 55	+1 41	+0 49	0.8	0.2	--	--	1.0	136°	0.1	015°	0.2	315°		
607	Bumkin Island, 0.4 n.mi. west of	10	42° 16.83'	70° 54.75'	-0 23	+0 51	+0 23	-2 58	0.4	0.2	--	--	0.5	195°	0.2	263°	0.3	303°		
609	Peddocks Island, east of	10	42° 17.50'	70° 55.52'	See Table 5.															
	do.	20	42° 17.50'	70° 55.52'	See Table 5.															
611	Sheep Island, 0.3 n.mi. west of	10	42° 16.87'	70° 55.98'	+0 11	+1 14	+1 15	+0 49	0.8	0.4	0.2	245°	1.0	075°	0.3	328°	0.4	305°		
	do.	25	42° 16.87'	70° 55.98'	+1 10	+1 14	+1 32	-0 22	0.7	0.3	0.2	150°	0.8	082°	--	--	0.3	300°		
613	The Piglets, 0.4 n.mi. northeast of	7d	42° 17.00'	70° 55.86'	-3 15	-3 59	-0 02	-4 21	0.1	0.3	0.1	298°	0.2	224°	0.1	132°	0.3	041°		
	do.	17d	42° 17.00'	70° 55.86'	-4 23	-3 54	-4 03	-5 31	0.2	0.4	--	--	0.3	213°	0.1	121°	0.5	041°		
	do.	30d	42° 17.00'	70° 55.86'	-4 48	-3 21	-4 03	-5 22	0.3	0.4	--	--	0.4	207°	--	--	0.5	036°		
615	Pig Rock, north of	10	42° 16.93'	70° 56.45'	+0 40	-0 36	-0 15	+0 47	0.5	0.8	--	--	0.7	078°	--	--	1.0	290°		
	do.	25	42° 16.93'	70° 56.45'	+0 35	+0 24	+1 21	+0 22	0.5	0.6	--	--	0.6	082°	0.1	019°	0.8	293°		
617	Pig Rock, northwest of	20	42° 16.88'	70° 56.55'	+1 04	+0 52	+1 03	+1 00	0.8	0.7	--	--	1.0	085°	--	--	0.8	283°		
619	Grape Island and Lower Neck, between	10	42° 15.87'	70° 55.50'	-0 23	-1 16	+0 56	+0 11	0.6	0.7	--	--	0.7	094°	--	--	0.9	281°		
621	Grape Island	10	42° 16.08'	70° 55.88'	-0 47	+0 13	+0 38	-0 18	0.4	0.3	--	--	0.4	203°	--	--	0.4	345°		
623	Stodders Neck, Weymouth Back River	10	42° 15.20'	70° 55.65'	-0 32	+0 54	+0 34	-0 43	0.4	0.2	--	--	0.5	268°	--	--	0.3	093°		
625	Jackknife Ledge	6d	42° 15.53'	70° 56.46'	-0 03	+0 29	+0 59	+0 23	0.4	0.4	0.1	294°	0.5	219°	--	--	0.5	024°		
	do.	16d	42° 15.53'	70° 56.46'	-0 13	+0 05	+1 09	+0 43	0.4	0.4	--	--	0.5	216°	--	--	0.5	017°		
	do.	32d	42° 15.53'	70° 56.46'	-0 51	-0 19	+0 59	+0 01	0.4	0.3	--	--	0.5	203°	--	--	0.4	030°		
627	Gull Point, 0.4 n.mi. ESE of	10	42° 15.18'	70° 56.82'	-0 19	-0 32	+0 08	-0 05	0.3	0.4	--	--	0.4	229°	--	--	0.4	069°		
	do.	25	42° 15.18'	70° 56.82'	-0 49	-0 42	+0 42	+0 07	0.3	0.2	--	--	0.4	235°	--	--	0.2	042°		
629	Weymouth Harbor Entrance	6d	42° 14.89'	70° 57.64'	+0 22	+0 44	+0 55	+0 07	0.4	0.5	--	--	0.5	250°	--	--	0.6	076°		
	do.	16d	42° 14.89'	70° 57.64'	+0 01	+0 32	+1 06	+0 10	0.6	0.4	--	--	0.7	250°	--	--	0.5	073°		
	do.	29d	42° 14.89'	70° 57.64'	-0 24	+0 24	+1 13	+0 29	0.6	0.3	--	--	0.7	249°	--	--	0.4	065°		
631	Germantown Point	20	42° 14.78'	70° 57.88'	+0 05	+0 54	+0 49	+0 01	0.3	0.3	--	--	0.3	269°	--	--	0.4	070°		
633	Pine Point, southeast of	10	42° 14.28'	70° 58.08'	Current weak and variable															
635	Philip Head, Town River Bay	10	42° 15.00'	70° 58.22'	+0 11	+1 33	+1 11	+0 17	0.3	0.2	--	--	0.4	289°	--	--	0.3	095°		
637	Hole Point Reach, Town River	10	42° 15.23'	70° 58.78'	Negligible current															
	<b>CAPE COD BAY</b>																			
639	Barnstable Harbor	7	41° 43.6'	70° 16.4'	+0 10	+1 03	+0 17	+0 17	0.9	1.1	--	--	1.2	192°	--	--	1.4	004°		
641	Sandwich Harbor		41° 46'	70° 29'	Current weak and variable															

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS									
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb			
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.		
	CAPE COD BAY Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m								
643	Sagamore Beach		41° 48'	70° 31'	<b>on Boston Harbor, p.28</b>															
	MASSACHUSETTS COAST-cont.																			
645	Nauset Beach Light, 5 miles northeast of		41° 56'	69° 54'	See table 5.															
647	Georges Bank and vicinity		- - -	- - -	See table 5.															
649	Davis Bank		- - -	- - -	See table 5.															
651	Monomoy Point, 23 miles east of		41° 35'	69° 30'	See table 5.															
653	Nantucket Shoals		40° 37'	69° 37'	See table 5.															
655	Nantucket Island, 28 miles east of		41° 20'	69° 21'	See table 5.															
657	Old Man Shoal, Nantucket Shoals		41° 13.6'	69° 59.0'	+1 23	+1 03	+1 17	+1 14	0.9	0.9	--	--	1.9	080°	--	--	1.6	225°		
659	Miacomet Pond, 3.0 miles SSE of		41° 11.4'	70° 05.8'	+2 19	+2 03	+2 22	+2 16	0.6	0.8	--	--	1.3	080°	--	--	1.4	280°		
661	Tuckernuck Island, 4.2 miles SSW of		41° 13.57'	70° 16.90'	+4 08	+3 13	+2 17	+3 56	0.3	0.6	--	--	0.5	090°	--	--	1.0	280°		
663	Martha's Vineyard, 1.4 miles S of <1>		41° 19.50'	70° 39.90'	--	--	--	-2 47	0.1	0.1	--	--	0.3	230°	--	--	0.3	095°		
	NANTUCKET SOUND ENTRANCE																			
665	Pollock Rip Channel, east end		41° 33.9'	69° 55.4'	-0 14	-0 39	-0 23	-0 38	1.0	1.1	--	--	2.0	053°	--	--	1.8	212°		
667	POLLOCK RIP CHANNEL (Butler Hole)		41° 33'	69° 59'	<b>Daily predictions</b>															
669	Great Round Shoal Channel		- - -	- - -	See table 5.															
	NANTUCKET SOUND																			
671	Monomoy Pt., channel 0.2 mile west of		41° 33.0'	70° 01.3'	+0 00	+0 39	+0 18	-0 23	0.8	1.2	--	--	1.7	170°	--	--	2.0	346°		
673	Chatham Roads		41° 38.6'	70° 01.7'	Current weak and variable															
675	Stage Harbor, west of Morris Island		41° 39.4'	69° 58.5'	+3 07	+1 29	+2 24	+4 28	0.3	0.6	--	--	0.5	335°	--	--	1.0	144°		
677	Dennis Port, 2.2 miles south of		41° 37.0'	70° 06.9'	+1 28	+0 52	+0 27	+1 04	0.2	0.2	0.1	138°	0.3	077°	0.1	052°	0.3	269°		
679	Monomoy Point, 6 miles west of		41° 33.5'	70° 09.0'	+1 22	+1 52	+1 09	+1 22	0.2	0.3	0.1	194°	0.5	090°	0.1	256°	0.5	275°		
681	Handkerchief Lighted Whistle Buoy 'H'		41° 29.3'	70° 04.0'	+1 08	+1 10	+0 49	+0 59	0.6	0.8	--	--	1.3	080°	--	--	1.3	251°		
683	Halfmoon Shoal, 1.9 miles northeast of		41° 29.05'	70° 11.55'	+1 42	+1 49	+1 24	+1 44	0.4	0.3	--	--	0.8	110°	--	--	0.6	265°		
685	Halfmoon Shoal, 3.5 miles east of		41° 28.1'	70° 09.2'	+1 13	+1 23	+1 06	+1 11	0.5	0.6	--	--	1.1	088°	--	--	1.0	295°		
687	Great Point, 0.5 mile west of		41° 23.6'	70° 03.7'	+0 25	+1 37	+1 13	+0 33	0.6	0.7	--	--	1.1	029°	--	--	1.2	195°		
689	Great Point, 3 miles west of		41° 23.4'	70° 06.8'	+1 15	+1 23	+0 51	+1 08	0.4	0.5	--	--	0.8	066°	--	--	0.8	248°		
691	Tuckernuck Shoal, off east end		41° 24.3'	70° 10.4'	+1 22	+1 34	+1 09	+1 10	0.5	0.5	0.3	000°	0.9	113°	0.3	186°	0.9	287°		
693	Brant Point, 2 miles NNW of <1>		41° 19.25'	70° 06.30'	--	--	--	+2 36	0.2	0.2	--	--	0.3	090°	--	--	0.3	275°		
695	Nantucket Harbor entrance channel		41° 18.4'	70° 06.0'	+3 22	+1 55	+2 44	+3 58	0.6	0.9	--	--	1.2	171°	--	--	1.5	350°		
697	Eel Pt., Nantucket I, 2.5 miles NE of		41° 19.3'	70° 10.2'	+1 13	+1 12	+1 02	+1 15	0.3	0.2	--	--	0.6	094°	--	--	0.4	284°		
699	Muskeget I., channel 1 mile northeast of		41° 21.0'	70° 17.1'	+1 29	+0 45	+0 57	+0 56	0.6	0.9	--	--	1.1	108°	--	--	1.5	295°		
701	Muskeget Rock, 1.3 miles southwest of		41° 19.2'	70° 23.6'	+1 10	+0 23	+0 57	+0 18	0.6	0.6	--	--	1.3	024°	--	--	1.0	192°		
703	Muskeget Channel		41° 20.9'	70° 25.2'	+1 40	+0 38	+1 29	+1 02	1.9	1.9	--	--	3.8	021°	--	--	3.3	200°		
705	Wasque Point, 2.0 miles southwest of		41° 19.90'	70° 29.25'	+1 30	+1 04	+1 11	+0 32	0.6	0.6	--	--	1.3	075°	--	--	1.2	280°		
707	Long Shoal-Norton Shoal, between		41° 24.50'	70° 20.00'	+1 31	+1 12	+1 26	+1 13	0.7	0.6	--	--	1.4	100°	--	--	1.1	260°		
709	Cape Poge Lt., 1.7 miles SSE of		41° 24.0'	70° 25.6'	+0 58	-0 07	+0 49	+0 48	0.8	0.7	--	--	1.6	025°	--	--	1.3	215°		
711	Cross Rip Channel		41° 26.9'	70° 17.5'	+1 48	+1 48	+1 55	+1 59	0.6	0.5	--	--	1.3	091°	--	--	0.9	272°		
713	Cape Poge Lt., 3.2 miles northeast of		41° 27.5'	70° 24.0'	+2 42	+2 03	+2 33	+2 37	0.8	0.7	--	--	1.6	095°	--	--	1.2	300°		
715	Broken Ground-Horseshoe Shoal, between		41° 33.0'	70° 17.1'	+1 46	+1 55	+1 15	+1 20	0.5	0.5	0.2	000°	1.1	107°	0.1	224°	0.9	276°		
717	Point Gammon, 1.2 miles south of		41° 35.3'	70° 15.4'	+1 15	+1 03	+1 06	+1 02	0.5	0.6	--	--	1.1	105°	--	--	1.0	260°		
719	Hyannis Harbor, entrance off breakwater		41° 37.4'	70° 17.5'	Current weak and variable															
721	Lewis Bay entrance channel		41° 37.9'	70° 16.4'	+2 46	+0 53	+2 44	+4 22	0.5	0.8	--	--	0.9	004°	--	--	1.3	184°		
723	Cotuit Bay entrance (Bluff Point)		41° 36.6'	70° 25.8'	+2 44	+2 33	+2 51	+3 35	0.3	0.4	--	--	0.5	035°	--	--	0.7	218°		
725	Wreck Shoal-Eldridge Shoal, between		41° 32.0'	70° 25.7'	+1 47	+1 32	+1 44	+1 45	0.8	0.8	--	--	1.7	062°	--	--	1.4	245°		
727	Hedge Fence Lighted Gong Buoy 22		41° 28.3'	70° 29.0'	+2 48	+2 34	+2 38	+2 44	0.7	0.7	--	--	1.4	108°	--	--	1.2	268°		
729	Cape Poge Light, 1.4 miles west of		41° 25.45'	70° 29.00'	+2 13	+1 54	+1 26	+1 39	0.2	0.1	--	--	0.3	095°	--	--	0.2	250°		
731	Edgartown, Inner Harbor		41° 23.4'	70° 30.5'	+0 25	-1 04	+0 35	-0 20	0.6	0.6	--	--	1.1	075°	--	--	1.1	270°		

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	NANTUCKET SOUND Time meridian, 75°W	ft	North	West	h m	h m	h m	h m			knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
					<b>on Pollock Rip Channel, p.44</b>														
733	Katama Pt., 0.6 mi. NNW of, Katama Bay		41° 21.9'	70° 30.3'	+0 12	-0 43	+0 20	-0 31	0.3	0.3	--	--	0.6	325°	--	--	0.5	180°	
									0.2	0.1			0.3	325°			0.2	195°	
									0.2	0.2			0.4	325°			0.3	175°	
735	East Chop–Squash Meadow, between		41° 27.9'	70° 32.2'	+2 07	+0 55	+1 43	+2 04	0.7	1.1	--	--	1.4	131°	--	--	1.8	329°	
737	East Chop, 1 mile north of		41° 29.1'	70° 33.5'	+2 40	+1 52	+2 17	+2 11	1.1	1.3	--	--	2.2	116°	--	--	2.2	297°	
739	Vineyard Haven		41° 28.1'	70° 35.2'	Current weak and variable														
741	West Chop, 0.8 mile north of		41° 29.6'	70° 35.7'	+2 49	+1 58	+2 20	+2 35	1.6	1.8	--	--	3.1	096°	--	--	3.0	282°	
743	Hedge Fence–L'Hommedieu Shoal, between		41° 30.3'	70° 32.2'	+2 27	+1 38	+2 01	+1 52	1.0	1.3	--	--	2.1	106°	--	--	2.2	276°	
745	Waquoit Bay entrance		41° 32.9'	70° 31.8'	+3 21	+2 14	+3 40	+4 01	0.8	0.8	--	--	1.5	348°	--	--	1.4	203°	
747	L'Hommedieu Shoal, north of west end		41° 31.6'	70° 34.6'	+2 30	+2 03	+2 12	+2 11	1.2	1.4	--	--	2.3	080°	--	--	2.3	268°	
749	Nobska Point, 1.8 miles east of		41° 31.1'	70° 37.1'	+2 13	+1 45	+1 55	+1 49	1.2	1.0	--	--	2.3	063°	--	--	1.7	240°	
	VINEYARD SOUND																		
751	West Chop, 0.2 mile west of		41° 29.0'	70° 36.6'	+1 19	+1 34	+1 50	+1 16	1.3	0.8	--	--	2.7	059°	--	--	1.4	241°	
753	Nobska Point, 1 mile southeast of		41° 30.1'	70° 38.6'	+2 33	+2 15	+2 25	+2 19	1.3	1.4	--	--	2.6	071°	--	--	2.4	259°	
755	Norton Point, 0.5 mile north of		41° 28.1'	70° 39.9'	+1 55	+1 44	+2 01	+1 12	1.7	1.4	--	--	3.4	050°	--	--	2.4	240°	
757	Tarpaulin Cove, 1.5 miles east of		41° 28.3'	70° 43.5'	+2 49	+2 07	+2 12	+2 33	1.0	1.4	--	--	1.9	055°	--	--	2.3	232°	
759	Robinsons Hole, 1.2 miles southeast of		41° 26.1'	70° 46.8'	+2 30	+1 51	+2 11	+2 02	1.0	1.2	--	--	1.9	060°	--	--	2.1	240°	
761	Gay Head, 3 miles northeast of		41° 23.1'	70° 47.0'	+2 25	+1 50	+1 42	+2 11	0.5	0.8	--	--	0.9	081°	--	--	1.3	238°	
763	Menemsha Bight <6>		41° 21.3'	70° 46.3'															
765	Gay Head, 3 miles north of		41° 24.1'	70° 51.2'	+2 13	+1 24	+1 55	+1 17	0.6	0.7	--	--	1.1	074°	--	--	1.2	255°	
767	Gay Head, 1.5 miles northwest of		41° 21.8'	70° 51.8'	+1 30	+0 54	+1 42	+1 16	1.0	1.2	--	--	2.0	012°	--	--	2.0	249°	
769	Cuttyhunk Island, 3.2 miles southwest of		41° 23'	71° 00'	See table 5.														
771	Browns Ledge		41° 19.8'	71° 05.9'	See table 5.														
	VINEYARD SOUND–BUZZARDS BAY <59>																		
	<i>Woods Hole</i>				<b>on Woods Hole, p.32</b>														
773	Juniper Point	5d	41° 30.95'	70° 40.30'	+0 10	+0 10	+0 06	+0 26	0.8	0.4	0.1	074°	1.6	165°	0.1	247°	1.2	331°	
	do.	15d	41° 30.95'	70° 40.30'	+0 10	+0 10	+0 06	+0 28	0.7	0.4	0.1	076°	1.6	166°	0.1	247°	1.2	333°	
	do.	29d	41° 30.95'	70° 40.30'	+0 06	+0 10	+0 06	+0 12	0.7	0.4	--	--	1.6	169°	0.1	249°	1.1	333°	
775	WOODS HOLE, THE STRAIT	14d	41° 31.16'	70° 40.97'	<b>Daily predictions</b>								2.2	079°	0.1	354°	2.9	267°	
	do.	5d	41° 31.16'	70° 40.97'	-0 06	-0 03	+0 06	+0 00	1.6	1.2	--	--	3.4	077°	0.1	350°	3.4	261°	
	do.	21d	41° 31.16'	70° 40.97'	+0 18	+0 14	-0 17	+0 01	0.3	0.8	--	--	0.7	096°	--	--	2.4	274°	
777	North end	4d	41° 31.38'	70° 41.58'	-0 21	-0 02	+0 08	-0 05	0.6	0.5	0.1	277°	1.2	195°	--	--	1.3	004°	
	do.	17d	41° 31.38'	70° 41.58'	-0 17	-0 09	+0 01	-0 05	0.4	0.4	0.1	283°	0.9	197°	--	--	1.1	013°	
779	Robinsons Hole, Nashuon Point	4d	41° 26.98'	70° 48.40'	+0 39	+0 15	+0 40	+0 26	1.4	1.0	--	--	3.0	151°	--	--	2.9	332°	
	do.	14d	41° 26.98'	70° 48.40'	+0 36	+0 16	+0 40	+0 24	1.3	1.0	--	--	2.8	153°	--	--	2.9	330°	
	do.	24d	41° 26.98'	70° 48.40'	+0 31	+0 16	+0 40	+0 25	1.1	0.9	--	--	2.4	157°	--	--	2.6	329°	
	<i>Quicks Hole</i>																		
781	South end		41° 26.3'	70° 50.5'	+1 17	+0 12	+0 29	+0 09	0.9	0.7	--	--	1.9	140°	--	--	2.0	300°	
783	Middle	7d	41° 26.56'	70° 50.89'	+1 29	+1 07	+0 59	+0 52	1.1	0.6	0.1	242°	2.3	157°	0.2	244°	1.8	327°	
	do.	17d	41° 26.56'	70° 50.89'	+1 27	+1 05	+0 58	+0 51	1.0	0.6	0.1	244°	2.1	156°	0.1	243°	1.7	329°	
	do.	40d	41° 26.56'	70° 50.89'	+1 20	+1 02	+0 57	+0 47	0.7	0.4	--	--	1.6	153°	--	--	1.2	336°	
785	North end		41° 27.1'	70° 51.0'	+1 41	+0 36	+0 56	-0 21	0.9	0.9	--	--	2.0	165°	--	--	2.6	002°	
787	Canapitsit Channel	4d	41° 25.45'	70° 54.47'	+1 02	+0 57	+0 14	-0 18	0.8	0.5	--	--	1.7	131°	--	--	1.6	312°	
	BUZZARDS BAY <7>																		
789	Westport River entrance		41° 30.5'	71° 05.3'	-1 15	-1 23	-1 26	-1 49	1.0	0.9	--	--	2.2	290°	--	--	2.5	108°	
791	Gooseberry Neck, 2 miles SSE of		41° 27'	71° 01'	See table 5.														
793	Ribbon Reef–Sow & Pigs Reef, between		41° 25.3'	70° 58.2'	-1 43	-2 49	-3 44	-2 30	0.4	0.4	--	--	0.8	062°	--	--	1.2	237°	
795	Penikese Island, 0.8 mile northwest of		41° 27.9'	70° 56.2'	-3 01	-1 43	-1 55	-1 33	0.6	0.4	--	--	1.2	050°	--	--	1.1	254°	
797	Penikese Island, 0.2 mile south of		41° 26.6'	70° 55.5'	-3 07	-1 33	-2 30	-3 15	0.3	0.3	--	--	0.7	093°	--	--	0.9	287°	
799	Gull I. and Nashawena I., between		41° 26.2'	70° 54.2'	-3 39	-2 15	-3 01	-3 17	0.4	0.4	--	--	0.9	091°	--	--	1.1	247°	
801	Weepectet Island, south of		41° 30.4'	70° 44.3'	-4 40	-2 25	-2 28	-3 03	0.4	0.2	--	--	0.8	069°	--	--	0.6	255°	

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS									
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb			
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.		
	<b>BUZZARDS BAY &lt;7&gt;</b> Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m								
					<b>on Woods Hole, p.32</b>															
803	Quamisset Harbor entrance		41° 32.4'	70° 39.8'	Current weak and variable						--	--	0.4	--	--	--	0.3	--		
805	West Falmouth Harbor entrance		41° 36.5'	70° 39.3'	Current weak and variable															
807	Dumpling Rocks, 0.2 mile southeast of		41° 32.0'	70° 55.1'	-3 07	-2 21	-2 32	-2 45	0.4	0.4	--	--	0.8	066°	--	--	1.1	190°		
809	Apponanset Bay		41° 35'	70° 57'	Current weak and variable															
811	Clarks Cove		41° 36'	70° 55'	Current weak and variable															
813	New Bedford Hurricane Barrier <65>	4d	41° 37.39'	70° 54.31'	-2 08	-2 00	-2 46	-2 22	0.2	0.4	--	--	0.3	320°	--	--	1.2	134°		
	do.	14d	41° 37.39'	70° 54.31'	-2 40	-2 15	-2 17	-2 17	0.2	0.3	--	--	0.4	319°	--	--	1.0	134°		
	do.	24d	41° 37.39'	70° 54.31'	-3 15	-2 34	-1 51	-2 10	0.2	0.3	--	--	0.4	318°	--	--	0.8	134°		
815	West Island and Long Island, between		41° 35.6'	70° 50.4'	Current weak and variable								0.3	--	--	--	0.4	--		
817	West Island, 1 mile Southeast of	4d	41° 33.94'	70° 48.66'	-1 48	-1 55	-2 26	-2 11	0.3	0.3	0.1	139°	0.6	072°	0.2	149°	0.9	225°		
	do.	15d	41° 33.94'	70° 48.66'	-2 05	-2 03	-2 26	-2 19	0.3	0.2	0.1	147°	0.6	069°	0.1	152°	0.7	233°		
	do.	27d	41° 33.94'	70° 48.66'	-3 12	-2 17	-2 39	-2 28	0.2	0.1	--	--	0.4	066°	--	--	0.4	243°		
819	Nasketucket Bay		41° 37.1'	70° 50.2'	Current weak and variable								0.3	--	--	--	0.3	--		
821	Mattapoisett Harbor		41° 38'	70° 47'	Current weak and variable															
					<b>on Cape Cod Canal, p.36</b>															
823	Cleveland Ledge	8d	41° 37.93'	70° 41.81'	-0 19	-0 25	-1 06	+0 05	0.1	0.1	--	--	0.4	037°	--	--	0.4	212°		
	do.	15d	41° 37.93'	70° 41.81'	-0 36	-0 30	-1 12	-1 03	0.1	0.1	--	--	0.4	041°	--	--	0.4	213°		
	do.	34d	41° 37.93'	70° 41.81'	-2 01	-1 04	-1 43	-1 47	0.1	0.1	--	--	0.3	033°	--	--	0.3	217°		
825	Megansett Harbor		41° 38.8'	70° 39.2'	Current weak and variable															
827	Abiels ledge	3d	41° 41.38'	70° 40.25'	+0 08	-0 14	-0 20	+0 02	0.3	0.4	0.2	155°	1.3	069°	0.1	159°	1.8	236°		
	do.	15d	41° 41.38'	70° 40.25'	+0 15	-0 16	-0 19	+0 02	0.3	0.4	--	--	1.3	063°	0.1	155°	1.7	235°		
	do.	31d	41° 41.38'	70° 40.25'	+0 17	-0 10	-0 15	+0 03	0.2	0.3	--	--	1.0	059°	0.1	326°	1.4	235°		
829	Sippican Harbor		41° 41'	70° 44'	Current weak and variable								0.3	--	--	--	0.4	--		
831	Wareham River, off Long Beach Point		41° 44.0'	70° 43.0'	-2 09	-0 33	-1 38	-1 24	0.1	0.1	--	--	0.6	022°	--	--	0.6	202°		
833	Wareham River, off Barneys Point		41° 44.7'	70° 42.4'	-2 17	-0 29	-1 38	-1 32	0.2	0.1	--	--	0.7	010°	--	--	0.6	185°		
835	Hog Neck	2d	41° 43.43'	70° 38.36'	-0 03	-0 04	-0 08	-0 11	0.8	0.6	--	--	3.4	035°	0.2	123°	3.0	210°		
	do.	15d	41° 43.43'	70° 38.36'	+0 00	-0 07	-0 10	-0 03	0.8	0.6	--	--	3.2	038°	0.2	122°	2.9	209°		
	do.	28d	41° 43.43'	70° 38.36'	+0 02	-0 05	-0 12	-0 05	0.6	0.5	--	--	2.6	038°	0.2	120°	2.4	208°		
	<b>CAPE COD CANAL</b>																			
837	CAPE COD CANAL, Railroad Bridge, midchannel	13d	41° 44.52'	70° 36.83'	<b>Daily predictions</b>						0.1	336°	4.3	066°	0.1	337°	4.9	248°		
	Cape Cod Canal, RR Bridge, 70ft from N shore	13d	41° 44.55'	70° 36.84'	-0 03	+0 11	-0 02	-0 05	0.8	0.8	--	--	3.4	068°	--	--	3.9	248°		
	Cape Cod Canal, RR Bridge, 400ft from N shore	13d	41° 44.50'	70° 36.81'	-0 01	+0 38	+0 02	-0 14	0.7	0.8	--	--	3.2	060°	0.1	332°	4.1	244°		
839	Bourne Highway bridge		41° 45'	70° 35'	-0 08	-0 15	-0 07	-0 13	0.8	0.8	--	--	3.3	065°	--	--	4.0	245°		
841	Bournedale	13d	41° 45.99'	70° 34.02'	-0 01	+0 00	-0 07	+0 01	0.7	0.8	--	--	3.2	037°	--	--	3.7	219°		
	do.	30d	41° 45.99'	70° 34.02'	+0 00	+0 01	-0 08	+0 00	0.7	0.7	--	--	2.9	037°	--	--	3.5	217°		
	do.	46d	41° 45.99'	70° 34.02'	+0 00	+0 02	-0 09	-0 01	0.6	0.6	--	--	2.4	037°	--	--	2.9	214°		
843	Sagamore Bridge	6d	41° 46.57'	70° 32.60'	-0 05	+0 05	-0 06	+0 00	0.8	0.8	--	--	3.6	077°	--	--	3.7	260°		
	do.	26d	41° 46.57'	70° 32.60'	-0 05	+0 01	-0 07	+0 02	0.7	0.7	--	--	3.1	079°	--	--	3.2	259°		
	do.	42d	41° 46.57'	70° 32.60'	-0 06	+0 00	-0 07	+0 03	0.6	0.6	0.1	169°	2.7	082°	--	--	2.8	256°		
845	Cape Cod Canal, east end	8d	41° 46.53'	70° 29.96'	-0 13	-0 14	-0 12	-0 05	0.8	0.7	--	--	3.4	053°	--	--	3.3	233°		
	do.	15d	41° 46.53'	70° 29.96'	-0 14	-0 16	-0 13	-0 06	0.8	0.7	--	--	3.3	053°	--	--	3.3	232°		
	do.	34d	41° 46.53'	70° 29.96'	-0 10	-0 08	-0 18	-0 06	0.5	0.6	--	--	2.0	048°	--	--	2.7	231°		
	<b>NARRAGANSETT BAY &lt;8&gt;</b>																			
					<b>on Pollock Rip Channel, p.44</b>															
847	Sakonnet River (except Narrows)		-- --	-- --	Current weak and variable															
849	Black Point, SW of, Sakonnet River	15	41° 30.4'	71° 13.2'	-2 54	-1 55	-2 13	-2 26	0.2	0.2	--	--	0.4	012°	--	--	0.4	194°		
851	Almy Point Bridge, south of, Sakonnet River	15	41° 37.3'	71° 13.2'	-3 00	-2 10	-2 30	-3 13	0.2	0.8	--	--	0.4	034°	--	--	1.5	180°		
853	Tiverton, Stone bridge, Sakonnet R. <9>		41° 37.5'	71° 13.0'	-2 58	-5 02	-2 26	-3 06	1.4	1.6	--	--	2.7	010°	--	--	2.7	190°		
									0.3				0.6	010°						
									1.3				2.5	010°						
855	Tiverton, RR. bridge, Sakonnet R. <10>		41° 38.3'	71° 12.9'	-3 26	-5 06	-2 48	-3 41	1.2	1.4	--	--	2.3	000°	--	--	2.4	180°		

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood		Min. before Ebb		Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
					h	m	h	m			knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	NARRAGANSETT BAY <8> Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m									
					<b>on Pollock Rip Channel, p.44</b>														
857	Common Fence Point, northeast of	10	41° 39.5'	71° 12.5'	-2 38	-4 50	-2 32	-2 41	0.1	0.2	--	--	0.2	026°	--	--	0.3	210°	
						-2 25			0.0				0.1	058°					
						-0 58			0.1				0.1	046°					
859	Brenton Point, 1.4 n.mi. southwest of	7	41° 25.9'	71° 22.6'	-1 03	-0 38	-1 20	-1 04	0.2	0.4	--	--	0.4	347°	--	--	0.6	170°	
861	Castle Hill, west of, East Passage	15	41° 27.4'	71° 22.7'	-0 06	-0 42	-1 07	-0 29	0.4	0.7	--	--	0.7	013°	--	--	1.2	237°	
863	Bull Point, east of	10	41° 28.8'	71° 21.0'	-1 10	-0 47	-1 10	-1 33	0.6	0.8	--	--	1.2	001°	--	--	1.5	206°	
865	Mackerel Cove		41° 28.5'	71° 22.8'	Current weak and variable														
867	Newport Harbor, S and E of Goat Island		41° 29'	71° 20'	Current weak and variable														
869	Rose Island, northeast of	15	41° 30.2'	71° 19.9'	-1 57	-0 07	-1 17	-2 08	0.4	0.5	--	--	0.8	310°	--	--	1.0	124°	
871	Rose Island, northwest of	15	41° 30.4'	71° 21.1'	-1 38	-0 26	-1 38	-1 39	0.4	0.5	0.1	105°	0.7	007°	0.1	102°	1.0	190°	
873	Rose Island, west of		41° 29.8'	71° 21.0'	-0 42	-0 34	-1 20	-1 28	0.4	0.6	--	--	0.7	001°	--	--	1.0	172°	
875	Gould Island, southeast of	7	41° 31.5'	71° 20.2'	-1 40	-1 28	-1 14	-1 16	0.3	0.4	--	--	0.5	033°	--	--	0.7	217°	
877	Gould Island, west of	15	41° 31.9'	71° 21.5'	-0 16	-0 32	-1 13	-1 07	0.3	0.4	--	--	0.6	351°	0.1	279°	0.8	193°	
879	Dyer Island-Carrs Point (between)		41° 34.5'	71° 17.8'	-1 56	-1 13	-0 50	-1 37	0.4	0.4	--	--	0.8	040°	--	--	0.6	236°	
881	Conanicut Point, ENE of	15	41° 34.5'	71° 20.5'	-2 05	-0 24	-1 18	-1 13	0.2	0.2	0.1	111°	0.4	018°	0.1	106°	0.4	183°	
883	Dyer Island, west of	7	41° 35.2'	71° 18.5'	-1 04	-0 46	-0 53	-1 34	0.4	0.6	--	--	0.8	023°	--	--	1.0	216°	
885	QUONSET POINT	16	41° 35.01'	71° 23.74'	<b>Daily Predictions, p.36</b>								0.3	021°	--	--	0.4	200°	
887	Mount Hope Bridge	7	41° 38.4'	71° 15.5'	-1 22	-1 34	-1 08	-0 58	0.6	0.8	--	--	1.1	047°	--	--	1.4	230°	
889	Hog Island, northwest of	10	41° 38.8'	71° 17.7'	-2 16	-0 04	-0 30	-1 04	0.2	0.2	0.1	282°	0.4	011°	--	--	0.4	199°	
891	Common Fence Point, west of	10	41° 39.0'	71° 14.7'	-1 13	+0 08	-1 00	-0 37	0.2	0.4	--	--	0.5	050°	0.1	133°	0.7	224°	
893	Mount Hope Point, northeast of	10	41° 40.8'	71° 12.7'	-2 01	-0 20	-1 03	-0 57	0.2	0.2	--	--	0.4	038°	0.1	121°	0.4	217°	
895	Kickamuit R. (Narrows), Mt. Hope Bay		41° 41.9'	71° 14.7'	-2 04	-3 34	-1 19	-0 48	0.7	1.0	--	--	1.4	000°	--	--	1.7	191°	
						-1 40			0.5				0.9	000°					
						-0 04			0.9				1.7	000°					
897	Warren River entrance		41° 42.7'	71° 17.8'	Current weak and variable								0.4	020°	--	--	0.3	200°	
899	Warren, Warren River		41° 43.7'	71° 17.3'	-0 14	+0 11	-0 22	-1 05	0.5	0.5	--	--	1.0	358°	--	--	0.9	171°	
901	Beavertail Point, 0.8 mile northwest of		41° 27.5'	71° 24.7'	-0 11	-0 54	-1 31	-0 19	0.3	0.6	--	--	0.5	003°	--	--	1.0	188°	
903	Dutch Island, east of, West Passage	15	41° 30.2'	71° 23.7'	-3 02	-5 10	-2 37	-2 46	0.2	0.5	0.1	103°	0.4	035°	0.2	126°	0.9	186°	
						-3 55			0.2				0.3	032°					
						-1 10			0.3				0.6	038°					
905	Dutch Island and Beaver Head, between		41° 29.8'	71° 24.2'	-1 56	-1 32	-1 58	-1 47	0.5	0.6	--	--	1.0	030°	--	--	1.0	233°	
907	Dutch Island, west of	7	41° 30.3'	71° 24.6'	-1 33	-1 49	-1 21	-1 16	0.7	0.7	--	--	1.3	014°	--	--	1.2	206°	
909	Jamestown-North Kingstown Bridge	15	41° 31.8'	71° 23.8'	-2 16	-4 10	-1 22	-1 33	0.2	0.7	0.1	112°	0.5	012°	0.1	097°	1.3	176°	
						-3 10			0.2				0.5	011°					
						-0 31			0.4				0.8	007°					
911	Wickford Harbor		41° 34'	71° 26'	Current weak and variable								0.3	--			0.3	--	
913	Greenwich Bay entrance		41° 40.0'	71° 23.6'	Current weak and variable								0.3	--			0.4	--	
915	Patience Island, narrows east of		41° 39.5'	71° 21.2'	-2 41	-2 29	-2 44	-2 37	0.4	0.5	--	--	0.7	354°	--	--	0.9	157°	
917	Patience I. and Warwick Neck, between		41° 39.8'	71° 22.4'	-1 40	-1 21	-1 18	-1 13	0.3	0.5	--	--	0.6	040°	--	--	0.8	224°	
919	Nayatt Point, WNW of	10	41° 43.7'	71° 21.6'	-2 24	+0 47	-1 00	-1 11	0.1	0.1	--	--	0.2	325°	--	--	0.2	128°	
921	India Point RR. bridge, Seekonk River <9>		41° 49.0'	71° 23.3'	-1 48	-4 02	-1 31	-1 06	0.5	0.8	--	--	1.0	020°	--	--	1.4	180°	
						-2 30			0.2				0.4	020°					
						-0 12			0.7				1.3	020°					
923	Fox Point, south of, Providence River	10	41° 48.8'	71° 24.0'	-3 02	+0 08	-0 27	-1 34	0.1	0.1	--	--	0.2	343°	--	--	0.1	166°	
925	Cold Spring Pt., Seekonk River <10>		41° 49.6'	71° 22.8'	-1 48	-4 14	-1 31	-1 02	0.4	0.8	--	--	0.8	030°	--	--	1.4	210°	
						-2 24			0.1				0.2	030°					
						-0 26			0.6				1.1	030°					
	BLOCK ISLAND SOUND				<b>on The Race, p.48</b>														
	<i>Point Judith</i>																		
927	Harbor of Refuge, south entrance		41° 21.48'	71° 29.75'	-2 25	-2 53	-2 47	-3 02	0.2	0.2	--	--	0.6	335°	--	--	0.7	181°	
929	Harbor of Refuge, west entrance		41° 22'	71° 31'	See table 5.														
931	Pond entrance - Point Judith		41° 23'	71° 31'	-3 15	-3 06	-3 06	-4 04	0.6	0.4	--	--	1.8	351°	--	--	1.5	186°	
933	2.4 miles southwest of		41° 19.87'	71° 30.65'	-0 40	+0 06	+0 28	-0 36	0.2	0.1	--	--	0.7	258°	--	--	0.6	090°	
935	4.5 miles southwest of		41° 18'	71° 33'	See table 5.														

Endnotes can be found at the end of table 2.

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS									
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb			
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.		
	BLOCK ISLAND SOUND Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	<b>h m</b>	<b>h m</b>	<b>h m</b>	<b>h m</b>												
			<b>on The Race, p.48</b>																	
	<i>Block Island</i>																			
937	4 miles north of		41° 18'	71° 32'	-0 32	-0 05	+0 31	+0 06	0.2	0.2	--	--	0.8	285°	--	--	0.8	076°		
939	Sandy Point, 2.1 miles NNE of	15	41° 15.85'	71° 34.00'	+0 17	-0 58	-0 20	-0 55	0.3	0.4	--	--	1.0	296°	--	--	1.7	066°		
941	Sandy Pt., 1.5 miles north of	7	41° 15'	71° 34'	-0 24	-0 38	-1 07	-1 05	0.6	0.5	--	--	1.9	315°	--	--	2.1	063°		
943	Clay Head, 1.2 miles ENE of	15	41° 13.35'	71° 31.85'	-2 20	-1 37	+0 49	-1 07	0.2	0.1	--	--	0.7	298°	--	--	0.5	164°		
945	Old Harbor Pt., 0.5 mile southeast of		41° 09'	71° 32'	-0 12	-0 37	-0 38	-0 06	0.1	0.1	--	--	0.2	336°	--	--	0.6	175°		
947	Lewis Pt., 1.0 mile southwest of		41° 08.20'	71° 37.30'	-1 29	-1 13	-0 24	-1 25	0.6	0.4	--	--	1.9	298°	--	--	1.8	136°		
949	Lewis Pt., 1.5 miles west of		41° 09'	71° 38'	-1 33	-1 23	-0 48	-1 12	0.4	0.4	--	--	1.4	318°	--	--	1.7	170°		
951	Great Salt Pond entrance		41° 11.97'	71° 35.50'	-4 10	-3 40	-3 24	-4 34	0.1	0.1	--	--	0.3	165°	--	--	0.3	326°		
953	Great Salt Pond ent., 1 mile NW of	7	41° 12'	71° 36'	-0 54	-1 06	-1 54	-0 47	0.1	0.1	--	--	0.4	158°	--	--	0.4	035°		
955	Sandy Point, 0.4 mile west of <11>		41° 13.80'	71° 35.13'	--	-1 29	--	-1 47	--	0.2	--	--	--	--	--	--	0.7	011°		
957	Green Hill Point, 1.1 miles south of		41° 20.90'	71° 35.77'	-0 58	-0 52	-0 24	-1 07	0.2	0.1	--	--	0.6	258°	--	--	0.4	070°		
959	Sandy Point, 4.1 miles northwest of	15	41° 17.60'	71° 38.00'	+0 04	+0 06	+0 32	-0 08	0.2	0.2	--	--	0.7	270°	--	--	0.6	084°		
961	Grace Point, 2.0 miles northwest of		41° 12'	71° 38'	See table 5.															
963	Quonochontaug Beach, 1.1 miles S of		41° 18.80'	71° 42.82'	-0 43	+0 01	+0 47	-0 32	0.3	0.1	--	--	1.1	248°	--	--	0.4	078°		
965	Quonochontaug Beach, 3.8 miles S of	15	41° 16.35'	71° 43.00'	+0 03	-0 11	+0 39	-0 04	-0 03	0.2	0.2	--	--	0.7	243°	--	--	0.6	058°	
967	Lewis Point, 6.0 miles WNW of	15	41° 11.60'	71° 44.20'	+0 59	+0 35	+0 16	+0 23	0.2	0.3	--	--	0.6	286°	--	--	1.2	097°		
969	Southwest Ledge		41° 07'	71° 42'	-0 35	-0 41	-0 14	-0 23	0.5	0.5	--	--	1.5	321°	--	--	2.1	141°		
971	Southwest Ledge, 2.0 miles west of	15	41° 06.80'	71° 43.00'	+0 10	+0 05	+0 11	-0 53	0.4	0.5	--	--	1.5	354°	--	--	1.9	168°		
973	Watch Hill Point, 2.2 miles east of		41° 18.16'	71° 48.60'	-0 29	-0 13	+0 45	-0 33	0.4	0.2	--	--	1.2	260°	--	--	0.7	086°		
975	Watch Hill Point, 5.2 miles SSE of	15	41° 13.20'	71° 49.00'	+0 35	+0 13	+0 39	+0 00	0.4	0.3	--	--	1.2	265°	--	--	1.2	064°		
977	Watch Hill Point, 5.3 n.mi. SE of	15d	41° 14.65'	71° 46.43'	-0 08	-0 11	-0 17	-0 03	0.2	0.2	0.1	176°	0.7	263°	--	--	0.9	092°		
979	Montauk Point, 5.4 miles NNE of	15	41° 09.55'	71° 49.48'	+0 33	-0 08	-0 38	-0 04	0.3	0.4	--	--	1.1	279°	--	--	1.6	079°		
981	Montauk Point, 1.2 miles east of		41° 04.50'	71° 49.80'	-1 22	-1 14	-0 38	-2 05	0.8	0.7	--	--	2.8	346°	--	--	2.8	162°		
983	Montauk Point, 1 mile northeast of		41° 05'	71° 51'	-2 04	-1 37	-1 14	-1 56	0.7	0.5	--	--	2.4	356°	--	--	1.9	145°		
985	Wicopesset island, NE of	8d	41° 17.90'	71° 54.06'	-0 55	-1 18	-0 58	-1 15	0.5	0.6	0.1	036°	1.7	321°	--	--	2.4	125°		
	do.	25d	41° 17.90'	71° 54.06'	-1 13	-1 20	-0 59	-1 24	0.5	0.5	0.1	225°	1.6	342°	0.1	048°	1.9	132°		
	do.	44d	41° 17.90'	71° 54.06'	-1 27	-1 08	-1 03	-1 26	0.4	0.3	0.1	238°	1.2	327°	0.2	048°	1.4	141°		
987	East Pt., 4.1 miles S of Fishers Island	15	41° 13.40'	71° 55.50'	+0 50	+0 27	+0 19	+0 00	0.3	0.4	--	--	0.9	236°	--	--	1.8	073°		
989	Cerberus Shoal, 1.5 miles east of	15	41° 10.45'	71° 55.17'	-0 15	+0 20	-0 23	-1 04	0.3	0.4	--	--	1.1	256°	--	--	1.8	092°		
991	Shagwong Reef & Cerberus Shoal, between		41° 07.90'	71° 55.50'	-0 30	-0 52	-0 25	-1 10	0.6	0.4	--	--	1.9	241°	--	--	1.8	056°		
993	Montauk Harbor entrance	6	41° 04.78'	71° 56.35'	-2 17	-2 52	-3 02	-5 01	0.4	0.1	--	--	1.2	226°	--	--	0.6	033°		
								-2 44		0.1							0.2	024°		
								-0 56		0.1							0.5	353°		
995	Mt. Prospect, 0.6 mile SSE of	15	41° 14.75'	71° 59.80'	-0 34	-0 11	+0 10	-1 11	0.5	0.4	--	--	1.7	275°	--	--	1.6	054°		
997	Cerberus Shoal and Fishers I., between	7	41° 13'	71° 58'	-0 59	-0 13	+0 07	-0 21	0.4	0.3	--	--	1.3	264°	--	--	1.3	096°		
999	Little Gull Island, 3.7 miles ESE of		41° 10.7'	72° 02.1'	See table 5.															
1001	Gardiners Island, 3 miles northeast of	10	41° 07.9'	72° 02.0'	-0 47	-1 04	-0 25	-0 41	0.3	0.2	--	--	0.9	305°	--	--	1.0	138°		
1003	Eastern Plain Pt., 3.9 miles ENE of		41° 07.05'	71° 59.80'	-1 01	-1 30	-0 22	-1 13	0.3	0.2	--	--	1.0	246°	--	--	1.0	096°		
1005	Little Gull Island, 0.8 mile SSE of <43>		41° 11.67'	72° 06.23'	-2 10	-0 55	-0 23	-3 14	0.4	0.1	--	--	1.3	331°	--	--	0.6	105°		
								-2 06		0.0							0.1	252°		
								-0 44		0.1							0.6	174°		
1007	Rocky Point, 2 miles WNW of	15	41° 03.55'	72° 01.80'	-1 22	-1 06	-0 49	-1 11	0.1	0.1	0.1	192°	0.3	255°	0.2	340°	0.3	065°		
	GARDINERS BAY, etc.																			
1009	Goff Point, 0.4 mile northwest of		41° 01.49'	72° 03.75'	-1 46	-2 30	-1 25	-2 43	0.4	0.4	--	--	1.2	225°	--	--	1.6	010°		
1011	Acabonack Hbr. ent., 0.6 mile ESE of		41° 01.30'	72° 07.40'	-1 34	-2 15	-1 05	-2 42	0.4	0.3	--	--	1.4	345°	--	--	1.2	140°		
1013	Hog Creek Point, north of		41° 04.10'	72° 09.70'	-0 56	-0 54	-1 21	-2 04	0.1	0.1	--	--	0.3	281°	--	--	0.3	067°		
1015	Ram Island, 2.2 miles east of		41° 04.70'	72° 13.80'	-0 19	-0 29	-0 14	-0 24	0.1	0.1	--	--	0.2	250°	--	--	0.3	090°		
1017	Orient Point, 2.4 miles SSE of		41° 07.50'	72° 12.30'	+0 19	-0 39	+1 11	-0 43	0.1	0.1	--	--	0.4	250°	--	--	0.3	025°		
1019	Gardiners Pt. Ruins, 1.1 miles N of		41° 09.50'	72° 08.83'	-0 12	-0 22	-0 09	-0 09	0.4	0.4	--	--	1.2	270°	--	--	1.8	066°		
1021	Gardiners Point & Plum Island, between	15	41° 09.33'	72° 09.52'	-0 18	-0 36	-0 32	-0 42	0.4	0.4	--	--	1.4	288°	--	--	1.6	100°		
1023	Ram Island, 1.4 miles NNE of		41° 05.8'	72° 15.8'	+0 01	-0 07	+0 07	+0 05	0.1	0.1	--	--	0.4	240°	--	--	0.6	075°		
1025	Long Beach Pt., 0.7 mile southwest of	15	41° 06.25'	72° 18.40'	+0 33	-0 16	+0 44	-0 12	0.4	0.4	--	--	1.3	307°	--	--	1.8	101°		
1027	Hay Beach Point, 0.3 mile NW of <44>		41° 06.65'	72° 20.43'	+0 40	+0 15	+1 01	-1 03	0.5	0.3	--	--	1.5	210°	--	--	1.2	025°		

Endnotes can be found at the end of table 2.



**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	GARDINERS BAY, etc. Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m						
					<b>on The Race, p.48</b>													
1029	Jennings Point, 0.2 mile NNW of	13	41° 04.48'	72° 22.95'	+0 32	+0 04	+0 37	-0 09	0.5	0.4	--	--	1.6	290°	--	--	1.5	055°
1031	Cedar Point, 0.2 mile west of		41° 02.38'	72° 16.07'	-0 11	-0 21	+0 29	-0 53	0.7	0.5	--	--	1.8	195°	--	--	1.6	005°
1033	North Haven Peninsula, north of		41° 02.47'	72° 19.25'	+0 12	-0 35	+0 39	-0 46	0.7	0.5	--	--	2.4	230°	--	--	2.1	035°
1035	Paradise Point, 0.4 mile east of	13	41° 02.88'	72° 22.57'	+0 26	-0 02	+0 45	-0 06	0.5	0.4	--	--	1.5	145°	--	--	1.5	345°
1037	Little Peconic Bay entrance	19	41° 01.58'	72° 23.08'	+0 35	-0 04	+0 53	+0 09	0.5	0.4	--	--	1.6	240°	--	--	1.5	015°
1039	Robins Island, 0.5 mile south of		40° 56.98'	72° 27.18'	+0 32	-0 17	+0 56	+0 23	0.3	0.1	--	--	1.7	245°	--	--	0.6	065°
	FISHERS ISLAND SOUND																	
1041	Edwards Pt. and Sandy Pt., between	4	41° 19.90'	71° 53.88'	-2 26	-3 22	-2 15	-3 53	0.3	0.3	--	--	1.1	035°	--	--	1.0	227°
								-1 44		0.1							0.2	243°
								-0 19		0.1							0.5	234°
1043	Napatree Point, 0.7 mile southwest of		41° 17.92'	71° 54.00'	-0 48	-1 12	-0 47	-1 30	0.5	0.5	--	--	1.7	284°	--	--	2.2	113°
1045	Little Narragansett Bay entrance		41° 20'	71° 53'	-1 58	-2 07	-2 13	-2 50	0.4	0.3	--	--	1.3	092°	--	--	1.3	268°
1047	Avondale, Pawcatuck River <43>	6	41° 19.90'	71° 50.73'	-1 48	-2 47	-2 07	-3 52	0.2	0.1	--	--	0.6	058°	--	--	0.5	265°
								-1 20		0.0							0.1	243°
								-0 08		0.1							0.2	263°
1049	Ram Island Reef, south of	7	41° 18.1'	71° 58.5'	-0 54	-0 55	-0 45	-1 05	0.4	0.4	--	--	1.3	255°	--	--	1.6	088°
1051	Noank <43>	4	41° 19.12'	71° 59.30'	-1 28	-3 21	-4 00	-4 42	0.2	0.1	--	--	0.5	340°	--	--	0.3	173°
								-1 36		0.0							--	--
								+0 07		0.1							0.5	162°
1053	Mystic, Highway Bridge, Mystic River	6	41° 21.25'	71° 58.18'	-1 54	-2 55	-1 57	-3 51	0.2	0.1	--	--	0.5	039°	--	--	0.4	231°
								-1 52		0.1							0.2	234°
								-0 32		0.1							0.3	232°
1055	Clay Point, 1.3 miles NNE of	15	41° 17.88'	71° 58.53'	-0 34	-0 54	-0 30	-1 27	0.4	0.4	--	--	1.4	264°	--	--	1.9	035°
1057	North Hill Point, 1.1 miles NNW of		41° 17.57'	72° 01.68'	-0 57	-0 31	-0 08	-1 49	0.5	0.3	--	--	1.5	258°	--	--	1.2	082°
	LONG ISLAND SOUND																	
	<i>The Race</i>																	
1059	Race Point, 0.4 mile southwest of	6d	41° 14.70'	72° 02.60'	-0 16	-0 40	-0 33	-0 57	0.8	0.8	--	--	2.6	288°	--	--	3.5	135°
1061	THE RACE	25d	41° 13.69'	72° 03.75'							0.3	024°	3.3	291°	0.2	195°	4.2	106°
	do.	45d	41° 13.69'	72° 03.75'	-0 12	-0 10	+0 00	+0 02	1.0	0.8	0.1	016°	3.3	292°	0.2	200°	3.2	108°
	do.	45d	41° 13.69'	72° 03.75'	-0 24	-0 14	+0 00	+0 05	0.9	0.4	--	--	2.9	295°	0.1	205°	1.9	105°
1063	Little Gull Island, 1.4 n.mi. NNE of	45d	41° 13.53'	72° 05.52'	+0 02	+0 12	+0 08	-0 34	0.4	0.4	0.1	011°	1.5	304°	0.5	036°	1.6	100°
1065	Little Gull Island, 1.1 miles ENE of		41° 13.10'	72° 05.10'	+0 01	-0 16	+0 11	-0 57	1.2	1.1	--	--	4.0	301°	--	--	4.7	130°
1067	Little Gull Island, 0.8 mile NNW of	15	41° 13.10'	72° 06.93'	+0 25	-1 24	-2 19	-0 58	0.6	0.7	--	--	1.9	258°	--	--	2.9	043°
1069	Great Gull Island, SW of	3d	41° 11.67'	72° 08.02'	-0 40	-0 39	-0 36	-1 33	0.7	0.8	0.2	226°	2.3	320°	0.3	055°	3.3	147°
	do.	16d	41° 11.67'	72° 08.02'	-0 46	-0 25	-0 34	-1 23	0.6	0.6	0.3	236°	2.0	326°	0.3	061°	2.5	157°
	do.	29d	41° 11.67'	72° 08.02'	-0 54	-0 18	-0 33	-1 19	0.5	0.4	0.3	241°	1.6	332°	0.2	067°	1.6	164°
1071	New London Harbor entrance	2d	41° 19.13'	72° 04.90'	-1 10	-2 04	-1 40	-0 50	0.1	0.1	0.1	241°	0.3	316°	--	--	0.3	167°
	do.	15d	41° 19.13'	72° 04.90'	-2 14	-2 36	----	----	0.1	--	--	--	0.3	335°	--	--	--	--
	do.	31d	41° 19.13'	72° 04.90'	-2 06	-2 59	----	----	0.1	--	--	--	0.3	353°	--	--	--	--
	<i>Thames River</i>																	
1073	Thames River Approach	5d	41° 17.63'	72° 04.71'	-2 43	-1 29	-1 08	-2 09	0.3	0.2	0.1	166°	0.9	268°	--	--	0.8	071°
	do.	15d	41° 17.63'	72° 04.71'	-2 04	-1 30	-1 09	-1 58	0.3	0.2	0.1	357°	0.8	271°	--	--	0.8	065°
	do.	35d	41° 17.63'	72° 04.71'	-2 09	-2 26	-1 38	-1 27	0.2	0.2	0.2	346°	0.6	267°	0.1	171°	0.6	051°
1075	Fort Trumbull State Park	5d	41° 20.73'	72° 05.18'	-1 07	-1 59	-1 39	-1 05	0.1	0.1	--	--	0.3	357°	--	--	0.3	169°
	do.	14d	41° 20.73'	72° 05.18'	-1 45	-2 03	----	----	0.1	--	--	--	0.4	349°	--	--	--	--
	do.	31d	41° 20.73'	72° 05.18'	-2 30	-2 17	----	----	0.1	--	--	--	0.5	347°	--	--	--	--
1077	New London State Pier	14d	41° 21.44'	72° 05.20'	-1 37	-2 20	-1 20	-0 30	0.1	0.1	--	--	0.4	358°	--	--	0.4	178°
	do.	31d	41° 21.44'	72° 05.20'	-2 03	-2 22	-1 12	-1 13	0.2	0.1	--	--	0.5	351°	--	--	0.3	172°
	do.	57d	41° 21.44'	72° 05.20'	-4 03	-2 35	-1 48	-3 21	0.2	0.1	--	--	0.5	346°	--	--	0.3	164°
1079	U.S. Coast Guard Academy	9d	41° 22.42'	72° 05.37'	-1 45	-1 47	-1 11	-0 43	0.1	0.1	--	--	0.3	358°	--	--	0.3	182°
	do.	16d	41° 22.42'	72° 05.37'	-1 39	-2 15	-1 15	-0 19	0.1	0.1	--	--	0.5	002°	--	--	0.3	179°
	do.	32d	41° 22.42'	72° 05.37'	-2 07	-2 53	-2 04	-1 52	0.1	0.1	--	--	0.4	004°	--	--	0.3	184°
1081	Smith Cove	5d	41° 23.79'	72° 05.76'	-1 03	-2 23	-2 09	-0 57	0.1	0.2	--	--	0.4	355°	--	--	0.7	181°
	do.	14d	41° 23.79'	72° 05.76'	-1 15	-2 15	-1 56	-0 23	0.1	0.1	--	--	0.4	359°	--	--	0.4	184°
	do.	31d	41° 23.79'	72° 05.76'	-2 41	-2 53	-1 47	-2 52	0.1	0.1	--	--	0.4	357°	--	--	0.3	179°

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

Table with columns: No., PLACE, Meter Depth, POSITION (Latitude, Longitude), TIME DIFFERENCES (Min. before Flood, Flood, Min. before Ebb, Ebb), SPEED RATIOS (Flood, Ebb), and AVERAGE SPEEDS AND DIRECTIONS (Minimum before Flood, Maximum Flood, Minimum before Ebb, Maximum Ebb).

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	LONG ISLAND SOUND Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>									
					<b>on The Race, p.48</b>														
1157	Horton Point, 1.4 miles NNW of		41° 06.30'	72° 27.40'	+0 12	+0 03	+0 07	-0 30	0.4	0.5	--	--	1.4	260°	--	--	2.0	040°	
1159	Hammonasset Point, 1.2 miles SW of	15	41° 14.22'	72° 34.00'	-0 51	-1 20	-0 34	-1 43	0.3	0.2	--	--	1.0	287°	--	--	1.0	106°	
1161	Hammonasset Point, 5 miles south of	15	41° 09.80'	72° 34.17'	+0 05	-0 08	-0 14	-0 18	0.4	0.4	--	--	1.4	284°	--	--	1.5	090°	
1163	Duck Pond Point, 3.2 n.mi. NW of	15d	41° 04.73'	72° 33.91'	-0 25	-0 14	-0 06	-0 15	0.4	0.3	0.2	161°	1.2	253°	0.1	343°	1.2	071°	
1165	Mattituck Inlet, 1 mile northwest of	15	41° 01.68'	72° 34.22'	-0 13	-0 20	+0 02	-0 38	0.3	0.2	--	--	0.9	241°	--	--	1.0	053°	
1167	Sachem Head, 1 mile SSE of		41° 13.65'	72° 42.30'	-0 30	-0 41	-0 25	-1 14	0.3	0.2	--	--	1.1	255°	--	--	1.0	065°	
1169	Sachem Head 6.2 miles south of	15	41° 08.73'	72° 42.30'	+0 37	+0 19	-0 02	-0 16	0.2	0.2	--	--	0.6	260°	--	--	0.9	065°	
1171	Roanoke Point, 5.6 miles north of	15	41° 04.37'	72° 42.53'	+0 06	-0 07	-0 05	-0 36	0.2	0.2	--	--	0.7	255°	--	--	0.9	050°	
1173	Roanoke Point, 2 miles NE of	16d	41° 00.42'	72° 39.79'	-0 28	-0 20	-0 29	-0 27	0.2	0.2	--	--	0.1	178°	0.1	009°	0.7	093°	
	do.	39d	41° 00.42'	72° 39.79'	-0 45	-0 25	-0 15	-0 30	0.2	0.2	0.1	187°	0.7	277°	0.1	011°	0.8	106°	
	do.	62d	41° 00.42'	72° 39.79'	-1 39	-1 46	-0 45	-1 12	0.2	0.2	--	--	0.6	287°	--	--	0.7	103°	
1175	Roanoke Point, 2.3 miles NNW of		41° 00.92'	72° 42.97'	-1 11	-0 27	+0 00	-0 41	0.3	0.2	--	--	0.9	270°	--	--	0.7	070°	
1177	Branford Reef, 1.5 miles southwest of	15	41° 12.57'	72° 49.83'	-0 05	-0 19	+0 01	-0 30	0.2	0.2	--	--	0.8	272°	--	--	0.7	068°	
1179	Branford Reef, 5.0 miles south of	6d	41° 08.67'	72° 49.68'	+0 03	+0 07	+0 15	+0 17	0.2	0.2	--	--	0.2	262°	--	--	0.8	084°	
	do.	39d	41° 08.67'	72° 49.68'	-0 36	-0 20	+0 03	-0 09	0.3	0.2	--	--	0.1	184°	0.9	273°	--	0.7	096°
	do.	69d	41° 08.67'	72° 49.68'	-1 00	-0 43	-0 24	-0 42	0.2	0.1	0.1	013°	0.6	277°	0.1	187°	0.5	106°	
1181	Herod Point, 6.5 miles north of	15	41° 04.65'	72° 49.80'	-0 19	+0 01	+0 22	-0 19	0.3	0.2	--	--	0.9	254°	--	--	0.7	070°	
1183	Herod Point, 2.8 miles north of	15	41° 00.97'	72° 49.93'	-0 21	-0 22	-0 17	-0 18	0.1	0.1	0.1	020°	0.4	290°	0.1	020°	0.6	090°	
1185	Herod Point, 5.0 n.mi. NW of	15d	41° 01.64'	72° 54.73'	-0 09	-0 22	-0 27	-0 01	0.2	0.2	0.1	179°	0.6	271°	--	--	0.7	089°	
1187	New Haven Harbor entrance	4d	41° 13.34'	72° 54.56'	-0 12	-0 11	+0 06	+0 20	0.2	0.1	0.1	215°	0.7	277°	0.1	192°	0.5	122°	
	do.	14d	41° 13.34'	72° 54.56'	-0 25	-0 49	-0 20	-0 05	0.2	0.1	0.1	221°	0.6	288°	0.1	194°	0.5	117°	
	do.	31d	41° 13.34'	72° 54.56'	-0 51	-1 49	-1 05	-0 30	0.2	0.1	--	--	0.5	295°	--	--	0.4	106°	
1189	New Haven Harbor, Gateway Terminal Approach	8d	41° 16.96'	72° 54.72'	--	+0 31	--	--	0.1	--	--	--	0.3	005°	--	--	--	--	
	do.	18d	41° 16.96'	72° 54.72'	--	-0 05	--	--	0.2	--	--	--	0.5	015°	--	--	--	--	
	do.	31d	41° 16.96'	72° 54.72'	--	-1 14	--	--	0.2	--	--	--	0.6	015°	--	--	--	--	
1191	New Haven Harbor, Tanker Terminal	11d	41° 17.70'	72° 54.54'	--	--	--	+0 12	--	0.1	--	--	--	--	--	--	0.5	218°	
	do.	21d	41° 17.70'	72° 54.54'	--	--	--	-0 14	--	0.1	--	--	--	--	--	--	0.3	209°	
	do.	30d	41° 17.70'	72° 54.54'	Current weak and variable														
1193	Oyster River Pt., 1.3 miles SSE of <1>		41° 12.87'	72° 58.00'	--	-0 20	--	-0 59	0.1	0.1	--	--	0.3	255°	--	--	0.3	060°	
1195	Pond Point, 4.2 miles SSE of		41° 08.60'	72° 58.08'	-0 12	-0 01	+0 06	-0 26	0.2	0.1	--	--	0.6	265°	--	--	0.6	065°	
1197	Sound Beach, 2.2 miles north of		41° 00.33'	72° 58.45'	+0 05	-0 11	-0 05	-0 37	0.3	0.2	--	--	0.9	270°	--	--	0.9	075°	
1199	Charles Island, 0.8 mile SSE of		41° 10.77'	73° 02.63'	-0 43	-0 41	-0 20	-1 06	0.1	0.1	--	--	0.4	250°	--	--	0.4	070°	
	Housatonic River																		
1201	Milford Point, 0.2 mile west of	10	41° 10.35'	73° 06.82'	+0 02	-0 04	+0 25	-1 07	0.4	0.3	--	--	1.2	330°	--	--	1.2	135°	
1203	Railroad drawbridge, above	5	41° 12.53'	73° 06.67'	+0 42	+0 08	+0 39	-1 07	0.3	0.3	--	--	1.1	350°	--	--	1.3	185°	
1205	Fowler Island, 0.1 mile NNW of	5	41° 14.40'	73° 06.23'	+0 56	+0 05	+0 40	+0 36	0.3	0.3	--	--	1.1	040°	--	--	1.1	270°	
1207	Wooster Island, 0.1 mile southwest of	5	41° 16.67'	73° 05.20'	+1 27	+0 28	+0 30	+0 10	0.2	0.2	--	--	0.6	020°	--	--	0.7	220°	
1209	Derby-Shelton Bridge, below <13>		41° 18.73'	73° 04.78'	--	--	--	-0 18	--	0.1	--	--	--	--	--	--	0.4	095°	
1211	Point No Point, 2.1 miles south of	15	41° 06.75'	73° 07.13'	-0 22	-0 11	+0 02	-0 13	0.4	0.3	--	--	1.3	251°	--	--	1.2	074°	
1213	Stratford Point, 3.5 miles south of	6d	41° 05.40'	73° 06.27'	-0 01	-0 04	+0 14	+0 05	0.4	0.3	0.2	154°	1.2	247°	--	--	1.0	070°	
	do.	16d	41° 05.40'	73° 06.27'	-0 03	-0 01	+0 09	-0 01	0.3	0.2	0.1	157°	1.1	251°	--	--	1.0	071°	
	do.	43d	41° 05.40'	73° 06.27'	-0 21	-0 19	-0 12	-0 17	0.2	0.2	--	--	0.8	249°	0.2	166°	0.7	067°	
1215	Stratford Point, 4.3 miles south of	15	41° 04.77'	73° 06.67'	+0 20	+0 14	+0 15	+0 02	0.3	0.2	--	--	1.0	254°	--	--	1.0	075°	
	do.	60	41° 04.77'	73° 06.67'	-0 28	-0 14	-0 13	+0 03	0.2	0.2	--	--	0.6	291°	--	--	0.8	078°	
1217	Stratford Point, 6.1 miles south of	15	41° 02.97'	73° 05.80'	-0 10	-0 02	+0 26	+0 18	0.3	0.2	--	--	1.0	267°	--	--	0.8	080°	
	do.	51	41° 02.97'	73° 05.80'	-0 35	-0 36	-0 24	-0 24	0.3	0.2	--	--	0.9	279°	--	--	0.9	087°	
1219	Stratford Shoal, 6 miles east of		41° 04.52'	72° 58.43'	+0 09	-0 07	+0 03	-0 21	0.2	0.1	--	--	0.6	265°	--	--	0.6	060°	
1221	Stratford Shoal, 2 miles south of	22d	41° 01.38'	73° 06.29'	+0 18	+0 11	+0 22	+0 15	0.3	0.2	0.1	172°	0.9	272°	0.2	356°	0.9	079°	
	do.	68d	41° 01.38'	73° 06.29'	-0 26	-0 05	+0 05	-0 10	0.3	0.2	0.1	176°	0.9	263°	--	--	0.7	093°	
	do.	114d	41° 01.38'	73° 06.29'	-1 03	-0 10	-0 18	-0 30	0.2	0.2	--	--	0.8	261°	0.1	182°	0.6	099°	
1223	Old Field Point, 2.9 n.mi. NNW of	15d	41° 01.32'	73° 08.37'	+0 27	-0 16	-0 35	-0 15	0.2	0.2	--	--	0.5	254°	0.1	338°	0.6	076°	
1225	Old Field Point, 2 miles northeast of	15	41° 00.23'	73° 05.70'	+0 41	+0 08	-0 01	+0 46	0.3	0.3	--	--	1.0	266°	--	--	1.1	092°	
	do.	40	41° 00.23'	73° 05.70'	+0 30	+0 03	-0 02	+0 29	0.2	0.2	--	--	0.5	236°	--	--	0.6	081°	
1227	Old Field Point, 1 mile east of	15	40° 58.47'	73° 05.80'	+3 34	+2 26	+2 35	+1 44	0.1	0.2	--	--	0.2	105°	--	--	0.6	308°	
	do.	22	40° 58.47'	73° 05.80'	+2 38	+1 49	+2 27	+1 32	0.1	0.1	--	--	0.2	110°	--	--	0.5	297°	
1229	Port Jefferson Harbor entrance	3d	40° 58.19'	73° 05.50'	-0 18	-0 05	-0 05	-0 05	0.5	0.2	--	--	1.6	150°	0.1	060°	1.0	336°	
	do.	15d	40° 58.19'	73° 05.50'	-0 24	-0 09	-0 02	-0 03	0.5	0.2	--	--	1.7	149°	0.1	065°	1.0	342°	
	do.	31d	40° 58.19'	73° 05.50'	-0 29	-0 09	+0 04	-0 01	0.4	0.2	--	--	1.3	154°	--	--	0.9	001°	

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
					h m	h m	h m	h m			knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	LONG ISLAND SOUND Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	<b>on The Race, p.48</b>													
1231	Crane Neck Point, 0.5 mile northwest of		40° 58'	73° 10'	-0 47	-1 32	-1 42	-1 49	0.4	0.4	--	--	1.3	256°	--	--	1.5	016°
1233	Bridgeport Harbor Entrance	5d	41° 07.28'	73° 11.37'	+0 06	+0 01	-0 07	-0 06	0.2	0.1	--	--	0.5	256°	0.2	345°	0.6	058°
	do.	15d	41° 07.28'	73° 11.37'	-0 09	-0 25	-0 34	-0 28	0.2	0.1	--	--	0.5	256°	0.1	342°	0.5	058°
	do.	31d	41° 07.28'	73° 11.37'	-0 51	-1 00	-1 27	-0 54	0.1	0.1	0.1	337°	0.3	254°	--	--	0.4	062°
1235	Bridgeport Harbor, Tongue Point	4d	41° 10.00'	73° 10.52'	Current weak and variable													
	do.	15d	41° 10.00'	73° 10.52'	--	+1 01	--	--	0.1	--	--	--	0.3	043°	--	--	--	--
	do.	30d	41° 10.00'	73° 10.52'	--	+0 50	--	--	0.1	--	--	--	0.2	040°	--	--	--	--
1237	Pine Creek Point, 2.3 miles SSE of	15	41° 05.05'	73° 14.40'	-0 12	+0 01	+0 31	+0 11	0.2	0.1	--	--	0.7	272°	--	--	0.6	084°
1239	Shoal Point, 6 miles south of	15	41° 01.70'	73° 14.03'	+0 30	+0 23	+0 52	+0 43	0.1	0.1	--	--	0.4	232°	--	--	0.4	047°
1241	Crane Neck Point, 3.4 miles WNW of	15	40° 59.00'	73° 13.87'	-0 04	-0 03	-0 15	-0 03	0.2	0.1	--	--	0.5	261°	--	--	0.6	079°
1243	Crane Neck Point, 3.7 miles WSW of	15	40° 56.30'	73° 13.87'	-1 24	-0 36	-0 14	-0 30	0.1	0.1	--	--	0.4	066°	--	--	0.4	232°
1245	Saugatuck River, 0.3 mi. NW of Bluff Pt	15	41° 06.27'	73° 21.92'	-0 04	-0 46	+0 30	-0 02	0.2	0.1	--	--	0.5	265°	--	--	0.4	080°
1247	Saugatuck R., 0.5 mile above Bluff Pt		41° 06'	73° 23'	Current weak and variable													
1249	Norwalk Harbor	2d	41° 05.12'	73° 24.14'	-0 10	-0 46	+0 13	+0 43	0.2	0.1	--	--	0.5	339°	--	--	0.4	148°
	do.	11d	41° 05.12'	73° 24.14'	-0 43	-1 06	+0 25	+0 28	0.2	0.1	--	--	0.5	329°	--	--	0.4	151°
1251	Sheffield I. Hbr., 0.5 mile southeast of	12	41° 03.32'	73° 25.25'	-2 33	-3 59	-3 26	-2 24	0.1	0.1	--	--	0.2	229°	--	--	0.4	042°
1253	Sheffield I. Tower, 1.1 miles SE of	15	41° 01.97'	73° 24.33'	+0 41	+0 34	+1 09	+0 21	0.3	0.2	--	--	0.9	283°	--	--	0.8	081°
	do.	60	41° 01.97'	73° 24.33'	-0 19	+0 19	+1 10	+0 24	0.2	0.1	--	--	0.6	269°	--	--	0.5	076°
1255	Eatons Neck, 3 miles north of	10d	41° 00.30'	73° 24.30'	+0 20	+0 05	+0 22	+0 18	0.3	0.2	0.1	173°	0.8	267°	0.1	351°	0.7	076°
	do.	49d	41° 00.30'	73° 24.30'	+0 00	+0 07	+0 35	+0 02	0.3	0.2	--	--	0.9	264°	0.1	347°	0.7	080°
	do.	92d	41° 00.30'	73° 24.30'	-0 15	-0 02	+0 35	-0 20	0.3	0.1	0.1	341°	0.8	249°	0.2	155°	0.5	083°
1257	Eatons Neck Pt., 2.5 n.mi. NNW of	15d	40° 59.73'	73° 24.60'	-1 51	-2 02	-2 06	-2 21	0.2	0.2	0.1	164°	0.6	263°	0.1	341°	0.6	073°
1259	Eatons Neck Pt., 1.3 miles north of	15	40° 58.60'	73° 23.77'	+0 29	+0 16	+0 13	+0 09	0.4	0.3	--	--	1.4	283°	--	--	1.4	075°
1261	Eatons Neck, 2.5 miles east of	5d	40° 57.45'	73° 20.52'	-0 49	-0 25	-0 06	-0 14	0.2	0.1	0.1	207°	0.5	276°	--	--	0.5	125°
	do.	18d	40° 57.45'	73° 20.52'	-0 48	-0 34	-0 11	-0 15	0.2	0.1	0.2	207°	0.5	279°	--	--	0.5	128°
	do.	41d	40° 57.45'	73° 20.52'	-1 13	-0 45	-0 59	-0 54	0.1	0.1	0.1	201°	0.4	291°	0.1	209°	0.4	122°
1263	Eatons Neck Pt., 1.8 miles west of		40° 57'	73° 26'	-1 11	-1 09	-0 32	-0 44	0.2	0.1	--	--	0.5	199°	--	--	0.6	068°
1265	Huntington Bay, off East Fort Point	15	40° 55.60'	73° 25.05'	+0 02	+0 09	+0 24	+0 39	0.2	0.1	--	--	0.5	190°	--	--	0.5	014°
	do.	30	40° 55.60'	73° 25.05'	-0 46	+0 05	+0 15	-0 28	0.1	0.1	--	--	0.4	179°	--	--	0.3	007°
1267	Northport Bay entrance (in channel)	15	40° 54.53'	73° 24.45'	-0 03	+0 09	+0 22	+0 18	0.1	0.1	--	--	0.4	100°	--	--	0.4	267°
1269	Northport Bay, south of Duck I. Bluff		40° 55'	73° 23'	+0 29	+0 46	+0 08	-0 20	0.1	0.1	--	--	0.4	007°	--	--	0.3	286°
1271	Long Neck Point, 0.6 mile south of	15	41° 01.58'	73° 28.68'	-1 12	-0 10	+1 24	-0 01	0.3	0.1	--	--	0.8	252°	--	--	0.5	073°
	do.	27	41° 01.58'	73° 28.68'	-0 57	-0 13	+1 22	-0 03	0.2	0.1	--	--	0.8	257°	--	--	0.5	080°
1273	Lloyd Point, 1.3 miles NNW of	15	40° 57.95'	73° 29.70'	+1 24	+0 49	+1 30	+0 53	0.3	0.2	--	--	1.0	255°	--	--	0.9	055°
	do.	40	40° 57.95'	73° 29.70'	+0 00	+0 08	+1 17	+0 25	0.3	0.2	--	--	1.0	269°	--	--	0.7	053°
1275	Shippan Point, 1.3 miles SSE of	15	40° 59.90'	73° 31.00'	+0 36	+0 02	+0 23	+0 04	0.3	0.1	--	--	0.9	239°	--	--	0.9	055°
	do.	40	40° 59.98'	73° 31.03'	+0 18	+0 06	+0 56	-0 22	0.2	0.2	--	--	0.7	247°	--	--	0.8	071°
1277	The Cows, 2 miles SE of	14d	40° 59.31'	73° 29.75'	+0 39	+0 11	+0 42	+0 17	0.2	0.2	--	--	0.6	243°	--	--	0.6	072°
	do.	47d	40° 59.31'	73° 29.75'	+0 03	-0 03	+0 37	+0 14	0.2	0.1	--	--	0.7	253°	--	--	0.5	080°
	do.	86d	40° 59.31'	73° 29.75'	-0 25	-0 24	+0 13	+0 00	0.2	0.1	0.1	354°	0.7	263°	--	--	0.5	081°
1279	Stamford Harbor entrance	3d	41° 00.92'	73° 32.22'	-1 19	-1 31	-2 11	-0 46	0.2	0.1	--	--	0.5	015°	0.2	107°	0.4	175°
	do.	14d	41° 00.92'	73° 32.22'	-1 27	-1 26	-1 53	-0 49	0.2	0.1	--	--	0.5	023°	0.1	113°	0.4	174°
	Oyster Bay																	
1281	Rocky Point, 1 mile east of	15	40° 55.15'	73° 30.03'	+0 19	+0 15	+0 24	+0 30	0.2	0.1	--	--	0.6	117°	--	--	0.5	306°
1283	Harbor ent., south of Plum Point	7	40° 54'	73° 31'	-0 06	-0 01	+0 00	-0 11	0.2	0.2	--	--	0.7	244°	--	--	0.7	054°
1285	Harbor, west of Soper Point	7	40° 53'	73° 32'	+0 24	+0 20	-0 03	+0 11	0.2	0.1	--	--	0.6	333°	--	--	0.4	140°
1287	Cold Spring Harbor		40° 53'	73° 29'	Current weak and variable													
1289	Greenwich Point, 1.1 miles south of	15	40° 59.02'	73° 34.02'	+1 21	+0 58	+1 49	+1 01	0.2	0.2	--	--	0.7	258°	--	--	0.8	073°
	do.	55	40° 59.02'	73° 34.02'	+1 24	+0 51	+0 51	+1 03	0.2	0.1	--	--	0.6	265°	--	--	0.4	069°
1291	Greenwich Point, 2.5 miles south of	15	40° 57.60'	73° 33.68'	+0 47	+0 10	+0 57	+0 29	0.2	0.2	--	--	0.7	242°	--	--	0.7	052°
	do.	55	40° 57.60'	73° 33.68'	-1 07	-0 04	-0 27	-0 17	0.2	0.1	--	--	0.5	256°	--	--	0.4	079°
1293	Oak Neck Point, 0.6 mile north of	15	40° 55.50'	73° 34.02'	+2 51	+1 58	+2 25	+2 11	0.2	0.2	--	--	0.5	260°	--	--	0.6	072°
	do.	30	40° 55.50'	73° 34.02'	+0 54	+1 35	+1 41	+1 51	0.2	0.1	--	--	0.5	300°	--	--	0.5	090°
1295	Coscob Harbor, off Goose Island		41° 01'	73° 36'	+0 11	-0 15	+0 00	-0 55	0.2	0.1	--	--	0.5	013°	--	--	0.4	188°
1297	Captain Hbr. Ent., 0.6 mile southwest of	15	40° 59.65'	73° 35.67'	+1 32	+1 44	+1 49	+2 00	0.2	0.2	--	--	0.6	312°	--	--	0.7	118°
	do.	30	40° 59.65'	73° 35.67'	+1 22	+1 14	+0 58	+1 58	0.2	0.2	--	--	0.5	319°	--	--	0.7	142°
1299	Parsonage Point, 1.3 n.mi. ESE of	15d	40° 56.25'	73° 39.49'	+0 47	+0 24	+1 10	+1 00	0.2	0.1	--	--	0.5	230°	--	--	0.4	051°

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS										
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb				
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.			
LONG ISLAND SOUND Time meridian, 75°W			ft	North	West	h	m	h	m	h	m	h	m								
<b>on The Race, p.48</b>																					
1301	Peningo Neck, 0.6 mi. off Parsonage Pt . . . . .	15	40° 56.32'	73° 40.50'	+1 09	+0 23	+1 16	+0 27	0.2	0.2	--	--	0.7	226°	--	--	0.7	035°			
1303	Matinecock Point, 1.7 miles northwest of . . . . .	10d	40° 55.47'	73° 39.35'	+0 58	+0 19	+1 01	+0 49	0.2	0.1	0.1	147°	0.5	233°	--	--	0.5	055°			
	do. . . . .	30d	40° 55.47'	73° 39.35'	+0 18	-0 10	+0 43	+0 32	0.2	0.1	--	--	0.5	244°	0.1	163°	0.4	063°			
	do. . . . .	46d	40° 55.47'	73° 39.35'	-0 57	-0 29	-0 08	-0 17	0.1	0.1	0.1	351°	0.4	251°	0.1	166°	0.3	072°			
1305	Matinecock Point, 0.7 mile NNW of . . . . .	15	40° 54.80'	73° 38.40'	+1 14	+0 27	+1 34	+0 36	0.2	0.1	--	--	0.6	233°	--	--	0.6	046°			
	do. . . . .	40	40° 54.80'	73° 38.40'	+0 35	+0 07	+1 33	+0 20	0.2	0.1	--	--	0.7	262°	--	--	0.5	053°			
1307	Hempstead Harbor, 0.3 mile north of . . . . .	15	40° 51.72'	73° 40.47'	Current weak and variable																
1309	Hempstead Harbor, 0.5 mile east of . . . . .	15	40° 51.50'	73° 39.98'	--	+0 00	--	-0 31	0.1	--	--	--	0.3	157°	--	--	0.1	331°			
1311	Hempstead Harbor, off Glenwood Landing . . . . .	10	40° 49.68'	73° 39.00'	-0 38	-0 19	+0 03	-0 59	0.3	0.2	--	--	0.9	138°	--	--	0.7	320°			
1313	Old Town Wharf, 0.5 mile north of . . . . .	5	40° 48.78'	73° 39.08'	--	-0 27	--	--	0.1	--	--	--	0.4	196°	--	--	--	--			
1315	Delancey Point, 1 mile southeast of . . . . .	15	40° 55.00'	73° 42.73'	+0 45	+0 09	+1 14	-0 05	0.2	0.1	--	--	0.5	244°	--	--	0.4	059°			
	do. . . . .	33	40° 55.00'	73° 42.73'	--	+0 06	+1 09	-0 39	0.1	0.1	--	--	0.4	239°	--	--	0.3	069°			
1317	Mamaroneck Harbor . . . . .		40° 56'	73° 43'	Current weak and variable																
1319	Echo Bay entrance . . . . .		40° 54'	73° 46'	Current weak and variable																
<b>on Throgs Neck, p.52</b>																					
1321	Davids Island, channel 0.1 mile east of . . . . .		40° 53'	73° 46'	Current weak and variable																
1323	Huckleberry Island, 0.2 mile NW of . . . . .	15	40° 53.43'	73° 45.43'	-3 25	-4 16	-3 21	-3 40	0.1	0.2	--	--	0.2	069°	--	--	0.2	234°			
1325	Huckleberry Island, 0.6 mile SE of . . . . .	15	40° 52.80'	73° 44.75'	-2 35	-0 33	-1 53	-2 24	0.2	0.3	--	--	0.4	025°	--	--	0.3	226°			
1327	Execution Rocks . . . . .	11d	40° 52.39'	73° 44.00'	-2 30	-2 18	-2 14	-2 02	0.3	0.4	--	--	0.5	043°	--	--	0.4	232°			
	do. . . . .	50d	40° 52.39'	73° 44.00'	-2 40	-2 33	-2 45	-2 53	0.3	0.5	--	--	0.4	058°	--	--	0.5	232°			
	do. . . . .	96d	40° 52.39'	73° 44.00'	-2 36	-2 51	-3 10	-2 52	0.2	0.4	--	--	0.4	057°	--	--	0.4	219°			
1329	Manhasset Bay entrance . . . . .	15	40° 49.75'	73° 43.78'	+2 48	+2 18	+2 48	+3 04	0.2	0.3	--	--	0.4	115°	--	--	0.3	307°			
1331	Hart Island, 0.2 mile north of . . . . .	15	40° 51.82'	73° 46.26'	-2 33	-4 04	-3 56	-3 10	0.1	0.3	--	--	0.2	098°	--	--	0.3	264°			
																	0.1	283°			
																	0.1	283°			
1333	Hart Island, southeast of . . . . .	13d	40° 50.59'	73° 45.73'	-1 47	-0 10	-1 11	-0 42	0.5	0.5	0.1	122°	0.7	035°	0.2	125°	0.5	201°			
	do. . . . .	59d	40° 50.59'	73° 45.73'	-1 10	-0 46	-2 09	-1 10	0.3	0.6	--	--	0.5	030°	0.1	115°	0.6	194°			
	do. . . . .	98d	40° 50.59'	73° 45.73'	-1 12	-0 58	-1 58	-1 36	0.3	0.6	--	--	0.4	009°	--	--	0.6	189°			
1335	Hart Island, 0.3 n.mi. SSE of . . . . .	15d	40° 50.43'	73° 45.94'	-1 37	-1 28	-1 46	-1 10	0.3	0.5	0.1	114°	0.5	040°	0.2	119°	0.5	201°			
1337	Hart Island and City Island, between . . . . .	15	40° 51.37'	73° 46.73'	-1 58	-3 00	-1 58	-2 27	0.1	0.2	--	--	0.2	349°	--	--	0.2	143°			
1339	City Island Bridge . . . . .	10	40° 51.47'	73° 47.60'	-3 09	-5 01	-4 06	-4 13	0.1	0.4	--	--	0.2	352°	--	--	0.5	198°			
1341	Eastchester Bay, near Big Tom . . . . .	5	40° 50.20'	73° 47.72'	-3 15	-4 00	-3 46	-3 14	0.2	0.4	--	--	0.3	097°	--	--	0.4	294°			
1343	Hutchinson R., Pelham Highway Bridge . . . . .	5	40° 51.70'	73° 49.00'	+2 31	+2 28	+2 12	+2 13	0.5	0.4	--	--	0.8	305°	--	--	0.4	078°			
1345	City Island, 0.6 mile southeast of . . . . .	15	40° 49.72'	73° 46.47'	-1 27	-0 54	-2 38	-3 27	0.3	0.4	--	--	0.5	038°	--	--	0.4	251°			
1347	Elm Point, 0.2 mile west of . . . . .	15	40° 48.92'	73° 46.02'	-1 43	-3 25	-1 27	-0 13	0.2	0.6	--	--	0.2	026°	--	--	0.6	213°			
1349	Throgs Neck, 0.3 n.mi. NE of . . . . .	15d	40° 48.64'	73° 47.13'	-0 31	-0 40	-0 52	+0 08	0.6	0.6	0.1	312°	1.0	015°	0.1	286°	0.6	193°			
1351	Throgs Neck, 0.4 mile south of . . . . .	15	40° 47.90'	73° 47.45'	+0 26	+0 09	+0 41	+0 19	0.5	0.6	--	--	0.8	090°	--	--	0.6	278°			
1353	Throgs Neck, 0.2 mile S of (Willets Point) . . . . .	15	40° 48.12'	73° 47.48'	-0 10	-0 09	+0 21	+0 13	0.4	0.7	--	--	0.6	090°	--	--	0.8	289°			
1355	THROGS NECK BRIDGE . . . . .	14d	40° 48.06'	73° 47.53'	<b>Daily predictions</b>																
	do. . . . .	36d	40° 48.06'	73° 47.53'	-0 30	+0 02	-0 35	-0 05	0.8	0.8	0.1	182°	1.6	106°	--	--	1.0	262°			
	do. . . . .	59d	40° 48.06'	73° 47.53'	-0 41	-0 08	-0 53	+0 10	0.6	0.8	0.1	353°	1.3	105°	--	--	0.9	268°			
<b>on Hell Gate, p.56</b>																					
1357	Cryders Point, 0.4 mile NNW of . . . . .		40° 48.02'	73° 47.92'	-0 29	-0 43	-0 30	-1 00	0.4	0.2	--	--	1.3	110°	--	--	1.1	285°			
1359	Bronx-Whitestone Bridge, East of . . . . .	14	40° 48.1'	73° 49.6'	-0 34	-0 46	-0 10	-1 27	0.5	0.2	--	--	1.7	076°	--	--	1.0	247°			
1361	Clason Point, 0.3 n.mi. S of . . . . .	15d	40° 47.98'	73° 50.81'	-0 25	-1 06	-0 19	-0 33	0.4	0.4	--	--	1.5	083°	--	--	1.6	269°			
1363	College Point Reef, 0.25 n.mi. NW of . . . . .	15d	40° 48.06'	73° 51.28'	-0 27	-0 47	-0 32	-1 00	0.4	0.3	0.1	351°	1.5	074°	0.1	350°	1.4	261°			
1365	Flushing Creek entrance . . . . .		40° 45.9'	73° 50.7'	Current weak and variable																

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS									
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb			
											h	m	h	m	h	m	h	m	knots	Dir.
	EAST RIVER Time meridian, 75°W	ft	North	West																
					<b>on Hell Gate, p.56</b>															
1367	Rikers I. chan., off La Guardia Field		40° 47'	73° 53'	+0 04	-0 04	+0 04	-0 08	0.3	0.3	--	--	1.1	088°	--	--	1.3	261°		
1369	Bronx River (1 mile north of Hunts Pt.)		40° 48.9'	73° 52.5'	Current weak and variable															
1371	Hunts Point, southwest of		40° 48'	73° 53'	+0 01	-0 10	+0 01	-0 05	0.5	0.3	--	--	1.7	108°	--	--	1.3	280°		
1373	South Brother Island, NW of	15	40° 47.8'	73° 54.1'	-0 17	+0 04	-0 06	-0 12	0.4	0.3	--	--	1.5	054°	--	--	1.2	252°		
1375	Off Winthrop Ave., Astoria		40° 47.2'	73° 55.0'	+0 04	+0 02	-0 01	-0 11	1.0	0.5	--	--	3.4	040°	--	--	2.5	220°		
1377	Mill Rock, northeast of		40° 46.9'	73° 56.2'	-0 23	+0 05	-0 29	-0 32	0.7	0.1	--	--	2.3	103°	--	--	0.6	288°		
1379	Mill Rock, west of		40° 46.8'	73° 56.5'	-0 26	+0 08	-0 02	-0 17	0.4	0.2	--	--	1.2	000°	--	--	1.0	180°		
1381	HELL GATE (off Mill Rock)		40° 46.7'	73° 56.3'	<b>Daily predictions</b>															
	Roosevelt Island																			
1383	west of, off 75th Street		40° 46'	73° 57'	-0 02	-0 04	-0 08	+0 07	1.1	1.0	--	--	3.8	037°	--	--	4.7	215°		
1385	east of, off 36th Avenue		40° 46'	73° 57'	-0 08	-0 04	-0 08	-0 11	1.0	0.7	--	--	3.5	030°	--	--	3.4	210°		
1387	west of, off 67th Street		40° 45.74'	73° 57.24'	+0 13	-0 08	+0 06	+0 11	1.1	0.9	--	--	3.6	011°	--	--	4.0	230°		
1389	west of, off 63rd Street		40° 45.58'	73° 57.27'	-0 10	-0 08	+0 00	+0 03	0.8	0.6	--	--	2.8	036°	--	--	2.9	223°		
1391	east of		40° 45.49'	73° 57.08'	+0 00	-0 06	+0 02	+0 07	0.8	0.6	--	--	2.8	028°	--	--	2.6	200°		
1393	Manhattan, off 31st Street		40° 44.38'	73° 58.17'	+0 09	-0 11	-0 02	+0 36	0.4	0.5	--	--	1.5	000°	--	--	2.1	175°		
1395	Newtown Creek entrance		40° 44'	73° 57'	Current weak and variable															
1397	Pier 67, off 19th Street		40° 44'	73° 58'	-0 08	+0 08	-0 08	+0 07	0.5	0.4	--	--	1.8	355°	--	--	1.9	179°		
1399	Williamsburg Bridge, 0.3 mile north of		40° 43.08'	73° 58.24'	-0 05	+0 12	-0 01	+0 10	0.8	0.6	--	--	2.7	020°	--	--	2.9	220°		
1401	Manhattan Bridge, East of	15	40° 42.5'	73° 59.4'	-0 28	+0 19	-0 13	+0 03	0.7	0.5	0.1	161°	2.5	083°	--	--	2.2	259°		
1403	Brooklyn Bridge	15d	40° 42.36'	73° 59.85'	+0 29	+0 41	+0 33	+0 29	0.8	0.6	0.1	324°	2.7	063°	--	--	2.8	253°		
1405	Brooklyn Bridge, 0.1 mile southwest of		40° 42.2'	74° 00.0'	-0 18	+0 08	-0 04	-0 07	0.9	0.8	--	--	2.9	046°	--	--	3.5	222°		
	HARLEM RIVER																			
1407	East 107th Street	15	40° 47.4'	73° 56.1'	-0 08	-0 03	-1 09	-1 39	0.2	0.2	--	--	0.8	206°	--	--	0.8	030°		
1409	Willis Ave. Bridge, 0.1 mile NW of		40° 48.3'	73° 55.8'	-0 30	+0 00	-0 12	-0 13	0.4	0.3	--	--	1.2	140°	--	--	1.3	330°		
1411	Madison Ave. Bridge		40° 48.8'	73° 56.1'	-0 20	+0 18	-0 21	-0 14	0.5	0.4	--	--	1.8	180°	--	--	1.7	000°		
1413	Macombs Dam Bridge		40° 49.7'	73° 56.1'	-0 20	+0 14	-0 22	-0 11	0.5	0.3	--	--	1.7	180°	--	--	1.4	000°		
1415	High Bridge		40° 50.5'	73° 55.9'	-0 20	+0 08	-0 23	-0 08	0.6	0.4	--	--	2.0	189°	--	--	2.0	015°		
1417	West 207th Street Bridge		40° 51.8'	73° 54.9'	-0 22	+0 05	-0 22	-0 02	0.6	0.4	--	--	2.0	215°	--	--	2.0	035°		
1419	Broadway Bridge		40° 52.4'	73° 54.7'	-0 23	+0 08	-0 20	+0 04	0.6	0.5	--	--	2.1	116°	--	--	2.3	299°		
1421	Henry Hudson Bridge, 0.7 nmi. SE of	16	40° 52.6'	73° 55.3'	+0 12	+0 31	-0 31	+0 41	0.2	0.3	--	--	1.8	137°	--	--	1.3	326°		
	LONG ISLAND, South Coast																			
					<b>on The Narrows, p.60</b>															
1423	Fire Island Lighted Whistle Bouy 2FI		40° 29'	73° 11'	Current weak and variable															
1425	Fire Island Inlet, 22 miles S of		40° 16'	73° 16'	Current weak and variable															
1427	Shinnecock Canal, railroad bridge <16>		40° 53.2'	72° 30.1'				-0 42	--	0.8	--	--	--	--	--	--	1.5	180°		
1429	Ponquogue bridge, Shinnecock Bay		40° 50.7'	72° 30.1'	+1 04	+0 34	+0 19	+0 30	0.5	0.3	--	--	0.8	250°	--	--	0.6	090°		
1431	Shinnecock Inlet		40° 50.6'	72° 28.7'	+0 04	-0 22	-0 38	-0 50	1.6	1.2	--	--	2.5	350°	--	--	2.3	170°		
1433	Fire I. Inlet, 0.5 mi. S of Oak Beach		40° 37.78'	73° 18.40'	+0 07	-0 02	+0 21	-0 08	1.5	1.3	--	--	2.4	082°	--	--	2.4	244°		
1435	Jones Inlet		40° 35.5'	73° 34.0'	-1 15	-0 49	-0 48	-1 05	1.8	1.3	--	--	3.1	035°	--	--	2.6	217°		
1437	Long Beach, inside, between bridges		40° 35.7'	73° 39.6'	-0 44	+0 22	+0 24	-0 07	0.3	0.3	--	--	0.5	076°	--	--	0.6	277°		
1439	East Rockaway Inlet		40° 35.4'	73° 45.3'	-1 36	-1 36	-1 11	-1 45	1.4	1.2	--	--	2.2	042°	--	--	2.3	227°		
1441	Ambrose Light		40° 27'	73° 49'	Current weak and variable															
1443	Sandy Hook App. Lighted Horn Bouy 2A		40° 27'	73° 55'	See table 5.															
	JAMAICA BAY																			
1445	Rockaway Point	15	40° 32.18'	73° 56.48'	-2 26	-2 35	-1 46	-3 09	1.2	0.6	0.2	228°	1.9	301°	0.2	217°	1.1	140°		
1447	Rockaway Inlet entrance		40° 33.7'	73° 56.1'	-1 45	-2 21	-1 41	-2 18	1.1	1.4	--	--	1.8	085°	--	--	2.7	244°		
1449	Rockaway Inlet	14	40° 34.12'	73° 53.48'	-1 43	-2 01	-1 23	-2 36	1.0	0.8	--	--	1.6	066°	0.1	344°	1.5	261°		
1451	Barren Island, east of		40° 35.0'	73° 53.0'	-1 49	-2 29	-2 11	-2 26	0.8	0.9	--	--	1.2	004°	--	--	1.7	192°		
1453	Canarsie (midchannel, off pier)		40° 37.6'	73° 53.0'	-1 44	-1 39	-1 26	-2 13	0.3	0.4	--	--	0.5	045°	--	--	0.7	222°		
1455	Beach Channel (bridge)		40° 35.0'	73° 49.0'	-1 38	-1 14	-1 05	-1 32	1.2	1.1	--	--	1.9	062°	--	--	2.0	225°		
1457	Grass Hassock Channel		40° 36.6'	73° 47.1'	-1 11	-1 03	-1 05	-1 01	0.6	0.5	--	--	1.0	052°	--	--	1.0	228°		

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS										
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb				
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.			
	NEW YORK HARBOR ENTRANCE Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m									
			<b>on The Narrows, p.60</b>																		
1459	Ambrose Channel	15	40° 31.00'	73° 58.48'	-0 47	-1 11	-0 33	-0 14	1.0	0.9	0.1	025°	1.6	303°	--	--	1.7	123°			
1461	Norton Point, WSW of	16	40° 33.30'	74° 01.30'	-0 03	-1 02	+0 18	+0 20	0.6	0.7	0.3	263°	1.0	341°	0.1	071°	1.2	166°			
1463	THE NARROWS, midchannel	17	40° 36.56'	74° 02.77'	<b>Daily predictions</b>																
	do.	30	40° 36.56'	74° 02.77'	-0 23	-0 07	+0 13	+0 14	1.1	0.9	--	--	1.7	332°	0.1	246°	1.7	160°			
	do.	43	40° 36.56'	74° 02.77'	-0 44	-0 11	+0 17	+0 00	1.2	0.9	0.1	244°	1.8	332°	0.1	244°	1.6	156°			
	do.	63	40° 36.56'	74° 02.77'	-1 10	-0 31	+0 10	-0 13	1.1	0.7	0.1	240°	1.7	331°	--	--	1.3	147°			
	NEW YORK HARBOR, Upper Bay																				
1465	Bay Ridge, west of	22	40° 37.54'	74° 03.24'	-0 01	+0 19	+0 34	+0 52	0.9	0.8	0.1	104°	1.4	354°	--	--	1.5	185°			
1467	Bay Ridge Channel	15	40° 39.18'	74° 01.54'	-0 48	-1 27	-0 04	-1 24	0.7	0.4	--	--	1.0	032°	0.1	125°	0.7	212°			
	do.	36	40° 39.18'	74° 01.54'	-1 25	-2 37	-0 58	-0 16	0.4	0.2	--	--	0.6	037°	--	--	0.4	225°			
1469	Red Hook Channel	40° 40.0'	74° 01.2'	-0 53	-0 45	-0 16	-0 37	0.6	0.4	--	--	1.0	353°	--	--	0.7	170°				
1471	Robbins Reef Light, east of	40° 39.45'	74° 03.50'	+0 26	+0 15	-0 06	+0 17	0.8	0.9	--	--	1.3	016°	--	--	1.6	204°				
1473	Red Hook, 1 mile west of	40° 40.5'	74° 02.5'	+0 51	+1 05	+0 39	+0 45	0.8	1.2	--	--	1.3	024°	--	--	2.3	206°				
1475	Statue of Liberty, east of	40° 41.4'	74° 01.8'	+1 07	+0 57	+0 48	+0 52	0.9	1.0	--	--	1.4	031°	--	--	1.9	205°				
	HUDSON RIVER, Midchannel <17>				<b>on George Washington Bridge, p.64</b>																
1477	Hudson River entrance	14	40° 42.30'	74° 01.12'	-0 28	-0 28	-0 25	+0 18	0.8	0.5	0.1	292°	1.4	009°	--	--	1.4	199°			
1479	Grants Tomb	18	40° 48.48'	73° 58.06'	-0 13	-0 22	+0 11	-0 33	1.0	0.7	--	--	1.8	025°	--	--	1.8	208°			
1481	GEORGE WASHINGTON BRIDGE	14d	40° 50.97'	73° 56.99'	<b>Daily predictions</b>																
	do.	40d	40° 50.97'	73° 56.99'	-0 35	-0 38	-0 04	-0 19	1.0	0.8	0.3	288°	1.8	010°	0.1	289°	2.5	203°			
	do.	63d	40° 50.97'	73° 56.99'	-0 56	-0 40	+0 04	-0 36	0.7	0.4	0.1	266°	1.3	355°	--	--	1.1	177°			
1483	Spuyten Duyvil	40° 53'	73° 56'	-0 06	+0 28	+0 10	+0 24	0.9	0.8	--	--	1.6	020°	--	--	2.1	200°				
1485	Riverdale	40° 54'	73° 55'	+0 54	+0 27	+0 15	+0 32	0.8	0.8	--	--	1.4	015°	--	--	2.0	200°				
1487	Mount St. Vincent College, SW of	15	40° 54.42'	73° 54.48'	+0 09	+0 20	+0 27	+0 29	0.8	0.5	--	--	1.5	007°	--	--	1.4	190°			
1489	Dobbs Ferry	41° 01'	73° 53'	+1 13	+0 53	+0 37	+0 49	0.7	0.7	--	--	1.3	010°	--	--	1.7	190°				
1491	Tappan Zee Bridge	5d	41° 04.00'	73° 52.90'	+1 12	+0 55	+0 52	+1 06	0.6	0.8	--	--	1.1	356°	--	--	1.9	175°			
	do.	16d	41° 04.00'	73° 52.90'	+0 50	+0 29	+1 04	+1 05	0.7	0.7	--	--	1.2	354°	0.1	265°	1.6	174°			
	do.	35d	41° 04.00'	73° 52.90'	+0 14	+0 05	+0 51	+0 54	0.5	0.4	0.1	265°	0.8	349°	--	--	0.9	178°			
1493	Tarrytown	41° 05'	73° 53'	+1 20	+1 06	+0 53	+1 02	0.6	0.6	--	--	1.1	000°	--	--	1.5	180°				
1495	Ossining	41° 10'	73° 54'	+1 33	+1 22	+1 16	+1 19	0.5	0.5	--	--	0.9	320°	--	--	1.3	140°				
1497	Haverstraw	4d	41° 12.55'	73° 57.07'	+2 29	+2 11	+1 58	+2 01	0.4	0.6	--	--	0.8	348°	--	--	1.5	165°			
	do.	12d	41° 12.55'	73° 57.07'	+2 04	+2 10	+2 14	+1 45	0.5	0.4	--	--	1.0	345°	--	--	1.1	166°			
	do.	20d	41° 12.55'	73° 57.07'	+1 26	+1 46	+2 14	+1 31	0.5	0.3	0.1	076°	0.8	344°	0.1	073°	0.7	162°			
1499	Stony Point	14d	41° 14.49'	73° 58.00'	+2 09	+1 55	+1 46	+2 00	0.6	0.6	0.1	069°	1.0	348°	--	--	1.5	154°			
	do.	50d	41° 14.49'	73° 58.00'	+1 26	+1 50	+2 21	+1 40	0.7	0.5	--	--	1.3	334°	0.1	250°	1.1	165°			
	do.	83d	41° 14.49'	73° 58.00'	+1 34	+1 57	+2 22	+1 36	0.7	0.2	--	--	1.3	338°	--	--	0.6	170°			
1501	Peekskill	41° 17'	73° 57'	+1 53	+1 44	+1 46	+1 42	0.5	0.5	--	--	0.8	000°	--	--	1.2	180°				
1503	Bear Mountain Bridge	13d	41° 18.95'	73° 59.03'	+2 18	+1 32	+1 40	+2 02	0.4	0.6	--	--	0.6	000°	--	--	1.4	180°			
	do.	52d	41° 18.95'	73° 59.03'	+1 58	+1 46	+2 02	+2 05	0.6	0.5	--	--	1.0	343°	--	--	1.2	167°			
	do.	88d	41° 18.95'	73° 59.03'	+1 34	+1 38	+2 07	+2 07	0.6	0.4	--	--	1.0	339°	--	--	0.9	161°			
1505	Highland Falls	41° 22'	73° 58'	+2 07	+1 57	+1 57	+2 02	0.6	0.5	--	--	1.0	005°	--	--	1.2	185°				
1507	West Point, off Duck Island	41° 24'	73° 57'	+2 15	+2 07	+2 04	+2 04	0.6	0.4	--	--	1.0	010°	--	--	1.1	190°				
1509	Newburgh Beacon Bridge	4d	41° 31.00'	73° 59.50'	+2 19	+2 19	+2 25	+2 19	0.6	0.5	--	--	1.2	350°	--	--	1.2	171°			
	do.	17d	41° 31.00'	73° 59.50'	+2 15	+2 08	+2 25	+2 18	0.6	0.4	--	--	1.0	346°	--	--	1.0	169°			
	do.	24d	41° 31.00'	73° 59.50'	+2 13	+2 07	+2 23	+2 18	0.5	0.3	--	--	0.9	345°	--	--	0.9	168°			
1511	Roseton	5d	41° 33.75'	73° 58.23'	+2 57	+2 36	+2 41	+2 51	0.6	0.6	0.1	123°	1.1	039°	0.1	128°	1.4	213°			
	do.	15d	41° 33.75'	73° 58.23'	+2 56	+2 37	+2 43	+2 50	0.6	0.5	--	--	1.1	038°	0.1	128°	1.3	214°			
	do.	41d	41° 33.75'	73° 58.23'	+2 53	+2 32	+2 44	+3 01	0.5	0.4	--	--	0.9	031°	--	--	0.9	215°			
1513	New Hamburg	41° 35'	73° 57'	+2 48	+2 40	+2 24	+2 33	0.6	0.4	--	--	1.0	005°	--	--	1.1	195°				
1515	Mid-Hudson Suspension Bridge	16d	41° 42.10'	73° 56.76'	+3 15	+2 49	+2 54	+3 09	0.7	0.6	--	--	1.2	005°	--	--	1.5	188°			
	do.	32d	41° 42.10'	73° 56.76'	+3 14	+2 47	+2 50	+3 08	0.6	0.5	--	--	1.1	005°	--	--	1.4	186°			
	do.	48d	41° 42.10'	73° 56.76'	+3 12	+2 45	+2 46	+3 09	0.5	0.5	--	--	0.9	005°	--	--	1.2	185°			
1517	Hyde Park	41° 47'	73° 57'	+3 25	+3 08	+2 43	+3 00	0.7	0.5	--	--	1.2	005°	--	--	1.3	185°				

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	HUDSON RIVER, Midchannel <17> Time meridian, 75°W	ft	North	West	h	m	h	m	h	m								
<b>on Kingston-Rhinecliff Bridge, p.68</b>																		
1519	Kingston Point, south of	4d	41° 55.10'	73° 57.57'	-0 31	-0 09	-0 07	-0 24	1.2	1.1	0.1	090°	1.3	009°	0.1	095°	1.5	177°
	do.	17d	41° 55.10'	73° 57.57'	-0 30	-0 10	-0 10	-0 22	1.2	1.1	0.1	090°	1.2	010°	0.1	095°	1.4	177°
	do.	30d	41° 55.10'	73° 57.57'	-0 30	-0 07	-0 07	-0 25	1.0	0.9	0.1	090°	1.0	011°	0.1	095°	1.1	178°
1521	KINGSTON-RHINECLIFF BRIDGE	14d	41° 58.63'	73° 57.13'	<b>Daily predictions</b>						--	--	1.1	011°	--	--	1.3	191°
	do.	4d	41° 58.63'	73° 57.13'	+0 00	-0 01	+0 01	-0 01	1.1	1.1	--	--	1.1	011°	--	--	1.4	192°
	do.	27d	51° 58.63'	73° 57.13'	-0 02	-0 01	-0 02	+0 01	0.8	0.9	--	--	0.9	010°	--	--	1.1	190°
1523	Barrytown	4d	42° 00'	73° 56'	+0 21	+0 24	-0 05	-0 04	1.3	1.3	--	--	1.4	010°	--	--	1.7	190°
1525	Saugerties	4d	42° 04'	73° 56'	+0 38	+0 45	+0 14	+0 06	1.4	1.5	--	--	1.5	000°	--	--	1.9	180°
1527	Silver Point, south of	4d	42° 08.29'	73° 54.51'	+0 38	+0 54	+0 41	+0 28	1.3	1.2	--	--	1.4	025°	--	--	1.5	205°
	do.	14d	42° 08.29'	73° 54.51'	+0 38	+0 54	+0 40	+0 29	1.2	1.1	--	--	1.3	025°	--	--	1.5	205°
	do.	31d	42° 08.29'	73° 54.51'	+0 28	+0 54	+0 37	+0 27	1.0	0.8	--	--	1.0	024°	--	--	1.1	205°
1529	Catskill	4d	42° 13'	73° 51'	+1 11	+1 30	+0 54	+0 36	1.5	1.5	--	--	1.6	355°	--	--	2.0	175°
1531	Hudson	14d	42° 14.88'	73° 49.10'	+1 22	+1 17	+0 46	+0 48	1.4	1.5	--	--	1.5	061°	--	--	1.9	242°
	do.	24d	42° 14.88'	73° 49.10'	+1 22	+1 17	+0 44	+0 47	1.3	1.4	--	--	1.4	061°	--	--	1.8	242°
	do.	40d	42° 14.88'	73° 49.10'	+1 21	+1 14	+0 40	+0 52	1.0	1.1	--	--	1.1	060°	--	--	1.4	238°
1533	Coxsackie	4d	42° 21.08'	73° 47.40'	+1 31	+1 17	+1 01	+1 04	1.4	1.1	--	--	1.5	007°	--	--	1.5	190°
	do.	14d	42° 21.08'	73° 47.40'	+1 30	+1 16	+1 00	+1 04	1.3	1.1	--	--	1.4	007°	--	--	1.4	189°
	do.	31d	42° 21.08'	73° 47.40'	+1 28	+1 16	+0 58	+1 04	1.1	0.8	--	--	1.1	007°	--	--	1.1	184°
1535	Houghtaling Island, south of	4d	42° 25.36'	73° 46.80'	+1 41	+1 12	+1 10	+1 12	1.2	0.9	--	--	1.2	000°	--	--	1.2	180°
	do.	14d	42° 25.36'	73° 46.80'	+1 41	+1 12	+1 09	+1 15	1.1	0.8	--	--	1.2	359°	--	--	1.1	180°
	do.	27d	42° 25.36'	73° 46.80'	+1 40	+1 09	+1 07	+1 14	0.9	0.7	--	--	1.0	357°	--	--	0.9	181°
1537	New Baltimore	4d	42° 27'	73° 47'	+2 07	+2 07	+1 58	+1 58	1.2	1.1	--	--	1.3	355°	--	--	1.5	175°
1539	Castleton-on-Hudson Bridge	6d	42° 30.26'	73° 46.64'	+1 50	+1 09	+1 06	+1 23	1.0	0.7	--	--	1.0	051°	--	--	0.9	233°
	do.	16d	42° 30.26'	73° 46.64'	+1 50	+1 10	+1 04	+1 20	0.9	0.7	--	--	1.0	050°	--	--	0.9	232°
	do.	32d	42° 30.26'	73° 46.64'	+1 48	+1 09	+1 00	+1 16	0.8	0.6	--	--	0.8	049°	--	--	0.8	229°
1541	Port of Albany	7d	42° 37.39'	73° 45.34'	+2 08	+1 09	+1 27	+0 48	0.4	0.4	--	--	0.5	021°	--	--	0.5	198°
	do.	16d	42° 37.39'	73° 45.34'	+2 17	+1 10	+1 26	+2 14	0.4	0.4	--	--	0.4	020°	--	--	0.5	198°
	do.	30d	42° 37.39'	73° 45.34'	+2 18	+1 11	+1 27	+2 06	0.4	0.4	--	--	0.4	018°	--	--	0.5	200°
1543	Troy (below the locks) <19>		42° 44'	73° 42'	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>NEW YORK HARBOR, Lower Bay</b>																		
<b>on The Narrows, p.60</b>																		
1545	Sandy Hook Channel	15	40° 29.06'	74° 00.06'	-1 23	-2 04	-1 14	-1 30	1.0	0.5	--	--	1.6	286°	--	--	1.9	094°
1547	Sandy Hook Chan., 0.4 mi. W of N. Tip		40° 28.79'	74° 01.30'	-1 41	-1 56	-1 38	-1 57	1.3	0.9	--	--	2.0	235°	--	--	1.6	050°
1549	Sandy Hook Pt., 2 mi. W of (channel)		40° 28.8'	74° 03.6'	-1 35	-2 01	-1 58	-1 49	0.4	0.3	--	--	0.6	263°	--	--	0.6	086°
1551	Chapel Hill South Channel		40° 29.90'	74° 03.8'	-2 02	-2 31	-1 48	-2 15	0.4	0.3	--	--	0.7	255°	--	--	0.6	075°
1553	New Dorp Beach, 1.2 miles south of		40° 32.4'	74° 05.8'	-4 09	-3 37	-4 43	-4 23	0.3	0.3	--	--	0.4	225°	--	--	0.5	030°
1555	Old Orchard Shoal Lt., 1.2 mi. ENE of		40° 31.1'	74° 04.4'	-2 09	-2 08	-1 31	-2 09	0.4	0.2	--	--	0.7	270°	--	--	0.4	085°
1557	New Dorp Beach, 1.8 miles SE of <20>		40° 32.9'	74° 03.7'	--	--	--	--	--	--	--	--	0.5	045°	--	--	0.5	225°
1559	Midland Beach, 2.6 miles SE of <21>		40° 32.8'	74° 02.35'	--	+0 06	--	-0 06	0.5	0.7	0.2	270°	0.8	335°	0.2	068°	1.3	160°
1561	Coney Island Lt., 1.5 miles SSE of		40° 33.1'	74° 00.3'	-1 17	-1 57	-1 06	-1 00	0.7	0.7	--	--	1.1	310°	--	--	1.3	125°
1563	Hoffman Island, 0.2 mile west of		40° 35'	74° 04'	-1 33	-1 49	-0 25	-0 57	0.6	0.4	--	--	0.9	020°	--	--	0.8	210°
1565	Rockaway Inlet Jetty, 1 mile SW of		40° 31.8'	73° 57.2'	-2 06	-2 13	-1 36	-1 50	0.8	0.8	--	--	1.2	287°	--	--	1.4	142°
1567	Coney Island Channel, west end		40° 34.2'	74° 00.5'	-1 14	-0 45	-0 32	-0 55	0.7	0.6	--	--	1.1	293°	--	--	1.2	102°
<b>SANDY HOOK BAY &lt;22&gt;</b>																		
1569	Highlands Bridge, Shrewsbury River		40° 23.8'	73° 58.8'	+0 31	+0 35	+0 25	+0 12	1.7	1.3	--	--	2.6	170°	--	--	2.5	--
1571	Seabright Bridge, Shrewsbury River		40° 21.9'	73° 58.5'	+1 05	+1 05	+0 44	+0 44	0.9	0.9	--	--	1.4	185°	--	--	1.7	--

Endnotes can be found at the end of table 2.



**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	<b>RARITAN BAY</b> Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m						
					<b>on The Narrows, p.60</b>													
1573	Raritan Bay Reach Channel	15	40° 29.36'	74° 07.06'	-1 55	-2 41	-0 46	-0 58	0.4	0.2	--	--	0.6	285°	--	--	0.4	094°
1575	Keyport Channel entrance		40° 26.9'	74° 11.9'	Current weak and variable													
1577	Red Bank, 1.4 miles south of		40° 28.9'	74° 12.6'	-1 35	-2 13	-1 30	-1 51	0.4	0.3	--	--	0.6	278°	--	--	0.5	079°
1579	Seguine Point	14	40° 30.24'	74° 11.12'	-1 52	-2 51	-0 56	-2 15	0.4	0.2	--	--	0.7	281°	0.1	008°	0.3	079°
	do.	34	40° 30.24'	74° 11.12'	-3 28	-2 52	-0 21	-2 31	0.3	0.1	--	--	0.5	285°	--	--	0.2	105°
1581	Ward Point, ESE	14	40° 29.30'	74° 13.48'	-1 45	-1 59	-0 19	-1 01	0.5	0.3	0.1	328°	0.7	244°	0.1	133°	0.5	048°
	<b>RARITAN RIVER</b>																	
1583	Railroad Bridge, Raritan River	15	40° 29.54'	74° 17.00'	-2 02	-2 26	-1 23	-2 08	0.6	0.4	--	--	0.9	326°	--	--	0.7	147°
1585	Washington Canal, north entrance		40° 28.3'	74° 22.1'	-1 02	-1 26	-1 38	-2 58	1.0	0.8	--	--	1.5	240°	--	--	1.5	060°
1587	South River entrance		40° 28.7'	74° 22.7'	-1 45	-2 15	-0 35	-1 51	0.7	0.5	--	--	1.1	180°	--	--	1.0	000°
	<b>ARTHUR KILL</b>																	
1589	Tottenville, Arthur Kill River	15	40° 30.8'	74° 15.3'	-1 04	-1 26	-0 41	-1 30	0.7	0.6	--	--	1.0	023°	--	--	1.1	211°
	do.	32	40° 30.8'	74° 15.3'	-1 23	-1 06	-0 56	-1 10	0.4	0.3	--	--	0.6	026°	--	--	0.5	207°
1591	Tufts Point–Smoking Point		40° 33.4'	74° 13.4'	-0 38	-0 45	-0 32	-1 07	0.8	0.6	--	--	1.2	109°	--	--	1.2	267°
1593	Tremley Point Reach	21	40° 35.18'	74° 12.30'	-0 08	-0 55	+0 23	+0 22	0.6	0.4	--	--	0.9	015°	--	--	0.8	198°
1595	Elizabethport		40° 38.8'	74° 10.9'	+0 15	-0 10	+0 24	-0 03	0.9	0.6	--	--	1.4	090°	--	--	1.1	262°
	<b>KILL VAN KULL</b>																	
					<b>on Bergen Point Reach, p.72</b>													
1597	BERGEN POINT REACH (BAYONNE BRIDGE)	16	40° 38.5'	74° 08.6'	<b>Daily predictions</b>						0.1	346°	1.9	260°	--	--	1.4	078°
	do.	29	40° 38.5'	74° 08.6'	-0 15	+0 02	+0 14	-0 04	0.8	0.9	--	--	1.6	263°	--	--	1.3	079°
					<b>on The Narrows, p.60</b>													
1599	Bergen Point, East Reach	15	40° 38.42'	74° 07.48'	-1 24	-2 14	-1 43	-1 51	0.7	0.6	--	--	1.1	274°	--	--	1.2	094°
1601	New Brighton	15	40° 39.00'	74° 05.06'	-1 34	-2 09	-1 32	-1 50	0.8	1.0	--	--	1.3	262°	--	--	1.9	072°
	<b>NEWARK BAY</b>																	
1603	South Reach, Newark Bay	15	40° 39.36'	74° 08.24'	-0 46	-1 46	-0 59	-1 13	0.4	0.4	--	--	0.7	031°	0.0	296°	0.7	218°
	<b>HACKENSACK RIVER</b>																	
1605	Lincoln Highway Bridge, north of		40° 44'	74° 06'	+0 04	+0 11	+0 39	-0 21	0.6	0.4	--	--	0.9	017°	--	--	0.8	181°
	<b>PASSAIC RIVER</b>																	
1607	Lincoln Highway Bridge		40° 44'	74° 07'	-0 21	-0 20	-0 20	-0 27	0.4	0.3	--	--	0.6	009°	--	--	0.5	180°
	<b>NEW JERSEY COAST</b>																	
					<b>on Delaware Bay Entrance, p.76</b>													
1609	Shark River Entrance	5d	40° 11.24'	74° 00.76'	-2 26	-2 31	-2 33	-2 08	1.1	0.9	--	--	1.9	273°	--	--	1.5	098°
	do.	15d	40° 11.24'	74° 00.76'	-2 27	-2 30	-2 33	-2 10	0.9	0.7	--	--	1.5	275°	--	--	1.2	097°
1611	Manasquan Inlet		40° 06'	74° 02'	-1 03	-1 09	-1 39	-1 53	1.0	1.1	--	--	1.7	300°	--	--	1.8	120°
1613	Manasquan R., hwy. bridge, main chan		40° 06'	74° 03'	-1 01	-1 29	-1 42	-0 46	1.3	1.2	--	--	2.2	230°	--	--	2.1	050°
1615	Point Pleasant Canal, north bridge <54>		40° 05'	74° 04'	+1 26	+0 49	+0 21	+1 14	1.0	1.2	--	--	1.8	170°	--	--	2.0	350°
1617	Barnegat Inlet		39° 46'	74° 07'	+0 41	-0 27	-0 12	-0 08	1.3	1.5	--	--	2.2	270°	--	--	2.5	090°
1619	Manahawkin Drawbridge		39° 39'	74° 11'	+2 13	+2 04	+1 58	+3 25	0.6	0.5	--	--	1.1	030°	--	--	0.9	210°
1621	Absecon Inlet	9d	39° 22.59'	74° 24.87'	-1 30	-1 30	-1 21	-2 14	1.3	1.2	0.1	055°	2.2	328°	--	--	2.0	147°
	do.	42d	39° 22.59'	74° 24.87'	-1 22	-1 45	-1 23	-2 04	1.1	1.1	0.1	239°	1.9	327°	--	--	1.8	144°
1623	Corson's Inlet Entrance	15d	39° 12.50'	74° 39.11'	-1 53	-1 57	-2 04	-2 59	0.9	1.1	--	--	1.6	308°	--	--	1.8	129°
1625	Cape May, 72 miles east of		39° 04'	73° 25'	Current weak and variable													
1627	Five-Fathom Bank NE. Buoy 2 FB		38° 58'	74° 32'	Current weak and variable													

Endnotes can be found at the end of table 2.

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS											
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb					
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.				
	NEW JERSEY COAST Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m										
<b>on Delaware Bay Entrance, p.76</b>																						
1629	Five Fathom Bank Traffic Lane	35d	38° 47.30'	74° 42.68'	-2 10		-2 21		-1 27		-1 36		0.3	0.2	--	--	0.6	304°	--	--	0.4	121°
	do.	50d	38° 47.30'	74° 42.68'	-2 45		-1 57		-1 48		-2 16		0.2	0.2	--	--	0.4	302°	--	--	0.3	128°
1631	McCrie Shoal		38° 51'	74° 51'	-0 54		-1 05		-1 10		-1 00		0.7	0.8	--	--	1.3	280°	--	--	1.4	100°
1633	Cape May Harbor entrance	5d	38° 58.85'	74° 52.36'	-2 02		-1 59		-2 01		-2 06		0.9	1.0	--	--	1.6	324°	--	--	1.7	142°
	do.	15d	38° 58.85'	74° 52.36'	-1 42		-1 23		-1 34		-1 07		1.1	1.3	--	--	1.5	323°	--	--	1.7	142°
	do.	28d	38° 58.85'	74° 52.36'	-2 07		-2 01		-2 01		-2 01		0.7	0.8	--	--	1.2	322°	--	--	1.4	143°
1635	Cape May Canal, east end		38° 57'	74° 54'	-2 07		-2 27		-2 20		-2 01		1.1	1.1	--	--	1.9	310°	--	--	1.9	130°
1637	Cape May Canal, west end		38° 58'	74° 58'	-2 08		-2 27		-2 15		-2 12		0.5	0.5	--	--	0.9	264°	--	--	0.9	089°
<b>DELAWARE BAY and RIVER</b>																						
1639	Cape May Channel		38° 54'	74° 58'	-1 34		-2 09		-1 38		-1 41		0.9	1.4	--	--	1.5	306°	--	--	2.3	150°
1641	Cape May Point, 1.4 n.mi. SSW of	15d	38° 54.37'	74° 58.68'	-1 24		-1 57		-1 29		-1 43		0.8	1.1	0.1	030°	1.5	309°	0.1	214°	1.8	130°
	do.	25d	38° 54.37'	74° 58.68'	-1 17		-1 44		-1 27		-1 27		0.6	0.7	0.1	038°	1.1	306°	0.1	223°	1.2	139°
1643	Cape May Point, 2.7 n.mi. SSW of	15d	38° 53.40'	74° 59.13'	-1 50		-1 47		-1 14		-1 32		0.7	0.5	0.1	228°	1.2	299°	0.2	208°	0.9	146°
1645	DELAWARE BAY ENTRANCE	22	38° 51.22'	75° 04.62'									0.2	253°	0.2	253°	1.8	342°	0.2	061°	1.7	152°
1647	Cape Henlopen, 0.7 n.mi. ESE of	12d	38° 47.97'	75° 04.90'	-0 25		-0 32		-1 07		-0 59		1.0	1.4	--	--	1.8	331°	--	--	2.4	139°
	do.	70d	38° 47.97'	75° 04.90'	-1 46		-0 35		-0 51		-0 40		0.7	0.4	0.1	042°	1.2	317°	0.1	232°	0.7	150°
1649	Cape Henlopen, 2 miles northeast of		38° 49.2'	75° 03.4'	+0 01		-0 18		-0 30		+0 03		1.1	1.4	--	--	2.0	315°	--	--	2.3	145°
1651	Cape Henlopen, 3.0 n.mi. NNE of	17d	38° 51.22'	75° 04.62'	-0 02		-0 01		-0 01		+0 04		1.0	1.0	0.2	252°	1.7	342°	0.2	062°	1.7	152°
	do.	31d	38° 51.22'	75° 04.62'	-0 09		-0 12		+0 04		+0 02		1.1	0.9	0.1	250°	1.9	338°	0.1	065°	1.5	152°
	do.	57d	38° 51.22'	75° 04.62'	-0 18		-0 27		+0 17		+0 08		1.1	0.8	--	--	1.9	334°	0.0	245°	1.3	154°
	do.	96d	38° 51.22'	75° 04.62'	-0 30		-0 28		+0 11		+0 01		1.0	0.7	0.1	053°	1.8	333°	--	--	1.2	149°
1653	Cape Henlopen, 4.8 n.mi. northeast of	18d	38° 51.55'	75° 01.47'	-0 43		-1 50		-1 09		-0 59		0.9	1.1	0.2	241°	1.5	322°	0.2	229°	1.8	150°
	do.	28d	38° 51.55'	75° 01.47'	-1 04		-1 39		-1 11		-0 51		0.6	0.7	0.1	228°	1.0	301°	0.2	220°	1.2	154°
1655	Cape Henlopen, 5 miles north of		38° 53.0'	75° 05.3'	+0 02		+0 00		+0 14		+0 12		1.1	1.1	--	--	2.0	344°	--	--	1.9	173°
1657	Breakwater Harbor		38° 47.6'	75° 06.5'	-1 15		-1 29		-1 41		-1 10		0.5	0.5	--	--	0.8	266°	--	--	0.9	078°
1659	Roosevelt Inlet (between jetties) <24>		38° 47.5'	75° 09.5'	--		+1 31		--		+0 19		0.4	0.7	--	--	0.7	206°	--	--	1.1	030°
1661	Broadkill Slough	14d	38° 53.78'	75° 12.63'	-0 56		-0 31		-0 30		-0 55		0.5	0.4	--	--	0.8	314°	0.1	223°	0.6	132°
1663	Mispillion River mouth		38° 56.8'	75° 18.9'	+2 14		+1 50		+1 22		+1 18		0.9	0.6	--	--	1.5	025°	--	--	1.0	190°
1665	Bay Shore Channel (north)	13d	39° 04.68'	74° 58.88'	-0 49		-0 34		-0 24		-0 04		0.5	0.4	0.1	098°	0.8	006°	0.1	275°	0.7	183°
1667	Bay Shore Channel (city of Town Bank)	15d	38° 59.08'	74° 59.28'	-0 51		-1 30		-1 12		-0 21		0.5	0.6	0.1	093°	0.9	006°	--	--	1.0	183°
1669	BRANDYWINE SHOAL LIGHT, 0.5nm west of	15d	38° 59.26'	75° 07.62'									--	--	--	--	1.5	330°	0.1	241°	1.4	153°
1671	Brandywine Ra. (off Brandywine Shoal N)	15d	39° 00.37'	75° 08.38'	-0 30		-0 38		-0 25		-0 39		0.7	0.7	--	--	1.2	339°	--	--	1.1	164°
	do.	40d	39° 00.37'	75° 08.38'	-0 56		-0 39		-0 32		-0 32		0.3	0.4	0.1	061°	0.6	334°	--	--	0.6	153°
1673	Big Stone Beach, 2.8 miles southeast of		38° 58.7'	75° 16.6'	-1 04		-1 30		-1 08		-1 07		0.4	0.5	--	--	0.7	326°	--	--	0.9	145°
1675	Big Stone Beach, 2.2 n.mi. ENE of	15d	39° 00.48'	75° 17.05'	-0 13		-0 26		-0 23		+0 04		0.3	0.4	--	--	0.6	319°	0.1	233°	0.7	135°
1677	Fourteen Ft. Bank Lt., 1.4 n.mi. SSE of	12d	39° 02.32'	75° 09.48'	-0 10		-0 36		-0 14		+0 10		0.7	0.7	0.1	071°	1.2	344°	--	--	1.2	160°
	do.	30d	39° 02.32'	75° 09.48'	-0 40		-0 32		-0 17		-0 05		0.5	0.4	0.1	069°	0.9	343°	0.1	249°	0.7	155°
1679	Fourteen Ft. Bank Lt., 1.2 mi. east of		39° 03.3'	75° 09.5'	-0 10		-0 26		+0 02		+0 05		0.7	0.9	--	--	1.3	339°	--	--	1.5	174°
1681	Deadman Shoal, 3.1 n.mi. SW of	13d	39° 04.00'	75° 04.22'	-0 43		-0 35		-0 35		-0 19		0.5	0.4	0.1	085°	0.8	352°	0.1	263°	0.6	173°
1683	Egg Island Flats		39° 06.4'	75° 07.1'	-1 13		-1 05		-0 58		-1 26		0.4	0.4	--	--	0.7	355°	--	--	0.7	150°
1685	Brandywine Range at Miah Maul Range	9d	39° 04.97'	75° 11.28'	+0 20		-0 36		-0 06		+0 44		0.6	0.7	0.1	067°	1.0	341°	--	--	1.2	159°
1687	Maurice River entrance		39° 13.0'	75° 02.7'	+0 31		+0 06		+0 37		+0 39		0.6	0.6	--	--	1.1	012°	--	--	1.0	192°
1689	Mauricetown Bridge, Maurice River		39° 17.2'	74° 59.6'	+0 41		+0 48		+0 27		+0 33		1.4	1.3	--	--	2.4	000°	--	--	2.2	180°
1691	Millville Drawbridge, Maurice River <25>		39° 23.7'	75° 02.4'	--		--		--		+1 51		--	--	--	--	0.2	000°	--	--	0.4	180°
1693	St. Jones River ent., 1 mile east of		39° 04'	75° 23'	-0 20		-0 40		-0 16		-0 09		0.3	0.4	--	--	0.6	334°	--	--	0.7	122°
1695	Kelly Island, 1.5 miles east of		39° 12.8'	75° 21.7'	+0 31		+0 11		+0 17		+0 16		0.5	0.7	--	--	0.9	348°	--	--	1.2	164°
1697	Miah Maul Range at Cross Ledge Range	16d	39° 10.72'	75° 16.40'	+0 59		+0 02		+1 00		+1 31		0.9	1.1	0.2	254°	1.5	335°	0.1	241°	1.8	160°
1699	False Egg Island Point, 2 miles off		39° 11.4'	75° 12'	+0 07		-0 35		-0 14		+0 06		0.6	0.8	--	--	1.1	342°	--	--	1.3	158°
1701	Ben Davis Pt. Shoal, southwest of	15d	39° 14.87'	75° 18.93'	+1 27		+0 51		+1 03		+1 41		1.0	1.1	0.2	047°	1.8	321°	--	--	1.9	147°
1703	Ben Davis Point, 3.2 n.mi. SW of	12d	39° 16.13'	75° 20.88'	+1 46		+0 59		+1 24		+1 55		1.1	1.3	0.2	047°	1.9	328°	--	--	2.2	140°
	do.	43d	39° 16.13'	75° 20.88'	+0 41		+0 38		+1 48		+2 13		0.5	0.2	--	--	0.8	319°	--	--	0.4	136°
1705	Ben Davis Point, 0.8 mile southwest of		39° 16.9'	75° 18.2'	+0 37		+0 19		+0 46		+0 25		0.7	0.5	--	--	1.2	308°	--	--	0.8	122°
1707	Cohansey River, 0.5 mile above entrance		39° 20.9'	75° 21.6'	+1 10		+0 41		+1 04		+0 53		0.7	0.8	--	--	1.2	074°	--	--	1.4	254°
1709	Bridgeton (Broad Street Bridge) <1>		39° 25.6'	75° 14.2'	--		+1 48		--		+1 56		0.1	0.2	--	--	2.2	000°	--	--	0.3	180°
1711	Arnold Point, 2.2 n.mi. WSW of	14d	39° 22.67'	75° 28.07'	+2 03		+1 39		+2 00		+2 14		1.2	1.1	--	--	2.1	324°	0.1	047°	1.9	145°
	do.	29d	39° 22.67'	75° 28.07'	+1 30		+1 29		+1 49		+1 34		0.9	0.8	0.1	225°	1.6	327°	0.1	055°	1.3	140°

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS										
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb				
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.			
	DELAWARE BAY and RIVER Time meridian, 75°W	ft	North	West	h	m	h	m	h	m			knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
			<b>on Delaware Bay Entrance, p.76</b>																		
1713	Smyrna River entrance		39° 21.9'	75° 30.8'	+1 29	+1 02	+1 30	+1 32	0.7	0.9	--	--	1.2	250°	--	--	1.5	070°			
1715	Stony Point, channel west of		39° 27.1'	75° 33.8'	+3 04	+2 10	+2 03	+2 31	0.9	1.1	--	--	1.5	324°	--	--	1.9	151°			
1717	Appoquinimink River entrance		39° 26.8'	75° 34.9'	+2 14	+2 15	+1 47	+1 59	0.6	0.7	--	--	1.0	231°	--	--	1.2	048°			
1719	Artificial Island (Baker Range)	14d	39° 28.20'	75° 33.88'	+2 42	+1 59	+2 19	+3 10	1.2	1.6	0.2	267°	2.1	346°	--	--	2.7	175°			
1721	Reedy Island (off end of pier)		39° 30.7'	75° 33.4'	+2 42	+2 21	+2 19	+2 48	1.4	1.5	--	--	2.4	027°	--	--	2.6	194°			
1723	Alloway Creek ent., 0.2 mile above		39° 29.9'	75° 31.5'	+2 02	+2 02	+1 40	+1 21	1.4	1.5	--	--	2.1	129°	--	--	2.1	325°			
1725	New Bridge, Alloway Creek		39° 31.6'	75° 27.1'	+2 44	+3 17	+3 01	+3 01	0.7	0.8	--	--	1.3	090°	--	--	1.4	270°			
1727	Chesapeake and Delaware Canal Entrance	15d	39° 33.63'	75° 34.20'	+5 45	+4 51	+6 04	+5 20	0.8	1.2	--	--	1.4	264°	--	--	2.0	087°			
1729	REEDY POINT, 0.3nm east of south jetty	15d	39° 33.51'	75° 33.10'	<b>Daily predictions, p.84</b>						0.1	074°	1.7	351°	0.1	260°	2.0	163°			
1731	Reedy Point, 1.1 miles east of		39° 33.58'	75° 32.47'	+3 00	+2 31	+2 33	+3 01	1.0	1.0	--	--	1.8	354°	--	--	1.7	179°			
1733	Reedy Point, 0.85 n.mi. northeast of	15d	39° 34.23'	75° 33.22'	+3 15	+1 56	+2 25	+2 55	0.9	1.3	--	--	1.6	341°	--	--	2.2	163°			
1735	Salem River entrance		39° 34.2'	75° 30.1'	+3 27	+2 53	+3 02	+3 34	0.9	1.0	--	--	1.5	062°	--	--	1.6	245°			
1737	Bulkhead Shoal Channel, SE, Del. City	14d	39° 34.58'	75° 34.52'	+3 05	+2 05	+2 34	+3 07	1.0	1.2	--	--	1.8	299°	--	--	2.1	118°			
1739	Bulkhead Shoal Channel, off Del. City		39° 35.0'	75° 35.2'	+2 57	+2 18	+2 28	+3 09	1.2	1.2	--	--	2.1	308°	--	--	2.1	138°			
1741	Pea Patch Island, channel east of		39° 36.0'	75° 33.9'	+3 11	+2 33	+2 58	+3 34	1.3	1.4	--	--	2.3	319°	--	--	2.3	148°			
1743	Finns Point, 0.60 n.mi. Northwest of	16d	39° 36.37'	75° 34.47'	+3 15	+2 28	+2 50	+3 18	1.2	1.4	--	--	2.1	332°	--	--	2.3	152°			
1745	Penns Neck, 0.6 mile west of		39° 37.05'	75° 34.92'	+3 19	+3 00	+2 39	+2 56	1.0	1.0	--	--	1.7	002°	--	--	1.7	167°			
1747	Penns Neck, 0.3 mile west of		39° 37.07'	75° 34.58'	+3 03	+2 27	+2 33	+3 02	1.0	1.0	--	--	1.8	339°	--	--	1.7	152°			
1749	New Castle, channel abreast of		39° 39.1'	75° 33.2'	+3 17	+2 13	+2 31	+2 58	1.1	1.4	--	--	1.9	051°	--	--	2.4	230°			
1751	Kelly Point, 0.2 mile northwest of		39° 38.9'	75° 32.8'	+3 24	+3 15	+2 49	+2 56	0.9	0.9	--	--	1.6	049°	--	--	1.5	230°			
1753	Riverview Beach, 0.75 n.mi. west of	15d	39° 39.40'	75° 32.38'	+3 32	+2 43	+3 04	+3 32	1.1	1.1	--	--	2.0	038°	--	--	1.9	225°			
1755	Deepwater Point, channel northwest of		39° 42.1'	75° 30.6'	+3 25	+3 14	+3 10	+3 20	1.7	1.5	--	--	3.0	029°	--	--	2.6	215°			
1757	Christina River, 0.9 n.mi. above ent	15d	39° 43.30'	75° 31.77'	+3 33	+2 36	+2 06	+2 54	0.1	0.5	0.1	226°	0.2	303°	--	--	0.8	137°			
1759	Cherry Island Flats, channel east of		39° 44.3'	75° 29.1'	+3 50	+3 28	+3 27	+3 22	0.9	0.8	--	--	1.6	027°	--	--	1.4	207°			
1761	Oldsmans Point		39° 45.9'	75° 28.4'	+4 09	+3 02	+3 28	+4 05	0.9	0.9	--	--	1.6	027°	--	--	1.5	210°			
1763	Marcus Hook Bar (north), Main Channel	15d	39° 47.70'	75° 26.08'	+3 55	+2 47	+3 30	+3 53	1.1	1.0	--	--	1.9	059°	--	--	1.7	246°			
1765	Marcus Hook		39° 48.2'	75° 24.6'	+4 39	+3 39	+3 27	+4 15	1.0	1.0	--	--	1.7	061°	--	--	1.6	232°			
1767	Eddystone		39° 50.8'	75° 20.5'	+5 06	+4 01	+3 56	+4 20	1.0	1.3	--	--	1.7	058°	--	--	2.2	242°			
1769	Essington Harbor		39° 51.5'	75° 18.3'	+3 50	+3 14	+3 29	+3 21	0.8	0.7	--	--	1.4	096°	--	--	1.2	274°			
1771	Crab Point, 0.5 mile east of		39° 50.8'	75° 17.0'	+4 29	+4 04	+4 09	+4 23	1.2	1.1	--	--	2.1	094°	--	--	1.9	268°			
1773	Hog Island, channel southeast of		39° 52.0'	75° 12.9'	+4 34	+4 13	+4 07	+4 17	1.1	1.3	--	--	1.9	054°	--	--	2.2	231°			
1775	Schuykill River entrance <1>		39° 53.2'	75° 11.7'	--	+2 40	--	+3 34	0.3	0.2	--	--	0.5	356°	--	--	0.4	178°			
1777	Schuykill River <1>	12d	39° 54.23'	75° 12.90'	--	+1 52	--	+2 55	0.1	0.2	--	--	0.2	351°	--	--	0.3	172°			
1779	Eagle Point, 0.2 n.mi. northwest of	17d	39° 52.82'	75° 10.38'	+4 53	+3 20	+4 00	+4 02	0.9	1.1	--	--	1.6	091°	--	--	1.8	271°			
	do.	40d	39° 52.82'	75° 10.38'	+4 47	+3 05	+3 55	+4 01	0.6	0.8	--	--	1.1	090°	--	--	1.3	274°			
1781	Gloucester		39° 53.4'	75° 08.1'	+4 54	+4 22	+4 18	+4 25	1.3	1.2	--	--	2.2	020°	--	--	2.0	210°			
1783	Greenwich Point, northeast of		39° 54.5'	75° 07.6'	+4 59	+4 13	+4 19	+4 26	0.9	1.0	--	--	1.6	002°	--	--	1.6	188°			
1785	Camden Marine Terminals, E of Chan. <26>		39° 56.4'	75° 08.2'	+5 33	+4 33	+4 41	+4 32	0.7	0.7	--	--	1.3	005°	--	--	1.1	174°			
1787	PHILADELPHIA, PENNS LANDING,	15d	39° 56.76'	75° 08.33'	<b>Daily predictions, p.88</b>						--	--	1.5	017°	--	--	2.0	201°			
1789	Petty Island (west end), Main Channel	24d	39° 58.03'	75° 07.13'	+5 14	+4 10	+4 13	+4 04	1.0	1.1	--	--	1.8	066°	--	--	1.8	248°			
1791	Fisher Point		39° 58.9'	75° 04.2'	+5 48	+5 06	+4 48	+4 31	0.8	1.0	--	--	1.4	041°	--	--	1.7	223°			
1793	Fivemile Point Bridge, northeast of	35d	39° 59.18'	75° 03.75'	+5 09	+4 13	+4 06	+3 24	0.9	0.8	--	--	1.5	038°	--	--	1.3	214°			
1795	Torresdale, west of channel		40° 02.4'	74° 59.4'	+6 35	+5 16	+4 24	+5 11	0.5	1.0	--	--	0.9	044°	--	--	1.6	223°			
1797	Rancocas Creek, off Delanco		40° 02.6'	74° 57.6'	+6 17	+5 45	+5 16	+5 33	0.6	0.5	--	--	1.0	090°	--	--	0.9	272°			
1799	College Point, 0.4 n.mi. east of	21d	40° 04.65'	74° 53.20'	+6 14	+4 15	+4 34	+3 54	0.7	1.0	--	--	1.2	084°	--	--	1.2	252°			
1801	Bristol, south of	8	40° 05.3'	74° 51.6'	+6 36	+4 51	+4 22	+5 35	0.7	0.7	--	--	1.3	024°	--	--	1.6	200°			
1803	Burlington Island, channel east of		40° 05.7'	74° 50.2'	+7 13	+5 06	+3 41	+6 11	0.5	1.1	--	--	0.9	018°	--	--	1.8	204°			
1805	Newbold Island north of, Main Channel	15d	40° 08.03'	74° 45.38'	+6 07	+3 50	+4 01	+2 55	0.4	0.3	--	--	0.7	084°	--	--	0.5	250°			
1807	Whitehill <27>		40° 08.2'	74° 44.2'	--	--	--	+6 32	--	0.8	--	--	--	--	--	--	1.4	233°			
	DEL., MD. and VA. COAST		<b>on Chesapeake Bay Entrance, p.92</b>																		
1809	Fenwick Shoal Lighted Whistle Buoy 2		38° 25'	74° 46'	See table 5.																
1811	Winter-Quarter Shoal Buoy 6WQS		37° 55'	74° 56'	Current weak and variable																
1813	Smith Island Shoal, southeast of	7	37° 05.3'	75° 43.5'	-1 41	-1 56	-2 15	-1 41	0.3	0.4	--	--	0.3	298°	--	--	0.4	068°			
1815	Cape Henry Light, 2.2 miles southeast of		36° 53.9'	75° 58.7'	-1 21	-1 02	-0 50	-1 17	0.9	0.8	--	--	1.0	346°	--	--	0.9	165°			

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	CHESAPEAKE BAY Time meridian, 75°W	ft	North	West	h m	h m	h m	h m										
<b>on Chesapeake Bay Entrance, p.92</b>																		
1817	Cape Henry Light, 3.4nm NNE of	7d	36° 58.79'	75° 58.85'	-0 08	-0 39	-0 31	-0 08	0.9	1.5	0.2	206°	1.0	287°	0.2	016°	1.6	116°
	do.	15d	36° 58.79'	75° 58.85'	-0 19	-0 43	-0 29	-0 12	0.9	1.1	0.1	199°	1.0	284°	0.1	198°	1.2	112°
	do.	30d	36° 58.79'	75° 58.85'	-0 54	-0 38	-0 43	-0 45	0.5	0.6	0.1	009°	0.6	277°	0.1	195°	0.6	104°
1819	Cape Henry Light, 2.35nm NNE of	15d	36° 57.74'	75° 59.14'	+0 12	-0 06	-0 22	+0 00	0.9	1.1	--	--	1.0	291°	0.1	029°	1.2	116°
	do.	30d	36° 57.74'	75° 59.14'	-0 41	-0 39	-0 33	-0 32	1.1	0.9	--	--	1.2	294°	0.1	208°	1.0	123°
	do.	45d	36° 57.74'	75° 59.14'	-1 10	-0 47	-0 30	-0 48	1.3	0.8	--	--	1.4	294°	0.1	205°	0.9	125°
	do.	60d	36° 57.74'	75° 59.14'	-1 27	-0 57	-0 36	-1 03	1.1	0.7	--	--	1.2	294°	0.1	204°	0.7	124°
1821	Cape Henry Light, 1.4nm NE of	15d	36° 56.73'	75° 59.38'	+0 38	+0 05	-0 23	+0 14	0.8	1.4	0.1	205°	0.9	298°	--	--	1.5	117°
	do.	30d	36° 56.73'	75° 59.38'	-0 05	-0 20	-0 15	+0 03	1.1	1.1	0.1	205°	1.2	298°	--	--	1.2	118°
	do.	45d	36° 56.73'	75° 59.38'	-0 23	-0 30	-0 10	-0 08	1.1	1.0	0.1	203°	1.2	293°	0.1	199°	1.1	114°
	do.	60d	36° 56.73'	75° 59.38'	-0 37	-0 32	-0 10	-0 18	0.9	0.9	--	--	1.0	282°	0.1	191°	1.0	107°
1823	Cape Henry Light, 0.8 n.mi. NNE of	15d	36° 56.33'	75° 59.98'	+0 21	-0 36	-0 44	+0 03	0.9	1.6	--	--	1.0	298°	--	--	1.7	113°
	do.	38d	36° 56.33'	75° 59.98'	-1 47	-2 20	-2 16	-1 59	1.0	1.1	0.2	003°	1.1	275°	0.2	189°	1.2	106°
1825	Cape Henry Light, 2.0 n.mi. north of	15d	36° 57.53'	76° 00.63'	+0 07	-0 14	+0 20	+0 13	1.1	1.0	0.1	210°	1.2	289°	--	--	1.1	110°
	do.	39d	36° 57.53'	76° 00.63'	-0 28	-0 29	+0 15	-0 24	1.1	0.7	0.1	012°	1.2	277°	0.1	190°	0.7	110°
	do.	54d	36° 57.53'	76° 00.63'	-1 08	-0 32	-0 06	-1 12	0.8	0.5	0.1	002°	0.9	263°	0.2	177°	0.5	111°
1827	CHESAPEAKE BAY ENTRANCE, buoy LB2CH	22d	36° 57.54'	76° 00.76'	<b>Daily predictions</b>						0.1	209°	1.1	297°	--	--	1.1	112°
1829	Cape Henry Light, 4.6 miles north of		37° 00.1'	75° 59.3'	-0 32	-0 30	-0 21	+0 16	1.2	1.2	--	--	1.3	294°	--	--	1.3	104°
1831	Cape Henry Light, 5.9 n.mi. north of	14d	37° 01.24'	75° 59.33'	-1 04	-0 48	-1 06	-0 43	0.5	0.7	0.1	228°	0.6	307°	--	--	0.7	140°
1833	Cape Henry Light, 8.3 mi. NW of	12	37° 02.20'	76° 06.60'	+0 11	+0 04	+0 05	+0 19	0.9	1.0	--	--	1.0	329°	--	--	1.1	133°
1835	Lynnhaven Roads		36° 55.1'	76° 04.9'	-0 25	-0 21	-0 25	-0 17	0.7	0.8	--	--	0.8	280°	--	--	0.9	070°
1837	Lynnhaven Inlet bridge		36° 54.4'	76° 05.6'	-1 23	-1 41	-2 23	-2 37	0.5	1.3	--	--	0.6	180°	--	--	1.4	000°
<b>Chesapeake Bay Bridge Tunnel</b>																		
1839	Chesapeake Beach, 1.5 miles north of		36° 56.69'	76° 07.33'	+0 24	+0 09	-0 34	-0 07	0.7	0.8	--	--	0.8	305°	--	--	0.9	100°
1841	0.75nm west, Thimble Shoal Channel	6d	36° 58.64'	76° 07.45'	-0 08	-0 21	-0 27	+0 01	1.1	1.0	0.3	205°	1.2	288°	0.2	013°	1.1	113°
	do.	16d	36° 58.64'	76° 07.45'	-0 35	-0 20	+0 05	-0 05	1.0	0.8	0.1	200°	1.1	289°	0.1	017°	0.8	111°
	do.	29d	36° 58.64'	76° 07.45'	-0 47	-0 26	+0 25	+0 04	0.8	0.5	0.1	008°	0.9	284°	--	--	0.5	101°
	do.	39d	36° 58.64'	76° 07.45'	-0 48	-0 20	+0 12	-0 06	0.5	0.5	--	--	0.6	281°	--	--	0.5	096°
1843	Tail of the Horseshoe		36° 59.57'	76° 06.20'	+0 00	-0 09	-0 24	+0 21	0.8	0.9	--	--	0.9	300°	--	--	1.0	110°
1845	Chesapeake Channel (bridge tunnel)		37° 02.50'	76° 04.33'	+0 00	-0 01	-0 08	+0 12	1.6	1.4	--	--	1.8	335°	--	--	1.5	145°
1847	Chesapeake Channel (Buoy '15')	13d	37° 03.40'	76° 05.58'	-0 35	-0 06	+0 10	+0 31	0.5	0.4	0.2	037°	0.6	311°	0.1	229°	0.4	125°
	do.	34d	37° 03.40'	76° 05.58'	-0 26	-0 12	+0 17	-0 14	0.5	0.4	0.2	032°	0.6	309°	0.1	232°	0.4	139°
1849	Fishermans Island, 3.2 miles WSW of	20	37° 04.00'	76° 02.25'	-0 27	-0 51	-0 57	-0 43	1.1	1.5	--	--	1.2	330°	--	--	1.6	135°
1851	Fishermans Island, 1.4 miles WSW of	5d	37° 04.78'	76° 00.25'	-1 14	-0 41	-0 52	-1 09	1.6	1.0	--	--	1.8	330°	--	--	1.1	140°
1853	Fishermans Island, 2.45nm south of	6d	37° 02.64'	75° 57.77'	-0 22	-0 59	-0 57	-0 38	1.1	1.7	0.2	220°	1.2	301°	0.1	028°	1.8	126°
	do.	16d	37° 02.64'	75° 57.77'	-0 39	-1 07	-0 54	-0 40	1.1	1.5	0.1	213°	1.2	298°	--	--	1.6	127°
	do.	31d	37° 02.64'	75° 57.77'	-1 06	-1 11	-0 53	-0 53	0.9	1.0	--	--	1.0	298°	--	--	1.1	123°
1855	Fishermans Island, 1.7 n.mi. south of	16d	37° 03.37'	75° 58.33'	-0 24	-1 08	-0 55	-0 33	0.9	1.3	0.2	218°	1.0	297°	--	--	1.4	126°
	do.	26d	37° 03.37'	75° 58.33'	-0 42	-0 58	-0 56	-0 41	0.7	0.9	--	--	0.8	290°	--	--	1.0	120°
1857	Fishermans Island, 0.5 n.mi. SW of	15d	37° 04.85'	75° 58.83'	-1 02	-0 54	-1 04	-0 42	1.4	1.8	0.2	223°	1.5	306°	0.1	218°	1.9	140°
1859	Fishermans I., 0.4 mile west of		37° 05.57'	75° 59.33'	-0 26	-0 47	-0 46	-0 49	1.8	1.9	--	--	2.0	005°	--	--	2.0	175°
1861	Fishermans I., 1.4 n.mi. WNW of	16d	37° 06.10'	76° 00.33'	-0 33	-0 53	-0 28	-0 34	1.1	1.1	0.1	060°	1.2	333°	0.1	247°	1.2	155°
1863	Fishermans I., 1.1 miles northwest of		37° 06.50'	76° 00.00'	-0 44	-0 19	-0 17	-0 26	1.6	1.5	--	--	1.8	355°	--	--	1.6	165°
1865	Cape Charles, off Wise Point	5	37° 06.88'	76° 58.30'	+0 04	-0 02	+0 16	+1 13	0.6	0.2	--	--	0.7	305°	--	--	0.2	075°
1867	Little Creek, 0.2 n.mi. N of east jetty <63>	15d	36° 56.05'	76° 10.60'	-1 06	-1 57	-1 19	-1 08	0.3	0.3	--	--	0.3	278°	--	--	0.3	092°
1869	Butler Bluff, 2.1 n.mi. WSW of	14d	37° 09.37'	76° 01.60'	-0 03	-0 25	+0 17	-0 05	0.7	0.8	--	--	0.8	348°	--	--	0.8	164°
1871	York Spit Channel, N of Buoy '26'	7	37° 12.90'	76° 08.50'	+1 28	+1 11	+0 44	+1 19	0.7	1.0	--	--	0.8	010°	--	--	1.1	195°
1873	Old Plantation Flats Lt., 0.5 mi. W of		37° 14.00'	76° 04.10'	+1 28	+1 22	+1 15	+0 59	1.1	1.2	--	--	1.2	005°	--	--	1.3	175°
1875	Cape Charles City, 3.3 n.mi. west of	15d	37° 15.87'	76° 05.62'	+0 33	+0 39	+0 23	+0 54	0.9	0.9	0.2	280°	1.0	355°	0.1	094°	1.0	187°
	do.	40d	37° 15.87'	76° 05.62'	+0 11	+0 04	+0 30	+0 23	0.8	0.8	--	--	0.9	356°	0.1	284°	0.8	182°
	do.	95d	37° 15.87'	76° 05.62'	+0 24	+0 21	+0 57	+1 17	0.9	0.8	0.1	223°	1.0	322°	--	--	0.8	138°
1877	New Point Comfort, 4.1 n.mi. ESE of	15d	37° 17.40'	76° 11.45'	+1 02	+0 43	+0 06	+0 39	0.7	0.9	0.3	296°	0.8	018°	0.3	098°	1.0	202°
1879	Wolf Trap Light, 0.5 mile west of		37° 23.4'	76° 11.9'	+1 38	+1 21	+0 54	+1 29	0.9	1.1	--	--	1.0	015°	--	--	1.2	190°
1881	Wolf Trap Light, 5.8 miles east of		37° 23.1'	76° 04.3'	+2 18	+2 01	+1 34	+2 09	0.8	1.2	--	--	0.9	015°	--	--	1.3	175°
1883	Church Neck Point, 1.9 n.mi. W of	15d	37° 24.20'	76° 00.78'	+0 41	+0 58	+0 56	+0 43	0.4	0.4	--	--	0.4	003°	--	--	0.4	177°
1885	Wolf Trap Light, 6.1 n.mi. ENE of	14d	37° 24.50'	76° 03.83'	+1 35	+1 19	+1 48	+2 04	1.2	1.0	0.2	275°	1.3	006°	0.2	098°	1.1	191°
	do.	29d	37° 24.50'	76° 03.83'	+0 21	+0 16	+0 47	+1 00	0.8	0.7	0.2	099°	0.7	012°	0.2	279°	0.7	173°

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood		Min. before Ebb	Ebb		Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
						h	m		h	m	h	m	h	m	knots	Dir.	knots	Dir.	knots
CHESAPEAKE BAY Time meridian, 75°W			ft	North	West														
<b>on Chesapeake Bay Entrance, p.92</b>																			
1887	Wolf Trap Light, 5.2 n.mi. ENE of	15d	37° 24.50'	76° 05.00'	+1 30	+1 55	+2 01	+2 02	1.2	1.0	0.2	283°	1.3	010°	0.2	098°	1.1	187°	
	do.	40d	37° 24.50'	76° 05.00'	+1 02	+1 45	+2 03	+1 12	0.9	0.7	0.2	089°	1.0	352°	0.2	266°	0.7	183°	
	do.	63d	37° 24.50'	76° 05.00'	+0 19	+0 43	+1 25	+1 04	0.7	0.6	--	--	0.8	343°	--	--	0.6	158°	
1889	Wolf Trap Light, 1.4 n.mi. NNE of	15d	37° 24.67'	76° 10.57'	+1 33	+1 37	+1 12	+1 12	1.0	1.1	--	--	1.1	005°	0.2	088°	1.2	175°	
1891	Wolf Trap Light, 2.0 n.mi. NW of	14d	37° 25.00'	76° 12.54'	-0 02	-0 06	+0 25	+0 01	0.5	0.6	--	--	0.6	345°	--	--	0.6	166°	
1893	Nassawadox Point, 1.9 n.mi. NW of	13d	37° 29.97'	75° 59.37'	+1 11	+1 04	+1 16	+1 29	0.5	0.6	--	--	0.6	352°	0.1	270°	0.6	178°	
1895	Gwynn Island, 8.0 n.mi. east of	14d	37° 29.70'	76° 06.50'	+1 58	+2 24	+2 08	+2 26	0.9	1.0	0.2	267°	1.0	357°	0.2	090°	1.1	175°	
	do.	28d	37° 29.70'	76° 06.50'	+0 28	+0 28	+1 06	+0 16	0.5	0.5	0.2	102°	0.6	013°	0.3	281°	0.5	209°	
1897	Gwynn Island, 1.5 n.mi. east of	16d	37° 30.03'	76° 14.70'	+0 54	+0 15	+0 14	+0 15	0.4	0.5	--	--	0.5	331°	0.1	227°	0.5	159°	
1899	Stingray Point, 5.5 miles east of		37° 35.0'	76° 10.4'	+2 23	+2 57	+2 41	+2 25	0.9	0.8	--	--	1.0	343°	--	--	0.9	179°	
1901	Stingray Point, 12.5 miles east of		37° 33.8'	76° 02.3'	+2 13	+2 21	+1 29	+2 29	0.9	0.8	--	--	1.0	030°	--	--	0.8	175°	
1903	Powells Bluff, 2.2 n.mi. NW of	17d	37° 35.45'	76° 58.10'	+1 16	+0 50	+1 14	+1 16	0.5	0.6	0.1	101°	0.6	015°	0.1	284°	0.6	201°	
1905	Windmill Point Light, 8.3 n.mi. ESE of	14d	37° 34.60'	76° 03.80'	+2 13	+2 18	+2 24	+2 39	0.8	0.8	0.1	270°	0.9	359°	0.1	095°	0.8	182°	
	do.	33d	37° 34.60'	76° 03.80'	+1 01	+0 43	+2 27	+2 07	0.4	0.4	0.2	099°	0.5	017°	0.2	255°	0.4	172°	
1907	Windmill Point Light, 2.2 n.mi. ESE of	14d	37° 35.30'	76° 11.50'	+2 44	+1 59	+1 41	+2 22	0.5	0.8	0.1	079°	0.6	001°	0.1	081°	0.9	169°	
	do.	35d	37° 35.30'	76° 11.50'	+1 03	+0 56	+1 21	+1 37	0.5	0.4	--	--	0.6	342°	0.1	246°	0.4	175°	
1909	Milby Point, 5.3 n.mi. WNW of	13d	37° 39.85'	76° 00.52'	+2 08	+1 51	+1 48	+2 25	0.5	0.7	--	--	0.6	016°	0.2	297°	0.7	210°	
	do.	38d	37° 39.85'	76° 00.52'	+0 28	-0 27	+0 32	+0 33	0.4	0.4	0.1	120°	0.5	043°	--	--	0.4	197°	
1911	Bluff Point, 4.6 n.mi. east of	13d	37° 40.70'	76° 12.25'	+3 05	+2 46	+1 45	+2 39	0.4	0.7	--	--	0.4	003°	--	--	0.7	178°	
	do.	33d	37° 40.70'	76° 12.25'	+1 25	+1 22	+1 52	+1 54	0.4	0.2	0.1	089°	0.4	013°	0.1	291°	0.2	185°	
1913	Tangier Sound Light, 5.8 n.mi. west of	15d	37° 47.03'	76° 05.68'	+3 29	+3 30	+3 16	+3 19	0.4	0.7	--	--	0.5	344°	0.2	255°	0.7	185°	
1915	Great Wicomico R. Lt., 3.8 n.mi. ESE of	14d	37° 47.00'	76° 11.50'	+3 15	+3 38	+3 14	+3 45	0.4	0.5	0.1	273°	0.4	355°	0.1	280°	0.5	196°	
	do.	39d	37° 47.00'	76° 11.50'	+2 06	+2 48	+4 09	+3 15	0.5	0.3	--	--	0.6	013°	--	--	0.3	196°	
1917	Smith Point Light, 6.7 n.mi. east of	9d	37° 52.83'	76° 02.65'	+2 24	+2 18	+2 05	+1 52	0.4	0.4	--	--	0.4	352°	--	--	0.4	178°	
1919	Smith Point Light, 4.5 n.mi. east of	14d	37° 52.67'	76° 05.30'	+3 22	+3 25	+3 09	+3 28	0.4	0.7	--	--	0.5	341°	0.1	249°	0.7	171°	
	do.	24d	37° 52.67'	76° 05.30'	+3 13	+2 48	+2 29	+2 59	0.4	0.5	--	--	0.4	347°	0.1	256°	0.5	168°	
1921	Smith Point Light, 3.0 n.mi. east of	15d	37° 52.65'	76° 07.08'	+4 24	+4 15	+3 02	+3 25	0.4	0.7	--	--	0.4	342°	--	--	0.7	167°	
	do.	34d	37° 52.65'	76° 07.08'	+2 10	+1 43	+2 36	+3 27	0.4	0.3	0.1	080°	0.4	348°	0.1	272°	0.3	149°	
1923	Smith Point Light, 1.5 n.mi. east of	14d	37° 52.75'	76° 09.12'	+4 21	+3 54	+3 04	+4 15	0.4	0.7	0.1	068°	0.4	347°	--	--	0.7	159°	
	do.	39d	37° 52.75'	76° 09.12'	+2 44	+3 42	+3 49	+3 27	0.7	0.5	--	--	0.8	013°	0.1	098°	0.5	176°	
	do.	68d	37° 52.75'	76° 09.12'	+2 05	+2 03	+3 29	+2 30	0.4	0.3	--	--	0.4	356°	0.1	243°	0.3	160°	
1925	Smith Point Light, 0.8 n.mi. NW of	8d	37° 53.23'	76° 11.90'	+2 23	+2 06	+2 33	+2 20	0.8	0.8	0.2	079°	0.9	021°	0.3	097°	0.8	150°	
1927	Smith Point Light, 5.0 n.mi. NW of	5d	37° 56.19'	76° 15.68'	+3 46	+3 04	+2 17	+3 17	0.4	0.8	--	--	0.5	306°	--	--	0.9	125°	
	do.	15d	37° 56.19'	76° 15.68'	+3 38	+3 18	+2 47	+3 25	0.4	0.7	--	--	0.5	296°	0.1	209°	0.7	125°	
1929	Smith Point Light, 6 miles north of		37° 58.9'	76° 11.4'	+4 22	+3 51	+3 39	+3 59	0.4	0.9	--	--	0.4	350°	--	--	1.0	135°	
1931	Smith Island, 3.6 n.mi. northwest of	15d	38° 00.45'	76° 07.28'	+2 43	+2 33	+2 59	+3 11	0.4	0.4	0.1	096°	0.5	014°	--	--	0.4	187°	
1933	Point Lookout, 5.9 n.mi. ESE of	15d	38° 00.53'	76° 12.07'	+3 40	+4 13	+4 16	+4 07	0.4	0.4	--	--	0.4	340°	--	--	0.4	161°	
	do.	51d	38° 00.53'	76° 12.07'	+2 40	+3 51	+3 56	+3 25	0.4	0.2	--	--	0.4	330°	--	--	0.2	167°	
1935	Point Lookout, 1.5 n.mi. east of	16d	38° 02.30'	76° 17.50'	See Table 5														
1937	Point Lookin		38° 06.6'	76° 13.1'	+5 03	+5 31	+4 23	+4 38	0.4	0.5	--	--	0.4	010°	--	--	0.5	160°	
1939	Adams Island, 1.1 n.mi. west of	12d	38° 08.67'	76° 06.87'	+4 29	+3 09	+2 17	+3 19	0.1	0.3	--	--	0.1	017°	--	--	0.3	191°	
1941	Adams Island, 3.4 n.mi. west of	16d	38° 08.38'	76° 09.80'	+4 52	+4 30	+3 23	+4 30	0.2	0.4	--	--	0.2	325°	0.1	257°	0.4	167°	
1943	Point No Point, 4.3 n.mi. east of	17d	38° 08.13'	76° 13.75'	+4 42	+4 53	+5 24	+5 38	0.3	0.2	--	--	0.3	340°	--	--	0.2	170°	
1945	Point No Point, 2.8 n.mi. east of	15d	38° 08.38'	76° 15.67'	+5 16	+4 52	+4 04	+4 58	0.2	0.5	--	--	0.2	340°	--	--	0.5	172°	
	do.	39d	38° 08.38'	76° 15.67'	+3 32	+4 20	+5 02	+4 46	0.4	0.2	--	--	0.4	347°	--	--	0.2	162°	
1947	Point No Point, 1.0 n.mi. east of	17d	38° 08.43'	76° 18.13'	+4 36	+4 26	+3 51	+4 26	0.3	0.5	--	--	0.3	001°	--	--	0.5	172°	
1949	Hooper Strait (west), at buoy '2'	15d	38° 13.25'	76° 06.20'	+2 00	+1 49	+1 53	+1 33	0.5	0.6	--	--	0.6	035°	0.2	304°	0.6	233°	
<b>on Baltimore Harbor Approach, p.96</b>																			
1951	Cedar Point, 4.7 n.mi. east of	5d	38° 17.92'	76° 16.38'	-3 29	-3 45	-4 07	-3 36	0.6	0.9	--	--	0.5	325°	--	--	0.7	145°	
	do.	15d	38° 17.92'	76° 16.38'	-3 54	-3 59	-4 04	-3 53	0.6	0.7	--	--	0.4	323°	--	--	0.6	144°	
1953	Cedar Point, 2.9 n.mi. ENE of	16d	38° 18.65'	76° 18.80'	-2 35	-2 34	-3 16	-2 55	0.5	0.8	--	--	0.4	347°	--	--	0.7	164°	
	do.	50d	38° 18.65'	76° 18.80'	-4 08	-3 30	-3 05	-3 15	0.5	0.3	--	--	0.4	326°	--	--	0.3	141°	
1955	Cedar Point, 1.1 miles ENE of		38° 18.27'	76° 21.10'	-3 23	-2 50	-2 36	-3 42	0.5	0.8	--	--	0.4	010°	--	--	0.6	185°	
1957	Drum Point, 2.8 miles northeast of		38° 20.18'	76° 21.95'	--	--	-3 12	--	0.2	0.5	--	--	0.2	335°	--	--	0.4	185°	
1959	Cove Point, 1.1 n.mi. east of	17d	38° 22.88'	76° 21.62'	-2 57	-2 42	-2 40	-2 14	0.9	0.9	--	--	0.7	342°	--	--	0.7	165°	
	do.	40d	38° 22.88'	76° 21.62'	-3 22	-3 19	-2 38	-3 26	0.8	0.7	--	--	0.6	343°	0.1	246°	0.6	165°	

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											North	West	h	m	h	m	h	m	h
CHESAPEAKE BAY Time meridian, 75°W			ft	North	West	on Baltimore Harbor Approach, p.96													
1961	Cove Point, 2.7 n.mi. east of	15d	38° 22.80'	76° 19.52'	-2 23	-2 41	-2 59	-2 40	0.5	0.9	--	--	0.4	344°	--	--	0.7	169°	
	do.	40d	38° 22.80'	76° 19.52'	-3 15	-2 39	-1 53	-2 40	0.9	0.6	--	--	0.8	347°	--	--	0.5	170°	
	do.	98d	38° 22.80'	76° 19.52'	-3 49	-4 02	-3 13	-3 36	0.7	0.5	--	--	0.6	341°	--	--	0.4	165°	
1963	Cove Point, 3.9 n.mi. east of	11d	38° 22.52'	76° 17.92'	-3 29	-3 36	-4 08	-3 44	0.4	0.6	--	--	0.3	346°	--	--	0.4	171°	
1965	Cove Point, 4.9 n.mi. NNE of	15d	38° 28.03'	76° 22.60'	-2 57	-2 29	-2 24	-2 26	0.7	0.7	--	--	0.6	333°	--	--	0.6	159°	
	do.	40d	38° 28.03'	76° 22.60'	-3 23	-2 47	-1 58	-2 17	1.0	0.4	--	--	0.8	332°	--	--	0.3	149°	
	do.	67d	38° 28.03'	76° 22.60'	-3 55	-3 38	-2 14	-2 58	0.6	0.4	--	--	0.4	321°	--	--	0.4	135°	
1967	Kenwood Beach, 1.5 miles northeast of	5d	38° 31.1'	76° 28.9'	-1 56	-2 41	-2 46	-2 37	0.2	0.4	--	--	0.2	340°	--	--	0.3	160°	
1969	James Island, 1.6 n.mi. SW of	15d	38° 29.14'	76° 21.87'	-3 27	-3 33	-3 31	-3 41	0.6	0.8	0.1	077°	0.5	352°	--	--	0.6	165°	
	do.	15d	38° 29.14'	76° 21.87'	-3 29	-3 33	-3 31	-3 27	0.6	0.7	0.1	068°	0.5	344°	0.1	251°	0.6	156°	
	do.	15d	38° 31.5'	76° 25.2'	-2 16	-2 39	-3 01	-2 02	0.5	0.4	--	--	0.4	005°	--	--	0.3	175°	
1971	James Island, 3.4 miles west of	5d	38° 32.0'	76° 23.6'	-2 31	-2 42	-2 18	-2 36	0.5	0.6	--	--	0.4	000°	--	--	0.5	175°	
1973	James Island, 2.5 miles WNW of	5d	38° 36.75'	76° 28.65'	-1 31	-1 37	-2 20	-2 04	0.2	0.7	--	--	0.2	000°	--	--	0.6	155°	
1975	Plum Point, 1.4 miles ESE of	20d	38° 36.43'	76° 20.88'	-3 15	-3 34	-3 07	-2 54	0.8	0.7	0.1	116°	0.7	037°	--	--	0.6	203°	
1977	Sharp Island Lt., 2.3 n.mi. SE of	18d	38° 38.60'	76° 25.22'	-1 49	-1 36	-1 33	-1 33	0.4	0.5	--	--	0.4	357°	--	--	0.4	183°	
1979	Sharp Island Lt., 2.1 n.mi. west of	18d	38° 38.63'	76° 26.88'	-1 39	-1 41	-1 57	-1 43	0.4	0.5	--	--	0.3	355°	--	--	0.4	186°	
1981	Sharp Island Lt., 3.4 n.mi. west of	35d	38° 38.63'	76° 26.88'	-2 34	-2 23	-2 23	-2 24	0.4	0.4	--	--	0.3	353°	0.1	272°	0.3	183°	
	do.	35d	38° 38.70'	76° 29.23'	-1 50	-1 51	-1 51	-2 01	0.4	0.5	--	--	0.3	350°	--	--	0.4	174°	
1983	Pium Point, 2.1 n.mi. NNE of	15d	38° 45.37'	76° 25.77'	-0 44	-1 26	-0 57	-0 49	0.6	0.8	--	--	0.5	359°	--	--	0.6	185°	
1985	Poplar Island, 2.2 n.mi. WSW of	14d	38° 44.98'	76° 26.73'	-1 08	-1 22	-0 59	-1 08	0.6	0.5	--	--	0.4	355°	--	--	0.4	189°	
1987	Poplar Island, 3.0 n.mi. WSW of	15d	38° 44.98'	76° 26.73'	+0 58	+1 21	+2 01	+1 13	0.5	0.4	0.1	085°	0.4	350°	--	--	0.3	172°	
	do.	48d	38° 45.10'	76° 29.93'	-1 20	-1 24	-1 45	-1 39	0.2	0.4	--	--	0.2	354°	--	--	0.3	180°	
1989	Holland Point, 2.0 n.mi east of	15d	38° 47.50'	76° 26.00'	-1 03	-1 04	-1 11	-1 05	0.6	0.6	--	--	0.5	025°	--	--	0.5	210°	
1991	Kent Point, 4 miles southwest of	15d	38° 49.00'	76° 21.85'	-3 27	-3 38	-3 53	-3 47	0.6	0.5	--	--	0.4	055°	--	--	0.4	235°	
1993	Kent Point, 1.3 miles south of	15d	38° 50.30'	76° 27.20'	-0 52	-0 39	-0 49	-1 10	0.6	0.6	--	--	0.5	005°	--	--	0.5	200°	
1995	Horseshoe Point, 1.7 miles east of	19	38° 50.37'	76° 24.17'	-0 08	-0 23	+0 02	-0 05	0.9	0.6	--	--	0.7	035°	--	--	0.5	190°	
1997	Bloody Point Bar Light, 0.6 mi. NW of	19	38° 52.50'	76° 27.70'	-2 24	-2 27	-1 43	-2 17	0.5	0.4	--	--	0.4	340°	--	--	0.3	190°	
1999	Thomas Pt. Shoal Lt., 1.8 mi. SW of	22d	38° 53.75'	76° 23.21'	-1 05	-0 14	-0 22	-0 20	0.6	0.6	--	--	0.5	007°	--	--	0.5	186°	
2001	Thomas Pt. Shoal Lt., 2.0 n.mi. east of	22d	38° 53.46'	76° 25.62'	-0 25	-0 09	-0 43	-0 41	1.0	1.3	0.1	102°	0.8	033°	0.1	120°	1.0	191°	
2003	Thomas Pt. Shoal Lt., 0.5 n.mi. SE of	16d	38° 53.46'	76° 25.62'	-0 54	-1 18	-1 25	-1 20	0.7	0.7	--	--	0.6	018°	--	--	0.6	196°	
	do.	33d	38° 56.07'	76° 25.02'	-0 03	-0 19	-0 32	-0 24	0.6	0.9	--	--	0.5	355°	--	--	0.7	190°	
2005	Tolly Point, 1.6 miles east of	15d	38° 59.50'	76° 23.10'	+0 16	+0 08	-0 17	+0 13	0.9	1.1	--	--	0.7	025°	--	--	0.9	230°	
2007	Chesapeake Bay Bridge, main channel	15d	39° 00.16'	76° 20.93'	+0 19	+0 15	+0 13	+0 29	1.1	0.9	--	--	0.8	020°	--	--	0.7	199°	
2009	Sandy Point, 2.3 n.mi. east of	41d	39° 00.16'	76° 20.93'	-1 33	-1 14	-0 48	-0 39	0.8	0.6	--	--	0.7	021°	--	--	0.5	210°	
	do.	15d	39° 00.24'	76° 22.80'	-0 11	+0 24	-0 15	+0 05	1.2	1.5	--	--	0.9	025°	--	--	1.2	199°	
2011	Sandy Point, 0.8 n.mi. ESE of	43d	39° 00.24'	76° 22.80'	-0 59	-1 10	-0 59	-1 02	1.0	1.0	0.1	116°	0.8	021°	0.1	276°	0.8	197°	
	do.	43d	39° 00.78'	76° 22.10'	Daily predictions				--	--	--	--	0.8	025°	--	--	0.8	189°	
2013	BALTIMORE HBR. APP. (off Sandy Point)	15d	39° 02.42'	76° 22.67'	-0 04	+0 26	+0 01	+0 09	1.0	0.9	--	--	0.8	353°	--	--	0.7	182°	
2015	Craighill Channel entrance, Buoy '2C'	38d	39° 02.42'	76° 22.67'	+0 00	+0 01	-0 06	+0 18	0.5	0.6	--	--	0.4	325°	0.1	244°	0.5	147°	
	do.	38d	39° 04.7'	76° 16.3'	Current weak and variable				--	--	--	--	0.6	055°	--	--	0.4	240°	
2017	Love Point, 2.8 miles NNE of	5d	39° 04.78'	76° 18.73'	-0 48	+0 19	+0 27	-0 07	0.8	0.5	--	--	0.6	055°	--	--	0.4	240°	
2019	Love Point, 2.5 miles north of	5d	39° 04.44'	76° 18.19'	-1 33	-0 45	-0 48	-0 38	0.5	0.6	0.1	146°	0.4	067°	0.1	334°	0.5	238°	
2021	Love Point, 2.0 nmi north of	15d	39° 04.44'	76° 18.19'	-0 45	-0 05	-0 07	-0 35	0.8	0.5	--	--	0.6	055°	0.1	325°	0.4	240°	
	do.	15d	39° 04.88'	76° 23.67'	+0 28	+0 40	+0 25	+0 34	0.8	0.9	--	--	0.6	350°	--	--	0.7	175°	
2023	Craighill Channel, NE of Mountain Pt	18d	39° 05.68'	76° 23.58'	+0 10	+0 46	+0 33	+0 19	0.7	0.6	--	--	0.6	360°	0.1	270°	0.5	186°	
2025	Craighill Channel, Belvidere Shoal	18d	39° 07.70'	76° 23.27'	+0 12	+0 27	+0 34	+0 23	0.6	0.6	--	--	0.5	345°	--	--	0.5	170°	
2027	Craighill Angle, right outside quarter	14d	39° 06.48'	76° 18.32'	+0 18	+0 42	+0 38	+0 25	0.6	0.5	0.1	078°	0.5	006°	--	--	0.4	170°	
2029	Swan Point, 2.7 n.mi. SW of	27d	39° 06.48'	76° 18.32'	-0 27	+0 30	+1 17	+0 25	0.6	0.4	--	--	0.4	342°	--	--	0.3	142°	
	do.	18d	39° 08.85'	76° 19.48'	+0 18	+0 50	+1 05	+1 06	0.8	0.7	--	--	0.7	008°	0.1	271°	0.5	203°	
2031	Swan Point, 2.15 n.mi. west of	18d	39° 09.75'	76° 18.28'	+0 53	+0 44	+0 38	+0 57	0.8	0.9	--	--	0.6	020°	--	--	0.7	215°	
2033	Swan Point, 1.6 miles northwest of	14d	39° 09.78'	76° 23.38'	+0 16	-0 02	-0 14	-0 05	0.5	0.4	0.2	080°	0.4	013°	--	--	0.3	175°	
2035	Brewerton Channel Eastern Ext., Buoy '7'	17d	39° 10.95'	76° 16.87'	+0 44	+0 20	+0 48	+0 54	1.1	1.1	0.2	302°	0.9	030°	--	--	0.9	229°	
2037	Tolchester Channel, SW of Bouy '58B'	25d	39° 10.95'	76° 16.87'	-0 09	+0 02	+0 38	-0 48	0.9	0.7	--	--	0.7	025°	--	--	0.5	217°	
	do.	15d	39° 11.47'	76° 15.95'	+1 43	+1 10	+0 59	+1 23	0.9	0.8	--	--	0.7	061°	0.1	151°	0.7	231°	
2039	Tolchester Channel, Buoy '22'	15d	39° 11.57'	76° 17.27'	+0 51	+1 08	+0 59	+0 50	0.7	0.8	--	--	0.5	028°	--	--	0.6	208°	
2041	Tolchester Channel, south of Buoy '38B'	7	39° 12.87'	76° 23.72'	+1 25	+1 00	+0 53	+1 06	0.4	0.5	--	--	0.3	035°	--	--	0.4	225°	
2043	North Point, 2.5 miles northeast of	15d	39° 13.03'	76° 14.90'	+0 49	+1 20	+1 22	+1 24	1.2	1.1	0.1	285°	1.0	015°	--	--	0.8	201°	

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	CHESAPEAKE BAY Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m							
			<b>on Baltimore Harbor Approach, p.96</b>																
2047	Poolles Island, 4 miles southwest of	15d	39° 13.60'	76° 19.88'	+0 59	+0 48	+0 56	+1 12	0.6	0.8	--	--	0.5	025°	--	--	0.6	210°	
2049	Poolles Island 2.0 n.mi. SSW of		39° 14.78'	76° 17.80'	+1 01	+0 58	+1 03	+1 29	0.7	0.7	0.2	327°	0.6	038°	--	--	0.6	238°	
2051	Poolles Island, 0.8 mile south of		39° 15.7'	76° 16.4'	+1 29	+1 24	+1 12	+1 20	0.9	1.2	--	--	0.7	060°	--	--	1.0	255°	
2053	Miller Island, 1.5 miles ENE of	7	39° 16.5'	76° 19.9'	+0 11	+0 15	+0 37	+0 25	0.6	0.3	--	--	0.5	000°	--	--	0.2	185°	
2055	Poolles Island, 1.6 n.mi. east of	16d	39° 16.47'	76° 13.57'	+1 28	+1 34	+1 45	+1 03	1.1	1.1	--	--	0.9	014°	0.1	289°	0.8	208°	
2057	Robins Point, 0.7 mile ESE of	5	39° 17.75'	76° 16.10'	-0 03	-0 14	+0 37	-0 13	1.4	1.0	--	--	1.1	025°	--	--	0.8	210°	
2059	Worton Point, 1.5 n.mi. WSW of	17d	39° 18.70'	76° 13.03'	+2 04	+1 45	+1 27	+1 36	1.0	1.1	--	--	0.8	023°	0.2	298°	0.9	211°	
2061	Worton Point, 1.1 miles northwest of		39° 19.9'	76° 12.0'	+1 43	+1 43	+1 38	+1 32	1.4	1.5	--	--	1.1	040°	--	--	1.2	245°	
2063	Howell Point, 0.8 n.mi. west of	15d	39° 22.23'	76° 07.80'	+2 30	+1 48	+1 19	+1 33	1.0	1.3	--	--	0.8	051°	--	--	1.0	235°	
2065	Howell Point, 0.4 mile NNW of		39° 22.6'	76° 06.9'	+1 28	+1 24	+1 20	+1 18	1.1	1.1	--	--	0.9	080°	--	--	0.9	245°	
2067	Grove Point, 0.7 n.mi. NW of	14d	39° 23.78'	76° 03.02'	+2 40	+2 01	+1 31	+2 03	0.6	1.0	0.1	131°	0.5	034°	--	--	0.8	211°	
2069	Turkey Point, 1.2 n.mi. SW of	9d	39° 26.60'	76° 02.03'	+2 39	+1 30	+0 58	+1 00	0.6	0.8	0.2	101°	0.5	021°	--	--	0.6	193°	
2071	Spesutie Island, channel north of	7	39° 28.83'	76° 04.90'	+1 42	+1 20	+1 49	+1 40	0.8	0.6	--	--	0.6	285°	--	--	0.5	100°	
2073	Rocky Pt. (Elk Neck), 0.25 n.mi. SW of	9d	39° 29.30'	75° 59.85'	+2 42	+1 28	+1 14	+1 49	0.6	0.7	--	--	0.5	009°	--	--	0.6	196°	
2075	Red Point, 0.2 mile W of, Northeast River	7	39° 31.75'	75° 59.08'	+1 42	+1 28	+1 57	+1 47	0.9	0.6	--	--	0.7	--	--	--	0.5	--	
2077	Havre de Grace, Susquehanna River		39° 33.13'	76° 05.08'	Current weak and variable														
	HAMPTON ROADS		<b>on Chesapeake Bay Entrance, p.92</b>																
2079	Thimble Shoal Channel (west end)	15d	37° 00.32'	76° 13.60'	-0 20	-0 27	-0 42	+0 24	0.8	1.1	0.3	204°	0.9	293°	0.2	018°	1.2	116°	
2081	Hampton Roads entrance, midchannel	8d	36° 59.66'	76° 18.32'	-0 57	-1 10	-1 04	-1 04	1.5	1.8	--	--	1.7	243°	0.1	151°	1.9	059°	
	do.	15d	36° 59.66'	76° 18.32'	-1 04	-1 13	-1 06	-1 05	1.5	1.7	--	--	1.7	244°	--	--	1.8	062°	
	do.	31d	36° 59.66'	76° 18.32'	-1 23	-1 15	-1 06	-1 10	1.5	1.5	--	--	1.7	243°	--	--	1.6	065°	
	do.	44d	36° 59.66'	76° 18.32'	-1 55	-1 23	-1 17	-1 27	1.5	1.3	--	--	1.7	241°	--	--	1.4	059°	
	do.	61d	36° 59.66'	76° 18.32'	-2 26	-1 51	-1 32	-1 43	1.1	1.0	0.1	144°	1.2	229°	0.1	138°	1.1	055°	
	<i>Old Point Comfort</i>																		
2083	0.55 n.mi. east of	48d	37° 00.12'	76° 17.72'	-3 07	-1 11	-0 23	-2 18	1.3	0.6	--	--	1.4	251°	--	--	0.6	060°	
2085	0.2 mile south of		36° 59.77'	76° 18.88'	-0 42	-1 04	-1 33	-1 32	1.5	1.3	--	--	1.7	240°	--	--	1.4	075°	
2087	0.9 mile southwest of		36° 59.33'	76° 19.57'	-0 58	-0 53	-0 41	-1 18	1.5	1.4	--	--	1.7	240°	--	--	1.5	050°	
2089	Willoughby Spit, 0.8 mile northwest of		36° 58.6'	76° 18.4'	-1 37	-2 09	-2 21	-2 01	0.6	0.9	--	--	0.7	260°	--	--	1.0	040°	
2091	Willoughby Bay entrance		36° 57.7'	76° 17.9'	-2 17	-2 34	-3 01	-2 26	0.3	0.4	--	--	0.3	135°	--	--	0.4	330°	
2093	Sewells Point, channel west of		36° 57.5'	76° 20.4'	-0 46	-1 26	-2 03	-1 18	0.8	1.1	--	--	0.9	195°	--	--	1.2	000°	
2095	Norfolk Harbor Reach (Buoy R 8')	13d	36° 57.00'	76° 20.37'	-0 23	-1 21	-2 16	-0 23	0.5	0.8	--	--	0.6	183°	0.1	094°	0.9	011°	
	do.	42d	36° 57.00'	76° 20.37'	-0 38	-1 39	-1 02	+0 57	0.4	0.3	--	--	0.5	152°	--	--	0.3	000°	
2097	Sewells Point, pierhead	7	36° 56.8'	76° 20.1'	-0 57	-1 19	-1 41	-1 11	0.5	0.8	--	--	0.6	195°	--	--	0.8	010°	
	<i>Newport News</i>																		
2099	Channel, middle	15	36° 57.38'	76° 22.90'	-0 48	-1 02	-0 52	-1 08	1.0	1.0	--	--	1.1	244°	--	--	1.1	076°	
2101	Channel, west end <63>	15	36° 57.20'	76° 24.80'	-0 21	-0 59	-0 37	-0 16	0.6	0.6	--	--	0.7	280°	0.1	010°	0.6	092°	
2103	Middle Ground, 1 mile south of	7	36° 56.0'	76° 23.2'	+0 28	+0 11	-0 16	+0 19	1.0	1.1	--	--	1.1	270°	--	--	1.2	100°	
	ELIZABETH RIVER																		
2105	Craney Island	15	36° 53.68'	76° 20.15'	-1 22	-1 54	-2 33	-1 55	0.6	0.8	0.1	098°	0.7	177°	0.2	270°	0.9	001°	
2107	Craney Island Reach	7d	36° 53.43'	76° 20.15'	-1 32	-1 47	-2 16	-1 46	0.5	0.7	--	--	0.6	184°	--	--	0.7	009°	
	do.	17d	36° 53.43'	76° 20.15'	-2 05	-2 03	-1 58	-1 53	0.5	0.6	--	--	0.6	184°	--	--	0.6	004°	
	do.	33d	36° 53.43'	76° 20.15'	-2 52	-1 24	-1 51	-2 07	0.6	0.5	--	--	0.7	185°	--	--	0.5	008°	
	do.	43d	36° 53.43'	76° 20.15'	-3 17	-2 56	-2 06	-2 30	0.6	0.5	--	--	0.7	182°	--	--	0.5	004°	
2109	Lamberts Point	15	36° 52.50'	76° 19.95'	-2 08	-2 00	-2 34	-1 57	0.4	0.7	--	--	0.5	143°	--	--	0.7	328°	
2111	West Norfolk Bridge, Western Branch		36° 51.5'	76° 20.6'	-2 06	-2 19	-2 46	-2 11	0.5	0.7	--	--	0.6	260°	--	--	0.7	080°	
2113	Seaboard Coast Line RR, Pinner Point		36° 51.6'	76° 19.0'	-2 13	-2 14	-2 11	-2 16	0.4	0.4	--	--	0.4	140°	--	--	0.4	290°	
2115	Berkley Bridge, Eastern Branch		36° 50.5'	76° 17.0'	-2 30	-2 10	-2 16	-2 56	0.4	0.4	--	--	0.3	120°	--	--	0.4	295°	
2117	Norfolk and Western RR, Bridge, E Branch		36° 50.2'	76° 14.7'	-1 37	-1 54	-2 21	-1 46	0.4	0.6	--	--	0.4	100°	--	--	0.6	280°	
2119	Berkley, Southern Branch		36° 50.0'	76° 17.8'	-2 28	-1 56	-2 08	-2 34	0.3	0.3	--	--	0.3	215°	--	--	0.3	330°	
2121	Chesapeake, Southern Branch		36° 48.5'	76° 17.4'	-2 03	-1 55	-2 10	-2 00	0.6	0.6	--	--	0.7	180°	--	--	0.6	360°	
2123	Gilmerton Hwy. bridge, Southern Branch		36° 46.5'	76° 17.7'	-2 13	-1 58	-2 23	-2 10	0.5	0.7	--	--	0.6	180°	--	--	0.7	360°	
2125	Money Point, Southern Branch	15d	36° 46.44'	76° 18.13'	-2 09	-1 27	-2 10	-2 28	0.4	0.3	--	--	0.4	088°	--	--	0.3	276°	

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	NANSEMOND RIVER Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m						
			<b>on Chesapeake Bay Entrance, p.92</b>															
2127	Pig Point, 1.8 miles northeast of		36° 55.4'	76° 25.1'	-0 53	-0 46	-0 35	-0 48	0.7	0.9	--	--	0.8	285°	--	--	1.0	070°
2129	Town Point Bridge, 0.5 mile east of		36° 53.3'	76° 29.0'	-1 30	-1 38	-1 31	-1 14	0.8	0.8	--	--	0.9	265°	--	--	0.8	070°
2131	Dumpling Island		36° 48.5'	76° 33.5'	-1 22	-1 39	-2 06	-1 31	0.9	0.9	--	--	1.0	175°	--	--	1.0	345°
	JAMES RIVER																	
	Newport News																	
2133	0.15nm WSW of Pier No.2	6d	36° 58.76'	76° 26.61'	-0 01	-0 24	-0 21	-0 06	1.1	1.4	--	--	1.2	342°	--	--	1.5	161°
	do.	15d	36° 58.76'	76° 26.61'	-0 19	-0 36	-0 15	-0 11	1.2	1.3	--	--	1.3	344°	--	--	1.4	161°
	do.	29d	36° 58.76'	76° 26.61'	-0 37	-0 51	-0 16	-0 20	1.1	1.1	--	--	1.2	347°	--	--	1.2	162°
	do.	42d	36° 58.76'	76° 26.61'	-0 53	-0 57	-0 26	-0 26	0.9	0.9	--	--	1.0	346°	--	--	1.0	165°
2135	0.8 mile SW of shipbuilding plant		36° 58.5'	76° 27.3'	-0 02	-0 21	-0 27	-0 03	0.9	1.1	--	--	1.0	325°	--	--	1.2	140°
2137	1.5 miles SW of shipbuilding plant	6	36° 58.1'	76° 28.2'	-0 41	-0 39	-0 43	-0 50	0.9	1.0	--	--	1.0	350°	--	--	1.1	140°
	Rockland Shoal Channel																	
2139	South end		37° 03.50'	76° 35.63'	+0 34	+0 22	+0 20	+1 07	0.7	1.0	--	--	0.8	310°	--	--	1.1	165°
2141	Middle		37° 05.20'	76° 36.83'	+0 44	+0 57	+1 03	+1 02	1.0	0.9	--	--	1.1	345°	--	--	1.0	155°
2143	North end		37° 06.60'	76° 37.95'	+0 55	+1 01	+1 07	+1 15	1.2	0.9	--	--	1.3	340°	--	--	1.0	145°
2145	Point of Shoals, west of		37° 03.9'	76° 39.6'	+2 23	+2 06	+1 39	+2 14	0.3	0.8	--	--	0.3	325°	--	--	0.9	195°
2147	Deepwater Shoals		37° 08.6'	76° 38.2'	+1 37	+1 33	+0 59	+0 50	1.1	0.8	--	--	1.2	353°	--	--	0.9	166°
2149	Hog Point		37° 12'	76° 41.5'	+2 23	+1 56	+1 39	+2 04	0.9	1.2	--	--	1.0	260°	--	--	1.3	070°
2151	Jamestown Island, Church Point		37° 12.2'	76° 47.0'	+2 19	+1 55	+2 03	+2 08	1.0	1.2	--	--	1.1	325°	--	--	1.3	145°
2153	Chickahominy River Bridge		37° 15.7'	76° 52.5'	+2 00	+1 50	+2 02	+1 52	1.2	1.1	--	--	1.3	332°	--	--	1.2	154°
2155	Caremont Landing		37° 14.0'	76° 57.2'	+3 38	+3 11	+2 54	+3 19	1.3	1.4	--	--	1.5	290°	--	--	1.5	125°
2157	Brandon Point, 0.3 mile northeast of		37° 16.5'	76° 59.2'	+3 51	+3 17	+2 57	+3 20	1.1	1.2	--	--	1.2	350°	--	--	1.3	170°
2159	Windmill Point		37° 18.7'	77° 05.7'	+4 25	+3 21	+3 24	+3 29	1.2	0.9	--	--	1.3	310°	--	--	1.0	065°
2161	Coggins Point, 0.5 mile north of		37° 18.4'	77° 10.0'	+4 40	+3 39	+3 27	+4 00	0.5	0.8	--	--	0.6	273°	--	--	0.9	088°
2163	City Point		37° 19.0'	77° 16.3'	+4 43	+3 56	+3 59	+4 04	1.2	1.1	--	--	1.3	320°	--	--	1.2	135°
2165	Appomattox River entrance		37° 18.7'	77° 17.7'	+5 19	+4 20	+3 57	+3 51	0.9	0.8	--	--	1.0	271°	--	--	0.8	080°
2167	Bermuda Hundred		37° 20.2'	77° 16.2'	+5 40	+4 13	+3 21	+4 19	0.8	1.2	--	--	0.9	019°	--	--	1.3	199°
2169	Dutch Gap Canal, 0.5 mile east of		37° 22.8'	77° 20.8'	+5 23	+4 41	+4 39	+4 49	0.7	0.8	--	--	0.8	270°	--	--	0.9	090°
2171	Rocketts <19>		37° 31.2'	77° 25.0'	---	---	---	---	--	--	--	--	--	--	--	--	1.0	160°
	YORK RIVER																	
2173	York River Ent. Channel (SE end) <29>	13d	37° 07.38'	76° 09.20'	+0 45	+0 43	+0 52	+0 53	0.9	0.9	0.3	256°	1.0	342°	0.3	074°	1.0	162°
	do.	32d	37° 07.38'	76° 09.20'	-0 50	+0 19	+0 24	-0 15	0.4	0.4	0.2	083°	0.5	329°	0.2	246°	0.4	174°
2175	York Spit Light, 0.8 mile southwest of		37° 12.0'	76° 16.0'	-0 42	-0 33	-0 16	-0 20	0.7	0.8	--	--	0.8	323°	--	--	0.8	145°
2177	York River Ent. Channel (NW end)	15d	37° 13.55'	76° 18.47'	-1 52	-0 45	+0 03	-0 26	0.6	0.5	0.2	200°	0.7	298°	--	--	0.5	128°
2179	Tue Marshes Light, 0.7 n.mi. north of	14d	37° 14.80'	76° 23.28'	+1 27	+1 26	+1 18	+1 18	0.9	0.8	--	--	1.0	265°	--	--	0.9	078°
	do.	39d	37° 14.80'	76° 23.28'	+0 27	+0 24	+1 15	+0 55	0.8	0.6	--	--	0.9	247°	--	--	0.6	070°
	do.	49d	37° 14.80'	76° 23.28'	-2 56	-2 11	-1 11	-1 48	0.4	0.3	--	--	0.5	249°	--	--	0.3	068°
2181	Tue Marshes Light, 0.9 n.mi. WNW of	14d	37° 14.28'	76° 24.13'	-0 21	-0 30	-0 30	-0 32	0.7	0.7	--	--	0.8	249°	--	--	0.7	069°
	do.	28d	37° 14.28'	76° 24.13'	-1 20	-1 15	-0 46	-1 41	0.5	0.6	--	--	0.6	262°	--	--	0.6	064°
	Tue Marshes Light, 2.7 miles west of																	
2183	Midchannel		37° 14.0'	76° 26.6'	-0 18	-0 17	-0 22	-0 30	0.5	0.6	--	--	0.6	258°	--	--	0.6	072°
2185	North edge of channel		37° 14.2'	76° 26.6'	-0 53	-0 56	-1 16	-1 08	0.4	0.7	--	--	0.5	251°	--	--	0.7	074°
2187	South edge of channel		37° 13.6'	76° 26.5'	-0 31	-0 49	-1 02	-0 31	0.4	0.5	--	--	0.4	257°	--	--	0.5	095°
2189	Yorktown		37° 14.5'	76° 30.5'	-0 35	-1 07	-0 59	-0 24	1.1	1.5	--	--	1.2	302°	--	--	1.6	124°
2191	Gloucester Point, 150 yds. southeast of		37° 14.55'	76° 30.10'	-0 40	-0 40	-1 07	-1 28	0.8	1.0	--	--	0.9	267°	--	--	1.1	090°
2193	Gloucester Point, 0.4 mile southwest of		37° 14.42'	76° 30.65'	-0 30	-0 39	-0 24	-0 51	1.0	0.9	--	--	1.1	294°	--	--	1.0	108°
2195	Pages Rock, 1 mile SSE of		37° 17.6'	76° 34.8'	-0 15	-0 15	-0 27	-0 29	0.9	0.9	--	--	1.0	303°	--	--	1.0	125°
2197	Blundering Point, 0.9 mile SSW of		37° 18.13'	76° 35.08'	-0 27	-0 26	-0 03	-0 23	1.0	1.0	--	--	1.1	293°	--	--	1.1	138°
2199	Clay Bank Pier, 100 yds. southwest of		37° 20.78'	76° 36.80'	-0 07	-0 25	-0 37	-0 12	1.0	1.0	--	--	1.1	311°	--	--	1.1	123°
2201	Allmondsville		37° 24'	76° 40'	+0 43	+0 05	-0 01	+0 13	1.0	1.0	--	--	1.2	310°	--	--	1.1	105°
2203	Purtan Island, 0.2 mile southwest of		37° 24.88'	76° 41.22'	+0 44	+0 26	+0 18	+0 46	1.2	1.0	--	--	1.3	310°	--	--	1.1	104°
2205	Goff Point, 0.8 mile SSW of		37° 29.97'	76° 47.03'	+1 32	+0 57	+1 14	+1 47	0.8	0.9	--	--	0.9	320°	--	--	1.0	123°
2207	West Point, 0.8 mile below		37° 30.9'	76° 47.5'	+1 18	+0 41	+0 34	+0 59	1.0	1.4	--	--	1.1	340°	--	--	1.5	150°

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	YORK RIVER Time meridian, 75°W	ft	North	West	h	m	h	m	h	m								
			<b>on Chesapeake Bay Entrance, p.92</b>															
2209	Lord Delaware Bridge, 100 yds. S of		37° 32.22'	76° 47.45'	+1 32	+0 51	+1 08	+1 39	0.7	0.5	--	--	0.8	350°	--	--	0.5	210°
2211	Wakema, Mattaponi River		37° 39.2'	76° 54.0'	+2 03	+1 26	+1 19	+1 34	1.3	1.6	--	--	1.4	260°	--	--	1.7	280°
2213	Walkerton, Mattaponi River		37° 43.4'	77° 01.5'	+3 24	+2 35	+2 10	+3 18	0.8	0.9	--	--	0.9	275°	--	--	0.9	095°
2215	Eltham Bridge, 100 yds. north of		37° 32.10'	76° 48.42'	+2 01	+1 54	+1 37	+2 07	0.5	0.8	--	--	0.6	327°	--	--	0.9	124°
2217	Lester Manor, Pamunkey River		37° 34.9'	76° 59.4'	+3 13	+2 51	+2 39	+2 59	1.1	0.9	--	--	1.2	235°	--	--	1.0	055°
2219	Northbury, Pamunkey River		37° 37.5'	77° 07.3'	+4 28	+4 11	+3 44	+4 19	0.4	1.2	--	--	0.5	290°	--	--	1.3	100°
	MOBJACK BAY and PIANKATANK RIVER																	
2221	New Point Comfort, 2.0 n.mi. WSW of	16d	37° 17.70'	76° 19.25'	+0 58	+1 39	+1 12	+1 56	0.5	0.4	--	--	0.6	315°	--	--	0.4	129°
2223	Bland Point, Piankatomank River		37° 31.8'	76° 21.9'	+0 03	-0 14	-0 41	-0 06	0.4	0.2	--	--	0.4	300°	--	--	0.2	125°
2225	Doctor Point, 0.4 mile west of		37° 31.1'	76° 27.0'	+0 05	-0 42	-1 28	-0 13	0.4	0.4	--	--	0.4	311°	--	--	0.4	142°
	RAPPAHANNOCK RIVER																	
2227	Stingray Point, 1.2 n.mi. NE of	28d	37° 34.53'	76° 17.08'	+1 01	-0 04	-0 51	+0 54	0.4	0.5	--	--	0.4	293°	--	--	0.5	121°
2229	Windmill Point, 1.0 n.mi SSW of	15d	37° 36.00'	76° 17.50'	+1 08	+1 14	+1 49	+1 24	0.6	0.5	--	--	0.7	286°	0.1	188°	0.5	103°
	do.	38d	37° 36.00'	76° 17.50'	+0 33	+1 18	+1 50	+0 46	0.5	0.3	--	--	0.6	269°	--	--	0.3	090°
2231	Mosquito Point, 0.9 mile SSE of		37° 35.72'	76° 21.08'	+1 29	+1 47	+1 27	+1 05	0.6	0.8	--	--	0.7	265°	--	--	0.8	090°
2233	Orchard Point, 1.0 mile south of		37° 37.97'	76° 27.45'	+1 22	+1 51	+1 39	+1 16	0.4	0.6	--	--	0.5	270°	--	--	0.6	085°
2235	Towles Point		37° 37.8'	76° 30.4'	+1 39	+1 23	+1 59	+1 49	0.6	0.5	--	--	0.6	274°	--	--	0.5	103°
2237	Rogue Point, 0.8 mile WNW of		37° 40.28'	76° 33.20'	--	+2 00	--	+1 51	0.5	0.6	--	--	0.6	000°	--	--	0.6	195°
2239	Waterview, 1.3 miles NNE of		37° 44.95'	76° 35.92'	+2 14	+2 15	+2 35	+2 34	0.6	0.6	--	--	0.7	340°	--	--	0.6	155°
2241	Tarpley Point, 1.5 miles south of		37° 46.15'	76° 39.12'	+2 49	+2 53	+3 09	+3 03	0.6	0.7	--	--	0.7	300°	--	--	0.7	105°
2243	Jones Point, 1.4 miles NNW of		37° 48.03'	76° 41.58'	+2 37	+2 39	+3 08	+2 51	1.0	0.8	--	--	1.1	315°	--	--	0.9	105°
2245	Sharps, 1.2 miles south of		37° 48.18'	76° 41.92'	+2 52	+3 02	+3 41	+3 25	0.8	0.8	--	--	0.9	290°	--	--	0.8	095°
2247	Bowlers Rock, 0.2 mile north of		37° 49.58'	76° 44.00'	+3 00	+2 57	+3 26	+3 14	0.9	1.0	--	--	1.0	315°	--	--	1.1	135°
2249	Accaceek Point, 0.3 mile southwest of		37° 52.52'	76° 46.40'	+3 13	+3 04	+3 16	+3 37	1.1	0.9	--	--	1.2	335°	--	--	1.0	150°
2251	Tappahannock Bridge, 1.8 miles SE of		37° 55.10'	76° 49.27'	+3 51	+3 23	+3 45	+3 52	1.3	1.2	--	--	1.4	315°	--	--	1.3	105°
2253	Port Royal		38° 10.5'	77° 11.4'	+6 43	+6 26	+5 59	+6 34	0.6	0.7	--	--	0.7	310°	--	--	0.7	130°
	POCOMOKE SOUND																	
2255	Pocomoke Sound Approach		37° 38.00'	75° 57.90'	+1 09	+1 28	+2 00	+1 55	0.6	0.7	--	--	0.7	009°	--	--	0.7	196°
2257	Watts Island, 4 miles south of	7	37° 43.2'	75° 54.0'	+0 50	+0 17	+0 16	+0 20	0.5	0.6	--	--	0.6	027°	--	--	0.6	247°
2259	Watts Island, 2.3 n.mi. east of	13d	37° 47.62'	75° 50.83'	+1 53	+1 24	+1 20	+1 50	0.9	1.0	--	--	1.0	032°	--	--	1.1	208°
	do.	48d	37° 47.62'	75° 50.83'	+1 26	+1 13	+1 30	+1 10	0.9	0.8	--	--	1.0	025°	--	--	0.9	209°
2261	Long Point, 2.0 n.mi. northeast of	9d	37° 54.90'	75° 47.90'	+1 24	+0 57	+1 03	+1 23	0.4	0.3	--	--	0.4	024°	--	--	0.3	211°
2263	Pocomoke R., 0.5 mile below Shelltown		37° 58.3'	75° 38.7'	+4 03	+3 16	+3 19	+3 24	1.0	0.8	--	--	1.1	045°	--	--	0.9	170°
	TANGIER SOUND																	
2265	Tangier Sound Light, 0.5 n.mi. east of	16d	37° 47.25'	75° 57.83'	+2 21	+1 59	+2 07	+2 28	0.8	0.8	0.1	115°	0.9	019°	--	--	0.9	195°
	do.	41d	37° 47.25'	75° 57.83'	+2 20	+1 57	+2 14	+2 17	0.9	0.8	--	--	1.0	011°	--	--	0.9	189°
2267	Tangier Sound Light, 1.5 miles NE of		37° 48.5'	75° 57.4'	+2 03	+2 18	+2 04	+2 03	1.1	1.0	--	--	1.2	014°	--	--	1.1	220°
2269	Clump Island, 2.5 n.mi. west of	15d	37° 54.50'	75° 57.42'	+3 05	+3 04	+3 06	+3 16	0.7	0.6	--	--	0.8	348°	--	--	0.6	168°
	do.	40d	37° 54.50'	75° 57.42'	+2 56	+2 45	+2 53	+3 09	0.7	0.6	--	--	0.8	342°	--	--	0.6	166°
2271	Janes Island Light, 2.3 n.mi. NNE OF	14d	38° 00.05'	75° 54.52'	+3 17	+3 14	+3 23	+3 09	0.6	0.7	--	--	0.7	001°	--	--	0.7	188°
	do.	39d	38° 00.05'	75° 54.52'	+3 28	+3 33	+3 40	+4 02	0.6	0.7	--	--	0.7	008°	--	--	0.7	174°
	do.	92d	38° 00.05'	75° 54.52'	+2 58	+3 39	+3 33	+3 28	0.5	0.4	--	--	0.6	348°	--	--	0.4	181°
2273	Big Annessex River Entrance	12d	38° 02.56'	75° 51.27'	+2 07	+1 35	+1 36	+1 46	0.3	0.4	--	--	0.3	074°	--	--	0.2	258°
2275	Kedges Strait Buoy 4'	12d	38° 03.45'	76° 01.93'	+0 46	+0 49	+0 47	+0 57	0.7	0.7	--	--	0.8	091°	--	--	0.7	276°
2277	Manokin R. Ent., 1.1 n.mi. E of Drum Pt	20d	38° 05.82'	75° 53.48'	+2 18	+2 16	+2 32	+2 32	0.4	0.3	--	--	0.4	008°	--	--	0.3	197°
2279	Deal Is., 0.6 n.mi. W. of, at Bouy '14'	14d	38° 08.45'	75° 58.33'	+3 18	+3 13	+3 14	+3 03	0.6	0.6	--	--	0.7	000°	--	--	0.6	181°
	do.	41d	38° 08.45'	75° 58.33'	+2 51	+2 21	+3 24	+3 29	0.5	0.4	--	--	0.6	355°	--	--	0.4	175°
2281	Frog Point, 1.6 miles south of		38° 12.6'	75° 57.3'	+3 52	+3 16	+3 30	+3 55	0.9	1.0	--	--	1.0	048°	--	--	1.1	240°

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	TANGIER SOUND Time meridian, 75°W	ft	North	West	h	m	h	m	h	m								
			<b>on Chesapeake Bay Entrance, p.92</b>															
	<i>Wicomico River</i>																	
2283	Long Point and Nanticoke Point, between	9d	38° 12.80'	75° 54.00'	+3 24	+2 53	+2 56	+3 36	0.4	0.7	--	--	0.5	063°	--	--	0.7	263°
2285	Victor Point, 0.8 mile southwest of		38° 14.3'	75° 51.8'	+3 43	+3 10	+3 38	+3 58	0.5	0.8	--	--	0.6	034°	--	--	0.9	242°
2287	Whitehaven		38° 15.9'	75° 47.5'	+3 29	+4 01	+3 51	+3 25	1.0	1.0	--	--	1.1	089°	--	--	1.1	284°
2289	Whitehaven, 2.5 miles above	4	38° 17.8'	75° 45.5'	+3 33	+3 29	+3 34	+3 19	0.9	1.0	--	--	1.0	006°	--	--	1.1	188°
2291	Salisbury, 2 miles below	4	38° 20.4'	75° 38.3'	+3 56	+3 47	+3 52	+3 52	0.5	0.8	--	--	0.6	085°	--	--	0.8	258°
2293	Sandy Point, Nanticoke River		38° 14.8'	75° 55.7'	+3 47	+3 52	+4 10	+4 03	1.1	1.0	--	--	1.2	000°	--	--	1.1	182°
2295	Roaring Point, WSW of Nanticoke River	18d	38° 15.80'	75° 55.40'	+3 50	+3 17	+4 06	+3 34	0.8	0.8	--	--	0.9	356°	--	--	0.9	181°
	do.	37d	38° 15.80'	75° 55.40'	+3 38	+3 15	+4 34	+3 36	0.5	0.5	--	--	0.6	350°	--	--	0.5	150°
2297	Chapter Point, Nanticoke River		38° 22.6'	75° 52.0'	+5 19	+3 59	+4 41	+5 42	1.3	1.1	--	--	1.5	014°	--	--	1.2	204°
2299	Fishing Bay Entrance, at Buoy '2'	15d	38° 13.48'	75° 59.37'	+3 47	+4 16	+4 02	+4 45	0.4	0.3	0.1	050°	0.5	311°	0.1	202°	0.3	139°
2301	Hooper Strait, at Buoy '4'	14d	38° 13.05'	76° 03.83'	+0 51	+0 48	+1 16	+1 07	0.7	0.7	--	--	0.8	097°	--	--	0.7	287°
2303	Honga River Entrance, at Buoy '1A'	26d	38° 14.80'	76° 07.00'	+2 52	+2 22	+3 17	+3 03	0.4	0.4	--	--	0.5	331°	0.1	078°	0.4	152°
	GREAT WICOMICCO RIVER																	
2305	Sandy Point, east of		37° 49.30'	76° 18.00'	+0 58	+0 41	+0 14	+0 49	0.3	0.3	--	--	0.3	320°	--	--	0.3	140°
	POTOMAC RIVER																	
2307	Point Lookout, 5.2 n.mi. SW of	13d	37° 58.12'	76° 23.50'	+2 34	+1 37	+1 38	+1 16	0.1	0.1	--	--	0.1	294°	--	--	0.1	113°
2309	Point Lookout, 3.1 n.mi. SW of	15d	37° 59.87'	76° 21.75'	+3 34	+3 23	+3 20	+3 19	0.3	0.4	--	--	0.3	295°	--	--	0.4	116°
	do.	34d	37° 59.87'	76° 21.75'	+2 44	+2 20	+2 50	+2 40	0.2	0.2	--	--	0.2	303°	0.1	214°	0.2	126°
2311	Point Lookout, 1.8 n.mi. SW of	14d	38° 00.80'	76° 20.62'	+3 01	+3 01	+3 48	+3 31	0.4	0.4	0.1	216°	0.5	297°	--	--	0.4	122°
	do.	47d	38° 00.80'	76° 20.62'	+2 08	+2 31	+3 16	+3 13	0.3	0.1	--	--	0.3	309°	--	--	0.1	102°
2313	Point Lookout, 1.0 n.mi. south of	15d	38° 01.25'	76° 19.45'	+2 25	+2 48	+3 14	+2 48	0.6	0.5	0.2	211°	0.7	270°	0.1	197°	0.5	117°
	do.	43d	38° 01.25'	76° 19.45'	+2 00	+2 31	+3 58	+3 04	0.5	0.3	--	--	0.6	271°	--	--	0.3	086°
	<i>Cornfield Point</i>																	
2315	1 mile south of		38° 02'	76° 21'	Current irregular						--	--	0.5	310°	--	--	0.5	130°
2317	midchannel		38° 01.1'	76° 21.3'	+4 33	+4 16	+3 49	+4 32	0.4	0.6	--	--	0.5	280°	--	--	0.6	110°
2319	3.8 miles south of		37° 59.4'	76° 21.5'	+4 18	+4 01	+3 34	+4 09	0.6	0.6	--	--	0.7	315°	--	--	0.6	100°
2321	Fort Point, St. Marys River		38° 07.8'	76° 26.9'	Current weak and variable													
2323	Yeocomico River entrance		38° 02.1'	76° 31.2'	Current weak and variable													
	<i>Piney Point</i>																	
2325	0.2 mile south of		38° 07.8'	76° 32.0'	+3 33	+3 16	+2 49	+3 24	1.2	0.6	--	--	1.3	280°	--	--	0.6	145°
2327	1.06 n.mi. south of	15d	38° 06.95'	76° 31.84'	+4 17	+3 58	+3 34	+4 25	0.4	0.5	--	--	0.5	315°	--	--	0.5	128°
	do.	31d	38° 06.95'	76° 31.84'	+3 45	+3 56	+4 20	+4 06	0.5	0.4	--	--	0.6	315°	0.1	044°	0.4	130°
2329	2.2 miles south of		38° 05.9'	76° 33.1'	+3 33	+3 16	+2 49	+3 24	0.4	0.5	--	--	0.5	280°	--	--	0.5	130°
2331	Lower Machodoc Creek entrance		38° 08.7'	76° 39.3'	Current weak and variable													
2333	White Point, Nomini Creek entrance		38° 08.1'	76° 43.3'	+4 08	+3 51	+3 24	+3 59	1.1	1.1	--	--	1.2	155°	--	--	1.2	335°
2335	Breton Bay entrance		38° 14.5'	76° 41.7'	+2 53	+2 36	+2 09	+2 44	0.5	0.4	--	--	0.6	030°	--	--	0.4	200°
2337	St. Clements Bay entrance		38° 14.5'	76° 43.7'	Current weak and variable													
2339	St. Clements I., 1.8 miles southeast of		38° 11.7'	76° 42.5'	+5 18	+5 01	+4 34	+5 09	0.4	0.8	--	--	0.4	250°	--	--	0.9	085°
2341	St. Clements I., 1.1 miles southwest of		38° 11.57'	76° 45.67'	+5 04	+5 10	+4 33	+4 58	0.5	0.8	--	--	0.6	281°	--	--	0.8	099°
2343	Rock Point, Wicomico River entrance		38° 16.4'	76° 49.3'	+3 42	+3 57	+3 42	+3 46	0.4	0.6	--	--	0.5	019°	--	--	0.6	174°
			<b>on Baltimore Harbor Approach, p.96</b>															
2345	Swan Point		38° 16.4'	76° 56.7'	-1 54	-2 04	-2 32	-2 09	0.4	1.0	--	--	0.3	350°	--	--	0.8	140°
2347	Dahlgren Harbor Channel		38° 18.90'	77° 01.93'	Current weak and variable													
2349	Upper Machodoc Creek entrance		38° 19'	77° 02'	Current irregular						--	--	0.3	270°	--	--	0.3	090°
2351	Persimmon Point		38° 22.1'	76° 59.4'	-1 09	-1 19	-1 47	-1 24	1.5	1.8	--	--	1.2	325°	--	--	1.4	175°
2353	Potomac River Bridge, 0.4 mile south of		38° 21.38'	76° 59.20'	-1 25	-1 28	-1 38	-1 17	1.1	1.8	--	--	0.9	000°	--	--	1.4	165°
2355	Chapel Point, Port Tobacco River		38° 27.9'	77° 02.2'	Current weak and variable													
2357	Maryland Point		38° 20.8'	77° 11.8'	-1 04	-1 14	-1 42	-1 19	1.4	1.8	--	--	1.1	270°	--	--	1.4	080°
2359	Quantico		38° 31.3'	77° 16.6'	-0 54	-1 04	-1 32	-1 09	0.9	1.1	--	--	0.7	020°	--	--	0.9	200°
2361	Quantico Creek entrance		38° 31.7'	77° 17.3'	-1 19	-1 29	-1 57	-1 34	0.6	0.6	--	--	0.5	305°	--	--	0.5	115°

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	POTOMAC RIVER Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m							
			<b>on Baltimore Harbor Approach, p.96</b>																
2363	Freestone Point, 2.3 miles east of		38° 35.78'	77° 11.88'	-0 03	-0 01	-0 28	-0 06	0.9	0.9	--	--	0.7	030°	--	--	0.7	229°	
2365	Hallowing Point		38° 38.70'	77° 07.65'	+0 12	-0 05	-0 24	-0 15	1.4	1.4	--	--	1.1	345°	--	--	1.1	149°	
2367	Jones Point, Alexandria		38° 47.62'	77° 02.23'	+0 36	+0 01	+0 09	+0 07	1.2	1.1	--	--	1.0	352°	--	--	0.9	171°	
2369	Hains Point		38° 51.08'	77° 01.32'	+0 20	+0 31	+0 04	-0 18	0.8	0.4	--	--	0.6	359°	--	--	0.3	176°	
2371	Anacostia River entrance		38° 51.8'	77° 00.6'	Current weak and variable														
2373	South Capitol Street Bridge		38° 52.07'	77° 00.38'	Current weak and variable														
2375	Washington Channel, Washington, D.C		38° 51.8'	77° 01.2'	Current weak and variable														
2377	Virginia Channel, Washington, D.C. <13>		38° 52'	77° 02'	--	--	--	--	--	--	--	--	--	--	--	--	0.6	145°	
	PATUXENT RIVER																		
2379	Hog Point, 0.6 n.mi. north of	13d	38° 19.08'	76° 24.07'	-4 45	-5 29	-5 59	-6 00	0.5	0.6	--	--	0.4	258°	0.1	358°	0.5	070°	
	do.	41d	38° 19.08'	76° 24.07'	-6 24	-5 38	-5 36	-6 38	0.5	0.3	--	--	0.4	263°	--	--	0.2	061°	
2381	Drum Point, 0.3 mile SSE of		38° 18.93'	76° 25.15'	-5 19	-5 20	-5 25	-5 16	0.5	0.5	--	--	0.4	245°	--	--	0.4	065°	
2383	Sandy Point, 0.5 mile south of		38° 18.50'	76° 27.30'	-5 08	-5 49	-5 53	-4 55	0.5	0.6	--	--	0.4	300°	--	--	0.5	125°	
2385	Point Patience, 0.1 mile southwest of		38° 19.70'	76° 29.20'	-5 07	-6 12	-6 46	-6 01	0.6	1.0	--	--	0.5	315°	--	--	0.8	145°	
2387	Broomes Island, 0.4 mile south of <62>	15	38° 23.70'	76° 33.25'	-5 01	-5 16	-5 02	-5 02	0.5	0.6	--	--	0.4	290°	--	--	0.5	110°	
2389	Sheridan Point, 0.1 mile southwest of		38° 27.97'	76° 38.88'	-4 33	-4 54	-4 38	-4 16	0.8	0.8	--	--	0.6	320°	--	--	0.6	135°	
2391	Benedict, highway bridge		38° 30.70'	76° 40.33'	-4 45	-4 38	-4 09	-4 35	1.0	0.6	--	--	0.8	025°	--	--	0.5	190°	
2393	Lyons Creek Wharf		38° 44.8'	76° 41.1'	-3 14	-3 24	-3 52	-3 29	1.4	1.1	--	--	1.1	315°	--	--	0.9	140°	
	LITTLE CHOPTANK RIVER																		
2395	Hills Point, 1.0 mile south of		38° 33.0'	76° 18.7'	Current weak and variable														
2397	Ragged Point, 1.5 miles east of		38° 31.80'	76° 14.65'	-4 53	-5 15	-4 29	-4 57	0.5	0.2	--	--	0.4	045°	--	--	0.2	235°	
	CHOPTANK RIVER																		
2399	Cook Point, 1.4 n.mi. NNW of	15d	38° 38.83'	76° 18.40'	-3 52	-4 06	-4 06	-4 24	0.8	0.7	--	--	0.6	049°	--	--	0.5	241°	
	do.	45d	38° 38.83'	76° 18.40'	-4 09	-4 05	-4 03	-4 12	0.6	0.6	0.1	145°	0.5	068°	--	--	0.5	232°	
2401	Holland Point, 2.0 n.mi. SSW of	14d	38° 40.43'	76° 15.45'	-3 54	-4 21	-3 26	-4 00	0.3	0.2	--	--	0.2	089°	--	--	0.2	262°	
2403	Chlora Point, 0.5 n.mi. SSW of	17d	38° 37.70'	76° 09.10'	-3 45	-3 32	-3 22	-3 58	0.6	0.5	--	--	0.5	139°	--	--	0.4	332°	
	do.	24d	38° 37.70'	76° 09.10'	-3 48	-3 33	-3 13	-3 42	0.4	0.4	--	--	0.4	143°	--	--	0.3	323°	
2405	Martin Point, 0.6 n.mi. west of	18d	38° 37.63'	76° 08.15'	-3 18	-3 42	-3 22	-3 34	0.3	0.2	--	--	0.2	155°	--	--	0.2	341°	
2407	Howell Point, 0.5 n.mi. south of	7d	38° 36.23'	76° 06.87'	-3 17	-4 04	-3 52	-3 42	0.4	0.5	--	--	0.3	122°	--	--	0.4	274°	
2409	Cambridge hwy. bridge, W. of Swing Span	18d	38° 34.78'	76° 03.67'	-2 48	-3 05	-1 07	-2 13	0.6	0.3	--	--	0.4	132°	--	--	0.3	316°	
2411	Off Jamaica Point		38° 36.58'	75° 58.97'	-2 13	-2 32	-2 44	-2 26	0.6	0.8	--	--	0.5	000°	--	--	0.6	205°	
2413	Poplar Point, south of		38° 40.52'	75° 57.98'	-1 52	-2 05	-1 56	-2 15	1.0	1.0	--	--	0.8	305°	--	--	0.8	100°	
2415	Dover Bridge		38° 45.40'	75° 59.92'	-1 19	-1 50	-1 25	-1 47	1.1	1.0	--	--	0.9	050°	--	--	0.8	235°	
2417	Oxford, Tred Avon River		38° 41.72'	76° 10.67'	--	-4 05	--	-4 03	0.4	0.2	--	--	0.3	040°	--	--	0.2	225°	
2419	Easton Pt., 0.5 mi. below, Tred Avon River		38° 45.8'	76° 06.2'	Current weak and variable														
2421	Mulberry Pt., 0.6 mi. S of, Broad Creek		38° 44.33'	76° 14.95'	--	-4 10	--	-4 18	0.4	0.2	--	--	0.3	350°	--	--	0.2	170°	
2423	Bald Eagle Pt., east of, Harris Creek		38° 43.75'	76° 18.30'	-4 07	-4 27	-4 07	-4 14	0.5	0.5	--	--	0.4	010°	--	--	0.4	175°	
	EASTERN BAY																		
2425	Poplar Island, east of south end		38° 44.9'	76° 21.2'	-2 20	-2 20	-2 20	-2 20	1.2	0.8	--	--	1.0	000°	--	--	0.6	170°	
2427	Kent Point, 1.4 n.mi. east of		38° 50.33'	76° 20.25'	-3 04	-3 18	-3 49	-3 12	0.5	0.4	--	--	0.4	043°	--	--	0.3	233°	
2429	Long Point, 1 mile southeast of		38° 50.6'	76° 19.6'	-3 40	-3 40	-3 40	-3 40	0.6	0.5	--	--	0.5	040°	--	--	0.4	235°	
2431	Turkey Point, 1.3 miles WSW of		38° 53.68'	76° 19.55'	Current weak and variable														
2433	Parson Island, 1.4 miles west of		38° 54.83'	76° 16.77'	Current weak and variable														
2435	Parson Island, 0.7 mile NNE of		38° 55.48'	76° 14.33'	--	-2 45	--	-2 50	0.2	0.2	--	--	0.2	305°	--	--	0.2	150°	
2437	Tiighman Point, 1 mile north of		38° 52.78'	76° 15.18'	--	-3 15	--	-3 55	0.4	0.4	--	--	0.3	060°	--	--	0.3	265°	
2439	Wye River, west of Bruffs Island		38° 51.28'	76° 11.88'	-2 33	-3 18	-3 17	-3 00	0.8	0.9	--	--	0.6	030°	--	--	0.7	190°	
2441	Deepwater Point, Miles River		38° 48.33'	76° 12.55'	-3 48	-3 52	-3 43	-4 14	0.6	0.6	--	--	0.5	215°	--	--	0.5	025°	
2443	Long Point, 0.8 mi. east of, Miles River		38° 46.43'	76° 09.32'	--	-3 24	--	-3 45	0.4	0.2	--	--	0.3	055°	--	--	0.2	245°	

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			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	WEST and SOUTH RIVERS Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m								
	<b>on Baltimore Harbor Approach, p.96</b>																	
2445	Cheston Point, south of, West River		38° 51.33'	76° 31.43'	Current weak and variable													
2447	South River entrance		38° 54.77'	76° 29.43'	Current weak and variable													
	SEVERN and MAGOTHY RIVERS																	
2449	Greenbury Point, 1.8 miles east of	8	38° 58.40'	76° 25.00'	-0 57	-1 05	-0 51	-0 47	0.8	0.8	--	--	0.6	070°	--	--	0.6	245°
2451	Annapolis		38° 58.95'	76° 28.50'	--	-3 35	--	-2 26	0.5	0.4	--	--	0.4	320°	--	--	0.3	110°
2453	Brewer Point, Severn River		39° 01.83'	76° 31.73'	--	-1 22	--	-1 50	0.4	0.4	--	--	0.3	275°	--	--	0.3	155°
2455	Mountain Point, Magothy River entrance		39° 03.47'	76° 26.23'	-2 20	-2 00	-1 29	-2 04	0.8	0.4	--	--	0.6	315°	--	--	0.3	125°
	CHESTER RIVER																	
2457	Love Point, 1.6 n.mi. east of	16d	39° 02.05'	76° 16.07'	-1 42	-1 15	-0 47	-1 15	0.6	0.4	0.1	278°	0.4	202°	0.1	261°	0.4	341°
2459	Kent Island Narrows (highway bridge)	4	38° 58.23'	76° 14.83'	-2 07	-2 25	-2 11	-2 56	1.2	1.1	--	--	1.0	005°	--	--	0.9	190°
2461	Hail Point, 0.7 n.mi. east of	16d	39° 00.63'	76° 10.95'	-0 51	-1 08	-1 12	-0 37	0.5	0.6	--	--	0.4	002°	--	--	0.5	168°
2463	Deep Point		39° 06.38'	76° 07.23'	-0 31	-0 33	-0 32	-0 18	0.6	0.9	--	--	0.5	065°	--	--	0.7	260°
2465	Chestertown		39° 12.43'	76° 03.67'	-0 21	+0 05	-0 02	-0 17	0.8	0.6	--	--	0.6	025°	--	--	0.5	220°
	PATAPSCO RIVER																	
2467	North Point, Brewerton Channel	15d	39° 10.70'	76° 26.65'	Current weak and variable													
2469	Brewerton Angle		39° 12.08'	76° 30.78'	Current weak and variable													
2471	Fort McHenry Angle		39° 15.45'	76° 34.53'	Current weak and variable													
2473	Bear Creek entrance		39° 13.8'	76° 29.9'	Current weak and variable													
2475	Curtis Creek entrance		39° 13.1'	76° 34.6'	Current weak and variable													
2477	Fort McHenry, NW Harbor entrance		39° 15.8'	76° 34.5'	Current weak and variable													
2479	Middle Branch entrance		39° 15.4'	76° 37.0'	Current weak and variable													
	BACK, GUNPOWDER and BUSH RIVERS																	
2481	Lynch Point, Back River		39° 15.0'	76° 26.3'	+0 00	-0 10	+0 00	-0 10	0.7	0.5	--	--	0.6	310°	--	--	0.4	130°
2483	Gunpowder River entrance		39° 18.7'	76° 18.5'	-0 24	-0 41	+0 25	+0 05	0.5	0.4	--	--	0.4	040°	--	--	0.3	205°
2485	Bush River, 0.4 mi. SW of Bush Point		39° 21.4'	76° 15.4'	+0 07	-0 24	+0 21	+0 20	0.8	0.6	--	--	0.6	325°	--	--	0.5	165°
	SASSAFRAS RIVER																	
2487	Grove Point		39° 22.7'	76° 02.6'	+0 46	+0 46	+0 51	+0 44	0.5	0.4	--	--	0.4	095°	--	--	0.3	288°
2489	Ordinary Point, 0.4 mile west of		39° 22.45'	75° 59.25'	+0 50	+0 37	+1 17	+0 58	0.6	0.5	--	--	0.5	165°	--	--	0.4	345°
2491	Georgetown		39° 21.67'	75° 53.17'	+1 00	+0 25	+0 56	+1 25	0.4	0.5	--	--	0.3	090°	--	--	0.4	200°
	ELK RIVER																	
2493	Arnold Point, 0.4 mile west of		39° 27.83'	75° 58.45'	+1 39	+1 45	+1 24	+1 32	1.0	1.0	--	--	0.8	040°	--	--	0.8	215°
2495	Old Town Point Wharf, northwest of	17d	39° 30.23'	75° 55.12'	+2 00	+1 53	+1 49	+1 45	1.3	1.6	--	--	1.1	054°	--	--	1.3	242°
	do.	29d	39° 30.23'	75° 55.12'	+2 07	+2 04	+1 47	+1 45	1.2	1.4	--	--	0.9	055°	--	--	1.1	237°
2497	Hendersons Point		39° 33.2'	75° 51.6'	+2 05	+2 05	+2 05	+2 05	0.6	0.9	--	--	0.5	030°	--	--	0.7	210°
	CHESAPEAKE and DELAWARE CANAL																	
	<b>on Ches. &amp; Del. Canal, p.100</b>																	
2499	Back Creek, 0.3 n.mi. W of Sandy Pt	14d	39° 31.67'	75° 51.97'	-0 06	-0 12	-0 10	-0 01	0.6	0.7	--	--	1.2	057°	--	--	1.4	244°
	do.	31d	39° 31.67'	75° 51.97'	-0 04	-0 25	+0 00	+0 01	0.6	0.6	--	--	1.2	052°	--	--	1.2	240°
2501	C&D CANAL, Chesapeake City	9d	39° 31.82'	75° 49.58'	<b>Daily predictions</b>													
2503	Chesapeake City Bridge, 0.45 n.mi. E of	26d	39° 31.67'	75° 48.43'	-0 27	-0 11	+0 08	-0 07	1.0	0.7	--	--	2.0	097°	--	--	1.9	278°
	do.	37d	39° 31.67'	75° 48.43'	-0 31	-0 16	+0 11	-0 14	0.7	0.5	--	--	1.5	083°	--	--	0.9	275°
2505	Conrail Bridge, east of	17d	39° 32.55'	75° 42.15'	-0 35	-0 25	+0 02	-0 08	0.9	0.7	--	--	1.9	099°	--	--	1.3	278°
	do.	34d	39° 32.55'	75° 42.15'	-0 40	-0 23	-0 01	-0 34	0.7	0.5	--	--	1.4	096°	--	--	1.0	281°

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	CHESAPEAKE and DELAWARE CANAL Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m						
					<b>on Ches. &amp; Del. Canal, p.100</b>													
2507	St. George Bridge, 0.1 n.mi. ENE of	18d	39° 33.17'	75° 39.00'	-0 57	-1 08	-0 48	-1 08	0.9	0.7	--	--	1.7	064°	--	--	1.3	247°
2509	Reedy Point Radio Tower, south of	19d	39° 33.62'	75° 34.20'	-1 05	-0 55	-0 10	-0 16	1.0	0.7	--	--	1.9	078°	--	--	1.3	263°
	VIRGINIA, outer coast				<b>on Chesapeake Bay Entrance, p.92</b>													
2511	Cape Henry Light, 0.7 mile east of		36° 55.70'	75° 59.60'	-0 06	-0 23	-1 07	-0 06	0.9	1.8	--	--	1.0	320°	--	--	1.9	105°
2513	Virginia Beach, south end		36° 33.00'	75° 52.10'	-0 53	-0 20	-0 21	-0 09	0.4	0.4	--	--	0.5	350°	--	--	0.4	170°
	PAMLICO SOUND				<b>on Charleston Harbor, p.104</b>													
	<i>Oregon Inlet</i>																	
2515	Bodie Island–Pea Island, between	6	35° 46.6'	75° 32.1'	+2 38	+2 20	+2 03	+1 52	1.2	0.6	--	--	2.1	202°	0.1	113°	1.2	028°
	do.	12	35° 46.6'	75° 32.1'	+2 49	+2 36	+2 02	+1 48	1.2	0.6	--	--	2.0	204°	0.1	113°	1.2	036°
2517	Coast Guard Tower, southwest of	6	35° 45.7'	75° 31.9'	+3 04	+2 30	+1 53	+2 18	0.8	0.8	--	--	1.4	205°	--	--	1.5	028°
	do.	12	35° 45.7'	75° 31.9'	+3 01	+2 33	+1 57	+1 33	0.8	0.7	--	--	1.3	212°	--	--	1.4	033°
2519	Herbert C. Bonner Bridge, WSW of	6	35° 46.2'	75° 32.8'	+3 32	+2 55	+1 30	+1 46	0.6	0.9	--	--	1.0	280°	--	--	1.8	087°
2521	Hatteras Inlet		35° 12'	75° 45'	+2 42	+2 42	+2 18	+1 38	1.2	1.0	--	--	2.1	307°	--	--	2.0	148°
2523	Diamond Shoal Light, 3.9 miles SSW of		35° 09'	75° 18'	Current weak and variable													
	<i>Ocracoke Inlet</i>																	
2525	channel entrance		35° 03.92'	76° 01.13'	+2 48	+2 24	+1 43	+1 40	1.0	1.2	--	--	1.7	000°	--	--	2.4	145°
2527	Teaches Hole Channel	10	35° 04.75'	76° 00.28'	+2 49	+2 27	+1 42	+1 47	0.6	0.8	--	--	1.1	050°	--	--	1.6	195°
2529	Blair Channel	10	35° 04.88'	76° 02.03'	+2 52	+2 33	+1 48	+2 03	0.6	0.9	--	--	1.0	355°	--	--	1.7	140°
2531	Wallace Channel	9	35° 04.78'	76° 03.12'	+2 51	+2 57	+2 03	+2 13	0.9	0.9	--	--	1.6	305°	--	--	1.8	140°
2533	Sheep Island Slue		35° 04'	76° 06'	+2 33	+3 18	+1 35	+1 56	0.1	0.2	--	--	0.2	310°	--	--	0.3	095°
2535	Ocracoke Inlet, 3.5 miles SSE of		35° 01'	76° 00'	Current weak and variable													
	NORTH CAROLINA COAST																	
	<i>Beaufort Inlet</i>																	
2537	Shackleford Banks, 0.8 mile S of	6	34° 39.98'	76° 39.33'	+1 19	+1 16	+0 30	+0 31	0.8	0.7	--	--	1.4	314°	--	--	1.5	145°
2539	Approach		34° 40.3'	76° 40.2'	+2 03	+1 19	+0 37	+0 57	0.2	0.7	--	--	0.3	358°	--	--	1.4	161°
2541	Fort Macon, 0.6 mile SE of		34° 41.15'	76° 40.10'	+1 42	+1 47	+0 51	+0 38	0.7	0.9	--	--	1.2	332°	--	--	1.7	154°
2543	Fort Macon, 0.2 mile NE of	10	34° 41.98'	76° 40.52'	+1 12	+1 20	+0 36	+0 21	1.1	0.9	0.1	232°	2.0	307°	--	--	1.8	151°
	do.	20	34° 41.98'	76° 40.52'	+1 12	+1 18	+0 36	+0 39	1.1	0.9	0.2	242°	2.0	320°	0.1	232°	1.7	153°
2545	Tombstone Point, 0.1 mile E of	15	34° 42.23'	76° 41.17'	+1 13	+1 25	+0 34	+0 27	0.9	0.8	0.1	222°	1.6	305°	0.1	220°	1.7	128°
2547	Turning Basin	6	34° 42.78'	76° 41.65'	+1 11	+1 34	+0 50	+0 32	0.8	0.5	--	--	1.3	327°	0.1	237°	1.0	144°
	do.	15	34° 42.78'	76° 41.65'	+1 09	+1 34	+0 59	+0 32	0.7	0.5	0.4	048°	1.2	334°	0.1	237°	1.0	138°
2549	Sugarloaf Island, 0.2 mile S of	6	34° 42.75'	76° 42.83'	+1 58	+1 39	+1 22	+1 14	0.7	0.8	--	--	1.1	266°	--	--	1.6	094°
2551	Morehead City, S of	6	34° 43.00'	76° 43.97'	+2 12	+1 47	+1 29	+1 42	0.8	0.7	--	--	1.4	293°	--	--	1.4	110°
2553	Morehead City, RR. bridge, N of	6	34° 43.37'	76° 41.63'	+0 44	+1 01	+0 09	-1 03	0.6	0.5	0.2	127°	1.0	054°	0.1	122°	1.0	185°
2555	Newport Marshes, SE of	6	34° 43.88'	76° 41.00'	+0 57	+1 02	+0 18	-0 08	0.8	0.6	0.1	130°	1.4	044°	--	--	1.2	215°
	do.	15	34° 43.88'	76° 41.00'	+0 53	+1 15	+0 21	-0 08	0.8	0.6	--	--	1.3	044°	--	--	1.2	226°
2557	Newport Marshes, E of	6	34° 44.27'	76° 40.83'	+0 07	+0 11	-0 37	-0 09	0.6	0.5	--	--	1.0	040°	--	--	1.0	224°
2559	Radio Island, E of	6	34° 42.70'	76° 40.78'	+0 55	+0 55	+0 20	+0 16	0.7	0.6	--	--	1.2	022°	--	--	1.2	202°
2561	Beaufort, off docks		34° 43'	76° 40'	Current irregular													
2563	Bird Shoal, SE of	6	34° 42.03'	76° 39.23'	+1 40	+1 34	+1 10	+0 16	0.5	0.4	--	--	0.8	126°	0.1	217°	0.8	304°
2565	Shackleford Point, NE of	6	34° 41.53'	76° 39.13'	+1 32	+1 28	+1 10	+0 46	0.8	0.6	0.1	218°	1.3	135°	--	--	1.1	305°
2567	Carrot Island	6	34° 42.13'	76° 37.05'	+1 49	+1 34	+1 15	+1 49	0.5	0.7	0.1	359°	0.9	080°	--	--	1.3	262°
2569	Middle Marshes, S of	6	34° 40.70'	76° 36.83'	+0 59	+1 04	+1 03	+0 18	0.8	0.5	0.1	197°	1.4	123°	0.1	181°	1.1	275°
2571	Cape Lookout Shoals Ltd. Whistle Buoy 14		34° 18'	76° 24'	Current weak and variable													
	CAPE FEAR RIVER																	
2573	Bald Head		33° 52.43'	78° 00.45'	+1 15	+0 22	+0 09	+0 59	1.3	1.5	--	--	2.2	034°	--	--	2.9	190°
2575	Intracoastal Waterway, Southport	6	33° 55.07'	78° 02.53'	+0 27	+1 28	+0 05	-1 15	0.5	0.4	--	--	0.8	280°	--	--	0.8	095°
2577	Southport	6	33° 54.87'	78° 00.70'	+1 49	+1 05	+0 54	+1 15	0.9	1.4	--	--	1.6	059°	--	--	2.6	225°
2579	Southport	16	33° 55.03'	78° 00.53'	+1 34	+1 12	+1 03	+1 15	1.0	1.2	--	--	1.6	062°	0.1	152°	2.4	244°
	do.	26	33° 55.03'	78° 00.53'	+1 22	+1 23	+1 03	+1 13	1.0	1.1	--	--	1.7	082°	0.1	161°	2.1	247°

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS											
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb					
											h	m	h	m	knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	CAPE FEAR RIVER Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m										
<b>on Charleston Harbor, p.104</b>																						
2581	Sunny Point	6	33° 59.18'	77° 57.28'	+2	10	+0	56	+0	45	+1	24	0.5	0.6	--	--	0.9	003°	--	--	1.2	176°
	do.	16	33° 59.18'	77° 57.28'	+2	07	+1	49	+1	11	+1	55	0.5	0.6	--	--	0.9	347°	--	--	1.1	160°
	do.	26	33° 59.18'	77° 57.28'	+1	57	+1	49	+1	40	+1	52	0.6	0.5	--	--	1.0	350°	--	--	1.0	167°
2583	Horseshoe Shoal	6	33° 58.17'	77° 56.87'	+2	16	+1	34	+1	24	+1	52	0.9	1.0	0.1	110°	1.5	019°	0.1	101°	1.8	198°
	do.	16	33° 58.17'	77° 56.87'	+2	04	+1	35	+1	32	+1	51	0.9	0.9	0.1	111°	1.5	025°	--	--	1.8	199°
	do.	26	33° 58.17'	77° 56.87'	+1	54	+1	41	+1	32	+1	30	0.8	0.7	--	--	1.3	012°	--	--	1.4	193°
2585	Reaves Point, 0.3 mile east of	6	33° 59.92'	77° 56.97'	+1	09	+0	03	+1	02	-0	49	0.2	0.2	--	--	0.3	351°	--	--	0.3	181°
	do.	16	33° 59.92'	77° 56.97'	+1	24	+1	41	+1	39	+0	13	0.4	0.2	--	--	0.7	332°	0.1	251°	0.4	159°
	do.	26	33° 59.92'	77° 56.97'	+0	52	+1	44	+2	44	+1	37	0.6	0.1	--	--	1.0	331°	0.0	256°	0.2	160°
2587	Reaves Point Channel	6	33° 59.08'	77° 55.85'	+2	27	+1	31	+1	41	+2	17	0.8	0.8	--	--	1.3	009°	--	--	1.6	195°
	do.	16	33° 59.08'	77° 55.85'	+2	04	+1	08	+1	35	+2	19	0.9	0.9	--	--	1.5	013°	--	--	1.7	192°
	do.	26	33° 59.08'	77° 55.85'	+1	50	+2	06	+1	41	+1	52	0.7	0.6	--	--	1.1	017°	--	--	1.1	194°
2589	Reaves Point, 0.8 mile northeast of	6	34° 00.43'	77° 56.47'	+2	27	+1	47	+1	39	+2	25	0.8	0.8	--	--	1.4	020°	--	--	1.5	197°
	do.	16	34° 00.43'	77° 56.47'	+2	14	+1	42	+1	53	+2	28	0.8	0.7	--	--	1.4	021°	0.1	099°	1.4	196°
	do.	26	34° 00.43'	77° 56.47'	+2	09	+1	33	+2	01	+2	10	0.7	0.5	--	--	1.2	017°	0.0	103°	1.0	167°
2591	Reaves Point, 0.4 mile north of	6	34° 00.37'	77° 57.15'	+2	41	+1	46	+1	44	+2	19	0.5	0.4	--	--	0.8	027°	--	--	0.9	198°
	do.	16	34° 00.37'	77° 57.15'	+2	21	+2	48	+1	57	+2	07	0.5	0.4	--	--	0.9	011°	--	--	0.7	191°
	do.	26	34° 00.37'	77° 57.15'	+1	25	+2	04	+2	16	+1	26	0.5	0.4	--	--	0.9	050°	0.1	117°	0.8	183°
2593	Snows Cut, Intracoastal Waterway	6	34° 03.38'	77° 53.93'	+6	27	+5	13	+6	59	+5	27	0.7	0.5	--	--	1.2	080°	0.0	350°	1.0	264°
2595	Myrtle Sound, Intracoastal Waterway	6	34° 04.68'	77° 53.40'	+6	44	+5	58	+6	59	+5	45	0.7	0.6	--	--	1.2	017°	0.0	285°	1.1	195°
2597	Upper Midnight channel	6	34° 01.72'	77° 56.43'	+2	06	+1	32	+1	47	+1	32	1.0	1.0	--	--	1.7	028°	--	--	2.0	174°
2599	Doctor Point, 0.6 mile NNW of	6	34° 04.72'	77° 55.95'	+2	42	+2	10	+1	46	+2	31	0.9	1.0	--	--	1.6	015°	0.1	097°	2.0	192°
	do.	16	34° 04.72'	77° 55.95'	+2	30	+2	03	+1	59	+2	22	0.9	0.8	--	--	1.5	006°	--	--	1.6	177°
	do.	26	34° 04.72'	77° 55.95'	+2	12	+2	18	+2	04	+2	22	0.9	0.7	0.1	099°	1.5	327°	--	--	1.4	177°
2601	Campbell Island, east side	6	34° 07.22'	77° 56.18'	+2	56	+2	33	+2	02	+2	39	0.9	0.7	--	--	1.5	020°	--	--	1.4	193°
	do.	16	34° 07.22'	77° 56.18'	+2	28	+2	15	+2	13	+2	32	0.8	0.7	--	--	1.4	003°	--	--	1.4	182°
	do.	26	34° 07.22'	77° 56.18'	+2	21	+2	34	+2	18	+2	34	0.7	0.5	--	--	1.2	004°	--	--	1.0	185°
2603	Dram Tree Point, 0.5 mile SSE of <i>Brunswick River</i>	6	34° 11.53'	77° 57.45'	+3	26	+3	35	+2	22	+3	31	0.8	0.7	--	--	1.4	006°	--	--	1.3	181°
2605	0.4 mile north of	6	34° 10.87'	77° 57.95'	+3	12	+1	40	+1	51	+1	22	0.5	0.6	--	--	0.8	290°	0.1	200°	1.2	118°
	do.	16	34° 10.87'	77° 57.95'	+3	04	+1	52	+1	53	+1	22	0.5	0.5	--	--	0.8	301°	--	--	1.0	127°
2607	1.8 miles north of mouth	6	34° 12.33'	77° 58.47'	+3	18	+2	34	+1	59	+2	52	0.3	0.4	--	--	0.5	354°	--	--	0.8	170°
2609	Wilmington	6	34° 14.20'	77° 57.17'	+3	52	+4	07	+2	48	+3	07	0.8	0.7	--	--	1.4	337°	--	--	1.4	153°
	do.	20	34° 14.20'	77° 57.17'	+3	40	+3	34	+2	37	+3	37	0.8	0.7	--	--	1.3	341°	--	--	1.4	164°
2611	Point Peter	6	34° 14.53'	77° 57.50'	+5	15	+5	19	+4	10	+5	07	0.4	0.4	--	--	0.6	307°	--	--	0.7	124°
2613	Turning Basin, Northeast River	6	34° 14.85'	77° 57.23'	+4	08	+4	13	+3	11	+3	52	0.4	0.4	--	--	0.6	021°	--	--	0.7	207°
	do.	20	34° 14.85'	77° 57.23'	+4	03	+4	18	+3	13	+3	52	0.4	0.3	--	--	0.7	026°	--	--	0.7	200°
<b>NORTH CAROLINA COAST</b>																						
2615	Frying Pan Shoals, off Cape Fear		33° 34'	77° 49'	See table 5.																	
2617	Frying Pan Shoals Light, 14.3 mi. NW of		33° 28'	77° 34'	Current weak and variable																	
<b>WINYAH BAY</b>																						
2619	Winyah Bay entrance		33° 12.43'	79° 11.07'	+1	47	+1	35	+1	05	+1	20	1.1	1.0	--	--	1.9	320°	--	--	2.0	140°
2621	Range D, off Mosquito Creek		33° 14.65'	79° 12.35'	+2	00	+1	57	+1	13	+1	42	1.2	1.1	--	--	2.1	330°	--	--	2.2	130°
2623	Frazier Point, south of		33° 17.70'	79° 16.37'	+1	52	+1	52	+2	20	+1	59	1.1	0.5	--	--	1.8	320°	--	--	0.9	115°
2625	Frazier Point, west of		33° 18.58'	79° 17.20'	+2	23	+2	19	+2	01	+1	41	0.9	1.0	--	--	1.6	000°	--	--	2.0	170°
2627	Rabbit Island, northwest of		33° 20.37'	79° 16.88'	+2	39	+2	46	+2	14	+2	25	1.2	0.9	--	--	2.1	015°	--	--	1.8	215°
2629	Sampit River entrance		33° 21.08'	79° 16.82'	+1	33	+1	20	+1	39	+0	53	0.6	0.7	--	--	1.1	345°	--	--	1.3	135°
2631	Georgetown, Sampit River		33° 21.55'	79° 17.25'	+2	00	+1	18	+0	56	+0	52	0.5	0.6	--	--	0.8	275°	--	--	1.1	080°
2633	Pee Dee River, swing bridge		33° 22.23'	79° 15.83'	+3	03	+3	13	+1	57	+2	43	0.4	0.5	--	--	0.7	000°	--	--	0.9	210°
2635	Lafayette swing bridge, Waccamaw River		33° 22.12'	79° 15.12'	+3	23	+3	04	+1	56	+2	31	0.4	0.6	--	--	0.7	005°	--	--	1.2	200°
2637	Butler Island, 0.3 mile south of		33° 25.00'	79° 12.72'	+3	36	+3	34	+2	11	+2	55	0.4	0.5	--	--	0.6	030°	--	--	0.9	205°

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS									
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb			
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.		
	SOUTH CAROLINA COAST Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m								
			<b>on Charleston Harbor, p.104</b>																	
2639	North Santee River entrance	6	33° 08.15'	79° 14.45'	+1 00	+0 33	+0 03	-0 01	0.9	0.9	--	--	1.5	010°	--	--	1.8	165°		
2641	South Santee River entrance	5	33° 07.2'	79° 16.5'	+0 20	+0 38	+0 27	+0 15	0.9	0.8	--	--	1.5	045°	--	--	1.6	240°		
2643	Cape Romain		--	--																
2645	Capers Inlet		--	--																
2647	Charleston Entrance, 37 miles east of		32° 42'	79° 06'																
2649	Charleston Lighted Whistle Buoy 2C		32° 41'	79° 43'																
	CHARLESTON HARBOR																			
2651	Fort Sumter Range, Buoy '2'		32° 40.98'	79° 43.56'	-1 05	-0 51	-1 11	-1 03	0.2	0.2	0.2	194°	0.3	280°	0.2	023°	0.4	104°		
2653	Fort Sumter Range, Buoy '4'		32° 41.86'	79° 45.34'	-0 49	-0 59	-1 10	-0 38	0.3	0.2	0.1	202°	0.5	289°	0.1	026°	0.4	117°		
2655	Fort Sumter Range, Buoy '8'		32° 42.90'	79° 47.54'	-0 15	-0 16	+0 17	+0 24	0.4	0.5	0.2	204°	0.6	299°	0.1	038°	0.9	128°		
2657	Fort Sumter Range, Buoy '14'		32° 43.46'	79° 48.60'	-0 10	-0 04	+0 16	+0 01	0.6	0.8	0.1	193°	1.1	287°	0.2	019°	1.5	116°		
2659	North Jetty, 0.8 mile southeast of <30>		32° 43.05'	79° 48.00'	-0 06	-0 48	-1 09	-0 16	0.2	0.6	0.1	202°	0.4	295°	0.1	358°	1.1	110°		
2661	Charleston Hbr. ent. (between jetties)		32° 44.00'	79° 50.00'	-0 01	+0 04	+0 05	+0 09	1.1	0.9	--	--	1.8	320°	--	--	1.8	121°		
2663	Fort Sumter Range, Buoy '20'		32° 44.43'	79° 50.67'	-0 33	-0 15	-0 33	-0 51	0.9	0.9	0.1	230°	1.6	305°	0.1	040°	1.8	128°		
2665	South Jetty, break in		32° 43.87'	79° 51.02'	+0 38	+0 31	+0 06	+0 22	0.7	1.4	--	--	1.2	002°	--	--	2.8	204°		
2667	CHARLESTON HARBOR (off Fort Sumter)		32° 45.36'	79° 52.22'							0.2	212°	1.7	313°	--	--	2.0	127°		
2669	Ft. Sumter, 0.6 n.mi. NW of		32° 45.67'	79° 52.03'	-0 05	-0 03	+0 01	-0 24	0.9	0.9	0.1	220°	1.6	322°	0.1	233°	1.7	138°		
2671	South Chan., 0.8 mi. ENE of Ft. Johnson		32° 45.52'	79° 53.08'	+0 43	+0 11	-0 12	+0 13	0.5	1.3	--	--	0.8	275°	--	--	2.6	115°		
2673	South Chan., 0.4 mi. NW of Ft. Johnson		32° 45.48'	79° 54.38'	+1 10	+0 58	+0 16	+0 43	0.4	1.0	--	--	0.7	282°	--	--	1.9	104°		
2675	Sullivans I., 0.7 mi. NE of Ft. Sumter		32° 45.72'	79° 52.05'	+0 17	+0 37	+0 01	-0 03	0.8	0.8	--	--	1.4	342°	--	--	1.5	132°		
2677	Castle Pinckney, 0.4 mile south of		32° 46.02'	79° 54.70'	+0 40	+1 00	+0 14	+0 58	0.5	0.9	--	--	0.8	304°	--	--	1.7	098°		
2679	South Channel, Buoy '32'		32° 45.73'	79° 54.66'	-0 01	-0 04	+0 18	-0 02	0.5	0.5	0.1	219°	0.8	305°	0.1	026°	1.0	125°		
2681	Castle Pinckney, 0.6 mile southwest of		32° 45.98'	79° 55.17'	+1 21	+1 20	+0 24	+0 40	0.4	0.7	--	--	0.7	318°	--	--	1.3	156°		
2683	Shutes Folly Island, 0.4 mile west of		32° 46.58'	79° 55.25'	+0 53	+0 59	+0 20	+0 08	0.5	1.1	--	--	0.8	028°	--	--	2.2	164°		
2685	Customhouse Reach, off Customhouse		32° 46.77'	79° 55.35'	+0 49	+1 03	+0 59	+0 23	0.6	0.7	--	--	1.0	009°	0.1	098°	1.3	190°		
2687	Customhouse Reach		32° 46.95'	79° 55.20'	+0 46	+0 37	+0 37	+0 15	0.6	0.9	--	--	1.0	005°	--	--	1.8	153°		
2689	Town Creek Lower Reach		32° 47.55'	79° 55.47'	+0 34	+0 24	+0 02	+0 07	0.6	1.1	--	--	1.1	335°	--	--	2.2	172°		
2691	Town Creek, 0.2 mile above bridge		32° 48.32'	79° 55.90'	+1 06	+0 54	+0 03	+0 03	0.5	1.3	--	--	0.8	002°	--	--	2.5	166°		
2693	Rebellion Reach, 0.8 n.mi. N. of Ft. Sumter		32° 45.98'	79° 52.40'	-0 06	+0 27	-0 25	-0 48	0.4	0.4	0.1	240°	0.7	329°	--	--	0.8	143°		
2695	The Cove, entrance on the Cove Range		32° 46.05'	79° 52.32'	+0 28	+1 14	+0 06	+0 10	0.7	0.5	--	--	1.2	346°	--	--	0.9	151°		
2697	Hog Island Channel		32° 46.87'	79° 52.58'	-0 39	+0 03	-0 29	-0 20	0.5	0.4	--	--	0.8	325°	--	--	0.8	125°		
2699	Folly I. Channel, N of Ft. Johnson		32° 46.18'	79° 54.07'	-1 09	-0 03	-0 04	-0 59	0.7	0.6	--	--	1.2	301°	--	--	1.1	104°		
2701	Folly Reach, Buoy '5'		32° 46.58'	79° 53.95'	+0 02	+0 35	+0 18	+0 13	0.7	0.8	0.1	205°	1.2	292°	--	--	1.6	110°		
2703	Shutes Reach, Buoy '8'		32° 46.93'	79° 54.65'	+0 18	+0 22	+0 15	-0 25	0.7	0.8	--	--	1.3	315°	0.1	037°	1.5	136°		
2705	Horse Reach		32° 47.17'	79° 54.90'	+0 36	+0 23	-0 12	+0 09	0.8	1.0	--	--	1.4	350°	--	--	1.9	146°		
2707	Hog Island Reach, Buoy '12'		32° 47.67'	79° 54.90'	+0 13	+0 28	+0 14	-0 12	0.7	0.7	--	--	1.2	012°	0.1	103°	1.3	193°		
2709	Drum Island, 0.4 mile SSE of		32° 47.67'	79° 55.25'	+0 34	+0 53	+0 11	-0 02	0.8	0.9	--	--	1.3	011°	--	--	1.8	155°		
2711	Drum Island, east of (bridge)		32° 48.27'	79° 54.92'	+0 30	+0 42	+0 15	+0 06	0.7	1.0	--	--	1.2	020°	--	--	2.0	183°		
2713	Hog Island Reach, SW of Remley Point		32° 48.71'	79° 54.72'	+0 30	+0 44	+0 43	+0 51	0.7	0.7	--	--	1.1	030°	--	--	1.4	210°		
2715	Drum Island Reach, off Drum I., Buoy '45'		32° 48.97'	79° 55.37'	+0 26	+1 00	+1 06	+1 00	0.4	0.5	--	--	0.6	312°	--	--	1.0	133°		
	Cooper River																			
2717	Drum Island, 0.2 mile above		32° 49.18'	79° 55.75'	+1 12	+1 09	+0 01	+0 37	0.6	1.2	--	--	1.1	332°	--	--	2.4	152°		
2719	Daniel Island Reach, Buoy '48'		32° 49.63'	79° 55.73'	+1 01	+1 29	+0 53	+0 55	0.7	0.7	--	--	1.2	006°	0.1	278°	1.3	182°		
2721	Shipyard Creek entrance <31>		32° 49.80'	79° 56.10'	+0 41	+1 06	-0 29	+0 09	0.3	0.8	--	--	0.5	--	--	--	1.5	197°		
2723	Daniel Island Reach		32° 49.97'	79° 55.80'	+1 29	+1 49	+0 42	+0 51	0.8	1.2	--	--	1.3	352°	--	--	2.3	190°		
2725	Daniel Island Bend		32° 50.90'	79° 55.75'	+0 55	+1 29	+0 55	+0 39	0.7	1.1	--	--	1.2	335°	0.1	260°	2.1	153°		
2727	Daniel Island Bend, west side of <47>		32° 50.85'	79° 56.00'	--	--	--	-0 01	--	0.5	--	--	--	--	--	--	1.0	144°		
2729	North Charleston		32° 51.82'	79° 57.53'	+1 26	+2 28	+1 04	+0 17	0.6	0.9	--	--	1.1	335°	--	--	1.7	142°		
2731	Filbin Creek Reach		32° 53.32'	79° 57.92'	+1 31	+2 06	+1 08	+1 27	0.7	0.9	--	--	1.2	006°	--	--	1.8	180°		
2733	Filbin Creek Reach, 0.2 mile east of		32° 53.28'	79° 57.63'	+1 16	+1 47	+0 32	+0 29	0.4	0.7	--	--	0.6	002°	--	--	1.4	197°		
2735	Filbin Creek Reach, Buoy '58'		32° 53.78'	79° 57.67'	+1 18	+2 04	+1 24	+1 09	0.6	0.7	--	--	1.1	031°	--	--	1.3	214°		
2737	Ordnance Reach		32° 54.38'	79° 57.17'	+1 35	+2 34	+1 05	+1 07	0.6	0.6	--	--	1.0	062°	--	--	1.2	242°		
2739	Yellow House Creek		32° 54.53'	79° 56.18'	+2 06	+2 41	+0 57	+1 12	0.4	0.7	--	--	0.7	088°	--	--	1.4	270°		
2741	Yellow House Landing, 1 mile NW of		32° 55.18'	79° 55.83'	+2 26	+2 43	+0 58	+1 06	0.4	0.9	--	--	0.7	334°	--	--	1.8	170°		
2743	Woods Point, SE of		32° 55.55'	79° 55.97'	+1 48	+1 55	+1 55	+2 09	0.5	0.5	--	--	0.8	334°	0.1	067°	1.0	157°		

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS									
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb			
											h	m	h	m	knots	Dir.	knots	Dir.	knots	Dir.
	CHARLESTON HARBOR Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m								
					on Charleston Harbor, p.104															
	<i>Cooper River-cont.</i>																			
2745	Woods Point		32° 55.90'	79° 56.30'	+2 41	+3 02	+1 11	+1 43	0.5	0.7	--	--	0.9	002°	--	--	1.4	201°		
2747	Snow Point, 0.5 mile north of		32° 57.1'	79° 55.8'	+2 15	+2 36	+1 48	+1 33	0.6	0.7	--	--	1.1	010°	--	--	1.4	210°		
2749	Back River entrance		32° 58.1'	79° 56.0'	+0 46	+0 45	+0 48	+0 34	0.6	0.6	--	--	1.0	252°	--	--	1.2	067°		
2751	Amoco Pier, off		32° 57.55'	79° 55.08'	+2 09	+2 49	+2 10	+1 48	0.4	0.5	0.1	292°	0.7	024°	0.1	297°	0.9	191°		
2753	Moreland, 0.5 n.mi. below		33° 00.03'	79° 54.28'	+2 39	+2 58	+2 28	+2 19	1.1	1.0	--	--	1.9	036°	--	--	2.0	216°		
2755	Hagan Island, 1 n.mi. below		33° 02.00'	79° 54.80'	+2 39	+3 52	+2 27	+1 37	0.8	0.7	0.1	048°	1.3	308°	--	--	1.4	134°		
2757	The Tee, 0.4 mile southwest of		33° 03.80'	79° 55.78'	+4 22	+4 20	+2 29	+3 20	0.6	0.9	--	--	1.0	280°	--	--	1.7	098°		
2759	The Tee		33° 03.95'	79° 55.38'	+3 00	+3 09	+2 36	+1 43	0.6	0.5	0.1	075°	0.9	339°	0.1	253°	1.0	161°		
2761	Childsbury, S.A.L. RR. bridge		33° 05.63'	79° 56.55'	+4 43	+4 27	+2 15	+3 34	0.4	0.9	--	--	0.7	309°	--	--	1.7	141°		
2763	East Branch, 0.2 mile above entrance		33° 04.1'	79° 55.2'	+3 01	+3 07	+2 59	+3 06	1.1	0.9	--	--	1.8	084°	--	--	1.7	262°		
2765	Bonneau Ferry, east of		33° 04.3'	79° 53.0'	+3 27	+3 10	+2 44	+3 36	0.4	0.4	--	--	0.7	022°	--	--	0.8	197°		
	<i>Wando River</i>																			
2767	Remley Point, 0.2 mile northwest of		32° 48.97'	79° 54.57'	-0 14	+0 36	+0 20	-0 04	0.8	0.9	--	--	1.3	028°	--	--	1.8	191°		
2769	Wando River Upper Reach, Turning Basin		32° 50.00'	79° 53.80'	-0 14	-0 12	-0 09	-0 09	0.6	0.6	--	--	1.0	012°	--	--	1.2	192°		
2771	Rathall Creek entrance		32° 51.57'	79° 53.77'	+0 25	+0 35	+0 18	-0 18	0.8	0.9	--	--	1.3	030°	--	--	1.7	216°		
2773	Horbek Creek, 0.2 mile above entrance		32° 53.1'	79° 50.7'	+0 28	+0 29	+0 31	+0 24	0.6	0.5	--	--	1.0	026°	--	--	0.9	218°		
2775	Nowell Creek entrance		32° 52.7'	79° 52.5'	-0 02	+0 42	-0 12	-0 39	0.4	0.6	--	--	0.7	350°	--	--	1.1	171°		
2777	Buoy '19', off Nowell Creek		32° 52.32'	79° 51.93'	-0 08	-0 06	+0 04	-0 19	0.5	0.5	--	--	0.8	080°	--	--	1.0	261°		
2779	Horbek Creek, 2.5 miles north of		32° 55.1'	79° 50.3'	+0 30	+0 41	+0 26	+0 28	0.5	0.7	--	--	0.8	015°	--	--	1.3	207°		
	<i>Ashley River</i>																			
2781	Battery, southwest of		32° 46.03'	79° 56.03'	+0 16	+0 09	-0 24	+0 03	0.7	0.9	--	--	1.2	303°	--	--	1.8	114°		
2783	Wappoo Creek, off of		32° 46.38'	79° 57.00'	+0 07	-0 05	-0 06	-0 41	0.7	0.6	--	--	1.1	315°	--	--	1.2	136°		
2785	Highway Bridge		32° 46.92'	79° 57.60'	-0 09	+0 30	-0 03	-0 18	0.7	0.6	--	--	1.2	321°	--	--	1.1	138°		
2787	S.C.L. RR. bridge, 0.1 mile below		32° 47.73'	79° 58.40'	-0 06	+0 44	-0 12	-0 28	0.6	0.6	--	--	1.0	353°	--	--	1.1	150°		
2789	S.C.L. RR. bridge, 1.5 miles above		32° 49.2'	79° 57.9'	+0 22	+0 19	+0 17	+0 09	0.7	0.8	--	--	1.2	351°	--	--	1.5	178°		
2791	State Hwy. 7 bridge		32° 50.23'	79° 58.92'	+0 06	-0 04	+0 05	-0 05	0.6	0.5	--	--	1.0	293°	--	--	1.0	114°		
2793	West Marsh Island, 0.1 mile east of		32° 49.7'	80° 00.5'	+0 23	+0 30	+0 14	+0 25	0.4	0.5	--	--	0.7	250°	--	--	1.0	086°		
2795	Bees Ferry Bridge		32° 50.8'	80° 03.0'	+1 13	+0 44	+0 37	+0 22	1.1	1.2	--	--	1.9	310°	--	--	2.3	130°		
	STONO RIVER																			
2797	Stono Inlet		32° 37.6'	79° 59.6'	-0 14	+0 44	-0 09	-0 45	1.1	1.4	--	--	1.9	315°	--	--	2.7	136°		
2799	Snake Island	12	32° 38.4'	80° 01.2'	-0 44	-0 42	-0 30	-0 38	0.7	0.5	--	--	1.1	347°	--	--	1.0	179°		
2801	Johns Island Airport, south of	12	32° 41.0'	80° 00.2'	-0 15	-0 46	-0 13	-0 34	0.9	0.8	--	--	1.5	007°	--	--	1.6	192°		
2803	Johns Island Bridge	14	32° 45.2'	80° 00.6'	+0 40	+0 21	+0 33	+0 10	0.5	0.5	--	--	0.8	358°	--	--	1.0	182°		
2805	Elliott Cut, west end		32° 46.0'	80° 00.0'	+0 10	-1 00	-0 46	+0 18	0.9	1.0	--	--	1.6	260°	--	--	1.9	080°		
2807	Johns Island	12	32° 47.2'	80° 06.4'	-0 24	+1 48	+0 29	-0 32	0.4	0.4	--	--	0.6	249°	--	--	0.8	068°		
2809	Pleasant Point	12	32° 45.0'	80° 08.0'	+2 04	0 34	+3 54	+3 37	0.3	0.4	--	--	0.4	008°	--	--	0.7	196°		
									0.1				0.2	006°						
									0.4				0.7	011°						
	SOUTH CAROLINA COAST-cont.																			
2811	Folly Island, 3.5 miles east of		32° 38.4'	79° 50.5'	Current weak and variable															
2813	Folly Island, 2.0 miles east of		32° 39.4'	79° 52.1'	See table 5.															
2815	Deveaux Banks, off North Edisto River entrance	12	32° 32.7'	80° 09.4'	-0 16	-0 01	-0 04	-0 26	0.8	1.0	0.1	042°	1.4	306°	0.1	072°	2.0	126°		
2817	North Edisto River entrance		32° 33.7'	80° 11.2'	+0 56	+1 10	+1 11	+0 43	1.7	1.9	--	--	2.9	332°	--	--	3.7	142°		
2819	Wadmalaw Island, Wadmalaw River entrance	12	32° 39.9'	80° 14.1'	-1 02	+0 11	+0 06	-1 29	0.7	0.4	--	--	1.1	355°	--	--	0.7	165°		
2821	Goshen Point, SE of, Wadmalaw River	12	32° 42.6'	80° 10.3'	+0 51	+2 18	+1 47	+1 48	0.5	0.4	--	--	0.8	059°	--	--	0.7	249°		
2823	Goshen Point, south of, Wadmalaw River	12	32° 42.8'	80° 11.2'	+1 24	+2 03	+1 35	+1 53	0.4	0.5	--	--	0.6	048°	--	--	1.0	235°		
2825	White Point, south of, Dawho River	12	32° 37.5'	80° 16.9'	+0 31	+0 02	+0 29	+0 15	0.4	0.4	--	--	0.8	234°	--	--	0.8	044°		
2827	Whooping Island, Dawho River	12	32° 38.2'	80° 20.4'	+1 36	+0 36	+1 35	+1 37	0.5	0.3	--	--	0.8	246°	--	--	0.6	070°		
2829	South Edisto River entrance		32° 29.3'	80° 20.9'	+0 19	-0 14	-0 09	+0 24	1.1	1.1	--	--	1.8	350°	--	--	2.2	146°		
2831	Pine Island, South Edisto River	15	32° 30.4'	80° 21.7'	+0 00	-0 09	+0 12	+0 37	0.7	0.5	--	--	1.2	345°	--	--	1.0	163°		
2833	Fenwick Island Cut, South Edisto River	15	32° 32.1'	80° 24.8'	-2 43	-0 55	-3 20	-1 26	0.4	0.4	--	--	0.8	220°	--	--	0.8	023°		
2835	Sampson Island, S end, South Edisto River	15	32° 33.8'	80° 23.5'	+0 59	0 34	+0 59	+0 52	0.8	0.8	--	--	1.4	037°	--	--	1.5	244°		

Endnotes can be found at the end of table 2.



**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											h	m	h	m	knots	Dir.	knots	Dir.
	SOUTH CAROLINA COAST—cont. Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m								
			<b>on Charleston Harbor, p.104</b>															
2837	Sampson Island, NE end, South Edisto River . . . . .	15	32° 37.0'	80° 23.2'	+1 35	+1 15	+1 02	+0 52	0.8	0.8	--	--	1.4	334°	--	--	1.5	156°
2839	Jehossee Island, S tip, South Edisto River . . . . .	15	32° 36.2'	80° 25.2'	+1 44	+0 48	+0 53	+0 05	0.7	0.7	--	--	1.2	275°	0.1	352°	1.4	069°
2841	Smuggedy Swamp, South Edisto River . . . . .	6	32° 39.6'	80° 24.7'	+2 26	+1 14	+1 01	+2 25	0.5	0.7	--	--	0.8	349°	--	--	1.4	166°
2843	Hutchinson Island, Ashepoo River . . . . .	10	32° 31.9'	80° 26.1'	+1 21	+1 14	+0 54	+0 56	0.6	0.7	0.1	349°	1.1	278°	--	--	1.3	068°
2845	Ashepoo Coosaw Cutoff . . . . .	6	32° 31.5'	80° 27.2'	+1 22	+0 36	+0 56	+1 12	0.5	0.6	--	--	0.8	065°	--	--	1.2	265°
2847	Pelican Bank, St. Helena Sound . . . . .	15	32° 27.3'	80° 25.7'	+0 05	-0 33	+0 17	-0 35	0.9	0.8	--	--	1.5	300°	--	--	1.6	118°
2849	Ashepoo River, off Jefford Creek entrance . . . . .	32° 30.4'	80° 24.6'	+1 04	+0 46	+1 00	+0 43	0.9	0.8	--	--	1.5	016°	--	--	1.6	197°	
2851	Egg Bank, St. Helena Sound . . . . .	10	32° 26.1'	80° 26.6'	-0 12	-1 24	-0 06	-0 20	0.8	0.8	--	--	1.3	329°	0.1	053°	1.5	128°
2853	Morgan Island, NE of, Coosaw River . . . . .	15	32° 29.3'	80° 28.4'	+0 28	+0 27	+0 36	+0 19	0.8	1.0	--	--	1.4	303°	0.1	205°	1.8	125°
2855	Ashe Island Cut, SW of, Coosaw River . . . . .	15	32° 30.6'	80° 30.3'	+0 32	-0 09	+0 43	+0 31	0.6	0.6	--	--	1.0	325°	--	--	1.2	134°
2857	Ashe Island Cut, St. Helena Sound . . . . .	6	32° 31.2'	80° 29.3'	+0 31	+1 41	+1 01	-0 13	0.5	0.4	--	--	0.8	232°	--	--	0.8	034°
2859	Combahee River . . . . .	8	32° 31.6'	80° 32.2'	+0 55	+0 59	+1 04	+0 53	0.6	0.8	--	--	1.0	335°	--	--	1.5	147°
2861	Combahee River . . . . .	15	32° 33.0'	80° 33.8'	+1 36	+1 35	+1 33	+1 03	0.8	1.0	--	--	1.3	280°	--	--	2.0	073°
2863	Parrot Creek, Coosaw Island . . . . .	15	32° 28.4'	80° 32.7'	+0 12	-0 48	+0 24	-0 54	0.7	0.6	--	--	1.2	355°	--	--	1.1	175°
2865	Morgan Island, North end, Coosaw River . . . . .	15	32° 30.2'	80° 32.2'	+0 34	+0 41	+0 27	-0 30	0.8	0.9	--	--	1.4	271°	--	--	1.7	085°
2867	Williman Creek . . . . .	10	32° 33.7'	80° 35.5'	+0 40	+1 27	+1 02	+0 04	0.6	0.8	--	--	1.1	343°	--	--	1.6	160°
2869	Coosaw Island, South of, Morgan River . . . . .	10	32° 27.1'	80° 35.0'	+0 09	+0 55	+0 15	+0 03	0.7	0.7	--	--	1.2	252°	--	--	1.4	058°
2871	Sams Point, Northwest of, Coosaw River . . . . .	10	32° 29.6'	80° 35.6'	+0 34	+0 36	+0 31	+0 24	0.5	0.6	--	--	0.8	292°	--	--	1.1	117°
2873	Whale Branch River . . . . .	10	32° 31.6'	80° 41.5'	+1 12	-0 09	+0 51	-0 09	0.5	0.7	--	--	0.8	295°	--	--	1.3	111°
2875	Fripps Inlet, Fripps Island . . . . .	15	32° 20.4'	80° 27.9'	-0 29	+1 12	-0 22	-1 29	0.7	0.6	--	--	1.2	299°	--	--	1.2	104°
2877	Martins Industry, 5 miles east of . . . . .		32° 06'	80° 28'	See table 5.													
	PORT ROYAL SOUND																	
2879	Southeast Channel entrance . . . . .		32° 08'	80° 35'	-0 30	-0 38	-0 09	-0 12	0.8	0.8	--	--	1.3	310°	--	--	1.6	150°
2881	Port Royal Plantation Tower, east of . . . . .	15	32° 13.4'	80° 39.4'	+0 33	-0 16	+0 19	+0 16	0.9	1.0	--	--	1.5	347°	0.2	071°	1.9	147°
2883	Bay Point Island, S of, Broad River entrance . . . . .	15	32° 14.0'	80° 37.8'	+0 39	-1 09	+0 06	+0 46	0.7	0.9	0.1	238°	1.2	320°	--	--	1.7	128°
2885	Broad River Entrance, Point Royal Sound . . . . .	15	32° 13.9'	80° 38.4'	+0 36	+0 21	+0 32	-0 25	1.0	0.9	0.1	234°	1.7	324°	0.2	041°	1.7	138°
2887	Hilton Head . . . . .		32° 15'	80° 40'	+0 16	+0 49	+0 32	+0 01	1.1	0.9	--	--	1.8	324°	--	--	1.8	146°
2889	Beaufort River Entrance . . . . .	15	32° 17.3'	80° 39.1'	+0 19	+1 11	+0 20	-0 03	0.7	0.7	--	--	1.3	010°	--	--	1.4	195°
2891	Parris Island, Beaufort River . . . . .	10	32° 19.6'	80° 39.4'	+0 29	+1 12	+0 11	+0 00	0.7	0.8	--	--	1.2	356°	--	--	1.5	175°
2893	Chowan Creek . . . . .	15	32° 22.2'	80° 38.3'	+0 24	+1 53	+0 23	-0 34	0.6	0.6	--	--	0.9	039°	--	--	1.1	246°
2895	Parris Island, Beaufort River . . . . .	15	32° 21.6'	80° 40.5'	+0 56	+1 19	+0 51	+0 22	0.7	0.7	--	--	1.2	341°	--	--	1.4	149°
2897	Beaufort River . . . . .	15	32° 24.2'	80° 40.3'	+1 04	+1 19	+1 01	+0 33	0.5	0.5	0.1	286°	0.9	012°	--	--	1.0	200°
2899	Beaufort, Beaufort River . . . . .	12	32° 25.8'	80° 40.6'	+0 55	+1 18	+1 08	+0 17	0.7	0.6	--	--	1.1	073°	--	--	1.1	257°
2901	Beaufort Airport, Beaufort River . . . . .	15	32° 27.0'	80° 39.8'	+1 25	+1 39	+1 21	+1 08	0.5	0.5	--	--	0.9	333°	--	--	0.9	152°
2903	Brickyard Creek . . . . .	10	32° 28.4'	80° 41.5'	+1 48	+0 30	+2 50	+2 58	0.5	0.4	--	--	0.8	351°	--	--	0.8	171°
2905	Skull Creek, north entrance . . . . .		32° 15.8'	80° 44.5'	-1 50	-1 20	-1 58	-2 14	0.4	0.6	--	--	0.7	222°	--	--	1.2	035°
2907	Daws Island, SE of, Broad River . . . . .	15	32° 18.1'	80° 43.5'	+0 46	+0 05	+0 39	+0 31	0.8	0.8	--	--	1.4	330°	0.1	048°	1.5	150°
2909	Parris Island Lookout Tower, Broad River . . . . .	15	32° 18.7'	80° 42.4'	+0 39	-0 07	+0 29	+0 16	0.7	0.7	--	--	1.1	339°	--	--	1.4	152°
2911	Daws Island, south of, Chechessee River . . . . .	15	32° 17.2'	80° 44.6'	+0 31	-0 22	+0 34	+0 31	0.6	0.7	0.1	232°	1.0	317°	0.1	048°	1.3	142°
2913	Lemon Island South, Chechessee River . . . . .	10	32° 21.0'	80° 48.4'	+0 33	+1 19	+0 39	-0 02	0.6	0.7	--	--	0.9	359°	--	--	1.3	175°
2915	Broad River Bridge, S of, Broad River . . . . .	15	32° 22.9'	80° 46.6'	+0 52	-0 15	+0 49	+0 07	0.6	0.8	--	--	1.1	341°	--	--	1.5	156°
2917	Byrd Creek Entrance, SE of, Broad River . . . . .	12	32° 27.4'	80° 49.1'	+1 27	+0 51	+1 32	+0 52	0.6	0.5	--	--	0.9	354°	--	--	1.0	174°
2919	Little Barnwell I., E of, Whale Branch River . . . . .	6	32° 30.1'	80° 47.2'	+1 41	+3 03	+1 54	+0 40	0.6	0.4	--	--	1.0	354°	--	--	0.8	175°
	CALIBOGUE SOUND																	
			<b>on Savannah River Entrance, p.108</b>															
2921	Braddock Point, SW of, Calibogue Sound . . . . .	10	32° 06.3'	80° 50.2'	-0 15	+0 16	-0 04	-1 04	0.8	1.0	--	--	1.6	006°	0.1	095°	2.0	183°
2923	Haig Point Light, NW of, Cooper River . . . . .	10	32° 08.9'	80° 50.5'	-0 51	-0 05	-0 40	-1 12	0.4	0.7	--	--	0.8	278°	--	--	1.4	094°
2925	Ramshorn Creek Light, E of, Cooper River . . . . .	6	32° 07.8'	80° 52.9'	+0 06	-0 53	+0 15	-1 17	0.5	0.7	--	--	1.0	280°	--	--	1.3	098°
2927	Spanish Wells, Calibogue Sound . . . . .	30	32° 11.2'	80° 47.1'	-0 14	+0 51	+0 12	-1 10	0.7	0.7	--	--	1.4	028°	--	--	1.5	204°
2929	Skull Creek, south entrance . . . . .	10	32° 13.4'	80° 47.1'	+0 38	+2 57	+1 23	+0 55	0.4	0.4	--	--	0.9	053°	0.1	309°	0.9	231°
2931	MackKay Creek, south entrance . . . . .	10	32° 13.2'	80° 47.4'	+0 06	+0 03	+0 12	-0 26	0.3	0.6	--	--	0.7	033°	--	--	1.2	212°

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS											
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb					
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.				
	NEW and WRIGHT RIVERS Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m										
			<b>on Savannah River Entrance, p.108</b>																			
2933	Bloody Pt., 0.5 mile north of, New River		32° 05.3'	80° 52.8'	-1 03	+0 00	-0 53	-2 13	0.6	0.6	--	--	1.2	332°	--	--	1.3	147°				
2935	Bloody Pt., 0.5 mile west of, New River		32° 04.9'	80° 53.0'	-0 47	-0 21	-0 36	-1 26	0.9	0.9	--	--	1.7	267°	--	--	1.8	092°				
2937	Wright R., 0.2 mile above Walls Cut		32° 05.1'	80° 55.3'	-0 38	-0 16	-0 38	-1 16	0.6	0.8	--	--	1.2	332°	--	--	1.6	142°				
2939	Fields Cut <32>		32° 05'	80° 57'	--	--	--	-1 51	--	0.9	--	--	--	--	--	--	1.9	042°				
2941	Walls Cut, Turtle Island	6	32° 04.9'	80° 55.0'	-2 29	-0 57	-1 12	-3 05	0.5	0.5	0.2	087°	1.0	294°	0.1	060°	0.9	100°				
2943	Daufuskie Landing Light, south of	10	32° 06.1'	80° 53.9'	+0 07	+1 04	+0 02	-1 45	0.7	0.8	--	--	1.5	043°	--	--	1.7	226°				
	SAVANNAH RIVER																					
2945	Savannah Light, 1.2 miles southeast of		31° 57'	80° 40'	See table 5.																	
2947	SAVANNAH RIVER ENT. (between jetties)	11	32° 02.14'	80° 53.42'	Daily predictions																	
2949	Fort Pulaski		32° 02.2'	80° 54.1'	+0 42	+0 51	+0 15	+0 09	0.9	1.5	--	--	1.8	283°	--	--	3.1	098°				
2951	Fort Pulaski, 1.8 miles above		32° 02.7'	80° 55.9'	+0 25	+0 18	-0 01	+0 12	1.1	1.4	--	--	2.2	316°	--	--	2.8	140°				
2953	Fort Pulaski, 4.8 miles above		32° 04.5'	80° 58.6'	+0 36	+0 31	+0 06	-0 16	1.1	1.5	--	--	2.1	296°	--	--	3.0	116°				
2955	McQueen Island Cut	10	32° 03.9'	80° 59.2'	-2 39	-2 45	-1 04	-2 44	0.3	0.6	--	--	0.7	251°	--	--	1.2	069°				
2957	Elba Island Cut, NE of, Savannah River	10	32° 04.4'	80° 57.9'	+0 26	+0 15	-0 37	-0 14	0.7	1.3	0.1	202°	1.4	288°	0.1	183°	2.6	104°				
2959	Elba Island, NE of, Savannah River	10	32° 05.4'	80° 59.6'	+1 01	+0 40	-0 35	-0 27	0.6	1.2	--	--	1.1	329°	--	--	2.5	149°				
2961	Elba Island, west of, Savannah River	10	32° 05.7'	81° 01.2'	+0 37	+0 52	-0 30	-0 53	0.5	0.8	--	--	0.9	219°	--	--	1.6	040°				
2963	Fig Island, north of, Back River		32° 05.1'	81° 03.0'	+0 14	+1 06	-0 25	-1 00	0.5	0.7	--	--	1.0	280°	--	--	1.5	094°				
2965	South Channel, western end		32° 05.3'	81° 01.0'	+0 42	+0 18	-0 33	-0 35	0.5	0.7	--	--	1.0	300°	--	--	1.5	122°				
2967	Wilmington R. ent., south channel		32° 04.6'	81° 00.1'	+0 42	-0 36	+1 28	+1 25	0.5	0.8	--	--	1.0	032°	--	--	1.6	206°				
2969	Savannah, southeast of highway bridge	10	32° 05.2'	81° 05.8'	+1 36	+0 41	-0 24	+0 05	0.6	1.3	--	--	1.1	319°	--	--	2.6	146°				
2971	Savannah		32° 05'	81° 05'	+1 12	+0 45	+0 01	+0 18	0.8	1.1	--	--	1.6	279°	--	--	2.2	106°				
2973	Kings Island Channel, Savannah River <58>	10	32° 07.6'	81° 08.2'	+1 21	+0 45	+0 06	-0 21	0.8	1.0	--	--	1.5	339°	--	--	2.1	152°				
2975	Seaboard Coast Line Railroad		32° 06.2'	81° 07.1'	+1 06	+0 45	+0 29	+0 59	1.2	1.7	--	--	2.4	320°	--	--	3.5	150°				
2977	King Island, west of		32° 07.4'	81° 08.1'	+1 21	+0 54	+0 33	+0 48	0.7	1.0	--	--	1.4	337°	--	--	2.0	160°				
2979	Port Wentworth, 0.2 mile above		32° 08.8'	81° 08.4'	+2 00	+1 36	+0 24	+1 19	0.5	0.7	--	--	0.9	022°	--	--	1.5	210°				
2981	Seaboard Coast Line Railroad		32° 13.9'	81° 08.7'	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9	--			
2983	Wassaw Island, N of E end, Wassaw Sound	10	31° 54.9'	80° 56.3'	-0 48	-0 50	-0 45	-1 33	0.7	1.0	0.1	015°	1.4	292°	--	--	2.1	108°				
	WASSAW SOUND																					
2985	Entrance, off Beach Hammock		31° 56.5'	80° 55.9'	-0 41	-1 00	-0 54	-1 44	0.9	1.1	--	--	1.7	352°	--	--	2.2	156°				
2987	Wilmington Island, SSE of, Bull River	10	31° 58.0'	80° 55.8'	-0 35	+0 38	-0 40	-2 00	0.4	0.7	--	--	0.7	035°	--	--	1.5	218°				
2989	Lazaretto Creek Entrance, N of, Bull River	10	32° 00.0'	80° 55.7'	-0 37	+0 00	-0 33	-2 04	0.5	0.7	--	--	1.0	015°	--	--	1.4	207°				
2991	Bull River, 2 miles below hwy. bridge		32° 01.1'	80° 56.4'	-0 18	-0 18	-0 25	-1 57	0.6	0.8	--	--	1.1	327°	--	--	1.6	151°				
2993	Entrance, off Wassaw Island		31° 55.0'	80° 56.8'	-0 46	-1 11	-0 42	-1 27	0.7	0.9	--	--	1.4	277°	--	--	1.8	105°				
2995	Wilmington River ent. off Cabbage Island		31° 56.3'	80° 58.6'	-0 44	-0 36	-0 45	-1 51	0.6	0.8	--	--	1.2	323°	--	--	1.7	138°				
2997	Joe's Cut, Wilmington River	10	31° 56.6'	80° 59.1'	-0 54	-0 48	-0 34	-1 44	0.6	1.0	0.1	208°	1.2	315°	--	--	2.1	123°				
2999	Wilmington R., 0.5 mi. S of Turners Creek		32° 00.3'	81° 00.2'	-0 31	-0 10	-0 37	-1 51	0.5	0.7	--	--	1.0	344°	--	--	1.4	154°				
3001	Thunderbolt, SE of, Wilmington River		32° 01.4'	81° 02.7'	-0 20	-1 04	+0 12	+0 25	0.4	0.5	--	--	0.8	298°	--	--	1.0	121°				
3003	Oatland Island, north tip	10	32° 04.4'	81° 00.6'	-3 20	-2 14	-0 43	-2 32	0.3	0.5	--	--	0.6	317°	--	--	1.0	138°				
3005	Skidaway River, north entrance		32° 00.5'	81° 01.0'	-0 46	-0 02	-0 49	-2 11	0.6	0.7	--	--	1.1	204°	--	--	1.4	016°				
3007	Skidaway Island, N End, Wilmington River	10	32° 00.6'	81° 00.5'	-0 33	+0 16	-0 23	-1 49	0.6	0.9	0.1	225°	1.1	307°	--	--	1.9	119°				
3009	Dutch Island, SE of, Skidaway River	10	31° 59.5'	81° 01.2'	-0 40	+0 16	-0 33	-2 02	0.5	0.6	--	--	1.0	245°	--	--	1.2	061°				
3011	Isle of Hope City, SE of, Skidaway River	10	31° 58.6'	81° 02.8'	-0 17	-0 30	-0 32	-1 40	0.2	0.3	--	--	0.5	268°	--	--	0.5	072°				
3013	Isle of Hope City, Skidaway River	10	31° 58.8'	81° 03.3'	-0 34	+0 00	-0 19	-1 25	0.4	0.3	--	--	0.8	212°	--	--	0.6	028°				
3015	Burntpot Island, west of, Skidaway River	6	31° 58.1'	81° 03.2'	-0 27	-0 41	-0 13	-1 03	0.5	0.5	--	--	1.0	194°	--	--	1.0	018°				
3017	Skidaway Narrows		31° 57.2'	81° 03.9'	+0 03	-0 24	+0 26	-0 24	0.5	0.5	--	--	0.9	218°	--	--	1.1	042°				
3019	Long Island, NNE of, Skidaway River	6	31° 57.4'	81° 03.6'	-0 13	-1 09	+1 02	+0 17	0.4	0.4	--	--	0.8	226°	--	--	0.8	047°				
3021	Long Island, south of, Skidaway River	10	31° 56.6'	81° 04.4'	-4 25	-4 43	-6 07	-8 05	0.2	0.3	--	--	0.5	075°	--	--	0.5	258°				
3023	Pigeon Island, SSE of, Skidaway River	10	31° 56.2'	81° 04.6'	-2 37	-2 43	-0 56	-2 16	0.2	0.5	--	--	0.4	331°	--	--	1.0	150°				
3025	Burnside Island, SE of, Burnside River	10	31° 55.3'	81° 04.8'	-0 40	+0 53	-0 20	-2 05	0.4	0.6	--	--	0.9	114°	--	--	1.2	295°				
3027	Little Don Island, east of, Vernon River	10	31° 52.2'	81° 04.4'	-0 17	-1 16	-0 03	-1 38	0.7	0.7	0.2	232°	1.4	316°	0.1	234°	1.5	153°				
3029	Little Ogeechee River Entrance	10	31° 53.3'	81° 05.9'	-0 15	-0 59	-0 03	-1 06	0.7	1.0	--	--	1.3	259°	0.1	179°	2.1	071°				
	do.	20	31° 53.3'	81° 05.9'	-0 30	-0 50	+0 05	-0 57	0.6	0.9	--	--	1.1	244°	--	--	1.9	073°				

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											North	West	h	m	h	m	h	m
					<b>on Savannah River Entrance, p.108</b>													
WASSAW SOUND Time meridian, 75°W																		
3031	Montgomery, Vernon River	6	31° 56.1'	81° 07.7'	-0 32	+0 00	-0 24	-1 30	0.3	0.6	--	--	0.6	267°	--	--	1.1	089°
3033	Odingsell River Entrance	10	31° 52.1'	81° 00.0'	-0 54	+0 44	-0 48	-2 14	0.7	0.9	--	--	1.3	032°	0.1	127°	1.8	212°
	do.	20	31° 52.1'	81° 00.0'	-1 19	+0 42	-0 42	-2 12	0.6	0.8	--	--	1.3	030°	--	--	1.6	210°
OSSABAW SOUND																		
3035	Wassaw Island, SSW of	10	31° 51.4'	81° 00.5'	-0 26	-1 04	-0 27	-1 01	0.8	1.1	0.1	034°	1.6	316°	--	--	2.3	123°
	do.	20	31° 51.4'	81° 00.5'	-0 46	-0 58	-0 33	-1 01	0.7	0.9	--	--	1.4	312°	--	--	1.8	132°
3037	Bradley Point, NNE of	10	31° 49.9'	81° 02.3'	-0 48	-0 58	-0 48	-1 12	0.6	0.8	0.1	209°	1.3	302°	0.1	198°	1.7	125°
3039	Raccoon Key	10	31° 51.7'	81° 03.3'	-0 45	-1 23	-0 36	-1 35	0.8	0.9	0.1	033°	1.6	285°	0.1	198°	1.9	117°
3041	Little Wassaw Island, SW of	10	31° 52.2'	81° 03.9'	-1 05	-0 17	-0 21	-1 51	0.9	0.7	0.1	209°	1.7	282°	0.1	193°	1.4	116°
3043	Vernon R., 1.2 miles S of Possum Point	10	31° 53.9'	81° 05.0'	-0 24	+0 02	-0 12	-1 33	0.6	0.8	--	--	1.1	324°	--	--	1.7	166°
3045	Little Ogeechee River Entrance, north of	6	31° 53.8'	81° 05.7'	-0 41	+0 29	-0 30	-2 03	0.6	0.8	--	--	1.2	324°	0.1	239°	1.6	156°
3047	Raccoon Key & Egg Island Shoal, between	10d	31° 50.57'	81° 04.05'	+0 20	+0 17	-0 23	-0 57	0.8	1.0	0.2	274°	1.6	254°	0.2	197°	2.0	129°
3049	Florida Passage, N of, Ogeechee River	10	31° 51.4'	81° 08.6'	+0 10	+0 01	-0 01	-0 05	0.7	1.0	--	--	1.4	302°	--	--	2.1	127°
3051	Florida Passage (south)	6d	31° 49.78'	81° 09.47'	-1 48	-1 13	-0 23	-1 10	0.5	0.7	--	--	0.9	187°	0.3	191°	1.4	018°
ST. CATHERINES SOUND																		
<i>Bear River</i>																		
3053	610 Statute Mile Mark	6d	31° 48.63'	81° 10.60'	+0 20	+0 48	-0 05	-0 39	0.5	0.7	0.2	338°	1.0	357°	0.2	280°	1.5	175°
3055	North of Big Tom Creek Entrance	10d	31° 47.00'	81° 09.62'	-0 24	-0 13	-0 19	-1 25	0.6	0.7	--	--	1.2	011°	--	--	1.5	179°
3057	South of Kilkenny Creek Entrance	10d	31° 45.50'	81° 10.40'	+0 26	+1 25	-0 02	-1 12	0.6	1.0	--	--	1.2	348°	--	--	2.0	190°
3059	Northwest of Newell Creek Entrance	10d	31° 44.93'	81° 09.93'	-0 11	+0 12	-0 16	-1 12	0.6	0.9	0.1	086°	1.1	349°	0.1	076°	1.8	149°
3061	Medway River at Marsh Island	10d	31° 44.60'	81° 13.20'	+0 20	-0 18	-0 15	-0 56	0.3	0.8	0.3	306°	0.6	313°	0.1	209°	1.6	117°
3063	St. Catherines Sound Entrance	10d	31° 42.90'	81° 08.43'	-0 39	-0 31	+0 13	-1 27	0.9	0.8	0.1	020°	1.8	291°	0.2	173°	1.7	126°
3065	Medway River, northwest of Cedar Point	10d	31° 42.87'	81° 11.45'	-0 40	-0 43	-0 23	-0 21	0.7	0.8	0.5	139°	1.5	304°	0.4	324°	1.7	146°
3067	N. Newport River, NE of Vandyke Creek	10d	31° 41.47'	81° 11.22'	-0 27	+0 12	+0 00	-1 21	0.7	0.8	--	--	1.3	233°	--	--	1.7	045°
3069	N. Newport River, above Walburg Creek	6d	31° 40.43'	81° 11.72'	-0 34	+0 30	-0 39	-0 40	0.6	0.8	0.2	011°	1.0	195°	--	--	1.6	011°
3071	N. Newport River, NW of Johnson Creek	10d	31° 39.78'	81° 12.63'	+0 20	-1 01	-0 37	-0 27	0.5	0.9	0.2	308°	0.9	312°	--	--	1.8	138°
3073	N. Newport River, ESE of S. Newport Cut	6d	31° 39.92'	81° 15.87'	+0 32	-0 13	+0 27	+0 15	0.5	0.7	0.1	210°	1.0	319°	--	--	1.4	147°
3075	S. Newport River, below S. Newport Cut	10d	31° 39.02'	81° 18.12'	+1 20	+1 30	+2 41	+2 15	0.5	0.5	0.2	128°	0.9	306°	0.1	042°	1.0	134°
3077	S. Newport River, above Swain River Ent	10d	31° 37.47'	81° 13.00'	-0 22	-1 13	+0 00	-0 43	0.6	0.6	0.1	156°	1.1	335°	0.1	075°	1.2	156°
SAPELO SOUND																		
3079	Entrance	19d	31° 32.4'	81° 10.8'	-0 30	+0 28	-0 06	-0 59	0.9	1.1	0.1	212°	1.7	290°	0.1	194°	2.2	118°
	do.	29d	31° 32.4'	81° 10.8'	-0 48	-0 36	-0 17	-1 02	0.7	0.9	--	--	1.3	289°	0.1	189°	1.7	116°
3081	Johnson Creek, midway between ends	10d	31° 37.6'	81° 11.3'	-1 50	-1 08	-0 35	-1 59	0.4	0.4	--	--	0.8	015°	--	--	0.9	195°
3083	Cedar Hammock, south of	12d	31° 32.7'	81° 14.8'	-0 26	-1 00	-0 12	-1 38	0.7	0.6	--	--	1.4	277°	--	--	1.2	096°
3085	Sapelo River Entrance	11d	31° 32.1'	81° 16.3'	-0 23	-1 05	-0 13	-0 43	0.6	0.6	--	--	1.1	234°	--	--	1.3	058°
3087	Sutherland Bluff, Sapelo River	10d	31° 32.9'	81° 20.0'	-0 30	+0 10	-0 12	-1 16	0.5	0.6	--	--	1.0	281°	--	--	1.2	104°
3089	Front River	13d	31° 30.8'	81° 17.9'	-0 33	+1 16	-0 25	-2 05	0.4	0.5	--	--	0.8	227°	--	--	1.0	056°
<i>Mud River</i>																		
3091	New Teakettle Cr., 0.8 mi. N of <35>	10d	31° 29.8'	81° 17.4'	-0 54	-0 29	-1 08	-2 11	0.4	0.5	--	--	0.8	236°	--	--	1.0	053°
3093	Crescent River	11d	31° 29.2'	81° 18.4'	-1 27	+1 07	-0 34	-1 21	0.2	0.5	--	--	0.5	293°	0.1	203°	1.1	133°
3095	Old Teakettle Creek (north)	13d	31° 28.7'	81° 19.7'	-0 35	+0 01	+0 14	-0 37	0.5	0.6	--	--	0.9	078°	--	--	1.2	256°
DOBOY SOUND																		
3097	Bar	14d	31° 20.7'	81° 14.1'	-0 29	-0 29	-0 09	-0 53	0.7	0.7	--	--	1.3	312°	--	--	1.4	114°
3099	Entrance	22d	31° 20.5'	81° 15.8'	-0 32	-0 10	-0 24	-1 49	0.8	0.9	--	--	1.6	289°	--	--	1.8	106°
	do.	22d	31° 20.5'	81° 15.8'	-0 56	-0 05	-0 20	-1 26	0.8	0.8	--	--	1.6	276°	--	--	1.7	099°
3101	Old Teakettle Creek Entrance, south of	15d	31° 25.2'	81° 18.9'	-0 45	-0 59	+0 00	-1 27	0.5	0.5	--	--	1.1	335°	--	--	1.1	159°
3103	Old Teakettle Creek (south)	13d	31° 26.2'	81° 18.5'	-3 12	-1 45	-2 16	-2 44	0.5	0.4	--	--	0.9	021°	--	--	0.7	207°
3105	Folly River and Cardigan River, between	10d	31° 26.5'	81° 20.2'	-0 55	-0 56	-0 16	-1 00	0.3	0.3	--	--	0.7	327°	--	--	0.6	150°
3107	South River	13d	31° 22.0'	81° 18.7'	-0 22	-0 25	-0 32	-0 24	0.6	0.7	--	--	1.1	282°	--	--	1.3	095°
	do.	21d	31° 22.0'	81° 18.7'	-0 41	-0 33	-0 29	-0 24	0.5	0.4	--	--	1.0	286°	--	--	0.8	095°

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	DOBOY SOUND Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>								
	<b>on Savannah River Entrance, p.108</b>																	
3109	North River at Darien River	9d	31° 23.0'	81° 20.1'	-0 10	-0 33	+0 08	+0 22	0.2	0.2	0.1	317°	0.5	247°	--	--	0.4	029°
3111	Doboy Island (North River)	12d	31° 24.2'	81° 19.7'	-0 14	-0 06	+0 47	+0 13	0.6	0.5	--	--	1.1	224°	--	--	1.1	037°
	do.	20d	31° 24.2'	81° 19.7'	-0 20	+0 36	+0 46	+0 22	0.5	0.3	--	--	0.9	225°	--	--	0.6	043°
3113	Buzzard Roost Creek	13d	31° 24.9'	81° 22.5'	+0 22	+0 12	+0 56	+0 28	0.3	0.2	--	--	0.7	177°	--	--	0.4	002°
	<b>ALTAMAHA SOUND</b>																	
3115	Little Egg Island, northwest of	12d	31° 19.1'	81° 18.3'	-0 33	-0 53	-0 25	-1 10	0.6	0.6	--	--	1.1	296°	--	--	1.2	110°
3117	Little Mud River Range	9d	31° 19.6'	81° 19.1'	-0 38	-1 05	-0 23	-0 06	0.3	0.5	--	--	0.6	304°	--	--	0.9	116°
3119	Little St. Simon Island (north)	11d	31° 18.7'	81° 21.2'	+0 10	+0 06	-0 15	-1 29	0.6	0.8	--	--	1.2	267°	--	--	1.6	089°
3121	Onemile Cut, 1 mile southeast of <i>Buttermilk Sound</i>		31° 18.8'	81° 21.1'	+0 46	+0 03	-1 09	-0 32	0.5	0.9	--	--	1.0	272°	--	--	1.9	092°
3123	Broughton Island (south)	9d	31° 18.6'	81° 24.8'	-2 06	+0 12	-0 01	-1 51	0.4	0.4	0.1	292°	0.9	222°	--	--	0.8	030°
	<b>ST. SIMONS SOUND</b>																	
3125	Bar Channel	12d	31° 06.3'	81° 20.3'	-0 13	-0 44	+0 09	-0 02	0.4	0.8	0.1	033°	0.8	308°	--	--	1.7	119°
3127	Entrance, north of channel	13d	31° 08.01'	81° 24.24'	-0 32	+0 18	+0 07	-1 11	0.9	0.6	--	--	1.7	290°	--	--	1.2	107°
3129	Entrance, south of channel	11d	31° 07.6'	81° 24.2'	-0 27	-0 32	-0 21	-0 59	0.8	1.1	--	--	1.6	262°	--	--	2.2	080°
	do.	29d	31° 07.6'	81° 24.2'	-0 18	-0 03	+0 06	-0 21	0.6	0.8	--	--	1.2	257°	0.1	188°	1.7	092°
3131	Back River entrance	10d	31° 08.9'	81° 26.5'	-0 37	+1 34	+0 06	-1 16	1.0	0.5	--	--	1.0	288°	--	--	1.1	111°
	do.	18d	31° 08.9'	81° 26.5'	-1 29	+1 36	+0 08	-1 15	0.5	0.4	--	--	0.9	280°	--	--	0.8	109°
3133	Mackay R., 0.5 mi. N of Troup Creek entrance		31° 13.5'	81° 26.0'	+0 56	+0 09	+0 35	+0 24	0.5	0.7	--	--	0.9	348°	--	--	1.5	166°
3135	Brunswick River, off Quarantine Dock		31° 06.7'	81° 28.4'	+0 10	-0 03	+0 11	-0 39	0.7	1.0	--	--	1.3	300°	--	--	2.1	125°
3137	Brunswick River Bridge, southeast of	13d	31° 06.9'	81° 28.6'	-0 15	+0 13	+0 26	-1 09	0.5	0.7	0.1	223°	1.0	308°	--	--	1.4	132°
	do.	21d	31° 06.9'	81° 28.6'	+0 19	+0 42	+0 56	-0 02	0.5	0.7	0.1	226°	1.0	306°	--	--	1.5	129°
3139	Brunswick, off Prince Street Dock		31° 08.3'	81° 29.8'	-0 01	+0 55	+0 06	-1 08	0.5	0.6	--	--	1.0	342°	--	--	1.3	166°
3141	Turtle River, off Allied Chemical Corp		31° 10.6'	81° 31.5'	+0 16	+0 18	+0 36	-0 33	0.7	0.8	--	--	1.3	348°	--	--	1.7	165°
3143	Turtle River, off Andrews Island	20d	31° 08.6'	81° 31.6'	-0 21	+0 40	+0 31	-0 23	0.5	0.7	--	--	1.1	339°	--	--	1.4	153°
	<b>ST. ANDREWS SOUND</b>																	
3145	Entrance		30° 59.2'	81° 24.3'	-0 18	+0 13	+0 02	-1 00	1.1	1.1	--	--	2.1	268°	--	--	2.2	103°
3147	Jekyll Creek, south entrance		31° 02.1'	81° 26.0'	-0 21	-0 21	-0 25	-1 20	0.5	0.7	--	--	1.0	060°	--	--	1.4	232°
3149	Cumberland River, north entrance		30° 57.5'	81° 25.9'	-0 29	+0 32	-0 17	-1 18	0.7	0.7	--	--	1.3	191°	--	--	1.5	018°
3151	Cabin Bluff, Cumberland River		30° 52.9'	81° 30.8'	+0 21	+1 29	+0 51	-0 45	0.7	0.6	--	--	1.3	171°	--	--	1.3	355°
	<b>CUMBERLAND SOUND</b>																	
	<b>on St. Marys River Entrance, p.112</b>																	
3153	<i>St. Marys River</i> south jetty	8d	30° 42.42'	81° 32.92'	-0 18	-1 16	-0 56	-0 27	0.3	0.6	0.5	038°	0.8	341°	0.1	225°	1.6	110°
	do.	18d	30° 42.42'	81° 32.92'	-0 19	-1 02	-0 54	-0 33	0.3	0.6	0.4	033°	0.7	329°	0.2	226°	1.5	112°
	do.	34d	30° 42.42'	81° 32.92'	-0 19	-0 55	-0 48	-0 32	0.3	0.5	0.2	024°	0.6	313°	0.2	225°	1.2	114°
3155	<b>ST. MARYS RIVER ENTRANCE</b>	8d	30° 42.48'	81° 26.68'	<b>Daily predictions</b>				0.1	183°	2.3	272°	--	--	--	--	2.8	093°
	do.	25d	30° 42.48'	81° 26.68'	-0 04	+0 00	+0 01	+0 02	0.9	0.9	--	--	2.2	272°	--	--	2.5	093°
	do.	42d	30° 42.48'	81° 26.68'	-0 08	+0 01	+0 01	+0 02	0.8	0.7	0.1	002°	1.9	271°	--	--	2.0	092°
3157	Fort Clinch, 0.3 n.mi. N of	50d	30° 42.36'	81° 27.14'	-0 36	-0 14	-0 23	-0 33	0.6	0.6	0.2	226°	1.4	275°	0.1	280°	1.6	087°
3159	Quarantine Reach, 0.4nm W of Fort Clinch	7d	30° 42.28'	81° 27.72'	-0 05	-0 19	-0 27	+0 00	0.5	0.6	0.1	307°	1.2	235°	0.1	318°	1.7	034°
	do.	27d	30° 42.28'	81° 27.72'	-0 09	+0 02	-0 18	-0 14	0.5	0.5	--	--	1.2	232°	--	--	1.4	047°
	do.	46d	30° 42.28'	81° 27.72'	-0 11	+0 13	-0 12	-0 21	0.5	0.4	--	--	1.1	226°	--	--	1.2	065°
3161	Fort Clinch, 1.1 n.mi. NW of	14d	30° 42.54'	81° 28.36'	+0 01	-0 01	+0 10	+0 18	0.6	0.7	0.1	214°	1.3	309°	0.1	067°	1.9	133°
	do.	29d	30° 42.54'	81° 28.36'	-0 13	+0 02	+0 02	+0 08	0.5	0.5	0.1	010°	1.1	315°	0.1	032°	1.3	122°
3163	Cumberland Island, Range B Channel	22d	30° 43.52'	81° 29.04'	-0 18	-0 38	-0 06	+0 06	0.5	0.7	--	--	1.2	350°	--	--	1.8	170°
3165	Drum Point Island, Range D Channel	12d	30° 45.54'	81° 29.13'	-0 05	-0 11	+0 02	-0 03	0.5	0.6	0.1	165°	1.1	350°	0.1	154°	1.5	170°
	do.	22d	30° 45.54'	81° 29.12'	-0 10	-0 34	-0 08	-0 09	0.4	0.5	0.2	160°	0.9	351°	0.1	115°	1.3	170°
3167	Kings Bay, Lower Turning Basin	14d	30° 47.56'	81° 30.48'	-0 03	+0 38	-0 18	-1 04	0.1	0.1	0.1	282°	0.3	307°	0.1	316°	0.3	127°
3169	Stafford Island, west of		30° 48.6'	81° 29.5'	-0 25	-0 28	-0 27	-1 01	0.6	0.5	--	--	1.3	000°	--	--	1.3	180°

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	CUMBERLAND SOUND Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>	<b>h</b>	<b>m</b>						
			<b>on St. Marys River Entrance, p.112</b>															
3171	Old Fernandina, Amelia River, Old Town Reach ...	4d	30° 41.16'	81° 27.64'	-0 03	+0 20	+0 03	-0 06	0.7	0.6	--	--	1.5	188°	--	--	1.6	018°
	do.	14d	30° 41.16'	81° 27.64'	-0 06	+0 28	+0 05	-0 03	0.6	0.5	--	--	1.4	189°	--	--	1.4	015°
	do.	24d	30° 41.16'	81° 27.64'	-0 12	+0 31	+0 06	-0 02	0.5	0.5	--	--	1.2	193°	--	--	1.2	010°
3173	Fernandina Beach, City Front Reach, Amelia River	5d	30° 40.21'	81° 28.07'	+0 24	-0 11	-0 12	+0 30	0.4	0.4	--	--	0.8	240°	--	--	1.0	068°
	do.	11d	30° 40.21'	81° 28.07'	+0 28	-0 05	-0 08	+0 33	0.3	0.4	--	--	0.8	239°	--	--	1.0	063°
	do.	29d	30° 40.21'	81° 28.07'	+0 29	+0 03	-0 07	+0 34	0.3	0.3	--	--	0.6	239°	0.1	146°	0.9	059°
3175	Kingsley Creek, highway bridge		30° 37.7'	81° 29.1'	+1 45	+1 17	+0 53	+1 25	0.5	0.6	--	--	1.1	150°	--	--	1.6	330°
	NASSAU SOUND		<b>on Miami Harbor Entrance, p.132</b>															
3177	Midsound, 1 mi. N of Sawpit Creek entrance		30° 31.4'	81° 27.1'	+0 02	-0 12	-0 15	-0 21	0.8	0.7	--	--	1.7	312°	--	--	1.7	135°
3179	South Amelia River, off Walker Creek		30° 32.2'	81° 27.9'	-1 08	-0 09	-0 40	-1 57	0.6	0.6	--	--	1.4	341°	--	--	1.4	162°
3181	Nassau River, SW of Mesa Marsh		30° 32.0'	81° 28.8'	+0 09	-0 09	-0 01	-0 13	0.7	0.7	--	--	1.5	294°	--	--	1.7	129°
3183	Ft. George River		30° 27.4'	81° 27.1'	-1 35	-1 08	-1 26	-2 20	0.1	0.4	--	--	0.3	334°	--	--	0.9	162°
	ST. JOHNS RIVER		<b>on St. Johns River Entrance, p.116</b>															
			Current weak and variable															
3185	St. Johns Point, 5 miles east of		30° 23.5'	81° 18.0'														
3187	St. Johns Bar Cut, 0.7 n.mi. east of jetties <64>	5d	30° 23.88'	81° 21.83'	+0 33	-1 19	-0 41	+1 04	0.3	0.8	0.5	021°	0.6	356°	0.2	045°	1.6	091°
	do.	14d	30° 23.88'	81° 21.83'	-1 19	-2 43	-1 04	+0 13	0.3	0.6	0.6	040°	0.7	007°	--	--	1.2	095°
	do.	31d	30° 23.88'	81° 21.83'	-2 20	-2 04	-1 17	-0 54	0.2	0.3	0.3	038°	0.4	318°	0.2	227°	0.6	122°
3189	St. Johns Bar Cut 0.13 n.mi. ENE of south jetty	14d	30° 23.85'	81° 22.45'	+0 11	+0 02	+0 10	+1 35	0.4	1.1	0.2	011°	0.9	317°	0.2	173°	2.2	094°
	do.	33d	30° 23.85'	81° 22.45'	-1 03	+0 04	+0 21	-0 11	0.5	0.7	0.2	178°	1.0	298°	0.2	158°	1.4	095°
	do.	46d	30° 23.85'	81° 22.45'	-2 05	-0 03	+0 22	-0 25	0.5	0.5	0.2	176°	1.1	275°	0.1	144°	1.0	100°
3191	ST. JOHNS RIVER ENT. (between jetties)	16d	30° 24.02'	81° 23.15'									2.0	262°	--	--	2.0	081°
	do.	10d	30° 24.02'	81° 23.15'	+0 06	+0 13	-0 04	+0 07	1.0	1.2	--	--	2.0	262°	--	--	2.1	081°
	do.	30d	30° 24.02'	81° 23.15'	-0 19	+0 01	-0 02	+0 07	0.9	0.9	--	--	1.9	262°	--	--	1.9	080°
3193	Mayport Basin Entrance	9d	30° 23.82'	81° 23.93'	-0 02	-0 08	+0 01	+0 33	0.6	0.7	0.1	179°	1.2	255°	--	--	1.4	093°
	do.	15d	30° 23.82'	81° 23.93'	-0 12	+0 17	+0 11	+0 07	0.7	0.6	--	--	1.3	251°	0.1	166°	1.2	087°
	do.	32d	30° 23.82'	81° 23.93'	+0 24	+0 48	+0 17	+0 34	0.6	0.3	0.1	333°	1.2	247°	0.1	164°	0.6	069°
3195	Mayport	7d	30° 23.6'	81° 26.0'	+0 06	+1 02	+0 15	-0 04	1.1	1.6	--	--	2.2	211°	--	--	3.3	026°
	do.	17d	30° 23.6'	81° 26.0'	-0 03	+0 38	+0 12	+0 05	1.1	1.3	--	--	2.2	211°	--	--	2.6	026°
	do.	27d	30° 23.6'	81° 26.0'	-0 27	+0 26	+0 15	+0 14	0.9	0.9	--	--	1.7	211°	--	--	1.8	026°
3197	Mile Point, southeast of	7d	30° 22.9'	81° 26.7'	+0 06	+0 38	+0 48	+0 44	1.5	1.6	--	--	3.0	241°	--	--	3.2	073°
	do.	18d	30° 22.9'	81° 26.7'	-0 12	+0 38	+0 54	+0 56	1.2	1.2	--	--	2.5	241°	--	--	2.5	073°
	do.	29d	30° 22.9'	81° 26.7'	-0 42	+0 38	+1 00	+0 38	1.1	0.9	--	--	2.3	241°	--	--	1.8	073°
3199	ICW Intersection	10d	30° 23.02'	81° 27.52'	+0 27	+0 29	+0 08	+0 58	0.8	1.3	0.2	217°	1.6	293°	0.4	003°	2.6	125°
	do.	16d	30° 23.02'	81° 27.52'	+0 22	+0 31	+0 10	+0 49	0.8	1.2	0.2	213°	1.6	293°	0.3	007°	2.4	113°
	do.	29d	30° 23.02'	81° 27.52'	+0 09	+0 35	+0 10	+0 21	0.8	1.0	0.1	200°	1.5	294°	0.2	020°	2.1	099°
3201	Pablo Creek bascule bridge <33>	3	30° 19.4'	81° 26.3'	-0 14	-0 18	+0 49	+0 59	1.7	2.5	--	--	3.4	180°	--	--	5.2	000°
3203	Sisters Creek entrance (bridge)	4d	30° 23.4'	81° 27.7'	-3 30	-3 14	-2 13	-2 34	0.8	0.8	--	--	1.6	000°	--	--	1.6	180°
	do.	10d	30° 23.4'	81° 27.7'	-3 36	-3 04	-2 07	-2 34	0.6	0.6	--	--	1.2	000°	--	--	1.2	180°
3205	St. Johns Bluff	7d	30° 23.4'	81° 29.5'	+0 30	+1 21	-0 18	+1 02	0.8	1.2	--	--	1.6	244°	--	--	2.4	059°
	do.	17d	30° 23.4'	81° 29.5'	+0 18	+1 03	+0 30	+1 02	0.9	1.0	--	--	1.7	244°	--	--	2.0	059°
	do.	26d	30° 23.4'	81° 29.5'	-0 12	+0 33	+0 24	+1 14	0.8	0.8	--	--	1.6	244°	--	--	1.6	059°
3207	Blount Island, East of	7d	30° 23.52'	81° 30.51'	+1 21	+1 08	+0 49	+1 54	0.7	1.1	0.2	000°	1.5	275°	0.2	183°	2.3	079°
	do.	16d	30° 23.52'	81° 30.51'	+0 54	+0 58	+1 04	+1 43	0.7	0.8	0.2	011°	1.4	270°	0.1	168°	1.7	090°
	do.	30d	30° 23.52'	81° 30.51'	+0 33	+1 08	+1 12	+1 32	0.5	0.6	0.1	183°	1.1	264°	--	--	1.3	099°
3209	Dames Point, 0.23 n.mi. ESE of	5d	30° 23.19'	81° 33.23'	+1 58	+1 51	+1 40	+1 59	0.5	0.9	0.2	351°	1.0	244°	0.4	136°	1.7	066°
	do.	14d	30° 23.19'	81° 33.23'	+1 26	+0 54	+1 19	+1 57	0.6	0.9	0.1	343°	1.1	256°	0.2	158°	1.9	068°
	do.	31d	30° 23.19'	81° 33.23'	+0 33	+2 24	+2 04	+1 58	0.6	0.4	--	--	1.1	270°	0.1	000°	0.7	069°
3211	Dames Point, 0.25 n.mi. SE of	5d	30° 23.08'	81° 33.28'	+1 52	+1 39	+1 28	+2 14	0.6	0.9	0.1	345°	1.2	254°	0.2	155°	1.9	080°
	do.	14d	30° 23.08'	81° 33.28'	+1 30	+1 29	+1 32	+2 07	0.7	0.9	0.1	343°	1.4	257°	--	--	1.8	073°
	do.	28d	30° 23.08'	81° 33.28'	+1 15	+2 00	+2 01	+2 14	0.6	0.7	0.1	160°	1.2	254°	--	--	1.4	073°
3213	Drummond Point, channel south of	7d	30° 24.55'	81° 36.17'	+1 51	+2 32	+2 44	+3 00	0.7	0.8	--	--	1.4	241°	--	--	1.7	060°
	do.	17d	30° 24.55'	81° 36.17'	+1 34	+2 35	+2 51	+3 01	0.7	0.7	--	--	1.3	222°	--	--	1.4	061°
	do.	27d	30° 24.55'	81° 36.17'	+1 21	+2 20	+2 46	+2 51	0.6	0.5	--	--	1.2	243°	--	--	1.1	057°

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS											
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb					
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.				
	ST. JOHNS RIVER Time meridian, 75°W	ft	North	West	h	m	h	m	h	m	h	m										
			<b>on St. Johns River Entrance, p.116</b>																			
3215	Trout River Cut	6d	30° 23.03'	81° 37.69'	+2 31	+2 48	+2 32	+2 52	0.7	0.7	0.1	277°	1.3	193°	0.1	280°	1.5	005°				
	do.	15d	30° 23.03'	81° 37.69'	+2 19	+2 53	+2 42	+2 52	0.6	0.6	--	--	1.1	191°	0.1	107°	1.3	025°				
	do.	32d	30° 23.03'	81° 37.69'	+1 49	+2 31	+3 02	+2 58	0.6	0.6	--	--	1.2	205°	--	--	1.1	023°				
3217	Chaseville Turn	4d	30° 22.71'	81° 37.77'	+2 16	+2 39	+2 28	+2 27	0.7	0.5	--	--	1.4	165°	--	--	1.0	339°				
	do.	14d	30° 22.71'	81° 37.77'	+2 10	+2 29	+2 25	+2 28	0.7	0.5	0.1	089°	1.3	166°	0.1	082°	1.1	003°				
	do.	30d	30° 22.71'	81° 37.77'	+1 48	+2 25	+2 55	+2 43	0.6	0.5	0.1	279°	1.2	186°	--	--	1.0	017°				
3219	Terminal Channel (north end)	7d	30° 21.42'	81° 37.08'	+2 39	+3 16	+3 02	+3 38	0.5	0.6	--	--	1.0	225°	--	--	1.3	001°				
	do.	17d	30° 21.42'	81° 37.08'	+2 16	+3 06	+3 20	+3 33	0.6	0.5	--	--	1.2	183°	--	--	1.1	001°				
	do.	27d	30° 21.42'	81° 37.08'	+1 51	+3 28	+3 16	+3 23	0.5	0.3	--	--	1.0	185°	--	--	0.7	001°				
3221	Commodore Point, terminal channel	7d	30° 19.05'	81° 37.58'	+2 39	+3 28	+3 10	+3 37	0.5	0.5	--	--	0.9	197°	--	--	1.0	072°				
	do.	17d	30° 19.05'	81° 37.58'	+2 12	+3 13	+3 23	+3 25	0.5	0.4	--	--	1.0	221°	--	--	0.9	051°				
	do.	27d	30° 19.05'	81° 37.58'	+1 43	+2 30	+3 38	+3 08	0.6	0.4	--	--	1.1	221°	--	--	0.8	035°				
3223	Jacksonville, off Washington St		30° 19.3'	81° 39.2'	+2 59	+3 10	+2 54	+3 23	0.9	0.9	--	--	1.8	281°	--	--	1.9	118°				
3225	Jacksonville, F.E.C. RR. bridge		30° 19.3'	81° 39.9'	+2 59	+3 24	+2 59	+3 39	0.8	0.8	--	--	1.8	240°	--	--	1.7	060°				
3227	Winter Point		30° 18.5'	81° 40.5'	+2 59	+3 22	+4 04	+3 59	0.6	0.5	--	--	1.1	200°	--	--	1.1	015°				
3229	Mandarin Point	6d	30° 09.3'	81° 41.1'	+3 07	+3 39	+3 24	+3 38	0.3	0.4	--	--	0.6	179°	--	--	0.8	013°				
	do.	15d	30° 09.3'	81° 41.1'	+3 13	+3 33	+3 24	+3 38	0.3	0.3	--	--	0.6	179°	--	--	0.7	013°				
	do.	24d	30° 09.3'	81° 41.1'	+2 48	+3 33	+3 24	+3 32	0.3	0.3	--	--	0.5	179°	--	--	0.5	013°				
3231	Red Bay Point, draw bridge	4d	29° 59.1'	81° 37.8'	+2 48	+3 57	+5 24	+4 02	0.5	0.3	--	--	0.9	115°	--	--	0.6	300°				
	do.	6d	29° 59.1'	81° 37.8'	+2 42	+3 57	+5 18	+4 08	0.5	0.3	--	--	0.9	115°	--	--	0.5	300°				
	do.	14d	29° 59.1'	81° 37.8'	+2 48	+3 57	+5 30	+4 08	0.4	0.2	--	--	0.8	115°	--	--	0.4	300°				
3233	Tocoi to Lake George		--	--	Current weak and variable																	
	FORT PIERCE INLET		<b>on Fort Pierce Inlet, p.120</b>																			
3235	FORT PIERCE INLET ENTRANCE	16d	27° 28.27'	80° 17.55'	<b>Daily predictions</b>						--	--	2.7	258°	--	--	2.8	080°				
	do.	6d	27° 28.27'	80° 17.55'	+0 03	+0 02	-0 01	+0 01	1.1	1.1	--	--	2.8	258°	--	--	3.1	081°				
	do.	23d	27° 28.27'	80° 17.55'	-0 02	+0 00	+0 00	-0 01	1.0	0.9	--	--	2.6	259°	--	--	2.6	079°				
	do.	33d	27° 28.27'	80° 17.55'	-0 03	+0 00	+0 00	-0 03	0.8	0.8	--	--	2.2	260°	--	--	2.3	077°				
3237	Inner Range, north of USCG station	5d	27° 27.98'	80° 18.49'	-0 05	-0 01	+0 06	-0 06	0.8	0.6	--	--	2.1	242°	0.1	159°	1.6	076°				
	do.	14d	27° 27.98'	80° 18.49'	+0 01	-0 01	+0 05	+0 08	0.7	0.6	--	--	2.0	243°	--	--	1.6	065°				
	do.	21d	27° 27.98'	80° 18.49'	+0 01	-0 01	+0 05	+0 08	0.6	0.5	--	--	1.7	243°	--	--	1.4	061°				
3239	Turning Basin	6d	27° 27.61'	80° 19.26'	+0 06	-0 18	+0 14	+0 23	0.2	0.2	--	--	0.6	218°	0.1	298°	0.6	020°				
	do.	16d	27° 27.61'	80° 19.26'	+0 05	-0 21	+0 17	+0 26	0.2	0.2	0.1	303°	0.7	219°	0.1	297°	0.5	022°				
	do.	19d	27° 27.61'	80° 19.26'	+0 06	-0 20	+0 16	+0 28	0.2	0.2	0.1	302°	0.6	218°	0.1	296°	0.5	023°				
3241	South Bridge (ICW)	3d	27° 27.60'	80° 19.15'	-0 06	+0 12	+0 10	+0 00	0.6	0.5	--	--	1.6	238°	0.2	315°	1.3	031°				
	do.	9d	27° 27.60'	80° 19.15'	+0 00	+0 09	+0 11	+0 03	0.5	0.4	--	--	1.4	236°	0.2	317°	1.2	036°				
	do.	16d	27° 27.60'	80° 19.15'	+0 00	+0 09	+0 14	+0 06	0.5	0.3	--	--	1.3	232°	0.1	325°	0.9	053°				
	LAKE WORTH INLET		<b>on Lake Worth Inlet, p.124</b>																			
3243	LAKE WORTH INLET ENTRANCE	15d	26° 46.38'	80° 02.17'	<b>Daily predictions</b>						--	--	1.6	267°	--	--	1.3	086°				
	do.	5d	26° 46.38'	80° 02.17'	+0 04	+0 02	+0 02	+0 05	1.1	0.9	--	--	1.8	267°	--	--	1.2	092°				
	do.	28d	26° 46.38'	80° 02.17'	-0 04	-0 01	-0 03	-0 04	0.7	0.9	--	--	1.2	268°	--	--	1.1	085°				
3245	Pier 13	6d	26° 46.02'	80° 03.04'	See Table 5																	
	do.	15d	26° 46.02'	80° 03.04'	See Table 5																	
	do.	19d	26° 46.02'	80° 03.04'	See Table 5																	
3247	North Turning Basin	3d	26° 46.28'	80° 03.02'	-0 02	-0 26	-0 05	+0 33	0.6	0.9	--	--	0.9	356°	--	--	1.1	170°				
	do.	8d	26° 46.28'	80° 03.02'	+0 00	-0 25	-0 04	+0 35	0.6	0.8	--	--	0.9	356°	0.1	254°	1.0	168°				
	PORT EVERGLADES		<b>on Port Everglades, p.128</b>																			
3249	Pier 2, 1.3 miles east of <34>		26° 05.63'	80° 05.78'	Current weak and variable																	
3251	PORT EVERGLADES ENTRANCE	16d	26° 05.59'	80° 06.33'	<b>Daily predictions</b>						--	--	0.6	257°	--	--	0.6	075°				
	do.	9d	26° 05.59'	80° 06.33'	+0 24	+0 09	-0 09	-0 07	1.0	1.1	--	--	0.5	259°	--	--	0.7	077°				
	do.	22d	26° 05.59'	80° 06.33'	-0 24	-0 01	+0 06	+0 01	1.0	0.9	--	--	0.6	255°	--	--	0.6	075°				
	do.	35d	26° 05.59'	80° 06.33'	-1 03	-0 04	+0 08	-0 07	1.0	0.7	--	--	0.6	251°	--	--	0.4	077°				

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	PORT EVERGLADES Time meridian, 75°W	ft	North	West	h	m	h	m	h	m									
			on Port Everglades, p.128																
3253	Turning Basin	4d	26° 05.69'	80° 07.04'	+0 20	-0 58	-0 52	-0 13	0.3	0.8	--	--	0.1	358°	--	--	0.5	173°	
	do.	14d	26° 05.69'	80° 07.04'	Current weak and variable														
	do.	34d	26° 05.69'	80° 07.04'	Current weak and variable														
3255	17th Street Bridge, 0.1mile south of	6d	26° 05.98'	80° 07.15'	-0 20	-0 12	-0 09	-0 18	1.6	1.2	0.1	100°	0.9	022°	0.1	101°	0.8	184°	
	do.	9d	26° 05.98'	80° 07.15'	-0 29	-0 14	-0 10	-0 24	1.6	1.1	--	--	0.9	021°	0.1	102°	0.7	184°	
	do.	12d	26° 05.98'	80° 07.15'	-0 38	-0 12	-0 09	-0 27	1.5	1.1	--	--	0.9	024°	0.1	103°	0.7	184°	
3257	Fort Lauderdale, New River	6d	26° 06.73'	80° 07.18'	-0 14	-0 01	+0 28	+0 52	1.4	0.8	--	--	0.8	005°	--	--	0.5	130°	
3259	South Entrance (ICW)	5d	26° 05.24'	80° 06.79'	+0 34	-0 06	-0 38	-0 22	0.3	0.7	--	--	0.2	173°	--	--	0.4	353°	
	do.	15d	26° 05.24'	80° 06.79'	+0 37	+0 15	-0 21	-0 06	0.3	0.6	--	--	0.2	171°	--	--	0.4	350°	
	do.	31d	26° 05.24'	80° 06.79'	-0 14	+0 11	+0 20	-0 03	0.4	0.3	--	--	0.2	168°	--	--	0.2	351°	
3261	South Port, at the terminals	6d	26° 04.46'	80° 06.83'	+0 26	+0 20	-0 05	-0 03	0.5	0.5	--	--	0.3	175°	--	--	0.3	356°	
	do.	16d	26° 04.46'	80° 06.83'	+0 18	+0 29	+0 09	-0 09	0.5	0.4	--	--	0.3	175°	--	--	0.3	356°	
	do.	26d	26° 04.46'	80° 06.83'	-0 28	+0 36	+0 12	-0 39	0.5	0.4	--	--	0.3	175°	--	--	0.3	355°	
	MIAMI HARBOR		on Miami Harbor Entrance, p.132																
3263	Bakers Haulover Cut		25° 54.0'	80° 07.4'	+0 00	+0 19	+0 13	-0 08	1.3	1.0	--	--	2.9	270°	--	--	2.5	090°	
	Government Cut																		
3265	South Jetty	9d	25° 45.63'	80° 07.61'	-0 03	-0 01	-0 05	-0 12	0.7	0.8	0.1	040°	1.6	317°	0.1	041°	1.8	118°	
	do.	15d	25° 45.63'	80° 07.61'	-0 06	-0 03	-0 05	-0 10	0.7	0.7	0.1	039°	1.6	319°	0.1	042°	1.7	117°	
	do.	38d	25° 45.63'	80° 07.61'	-0 15	-0 01	-0 02	-0 14	0.6	0.5	0.2	044°	1.4	321°	0.1	041°	1.2	115°	
3267	MIAMI HARBOR ENTRANCE	15d	25° 45.84'	80° 08.04'	Daily predictions								2.2	293°	--	--	2.4	113°	
	do.	8d	25° 45.84'	80° 08.04'	+0 00	+0 01	+0 00	-0 01	1.0	1.0	--	--	2.3	293°	--	--	2.4	114°	
	do.	22d	25° 45.84'	80° 08.04'	-0 01	-0 01	+0 00	-0 01	1.0	1.0	--	--	2.2	292°	--	--	2.3	113°	
	do.	35d	25° 45.84'	80° 08.04'	-0 04	-0 01	-0 02	-0 02	0.8	0.8	--	--	1.8	292°	--	--	1.9	115°	
3269	West entrance, south side	4d	25° 45.88'	80° 08.25'	-0 06	+0 03	-0 27	-0 11	0.5	0.8	--	--	1.0	290°	0.1	015°	2.0	097°	
	do.	14d	25° 45.88'	80° 08.25'	-0 09	-0 09	-0 29	-0 05	0.4	0.8	--	--	0.9	289°	0.1	015°	2.0	094°	
	do.	34d	25° 45.80'	80° 08.25'	-0 16	-0 36	-0 28	-0 08	0.3	0.6	--	--	0.7	262°	--	--	1.4	090°	
	Main Channel																		
3271	Fisher Island Turning Basin	9d	25° 46.07'	80° 08.61'	+0 00	+0 34	+0 34	-0 01	0.6	0.3	0.1	038°	1.4	293°	--	--	0.8	123°	
	do.	16d	25° 46.07'	80° 08.61'	+0 08	+0 34	+0 36	+0 09	0.6	0.4	0.1	033°	1.4	293°	--	--	0.9	119°	
	do.	36d	25° 46.07'	80° 08.61'	+0 00	+0 33	+0 38	+0 07	0.5	0.3	--	--	1.1	291°	--	--	0.7	111°	
3273	Main Ship Channel	6d	25° 46.40'	80° 09.42'	+0 17	+0 22	+0 19	+0 13	0.5	0.4	--	--	1.2	295°	--	--	1.0	110°	
	do.	16d	25° 46.40'	80° 09.42'	+0 04	+0 16	+0 21	+0 15	0.5	0.4	--	--	1.2	294°	--	--	0.9	112°	
	do.	33d	25° 46.40'	80° 09.42'	-0 28	+0 28	+0 22	-0 06	0.4	0.3	--	--	0.9	292°	--	--	0.6	116°	
3275	Dodge Island, SE Turning Basin	4d	25° 46.91'	80° 10.84'	+0 41	+0 06	-0 36	+0 07	0.2	0.1	0.2	027°	0.4	305°	--	--	0.3	118°	
	do.	14d	25° 46.91'	80° 10.84'	+0 27	+0 00	+0 19	+0 12	0.2	0.2	0.1	028°	0.5	307°	--	--	0.4	119°	
	do.	30d	25° 46.91'	80° 10.84'	+0 02	-0 48	+0 43	+0 17	0.1	0.1	0.1	032°	0.3	304°	--	--	0.3	104°	
3277	Dodge Island, NW Turning Basin	7d	25° 47.13'	80° 11.04'	-0 03	+0 14	-0 15	-0 43	0.1	0.2	--	--	0.3	334°	--	--	0.5	173°	
	do.	17d	25° 47.13'	80° 11.04'	-0 38	+0 18	+0 06	-0 31	0.1	0.1	--	--	0.3	317°	--	--	0.3	163°	
	do.	30d	25° 47.13'	80° 11.04'	Current weak and variable														
	Fishermans Channel																		
3279	Pilot House	5d	25° 45.95'	80° 08.75'	-0 02	-1 37	-1 36	-0 02	0.2	0.3	--	--	0.3	255°	--	--	0.7	086°	
	do.	14d	25° 45.95'	80° 08.75'	-0 03	-1 27	-1 05	+0 19	0.2	0.2	--	--	0.4	255°	--	--	0.6	086°	
	do.	31d	25° 45.95'	80° 08.75'	-0 07	-1 00	-0 38	+0 07	0.3	0.2	--	--	0.6	258°	--	--	0.4	085°	
3281	Norris Cut	7d	25° 45.90'	80° 09.07'	+0 06	+0 15	-0 05	-0 20	0.4	0.4	--	--	0.8	294°	0.1	018°	1.1	089°	
	do.	14d	25° 45.90'	80° 09.07'	+0 03	+0 07	-0 05	-0 09	0.4	0.4	--	--	0.8	286°	--	--	1.0	088°	
	do.	34d	25° 45.90'	80° 09.07'	-0 03	+0 10	-0 01	+0 00	0.4	0.3	--	--	0.9	276°	--	--	0.8	092°	
3283	Lummus Island, SW corner	4d	25° 45.91'	80° 09.69'	+0 06	-0 12	-0 08	+0 13	0.3	0.3	--	--	0.6	268°	--	--	0.6	091°	
	do.	14d	25° 45.91'	80° 09.69'	+0 02	-0 02	-0 04	+0 01	0.2	0.3	--	--	0.5	269°	--	--	0.7	089°	
3285	Lummus Island Turning Basin	7d	25° 46.06'	80° 10.06'	+0 18	-0 26	-0 51	+0 41	0.1	0.1	--	--	0.3	293°	--	--	0.3	121°	
	do.	14d	25° 46.06'	80° 10.06'	+0 06	-0 32	-0 13	+0 45	0.1	0.1	0.1	012°	0.3	291°	--	--	0.3	099°	
	do.	34d	25° 46.06'	80° 10.06'	--	--	--	+1 43	--	0.1	--	--	--	--	--	--	0.3	060°	
3287	Dodge Island Cut, west end	5d	25° 46.38'	80° 10.71'	+0 44	+0 31	-0 05	+0 04	0.1	0.1	--	--	0.1	253°	--	--	0.2	085°	
	do.	15d	25° 46.38'	80° 10.71'	+0 32	+0 31	+0 37	+0 43	0.1	0.1	--	--	0.2	271°	--	--	0.2	089°	
	do.	28d	25° 46.38'	80° 10.71'	-0 08	-0 48	+0 18	+1 04	0.1	0.1	--	--	0.3	266°	--	--	0.2	077°	

Endnotes can be found at the end of table 2.

TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	MIAMI HARBOR Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m							
					<b>on Miami Harbor Entrance, p.132</b>														
3289	Miami River Entrance	2d	25° 46.22'	80° 11.25'	+0 30	-0 05	-0 08	+0 48	0.2	0.2	--	--	0.3	267°	--	--	0.5	090°	
	do.	12d	25° 46.22'	80° 11.25'	-0 06	-0 46	+0 24	+0 51	0.2	0.2	--	--	0.3	263°	--	--	0.4	051°	
3291	Fowey Rocks Light, 1.5 miles SW of		25° 35'	80° 07'	Current weak and variable														
	FLORIDA REEFS to MIDNIGHT PASS				<b>on Key West, p.136</b>														
3293	Caesar Creek, Biscayne Bay		25° 23.2'	80° 13.6'	+0 09	+0 03	-0 21	-0 23	0.9	1.0	--	--	1.2	316°	--	--	1.8	123°	
3295	Long Key, drawbridge east of		24° 50.4'	80° 46.2'	+1 00	+1 38	+2 14	+1 15	0.8	0.7	--	--	1.1	000°	--	--	1.2	202°	
3297	Long Key Viaduct		24° 48.1'	80° 51.9'	+1 36	+1 39	+1 55	+1 39	0.7	0.7	--	--	0.9	349°	--	--	1.2	170°	
3299	Moser Channel, between Molasses and Pigeon Keys	3d	24° 41.89'	81° 10.15'	+1 21	+1 19	+1 16	+1 15	0.9	0.9	--	--	1.2	346°	--	--	1.6	164°	
	do.	9d	24° 41.89'	81° 10.15'	+1 21	+1 17	+1 15	+1 16	0.7	0.8	--	--	0.9	345°	--	--	1.3	163°	
3301	Bahia Honda Harbor	4d	24° 39.38'	81° 17.31'	+1 15	+1 09	+1 07	+1 17	1.0	0.9	--	--	1.3	007°	--	--	1.5	183°	
3303	Loggerhead Key, East of	2d	24° 36.97'	81° 27.19'	+0 03	+0 10	+0 10	+0 06	0.2	0.2	--	--	0.2	322°	--	--	0.3	158°	
	do.	8d	24° 36.97'	81° 27.19'	+0 27	+0 14	-0 06	+0 29	0.1	0.1	--	--	0.2	330°	--	--	0.2	154°	
3305	Safe Harbor Entrance, Stock Island	11d	24° 33.35'	81° 44.07'	Current weak and variable														
3307	No Name Key, northeast of Key West		24° 42.3'	81° 18.8'	+0 57	+1 35	+1 13	+0 35	0.5	0.5	--	--	0.7	312°	--	--	0.9	142°	
3309	Main Ship Channel entrance	4d	24° 28.24'	81° 48.71'	-0 22	-0 48	-0 12	-0 10	0.2	0.2	0.1	260°	0.3	339°	0.1	263°	0.3	187°	
	do.	17d	24° 28.24'	81° 48.71'	-0 10	-0 06	-0 39	-0 29	0.1	0.2	0.1	258°	0.2	331°	0.1	265°	0.3	182°	
3311	Key West Channel, Cut-A Cut-B Turn	6d	24° 31.56'	81° 49.09'	+0 27	-0 04	+0 20	+0 52	0.4	0.5	0.3	248°	0.5	309°	0.2	237°	0.8	164°	
	do.	26d	24° 31.56'	81° 49.09'	+0 32	-0 03	+0 06	+0 56	0.3	0.4	0.1	249°	0.4	324°	0.1	241°	0.7	161°	
3313	Southwest channel	3d	24° 32.05'	81° 49.93'	+0 33	+0 35	+0 01	+0 16	0.4	0.5	0.1	279°	0.5	355°	0.1	282°	0.8	202°	
	do.	20d	24° 32.05'	81° 49.93'	+0 31	+0 25	-0 03	+0 19	0.3	0.4	0.1	283°	0.4	004°	0.1	286°	0.7	202°	
3315	KEY WEST, 0.3 mi. W of Ft. Taylor	4d	24° 32.88'	81° 49.01'	<b>Daily predictions</b>														
	do.	14d	24° 32.88'	81° 49.01'	-0 02	+0 01	-0 02	-0 01	0.8	0.9	--	--	1.1	009°	0.1	096°	1.4	186°	
3317	Ft. Taylor, 0.6 mile N of		24° 33.5'	81° 48.6'	+0 22	+0 24	-0 18	-0 05	0.4	0.7	--	--	0.6	042°	--	--	1.2	202°	
3319	Key West Harbor Range channel	6d	24° 33.78'	81° 48.56'	+0 18	+0 25	+0 10	+0 09	0.8	0.8	0.1	304°	1.1	035°	0.1	126°	1.4	215°	
	do.	19d	24° 33.78'	81° 48.56'	+0 15	+0 26	+0 08	+0 05	0.7	0.7	--	--	0.9	032°	--	--	1.1	212°	
3321	Turning Basin	6d	24° 33.83'	81° 48.37'	+0 23	+0 27	+0 19	+0 16	0.9	0.7	0.1	115°	1.2	024°	0.1	299°	1.2	210°	
	do.	23d	24° 33.83'	81° 48.37'	+0 18	+0 31	+0 16	+0 10	0.7	0.6	0.1	120°	0.9	026°	0.1	304°	0.9	214°	
3323	Northwest Channel, W of Middle Ground	4d	24° 34.10'	81° 50.10'	-0 07	-0 19	+0 01	-0 04	1.2	0.8	--	--	1.2	353°	--	--	1.4	162°	
	do.	17d	24° 34.10'	81° 50.10'	-0 08	-0 18	+0 00	-0 04	1.0	0.8	--	--	1.3	313°	0.1	227°	1.4	140°	
3325	Northwest Channel, W of Calda Bank	5d	24° 36.92'	81° 52.29'	-0 19	-0 22	+0 03	-0 07	1.0	0.6	--	--	1.2	321°	--	--	1.0	145°	
	do.	22d	24° 36.92'	81° 52.29'	-0 19	-0 21	-0 01	-0 10	0.8	0.5	--	--	1.1	321°	--	--	0.8	144°	
3327	Fleming Key Cut	4d	24° 34.09'	81° 48.11'	+1 27	+0 23	-0 02	+0 56	0.4	1.0	0.3	003°	0.5	068°	--	--	1.7	279°	
	do.	17d	24° 34.09'	81° 48.11'	+1 19	+0 09	-0 11	+1 00	0.4	0.8	0.3	000°	0.5	064°	--	--	1.4	274°	
3329	Man of War Harbor	3d	24° 35.22'	81° 48.37'	+0 28	+0 45	+0 21	+0 01	0.7	0.5	0.2	289°	0.9	002°	--	--	0.9	187°	
	do.	16d	24° 35.22'	81° 48.37'	+1 03	+0 45	+0 18	+0 00	0.5	0.5	0.2	293°	0.7	006°	--	--	0.8	182°	
3331	Fleming Key, North of	2d	24° 35.80'	81° 47.92'	+1 30	+1 17	+0 48	+1 07	1.1	1.1	--	--	1.4	059°	--	--	1.9	242°	
	do.	9d	24° 35.80'	81° 47.92'	+1 28	+1 17	+0 49	+1 08	0.8	0.8	--	--	1.1	061°	--	--	1.4	241°	
3333	Boca Grande Channel	2d	24° 33.99'	82° 04.01'	-0 10	-0 18	-0 11	-0 11	0.9	0.7	--	--	1.2	013°	--	--	1.3	190°	
	do.	12d	24° 33.99'	82° 04.01'	-0 12	-0 21	-0 13	-0 11	0.7	0.6	--	--	0.9	013°	--	--	1.0	191°	
3335	New Ground	6d	24° 39.04'	82° 24.97'	+1 41	+1 08	+1 04	+1 46	0.5	0.5	0.3	305°	0.6	064°	0.2	154°	0.9	260°	
	do.	32d	24° 39.04'	82° 24.97'	+1 38	+1 04	+1 01	+1 43	0.4	0.4	0.3	351°	0.6	066°	0.1	152°	0.7	259°	
3337	Isaac Shoal		24° 33.5'	82° 32.2'	+1 02	+1 05	+1 45	+1 37	0.8	0.5	--	--	1.0	002°	--	--	0.8	181°	
3339	Southeast Channel, 1.1 miles E of Garden Key		24° 37.60'	82° 51.10'	-0 25	+0 05	+0 30	+0 18	0.5	0.4	--	--	0.6	004°	--	--	0.6	172°	
3341	Southwest Channel		24° 36.92'	82° 54.70'	+0 47	+1 10	+1 18	+1 46	0.3	0.3	--	--	0.4	001°	--	--	0.6	209°	
					<b>on Tampa Bay Entrance, p.140</b>														
3343	Point Ybel, 0.4 mile northwest of		26° 27.40'	82° 01.12'	-0 25	-0 52	+0 17	+0 35	0.8	0.7	--	--	1.0	255°	--	--	0.9	080°	
3345	Captiva Pass <37>		26° 36.56'	82° 13.34'	-0 53	-1 29	-1 14	-0 23	1.4	0.9	--	--	1.8	067°	--	--	1.9	251°	
3347	Boca Grande Pass, Charlotte Harbor		26° 42.86'	82° 15.40'	-0 15	-0 37	-0 15	+0 05	1.7	1.3	--	--	2.2	057°	--	--	1.8	251°	
3349	Pine Island Sound		26° 40.90'	82° 11.87'	--	--	--	--	--	--	--	--	0.5	011°	--	--	0.5	191°	
3351	Little Pine I. bridge, Matlacha Pass		26° 37.9'	82° 04.1'	--	-0 19	--	--	0.4	--	--	--	0.6	132°	--	--	--	--	
3353	Cape Haze, 2.3 mi. S of, Charlotte Hbr		26° 44.7'	82° 09.1'	+0 30	+0 41	-0 20	+1 18	0.4	0.4	--	--	0.5	080°	--	--	0.5	268°	
3355	Punta Gorda, Peace River Bridge		26° 56.7'	82° 03.4'	--	--	--	--	0.3	0.2	--	--	0.4	047°	--	--	0.3	230°	

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS							
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb	
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
	FLORIDA REEFS to MIDNIGHT PASS Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h m	h m	h m	h m			knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.
					<b>on Tampa Bay Entrance, p.140</b>													
3357	Myakka River bridge <45>		26° 57.5'	82° 12.8'	+1 48	+1 18	+1 47	-- --	0.4	--	--	--	0.5	304°	--	--	--	--
3359	Gasparilla Pass		26° 48.74'	82° 16.86'	-1 15	-1 13	-0 35	-0 41	0.8	0.8	--	--	1.0	066°	--	--	1.1	236°
3361	Venice Inlet		27° 06.8'	82° 28.0'	-2 05	-2 08	-1 57	-1 59	0.8	0.7	--	--	1.1	087°	--	--	0.9	262°
3363	Blackburn Bay, south end, bridge		27° 07.4'	82° 28.2'	-0 55	-1 20	-1 28	-0 10	0.7	0.5	--	--	0.9	357°	--	--	0.7	180°
3365	Little Sarasota Bay, south end, bridge		27° 10.8'	82° 29.7'	-1 19	-0 56	-0 57	-0 06	1.1	0.5	--	--	1.4	167°	--	--	0.7	357°
3367	Midnight Pass entrance		27° 12.4'	82° 30.6'	-1 43	-1 59	-1 49	-1 13	1.4	1.1	--	--	1.8	061°	--	--	1.4	242°
	SARASOTA BAY																	
3369	Big Sarasota Pass		27° 18.0'	82° 33.8'	-1 54	-1 49	-1 34	-2 03	1.2	0.8	--	--	1.5	006°	--	--	1.0	183°
3371	Sarasota Bay, south end, bridge		27° 18.1'	82° 32.8'	-1 25	-1 39	-1 13	-0 32	0.2	0.2	--	--	0.3	196°	--	--	0.3	013°
3373	New Pass		27° 19.9'	82° 34.9'	-2 06	-2 48	-1 18	-1 25	1.2	0.8	--	--	1.6	046°	--	--	1.0	231°
3375	Golden Gate Point, off		27° 19.7'	82° 33.4'	-1 38	-1 57	-1 25	-1 19	0.3	0.2	--	--	0.4	344°	--	--	0.3	159°
3377	Longboat Pass		27° 26.5'	82° 41.4'	-2 32	-2 42	-1 51	-1 56	1.4	1.2	--	--	1.8	088°	--	--	1.6	267°
3379	Cortez, north of bridge		27° 28.2'	82° 41.6'	-1 47	-1 10	-0 25	-1 11	0.5	0.1	--	--	0.6	346°	--	--	0.1	162°
	TAMPA BAY																	
3381	Egmont Channel, marker '10'	15d	27° 36.03'	82° 52.06'	-2 04	-3 17	-2 22	-1 31	0.2	0.2	0.2	319°	0.2	018°	0.1	139°	0.3	259°
3383	Egmont Channel (3 mi. W of Egmont Key Lt.)		27° 36.5'	82° 49.1'	-0 30	-0 28	-0 30	-0 29	0.4	0.5	--	--	0.5	065°	--	--	0.7	260°
3385	TAMPA BAY ENTRANCE (Egmont Channel)	15d	27° 36.26'	82° 45.62'	<b>Daily predictions</b>						--	--	1.3	120°	0.1	032°	1.3	298°
3387	Southwest Channel (S of Egmont Key)	15d	27° 33.70'	82° 46.04'	-0 46	-0 53	-0 40	-0 30	0.6	0.9	0.1	357°	0.8	087°	--	--	1.2	269°
3389	Mullet Key Channel entrance		27° 36.27'	82° 43.43'	-0 03	-0 01	-0 23	+0 08	0.8	0.8	--	--	1.1	055°	--	--	1.1	255°
3391	Passage Key Inlet (off Bean Pt.)	15d	27° 32.36'	82° 44.86'	-1 29	-1 50	-1 13	-1 08	0.6	0.7	--	--	0.8	081°	--	--	0.9	247°
3393	Rattlesnake Key, 3.1 miles west of		27° 33.20'	82° 41.30'	+0 20	-0 05	-0 51	+0 04	0.3	0.4	--	--	0.4	065°	--	--	0.6	250°
3395	Rattlesnake Key, 1.1 miles northwest of		27° 34.25'	82° 38.63'	-0 28	-0 34	-0 34	-0 09	0.2	0.1	--	--	0.3	035°	--	--	0.2	210°
3397	Mullet Key Channel, marker '24'	15d	27° 36.50'	82° 41.64'	-0 14	-0 07	-0 06	-0 06	0.7	0.7	--	--	0.9	073°	--	--	1.0	255°
3399	Bunces Pass (West of Bayway bridge)		27° 38.82'	82° 44.37'	-0 47	-0 46	-1 07	-1 02	0.8	0.7	--	--	1.0	125°	--	--	1.0	315°
3401	Pine Key (Pinellas Bayway bridge)		27° 41.55'	82° 43.03'	-0 32	-0 29	-1 07	-1 00	0.3	0.6	--	--	0.4	100°	--	--	0.8	280°
3403	Cats Point (bridge west of)		27° 42.50'	82° 43.48'	-1 27	-2 41	-2 12	-1 23	0.5	0.5	--	--	0.6	015°	--	--	0.7	150°
3405	SUNSHINE SKYWAY BRIDGE	15d	27° 37.22'	82° 39.32'	<b>Daily predictions, p.144</b>						--	--	1.3	060°	--	--	1.1	235°
3407	Cut A & B, Channel Junction		27° 38.33'	82° 37.53'	+0 25	+0 07	+0 23	+0 46	0.8	0.7	--	--	1.0	045°	--	--	1.0	225°
3409	Joe Island, 1.8 miles northwest of		27° 36.75'	82° 37.50'	+0 03	-0 07	-0 24	-0 02	0.5	0.7	--	--	0.7	070°	--	--	0.9	245°
3411	Harbor Key, 1.3 miles west of <i>Pinellas Point</i>		27° 36.67'	82° 35.67'	-0 50	-0 56	-1 06	-0 38	0.2	0.3	--	--	0.3	020°	--	--	0.4	160°
3413	2 miles southwest of		27° 40.55'	82° 39.53'	<b>Current weak and variable</b>													
3415	2.6 miles south of		27° 39.63'	82° 38.50'	-0 46	-0 23	-0 16	-0 34	0.6	0.7	--	--	0.8	030°	--	--	0.9	210°
3417	0.5 mile southeast of		27° 41.82'	82° 37.95'	-1 28	-1 19	-1 53	-0 57	0.2	0.2	--	--	0.3	045°	--	--	0.3	220°
3419	1.9 miles SE of		27° 41.08'	82° 36.58'	+0 29	-0 32	-0 06	+0 20	0.5	0.6	--	--	0.7	020°	--	--	0.8	180°
3421	3 miles southeast of		27° 40.38'	82° 35.58'	+0 29	+0 23	+0 20	+0 47	0.6	0.6	--	--	0.8	025°	--	--	0.8	200°
3423	Port Manatee Channel entrance	15d	27° 39.72'	82° 35.95'	-0 01	+0 08	+0 24	+0 23	0.6	0.6	--	--	0.8	033°	--	--	0.8	216°
3425	Port Manatee Channel, marker '4'	15d	27° 39.21'	82° 35.39'	-0 34	-0 11	-0 22	+0 01	0.2	0.3	--	--	0.2	056°	--	--	0.4	242°
3427	Piney Point, 0.6 mile NNW of		27° 39.22'	82° 33.73'	+0 12	-0 29	-0 45	+0 01	0.3	0.4	--	--	0.4	355°	--	--	0.5	215°
	on Old Tampa Bay ent., p.148																	
3429	Lewis Island, 0.9 mile east of	14	27° 43.47'	82° 36.58'	+0 03	-0 52	-0 47	-0 23	0.9	0.7	--	--	0.8	022°	--	--	0.7	143°
3431	Camp Key, 1.9 miles northwest of	15	27° 42.47'	82° 33.00'	+0 02	-0 27	-0 35	-0 27	0.7	0.5	--	--	0.6	036°	--	--	0.5	223°
3433	Shell Point, 1.1 miles west of		27° 43.28'	82° 30.22'	<b>Current weak and variable</b>						--	--	0.3	065°	--	--	0.3	235°
3435	Port of St. Petersburg approach, marker 'S'	12	27° 45.55'	82° 36.61'	<b>Current weak and variable</b>						0.1	274°	0.3	344°	0.1	277°	0.3	203°
3437	Snell Isle, 1.8 miles east of	14	27° 47.62'	82° 34.33'	+0 45	-0 03	-0 43	-0 12	0.3	0.4	--	--	0.3	353°	--	--	0.4	158°
3439	Ross Island, 1 mile east of, marker '4'	15d	27° 59.90'	82° 34.20'	+0 34	+0 34	+0 07	+0 25	0.9	0.7	--	--	0.8	358°	--	--	0.7	179°
3441	OLD TAMPA BAY ENTRANCE (Port Tampa)	15d	27° 51.80'	82° 33.22'	<b>Daily predictions</b>						0.1	297°	0.9	025°	--	--	0.9	211°
3443	Gandy Bridge, west channel	15	27° 52.75'	82° 34.83'	+0 07	-0 46	-0 38	-0 38	1.0	0.9	--	--	0.9	000°	--	--	0.8	155°
3445	Gandy Bridge, east channel	6d	27° 53.17'	82° 33.08'	+0 31	-0 01	-0 15	+0 23	0.6	0.5	--	--	0.5	014°	--	--	0.5	168°
3447	W Howard Frankland Bridge	7	27° 55.55'	82° 35.17'	+0 18	+0 27	+0 03	+0 10	0.3	0.2	--	--	0.3	285°	--	--	0.2	138°

Endnotes can be found at the end of table 2.

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS											
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb					
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.				
	TAMPA BAY Time meridian, 75°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m										
			<b>on Old Tampa Bay ent., p.148</b>																			
3449	Courtney Campbell Parkway	7	27° 58.08'	82° 37.45'	+0 36		+0 03		-0 20		+0 10		0.6	0.6	--	--	0.5	338°	--	--	0.6	138°
3451	Gadsden Pt. Cut-Cut G Channel junction	15d	27° 47.16'	82° 31.32'	Current weak and variable				--	--	0.2	030°	0.1	312°	0.2	241°	0.2	215°				
3453	Alafia River ent., 1.2 miles west of		27° 50.97'	82° 25.28'	Current weak and variable				--	--	0.2	060°	--	--	0.2	215°						
	BOCA CIEGA BAY and ST. JOSEPH SOUND		<b>on Tampa Bay Entrance, p.140</b>																			
3455	Pass-a-Grille Channel		27° 41.1'	82° 44.1'	-0 30		-0 43		-0 30		-0 17		0.9	1.0	--	--	1.2	357°	--	--	1.4	186°
3457	Bridge, 0.8 mi. south of Maximo Pt. <39>		27° 41.6'	82° 40.8'	-1 05		-1 22		-1 05		-0 50		0.9	1.0	--	--	1.2	078°	--	--	1.4	255°
3459	Gulfport, south of		27° 43.7'	82° 42.4'	Current weak and variable				--	--	--	--	--	--	--	--	--	--	--	--	--	--
3461	Blind Pass (north end)		27° 45.4'	82° 45.7'	-1 20		-1 25		-1 20		-1 12		0.5	0.3	--	--	0.6	000°	--	--	0.4	180°
3463	Treasure Island Causeway		27° 46.2'	82° 45.3'	Current weak and variable				--	--	--	--	--	--	--	--	--	--	--	--	--	--
			<b>on Johns Pass Entrance, p.152</b>																			
			<b>Daily predictions</b>																			
3465	JOHNS PASS ENTRANCE	2d	27° 46.69'	82° 47.23'	+0 01		-0 05		-0 03		+0 02		0.9	0.9	--	--	0.4	053°	0.1	137°	1.1	222°
	do.	8d	27° 46.69'	82° 47.23'	-0 30		-0 08		+0 04		-0 27		2.3	1.4	--	--	1.0	034°	--	--	1.5	209°
3467	Johns Pass Bridge, north span	3d	27° 47.00'	82° 46.93'	-0 37		+0 11		+0 09		-0 23		2.7	1.2	--	--	1.1	039°	--	--	1.2	209°
	do.	16d	27° 47.00'	82° 46.93'	-0 39		+0 11		+0 31		-0 32		3.3	0.7	0.1	135°	1.4	045°	--	--	0.8	228°
3469	Johns Pass Bridge, 0.3nm north of	3d	27° 47.10'	82° 46.79'	-0 39		+0 09		+0 27		-0 33		2.8	0.6	0.1	322°	1.2	047°	--	--	0.7	235°
		11d	27° 47.10'	82° 46.79'	Current weak and variable				--	--	--	--	--	--	--	--	--	--	--	--	--	--
			<b>on Tampa Bay Entrance, p.140</b>																			
3471	Treasure Island, 3.5 miles southwest of		27° 45.0'	82° 50.0'	Current weak and variable				--	--	0.6	180°	--	--	0.2	000°						
3473	The Narrows (Indian Rocks Beach Bridge)		27° 52.6'	82° 51.0'	-0 23		-0 25		-1 17		-0 54		0.5	0.1	--	--	0.6	180°	--	--	0.2	000°
3475	Clearwater Pass, 0.2 mi. NE of Sand Key		27° 57.4'	82° 49.4'	-2 24		-2 49		-2 18		-1 50		1.0	0.8	--	--	1.3	179°	--	--	1.1	348°
3477	St. Joseph Sound, off		28° 05.0'	82° 55.0'	--		--		--		--		--	--	--	--	0.4	018°	--	--	0.6	195°
	APALACHEE BAY		<b>on St. Andrew Bay Entrance, p.156</b>																			
3479	St. Marks River approach		30° 02.8'	84° 10.8'	-0 57		-0 46		-0 10		-0 08		0.5	0.4	--	--	0.6	339°	--	--	0.5	170°
3481	Four Mile Point, St. Marks River		30° 06.7'	84° 12.2'	-0 13		-0 14		+0 24		-0 26		0.3	0.3	--	--	0.4	358°	--	--	0.4	187°
3483	St. Marks, St. Marks River		30° 09.3'	84° 12.1'	+1 38		+1 10		-0 23		+0 23		0.2	0.3	--	--	0.3	067°	--	--	0.4	247°
	ST. ANDREW BAY Time meridian, 90°W		<b>on St. Andrew Bay Entrance, p.156</b>																			
			<b>Daily predictions</b>																			
3485	ST. ANDREW BAY ENTRANCE	18d	30° 07.31'	85° 43.78'	+0 45		+0 07		-0 14		-0 16		1.0	1.4	--	--	1.3	045°	--	--	1.6	225°
	do.	5d	30° 07.31'	85° 43.78'	-0 32		-0 09		+0 02		+0 00		0.8	0.8	--	--	1.2	044°	--	--	1.8	230°
	do.	31d	30° 07.31'	85° 43.78'	-0 32		-0 09		+0 02		+0 00		0.8	0.8	--	--	1.1	047°	--	--	1.3	221°
3487	Courtney Point, 0.75mi. SE of	7d	30° 08.32'	85° 41.95'	+2 10		+0 32		+0 03		+0 29		0.2	0.4	--	--	0.3	069°	--	--	0.6	210°
	do.	20d	30° 08.32'	85° 41.95'	-0 47		+1 49		+1 31		+0 23		0.4	0.2	--	--	0.4	065°	--	--	0.3	256°
	do.	30d	30° 08.32'	85° 41.95'	-0 49		+2 07		+1 39		+0 20		0.3	0.2	--	--	0.4	068°	--	--	0.3	273°
3489	Courtney Point, 0.4mi. ESE of	4d	30° 08.65'	85° 42.20'	--		--		--		-0 04		--	0.4	--	--	--	--	--	--	0.7	174°
	do.	11d	30° 08.65'	85° 42.20'	--		--		--		-1 05		--	0.2	--	--	--	--	--	--	0.4	190°
	do.	17d	30° 08.65'	85° 42.20'	Current weak and variable				--	--	--	--	--	--	--	--	--	--	--	--	--	--
3491	Redfish Point	5d	30° 08.64'	85° 40.01'	+1 20		-0 02		-0 49		-0 17		0.2	0.4	--	--	0.2	101°	--	--	0.6	319°
	do.	19d	30° 08.64'	85° 40.01'	-1 03		-0 05		+0 36		-0 14		0.3	0.3	--	--	0.4	118°	--	--	0.4	310°
	do.	32d	30° 08.64'	85° 40.01'	-1 11		+0 26		+1 04		-0 50		0.4	0.2	--	--	0.4	129°	--	--	0.3	303°
3493	Paper Mill	3d	30° 07.83'	85° 37.90'	--		--		-0 41		+0 58		--	0.4	--	--	--	--	--	--	0.7	249°
	do.	16d	30° 07.83'	85° 37.90'	+0 44		+0 28		+0 19		+1 08		0.3	0.3	--	--	0.3	086°	--	--	0.5	245°
	do.	27d	30° 07.83'	85° 37.90'	-0 46		--		+0 40		+0 05		--	0.2	--	--	--	--	--	--	0.3	238°
3495	Bear Point, 0.6nm E of	4d	30° 09.86'	85° 42.81'	+2 59		+0 41		-0 20		+0 41		0.2	0.4	--	--	0.2	297°	--	--	0.6	120°
	do.	14d	30° 09.86'	85° 42.81'	-0 05		+0 44		+1 13		-0 38		0.4	0.2	--	--	0.5	312°	--	--	0.3	137°
	do.	27d	30° 09.86'	85° 42.81'	-2 13		+0 32		+2 40		--		0.5	--	--	--	0.6	334°	--	--	--	--
3497	Long Point, West Bay	4d	30° 14.35'	85° 44.99'	+0 52		+0 04		+0 11		+0 31		0.2	0.2	--	--	0.2	005°	--	--	0.3	173°

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No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS											
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb					
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.				
	PENSACOLA BAY Time meridian, 90°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m										
					<b>on Mobile Bay Entrance, p.160</b>																	
3499	Pensacola Bay entrance, midchannel		30° 20.1'	87° 18.0'	-1	13	-1	01	+0	06	-0	49	1.1	1.3	--	--	1.6	074°	--	--	1.8	256°
	MOBILE BAY																					
3501	Main Ship Channel entrance		30° 09.2'	88° 03.2'	---		+0	20	---		+1	16	0.4	0.7	--	--	0.7	344°	0.0	175°	1.0	182°
3503	MOBILE BAY ENTRANCE, off Mobile Point	11d	30° 13.62'	88° 02.07'	<b>Daily predictions</b>				0.1	285°	1.4	014°	--	--	1.4	201°						
	do.	25d	30° 13.62'	88° 02.07'	-0	19	-0	01	+0	08	+0	01	0.8	0.7	0.1	285°	1.2	007°	0.1	282°	1.0	198°
	do.	41d	30° 13.62'	88° 02.07'	-0	38	+0	01	+0	08	+0	16	0.6	0.5	0.2	279°	0.9	357°	0.1	280°	0.8	205°
3505	Channel, 6 miles N of Mobile Point		30° 19.8'	88° 01.7'	-0	10	+0	46	+1	14	+1	09	0.4	0.4	--	--	0.6	032°	--	--	0.5	208°
3507	Great Point Clear, channel west of		30° 29.4'	88° 01.1'	<b>Current weak and variable</b>																	
3509	Mobile River entrance		30° 40.2'	88° 02.0'	+5	11	+4	24	+2	32	+3	11	0.2	0.5	--	--	0.3	333°	--	--	0.7	151°
3511	Tensaw River entrance (bridge)		30° 40.9'	88° 00.7'	+1	39	+1	05	-1	12	+0	05	0.3	0.7	--	--	0.4	029°	--	--	1.0	222°
3513	Dauphin Island Causeway	7d	30° 17.36'	88° 07.72'	+0	44	+4	50	+1	50	+1	26	0.9	0.9	--	--	1.2	061°	--	--	1.2	242°
	MISSISSIPPI SOUND																					
3515	Petit Bois Island, Dauphin Island, between	5d	30° 13.31'	88° 22.25'	-3	31	-2	12	-2	06	-1	02	0.3	0.4	0.1	268°	0.4	349°	--	--	0.6	172°
3517	Horn Island Pass (LB 17)	12d	30° 12.90'	88° 30.65'	-2	04	+3	08	-1	09	-0	40	0.5	1.0	--	--	0.6	024°	--	--	1.4	228°
	do.	25d	30° 12.90'	88° 30.65'	-2	49	+3	02	-0	20	-0	35	0.5	0.6	--	--	0.7	024°	--	--	0.9	222°
3519	Horn Island, Petit Bois Island, between	7d	30° 13.54'	88° 32.40'	-2	38	-1	23	-0	58	-0	36	0.4	0.5	--	--	0.6	048°	0.1	134°	0.7	172°
3521	Pascagoula River highway bridge <24> Gulfport Ship Channel		30° 22.3'	88° 33.8'	---		+0	18	---		-0	36	0.9	0.9	--	--	1.2	016°	--	--	1.2	201°
3523	Ship Island, 1.0nm S of, (LB 22)	11d	30° 11.64'	88° 59.35'	-2	09	+3	28	+0	43	+0	56	0.2	0.3	--	--	0.3	308°	--	--	0.5	113°
3525	Ship Island, 0.5nm NW of, (LB 26)	15d	30° 12.96'	88° 59.68'	-0	05	+3	50	+2	05	+1	41	0.3	0.4	--	--	0.5	008°	--	--	0.5	141°
3527	Ship Island, 1.8nm NW of, (DM 32)	10d	30° 14.35'	89° 00.00'	+2	49	+5	04	+2	22	+2	29	0.3	0.4	--	--	0.4	029°	--	--	0.6	184°
	LOUISIANA COAST																					
3529	Quatre Bayoux Pass, Barataria Bay		29° 18.6'	89° 51.1'	+1	12	+0	34	+0	31	+0	32	0.9	0.9	--	--	1.2	288°	--	--	1.3	103°
3531	Pass Abel, Barataria Bay		29° 17.7'	89° 54.2'	+0	28	+0	30	+0	01	+0	23	0.6	1.1	--	--	0.9	317°	--	--	1.6	143°
3533	Barataria Pass, Barataria Bay		29° 16.3'	89° 56.9'	+2	04	+0	53	+0	49	+0	45	1.1	0.9	--	--	1.5	315°	--	--	1.3	120°
3535	Barataria Bay, 1.1 mi. NE of Manilla		29° 26.2'	89° 57.6'	+4	16	+3	05	+2	58	+4	38	0.3	0.3	--	--	0.4	356°	--	--	0.5	160°
3537	Caminada Pass, Barataria Bay		29° 11.9'	90° 02.8'	+1	19	+1	57	+0	44	+1	04	1.1	1.1	--	--	1.5	297°	--	--	1.5	118°
3539	Seabrook Bridge, New Orleans <1>		30° 01.9'	90° 02.1'	---		-2	54	---		-4	02	0.9	0.6	--	--	1.2	350°	--	--	0.9	170°
	on Galveston Bay Entrance, p.172																					
3541	Cat Island Pass, Terrebonne Bay	6	29° 04.8'	90° 34.4'	-2	32	-1	57	-1	05	-2	59	0.8	1.2	--	--	1.1	013°	--	--	1.5	195°
3543	Wine Island Pass		29° 04.2'	90° 38.0'	-4	33	-5	03	-3	38	-4	17	1.2	1.5	--	--	1.7	325°	--	--	1.9	160°
3545	Caillou Boca, Caillou Bay	4	29° 03.5'	90° 48.5'	-0	33	-0	41	+2	59	-0	05	0.9	0.6	--	--	1.3	095°	--	--	0.7	264°
3547	Calcasieu Pass, Cameron Fishing Pier	6d	29° 45.85'	93° 20.58'	<b>Daily predictions, p.164</b>																	
3549	Calcasieu Pass, 35 miles south of		29° 10.15'	93° 19.23'	<b>Current weak and variable</b>																	
3551	Calcasieu Pass, 67 miles south of <41>		28° 39.80'	93° 19.95'	<b>Current weak and variable</b>																	
	TEXAS																					
	Sabine Pass																					
3553	Texas Point, 1.7 miles SSE of		29° 39.0'	93° 49.6'	+0	33	-0	08	-0	50	-0	17	1.0	1.6	--	--	1.1	335°	--	--	1.6	145°
3555	SABINE PASS, USCG STATION	4d	29° 43.72'	93° 52.20'	<b>Daily predictions</b>																	
3557	Sabine Front Range	3d	29° 45.48'	93° 53.41'	+0	19	+0	10	+0	36	+0	26	1.2	1.2	--	--	1.3	335°	0.1	248°	1.2	160°
3559	Rainbow Bridge, Sabine Lake	13	29° 58.78'	93° 52.29'	+1	14	+2	01	+4	40	+2	40	0.7	0.6	--	--	0.8	285°	--	--	0.7	108°
3561	GALVESTON BAY ENT. (between jetties)	15d	29° 20.92'	94° 42.85'	<b>Daily predictions</b>																	
	do.	5d	29° 20.92'	94° 42.85'	+0	17	+0	15	+0	02	+0	05	1.0	1.1	0.1	179°	1.4	272°	--	--	1.3	091°
	do.	34d	29° 20.92'	94° 42.85'	-0	18	-0	01	-0	03	-0	13	0.8	0.9	0.1	188°	1.1	274°	--	--	1.1	094°

Endnotes can be found at the end of table 2.

**TABLE 2 – CURRENT DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	Meter Depth	POSITION		TIME DIFFERENCES				SPEED RATIOS		AVERAGE SPEEDS AND DIRECTIONS								
			Latitude	Longitude	Min. before Flood	Flood	Min. before Ebb	Ebb	Flood	Ebb	Minimum before Flood		Maximum Flood		Minimum before Ebb		Maximum Ebb		
											knots	Dir.	knots	Dir.	knots	Dir.	knots	Dir.	
	<b>GALVESTON BAY</b> Time meridian, 90°W	ft	<b>North</b>	<b>West</b>	h	m	h	m	h	m	h	m							
					<b>on Bolivar Roads, p.176</b>														
3563	Galveston Bay Entr. Channel, LB11	13	29° 20.55'	94° 44.46'	+0 04	-0 02	+0 37	+0 24	0.8	1.0	0.1	000°	1.3	282°	0.1	359°	1.3	077°	
	do.	26	29° 20.55'	94° 44.46'	-0 25	-0 13	-0 34	-0 44	0.8	0.9	0.1	346°	1.3	267°	0.1	344°	1.2	065°	
3565	<b>BOLIVAR ROADS</b>	14d	29° 20.60'	94° 46.88'	<b>Daily predictions</b>						0.1	210°	1.6	296°	0.1	210°	1.3	123°	
	do.	8d	29° 20.60'	94° 46.88'	+0 09	+0 07	-0 16	-0 01	1.0	1.1	0.1	213°	1.6	295°	--	--	1.5	125°	
	do.	31d	29° 20.60'	94° 46.88'	-0 32	-0 11	+0 17	-0 08	0.8	0.6	--	--	1.2	306°	0.1	033°	1.0	115°	
3567	Quarantine Station, 0.3 mile S of <24>		29° 19.8'	94° 46.7'	--	+2 16	--	-1 53	0.7	0.6	--	--	1.1	196°	--	--	0.8	009°	
3569	Galveston Channel, west end <24>		29° 18.6'	94° 49.2'	-0 30	-0 54	-2 30	-1 11	1.0	1.2	--	--	1.6	272°	--	--	1.6	103°	
3571	Galveston Causeway RR. bridge	16d	29° 17.85'	94° 53.15'	-0 12	-0 22	-3 49	-1 21	0.4	0.8	--	--	0.6	266°	0.1	182°	1.1	099°	
3573	Houston Channel, W of Port Bolivar	3d	29° 21.88'	94° 47.80'	-0 05	-0 18	-2 14	-1 41	1.1	1.0	--	--	1.7	313°	0.1	052°	1.3	135°	
	do.	14d	29° 21.88'	94° 47.80'	-0 03	-0 11	-2 15	-1 55	1.0	0.9	--	--	1.5	312°	--	--	1.2	133°	
	do.	26d	29° 21.88'	94° 47.80'	-0 06	-0 14	-2 12	-1 41	0.9	0.8	--	--	1.4	312°	--	--	1.0	133°	
3575	Houston Ship Channel (Red Fish Bar)	7d	29° 30.44'	94° 52.48'	+0 41	+1 13	+1 13	+0 50	0.5	0.5	0.1	069°	0.7	341°	--	--	0.7	154°	
	do.	14d	29° 30.44'	94° 52.48'	+0 45	+1 28	+1 17	+1 10	0.7	0.7	0.1	064°	1.0	331°	--	--	0.9	148°	
	do.	24d	29° 30.44'	94° 52.48'	+0 48	+1 15	+1 20	+1 42	0.5	0.5	0.1	065°	0.8	323°	--	--	0.7	144°	
3577	Morgans Point	6d	29° 40.79'	94° 58.90'	+2 15	+1 43	-1 05	+1 16	0.3	0.5	--	--	0.5	336°	--	--	0.7	163°	
	do.	15d	29° 40.79'	94° 58.90'	+1 44	+1 23	-0 50	+1 11	0.3	0.4	--	--	0.5	341°	--	--	0.5	159°	
	do.	25d	29° 40.79'	94° 58.90'	+0 47	+0 58	-1 02	+1 20	0.2	0.3	--	--	0.4	340°	--	--	0.4	160°	
	<b>TEXAS COAST</b>				<b>on Galveston Bay Entrance, p.172</b>														
3579	Matagorda Channel (entrance jetty)	15	28° 25.3'	96° 19.4'	-0 40	-0 27	-1 14	-1 25	1.4	1.5	--	--	2.0	317°	--	--	1.9	142°	
					<b>on Aransas Pass, p.180</b>														
3581	<b>ARANSAS PASS</b>	35d	27° 50.03'	97° 02.65'	<b>Daily predictions</b>						--	--	1.6	300°	--	--	1.5	118°	
	do.	15d	27° 50.03'	97° 02.65'	+0 00	+0 00	+0 00	+0 00	1.1	1.5	--	--	1.9	300°	--	--	2.0	118°	
	do.	50d	27° 50.03'	97° 02.65'	+0 00	+0 00	+0 00	+0 00	0.9	0.8	--	--	1.0	300°	--	--	0.7	118°	
3583	Port Ingleside	5d	27° 48.90'	97° 13.80'	+0 24	+1 48	+2 11	+1 09	0.7	0.5	--	--	0.7	286°	--	--	0.5	102°	
3585	Sabine Bank <46>		29° 18.20'	94° 00.20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3587	Heald Bank, 28 miles SSE of <46>		28° 40.17'	93° 59.60'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	<b>PUERTO RICO</b> Time meridian, 60°W				<b>on Vieques Passage, p.184</b>														
3589	Las Mareas		17° 55.41'	66° 09.70'	Current weak and variable						--	--	0.3	256°	--	--	0.4	095°	
3591	Punta Ostiones, 1.5 miles west of		18° 05.2'	67° 13.6'	-0 26	-0 52	-0 04	-0 35	1.7	1.3	--	--	1.0	187°	--	--	0.9	001°	
3593	<b>VIEQUES PASSAGE</b>		18° 11.3'	65° 37.1'	<b>Daily predictions</b>						--	--	0.6	250°	--	--	0.7	057°	
3595	Vieques Sound		18° 15.87'	65° 34.20'	-0 44	-1 16	-1 28	-1 05	0.7	0.9	--	--	0.4	180°	--	--	0.6	355°	
3597	Largo Shoals, west of		18° 19'	65° 35'	-0 52	-1 28	-1 33	-1 08	0.7	1.0	--	--	0.4	186°	--	--	0.7	330°	
3599	Ramos Cay, 0.3 mile SE of <1>		18° 18.6'	65° 36.4'	--	-0 42	--	-0 44	0.3	0.1	--	--	0.2	120°	--	--	0.1	284°	
3601	Palominos Island, 0.9 mile SW of <13>		18° 20.1'	65° 34.8'	--	--	--	-0 48	--	0.7	--	--	--	--	--	--	0.5	307°	
3603	Fajardo Harbor (channel)		18° 20'	65° 37'	-1 13	-1 52	-2 27	-1 45	0.5	1.6	--	--	0.3	162°	--	--	1.1	339°	
3605	Isla Marina, 0.2 mile west of <1> <13>		18° 20.50'	65° 37.38'	--	--	--	-2 06	--	1.0	--	--	--	--	--	--	0.7	335°	
3607	Coronala Laja, 0.4 mile NW of <1> <13>		18° 21.6'	65° 37.3'	--	--	--	-1 33	--	0.4	--	--	--	--	--	--	0.3	000°	
3609	Pasaje de San Juan <1> <13>		18° 23.9'	65° 36.9'	--	--	--	-1 15	--	1.7	--	--	--	--	--	--	1.2	310°	
3611	Bahia de San Juan		18° 27.23'	66° 06.6'	Current weak and variable						--	--	--	--	--	--	--	--	
3613	Bahia de San Juan entrance <42>		18° 28.3'	66° 07.6'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Endnotes can be found at the end of table 2.

## ENDNOTES

- <1> The times of minimum before flood and minimum before ebb are indefinite.
- < 2> Current speeds up to 9.0 knots have been observed in the vicinity of the Boilers.
- < 3> Current turns westward, just before the end of the flood.
- < 4> Current tends to rotate counterclockwise, flood direction swings from westward to southward.
- < 5> Observations indicate that current floods about 11 hours and ebbs about 1 1/2 hours. Minimum before flood occurs about 4 1/2 hours earlier, maximum flood about 1 hour later, minimum before ebb about 1/2 hour later, and maximum ebb about 1 1/2 hours earlier than corresponding predictions at Portsmouth Harbor Entrance. Average ebb speed is less than 0.5 knot.
- < 6> Current is variable; current speeds are usually less than 1 knot. Currents are strong in the entrance to Menemsha Pond.
- < 7> In the open waters of Buzzards Bay, except in the entrance and off Penikese Island and West Island, the current is too weak and variable to be predicted.
- < 8> The currents in Narragansett Bay have a pronounced irregularity which is evidenced at times during the month by a long period of approximate slack water preceding the flood, and at other times by a double flood of two distinct maximums of speed separated by a period of lesser speed. These peculiarities appear to be somewhat unstable, consequently, flood currents differing from those predicted should be expected. The ebb current is fairly regular and the predictions for maximum ebb will usually agree closely with the current encountered.
- < 9> At minimum flood, current sometimes ebbs for a short period.
- <10> At minimum flood, current frequently ebbs for a short period.
- <11> Flood is too weak to be predicted. Time difference gives mid-point of 4 hour stand of weak and variable current and time of maximum ebb.
- <12> Inside breakwaters, in channel, the current is only 0.4 knot.
- <13> Current seldom floods.
- <14> Near Tongue Point, Bridgeport Harbor, the current is weak and irregular.
- <15> Tidal current is weak, averaging about 0.1 knot at maximum.
- <16> For maximum southward current only, the gates of the lock being closed to prevent northward flow. Apply difference and ratio to maximum ebb at The Narrows.
- <17> Spring freshwater flow tends to decrease flood speeds and increase ebb speeds by approximately 0.25knots. This also has the effect of delaying the slack before flood and advancing the slack before ebb by 15 to 45 minutes.
- <18> In Roundout Creek entrance (between lights), eddies on the flood make navigation difficult. Little difficulty should be experienced on the ebb.
- <19> Current always ebbs. Ebb speeds vary depending on freshwater flow and average 1.5 knots in the spring and 0.5 knots in the fall.
- <20> Current is rotary, turning clockwise. It flows northwest at times of "minimum before flood" at The Narrows; northeast 1 hour after maximum flood; southeast 1 1/2 hours after "minimum before ebb"; and southwest 2 hours after maximum ebb.
- <21> Current is rotary, turning clockwise. Minimum current of 0.2 knot sets west about the time of "minimum before flood" at The Narrows. Minimum current of 0.2 knot sets ENE about the time of "minimum before ebb" at The Narrows.
- <22> In Sandy Hook Bay (except in southern extremity) the current is weak.
- <23> Tidal current is weak and rotary, averaging about 0.1 knot at maximum.
- <24> The times of minimum before flood and ebb are variable.
- <25> Current usually ebbs during the period 3 hours before to 3 hours after maximum ebb. Flood is weak and variable.
- <26> Station is east of channel. Velocities in mid-channel are approximately 40% greater.

- <27> Flood is usually weak and of short duration. A weak ebb or flood current occurs about 6 hours after maximum flood at Delaware Bay Entrance.
- <28> Tidal current is weak and rotary, averaging less than 0.1 knot.
- <29> Current tends to rotate clockwise. At times of "minimum before flood" there may be a weak current flowing WSW while at times of "minimum before ebb" there may be a weak current flowing ENE.
- <30> Current tends to rotate clockwise. At times of "minimum before flood" there may be a weak current flowing southwest, while at times of "minimum before ebb" there may be a weak current flowing north.
- <31> Flood usually flows northward, however, direction is variable.
- <32> Flood is variable, current sometimes changes to ebb for a short time during the flood period.
- <33> Due to changes in the waterway, average speed values given are probably too large.
- <34> Flood usually occurs in a southerly direction and the ebb in a northeastwardly direction.
- <35> Flood is weak and variable.
- <36> Current tends to rotate clockwise. At times of "minimum before flood" there may be a weak current flowing northward while at times of "minimum before ebb" there may be a weak current flowing southeastward.
- <37> For greater ebb only.
- <39> For greater ebb. Lesser ebb is almost equal to greater ebb.
- <41> Current is weak and variable. Current is somewhat rotary turning clockwise.
- <42> Current is normally weak and variable, but winds may cause heavy swells.
- <43> Minimum ebb is extremely weak, possibly flooding for a short period.
- <44> Every other ebb phase exhibits a double ebb pattern. For single ebb phases use time differences and speed ratios of the first ebb.
- <45> Ebb is weak and variable.
- <46> Current is somewhat rotary, speed seldom exceeds 0.3 knot.
- <47> Flood is weak and variable with speeds less than or equal to 0.2 knot. Minimums are indefinite.
- <48> Diamond Island Pass - Ebb current is very weak, averaging less than 0.1 knot.
- <49> During period observed, the current flow was nearly continuous in a southwesterly direction with an average speed of about 0.4 knot.
- <50> Observations during the spring showed an increase of about 0.4 knots in both the flood and ebb directions.
- <51> Observations were made in the summer months when the freshwater discharge was at a minimum. Periods of heavier discharge will increase ebb current speeds and decrease flood current speeds.
- <52> Observations were made in the spring during period of heavy freshwater discharge. Periods of lesser discharge will decrease ebb current speeds and increase flood current speeds.
- <53> Observations at this location showed long periods of minimum currents and short durations of flood and ebb currents.
- <54> Turbulence with hazardous current speeds of 6 to 7 knots have been reported near the bridges in the canal. Extreme caution should be exercised.
- <55> The time of minimum before flood is indefinite.
- <56> Maximum ebb time difference is for middle of phase. Speed near 0.7 knots throughout most of ebb phase. Speeds a short distance away may vary significantly.
- <57> Maximum flood time difference is for middle of phase. Speed is very low throughout most of flood phase.
- <58> It has been reported that under conditions of extreme river discharge, the currents can reach 7 or 8 knots. Caution should be exercised when docking and undocking vessels.

- <59> Flood currents are defined as flowing out of Buzzards Bay into Vineyard Sound.
- <60> Depths at the locations were previously averaged. The original data has been separated into its component depths.
- <61> The time of minimum before ebb is indefinite.
- <62> Short term observational data taken by United States Power Squadrons (USPS) as part of the NOS/USPS Tidal Current Predictions Quality Assurance Program has shown that predictions at this location are accurate.
- <63> Short term observational data taken by United States Power Squadrons (USPS) as part of the NOS/USPS Tidal Current Predictions Quality Assurance Program have shown predictions at these locations to be inaccurate.
- Observed speeds at "Little Creek" were approximately twice the predicted values.
  - Observations at "Newport News Channel, west end" showed both time and speed of the currents were altered by the Monitor-Merrimac Tunnel. Predictions should be used with caution.
  - Observations at "Lake Worth Inlet" showed that maximum currents occurred up to 2 hours earlier than predicted, and speeds were decreased by at least 25%.
  - Observations at "Fort Pierce Inlet" showed that maximum currents occurred up to 1 hour earlier than predicted, and speeds were decreased by at least 25%.
- CAUTION—During the first 2 hours of flood in the channel north of Governors Island, the current in the Hudson River is still ebbing while during the first 1 1/2 hours of ebb in this channel, the current in the Hudson River is still flooding. At such times, special care must be taken by large ships in navigating this channel.
- <64> At times of slack before flood there is a non-tidal current flowing NE at speeds of approximately 0.5 knots.





## TABLE 3.—SPEED OF CURRENT AT ANY TIME

### EXPLANATION OF TABLE

Though the predictions in this publication give only the slacks and maximum currents, the speed of the current at any intermediate time can be obtained approximately by the use of this table. Directions for its use are given below the table.

Before using the table for a place listed in Table 2, the predictions for the day in question should be first obtained by means of the differences and ratios given in Table 2.

The examples below follow the numbered steps in the directions.

*Example 1.*—Find the speed of the current in The Race at 6:00 on a day when the predictions which immediately precede and follow 6:00 are as follows:

(1)	Slack Water	Maximum (Flood)	
	Time	Time	Speed
	4:18	7:36	3.2 knots

Directions under the table indicate Table A is to be used for this station.

(2) Interval between slack and maximum flood is  $7:36 - 4:18 = 3^h18^m$ . Column heading nearest to  $3^h18^m$  is  $3^h20^m$ .

(3) Interval between slack and time desired is  $6:00 - 4:18 = 1^h42^m$ . Line labeled  $1^h40^m$  is nearest to  $1^h42^m$ .

(4) Factor in column  $3^h20^m$  and on line  $1^h40^m$  is 0.7. The above flood speed of 3.2 knots multiplied by 0.7 gives a flood speed of 2.24 knots (or 2.2 knots, since one decimal is sufficient) for the time desired.

*Example 2.*—Find the speed of the current in the Harlem River at Broadway Bridge at 16:30 on a day when the predictions (obtained using the difference and ratio in table 2) which immediately precede and follow 16:30 are as follows:

(1)	Maximum (Ebb)	Slack Water	
	Time	Speed	Time
	13:49	2.5 knots	17:25

Directions under the table indicate Table B is to be used, since this station in Table 2 is referred to Hell Gate.

(2) Interval between slack and maximum ebb is  $17:25 - 13:49 = 3^h36^m$ . Hence, use column headed  $3^h40^m$ .

(3) Interval between slack and time desired is  $17:25 - 16:30 = 0^h55^m$ . Hence, use line labeled  $1^h00^m$ .

(4) Factor in column  $3^h40^m$  and on line  $1^h00^m$  is 0.5. The above ebb speed of 2.5 knots multiplied by 0.5 gives an ebb speed of 1.2 knots for the desired time.

When the interval between slack and maximum current is greater than  $5^h40^m$ , enter the table with one-half the interval between slack and maximum current and one-half the interval between slack and the desired time and use the factor thus found.

**TABLE 3.—SPEED OF CURRENT AT ANY TIME**

TABLE A

		Interval between slack and maximum current													
		<i>h. m.</i> 1 20	<i>h. m.</i> 1 40	<i>h. m.</i> 2 00	<i>h. m.</i> 2 20	<i>h. m.</i> 2 40	<i>h. m.</i> 3 00	<i>h. m.</i> 3 20	<i>h. m.</i> 3 40	<i>h. m.</i> 4 00	<i>h. m.</i> 4 20	<i>h. m.</i> 4 40	<i>h. m.</i> 5 00	<i>h. m.</i> 5 20	<i>h. m.</i> 5 40
Interval between slack and desired time	<i>h. m.</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	
	0 20	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0 40	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
	1 00	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3
	1 20	1.0	1.0	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4
	1 40	----	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.4
	2 00	----	----	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5
	2 20	----	----	----	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.6
	2 40	----	----	----	----	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7
	3 00	----	----	----	----	----	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.7
	3 20	----	----	----	----	----	----	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8
	3 40	----	----	----	----	----	----	----	1.0	1.0	1.0	0.9	0.9	0.9	0.9
	4 00	----	----	----	----	----	----	----	----	1.0	1.0	1.0	1.0	0.9	0.9
	4 20	----	----	----	----	----	----	----	----	----	1.0	1.0	1.0	1.0	0.9
	4 40	----	----	----	----	----	----	----	----	----	----	1.0	1.0	1.0	1.0
5 00	----	----	----	----	----	----	----	----	----	----	----	1.0	1.0	1.0	
5 20	----	----	----	----	----	----	----	----	----	----	----	----	1.0	1.0	
5 40	----	----	----	----	----	----	----	----	----	----	----	----	----	1.0	

TABLE B

		Interval between slack and maximum current													
		<i>h. m.</i> 1 20	<i>h. m.</i> 1 40	<i>h. m.</i> 2 00	<i>h. m.</i> 2 20	<i>h. m.</i> 2 40	<i>h. m.</i> 3 00	<i>h. m.</i> 3 20	<i>h. m.</i> 3 40	<i>h. m.</i> 4 00	<i>h. m.</i> 4 20	<i>h. m.</i> 4 40	<i>h. m.</i> 5 00	<i>h. m.</i> 5 20	<i>h. m.</i> 5 40
Interval between slack and desired time	<i>h. m.</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	<i>knots</i>	
	0 20	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	
	0 40	0.8	0.7	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	
	1 00	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	
	1 20	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	
	1 40	----	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	
	2 00	----	----	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6	
	2 20	----	----	----	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.7	0.7	
	2 40	----	----	----	----	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.7	
	3 00	----	----	----	----	----	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	
	3 20	----	----	----	----	----	----	1.0	1.0	1.0	1.0	0.9	0.9	0.9	
	3 40	----	----	----	----	----	----	----	1.0	1.0	1.0	1.0	0.9	0.9	
	4 00	----	----	----	----	----	----	----	----	1.0	1.0	1.0	1.0	0.9	
	4 20	----	----	----	----	----	----	----	----	----	1.0	1.0	1.0	0.9	
	4 40	----	----	----	----	----	----	----	----	----	----	1.0	1.0	1.0	
5 00	----	----	----	----	----	----	----	----	----	----	----	1.0	1.0		
5 20	----	----	----	----	----	----	----	----	----	----	----	----	1.0		
5 40	----	----	----	----	----	----	----	----	----	----	----	----	1.0		

Use Table A for all places except those listed below for Table B.

Use Table B for Cape Code Canal, Hell Gate, Chesapeake and Delaware Canal, and all stations in table 2 which are referred to them.

1. From predictions find the time of slack water and the time and velocity of maximum current (flood or ebb), one of which is immediately before and the other after the time for which the velocity is desired.
2. Find the interval of time between the above slack and maximum current, and enter the top of Table A or B with the interval which most nearly agrees with this value.
3. Find the interval of time between the above slack and the time desired, and enter the side of Table A or B with the interval which most nearly agrees with this value.
4. Find, in the Table, the factor corresponding to the above two intervals, and multiply the maximum velocity by this factor. The result will be the approximate velocity at the time desired.

## TABLE 4.—DURATION OF SLACK

The predicted times of slack water given in this publication indicate the instant of zero speed, which is only momentary. There is a period on each side of the slack water, however, during which the current is so weak that for practical purposes it may be considered negligible.

The following tables give, for various maximum currents, the approximate period of time during which weak currents not exceeding 0.1 to 0.5 knot will be encountered. This duration includes the last of the flood or ebb and the beginning of the following ebb or flood, that is, half of the duration will be before and half after the time of slack water.

Table A should be used for all places except those listed below for Table B.

Table B should be used for Cape Cod Canal, Hell Gate, Chesapeake and Delaware Canal, and all stations in Table 2 which are referred to them.

### Duration of weak current near time of slack water

Maximum <i>current</i>	<i>Period with a speed not more than -</i>				
	<i>0.1 knot</i>	<i>0.2 knot</i>	<i>0.3 knot</i>	<i>0.4 knot</i>	<i>0.5 knot</i>
<i>Knots</i>	<i>Minutes</i>	<i>Minutes</i>	<i>Minutes</i>	<i>Minutes</i>	<i>Minutes</i>
1.0	23	46	70	94	120
1.5	15	31	46	62	78
2.0	11	23	35	46	58
3.0	8	15	23	31	38
4.0	6	11	17	23	29
5.0	5	9	14	18	23
6.0	4	8	11	15	19
7.0	3	7	10	13	16
8.0	3	6	9	11	14
9.0	3	5	8	10	13
10.0	2	5	7	9	11

### TABLE B

Maximum <i>current</i>	<i>Period with a speed not more than -</i>				
	<i>0.1 knot</i>	<i>0.2 knot</i>	<i>0.3 knot</i>	<i>0.4 knot</i>	<i>0.5 knot</i>
<i>Knots</i>	<i>Minutes</i>	<i>Minutes</i>	<i>Minutes</i>	<i>Minutes</i>	<i>Minutes</i>
1.0	13	28	46	66	89
1.5	8	18	28	39	52
2.0	6	13	20	28	36
3.0	4	8	13	18	22
4.0	3	6	9	13	17
5.0	3	5	8	10	13
6.0	2	4	6	8	11
7.0	2	4	5	7	9
8.0	2	3	5	6	8

When there is a difference between the speeds of the maximum flood and ebb preceding and following the slack for which the duration is desired, it will be sufficiently accurate for practical purposes to find a separate duration for each maximum speed and take the average of the two as the duration of the weak current.



## TABLE 5.—ROTARY TIDAL CURRENTS

### EXPLANATION OF TABLE

Offshore and in some of the wider indentations of the coast, the tidal current is quite different from that found in the more protected bays and rivers. In these inside waters the tidal current is of the reversing type. The current sets in one direction for a period of 6 hours after which it ceases to flow momentarily and then sets in the opposite direction during the following 6 hours. The offshore tidal current, not being confined to a definite channel, changes its direction continually and never slows to a true slack water. Thus in a tidal cycle of 12 ½ hours it will have set in all directions of the compass. This type of current is referred to as a rotary current.

A characteristic feature of the rotary current is the absence of slack water. Although the current generally varies from hour to hour, this variation from greatest current to least current and back again to greatest does not give rise to a period of slack water. When the speed of the rotary tidal current is least, it is known as the minimum current, and when it is greatest it is known as the maximum current. The minimum and maximum speeds of the rotary current are related to each other in the same way as slack and strength of current. A minimum speed of the current follows a maximum speed by an interval of approximately 3 hours and followed in turn by another maximum after a further interval of 3 hours.

The following table provides the direction and speed of the rotary current for each hour at a number of offshore stations. The times and speeds are referred to predictions for a reference station in Table 1. All times are in local standard time for the secondary station.

The speeds given in the table are the average speeds for the station. The Moon when new, full, or at perigee tends to increase the speeds 15 to 20 percent above average. When perigee occurs at or near the time of new or full Moon, the current speeds will be 30 to 40 percent above average. The Moon when at first and third quarter or at apogee tend to decrease the current speeds below average by 15 to 20 percent. When apogee occurs at or near the first or third quarter Moon, the currents will be 30 to 40 percent below average. The speeds will be about average when apogee occurs at or near the time of the new or full Moon and also when perigee occurs at or near the first or third quarter Moon. (See table of astronomical data for dates of Moon phases and other data.)

The direction of the current is given in degrees, true, reading clockwise from 0° at north, and is the direction toward which the water is flowing.

The speeds and directions are for tidal current only and do not include the effect of the wind. When a wind is blowing, a wind-driven current will be set up as is superimposed on the normal tidal current. The actual current encountered will thus be a combination of the wind-driven current and the tidal current. See the chapters on "Wind-Driven Currents" and "The Combination of Currents".

As an example, in the following table the current at Nantucket Shoals is given for each hour after maximum flood at Pollock Rip Channel. Suppose it is desired to find the direction and speed of the current at Nantucket Shoals at 3:15 p.m. (15:15) on a day when the maximum flood at Pollock Rip Channel is predicted in Table 1 to occur at 13:20. The desired time is therefore 2 hours after the maximum flood at Pollock Rip Channel. From the table the tidal current at Nantucket Shoals at 2 hours is setting 015E true with an average speed of 0.8 knots. If this day is near the time of new Moon and about half way between apogee and perigee, then the distance effect of the moon will be nil and the phase effect alone will increase the speed by about 15 percent, to 0.9 knots.

**Caution** - Speeds from 1 ½ to 3 knots have been observed at most of the stations in this table. Near Diamond Shoal Light a speed of 4 knots has occurred.

At some offshore stations, such as those near the entrance to Chesapeake Bay, the tidal current is directed alternately toward and away from the bay entrance with intervening periods of slack water. At these stations the current is essentially a reversing current. For such places, differences for predicting the current are given in Table 2.

TABLE 5.- ROTARY TIDAL CURRENTS

Station Name	Depth	Hourly time increments												
		0	1	2	3	4	5	6	7	8	9	10	11	
After Maximum Flood at BAY OF FUNDY ENTRANCE														
Isleboro Harbor, Penobscot Bay	14	0.30 342	0.29 348	0.22 336	0.32 348	0.31 210	0.32 205	0.43 188	0.42 177	0.25 139	0.24 090	0.25 069	0.20 063	knots degrees
Mark Island, 0.3 nm North of	14	0.33 044	0.19 088	0.17 171	0.18 244	0.28 235	0.23 204	0.20 329	0.21 294	0.23 308	0.25 312	0.28 022	0.32 037	knots degrees
Pickering Island, north of	14	0.23 296	0.20 278	0.21 281	0.31 283	0.29 256	0.27 254	0.22 237	0.23 200	0.24 198	0.20 171	0.24 088	0.24 087	knots degrees
Swains Ledge, WSW	14	0.39 029	0.36 040	0.39 313	0.35 296	0.29 275	0.30 141	0.38 163	0.36 171	0.37 172	0.27 034	0.27 038	0.24 035	knots degrees
After Maximum Flood at BUCKSPORT,														
Isleboro Ledge PEB0612 Bin13	18.5	0.17 013	0.08 354	0.06 276	0.14 215	0.28 192	0.43 183	0.48 189	0.46 205	0.37 216	0.21 223	0.06 287	0.17 002	knots degrees
Isleboro Ledge PEB0612 Bin 8	51	0.24 035	0.12 037	0.04 116	0.19 203	0.32 204	0.37 196	0.34 182	0.26 168	0.13 155	0.06 074	0.18 040	0.26 039	knots degrees
After Minimum Before Flood at BOSTON HARBOR,														
Bass Point, 0.5nm SSW of	15	0.11 191	0.51 295	0.55 303	0.50 308	0.47 313	0.46 354	0.46 010	0.48 046	0.57 089	0.66 109	0.64 121	0.51 132	knots degrees
Bass Point, 0.7nm west of	10	0.30 251	0.38 331	0.38 332	0.37 343	0.36 343	0.35 347	0.30 029	0.19 144	0.30 146	0.35 165	0.38 173	0.36 190	knots degrees
Deer Island Ligh, 1.3nm NW of	10	0.33 007	0.36 024	0.36 060	0.40 348	0.40 063	0.45 095	0.35 081	0.35 102	0.34 104	0.35 135	0.34 158	0.29 339	knots degrees
Egg Rock, 0.2nm north of	10	0.42 221	0.43 215	0.46 213	0.46 215	0.48 219	0.49 235	0.48 221	0.50 019	0.49 009	0.47 052	0.47 055	0.45 135	knots degrees

**TABLE 5.- ROTARY TIDAL CURRENTS**

Station Name	Depth	Hourly time increments												
		0	1	2	3	4	5	6	7	8	9	10	11	
		After Minimum Before Flood at BOSTON HARBOR,												
Egg Rock, southeast of	10	0.42 213	0.45 193	0.47 175	0.46 178	0.45 222	0.44 267	0.45 330	0.44 328	0.47 335	0.42 334	0.43 337	0.40 306	knots degrees
Galloupes Point, 0.4nm south of	10	0.50 138	0.52 220	0.56 284	0.54 252	0.55 250	0.55 240	0.52 211	0.52 078	0.49 081	0.51 085	0.50 091	0.49 095	knots degrees
Georges Island, 0.2nm WSW of	10	0.22 217	0.29 209	0.37 052	0.44 074	0.44 066	0.44 032	0.50 029	0.47 061	0.39 082	0.37 071	0.36 070	0.30 069	knots degrees
Georges Island, 0.2nm WSW of	20	0.15 271	0.24 231	0.28 030	0.31 076	0.34 064	0.35 029	0.40 021	0.39 049	0.28 067	0.35 056	0.32 050	0.23 044	knots degrees
Great Pig Rocks, southeast of	10	0.29 200	0.30 212	0.32 229	0.34 247	0.37 265	0.35 284	0.34 002	0.34 042	0.34 058	0.35 065	0.36 080	0.34 086	knots degrees
Little Hahant 0.9nm northeast of	10	0.20 306	0.21 340	0.24 228	0.25 223	0.26 200	0.26 216	0.24 290	0.23 357	0.23 059	0.21 045	0.21 037	0.20 028	knots degrees
Peddocks Island, east of	10	0.20 246	0.27 282	0.41 019	0.35 024	0.28 355	0.34 338	0.33 345	0.29 013	0.33 002	0.33 345	0.32 333	0.26 331	knots degrees
Peddocks Island, east of	20	0.15 220	0.20 232	0.34 020	0.24 024	0.22 345	0.31 333	0.32 331	0.26 009	0.28 003	0.31 339	0.26 329	0.17 322	knots degrees
Ram Island, 0.2nm NNE of	10	0.03 265	0.23 265	0.23 270	0.25 282	0.32 319	0.33 333	0.31 357	0.29 067	0.27 070	0.28 073	0.26 076	0.23 073	knots degrees
Ram Island, 0.2nm southeast of	10	0.30 210	0.45 258	0.46 248	0.50 262	0.51 280	0.50 340	0.51 009	0.49 049	0.48 068	0.49 074	0.46 082	0.40 090	knots degrees
		After Maximum Flood at POLLOCK RIP CHANNEL,												
Browns Ledge, Massachusetts		0.3 330	0.3 012	0.3 028	0.4 104	0.4 118	0.4 123	0.3 168	0.2 205	0.3 201	0.3 270	0.4 282	0.5 318	knots degrees

TABLE 5.- ROTARY TIDAL CURRENTS

Station Name	Depth	Hourly time increments												
		0	1	2	3	4	5	6	7	8	9	10	11	
		After Maximum Flood at POLLOCK RIP CHANNEL,												
Cuttyhunk Island, 3.25 miles SW		0.4 356	0.3 015	0.2 080	0.3 123	0.5 146	0.5 158	0.4 173	0.3 208	0.2 267	0.3 306	0.3 322	0.4 335	knots degrees
Davis Bank, Nantucket Shoals		1.5 015	2.1 028	2.4 032	2.1 035	1.1 037	0.4 128	1.2 197	1.9 204	2.2 205	2.2 206	1.6 213	0.7 307	knots degrees
Davis Bank, Nantucket Shoals 15 miles SE of Nantucket Island		0.9 346	1.2 028	1.3 047	1.1 073	0.8 103	0.9 132	0.8 182	1.2 215	1.1 240	0.9 251	0.7 267	0.7 302	knots degrees
Davis Bank, Nantucket Shoals 17.5 miles SE of Nantucket Island		0.8 023	1.5 027	1.9 028	1.8 029	1.1 046	0.4 115	1.2 191	1.9 202	1.7 215	1.5 225	0.9 233	0.2 270	knots degrees
Davis Bank, Nantucket Shoals 18.5 miles SE of Nantucket Island		0.6 030	1.3 036	1.5 038	1.4 050	1.1 080	0.8 105	0.6 178	1.3 230	1.7 235	1.4 238	1.0 241	0.3 265	knots degrees
Georges Bank 40° 48' N 67° 40' W		0.9 304	0.9 340	0.8 353	0.6 029	0.6 056	0.6 083	0.9 107	1.0 140	1.0 156	0.9 175	0.8 202	0.8 245	knots degrees
Georges Bank 40° 49' N 68° 34' W		1.2 301	1.5 326	1.4 345	1.1 008	0.8 036	0.8 069	1.0 106	1.4 139	1.5 153	1.4 175	1.1 201	0.9 237	knots degrees
Georges Bank 41° 13' N 68° 20' W		1.5 319	2.0 332	1.4 345	0.8 009	0.6 042	0.7 080	1.0 118	1.3 138	1.4 154	1.5 169	1.3 188	0.9 236	knots degrees
Georges Bank 41° 14' N 67° 38' W		1.4 305	1.6 332	1.6 355	1.4 015	1.1 038	0.9 077	1.2 112	1.6 141	1.6 162	1.5 187	1.4 214	1.2 252	knots degrees
Georges Bank 41° 29' N 67° 04' W		1.0 277	1.2 302	1.4 329	1.3 348	1.2 015	1.1 048	1.2 085	1.4 122	1.5 145	1.3 166	1.2 194	1.1 223	knots degrees
Georges Bank 41° 30' N 68° 07' W		1.5 312	1.7 338	1.5 346	1.1 014	0.9 059	0.9 099	1.3 123	1.7 144	1.6 160	1.3 187	1.0 244	1.1 274	knots degrees
Georges Bank 41° 41' N 67° 49' W		1.6 318	1.8 320	1.4 325	0.8 330	0.3 067	0.9 111	1.5 117	1.7 126	1.7 144	1.1 160	0.8 242	1.2 292	knots degrees



**TABLE 5.- ROTARY TIDAL CURRENTS**

Station Name	Depth	Hourly time increments												
		0	1	2	3	4	5	6	7	8	9	10	11	
		After Maximum Flood at POLLOCK RIP CHANNEL,												
Georges Bank 41° 42' N 67° 37' W		1.1 316	1.3 341	1.0 356	0.8 016	0.6 043	0.8 092	1.0 122	1.1 146	1.1 170	1.0 195	1.0 215	0.9 272	knots degrees
Georges Bank 41° 48' N 67° 34' W		1.5 325	2.1 332	2.0 342	1.3 358	0.7 035	0.8 099	1.3 126	2.0 150	1.9 159	1.7 169	1.2 197	0.9 275	knots degrees
Georges Bank 41° 50' N 66° 37' W		0.9 285	1.1 304	1.2 324	1.1 341	1.0 010	0.9 043	1.0 089	1.3 127	1.6 147	1.4 172	0.9 197	0.8 232	knots degrees
Georges Bank 41° 54' N 67° 08' W		1.1 298	1.4 325	1.5 344	1.2 000	0.7 033	0.8 082	1.1 118	1.5 138	1.2 153	1.1 178	0.9 208	0.8 236	knots degrees
Gooseberry Neck, 2 miles SSE of		0.6 052	0.4 065	0.2 108	0.3 168	0.4 210	0.5 223	0.5 232	0.3 249	0.2 274	0.2 321	0.3 016	0.5 038	knots degrees
Great Round Shoal Channel entrance		1.6 032	1.4 045	1.3 068	1.1 095	0.8 140	1.2 192	1.5 210	1.5 220	1.2 235	0.9 264	0.8 303	1.2 350	knots degrees
Great Round Shoal Channel 4 miles NE of Great Point		0.8 080	1.1 088	1.3 096	1.0 104	0.5 129	0.5 213	1.1 267	1.4 275	1.2 280	0.7 284	0.2 328	0.4 042	knots degrees
Great South Channel, Georges Bank 41° 10' N 68° 56' W		0.5 318	0.7 349	1.1 352	1.0 356	0.7 359	0.4 018	0.4 106	0.7 157	1.0 165	1.0 173	0.8 180	0.6 204	knots degrees
Great South Channel, Georges Bank 40° 31' N 68° 47' W		0.7 320	0.9 331	1.1 342	1.0 003	0.8 023	0.4 063	0.7 129	0.9 140	1.0 164	1.0 179	0.8 190	0.6 221	knots degrees
Monomoy Point, 23 miles east of		0.7 320	1.0 324	0.9 326	0.7 330	0.3 334	0.1 144	0.5 145	0.8 146	0.9 147	0.8 148	0.5 150	0.1 230	knots degrees
Nantucket Island, 28 miles east of		0.9 019	1.3 007	1.4 359	1.1 351	0.5 334	0.3 221	0.8 198	1.1 185	1.1 184	0.9 184	0.7 183	0.1 060	knots degrees
Nantucket Shoals		0.6 323	0.7 355	0.8 015	0.8 038	0.8 055	0.7 085	0.6 125	0.7 162	0.8 192	0.8 212	0.8 232	0.7 257	knots degrees

**TABLE 5.- ROTARY TIDAL CURRENTS**

Station Name	Depth	Hourly time increments												
		0	1	2	3	4	5	6	7	8	9	10	11	
		After Maximum Flood at POLLOCK RIP CHANNEL,												
Nauset Beach Light, 5 miles NE		0.5 315	0.6 327	0.5 340	0.2 357	0.1 016	0.2 124	0.4 132	0.6 135	0.6 139	0.4 145	0.2 269	0.2 297	knots degrees
		After Maximum Flood at THE RACE,												
Grace Point, 2 miles NW of		0.2 304	0.2 002	0.4 028	0.6 028	0.7 037	0.6 071	0.6 086	0.4 126	0.2 137	0.1 213	0.1 256	0.1 267	knots degrees
Great Round Shoal Channel		1.0 047	1.3 060	1.3 070	0.8 091	0.5 153	0.7 211	0.9 234	1.3 247	1.1 252	0.9 260	0.3 305	0.4 035	knots degrees
Little Gull Island, 3.7 miles ESE		0.8 271	0.5 284	0.2 320	0.2 068	0.7 077	1.1 095	1.6 118	1.2 128	0.6 150	0.2 171	0.4 221	0.7 228	knots degrees
Point Judith, Harbor of Refuge		0.2 197	0.2 160	0.4 151	0.5 159	0.5 146	0.5 124	0.4 109	0.2 104	0.1 090	0.1 030	0.1 336	0.1 209	knots degrees
Point Judith, 4.5 miles SW of		0.6 264	0.6 270	0.5 270	0.2 280	0.2 062	0.6 070	0.7 078	0.5 095	0.3 105	0.1 120	0.1 286	0.3 277	knots degrees
		After Maximum Flood at THE NARROWS, NEW YORK,												
Sandy Hook Approach Lighted Horn Buoy 2A, 0.2 miles W		0.4 313	0.3 325	0.2 356	0.2 055	0.3 094	0.4 118	0.6 136	0.5 147	0.2 177	0.2 256	0.3 290	0.4 298	knots degrees
		After Maximum Flood at DELAWARE BAY ENTRANCE,												
Fenwick Shoal Lighted Whistle Buoy 2		0.2 342	0.2 349	0.1 357	0.1 043	0.1 110	0.2 135	0.3 150	0.3 165	0.2 185	0.1 226	0.1 282	0.2 318	knots degrees

**TABLE 5.- ROTARY TIDAL CURRENTS**

Station Name	Depth	Hourly time increments												
		0	1	2	3	4	5	6	7	8	9	10	11	
		After Maximum Flood at CHESAPEAKE BAY ENTRANCE,												
Point Lookout, 1.5 nm east of	16	0.31 197	0.26 217	0.24 242	0.24 266	0.22 290	0.22 311	0.18 330	0.10 358	0.09 073	0.13 113	0.20 152	0.29 179	knots degrees
		After Maximum Flood at CHARLESTON HARBOR,												
Cape Romain, 5 miles SE		0.2 006	0.2 038	0.3 055	0.3 067	0.3 093	0.3 114	0.2 167	0.2 212	0.3 242	0.4 244	0.3 262	0.3 292	knots degrees
Cape Romain, 6.9 miles SW		0.3 317	0.2 350	0.2 019	0.3 071	0.3 115	0.3 111	0.2 132	0.2 160	0.2 216	0.2 251	0.3 266	0.3 303	knots degrees
Charleston Entrance, 37 miles E		0.3 328	0.3 350	0.2 020	0.2 065	0.3 095	0.3 118	0.3 140	0.3 163	0.2 195	0.2 235	0.2 268	0.3 295	knots degrees
Charleston Lighted Whistle Buoy 2C		0.2 300	0.2 332	0.1 017	0.2 055	0.3 077	0.3 093	0.3 117	0.2 153	0.2 207	0.2 242	0.3 260	0.3 275	knots degrees
Folly Island, 2 miles east of		0.1 346	0.2 024	0.3 058	0.3 076	0.3 102	0.2 121	0.1 164	0.2 222	0.2 256	0.3 256	0.3 271	0.2 290	knots degrees
Frying Pan Shoals, off Cape Fear		0.3 335	0.2 010	0.2 050	0.3 090	0.3 110	0.3 128	0.3 150	0.2 188	0.2 235	0.3 268	0.3 290	0.3 305	knots degrees
Martins Industry, 5 miles east of		0.4 282	0.3 293	0.1 330	0.1 030	0.3 075	0.4 092	0.5 102	0.4 110	0.2 140	0.2 200	0.3 250	0.4 271	knots degrees
		After Maximum Flood at SAVANNAH RIVER ENTRANCE,												
Savannah Light, 1.2 miles SE		0.3 296	0.2 308	0.1 326	0.1 045	0.2 090	0.3 107	0.3 114	0.3 123	0.2 145	0.1 213	0.2 267	0.3 283	knots degrees

**TABLE 5.- ROTARY TIDAL CURRENTS**

Station Name	Depth	Hourly time increments												
		0	1	2	3	4	5	6	7	8	9	10	11	
		After Maximum Flood at Lake Worth Inlet Entrance,												
Pier 13, Lake Worth Inlet	5.5	0.21 347	0.40 349	0.43 350	0.31 351	0.11 347	0.02 207	0.05 190	0.03 224	0.02 289	0.00 282	0.04 176	0.04 188	knots degrees
Pier 13, Lake Worth Inlet	15.4	0.23 339	0.44 347	0.47 349	0.33 348	0.12 339	0.03 213	0.06 188	0.04 190	0.03 190	0.02 169	0.04 172	0.04 209	knots degrees
Pier 13, Lake Worth Inlet	18.7	0.23 314	0.44 349	0.47 351	0.33 350	0.12 342	0.04 205	0.06 183	0.04 177	0.02 168	0.01 138	0.03 162	0.04 203	knots degrees

## THE GULF STREAM

The region where the Gulf of Mexico narrows to form the channel between Florida Keys and Cuba may be regarded as the head of the Gulf Stream. From this region the stream sets eastward and northward through the Straits of Florida, and after passing Little Bahama Bank it continues northward and then northeastward, following the general direction of the 100-fathom curve as far as Cape Hatteras. The flow in the Straits is frequently referred to as the Florida Current.

Shortly after emerging from the Straits of Florida, the stream is joined by the Antilles Current, which flows northwesterly along the open ocean side of the West Indies before uniting with the water which has passed through the straits. Beyond Cape Hatteras the combined current turns more and more eastward under the combined effects of the deflecting force of the Earth's rotation and the eastwardly trending coastline, until the region of the Grand Banks of Newfoundland is reached.

Eastward of the Grand Banks the whole surface is slowly driven eastward and northeastward by the prevailing westerly winds to the coastal waters of northwestern Europe. For distinction, this broad and variable wind-driven surface movement is sometimes referred to as the North Atlantic Drift or Gulf Stream Drift.

In general, the Gulf Stream as it issues into the sea through the Straits of Florida may be characterized as a swift, highly saline current of blue water whose upper stratum is composed of warm water.

On its western or inner side, the Gulf Stream is separated from the coastal waters by a zone of rapidly falling temperature, to which the term "cold wall" has been applied. It is most clearly marked north of Cape Hatteras but extends, more or less well defined, from the Straits to Grand Banks.

Throughout the whole stretch of 400 miles in the Straits of Florida, the stream flows with considerable speed. Abreast of Havana, the average surface speed in the axis of the stream is about 2 1/2 knots. As the cross-sectional area of the stream decreases, the speed increases gradually, until abreast of Cape Florida it becomes about 3 1/2 knots. From this point within the narrows of the straits, the speed along the axis gradually decreases to about 2 1/2 knots off Cape Hatteras, N.C. These values are for the axis of the stream where the current is a maximum, the speed of the stream decreasing gradually from the axis as the edges of the stream are approached. The speed of the stream, furthermore, is subject to fluctuations brought about by variations in winds and barometric pressure.

The following tables give the mean surface speed of the Gulf Stream in two cross sections in the Straits of Florida:

<i>Between Rebecca Shoal and Cuba</i>		<i>Between Fowey Rocks and Gun Cay</i>	
<i>Distance south of Rebecca Shoal</i>	<i>Mean surface speed observed</i>	<i>Distance east of Fowey Rocks</i>	<i>Mean Surface Speed observe</i>
Nautical miles	Knots	Nautical miles	Knots
20	0.3	8	2.7
35	0.7	11 1/2	3.5
50	2.2	15	3.2
68	2.2	22	2.7
86	0.8	29	2.1
		36	1.7

Crossing the Gulf Stream at Jupiter or Fowey Rocks, an average allowance of 2.5 knots in a northerly direction should be made for the current.

Crossing the stream from Havana, a fair allowance for the average current between 100-fathoms curves is 1.1 knots in an east-north-easterly direction.

## THE GULF STREAM

From within the straits, the axis of the Gulf Stream runs approximately parallel with the 100-fathom curve as far as Cape Hatteras. Since this stretch of coast line sweeps northward in a sharper curve than does the 100-fathom line, the stream lies at varying distances from the shore. The lateral boundaries of the current within the straits are fairly well fixed, but when the stream flows into the sea the eastern boundary becomes somewhat vague. On the western side, the limits can be defined approximately since the waters of the stream differ in color, temperature, salinity, and flow from the inshore coastal waters. On the east, however, the Antilles Current combines with the Gulf Stream, so that its waters here merge gradually with the waters of the open Atlantic. Observation of the National Ocean Service indicate that, in general, the average position of the inner edge of the Gulf Stream as far as Cape Hatteras lies inside the 50-fathom curve. The Gulf Stream, however, shifts somewhat with the seasons, and is considerably influenced by the winds which cause fluctuations in its position, direction, and speed; consequently, any limits which are assigned refer to mean or average positions.

The approximate mean positions of the inner edge and axis (point where greatest speed may be found) are indicated in the following table:

Approximate mean position of the Gulf Stream

Locality	Inner Edge	Axis
North of Havana, Cuba .....		25
Southeast of Key West, Florida .....		45
East of Fowey Rocks, Florida .....		10
East of Miami Beach, Florida .....		15
East of Palm Beach, Florida .....		15
East of Jupiter Inlet, Florida .....		20
East of Cape Canaveral, Florida .....	10	45
East of Daytona Beach, Florida .....	25	75
East of Ormond Beach, Florida .....	25	75
East of St. Augustine, Florida. (coast line) .....	40	85
East of Jacksonville, Florida. (coast line) .....	55	90
Southeast of Savannah, Georgia. (coast line) .....	65	95
Southeast of Charleston, South Carolina. (coast line) .....	55	90
Southeast of Myrtle Beach, South Carolina .....	60	100
Southeast of Cape Fear, North Carolina (light) .....	35	75
Southeast of Cape Lookout, North Carolina (light) .....	20	50
Southeast of Cape Hatteras, North Carolina. ....	10	35
Southeast of Virginia Beach, Virginia. ....	85	115
Southeast of Atlantic City, New Jersey .....	120	
Southeast of Sandy Hook, New Jersey. ....	150	

At the western end of the Straits of Florida the limits of the Gulf Stream are not well defined, and for this reason the location of the inner edge has been omitted for Havana, Cuba, and Key West, Florida., in the above table. Between Fowey Rocks and Jupiter Inlet the inner edge is deflected westward and lies very close to the shore line.

Along the Florida Reefs between Alligator Reef and Dry Tortugas the distance of the northerly edge of the Gulf Stream from the edge of the reefs gradually increases toward the west. Off Alligator Reef it is quite close inshore, while off Rebecca Shoal and Dry Tortugas it is possibly 15 to 20 miles south of the 100-fathom curve. Between the reefs and the northern edge of the Gulf Stream the currents are ordinarily tidal and are subject at all times to considerable modification by local winds and barometric conditions. This neutral zone varies in both length and breadth; it may extend along the reefs a greater or lesser distance than stated, and its width varies as the northern edge of the Gulf Stream approaches or recedes from the reefs.

The approximate position of the axis of the Gulf Stream for various regions is shown on the following National Ocean Service Charts: No. 11013, Straits of Florida; No. 411, South Carolina to Cuba; No.11460, Cape Canaveral to Key West; No. 11420, Alligator Reef to Havana. Chart No. 11009 show the axis and the position of the inner edge of the Gulf Stream from Cape Hatteras to Straits of Florida.

## WIND-DRIVEN CURRENTS

A wind continuing for some time will produce a current the speed of which depends on the speed of the wind, and unless the current is by some other cause, the deflective force of the Earth's rotation will cause it to set to the right of the direction of the wind in the northern hemisphere and to the left in the southern hemisphere.

The current produced at off-shore locations by local winds of various strengths and directions have been investigated from observations made at 20 lightships (some of which have since been moved) from Portland, Maine to St. John's River, Florida. The observations were made hourly and varied in length from 1 to 2 years at most of the locations to 5 years at Nantucket Shoals and 9 years at Diamond Shoal. The averages obtained are given below and may prove helpful in estimating the probable current that may result from various winds at the several locations.

Caution.—There were of course many departures from these averages of speed and direction, for the wind-driven current often depends not only on the length of time the wind blows but also on factors other than the local wind at the time and place of the current. The mariner must not, therefore, assume that the given wind will always produce the indicated current.

It should be remembered, too, that the current which a vessel experiences at any time is the resultant of the combined actions of the tidal current, the wind-driven current, and any other currents such as the Gulf Stream or currents due to river discharge.

**Speed.**—The table below shows the average speed of the current due to winds of various strengths.

Wind speed (mile per hour).....	10	20	30	40	50
<i>Average current speed (knots) due to wind at following lightship stations:</i>					
Boston and Barnegat .....	0.1	0.1	0.2	0.3	0.3
Diamond Shoal and Cape Lookout Shoals .....	0.5	0.6	0.7	0.8	1.0
All other locations .....	0.2	0.3	0.4	0.5	0.6

**Direction.**—The position of the shore line with respect to the station influences considerably the direction of the currents due to certain winds. The following table shows for each station the average number of degrees by which the wind-driven current is deflected to the right or left (—) of the wind. Thus, at Cape Lookout Shoals the table indicates that with a north wind the wind-driven current flows on the average 030° west of south, and with an east wind it flows 029° south of west.

## WIND-DRIVEN CURRENTS

Average deviation of current to right of wind direction  
 [A minus sign (—) indicates that the current sets to the left of the wind]

Wind from.....	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
Old Lightship Stations	Lat.		Long.														
	'	°	'	°													
Portland .....	43	32	70	06	24	14	9	8	0	26	15	18	24	15	34	13	18
Boston.....	42	20	70	45	—	—	—	21	—	32	—	20	2	19	—	15	
Pollock Rip Slue.....	41	37	69	54	6	5	48	—38	30	—53	—25	167	70	59	36	20	19
Nantucket Shoals.....	40	37	69	37	44	46	28	24	9	16	3	0	6	18	30	39	41
Hen and Chickens .....	41	27	71	01	16	14	—7	—1	—14	3	—36	25	30	16	16	8	8
Brenton Reef.....	41	26	71	23	34	25	22	19	25	1	8	27	41	31	21	24	24
Fire Island.....	40	29	73	11	35	23	15	8	2	—17	55	40	14	0	25	37	37
Ambrose Channel.....	40	27	73	49	36	40	21	11	18	72	82	70	46	22	23	21	21
Scotland.....	40	27	73	55	16	—12	—26	—36	—61	—36	—92	33	77	15	30	27	13
Barnegat .....	39	46	73	56	6	5	—13	—9	—16	—7	54	30	14	—5	21	29	29
Northeast End.....	38	58	74	30	30	14	—3	—11	—20	—31	—28	44	25	16	25	18	18
Overfalls.....	38	48	75	01	28	—6	—1	2	—40	—56	—22	28	55	31	32	45	45
Winter-Quarter Shoal.....	37	55	74	56	18	—1	—5	—21	—27	—35	—19	31	20	8	28	27	27
Chesapeake.....	36	59	75	42	18	—2	—4	5	—6	23	71	38	27	18	15	22	22
Diamond Shoal .....	35	05	75	20	11	3	—3	36	65	88	52	40	7	—17	—25	—4	—4
Cape Lookout Shoals .....	34	18	76	24	30	24	2	2	—29	—	80	31	32	18	5	—5	—5
Frying Pan Shoals .....	33	34	77	49	34	34	18	6	2	9	55	48	14	—12	—27	—6	—6
Savannah.....	31	57	80	40	12	12	—9	—18	—23	—46	17	50	7	—8	—10	33	33
Brunswick .....	31	00	81	10	17	—2	—10	—28	—18	—21	37	29	6	—21	16	18	18
St. Johns.....	30	23	81	18	3	—12	—27	—47	—84	30	26	27	1	—17	6	8	8



## THE COMBINATION OF CURRENTS

In determining from the current tables the speed and direction of the current at any time, it is frequently necessary to combine the tidal current with the wind-driven current. The following methods indicate how the resultant of two or more currents may be easily determined.

Currents in the same direction.—When two or more currents set in the same direction it is a simple matter to combine them. The resultant current will have a speed which is equal to the sum of all the currents and it will set in the same direction.

For example, a vessel is near the Nantucket Shoals station at a time when the tidal current is setting  $120^\circ$  with a speed of 0.6 knot, and at the same time a wind of 40 miles per hour is blowing from the west; What current will the vessel be subject to at that time? Since a wind of 40 miles per hour from the west will give rise to a current setting  $120^\circ$  with a speed of 0.5 knot, the combined tidal and wind-driven currents will set in the same direction ( $120^\circ$ ) with a speed of  $0.6 + 0.5 = 1.1$  knots.

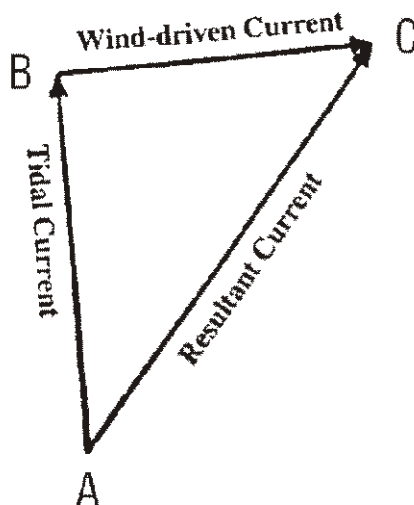
Currents in opposite directions.—The combination of currents setting in opposite directions is likewise a simple matter. The speed of the resultant current is the difference between the opposite setting currents, and the direction of the resultant current is the same as that of the greater current.

As an example, let it be required to determine the speed of the current at the Nantucket Shoals station when the tidal current is setting  $205^\circ$  with a speed of 0.8 knot, and when a wind of 40 miles per hour is blowing from the south. The current produced by a wind of 40 miles per hour from the south would set  $025^\circ$  with a speed of 0.5 knot. The tidal and wind-driven currents, therefore, set in opposite directions, the tidal current being the stronger. Hence, the resultant current will set in the direction of the tidal current ( $205^\circ$ ) with a speed of  $0.8 - 0.5 = 0.3$  knot.

## THE COMBINATION OF CURRENTS

Currents in different directions.—The combination of currents setting at arbitrary angles is best solved by a graphical method. Taking the combination of two currents as the simplest case, draw a line whose direction and length (to a suitable scale) represent the direction and speed of one of the currents to be combined. From this line draw another (to the same scale) representing the direction and speed of the second current. The line joining the origin of the first line with the end of the second line represents the direction and speed of the combined current.

As an example, take Nantucket Shoals station at a time when the tidal current is 0.7 knot setting  $355^\circ$  and a wind of 50 miles per hour is blowing from the west-southwest. The wind-driven current, according to the preceding chapter, would therefore be about 0.6 knot setting  $085^\circ$ .



### Combination of tidal current and wind-driven current

Using a scale of 2 inches to represent 1 knot, draw from point A, the origin in the diagram above, the line AB 1.4 inches in length directed  $355^\circ$  to represent the tidal current. From point B draw the line BC 1.2 inches in length directed  $085^\circ$  to represent the wind-driven current. The line AC represents the resultant current, which on being measured, is found to be about 1.8 inches in length directed  $035^\circ$ . Hence, the combined current sets  $35^\circ$  with a speed of 0.9 knot.

The combination of three or more currents is made in the same way as above, for example, the third current to be combined being drawn from the point C. The resultant current is given by joining the origin with the end of the last line. For drawing the lines, a parallel rule and compass rose will be found convenient. A protractor or polar coordinate paper may also be used.

# CURRENT DIAGRAMS

## EXPLANATION

“Current diagram” is a graphic table that shows the velocities of the flood and ebb currents and the times of slack and strength over a considerable stretch of the channel of a tidal waterway. At definite intervals along the channel the velocities of the current are shown with reference to the times of turning of the current at some reference station. This makes it a simple matter to determine the approximate velocity of the current along the channel for any desired time.

In using the diagrams, the desired time should be converted to hours before or after the time of the nearest predicted slack water at the reference station.

Besides showing in compact form the velocities of the current and their changes through the flood and ebb cycles, the current diagram serves two other useful purposes. By its use the mariner can determine the most advantageous time to pass through the waterway to carry the most favorable current and also the speed and direction of the current that will be encountered in the channel at any time.

Each diagram represents average durations and average velocities of flood and ebb. The durations and velocities of flood and ebb vary from day to day. Therefore predictions for the reference station at times will differ from average conditions and when precise results are desired the diagrams should be modified to represent conditions at such particular times. This can be done by changing the width of the shaded and unshaded portions of the diagram to agree in hours with the durations of flood and ebb, respectively, as given by the predictions for that time. The speeds in the shaded area should then be multiplied by the ratio of the predicted flood speed to the average flood speed (maximum flood speed given opposite the name of the reference station on the diagram) and the speeds in the unshaded area by the ratio of the predicted ebb speed to the average ebb speed.

In a number of cases approximate results can be obtained by using the diagram as drawn and modifying the final result by the ratio of speeds as mentioned above. Thus, if the diagram in a particular case gives a favorable flood speed averaging about 1.0 knot and the ratio of the predicted flood speed to the average flood speed is 0.5 the approximate favorable current for the particular time would be  $1.0 \times 0.5 = 0.5$  knot.

## CURRENT DIAGRAMS

### VINEYARD AND NANTUCKET SOUNDS EXPLANATION OF CURRENT DIAGRAM

The current diagram on the opposite page represents average conditions of the surface currents along the middle of the channel from Gay Head to the east end of Pollock Rip Channel, the scale being too small to show details.

Easterly streams are designated "Flood" and westerly streams "Ebb." The small figures in the diagram denote the speed of the current in knots and tenths. The times are referred to slack waters at Pollock Rip Channel (Butler Hole), daily predictions for which are given in Table 1 of these current tables.

The speed lines are directly related to the diagram. By transferring to the diagram the direction of the speed line which corresponds to the ship's speed, the diagram will show the general direction and speed of the current encountered by the vessel in passing through the sounds or the most favorable time, with respect to currents, for leaving any place shown on the left margin.

To determine speed and direction of current.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to normal speed of vessel, moving edge of ruler to the point where the horizontal line representing place of departure intersects the vertical line representing the time of day in question. If the ruler's edge lies within the shaded portion of the diagram, a flood current will be encountered; if within the unshaded, an ebb current; and if along the boundary of both, slack water. The figures on the diagram along the edge of the rule will show the speed of the current encountered at any place indicated on the left margin of the diagram.

Example.—A 12-knot vessel bound westward enters Pollock Rip Channel at 0700 of a given day, and it is desired to ascertain the speed and direction of the current which will be encountered on its passage through the sounds. Assuming that on the given day ebb begins at Pollock Rip Channel at 0508 and flood begins at 1120, the time 0700 will be about 2 hours after ebb begins. With parallel rulers transfer to the diagram the 12-knot speed line "Westbound," placing edge of rule on the point where the vertical line "2 hours after ebb begins at Pollock Rip Channel" intersects the horizontal 47-mile line which is the starting point. It will be found that the edge of the ruler passes through the unshaded portion of the diagram, the speeds along the edge averaging about 1.4 knots. The vessel will, therefore, have a favorable ebb current averaging about 1.4 knots all the way to Gay Head. It will also be seen that the edge of the ruler crosses the horizontal 16-mile line (at East Chop) about halfway between the figures 1.6 and 2.2. Therefore, when passing the vicinity of East Chop she will have a favorable current of almost 2 knots.

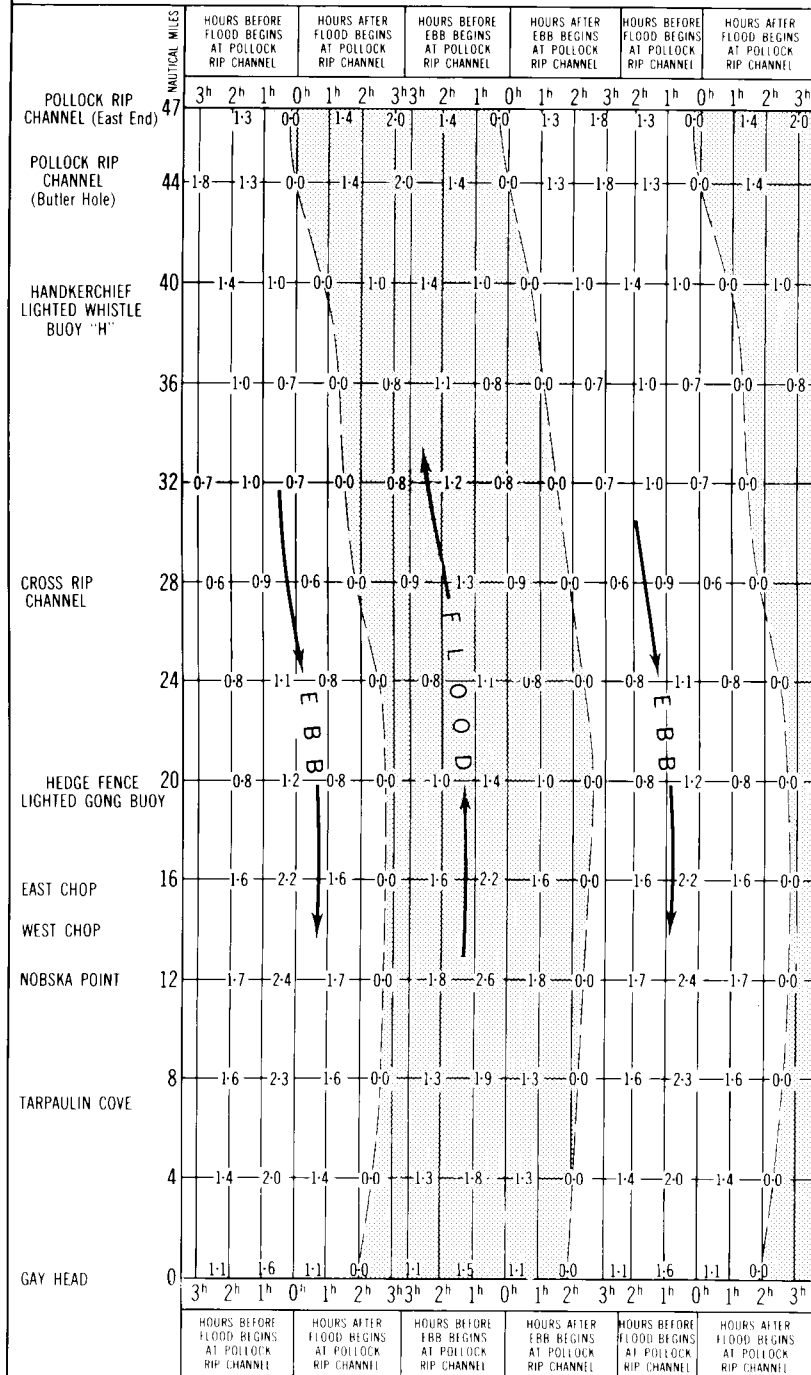
To determine the time of a favorable current for passing through the sounds.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to normal speed of vessel, moving the ruler over the diagram until its edge runs as nearly as possible through the general line of largest speeds of shaded portion if eastbound and unshaded portion if westbound, giving consideration only to that part of the diagram which lies between place of departure and destination. An average of the figures along the edge of the ruler will give the average strength of current. The time (before or after flood begins or ebb begins at Pollock Rip Channel) for leaving any place shown on the left margin will be indicated vertically above the point where the ruler cuts a line drawn horizontally through the name of the place in question.

Example.—A 12-knot vessel will leave Gay Head for Pollock Rip Channel on a day when flood begins at Pollock Rip Channel at 0454 and ebb begins at 1104. At what time should she get under way so as to carry the most favorable current all the way through the sounds?

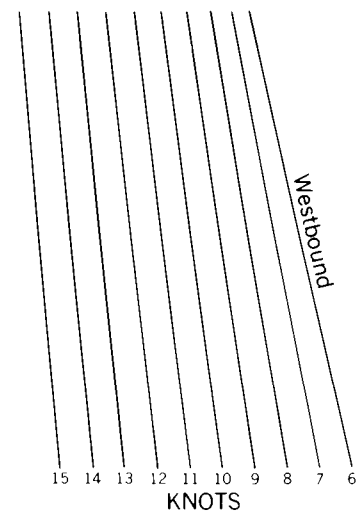
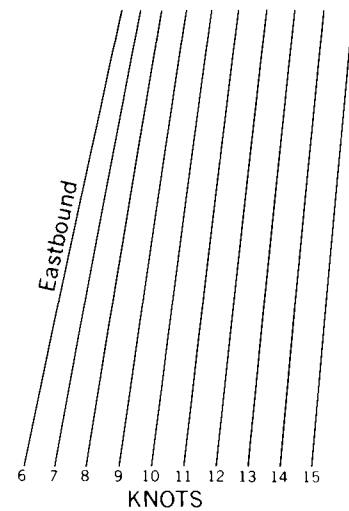
Place parallel rulers along the 12-knot speed line "Eastbound." Transfer the direction to the shaded portion of the diagram and as near as possible to the axis so as to include the greatest possible number of larger current speeds. It will be found that the edge of the ruler cuts the horizontal line at Gay Head at the point representing "3 hours after flood begins at Pollock Rip Channel," and that the average of the currents along the edge of rulers is about 0.8 knot in a favorable direction. For the given day flood begins at Pollock Rip Channel at 0454; hence, if the vessel leaves Gay Head 3 hours later, or about 0754, she will average a favorable current of almost 1 knot all the way.

## CURRENT DIAGRAM - VINEYARD AND NANTUCKET SOUNDS

Referred to predicted times of slack water at Pollock Rip Channel (Butler Hole)



### SPEED LINES



## CURRENT DIAGRAMS

### EAST RIVER, NEW YORK

#### EXPLANATION OF CURRENT DIAGRAM

The current diagram on the opposite page represents average conditions of the surface currents along the middle of the channel between Governors Island and Throgs Neck, the scale being too small to show details. Eddies, of more or less violence, occur in numerous localities in the East River, but as a general rule the currents follow the channels.

On the diagram northerly and easterly streams are designated as "Flood" currents and westerly and southerly streams as "Ebb" currents. The small figures on the diagram denote the speed of the current in knots and tenths. The times are referred to slack waters at Hell Gate, daily predictions for which are given in Table 1 of these current tables.

The speed lines are directly related to the diagram. By their use the speed and general direction of the current encountered by a vessel passing through the river may be determined; also the time of a favorable current for leaving any place shown on the left margin of the diagram may be found.

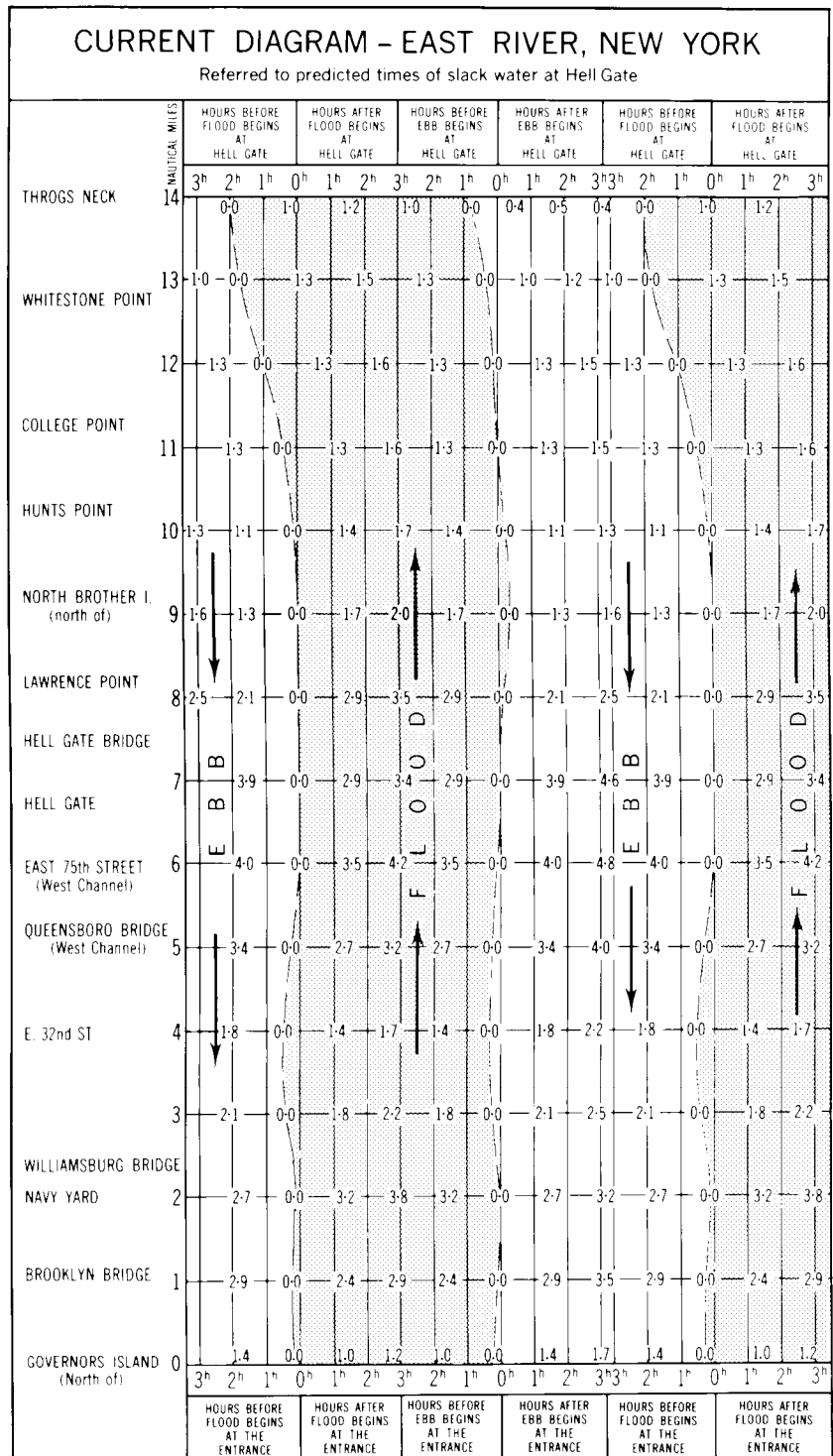
To determine the speed and direction of the current.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to the normal speed of vessel, placing edge of ruler opposite the place of departure on the time before or after flood begins or ebb begins at Hell Gate that corresponds to the time of day desired. If the ruler's edge lies along the shaded portion of the diagram, a flood current will be encountered; if along the unshaded, an ebb current; and if along the boundary of both, slack water. The figures on the diagram along the edge of the ruler will show the speed of the current encountered at any place along the course indicated by the names on the left margin of diagram.

Example.—A 12-knot vessel passes Throgs Neck for Governors Island at 0820 of a given day and it is desired to ascertain the speed and direction of the current which will be encountered in passing through East River. Assuming that on the given day ebb begins at Hell Gate at 0614 and flood begins at 1245, the time 0820 will be about 2 hours after ebb begins. With parallel rulers transfer to the diagram the 12-knot speed line "Southbound", placing edge of ruler at the top in the column "Hours after ebb begins at Hell Gate" and intersecting 2h. It will be found that the edge of the ruler passes through strength of current in the unshaded portion of diagram averaging about 2.4 knots. The vessel will, therefore, have a favorable current averaging about 2.4 knots all the way.

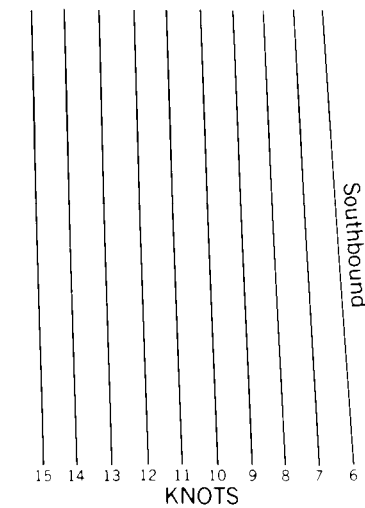
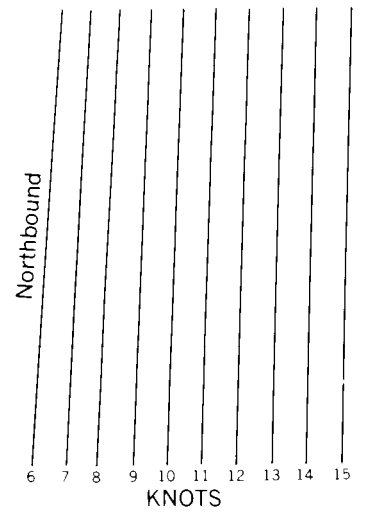
To determine the time of a favorable current for passing through the East River.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to normal speed of vessel, moving the ruler over the diagram until its edge runs as nearly as possible through the general line of greatest current of unshaded portion if bound westward and southward, and shaded portion if bound northward and eastward. An average of the figures along edge of ruler will give average strength of current. The time (before or after flood begins or ebb begins at Hell Gate) for leaving any place on the left margin of diagram will be found vertically above the point where the parallel ruler cuts the horizontal line opposite the name of the place in question.

Example.—A 12-knot vessel in New York Harbor desires to pass through the East River in the afternoon of a day when flood begins at Hell Gate at 1404 and ebb begins at 1934. At what time should she get under way as to carry the most favorable current all the way to Throgs Neck?

Place parallel rulers along the 12-knot speed line "Northbound." Transfer this direction to the shaded portion of diagram so as to include the greatest number of larger current speeds. It will be found that the ruler's edge cuts the horizontal line at Governors Island about vertically under "2 1/2 hours after flood begins at Hell Gate", and the average of the speeds along the edge of the ruler is about 2.3 knots. For the given day flood begins in Hell Gate at 1404 hence, if the vessel leaves Governors Island about 2 1/2 hours later, or 1630 on that day, she will have a favorable current, averaging about 2.3 knots all the way.



SPEED LINES



## CURRENT DIAGRAMS

### NEW YORK HARBOR VIA AMBROSE CHANNEL EXPLANATION OF CURRENT DIAGRAM

The current diagram on the opposite page represents average conditions of the surface currents along the middle of the channel from Ambrose Channel entrance to Spuyten Duyvil, the scale being too small to show details.

Northerly streams are designated "Flood" and southerly streams "Ebb." The small figures in the diagram denote the speed of the current in knots and tenths. The times are referred to slack waters at The Narrows, daily predictions for which are given in Table 1 of these current tables.

The speed lines are directly related to the diagram. By transferring to the diagram the direction of the speed line which corresponds to the ship's speed, the diagram will show the general direction and speed of the current encountered by the vessel on entering or leaving the harbor or the most favorable time, with respect to currents, for leaving any place shown on the left margin.

To determine speed and direction of current.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to normal speed of vessel, moving edge of ruler to the point where the horizontal line representing place of departure intersects the vertical line representing the time of day in question. If the ruler's edge lies within the shaded portion of the diagram, a flood current will be encountered; if within the unshaded, an ebb current; and if along the boundary of both, slack water. The figures on the diagram along the edge of the ruler will show the speed of the current encountered at any place indicated on the left margin of the diagram.

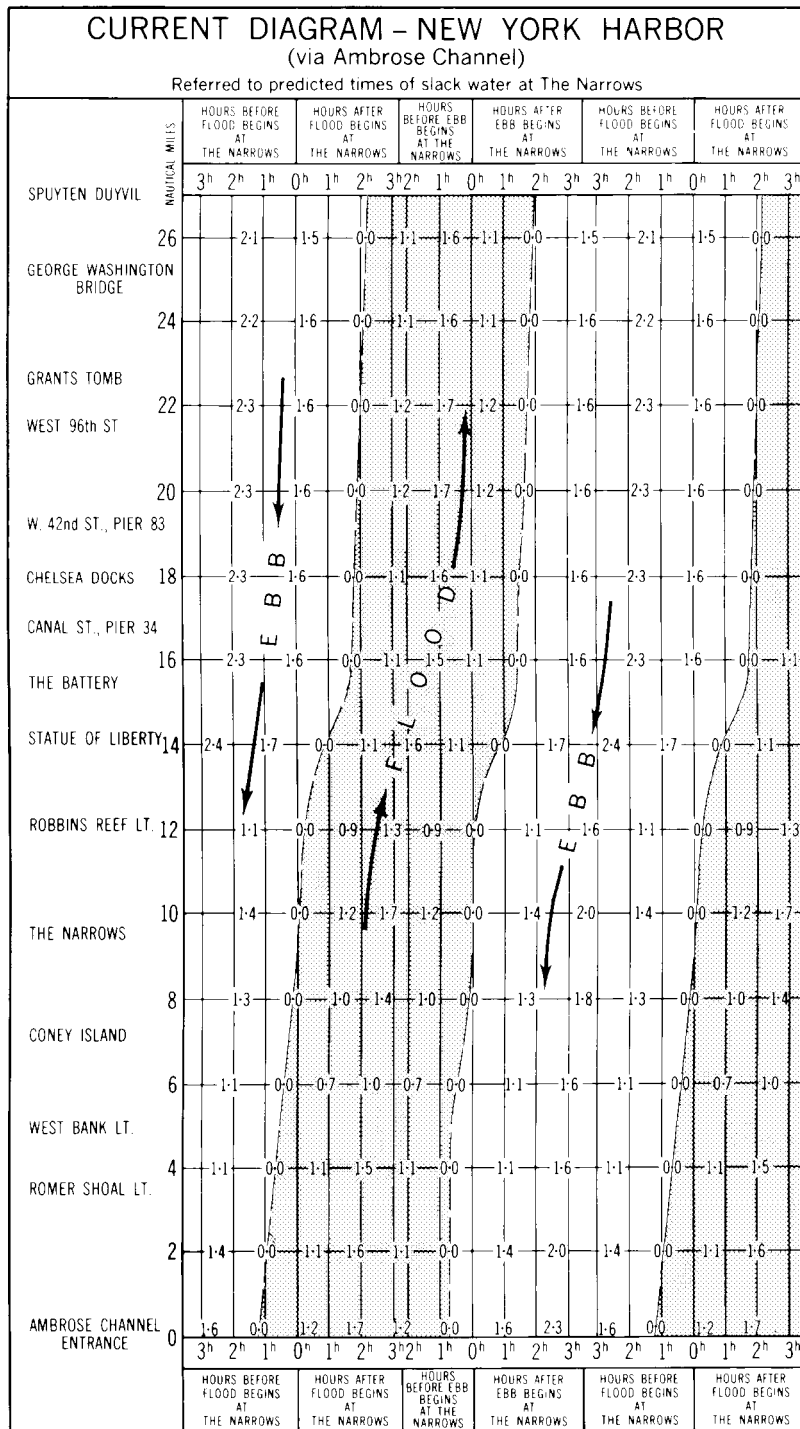
Example.—A 10-knot vessel enters Ambrose Channel about 1040 of a given day. Flood begins at The Narrows at 0835 and ebb begins at 1420. The time 1040 will be about 2 hours after flood begins. With parallel rulers transfer to the diagram the 10-knot speed line "Northbound," placing edge of ruler on the point where the vertical line "2 hours after flood begins" intersects the horizontal 0-mile line which is the starting point. It will be found that the edge of the ruler passes through the shaded portion of the diagram, the speeds along the edge of the ruler from Ambrose Channel entrance to Chelsea Docks averaging about 1.4 knots. The vessel will, therefore, have a favorable flood current averaging about 1.4 knots all the way to Chelsea Docks.

To determine the time of a favorable current for leaving or entering the harbor.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to normal speed of vessel, moving the ruler over the diagram until its edge runs as nearly as possible through the general line of largest speeds of shaded portion if northbound and unshaded portion if southbound, giving consideration only to that part of the diagram which lies between place of departure and destination. An average of the figures along the edge of the ruler will give the average strength of current. The time (before or after flood or ebb begins at The Narrows) for leaving any place shown on the left margin will be indicated vertically above the point where the ruler cuts a line drawn horizontally through the name of the place in question.

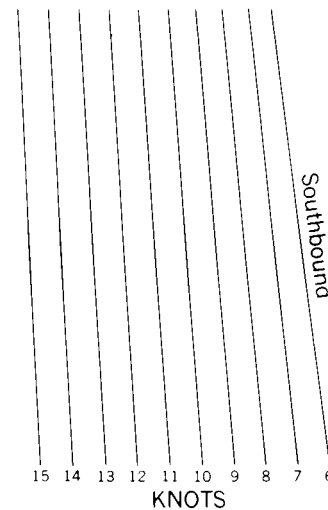
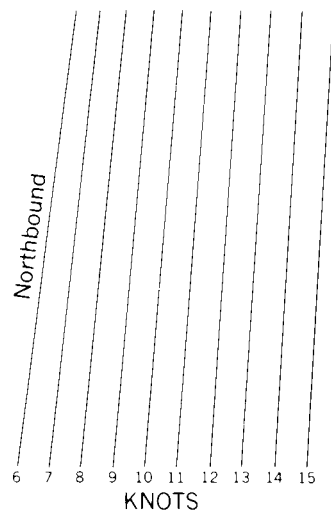
Example.—A 10-knot vessel will leave Chelsea Docks on a day when flood begins at The Narrows at 0804 and ebb begins at 1338. At what time should she get under way so as to carry the most favorable current all the way to Ambrose Channel entrance?

Place parallel rulers along the 10-knot speed line "Southbound." Transfer the direction to the unshaded portion of the diagram as near as possible to the axis so as to include the greatest possible number of larger current speeds on the portion of the chart below Chelsea Docks. It will be found that the edge of the ruler cuts the horizontal line at Chelsea Docks at the point representing "2 hours after ebb begins at The Narrows," and that the average of the currents along the edge of the ruler is about 1.5 knots in a favorable direction. For the given day, ebb begins at The Narrows at 1338; hence, if the vessel leaves Chelsea Docks 2 hours later, or about 1608, she will average a favorable current of about 1.5 knots all the way to Ambrose Channel entrance.





### SPEED LINES



## CURRENT DIAGRAMS

### DELAWARE BAY AND RIVER

#### EXPLANATION OF CURRENT DIAGRAM

This current diagram represents average conditions of the surface currents along the middle of the channel between Bristol and Delaware Bay Entrance, the scale being too small to show details.

Northerly streams are designated "Flood" and Southerly streams "Ebb." The small figures in the diagram denote the speed of the current in knots and tenths. The times are referred to slack waters at Delaware Bay Entrance, daily predictions for which are given in Table 1 of these current tables.

The speed lines are directly related to the diagram. By transferring to the diagram the direction of the speed line which corresponds to the ship's speed, the diagram will show the general direction and speed of the current encountered by the vessel in passing up or down the bay and river or the most favorable time, with respect to currents, for leaving any place shown in the left margin.

To determine speed and direction of current.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to the normal speed of vessel, moving edge of ruler to the point where the horizontal line representing place of departure intersects the vertical line representing the time in question. If the ruler's edge lies within the shaded portion of the diagram, a flood current will be encountered; if within the unshaded, an ebb current, and if along the boundary of both, slack water. The figures in the diagram along the edge of the ruler will show the speed of the current encountered at any place indicated in the left margin of the diagram.

Example.—A 15-knot vessel bound southward leaves Philadelphia (Chestnut Street) at 0330 of a given day and it is desired to ascertain the speed and direction of the current which will be encountered between Philadelphia and Delaware Bay Entrance. Assuming that on the given day flood begins at Delaware Bay Entrance at 0436 and ebb begins at 1038, the time 0330 will be about 1 hour before flood begins. With parallel rulers transfer to the diagram the 15-knot speed line "Southbound" placing the edge of ruler on the intersection of the vertical line "1 hour before flood begins at Delaware Bay Entrance" and a horizontal line through Philadelphia (Chestnut Street) which is the starting point. It will be found that the edge of the ruler passes through an unshaded (ebb) portion with an average speed of about 1.3 knots from Philadelphia to the vicinity of Arnold Point, and the rest of the way through a shaded (flood) portion with an average speed of about 0.8 knot. The vessel will, therefore, have a favorable current averaging about 1.3 knots to the vicinity of Arnold Point and an unfavorable current averaging about 0.8 knot the rest of the way to Delaware Bay Entrance.

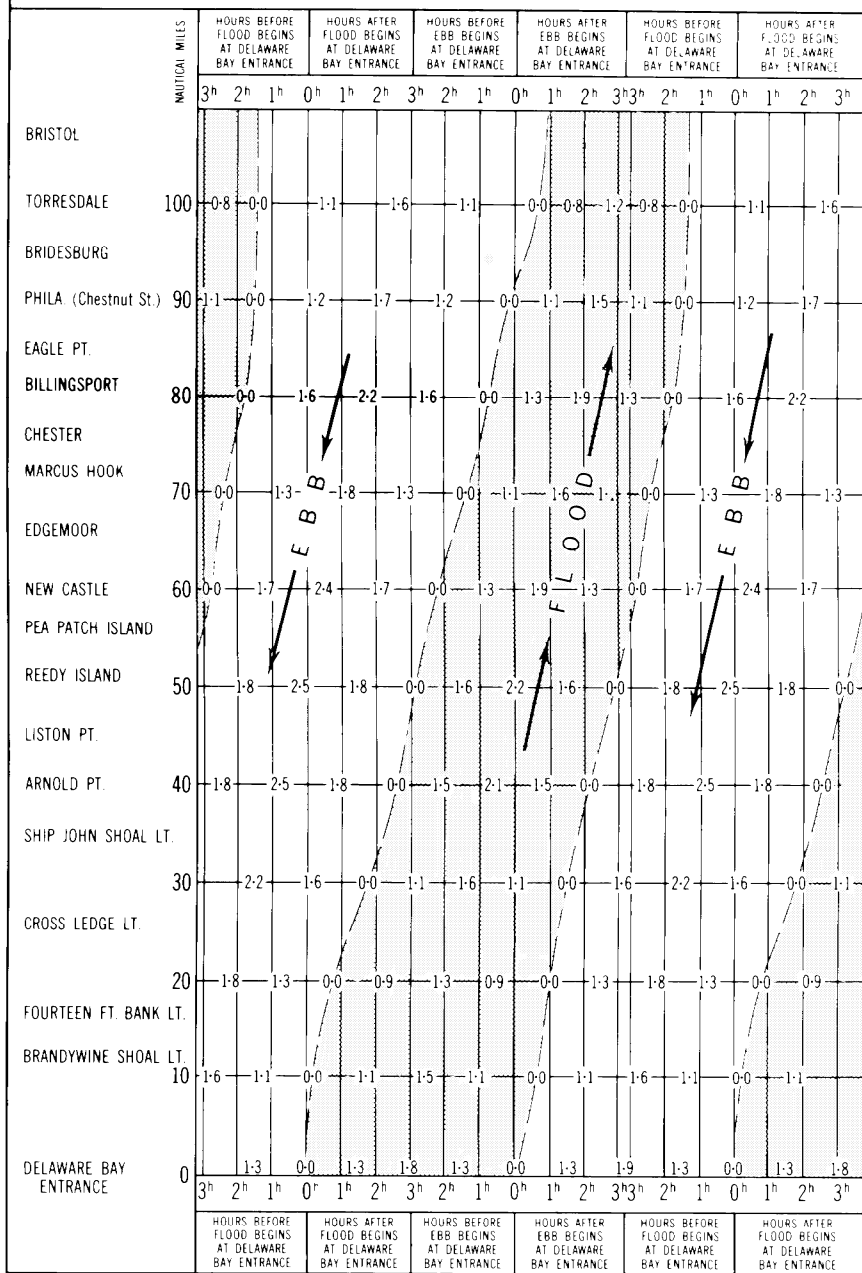
To determine the time of a favorable current for passing up or down the bay and river.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to normal speed of vessel, moving the ruler over the diagram until its edge runs as nearly as possible through the general line of largest speeds of shaded portion if northbound or unshaded portion if southbound giving consideration only to that part of the diagram which lies between places of departure and destination. An average of the figures along edge of ruler will give the average speed of current. The time (before or after flood begins or ebb begins at Delaware Bay Entrance) for leaving any place shown in the left margin will be indicated vertically above or below the point where the ruler cuts a line drawn horizontally through the place in question.

Example.—A 12-knot vessel will leave Delaware Bay Entrance on a day when flood begins at 0505 and ebb begins at 1112. At what time should she get under way so as to carry the most favorable current all the way to Philadelphia? With parallel rulers transfer the direction of 12-knot speed line "Northbound" to the shaded portion of diagram and as near as possible to the axis so as to include the greatest number of larger speeds. The edge of the ruler will cut the horizontal line at Delaware Bay Entrance near the vertical line "2 hours after flood begins at Delaware Bay Entrance" and the speeds along the ruler's edge will average about 1.7 knots. On the given day flood begins at Delaware Bay Entrance at 0505, hence, if the vessel leaves about 2 hours later, i.e., about 0700, she will have a favorable current averaging about 1.7 knots all the way.

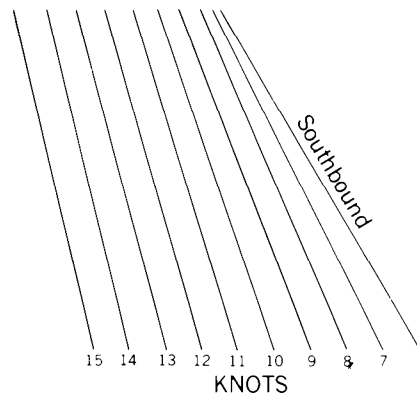
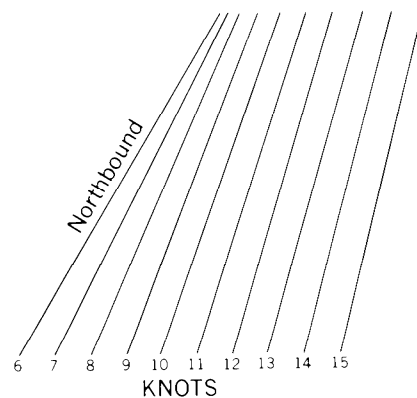
Note.—It is readily seen by transferring southbound speed lines to this diagram that southbound vessels can carry a favorable current for about 50 miles only.

# CURRENT DIAGRAM - DELAWARE BAY AND RIVER

Referred to predicted times of slack water at Delaware Bay Entrance



## SPEED LINES



**CURRENT DIAGRAMS**  
**CHESAPEAKE BAY**  
**EXPLANATION OF CURRENT DIAGRAM**

This current diagram represents average conditions of the surface currents along the middle of the channel from Cape Henry Light to Baltimore, the scale being too small to show details.

Northerly streams are designated "Flood" and southerly streams "Ebb." The small figures in the diagram denote the speed of the current in knots and tenths. The times are referred to slack waters at Chesapeake Bay Entrance, daily predictions for which are given in Table 1 of these current tables.

The speed lines are directly related to the diagram. By transferring to the diagram the direction of the speed line which corresponds to the ship's speed, the diagram will show the general direction and speed of the current encountered by the vessel in passing up or down the bay or the most favorable time, with respect to currents, for leaving any place shown in the left margin.

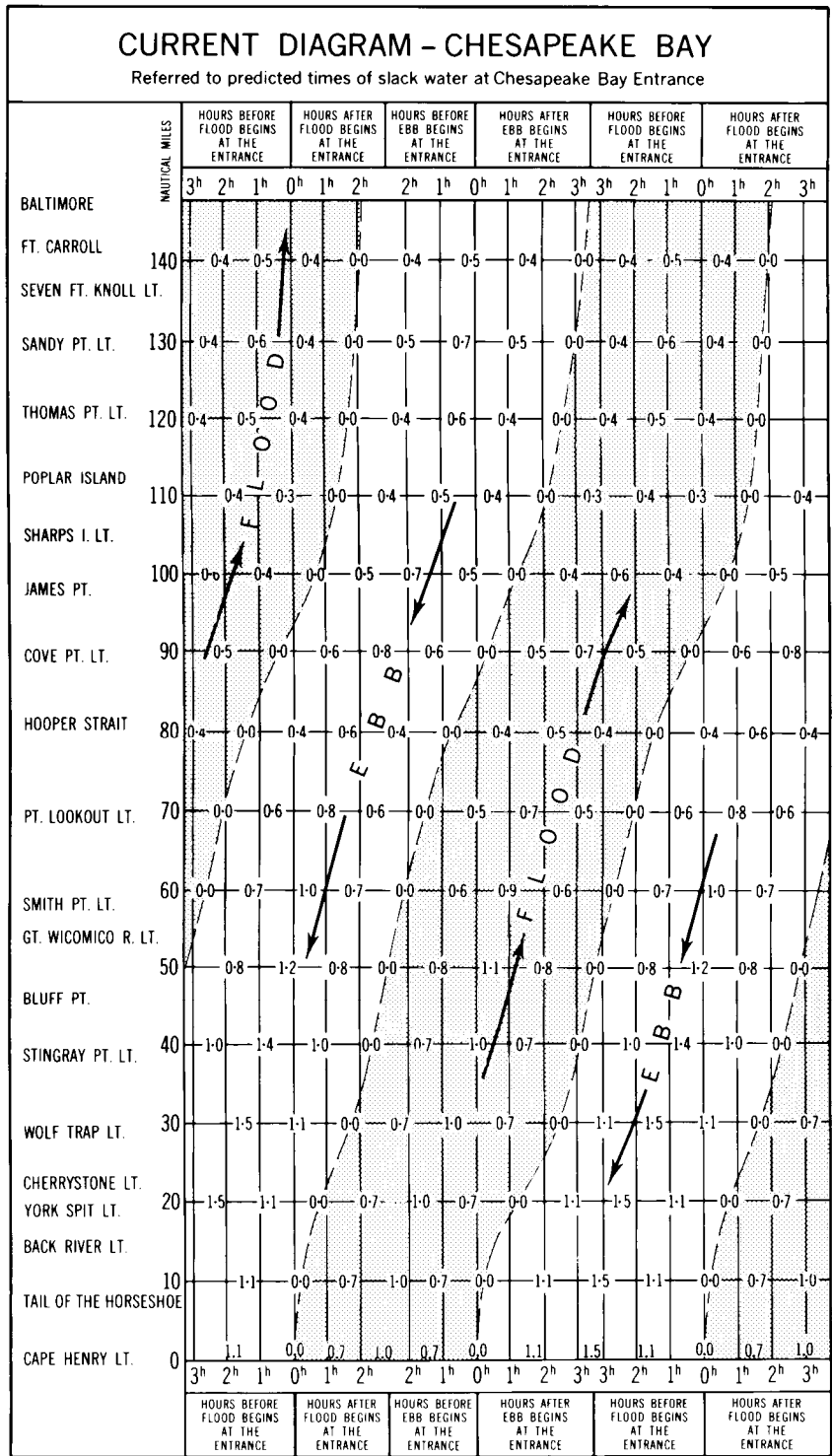
To determine speed and direction of current.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to the normal speed of vessel, moving edge of ruler to the point where the horizontal line representing place of departure intersects the vertical line representing the time in question. If the ruler's edge lies within the shaded portion of the diagram, a flood current will be encountered; if within the unshaded, an ebb current, and if along the boundary of both, slack water. The figures in the diagram along the edge of the ruler will show the speed of the current encountered at any place indicated in the left margin of the diagram.

Example.—A 12-knot vessel bound for Baltimore passes Cape Henry Light at 1430 of a given day, and it is desired to ascertain the speed and direction of the current which will be encountered. Assuming that on the given day flood begins at Chesapeake Bay entrance at 1256 and ebb begins at 1803, the time 1430 will be about 1 hour after flood begins. With parallel rulers transfer to the diagram the 12-knot speed line "Northbound," placing edge of ruler so that it will cross the horizontal line opposite Cape Henry at a point "1 hour after flood begins at the entrance." It will be found that the edge of the ruler passes through strength of current in the shaded portion of the diagram averaging about 0.7 knot. The vessel will, therefore, have a favorable current averaging about 0.7 knot all the way to Baltimore.

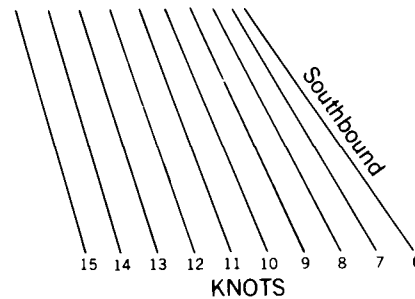
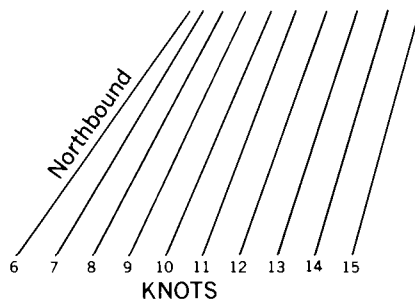
To determine the time of a favorable current for passing through the bay.—With parallel rulers transfer to the diagram the direction of the speed line corresponding to normal speed of vessel, moving the ruler over the diagram until its edge runs approximately through the general line of greatest current of unshaded portion if southbound and shaded portion if northbound. An average of the figures along edge of ruler will give average strength of current. The time (before or after ebb or flood begins at the entrance) for leaving any place in the left margin of diagram will be found vertically above the point where the parallel ruler cuts the horizontal line opposite the place in question.

Example.—A 12-knot vessel in Baltimore Harbor desires to leave for Cape Henry Light on the afternoon of a day when flood begins at Chesapeake Bay Entrance at 1148 and ebb begins at 1718. At what time should she get under way so as to carry the most favorable current?

Place parallel rulers along the 12-knot speed line "Southbound." Transfer this direction to the diagram and move it along so as to include the greatest possible number of larger current speeds in the unshaded portion of the diagram. The most favorable time for leaving Baltimore thus found is about 1 hour after flood begins at the entrance, or about 1248. There will be an unfavorable current of about 0.2 knot as far as Seven Foot Knoll Light; after passing this light there will be an average favorable current of about 0.3 knot as far as Cove Point Light; from Cove Point Light to Bluff Point a contrary current averaging about 0.3 knot will be encountered; from Bluff Point to Tail of the Horseshoe there will be an average favorable current of about 0.9 knot; and from Tail of the Horseshoe to Cape Henry an average contrary current of about 0.2 knot will again be encountered.



SPEED LINES





# **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)

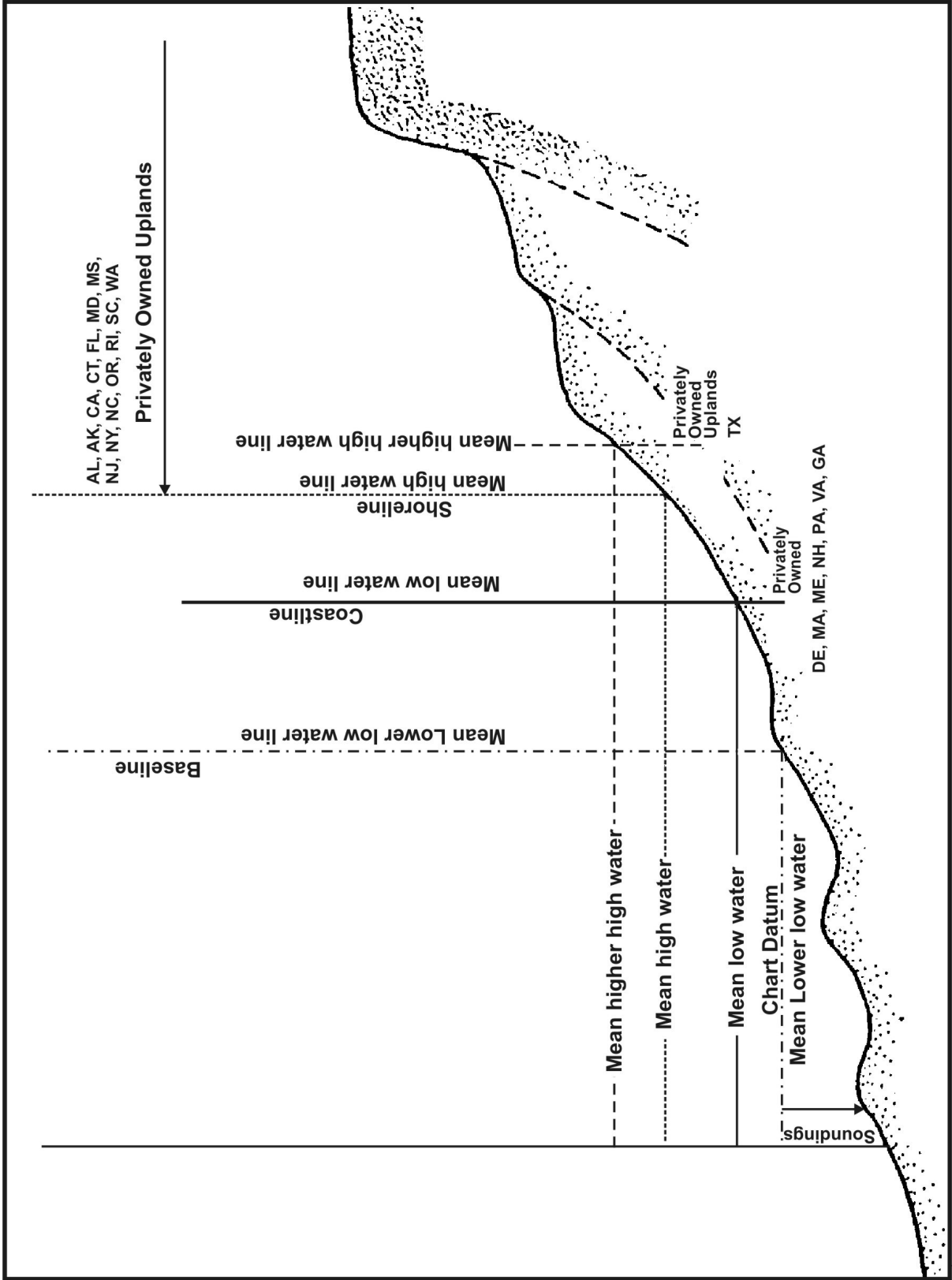
## **TIDAL CURRENT TABLES**

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

## GLOSSARY OF TERMS

defined above are applicable only when the type of tide is either semidiurnal or mixed. Diurnal inequality is sometimes called *declinational inequality*.

**DOUBLE EBB**—An ebb tidal current where, after ebb begins, the speed increases to a maximum called *first ebb*; it then decreases, reaching a *minimum ebb* near the middle of the ebb period (and at some places it may actually run in a flood direction for a short period); it then again ebbs to a maximum speed called second ebb after which it decreases to slack water.

**DOUBLE FLOOD**—A flood tidal current where, after flood begins, the speed increases to a maximum called first flood; it then decreases, reaching a minimum flood near the middle of the flood period (and at some places it may actually run in an ebb direction for a short period); it then again floods to a maximum speed called second flood after which it decreases to slack water.

**DOUBLE TIDE**—A double-headed tide, that is, a high water consisting of two maxima of nearly the same height separated by a relatively small depression, or a low water consisting of two minima separated by a relatively small elevation. Sometimes, it is called an agger.

**DURATION OF FLOOD AND DURATION OF EBB**—Duration of flood is the interval of time in which a tidal current is flooding, and the *duration of ebb* is the interval in which it is ebbing. Together they cover, on an average, a period of 12.42 hours for a semidiurnal tidal current or a period of 24.84 hours for a diurnal current. In a normal semidiurnal tidal current, the duration of flood and duration of ebb will each be approximately equal to 6.21 hours, but the times may be modified greatly by the presence of a nontidal flow. In a river the duration of ebb is usually longer than the duration of flood because of the freshwater discharge, especially during the spring when snow and ice melt are the predominant influences.

**DURATION OF RISE AND DURATION OF FALL**—*Duration of rise* is the interval from low water to high water, and *duration of fall* is the interval from high water to low water. Together they cover, on an average, a period of 12.42 hours for a semidiurnal tide or a period of 24.84 hours for a diurnal tide. In a normal semidiurnal tide, the duration of rise and duration of fall will each be approximately equal to 6.21 hours, but in shallow waters and in rivers there is a tendency for a decrease in the duration of rise and a corresponding increase in the duration of fall.

**EBB CURRENT**—The movement of a tidal current away from shore or down a tidal river or estuary. In the

mixed type of reversing tidal current, the terms *greater ebb* and *lesser ebb* are applied respectively to the ebb tidal currents of greater and lesser speed of each day. The terms *maximum ebb* and *minimum ebb* are applied to the maximum and minimum speeds of a current running continuously ebb, the speed alternately increasing and decreasing without coming to a slack or reversing. The expression maximum ebb is also applicable to any ebb current at the time of greatest speed.

**EQUATORIAL TIDAL CURRENTS**—Tidal currents occurring semimonthly as a result of the Moon being over the Equator. At these times the tendency of the Moon to produce a diurnal inequality in the tidal current is at a minimum.

**EQUATORIAL TIDES**—Tides occurring semi monthly as the result of the Moon being over the Equator. At these times the tendency of the Moon to produce a diurnal inequality in the tide is at a minimum.

**FLOOD CURRENT**—The movement of a tidal current toward the shore or up a tidal river or estuary. In the mixed type of reversing current, the terms *greater flood* and *lesser flood* are applied respectively to the flood currents of greater and lesser speed of each day. The terms *maximum flood* and *minimum flood* are applied to the maximum and minimum speeds of a flood current, the speed of which alternately increases and decreases without coming to a slack or reversing. The expression maximum flood is also applicable to any flood current at the time of greatest speed.

**GREAT DIURNAL RANGE (Gt)**—The difference in height between mean higher high water and mean lower low water. The expression may also be used in its contracted form, *diurnal range*.

**GREENWICH INTERVAL**—An interval referred to the transit of the Moon over the meridian of Greenwich as distinguished from the local interval which is referred to the Moon's transit over the local meridian. The relation in hours between Greenwich and local intervals may be expressed by the formula:

Greenwich interval = local interval + 0.069 L  
where L is the west longitude of the local meridian in degrees. For east longitude, L is to be considered negative.

**GULF COAST LOW WATER DATUM**—A chart datum. Specifically, the tidal datum formerly designated for the coastal waters of the Gulf Coast of the United States. It was defined as *mean lower low water* when the type of tide was mixed and *mean low water* when the type of tide was diurnal.

**HALF-TIDE LEVEL**—See *mean tide level*.

## GLOSSARY OF TERMS

- HARMONIC ANALYSIS**—The mathematical process by which the observed tide or tidal current at any place is separated into basic harmonic constituents.
- HARMONIC CONSTANTS**—The amplitudes and epochs of the harmonic constituents of the tide or tidal current at any place.
- HARMONIC CONSTITUENT**—One of the harmonic elements in a mathematical expression for the tide-producing force and in corresponding formulas for the tide or tidal current. Each constituent represents a periodic change or variation in the relative positions of the Earth, Moon, and Sun. A single constituent is usually written in the form  $y=A \cos (at+ \ )$ , 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  $(at+ \ )$  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  $\ )$  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  $360^\circ$  and is the cycle of the astronomical condition represented by the constituent.
- HIGH WATER (HW)**—The maximum height reached by a rising tide. The height may be due solely to the periodic tidal forces or it may have superimposed upon it the effects of prevailing meteorological conditions. Use of the synonymous term, *high tide*, is discouraged.
- HIGHER HIGH WATER (HHW)**—The higher of the two high waters of any tidal day.
- HIGHER LOW WATER (HLW)**—The higher of the two low waters of any tidal day.
- HYDRAULIC CURRENT**—A current in a channel caused by a difference in the surface level at the two ends. Such a current may be expected in a strait connecting two bodies of water in which the tides differ in time or range. The current in the East River, N.Y., connecting Long Island Sound and New York Harbor, is an example.
- KNOT**—A unit of speed, one international nautical mile (1,852.0 meters or 6,076.11549 international feet) per hour.
- LOW WATER (LW)**—The minimum height reached by a falling tide. The height may be due solely to the periodic tidal forces or it may have superimposed upon it the effects of meteorological conditions. Use of the synonymous term, *low tide*, is discouraged.
- LOWER HIGH WATER (LHW)**—The lower of the two high waters of any tidal day.
- LOWER LOW WATER (LLW)**—The lower of the two low waters of any tidal day.
- LUNAR DAY**—The time of the rotation of the Earth with respect to the Moon, or the interval between two successive upper transits of the Moon over the meridian of a place. The mean lunar day is approximately 24.84 solar hours long, or 1.035 times as long as the mean solar day.
- LUNAR INTERVAL**—The difference in time between the transit of the Moon over the meridian of Greenwich and over a local meridian. The average value of this interval expressed in hours is  $0.069 L$ , in which  $L$  is the local longitude in degrees, positive for west longitude and negative for east longitude. The lunar interval equals the difference between the local and Greenwich interval of a tide or current phase.
- LUNICURRENT INTERVAL**—The interval between the Moon's transit (upper or lower) over the local or Greenwich meridian and a specified phase of the tidal current following the transit. Examples: *strength of flood interval and strength of ebb interval*, which may be abbreviated to *flood interval and ebb interval*, respectively. The interval is described as local or Greenwich according to whether the reference is to the Moon's transit over the local or Greenwich meridian. When not otherwise specified, the reference is assumed to be local.
- LUNITIDAL INTERVAL**—The interval between the Moon's transit (upper or lower) over the local or Greenwich meridian and the following high or low water. The average of all high water intervals for all phases of the Moon is known as *mean high water lunitidal interval* and is abbreviated to high water interval (HWI). Similarly the *mean low water lunitidal interval* is abbreviated to low water interval (LWI). The interval is described as local or Greenwich according to whether the reference is to the transit over the local or Greenwich meridian. When not otherwise specified, the reference is assumed to be local.
- MEAN HIGH WATER (MHW)**—A tidal datum. The arithmetic mean of the high water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a 19-year value.

## GLOSSARY OF TERMS

- MEAN HIGHER HIGH WATER (MHHW)**—A tidal datum. The arithmetic mean of the higher high water heights of a mixed tide observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Only the higher high water of each pair of high waters, or the only high water of a tidal day is included in the mean.
- MEAN HIGHER HIGH WATER LINE (MHHWL)**—The intersection of the land with the water surface at the elevation of mean higher high water.
- MEAN LOW WATER (MLW)**—A tidal datum. The arithmetic mean of the low water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a 19-year value.
- MEAN LOW WATER SPRINGS (MLWS)**—A tidal datum. Frequently abbreviated *spring low water*. The arithmetic mean of the low water heights occurring at the time of the spring tides observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch).
- MEAN LOWER LOW WATER (MLLW)**—A tidal datum. The arithmetic mean of the lower low water heights of a mixed tide observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Only the lower low water of each pair of low waters, or the only low water of a tidal day is included in the mean.
- MEAN RANGE OF TIDE (Mn)**—The difference in height between mean high water and mean low water.
- MEAN RIVER LEVEL**—A tidal datum. The average height of the surface of a tidal river at any point for all stages of the tide observed over a 19-year Metonic cycle (the National Tidal Datum Epoch), usually determined from hourly height readings. In rivers subject to occasional freshets the river level may undergo wide variations, and for practical purposes certain months of the year may be excluded in the determination of tidal datums. For charting purposes, tidal datums for rivers are usually based on observations during selected periods when the river is at or near low water stage.
- MEAN SEA LEVEL (MSL)**—A tidal datum. The arithmetic mean of hourly water elevations observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Shorter series are specified in the name; e.g., monthly mean sea level and yearly mean sea level.
- MEAN TIDE LEVEL (MTL)**—Also called half-tide level. A tidal datum midway between mean high water and mean low water.
- MIXED TIDE**—Type of tide with a large inequality in the high and/or low water heights, with two high waters and two low waters usually occurring each tidal day. In strictness, all tides are mixed but the name is usually applied to the tides intermediate to those predominantly semidiurnal and those predominantly diurnal.
- NATIONAL TIDAL DATUM EPOCH**—The specific 19-year period adopted by the National Ocean Service as the official time segment over which tide observations are taken and reduced to obtain mean values (e.g., mean lower low water, etc.) for tidal datums. It is necessary for standardization because of periodic and apparent secular trends in sea level. The present National Tidal Datum Epoch is 1960 through 1978. It is reviewed annually for possible revision and must be actively considered for revision every 25 years.
- NEAP TIDES OR TIDAL CURRENTS**—Tides of decreased range or tidal currents of decreased speed occurring semimonthly as the result of the Moon being in quadrature. The *neap range* ( $N_p$ ) 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.



## GLOSSARY OF TERMS

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

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

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

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

**SEMI-DIURNAL**—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  $2/3$  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.







	No.		No.
Chops Passage.....	253,255		
Choptank River.....	2399-2423	D	
Chowan Creek.....	2893		
Christina River.....	1757	Dahlgren Harbor Channel.....	2347
Church Neck Point.....	1883	Damariscotta River.....	231
City Island.....	1337,1339,1345	Dames Point .....	3209,3211
City Point, Mass.....	519	Daniel Island Bend.....	2725,2727
City Point, Va.....	2163	Daniel Island Reach.....	2719,2723
Clam Island.....	57	Daufuskie Landing Light.....	2943
Claremont Landing.....	2155	Dauphin Island .....	3513,3515
Clarks Cove.....	811	Davids Island.....	1321
Clark Island.....	313,315	Davis Bank.....	649
Clason Point.....	1361	Dawho River.....	2825,2827
Clay Bank Pier.....	2199	Daws Island, Broad River.....	2907
Clay Head.....	943	Daws Island, Chechessee River.....	2911
Clay Point.....	1055	Deadman Shoal.....	1681
Clearwater Pass.....	3475	Deal Island.....	2279
Cleveland Ledge.....	823	Deep Point.....	2463
Clump Island.....	2269	Deepwater Point.....	1755
Coast Guard Tower, Oregon Inlet.....	2517	Deepwater Point, Miles River.....	2441
Coggins Point.....	2161	Deepwater Shoals.....	2147
Cohansey River.....	1707	Deer Island.....	459,473
Cold Spring Harbor.....	1287	Deer Island Flats.....	477
Cold Spring Point.....	925	Deer Island Light.....	455,461-471,479,483
College Point.....	1799	Delancey Point.....	1315
College Point Reef.....	1363	Delaware Bay and River.....	1639-1807
Combahee River.....	2859,2861	Delaware Bay entrance * (76).....	1645
Commissioners Ledge.....	451	Dennis Port.....	677
Commodore Point.....	3221	Derby-Shelton bridge.....	1209
Compass Island.....	79	Deveaux Banks.....	2815
Common Fence Point.....	857,891	Diamond Island Roads.....	277
Conanicut Point.....	881	Diamond Shoal Light.....	2523
Conrail Bridge.....	2505	Dice Head.....	129
Coney Island Channel.....	1567	Dobbs Ferry.....	1489
Coney Island Lt.....	1561	Doboy Island.....	3111
Connecticut River.....	1113-1129	Doboy Sound.....	3097-3113
Cook Point.....	2399	Doctor Point, Cape Fear River.....	2599
Cooper River.....	2717-2765	Doctor Point, Chesapeake Bay.....	2225
Coosaw Island.....	2869	Dodge Island.....	3275,3277
Coosaw River.....	2853,2861,2865,2871	Dodge Island Cut.....	3287
Cornfield Pt., L.I. Sound.....	1135-1141	Dodge Point.....	183
Cornfield Point, Md.....	2315-2319	Dogfish Island.....	185
Coronala Laja.....	3607	Dorchester Bay.....	537
Corson's Inlet, New Jersey.....	1623	Doubling Point.....	249
Cortez.....	3379	Dover Bridge.....	2415
Cos Cob Harbor.....	1295	Dover Point.....	337
Cotuit Bay.....	723	Dram Tree Point.....	2603
Courtney Campbell Parkway.....	3449	Drum I., Charleston Hbr.....	2709-2717
Courtney Point.....	3487,3489	Drum Point.....	1957,2381
Cove Point.....	1959-1965	Drum Point Island.....	3165
Cow Island.....	271,273	Drummond Point.....	3213
The Cows, Long Island Sound.....	1277	Duck Island Bluff.....	1269
Coxsackie, Hudson River.....	1533	Duck Pond Point.....	1163
Crab Point.....	1771	Ducktrap Harbor.....	211-215
Craighill Angle.....	2027	Dumpling Island.....	2131
Craighill Channel.....	2015,2025	Dumpling Rocks.....	807
Crabtree Point.....	191	Dutch Gap Canal.....	2169
Craighill Channel.....	2023,2025	Dutch Island, Narragansett Bay.....	903-907
Crane Neck Point.....	1231,1241,1243	Dutch Island, Skidaway River.....	3009
Crane Island.....	2105,2107	Dyer Island.....	879,883
Crescent River.....	3093		
Christina River.....	1757	E	
Cross Rip Channel.....	711	Eagle Island.....	71
Crotch Island.....	63,171	Eagle Island, Maine.....	259
Crow Point.....	601	Eagle Point.....	1779
Cryders Point.....	1357	East Boston.....	507
Cumberland Island.....	3163	East Branch, Cooper River.....	2763
Cumberland River.....	3149,3151	East Chop.....	735,737
Cumberland Sound.....	3153-3175	East Fort Point.....	1265
Curtis Creek entrance.....	2475	East Goose Rock.....	203
Customhouse Reach.....	2685,2687	East River.....	1357-1405
Cut A & Cut B, Tampa Bay.....	3407	East Rockaway Inlet.....	1439
Cuttyhunk Island.....	769	Eastchester Bay.....	1341

	No.		No.
Eastern Bay.....	2425-2443	Fort McHenry.....	2477
Eastern Plain Point.....	1003	Fort McHenry Angle.....	2471
Easton Point.....	2419	Fort Macon.....	2541,2543
Eastport.....	37	Fort Pickering, Mass.....	365
Eatons Neck Point.....	1255-1263	Fort Pierce Inlet, Fl.....	3235-3241
Echo Bay.....	1319	Fort Pierce Inlet Entrance * (120)....	3235
Eddy Rock Shoal.....	1121	Fort Pierce USCG station.....	3237
Eddystone.....	1767	Fort Point.....	135
Edgartown.....	731	Fort Point Channel.....	491
Edwards Point.....	1041	Fort Point, Portsmouth Harbor.....	309
Eel Point.....	697	Fort Point, St. Marys River.....	2321
Egg Bank.....	2851	Fort Pulaski.....	2949-2953
Egg Island Flats.....	1683	Fort Sumter.....	2651-2669
Egg Island Shoal.....	3047	Fort Taylor.....	3317
Egg Islands.....	3047	Fort Trumbull State Park, Ct.....	1075
Egg Rock.....	379,381	Fort Warren, Mass.....	545
Egmont Channel.....	3383,3385	Fourteen Foot Bank Light.....	1677-1679
Egmont Key Light.....	3383	Fowey Rocks Light.....	3291
Elba Island.....	2959,2961	Fowler Island.....	1205
Elba Island Cut.....	2957	Fox Island.....	193
Eldridge Shoal.....	725	Fox Point.....	923
Elizabeth River.....	2105-2125	Frankfort Flats, Penobscot River.....	145
Elizabethport.....	1595	Frankfort Island.....	333
Elk River.....	2493-2497	Frazier Point.....	2623,2625
Elliott Cut.....	2805	Freestone Point.....	2363
Elm Point.....	1347	Fripps Inlet.....	2875
Eltham Bridge.....	2215	Frog Point.....	2281
Ensign Island.....	207	Front River.....	3089
Essington Harbor.....	1769	Frying Pan Shoals.....	2615
Estes Head * (8).....	35	Frying Pan Shoals Light.....	2617
Eustasia Island.....	1119	Furber Strait.....	345
Execution Rocks.....	1327		

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Fajardo Harbor.....	3603
False Egg Island Point.....	1699
Fenwick Island Cut.....	2833
Fenwick Shoal.....	1809
Fernandina Beach.....	3173
Fiddler Ledge.....	247
Fields Cut.....	2939
Fig Island.....	2963
Filbin Creek Reach.....	2731-2735
Finn's Ledge Bell.....	407
Finns Point.....	1743
Fire I. Lighted Whistle Buoy 2FI.....	1423
Fire Island Inlet.....	1425,1433
Fisher Point.....	1791
Fisher Island, Florida.....	3271
Fishermans Island, VA.....	1849-1863
Fisherman Island Passage.....	169
Fishermans Channel, Florida.....	3279-3287
Fishers Island.....	987,997
Fishers Island Sound.....	1041-1055
Fishing Bay.....	2299
Five Fathom Bank.....	1627
Five Fathom Bank Traffic Lane.....	1629
Fivemile Point Bridge.....	1793
Flat Island.....	217
Fleming Key.....	3327,3331
Florida Passage.....	3049,3051
Florida Reefs to Midnight Pass....	3293-3367
Flushing Creek.....	1365
Folly Island.....	2811,2813
Folly Island Channel.....	2699
Folly Reach.....	2701
Folly River.....	3105
Fore River.....	289
Fort Clinch.....	3155-3161
Fort George River.....	3183
Fort Independence.....	497,499
Fort Johnson.....	2671,2673
Fort Lauderdale.....	3257

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Gadsden Point Cut.....	3451
Gallops Island.....	535-539,569
Galloupes Point.....	375
Galveston Bay.....	3561-3575
Galveston Bay entrance * (172).....	3561
Galveston Causeway RR. Bridge.....	3571
Galveston Channel.....	3569
Gandy Bridge.....	3443,3445
Gannet Rock.....	25
Gardiniers Bay.....	1009-1039
Gardiniers Island.....	1001
Gardiniers Point.....	1021
Gardiniers Point Ruins.....	1019
Gasparilla Pass.....	3359
Gay Head.....	761,765,767
General Sullivan Bridge.....	335
George Washington Bridge * (64).....	1481
Georges Bank and vicinity.....	647
Georges Island.....	531-559
Georgetown, Md.....	2491
Georgetown, S.C.....	2631
Germantown Point.....	631
Gilmerton Highway Bridge.....	2123
Gloucester.....	1781
Gloucester Harbor entrance.....	355
Gloucester Point.....	2191,2193
Goat Island.....	339,341
Goff Point, Gardiners Bay.....	1009
Goff Point, York River.....	2205
Golden Gate Point.....	3375
Goose Cove.....	253
Gooseberry Neck.....	791
Goshen Point, Long Island Sound.....	1087
Goshen Point, South Carolina.....	2821,2823
Gould Island.....	875,877
Government Cut.....	3265-3269
Grace Point, 2.0 miles NW of.....	961
Grants Tomb.....	1479
Grape Island.....	619,621
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	No.
Great Gull Island.....	1069
Great Pig Rocks.....	373
Great Point.....	687,689
Great Point Clear.....	3507
Great Round Shoal Channel.....	669
Great Salt Pond entrance.....	951,953
Great Spruce Head Island.....	83
Great Wicomico River.....	2305
Great Wicomico River Lt.....	1915
Green Hill Point.....	957
Greenbury Point.....	2449
Greenwich Bay.....	913
Greenwich Point, Delaware Bay.....	1783
Greenwich Point, L. I. Sound.....	1289,1291
Grog Island.....	59
Grove Point.....	2067,2487
Gulfport.....	3459
Gulfport Ship Channel.....	3523-3527
Gull Island.....	799
Gull Point.....	627
Gunpowder River entrance.....	2483
Gwynn Island.....	1895,1897

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Hackensack River.....	1605
Hagan Island.....	2755
Haig Point Light.....	2923
Hail Point.....	2461
Hains Point.....	2369
Halfmoon Shoal.....	683,685
Hallowing Point.....	2365
Hammonasset Point.....	1159,1161
Hampton Roads.....	2079-2103
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Harbor Key.....	3411
Harbor of Refuge.....	927,929,935
Harlem River.....	1407-1421
Harris Creek.....	2423
Hart Island, N.Y.....	1331,1333,1335,1337
Hartford Jetty.....	1129
Haste Shoal, Mass.....	361
Hatchett Point.....	1105,1107
Hat Island.....	55
Hatteras Inlet.....	2521
Haverstraw.....	1497
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Hay Beach Point.....	1027
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Heald Bank.....	3587
Hedge Fence.....	743
Hedge Fence Lighted Gong Buoy.....	727
Hell Gate * (56).....	1381
Hempstead Harbor.....	1307-1311
Henderson Point.....	317,319
Hendersons Point.....	2497
Henry Hudson Bridge.....	1421
Herbert C. Bonner Bridge.....	2519
Herod Point.....	1181-1185
Heron Neck.....	157
Higganum Creek.....	1123
High Bridge.....	1415
Highland Falls.....	1505
Hills Point.....	2395
Hilton Head.....	2887
Hobcaw Creek.....	2707
Hoffman Island.....	1563
Hog Creek Point.....	1013
Hog Island, Narragansett Bay.....	889
Hog Island, Penobscot Bay.....	93
Hog Island, Delaware River.....	1773
Hog Island Channel.....	2697
Hog Island Reach.....	2657,2713
Hog Point, James River.....	2149

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Hole Point Reach.....	637
Holland Point.....	1989,2401
Honga River Entrance.....	2303
Hooper Strait, Chesapeake Bay.....	1949
Hooper Strait, Tangier Sound.....	2301
Horlbeck Creek entrance.....	2773,2779
Horn Island.....	3517,3519
Horse Head Island.....	85
Horse Reach.....	2705
Horseshoe Point.....	1995
Horseshoe Shoal.....	2583
Horton Point.....	1157
Hosmer Ledge.....	127
Houghtaling Island, Hudson River.....	1535
Housatonic River.....	1201-1209
Houston Channel.....	3573,3575
Howard Ledges.....	107,109
Howell Point.....	2063,2065,2407
Huckleberry Island.....	1323,1325
Hudson, Hudson River.....	1531
Hudson River.....	1477-1543
Hudson River entrance.....	1477
Hull Gut.....	561
Hunniwell Point.....	241
Huntington Bay.....	1265
Hunts Point.....	1371
Hussey Sound.....	273,275
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India Point.....	921
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Intracoastal Waterway, Southport, N.C..	2575
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Jacksonville.....	3223,3225
Jamaica Bay.....	1445-1457
Jamaica Point, off.....	2411
James Island, Chesapeake Bay.....	1969-1973
James River.....	2133-2171
Jamestown Island.....	2151
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Vernon River.....	3027,3031,3043
Verona Island.....	139
Victor Point.....	2285
Vieques Passage * (184).....	3593
Vieques Sound.....	3595
Vineyard Haven.....	739
Vineyard Sound.....	751-787
Virginia Beach.....	2513

W

W Howard Frankland Bridge.....	3447
Waccamaw River.....	2635,2637
Wadmalaw River.....	2819-2823
Wakema.....	2211
Walkerton.....	2213
Wallace Channel.....	2531
Walls Cut.....	2941
Wando River.....	2767-2779
Wappoo Creek.....	2783
Waquoit Bay.....	745
Ward Point.....	1581
Wareham River.....	831,833
Warren.....	899
Warren Island.....	209
Warren River entrance.....	897
Washington, D.C.....	2375,2377
Washington Canal, N.J.....	1585
Wasque Point.....	705
Wassaw Island.....	2993
Wassaw Island, Ossabaw Sound.....	3035
Wassaw Island, Wassaw Sound.....	2983
Wassaw Sound.....	2985-3033
Watch Hill Point.....	973,977
Waterview.....	2239
Watts Island.....	2257,2259
Weepecket Island.....	801
Weir River.....	597
West Chop.....	741,751
West Falmouth Harbor.....	805
West Head.....	577,579,585
West Island.....	815,817
West Marsh Island.....	2793
West Norfolk Bridge.....	2111
West Penobscot Bay.....	153-159
West Point, N.Y.....	1507

	No.
West Point, Va.....	2207
West River.....	2445
Western Passage, Maine.....	41,43
Westport River.....	789
Weymouth Back River.....	615
Weymouth Harbor, Mass.....	629
Whale Branch River.....	2873
Whaleback Reef.....	303
Whitehaven.....	2287,2289
Whitehill.....	1807
White Islands.....	167
White Point.....	2825
Whooping Island.....	2827
Wickford Harbor.....	911
Wicomico River, Tangier Sound.....	2283-2291
Wicopesset Island.....	985
Widow Island.....	69
Wilcox Island Park.....	1125
Willetts Point (Throgs Neck).....	1353
Williamsburg Bridge.....	1399
Williman Creek.....	2867
Willis Ave. Bridge, Harlem River.....	1409
Willoughby Bay.....	2091
Willoughby Spit.....	2089
Wilmington, N.C.....	2609
Wilmington Island.....	2987
Wilmington River, GA.....	2967,2995-3001
Windmill Point Light.....	1905,1907
Windmill Point, Mass.....	567,605
Windmill Point, Va.....	2159,2229
Wine Island Pass.....	3543
Winter Point.....	3227
Winterport.....	147
Winter-Quarter Shoal.....	1811
Winthrop Head.....	409
Winyah Bay.....	2619-2637
Wolf Trap Light.....	1879,1881,1885-1891
Wood Island.....	307
Woods Hole, The Strait * (32).....	775
Woods Hole.....	773-777
Woods Point.....	2743,2745
Wooster Island.....	1207
Worton Point.....	2059,2061
Wreck Shoal.....	725
Wright River.....	2937
Wye River.....	2439

Y

Yellow House Creek.....	2739
Yellow House Landing.....	2741
Yeocomico River entrance.....	2323
York River.....	2173-2219
York Spit Channel.....	1871
York Spit Light.....	2175
Yorktown.....	2189



# ASTRONOMICAL DATA, 2017

January			
	d	h	m
E	5	04	..
☉	5	19	47
P	10	06	..
N	11	10	..
☉	12	11	34
E	18	00	..
☉	19	22	13
A	22	00	..
S	25	13	..
●	28	00	07

February			
	d	h	m
E	1	10	..
☉	4	04	19
P	6	14	..
N	7	19	..
☉	11	00	33
E	14	10	..
☉	18	19	33
A	18	21	..
S	21	21	..
●	26	14	58
E	28	17	..

March			
	d	h	m
P	3	08	..
☉	5	11	32
N	7	01	..
☉	12	14	54
E	13	19	..
A	18	17	..
☉ <sub>m</sub>	20	10	29
☉	20	15	58
S	21	06	..
E	28	02	..
●	28	02	57
P	30	13	..

April			
	d	h	m
N	3	07	..
☉	3	18	39
E	10	02	..
☉	11	06	08
A	15	10	..
S	17	14	..
☉	19	09	57
E	24	12	..
●	26	12	16
P	27	16	..
N	30	14	..

May			
	d	h	m
☉	3	02	47
E	7	08	..
☉	10	21	42
A	12	20	..
S	14	21	..
☉	19	00	33
E	21	23	..
●	25	19	44
P	26	01	..
N	28	00	..

June			
	d	h	m
☉	1	12	42
E	3	15	..
A	8	22	..
☉	9	13	10
S	11	04	..
☉	17	11	33
E	18	08	..
☉ <sub>j</sub>	21	04	24
P	23	11	..
●	24	02	31
N	24	12	..
E	30	23	..

July			
	d	h	m
☉	1	00	51
A	6	04	..
S	8	11	..
☉	9	04	07
E	15	16	..
☉	16	19	26
P	21	17	..
N	21	23	..
●	23	09	46
E	28	08	..
☉	30	15	23

August			
	d	h	m
A	2	18	..
S	4	19	..
☉	7	18	11
E	11	21	..
☉	15	01	15
N	18	07	..
P	18	13	..
●	21	18	30
E	24	17	..
☉	29	08	13
A	30	11	..

September			
	d	h	m
S	1	03	..
☉	6	07	03
E	8	04	..
☉	13	06	25
P	13	16	..
N	14	14	..
●	20	05	30
E	21	02	..
☉ <sub>s</sub>	22	20	02
A	27	07	..
☉	28	02	54
S	28	11	..

October			
	d	h	m
E	5	12	..
☉	5	18	40
P	9	06	..
N	11	19	..
☉	12	12	25
E	18	10	..
●	19	19	12
A	25	02	..
S	25	19	..
☉	27	22	22

November			
	d	h	m
E	1	22	..
☉	4	05	23
P	6	00	..
N	8	02	..
☉	10	20	36
E	14	16	..
●	18	11	42
A	21	19	..
S	22	03	..
☉	26	17	03
E	29	09	..

December			
	d	h	m
☉	3	15	47
P	4	09	..
N	5	12	..
☉	10	07	51
E	11	23	..
●	18	06	30
A	19	01	..
S	19	10	..
☉ <sub>d</sub>	21	16	28
☉	26	09	20
E	26	19	..

### LUNAR DATA

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

### SOLAR DATA

- ☉<sub>m</sub> -- March equinox
- ☉<sub>j</sub> -- June solstice
- ☉<sub>s</sub> -- September equinox
- ☉<sub>d</sub> -- 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<sup>h</sup> at midnight and 12<sup>h</sup> 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.