

**Tide Tables 2015 – Europe and West Coast of Africa including the Mediterranean Sea**



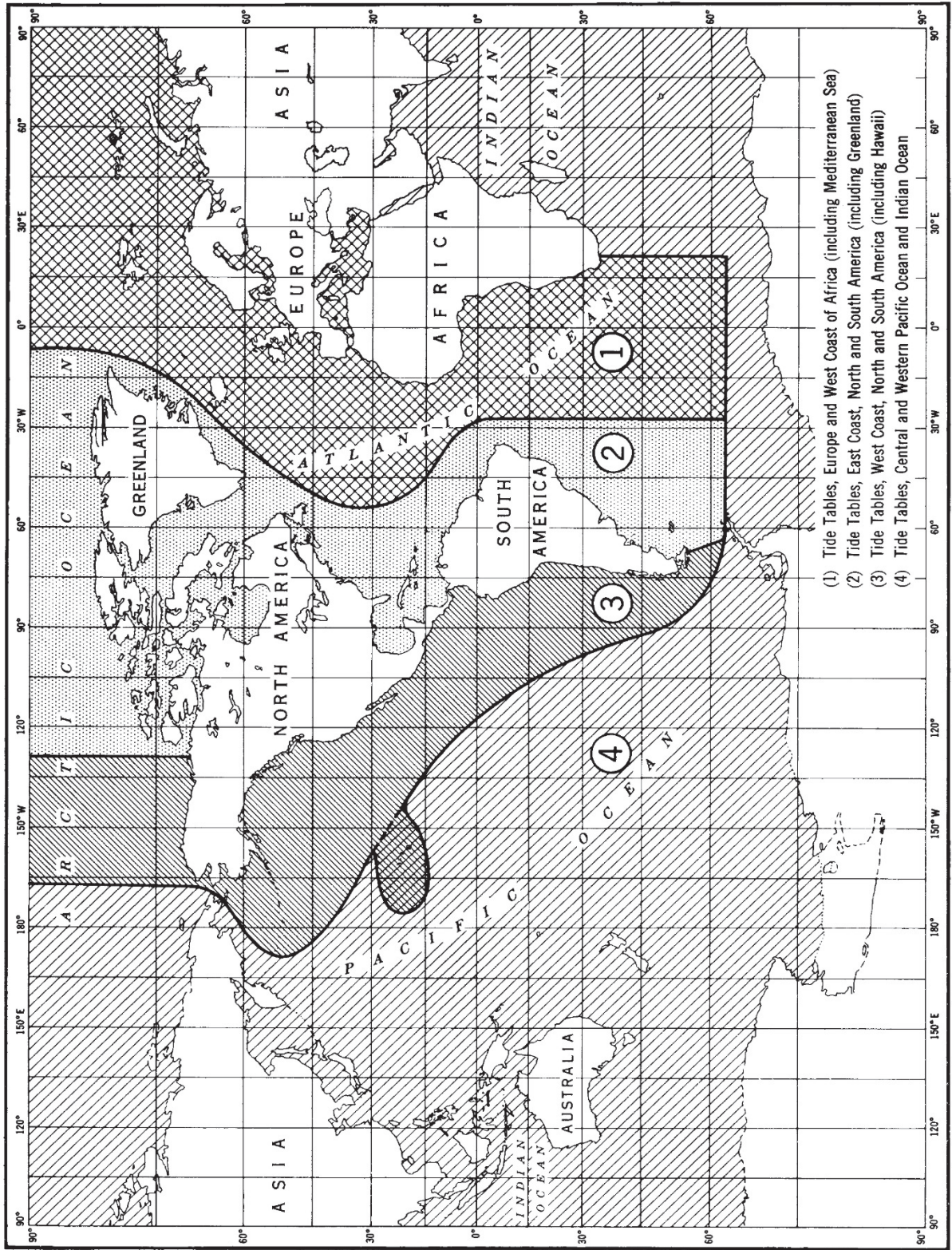
**Tide Tables 2015** HIGH AND LOW WATER PREDICTIONS

# **Europe and West Coast of Africa**

Including the Mediterranean Sea



# INDEX OF TIDE TABLE COVERAGE



**Tide Tables 2015** HIGH AND LOW WATER PREDICTIONS

# **Europe and West Coast of Africa**

Including the Mediterranean Sea

Issued 2014



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



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

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

## SOURCES OF ADDITIONAL INFORMATION

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

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

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

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

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

National Ocean Service  
Oceanographic Division, N/OPS3  
1305 East-West Highway  
Silver Spring, MD 20910  
(301) 713-2815, fax (301) 713-4500

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

#### **TECHNICAL ASSISTANCE:**

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

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

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

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

## SOURCES OF ADDITIONAL INFORMATION

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

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

### **WEBSITES**

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

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

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

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

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

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

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

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

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

National Ocean Service - <http://www.oceanservice.noaa.gov>

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

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

National Weather Service - <http://www.weather.gov>

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

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

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

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

### **CORRECTIONS:**

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



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## **IMPORTANT NOTICES**

Predicted heights for all reference stations in Table 1 are given in both feet and centimeters. Predicted values from the use of Table 2 and 3 will be in the English system, but can be converted to metric units by the use of Table 6.

## INTRODUCTION

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

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

The tide tables are now issued in four volumes, as follows: Europe and West Coast of Africa (including the Mediterranean Sea); East Coast of North and South America (including Greenland); West Coast of North and South America (including the Hawaiian Islands); Central and Western Pacific Ocean and Indian Ocean. Together, they contain daily predictions for more than 250 reference ports and differences and other constants for about 6,500 stations.

This edition of the Tide Tables, Europe and West Coast of Africa, contains full daily predictions for 38 reference stations and differences and ranges for more than 1,100 stations. It also contains a table for obtaining the approximate height of the tide at any time, a table of local mean time of sunrise and sunset for every 5th day of the year for different latitudes, a table for the reduction of local mean time to standard time, a table for converting feet to centimeters, a table of the Greenwich mean time of the Moon's phases, apogee, perigee, greatest north and south and zero declination, and the time of the solar equinoxes and solstices, and a glossary of terms.

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

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

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

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

*Hydrographic Department, Admiralty, England.*—Takoradi, Gibraltar, Leith, Immingham, Sheerness, London, Dover, Southampton, Liverpool, Greenock, Dublin, Ringaskiddy (Cobh), Ullapool, Reykjavik, Antwerp, and Kem.

*Service Hydrographique, France.*—Dakar, Casablanca, Sfax, Pointe de Grave, Brest, Cherbourg, and Le Havre.

*Norges Sjøkartverk, Norway.*—Bergen and Narvik.

*Rijkswaterstaat, Netherlands.*—Vlissingen and Hoek van Holland.

*Deutsches Hydrographisches Institut, Germany.*—Cuxhaven, Bremerhaven, Hamburg, Helgoland, and Yekaterinskaya.

*Maritime Headquarters, Republic of South Africa.*—Cape Town.

*Meteorologisk Institut, Denmark.*—Esbjerg.

*Instituto Hidrografico, Portugal.*—Lisbon and Ponta Delgada.

## LIST OF REFERENCE STATIONS

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Station Name	Datum Below Mean Sea-Level	Page
Antwerp, Belgium .....	8.6	106
Bergen, Norway .....	2.6	138
Bremerhaven, Germany .....	6.7	122
Brest, France .....	14.6	4
Cape Town, South Africa.....	3.1	8
Casablanca, Morocco .....	7.0	20
Cherbourg, France .....	12.4	48
Cuxhaven, Germany .....	5.1	126
Dakar, Senegal .....	3.3	16
Dover, England .....	12.1	72
Dublin, Eire .....	7.2	94
Esbjerg, Denmark .....	2.7	134
Gibraltar .....	1.7	32
Greenock, Scotland .....	5.9	86
Hamburg, Germany .....	4.4	130
Helgoland, Germany .....	4.4	118
Hoek Van Holland, Netherlands.....	3.0	114
Immingham, England .....	13.5	60
Kem, Russia .....	3.6	150
Le Havre, France .....	15.0	52
Leith, Scotland .....	10.1	56
Lisbon, Portugal .....	7.2	36
Liverpool, England .....	15.2	82
London, England .....	12.2	68
Narvik, Norway .....	5.9	142
Pointe de Grave, France .....	10.5	40
Ponta Delgada, Azores .....	3.3	4
Reykjavik, Iceland .....	6.8	102
Ringaskiddy (Cobh), Eire .....	7.4	98
Sfax, Tunisia .....	3.2	24
Sheerness, England .....	10.3	64
Southampton, England .....	8.6	+76,78
Takoradi, Ghana .....	3.2	12
Ullapool, Scotland.....	8.4	90
Venezia (Venice), Italy .....	1.7	28
Vlissingen, Netherlands.....	7.6	110
Yekaterininskaya, Russia .....	7.0	146

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\* New reference station

+ Explanation precedes the prediction

# TABLE 1.— DAILY TIDE PREDICTIONS

## EXPLANATION OF TABLE

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

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

**Time.**— The kind of time used for the predictions at each reference station is indicated by the time meridian at the bottom of each page.

**Datum.**— The datum from which the predicted heights are reckoned is the same as that used for the charts of the locality. In this table a datum approximating to mean low water springs, Indian spring low water, or the lowest possible low water is generally used. The depression of the datum below mean sea level for each of the reference stations of this volume is given on the preceding page.

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

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

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

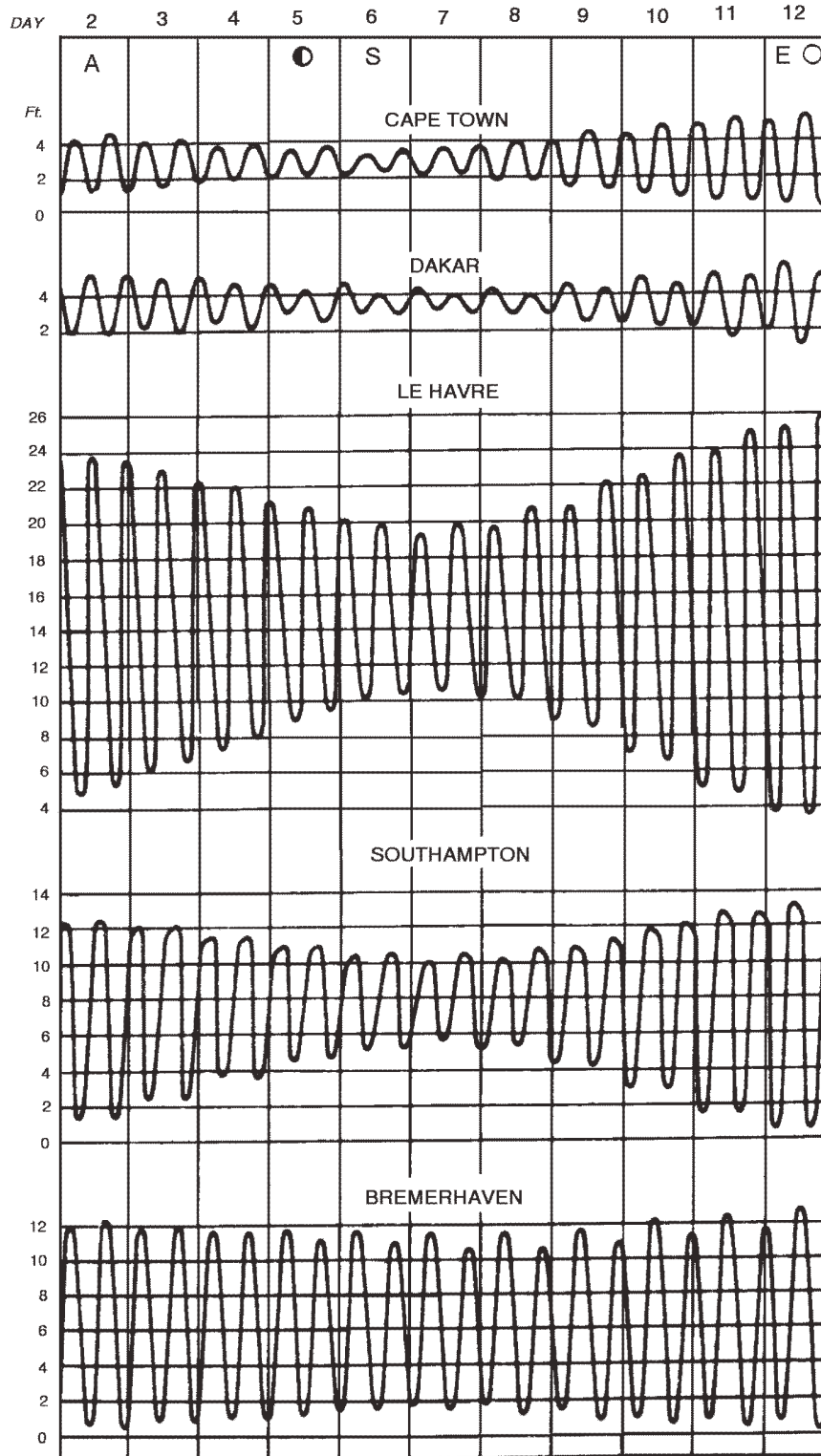
**Number of tides.**— There are usually two high and two low waters in a day. Tides follow the Moon more closely than they do the Sun, and the lunar or tidal day is about 50 minutes longer than the solar day. This causes the tide to occur later each day, and a tide that has occurred near the end of one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

## TABLE 1.— DAILY TIDE PREDICTIONS

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

**Typical tide curves.**— The principal variations in the tide for a number of places are illustrated on the opposite page by tide curves covering a period of 11 days. Note that the range of tide varies considerably but that the type is semidiurnal, with two high waters and two low waters each tidal day. The principal variations follow the changes in the Moon's phase and distance. This type is representative of all areas in this publication with the exception of the upper part of the Adriatic Sea where the tide becomes diurnal. Here, however, the range is quite small. Shallow water effects are pronounced in many estuaries. At Southampton this results in a double high water. It is not depicted, however, because of the small scale of the curve. In other localities, shallow water effects may be pronounced in the high waters, in the low waters, or in both the high waters and the low waters.

## TYPICAL TIDE CURVES



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

- Lunar data:**
- A - Moon in apogee
  - - first quarter
  - S - maximum south declination
  - E - Moon on Equator
  - - full moon

























# Takoradi, Ghana, 2015

## Times and Heights of High and Low Waters

July				August				September																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> W	0339	3.6	110	<b>16</b> Th	0445	3.9	120	<b>1</b> Sa	0514	3.9	120	<b>16</b> Su	0532	3.9	120											
	0902	0.7	20		1020	0.7	20		1027	0.3	10		1113	0.7	20	<b>1</b> Tu	0643	4.3	130							
	1523	3.9	120		1632	3.9	120		1645	4.3	130		1711	3.9	120		1831	4.3	130							
	2147	-0.3	-10		2239	-0.3	-10		2245	-0.7	-20		2313	0.0	0		2352	0.0	0							
<b>2</b> Th O	0422	3.9	120	<b>17</b> F	0522	3.9	120	<b>2</b> Su	0602	4.3	130	<b>17</b> M	0559	3.9	120		<b>2</b> W	0716	4.3	130	<b>17</b> Th	0605	3.9	120		
	0947	0.7	20		1102	0.7	20		1113	0.3	10		1139	0.7	20	1229		0.3	10	1211		0.7	20			
	1605	3.9	120		1706	3.9	120		1736	3.9	120		1743	3.9	120	1915		3.9	120	1837		3.9	120			
	2225	-0.3	-10		2312	-0.3	-10		2327	-0.3	-10		2340	0.3	10	<b>3</b> Th		0041	0.3	10		0012	1.0	30		
<b>3</b> F	0507	3.9	120	<b>18</b> Sa	0556	3.9	120	<b>3</b> M	0642	4.3	130	<b>18</b> Tu	0621	3.9	120		<b>3</b> Th	0746	4.3	130	0645	3.9	120			
	1035	0.7	20		1140	0.7	20		1200	0.3	10		1205	0.7	20			1314	0.3	10	1248	0.7	20			
	1651	3.9	120		1736	3.9	120		1828	3.9	120		1820	3.6	110			2001	3.9	120	1921	3.6	110			
	2306	-0.3	-10		2344	0.0	0		<b>4</b> Tu	0011	-0.3		-10	<b>19</b> W	0006	0.3		10	<b>4</b> F	0135	0.7	20	0048	1.3	40	
<b>4</b> Sa	0553	4.3	130	<b>19</b> Su	0627	3.9	120	<b>4</b> Tu		0719	4.3	130	<b>19</b> W		0646	3.9	120	<b>4</b> F		0824	3.9	120	0728	3.9	120	
	1123	0.7	20		1214	0.7	20			1247	0.3	10			1238	0.7	20			1403	0.7	20	1329	1.0	30	
	1742	3.9	120		1809	3.9	120			1918	3.9	120			1900	3.6	110			2055	3.6	110	2010	3.6	110	
	2348	-0.3	-10		<b>20</b> M	0012	0.0		0	<b>5</b> W	0059	0.0		0	<b>20</b> Th	0036	0.7		20	<b>5</b> Sa	0234	1.0	30	0134	1.6	50
<b>5</b> Su	0638	4.3	130	<b>20</b> M		0655	3.9	120	<b>5</b> W		0759	4.3	130	<b>20</b> Th		0721	3.9	120	<b>5</b> Sa		0913	3.6	110	0815	3.6	110
	1214	0.7	20			1242	1.0	30			1337	0.7	20			1315	1.0	30			1459	1.0	30	1419	1.3	40
	1833	3.9	120			1846	3.6	110			2012	3.6	110			1945	3.3	100			2204	3.3	100	2109	3.3	100
	<b>6</b> M	0032	-0.3		-10	<b>21</b> Tu	0037	0.3		10	<b>6</b> Th	0151	0.3		10	<b>21</b> F	0112	1.0		30	<b>6</b> Su	0341	1.3	40	0241	1.6
0724		4.3	130	0725	3.9		120	0844	3.9	120		0802	3.6	110	1022		3.6	110	0910	3.6		110				
1306		0.7	20	1312	1.0		30	1431	0.7	20		1400	1.0	30	1626		1.3	40	1526	1.3		40				
1925		3.9	120	1927	3.3		100	2112	3.3	100		2036	3.0	90	2338		3.3	100	2235	3.3		100				
<b>7</b> Tu	0120	0.0	0	<b>22</b> W	0106	0.7	20	<b>7</b> F	0250	0.7	20	<b>22</b> Sa	0156	1.3	40	<b>7</b> M	0457	1.6	50	0432	1.6	50				
	0811	4.3	130		0801	3.9	120		0937	3.9	120		0849	3.6	110		1144	3.6	110	1024	3.6	110				
	1402	1.0	30		1353	1.0	30		1534	1.0	30		1458	1.3	40		1829	1.3	40	1715	1.3	40				
	2021	3.6	110		2014	3.3	100		2226	3.3	100		2142	3.0	90		<b>8</b> Tu	0101	3.3	100	0005	3.6	110			
<b>8</b> W	0213	0.3	10	<b>23</b> Th	0144	1.0	30	<b>8</b> Sa	0357	1.0	30	<b>23</b> Su	0257	1.6	50	<b>8</b> Tu		0626	1.6	50	0543	1.6	50			
	0902	3.9	120		0843	3.6	110		1047	3.6	110		0947	3.3	100			1251	3.6	110	1214	3.6	110			
	1503	1.0	30		1447	1.3	40		1740	1.0	30		1630	1.3	40			1928	1.0	30	1823	1.0	30			
	2128	3.3	100		2110	3.0	90		2351	3.0	90		2323	3.0	90		<b>9</b> W	0158	3.6	110	0107	3.6	110			
<b>9</b> Th	0313	0.7	20	<b>24</b> F	0231	1.3	40	<b>9</b> Su	0512	1.3	40	<b>24</b> M	0459	1.6	50	<b>9</b> W		0732	1.3	40	0645	1.3	40			
	1000	3.9	120		0933	3.6	110		1206	3.6	110		1110	3.3	100			1344	3.6	110	1314	3.9	120			
	1624	1.0	30		1602	1.3	40		1850	0.7	20		1758	1.0	30			2013	1.0	30	1915	0.7	20			
	2248	3.3	100		2234	2.6	80		<b>10</b> M	0113	3.3		100	<b>25</b> Tu	0037		3.0	90	<b>10</b> Th	0243	3.9	120	0200	3.9	120	
<b>10</b> F	0421	1.0	30	<b>25</b> Sa	0339	1.3	40	<b>10</b> M		0634	1.3	40	<b>25</b> Tu		0607	1.3	40	<b>10</b> Th		0822	1.3	40	0740	1.0	30	
	1109	3.9	120		1037	3.6	110			1310	3.6	110			1240	3.6	110			1429	3.9	120	1405	4.3	130	
	1801	1.0	30		1726	1.0	30			1945	0.7	20			1857	0.7	20			2050	0.7	20	2000	0.3	10	
	<b>11</b> Sa	0007	3.3		100	<b>26</b> Su	0001		3.0	90	<b>11</b> Tu	0214		3.3	100	<b>26</b> W	0135		3.3	100	<b>11</b> F	0323	3.9	120	0256	4.3
0531		1.0	30	0530	1.3		40	0743	1.3	40		0705	1.3	40	0905		1.0	30	0832	0.7		20				
1225		3.9	120	1158	3.6		110	1402	3.6	110		1335	3.9	120	1511		3.9	120	1454	4.3		130				
1903		0.7	20	1833	1.0		30	2032	0.3	10		1945	0.3	10	2122		0.7	20	2042	0.3		10				
<b>12</b> Su	0119	3.3	100	<b>27</b> M	0105	3.0	90	<b>12</b> W	0303	3.6	110	<b>27</b> Th	0226	3.6	110	<b>12</b> Sa	0358	3.9	120	0357	4.3	130				
	0640	1.0	30		0628	1.3	40		0837	1.0	30		0758	1.0	30		0943	0.7	20	0921	0.3	10				
	1328	3.9	120		1302	3.6	110		1448	3.9	120		1422	3.9	120		1547	3.9	120	1550	4.3	130				
	1956	0.3	10		1926	0.7	20		2112	0.3	10		2028	0.0	0		2149	0.3	10	2124	0.0	0				
<b>13</b> M	0223	3.6	110	<b>28</b> Tu	0157	3.3	100	<b>13</b> Th	0346	3.9	120	<b>28</b> F	0319	3.9	120	<b>13</b> Su	0431	3.9	120	0454	4.3	130				
	0745	1.0	30		0720	1.0	30		0923	1.0	30		0848	0.7	20		1016	0.7	20	1008	0.0	0				
	1421	3.9	120		1351	3.9	120		1531	3.9	120		1506	4.3	130		1617	3.9	120	1654	4.3	130				
	2044	0.0	0		2011	0.3	10		2146	0.0	0		2108	0.0	0		2213	0.3	10	2207	0.0	0				
<b>14</b> Tu	0317	3.6	110	<b>29</b> W	0245	3.6	110	<b>14</b> F	0425	3.9	120	<b>29</b> Sa	0418	3.9	120	<b>14</b> M	0458	3.9	120	0543	4.3	130				
	0842	1.0	30		0808	1.0	30		1005	0.7	20		0935	0.3	10		1042	0.7	20	1052	0.0	0				
	1509	3.9	120		1435	3.9	120		1609	3.9	120		1552	4.3	130		1645	3.9	120	1749	4.3	130				
	2126	0.0	0		2052	0.0	0		2216	0.0	0		2146	-0.3	-10		2240	0.3	10	2251	0.0	0				
<b>15</b> W	0404	3.9	120	<b>30</b> Th	0332	3.6	110	<b>15</b> Sa	0500	3.9	120	<b>30</b> Su	0515	4.3	130	<b>15</b> Tu	0518	3.9	120	0625	4.3	130				
	0933	1.0	30		0855	0.7	20		1042	0.7	20		1021	0.3	10		1107	0.3	10	1133	0.0	0				
	1553	3.9	120		1517	3.9	120		1642	3.9	120		1645	4.3	130		1718	3.9	120	1834	4.3	130				
	2205	0.0	0		2129	-0.3	-10		2245	0.0	0		2225	-0.3	-10		2310	0.3	10	2339	0.3	10				
<b>16</b> Th	0421	3.9	120	<b>31</b> F	0421	3.9	120	<b>31</b> M	0603	4.3	130	<b>31</b> M	0603	4.3	130	<b>31</b> M	0603	4.3	130	<b>31</b> M	0603	4.3	130			
	0941	0.3	10		0941	0.3	10		1104	0.0	0		1104	0.0	0		1104	0.0	0		1104	0.0	0			
	1600	3.9	120</																							

# Takoradi, Ghana, 2015

## Times and Heights of High and Low Waters

October				November				December															
Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0700	4.3	130	<b>16</b> F	0526	4.3	130	<b>1</b> Su	0114	1.3	40	<b>16</b> M	0030	1.6	50	<b>1</b> Tu	0144	1.6	50	<b>16</b> W	0108	1.3	40
	1214	0.3	10		1149	0.7	20		0731	3.9	120		0634	4.3	130		0733	3.9	120		0703	4.3	130
	1912	4.3	130		1815	4.3	130		1318	0.7	20		1249	0.7	20		1333	1.0	30		1312	0.7	20
<b>2</b> F	0030	0.7	20	<b>17</b> Sa	0612	4.3	130	<b>2</b> M	0206	1.6	50	<b>17</b> Tu	0125	1.6	50	<b>2</b> W	0233	1.6	50	<b>17</b> Th	0202	1.6	50
	0728	4.3	130		1227	0.7	20		0811	3.9	120		0722	3.9	120		0818	3.6	110		0755	3.9	120
	1255	0.3	10		1900	3.9	120		1402	1.0	30		1333	1.0	30		1415	1.3	40		1400	1.0	30
<b>3</b> Sa	0124	1.0	30	<b>18</b> Su	0038	1.3	40	<b>3</b> Tu	0302	2.0	60	<b>18</b> W	0226	2.0	60	<b>3</b> Th	0325	2.0	60	<b>18</b> F	0302	1.6	50
	0800	3.9	120		0658	3.9	120		0909	3.6	110		0816	3.9	120		0925	3.3	100		0856	3.6	110
	1339	0.7	20		1307	1.0	30		1457	1.6	50		1425	1.3	40		1513	1.6	50		1457	1.0	30
<b>4</b> Su	0222	1.3	40	<b>19</b> M	0131	1.6	50	<b>4</b> W	0403	2.0	60	<b>19</b> Th	0333	2.0	60	<b>4</b> F	0424	2.0	60	<b>19</b> Sa	0409	1.6	50
	0845	3.9	120		0747	3.9	120		1038	3.3	100		0920	3.6	110		1100	3.3	100		1017	3.6	110
	1430	1.0	30		1353	1.3	40		1612	1.6	50		1530	1.3	40		1632	2.0	60		1608	1.3	40
<b>5</b> M	0324	1.6	50	<b>20</b> Tu	0243	2.0	60	<b>5</b> Th	0514	2.0	60	<b>20</b> F	0445	1.6	50	<b>5</b> Sa	0529	2.0	60	<b>20</b> Su	0528	1.3	40
	0952	3.6	110		0841	3.6	110		1152	3.6	110		1101	3.6	110		1208	3.3	100		1152	3.6	110
	1533	1.3	40		1451	1.3	40		1742	1.6	50		1653	1.3	40		1742	2.0	60		1726	1.3	40
<b>6</b> Tu	0435	2.0	60	<b>21</b> W	0403	2.0	60	<b>6</b> F	0042	3.9	120	<b>21</b> Sa	0555	1.3	40	<b>6</b> Su	0032	3.9	120	<b>21</b> M	0020	4.3	130
	1118	3.3	100		0949	3.6	110		0626	2.0	60		1222	3.9	120		0634	1.6	50		0640	1.0	30
	1743	1.6	50		1615	1.3	40		1251	3.6	110		1804	1.3	40		1306	3.6	110		1303	3.6	110
<b>7</b> W	0035	3.6	110	<b>22</b> Th	0516	1.6	50	<b>7</b> Sa	0125	4.3	130	<b>22</b> Su	0054	4.3	130	<b>7</b> M	0114	4.3	130	<b>22</b> Tu	0123	4.3	130
	0601	2.0	60		1143	3.6	110		0721	1.6	50		0658	1.0	30		0727	1.3	40		0740	0.7	20
	1226	3.6	110		1743	1.3	40		1341	3.9	120		1323	3.9	120		1354	3.6	110		1408	3.9	120
<b>8</b> Th	0128	3.9	120	<b>23</b> F	0035	3.9	120	<b>8</b> Su	0201	4.3	130	<b>23</b> M	0150	4.3	130	<b>8</b> Tu	0149	4.3	130	<b>23</b> W	0221	4.3	130
	0708	1.6	50		0620	1.3	40		0804	1.3	40		0754	0.7	20		0810	1.0	30		0832	0.3	10
	1321	3.6	110		1250	3.9	120		1424	3.9	120		1423	4.3	130		1436	3.9	120		1511	3.9	120
<b>9</b> F	0210	3.9	120	<b>24</b> Sa	0129	4.3	130	<b>9</b> M	0229	4.3	130	<b>24</b> Tu	0249	4.6	140	<b>9</b> W	0222	4.3	130	<b>24</b> Th	0315	4.3	130
	0756	1.6	50		0719	1.0	30		0842	1.0	30		0846	0.3	10		0848	0.7	20		0920	0.3	10
	1408	3.9	120		1344	4.3	130		1458	3.9	120		1526	4.3	130		1512	3.9	120		1608	4.3	130
<b>10</b> Sa	0247	4.3	130	<b>25</b> Su	0223	4.3	130	<b>10</b> Tu	0253	4.3	130	<b>25</b> W	0348	4.6	140	<b>10</b> Th	0253	4.3	130	<b>25</b> F	0406	4.3	130
	0837	1.3	40		0813	0.7	20		0914	0.7	20		0934	0.3	10		0923	0.3	10		1003	0.0	0
	1449	3.9	120		1439	4.3	130		1528	4.3	130		1625	4.3	130		1546	3.9	120		1659	4.3	130
<b>11</b> Su	0319	4.3	130	<b>26</b> M	0325	4.3	130	<b>11</b> W	0316	4.3	130	<b>26</b> Th	0439	4.6	140	<b>11</b> F	0326	4.3	130	<b>26</b> Sa	0452	4.3	130
	0914	1.0	30		0903	0.3	10		0944	0.7	20		1019	0.0	0		0957	0.3	10		1044	0.0	0
	1523	4.3	130		1541	4.3	130		1601	4.3	130		1717	4.6	140		1623	4.3	130		1745	4.3	130
<b>12</b> M	0344	4.3	130	<b>27</b> Tu	0424	4.6	140	<b>12</b> Th	0337	4.3	130	<b>27</b> F	0524	4.6	140	<b>12</b> Sa	0402	4.3	130	<b>27</b> Su	0531	4.3	130
	0945	0.7	20		0951	0.3	10		1016	0.3	10		1101	0.0	0		1033	0.3	10		1122	0.0	0
	1551	4.3	130		1643	4.6	140		1636	4.3	130		1804	4.6	140		1701	4.3	130		1826	4.3	130
<b>13</b> Tu	0402	4.3	130	<b>28</b> W	0514	4.6	140	<b>13</b> F	0411	4.3	130	<b>28</b> Sa	0601	4.3	130	<b>13</b> Su	0444	4.3	130	<b>28</b> M	0601	4.3	130
	1010	0.7	20		1035	0.0	0		1052	0.3	10		1141	0.0	0		1111	0.3	10		1158	0.3	10
	1620	4.3	130		1736	4.6	140		1715	4.3	130		1845	4.3	130		1742	4.3	130		1904	4.3	130
<b>14</b> W	0414	4.3	130	<b>29</b> Th	0557	4.6	140	<b>14</b> Sa	0457	4.3	130	<b>29</b> Su	0009	1.0	30	<b>14</b> M	0529	4.3	130	<b>29</b> Tu	0035	1.3	40
	1039	0.3	10		1118	0.0	0		1130	0.3	10		0631	4.3	130		1149	0.3	10		0626	4.3	130
	1654	4.3	130		1822	4.6	140		1757	4.3	130		1220	0.3	10		1824	4.3	130		1231	0.3	10
<b>15</b> Th	0443	4.3	130	<b>30</b> F	0633	4.3	130	<b>15</b> Su	0547	4.3	130	<b>30</b> M	0057	1.3	40	<b>15</b> Tu	0016	1.3	40	<b>30</b> W	0117	1.3	40
	1113	0.3	10		1158	0.3	10		1208	0.7	20		0658	4.3	130		0615	4.3	130		0700	3.9	120
	1733	4.3	130		1902	4.3	130		1841	4.3	130		1256	0.7	20		1230	0.3	10		1300	0.7	20
<b>31</b> Sa	0443	4.3	130	<b>31</b> Su	0021	1.0	30	<b>31</b> Th	0702	4.3	130	<b>31</b> M	0159	1.6	50	<b>31</b> Tu	0739	3.6	110	<b>31</b> W	0159	1.6	50
	1113	0.3	10		1238	0.3	10		1939	4.3	130		2001	4.3	130		1909	4.3	130		1326	1.0	30
	1733	4.3	130		2318	1.0	30																

Time meridian 0°. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

## Dakar, Senegal, 2015

## Times and Heights of High and Low Waters

January				February				March																				
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm														
<b>1</b> Th	0551	4.6	139		<b>16</b> F	0500	4.1	126		<b>1</b> Su	0125	1.7	53		<b>16</b> M	0035	1.8	56		<b>1</b> Su	0015	2.0	62		<b>16</b> M	0518	4.1	124
	1154	1.8	54			1112	2.0	62			0733	4.3	132			0643	4.4	134			0627	4.0	121			1115	2.1	63
	1834	4.8	147			1755	4.4	135			1325	1.6	48			1245	1.6	50			1213	1.9	59			1751	4.7	142
						2358	2.2	66			1957	5.0	151			1914	5.1	155			1854	4.5	138					
<b>2</b> F	0039	1.9	58		<b>17</b> Sa	0605	4.3	131		<b>2</b> M	0209	1.5	47		<b>17</b> Tu	0129	1.4	43		<b>2</b> M	0110	1.8	55		<b>17</b> Tu	0013	1.8	55
	0651	4.6	140			1214	1.8	55			0817	4.5	136			0738	4.7	144			0719	4.2	127			0626	4.4	135
	1250	1.6	50			1848	4.8	145			1408	1.4	42			1337	1.3	40			1307	1.7	52			1223	1.7	53
	1924	5.0	153								2035	5.1	156			2002	5.5	168			1939	4.8	145			1850	5.1	156
<b>3</b> Sa	0132	1.7	51		<b>18</b> Su	0055	1.8	56		<b>3</b> Tu	0247	1.3	41		<b>18</b> W	0216	1.0	32		<b>3</b> Tu	0151	1.6	48		<b>18</b> W	0108	1.4	42
	0743	4.7	142			0703	4.5	138			0855	4.6	141			0827	5.1	154			0800	4.4	134			0721	4.8	147
	1338	1.4	44			1307	1.5	47			1445	1.2	38			1423	1.0	30			1350	1.5	46			1317	1.4	42
	2008	5.2	159			1936	5.2	157		○	2109	5.2	160		●	2048	5.9	179			2015	5.0	151			1941	5.5	169
<b>4</b> Su	0219	1.5	45		<b>19</b> M	0146	1.5	46		<b>4</b> W	0322	1.2	38		<b>19</b> Th	0300	0.7	22		<b>4</b> W	0227	1.4	42		<b>19</b> Th	0155	1.0	30
	0828	4.7	144			0754	4.8	146			0929	4.7	144			0913	5.3	162			0835	4.6	140			0809	5.2	158
	1421	1.3	40			1354	1.3	39			1520	1.2	36			1508	0.7	22			1426	1.3	41			1405	1.0	31
	2048	5.3	163			2021	5.5	168			2141	5.3	162			2133	6.1	186			2047	5.1	156			2028	5.9	179
<b>5</b> M	0301	1.4	42		<b>20</b> Tu	0232	1.2	36		<b>5</b> Th	0355	1.2	37		<b>20</b> F	0344	0.6	17		<b>5</b> Th	0259	1.2	38		<b>20</b> F	0239	0.7	21
	0909	4.8	145			0843	5.0	153			1001	4.8	145			0958	5.5	167			0907	4.8	145			0854	5.5	167
	1500	1.2	38			1439	1.0	32			1552	1.2	36			1552	0.6	19			1459	1.2	37			1450	0.8	23
	2124	5.4	165		●	2105	5.8	177			2211	5.3	162			2217	6.1	187		○	2117	5.2	159		●	2114	6.0	184
<b>6</b> Tu	0339	1.3	40		<b>21</b> W	0318	0.9	28		<b>6</b> F	0425	1.2	37		<b>21</b> Sa	0426	0.5	16		<b>6</b> F	0328	1.1	35		<b>21</b> Sa	0321	0.5	16
	0947	4.8	146			0929	5.2	159			1032	4.8	145			1042	5.5	167			0937	4.9	148			0937	5.6	171
	1536	1.2	38			1523	0.9	27			1624	1.2	37			1635	0.6	19			1531	1.1	35			1534	0.6	19
	2159	5.4	165			2149	6.0	183			2242	5.2	160			2302	6.0	182			2147	5.2	160			2158	6.0	183
<b>7</b> W	0416	1.3	40		<b>22</b> Th	0402	0.8	23		<b>7</b> Sa	0456	1.2	38		<b>22</b> Su	0509	0.7	20		<b>7</b> Sa	0357	1.1	34		<b>22</b> Su	0402	0.5	16
	1022	4.8	145			1015	5.3	162			1103	4.7	143			1126	5.3	163			1006	4.9	150			1020	5.6	171
	1611	1.3	39			1607	0.8	25			1655	1.3	40			1720	0.8	25			1601	1.1	35			1618	0.6	19
	2233	5.3	163			2235	6.1	185			2312	5.1	155			2348	5.6	171			2216	5.2	159			2242	5.8	177
<b>8</b> Th	0450	1.4	42		<b>23</b> F	0447	0.7	22		<b>8</b> Su	0526	1.3	41		<b>23</b> M	0553	0.9	27		<b>8</b> Su	0425	1.1	35		<b>23</b> M	0443	0.7	20
	1056	4.7	142			1101	5.3	161			1134	4.6	140			1211	5.1	155			1035	4.9	149			1103	5.5	167
	1645	1.4	43			1652	0.9	27			1728	1.5	45			1807	1.1	34			1632	1.2	36			1703	0.8	25
	2307	5.2	159			2321	5.9	181			2344	4.9	149								2245	5.1	155			2326	5.4	165
<b>9</b> F	0525	1.5	45		<b>24</b> Sa	0533	0.9	26		<b>9</b> M	0559	1.5	45		<b>24</b> Tu	0036	5.2	157		<b>9</b> M	0454	1.2	37		<b>24</b> Tu	0525	0.9	28
	1130	4.6	139			1147	5.2	157			1208	4.5	136			0638	1.2	37			1106	4.8	147			1147	5.2	159
	1719	1.6	48			1738	1.0	32			1803	1.7	51			1301	4.8	146			1704	1.3	40			1749	1.1	34
	2341	5.1	154												1859	1.5	46			2316	4.9	150						
<b>10</b> Sa	0559	1.6	49		<b>25</b> Su	0009	5.7	173		<b>10</b> Tu	0018	4.7	142		<b>25</b> W	0129	4.7	142		<b>10</b> Tu	0525	1.3	40		<b>25</b> W	0012	5.0	151
	1205	4.4	135			0620	1.0	32			0634	1.6	50			0728	1.6	48			1139	4.7	143			0608	1.3	39
	1755	1.8	54			1236	5.0	151			1247	4.3	132		○	1358	4.5	136			1739	1.5	45			1234	4.9	150
						1827	1.3	41			1844	1.9	58			2000	1.9	57			2349	4.7	143			1839	1.5	45
<b>11</b> Su	0017	4.9	148		<b>26</b> M	0101	5.3	161		<b>11</b> W	0059	4.4	134		<b>26</b> Th	0232	4.2	128		<b>11</b> W	0559	1.5	45		<b>26</b> Th	0102	4.5	136
	0636	1.8	54			0709	1.3	40			0715	1.8	55			0827	1.9	58			1216	4.6	139			0656	1.6	50
	1244	4.3	131			1329	4.7	143			1336	4.2	127			1509	4.2	129			1817	1.7	52			1328	4.6	140
	1835	2.0	61			1922	1.7	51			1933	2.1	65			2118	2.2	66								1936	1.9	57
<b>12</b> M	0057	4.6	141		<b>27</b> Tu	0157	4.9	148		<b>12</b> Th	0151	4.2	127		<b>27</b> F	0351	3.9	119		<b>12</b> Th	0027	4.4	135		<b>27</b> F	0203	4.1	124
	0716	1.9	58			0802	1.6	49			0804	2.0	60			0939	2.1	63			0637	1.7	51			0752	2.0	60
	1331	4.1	126			1431	4.5	136			1440	4.0	123			1635	4.2	127			1301	4.4	133			1433	4.3	132
	1922	2.2	67		○	2028	2.0	60		●	2038	2.3	70			2255	2.2	67			1903	1.9	59		○	2049	2.2	66
<b>13</b> Tu	0145	4.4	134		<b>28</b> W	0303	4.5	136		<b>13</b> F	0259	4.0	121		<b>28</b> Sa	0516	3.8	117		<b>13</b> F	0116	4.2	127		<b>28</b> Sa	0321	3.8	116
	0803	2.0	62			0904	1.9	57			0908	2.1	64			1102	2.1											











# Casablanca, Morocco, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0018	10.4	317	<b>16</b> Th	0557	2.7	81	<b>1</b> F	0019	10.5	320	<b>16</b> Sa	0015	11.7	356	<b>1</b> M	0102	10.8	328	<b>16</b> Tu	0141	11.5	349
	0625	3.8	117		1214	11.5	352		0623	3.8	115		0625	2.6	78		0702	3.4	104		0741	2.7	83
	1240	10.4	316		1820	2.7	82		1240	10.7	326		1243	11.9	362		1321	11.3	345		1402	12.0	366
	1839	3.9	119		1907	2.0	62		1842	3.8	117		1851	2.5	75		1929	3.3	101		2013	2.4	74
<b>2</b> Th	0054	10.8	330	<b>17</b> F	0033	12.2	371	<b>2</b> Sa	0055	10.9	331	<b>17</b> Su	0105	12.0	366	<b>2</b> Tu	0141	11.1	337	<b>17</b> W	0226	11.5	349
	0658	3.4	105		0644	2.1	63		0657	3.4	105		0711	2.3	70		0739	3.1	96		0823	2.8	84
	1313	10.8	330		1302	12.2	372		1314	11.1	339		1331	12.3	374		1359	11.7	356		1445	12.0	366
	1913	3.5	106		1907	2.0	62		1918	3.4	105		1939	2.1	65		2008	3.0	91		2055	2.5	76
<b>3</b> F	0127	11.2	341	<b>18</b> Sa	0121	12.7	386	<b>3</b> Su	0130	11.1	339	<b>18</b> M	0153	12.1	370	<b>3</b> W	0220	11.3	344	<b>18</b> Th	0308	11.3	344
	0729	3.1	96		0729	1.7	52		0730	3.2	97		0755	2.2	68		0818	3.0	91		0902	3.0	90
	1345	11.2	341		1434	12.6	385		1348	11.5	349		1417	12.4	378		1438	11.9	363		1526	11.9	362
	1945	3.1	96		1953	1.7	51		1952	3.1	96		2025	2.0	62		2047	2.8	84		2134	2.7	83
<b>4</b> Sa	0159	11.5	349	<b>19</b> Su	0209	12.8	391	<b>4</b> M	0205	11.3	345	<b>19</b> Tu	0240	12.0	366	<b>4</b> Th	0300	11.4	348	<b>19</b> F	0347	11.1	337
	0800	3.0	90		0813	1.7	51		0804	3.1	93		0838	2.4	74		0857	2.9	89		0940	3.2	98
	1417	11.5	350		1434	12.8	389		1423	11.7	356		1502	12.3	375		1519	12.0	367		1605	11.6	354
	2017	3.0	90		2039	1.6	49		2028	3.0	91		2109	2.2	68		2129	2.7	82		2212	3.1	93
<b>5</b> Su	0232	11.5	352	<b>20</b> M	0255	12.7	386	<b>5</b> Tu	0241	11.4	347	<b>20</b> W	0324	11.7	356	<b>5</b> F	0343	11.4	347	<b>20</b> Sa	0427	10.7	327
	0832	2.9	88		0857	1.9	59		0838	3.0	92		0920	2.8	85		0939	3.0	92		1018	3.6	109
	1450	11.6	354		1519	12.6	384		1459	11.7	358		1545	12.0	366		1602	12.0	366		1645	11.3	343
	2050	2.9	88		2124	1.9	57		2104	3.0	90		2153	2.6	80		2212	2.8	85		2251	3.5	106
<b>6</b> M	0305	11.5	351	<b>21</b> Tu	0341	12.2	371	<b>6</b> W	0318	11.3	344	<b>21</b> Th	0408	11.2	341	<b>6</b> Sa	0427	11.2	342	<b>21</b> Su	0507	10.4	316
	0904	3.0	91		0940	2.5	75		0915	3.1	96		1002	3.2	99		1024	3.3	100		1058	4.0	122
	1523	11.6	353		1604	12.2	371		1537	11.7	356		1629	11.6	353		1648	11.8	360		1726	10.8	330
	2123	3.0	91		2209	2.4	74		2142	3.1	93		2235	3.1	96		2258	3.0	92		2332	3.9	120
<b>7</b> Tu	0339	11.3	345	<b>22</b> W	0427	11.5	349	<b>7</b> Th	0357	11.1	338	<b>22</b> F	0452	10.7	325	<b>7</b> Su	0516	11.0	334	<b>22</b> M	0551	10.0	304
	0936	3.2	98		1023	3.1	95		0953	3.4	103		1044	3.8	116		1113	3.6	111		1142	4.5	137
	1557	11.4	347		1649	11.5	352		1617	11.5	351		1712	11.1	338		1737	11.5	349		1810	10.3	315
	2158	3.2	99		2255	3.1	95		2223	3.3	100		2320	3.7	113		2350	3.4	103				
<b>8</b> W	0414	11.0	334	<b>23</b> Th	0514	10.7	326	<b>8</b> F	0439	10.8	329	<b>23</b> Sa	0537	10.1	308	<b>8</b> M	0610	10.6	323	<b>23</b> Tu	0018	4.4	135
	1011	3.6	109		1108	3.9	118		1035	3.7	114		1129	4.4	133		1209	4.0	123		0640	9.6	292
	1633	11.1	338		1737	10.9	332		1700	11.2	342		1759	10.5	321		1833	11.1	337		1233	5.0	151
	2235	3.6	109		2345	3.9	118		2309	3.6	110								1900		9.8	300	
<b>9</b> Th	0453	10.5	321	<b>24</b> F	0605	9.9	303	<b>9</b> Sa	0527	10.4	318	<b>24</b> Su	0008	4.3	130	<b>9</b> Tu	0049	3.7	114	<b>24</b> W	0112	4.8	147
	1049	4.0	122		1158	4.6	139		1124	4.1	126		0628	9.6	293		0713	10.3	313		0737	9.3	283
	1713	10.7	326		1829	10.2	311		1750	10.9	331		1220	4.9	149		1316	4.3	132		1333	5.3	161
	2317	4.0	122		1932	9.7	295		1848	10.5	321		1851	10.0	306		1937	10.7	326		1958	9.5	289
<b>10</b> F	0537	10.1	307	<b>25</b> Sa	0043	4.5	138	<b>10</b> Su	0002	3.9	120	<b>25</b> M	0105	4.8	145	<b>10</b> W	0159	4.0	121	<b>25</b> Th	0215	5.1	155
	1134	4.5	136		0705	9.3	284		0623	10.1	307		0728	9.3	282		0823	10.1	309		0840	9.2	279
	1801	10.3	314		1259	5.2	157		1224	4.5	138		1323	5.3	161		1431	4.4	135		1443	5.4	164
					1932	9.7	295		1848	10.5	321		1951	9.6	294		2048	10.5	320		2103	9.3	283
<b>11</b> Sa	0010	4.4	133	<b>26</b> Su	0154	5.0	152	<b>11</b> M	0108	4.2	128	<b>26</b> Tu	0211	5.1	154	<b>11</b> Th	0312	4.0	122	<b>26</b> F	0320	5.1	154
	0634	9.7	295		0817	9.0	273		0731	9.8	300		0835	9.1	278		0934	10.2	312		0943	9.3	284
	1235	4.9	148		1416	5.4	166		1337	4.8	145		1434	5.4	166		1544	4.2	129		1550	5.2	159
	1902	10.0	304		2044	9.4	287		1958	10.4	316		2057	9.4	288		2159	10.5	321		2206	9.4	285
<b>12</b> Su	0122	4.6	141	<b>27</b> M	0311	5.1	156	<b>12</b> Tu	0224	4.2	129	<b>27</b> W	0319	5.1	154	<b>12</b> F	0419	3.8	115	<b>27</b> Sa	0419	4.8	147
	0747	9.4	287		0932	9.0	274		0847	9.9	302		0940	9.2	281		1039	10.6	322		1039	9.6	294
	1356	5.1	154		1533	5.4	166		1456	4.6	141		1542	5.3	163		1650	3.8	116		1649	4.9	148
	2018	9.9	301		2155	9.4	288		2112	10.4	318		2200	9.5	290		2304	10.7	327		2302	9.6	293
<b>13</b> M	0248	4.6	139	<b>28</b> Tu	0416	4.9	150	<b>13</b> W	0338	4.0	121	<b>28</b> Th	0417	4.8	147	<b>13</b> Sa	0518	3.5	106	<b>28</b> Su	0511	4.5	136
	0909	9.6	292		1034	9.3	283		0958	10.2	312		1036	9.5	291		1136	11.0	336		1128	10.1	308
	1521	4.8	147		1635	5.2	157		1607	4.2	128		1639	5.0	153		1749	3.3	101		1740	4.4	134
	2137	10.2	310		2253	9.7	296		2220	10.8	328		2255	9.7	297				2352		10.0	305	
<b>14</b> Tu	0404	4.1	124	<b>29</b> W	0506	4.6	139	<b>14</b> Th	0442	3.5	107	<b>29</b> F	0505	4.5	137	<b>14</b> Su	0001	11.0	336	<b>29</b> M	0556	4.0	123
	1023	10.1	307		1123	9.7	297		1100	10.8	329		1123	10.0	304		0610	3.1	95		1213	10.6	324
	1632	4.2	129		1724	4.7	144		1707	3.6	110		1728	4.6	140		1228	11.5	349		1825	3.8	117
	2245	10.8	328		2339	10.1	308		2321	11.3	343		2341	10.1	307		1841	2.9	87				
<b>15</b> W	0506	3.4	103	<b>30</b> Th	0547	4.2	127	<b>15</b> F	0536	3.0	91	<b>30</b> Sa	0547	4.1	126	<b>15</b> M	0053	11.3	344	<b>30</b> Tu	0037	10.4	318
	1123	10.8	329		1203	10.2	312		1154	11.4	346		1204	10.5	319		0657	2.9	87		0638	3.6	109
	1729	3.5	106		1805	4.3	130		1801	3.0	91		1811	4.1	126		1317						

# Casablanca, Morocco, 2015

## Times and Heights of High and Low Waters

July				August				September															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0119	10.9	332	<b>16</b> Th	0211	11.1	337	<b>1</b> Sa	0224	12.0	367	<b>16</b> Su	0257	11.2	340	<b>1</b> Tu	0331	12.7	387	<b>16</b> W	0332	11.3	343
	0718	3.1	96		0807	3.0	90		0822	2.1	63		0850	3.0	92		0930	1.7	53		0927	3.3	102
	1337	11.7	357		1427	11.8	359		1441	12.9	393		1511	11.6	355		1551	13.0	396		1546	11.3	343
	1948	2.8	85		2037	2.6	80		2052	1.6	49		2115	2.9	87		2157	1.8	55		2145	3.4	105
<b>2</b> Th	0201	11.3	345	<b>17</b> F	0248	11.1	338	<b>2</b> Su	0308	12.3	375	<b>17</b> M	0329	11.1	339	<b>2</b> W	0417	12.3	375	<b>17</b> Th	0404	11.0	335
	0759	2.8	85		0842	3.0	90		0906	1.9	58		0922	3.1	96		1016	2.2	68		0959	3.7	113
	1418	12.2	371		1504	11.7	358		1526	13.0	397		1543	11.5	350		1638	12.3	375		1620	10.8	330
	2030	2.4	73		2111	2.7	83		2136	1.6	49		2146	3.1	94		2243	2.6	78		2217	3.9	119
<b>3</b> F	0244	11.6	355	<b>18</b> Sa	0324	11.0	336	<b>3</b> M	0353	12.3	374	<b>18</b> Tu	0402	11.0	334	<b>3</b> Th	0505	11.6	355	<b>18</b> F	0438	10.6	324
	0841	2.5	77		0916	3.1	94		0950	2.1	63		0955	3.4	104		1106	3.0	91		1034	4.2	127
	1501	12.5	380		1539	11.6	354		1612	12.8	390		1617	11.2	340		1730	11.4	346		1655	10.3	314
	2112	2.1	65		2145	2.9	89		2220	1.9	59		2219	3.4	105		2332	3.4	104		2251	4.4	134
<b>4</b> Sa	0327	11.8	360	<b>19</b> Su	0359	10.9	332	<b>4</b> Tu	0439	11.9	364	<b>19</b> W	0437	10.6	324	<b>4</b> F	0559	10.9	331	<b>19</b> Sa	0515	10.2	310
	0924	2.5	76		0950	3.3	101		1037	2.5	76		1029	3.8	116		1204	3.8	116		1113	4.6	141
	1546	12.5	382		1615	11.4	347		1700	12.2	373		1653	10.7	326		1828	10.4	316		1736	9.8	298
	2156	2.1	65		2219	3.2	98		2308	2.5	77		2253	3.9	120		2332	3.4	104		2331	4.9	149
<b>5</b> Su	0412	11.8	359	<b>20</b> M	0435	10.7	325	<b>5</b> W	0528	11.4	347	<b>20</b> Th	0513	10.2	312	<b>5</b> Sa	0031	4.3	131	<b>20</b> Su	0600	9.7	297
	1009	2.7	81		1026	3.6	111		1128	3.1	95		1106	4.3	131		0703	10.1	309		1203	5.1	155
	1632	12.4	377		1651	11.0	336		1752	11.5	349		1731	10.1	309		1319	4.5	138		1829	9.3	283
	2242	2.4	73		2255	3.6	110		2359	3.2	99		2330	4.5	136		1941	9.5	291		1829	9.3	283
<b>6</b> M	0500	11.5	350	<b>21</b> Tu	0513	10.3	314	<b>6</b> Th	0624	10.7	327	<b>21</b> F	0553	9.8	298	<b>6</b> Su	0149	4.9	150	<b>21</b> M	0027	5.3	163
	1057	3.0	92		1104	4.1	125		1228	3.8	116		1148	4.8	146		0822	9.7	295		0701	9.4	287
	1720	11.9	364		1730	10.5	321		1852	10.6	323		1814	9.6	292		1452	4.9	148		1316	5.4	165
	2331	2.8	86		2334	4.1	125		2334	4.1	125		2107	9.2	280		2107	9.2	280		1942	9.0	274
<b>7</b> Tu	0551	11.1	337	<b>22</b> W	0554	9.9	301	<b>7</b> F	0101	4.0	122	<b>22</b> Sa	0014	5.0	151	<b>7</b> M	0321	5.1	156	<b>22</b> Tu	0152	5.6	170
	1150	3.5	106		1146	4.6	140		0730	10.1	309		0642	9.4	285		0946	9.7	296		0822	9.4	286
	1814	11.4	347		1813	10.0	305		1342	4.4	133		1243	5.2	159		1617	4.7	143		1452	5.3	161
									2003	9.9	301		1909	9.1	277		2228	9.3	283		2110	9.1	278
<b>8</b> W	0026	3.4	103	<b>23</b> Th	0017	4.6	140	<b>8</b> Sa	0218	4.5	138	<b>23</b> Su	0115	5.3	162	<b>8</b> Tu	0438	4.9	148	<b>23</b> W	0325	5.3	162
	0649	10.6	322		0641	9.5	289		0847	9.8	299		0747	9.1	278		1057	10.0	306		0943	9.8	298
	1252	4.0	121		1236	5.0	153		1509	4.6	139		1401	5.4	166		1720	4.3	130		1611	4.7	143
	1915	10.8	328		1902	9.5	289		2124	9.5	290		2023	8.9	270		2330	9.7	296		2226	9.7	296
<b>9</b> Th	0131	3.9	118	<b>24</b> F	0110	5.0	153	<b>9</b> Su	0341	4.7	142	<b>24</b> M	0239	5.4	165	<b>9</b> W	0533	4.4	135	<b>24</b> Th	0435	4.7	142
	0757	10.2	310		0738	9.2	279		1005	9.9	302		0906	9.2	280		1150	10.5	320		1049	10.5	321
	1406	4.3	131		1339	5.3	163		1630	4.3	132		1530	5.2	159		1806	3.8	117		1710	3.9	118
	2025	10.3	313		2003	9.1	278		2241	9.6	292		2145	9.0	275		2343	3.5	106		2324	10.5	321
<b>10</b> F	0245	4.2	127	<b>25</b> Sa	0217	5.2	159	<b>10</b> M	0454	4.4	134	<b>25</b> Tu	0400	5.1	155	<b>10</b> Th	0016	10.2	310	<b>25</b> F	0529	3.8	117
	0910	10.1	307		0845	9.1	277		1113	10.3	313		1018	9.7	295		0616	4.0	121		1142	11.4	347
	1525	4.3	132		1456	5.4	164		1734	3.9	119		1641	4.6	141		1232	10.9	333		1758	3.0	92
	2140	10.0	306		2114	9.0	275		2344	9.9	302		2254	9.5	291		1843	3.5	106		1758	3.0	92
<b>11</b> Sa	0359	4.2	128	<b>26</b> Su	0330	5.2	157	<b>11</b> Tu	0550	4.0	122	<b>26</b> W	0503	4.5	136	<b>11</b> F	0054	10.6	323	<b>26</b> Sa	0013	11.4	347
	1021	10.2	312		0953	9.3	284		1207	10.7	327		1117	10.4	317		0652	3.6	110		0616	3.0	92
	1639	4.1	124		1609	5.1	155		1824	3.5	106		1736	3.9	118		1308	11.3	344		1229	12.2	373
	2251	10.1	308		2223	9.2	281						2349	10.3	314		1916	3.2	97		1842	2.3	69
<b>12</b> Su	0505	4.0	121	<b>27</b> M	0435	4.8	146	<b>12</b> W	0034	10.3	314	<b>27</b> Th	0553	3.7	114	<b>12</b> Sa	0128	11.0	334	<b>27</b> Su	0057	12.2	371
	1124	10.6	323		1053	9.8	299		0635	3.6	110		1207	11.2	342		0724	3.3	101		0659	2.3	69
	1741	3.6	111		1710	4.5	138		1251	11.1	339		1823	3.0	92		1341	11.5	351		1314	13.0	395
	2352	10.4	316		2322	9.6	294		1905	3.1	95						1946	3.0	91		1925	1.7	51
<b>13</b> M	0600	3.6	110	<b>28</b> Tu	0529	4.3	130	<b>13</b> Th	0115	10.7	325	<b>28</b> F	0036	11.1	339	<b>13</b> Su	0159	11.2	341	<b>28</b> M	0141	12.7	388
	1217	11.0	336		1145	10.4	318		0713	3.3	100		0638	3.0	90		0755	3.1	96		0743	1.7	53
	1834	3.2	97		1801	3.9	118		1330	11.5	349		1252	12.1	368		1412	11.6	355		1359	13.3	406
									1941	2.9	88		1906	2.2	68		2015	2.9	89		2008	1.4	44
<b>14</b> Tu	0044	10.7	325	<b>29</b> W	0013	10.3	313	<b>14</b> F	0152	10.9	333	<b>29</b> Sa	0120	11.9	362	<b>14</b> M	0229	11.4	346	<b>29</b> Tu	0225	13.0	396
	0647	3.3	100		0615	3.7	112		0747	3.1	94		0720	2.3	69		0825	3.1	94		0827	1.5	47
	1305	11.4	348		1231	11.1	339		1406	11.6	354		1336	12.8	390		1442	11.7	356		1445	13.3	406
	1920	2.9	87		1846	3.2	97		2013	2.8	84		1948	1.6	50		2044	3.0	90		2051	1.6	48
<b>15</b> W	0130	10.9	333	<b>30</b> Th	0058	10.9	333	<b>15</b> Sa	0225	11.1	338	<b>30</b> Su	0203	12.5	380	<b>15</b> Tu	0300	11.4	347	<b>30</b> W	0310	12.9	394
	0729	3.1	93		0658	3.1	93		0819	3.0	91		0802	1.8	54		0856	3.1	96		0912	1.7	53
	1348	11.7	356		1315	11.8	361		1439	11.7	356		1420	13.3	404		1514	11.5	352		1531		

# Casablanca, Morocco, 2015

## Times and Heights of High and Low Waters

October				November				December															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m		ft	cm		h	m		ft	cm		h	m	ft	cm							
<b>1</b> Th	0356	12.5	381	<b>16</b> F	0338	11.4	347	<b>1</b> Su	0515	11.3	344	<b>16</b> M	0434	11.3	343	<b>1</b> Tu	0540	11.0	334	<b>16</b> W	0507	11.6	354
	0959	2.3	70		0938	3.7	113		1124	4.0	121		1041	4.1	126		1150	4.5	136		1117	3.8	115
	1619	12.2	371		1555	11.0	334		1744	10.3	315		1659	10.5	320		1809	9.9	303		1736	10.8	329
	2220	2.8	86		2150	3.9	120		2336	4.7	143		2253	4.5	138		2358	5.1	154		2332	4.3	130
<b>2</b> F	0444	11.8	361	<b>17</b> Sa	0412	11.1	337	<b>2</b> M	0609	10.6	323	<b>17</b> Tu	0519	10.9	333	<b>2</b> W	0631	10.4	316	<b>17</b> Th	0557	11.3	343
	1048	3.1	94		1013	4.1	124		1223	4.7	144		1129	4.5	136		1245	5.0	153		1210	4.1	125
	1710	11.2	342		1631	10.5	321		1845	9.6	294		1750	10.2	310		1907	9.5	289		1832	10.4	318
	2308	3.7	113		2225	4.4	133						2346	4.9	150								
<b>3</b> Sa	0536	11.1	337	<b>18</b> Su	0450	10.7	326	<b>3</b> Tu	0037	5.3	163	<b>18</b> W	0613	10.6	323	<b>3</b> Th	0057	5.5	169	<b>18</b> F	0030	4.6	141
	1144	3.9	120		1052	4.5	137		0713	10.0	305		1229	4.8	145		0732	9.9	301		0656	10.9	331
	1807	10.3	313		1712	10.1	307		1337	5.2	159		1853	9.9	302		1352	5.4	165		1314	4.4	134
					2306	4.8	147		1958	9.2	281						2015	9.3	282		1938	10.2	310
<b>4</b> Su	0003	4.6	140	<b>19</b> M	0534	10.3	314	<b>4</b> W	0156	5.7	174	<b>19</b> Th	0053	5.2	159	<b>4</b> F	0211	5.8	177	<b>19</b> Sa	0142	4.9	148
	0636	10.3	314		1141	4.9	149		0829	9.7	295		0720	10.4	317		0841	9.6	293		0805	10.6	322
	1253	4.7	143		1804	9.6	294		1459	5.4	164		1344	4.9	148		1503	5.5	167		1429	4.5	138
	1916	9.5	289						2117	9.2	280		2008	9.9	301		2125	9.3	283		2052	10.2	310
<b>5</b> M	0115	5.3	161	<b>20</b> Tu	0001	5.3	161	<b>5</b> Th	0319	5.7	174	<b>20</b> F	0215	5.2	159	<b>5</b> Sa	0326	5.8	176	<b>20</b> Su	0302	4.8	146
	0751	9.7	297		0632	10.0	304		0943	9.7	296		0835	10.4	317		0948	9.6	293		0920	10.5	320
	1423	5.1	156		1248	5.2	158		1607	5.2	159		1504	4.6	141		1606	5.3	162		1543	4.4	133
	2040	9.1	277		1914	9.4	286		2223	9.5	289		2124	10.2	310		2225	9.6	292		2204	10.4	318
<b>6</b> Tu	0248	5.5	168	<b>21</b> W	0118	5.5	169	<b>6</b> F	0425	5.4	166	<b>21</b> Sa	0333	4.9	148	<b>6</b> Su	0428	5.5	167	<b>21</b> M	0415	4.4	135
	0916	9.6	294		0747	9.8	300		1043	10.0	304		0948	10.7	327		1045	9.8	299		1030	10.7	326
	1549	5.1	154		1417	5.2	157		1658	4.9	149		1612	4.2	127		1657	5.0	152		1649	4.0	122
	2201	9.2	281		2039	9.5	289		2313	9.9	303		2230	10.7	326		2314	10.0	305		2307	10.9	333
<b>7</b> W	0409	5.3	162	<b>22</b> Th	0250	5.4	164	<b>7</b> Sa	0515	5.0	153	<b>22</b> Su	0438	4.2	129	<b>7</b> M	0519	5.1	155	<b>22</b> Tu	0520	3.9	118
	1029	9.9	301		0908	10.1	307		1130	10.3	315		1052	11.2	342		1132	10.1	309		1133	11.1	337
	1652	4.8	145		1538	4.7	143		1739	4.5	137		1710	3.6	109		1740	4.6	140		1746	3.5	108
	2304	9.6	293		2156	10.0	304		2354	10.4	318		2326	11.4	346		2356	10.5	319				
<b>8</b> Th	0506	4.9	150	<b>23</b> F	0405	4.8	147	<b>8</b> Su	0555	4.6	140	<b>23</b> M	0534	3.5	108	<b>8</b> Tu	0602	4.6	141	<b>23</b> W	0003	11.5	350
	1123	10.3	314		1018	10.7	326		1209	10.7	326		1148	11.8	359		1214	10.5	320		0616	3.3	100
	1738	4.3	132		1642	4.0	121		1814	4.1	125		1800	3.0	92		1818	4.2	128		1229	11.5	349
	2350	10.1	308		2257	10.7	327														1836	3.1	96
<b>9</b> F	0550	4.5	136	<b>24</b> Sa	0504	4.0	123	<b>9</b> M	0029	10.9	331	<b>24</b> Tu	0017	12.0	365	<b>9</b> W	0034	10.9	333	<b>24</b> Th	0054	12.0	365
	1205	10.7	326		1116	11.5	349		0632	4.2	127		0626	2.9	88		0642	4.2	128		0707	2.8	85
	1814	3.9	120		1733	3.2	98		1245	11.0	336		1240	12.2	372		1253	10.8	330		1320	11.7	358
					2349	11.5	351		1847	3.8	116		1848	2.6	80		1855	3.9	118		1923	2.9	87
<b>10</b> Sa	0027	10.6	323	<b>25</b> Su	0554	3.2	98	<b>10</b> Tu	0103	11.3	343	<b>25</b> W	0106	12.5	380	<b>10</b> Th	0111	11.4	346	<b>25</b> F	0141	12.3	376
	0626	4.0	123		1207	12.2	371		0706	3.8	117		0714	2.4	74		0719	3.8	116		0754	2.5	76
	1241	11.1	337		1820	2.5	77		1319	11.3	343		1329	12.5	380		1331	11.1	338		1407	11.9	362
	1846	3.6	110						1919	3.6	109		1933	2.4	73		1930	3.6	110		2007	2.7	83
<b>11</b> Su	0100	11.0	335	<b>26</b> M	0036	12.2	373	<b>11</b> W	0136	11.5	352	<b>26</b> Th	0153	12.8	389	<b>11</b> F	0147	11.7	356	<b>26</b> Sa	0226	12.5	381
	0659	3.7	113		0640	2.5	76		0739	3.6	110		0802	2.2	67		0756	3.5	107		0838	2.5	75
	1314	11.4	346		1255	12.8	389		1352	11.4	347		1417	12.5	380		1408	11.3	344		1451	11.8	361
	1917	3.3	102		1904	2.1	63		1951	3.4	105		2018	2.5	75		2006	3.4	104		2048	2.8	86
<b>12</b> M	0131	11.3	345	<b>27</b> Tu	0121	12.8	389	<b>12</b> Th	0209	11.7	358	<b>27</b> F	0239	12.8	390	<b>12</b> Sa	0224	11.9	364	<b>27</b> Su	0309	12.4	379
	0730	3.4	105		0726	2.0	61		0813	3.5	106		0848	2.3	69		0832	3.3	101		0919	2.7	81
	1345	11.5	351		1342	13.1	398		1426	11.4	348		1504	12.2	372		1445	11.4	348		1533	11.6	353
	1946	3.2	98		1948	1.9	57		2024	3.4	105		2101	2.8	84		2042	3.3	102		2126	3.1	94
<b>13</b> Tu	0202	11.5	351	<b>28</b> W	0207	13.0	397	<b>13</b> F	0243	11.8	359	<b>28</b> Sa	0324	12.6	383	<b>13</b> Su	0302	12.1	368	<b>28</b> M	0350	12.2	371
	0801	3.3	101		0812	1.8	56		0847	3.5	106		0933	2.6	80		0910	3.2	98		0958	3.0	92
	1416	11.6	353		1429	13.0	397		1501	11.4	346		1549	11.7	358		1524	11.4	348		1612	11.2	342
	2016	3.2	97		2032	2.0	61		2057	3.6	109		2144	3.2	99		2120	3.4	104		2204	3.5	106
<b>14</b> W	0233	11.6	354	<b>29</b> Th	0253	13.0	395	<b>14</b> Sa	0318	11.7	357	<b>29</b> Su	0409	12.1	370	<b>14</b> M	0341	12.1	368	<b>29</b> Tu	0430	11.7	358
	0832	3.3	100		0858	2.0	61		0923	3.6	110		1017	3.2	97		0950	3.3	100		1036	3.5	106
	1448	11.5	351		1516	12.6	384		1537	11.1	339		1634	11.2	340		1605	11.3	345		1652	10.8	329
	2047	3.3	101		2116	2.5	75		2133	3.8	117		2225	3.8	116		2200	3.6	109		2241	3.9	120
<b>15</b> Th	0305	11.6	353	<b>30</b> F	0339	12.6	384	<b>15</b> Su	0355	11.5	352	<b>30</b> M	0454	11.5	352	<b>15</b> Tu	0422	11.9	363	<b>30</b> W	0509	11.3	343
	0904	3.4	104		0945	2.5	76		1000	3.8	117		1102	3.8	116		1031	3.5	106		1115	4.0	123
	1521	11.3	345		1604	11.9	364		1616	10.9	331		1720	10.5	321		1648	11.1	338		1733	10.3	315
	2118	3.6	109		2200	3.1	96		2210	4.2	127		2309	4.4	135		2243	3.9	118		2321	4.5	136
			<b>31</b> Sa	0426	12.0	366										<b>31</b> Th	0551	10.7	326				
				1033	3.2	97							1158	4.6	139		1818	9.8	300				
			1652	11.2	340																		
			2246	3.9	119																		



# Sfax, Tunisia, 2015

## Times and Heights of High and Low Waters

April				May				June																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> W	0229	4.7	144		<b>16</b> Th	0201	5.1	154		<b>1</b> F	0221	4.8	145		<b>16</b> Sa	0217	5.1	156		<b>1</b> M	0255	4.8	147		<b>16</b> Tu	0323	5.1	154	
	0844	1.3	40			0822	1.1	33			0838	1.2	36			0835	1.0	31			0912	1.1	33			0937	1.1	34	
	1444	5.0	153			1427	5.4	165			1436	5.1	155			1442	5.5	167			1513	5.2	157			1544	5.3	162	
	2101	1.3	39			2047	1.0	30			2057	1.1	35			2103	1.0	30			2133	1.0	32			2204	1.0	32	
<b>2</b> Th	0257	5.0	151		<b>17</b> F	0241	5.4	164		<b>2</b> Sa	0251	5.0	151		<b>17</b> Su	0257	5.3	161		<b>2</b> Tu	0330	4.9	149		<b>17</b> W	0402	5.1	154	
	0910	1.0	32			0858	0.8	24			0907	1.0	31			0912	0.9	27			0945	1.0	31			1012	1.1	34	
	1511	5.2	160			1504	5.7	174			1506	5.2	160			1519	5.6	170			1547	5.2	159			1620	5.2	160	
	2127	1.0	32			2123	0.7	22			2125	1.0	31			2140	0.9	27			2206	1.0	31			2239	1.1	33	
<b>3</b> F	0324	5.1	156		<b>18</b> Sa	0319	5.6	170		<b>3</b> Su	0321	5.0	153		<b>18</b> M	0336	5.3	162		<b>3</b> W	0405	4.9	150		<b>18</b> Th	0438	5.0	152	
	0937	0.9	27			0933	0.6	19			0935	0.9	28			0948	0.9	26			1018	1.0	31			1046	1.2	37	
	1538	5.4	164			1540	5.9	179			1536	5.3	162			1556	5.6	170			1622	5.2	159			1654	5.2	157	
	2153	0.9	28			2158	0.6	19			2154	1.0	29			2215	0.9	27			2240	1.0	32			2312	1.2	36	
<b>4</b> Sa	0351	5.2	158		<b>19</b> Su	0356	5.6	171		<b>4</b> M	0351	5.1	154		<b>19</b> Tu	0413	5.2	160		<b>4</b> Th	0440	4.9	149		<b>19</b> F	0513	4.9	149	
	1002	0.8	25			1007	0.6	18			1003	0.9	28			1023	1.0	29			1052	1.1	34			1119	1.3	40	
	1604	5.4	165			1616	5.8	178			1606	5.3	162			1631	5.4	166			1657	5.2	157			1725	5.0	153	
	2218	0.9	27			2232	0.7	21			2222	1.0	29			2250	1.0	31			2314	1.1	34			2344	1.3	39	
<b>5</b> Su	0416	5.2	158		<b>20</b> M	0431	5.5	168		<b>5</b> Tu	0420	5.0	152		<b>20</b> W	0449	5.1	156		<b>5</b> F	0515	4.9	148		<b>20</b> Sa	0545	4.8	146	
	1027	0.9	26			1041	0.7	22			1032	1.0	31			1057	1.1	34			1127	1.2	38			1151	1.5	45	
	1629	5.4	165			1649	5.7	174			1635	5.2	160			1705	5.2	160			1733	5.1	154			1755	4.8	147	
	2243	0.9	27			2306	0.9	26			2251	1.0	32			2324	1.2	36			2350	1.2	38						
<b>6</b> M	0441	5.1	156		<b>21</b> Tu	0505	5.3	162		<b>6</b> W	0449	4.9	150		<b>21</b> Th	0524	4.9	150		<b>6</b> Sa	0552	4.7	144		<b>21</b> Su	0615	1.4	44	
	1051	0.9	28			1113	1.0	29			1100	1.1	34			1131	1.3	41			1204	1.4	43			0617	4.6	141	
	1654	5.3	163			1721	5.4	166			1705	5.1	156			1737	5.0	153			1810	4.9	148			1223	1.6	50	
	2307	1.0	30			2339	1.1	34			2320	1.2	36			2358	1.4	42								1826	4.6	141	
<b>7</b> Tu	0505	5.0	153		<b>22</b> W	0538	5.1	154		<b>7</b> Th	0518	4.8	146		<b>22</b> F	0558	4.7	143		<b>7</b> Su	0627	1.4	43		<b>22</b> M	0647	1.6	49	
	1115	1.0	32			1145	1.3	39			1130	1.3	40			1204	1.6	49			0632	4.6	139			0651	4.4	134	
	1719	5.2	159			1752	5.1	156			1735	5.0	152			1809	4.7	144			1245	1.7	51			1257	1.9	57	
	2332	1.1	34								2351	1.3	41								1851	4.6	141			1858	4.4	133	
<b>8</b> W	0529	4.9	149		<b>23</b> Th	0611	1.4	43		<b>8</b> F	0550	4.6	141		<b>23</b> Sa	0631	1.6	50		<b>8</b> M	0720	4.3	132		<b>23</b> Tu	0732	4.2	127	
	1139	1.2	38			0610	4.7	144			1203	1.5	47			0633	4.4	135			0734	2.0	61			0732	4.2	127	
	1744	5.0	153			1216	1.6	50			1808	4.8	145			1239	1.9	58			1334	2.0	61			1337	2.1	64	
	2358	1.3	41			1822	4.7	144								1842	4.4	135			1944	4.3	131			1941	4.1	124	
<b>9</b> Th	0555	4.7	143		<b>24</b> F	0645	1.8	54		<b>9</b> Sa	0627	1.6	49		<b>24</b> Su	0714	1.9	58		<b>9</b> Tu	0831	4.1	125		<b>24</b> W	0832	3.9	120	
	1206	1.5	46			0644	4.3	132			1241	1.8	56			0714	4.1	126			1442	2.3	71			1432	2.4	72	
	1812	4.8	145			1250	2.0	62			1848	4.4	135			1319	2.2	67			2106	4.0	123			2052	3.8	116	
						1853	4.3	131								1924	4.1	124											
<b>10</b> F	0625	4.4	134		<b>25</b> Sa	0728	3.9	119		<b>10</b> Su	0716	4.1	125		<b>25</b> M	0817	3.8	117		<b>10</b> W	1015	4.0	123		<b>25</b> Th	1006	3.8	116	
	1239	1.9	57			1332	2.5	75			0716	4.1	125			0817	3.8	117			1626	2.5	75			1600	2.5	77	
	1846	4.4	134			1941	3.9	118			1949	4.1	124			1416	2.5	76			2249	4.0	122			2241	3.7	113	
																2039	3.7	114											
<b>11</b> Sa	0706	4.0	122		<b>26</b> Su	0911	3.6	109		<b>11</b> M	0851	3.8	116		<b>26</b> Tu	1004	3.7	113		<b>11</b> Th	1149	4.2	129		<b>26</b> F	1137	3.9	120	
	1326	2.3	70			1456	2.8	86			1504	2.6	78			1555	2.7	81			1818	2.2	68			1803	2.4	73	
	1943	3.9	120			2211	3.5	108			2147	3.8	117			2242	3.7	112											
<b>12</b> Su	0852	3.6	110		<b>27</b> M	1143	3.7	113		<b>12</b> Tu	1106	3.9	120		<b>27</b> W	1139	3.9	119		<b>12</b> F	1255	4.6	140		<b>27</b> Sa	1242	4.2	129	
	1510	2.7	83			1830	2.7	83			1729	2.5	76			1809	2.5	75			1924	1.9	57			1917	2.0	62	
	2222	3.7	113								2337	4.1	124																
<b>13</b> M	0447	2.6	79		<b>28</b> Tu	0618	3.8	115		<b>13</b> W	0605	2.2	66		<b>28</b> Th	0637	2.1	64		<b>13</b> Sa	0736	1.6	49		<b>28</b> Su	0733	1.7	53	
	1150	3.8	117			0653	2.3	70			1229	4.4	133			1240	4.2	129			1344	4.9	150			1332	4.6	139	
	1824	2.5	77			1252	4.1	125			1856	2.0	62			1912	2.1	63			2011	1.5	46			2003	1.7	51	
						1926	2.2	68																					
<b>14</b> Tu	0017	4.1	124		<b>29</b> W	0111	4.2	127		<b>14</b> Th	0045	4.5	136		<b>29</b> F	0103	4.2	128		<b>14</b> Su	0200	4.8	146		<b>29</b> M	0153	4.5	136	
	0654	2.1	65			0736	1.8	56			0711	1.7	52			0726	1.7	53											

# Sfax, Tunisia, 2015

## Times and Heights of High and Low Waters

July				August				September															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0315	4.9	149	<b>16</b> Th	0353	5.1	154	<b>1</b> Sa	0418	5.4	166	<b>16</b> Su	0436	5.3	162	<b>1</b> Tu	0509	5.8	178	<b>16</b> W	0458	5.4	164
	0931	1.0	32		1003	1.2	36		1031	0.8	24		1044	1.1	34		1121	0.9	27		1107	1.3	39
	1534	5.2	160		1610	5.2	160		1636	5.7	174		1648	5.4	164		1725	5.8	177		1708	5.3	163
	2154	1.0	31		2227	1.1	33		2251	0.8	23		2302	1.1	33		2337	0.9	28		2322	1.3	41
<b>2</b> Th	0354	5.0	153	<b>17</b> F	0427	5.1	155	<b>2</b> Su	0456	5.5	168	<b>17</b> M	0501	5.3	161	<b>2</b> W	0544	5.6	171	<b>17</b> Th	0521	5.2	159
	1008	1.0	29		1035	1.2	36		1107	0.8	25		1109	1.2	36		1155	1.2	37		1129	1.4	44
	1612	5.3	162		1641	5.2	159		1712	5.7	173		1712	5.3	162		1758	5.5	168		1729	5.2	158
	2230	1.0	29		2257	1.1	34		2326	0.8	24		2326	1.2	36		2349	1.3	40		2344	1.5	46
<b>3</b> F	0432	5.1	155	<b>18</b> Sa	0457	5.1	154	<b>3</b> M	0532	5.5	167	<b>18</b> Tu	0526	5.2	158	<b>3</b> Th	0611	1.2	38	<b>18</b> F	0544	5.0	153
	1045	1.0	29		1105	1.2	37		1143	1.0	30		1133	1.3	39		1229	1.6	49		1153	1.6	50
	1650	5.3	163		1710	5.2	157		1747	5.5	169		1734	5.2	158		1831	5.1	156		1751	5.0	151
	2306	1.0	29		2326	1.1	35		2349	1.3	40		2349	1.3	40		2349	1.3	40		1831	5.1	156
<b>4</b> Sa	0510	5.1	156	<b>19</b> Su	0526	5.0	152	<b>4</b> Tu	0000	1.0	30	<b>19</b> W	0549	5.1	154	<b>4</b> F	0045	1.7	52	<b>19</b> Sa	0008	1.8	54
	1121	1.0	32		1133	1.3	40		0607	5.3	162		1157	1.4	44		0651	4.9	148		0609	4.8	145
	1727	5.3	162		1736	5.1	154		1218	1.2	38		1756	5.0	153		1306	2.1	64		1219	2.0	60
	2342	1.0	31		2353	1.2	38		1821	5.3	161		1821	5.3	161		1906	4.6	140		1816	4.7	142
<b>5</b> Su	0547	5.1	154	<b>20</b> M	0554	4.9	149	<b>5</b> W	0036	1.2	38	<b>20</b> Th	0013	1.5	45	<b>5</b> Sa	0122	2.2	67	<b>20</b> Su	0037	2.1	64
	1158	1.2	36		1200	1.4	43		0643	5.0	153		0614	4.8	147		0734	4.3	132		0640	4.4	134
	1803	5.2	158		1802	4.9	150		1255	1.6	50		1222	1.7	51		1351	2.7	81		1253	2.3	71
	0019	1.1	35		0019	1.4	42		1858	4.9	149		1820	4.8	145		1959	4.1	124		1847	4.3	130
<b>6</b> M	0625	4.9	150	<b>21</b> Tu	0621	4.7	144	<b>6</b> Th	0113	1.6	50	<b>21</b> F	0039	1.7	53	<b>6</b> Su	0217	2.7	83	<b>21</b> M	0120	2.5	76
	1237	1.4	44		1228	1.6	49		0724	4.7	142		0641	4.6	139		0916	3.8	117		0732	4.0	121
	1841	4.9	150		1828	4.7	143		1337	2.1	64		1250	2.0	60		1538	3.1	94		1351	2.8	85
	0058	1.4	43		0047	1.6	48		1941	4.4	135		1846	4.4	135		2243	3.7	114		1957	3.8	116
<b>7</b> Tu	0707	4.7	143	<b>22</b> W	0651	4.5	138	<b>7</b> F	0157	2.1	64	<b>22</b> Sa	0111	2.1	63	<b>7</b> M	0546	3.0	91	<b>22</b> Tu	0302	2.9	88
	1319	1.8	54		1258	1.8	56		0821	4.2	128		0717	4.2	128		1227	4.0	122		1043	3.8	115
	1924	4.6	140		1857	4.4	135		1434	2.6	78		1329	2.4	72		1913	2.8	85		1651	3.1	93
	0141	1.7	53		0120	1.8	56		2054	4.0	121		1923	4.0	123		2027	1.8	56		2344	3.9	118
<b>8</b> W	0759	4.4	134	<b>23</b> Th	0727	4.2	129	<b>8</b> Sa	0305	2.6	78	<b>23</b> Su	0200	2.5	75	<b>8</b> Tu	0053	4.1	124	<b>23</b> W	0630	2.7	81
	1411	2.1	65		1335	2.1	64		1019	3.9	119		0836	3.8	116		0731	2.5	77		1232	4.3	130
	2022	4.2	129		1934	4.1	125		1647	2.9	87		1440	2.8	85		1332	4.4	135		1907	2.5	76
	0237	2.1	63		0202	2.1	65		2312	3.8	116		2126	3.6	111		1956	2.3	69		2027	1.8	56
<b>9</b> Th	0918	4.1	125	<b>24</b> F	0826	3.9	120	<b>9</b> Su	0552	2.7	82	<b>24</b> M	0402	2.8	84	<b>9</b> W	0145	4.5	138	<b>24</b> Th	0102	4.5	136
	1527	2.5	76		1429	2.4	74		1229	4.1	125		1126	3.8	116		0808	2.0	62		0727	2.1	63
	2155	3.9	120		2046	3.8	115		1915	2.5	77		1805	2.8	86		1409	4.9	148		1323	4.9	148
	0403	2.4	72		0313	2.4	74		2005	2.1	63		1931	2.3	70		2027	1.8	56		1949	1.9	58
<b>10</b> F	1107	4.1	124	<b>25</b> Sa	1018	3.8	115	<b>10</b> M	0056	4.1	124	<b>25</b> Tu	0012	3.8	117	<b>10</b> Th	0219	4.9	150	<b>25</b> F	0146	5.1	154
	1738	2.5	77		1611	2.7	81		1337	4.5	137		1253	4.3	130		1439	5.2	158		1403	5.4	165
	2340	4.0	121		2302	3.6	111		2005	2.1	63		1931	2.3	70		2054	1.5	45		2024	1.4	43
	0609	2.3	70		0531	2.5	75		0816	1.9	57		0747	1.9	58		0904	1.3	41		0841	1.1	33
<b>11</b> Sa	1236	4.3	131	<b>26</b> Su	1203	4.0	121	<b>11</b> Tu	0153	4.5	136	<b>26</b> W	0123	4.4	133	<b>11</b> F	0249	5.2	159	<b>26</b> Sa	0222	5.5	168
	1914	2.2	67		1843	2.5	75		1420	4.9	148		1344	4.8	147		1507	5.4	165		1441	5.8	177
	0057	4.2	129		0036	3.9	120		2041	1.7	51		2011	1.7	53		2120	1.2	38		2058	1.0	31
	0727	2.0	60		0710	2.1	64		0234	4.8	147		0205	4.9	149		0317	5.4	165		0259	5.9	179
<b>12</b> Su	1336	4.6	141	<b>27</b> M	1310	4.4	133	<b>12</b> W	0850	1.5	47	<b>27</b> Th	0826	1.4	43	<b>12</b> Sa	0930	1.2	36	<b>27</b> Su	0916	0.8	24
	2006	1.8	56		1946	2.0	61		1455	5.1	156		1425	5.3	161		1533	5.5	169		1517	6.1	185
	0153	4.5	138		0134	4.3	132		2112	1.4	42		2047	1.3	39		2146	1.1	34		2132	0.8	24
	0816	1.6	50		0800	1.7	51		0308	5.1	154		0244	5.3	162		0343	5.5	168		0335	6.1	185
<b>13</b> M	1422	4.9	150	<b>28</b> Tu	1359	4.8	145	<b>13</b> Th	0921	1.3	40	<b>28</b> F	0901	1.0	31	<b>13</b> Su	0955	1.1	33	<b>28</b> M	0951	0.7	21
	2046	1.5	46		2027	1.6	48		1526	5.3	162		1503	5.7	173		1558	5.6	170		1553	6.2	188
	0238	4.8	146		0220	4.7	144		2141	1.2	36		2121	1.0	29		2212	1.1	33		2207	0.7	22
	0855	1.4	43		0841	1.3	40		0339	5.2	159		0322	5.6	172		0409	5.5	169		0411	6.1	186
<b>14</b> Tu	1501	5.1	156	<b>29</b> W	1441	5.2	157	<b>14</b> F	0950	1.2	36	<b>29</b> Sa	0937	0.8	24	<b>14</b> M	1020	1.1	33	<b>29</b> Tu	1025	0.8	23
	2122	1.3	39		2104	1.2	37		1555	5.4	165		1540	5.9	181		1623	5.5	169		1628	6.1	186
	0317	5.0	151		0301	5.1	154		2209	1.1	33		2155	0.7	22		2236	1.1	34		2241	0.8	25
	0930	1.2	38		0918	1.0	31		0408	5.3	162		0358	5.8	178		0434	5.9	180		0446	6.0	183
<b>15</b> W	1537	5.2	159	<b>30</b> Th	1521	5.4	165	<b>15</b> Sa	1018	1.1	34	<b>30</b> Su	1012	0.7	20	<b>15</b> Tu	1044	1.1	35	<b>30</b> W	1100	1.0	29
	2155	1.1	35		2140	1.0	29		1622	5.4	165		1616	6.0	184		1646	5.5	167		1703	5.9	180
	0340	5.3	161		0340	5.3	161		2236	1.0	32		2230	0.7	20		2259	1.2	37		2315	1.0	32
	0955	0.9	26		0955	0.9	26		0434	5.9	180		0434	5.9	180		0434	5.9	180				



## Venezia (Venice), Italy, 2015

### Times and Heights of High and Low Waters

January				February				March																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> Th	0124	1.5	46		<b>16</b> F	0041	1.6	49		<b>1</b> Su	0325	1.5	46		<b>16</b> M	0259	1.3	40		<b>1</b> Su	0252	1.5	46		<b>16</b> M	0202	1.5	46	
	0757	2.8	85			0709	2.6	79			0916	2.7	82			0847	2.8	85			0832	2.4	73			0740	2.4	73	
	1503	0.4	12			1430	0.6	18			1558	0.2	6			1526	0.1	3			1501	0.6	18			1411	0.5	15	
	2151	2.2	67			2126	2.1	64			2247	2.6	79			2209	2.8	85			2154	2.6	79			2105	2.7	82	
<b>2</b> F	0228	1.5	46		<b>17</b> Sa	0201	1.5	46		<b>2</b> M	0401	1.3	40		<b>17</b> Tu	0343	1.0	30		<b>2</b> M	0326	1.3	40		<b>17</b> Tu	0251	1.1	34	
	0840	2.9	88			0805	2.8	85			0949	2.8	85			0932	3.0	91			0911	2.5	76			0839	2.6	79	
	1540	0.2	6			1510	0.3	9			1625	0.2	6			1603	-0.1	-3			1531	0.5	15			1456	0.3	9	
	2229	2.4	73			2200	2.4	73			2309	2.7	82			2239	3.0	91			2215	2.7	82			2136	3.0	91	
<b>3</b> Sa	0317	1.4	43		<b>18</b> Su	0259	1.4	43		<b>3</b> Tu	0432	1.2	37		<b>18</b> W	0423	0.8	24		<b>3</b> Tu	0353	1.1	34		<b>18</b> W	0332	0.8	24	
	0918	2.9	88			0852	2.9	88			1018	2.8	85			1014	3.1	94			0943	2.6	79			0926	2.8	85	
	1613	0.1	3			1548	0.0	0			1650	0.1	3			1639	-0.2	-6			1557	0.4	12			1536	0.2	6	
	2302	2.5	76			2233	2.6	79			2329	2.8	85			2310	3.2	98			2234	2.8	85			2206	3.2	98	
<b>4</b> Su	0359	1.4	43		<b>19</b> M	0347	1.2	37		<b>4</b> W	0501	1.1	34		<b>19</b> Th	0502	0.6	18		<b>4</b> W	0419	0.9	27		<b>19</b> Th	0410	0.5	15	
	0950	3.0	91			0935	3.1	94			1044	2.8	85			1053	3.1	94			1011	2.7	82			1008	2.9	88	
	1642	0.0	0			1624	-0.2	-6			1715	0.1	3			1714	-0.1	-3			1622	0.3	9			1613	0.1	3	
	2330	2.6	79			2305	2.8	85			2348	2.8	85			2341	3.3	101			2252	2.9	88			2236	3.3	101	
<b>5</b> M	0435	1.3	40		<b>20</b> Tu	0430	1.1	34		<b>5</b> Th	0529	1.0	30		<b>20</b> F	0541	0.5	15		<b>5</b> Th	0445	0.8	24		<b>20</b> F	0447	0.3	9	
	1020	3.0	91			1016	3.1	94			1109	2.8	85			1132	3.0	91			1036	2.7	82			1048	3.0	91	
	1710	0.0	0			1700	-0.3	-9			1739	0.2	6			1749	0.0	0			1646	0.3	9			1649	0.2	6	
	2356	2.6	79			2338	3.0	91													2309	3.0	91			2306	3.4	104	
<b>6</b> Tu	0509	1.3	40		<b>21</b> W	0512	1.0	30		<b>6</b> F	0007	2.9	88		<b>21</b> Sa	0011	3.2	98		<b>6</b> F	0510	0.7	21		<b>21</b> Sa	0523	0.2	6	
	1048	2.9	88			1055	3.1	94			0558	1.0	30			0620	0.5	15			1100	2.7	82			1127	2.9	88	
	1737	0.0	0			1735	-0.3	-9			1135	2.7	82			1211	2.9	88			1709	0.4	12			1723	0.4	12	
											1802	0.3	9			1822	0.2	6			2326	3.0	91			2335	3.3	101	
<b>7</b> W	0020	2.7	82		<b>22</b> Th	0011	3.1	94		<b>7</b> Sa	0027	2.9	88		<b>22</b> Su	0042	3.2	98		<b>7</b> Sa	0536	0.6	18		<b>22</b> Su	0600	0.2	6	
	0543	1.3	40			0554	0.9	27			0627	0.9	27			0700	0.6	18			1125	2.7	82			1206	2.8	85	
	1115	2.8	85			1135	3.1	94			1201	2.6	79			1250	2.6	79			1732	0.5	15			1756	0.6	18	
	1804	0.1	3			1811	-0.2	-6			1826	0.4	12			1855	0.5	15			2344	3.0	91						
<b>8</b> Th	0044	2.7	82		<b>23</b> F	0045	3.1	94		<b>8</b> Su	0048	2.9	88		<b>23</b> M	0113	3.0	91		<b>8</b> Su	0603	0.6	18		<b>23</b> M	0004	3.0	91	
	0617	1.3	40			0637	0.9	27			0659	1.0	30			0744	0.7	21			1151	2.6	79			0638	0.2	6	
	1142	2.7	82			1214	2.9	88			1229	2.5	76			1331	2.3	70			1756	0.6	18			1245	2.6	79	
	1831	0.2	6			1847	0.0	0			1850	0.6	18			1927	0.9	27								1829	0.9	27	
<b>9</b> F	0109	2.7	82		<b>24</b> Sa	0121	3.0	91		<b>9</b> M	0112	2.8	85		<b>24</b> Tu	0145	2.8	85		<b>9</b> M	0004	3.0	91		<b>24</b> Tu	0031	3.0	91	
	0652	1.3	40			0723	0.9	27			0735	1.0	30			0836	0.9	27			0631	0.6	18			0718	0.4	12	
	1210	2.6	79			1255	2.6	79			1300	2.3	70			1422	2.0	61			1219	2.5	76			1328	2.3	70	
	1857	0.3	9			1923	0.3	9			1914	0.8	24			1959	1.2	37			1819	0.8	24			1901	1.2	37	
<b>10</b> Sa	0136	2.7	82		<b>25</b> Su	0158	2.9	88		<b>10</b> Tu	0140	2.7	82		<b>25</b> W	0219	2.6	79		<b>10</b> Tu	0027	2.9	88		<b>25</b> W	0058	2.8	85	
	0732	1.3	40			0814	1.0	30			0819	1.1	34			0946	1.0	30			0704	0.7	21			0802	0.6	18	
	1240	2.4	73			1339	2.3	70			1339	2.1	64			1611	1.7	52			1252	2.4	73			1423	2.1	64	
	1925	0.5	15			1959	0.7	21			1939	1.0	30			2037	1.6	49			1844	1.0	30			1935	1.5	46	
<b>11</b> Su	0207	2.6	79		<b>26</b> M	0239	2.8	85		<b>11</b> W	0214	2.6	79		<b>26</b> Th	0306	2.3	70		<b>11</b> W	0052	2.8	85		<b>26</b> Th	0124	2.5	76	
	0819	1.4	43			0918	1.1	34			0923	1.2	37			1137	1.1	34			0743	0.7	21			0859	0.8	24	
	1314	2.2	67			1434	2.0	61			1435	1.8	55			2025	1.9	58			1333	2.2	67			1619	1.9	58	
	1953	0.7	21			2039	1.0	30			2008	1.3	40			2300	1.8	55			1911	1.2	37			2024	1.8	55	
<b>12</b> M	0243	2.6	79		<b>27</b> Tu	0329	2.6	79		<b>12</b> Th	0302	2.5	76		<b>27</b> F	0524	2.2	67		<b>12</b> Th	0123	2.7	82		<b>27</b> F	0152	2.3	70	
	0921	1.4	43			1046	1.1	34			1103	1.1	34			1327	0.9	27			0836	0.9	27			1023	1.0	30	
	1356	1.9	58			1629	1.7	52			1734	1.6	49			2105	2.2	67			1434	1.9	58			1932	2.1	64	
	2026	1.0	30			2131	1.4	43			2117	1.5	46								1945	1.5	46			2323	1.9	58	
<b>13</b> Tu	0329	2.5	76		<b>28</b> W	0443	2.5	76		<b>13</b> F	0425	2.4	73		<b>28</b> Sa	0155	1.8	55		<b>13</b> F	0204	2.5	76		<b>28</b> Sa	0240	2.0	61	
	1049	1.4	43			1240	1.0	30			1250	1.0	30			0733	2.2	67			0959	1.0	30			1211	1.0	30	
	1506	1.7	52			2009	1.8	55			2038	1.9	58			1424	0.7	21			1729	1.8	55			2019	2.3	70	
	2112	1.2	37			2318	1.6	49								2132	2.4	73			2128	1.7	52						
<b>14</b> W	0433	2.5	76		<b>29</b> Th	0625	2.5	76		<b>14</b> Sa	0028	1.7	52		<b>29</b> Su	0316	2.3	70		<b>14</b> Sa	0316	2.3	70		<b>29</b> Su	0213	1.7	52	
	1229	1.2	37			1404	0.8	24			0630	2.4	73			1150	0.9	27			1150	0.9	27			0706	1.9	58	
	1852	1.6	49			2117	2.0	61			1358	0.7	21			1957	2.1	64			1327	0.9	27			1327	0.9	27	
	2246	1.5	46								2110	2.3	70								2047	2.5	76			2047	2.5	76	
<b>15</b> Th	0555	2.5	76		<b>30</b> F	0124	1.7	52		<b>15</b> Su	0202	1.5	46		<b>30</b> M	0038	1.7	52		<b>15</b> Su	0038	1.7	52		<b>30</b> M	0245	1.4	43	
	1341	0.9	27			0743	2.5	76			0752	2.6	79			0556	2.2	67			0556	2.2	67						



# Venezia (Venice), Italy, 2015

## Times and Heights of High and Low Waters

April				May				June																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0334	0.9	27		<b>16</b> Th	0315	0.6	18		<b>1</b> F	0333	0.6	18		<b>16</b> Sa	0338	0.2	6		<b>1</b> M	0407	0.2	6		<b>16</b> Tu	0441	-0.1	-3	
	0928	2.4	73			0917	2.6	79			0940	2.3	70			0959	2.5	76			1039	2.4	73			1128	2.5	76	
	1518	0.7	21			1504	0.5	15			1504	0.9	27			1517	0.9	27			1543	1.3	40			1627	1.4	43	
	2151	2.9	88			2130	3.3	101			2125	3.0	91			2130	3.3	101			2139	3.1	94			2216	3.1	94	
<b>2</b> Th	0358	0.7	21		<b>17</b> F	0353	0.3	9		<b>2</b> Sa	0359	0.4	12		<b>17</b> Su	0416	0.0	0		<b>2</b> Tu	0439	0.0	0		<b>17</b> W	0515	-0.1	-3	
	0957	2.5	76			1001	2.7	82			1011	2.4	73			1044	2.5	76			1113	2.5	76			1204	2.6	79	
	1545	0.6	18			1545	0.5	15			1536	1.0	30			1558	1.0	30			1621	1.3	40			1621	1.4	43	
	2209	3.0	91			2202	3.3	101			2146	3.1	94			2203	3.3	101			2209	3.1	94			2248	3.0	91	
<b>3</b> F	0423	0.6	18		<b>18</b> Sa	0430	0.1	3		<b>3</b> Su	0426	0.3	9		<b>18</b> M	0453	-0.1	-3		<b>3</b> W	0512	-0.1	-3		<b>18</b> Th	0548	0.0	0	
	1024	2.6	79			1043	2.8	85			1042	2.4	73			1126	2.6	79			1149	2.5	76			1238	2.6	79	
	1611	0.6	18			1622	0.6	18			1606	1.0	30			1637	1.1	34			1701	1.3	40			1746	1.4	43	
	2227	3.0	91			2232	3.4	104			2208	3.1	94			2233	3.2	98			2242	3.1	94			2318	2.9	88	
<b>4</b> Sa	0448	0.4	12		<b>19</b> Su	0506	0.0	0		<b>4</b> M	0455	0.2	6		<b>19</b> Tu	0528	-0.1	-3		<b>4</b> Th	0546	-0.1	-3		<b>19</b> F	0619	0.0	0	
	1050	2.6	79			1124	2.7	82			1113	2.5	76			1206	2.6	79			1228	2.6	79			1311	2.6	79	
	1637	0.7	21			1658	0.8	24			1637	1.1	34			1716	1.3	40			1743	1.4	43			1827	1.5	46	
	2245	3.1	94			2301	3.3	101			2231	3.1	94			2303	3.1	94			2317	3.0	91			2348	2.7	82	
<b>5</b> Su	0514	0.4	12		<b>20</b> M	0543	0.0	0		<b>5</b> Tu	0524	0.1	3		<b>20</b> W	0604	0.0	0		<b>5</b> F	0623	-0.1	-3		<b>20</b> Sa	0650	0.2	6	
	1116	2.6	79			1204	2.6	79			1146	2.5	76			1247	2.5	76			1309	2.6	79			1345	2.6	79	
	1702	0.8	24			1733	1.0	30			1709	1.2	37			1754	1.4	43			1831	1.4	43			1910	1.5	46	
	2304	3.1	94			2329	3.2	98			2257	3.1	94			2332	2.9	88			2355	2.9	88			1910	1.5	46	
<b>6</b> M	0541	0.3	9		<b>21</b> Tu	0619	0.0	0		<b>6</b> W	0557	0.1	3		<b>21</b> Th	0639	0.1	3		<b>6</b> Sa	0703	0.0	0		<b>21</b> Su	0019	2.5	76	
	1145	2.6	79			1246	2.5	76			1223	2.5	76			1330	2.5	76			1356	2.6	79			0722	0.3	9	
	1728	0.9	27			1807	1.2	37			1743	1.3	40			1836	1.5	46			1926	1.5	46			1420	2.6	79	
	2326	3.1	94			2356	3.0	91			2326	3.0	91										2000	1.5		46			
<b>7</b> Tu	0611	0.3	9		<b>22</b> W	0657	0.2	6		<b>7</b> Th	0632	0.1	3		<b>22</b> F	0000	2.7	82		<b>7</b> Su	0038	2.6	79		<b>22</b> M	0053	2.3	70	
	1217	2.5	76			1332	2.4	73			1306	2.4	73			0715	0.2	6			0747	0.2	6			0755	0.5	15	
	1755	1.0	30			1844	1.4	43			1824	1.4	43			1417	2.4	73			1448	2.7	82			1500	2.6	79	
	2350	3.0	91								2359	2.9	88			1925	1.7	52			2033	1.5	46			2101	1.6	49	
<b>8</b> W	0644	0.3	9		<b>23</b> Th	0022	2.8	85		<b>8</b> F	0713	0.2	6		<b>23</b> Sa	0030	2.5	76		<b>8</b> M	0129	2.4	73		<b>23</b> Tu	0131	2.1	64	
	1255	2.4	73			0737	0.4	12			1359	2.4	73			0753	0.4	12			0836	0.4	12			0832	0.7	21	
	1826	1.2	37			1429	2.2	67			1916	1.6	49			1513	2.4	73			1549	2.7	82			1547	2.5	76	
						1928	1.6	49								2030	1.8	55			2157	1.5	46			2218	1.5	46	
<b>9</b> Th	0018	2.9	88		<b>24</b> F	0048	2.5	76		<b>9</b> Sa	0037	2.7	82		<b>24</b> Su	0102	2.2	67		<b>9</b> Tu	0237	2.1	64		<b>24</b> W	0222	1.8	55	
	0723	0.4	12			0824	0.6	18			0801	0.3	9			0837	0.6	18			0933	0.6	18			0915	0.9	27	
	1343	2.2	67			1558	2.1	64			1507	2.4	73			1619	2.4	73			1654	2.7	82			1641	2.5	76	
	1903	1.5	46			2037	1.8	55			2031	1.7	52			2202	1.8	55			2330	1.3	40			2347	1.4	43	
<b>10</b> F	0051	2.7	82		<b>25</b> Sa	0115	2.2	67		<b>10</b> Su	0125	2.4	73		<b>25</b> M	0145	2.0	61		<b>10</b> W	0426	1.8	55		<b>25</b> Th	0357	1.6	49	
	0813	0.6	18			0923	0.8	24			0900	0.5	15			0928	0.8	24			1041	0.9	27			1012	1.1	34	
	1455	2.1	64			1757	2.2	67			1632	2.4	73			1727	2.4	73			1758	2.8	85			1740	2.6	79	
	2002	1.7	52			2303	1.8	55			2220	1.7	52			2355	1.6	49								1740	2.6	79	
<b>11</b> Sa	0133	2.4	73		<b>26</b> Su	0150	1.9	58		<b>11</b> M	0240	2.1	64		<b>26</b> Tu	0314	1.7	52		<b>11</b> Th	0052	1.1	34		<b>26</b> F	0103	1.2	37	
	0923	0.7	21			1041	1.0	30			1012	0.7	21			1031	1.0	30			0638	1.8	55			0651	1.6	49	
	1710	2.1	64			1905	2.4	73			1753	2.6	79			1823	2.5	76			1154	1.1	34			1126	1.3	40	
	2213	1.8	55																				1855	2.9		88		1836	2.6
<b>12</b> Su	0245	2.2	67		<b>27</b> M	0137	1.6	49		<b>12</b> Tu	0010	1.5	46		<b>27</b> W	0115	1.4	43		<b>12</b> F	0154	0.7	21		<b>27</b> Sa	0157	0.9	27	
	1056	0.8	24			0546	1.7	52			0456	1.9	58			0614	1.7	52			0810	2.0	61			0826	1.8	55	
	1855	2.4	73			1202	1.0	30			1131	0.8	24			1140	1.1	34			1304	1.2	37			1243	1.4	43	
						1945	2.5	76			1852	2.8	85			1907	2.7	82			1945	3.0	91			1924	2.7	82	
<b>13</b> M	0036	1.6	49		<b>28</b> Tu	0214	1.4	43		<b>13</b> W	0123	1.1	34		<b>28</b> Th	0200	1.1	34		<b>13</b> Sa	0244	0.4	12		<b>28</b> Su	0238	0.7	21	
	0527	2.0	61			0734	1.9	58			0659	2.0	61			0748	1.8	55			0915	2.2	67			0919	2.0	61	
	1223	0.8	24			1304	1.0	30			1242	0.8	24			1243	1.2	37			1405	1.2	37			1349	1.4	43	
	1945	2.6	79			2015	2.7	82			1939	2.9	88			1942	2.8	85			2028	3.1	94			2006	2.8	85	
<b>14</b> Tu	0148	1.3	40		<b>29</b> W	0241	1.1	34		<b>14</b> Th	0215	0.8	24		<b>29</b> F	0234	0.9	27		<b>14</b> Su	0327	0.2	6		<b>29</b> M	0314	0.4	12	

## Venezia (Venice), Italy, 2015

## Times and Heights of High and Low Waters

July				August				September															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0423	0.0	0			<b>1</b> Sa	0514	-0.2	-6	<b>16</b> Su	0524	0.2	6	<b>1</b> Tu	0559	0.3	9	<b>16</b> W	0538	0.7	21		
	1107	2.6	79	<b>16</b> Th	1145		2.7	82	1148		3.0	91	1151		2.9	88	1216		3.2	98	1144	3.0	91
	1616	1.3	40		1700		1.3	40	1733		0.9	27	1745		0.9	27	1836		0.4	12	1815	0.6	18
	2200	3.1	94		●		2241	2.9	88		2316	3.0	91		2326	2.7	82						
<b>2</b> Th ○	0458	-0.1	-3			<b>2</b> Su	0549	-0.1	-3	<b>17</b> M	0548	0.3	9	<b>2</b> W	0031	2.7	82	<b>17</b> Th	0007	2.5	76		
	1141	2.7	82	<b>17</b> F	1211		2.7	82	1221		3.1	94	1211		2.9	88	0634		0.6	18	0601	0.9	27
	1659	1.3	40		1735		1.2	37	1815		0.8	24	1815		0.9	27	1247		3.1	94	1205	2.9	88
	2237	3.1	94		2310		2.8	85	2356		2.9	88	2353		2.6	79	1920		0.5	15	1847	0.6	18
<b>3</b> F	0533	-0.2	-6			<b>3</b> M	0625	0.0	0	<b>18</b> Tu	0612	0.5	15	<b>3</b> Th	0116	2.4	73	<b>18</b> F	0039	2.3	70		
	1216	2.8	85	<b>18</b> Sa	1235		2.7	82	1255		3.1	94	1232		2.9	88	0709		0.9	27	0625	1.1	34
	1743	1.2	37		1809		1.2	37	1859		0.8	24	1846		0.9	27	1320		2.9	88	1229	2.8	85
	2316	3.0	91		2339		2.7	82					2011		0.7	21	2011		0.7	21	1923	0.7	21
<b>4</b> Sa	0610	-0.2	-6			<b>4</b> Tu	0037	2.7	82	<b>19</b> W	0020	2.5	76	<b>4</b> F	0210	2.1	64	<b>19</b> Sa	0119	2.2	67		
	1252	2.9	88	<b>19</b> Su	0701		0.3	9	0636		0.6	18	0746		1.2	37	0651		1.3	40			
	1828	1.2	37		1331		3.0	91	1255		2.8	85	1356		2.6	79	1257		2.7	82			
	2357	2.9	88		1948		0.9	27	1921		1.0	30	2116		0.9	27	2011		0.8	24			
<b>5</b> Su	0647	0.0	0			<b>5</b> W	0122	2.4	73	<b>20</b> Th	0051	2.3	70	<b>5</b> Sa	0348	1.9	58	<b>20</b> Su	0217	2.0	61		
	1331	2.9	88	<b>20</b> M	0739		0.6	18	0701		0.8	24	0835		1.6	49	0723		1.5	46			
	1918	1.2	37		1325		2.7	82	1321		2.7	82	1443		2.4	73	1334		2.5	76			
					1923		1.2	37	2045		1.0	30	2002		1.0	30	●		2251	1.0	30	2124	0.9
<b>6</b> M	0040	2.7	82			<b>6</b> Th	0216	2.1	64	<b>21</b> F	0128	2.1	64	<b>6</b> Su	0719	1.9	58	<b>21</b> M	0446	1.9	58		
	0727	0.2	6	<b>21</b> Tu	0715		0.5	15	0726		1.1	34	1041		1.8	55	0856		1.8	55			
	1413	2.9	88		1354		2.7	82	1352		2.6	79	1633		2.2	67	1433		2.2	67			
	2015	1.2	37		2006		1.3	40	2200		1.0	30	2059		1.1	34	●		2310	0.9	27		
<b>7</b> Tu	0129	2.4	73			<b>7</b> F	0343	1.8	55	<b>22</b> Sa	0221	1.9	58	<b>7</b> M	0040	0.9	27	<b>22</b> Tu	0731	2.1	64		
	0809	0.4	12	<b>22</b> W	0744		0.7	21	0754		1.3	40	0828		2.2	67	1214		1.8	55			
	1501	2.8	85		1426		2.6	79	1434		2.5	76	1326		1.7	52	1706		2.1	64			
	2123	1.2	37		2100		1.3	40	●		2339	1.0	30		●	2227	1.1		34	1901	2.2	67	
<b>8</b> W	0228	2.1	64			<b>8</b> Sa	0657	1.8	55	<b>23</b> Su	0433	1.7	52	<b>8</b> Tu	0150	0.7	21	<b>23</b> W	0040	0.8	24		
	0856	0.7	21	<b>23</b> Th	0814		1.0	30	0853		1.6	49	0902		2.4	73	0807		2.4	73			
	1556	2.8	85		1506		2.6	79	1544		2.3	70	1431		1.5	46	1340		1.5	46			
	2246	1.2	37		2214		1.3	40					2009		2.3	70	1910		2.2	67			
<b>9</b> Th	0358	1.8	55			<b>9</b> Su	0115	0.8	24	<b>24</b> M	0013	1.0	30	<b>9</b> W	0234	0.6	18	<b>24</b> Th	0140	0.6	18		
	0954	1.1	34	<b>24</b> F	0853		1.2	37	0814		1.9	58	0929		2.6	79	0838		2.7	82			
	1702	2.7	82		1600		2.5	76	1158		1.7	52	1508		1.3	40	1428		1.1	34			
					●		2348	1.2	37		1906	2.5	76		1751	2.3	70		2053	2.5	76	2013	2.5
<b>10</b> F	0018	1.0	30			<b>10</b> M	0219	0.6	18	<b>25</b> Tu	0128	0.8	24	<b>10</b> Th	0308	0.5	15	<b>25</b> F	0227	0.4	12		
	0632	1.7	52	<b>25</b> Sa	1005		1.5	46	0848		2.2	67	0952		2.8	85	0908		3.0	91			
	1111	1.3	40		1714		2.5	76	1340		1.6	49	1537		1.1	34	1508		0.8	24			
	1814	2.7	82					2010	2.6		79	1925	2.4		73	2128	2.6		79	2101	2.7	82	
<b>11</b> Sa	0136	0.8	24			<b>11</b> Tu	0303	0.4	12	<b>26</b> W	0219	0.5	15	<b>11</b> F	0336	0.4	12	<b>26</b> Sa	0308	0.3	9		
	0823	1.9	58	<b>26</b> Su	0824		1.8	55	0916		2.5	76	1013		2.9	88	0938		3.2	98			
	1240	1.5	46		1204		1.6	49	1437		1.3	40	1604		0.9	27	1545		0.5	15			
	1919	2.8	85		1836		2.5	76	2057		2.7	82	2023		2.6	79	2157		2.6	79	2144	2.8	85
<b>12</b> Su	0233	0.5	15			<b>12</b> W	0337	0.3	9	<b>27</b> Th	0300	0.3	9	<b>12</b> Sa	0402	0.4	12	<b>27</b> Su	0346	0.2	6		
	0926	2.1	64	<b>27</b> M	0911		2.0	61	0945		2.8	85	1032		2.9	88	1008		3.3	101			
	1357	1.5	46		1335		1.6	49	1521		1.1	34	1629		0.7	21	1622		0.3	9			
	2013	2.8	85		1941		2.6	79	2134		2.7	82	2109		2.8	85	2224		2.7	82	2225	2.9	88
<b>13</b> M	0317	0.3	9			<b>13</b> Th	0407	0.2	6	<b>28</b> F	0338	0.1	3	<b>13</b> Su	0427	0.4	12	<b>28</b> M	0422	0.3	9		
	1011	2.3	70	<b>28</b> Tu	0945		2.3	70	1014		3.0	91	1049		3.0	91	1038		3.4	104			
	1456	1.5	46		1438		1.5	46	1600		0.8	24	1655		0.6	18	1659		0.1	3			
	2058	2.9	88		2031		2.8	85	2206		2.8	85	2151		3.0	91	●		2249	2.7	82	2305	2.9
<b>14</b> Tu	0355	0.1	3			<b>14</b> F	0434	0.2	6	<b>29</b> Sa	0414	0.0	0	<b>14</b> M	0451	0.5	15	<b>29</b> Tu	0458	0.4	12		
	1047	2.5	76	<b>29</b> W	1015		2.5	76	1043		3.1	94	1107		3.0	91	1108		3.4	104			
	1544	1.4	43		1528		1.3	40	1648		1.0	30	1639		0.6	18	1721		0.6	18	1737	0.1	3
	2136	2.9	88		2115		2.9	88	●		2234	2.8	85		●	2231	3.0		91	2313	2.6	79	2345
<b>15</b> W	0428	0.0	0			<b>15</b> Sa	0459	0.2	6	<b>30</b> Su	0449	0.0	0	<b>15</b> Tu	0514	0.6	18	<b>30</b> W	0533	0.6	18		
	1118	2.6	79	<b>30</b> Th	1046		2.8	85	1132		2.8	85	1113		3.2	98	1124		3.0	91	1138	3.3	101
	1624	1.3	40		1611		1.1	34	1717		1.0	30	1717		0.5	15	1747		0.5	15	1815	0.1	3
	2210	2.9	88		2156		3.0	91	2301		2.8	85	2311		3.0	91	2339		2.6	79			
						<b>31</b> F	0439	-0.1	-3	<b>31</b> M	0524	0.1	3										
			<b>31</b> O	1116	2.9		88	1144	3.3		101	1144	3.3	101									
				1652	1.0		30	1756	0.4		12												
				2236	3.1		94	2350	2.9		88												

Time meridian 15° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.



## Gibraltar, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0004	2.6	80	<b>16</b> F	0516	1.0	30	<b>1</b> Su	0144	2.6	80	<b>16</b> M	0051	2.6	80	<b>1</b> Su	0035	2.3	70	<b>16</b> M	0534	0.7	20
	0554	0.7	20		1141	2.3	70		0720	0.7	20		0644	0.3	10		0624	0.7	20		1158	2.3	70
	1221	2.6	80		1754	0.7	20		1352	2.6	80		1315	2.6	80		1252	2.3	70		1809	0.3	10
	1829	0.7	20						1948	0.3	10		1915	0.0	0		1854	0.7	20				
<b>2</b> F	0102	2.6	80	<b>17</b> Sa	0016	2.3	70	<b>2</b> M	0226	2.6	80	<b>17</b> Tu	0143	3.0	90	<b>2</b> M	0127	2.6	80	<b>17</b> Tu	0029	2.6	80
	0645	0.7	20		0611	0.7	20		0758	0.3	10		0730	0.3	10		0706	0.7	20		0629	0.3	10
	1313	3.0	90		1239	2.6	80		1434	2.6	80		1406	3.0	90		1339	2.6	80		1259	2.6	80
	1915	0.3	10		1843	0.3	10		2024	0.3	10		1959	0.0	0		1931	0.3	10		1857	0.3	10
<b>3</b> Sa	0151	2.6	80	<b>18</b> Su	0111	2.6	80	<b>3</b> Tu	0304	2.6	80	<b>18</b> W	0231	3.0	90	<b>3</b> Tu	0208	2.6	80	<b>18</b> W	0123	3.0	90
	0728	0.3	10		0656	0.7	20		0834	0.3	10		0815	0.0	0		0742	0.3	10		0716	0.0	0
	1400	3.0	90		1331	3.0	90		1512	3.0	90		1454	3.3	100		1418	2.6	80		1349	3.0	90
	1956	0.3	10		1927	0.3	10		2058	0.3	10		2043	-0.3	-10		2004	0.3	10		1941	0.0	0
<b>4</b> Su	0235	3.0	90	<b>19</b> M	0200	3.0	90	<b>4</b> W	0338	3.0	90	<b>19</b> Th	0317	3.3	100	<b>4</b> W	0243	2.6	80	<b>19</b> Th	0211	3.0	90
	0808	0.3	10		0740	0.3	10		0909	0.3	10		0900	-0.3	-10		0816	0.3	10		0801	0.0	0
	1443	3.0	90		1420	3.0	90		1547	3.0	90		1541	3.3	100		1453	2.6	80		1437	3.3	100
	2034	0.3	10		2011	0.0	0		2130	0.0	0		2126	-0.3	-10		2036	0.3	10		2025	-0.3	-10
<b>5</b> M	0315	3.0	90	<b>20</b> Tu	0246	3.3	100	<b>5</b> Th	0409	3.0	90	<b>20</b> F	0402	3.3	100	<b>5</b> Th	0315	3.0	90	<b>20</b> F	0258	3.3	100
	0846	0.3	10		0825	0.0	0		0943	0.3	10		0945	-0.3	-10		0849	0.3	10		0846	-0.3	-10
	1524	3.0	90		1508	3.3	100		1621	3.0	90		1627	3.3	100		1526	3.0	90		1524	3.3	100
	2111	0.3	10		2055	0.0	0		2200	0.0	0		2208	-0.3	-10		2107	0.3	10		2107	-0.3	-10
<b>6</b> Tu	0352	3.0	90	<b>21</b> W	0332	3.3	100	<b>6</b> F	0439	3.0	90	<b>21</b> Sa	0446	3.6	110	<b>6</b> F	0344	3.0	90	<b>21</b> Sa	0343	3.3	100
	0923	0.3	10		0910	0.0	0		1015	0.3	10		1029	-0.3	-10		0921	0.0	0		0929	-0.3	-10
	1603	3.0	90		1555	3.3	100		1652	3.0	90		1712	3.3	100		1558	3.0	90		1610	3.3	100
	2145	0.3	10		2139	0.0	0		2229	0.3	10		2249	-0.3	-10		2136	0.0	0		2149	-0.3	-10
<b>7</b> W	0428	3.0	90	<b>22</b> Th	0417	3.3	100	<b>7</b> Sa	0508	3.0	90	<b>22</b> Su	0531	3.3	100	<b>7</b> Sa	0413	3.0	90	<b>22</b> Su	0427	3.3	100
	0959	0.3	10		0956	0.0	0		1046	0.3	10		1112	0.0	0		0952	0.0	0		1011	-0.3	-10
	1639	3.0	90		1641	3.3	100		1723	2.6	80		1759	3.3	100		1628	3.0	90		1654	3.3	100
	2218	0.3	10		2222	0.0	0		2258	0.3	10		2330	0.0	0		2205	0.3	10		2229	0.0	0
<b>8</b> Th	0501	3.0	90	<b>23</b> F	0502	3.3	100	<b>8</b> Su	0538	2.6	80	<b>23</b> M	0617	3.3	100	<b>8</b> Su	0441	3.0	90	<b>23</b> M	0511	3.3	100
	1034	0.3	10		1041	0.0	0		1117	0.3	10		1156	0.0	0		1022	0.3	10		1052	0.0	0
	1714	2.6	80		1727	3.3	100		1756	2.6	80		1848	3.0	90		1658	3.0	90		1740	3.3	100
	2250	0.3	10		2305	0.0	0		2326	0.3	10						2232	0.3	10		2309	0.0	0
<b>9</b> F	0534	2.6	80	<b>24</b> Sa	0548	3.3	100	<b>9</b> M	0611	2.6	80	<b>24</b> Tu	0014	0.3	10	<b>9</b> M	0510	3.0	90	<b>24</b> Tu	0556	3.0	90
	1109	0.3	10		1128	0.0	0		1150	0.3	10		0707	3.0	90		1051	0.3	10		1133	0.0	0
	1749	2.6	80		1815	3.3	100		1831	2.6	80		1245	0.3	10		1730	2.6	80		1827	3.0	90
	2322	0.3	10		2350	0.0	0		2357	0.7	20		1940	2.6	80		2300	0.3	10		2350	0.3	10
<b>10</b> Sa	0608	2.6	80	<b>25</b> Su	0637	3.3	100	<b>10</b> Tu	0649	2.6	80	<b>25</b> W	0105	0.7	20	<b>10</b> Tu	0542	2.6	80	<b>25</b> W	0644	3.0	90
	1145	0.7	20		1218	0.3	10		1227	0.7	20		0802	2.6	80		1121	0.3	10		1217	0.3	10
	1825	2.6	80		1906	3.0	90		1913	2.3	70		1344	0.7	20		1805	2.6	80		1919	2.6	80
	2356	0.7	20										2039	2.3	70		2330	0.3	10				
<b>11</b> Su	0646	2.6	80	<b>26</b> M	0039	0.3	10	<b>11</b> W	0034	0.7	20	<b>26</b> Th	0211	0.7	20	<b>11</b> W	0619	2.6	80	<b>26</b> Th	0037	0.7	20
	1225	0.7	20		0730	3.0	90		0736	2.3	70		0906	2.3	70		1156	0.7	20		0737	2.6	80
	1905	2.3	70		1314	0.7	20		1318	0.7	20		1507	1.0	30		1847	2.6	80		1311	0.7	20
					2002	2.6	80		2004	2.3	70		2151	2.3	70						2015	2.3	70
<b>12</b> M	0033	0.7	20	<b>27</b> Tu	0137	0.7	20	<b>12</b> Th	0126	1.0	30	<b>27</b> F	0346	1.0	30	<b>12</b> Th	0005	0.7	20	<b>27</b> F	0138	1.0	30
	0730	2.3	70		0828	2.6	80		0833	2.3	70		1025	2.3	70		0703	2.3	70		0838	2.3	70
	1315	1.0	30		1421	0.7	20		1431	1.0	30		1658	1.0	30		1240	0.7	20		1425	1.0	30
	1951	2.3	70		2105	2.3	70		2107	2.0	60		2320	2.3	70		1936	2.3	70		2120	2.3	70
<b>13</b> Tu	0122	1.0	30	<b>28</b> W	0249	0.7	20	<b>13</b> F	0249	1.0	30	<b>28</b> Sa	0526	1.0	30	<b>13</b> F	0053	0.7	20	<b>28</b> Sa	0306	1.0	30
	0821	2.3	70		0935	2.6	80		0945	2.3	70		1149	2.3	70		0800	2.3	70		0951	2.3	70
	1417	1.0	30		1545	0.7	20		1610	1.0	30		1810	0.7	20		1347	1.0	30		1613	1.0	30
	2046	2.3	70		2221	2.3	70		2225	2.0	60						2038	2.3	70		2242	2.3	70
<b>14</b> W	0230	1.0	30	<b>29</b> Th	0420	1.0	30	<b>14</b> Sa	0439	1.0	30	<b>14</b> Sa	0210	1.0	30	<b>14</b> Sa	0210	1.0	30	<b>29</b> Su	0452	1.0	30
	0921	2.3	70		1052	2.3	70		1107	2.3	70		1533	1.0	30		0911	2.3	70		1118	2.3	70
	1534	1.0	30		1719	0.7	20		1733	0.7	20		2153	2.3	70		1533	1.0	30		1735	1.0	30
	2152	2.3	70		2345	2.3	70		2347	2.3	70						2153	2.3	70				
<b>15</b> Th	0359	1.0	30	<b>30</b> F	0541	0.7	20	<b>15</b> Su	0552	0.7	20	<b>15</b> Su	0407	1.0	30	<b>15</b> Su	0407	1.0	30	<b>30</b> M	0000	2.3	70
	1031	2.3	70		1206	2.6	80		1218	2.6	80		1039	2.3	70		1039	2.3	70		0558	1.0	30
	1653	1.0	30		1823	0.7	20		1828	0.3	10		1708	0.7	20		1708	0.7	20		1226	2.3	70
	2309	2.3	70										2320	2.3	70		2320	2.3	70		1823	0.7	20
			<b>31</b> Sa	0052	2.3	70										<b>31</b> Tu	0055	2.3	70				
				0637	0.7	20											0640	0.7	20				
				1304	2.6	80											1313	2.6	80				
				1909	0.7	20											1900	0.7	20				

Time meridian 15° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Gibraltar, 2015

## Times and Heights of High and Low Waters

April				May				June																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> W	0136	2.6	80		<b>16</b> Th	0058	3.0	90		<b>1</b> F	0129	2.6	80		<b>16</b> Sa	0122	3.0	90		<b>1</b> M	0203	3.0	90		<b>16</b> Tu	0238	3.0	90	
	0716	0.7	20			0658	0.3	10			0718	0.7	20			0724	0.0	0			0757	0.3	10			0837	0.0	0	
	1351	2.6	80			1329	3.0	90			1351	2.6	80			1356	3.0	90			1430	3.0	90			1514	3.0	90	
	1933	0.7	20			1918	0.0	0			1930	0.7	20			1938	0.3	10			2005	0.7	20			2047	0.3	10	
<b>2</b> Th	0210	2.6	80		<b>17</b> F	0147	3.3	100		<b>2</b> Sa	0204	3.0	90		<b>17</b> Su	0210	3.3	100		<b>2</b> Tu	0242	3.0	90		<b>17</b> W	0324	3.0	90	
	0750	0.3	10			0743	0.0	0			0753	0.3	10			0809	0.0	0			0834	0.3	10			0917	0.0	0	
	1426	2.6	80			1417	3.0	90			1426	3.0	90			1443	3.0	90			1509	3.0	90			1558	3.0	90	
	2006	0.3	10			2001	0.0	0			2003	0.7	20			2022	0.0	0			2042	0.7	20			2128	0.3	10	
<b>3</b> F	0242	3.0	90		<b>18</b> Sa	0234	3.3	100		<b>3</b> Su	0238	3.0	90		<b>18</b> M	0257	3.3	100		<b>3</b> W	0323	3.0	90		<b>18</b> Th	0409	3.0	90	
	0823	0.3	10			0828	0.0	0			0826	0.3	10			0852	0.0	0			0911	0.3	10			0956	0.3	10	
	1458	3.0	90			1549	3.3	100			1500	3.0	90			1530	3.3	100			1550	3.0	90			1641	3.0	90	
	2037	0.3	10			2044	0.0	0			2035	0.3	10			2104	0.0	0			2120	0.7	20			2208	0.3	10	
<b>4</b> Sa	0313	3.0	90		<b>19</b> Su	0320	3.3	100		<b>4</b> M	0312	3.0	90		<b>19</b> Tu	0343	3.3	100		<b>4</b> Th	0404	3.3	100		<b>19</b> F	0452	3.0	90	
	0855	0.3	10			0911	-0.3	-10			0900	0.3	10			0934	0.0	0			0949	0.3	10			1032	0.3	10	
	1530	3.0	90			1549	3.3	100			1535	3.0	90			1615	3.0	90			1630	3.3	100			1723	3.0	90	
	2107	0.3	10			2126	0.0	0			2108	0.3	10			2146	0.3	10			2200	0.7	20			2247	0.3	10	
<b>5</b> Su	0343	3.0	90		<b>20</b> M	0405	3.3	100		<b>5</b> Tu	0347	3.0	90		<b>20</b> W	0428	3.0	90		<b>5</b> F	0446	3.0	90		<b>20</b> Sa	0533	3.0	90	
	0926	0.3	10			0952	0.0	0			0933	0.3	10			1013	0.0	0			1029	0.3	10			1108	0.3	10	
	1602	3.0	90			1635	3.3	100			1611	3.0	90			1700	3.0	90			1713	3.3	100			1841	3.0	90	
	2137	0.3	10			2207	0.0	0			2142	0.3	10			2227	0.3	10			2243	0.7	20			2327	0.7	20	
<b>6</b> M	0414	3.0	90		<b>21</b> Tu	0449	3.3	100		<b>6</b> W	0423	3.0	90		<b>21</b> Th	0512	3.0	90		<b>6</b> Sa	0530	3.0	90		<b>21</b> Su	0616	2.6	80	
	0957	0.3	10			1032	0.0	0			1007	0.3	10			1052	0.3	10			1111	0.3	10			1145	0.7	20	
	1634	3.0	90			1720	3.0	90			1648	3.0	90			1745	3.0	90			1758	3.0	90			1846	2.6	80	
	2206	0.3	10			2247	0.3	10			2216	0.7	20			2307	0.3	10			2329	0.7	20						
<b>7</b> Tu	0445	3.0	90		<b>22</b> W	0534	3.0	90		<b>7</b> Th	0501	3.0	90		<b>22</b> F	0558	3.0	90		<b>7</b> Su	0618	3.0	90		<b>22</b> M	0008	0.7	20	
	1027	0.3	10			1111	0.3	10			1042	0.3	10			1131	0.3	10			1158	0.7	20			0659	2.6	80	
	1708	3.0	90			1807	3.0	90			1728	3.0	90			1832	2.6	80			1849	3.0	90			1227	0.7	20	
	2237	0.3	10			2328	0.3	10			2254	0.7	20			2351	0.7	20								1929	2.6	80	
<b>8</b> W	0519	3.0	90		<b>23</b> Th	0621	3.0	90		<b>8</b> F	0542	3.0	90		<b>23</b> Sa	0646	2.6	80		<b>8</b> M	0022	0.7	20		<b>23</b> Tu	0056	1.0	30	
	1059	0.3	10			1153	0.3	10			1121	0.7	20			1214	0.7	20			0712	2.6	80			0746	2.3	70	
	1745	3.0	90			1856	2.6	80			1812	3.0	90			1921	2.6	80			1256	0.7	20			1315	1.0	30	
	2309	0.7	20								2337	0.7	20								1944	3.0	90			2015	2.6	80	
<b>9</b> Th	0557	2.6	80		<b>24</b> F	0013	0.7	20		<b>9</b> Sa	0629	2.6	80		<b>24</b> Su	0039	0.7	20		<b>9</b> Tu	0126	0.7	20		<b>24</b> W	0150	1.0	30	
	1135	0.7	20			0712	2.6	80			1208	0.7	20			0736	2.3	70			0814	2.6	80			0836	2.3	70	
	1827	2.6	80			1241	0.7	20			1904	2.6	80			1306	1.0	30			1406	0.7	20			1413	1.0	30	
	2347	0.7	20			1950	2.6	80								2013	2.6	80			2046	3.0	90			2104	2.3	70	
<b>10</b> F	0642	2.6	80		<b>25</b> Sa	0109	1.0	30		<b>10</b> Su	0030	1.0	30		<b>25</b> M	0139	1.0	30		<b>10</b> W	0240	0.7	20		<b>25</b> Th	0253	1.0	30	
	1219	0.7	20			0809	2.3	70			0725	2.6	80			0831	2.3	70			0923	2.6	80			0932	2.3	70	
	1918	2.6	80			1345	1.0	30			1312	0.7	20			1411	1.0	30			1520	0.7	20			1519	1.0	30	
						2049	2.3	70			2002	2.6	80			2107	2.3	70			2153	2.6	80			2159	2.3	70	
<b>11</b> Sa	0037	1.0	30		<b>26</b> Su	0223	1.0	30		<b>11</b> M	0142	1.0	30		<b>26</b> Tu	0249	1.0	30		<b>11</b> Th	0400	0.7	20		<b>26</b> F	0404	1.0	30	
	0739	2.3	70			0913	2.3	70			0831	2.3	70			0931	2.3	70			1038	2.6	80			1036	2.3	70	
	1325	1.0	30			1510	1.0	30			1436	1.0	30			1523	1.0	30			1633	0.7	20			1630	1.0	30	
	2018	2.3	70			2155	2.3	70			2109	2.6	80			2205	2.3	70			2303	3.0	90			2259	2.3	70	
<b>12</b> Su	0153	1.0	30		<b>27</b> M	0353	1.0	30		<b>12</b> Tu	0310	1.0	30		<b>27</b> W	0404	1.0	30		<b>12</b> F	0516	0.7	20		<b>27</b> Sa	0513	1.0	30	
	0849	2.3	70			1028	2.3	70			0948	2.3	70			1038	2.3	70			1148	2.6	80			1140	2.3	70	
	1504	1.0	30			1635	1.0	30			1559	0.7	20			1633	1.0	30			1738	0.7	20			1730	1.0	30	
	2130	2.3	70			2307	2.3	70			2223	2.6	80			2306	2.3	70								2355	2.6	80	
<b>13</b> M	0339	1.0	30		<b>28</b> Tu	0511	1.0	30		<b>13</b> W	0435	0.7	20		<b>28</b> Th	0511	1.0	30		<b>13</b> Sa	0005	3.0	90		<b>28</b> Su	0607	0.7	20	
	1013	2.3	70			1140	2.3	70			1108	2.6	80			1140	2.3	70			0618	0.3	10			1233	2.6	80	
	1637	0.7	20			1735	1.0	30			1709	0.7	20			1730	1.0	30			1247	2.6	80			1818	1.0	30	
	2252	2.3	70								2333	2.6	80			2359	2.6	80			1832	0.3	10						
<b>14</b> Tu	0508	0.7	20		<b>29</b> W	0007	2.3	70		<b>14</b> Th	0543	0.7	20		<b>29</b> F	0602	0.7	20		<b>14</b> Su	0100	3.0	90		<b>29</b> M	0045	2.6	80	
	1135	2.3	70			0602	0.7	20			1213	2.6	80			1230	2.6	80			0709	0.3	10			0650	0.7	20	
	1742	0.7	20			1233	2.3	70			1805	0.3	10			1815	1.0	30			1338	3.0	90			1319	2.6	80	
						1819	0.7	20													1919	0.3	10			1859	0.7	20	
<b>15</b> W	0002	2.6	80		<b>30</b> Th	0052	2.6	80		<b>15</b> F	0031	3.0	90		<b>30</b> Sa	0043	2.6	80		<b>15</b> M	0150	3.0	90		<b>30</b> Tu	0131	3.0	90	
	0609	0.3	10			0642	0.7	20			0637	0.3	10			0643	0.7</												

## Gibraltar, 2015

## Times and Heights of High and Low Waters

July				August				September																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> W	0216	3.0	90		<b>16</b> Th	0309	3.0	90		<b>1</b> Sa	0329	3.3	100		<b>16</b> Su	0403	3.0	90		<b>1</b> Tu	0442	3.6	110		<b>16</b> W	0433	3.3	100	
	0810	0.3	10			0900	0.3	10			0914	0.0	0			0941	0.3	10			1018	0.0	0			1009	0.7	20	
	1446	3.0	90			1541	3.0	90			1555	3.6	110			1625	3.3	100			1702	3.6	110			1648	3.3	100	
	2020	0.3	10			2111	0.3	10			2132	0.3	10			2158	0.3	10			2242	0.0	0			2230	0.7	20	
<b>2</b> Th	0301	3.3	100		<b>17</b> F	0350	3.0	90		<b>2</b> Su	0415	3.6	110		<b>17</b> M	0435	3.0	90		<b>2</b> W	0528	3.6	110		<b>17</b> Th	0503	3.0	90	
	0851	0.3	10			0935	0.3	10			0957	0.0	0			1011	0.3	10			1100	0.3	10			1038	0.7	20	
	1530	3.3	100			1620	3.0	90			1639	3.6	110			1654	3.0	90			1747	3.6	110			1718	3.0	90	
	2103	0.3	10			2148	0.3	10			2217	0.0	0			2230	0.3	10			2326	0.3	10			2300	0.7	20	
<b>3</b> F	0347	3.3	100		<b>18</b> Sa	0429	3.0	90		<b>3</b> M	0501	3.6	110		<b>18</b> Tu	0506	3.0	90		<b>3</b> Th	0616	3.3	100		<b>18</b> F	0537	3.0	90	
	0932	0.3	10			1009	0.3	10			1039	0.0	0			1040	0.3	10			1144	0.7	20			1108	0.7	20	
	1613	3.3	100			1656	3.0	90			1723	3.6	110			1724	3.0	90			1835	3.3	100			1751	3.0	90	
	2147	0.3	10			2224	0.3	10			2302	0.3	10			2302	0.7	20			2326	0.3	10			2333	0.7	20	
<b>4</b> Sa	0431	3.3	100		<b>19</b> Su	0506	3.0	90		<b>4</b> Tu	0548	3.3	100		<b>19</b> W	0538	3.0	90		<b>4</b> F	0012	0.7	20		<b>19</b> Sa	0617	3.0	90	
	1014	0.3	10			1041	0.3	10			1123	0.3	10			1110	0.7	20			0709	3.0	90			1142	1.0	30	
	1657	3.3	100			1730	3.0	90			1810	3.6	110			1754	3.0	90			1233	0.7	20			1832	3.0	90	
	2231	0.3	10			2300	0.3	10			2349	0.3	10			2334	0.7	20			1928	3.0	90						
<b>5</b> Su	0517	3.3	100		<b>20</b> M	0542	3.0	90		<b>5</b> W	0638	3.3	100		<b>20</b> Th	0613	2.6	80		<b>5</b> Sa	0107	1.0	30		<b>20</b> Su	0012	1.0	30	
	1057	0.3	10			1114	0.3	10			1210	0.3	10			1141	0.7	20			0809	3.0	90			0706	2.6	80	
	1742	3.3	100			1805	3.0	90			1900	3.3	100			1829	3.0	90			1335	1.0	30			1226	1.3	40	
	2318	0.3	10			2335	0.7	20								2028	3.0	90			2028	3.0	90			1923	2.6	80	
<b>6</b> M	0604	3.3	100		<b>21</b> Tu	0619	2.6	80		<b>6</b> Th	0039	0.7	20		<b>21</b> F	0009	0.7	20		<b>6</b> Su	0219	1.0	30		<b>21</b> M	0108	1.0	30	
	1143	0.3	10			1147	0.7	20			0732	3.0	90			0653	2.6	80			0919	2.6	80			0808	2.6	80	
	1831	3.3	100			1840	2.6	80			1303	0.7	20			1218	1.0	30			1500	1.3	40			1336	1.3	40	
											1954	3.0	90			1910	2.6	80			2141	2.6	80			2029	2.6	80	
<b>7</b> Tu	0008	0.7	20		<b>22</b> W	0013	0.7	20		<b>7</b> F	0139	0.7	20		<b>22</b> Sa	0053	1.0	30		<b>7</b> M	0406	1.3	40		<b>22</b> Tu	0245	1.3	40	
	0656	3.0	90			0657	2.6	80			0834	2.6	80			0744	2.6	80			1045	2.6	80			0921	2.6	80	
	1235	0.7	20			1224	0.7	20			1408	1.0	30			1305	1.0	30			1640	1.3	40			1526	1.3	40	
	1923	3.0	90			1919	2.6	80			2056	3.0	90			2002	2.6	80			2308	2.6	80			2149	2.6	80	
<b>8</b> W	0105	0.7	20		<b>23</b> Th	0056	1.0	30		<b>8</b> Sa	0254	1.0	30		<b>23</b> Su	0154	1.0	30		<b>8</b> Tu	0537	1.0	30		<b>23</b> W	0431	1.0	30	
	0754	3.0	90			0742	2.3	70			0945	2.6	80			0845	2.3	70			1204	2.6	80			1045	2.6	80	
	1334	0.7	20			1307	1.0	30			1529	1.0	30			1418	1.3	40			1751	1.0	30			1656	1.0	30	
	2021	3.0	90			2003	2.6	80			2207	2.6	80			2106	2.6	80								2317	2.6	80	
<b>9</b> Th	0210	0.7	20		<b>24</b> F	0148	1.0	30		<b>9</b> Su	0431	1.0	30		<b>24</b> M	0326	1.0	30		<b>9</b> W	0021	2.6	80		<b>24</b> Th	0537	1.0	30	
	0858	2.6	80			0833	2.3	70			1107	2.6	80			0959	2.3	70			0627	1.0	30			1157	3.0	90	
	1443	0.7	20			1405	1.0	30			1659	1.0	30			1600	1.3	40			1300	3.0	90			1755	1.0	30	
	2124	3.0	90			2055	2.3	70			2325	2.6	80			2223	2.6	80			1837	1.0	30						
<b>10</b> F	0326	0.7	20		<b>25</b> Sa	0255	1.0	30		<b>10</b> M	0554	1.0	30		<b>25</b> Tu	0500	1.0	30		<b>10</b> Th	0113	3.0	90		<b>25</b> F	0024	3.0	90	
	1010	2.6	80			0934	2.3	70			1220	2.6	80			1119	2.6	80			0705	0.7	20			0625	0.7	20	
	1600	1.0	30			1521	1.3	40			1806	1.0	30			1721	1.0	30			1343	3.0	90			1253	3.3	100	
	2234	2.6	80			2157	2.3	70								2342	2.6	80			1915	0.7	20			1842	0.7	20	
<b>11</b> Sa	0452	0.7	20		<b>26</b> Su	0418	1.0	30		<b>11</b> Tu	0033	2.6	80		<b>26</b> W	0601	0.7	20		<b>11</b> F	0153	3.0	90		<b>26</b> Sa	0117	3.3	100	
	1126	2.6	80			1046	2.3	70			0646	0.7	20			1224	2.6	80			0738	0.7	20			0707	0.3	10	
	1716	0.7	20			1643	1.0	30			1317	3.0	90			1816	0.7	20			1419	3.3	100			1340	3.6	110	
	2343	2.6	80			2307	2.6	80			1855	0.7	20								1950	0.7	20			1926	0.3	10	
<b>12</b> Su	0604	0.7	20		<b>27</b> M	0531	1.0	30		<b>12</b> W	0126	3.0	90		<b>27</b> Th	0044	3.0	90		<b>12</b> Sa	0229	3.0	90						
	1231	2.6	80			1155	2.3	70			0727	0.7	20			0646	0.7	20			0809	0.7	20		0749	0.3	10		
	1817	0.7	20			1747	1.0	30			1403	3.0	90			1317	3.0	90			1452	3.3	100		1426	3.6	110		
											1936	0.7	20			1901	0.7	20			2023	0.7	20		2010	0.0	0		
<b>13</b> M	0043	3.0	90		<b>28</b> Tu	0011	2.6	80		<b>13</b> Th	0211	3.0	90		<b>28</b> F	0136	3.3	100		<b>13</b> Su	0302	3.3	100		<b>28</b> M	0250	3.6	110	
	0658	0.7	20			0623	0.7	20			0804	0.3	10			0729	0.3	10			0840	0.3	10			0831	0.0	0	
	1327	3.0	90			1251	2.6	80			1443	3.0	90			1404	3.3	100			1522	3.3	100			1511	3.9	120	
	1907	0.7	20			1835	0.7	20			2014	0.7	20			1946	0.3	10			2056	0.3	10			2054	0.0	0	
<b>14</b> Tu	0136	3.0	90		<b>29</b> W	0105	3.0	90		<b>14</b> F	0251	3.0	90		<b>29</b> Sa	0224	3.3	100		<b>14</b> M	0333	3.3	100		<b>29</b> Tu	0336	3.6	110	



## Lisbon, Portugal, 2015

## Times and Heights of High and Low Waters

January				February				March									
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height				
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm			
1 Th	0556	3.3 100	16 F	0511	4.3 130	1 Su	0133	10.8 330	16 M	0046	10.8 330	1 Su	0021	10.2 310	16 M	0520	3.9 120
	1228	10.8 330		1141	9.8 300		0734	3.0 90		0646	3.0 90		0629	3.9 120		1158	10.5 320
	1821	3.3 100		1742	3.6 110		1359	10.5 320		1319	10.8 330		1254	9.8 300		1749	3.6 110
2 F	0056	11.2 340	17 Sa	0014	10.2 310	2 M	0218	11.5 350	17 Tu	0142	12.1 370	2 M	0114	10.8 330	17 Tu	0024	11.2 340
	0655	3.0 90		0613	3.6 110		0815	2.6 80		0739	2.0 60		0716	3.3 100		0625	3.0 90
	1323	10.8 330		1242	10.2 310		1441	10.8 330		1411	11.8 360		1340	10.5 320		1300	11.5 350
	1913	3.0 90	1837	3.0 90	2023	2.6 80	1959	1.6 50	1927	3.3 100	1849	2.6 80					
3 Sa	0147	11.5 350	18 Su	0109	11.2 340	3 Tu	0256	11.8 360	18 W	0233	12.8 390	3 Tu	0157	11.2 340	18 W	0122	12.1 370
	0744	2.6 80		0707	2.6 80		0850	2.3 70		0827	1.0 30		0754	3.0 90		0719	2.0 60
	1412	11.2 340		1427	10.8 330		1517	11.2 340		1500	12.5 380		1419	11.2 340		1352	12.1 370
	1958	2.6 80	1927	2.3 70	2058	2.3 70	2045	1.0 30	2003	3.0 90	1940	2.0 60					
4 Su	0232	11.8 360	19 M	0200	11.8 360	4 W	0331	11.8 360	19 Th	0320	13.5 410	4 W	0233	11.8 360	19 Th	0213	13.1 400
	0828	2.3 70		0756	2.0 60		0922	2.0 60		0913	0.3 10		0827	2.6 80		0808	1.0 30
	1456	11.2 340		1427	11.8 360		1550	11.5 350		1546	13.1 400		1453	11.5 350		1440	13.1 400
	2038	2.6 80	2015	1.6 50	2130	2.3 70	2130	0.7 20	2036	2.6 80	2027	1.0 30					
5 M	0313	12.1 370	20 Tu	0249	12.5 380	5 Th	0403	11.8 360	20 F	0406	13.8 420	5 Th	0306	12.1 370	20 F	0301	13.8 420
	0906	2.3 70		0843	1.3 40		0953	2.0 60		0957	0.3 10		0858	2.3 70		0853	0.7 20
	1535	11.5 350		1516	12.1 370		1620	11.5 350		1630	13.5 410		1524	11.8 360		1526	13.5 410
	2115	2.3 70	2101	1.3 40	2201	2.3 70	2214	0.3 10	2107	2.3 70	2111	0.7 20					
6 Tu	0351	12.1 370	21 W	0336	13.1 400	6 F	0433	11.8 360	21 Sa	0451	13.8 420	6 F	0338	12.1 370	21 Sa	0346	14.1 430
	0942	2.0 60		0929	0.7 20		1024	2.0 60		1040	0.3 10		0928	2.0 60		0936	0.3 10
	1611	11.2 340		1603	12.5 380		1650	11.5 350		1714	13.1 400		1554	11.8 360		1609	13.8 420
	2149	2.3 70	2146	1.0 30	2232	2.3 70	2257	0.7 20	2138	2.0 60	2155	0.7 20					
7 W	0424	11.8 360	22 Th	0423	13.5 410	7 Sa	0502	11.8 360	22 Su	0535	13.5 410	7 Sa	0408	12.1 370	22 Su	0430	14.1 430
	1016	2.3 70		1014	0.7 20		1054	2.0 60		1123	1.0 30		0957	2.0 60		1018	0.7 20
	1644	11.2 340		1648	12.8 390		1720	11.2 340		1757	12.5 380		1624	11.8 360		1652	13.5 410
	2222	2.6 80	2231	1.0 30	2303	2.3 70	2342	1.3 40	2208	2.3 70	2238	1.0 30					
8 Th	0456	11.8 360	23 F	0508	13.5 410	8 Su	0533	11.5 350	23 M	0619	12.8 390	8 Su	0438	12.1 370	23 M	0514	13.5 410
	1048	2.3 70		1059	0.7 20		1126	2.6 80		1206	1.6 50		1027	2.0 60		1059	1.3 40
	1715	10.8 330		1734	12.5 380		1752	10.8 330		1842	11.8 360		1654	11.8 360		1734	13.1 400
	2255	2.6 80	2316	1.0 30	2336	3.0 90	2336	3.0 90	2238	2.3 70	2321	1.3 40					
9 F	0526	11.5 350	24 Sa	0554	13.1 400	9 M	0606	11.2 340	24 Tu	0028	2.0 60	9 M	0509	11.8 360	24 Tu	0558	12.8 390
	1121	2.6 80		1144	1.0 30		1159	3.0 90		0707	11.8 360		1057	2.3 70		1141	2.0 60
	1746	10.5 320		1820	12.1 370		1827	10.5 320		1253	2.6 80		1726	11.5 350		1817	12.1 370
	2329	3.0 90						1932	11.2 340	2310	2.6 80						
10 Sa	0558	11.2 340	25 Su	0002	1.6 50	10 Tu	0012	3.3 100	25 W	0121	3.0 90	10 Tu	0541	11.5 350	25 W	0006	2.3 70
	1156	3.0 90		0641	12.5 380		0643	10.5 320		0801	10.5 320		1128	3.0 90		0643	11.8 360
	1821	10.2 310		1232	1.6 50		1236	3.3 100		1348	3.6 110		1800	11.2 340		1226	3.0 90
		1908	11.5 350	1907	9.8 300	1907	9.8 300	2031	10.2 310	2344	3.0 90	1904	11.5 350				
11 Su	0006	3.3 100	26 M	0052	2.3 70	11 W	0054	3.9 120	26 Th	0227	3.9 120	11 W	0617	10.8 330	26 Th	0057	3.3 100
	0634	10.5 320		0732	11.5 350		0727	9.8 300		0910	9.8 300		1203	3.3 100		0734	10.5 320
	1235	3.3 100		1323	2.6 80		1322	3.9 120		1459	4.6 140		1837	10.8 330		1317	4.3 130
	1900	9.8 300	2003	10.8 330	1958	9.5 290	1958	9.5 290	2148	9.8 300	1958	10.5 320					
12 M	0047	3.9 120	27 Tu	0149	3.0 90	12 Th	0148	4.3 130	27 F	0353	4.6 140	12 Th	0024	3.6 110	27 F	0159	4.3 130
	0717	10.2 310		0831	10.8 330		0824	9.5 290		1035	9.2 280		0658	10.5 320		0838	9.8 300
	1320	3.9 120		1423	3.3 100		1424	4.3 130		1627	4.9 150		1245	3.9 120		1423	4.9 150
	1949	9.5 290	2107	10.2 310	2105	9.2 280	2105	9.2 280	2311	9.8 300	1924	10.2 310	2110	9.8 300			
13 Tu	0139	4.3 130	28 W	0258	3.6 110	13 F	0303	4.6 140	28 Sa	0522	4.3 130	13 F	0115	4.3 130	28 Sa	0321	4.9 150
	0809	9.5 290		0941	9.8 300		0939	9.2 280		1154	9.5 290		0751	9.8 300		1003	9.2 280
	1417	4.3 130		1535	3.9 120		1544	4.6 140		1746	4.6 140		1343	4.3 130		1551	5.2 160
	2050	9.2 280	2222	9.8 300	2225	9.5 290			2026	9.8 300	2237	9.8 300					
14 W	0244	4.6 140	29 Th	0420	3.9 120	14 Sa	0429	4.3 130	14 Sa	0226	4.6 140	14 Sa	0226	4.6 140	29 Su	0450	4.9 150
	0916	9.2 280		1100	9.8 300		1104	9.5 290		0906	9.5 290		0906	9.5 290		1125	9.5 290
	1526	4.6 140		1654	3.9 120		1705	4.3 130		1504	4.6 140		1504	4.6 140		1714	4.9 150
	2202	9.2 280	2336	10.2 310	2341	10.2 310	2341	10.2 310	2148	9.8 300	2350	10.2 310					
15 Th	0400	4.6 140	30 F	0541	3.9 120	15 Su	0545	3.6 110	15 Su	0356	4.6 140	15 Su	0356	4.6 140	30 M	0557	4.3 130
	1031	9.2 280		1212	9.8 300		1218	10.2 310		1037	9.5 290		1037	9.5 290		1226	9.8 300
	1638	4.3 130		1805	3.9 120		1812	3.3 100		1635	4.6 140		1635	4.6 140		1814	4.6 140
	2312	9.5 290						2314	10.5 320								
16 M	0041	10.5 320	31 Sa	0645	3.3 100	16 Su	0645	3.3 100	16 Su	0044	10.5 320	31 Tu	0044	10.5 320	31 Tu	0645	3.9 120
	1311	10.2 310		1311	10.2 310		1311	10.2 310		1312	10.5 320		1312	10.5 320		1312	10.5 320
	1900	3.3 100		1900	3.3 100		1900	3.3 100		1859	3.9 120		1859	3.9 120		1859	3.9 120

Time meridian 0°. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.



# Lisbon, Portugal, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0127	11.2	340	<b>16</b> Th	0059	12.5	380	<b>1</b> F	0127	11.5	350	<b>16</b> Sa	0129	12.8	390	<b>1</b> M	0209	11.5	350	<b>16</b> Tu	0250	12.1	370
	0724	3.3	100		0656	2.3	70		0722	3.3	100		0721	2.0	60		0800	3.0	90		0834	2.3	70
	1349	11.2	340		1330	12.5	380		1349	11.5	350		1356	12.8	390		1429	11.8	360		1511	12.5	380
	1936	3.3	100		1918	2.3	70		1938	3.3	100		1946	2.0	60		2021	2.6	80		2104	2.0	60
<b>2</b> Th	0203	11.5	350	<b>17</b> F	0151	13.1	400	<b>2</b> Sa	0204	11.8	360	<b>17</b> Su	0219	13.1	400	<b>2</b> Tu	0249	11.8	360	<b>17</b> W	0336	12.1	370
	0757	3.0	90		0745	1.6	50		0757	3.0	90		0808	1.6	50		0836	2.6	80		0917	2.3	70
	1423	11.5	350		1418	13.1	400		1424	11.8	360		1443	13.1	400		1508	12.1	370		1554	12.5	380
	2009	3.0	90		2006	1.3	40		2012	3.0	90		2033	1.6	50		2059	2.3	70		2146	2.0	60
<b>3</b> F	0237	12.1	370	<b>18</b> Sa	0239	13.8	420	<b>3</b> Su	0240	12.1	370	<b>18</b> M	0306	13.1	400	<b>3</b> W	0329	11.8	360	<b>18</b> Th	0419	11.8	360
	0829	2.6	80		0830	1.0	30		0830	2.6	80		0852	1.6	50		0913	2.3	70		0957	2.6	80
	1455	12.1	370		1504	13.5	410		1458	12.1	370		1528	13.1	400		1548	12.5	380		1635	12.5	380
	2041	2.6	80		2051	1.0	30		2046	2.6	80		2118	1.6	50		2138	2.3	70		2226	2.3	70
<b>4</b> Sa	0310	12.1	370	<b>19</b> Su	0326	13.8	420	<b>4</b> M	0315	12.1	370	<b>19</b> Tu	0352	12.8	390	<b>4</b> Th	0410	11.8	360	<b>19</b> F	0458	11.5	350
	0900	2.3	70		0913	1.0	30		0903	2.6	80		0934	2.0	60		0952	2.3	70		1035	2.6	80
	1527	12.1	370		1630	13.8	420		1532	12.5	380		1611	13.1	400		1629	12.5	380		1712	12.1	370
	2112	2.3	70		2135	1.0	30		2120	2.6	80		2201	1.6	50		2219	2.3	70		2305	2.6	80
<b>5</b> Su	0342	12.5	380	<b>20</b> M	0410	13.8	420	<b>5</b> Tu	0350	12.1	370	<b>20</b> W	0436	12.5	380	<b>5</b> F	0453	11.8	360	<b>20</b> Sa	0535	11.2	340
	0930	2.3	70		0955	1.3	40		0935	2.6	80		1015	2.3	70		1033	2.6	80		1112	3.3	100
	1558	12.1	370		1630	13.5	410		1608	12.5	380		1653	12.8	390		1712	12.5	380		1748	11.5	350
	2144	2.3	70		2218	1.3	40		2155	2.6	80		2244	2.3	70		2302	2.3	70		2343	3.0	90
<b>6</b> M	0414	12.1	370	<b>21</b> Tu	0454	13.1	400	<b>6</b> W	0427	12.1	370	<b>21</b> Th	0518	11.8	360	<b>6</b> Sa	0538	11.5	350	<b>21</b> Su	0611	10.5	320
	1001	2.3	70		1036	2.0	60		1010	2.6	80		1056	3.0	90		1117	2.6	80		1150	3.6	110
	1630	12.1	370		1713	13.1	400		1644	12.5	380		1734	12.1	370		1757	12.1	370		1823	11.2	340
	2216	2.3	70		2302	2.0	60		2232	2.6	80		2327	2.6	80		2349	2.6	80				
<b>7</b> Tu	0447	12.1	370	<b>22</b> W	0537	12.5	380	<b>7</b> Th	0505	11.8	360	<b>22</b> F	0559	11.2	340	<b>7</b> Su	0626	11.2	340	<b>22</b> M	0023	3.3	100
	1031	2.6	80		1117	2.6	80		1046	3.0	90		1136	3.6	110		1206	3.0	90		0649	10.2	310
	1703	12.1	370		1755	12.5	380		1723	12.1	370		1814	11.5	350		1847	11.8	360		1232	3.9	120
	2249	2.6	80		2346	2.6	80		2311	3.0	90								1901		10.5	320	
<b>8</b> W	0521	11.8	360	<b>23</b> Th	0621	11.5	350	<b>8</b> F	0546	11.5	350	<b>23</b> Sa	0610	3.3	100	<b>8</b> M	0641	3.0	90	<b>23</b> Tu	0107	3.9	120
	1104	3.0	90		1200	3.6	110		1126	3.3	100		0641	10.5	320		0720	10.8	330		0733	9.8	300
	1738	11.8	360		1838	11.5	350		1806	11.8	360		1855	10.8	330		1943	11.5	350		1301	3.6	110
	2324	3.0	90						2356	3.3	100		1855	10.8	330				1943		11.5	350	1947
<b>9</b> Th	0558	11.2	340	<b>24</b> F	0634	3.6	110	<b>9</b> Sa	0633	10.8	330	<b>24</b> Su	0658	3.9	120	<b>9</b> Tu	0711	3.3	100	<b>24</b> W	0159	4.3	130
	1140	3.3	100		0708	10.5	320		1213	3.6	110		0727	9.8	300		0822	10.5	320		0827	9.5	290
	1817	11.5	350		1248	4.3	130		1855	11.5	350		1309	4.6	140		1406	3.9	120		1419	4.9	150
					1927	10.8	330						1942	10.2	310		2047	11.2	340		2045	9.8	300
<b>10</b> F	0606	3.3	100	<b>25</b> Sa	0130	4.3	130	<b>10</b> Su	0650	3.6	110	<b>25</b> M	0724	4.6	140	<b>10</b> W	0751	3.3	100	<b>25</b> Th	0302	4.6	140
	0641	10.8	330		0805	9.8	300		0728	10.5	320		0824	9.5	290		0931	10.5	320		0932	9.5	290
	1224	3.9	120		1347	4.9	150		1311	4.3	130		1410	5.2	160		1517	3.9	120		1527	4.9	150
	1904	10.8	330		2027	10.2	310		1954	10.8	330		2042	9.8	300		2158	11.2	340		2153	9.5	290
<b>11</b> Sa	0658	3.9	120	<b>26</b> Su	0240	4.9	150	<b>11</b> M	0716	3.9	120	<b>26</b> Tu	0759	4.6	140	<b>11</b> Th	0839	3.3	100	<b>26</b> F	0408	4.6	140
	0735	10.2	310		0918	9.2	280		0838	10.2	310		0933	9.5	290		1041	10.8	330		1040	9.5	290
	1322	4.6	140		1504	5.6	170		1424	4.6	140		1522	5.2	160		1630	3.6	110		1635	4.9	150
	2005	10.5	320		2145	9.8	300		2107	10.8	330		2153	9.8	300		2308	11.2	340		2301	9.8	300
<b>12</b> Su	0208	4.3	130	<b>27</b> M	0359	4.9	150	<b>12</b> Tu	0312	3.9	120	<b>27</b> W	0407	4.6	140	<b>12</b> F	0506	3.3	100	<b>27</b> Sa	0509	4.3	130
	0849	9.8	300		1038	9.5	290		0957	10.5	320		1043	9.5	290		1146	11.2	340		1139	9.8	300
	1441	4.9	150		1624	5.2	160		1545	4.3	130		1632	4.9	150		1737	3.3	100		1736	4.3	130
	2125	10.5	320		2301	9.8	300		2225	11.2	340		2301	9.8	300								
<b>13</b> M	0333	4.3	130	<b>28</b> Tu	0509	4.6	140	<b>13</b> W	0428	3.6	110	<b>28</b> Th	0509	4.3	130	<b>13</b> Sa	0611	11.5	350	<b>28</b> Su	0000	10.2	310
	1018	10.2	310		1143	9.8	300		1110	10.8	330		1141	10.2	310		0606	3.0	90		0601	3.9	120
	1610	4.6	140		1730	4.9	150		1658	3.9	120		1731	4.6	140		1244	11.8	360		1231	10.5	320
	2250	10.8	330						2335	11.5	350		2358	10.2	310		1836	3.0	90		1827	3.9	120
<b>14</b> Tu	0455	3.9	120	<b>29</b> W	0600	10.5	320	<b>14</b> Th	0534	3.0	90	<b>29</b> F	0600	3.9	120	<b>14</b> Su	0709	11.8	360	<b>29</b> M	0052	10.5	320
	1136	10.8	330		0602	4.3	130		1212	11.5	350		1229	10.5	320		0700	2.6	80		0648	3.3	100
	1725	3.9	120		1232	10.5	320		1801	3.3	100		1821	4.3	130		1336	12.1	370		1317	11.2	340
					1820	4.3	130								1930		2.3	70	1913		3.3	100	
<b>15</b> W	0001	11.5	350	<b>30</b> Th	0047	10.8	330	<b>15</b> F	0035	12.1	370	<b>30</b> Sa	0045	10.8	330	<b>15</b> M	0201	12.1	370	<b>30</b> Tu	0139	10.8	330
	0601	3.0	90		0645	3.6	110		0631	2.6	80		0643	3.6	110		0749	2.3	70		0731	3.0	90
	1238	11.5	350		1313	11.2	340		1306	12.1	370		1311	11.2	340		1425	12.5	380		1402	11.5	350
	1826	3.0	90		1901	3.9	120																

## Lisbon, Portugal, 2015

## Times and Heights of High and Low Waters

July				August				September															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0225	11.5	350	<b>16</b> Th	0320	11.5	350	<b>1</b> Sa	0340	12.5	380	<b>16</b> Su	0409	11.8	360	<b>1</b> Tu	0449	13.5	410	<b>16</b> W	0440	12.1	370
	0813	2.6	80		0900	2.6	80		0923	1.3	40		0948	2.3	70		1032	1.0	30		1024	2.6	80
	1446	12.1	370		1537	12.1	370		1600	13.5	410		1622	12.1	370		1710	13.8	420		1654	12.1	370
	2040	2.3	70		2129	2.3	70		2151	1.0	30		2211	2.3	70		2258	1.0	30		2242	3.0	90
<b>2</b> Th ○	0310	11.8	360	<b>17</b> F	0400	11.5	350	<b>2</b> Su	0425	12.8	390	<b>17</b> M	0439	11.5	350	<b>2</b> W	0533	13.1	400	<b>17</b> Th	0511	11.8	360
	0855	2.0	60		0938	2.6	80		1007	1.3	40		1020	2.6	80		1117	1.3	40		1155	3.0	90
	1531	12.5	390		1615	12.1	370		1645	13.5	410		1652	12.1	370		1756	13.5	410		1726	11.8	360
	2123	1.6	50		2205	2.3	70		2235	1.0	30		2242	2.3	70		2342	1.6	50		2313	3.3	100
<b>3</b> F	0356	12.1	370	<b>18</b> Sa	0435	11.5	350	<b>3</b> M	0510	12.8	390	<b>18</b> Tu	0509	11.5	350	<b>3</b> Th	0619	12.5	380	<b>18</b> F	0544	11.5	350
	0938	2.0	60		1012	2.6	80		1051	1.3	40		1051	2.6	80		1204	2.0	60		1129	3.6	110
	1615	12.8	390		1648	12.1	370		1730	13.5	410		1722	11.8	360		1843	12.5	380		1800	11.2	340
	2207	1.6	50		2239	2.3	70		2320	1.0	30		2313	2.6	80		2313	2.6	80		2347	3.6	110
<b>4</b> Sa	0441	12.1	370	<b>19</b> Su	0508	11.2	340	<b>4</b> Tu	0555	12.5	380	<b>19</b> W	0540	11.2	340	<b>4</b> F	0030	2.6	80	<b>19</b> Sa	0620	10.8	330
	1021	2.0	60		1046	2.6	80		1137	1.6	50		1124	3.0	90		0708	11.8	360		1206	3.9	120
	1700	12.8	390		1720	11.8	360		1816	13.1	400		1753	11.5	350		1256	3.0	90		1840	10.5	320
	2251	1.6	50		2313	2.6	80		0006	1.6	50		2347	3.3	100		1937	11.5	350		1930	10.2	310
<b>5</b> Su	0527	12.1	370	<b>20</b> M	0540	10.8	330	<b>5</b> W	0606	1.6	50	<b>20</b> Th	0614	10.8	330	<b>5</b> Sa	0123	3.6	110	<b>20</b> Su	0026	4.3	130
	1106	2.0	60		1120	3.0	90		0643	12.1	370		1159	3.6	110		0806	10.8	330		0705	10.5	320
	1746	12.8	390		1751	11.5	350		1225	2.3	70		1829	10.8	330		1359	3.9	120		1254	4.6	140
	2338	1.6	50		2347	3.0	90		1905	12.1	370		1911	10.2	310		2042	10.5	320		1930	10.2	310
<b>6</b> M	0614	11.8	360	<b>21</b> Tu	0613	10.5	320	<b>6</b> Th	0056	2.3	70	<b>21</b> F	0023	3.6	110	<b>6</b> Su	0231	4.6	140	<b>21</b> M	0120	4.9	150
	1154	2.3	70		1156	3.3	100		0734	11.5	350		0653	10.5	320		0918	10.5	320		0803	10.2	310
	1834	12.5	380		1825	10.8	330		1319	3.0	90		1239	4.3	130		1521	4.6	140		1401	4.9	150
	0027	2.0	60		0024	3.3	100		2000	11.5	350		1911	10.2	310		2203	9.8	300		2038	9.8	300
<b>7</b> Tu	0704	11.5	350	<b>22</b> W	0650	10.2	310	<b>7</b> F	0152	3.3	100	<b>22</b> Sa	0106	4.3	130	<b>7</b> M	0356	4.9	150	<b>22</b> Tu	0236	5.2	160
	1245	2.6	80		1236	3.9	120		0834	10.8	330		0741	9.8	300		1040	10.5	320		0920	9.8	300
	1926	11.8	360		1904	10.5	320		1423	3.6	110		1331	4.6	140		1651	4.6	140		1529	4.9	150
	0120	2.6	80		0107	3.9	120		2106	10.8	330		2004	9.8	300		2324	9.8	300		2206	9.8	300
<b>8</b> W	0800	10.8	330	<b>23</b> Th	0734	9.8	300	<b>8</b> Sa	0259	3.9	120	<b>23</b> Su	0204	4.6	140	<b>8</b> Tu	0518	4.6	140	<b>23</b> W	0406	4.9	150
	1343	3.3	100		1324	4.3	130		0944	10.5	320		0843	9.5	290		1154	10.8	330		1044	10.5	320
	2025	11.5	350		1952	9.8	300		1541	3.9	120		1441	4.9	150		1803	4.3	130		1652	4.6	140
	0221	3.0	90		0221	10.2	310		2221	10.2	310		2114	9.5	290		2114	9.5	290		2328	10.5	320
<b>9</b> Th	0221	3.0	90	<b>24</b> F	0159	4.3	130	<b>9</b> Su	0416	4.3	130	<b>24</b> M	0320	4.9	150	<b>9</b> W	0029	10.5	320	<b>24</b> Th	0522	4.3	130
	0903	10.5	320		0830	9.5	290		1100	10.5	320		0959	9.8	300		0620	4.3	130		1156	11.2	340
	1450	3.6	110		1424	4.9	150		1703	3.9	120		1605	4.9	150		1251	11.2	340		1758	3.6	110
	2131	10.8	330		2052	9.5	290		2338	10.2	310		2236	9.5	290		1855	3.6	110		1855	3.6	110
<b>10</b> F	0328	3.3	100	<b>25</b> Sa	0303	4.6	140	<b>10</b> M	0532	3.9	120	<b>25</b> Tu	0440	4.6	140	<b>10</b> Th	0119	10.8	330	<b>25</b> F	0031	11.2	340
	1012	10.5	320		0937	9.5	290		1210	10.8	330		1115	10.2	310		0707	3.6	110		0621	3.3	100
	1603	3.6	110		1536	4.9	150		1815	3.6	110		1721	4.3	130		1337	11.8	360		1254	12.1	370
	2243	10.8	330		2203	9.5	290		0043	10.5	320		2351	10.2	310		1935	3.3	100		1852	2.6	80
<b>11</b> Sa	0439	3.6	110	<b>26</b> Su	0414	4.6	140	<b>11</b> Tu	0634	3.6	110	<b>26</b> W	0547	3.9	120	<b>11</b> F	0201	11.5	350	<b>26</b> Sa	0124	12.1	370
	1121	10.8	330		1047	9.5	290		1308	11.2	340		1220	10.8	330		0746	3.3	100		0713	2.6	80
	1717	3.6	110		1649	4.6	140		1910	3.3	100		1822	3.6	110		1416	12.1	370		1345	13.1	400
	2352	10.8	330		2315	9.5	290		0137	10.8	330		2002	1.6	50		2010	3.0	90		1941	1.6	50
<b>12</b> Su	0546	3.3	100	<b>27</b> M	0519	4.3	130	<b>12</b> W	0724	3.3	100	<b>27</b> Th	0052	10.8	330	<b>12</b> Sa	0237	11.8	360	<b>27</b> Su	0213	13.1	400
	1225	11.2	340		1151	10.2	310		1357	11.8	360		0644	3.3	100		0820	3.0	90		0800	1.6	50
	1823	3.3	100		1752	4.3	130		1955	3.0	90		1915	2.6	80		1451	12.5	380		1433	13.8	420
	0054	10.8	330		0018	10.2	310		0222	11.2	340		2002	1.6	50		2042	2.6	80		2026	1.0	30
<b>13</b> M	0645	3.0	90	<b>28</b> Tu	0615	3.6	110	<b>13</b> Th	0805	3.0	90	<b>28</b> F	0145	11.8	360	<b>13</b> Su	0309	12.1	370	<b>28</b> M	0259	13.8	420
	1321	11.5	350		1247	10.8	330		1439	12.1	370		0733	2.3	70		0852	2.6	80		0845	1.0	30
	1919	3.0	90		1847	3.3	100		2034	2.6	80		1407	12.8	390		1523	12.5	380		1520	14.4	440
	0148	11.2	340		0114	10.8	330		0301	11.5	350		2002	1.6	50		2113	2.3	70		2110	1.0	30
<b>14</b> Tu	0735	3.0	90	<b>29</b> W	0706	3.0	90	<b>14</b> F	0842	2.6	80	<b>29</b> Sa	0234	12.5	380	<b>14</b> M	0340	12.1	370	<b>29</b> Tu	0343	13.8	420
	1411	11.8	360		1338	11.5	350		1517	12.1	370		0820	1.6	50		0923	2.6	80		0929	1.0	30
	2008	2.6	80		1936	2.6	80		2108	2.3	70		1455	13.5	410		1554	12.5	380		1605	14.4	440
	0237	11.5	350		0205	11.5	350		0337	11.5	350		2048	1.0	30		2143	2.3	70		2153	1.0	30
<b>15</b> W	0820	2.6	80	<b>30</b> Th	0753	2.3	70	<b>15</b> Sa	0916	2.6	80	<b>30</b> Su	0320	13.1	400	<b>15</b> Tu	0410	12.1	370	<b>30</b> W	0427	13.8	420
	1456	12.1	370		1427	12.5	380		1551	12.1	370		0905	1.0	30		0953	2.6	80		1012	1.0	30
	2051	2.3	70		2022	2.0	60		2140	2.3	70		1541	14.1</									

## Lisbon, Portugal, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> Th	0511	13.5	410		<b>16</b> F	0445	12.1	370		<b>1</b> Su	0621	12.1	370		<b>16</b> M	0542	11.8	360		<b>1</b> Tu	0004	3.6	110		<b>16</b> W	0618	11.8	360	
	1057	1.6	50			1032	3.0	90			1215	3.3	100			1132	3.3	100			0643	11.2	340			1210	2.6	80	
	1735	13.5	410			1702	11.8	360			1852	11.2	340			1807	10.8	330			1241	3.6	110			1847	10.8	330	
	2319	2.0	60			2246	3.3	100								2346	3.6	110			1914	10.2	310						
<b>2</b> F	0556	12.8	390		<b>17</b> Sa	0519	11.8	360		<b>2</b> M	0030	4.3	130		<b>17</b> Tu	0628	11.5	350		<b>2</b> W	0053	4.3	130		<b>17</b> Th	0027	3.3	100	
	1143	2.3	70			1106	3.3	100			0712	11.2	340			1220	3.6	110			0730	10.5	320			0709	11.5	350	
	1822	12.5	380			1738	11.5	350			1311	4.3	130			1857	10.5	320			1334	4.3	130			1304	3.0	90	
				2320		3.6	110		1949		10.2	310							2008		9.5	290		1943		10.5	320		
<b>3</b> Sa	0004	3.0	90		<b>18</b> Su	0557	11.5	350		<b>3</b> Tu	0129	4.9	150		<b>18</b> W	0039	4.3	130		<b>3</b> Th	0151	4.9	150		<b>18</b> F	0126	3.6	110	
	0644	12.1	370			1145	3.9	120			0813	10.5	320			0722	10.8	330			0828	9.8	300			0808	11.2	340	
	1235	3.3	100			1819	10.8	330			1421	4.9	150			1320	3.9	120			1438	4.6	140			1407	3.3	100	
	1914	11.2	340								2101	9.8	300			2000	10.2	310			2115	9.5	290			2049	10.2	310	
<b>4</b> Su	0056	4.3	130		<b>19</b> M	0001	4.3	130		<b>4</b> W	0244	5.6	170		<b>19</b> Th	0146	4.6	140		<b>4</b> F	0301	5.2	160		<b>19</b> Sa	0234	3.9	120	
	0739	11.2	340			0641	10.8	330			0929	10.2	310			0830	10.8	330			0937	9.8	300			0917	10.8	330	
	1337	4.3	130			1232	4.3	130			1540	4.9	150			1433	4.3	130			1548	4.6	140			1517	3.6	110	
	2018	10.5	320			1909	10.2	310			2219	9.8	300			2117	10.2	310			2226	9.5	290			2201	10.5	320	
<b>5</b> M	0202	4.9	150		<b>20</b> Tu	0053	4.6	140		<b>5</b> Th	0406	5.6	170		<b>20</b> F	0305	4.6	140		<b>5</b> Sa	0414	4.9	150		<b>20</b> Su	0349	3.9	120	
	0849	10.5	320			0738	10.5	320			1044	10.2	310			0947	10.8	330			1047	9.8	300			1030	10.8	330	
	1457	4.9	150			1337	4.6	140			1652	4.9	150			1551	3.9	120			1653	4.6	140			1629	3.3	100	
	2139	9.8	300			2016	9.8	300			2326	10.2	310			2234	10.5	320			2327	9.8	300			2311	10.8	330	
<b>6</b> Tu	0328	5.2	160		<b>21</b> W	0207	4.9	150		<b>6</b> F	0514	4.9	150		<b>21</b> Sa	0422	4.3	130		<b>6</b> Su	0518	4.6	140		<b>21</b> M	0502	3.3	100	
	1013	10.2	310			0852	10.5	320			1145	10.5	320			1100	11.2	340			1146	10.2	310			1139	11.2	340	
	1627	4.9	150			1500	4.9	150			1747	4.3	130			1701	3.3	100			1747	3.9	120			1735	3.0	90	
	2301	9.8	300			2142	9.8	300								2340	11.2	340											
<b>7</b> W	0453	5.2	160		<b>22</b> Th	0335	4.9	150		<b>7</b> Sa	0017	10.5	320		<b>22</b> Su	0529	3.6	110		<b>7</b> M	0017	10.5	320		<b>22</b> Tu	0014	11.5	350	
	1128	10.5	320			1016	10.8	330			0606	4.6	140			1204	11.8	360			0609	4.3	130			0607	3.0	90	
	1737	4.6	140			1623	4.3	130			1233	10.8	330			1801	2.6	80			1234	10.5	320			1240	11.5	350	
						2303	10.5	320			1831	3.9	120								1833	3.6	110			1834	2.6	80	
<b>8</b> Th	0005	10.5	320		<b>23</b> F	0454	4.3	130		<b>8</b> Su	0058	11.2	340		<b>23</b> M	0037	12.1	370		<b>8</b> Tu	0100	10.8	330		<b>23</b> W	0110	11.8	360	
	0555	4.9	150			1129	11.5	350			0648	3.9	120			0627	2.6	80			0653	3.6	110			0704	2.3	70	
	1225	11.2	340			1732	3.6	110			1314	11.5	350			1300	12.5	380			1317	10.8	330			1336	11.8	360	
	1827	3.9	120								1909	3.3	100			1854	2.0	60			1912	3.3	100			1926	2.0	60	
<b>9</b> F	0053	10.8	330		<b>24</b> Sa	0007	11.5	350		<b>9</b> M	0135	11.5	350		<b>24</b> Tu	0128	12.8	390		<b>9</b> W	0139	11.5	350		<b>24</b> Th	0201	12.5	380	
	0642	4.3	130			0557	3.6	110			0725	3.3	100			0719	2.0	60			0732	3.3	100			0756	2.0	60	
	1310	11.5	350			1230	12.5	380			1350	11.8	360			1352	13.1	400			1356	11.2	340			1428	12.1	370	
	1907	3.6	110			1828	2.6	80			1943	3.0	90			1943	1.6	50			1948	3.0	90			2014	2.0	60	
<b>10</b> Sa	0133	11.5	350		<b>25</b> Su	0101	12.5	380		<b>10</b> Tu	0210	12.1	370		<b>25</b> W	0217	13.1	400		<b>10</b> Th	0216	11.8	360		<b>25</b> F	0250	12.8	390	
	0720	3.6	110			0650	2.6	80			0759	3.0	90			0808	1.6	50			0809	3.0	90			0843	1.6	50	
	1348	11.8	360			1322	13.1	400			1425	12.1	370			1441	13.1	400			1435	11.5	350			1516	12.1	370	
	1942	3.0	90			1917	2.0	60			2016	3.0	90			2029	1.6	50			2024	2.6	80			2059	2.0	60	
<b>11</b> Su	0208	11.8	360		<b>26</b> M	0150	13.1	400		<b>11</b> W	0243	12.1	370		<b>26</b> Th	0303	13.5	410		<b>11</b> F	0253	12.1	370		<b>26</b> Sa	0335	12.8	390	
	0754	3.3	100			0739	2.0	60			0832	3.0	90			0854	1.3	40			0845	2.6	80			0928	1.6	50	
	1422	12.1	370			1412	13.8	420			1459	12.1	370			1528	13.1	400			1513	11.5	350			1601	12.1	370	
	2014	3.0	90			2004	1.3	40			2048	2.6	80			2113	1.6	50			2059	2.6	80			2141	2.0	60	
<b>12</b> M	0240	12.1	370		<b>27</b> Tu	0237	13.8	420		<b>12</b> Th	0316	12.5	380		<b>27</b> F	0349	13.5	410		<b>12</b> Sa	0331	12.1	370		<b>27</b> Su	0418	12.5	380	
	0826	3.0	90			0825	1.3	40			0905	2.6	80			0940	1.3	40			0922	2.3	70			1010	1.6	50	
	1454	12.5	380			1459	14.1	430			1533	12.1	370			1614	12.8	390			1552	11.8	360			1643	11.8	360	
	2044	2.6	80			2048	1.0	30			2120	2.6	80			2156	2.0	60			2135	2.3	70			2221	2.3	70	
<b>13</b> Tu	0311	12.5	380		<b>28</b> W	0322	13.8	420		<b>13</b> F	0350	12.5	380		<b>28</b> Sa	0433	13.1	400		<b>13</b> Su	0410	12.5	380		<b>28</b> M	0458	12.5	380	
	0857	2.6	80			0910	1.0	30			0939	2.6	80			1024	1.6	50			1000	2.3	70			1050	2.0	60	
	1526	12.5	380			1545	14.1	430			1608	11.8	360			1659	12.1	370			1632	11.5	350			1722	11.5	350	
	2115	2.6	80			2131	1.3	40			2152	2.6	80			2238	2.3	70			2213	2.3	70			2259	2.6	80	
<b>14</b> W	0342	12.5	380		<b>29</b> Th	0406	13.8	420		<b>14</b> Sa	0425	12.1	370		<b>29</b> Su	0517	12.5	380		<b>14</b> M	0450	12.1	370		<b>29</b> Tu	0536	11.8	360	
	0928	2.6	80			0954	1.3	40			1014	2.6	80			1108	2.3	70			1040	2.3	70			1128	2.3	70	
	1557	12.5	380			1630	13.8	420			1645	11.8	360			1743	11.5	350			1714	11.5	350			1759	10.8	330	
	2145	2.6	80			2214	1.6	50			2226	3.0	90			2320	3.0	90			2253	2.6	80			2337	3.0	90	
<b>15</b>																													

# Pointe de Grave, France, 2015

## Times and Heights of High and Low Waters

January					February					March													
	Time		Height			Time		Height			Time		Height			Time		Height					
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm	h	m	ft	cm
<b>1</b> Th	0208	15.5	471	<b>16</b> F	0116	14.4	438	<b>1</b> Su	0338	15.7	480	<b>16</b> M	0248	15.9	484	<b>1</b> Su	0231	14.6	446	<b>16</b> M	0117	14.8	451
	0748	5.8	178		0701	7.1	215		0929	5.3	162		0838	5.3	163		0816	6.3	191		0703	6.3	192
	1435	15.6	476		1348	14.5	442		1603	15.6	476		1520	16.0	487		1501	14.6	446		1400	14.9	453
	2018	5.7	173		1938	6.7	203		2146	5.2	159		2109	5.0	153		2037	6.3	191		1941	6.2	190
<b>2</b> F	0302	15.9	485	<b>17</b> Sa	0218	15.2	462	<b>2</b> M	0418	16.3	496	<b>17</b> Tu	0340	17.1	520	<b>2</b> M	0321	15.3	466	<b>17</b> Tu	0223	15.9	484
	0849	5.4	164		0804	6.3	192		1014	4.8	146		0936	4.2	128		0910	5.6	170		0814	5.2	160
	1528	15.9	486		1448	15.3	466		1640	16.1	490		1610	17.0	518		1544	15.3	465		1459	16.0	487
	2113	5.2	159		2036	5.8	178		2227	4.8	145		2202	3.9	119		2126	5.5	169		2046	5.0	153
<b>3</b> Sa	0349	16.4	499	<b>18</b> Su	0311	16.1	491	<b>3</b> Tu	0454	16.7	508	<b>18</b> W	0429	18.1	551	<b>3</b> Tu	0400	15.9	484	<b>18</b> W	0319	17.1	521
	0942	4.9	149		0901	5.3	163		1054	4.4	135		1028	3.1	96		0953	5.0	151		0915	4.1	124
	1613	16.3	496		1539	16.2	493		1713	16.4	500		1658	17.8	543		1619	15.8	482		1551	17.1	520
	2200	4.8	147		2129	5.0	151		2304	4.4	135		2251	3.0	91		2207	5.0	151		2142	3.8	117
<b>4</b> Su	0430	16.7	510	<b>19</b> M	0359	17.1	520	<b>4</b> W	0527	16.9	516	<b>19</b> Th	0516	18.9	575	<b>4</b> W	0433	16.4	499	<b>19</b> Th	0409	18.1	553
	1028	4.5	138		0955	4.4	133		1129	4.2	129		1117	2.4	72		1031	4.5	138		1008	3.0	92
	1654	16.5	503		1627	17.0	517		1745	16.6	506		1743	18.3	558		1650	16.3	496		1638	17.9	546
	2242	4.5	138		2219	4.1	124		2338	4.3	130		2338	2.3	71		2242	4.5	138		2232	2.8	86
<b>5</b> M	0508	17.0	518	<b>20</b> Tu	0446	17.9	546	<b>5</b> Th	0557	17.0	519	<b>20</b> F	0602	19.3	587	<b>5</b> Th	0504	16.8	511	<b>20</b> F	0456	18.9	575
	1109	4.3	132		1045	3.5	106		1202	4.2	127		1202	2.0	61		1105	4.2	129		1056	2.3	69
	1731	16.6	507		1713	17.6	537		1814	16.6	507		1827	18.4	562		1719	16.6	506		1723	18.4	561
	2321	4.4	134		2307	3.4	103		0010	4.3	130		0023	2.1	64		0533	17.0	517		0542	19.2	585
<b>6</b> Tu	0544	17.1	521	<b>21</b> W	0532	18.5	565	<b>6</b> F	0627	17.0	517	<b>21</b> Sa	0648	19.2	585	<b>6</b> F	1136	4.1	125	<b>21</b> Sa	1142	2.0	60
	1147	4.3	130		1133	2.8	86		1233	4.3	130		1246	2.1	64		1748	16.8	512		1807	18.5	565
	1806	16.6	507		1758	18.0	548		1844	16.5	504		1911	18.1	553		2346	4.1	125				
	2357	4.4	135		2353	2.9	89		0042	4.4	134		0106	2.3	70		0602	17.0	519		0003	1.9	59
<b>7</b> W	0618	17.0	519	<b>22</b> Th	0618	18.9	575	<b>7</b> Sa	0657	16.8	511	<b>22</b> Su	0733	18.6	568	<b>7</b> Sa	1206	4.1	125	<b>22</b> Su	0627	19.1	581
	1222	4.4	134		1219	2.5	76		1304	4.5	138		1328	2.6	79		1816	16.8	512		1224	2.1	65
	1838	16.4	501		1844	18.0	549		1913	16.3	496		1956	17.5	533						1849	18.2	556
<b>8</b> Th	0031	4.6	140	<b>23</b> F	0038	2.8	85	<b>8</b> Su	0112	4.7	142	<b>23</b> M	0149	2.9	88	<b>8</b> Su	0017	4.1	125	<b>23</b> M	0045	2.2	66
	0651	16.8	512		0705	18.8	574		0727	16.4	501		0819	17.7	539		0631	16.9	516		0711	18.4	562
	1256	4.6	141		1304	2.6	78		1334	4.9	149		1411	3.4	105		1236	4.2	129		1306	2.7	82
	1910	16.1	492		1931	17.7	540		1944	15.9	484		2041	16.5	504		1845	16.7	508		1931	17.6	537
<b>9</b> F	0105	4.9	149	<b>24</b> Sa	0123	3.0	91	<b>9</b> M	0144	5.1	154	<b>24</b> Tu	0233	3.8	115	<b>9</b> M	0046	4.2	129	<b>24</b> Tu	0127	2.8	85
	0723	16.4	501		0753	18.4	561		0800	15.9	485		0908	16.5	502		0700	16.7	508		0755	17.4	531
	1330	5.0	152		1348	3.0	91		1405	5.3	163		1456	4.5	138		1304	4.5	137		1346	3.5	108
	1943	15.7	480		2019	17.1	521		2019	15.4	468		2132	15.5	472		1915	16.4	499		2014	16.7	508
<b>10</b> Sa	0139	5.3	162	<b>25</b> Su	0209	3.5	106	<b>10</b> Tu	0217	5.5	169	<b>25</b> W	0323	4.9	149	<b>10</b> Tu	0117	4.5	138	<b>25</b> W	0210	3.7	113
	0757	16.0	487		0842	17.6	536		0836	15.3	467		1004	15.2	462		0731	16.2	495		0840	16.2	493
	1404	5.5	167		1433	3.7	113		1439	5.9	180		1548	5.7	174		1334	4.9	149		1429	4.6	141
	2018	15.3	465		2109	16.2	495		2100	14.8	450		2234	14.5	442		1948	15.9	485		2057	15.6	476
<b>11</b> Su	0214	5.8	177	<b>26</b> M	0257	4.2	129	<b>11</b> W	0257	6.1	187	<b>26</b> Th	0424	6.0	183	<b>11</b> W	0149	4.9	150	<b>26</b> Th	0256	4.9	148
	0834	15.5	471		0936	16.6	505		0922	14.6	446		1119	14.1	431		0806	15.6	477		0932	14.9	454
	1440	6.0	183		1523	4.7	142		1522	6.6	200		1654	6.7	205		1407	5.4	165		1517	5.8	177
	2059	14.7	449		2207	15.4	469		2155	14.2	432						2027	15.4	468		2153	14.6	445
<b>12</b> M	0253	6.4	194	<b>27</b> Tu	0351	5.1	156	<b>12</b> Th	0347	6.8	206	<b>27</b> F	0502	14.0	426	<b>12</b> Th	0227	5.5	167	<b>27</b> F	0352	6.0	184
	0917	14.8	452		1038	15.5	473		1023	14.0	427		0541	6.8	206		0850	14.9	455		1042	13.8	422
	1522	6.6	201		1620	5.6	172		1620	7.2	219		1248	13.7	419		1448	6.1	185		1618	6.9	209
	2150	14.2	433		2319	14.7	448		2307	13.8	422		1816	7.2	220		2118	14.7	448		2315	13.8	422
<b>13</b> Tu	0340	7.0	212	<b>28</b> W	0455	6.0	182	<b>13</b> F	0456	7.2	220	<b>28</b> Sa	0126	14.1	429	<b>13</b> F	0314	6.2	188	<b>28</b> Sa	0506	6.9	211
	1012	14.3	435		1152	14.7	449		1142	13.7	418		0706	6.8	208		0948	14.2	434		1210	13.4	409
	1614	7.2	218		1729	6.4	196		1738	7.4	226		1404	14.0	428		1541	6.8	208		1738	7.5	228
	2254	13.8	422										1935	6.9	211		2227	14.2	432				
<b>14</b> W	0440	7.4	225	<b>29</b> Th	0037	14.4	440	<b>14</b> Sa	0030	14.0	427	<b>14</b> Sa	0417	6.8	206	<b>14</b> Sa	0417	6.8	206	<b>29</b> Su	0045	13.7	419
	1119	13.9	424		0611	6.5	197		0617	7.1	217		1106	13.8	420		1106	13.8	420		0632	7.1	216
	1721	7.4	226		1312	14.5	441		1312	14.0	428		1657	7.3	223		1657	7.3	223		1331	13.6	416
					1846	6.7	204		1858	7.0	214		2352	14.1	431		2352	14.1	431		1900	7.3	223
<b>15</b> Th	0005	13.9	423	<b>30</b> F	0150	14.7	447	<b>15</b> Su	0147	14.8	451	<b>15</b> Su	0541	6.9	210	<b>15</b> Su	0541	6.9	210	<b>30</b> M	0158	14.2	432
	0552	7.4	227		0729	6.4	194		0732	6.4	195		1242	14.0	426		1242	14.0	426		0745	6.6	201
	1235	14.0	426		1422	14.7	447		1423	14.9	455		1824	7.1	216		1824	7.1	216		1430	14.2	434
	1833	7.3	221		1959	6.4	195		2008	6.1	187										2006	6.7	204
			<b>31</b> Sa	0250	15.2	463										<b>31</b> Tu	0250	14.8	451				
				0835	5.9	180											0839	5.9	180				
				1518	15.1	461											1513	14.9	455				
				2058	5.8	177											2056	6.0	182				

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# Pointe de Grave, France, 2015

## Times and Heights of High and Low Waters

April				May				June															
	Time		Height			Time		Height			Time		Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0331	15.5	471	<b>16</b> Th	0255	17.0	518	<b>1</b> F	0328	15.5	472	<b>16</b> Sa	0325	17.2	525	<b>1</b> M	0406	15.9	485	<b>16</b> Tu	0446	16.7	509
	0923	5.3	161		0850	4.1	124		0923	5.2	158		0920	3.7	112		1001	4.7	143		1036	3.7	114
	1549	15.6	475		1528	17.0	518		1544	15.8	482		1553	17.2	524		1623	16.4	501		1705	17.1	520
	2137	5.3	162		2118	3.9	119		2138	5.2	159		2146	3.5	106		2221	4.5	137		●	2304	3.5
<b>2</b> Th	0404	16.0	488	<b>17</b> F	0347	17.9	545	<b>2</b> Sa	0402	16.0	488	<b>17</b> Su	0415	17.6	536	<b>2</b> Tu	0445	16.3	497	<b>17</b> W	0530	16.7	510
	1000	4.8	145		0944	3.2	97		0959	4.8	145		1009	3.2	99		1040	4.3	132		1119	3.7	113
	1620	16.1	491		1616	17.7	540		1618	16.3	497		1639	17.6	535		1701	16.8	513		1747	17.1	520
	2213	4.8	147		2209	3.0	91		2214	4.7	144		2235	3.0	92		2301	4.1	124		●	2347	3.5
<b>3</b> F	0435	16.5	502	<b>18</b> Sa	0435	18.4	562	<b>3</b> Su	0436	16.4	500	<b>18</b> M	0502	17.7	540	<b>3</b> W	0524	16.6	505	<b>18</b> Th	0611	16.5	504
	1034	4.4	134		1033	2.6	79		1033	4.4	135		1055	3.1	94		1118	4.1	124		1200	3.8	117
	1650	16.5	504		1701	18.1	553		1651	16.7	509		1723	17.7	539		1740	17.1	520		1826	16.9	514
	2247	4.4	135		●	2257	2.4		74	2249	4.3		132	●	2321		2.9	87	2341		3.7	114	
<b>4</b> Sa	0505	16.8	512	<b>19</b> Su	0521	18.7	569	<b>4</b> M	0509	16.7	508	<b>19</b> Tu	0547	17.6	536	<b>4</b> Th	0602	16.6	507	<b>19</b> F	0027	3.7	113
	1106	4.2	128		1118	2.4	73		1107	4.2	128		1139	3.2	97		1158	4.0	121		0650	16.2	494
	1720	16.8	513		1744	18.3	557		1724	16.9	516		1805	17.6	535		1821	17.2	523		1239	4.1	126
	2319	4.2	127		2341	2.2	68		2324	4.1	124		0004	3.0	92		0022	3.6	110		1903	16.5	504
<b>5</b> Su	0535	16.9	516	<b>20</b> M	0606	18.4	562	<b>5</b> Tu	0543	16.8	511	<b>20</b> W	0630	17.2	523	<b>5</b> F	0643	16.5	504	<b>20</b> Sa	0726	15.7	480
	1137	4.1	125		1201	2.6	79		1141	4.1	126		1219	3.5	108		1239	4.0	123		1316	4.6	139
	1750	17.0	517		1827	18.0	549		1758	17.0	518		1846	17.2	523		1904	17.1	520		1940	16.0	489
	2350	4.0	123																				
<b>6</b> M	0605	16.9	516	<b>21</b> Tu	0024	2.5	75	<b>6</b> W	0000	3.9	119	<b>21</b> Th	0045	3.4	104	<b>6</b> Sa	0104	3.7	112	<b>21</b> Su	0144	4.6	139
	1207	4.1	126		0650	17.8	544		0617	16.7	508		0711	16.5	503		0727	16.3	496		0802	15.2	464
	1820	16.9	516		1242	3.1	94		1215	4.2	128		1259	4.1	124		1322	4.3	131		1355	5.1	155
					1907	17.5	533		1834	16.9	516		1925	16.6	506		1951	16.8	513		2017	15.5	473
<b>7</b> Tu	0022	4.0	123	<b>22</b> W	0105	3.1	93	<b>7</b> Th	0036	3.9	120	<b>22</b> F	0126	4.0	123	<b>7</b> Su	0148	3.9	119	<b>22</b> M	0223	5.1	156
	0636	16.7	510		0732	17.0	517		0654	16.4	500		0751	15.7	480		0816	15.8	483		0841	14.7	448
	1238	4.3	132		1322	3.8	117		1252	4.4	135		1339	4.7	144		1408	4.7	142		1435	5.7	173
	1852	16.7	509		1948	16.7	509		1913	16.7	508		2005	15.9	485		2042	16.4	501		2059	14.9	455
<b>8</b> W	0054	4.2	128	<b>23</b> Th	0147	3.9	118	<b>8</b> F	0114	4.2	127	<b>23</b> Sa	0207	4.8	145	<b>8</b> M	0236	4.3	131	<b>23</b> Tu	0305	5.7	175
	0709	16.4	499		0815	15.9	485		0735	16.0	487		0833	15.0	456		0911	15.4	468		0927	14.2	432
	1310	4.7	142		1403	4.8	145		1331	4.8	147		1421	5.5	167		1500	5.1	155		1521	6.3	192
	1927	16.3	498		2029	15.8	481		1958	16.3	496		2047	15.2	462		2139	16.0	488		2148	14.4	438
<b>9</b> Th	0128	4.5	138	<b>24</b> F	0231	4.9	148	<b>9</b> Sa	0156	4.5	138	<b>24</b> Su	0252	5.5	169	<b>9</b> Tu	0330	4.8	145	<b>24</b> W	0354	6.3	193
	0746	15.8	483		0902	14.8	452		0822	15.5	471		0921	14.2	434		1016	15.0	456		1024	13.7	419
	1345	5.1	156		1448	5.7	175		1416	5.3	163		1509	6.2	190		1601	5.5	167		1615	6.8	208
	2008	15.8	482		2117	14.9	453		2050	15.8	481		2138	14.5	441		●	2245	15.7		478	●	2247
<b>10</b> F	0208	5.0	153	<b>25</b> Sa	0322	5.9	180	<b>10</b> Su	0244	5.1	154	<b>25</b> M	0345	6.3	192	<b>10</b> W	0433	5.1	156	<b>25</b> Th	0452	6.8	206
	0831	15.2	462		1002	13.9	424		0920	14.9	453		1020	13.7	418		1131	14.8	452		1128	13.5	413
	1427	5.7	175		1543	6.7	204		1510	5.9	180		1605	6.9	211		1708	5.6	172		1718	7.1	216
	2059	15.2	464		2223	14.1	429		2151	15.4	468		●	2243	14.0		426	2356	15.5		473	2352	13.7
<b>11</b> Sa	0255	5.6	172	<b>26</b> Su	0426	6.8	206	<b>11</b> M	0343	5.5	168	<b>26</b> Tu	0447	6.8	208	<b>11</b> Th	0542	5.3	162	<b>26</b> F	0556	6.9	210
	0930	14.5	442		1117	13.4	409		1032	14.5	442		1127	13.5	411		1243	15.0	458		1233	13.7	418
	1520	6.5	197		1652	7.3	224		1617	6.3	192		1712	7.3	221		1819	5.5	168		1823	7.0	214
	2204	14.7	448		●	2344	13.7		418	●	2304		15.2	463	2350		13.7	419					
<b>12</b> Su	0356	6.2	190	<b>27</b> M	0543	7.1	217	<b>12</b> Tu	0454	5.8	176	<b>27</b> W	0555	7.0	212	<b>12</b> F	0106	15.6	477	<b>27</b> Sa	0057	13.8	422
	1045	14.0	428		1235	13.5	410		1157	14.6	444		1234	13.6	416		0652	5.2	158		0658	6.7	203
	1632	7.0	212		1809	7.5	228		1732	6.2	190		1819	7.2	220		1347	15.5	472		1334	14.2	432
	●	2325	14.6		445												1927	5.1	156		1923	6.6	202
<b>13</b> M	0515	6.4	196	<b>28</b> Tu	0101	13.8	422	<b>13</b> W	0022	15.4	470	<b>28</b> Th	0057	13.9	424	<b>13</b> Sa	0209	15.9	486	<b>28</b> Su	0158	14.3	435
	1219	14.2	433		0656	6.9	210		0609	5.6	170		0658	6.7	204		0759	4.8	147		0755	6.2	189
	1757	6.8	207		1340	13.9	424		1310	15.1	461		1334	14.1	429		1443	16.0	488		1427	14.8	451
					1918	7.1	216		1846	5.7	175		1919	6.8	208		2030	4.6	140		2018	6.0	183
<b>14</b> Tu	0049	15.1	460	<b>29</b> W	0203	14.3	436	<b>14</b> Th	0131	16.0	487	<b>29</b> F	0156	14.3	437	<b>14</b> Su	0307	16.3	496	<b>29</b> M	0251	14.8	452
	0636	6.0	182		0756	6.4	194		0720	5.0	153		0753	6.2	190		0858	4.4	133		0845	5.6	170
	1336	15.0	458		1430	14.5	443		1411	15.9	484		1423	14.7	448		1534	16.5	502		1514	15.5	473
	1914	6.1	185		2013	6.5	197		1953	5.0	152		2012	6.3	191		2126	4.1	124		2107	5.3	162
<b>15</b> W	0158	16.0	488	<b>30</b> Th	0249	14.9	455	<b>15</b> F	0231	16.6	507	<b>30</b> Sa	0244	14.9	453	<b>15</b> M	0359	16.5	504	<b>30</b> Tu	0338	15.5	471
	0748	5.1	155		0843	5.7	175		0824	4.3	132		0840	5.7	173		0949	4.0	122		0932	5.0	151
	1436	16.0	489		1509	15.2	463		1505	16.6	507		1506	15.4									

# Pointe de Grave, France, 2015

## Times and Heights of High and Low Waters

July				August				September																									
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																				
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																			
<b>1</b> W	0422	16.0	489		<b>16</b> Th	0514	16.2	493		<b>1</b> Sa	0533	17.2	525		<b>16</b> Su	0559	16.3	497		<b>1</b> Tu	0021	2.1	64		<b>16</b> W	0021	4.3	132					
	1016	4.4	133			1104	4.0	123			1129	3.1	93			1157	4.1	124			0644	18.0	549			0628	16.5	503					
	1641	16.8	513			1729	16.7	510			1752	18.2	555			1811	16.7	510			1240	2.3	70			1324	4.5	136		1232	4.5	136	
	2240	4.0	121			2331	3.8	116			2355	2.6	78			1905	18.6	568			1905	18.6	568			1951	17.9	545		1842	16.5	504	
<b>2</b> Th	0506	16.5	503		<b>17</b> F	0552	16.2	495		<b>2</b> Su	0618	17.5	533		<b>17</b> M	0020	4.0	122		<b>2</b> W	0104	2.4	73		<b>17</b> Th	0050	4.6	141					
	1100	3.9	118			1142	4.0	121			1214	2.8	84			0628	16.2	495			0729	17.6	535			0657	16.2	494					
	1724	17.3	527			1805	16.7	510			1838	18.4	560			1228	4.2	128			1324	2.7	82			1301	4.8	145					
	2325	3.4	105			1805	16.7	510			1838	18.4	560			1841	16.5	504			1951	17.9	545			1912	16.1	490					
<b>3</b> F	0549	16.8	512		<b>18</b> Sa	0009	3.8	117		<b>3</b> M	0039	2.4	73		<b>18</b> Tu	0051	4.3	130		<b>3</b> Th	0146	3.1	94		<b>18</b> F	0119	5.1	154					
	1144	3.5	108			0626	16.1	492			0704	17.4	531			0657	16.0	489			0814	16.8	511			0729	15.8	481					
	1808	17.6	536			1219	4.1	125			1258	2.8	84			1259	4.5	137			1408	3.4	105			1408	3.4	105					
						1838	16.6	505			1924	18.2	554			1911	16.2	494			2041	16.8	512			1945	15.5	473					
<b>4</b> Sa	0009	3.1	95		<b>19</b> Su	0045	4.0	123		<b>4</b> Tu	0123	2.6	79		<b>19</b> W	0121	4.6	141		<b>4</b> F	0231	4.0	122		<b>19</b> Sa	0150	5.5	169					
	0633	16.9	515			0658	15.9	485			0749	17.0	519			0728	15.7	479			0903	15.8	482			0805	15.2	464					
	1228	3.4	105			1253	4.3	132			1342	3.1	93			1330	4.9	149			1456	4.5	136			1408	5.7	174					
	1853	17.7	539			1911	16.3	496			2012	17.6	537			1943	15.7	480			2136	15.6	475			2026	14.8	452					
<b>5</b> Su	0053	3.0	92		<b>20</b> M	0119	4.3	132		<b>5</b> W	0207	3.1	94		<b>20</b> Th	0151	5.1	155		<b>5</b> Sa	0320	5.1	156		<b>20</b> Su	0228	6.2	188					
	0718	16.8	511			0730	15.6	475			0837	16.4	499			0801	15.2	464			1004	14.9	453			0852	14.6	445					
	1312	3.5	107			1327	4.7	143			1428	3.6	111			1402	5.4	164			1553	5.5	169			1452	6.4	194					
	1940	17.5	534			1944	15.8	483			2103	16.8	511			2019	15.2	462			2247	14.5	442			2121	14.1	430					
<b>6</b> M	0138	3.1	96		<b>21</b> Tu	0153	4.8	145		<b>6</b> Th	0253	3.9	118		<b>21</b> F	0224	5.6	171		<b>6</b> Su	0421	6.2	189		<b>21</b> M	0316	6.9	210					
	0805	16.4	501			0803	15.2	463			0930	15.6	475			0840	14.7	447			1127	14.2	433			0957	14.1	429					
	1358	3.8	116			1402	5.2	158			1519	4.4	135			1439	5.9	181			1706	6.4	195			1549	7.0	214					
	2029	17.1	522			2020	15.4	468			2200	15.8	482			2101	14.5	442								2235	13.6	416					
<b>7</b> Tu	0224	3.5	108		<b>22</b> W	0227	5.3	161		<b>7</b> F	0346	4.8	146		<b>22</b> Sa	0303	6.2	190		<b>7</b> M	0012	13.9	425		<b>22</b> Tu	0423	7.4	227					
	0856	15.9	485			0841	14.7	447			1033	14.8	452			0929	14.1	429			0537	6.9	209			1120	13.9	425					
	1447	4.2	129			1439	5.7	175			1618	5.2	160			1525	6.6	201			1253	14.2	432			1710	7.3	221					
	2123	16.5	504			2101	14.8	450			2308	14.9	454			2157	13.8	422			1832	6.6	202										
<b>8</b> W	0314	4.1	125		<b>23</b> Th	0306	5.9	179		<b>8</b> Sa	0448	5.7	173		<b>23</b> Su	0353	6.9	210		<b>8</b> Tu	0131	14.0	428		<b>23</b> W	0008	13.7	419					
	0955	15.3	467			0926	14.1	431			1152	14.4	438			1036	13.6	416			0700	6.8	208			0551	7.4	226					
	1541	4.8	145			1522	6.3	193			1730	5.9	180			1628	7.2	218			1404	14.7	447			1246	14.5	442					
	2223	15.9	484			2149	14.2	432								2310	13.5	410			1947	6.2	188			1834	6.8	206					
<b>9</b> Th	0410	4.8	145		<b>24</b> F	0351	6.5	197		<b>9</b> Su	0027	14.4	439		<b>24</b> M	0505	7.3	223		<b>9</b> W	0233	14.5	443		<b>24</b> Th	0127	14.5	442					
	1103	14.9	453			1023	13.7	417			0602	6.2	189			1158	13.7	417			0809	6.3	191			0710	6.7	203					
	1644	5.2	160			1616	6.9	210			1310	14.4	440			1750	7.2	219			1458	15.3	466			1354	15.6	474					
	2332	15.3	467			2250	13.7	418			1849	6.0	184								2045	5.5	167			1945	5.7	175					
<b>10</b> F	0515	5.3	162		<b>25</b> Sa	0451	7.0	212		<b>10</b> M	0142	14.4	438		<b>25</b> Tu	0036	13.6	415		<b>10</b> Th	0321	15.1	460		<b>25</b> F	0228	15.6	475					
	1217	14.7	449			1133	13.5	412			0719	6.2	188			0628	7.2	218			0903	5.5	169			0815	5.6	170					
	1753	5.5	169			1725	7.2	218			1416	14.9	453			1317	14.3	436			1540	15.9	484			1450	16.8	511					
											2002	5.7	174			1906	6.6	202			2132	4.9	148			2045	4.6	139					
<b>11</b> Sa	0044	15.1	459		<b>26</b> Su	0000	13.5	412		<b>11</b> Tu	0246	14.7	449		<b>26</b> W	0151	14.3	436		<b>11</b> F	0359	15.6	477		<b>26</b> Sa	0320	16.7	508					
	0626	5.6	170			0602	7.1	215			0827	5.7	174			0740	6.4	196			0947	5.0	151			0912	4.4	133					
	1326	14.9	455			1245	13.7	419			1511	15.4	470			1420	15.3	466			1614	16.3	498			1540	17.8	544					
	1906	5.5	167			1836	7.0	212			2102	5.1	156			2011	5.7	173			2212	4.4	135			2139	3.5	106					
<b>12</b> Su	0153	15.1	460		<b>27</b> M	0114	13.8	420		<b>12</b> W	0337	15.2	463		<b>27</b> Th	0250	15.3	466		<b>12</b> Sa	0431	16.1	491		<b>27</b> Su	0408	17.6	536					
	0737	5.5	167			0710	6.7	204			0921	5.1	156			0841	5.4	165			1025	4.5	138			1003	3.3	101					
	1427	15.3	467			1351	14.4	439			1556	15.9	486			1513	16.4	501			1646	16.7	509			1627	18.7	570					
	2013	5.2	157			1940	6.3	193			2151	4.6	140			2109	4.6	139			2248	4.2	127			2228	2.7	81					
<b>13</b> M	0254	15.3	467		<b>28</b> Tu	0219	14.4	439		<b>13</b> Th	0419	15.6	477		<b>28</b> F	0342	16.3	496		<b>13</b> Su	0501	16.4	500		<b>28</b> M	0454	18.2	556					
	0840	5.1	155			0811	6.0	184			1007	4.6	140			0935	4.3	132			1100	4.3	131			1051	2.6	78					
	1520	15.8	482			1446	15.3	466			1634	16.4	499			1601	17.5	533			1715	16.9	515										







# Brest, France, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0314	19.9	606	<b>16</b> Th	0241	21.8	664	<b>1</b> F	0314	20.0	609	<b>16</b> Sa	0312	22.4	684	<b>1</b> M	0354	20.7	632	<b>16</b> Tu	0432	22.1	675
	0937	6.6	202		0903	4.6	139		0936	6.5	197		0933	4.0	123		1015	5.8	176		1051	4.4	135
	1536	20.3	618		1513	22.1	675		1535	20.5	626		1539	22.7	693		1615	21.5	654		1653	22.7	691
	2150	6.4	196		2130	4.1	125		2151	6.2	190		2200	3.7	112		2235	5.3	163		2318	4.0	123
<b>2</b> Th	0352	20.8	634	<b>17</b> F	0335	23.3	711	<b>2</b> Sa	0351	20.8	635	<b>17</b> Su	0402	23.2	708	<b>2</b> Tu	0434	21.4	652	<b>17</b> W	0517	22.2	678
	1014	5.7	175		0956	3.1	94		1013	5.7	174		1023	3.3	102		1054	5.2	158		1135	4.4	134
	1611	21.2	645		1602	23.6	718		1610	21.4	651		1626	23.5	715		1653	22.1	674		1735	22.7	693
	2226	5.6	171		2221	2.8	84		2228	5.5	167		2248	3.1	93		2314	4.7	144				
<b>3</b> F	0425	21.5	656	<b>18</b> Sa	0424	24.4	745	<b>3</b> Su	0426	21.5	655	<b>18</b> M	0450	23.6	719	<b>3</b> W	0512	21.8	665	<b>18</b> Th	0001	4.1	124
	1047	5.1	155		1045	2.1	65		1047	5.2	157		1110	3.1	95		1132	4.8	147		0558	22.1	673
	1642	21.9	666		1648	24.4	745		1644	22.0	670		1710	23.8	724		1731	22.5	686		1216	4.6	140
	2259	5.0	152		2308	2.0	60		2303	4.9	150		2334	2.9	89		2353	4.3	132		1813	22.5	686
<b>4</b> Sa	0457	22.1	673	<b>19</b> Su	0510	25.0	761	<b>4</b> M	0501	21.9	668	<b>19</b> Tu	0534	23.5	716	<b>4</b> Th	0551	22.0	672	<b>19</b> F	0041	4.4	134
	1119	4.7	142		1131	1.8	55		1121	4.8	146		1153	3.3	101		1211	4.7	142		0637	21.7	660
	1713	22.3	680		1730	24.7	754		1717	22.4	682		1751	23.6	719		1810	22.7	691		1255	5.1	154
	2331	4.6	140		2353	1.8	55		2338	4.6	140								1852		22.0	671	
<b>5</b> Su	0529	22.4	683	<b>20</b> M	0554	24.8	757	<b>5</b> Tu	0534	22.1	675	<b>20</b> W	0618	3.2	98	<b>5</b> F	0034	4.2	127	<b>20</b> Sa	0120	5.0	152
	1150	4.5	136		1214	2.1	64		1155	4.7	143		0616	23.0	700		0632	22.0	671		0715	21.0	641
	1743	22.5	686		1812	24.4	745		1751	22.5	686		1832	23.0	702		1852	22.5	687		1333	5.7	175
																			1928		21.3	648	
<b>6</b> M	0003	4.4	135	<b>21</b> Tu	0037	2.3	69	<b>6</b> W	0013	4.5	137	<b>21</b> Th	0100	3.9	120	<b>6</b> Sa	0117	4.3	131	<b>21</b> Su	0159	5.8	177
	0559	22.5	685		0636	24.1	735		0609	22.1	674		0657	22.1	674		0715	21.7	661		0752	20.2	616
	1220	4.5	138		1257	3.0	90		1229	4.8	147		1316	4.8	146		1336	5.1	156		1411	6.6	200
	1813	22.5	685		1853	23.6	720		1825	22.4	682		1912	22.1	675		1937	22.1	673		2006	20.4	621
<b>7</b> Tu	0035	4.5	138	<b>22</b> W	0120	3.2	99	<b>7</b> Th	0049	4.6	141	<b>22</b> F	0142	4.9	150	<b>7</b> Su	0203	4.7	144	<b>22</b> M	0238	6.7	204
	0630	22.2	678		0718	22.9	698		0645	21.8	665		0738	21.0	641		0802	21.1	642		0831	19.4	590
	1251	4.9	148		1338	4.3	130		1306	5.2	159		1357	5.9	180		1424	5.7	175		1451	7.5	228
	1844	22.1	675		1932	22.4	682		1902	21.9	669		1952	21.0	641		2027	21.4	653		2046	19.4	592
<b>8</b> W	0108	4.9	149	<b>23</b> Th	0204	4.6	141	<b>8</b> F	0129	5.1	154	<b>23</b> Sa	0225	6.1	186	<b>8</b> M	0252	5.4	164	<b>23</b> Tu	0320	7.6	233
	0702	21.8	664		0759	21.4	651		0724	21.2	646		0819	19.8	605		0854	20.3	619		0914	18.5	564
	1324	5.4	165		1421	5.8	177		1346	5.9	179		1439	7.1	216		1517	6.5	197		1534	8.3	254
	1918	21.6	657		2015	20.9	638		1945	21.3	648		2035	19.8	605		2123	20.7	630		2131	18.5	564
<b>9</b> Th	0144	5.5	168	<b>24</b> F	0250	6.2	189	<b>9</b> Sa	0212	5.7	173	<b>24</b> Su	0310	7.3	222	<b>9</b> Tu	0348	6.1	185	<b>24</b> W	0406	8.5	258
	0737	21.0	640		0844	19.8	602		0809	20.4	621		0905	18.7	570		0953	19.6	598		1005	17.8	542
	1400	6.3	191		1506	7.4	226		1432	6.7	204		1525	8.2	251		1617	7.1	217		1625	9.1	276
	1956	20.7	630		2103	19.5	593		2034	20.4	621		2124	18.7	570		2225	20.0	611		2227	17.8	542
<b>10</b> F	0225	6.3	193	<b>25</b> Sa	0340	7.7	235	<b>10</b> Su	0302	6.5	197	<b>25</b> M	0401	8.3	254	<b>10</b> W	0450	6.6	202	<b>25</b> Th	0500	9.0	275
	0818	20.0	610		0937	18.3	557		0902	19.5	593		0959	17.8	542		1100	19.2	585		1106	17.4	530
	1444	7.3	222		1559	8.8	267		1526	7.6	231		1619	9.1	278		1725	7.4	226		1725	9.4	288
	2043	19.7	599		2201	18.1	553		2134	19.6	596		2223	17.8	543		2334	19.8	603		2332	17.4	531
<b>11</b> Sa	0313	7.3	221	<b>26</b> Su	0439	8.8	269	<b>11</b> M	0400	7.2	218	<b>26</b> Tu	0458	9.0	275	<b>11</b> Th	0559	6.8	208	<b>26</b> F	0602	9.2	280
	0910	18.9	576		1044	17.3	526		1007	18.7	571		1103	17.3	526		1212	19.3	588		1211	17.5	532
	1537	8.3	252		1705	9.6	294		1631	8.2	249		1722	9.6	293		1836	7.2	219		1831	9.4	285
	2145	18.7	571		2316	17.4	531		2244	19.2	584		2331	17.5	532								
<b>12</b> Su	0413	8.0	245	<b>27</b> M	0550	9.4	285	<b>12</b> Tu	0509	7.4	227	<b>27</b> W	0603	9.2	281	<b>12</b> F	0044	19.9	608	<b>27</b> Sa	0039	17.6	537
	1018	18.0	550		1201	17.0	518		1122	18.5	565		1211	17.3	527		0708	6.6	200		0706	8.9	270
	1645	8.9	272		1820	9.8	298		1747	8.1	247		1830	9.5	290		1322	19.9	606		1315	18.0	549
	2302	18.3	558												1944		6.5	199	1935		8.8	267	
<b>13</b> M	0526	8.3	253	<b>28</b> Tu	0033	17.5	533	<b>13</b> W	0000	19.4	591	<b>28</b> Th	0038	17.6	537	<b>13</b> Sa	0151	20.5	625	<b>28</b> Su	0141	18.2	555
	1142	17.9	546		0704	9.1	278		0624	7.2	218		0706	8.9	271		0813	6.0	182		0805	8.2	249
	1809	8.8	267		1315	17.6	535		1241	19.2	584		1314	17.8	544		1424	20.7	632		1411	18.9	576
					1932	9.2	280		1903	7.3	223		1933	8.9	271		2046	5.6	172		2032	7.8	238
<b>14</b> Tu	0024	18.8	574	<b>29</b> W	0140	18.1	553	<b>14</b> Th	0112	20.2	616	<b>29</b> F	0138	18.2	556	<b>14</b> Su	0251	21.2	646	<b>29</b> M	0235	19.1	582
	0648	7.7	234		0806	8.3	254		0735	6.2	190		0803	8.2	249		0912	5.3	161		0857	7.3	221
	1308	18.8	574		1413	18.5	564		1350	20.3	619		1409	18.7	571		1519	21.6	658		1502	19.9	608
	1929	7.6	231		2027	8.2	250		2010	6.0	184		2026	8.0	244		2141	4.9	148		2122	6.7	204
<b>15</b> W	0139	20.1	614	<b>30</b> Th	0231	19.1	581	<b>15</b> F	0216	21.4	651	<b>30</b> Sa	0229	19.1	582	<b>15</b> M	0344	21.8	664	<b>30</b> Tu	0324	20.1	612
	0802	6.2	190		0855	7.4	225		0838	5.1	154		0852	7.3	223		1004	4.7	144		0944	6.3	192
	1417	20.4	623		1457	19.6	596		1448	21.6	659		1455	19.7	601		1608	22.3	679		1548	21.0	641



# Brest, France, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> Th	0054	2.0	62		<b>16</b> F	0035	5.3	163		<b>1</b> Su	0202	5.4	166		<b>16</b> M	0126	6.3	192		<b>1</b> Tu	0225	6.7	204		<b>16</b> W	0159	5.9	179	
	0651	24.5	746			0628	22.1	674			0757	21.8	665			0722	21.5	655			0821	20.8	633			0800	21.9	667	
	1317	2.6	80			1251	5.5	168			1430	5.9	181			1350	6.2	190			1455	7.0	214			1425	5.6	171	
	1915	24.2	737			1843	21.7	662			2027	20.5	626			1943	20.5	626			2051	19.5	593			2024	20.7	631	
<b>2</b> F	0138	3.4	103		<b>17</b> Sa	0106	5.9	181		<b>2</b> M	0249	7.1	216		<b>17</b> Tu	0208	7.1	215		<b>2</b> W	0311	8.0	243		<b>17</b> Th	0247	6.6	200	
	0734	23.2	708			0659	21.6	657			0846	20.2	617			0807	20.7	630			0909	19.5	594			0850	21.1	644	
	1403	4.1	124			1325	6.1	187			1522	7.5	229			1436	7.0	212			1546	8.2	251			1516	6.3	193	
	2000	22.5	686			1916	21.0	639			2121	19.0	578			2032	19.7	599			2144	18.4	560			2119	19.9	608	
<b>3</b> Sa	0224	5.1	155		<b>18</b> Su	0140	6.7	205		<b>3</b> Tu	0342	8.6	261		<b>18</b> W	0257	7.9	241		<b>3</b> Th	0403	9.1	276		<b>18</b> F	0342	7.3	222	
	0820	21.6	659			0734	20.8	633			0944	18.9	575			0902	19.8	604			1006	18.4	562			0948	20.4	621	
	1451	5.8	178			1403	6.9	211			1623	8.8	267			1530	7.7	234			1644	9.1	278			1614	7.0	213	
	2049	20.6	628			1954	20.0	610			2227	17.8	544			2133	18.9	575			2247	17.7	539			2222	19.4	591	
<b>4</b> Su	0313	7.0	212		<b>19</b> M	0221	7.7	234		<b>4</b> W	0446	9.6	292		<b>19</b> Th	0357	8.6	261		<b>4</b> F	0505	9.7	297		<b>19</b> Sa	0445	7.8	237	
	0911	19.9	608			0817	19.8	603			1058	18.0	549			1009	19.3	587			1115	17.8	544			1054	19.9	607	
	1547	7.5	230			1449	7.8	238			1734	9.4	286			1634	8.1	246			1749	9.5	289			1720	7.3	224	
	2147	18.8	574			2042	19.0	578			2344	17.5	532			2246	18.5	565			2356	17.6	535			2333	19.3	587	
<b>5</b> M	0411	8.6	262		<b>20</b> Tu	0310	8.6	263		<b>5</b> Th	0601	9.9	301		<b>20</b> F	0509	8.8	267		<b>5</b> Sa	0613	9.8	300		<b>20</b> Su	0556	7.8	238	
	1017	18.5	565			0914	18.8	574			1217	18.0	548			1124	19.3	588			1225	17.9	545			1207	19.9	607	
	1654	8.9	270			1544	8.6	262			1848	9.2	281			1748	7.9	241			1855	9.3	282			1832	7.2	219	
	2302	17.7	538			2146	18.1	551																					
<b>6</b> Tu	0523	9.6	292		<b>21</b> W	0413	9.4	286		<b>6</b> F	0057	17.9	546		<b>21</b> Sa	0005	19.0	578		<b>6</b> Su	0102	18.0	549		<b>21</b> M	0046	19.7	601	
	1141	17.9	546			1029	18.3	558			0714	9.4	286			0626	8.2	249			0720	9.4	285			0709	7.3	222	
	1814	9.3	283			1654	9.0	273			1325	18.6	567			1238	20.0	610			1328	18.4	561			1319	20.4	623	
						2308	17.8	542			1952	8.5	258			1902	7.1	215			1953	8.6	262			1941	6.6	200	
<b>7</b> W	0028	17.5	534		<b>22</b> Th	0532	9.4	287		<b>7</b> Sa	0156	18.8	574		<b>22</b> Su	0117	20.1	612		<b>7</b> M	0158	18.8	574		<b>22</b> Tu	0154	20.6	629	
	0645	9.5	291			1152	18.6	568			0813	8.5	258			0737	6.9	211			0816	8.5	260			0816	6.3	192	
	1303	18.3	557			1815	8.5	258			1418	19.5	594			1345	21.2	647			1420	19.2	586			1423	21.3	649	
	1932	8.7	266								2041	7.5	230			2007	5.8	176			2042	7.7	236			2044	5.6	172	
<b>8</b> Th	0141	18.3	558		<b>23</b> F	0034	18.5	565		<b>8</b> Su	0243	19.8	605		<b>23</b> M	0218	21.5	655		<b>8</b> Tu	0245	19.8	604		<b>23</b> W	0253	21.7	662	
	0757	8.7	265			0655	8.5	258			0859	7.4	227			0838	5.5	167			0903	7.5	230			0915	5.2	159	
	1407	19.2	586			1308	19.8	605			1501	20.4	622			1443	22.5	687			1505	20.1	613			1520	22.2	676	
	2032	7.7	234			1930	7.1	217			2123	6.7	204			2104	4.5	137			2125	6.9	211			2139	4.8	147	
<b>9</b> F	0236	19.4	592		<b>24</b> Sa	0146	20.1	612		<b>9</b> M	0322	20.8	634		<b>24</b> Tu	0312	22.8	696		<b>9</b> W	0327	20.8	633		<b>24</b> Th	0346	22.7	692	
	0850	7.6	232			0804	6.8	207			0939	6.6	201			0932	4.1	126			0945	6.6	202			1009	4.3	131	
	1455	20.3	618			1411	21.5	656			1538	21.2	645			1536	23.6	720			1545	20.9	638			1611	22.9	697	
	2119	6.7	203			2033	5.4	164			2159	6.0	182			2156	3.5	107			2205	6.2	188			2230	4.2	128	
<b>10</b> Sa	0318	20.5	624		<b>25</b> Su	0243	21.9	666		<b>10</b> Tu	0357	21.6	658		<b>25</b> W	0401	23.9	727		<b>10</b> Th	0405	21.6	658		<b>25</b> F	0434	23.4	713	
	0933	6.6	202			0901	5.0	151			1015	5.9	179			1023	3.2	98			1024	5.8	178			1057	3.7	113	
	1535	21.2	645			1506	23.2	708			1613	21.8	664			1625	24.2	739			1622	21.6	657			1658	23.2	707	
	2157	5.8	178			2127	3.7	114			2234	5.5	167			2245	3.0	92			2242	5.6	171			2316	3.9	120	
<b>11</b> Su	0355	21.3	650		<b>26</b> M	0333	23.4	714		<b>11</b> W	0431	22.2	676		<b>26</b> Th	0448	24.4	744		<b>11</b> F	0442	22.2	678		<b>26</b> Sa	0518	23.7	722	
	1010	5.9	179			0952	3.4	104			1050	5.4	164			1110	2.8	84			1102	5.2	159			1143	3.5	108	
	1610	21.8	665			1556	24.5	748			1646	22.1	675			1711	24.4	743			1659	22.0	671			1742	23.2	706	
	2232	5.3	161			2217	2.5	77			2307	5.2	159			2331	3.0	91			2319	5.2	160						
<b>12</b> M	0427	22.0	670		<b>27</b> Tu	0420	24.6	749		<b>12</b> Th	0504	22.5	686		<b>27</b> F	0531	24.5	746		<b>12</b> Sa	0518	22.7	691		<b>27</b> Su	0000	4.0	122	
	1044	5.3	163			1041	2.3	71			1124	5.1	156			1156	2.9	87			1139	4.8	147			0600	23.6	720	
	1641	22.3	679			1643	25.3	772			1719	22.3	680			1756	24.0	731			1736	22.2	678			1226	3.7	114	
	2304	5.0	151			2304	1.9	59			2340	5.2	157								2356	5.1	154			1823	22.8	695	
<b>13</b> Tu	0458	22.4	682		<b>28</b> W	0505	25.1	766		<b>13</b> F	0536	22.6	690		<b>28</b> Sa	0015	3.4	105		<b>13</b> Su	0555	22.9	697		<b>28</b> M	0041	4.4	134	
	1116	5.0	153			1127	1.9	58			1157	5.1	154			1241	3.5	106			1217	4.7	142			0639	23.2	706	
	1712	22.5	686			1728	25.4	775			1752	22.2	677			1839	23.2	706			1813	22.2	677			1307	4.3	132	
	2334	4.9	148			23																							

# Cherbourg, France, 2015

## Times and Heights of High and Low Waters

January				February				March									
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height				
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm			
<b>1</b> Th	0533	18.2 554	<b>16</b> F	0440	16.7 510	<b>1</b> Su	0134	7.1 217	<b>16</b> M	0042	7.3 223	<b>1</b> Su	0008	8.7 265	<b>16</b> M	0449	16.6 507
	1229	7.2 218		1133	8.6 263		0711	18.5 565		0626	18.3 559		0552	16.7 509		1141	7.5 230
	1803	18.1 553		1714	16.7 510		1407	6.2 188		1315	6.1 185		1250	7.6 233		1738	17.1 521
						1943	18.5 564	1859	18.7 570	1837	16.9 516						
<b>2</b> F	0053	6.8 208	<b>17</b> Sa	0005	8.1 246	<b>2</b> M	0223	6.3 192	<b>17</b> Tu	0144	5.8 176	<b>2</b> M	0114	7.7 236	<b>17</b> Tu	0020	7.4 226
	0633	18.9 575		0553	17.7 540		0756	19.4 591		0721	19.9 606		0652	17.7 540		0604	18.1 551
	1329	6.4 194		1241	7.4 227		1451	5.3 163		1413	4.4 134		1346	6.6 200		1252	5.9 181
	1903	18.8 572	1823	17.8 543	2025	19.3 587	1953	20.1 613	1926	18.0 549	1840	18.6 568					
<b>3</b> Sa	0149	6.2 190	<b>18</b> Su	0107	6.9 211	<b>3</b> Tu	0304	5.6 172	<b>18</b> W	0239	4.3 130	<b>3</b> Tu	0204	6.7 204	<b>18</b> W	0124	5.7 175
	0725	19.6 596		0650	19.0 578		0835	20.0 610		0813	21.3 650		0737	18.7 571		0701	19.7 601
	1421	5.6 171		1338	6.0 184		1530	4.7 144		1506	2.9 89		1430	5.6 170		1352	4.2 128
	1954	19.4 591	1918	19.0 580	2101	19.8 602	2043	21.3 650	2005	18.9 577	1934	20.2 615					
<b>4</b> Su	0237	5.7 175	<b>19</b> M	0202	5.7 173	<b>4</b> W	0341	5.1 156	<b>19</b> Th	0330	3.1 93	<b>4</b> W	0245	5.8 176	<b>19</b> Th	0221	4.1 125
	0810	20.1 614		0740	20.2 616		0910	20.5 624		0902	22.4 683		0815	19.6 597		0754	21.2 647
	1506	5.0 153		1431	4.7 142		1604	4.3 131		1556	1.8 55		1507	4.8 147		1447	2.7 82
	2038	19.8 604	2009	20.2 615	2134	20.1 612	2132	22.1 674	2039	19.6 598	2025	21.5 654					
<b>5</b> M	0319	5.3 163	<b>20</b> Tu	0253	4.6 139	<b>5</b> Th	0414	4.8 147	<b>20</b> F	0418	2.2 68	<b>5</b> Th	0320	5.1 156	<b>20</b> F	0312	2.8 85
	0849	20.5 626		0828	21.3 650		0943	20.7 630		0950	23.0 702		0849	20.2 615		0844	22.3 681
	1545	4.6 141		1521	3.4 104		1636	4.1 126		1642	1.2 38		1541	4.3 131		1536	1.7 51
	2117	20.1 612	2058	21.1 643	2206	20.2 615	2218	22.4 684	2218	22.4 684	2111	20.1 612	2113	22.3 679			
<b>6</b> Tu	0356	5.2 157	<b>21</b> W	0343	3.6 111	<b>6</b> F	0446	4.8 145	<b>21</b> Sa	0503	1.9 58	<b>6</b> F	0352	4.7 142	<b>21</b> Sa	0400	1.9 59
	0925	20.7 632		0916	22.1 675		1014	20.7 631		1036	23.1 705		0921	20.5 626		0932	23.0 700
	1622	4.4 135		1610	2.5 77		1707	4.2 128		1726	1.3 40		1612	4.0 122		1623	1.2 37
	2152	20.1 614	2145	21.7 661	2236	20.1 612	2301	22.3 679	2301	22.3 679	2142	20.3 619	2158	22.6 688			
<b>7</b> W	0432	5.2 157	<b>22</b> Th	0430	3.1 94	<b>7</b> Sa	0517	4.9 149	<b>22</b> Su	0546	2.2 67	<b>7</b> Sa	0423	4.4 134	<b>22</b> Su	0445	1.6 50
	1000	20.7 632		1003	22.6 690		1044	20.5 624		1119	22.6 690		0952	20.7 630		1017	23.0 700
	1656	4.5 137		1657	2.0 62		1736	4.5 138		1808	2.0 62		1641	4.0 121		1706	1.4 43
	2226	20.0 611	2232	21.9 668	2306	19.8 604	2342	21.6 658	2342	21.6 658	2211	20.3 620	2239	22.4 682			
<b>8</b> Th	0506	5.3 163	<b>23</b> F	0517	2.9 88	<b>8</b> Su	0546	5.3 161	<b>23</b> M	0629	3.1 94	<b>8</b> Su	0453	4.4 133	<b>23</b> M	0527	2.0 60
	1034	20.5 625		1049	22.7 691		1114	20.0 610		1201	21.6 657		1021	20.6 628		1100	22.4 683
	1729	4.8 146		1742	2.0 62		1805	5.1 154		1850	3.3 102		1710	4.2 127		1746	2.3 69
	2300	19.7 601	2317	21.7 662	2335	19.4 590	2335	19.4 590	2335	19.4 590	2239	20.2 616	2318	21.7 661			
<b>9</b> F	0538	5.7 175	<b>24</b> Sa	0602	3.2 97	<b>9</b> M	0616	5.8 178	<b>24</b> Tu	0021	20.5 624	<b>9</b> M	0522	4.6 139	<b>24</b> Tu	0608	2.9 87
	1107	20.1 612		1134	22.2 678		1144	19.3 589		0711	4.4 135		1050	20.3 618		1140	21.3 649
	1801	5.3 161		1827	2.6 80		1835	5.8 177		1242	20.0 611		1738	4.6 140		1826	3.6 110
	2332	19.2 586						1932	5.0 153	2308	19.9 606	2355	20.5 626				
<b>10</b> Sa	0611	6.3 193	<b>25</b> Su	0001	21.1 642	<b>10</b> Tu	0006	18.7 570	<b>25</b> W	0101	19.1 582	<b>10</b> Tu	0551	5.0 152	<b>25</b> W	0648	4.2 129
	1138	19.4 592		0647	4.0 121		0649	6.6 200		0757	6.0 183		1120	19.7 601		1219	19.8 603
	1832	6.0 182		1219	21.3 649		1216	18.5 564		1327	18.4 560		1807	5.2 160		1906	5.3 162
		1911	3.7 113	1908	6.7 203			2019	6.8 208	2338	19.3 589						
<b>11</b> Su	0004	18.6 567	<b>26</b> M	0045	20.1 612	<b>11</b> W	0040	17.9 547	<b>26</b> Th	0149	17.7 538	<b>11</b> W	0622	5.6 172	<b>26</b> Th	0033	19.2 584
	0644	7.0 214		0734	5.1 156		0727	7.4 225		0852	7.5 229		1152	18.9 577		0731	5.8 178
	1211	18.6 568		1304	20.0 610		1253	17.6 535		1426	16.8 512		1839	6.1 187		1301	18.1 552
	1906	6.8 206	1958	5.2 157	1948	7.6 233			2119	8.3 253	1950	7.1 216					
<b>12</b> M	0039	17.9 546	<b>27</b> Tu	0132	18.9 576	<b>12</b> Th	0122	17.1 522	<b>27</b> F	0258	16.5 503	<b>12</b> Th	0010	18.5 565	<b>27</b> F	0117	17.7 539
	0721	7.8 237		0825	6.5 197		0815	8.2 251		1007	8.5 259		0658	6.5 198		0821	7.4 225
	1248	17.8 543		1356	18.6 566		1344	16.6 507		1551	15.9 484		1227	17.9 547		1356	16.6 505
	1944	7.6 231	2051	6.7 203	2042	8.5 260	2242	9.0 275	2242	9.0 275	2045	8.6 262					
<b>13</b> Tu	0120	17.2 525	<b>28</b> W	0229	17.7 541	<b>13</b> F	0221	16.4 500	<b>28</b> Sa	0428	16.1 492	<b>13</b> F	0048	17.6 537	<b>28</b> Sa	0219	16.4 499
	0806	8.5 260		0927	7.6 232		0921	8.9 270		1136	8.5 258		0743	7.5 228		0928	8.5 260
	1334	17.0 518		1502	17.3 527		1456	16.0 487		1725	16.0 488		1313	16.9 516		1516	15.6 475
	2032	8.4 255	2157	7.8 238	2159	9.0 274			2008	8.3 252	2204	9.4 287					
<b>14</b> W	0213	16.6 507	<b>29</b> Th	0342	17.0 519	<b>14</b> Sa	0345	16.2 494	<b>14</b> Sa	0142	16.7 509	<b>14</b> Sa	0142	16.7 509	<b>29</b> Su	0345	15.7 479
	0902	9.1 277		1044	8.2 249		1046	8.7 266		1633	16.1 491		0845	8.3 253		1057	8.8 267
	1435	16.3 498		1623	16.7 508		1633	16.1 491		2328	8.6 261		1422	16.1 490		1653	15.6 476
	2134	8.9 270	2317	8.3 252				2123	9.0 273	2333	9.2 281						
<b>15</b> Th	0321	16.4 500	<b>30</b> F	0503	17.0 519	<b>15</b> Su	0519	16.9 516	<b>15</b> Su	0305	16.1 492	<b>15</b> Su	0305	16.1 492	<b>30</b> M	0515	16.1 490
	1015	9.2 281		1204	7.9 242		1209	7.7 234		1011	8.5 258		1011	8.5 258		1214	8.1 246
	1550	16.2 493		1744	16.9 515		1758	17.2 525		1606	16.0 487		1606	16.0 487		1808	16.5 503
	2251	8.8 269						2259	8.7 265								
			<b>31</b> Sa	0032	7.9 241							<b>31</b> Tu	0042	8.3 252			
		0614		17.7 538							0620		17.0 519				
		1312		7.1 217							1312		7.0 214				
			1851	17.7 538								1856	17.6 537				

Time meridian 15° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.



## Cherbourg, France, 2015

## Times and Heights of High and Low Waters

July				August				September																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> W	0230	5.4	165	<b>16</b> Th	0329	4.6	141	<b>1</b> Sa	0344	3.3	100	<b>16</b> Su	0421	4.3	132	<b>1</b> Tu	0458	1.8	54	<b>16</b> W	0453	4.7	142			
	0808	19.3	587		0902	19.7	600		0920	21.0	640		0951	20.1	614		1033	22.4	682		1022	20.4	621			
	1450	5.4	165		1543	5.2	159		1605	3.7	114		1632	5.0	153		1719	2.6	78		1705	5.1	156	1705	5.1	156
	2027	20.2	617		2112	20.4	622		2138	22.0	671		2200	20.7	631		2252	22.9	698		2232	20.5	625	2232	20.5	625
<b>2</b> Th	0315	4.5	138	<b>17</b> F	0409	4.4	133	<b>2</b> Su	0431	2.6	79	<b>17</b> M	0453	4.4	133	<b>2</b> W	0541	2.2	66	<b>17</b> Th	0521	5.1	155			
	0852	19.9	607		0940	19.9	606		1006	21.5	654		1023	20.1	613		1116	22.0	670		1050	20.1	612			
	1535	4.8	146		1621	5.1	155		1652	3.3	101		1703	5.1	156		1802	3.1	95		1734	5.5	168	1734	5.5	168
	2109	20.8	635		2148	20.5	626		2223	22.3	681		2231	20.5	625		2335	22.1	674		2302	20.0	609	2302	20.0	609
<b>3</b> F	0400	3.9	118	<b>18</b> Sa	0445	4.3	131	<b>3</b> M	0516	2.3	71	<b>18</b> Tu	0522	4.7	142	<b>3</b> Th	0624	3.2	97	<b>18</b> F	0549	5.7	175			
	0935	20.4	622		1016	19.9	606		1051	21.6	658		1053	19.9	606		1156	21.1	643		1119	19.6	596			
	1620	4.4	134		1656	5.2	158		1736	3.3	100		1733	5.4	166		1846	4.2	129		1804	6.2	188	1804	6.2	188
	2152	21.3	648		2224	20.4	623		2309	22.2	678		2301	20.1	613		2301	20.1	613		2333	19.2	586	2333	19.2	586
<b>4</b> Sa	0445	3.4	104	<b>19</b> Su	0519	4.5	137	<b>4</b> Tu	0600	2.6	78	<b>19</b> W	0551	5.2	158	<b>4</b> F	0017	20.8	635	<b>19</b> Sa	0619	6.6	201			
	1019	20.7	630		1050	19.7	600		1135	21.3	648		1122	19.5	594		0707	4.7	143		1151	18.8	574			
	1704	4.2	128		1730	5.5	167		1821	3.7	114		1803	6.0	182		1237	19.9	606		1838	7.0	212	1838	7.0	212
	2236	21.4	653		2258	20.1	612		2353	21.6	659		2331	19.5	594		1933	5.7	173		1933	5.7	173			
<b>5</b> Su	0529	3.3	100	<b>20</b> M	0551	4.9	150	<b>5</b> W	0644	3.3	102	<b>20</b> Th	0620	5.9	180	<b>5</b> Sa	0102	19.3	587	<b>20</b> Su	0008	18.3	557			
	1104	20.6	629		1124	19.3	589		1218	20.6	627		1151	18.9	576		0754	6.4	196		0654	7.6	231			
	1749	4.3	132		1802	6.0	182		1907	4.6	141		1834	6.7	203		1324	18.5	564		1228	17.9	547			
	2321	21.3	648		2331	19.5	595		2331	19.5	595		2331	19.5	595		2027	7.2	219		1919	7.9	241	1919	7.9	241
<b>6</b> M	0614	3.5	106	<b>21</b> Tu	0622	5.6	170	<b>6</b> Th	0038	20.6	628	<b>21</b> F	0002	18.7	570	<b>6</b> Su	0158	17.7	539	<b>21</b> M	0051	17.3	527			
	1149	20.3	620		1156	18.8	572		0730	4.5	138		0650	6.8	206		0852	8.0	244		0740	8.6	263			
	1835	4.8	145		1835	6.6	202		1303	19.6	596		1223	18.2	555		1426	17.3	526		1317	17.1	520			
									1956	5.8	177		1909	7.5	228		2137	8.3	253		2016	8.8	267	2016	8.8	267
<b>7</b> Tu	0007	20.7	632	<b>22</b> W	0003	18.8	573	<b>7</b> F	0126	19.3	588	<b>22</b> Sa	0037	17.8	542	<b>7</b> M	0315	16.5	504	<b>22</b> Tu	0154	16.4	500			
	0701	4.1	124		0654	6.3	193		0820	6.0	182		0727	7.7	235		1009	9.0	274		0847	9.4	288			
	1236	19.7	601		1228	18.1	552		1353	18.4	562		1302	17.4	531		1551	16.6	507		1432	16.4	500			
	1925	5.4	166		1910	7.3	224		2054	7.0	213		1953	8.3	254		2305	8.5	260		2137	9.1	278	2137	9.1	278
<b>8</b> W	0055	19.9	608	<b>23</b> Th	0037	18.0	548	<b>8</b> Sa	0224	17.9	547	<b>23</b> Su	0123	16.9	514	<b>8</b> Tu	0447	16.3	498	<b>23</b> W	0325	16.1	491			
	0750	4.9	150		0730	7.2	219		0920	7.3	222		0815	8.7	264		1137	8.9	272		1022	9.5	289			
	1326	18.9	577		1304	17.5	532		1500	17.5	533		1356	16.7	508		1719	17.0	518		1611	16.6	507			
	2019	6.3	192		1950	8.1	248		2205	7.8	238		2053	9.1	276		2309	8.4	257		2309	8.4	257			
<b>9</b> Th	0149	19.0	578	<b>24</b> F	0117	17.2	523	<b>9</b> Su	0340	17.0	519	<b>24</b> M	0228	16.1	491	<b>9</b> W	0022	7.8	239	<b>24</b> Th	0503	16.9	516			
	0845	5.9	180		0812	8.0	245		1036	8.1	247		0924	9.3	284		0606	17.1	521		1149	8.4	256			
	1425	18.2	554		1350	16.8	512		1621	17.1	522		1510	16.2	495		1248	8.1	247		1733	17.9	545			
	2121	7.0	214		2041	8.8	268		2326	7.9	241		2215	9.2	280		1826	17.9	546		1826	17.9	546			
<b>10</b> F	0253	18.1	552	<b>25</b> Sa	0210	16.4	500	<b>10</b> M	0503	16.9	514	<b>25</b> Tu	0355	16.0	487	<b>10</b> Th	0121	6.8	208	<b>25</b> F	0022	6.9	211			
	0950	6.7	205		0906	8.7	266		1155	8.1	246		1055	9.2	281		0702	18.1	553		0609	18.4	562			
	1536	17.7	540		1449	16.3	498		1738	17.5	534		1643	16.6	507		1342	7.1	216		1254	6.8	206			
	2232	7.3	224		2146	9.2	279						2340	8.4	255		1916	19.0	578		1832	19.5	595	1832	19.5	595
<b>11</b> Sa	0408	17.6	537	<b>26</b> Su	0317	16.0	488	<b>11</b> Tu	0038	7.3	222	<b>26</b> W	0526	16.8	512	<b>11</b> F	0208	5.9	179	<b>26</b> Sa	0121	5.2	158			
	1103	7.1	217		1018	9.0	275		0618	17.4	531		1214	8.2	249		0744	19.1	582		0703	20.0	610			
	1650	17.7	541		1603	16.3	498		1303	7.4	227		1759	17.8	544		1425	6.2	189		1349	5.1	156			
	2346	7.2	218		2305	8.9	272		1842	18.3	559						1956	19.8	604		1924	21.1	644	1924	21.1	644
<b>12</b> Su	0522	17.7	539	<b>27</b> M	0437	16.2	493	<b>12</b> W	0139	6.4	195	<b>27</b> Th	0047	6.9	211	<b>12</b> Sa	0247	5.2	157	<b>27</b> Su	0214	3.6	111			
	1214	7.0	212		1137	8.7	264		0718	18.3	557		0631	18.2	554		0820	19.8	604		0752	21.4	651			
	1757	18.3	557		1723	17.0	518		1359	6.7	203		1316	6.8	206		1502	5.5	169		1440	3.7	113			
									1934	19.2	585		1855	19.4	590		2031	20.4	623		2013	22.4	682	2013	22.4	682
<b>13</b> M	0053	6.5	199	<b>28</b> Tu	0015	8.0	244	<b>13</b> Th	0229	5.5	169	<b>28</b> F	0144	5.3	163	<b>13</b> Su	0322	4.7	143	<b>28</b> M	0304	2.5	75			
	0629	18.2	554		0554	17.0	518		0805	19.1	581		0724	19.6	597		0853	20.3	618		0841	22.3	681			
	1318	6.5	197		1242	7.7	235		1445	5.9	181		1410	5.3	161		1535	5.1	156		1529	2.7	83			
	1856	19.0	578		1826	18.1	551		2017	19.9	607		1945	20.8	634		2104	20.8	633		2101	23.2	706	2101	23.2	706
<b>14</b> Tu	0152	5.8	176	<b>29</b> W	0113	6.8	206	<b>14</b> F	0311	4.9	150	<b>29</b> Sa	0236	3.9	118	<b>14</b> M	0354	4.4	135	<b>29</b> Tu	0352	1.8	56			
	0728	18.8	573		0654	18.1	553		0845	19.7	599		0814	20.8	635		0924	20.5	625		0927	22.8	696			
	1413	5.9	181		1338	6.6	200		1525	5.4	166		1500	4.0	122		1606	4.9	149		1615	2.3	69			
	1948	19.6	598		1918	19.3	588		2054	20.4	622		2033	22.0	670		2135	20.9	637		2148	23.4	713	2148	23.4	713
<b>15</b> W	0244	5.1	156	<b>30</b> Th	0206	5.5	167	<b>15</b> Sa	0348																	

# Cherbourg, France, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> Th	0520	2.4	74		<b>16</b> F	0455	5.2	158		<b>1</b> Su	0622	5.6	171		<b>16</b> M	0542	6.3	191		<b>1</b> Tu	0003	19.3	587		<b>16</b> W	0617	6.0	183	
	1053	22.3	680			1023	20.5	625			1150	20.1	614			1115	20.0	609			0642	6.8	208			1150	20.2	615	
	1742	3.0	92			1711	5.2	160			1849	5.7	174			1806	5.9	179			1212	19.2	586			1843	5.3	162	
	2315	22.1	674			2239	20.2	616								2340	19.2	584			1910	6.6	200						
<b>2</b> F	0602	3.6	110		<b>17</b> Sa	0524	5.7	175		<b>2</b> M	0022	19.1	581		<b>17</b> Tu	0622	7.0	214		<b>2</b> W	0047	18.1	553		<b>17</b> Th	0019	19.2	585	
	1133	21.3	650			1054	20.1	612			0706	7.2	218			1157	19.2	586			0726	8.0	244			0704	6.7	203	
	1825	4.2	129			1742	5.8	176			1234	18.8	573			1850	6.6	200			1257	18.0	550			1238	19.5	593	
	2357	20.7	632			2313	19.6	596			1936	7.2	218								1956	7.7	235			1933	6.0	182	
<b>3</b> Sa	0644	5.2	158		<b>18</b> Su	0556	6.5	199		<b>3</b> Tu	0112	17.7	539		<b>18</b> W	0027	18.3	559		<b>3</b> Th	0138	17.2	523		<b>18</b> F	0111	18.5	564	
	1212	20.0	611			1129	19.4	591			0756	8.6	261			0711	7.8	239			0817	9.0	274			0800	7.3	224	
	1910	5.7	175			1817	6.5	199			2033	8.4	255			1943	7.3	222			1351	17.0	519			1333	18.7	570	
						2350	18.7	570														2051	8.6	261			2031	6.6	202
<b>4</b> Su	0041	19.1	582		<b>19</b> M	0633	7.4	227		<b>4</b> W	0217	16.6	507		<b>19</b> Th	0124	17.6	536		<b>4</b> F	0239	16.5	503		<b>19</b> Sa	0214	17.9	547	
	0729	6.9	211			1207	18.5	564			0901	9.5	291			0814	8.5	260			0920	9.6	293			0905	7.8	238	
	1257	18.6	566			1859	7.4	225			1437	16.6	505			1350	17.7	540			1457	16.4	500			1442	18.1	553	
	2001	7.3	224								2147	9.0	275			2050	7.7	236			2159	9.0	274			2138	7.0	214	
<b>5</b> M	0135	17.5	534		<b>20</b> Tu	0034	17.7	540		<b>5</b> Th	0336	16.2	495		<b>20</b> F	0241	17.2	525		<b>5</b> Sa	0349	16.4	500		<b>20</b> Su	0332	17.8	543	
	0824	8.5	260			0720	8.5	258			1023	9.8	298			0931	8.7	265			1035	9.6	293			1019	7.8	238	
	1356	17.2	525			1257	17.6	536			1559	16.4	500			1512	17.6	535			1610	16.3	498			1601	18.1	551	
	2107	8.6	261			1955	8.2	250			2305	8.8	269			2208	7.6	231			2310	8.8	269			2253	6.9	211	
<b>6</b> Tu	0249	16.4	499		<b>21</b> W	0136	16.9	514		<b>6</b> F	0454	16.7	508		<b>21</b> Sa	0408	17.7	538		<b>6</b> Su	0458	16.8	513		<b>21</b> M	0447	18.3	557	
	0939	9.5	291			0827	9.3	282			1137	9.2	280			1052	8.1	247			1144	9.0	275			1134	7.2	220	
	1518	16.4	501			1407	16.9	515			1714	16.9	516			1635	18.2	554			1719	16.8	513			1715	18.5	565	
	2234	9.0	273			2110	8.6	263								2325	6.8	206											
<b>7</b> W	0421	16.2	493		<b>22</b> Th	0303	16.6	505		<b>7</b> Sa	0008	8.1	247		<b>22</b> Su	0518	18.7	569		<b>7</b> M	0011	8.2	250		<b>22</b> Tu	0004	6.4	194	
	1109	9.5	289			0956	9.3	284			0553	17.6	535			1202	6.9	211			0554	17.7	538			0551	19.1	582	
	1648	16.6	507			1542	17.0	517			1235	8.2	251			1741	19.3	588			1239	8.2	249			1242	6.3	191	
	2352	8.4	255			2239	8.1	248			1809	17.8	543								1814	17.6	537			1818	19.3	589	
<b>8</b> Th	0541	16.9	516		<b>23</b> F	0439	17.3	527		<b>8</b> Su	0058	7.2	220		<b>23</b> M	0030	5.6	171		<b>8</b> Tu	0101	7.4	227		<b>23</b> W	0107	5.6	170	
	1220	8.6	263			1122	8.3	254			0638	18.6	566			0615	19.9	607			0640	18.6	566			0648	20.0	610	
	1759	17.5	534			1706	18.0	550			1322	7.3	221			1303	5.6	170			1326	7.2	220			1342	5.2	160	
						2355	6.8	208			1854	18.8	572			1838	20.4	623			1900	18.5	564			1916	20.1	612	
<b>9</b> F	0051	7.4	225		<b>24</b> Sa	0546	18.7	570		<b>9</b> M	0141	6.4	195		<b>24</b> Tu	0128	4.5	138		<b>9</b> W	0144	6.7	204		<b>24</b> Th	0204	4.9	149	
	0634	18.0	549			1229	6.8	206			0717	19.5	593			0707	21.0	641			0722	19.4	591			0740	20.8	634	
	1314	7.5	230			1807	19.6	597			1402	6.4	195			1359	4.4	134			1407	6.4	194			1436	4.4	134	
	1848	18.6	566								1934	19.6	596			1931	21.4	651			1942	19.3	587			2009	20.7	630	
<b>10</b> Sa	0138	6.4	195		<b>25</b> Su	0056	5.2	159		<b>10</b> Tu	0219	5.8	177		<b>25</b> W	0221	3.7	114		<b>10</b> Th	0224	6.0	184		<b>25</b> F	0255	4.4	135	
	0714	19.0	580			0640	20.2	616			0753	20.1	613			0756	21.8	665			0800	20.1	612			0828	21.3	650	
	1357	6.6	200			1326	5.2	158			1438	5.7	175			1450	3.6	109			1446	5.6	171			1525	3.8	116	
	1928	19.5	595			1901	21.1	642			2010	20.1	613			2022	21.9	668			2021	19.8	604			2058	21.0	640	
<b>11</b> Su	0217	5.6	171		<b>26</b> M	0151	3.8	117		<b>11</b> W	0253	5.4	164		<b>26</b> Th	0310	3.4	103		<b>11</b> F	0301	5.5	169		<b>26</b> Sa	0342	4.2	129	
	0750	19.8	605			0730	21.5	655			0827	20.6	627			0843	22.2	677			0836	20.6	627			0912	21.6	657	
	1434	5.8	177			1419	3.8	117			1512	5.2	160			1539	3.1	96			1523	5.1	154			1610	3.6	109	
	2004	20.2	616			1951	22.2	677			2044	20.4	623			2110	22.0	672			2057	20.2	616			2142	21.0	640	
<b>12</b> M	0252	5.1	155		<b>27</b> Tu	0242	2.9	87		<b>12</b> Th	0327	5.1	156		<b>27</b> F	0357	3.4	104		<b>12</b> Sa	0339	5.2	159		<b>27</b> Su	0424	4.3	132	
	0824	20.4	621			0818	22.4	682			0859	20.8	634			0927	22.2	678			0911	20.9	637			0953	21.5	656	
	1507	5.3	161			1509	2.9	89			1545	5.0	151			1624	3.1	96			1601	4.7	142			1652	3.7	112	
	2038	20.6	629			2040	22.9	697			2116	20.6	628			2156	21.8	664			2133	20.4	623			2223	20.8	633	
<b>13</b> Tu	0324	4.8	146		<b>28</b> W	0330	2.4	73		<b>13</b> F	0400	5.1	155		<b>28</b> Sa	0440	3.8	117		<b>13</b> Su	0416	5.1	156		<b>28</b> M	0504	4.7	142	
	0856	20.7	630			0904	22.8	695			0930	20.9	636			1010	21.9	668			0947	21.0	641			1032	21.2	646	
	1539	5.0	152			1556	2.5	76			1619	4.9	148			1707	3.5	108			1640	4.5	136			1730	4.1	125	
	2109	20.8	635			2128	23.0	701			2148																		

# Le Havre, France, 2015

## Times and Heights of High and Low Waters

January				February				March																					
	Time		Height			Time		Height			Time		Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> Th	0149	8.2	249		<b>16</b> F	0038	10.2	311		<b>1</b> Su	0341	8.1	248		<b>16</b> M	0250	8.2	250		<b>1</b> Su	0158	10.1	307		<b>16</b> M	0052	10.0	305	
	0732	23.6	718			0641	22.0	671			0910	23.7	721			0826	23.6	720			0756	21.9	666			0646	21.9	667	
	1428	7.9	240			1324	9.9	301			1618	7.0	213			1524	6.8	207			1448	9.0	274			1346	8.8	267	
	2003	23.4	713			1915	21.9	667			2140	23.9	727			2101	24.1	736			2036	22.3	679			1937	22.6	688	
<b>2</b> F	0257	7.7	234		<b>17</b> Sa	0204	9.4	285		<b>2</b> M	0437	7.1	216		<b>17</b> Tu	0354	6.3	191		<b>2</b> M	0320	8.9	270		<b>17</b> Tu	0226	8.3	252	
	0831	24.1	735			0750	22.9	698			0954	24.4	744			0921	25.1	765			0854	22.8	694			0803	23.4	712	
	1534	7.0	214			1446	8.4	256			1705	6.0	183			1625	4.9	148			1557	7.6	231			1500	6.7	204	
	2101	24.0	732			2023	23.0	701			2221	24.5	748			2152	25.5	778			2124	23.4	712			2040	24.2	738	
<b>3</b> Sa	0358	7.0	214		<b>18</b> Su	0317	7.8	238		<b>3</b> Tu	0520	6.2	190		<b>18</b> W	0453	4.6	139		<b>3</b> Tu	0419	7.4	227		<b>18</b> W	0332	6.1	187	
	0922	24.7	753			0848	24.1	736			1031	25.0	763			1010	26.3	803			0937	23.8	724			0900	25.0	761	
	1631	6.2	189			1549	6.7	203			1743	5.2	160			1724	3.2	99			1645	6.3	191			1604	4.7	143	
	2150	24.6	750			2119	24.3	742			2256	25.0	763			2238	26.5	809			2202	24.2	739			2132	25.6	781	
<b>4</b> Su	0450	6.4	195		<b>19</b> M	0415	6.2	190		<b>4</b> W	0556	5.6	170		<b>19</b> Th	0550	3.2	97		<b>4</b> W	0501	6.3	191		<b>19</b> Th	0435	4.3	131	
	1006	25.2	767			0939	25.3	772			1104	25.4	775			1056	27.3	831			1011	24.5	748			0950	26.2	800	
	1718	5.5	169			1644	5.1	154			1818	4.7	144			1818	2.0	60			1723	5.3	162			1706	3.1	93	
	2233	25.0	763			2208	25.5	776			2329	25.3	770			2324	27.3	831			2234	24.9	758			2218	26.6	812	
<b>5</b> M	0533	5.9	181		<b>20</b> Tu	0509	4.9	150		<b>5</b> Th	0631	5.2	158		<b>20</b> F	0641	2.2	68		<b>5</b> Th	0537	5.4	166		<b>20</b> F	0533	2.9	87	
	1045	25.5	778			1026	26.3	802			1136	25.6	780			1142	27.8	848			1043	25.1	765			1037	27.2	828	
	1758	5.1	156			1738	3.7	114			1851	4.5	137			1906	1.2	38			1757	4.7	142			1800	1.8	56	
	2312	25.3	771			2255	26.3	802													2304	25.2	769			2303	27.3	832	
<b>6</b> Tu	0611	5.6	172		<b>21</b> W	0602	3.9	119		<b>6</b> F	0000	25.3	772		<b>21</b> Sa	0009	27.6	842		<b>6</b> F	0610	4.9	150		<b>21</b> Sa	0624	1.9	57	
	1121	25.7	783			1112	27.0	824			0703	5.1	155			0727	1.8	55			1113	25.4	774			1122	27.7	843	
	1835	4.9	148			1830	2.7	83			1207	25.6	780			1227	28.0	852			1829	4.3	132			1847	1.2	37	
	2348	25.4	773			2341	26.9	820			1923	4.6	139			1950	1.2	38			2335	25.4	774			2347	27.6	841	
<b>7</b> W	0647	5.5	169		<b>22</b> Th	0652	3.2	97		<b>7</b> Sa	0031	25.2	768		<b>22</b> Su	0053	27.5	839		<b>7</b> Sa	0641	4.7	143		<b>22</b> Su	0709	1.5	46	
	1155	25.7	782			1158	27.5	837			0733	5.3	161			0809	2.1	64			1144	25.5	777			1207	27.8	846	
	1910	4.9	149			1918	2.2	66			1239	25.4	774			1311	27.6	840			1859	4.3	131			1930	1.4	42	
											1951	5.0	151			2029	2.1	64											
<b>8</b> Th	0022	25.2	768		<b>23</b> F	0026	27.2	828		<b>8</b> Su	0102	24.9	760		<b>23</b> M	0136	26.9	819		<b>8</b> Su	0005	25.4	774		<b>23</b> M	0030	27.4	836	
	0722	5.7	175			0739	2.9	89			0803	5.7	174			0849	3.1	95			0710	4.7	143			0749	1.8	56	
	1229	25.4	775			1244	27.5	839			1309	25.0	763			1355	26.6	810			1215	25.5	776			1250	27.3	833	
	1943	5.2	159			2003	2.2	66			2019	5.6	171			2107	3.6	111			1926	4.5	138			2008	2.3	70	
<b>9</b> F	0055	24.9	758		<b>24</b> Sa	0112	27.0	824		<b>9</b> M	0132	24.5	747		<b>24</b> Tu	0218	25.7	784		<b>9</b> M	0036	25.3	770		<b>24</b> Tu	0112	26.8	816	
	0753	6.2	190			0823	3.2	99			0832	6.4	195			0926	4.7	144			0738	4.9	149			0827	2.9	89	
	1302	25.0	763			1330	27.1	827			1340	24.4	743			1438	25.1	766			1246	25.2	767			1333	26.3	803	
	2014	5.9	179			2046	2.9	87			2046	6.5	198			2141	5.6	171			1954	5.0	152			2044	3.9	119	
<b>10</b> Sa	0129	24.4	744		<b>25</b> Su	0157	26.4	806		<b>10</b> Tu	0204	23.9	727		<b>25</b> W	0301	24.3	741		<b>10</b> Tu	0106	25.0	761		<b>25</b> W	0152	25.6	781	
	0826	7.0	212			0905	4.1	126			0900	7.3	221			1005	6.6	202			0808	5.4	165			0903	4.6	139	
	1334	24.5	746			1415	26.2	800			1415	23.5	716			1526	23.6	718			1318	24.7	752			1415	24.9	760	
	2043	6.7	205			2125	4.1	126			2116	7.5	230			2223	7.7	234			2023	5.8	177			2116	5.9	180	
<b>11</b> Su	0201	23.8	725		<b>26</b> M	0243	25.4	775		<b>11</b> W	0240	23.1	703		<b>26</b> Th	0352	22.9	698		<b>11</b> W	0138	24.3	742		<b>26</b> Th	0232	24.3	740	
	0856	7.8	237			0947	5.5	167			0935	8.2	251			1054	8.5	258			0838	6.2	189			0940	6.5	199	
	1406	23.7	723			1502	25.0	763			1455	22.5	686			1631	22.0	671			1353	23.9	727			1501	23.3	711	
	2113	7.7	234			2205	5.8	176			2154	8.7	265			2319	9.5	289			2054	6.9	210			2156	8.0	243	
<b>12</b> M	0235	23.1	705		<b>27</b> Tu	0332	24.2	739		<b>12</b> Th	0325	22.2	677		<b>27</b> F	0506	21.7	662		<b>12</b> Th	0213	23.5	716		<b>27</b> F	0318	22.8	695	
	0928	8.7	264			1032	7.0	214			1019	9.3	282			1201	9.7	297			0911	7.3	222			1023	8.4	257	
	1444	22.8	696			1556	23.7	723			1549	21.6	658			1801	21.2	647			1432	22.8	696			1600	21.8	665	
	2147	8.7	264			2253	7.5	228			2244	9.7	297								2129	8.1	248			2247	9.8	298	
<b>13</b> Tu	0317	22.4	684		<b>28</b> W	0431	23.1	705		<b>13</b> F	0427	21.6	657		<b>28</b> Sa	0036	10.4	317		<b>13</b> F	0255	22.5	686		<b>28</b> Sa	0426	21.4	651	
	1009	9.5	290			1128	8.4	256			1117	10.0	306			0636	21.4	652			0951	8.4	257			1125	9.9	301	
	1532	22.0	670			1706	22.5	686			1706	21.1	643			1322	9.9	303			1522	21.9	666			1727	20.9	638	
	2232	9.5	291			2357	8.9	271			2351	10.3	315			1928	21.4	652			2214	9.4	286			2359	10.8	330	
<b>14</b> W	0413	21.9	667		<b>29</b> Th	0547	22.4	683		<b>14</b> Sa	0550	21.5	654		<b>14</b> Sa	0352	21.7	661		<b>14</b> Sa	0352	21.7	661		<b>29</b> Su	0556	20.8	635	
	1101	10.2	311			1240	9.2	281			1233	10.1	307			1044	9.4	287			1044	9.4	287			1241	10.3	315	
	1638	21.4	651			1829	22.0	670			1836	21.4	651			1634	21.2	646			1634	21.2	646			1854	21.0	640	
	2329	10.2	311																										



# Le Havre, France, 2015

## Times and Heights of High and Low Waters

April				May				June																					
	Time		Height			Time		Height			Time		Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0342	7.9	242		<b>16</b> Th	0308	6.1	186		<b>1</b> F	0346	7.4	226		<b>16</b> Sa	0343	5.1	155		<b>1</b> M	0431	6.5	197		<b>16</b> Tu	0514	4.8	146	
	0910	23.1	705			0836	24.8	755			0908	23.3	711			0905	25.3	770			0949	24.0	731			1025	25.1	766	
	1608	6.9	209			1539	4.8	147			1609	6.7	204			1613	4.5	137			1651	6.3	192			1735	5.2	157	
	2134	24.0	730			2108	25.6	780			2130	24.2	738			2132	25.9	788			2208	24.8	756			2243	25.6	780	
<b>2</b> Th	0429	6.6	202		<b>17</b> F	0411	4.5	136		<b>2</b> Sa	0431	6.4	195		<b>17</b> Su	0444	4.1	126		<b>2</b> Tu	0512	5.7	173		<b>17</b> W	0601	4.5	137	
	0944	24.0	732			0928	25.9	790			0944	24.0	733			0955	25.8	786			1029	24.5	748			1110	25.3	770	
	1650	5.8	176			1641	3.4	105			1651	5.9	181			1710	3.9	118			1731	5.7	174			1818	5.1	155	
	2205	24.6	751			2156	26.4	806			2203	24.8	755			2218	26.2	799			2246	25.2	768			2324	25.6	781	
<b>3</b> F	0508	5.7	173		<b>18</b> Sa	0510	3.2	97		<b>3</b> Su	0510	5.7	173		<b>18</b> M	0537	3.5	107		<b>3</b> W	0552	5.0	153		<b>18</b> Th	0643	4.4	134	
	1015	24.7	752			1015	26.6	812			1019	24.5	748			1041	26.0	794			1108	24.9	760			1152	25.2	769	
	1728	5.1	154			1737	2.5	77			1728	5.4	166			1759	3.6	111			1811	5.3	161			1857	5.2	159	
	2236	25.1	765			2241	26.9	820			2237	25.1	765			2302	26.3	802			2324	25.5	776						
<b>4</b> Sa	0543	5.1	155		<b>19</b> Su	0602	2.4	72		<b>4</b> M	0544	5.2	157		<b>19</b> Tu	0624	3.3	100		<b>4</b> Th	0631	4.5	138		<b>19</b> F	0003	25.5	777	
	1047	25.0	763			1101	27.0	823			1054	24.9	758			1126	26.1	795			1148	25.2	767			0720	4.6	141	
	1801	4.7	143			1824	2.1	65			1801	5.1	156			1841	3.8	116			1851	5.1	154			1232	25.0	762	
	2307	25.3	771			2324	27.1	825			2311	25.3	771			2344	26.2	798								1934	5.6	172	
<b>5</b> Su	0615	4.7	144		<b>20</b> M	0646	2.1	64		<b>5</b> Tu	0617	4.8	145		<b>20</b> W	0704	3.4	105		<b>5</b> F	0004	25.6	779		<b>20</b> Sa	0041	25.2	767	
	1119	25.2	769			1146	27.0	824			1129	25.1	764			1210	25.9	788			0712	4.3	132			0756	5.2	157	
	1831	4.6	139			1906	2.4	72			1834	5.0	151			1920	4.3	132			1231	25.3	770			1311	24.6	749	
	2338	25.4	774								2345	25.4	773								1931	5.2	157			2010	6.3	193	
<b>6</b> M	0644	4.6	139		<b>21</b> Tu	0007	26.9	820		<b>6</b> W	0651	4.5	138		<b>21</b> Th	0025	25.8	786		<b>6</b> Sa	0047	25.5	777		<b>21</b> Su	0118	24.6	749	
	1152	25.3	771			0727	2.4	74			1205	25.1	766			0742	4.0	123			0753	4.5	138			0830	6.0	182	
	1900	4.6	140			1229	26.6	812			1909	5.0	153			1252	25.3	771			1315	25.1	764			1349	24.0	730	
						1944	3.2	98								1957	5.2	160			2012	5.6	171			2043	7.3	221	
<b>7</b> Tu	0010	25.4	773		<b>22</b> W	0048	26.3	802		<b>7</b> Th	0021	25.3	772		<b>22</b> F	0104	25.1	766		<b>7</b> Su	0132	25.2	767		<b>22</b> M	0155	23.9	727	
	0714	4.5	138			0805	3.3	102			0728	4.6	140			0818	5.1	154			0833	5.1	154			0903	7.0	214	
	1225	25.2	769			1312	25.9	788			1243	25.0	762			1333	24.5	747			1402	24.6	751			1427	23.2	707	
	1930	4.9	149			2020	4.6	140			1944	5.4	166			2032	6.5	197			2053	6.3	193			2119	8.2	251	
<b>8</b> W	0042	25.2	767		<b>23</b> Th	0127	25.4	773		<b>8</b> F	0100	25.0	762		<b>23</b> Sa	0142	24.3	740		<b>8</b> M	0219	24.6	751		<b>23</b> Tu	0232	23.0	701	
	0747	4.9	148			0840	4.8	146			0804	5.1	155			0853	6.3	193			0916	5.8	177			0938	8.1	246	
	1259	24.9	758			1354	24.6	751			1325	24.5	748			1415	23.5	717			1452	24.0	733			1508	22.4	683	
	2002	5.5	169			2053	6.3	192			2021	6.2	189			2107	7.8	238			2140	7.1	217			2157	9.2	280	
<b>9</b> Th	0117	24.7	753		<b>24</b> F	0206	24.2	738		<b>9</b> Sa	0142	24.4	745		<b>24</b> Su	0223	23.2	708		<b>9</b> Tu	0311	24.0	731		<b>24</b> W	0314	22.1	673	
	0819	5.5	169			0916	6.5	198			0840	5.9	179			0931	7.7	235			1004	6.6	202			1018	9.1	276	
	1337	24.2	737			1438	23.3	710			1410	23.9	727			1501	22.5	685			1549	23.5	715			1558	21.8	664	
	2035	6.5	199			2131	8.1	246			2059	7.2	220			2151	9.1	277			2237	7.8	238			2244	10.0	304	
<b>10</b> F	0155	23.9	728		<b>25</b> Sa	0249	22.9	697		<b>10</b> Su	0228	23.7	722		<b>25</b> M	0310	22.1	673		<b>10</b> W	0412	23.4	712		<b>25</b> Th	0411	21.3	649	
	0853	6.6	200			0956	8.2	250			0921	6.9	209			1015	9.0	273			1107	7.3	222			1107	9.8	299	
	1419	23.3	709			1532	22.0	670			1502	23.1	703			1558	21.7	660			1657	23.2	706			1701	21.4	653	
	2111	7.7	236			2219	9.6	294			2145	8.2	250			2242	10.1	308			2349	8.1	247			2338	10.4	316	
<b>11</b> Sa	0238	23.0	700		<b>26</b> Su	0348	21.5	655		<b>11</b> M	0323	22.9	699		<b>26</b> Tu	0413	21.1	643		<b>11</b> Th	0523	23.0	702		<b>26</b> F	0522	20.9	638	
	0933	7.7	234			1050	9.6	292			1011	7.7	236			1108	9.8	299			1224	7.4	227			1205	10.1	309	
	1510	22.3	680			1646	21.1	644			1605	22.5	685			1705	21.2	647			1812	23.4	712			1806	21.5	655	
	2156	8.9	272			2320	10.7	326			2246	8.9	272			2339	10.6	322											
<b>12</b> Su	0334	22.1	674		<b>27</b> M	0508	20.7	632		<b>12</b> Tu	0431	22.4	684		<b>27</b> W	0525	20.8	633		<b>12</b> F	0104	7.7	235		<b>27</b> Sa	0041	10.2	312	
	1023	8.7	265			1156	10.3	313			1121	8.2	251			1209	10.1	308			0638	23.3	709			0629	21.1	644	
	1618	21.7	660			1802	21.0	640			1725	22.5	685			1809	21.4	651			1336	7.1	215			1311	9.9	302	
	2258	9.8	298																		1919	23.9	729			1907	22.0	671	
<b>13</b> M	0450	21.7	660		<b>28</b> Tu	0032	10.8	328		<b>13</b> W	0012	8.9	270		<b>28</b> Th	0043	10.4	316		<b>13</b> Sa	0212	6.9	211		<b>28</b> Su	0152	9.5	290	
	1135	9.2	280			0624	20.8	634			0553	22.6	688			0629	21.0	640			0745	23.8	725			0731	21.8	663	
	1747	21.8	663			1308	10.0	304			1253	7.8	237			1315	9.7	297			1441	6.5	197			1424	9.1	278	
						1914	21.																						

# Le Havre, France, 2015

## Times and Heights of High and Low Waters

July				August				September																					
Time		Height		Time		Height		Time		Height		Time		Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0442	6.0	183		<b>16</b> Th	0543	5.3	162		<b>1</b> Sa	0602	3.7	113		<b>16</b> Su	0637	4.9	148		<b>1</b> Tu	0001	27.8	848		<b>16</b> W	0709	5.1	155	
	1006	24.3	742			1055	24.8	756			1117	26.1	796			1145	25.2	768			0722	1.9	58			1218	25.4	773	
	1705	6.0	184			1759	5.9	179			1825	4.0	123			1850	5.4	166			1227	27.5	837			1921	5.5	167	
	2223	25.2	769			2306	25.5	776			2334	26.8	818			2352	25.7	783			1943	2.6	78						
<b>2</b> Th	0529	5.1	154		<b>17</b> F	0623	5.0	152		<b>2</b> Su	0651	2.9	89		<b>17</b> M	0708	4.9	148		<b>2</b> W	0045	27.7	844		<b>17</b> Th	0028	25.5	777	
	1050	25.0	762			1134	25.0	761			1203	26.6	810			1217	25.1	766			0804	2.3	71			0736	5.5	169	
	1751	5.3	161			1837	5.6	172			1914	3.5	106			1921	5.5	169			1311	27.1	827			1247	25.1	764	
	2306	25.7	784			2343	25.5	778								2024	3.2	97			2024	3.2	97			1951	6.0	182	
<b>3</b> F	0616	4.3	130		<b>18</b> Sa	0700	4.9	148		<b>3</b> M	0019	27.1	827		<b>18</b> Tu	0024	25.5	777		<b>3</b> Th	0130	27.0	823		<b>18</b> F	0059	24.9	760	
	1134	25.5	777			1210	25.0	761			0738	2.6	79			0738	5.2	158			0842	3.5	106			0804	6.3	191	
	1837	4.8	145			1913	5.6	172			1248	26.8	816			1248	24.9	760			1354	26.3	801			1318	24.5	748	
	2350	26.1	795								1958	3.4	104			1948	5.9	180			2103	4.4	135			2019	6.7	203	
<b>4</b> Sa	0702	3.8	115		<b>19</b> Su	0017	25.4	774		<b>4</b> Tu	0105	27.0	824		<b>19</b> W	0056	25.1	766		<b>4</b> F	0214	25.8	787		<b>19</b> Sa	0132	24.1	735	
	1218	25.8	786			0733	5.0	153			0820	2.9	87			0805	5.8	176			0917	5.2	158			0833	7.3	221	
	1922	4.5	137			1245	24.8	756			1332	26.5	808			1319	24.6	749			1437	25.1	764			1352	23.8	725	
						1946	5.9	181			2040	3.9	119			2017	6.5	199			2142	6.1	187			2050	7.6	233	
<b>5</b> Su	0034	26.2	800		<b>20</b> M	0052	25.0	763		<b>5</b> W	0150	26.5	808		<b>20</b> Th	0126	24.6	749		<b>5</b> Sa	0300	24.4	744		<b>20</b> Su	0210	23.1	705	
	0746	3.6	111			0805	5.5	168			0859	3.7	114			0830	6.6	201			0958	7.2	218			0905	8.5	258	
	1304	25.9	788			1319	24.4	745			1417	25.8	787			1348	24.1	734			1525	23.8	726			1432	22.9	697	
	2007	4.6	140			2016	6.5	199			2121	4.9	149			2044	7.3	223			2229	7.9	241			2127	8.8	267	
<b>6</b> M	0120	26.1	796		<b>21</b> Tu	0125	24.5	748		<b>6</b> Th	0235	25.6	780		<b>21</b> F	0158	23.8	725		<b>6</b> Su	0358	22.9	697		<b>21</b> M	0258	22.1	675	
	0829	3.9	120			0834	6.3	192			0939	5.1	155			0857	7.6	231			1051	9.0	275			0947	9.7	295	
	1350	25.6	780			1352	23.9	729			1503	24.9	758			1421	23.4	712			1630	22.4	684			1525	22.0	671	
	2050	5.1	155			2047	7.3	223			2203	6.2	190			2115	8.2	251			2335	9.4	285			2216	9.8	299	
<b>7</b> Tu	0207	25.7	782		<b>22</b> W	0157	23.9	729		<b>7</b> F	0324	24.4	744		<b>22</b> Sa	0236	22.8	695		<b>7</b> M	0521	21.7	662		<b>22</b> Tu	0403	21.4	653	
	0912	4.6	141			0902	7.2	220			1022	6.7	204			0930	8.7	265			1208	10.2	311			1045	10.7	325	
	1437	25.0	763			1424	23.4	712			1554	23.8	726			1503	22.5	687			1758	21.8	664			1639	21.5	656	
	2134	5.9	179			2117	8.2	249			2255	7.6	233			2155	9.3	282								2323	10.4	316	
<b>8</b> W	0255	24.9	760		<b>23</b> Th	0231	23.1	705		<b>8</b> Sa	0424	23.1	705		<b>23</b> Su	0325	21.9	666		<b>8</b> Tu	0055	9.7	297		<b>23</b> W	0529	21.3	649	
	0955	5.6	171			0931	8.2	250			1121	8.2	251			1058	9.8	300			0650	21.7	660			1207	10.8	330	
	1528	24.3	741			1500	22.7	693			1702	22.8	695			1516	21.8	664			1329	10.1	309			1808	21.8	664	
	2223	6.8	207			2152	9.1	276								2249	10.1	309			1921	22.1	674						
<b>9</b> Th	0349	24.1	734		<b>24</b> F	0312	22.2	678		<b>9</b> Su	0004	8.7	264		<b>24</b> M	0433	21.2	645		<b>9</b> W	0214	9.1	276		<b>24</b> Th	0105	9.7	296	
	1046	6.7	205			1010	9.2	281			0544	22.2	677			1119	10.7	325			0805	22.4	682			0659	22.2	676	
	1626	23.6	719			1547	22.1	673			1237	9.2	279			1715	21.4	653			1447	9.2	280			1353	9.4	287	
	2323	7.6	233			2238	9.9	301			1824	22.4	684			2359	10.5	319			2027	23.0	700			1929	23.0	702	
<b>10</b> F	0453	23.2	708		<b>25</b> Sa	0408	21.5	654		<b>10</b> M	0120	8.9	270		<b>25</b> Tu	0558	21.1	644		<b>10</b> Th	0327	7.8	239		<b>25</b> F	0228	7.7	235	
	1152	7.6	232			1102	10.1	307			0707	22.2	676			1241	10.7	325			0900	23.4	713			0809	23.9	727	
	1737	23.2	706			1652	21.6	658			1352	9.1	278			1839	21.9	666			1554	7.9	241			1502	7.3	221	
						2338	10.4	316			1939	22.8	695								2115	24.0	730			2031	24.7	753	
<b>11</b> Sa	0034	8.0	245		<b>26</b> Su	0523	21.1	642		<b>11</b> Tu	0233	8.3	252		<b>26</b> W	0136	9.6	293		<b>11</b> F	0422	6.7	203		<b>26</b> Sa	0330	5.6	171	
	0609	22.8	695			1208	10.5	319			0818	22.8	694			0723	22.0	670			0942	24.3	740			0903	25.4	774	
	1306	8.0	243			1808	21.6	658			1502	8.4	257			1418	9.3	283			1641	6.8	208			1600	5.3	162	
	1851	23.3	709								2041	23.5	717			1954	23.0	702			2153	24.8	757			2122	26.2	798	
<b>12</b> Su	0145	7.8	238		<b>27</b> M	0049	10.2	311		<b>12</b> W	0343	7.3	223		<b>27</b> Th	0253	7.7	236		<b>12</b> Sa	0503	5.8	176		<b>27</b> Su	0428	3.9	120	
	0724	23.0	700			0641	21.3	649			0914	23.5	717			0832	23.5	716			1017	24.9	760			0951	26.6	810	
	1415	7.8	237			1327	10.1	307			1610	7.5	230			1525	7.3	224			1718	6.0	184			1657	3.8	117	
	1957	23.7	722			1919	22.2	677			2131	24.3	741			2054	24.5	748			2226	25.5	776			2209	27.2	830	
<b>13</b> M	0252	7.2	220		<b>28</b> Tu	0214	9.1	278		<b>13</b> Th	0443	6.4	194		<b>28</b> F	0353	5.9	179		<b>13</b> Su	0538	5.2	159		<b>28</b> M	0524	2.8	84	
	0829	23.5	715			0753	22.1	675			1000	24.2	739			0925	24.9	759			1048	25.3	772			1036	27.3	833	
	1520	7.3	222			1448	8.8	268			1702	6.7	205			1622	5.6	172			1753	5.5	168			1751	2.8	85	
	2054	24.2																											

# Le Havre, France, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> Th	0025	27.8	848		<b>16</b> F	0004	25.5	778		<b>1</b> Su	0134	25.6	781		<b>16</b> M	0101	24.8	757		<b>1</b> Tu	0159	24.5	746		<b>16</b> W	0137	25.0	762	
	0743	2.5	77			0711	5.5	169			0837	6.1	185			0759	6.7	204			0854	7.5	228			0830	6.5	197	
	1248	27.3	832			1221	25.4	775			1349	25.1	765			1317	24.7	754			1409	24.1	736			1353	25.0	762	
	2004	3.1	93			1928	5.6	170			2100	6.3	191			2019	6.4	194			2119	7.3	224			2053	5.9	181	
<b>2</b> F	0109	27.0	824		<b>17</b> Sa	0037	25.1	764		<b>2</b> M	0219	24.2	739		<b>17</b> Tu	0145	24.2	738		<b>2</b> W	0246	23.4	713		<b>17</b> Th	0224	24.4	745	
	0821	3.8	117			0741	6.1	187			0913	7.9	240			0837	7.6	232			0934	8.9	271			0913	7.3	221	
	1330	26.4	804			1254	24.9	760			1433	23.8	726			1402	24.0	732			1456	22.9	699			1442	24.3	742	
	2042	4.4	135			1958	6.2	189			2142	8.0	244			2058	7.3	222			2201	8.8	267			2136	6.8	206	
<b>3</b> Sa	0153	25.8	785		<b>18</b> Su	0113	24.4	745		<b>3</b> Tu	0312	22.9	697		<b>18</b> W	0234	23.5	715		<b>3</b> Th	0341	22.4	683		<b>18</b> F	0317	23.8	726	
	0856	5.6	172			0813	7.1	215			1000	9.5	291			0919	8.6	262			1023	10.0	306			1001	8.0	244	
	1412	25.1	765			1331	24.2	737			1529	22.4	683			1454	23.3	709			1557	21.9	666			1538	23.7	722	
	2120	6.3	191			2032	7.1	216			2234	9.5	290			2144	8.2	249			2251	9.8	300			2228	7.5	229	
<b>4</b> Su	0239	24.2	739		<b>19</b> M	0154	23.6	719		<b>4</b> W	0423	21.9	666		<b>19</b> Th	0332	22.8	695		<b>4</b> F	0446	21.8	665		<b>19</b> Sa	0418	23.4	712	
	0935	7.7	234			0848	8.2	250			1101	10.8	328			1012	9.4	287			1119	10.8	328			1102	8.6	261	
	1457	23.7	723			1413	23.3	710			1647	21.5	654			1556	22.7	693			1707	21.3	650			1644	23.3	709	
	2204	8.2	249			2109	8.2	249			2339	10.3	315			2242	8.8	268			2350	10.4	316			2336	8.0	244	
<b>5</b> M	0335	22.7	691		<b>20</b> Tu	0243	22.7	691		<b>5</b> Th	0539	21.5	656		<b>20</b> F	0444	22.6	689		<b>5</b> Sa	0550	21.7	662		<b>20</b> Su	0531	23.3	711	
	1025	9.6	292			0929	9.4	286			1214	11.0	336			1123	9.7	295			1224	10.8	330			1220	8.6	261	
	1600	22.2	678			1506	22.4	684			1803	21.4	651			1713	22.7	691			1814	21.3	650			1801	23.2	708	
	2305	9.7	296			2156	9.2	280																					
<b>6</b> Tu	0456	21.6	658		<b>21</b> W	0345	21.9	669		<b>6</b> F	0052	10.2	312		<b>21</b> Sa	0007	8.7	266		<b>6</b> Su	0057	10.2	312		<b>21</b> M	0057	7.8	238	
	1138	10.8	329			1024	10.3	314			0651	21.9	668			0605	23.1	704			0653	22.1	674			0645	23.8	726	
	1728	21.4	653			1615	21.9	668			1328	10.3	315			1255	8.9	272			1337	10.2	311			1339	7.8	238	
						2258	9.8	299			1915	21.9	668			1833	23.3	711			1917	21.9	666			1914	23.8	726	
<b>7</b> W	0022	10.3	314		<b>22</b> Th	0506	21.8	665		<b>7</b> Sa	0203	9.3	284		<b>22</b> Su	0131	7.6	231		<b>7</b> M	0209	9.5	289		<b>22</b> Tu	0210	7.0	214	
	0622	21.5	654			1143	10.5	320			0754	22.8	695			0715	24.2	738			0750	22.8	696			0749	24.6	750	
	1259	10.8	329			1741	22.1	673			1435	9.1	277			1409	7.3	223			1444	9.1	276			1447	6.6	202	
	1851	21.6	659								2013	22.8	696			1940	24.5	746			2013	22.6	690			2018	24.6	750	
<b>8</b> Th	0142	9.7	296		<b>23</b> F	0037	9.4	286		<b>8</b> Su	0302	8.1	247		<b>23</b> M	0238	6.1	186		<b>8</b> Tu	0309	8.4	256		<b>23</b> W	0315	6.1	186	
	0739	22.1	675			0635	22.7	691			0839	23.8	726			0814	25.4	774			0837	23.7	723			0845	25.4	773	
	1417	9.7	296			1326	9.3	282			1529	7.8	237			1512	5.7	175			1537	7.9	240			1550	5.5	169	
	2002	22.5	685			1902	23.2	707			2055	23.8	725			2037	25.6	780			2059	23.6	718			2113	25.3	772	
<b>9</b> F	0252	8.5	258		<b>24</b> Sa	0202	7.6	232		<b>9</b> M	0351	7.0	214		<b>24</b> Tu	0339	4.9	148		<b>9</b> W	0358	7.4	225		<b>24</b> Th	0416	5.3	163	
	0835	23.3	709			0744	24.2	737			0915	24.6	751			0905	26.3	801			0917	24.5	746			0936	25.9	790	
	1520	8.3	253			1437	7.2	218			1614	6.8	206			1611	4.5	137			1621	6.9	209			1649	4.7	142	
	2050	23.6	718			2006	24.8	755			2130	24.5	748			2129	26.4	804			2139	24.3	741			2204	25.9	788	
<b>10</b> Sa	0346	7.2	219		<b>25</b> Su	0305	5.6	172		<b>10</b> Tu	0433	6.2	190		<b>25</b> W	0437	4.0	122		<b>10</b> Th	0440	6.6	202		<b>25</b> F	0511	4.8	147	
	0915	24.3	740			0839	25.7	782			0948	25.2	768			0953	26.8	818			0955	25.1	764			1023	26.3	801	
	1608	7.1	215			1537	5.3	161			1654	6.0	184			1707	3.6	111			1701	6.1	185			1741	4.1	124	
	2127	24.5	746			2059	26.1	796			2204	25.1	764			2217	26.8	818			2216	24.9	758			2250	26.1	796	
<b>11</b> Su	0429	6.2	188		<b>26</b> M	0404	4.1	125		<b>11</b> W	0511	5.8	177		<b>26</b> Th	0530	3.6	110		<b>11</b> F	0518	6.1	185		<b>26</b> Sa	0600	4.6	140	
	0949	25.0	762			0928	26.7	814			1021	25.5	778			1038	27.1	826			1031	25.5	776			1107	26.4	805	
	1648	6.1	187			1634	3.9	118			1729	5.6	170			1758	3.2	98			1739	5.4	166			1827	3.8	117	
	2159	25.2	767			2148	27.1	825			2238	25.3	772			2304	27.0	823			2254	25.2	769			2335	26.2	798	
<b>12</b> M	0507	5.5	168		<b>27</b> Tu	0501	3.1	93		<b>12</b> Th	0545	5.6	170		<b>27</b> F	0617	3.6	110		<b>12</b> Sa	0555	5.7	173		<b>27</b> Su	0643	4.7	142	
	1019	25.5	776			1014	27.4	834			1054	25.7	783			1122	27.1	825			1108	25.7	784			1148	26.3	803	
	1724	5.6	170			1729	2.9	89			1801	5.3	162			1843	3.2	98			1815	5.0	152			1908	4.0	121	
	2230	25.6	779			2235	27.6	841			2311	25.4	775			2349	26.8	817			2331	25.5	776						
<b>13</b> Tu	0542	5.2	158		<b>28</b> W	0552	2.5	77		<b>13</b> F	0616	5.5	168		<b>28</b> Sa	0700	4.1	124		<b>13</b> Su	0632	5.4	166		<b>28</b> M	0017	26.0	792	
	1049	25.6	781			1058	27.7	843			1126	25.8	785			1205	26.7	815			1145	25.9	788			0722	5.0	153	
	1757	5.3	161			1818	2.5	76			1833	5.2	157			1924	3.7	113			1853	4.8	145			1228	26.0	793	
	2301	25.7	784			2321	27.7	845			2345	25.4	775													1945	4.4	135	
<b>14</b> W	0613	5.1	156		<b>29</b> Th	0639	2.6	79		<b>14</b> Sa	0649	5.6	171		<b>29</b> Su	0033	26.3	802		<b>14</b> M	0010	25.5	777		<b>29</b> Tu	0057	25.5	778	
	1119	25.7	783			1142	27.6	841			1200	25.7	782			0740	4.9	150			0711	5.5	167			0758	5.7	173	
	1827	5.2	159			1902	2.6	79			1909	5.2	160			1247	26.1	795			1225	25.8	786			1306	25.5	776	
	2333	25.7	784																										



# Leith, Scotland, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0057	15.7	480	<b>16</b> Th	0009	17.1	520	<b>1</b> F	0055	15.7	480	<b>16</b> Sa	0037	17.7	540	<b>1</b> M	0130	16.7	510	<b>16</b> Tu	0156	18.0	550
	0640	5.6	170		0612	3.9	120		0636	4.9	150		0638	3.3	100		0721	4.3	130		0807	2.6	80
	1312	16.1	490		1226	17.4	530		1314	16.1	490		1254	18.0	550		1355	16.7	510		1419	18.0	550
	1915	4.3	130		1851	2.3	70		1904	3.9	120		1917	2.3	70		1940	3.6	110		2031	3.0	90
<b>2</b> Th	0135	16.4	500	<b>17</b> F	0101	18.0	550	<b>2</b> Sa	0131	16.4	500	<b>17</b> Su	0125	18.4	560	<b>2</b> Tu	0209	17.4	530	<b>17</b> W	0242	18.0	550
	0713	4.6	140		0703	3.0	90		0714	4.3	130		0731	2.3	70		0801	3.6	110		0856	2.3	70
	1350	16.7	510		1315	18.4	560		1350	16.7	510		1343	18.7	570		1434	17.4	530		1506	18.0	550
	1945	3.6	110		1942	1.3	40		1938	3.6	110		2006	2.0	60		2020	3.3	100		2112	3.0	90
<b>3</b> F	0207	16.7	510	<b>18</b> Sa	0147	18.7	570	<b>3</b> Su	0204	17.1	520	<b>18</b> M	0211	18.7	570	<b>3</b> W	0247	17.7	540	<b>18</b> Th	0326	18.0	550
	0746	3.9	120		0753	2.0	60		0751	3.6	110		0822	1.6	50		0842	3.0	90		0939	2.0	60
	1423	17.1	520		1401	19.4	590		1425	17.1	520		1431	19.0	580		1512	17.7	540		1551	17.7	540
	2014	3.0	90		2029	0.7	20		2012	3.0	90		2052	1.6	50		2100	3.0	90		2148	3.3	100
<b>4</b> Sa	0236	17.1	520	<b>19</b> Su	0231	19.4	590	<b>4</b> M	0237	17.4	530	<b>19</b> Tu	0256	18.7	570	<b>4</b> Th	0324	17.7	540	<b>19</b> F	0410	17.7	540
	0819	3.3	100		0842	1.0	30		0827	3.3	100		0911	1.6	50		0924	2.6	80		1018	2.6	80
	1454	17.4	530		1448	19.7	600		1459	17.4	530		1519	18.7	570		1550	17.7	540		1634	17.4	530
	2044	2.6	80		2114	0.7	20		2046	3.0	90		2134	2.3	70		2143	3.0	90		2217	3.9	120
<b>5</b> Su	0306	17.4	530	<b>20</b> M	0315	19.4	590	<b>5</b> Tu	0311	17.7	540	<b>20</b> W	0342	18.4	560	<b>5</b> F	0402	18.0	550	<b>20</b> Sa	0452	17.4	530
	0852	3.0	90		0929	1.0	30		0902	3.0	90		0955	1.6	50		1007	2.6	80		1050	3.0	90
	1525	17.7	540		1535	19.7	600		1533	17.4	530		1606	18.4	560		1631	17.7	540		1716	17.1	520
	2115	2.6	80		2157	1.0	30		2121	3.0	90		2212	3.0	90		2226	3.3	100		2241	4.6	140
<b>6</b> M	0337	17.4	530	<b>21</b> Tu	0400	19.0	580	<b>6</b> W	0345	17.7	540	<b>21</b> Th	0427	18.0	550	<b>6</b> Sa	0443	17.7	540	<b>21</b> Su	0533	17.1	520
	0923	3.0	90		1012	1.3	40		0936	3.0	90		1036	2.3	70		1052	2.6	80		1116	3.6	110
	1557	17.4	530		1622	19.0	580		1609	17.4	530		1654	17.7	540		1715	17.7	540		1758	16.4	500
	2144	2.6	80		2236	2.0	60		2154	3.3	100		2244	3.9	120		2311	3.9	120		2310	5.2	160
<b>7</b> Tu	0410	17.4	530	<b>22</b> W	0446	18.4	560	<b>7</b> Th	0421	17.4	530	<b>22</b> F	0513	17.4	530	<b>7</b> Su	0527	17.7	540	<b>22</b> M	0615	16.4	500
	0950	3.3	100		1053	2.3	70		1048	3.3	100		1111	3.3	100		1139	3.0	90		1147	4.3	130
	1629	17.4	530		1711	18.0	550		1646	17.4	530		1741	17.1	520		1803	17.4	530		1840	15.7	480
	2210	3.3	100		2309	3.6	110		2226	3.6	110		2307	4.9	150		2359	4.6	140		2349	5.9	180
<b>8</b> W	0443	17.1	520	<b>23</b> Th	0533	17.4	530	<b>8</b> F	0459	17.1	520	<b>23</b> Sa	0559	16.7	510	<b>8</b> M	0615	17.1	520	<b>23</b> Tu	0659	15.7	480
	1007	3.6	110		1129	3.3	100		1039	3.6	110		1141	3.9	120		1230	3.6	110		1228	4.9	150
	1704	17.1	520		1802	17.1	520		1728	17.1	520		1828	16.1	490		1856	16.7	510		1925	15.1	460
	2227	3.9	120		2334	4.9	150		2259	4.6	140		2337	5.9	180								
<b>9</b> Th	0520	16.7	510	<b>24</b> F	0623	16.4	500	<b>9</b> Sa	0541	16.7	510	<b>24</b> Su	0648	15.7	480	<b>9</b> Tu	0054	5.2	160	<b>24</b> W	0038	6.6	200
	1028	3.9	120		1202	4.3	130		1119	3.9	120		1218	4.9	150		0709	16.7	510		0747	15.1	460
	1743	16.7	510		1855	16.1	490		1815	16.7	510		1917	15.4	470		1330	3.9	120		1321	5.6	170
	2250	4.6	140						2347	5.2	160						1957	16.4	500		2014	14.8	450
<b>10</b> F	0600	16.4	500	<b>25</b> Sa	0006	5.9	180	<b>10</b> Su	0629	16.4	500	<b>25</b> M	0024	6.6	200	<b>10</b> W	0159	5.6	170	<b>25</b> Th	0143	7.2	220
	1103	4.6	140		0718	15.4	470		1218	4.6	140		0740	15.1	460		0815	16.4	500		0841	14.8	450
	1829	16.1	490		1250	5.6	170		1909	16.1	490		1312	5.9	180		1440	4.3	130		1426	6.2	190
	2330	5.6	170		1952	15.1	460						2009	14.8	450		2106	16.1	490		2109	14.4	440
<b>11</b> Sa	0646	15.7	480	<b>26</b> Su	0103	7.2	220	<b>11</b> M	0059	5.9	180	<b>26</b> Tu	0130	7.2	220	<b>11</b> Th	0310	5.6	170	<b>26</b> F	0304	7.2	220
	1156	5.2	160		0818	14.8	450		0725	15.7	480		0836	14.8	450		0928	16.1	490		0939	14.4	440
	1922	15.4	470		1416	6.2	190		1336	4.9	150		1431	6.2	190		1554	4.3	130		1544	6.2	190
					2053	14.4	440		2014	15.7	480		2105	14.4	440		2214	16.1	490		2206	14.8	450
<b>12</b> Su	0043	6.6	200	<b>27</b> M	0243	7.9	240	<b>12</b> Tu	0222	6.2	190	<b>27</b> W	0301	7.5	230	<b>12</b> F	0418	5.2	160	<b>27</b> Sa	0420	6.9	210
	0743	15.1	460		0922	14.4	440		0835	15.4	470		0935	14.4	440		1037	16.4	500		1040	14.8	450
	1326	5.9	180		1559	6.2	190		1505	4.9	150		1556	6.2	190		1701	4.3	130		1650	5.9	180
	2030	15.1	460		2158	14.1	430		2129	15.7	480		2203	14.4	440		2318	16.4	500		2306	15.1	460
<b>13</b> M	0239	6.9	210	<b>28</b> Tu	0414	7.5	230	<b>13</b> W	0343	5.9	180	<b>28</b> Th	0416	7.2	220	<b>13</b> Sa	0520	4.6	140	<b>28</b> Su	0519	6.2	190
	0856	14.8	450		1031	14.4	440		0952	15.7	480		1036	14.4	440		1139	16.7	510		1141	15.1	460
	1525	5.9	180		1703	5.9	180		1625	4.3	130		1653	5.9	180		1801	3.6	110		1743	5.2	160
	2151	15.1	460		2310	14.4	440		2241	16.1	490		2304	14.8	450								
<b>14</b> Tu	0412	6.2	190	<b>29</b> W	0511	6.9	210	<b>14</b> Th	0448	5.2	160	<b>29</b> F	0511	6.6	200	<b>14</b> Su	0015	17.1	520	<b>29</b> M	0004	15.7	480
	1018	15.4	470		1138	14.8	450		1101	16.4	500		1136	15.1	460		0617	3.9	120		0608	5.6	170
	1653	4.9	150		1751	5.2	160		1728	3.6	110		1741	5.2	160		1237	17.4	530		1237	15.7	480
	2307	16.1	490						2343	16.7	510						1856	3.3	100		1829	4.6	140
<b>15</b> W	0518	5.2	160	<b>30</b> Th	0011	15.1	460	<b>15</b> F	0545	4.3	130	<b>30</b> Sa	0000	15.4	470	<b>15</b> M	0108	17.7	540	<b>30</b> Tu	0057	16.4	500
	1128	16.4	500		0556	5.9	180		1200	17.4	530		0558	5.6	170		0714	3.3	100		0654	4.6	140
	1756	3.6	110		1232	15.4	470		1825	3.0	90		1229	15.7	480		1330	17.7	540				



# Leith, Scotland, 2015

## Times and Heights of High and Low Waters

October				November				December															
Time	Height			Time	Height			Time	Height			Time	Height										
	h	m	ft		h	m	ft		h	m	ft		h	m	ft	h	m	ft					
<b>1</b> Th	0414	20.0	610	<b>16</b> F	0413	17.7	540	<b>1</b> Su	0538	18.0	550	<b>16</b> M	0508	17.1	520	<b>1</b> Tu	0609	16.7	510	<b>16</b> W	0537	17.4	530
	1037	1.3	40		0950	3.6	110		1125	4.9	150		1028	4.9	150		1122	5.9	180		1121	4.9	150
	1643	19.0	580		1627	17.4	530		1801	17.1	520		1719	17.1	520		1829	16.7	510		1747	17.4	530
	2251	2.0	60		2154	3.9	120		2357	4.3	130		2251	4.6	140		2340	5.2	160		2354	3.9	120
<b>2</b> F	0503	19.4	590	<b>17</b> Sa	0448	17.1	520	<b>2</b> M	0634	16.7	510	<b>17</b> Tu	0552	16.7	510	<b>2</b> W	0009	4.9	150	<b>17</b> Th	0626	17.1	520
	1117	2.6	80		1010	4.3	130		1155	6.2	190		1105	5.6	170		0700	16.1	490		1210	5.6	170
	1731	18.4	560		1703	17.1	520		1858	16.4	500		1804	16.7	510		1202	6.9	210		1837	17.1	520
	2333	3.3	100		2215	4.6	140						2340	5.2	160		1923	15.7	480				
<b>3</b> Sa	0555	18.0	550	<b>18</b> Su	0526	16.7	510	<b>3</b> Tu	0045	5.6	170	<b>18</b> W	0643	16.4	500	<b>3</b> Th	0057	5.9	180	<b>18</b> F	0046	4.6	140
	1153	4.3	130		1032	4.9	150		0734	15.7	480		1206	6.6	200		0754	15.1	460		0721	16.4	500
	1824	17.1	520		1742	16.7	510		1246	7.2	220		1856	16.1	490		1302	7.5	230		1312	6.2	190
					2245	4.9	150		2001	15.4	470						2021	15.4	470		1934	16.7	510
<b>4</b> Su	0016	4.6	140	<b>19</b> M	0610	16.1	490	<b>4</b> W	0209	6.6	200	<b>19</b> Th	0053	5.6	170	<b>4</b> F	0212	6.6	200	<b>19</b> Sa	0152	4.9	150
	0654	16.7	510		1106	5.9	180		0837	15.1	460		0742	15.7	480		0851	14.8	450		0826	16.1	490
	1231	5.9	180		1826	16.1	490		1423	8.2	250		1337	6.9	210		1431	8.2	250		1425	6.6	200
	1924	16.1	490		2331	5.9	180		2106	15.1	460		1958	15.7	480		2121	15.1	460		2044	16.4	500
<b>5</b> M	0114	5.9	180	<b>20</b> Tu	0701	15.7	480	<b>5</b> Th	0344	6.6	200	<b>20</b> F	0221	5.9	180	<b>5</b> Sa	0340	6.9	210	<b>20</b> Su	0309	5.2	160
	0801	15.7	480		1202	6.9	210		0943	14.8	450		0853	15.7	480		0950	14.8	450		0937	16.1	490
	1336	7.2	220		1919	15.4	470		1557	7.9	240		1504	6.9	210		1556	7.9	240		1541	6.2	190
	2033	15.4	470						2213	15.1	460		2115	16.1	490		2222	15.1	460		2159	16.4	500
<b>6</b> Tu	0253	6.6	200	<b>21</b> W	0053	6.6	200	<b>6</b> F	0451	6.2	190	<b>21</b> Sa	0348	5.2	160	<b>6</b> Su	0441	6.6	200	<b>21</b> M	0425	4.9	150
	0911	15.1	460		0803	15.1	460		1053	15.1	460		1007	16.1	490		1051	14.8	450		1045	16.4	500
	1526	7.9	240		1359	7.5	230		1657	7.5	230		1618	6.2	190		1656	7.2	220		1649	5.6	170
	2143	15.1	460		2026	15.1	460		2319	15.4	470		2228	16.4	500		2322	15.4	470		2306	16.7	510
<b>7</b> W	0428	6.2	190	<b>22</b> Th	0248	6.6	200	<b>7</b> Sa	0541	5.6	170	<b>22</b> Su	0457	4.6	140	<b>7</b> M	0529	5.9	180	<b>22</b> Tu	0530	4.6	140
	1025	14.8	450		0920	15.1	460		1155	15.4	470		1113	17.1	520		1149	15.4	470		1146	17.1	520
	1649	7.5	230		1540	7.2	220		1743	6.6	200		1717	5.2	160		1745	6.6	200		1750	4.9	150
	2256	15.4	470		2146	15.4	470						2330	17.4	530								
<b>8</b> Th	0537	5.6	170	<b>23</b> F	0424	5.6	170	<b>8</b> Su	0014	16.1	490	<b>23</b> M	0555	3.6	110	<b>8</b> Tu	0015	15.7	480	<b>23</b> W	0007	17.4	530
	1140	15.4	470		1036	16.1	490		0619	4.9	150		1209	17.7	540		0610	5.2	160		0628	3.9	120
	1746	6.9	210		1651	6.2	190		1242	16.1	490		1811	4.3	130		1237	16.1	490		1242	17.7	540
					2258	16.4	500		1822	5.6	170						1828	5.6	170		1848	3.9	120
<b>9</b> F	0001	16.1	490	<b>24</b> Sa	0528	4.3	130	<b>9</b> M	0058	16.7	510	<b>24</b> Tu	0025	18.4	560	<b>9</b> W	0102	16.4	500	<b>24</b> Th	0103	18.0	550
	0625	4.9	150		1141	17.1	520		0651	4.6	140		0648	3.0	90		0648	4.9	150		0721	3.6	110
	1237	16.1	490		1746	4.9	150		1318	16.7	510		1300	18.7	570		1318	16.7	510		1332	18.4	560
	1825	5.9	180		2357	17.4	530		1858	4.9	150		1903	3.3	100		1908	4.9	150		1944	3.0	90
<b>10</b> Sa	0052	16.7	510	<b>25</b> Su	0622	3.3	100	<b>10</b> Tu	0136	17.1	520	<b>25</b> W	0116	19.0	580	<b>10</b> Th	0142	17.1	520	<b>25</b> F	0154	18.4	560
	0702	4.3	130		1235	18.0	550		0722	3.9	120		0738	2.3	70		0725	4.3	130		0809	3.3	100
	1319	16.7	510		1836	3.6	110		1351	17.4	530		1346	19.0	580		1356	17.4	530		1419	18.7	570
	1857	5.2	160						1934	4.3	130		1955	2.3	70		1946	4.3	130		2035	2.3	70
<b>11</b> Su	0132	17.4	530	<b>26</b> M	0048	18.7	570	<b>11</b> W	0210	17.4	530	<b>26</b> Th	0205	19.4	590	<b>11</b> F	0220	17.4	530	<b>26</b> Sa	0243	18.7	570
	0730	3.9	120		0711	2.0	60		0753	3.6	110		0826	2.0	60		0802	3.9	120		0854	3.3	100
	1352	17.1	520		1322	19.0	580		1423	17.7	540		1431	19.4	590		1433	17.7	540		1504	18.7	570
	1928	4.3	130		1924	2.6	80		2009	3.9	120		2046	2.0	60		2024	3.6	110		2122	2.3	70
<b>12</b> M	0206	17.7	540	<b>27</b> Tu	0135	19.7	600	<b>12</b> Th	0243	17.7	540	<b>27</b> F	0253	19.4	590	<b>12</b> Sa	0257	17.7	540	<b>27</b> Su	0329	18.4	560
	0757	3.3	100		0800	1.3	40		0826	3.3	100		0911	2.3	70		0839	3.6	110		0934	3.3	100
	1422	17.4	530		1406	19.7	600		1455	18.0	550		1517	19.4	590		1508	18.0	550		1549	18.7	570
	2001	3.9	120		2013	1.6	50		2043	3.6	110		2134	2.0	60		2103	3.3	100		2205	2.3	70
<b>13</b> Tu	0238	17.7	540	<b>28</b> W	0221	20.0	610	<b>13</b> F	0317	17.7	540	<b>28</b> Sa	0342	19.0	580	<b>13</b> Su	0334	17.7	540	<b>28</b> M	0414	18.0	550
	0825	3.0	90		0847	1.0	30		0858	3.3	100		0953	3.0	90		0917	3.6	110		1008	3.9	120
	1451	17.7	540		1450	20.0	610		1529	18.0	550		1604	18.7	570		1544	18.0	550		1633	18.4	560
	2033	3.6	110		2102	1.3	40		2116	3.6	110		2219	2.3	70		2143	3.3	100		2242	3.0	90
<b>14</b> W	0309	18.0	550	<b>29</b> Th	0308	20.3	620	<b>14</b> Sa	0352	17.7	540	<b>29</b> Su	0430	18.7	570	<b>14</b> M	0412	18.0	550	<b>29</b> Tu	0458	17.7	540
	0855	3.0	90		0932	1.3	40		0930	3.6	110		1030	3.9	120		0957	3.9	120		1033	4.6	140
	1521	17.7	540		1535	19.7	600		1603	17.7	540		1651	18.0	550		1622	18.0	550		1716	17.7	540
	2105	3.3	100		2149	1.6	50		2147	3.6	110		2300	3.3	100		2225	3.3	100		2311	3.6	110
<b>15</b> Th	0340	17.7	540	<b>30</b> F	0356	19.7	600	<b>15</b> Su	0428	17.4	530	<b>30</b> M	0519	17.7	540	<b>15</b> Tu	0453	17.7	540	<b>30</b> W	0541	17.1	520
	0924	3.0	90		1014	2.0	60		1000	4.3	130		1058	4.9	150		1038	4.3	130		1055	5.2	160
	1553	17.7	540		1621	19.0	580		1640	17.7	540		1739	17.4	530		1702	17.7	540		1758	17.1	520
	2132	3.6	110		2234	2.3	70		2217	3.9	120		2336	3.9	120		2308	3.6	110		2334	4.3	130
			<b>31</b> Sa	0446	19.0	580										<b>31</b> Th	0623	16.1	490				
				1053	3.3	100											1127	5.9	180				
				1710	18.0	550											1842	16.4	500				
				2316	3.3	100																	

# Immingham, England, 2015

## Times and Heights of High and Low Waters

January				February				March																					
	Time		Height			Time		Height			Time		Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> Th	0212	20.7	630		<b>16</b> F	0129	19.0	580		<b>1</b> Su	0408	20.7	630		<b>16</b> M	0327	20.3	620		<b>1</b> Su	0246	19.0	580		<b>16</b> M	0153	19.0	580	
	0845	6.6	200			0753	7.5	230			1017	6.6	200			0935	6.2	190			0901	8.5	260			0800	7.9	240	
	1500	20.7	630			1420	19.4	590			1624	21.3	650			1549	21.3	650			1504	19.4	590			1419	19.7	600	
	2115	6.9	210			2018	8.2	250			2251	5.6	170			2209	5.6	170			2140	6.9	210			2035	6.6	200	
<b>2</b> F	0318	21.0	640		<b>17</b> Sa	0242	19.7	600		<b>2</b> M	0459	21.3	650		<b>17</b> Tu	0426	22.0	670		<b>2</b> M	0353	19.7	600		<b>17</b> Tu	0313	20.3	620	
	0944	6.2	190			0859	6.9	210			1104	5.9	180			1035	4.9	150			0957	7.5	230			0913	6.6	200	
	1556	21.3	650			1520	20.3	620			1708	22.3	680			1640	23.0	700			1600	20.7	630			1524	21.3	650	
	2214	5.9	180			2127	6.9	210			2337	4.6	140			2309	3.9	120			2230	5.6	170			2150	4.9	150	
<b>3</b> Sa	0417	21.7	660		<b>18</b> Su	0344	21.0	640		<b>3</b> Tu	0541	21.7	660		<b>18</b> W	0518	23.0	700		<b>3</b> Tu	0443	20.7	630		<b>18</b> W	0412	22.0	670	
	1036	5.6	170			0959	5.9	180			1147	5.2	160			1129	3.6	110			1044	6.2	190			1015	4.9	150	
	1644	22.0	670			1612	21.7	660			1747	23.0	700			1727	24.3	740			1646	21.7	660			1618	23.0	700	
	2306	4.9	150			2229	5.6	170			○					●					2314	4.6	140			2250	3.3	100	
<b>4</b> Su	0508	22.0	670		<b>19</b> M	0439	22.0	670		<b>4</b> W	0019	3.9	120		<b>19</b> Th	0003	2.3	70		<b>4</b> W	0522	21.7	660		<b>19</b> Th	0503	23.3	710	
	1122	5.2	160			1054	4.9	150			0617	22.3	680			0606	24.0	730			1125	5.2	160			1110	3.6	110	
	1726	22.6	690			1700	23.0	700			1226	4.9	150			1219	2.6	80			1725	22.3	680			1707	24.3	740	
	2353	4.3	130			2325	4.3	130			1823	23.3	710			1812	25.3	770			2355	3.9	120			2343	2.0	60	
<b>5</b> M	0553	22.3	680		<b>20</b> Tu	0530	23.0	700		<b>5</b> Th	0057	3.9	120		<b>20</b> F	0052	1.3	40		<b>5</b> Th	0556	22.0	670		<b>20</b> F	0549	24.3	740	
	1205	4.9	150			1145	3.9	120			0651	22.3	680			0650	24.6	750			1204	4.9	150			1200	2.6	80	
	1806	23.3	710			1745	24.0	730			1301	4.6	140			1305	2.0	60			1800	23.0	700			1753	25.3	770	
	○					●					1857	23.3	710			1856	25.9	790			○					●			
<b>6</b> Tu	0036	3.9	120		<b>21</b> W	0017	3.0	90		<b>6</b> F	0132	3.9	120		<b>21</b> Sa	0138	0.7	20		<b>6</b> F	0032	3.6	110		<b>21</b> Sa	0031	1.0	30	
	0634	22.6	690			0618	24.0	730			0721	22.3	680			0732	24.9	760			0626	22.3	680			0631	24.6	750	
	1244	4.9	150			1234	3.3	100			1333	4.6	140			1349	2.0	60			1240	4.6	140			1247	1.6	50	
	1843	23.3	710			1829	24.9	760			1928	23.3	710			1939	25.9	790			1832	23.0	700			1838	25.9	790	
<b>7</b> W	0116	3.9	120		<b>22</b> Th	0107	2.0	60		<b>7</b> Sa	0203	3.9	120		<b>22</b> Su	0220	1.0	30		<b>7</b> Sa	0107	3.6	110		<b>22</b> Su	0117	0.7	20	
	0711	22.3	680			0704	24.3	740			0750	22.3	680			0813	24.6	750			0654	22.6	690			0711	24.9	760	
	1319	4.9	150			1321	3.0	90			1400	4.9	150			1431	2.3	70			1312	4.3	130			1331	1.6	50	
	1917	23.3	710			1912	25.3	770			1958	23.0	700			2022	25.6	780			1903	23.3	710			1921	25.9	790	
<b>8</b> Th	0151	4.3	130		<b>23</b> F	0153	1.6	50		<b>8</b> Su	0231	4.6	140		<b>23</b> M	0301	2.0	60		<b>8</b> Su	0138	3.9	120		<b>23</b> M	0158	1.0	30	
	0745	22.3	680			0749	24.3	740			0819	22.0	670			0853	23.6	720			0722	22.6	690			0750	24.6	750	
	1351	5.2	160			1405	2.6	80			1427	5.2	160			1511	3.0	90			1340	4.6	140			1412	2.0	60	
	1949	23.3	710			1955	25.6	780			2026	22.6	690			2106	24.6	750			1934	23.0	700			2004	25.6	780	
<b>9</b> F	0223	4.6	140		<b>24</b> Sa	0238	1.6	50		<b>9</b> M	0256	4.9	150		<b>24</b> Tu	0340	3.3	100		<b>9</b> M	0206	4.3	130		<b>24</b> Tu	0237	2.0	60	
	0816	22.0	670			0832	24.0	730			0849	21.7	660			0936	22.6	690			0751	22.3	680			0828	24.0	730	
	1420	5.6	170			1447	3.3	100			1454	5.6	170			1551	4.6	140			1405	4.6	140			1451	2.6	80	
	2019	22.6	690			2039	25.3	770			2055	22.0	670			2153	23.0	700			2003	22.6	690			2047	24.3	740	
<b>10</b> Sa	0253	5.2	160		<b>25</b> Su	0321	2.3	70		<b>10</b> Tu	0324	5.6	170		<b>25</b> W	0421	5.2	160		<b>10</b> Tu	0230	4.6	140		<b>25</b> W	0314	3.6	110	
	0847	21.3	650			0917	23.3	710			0922	21.0	640			1024	21.0	640			0820	22.3	680			0907	22.6	690	
	1449	6.2	190			1530	3.9	120			1526	6.2	190			1635	6.2	190			1432	4.9	150			1529	3.9	120	
	2051	22.0	670			2125	24.3	740			2129	21.3	650			○	2250	21.0	640			2031	22.3	680			2133	22.6	690
<b>11</b> Su	0324	5.9	180		<b>26</b> M	0406	3.6	110		<b>11</b> W	0357	6.6	200		<b>26</b> Th	0508	6.9	210		<b>11</b> W	0255	5.2	160		<b>26</b> Th	0350	5.2	160	
	0922	20.7	630			1006	22.0	670			1000	20.0	610			1125	19.7	600			0850	21.7	660			0950	21.3	650	
	1521	6.6	200			1615	5.2	160			1606	7.2	220			1731	7.5	230			1502	5.6	170			1610	5.6	170	
	2125	21.3	650			2216	23.0	700			2211	20.3	620								2102	21.7	660			2226	20.7	630	
<b>12</b> M	0359	6.6	200		<b>27</b> Tu	0454	4.9	150		<b>12</b> Th	0445	7.2	220		<b>27</b> F	0002	19.4	590		<b>12</b> Th	0325	5.9	180		<b>27</b> F	0432	7.2	220	
	1001	20.0	610			1102	21.0	640			1050	19.4	590			0613	8.5	260			0925	21.0	640			1044	19.7	600	
	1559	7.5	230			1706	6.6	200			1702	7.9	240			1240	18.7	570			1539	6.2	190			1701	7.2	220	
	2205	20.3	620			○	2317	21.3	650			○	2307	19.4		590		1855	8.5		260		2143	20.7		630		○	2337
<b>13</b> Tu	0443	7.2	220		<b>28</b> W	0550	6.6	200		<b>13</b> F	0552	8.2	250		<b>28</b> Sa	0127	18.7	570		<b>13</b> F	0407	6.9	210		<b>28</b> Sa	0529	8.9	270	
	1049	19.4	590			1207	19.7	600			1159	18.7	570			0745	9.2	280			1012	20.0	610			1200	18.7	570	
	1649	8.2	250			1811	7.9	240			1818	8.5	260			1356	18.7	570			1631	7.2	220			1815	8.5	260	
	○	2256	19.7	600													2034	8.2	250			○	2237	19.7		600			
<b>14</b> W	0539	7.9	240		<b>29</b> Th	0030	20.0	610		<b>14</b> Sa	0028	18.7	570		<b>14</b> Sa	0512	7.9	240		<b>14</b> Sa	0512	7.9	240		<b>29</b> Su	0102	18.0	550	
	1152	18.7	570			0700	7.5	230			0710	8.2	250			1114	19.0	580			0655	9.8	300						
	1752	8.9	270			1318	19.4	590			1333	18.7	570			1747	7.9	240			1322	18.4	560						
						1934	8.2	250			1939	8.2	250			2354	18.7	570			2002	8.2	250						
<b>15</b> Th																													



# Immingham, England, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0414	20.3	620	<b>16</b> Th	0352	22.0	670	<b>1</b> F	0417	21.0	640	<b>16</b> Sa	0418	22.6	690	<b>1</b> M	0450	22.0	670	<b>16</b> Tu	0527	23.0	700
	1016	6.6	200		0953	4.9	150		1023	6.2	190		1025	4.3	130		1110	5.2	160		1150	3.3	100
	1617	21.3	650		1553	23.0	700		1621	21.3	650		1622	23.3	710		1705	21.7	660		1750	23.0	700
	2244	4.9	150		2226	3.3	100		2246	4.9	150		2254	3.0	90		2332	4.6	140		●		
<b>2</b> Th	0454	21.3	650	<b>17</b> F	0442	23.0	700	<b>2</b> Sa	0451	21.7	660	<b>17</b> Su	0504	23.3	710	<b>2</b> Tu	0528	22.6	690	<b>17</b> W	0009	3.9	120
	1058	5.6	170		1048	3.6	110		1104	5.2	160		1117	3.3	100		1152	4.6	140		0609	23.3	710
	1656	22.0	670		1644	24.0	730		1657	21.7	660		1713	24.0	730		1747	22.3	680		1238	3.0	90
	2324	4.3	130		2319	2.0	60		2327	4.3	130		2344	2.6	80		●				1837	23.0	700
<b>3</b> F	0527	22.0	670	<b>18</b> Sa	0527	24.0	730	<b>3</b> Su	0523	22.3	680	<b>18</b> M	0547	24.0	730	<b>3</b> W	0013	4.3	130	<b>18</b> Th	0053	3.9	120
	1137	4.9	150		1138	2.6	80		1143	4.9	150		1206	2.6	80		0606	23.0	700		0649	23.6	720
	1731	22.3	680		1732	24.9	760		1734	22.3	680		1802	24.3	740		1829	22.6	690		1323	3.0	90
	●				●				●				●				1829	22.6	690		1921	23.0	700
<b>4</b> Sa	0001	3.9	120	<b>19</b> Su	0008	1.3	40	<b>4</b> M	0005	3.9	120	<b>19</b> Tu	0030	2.6	80	<b>4</b> Th	0053	3.9	120	<b>19</b> F	0132	4.3	130
	0556	22.3	680		0609	24.6	750		0555	22.6	690		0628	24.0	730		0644	23.3	710		0728	23.3	710
	1214	4.6	140		1226	2.0	60		1220	4.3	130		1253	2.3	70		1315	3.6	110		1404	3.3	100
	1804	22.6	690		1818	25.3	770		1810	22.6	690		1849	24.3	740		1910	23.0	700		2001	22.3	680
<b>5</b> Su	0038	3.6	110	<b>20</b> M	0053	1.3	40	<b>5</b> Tu	0041	3.9	120	<b>20</b> W	0112	3.0	90	<b>5</b> F	0131	3.9	120	<b>20</b> Sa	0208	4.9	150
	0625	22.6	690		0649	24.6	750		0629	23.0	700		0707	24.0	730		0722	23.3	710		0804	23.0	700
	1247	4.3	130		1311	1.6	50		1254	4.3	130		1337	2.6	80		1355	3.6	110		1441	3.9	120
	1837	23.0	700		1904	25.3	770		1847	22.6	690		1933	23.6	720		1952	22.6	690		2040	21.7	660
<b>6</b> M	0110	3.6	110	<b>21</b> Tu	0135	1.6	50	<b>6</b> W	0114	3.9	120	<b>21</b> Th	0151	3.6	110	<b>6</b> Sa	0210	4.3	130	<b>21</b> Su	0241	5.6	170
	0655	22.6	690		0728	24.3	740		0703	23.0	700		0745	23.6	720		0801	23.3	710		0839	22.3	680
	1317	4.3	130		1353	2.0	60		1328	3.9	120		1418	3.0	90		1438	3.6	110		1516	4.6	140
	1909	23.0	700		1948	24.6	750		1924	22.6	690		2016	23.0	700		2036	22.3	680		2116	21.0	640
<b>7</b> Tu	0140	3.9	120	<b>22</b> W	0213	2.6	80	<b>7</b> Th	0146	4.3	130	<b>22</b> F	0227	4.6	140	<b>7</b> Su	0251	4.6	140	<b>22</b> M	0314	6.2	190
	0725	22.6	690		0805	23.6	720		0736	23.0	700		0823	22.6	690		0843	23.0	700		0915	21.7	660
	1345	4.3	130		1433	3.0	90		1402	3.9	120		1456	3.9	120		1524	3.9	120		1552	5.6	170
	1941	22.6	690		2031	23.6	720		2000	22.3	680		2059	22.0	670		2124	22.0	670		2155	20.0	610
<b>8</b> W	0206	4.3	130	<b>23</b> Th	0249	3.9	120	<b>8</b> F	0219	4.6	140	<b>23</b> Sa	0301	5.6	170	<b>8</b> M	0337	5.2	160	<b>23</b> Tu	0351	7.2	220
	0755	22.6	690		0843	22.6	690		0811	22.6	690		0900	22.0	670		0931	22.3	680		0956	20.7	630
	1414	4.6	140		1511	3.9	120		1440	4.3	130		1534	4.9	150		1616	4.3	130		1633	6.2	190
	2012	22.3	680		2115	22.3	680		2039	22.0	670		2143	20.7	630		2220	21.0	640		2240	19.4	590
<b>9</b> Th	0234	4.9	150	<b>24</b> F	0324	5.6	170	<b>9</b> Sa	0257	5.2	160	<b>24</b> Su	0338	6.9	210	<b>9</b> Tu	0431	6.2	190	<b>24</b> W	0434	7.9	240
	0826	22.3	680		0922	21.3	650		0850	22.0	670		0941	20.7	630		1028	21.7	660		1047	19.7	600
	1446	4.9	150		1551	5.2	160		1523	4.9	150		1616	6.2	190		1715	4.9	150		1722	7.2	220
	2046	21.7	660		2204	20.3	620		2125	21.0	640		2234	19.4	590		2329	20.3	620		2336	18.7	570
<b>10</b> F	0306	5.6	170	<b>25</b> Sa	0402	7.2	220	<b>10</b> Su	0342	6.2	190	<b>25</b> M	0421	7.9	240	<b>10</b> W	0535	6.9	210	<b>25</b> Th	0528	8.5	260
	0903	21.3	650		1010	20.0	610		0938	21.3	650		1033	19.7	600		1136	21.0	640		1150	19.0	580
	1526	5.6	170		1638	6.9	210		1617	5.6	170		1707	7.2	220		1820	5.2	160		1817	7.5	230
	2129	21.0	640		2308	19.0	580		2223	20.0	610		2337	18.7	570		●				●		
<b>11</b> Sa	0349	6.6	200	<b>26</b> Su	0453	8.5	260	<b>11</b> M	0441	7.2	220	<b>26</b> Tu	0516	8.9	270	<b>11</b> Th	0045	20.3	620	<b>26</b> F	0040	18.7	570
	0949	20.7	630		1117	19.0	580		1038	20.3	620		1143	19.0	580		1252	21.0	640		0630	8.9	270
	1619	6.6	200		1740	7.9	240		1724	5.9	180		1807	7.5	230		1928	5.2	160		1258	19.0	580
	2225	19.7	600		●				●				●				1928	5.2	160		1918	7.5	230
<b>12</b> Su	0451	7.5	230	<b>27</b> M	0027	18.0	550	<b>12</b> Tu	0554	7.5	230	<b>27</b> W	0046	18.4	560	<b>12</b> F	0155	20.7	630	<b>27</b> Sa	0144	19.0	580
	1051	19.7	600		0601	9.5	290		1155	20.0	610		0622	9.2	280		0756	6.6	200		0738	8.5	260
	1732	7.2	220		1240	18.4	560		1838	5.9	180		1256	18.7	570		1402	21.3	650		1401	19.4	590
	2343	19.0	580		1902	8.2	250		●				1913	7.5	230		2035	4.9	150		2021	7.2	220
<b>13</b> M	0612	8.2	250	<b>28</b> Tu	0140	18.4	560	<b>13</b> W	0114	19.7	600	<b>28</b> Th	0149	18.7	570	<b>13</b> Sa	0257	21.0	640	<b>28</b> Su	0242	19.7	600
	1215	19.4	590		0730	9.5	290		0711	7.5	230		0735	8.9	270		0904	5.9	180		0845	7.9	240
	1854	6.9	210		1351	18.7	570		1319	20.7	630		1359	19.0	580		1506	22.0	670		1459	19.7	600
	●				2023	7.5	230		1952	5.2	160		2019	7.2	220		2136	4.6	140		2120	6.6	200
<b>14</b> Tu	0137	19.0	580	<b>29</b> W	0243	19.0	580	<b>14</b> Th	0226	20.7	630	<b>29</b> F	0245	19.4	590	<b>14</b> Su	0353	22.0	670	<b>29</b> M	0334	20.7	630
	0736	7.9	240		0846	8.5	260		0824	6.6	200		0844	8.2	250		1004	4.9	150		0945	6.9	210
	1349	20.0	610		1451	19.7	600		1429	21.7	660		1453	19.7	600		1605	22.3	680		1552	20.7	630
	2015	5.9	180		2118	6.6	200		2101	4.6	140		2115	6.2	190		2232	4.3	130		2213	5.6	170
<b>15</b> W	0253	20.3	620	<b>30</b> Th	0335	20.0	610	<b>15</b> F	0326	21.7	660	<b>30</b> Sa	0332	20.3	620	<b>15</b> M	0443	22.6	690	<b>30</b> Tu	0420	21.7	660
	0850	6.6	200		0939	7.2	220		0928	5.2	160		0939	7.2	220		1059	3.9	120		1039	5.9	180
	1457	21.3	650		1540	20.3	620		1529	22.6	690		1540	20.3	620		1659	23.0	700		1641		

# Immingham, England, 2015

## Times and Heights of High and Low Waters

July				August				September																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> W	0504	22.3	680	<b>16</b> Th	0552	23.0	700	<b>1</b> Sa	0017	3.6	110	<b>16</b> Su	0053	4.6	140	<b>1</b> Tu	0130	2.3	70	<b>16</b> W	0132	4.6	140			
	1129	4.9	150		1224	3.6	110		0611	24.3	740		0646	23.6	720		0718	26.2	800		0723	23.3	710			
	1728	22.3	680		1826	22.6	690		1251	2.3	70		1324	3.3	100		1402	1.0	30		1357	4.3	130	1447	5.6	170
	2349	4.3	130		●	1905	22.6		690	1848	24.0		730	1916	22.6		690	1954	24.9		760	1943	22.6	690		
<b>2</b> Th	0547	23.0	700	<b>17</b> F	0035	4.6	140	<b>2</b> Su	0104	3.3	100	<b>17</b> M	0127	4.6	140	<b>2</b> W	0212	2.3	70	<b>17</b> Th	0158	4.9	150			
	1217	3.9	120		0631	23.3	710		0654	24.9	760		0719	23.3	710		0801	25.9	790		0753	23.0	700			
	1815	23.0	700		1307	3.3	100		1337	1.6	50		1357	3.6	110		1443	1.6	50		1423	4.9	150	1447	5.6	170
○	1905	22.6	690		1905	22.6	690		1932	24.3	740		1946	22.3	680		2035	24.3	740		2011	22.3	680			
<b>3</b> F	0034	3.9	120	<b>18</b> Sa	0114	4.6	140	<b>3</b> M	0148	3.0	90	<b>18</b> Tu	0157	4.9	150	<b>3</b> Th	0254	3.0	90	<b>18</b> F	0223	5.6	170			
	0628	23.6	720		0709	23.3	710		0737	25.3	770		0750	23.3	710		0846	25.3	770		0822	22.3	680			
	1304	3.3	100		1347	3.3	100		1421	1.6	50		1427	4.3	130		1524	3.0	90		1447	5.6	170	1477	5.6	170
	1900	23.3	710		1942	22.3	680		2015	24.3	740		2014	22.3	680		2117	23.3	710		2040	22.0	670			
<b>4</b> Sa	0118	3.6	110	<b>19</b> Su	0149	4.9	150	<b>4</b> Tu	0231	3.0	90	<b>19</b> W	0224	5.2	160	<b>4</b> F	0335	4.3	130	<b>19</b> Sa	0251	5.9	180			
	0710	24.3	740		0744	23.3	710		0820	25.3	770		0821	22.6	690		0933	23.6	720		0852	21.7	660			
	1349	2.6	80		1422	3.9	120		1504	2.0	60		1454	4.9	150		1605	4.6	140		1514	6.2	190	1547	6.2	190
	1944	23.3	710		2015	22.0	670		2058	23.6	720		2043	21.7	660		2204	22.0	670		2112	21.0	640			
<b>5</b> Su	0201	3.6	110	<b>20</b> M	0220	5.2	160	<b>5</b> W	0313	3.6	110	<b>20</b> Th	0250	5.9	180	<b>5</b> Sa	0421	5.6	170	<b>20</b> Su	0325	6.9	210			
	0751	24.3	740		0816	23.0	700		0905	24.6	750		0851	22.0	670		1028	22.0	670		0929	20.7	630			
	1433	2.6	80		1454	4.6	140		1548	2.6	80		1521	5.6	170		1653	6.6	200		1551	7.2	220	1551	7.2	220
	2029	23.3	710		2046	21.7	660		2144	22.6	690		2115	21.3	650		2301	20.3	620		2154	20.0	610			
<b>6</b> M	0244	3.9	120	<b>21</b> Tu	0250	5.6	170	<b>6</b> Th	0358	4.6	140	<b>21</b> F	0320	6.6	200	<b>6</b> Su	0517	7.2	220	<b>21</b> M	0413	7.9	240			
	0834	24.3	740		0848	22.3	680		0954	23.6	720		0923	21.3	650		1137	20.3	620		1019	19.7	600			
	1519	2.6	80		1525	5.2	160		1634	4.3	130		1551	6.6	200		1755	8.2	250		1648	8.2	250	1648	8.2	250
	2116	23.0	700		2118	21.0	640		2236	21.7	660		2151	20.3	620		2151	20.3	620		2252	19.0	580			
<b>7</b> Tu	0328	4.3	130	<b>22</b> W	0320	6.2	190	<b>7</b> F	0447	5.9	180	<b>22</b> Sa	0357	7.2	220	<b>7</b> M	0014	19.4	590	<b>22</b> Tu	0523	8.5	260			
	0921	23.6	720		0922	21.3	650		1051	22.0	670		1002	20.3	620		0636	8.2	250		1135	18.7	570			
	1606	3.3	100		1558	5.9	180		1727	5.6	170		1633	7.2	220		1300	19.4	590		1807	9.2	280			
	2207	22.0	670		2154	20.3	620		2337	20.3	620		2237	19.4	590		1920	8.9	270							
<b>8</b> W	0417	5.2	160	<b>23</b> Th	0355	7.2	220	<b>8</b> Sa	0547	7.2	220	<b>23</b> Su	0448	8.2	250	<b>8</b> Tu	0131	19.0	580	<b>23</b> W	0022	18.7	570			
	1013	22.6	690		1001	20.7	630		1200	20.7	630		1055	19.4	590		0810	8.2	250		0645	8.5	260			
	1658	4.3	130		1636	6.6	200		1832	6.9	210		1733	8.2	250		1421	19.4	590		1331	18.7	570			
	2305	21.3	650		2238	19.7	600		2343	18.7	570		2343	18.7	570		2040	8.5	260		1932	8.9	270			
<b>9</b> Th	0512	6.2	190	<b>24</b> F	0439	7.9	240	<b>9</b> Su	0047	19.7	600	<b>24</b> M	0558	8.9	270	<b>9</b> W	0242	19.7	600	<b>24</b> Th	0157	19.7	600			
	1115	22.0	670		1050	19.7	600		0703	7.9	240		1217	18.7	570		0920	6.9	210		0808	7.5	230			
	1756	5.2	160		1725	7.5	230		1318	20.0	610		1847	8.5	260		1534	20.0	610		1449	20.0	610			
	○	2335	19.0		580	2335	19.0		580	1947	7.5		230	2003	8.2		250	2139	7.5		230	2048	7.5	230		
<b>10</b> F	0012	20.3	620	<b>25</b> Sa	0535	8.5	260	<b>10</b> M	0159	19.7	600	<b>25</b> Tu	0113	18.7	570	<b>10</b> Th	0341	21.0	640	<b>25</b> F	0301	21.0	640			
	0616	6.9	210		1154	19.0	580		0826	7.5	230		0716	8.5	260		1013	5.6	170		0925	5.9	180			
	1225	21.0	640		1825	7.9	240		1435	20.0	610		1355	19.0	580		1628	21.0	640		1548	21.7	660			
	1901	5.9	180		2058	7.5	230		2058	7.5	230		2003	8.2	250		2228	6.6	200		2152	5.9	180			
<b>11</b> Sa	0121	20.3	620	<b>26</b> Su	0046	18.7	570	<b>11</b> Tu	0307	20.3	620	<b>26</b> W	0229	19.7	600	<b>11</b> F	0428	22.0	670	<b>26</b> Sa	0354	22.6	690			
	0729	7.2	220		0643	8.9	270		0936	6.6	200		0835	7.5	230		1059	4.6	140		1026	4.3	130			
	1338	20.7	630		1311	18.7	570		1547	20.7	630		1508	20.0	610		1709	22.0	670		1639	23.0	700			
	2010	6.2	190		1931	7.9	240		2158	6.9	210		2114	7.2	220		2311	5.6	170		2246	4.6	140			
<b>12</b> Su	0228	20.3	620	<b>27</b> M	0158	19.0	580	<b>12</b> W	0405	21.3	650	<b>27</b> Th	0329	21.0	640	<b>12</b> Sa	0508	23.0	700	<b>27</b> Su	0442	24.3	740			
	0843	6.9	210		0755	8.5	260		1032	5.2	160		0949	6.2	190		1140	3.9	120		1119	2.6	80			
	1448	21.0	640		1424	19.4	590		1644	21.3	650		1607	21.3	650		1745	22.3	680		1726	24.3	740			
	2116	5.9	180		2039	7.2	220		2248	5.9	180		2215	5.9	180		2351	4.9	150		2336	3.3	100			
<b>13</b> M	0330	21.0	640	<b>28</b> Tu	0300	20.0	610	<b>13</b> Th	0451	22.3	680	<b>28</b> F	0420	22.6	690	<b>13</b> Su	0545	23.3	710	<b>28</b> M	0528	25.3	770			
	0948	5.9	180		0907	7.5	230		1121	4.3	130		1050	4.6	140		1219	3.6	110		1208	1.6	50			
	1553	21.3	650		1527	20.3	620		1730	22.0	670		1659	22.6	690		1817	22.6	690		1809	24.9	760			
	2214	5.6	170		2141	6.6	200		2334	5.2	160		2309	4.6	140		●	●	●		○					
<b>14</b> Tu	0423	21.7	660	<b>29</b> W	0354	21.3	650	<b>14</b> F	0532	23.0	700	<b>29</b> Sa	0507	24.0	730	<b>14</b> M	0028	4.6	140	<b>29</b> Tu	0023	2.3	70			
	1045	4.9	150		1011	6.2	190		1205	3.6	110		1143	3.0	90		0619	23.6	720		0613	25.9	790			
	1651	22.0	670		1623	21.3	650		1809	22.3	680		1746	24.0	730		1255	3.6	110		1254	1.0	30			
	2305	5.2	160		2237	5.6	170		●	●	●		2359	3.6	110		1846	23.0	700		1850	25.3	770			
<b>15</b> W	0510	22.3	680	<b>30</b> Th	0442	22.3	680	<b>15</b> Sa	0015	4.9	150	<b>30</b> Su	0551	24.9	760	<b>15</b> Tu	0102	4.6	140	<b>30</b> W	0109	2.0	60			
	1136	3.9	120		1109	4.6	140		061																	

# Immingham, England, 2015

## Times and Heights of High and Low Waters

October				November				December						
Day	Time		Height		Day	Time		Height		Day	Time		Height	
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm
1 Th	0152	2.3	70		16 Su	0254	3.9	120		1 Tu	0318	4.9	150	
	0742	25.9	790			0855	23.0	700			0818	22.0	670	
	1418	2.0	60			1508	5.6	170			1432	5.9	180	
	2009	24.6	750			2106	22.3	680			2027	22.3	680	
2 F	0233	3.0	90		2 M	0336	5.2	160		2 W	0359	6.2	190	
	0826	24.9	760			0946	21.3	650			1016	20.3	620	
	1457	3.3	100			1546	7.2	220			1601	7.9	240	
	2049	23.6	720			2153	21.0	640			2214	20.7	630	
3 Sa	0314	3.9	120		3 Tu	0423	6.9	210		3 Th	0448	7.2	220	
	0913	23.6	720			1049	20.0	610			1117	19.4	590	
	1535	5.2	160			1634	8.9	270			1652	9.2	280	
	2133	22.0	670			2257	19.7	600			2320	19.7	600	
4 Su	0356	5.6	170		4 W	0526	7.9	240		4 F	0546	7.9	240	
	1006	21.7	660			1204	19.0	580			1224	18.7	570	
	1617	7.2	220			1741	9.8	300			1756	9.8	300	
	2226	20.7	630											
5 M	0448	7.2	220		5 Th	0617	19.0	580		5 Sa	0634	19.0	580	
	1114	20.0	610			0651	8.5	260			0654	8.2	250	
	1713	8.9	270			1317	18.7	570			1328	19.0	580	
	2338	19.4	590			1912	10.2	310			1910	9.8	300	
6 Tu	0604	8.5	260		6 F	0130	19.4	590		6 Su	0141	19.4	590	
	1237	19.0	580			0809	7.9	240			0803	7.9	240	
	1839	9.8	300			1422	19.4	590			1427	19.4	590	
						2030	9.2	280			2026	8.9	270	
7 W	0058	19.0	580		7 Sa	0232	20.0	610		7 M	0238	20.0	610	
	0743	8.2	250			0905	6.9	210			0900	6.9	210	
	1355	19.0	580			1517	20.3	620			1517	20.3	620	
	2010	9.5	290			2125	7.9	240			2125	7.9	240	
8 Th	0210	19.7	600		8 Su	0324	21.0	640		8 Tu	0328	20.7	630	
	0853	7.2	220			0950	5.9	180			0949	6.2	190	
	1504	19.7	600			1602	21.3	650			1600	21.3	650	
	2112	8.5	260			2209	6.9	210			2212	6.9	210	
9 F	0310	20.7	630		9 M	0407	21.7	660		9 W	0411	21.3	650	
	0944	6.2	190			1032	5.2	160			1033	5.6	170	
	1558	21.0	640			1640	22.0	670			1638	22.0	670	
	2201	7.2	220			2250	5.9	180			2255	5.9	180	
10 Sa	0359	21.7	660		10 Tu	0444	22.3	680		10 Th	0451	22.0	670	
	1029	5.2	160			1111	4.6	140			1115	4.9	150	
	1639	21.7	660			1712	22.6	690			1715	22.6	690	
	2243	5.9	180			2328	5.2	160			2340	3.3	100	
11 Su	0440	22.6	690		11 W	0520	22.6	690		11 F	0531	22.3	680	
	1109	4.3	130			1149	4.3	130			1154	4.6	140	
	1714	22.3	680			1744	23.0	700			1752	23.3	710	
	2323	5.2	160											
12 M	0516	23.0	700		12 Th	0005	4.9	150		12 Sa	0015	4.6	140	
	1147	3.9	120			0555	23.0	700			0611	22.6	690	
	1746	23.0	700			1225	4.3	130			1232	4.6	140	
						1816	23.3	710			1828	23.3	710	
13 Tu	0000	4.9	150		13 F	0039	4.6	140		13 Su	0054	4.3	130	
	0550	23.3	710			0631	23.0	700			0651	23.0	700	
	1223	3.9	120			1258	4.6	140			1309	4.6	140	
	1814	23.0	700			1849	23.3	710			1926	24.3	740	
14 W	0034	4.6	140		14 Sa	0111	4.6	140		14 M	0132	4.3	130	
	0623	23.3	710			0707	23.0	700			0730	23.0	700	
	1257	3.9	120			1328	4.6	140			1345	4.6	140	
	1844	23.3	710			1921	23.3	710			1940	23.6	720	
15 Th	0105	4.6	140		15 Su	0143	4.9	150		15 Tu	0210	4.3	130	
	0656	23.3	710			0742	22.6	690			0810	22.6	690	
	1327	4.3	130			1358	5.2	160			1422	4.9	150	
	1914	23.3	710			1953	23.0	700			2017	23.3	710	
				31 Sa	0214	3.0	90		31 Th	0334	5.2	160		
					0809	24.6	750			0937	21.0	640		
					1431	3.9	120			1531	6.9	210		
					2025	23.6	720			2136	21.3	650		

Time meridian 0°. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Sheerness, England, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0237	4.3	130	<b>16</b> F	0139	5.2	160	<b>1</b> Su	0441	3.6	110	<b>16</b> M	0345	3.9	120	<b>1</b> Su	0303	4.6	140	<b>16</b> M	0150	4.6	140
	0900	17.1	520		0813	15.7	480		1053	17.4	530		1004	17.1	520		0928	16.1	490		0820	16.1	490
	1528	3.6	110		1436	4.6	140		1706	3.9	120		1619	3.6	110		1536	4.9	150		1443	4.6	140
	2143	17.4	530		2054	16.4	500		2318	17.4	530		2234	17.7	540		2159	16.4	500		2057	16.4	500
<b>2</b> F	0348	3.9	120	<b>17</b> Sa	0306	4.9	150	<b>2</b> M	0539	3.0	90	<b>17</b> Tu	0453	3.0	90	<b>2</b> M	0422	3.9	120	<b>17</b> Tu	0321	3.6	110
	1007	17.4	530		0926	16.4	500		1145	17.7	540		1107	18.4	560		1035	17.1	520		0941	17.4	530
	1632	3.6	110		1546	3.9	120		1752	3.6	110		1719	2.6	80		1642	4.3	130		1555	3.6	110
	2243	17.7	540		2200	17.1	520						2330	18.4	560		2257	17.1	520		2209	17.4	530
<b>3</b> Sa	0455	3.6	110	<b>18</b> Su	0413	3.9	120	<b>3</b> Tu	0004	18.0	550	<b>18</b> W	0556	2.0	60	<b>3</b> Tu	0520	3.3	100	<b>18</b> W	0433	2.6	80
	1106	17.7	540		1030	17.4	530		0624	2.6	80		1200	19.4	590		1126	17.7	540		1046	18.4	560
	1725	3.3	100		1645	3.3	100		1228	18.4	560		1814	2.3	70		1730	3.6	110		1658	3.0	90
	2334	18.0	550		2258	18.0	550		○	1829	3.3		100	●				2343	17.7		540	2307	18.4
<b>4</b> Su	0551	3.0	90	<b>19</b> M	0513	3.0	90	<b>4</b> W	0043	18.4	560	<b>19</b> Th	0019	19.4	590	<b>4</b> W	0603	2.6	80	<b>19</b> Th	0539	1.6	50
	1156	18.0	550		1126	18.4	560		0701	2.3	70		0652	1.3	40		1207	18.0	550		1140	19.4	590
	1809	3.3	100		1739	2.6	80		1305	18.4	560		1248	20.0	610		1808	3.3	100		1755	2.3	70
					2350	18.7	570		1901	3.0	90		1904	1.6	50						2357	19.4	590
<b>5</b> M	0019	18.4	560	<b>20</b> Tu	0610	2.3	70	<b>5</b> Th	0118	18.4	560	<b>20</b> F	0104	20.0	610	<b>5</b> Th	0021	18.0	550	<b>20</b> F	0635	1.0	30
	0636	2.6	80		1216	19.0	580		0735	2.3	70		0741	0.7	20		0638	2.3	70		1229	20.0	610
	1241	18.4	560		1830	2.3	70		1338	18.4	560		1334	20.3	620		1243	18.4	560		1846	1.6	50
	1846	3.3	100		●				1932	3.0	90		1951	1.3	40		○	1840	3.0		90	●	
<b>6</b> Tu	0059	18.4	560	<b>21</b> W	0037	19.4	590	<b>6</b> F	0149	18.4	560	<b>21</b> Sa	0148	20.3	620	<b>6</b> F	0055	18.4	560	<b>21</b> Sa	0043	20.0	610
	0717	2.3	70		0704	1.6	50		0806	2.0	60		0827	0.3	10		0710	2.3	70		0722	0.3	10
	1321	18.7	570		1304	19.7	600		1409	18.7	570		1418	20.7	630		1314	18.4	560		1314	20.3	620
	1920	3.0	90		1918	2.0	60		2003	2.6	80		2034	1.3	40		1911	2.6	80		1932	1.3	40
<b>7</b> W	0135	18.4	560	<b>22</b> Th	0122	19.7	600	<b>7</b> Sa	0219	18.7	570	<b>22</b> Su	0231	20.3	620	<b>7</b> Sa	0125	18.7	570	<b>22</b> Su	0127	20.3	620
	0754	2.3	70		0754	1.0	30		0835	2.0	60		0909	0.3	10		0740	2.0	60		0806	0.3	10
	1357	18.7	570		1350	20.0	610		1439	18.4	560		1502	20.3	620		1343	18.7	570		1357	20.3	620
	1952	3.0	90		2005	1.6	50		2033	3.0	90		2114	1.6	50		1941	2.6	80		2015	1.0	30
<b>8</b> Th	0209	18.4	560	<b>23</b> F	0205	20.0	610	<b>8</b> Su	0249	18.4	560	<b>23</b> M	0314	20.0	610	<b>8</b> Su	0154	18.7	570	<b>23</b> M	0210	20.7	630
	0827	2.3	70		0842	0.7	20		0904	2.3	70		0948	1.0	30		0810	2.0	60		0846	0.3	10
	1432	18.4	560		1435	20.3	620		1510	18.4	560		1545	19.7	600		1412	18.7	570		1439	20.0	610
	2022	3.3	100		2049	1.6	50		2102	3.0	90		2152	2.0	60		2013	2.3	70		2055	1.3	40
<b>9</b> F	0241	18.4	560	<b>24</b> Sa	0249	20.0	610	<b>9</b> M	0319	18.0	550	<b>24</b> Tu	0358	19.4	590	<b>9</b> M	0223	18.7	570	<b>24</b> Tu	0253	20.3	620
	0857	2.6	80		0927	0.7	20		0933	2.6	80		1023	1.6	50		0841	2.0	60		0923	1.0	30
	1505	18.0	550		1521	20.0	610		1542	17.7	540		1630	18.7	570		1442	18.7	570		1521	19.4	590
	2052	3.3	100		2131	2.0	60		2131	3.3	100		2229	2.6	80		2043	2.6	80		2132	1.6	50
<b>10</b> Sa	0312	18.0	550	<b>25</b> Su	0333	19.7	600	<b>10</b> Tu	0351	17.7	540	<b>25</b> W	0445	18.7	570	<b>10</b> Tu	0254	18.4	560	<b>25</b> W	0336	19.7	600
	0925	2.6	80		1009	1.0	30		1001	3.0	90		1059	2.6	80		0910	2.3	70		0956	2.0	60
	1538	17.7	540		1608	19.4	590		1617	17.4	530		1719	17.7	540		1513	18.4	560		1603	18.7	570
	2122	3.6	110		2211	2.6	80		2200	3.9	120		○	2311	3.3		100	2111	3.0		90	2208	2.3
<b>11</b> Su	0345	17.7	540	<b>26</b> M	0419	19.0	580	<b>11</b> W	0427	17.1	520	<b>26</b> Th	0539	17.4	530	<b>11</b> W	0326	18.0	550	<b>26</b> Th	0422	18.7	570
	0955	3.0	90		1049	1.6	50		1031	3.6	110		1144	3.6	110		0936	3.0	90		1029	3.0	90
	1613	17.4	530		1657	18.4	560		1656	16.7	510		1816	16.4	500		1547	18.0	550		1648	17.4	530
	2155	3.9	120		2252	3.0	90		2235	4.3	130						2136	3.3	100		2246	3.3	100
<b>12</b> M	0420	17.1	520	<b>27</b> Tu	0510	18.4	560	<b>12</b> Th	0510	16.7	510	<b>27</b> F	0008	4.3	130	<b>12</b> Th	0401	17.7	540	<b>27</b> F	0513	17.4	530
	1028	3.6	110		1132	2.6	80		1110	3.9	120		0646	16.4	500		1002	3.3	100		1109	3.9	120
	1652	16.7	510		1751	17.7	540		1745	16.4	500		1250	4.6	140		1625	17.4	530		1740	16.4	500
	2233	4.6	140		○	2341	3.6		110	○	2326		4.6	140	1926		15.7	480	2207		3.6	110	○
<b>13</b> Tu	0501	16.4	500	<b>28</b> W	0608	17.4	530	<b>13</b> F	0607	16.1	490	<b>28</b> Sa	0131	4.6	140	<b>13</b> F	0444	17.1	520	<b>28</b> Sa	0616	16.4	500
	1108	3.9	120		1225	3.3	100		1209	4.6	140		0806	15.7	480		1037	3.9	120		1207	4.9	150
	1737	16.1	490		1853	16.7	510		1850	15.7	480		1417	5.2	160		1711	16.7	510		1848	15.4	470
	○	2318	4.9		150								2046	15.7	480		○	2254	3.9		120		
<b>14</b> W	0551	16.1	490	<b>29</b> Th	0044	4.3	130	<b>14</b> Sa	0038	4.9	150	<b>14</b> Sa	0538	16.4	500	<b>14</b> Sa	0538	16.4	500	<b>29</b> Su	0056	4.6	140
	1158	4.3	130		0717	16.7	510		0724	15.7	480		1134	4.6	140		1134	4.6	140		0734	15.7	480
	1833	15.7	480		1336	4.3	130		1342	4.9	150		1812	16.1	490		1812	16.1	490		1336	5.6	170
					2003	16.4	500		2010	15.7	480								2008		15.1	460	
<b>15</b> Th	0017	5.2	160	<b>30</b> F	0204	4.6	140	<b>15</b> Su	0223	4.9	150	<b>15</b> Su	0004	4.6	140	<b>15</b> Su	0004	4.6	140	<b>30</b> M	0232	4.6	140
	0655	15.4	470		0834	16.4	500		0850	16.1	490		0651	16.1	490		0651	16.1	490		0856	15.7	480
	1308	4.6	140		1453	4.3	130		1513	4.3	130		1304	4.9	150		1304	4.9	150		1500	5.	

# Sheerness, England, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0446	3.3	100	<b>16</b> Th	0411	2.3	70	<b>1</b> F	0448	3.0	90	<b>16</b> Sa	0451	2.0	60	<b>1</b> M	0529	3.0	90	<b>16</b> Tu	0612	2.3	70
	1057	17.4	530		1023	18.7	570		1100	17.7	540		1055	19.0	580		1139	18.4	560		1214	19.0	580
	1658	3.9	120		1633	3.0	90		1701	3.6	110		1706	2.6	80		1748	3.0	90		1835	2.0	60
	2313	17.4	530		2242	18.4	560		2315	17.7	540		2311	18.7	570		2358	18.0	550		●		
<b>2</b> Th	0531	2.6	80	<b>17</b> F	0517	1.6	50	<b>2</b> Sa	0528	2.6	80	<b>17</b> Su	0547	1.6	50	<b>2</b> Tu	0610	2.6	80	<b>17</b> W	0034	19.0	580
	1139	18.0	550		1118	19.4	590		1138	18.0	550		1145	19.4	590		1218	18.7	570		0655	2.3	70
	1739	3.3	100		1732	2.3	70		1741	3.3	100		1802	2.0	60		1831	2.6	80		1259	19.0	580
	2352	18.0	550		2334	19.4	590		2352	18.0	550		●				1921	2.0	60		1921	2.0	60
<b>3</b> F	0607	2.6	80	<b>18</b> Sa	0612	1.3	40	<b>3</b> Su	0605	2.6	80	<b>18</b> M	0000	19.4	590	<b>3</b> W	0038	18.4	560	<b>18</b> Th	0120	19.0	580
	1213	18.4	560		1207	20.0	610		1212	18.4	560		0634	1.6	50		0650	2.6	80		0734	2.6	80
	1813	3.0	90		1824	1.6	50		1817	3.0	90		1850	1.6	50		1913	2.3	70		1340	19.0	580
	●				●				●				●				1913	2.3	70		2004	1.6	50
<b>4</b> Sa	0025	18.4	560	<b>19</b> Su	0020	19.7	600	<b>4</b> M	0027	18.4	560	<b>19</b> Tu	0047	19.7	600	<b>4</b> Th	0118	18.7	570	<b>19</b> F	0203	19.0	580
	0639	2.3	70		0659	1.0	30		0640	2.3	70		0717	1.6	50		0731	2.3	70		0811	2.6	80
	1245	18.4	560		1252	20.0	610		1245	18.7	570		1314	19.7	600		1335	19.0	580		1419	18.7	570
	1845	2.6	80		1911	1.3	40		1853	2.6	80		1936	1.3	40		1956	2.0	60		2043	2.0	60
<b>5</b> Su	0057	18.4	560	<b>20</b> M	0106	20.3	620	<b>5</b> Tu	0102	18.7	570	<b>20</b> W	0132	19.7	600	<b>5</b> F	0158	19.0	580	<b>20</b> Sa	0244	18.7	570
	0711	2.0	60		0741	0.7	20		0715	2.3	70		0756	2.0	60		0812	2.3	70		0844	3.3	100
	1314	18.7	570		1335	20.0	610		1319	19.0	580		1356	19.4	590		1414	19.0	580		1457	18.4	560
	1918	2.3	70		1955	1.3	40		1931	2.3	70		2019	1.6	50		2039	2.0	60		2119	2.3	70
<b>6</b> M	0127	18.7	570	<b>21</b> Tu	0150	20.3	620	<b>6</b> W	0136	18.7	570	<b>21</b> Th	0217	19.4	590	<b>6</b> Sa	0239	19.0	580	<b>21</b> Su	0323	18.4	560
	0743	2.0	60		0821	1.0	30		0752	2.3	70		0833	2.3	70		0853	2.6	80		0915	3.6	110
	1344	19.0	580		1416	20.0	610		1353	19.0	580		1437	19.0	580		1454	18.7	570		1533	18.0	550
	1952	2.3	70		2036	1.3	40		2008	2.3	70		2058	2.0	60		2122	2.0	60		2150	2.6	80
<b>7</b> Tu	0159	18.7	570	<b>22</b> W	0233	20.0	610	<b>7</b> Th	0212	18.7	570	<b>22</b> F	0300	19.0	580	<b>7</b> Su	0324	19.0	580	<b>22</b> M	0401	17.7	540
	0816	2.0	60		0857	1.6	50		0828	2.3	70		0906	3.0	90		0934	3.0	90		0946	3.9	120
	1416	19.0	580		1457	19.4	590		1428	18.7	570		1516	18.4	560		1538	18.4	560		1610	17.4	530
	2024	2.3	70		2114	1.6	50		2045	2.3	70		2134	2.3	70		2206	2.3	70		2221	3.3	100
<b>8</b> W	0231	18.7	570	<b>23</b> Th	0317	19.4	590	<b>8</b> F	0250	18.7	570	<b>23</b> Sa	0343	18.4	560	<b>8</b> M	0412	18.4	560	<b>23</b> Tu	0441	17.1	520
	0847	2.3	70		0930	2.6	80		0903	2.6	80		0938	3.6	110		1018	3.3	100		1021	4.6	140
	1448	18.7	570		1538	18.4	560		1505	18.4	560		1556	17.7	540		1626	18.0	550		1650	16.7	510
	2055	2.6	80		2150	2.3	70		2120	2.6	80		2208	3.0	90		2253	2.6	80		2257	3.6	110
<b>9</b> Th	0305	18.4	560	<b>24</b> F	0401	18.4	560	<b>9</b> Sa	0331	18.4	560	<b>24</b> Su	0427	17.4	530	<b>9</b> Tu	0506	18.0	550	<b>24</b> W	0525	16.4	500
	0916	3.0	90		1002	3.3	100		0938	3.3	100		1012	4.3	130		1108	3.6	110		1104	4.9	150
	1523	18.4	560		1620	17.4	530		1547	18.0	550		1638	16.7	510		1721	17.4	530		1736	16.1	490
	2123	3.0	90		2226	3.3	100		2159	3.0	90		2246	3.6	110		2349	2.6	80		2344	3.9	120
<b>10</b> F	0343	18.0	550	<b>25</b> Sa	0450	17.4	530	<b>10</b> Su	0418	18.0	550	<b>25</b> M	0514	16.7	510	<b>10</b> W	0608	17.7	540	<b>25</b> Th	0615	16.1	490
	0945	3.3	100		1039	4.3	130		1020	3.6	110		1054	4.9	150		1209	3.9	120		1158	5.2	160
	1602	17.7	540		1708	16.4	500		1635	17.4	530		1727	16.1	490		1825	17.1	520		1833	15.7	480
	2156	3.3	100		2310	3.9	120		2247	3.3	100		2334	3.9	120		●				●		
<b>11</b> Sa	0427	17.4	530	<b>26</b> Su	0546	16.4	500	<b>11</b> M	0514	17.4	530	<b>26</b> Tu	0610	16.1	490	<b>11</b> Th	0057	3.0	90	<b>26</b> F	0044	4.3	130
	1023	3.9	120		1129	5.2	160		1115	4.3	130		1149	5.6	170		1319	4.3	130		0714	15.7	480
	1648	17.1	520		1807	15.7	480		1733	16.7	510		1828	15.4	470		1937	17.1	520		1307	5.6	170
	2243	3.6	110		●				●				●				1937	17.1	520		1939	15.4	470
<b>12</b> Su	0522	17.1	520	<b>27</b> M	0015	4.6	140	<b>12</b> Tu	0621	17.1	520	<b>27</b> W	0043	4.6	140	<b>12</b> F	0210	3.0	90	<b>27</b> Sa	0201	4.6	140
	1120	4.3	130		0654	15.7	480		1227	4.6	140		0712	15.4	470		0827	17.7	540		0818	15.7	480
	1748	16.4	500		1244	5.6	170		1845	16.4	500		1305	5.6	170		1430	3.9	120		1427	5.2	160
	2351	3.9	120		1920	15.1	460		●				1936	15.4	470		2048	17.4	530		2046	15.7	480
<b>13</b> M	0633	16.4	500	<b>28</b> Tu	0149	4.6	140	<b>13</b> W	0115	3.3	100	<b>28</b> Th	0203	4.3	130	<b>13</b> Sa	0319	2.6	80	<b>28</b> Su	0309	3.9	120
	1243	4.9	150		0810	15.4	470		0738	17.1	520		0819	15.7	480		0933	18.0	550		0921	16.4	500
	1905	16.1	490		1413	5.6	170		1348	4.3	130		1424	5.2	160		1538	3.6	110		1533	4.6	140
	●				2037	15.4	470		2003	16.7	510		2043	15.7	480		2153	17.7	540		2148	16.4	500
<b>14</b> Tu	0129	3.9	120	<b>29</b> W	0302	4.3	130	<b>14</b> Th	0236	3.0	90	<b>29</b> F	0307	3.9	120	<b>14</b> Su	0425	2.6	80	<b>29</b> M	0405	3.6	110
	0758	16.7	510		0920	16.1	490		0853	17.7	540		0920	16.4	500		1033	18.4	560		1018	17.4	530
	1416	4.3	130		1521	4.9	150		1500	3.6	110		1526	4.9	150		1644	3.0	90		1629	3.9	120
	2029	16.4	500		2142	16.1	490		2114	17.4	530		2142	16.4	500		2252	18.4	560		2243	17.4	530
<b>15</b> W	0258	3.3	100	<b>30</b> Th	0400	3.6	110	<b>15</b> F	0346	2.3	70	<b>30</b> Sa	0359	3.6	110	<b>15</b> M	0523	2.6	80	<b>30</b> Tu	0456	3.3	100
	0918	17.4	530		1016	17.1	520		0958	18.4	560		1013	17.1	520		1126	18.7	570		1109	18.0	550
	1528	3.6	110		1616	4.3	130		1605	3.3	100		1618	3.9	120		1743	2.6	80		1720	3.3	100
	2142	17.4	53																				

# Sheerness, England, 2015

## Times and Heights of High and Low Waters

July				August				September																						
Time		Height		Time		Height		Time		Height		Time		Height																
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm															
<b>1</b> W	0544	3.0	90	<b>16</b> Th	0024	18.7	570	<b>1</b> Sa	0046	19.4	590	<b>16</b> Su	0128	18.7	570	<b>1</b> Tu	0156	20.7	630	<b>16</b> W	0201	18.7	570							
	1155	18.7	570		0637	3.3	100		0659	2.3	70		0727	3.3	100		0814	1.6	50		0802	3.0	90							
	1810	2.6	80		1245	18.7	570		1304	19.7	600		1340	19.0	580		1409	20.7	630		1412	19.0	580	2029	2.3	70				
				●	1909	2.3	70					2000	2.3	70																
<b>2</b> Th	0018	18.7	570	<b>17</b> F	0108	18.7	570	<b>2</b> Su	0131	20.0	610	<b>17</b> M	0201	18.7	570	<b>2</b> W	0239	20.3	620	<b>17</b> Th	0231	18.7	570							
	0629	2.6	80		0715	3.0	90		0746	2.0	60		0758	3.0	90		0856	2.0	60		0832	3.3	100							
	1238	19.0	580		1325	18.7	570		1347	20.0	610		1411	18.7	570		1451	20.3	620		1442	18.7	570	2058	2.6	80				
	1858	2.3	70	1949	2.0	60	2023	1.0	30	2031	2.3	70	2130	1.0	30															
<b>3</b> F	0102	19.0	580	<b>18</b> Sa	0148	18.7	570	<b>3</b> M	0216	20.3	620	<b>18</b> Tu	0232	18.7	570	<b>3</b> Th	0323	20.0	610	<b>18</b> F	0301	18.7	570							
	0714	2.3	70		0750	3.0	90		0832	2.0	60		0828	3.3	100		0936	2.3	70		0900	3.6	110							
	1320	19.4	590		1402	18.7	570		1429	20.0	610		1441	18.7	570		1535	20.0	610		1514	18.4	560	2126	3.3	100				
	1946	2.0	60	2025	2.0	60	2108	0.7	20	2059	2.3	70	2059	1.6	50	2208	1.6	50	2126	3.3	100									
<b>4</b> Sa	0146	19.4	590	<b>19</b> Su	0225	18.7	570	<b>4</b> Tu	0300	20.0	610	<b>19</b> W	0302	18.4	560	<b>4</b> F	0408	19.0	580	<b>19</b> Sa	0333	18.0	550							
	0800	2.3	70		0822	3.3	100		0915	2.0	60		0857	3.3	100		1014	3.0	90		0927	3.9	120							
	1402	19.4	590		1436	18.7	570		1512	20.0	610		1511	18.4	560		1622	19.0	580		1547	17.7	540	2153	3.9	120				
	2034	1.3	40	2058	2.3	70	2151	1.0	30				2244	2.6	80	2244	2.6	80	2153	3.9	120									
<b>5</b> Su	0230	19.7	600	<b>20</b> M	0259	18.4	560	<b>5</b> W	0345	19.7	600	<b>20</b> Th	0333	18.0	550	<b>5</b> Sa	0456	18.0	550	<b>20</b> Su	0408	17.7	540							
	0844	2.3	70		0852	3.3	100		0955	2.6	80		0925	3.6	110		1056	3.6	110		0956	4.3	130							
	1444	19.4	590		1508	18.4	560		1556	19.7	600		1542	18.0	550		1714	18.0	550		1627	17.4	530	2224	4.3	130				
	2120	1.3	40	2127	2.6	80	2232	1.6	50	2232	1.6	50	2155	3.3	100	●	2327	3.6	110	2224	4.3	130								
<b>6</b> M	0315	19.7	600	<b>21</b> Tu	0333	18.0	550	<b>6</b> Th	0432	19.0	580	<b>21</b> F	0406	17.7	540	<b>6</b> Su	0551	17.1	520	<b>21</b> M	0451	17.1	520							
	0928	2.3	70		0921	3.6	110		1036	3.0	90		0954	4.3	130		1149	4.3	130		1037	4.6	140							
	1528	19.0	580		1541	18.0	550		1644	19.0	580		1616	17.4	530		1819	17.1	520		1716	16.7	510	2314	4.9	150				
	2205	1.3	40	2155	3.0	90	2313	2.3	70	2313	2.3	70	2225	3.6	110	●	2314	4.9	150	2314	4.9	150								
<b>7</b> Tu	0402	19.4	590	<b>22</b> W	0407	17.7	540	<b>7</b> F	0523	18.4	560	<b>22</b> Sa	0443	17.1	520	<b>7</b> M	0027	4.6	140	<b>22</b> Tu	0546	16.4	500							
	1010	3.0	90		0952	3.9	120		1121	3.6	110		1028	4.6	140		0659	16.4	500		1140	5.2	160							
	1614	18.7	570		1615	17.4	530		1738	18.0	550		1657	16.7	510		1307	4.9	150		1823	16.1	490	1823	16.1	490				
	2249	2.0	60	2225	3.3	100	●			●	2301	4.3	130	1936	16.4	500	1936	16.4	500	1823	16.1	490								
<b>8</b> W	0452	18.7	570	<b>23</b> Th	0443	17.1	520	<b>8</b> Sa	0001	3.3	100	<b>23</b> Su	0527	16.4	500	<b>8</b> Tu	0151	5.2	160	<b>23</b> W	0032	5.6	170							
	1055	3.3	100		1027	4.6	140		0622	17.4	530		1113	4.9	150		0816	16.1	490		0700	15.7	480							
	1705	18.4	560		1652	16.7	510		1218	4.3	130		1748	16.1	490		1438	4.6	140		1317	5.2	160	1948	16.1	490				
	2336	2.3	70	2301	3.9	120	1844	17.4	530	1844	17.4	530	2354	4.9	150	2059	16.7	510	1948	16.1	490									
<b>9</b> Th	0548	18.0	550	<b>24</b> F	0525	16.4	500	<b>9</b> Su	0105	3.9	120	<b>24</b> M	0626	16.1	490	<b>9</b> W	0313	4.9	150	<b>24</b> Th	0214	5.2	160							
	1146	3.6	110		1109	4.9	150		0730	16.7	510		1219	5.6	170		0933	16.7	510		0826	16.4	500							
	1803	17.7	540		1738	16.1	490		1334	4.6	140		1859	15.7	480		1600	3.9	120		1454	4.3	130	2112	17.1	520				
			●	2347	4.3	130	1959	16.7	510				2211	17.4	530	2211	17.4	530	2112	17.1	520									
<b>10</b> F	0032	3.0	90	<b>25</b> Sa	0615	16.1	490	<b>10</b> M	0222	4.3	130	<b>25</b> Tu	0117	5.2	160	<b>10</b> Th	0424	4.6	140	<b>25</b> F	0328	4.3	130							
	0651	17.4	530		1202	5.2	160		0844	16.7	510		0742	15.7	480		1036	17.7	540		0941	17.4	530							
	1249	3.9	120		1837	15.7	480		1456	4.3	130		1359	5.2	160		1704	3.3	100		1605	3.3	100	2220	18.4	560				
	1910	17.4	530				2118	17.1	520	2118	17.1	520	2024	16.1	490	2307	18.0	550	2220	18.4	560									
<b>11</b> Sa	0140	3.3	100	<b>26</b> Su	0049	4.6	140	<b>11</b> Tu	0338	4.3	130	<b>26</b> W	0250	4.9	150	<b>11</b> F	0517	3.9	120	<b>26</b> Sa	0430	3.3	100							
	0759	17.4	530		0719	15.7	480		0955	17.1	520		0903	16.4	500		1126	18.4	560		1041	18.7	570							
	1401	4.3	130		1317	5.6	170		1616	3.9	120		1524	4.6	140		1751	2.6	80		1710	2.3	70	2315	19.4	590				
	2023	17.1	520	1950	15.4	470	2228	17.4	530	2228	17.4	530	2141	17.1	520	2352	18.7	570	2315	19.4	590									
<b>12</b> Su	0251	3.3	100	<b>27</b> M	0214	4.6	140	<b>12</b> W	0446	3.9	120	<b>27</b> Th	0357	3.9	120	<b>12</b> Sa	0556	3.6	110	<b>27</b> Su	0527	2.6	80							
	0908	17.4	530		0831	16.1	490		1057	17.7	540		1011	17.7	540		1207	18.7	570		1133	19.4	590							
	1515	3.9	120		1446	5.2	160		1722	3.3	100		1631	3.3	100		1828	2.6	80		1807	1.6	50	1807	1.6	50				
	2134	17.4	530	2105	16.1	490	2325	18.0	550	2325	18.0	550	2245	18.0	550	1828	2.6	80	1807	1.6	50									
<b>13</b> M	0400	3.6	110	<b>28</b> Tu	0326	4.3	130	<b>13</b> Th	0539	3.6	110	<b>28</b> F	0456	3.3	100	<b>13</b> Su	0030	18.7	570	<b>28</b> M	0004	20.3	620							
	1014	17.7	540		0940	17.1	520		1147	18.4	560		1109	18.7	570		0629	3.3	100		0619	2.3	70							
	1627	3.6	110		1555	4.3	130		1812	2.6	80		1732	2.6	80		1242	18.7	570		1219	20.0	610	1857	1.0	30				
	2239	17.7	540	2211	17.1	520				2339	19.4	590	●	1859	2.3	70	●	1857	1.0	30	1857	1.0	30							
<b>14</b> Tu	0503	3.3	100	<b>29</b> W	0426	3.6	110	<b>14</b> F	0012	18.7</																				

# Sheerness, England, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> Th	0216	20.7	630		<b>16</b> F	0201	19.0	580		<b>1</b> Su	0319	19.0	580		<b>16</b> M	0246	18.7	570		<b>1</b> Tu	0340	18.0	550		<b>16</b> W	0312	18.4	560	
	0835	1.6	50			0808	3.0	90			0935	2.6	80			0858	3.0	90			0956	3.0	90			0936	2.6	80	
	1430	20.7	630			1417	18.7	570			1542	19.0	580			1510	18.4	560			1610	18.0	550			1544	18.7	570	
	2104	1.3	40			2030	3.0	90			2148	3.6	110			2114	3.6	110			2157	4.3	130			2145	3.3	100	
<b>2</b> F	0259	20.0	610		<b>17</b> Sa	0233	18.7	570		<b>2</b> M	0403	18.0	550		<b>17</b> Tu	0324	18.0	550		<b>2</b> W	0423	17.4	530		<b>17</b> Th	0356	18.0	550	
	0915	2.3	70			0839	3.3	100			1014	3.3	100			0934	3.3	100			1033	3.6	110			1018	3.0	90	
	1514	20.0	610			1450	18.7	570			1631	18.0	550			1553	18.0	550			1658	17.1	520			1633	18.0	550	
	2140	2.3	70			2100	3.3	100			2224	4.6	140			2151	3.9	120			2235	4.9	150			2229	3.9	120	
<b>3</b> Sa	0342	19.0	580		<b>18</b> Su	0306	18.4	560		<b>3</b> Tu	0451	17.1	520		<b>18</b> W	0408	17.7	540		<b>3</b> Th	0511	16.4	500		<b>18</b> F	0445	17.7	540	
	0953	2.6	80			0908	3.6	110			1058	3.9	120			1016	3.6	110			1118	4.3	130			1106	3.0	90	
	1600	19.0	580			1525	18.0	550			1727	17.1	520			1644	17.4	530			1751	16.4	500			1728	17.7	540	
	2215	3.3	100			2128	3.9	120			2311	5.2	160			2239	4.6	140			2326	5.6	170			2323	4.3	130	
<b>4</b> Su	0428	18.0	550		<b>19</b> M	0342	18.0	550		<b>4</b> W	0549	16.1	490		<b>19</b> Th	0500	17.1	520		<b>4</b> F	0608	15.7	480		<b>19</b> Sa	0542	17.4	530	
	1033	3.6	110			0938	3.9	120			1159	4.6	140			1111	3.9	120			1220	4.6	140			1205	3.3	100	
	1652	18.0	550			1606	17.7	540			1833	16.1	490			1744	17.1	520			1852	15.7	480			1833	17.1	520	
	2254	4.3	130			2202	4.3	130								2343	4.9	150											
<b>5</b> M	0520	17.1	520		<b>20</b> Tu	0425	17.4	530		<b>5</b> Th	0019	5.9	180		<b>20</b> F	0604	16.7	510		<b>5</b> Sa	0034	5.9	180		<b>20</b> Su	0028	4.6	140	
	1122	4.3	130			1019	4.3	130			0659	15.7	480			1226	3.9	120			0714	15.4	470			0650	17.1	520	
	1754	17.1	520			1656	17.1	520			1329	4.9	150			1857	16.7	510			1340	4.9	150			1319	3.6	110	
	2349	5.2	160			2251	4.9	150			1947	16.1	490								1957	15.7	480			1944	17.1	520	
<b>6</b> Tu	0625	16.1	490		<b>21</b> W	0518	16.7	510		<b>6</b> F	0149	5.9	180		<b>21</b> Sa	0102	4.9	150		<b>6</b> Su	0158	5.9	180		<b>21</b> M	0144	4.3	130	
	1237	4.9	150			1119	4.6	140			0814	15.7	480			0720	16.7	510			0823	15.7	480			0804	17.1	520	
	1909	16.4	500			1800	16.4	500			1444	4.6	140			1353	3.6	110			1448	4.6	140			1435	3.3	100	
											2059	16.4	500			2013	17.4	530			2102	16.1	490			2054	17.4	530	
<b>7</b> W	0111	5.9	180		<b>22</b> Th	0004	5.2	160		<b>7</b> Sa	0301	5.6	170		<b>22</b> Su	0221	4.6	140		<b>7</b> M	0306	5.2	160		<b>22</b> Tu	0257	3.9	120	
	0742	15.7	480			0628	16.1	490			0923	16.4	500			0836	17.4	530			0925	16.1	490			0915	17.4	530	
	1412	4.9	150			1248	4.9	150			1544	3.9	120			1507	3.3	100			1543	3.9	120			1545	3.0	90	
	2030	16.4	500			1920	16.4	500			2159	17.1	520			2123	18.0	550			2157	16.7	510			2159	18.0	550	
<b>8</b> Th	0239	5.6	170		<b>23</b> F	0138	5.2	160		<b>8</b> Su	0359	4.9	150		<b>23</b> M	0328	3.9	120		<b>8</b> Tu	0401	4.6	140		<b>23</b> W	0405	3.6	110	
	0901	16.4	500			0752	16.4	500			1017	17.1	520			0942	18.0	550			1018	16.7	510			1019	18.0	550	
	1530	4.3	130			1424	4.3	130			1633	3.3	100			1614	2.6	80			1630	3.6	110			1650	3.0	90	
	2143	17.1	520			2043	17.4	530			2246	17.7	540			2223	18.7	570			2244	17.4	530			2257	18.4	560	
<b>9</b> F	0349	4.9	150		<b>24</b> Sa	0256	4.6	140		<b>9</b> M	0445	4.3	130		<b>24</b> Tu	0430	3.3	100		<b>9</b> W	0448	3.9	120		<b>24</b> Th	0511	3.0	90	
	1006	17.1	520			0909	17.4	530			1101	17.7	540			1040	18.7	570			1103	17.4	530			1117	18.7	570	
	1631	3.6	110			1537	3.3	100			1714	3.0	90			1714	2.3	70			1713	3.3	100			1745	2.6	80	
	2240	18.0	550			2152	18.4	560			2325	18.4	560			2316	19.4	590			2325	18.0	550			2349	18.7	570	
<b>10</b> Sa	0443	4.3	130		<b>25</b> Su	0400	3.6	110		<b>10</b> Tu	0525	3.6	110		<b>25</b> W	0530	2.6	80		<b>10</b> Th	0531	3.3	100		<b>25</b> F	0609	2.3	70	
	1056	18.0	550			1012	18.4	560			1139	18.4	560			1132	19.4	590			1144	18.0	550			1209	19.0	580	
	1717	3.0	90			1643	2.3	70			1749	3.0	90			1807	2.0	60			1752	3.0	90			1833	2.6	80	
	2324	18.4	560			2250	19.4	590			2359	18.7	570																
<b>11</b> Su	0525	3.9	120		<b>26</b> M	0459	3.0	90		<b>11</b> W	0602	3.3	100		<b>26</b> Th	0005	19.7	600		<b>11</b> F	0003	18.4	560		<b>26</b> Sa	0036	19.0	580	
	1138	18.4	560			1105	19.4	590			1214	18.4	560			0623	2.3	70			0611	3.0	90			0659	2.0	60	
	1754	2.6	80			1741	1.6	50			1823	2.6	80			1222	19.7	600			1224	18.4	560			1258	19.4	590	
						2340	20.0	610								1853	2.0	60			1830	2.6	80			1915	2.6	80	
<b>12</b> M	0001	18.7	570		<b>27</b> Tu	0554	2.3	70		<b>12</b> Th	0031	18.7	570		<b>27</b> F	0051	19.7	600		<b>12</b> Sa	0041	18.7	570		<b>27</b> Su	0120	19.0	580	
	0559	3.6	110			1154	20.0	610			0636	3.0	90			0712	1.6	50			0651	2.6	80			0745	1.6	50	
	1213	18.7	570			1832	1.3	40			1247	18.7	570			1309	20.0	610			1301	18.7	570			1343	19.4	590	
	1826	2.6	80								1856	2.6	80			1935	2.0	60			1908	2.6	80			1954	2.6	80	
<b>13</b> Tu	0033	18.7	570		<b>28</b> W	0026	20.3	620		<b>13</b> F	0104	19.0	580		<b>28</b> Sa	0135	19.7	600		<b>13</b> Su	0117	19.0	580		<b>28</b> M	0202	19.0	580	
	0631	3.3	100			0644	2.0	60			0712	2.6	80			0758	1.6	50			0732	2.6	80			0827	2.0	60	
	1244	18.7	570			1240	20.3	620			1321	18.7	570			1355	20.0	610			1339	19.0	580			1426	19.0	580	
	1856	2.6	80			1917	1.3	40			1931	2.6	80			2014	2.3	70			1947	2.6	80			2029	3.0	90	
<b>14</b> W	0102	19.0	580		<b>29</b> Th	0111	20.3	620		<b>14</b> Sa	0137	19.0	580		<b>29</b> Su	0217	19.4	590		<b>14</b> M	0154	19.0	580		<b>29</b> Tu	0241	18.7	570	
	0703	3.0	90			0731	1.6	50			0748	2.6	80			0841	2.0	60			0814	2.3	70			0904	2.3	70	
	1314	19.0	580			1325	20.7	630			1356	18.7	570			1440	19.4	590			1419	19.0	580			1507	18.7	570	
	1927	2.3	70			1959	1.3	40			2006	2.6	80			2050	3.0	90			2026	2.6	80			2101			

# London (London Bridge), England, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0412	4.3	130	<b>16</b> F	0240	5.6	170	<b>1</b> Su	0610	3.6	110	<b>16</b> M	0512	3.9	120	<b>1</b> Su	0411	4.6	140	<b>16</b> M	0250	4.6	140
	1021	21.0	640		0929	19.0	580		1210	21.0	640		1120	21.3	650		1035	19.7	600		0936	20.0	610
	1646	3.6	110		1534	4.6	140		1836	3.9	120		1742	3.6	110		1646	4.9	150		1558	4.6	140
	2302	21.0	640		2210	19.7	600						2354	21.7	660		2317	19.7	600		2215	20.0	610
<b>2</b> F	0527	3.9	120	<b>17</b> Sa	0427	5.2	160	<b>2</b> M	0042	21.3	650	<b>17</b> Tu	0632	3.0	90	<b>2</b> M	0536	3.9	120	<b>17</b> Tu	0444	3.9	120
	1128	21.3	650		1045	20.3	620		0711	2.6	80		1223	22.6	690		1148	20.7	630		1054	21.3	650
	1802	3.6	110		1703	3.9	120		1303	22.0	670		1857	3.0	90		1805	4.3	130		1718	3.6	110
					2318	20.7	630		1928	3.6	110										2329	21.3	650
<b>3</b> Sa	0006	21.3	650	<b>18</b> Su	0547	3.9	120	<b>3</b> Tu	0128	22.0	670	<b>18</b> W	0053	22.6	690	<b>3</b> Tu	0018	21.0	640	<b>18</b> W	0609	2.6	80
	0636	3.3	100		1147	21.7	660		0800	2.3	70		0746	1.6	50		0644	3.0	90		1202	22.6	690
	1227	21.7	660		1809	3.3	100		1347	22.3	680		1319	23.6	720		1242	21.7	660		1839	2.6	80
	1902	3.3	100						2011	3.3	100		2005	2.3	70		1901	3.6	110				
<b>4</b> Su	0059	21.7	660	<b>19</b> M	0018	22.0	670	<b>4</b> W	0208	22.3	680	<b>19</b> Th	0145	23.3	710	<b>4</b> W	0105	21.7	660	<b>19</b> Th	0031	22.6	690
	0732	2.3	70		0656	3.0	90		0841	2.0	60		0845	0.7	20		0732	2.3	70		0728	1.3	40
	1317	22.3	680		1244	22.6	690		1425	22.6	690		1409	24.3	740		1325	22.3	680		1259	23.6	720
	1950	3.3	100		1914	3.0	90		2049	3.3	100		2100	1.6	50		1946	3.3	100		1947	2.0	60
<b>5</b> M	0144	22.0	670	<b>20</b> Tu	0113	22.6	690	<b>5</b> Th	0242	22.3	680	<b>20</b> F	0232	24.0	730	<b>5</b> Th	0144	22.3	680	<b>20</b> F	0124	23.6	720
	0820	2.0	60		0801	2.0	60		0917	2.0	60		0935	0.0	0		0813	2.0	60		0825	0.3	10
	1400	22.6	690		1336	23.6	720		1459	22.6	690		1456	24.9	760		1403	22.3	680		1349	24.3	740
	2032	3.3	100		2018	2.6	80		2122	3.3	100		2148	1.3	40		2025	3.0	90		2042	1.3	40
<b>6</b> Tu	0223	22.3	680	<b>21</b> W	0203	23.3	710	<b>6</b> F	0313	22.6	690	<b>21</b> Sa	0317	24.6	750	<b>6</b> F	0219	22.6	690	<b>21</b> Sa	0210	24.3	740
	0903	2.0	60		0858	1.3	40		0948	2.0	60		1019	-0.3	-10		0849	2.0	60		0914	0.0	0
	1440	23.0	700		1425	24.3	740		1528	22.6	690		1541	24.9	760		1435	22.6	690		1436	24.6	750
	2108	3.3	100		2112	2.3	70		2151	3.3	100		2231	1.0	30		2101	3.0	90		2129	1.0	30
<b>7</b> W	0259	22.3	680	<b>22</b> Th	0250	23.6	720	<b>7</b> Sa	0341	22.6	690	<b>22</b> Su	0359	24.6	750	<b>7</b> Sa	0249	22.6	690	<b>22</b> Su	0254	24.9	760
	0940	2.0	60		0949	0.7	20		1016	1.6	50		1058	-0.3	-10		0921	1.6	50		0957	-0.3	-10
	1516	23.0	700		1513	24.6	750		1556	22.6	690		1625	24.6	750		1503	22.6	690		1519	24.6	750
	2138	3.6	110		2200	2.0	60		2219	3.0	90		2309	1.3	40		2132	3.0	90		2212	0.7	20
<b>8</b> Th	0331	22.3	680	<b>23</b> F	0335	24.0	730	<b>8</b> Su	0409	22.6	690	<b>23</b> M	0441	24.6	750	<b>8</b> Su	0317	23.0	700	<b>23</b> M	0336	25.3	770
	1010	2.3	70		1034	0.0	0		1042	1.6	50		1131	0.3	10		0950	1.6	50		1035	0.0	0
	1549	22.6	690		1559	24.6	750		1625	22.3	680		1708	23.6	720		1529	23.0	700		1602	24.3	740
	2203	3.6	110		2243	1.6	50		2248	3.0	90		2343	1.6	50		2202	2.6	80		2249	1.0	30
<b>9</b> F	0401	22.0	670	<b>24</b> Sa	0418	24.0	730	<b>9</b> M	0439	22.3	680	<b>24</b> Tu	0523	23.6	720	<b>9</b> M	0345	23.0	700	<b>24</b> Tu	0418	24.9	760
	1035	2.3	70		1115	0.0	0		1109	2.0	60		1200	1.3	40		1018	1.6	50		1106	1.0	30
	1621	22.3	680		1644	24.3	740		1657	22.0	670		1751	22.6	690		1559	22.6	690		1643	23.6	720
	2232	3.6	110		2322	2.0	60		2316	3.3	100						2231	2.6	80		2322	1.3	40
<b>10</b> Sa	0432	22.0	670	<b>25</b> Su	0501	23.6	720	<b>10</b> Tu	0511	21.7	660	<b>25</b> W	0016	2.3	70	<b>10</b> Tu	0415	22.6	690	<b>25</b> W	0459	24.0	730
	1102	2.3	70		1152	0.3	10		1133	2.6	80		0607	22.6	690		1045	2.0	60		1131	1.6	50
	1652	22.0	670		1730	23.6	720		1731	21.3	650		1837	21.3	650		1631	22.3	680		1724	22.3	680
	2303	3.6	110						2342	3.6	110		1837	21.3	650		2258	3.0	90		2352	2.3	70
<b>11</b> Su	0503	21.3	650	<b>26</b> M	0000	2.3	70	<b>11</b> W	0546	21.0	640	<b>26</b> Th	0054	3.3	100	<b>11</b> W	0448	22.3	680	<b>26</b> Th	0542	23.0	700
	1131	2.6	80		0545	23.0	700		1158	3.0	90		0658	21.7	660		1108	2.3	70		1157	2.6	80
	1725	21.3	650		1227	1.3	40		1809	20.7	630		1310	3.6	110		1704	21.7	660		1806	21.0	640
	2335	3.9	120		1818	22.6	690						1930	20.0	610		2322	3.3	100				
<b>12</b> M	0536	21.0	640	<b>27</b> Tu	0040	3.0	90	<b>12</b> Th	0012	3.9	120	<b>27</b> F	0142	4.3	130	<b>12</b> Th	0523	21.7	660	<b>27</b> F	0023	3.0	90
	1159	3.0	90		0634	22.3	680		0627	20.3	620		0759	20.3	620		1133	2.6	80		0629	21.7	660
	1801	20.7	630		1305	2.0	60		1232	3.3	100		1408	4.6	140		1741	21.0	640		1232	3.6	110
					1911	21.7	660		1854	20.0	610		2035	19.4	590		2350	3.3	100		1852	20.0	610
<b>13</b> Tu	0006	4.6	140	<b>28</b> W	0125	3.6	110	<b>13</b> F	0055	4.3	130	<b>28</b> Sa	0251	4.9	150	<b>13</b> F	0603	21.3	650	<b>28</b> Sa	0105	3.9	120
	0614	20.3	620		0730	21.3	650		0719	20.0	610		0913	19.7	600		1205	3.0	90		0726	20.3	620
	1230	3.6	110		1353	3.0	90		1320	3.9	120		1525	5.2	160		1825	20.3	620		1323	4.9	150
	1843	20.0	610		2011	20.7	630		1954	19.4	590		2155	19.0	580				1953		19.0	580	
<b>14</b> W	0043	4.9	150	<b>29</b> Th	0222	4.3	130	<b>14</b> Sa	0154	4.9	150	<b>14</b> Sa	0029	3.6	110	<b>14</b> Sa	0029	3.6	110	<b>29</b> Su	0208	4.6	140
	0700	19.7	600		0837	20.7	630		0831	19.4	590		0653	20.3	620		0653	20.3	620		0837	19.4	590
	1310	3.9	120		1454	3.9	120		1431	4.6	140		1251	3.6	110		1251	3.6	110		1443	5.6	170
	1935	19.4	590		2116	20.0	610		2124	19.4	590		1922	19.7	600		1922	19.7	600		2112	18.7	570
<b>15</b> Th	0133	5.2	160	<b>30</b> F	0332	4.6	140	<b>15</b> Su	0327	5.2	160	<b>15</b> Su	0125	4.3	130	<b>15</b> Su	0125	4.3	130	<b>30</b> M	0332	4.6	140
	0758	19.0	580		0948	20.3	620		1006	20.0	610		0801	19.7	600		0801	19.7	600		0957	19.4	590
	1406	4.6	140		1604	4.6	140		1626	4.3	130		1358	4.6	140		1358	4.6	140		1608	5.2	160
	2050	19.0	580		2231	20.0																	



# London (London Bridge), England, 2015

## Times and Heights of High and Low Waters

April				May				June																										
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																					
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																				
<b>1</b> W	0559	3.0	90		<b>16</b> Th	0543	2.3	70		<b>1</b> F	0603	2.6	80		<b>16</b> Sa	0632	1.6	50		<b>1</b> M	0039	22.0	670		<b>16</b> Tu	0109	23.0	700						
	1211	21.3	650			1139	22.6	690			1216	21.3	650			1215	23.0	700			0659	2.3	70			0755	2.3	70						
	1825	3.6	110			1815	2.6	80			1834	3.3	100			1857	2.3	70			1300	22.0	670			1933	2.6	80		1338	22.6	690		
<b>2</b> Th	0032	21.3	650		<b>17</b> F	0007	22.6	690		<b>2</b> Sa	0036	21.7	660		<b>17</b> Su	0037	23.0	700		<b>2</b> Tu	0120	22.6	690		<b>17</b> W	0155	23.3	710		<b>17</b> Th	0840	2.3	70	
	0652	2.3	70			0703	1.3	40			0653	2.3	70			0732	1.3	40			0746	2.3	70			0840	2.3	70						
	1256	22.0	670			1238	23.6	720			1257	22.0	670			1307	23.3	710			1340	22.3	680			1422	22.6	690						
<b>3</b> F	0114	22.0	670		<b>18</b> Sa	0100	23.6	720		<b>3</b> Su	0116	22.3	680		<b>18</b> M	0126	23.6	720		<b>3</b> W	0200	23.0	700		<b>18</b> Th	0239	23.6	720		<b>18</b> Fr	0920	2.6	80	
	0736	2.0	60			0800	0.7	20			0737	2.0	60			0821	1.3	40			0829	2.3	70			0920	2.6	80						
	1333	22.3	680			1328	24.0	730			1333	22.3	680			1353	23.3	710			1420	22.6	690			1503	22.6	690						
<b>4</b> Sa	0149	22.6	690		<b>19</b> Su	0147	24.3	740		<b>4</b> M	0150	22.6	690		<b>19</b> Tu	0210	24.3	740		<b>4</b> Th	0239	23.3	710		<b>19</b> F	0954	3.0	90						
	0815	2.0	60			0848	0.3	10			0817	2.0	60			0905	1.6	50			1500	22.6	690			0954	3.0	90						
	1406	22.3	680			1414	24.3	740			1406	22.6	690			1437	23.3	710			2146	1.6	50			1541	22.6	690						
<b>5</b> Su	0221	23.0	700		<b>20</b> M	0231	24.6	750		<b>5</b> Tu	0223	23.0	700		<b>20</b> W	0254	24.3	740		<b>5</b> F	0320	23.6	720		<b>20</b> Sa	1021	3.3	100						
	0850	1.6	50			0931	0.7	20			0854	2.0	60			0943	2.0	60			0950	2.3	70			1021	3.3	100						
	1434	22.6	690			1457	24.3	740			1439	22.6	690			1518	23.3	710			1540	22.6	690			1618	22.0	670						
<b>6</b> M	0250	23.0	700		<b>21</b> Tu	0313	24.9	760		<b>6</b> W	0257	23.3	710		<b>21</b> Th	0336	24.3	740		<b>6</b> Sa	0401	23.3	710		<b>21</b> Su	1047	3.3	100						
	0922	1.6	50			1008	1.0	30			0929	2.0	60			1014	2.3	70			1028	2.3	70			1047	3.3	100						
	1503	23.0	700			1538	24.0	730			1514	22.6	690			1558	22.6	690			1621	22.3	680			1652	21.3	650						
<b>7</b> Tu	0320	23.3	710		<b>22</b> W	0356	24.6	750		<b>7</b> Th	0333	23.3	710		<b>22</b> F	0418	23.6	720		<b>7</b> Su	0445	23.0	700		<b>22</b> M	1118	3.6	110						
	0953	1.6	50			1038	1.6	50			1001	2.0	60			1037	3.0	90			1106	2.3	70			1118	3.6	110						
	1534	22.6	690			1619	23.3	710			1551	22.3	680			1637	22.0	670			1703	21.7	660			1727	21.0	640						
<b>8</b> W	0352	23.3	710		<b>23</b> Th	0437	24.0	730		<b>8</b> F	0411	23.0	700		<b>23</b> Sa	0459	22.6	690		<b>8</b> M	0531	22.6	690		<b>23</b> Tu	1154	3.9	120						
	1021	2.0	60			1101	2.3	70			1031	2.3	70			1104	3.3	100			1149	3.0	90			1154	3.9	120						
	1608	22.3	680			1658	22.0	670			1628	22.0	670			1714	21.0	640			1750	21.3	650			1804	20.3	620						
<b>9</b> Th	0427	22.6	690		<b>24</b> F	0520	22.6	690		<b>9</b> Sa	0452	22.6	690		<b>24</b> Su	0541	21.3	650		<b>9</b> Tu	0624	22.0	670		<b>24</b> W	1234	4.6	140						
	1046	2.3	70			1127	3.0	90			1105	2.6	80			1138	3.9	120			1240	3.3	100			1234	4.6	140						
	1643	21.7	660			1738	21.0	640			1709	21.3	650			1753	20.3	620			1844	21.0	640			1846	19.7	600						
<b>10</b> F	0504	22.3	680		<b>25</b> Sa	0604	21.3	650		<b>10</b> Su	0537	22.0	670		<b>25</b> M	0611	3.3	100		<b>10</b> W	0727	21.7	660		<b>25</b> Th	1320	5.2	160						
	1114	2.6	80			1202	3.9	120			1144	3.3	100			0625	20.3	620			1343	3.9	120			1320	5.2	160						
	1721	21.0	640			1821	20.0	610			1755	20.7	630			1219	4.6	140			1951	20.7	630			1944	19.0	580						
<b>11</b> Sa	0547	21.7	660		<b>26</b> Su	0035	3.6	110		<b>11</b> M	0011	2.6	80		<b>26</b> Tu	0056	3.6	110		<b>11</b> Th	0222	2.6	80		<b>26</b> F	1418	5.6	170						
	1149	3.0	90			0655	20.0	610			0630	21.3	650			0718	19.7	600			0836	21.3	650			1418	5.6	170						
	1806	20.3	620			1248	4.9	150			1234	3.9	120			1310	5.2	160			1453	3.9	120			2104	18.7	570						
<b>12</b> Su	0015	3.3	100		<b>27</b> M	0129	4.3	130		<b>12</b> Tu	0107	3.3	100		<b>27</b> W	0155	4.3	130		<b>12</b> F	0332	2.6	80		<b>27</b> Sa	0937	19.4	590						
	0638	21.0	640			0800	19.4	590			0738	21.0	640			0824	19.0	580			0944	21.7	660			0937	19.4	590						
	1236	3.9	120			1354	5.6	170			1348	4.6	140			1416	5.6	170			1605	3.6	110			1542	5.6	170						
<b>13</b> M	0109	3.6	110		<b>28</b> Tu	0248	4.6	140		<b>13</b> W	0234	3.3	100		<b>28</b> Th	0311	4.3	130		<b>13</b> Sa	0442	2.6	80		<b>28</b> Su	1039	20.0	610						
	0746	20.3	620			0913	19.0	580			0856	21.0	640			0930	19.4	590			1050	21.7	660			1039	20.0	610						
	1346	4.6	140			1521	5.6	170			1516	4.3	130			1539	5.6	170			1718	3.3	100			1702	4.6	140						
<b>14</b> Tu	0236	4.3	130		<b>29</b> W	0404	3.9	120		<b>14</b> Th	0358	3.0	90		<b>29</b> F	0418	3.6	110		<b>14</b> Su	0558	2.3	70		<b>29</b> M	1137	21.0	640						
	0914	20.7	630			1023	19.7	600			1008	21.7	660			1032	20.0	610			1154	22.0	670			1137	21.0	640						
	1537	4.6	140			1638	4.9	150			1632	3.6	110			1650	4.6	140			1830	2.6	80			1804	3.6	110						
<b>15</b> W	0421	3.3	100		<b>30</b> Th	0507	3.3	100		<b>15</b> F	0514	2.3	70		<b>30</b> Sa	0515	3.0	90		<b>15</b> M	0703	2.3	70		<b>30</b> Tu	0004	21.7	660						
	1031	21.7	660			1126	20.7	630			1115	22.3	680			1128	20.7	630			1250	22.3	680			0004	21.7	660						
	1656	3.6	110			1740	3.9	120			1747	3.0	90			1749	3.9	120			1930	2.0	60			0621	3.0	90						
<b>16</b> Th	2304	21.3	650		<b>31</b> Fr	2351	21.0	640		<b>31</b> Su	2342	22.3	680		<b>31</b> M	0609	2.6	80		<b>31</b> Tu	1230	21.7	660											

Time meridian 0°. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# London (London Bridge), England, 2015

## Times and Heights of High and Low Waters

July				August				September																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> W	0053	22.3	680		<b>16</b> Th	0145	23.0	700		<b>1</b> Sa	0207	24.0	730		<b>16</b> Su	0249	23.0	700		<b>1</b> Tu	0319	24.9	760		<b>16</b> W	0320	23.0	700	
	0716	2.6	80			0820	3.0	90			0850	2.3	70			0916	3.0	90			1010	1.3	40			0952	2.6	80	
	1318	22.3	680			1410	22.3	680			1431	23.6	720			1504	23.0	700			1537	24.9	760			1534	23.0	700	
	1957	2.3	70			2050	1.3	40			2127	0.7	20			2142	1.6	50			2239	-0.3	-10			2206	1.6	50	
<b>2</b> Th	0139	23.0	700		<b>17</b> F	0228	23.3	710		<b>2</b> Su	0253	24.6	750		<b>17</b> M	0321	23.0	700		<b>2</b> W	0402	24.6	750		<b>17</b> Th	0347	22.6	690	
	0809	2.6	80			0901	3.0	90			0940	2.0	60			0947	3.0	90			1051	1.3	40			1020	2.6	80	
	1403	22.6	690			1449	22.6	690			1516	24.0	730			1534	23.0	700			1619	24.6	750			1603	23.0	700	
	2049	1.6	50			2132	1.3	40			2214	0.0	0			2211	1.6	50			2315	0.3	10			2232	2.0	60	
<b>3</b> F	0224	23.6	720		<b>18</b> Sa	0307	23.3	710		<b>3</b> M	0338	24.6	750		<b>18</b> Tu	0350	23.0	700		<b>3</b> Th	0445	24.0	730		<b>18</b> F	0417	22.3	680	
	0859	2.3	70			0937	3.0	90			1025	1.6	50			1014	3.0	90			1128	1.6	50			1047	3.0	90	
	1448	23.0	700			1525	22.6	690			1558	24.0	730			1602	22.6	690			1701	24.0	730			1634	22.3	680	
	2138	1.3	40			2208	1.6	50			2257	-0.3	-10			2235	1.6	50			2347	1.0	30			2256	2.6	80	
<b>4</b> Sa	0308	24.0	730		<b>19</b> Su	0344	23.0	700		<b>4</b> Tu	0423	24.3	740		<b>19</b> W	0418	22.6	690		<b>4</b> F	0529	22.6	690		<b>19</b> Sa	0449	21.7	660	
	0946	2.0	60			1007	3.3	100			1106	1.3	40			1041	3.0	90			1202	2.3	70			1111	3.6	110	
	1531	23.0	700			1558	22.3	680			1640	24.0	730			1631	22.3	680			1745	23.3	710			1707	21.7	660	
	2224	0.7	20			2236	1.6	50			2335	0.0	0			2300	2.0	60								2319	3.3	100	
<b>5</b> Su	0352	24.0	730		<b>20</b> M	0417	22.6	690		<b>5</b> W	0507	23.6	720		<b>20</b> Th	0448	22.0	670		<b>5</b> Sa	0017	2.3	70		<b>20</b> Su	0523	21.0	640	
	1030	2.0	60			1032	3.3	100			1144	1.6	50			1109	3.3	100			0614	21.7	660			1135	3.9	120	
	1613	23.0	700			1629	22.0	670			1723	23.3	710			1701	21.7	660			1240	3.0	90			1745	21.0	640	
	2306	0.7	20			2301	2.0	60								2326	2.6	80			1834	22.0	670			2346	3.6	110	
<b>6</b> M	0437	24.0	730		<b>21</b> Tu	0449	22.0	670		<b>6</b> Th	0010	0.7	20		<b>21</b> F	0519	21.3	650		<b>6</b> Su	0054	3.3	100		<b>21</b> M	0602	20.0	610	
	1111	2.0	60			1100	3.3	100			0553	22.6	690			1136	3.9	120			0708	20.3	620			1208	3.9	120	
	1656	22.6	690			1700	21.7	660			1223	2.3	70			1734	21.0	640			1325	3.6	110			1830	20.3	620	
	2345	0.7	20			2327	2.3	70			1809	22.6	690			2350	3.0	90			1934	21.0	640						
<b>7</b> Tu	0523	23.3	710		<b>22</b> W	0521	21.3	650		<b>7</b> F	0046	1.6	50		<b>22</b> Sa	0554	20.7	630		<b>7</b> M	0147	4.6	140		<b>22</b> Tu	0025	3.9	120	
	1152	2.3	70			1131	3.6	110			0644	21.7	660			1202	4.3	130			0812	19.7	600			0653	19.4	590	
	1740	22.3	680			1732	21.0	640			1305	3.0	90			1812	20.3	620			1429	4.3	130			1256	4.3	130	
						2356	2.6	80			1902	22.0	670								2047	20.3	620			1930	19.7	600	
<b>8</b> W	0023	1.3	40		<b>23</b> Th	0554	20.7	630		<b>8</b> Sa	0129	2.6	80		<b>23</b> Su	0017	3.6	110		<b>8</b> Tu	0301	5.2	160		<b>23</b> W	0123	4.9	150	
	0613	22.6	690			1203	3.9	120			0742	21.0	640			0635	19.7	600			0928	19.4	590			0807	18.7	570	
	1237	3.0	90			1807	20.3	620			1357	3.6	110			1237	4.6	140			1546	4.3	130			1407	4.9	150	
	1830	22.0	670								2006	21.3	650			1859	19.7	600			2205	20.3	620			2100	19.7	600	
<b>9</b> Th	0107	1.6	50		<b>24</b> F	0026	3.3	100		<b>9</b> Su	0227	3.6	110		<b>24</b> M	0059	4.3	130		<b>9</b> W	0422	4.9	150		<b>24</b> Th	0316	5.6	170	
	0709	22.0	670			0632	20.0	610			0847	20.3	620			0730	19.0	580			1049	20.0	610			0944	19.4	590	
	1327	3.3	100			1237	4.6	140			1503	4.3	130			1330	4.9	150			1710	3.6	110			1614	4.3	130	
	1929	21.7	660			1848	19.7	600			2117	20.7	630			2004	19.0	580			2322	21.0	640			2225	21.0	640	
<b>10</b> F	0200	2.3	70		<b>25</b> Sa	0101	3.9	120		<b>10</b> M	0335	4.3	130		<b>25</b> Tu	0201	4.9	150		<b>10</b> Th	0545	4.3	130		<b>25</b> F	0448	4.3	130	
	0812	21.3	650			0720	19.4	590			0958	20.0	610			0856	18.7	570			1156	21.0	640			1100	21.0	640	
	1427	3.6	110			1320	5.2	160			1617	3.9	120			1450	5.2	160			1827	2.6	80			1732	3.0	90	
	2037	21.3	650			1943	19.0	580			2231	20.7	630			2141	19.4	590								2333	22.6	690	
<b>11</b> Sa	0302	3.0	90		<b>26</b> Su	0149	4.3	130		<b>11</b> Tu	0451	4.3	130		<b>26</b> W	0357	4.9	150		<b>11</b> F	0022	22.3	680		<b>26</b> Sa	0600	3.3	100	
	0917	21.0	640			0831	18.7	570			1114	20.3	620			1021	19.7	600			0646	3.3	100			1203	22.3	680	
	1535	3.9	120			1420	5.6	170			1739	3.3	100			1647	4.3	130			1248	22.0	670			1852	1.6	50	
	2145	21.3	650			2110	19.0	580			2343	21.3	650			2256	21.0	640			1919	2.0	60						
<b>12</b> Su	0408	3.3	100		<b>27</b> M	0308	4.6	140		<b>12</b> W	0613	3.6	110		<b>27</b> Th	0516	3.9	120		<b>12</b> Sa	0110	22.6	690		<b>27</b> Su	0032	23.6	720	
	1025	21.0	640			0951	19.4	590			1219	21.3	650			1131	21.0	640			0733	3.0	90			0714	2.3	70	
	1648	3.6	110			1603	5.2	160			1851	2.3	70			1801	3.0	90			1330	22.6	690			1257	23.6	720	
	2254	21.3	650			2226	19.7	600													2001	1.6	50			1956	1.0	30	
<b>13</b> M	0523	3.3	100		<b>28</b> Tu	0441	4.3	130		<b>13</b> Th	0042	22.3	680		<b>28</b> F	0000	22.3	680		<b>13</b> Su	0149	23.0	700		<b>28</b> M	0123	24.6	750	
	1134	21.3	650			1059	20.3	620			0711	3.3	100			0625	3.0	90			0814	3.0	90			0814	2.0	60	
	1804	3.0	90			1725	3.9	120			1310	22.0	670			1231	22.3	680			1406	22.6	690			1345	24.3	740	
	2359	21.7	660			2329	21.0	640			1944	1.6	50			1916	2.0	60			2038	1.6	50			2048	0.3	10	
<b>14</b> Tu	0637	3.0	90		<b>29</b> W	0547	3.3	100		<b>14</b> F	0131	23.0	700		<b>29</b> Sa	0057	23.6	720		<b>14</b> M	0224	23.0	700		<b>29</b> Tu	0211	24.9	760	
	1235	21.7	660			1200	21.3	650			0759	3.0	90			0736	2.6	80			0850	3.0	90			0905	1.3	40	
	1910	2.3	70			1831	3.0	90			1353	22.6	690			1323	23.3	710			1438	23.0	700			1430	24.9	760	
											2029	1.3	40			2018	1.0	30			2111	1.6	50			2134	0.0	0	

# London (London Bridge), England, 2015

## Times and Heights of High and Low Waters

October				November				December																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> Th	0338	24.6	750	<b>16</b> F	0319	23.0	700	<b>1</b> Su	0439	22.6	690	<b>16</b> M	0406	22.0	670	<b>1</b> Tu	0459	21.3	650	<b>16</b> W	0435	22.0	670			
	1031	1.0	30		0959	2.6	80		1120	2.0	60		1040	2.6	80		1131	2.6	80		1112	2.3	70			
	1555	24.9	760		1536	23.3	710		1700	23.3	710		1629	22.6	690		1724	22.0	670		1724	22.0	670	1702	23.0	700
	2250	1.0	30		2203	2.3	70		2317	3.6	110		2241	3.0	90		2325	4.3	130		2325	4.3	130	2318	3.3	100
<b>2</b> F	0421	24.0	730	<b>17</b> Sa	0350	22.6	690	<b>2</b> M	0520	21.3	650	<b>17</b> Tu	0443	21.7	660	<b>2</b> W	0537	20.7	630	<b>17</b> Th	0517	21.7	660			
	1108	1.3	40		1027	3.0	90		1149	3.0	90		1108	3.0	90		1201	3.3	100		1147	2.3	70			
	1637	24.3	740		1610	23.0	700		1746	22.0	670		1711	22.3	680		1808	20.7	630		1749	22.3	680			
	2319	2.0	60		2229	2.6	80		2349	4.3	130		2316	3.6	110											
<b>3</b> Sa	0503	22.6	690	<b>18</b> Su	0424	22.0	670	<b>3</b> Tu	0603	20.0	610	<b>18</b> W	0525	21.0	640	<b>3</b> Th	0003	4.9	150	<b>18</b> F	0002	3.6	110			
	1140	2.0	60		1052	3.3	100		1225	3.6	110		1143	3.0	90		0619	19.7	600		0604	21.3	650			
	1721	23.3	710		1645	22.3	680		1837	20.7	630		1758	21.7	660		1858	20.0	610		1842	21.7	660			
	2345	3.0	90		2255	3.3	100		☉				2359	4.3	130		☉				1842	21.7	660			
<b>4</b> Su	0546	21.3	650	<b>19</b> M	0459	21.3	650	<b>4</b> W	0031	5.2	160	<b>19</b> Th	0615	20.3	620	<b>4</b> F	0050	5.6	170	<b>19</b> Sa	0055	4.3	130			
	1213	3.0	90		1117	3.3	100		0655	19.0	580		1229	3.3	100		0712	19.0	580		0700	20.7	630			
	1809	22.0	670		1724	21.7	660		1315	4.3	130		1856	21.0	640		1335	4.3	130		1328	3.3	100			
	☉				2326	3.6	110		1939	19.7	600		☉				2000	19.4	590		1949	21.0	640			
<b>5</b> M	0019	3.9	120	<b>20</b> Tu	0539	20.7	630	<b>5</b> Th	0133	6.2	190	<b>20</b> F	0055	4.9	150	<b>5</b> Sa	0150	6.2	190	<b>20</b> Su	0203	4.6	140			
	0633	20.0	610		1150	3.6	110		0806	18.7	570		0717	20.0	610		0827	18.4	560		0811	20.7	630			
	1254	3.6	110		1811	21.0	640		1431	4.6	140		1334	3.9	120		1449	4.6	140		1445	3.3	100			
	1904	20.7	630		☉				2051	19.4	590		2010	20.7	630		2106	19.4	590		2101	21.0	640			
<b>6</b> Tu	0107	4.9	150	<b>21</b> W	0006	4.3	130	<b>6</b> F	0300	6.2	190	<b>21</b> Sa	0224	5.2	160	<b>6</b> Su	0313	6.2	190	<b>21</b> M	0320	4.6	140			
	0733	19.4	590		0629	19.7	600		0924	18.7	570		0840	20.0	610		0939	18.7	570		0929	20.7	630			
	1353	4.6	140		1237	3.9	120		1546	4.3	130		1515	3.6	110		1558	4.3	130		1600	3.3	100			
	2015	20.0	610		1909	20.3	620		2202	19.7	600		2128	21.3	650		2210	19.7	600		2210	21.3	650			
<b>7</b> W	0222	5.9	180	<b>22</b> Th	0102	4.9	150	<b>7</b> Sa	0419	5.6	170	<b>22</b> Su	0351	4.6	140	<b>7</b> M	0430	5.6	170	<b>22</b> Tu	0436	4.3	130			
	0851	18.7	570		0737	19.4	590		1035	19.7	600		0958	21.0	640		1042	19.7	600		1038	21.3	650			
	1513	4.6	140		1344	4.6	140		1650	3.6	110		1632	3.0	90		1657	3.6	110		1713	3.0	90			
	2132	19.7	600		2032	20.0	610		2308	20.7	630		2237	22.0	670		2309	20.3	620		2316	21.7	660			
<b>8</b> Th	0348	5.6	170	<b>23</b> F	0246	5.6	170	<b>8</b> Su	0523	4.6	140	<b>23</b> M	0505	3.9	120	<b>8</b> Tu	0531	4.6	140	<b>23</b> W	0553	3.6	110			
	1013	19.4	590		0910	19.7	600		1134	20.7	630		1105	22.0	670		1138	20.7	630		1142	22.0	670			
	1631	3.9	120		1543	3.9	120		1747	3.0	90		1747	2.3	70		1752	3.3	100		1829	2.6	80			
	2249	20.7	630		2156	21.0	640		☉				2340	22.6	690		☉				2340	22.6	690			
<b>9</b> F	0506	4.6	140	<b>24</b> Sa	0420	4.6	140	<b>9</b> M	0001	21.7	660	<b>24</b> Tu	0620	3.0	90	<b>9</b> W	0001	21.3	650	<b>24</b> Th	0018	22.3	680			
	1123	20.3	620		1029	21.0	640		0617	3.9	120		1204	23.0	700		0625	3.9	120		0701	2.6	80			
	1744	3.0	90		1702	3.0	90		1222	21.7	660		1858	2.0	60		1225	21.7	660		1240	22.6	690			
	2352	21.7	660		2305	22.3	680		1836	2.6	80						1841	3.0	90		1929	2.6	80			
<b>10</b> Sa	0610	3.9	120	<b>25</b> Su	0534	3.3	100	<b>10</b> Tu	0044	22.0	670	<b>25</b> W	0036	23.3	710	<b>10</b> Th	0046	22.0	670	<b>25</b> F	0112	22.6	690			
	1216	21.7	660		1134	22.3	680		0705	3.3	100		0724	2.3	70		0715	3.3	100		0758	2.0	60			
	1840	2.3	70		1821	2.0	60		1302	22.3	680		1257	23.6	720		1306	22.3	680		1331	23.3	710			
	☉				☉				1921	2.3	70		1954	1.6	50		1928	3.0	90		2020	2.6	80			
<b>11</b> Su	0040	22.3	680	<b>26</b> M	0006	23.6	720	<b>11</b> W	0120	22.3	680	<b>26</b> Th	0127	23.6	720	<b>11</b> F	0125	22.3	680	<b>26</b> Sa	0200	23.0	700			
	0659	3.3	100		0648	2.6	80		0748	3.0	90		0818	1.6	50		0801	3.0	90		0849	1.3	40			
	1259	22.3	680		1230	23.3	710		1337	22.6	690		1345	24.0	730		1344	22.6	690		1418	23.6	720			
	1923	2.0	60		1928	1.0	30		2000	2.3	70		2042	1.6	50		2010	3.0	90		2105	2.6	80			
<b>12</b> M	0120	22.6	690	<b>27</b> Tu	0059	24.0	730	<b>12</b> Th	0152	22.6	690	<b>27</b> F	0213	23.6	720	<b>12</b> Sa	0202	22.6	690	<b>27</b> Su	0244	23.0	700			
	0742	3.0	90		0749	2.0	60		0827	2.6	80		0907	1.3	40		0844	2.6	80		0934	1.3	40			
	1336	22.6	690		1320	24.3	740		1409	23.0	700		1431	24.6	750		1421	23.0	700		1502	23.6	720			
	2001	2.0	60		2022	0.7	20		2036	2.3	70		2125	2.0	60		2049	3.0	90		2144	3.0	90			
<b>13</b> Tu	0154	22.6	690	<b>28</b> W	0147	24.3	740	<b>13</b> F	0223	22.6	690	<b>28</b> Sa	0257	23.6	720	<b>13</b> Su	0240	22.6	690	<b>28</b> M	0325	23.0	700			
	0820	3.0	90		0842	1.3	40		0904	2.6	80		0951	1.0	30		0925	2.3	70		1015	1.6	50			
	1408	23.0	700		1405	24.6	750		1441	23.3	710		1515	24.6	750		1459	23.3	710		1545	23.6	720			
	2035	2.0	60		2108	1.0	30		2109	2.6	80		2202	2.6	80		2126	3.0	90		2216	3.3	100			
<b>14</b> W	0223	23.0	700	<b>29</b> Th	0232	24.3	740	<b>14</b> Sa	0256	22.6	690	<b>29</b> Su	0339	23.3	710	<b>14</b> M	0318	22.6	690	<b>29</b> Tu	0403	22.6	690			
	0855	2.6	80		0928	1.0	30		0939	2.6	80		1030	1.3	40		1004	2.0	60		1049	2.0	60			
	1437	23.3	710		1449	24.9	760		1515	23.3	710		1559	24.0	730		1538	23.3	710		1624	23.0	700			
	2107	2.0	60		2149	1.3	40		2140	2.6	80		2231	3.3	100		2202	2.6	80		2240	3.6	110			
<b>15</b> Th	0250	23.0	700	<b>30</b> F	0316	24.3	740	<b>15</b> Su	0330	22.6	690	<b>30</b> M	0420	22.3	680	<b>15</b> Tu	0356	22.3	680	<b>30</b> W	0439	22.0	670			
	0928	2.6	80		1010	1.0	30		1012	2.6	80		1103	2.0	60		1040	2.0	60		1114	2.3	70			
	1505	23.3	710		1533	24.9	760		1551	23.0	700		1642	23.0	7											

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## Times and Heights of High and Low Waters

January				February				March															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0214	5.9	180			<b>1</b> Su	0413	5.6	170	<b>16</b> M	0323	5.6	170	<b>1</b> Su	0228	6.9	210						
	0747	19.4	590	<b>16</b> F	0701		18.0	550	0840		19.7	600	0821		17.7	540	<b>16</b> M	0721	18.4	560			
	1456	5.2	160		1418		6.2	190	1556		4.6	140	1512		6.6	200		1423	6.2	190			
	2029	19.0	580		1941		18.0	550	2109		20.3	620	2049		18.4	560		1954	18.7	570			
<b>2</b> F	0326	5.6	170			<b>2</b> M	0513	4.6	140	<b>17</b> Tu	0425	4.3	130	<b>2</b> M	0348	5.9	180	<b>17</b> Tu	0257	5.6	170		
	0850	19.7	600	<b>17</b> Sa	0802		19.0	580	1022		20.0	610	0932		21.0	640	0924		18.7	570	0825	19.4	590
	1610	4.9	150		1522		5.2	160	1743		4.3	130	1656		3.6	110	1629		5.6	170	1532	4.9	150
	2124	19.7	600		2035		19.4	590	2238		20.7	630	2158		21.7	660	2140		19.4	590	2051	20.3	620
<b>3</b> Sa	0434	4.9	150			<b>3</b> Tu	0559	3.9	120	<b>18</b> W	0526	3.0	90	<b>3</b> Tu	0452	4.9	150	<b>18</b> W	0404	3.9	120		
	0944	20.3	620	<b>18</b> Su	0855		20.0	610	1058		20.7	630	1021		22.0	670	1007		19.7	600	0919	21.0	640
	1711	4.3	130		1620		4.3	130	1822		3.9	120	1755		2.6	80	1720		4.6	140	1636	3.6	110
	2210	20.7	630		2124		20.3	620	2313		21.3	650	2244		22.6	690	2219		20.3	620	2142	21.7	660
<b>4</b> Su	0529	4.3	130			<b>4</b> W	0637	3.6	110	<b>19</b> Th	0623	2.0	60	<b>4</b> W	0539	3.9	120	<b>19</b> Th	0508	2.6	80		
	1030	21.0	640	<b>19</b> M	0944		21.3	650	1131		21.0	640	1106		22.6	690	1041		20.3	620	1008	22.0	670
	1758	3.9	120		1714		3.6	110	1854		3.9	120	1849		2.0	60	1800		3.9	120	1737	2.6	80
	2250	21.3	650		2210		21.7	660	2348		21.7	660	2328		23.3	710	2253		21.0	640	2228	22.6	690
<b>5</b> M	0614	3.6	110			<b>5</b> Th	0709	3.3	100	<b>20</b> F	0716	1.3	40	<b>5</b> Th	0615	3.6	110	<b>20</b> F	0608	1.6	50		
	1110	21.0	640	<b>20</b> Tu	1031		22.0	670	1203		21.0	640	1150		23.0	700	1111		20.7	630	1052	22.6	690
	1838	3.9	120		1808		3.0	90	1921		3.9	120	1937		1.3	40	1831		3.6	110	1831	1.6	50
	2328	21.7	660		2256		22.3	680	0020		21.7	660	0012		23.6	720	2325		21.3	650	2312	23.6	720
<b>6</b> Tu	0653	3.6	110			<b>6</b> F	0020	21.7	660	<b>21</b> Sa	0802	0.7	20	<b>6</b> F	0645	3.3	100	<b>21</b> Sa	0700	1.0	30		
	1147	21.3	650	<b>21</b> W	1116		22.6	690	1234		21.0	640	0802		0.7	20	1139		21.0	640	1135	23.3	710
	1912	3.9	120		1859		2.3	70	1944		3.6	110	2018		1.3	40	1856		3.6	110	1918	1.3	40
					2340		23.0	700	0050		21.3	650	0055		24.0	730	0711		3.3	100	2355	24.0	730
<b>7</b> W	0005	21.7	660			<b>7</b> Sa	0802	3.6	110	<b>22</b> Su	0844	1.0	30	<b>7</b> Sa	1207	21.0	640	<b>22</b> Su	1216	23.3	710		
	0727	3.6	110	<b>22</b> Th	1202		22.6	690	1300		20.7	630	1317		23.0	700	1920		3.6	110	1959	1.0	30
	1223	21.0	640		1947		2.0	60	2011		3.9	120	2056		1.6	50	0711		3.3	100	0745	0.7	20
	1940	3.9	120																				
<b>8</b> Th	0041	21.7	660			<b>8</b> Su	0113	21.3	650	<b>23</b> M	0140	23.3	710	<b>8</b> Su	0021	21.3	650	<b>23</b> M	0037	23.6	720		
	0757	3.9	120	<b>23</b> F	0813		1.6	50	0831		3.6	110	0922		1.3	40	0738		3.3	100	0825	0.7	20
	1257	20.7	630		1247		22.6	690	1322		20.3	620	1402		22.3	680	1232		21.0	640	1258	23.0	700
	2006	4.3	130		2030		2.0	60	2040		3.9	120	2133		2.3	70	1948		3.3	100	2036	1.3	40
<b>9</b> F	0115	21.3	650			<b>9</b> M	0135	21.0	640	<b>24</b> Tu	0225	22.6	690	<b>9</b> M	0043	21.3	650	<b>24</b> Tu	0120	23.3	710		
	0825	3.9	120	<b>24</b> Sa	0857		1.6	50	0901		3.9	120	1000		2.6	80	0807		3.3	100	0901	1.3	40
	1328	20.3	620		1334		22.3	680	1345		20.3	620	1450		21.0	640	1252		21.0	640	1341	22.3	680
	2032	4.6	140		2111		2.3	70	2112		4.3	130	2213		3.3	100	2018		3.6	110	2113	2.3	70
<b>10</b> Sa	0144	21.0	640			<b>10</b> Tu	0203	20.7	630	<b>25</b> W	0315	21.3	650	<b>10</b> Tu	0105	21.3	650	<b>25</b> W	0204	22.3	680		
	0854	4.3	130	<b>25</b> Su	0939		2.0	60	0934		4.6	140	1042		3.9	120	0837		3.6	110	0938	2.6	80
	1356	20.0	610		1423		21.7	660	1418		20.0	610	1544		19.7	600	1317		21.0	640	1427	21.3	650
	2103	4.9	150		2152		3.0	90	2146		4.9	150	2258		4.9	150	2049		3.9	120	2150	3.3	100
<b>11</b> Su	0210	20.3	620			<b>11</b> W	0240	20.3	620	<b>26</b> Th	0410	19.7	600	<b>11</b> W	0134	21.3	650	<b>26</b> Th	0251	21.0	640		
	0927	4.6	140	<b>26</b> M	1022		3.0	90	1010		5.2	160	1133		5.6	170	0907		3.9	120	1016	4.3	130
	1423	19.4	590		1516		20.7	630	1459		19.4	590	1646		18.4	560	1349		21.0	640	1518	20.0	610
	2138	5.2	160		2236		3.9	120	2226		5.9	180	2357		6.2	190	2121		4.3	130	2233	4.9	150
<b>12</b> M	0242	19.7	600			<b>12</b> Th	0327	19.4	590	<b>27</b> F	0517	18.0	550	<b>12</b> Th	0210	20.7	630	<b>27</b> F	0344	19.4	590		
	1004	5.2	160	<b>27</b> Tu	1109		3.9	120	1055		6.2	190	1238		6.9	210	0941		4.6	140	1103	5.9	180
	1459	18.7	570		1614		19.4	590	1553		18.4	560	1800		17.4	530	1430		20.0	610	1616	18.7	570
	2217	5.9	180		2327		5.2	160	2317		6.9	210	0109		7.2	220	2158		5.2	160	2328	6.2	190
<b>13</b> Tu	0323	19.0	580			<b>13</b> F	0430	18.0	550	<b>28</b> Sa	0641	17.4	530	<b>13</b> F	0255	19.7	600	<b>28</b> Sa	0446	18.0	550		
	1048	5.9	180	<b>28</b> W	1205		5.2	160	1158		6.9	210	1353		7.2	220	1023		5.6	170	1206	7.2	220
	1547	18.0	550		1723		18.4	560	1718		17.4	530	1931		17.4	530	1521		19.0	580	1723	17.4	530
	2305	6.9	210														2247		6.2	190			
<b>14</b> W	0420	18.4	560			<b>14</b> Sa	0038	7.2	220	<b>29</b> Su	0619	17.7	540	<b>14</b> Sa	0354	18.4	560	<b>29</b> Su	0602	17.1	520		
	1144	6.6	200	<b>29</b> Th	0552		18.7	570	1334		6.9	210	1120		6.6	200	1634		17.7	540	1322	7.5	230
	1703	17.4	530		1843		17.7	540	1910		17.7	540	2358		6.9	210	1						

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## Times and Heights of High and Low Waters

April				May				June																					
	Time		Height			Time		Height			Time		Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0415	5.2	160		<b>16</b> Th	0339	3.9	120		<b>1</b> F	0413	4.6	140		<b>16</b> Sa	0421	3.3	100		<b>1</b> M	0458	3.9	120		<b>16</b> Tu	0558	3.0	90	
	0940	19.4	590			0902	20.7	630			0933	19.7	600			0932	21.3	650			1000	20.3	620			1047	21.3	650	
	1642	4.9	150			1611	3.6	110			1638	4.9	150			1647	3.3	100			1720	3.9	120			1814	3.0	90	
	2151	20.0	610			2122	21.7	660			2147	20.3	620			2150	22.0	670			2214	20.7	630			2309	21.7	660	
<b>2</b> Th	0503	4.3	130		<b>17</b> F	0447	2.6	80		<b>2</b> Sa	0455	4.3	130		<b>17</b> Su	0524	2.6	80		<b>2</b> Tu	0542	3.6	110		<b>17</b> W	0645	3.0	90	
	1013	20.0	610			0951	21.7	660			1005	20.3	620			1018	21.7	660			1036	21.0	640			1129	21.7	660	
	1724	4.3	130			1714	2.6	80			1716	4.3	130			1744	2.6	80			1802	3.6	110			1900	2.6	80	
	2225	20.7	630			2210	22.6	690			2219	20.7	630			2237	22.3	680			2251	21.0	640			2351	21.7	660	
<b>3</b> F	0540	3.6	110		<b>18</b> Sa	0547	2.0	60		<b>3</b> Su	0534	3.6	110		<b>18</b> M	0618	2.0	60		<b>3</b> W	0624	3.3	100		<b>18</b> Th	0727	3.0	90	
	1042	20.7	630			1036	22.3	680			1035	20.7	630			1101	22.3	680			1112	21.3	650			1209	22.0	670	
	1757	3.9	120			1808	2.0	60			1752	3.9	120			1833	2.3	70			1844	3.3	100			1941	3.0	90	
	2256	21.0	640			2255	23.3	710			2249	21.0	640			2321	22.6	690			2329	21.3	650			2351	21.7	660	
<b>4</b> Sa	0611	3.3	100		<b>19</b> Su	0639	1.3	40		<b>4</b> M	0611	3.3	100		<b>19</b> Tu	0704	2.0	60		<b>4</b> Th	0705	3.3	100		<b>19</b> F	0030	21.3	650	
	1110	21.0	640			1118	23.0	700			1106	21.0	640			1143	22.3	680			1150	21.7	660			0804	3.3	100	
	1825	3.6	110			1856	1.6	50			1827	3.6	110			1918	2.0	60			1924	3.0	90			1249	22.0	670	
	2324	21.3	650			2337	23.3	710			2319	21.3	650			0004	22.3	680			0007	21.7	660			2019	3.3	100	
<b>5</b> Su	0641	3.3	100		<b>20</b> M	0725	1.0	30		<b>5</b> Tu	0647	3.3	100		<b>20</b> W	0744	2.3	70		<b>5</b> F	0744	3.3	100		<b>20</b> Sa	0837	3.9	120	
	1137	21.0	640			1159	23.0	700			1135	21.3	650			1224	22.3	680			1230	22.0	670			1329	21.7	660	
	1854	3.3	100			1938	1.3	40			1903	3.3	100			1958	2.3	70			2005	3.3	100			2053	3.6	110	
	2350	21.3	650			2019	23.3	710			2349	21.3	650			0045	22.0	670			0049	21.3	650			2150	21.0	640	
<b>6</b> M	0712	3.0	90		<b>21</b> Tu	0019	23.3	710		<b>6</b> W	0723	3.3	100		<b>21</b> Th	0822	2.6	80		<b>6</b> Sa	0824	3.3	100		<b>21</b> Su	0906	4.6	140	
	1202	21.0	640			0804	1.3	40			1206	21.3	650			1306	22.0	670			1314	21.7	660			1409	21.0	640	
	1925	3.3	100			1240	22.6	690			1939	3.3	100			2036	3.0	90			2046	3.3	100			2124	4.3	130	
	0014	21.3	650			2016	1.6	50			0021	21.3	650			0127	21.3	650			0134	21.0	640			0230	19.7	600	
<b>7</b> Tu	0743	3.0	90		<b>22</b> W	0841	2.0	60		<b>7</b> Th	0757	3.3	100		<b>22</b> F	0857	3.6	110		<b>7</b> Su	0905	3.6	110		<b>22</b> M	0932	5.2	160	
	1227	21.3	650			1323	22.3	680			1240	21.7	660			1349	21.3	650			1402	21.3	650			1450	20.3	620	
	1957	3.3	100			2054	2.6	80			2014	3.3	100			2113	3.6	110			2131	3.6	110			2156	4.9	150	
	0040	21.3	650			0144	22.0	670			0057	21.3	650			0210	20.7	630			0226	20.7	630			0314	19.0	580	
<b>8</b> W	0815	3.3	100		<b>23</b> Th	0916	3.0	90		<b>8</b> F	0831	3.6	110		<b>23</b> Sa	0930	4.6	140		<b>8</b> M	0950	4.3	130		<b>23</b> Tu	1004	5.6	170	
	1255	21.3	650			1407	21.3	650			1319	21.3	650			1433	20.7	630			1457	21.0	640			1533	19.4	590	
	2029	3.6	110			2131	3.6	110			2051	3.9	120			2149	4.6	140			2222	4.3	130			2233	5.6	170	
	0112	21.3	650			0230	20.7	630			0139	21.0	640			0257	19.7	600			0327	20.0	610			0403	18.4	560	
<b>9</b> Th	0846	3.6	110		<b>24</b> F	0953	4.6	140		<b>9</b> Sa	0909	4.3	130		<b>24</b> Su	1004	5.6	170		<b>9</b> Tu	1044	4.9	150		<b>24</b> W	1046	6.6	200	
	1330	21.3	650	</																									

## Dover, England, 2015

### Times and Heights of High and Low Waters

July				August				September																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0516	3.9	120		<b>16</b> Th	0630	3.6	110		<b>1</b> Sa	0636	3.0	90		<b>16</b> Su	0721	3.9	120		<b>1</b> Tu	0008	23.3	710		<b>16</b> W	0025	21.3	650	
	1012	21.0	640			1115	21.3	650			1121	22.6	690			1210	22.0	670			0752	2.0	60			0734	3.9	120	
	1740	3.6	110			1845	3.3	100			1902	2.3	70			1934	3.3	100			1231	24.0	730			1238	21.7	660	
	2230	21.3	650			2338	21.3	650			2342	22.3	680								2019	1.3	40			1952	3.6	110	
<b>2</b> Th	0604	3.3	100		<b>17</b> F	0710	3.6	110		<b>2</b> Su	0725	2.3	70		<b>17</b> M	0027	21.0	640		<b>2</b> W	0052	23.0	700		<b>17</b> Th	0046	21.0	640	
	1054	21.7	660			1153	21.7	660			1205	23.0	700			0744	3.9	120			0832	2.0	60			0802	3.9	120	
	1827	3.3	100			1925	3.3	100			1951	2.0	60			1243	21.7	660			1316	23.6	720			1258	21.3	650	
	2312	21.7	660								1958	3.6	110			1958	3.6	110			2058	1.6	50			2021	3.9	120	
<b>3</b> F	0650	3.0	90		<b>18</b> Sa	0015	21.3	650		<b>3</b> M	0026	22.6	690		<b>18</b> Tu	0057	21.0	640		<b>3</b> Th	0137	22.6	690		<b>18</b> F	0106	21.0	640	
	1136	22.0	670			0744	3.6	110			0810	2.3	70			0805	3.9	120			0911	2.3	70			0833	4.3	130	
	1913	2.6	80			1308	21.7	660			1250	23.3	710			1312	21.3	650			1402	23.0	700			1321	21.0	640	
	2355	22.0	670			1959	3.3	100			2035	1.6	50			2023	3.6	110			2137	2.6	80			2051	4.3	130	
<b>4</b> Sa	0736	3.0	90		<b>19</b> Su	0051	21.0	640		<b>4</b> Tu	0111	22.3	680		<b>19</b> W	0122	20.7	630		<b>4</b> F	0226	21.7	660		<b>19</b> Sa	0133	20.7	630	
	1219	22.3	680			0814	3.9	120			0851	2.3	70			0830	4.3	130			0951	3.3	100			0905	4.9	150	
	1959	2.6	80			1308	21.7	660			1336	23.3	710			1335	21.0	640			1452	22.0	670			1353	20.7	630	
						2029	3.6	110			2117	2.0	60			2050	3.9	120			2219	3.6	110			2124	5.2	160	
<b>5</b> Su	0039	22.0	670		<b>20</b> M	0126	20.7	630		<b>5</b> W	0159	22.0	670		<b>20</b> Th	0142	20.3	620		<b>5</b> Sa	0320	20.3	620		<b>20</b> Su	0210	20.0	610	
	0819	3.0	90			0837	4.3	130			0931	2.6	80			0900	4.6	140			1035	4.6	140			0940	5.9	180	
	1305	22.6	690			1343	21.3	650			1424	22.6	690			1357	20.7	630			1547	20.3	620			1434	19.7	600	
	2044	2.6	80			2055	3.9	120			2158	2.6	80			2121	4.6	140			2308	5.2	160			2202	6.2	190	
<b>6</b> M	0126	21.7	660		<b>21</b> Tu	0159	20.0	610		<b>6</b> Th	0249	21.3	650		<b>21</b> F	0208	19.7	600		<b>6</b> Su	0422	19.0	580		<b>21</b> M	0257	19.0	580	
	0902	3.0	90			0901	4.6	140			1013	3.3	100			0933	5.2	160			1131	6.2	190			1024	6.6	200	
	1352	22.3	680			1414	20.7	630			1516	21.7	660			1429	20.0	610			1652	19.0	580			1527	18.7	570	
	2128	2.6	80			2122	4.3	130			2243	3.6	110			2155	5.2	160								2253	7.2	220	
<b>7</b> Tu	0216	21.3	650		<b>22</b> W	0229	19.7	600		<b>7</b> F	0346	20.3	620		<b>22</b> Sa	0245	19.4	590		<b>7</b> M	0012	6.6	200		<b>22</b> Tu	0403	17.7	540	
	0945	3.3	100			0930	4.9	150			1100	4.6	140			1011	5.9	180			0534	18.0	550			1125	7.5	230	
	1443	22.0	670			1444	20.0	610			1613	20.3	620			1511	19.4	590			1244	7.2	220			1718	17.4	530	
	2214	3.3	100			2155	4.9	150			2336	4.9	150			2237	6.2	190			1811	18.0	550						
<b>8</b> W	0311	20.7	630		<b>23</b> Th	0301	19.0	580		<b>8</b> Sa	0451	19.0	580		<b>23</b> Su	0334	18.4	560		<b>8</b> Tu	0129	7.2	220		<b>23</b> W	0011	7.5	230	
	1032	3.9	120			1006	5.6	170			1159	5.6	170			1058	6.9	210			0702	17.7	540			0620	17.7	540	
	1539	21.0	640			1520	19.4	590			1719	19.4	590			1610	18.0	550			1405	6.9	210			1310	7.5	230	
	2305	3.9	120			2234	5.6	170								2332	7.2	220			1954	18.0	550			1855	18.0	550	
<b>9</b> Th	0413	20.0	610		<b>24</b> F	0343	18.0	550		<b>9</b> Su	0039	5.9	180		<b>24</b> M	0458	17.4	530		<b>9</b> W	0255	6.9	210		<b>24</b> Th	0159	7.2	220	
	1126	4.6	140			1050	6.6	200			0608	18.4	560			1208	7.5	230			0826	18.7	570			0729	18.7	570	
	1640	20.3	620			1610	18.4	560			1309	6.2	190			1758	17.7	540			1530	6.2	190			1433	6.2	190	
						2324	6.2	190			1839	18.4	560								2105	19.0	580			1959	19.4	590	
<b>10</b> F	0003	4.6	140		<b>25</b> Sa	0452	17.4	530		<b>10</b> M	0152	6.2	190		<b>25</b> Tu	0107	7.2	220		<b>10</b> Th	0414	5.9	180		<b>25</b> F	0309	5.6	170	
	0523	19.0	580			1147	7.2	220			0731	18.4	560			0650	17.4	530			0921	19.7	600			0826	20.0	610	
	1229	5.2	160			1722	17.7	540			1424	6.2	190			1349	7.2	220			1637	4.9	150			1538	4.9	150	
	1749	19.7	600								2006	18.7	570			1917	18.0	550			2153	20.0	610			2052	20.7	630	
<b>11</b> Sa	0108	5.2	160		<b>26</b> Su	0035	6.9	210		<b>11</b> Tu	0312	5.9	180		<b>26</b> W	0231	6.6	200		<b>11</b> F	0508	4.9	150		<b>26</b> Sa	0408	4.3	130	
	0642	18.7	570			0615	17.4	530			0844	19.0	580			0753	18.7	570			1002	20.7	630			0915	21.7	660	
	1337	5.6	170			1311	7.2	220			1544	5.6	170			1502	6.2	190			1726	3.9	120			1637	3.6	110	
	1907	19.4	590			1838	17.7	540			2116	19.4	590			2017	19.4	590			2229	20.7	630			2140	22.0	670	
<b>12</b> Su	0216	5.2	160		<b>27</b> M	0155	6.6	200		<b>12</b> W	0433	5.2	160		<b>27</b> Th	0334	5.2	160		<b>12</b> Sa	0549	4.3	130		<b>27</b> Su	0505	3.3	100	
	0754	19.0	580			0722	17.7	540			0939	19.7	600			0847	20.0	610			1038	21.7	660			1001	23.0	700	
	1446	5.6	170			1428	6.9	210			1654	4.6	140			1602	4.9	150			1805	3.6	110			1734	2.3	70	
	2020	19.4	590			1942	18.4	560			2208	20.0	610			2110	20.7	630			2300	21.3	650			2224	23.0	700	
<b>13</b> M	0330	4.9	150		<b>28</b> Tu	0301	5.9	180		<b>13</b> Th	0529	4.6	140		<b>28</b> F	0431	4.3	130		<b>13</b> Su	0624	3.9	120		<b>28</b> M	0558	2.6	80	
	0857	19.4	590			0817	18.7	570			1022	20.7	630			0935	21.3	650			1111	22.0	670			1044	23.6	720	
	1558	4.9	150			1531	5.6	170			1746	3.9	120			1659	3.6	110			1837	3.6	110			1827	1.6	50	
	2122	20.0	610			2037	19.4	590			2248	20																	

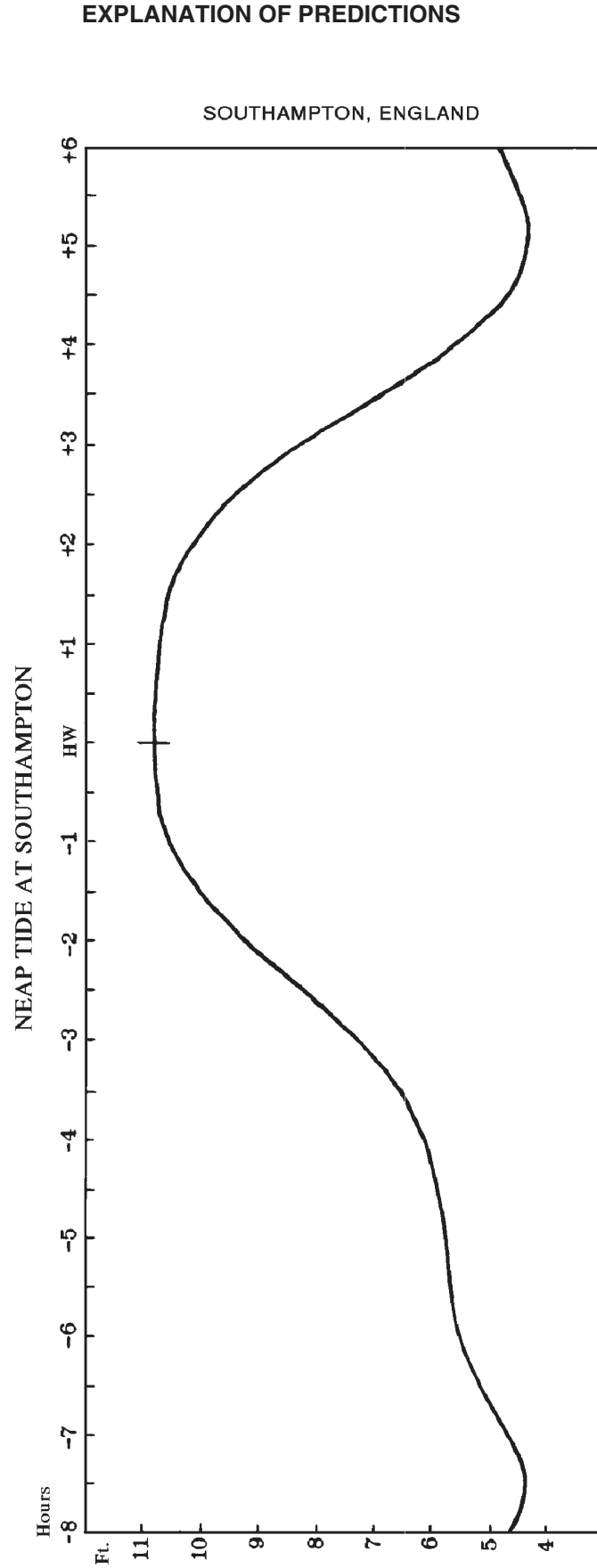
# Dover, England, 2015

## Times and Heights of High and Low Waters

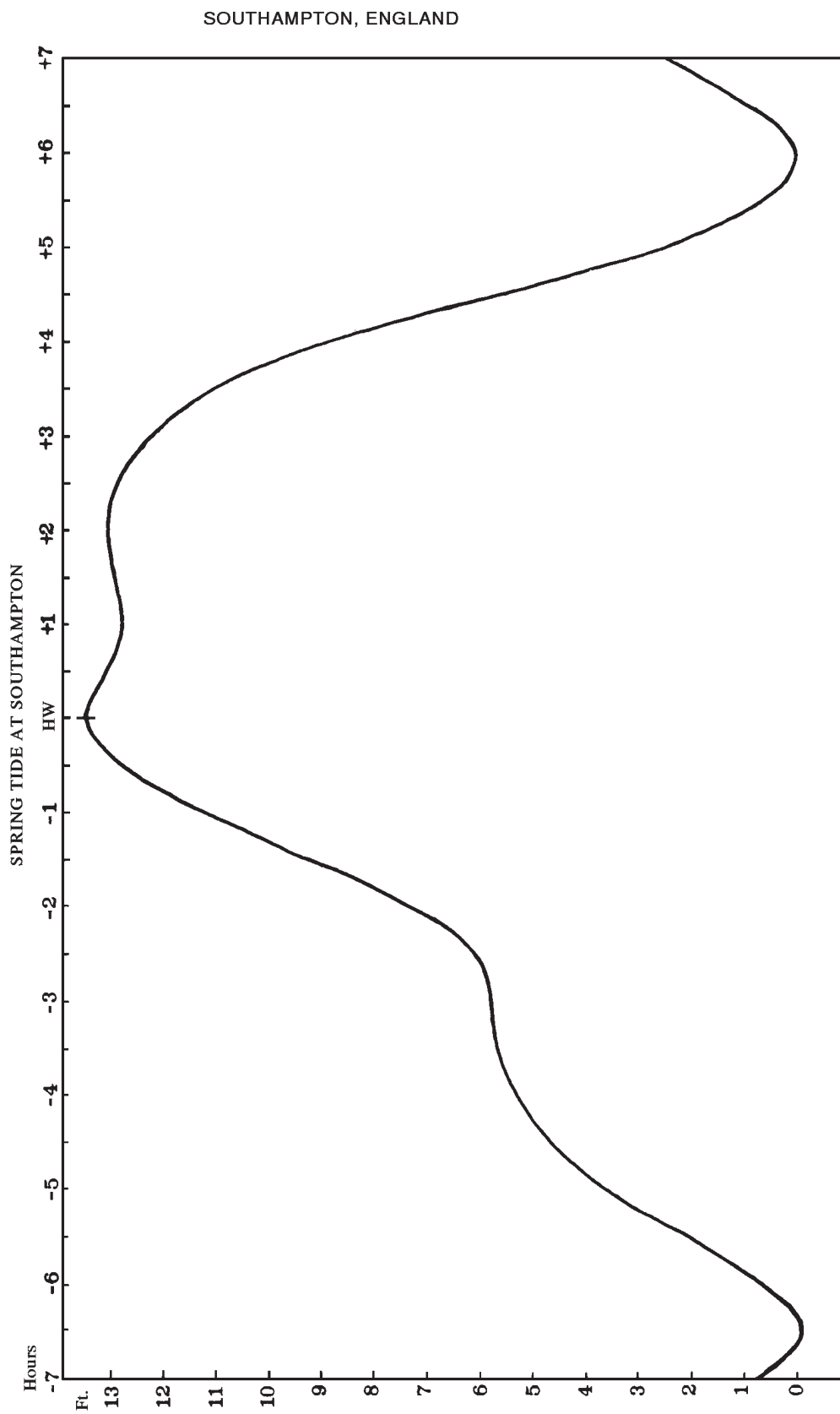
October				November				December																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Time	Height			Time	Height			Time	Height			Time	Height																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
<b>1</b> Th	0031	23.3	710		<b>16</b> F	0015	21.3	650		<b>1</b> Su	0143	22.0	670		<b>16</b> M	0055	21.7	660		<b>1</b> Tu	0211	21.3	650		<b>16</b> W	0131	21.7	660		<b>1</b> Th	0811	2.0	60		<b>17</b> Sa	0738	3.9	120		<b>2</b> M	0911	3.6	110		<b>17</b> Tu	0828	4.6	140		<b>2</b> W	0935	4.6	140		<b>17</b> Th	0902	3.9	120		<b>3</b> Sa	1227	21.3	650		<b>3</b> Su	1408	21.3	650		<b>3</b> Tu	1313	21.0	640		<b>3</b> Th	1436	20.0	610		<b>3</b> F	1352	21.0	640		<b>4</b> Su	2133	4.6	140		<b>4</b> Mo	2044	4.6	140		<b>4</b> Tu	2150	5.6	170		<b>4</b> W	2117	4.6	140																																																																																																																																																																																																																																																																																																																																																																																																																	
	1254	23.6	720			1227	21.3	650			1408	21.3	650			1313	21.0	640			1436	20.0	610			1352	21.0	640			2133	4.6	140			2044	4.6	140			2150	5.6	170			2117	4.6	140																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	2037	2.0	60			1955	3.9	120			2133	4.6	140			2044	4.6	140			2150	5.6	170			2117	4.6	140			0116	23.0	700			0039	21.3	650			0233	21.0	640			0136	21.0	640			0300	20.3	620			0220	21.3	650			0850	2.6	80			0810	4.3	130			0953	4.9	150			0907	4.9	150			1017	5.6	170			0947	4.6	140			1340	23.0	700			1254	21.3	650			1500	20.0	610		1358	20.3	620		1528	19.0	580		1445	20.3	620		2115	3.0	90		2027	4.3	130		2216	5.9	180		2124	5.2	160		2230	6.9	210		2204	4.9	150																																																																																																																																																																																																																																																																																																																																																																													
	0203	22.0	670			0109	21.3	650			0328	19.7	600			0226	20.3	620			0353	19.4	590			0317	20.7	630			0929	3.6	110			0843	4.9	150			1043	6.2	190			0952	5.6	170			1105	6.6	200			1040	4.9	150			1429	21.7	660			1328	21.0	640			1559	18.7	570			1454	19.4	590			1626	18.0	550			1550	19.4	590			2155	4.3	130			2100	4.9	150			2311	7.2	220		2213	6.2	190		2324	7.5	230		2301	5.6	170																																																																																																																																																																																																																																																																																																																																																																																																					
<b>2</b> F	0116	23.0	700		<b>17</b> Sa	0039	21.3	650		<b>3</b> Tu	0328	19.7	600		<b>18</b> W	0226	20.3	620		<b>3</b> Th	0353	19.4	590		<b>18</b> F	0317	20.7	630		<b>4</b> Su	0256	20.7	630		<b>19</b> M	0147	20.7	630		<b>4</b> W	0428	18.7	570		<b>19</b> Th	0330	19.4	590		<b>4</b> F	0452	18.4	560		<b>19</b> Sa	0424	20.0	610		<b>5</b> M	1106	6.2	190		<b>20</b> Tu	1003	6.2	190		<b>5</b> Th	0023	8.2	250		<b>20</b> F	1207	6.6	200		<b>5</b> Sa	0035	7.9	240		<b>20</b> Su	0541	19.7	600		<b>6</b> Tu	1218	7.5	230		<b>21</b> W	1102	7.2	220		<b>6</b> Sa	0624	19.4	590		<b>6</b> Su	0706	18.4	560		<b>6</b> Th	0706	18.4	560		<b>6</b> M	1405	5.2	160		<b>7</b> W	1740	17.7	540		<b>22</b> Th	1640	18.0	550		<b>7</b> Sa	0247	7.2	220		<b>7</b> Su	0203	5.9	180		<b>7</b> M	0246	6.9	210		<b>7</b> Tu	0235	5.6	170		<b>8</b> Th	0502	18.4	560		<b>23</b> F	0543	18.0	550		<b>8</b> Sa	0247	7.2	220		<b>8</b> Su	0731	20.0	610		<b>8</b> M	0804	19.0	580		<b>8</b> W	0804	20.3	620		<b>8</b> Th	1218	7.5	230		<b>24</b> Sa	1831	18.4	560		<b>9</b> M	0805	19.0	580		<b>9</b> Tu	0804	19.0	580		<b>9</b> W	1509	5.9	180		<b>9</b> Th	1924	17.7	540		<b>25</b> Su	1514	5.9	180		<b>9</b> Sa	2044	19.0	580		<b>9</b> M	2008	20.3	620		<b>9</b> Tu	2035	19.0	580		<b>9</b> W	2035	19.0	580		<b>9</b> Th	0102	7.9	240		<b>26</b> M	0543	18.0	550		<b>10</b> Sa	0805	19.0	580		<b>10</b> Su	0804	20.3	620		<b>10</b> M	0804	20.3	620		<b>10</b> Tu	0621	19.4	590		<b>10</b> W	0804	20.3	620		<b>10</b> Th	0621	19.4	590		<b>10</b> F	0621	19.4	590		<b>10</b> Sa	0621	19.4	590		<b>11</b> Su	0805	19.0	580		<b>27</b> M	0805	19.0	580		<b>11</b> M	0805	19.0	580		<b>11</b> Tu	0805	19.0	580		<b>11</b> W	0805	19.0	580		<b>11</b> Th	0805	19.0	580		<b>11</b> F	0805	19.0	580		<b>11</b> Sa	0805	19.0	580		<b>11</b> Su	0805	19.0	580		<b>12</b> M	0805	19.0	580		<b>12</b> Tu	0805	19.0	580		<b>12</b> W	0805	19.0	580		<b>12</b> Th	0805	19.0	580		<b>12</b> F	0805	19.0	580		<b>12</b> Sa	0805	19.0	580		<b>12</b> Su	0805	19.0	580		<b>13</b> M	0805	19.0	580		<b>13</b> Tu	0805	19.0	580		<b>13</b> W	0805	19.0	580		<b>13</b> Th	0805	19.0	580		<b>13</b> F	0805	19.0	580		<b>13</b> Sa	0805	19.0	580		<b>13</b> Su	0805	19.0	580		<b>14</b> M	0805	19.0	580		<b>14</b> Tu	0805	19.0	580		<b>14</b> W	0805	19.0	580		<b>14</b> Th	0805	19.0	580		<b>14</b> F	0805	19.0	580		<b>14</b> Sa	0805	19.0	580		<b>14</b> Su	0805	19.0	580		<b>15</b> M	0805	19.0	580		<b>15</b> Tu	0805	19.0	580		<b>15</b> W	0805	19.0	580		<b>15</b> Th	0805	19.0	580		<b>15</b> F	0805	19.0	580		<b>15</b> Sa	0805	19.0	580		<b>15</b> Su	0805	19.0	580		<b>16</b> M	0805	19.0	580		<b>16</b> Tu	0805	19.0	580		<b>16</b> W	0805	19.0	580		<b>16</b> Th	0805	19.0	580		<b>16</b> F	0805	19.0	580		<b>16</b> Sa	0805	19.0	580		<b>16</b> Su	0805	19.0	580	

Time meridian 0°. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

A double high water occurs at Southampton. The tidal curves at both neaps and springs are represented by the diagram below and the one on page 77. The predictions for Southampton given on pages 78-81 contain only the first high water and the corresponding low water. The time and height of the other high water may be taken from the appropriate tidal diagram if required.









# Southampton, England, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0226	4.9	150	<b>16</b> Th	0215	3.6	110	<b>1</b> F	0237	4.6	140	<b>16</b> Sa	0238	3.0	90	<b>1</b> M	0317	3.6	110	<b>16</b> Tu	0351	2.3	70
	0855	12.8	390		0856	14.1	430		0915	13.1	400		0915	14.4	440		1012	14.1	430		1033	14.4	440
	1445	3.9	120		1437	2.6	80		1454	3.9	120		1458	2.3	70		1536	3.6	110		1612	2.6	80
	2126	13.5	410		2125	15.1	460		2139	13.8	420		2142	15.4	470		2226	14.4	440		●	2251	14.8
<b>2</b> Th	0310	3.9	120	<b>17</b> F	0303	2.3	70	<b>2</b> Sa	0317	3.6	110	<b>17</b> Su	0325	2.0	60	<b>2</b> Tu	0356	3.0	90	<b>17</b> W	0436	2.0	60
	0947	13.5	410		0934	15.1	460		0956	13.8	420		0957	14.8	450		1047	14.4	440		1121	14.4	440
	1528	3.3	100		1523	1.6	50		1534	3.3	100		1545	1.6	50		1615	3.0	90		1656	2.6	80
	2214	14.1	430		2200	15.4	470		2217	14.4	440		2221	15.4	470		2259	14.8	450		2333	14.8	450
<b>3</b> F	0351	3.0	90	<b>18</b> Sa	0348	1.3	40	<b>3</b> Su	0354	3.0	90	<b>18</b> M	0410	1.3	40	<b>3</b> W	0435	2.3	70	<b>18</b> Th	0520	2.0	60
	1024	13.8	420		1014	15.4	470		1035	14.1	430		1041	14.8	450		1120	14.8	450		1210	14.4	440
	1609	2.6	80		1608	0.7	20		1611	3.0	90		1629	1.6	50		1655	2.6	80		1741	2.6	80
	2248	14.4	440		●	2240	15.7		480	2253	14.4		440	●	2303		15.4	470	2332		15.1	460	
<b>4</b> Sa	0428	2.6	80	<b>19</b> Su	0430	0.7	20	<b>4</b> M	0428	2.6	80	<b>19</b> Tu	0453	1.3	40	<b>4</b> Th	0514	2.3	70	<b>19</b> F	0014	14.4	440
	1101	14.1	430		1057	15.4	470		1110	14.4	440		1127	14.8	450		1155	14.8	450		0603	2.3	70
	1645	2.3	70		1650	0.3	10		1644	2.6	80		1712	1.6	50		1734	2.6	80		1245	14.1	430
	2323	14.4	440		2322	15.7	480		2325	14.8	450		2347	15.1	460				1823		3.0	90	
<b>5</b> Su	0501	2.6	80	<b>20</b> M	0512	0.3	10	<b>5</b> Tu	0459	2.6	80	<b>20</b> W	0535	1.3	40	<b>5</b> F	0010	15.1	460	<b>20</b> Sa	0056	14.1	430
	1136	14.4	440		1142	15.4	470		1141	14.4	440		1215	14.8	450		0555	2.0	60		0643	2.6	80
	1716	2.6	80		1732	0.7	20		1716	2.6	80		1756	2.0	60		1235	15.1	460		1323	14.1	430
	2353	14.4	440						2354	14.8	450						1816	2.6	80		1905	3.6	110
<b>6</b> M	0528	2.6	80	<b>21</b> Tu	0005	15.4	470	<b>6</b> W	0532	2.3	70	<b>21</b> Th	0031	14.8	450	<b>6</b> Sa	0051	15.1	460	<b>21</b> Su	0138	13.8	420
	1205	14.4	440		0554	0.7	20		1212	14.8	450		0618	2.0	60		0636	2.3	70		0723	3.3	100
	1742	2.6	80		1228	15.1	460		1749	2.6	80		1308	14.4	440		1319	15.1	460		1405	13.8	420
					1814	1.3	40						1839	2.6	80		1859	3.0	90		1944	4.3	130
<b>7</b> Tu	0019	14.8	450	<b>22</b> W	0050	15.1	460	<b>7</b> Th	0027	14.8	450	<b>22</b> F	0117	14.1	430	<b>7</b> Su	0137	14.8	450	<b>22</b> M	0222	13.5	410
	0554	2.6	80		0635	1.3	40		0607	2.3	70		0700	2.6	80		0721	2.6	80		0801	3.9	120
	1233	14.4	440		1319	14.4	440		1249	14.8	450		1348	14.1	430		1409	14.8	450		1500	13.8	420
	1809	2.6	80		1857	2.3	70		1825	3.0	90		1923	3.6	110		1947	3.6	110		2024	4.9	150
<b>8</b> W	0049	14.8	450	<b>23</b> Th	0141	14.4	440	<b>8</b> F	0106	14.8	450	<b>23</b> Sa	0207	13.8	420	<b>8</b> M	0228	14.4	440	<b>23</b> Tu	0311	13.1	400
	0624	2.3	70		0718	2.3	70		0645	2.3	70		0743	3.6	110		0811	3.3	100		0841	4.6	140
	1307	14.8	450		1407	14.1	430		1332	14.8	450		1433	13.8	420		1506	14.4	440		1525	13.5	410
	1841	2.6	80		1941	3.3	100		1906	3.3	100		2008	4.6	140		2042	4.3	130		2107	5.6	170
<b>9</b> Th	0125	14.8	450	<b>24</b> F	0247	13.8	420	<b>9</b> Sa	0150	14.4	440	<b>24</b> Su	0303	13.1	400	<b>9</b> Tu	0327	13.8	420	<b>24</b> W	0405	12.8	390
	0700	2.3	70		0802	3.6	110		0728	3.0	90		0829	4.3	130		0909	3.9	120		0928	5.2	160
	1348	14.4	440		1457	13.5	410		1421	14.4	440		1516	13.5	410		1613	14.1	430		1542	12.5	380
	1919	3.0	90		2030	4.6	140		1952	3.9	120		2059	5.6	170		●	2145	4.9		150	●	2158
<b>10</b> F	0208	14.4	440	<b>25</b> Sa	0302	12.8	390	<b>10</b> Su	0241	14.1	430	<b>25</b> M	0358	12.8	390	<b>10</b> W	0435	13.5	410	<b>25</b> Th	0505	12.1	370
	0741	3.0	90		0855	4.6	140		0817	3.6	110		0922	5.2	160		1017	4.6	140		1023	5.9	180
	1435	14.1	430		1539	12.8	390		1518	13.8	420		1644	13.1	400		1706	13.8	420		1747	12.8	390
	2003	3.9	120		●	2130	5.9		180	2048	4.9		150	●	2156		6.2	190	2257		5.2	160	2256
<b>11</b> Sa	0257	13.8	420	<b>26</b> Su	0439	12.5	380	<b>11</b> M	0342	13.5	410	<b>26</b> Tu	0452	12.1	370	<b>11</b> Th	0600	13.1	400	<b>26</b> F	0612	12.1	370
	0829	3.9	120		0959	5.6	170		0920	4.6	140		1020	5.9	180		1128	4.6	140		1123	6.2	190
	1530	13.5	410		1718	12.8	390		1628	13.5	410		1731	12.8	390		1804	13.8	420		1846	12.8	390
	2056	4.9	150		2239	6.6	200		●	2203	5.6		170	2257	6.6		200				2355	6.2	190
<b>12</b> Su	0356	13.1	400	<b>27</b> M	0530	11.8	360	<b>12</b> Tu	0455	12.8	390	<b>27</b> W	0548	12.1	370	<b>12</b> F	0009	4.9	150	<b>27</b> Sa	0720	12.1	370
	0929	4.9	150		1108	6.2	190		1042	4.9	150		1122	6.2	190		0643	13.1	400		1223	5.9	180
	1638	12.8	390		1809	12.5	380		1732	13.1	400		1825	12.8	390		1237	4.6	140		1947	13.1	400
	●	2212	6.2		190	2350	6.6		200	2328	5.6		170				1919	14.1	430				
<b>13</b> M	0512	12.5	380	<b>28</b> Tu	0627	11.8	360	<b>13</b> W	0606	12.8	390	<b>28</b> Th	0000	6.6	200	<b>13</b> Sa	0117	4.6	140	<b>28</b> Su	0054	5.9	180
	1103	5.6	170		1216	5.9	180		1202	4.9	150		0649	11.8	360		0816	13.8	420		0824	12.8	390
	1745	12.5	380		1910	12.5	380		1835	13.5	410		1223	5.9	180		1340	3.9	120		1321	5.6	170
	2356	6.2	190								1924		12.8	390	2047		14.4	440	2042		13.5	410	
<b>14</b> Tu	0622	12.5	380	<b>29</b> W	0056	6.2	190	<b>14</b> Th	0044	4.9	150	<b>29</b> F	0101	5.9	180	<b>14</b> Su	0214	3.6	110	<b>29</b> M	0151	4.9	150
	1235	5.2	160		0730	11.8	360		0658	13.1	400		0751	12.5	380		0902	14.1	430		0916	13.1	400
	1902	13.1	400		1317	5.6	170		1311	4.3	130		1321	5.6	170		1435	3.6	110		1415	4.9	150
					2002	12.8	390		1936	14.1	430		2020	13.1	400		2127	14.8	450		2126	14.1	430
<b>15</b> W	0118	5.2	160	<b>30</b> Th	0151	5.6	170	<b>15</b> F	0146	3.9	120	<b>30</b> Sa	0153	5.2	160	<b>15</b> M	0304	3.0	90	<b>30</b> Tu	0242	4.3	130
	0730	13.1	400		0829	12.5	380		0834	14.1	430		0846	12.8	390		0947	14.1	430		0956	13.8	420
	1344	3.9	120		1409	4.6	140		1408	3.3	100		1411	4.9	150		1525	3.0	90		1505	3.9	

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## Times and Heights of High and Low Waters

July				August				September																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0330	3.3	100		<b>16</b> Th	0421	2.3	70		<b>1</b> Sa	0446	1.3	40		<b>16</b> Su	0525	2.0	60		<b>1</b> Tu	0554	0.3	10		<b>16</b> W	0016	14.4	440	
	1029	14.4	440			1114	14.1	430			1121	15.4	470			1211	14.4	440			1225	16.1	490			0605	3.3	100	
	1552	3.3	100			1642	3.0	90			1708	1.6	50			1745	3.0	90			1816	1.0	30			1237	14.8	450	
	2238	14.8	450			2318	14.4	440			2335	15.7	480								1858	1.6	50			1814	3.6	110	
<b>2</b> Th	0415	2.3	70		<b>17</b> F	0504	2.0	60		<b>2</b> Su	0530	0.7	20		<b>17</b> M	0010	14.1	430		<b>2</b> W	0042	16.1	490		<b>17</b> Th	0044	14.4	440	
	1102	14.8	450			1158	14.4	440			1202	15.7	480			0603	2.6	80			0636	0.7	20			0623	3.6	110	
	1637	2.6	80			1725	2.6	80			1752	1.3	40			1242	14.4	440			1311	15.7	480			1303	14.4	440	
	2314	15.1	460			2357	14.1	430			1820	3.3	100			1858	1.6	50			1858	1.6	50			1834	3.6	110	
<b>3</b> F	0500	1.6	50		<b>18</b> Sa	0546	2.3	70		<b>3</b> M	0018	15.7	480		<b>18</b> Tu	0043	14.1	430		<b>3</b> Th	0130	15.4	470		<b>18</b> F	0114	14.4	440	
	1139	15.1	460			1241	14.4	440			0614	0.7	20			0634	3.0	90			0718	1.6	50			0647	3.6	110	
	1722	2.3	70			1806	3.0	90			1246	15.7	480			1310	14.4	440			1403	15.1	460			1334	14.4	440	
	2354	15.4	470								1835	1.3	40			1847	3.9	120			1942	2.6	80			1904	3.6	110	
<b>4</b> Sa	0544	1.6	50		<b>19</b> Su	0033	14.1	430		<b>4</b> Tu	0103	15.7	480		<b>19</b> W	0114	14.1	430		<b>4</b> F	0225	14.8	450		<b>19</b> Sa	0151	14.4	440	
	1221	15.4	470			0625	2.6	80			0656	1.0	30			0657	3.6	110			0804	3.0	90			0721	3.9	120	
	1806	2.3	70			1316	14.1	430			1334	15.4	470			1338	14.1	430			1515	14.4	440			1413	14.4	440	
						1844	3.3	100			1919	2.0	60			1907	3.9	120			2030	3.6	110			1942	3.9	120	
<b>5</b> Su	0036	15.4	470		<b>20</b> M	0110	14.1	430		<b>5</b> W	0152	15.1	460		<b>20</b> Th	0146	14.1	430		<b>5</b> Sa	0347	13.8	420		<b>20</b> Su	0234	14.1	430	
	0628	1.6	50			0700	3.3	100			0740	1.6	50			0719	3.9	120			0857	4.3	130			0802	4.6	140	
	1305	15.4	470			1348	14.1	430			1426	15.1	460			1409	14.1	430			1608	13.8	420			1458	13.8	420	
	1851	2.3	70			1917	3.9	120			2005	2.6	80			1936	4.3	130			2130	4.9	150			2027	4.9	150	
<b>6</b> M	0122	15.1	460		<b>21</b> Tu	0147	13.8	420		<b>6</b> Th	0247	14.4	440		<b>21</b> F	0223	13.8	420		<b>6</b> Su	0426	13.1	400		<b>21</b> M	0325	13.5	410	
	0712	1.6	50			0730	3.6	110			0828	3.0	90			0752	4.3	130			1003	5.6	170			0851	5.6	170	
	1353	15.1	460			1421	14.1	430			1533	14.4	440			1448	13.8	420			1706	13.5	410			1553	13.1	400	
	1937	2.6	80			1946	4.6	140			2056	3.9	120			2014	4.6	140			2246	5.9	180			2124	5.9	180	
<b>7</b> Tu	0212	14.8	450		<b>22</b> W	0225	13.5	410		<b>7</b> F	0356	13.8	420		<b>22</b> Sa	0306	13.5	410		<b>7</b> M	0603	12.8	390		<b>22</b> Tu	0425	12.8	390	
	0759	2.3	70			0758	4.3	130			0922	3.9	120			0834	4.9	150			1123	6.6	200			1000	6.6	200	
	1448	14.8	450			1458	13.8	420			1627	14.1	430			1534	13.5	410			1827	12.8	390			1659	12.5	380	
	2026	3.3	100			2017	4.9	150			2157	4.9	150			2103	5.2	160								2255	6.6	200	
<b>8</b> W	0308	14.1	430		<b>23</b> Th	0305	13.1	400		<b>8</b> Sa	0442	13.1	400		<b>23</b> Su	0357	12.8	390		<b>8</b> Tu	0005	6.2	190		<b>23</b> W	0539	12.5	380	
	0851	3.3	100			0834	4.9	150			1029	5.2	160			0928	5.9	180			0714	12.5	380			1143	6.9	210	
	1553	14.4	440			1539	13.5	410			1716	13.5	410			1627	13.1	400			1237	6.6	200			1809	12.5	380	
	2122	4.3	130			2059	5.2	160			2311	5.6	170			2208	6.2	190			1935	12.8	390						
<b>9</b> Th	0414	13.8	420		<b>24</b> F	0351	12.8	390		<b>9</b> Su	0632	13.1	400		<b>24</b> M	0456	12.1	370		<b>9</b> W	0112	5.9	180		<b>24</b> Th	0026	6.2	190	
	0950	3.9	120			0921	5.6	170			1145	5.9	180			1044	6.6	200			0757	12.8	390			0653	12.8	390	
	1645	14.1	430			1626	13.1	400			1903	13.5	410			1734	12.5	380			1339	5.9	180			1306	6.2	190	
	2227	4.9	150			2155	5.9	180								2329	6.2	190			2020	12.8	390			1940	13.5	410	
<b>10</b> F	0540	13.5	410		<b>25</b> Sa	0445	12.1	370		<b>10</b> M	0029	5.6	170		<b>25</b> Tu	0600	12.1	370		<b>10</b> Th	0207	4.9	150		<b>25</b> F	0138	4.9	150	
	1057	4.9	150			1023	6.2	190			0741	12.8	390			1207	6.6	200			0902	13.1	400			0812	13.8	420	
	1756	13.8	420			1727	12.8	390			1259	5.9	180			1827	12.5	380			1431	4.9	150			1409	4.6	140	
	2338	5.2	160			2301	6.2	190			2006	13.5	410								2120	13.5	410			2103	14.4	440	
<b>11</b> Sa	0659	13.1	400		<b>26</b> Su	0539	11.8	360		<b>11</b> Tu	0136	5.2	160		<b>26</b> W	0046	5.9	180		<b>11</b> F	0255	3.9	120		<b>26</b> Sa	0234	3.3	100	
	1209	5.2	160			1132	6.2	190			0902	13.1	400			0658	12.1	370			0952	13.8	420			0934	15.1	460	
	1848	13.8	420			1740	12.1	370			1401	5.2	160			1322	5.9	180			1517	3.9	120			1500	3.3	100	
											2102	13.5	410			1956	13.1	400			2201	13.8	420			2134	15.4	470	
<b>12</b> Su	0051	4.9	150		<b>27</b> M	0007	6.2	190		<b>12</b> W	0231	4.6	140		<b>27</b> Th	0156	4.9	150		<b>12</b> Sa	0339	3.0	90		<b>27</b> Su	0322	2.0	60	
	0800	13.1	400			0620	11.8	360			0926	13.5	410			0830	13.5	410			1040	14.1	430			1002	15.7	480	
	1317	4.9	150			1239	6.2	190			1454	4.6	140			1426	4.6	140			1601	3.3	100			1545	2.0	60	
	2028	14.1	430			1904	12.5	380			2143	13.8	420			2125	14.4	440			2234	14.1	430			2212	16.1	490	
<b>13</b> M	0154	4.6	140		<b>28</b> Tu	0113	5.6	170		<b>13</b> Th	0318	3.6	110		<b>28</b> F	0254	3.3	100		<b>13</b> Su	0420	2.6	80		<b>28</b> M	0407	1.0	30	
	0854	13.5	410			0754	12.5	380			1023	13.8	420			0954	14.8	450			1107	14.4	440			1039	16.4	500	
	1417	4.6	140			1344	5.6	170			1540	3.6	110			1519	3.3	100			1641	2.6	80			1630	1.0	30	
	2114	14.1	430			2012	13.5	410			2221																		

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## Times and Heights of High and Low Waters

October				November				December																		
	Time		Height	Time	Height		Time	Height	Time	Height		Time	Height													
	h	m			ft	cm				h	m		ft	cm	h	m	ft	cm								
<b>1</b> Th	0021	16.1	490	<b>16</b> F	0018	14.8	450	<b>1</b> Su	0147	14.8	450	<b>16</b> M	0110	15.1	460	<b>1</b> Tu	0215	14.1	430	<b>16</b> W	0141	15.1	460			
	0614	1.0	30		0554	3.6	110		0721	3.6	110		0643	3.9	120		0749	4.6	140		0718	3.6	110			
	1249	15.7	480		1234	14.8	450		1415	14.4	440		1327	14.8	450		1440	13.8	420		1400	14.8	450	1400	14.8	450
	1835	1.6	50		1807	3.3	100		1944	3.9	120		1903	3.6	110		2012	4.6	140		2012	4.6	140	1940	3.3	100
<b>2</b> F	0109	15.4	470	<b>17</b> Sa	0049	14.8	450	<b>2</b> M	0243	14.1	430	<b>17</b> Tu	0154	14.8	450	<b>2</b> W	0302	13.8	420	<b>17</b> Th	0232	14.8	450			
	0656	2.0	60		0622	3.6	110		0811	4.9	150		0725	4.3	130		0840	5.6	170		0807	4.3	130			
	1339	15.1	460		1307	14.8	450		1538	13.8	420		1414	14.4	440		1540	13.1	400		1453	14.4	440	1453	14.4	440
	1919	2.6	80		1839	3.3	100		2037	4.9	150		1948	4.3	130		2104	5.2	160		2031	3.9	120			
<b>3</b> Sa	0205	14.8	450	<b>18</b> Su	0127	14.8	450	<b>3</b> Tu	0342	13.5	410	<b>18</b> W	0246	14.1	430	<b>3</b> Th	0430	13.5	410	<b>18</b> F	0330	14.4	440			
	0741	3.3	100		0658	3.9	120		0911	5.9	180		0815	5.2	160		0937	6.2	190		0904	4.9	150			
	1450	14.4	440		1346	14.8	450		1625	13.1	400		1509	13.8	420		1635	12.8	390		1553	13.8	420	1553	13.8	420
	2005	3.9	120		1918	3.9	120		2142	5.9	180		2043	4.9	150		2205	6.2	190		2133	4.9	150			
<b>4</b> Su	0316	14.1	430	<b>19</b> M	0210	14.4	440	<b>4</b> W	0502	13.1	400	<b>19</b> Th	0348	13.8	420	<b>4</b> F	0513	13.1	400	<b>19</b> Sa	0439	14.1	430			
	0833	4.6	140		0739	4.6	140		1020	6.6	200		0920	6.2	190		1042	6.9	210		1015	5.6	170			
	1536	13.8	420		1432	14.1	430		1714	12.5	380		1615	13.5	410		1729	12.5	380		1705	13.5	410	1705	13.5	410
	2103	5.2	160		2002	4.6	140		2253	6.6	200		2158	5.9	180		2309	6.6	200		2248	5.2	160			
<b>5</b> M	0355	13.1	400	<b>20</b> Tu	0302	13.8	420	<b>5</b> Th	0550	12.8	390	<b>20</b> F	0503	13.5	410	<b>5</b> Sa	0604	13.1	400	<b>20</b> Su	0535	13.8	420			
	0938	5.9	180		0828	5.6	170		1130	6.9	210		1049	6.6	200		1148	6.9	210		1134	5.6	170			
	1701	13.1	400		1527	13.5	410		1807	12.1	370		1735	13.1	400		1827	12.1	370		1800	13.1	400	1800	13.1	400
	2217	6.2	190		2057	5.6	170		2358	6.6	200		2327	5.9	180											
<b>6</b> Tu	0533	12.8	390	<b>21</b> W	0404	13.1	400	<b>6</b> F	0649	12.8	390	<b>21</b> Sa	0600	13.5	410	<b>6</b> Su	0012	6.6	200	<b>21</b> M	0006	5.2	160			
	1056	6.9	210		0934	6.6	200		1232	6.6	200		1211	5.9	180		0702	13.1	400		0633	13.8	420			
	1750	12.5	380		1635	12.8	390		1908	12.1	370		1833	13.5	410		1249	6.6	200		1248	5.2	160			
	2333	6.6	200		2225	6.6	200										1929	12.5	380		1859	13.5	410			
<b>7</b> W	0631	12.5	380	<b>22</b> Th	0526	12.8	390	<b>7</b> Sa	0057	5.9	180	<b>22</b> Su	0040	5.2	160	<b>7</b> M	0109	6.2	190	<b>22</b> Tu	0114	4.6	140			
	1207	6.9	210		1120	6.9	210		0732	13.1	400		0712	14.1	430		0800	13.5	410		0829	14.8	450			
	1849	12.5	380		1800	12.8	390		1329	5.9	180		1316	4.9	150		1341	5.9	180		1349	4.3	130			
									2002	12.8	390		2016	14.1	430		2029	12.8	390		2040	14.1	430			
<b>8</b> Th	0038	6.2	190	<b>23</b> F	0001	5.9	180	<b>8</b> Su	0150	5.2	160	<b>23</b> M	0140	4.3	130	<b>8</b> Tu	0159	5.6	170	<b>23</b> W	0211	3.9	120			
	0720	12.5	380		0622	13.1	400		0831	13.5	410		0802	14.8	450		0852	13.8	420		0908	15.1	460			
	1309	6.2	190		1243	5.9	180		1417	4.9	150		1411	3.6	110		1426	4.9	150		1441	3.3	100			
	1946	12.5	380		1922	13.5	410		2102	13.5	410		2053	14.8	450		2119	13.5	410		2125	14.4	440			
<b>9</b> F	0135	5.6	170	<b>24</b> Sa	0112	4.9	150	<b>9</b> M	0236	4.6	140	<b>24</b> Tu	0232	3.3	100	<b>9</b> W	0243	4.9	150	<b>24</b> Th	0302	3.3	100			
	0820	13.1	400		0756	14.1	430		0929	14.1	430		0921	15.7	480		0936	14.4	440		0948	15.1	460			
	1402	5.6	170		1345	4.9	150		1501	4.3	130		1500	2.6	80		1506	4.3	130		1530	2.6	80			
	2254	13.8	420		2039	14.4	440		2141	14.1	430		2134	15.4	470		2202	14.1	430		2210	14.8	450			
<b>10</b> Sa	0224	4.6	140	<b>25</b> Su	0209	3.6	110	<b>10</b> Tu	0318	3.9	120	<b>25</b> W	0320	2.3	70	<b>10</b> Th	0323	4.3	130	<b>25</b> F	0350	3.0	90			
	0910	13.8	420		0912	15.1	460		1003	14.8	450		0959	15.7	480		1017	14.8	450		1030	15.4	470			
	1450	4.6	140		1436	3.3	100		1540	3.6	110		1546	2.0	60		1544	3.6	110		1615	2.0	60			
	2137	13.8	420		2112	15.1	460		2220	14.4	440		2217	15.4	470		2241	14.4	440		2256	14.8	450			
<b>11</b> Su	0309	3.6	110	<b>26</b> M	0257	2.6	80	<b>11</b> W	0357	3.6	110	<b>26</b> Th	0406	2.0	60	<b>11</b> F	0401	3.9	120	<b>26</b> Sa	0436	2.6	80			
	1003	14.4	440		0940	15.7	480		1040	15.1	460		1041	16.1	490		1052	15.1	460		1113	15.1	460			
	1533	3.6	110		1522	2.3	70		1616	3.3	100		1631	1.6	50		1621	3.3	100		1700	1.6	50			
	2208	14.1	430		2151	15.7	480		2258	14.8	450		2302	15.4	470		2313	14.8	450		2342	14.8	450			
<b>12</b> M	0351	3.0	90	<b>27</b> Tu	0343	1.6	50	<b>12</b> Th	0432	3.6	110	<b>27</b> F	0450	2.0	60	<b>12</b> Sa	0439	3.6	110	<b>27</b> Su	0520	2.6	80			
	1035	14.8	450		1017	16.4	500		1115	15.1	460		1124	15.7	480		1123	15.1	460		1155	15.1	460			
	1613	3.0	90		1607	1.3	40		1648	3.3	100		1714	1.6	50		1658	3.0	90		1743	2.0	60			
	2244	14.4	440		2233	16.1	490		2330	14.8	450		2348	15.4	470		2343	14.8	450							
<b>13</b> Tu	0430	3.0	90	<b>28</b> W	0426	1.0	30	<b>13</b> F	0502	3.6	110	<b>28</b> Sa	0534	2.3	70	<b>13</b> Su	0516	3.3	100	<b>28</b> M	0028	14.8	450			
	1109	14.8	450		1058	16.4	500		1144	15.1	460		1208	15.4	470		1155	15.1	460		0604	2.6	80			
	1649	3.0	90		1650	1.0	30		1717	3.3	100		1758	2.0	60		1735	2.6	80		1236	14.8	450			
	2320	14.8	450		2316	16.1	490		2359	14.8	450								1826		2.3	70				
<b>14</b> W	0505	3.0	90	<b>29</b> Th	0509	1.0	30	<b>14</b> Sa	0532	3.6	110	<b>29</b> Su	0037	15.1	460	<b>14</b> M	0017	15.1	460	<b>29</b> Tu	0114	14.4	440			
	1141	14.8	450		1141	16.1	490		1213	15.1	460		0619	2.6	80		0554	3.3	100		0645	3.3	100			
	1719	3.3	100		1732	1.0	30		1748	3.3	100		1255	15.1	460		1232	15.4	470		1319	14.4	440			
	2351	14.8	450								1841		2.6	80	1814		2.6	80	1906		3.0	90				
<b>15</b> Th	0532	3.3	100	<b>30</b> F	0002	15.7	480	<b>15</b> Su	0031	15.1	460	<b>30</b> M	0132	14.8	450	<b>15</b> Tu	0056	15.1	460	<b>30</b> W	0202	14.4	440			
	1208	14.8	450		0552	1.6	50		0605	3.6	110		0703	3.6	110		0635	3.3	100		07					

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## Times and Heights of High and Low Waters

January				February				March																										
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																					
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																				
<b>1</b> Th	0208	7.9	240		<b>16</b> F	0125	10.2	310		<b>1</b> Su	0353	7.9	240		<b>16</b> M	0306	7.9	240		<b>1</b> Su	0229	9.8	300		<b>16</b> M	0123	9.8	300						
	0756	26.6	810			0705	24.9	760			0933	27.6	840			0841	27.6	840			0815	25.3	770			0706	25.6	780						
	1442	8.2	250			1353	10.2	310			1627	6.9	210			1537	6.6	200			1511	8.5	260			1402	8.5	260		1511	8.5	260		
	2020	27.6	840			1935	25.3	770			2157	27.6	840			2114	27.9	850			2049	25.6	780			2049	25.6	780		1948	25.9	790		
<b>2</b> F	0312	7.2	220		<b>17</b> Sa	0234	8.9	270		<b>2</b> M	0441	6.9	210		<b>17</b> Tu	0405	5.9	180		<b>2</b> M	0334	8.9	270		<b>17</b> Tu	0240	7.9	240		<b>17</b> Tu	0816	27.2	830	
	0856	27.6	840			0810	26.2	800			1017	28.5	870			0936	29.5	900			0913	26.6	810			0816	27.2	830			0816	27.2	830	
	1545	7.2	220			1500	8.5	260			1713	5.9	180			1636	4.6	140			1607	7.2	220			1514	6.2	190			1514	6.2	190	
	2118	28.2	860			2038	26.6	810			2238	28.5	870			2206	29.9	910			2139	26.9	820			2054	27.9	850			2054	27.9	850	
<b>3</b> Sa	0408	6.9	210		<b>18</b> Su	0333	7.2	220		<b>3</b> Tu	0521	6.2	190		<b>18</b> W	0459	3.9	120		<b>3</b> Tu	0422	7.5	230		<b>18</b> W	0343	5.9	180		<b>18</b> W	0914	29.5	900	
	0947	28.5	870			0906	27.9	850			1055	29.5	900			1025	31.5	960			0957	27.9	850			0914	29.5	900			0914	29.5	900	
	1639	6.2	190			1559	6.9	210			1751	5.2	160			1729	2.6	80			1652	5.9	180			1615	3.9	120			1615	3.9	120	
	2208	28.9	880			2133	28.2	860			2314	29.2	890			2254	31.5	960			2219	27.9	850			2147	29.9	910			2147	29.9	910	
<b>4</b> Su	0455	6.2	190		<b>19</b> M	0426	5.6	170		<b>4</b> W	0556	5.6	170		<b>19</b> Th	0549	2.3	70		<b>4</b> W	0501	6.6	200		<b>19</b> Th	0439	3.6	110		<b>19</b> Th	1005	31.5	960	
	1030	29.5	900			0956	29.9	910			1129	29.9	910			1112	32.8	1000			1034	28.9	880			1005	31.5	960			1005	31.5	960	
	1725	5.6	170			1653	4.9	150			1825	4.9	150			1818	1.0	30			1728	5.2	160			1709	2.0	60			1709	2.0	60	
	2251	29.2	890			2222	29.9	910			2347	29.5	900			2340	32.5	990			2253	28.9	880			2235	31.5	960			2235	31.5	960	
<b>5</b> M	0536	5.9	180		<b>20</b> Tu	0516	4.3	130		<b>5</b> Th	0626	5.2	160		<b>20</b> F	0636	1.3	40		<b>5</b> Th	0534	5.6	170		<b>20</b> F	0530	2.0	60		<b>20</b> F	1052	32.8	1000	
	1110	29.9	910			1043	31.2	950			1201	30.2	920			1157	33.8	1030			1107	29.5	900			1052	32.8	1000			1052	32.8	1000	
	1807	5.2	160			1744	3.3	100			1856	4.6	140			1904	0.3	10			1800	4.6	140			1758	0.7	20			1758	0.7	20	
	2330	29.5	900			2309	31.2	950													2324	29.5	900			2320	32.5	990			2320	32.5	990	
<b>6</b> Tu	0612	5.6	170		<b>21</b> W	0604	3.3	100		<b>6</b> F	0018	29.5	900		<b>21</b> Sa	0024	32.8	1000		<b>6</b> F	0603	4.9	150		<b>21</b> Sa	0616	1.0	30		<b>21</b> Sa	1137	33.5	1020	
	1146	30.2	920			1128	32.5	990			0655	5.2	160			0719	1.0	30			1137	29.9	910			1137	33.5	1020			1137	33.5	1020	
	1844	4.9	150			1833	2.3	70			1232	30.2	920			1243	33.8	1030			1829	4.3	130			1842	0.0	0			1842	0.0	0	
						2355	31.8	970			1924	4.9	150			1946	0.7	20			2354	29.5	900											
<b>7</b> W	0005	29.5	900		<b>22</b> Th	0651	2.6	80		<b>7</b> Sa	0049	29.2	890		<b>22</b> Su	0108	32.2	980		<b>7</b> Sa	0632	4.6	140		<b>22</b> Su	0003	32.8	1000		<b>22</b> Su	0700	0.7	20	
	0645	5.9	180			1214	33.1	1010			0724	5.2	160			0802	1.6	50			1207	30.2	920			1222	33.5	1020			1222	33.5	1020	
	1220	30.2	920			1920	1.6	50			1302	29.9	910			1327	33.1	1010			1857	4.3	130			1923	0.3	10			1923	0.3	10	
	1917	5.2	160								1952	5.2	160			2027	1.6	50																
<b>8</b> Th	0039	29.2	890		<b>23</b> F	0041	32.2	980		<b>8</b> Su	0120	28.9	880		<b>23</b> M	0151	31.2	950		<b>8</b> Su	0023	29.9	910		<b>23</b> M	0046	32.5	990		<b>23</b> M	0741	1.0	30	
	0716	5.9	180			0735	2.3	70			0755	5.9	180			0843	3.0	90			0702	4.6	140			0741	1.0	30			0741	1.0	30	
	1253	29.9	910			1301	33.1	1010			1332	29.2	890			1412	31.8	970			1237	29.9	910			1306	32.8	1000			1306	32.8	1000	
	1948	5.9	180			2004	1.6	50			2021	5.9	180			2107	3.3	100			1926	4.3	130			2003	1.6	50			2003	1.6	50	
<b>9</b> F	0113	28.9	880		<b>24</b> Sa	0128	31.5	960		<b>9</b> M	0151	28.2	860		<b>24</b> Tu	0235	29.9	910		<b>9</b> M	0053	29.5	900		<b>24</b> Tu	0127	31.5	960		<b>24</b> Tu	0822	2.3	70	
	0746	6.6	200			0819	3.0	90			0828	6.6	200			0925	4.6	140			0733	4.6	140			0822	2.3	70			0822	2.3	70	
	1326	29.2	890			1347	32.5	990			1403	28.2	860			1459	29.9	910			1306	29.5	900			1349	31.5	960			1349	31.5	960	
	2018	6.2	190			2047	2.6	80			2053	6.9	210			2149	5.6	170			1956	4.9	150			2042	3.6	110			2042	3.6	110	
<b>10</b> Sa	0146	28.2	860		<b>25</b> Su	0214	30.5	930		<b>10</b> Tu	0224	27.2	830		<b>25</b> W	0323	27.9	850		<b>10</b> Tu	0123	28.9	880		<b>25</b> W	0209	29.9	910		<b>25</b> W	0904	4.3	130	
	0818	7.2	220			0902	7.5	230			1013	6.6	200			1013	6.6	200			0805	5.6	170			0904	4.3	130			0904	4.3	130	
	1400	28.5	870			1435	31.5	960			1436	27.2	830			1551	27.9	850			1335	28.9	880			1433	29.5	900			1433	29.5	900	
	2049	7.2	220			2131	3.9	120			2128	7.9	240			2238	7.9	240			2027	5.9	180			2121	5.9	180			2121	5.9	180	
<b>11</b> Su	0222	27.2	830		<b>26</b> M	0302	29.2	890		<b>11</b> W	0302	26.2	800		<b>26</b> Th	0420	25.9	790		<b>11</b> W	0154	28.2	860		<b>26</b> Th	0254	27.9	850		<b>26</b> Th	0949	6.6	200	
	0852	8.2	250			0948	5.6	170			0941	8.9	270			1112	8.5	260			0838	6.6	200			0949	6.6	200			0949	6.6	200	
	1435	27.6	840			1525	29.9	910			1516	26.2	800			1656	25.6	780			1407	27.9	850			1523	27.2	830			1523	27.2	830	
	2124	8.2	250			2219	5.6	170			2210	9.2	280			2343	9.8	300			2059	7.2	220			2206	8.2	250			2206	8.2	250	
<b>12</b> M	0301	26.2	800		<b>27</b> Tu	0355	27.6	840		<b>12</b> Th	0349	25.3	770	</																				



# Liverpool, England, 2015

## Times and Heights of High and Low Waters

July				August				September																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0450	5.6	170		<b>16</b> Th	0551	4.6	140		<b>1</b> Sa	0610	2.6	80		<b>16</b> Su	0645	4.6	140		<b>1</b> Tu	0016	33.8	1030		<b>16</b> W	0021	29.9	910	
	1022	28.5	870			1114	29.2	890			1132	30.8	940			1205	29.5	900			0722	0.7	20			0711	4.9	150	
	1713	4.9	150			1800	5.2	160			1828	3.0	90			1846	5.2	160			1243	32.5	990			1239	29.5	900	
	2241	29.9	910			2331	29.9	910			2350	32.5	990								1938	2.0	60			1918	5.2	160	
<b>2</b> Th	0537	4.6	140		<b>17</b> F	0632	4.3	130		<b>2</b> Su	0656	2.0	60		<b>17</b> M	0018	30.2	920		<b>2</b> W	0101	33.1	1010		<b>17</b> Th	0051	29.5	900	
	1104	29.5	900			1153	29.2	890			1217	31.5	960			0714	4.6	140			0804	1.3	40			0740	5.2	160	
	1758	4.3	130			1837	5.2	160			1913	2.6	80			1237	29.2	890			1327	31.5	960			1309	28.9	880	
	2323	30.8	940								1915	5.6	170			1915	5.6	170			2021	2.6	80			1950	5.9	180	
<b>3</b> F	0623	3.6	110		<b>18</b> Sa	0008	29.9	910		<b>3</b> M	0036	32.8	1000		<b>18</b> Tu	0049	29.9	910		<b>3</b> Th	0147	32.2	980		<b>18</b> F	0121	28.9	880	
	1148	30.2	920			0709	4.3	130			0741	1.6	50			0742	4.9	150			0845	3.0	90			0811	6.2	190	
	1842	3.6	110			1229	29.2	890			1303	31.5	960			1308	28.9	880			1412	30.2	920			1340	28.2	860	
						1910	5.6	170			1956	2.6	80			1944	5.9	180			2104	4.3	130			2023	6.9	210	
<b>4</b> Sa	0006	31.2	950		<b>19</b> Su	0043	29.9	910		<b>4</b> Tu	0122	32.5	990		<b>19</b> W	0120	29.2	890		<b>4</b> F	0234	30.5	930		<b>19</b> Sa	0152	27.9	850	
	0708	3.0	90			0742	4.9	150			0824	2.0	60			0810	5.6	170			0927	4.9	150			0844	7.5	230	
	1233	30.5	930			1303	28.9	880			1349	30.8	940			1340	28.2	860			1459	28.5	870			1414	27.2	830	
	1925	3.6	110			1942	5.9	180			2039	3.3	100			2015	6.6	200			2151	6.2	190			2100	8.2	250	
<b>5</b> Su	0052	31.5	960		<b>20</b> M	0116	29.2	890		<b>5</b> W	0209	31.8	970		<b>20</b> Th	0151	28.2	860		<b>5</b> Sa	0326	28.5	870		<b>20</b> Su	0228	26.6	810	
	0753	3.0	90			0813	5.6	170			0906	3.0	90			0840	6.6	200			1015	7.2	220			0920	8.9	270	
	1319	30.2	920			1337	28.2	860			1526	29.9	910			1412	27.6	840			1555	26.9	820			1456	26.2	800	
	2008	3.9	120			2012	6.6	200			2123	4.6	140			2049	7.5	230			2248	7.9	240			2143	9.5	290	
<b>6</b> M	0139	31.2	950		<b>21</b> Tu	0151	28.5	870		<b>6</b> Th	0258	30.5	930		<b>21</b> F	0224	27.2	830		<b>6</b> Su	0429	26.2	800		<b>21</b> M	0316	25.3	770	
	0837	3.3	100			0843	6.2	190			0951	4.6	140			0914	7.9	240			1115	9.2	280			1008	10.2	310	
	1406	29.9	910			1413	27.6	840			1526	28.5	870			1449	26.6	810			1706	25.3	770			1553	24.9	760	
	2052	4.6	140			2044	7.2	220			2211	6.2	190			2127	8.9	270								2242	10.5	320	
<b>7</b> Tu	0227	30.5	930		<b>22</b> W	0226	27.6	840		<b>7</b> F	0352	28.9	880		<b>22</b> Sa	0302	26.2	800		<b>7</b> M	0002	9.2	280		<b>22</b> Tu	0424	24.3	740	
	0923	3.9	120			0914	7.2	220			1042	6.2	190			0954	9.2	280			0547	24.9	760			1119	11.2	340	
	1456	28.9	880			1451	26.6	810			1625	26.9	820			1533	25.3	770			1235	10.2	310			1713	24.6	750	
	2139	5.6	170			2120	8.2	250			2310	7.5	230			2214	9.8	300			1829	24.9	760						
<b>8</b> W	0320	29.5	900		<b>23</b> Th	0305	26.6	810		<b>8</b> Sa	0455	27.2	830		<b>23</b> Su	0351	24.9	760		<b>8</b> Tu	0128	9.5	290		<b>23</b> W	0006	10.5	320	
	1012	4.9	150			0951	8.2	250			1144	7.9	240			1046	10.2	310			0712	24.9	760			0554	24.0	730	
	1551	27.9	850			1533	25.6	780			1735	25.9	790			1633	24.3	740			1359	9.8	300			1251	10.5	320	
	2232	6.6	200			2203	9.5	290								2317	10.8	330			1948	25.6	780			1838	25.3	770	
<b>9</b> Th	0418	28.5	870		<b>24</b> F	0351	25.3	770		<b>9</b> Su	0022	8.5	260		<b>24</b> M	0502	24.0	730		<b>9</b> W	0244	8.2	250		<b>24</b> Th	0133	9.2	280	
	1107	6.2	190			1037	9.5	290			0609	25.9	790			1201	10.8	330			0825	25.9	790			0720	25.3	770	
	1653	26.9	820			1625	24.6	750			1259	8.9	270			1752	24.3	740			1509	8.9	270			1410	8.9	270	
	2334	7.5	230			2256	10.5	320			1852	25.6	780								2050	26.9	820			1950	27.2	830	
<b>10</b> F	0522	27.6	840		<b>25</b> Sa	0448	24.3	740		<b>10</b> M	0143	8.9	270		<b>25</b> Tu	0041	10.8	330		<b>10</b> Th	0345	6.9	210		<b>25</b> F	0245	7.2	220	
	1212	6.9	210			1138	10.2	310			1416	8.9	270			1327	10.2	310			1603	7.5	230			0827	27.2	830	
	1803	26.2	800			1729	24.0	730			2006	26.2	800			1911	25.3	770			2137	28.2	860			1514	6.9	210	
																								2048		29.2	890		
<b>11</b> Sa	0045	7.9	240		<b>26</b> Su	0005	10.8	330		<b>11</b> Tu	0258	7.9	240		<b>26</b> W	0203	9.5	290		<b>11</b> F	0434	5.9	180		<b>26</b> Sa	0346	4.9	150	
	0632	26.9	820			0559	24.0	730			0838	26.6	810			0748	25.3	770			1002	28.2	860			0921	29.5	900	
	1324	7.5	230			1254	10.2	310			1524	7.9	240			1438	8.5	260			1645	6.6	200			1610	4.9	150	
	1914	26.6	810			1841	24.3	740			2107	27.6	840			2017	26.9	820			2216	29.2	890			2138	31.2	950	
<b>12</b> Su	0200	7.9	240		<b>27</b> M	0124	10.2	310		<b>12</b> W	0402	6.6	200		<b>27</b> Th	0310	7.2	220		<b>12</b> Sa	0513	5.2	160		<b>27</b> Su	0440	3.0	90	
	0743	27.2	830			0713	24.3	740			0934	27.6	840			0850	27.2	830			1037	28.9	880			1009	31.2	950	
	1434	7.2	220			1406	9.2	280			1620	6.9	210			1538	6.6	200			1720	5.9	180			1702	3.3	100	
	2021	27.2	830			1948	25.6	780			2156	28.5	870			2112	28.9	880			2250	29.9	910			2225	32.8	1000	
<b>13</b> M	0310	6.9	210		<b>28</b> Tu	0234	8.9	270		<b>13</b> Th	0453	5.6	170		<b>28</b> F	0409	5.2	160		<b>13</b> Su	0546	4.9	150		<b>28</b> M	0530	1.6	50	
	0847	27.6	840			0818	25.6	780			1020	28.2	860			0943	29.2	890			1109	29.5	900			1053	32.5	990	
	1537	6.6	200			1507	7.9	240			1705	6.2	190			1633	4.9	150			1750	5.6	170			1750	2.0	60	
	2118	28.2	860			2045	27.2	830			2237	2																	



# Liverpool, England, 2015

## Times and Heights of High and Low Waters

October				November				December																										
Time		Height		Time		Height		Time		Height		Time		Height																				
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																				
<b>1</b> Th	0039	33.5	1020		<b>16</b> F	0025	29.5	900		<b>1</b> Su	0151	29.9	910		<b>16</b> M	0115	28.5	870		<b>1</b> Tu	0216	27.9	850		<b>16</b> W	0149	28.9	880						
	0741	1.6	50			0714	5.2	160			0840	6.2	190			0804	6.9	210			0858	7.9	240			0835	6.6	200						
	1304	31.8	970			1242	29.5	900			1410	29.2	890			1335	28.9	880			1434	28.2	860			1411	29.5	900		1411	29.5	900		
	2001	2.6	80			1928	5.6	170			2113	6.2	190			2027	6.9	210			2140	7.9	240			2104	6.2	190		2104	6.2	190		
<b>2</b> F	0125	32.2	980		<b>17</b> Sa	0056	28.9	880		<b>2</b> M	0239	27.9	850		<b>17</b> Tu	0157	27.9	850		<b>2</b> W	0303	26.6	810		<b>17</b> Th	0238	28.2	860		<b>17</b> F	0238	28.2	860	
	0821	3.3	100			0747	6.2	190			0923	8.2	250			0843	7.9	240			0941	9.5	290			0920	7.5	230			0920	7.5	230	
	1347	30.5	930			1314	28.9	880			1500	27.2	830			1420	28.2	860			1525	26.6	810			1502	28.9	880			1502	28.9	880	
	2044	4.3	130			2003	6.6	200			2206	8.2	250			2112	7.9	240			2230	9.2	280			2154	6.9	210			2154	6.9	210	
<b>3</b> Sa	0211	30.2	920		<b>18</b> Su	0129	28.2	860		<b>3</b> Tu	0335	25.9	790		<b>18</b> W	0247	26.9	820		<b>3</b> Th	0358	25.3	770		<b>18</b> F	0333	27.2	830		<b>18</b> O	0333	27.2	830	
	0903	5.6	170			0820	7.2	220			1015	10.2	310			0931	8.9	270			1033	10.8	330			1014	8.2	250			1014	8.2	250	
	1433	28.9	880			1350	28.2	860			1602	25.9	790			1515	27.2	830			1625	25.6	780			1602	27.9	850			1602	27.9	850	
	2131	6.2	190			2040	7.5	230			2310	9.5	290			2206	8.5	260			2330	10.2	310			2253	7.5	230			2253	7.5	230	
<b>4</b> Su	0302	27.9	850		<b>19</b> M	0208	27.2	830		<b>4</b> W	0443	24.6	750		<b>19</b> Th	0349	25.9	790		<b>4</b> F	0502	24.3	740		<b>19</b> Sa	0438	26.6	810		<b>19</b> O	0438	26.6	810	
	0948	7.9	240			0857	8.5	260			1125	11.5	350			1032	9.8	300			1138	11.8	360			1119	8.9	270			1119	8.9	270	
	1527	26.9	820			1433	27.2	830			1715	24.9	760			1623	26.6	810			1732	24.9	760			1709	27.6	840			1709	27.6	840	
	2227	8.2	250			2123	8.9	270								2315	8.9	270																
<b>5</b> M	0403	25.9	790		<b>20</b> Tu	0257	25.9	790		<b>5</b> Th	0024	10.2	310		<b>20</b> F	0504	25.6	780		<b>5</b> Sa	0036	10.5	320		<b>20</b> Su	0001	7.9	240		<b>20</b> O	0001	7.9	240	
	1046	9.8	300			0945	9.8	300			0600	24.0	730			1148	9.8	300			0612	24.0	730			0550	26.2	800			0550	26.2	800	
	1636	25.3	770			1529	25.9	790			1246	11.8	360			1739	26.6	810			1251	11.8	360			1232	8.9	270			1232	8.9	270	
	2340	9.5	290			2220	9.8	300			1831	24.9	760								1840	24.9	760			1819	27.6	840			1819	27.6	840	
<b>6</b> Tu	0520	24.3	740		<b>21</b> W	0403	24.9	760		<b>6</b> F	0135	9.5	290		<b>21</b> Sa	0033	8.2	250		<b>6</b> Su	0139	9.8	300		<b>21</b> M	0114	7.5	230		<b>21</b> O	0114	7.5	230	
	1206	11.2	340			1052	10.8	330			0715	24.6	750			0622	26.2	800			0720	24.6	750			0703	26.9	820			0703	26.9	820	
	1758	24.6	750			1645	25.3	770			1356	10.8	330			1306	9.2	280			1356	10.8	330			1346	8.2	250			1346	8.2	250	
						2338	9.8	300			1938	25.6	780			1850	27.6	840			1943	25.6	780			1929	28.2	860			1929	28.2	860	
<b>7</b> W	0103	9.8	300		<b>22</b> Th	0528	24.6	750		<b>7</b> Sa	0234	8.9	270		<b>22</b> Su	0146	7.2	220		<b>7</b> M	0233	9.2	280		<b>22</b> Tu	0224	6.9	210		<b>22</b> W	0224	6.9	210	
	0645	24.3	740			1218	10.5	320			0815	25.9	790			0732	27.6	840			0815	25.9	790			0809	27.9	850			0809	27.9	850	
	1332	10.8	330			1808	25.9	790			1452	9.5	290			1416	7.5	230			1450	9.8	300			1456	6.9	210			1456	6.9	210	
	1917	25.3	770								2031	26.9	820			1955	29.2	890			2035	26.6	810			2032	29.2	890			2032	29.2	890	
<b>8</b> Th	0217	8.9	270		<b>23</b> F	0103	8.9	270		<b>8</b> Su	0322	7.5	230		<b>23</b> M	0251	5.6	170		<b>8</b> Tu	0320	7.9	240		<b>23</b> W	0327	5.9	180		<b>23</b> O	0327	5.9	180	
	0759	25.3	770			0652	25.6	780			0900	27.2	830			0832	28.9	880			0901	27.2	830			0907	29.2	890			0907	29.2	890	
	1441	9.8	300			1339	9.2	280			1537	8.5	260			1519	5.9	180			1536	8.5	260			1557	5.6	170			1557	5.6	170	
	2021	26.6	810			1921	27.6	840			2114	27.9	850			2052	30.5	930			2119	27.6	840			2129	29.9	910			2129	29.9	910	
<b>9</b> F	0316	7.5	230		<b>24</b> Sa	0217	6.9	210		<b>9</b> M	0403	6.9	210		<b>24</b> Tu	0350	4.3	130		<b>9</b> W	0402	6.9	210		<b>24</b> Th	0423	4.9	150		<b>24</b> O	0423	4.9	150	
	0854	26.6	810			0801	27.6	840			0938	28.2	860			0925	30.5	930			0940	28.2	860			0958	30.2	920			0958	30.2	920	
	1534	8.5	260			1446	7.2	220			1615	7.2	220			1616	4.6	140			1618	7.2	220			1653	4.6	140			1653	4.6	140	
	2110	27.9	850			2022	29.5	900			2152	28.5	870			2143	31.5	960			2158	28.2	860			2220	30.5	930			2220	30.5	930	
<b>10</b> Sa	0403	6.6	200		<b>25</b> Su	0319	4.9	150		<b>10</b> Tu	0438	5.9	180		<b>25</b> W	0442	3.3	100		<b>10</b> Th	0441	6.2	190		<b>25</b> F	0513	4.3	130		<b>25</b> O	0513	4.3	130	
	0935	27.9	850			0857	29.5	900			1011	29.2	890			1013	31.5	960			1016	29.2	890			1045	30.8	940			1045	30.8	940	
	1615	7.5	230			1545	5.2	160			1650	6.6	200			1708	3.6	110			1659	6.2	190			1744	3.9	120			1744	3.9	120	
	2148	28.9	880			2115	31.2	950			2226	29.2	890			2232	32.2	980			2234	28.9	880			2308	30.8	940			2308	30.8	940	
<b>11</b> Su	0441	5.9	180		<b>26</b> M	0415	3.3	100		<b>11</b> W	0512	5.6	170		<b>26</b> Th	0531	3.0	90		<b>11</b> F	0519	5.6	170		<b>26</b> Sa	0559	4.3	130		<b>26</b> O	0559	4.3	130	
	1010	28.9	880			0946	31.2	950			1043	29.9	910			1058	31.8	970			1052	29.9	910			1129	31.2	950			1129	31.2	950	
	1650	6.6	200			1639	3.6	110			1724	5.9	180			1756	3.0	90			1739	5.6	170			1830	3.6	110			1830	3.6	110	
	2223	29.5	900			2203	32.5	990			2258	29.5	900			2319	32.2	980			2310	29.5	900			2352	30.8	940			2352	30.8	940	
<b>12</b> M	0514	5.2	160		<b>27</b> Tu	0506	2.0	60		<b>12</b>																								

## Greenock, Scotland, 2015

## Times and Heights of High and Low Waters

January				February				March																										
Time		Height		Time		Height		Time		Height		Time		Height																				
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																				
<b>1</b> Th	0222	2.0	60		<b>16</b> F	0126	3.3	100		<b>1</b> Su	0357	2.0	60		<b>16</b> M	0302	2.6	80		<b>1</b> Su	0241	2.6	80		<b>16</b> M	0118	3.3	100						
	0906	10.2	310			0836	9.5	290			1046	10.5	320			1016	10.2	310			0920	9.5	290			0824	9.2	280						
	1451	3.0	90			1414	3.6	110			1624	2.0	60			1545	1.6	50			1512	2.3	70			1415	2.0	60						
	2143	10.5	320			2034	9.8	300			2327	10.5	320			2231	10.2	310			2221	9.5	290			2056	9.5	290						
<b>2</b> F	0321	2.0	60		<b>17</b> Sa	0232	3.0	90		<b>2</b> M	0444	1.6	50		<b>17</b> Tu	0401	2.0	60		<b>2</b> M	0337	2.3	70		<b>17</b> Tu	0238	2.6	80		<b>17</b> Tu	0949	9.8	300	
	1010	10.8	330			0948	10.2	310			1132	11.2	340			1108	10.8	330			1024	10.2	310			1521	1.0	30						
	1549	2.3	70			1517	3.0	90			1707	1.6	50			1635	0.7	20			1603	1.6	50			1603	1.6	50			1521	1.0	30	
	2244	10.8	330			2145	10.2	310			1744	1.3	40			2328	10.8	330			2310	9.8	300			2216	9.8	300						
<b>3</b> Sa	0412	1.6	50		<b>18</b> Su	0330	2.6	80		<b>3</b> Tu	0012	10.5	320		<b>18</b> W	0450	1.0	30		<b>3</b> Tu	0424	1.6	50		<b>18</b> W	0341	1.6	50		<b>18</b> W	1045	10.8	330	
	1102	11.2	340			1043	10.8	330			0525	1.6	50			1155	11.5	350			1111	10.8	330			1646	1.3	40						
	1638	2.0	60			1608	2.0	60			1213	11.5	350			1721	0.0	0			1646	1.3	40			2352	10.5	320			1614	0.0	0	
	2336	11.2	340			2247	10.8	330			1744	1.3	40			●					2352	10.5	320			2312	10.5	320						
<b>4</b> Su	0458	1.6	50		<b>19</b> M	0420	2.0	60		<b>4</b> W	0052	10.8	330		<b>19</b> Th	0018	11.2	340		<b>4</b> W	0506	1.3	40		<b>19</b> Th	0432	1.0	30		<b>19</b> Th	1134	11.5	350	
	1146	11.5	350			1129	11.2	340			0603	1.3	40			0536	0.7	20			1152	11.2	340			1700	-0.7	-20						
	1720	1.6	50			1654	1.3	40			1249	11.8	360			1804	-0.7	-20			1722	1.3	40											
						2341	11.2	340			1816	1.3	40																					
<b>5</b> M	0023	11.2	340		<b>20</b> Tu	0507	1.3	40		<b>5</b> Th	0126	10.8	330		<b>20</b> F	0106	11.5	350		<b>5</b> Th	0029	10.5	320		<b>20</b> F	0001	11.2	340		<b>20</b> F	0517	0.3	10	
	0540	1.6	50			1212	11.8	360			0636	1.6	50			0621	0.3	10			0542	1.3	40			1222	11.8	360						
	1227	11.8	360			1739	0.7	20			1321	11.8	360			1326	12.5	380			1228	11.2	340			1743	-1.0	-30						
	1758	1.6	50			●					1846	1.3	40			1849	-0.7	-20			1754	1.3	40											
<b>6</b> Tu	0105	11.2	340		<b>21</b> W	0031	11.2	340		<b>6</b> F	0158	10.8	330		<b>21</b> Sa	0151	11.5	350		<b>6</b> F	0103	10.5	320		<b>21</b> Sa	0047	11.5	350		<b>21</b> Sa	0602	0.0	0	
	0618	1.6	50			0552	1.0	30			0707	1.6	50			0706	0.0	0			0613	1.3	40			1308	12.1	370						
	1303	12.1	370			1256	12.1	370			1352	11.8	360			1410	12.5	380			1300	11.5	350			1827	-1.0	-30						
	1833	1.6	50			1822	0.0	0			1916	1.3	40			1934	-0.7	-20			1822	1.3	40											
<b>7</b> W	0142	10.8	330		<b>22</b> Th	0120	11.5	350		<b>7</b> Sa	0229	10.8	330		<b>22</b> Su	0234	11.5	350		<b>7</b> Sa	0134	10.8	330		<b>22</b> Su	0130	11.5	350		<b>22</b> Su	0645	-0.3	-10	
	0654	1.6	50			0638	0.7	20			0738	1.6	50			0751	0.0	0			0642	1.3	40			1353	12.5	380						
	1337	12.1	370			1339	12.5	380			1424	11.8	360			1454	12.5	380			1329	11.5	350			1911	-0.7	-20						
	1906	1.6	50			1908	0.0	0			1948	1.6	50			2020	-0.3	-10			1849	1.3	40											
<b>8</b> Th	0216	10.8	330		<b>23</b> F	0207	11.5	350		<b>8</b> Su	0301	10.8	330		<b>23</b> M	0315	11.5	350		<b>8</b> Su	0203	10.8	330		<b>23</b> M	0211	11.5	350		<b>23</b> M	0729	-0.3	-10	
	0729	2.0	60			0724	0.7	20			0811	1.6	50			0838	0.3	10			0710	1.3	40			1437	12.1	370						
	1411	12.1	370			1423	12.8	390			1457	11.8	360			1537	12.5	380			1359	11.5	350			1956	-0.3	-10						
	1940	1.6	50			1955	0.0	0			2022	1.6	50			2109	0.3	10			1918	1.3	40											
<b>9</b> F	0251	10.8	330		<b>24</b> Sa	0252	11.5	350		<b>9</b> M	0334	10.8	330		<b>24</b> Tu	0355	11.5	350		<b>9</b> M	0232	10.8	330		<b>24</b> Tu	0250	11.8	360		<b>24</b> Tu	0813	0.0	0	
	0805	2.0	60			0812	0.7	20			0848	1.6	50			0926	0.7	20			0741	1.3	40			1519	11.8	360						
	1446	12.1	370			1508	12.8	390			1533	11.8	360			1620	11.8	360			1432	11.5	350			2043	0.3	10						
	2017	2.0	60			2044	0.0	0			2059	1.6	50			2202	1.0	30			1950	1.3	40											
<b>10</b> Sa	0327	10.8	330		<b>25</b> Su	0336	11.5	350		<b>10</b> Tu	0408	10.5	320		<b>25</b> W	0435	11.2	340		<b>10</b> Tu	0302	10.8	330		<b>25</b> W	0328	11.5	350		<b>25</b> W	0859	0.3	10	
	0842	2.3	70			0901	1.0	30			0928	2.0	60			1018	1.3	40			0816	1.3	40			1600	11.5	350						
	1522	12.1	370			1553	12.5	380			1611	11.5	350			1705	10.8	330			1507	11.5	350			2133	1.0	30						
	2056	2.0	60			2135	0.7	20			2141	2.0	60			●	2302	1.6	50			2028	1.3	40										
<b>11</b> Su	0405	10.5	320		<b>26</b> M	0419	11.2	340		<b>11</b> W	0445	10.2	310		<b>26</b> Th	0518	10.5	320		<b>11</b> W	0334	10.8	330		<b>26</b> Th	0407	11.2	340		<b>26</b> Th	0949	1.0	30	
	0923	2.6	80			0952	1.3	40			1014	2.6	80			1121	2.3	70			0857	1.3	40			1643	10.5	320						
	1600	11.8	360			1639	11.8	360			1652	10.8	330			1755	9.8	300			1545	11.2	340			2230	2.0	60						
	2137	2.3	70			2232	1.0	30			2230	2.3	70								2110	1.6	50											
<b>12</b> M	0445	10.2	310		<b>27</b> Tu	0504	10.8	330		<b>12</b> Th	0526	9.8	300		<b>27</b> F	0017	2.6	80		<b>12</b> Th	0408	10.5	320		<b>27</b> F	0449	10.5	320		<b>27</b> F	1049	2.0	60	
	1006	3.0	90			1048	2.0	60			1108	3.0	90			0607	9.8	300			0943	1.6	50			1731	9.5	290						
	1640	11.2	340			1729	11.2	340			1740	10.2	310			1247	2.6	80			1624	10.8	330			2341	2.6	80						
	2223	2.6	80			2336	1.6	50			●	2326	3.0	90			1905	9.2	280			2159	2.0	60										
<b>13</b> Tu	0528	9.8	300		<b>28</b> W	0552	10.5	320		<b>13</b> F	0618	9.2	280		<b>28</b> Sa	0135	3.0	90		<b>13</b> F	0445	10.2	310		<b>28</b> Sa	0536	9.8	300		<b>28</b> Sa	1212	2.6	80	
	1056	3.3	100																															

## Greenock, Scotland, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0358	2.0	60	<b>16</b> Th	0319	1.6	50	<b>1</b> F	0407	1.6	50	<b>16</b> Sa	0352	1.3	40	<b>1</b> M	0448	1.6	50	<b>16</b> Tu	0512	0.7	20
	1041	10.2	310		1020	10.8	330		1043	10.2	310		1048	11.2	340		1118	10.5	320		1213	10.8	330
	1616	1.3	40		1550	0.0	0		1617	1.3	40		1616	0.0	0		1652	1.3	40		1732	0.7	20
	2323	10.2	310		2250	10.5	320		2323	10.5	320		2315	10.8	330		●						
<b>2</b> Th	0439	1.3	40	<b>17</b> F	0412	1.0	30	<b>2</b> Sa	0444	1.3	40	<b>17</b> Su	0441	0.7	20	<b>2</b> Tu	0004	10.8	330	<b>17</b> W	0024	11.2	340
	1122	10.8	330		1111	11.5	350		1121	10.5	320		1139	11.5	350		0523	1.3	40		0554	0.7	20
	1653	1.0	30		1638	-0.7	-20		1652	1.3	40		1702	-0.3	-10		1158	10.5	320		1301	10.8	330
	2359	10.5	320		2339	11.2	340		●				●				1727	1.3	40		1815	0.7	20
<b>3</b> F	0516	1.3	40	<b>18</b> Sa	0459	0.3	10	<b>3</b> Su	0000	10.5	320	<b>18</b> M	0000	11.2	340	<b>3</b> W	0038	11.2	340	<b>18</b> Th	0105	11.5	350
	1159	10.8	330		1200	11.8	360		0517	1.3	40		0525	0.3	10		0557	1.0	30		0634	0.3	10
	1725	1.0	30		1722	-0.7	-20		1157	10.5	320		1228	11.5	350		1239	10.8	330		1346	10.5	320
	●				●				1723	1.3	40		1747	0.0	0		1804	1.3	40		1857	1.0	30
<b>4</b> Sa	0033	10.5	320	<b>19</b> Su	0024	11.2	340	<b>4</b> M	0035	10.8	330	<b>19</b> Tu	0044	11.5	350	<b>4</b> Th	0112	11.5	350	<b>19</b> F	0143	11.5	350
	0547	1.0	30		0542	0.0	0		0548	1.3	40		0607	0.0	0		0635	0.7	20		0712	0.7	20
	1232	10.8	330		1248	11.8	360		1230	10.8	330		1315	11.5	350		1322	10.8	330		1426	10.5	320
	1753	1.3	40		1806	-0.7	-20		1752	1.3	40		1830	0.3	10		1846	1.0	30		1939	1.3	40
<b>5</b> Su	0106	10.8	330	<b>20</b> M	0107	11.5	350	<b>5</b> Tu	0106	11.2	340	<b>20</b> W	0124	11.5	350	<b>5</b> F	0147	11.5	350	<b>20</b> Sa	0219	11.8	360
	0615	1.3	40		0625	-0.3	-10		0618	1.0	30		0649	0.0	0		0716	0.7	20		0751	0.7	20
	1302	11.2	340		1334	11.8	360		1305	10.8	330		1400	11.2	340		1406	11.2	340		1505	10.2	310
	1820	1.3	40		1849	-0.3	-10		1825	1.3	40		1914	0.7	20		1932	1.0	30		2020	1.6	50
<b>6</b> M	0135	10.8	330	<b>21</b> Tu	0147	11.8	360	<b>6</b> W	0136	11.2	340	<b>21</b> Th	0202	11.8	360	<b>6</b> Sa	0225	11.8	360	<b>21</b> Su	0256	11.5	350
	0642	1.0	30		0707	-0.3	-10		0652	1.0	30		0730	0.3	10		0802	0.3	10		0832	1.0	30
	1333	11.2	340		1418	11.8	360		1343	11.2	340		1443	10.8	330		1451	11.2	340		1544	10.2	310
	1849	1.0	30		1934	0.0	0		1903	1.0	30		1958	1.0	30		2021	1.3	40		2103	1.6	50
<b>7</b> Tu	0203	11.2	340	<b>22</b> W	0225	11.8	360	<b>7</b> Th	0207	11.5	350	<b>22</b> F	0240	11.8	360	<b>7</b> Su	0305	11.8	360	<b>22</b> M	0334	11.5	350
	0714	1.0	30		0750	0.0	0		0731	0.7	20		0812	0.7	20		0852	0.7	20		0917	1.3	40
	1407	11.2	340		1500	11.5	350		1423	11.2	340		1524	10.5	320		1537	10.8	330		1626	9.8	300
	1924	1.0	30		2019	0.7	20		1946	1.0	30		2044	1.3	40		2113	1.3	40		2148	2.0	60
<b>8</b> W	0233	11.2	340	<b>23</b> Th	0303	11.5	350	<b>8</b> F	0242	11.5	350	<b>23</b> Sa	0318	11.5	350	<b>8</b> M	0348	11.5	350	<b>23</b> Tu	0414	10.8	330
	0750	1.0	30		0834	0.3	10		0815	0.7	20		0858	1.0	30		0948	0.7	20		1006	1.6	50
	1444	11.2	340		1542	10.8	330		1505	11.2	340		1606	10.2	310		1626	10.5	320		1710	9.5	290
	2004	1.0	30		2107	1.3	40		2033	1.3	40		2132	2.0	60		2208	1.6	50		2237	2.6	80
<b>9</b> Th	0305	11.2	340	<b>24</b> F	0342	11.2	340	<b>9</b> Sa	0319	11.2	340	<b>24</b> Su	0359	11.2	340	<b>9</b> Tu	0437	11.2	340	<b>24</b> W	0456	10.5	320
	0833	1.0	30		0923	1.0	30		0905	1.0	30		0948	1.6	50		1048	1.0	30		1101	2.3	70
	1522	11.2	340		1625	10.2	310		1548	10.8	330		1652	9.5	290		1719	10.2	310		1758	9.5	290
	2048	1.3	40		2200	2.0	60		2125	1.6	50		2225	2.3	70		2307	2.0	60		2331	3.0	90
<b>10</b> F	0339	10.8	330	<b>25</b> Sa	0423	10.8	330	<b>10</b> Su	0359	10.8	330	<b>25</b> M	0442	10.5	320	<b>10</b> W	0536	10.5	320	<b>25</b> Th	0545	9.8	300
	0920	1.3	40		1019	1.6	50		1001	1.3	40		1047	2.0	60		1154	1.0	30		1201	2.3	70
	1603	10.8	330		1712	9.5	290		1635	10.5	320		1743	9.2	280		1821	9.8	300		1852	9.2	280
	2138	1.6	50		2302	2.6	80		2222	2.0	60		2323	3.0	90		●				●		
<b>11</b> Sa	0417	10.5	320	<b>26</b> Su	0509	10.2	310	<b>11</b> M	0446	10.5	320	<b>26</b> Tu	0531	9.8	300	<b>11</b> Th	0011	2.3	70	<b>26</b> F	0032	3.3	100
	1015	1.6	50		1129	2.3	70		1104	1.3	40		1153	2.3	70		0652	10.2	310		0642	9.5	290
	1648	10.2	310		1810	8.9	270		1730	9.8	300		1842	8.9	270		1301	1.0	30		1303	2.6	80
	2235	2.3	70		●				2324	2.6	80		●				1935	9.8	300		1953	9.2	280
<b>12</b> Su	0502	9.8	300	<b>27</b> M	0015	3.3	100	<b>12</b> Tu	0549	9.8	300	<b>27</b> W	0028	3.3	100	<b>12</b> F	0122	2.3	70	<b>27</b> Sa	0137	3.3	100
	1119	2.0	60		0604	9.5	290		1214	1.3	40		0630	9.5	290		0817	10.2	310		0746	9.5	290
	1743	9.5	290		1252	2.6	80		1840	9.5	290		1302	2.3	70		1405	1.0	30		1402	2.3	70
	2340	3.0	90		1932	8.5	260		●				1950	8.9	270		2052	9.8	300		2059	9.5	290
<b>13</b> M	0605	9.5	290	<b>28</b> Tu	0128	3.3	100	<b>13</b> W	0034	2.6	80	<b>28</b> Th	0136	3.3	100	<b>13</b> Sa	0231	2.0	60	<b>28</b> Su	0240	3.0	90
	1232	2.0	60		0722	9.2	280		0720	9.8	300		0741	9.5	290		0929	10.5	320		0853	9.5	290
	1855	9.2	280		1400	2.3	70		1326	1.0	30		1402	2.3	70		1504	0.7	20		1455	2.3	70
	●				2104	8.9	270		2007	9.5	290		2058	9.2	280		2157	10.2	310		2200	9.8	300
<b>14</b> Tu	0055	3.0	90	<b>29</b> W	0231	3.0	90	<b>14</b> Th	0148	2.6	80	<b>29</b> F	0237	3.0	90	<b>14</b> Su	0332	1.6	50	<b>29</b> M	0334	2.3	70
	0749	9.2	280		0856	9.5	290		0848	10.2	310		0854	9.5	290		1029	10.8	330		0953	9.8	300
	1350	1.6	50		1453	2.0	60		1430	0.7	20		1453	2.0	60		1557	0.7	20		1542	2.0	60
	2034	9.5	290		2159	9.5	290		2125	9.8	300		2155	9.8	300		2252	10.8	330		2251	10.2	310
<b>15</b> W	0214	2.6	80	<b>30</b> Th	0323	2.3	70	<b>15</b> F	0255	2.0	60	<b>30</b> Sa	0327	2.3	70	<b>15</b> M	0425	1.0	30	<b>30</b> Tu	0419	1.6	50
	0919	9.8	300		0957	9.8	300		0954	10.5	320		0952	9.8	300		1123	10.8	330		1045	10.2	310
	1456	0.7	20		1538	1.6	50		1526	0.3	10		1538	1.6	50		1646	0.7	20		1624	1.6	50
	2154	9.8	300		2244	9.8	300		2224	10.5	320		2243	10.2	310		2340	11.2	340		2334	10.8	330

## Greenock, Scotland, 2015

## Times and Heights of High and Low Waters

July				August				September																				
Time		Height		Time		Height		Time		Height		Time		Height														
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm														
<b>1</b> W	0500	1.3	40		<b>16</b> Th	0010	11.2	340		<b>1</b> Sa	0033	11.5	350		<b>16</b> Su	0107	11.5	350		<b>1</b> Tu	0143	12.5	380	<b>16</b> W	0142	11.8	360	
	1132	10.5	320			0543	0.7	20			0603	0.0	0			0634	1.0	30			0709	-0.7	-20			0705	1.3	40
	1705	1.3	40			1250	10.5	320			1251	10.8	330			1345	10.5	320			1405	11.5	350			1415	10.8	330
				1801	1.0	30		1814	0.7	20		1853	1.3	40		1926	0.3	10		1926	1.6	50						
<b>2</b> Th	0013	11.2	340		<b>17</b> F	0050	11.5	350		<b>2</b> Su	0116	11.8	360		<b>17</b> M	0138	11.5	350		<b>2</b> W	0227	12.5	380	<b>17</b> Th	0214	11.8	360	
	0539	0.7	20			0620	0.7	20			0645	-0.3	-10			0704	1.0	30			0754	-0.3	-10			0735	1.3	40
	1219	10.8	330			1332	10.5	320			1338	10.8	330			1415	10.5	320			1448	11.5	350			1446	11.2	340
	1747	1.3	40		1840	1.3	40		1900	0.7	20		1925	1.6	50		2012	0.3	10		2000	1.6	50					
<b>3</b> F	0051	11.5	350		<b>18</b> Sa	0126	11.5	350		<b>3</b> M	0158	12.1	370		<b>18</b> Tu	0209	11.8	360		<b>3</b> Th	0310	12.5	380	<b>18</b> F	0249	11.8	360	
	0620	0.3	10			0655	0.7	20			0730	-0.3	-10			0735	1.3	40			0842	0.0	0			0810	1.6	50
	1305	10.8	330			1409	10.2	310			1425	11.2	340			1447	10.5	320			1529	11.5	350			1519	11.2	340
	1831	1.0	30		1917	1.3	40		1948	0.7	20		1958	1.6	50		2101	0.7	20		2039	2.0	60					
<b>4</b> Sa	0131	11.8	360		<b>19</b> Su	0200	11.5	350		<b>4</b> Tu	0242	12.5	380		<b>19</b> W	0241	11.8	360		<b>4</b> F	0353	11.8	360	<b>19</b> Sa	0325	11.5	350	
	0703	0.0	0			0729	1.0	30			0817	-0.3	-10			0808	1.3	40			0934	0.7	20			0849	2.0	60
	1352	10.8	330			1443	10.2	310			1510	11.2	340			1520	10.5	320			1611	11.2	340			1611	11.2	340
	1918	1.0	30		1954	1.3	40		2036	0.7	20		2035	1.6	50		2153	1.3	40		2123	2.3	70					
<b>5</b> Su	0212	12.1	370		<b>20</b> M	0234	11.5	350		<b>5</b> W	0326	12.1	370		<b>20</b> Th	0316	11.5	350		<b>5</b> Sa	0438	11.2	340	<b>20</b> Su	0405	11.2	340	
	0748	0.0	0			0805	1.0	30			0907	0.0	0			0844	1.6	50			1034	1.6	50			0935	2.3	70
	1439	10.8	330			1518	10.2	310			1554	11.2	340			1555	10.5	320			1655	10.8	330			1633	10.5	320
	2007	1.0	30		2032	1.6	50		2127	1.0	30		2114	2.0	60		2253	2.0	60		2214	2.6	80					
<b>6</b> M	0254	12.1	370		<b>21</b> Tu	0308	11.5	350		<b>6</b> Th	0410	11.8	360		<b>21</b> F	0352	11.2	340		<b>6</b> Su	0527	10.2	310	<b>21</b> M	0448	10.5	320	
	0837	0.0	0			0843	1.3	40			1002	0.3	10			0923	2.0	60			1148	2.3	70			1029	3.0	90
	1526	10.8	330			1555	10.2	310			1639	10.8	330			1632	10.2	310			1745	10.2	310			1719	9.8	300
	2057	1.0	30		2112	1.6	50		2220	1.3	40		2158	2.3	70						2314	3.3	100					
<b>7</b> Tu	0338	11.8	360		<b>22</b> W	0344	11.5	350		<b>7</b> F	0458	11.2	340		<b>22</b> Sa	0432	10.8	330		<b>7</b> M	0011	2.6	80	<b>22</b> Tu	0542	9.8	300	
	0930	0.3	10			0924	1.6	50			1103	1.0	30			1010	2.3	70			0634	9.2	280			1135	3.6	110
	1613	10.8	330			1634	10.2	310			1725	10.5	320			1714	9.8	300			1306	2.6	80			1821	9.5	290
	2150	1.3	40		2154	2.0	60		2320	2.0	60		2248	3.0	90		1848	9.5	290									
<b>8</b> W	0425	11.5	350		<b>23</b> Th	0423	10.8	330		<b>8</b> Sa	0553	10.5	320		<b>23</b> Su	0519	10.2	310		<b>8</b> Tu	0136	3.0	90	<b>23</b> W	0026	3.3	100	
	1027	0.7	20			1009	2.0	60			1213	1.6	50			1105	3.0	90			0845	8.9	270			0653	9.5	290
	1703	10.5	320			1715	9.8	300			1819	10.2	310			1804	9.5	290			1414	2.6	80			1253	3.6	110
	2245	1.6	50		2241	2.6	80						2348	3.3	100		2040	9.5	290		1945	9.5	290					
<b>9</b> Th	0518	10.8	330		<b>24</b> F	0506	10.5	320		<b>9</b> Su	0031	2.6	80		<b>24</b> M	0616	9.5	290		<b>9</b> W	0246	2.6	80	<b>24</b> Th	0149	3.0	90	
	1130	1.0	30			1101	2.3	70			0707	9.5	290			1212	3.3	100			0959	9.5	290			0822	9.5	290
	1756	10.2	310			1801	9.5	290			1325	2.0	60			1907	9.2	280			1512	2.3	70			1412	3.3	100
	2346	2.0	60		2335	3.0	90		1930	9.5	290						2158	10.2	310		2112	10.2	310					
<b>10</b> F	0623	10.5	320		<b>25</b> Sa	0557	9.8	300		<b>10</b> M	0152	2.6	80		<b>25</b> Tu	0101	3.3	100		<b>10</b> Th	0342	2.0	60	<b>25</b> F	0259	2.0	60	
	1236	1.3	40			1200	2.6	80			0854	9.2	280			0727	9.2	280			1050	10.2	310			0945	10.2	310
	1858	9.8	300			1855	9.2	280			1431	2.0	60			1328	3.3	100			1602	2.0	60			1515	2.3	70
									2108	9.8	300		2026	9.5	290		2250	10.8	330		2214	10.8	330					
<b>11</b> Sa	0055	2.3	70		<b>26</b> Su	0037	3.3	100		<b>11</b> Tu	0303	2.3	70		<b>26</b> W	0221	3.0	90		<b>11</b> F	0428	1.3	40	<b>26</b> Sa	0352	1.0	30	
	0743	9.8	300			0657	9.5	290			1010	9.8	300			0847	9.5	290			1134	10.5	320			1042	10.8	330
	1344	1.3	40			1306	3.0	90			1529	2.0	60			1439	2.6	80			1646	1.3	40			1606	1.6	50
	2014	9.8	300		1959	9.2	280		2219	10.2	310		2144	9.8	300		2333	11.2	340		2305	11.5	350					
<b>12</b> Su	0209	2.3	70		<b>27</b> M	0149	3.3	100		<b>12</b> W	0400	1.6	50		<b>27</b> Th	0326	2.0	60		<b>12</b> Sa	0507	1.3	40	<b>27</b> Su	0438	0.0	0	
	0907	9.8	300			0805	9.5	290			1105	10.2	310			1001	9.8	300			1212	10.8	330			1130	11.2	340
	1446	1.3	40			1411	2.6	80			1620	1.6	50			1537	2.0	60			1724	1.3	40			1652	1.0	30
	2131	9.8	300		2113	9.5	290		2311	10.8	330		2241	10.8	330						2352	12.1	370					
<b>13</b> M	0316	2.0	60		<b>28</b> Tu	0257	2.6	80		<b>13</b> Th	0448	1.3	40		<b>28</b> F	0416	1.0	30		<b>13</b> Su	0010	11.5	350	<b>28</b> M	0521	-0.3	-10	
	1016	10.2	310			0916	9.5	290			1153	10.5	320			1059	10.5	320			0540	1.0	30			1215	11.5	350
	1543	1.3	40			1509	2.3	70			1705	1.3	40			1626	1.3	40			1247	10.8	330			1736	0.3	10
	2234	10.5	320		2216	10.2	310		2355	11.2	340		2328	11.5	350		1758	1.3	40									
<b>14</b> Tu	0413	1.6	50		<b>29</b> W	0352	2.0	60		<b>14</b> F	0528	1.0	30		<b>29</b> Sa	0501	0.0	0		<b>14</b> M	0043	11.5	350	<b>29</b> Tu	0038	12.5	380	



# Ullapool, Scotland, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0410	14.8	450	<b>16</b> F	0323	13.8	420	<b>1</b> Su	0536	15.4	470	<b>16</b> M	0444	15.1	460								
	1016	6.2	190		0928	7.5	230		1155	5.2	160		1106	5.2	160	<b>1</b> Su	0432	13.8	420				
	1627	15.1	460		1543	13.8	420		1754	15.1	460		1715	15.1	460		1655	13.8	420				
	2241	5.6	170		2209	6.6	200						2334	4.6	140		2303	6.2	190				
<b>2</b> F	0503	15.4	470	<b>17</b> Sa	0419	14.4	440	<b>2</b> M	0005	5.2	160	<b>17</b> Tu	0532	16.4	500		<b>2</b> M	0518	14.4	440	<b>17</b> Tu	0419	14.8
	1115	5.6	170		1032	6.6	200		0612	16.1	490		1158	3.6	110	1137		5.2	160	1046		4.6	140
	1719	15.4	470		1641	14.4	440		1237	4.6	140		1800	16.4	500	1736		14.4	440	1656		15.1	460
	2333	4.9	150		2304	5.6	170		1830	15.7	480					2347		5.2	160	2314		4.3	130
<b>3</b> Sa	0546	16.1	490	<b>18</b> Su	0507	15.7	480	<b>3</b> Tu	0044	4.6	140	<b>18</b> W	0021	3.3	100	<b>3</b> Tu	0553	15.4	470	<b>18</b> W	0510	16.1	490
	1205	4.9	150		1126	5.2	160		0644	16.4	500		0615	17.7	540		1216	4.3	130		1138	3.0	90
	1803	16.1	490		1730	15.4	470		1313	3.9	120		1842	17.4	530		1811	15.1	460		1742	16.4	500
					2352	4.6	140		1902	16.1	490												
<b>4</b> Su	0017	4.6	140	<b>19</b> M	0551	16.7	510	<b>4</b> W	0119	3.9	120	<b>19</b> Th	0105	2.0	60	<b>4</b> W	0024	4.6	140	<b>19</b> Th	0001	3.0	90
	0623	16.4	500		1214	3.9	120		0714	16.7	510		0656	18.7	570		0624	15.7	480		0554	17.4	530
	1249	4.3	130		1815	16.4	500		1347	3.6	110		1329	1.0	30		1252	3.6	110		1225	1.6	50
	1842	16.1	490						1933	16.4	500		1924	18.0	550		1841	15.7	480		1823	17.4	530
<b>5</b> M	0058	4.3	130	<b>20</b> Tu	0037	3.6	110	<b>5</b> Th	0151	3.6	110	<b>20</b> F	0147	1.3	40	<b>5</b> Th	0058	3.9	120	<b>20</b> F	0046	1.6	50
	0658	16.7	510		0632	17.7	540		0741	16.7	510		0738	19.4	590		0651	16.4	500		0636	18.7	570
	1328	3.9	120		1300	2.6	80		1419	3.3	100		1412	0.7	20		1323	3.3	100		1308	0.7	20
	1918	16.4	500		1858	17.4	530		2002	16.4	500		2005	18.0	550		1909	16.1	490		1903	18.0	550
<b>6</b> Tu	0134	3.9	120	<b>21</b> W	0121	2.6	80	<b>6</b> F	0222	3.6	110	<b>21</b> Sa	0229	1.0	30	<b>6</b> F	0129	3.3	100	<b>21</b> Sa	0128	1.0	30
	0730	17.1	520		0714	18.7	570		0808	16.7	510		0821	19.0	580		0718	16.4	500		0718	19.0	580
	1404	3.6	110		1345	2.0	60		1449	3.3	100		1454	0.7	20		1353	3.0	90		1350	0.3	10
	1952	16.4	500		1941	17.7	540		2031	16.1	490		2048	17.7	540		1936	16.4	500		1943	18.0	550
<b>7</b> W	0209	3.9	120	<b>22</b> Th	0204	2.0	60	<b>7</b> Sa	0252	3.6	110	<b>22</b> Su	0312	1.3	40	<b>7</b> Sa	0159	3.3	100	<b>22</b> Su	0210	0.7	20
	0801	17.1	520		0757	19.0	580		0836	16.4	500		0906	18.4	560		0743	16.7	510		0800	18.7	570
	1439	3.6	110		1429	1.3	40		1519	3.6	110		1536	1.3	40		1422	3.0	90		1431	0.3	10
	2025	16.1	490		2025	17.7	540		2101	15.7	480		2132	17.1	520		2003	16.4	500		2024	17.7	540
<b>8</b> Th	0242	4.3	130	<b>23</b> F	0247	2.0	60	<b>8</b> Su	0323	3.9	120	<b>23</b> M	0355	2.3	70	<b>8</b> Su	0228	3.3	100	<b>23</b> M	0252	1.0	30
	0831	16.7	510		0841	18.7	570		0906	16.1	490		0955	17.4	530		0810	16.4	500		0845	18.0	550
	1513	3.9	120		1513	1.6	50		1550	3.9	120		1619	2.6	80		1451	3.0	90		1512	1.3	40
	2058	15.7	480		2111	17.4	530		2134	15.4	470		2222	15.7	480		2032	16.1	490		2106	17.1	520
<b>9</b> F	0316	4.6	140	<b>24</b> Sa	0330	2.3	70	<b>9</b> M	0355	4.6	140	<b>24</b> Tu	0441	3.6	110	<b>9</b> M	0257	3.3	100	<b>24</b> Tu	0334	2.0	60
	0902	16.1	490		0928	18.4	560		0939	15.4	470		1051	16.1	490		0839	16.1	490		0933	16.7	510
	1547	4.3	130		1558	2.0	60		1623	4.6	140		1705	3.9	120		1520	3.3	100		1553	2.6	80
	2133	15.1	460		2200	16.4	500		2211	14.8	450		2322	14.4	440		2102	15.7	480		2153	15.7	480
<b>10</b> Sa	0350	4.9	150	<b>25</b> Su	0416	3.3	100	<b>10</b> Tu	0430	5.2	160	<b>25</b> W	0533	4.9	150	<b>10</b> Tu	0328	3.6	110	<b>25</b> W	0419	3.3	100
	0935	15.7	480		1020	17.4	530		1017	14.8	450		1200	14.4	440		0910	15.7	480		1028	15.4	470
	1622	4.9	150		1644	3.0	90		1700	5.6	170		1757	5.6	170		1551	3.9	120		1637	3.9	120
	2211	14.8	450		2254	15.4	470		2257	14.1	430						2137	15.1	460		2248	14.4	440
<b>11</b> Su	0425	5.6	170	<b>26</b> M	0505	4.3	130	<b>11</b> W	0511	6.2	190	<b>26</b> Th	0038	13.5	410	<b>11</b> W	0402	4.3	130	<b>26</b> Th	0509	4.6	140
	1013	15.1	460		1119	16.1	490		1104	14.1	430		0636	6.2	190		0947	14.8	450		1135	14.1	430
	1659	5.6	170		1734	4.3	130		1743	6.2	190		1319	13.5	410		1626	4.6	140		1726	5.6	170
	2256	14.1	430		2359	14.4	440						1903	6.9	210		2219	14.4	440				
<b>12</b> M	0505	6.2	190	<b>27</b> Tu	0601	5.6	170	<b>12</b> Th	0000	13.5	410	<b>27</b> F	0205	13.1	400	<b>12</b> Th	0441	5.2	160	<b>27</b> F	0002	13.5	410
	1058	14.4	440		1228	15.1	460		0601	6.9	210		0804	7.2	220		1033	14.1	430		0608	5.9	180
	1742	6.2	190		1832	5.6	170		1212	13.1	400		1444	13.1	400		1707	5.6	170		1252	13.1	400
	2354	13.5	410						1841	6.9	210		2036	7.5	230		2315	13.8	420		1826	6.9	210
<b>13</b> Tu	0552	7.2	220	<b>28</b> W	0114	13.8	420	<b>13</b> F	0122	13.1	400	<b>28</b> Sa	0330	13.1	400	<b>13</b> F	0529	5.9	180	<b>28</b> Sa	0128	12.8	390
	1158	13.8	420		0709	6.6	200		0710	7.5	230		0942	6.9	210		1138	13.1	400		0731	6.9	210
	1835	6.9	210		1345	14.1	430		1347	12.8	390		1559	13.5	410		1800	6.6	200		1414	12.5	380
					1944	6.6	200		2003	7.2	220		2205	7.2	220						1956	7.5	230
<b>14</b> W	0106	13.1	400	<b>29</b> Th	0237	13.8	420	<b>14</b> Sa	0240	13.1	400	<b>14</b> Sa	0037	13.1	400	<b>14</b> Sa	0037	13.1	400	<b>29</b> Su	0254	12.8	390
	0652	7.9	240		0835	6.9	210		0841	7.5	230		1041	6.9	210		1316	12.8	390		0909	6.9	210
	1319	13.1	400		1505	13.8	420		1510	13.1	400		1510	13.1	400		1920	7.2	220		1531	12.8	390
	1943	7.2	220		2109	6.9	210		2134	6.9	210										2132	7.2	220
<b>15</b> Th	0218	13.1	400	<b>30</b> F	0353	14.1	430	<b>15</b> Su	0348	14.1	430	<b>15</b> Su	0204	13.1	400	<b>15</b> Su	0204	13.1	400	<b>30</b> M	0401	13.1	400
	0809	7.9	240		1000	6.9	210		1004	6.6	200		0806	6.9	210		0806	6.9	210		1020	6.2	190
	1436	13.5	410		1616	14.1	430		1620	14.1	430		1445	12.8	390		1445	12.8	390		1628	13.1	400
	2101	7.2	220		2225	6.6	200		2241	5.9	180		2104	6.9	210						2234	6.6	200

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## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0526	14.4	440	<b>16</b> Th	0446	16.1	490	<b>1</b> F	0525	14.4	440	<b>16</b> Sa	0513	16.4	500	<b>1</b> M	0002	4.3	130	<b>16</b> Tu	0038	3.0	90
	1148	4.6	140		1114	3.0	90		1148	4.3	130		1139	2.3	70		0557	14.8	450		0633	16.1	490
	1744	14.8	450		1721	16.1	490		1744	15.1	460		1744	16.4	500		1224	3.6	110		1253	3.0	90
	2357	4.6	140		2339	3.0	90		2359	4.3	130		2359	4.3	130		1817	15.7	480		1853	16.7	510
<b>2</b> Th	0557	15.1	460	<b>17</b> F	0532	17.1	520	<b>2</b> Sa	0555	15.1	460	<b>17</b> Su	0005	2.6	80	<b>2</b> Tu	0040	3.6	110	<b>17</b> W	0123	2.6	80
	1222	3.6	110		1202	1.6	50		1221	3.6	110		0558	17.1	520		0631	15.4	470		0717	16.1	490
	1815	15.4	470		1803	17.1	520		1814	15.4	470		1824	17.1	520		1850	16.1	490		1931	16.7	510
<b>3</b> F	0030	3.9	120	<b>18</b> Sa	0024	2.0	60	<b>3</b> Su	0033	3.6	110	<b>18</b> M	0051	2.0	60	<b>3</b> W	0117	3.3	100	<b>18</b> Th	0205	2.6	80
	0625	15.7	480		0615	18.0	550		0624	15.4	470		0643	17.1	520		0708	15.7	480		0758	16.1	490
	1254	3.3	100		1246	1.0	30		1254	3.0	90		1308	1.6	50		1336	3.0	90		1414	3.0	90
	1842	15.7	480		1842	17.7	540		1842	16.1	490		1905	17.1	520		1926	16.4	500		2009	16.4	500
<b>4</b> Sa	0102	3.3	100	<b>19</b> Su	0108	1.3	40	<b>4</b> M	0106	3.3	100	<b>19</b> Tu	0135	1.6	50	<b>4</b> Th	0155	2.6	80	<b>19</b> F	0246	2.6	80
	0651	16.1	490		0658	18.4	560		0653	15.7	480		0727	17.1	520		0747	15.7	480		0839	15.4	470
	1325	3.0	90		1328	0.7	20		1325	3.0	90		1350	2.0	60		1413	3.0	90		1452	3.6	110
	1909	16.1	490		1922	17.7	540		1912	16.1	490		1945	17.1	520		2005	16.4	500		2047	15.7	480
<b>5</b> Su	0133	3.0	90	<b>20</b> M	0151	1.0	30	<b>5</b> Tu	0138	3.0	90	<b>20</b> W	0218	2.0	60	<b>5</b> F	0235	2.6	80	<b>20</b> Sa	0325	3.3	100
	0717	16.1	490		0742	18.0	550		0724	15.7	480		0812	16.4	500		0830	15.7	480		0920	14.8	450
	1354	2.6	80		1409	1.0	30		1357	2.6	80		1430	2.3	70		1453	3.3	100		1530	3.9	120
	1937	16.4	500		2002	17.4	530		1943	16.4	500		2026	16.4	500		2048	16.4	500		2125	15.4	470
<b>6</b> M	0203	3.0	90	<b>21</b> Tu	0233	1.3	40	<b>6</b> W	0212	3.0	90	<b>21</b> Th	0300	2.3	70	<b>6</b> Sa	0317	3.0	90	<b>21</b> Su	0405	3.9	120
	0745	16.1	490		0826	17.4	530		0758	15.7	480		0858	15.7	480		0918	15.1	460		1002	14.4	440
	1423	2.6	80		1449	1.6	50		1430	3.0	90		1510	3.3	100		1535	3.6	110		1609	4.6	140
	2005	16.1	490		2044	16.7	510		2018	16.1	490		2108	15.7	480		2137	15.7	480		2204	14.4	440
<b>7</b> Tu	0233	3.0	90	<b>22</b> W	0316	2.0	60	<b>7</b> Th	0248	3.0	90	<b>22</b> F	0343	3.3	100	<b>7</b> Su	0402	3.3	100	<b>22</b> M	0445	4.6	140
	0815	16.1	490		0914	16.1	490		0837	15.4	470		0946	14.8	450		1013	14.8	450		1048	13.8	420
	1453	3.0	90		1530	3.0	90		1506	3.3	100		1551	4.3	130		1622	4.3	130		1650	5.6	170
	2037	15.7	480		2129	15.7	480		2058	15.7	480		2153	14.8	450		2232	15.4	470		2249	13.8	420
<b>8</b> W	0305	3.3	100	<b>23</b> Th	0400	3.3	100	<b>8</b> F	0326	3.3	100	<b>23</b> Sa	0428	4.3	130	<b>8</b> M	0453	3.6	110	<b>23</b> Tu	0529	5.2	160
	0850	15.4	470		1008	14.8	450		0922	14.8	450		1038	13.8	420		1116	14.1	430		1141	13.1	400
	1525	3.6	110		1613	4.3	130		1545	3.9	120		1634	5.2	160		1716	4.9	150		1736	6.2	190
	2113	15.4	470		2220	14.8	450		2145	15.1	460		2244	14.1	430		2337	14.8	450		2346	13.1	400
<b>9</b> Th	0341	3.9	120	<b>24</b> F	0448	4.3	130	<b>9</b> Sa	0410	3.9	120	<b>24</b> Su	0516	4.9	150	<b>9</b> Tu	0551	4.3	130	<b>24</b> W	0619	5.9	180
	0929	14.8	450		1109	13.8	420		1018	14.1	430		1135	13.1	400		1224	13.8	420		1242	12.8	390
	1601	4.3	130		1659	5.6	170		1630	4.9	150		1722	6.2	190		1821	5.6	170		1830	6.9	210
	2156	14.8	450		2324	13.5	410		2243	14.4	440		2345	13.1	400		2345	13.1	400		2345	13.1	400
<b>10</b> F	0421	4.6	140	<b>25</b> Sa	0543	5.6	170	<b>10</b> Su	0501	4.6	140	<b>25</b> M	0611	5.9	180	<b>10</b> W	0046	14.4	440	<b>25</b> Th	0055	12.8	390
	1020	14.1	430		1218	12.8	390		1127	13.5	410		1238	12.5	380		1334	13.8	420		0718	6.2	190
	1643	5.2	160		1754	6.6	200		1726	5.6	170		1820	6.9	210		1935	5.9	180		1348	12.5	380
	2253	14.1	430		2355	14.1	430		2355	14.1	430		2355	14.1	430		2355	14.1	430		1936	7.2	220
<b>11</b> Sa	0510	5.2	160	<b>26</b> Su	0040	12.8	390	<b>11</b> M	0604	5.2	160	<b>26</b> Tu	0056	12.8	390	<b>11</b> Th	0155	14.4	440	<b>26</b> F	0206	12.8	390
	1130	13.1	400		0652	6.6	200		1245	13.1	400		0717	6.2	190		0812	4.9	150		0827	6.6	200
	1737	6.2	190		1331	12.5	380		1839	6.2	190		1346	12.5	380		1443	13.8	420		1452	12.8	390
					1908	7.5	230		1908	7.5	230		1932	7.2	220		2051	5.6	170		2049	7.2	220
<b>12</b> Su	0012	13.5	410	<b>27</b> M	0201	12.5	380	<b>12</b> Tu	0110	13.8	420	<b>27</b> W	0208	12.5	380	<b>12</b> F	0302	14.8	450	<b>27</b> Sa	0310	12.8	390
	0614	5.9	180		0818	6.6	200		0722	5.2	160		0829	6.6	200		0922	4.6	140		0933	6.2	190
	1301	12.8	390		1446	12.5	380		1400	13.5	410		1452	12.5	380		1547	14.4	440		1548	13.5	410
	1855	6.9	210		2038	7.5	230		2006	6.2	190		2049	7.2	220		2158	4.9	150		2154	6.6	200
<b>13</b> M	0135	13.5	410	<b>28</b> Tu	0314	12.8	390	<b>13</b> W	0221	14.1	430	<b>28</b> Th	0313	12.8	390	<b>13</b> Sa	0404	15.1	460	<b>28</b> Su	0406	13.1	400
	0743	6.2	190		0933	6.2	190		0843	4.9	150		0934	5.9	180		1025	3.9	120		1027	5.6	170
	1424	13.1	400		1547	12.8	390		1510	13.8	420		1548	13.1	400		1642	15.1	460		1635	14.1	430
	2035	6.6	200		2150	6.9	210		2122	5.6	170		2152	6.6	200		2257	4.3	130		2247	5.9	180
<b>14</b> Tu	0249	13.8	420	<b>29</b> W	0408	13.1	400	<b>14</b> Th	0326	14.8	450	<b>29</b> F	0405	13.1	400	<b>14</b> Su	0459	15.4	470	<b>29</b> M	0452	13.8	420
	0913	5.6	170		1028	5.6	170		0952	4.3	130		1026	5.6	170		1119	3.6	110		1114	4.9	150
	1536	13.8	420		1634	13.5	410		1610	14.8	450		1633	13.8	420		1730	15.7	480		1716	14.8	450
	2153	5.6	170		2241	5.9	180		2224	4.6	140		2241	5.9	180		2350	3.6	110		2333	4.9	150
<b>15</b> W	0353	14.8	450	<b>30</b> Th	0450	13.8	420	<b>15</b> F	0423	15.4	470	<b>30</b> Sa	0447	13.8	420	<b>15</b> M	0548	15.7	480	<b>30</b> Tu	0534	14.4	440
	1021	4.3	130		1111	4.9	150		1049	3.3	100		1109	4.9	150		1208	3.3	100		1157	4.3	130
	1634	14.8	450		1712	14.1	430		1700	15.7	480		1711	14.4	440		1813	16.4	500		1754	15.7	480
	2250	4																					

## Ullapool, Scotland, 2015

## Times and Heights of High and Low Waters

July				August				September																		
Time		Height		Time		Height		Time		Height		Time		Height												
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm											
<b>1</b> W	0016	3.9	120	<b>16</b> Th	0112	3.3	100	<b>1</b> Sa	0125	2.0	60	<b>16</b> Su	0206	3.0	90	<b>1</b> Tu	0230	0.7	20	<b>16</b> W	0237	3.3	100			
	0614	15.1	460		0705	15.7	480		0721	16.7	510		0749	16.1	490		0823	17.7	540		0817	16.1	490			
	1238	3.6	110		1320	3.6	110		1344	2.3	70		1410	3.3	100		1449	1.3	40		1444	3.6	110	1444	3.6	110
	1832	16.4	500		1917	16.4	500		1935	18.0	550		1955	16.4	500		2040	18.7	570		2023	16.1	490	2023	16.1	490
<b>2</b> Th	0059	3.3	100	<b>17</b> F	0152	3.0	90	<b>2</b> Su	0208	1.3	40	<b>17</b> M	0237	3.0	90	<b>2</b> W	0312	1.0	30	<b>17</b> Th	0306	3.6	110			
	0654	15.7	480		0741	15.7	480		0803	17.1	520		0819	15.7	480		0908	17.1	520		0847	15.7	480			
	1318	3.0	90		1357	3.3	100		1426	2.0	60		1441	3.6	110		1532	2.0	60		1515	3.9	120	1515	3.9	120
	1911	16.7	510		1950	16.4	500		2018	18.4	560		2023	16.1	490		2129	17.7	540		2054	15.4	470	2054	15.4	470
<b>3</b> F	0141	2.6	80	<b>18</b> Sa	0228	3.0	90	<b>3</b> M	0251	1.0	30	<b>18</b> Tu	0308	3.3	100	<b>3</b> Th	0355	2.0	60	<b>18</b> F	0337	4.3	130			
	0736	16.1	490		0816	15.7	480		0847	17.1	520		0849	15.4	470		0957	16.1	490		0921	15.1	460			
	1359	2.6	80		1433	3.6	110		1509	2.0	60		1513	3.9	120		1618	3.3	100		1549	4.6	140	1549	4.6	140
	1952	17.1	520		2022	16.1	490		2103	18.0	550		2053	15.7	480		2224	16.4	500		2130	14.8	450	2130	14.8	450
<b>4</b> Sa	0223	2.0	60	<b>19</b> Su	0303	3.0	90	<b>4</b> Tu	0334	1.3	40	<b>19</b> W	0339	3.6	110	<b>4</b> F	0441	3.3	100	<b>19</b> Sa	0411	4.9	150			
	0820	16.4	500		0850	15.4	470		0934	16.4	500		0921	15.1	460		1056	15.1	460		1001	14.4	440			
	1441	2.6	80		1507	3.9	120		1553	2.6	80		1545	4.3	130		1709	4.6	140		1626	5.6	170	1626	5.6	170
	2036	17.4	530		2054	15.7	480		2153	17.1	520		2125	15.1	460		2333	14.8	450		2213	14.1	430	2213	14.1	430
<b>5</b> Su	0307	2.0	60	<b>20</b> M	0338	3.6	110	<b>5</b> W	0419	2.3	70	<b>20</b> Th	0411	4.3	130	<b>5</b> Sa	0533	4.9	150	<b>20</b> Su	0450	5.9	180			
	0907	16.1	490		0925	14.8	450		1026	15.7	480		0958	14.4	440		1212	14.1	430		1055	13.8	420			
	1524	3.0	90		1542	4.3	130		1640	3.3	100		1619	4.9	150		1811	5.9	180		1712	6.2	190	1712	6.2	190
	2123	17.1	520		2127	15.1	460		2249	16.1	490		2202	14.4	440		1933	6.6	200		2316	13.1	400	2316	13.1	400
<b>6</b> M	0352	2.3	70	<b>21</b> Tu	0412	3.9	120	<b>6</b> Th	0508	3.3	100	<b>21</b> F	0447	5.2	160	<b>6</b> Su	0053	13.8	420	<b>21</b> M	0539	6.9	210			
	0957	15.7	480		1002	14.4	440		1128	14.8	450		1042	13.8	420		0636	6.2	190		1216	13.1	400			
	1610	3.3	100		1617	4.9	150		1733	4.6	140		1659	5.9	180		1336	13.5	410		1812	7.2	220	1812	7.2	220
	2215	16.4	500		2203	14.4	440		2356	15.1	460		2248	13.8	420		1933	6.6	200		2316	13.1	400	2316	13.1	400
<b>7</b> Tu	0440	2.6	80	<b>22</b> W	0449	4.6	140	<b>7</b> F	0602	4.6	140	<b>22</b> Sa	0528	5.9	180	<b>7</b> M	0216	13.5	410	<b>22</b> Tu	0055	12.8	390			
	1054	15.1	460		1045	13.8	420		1239	14.1	430		1143	13.1	400		0802	7.2	220		0651	7.5	230			
	1700	3.9	120		1655	5.6	170		1837	5.6	170		1746	6.6	200		1500	13.5	410		1343	13.1	400	1343	13.1	400
	2315	15.7	480		2246	13.8	420		2355	12.8	390		2355	12.8	390		2111	6.6	200		1938	7.2	220	1938	7.2	220
<b>8</b> W	0532	3.6	110	<b>23</b> Th	0529	5.6	170	<b>8</b> Sa	0110	14.1	430	<b>23</b> Su	0621	6.9	210	<b>8</b> Tu	0334	13.5	410	<b>23</b> W	0224	12.8	390			
	1158	14.4	440		1139	13.1	400		0707	5.6	170		1303	12.8	390		0936	6.9	210		0833	7.5	230			
	1758	4.9	150		1739	6.2	190		1357	13.5	410		1850	7.2	220		1607	14.1	430		1456	13.8	420	1456	13.8	420
					2342	13.1	400		1956	6.2	190		2016	7.5	230		2226	5.9	180		2113	6.6	200	2113	6.6	200
<b>9</b> Th	0021	15.1	460	<b>24</b> F	0617	6.2	190	<b>9</b> Su	0229	13.8	420	<b>24</b> M	0129	12.5	380	<b>9</b> W	0434	13.8	420	<b>24</b> Th	0337	13.8	420			
	0631	4.3	130		1246	12.8	390		0828	6.2	190		0735	7.2	220		1041	6.2	190		0954	6.6	200			
	1307	13.8	420		1834	6.9	210		1516	13.8	420		1420	13.1	400		1657	14.8	450		1556	14.8	450	1556	14.8	450
	1905	5.6	170				2124		6.2	190	2237		5.6	170	2016		7.5	230	2317		5.2	160	2221	5.2	160	2221
<b>10</b> F	0131	14.4	440	<b>25</b> Sa	0058	12.8	390	<b>10</b> M	0345	13.8	420	<b>25</b> Tu	0252	12.8	390	<b>10</b> Th	0519	14.4	440	<b>25</b> F	0433	14.8	450			
	0739	4.9	150		0717	6.9	210		0951	6.2	190		0908	7.2	220		1127	5.6	170		1050	5.2	160			
	1419	13.8	420		1356	12.8	390		1622	14.1	430		1527	13.5	410		1735	15.4	470		1646	16.1	490	1646	16.1	490
	2021	5.9	180		1943	7.2	220		2237	5.6	170		2142	6.6	200		2358	4.3	130		2313	3.9	120	2313	3.9	120
<b>11</b> Sa	0242	14.1	430	<b>26</b> Su	0216	12.5	380	<b>11</b> Tu	0447	14.1	430	<b>26</b> W	0401	13.5	410	<b>11</b> F	0555	15.1	460	<b>26</b> Sa	0519	16.1	490			
	0854	5.2	160		0833	6.9	210		1055	5.6	170		1019	6.2	190		1206	4.6	140		1137	3.6	110			
	1530	14.1	430		1502	13.1	400		1712	14.8	450		1623	14.4	440		1807	16.1	490		1730	17.4	530	1730	17.4	530
	2138	5.6	170		2103	7.2	220		2333	4.9	150		2245	5.6	170		2245	5.6	170		2359	2.3	70	2359	2.3	70
<b>12</b> Su	0352	14.4	440	<b>27</b> M	0325	12.8	390	<b>12</b> W	0534	14.8	450	<b>27</b> Th	0455	14.4	440	<b>12</b> Sa	0035	3.6	110	<b>27</b> Su	0600	17.1	520			
	1005	5.2	160		0946	6.6	200		1145	4.9	150		1112	4.9	150		0625	15.7	480		1221	2.6	80			
	1631	14.4	440		1600	13.8	420		1753	15.4	470		1710	15.7	480		1242	3.9	120		1812	18.4	560	1812	18.4	560
	2245	4.9	150		2212	6.6	200						2336	3.9	120		1835	16.4	500							
<b>13</b> M	0452	14.8	450	<b>28</b> Tu	0425	13.5	410	<b>13</b> Th	0018	3.9	120	<b>28</b> F	0540	15.7	480	<b>13</b> Su	0108	3.3	100	<b>28</b> M	0043	1.3	40			
	1106	4.9	150		1045	5.6	170		0613	15.4	470		1159	3.6	110		0654	16.1	490		0639	18.0	550			
	1721	15.1	460		1649	14.8	450		1227	4.3	130		1753	17.1	520		1314	3.6	110		1304	1.6	50			
	2341	4.3	130		2308	5.2	160		1827	16.1	490						1902	16.7	510		1852	19.0	580	1852	19.0	580
<b>14</b> Tu	0543	15.1	460	<b>29</b> W	0514	14.4	440	<b>14</b> F	0057	3.6	110	<b>29</b> Sa	0022	2.6	80	<b>14</b> M	0139	3.0	90	<b>29</b> Tu	0126	0.7	20			
	1156	4.3	130		1134	4.9	150		0648	15.7	480		0621	16.7	510		0722	16.4	500		0719	18.4	560			
	1804	15.7	480		1733	15.7	480		1304	3.9	120		1243	2.6	80		1345	3.3	100		1346	1.0	30			



# Ullapool, Scotland, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> Th	0249	1.3	40		<b>16</b> F	0238	3.6	110		<b>1</b> Su	0353	4.3	130		<b>16</b> M	0325	4.6	140		<b>1</b> Tu	0417	5.6	170		<b>16</b> W	0355	4.6	140	
	0842	17.7	540			0820	16.4	500			0959	15.7	480			0919	15.7	480			1024	15.1	460			0958	16.4	500	
	1512	2.0	60			1450	3.9	120			1629	4.6	140			1548	4.6	140			1659	5.6	170			1624	4.3	130	
	2107	17.4	530			2031	15.7	480			2247	14.8	450			2146	14.8	450			2313	14.1	430			2233	15.1	460	
<b>2</b> F	0331	2.3	70		<b>17</b> Sa	0309	4.3	130		<b>2</b> M	0441	5.6	170		<b>17</b> Tu	0406	5.6	170		<b>2</b> W	0505	6.6	200		<b>17</b> Th	0443	5.6	170	
	0929	16.4	500			0854	15.7	480			1104	14.8	450			1011	15.4	470			1125	14.4	440			1056	15.7	480	
	1557	3.3	100			1524	4.6	140			1725	5.9	180			1635	5.2	160			1753	6.2	190			1717	4.9	150	
	2203	16.1	490			2108	15.1	460			2358	13.8	420			2248	14.1	430								2339	14.4	440	
<b>3</b> Sa	0416	3.9	120		<b>18</b> Su	0343	4.9	150		<b>3</b> Tu	0536	6.9	210		<b>18</b> W	0456	6.2	190		<b>3</b> Th	0017	13.5	410		<b>18</b> F	0540	6.2	190	
	1026	15.4	470			0934	15.1	460			1224	13.8	420			1117	14.8	450			0600	7.5	230			1204	15.4	470	
	1648	4.6	140			1603	5.2	160			1834	6.9	210			1732	5.9	180			1237	13.8	420			1819	5.6	170	
	2312	14.8	450			2154	14.4	440			☉										1856	6.9	210			☉			
<b>4</b> Su	0505	5.6	170		<b>19</b> M	0423	5.9	180		<b>4</b> W	0114	13.1	400		<b>19</b> Th	0007	13.8	420		<b>4</b> F	0128	13.1	400		<b>19</b> Sa	0052	14.1	430	
	1141	14.1	430			1026	14.4	440			0647	7.9	240			0601	6.9	210			0708	7.9	240			0650	6.6	200	
	1748	5.9	180			1649	5.9	180			1347	13.5	410			1236	14.4	440			1354	13.5	410			1316	15.1	460	
	☉					2258	13.5	410			1957	7.2	220			☉	1845	6.2	190			2009	7.2	220			1930	5.6	170
<b>5</b> M	0031	13.8	420		<b>20</b> Tu	0512	6.6	200		<b>5</b> Th	0231	13.1	400		<b>20</b> F	0126	13.8	420		<b>5</b> Sa	0238	13.1	400		<b>20</b> Su	0205	14.1	430	
	0606	6.9	210			1142	13.8	420			0815	7.9	240			0725	7.2	220			0827	7.9	240			0809	6.6	200	
	1308	13.5	410			1748	6.6	200			1501	13.5	410			1350	14.8	450			1503	13.5	410			1426	15.1	460	
	1908	6.9	210			☉					2115	6.9	210			2007	5.9	180			2118	6.9	210			2045	5.6	170	
<b>6</b> Tu	0154	13.1	400		<b>21</b> W	0031	13.1	400		<b>6</b> F	0334	13.5	410		<b>21</b> Sa	0238	14.1	430		<b>6</b> Su	0337	13.8	420		<b>21</b> M	0315	14.8	450	
	0730	7.5	230			0622	7.5	230			0931	7.5	230			0847	6.6	200			0936	7.5	230			0923	6.2	190	
	1433	13.5	410			1309	13.8	420			1556	14.1	430			1456	15.1	460			1557	13.8	420			1532	15.4	470	
	2045	6.9	210			1910	6.9	210			2212	6.2	190			2120	5.2	160			2213	6.6	200			2154	5.2	160	
<b>7</b> W	0312	13.1	400		<b>22</b> Th	0157	13.1	400		<b>7</b> Sa	0422	14.1	430		<b>22</b> Su	0342	15.1	460		<b>7</b> M	0424	14.4	440		<b>22</b> Tu	0416	15.4	470	
	0907	7.5	230			0800	7.5	230			1025	6.9	210			0953	5.6	170			1029	6.9	210			1028	5.2	160	
	1542	13.8	420			1423	14.1	430			1639	14.4	440			1555	16.1	490			1641	14.4	440			1632	16.1	490	
	2200	6.2	190			2042	6.6	200			2256	5.6	170			2220	4.3	130			2258	5.9	180			2253	4.6	140	
<b>8</b> Th	0411	13.8	420		<b>23</b> F	0310	13.8	420		<b>8</b> Su	0500	14.8	450		<b>23</b> M	0434	16.1	490		<b>8</b> Tu	0503	15.1	460		<b>23</b> W	0507	16.4	500	
	1014	6.9	210			0923	6.6	200			1108	5.9	180			1049	4.6	140			1112	6.2	190			1124	4.6	140	
	1632	14.4	440			1527	15.1	460			1714	15.1	460			1647	17.1	520			1718	15.1	460			1725	16.7	510	
	2251	5.6	170			2153	5.2	160			2334	4.9	150			2312	3.3	100			2337	5.2	160			2345	3.9	120	
<b>9</b> F	0455	14.4	440		<b>24</b> Sa	0409	15.1	460		<b>9</b> M	0533	15.4	470		<b>24</b> Tu	0520	17.1	520		<b>9</b> W	0537	15.7	480		<b>24</b> Th	0553	17.1	520	
	1101	5.9	180			1023	5.2	160			1145	5.2	160			1139	3.6	110			1151	5.6	170			1215	3.6	110	
	1710	15.1	460			1620	16.1	490			1744	15.7	480			1734	17.7	540			1751	15.4	470			1813	17.1	520	
	2331	4.9	150			2248	3.9	120																					
<b>10</b> Sa	0530	15.1	460		<b>25</b> Su	0456	16.1	490		<b>10</b> Tu	0008	4.3	130		<b>25</b> W	0000	2.6	80		<b>10</b> Th	0013	4.6	140		<b>25</b> F	0031	3.3	100	
	1140	5.2	160			1113	3.9	120			0602	16.1	490			0602	17.7	540			0609	16.4	500			0634	17.4	530	
	1742	15.7	480			1707	17.4	530			1219	4.6	140			1226	2.6	80			1228	4.9	150			1302	3.3	100	
	☉					2335	2.6	80			1813	16.1	490			☉	1819	18.0	550			1823	16.1	490			☉	1857	17.4
<b>11</b> Su	0006	4.3	130		<b>26</b> M	0539	17.4	530		<b>11</b> W	0040	3.9	120		<b>26</b> Th	0045	2.3	70		<b>11</b> F	0048	4.3	130						
	0600	15.7	480			1158	3.0	90			0631	16.7	510			0643	18.0	550			0640	16.7	510		0714	17.7	540		
	1215	4.6	140			1751	18.4	560			1252	4.3	130			1312	2.3	70			1304	4.3	130		1346	3.0	90		
	1810	16.1	490			☉					1841	16.4	500			1904	18.0	550			1856	16.1	490		1940	17.1	520		
<b>12</b> M	0039	3.6	110		<b>27</b> Tu	0020	1.6	50		<b>12</b> Th	0112	3.6	110		<b>27</b> F	0128	2.3	70		<b>12</b> Sa	0122	3.9	120						
	0628	16.4	500			0618	18.0	550			0659	16.7	510			0724	18.0	550			0713	17.1	520		0753	17.7	540		
	1247	3.9	120			1243	2.0	60			1324	3.9	120			1356	2.3	70			1340	3.9	120		1428	3.0	90		
	1837	16.4	500			1833	19.0	580			1910	16.4	500			1950	17.7	540			1931	16.4	500		2021	16.7	510		
<b>13</b> Tu	0110	3.3	100		<b>28</b> W	0103	1.3	40		<b>13</b> F	0143	3.6	110		<b>28</b> Sa	0210	2.6	80		<b>13</b> Su	0157	3.9	120						
	0655	16.7	510			0658	18.4	560			0729	17.1	520			0806	17.7	540			0748	17.4	530		0832	17.4	530		
	1318	3.6	110			1326	1.6	50			1357	3.9	120			1440	2.6	80			1417	3.6	110		1509	3.3	100		
	1903	16.7	510			1917	19.0	580			1942	16.4	500			2036	17.1	520			2009	16.4	500		2101	16.1			

## Dublin (Baile Atha Cliath), Eire, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height			Time	Height			Time	Height			Time	Height										
	h	m	ft		h	m	ft		h	m	ft		h	m	ft	h	m	ft					
<b>1</b> Th	0149	3.6	110	<b>16</b> F	0107	4.6	140	<b>1</b> Su	0331	3.9	120	<b>16</b> M	0235	3.6	110	<b>1</b> Su	0215	4.6	140	<b>16</b> M	0103	4.3	130
	0838	12.5	380		0756	11.5	350		1011	12.8	390		0913	12.1	370		0851	11.8	360		0743	11.2	340
	1418	4.3	130		1337	4.9	150		1556	3.3	100		1503	3.0	90		1446	3.9	120		1341	3.3	100
	2057	12.5	380		2021	11.5	350		2237	12.1	370		2147	12.5	380		2128	11.5	350		2029	11.5	350
<b>2</b> F	0252	3.6	110	<b>17</b> Sa	0206	4.3	130	<b>2</b> M	0415	3.6	110	<b>17</b> Tu	0326	2.6	80	<b>2</b> M	0313	4.3	130	<b>17</b> Tu	0212	3.6	110
	0937	12.8	390		0851	11.8	360		1056	12.8	390		1002	13.1	400		0949	12.1	370		0847	12.1	370
	1517	3.6	110		1433	4.3	130		1638	3.0	90		1552	1.6	50		1537	3.3	100		1443	2.3	70
	2157	12.5	380		2117	11.8	360		2318	12.1	370		2234	13.1	400		2219	11.8	360		2126	12.1	370
<b>3</b> Sa	0344	3.3	100	<b>18</b> Su	0258	3.6	110	<b>3</b> Tu	0452	3.3	100	<b>18</b> W	0411	1.6	50	<b>3</b> Tu	0356	3.6	110	<b>18</b> W	0307	2.6	80
	1028	13.1	400		0938	12.8	390		1132	13.1	400		1047	13.8	420		1035	12.5	380		0940	13.1	400
	1607	3.3	100		1523	3.3	100		1715	2.6	80		1637	1.0	30		1617	2.6	80		1535	1.3	40
	2248	12.5	380		2206	12.5	380		2348	12.1	370		2318	13.5	410		2257	11.8	360		2216	12.8	390
<b>4</b> Su	0428	3.3	100	<b>19</b> M	0344	2.6	80	<b>4</b> W	0525	3.0	90	<b>19</b> Th	0454	1.0	30	<b>4</b> W	0432	3.3	100	<b>19</b> Th	0354	1.6	50
	1112	13.5	410		1022	13.5	410		1201	13.1	400		1130	14.4	440		1110	12.8	390		1028	13.8	420
	1651	3.0	90		1608	2.3	70		1749	2.3	70		1720	0.3	10		1652	2.3	70		1620	0.7	20
	2329	12.8	390		2251	13.1	400										2326	12.1	370		2300	13.5	410
<b>5</b> M	0507	3.0	90	<b>20</b> Tu	0427	2.0	60	<b>5</b> Th	0013	12.1	370	<b>20</b> F	0001	13.8	420	<b>5</b> Th	0504	2.6	80	<b>20</b> F	0437	1.0	30
	1148	13.5	410		1105	14.1	430		0555	2.6	80		0535	0.7	20		1139	12.8	390		1113	14.1	430
	1731	2.6	80		1652	1.3	40		1229	13.1	400		1215	14.8	450		1724	2.3	70		1703	0.0	0
					2335	13.5	410		1821	2.3	70		1804	0.0	0		2350	12.1	370		2341	13.8	420
<b>6</b> Tu	0003	12.5	380	<b>21</b> W	0509	1.6	50	<b>6</b> F	0042	12.1	370	<b>21</b> Sa	0044	13.8	420	<b>6</b> F	0533	2.6	80	<b>21</b> Sa	0519	0.3	10
	0541	3.0	90		1148	14.4	440		0624	2.6	80		0619	0.7	20		1206	12.8	390		1157	14.4	440
	1219	13.5	410		1736	1.0	30		1259	13.1	400		1300	14.4	440		1753	2.3	70		1745	0.0	0
	1808	2.3	70						1851	2.3	70		1849	0.3	10								
<b>7</b> W	0034	12.5	380	<b>22</b> Th	0019	13.8	420	<b>7</b> Sa	0113	12.5	380	<b>22</b> Su	0130	13.5	410	<b>7</b> Sa	0014	12.1	370	<b>22</b> Su	0023	13.8	420
	0614	3.0	90		0552	1.3	40		0652	2.6	80		0705	1.0	30		0558	2.3	70		0601	0.3	10
	1250	13.5	410		1232	14.8	450		1332	12.8	390		1348	14.4	440		1233	12.8	390		1242	14.4	440
	1844	2.6	80		1821	0.7	20		1921	2.6	80		1937	1.0	30		1819	2.3	70		1828	0.3	10
<b>8</b> Th	0108	12.5	380	<b>23</b> F	0105	13.8	420	<b>8</b> Su	0147	12.1	370	<b>23</b> M	0217	13.1	400	<b>8</b> Su	0042	12.5	380	<b>23</b> M	0106	13.5	410
	0647	3.0	90		0637	1.3	40		0722	3.0	90		0756	1.6	50		0623	2.3	70		0647	0.7	20
	1325	13.1	400		1319	14.4	440		1408	12.8	390		1439	13.8	420		1304	12.8	390		1329	14.1	430
	1920	2.6	80		1909	0.7	20		1953	2.6	80		2028	1.6	50		1845	2.3	70		1914	1.0	30
<b>9</b> F	0144	12.1	370	<b>24</b> Sa	0154	13.5	410	<b>9</b> M	0226	12.1	370	<b>24</b> Tu	0309	12.8	390	<b>9</b> M	0115	12.5	380	<b>24</b> Tu	0151	13.1	400
	0721	3.3	100		0725	1.6	50		0758	3.3	100		0851	2.3	70		0652	2.3	70		0736	1.3	40
	1402	13.1	400		1409	14.4	440		1448	12.5	380		1534	13.1	400		1340	12.5	380		1418	13.5	410
	1957	3.0	90		2000	1.3	40		2030	3.0	90		2122	2.6	80		1917	2.3	70		2002	1.6	50
<b>10</b> Sa	0223	12.1	370	<b>25</b> Su	0245	13.1	400	<b>10</b> Tu	0308	11.8	360	<b>25</b> W	0408	12.1	370	<b>10</b> Tu	0153	12.5	380	<b>25</b> W	0240	12.8	390
	0758	3.6	110		0818	2.3	70		0838	3.6	110		0951	3.0	90		0727	2.6	80		0829	2.0	60
	1441	12.8	390		1502	13.8	420		1532	11.8	360		1637	12.1	370		1420	12.5	380		1512	12.8	390
	2036	3.3	100		2055	2.0	60		2112	3.3	100		2221	3.6	110		1955	2.6	80		2054	2.6	80
<b>11</b> Su	0304	11.8	360	<b>26</b> M	0341	12.8	390	<b>11</b> W	0354	11.5	350	<b>26</b> Th	0516	11.5	350	<b>11</b> W	0235	12.1	370	<b>26</b> Th	0335	12.1	370
	0838	3.9	120		0916	3.0	90		0925	3.9	120		1056	3.9	120		0808	3.0	90		0927	2.6	80
	1523	12.1	370		1559	13.5	410		1620	11.5	350		1750	11.5	350		1503	12.1	370		1613	11.8	360
	2117	3.6	110		2152	2.6	80		2201	3.9	120		2327	4.6	140		2037	3.0	90		2150	3.6	110
<b>12</b> M	0350	11.5	350	<b>27</b> Tu	0444	12.1	370	<b>12</b> Th	0448	11.2	340	<b>27</b> F	0630	11.2	340	<b>12</b> Th	0320	11.8	360	<b>27</b> F	0440	11.5	350
	0923	4.6	140		1019	3.6	110		1021	4.6	140		1211	4.3	130		0854	3.3	100		1029	3.3	100
	1609	11.8	360		1703	12.8	390		1716	10.8	330		1906	11.2	340		1551	11.5	350		1723	11.2	340
	2204	3.9	120		2255	3.6	110		2302	4.6	140						2126	3.6	110		2252	4.6	140
<b>13</b> Tu	0442	11.2	340	<b>28</b> W	0553	11.8	360	<b>13</b> F	0552	10.8	330	<b>28</b> Sa	0050	4.9	150	<b>13</b> F	0411	11.2	340	<b>28</b> Sa	0554	11.2	340
	1017	4.9	150		1127	4.3	130		1134	4.9	150		0742	11.5	350		0949	3.6	110		1139	3.9	120
	1701	11.5	350		1815	12.1	370		1827	10.8	330		1337	4.3	130		1646	11.2	340		1837	10.8	330
	2259	4.3	130										2020	11.2	340		2226	4.3	130				
<b>14</b> W	0543	10.8	330	<b>29</b> Th	0005	4.3	130	<b>14</b> Sa	0019	4.6	140	<b>14</b> Sa	0019	4.6	140	<b>14</b> Sa	0512	10.8	330	<b>29</b> Su	0007	5.2	160
	1124	5.2	160		0703	11.8	360		0707	10.8	330		0707	10.8	330		1059	4.3	130		0707	11.2	340
	1804	11.2	340		1242	4.6	140		1257	4.6													

# Dublin (Baile Atha Cliath), Eire, 2015

## Times and Heights of High and Low Waters

April				May				June																											
Time	Height			Time	Height			Time	Height			Time	Height																						
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																
<b>1</b> W	0329	3.9	120		<b>16</b> Th	0245	2.6	80		<b>1</b> F	0331	3.6	110		<b>16</b> Sa	0315	2.3	70		<b>1</b> M	0400	3.3	100		<b>16</b> Tu	0439	2.3	70							
	1003	12.1	370			0918	12.8	390			1004	12.1	370			0952	13.1	400			1043	12.1	370			1120	13.1	400							
	1548	3.0	90			1515	1.3	40			1548	2.6	80			1544	1.3	40			1617	2.6	80			1700	2.3	70		●	2338	13.1	400		
	2226	11.8	360			2156	12.8	390			2222	11.8	360			2225	13.1	400			2251	12.8	390												
<b>2</b> Th	0405	3.3	100		<b>17</b> F	0335	1.6	50		<b>2</b> Sa	0405	3.3	100		<b>17</b> Su	0404	1.6	50		<b>2</b> Tu	0432	2.6	80		<b>17</b> W	0524	2.0	60							
	1040	12.5	380			1009	13.5	410			1040	12.1	370			1042	13.5	410			1117	12.5	380			1202	12.8	390							
	1623	2.3	70			1602	0.7	20			1620	2.6	80			1630	1.3	40			1650	2.3	70			1740	2.3	70							
	2256	11.8	360			2241	13.1	400			2252	12.1	370			2309	13.5	410			2323	13.1	400												
<b>3</b> F	0437	2.6	80		<b>18</b> Sa	0420	1.0	30		<b>3</b> Su	0434	2.6	80		<b>18</b> M	0450	1.3	40		<b>3</b> W	0507	2.3	70		<b>18</b> Th	0614	13.1	400							
	1112	12.5	380			1056	13.8	420			1112	12.5	380			1129	13.5	410			1154	12.8	390			0606	2.0	60							
	1654	2.3	70			●	1646	0.3	10			1649	2.3	70			1713	1.3	40			1725	2.3	70			1242	12.8	390						
	2323	12.1	370			●	2323	13.5	410			2318	12.5	380			●	2349	13.5		410						1818	2.6	80						
<b>4</b> Sa	0506	2.6	80		<b>19</b> Su	0503	0.7	20		<b>4</b> M	0501	2.6	80		<b>19</b> Tu	0534	1.3	40		<b>4</b> Th	0001	13.1	400		<b>19</b> F	0052	13.1	400							
	1140	12.5	380			1141	14.1	430			1142	12.5	380			1213	13.5	410			0545	2.0	60			0649	2.0	60							
	1722	2.0	60			1728	0.3	10			1716	2.3	70			1754	1.6	50			1235	12.8	390			1321	12.5	380							
	2347	12.5	380								2346	12.8	390								1805	2.3	70			1857	2.6	80							
<b>5</b> Su	0531	2.3	70		<b>20</b> M	0004	13.5	410		<b>5</b> Tu	0529	2.3	70		<b>20</b> W	0029	13.5	410		<b>5</b> F	0044	13.5	410		<b>20</b> Sa	0132	13.1	400							
	1207	12.5	380			0546	0.7	20			1214	12.5	380			0618	1.3	40			0628	2.0	60			0733	2.3	70							
	1747	2.0	60			1226	13.8	420			1748	2.3	70			1257	13.1	400			1320	12.8	390			1403	12.1	370							
						1809	0.7	20								1835	2.0	60			1849	2.3	70			1938	3.3	100							
<b>6</b> M	0013	12.5	380		<b>21</b> Tu	0046	13.5	410		<b>6</b> W	0022	12.8	390		<b>21</b> Th	0111	13.1	400		<b>6</b> Sa	0130	13.5	410		<b>21</b> Su	0215	12.8	390							
	0555	2.3	70			0631	1.0	30			0603	2.0	60			0704	1.6	50			0717	2.0	60			0818	2.6	80							
	1238	12.5	380			1312	13.5	410			1253	12.5	380			1342	12.8	390			1409	12.8	390			1448	11.8	360							
	1814	2.0	60			1853	1.3	40			1824	2.3	70			1918	2.6	80			1938	2.6	80			2023	3.6	110							
<b>7</b> Tu	0047	12.5	380		<b>22</b> W	0129	13.1	400		<b>7</b> Th	0103	12.8	390		<b>22</b> F	0155	12.8	390		<b>7</b> Su	0220	13.1	400		<b>22</b> M	0300	12.5	380							
	0625	2.0	60			0719	1.3	40			0643	2.0	60			0753	2.0	60			0812	2.0	60			0906	3.0	90							
	1315	12.5	380			1401	13.1	400			1337	12.5	380			1430	12.1	370			1501	12.5	380			1535	11.5	350							
	1848	2.3	70			1939	2.0	60			1906	2.6	80			2004	3.0	90			2033	3.0	90			2111	3.9	120							
<b>8</b> W	0126	12.5	380		<b>23</b> Th	0216	12.8	390		<b>8</b> F	0148	12.8	390		<b>23</b> Sa	0243	12.5	380		<b>8</b> M	0313	13.1	400		<b>23</b> Tu	0349	12.1	370							
	0702	2.3	70			0811	1.6	50			0730	2.3	70			0844	2.3	70			0911	2.3	70			0956	3.3	100							
	1356	12.5	380			1452	12.5	380			1424	12.1	370			1521	11.8	360			1558	12.1	370			1627	11.2	340							
	1927	2.6	80			2028	3.0	90			1954	3.0	90			2054	3.6	110			2132	3.3	100			2205	4.6	140							
<b>9</b> Th	0209	12.5	380		<b>24</b> F	0308	12.1	370		<b>9</b> Sa	0236	12.8	390		<b>24</b> Su	0335	12.1	370		<b>9</b> Tu	0411	12.8	390		<b>24</b> W	0445	11.5	350							
	0745	2.3	70			0906	2.3	70			0823	2.6	80			0937	3.0	90			1015	2.6	80			1048	3.6	110							
	1441	12.1	370			1549	11.8	360			1516	12.1	370			1617	11.2	340			1659	12.1	370			1726	10.8	330							
	2012	3.0	90			2122	3.9	120			2048	3.3	100			2149	4.3	130			●	2236	3.6	110			●	2302	4.9	150					
<b>10</b> F	0255	12.1	370		<b>25</b> Sa	0408	11.8	360		<b>10</b> Su	0329	12.5	380		<b>25</b> M	0435	11.5	350		<b>10</b> W	0514	12.8	390		<b>25</b> Th	0549	11.2	340							
	0835	2.6	80			1004	3.0	90			0923	2.6	80			1033	3.3	100			1121	2.6	80			1143	3.9	120							
	1530	11.8	360			1653	11.2	340			1613	11.8	360			1719	10.8	330			1807	11.8	360			1829	10.8	330							
	2104	3.3	100			●	2221	4.6	140			2150	3.6	110			●	2247	4.9		150		2343	3.9		120									
<b>11</b> Sa	0347	11.8	360		<b>26</b> Su	0517	11.2	340		<b>11</b> M	0428	12.1	370		<b>26</b> Tu	0542	11.2	340		<b>11</b> Th	0623	12.5	380		<b>26</b> F	0002	4.9	150							
	0933	3.3	100			1107	3.6	110			1031	3.0	90			1132	3.9	120			1228	2.6	80			0654	11.2	340							
	1627	11.2	340			1802	10.5	320			1719	11.5	350			1823	10.5	320			1915	12.1	370			1240	4.3	130							
	2205	3.9	120			2326	4.9	150			●	2258	3.9	120			2350	4.9	150							1928	10.8	330							
<b>12</b> Su	0446	11.5	350		<b>27</b> M	0627	11.2	340		<b>12</b> Tu	0535	11.8	360		<b>27</b> W	0647	11.2	340		<b>12</b> F	0051	3.6	110		<b>27</b> Sa	0102	4.9	150							
	1043	3.6	110			1216	3.9	120			1143	3.0	90			1233	3.9	120			0732	12.5	380			0753	11.2	340							
	1735	10.8	330			1910	10.5	320			1830	11.5	350			1923																			

# Dublin (Baile Atha Cliath), Eire, 2015

## Times and Heights of High and Low Waters

July				August				September																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0408	3.0	90		<b>16</b> Th	0513	2.3	70		<b>1</b> Sa	0512	1.3	40		<b>16</b> Su	0009	13.1	400		<b>1</b> Tu	0029	14.8	450		<b>16</b> W	0045	13.1	400	
	1055	12.5	380			1151	12.5	380			1159	13.5	410			0607	2.3	70			0622	0.3	10			0635	2.6	80	
	1627	2.6	80			1725	2.6	80			1730	1.6	50			1231	12.1	370			1306	13.8	420			1305	12.5	380	
	2303	13.1	400	●										1810		2.6	80		1838		1.0	30		1840		2.6	80		
<b>2</b> Th	0447	2.3	70		<b>17</b> F	0000	13.1	400		<b>2</b> Su	0006	14.4	440		<b>17</b> M	0040	13.1	400		<b>2</b> W	0116	14.4	440		<b>17</b> Th	0120	12.8	390	
	1136	12.8	390			0552	2.3	70			0556	1.0	30			0639	2.3	70			0709	1.0	30			0704	2.6	80	
	1706	2.3	70			1224	12.5	380			1243	13.5	410			1302	12.1	370			1353	13.5	410			1341	12.5	380	
	2343	13.8	420			1800	2.6	80			1813	1.3	40			1840	2.6	80			1927	1.6	50			1913	3.0	90	
<b>3</b> F	0529	1.6	50		<b>18</b> Sa	0032	13.1	400		<b>3</b> M	0051	14.4	440		<b>18</b> Tu	0113	13.1	400		<b>3</b> Th	0206	14.1	430		<b>18</b> F	0159	12.5	380	
	1218	13.1	400			0630	2.3	70			0643	1.0	30			0711	2.6	80			0801	1.6	50			0740	3.0	90	
	1748	2.0	60			1257	12.5	380			1329	13.5	410			1336	12.1	370			1444	13.1	400			1421	12.5	380	
						1834	3.0	90			1859	1.6	50			1911	3.0	90			2021	2.3	70			1952	3.3	100	
<b>4</b> Sa	0025	13.8	420		<b>19</b> Su	0106	13.1	400		<b>4</b> Tu	0139	14.4	440		<b>19</b> W	0149	12.8	390		<b>4</b> F	0301	13.5	410		<b>19</b> Sa	0242	12.1	370	
	0613	1.6	50			0708	2.3	70			0733	1.0	30			0744	2.6	80			0857	2.6	80			0822	3.6	110	
	1303	13.1	400			1333	12.1	370			1418	13.1	400			1414	12.1	370			1540	12.5	380			1506	11.8	360	
	1832	2.0	60			1909	3.0	90			1949	2.0	60			1946	3.3	100			2121	3.0	90			2036	3.6	110	
<b>5</b> Su	0111	14.1	430		<b>20</b> M	0144	12.8	390		<b>5</b> W	0230	14.1	430		<b>20</b> Th	0229	12.5	380		<b>5</b> Sa	0404	12.5	380		<b>20</b> Su	0330	11.5	350	
	0702	1.3	40			0747	2.6	80			0828	1.6	50			0821	3.3	100			0958	3.3	100			0910	3.9	120	
	1351	13.1	400			1411	12.1	370			1511	12.8	390			1454	11.8	360			1645	12.1	370			1555	11.5	350	
	1920	2.3	70			1947	3.3	100			2045	2.6	80			2025	3.6	110			2226	3.6	110			2129	4.3	130	
<b>6</b> M	0201	13.8	420		<b>21</b> Tu	0223	12.8	390		<b>6</b> Th	0326	13.5	410		<b>21</b> F	0313	12.1	370		<b>6</b> Su	0520	11.8	360		<b>21</b> M	0425	11.2	340	
	0755	1.6	50			0828	3.0	90			0926	2.3	70			0902	3.6	110			1104	4.3	130			1010	4.6	140	
	1442	12.8	390			1452	11.8	360			1608	12.5	380			1539	11.5	350			1759	11.8	360			1652	11.2	340	
	2012	2.6	80			2027	3.6	110			2145	3.3	100			2110	4.3	130			2338	4.3	130			2236	4.6	140	
<b>7</b> Tu	0254	13.8	420		<b>22</b> W	0306	12.1	370		<b>7</b> F	0427	12.8	390		<b>22</b> Sa	0401	11.5	350		<b>7</b> M	0640	11.5	350		<b>22</b> Tu	0536	10.8	330	
	0852	2.0	60			0912	3.3	100			1028	3.0	90			0952	3.9	120			1219	4.6	140			1126	4.9	150	
	1537	12.8	390			1535	11.5	350			1714	12.1	370			1629	11.2	340			1913	11.8	360			1802	11.2	340	
	2110	3.0	90			2111	3.9	120			2250	3.6	110			2204	4.6	140			2204	4.6	140						
<b>8</b> W	0350	13.5	410		<b>23</b> Th	0352	11.8	360		<b>8</b> Sa	0540	12.5	380		<b>23</b> Su	0458	10.8	330		<b>8</b> Tu	0101	4.3	130		<b>23</b> W	0000	4.6	140	
	0953	2.3	70			0958	3.6	110			1134	3.6	110			1053	4.6	140			0756	11.5	350			0700	10.8	330	
	1636	12.5	380			1623	11.2	340			1826	11.8	360			1730	10.8	330			1340	4.9	150			1243	4.9	150	
	2211	3.3	100			2202	4.6	140								2314	4.9	150			2022	12.1	370			1918	11.5	350	
<b>9</b> Th	0452	13.1	400		<b>24</b> F	0444	11.5	350		<b>9</b> Su	0002	4.3	130		<b>24</b> M	0611	10.8	330		<b>9</b> W	0218	3.9	120		<b>24</b> Th	0117	3.9	120	
	1056	2.6	80			1050	4.3	130			0657	11.8	360			1204	4.9	150			0905	11.8	360			0811	11.5	350	
	1741	12.1	370			1720	10.8	330			1246	4.3	130			1844	10.8	330			1444	4.3	130			1348	4.3	130	
	2316	3.6	110	●		2303	4.9	150			1937	11.8	360								2124	12.5	380			2022	12.1	370	
<b>10</b> F	0601	12.5	380		<b>25</b> Sa	0548	10.8	330		<b>10</b> M	0119	4.3	130		<b>25</b> Tu	0034	4.9	150		<b>10</b> Th	0315	3.3	100		<b>25</b> F	0219	3.0	90	
	1202	3.3	100			1148	4.6	140			0811	11.8	360			0732	10.8	330			1001	12.1	370			0907	12.1	370	
	1851	12.1	370			1827	10.8	330			1359	4.3	130			1313	4.6	140			1532	3.9	120			1443	3.3	100	
											2044	12.1	370			1955	11.5	350			2213	12.8	390			2114	13.1	400	
<b>11</b> Sa	0026	3.9	120		<b>26</b> Su	0009	5.2	160		<b>11</b> Tu	0232	3.9	120		<b>26</b> W	0143	4.3	130		<b>11</b> F	0359	3.0	90		<b>26</b> Sa	0310	2.0	60	
	0714	12.5	380			0702	10.8	330			0918	12.1	370			0837	11.5	350			1044	12.1	370			0955	13.1	400	
	1310	3.3	100			1249	4.6	140			1501	3.9	120			1413	3.9	120			1611	3.3	100			1529	2.3	70	
	1958	12.1	370			1934	11.2	340			2143	12.5	380			2051	12.1	370			2251	13.1	400			2201	13.8	420	
<b>12</b> Su	0136	3.9	120		<b>27</b> M	0113	4.9	150		<b>12</b> W	0330	3.3	100		<b>27</b> Th	0240	3.3	100		<b>12</b> Sa	0436	2.6	80		<b>27</b> Su	0355	1.0	30	
	0824	12.5	380			0808	11.2	340			1016	12.1	370			0930	12.1	370			1116	12.5	380			1038	13.5	410	
	1416	3.3	100			1346	4.3	130			1550	3.6	110			1504	3.3	100			1646	3.0	90			1612	1.3	40	
	2101	12.5	380			2031	11.5	350			2233	12.8	390			2139	13.1	400			2321	13.1	400			2244	14.4	440	
<b>13</b> M	0242	3.6	110		<b>28</b> Tu	0211	4.3	130		<b>13</b> Th	0417	3.0	90		<b>28</b> F	0329	2.3	70		<b>13</b> Su	0509	2.3	70		<b>28</b> M	0437	0.3	10	
	0928	12.5	380			0904	11.5	350			1102	12.5	380			1016	12.8	390			1141	12.5	380			1119	14.1	430	
	1514	3.3	100			1439	3.6	110			1631	3.3	100			1549	2.3	70			1717	2.6	80			1653	1.0	30	
	2158	12.8	390			2119	12.1	370			2312	13																	



# Ringaskiddy (Cobh), Eire, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height			Time	Height			Time	Height			Time	Height										
	h	m	cm		h	m	cm		h	m	cm		h	m	cm								
<b>1</b> Th	0146	11.8	360	<b>16</b> F	0058	11.5	350	<b>1</b> Su	0334	11.8	360	<b>16</b> M	0245	11.8	360	<b>1</b> Su	0206	10.8	330	<b>16</b> M	0059	11.2	340
	0832	3.3	100		0743	4.3	130		1017	3.0	90		0924	3.0	90		0853	3.6	110		0745	3.6	110
	1423	12.1	370		1332	11.5	350		1559	12.1	370		1517	12.1	370		1439	10.8	330		1339	11.2	340
	2101	3.3	100		2019	4.3	130		2237	2.6	80		2153	2.6	80		2122	3.3	100		2022	3.3	100
<b>2</b> F	0254	12.1	370	<b>17</b> Sa	0209	11.8	360	<b>2</b> M	0425	12.5	380	<b>17</b> Tu	0348	12.8	390	<b>2</b> M	0312	11.5	350	<b>17</b> Tu	0219	11.8	360
	0936	3.0	90		0849	3.6	110		1104	2.3	70		1023	2.0	60		0956	3.0	90		0857	3.0	90
	1523	12.5	380		1440	11.8	360		1645	12.8	390		1615	12.8	390		1537	11.5	350		1453	11.8	360
	2200	3.0	90		2121	3.3	100		2320	2.3	70		2247	1.6	50		2218	2.6	80		2128	2.3	70
<b>3</b> Sa	0353	12.8	390	<b>18</b> Su	0313	12.5	380	<b>3</b> Tu	0508	13.1	400	<b>18</b> W	0442	13.8	420	<b>3</b> Tu	0403	12.1	370	<b>18</b> W	0325	12.8	390
	1031	2.6	80		0949	3.0	90		1143	2.0	60		1114	1.0	30		1044	2.3	70		1000	1.6	50
	1616	12.8	390		1634	12.5	380		1725	13.1	400		1705	13.5	410		1624	12.1	370		1554	12.8	390
	2250	2.3	70		2216	2.6	80		2355	2.0	60		2335	0.7	20		2301	2.0	60		2225	1.3	40
<b>4</b> Su	0442	13.1	400	<b>19</b> M	0410	13.1	400	<b>4</b> W	0546	13.5	410	<b>19</b> Th	0530	14.1	430	<b>4</b> W	0446	12.8	390	<b>19</b> Th	0420	13.5	410
	1118	2.3	70		1043	2.3	70		1216	2.0	60		1200	0.3	10		1122	2.0	60		1053	0.7	20
	1702	13.1	400		1634	13.1	400		1800	13.1	400		1751	14.1	430		1704	12.8	390		1645	13.5	410
	2333	2.0	60		2306	1.6	50		0024	2.0	60		0020	0.0	0		0524	13.1	400		0509	14.1	430
<b>5</b> M	0525	13.5	410	<b>20</b> Tu	0501	13.8	420	<b>5</b> Th	0619	13.5	410	<b>20</b> F	0615	14.4	440	<b>5</b> Th	0524	13.1	400	<b>20</b> F	0509	14.1	430
	1158	2.3	70		1132	1.6	50		1245	2.0	60		1245	0.0	0		1154	1.6	50		1140	0.0	0
	1742	13.1	400		1722	13.8	420		1831	13.1	400		1835	14.1	430		1739	13.1	400		1732	14.1	430
					● 2352	1.0	30		0052	2.0	60		0104	0.0	0		0002	1.6	50		0001	0.0	0
<b>6</b> Tu	0010	2.0	60	<b>21</b> W	0548	14.1	430	<b>6</b> F	0650	13.5	410	<b>21</b> Sa	0700	14.4	440	<b>6</b> F	0556	13.5	410	<b>21</b> Sa	0554	14.4	440
	0603	13.5	410		1217	1.0	30		1312	2.3	70		1328	0.0	0		1221	1.6	50		1225	-0.3	-10
	1233	2.3	70		1808	14.1	430		1901	13.1	400		1918	14.1	430		1810	13.1	400		1815	14.1	430
	1817	13.5	410		0037	0.7	20		0119	2.3	70		0148	0.0	0		0027	1.6	50		0045	-0.3	-10
<b>7</b> W	0043	2.0	60	<b>22</b> Th	0633	14.4	440	<b>7</b> Sa	0720	13.1	400	<b>22</b> Su	0743	14.1	430	<b>7</b> Sa	0626	13.1	400	<b>22</b> Su	0638	14.4	440
	0638	13.5	410		1301	0.7	20		1341	2.6	80		1411	0.3	10		1246	2.0	60		1308	-0.3	-10
	1305	2.3	70		1852	14.1	430		1931	13.1	400		2001	13.8	420		1838	13.1	400		1857	14.1	430
	1850	13.1	400		0121	0.7	20		0150	2.3	70		0233	0.7	20		0053	2.0	60		0129	0.0	0
<b>8</b> Th	0114	2.3	70	<b>23</b> F	0719	14.4	440	<b>8</b> Su	0750	13.1	400	<b>23</b> M	0828	13.8	420	<b>8</b> Su	0653	13.1	400	<b>23</b> M	0721	14.1	430
	0711	13.5	410		1346	1.0	30		1413	3.0	90		1455	1.0	30		1314	2.0	60		1350	0.0	0
	1336	2.6	80		1937	13.8	420		2003	12.8	390		2044	13.1	400		1906	13.1	400		1939	13.8	420
	1922	13.1	400		0207	0.7	20		0224	2.6	80		0319	1.3	40		0123	2.0	60		0212	0.3	10
<b>9</b> F	0146	2.6	80	<b>24</b> Sa	0805	14.1	430	<b>9</b> M	0823	12.8	390	<b>24</b> Tu	0912	12.8	390	<b>9</b> M	0721	13.1	400	<b>24</b> Tu	0803	13.5	410
	0744	13.1	400		1431	1.0	30		1449	3.3	100		1540	1.6	50		1345	2.3	70		1433	0.7	20
	1409	3.0	90		2022	13.5	410		2038	12.5	380		2129	12.5	380		1936	12.8	390		2021	13.1	400
	1955	12.8	390		0254	1.3	40		0303	3.3	100		0407	2.0	60		0156	2.3	70		0257	1.0	30
<b>10</b> Sa	0219	3.0	90	<b>25</b> Su	0851	13.8	420	<b>10</b> Tu	0900	12.5	380	<b>25</b> W	1000	12.1	370	<b>10</b> Tu	0753	12.8	390	<b>25</b> W	0846	12.8	390
	0819	12.8	390		1517	1.6	50		1527	3.6	110		1629	2.6	80		1419	2.6	80		1517	1.6	50
	1444	3.3	100		2109	13.1	400		2118	12.1	370		2219	11.8	360		2009	12.8	390		2104	12.5	380
	2031	12.5	380		0342	1.6	50		0346	3.6	110		0502	3.0	90		0234	2.6	80		0344	2.0	60
<b>11</b> Su	0257	3.3	100	<b>26</b> M	0939	13.1	400	<b>11</b> W	0942	12.1	370	<b>26</b> Th	1054	11.2	340	<b>11</b> W	0828	12.5	380	<b>26</b> Th	0931	11.8	360
	0856	12.5	380		1606	2.3	70		1612	3.9	120		1727	3.3	100		1456	3.0	90		1605	2.3	70
	1524	3.6	110		2157	12.5	380		2204	11.8	360		2320	10.8	330		2047	12.5	380		2151	11.5	350
	2111	12.1	370		0434	2.3	70		0438	4.3	130		0607	3.6	110		0316	3.3	100		0435	3.0	90
<b>12</b> M	0937	12.1	370	<b>27</b> Tu	1031	12.5	380	<b>12</b> Th	1033	11.5	350	<b>27</b> F	1203	10.5	320	<b>12</b> Th	0909	12.1	370	<b>27</b> F	1022	10.8	330
	1608	4.3	130		1659	3.0	90		1709	4.6	140		1840	3.9	120		1538	3.6	110		1700	3.3	100
	2155	11.8	360		● 2251	11.8	360		● 2302	11.5	350		0041	10.5	320		2131	12.1	370		● 2248	10.8	330
					0533	3.3	100		0544	4.6	140		0728	3.9	120		0405	3.6	110		0537	3.6	110
<b>13</b> Tu	0428	4.3	130	<b>28</b> W	1129	11.5	350	<b>13</b> F	1136	11.2	340	<b>28</b> Sa	1326	10.5	320	<b>13</b> F	0959	11.5	350	<b>28</b> Sa	1127	10.2	310
	1023	11.8	360		1802	3.6	110		1824	4.6	140		2005	3.9	120		1632	3.9	120		1807	3.9	120
	1700	4.6	140		2356	11.2	340		0012	11.2	340		0012	11.2	340		2227	11.5	350		2248	10.8	330
	● 2247	11.5	350		0643	3.6	110		0700	4.6	140		0508	3.9	120		0508	3.9	120		0007	10.2	310
<b>14</b> W	0526	4.6	140	<b>29</b> Th	1239	11.2	340	<b>14</b> Sa	1250	11.2	340	<b>29</b> Su	1101	11.2	340	<b>14</b> Sa	1101	11.2	340	<b>29</b> Su	0652	3.9	120
	1118	11.5	350		1917	3.9	120		1941	4.3	130		1744	4.3	130		1744	4.3	130		1928	3.9	120
	1804	4.6	140		0114	11.2	340		0131	11.2	340		2338	11.2	340		2338	11.2	340		1253	9.8	300
	2349	11.5	350		0802	3.6	110		0816	3.9	120		0626	4.3	130		0626	4.3	130		1928	3.9	120
<b>15</b> Th	0635	4.6	140	<b>30</b> F	1355	11.2	340	<b>15</b> Su	1407	11.5	350	<b>30</b> Su	1217	10.8	330	<b>15</b> Su	1217	10.8	330	<b>30</b> M	0134	10.5	320
	1222	11.5	350		2035	3.6	110		2051	3.6	110		1907	4.3	130		1907	4.3	130		0814	3.6	110
	1914	4.6	140		0231	11.5	350		0231	11.5	350										1409	10.5	320
					0917	3.3	100		1502	11.5	350										2047	3.6	110
			● 2144	3.3	100													0241	10.8	330			
																		0922	3.0	90			
																		1508	11.2	340			
																		2146	3.0	90			

Time meridian 0°. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart

# Ringaskiddy (Cobh), Eire, 2015

## Times and Heights of High and Low Waters

April				May				June																				
Time	Height			Time	Height			Time	Height			Time	Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0333	11.8	360		<b>16</b> Th	0259	12.5	380		<b>1</b> F	0339	11.8	360		<b>16</b> Sa	0332	13.1	400		<b>1</b> M	0421	12.5	380		<b>16</b> Tu	0456	13.1	400
	1012	2.6	80			0934	1.6	50			1008	2.3	70			1006	1.3	40			1047	2.3	70			1129	1.3	40
	1556	11.8	360			1529	12.8	390			1600	12.1	370			1559	13.1	400			1642	12.8	390			1720	13.1	400
	2230	2.3	70			2201	1.3	40			2225	2.3	70			2233	1.0	30			2302	2.0	60			2353	1.3	40
<b>2</b> Th	0417	12.5	380		<b>17</b> F	0356	13.5	410		<b>2</b> Sa	0420	12.5	380		<b>17</b> Su	0425	13.5	410		<b>2</b> Tu	0500	12.8	390		<b>17</b> W	0542	13.1	400
	1051	2.0	60			1029	0.7	20			1046	2.0	60			1058	0.7	20			1127	2.0	60			1213	1.3	40
	1636	12.5	380			1622	13.5	410			1639	12.5	380			1650	13.5	410			1722	13.1	400			1803	13.5	410
	2305	2.0	60			2254	0.3	10			2259	2.0	60			2323	0.7	20			2341	1.6	50					
<b>3</b> F	0455	12.8	390		<b>18</b> Sa	0447	13.8	420		<b>3</b> Su	0456	12.8	390		<b>18</b> M	0514	13.5	410		<b>3</b> W	0538	12.8	390		<b>18</b> Th	0623	13.1	400
	1124	1.6	50			1119	0.3	10			1119	2.0	60			1145	0.7	20			1206	1.6	50			0623	13.1	400
	1712	12.8	390			1710	13.8	420			1714	12.8	390			1736	13.8	420			1800	13.1	400			1255	1.3	40
	2334	1.6	50			2341	0.0	0			2330	2.0	60			●					1843	13.1	400			1843	13.1	400
<b>4</b> Sa	0529	13.1	400		<b>19</b> Su	0533	14.1	430		<b>4</b> M	0529	12.8	390		<b>19</b> Tu	0009	0.3	10		<b>4</b> Th	0021	1.6	50		<b>19</b> F	0116	1.6	50
	1152	1.6	50			1204	0.0	0			1151	1.6	50			0558	13.5	410			0616	12.8	390			0702	12.8	390
	1744	13.1	400			1755	14.1	430			1747	12.8	390			1230	0.7	20			1247	1.6	50			1334	1.6	50
	2359	1.6	50			●					1819	13.8	420			1819	13.8	420			1839	13.1	400			1921	13.1	400
<b>5</b> Su	0559	13.1	400		<b>20</b> M	0026	0.0	0		<b>5</b> Tu	0002	1.6	50		<b>20</b> W	0053	0.7	20		<b>5</b> F	0103	1.6	50		<b>20</b> Sa	0154	2.0	60
	1218	1.6	50			0617	14.1	430			0600	12.8	390			0640	13.5	410			0657	12.8	390			0739	12.5	380
	1813	13.1	400			1248	0.0	0			1226	1.6	50			1313	1.0	30			1329	1.6	50			1413	2.0	60
						1837	14.1	430			1819	13.1	400			1900	13.5	410			1921	13.1	400			1959	12.5	380
<b>6</b> M	0026	1.6	50		<b>21</b> Tu	0110	0.0	0		<b>6</b> W	0038	1.6	50		<b>21</b> Th	0135	1.0	30		<b>6</b> Sa	0146	1.6	50		<b>21</b> Su	0233	2.3	70
	0626	12.8	390			0700	13.8	420			0633	12.8	390			0721	13.1	400			0741	12.8	390			0817	12.1	370
	1248	2.0	60			1331	0.3	10			1302	2.0	60			1355	1.3	40			1413	2.0	60			1452	2.3	70
	1841	13.1	400			1918	13.8	420			1853	13.1	400			1940	13.1	400			2005	13.1	400			2037	12.1	370
<b>7</b> Tu	0058	2.0	60		<b>22</b> W	0153	0.7	20		<b>7</b> Th	0116	2.0	60		<b>22</b> F	0217	1.6	50		<b>7</b> Su	0233	2.0	60		<b>22</b> M	0313	3.0	90
	0654	12.8	390			0741	13.1	400			0709	12.8	390			0801	12.5	380			0828	12.5	380			0856	11.8	360
	1321	2.0	60			1414	1.0	30			1340	2.0	60			1437	1.6	50			1501	2.0	60			1533	3.0	90
	1912	12.8	390			1959	13.1	400			1931	12.8	390			2021	12.5	380			2054	12.8	390			2118	11.8	360
<b>8</b> W	0133	2.0	60		<b>23</b> Th	0237	1.3	40		<b>8</b> F	0157	2.0	60		<b>23</b> Sa	0300	2.3	70		<b>8</b> M	0324	2.3	70		<b>23</b> Tu	0356	3.3	100
	0727	12.8	390			0823	12.5	380			0750	12.5	380			0842	11.8	360			0919	12.1	370			0939	11.5	350
	1356	2.3	70			1457	1.6	50			1423	2.3	70			1521	2.3	70			1553	2.3	70			1617	3.3	100
	1947	12.8	390			2041	12.5	380			2013	12.8	390			2103	11.8	360			2148	12.5	380			2203	11.5	350
<b>9</b> Th	0212	2.3	70		<b>24</b> F	0322	2.0	60		<b>9</b> Sa	0243	2.3	70		<b>24</b> Su	0345	3.0	90		<b>9</b> Tu	0419	2.6	80		<b>24</b> W	0444	3.6	110
	0805	12.5	380			0906	11.8	360			0836	12.1	370			0926	11.5	350			1015	11.8	360			1026	11.2	340
	1435	2.6	80			1543	2.3	70			1510	2.6	80			1607	3.0	90			1651	2.6	80			1707	3.6	110
	2026	12.5	380			2127	11.8	360			2101	12.5	380			2150	11.2	340			2246	12.1	370			2253	11.2	340
<b>10</b> F	0255	2.6	80		<b>25</b> Sa	0411	3.0	90		<b>10</b> Su	0335	2.6	80		<b>25</b> M	0435	3.3	100		<b>10</b> W	0520	2.6	80		<b>25</b> Th	0539	3.9	120
	0848	12.1	370			0953	11.2	340			0928	11.8	360			1015	10.8	330			1116	11.8	360			1121	10.8	330
	1519	3.0	90			1635	3.3	100			1604	3.0	90			1700	3.6	110			1755	2.6	80			1804	3.9	120
	2111	12.1	370			2219	10.8	330			2157	12.1	370			2244	10.8	330			2352	11.8	360			2351	10.8	330
<b>11</b> Sa	0346	3.3	100		<b>26</b> Su	0508	3.6	110		<b>11</b> M	0433	3.0	90		<b>26</b> Tu	0532	3.9	120		<b>11</b> Th	0627	3.0	90		<b>26</b> F	0638	3.9	120
	0939	11.5	350			1051	10.5	320			1028	11.5	350			1113	10.5	320			1223	11.8	360			1223	10.8	330
	1613	3.6	110			1736	3.6	110			1706	3.3	100			1800	3.9	120			1904	2.6	80			1904	3.9	120
	2207	11.8	360			2327	10.5	320			2301	11.8	360			2350	10.5	320			●					2253	11.2	340
<b>12</b> Su	0447	3.6	110		<b>27</b> M	0614	3.9	120		<b>12</b> Tu	0540	3.3	100		<b>27</b> W	0633	3.9	120		<b>12</b> F	0737	2.6	80		<b>27</b> Sa	0737	2.6	80
	1040	11.2	340			1206	10.2	310			1136	11.2	340			1222	10.5	320			1331	11.8	360			0737	3.9	120
	1721	3.9	120			1846	3.9	120			1818	3.3	100			1902	3.9	120			2012	2.3	70			1329	11.2	340
	2316	11.2	340			●																				2002	3.6	110
<b>13</b> M	0600	3.6	110		<b>28</b> Tu	0049	10.2	310		<b>13</b> W	0014	11.5	350		<b>28</b> Th	0100	10.8	330		<b>13</b> Sa	0207	12.1	370		<b>28</b> Su	0159	11.2	340
	1154	10.8	330			0725	3.9	120			0653	3.0	90			0733	3.6	110			0843	2.3	70			0834	3.6	110
	1840	3.6	110			1325	10.2	310			1249	11.5	350			1330	10.8	330			1437	12.1	370			1429	11.5	350
						1956	3.6	110			1930	2.6	80			2000	3.6	110			2116	2.0	60			2057	3.3	100
<b>14</b> Tu	0035	11.2	340		<b>29</b> W	0159	10.8	330		<b>14</b> Th	0128	11.8	360		<b>29</b> F													

# Ringaskiddy (Cobh), Eire, 2015

## Times and Heights of High and Low Waters

July				August				September																					
Time		Height		Time		Height		Time		Height		Time		Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0434	12.5	380		<b>16</b> Th	0525	12.8	390		<b>1</b> Sa	0545	13.5	410		<b>16</b> Su	0031	2.0	60		<b>1</b> Tu	0058	0.3	10		<b>16</b> W	0055	2.3	70	
	1105	2.0	60			1158	1.6	50			1214	0.7	20			0619	13.1	400			0653	14.1	430			0652	12.8	390	
	1659	13.1	400			1747	13.1	400			1809	13.8	420			1245	1.6	50			1323	0.0	0			1307	2.3	70	
	2323	1.6	50			●					1836	13.1	400			1917	14.1	430			1905	13.1	400						
<b>2</b> Th	0519	12.8	390		<b>17</b> F	0019	1.6	50		<b>2</b> Su	0034	0.7	20		<b>17</b> M	0059	2.0	60		<b>2</b> W	0143	0.3	10		<b>17</b> Th	0125	2.6	80	
	1149	1.6	50			0605	13.1	400			0629	13.5	410			0650	12.8	390			0738	13.8	420			0722	12.8	390	
	1743	13.5	410			1236	1.6	50			1258	0.7	20			1312	2.0	60			1407	0.3	10			1339	2.6	80	
	○					1825	13.1	400			1853	14.1	430			1906	13.1	400			2001	13.8	420			1935	12.8	390	
<b>3</b> F	0006	1.3	40		<b>18</b> Sa	0055	1.6	50		<b>3</b> M	0118	0.7	20		<b>18</b> Tu	0127	2.3	70		<b>3</b> Th	0228	1.0	30		<b>18</b> F	0159	3.0	90	
	0601	13.1	400			0641	12.8	390			0714	13.5	410			0721	12.8	390			0823	13.1	400			0755	12.5	380	
	1232	1.3	40			1311	1.6	50			1343	0.7	20			1341	2.3	70			1454	1.0	30			1415	3.0	90	
	1826	13.5	410			1900	13.1	400			1938	13.8	420			1937	12.8	390			2047	13.1	400			2009	12.5	380	
<b>4</b> Sa	0050	1.3	40		<b>19</b> Su	0128	2.0	60		<b>4</b> Tu	0203	0.7	20		<b>19</b> W	0159	2.6	80		<b>4</b> F	0315	1.6	50		<b>19</b> Sa	0236	3.3	100	
	0645	13.1	400			0716	12.8	390			0800	13.5	410			0753	12.5	380			0910	12.8	390			0832	12.1	370	
	1316	1.3	40			1344	2.0	60			1429	0.7	20			1413	2.6	80			1542	1.6	50			1455	3.3	100	
	1909	13.5	410			1934	12.8	390			2024	13.5	410			2009	12.5	380			2135	12.5	380			2048	12.1	370	
<b>5</b> Su	0134	1.3	40		<b>20</b> M	0201	2.3	70		<b>5</b> W	0250	1.0	30		<b>20</b> Th	0233	3.0	90		<b>5</b> Sa	0405	2.3	70		<b>20</b> Su	0319	3.6	110	
	0730	13.1	400			0750	12.5	380			0846	13.1	400			0828	12.1	370			1000	11.8	360			0915	11.8	360	
	1401	1.3	40			1418	2.3	70			1516	1.3	40			1448	3.0	90			1635	2.6	80			1541	3.9	120	
	1955	13.5	410			2008	12.5	380			2111	13.1	400			2044	12.5	380			2228	11.5	350			2135	11.8	360	
<b>6</b> M	0221	1.3	40		<b>21</b> Tu	0236	2.6	80		<b>6</b> Th	0338	1.6	50		<b>21</b> F	0311	3.3	100		<b>6</b> Su	0503	3.0	90		<b>21</b> M	0411	4.3	130	
	0817	13.1	400			0825	12.1	370			0934	12.5	380			0906	12.1	370			1059	11.2	340			1008	11.5	350	
	1448	1.3	40			1452	2.6	80			1606	1.6	50			1528	3.3	100			1738	3.3	100			1639	4.3	130	
	2043	13.1	400			2044	12.1	370			2201	12.5	380			2124	12.1	370			2334	10.8	330			2233	11.2	340	
<b>7</b> Tu	0309	1.6	50		<b>22</b> W	0313	3.0	90		<b>7</b> F	0430	2.3	70		<b>22</b> Sa	0355	3.9	120		<b>7</b> M	0613	3.6	110		<b>22</b> Tu	0519	4.6	140	
	0906	12.8	390			0903	11.8	360			1026	12.1	370			0950	11.5	350			1215	10.8	330			1114	11.2	340	
	1537	1.6	50			1530	3.3	100			1701	2.3	70			1616	3.9	120			1856	3.9	120			1753	4.6	140	
	2133	12.8	390			2123	12.1	370			2257	11.8	360			2211	11.5	350			2345	10.8	330			2345	10.8	330	
<b>8</b> W	0401	2.0	60		<b>23</b> Th	0355	3.6	110		<b>8</b> Sa	0529	3.0	90		<b>23</b> Su	0448	4.3	130		<b>8</b> Tu	0056	10.5	320		<b>23</b> W	0639	4.3	130	
	0957	12.5	380			0945	11.8	360			1126	11.5	350			1043	11.2	340			0737	3.6	110			1231	11.2	340	
	1630	2.0	60			1613	3.6	110			1805	3.0	90			1716	4.3	130			1340	10.8	330			1913	4.3	130	
	2226	12.5	380			2206	11.8	360								2309	11.2	340			2023	3.6	110						
<b>9</b> Th	0456	2.3	70		<b>24</b> F	0443	3.9	120		<b>9</b> Su	0003	11.2	340		<b>24</b> M	0558	4.6	140		<b>9</b> W	0212	10.8	330		<b>24</b> Th	0105	11.2	340	
	1053	12.1	370			1032	11.5	350			0639	3.3	100			1148	10.8	330			0857	3.3	100			0753	3.6	110	
	1729	2.6	80			1704	3.9	120			1239	11.2	340			1830	4.3	130			1448	11.5	350			1350	11.5	350	
	2326	12.1	370			2255	11.2	340			1921	3.3	100			1944	3.9	120			2131	3.0	90			2025	3.3	100	
<b>10</b> F	0559	2.6	80		<b>25</b> Sa	0541	4.3	130		<b>10</b> M	0119	11.2	340		<b>25</b> Tu	0019	10.8	330		<b>10</b> Th	0313	11.5	350		<b>25</b> F	0220	11.8	360	
	1155	11.8	360			1128	11.2	340			0758	3.3	100			0713	4.3	130			0957	2.6	80			0859	2.6	80	
	1835	2.6	80			1807	4.3	130			1356	11.2	340			1304	11.2	340			1542	12.1	370			1456	12.5	380	
	○					2355	11.2	340			2040	3.3	100			1944	3.9	120			2222	2.3	70			2127	2.3	70	
<b>11</b> Sa	0032	11.8	360		<b>26</b> Su	0647	4.3	130		<b>11</b> Tu	0230	11.2	340		<b>26</b> W	0136	11.2	340		<b>11</b> F	0403	12.1	370		<b>26</b> Sa	0322	12.8	390	
	0708	3.0	90			1233	11.2	340			0912	3.0	90			0823	3.6	110			1043	2.0	60			0956	1.6	50	
	1304	11.5	350			1915	3.9	120			1505	11.5	350			1418	11.5	350			1627	12.8	390			1552	13.5	410	
	1946	3.0	90								2147	2.6	80			2052	3.3	100			2303	2.0	60			2220	1.3	40	
<b>12</b> Su	0142	11.5	350		<b>27</b> M	0104	11.2	340		<b>12</b> W	0332	11.8	360		<b>27</b> Th	0247	11.8	360		<b>12</b> Sa	0445	12.8	390		<b>27</b> Su	0415	13.5	410	
	0819	3.0	90			0752	3.9	120			1013	2.3	70			0925	2.6	80			1121	1.6	50			1046	1.0	30	
	1414	11.8	360			1343	11.2	340			1601	12.1	370			1521	12.5	380			1706	13.1	400			1641	14.1	430	
	2056	2.6	80			2019	3.6	110			2241	2.3	70			2151	2.3	70			2337	2.0	60			2309	0.7	20	
<b>13</b> M	0248	11.8	360		<b>28</b> Tu	0213	11.5	350		<b>13</b> Th	0423	12.5	380		<b>28</b> F	0347	12.5	380		<b>13</b> Su	0522	13.1	400		<b>28</b> M	0503	14.1	430	
	0926	2.6	80			0854	3.3	100			1102	2.0	60			1020	1.6	50			1151	1.6	50			1133	0.3	10	
	1520	12.1	370			1449	11.8	360			1648	12.8	390			1615	13.1	400			1740	13.5	410			1727	14.4	440	
	2200	2.3	70			2120	3.0	90			2324	2.0	60																



# Ringaskiddy (Cobh), Eire, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> Th	0122	0.3	10		<b>16</b> F	0058	2.6	80		<b>1</b> Su	0235	2.0	60		<b>16</b> M	0157	3.0	90		<b>1</b> Tu	0300	2.6	80		<b>16</b> W	0232	2.6	80	
	0716	14.1	430			0656	13.1	400			0826	12.8	390			0752	13.1	400			0851	12.5	380			0829	13.1	400	
	1347	0.3	10			1313	2.6	80			1502	2.3	70			1418	3.3	100			1528	3.3	100			1456	3.0	90	
	1938	13.8	420			1907	13.1	400			2046	12.5	380			2007	12.8	390			2106	11.8	360			2046	12.8	390	
<b>2</b> F	0207	1.0	30		<b>17</b> Sa	0133	2.6	80		<b>2</b> M	0323	2.6	80		<b>17</b> Tu	0243	3.3	100		<b>2</b> W	0348	3.3	100		<b>17</b> Th	0321	3.0	90	
	0800	13.5	410			0729	12.8	390			0913	12.1	370			0838	12.8	390			0938	11.8	360			0919	12.8	390	
	1433	1.0	30			1350	3.0	90			1552	3.3	100			1507	3.6	110			1617	3.9	120			1547	3.3	100	
	2023	13.1	400			1942	12.8	390			2134	11.5	350			2056	12.5	380			2154	11.5	350			2139	12.5	380	
<b>3</b> Sa	0254	1.6	50		<b>18</b> Su	0212	3.3	100		<b>3</b> Tu	0416	3.3	100		<b>18</b> W	0335	3.6	110		<b>3</b> Th	0441	3.9	120		<b>18</b> F	0416	3.3	100	
	0846	12.8	390			0807	12.5	380			1007	11.5	350			0931	12.5	380			1031	11.5	350			1015	12.5	380	
	1521	2.0	60			1432	3.3	100			1648	3.9	120			1602	3.9	120			1712	4.3	130			1643	3.6	110	
	2109	12.5	380			2023	12.5	380			2230	10.8	330			2153	11.8	360			2250	10.8	330			2237	12.1	370	
<b>4</b> Su	0344	2.3	70		<b>19</b> M	0256	3.6	110		<b>4</b> W	0518	3.9	120		<b>19</b> Th	0435	3.9	120		<b>4</b> F	0541	4.3	130		<b>19</b> Sa	0517	3.6	110	
	0936	11.8	360			0851	12.1	370			1114	10.8	330			1032	12.1	370			1134	11.2	340			1116	12.1	370	
	1613	3.0	90			1519	3.9	120			1755	4.3	130			1705	3.9	120			1815	4.6	140			1748	3.6	110	
	2200	11.5	350			2111	12.1	370			2343	10.5	320			2258	11.8	360			2358	10.8	330			2342	11.8	360	
<b>5</b> M	0440	3.3	100		<b>20</b> Tu	0348	3.9	120		<b>5</b> Th	0631	4.3	130		<b>20</b> F	0544	3.9	120		<b>5</b> Sa	0646	4.3	130		<b>20</b> Su	0626	3.6	110	
	1034	11.2	340			0945	11.8	360			1233	10.8	330			1141	11.8	360			1244	11.2	340			1224	12.1	370	
	1714	3.6	110			1617	4.3	130			1910	4.3	130			1817	3.9	120			1919	4.6	140			1859	3.6	110	
	2304	10.5	320			2209	11.5	350																					
<b>6</b> Tu	0548	3.9	120		<b>21</b> W	0454	4.3	130		<b>6</b> F	0104	10.5	320		<b>21</b> Sa	0010	11.8	360		<b>6</b> Su	0110	10.8	330		<b>21</b> M	0052	12.1	370	
	1149	10.5	320			1050	11.5	350			0744	3.9	120			0657	3.6	110			0747	4.3	130			0737	3.3	100	
	1829	4.3	130			1727	4.3	130			1343	11.2	340			1254	12.1	370			1348	11.5	350			1333	12.5	380	
						2319	11.2	340			2016	3.9	120			1930	3.6	110			2016	3.9	120			2010	3.3	100	
<b>7</b> W	0027	10.2	310		<b>22</b> Th	0610	4.3	130		<b>7</b> Sa	0209	11.2	340		<b>22</b> Su	0124	12.1	370		<b>7</b> M	0212	11.5	350		<b>22</b> Tu	0203	12.5	380	
	0710	3.9	120			1205	11.5	350			0844	3.6	110			0806	3.0	90			0842	3.9	120			0846	3.0	90	
	1315	10.5	320			1845	4.3	130			1438	11.8	360			1402	12.8	390			1441	11.8	360			1439	12.8	390	
	1954	3.9	120								2110	3.3	100			2036	3.0	90			2108	3.6	110			2115	2.6	80	
<b>8</b> Th	0147	10.8	330		<b>23</b> F	0037	11.5	350		<b>8</b> Su	0300	11.8	360		<b>23</b> M	0230	12.8	390		<b>8</b> Tu	0303	12.1	370		<b>23</b> W	0308	12.8	390	
	0829	3.6	110			0725	3.6	110			0933	3.0	90			0909	2.3	70			0930	3.3	100			0949	2.3	70	
	1422	11.2	340			1323	11.8	360			1524	12.5	380			1503	13.1	400			1528	12.5	380			1539	13.1	400	
	2102	3.3	100			1958	3.3	100			2154	3.0	90			2136	2.0	60			2153	3.3	100			2213	2.3	70	
<b>9</b> F	0247	11.5	350		<b>24</b> Sa	0153	11.8	360		<b>9</b> M	0344	12.5	380		<b>24</b> Tu	0329	13.5	410		<b>9</b> W	0349	12.5	380		<b>24</b> Th	0407	13.5	410	
	0928	3.0	90			0832	3.0	90			1014	2.6	80			1006	1.6	50			1014	3.0	90			1045	2.0	60	
	1515	11.8	360			1430	12.8	390			1605	12.8	390			1557	13.8	420			1610	12.8	390			1633	13.5	410	
	2153	3.0	90			2102	2.3	70			2231	2.6	80			2229	1.3	40			2234	3.0	90			2305	1.6	50	
<b>10</b> Sa	0336	12.1	370		<b>25</b> Su	0257	12.8	390		<b>10</b> Tu	0423	12.8	390		<b>25</b> W	0423	13.8	420		<b>10</b> Th	0431	13.1	400		<b>25</b> F	0500	13.8	420	
	1014	2.3	70			0932	2.0	60			1048	2.6	80			1058	1.3	40			1053	2.6	80			1134	1.6	50	
	1559	12.5	380			1527	13.5	410			1642	13.1	400			1648	14.1	430			1649	13.1	400			1722	13.8	420	
	2234	2.3	70			2158	1.6	50			2303	2.3	70			2318	1.0	30			2311	2.6	80			2351	1.3	40	
<b>11</b> Su	0418	12.8	390		<b>26</b> M	0352	13.5	410		<b>11</b> W	0459	13.1	400		<b>26</b> Th	0512	14.1	430		<b>11</b> F	0509	13.5	410		<b>26</b> Sa	0546	14.1	430	
	1051	2.0	60			1025	1.0	30			1118	2.3	70			1146	1.0	30			1130	2.6	80			1219	1.3	40	
	1638	13.1	400			1618	14.1	430			1715	13.1	400			1735	14.1	430			1725	13.5	410			1805	13.8	420	
	2307	2.3	70			2248	1.0	30			2333	2.3	70								2348	2.3	70						
<b>12</b> M	0455	13.1	400		<b>27</b> Tu	0442	14.1	430		<b>12</b> Th	0532	13.5	410		<b>27</b> F	0004	1.0	30		<b>12</b> Sa	0547	13.5	410		<b>27</b> Su	0034	1.3	40	
	1122	2.0	60			1114	0.7	20			1148	2.3	70			0558	14.1	430			1207	2.3	70			0628	14.1	430	
	1713	13.1	400			1706	14.4	440			1745	13.5	410			1232	1.0	30			1759	13.5	410			1301	1.6	50	
	2335	2.0	60			2335	0.7	20								1818	14.1	430								1845	13.5	410	
<b>13</b> Tu	0528	13.1	400		<b>28</b> W	0529	14.4	440		<b>13</b> F	0005	2.3	70		<b>28</b> Sa	0049	1.0	30		<b>13</b> Su	0025	2.3	70		<b>28</b> M	0115	1.6	50	
	1146	2.0	60			1200	0.3	10			0604	13.5	410			0641	14.1	430			0623	13.8	420			0708	13.8	420	
	1743	13.5	410			1752	14.4	440			1221	2.3	70			1315	1.3	40			1245	2.3	70			1341	2.0	60	
	2359	2.3	70								1815	13.5	410			1900	13.8												

## Reykjavik, Iceland, 2015

## Times and Heights of High and Low Waters

January				February				March																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> Th	0319	11.3	344	<b>16</b> F	0243	10.2	312	<b>1</b> Su	0459	11.7	358	<b>16</b> M	0416	11.5	352	<b>1</b> Su	0348	10.4	317	<b>16</b> M	0240	10.3	315			
	0943	3.6	110		0905	4.6	140		1120	3.1	93		1039	2.8	85		1017	3.9	120		0911	3.7	113			
	1548	10.9	331		1502	10.0	305		1723	11.0	336		1639	11.2	340		1622	9.9	302		1515	10.0	305	1622	9.9	302
	2201	3.1	94		2121	4.0	122		2328	2.6	78		2252	2.3	70		2228	3.5	108		2133	3.4	104	2228	3.5	108
<b>2</b> F	0419	11.9	362	<b>17</b> Sa	0347	11.0	336	<b>2</b> M	0541	12.3	376	<b>17</b> Tu	0506	12.7	387	<b>2</b> M	0442	11.1	338	<b>17</b> Tu	0350	11.3	344			
	1041	3.1	94		1008	3.8	116		1159	2.5	75		1127	1.6	48		1104	3.2	98		1015	2.5	77			
	1645	11.3	343		1605	10.6	324		1802	11.5	352		1728	12.2	372		1708	10.6	324		1619	11.1	338	1708	10.6	324
	2253	2.6	80		2220	3.2	98						2339	1.1	35		2312	2.8	85		2233	2.2	67	2312	2.8	85
<b>3</b> Sa	0509	12.5	380	<b>18</b> Su	0440	12.0	365	<b>3</b> Tu	0006	2.0	62	<b>18</b> W	0551	13.7	418	<b>3</b> Tu	0523	11.7	358	<b>18</b> W	0444	12.4	379			
	1128	2.6	79		1059	2.9	87		0616	12.8	391		1210	0.5	15		1140	2.5	77		1105	1.3	39			
	1732	11.6	355		1657	11.5	349		1836	12.0	365		1812	13.2	401		1745	11.3	344		1709	12.3	374	1745	11.3	344
	2338	2.2	66		2309	2.3	70		●								2349	2.1	65		2322	1.0	29	2349	2.1	65
<b>4</b> Su	0552	13.0	396	<b>19</b> M	0525	13.0	395	<b>4</b> W	0040	1.6	50	<b>19</b> Th	0023	0.2	6	<b>4</b> W	0557	12.3	374	<b>19</b> Th	0530	13.4	409			
	1210	2.2	66		1144	1.8	56		0649	13.1	399		0633	14.5	441		1212	1.9	59		1149	0.2	5			
	1813	12.0	365		1744	12.3	374		1305	1.7	51		1252	-0.3	-9		1817	11.8	361		1753	13.3	405	1252	-0.3	-9
					2354	1.4	42		1908	12.2	373		1855	13.8	421											
<b>5</b> M	0018	1.8	56	<b>20</b> Tu	0608	13.8	421	<b>5</b> Th	0112	1.4	43	<b>20</b> F	0105	-0.4	-12	<b>5</b> Th	0021	1.6	49	<b>20</b> F	0005	0.0	0			
	0630	13.3	406		1227	1.0	29		0720	13.2	402		0715	14.8	451		0627	12.7	386		0613	14.1	431			
	1248	1.9	58		1828	13.0	396		1335	1.5	46		1333	-0.7	-21		1242	1.5	46		1230	-0.6	-18	1242	1.5	46
	1851	12.2	371		●				1939	12.3	376		1937	14.1	430		1847	12.2	373		●	1835	14.0	427	1847	12.2
<b>6</b> Tu	0055	1.7	51	<b>21</b> W	0037	0.7	20	<b>6</b> F	0143	1.4	42	<b>21</b> Sa	0147	-0.6	-17	<b>6</b> F	0052	1.2	38	<b>21</b> Sa	0047	-0.6	-19			
	0706	13.5	410		0650	14.4	440		0750	13.1	399		0759	14.7	447		0656	12.9	392		0655	14.4	440			
	1323	1.8	55		1309	0.3	9		1405	1.5	46		1415	-0.6	-19		1310	1.2	37		1310	-0.9	-28	1310	-0.9	-28
	1926	12.2	373		1911	13.5	410		2009	12.3	374		2021	14.0	427		1915	12.5	380		1917	14.3	437	1915	12.5	380
<b>7</b> W	0130	1.7	51	<b>22</b> Th	0119	0.2	6	<b>7</b> Sa	0214	1.5	47	<b>22</b> Su	0231	-0.3	-8	<b>7</b> Sa	0121	1.1	34	<b>22</b> Su	0129	-0.8	-24			
	0740	13.4	408		0732	14.7	449		0820	12.8	391		0844	14.1	430		0725	12.9	392		0738	14.3	435			
	1357	1.9	57		1352	0.0	0		1434	1.7	51		1459	-0.1	-3		1337	1.1	34		1351	-0.8	-24	1337	1.1	34
	2001	12.1	370		1955	13.6	416		2039	12.0	367		2108	13.5	412		1943	12.5	382		2000	14.2	433	1943	12.5	382
<b>8</b> Th	0204	1.8	56	<b>23</b> F	0203	0.1	3	<b>8</b> Su	0246	1.9	57	<b>23</b> M	0317	0.5	14	<b>8</b> Su	0150	1.1	35	<b>23</b> M	0212	-0.4	-13			
	0814	13.1	400		0817	14.6	445		0852	12.4	378		0932	13.2	401		0754	12.7	387		0823	13.7	417			
	1430	2.0	62		1437	0.0	1		1505	2.0	61		1544	0.8	24		1405	1.2	37		1434	-0.2	-5	1405	1.2	37
	2035	11.9	363		2041	13.5	411		2111	11.7	356		2157	12.7	387		2011	12.4	378		2045	13.7	417	2011	12.4	378
<b>9</b> F	0237	2.2	66	<b>24</b> Sa	0249	0.4	13	<b>9</b> M	0319	2.4	73	<b>24</b> Tu	0407	1.5	47	<b>9</b> M	0221	1.4	42	<b>24</b> Tu	0258	0.3	10			
	0847	12.7	387		0904	14.1	429		0925	11.8	360		1023	12.0	366		0823	12.4	377		0910	12.8	389			
	1504	2.4	72		1523	0.5	14		1538	2.5	76		1633	1.9	58		1434	1.5	45		1518	0.8	23	1434	1.5	45
	2109	11.5	352		2130	13.0	397		2147	11.2	342		2250	11.7	357		2041	12.1	370		2132	12.8	391	2041	12.1	370
<b>10</b> Sa	0312	2.6	80	<b>25</b> Su	0337	1.1	33	<b>10</b> Tu	0357	3.0	92	<b>25</b> W	0503	2.8	84	<b>10</b> Tu	0253	1.8	55	<b>25</b> W	0346	1.4	43			
	0923	12.1	370		0955	13.2	403		1003	11.2	340		1120	10.8	329		0855	11.9	362		1000	11.6	354			
	1539	2.8	85		1611	1.2	37		1616	3.1	94		1728	3.1	94		1505	1.9	59		1605	1.9	58	1505	1.9	59
	2146	11.1	339		2223	12.3	376		2229	10.7	326		●	2351	10.8		328	2113	11.7		357	2224	11.8	360	2113	11.7
<b>11</b> Su	0350	3.2	98	<b>26</b> M	0430	2.0	61	<b>11</b> W	0442	3.7	114	<b>26</b> Th	0608	3.9	118	<b>11</b> W	0328	2.4	73	<b>26</b> Th	0439	2.7	81			
	1001	11.5	351		1049	12.2	372		1049	10.4	318		1225	9.8	298		0931	11.3	343		1054	10.5	319			
	1617	3.3	100		1704	2.2	66		1701	3.7	113		1836	4.1	124		1540	2.5	77		1657	3.1	95	1540	2.5	77
	2228	10.6	324		2320	11.5	352		2323	10.2	310						2152	11.2	340		2321	10.8	328	2152	11.2	340
<b>12</b> M	0434	3.9	118	<b>27</b> Tu	0530	3.1	93	<b>12</b> Th	0540	4.4	135	<b>27</b> F	0103	10.1	307	<b>12</b> Th	0411	3.1	95	<b>27</b> F	0540	3.8	115			
	1046	10.8	330		1149	11.2	340		1148	9.8	298		0730	4.6	140		1014	10.5	321		1156	9.5	289			
	1701	3.8	116		1803	3.1	94		1801	4.3	131		1344	9.2	280		1623	3.2	99		1801	4.1	126	1623	3.2	99
	2319	10.2	310		●				●				2000	4.5	137		2243	10.5	321		●			2243	10.5	321
<b>13</b> Tu	0527	4.5	137	<b>28</b> W	0023	10.9	331	<b>13</b> F	0033	9.8	299	<b>28</b> Sa	0229	9.9	303	<b>13</b> F	0506	3.9	118	<b>28</b> Sa	0029	9.9	303			
	1139	10.2	312		0640	3.9	119		0655	4.8	147		0906	4.5	138		1112	9.8	299		0656	4.5	138			
	1755	4.3	131		1256	10.3	313		1302	9.4	287		1514	9.3	284		1721	3.9	120		1312	8.9	271	1721	3.9	120
					1912	3.8	116		1918	4.6	139		2127	4.2	129		●	2352	10.0		305	1923	4.7	143	●	2352
<b>14</b> W	0020	9.8	300	<b>29</b> Th	0137	10.5	319	<b>14</b> Sa	0153	9.9	302	<b>14</b> Sa	0619	4.4	135	<b>14</b> Sa	0619	4.4	135	<b>29</b> Su	0151	9.6	293			
	0633	4.9	150		0802	4.4	133		0821	4.7	143		1227	9.3	284		1227	9.3	284		0831	4.6	140			
	1242	9.8	299		1413	9.8	300		1422	9.5	290		1840	4.4	135		1840	4.4	135		1443	9.0	273	1840	4.4	135
	1900	4.6	139		2030	4.0	123		2043	4.3	130								2056		4.5	137				

# Reykjavik, Iceland, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0454	11.1	339	<b>16</b> Th	0418	12.1	369	<b>1</b> F	0454	11.0	336	<b>16</b> Sa	0444	12.2	373	<b>1</b> M	0531	11.3	345	<b>16</b> Tu	0604	12.1	368
	1112	2.6	80		1039	1.2	36		1109	2.4	72		1100	0.8	24		1141	1.9	58		1212	1.0	30
	1720	11.1	337		1646	12.3	374		1721	11.5	349		1710	12.9	394		1755	12.3	375		1824	13.3	406
	2325	2.4	72		2301	1.0	32		2329	2.2	67		2327	0.8	24		●						
<b>2</b> Th	0529	11.7	356	<b>17</b> F	0507	12.9	394	<b>2</b> Sa	0529	11.5	350	<b>17</b> Su	0532	12.7	386	<b>2</b> Tu	0009	1.8	54	<b>17</b> W	0043	1.1	33
	1144	2.0	61		1124	0.2	7		1140	1.8	56		1145	0.3	10		0607	11.7	356		0648	12.2	371
	1752	11.7	356		1731	13.3	404		1752	12.0	365		1755	13.5	412		1215	1.5	46		1254	0.9	28
	2357	1.8	54		2346	0.2	5		●				1829	12.7	388		1829	12.7	388		1907	13.4	408
<b>3</b> F	0600	12.1	369	<b>18</b> Sa	0551	13.5	411	<b>3</b> Su	0001	1.7	52	<b>18</b> M	0012	0.4	11	<b>3</b> W	0044	1.4	43	<b>18</b> Th	0125	1.1	34
	1213	1.5	47		1206	-0.4	-11		0601	11.8	360		0617	12.8	391		0643	11.9	364		0730	12.1	368
	1821	12.2	371		1814	13.9	424		1210	1.4	44		1227	0.1	4		1251	1.2	37		1334	1.1	33
	●				●				1822	12.4	379		1838	13.8	421		1904	13.0	397		1948	13.2	403
<b>4</b> Sa	0028	1.3	41	<b>19</b> Su	0029	-0.4	-11	<b>4</b> M	0033	1.4	42	<b>19</b> Tu	0056	0.3	8	<b>4</b> Th	0122	1.2	36	<b>19</b> F	0206	1.3	41
	0630	12.4	377		0635	13.7	418		0632	12.0	366		0702	12.8	389		0721	12.0	367		0812	11.8	360
	1241	1.2	36		1248	-0.6	-18		1240	1.2	37		1309	0.3	8		1328	1.1	34		1414	1.4	44
	1849	12.5	381		1856	14.2	433		1852	12.7	388		1922	13.7	419		1942	13.1	400		2028	12.9	392
<b>5</b> Su	0057	1.1	33	<b>20</b> M	0111	-0.4	-13	<b>5</b> Tu	0105	1.2	36	<b>20</b> W	0139	0.5	15	<b>5</b> F	0202	1.1	35	<b>20</b> Sa	0246	1.7	53
	0659	12.5	380		0718	13.5	413		0704	12.1	369		0746	12.4	378		0802	12.0	365		0853	11.4	348
	1308	1.0	31		1329	-0.4	-12		1311	1.1	34		1351	0.7	20		1408	1.2	37		1454	1.9	59
	1917	12.7	386		1939	14.1	429		1923	12.8	391		2005	13.4	408		2023	13.0	396		2108	12.3	375
<b>6</b> M	0127	1.0	31	<b>21</b> Tu	0155	-0.1	-3	<b>6</b> W	0138	1.2	36	<b>21</b> Th	0223	1.0	31	<b>6</b> Sa	0245	1.3	40	<b>21</b> Su	0326	2.2	68
	0728	12.4	378		0803	13.0	397		0737	12.0	366		0831	11.9	362		0848	11.7	358		0934	11.0	334
	1337	1.0	31		1410	0.1	4		1344	1.2	36		1433	1.3	39		1452	1.5	47		1534	2.5	77
	1945	12.7	386		2024	13.6	414		1956	12.8	389		2050	12.8	390		2110	12.6	385		2150	11.6	355
<b>7</b> Tu	0158	1.2	36	<b>22</b> W	0239	0.6	18	<b>7</b> Th	0215	1.4	42	<b>22</b> F	0307	1.7	52	<b>7</b> Su	0334	1.6	49	<b>22</b> M	0407	2.8	84
	0758	12.2	371		0850	12.2	373		0814	11.7	358		0917	11.2	342		0939	11.4	347		1017	10.5	319
	1406	1.2	38		1454	1.0	30		1420	1.5	45		1517	2.0	62		1542	2.0	62		1617	3.2	97
	2016	12.5	380		2110	12.8	391		2034	12.5	381		2135	12.0	367		2203	12.1	370		2234	11.0	335
<b>8</b> W	0231	1.5	46	<b>23</b> Th	0327	1.5	47	<b>8</b> F	0256	1.7	53	<b>23</b> Sa	0353	2.5	75	<b>8</b> M	0427	2.0	62	<b>23</b> Tu	0450	3.3	101
	0831	11.8	359		0939	11.3	344		0857	11.3	345		1004	10.5	321		1035	11.0	334		1104	10.0	305
	1439	1.6	49		1540	2.0	61		1501	1.9	59		1603	2.9	87		1639	2.6	79		1706	3.8	116
	2049	12.1	369		2200	11.9	362		2119	12.0	367		2223	11.3	343		2302	11.6	353		2322	10.4	316
<b>9</b> Th	0308	2.0	62	<b>24</b> F	0417	2.6	79	<b>9</b> Sa	0343	2.2	68	<b>24</b> Su	0442	3.2	97	<b>9</b> Tu	0526	2.4	74	<b>24</b> W	0539	3.8	115
	0909	11.2	342		1030	10.4	316		0947	10.8	329		1054	9.9	302		1137	10.6	324		1158	9.6	293
	1515	2.2	67		1630	3.1	93		1550	2.6	78		1653	3.6	111		1744	3.1	94		1804	4.3	132
	2130	11.6	353		2253	10.9	333		2213	11.5	349		2314	10.5	320		●				●		
<b>10</b> F	0353	2.7	82	<b>25</b> Sa	0512	3.5	108	<b>10</b> Su	0439	2.8	84	<b>25</b> M	0535	3.8	116	<b>10</b> W	0007	11.1	338	<b>25</b> Th	0018	9.9	301
	0955	10.6	322		1126	9.5	290		1046	10.3	313		1150	9.4	286		1245	10.5	320		0631	2.7	83
	1600	2.9	88		1727	4.0	121		1650	3.2	97		1752	4.3	130		1858	3.3	102		1301	9.5	289
	2222	10.9	333		2353	10.1	308		2317	10.9	332		●				1858	3.3	102		1912	4.6	141
<b>11</b> Sa	0449	3.3	102	<b>26</b> Su	0617	4.2	129	<b>11</b> M	0544	3.1	96	<b>26</b> Tu	0012	9.9	302	<b>11</b> Th	0116	10.8	330	<b>26</b> F	0121	9.6	293
	1055	9.9	302		1233	9.0	274		1155	9.9	302		0636	4.2	127		0739	2.8	84		0741	4.2	129
	1700	3.6	110		1839	4.6	140		1802	3.6	111		1255	9.2	279		1354	10.7	325		1409	9.6	293
	2330	10.4	316		●				●				1904	4.6	140		2013	3.2	98		2024	4.5	138
<b>12</b> Su	0559	3.8	117	<b>27</b> M	0103	9.6	293	<b>12</b> Tu	0029	10.6	322	<b>27</b> W	0119	9.6	293	<b>12</b> F	0224	10.9	331	<b>27</b> Sa	0226	9.6	294
	1209	9.4	288		0737	4.5	137		0657	3.2	99		0746	4.2	129		0846	2.5	77		0846	4.0	123
	1817	4.1	126		1354	8.9	272		1309	9.9	303		1408	9.3	284		1501	11.2	340		1512	10.1	307
	●				2006	4.7	142		1923	3.7	112		2021	4.5	137		2122	2.8	85		2128	4.1	125
<b>13</b> M	0050	10.1	308	<b>28</b> Tu	0221	9.6	293	<b>13</b> W	0143	10.6	324	<b>28</b> Th	0226	9.7	295	<b>13</b> Sa	0328	11.1	339	<b>28</b> Su	0325	9.9	303
	0721	3.9	118		0855	4.2	128		0811	2.9	88		0852	3.9	120		0946	2.1	64		0942	3.6	109
	1331	9.5	289		1510	9.4	285		1423	10.4	318		1512	9.8	298		1600	11.8	359		1605	10.7	327
	1947	4.0	123		2120	4.2	127		2041	3.1	96		2125	4.0	123		2221	2.2	67		2221	3.5	107
<b>14</b> Tu	0211	10.4	317	<b>29</b> W	0326	10.0	305	<b>14</b> Th	0252	11.1	337	<b>29</b> F	0324	10.0	305	<b>14</b> Su	0425	11.5	350	<b>29</b> M	0417	10.4	317
	0842	3.3	100		0951	3.6	110		0917	2.2	68		0944	3.5	106		1039	1.6	50		1031	3.0	92
	1451	10.1	309		1604	10.1	307		1528	11.2	342		1603	10.4	318		1653	12.4	379		1650	11.5	349
	2109	3.3	100		2213	3.5	107		2146	2.3	71		2214	3.4	105		2313	1.7	51		2305	2.8	86
<b>15</b> W	0322	11.2	341	<b>30</b> Th	0415	10.5	321	<b>15</b> F	0352	11.7	356	<b>30</b> Sa	0412	10.4	318	<b>15</b> M	0517	11.8	360	<b>30</b> Tu	0503	11.0	334
	0948	2.3	69		1033	3.0	90		1012	1.5	45		1028	3.0	90		1127	1.2	38		1114	2.4	72
	1555	11.2	340		1646	10.8	329		1622	12.1	370		1644	11.1	338		1740	13.0	396		1730	12.2	371
	2211	2.2	66		2253	2.8	86																

# Reykjavik, Iceland, 2015

## Times and Heights of High and Low Waters

July				August				September															
Time		Height		Time		Height		Time		Height		Time		Height									
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm								
<b>1</b> W	0545	11.5	351	<b>16</b> Th	0031	1.7	51	<b>1</b> Sa	0049	0.6	19	<b>16</b> Su	0121	1.5	45	<b>1</b> Tu	0150	-0.5	-14				
	1154	1.7	53		0635	11.9	363		0649	13.0	395		0725	12.3	376		0754	14.2	432				
	1808	12.9	392		1240	1.4	42		1258	0.4	12		1330	1.3	40		1405	-0.2	-6				
				●	1851	13.2	402	1910	14.2	434						2016	14.4	438					
<b>2</b> Th	0026	1.5	46	<b>17</b> F	0109	1.5	45	<b>2</b> Su	0130	0.1	4	<b>17</b> M	0152	1.5	45	<b>2</b> W	0233	-0.1	-4	<b>17</b> Th	0219	1.8	56
	0625	12.0	366		0713	12.0	367		0732	13.3	406		0756	12.3	375		0840	13.8	422		0825	12.3	376
	1233	1.2	37		1317	1.3	39		1341	0.1	4		1402	1.5	45		1451	0.4	11		1437	2.2	66
○	1847	13.4	407	1928	13.2	402	1953	14.3	437	2008	12.8	391	2104	13.6	415	2039	12.1	368					
<b>3</b> F	0106	1.0	31	<b>18</b> Sa	0145	1.5	45	<b>3</b> M	0213	0.0	0	<b>18</b> Tu	0222	1.7	51	<b>3</b> Th	0318	0.6	18	<b>18</b> F	0249	2.3	70
	0706	12.4	377		0749	12.0	366		0816	13.4	407		0827	12.1	369		0930	13.2	401		0858	11.9	363
	1314	0.9	26		1353	1.4	43		1425	0.2	7		1434	1.8	56		1541	1.3	40		1512	2.8	85
	1927	13.6	416	2004	13.0	396	2038	14.0	428	2040	12.4	378	2157	12.6	383	2114	11.5	349					
<b>4</b> Sa	0148	0.7	22	<b>19</b> Su	0220	1.6	50	<b>4</b> Tu	0257	0.2	6	<b>19</b> W	0253	2.0	61	<b>4</b> F	0408	1.6	50	<b>19</b> Sa	0323	2.9	89
	0749	12.5	382		0825	11.8	360		0903	13.1	399		0859	11.7	358		1024	12.3	374		0935	11.4	346
	1356	0.8	23		1428	1.7	52		1512	0.7	21		1507	2.4	72		1636	2.5	75		1645	3.5	107
	2010	13.7	417	2039	12.6	384	2127	13.4	409	2113	11.8	361	2254	11.4	347	2156	10.7	327					
<b>5</b> Su	0232	0.7	21	<b>20</b> M	0255	1.9	59	<b>5</b> W	0345	0.8	24	<b>20</b> Th	0325	2.5	76	<b>5</b> Sa	0503	2.8	85	<b>20</b> Su	0404	3.6	110
	0835	12.5	380		0901	11.5	351		0955	12.6	383		0935	11.3	344		1125	11.4	346		1024	10.7	327
	1441	0.9	27		1504	2.1	65		1603	1.5	45		1544	3.0	92		1741	3.6	110		1645	4.3	130
	2057	13.4	408	2115	12.1	368	2220	12.5	382	2151	11.2	341	2359	10.4	316	2251	10.0	306					
<b>6</b> M	0319	0.9	27	<b>21</b> Tu	0330	2.4	72	<b>6</b> Th	0436	1.6	49	<b>21</b> F	0402	3.1	95	<b>6</b> Su	0608	3.8	116	<b>21</b> M	0459	4.3	132
	0924	12.2	372		0938	11.1	339		1050	11.9	362		1016	10.8	328		1235	10.6	323		1131	10.2	310
	1529	1.3	40		1541	2.7	83		1700	2.4	74		1627	3.7	114		1859	4.4	135		1756	4.9	148
	2148	12.9	392	2152	11.5	350	2318	11.5	352	2235	10.5	320				2242	3.4	103					
<b>7</b> Tu	0409	1.3	40	<b>22</b> W	0407	2.9	87	<b>7</b> F	0532	2.5	77	<b>22</b> Sa	0446	3.8	115	<b>7</b> M	0114	9.7	295	<b>22</b> Tu	0004	9.5	290
	1017	11.8	360		1018	10.6	324		1151	11.2	341		1108	10.2	311		0728	4.4	134		0614	4.8	147
	1623	1.9	59		1623	3.3	102		1805	3.3	102		1722	4.5	136		1357	10.4	316		1252	10.0	304
	2243	12.2	371	2235	10.8	330	○	○	2331	9.8	300	2331	9.8	300	2031	4.6	139	1920	5.0	151			
<b>8</b> W	0503	1.9	57	<b>23</b> Th	0448	3.4	104	<b>8</b> Sa	0023	10.6	324	<b>23</b> Su	0542	4.4	133	<b>8</b> Tu	0241	9.6	294	<b>23</b> W	0127	9.5	289
	1115	11.3	345		1105	10.2	310		0637	3.3	101		1214	9.8	299		0856	4.3	130		0743	4.8	146
	1723	2.6	80		1712	4.0	123		1300	10.7	326		1833	5.0	151		1519	10.7	326		1415	10.4	316
○	2343	11.5	349	2324	10.2	311	1921	4.0	121				2150	4.1	124	2044	4.4	133					
<b>9</b> Th	0602	2.5	75	<b>24</b> F	0537	3.9	120	<b>9</b> Su	0135	10.0	306	<b>24</b> M	0041	9.4	287	<b>9</b> W	0355	10.2	310	<b>24</b> Th	0248	10.0	306
	1218	10.9	333		1201	9.8	298		0752	3.8	115		0654	4.7	144		1004	3.7	112		0906	4.0	123
	1831	3.2	98		1812	4.6	139		1417	10.6	323		1331	9.8	299		1619	11.4	346		1525	11.3	344
				○				2045	4.1	124				2242	3.4	103	2150	3.3	100				
<b>10</b> F	0049	10.8	330	<b>25</b> Sa	0022	9.7	295	<b>10</b> M	0254	10.0	304	<b>25</b> Tu	0158	9.4	287	<b>10</b> Th	0446	10.9	331	<b>25</b> F	0352	11.1	337
	0707	2.9	89		0637	4.3	132		0910	3.7	112		0816	4.6	139		1052	3.0	90		1008	2.9	88
	1326	10.8	328		1307	9.6	294		1533	11.0	334		1449	10.3	314		1703	12.0	366		1619	12.4	377
	1945	3.5	107	1923	4.8	147	2200	3.7	112	2114	4.4	133	2321	2.7	83	2240	2.0	62					
<b>11</b> Sa	0158	10.5	320	<b>26</b> Su	0129	9.4	288	<b>11</b> Tu	0405	10.3	315	<b>26</b> W	0314	9.9	303	<b>11</b> F	0525	11.5	351	<b>26</b> Sa	0443	12.2	373
	0817	3.1	94		0746	4.4	135		1015	3.2	97		0931	3.9	118		1130	2.3	70		1056	1.7	51
	1437	10.9	332		1418	9.8	300		1633	11.6	353		1553	11.2	342		1738	12.5	382		1704	13.4	409
	2101	3.4	104	2039	4.7	142	2256	3.1	93				2216	3.4	103	2355	2.2	66	2324	0.9	27		
<b>12</b> Su	0308	10.5	320	<b>27</b> M	0238	9.6	292	<b>12</b> W	0459	10.9	332	<b>27</b> Th	0415	10.9	331	<b>12</b> Sa	0559	12.1	368	<b>27</b> Su	0527	13.3	406
	0925	2.9	89		0857	4.2	127		1106	2.6	79		1029	2.9	87		1204	1.8	54		1140	0.6	19
	1544	11.4	346		1525	10.4	318		1720	12.2	373		1644	12.3	375		1811	12.9	393		1747	14.3	435
	2208	3.0	92	2146	4.1	124	2339	2.5	75														
<b>13</b> M	0413	10.8	329	<b>28</b> Tu	0343	10.1	307	<b>13</b> Th	0542	11.5	350	<b>28</b> F	0504	11.9	362	<b>13</b> Su	0025	1.7	53	<b>28</b> M	0005	0.0	0
	1025	2.5	77		0959	3.5	107		1147	2.0	61		1116	1.7	53		0630	12.5	380		0608	14.2	432
	1642	11.9	364		1621	11.3	343		1758	12.7	388		1728	13.3	406		1236	1.5	45		1222	-0.1	-4
	2303	2.5	76	2240	3.2	99						2347	1.1	33	●	1841	13.1	399	○	1828	14.7	449	
<b>14</b> Tu	0507	11.2	341	<b>29</b> W	0438	10.8	329	<b>14</b> F	0016	2.0	60	<b>29</b> Sa	0548	12.9	392	<b>14</b> M	0054	1.5	45	<b>29</b> Tu	0045	-0.5	-15
	1116	2.0	62		1050	2.7	82		0619	11.9	363		1159	0.7	22		0659	12.7	387		0650	14.7	447
	1730	12.5	381		1707	12.2	372		1224	1.6	48		1809	14.2	432		1306	1.3	41		1303	-0.4	-13
	2350	2.0	61	2326	2.3	70	●	1833	13.1	398	○	○	1910	13.1	399	1910	14.7	449					
<b>15</b> W	0553	11.6	354	<b>30</b> Th	0524	11.6	353	<b>15</b> Sa	0050	1.6	50	<b>30</b> Su	0028	0.2	6	<b>15</b> Tu	0122	1.4	43	<b>30</b> W	0126	-0.5	-16
	1200	1.6	50		1135	1.8	55		0653	12.2	372		0630	13.6	416		0728	12.7	388		0732	14.7	448
	1812	13.0	395		1749	13.1	399		1258	1.3	41		1241	0.0	0		1336	1.4	43		1346	-0.2	-7
								1906	13.2														

## Reykjavik, Iceland, 2015

## Times and Heights of High and Low Waters

October				November				December																										
Time	Height			Time	Height			Time	Height			Time	Height																					
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> Th	0208	-0.1	-2		<b>16</b> F	0150	1.8	55		<b>1</b> Su	0318	2.1	64		<b>16</b> M	0238	2.5	76		<b>1</b> Tu	0344	3.0	90		<b>16</b> W	0313	2.3	71						
	0817	14.3	436			0758	12.8	391			0937	12.8	389			0853	12.5	382			1003	12.1	370			0930	12.7	387						
	1431	0.4	12			1413	2.1	63			1555	2.7	82			1518	2.8	86			1623	3.3	102			1555	2.4	73		1555	2.4	73		
	2042	13.5	410			2013	12.2	371			2209	11.2	342			2118	11.3	345			2235	10.7	325			2200	11.5	351		2200	11.5	351		
<b>2</b> F	0252	0.8	23		<b>17</b> Sa	0221	2.2	67		<b>2</b> M	0410	3.2	97		<b>17</b> Tu	0322	3.1	94		<b>2</b> W	0435	3.8	117		<b>17</b> Th	0404	2.9	88		<b>17</b> Th	1025	12.1	370	
	0906	13.5	412			0830	12.4	379			1033	11.8	359			0942	11.9	364			1055	11.3	343			1025	12.1	370						
	1520	1.4	43			1449	2.6	80			1653	3.7	113			1609	3.3	102			1716	4.1	124			1650	2.8	86						
	2134	12.4	377			2048	11.6	354			2307	10.3	314			2214	10.8	329			2331	10.1	307			2259	11.1	338						
<b>3</b> Sa	0341	1.9	58		<b>18</b> Su	0255	2.8	84		<b>3</b> Tu	0509	4.2	128		<b>18</b> W	0417	3.7	113		<b>3</b> Th	0533	4.6	140		<b>18</b> F	0505	3.5	106		<b>18</b> F	1127	11.5	352	
	1000	12.5	382			0908	11.9	363			1134	10.9	332			1043	11.4	347			1154	10.5	321			1127	11.5	352						
	1615	2.6	80			1530	3.2	99			1758	4.5	137			1711	3.8	115			1817	4.6	139			1752	3.2	97						
	2231	11.2	342			2131	11.0	334			●	●	2320	10.4		316		●	●		●		●	●			●	●						
<b>4</b> Su	0436	3.1	94		<b>19</b> M	0337	3.4	105		<b>4</b> W	0015	9.7	296		<b>19</b> Th	0525	4.2	129		<b>4</b> F	0037	9.7	296		<b>19</b> Sa	0005	10.8	330		<b>19</b> Sa	0616	3.9	118	
	1100	11.5	350			0957	11.3	344			0620	4.9	149			1153	11.0	334			0644	5.1	154			0616	3.9	118						
	1718	3.8	115			1623	3.9	120			1246	10.3	314			1822	3.9	120			1300	10.1	308			1236	11.2	340						
	2335	10.2	311			2227	10.3	314			1917	4.9	148			●	●	●			1927	4.8	145			1900	3.3	102						
<b>5</b> M	0540	4.2	127		<b>20</b> Tu	0432	4.2	127		<b>5</b> Th	0134	9.5	291		<b>20</b> F	0034	10.3	313		<b>5</b> Sa	0151	9.7	297		<b>20</b> Su	0116	10.9	331		<b>20</b> Su	0733	3.9	120	
	1208	10.7	325			1102	10.7	326			0746	5.0	153			0645	4.4	134			0803	5.1	154			0733	3.9	120						
	1833	4.6	141			1731	4.5	136			1404	10.2	312			1308	10.9	333			1410	10.1	307			1347	11.1	337						
	●	●	●			2340	9.8	299			2037	4.6	141			1936	3.7	113			2036	4.5	138			2010	3.2	98						
<b>6</b> Tu	0049	9.5	291		<b>21</b> W	0546	4.7	143		<b>6</b> F	0252	9.9	303		<b>21</b> Sa	0150	10.7	325		<b>6</b> Su	0259	10.2	310		<b>21</b> M	0227	11.3	344		<b>21</b> M	0848	3.5	108	
	0659	4.8	146			1221	10.4	317			0903	4.6	141			0806	4.0	123			0911	4.7	142			0848	3.5	108						
	1328	10.3	313			1850	4.6	140			1511	10.6	322			1420	11.3	344			1512	10.3	315			1455	11.3	344						
	2004	4.8	147			●	●	●			2135	4.1	125			2045	3.1	94			2133	4.1	125			2115	2.8	85						
<b>7</b> W	0217	9.5	291		<b>22</b> Th	0101	9.8	298		<b>7</b> Sa	0349	10.6	323		<b>22</b> Su	0257	11.5	349		<b>7</b> M	0353	10.8	329		<b>22</b> Tu	0331	11.9	364		<b>22</b> Tu	0953	2.9	89	
	0831	4.7	144			0714	4.7	144			0957	4.0	121			0916	3.2	98			1004	4.1	124			0953	2.9	89						
	1452	10.5	319			1342	10.6	323			1601	11.1	337			1523	11.9	363			1603	10.8	328			1557	11.7	356						
	2124	4.4	133			2012	4.1	125			2219	3.5	106			2143	2.3	70			2218	3.6	109			2213	2.2	68						
<b>8</b> Th	0333	10.1	307		<b>23</b> F	0221	10.3	315		<b>8</b> Su	0431	11.3	345		<b>23</b> M	0354	12.4	378		<b>8</b> Tu	0436	11.5	350		<b>23</b> W	0428	12.7	387		<b>23</b> W	1049	2.2	68	
	0941	4.1	125			0838	4.1	124			1039	3.3	101			1012	2.3	70			1046	3.5	106			1049	2.2	68						
	1553	11.0	336			1454	11.3	345			1641	11.5	352			1617	12.6	384			1645	11.2	342			1653	12.2	371						
	2216	3.7	112			2119	3.1	95			2255	2.9	89			2234	1.5	46			2256	3.1	93			2305	1.7	52						
<b>9</b> F	0423	10.8	330		<b>24</b> Sa	0326	11.3	345		<b>9</b> M	0507	12.0	365		<b>24</b> Tu	0444	13.3	406		<b>9</b> W	0512	12.1	369		<b>24</b> Th	0518	13.4	408		<b>24</b> Th	1138	1.6	50	
	1030	3.4	103			0943	3.0	92			1115	2.7	83			1102	1.4	44			1124	2.9	89			1138	1.6	50						
	1637	11.6	355			1551	12.3	374			1716	12.0	365			1706	13.2	401			1722	11.6	355			1742	12.6	383						
	2255	3.0	92			2212	2.0	62			2327	2.4	74			2320	0.9	27			2331	2.6	79			2351	1.2	38						
<b>10</b> Sa	0502	11.5	352		<b>25</b> Su	0419	12.5	380		<b>10</b> Tu	0539	12.5	381		<b>25</b> W	0530	14.1	429		<b>10</b> Th	0546	12.7	386		<b>25</b> F	0604	13.9	424		<b>25</b> F	1223	1.2	38	
	1108	2.7	82			1034	1.8	56			1148	2.3	70			1148	0.9	26			1158	2.4	74			1223	1.2	38						
	1713	12.1	370			1640	13.2	402			1748	12.3	375			1752	13.5	411			1757	12.0	366			1828	12.8	390						
	2327	2.4	74			2258	1.0	30			2357	2.1	63			●	●	●			●	●		●		●								
<b>11</b> Su	0535	12.1	370		<b>26</b> M	0504	13.5	413		<b>11</b> W	0609	12.9	394		<b>26</b> Th	0004	0.5	16		<b>11</b> F	0004	2.2	66		<b>26</b> Sa	0035	1.0	31		<b>26</b> Sa	0647	14.2	432	
	1141	2.2	66			1120	0.9	26			1219	2.0	60			0614	14.5	442			0618	13.1	399			0647	14.2	432						
	1744	12.5	382			1725	13.9	424			1819	12.5	381			1232	0.6	17			1232	2.1	63			1306	1.1	34						
	2357	2.0	60			2341	0.2	7			●	●	●			1837	13.5	413			●	●		1911		12.8	391							
<b>12</b> M	0605	12.6	385		<b>27</b> Tu	0547	14.4	438		<b>12</b> Th	0027	1.8	56		<b>27</b> F	0047	0.5	14		<b>12</b> Sa	0037	1.9	57		<b>27</b> Su	0116	1.0	32		<b>27</b> Su	0729	14.1	430	
	1212	1.8	54			1203	0.2	5			0638	13.2	402			0658	14.6	445			0651	13.4	409			0729	14.1	430						
	1814	12.8	390			1808	14.3	435			1250	1.8	55			1316	0.7	20			1307	1.8	55			1348	1.2	38						
	●	●	●			●	●	●			1850	12.6	383			1922	13.3	406			1906	12.4	379			1953	12.6	385						
<b>13</b> Tu	0026	1.7	51		<b>28</b> W	0022	-0.2	-5		<b>13</b> F	0057	1.8	54		<b>28</b> Sa	0129	0.8	23		<b>13</b> Su														



# Antwerp (Prosperpolder), Belgium, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0128	18.0	550	<b>16</b> Th	0051	18.4	560	<b>1</b> F	0139	18.7	570	<b>16</b> Sa	0121	19.7	600	<b>1</b> M	0221	20.0	610	<b>16</b> Tu	0241	20.3	620
	0754	1.6	50		0732	1.3	40		0802	1.3	40		0814	0.7	20		0848	2.0	60		0931	1.3	40
	1354	19.0	580		1324	20.3	620		1402	19.7	600		1351	21.0	640		1440	20.3	620		1506	20.3	620
	2017	2.0	60		2001	1.6	50		2025	1.6	50		2036	1.3	40		2109	2.3	70		2152	1.3	40
<b>2</b> Th	0213	19.0	580	<b>17</b> F	0146	19.7	600	<b>2</b> Sa	0219	19.7	600	<b>17</b> Su	0211	20.7	630	<b>2</b> Tu	0257	20.3	620	<b>17</b> W	0326	20.7	630
	0839	1.0	30		0835	0.3	10		0846	1.0	30		0906	0.0	0		0926	2.0	60		1013	2.0	60
	1436	20.0	610		1413	21.3	650		1439	20.3	620		1438	21.3	650		1516	20.7	630		1550	20.3	620
	2058	1.6	50		2057	1.0	30		2106	1.6	50		2126	1.0	30		2147	2.3	70		2234	1.3	40
<b>3</b> F	0252	19.7	600	<b>18</b> Sa	0233	21.0	640	<b>3</b> Su	0254	20.3	620	<b>18</b> M	0256	21.0	640	<b>3</b> W	0334	21.0	640	<b>18</b> Th	0410	20.7	630
	0919	1.0	30		0927	-0.3	-10		0924	1.3	40		0952	0.3	10		1005	2.3	70		1050	2.3	70
	1511	20.3	620		1459	22.0	670		1511	20.7	630		1522	21.3	650		1552	21.0	640		1633	20.3	620
	2136	1.6	50		2146	0.3	10		2141	2.0	60		2211	0.7	20		2228	2.3	70		2313	1.6	50
<b>4</b> Sa	0325	20.3	620	<b>19</b> Su	0317	21.7	660	<b>4</b> M	0326	20.7	630	<b>19</b> Tu	0340	21.3	650	<b>4</b> Th	0411	21.0	640	<b>19</b> F	0453	20.7	630
	0956	1.0	30		1014	-0.7	-20		0958	1.6	50		1034	0.7	20		1047	2.3	70		1125	2.6	80
	1542	20.7	630		1542	22.3	680		1542	20.7	630		1605	21.3	650		1630	21.0	640		1714	20.0	610
	2210	1.6	50		2232	0.3	10		2214	2.0	60		2253	0.7	20		2310	2.0	60		2350	1.6	50
<b>5</b> Su	0355	20.7	630	<b>20</b> M	0400	22.0	670	<b>5</b> Tu	0358	21.0	640	<b>20</b> W	0424	21.3	650	<b>5</b> F	0449	21.3	650	<b>20</b> Sa	0534	20.3	620
	1029	1.0	30		1057	-0.7	-20		1032	1.6	50		1113	1.3	40		1129	2.3	70		1159	3.0	90
	1611	21.0	640		1625	22.0	670		1614	21.0	640		1648	21.0	640		1709	21.0	640		1754	19.7	600
	2242	1.6	50		2314	0.3	10		2250	2.0	60		2333	1.0	30		2353	2.0	60				
<b>6</b> M	0425	21.0	640	<b>21</b> Tu	0444	22.0	670	<b>6</b> W	0432	21.0	640	<b>21</b> Th	0508	21.0	640	<b>6</b> Sa	0530	21.3	650	<b>21</b> Su	0626	2.0	60
	1101	1.0	30		1138	0.0	0		1109	1.6	50		1149	2.0	60		1212	2.3	70		0613	20.0	610
	1641	21.0	640		1708	21.3	650		1649	21.0	640		1731	20.0	610		1750	20.7	630		1232	3.3	100
	2314	1.6	50		2354	0.7	20		2327	2.0	60								1832		19.4	590	
<b>7</b> Tu	0456	21.0	640	<b>22</b> W	0528	21.3	650	<b>7</b> Th	0507	21.0	640	<b>22</b> F	0010	1.3	40	<b>7</b> Su	0036	2.0	60	<b>22</b> M	0100	2.0	60
	1133	1.3	40		1215	1.0	30		1147	2.0	60		0551	20.3	620		0613	21.0	640		0651	19.4	590
	1713	20.7	630		1752	20.3	620		1725	20.7	630		1223	2.6	80		1255	2.3	70		1305	3.3	100
	2347	2.0	60								1814		19.4	590	1835		20.0	610	1911		19.0	580	
<b>8</b> W	0529	20.7	630	<b>23</b> Th	0032	1.0	30	<b>8</b> F	0006	2.3	70	<b>23</b> Sa	0046	1.6	50	<b>8</b> M	0121	2.0	60	<b>23</b> Tu	0132	2.3	70
	1207	1.6	50		0612	20.3	620		0544	20.7	630		0634	19.4	590		0701	20.7	630		0731	19.0	580
	1746	20.3	620		1250	1.6	50		1225	2.3	70		1256	3.0	90		1341	2.3	70		1340	3.3	100
					1836	19.4	590		1803	20.0	610		1856	18.7	570		1927	19.7	600		1954	18.4	560
<b>9</b> Th	0021	2.3	70	<b>24</b> F	0109	1.3	40	<b>9</b> Sa	0044	2.3	70	<b>24</b> Su	0122	2.3	70	<b>9</b> Tu	0209	1.6	50	<b>24</b> W	0208	2.3	70
	0603	20.0	610		0657	19.4	590		0624	20.3	620		0718	18.7	570		0758	20.3	620		0817	18.7	570
	1242	2.3	70		1324	2.6	80		1304	2.6	80		1331	3.3	100		1433	2.3	70		1421	3.3	100
	1822	19.7	600		1922	18.0	550		1846	19.4	590		1941	17.7	540		2028	19.0	580		2045	17.7	540
<b>10</b> F	0056	2.6	80	<b>25</b> Sa	0147	2.0	60	<b>10</b> Su	0124	2.3	70	<b>25</b> M	0200	2.3	70	<b>10</b> W	0305	1.6	50	<b>25</b> Th	0253	2.6	80
	0641	19.7	600		0746	18.4	560		0711	19.7	600		0805	18.0	550		0904	19.7	600		0911	18.0	550
	1318	2.6	80		1402	3.0	90		1348	2.6	80		1412	3.6	110		1533	2.3	70		1515	3.6	110
	1902	19.0	580		2013	17.1	520		1937	18.7	570		2032	17.4	530		2137	18.7	570		2143	17.4	530
<b>11</b> Sa	0133	2.6	80	<b>26</b> Su	0231	2.6	80	<b>11</b> M	0211	2.3	70	<b>26</b> Tu	0247	2.6	80	<b>11</b> Th	0409	1.6	50	<b>26</b> F	0400	3.0	90
	0725	19.0	580		0842	17.4	530		0807	19.0	580		0859	17.4	530		1017	19.4	590		1012	17.7	540
	1400	3.0	90		1450	3.6	110		1443	2.6	80		1506	3.9	120		1639	2.6	80		1636	3.9	120
	1951	18.0	550		2114	16.1	490		2040	18.0	550		2132	16.7	510		2250	18.4	560		2249	17.1	520
<b>12</b> Su	0219	2.6	80	<b>27</b> M	0331	3.0	90	<b>12</b> Tu	0312	2.3	70	<b>27</b> W	0357	3.0	90	<b>12</b> F	0522	1.3	40	<b>27</b> Sa	0521	3.0	90
	0821	18.4	560		0948	16.4	500		0918	18.7	570		1003	17.1	520		1131	19.4	590		1123	17.7	540
	1455	3.0	90		1603	3.9	120		1550	3.0	90		1630	3.9	120		1754	2.6	80		1752	3.6	110
	2055	17.1	520		2227	15.7	480		2156	17.7	540		2241	16.7	510		2359	18.7	570				
<b>13</b> M	0322	3.0	90	<b>28</b> Tu	0451	3.3	100	<b>13</b> W	0426	2.3	70	<b>28</b> Th	0513	3.0	90	<b>13</b> Sa	0646	1.3	40	<b>28</b> Su	0000	17.7	540
	0933	17.7	540		1112	16.4	500		1039	18.7	570		1121	17.4	530		1235	20.0	610		0625	3.0	90
	1608	3.3	100		1726	3.6	110		1702	2.6	80		1745	3.3	100		1916	2.3	70		1232	18.4	560
	2215	16.7	510		2348	16.4	500		2316	18.0	550		2357	17.4	530				1854		3.3	100	
<b>14</b> Tu	0444	3.0	90	<b>29</b> W	0606	2.6	80	<b>14</b> Th	0545	1.6	50	<b>29</b> F	0619	2.3	70	<b>14</b> Su	0059	19.4	590	<b>29</b> M	0100	18.4	560
	1101	17.7	540		1225	17.4	530		1157	19.4	590		1230	18.0	550		0752	1.0	30		0721	2.6	80
	1726	3.0	90		1840	3.0	90		1821	2.3	70		1850	3.0	90		1331	20.3	620		1326	19.0	580
	2343	17.4	530												2016		1.6	50	1949		3.0	90	
<b>15</b> W	0606	2.3	70	<b>30</b> Th	0050	17.7	540	<b>15</b> F	0025	18.7	570	<b>30</b> Sa	0055	18.4	560	<b>15</b> M	0152	20.0	610	<b>30</b> Tu	0149	19.4	590
	1223	19.0	580		0710	2.0	60		0710	1.3	40		0717	2.0	60		0845	1.0	30		0811	2.6	80
	1846	2.3	70		1319	18.7	570		1259	20.3	620		1322	19.0	580		1420	20.3	620		1411	20.0	610
					1938	2.0	60		1938	1.6	50		1945	2.3	70								

# Antwerp (Prosperpolder), Belgium, 2015

## Times and Heights of High and Low Waters

July				August				September																		
Time		Height		Time		Height		Time		Height		Time		Height												
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm											
<b>1</b> W	0232	20.0	610	<b>16</b> Th	0316	19.7	600	<b>1</b> Sa	0338	21.7	660	<b>16</b> Su	0420	20.3	620	<b>1</b> Tu	0444	23.0	700	<b>16</b> W	0455	21.0	640			
	0857	2.6	80		0953	2.6	80		1013	2.3	70		1044	3.0	90		1133	1.3	40		1125	2.3	70			
	1453	20.3	620		1538	20.0	610		1558	21.3	650		1636	20.3	620		1703	22.3	680		1710	21.0	640	2345	1.6	50
	2123	2.6	80		2217	1.6	50		2243	1.3	40		2308	1.6	50		0001	0.0	0		0525	21.0	640			
<b>2</b> Th ○	0313	20.7	630	<b>17</b> F	0359	20.0	610	<b>2</b> Su	0420	22.3	680	<b>17</b> M	0453	20.7	630	<b>2</b> W	0527	22.6	690	<b>17</b> Th	1154	2.6	80			
	0942	2.6	80		1030	3.0	90		1102	2.0	60		1117	2.6	80		1217	1.3	40		1741	20.7	630			
	1533	21.0	640		1619	20.0	610		1640	21.7	660		1708	20.7	630		1747	22.0	670		0014	2.0	60			
	2210	2.3	70		2254	1.6	50		2331	1.0	30		2342	1.6	50		0044	0.3	10		0557	20.3	620			
<b>3</b> F	0354	21.3	650	<b>18</b> Sa	0438	20.3	620	<b>3</b> M	0503	22.6	690	<b>18</b> Tu	0524	21.0	640	<b>3</b> Th	0613	22.0	670	<b>18</b> F	1225	3.0	90			
	1028	2.3	70		1104	3.0	90		1148	1.6	50		1148	2.6	80		1259	1.6	50		1813	20.3	620			
	1614	21.3	650		1657	20.3	620		1723	22.0	670		1739	20.7	630		1833	21.3	650		0046	2.6	80			
	2256	2.0	60		2331	1.6	50		0018	0.7	20		0012	1.6	50		0125	1.0	30		0630	19.7	600			
<b>4</b> Sa	0435	21.7	660	<b>19</b> Su	0515	20.3	620	<b>4</b> Tu	0547	22.3	680	<b>19</b> W	0554	20.7	630	<b>4</b> F	0702	20.7	630	<b>19</b> Sa	1257	3.3	100			
	1115	2.3	70		1138	3.0	90		1234	1.6	50		1218	2.6	80		1340	2.0	60		1848	19.4	590			
	1656	21.3	650		1733	20.3	620		1807	21.7	660		1810	20.3	620		1924	20.3	620		0120	3.3	100			
	2343	1.6	50		0005	1.6	50		0103	0.3	10		0040	2.0	60		0206	1.6	50		0707	19.0	580			
<b>5</b> Su	0518	22.0	670	<b>20</b> M	0550	20.3	620	<b>5</b> W	0634	22.0	670	<b>20</b> Th	0627	20.3	620	<b>5</b> Sa	0756	19.4	590	<b>20</b> Su	1333	3.6	110			
	1201	2.0	60		1211	3.0	90		1318	1.6	50		1248	2.6	80		1423	2.3	70		1927	18.7	570			
	1739	21.3	650		1806	20.0	610		1855	21.0	640		1843	20.0	610		2022	19.0	580		0159	3.6	110			
	0029	1.3	40		0037	1.6	50		0146	0.7	20		0110	2.3	70		0252	2.6	80		0750	18.0	550			
<b>6</b> M	0602	22.0	670	<b>21</b> Tu	0624	20.3	620	<b>6</b> Th	0725	21.0	640	<b>21</b> F	0701	19.7	600	<b>6</b> Su	1515	3.0	90	<b>21</b> M	1416	3.9	120			
	1247	2.0	60		1241	3.0	90		1402	2.0	60		1321	3.0	90		2129	17.7	540		2016	17.7	540			
	1824	21.0	640		1840	19.7	600		1948	20.3	620		1920	19.0	580		0351	3.3	100		0847	17.1	520			
	0115	1.0	30		0106	2.0	60		0232	1.0	30		0145	2.6	80		0518	3.9	120		1513	4.3	130			
<b>7</b> Tu	0651	21.7	660	<b>22</b> W	0659	20.0	610	<b>7</b> F	0823	20.0	610	<b>22</b> Sa	0740	18.7	570	<b>7</b> M	1625	3.6	110	<b>22</b> Tu	2124	17.1	520			
	1332	2.0	60		1312	3.0	90		1450	2.3	70		1359	3.3	100		2246	17.1	520		0401	4.6	140			
	1914	20.3	620		1917	19.4	590		2049	19.4	590		2002	18.4	560		0831	2.6	80		1006	16.4	500			
	0202	1.0	30		0137	2.0	60		0323	1.6	50		0227	3.3	100		1801	3.6	110		1634	4.6	140			
<b>8</b> W	0744	21.0	640	<b>23</b> Th	0737	19.4	590	<b>8</b> Sa	0927	19.0	580	<b>23</b> Su	0827	17.7	540	<b>8</b> Tu	1125	16.7	510	<b>23</b> W	2251	16.7	510			
	1420	2.0	60		1348	3.0	90		1545	2.6	80		1446	3.9	120		2057	17.4	530		0522	4.3	130			
	2010	20.0	610		1959	18.7	570		2158	18.4	560		2057	17.4	530		0004	17.4	530		1139	16.7	510			
	0252	1.0	30		0215	2.3	70		0427	2.3	70		0322	3.9	120		0646	3.6	110		1756	3.9	120			
<b>9</b> Th	0846	20.3	620	<b>24</b> F	0823	18.7	570	<b>9</b> Su	1038	18.0	550	<b>24</b> M	0931	17.1	520	<b>9</b> W	1237	17.1	520	<b>24</b> Th	1914	3.3	100			
	1513	2.3	70		1431	3.3	100		1657	3.3	100		1549	4.3	130		1915	3.0	90		0020	18.0	550			
	2115	19.4	590		2051	17.7	540		2312	17.7	540		2210	16.7	510		0745	3.0	90		0635	3.6	110			
	0349	1.3	40		0302	3.0	90		0554	3.0	90		0439	4.3	130		1336	18.4	560		1252	18.0	550			
<b>10</b> F	0954	19.7	600	<b>25</b> Sa	0918	17.7	540	<b>10</b> M	1151	17.7	540	<b>25</b> Tu	1049	16.7	510	<b>10</b> Th	2010	2.0	60	<b>25</b> F	1914	3.3	100			
	1613	2.6	80		1525	3.9	120		1830	3.0	90		1714	4.6	140		2010	2.0	60		0122	19.7	600			
	2224	18.7	570		2153	17.1	520		0024	18.0	550		0558	3.9	120		0831	2.6	80		0748	2.6	80			
	0457	1.6	50		0408	3.6	110		0711	2.6	80		1214	17.1	520		1423	19.0	580		1346	19.7	600			
<b>11</b> Sa	1105	19.0	580	<b>26</b> Su	1024	17.4	530	<b>11</b> Tu	1258	18.0	550	<b>26</b> W	1830	3.9	120	<b>11</b> F	2054	1.6	50	<b>26</b> Sa	2025	2.0	60			
	1726	2.6	80		1643	4.3	130		1939	2.6	80		0050	18.0	550		0245	20.0	610		0212	21.3	650			
	2335	18.4	560		2303	17.1	520		0127	18.4	560		0705	3.3	100		0911	2.6	80		0849	2.0	60			
	0621	2.0	60		0530	3.6	110		0808	2.6	80		1320	18.7	570		1503	19.7	600		1432	21.0	640			
<b>12</b> Su	1213	19.0	580	<b>27</b> M	1138	17.4	530	<b>12</b> W	1355	18.7	570	<b>27</b> Th	1940	3.3	100	<b>12</b> Sa	2132	1.6	50	<b>27</b> Su	2120	1.3	40			
	1853	2.6	80		1802	3.9	120		2033	2.0	60		0050	18.0	550		0245	20.0	610		0212	21.3	650			
	0040	18.7	570		0017	17.7	540		0220	19.4	590		0147	19.7	600		0323	20.3	620		0257	22.3	680			
	0731	2.0	60		0636	3.3	100		0854	2.6	80		0809	2.6	80		0946	2.6	80		0941	1.6	50			
<b>13</b> M	1314	19.0	580	<b>28</b> Tu	1250	18.0	550	<b>13</b> Th	1443	19.4	590	<b>28</b> F	1411	20.0	610	<b>13</b> Su	1539	20.3	620	<b>13</b> M	2210	0.7	20			
	1958	2.3	70		1907	3.6	110		2118	2.0	60		2044	2.3	70		2208	1.6	50		1516	21.7	660			
	0139	19.0	580		0119	18.7	570		0304	19.7	600		0235	21.0	640		0356	20.7	630		0340	22.6	690			
	0826	2.0	60		0736	3.0	90		0933	3.0	90		0906	2.3	70		1021	2.6	80		1028	1.3	40			
<b>14</b> Tu	1408	19.4	590	<b>29</b> W	1345	19.4	590	<b>14</b> F	1524	19.7	600	<b>29</b> Sa	1456	21.0	640	<b>14</b> M	1611	20.7	630	<b>29</b> Tu	1558	22.3	680			
	2050	2.0	60		2007	3.3	100		2157	2.0	60		2138	1.6	50		2243	1.6	50		2256	0.0	0			
	0230	19.4	590		0210	19.7	600		0344	20.0																



# Antwerp (Prosperpolder), Belgium, 2015

## Times and Heights of High and Low Waters

October				November				December																										
Time		Height		Time		Height		Time		Height		Time		Height																				
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																				
1 Th	0506	22.3	680		16 F	0458	21.0	640		1 Su	0034	2.6	80		16 M	0005	3.3	100		1 Tu	0045	3.9	120		16 W	0032	3.3	100						
	1156	1.3	40			1131	2.6	80			0616	19.7	600			0545	20.0	610			0643	18.7	570			0611	20.0	610						
	1725	22.0	670			1714	21.0	640			1254	2.6	80			1225	3.6	110			1312	3.0	90			1258	3.0	90		1835	20.3	620		
				2350	2.6	80				1838	19.7	600								1905	19.0	580												
2 F	0021	0.7	20		17 Sa	0531	20.7	630		2 M	0110	3.3	100		17 Tu	0043	3.6	110		2 W	0120	4.3	130		17 Th	0115	3.3	100		17 Th	0115	3.3	100	
	0550	21.3	650			1204	3.0	90			0705	18.4	560			0624	19.4	590			0729	18.0	550			0657	19.4	590			0657	19.4	590	
	1237	1.6	50			1748	20.3	620			1332	3.0	90			1302	3.6	110			1350	3.3	100			1341	3.0	90			1341	3.0	90	
	1810	21.3	650						1929	18.7	570			1846	19.7	600			1952	18.0	550													
3 Sa	0100	1.6	50		18 Su	0023	3.0	90		3 Tu	0147	4.3	130		18 W	0124	3.9	120		3 Th	0158	4.3	130		18 F	0201	3.3	100		18 F	0201	3.3	100	
	0638	20.0	610			0604	19.7	600			0758	17.4	530			0708	18.7	570			0818	17.4	530			0749	19.0	580			0749	19.0	580	
	1316	2.3	70			1238	3.3	100			1416	3.6	110			1344	3.6	110			1435	3.6	110			1430	2.6	80			1430	2.6	80	
	1859	20.0	610		1823	19.7	600		2025	17.4	530			1935	19.0	580		2042	17.4	530		2023	19.4	590		2023	19.4	590						
4 Su	0138	2.6	80		19 M	0059	3.6	110		4 W	0233	4.6	140		19 Th	0211	3.9	120		4 F	0248	4.6	140		19 Sa	0255	3.3	100		19 Sa	0255	3.3	100	
	0729	18.7	570			0642	19.0	580			0856	16.4	500			0803	18.0	550			0912	16.7	510			0853	18.4	560			0853	18.4	560	
	1357	2.6	80			1313	3.6	110			1513	3.9	120			1437	3.6	110			1538	3.9	120			1528	2.6	80			1528	2.6	80	
	1954	18.7	570		1903	19.0	580		2127	16.7	510		2037	18.4	560		2141	16.7	510		2133	19.0	580		2133	19.0	580							
5 M	0219	3.6	110		20 Tu	0138	3.9	120		5 Th	0339	5.2	160		20 F	0311	3.9	120		5 Sa	0403	4.9	150		20 Su	0357	3.3	100		20 Su	0357	3.3	100	
	0828	17.4	530			0725	18.4	560			1004	16.1	490			0913	17.4	530			1017	16.4	500			1006	18.0	550			1006	18.0	550	
	1444	3.3	100			1354	3.9	120			1630	4.3	130			1544	3.6	110			1651	3.6	110			1636	2.6	80			1636	2.6	80	
	2058	17.4	530		1951	18.4	560		2245	16.4	500			2154	18.0	550		2256	16.7	510														
6 Tu	0311	4.3	130		21 W	0227	4.3	130		6 F	0502	4.9	150		21 Sa	0421	3.9	120		6 Su	0521	4.6	140		21 M	0506	3.6	110		21 M	0506	3.6	110	
	0934	16.4	500			0820	17.4	530			1124	16.1	490			1034	17.4	530			1136	16.7	510			1120	18.4	560			1120	18.4	560	
	1550	3.9	120			1449	4.3	130			1745	3.6	110			1659	3.3	100			1758	3.3	100			1759	2.3	70			1759	2.3	70	
	2211	16.7	510		2054	17.7	540							2317	18.7	570																		
7 W	0429	4.9	150		22 Th	0332	4.6	140		7 Sa	0003	17.1	520		22 Su	0534	3.6	110		7 M	0014	17.4	530		22 Tu	0000	19.0	580		22 Tu	0000	19.0	580	
	1051	15.7	480			0935	16.4	500			0618	3.9	120			1150	18.0	550			0629	3.9	120			0633	3.3	100			0633	3.3	100	
	1718	3.9	120			1604	4.3	130			1231	17.4	530			1825	2.6	80			1241	17.7	540			1227	18.7	570			1227	18.7	570	
	2333	16.7	510		2218	17.4	530		1852	3.0	90						1900	2.6	80		1900	2.6	80		1900	2.6	80							
8 Th	0603	4.6	140		23 F	0450	4.3	130		8 Su	0102	18.4	560		23 M	0026	19.7	600		8 Tu	0110	18.7	570		23 W	0101	19.7	600		23 W	0101	19.7	600	
	1207	16.4	500			1105	16.7	510			0720	3.3	100			0659	3.0	90			0729	3.3	100			0747	2.6	80			0747	2.6	80	
	1839	3.3	100			1725	3.6	110			1323	18.7	570			1251	19.4	590			1330	19.0	580			1325	19.4	590			1325	19.4	590	
				2348	18.4	560		1946	2.3	70			1942	2.0	60		1953	2.3	70		2020	1.6	50		2020	1.6	50							
9 F	0042	17.7	540		24 Sa	0605	3.6	110		9 M	0148	19.7	600		24 Tu	0123	20.7	630		9 W	0154	19.4	590		24 Th	0155	20.0	610		24 Th	0155	20.0	610	
	0711	3.6	110			1221	18.0	550			0809	2.6	80			0807	2.3	70			0819	3.0	90			0844	2.0	60			0844	2.0	60	
	1308	17.7	540			1850	3.0	90			1406	19.7	600			1344	20.3	620			1412	19.7	600			1417	20.0	610			1417	20.0	610	
	1937	2.3	70					2031	2.0	60			2040	1.3	40		2038	2.3	70		2110	1.6	50		2110	1.6	50							
10 Sa	0135	19.0	580		25 Su	0055	19.7	600		10 Tu	0227	20.3	620		25 W	0212	21.0	640		10 Th	0232	20.0	610		25 F	0245	20.3	620		25 F	0245	20.3	620	
	0801	2.6	80			0724	3.0	90			0852	2.3	70			0901	2.0	60			0900	3.0	90			0933	1.6	50			0933	1.6	50	
	1356	19.0	580			1319	19.4	590			1443	20.3	620			1431	21.0	640			1448	20.3	620			1505	20.3	620			1505	20.3	620	
	2023	2.0	60		2004	2.0	60		2110	2.0	60		2129	1.0	30		2116	2.6	80		2156	2.0	60		2156	2.0	60							
11 Su	0219	20.0	610		26 M	0147	21.0	640		11 W	0301	20.7	630		26 Th	0258	21.3	650		11 F	0306	20.3	620		26 Sa	0331	20.3	620		26 Sa	0331	20.3	620	
	0843	2.3	70			0829	2.0	60			0929	2.6	80			0949	1.6	50			0937	3.0	90			1018	1.6	50			1018	1.6	50	
	1437	20.0	610			1407	20.7	630			1515	20.7	630			1517	21.3	650			1523	20.7	630			1552	20.7	630			1552	20.7	630	
	2104	1.6	50		2100	1.0	30		2145	2.0	60			2214	1.0	30		2152	3.0	90		2237	2.3	70		2237	2.3	70						
12 M	0257	20.3	620		27 Tu	0233	22.0	670		12 Th	03																							

# Vlissingen, Netherlands, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0445	3.9	118	<b>16</b> F	0355	4.0	122	<b>1</b> Su	0011	14.5	442	<b>16</b> M	0539	3.0	91								
	1048	14.4	438		1015	13.7	417		0636	3.0	90		1147	14.8	452	<b>1</b> Su	0516	3.5	108				
	1725	2.8	86		1636	3.5	107		1235	14.9	454		1816	2.9	89		1126	13.8	422				
	2330	14.8	451		2250	14.1	431		1855	2.9	87		2356	13.9	423		1751	3.4	104				
															2256		13.7	417					
<b>2</b> F	0556	3.4	104	<b>17</b> Sa	0505	3.6	109	<b>2</b> M	0105	15.0	458	<b>17</b> Tu	0017	15.0	457	<b>2</b> M	0620	2.9	89	<b>17</b> Tu	0520	2.8	86
	1149	14.8	451		1116	14.3	436		0725	2.5	75		0646	2.3	70		1226	14.6	445		1126	14.7	447
	1822	2.6	79		1741	3.1	96		1325	15.4	470		1241	15.7	480		1840	3.1	94		1750	3.0	91
			2350		14.8	452	1936		2.8	85	1909		2.4	74	2357		14.6	445	2357		14.6	445	
<b>3</b> Sa	0025	15.2	464	<b>18</b> Su	0605	3.0	92	<b>3</b> Tu	0148	15.4	469	<b>18</b> W	0106	15.8	481	<b>3</b> Tu	0050	14.6	445	<b>18</b> W	0626	2.1	64
	0650	2.9	87		1211	15.2	462		0805	2.2	66		0735	1.6	49		0704	2.4	74		1221	15.7	478
	1246	15.3	467		1836	2.8	84		1405	15.7	479		1326	16.5	504		1309	15.2	463		1846	2.5	75
	1910	2.5	75						2015	2.8	84		1951	2.1	63		1914	2.9	88				
<b>4</b> Su	0116	15.6	474	<b>19</b> M	0039	15.6	474	<b>4</b> W	0222	15.6	475	<b>19</b> Th	0150	16.4	499	<b>4</b> W	0129	15.1	459	<b>19</b> Th	0045	15.5	472
	0735	2.4	74		0706	2.4	73		0845	2.0	61		0826	1.0	32		0745	2.1	65		0718	1.4	42
	1335	15.7	480		1258	15.9	486		1439	15.9	484		1413	17.1	521		1348	15.5	473		1306	16.5	503
	1952	2.5	75		1922	2.4	72		2048	2.7	82		2041	1.8	56		1956	2.8	84		1937	2.0	61
<b>5</b> M	0159	15.8	481	<b>20</b> Tu	0125	16.1	492	<b>5</b> Th	0258	15.7	480	<b>20</b> F	0233	16.8	512	<b>5</b> Th	0206	15.3	467	<b>20</b> F	0129	16.2	495
	0816	2.2	66		0752	1.8	55		0918	1.8	56		0912	0.6	19		0819	2.0	60		0806	0.9	26
	1416	16.0	488		1345	16.6	507		1511	16.0	489		1455	17.4	531		1416	15.7	479		1350	17.1	520
	2029	2.6	78		2010	2.1	64		2122	2.6	79		2126	1.7	51		2026	2.6	79		2020	1.7	51
<b>6</b> Tu	0239	15.8	483	<b>21</b> W	0209	16.5	503	<b>6</b> F	0325	15.9	484	<b>21</b> Sa	0316	17.1	520	<b>6</b> F	0231	15.6	476	<b>21</b> Sa	0212	16.8	512
	0858	2.0	61		0840	1.3	40		0956	1.8	54		0956	0.4	12		0856	1.8	55		0850	0.5	15
	1452	16.1	492		1428	17.1	520		1542	16.1	490		1537	17.4	530		1446	15.9	486		1433	17.3	528
	2108	2.7	81		2057	2.0	60		2155	2.6	78		2210	1.7	51		2058	2.3	71		2105	1.5	45
<b>7</b> W	0316	15.8	483	<b>22</b> Th	0253	16.7	510	<b>7</b> Sa	0359	15.9	485	<b>22</b> Su	0359	17.0	519	<b>7</b> Sa	0301	15.9	485	<b>22</b> Su	0255	17.1	522
	0935	2.0	60		0927	1.0	29		1026	1.8	55		1040	0.4	13		0925	1.6	50		0935	0.4	12
	1528	16.1	492		1513	17.3	526		1617	15.9	486		1625	17.1	522		1517	16.1	492		1518	17.3	527
	2146	2.8	85		2142	1.9	59		2225	2.6	80		2255	1.8	55		2132	2.2	66		2148	1.4	44
<b>8</b> Th	0347	15.8	482	<b>23</b> F	0336	16.8	511	<b>8</b> Su	0428	15.7	480	<b>23</b> M	0446	16.8	512	<b>8</b> Su	0331	16.1	490	<b>23</b> M	0339	17.2	523
	1015	2.0	61		1016	0.7	22		1101	2.0	60		1122	0.7	21		1000	1.6	49		1018	0.5	16
	1607	16.0	488		1556	17.2	525		1647	15.6	477		1712	16.5	504		1547	16.1	491		1603	17.0	517
	2216	2.9	89		2228	2.0	62		2255	2.8	84		2335	2.0	62		2206	2.2	66		2236	1.5	47
<b>9</b> F	0420	15.6	477	<b>24</b> Sa	0421	16.7	508	<b>9</b> M	0501	15.5	472	<b>24</b> Tu	0536	16.3	498	<b>9</b> M	0402	16.0	488	<b>24</b> Tu	0425	16.9	516
	1050	2.1	65		1102	0.7	22		1125	2.2	67		1206	1.2	36		1029	1.7	53		1100	0.9	26
	1641	15.7	479		1645	17.0	517		1716	15.3	467		1806	15.7	480		1617	15.9	484		1649	16.4	499
	2252	3.1	94		2311	2.2	67		2326	2.8	86		2326	2.8	86		2235	2.3	69		2315	1.7	53
<b>10</b> Sa	0458	15.4	469	<b>25</b> Su	0509	16.4	499	<b>10</b> Tu	0533	15.2	464	<b>25</b> W	0026	2.4	73	<b>10</b> Tu	0432	15.8	482	<b>25</b> W	0509	16.4	500
	1122	2.4	72		1148	0.9	27		1156	2.4	72		0628	15.6	476		1100	2.0	60		1139	1.4	43
	1718	15.3	467		1737	16.4	501		1748	15.1	459		1256	1.8	56		1647	15.6	477		1739	15.6	474
	2322	3.3	100						2355	2.9	87		1902	14.9	453		2302	2.3	71				
<b>11</b> Su	0536	15.0	457	<b>26</b> M	0000	2.5	75	<b>11</b> W	0605	14.9	454	<b>26</b> Th	0109	2.9	88	<b>11</b> W	0501	15.6	476	<b>26</b> Th	0001	2.1	64
	1155	2.6	80		0559	15.9	486		1225	2.5	77		0731	14.7	449		1126	2.1	65		0559	15.6	477
	1756	14.9	453		1236	1.3	39		1831	14.7	447		1348	2.6	80		1718	15.4	470		1226	2.1	64
	2355	3.4	105		1831	15.8	481						2006	13.8	422		2336	2.4	72		1829	14.6	445
<b>12</b> M	0610	14.6	445	<b>27</b> Tu	0051	2.8	86	<b>12</b> Th	0046	3.0	92	<b>27</b> F	0213	3.5	106	<b>12</b> Th	0537	15.4	470	<b>27</b> F	0045	2.6	79
	1226	2.9	87		0658	15.4	468		0656	14.4	438		0840	13.8	422		1206	2.3	70		0655	14.7	447
	1836	14.4	440		1326	1.8	56		1316	2.9	88		1453	3.4	104		1759	15.0	458		1315	2.9	88
					1936	15.0	458		1935	14.0	428		2126	13.1	400						1932	13.6	414
<b>13</b> Tu	0029	3.6	110	<b>28</b> W	0146	3.3	100	<b>13</b> F	0134	3.4	104	<b>28</b> Sa	0339	3.8	115	<b>13</b> F	0016	2.5	76	<b>28</b> Sa	0144	3.2	97
	0656	14.1	431		0800	14.7	447		0810	13.7	419		1006	13.4	409		0621	14.9	455		0810	13.7	418
	1306	3.1	95		1420	2.5	76		1426	3.4	103		1630	3.7	112		1245	2.7	81		1425	3.6	111
	1925	14.0	427		2035	14.3	435		2056	13.6	414		2250	13.2	403		1856	14.3	435		2055	12.7	387
<b>14</b> W	0126	3.9	118	<b>29</b> Th	0244	3.7	114	<b>14</b> Sa	0306	3.7	114	<b>14</b> Sa	0016	2.9	88	<b>14</b> Sa	0116	2.9	88	<b>29</b> Su	0304	3.5	108
	0755	13.7	418		0910	14.1	429		0936	13.5	413		0840	13.8	422		0726	14.0	428		0936	13.2	401
	1354	3.4	105		1536	3.1	95		1543	3.6	110		1543	3.6	110		1349	3.2	98		1555	3.9	120
	2032	13.7	419		2155	13.8	421		2210	13.6	415		2210	13.6	415		2015	13.5	411		2226	12.7	386
<b>15</b> Th	0235	4.1	125	<b>30</b> F	0404	3.9	119	<b>15</b> Su	0430	3.5	108	<b>15</b> Su	0223	3.3	102	<b>15</b> Su	0223	3.3	102	<b>30</b> M	0440	3.4	105
	0906	13.5	411		1027	13.8	422		1045	13.9	425		0901	13.6	414		0901	13.6	414		1056	13.5	412
	1514	3.6	111		1700	3.3	100		1705	3.4	103		1516	3.6	111		1516	3.6	111		1715	3.7	113
	2139	13.7	419		2309	13.9	425																

# Vlissingen, Netherlands, 2015

## Times and Heights of High and Low Waters

April				May				June																						
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																	
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																
<b>1</b> W	0025	14.1	430	<b>16</b> Th	0605	1.9	58	<b>1</b> F	0026	14.2	432	<b>16</b> Sa	0638	1.4	42	<b>1</b> M	0056	15.1	459	<b>16</b> Tu	0116	15.9	486							
	0639	2.5	75		1159	15.6	476		0642	2.4	73		1227	16.1	490		0715	2.2	68		0748	1.5	47							
	1241	14.9	454		1826	2.5	76		1246	15.0	456		1855	2.1	64		1317	15.7	479		1345	16.1	490	●	2011	1.6	48			
	1856	3.0	90						1849	2.7	83						1936	2.2	66											
<b>2</b> Th	0058	14.7	447	<b>17</b> F	0021	15.3	467	<b>2</b> Sa	0100	14.7	449	<b>17</b> Su	0045	15.8	483	<b>2</b> Tu	0136	15.6	476	<b>17</b> W	0206	16.2	494							
	0725	2.2	67		0658	1.3	39		0721	2.2	67		0723	1.1	33		0756	2.0	62		0829	1.7	51							
	1317	15.3	466		1245	16.4	499		1318	15.4	470		1313	16.4	501		1352	16.1	490		1430	16.1	491	○	2016	1.8	56	2055	1.4	44
	1928	2.7	82		1916	2.0	61		1931	2.4	73		1946	1.7	52		2016	1.8	56											
<b>3</b> F	0135	15.1	459	<b>18</b> Sa	0106	16.1	490	<b>3</b> Su	0128	15.3	465	<b>18</b> M	0131	16.3	498	<b>3</b> W	0206	16.0	489	<b>18</b> Th	0247	16.3	498							
	0756	2.0	62		0746	0.8	25		0749	2.0	61		0807	1.0	30		0836	1.9	58		0912	1.9	59							
	1349	15.6	475		●	2002	1.6		50	1347	15.8		483	●	2028		1.4	43	1429		16.2	495	1512	16.0	488					
	2000	2.4	74						2002	2.1	63						2055	1.6	48		2139	1.4	43							
<b>4</b> Sa	0206	15.5	471	<b>19</b> Su	0150	16.6	507	<b>4</b> M	0201	15.7	480	<b>19</b> Tu	0216	16.6	506	<b>4</b> Th	0246	16.3	496	<b>19</b> F	0330	16.3	496							
	0821	1.8	56		0827	0.6	19		0825	1.8	55		0849	1.1	33		0916	1.9	58		0949	2.3	69							
	1417	15.9	485		1415	17.1	520		1422	16.1	492		1443	16.5	503		1508	16.2	493		1555	15.8	481							
	2032	2.1	65		2045	1.4	42		2041	1.8	55		2112	1.3	40		2141	1.4	44		2222	1.5	46							
<b>5</b> Su	0232	15.9	484	<b>20</b> M	0236	17.0	517	<b>5</b> Tu	0235	16.1	491	<b>20</b> W	0300	16.7	508	<b>5</b> F	0326	16.3	497	<b>20</b> Sa	0415	16.0	489							
	0855	1.7	51		0913	0.6	19		0900	1.7	52		0932	1.4	42		0955	2.0	61		1028	2.6	78							
	1449	16.2	493		1458	17.0	517		1453	16.2	495		1526	16.2	495		1548	15.9	486		1636	15.5	471							
	2109	1.9	58		2130	1.3	40		2116	1.7	51		2157	1.3	41		2222	1.4	42		2306	1.7	53							
<b>6</b> M	0302	16.1	491	<b>21</b> Tu	0318	17.0	518	<b>6</b> W	0306	16.2	493	<b>21</b> Th	0345	16.5	503	<b>6</b> Sa	0405	16.2	494	<b>21</b> Su	0455	15.6	477							
	0930	1.6	48		0956	0.9	27		0938	1.7	53		1016	1.8	55		1038	2.2	67		1110	2.9	88							
	1519	16.2	494		1546	16.6	507		1526	16.1	491		1610	15.8	482		1632	15.6	475		1716	15.0	458							
	2139	1.8	56		2213	1.4	42		2156	1.6	50		2238	1.5	46		2310	1.4	43		2345	2.0	61							
<b>7</b> Tu	0335	16.1	492	<b>22</b> W	0403	16.8	511	<b>7</b> Th	0345	16.1	492	<b>22</b> F	0427	16.1	490	<b>7</b> Su	0450	15.9	486	<b>22</b> M	0539	15.1	461							
	1001	1.7	51		1036	1.3	40		1016	1.9	59		1052	2.3	69		1121	2.5	75		1145	3.2	98							
	1551	16.0	488		1626	16.0	489		1603	15.8	482		1655	15.3	465		1716	15.2	463		1755	14.6	444							
	2216	1.9	58		2256	1.6	49		2236	1.7	52		2326	1.8	55															
<b>8</b> W	0405	16.0	488	<b>23</b> Th	0449	16.3	496	<b>8</b> F	0421	16.0	487	<b>23</b> Sa	0520	15.5	473	<b>8</b> M	0001	1.5	45	<b>23</b> Tu	0026	2.3	71							
	1035	1.9	58		1115	1.8	56		1052	2.2	66		1136	2.8	84		0542	15.6	474		0621	14.6	444							
	1622	15.8	481		1716	15.3	467		1643	15.5	471		1742	14.7	447		1811	14.7	449		1811	14.7	449	1839	14.0	428				
	2245	2.0	61		2338	1.9	58		2315	1.8	55																			
<b>9</b> Th	0436	15.8	483	<b>24</b> F	0537	15.6	474	<b>9</b> Sa	0501	15.7	478	<b>24</b> Su	0006	2.1	65	<b>9</b> Tu	0056	1.6	49	<b>24</b> W	0116	2.7	82							
	1108	2.1	64		1156	2.5	75		1136	2.5	75		1220	3.2	98		0645	15.1	460		0709	14.0	427							
	1657	15.5	472		1805	14.5	442		1725	15.0	457		1825	14.0	426		1305	3.0	92		1336	3.8	117							
	2320	2.1	63												1915		14.3	437	1930		13.5	413								
<b>10</b> F	0516	15.6	477	<b>25</b> Sa	0026	2.4	72	<b>10</b> Su	0005	1.9	59	<b>25</b> M	0055	2.5	77	<b>10</b> W	0144	1.8	54	<b>25</b> Th	0216	3.0	92							
	1147	2.4	72		0636	14.7	447		0548	15.2	463		0659	14.1	430		0756	14.9	453		0805	13.5	413							
	1737	15.1	459		1246	3.1	95		1222	2.8	85		1309	3.7	112		1409	3.2	98		1436	4.0	121							
					1854	13.6	414		1818	14.3	436		1915	13.3	405		2025	14.1	431		2030	13.2	401							
<b>11</b> Sa	0002	2.2	67	<b>26</b> Su	0136	2.9	87	<b>11</b> M	0056	2.1	65	<b>26</b> Tu	0153	2.9	88	<b>11</b> Th	0250	1.9	59	<b>26</b> F	0310	3.2	98							
	0601	15.1	460		0735	13.8	420		0655	14.6	444		0800	13.5	410		0859	14.8	450		0910	13.4	408							
	1236	2.7	83		1356	3.7	114		1320	3.2	97		1414	4.0	121		1515	3.3	101		1546	3.9	119							
	1828	14.3	435		●	2006	12.7		388	●	1936		13.7	419	2025		12.7	388	2130		14.2	432	2135	13.1	398					
<b>12</b> Su	0100	2.5	77	<b>27</b> M	0240	3.2	97	<b>12</b> Tu	0155	2.3	71	<b>27</b> W	0300	3.1	94	<b>12</b> F	0406	2.1	64	<b>27</b> Sa	0405	3.2	99							
	0705	14.3	435		0856	13.1	400		0816	14.3	435		0909	13.1	400		1008	14.9	454		1016	13.6	414							
	1329	3.2	98		1510	4.0	122		1436	3.4	105		1525	3.9	120		1624	3.2	98		1636	3.6	111							
	1950	13.5	411		2141	12.4	378		2046	13.5	413		2146	12.6	384		2236	14.4	440		2246	13.5	410							
<b>13</b> M	0209	2.9	87	<b>28</b> Tu	0350	3.3	100	<b>13</b> W	0316	2.4	72	<b>28</b> Th	0406	3.1	96	<b>13</b> Sa	0509	2.0	61	<b>28</b> Su	0505	3.1	94							
	0835	13.8	421		1015	13.2	402		0926	14.4	439		1026	13.4	407		1111	15.2	464		1116	14.2	432							
	1449	3.6	109		1615	3.9	119		1545	3.4	104		1636	3.7	113		1740	2.8	86		1724	3.2	99							
	2110	13.2	403		2244	12.8	391		2156	13.8	420		2250	13.1	398		2336	15.0	456		2338	14.1	431							
<b>14</b> Tu	0336	2.9	88	<b>29</b> W	0506	3.1	94	<b>14</b> Th	0436	2.2	68	<b>29</b> F	0506	3.0	91	<b>14</b> Su	0616	1.8	54	<b>29</b> M	0555	2.8	86							
	0956	14.0	427		1120	13.8	421		1035	14.9	453		1120	13.9	425		1209	15.6	476		1205	14.9	453							
	1604	3.5	107		1725	3.5	107		1700	3.1	94		1726	3.3	102		1836	2.3	71		1825	2.8	85							
	2228	13.6	414		2341	13.5	413		2306	14.4	439		2340	13.7	418															
<b>15</b> W	0456	2.5	77	<b>30</b> Th	0600	2.7	82	<b>15</b> F	0540	1.8	56	<b>30</b> Sa	0555	2.7	83	<b>15</b> M	0027	15.5	472	<b>30</b> Tu	0025	14.9	453							
	1106	14.7	449		1205	14.4	440		1136	15.5	472		1201	14.6	445		0702	1.6	48		0642	2.5	77							
	1725	3.1	93		1816	3.1	94		1806	2.6	79		1816	2.9	89		1259	15.9	486		1249	15.5								

# Vlissingen, Netherlands, 2015

## Times and Heights of High and Low Waters

July				August				September																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> W	0107	15.6	47.4		<b>16</b> Th	0157	16.0	48.8		<b>1</b> Sa	0209	16.8	51.2		<b>16</b> Su	0257	16.2	49.5		<b>1</b> Tu	0315	17.6	53.7		<b>16</b> W	0336	16.3	49.8	
	0725	2.3	7.0			0811	2.3	6.9			0836	2.1	6.5			0908	2.7	8.3			0945	2.0	6.1			0950	2.6	8.0	
	1328	15.9	48.6			1417	15.9	48.5			1433	16.6	50.7			1516	16.1	49.1			1535	17.3	52.8			1547	16.3	49.7	
	1949	1.9	5.8		●	2045	1.6	5.0			2107	1.1	3.3			2138	1.8	5.4			2216	0.7	2.2			2219	2.2	6.7	
<b>2</b> Th	0147	16.1	49.0		<b>17</b> F	0239	16.2	49.3		<b>2</b> Su	0251	17.1	52.2		<b>17</b> M	0329	16.3	49.6		<b>2</b> W	0359	17.4	53.0		<b>17</b> Th	0405	16.1	49.2	
	0808	2.1	6.4			0852	2.4	7.4			0920	2.0	6.2			0946	2.7	8.3			1030	2.1	6.3			1020	2.8	8.4	
	1409	16.2	49.5			1458	15.9	48.6			1516	16.8	51.1			1547	16.1	49.2			1621	17.1	52.2			1617	16.1	49.0	
○	2035	1.5	4.7			2121	1.6	4.8			2153	0.8	2.5			2216	1.9	5.7			2302	1.0	2.9			2245	2.5	7.6	
<b>3</b> F	0228	16.5	50.2		<b>18</b> Sa	0315	16.2	49.4		<b>3</b> M	0335	17.2	52.4		<b>18</b> Tu	0406	16.1	49.1		<b>3</b> Th	0446	16.9	51.5		<b>18</b> F	0436	15.8	48.1	
	0855	2.0	6.2			0930	2.6	7.8			1006	2.1	6.4			1015	2.8	8.5			1116	2.3	7.0			1045	2.9	8.9	
	1452	16.3	49.6			1535	15.9	48.5			1558	16.7	51.0			1619	16.0	48.7			1706	16.7	50.9			1647	15.8	48.1	
	2122	1.2	3.8			2202	1.6	4.9			2240	0.7	2.2			2245	2.1	6.3			2345	1.3	4.1			2310	2.7	8.3	
<b>4</b> Sa	0309	16.6	50.7		<b>19</b> Su	0356	16.1	49.1		<b>4</b> Tu	0422	17.0	51.8		<b>19</b> W	0438	15.8	48.2		<b>4</b> F	0536	16.2	49.3		<b>19</b> Sa	0506	15.5	47.3	
	0938	2.1	6.3			1005	2.7	8.3			1052	2.2	6.7			1050	3.0	9.0			1159	2.6	7.8			1116	3.0	9.1	
	1533	16.3	49.6			1616	15.8	48.1			1646	16.5	50.4			1652	15.7	47.8			1757	16.1	49.0			1717	15.6	47.4	
	2209	1.1	3.3			2239	1.7	5.3			2325	0.8	2.5			2315	2.4	7.3								2346	2.9	8.9	
<b>5</b> Su	0353	16.6	50.7		<b>20</b> M	0431	15.9	48.4		<b>5</b> W	0506	16.6	50.6		<b>20</b> Th	0507	15.4	47.0		<b>5</b> Sa	0030	1.9	5.9		<b>20</b> Su	0537	15.2	46.4	
	1023	2.2	6.6			1046	2.9	8.8			1141	2.4	7.3			1121	3.1	9.5			0636	15.4	46.8			1156	3.1	9.3	
	1616	16.1	49.0			1647	15.6	47.4			1732	16.2	49.3			1721	15.3	46.7			1244	3.0	9.1			1757	15.2	46.2	
	2258	1.0	3.0			2321	2.0	6.0							2345	2.7	8.1		○	1856	15.3	46.6							
<b>6</b> M	0436	16.4	50.1		<b>21</b> Tu	0507	15.5	47.2		<b>6</b> Th	0012	1.1	3.3		<b>21</b> F	0539	15.1	45.9		<b>6</b> Su	0119	2.6	8.0		<b>21</b> M	0020	3.2	9.7	
	1109	2.4	7.2			1120	3.1	9.4			0600	16.1	49.0			1146	3.2	9.8			0738	14.5	44.2			0626	14.6	44.6	
	1703	15.8	48.1			1726	15.2	46.2			1225	2.7	8.1			1755	15.0	45.6			1349	3.4	10.5			1246	3.3	10.2	
	2348	1.0	3.1			2355	2.3	7.0			1826	15.7	47.8								2011	14.5	44.2		○	1849	14.4	43.9	
<b>7</b> Tu	0527	16.1	49.1		<b>22</b> W	0546	15.0	45.7		<b>7</b> F	0100	1.5	4.7		<b>22</b> Sa	0016	2.9	8.7		<b>7</b> M	0225	3.4	10.3		<b>22</b> Tu	0115	3.7	11.3	
	1200	2.6	7.8			1149	3.3	10.1			0701	15.5	47.1			0618	14.7	44.8			0849	13.7	41.9			0736	13.8	42.1	
	1756	15.4	47.0			1806	14.7	44.9		○	1321	3.0	9.1			1221	3.3	10.1			1504	3.8	11.6			1356	3.8	11.6	
											1925	15.1	46.1		○	1836	14.5	44.1			2125	14.0	42.6			2025	13.7	41.8	
<b>8</b> W	0035	1.2	3.6		<b>23</b> Th	0026	2.6	8.0		<b>8</b> Sa	0156	2.1	6.5		<b>23</b> Su	0055	3.1	9.6		<b>8</b> Tu	0355	3.8	11.6		<b>23</b> W	0234	4.2	12.8	
	0626	15.7	47.8			0625	14.5	44.3			0806	14.8	45.0			0716	14.1	43.1			1016	13.6	41.4			0902	13.5	41.0	
	1250	2.8	8.5			1230	3.5	10.7			1415	3.4	10.3			1316	3.6	11.1			1647	3.7	11.2			1524	3.9	11.8	
○	1855	15.1	45.9			1846	14.3	43.5			2031	14.6	44.4			1947	13.8	42.1			2249	14.2	43.3			2148	13.9	42.3	
<b>9</b> Th	0128	1.4	4.4		<b>24</b> F	0100	2.9	8.9		<b>9</b> Su	0256	2.8	8.4		<b>24</b> M	0156	3.6	11.1		<b>9</b> W	0514	3.6	11.1		<b>24</b> Th	0410	4.1	12.4	
	0729	15.3	46.6			0712	14.1	43.0			0916	14.2	43.3			0826	13.6	41.6			1130	14.2	43.3			1026	13.8	42.0	
	1346	3.1	9.4			1310	3.7	11.4			1529	3.6	11.0			1425	4.0	12.3			1756	3.1	9.4			1645	3.4	10.3	
	1955	14.7	44.9		○	1936	13.8	42.0			2148	14.2	43.3			2102	13.5	41.2			2355	15.0	45.6			2259	14.7	44.7	
<b>10</b> F	0222	1.8	5.6		<b>25</b> Sa	0144	3.3	10.0		<b>10</b> M	0420	3.1	9.5		<b>25</b> Tu	0325	3.9	12.0		<b>10</b> Th	0615	3.2	9.9		<b>25</b> F	0525	3.6	10.9	
	0832	14.9	45.5			0810	13.7	41.9			1037	14.1	43.0			0940	13.6	41.4			1226	15.0	45.6			1129	14.7	44.7	
	1456	3.3	10.1			1414	4.0	12.2			1700	3.4	10.5			1616	3.9	11.8			1845	2.5	7.6			1756	2.7	8.2	
	2102	14.5	44.1			2046	13.4	40.9			2306	14.4	43.9			2219	13.8	42.1								2356	15.7	47.9	
<b>11</b> Sa	0325	2.3	6.9		<b>26</b> Su	0306	3.5	10.8		<b>11</b> Tu	0536	3.0	9.2		<b>26</b> W	0446	3.7	11.3		<b>11</b> F	0050	15.6	47.7		<b>26</b> Sa	0614	3.0	9.2	
	0941	14.7	44.7			0916	13.6	41.4			1146	14.6	44.5			1055	14.0	42.8			0705	3.0	9.2			1221	15.7	47.8	
	1600	3.4	10.3			1545	4.0	12.1			1805	2.9	8.8			1720	3.3	10.1			1309	15.5	47.3			1856	2.0	6.0	
	2210	14.4	43.9			2145	13.4	40.9							2330	14.6	44.6			1935	2.2	6.7							
<b>12</b> Su	0445	2.5	7.5		<b>27</b> M	0426	3.5	10.8		<b>12</b> W	0009	15.0	45.8		<b>27</b> Th	0550	3.2	9.9		<b>12</b> Sa	0129	16.0	48.8		<b>27</b> Su	0043	16.7	50.8	
	1051	14.7	44.9			1026	13.8	42.1			0636	2.8	8.5			1155	14.9	45.4			0735	3.0	9.0			0711	2.5	7.7	
	1726	3.1	9.6			1656	3.6	11.0			1241	15.2	46.4			1820	2.6	8.0			1348	15.8	48.2						

# Vlissingen, Netherlands, 2015

## Times and Heights of High and Low Waters

October				November				December																									
Time	Height			Time	Height			Time	Height			Time	Height																				
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm														
<b>1</b> Th	0337	17.5	532		<b>16</b> F	0337	16.3	498		<b>1</b> Su	0452	16.0	488		<b>16</b> M	0421	15.9	484		<b>1</b> Tu	0518	15.4	468		<b>16</b> W	0451	15.7	479					
	1008	2.0	60			0959	2.5	77			1118	2.3	71			1051	2.4	74			1145	2.4	74			1131	2.0	60					
	1557	17.4	531			1549	16.3	498			1715	16.2	495			1640	16.1	491			1746	15.6	474			1712	16.0	488		2340	3.1	94	
	2236	1.3	40			2216	2.6	78			2336	2.9	87			2306	3.1	93			2355	3.5	107										
<b>2</b> F	0426	16.9	515		<b>17</b> Sa	0407	16.1	490		<b>2</b> M	0546	15.2	463		<b>17</b> Tu	0502	15.5	472		<b>2</b> W	0608	14.7	448		<b>17</b> Th	0537	15.3	466					
	1052	2.2	66			1028	2.7	81			1206	2.8	84			1135	2.6	78			1229	2.8	86			1215	2.1	64					
	1646	17.0	517			1621	16.1	491			1808	15.4	470			1721	15.7	479			1838	14.8	451			1802	15.6	474					
	2318	1.8	55			2246	2.8	86								2345	3.3	102															
<b>3</b> Sa	0512	16.1	492		<b>18</b> Su	0437	15.8	481		<b>3</b> Tu	0025	3.5	107		<b>18</b> W	0547	15.0	456		<b>3</b> Th	0041	4.0	122		<b>18</b> F	0024	3.4	103					
	1135	2.5	76			1101	2.8	84			0636	14.3	437			1220	2.7	83			0700	14.0	426			0636	14.8	451					
	1732	16.2	495			1655	15.9	486			1255	3.2	98			1816	15.1	461			1336	3.3	100			1304	2.3	70					
	2359	2.4	74			2321	3.0	92			1910	14.5	443			1936	14.0	427			1936	14.0	427			1910	15.1	459					
<b>4</b> Su	0606	15.2	464		<b>19</b> M	0517	15.5	471		<b>4</b> W	0120	4.2	127		<b>19</b> Th	0040	3.7	113		<b>4</b> F	0150	4.4	135		<b>19</b> Sa	0126	3.6	111					
	1225	2.9	89			1136	2.9	87			0740	13.5	412			0650	14.3	436			0755	13.3	405			0740	14.4	440					
	1829	15.4	468			1735	15.6	474			1403	3.6	111			1320	3.0	90			1424	3.6	111			1410	2.5	76					
											2019	13.8	421			1930	14.6	444			2034	13.4	409			2020	14.8	451					
<b>5</b> M	0049	3.2	97		<b>20</b> Tu	0000	3.3	101		<b>5</b> Th	0235	4.6	140		<b>20</b> F	0150	4.0	123		<b>5</b> Sa	0255	4.6	141		<b>20</b> Su	0230	3.8	117					
	0706	14.3	435			0602	14.9	453			0900	13.0	396			0805	13.9	424			0916	12.9	393			0846	14.3	435					
	1326	3.4	105			1226	3.1	95			1525	3.8	116			1424	3.1	94			1535	3.8	116			1515	2.7	83					
	1946	14.4	440			1826	14.8	451			2145	13.6	415			2048	14.5	442			2206	13.4	407			2128	14.7	449					
<b>6</b> Tu	0156	3.9	120		<b>21</b> W	0056	3.8	116		<b>6</b> F	0406	4.6	140		<b>21</b> Sa	0305	4.1	126		<b>6</b> Su	0354	4.5	138		<b>21</b> M	0340	3.9	118					
	0826	13.4	409			0705	14.0	427			1026	13.2	403			0916	14.0	426			1025	13.1	399			0956	14.4	438					
	1439	3.8	116			1335	3.5	106			1645	3.6	111			1646	3.0	91			1646	3.7	114			1626	2.8	85					
	2106	13.8	421			1956	14.1	429			2256	14.1	429			2158	14.8	452			2306	13.8	420			2232	14.9	455					
<b>7</b> W	0314	4.4	133		<b>22</b> Th	0205	4.2	129		<b>7</b> Sa	0516	4.2	129		<b>22</b> Su	0415	3.9	120		<b>7</b> M	0516	4.2	128		<b>22</b> Tu	0506	3.7	112					
	0950	13.2	402			0836	13.5	413			1122	13.9	423			1026	14.5	441			1126	13.6	416			1059	14.8	451					
	1604	3.8	116			1455	3.6	109			1746	3.3	100			1700	2.7	82			1734	3.5	107			1738	2.6	78					
	2226	14.0	426			2115	14.1	431			2345	14.7	448			2301	15.5	471			2350	14.4	438			2338	15.4	468					
<b>8</b> Th	0456	4.2	127		<b>23</b> F	0335	4.2	129		<b>8</b> Su	0600	3.8	115		<b>23</b> M	0526	3.5	106		<b>8</b> Tu	0555	3.7	114		<b>23</b> W	0607	3.1	96					
	1106	13.7	419			0950	13.8	420			1210	14.5	442			1125	15.3	465			1208	14.3	436			1157	15.4	469					
	1736	3.3	101			1615	3.2	99			1836	3.0	91			1805	2.2	68			1825	3.2	98			1838	2.2	68					
	2331	14.7	448			2230	14.8	450								2357	16.1	491															
<b>9</b> F	0556	3.7	113		<b>24</b> Sa	0450	3.8	116		<b>9</b> M	0030	15.2	464		<b>24</b> Tu	0625	2.9	89		<b>9</b> W	0029	15.0	456		<b>24</b> Th	0031	15.8	482					
	1200	14.6	444			1100	14.5	443			0640	3.4	104			1217	16.0	488			0634	3.3	101			0700	2.5	77					
	1825	2.8	85			1736	2.7	82			1245	15.0	457			1855	1.8	55			1246	14.9	455			1251	16.0	487					
						2329	15.7	478			1905	2.8	85								1902	3.0	90			1926	2.0	62					
<b>10</b> Sa	0026	15.4	468		<b>25</b> Su	0556	3.2	99		<b>10</b> Tu	0106	15.6	475		<b>25</b> W	0045	16.6	507		<b>10</b> Th	0105	15.5	472		<b>25</b> F	0120	16.1	492					
	0640	3.3	102			1152	15.5	473			0711	3.1	94			0716	2.4	73			0720	2.9	88			0750	2.1	63					
	1246	15.2	462			1825	2.0	62			1318	15.5	472			1305	16.6	507			1322	15.6	474			1337	16.4	500					
	1905	2.5	76								1936	2.7	81			1942	1.6	48			1941	2.7	83			2010	2.0	61					
<b>11</b> Su	0101	15.8	481		<b>26</b> M	0019	16.6	505		<b>11</b> W	0136	15.9	486		<b>26</b> Th	0133	16.9	515		<b>11</b> F	0141	16.0	487		<b>26</b> Sa	0207	16.3	498					
	0716	3.1	96			0645	2.7	82			0745	2.8	85			0802	2.0	61			0755	2.5	77			0836	1.8	54					
	1317	15.6	474			1241	16.4	500			1347	15.9	486			1351	17.0	519			1355	16.1	490			1425	16.7	509					
	1941	2.4	73			1919	1.5	46			2011	2.5	76			2027	1.5	47			2015	2.5	77			2052	2.1	65					
<b>12</b> M	0136	16.0	487		<b>27</b> Tu	0105	17.2	524		<b>12</b> Th	0206	16.3	496		<b>27</b> F	0218	17.0	517		<b>12</b> Sa	0217	16.3	496		<b>27</b> Su	0252	16.4	499					
	0741	3.0	90			0736	2.3	69			0822	2.5	76			0848	1.8	54			0838	2.2	67			0920	1.6	50					
	1347	15.8	483			1326	17.1	520			1422	16.3	497			1436	17.2	523			1430	16.4	499			1511	16.7	510					
	2011	2.3	71			2002	1.2	37			2039	2.4	73			2108	1.7	53			2052	2.4	74			2132	2.						





# Hoek van Holland, Netherlands, 2015

## Times and Heights of High and Low Waters

July			August			September																				
Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> W	0155	6.9	209	<b>16</b> Th	0235	7.2	218	<b>1</b> Sa	0255	7.6	233	<b>16</b> Su	0339	7.4	227	<b>1</b> Tu	0359	8.1	248	<b>16</b> W	0421	7.5	229			
	0713	1.2	38		0754	1.5	45		0805	1.6	48		1156*	1.8	55		0859	1.8	54		1157*	1.7	51			
	1418	7.0	214		1505	6.8	208		1518	7.2	218		1601	7.0	213		1626	7.4	227		1639	7.3	221	1626	7.4	227
	1934	0.8	24		2004	0.9	26		2026	0.5	14		2100	0.8	25		2125	0.4	11		2125	0.4	11	2134	1.2	36
<b>2</b> Th	0235	7.2	218	<b>17</b> F	0315	7.3	222	<b>2</b> Su	0337	7.8	239	<b>17</b> M	0415	7.4	227	<b>2</b> W	0445	8.0	244	<b>17</b> Th	0451	7.3	224			
	0756	1.3	40		1115*	1.6	48		0846	1.7	51		1224*	1.7	53		0948	1.8	55		1240*	1.6	48			
	1457	7.1	216		1549	6.8	208		1602	7.2	218		1635	7.0	213		1707	7.4	226		1710	7.2	218	1707	7.4	226
	2016	0.7	20		2046	0.8	23		2105	0.3	10		2129	0.8	25		2212	0.5	14		2212	0.5	14	2215	1.2	37
<b>3</b> F	0316	7.4	225	<b>18</b> Sa	0356	7.3	224	<b>3</b> M	0421	7.9	240	<b>18</b> Tu	0449	7.4	225	<b>3</b> Th	0529	7.7	235	<b>18</b> F	0525	7.2	219			
	0835	1.4	43		1216*	1.6	48		1220*	1.6	50		1247*	1.7	51		1345*	1.7	53		1326*	1.5	47			
	1539	7.0	214		1626	6.8	206		1645	7.1	215		1709	7.0	212		1756	7.3	223		1738	7.1	217	1756	7.3	223
	2049	0.5	15		2119	0.7	20		2150	0.3	8		2210	0.9	26		2301	0.6	19		2301	0.6	19	2245	1.2	36
<b>4</b> Sa	0356	7.5	229	<b>19</b> Su	0435	7.3	224	<b>4</b> Tu	0505	7.8	237	<b>19</b> W	0527	7.2	219	<b>4</b> F	0618	7.3	223	<b>19</b> Sa	0555	7.1	217			
	1156*	1.4	44		1300*	1.5	46		1305*	1.6	48		1307*	1.6	49		1435*	1.7	53		1105	1.4	43			
	1621	6.9	210		1659	6.7	205		1731	7.0	213		1739	6.9	209		1841	7.2	218		1808	7.2	218	1841	7.2	218
	2128	0.4	11		2159	0.6	19		2236	0.3	9		2250	0.9	27		2325	0.9	27		2324	1.1	35			
<b>5</b> Su	0437	7.5	230	<b>20</b> M	0515	7.3	221	<b>5</b> W	0550	7.6	231	<b>20</b> Th	0555	7.0	214	<b>5</b> Sa	0005	0.8	24	<b>20</b> Su	0628	7.1	216			
	1235*	1.3	41		1346*	1.5	46		1355*	1.6	48		1340*	1.6	48		1245	1.6	49		1145	1.2	38			
	1706	6.7	204		1738	6.6	202		1819	6.9	209		1809	6.8	206		1939	6.9	209		1845	7.1	215	1939	6.9	209
	2212	0.3	8		2246	0.6	19		2329	0.3	10		2325	0.9	27		2325	0.9	27		2325	0.9	27	1845	7.1	215
<b>6</b> M	0522	7.5	228	<b>21</b> Tu	0555	7.1	215	<b>6</b> Th	0646	7.3	222	<b>21</b> F	0625	6.9	210	<b>6</b> Su	0135	0.9	27	<b>21</b> M	0026	1.2	37			
	1314*	1.3	40		1400*	1.5	47		1440*	1.6	50		1154	1.5	47		0814	6.4	195		0716	6.9	209	0716	6.9	209
	1748	6.5	199		1809	6.5	198		1908	6.7	205		1839	6.7	204		1416	1.5	45		1245	1.6	49	1300	1.3	39
	2306	0.2	7		2325	0.6	19		2325	0.6	19		2044	6.5	198		2044	6.5	198		1940	6.7	205	1940	6.7	205
<b>7</b> Tu	0615	7.3	223	<b>22</b> W	0636	6.8	208	<b>7</b> F	0034	0.4	13	<b>22</b> Sa	0004	0.9	27	<b>7</b> M	0234	1.1	34	<b>22</b> Tu	0200	1.4	43			
	1355*	1.3	41		1400*	1.5	46		1400	1.6	49		0705	6.8	207		0945	6.0	183		0814	6.3	191			
	1845	6.4	194		1850	6.4	194		2011	6.6	200		1310	1.4	43		1520	1.4	44		1435	1.3	40	1520	1.4	44
	2355	0.2	6		2011	6.6	200		2011	6.6	200		1925	6.5	199		2215	6.3	191		2104	6.3	191	2104	6.3	191
<b>8</b> W	0705	7.1	217	<b>23</b> Th	0015	0.6	19	<b>8</b> Sa	0144	0.5	16	<b>23</b> Su	0120	1.0	29	<b>8</b> Tu	0355	1.4	42	<b>23</b> W	0304	1.6	49			
	1454*	1.4	43		0716	6.6	202		0849	6.6	202		0744	6.5	199		1105	5.9	181		0950	6.0	183			
	1939	6.3	191		1410	1.4	44		1440	1.5	45		1415	1.3	40		1646	1.4	43		1534	1.4	42	1646	1.4	43
					1924	6.2	188		2114	6.3	193		2024	6.2	189		2333	6.4	196		2233	6.3	193	2233	6.3	193
<b>9</b> Th	0105	0.2	6	<b>24</b> F	0110	0.7	20	<b>9</b> Su	0300	0.7	22	<b>24</b> M	0236	1.1	35	<b>9</b> W	0714*	1.5	46	<b>24</b> Th	0424	1.7	53			
	0815	6.9	211		0806	6.4	196		1006	6.3	192		0916	6.2	190		1219	6.3	191		1110	6.0	184			
	1440	1.5	46		1420	1.3	41		1535	1.5	45		1509	1.3	41		1724	1.3	40		1644	1.3	40	1724	1.3	40
	2046	6.2	188		2030	6.0	183		2241	6.2	190		2155	6.0	184		2125*	1.1	33		2350	6.8	206	2125*	1.1	33
<b>10</b> F	0209	0.3	8	<b>25</b> Sa	0205	0.8	24	<b>10</b> M	0415	1.0	31	<b>25</b> Tu	0335	1.4	43	<b>10</b> Th	0039	6.9	209	<b>25</b> F	0805*	1.7	52			
	0914	6.7	205		0906	6.3	191		1125	6.2	189		1030	6.1	186		1315	6.6	202		1215	6.4	194			
	1515	1.4	44		1454	1.3	40		1645	1.4	43		1700	1.4	42		2125*	1.1	33		1735	1.1	35	2125*	1.1	33
	2155	6.1	186		2136	5.8	178		2349	6.4	195		2304	6.2	188		2304	6.2	188		2304	6.2	188	2304	6.2	188
<b>11</b> Sa	0315	0.5	14	<b>26</b> Su	0305	1.0	31	<b>11</b> Tu	0513	1.2	38	<b>26</b> W	0455	1.5	47	<b>11</b> F	0129	7.2	219	<b>26</b> Sa	0045	7.3	222			
	1030	6.6	200		1006	6.2	188		1224	6.4	195		1145	6.2	189		0956*	1.4	43		0910*	1.6	49			
	1604	1.4	44		1700	1.3	39		1745	1.3	39		1734	1.2	38		1405	6.9	209		1309	6.8	207	1405	6.9	209
	2254	6.1	187		2234	5.8	178		2234	5.8	178		2234	5.8	178		2216*	1.0	32		1815	1.0	29	2216*	1.0	32
<b>12</b> Su	0436	0.7	22	<b>27</b> M	0415	1.2	38	<b>12</b> W	0049	6.7	205	<b>27</b> Th	0020	6.6	202	<b>12</b> Sa	0209	7.3	224	<b>27</b> Su	0128	7.7	236			
	1135	6.5	199		1115	6.2	189		0916*	1.3	40		0544	1.6	49		1036*	1.6	49		0945*	1.7	53			
	1704	1.4	42		1750	1.2	36		1324	6.7	203		1245	6.5	199		1435	7.0	212		1356	7.2	218	1435	7.0	212
					2350	6.1	186		2135*	1.1	33		1805	1.1	34		1940	1.1	35		1855	0.7	22	1940	1.1	35
<b>13</b> M	0005	6.4	194	<b>28</b> Tu	0600	1.3	41	<b>13</b> Th	0146	7.0	214	<b>28</b> F	0105	7.1	217	<b>13</b> Su	0245	7.4	226	<b>28</b> M	0212	8.1	246			
	0525	0.9	28		1216	6.4	195		1000*	1.4	44		0936*	1.6	48		1100*	1.8	55		0719	1.7	53			
	1234	6.6	202		1805	1.1	34		1415	6.8	208		1335	6.9	209		1504	7.0	214		1437	7.5	228	1504	7.0	214
	1805	1.2	38		2350	6.1	186		1915	1.0	32		1845	0.9	27		2010	1.1	34		1935	0.6	17	2010	1.1	34
<b>14</b> Tu	0059	6.7	203	<b>29</b> W	0041	6.5	199	<b>14</b> F	0225	7.3	221	<b>29</b> Sa	0155	7.6	231	<b>14</b> M	0318	7.5	229	<b>29</b> Tu	0255	8.2	251			
	0624	1.1	33		0614	1.4	42		1025*	1.6	50		0704	1.7	51		0824	1.9	58		0755	1.7	52			
	1335	6.8	206		1310	6.7	204		1454	6.9	210		1415	7.1	217		1539	7.2	218		1516	7.7	234	1539	7.2	218
	1843	1.1	34		1839	1.0	30		1949	1.0	29		1926	0.7	20		2029	1.1	33		2016	0.5	16	2029	1.1	33
<b>15</b> W	0148	7.0	2																							



# Hoek van Holland, Netherlands, 2015

## Times and Heights of High and Low Waters

October				November				December																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> Th	0423	8.0	243	<b>16</b> F	0425	7.4	227	<b>1</b> Su	0535	7.1	215	<b>16</b> M	0034*	1.7	51	<b>1</b> Tu	0215*	1.7	52	<b>16</b> W	0116*	1.6	50			
	0922	1.6	50		1205*	1.5	45		1039	1.3	39		0509	7.1	217		0605	6.7	204		0539	6.9	209			
	1645	7.8	238		1642	7.4	226		1755	7.6	231		1023	1.1	33		1115	1.0	29		1055	0.7	20	1759	7.5	229
	2145	0.8	25		2145	1.5	46						1727	7.5	230		1825	7.3	223							
<b>2</b> F	0508	7.6	233	<b>17</b> Sa	0455	7.3	222	<b>2</b> M	0246*	1.6	49	<b>17</b> Tu	0120*	1.7	52	<b>2</b> W	0306*	1.8	56	<b>17</b> Th	0155*	1.7	51			
	1009	1.6	49		1255*	1.4	43		0625	6.7	203		0550	7.0	212		0656	6.4	195		0625	6.6	202			
	1729	7.7	234		1708	7.4	225		1134	1.2	37		1104	0.9	28		1214	0.9	28		1146	0.6	18	1849	7.3	223
	2245	1.0	32		2214	1.5	46		1845	7.2	220		1808	7.4	227		1914	7.0	212							
<b>3</b> Sa	0555	7.2	219	<b>18</b> Su	0525	7.2	219	<b>3</b> Tu	0054	1.7	51	<b>18</b> W	0200*	1.8	55	<b>3</b> Th	0130	1.9	57	<b>18</b> F	0230*	1.8	55			
	1106	1.5	47		1039	1.2	38		0714	6.2	190		0638	6.7	203		0745	6.1	186		0718	6.4	195			
	1818	7.4	227		1745	7.4	226		1254	1.1	35		1205	0.9	26		1314	1.0	30		1245	0.6	18	1956	7.1	215
	2344	1.2	38		2254	1.5	45		1944	6.8	207		1858	7.2	219		2020	6.6	201							
<b>4</b> Su	0645	6.7	205	<b>19</b> M	0605	7.1	216	<b>4</b> W	0200	1.7	53	<b>19</b> Th	0210*	1.9	57	<b>4</b> F	0225	1.9	57	<b>19</b> Sa	0240	1.9	58			
	1205	1.4	44		1126	1.1	33		0824	5.8	178		0735	6.3	191		0845	5.8	176		0829	6.2	190			
	1909	7.1	216		1826	7.3	224		1405	1.2	37		1314	0.9	27		1504	1.1	34		1345	0.7	20	2105	6.9	211
					2343	1.5	47		2105	6.4	196		2016	6.9	209		2125	6.3	191							
<b>5</b> M	0114	1.3	40	<b>20</b> Tu	0649	6.8	207	<b>5</b> Th	0305	1.9	57	<b>20</b> F	0235	1.9	58	<b>5</b> Sa	0350	1.8	56	<b>20</b> Su	0254	1.9	58			
	0744	6.2	190		1214	1.1	33		1010	5.6	171		0856	6.0	184		0955	5.5	169		0940	6.2	189			
	1330	1.3	41		1916	7.0	214		1556	1.2	38		1436	1.0	29		1620	1.2	37		1506	0.8	23	2216	6.9	209
	2015	6.6	202						2246	6.3	193		2136	6.8	207		2235	6.2	188							
<b>6</b> Tu	0225	1.5	45	<b>21</b> W	0150	1.7	52	<b>6</b> F	0414	1.9	58	<b>21</b> Sa	0335	2.0	60	<b>6</b> Su	0445	1.8	55	<b>21</b> M	0354	1.9	58			
	0904	5.8	177		0749	6.3	192		1120	5.8	177		1010	6.0	184		1125	5.7	174		1046	6.3	191			
	1445	1.4	42		1355	1.1	35		1644	1.2	38		1530	1.0	30		1715	1.3	39		1605	0.9	28	2319	6.9	211
	2156	6.3	193		2023	6.6	200		2345	6.6	201		2245	7.0	212		2350	6.4	195							
<b>7</b> W	0346	1.7	52	<b>22</b> Th	0244	1.8	55	<b>7</b> Sa	0707*	1.8	54	<b>22</b> Su	0657*	1.9	59	<b>7</b> M	0534	1.7	52	<b>22</b> Tu	0734*	1.8	56			
	1057	5.7	175		0915	5.9	181		1215	6.1	187		1118	6.3	191		1226	6.0	183		1149	6.5	199			
	1614	1.3	41		1505	1.2	37		1735	1.3	39		1635	1.0	31		1814	1.3	41		1705	1.0	32			
	2315	6.5	197		2205	6.6	200						2350	7.3	221											
<b>8</b> Th	0640*	1.7	52	<b>23</b> F	0354	1.9	58	<b>8</b> Su	0035	6.9	209	<b>23</b> M	0805*	1.8	54	<b>8</b> Tu	0040	6.7	203	<b>23</b> W	0025	7.1	215			
	1155	6.1	185		1040	6.0	182		0830*	1.6	49		1216	6.6	202		0830*	1.6	48		0830*	1.7	52			
	1709	1.3	39		1605	1.2	37		1255	6.4	196		1725	1.0	30		1300	6.4	194		1246	6.9	209			
					2315	6.9	210		1824	1.3	41						1904	1.4	44		1806	1.1	35			
<b>9</b> F	0019	6.9	209	<b>24</b> Sa	0730*	1.8	56	<b>9</b> M	0111	7.1	216	<b>24</b> Tu	0041	7.5	229	<b>9</b> W	0115	6.9	210	<b>24</b> Th	0116	7.2	219			
	0820*	1.6	48		1145	6.3	191		0925*	1.5	46		1305	7.1	215		0925*	1.4	44		0629	1.6	48			
	1255	6.5	197		1706	1.1	34		1340	6.7	204		1816	1.0	30		1336	6.7	204		1337	7.2	220			
	2037*	1.2	38						1905	1.4	44						2020	1.6	48		1856	1.3	39			
<b>10</b> Sa	0105	7.2	218	<b>25</b> Su	0015	7.3	224	<b>10</b> Tu	0145	7.2	220	<b>25</b> W	0128	7.7	234	<b>10</b> Th	0156	7.1	217	<b>25</b> F	0205	7.3	221			
	0926*	1.4	44		0845*	1.7	51		1005*	1.5	47		0645	1.7	52		1016*	1.4	43		0716	1.4	43			
	1333	6.7	205		1241	6.7	205		1410	6.9	211		1352	7.4	227		1409	7.1	215		1425	7.5	228			
	2146*	1.2	36		1750	1.0	29		1935	1.5	46		1859	1.0	31		1934	1.6	49		1939	1.4	43			
<b>11</b> Su	0145	7.3	223	<b>26</b> M	0106	7.7	236	<b>11</b> W	0219	7.4	225	<b>26</b> Th	0217	7.7	236	<b>11</b> F	0229	7.3	223	<b>26</b> Sa	0256	7.3	221			
	1006*	1.5	47		0936*	1.7	53		0744	1.6	49		0725	1.5	47		0755	1.3	40		0755	1.2	37			
	1416	6.9	210		1329	7.2	218		1435	7.2	219		1437	7.7	235		1445	7.3	224		1507	7.7	234			
	1915	1.3	41		1836	0.8	25		1954	1.5	47		1945	1.1	35		1954	1.6	50		2026	1.6	49			
<b>12</b> M	0216	7.4	225	<b>27</b> Tu	0151	8.0	244	<b>12</b> Th	0256	7.5	229	<b>27</b> F	0306	7.6	233	<b>12</b> Sa	0302	7.4	226	<b>27</b> Su	0335	7.2	219			
	1035*	1.7	52		0659	1.7	53		0809	1.5	45		0808	1.4	42		0826	1.2	36		0835	1.0	32			
	1439	7.1	215		1415	7.5	229		1515	7.4	226		1522	7.9	240		1521	7.5	230		1555	7.7	236			
	1944	1.4	42		1915	0.8	23		2019	1.5	47		2029	1.3	41		2033	1.7	51							
<b>13</b> Tu	0249	7.5	229	<b>28</b> W	0236	8.1	247	<b>13</b> F	0326	7.5	230	<b>28</b> Sa	0347	7.5	228	<b>13</b> Su	0338	7.4	225	<b>28</b> M	0016*	1.6	50			
	0804	1.8	54		0738	1.6	49		0834	1.4	43		0850	1.2	38		0900	1.0	32		0421	7.1	217			
	1505	7.2	220		1455	7.8	238		1545	7.5	230		1607	7.9	241		1557	7.6	233		0914	0.9	28			
	2009	1.3	41		1958	0.8	24		2056	1.6	49		2116	1.6	48		2324*	1.7	52		1637	7.7	236			
<b>14</b> W	0326	7.6	231	<b>29</b> Th	0319	8.0	244	<b>14</b> Sa	0402	7.5	228	<b>29</b> Su	0432	7.3	221	<b>14</b> M	0419	7.3	221	<b>29</b> Tu	0106*	1.6	50			
	0824	1.7	51		0819	1.5	46		0911	1.3	40		0936	1.1	35		0929	0.9	28		0500	7.0	213			
	1537	7.4	226		1539	7.9	242		1616	7.5	230		1648	7.8	238		1636	7.6	233		1001	0.8	24			
	2034	1.4	42		2046	1.0	30														1719	7.6	232			
<b>15</b> Th	0355	7.6	231	<b>30</b> F	0403	7.8	237	<b>15</b> Su	0006*	1.6	50	<b>30</b> M	0125*	1.6	49	<b>15</b> Tu	0025*	1.6	50	<b>30</b> W	0144*	1.7	51			
	1130*	1.6	48		0901	1.4	44		0436	7.3	222		0518	7.0	213		0456	7.1	215		0545	6.8	208			
	1609	7.4	227		1623	7.9	242		0950	1.2	37		1021	1.0	31		1009	0.8	24		1049	0.7	22			

# Helgoland, Germany, 2015

## Times and Heights of High and Low Waters

January				February				March																		
Time		Height		Time		Height		Time		Height		Time		Height												
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm											
<b>1</b> Th	0226	3.0	90	<b>16</b> F	0126	3.3	100	<b>1</b> Su	0431	2.3	70	<b>16</b> M	0325	2.3	70	<b>1</b> Su	0244	2.6	80	<b>16</b> M	0123	2.3	70			
	0815	9.8	300		0715	9.2	280		1011	9.5	290		0910	9.2	280		0833	8.9	270		0714	8.5	260			
	1505	2.6	80		1405	3.0	90		1655	2.3	70		1558	2.3	70		1519	2.6	80		1405	2.6	80	1405	2.6	80
	2053	9.5	290		1957	9.2	280		2237	9.8	300		2143	9.5	290		2109	9.2	280		1956	9.2	280			
<b>2</b> F	0341	2.6	80	<b>17</b> Sa	0245	3.3	100	<b>2</b> M	0529	2.0	60	<b>17</b> Tu	0439	1.6	50	<b>2</b> M	0409	2.3	70	<b>17</b> Tu	0258	2.0	60			
	0925	9.8	300		0830	9.5	290		1106	9.5	290		1021	9.5	290		0952	8.9	270		0845	8.9	270			
	1612	2.6	80		1519	2.6	80		1746	2.0	60		1705	2.0	60		1636	2.3	70		1534	2.3	70			
	2156	9.8	300		2108	9.5	290		2325	10.2	310		2244	10.2	310		2218	9.5	290		2117	9.5	290			
<b>3</b> Sa	0446	2.3	70	<b>18</b> Su	0357	2.6	80	<b>3</b> Tu	0614	1.6	50	<b>18</b> W	0540	1.3	40	<b>3</b> Tu	0512	2.0	60	<b>18</b> W	0417	1.6	50			
	1025	9.8	300		0940	9.5	290		1149	9.5	290		1118	9.8	300		1049	9.2	280		1000	9.5	290			
	1711	2.3	70		1626	2.3	70		1827	2.0	60		1802	1.6	50		1728	2.0	60		1645	1.6	50			
	2251	10.2	310		2210	9.8	300						2336	10.5	320		2306	9.8	300		2221	10.2	310			
<b>4</b> Su	0541	2.0	60	<b>19</b> M	0500	2.3	70	<b>4</b> W	0004	10.5	320	<b>19</b> Th	0633	1.0	30	<b>4</b> W	0554	1.6	50	<b>19</b> Th	0520	1.0	30			
	1117	9.8	300		1040	9.8	300		0652	1.6	50		1207	10.2	310		1130	9.5	290		1059	9.8	300			
	1801	2.0	60		1724	2.0	60		1226	9.8	300		1853	1.3	40		1807	1.6	50		1743	1.3	40			
	2339	10.2	310		2304	10.2	310		1902	2.0	60						2343	10.2	310		2315	10.5	320			
<b>5</b> M ○	0628	2.0	60	<b>20</b> Tu	0556	1.6	50	<b>5</b> Th	0040	10.5	320	<b>20</b> F	0023	10.8	330	<b>5</b> Th	0629	1.3	40	<b>20</b> F	0614	0.7	20			
	1203	9.8	300		1133	10.2	310		0727	1.6	50		0723	0.7	20		1204	9.5	290		1148	9.8	300			
	1842	2.0	60		1816	2.0	60		1300	9.8	300		1255	10.2	310		1841	1.6	50		1834	1.0	30			
					2353	10.5	320		1936	1.6	50		1941	1.0	30											
<b>6</b> Tu	0019	10.5	320	<b>21</b> W	0647	1.3	40	<b>6</b> F	0113	10.5	320	<b>21</b> Sa	0110	10.8	330	<b>6</b> F	0016	10.2	310	<b>21</b> Sa	0003	10.5	320			
	0708	1.6	50		1223	10.2	310		0759	1.6	50		0811	0.7	20		0702	1.3	40		0704	0.3	10			
	1242	9.8	300		1907	1.6	50		1331	9.8	300		1342	10.2	310		1235	9.8	300		1234	10.2	310			
	1918	2.0	60						2007	1.6	50		2027	1.0	30		1914	1.3	40		1922	0.7	20			
<b>7</b> W	0057	10.5	320	<b>22</b> Th	0040	10.8	330	<b>7</b> Sa	0144	10.5	320	<b>22</b> Su	0157	10.8	330	<b>7</b> Sa	0048	10.2	310	<b>22</b> Su	0050	10.8	330			
	0744	2.0	60		0737	1.3	40		0828	2.0	60		0857	0.7	20		0733	1.3	40		0750	0.3	10			
	1318	9.8	300		1312	10.2	310		1401	9.8	300		1427	10.2	310		1305	9.8	300		1320	10.2	310			
	1952	2.0	60		1956	1.3	40		2036	1.6	50		2110	1.0	30		1945	1.3	40		2008	0.7	20			
<b>8</b> Th	0133	10.8	330	<b>23</b> F	0128	10.8	330	<b>8</b> Su	0213	10.5	320	<b>23</b> M	0242	10.8	330	<b>8</b> Su	0119	10.2	310	<b>23</b> M	0136	10.8	330			
	0819	2.0	60		0827	1.0	30		0857	2.0	60		0939	1.0	30		0802	1.3	40		0835	0.7	20			
	1354	9.8	300		1400	10.2	310		1432	9.8	300		1509	10.2	310		1336	9.8	300		1404	10.2	310			
	2026	2.3	70		2042	1.3	40		2106	2.0	60		2151	1.0	30		2014	1.3	40		2051	0.7	20			
<b>9</b> F	0206	10.8	330	<b>24</b> Sa	0213	11.2	340	<b>9</b> M	0244	10.2	310	<b>24</b> Tu	0326	10.5	320	<b>9</b> M	0150	10.2	310	<b>24</b> Tu	0222	10.8	330			
	0851	2.3	70		0912	1.0	30		0928	2.0	60		1018	1.3	40		0832	1.6	50		0915	1.0	30			
	1427	9.8	300		1444	9.8	300		1506	9.5	290		1550	9.8	300		1407	9.8	300		1445	10.2	310			
	2057	2.3	70		2124	1.3	40		2139	2.0	60		2232	1.3	40		2046	1.3	40		2132	1.0	30			
<b>10</b> Sa	0237	10.5	320	<b>25</b> Su	0257	10.8	330	<b>10</b> Tu	0317	10.2	310	<b>25</b> W	0410	10.2	310	<b>10</b> Tu	0221	10.2	310	<b>25</b> W	0305	10.5	320			
	0921	2.3	70		0956	1.0	30		1000	2.0	60		1055	1.6	50		0904	1.6	50		0952	1.3	40			
	1459	9.8	300		1527	9.8	300		1540	9.5	290		1631	9.8	300		1441	9.8	300		1524	10.2	310			
	2127	2.3	70		2207	1.3	40		2211	2.0	60		2313	1.6	50		2120	1.3	40		2211	1.0	30			
<b>11</b> Su	0308	10.5	320	<b>26</b> M	0343	10.8	330	<b>11</b> W	0349	10.2	310	<b>26</b> Th	0457	9.8	300	<b>11</b> W	0255	10.2	310	<b>26</b> Th	0347	9.8	300			
	0953	2.6	80		1040	1.6	50		1028	2.3	70		1136	2.3	70		0936	1.6	50		1026	1.6	50			
	1533	9.5	290		1613	9.8	300		1610	9.5	290		1718	9.5	290		1514	9.8	300		1603	9.8	300			
	2201	2.6	80		2252	1.6	50		2241	2.3	70						2151	1.3	40		2249	1.6	50			
<b>12</b> M	0343	10.2	310	<b>27</b> Tu	0433	10.5	320	<b>12</b> Th	0421	9.8	300	<b>27</b> F	0003	2.0	60	<b>12</b> Th	0326	9.8	300	<b>27</b> F	0430	9.5	290			
	1027	2.6	80		1125	2.0	60		1059	2.3	70		0552	9.2	280		1003	1.6	50		1103	2.0	60			
	1610	9.5	290		1701	9.5	290		1646	9.2	280		1231	2.6	80		1542	9.5	290		1646	9.5	290			
	2236	3.0	90		2340	2.0	60		2323	2.6	80		1820	9.2	280		2218	1.6	50		2334	2.0	60			
<b>13</b> Tu	0419	10.2	310	<b>28</b> W	0526	10.2	310	<b>13</b> F	0508	9.2	280	<b>28</b> Sa	0114	2.3	70	<b>13</b> F	0354	9.5	290	<b>28</b> Sa	0522	8.9	270			
	1102	2.6	80		1212	2.3	70		1151	2.6	80		0706	8.9	270		1028	2.0	60		1155	2.6	80			
	1648	9.2	280		1755	9.5	290		1743	8.9	270		1350	3.0	90		1612	9.2	280		1745	9.2	280			
	2317	3.0	90										1942	9.2	280		2252	2.0	60							
<b>14</b> W	0503	9.8	300	<b>29</b> Th	0036	2.3	70	<b>14</b> Sa	0030	2.6	80	<b>14</b> Sa	0434	8.9	270	<b>14</b> Sa	0434	8.9	270	<b>29</b> Su	0039	2.3	70			
	1146	3.0	90		0627	9.5	290		0619	8.9	270		1112	2.3	70		1112	2.3	70		0632	8.5	260			
	1737	9.2	280		1312	2.6	80		1309	2.6	80		1703	8.9	270		1703	8.9	270		1310	2.6	80			
					1901	9.2	280		1903	8.9	270		2353	2.3	70		2353	2.3	70		1904	9.2	280			
<b>15</b> Th	0013	3.3	100	<b>30</b> F	0150	2.6	80	<b>15</b> Su	0157	2.6	80	<b>15</b> Su	0542	8.5	260	<b>15</b> Su	0542	8.5	260	<b>30</b> M	0206	2.3	70			
	0602	9.5	290		0742	9.5	290		0746	8.9	270		1229	2.6	80		1229	2.6	80		0758	8.2	250			
	1249	3.0	90		1428	3.0	90		1438	2.6	80		1823	8.9	270		1823	8.9	270		1441	2.6	80			
	1843	9.2	280		2019	9.2	280		2029	9.2	280										2032	9.2	280			
			<b>31</b> Sa	0315	2.6	80										<b>31</b> Tu	0334	2.0	60							
				0901	9.2	280											0920	8.5	260							
			1548	2.6	80										1603	2.3	70									
			2134	9.5	290										2146	9.5	290									

Time meridian 15° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Helgoland, Germany, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm							
<b>1</b> W	0441	1.6	50	<b>16</b> Th	0353	1.3	40	<b>1</b> F	0437	1.3	40	<b>16</b> Sa	0427	1.0	30	<b>1</b> M	0515	1.6	50	<b>16</b> Tu	0556	1.3	40
	1020	9.2	280		0936	9.2	280		1017	9.2	280		1008	9.5	290		1057	9.8	300		1131	10.2	310
	1658	2.0	60		1620	1.6	50		1655	1.6	50		1652	1.3	40		1741	2.0	60		1824	1.0	30
	2235	9.8	300		2155	10.2	310		2230	9.8	300		2226	10.2	310		2316	9.8	300		2356	10.2	310
<b>2</b> Th	0523	1.3	40	<b>17</b> F	0455	1.0	30	<b>2</b> Sa	0514	1.3	40	<b>17</b> Su	0524	1.0	30	<b>2</b> Tu	0558	1.6	50	<b>17</b> W	0644	1.3	40
	1059	9.5	290		1035	9.5	290		1054	9.5	290		1102	9.8	300		1139	10.2	310		1216	10.2	310
	1736	1.6	50		1718	1.3	40		1734	1.6	50		1749	1.3	40		1825	1.6	50		1909	1.0	30
	2310	9.8	300		2250	10.5	320		2309	9.8	300		2321	10.5	320		2357	10.2	310				
<b>3</b> F	0555	1.3	40	<b>18</b> Sa	0550	0.7	20	<b>3</b> Su	0552	1.3	40	<b>18</b> M	0618	1.0	30	<b>3</b> W	0639	1.3	40	<b>18</b> Th	0041	9.8	300
	1132	9.5	290		1126	9.8	300		1132	9.8	300		1151	10.2	310		1218	10.2	310		0724	1.3	40
	1811	1.6	50		1812	1.0	30		1815	1.6	50		1842	1.0	30		1905	1.3	40		0727	10.5	320
	2345	9.8	300		2342	10.5	320		2348	9.8	300		2348	9.8	300						1950	1.0	30
<b>4</b> Sa O	0629	1.3	40	<b>19</b> Su	0641	0.7	20	<b>4</b> M	0630	1.3	40	<b>19</b> Tu	0012	10.2	310	<b>4</b> Th	0037	10.2	310	<b>19</b> F	0123	9.8	300
	1206	9.8	300		1213	10.2	310		1210	9.8	300		0705	1.0	30		0720	1.3	40		0802	1.3	40
	1846	1.3	40		1902	0.7	20		1853	1.3	40		1235	10.2	310		1256	10.5	320		1338	10.5	320
													1927	0.7	20		1946	1.3	40		2030	1.3	40
<b>5</b> Su	0019	9.8	300	<b>20</b> M	0030	10.5	320	<b>5</b> Tu	0024	10.2	310	<b>20</b> W	0056	10.2	310	<b>5</b> F	0119	10.2	310	<b>20</b> Sa	0205	9.8	300
	0702	1.3	40		0727	0.7	20		0706	1.3	40		0745	1.0	30		0800	1.3	40		0840	1.6	50
	1238	9.8	300		1256	10.2	310		1244	10.2	310		1315	10.5	320		1337	10.5	320		1419	10.8	330
	1920	1.3	40		1947	0.7	20		1929	1.3	40		2008	1.0	30		2027	1.3	40		2108	1.6	50
<b>6</b> M	0053	9.8	300	<b>21</b> Tu	0115	10.5	320	<b>6</b> W	0100	9.8	300	<b>21</b> Th	0140	9.8	300	<b>6</b> Sa	0202	9.8	300	<b>21</b> Su	0245	9.8	300
	0734	1.3	40		0809	1.0	30		0742	1.3	40		0823	1.3	40		0840	1.3	40		0916	2.0	60
	1310	9.8	300		1338	10.5	320		1319	10.2	310		1357	10.5	320		1417	10.5	320		1457	10.5	320
	1952	1.0	30		2030	0.7	20		2005	1.3	40		2049	1.0	30		2108	1.3	40		2145	2.0	60
<b>7</b> Tu	0125	9.8	300	<b>22</b> W	0200	10.2	310	<b>7</b> Th	0137	9.8	300	<b>22</b> F	0223	9.8	300	<b>7</b> Su	0244	9.8	300	<b>22</b> M	0323	9.5	290
	0807	1.3	40		0849	1.0	30		0818	1.3	40		0901	1.3	40		0920	1.6	50		0951	2.3	70
	1343	9.8	300		1420	10.5	320		1354	10.2	310		1438	10.5	320		1459	10.5	320		1534	10.5	320
	2026	1.0	30		2110	1.0	30		2042	1.0	30		2128	1.3	40		2151	1.3	40		2221	2.3	70
<b>8</b> W	0159	9.8	300	<b>23</b> Th	0243	10.2	310	<b>8</b> F	0215	9.8	300	<b>23</b> Sa	0306	9.5	290	<b>8</b> M	0330	9.5	290	<b>23</b> Tu	0401	9.5	290
	0840	1.3	40		0925	1.3	40		0853	1.3	40		0938	1.6	50		1006	2.0	60		1027	2.6	80
	1417	9.8	300		1500	10.2	310		1431	10.2	310		1519	10.2	310		1546	10.5	320		1612	10.2	310
	2100	1.0	30		2149	1.0	30		2118	1.0	30		2207	1.6	50		2241	1.6	50		2259	2.3	70
<b>9</b> Th	0233	9.8	300	<b>24</b> F	0325	9.5	290	<b>9</b> Sa	0254	9.5	290	<b>24</b> Su	0347	9.5	290	<b>9</b> Tu	0421	9.5	290	<b>24</b> W	0442	9.2	280
	0913	1.3	40		1000	1.6	50		0928	1.6	50		1015	2.0	60		1057	2.0	60		1108	2.6	80
	1450	9.8	300		1539	9.8	300		1508	10.2	310		1559	10.2	310		1640	10.5	320		1654	9.8	300
	2133	1.0	30		2227	1.3	40		2155	1.3	40		2247	2.0	60		2337	1.6	50		2341	2.6	80
<b>10</b> F	0307	9.5	290	<b>25</b> Sa	0408	9.2	280	<b>10</b> Su	0335	9.5	290	<b>25</b> M	0431	9.2	280	<b>10</b> W	0519	9.2	280	<b>25</b> Th	0527	9.2	280
	0942	1.3	40		1037	2.0	60		1008	2.0	60		1056	2.6	80		1156	2.0	60		1157	2.6	80
	1522	9.8	300		1622	9.8	300		1550	10.2	310		1644	9.8	300		1740	10.2	310		1744	9.5	290
	2203	1.3	40		2310	2.0	60		2240	1.6	50		2333	2.3	70								
<b>11</b> Sa	0340	9.5	290	<b>26</b> Su	0457	8.9	270	<b>11</b> M	0422	9.2	280	<b>26</b> Tu	0521	8.9	270	<b>11</b> Th	0040	1.6	50	<b>26</b> F	0032	2.6	80
	1012	2.0	60		1124	2.6	80		1057	2.3	70		1148	2.6	80		0624	9.2	280		0622	8.9	270
	1556	9.5	290		1714	9.5	290		1642	9.8	300		1737	9.5	290		1303	2.0	60		1257	2.6	80
	2239	1.6	50						2338	1.6	50						1848	10.2	310		1845	9.5	290
<b>12</b> Su	0422	9.2	280	<b>27</b> M	0006	2.3	70	<b>12</b> Tu	0523	9.2	280	<b>27</b> W	0030	2.3	70	<b>12</b> F	0148	1.6	50	<b>27</b> Sa	0135	2.6	80
	1057	2.3	70		0557	8.5	260		1203	2.3	70		0620	8.5	260		0733	9.2	280		0726	9.2	280
	1646	9.2	280		1230	2.6	80		1749	9.8	300		1253	2.6	80		1416	2.3	70		1406	2.6	80
	2338	2.0	60		1822	9.2	280						1841	9.5	290		1959	10.2	310		1952	9.5	290
<b>13</b> M	0527	8.9	270	<b>28</b> Tu	0120	2.3	70	<b>13</b> W	0052	2.0	60	<b>28</b> Th	0137	2.3	70	<b>13</b> Sa	0256	1.6	50	<b>28</b> Su	0242	2.3	70
	1210	2.6	80		0712	8.2	250		0639	8.9	270		0727	8.5	260		0841	9.5	290		0830	9.2	280
	1800	9.2	280		1351	2.6	80		1323	2.3	70		1405	2.6	80		1526	2.0	60		1514	2.6	80
					1941	9.2	280		1908	9.8	300		1950	9.2	280		2106	10.2	310		2056	9.5	290
<b>14</b> Tu	0103	2.0	60	<b>29</b> W	0241	2.0	60	<b>14</b> Th	0213	1.6	50	<b>29</b> F	0245	2.0	60	<b>14</b> Su	0400	1.6	50	<b>29</b> M	0343	2.0	60
	0653	8.9	270		0830	8.5	260		0758	9.2	280		0832	8.9	270		0943	9.8	300		0929	9.5	290
	1342	2.6	80		1511	2.3	70		1443	2.0	60		1512	2.3	70		1630	1.6	50		1614	2.3	70
	1929	9.5	290		2054	9.2	280		2024	10.2	310		2053	9.5	290		2207	10.2	310		2154	9.8	300
<b>15</b> W	0235	2.0	60	<b>30</b> Th	0350	1.6	50	<b>15</b> F	0325	1.3	40	<b>30</b> Sa	0342	1.6	50	<b>15</b> M	0500	1.3	40	<b>30</b> Tu	0438	2.0	60
	0822	8.9	270		0933	8.9	270		0909	9.2	280		0926	9.2	280		1039	9.8	300		1021	9.8	300
	1509	2.3	70		1612	2.0	60		1552	1.6	50		1606	2.3	70		1730	1.3	40		1708	2.0	60
	2050	9.8	300		2149	9.5	290		2128	10.2	310		2145	9.8	300		2304	10.2	310		2246	9.8	300

# Helgoland, Germany, 2015

## Times and Heights of High and Low Waters

July				August				September																									
Time		Height		Time		Height		Time		Height		Time		Height																			
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																			
<b>1</b> W	0529	2.0	60		<b>16</b> Th	0626	1.6	50		<b>1</b> Sa	0003	10.2	310		<b>16</b> Su	0046	10.2	310		<b>1</b> Tu	0116	10.5	320		<b>16</b> W	0123	10.2	310					
	1110	10.2	310			1202	10.5	320			0646	1.6	50			0724	2.0	60			0802	1.3	40			0801	2.0	60					
	1758	2.0	60			1853	1.3	40			1220	10.8	330			1300	10.8	330			1331	11.2	340			1338	10.5	320		2018	2.0	60	
	2333	10.2	310			●	1915	1.3	40			1947	1.6	50			2030	1.0	30														
<b>2</b> Th ○	0616	1.6	50		<b>17</b> F	0027	9.8	300		<b>2</b> Su	0049	10.5	320		<b>17</b> M	0120	10.2	310		<b>2</b> W	0200	10.5	320		<b>17</b> Th	0154	10.2	310					
	1154	10.5	320			0706	1.6	50			0734	1.6	50			0757	2.0	60			0845	1.3	40			0832	2.0	60					
	1844	1.6	50			1242	10.5	320			1305	11.2	340			1333	10.8	330			1417	11.2	340			1408	10.5	320		2048	2.3	70	
						1933	1.3	40			2003	1.3	40			2019	2.0	60			2113	1.3	40										
<b>3</b> F	0019	10.2	310		<b>18</b> Sa	0107	9.8	300		<b>3</b> M	0135	10.2	310		<b>18</b> Tu	0151	10.2	310		<b>3</b> Th	0244	10.5	320		<b>18</b> F	0226	10.2	310					
	0702	1.6	50			0744	1.6	50			0819	1.3	40			0827	2.0	60			0928	1.3	40			0904	2.0	60					
	1238	10.5	320			1321	10.8	330			1350	11.2	340			1404	10.5	320			1503	10.8	330			1441	10.2	310					
	1930	1.3	40			2011	1.6	50			2048	1.0	30			2048	2.0	60			2155	1.6	50			2120	2.3	70					
<b>4</b> Sa	0105	10.2	310		<b>19</b> Su	0144	9.8	300		<b>4</b> Tu	0219	10.2	310		<b>19</b> W	0222	10.2	310		<b>4</b> F	0327	10.2	310		<b>19</b> Sa	0259	10.2	310					
	0747	1.6	50			0820	2.0	60			0901	1.3	40			0857	2.0	60			1011	1.6	50			0936	2.3	70					
	1322	10.8	330			1358	10.8	330			1435	11.2	340			1436	10.5	320			1550	10.5	320			1514	10.2	310					
	2016	1.3	40			2046	2.0	60			2132	1.3	40			2118	2.3	70			2236	2.3	70			2149	2.3	70					
<b>5</b> Su	0150	10.2	310		<b>20</b> M	0220	10.2	310		<b>5</b> W	0304	10.2	310		<b>20</b> Th	0256	9.8	300		<b>5</b> Sa	0412	10.2	310		<b>20</b> Su	0330	9.8	300					
	0831	1.3	40			0853	2.0	60			0945	1.3	40			0929	2.3	70			1055	2.0	60			1004	2.3	70					
	1405	10.8	330			1431	10.8	330			1522	10.8	330			1510	10.5	320			1638	10.2	310			1544	9.8	300					
	2100	1.3	40			2118	2.0	60			2218	1.6	50			2152	2.3	70			2318	2.6	80			2215	2.6	80					
<b>6</b> M	0234	9.8	300		<b>21</b> Tu	0253	9.8	300		<b>6</b> Th	0352	9.8	300		<b>21</b> F	0331	9.8	300		<b>6</b> Su	0500	9.8	300		<b>21</b> M	0400	9.8	300					
	0913	1.3	40			0924	2.3	70			1032	1.6	50			1003	2.3	70			1144	2.6	80			1036	2.6	80					
	1449	10.8	330			1505	10.5	320			1613	10.8	330			1544	10.2	310			1733	9.8	300			1622	9.5	290					
	2145	1.3	40			2150	2.3	70			2305	2.0	60			2222	2.6	80								2253	3.0	90					
<b>7</b> Tu	0320	9.8	300		<b>22</b> W	0328	9.8	300		<b>7</b> F	0442	9.8	300		<b>22</b> Sa	0404	9.8	300		<b>7</b> M	0010	3.3	100		<b>22</b> Tu	0445	9.5	290					
	0958	1.6	50			0958	2.3	70			1121	2.0	60			1034	2.6	80			0600	9.5	290			1128	3.0	90					
	1537	10.8	330			1540	10.5	320			1705	10.5	320			1616	9.8	300			1250	3.0	90			1721	8.9	270					
	2235	1.3	40			2225	2.6	80			2351	2.3	70			2250	2.6	80			1842	9.2	280										
<b>8</b> W	0411	9.8	300		<b>23</b> Th	0405	9.5	290		<b>8</b> Sa	0533	9.8	300		<b>23</b> Su	0437	9.5	290		<b>8</b> Tu	0122	3.3	100		<b>23</b> W	0000	3.6	110					
	1049	1.6	50			1033	2.6	80			1213	2.3	70			1110	3.0	90			0718	9.5	290			0556	9.2	280					
	1630	10.5	320			1617	10.2	310			1801	10.2	310			1656	9.5	290			1416	3.0	90			1250	3.3	100					
	2327	1.6	50			2258	2.6	80								2333	3.0	90			2007	9.2	280			1846	8.9	270					
<b>9</b> Th	0505	9.5	290		<b>24</b> F	0442	9.5	290		<b>9</b> Su	0045	2.6	80		<b>24</b> M	0525	9.2	280		<b>9</b> W	0251	3.3	100		<b>24</b> Th	0132	3.6	110					
	1142	2.0	60			1110	2.6	80			0633	9.5	290			1207	3.0	90			0844	9.8	300			0726	9.5	290					
	1726	10.5	320			1655	9.8	300			1320	2.6	80			1758	9.2	280			1546	3.0	90			1425	3.0	90					
						2336	2.6	80			1909	9.5	290								2130	9.2	280			2017	9.2	280					
<b>10</b> F	0020	2.0	60		<b>25</b> Sa	0524	9.2	280		<b>10</b> M	0155	3.0	90		<b>25</b> Tu	0043	3.3	100		<b>10</b> Th	0413	3.0	90		<b>25</b> F	0303	3.3	100					
	0602	9.5	290			1157	3.0	90			0746	9.5	290			0638	9.2	280			0958	10.2	310			0849	9.8	300					
	1240	2.0	60			1745	9.5	290			1442	2.6	80			1329	3.0	90			1654	2.3	70			1547	2.3	70					
	1827	10.2	310								2028	9.5	290			1921	8.9	270			2232	9.5	290			2134	9.5	290					
<b>11</b> Sa	0119	2.0	60		<b>26</b> Su	0029	2.6	80		<b>11</b> Tu	0316	3.0	90		<b>26</b> W	0209	3.0	90		<b>11</b> F	0510	2.6	80		<b>26</b> Sa	0416	2.6	80					
	0705	9.5	290			0621	9.2	280			0904	9.8	300			0803	9.2	280			1049	10.5	320			0955	10.2	310					
	1348	2.3	70			1302	3.0	90			1603	2.3	70			1457	2.6	80			1738	2.0	60			1651	2.0	60					
	1935	10.2	310			1851	9.2	280			2143	9.5	290			2046	9.2	280			2313	9.8	300			2234	9.8	300					
<b>12</b> Su	0226	2.3	70		<b>27</b> M	0139	2.6	80		<b>12</b> W	0429	2.6	80		<b>27</b> Th	0332	2.6	80		<b>12</b> Sa	0549	2.3	70		<b>27</b> Su	0515	2.3	70					
	0813	9.5	290			0732	9.2	280			1012	10.2	310			0919	9.8	300			1126	10.5	320			1047	10.8	330					
	1503	2.3	70			1419	3.0	90			1707	2.0	60			1613	2.3	70			1812	2.0	60			1744	1.3	40					
	2047	9.8	300			2006	9.2	280			2243	9.8	300			2158	9.5	290			2346	9.8	300			2324	10.2	310					
<b>13</b> M	0337	2.3	70		<b>28</b> Tu	0255	2.6	80		<b>13</b> Th	0526	2.3	70		<b>28</b> F	0441	2.3	70		<b>13</b> Su	0623	2.0	60		<b>28</b> M	0607	2.0	60					
	0921	9.8	300			0844	9.5	290			1104	10.2	310			1021	10.2	310			1200	10.5	320			1135	10.8	330					
	1615	2.0	60			1534	2.6	80			1755	1.6	50			1714	2.0	60			1845	2.0	60			1834	1.3	40					
	2153	9.8	300			2118	9.5	290			2330	9.8	300			2256	10.2	310															

# Helgoland, Germany, 2015

## Times and Heights of High and Low Waters

October				November				December																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> Th	0138	10.5	320	<b>16</b> F	0128	10.2	310	<b>1</b> Su	0238	10.8	330	<b>16</b> M	0209	10.5	320	<b>1</b> Tu	0301	10.8	330	<b>16</b> W	0233	10.8	330			
	0826	1.6	50		0808	2.0	60		0928	2.0	60		0854	2.0	60		0950	2.3	70		0921	2.0	60			
	1356	11.2	340		1343	10.2	310		1505	10.2	310		1431	9.8	300		1530	9.8	300		1500	9.8	300	1500	9.8	300
	2049	1.6	50		2021	2.0	60		2141	2.3	70		2103	2.3	70		2158	2.6	80		2133	2.3	70			
<b>2</b> F	0221	10.8	330	<b>17</b> Sa	0159	10.2	310	<b>2</b> M	0320	10.5	320	<b>17</b> Tu	0244	10.5	320	<b>2</b> W	0342	10.5	320	<b>17</b> Th	0314	10.8	330			
	0908	1.6	50		0840	2.0	60		1008	2.3	70		0928	2.3	70		1030	2.6	80		1005	2.3	70			
	1442	10.8	330		1415	10.2	310		1550	9.8	300		1509	9.8	300		1614	9.5	290		1545	9.8	300	1545	9.8	300
	2129	2.0	60		2052	2.0	60		2219	3.0	90		2139	3.0	90		2239	3.3	100		2220	2.6	80			
<b>3</b> Sa	0301	10.5	320	<b>18</b> Su	0231	10.2	310	<b>3</b> Tu	0404	10.2	310	<b>18</b> W	0323	10.5	320	<b>3</b> Th	0426	10.2	310	<b>18</b> F	0403	10.5	320			
	0949	1.6	50		0912	2.0	60		1053	2.6	80		1008	2.6	80		1115	3.0	90		1056	2.3	70			
	1526	10.5	320		1448	9.8	300		1640	9.2	280		1553	9.5	290		1703	9.2	280		1638	9.5	290	1638	9.5	290
	2206	2.3	70		2121	2.3	70		2306	3.3	100		2223	3.3	100		2328	3.6	110		2313	3.0	90			
<b>4</b> Su	0343	10.5	320	<b>19</b> M	0303	10.2	310	<b>4</b> W	0457	10.2	310	<b>19</b> Th	0410	10.2	310	<b>4</b> F	0518	9.8	300	<b>19</b> Sa	0458	10.5	320			
	1030	2.0	60		0942	2.3	70		1148	3.3	100		1100	3.0	90		1208	3.3	100		1154	2.6	80			
	1612	9.8	300		1522	9.8	300		1740	8.9	270		1648	9.5	290		1759	8.9	270		1738	9.5	290			
	2246	3.0	90		2151	3.0	90		0009	3.6	110		0037	3.3	100		0029	3.6	110		0015	3.0	90			
<b>5</b> M	0430	10.2	310	<b>20</b> Tu	0337	10.2	310	<b>5</b> Th	0604	9.8	300	<b>20</b> F	0511	10.2	310	<b>5</b> Sa	0620	9.5	290	<b>20</b> Su	0602	10.2	310			
	1117	2.6	80		1016	2.6	80		1258	3.3	100		1208	3.0	90		1312	3.3	100		1259	2.6	80			
	1705	9.5	290		1602	9.5	290		1852	8.9	270		1758	9.2	280		1905	8.9	270		1847	9.2	280			
	2336	3.3	100		2231	3.3	100		0127	3.6	110		0626	10.2	310		0140	3.6	110		0127	3.0	90			
<b>6</b> Tu	0528	9.8	300	<b>21</b> W	1108	3.3	100	<b>6</b> F	0721	9.5	290	<b>21</b> Sa	0626	10.2	310	<b>6</b> Su	0730	9.5	290	<b>21</b> M	0715	10.2	310			
	1219	3.0	90		1700	9.2	280		1419	3.3	100		1327	3.0	90		1422	3.3	100		1411	2.6	80			
	1812	8.9	270		2335	3.6	110		2010	8.9	270		1918	9.2	280		2013	9.2	280		2000	9.5	290			
	0047	3.6	110		0529	9.5	290		0249	3.6	110		0159	3.3	100		0251	3.3	100		0243	3.0	90			
<b>7</b> W	0644	9.5	290	<b>22</b> Th	1225	3.3	100	<b>7</b> Sa	0837	9.8	300	<b>22</b> Su	0746	10.2	310	<b>7</b> M	0838	9.8	300	<b>22</b> Tu	0829	10.2	310			
	1342	3.3	100		1819	9.2	280		1532	3.0	90		1445	2.6	80		1526	3.0	90		1523	2.6	80			
	1936	8.9	270		0102	3.6	110		2118	9.2	280		2034	9.5	290		2113	9.5	290		2110	9.8	300			
	0216	3.6	110		0654	9.8	300		0355	3.0	90		0315	3.0	90		0351	3.3	100		0356	2.6	80			
<b>8</b> Th	0812	9.5	290	<b>23</b> F	1355	3.0	90	<b>8</b> Su	0937	9.8	300	<b>23</b> M	0857	10.5	320	<b>8</b> Tu	0934	9.8	300	<b>23</b> W	0937	10.2	310			
	1513	3.0	90		1948	9.2	280		1624	2.6	80		1552	2.3	70		1618	2.6	80		1629	2.3	70			
	2101	9.2	280		0232	3.3	100		2205	9.5	290		2139	9.8	300		2202	9.8	300		2212	10.2	310			
	0342	3.3	100		0818	10.2	310		0441	2.6	80		0420	2.6	80		0441	3.0	90		0501	2.3	70			
<b>9</b> F	0929	9.8	300	<b>24</b> Sa	1518	2.6	80	<b>9</b> M	1019	10.2	310	<b>24</b> Tu	0957	10.5	320	<b>9</b> W	1022	10.2	310	<b>24</b> Th	1038	10.2	310			
	1625	2.6	80		2106	9.5	290		1701	2.3	70		1652	2.0	60		1702	2.6	80		1729	2.0	60			
	2205	9.5	290		0347	3.0	90		2241	9.8	300		2235	10.2	310		2245	10.2	310		2308	10.2	310			
	0442	3.0	90		0926	10.5	320		0518	2.6	80		0520	2.3	70		0526	2.6	80		0558	2.0	60			
<b>10</b> Sa	1021	10.2	310	<b>25</b> Su	1623	2.0	60	<b>10</b> Tu	1057	10.2	310	<b>25</b> W	1053	10.5	320	<b>10</b> Th	1105	10.2	310	<b>25</b> F	1133	10.2	310			
	1709	2.3	70		2208	9.8	300		1737	2.3	70		1748	1.6	50		1744	2.6	80		1820	1.6	50			
	2245	9.8	300		0447	2.3	70		2318	10.2	310		2327	10.5	320		2327	10.2	310		2356	10.5	320			
	0520	2.3	70		1021	10.5	320		0557	2.3	70		0614	2.0	60		0609	2.3	70		0647	1.6	50			
<b>11</b> Su	1056	10.2	310	<b>26</b> M	1718	1.6	50	<b>11</b> W	1135	10.2	310	<b>26</b> Th	1145	10.5	320	<b>11</b> F	1145	10.2	310	<b>26</b> Sa	1220	10.2	310			
	1740	2.0	60		2300	10.2	310		1814	2.3	70		1837	1.6	50		1823	2.3	70		1903	1.6	50			
	2316	9.8	300		0542	2.0	60		2355	10.2	310		0012	10.5	320		0609	2.3	70		0647	1.6	50			
	0553	2.3	70		1113	10.8	330		0636	2.3	70		0702	1.6	50		0005	10.5	320		0730	1.6	50			
<b>12</b> M	1130	10.2	310	<b>27</b> Tu	1810	1.3	40	<b>12</b> Th	1212	10.2	310	<b>27</b> F	1232	10.5	320	<b>12</b> Sa	1224	10.2	310	<b>27</b> Su	1303	10.2	310			
	1811	2.0	60		2348	10.5	320		1850	2.3	70		1920	1.6	50		1902	2.3	70		1942	2.0	60			
	2349	10.2	310		0634	1.6	50		0030	10.5	320		0054	10.8	330		0041	10.5	320		0120	10.8	330			
	0628	2.3	70		1202	10.8	330		0711	2.0	60		0745	1.6	50		0727	2.0	60		0812	2.0	60			
<b>13</b> Tu	1206	10.2	310	<b>28</b> W	1858	1.3	40	<b>13</b> F	1247	10.2	310	<b>28</b> Sa	1316	10.5	320	<b>13</b> Su	1303	10.2	310	<b>28</b> M	1347	10.2	310			
	1846	2.0	60		0033	10.5	320		1924	2.0	60		2000	2.0	60		1941	2.3	70		2023	2.0	60			
	0024	10.2	310		0721	1.6	50		0103	10.5	320		0136	10.8	330		0118	10.5	320		0203	10.8	330			
	0703	2.0	60		1249	10.8	330		0746	2.0	60		0828	2.0	60		0806	2.0	60		0853	2.3	70			
<b>14</b> W	1240	10.2	310	<b>29</b> Th	1942	1.6	50	<b>14</b> Sa	1321	10.2	310	<b>29</b> Su	1403	10.2	310	<b>14</b> M	1343	10.2	310	<b>29</b> Tu	1429	10.2	310			
	1919	2.0	60		0033	10.5	320		1958	2.3	70		2041	2.3	70		2018	2.3	70		2102	2.3	70			
	0056	10.2	310		0805	1.6	50		0136	10.5	320		0220	10.8	330		0156	10.8	330		0242	10.8	330			
	0736	2.0	60		1335	10.8	330		0820	2.0	60		0910	2.0	60		0843	2.0	60		0931	2.3	70			
<b>15</b> Th	1312	10.2	310	<b>30</b> F	2024	2.0	60	<b>15</b> Su	1356	10.2	310	<b>30</b> M	1448	10.2	310	<b>15</b> Tu	1421	10.2	310	<b>30</b> W	1508	9.8	300			
	1950	2.0	60		0115	10.8	330		2031	2.3	70		2120	2.3	70		2054	2.3	70		2137	2.3	70			
	0056	10.2	310		0848	1.6	50		0136	10.5																

## Bremerhaven, Germany, 2015

## Times and Heights of High and Low Waters

January				February				March																										
Time		Height		Time		Height		Time		Height		Time		Height																				
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																				
<b>1</b> Th	0310	3.3	100		<b>16</b> F	0204	3.6	110		<b>1</b> Su	0513	2.6	80		<b>16</b> M	0402	2.6	80		<b>1</b> Su	0312	3.0	90		<b>16</b> M	0154	2.6	80						
	0937	14.4	440			0835	14.1	430			1139	14.1	430			1035	13.8	420			1001	13.5	410			0839	13.5	410						
	1551	3.0	90			1442	3.3	100			1743	2.6	80			1640	2.6	80			1553	3.3	100			1433	3.0	90		1433	3.0	90		
	2217	14.1	430			2120	13.8	420								2310	14.4	440			2232	14.1	430			2119	13.8	420		2119	13.8	420		
<b>2</b> F	0427	3.0	90		<b>17</b> Sa	0325	3.6	110		<b>2</b> M	0003	14.4	440		<b>17</b> Tu	0525	2.0	60		<b>2</b> M	0445	2.6	80		<b>17</b> Tu	0333	2.3	70		<b>17</b> Tu	1012	13.8	420	
	1048	14.4	440			0952	14.1	430			0620	2.0	60			1150	14.4	440			1121	13.8	420			1718	2.6	80			1613	2.6	80	
	1702	2.6	80			1601	3.0	90			1237	14.1	430			1759	2.0	60			2344	14.4	440			2243	14.4	440			2243	14.4	440	
	2322	14.4	440			2234	14.1	430			1841	2.3	70																					
<b>3</b> Sa	0537	2.6	80		<b>18</b> Su	0443	3.0	90		<b>3</b> Tu	0051	14.8	450		<b>18</b> W	0013	15.1	460		<b>3</b> Tu	0559	2.0	60		<b>18</b> W	0501	1.6	50		<b>18</b> W	1131	14.1	430	
	1152	14.4	440			1104	14.1	430			0712	1.6	50			0634	1.6	50			1221	14.1	430			1131	14.1	430			1737	2.0	60	
	1805	2.3	70			1714	2.3	70			1322	14.4	440			1905	1.6	50			1821	2.3	70			2350	14.8	450			2350	14.8	450	
						2338	14.4	440			1926	2.0	60																					
<b>4</b> Su	0018	14.8	450		<b>19</b> M	0552	2.3	70		<b>4</b> W	0131	15.1	460		<b>19</b> Th	0105	15.4	470		<b>4</b> W	0034	14.8	450		<b>19</b> Th	0612	1.3	40		<b>19</b> Th	1233	14.4	440	
	0638	2.3	70			1208	14.4	440			0754	1.6	50			0733	1.0	30			0650	1.6	50			1303	14.4	440			1844	1.3	40	
	1248	14.4	440			1821	2.0	60			1400	14.4	440			1343	15.1	460			1905	2.0	60			1905	2.0	60						
	1859	2.0	60								2004	2.0	60			2000	1.3	40																
<b>5</b> M	0107	14.8	450		<b>20</b> Tu	0033	15.1	460		<b>5</b> Th	0205	15.4	470		<b>20</b> F	0152	15.7	480		<b>5</b> Th	0110	15.1	460		<b>20</b> F	0045	15.4	470		<b>20</b> F	0712	0.7	20	
	0729	2.0	60			0653	2.0	60			0830	1.6	50			0827	0.7	20			0728	1.6	50			0712	0.7	20			0712	0.7	20	
	1336	14.4	440			1304	14.8	450			1433	14.4	440			1431	15.1	460			1337	14.4	440			1325	14.8	450			1325	14.8	450	
	1944	2.0	60			1920	2.0	60			2039	2.0	60			2049	1.0	30			1941	1.6	50			1940	1.0	30			1940	1.0	30	
<b>6</b> Tu	0147	15.1	460		<b>21</b> W	0121	15.4	470		<b>6</b> F	0238	15.4	470		<b>21</b> Sa	0238	15.7	480		<b>6</b> F	0144	15.1	460		<b>21</b> Sa	0134	15.4	470		<b>21</b> Sa	0805	0.3	10	
	0811	1.6	50			0749	1.6	50			0903	1.6	50			0916	0.7	20			0803	1.3	40			0805	0.3	10			1412	15.1	460	
	1415	14.4	440			1356	15.1	460			1503	14.4	440			1519	15.1	460			1409	14.4	440			1412	15.1	460			2028	0.7	20	
	2021	2.0	60			2013	1.6	50			2111	1.6	50			2134	1.0	30			2016	1.6	50			2028	0.7	20						
<b>7</b> W	0222	15.4	470		<b>22</b> Th	0207	15.7	480		<b>7</b> Sa	0309	15.4	470		<b>22</b> Su	0324	16.1	490		<b>7</b> Sa	0216	15.1	460		<b>22</b> Su	0220	15.7	480		<b>22</b> Su	0853	0.3	10	
	0848	1.6	50			0843	1.3	40			0933	2.0	60			1602	0.7	20			0836	1.3	40			0853	0.3	10			1457	15.1	460	
	1451	14.4	440			1446	15.1	460			1533	14.8	450			1604	15.1	460			1439	14.4	440			1457	15.1	460			2114	0.7	20	
	2057	2.0	60			2104	1.6	50			2140	1.6	50			2216	0.7	20			2048	1.3	40			2114	0.7	20						
<b>8</b> Th	0256	15.7	480		<b>23</b> F	0254	16.1	490		<b>8</b> Su	0339	15.1	460		<b>23</b> M	0410	15.7	480		<b>8</b> Su	0247	15.1	460		<b>23</b> M	0306	15.7	480		<b>23</b> M	0939	0.7	20	
	0924	2.0	60			0934	1.0	30			1001	2.0	60			1043	1.0	30			0906	1.6	50			0939	0.7	20			1540	15.1	460	
	1525	14.8	450			1536	15.1	460			1603	14.4	440			1646	14.8	450			1508	14.8	450			1540	15.1	460			2157	0.7	20	
	2131	2.3	70			2151	1.3	40			2208	2.0	60			2254	1.0	30			2118	1.3	40			2157	0.7	20						
<b>9</b> F	0329	15.4	470		<b>24</b> Sa	0340	16.1	490		<b>9</b> M	0410	15.1	460		<b>24</b> Tu	0456	15.4	470		<b>9</b> M	0318	15.1	460		<b>24</b> Tu	0353	15.7	480		<b>24</b> Tu	1020	1.0	30	
	0957	2.3	70			1020	1.0	30			1031	2.0	60			1121	1.3	40			0936	1.6	50			1020	1.0	30			1621	15.1	460	
	1558	14.4	440			1622	14.8	450			1636	14.4	440			1726	14.8	450			1538	14.4	440			1621	15.1	460			2236	0.7	20	
	2201	2.3	70			2230	1.3	40			2239	2.0	60			2331	1.3	40			2149	1.3	40			2236	0.7	20						
<b>10</b> Sa	0400	15.4	470		<b>25</b> Su	0425	15.7	480		<b>10</b> Tu	0444	15.1	460		<b>25</b> W	0541	15.1	460		<b>10</b> Tu	0351	14.8	450		<b>25</b> W	0438	15.4	470		<b>25</b> W	1056	1.0	30	
	1026	2.3	70			1100	1.0	30			1102	2.3	70			1155	1.6	50			1007	1.6	50			1056	1.0	30			1659	14.8	450	
	1630	14.4	440			1706	14.4	440			1709	14.4	440			1805	14.4	440			1612	14.4	440			1659	14.8	450			2311	1.0	30	
	2229	2.6	80			2308	1.3	40			2310	2.3	70								2221	1.3	40			2311	1.0	30						
<b>11</b> Su	0431	15.1	460		<b>26</b> M	0512	15.7	480		<b>11</b> W	0518	14.8	450		<b>26</b> Th	0006	1.6	50		<b>11</b> W	0427	14.8	450		<b>26</b> Th	0521	14.8	450		<b>26</b> Th	1127	1.6	50	
	1055	2.6	80			1141	1.3	40			1129	2.3	70			0626	14.4	440			1040	1.6	50			1127	1.6	50			1735	14.4	440	
	1703	14.1	430			1750	14.4	440			1738	14.1	430			1229	2.3	70			1645	14.4	440			1735	14.4	440			2343	1.3	40	
	2259	3.0	90			2348	1.6	50			2336	2.3	70			1848	14.1	430			2252	1.3	40			2343	1.3	40						
<b>12</b> M	0506	15.1	460		<b>27</b> Tu	0600	15.4	470		<b>12</b> Th	0550	14.4	440		<b>27</b> F	0046	2.3	70		<b>12</b> Th	0459	14.8	450		<b>27</b> F	0604	14.1	430		<b>27</b> F	1158	2.0	60	
	1126	3.0	90			1222	2.0	60			1151	2.6	80			0720																		

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## Times and Heights of High and Low Waters

April				May				June																				
Time	Height			Time	Height			Time	Height			Time	Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0525	2.0	60		<b>16</b> Th	0438	1.6	50		<b>1</b> F	0528	1.3	40		<b>16</b> Sa	0519	1.3	40		<b>1</b> M	0001	14.8	450	<b>16</b> Tu	0038	14.8	450	
	1152	13.8	420			1108	14.1	430			1149	14.1	430			1141	14.4	440			0612	1.6	50			0655	1.3	40
	1747	2.0	60			1710	2.0	60			1747	2.0	60			1747	1.6	50			1229	14.8	450			1307	14.8	450
				2324	15.1	460				1830	1.6	50		2357	15.1	460		1840	2.0	60		●	1925	1.3	40			
<b>2</b> Th	0005	14.4	440		<b>17</b> F	0547	1.0	30		<b>2</b> Sa	0001	14.4	440		<b>17</b> Su	0619	1.0	30		<b>2</b> Tu	0046	14.8	450	<b>17</b> W	0133	14.8	450	
	0615	1.3	40			1209	14.4	440			0609	1.3	40			1236	14.8	450			0700	1.6	50			0746	1.3	40
	1232	14.1	430			1816	1.3	40			1226	14.4	440			1849	1.3	40			1311	15.1	460			1353	15.1	460
	1831	1.6	50							1830	1.6	50						1927	1.6	50		2014	1.0	30				
<b>3</b> F	0040	14.8	450		<b>18</b> Sa	0021	15.4	470		<b>3</b> Su	0039	14.8	450		<b>18</b> M	0055	15.1	460		<b>3</b> W	0130	14.8	450	<b>18</b> Th	0220	14.8	450	
	0652	1.3	40			0646	0.7	20			0650	1.3	40			0717	1.0	30			0744	1.3	40			0829	1.3	40
	1305	14.4	440			●	1302	14.8	450			1304	14.8	450			●	1328	15.1		460		1350		15.1	460		1431
	1909	1.6	50		●	1915	1.0	30		1914	1.6	50		●	1945	1.0	30		2009	1.3	40		2055	1.0	30			
<b>4</b> Sa	0114	14.8	450		<b>19</b> Su	0114	15.4	470		<b>4</b> M	0118	14.8	450		<b>19</b> Tu	0147	15.1	460		<b>4</b> Th	0212	14.8	450	<b>19</b> F	0301	14.8	450	
	0728	1.3	40			0741	0.7	20			0732	1.3	40			0807	0.7	20			0825	1.3	40			0908	1.6	50
	1338	14.4	440			1350	15.1	460			1341	14.8	450			1413	15.1	460			1429	15.4	470			1508	15.4	470
	1946	1.3	40		2007	0.7	20		1955	1.3	40		2032	0.7	20		2051	1.3	40		2136	1.3	40					
<b>5</b> Su	0149	14.8	450		<b>20</b> M	0203	15.4	470		<b>5</b> Tu	0157	14.8	450		<b>20</b> W	0234	15.1	460		<b>5</b> F	0256	14.8	450	<b>20</b> Sa	0341	14.8	450	
	0804	1.3	40			0830	0.7	20			0811	1.3	40			0849	1.0	30			0907	1.3	40			0946	1.6	50
	1411	14.8	450			1434	15.1	460			1416	14.8	450			1451	15.4	470			1509	15.4	470			1545	15.7	480
	2022	1.0	30		2052	0.7	20		2032	1.0	30		2113	0.7	20		2134	1.3	40		2214	1.6	50					
<b>6</b> M	0223	14.8	450		<b>21</b> Tu	0249	15.4	470		<b>6</b> W	0235	14.8	450		<b>21</b> Th	0317	14.8	450		<b>6</b> Sa	0340	14.8	450	<b>21</b> Su	0420	14.8	450	
	0839	1.3	40			0913	0.7	20			0847	1.3	40			0927	1.3	40			0948	1.3	40			1022	2.0	60
	1443	14.8	450			1515	15.4	470			1451	15.1	460			1529	15.4	470			1549	15.4	470			1622	15.4	470
	2055	1.0	30		2135	0.7	20		2109	1.0	30		2153	1.0	30		2216	1.3	40		2249	2.0	60					
<b>7</b> Tu	0257	14.8	450		<b>22</b> W	0334	15.4	470		<b>7</b> Th	0314	14.8	450		<b>22</b> F	0400	14.8	450		<b>7</b> Su	0423	14.4	440	<b>22</b> M	0457	14.4	440	
	0911	1.3	40			0953	1.0	30			0922	1.3	40			1005	1.3	40			1026	1.6	50			1054	2.3	70
	1514	14.8	450			1554	15.1	460			1527	15.1	460			1607	15.4	470			1630	15.4	470			1657	15.4	470
	2129	1.0	30		2214	1.0	30		2146	1.0	30		2230	1.3	40		2258	1.3	40		2323	2.3	70					
<b>8</b> W	0333	14.8	450		<b>23</b> Th	0419	14.8	450		<b>8</b> F	0353	14.4	440		<b>23</b> Sa	0442	14.4	440		<b>8</b> M	0508	14.4	440	<b>23</b> Tu	0534	14.1	430	
	0944	1.3	40			1029	1.3	40			0957	1.3	40			1040	1.6	50			1108	2.0	60			1127	2.6	80
	1548	14.8	450			1631	15.1	460			1603	14.8	450			1645	15.1	460			1715	15.4	470			1735	15.1	460
	2203	1.0	30		2249	1.0	30		2222	1.0	30		2306	1.6	50		2344	1.6	50		2358	2.6	80					
<b>9</b> Th	0409	14.8	450		<b>24</b> F	0502	14.4	440		<b>9</b> Sa	0431	14.4	440		<b>24</b> Su	0522	14.1	430		<b>9</b> Tu	0559	14.1	430	<b>24</b> W	0612	13.8	420	
	1016	1.3	40			1101	1.6	50			1032	1.6	50			1113	2.3	70			1156	2.3	70			1204	3.0	90
	1622	14.8	450			1709	14.8	450			1639	15.1	460			1724	15.1	460			1808	15.1	460			1818	14.8	450
	2234	1.0	30		2322	1.3	40		2258	1.3	40		2342	2.0	60		●	●		●	●		●					
<b>10</b> F	0443	14.4	440		<b>25</b> Sa	0543	14.1	430		<b>10</b> Su	0511	14.1	430		<b>25</b> M	0603	13.8	420		<b>10</b> W	0036	1.6	50	<b>25</b> Th	0036	2.6	80	
	1045	1.6	50			1133	2.0	60			1108	2.0	60			1150	2.6	80			0655	13.8	420			0656	13.5	410
	1653	14.8	450			1749	14.4	440			1720	14.8	450			1808	14.8	450			1250	2.3	70			1247	3.0	90
	2303	1.0	30		2358	2.0	60		2338	1.6	50		●	●		1908	15.1	460		1910	14.4	440						
<b>11</b> Sa	0516	14.1	430		<b>26</b> Su	0628	13.5	410		<b>11</b> M	0557	14.1	430		<b>26</b> Tu	0023	2.3	70		<b>11</b> Th	0133	1.6	50	<b>26</b> F	0122	2.6	80	
	1110	2.0	60			1212	2.6	80			1150	2.3	70			0650	13.5	410			0758	13.8	420			0750	13.5	410
	1726	14.4	440			1839	14.1	430			1810	14.8	450			1235	3.0	90			1353	2.3	70			1343	3.0	90
	2333	1.6	50		●	●		●	●				1902	14.1	430		2017	14.8	450		2012	14.1	430					
<b>12</b> Su	0555	13.8	420		<b>27</b> M	0046	2.3	70		<b>12</b> Tu	0029	2.0	60		<b>27</b> W	0113	2.6	80		<b>12</b> F	0238	1.6	50	<b>27</b> Sa	0223	2.6	80	
	1144	2.3	70			0727	12.8	390			0657	13.8	420			0749	13.1	400			0906	13.8	420			0853	13.8	420
	1814	14.1	430			1308	3.0	90			1248	2.6	80			1334	3.0	90			1505	2.3	70			1451	3.0	90
	●			1946	13.8	420		1917	14.4	440		2008	14.1	430		2127	15.1	460		2120	14.1	430						
<b>13</b> M	0021	2.0	60		<b>28</b> Tu	0153	2.6	80		<b>13</b> W	0137	2.0	60		<b>28</b> Th	0218	2.3	70		<b>13</b> Sa	0347	1.6	50	<b>28</b> Su	0330	2.6	80	
	0657	13.5	410			0842	12.8	390			0812	13.5	410			0856	13.1	400			1013	14.1	430			0959	13.8	420
	1245	3.0	90			1425	3.0	90			1404	2.6	80			1444	3.0	90			1617	2.3	70			1602	3.0	90
	1927	13.8	420		2107	13.8	420		2036	14.4	440		2119	14.1	430		2234	15.1	460		2224	14.4	440					
<b>14</b> Tu	0139	2.3	70		<b>29</b> W	0316	2.3	70		<b>14</b> Th	0256	1.6	50															

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## Times and Heights of High and Low Waters

July				August				September																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0016	14.8	450		<b>16</b> Th	0120	14.8	450		<b>1</b> Sa	0138	15.1	460		<b>16</b> Su	0224	14.8	450		<b>1</b> Tu	0254	15.1	460		<b>16</b> W	0258	14.8	450	
	0628	2.0	60			0730	1.6	50			0757	2.0	60			0834	2.0	60			0917	1.3	40			0914	2.0	60	
	1241	15.1	460			1334	15.1	460			1350	15.7	480			1429	15.4	470			1501	16.1	490			1508	15.1	460	
	1900	2.0	60			1959	1.3	40			2026	1.6	50			2059	1.6	50			2144	1.3	40			2132	2.3	70	
<b>2</b> Th	0106	14.8	450		<b>17</b> F	0205	14.8	450		<b>2</b> Su	0227	15.1	460		<b>17</b> M	0257	14.8	450		<b>2</b> W	0339	15.1	460		<b>17</b> Th	0327	14.8	450	
	0720	1.6	50			0813	1.6	50			0848	1.6	50			0909	2.0	60			1000	1.3	40			0944	2.0	60	
	1326	15.4	470			1413	15.4	470			1436	16.1	490			1502	15.4	470			1548	16.1	490			1539	15.1	460	
	1950	1.6	50			2041	1.3	40			2116	1.3	40			2131	2.0	60			2227	1.3	40			2201	2.3	70	
<b>3</b> F	0154	15.1	460		<b>18</b> Sa	0245	14.8	450		<b>3</b> M	0315	15.1	460		<b>18</b> Tu	0327	14.8	450		<b>3</b> Th	0422	15.1	460		<b>18</b> F	0358	14.8	450	
	0809	1.6	50			0852	2.0	60			0934	1.3	40			0939	2.0	60			1040	1.3	40			1015	2.3	70	
	1409	15.7	480			1449	15.7	480			1521	16.1	490			1532	15.4	470			1635	15.7	480			1612	14.8	450	
	2039	1.6	50			2120	1.6	50			2202	1.3	40			2200	2.3	70			2307	1.6	50			2231	2.3	70	
<b>4</b> Sa	0241	15.1	460		<b>19</b> Su	0321	14.8	450		<b>4</b> Tu	0400	14.8	450		<b>19</b> W	0357	14.8	450		<b>4</b> F	0505	15.1	460		<b>19</b> Sa	0430	14.4	440	
	0858	1.6	50			0929	2.0	60			1014	1.3	40			1008	2.3	70			1120	1.6	50			1045	2.3	70	
	1453	15.7	480			1525	15.7	480			1605	16.1	490			1603	15.1	460			1722	15.4	470			1645	14.8	450	
	2127	1.3	40			2156	2.0	60			2244	1.3	40			2229	2.3	70			2346	2.3	70			2259	2.6	80	
<b>5</b> Su	0329	15.1	460		<b>20</b> M	0355	14.8	450		<b>5</b> W	0445	14.8	450		<b>20</b> Th	0428	14.4	440		<b>5</b> Sa	0547	14.8	450		<b>20</b> Su	0459	14.4	440	
	0943	1.6	50			1002	2.0	60			1054	1.3	40			1039	2.6	80			1200	2.3	70			1111	2.6	80	
	1536	15.7	480			1557	15.7	480			1652	15.7	480			1636	15.1	460			1809	14.8	450			1716	14.4	440	
	2212	1.3	40			2227	2.3	70			2327	1.6	50			2301	2.6	80			2301	2.6	80			2321	3.0	90	
<b>6</b> M	0415	14.8	450		<b>21</b> Tu	0427	14.4	440		<b>6</b> Th	0531	14.8	450		<b>21</b> F	0501	14.4	440		<b>6</b> Su	0024	3.0	90		<b>21</b> M	0527	14.1	430	
	1023	1.3	40			1032	2.3	70			1138	2.0	60			1111	2.6	80			0631	14.4	440			1137	3.0	90	
	1619	15.7	480			1629	15.4	470			1742	15.4	470			1712	15.1	460			1242	2.6	80			1750	13.8	420	
	2255	1.3	40			2257	2.3	70								2331	3.0	90			1902	14.1	430			2348	3.3	100	
<b>7</b> Tu	0500	14.4	440		<b>22</b> W	0501	14.4	440		<b>7</b> F	0012	2.0	60		<b>22</b> Sa	0531	14.4	440		<b>7</b> M	0107	3.3	100		<b>22</b> Tu	0610	13.8	420	
	1104	1.6	50			1103	2.6	80			0618	14.4	440			1139	3.0	90			0725	14.1	430			1220	3.3	100	
	1706	15.7	480			1704	15.1	460			1224	2.3	70			1745	14.8	450			1338	3.0	90			1846	13.5	410	
	2341	1.6	50			2330	2.6	80			1833	15.1	460			2356	3.0	90			2010	13.5	410						
<b>8</b> W	0550	14.4	440		<b>23</b> Th	0535	14.1	430		<b>8</b> Sa	0056	2.3	70		<b>23</b> Su	0603	14.1	430		<b>8</b> Tu	0211	3.6	110		<b>23</b> W	0044	3.9	120	
	1151	2.0	60			1136	3.0	90			0705	14.4	440			1208	3.0	90			0840	14.1	430			0720	13.5	410	
	1758	15.4	470			1742	15.1	460			1312	2.3	70			1824	14.1	430			1458	3.3	100			1334	3.6	110	
											1929	14.8	450								2135	13.5	410			2009	13.5	410	
<b>9</b> Th	0030	1.6	50		<b>24</b> F	0003	3.0	90		<b>9</b> Su	0143	2.6	80		<b>24</b> M	0028	3.3	100		<b>9</b> W	0337	3.9	120		<b>24</b> Th	0212	3.9	120	
	0642	14.1	430			0610	14.1	430			0802	14.1	430			0652	13.8	420			1007	14.4	440			0849	13.8	420	
	1242	2.0	60			1210	3.0	90			1411	3.0	90			1257	3.3	100			1632	3.3	100			1510	3.3	100	
	1854	15.4	470			1822	14.8	450			2037	14.1	430			1924	13.8	420			2300	13.8	420			2142	13.8	420	
<b>10</b> F	0120	2.0	60		<b>25</b> Sa	0036	3.0	90		<b>10</b> M	0246	3.0	90		<b>25</b> Tu	0127	3.6	110		<b>10</b> Th	0506	3.3	100		<b>25</b> F	0351	3.6	110	
	0736	14.1	430			0651	13.8	420			0913	14.1	430			0804	13.5	410			1124	14.8	450			1015	14.4	440	
	1337	2.3	70			1251	3.3	100			1528	3.0	90			1413	3.3	100			1752	2.6	80			1640	2.6	80	
	1955	15.1	460			1912	14.1	430			2157	14.1	430			2045	13.5	410								2303	14.1	430	
<b>11</b> Sa	0214	2.3	70		<b>26</b> Su	0121	3.3	100		<b>11</b> Tu	0406	3.0	90		<b>26</b> W	0252	3.6	110		<b>11</b> F	0005	14.1	430		<b>26</b> Sa	0516	3.0	90	
	0836	14.1	430			0748	13.8	420			1031	14.4	440			0928	13.8	420			0613	2.6	80			1123	14.8	450	
	1440	2.6	80			1350	3.3	100			1652	2.6	80			1544	3.0	90			1217	15.1	460			1752	2.0	60	
	2103	14.8	450			2018	14.1	430			2314	14.1	430			2211	13.8	420			1844	2.0	60						
<b>12</b> Su	0319	2.3	70		<b>27</b> M	0226	3.3	100		<b>12</b> W	0525	2.6	80		<b>27</b> Th	0421	3.0	90		<b>12</b> Sa	0048	14.4	440		<b>27</b> Su	0006	14.4	440	
	0943	14.4	440			0859	13.8	420			1140	14.8	450			1047	14.1	430			0657	2.3	70			0623	2.3	70	
	1554	2.6	80			1506	3.3	100			1804	2.3	70			1707	2.6	80			1255	15.1	460			1218	15.4	470	
	2215	14.8	450			2132	14.1	430								2327	14.1	430			1920	2.0	60			1851	1.6	50	
<b>13</b> M	0430	2.3	70		<b>28</b> Tu	0342	3.0	90		<b>13</b> Th	0018	14.4	440		<b>28</b> F	0540	2.6	80		<b>13</b> Su	0122	14.4	440		<b>28</b> M	0058	14.8	450	
	1052	14.4	440			1013	14.1	430			0628	2.3	70			1150	14.8	450			0733	2.3	70			0720	2.0	60	
	1707	2.3	70			1624	3.0	90			1234	15.1	460			1816	2.0	60			1329	15.1	460			1306	15.7	480	
	2324	14.8	450			2245	14.1	430			1859	2.0	60								1954	2.0	60			1945			



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## Times and Heights of High and Low Waters

October				November				December																					
	Time		Height			Time		Height			Time		Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> Th	0314	15.4	470		<b>16</b> F	0259	14.8	450		<b>1</b> Su	0409	15.4	470		<b>16</b> M	0339	15.1	460		<b>1</b> Tu	0425	15.4	470		<b>16</b> W	0400	15.4	470	
	0941	1.3	40			0920	2.0	60			1037	1.6	50			1003	2.0	60			1054	2.3	70			1030	2.0	60	
	1528	15.7	480			1517	14.8	450			1641	14.8	450			1605	14.4	440			1704	14.4	440			1635	14.4	440	
	2203	1.6	50			2133	2.3	70			2249	2.6	80			2210	2.3	70			2301	3.0	90			2237	2.6	80	
<b>2</b> F	0357	15.4	470		<b>17</b> Sa	0330	14.8	450		<b>2</b> M	0448	15.1	460		<b>17</b> Tu	0412	15.1	460		<b>2</b> W	0505	15.1	460		<b>17</b> Th	0440	15.4	470	
	1022	1.6	50			0951	2.0	60			1111	2.0	60			1035	2.3	70			1129	2.6	80			1109	2.3	70	
	1616	15.4	470			1550	14.8	450			1725	14.1	430			1642	14.1	430			1746	13.8	420			1719	14.1	430	
	2242	2.0	60			2202	2.3	70			2323	3.0	90			2242	3.0	90			2336	3.3	100			2318	3.0	90	
<b>3</b> Sa	0437	15.1	460		<b>18</b> Su	0401	14.8	450		<b>3</b> Tu	0530	14.8	450		<b>18</b> W	0449	15.1	460		<b>3</b> Th	0547	14.8	450		<b>18</b> F	0527	15.4	470	
	1059	1.6	50			1021	2.0	60			1149	2.6	80			1112	2.6	80			1207	3.0	90			1155	2.6	80	
	1701	15.1	460			1622	14.4	440			1811	13.8	420			1723	14.1	430			1831	13.5	410			1810	14.1	430	
	2316	2.3	70			2229	2.6	80			●					2321	3.3	100			●					●			
<b>4</b> Su	0516	14.8	450		<b>19</b> M	0431	14.8	450		<b>4</b> W	0002	3.6	110		<b>19</b> Th	0534	14.8	450		<b>4</b> F	0018	3.9	120		<b>19</b> Sa	0005	3.0	90	
	1134	2.3	70			1049	2.3	70			0619	14.4	440			1157	3.0	90			0638	14.4	440			0621	15.1	460	
	1746	14.4	440			1654	14.1	430			1235	3.3	100			1816	13.8	420			1254	3.3	100			1247	2.6	80	
	●	2350	3.0	90		2255	3.0	90			1907	13.1	400			●					1925	13.1	400			1908	13.8	420	
<b>5</b> M	0558	14.4	440		<b>20</b> Tu	0503	14.4	440		<b>5</b> Th	0056	4.3	130		<b>20</b> F	0012	3.6	110		<b>5</b> Sa	0112	3.9	120		<b>20</b> Su	0103	3.3	100	
	1212	2.6	80			1118	3.0	90			0722	14.1	430			0634	14.4	440			0740	14.1	430			0725	14.8	450	
	1836	13.8	420			1731	13.8	420			1339	3.6	110			1258	3.3	100			1354	3.3	100			1348	3.0	90	
	●					●	2328	3.6	110			2018	12.8	390			1925	13.5	410			2029	13.1	400			2014	13.8	420
<b>6</b> Tu	0032	3.6	110		<b>21</b> W	0546	14.1	430		<b>6</b> F	0208	4.3	130		<b>21</b> Sa	0122	3.9	120		<b>6</b> Su	0219	3.9	120		<b>21</b> M	0213	3.3	100	
	0651	14.1	430			1202	3.3	100			0840	14.1	430			0749	14.4	440			0851	14.1	430			0837	14.8	450	
	1305	3.3	100			1825	13.5	410			1500	3.6	110			1415	3.3	100			1506	3.3	100			1458	3.0	90	
	1940	13.1	400			●					2137	13.1	400			2044	13.8	420			2137	13.5	410			2126	14.1	430	
<b>7</b> W	0134	4.3	130		<b>22</b> Th	0021	3.9	120		<b>7</b> Sa	0331	3.9	120		<b>22</b> Su	0247	3.6	110		<b>7</b> M	0333	3.9	120		<b>22</b> Tu	0332	3.3	100	
	0803	14.1	430			0651	14.1	430			0959	14.1	430			0908	14.8	450			1000	14.4	440			0951	15.1	460	
	1422	3.6	110			1311	3.6	110			1621	3.0	90			1536	3.0	90			1616	3.3	100			1613	2.6	80	
	2103	13.1	400			1943	13.5	410			2245	13.8	420			2200	14.1	430			2237	14.1	430			2236	14.4	440	
<b>8</b> Th	0259	4.3	130		<b>23</b> F	0144	4.3	130		<b>8</b> Su	0445	3.3	100		<b>23</b> M	0409	3.3	100		<b>8</b> Tu	0441	3.6	110		<b>23</b> W	0449	3.0	90	
	0931	14.1	430			0816	14.1	430			1102	14.4	440			1020	15.1	460			1058	14.4	440			1101	14.8	450	
	1556	3.6	110			1441	3.3	100			1722	2.6	80			1649	2.3	70			1714	3.0	90			1724	2.3	70	
	2229	13.5	410			2113	13.5	410			2334	14.1	430			2306	14.4	440			2328	14.4	440			2340	14.8	450	
<b>9</b> F	0430	3.6	110		<b>24</b> Sa	0320	3.6	110		<b>9</b> M	0539	3.0	90		<b>24</b> Tu	0521	3.0	90		<b>9</b> W	0537	3.3	100		<b>24</b> Th	0559	2.3	70	
	1052	14.4	440			0942	14.4	440			1146	14.8	450			1124	15.1	460			1146	14.8	450			1206	14.8	450	
	1719	3.0	90			1610	2.6	80			1804	2.3	70			1752	2.0	60			1802	2.6	80			1828	2.0	60	
	2336	13.8	420			2234	14.1	430			●					●					●			●					
<b>10</b> Sa	0540	3.0	90		<b>25</b> Su	0445	3.0	90		<b>10</b> Tu	0011	14.4	440		<b>25</b> W	0004	14.8	450		<b>10</b> Th	0013	14.8	450		<b>25</b> F	0038	14.8	450	
	1149	14.8	450			1053	14.8	450			0621	2.6	80			0624	2.3	70			0628	3.0	90			0701	2.0	60	
	1813	2.3	70			1723	2.3	70			1223	14.8	450			1223	15.1	460			1231	14.8	450			1304	14.8	450	
	●					2337	14.4	440			1842	2.3	70			●	1852	1.6	50			1847	2.6	80			●	1923	1.6
<b>11</b> Su	0018	14.4	440		<b>26</b> M	0554	2.6	80		<b>11</b> W	0047	14.8	450		<b>26</b> Th	0058	15.1	460		<b>11</b> F	0054	14.8	450		<b>26</b> Sa	0126	15.1	460	
	0625	2.6	80			1151	15.1	460			0703	2.6	80			0722	2.0	60			0713	2.6	80			0752	1.6	50	
	1225	14.8	450			1823	1.6	50			1302	14.8	450			1317	15.1	460			1313	14.8	450			1353	14.8	450	
	1846	2.0	60			●					1922	2.3	70			1944	1.6	50			1930	2.3	70			●	2008	1.6	50
<b>12</b> M	0049	14.4	440		<b>27</b> Tu	0032	14.8	450		<b>12</b> Th	0124	14.8	450		<b>27</b> F	0145	15.1	460		<b>12</b> Sa	0132	15.1	460		<b>27</b> Su	0207	15.4	470	
	0700	2.3	70			0653	2.3	70			0744	2.3	70			0811	1.6	50			0754	2.3	70			0835	1.6	50	
	1258	14.8	450			1243	15.4	470			1341	14.8	450			1405	15.1	460			1354	14.8	450			1437	14.8	450	
	1919	2.0	60			●	1918	1.6	50			2000	2.3	70			2029	1.6	50			2009	2.3	70			2049	2.0	60
<b>13</b> Tu	0121	14.8	450		<b>28</b> W	0122	15.1	460		<b>13</b> F	0159	14.8	450		<b>28</b> Sa	0225	15.4	470		<b>13</b> Su	0208	15.1	460		<b>28</b> M	0245	15.7	480	
	0737	2.3	70			0746	2.0	60			0821	2.0	60			0854	1.6	50			0834	2.0	60			0917	1.6	50	
	1333	14.8	450			1333	15.4	470			1418	14.8	450			1450	15.1	460			1434	14.8	450			1519	14.8	450	
	●	1956	2.0	60		2009	1.3	40			2035	2.0	60			2109	2.0	60</											

# Cuxhaven, Germany, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m		ft	cm		h	m		ft	cm		h	m	ft	cm							
<b>1</b> Th	0344	2.6	80	<b>16</b> F	0238	3.0	90	<b>1</b> Su	0548	2.0	60	<b>16</b> M	0438	2.0	60	<b>1</b> Su	0351	2.3	70	<b>16</b> M	0231	2.0	60
	0927	11.5	350		0825	10.8	330		1124	10.8	330		1019	10.8	330		0944	10.2	310		0823	10.2	310
	1624	2.6	80		1517	2.6	80		1814	2.0	60		1715	2.0	60		1630	2.3	70		1514	2.3	70
	2205	11.2	340		2111	10.8	330		2349	11.5	350		2254	11.2	340		2218	10.8	330		2105	10.8	330
<b>2</b> F	0459	2.6	80	<b>17</b> Sa	0359	3.0	90	<b>2</b> M	0651	1.6	50	<b>17</b> Tu	0558	1.6	50	<b>2</b> M	0522	2.0	60	<b>17</b> Tu	0410	1.6	50
	1037	11.5	350		0940	11.2	340		1220	11.2	340		1132	11.2	340		1104	10.5	320		0954	10.5	320
	1733	2.3	70		1634	2.3	70		1908	1.6	50		1828	1.6	50		1751	2.0	60		1649	2.0	60
	2310	11.5	350		2221	11.2	340						2357	11.8	360		2328	11.5	350		2228	11.2	340
<b>3</b> Sa	0608	2.3	70	<b>18</b> Su	0515	2.3	70	<b>3</b> Tu	0038	11.8	360	<b>18</b> W	0703	1.0	30	<b>3</b> Tu	0631	1.6	50	<b>18</b> W	0535	1.3	40
	1139	11.5	350		1050	11.2	340		0738	1.6	50		1232	11.5	350		1203	10.8	330		1111	11.2	340
	1833	2.0	60		1745	2.0	60		1305	11.2	340		1927	1.3	40		1848	1.6	50		1806	1.3	40
					2324	11.5	350		1949	1.6	50										2333	11.8	360
<b>4</b> Su	0006	11.5	350	<b>19</b> M	0622	2.0	60	<b>4</b> W	0118	12.1	370	<b>19</b> Th	0049	12.1	370	<b>4</b> W	0017	11.8	360	<b>19</b> Th	0642	0.7	20
	0706	2.0	60		1152	11.5	350		0817	1.6	50		0757	0.7	20		0716	1.3	40		1213	11.5	350
	1233	11.5	350		1847	1.6	50		1342	11.2	340		1324	11.8	360		1244	11.2	340		1907	1.0	30
	1924	1.6	50						2024	1.6	50		2018	1.0	30		1927	1.6	50				
<b>5</b> M	0054	11.8	360	<b>20</b> Tu	0018	11.8	360	<b>5</b> Th	0153	12.1	370	<b>20</b> F	0136	12.5	380	<b>5</b> Th	0055	11.8	360	<b>20</b> F	0027	12.1	370
	0754	1.6	50		0720	1.6	50		0851	1.6	50		0848	0.7	20		0751	1.3	40		0737	0.3	10
	1319	11.5	350		1248	11.8	360		1414	11.5	350		1412	11.8	360		1317	11.5	350		1305	11.5	350
	2006	1.6	50		1941	1.6	50		2058	1.6	50		2106	0.7	20		2001	1.3	40		1958	0.7	20
<b>6</b> Tu	0135	12.1	370	<b>21</b> W	0107	12.1	370	<b>6</b> F	0225	12.5	380	<b>21</b> Sa	0222	12.5	380	<b>6</b> F	0128	12.1	370	<b>21</b> Sa	0116	12.5	380
	0833	1.6	50		0812	1.3	40		0924	1.6	50		0936	0.3	10		0824	1.3	40		0826	0.3	10
	1358	11.2	340		1340	11.8	360		1444	11.5	350		1459	11.8	360		1347	11.5	350		1351	11.8	360
	2041	1.6	50		2033	1.3	40		2129	1.3	40		2152	0.7	20		2034	1.0	30		2045	0.3	10
<b>7</b> W	0211	12.5	380	<b>22</b> Th	0154	12.5	380	<b>7</b> Sa	0256	12.1	370	<b>22</b> Su	0309	12.8	390	<b>7</b> Sa	0159	12.1	370	<b>22</b> Su	0202	12.5	380
	0910	1.6	50		0903	1.0	30		0953	1.6	50		1021	0.7	20		0855	1.0	30		0913	0.3	10
	1434	11.5	350		1430	11.8	360		1514	11.5	350		1543	11.8	360		1416	11.5	350		1436	11.8	360
	2115	2.0	60		2122	1.3	40		2158	1.3	40		2235	0.7	20		2106	1.0	30		2130	0.3	10
<b>8</b> Th	0246	12.5	380	<b>23</b> F	0242	12.8	390	<b>8</b> Su	0325	12.1	370	<b>23</b> M	0354	12.8	390	<b>8</b> Su	0229	11.8	360	<b>23</b> M	0249	12.5	380
	0945	2.0	60		0953	1.0	30		1021	1.6	50		1102	0.7	20		0925	1.3	40		0957	0.3	10
	1509	11.5	350		1518	11.8	360		1546	11.5	350		1624	11.8	360		1446	11.5	350		1519	12.1	370
	2149	2.0	60		2208	1.0	30		2227	1.6	50		2315	0.7	20		2136	1.0	30		2214	0.7	20
<b>9</b> F	0319	12.5	380	<b>24</b> Sa	0327	12.8	390	<b>9</b> M	0356	11.8	360	<b>24</b> Tu	0439	12.5	380	<b>9</b> M	0259	11.8	360	<b>24</b> Tu	0335	12.5	380
	1018	2.0	60		1039	1.0	30		1051	1.6	50		1141	1.0	30		0954	1.3	40		1037	0.7	20
	1542	11.5	350		1602	11.5	350		1620	11.2	340		1705	11.5	350		1519	11.5	350		1559	12.1	370
	2219	2.0	60		2250	1.0	30		2300	1.6	50		2353	1.0	30		2206	1.0	30		2255	0.7	20
<b>10</b> Sa	0350	12.1	370	<b>25</b> Su	0411	12.8	390	<b>10</b> Tu	0430	11.8	360	<b>25</b> W	0523	12.1	370	<b>10</b> Tu	0332	11.8	360	<b>25</b> W	0419	12.1	370
	1047	2.0	60		1121	1.0	30		1121	2.0	60		1217	1.3	40		1025	1.3	40		1113	1.0	30
	1615	11.2	340		1646	11.5	350		1653	11.2	340		1745	11.5	350		1553	11.5	350		1638	11.8	360
	2249	2.3	70		2331	1.3	40		2331	2.0	60						2240	1.0	30		2331	1.0	30
<b>11</b> Su	0422	12.1	370	<b>26</b> M	0457	12.5	380	<b>11</b> W	0502	11.8	360	<b>26</b> Th	0030	1.3	40	<b>11</b> W	0406	11.8	360	<b>26</b> Th	0500	11.8	360
	1116	2.3	70		1204	1.3	40		1147	2.0	60		0609	11.5	350		1056	1.3	40		1147	1.3	40
	1649	11.2	340		1731	11.2	340		1723	11.2	340		1253	2.0	60		1626	11.5	350		1716	11.5	350
	2321	2.3	70						2358	2.0	60		1830	10.8	330		2311	1.3	40		1716	11.5	350
<b>12</b> M	0456	11.8	360	<b>27</b> Tu	0014	1.6	50	<b>12</b> Th	0533	11.2	340	<b>27</b> F	0114	1.6	50	<b>12</b> Th	0438	11.5	350	<b>27</b> F	0005	1.3	40
	1147	2.3	70		0546	12.1	370		1214	2.0	60		0703	10.8	330		1122	1.3	40		0543	11.2	340
	1724	10.8	330		1247	1.6	50		1759	10.8	330		1343	2.3	70		1655	11.5	350		1220	1.6	50
	2355	2.6	80		1817	11.2	340						1930	10.5	320		2336	1.3	40		1758	11.2	340
<b>13</b> Tu	0532	11.5	350	<b>28</b> W	0058	1.6	50	<b>13</b> F	0035	2.3	70	<b>28</b> Sa	0221	2.0	60	<b>13</b> F	0507	11.2	340	<b>28</b> Sa	0044	1.6	50
	1219	2.6	80		0637	11.8	360		0619	10.8	330		0816	10.2	310		1144	1.6	50		0633	10.5	320
	1802	10.8	330		1331	2.0	60		1300	2.3	70		1458	2.6	80		1725	10.8	330		1304	2.0	60
					1907	10.8	330		1856	10.5	320		2052	10.5	320						1855	10.8	330
<b>14</b> W	0033	3.0	90	<b>29</b> Th	0151	2.0	60	<b>14</b> Sa	0139	2.6	80	<b>14</b> Sa	0005	1.6	50	<b>14</b> Sa	0005	1.6	50	<b>29</b> Su	0144	2.0	60
	0615	11.2	340		0737	11.2	340		0729	10.5	320		0546	10.5	320		1222	2.0	60		0742	9.8	300
	1301	2.6	80		1427	2.3	70		1417	2.6	80		1222	2.0	60		1816	10.5	320		1415	2.3	70
	1851	10.5	320		2012	10.5	320		2014	10.5	320										2013	10.5	320
<b>15</b> Th	0126	3.0	90	<b>30</b> F	0302	2.3	70	<b>15</b> Su	0307	2.3	70	<b>15</b> Su	0102	2.0	60	<b>15</b> Su	0102	2.0	60	<b>30</b> M	0310	2.0	60
	0713	11.2	340		0852	10.8	330		0854	10.5	320		0653	10.2	310		0653	10.2	310		0908	9.8	300
	1401	2.6	80		1542	2.6	80		1548	2.3	70		1458	2.6	80		1336	2.3	70		1547	2.3	70
	1956	10.5	320		2129	10.8	330		2139	10.8	330		2052	10.5	320		1934	10.5	320		2141	10.8	330
			<b>31</b> Sa	0427	2.3	70										<b>31</b> Tu	0444	1.6	50				
				1012	10.8	330											1031	10.2	310				
			1704	2.3	70										1714	2.0	60						
			2245	11.2	340										2255	11.2	340						

Time meridian 15° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Cuxhaven, Germany, 2015

## Times and Heights of High and Low Waters

April				May				June																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> W	0556	1.3	40		<b>16</b> Th	0510	1.0	30		<b>1</b> F	0553	1.0	30		<b>16</b> Sa	0545	0.7	20		<b>1</b> M	0632	1.3	40		<b>16</b> Tu	0017	11.8	360	
	1132	10.5	320			1049	10.8	330			1128	10.8	330			1122	11.5	350			1210	11.8	360			0715	1.0	30	
	1814	1.6	50			1738	1.3	40			1811	1.3	40			1811	1.0	30			1900	1.6	50			1246	11.8	360	
	2345	11.5	350			2307	11.8	360			2340	11.5	350			2339	12.1	370								1944	1.0	30	
<b>2</b> Th	0641	1.0	30		<b>17</b> F	0615	0.7	20		<b>2</b> Sa	0631	1.0	30		<b>17</b> Su	0642	0.7	20		<b>2</b> Tu	0027	11.8	360		<b>17</b> W	0110	11.8	360	
	1211	11.2	340			1149	11.2	340			1205	11.2	340			1216	11.5	350			0717	1.3	40			0803	1.0	30	
	1855	1.3	40			1840	1.0	30			1852	1.3	40			1910	1.0	30			1252	11.8	360			1331	11.8	360	
<b>3</b> F	0021	11.5	350		<b>18</b> Sa	0003	12.1	370		<b>3</b> Su	0019	11.5	350		<b>18</b> M	0034	12.1	370		<b>3</b> W	0109	11.8	360		<b>18</b> Th	0156	11.5	350	
	0715	1.0	30			0710	0.3	10			0710	1.0	30			0737	0.7	20			0758	1.3	40			0843	1.0	30	
	1243	11.2	340			1241	11.5	350			1244	11.5	350			1306	11.8	360			1331	12.1	370			1412	12.1	370	
	1930	1.0	30			1934	0.7	20			1933	1.0	30			2003	0.7	20			2026	1.0	30			2110	0.7	20	
<b>4</b> Sa	0055	11.8	360		<b>19</b> Su	0054	12.1	370		<b>4</b> M	0058	11.8	360		<b>19</b> Tu	0125	12.1	370		<b>4</b> Th	0150	11.8	360		<b>19</b> F	0238	11.5	350	
	0749	1.0	30			0802	0.3	10			0750	1.0	30			0824	0.7	20			0839	1.0	30			0920	1.3	40	
	1316	11.5	350			1329	11.8	360			1321	11.8	360			1350	12.1	370			1410	12.1	370			1451	12.5	380	
	2005	1.0	30			2023	0.3	10			2013	1.0	30			2047	0.3	10			2107	1.0	30			2150	1.3	40	
<b>5</b> Su	0129	11.8	360		<b>20</b> M	0143	12.1	370		<b>5</b> Tu	0135	11.8	360		<b>20</b> W	0211	11.8	360		<b>5</b> F	0234	11.8	360		<b>20</b> Sa	0319	11.5	350	
	0823	1.0	30			0848	0.3	10			0826	1.0	30			0904	0.7	20			0920	1.0	30			0958	1.6	50	
	1349	11.5	350			1412	12.1	370			1356	11.8	360			1430	12.1	370			1450	12.1	370			1530	12.5	380	
	2040	0.7	20			2108	0.3	10			2049	1.0	30			2128	0.7	20			2149	1.0	30			2230	1.6	50	
<b>6</b> M	0202	11.8	360		<b>21</b> Tu	0229	12.1	370		<b>6</b> W	0211	11.8	360		<b>21</b> Th	0254	11.8	360		<b>6</b> Sa	0318	11.5	350		<b>21</b> Su	0359	11.5	350	
	0856	1.0	30			0930	0.7	20			0901	1.0	30			0942	1.0	30			1000	1.0	30			1034	1.6	50	
	1421	11.5	350			1453	12.1	370			1431	11.8	360			1510	12.1	370			1530	12.1	370			1607	12.5	380	
	2113	0.7	20			2151	0.7	20			2125	0.7	20			2209	1.0	30			2231	1.0	30			2305	1.6	50	
<b>7</b> Tu	0235	11.8	360		<b>22</b> W	0314	12.1	370		<b>7</b> Th	0249	11.5	350		<b>22</b> F	0337	11.5	350		<b>7</b> Su	0402	11.5	350		<b>22</b> M	0437	11.2	340	
	0927	1.0	30			1009	1.0	30			0937	1.0	30			1019	1.3	40			1040	1.3	40			1108	2.0	60	
	1454	11.5	350			1533	12.1	370			1506	11.8	360			1549	12.1	370			1613	12.1	370			1644	12.1	370	
	2146	0.7	20			2232	0.7	20			2202	0.7	20			2248	1.0	30			2314	1.0	30			2340	2.0	60	
<b>8</b> W	0309	11.5	350		<b>23</b> Th	0357	11.8	360		<b>8</b> F	0329	11.5	350		<b>23</b> Sa	0419	11.2	340		<b>8</b> M	0448	11.2	340		<b>23</b> Tu	0516	11.2	340	
	0959	1.0	30			1045	1.0	30			1011	1.0	30			1054	1.3	40			1124	1.6	50			1144	2.3	70	
	1528	11.5	350			1612	11.8	360			1543	11.8	360			1628	12.1	370			1700	12.1	370			1724	11.8	360	
	2220	0.7	20			2309	1.0	30			2239	0.7	20			2325	1.3	40											
<b>9</b> Th	0345	11.5	350		<b>24</b> F	0439	11.5	350		<b>9</b> Sa	0409	11.2	340		<b>24</b> Su	0501	11.2	340		<b>9</b> Tu	0002	1.3	40		<b>24</b> W	0015	2.3	70	
	1031	1.0	30			1118	1.3	40			1047	1.3	40			1130	1.6	50			0539	11.2	340			0556	10.8	330	
	1602	11.5	350			1650	11.8	360			1622	11.8	360			1709	11.8	360			1215	1.6	50			1222	2.3	70	
	2253	0.7	20			2343	1.3	40			2316	1.0	30								1754	12.1	370			1807	11.5	350	
<b>10</b> F	0420	11.2	340		<b>25</b> Sa	0521	10.8	330		<b>10</b> Su	0451	11.2	340		<b>25</b> M	0003	1.6	50		<b>10</b> W	0056	1.3	40		<b>25</b> Th	0054	2.3	70	
	1101	1.0	30			1152	1.6	50			1125	1.6	50			1209	2.3	70			0636	10.8	330			0641	10.5	320	
	1634	11.5	350			1732	11.5	350			1705	11.8	360			1755	11.5	350			1313	1.6	50			1308	2.6	80	
	2322	1.0	30								2358	1.3	40			1755	11.5	350			1854	11.8	360			1858	11.2	340	
<b>11</b> Sa	0454	10.8	330		<b>26</b> Su	0022	1.6	50		<b>11</b> M	0539	10.8	330		<b>26</b> Tu	0045	2.0	60		<b>11</b> Th	0156	1.3	40		<b>26</b> F	0143	2.3	70	
	1129	1.3	40			0609	10.5	320			1213	2.0	60			0634	10.2	310			0740	10.8	330			0735	10.5	320	
	1710	11.2	340			1234	2.0	60			1757	11.5	350			1257	2.3	70			1419	1.6	50			1406	2.6	80	
	2355	1.3	40			1824	11.2	340								1849	11.2	340			2002	11.8	360			1959	11.2	340	
<b>12</b> Su	0536	10.5	320		<b>27</b> M	0113	2.0	60		<b>12</b> Tu	0053	1.6	50		<b>27</b> W	0139	2.0	60		<b>12</b> F	0304	1.3	40		<b>27</b> Sa	0245	2.3	70	
	1210	2.0	60			0709	9.8	300			0639	10.5	320			0732	10.2	310			0849	10.8	330			0839	10.5	320	
	1800	10.8	330			1335	2.3	70			1316	2.0	60			1359	2.3	70			1530	2.0	60			1515	2.3	70	
						1932	10.8	330			1904	11.5	350			1954	10.8	330			2112	11.8	360			2106	11.2	340	
<b>13</b> M	0049	1.6	50		<b>28</b> Tu	0226	2.0	60		<b>13</b> W	0205	1.6	50		<b>28</b> Th	0245	2.0	60		<b>13</b> Sa	0413	1.3	40		<b>28</b> Su	0352	2.0	60	
	0640	10.2	310			0824	9.8	300			0754	10.5	320			0838	10.2	310			0956	11.2	340			0945	10.8	330	
	1319	2.3	70			1455	2.3	70			1435	2.0	60			1512	2.3	70			1640	1.6	50			1625	2.3	70	
	1913	10.8	330			2052	10.8	330			2021	11.5	350			2103	10.8	330			2218	11.8	360			2208	11.2	340	
<b>14</b> Tu	0213	1.6	50		<b>29</b> W	0349	1.6	50		<b>14</b> Th	0327																		

## Cuxhaven, Germany, 2015

## Times and Heights of High and Low Waters

July				August				September																
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height											
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> W	0646	1.6	50	<b>16</b> Th	0058	11.5	350	<b>1</b> Sa	0119	12.1	370	<b>16</b> Su	0203	11.8	360	<b>1</b> Tu	0235	12.1	370	<b>16</b> W	0238	11.8	360	
	1224	12.1	370		0746	1.3	40		0809	1.6	50		0844	1.6	50		0925	1.0	30		0924	1.6	50	
	1918	1.6	50		1317	12.1	370		1334	12.8	390		1414	12.5	380		1445	13.1	400		1451	12.1	370	2142
<b>2</b> Th	0046	11.8	360	<b>17</b> F	0143	11.5	350	<b>2</b> Su	0208	12.1	370	<b>17</b> M	0235	11.8	360	<b>2</b> W	0319	12.1	370	<b>17</b> Th	0309	11.8	360	
	0735	1.3	40		0826	1.3	40		0857	1.3	40		0918	1.6	50		1008	1.0	30		0954	1.6	50	
	1308	12.1	370		1357	12.5	380		1419	12.8	390		1447	12.5	380		1531	13.1	400		1521	12.1	370	2210
<b>3</b> F	2005	1.3	40	2055	1.3	40	2127	1.0	30	2142	1.6	50	2154	1.0	30	2237	1.3	40	2318	1.6	50	2341	1.6	50
	0134	12.1	370	<b>18</b> Sa	0223	11.5	350	<b>3</b> M	0254	12.1	370	<b>18</b> Tu	0306	11.8	360	<b>3</b> Th	0402	12.1	370	<b>18</b> F	0341	11.8	360	
	0822	1.3	40		0903	1.6	50		0942	1.0	30		0948	1.6	50		1051	1.3	40		1025	2.0	60	
1352	12.5	380	1435		12.8	390	1503		13.1	400	1517		12.5	380	1617		12.8	390	1554		11.8	360	2240	2.0
<b>4</b> Sa	2052	1.3	40	2133	1.6	50	2212	1.0	30	2210	2.0	60	2210	2.0	60	2318	1.6	50	2318	1.6	50	2318	1.6	50
	0222	12.1	370	<b>19</b> Su	0259	11.8	360	<b>4</b> Tu	0339	11.8	360	<b>19</b> W	0337	11.8	360	<b>4</b> F	0445	12.1	370	<b>19</b> Sa	0413	11.8	360	
	0909	1.3	40		0939	1.6	50		1023	1.0	30		1017	2.0	60		1133	1.3	40		1057	2.0	60	
1436	12.8	390	1510		12.8	390	1547		12.8	390	1548		12.1	370	1704		12.5	380	1627		11.8	360	2308	2.3
<b>5</b> Su	2139	1.0	30	2208	1.6	50	2256	1.0	30	2240	2.0	60	2240	2.0	60	2359	2.0	60	2359	2.0	60	2359	2.0	60
	0308	11.8	360	<b>20</b> M	0334	11.8	360	<b>5</b> W	0423	11.8	360	<b>20</b> Th	0411	11.5	350	<b>5</b> Sa	0529	11.8	360	<b>20</b> Su	0443	11.5	350	
	0952	1.3	40		1012	1.6	50		1106	1.0	30		1050	2.0	60		1215	2.0	60		1125	2.3	70	
1519	12.8	390	1543		12.5	380	1634		12.8	390	1622		12.1	370	1752		11.8	360	1657		11.5	350	2332	2.6
<b>6</b> M	2224	1.0	30	2239	2.0	60	2341	1.3	40	2341	1.3	40	2311	2.3	70	2311	2.3	70	2311	2.3	70	2311	2.3	70
	0353	11.8	360	<b>21</b> Tu	0408	11.5	350	<b>6</b> Th	0510	11.8	360	<b>21</b> F	0445	11.5	350	<b>6</b> Su	0039	2.3	70	<b>21</b> M	0514	11.5	350	
	1033	1.3	40		1043	2.0	60		1153	1.3	40		1124	2.3	70		1300	2.3	70		1153	2.3	70	
1602	12.5	380	1616		12.5	380	1725		12.5	380	1656		12.1	370	1846		11.2	340	1734		10.8	330	1734	10.8
<b>7</b> Tu	2308	1.0	30	2310	2.0	60	2310	2.0	60	2310	2.0	60	2310	2.0	60	2310	2.0	60	2310	2.0	60	2310	2.0	60
	0439	11.5	350	<b>22</b> W	0443	11.5	350	<b>7</b> F	0027	1.6	50	<b>22</b> Sa	0518	11.5	350	<b>7</b> M	0125	2.6	80	<b>22</b> Tu	0006	3.0	90	
	1118	1.3	40		1117	2.3	70		0558	11.5	350		1153	2.3	70		0712	11.2	340		0559	10.8	330	
1650	12.5	380	1652		12.1	370	1241		1.6	50	1729		11.5	350	1401		2.6	80	1241		2.6	80	1834	10.5
<b>8</b> W	2357	1.3	40	2343	2.3	70	2343	2.3	70	2343	2.3	70	2343	2.3	70	2343	2.3	70	2343	2.3	70	2343	2.3	70
	0529	11.5	350	<b>23</b> Th	0520	11.5	350	<b>8</b> Sa	0112	2.0	60	<b>23</b> Su	0006	2.6	80	<b>8</b> Tu	0234	3.0	90	<b>23</b> W	0110	3.3	100	
	1209	1.6	50		1151	2.3	70		0647	11.5	350		0551	11.2	340		0829	11.2	340		0711	10.8	330	
1743	12.5	380	1729		12.1	370	1330		2.0	60	1224		2.6	80	1526		2.6	80	1401		3.0	90	1959	10.5
<b>9</b> Th	1914	11.8	360	1914	11.8	360	1914	11.8	360	1914	11.8	360	1914	11.8	360	1914	11.8	360	1914	11.8	360	1914	11.8	360
	0048	1.3	40	<b>24</b> F	0015	2.3	70	<b>9</b> Su	0202	2.3	70	<b>24</b> M	0044	2.6	80	<b>9</b> W	0403	3.0	90	<b>24</b> Th	0242	3.3	100	
	0622	11.2	340		0556	11.2	340		0746	11.2	340		0640	10.8	330		0957	11.5	350		0840	11.2	340	
1301	1.6	50	1226		2.6	80	1433		2.3	70	1317		2.6	80	1659		2.6	80	1537		2.6	80	2131	10.8
<b>10</b> F	1839	12.1	370	1809	11.5	350	2023	11.2	340	2023	11.2	340	2023	11.2	340	2023	11.2	340	2023	11.2	340	2023	11.2	340
	0139	1.6	50	<b>25</b> Sa	0049	2.3	70	<b>10</b> M	0309	2.6	80	<b>25</b> Tu	0151	3.0	90	<b>10</b> Th	0529	2.6	80	<b>25</b> F	0418	3.0	90	
	0717	11.2	340		0639	10.8	330		0900	11.2	340		0752	10.8	330		1113	11.8	360		1004	11.5	350	
1357	2.0	60	1308		2.6	80	1553		2.3	70	1437		2.6	80	1813		2.0	60	1705		2.0	60	2249	11.2
<b>11</b> Sa	1940	11.8	360	1859	11.2	340	2142	11.2	340	2142	11.2	340	2142	11.2	340	2142	11.2	340	2142	11.2	340	2142	11.2	340
	0235	1.6	50	<b>26</b> Su	0139	2.6	80	<b>11</b> Tu	0430	2.6	80	<b>26</b> W	0318	2.6	80	<b>11</b> F	0630	2.3	70	<b>26</b> Sa	0538	2.3	70	
	0820	11.2	340		0736	10.8	330		1018	11.5	350		0916	10.8	330		1205	12.1	370		1111	11.8	360	
1503	2.0	60	1411		2.6	80	1716		2.3	70	1608		2.3	70	1900		1.6	50	1813		1.6	50	2351	11.5
<b>12</b> Su	2048	11.8	360	2005	11.2	340	2258	11.2	340	2258	11.2	340	2258	11.2	340	2258	11.2	340	2258	11.2	340	2258	11.2	340
	0342	2.0	60	<b>27</b> M	0248	2.6	80	<b>12</b> W	0546	2.3	70	<b>27</b> Th	0446	2.3	70	<b>12</b> Sa	0031	11.5	350	<b>27</b> Su	0640	2.0	60	
	0928	11.2	340		0847	10.8	330		1127	11.8	360		1033	11.5	350		0711	2.0	60		1204	12.1	370	
1617	2.0	60	1528		2.6	80	1825		1.6	50	1729		2.0	60	1242		12.1	370	1909		1.3	40		
<b>13</b> M	2200	11.5	350	2119	11.2	340	2119	11.2	340	2119	11.2	340	2119	11.2	340	2119	11.2	340	2119	11.2	340	2119	11.2	340
	0453	2.0	60	<b>28</b> Tu	0405	2.3	70	<b>13</b> Th	0000	11.5	350	<b>28</b> F	0600	2.0	60	<b>13</b> Su	0103	11.5	350	<b>28</b> M	0043	11.8	360	
	1036	11.5	350		0959	11.2	340		0645	2.0	60		1135	11.8	360		0744	2.0	60		0732	1.6	50	
1729	2.0	60	1647		2.3	70	1220		12.1	370	1835		1.6	50	1315		12.1	370	1252		12.5	380		
<b>14</b> Tu	2306	11.5	350	2229	11.2	340	1916	1.6	50	1916	1.6	50	1916	1.6	50	1916	1.6	50	1916	1.6	50	1916	1.6	50
	0600	1.6	50	<b>29</b> W	0517	2.0	60	<b>14</b> F	0047	11.5	350	<b>29</b> Sa	0011	11.8	360	<b>14</b> M	0135	11.8	360	<b>29</b> Tu	0129	12.1	370	
	1138	11.8	360		1102	11.5	350		0730	1.6	50		0701	1.6	50		0819	1.6	50		0820	1.3	40	
1834	1.3	40	1756		2.0	60	1302		12.1	370	1227		12.5	380	1348		12.1	370	1338		12.8	390		

# Cuxhaven, Germany, 2015

## Times and Heights of High and Low Waters

October				November				December									
Day	Time		Height		Day	Time		Height		Day	Time		Height				
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm			
1 Th	0257	12.5	380		16 Su	0355	12.1	370		1 Tu	0415	12.5	380				
	0950	1.3	40	16 F		1053	1.6	50	16 M		1019	2.0	60	16 W	1115	2.0	60
	1513	12.8	390			0932	1.6	50			1548	11.5	350		1647	11.2	340
	2214	1.6	50			1457	11.8	360			2225	2.0	60		2319	2.6	80
			2144		1.6	50											
2 F	0339	12.5	380		2 M	0435	12.1	370		2 W	0455	12.1	370				
	1033	1.3	40	17 Sa		1130	2.0	60	17 Tu		1053	2.0	60	17 Th	1152	2.3	70
	1559	12.5	380			0314	11.8	360			1627	11.2	340		1730	10.8	330
	2253	1.6	50			1003	1.6	50			2300	2.6	80		2358	3.0	90
			1529		11.8	360											
3 Sa	0419	12.1	370		3 Tu	0518	11.8	360		3 Th	0539	11.8	360				
	1112	1.6	50	18 Su		1210	2.3	70	18 W		1132	2.3	70	18 F	1232	2.6	80
	1643	12.1	370			1034	2.0	60			1710	11.2	340		1818	10.5	320
	2329	2.0	60			1603	11.5	350			2343	3.0	90				
			2241		2.0	60											
4 Su	0500	11.8	360		4 W	0023	3.0	90		4 F	0043	3.3	100				
	1150	2.0	60	19 M		0609	11.5	350	19 Th		1222	2.6	80	19 Sa	0629	11.5	350
	1727	11.5	350			1301	3.0	90			1804	10.8	330		1322	3.0	90
						1854	10.2	310							1913	10.2	310
			2310		2.6	80											
5 M	0006	2.6	80		5 Th	0120	3.3	100		5 Sa	0140	3.3	100				
	0544	11.5	350	20 Tu		0714	11.2	340	20 F		0627	11.5	350	20 Su	0731	11.2	340
	1232	2.3	70			1410	3.0	90			1327	2.6	80		1426	3.0	90
	1819	10.8	330			2006	10.2	310			1914	10.5	320		2018	10.2	310
			2348		3.0	90											
6 Tu	0052	3.0	90		6 F	0236	3.6	110		6 Su	0251	3.3	100				
	0639	11.2	340	21 W		0832	11.2	340	21 Sa		0741	11.5	350	21 M	0842	11.2	340
	1330	2.6	80			1533	3.0	90			2035	10.8	330		1538	3.0	90
	1927	10.5	320			2124	10.2	310							2126	10.5	320
7 W	0157	3.3	100		7 Sa	0401	3.3	100		7 M	0405	3.0	90				
	0754	11.2	340	22 Th		0949	11.2	340	22 Su		0901	11.8	360	22 Tu	0950	11.2	340
	1452	3.0	90			1650	2.6	80			1606	2.3	70		1644	2.6	80
	2051	10.2	310			2232	10.5	320			2151	11.2	340		2227	10.8	330
8 Th	0326	3.3	100		8 Su	0512	3.0	90		8 M	0509	3.0	90				
	0923	11.2	340	23 F		1050	11.5	350	23 Th		1012	11.8	360	23 W	1047	11.5	350
	1626	3.0	90			1746	2.3	70			1715	2.0	60		1739	2.3	70
	2216	10.5	320			2321	11.2	340			2257	11.5	350		2318	11.2	340
9 F	0456	3.0	90		9 M	0601	2.3	70		9 W	0603	2.6	80				
	1042	11.5	350	24 Sa		1134	11.8	360	24 Tu		1114	12.1	370	24 Th	1135	11.8	360
	1743	2.3	70			1824	2.0	60			1816	1.6	50		1825	2.3	70
	2322	10.8	330			2357	11.5	350			2353	11.8	360				
10 Sa	0601	2.6	80		10 Tu	0641	2.3	70		10 Th	0001	11.5	350				
	1136	11.8	360	25 Su		1212	11.8	360	25 W		1210	12.1	370	25 F	0650	2.3	70
	1831	2.0	60			1746	1.6	50			1912	1.3	40		1219	11.8	360
						2326	11.5	350							1907	2.3	70
11 Su	0002	11.2	340		11 W	0033	11.8	360		11 F	0042	11.8	360				
	0642	2.0	60	26 M		0721	2.0	60	26 Th		0741	1.6	50	26 Sa	0734	2.3	70
	1212	11.8	360			1250	11.8	360			1302	12.1	370		1300	11.8	360
	1902	1.6	50			1938	2.0	60			2002	1.3	40		1948	2.0	60
12 M	0032	11.5	350		12 Th	0110	11.8	360		12 F	0120	12.1	370				
	0715	2.0	60	27 Tu		0800	2.0	60	27 F		0828	1.3	40	27 Sa	0813	2.0	60
	1245	11.8	360			1326	11.8	360			1349	12.1	370		1339	11.8	360
	1934	1.6	50			2015	2.0	60			2045	1.3	40		2027	2.0	60
13 Tu	0104	11.5	350		13 F	0145	11.8	360		13 Sa	0156	12.1	370				
	0750	1.6	50	28 W		0837	1.6	50	28 Su		0911	1.3	40	28 M	0852	2.0	60
	1319	11.8	360			1401	11.8	360			1434	11.8	360		1420	11.8	360
	2010	1.6	50			2049	1.6	50			2125	1.6	50		2106	2.0	60
14 W	0138	11.8	360		14 Sa	0219	12.1	370		14 Su	0234	12.1	370				
	0827	1.6	50	29 Th		0911	1.6	50	29 M		0954	1.6	50	29 Tu	0932	1.6	50
	1353	11.8	360			1406	12.5	380			1519	11.8	360		1500	11.8	360
	2044	1.6	50			2107	1.3	40			2205	2.0	60		2144	2.0	60
15 Th	0211	11.8	360		15 Su	0252	12.1	370		15 M	0311	12.5	380				
	0900	1.6	50	30 F		0945	1.6	50	30 Th		1036	2.0	60	30 W	1010	1.6	50
	1425	11.8	360			1453	12.5	380			1604	11.5	350		1539	11.5	350
	2115	1.6	50			2148	1.6	50			2242	2.3	70		2218	2.0	60
				31 Sa	0315	12.5	380		31 Th	0431	12.1	370					
			31 Su		1013	1.6	50	31 M		1130	2.3	70	31 Tu	1130	2.3	70	
					1538	12.1	370			1701	11.2	340		2332	2.6	80	
					2227	2.0	60										

Time meridian 15° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Hamburg, Germany, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0029	12.5	380	<b>16</b> F	0635	2.0	60	<b>1</b> Su	0218	12.8	390	<b>16</b> M	0112	12.5	380	<b>1</b> Su	0020	12.5	380	<b>16</b> M	0633	1.0	30
	0739	1.6	50		1156	12.8	390		0945	1.3	40		0839	1.3	40		0752	1.3	40		1154	12.1	370
	1259	13.1	400		1916	1.6	50		1457	12.8	390		1353	12.5	380		1314	12.1	370		1913	1.3	40
	2021	1.6	50						2210	1.3	40		2113	1.3	40		2028	1.6	50				
<b>2</b> F	0139	12.8	390	<b>17</b> Sa	0042	12.5	380	<b>2</b> M	0322	13.1	400	<b>17</b> Tu	0229	13.1	400	<b>2</b> M	0148	12.8	390	<b>17</b> Tu	0037	12.5	380
	0854	1.6	50		0756	2.0	60		1048	1.0	30		0957	1.0	30		0923	1.3	40		0812	1.0	30
	1410	13.1	400		1313	12.8	390		1554	12.8	390		1507	12.8	390		1436	12.5	380		1328	12.5	380
	2128	1.6	50		2033	1.6	50		2303	1.3	40		2224	1.0	30		2149	1.3	40		2047	1.3	40
<b>3</b> Sa	0244	13.1	400	<b>18</b> Su	0155	12.8	390	<b>3</b> Tu	0412	13.5	410	<b>18</b> W	0331	13.5	410	<b>3</b> Tu	0301	13.1	400	<b>18</b> W	0201	13.1	400
	1002	1.3	40		0913	1.6	50		1136	1.0	30		1102	0.7	20		1032	1.0	30		0936	0.7	20
	1513	13.1	400		1424	12.8	390		1639	12.8	390		1607	13.1	400		1536	12.8	390		1446	12.8	390
	2227	1.3	40		2142	1.3	40		2345	1.3	40		2322	1.0	30		2246	1.3	40		2203	1.0	30
<b>4</b> Su	0340	13.1	400	<b>19</b> M	0259	13.1	400	<b>4</b> W	0451	13.8	420	<b>19</b> Th	0423	13.8	420	<b>4</b> W	0352	13.5	410	<b>19</b> Th	0307	13.5	410
	1100	1.0	30		1019	1.3	40		1215	1.0	30		1156	0.7	20		1117	1.0	30		1042	0.7	20
	1607	12.8	390		1527	13.1	400		1716	13.1	400		1657	13.5	410		1617	13.1	400		1547	13.1	400
	2318	1.0	30		2242	1.3	40		○				●				2326	1.3	40		2302	0.7	20
<b>5</b> M	0428	13.5	410	<b>20</b> Tu	0353	13.5	410	<b>5</b> Th	0021	1.3	40	<b>20</b> F	0013	0.7	20	<b>5</b> Th	0428	13.8	420	<b>20</b> F	0401	13.8	420
	1150	1.0	30		1117	1.0	30		0525	14.1	430		0510	14.1	430		1152	1.0	30		1137	0.3	10
	1654	12.8	390		1622	13.1	400		1249	1.3	40		1246	0.7	20		1651	13.1	400		1637	13.5	410
					●	2336	1.0		30	1748	13.1		400	1744	13.5		410	○				●	2354
<b>6</b> Tu	0000	1.0	30	<b>21</b> W	0441	13.8	420	<b>6</b> F	0054	1.3	40	<b>21</b> Sa	0102	0.7	20	<b>6</b> F	0000	1.3	40	<b>21</b> Sa	0450	14.1	430
	0508	13.5	410		1209	1.0	30		0558	14.1	430		0556	14.4	440		0500	13.8	420		1226	0.3	10
	1230	1.0	30		1713	13.5	410		1321	1.3	40		1335	0.7	20		1224	1.0	30		1723	13.5	410
	1733	12.8	390						1817	13.5	410		1830	13.5	410		1721	13.1	400				
<b>7</b> W	0036	1.3	40	<b>22</b> Th	0027	1.0	30	<b>7</b> Sa	0126	1.3	40	<b>22</b> Su	0148	0.7	20	<b>7</b> Sa	0033	1.0	30	<b>22</b> Su	0042	0.3	10
	0544	13.8	420		0528	14.1	430		0629	14.1	430		0642	14.4	440		0532	13.8	420		0536	14.1	430
	1306	1.3	40		1300	1.0	30		1350	1.6	50		1420	0.7	20		1254	1.0	30		1312	0.3	10
	1808	13.1	400		1802	13.5	410		1847	13.5	410		1914	13.5	410		1750	13.1	400		1808	13.8	420
<b>8</b> Th	0110	1.3	40	<b>23</b> F	0117	1.0	30	<b>8</b> Su	0156	1.3	40	<b>23</b> M	0232	0.7	20	<b>8</b> Su	0104	1.0	30	<b>23</b> M	0128	0.7	20
	0619	14.1	430		0615	14.4	440		0658	13.8	420		0727	14.4	440		0603	13.8	420		0622	14.4	440
	1341	1.6	50		1351	1.0	30		1418	1.3	40		1502	0.7	20		1323	1.0	30		1355	0.7	20
	1842	13.1	400		1850	13.5	410		1917	13.1	400		1956	13.5	410		1819	13.5	410		1851	13.8	420
<b>9</b> F	0144	1.6	50	<b>24</b> Sa	0203	1.0	30	<b>9</b> M	0225	1.3	40	<b>24</b> Tu	0313	0.7	20	<b>9</b> M	0135	1.0	30	<b>24</b> Tu	0213	0.7	20
	0652	14.1	430		0700	14.4	440		0729	13.8	420		0812	14.1	430		0633	13.5	410		0707	14.4	440
	1414	1.6	50		1438	1.0	30		1449	1.3	40		1541	1.0	30		1352	1.3	40		1436	1.0	30
	1914	13.1	400		1934	13.1	400		1951	13.1	400		2037	13.5	410		1851	13.1	400		1931	13.8	420
<b>10</b> Sa	0215	1.6	50	<b>25</b> Su	0245	1.0	30	<b>10</b> Tu	0257	1.3	40	<b>25</b> W	0352	1.0	30	<b>10</b> Tu	0206	1.0	30	<b>25</b> W	0254	0.7	20
	0723	13.8	420		0744	14.4	440		0802	13.8	420		0855	13.8	420		0705	13.5	410		0751	13.8	420
	1443	1.6	50		1520	1.0	30		1521	1.6	50		1618	1.0	30		1424	1.0	30		1513	1.0	30
	1946	13.1	400		2017	13.1	400		2024	13.1	400		2117	13.1	400		1925	13.1	400		2009	13.8	420
<b>11</b> Su	0245	1.6	50	<b>26</b> M	0326	1.0	30	<b>11</b> W	0330	1.6	50	<b>26</b> Th	0432	1.0	30	<b>11</b> W	0239	1.0	30	<b>26</b> Th	0332	0.7	20
	0754	13.8	420		0830	14.1	430		0833	13.5	410		0940	13.1	400		0739	13.5	410		0832	13.5	410
	1513	1.6	50		1603	1.0	30		1549	1.6	50		1656	1.3	40		1457	1.0	30		1548	1.0	30
	2019	12.8	390		2102	13.1	400		2054	13.1	400		2200	12.8	390		1959	13.5	410		2047	13.5	410
<b>12</b> M	0317	2.0	60	<b>27</b> Tu	0410	1.0	30	<b>12</b> Th	0359	1.6	50	<b>27</b> F	0519	1.0	30	<b>12</b> Th	0311	1.0	30	<b>27</b> F	0408	1.0	30
	0827	13.5	410		0918	13.8	420		0904	13.1	400		1034	12.5	380		0811	13.5	410		0914	12.8	390
	1545	1.6	50		1647	1.0	30		1617	1.6	50		1745	1.3	40		1524	1.0	30		1623	1.3	40
	2054	12.8	390		2148	12.8	390		2129	12.5	380		2259	12.5	380		2027	13.1	400		2128	13.1	400
<b>13</b> Tu	0352	2.0	60	<b>28</b> W	0457	1.0	30	<b>13</b> F	0437	1.6	50	<b>28</b> Sa	0624	1.0	30	<b>13</b> F	0338	1.0	30	<b>28</b> Sa	0450	1.0	30
	0903	13.5	410		1009	13.5	410		0949	12.5	380		1146	12.1	370		0839	12.8	390		1003	12.1	370
	1619	2.0	60		1732	1.3	40		1703	1.6	50		1858	1.6	50		1548	1.0	30		1708	1.3	40
	2131	12.5	380		2239	12.5	380		2225	12.5	380						2056	12.8	390		2223	12.8	390
<b>14</b> W	0430	2.0	60	<b>29</b> Th	0551	1.3	40	<b>14</b> Sa	0540	1.6	50	<b>14</b> Sa	0540	1.6	50	<b>14</b> Sa	0410	1.0	30	<b>29</b> Su	0550	1.0	30
	0946	13.1	400		1109	12.8	390		1058	12.1	370		1817	1.6	50		0916	12.5	380		1111	11.8	360
	1701	2.0	60		1827	1.6	50		2345	12.5	380		2345	12.5	380		1626	1.3	40		1817	1.6	50
	2220	12.5	380		2343	12.5	380								2145		12.5	380	2341		12.5	380	
<b>15</b> Th	0523	2.0	60	<b>30</b> F	0702	1.3	40	<b>15</b> Su	0708	1.6	50	<b>15</b> Su	0506	1.0	30	<b>15</b> Su	0506	1.0	30	<b>30</b> M	0715	1.0	30
	1044	12.8	390		1223	12.8	390		1226	12.1	370		1022	12.1	370		1022	12.1	370		1237	11.8	360
	1801	2.0	60		1940	1.6	50		1947	1.3	40		1737	1.3	40		1737	1.3	40		1947	1.3	40
	2326	12.5	380										2304	12.1	370								

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## Times and Heights of High and Low Waters

April				May				June																										
Time	Height			Time	Height			Time	Height			Time	Height																					
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0228	12.8	390		<b>16</b> Th	0135	13.1	400		<b>1</b> F	0236	12.8	390		<b>16</b> Sa	0215	13.5	410		<b>1</b> M	0319	13.1	400		<b>16</b> Tu	0354	13.1	400						
	0959	1.0	30			0913	0.7	20			0957	0.7	20			0948	0.7	20			1034	1.0	30			1114	0.7	20						
	1505	12.5	380			1423	12.8	390			1504	12.8	390			1456	13.1	400			1546	13.1	400			1622	13.1	400						
	2215	1.0	30			2136	1.0	30			2212	1.0	30			2209	1.0	30			2259	1.0	30			●	2345	0.7	20					
<b>2</b> Th	0320	13.1	400		<b>17</b> F	0241	13.5	410		<b>2</b> Sa	0317	13.1	400		<b>17</b> Su	0313	13.5	410		<b>2</b> Tu	0403	13.1	400		<b>17</b> W	0447	13.1	400		<b>17</b> Th	0533	13.1	400	
	1045	0.7	20			1016	0.3	10			1035	0.7	20			1043	0.3	10			1119	1.0	30			1203	0.7	20						
	1545	12.8	390			1522	13.1	400			1541	13.1	400			1550	13.1	400			1627	13.5	410			1627	13.5	410						
	2255	1.0	30			2236	0.7	20			2252	1.0	30			2308	0.7	20			2344	1.0	30			○	2344	1.0	30					
<b>3</b> F	0356	13.5	410		<b>18</b> Sa	0336	13.8	420		<b>3</b> Su	0355	13.5	410		<b>18</b> M	0409	13.8	420		<b>3</b> W	0446	13.1	400		<b>18</b> Th	0532	0.3	10		<b>18</b> Fr	0654	13.1	400	
	1117	0.7	20			1111	0.3	10			1113	1.0	30			1137	0.3	10			1200	1.0	30			1243	0.7	20						
	1618	13.1	400			1614	13.1	400			1619	13.5	410			1641	13.5	410			1706	13.5	410			1748	13.8	420						
	2330	1.0	30			●	2331	0.7	20			2333	1.0	30			●																	
<b>4</b> Sa	0429	13.5	410		<b>19</b> Su	0428	13.8	420		<b>4</b> M	0433	13.5	410		<b>19</b> Tu	0003	0.3	10		<b>4</b> Th	0026	1.0	30		<b>19</b> F	0112	0.7	20						
	1150	1.0	30			1202	0.3	10			1151	1.0	30			0501	13.5	410			0527	13.1	400			0614	13.1	400						
	1651	13.1	400			1702	13.5	410			1655	13.5	410			1224	0.3	10			1239	0.7	20			1320	1.0	30						
	○															1726	13.5	410			1744	13.8	420			1827	14.1	430						
<b>5</b> Su	0005	1.0	30		<b>20</b> M	0022	0.3	10		<b>5</b> Tu	0012	0.7	20		<b>20</b> W	0049	0.3	10		<b>5</b> F	0108	0.7	20		<b>20</b> Sa	0151	1.0	30						
	0503	13.5	410			0517	14.1	430			0511	13.5	410			0546	13.5	410			0609	13.1	400			0654	13.1	400						
	1224	1.0	30			1247	0.3	10			1227	0.7	20			1304	0.7	20			1319	1.0	30			1358	1.3	40						
	1723	13.5	410			1745	13.8	420			1730	13.5	410			1805	13.8	420			1824	13.8	420			1906	14.1	430						
<b>6</b> M	0039	0.7	20		<b>21</b> Tu	0108	0.3	10		<b>6</b> W	0049	0.7	20		<b>21</b> Th	0130	0.3	10		<b>6</b> Sa	0150	0.7	20		<b>21</b> Su	0231	1.3	40						
	0537	13.5	410			0602	14.1	430			0547	13.1	400			0629	13.5	410			0652	13.1	400			0733	13.1	400						
	1255	1.0	30			1329	0.7	20			1301	0.7	20			1342	1.0	30			1359	1.0	30			1433	1.3	40						
	1754	13.5	410			1826	13.8	420			1804	13.5	410			1844	13.8	420			1904	13.8	420			1944	14.1	430						
<b>7</b> Tu	0112	0.7	20		<b>22</b> W	0151	0.7	20		<b>7</b> Th	0126	0.7	20		<b>22</b> F	0211	0.7	20		<b>7</b> Su	0232	0.7	20		<b>22</b> M	0306	1.3	40						
	0609	13.5	410			0647	13.8	420			0624	13.1	400			0711	13.1	400			0735	13.1	400			0811	12.8	390						
	1326	1.0	30			1408	1.0	30			1336	0.7	20			1419	1.0	30			1439	1.0	30			1507	1.6	50						
	1826	13.5	410			1906	13.8	420			1840	13.5	410			1924	13.8	420			1946	13.8	420			2020	13.8	420						
<b>8</b> W	0146	0.7	20		<b>23</b> Th	0233	0.7	20		<b>8</b> F	0203	0.3	10		<b>23</b> Sa	0250	1.0	30		<b>8</b> M	0315	0.7	20		<b>23</b> Tu	0341	1.6	50						
	0643	13.5	410			0730	13.5	410			0703	13.1	400			0752	13.1	400			0821	12.8	390			0848	12.8	390						
	1359	0.7	20			1445	1.0	30			1411	0.7	20			1455	1.3	40			1524	1.3	40			1544	1.6	50						
	1901	13.5	410			1944	13.8	420			1917	13.5	410			2003	13.8	420			2033	13.8	420			2059	13.5	410						
<b>9</b> Th	0220	0.7	20		<b>24</b> F	0311	0.7	20		<b>9</b> Sa	0239	0.3	10		<b>24</b> Su	0328	1.0	30		<b>9</b> Tu	0404	1.0	30		<b>24</b> W	0417	1.6	50						
	0719	13.1	400			0811	13.1	400			0742	12.8	390			0833	12.8	390			0912	12.8	390			0929	12.5	380						
	1432	0.7	20			1519	1.0	30			1447	1.0	30			1531	1.3	40			1616	1.3	40			1623	1.6	50						
	1935	13.5	410			2023	13.5	410			1954	13.5	410			2044	13.8	420			○	2127	13.8	420			○	2141	13.1	400				
<b>10</b> F	0254	0.7	20		<b>25</b> Sa	0347	1.0	30		<b>10</b> Su	0318	0.7	20		<b>25</b> M	0406	1.3	40		<b>10</b> W	0500	1.0	30		<b>25</b> Th	0458	1.6	50						
	0754	13.1	400			0852	12.8	390			0823	12.8	390			0916	12.5	380			1010	12.5	380			1014	12.1	370						
	1502	1.0	30			1555	1.3	40			1526	1.0	30			1611	1.6	50			1714	1.3	40			1709	1.6	50						
	2007	13.5	410			2104	13.1	400			2036	13.5	410			○	2127	13.5	410			2229	13.5	410			2231	12.8	390					
<b>11</b> Sa	0325	0.7	20		<b>26</b> Su	0428	1.0	30		<b>11</b> M	0402	1.0	30		<b>26</b> Tu	0450	1.3	40		<b>11</b> Th	0600	1.0	30		<b>26</b> F	0547	1.3	40						
	0827	12.8	390			0939	12.1	370			0910	12.5	380			1004	12.1	370			1114	12.1	370			1109	12.1	370						
	1532	1.0	30			1638	1.3	40			1614	1.3	40			1700	1.6	50			1820	1.0	30			1807	1.6	50						
	2040	13.1	400			○	2154	13.1	400			○	2128	13.1		400		2220	12.8		390		2337	13.5		410		2333	12.8	390				
<b>12</b> Su	0400	0.7	20		<b>27</b> M	0520	1.3	40		<b>12</b> Tu	0458	1.0	30		<b>27</b> W	0544	1.3	40		<b>12</b> F	0707	0.7	20		<b>27</b> Sa	0649	1.3	40						
	0907	12.5	380			1038	11.8	360			1101	12.5	380			1103	11.8	360			1224	12.5	380			1214	12.1	370						
	1613	1.3	40			1738	1.3	40			1718	1.3	40			1802	1.3	40			1931	1.3	40			1916	1.6	50						
	○	2129	12.8	390			2301	12.8	390			2235	13.1	400			2326	12.5	380															
<b>13</b> M	0455	1.0	30		<b>28</b> Tu	0631	1.0	30		<b>13</b> W	0609	0.7	20		<b>28</b> Th	0650	1.0	30		<b>13</b> Sa	0047	13.5	410		<b>28</b> Su	0040	12.8	390						
	1010	12.1	370			1153	11.5	350			1126	12.1	370			1212	11.8	360			0816	1.0	30			0757	1.3	40						
	1720	1.3	40			1857	1.3	40			1836	1.3	40			1914	1.3	40			1331	12.8	390			1321	12.5	380						

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## Times and Heights of High and Low Waters

July				August				September																													
Time	Height			Time	Height			Time	Height			Time	Height																								
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																							
<b>1</b> W	0334	13.1	400		<b>16</b> Th	0436	12.8	390		<b>1</b> Sa	0456	13.5	410		<b>16</b> Su	0036	1.3	40		<b>1</b> Tu	0107	0.7	20		<b>16</b> W	0109	1.3	40									
	1048	1.3	40			1145	1.0	30			1207	1.3	40			0540	13.1	400			0611	13.5	410			0614	13.1	400									
	1601	13.5	410			1654	13.5	410			1711	14.1	430			1242	1.3	40			1322	1.0	30			1321	1.0	30		1822	14.4	440		1828	13.5	410	
	2318	1.3	40	●																																	
<b>2</b> Th ○	0424	13.1	400		<b>17</b> F	0016	0.7	20		<b>2</b> Su	0039	1.0	30		<b>17</b> M	0110	1.3	40		<b>2</b> W	0153	1.0	30		<b>17</b> Th	0138	1.3	40									
	1136	1.0	30			0521	12.8	390			0544	13.5	410			0612	13.1	400			0655	13.5	410			0643	13.1	400									
	1645	13.8	420			1225	1.0	30			1254	1.0	30			1316	1.3	40			1406	1.0	30			1451	1.3	40		1351	1.3	40					
				1733		13.8	420		1756		14.1	430		1823		13.8	420		1908		14.4	440		1908		14.4	440		1858	13.5	410						
<b>3</b> F	0006	1.0	30		<b>18</b> Sa	0056	1.0	30		<b>3</b> M	0127	1.0	30		<b>18</b> Tu	0140	1.6	50		<b>3</b> Th	0236	1.0	30		<b>18</b> F	0207	1.3	40									
	0511	13.5	410			0600	13.1	400			0630	13.5	410			0642	13.1	400			0737	13.5	410			0715	13.1	400									
	1222	1.0	30			1302	1.3	40			1340	1.0	30			1347	1.3	40			1448	1.0	30			1422	1.3	40		1930	13.5	410					
	1728	14.1	430			1811	14.1	430			1840	14.4	440			1854	13.8	420			1953	14.1	430			1930	13.5	410									
<b>4</b> Sa	0053	1.0	30		<b>19</b> Su	0133	1.3	40		<b>4</b> Tu	0213	0.7	20		<b>19</b> W	0208	1.6	50		<b>4</b> F	0316	1.3	40		<b>19</b> Sa	0238	1.3	40									
	0557	13.5	410			0636	13.1	400			0714	13.1	400			0712	13.1	400			0819	13.5	410			0748	13.1	400									
	1307	1.0	30			1338	1.3	40			1422	1.0	30			1416	1.3	40			1530	1.0	30			1454	1.3	40		1523	1.3	40					
	1811	14.1	430			1847	14.1	430			1924	14.1	430			1924	13.8	420			2040	13.8	420			2003	13.1	400									
<b>5</b> Su	0140	1.0	30		<b>20</b> M	0208	1.6	50		<b>5</b> W	0256	1.0	30		<b>20</b> Th	0238	1.6	50		<b>5</b> Sa	0357	1.3	40		<b>20</b> Su	0306	1.6	50									
	0643	13.1	400			0710	13.1	400			0758	13.1	400			0745	13.1	400			0903	13.1	400			0818	13.1	400									
	1351	1.0	30			1411	1.3	40			1504	1.0	30			1447	1.6	50			1614	1.3	40			1614	1.3	40		2034	12.8	390					
	1854	14.1	430			1920	14.1	430			2011	14.1	430			1958	13.5	410			2128	13.1	400	○		2034	12.8	390									
<b>6</b> M	0225	0.7	20		<b>21</b> Tu	0239	1.6	50		<b>6</b> Th	0341	1.0	30		<b>21</b> F	0310	1.6	50		<b>6</b> Su	0438	1.6	50		<b>21</b> M	0332	1.6	50									
	0727	13.1	400			0742	13.1	400			0845	13.1	400			0820	13.1	400			0949	12.8	390			0848	12.8	390									
	1433	1.0	30			1442	1.6	50			1550	1.0	30			1521	1.6	50			1701	1.3	40			1553	1.6	50		2109	12.1	370					
	1937	14.1	430			1953	13.8	420			2102	13.8	420			2033	13.5	410			2221	12.8	390			2109	12.1	370	○								
<b>7</b> Tu	0310	0.7	20		<b>22</b> W	0310	1.6	50		<b>7</b> F	0427	1.3	40		<b>22</b> Sa	0341	2.0	60		<b>7</b> M	0525	2.0	60		<b>22</b> Tu	0406	1.6	50									
	0813	12.8	390			0817	12.8	390			0934	13.1	400			0852	13.1	400			1046	12.8	390			0932	12.5	380									
	1517	1.0	30			1515	1.6	50			1640	1.3	40			1552	1.6	50			1803	1.6	50			1642	1.6	50									
	2025	14.1	430			2028	13.8	420			2154	13.5	410	○		2105	13.1	400	○		2330	12.1	370			2207	11.8	360									
<b>8</b> W	0358	1.0	30		<b>23</b> Th	0344	1.6	50		<b>8</b> Sa	0513	1.3	40		<b>23</b> Su	0409	2.0	60		<b>8</b> Tu	0633	2.0	60		<b>23</b> W	0508	2.0	60									
	0904	12.8	390			0853	12.8	390			1024	12.8	390			0925	12.8	390			1202	12.5	380			1044	12.1	370									
	1607	1.0	30			1550	2.0	60			1732	1.3	40			1626	1.6	50			1926	1.6	50			1801	1.6	50									
	2119	13.8	420			2105	13.5	410			2251	13.1	400			2144	12.5	380								2332	11.8	360									
<b>9</b> Th	0450	1.0	30		<b>24</b> F	0418	2.0	60		<b>9</b> Su	0603	1.6	50		<b>24</b> M	0447	1.6	50		<b>9</b> W	0056	12.1	370		<b>24</b> Th	0638	2.0	60									
	0958	12.8	390			0930	12.8	390			1122	12.8	390			1014	12.1	370			0800	2.0	60			1215	12.5	380									
	1702	1.3	40			1626	2.0	60			1835	1.3	40			1719	1.6	50			1330	12.8	390			1937	1.3	40									
	2216	13.8	420			2144	13.1	400	○		2359	12.8	390			2245	12.1	370			2058	1.6	50														
<b>10</b> F	0542	1.0	30		<b>25</b> Sa	0454	2.0	60		<b>10</b> M	0710	1.6	50		<b>25</b> Tu	0551	1.6	50		<b>10</b> Th	0221	12.5	380		<b>25</b> F	0106	12.1	370									
	1054	12.5	380			1012	12.5	380			1234	12.8	390			1127	12.1	370			0925	1.6	50			0814	1.6	50									
	1759	1.3	40			1710	2.0	60			1954	1.3	40			1839	1.6	50			1448	13.1	400			1341	12.8	390									
	2317	13.5	410			2233	12.8	390									2213	1.3	40			2104	1.0	30			2104	1.0	30								
<b>11</b> Sa	0638	1.0	30		<b>26</b> Su	0543	1.6	50		<b>11</b> Tu	0119	12.5	380		<b>26</b> W	0007	12.1	370		<b>11</b> F	0325	12.5	380		<b>26</b> Sa	0226	12.5	380									
	1156	12.5	380			1110	12.1	370			0830	1.6	50			0718	1.6	50			1028	1.3	40			0932	1.3	40									
	1904	1.3	40			1813	1.6	50			1353	12.8	390			1253	12.1	370			1542	13.5	410			1448	13.1	400									
						2338	12.5	380			2117	1.3	40			2010	1.3	40			2301	1.0	30			2212	1.0	30									
<b>12</b> Su	0025	13.1	400		<b>27</b> M	0651	1.6	50		<b>12</b> W	0235	12.5	380		<b>27</b> Th	0134	12.1	370		<b>12</b> Sa	0408	12.8	390		<b>27</b> Su	0328	12.8	390									
	0745	1.3	40			1222	12.5	380			0945	1.3	40			0845	1.3	40			1109	1.3	40			1033	1.0	30									
	1304	12.8	390			1930	1.6	50			1503	13.1	400			1411	12.8	390			1618	13.5	410			1541	13.5	410									
	2018	1.3	40								2226	1.0	30			2130	1.3	40			2335	1.0	30			2306	0.7	20									
<b>13</b> M	0136	13.1	400		<b>28</b> Tu	0053	12.5	380		<b>13</b> Th	0337	12.8	390		<b>28</b> F	0248	12.8	390		<b>13</b> Su	0440	12.8	390		<b>28</b> M	0418	13.1	400									
	0855	1.3	40			0808	1.3	40			1044	1.0	30			0958	1.3	40			1142	1.3	40			1125	1.0	30									
	1412	13.1	400																																		



# Hamburg, Germany, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> Th	0128	1.0	30		<b>16</b> F	0109	1.3	40		<b>1</b> Su	0223	1.3	40		<b>16</b> M	0148	1.3	40		<b>1</b> Tu	0238	1.6	50		<b>16</b> W	0213	1.3	40	
	0632	13.8	420			0617	13.1	400			0728	13.8	420			0659	13.5	410			0748	13.8	420			0720	13.8	420	
	1346	1.0	30			1328	1.0	30			1450	1.0	30			1414	1.0	30			1512	1.3	40			1444	1.3	40	
	1848	14.1	430			1833	13.1	400			1956	13.1	400			1922	12.8	390			2019	12.8	390			1950	12.8	390	
<b>2</b> F	0210	1.3	40		<b>17</b> Sa	0139	1.3	40		<b>2</b> M	0259	1.6	50		<b>17</b> Tu	0219	1.3	40		<b>2</b> W	0314	1.6	50		<b>17</b> Th	0250	1.6	50	
	0713	13.8	420			0649	13.1	400			0808	13.5	410			0732	13.5	410			0828	13.8	420			0800	13.8	420	
	1430	1.0	30			1400	1.0	30			1528	1.3	40			1448	1.3	40			1549	1.6	50			1527	1.3	40	
	1933	13.8	420			1906	13.1	400			2039	12.8	390			1959	12.8	390			2101	12.5	380			2035	12.8	390	
<b>3</b> Sa	0249	1.3	40		<b>18</b> Su	0208	1.3	40		<b>3</b> Tu	0336	1.6	50		<b>18</b> W	0254	1.6	50		<b>3</b> Th	0353	2.0	60		<b>18</b> F	0335	1.6	50	
	0753	13.5	410			0720	13.1	400			0850	13.1	400			0810	13.5	410			0910	13.5	410			0848	13.8	420	
	1509	1.0	30			1430	1.0	30			1609	1.6	50			1529	1.3	40			1631	1.6	50			1617	1.3	40	
	2017	13.5	410			1939	12.8	390			2126	12.1	370			2042	12.5	380			2147	12.1	370			2126	12.5	380	
<b>4</b> Su	0326	1.3	40		<b>19</b> M	0237	1.3	40		<b>4</b> W	0419	2.0	60		<b>19</b> Th	0338	2.0	60		<b>4</b> F	0439	2.0	60		<b>19</b> Sa	0428	1.6	50	
	0833	13.1	400			0751	13.1	400			0940	13.1	400			0856	13.1	400			1000	13.1	400			0943	13.5	410	
	1548	1.0	30			1501	1.3	40			1701	1.6	50			1619	1.6	50			1721	1.6	50			1713	1.3	40	
	2101	12.8	390			2012	12.5	380			2224	11.8	360			2136	12.1	370			2242	11.8	360			2226	12.5	380	
<b>5</b> M	0404	1.6	50		<b>20</b> Tu	0306	1.6	50		<b>5</b> Th	0517	2.0	60		<b>20</b> F	0435	2.0	60		<b>5</b> Sa	0536	2.0	60		<b>20</b> Su	0529	1.6	50	
	0917	13.1	400			0824	13.1	400			1045	12.8	390			0957	13.1	400			1102	12.8	390			1048	13.5	410	
	1632	1.3	40			1535	1.3	40			1809	1.6	50			1724	1.6	50			1823	1.6	50			1817	1.6	50	
	2152	12.5	380			2050	12.5	380			2336	11.5	350			2247	12.1	370			2348	11.8	360			2335	12.5	380	
<b>6</b> Tu	0450	2.0	60		<b>21</b> W	0344	2.0	60		<b>6</b> F	0632	2.0	60		<b>21</b> Sa	0548	2.0	60		<b>6</b> Su	0646	2.0	60		<b>21</b> M	0640	1.6	50	
	1011	12.8	390			0908	12.8	390			1204	12.8	390			1114	13.1	400			1215	12.8	390			1201	13.5	410	
	1731	1.6	50			1623	1.6	50			1930	1.6	50			1843	1.6	50			1934	1.6	50			1928	1.6	50	
	2258	11.8	360			2146	12.1	370																					
<b>7</b> W	0555	2.0	60		<b>22</b> Th	0444	2.0	60		<b>7</b> Sa	0057	11.8	360		<b>22</b> Su	0008	12.1	370		<b>7</b> M	0059	12.1	370		<b>22</b> Tu	0048	12.8	390	
	1126	12.8	390			1015	12.5	380			0755	2.0	60			0711	2.0	60			0759	2.0	60			0757	1.6	50	
	1852	1.6	50			1737	1.6	50			1324	12.8	390			1234	13.1	400			1325	12.8	390			1315	13.5	410	
						2307	11.8	360			2047	1.6	50			2003	1.3	40			2041	1.6	50			2041	1.6	50	
<b>8</b> Th	0023	11.8	360		<b>23</b> F	0610	2.0	60		<b>8</b> Su	0207	12.1	370		<b>23</b> M	0125	12.5	380		<b>8</b> Tu	0202	12.5	380		<b>23</b> W	0158	13.1	400	
	0721	2.0	60			1142	12.8	390			0907	1.6	50			0829	1.6	50			0904	2.0	60			0911	1.6	50	
	1255	12.8	390			1909	1.6	50			1428	12.8	390			1346	13.5	410			1423	13.1	400			1424	13.5	410	
	2024	1.6	50								2143	1.3	40			2112	1.3	40			2135	1.6	50			2147	1.3	40	
<b>9</b> F	0150	12.1	370		<b>24</b> Sa	0038	12.1	370		<b>9</b> M	0258	12.5	380		<b>24</b> Tu	0230	12.8	390		<b>9</b> W	0253	12.8	390		<b>24</b> Th	0301	13.1	400	
	0851	2.0	60			0743	1.6	50			0957	1.6	50			0936	1.3	40			0957	1.6	50			1019	1.3	40	
	1417	13.1	400			1308	13.1	400			1512	13.1	400			1448	13.5	410			1510	13.1	400			1527	13.5	410	
	2142	1.3	40			2035	1.3	40			2221	1.3	40			2211	1.0	30			2221	1.6	50			2247	1.0	30	
<b>10</b> Sa	0258	12.5	380		<b>25</b> Su	0158	12.5	380		<b>10</b> Tu	0335	12.8	390		<b>25</b> W	0327	13.1	400		<b>10</b> Th	0337	13.1	400		<b>25</b> F	0358	13.5	410	
	0958	1.6	50			0902	1.3	40			1036	1.3	40			1037	1.3	40			1044	1.6	50			1118	1.0	30	
	1514	13.1	400			1418	13.1	400			1548	13.1	400			1545	13.5	410			1553	13.1	400			1623	13.1	400	
	2231	1.0	30			2143	1.0	30			2256	1.3	40			2306	1.0	30			2303	1.3	40			2338	1.0	30	
<b>11</b> Su	0340	12.8	390		<b>26</b> M	0301	12.8	390		<b>11</b> W	0410	13.1	400		<b>26</b> Th	0419	13.5	410		<b>11</b> F	0417	13.5	410		<b>26</b> Sa	0446	13.5	410	
	1039	1.3	40			1004	1.3	40			1115	1.3	40			1133	1.0	30			1128	1.6	50			1209	0.7	20	
	1550	13.1	400			1515	13.5	410			1625	13.1	400			1637	13.5	410			1634	13.1	400			1711	13.1	400	
	2301	1.0	30			2239	0.7	20			2334	1.3	40			2356	1.0	30			2343	1.3	40						
<b>12</b> M	0410	12.8	390		<b>27</b> Tu	0353	13.1	400		<b>12</b> Th	0446	13.1	400		<b>27</b> F	0505	13.5	410		<b>12</b> Sa	0454	13.5	410		<b>27</b> Su	0021	1.0	30	
	1111	1.3	40			1100	1.0	30			1154	1.3	40			1222	0.7	20			1208	1.3	40			0527	13.8	420	
	1621	13.5	410			1606	13.8	420			1702	13.1	400			1724	13.5	410			1713	13.1	400			1251	1.0	30	
	2332	1.3	40			2330	0.7	20																1753		13.1	400		
<b>13</b> Tu	0442	13.1	400		<b>28</b> W	0441	13.5	410		<b>13</b> F	0010	1.3	40		<b>28</b> Sa	0039	1.0	30		<b>13</b> Su	0021	1.3	40		<b>28</b> M	0101	1.3	40	
	1146	1.3	40			1152	1.0	30			1231	1.3	40			0546	13.8	420			0530	13.8	420			0607	14.1	430	
	1655	13.1	400			1655	13.8	420			1737	13.1	400			1306	1.0	30			1247	1.3	40			1333	1.3	40	
																								1752		13.1	400		1835
<b>14</b> W	0006																												

# Esbjerg, Denmark, 2015

## Times and Heights of High and Low Waters

January			February			March																	
Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0446	0.7	20	<b>16</b> F	0359	1.0	30	<b>1</b> Su	0042	5.2	160	<b>16</b> M	0553	0.3	10								
	1131	5.6	170		1020	5.2	160		0638	0.0	0		1225	4.6	140	0512	0.0	0					
	1727	0.3	10		1640	0.7	20		1315	5.2	160		1823	0.3	10	1151	4.6	140					
					2306	4.9	150		1903	0.3	10					<b>16</b> M	0407	0.0	0				
<b>2</b> F	0007	5.2	160	<b>17</b> Sa	0513	0.7	20	<b>2</b> M	0138	5.2	160	<b>17</b> Tu	0053	4.9	150	<b>2</b> M	0014	4.9	150	<b>17</b> Tu	0528	0.0	0
	0553	0.3	10		1138	4.9	150		0734	0.0	0		0659	0.0	0		0619	0.0	0		1203	4.3	130
	1236	5.6	170		1750	0.7	20		1408	5.2	160		1333	4.9	150		1251	4.6	140		1757	0.0	0
	1827	0.3	10						1952	0.0	0		1922	0.0	0		1841	0.0	0				
<b>3</b> Sa	0106	5.6	170	<b>18</b> Su	0020	4.9	150	<b>3</b> Tu	0227	5.6	170	<b>18</b> W	0154	5.2	160	<b>3</b> Tu	0112	4.9	150	<b>18</b> W	0025	4.6	140
	0654	0.3	10		0623	0.7	20		0823	-0.3	-10		0755	-0.7	-20		0715	-0.3	-10		0636	-0.3	-10
	1334	5.6	170		1252	5.2	160		1455	5.2	160		1430	4.9	150		1344	4.6	140		1312	4.6	140
	1921	0.3	10		1852	0.3	10		2036	0.0	0		2014	-0.3	-10		1931	0.0	0		1858	-0.3	-10
<b>4</b> Su	0159	5.6	170	<b>19</b> M	0124	5.2	160	<b>4</b> W	0311	5.6	170	<b>19</b> Th	0247	5.6	170	<b>4</b> W	0203	5.2	160	<b>19</b> Th	0130	4.9	150
	0748	0.0	0		0723	0.3	10		0906	-0.3	-10		0845	-1.0	-30		0802	-0.3	-10		0733	-1.0	-30
	1427	5.6	170		1355	5.2	160		1535	4.9	150		1520	5.2	160		1431	4.9	150		1409	4.9	150
	2010	0.3	10		1946	0.3	10		2116	0.0	0		2101	-0.7	-20		2014	-0.3	-10		1951	-0.7	-20
<b>5</b> M	0246	5.9	180	<b>20</b> Tu	0218	5.6	170	<b>5</b> Th	0349	5.6	170	<b>20</b> F	0334	5.6	170	<b>5</b> Th	0247	5.2	160	<b>20</b> F	0225	5.2	160
	0838	0.0	0		0815	0.0	0		0944	-0.3	-10		0931	-1.0	-30		0843	-0.7	-20		0822	-1.3	-40
	1513	5.6	170		1449	5.2	160		1609	4.9	150		1605	5.2	160		1511	4.9	150		1458	4.9	150
	2054	0.3	10		2035	0.0	0		2151	0.0	0		2146	-1.0	-30		2053	-0.3	-10		2039	-1.0	-30
<b>6</b> Tu	0329	5.9	180	<b>21</b> W	0307	5.6	170	<b>6</b> F	0419	5.6	170	<b>21</b> Sa	0418	5.9	180	<b>6</b> F	0325	5.2	160	<b>21</b> Sa	0313	5.6	170
	0922	0.0	0		0904	-0.3	-10		1018	0.0	0		1016	-1.0	-30		0919	-0.7	-20		0909	-1.3	-40
	1554	5.2	160		1538	5.2	160		1636	4.9	150		1646	5.2	160		1545	4.9	150		1542	4.9	150
	2135	0.3	10		2121	-0.3	-10		2224	0.0	0		2230	-1.0	-30		2128	-0.3	-10		2125	-1.3	-40
<b>7</b> W	0406	5.9	180	<b>22</b> Th	0352	5.9	180	<b>7</b> Sa	0442	5.2	160	<b>22</b> Su	0501	5.9	180	<b>7</b> Sa	0356	5.2	160	<b>22</b> Su	0359	5.6	170
	1003	0.0	0		0950	-0.7	-20		1049	0.0	0		1100	-1.0	-30		0951	-0.3	-10		0953	-1.3	-40
	1628	4.9	150		1623	5.2	160		1657	4.6	140		1727	4.9	150		1612	4.6	140		1623	4.9	150
	2212	0.3	10		2205	-0.3	-10		2255	0.0	0		2314	-1.0	-30		2159	-0.3	-10		2209	-1.3	-40
<b>8</b> Th	0436	5.6	170	<b>23</b> F	0435	5.9	180	<b>8</b> Su	0505	5.2	160	<b>23</b> M	0544	5.6	170	<b>8</b> Su	0420	4.9	150	<b>23</b> M	0441	5.6	170
	1040	0.3	10		1036	-0.7	-20		1119	0.0	0		1144	-1.0	-30		1021	-0.3	-10		1036	-1.3	-40
	1656	4.9	150		1706	5.2	160		1721	4.9	150		1808	4.9	150		1634	4.6	140		1702	4.9	150
	2246	0.3	10		2250	-0.3	-10		2326	0.0	0						2230	-0.3	-10		2253	-1.3	-40
<b>9</b> F	0502	5.6	170	<b>24</b> Sa	0518	5.9	180	<b>9</b> M	0533	5.2	160	<b>24</b> Tu	0000	-1.0	-30	<b>9</b> M	0443	4.9	150	<b>24</b> Tu	0523	5.2	160
	1115	0.3	10		1121	-0.7	-20		1151	0.0	0		0629	5.6	170		1050	-0.3	-10		1120	-1.0	-30
	1721	4.9	150		1749	5.2	160		1752	4.9	150		1230	-0.7	-20		1658	4.6	140		1741	4.9	150
	2319	0.3	10		2335	-0.3	-10						1851	4.9	150		2301	-0.7	-20		2338	-1.3	-40
<b>10</b> Sa	0527	5.6	170	<b>25</b> Su	0602	5.9	180	<b>10</b> Tu	0001	0.0	0	<b>25</b> W	0048	-0.7	-20	<b>10</b> Tu	0510	4.9	150	<b>25</b> W	0606	4.9	150
	1148	0.3	10		1207	-0.7	-20		0608	5.2	160		0718	5.2	160		1122	-0.3	-10		1203	-0.7	-20
	1748	4.9	150		1833	5.2	160		1226	0.0	0		1319	-0.3	-10		1727	4.9	150		1822	4.6	140
	2353	0.3	10						1830	4.9	150		1941	4.6	140		2336	-0.7	-20				
<b>11</b> Su	0559	5.6	170	<b>26</b> M	0022	-0.3	-10	<b>11</b> W	0040	0.0	0	<b>26</b> Th	0140	-0.3	-10	<b>11</b> W	0543	4.9	150	<b>26</b> Th	0025	-1.0	-30
	1222	0.3	10		0649	5.9	180		0649	5.2	160		0815	4.9	150		1157	-0.7	-20		0652	4.6	140
	1822	4.9	150		1256	-0.3	-10		1307	0.0	0		1413	0.0	0		1802	4.9	150		1250	-0.3	-10
					1921	4.9	150		1914	4.9	150		2040	4.6	140						1907	4.6	140
<b>12</b> M	0029	0.3	10	<b>27</b> Tu	0111	-0.3	-10	<b>12</b> Th	0124	0.0	0	<b>27</b> F	0241	0.0	0	<b>12</b> Th	0014	-0.7	-20	<b>27</b> F	0116	-0.7	-20
	0637	5.6	170		0741	5.6	170		0738	5.2	160		0925	4.6	140		0624	4.9	150		0746	4.6	140
	1300	0.3	10		1348	0.0	0		1353	0.0	0		1517	0.3	10		1237	-0.3	-10		1341	0.0	0
	1904	4.9	150		2015	4.9	150		2006	4.9	150		2154	4.6	140		1844	4.9	150		2001	4.6	140
<b>13</b> Tu	0111	0.3	10	<b>28</b> W	0206	0.0	0	<b>13</b> F	0216	0.0	0	<b>28</b> Sa	0354	0.0	0	<b>13</b> F	0058	-0.7	-20	<b>28</b> Sa	0214	-0.3	-10
	0722	5.6	170		0842	5.6	170		0834	4.9	150		1042	4.6	140		0711	4.9	150		0852	4.3	130
	1343	0.3	10		1445	0.3	10		1449	0.3	10		1631	0.7	20		1323	-0.3	-10		1442	0.3	10
	1952	4.9	150		2119	4.9	150		2105	4.6	140		2309	4.6	140		1933	4.6	140		2111	4.3	130
<b>14</b> W	0158	0.7	20	<b>29</b> Th	0308	0.3	10	<b>14</b> Sa	0318	0.3	10	<b>14</b> Sa	0149	-0.3	-10	<b>14</b> Sa	0149	-0.3	-10	<b>29</b> Su	0326	0.0	0
	0813	5.6	170		0953	5.2	160		0940	4.9	150		1556	0.3	10		0806	4.6	140		1009	3.9	120
	1433	0.7	20		1550	0.3	10		1556	0.3	10		2216	4.6	140		1417	0.0	0		1555	0.3	10
	2048	4.9	150		2231	4.9	150								2030		4.6	140	2231		4.3	130	
<b>15</b> Th	0254	0.7	20	<b>30</b> F	0420	0.3	10	<b>15</b> Su	0435	0.3	10	<b>15</b> Su	0251	0.0	0	<b>15</b> Su	0251	0.0	0	<b>30</b> M	0445	0.0	0
	0912	5.2	160		1108	5.2	160		1101	4.6	140		0912	4.3	130		0912	4.3	130		1119	3.9	120
	1532	0.7	20		1700	0.7	20		1713	0.7	20		1523	0.3	10		1523	0.3	10		1710	0.3	10
	2152	4.9	150		2340	4.9	150		2338	4.6	140		2138	4.6	140						2340	4.6	140
			<b>31</b> Sa	0533	0.3	10										<b>31</b> Tu	0553	-0.3	-10				
				1215	4.9	150											1811	0.0	0				
				1806	0.3	10																	

# Esbjerg, Denmark, 2015

## Times and Heights of High and Low Waters

April				May				June																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> W	0039	4.6	140	<b>16</b> Th	0611	-0.7	-20	<b>1</b> F	0051	4.6	140	<b>16</b> Sa	0042	4.9	150	<b>1</b> M	0145	4.6	140	<b>16</b> Tu	0217	4.9	150			
	0647	-0.3	-10		1249	4.3	130		0658	-0.7	-20		0643	-1.0	-30		0742	-0.7	-20		0804	-0.7	-20			
	1313	4.6	140		1832	-0.3	-10		1323	4.3	130		1321	4.6	140		1414	4.6	140		1441	4.9	150	2029	-1.0	-30
	1903	-0.3	-10						1913	-0.3	-10		1903	-1.0	-30		1903	-0.3	-10							
<b>2</b> Th	0131	4.9	150	<b>17</b> F	0105	4.9	150	<b>2</b> Sa	0139	4.6	140	<b>17</b> Su	0140	4.9	150	<b>2</b> Tu	0229	4.6	140	<b>17</b> W	0307	4.9	150			
	0734	-0.7	-20		0708	-1.0	-30		0740	-0.7	-20		0735	-1.0	-30		0822	-0.7	-20		0850	-0.7	-20			
	1400	4.6	140		1345	4.6	140		1408	4.6	140		1412	4.6	140		1454	4.9	150		1525	4.9	150	2116	-1.0	-30
	1947	-0.3	-10		1927	-1.0	-30		1954	-0.7	-20		1956	-1.0	-30		2042	-0.7	-20							
<b>3</b> F	0217	4.9	150	<b>18</b> Sa	0202	5.2	160	<b>3</b> Su	0222	4.6	140	<b>18</b> M	0233	4.9	150	<b>3</b> W	0310	4.6	140	<b>18</b> Th	0352	4.6	140			
	0814	-0.7	-20		0759	-1.3	-40		0817	-0.7	-20		0823	-1.3	-40		0900	-0.7	-20		0934	-0.7	-20			
	1442	4.6	140		1435	4.9	150		1447	4.6	140		1458	4.9	150		1530	4.9	150		1605	4.9	150	2201	-1.0	-30
	2026	-0.7	-20		● 2017	-1.3	-40		2032	-0.7	-20		● 2044	-1.3	-40		2122	-0.7	-20							
<b>4</b> Sa	0256	4.9	150	<b>19</b> Su	0252	5.2	160	<b>4</b> M	0300	4.6	140	<b>19</b> Tu	0321	4.9	150	<b>4</b> Th	0348	4.6	140	<b>19</b> F	0432	4.6	140			
	0850	-0.7	-20		0846	-1.3	-40		0852	-0.7	-20		0909	-1.0	-30		0939	-0.7	-20		1015	-0.7	-20			
	1518	4.6	140		1519	4.9	150		1521	4.6	140		1541	4.9	150		1604	4.9	150		1642	4.9	150	2244	-0.7	-20
	2101	-0.7	-20		2104	-1.3	-40		2108	-0.7	-20		2131	-1.3	-40		2203	-1.0	-30							
<b>5</b> Su	0329	4.9	150	<b>20</b> M	0339	5.2	160	<b>5</b> Tu	0333	4.6	140	<b>20</b> W	0406	4.9	150	<b>5</b> F	0426	4.6	140	<b>20</b> Sa	0508	4.3	130			
	0922	-0.7	-20		0930	-1.3	-40		0925	-0.7	-20		0952	-1.0	-30		1018	-0.7	-20		1054	-0.3	-10			
	1547	4.6	140		1600	4.9	150		1550	4.6	140		1620	4.9	150		1639	4.9	150		1714	4.9	150	2325	-0.7	-20
	2134	-0.7	-20		2149	-1.3	-40		2143	-0.7	-20		2216	-1.3	-40		2245	-1.0	-30							
<b>6</b> M	0357	4.9	150	<b>21</b> Tu	0422	5.2	160	<b>6</b> W	0404	4.6	140	<b>21</b> Th	0446	4.6	140	<b>6</b> Sa	0505	4.6	140	<b>21</b> Su	0540	4.3	130			
	0953	-0.7	-20		1013	-1.3	-40		1000	-0.7	-20		1034	-0.7	-20		1100	-0.7	-20		1133	-0.3	-10			
	1612	4.6	140		1639	4.9	150		1619	4.6	140		1657	4.9	150		1716	4.9	150		1746	4.9	150			
	2206	-0.7	-20		2233	-1.3	-40		2219	-1.0	-30		2300	-1.0	-30		2329	-1.0	-30							
<b>7</b> Tu	0422	4.9	150	<b>22</b> W	0503	4.9	150	<b>7</b> Th	0436	4.6	140	<b>22</b> F	0525	4.3	130	<b>7</b> Su	0547	4.3	130	<b>22</b> M	0605	-0.3	-10			
	1024	-0.7	-20		1055	-1.0	-30		1036	-0.7	-20		1115	-0.7	-20		1144	-0.7	-20		0612	4.3	130			
	1637	4.6	140		1717	4.9	150		1650	4.6	140		1732	4.9	150		1758	4.9	150		1211	0.0	0			
	2239	-0.7	-20		2318	-1.3	-40		2258	-1.0	-30		2344	-0.7	-20						1820	4.9	150			
<b>8</b> W	0451	4.6	140	<b>23</b> Th	0544	4.6	140	<b>8</b> F	0512	4.6	140	<b>23</b> Sa	0603	4.3	130	<b>8</b> M	0616	-1.0	-30	<b>23</b> Tu	0046	0.0	0			
	1057	-0.7	-20		1138	-0.7	-20		1115	-0.7	-20		1157	-0.3	-10		0634	4.3	130		0648	3.9	120			
	1706	4.6	140		1755	4.6	140		1726	4.9	150		1809	4.6	140		1231	-0.7	-20		1251	0.0	0			
	2315	-1.0	-30						2340	-1.0	-30						1845	4.9	150		1900	4.9	150			
<b>9</b> Th	0525	4.6	140	<b>24</b> F	0004	-1.0	-30	<b>9</b> Sa	0554	4.3	130	<b>24</b> Su	0030	-0.7	-20	<b>9</b> Tu	0107	-1.0	-30	<b>24</b> W	0128	0.0	0			
	1133	-0.7	-20		0627	4.3	130		1157	-0.7	-20		0643	3.9	120		0727	4.3	130		0732	3.9	120			
	1740	4.6	140		1222	-0.3	-10		1807	4.9	150		1240	0.0	0		1323	-0.3	-10		1336	0.0	0			
	2355	-1.0	-30		1836	4.6	140						1851	4.6	140		1939	4.9	150		1947	4.9	150	1947	4.9	150
<b>10</b> F	0605	4.6	140	<b>25</b> Sa	0052	-0.7	-20	<b>10</b> Su	0027	-1.0	-30	<b>25</b> M	0118	-0.3	-10	<b>10</b> W	0203	-0.7	-20	<b>25</b> Th	0215	0.0	0			
	1214	-0.7	-20		0715	3.9	120		0641	4.3	130		0729	3.9	120		0827	4.3	130		0824	3.9	120			
	1821	4.6	140		1310	0.0	0		1245	-0.3	-10		1327	0.0	0		1421	-0.3	-10		1426	0.3	10			
					1924	4.6	140		1854	4.6	140		1939	4.6	140		2042	4.9	150		2041	4.6	140	2041	4.6	140
<b>11</b> Sa	0039	-0.7	-20	<b>26</b> Su	0147	-0.3	-10	<b>11</b> M	0119	-0.7	-20	<b>26</b> Tu	0211	0.0	0	<b>11</b> Th	0305	-0.7	-20	<b>26</b> F	0310	0.3	10			
	0652	4.6	140		0813	3.9	120		0736	4.3	130		0825	3.6	110		0937	3.9	120		0925	4.3	130			
	1301	-0.3	-10		1404	0.3	10		1338	-0.3	-10		1421	0.3	10		1526	0.0	0		1526	0.3	10			
	1909	4.6	140		● 2024	4.3	130		● 1950	4.6	140		2037	4.3	130		2155	4.9	150		2144	4.6	140	2144	4.6	140
<b>12</b> Su	0131	-0.7	-20	<b>27</b> M	0252	0.0	0	<b>12</b> Tu	0219	-0.7	-20	<b>27</b> W	0312	0.0	0	<b>12</b> F	0412	-0.3	-10	<b>27</b> Sa	0411	0.3	10			
	0747	4.3	130		0924	3.6	110		0841	3.9	120		0932	3.9	120		1051	4.3	130		1034	4.3	130			
	1355	0.0	0		1511	0.3	10		1440	0.0	0		1525	0.3	10		1634	-0.3	-10		1633	0.3	10			
	● 2005	4.6	140		2139	4.3	130		2056	4.6	140		2146	4.3	130		2311	4.9	150		2255	4.6	140	2255	4.6	140
<b>13</b> M	0233	-0.3	-10	<b>28</b> Tu	0406	0.0	0	<b>13</b> W	0328	-0.7	-20	<b>28</b> Th	0418	0.0	0	<b>13</b> Sa	0518	-0.7	-20	<b>28</b> Su	0515	0.3	10			
	0854	3.9	120		1036	3.9	120		0959	3.9	120		1041	3.9	120		1158	4.3	130		1143	4.3	130			
	1500	0.0	0		1625	0.3	10		1551	0.0	0		1634	0.3	10		1741	-0.3	-10		1740	0.3	10			
	2113	4.6	140		2253	4.3	130		2215	4.6	140		2257	4.3	130											
<b>14</b> Tu	0347	-0.3	-10	<b>29</b> W	0514	0.0	0	<b>14</b> Th	0439	-0.7	-20	<b>29</b> F	0519	0.0	0	<b>14</b> Su	0021	4.9	150	<b>29</b> M	0004	4.6	140			
	1017	3.9	120		1139	3.9	120		1118	3.9	120		1144	4.3	130		0619	-0.7	-20		0614	0.0	0			
	1616	0.0	0		1731	0.0	0		1702	-0.3	-10		1737	0.3	10		1258	4.6	140		1245	4.6	140			
	2237	4.6	140		2356	4.6	140		2334	4.6	140		2359	4.6	140		1842	-0.7	-20		1839	0.0	0			
<b>15</b> W	0504	-0.3	-10	<b>30</b> Th	0610	-0.3	-10	<b>15</b> F	0545	-0.7	-20	<b>30</b> Sa	0612	-0.3	-10	<b>15</b> M	0122	4.9	150	<b>30</b> Tu	0106	4.6	140			
	1142	4.3	130		1234	4.3	130		1224	4.3	130		1239	4.3	130		0714	-0.7	-20		0706	0.0	0			
	1730	0.0	0		1825	0.0	0		1806	-0.7																

# Esbjerg, Denmark, 2015

## Times and Heights of High and Low Waters

July				August				September																		
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm												
<b>1</b> W	0200	4.6	140	<b>16</b> Th	0254	4.9	150	<b>1</b> Sa	0317	5.2	160	<b>16</b> Su	0358	5.2	160	<b>1</b> Tu	0424	5.6	170	<b>16</b> W	0427	5.6	170			
	0753	-0.3	-10		0834	-0.3	-10		0901	-0.3	-10		0937	0.0	0		1008	-0.7	-20		1020	0.3	10	1020	0.3	10
	1426	4.9	150		1511	5.2	160		1532	5.6	170		1609	5.6	170		1638	6.2	190		1636	5.6	170	1636	5.6	170
	2019	-0.3	-10		2103	-0.7	-20		2130	-0.7	-20		2205	0.0	0		2237	-0.7	-20		2239	0.3	10	2239	0.3	10
<b>2</b> Th	0249	4.9	150	<b>17</b> F	0339	4.9	150	<b>2</b> Su	0402	5.2	160	<b>17</b> M	0428	4.9	150	<b>2</b> W	0504	5.6	170	<b>17</b> Th	0448	5.6	170			
	0837	-0.3	-10		0917	-0.3	-10		0945	-0.7	-20		1012	0.0	0		1052	-0.7	-20		1050	0.3	10	1050	0.3	10
	1509	5.2	160		1552	5.2	160		1614	5.9	180		1637	5.6	170		1721	6.2	190		1659	5.6	170	1659	5.6	170
	2104	-0.7	-20		2146	-0.7	-20		2214	-1.0	-30		2238	0.0	0		2321	-0.7	-20		2309	0.3	10	2309	0.3	10
<b>3</b> F	0334	4.9	150	<b>18</b> Sa	0417	4.6	140	<b>3</b> M	0444	5.2	160	<b>18</b> Tu	0452	4.9	150	<b>3</b> Th	0544	5.6	170	<b>18</b> F	0514	5.6	170			
	0920	-0.7	-20		0957	-0.3	-10		1028	-0.7	-20		1045	0.0	0		1137	-0.7	-20		1122	0.3	10	1122	0.3	10
	1549	5.2	160		1627	5.2	160		1656	5.9	180		1700	5.6	170		1804	6.2	190		1729	5.6	170	1729	5.6	170
	2147	-0.7	-20		2226	-0.3	-10		2258	-1.0	-30		2309	0.0	0		2309	0.0	0		2341	0.3	10	2341	0.3	10
<b>4</b> Sa	0416	4.9	150	<b>19</b> Su	0449	4.6	140	<b>4</b> Tu	0525	5.2	160	<b>19</b> W	0514	4.9	150	<b>4</b> F	0005	-0.3	-10	<b>19</b> Sa	0545	5.6	170			
	1002	-0.7	-20		1034	-0.3	-10		1112	-0.7	-20		1116	0.0	0		0626	5.6	170		1158	0.3	10	1158	0.3	10
	1628	5.2	160		1657	5.2	160		1738	5.9	180		1724	5.6	170		1223	-0.3	-10		1806	5.6	170	1806	5.6	170
	2231	-1.0	-30		2303	-0.3	-10		2343	-0.7	-20		2339	0.3	10		1851	5.9	180							
<b>5</b> Su	0458	4.9	150	<b>20</b> M	0516	4.6	140	<b>5</b> W	0607	5.2	160	<b>20</b> Th	0540	4.9	150	<b>5</b> Sa	0053	0.0	0	<b>20</b> Su	0018	0.3	10			
	1045	-0.7	-20		1109	0.0	0		1157	-0.7	-20		1148	0.0	0		0713	5.2	160		0624	5.6	170	0624	5.6	170
	1708	5.2	160		1723	5.2	160		1822	5.9	180		1755	5.6	170		1314	0.0	0		1238	0.3	10	1238	0.3	10
	2316	-1.0	-30		2338	0.0	0								1945		5.6	170	1849		5.6	170	1849	5.6	170	
<b>6</b> M	0540	4.6	140	<b>21</b> Tu	0542	4.6	140	<b>6</b> Th	0029	-0.7	-20	<b>21</b> F	0012	0.3	10	<b>6</b> Su	0144	0.7	20	<b>21</b> M	0100	0.7	20			
	1129	-0.7	-20		1143	0.0	0		0651	4.9	150		0614	5.2	160		0808	5.2	160		0710	5.6	170	0710	5.6	170
	1750	5.6	170		1751	5.2	160		1245	-0.3	-10		1224	0.0	0		1411	0.3	10		1325	0.3	10	1325	0.3	10
									1911	5.6	170		1833	5.6	170		2051	5.2	160		1941	5.6	170	1941	5.6	170
<b>7</b> Tu	0002	-1.0	-30	<b>22</b> W	0012	0.0	0	<b>7</b> F	0118	-0.3	-10	<b>22</b> Sa	0049	0.3	10	<b>7</b> M	0244	1.0	30	<b>22</b> Tu	0150	0.7	20			
	0624	4.6	140		0612	4.6	140		0741	4.9	150		0655	5.2	160		0917	5.2	160		0803	5.6	170	0803	5.6	170
	1216	-0.7	-20		1218	0.0	0		1336	-0.3	-10		1305	0.3	10		1520	0.7	20		1422	0.7	20	1422	0.7	20
	1836	5.6	170		1825	5.2	160		2006	5.6	170		1918	5.6	170		2210	5.2	160		2041	5.2	160	2041	5.2	160
<b>8</b> W	0050	-0.7	-20	<b>23</b> Th	0048	0.0	0	<b>8</b> Sa	0213	0.0	0	<b>23</b> Su	0132	0.3	10	<b>8</b> Tu	0356	1.0	30	<b>23</b> W	0250	1.0	30			
	0712	4.6	140		0649	4.6	140		0839	4.9	150		0743	5.2	160		1037	5.2	160		0906	5.2	160	0906	5.2	160
	1305	-0.3	-10		1257	0.0	0		1435	0.0	0		1353	0.3	10		1639	0.7	20		1532	1.0	30	1532	1.0	30
	1927	5.2	160		1906	5.2	160		2113	5.2	160		2010	5.2	160		2324	5.2	160		2156	5.2	160	2156	5.2	160
<b>9</b> Th	0143	-0.7	-20	<b>24</b> F	0127	0.3	10	<b>9</b> Su	0314	0.3	10	<b>24</b> M	0222	0.7	20	<b>9</b> W	0511	1.0	30	<b>24</b> Th	0405	1.3	40			
	0807	4.6	140		0734	4.6	140		0950	4.9	150		0839	4.9	150		1148	5.2	160		1022	5.2	160	1022	5.2	160
	1359	-0.3	-10		1341	0.3	10		1543	0.3	10		1450	0.7	20		1751	0.7	20		1654	1.0	30	1654	1.0	30
	2025	5.2	160		1954	4.9	150		2231	4.9	150		2112	4.9	150				2325		5.2	160	2325	5.2	160	
<b>10</b> F	0240	-0.3	-10	<b>25</b> Sa	0213	0.3	10	<b>10</b> M	0424	0.7	20	<b>25</b> Tu	0324	1.0	30	<b>10</b> Th	0028	5.2	160	<b>25</b> F	0524	1.0	30			
	0910	4.3	130		0826	4.6	140		1106	4.9	150		0944	4.9	150		0615	1.0	30		1148	5.6	170	1148	5.6	170
	1500	0.0	0		1432	0.3	10		1658	0.3	10		1602	1.0	30		1249	5.6	170		1807	0.7	20	1807	0.7	20
	2134	4.9	150		2050	4.9	150		2345	4.9	150		2227	4.9	150		1851	0.3	10							
<b>11</b> Sa	0344	0.0	0	<b>26</b> Su	0308	0.3	10	<b>11</b> Tu	0534	0.7	20	<b>26</b> W	0440	1.0	30	<b>11</b> F	0124	5.2	160	<b>26</b> Sa	0040	5.2	160			
	1021	4.6	140		0927	4.6	140		1214	5.2	160		1104	4.9	150		0709	0.7	20		0630	0.7	20	0630	0.7	20
	1608	0.0	0		1533	0.7	20		1809	0.3	10		1724	0.7	20		1343	5.9	180		1259	5.9	180	1259	5.9	180
	2251	4.9	150		2155	4.9	150						2354	4.9	150		1942	0.0	0		1906	0.3	10	1906	0.3	10
<b>12</b> Su	0451	0.0	0	<b>27</b> M	0413	0.7	20	<b>12</b> W	0050	5.2	160	<b>27</b> Th	0556	0.7	20	<b>12</b> Sa	0213	5.6	170	<b>27</b> Su	0141	5.6	170			
	1132	4.6	140		1038	4.6	140		0637	0.3	10		1224	5.2	160		0756	0.3	10		0726	0.3	10	0726	0.3	10
	1718	0.0	0		1646	0.7	20		1313	5.2	160		1834	0.3	10		1431	5.9	180		1357	6.2	190	1357	6.2	190
					2311	4.6	140		1909	0.0	0				2026		0.0	0	1958		0.0	0	1958	0.0	0	
<b>13</b> M	0003	4.9	150	<b>28</b> Tu	0525	0.7	20	<b>13</b> Th	0147	5.2	160	<b>28</b> F	0107	5.2	160	<b>13</b> Su	0257	5.6	170	<b>28</b> M	0233	5.9	180			
	0556	0.0	0		1154	4.6	140		0730	0.3	10		0658	0.7	20		0837	0.3	10		0815	0.0	0	0815	0.0	0
	1236	4.9	150		1800	0.7	20		1407	5.6	170		1329	5.6	170		1512	5.9	180		1448	6.2	190	1448	6.2	190
	1824	-0.3	-10						2001	-0.3	-10		1932	0.0	0		2105	0.0	0		2045	-0.3	-10	2045	-0.3	-10
<b>14</b> Tu	0107	4.9	150	<b>29</b> W	0028	4.9	150	<b>14</b> F	0237	5.2	160	<b>29</b> Sa	0205	5.2	160	<b>14</b> M	0334	5.6	170	<b>29</b> Tu	0319	5.9	180			
	0655	0.0	0		0630	0.3	10		0817	0.0	0		0751	0.3	10		0915	0.3	10		0902	-0.3	-10	0902	-0.3	-10
	1333	4.9	150		1301	4.9	150		1454	5.6	170		1423	5.9	180		1546	5.9	180		1535	6.6	200	1535	6.6	200

# Esbjerg, Denmark, 2015

## Times and Heights of High and Low Waters

October				November				December																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> Th	0441	5.9	180		<b>16</b> F	0426	5.9	180		<b>1</b> Su	0538	5.9	180		<b>16</b> M	0508	5.9	180		<b>1</b> Tu	0559	5.9	180		<b>16</b> W	0536	5.9	180	
	1031	-0.3	-10			1026	0.3	10			1144	0.0	0			1121	0.3	10			1214	0.3	10			1153	0.0	0	
	1702	6.2	190			1639	5.9	180			1811	5.6	170			1733	5.6	170			1834	5.2	160			1808	5.2	160	
	2257	-0.3	-10			2242	0.7	20								2336	0.7	20											
<b>2</b> F	0520	5.9	180		<b>17</b> Sa	0452	5.9	180		<b>2</b> M	0003	0.7	20		<b>17</b> Tu	0546	5.9	180		<b>2</b> W	0025	1.0	30		<b>17</b> Th	0007	0.3	10	
	1116	-0.3	-10			1100	0.3	10			0621	5.9	180			1205	0.3	10			0641	5.9	180			0619	5.9	180	
	1745	6.2	190			1709	5.9	180			1233	0.3	10			1816	5.6	170			1302	0.7	20			1240	0.0	0	
	2341	0.0	0			2316	0.7	20			1859	5.2	160								1920	4.9	150			1856	5.2	160	
<b>3</b> Sa	0601	5.9	180		<b>18</b> Su	0523	5.9	180		<b>3</b> Tu	0051	1.0	30		<b>18</b> W	0020	0.7	20		<b>3</b> Th	0112	1.0	30		<b>18</b> F	0055	0.3	10	
	1203	0.0	0			1137	0.3	10			0708	5.9	180			0629	5.9	180			0728	5.6	170			0708	5.9	180	
	1831	5.9	180			1746	5.6	170			1327	0.7	20			1253	0.3	10			1355	1.0	30			1333	0.3	10	
						2354	0.7	20			1956	5.2	160			1906	5.2	160			2013	4.9	150			1950	5.2	160	
<b>4</b> Su	0027	0.3	10		<b>19</b> M	0601	5.9	180		<b>4</b> W	0144	1.3	40		<b>19</b> Th	0110	0.7	20		<b>4</b> F	0205	1.3	40		<b>19</b> Sa	0149	0.7	20	
	0645	5.6	170			1218	0.3	10			0806	5.6	170			0720	5.9	180			0825	5.6	170			0804	5.9	180	
	1253	0.3	10			1829	5.6	170			1429	1.0	30			1348	0.7	20			1453	1.0	30			1430	0.3	10	
	1923	5.6	170								2104	4.9	150			2005	5.2	160			2116	4.9	150			2052	4.9	150	
<b>5</b> M	0117	1.0	30		<b>20</b> Tu	0037	0.7	20		<b>5</b> Th	0247	1.6	50		<b>20</b> F	0207	1.0	30		<b>5</b> Sa	0306	1.3	40		<b>20</b> Su	0249	0.7	20	
	0737	5.6	170			0645	5.9	180			0917	5.6	170			0819	5.9	180			0931	5.6	170			0909	5.9	180	
	1349	0.7	20			1306	0.7	20			1540	1.0	30			1451	0.7	20			1557	1.0	30			1534	0.3	10	
	2027	5.2	160			1920	5.6	170			2215	4.9	150			2113	5.2	160			2223	4.9	150			2203	4.9	150	
<b>6</b> Tu	0214	1.3	40		<b>21</b> W	0127	1.0	30		<b>6</b> F	0358	1.6	50		<b>21</b> Sa	0313	1.0	30		<b>6</b> Su	0413	1.3	40		<b>21</b> M	0355	0.7	20	
	0843	5.6	170			0737	5.9	180			1031	5.6	170			0929	5.9	180			1040	5.6	170			1025	5.6	170	
	1456	1.0	30			1403	0.7	20			1650	1.0	30			1601	0.7	20			1700	1.0	30			1641	0.3	10	
	2143	5.2	160			2020	5.2	160			2319	5.2	160			2231	5.2	160			2326	5.2	160			2317	5.2	160	
<b>7</b> W	0324	1.3	40		<b>22</b> Th	0226	1.0	30		<b>7</b> Sa	0507	1.3	40		<b>22</b> Su	0424	1.0	30		<b>7</b> M	0518	1.3	40		<b>22</b> Tu	0505	0.7	20	
	1002	5.6	170			0838	5.6	170			1136	5.6	170			1048	5.9	180			1144	5.6	170			1141	5.6	170	
	1614	1.0	30			1510	1.0	30			1750	1.0	30			1710	0.7	20			1757	1.0	30			1746	0.3	10	
	2256	5.2	160			2133	5.2	160								2345	5.2	160											
<b>8</b> Th	0440	1.3	40		<b>23</b> F	0337	1.3	40		<b>8</b> Su	0016	5.2	160		<b>23</b> M	0532	1.0	30		<b>8</b> Tu	0023	5.2	160		<b>23</b> W	0023	5.2	160	
	1115	5.6	170			0952	5.6	170			0606	1.0	30			1203	5.9	180			0615	1.0	30			0610	0.3	10	
	1726	0.7	20			1627	0.7	20			1233	5.9	180			1812	0.3	10			1240	5.6	170			1249	5.9	180	
	2359	5.2	160			2258	5.2	160			1841	0.7	20								1846	0.7	20			1845	0.3	10	
<b>9</b> F	0546	1.3	40		<b>24</b> Sa	0453	1.3	40		<b>9</b> M	0107	5.6	170		<b>24</b> Tu	0048	5.6	170		<b>9</b> W	0114	5.6	170		<b>24</b> Th	0122	5.6	170	
	1217	5.9	180			1116	5.9	180			0656	1.0	30			0633	0.7	20			0705	1.0	30			0710	0.3	10	
	1825	0.7	20			1738	0.7	20			1324	5.9	180			1308	6.2	190			1331	5.6	170			1349	5.9	180	
											1925	0.7	20			1907	0.0	0			1930	0.7	20			1938	0.3	10	
<b>10</b> Sa	0054	5.6	170		<b>25</b> Su	0013	5.6	170		<b>10</b> Tu	0153	5.9	180		<b>25</b> W	0144	5.9	180		<b>10</b> Th	0200	5.6	170		<b>25</b> F	0216	5.9	180	
	0642	1.0	30			0601	1.0	30			0741	0.7	20			0729	0.3	10			0750	0.7	20			0804	0.0	0	
	1312	5.9	180			1230	5.9	180			1409	5.9	180			1405	6.2	190			1417	5.6	170			1444	5.6	170	
	1915	0.3	10			1839	0.3	10			2005	0.7	20			1958	0.0	0			2010	0.7	20			2028	0.0	0	
<b>11</b> Su	0143	5.6	170		<b>26</b> M	0115	5.6	170		<b>11</b> W	0234	5.9	180		<b>26</b> Th	0233	5.9	180		<b>11</b> F	0241	5.9	180		<b>26</b> Sa	0304	5.9	180	
	0729	0.7	20			0659	0.7	20			0820	0.7	20			0820	0.0	0			0831	0.7	20			0854	0.0	0	
	1401	6.2	190			1331	6.2	190			1449	5.9	180			1457	6.2	190			1458	5.6	170			1532	5.6	170	
	1958	0.3	10			1932	0.0	0			2040	0.7	20			2046	0.0	0			2047	0.3	10			2114	0.0	0	
<b>12</b> M	0227	5.9	180		<b>27</b> Tu	0207	5.9	180		<b>12</b> Th	0310	5.9	180		<b>27</b> F	0319	5.9	180		<b>12</b> Sa	0318	5.9	180		<b>27</b> Su	0348	5.9	180	
	0811	0.3	10			0751	0.0	0			0857	0.7	20			0909	0.0	0			0909	0.3	10			0942	0.0	0	
	1443	6.2	190			1425	6.2	190			1523	5.9	180			1544	5.9	180			1535	5.6	170			1616	5.6	170	
	2037	0.3	10			2021	0.0	0			2114	0.7	20			2131	0.0	0			2124	0.3	10			2157	0.3	10	
<b>13</b> Tu	0306	5.9	180		<b>28</b> W	0255	5.9	180		<b>13</b> F	0340	5.9	180		<b>28</b> Sa	0401	6.2	190		<b>13</b> Su	0351	5.9	180		<b>28</b> M	0428	5.9	180	
	0849	0.3	10			0840	0.0	0			0931	0.7	20			0955	0.0	0			0948	0.3	10			1026	0.0	0	
	1519	5.9	180			1514	6.6	200			1553	5.9	180			1629	5.9	180			1611	5.6	170			1656	5.2	160	
	2111	0.3	10			2107	-0.3	-10			2146	0.7	20			2215	0.3	10			2202	0.3	10			2239	0.3	10	
<b>14</b> W	0338	5.9	180		<b>29</b> Th	0338	6.2	190		<b>14</b> Sa	0408	5.9	180		<b>29</b> Su														

# Bergen, Norway, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time		Height		Time		Height		Time		Height		Time		Height									
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm								
<b>1</b> Th	0130	2.0	60	<b>16</b> F	0043	2.3	70	<b>1</b> Su	0305	2.0	60	<b>16</b> M	0220	1.6	50	<b>1</b> Su	0153	2.0	60				
	0747	4.6	140		0656	4.3	130		0921	4.6	140		0832	4.3	130		0805	3.9	120				
	1359	2.0	60		1314	2.3	70		1535	1.6	50		1452	1.6	50		1429	1.6	50				
	2009	4.6	140		1926	4.3	130		2145	4.6	140		2107	4.6	140		2039	3.9	120				
<b>2</b> F	0228	1.6	50	<b>17</b> Sa	0148	2.0	60	<b>2</b> M	0348	1.6	50	<b>17</b> Tu	0313	1.3	40	<b>2</b> M	0247	2.0	60	<b>17</b> Tu	0156	1.6	50
	0845	4.6	140		0803	4.3	130		1004	4.6	140		0926	4.9	150		0901	4.3	130		0805	4.3	130
	1456	1.6	50		1419	2.0	60		1617	1.3	40		1542	1.0	30		1517	1.3	40		1429	1.3	40
	2107	4.9	150		2031	4.6	140		2226	4.6	140		2158	4.9	150		2128	4.3	130		2047	4.3	130
<b>3</b> Sa	0317	1.6	50	<b>18</b> Su	0244	1.6	50	<b>3</b> Tu	0425	1.6	50	<b>18</b> W	0401	1.0	30	<b>3</b> Tu	0329	1.6	50	<b>18</b> W	0252	1.3	40
	0935	4.9	150		0859	4.6	140		1043	4.9	150		1013	5.2	160		0944	4.6	140		0903	4.6	140
	1545	1.6	50		1512	1.6	50		1654	1.3	40		1629	0.7	20		1556	1.3	40		1521	0.7	20
	2156	4.9	150		2126	4.6	140		2304	4.6	140		2245	5.2	160		2207	4.3	130		2138	4.6	140
<b>4</b> Su	0401	1.6	50	<b>19</b> M	0333	1.3	40	<b>4</b> W	0459	1.3	40	<b>19</b> Th	0445	0.7	20	<b>4</b> W	0404	1.3	40	<b>19</b> Th	0341	1.0	30
	1019	4.9	150		0947	4.9	150		1118	4.9	150		1059	5.6	170		1021	4.6	140		0952	4.9	150
	1629	1.3	40		1600	1.3	40		1728	1.0	30		1713	0.3	10		1631	1.0	30		1608	0.3	10
	2240	4.9	150		2215	4.9	150		2338	4.9	150		2331	5.2	160		2242	4.6	140		2225	4.9	150
<b>5</b> M	0440	1.6	50	<b>20</b> Tu	0418	1.3	40	<b>5</b> Th	0530	1.3	40	<b>20</b> F	0528	0.7	20	<b>5</b> Th	0437	1.3	40	<b>20</b> F	0425	0.7	20
	1059	5.2	160		1033	5.2	160		1151	4.9	150		1145	5.6	170		1054	4.9	150		1039	5.2	160
	1709	1.3	40		1645	1.0	30		1759	1.0	30		1756	0.3	10		1702	1.0	30		1652	0.3	10
	2321	4.9	150		2302	5.2	160		0011	4.9	150		0017	5.2	160		0507	1.0	30		0508	0.3	10
<b>6</b> Tu	0516	1.3	40	<b>21</b> W	0502	1.0	30	<b>6</b> F	0011	4.9	150	<b>21</b> Sa	0610	0.7	20	<b>6</b> F	1125	4.9	150	<b>21</b> Sa	1124	5.6	170
	1137	5.2	160		1118	5.6	170		0559	1.3	40		1231	5.6	170		1732	1.0	30		1734	0.0	0
	1746	1.3	40		1730	0.7	20		1222	4.9	150		1839	0.3	10		2345	4.6	140		2355	5.2	160
	2359	4.9	150		2348	5.2	160		1828	1.0	30		0044	4.6	140		0103	5.2	160		0535	1.0	30
<b>7</b> W	0550	1.6	50	<b>22</b> Th	0545	1.0	30	<b>7</b> Sa	0044	4.6	140	<b>22</b> Su	0653	0.7	20	<b>7</b> Sa	1155	4.9	150	<b>22</b> Su	1211	5.2	160
	1213	5.2	160		1203	5.6	170		0628	1.3	40		1318	5.6	170		1759	1.0	30		1816	0.3	10
	1821	1.3	40		1814	0.7	20		1253	4.9	150		1923	0.7	20		0150	4.6	140		0040	5.2	160
	0035	4.9	150		0036	5.2	160		1857	1.3	40		0116	4.6	140		0150	4.6	140		0633	0.3	10
<b>8</b> Th	0621	1.6	50	<b>23</b> F	0628	1.0	30	<b>8</b> Su	0657	1.3	40	<b>23</b> M	0736	1.0	30	<b>8</b> Su	0604	1.0	30	<b>23</b> M	0630	0.3	10
	1247	4.9	150		1250	5.6	170		1325	4.9	150		1407	5.2	160		1226	4.9	150		1257	5.2	160
	1854	1.3	40		1859	0.7	20		1926	1.3	40		2008	1.0	30		1827	1.0	30		1858	0.3	10
	0111	4.9	150		0124	5.2	160		0150	4.6	140		0238	4.6	140		0046	4.6	140		0125	4.9	150
<b>9</b> F	0652	1.6	50	<b>24</b> Sa	0712	1.0	30	<b>9</b> M	0728	1.6	50	<b>24</b> Tu	0823	1.3	40	<b>9</b> M	0633	1.0	30	<b>24</b> Tu	0716	0.7	20
	1321	4.9	150		1338	5.6	170		1400	4.6	140		1457	4.9	150		1258	4.6	140		1345	4.9	150
	1927	1.6	50		1946	1.0	30		1958	1.3	40		2056	1.3	40		1855	1.0	30		1940	0.7	20
	0147	4.6	140		0213	4.9	150		0227	4.3	130		0327	4.6	140		0120	4.6	140		0211	4.6	140
<b>10</b> Sa	0724	1.6	50	<b>25</b> Su	0758	1.3	40	<b>10</b> Tu	0802	1.6	50	<b>25</b> W	0917	1.6	50	<b>10</b> Tu	0703	1.0	30	<b>25</b> W	0801	1.0	30
	1356	4.9	150		1428	5.2	160		1438	4.6	140		1549	4.6	140		1332	4.6	140		1434	4.6	140
	2001	1.6	50		2035	1.0	30		2034	1.6	50		2152	1.6	50		1926	1.0	30		2024	1.3	40
	0224	4.6	140		0304	4.9	150		0308	4.3	130		0421	4.3	130		0155	4.3	130		0258	4.3	130
<b>11</b> Su	0758	2.0	60	<b>26</b> M	0848	1.6	50	<b>11</b> W	0843	2.0	60	<b>26</b> Th	1026	2.0	60	<b>11</b> W	0737	1.3	40	<b>26</b> Th	0853	1.3	40
	1433	4.6	140		1520	4.9	150		1522	4.3	130		1649	3.9	120		1411	4.3	130		1525	4.3	130
	2038	2.0	60		2129	1.3	40		2120	2.0	60		2306	2.0	60		2000	1.3	40		2115	1.6	50
	0304	4.3	130		0357	4.6	140		0356	3.9	120		0525	3.9	120		0236	4.3	130		0348	3.9	120
<b>12</b> M	0837	2.0	60	<b>27</b> Tu	0946	2.0	60	<b>12</b> Th	0936	2.0	60	<b>27</b> F	1156	2.0	60	<b>12</b> Th	0815	1.6	50	<b>27</b> F	0958	1.6	50
	1515	4.6	140		1616	4.6	140		1616	3.9	120		1803	3.9	120		1455	4.3	130		1621	3.9	120
	2122	2.0	60		2232	1.6	50		2222	2.0	60		0037	2.0	60		2042	1.6	50		2224	2.0	60
	0350	4.3	130		0455	4.3	130		0454	3.9	120		0646	3.9	120		0322	3.9	120		0448	3.6	110
<b>13</b> Tu	0925	2.3	70	<b>28</b> W	1058	2.0	60	<b>13</b> F	1052	2.3	70	<b>28</b> Sa	1325	2.0	60	<b>13</b> F	0905	1.6	50	<b>28</b> Sa	1125	1.6	50
	1603	4.3	130		1719	4.3	130		1723	3.9	120		1931	3.9	120		1548	3.9	120		1731	3.6	110
	2219	2.3	70		2346	2.0	60		2345	2.0	60		0037	2.0	60		2139	1.6	50		2358	2.0	60
	0443	3.9	120		0603	4.3	130		0605	3.9	120		0605	3.9	120		0418	3.9	120		0605	3.6	110
<b>14</b> W	1030	2.3	70	<b>29</b> Th	1224	2.0	60	<b>14</b> Sa	1229	2.3	70	<b>29</b> Su	1845	3.9	120	<b>14</b> Sa	1016	2.0	60	<b>29</b> Su	1253	1.6	50
	1702	4.3	130		1833	4.3	130		0112	2.0	60		0112	2.0	60		1653	3.6	110		1859	3.6	110
	2328	2.3	70		0105	2.0	60		0719	4.3	130		0725	3.9	120		2303	2.0	60		2011	3.6	110
	0545	3.9	120		0719	4.3	130		1343	2.0	60		1351	2.0	60		0528	3.9	120		0121	2.0	60
<b>15</b> Th	1153	2.3	70	<b>30</b> F	1951	4.3	130																



# Bergen, Norway, 2015

## Times and Heights of High and Low Waters

July				August				September															
Time		Height		Time		Height		Time		Height		Time		Height									
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm								
<b>1</b> W	0400	1.0	30	<b>16</b> Th	0451	0.7	20	<b>1</b> Sa	0508	0.7	20	<b>16</b> Su	0545	1.0	30	<b>1</b> Tu	0005	5.6	170	<b>16</b> W	0013	4.9	150
	1015	4.3	130		1103	4.6	140		1126	4.9	150		1158	4.9	150		0614	0.3	10		0614	1.0	30
	1616	0.7	20		1700	1.0	30		1723	0.7	20		1748	1.0	30		1237	5.6	170		1234	4.9	150
	2232	4.6	140		2319	4.9	150		2339	5.2	160		1818	1.0	30		1829	0.7	20		1821	1.3	40
<b>2</b> Th	0442	0.7	20	<b>17</b> F	0531	0.7	20	<b>2</b> Su	0551	0.3	10	<b>17</b> M	0009	4.9	150	<b>2</b> W	0052	5.6	170	<b>17</b> Th	0045	4.9	150
	1058	4.6	140		1144	4.6	140		1212	5.2	160		0616	1.0	30		0657	0.3	10		0642	1.3	40
	1658	0.7	20		1737	1.0	30		1806	0.7	20		1232	4.6	140		1325	5.2	160		1306	4.9	150
	2314	4.9	150		2358	4.9	150		1818	1.0	30		1818	1.0	30		1913	1.0	30		1851	1.3	40
<b>3</b> F	0524	0.7	20	<b>18</b> Sa	0608	0.7	20	<b>3</b> M	0025	5.2	160	<b>18</b> Tu	0042	4.9	150	<b>3</b> Th	0141	5.2	160	<b>18</b> F	0118	4.9	150
	1143	4.6	140		1223	4.6	140		0635	0.3	10		0646	1.0	30		0742	0.7	20		0712	1.3	40
	1739	0.7	20		1811	1.0	30		1259	4.9	150		1305	4.6	140		1413	4.9	150		1341	4.6	140
	2357	4.9	150		1848	0.7	20		1848	0.7	20		1848	1.3	40		1959	1.0	30		1923	1.6	50
<b>4</b> Sa	0606	0.3	10	<b>19</b> Su	0035	4.6	140	<b>4</b> Tu	0112	5.2	160	<b>19</b> W	0115	4.6	140	<b>4</b> F	0232	5.2	160	<b>19</b> Sa	0156	4.6	140
	1229	4.6	140		0643	0.7	20		0719	0.3	10		0715	1.0	30		0830	1.3	40		0745	1.6	50
	1821	0.7	20		1301	4.6	140		1347	4.9	150		1339	4.6	140		1503	4.6	140		1421	4.6	140
					1844	1.0	30		1933	0.7	20		1918	1.3	40		2053	1.3	40		2001	2.0	60
<b>5</b> Su	0043	4.9	150	<b>20</b> M	0111	4.6	140	<b>5</b> W	0201	5.2	160	<b>20</b> Th	0149	4.6	140	<b>5</b> Sa	0326	4.6	140	<b>20</b> Su	0239	4.3	130
	0650	0.3	10		0717	1.0	30		0806	0.7	20		0746	1.3	40		0925	1.6	50		0824	2.0	60
	1317	4.6	140		1338	4.3	130		1437	4.9	150		1416	4.3	130		1557	4.6	140		1506	4.3	130
	1905	0.7	20		1917	1.3	40		2021	1.0	30		1952	1.6	50		2159	2.0	60		2048	2.0	60
<b>6</b> M	0130	4.9	150	<b>21</b> Tu	0147	4.6	140	<b>6</b> Th	0252	4.9	150	<b>21</b> F	0227	4.3	130	<b>6</b> Su	0425	4.3	130	<b>21</b> M	0331	4.3	130
	0737	0.7	20		0751	1.0	30		0857	1.0	30		0821	1.6	50		1035	2.0	60		0917	2.3	70
	1406	4.6	140		1415	4.3	130		1528	4.6	140		1455	4.3	130		1659	4.3	130		1559	4.3	130
	1951	1.0	30		1951	1.3	40		2116	1.3	40		2031	1.6	50		2325	2.0	60		2156	2.3	70
<b>7</b> Tu	0219	4.6	140	<b>22</b> W	0224	4.3	130	<b>7</b> F	0347	4.6	140	<b>22</b> Sa	0310	4.3	130	<b>7</b> M	0535	4.3	130	<b>22</b> Tu	0433	3.9	120
	0826	0.7	20		0827	1.3	40		0955	1.3	40		0941	1.6	50		1203	2.3	70		1035	2.3	70
	1458	4.6	140		1454	3.9	120		1624	4.3	130		1541	3.9	120		1814	4.3	130		1705	4.3	130
	2042	1.0	30		2028	1.6	50		2222	1.6	50		2122	2.0	60		2122	2.0	60		2332	2.3	70
<b>8</b> W	0312	4.6	140	<b>23</b> Th	0304	4.3	130	<b>8</b> Sa	0447	4.3	130	<b>23</b> Su	0401	3.9	120	<b>8</b> Tu	0056	2.0	60	<b>23</b> W	0551	3.9	120
	0922	1.0	30		0909	1.3	40		1104	1.6	50		1001	2.0	60		0700	3.9	120		1214	2.3	70
	1552	4.3	130		1537	3.9	120		1726	4.3	130		1635	3.9	120		1325	2.0	60		1824	4.3	130
	2140	1.3	40		2114	1.6	50		2343	1.6	50		2234	2.3	70		1935	4.3	130				
<b>9</b> Th	0408	4.3	130	<b>24</b> F	0350	3.9	120	<b>9</b> Su	0556	4.3	130	<b>24</b> M	0503	3.9	120	<b>9</b> W	0205	1.6	50	<b>24</b> Th	0104	2.0	60
	1024	1.0	30		0959	1.6	50		1223	1.6	50		1120	2.0	60		0815	4.3	130		0716	4.3	130
	1650	4.3	130		1625	3.9	120		1839	3.9	120		1742	3.9	120		1424	2.0	60		1332	2.0	60
	2249	1.6	50		2213	2.0	60								2037		4.6	140	1939		4.6	140	
<b>10</b> F	0510	4.3	130	<b>25</b> Sa	0443	3.9	120	<b>10</b> M	0107	1.6	50	<b>25</b> Tu	0007	2.3	70	<b>10</b> Th	0256	1.6	50	<b>25</b> F	0207	1.6	50
	1133	1.3	40		1102	1.6	50		0714	3.9	120		0621	3.9	120		0908	4.6	140		0823	4.6	140
	1754	3.9	120		1722	3.6	110		1338	1.6	50		1247	2.0	60		1509	1.6	50		1429	1.6	50
					2329	2.0	60		1953	4.3	130		1859	3.9	120		2123	4.6	140		2038	4.9	150
<b>11</b> Sa	0005	1.6	50	<b>26</b> Su	0548	3.6	110	<b>11</b> Tu	0216	1.6	50	<b>26</b> W	0131	2.0	60	<b>11</b> F	0337	1.3	40	<b>26</b> Sa	0258	1.3	40
	0618	4.3	130		1215	1.6	50		0826	4.3	130		0741	3.9	120		0949	4.6	140		0915	4.9	150
	1245	1.3	40		1829	3.9	120		1437	1.6	50		1357	2.0	60		1547	1.6	50		1517	1.3	40
	1903	3.9	120						2053	4.3	130		2008	4.3	130		2202	4.9	150		2127	5.2	160
<b>12</b> Su	0119	1.3	40	<b>27</b> M	0051	2.0	60	<b>12</b> W	0311	1.3	40	<b>27</b> Th	0231	1.6	50	<b>12</b> Sa	0414	1.3	40	<b>27</b> Su	0343	1.0	30
	0730	4.3	130		0701	3.6	110		0921	4.3	130		0845	4.3	130		1026	4.9	150		1001	5.2	160
	1350	1.3	40		1324	1.6	50		1525	1.3	40		1451	1.6	50		1621	1.3	40		1601	1.0	30
	2009	4.3	130		1938	3.9	120		2141	4.6	140		2103	4.6	140		2237	4.9	150		2213	5.6	170
<b>13</b> M	0224	1.3	40	<b>28</b> Tu	0159	1.6	50	<b>13</b> Th	0356	1.0	30	<b>28</b> F	0321	1.3	40	<b>13</b> Su	0447	1.0	30	<b>28</b> M	0427	0.7	20
	0835	4.3	130		0810	3.9	120		1007	4.6	140		0936	4.9	150		1059	4.9	150		1045	5.6	170
	1447	1.3	40		1422	1.6	50		1606	1.3	40		1538	1.3	40		1653	1.3	40		1644	0.7	20
	2106	4.3	130		2036	4.3	130		2223	4.9	150		2150	5.2	160		2310	5.2	160		2258	5.9	180
<b>14</b> Tu	0319	1.0	30	<b>29</b> W	0253	1.3	40	<b>14</b> F	0436	1.0	30	<b>29</b> Sa	0406	0.7	20	<b>14</b> M	0517	1.0	30	<b>29</b> Tu	0509	0.3	10
	0931	4.3	130		0906	4.3	130		1047	4.6	140		1022	5.2	160		1131	4.9	150		1129	5.6	170
	1537	1.0	30		1512	1.3	40		1643	1.3	40		1622	1.0	30		1723	1.3	40		1726	0.7	20
	2154	4.6	140		2126	4.6	140		2300	4.9	150		2235	5.2	160		2342	5.2	160		2344	5.9	180
<b>15</b> W	0407	1.0	30	<b>30</b> Th	0341	1.0	30	<b>15</b> Sa	0512	1.0	30	<b>30</b> Su	0449	0.7	20	<b>15</b> Tu	0546	1.0	30	<b>30</b> W	0551	0.3	10
	1019	4.6	140		0955	4.6	140		1123	4.6	140		1107	5.2	160		1202	4.9	150		1215	5.6	170
	1621	1.0	30		1558	1.0	30		1716	1.0	30		1704	0.7	20		1752	1.3	40		1809	0.7	20
	2238	4.6	140		2211	4.9	150		2335	4.9	150		2319	5.6	170								
			<b>31</b> F	04																			



# Bergen, Norway, 2015

## Times and Heights of High and Low Waters

October				November				December															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0031	5.9	180	<b>16</b> F	0019	4.9	150	<b>1</b> Su	0152	5.2	160	<b>16</b> M	0119	4.9	150	<b>1</b> Tu	0220	4.9	150	<b>16</b> W	0153	4.9	150
	0634	0.7	20		0614	1.3	40		0739	1.6	50		0704	1.6	50		0801	2.0	60		0736	1.6	50
	1301	5.6	170		1238	5.2	160		1413	4.9	150		1335	4.9	150		1436	4.9	150		1407	4.9	150
	1853	1.0	30		1829	1.3	40		2015	1.6	50		1931	1.6	50		2048	2.0	60		2011	1.6	50
<b>2</b> F	0120	5.6	170	<b>17</b> Sa	0055	4.9	150	<b>2</b> M	0244	4.9	150	<b>17</b> Tu	0205	4.6	140	<b>2</b> W	0309	4.6	140	<b>17</b> Th	0243	4.9	150
	0717	1.0	30		0645	1.6	50		0828	2.0	60		0746	2.0	60		0849	2.3	70		0825	2.0	60
	1348	5.2	160		1314	4.9	150		1504	4.6	140		1422	4.9	150		1525	4.6	140		1458	4.9	150
	1940	1.3	40		1903	1.6	50		2116	2.0	60		2020	2.0	60		2147	2.0	60		2106	1.6	50
<b>3</b> Sa	0211	5.2	160	<b>18</b> Su	0134	4.9	150	<b>3</b> Tu	0339	4.6	140	<b>18</b> W	0257	4.6	140	<b>3</b> Th	0402	4.3	130	<b>18</b> F	0338	4.6	140
	0803	1.3	40		0719	1.6	50		0928	2.3	70		0837	2.3	70		0949	2.6	80		0923	2.0	60
	1438	4.9	150		1354	4.9	150		1559	4.6	140		1514	4.6	140		1620	4.6	140		1554	4.9	150
	2033	1.6	50		1941	2.0	60		2232	2.3	70		2121	2.0	60		2256	2.3	70		2211	2.0	60
<b>4</b> Su	0305	4.9	150	<b>19</b> M	0219	4.6	140	<b>4</b> W	0441	4.3	130	<b>19</b> Th	0356	4.6	140	<b>4</b> F	0502	4.3	130	<b>19</b> Sa	0439	4.6	140
	0855	2.0	60		0759	2.0	60		1049	2.6	80		0945	2.3	70		1105	2.6	80		1033	2.3	70
	1530	4.6	140		1440	4.6	140		1706	4.3	130		1615	4.6	140		1724	4.3	130		1657	4.6	140
	2138	2.0	60		2029	2.0	60		2353	2.3	70		2239	2.0	60		2359	2.0	60		2325	2.0	60
<b>5</b> M	0403	4.3	130	<b>20</b> Tu	0311	4.3	130	<b>5</b> Th	0556	4.3	130	<b>20</b> F	0504	4.3	130	<b>5</b> Sa	0005	2.3	70	<b>20</b> Su	0546	4.6	140
	1003	2.3	70		0851	2.3	70		1216	2.6	80		1108	2.3	70		0609	4.3	130		1152	2.3	70
	1630	4.3	130		1533	4.6	140		1823	4.3	130		1725	4.6	140		1222	2.6	80		1807	4.6	140
	2305	2.3	70		2135	2.3	70		0101	2.3	70		2359	2.0	60		1834	4.3	130		1877	4.6	140
<b>6</b> Tu	0512	4.3	130	<b>21</b> W	0413	4.3	130	<b>6</b> F	0101	2.3	70	<b>21</b> Sa	0619	4.6	140	<b>6</b> Su	0105	2.3	70	<b>21</b> M	0037	2.0	60
	1135	2.6	80		1006	2.3	70		0711	4.3	130		1228	2.3	70		0715	4.3	130		0657	4.6	140
	1744	4.3	130		1637	4.3	130		1322	2.6	80		1838	4.6	140		1324	2.3	70		1305	2.0	60
					2305	2.3	70		1932	4.6	140		0154	2.0	60		1936	4.3	130		1917	4.9	150
<b>7</b> W	0034	2.3	70	<b>22</b> Th	0527	4.3	130	<b>7</b> Sa	0154	2.0	60	<b>22</b> Su	0108	1.6	50	<b>7</b> M	0155	2.0	60	<b>22</b> Tu	0142	1.6	50
	0637	4.3	130		1142	2.3	70		0808	4.6	140		0728	4.6	140		0809	4.6	140		0801	4.9	150
	1301	2.3	70		1753	4.3	130		1411	2.3	70		1334	2.0	60		1414	2.3	70		1409	2.0	60
	1907	4.3	130		2024	4.6	140		2024	4.6	140		1944	4.9	150		2027	4.6	140		2021	4.9	150
<b>8</b> Th	0140	2.0	60	<b>23</b> F	0033	2.0	60	<b>8</b> Su	0237	2.0	60	<b>23</b> M	0206	1.6	50	<b>8</b> Tu	0238	2.0	60	<b>23</b> W	0238	1.6	50
	0752	4.3	130		0649	4.3	130		0852	4.6	140		0826	4.9	150		0853	4.6	140		0858	4.9	150
	1400	2.3	70		1303	2.3	70		1451	2.0	60		1429	1.6	50		1456	2.0	60		1505	1.6	50
	2011	4.6	140		1909	4.6	140		2105	4.9	150		2041	5.2	160		2110	4.6	140		2118	5.2	160
<b>9</b> F	0230	1.6	50	<b>24</b> Sa	0139	1.6	50	<b>9</b> M	0314	1.6	50	<b>24</b> Tu	0257	1.3	40	<b>9</b> W	0316	1.6	50	<b>24</b> Th	0329	1.3	40
	0844	4.6	140		0757	4.6	140		0929	4.9	150		0917	5.2	160		0932	4.9	150		0948	5.2	160
	1445	2.0	60		1403	2.0	60		1528	2.0	60		1520	1.3	40		1535	2.0	60		1557	1.3	40
	2058	4.6	140		2011	4.9	150		2142	4.9	150		2133	5.6	170		2148	4.9	150		2210	5.2	160
<b>10</b> Sa	0310	1.6	50	<b>25</b> Su	0232	1.3	40	<b>10</b> Tu	0348	1.6	50	<b>25</b> W	0344	1.0	30	<b>10</b> Th	0352	1.6	50	<b>25</b> F	0416	1.3	40
	0925	4.6	140		0851	5.2	160		1002	4.9	150		1004	5.6	170		1008	4.9	150		1035	5.2	160
	1522	1.6	50		1453	1.6	50		1601	1.6	50		1607	1.3	40		1612	1.6	50		1644	1.3	40
	2137	4.9	150		2103	5.2	160		2216	5.2	160		2222	5.6	170		2226	4.9	150		2258	5.2	160
<b>11</b> Su	0346	1.3	40	<b>26</b> M	0319	1.0	30	<b>11</b> W	0419	1.3	40	<b>26</b> Th	0429	1.0	30	<b>11</b> F	0426	1.6	50	<b>26</b> Sa	0500	1.3	40
	1000	4.9	150		0938	5.6	170		1035	5.2	160		1050	5.6	170		1043	5.2	160		1120	5.6	170
	1556	1.6	50		1539	1.3	40		1634	1.6	50		1654	1.0	30		1647	1.6	50		1729	1.0	30
	2211	5.2	160		2151	5.6	170		2249	5.2	160		2310	5.6	170		2303	4.9	150		2344	5.2	160
<b>12</b> M	0418	1.3	40	<b>27</b> Tu	0404	0.7	20	<b>12</b> Th	0450	1.3	40	<b>27</b> F	0513	1.0	30	<b>12</b> Sa	0501	1.3	40	<b>27</b> Su	0540	1.3	40
	1032	4.9	150		1023	5.6	170		1107	5.2	160		1135	5.6	170		1119	5.2	160		1203	5.2	160
	1628	1.3	40		1624	1.0	30		1706	1.3	40		1739	1.0	30		1724	1.3	40		1812	1.0	30
	2243	5.2	160		2238	5.9	180		2323	5.2	160		2358	5.6	170		2341	5.2	160		1812	1.0	30
<b>13</b> Tu	0448	1.3	40	<b>28</b> W	0448	0.7	20	<b>13</b> F	0521	1.3	40	<b>28</b> Sa	0555	1.3	40	<b>13</b> Su	0537	1.3	40	<b>28</b> M	0028	5.2	160
	1103	5.2	160		1108	5.9	180		1140	5.2	160		1220	5.6	170		1157	5.2	160		0619	1.3	40
	1658	1.3	40		1708	1.0	30		1738	1.3	40		1824	1.3	40		1801	1.3	40		1245	5.2	160
	2315	5.2	160		2325	5.9	180		2359	5.2	160		0045	5.2	160		0022	5.2	160		1853	1.3	40
<b>14</b> W	0517	1.3	40	<b>29</b> Th	0530	0.7	20	<b>14</b> Sa	0553	1.3	40	<b>29</b> Su	0637	1.3	40	<b>14</b> M	0614	1.3	40	<b>29</b> Tu	0111	4.9	150
	1134	5.2	160		1153	5.6	170		1215	5.2	160		1305	5.2	160		1237	5.2	160		0657	1.6	50
	1727	1.3	40		1752	1.0	30		1813	1.6	50		1909	1.3	40		1840	1.3	40		1326	5.2	160
	2346	5.2	160		0013	5.6	170		0037	4.9	150		0133	4.9	150		0106	4.9	150		1933	1.3	40
<b>15</b> Th	0545	1.3	40	<b>30</b> F	0613	1.0	30	<b>15</b> Su	0627	1.6	50	<b>30</b> M	0718	1.6	50	<b>15</b> Tu	0653	1.6	50	<b>30</b> W	0154	4.9	150
	1205	5.2	160		1239	5.6	170		1253	5.2	160		1350	5.2	160		1320	5.2	160		0733	1.6	50
	1757	1.3	40		1837	1.0	30		1850	1.6	50		1956	1.6	50		1923	1.6	50		1407	4.9	150
					0102	5.6	170		0655	1.3	40		0133	4.9	150		0106	4.9	150				

# Narvik, Norway, 2015

## Times and Heights of High and Low Waters

January				February				March									
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height				
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm			
<b>1</b> Th	0331	3.0 90	<b>16</b> F	0235	3.9 120	<b>1</b> Su	0506	3.3 100	<b>16</b> M	0412	3.0 90	<b>1</b> Su	0352	3.6 110	<b>16</b> M	0239	3.6 110
	0932	9.5 290		0853	8.5 260		1106	9.8 300		1021	9.5 290		0954	8.5 260		0845	8.5 260
	1606	3.6 110		1519	4.3 130		1740	3.0 90		1652	3.0 90		1632	3.3 100		1526	3.3 100
	2149	9.5 290		2108	8.5 260		2328	9.2 280		2248	9.5 290		2224	8.2 250		2125	8.5 260
<b>2</b> F	0428	3.0 90	<b>17</b> Sa	0339	3.6 110	<b>2</b> M	0550	3.0 90	<b>17</b> Tu	0508	2.3 70	<b>2</b> M	0447	3.3 100	<b>17</b> Tu	0349	3.0 90
	1030	9.8 300		0955	9.2 280		1150	10.2 310		1113	10.5 320		1048	9.2 280		0955	9.2 280
	1703	3.3 100		1621	3.9 120		1822	2.6 80		1743	2.0 60		1720	3.0 90		1628	2.3 70
	2247	9.5 290		2211	9.2 280		2340	10.2 310		2340	10.2 310		2314	8.9 270		2229	9.2 280
<b>3</b> Sa	0519	2.6 80	<b>18</b> Su	0436	3.0 90	<b>3</b> Tu	0011	9.5 290	<b>18</b> W	0557	1.6 50	<b>3</b> Tu	0532	3.0 90	<b>18</b> W	0448	2.3 70
	1120	10.5 320		1047	9.8 300		0628	2.6 80		1200	11.2 340		1131	9.5 290		1050	10.2 310
	1752	3.0 90		1715	3.0 90		1229	10.5 320		1830	1.3 40		1800	2.3 70		1721	1.6 50
	2338	9.8 300		2306	9.8 300		1858	2.3 70		1930	2.0 60		2354	9.2 280		2322	10.2 310
<b>4</b> Su	0603	2.6 80	<b>19</b> M	0527	2.6 80	<b>4</b> W	0050	9.8 300	<b>19</b> Th	0028	11.2 340	<b>4</b> W	0608	2.6 80	<b>19</b> Th	0539	1.6 50
	1204	10.8 330		1134	10.8 330		0700	2.6 80		0644	1.3 40		1207	10.2 310		1139	11.2 340
	1835	2.6 80		1803	2.3 70		1304	10.8 330		1246	11.8 360		1835	2.0 60		1809	0.7 20
				2356	10.5 320		1930	2.0 60		1916	0.7 20						
<b>5</b> M	0023	10.2 310	<b>20</b> Tu	0614	2.0 60	<b>5</b> Th	0126	10.2 310	<b>20</b> F	0115	11.5 350	<b>5</b> Th	0029	9.8 300	<b>20</b> F	0010	11.2 340
	0642	2.6 80		1219	11.5 350		0730	2.3 70		0728	1.0 30		0640	2.3 70		0626	1.0 30
	1244	10.8 330		1849	1.6 50		1338	10.8 330		1331	12.5 380		1241	10.2 310		1225	11.8 360
	1914	2.3 70		●	2000		2.0 60	2000		2.0 60	2001		0.3 10	1905		2.0 60	●
<b>6</b> Tu	0105	10.2 310	<b>21</b> W	0044	10.8 330	<b>6</b> F	0159	10.2 310	<b>21</b> Sa	0200	11.8 360	<b>6</b> F	0102	9.8 300	<b>21</b> Sa	0055	11.5 350
	0716	2.6 80		0659	1.6 50		0757	2.3 70		0812	1.0 30		0709	2.3 70		0711	0.7 20
	1322	11.2 340		1303	11.8 360		1410	10.8 330		1416	12.5 380		1312	10.5 320		1311	12.1 370
	1949	2.3 70		1934	1.3 40		2028	2.0 60		2046	0.3 10		1933	1.6 50		1938	0.0 0
<b>7</b> W	0144	10.2 310	<b>22</b> Th	0131	11.5 350	<b>7</b> Sa	0232	10.2 310	<b>22</b> Su	0245	11.8 360	<b>7</b> Sa	0134	10.2 310	<b>22</b> Su	0140	11.8 360
	0747	2.6 80		0744	1.3 40		0825	2.6 80		0858	1.3 40		0736	2.0 60		0755	0.7 20
	1359	11.2 340		1348	12.1 370		1441	10.5 320		1501	12.1 370		1343	10.5 320		1356	12.1 370
	2022	2.3 70		2020	1.0 30		2057	2.3 70		2131	1.0 30		2000	1.6 50		2022	0.3 10
<b>8</b> Th	0221	10.2 310	<b>23</b> F	0217	11.5 350	<b>8</b> Su	0304	9.8 300	<b>23</b> M	0330	11.2 340	<b>8</b> Su	0204	10.2 310	<b>23</b> M	0223	11.5 350
	0817	2.6 80		0829	1.6 50		0855	2.6 80		0945	1.6 50		0804	2.0 60		0839	1.0 30
	1434	10.8 330		1434	12.1 370		1513	10.2 310		1546	11.5 350		1413	10.5 320		1440	11.8 360
	2054	2.6 80		2107	1.0 30		2128	2.6 80		2219	1.6 50		2027	1.6 50		2105	0.7 20
<b>9</b> F	0257	9.8 300	<b>24</b> Sa	0304	11.5 350	<b>9</b> M	0337	9.5 290	<b>24</b> Tu	0416	10.5 320	<b>9</b> M	0235	10.2 310	<b>24</b> Tu	0307	11.2 340
	0846	3.0 90		0915	2.0 60		0928	3.0 90		1037	2.6 80		0834	2.3 70		0925	1.3 40
	1508	10.5 320		1520	12.1 370		1546	9.8 300		1634	10.5 320		1445	10.2 310		1525	10.8 330
	2126	3.0 90		2156	1.3 40		2203	3.0 90		2312	2.3 70		2057	2.0 60		2150	1.6 50
<b>10</b> Sa	0333	9.5 290	<b>25</b> Su	0351	11.2 340	<b>10</b> Tu	0413	9.2 280	<b>25</b> W	0504	9.8 300	<b>10</b> Tu	0307	9.8 300	<b>25</b> W	0351	10.5 320
	0919	3.3 100		1005	2.3 70		1008	3.6 110		1139	3.3 100		0907	2.6 80		1015	2.0 60
	1542	10.2 310		1607	11.5 350		1622	9.5 290		1725	9.5 290		1518	9.8 300		1612	9.8 300
	2202	3.0 90		2248	2.0 60		2244	3.3 100		●	●		2130	2.3 70		2238	2.3 70
<b>11</b> Su	0409	9.2 280	<b>26</b> M	0440	10.5 320	<b>11</b> W	0453	8.9 270	<b>26</b> Th	0013	3.3 100	<b>11</b> W	0342	9.5 290	<b>26</b> Th	0437	9.5 290
	0957	3.6 110		1101	3.0 90		1057	3.9 120		0559	8.9 270		0944	3.0 90		1113	3.0 90
	1618	9.8 300		1657	10.8 330		1704	8.9 270		1254	3.6 110		1555	9.5 290		1701	8.9 270
	2242	3.3 100		2345	2.6 80		2334	3.6 110		1826	8.5 260		2208	2.6 80		2334	3.3 100
<b>12</b> M	0449	8.9 270	<b>27</b> Tu	0533	9.8 300	<b>12</b> Th	0541	8.5 260	<b>27</b> F	0126	3.6 110	<b>12</b> Th	0420	9.2 280	<b>27</b> F	0528	8.9 270
	1042	4.3 130		1207	3.6 110		1202	4.3 130		0709	8.5 260		1030	3.3 100		1224	3.3 100
	1658	9.2 280		1751	9.8 300		1757	8.5 260		1415	3.9 120		1636	8.9 270		1759	8.2 250
	2330	3.6 110		●	●		●	1944		7.9 240	1944		7.9 240	2255		3.3 100	●
<b>13</b> Tu	0535	8.5 260	<b>28</b> W	0049	3.0 90	<b>13</b> F	0037	3.9 120	<b>28</b> Sa	0243	3.9 120	<b>13</b> F	0505	8.9 270	<b>28</b> Sa	0046	3.9 120
	1140	4.6 140		0633	9.2 280		0643	8.2 250		0836	8.2 250		1132	3.9 120		0631	8.2 250
	1746	8.9 270		1322	3.9 120		1321	4.6 140		1530	3.6 110		1727	8.5 260		1344	3.6 110
				1855	9.2 280		1906	8.2 250		2114	7.9 240		●	●		1914	7.5 230
<b>14</b> W	0025	3.9 120	<b>29</b> Th	0158	3.6 110	<b>14</b> Sa	0151	3.9 120	<b>14</b> Sa	0000	3.6 110	<b>14</b> Sa	0000	3.6 110	<b>29</b> Su	0208	3.9 120
	0632	8.2 250		0746	8.9 270		0802	8.2 250		0802	8.2 250		0603	8.2 250		0756	7.9 240
	1250	4.6 140		1440	3.9 120		1442	4.3 130		1442	4.3 130		1250	3.9 120		1458	3.6 110
	1845	8.5 260		2012	8.5 260		2030	8.2 250		2030	8.2 250		1834	7.9 240		2047	7.5 230
<b>15</b> Th	0129	3.9 120	<b>30</b> F	0309	3.6 110	<b>15</b> Su	0306	3.6 110	<b>15</b> Su	0118	3.9 120	<b>15</b> Su	0118	3.9 120	<b>30</b> M	0321	3.9 120
	0741	8.2 250		0906	8.9 270		0919	8.9 270		0919	8.9 270		0720	8.2 250		0920	8.2 250
	1407	4.6 140		1551	3.9 120		1553	3.6 110		1553	3.6 110		1413	3.9 120		1600	3.3 100
	1956	8.5 260		2131	8.5 260		2146	8.5 260		2146	8.5 260		2001	7.9 240		2200	7.9 240
		<b>31</b> Sa	0412	3.3 100									<b>31</b> Tu	0418	3.6 110		
			1014	9.2 280										1018	8.5 260		
			1651	3.3 100										1649	3.0 90		
			2236	8.9 270										2249	8.5 260		

Time meridian 15° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Narvik, Norway, 2015

## Times and Heights of High and Low Waters

April				May				June																
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height											
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> W	0504	3.0	90	<b>16</b> Th	0426	2.3	70	<b>1</b> F	0507	3.0	90	<b>16</b> Sa	0459	1.6	50	<b>1</b> M	0549	2.3	70	<b>16</b> Tu	0625	1.3	40	
	1101	8.9	270		1024	9.8	300		1101	8.9	270		1052	10.2	310		1139	9.2	280		1215	9.8	300	
	1729	2.3	70		1656	1.3	40		1724	2.0	60		1723	1.0	30		1759	1.6	50		●	1839	1.3	40
	2328	8.9	270		2301	10.2	310		2329	9.2	280		2327	10.5	320									
<b>2</b> Th	0542	2.6	80	<b>17</b> F	0518	1.6	50	<b>2</b> Sa	0544	2.3	70	<b>17</b> Su	0550	1.3	40	<b>2</b> Tu	0005	9.8	300	<b>17</b> W	0040	10.5	320	
	1138	9.5	290		1116	10.5	320		1136	9.2	280		1143	10.5	320		0628	2.0	60		0710	1.3	40	
	1803	2.0	60		1745	0.7	20		1758	1.6	50		1810	0.7	20		1219	9.2	280		1302	9.8	300	
			2349		10.8	330									1836		1.6	50	1920		1.3	40		
<b>3</b> F	0002	9.5	290	<b>18</b> Sa	0607	1.0	30	<b>3</b> Su	0002	9.5	290	<b>18</b> M	0014	10.8	330	<b>3</b> W	0042	10.2	310	<b>18</b> Th	0123	10.5	320	
	0614	2.3	70		1203	11.2	340		0617	2.0	60		0637	1.0	30		0706	1.6	50		0753	1.3	40	
	1211	9.8	300		1831	0.3	10		1211	9.5	290		1231	10.5	320		1259	9.5	290		1347	9.8	300	
	1833	1.6	50		●				1830	1.6	50		●	1855	0.7		20	1915	1.3		40	1958	1.6	50
<b>4</b> Sa	0034	9.8	300	<b>19</b> Su	0034	11.2	340	<b>4</b> M	0035	9.8	300	<b>19</b> Tu	0058	11.2	340	<b>4</b> Th	0120	10.2	310	<b>19</b> F	0205	10.5	320	
	0645	2.0	60		0653	0.7	20		0651	2.0	60		0723	1.0	30		0746	1.3	40		0833	1.3	40	
	1243	9.8	300		1250	11.5	350		1245	9.5	290		1317	10.5	320		1341	9.8	300		1430	9.5	290	
	1902	1.6	50		1916	0.3	10		1902	1.3	40		1938	1.0	30		1954	1.3	40		2034	2.0	60	
<b>5</b> Su	0105	10.2	310	<b>20</b> M	0118	11.5	350	<b>5</b> Tu	0108	10.2	310	<b>20</b> W	0141	10.8	330	<b>5</b> F	0200	10.5	320	<b>20</b> Sa	0245	10.2	310	
	0714	2.0	60		0737	0.7	20		0725	1.6	50		0807	1.0	30		0828	1.3	40		0913	1.6	50	
	1314	10.2	310		1336	11.5	350		1321	9.8	300		1403	10.2	310		1424	9.8	300		1512	9.2	280	
	1930	1.3	40		1958	0.3	10		1935	1.3	40		2018	1.3	40		2035	1.6	50		2109	2.3	70	
<b>6</b> M	0136	10.2	310	<b>21</b> Tu	0202	11.5	350	<b>6</b> W	0142	10.2	310	<b>21</b> Th	0224	10.5	320	<b>6</b> Sa	0242	10.2	310	<b>21</b> Su	0325	9.8	300	
	0744	1.6	50		0822	1.0	30		0800	1.6	50		0851	1.3	40		0913	1.6	50		0952	2.0	60	
	1346	10.2	310		1421	10.8	330		1359	9.8	300		1448	9.8	300		1510	9.5	290		1553	8.9	270	
	2000	1.6	50		2040	1.0	30		2010	1.6	50		2057	2.0	60		2121	2.0	60		2146	2.6	80	
<b>7</b> Tu	0208	10.2	310	<b>22</b> W	0244	10.8	330	<b>7</b> Th	0219	10.2	310	<b>22</b> F	0306	10.2	310	<b>7</b> Su	0327	10.2	310	<b>22</b> M	0405	9.2	280	
	0816	2.0	60		0907	1.3	40		0839	1.6	50		0935	1.6	50		1004	1.6	50		1033	2.3	70	
	1420	9.8	300		1506	10.2	310		1438	9.5	290		1532	9.2	280		1558	9.2	280		1635	8.2	250	
	2031	1.6	50		2122	1.6	50		2048	2.0	60		2137	2.3	70		2212	2.3	70		2227	3.3	100	
<b>8</b> W	0241	10.2	310	<b>23</b> Th	0327	10.2	310	<b>8</b> F	0257	9.8	300	<b>23</b> Sa	0348	9.5	290	<b>8</b> M	0415	9.8	300	<b>23</b> Tu	0446	8.9	270	
	0850	2.0	60		0955	2.0	60		0921	2.0	60		1022	2.3	70		1100	2.0	60		1118	2.6	80	
	1456	9.8	300		1552	9.5	290		1521	9.2	280		1618	8.5	260		1650	8.9	270		1720	7.9	240	
	2105	2.0	60		2206	2.3	70		2130	2.3	70		2220	3.0	90		2312	2.6	80		2317	3.6	110	
<b>9</b> Th	0317	9.8	300	<b>24</b> F	0412	9.5	290	<b>9</b> Sa	0339	9.5	290	<b>24</b> Su	0433	8.9	270	<b>9</b> Tu	0508	9.5	290	<b>24</b> W	0532	8.2	250	
	0929	2.3	70		1048	2.6	80		1011	2.3	70		1113	2.6	80		1201	2.0	60		1209	3.0	90	
	1535	9.2	280		1640	8.5	260		1607	8.9	270		1706	7.9	240		1749	8.5	260		1812	7.5	230	
	2143	2.6	80		2256	3.3	100		2221	2.6	80		2310	3.6	110		●				●			
<b>10</b> F	0356	9.5	290	<b>25</b> Sa	0500	8.9	270	<b>10</b> Su	0427	9.2	280	<b>25</b> M	0521	8.5	260	<b>10</b> W	0020	3.0	90	<b>25</b> Th	0018	3.9	120	
	1017	3.0	90		1150	3.0	90		1111	2.6	80		1210	3.0	90		0608	9.2	280		0624	7.9	240	
	1618	8.9	270		1734	7.9	240		1701	8.5	260		1801	7.5	230		1306	2.0	60		1304	3.3	100	
	2232	3.0	90		2359	3.6	110		2325	3.0	90		●				1856	8.5	260		1912	7.5	230	
<b>11</b> Sa	0442	8.9	270	<b>26</b> Su	0556	8.2	250	<b>11</b> M	0522	8.9	270	<b>26</b> Tu	0013	3.9	120	<b>11</b> Th	0131	3.0	90	<b>26</b> F	0127	3.9	120	
	1118	3.3	100		1301	3.3	100		1218	2.6	80		0618	7.9	240		0716	8.9	270		0726	7.5	230	
	1710	8.2	250		1840	7.5	230		1804	8.2	250		1311	3.3	100		1410	2.0	60		1403	3.3	100	
	2337	3.3	100		●				●				1906	7.2	220		2008	8.5	260		2019	7.5	230	
<b>12</b> Su	0538	8.5	260	<b>27</b> M	0117	3.9	120	<b>12</b> Tu	0039	3.3	100	<b>27</b> W	0125	3.9	120	<b>12</b> F	0240	3.0	90	<b>27</b> Sa	0236	3.9	120	
	1232	3.3	100		0707	7.9	240		0629	8.5	260		0725	7.5	230		0827	8.9	270		0831	7.9	240	
	1817	7.9	240		1411	3.3	100		1328	2.6	80		1411	3.3	100		1512	2.0	60		1501	3.0	90	
	●				2002	7.2	220		1919	8.2	250		2018	7.5	230		2116	8.9	270		2121	7.9	240	
<b>13</b> M	0056	3.6	110	<b>28</b> Tu	0233	3.9	120	<b>13</b> W	0154	3.3	100	<b>28</b> Th	0235	3.9	120	<b>13</b> Sa	0344	2.6	80	<b>28</b> Su	0339	3.6	110	
	0651	8.2	250		0828	7.9	240		0744	8.5	260		0832	7.9	240		0933	9.2	280		0931	7.9	240	
	1350	3.3	100		1513	3.3	100		1434	2.3	70		1507	3.0	90		1611	1.6	50		1555	2.6	80	
	1940	7.9	240		2117	7.5	230		2036	8.5	260		2121	7.9	240		2216	9.5	290		2212	8.5	260	
<b>14</b> Tu	0216	3.3	100	<b>29</b> W	0335	3.6	110	<b>14</b> Th	0302	3.0	90	<b>29</b> F	0334	3.6	110	<b>14</b> Su	0443	2.0	60	<b>29</b> M	0433	3.0	90	
	0814	8.5	260		0933	8.2	250		0856	8.9	270		0930	7.9	240		1032	9.5	290		1023	8.2	250	
	1500	2.6	80		1604	3.0	90		1536	1.6	50		1556	2.6	80		1704	1.3	40		1645	2.3	70	
	2102	8.5	260		2211	8.2	250		2142	9.2	280		2210	8.2	250		2308	9.8	300		2257	9.2	280	
<b>15</b> W	0326	3.0	90	<b>30</b> Th	0425	3.3	100	<b>15</b> F	0404	2.3	70	<b>30</b> Sa	0425	3.3	100	<b>15</b> M	0536	1.6	50	<b>30</b> Tu	0521	2.6	80	
	0926	9.2	280		1021	8.5	260		0958	9.5	290		1017	8.2	250		1125	9.5	290		1111	8.9	270	
	1601	2.0	60		1647	2.6	80		1631	1.3	40		1640	2.3	70		1754	1.3	40		1730	2.0	60	
	2207	9.2	280		2253	8.5	260		2238	9.8	300		2251	8.9	270		2356	10.2	310		2338	9.5	290	



# Narvik, Norway, 2015

## Times and Heights of High and Low Waters

October				November				December															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> Th	0215	12.1	370	<b>16</b> F	0203	10.5	320	<b>1</b> Su	0330	10.5	320	<b>16</b> M	0259	10.2	310	<b>1</b> Tu	0359	9.8	300	<b>16</b> W	0331	10.2	310
	0838	1.0	30		0811	2.3	70		0946	3.0	90		0903	3.3	100		1003	3.6	110		0938	3.3	100
	1443	11.8	360		1424	10.5	320		1552	10.8	330		1517	10.5	320		1615	10.2	310		1547	10.8	330
	2100	1.6	50		2032	3.0	90		2229	3.0	90		2144	3.3	100		2258	3.3	100		2226	3.0	90
<b>2</b> F	0301	11.5	350	<b>17</b> Sa	0238	10.2	310	<b>2</b> M	0420	9.8	300	<b>17</b> Tu	0343	9.8	300	<b>2</b> W	0448	9.2	280	<b>17</b> Th	0420	9.8	300
	0924	1.6	50		0843	2.6	80		1038	3.6	110		0949	3.6	110		1053	4.3	130		1031	3.6	110
	1528	11.2	340		1458	10.5	320		1641	9.8	300		1601	10.2	310		1704	9.5	290		1637	10.5	320
	2152	2.3	70		2110	3.3	100		2334	3.6	110		2240	3.6	110		2356	3.9	120		2324	3.0	90
<b>3</b> Sa	0349	10.8	330	<b>18</b> Su	0315	9.8	300	<b>3</b> Tu	0515	8.9	270	<b>18</b> W	0433	9.2	280	<b>3</b> Th	0542	8.5	260	<b>18</b> F	0514	9.5	290
	1014	2.6	80		0919	3.3	100		1144	4.3	130		1047	3.9	120		1156	4.6	140		1135	3.9	120
	1615	10.5	320		1536	9.8	300		1737	9.2	280		1653	9.8	300		1759	9.2	280		1732	10.2	310
	2252	3.0	90		2155	3.6	110		●	●	2345		3.6	110	●		●	●	●				
<b>4</b> Su	0440	9.8	300	<b>19</b> M	0357	9.2	280	<b>4</b> W	0046	3.9	120	<b>19</b> Th	0532	8.9	270	<b>4</b> F	0059	3.9	120	<b>19</b> Sa	0028	3.3	100
	1113	3.3	100		1005	3.6	110		0620	8.5	260		1200	4.3	130		0646	8.2	250		0617	9.2	280
	1707	9.5	290		1619	9.5	290		1302	4.9	150		1754	9.5	290		1311	4.9	150		1248	4.3	130
	●	●	●		2253	3.9	120		1846	8.9	270		●	●	1904		8.9	270	1904		8.9	270	1836
<b>5</b> M	0003	3.6	110	<b>20</b> Tu	0447	8.9	270	<b>5</b> Th	0157	3.9	120	<b>20</b> F	0055	3.6	110	<b>5</b> Sa	0201	3.9	120	<b>20</b> Su	0133	3.3	100
	0538	8.9	270		1106	4.3	130		0741	8.2	250		0643	8.9	270		0759	8.2	250		0728	9.2	280
	1225	4.3	130		1712	9.2	280		1418	4.9	150		1317	4.3	130		1423	4.9	150		1401	3.9	120
	1808	8.9	270		●	●	2006		8.9	270	1907		9.5	290	2014		8.5	260	1947		9.5	290	
<b>6</b> Tu	0123	3.9	120	<b>21</b> W	0006	4.3	130	<b>6</b> F	0259	3.9	120	<b>21</b> Sa	0203	3.3	100	<b>6</b> Su	0258	3.9	120	<b>21</b> M	0238	3.0	90
	0651	8.2	250		0549	8.5	260		0859	8.5	260		0801	9.2	280		0907	8.5	260		0841	9.5	290
	1346	4.3	130		1225	4.3	130		1521	4.6	140		1429	3.9	120		1525	4.6	140		1511	3.6	110
	1928	8.5	260		1820	8.9	270		2114	8.9	270		2021	9.8	300		2116	8.9	270		2058	9.8	300
<b>7</b> W	0237	3.9	120	<b>22</b> Th	0123	3.9	120	<b>7</b> Sa	0351	3.6	110	<b>22</b> Su	0305	3.0	90	<b>7</b> M	0348	3.6	110	<b>22</b> Tu	0340	2.6	80
	0822	8.2	250		0708	8.5	260		0956	8.9	270		0911	9.8	300		1000	9.2	280		0946	10.2	310
	1500	4.3	130		1345	4.3	130		1612	4.3	130		1533	3.6	110		1617	4.3	130		1614	3.3	100
	2053	8.9	270		1940	8.9	270		2205	9.2	280		2126	10.2	310		2206	9.2	280		2202	10.2	310
<b>8</b> Th	0339	3.6	110	<b>23</b> F	0233	3.6	110	<b>8</b> Su	0434	3.3	100	<b>23</b> M	0402	2.3	70	<b>8</b> Tu	0432	3.3	100	<b>23</b> W	0437	2.3	70
	0939	8.5	260		0832	8.9	270		1039	9.5	290		1010	10.5	320		1042	9.5	290		1042	10.5	320
	1559	3.9	120		1456	3.9	120		1655	3.6	110		1630	3.0	90		1700	3.9	120		1710	2.6	80
	2156	9.2	280		2055	9.5	290		2246	9.5	290		2223	10.8	330		2248	9.5	290		2259	10.5	320
<b>9</b> F	0430	3.3	100	<b>24</b> Sa	0333	3.0	90	<b>9</b> M	0512	3.0	90	<b>24</b> Tu	0454	2.0	60	<b>9</b> W	0511	3.0	90	<b>24</b> Th	0529	2.0	60
	1030	9.2	280		0939	9.5	290		1116	9.8	300		1101	11.2	340		1119	10.2	310		1133	11.2	340
	1646	3.6	110		1557	3.3	100		1732	3.3	100		1722	2.3	70		1739	3.3	100		1802	2.3	70
	2242	9.5	290		2155	10.2	310		2323	9.8	300		2315	11.2	340		2328	9.8	300		2351	10.8	330
<b>10</b> Sa	0511	2.6	80	<b>25</b> Su	0427	2.3	70	<b>10</b> Tu	0545	2.6	80	<b>25</b> W	0543	1.6	50	<b>10</b> Th	0547	2.6	80	<b>25</b> F	0617	2.0	60
	1111	9.5	290		1034	10.5	320		1150	10.5	320		1148	11.8	360		1154	10.5	320		1219	11.5	350
	1726	3.3	100		1650	2.6	80		1805	3.0	90		1811	2.0	60		1816	3.0	90		1849	2.0	60
	2320	10.2	310		2247	11.2	340		2357	10.2	310		●	●	●		●	●	●				
<b>11</b> Su	0547	2.3	70	<b>26</b> M	0516	1.3	40	<b>11</b> W	0616	2.3	70	<b>26</b> Th	0005	11.5	350	<b>11</b> F	0006	10.2	310	<b>26</b> Sa	0040	10.8	330
	1147	10.2	310		1122	11.5	350		1222	10.8	330		0629	1.3	40		0623	2.6	80		0701	2.0	60
	1800	3.0	90		1738	2.0	60		1837	3.0	90		1234	12.1	370		1229	10.8	330		1304	11.8	360
	2355	10.5	320		2336	11.8	360		●	●	1858		1.6	50	1858		1.6	50	1852		2.6	80	1934
<b>12</b> M	0618	2.3	70	<b>27</b> Tu	0602	1.0	30	<b>12</b> Th	0031	10.5	320	<b>27</b> F	0053	11.8	360	<b>12</b> Sa	0044	10.2	310	<b>27</b> Su	0127	10.8	330
	1220	10.5	320		1208	12.1	370		0646	2.3	70		0714	1.6	50		0658	2.3	70		0741	2.0	60
	1830	2.6	80		1825	1.6	50		1254	10.8	330		1319	12.1	370		1305	11.2	340		1347	11.8	360
	●	●	●		●	●	1909		2.6	80	1909		2.6	80	1944		1.6	50	1929		2.6	80	2016
<b>13</b> Tu	0027	10.5	320	<b>28</b> W	0023	12.1	370	<b>13</b> F	0105	10.5	320	<b>28</b> Sa	0140	11.5	350	<b>13</b> Su	0123	10.5	320	<b>28</b> M	0211	10.8	330
	0646	2.0	60		0647	0.7	20		0717	2.3	70		0756	2.0	60		0734	2.3	70		0819	2.3	70
	1251	10.5	320		1253	12.5	380		1326	11.2	340		1403	11.8	360		1342	11.2	340		1428	11.5	350
	1859	2.6	80		1911	1.3	40		1943	2.6	80		2030	2.0	60		2008	2.6	80		2057	2.3	70
<b>14</b> W	0059	10.5	320	<b>29</b> Th	0109	12.1	370	<b>14</b> Sa	0141	10.5	320	<b>29</b> Su	0226	11.2	340	<b>14</b> M	0204	10.5	320	<b>29</b> Tu	0254	10.5	320
	0713	2.0	60		0731	1.0	30		0750	2.6	80		0838	2.3	70		0812	2.6	80		0855	3.0	90
	1321	10.8	330		1337	12.5	380		1401	10.8	330		1446	11.5	350		1421	11.2	340		1509	11.2	340
	1928	2.6	80		1957	1.3	40		2018	2.6	80		2116	2.3	70		2049	2.6	80		2137	2.6	80
<b>15</b> Th	0130	10.5	320	<b>30</b> F	0156	11.8	360	<b>15</b> Su	0218	10.2	310	<b>30</b> M	0312	10.5	320	<b>15</b> Tu	0246	10.5	320	<b>30</b> W	0336	9.8	300
	0741	2.3	70		0815	1.3	40		0824	2.6	80		0919	3.0	90		0853	3.0	90		0930	3.3	100
	1352	10.8	330		1421	12.1	370		1437	10.8	330		1530	10.8	330		1503	11.2	340		1549	10.5	320
	1959	2.6	80</																				

# Yekaterininskaya, Russia, 2015

## Times and Heights of High and Low Waters

January				February				March																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
<b>1</b> Th	0346	10.5	321		<b>16</b> F	0308	9.6	292		<b>1</b> Su	0544	10.2	312		<b>16</b> M	0448	10.1	309		<b>1</b> Su	0428	9.6	293		<b>16</b> M	0309	9.6	293	
	1018	3.1	94			0933	4.4	133			1201	3.6	111			1111	3.7	114			1046	4.4	134			0935	4.3	131	
	1643	11.0	336			1609	10.2	312			1811	11.3	345			1722	11.3	345			1658	10.5	320			1551	10.5	319	
	2259	3.8	115			2223	4.8	145								2348	3.2	97			2325	4.0	121			2218	3.7	113	
<b>2</b> F	0451	10.5	321		<b>17</b> Sa	0413	9.7	297		<b>2</b> M	0034	3.3	101		<b>17</b> Tu	0547	10.9	333		<b>2</b> M	0530	9.9	303		<b>17</b> Tu	0429	10.2	311	
	1118	3.0	92			1037	4.0	123			0634	10.6	322			1209	3.0	90			1144	4.0	123			1051	3.7	113	
	1738	11.3	345			1702	10.8	328			1247	3.3	102			1811	12.1	369			1748	10.9	333			1654	11.2	340	
	2356	3.4	103			2321	4.1	126			1852	11.7	357													2323	2.8	84	
<b>3</b> Sa	0549	10.7	326		<b>18</b> Su	0511	10.2	311		<b>3</b> Tu	0116	2.9	89		<b>18</b> W	0038	2.1	65		<b>3</b> Tu	0014	3.5	106		<b>18</b> W	0529	11.1	337	
	1212	2.9	88			1134	3.5	107			0715	10.9	332			0638	11.8	359			0618	10.4	317			1151	2.8	86	
	1825	11.6	355			1748	11.4	348			1329	3.1	93			1259	2.2	66			1230	3.6	109			1747	11.9	364	
											1930	12.0	366			1856	12.9	392			1831	11.4	346						
<b>4</b> Su	0046	3.0	90		<b>19</b> M	0011	3.3	102		<b>4</b> W	0154	2.6	79		<b>19</b> Th	0124	1.1	35		<b>4</b> W	0055	3.0	91		<b>19</b> Th	0015	1.7	51	
	0640	10.9	331			0603	10.8	329			0754	11.2	340			0725	12.5	382			0657	10.8	330			0620	12.0	365	
	1259	2.8	85			1225	2.9	88			1406	2.9	87			1346	1.5	46			1310	3.1	96			1242	2.0	60	
	1907	11.9	363			1832	12.1	368			2006	12.2	371			1941	13.5	410			1908	11.7	357			1834	12.7	387	
<b>5</b> M	0130	2.6	80		<b>20</b> Tu	0058	2.5	76		<b>5</b> Th	0229	2.4	72		<b>20</b> F	0209	0.4	12		<b>5</b> Th	0131	2.6	79		<b>20</b> F	0103	0.7	21	
	0725	11.0	336			0651	11.5	350			0830	11.3	345			0812	13.0	397			0734	11.2	342			0707	12.7	388	
	1342	2.7	82			1313	2.3	69			1442	2.8	85			1432	1.1	34			1346	2.8	86			1328	1.2	38	
	1947	12.1	369			1915	12.7	387			2041	12.2	372			2025	13.7	419			1943	11.9	364			1919	13.3	404	
<b>6</b> Tu	0210	2.4	74		<b>21</b> W	0142	1.6	50		<b>6</b> F	0303	2.3	70		<b>21</b> Sa	0254	0.0	-1		<b>6</b> F	0205	2.3	70		<b>21</b> Sa	0148	0.0	0	
	0807	11.1	339			0738	12.1	368			0905	11.4	346			0859	13.2	403			0808	11.5	350			0753	13.2	402	
	1422	2.7	83			1400	1.8	54			1516	2.8	86			1517	1.0	31			1420	2.6	80			1413	0.8	25	
	2025	12.1	370			1959	13.2	402			2114	12.1	368			2111	13.7	418			2016	12.0	366			2004	13.5	412	
<b>7</b> W	0248	2.4	72		<b>22</b> Th	0227	1.0	30		<b>7</b> Sa	0335	2.4	72		<b>22</b> Su	0339	0.0	-1		<b>7</b> Sa	0236	2.1	64		<b>22</b> Su	0232	-0.3	-10	
	0847	11.2	340			0826	12.5	381			0939	11.3	343			0946	13.1	398			0841	11.6	353			0838	13.3	406	
	1500	2.8	86			1447	1.5	46			1549	3.0	92			1603	1.3	39			1452	2.6	78			1457	0.7	22	
	2102	12.1	368			2044	13.5	410			2146	11.8	361			2159	13.3	406			2047	11.9	364			2050	13.4	409	
<b>8</b> Th	0325	2.4	74		<b>23</b> F	0313	0.6	17		<b>8</b> Su	0407	2.6	78		<b>23</b> M	0426	0.4	12		<b>8</b> Su	0307	2.1	64		<b>23</b> M	0317	-0.2	-6	
	0926	11.1	337			0915	12.7	387			1013	11.1	337			1036	12.6	383			0911	11.5	351			0924	13.1	398	
	1537	3.1	93			1535	1.5	46			1622	3.3	101			1651	1.8	56			1523	2.7	81			1542	1.0	29	
	2139	11.9	362			2131	13.4	409			2217	11.5	351			2248	12.6	385			2115	11.8	359			2137	13.0	395	
<b>9</b> F	0401	2.6	80		<b>24</b> Sa	0400	0.5	15		<b>9</b> M	0440	2.8	86		<b>24</b> Tu	0514	1.2	36		<b>9</b> M	0337	2.2	67		<b>24</b> Tu	0402	0.4	12	
	1005	10.9	331			1005	12.6	384			1046	10.8	329			1128	11.9	363			0940	11.4	346			1012	12.5	382	
	1614	3.3	102			1623	1.8	54			1657	3.7	112			1742	2.6	79			1554	2.9	87			1628	1.5	45	
	2216	11.6	353			2219	13.1	400			2249	11.1	339			2341	11.7	358			2144	11.5	351			2226	12.2	373	
<b>10</b> Sa	0437	2.9	89		<b>25</b> Su	0448	0.8	23		<b>10</b> Tu	0514	3.2	97		<b>25</b> W	0607	2.2	67		<b>10</b> Tu	0407	2.4	74		<b>25</b> W	0448	1.3	40	
	1044	10.6	323			1058	12.2	373			1122	10.5	320			1225	11.2	341			1010	11.1	339			1101	11.8	360	
	1651	3.7	113			1713	2.3	69			1734	4.1	124			1839	3.4	104			1626	3.1	95			1717	2.2	68	
	2252	11.2	342			2311	12.6	383			2326	10.7	325								2215	11.2	340			2319	11.3	345	
<b>11</b> Su	0514	3.2	99		<b>26</b> M	0539	1.3	40		<b>11</b> W	0552	3.6	110		<b>26</b> Th	0040	10.8	330		<b>11</b> W	0439	2.8	85		<b>26</b> Th	0539	2.4	73	
	1126	10.3	315			1155	11.7	357			1205	10.2	312			0706	3.2	98			1043	10.9	331			1155	11.0	336	
	1730	4.1	126			1807	3.0	90			1819	4.5	137			1329	10.6	322			1702	3.5	106			1812	3.1	94	
	2331	10.8	329													1945	4.1	125			2252	10.8	328						
<b>12</b> M	0553	3.6	111		<b>27</b> Tu	0006	11.8	361		<b>12</b> Th	0011	10.2	311		<b>27</b> F	0149	10.0	306		<b>12</b> Th	0516	3.2	99		<b>27</b> F	0017	10.4	317	
	1211	10.0	306			0634	2.1	64			0637	4.0	123			0815	4.1	124			1124	10.6	322			0636	3.5	106	
	1814	4.6	139			1255	11.2	340			1258	10.0	305			1441	10.2	311			1744	3.9	118			1255	10.4	316	
						1907	3.6	110			1913	4.9	148			2101	4.5	136			2337	10.3	313			1915	3.8	116	
<b>13</b> Tu	0014	10.3	315		<b>28</b> W	0106	11.1	338		<b>13</b> F	0106	9.8	298		<b>28</b> Sa	0309	9.6	293		<b>13</b> F	0600	3.7	114		<b>28</b> Sa	0125	9.6	294	
	0637	4.0	122			0736	2.9	88			0734	4.4	134			0933	4.5	136			1215	10.3	313			0743	4.3	132	
	1304	9.8	300			1402	10.7	327			1403	9.9	302			1555	10.2	311			1837	4.3	130			1403	9.9	302	
	1905	4.9	150			2015	4.1	126			2021	5.0	153			2220	4.4	133								2028	4.3	130	
<b>14</b> W	0104	9.9	303		<b>29</b> Th	0213	10.4	318		<b>14</b> Sa	0214	9.5	290		<b>14</b> Sa	0032	9.8	299		<b>14</b> Sa	0243	9.3	282						
	0728	4.3	131			0844	4.5	138			0844	4.5	138			0657	4.2	128			0901	4.7	144						
	1404	9.7	297			1513	10.5	321			1517	10.1	308			1317	10.0	306			1515	9.8	299						
	2006	5.2	157			2129	4.4	133			2138	4.8	145			1943	4.5	137			2145	4.3	132						
<b>15</b> Th	0203	9.6	294		<b>30</b> F	0327	10.0	306		<b>15</b> Su	0334	9.6	294		<b>15</b>														

# Yekaterininskaya, Russia, 2015

## Times and Heights of High and Low Waters

April				May				June																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
<b>1</b> W	0549	10.1	309		<b>16</b> Th	0508	11.1	338		<b>1</b> F	0557	10.3	315		<b>16</b> Sa	0538	11.6	353		<b>1</b> M	0027	2.8	84		<b>16</b> Tu	0048	1.5	47	
	1203	3.7	113			1129	2.7	83			1211	3.4	104			1158	2.2	66			0641	10.8	330			0659	11.8	361	
	1800	10.8	329			1720	11.6	353			1804	10.5	319			1746	11.5	351			1255	3.0	92			1320	1.9	57	
						2350	1.3	41														1843	10.3	314			1913	11.2	340
<b>2</b> Th	0024	3.1	93		<b>17</b> F	0600	11.9	362		<b>2</b> Sa	0027	2.8	84		<b>17</b> Su	0016	0.9	27		<b>2</b> Tu	0103	2.4	74		<b>17</b> W	0135	1.5	47	
	0630	10.7	325			1220	1.9	58			0636	10.8	329			0627	12.0	367			0714	11.1	339			0743	12.0	366	
	1244	3.2	97			1810	12.2	372			1250	3.0	91			1248	1.6	49			1331	2.6	80			1406	1.6	50	
	1839	11.2	340								1842	10.7	326			1836	11.8	360			1918	10.5	321			2001	11.2	340	
<b>3</b> F	0101	2.6	79		<b>18</b> Sa	0039	0.6	17		<b>3</b> Su	0102	2.4	72		<b>18</b> M	0104	0.6	18		<b>3</b> W	0138	2.2	66		<b>18</b> Th	0220	1.7	51	
	0707	11.1	338			0647	12.5	382			0712	11.1	339			0714	12.3	376			0746	11.4	347			0826	12.0	366	
	1320	2.8	85			1308	1.2	38			1325	2.7	81			1334	1.2	38			1406	2.3	69			1450	1.6	49	
	1915	11.4	347			1857	12.6	385			1916	10.8	330			1925	11.9	363			1953	10.7	327			2047	11.1	337	
<b>4</b> Sa	0135	2.2	68		<b>19</b> Su	0125	0.0	1		<b>4</b> M	0135	2.1	64		<b>19</b> Tu	0150	0.6	18		<b>4</b> Th	0215	2.0	60		<b>19</b> F	0304	1.9	59	
	0742	11.4	347			0732	12.9	393			0744	11.3	345			0758	12.4	379			0819	11.6	354			0908	11.9	362	
	1354	2.5	77			1353	0.8	25			1358	2.4	73			1420	1.1	33			1442	2.0	60			1532	1.7	53	
	1948	11.5	351			1943	12.8	391			1946	10.9	333			2013	11.8	359			2031	10.9	332			2132	10.8	329	
<b>5</b> Su	0206	2.0	61		<b>20</b> M	0210	-0.1	-4		<b>5</b> Tu	0206	1.9	59		<b>20</b> W	0235	0.9	26		<b>5</b> F	0254	1.9	59		<b>20</b> Sa	0346	2.3	71	
	0813	11.5	351			0817	13.0	395			0812	11.4	348			0843	12.3	374			0856	11.7	357			0950	11.6	354	
	1426	2.4	73			1437	0.7	22			1430	2.2	68			1504	1.1	35			1522	1.8	54			1614	2.0	62	
	2017	11.5	350			2030	12.7	386			2016	11.0	334			2100	11.5	350			2115	11.0	334			2217	10.5	320	
<b>6</b> M	0236	1.9	58		<b>21</b> Tu	0254	0.1	4		<b>6</b> W	0238	1.9	58		<b>21</b> Th	0320	1.3	41		<b>6</b> Sa	0337	2.0	62		<b>21</b> Su	0427	2.8	85	
	0842	11.5	351			0902	12.7	388			0841	11.5	349			0927	11.9	364			0939	11.7	357			1033	11.3	343	
	1456	2.4	72			1522	0.9	27			1502	2.1	65			1549	1.5	45			1606	1.7	51			1655	2.5	75	
	2045	11.4	347			2117	12.2	373			2049	10.9	333			2149	11.0	335			2203	10.9	332			2302	10.1	309	
<b>7</b> Tu	0306	2.0	60		<b>22</b> W	0339	0.8	23		<b>7</b> Th	0312	2.0	61		<b>22</b> F	0404	2.0	61		<b>7</b> Su	0424	2.3	69		<b>22</b> M	0509	3.3	100	
	0909	11.5	349			0948	12.2	373			0914	11.4	348			1012	11.5	350			1026	11.6	353			1117	10.9	331	
	1527	2.4	74			1607	1.4	42			1538	2.1	65			1634	2.0	60			1654	1.7	53			1738	2.9	89	
	2114	11.2	342			2206	11.5	352			2127	10.8	330			2238	10.4	318			2256	10.7	327			2350	9.8	299	
<b>8</b> W	0337	2.1	65		<b>23</b> Th	0425	1.6	50		<b>8</b> F	0349	2.2	68		<b>23</b> Sa	0450	2.7	83		<b>8</b> M	0516	2.6	80		<b>23</b> Tu	0553	3.7	114	
	0939	11.3	344			1036	11.6	353			0953	11.3	344			1059	11.0	334			1118	11.4	346			1203	10.4	318	
	1600	2.6	79			1655	2.0	61			1619	2.2	68			1721	2.5	77			1748	1.9	58			1822	3.3	102	
	2148	11.0	335			2258	10.8	328			2212	10.6	323			2329	9.9	302			2356	10.5	321						
<b>9</b> Th	0410	2.5	75		<b>24</b> F	0513	2.6	80		<b>9</b> Sa	0433	2.6	79		<b>24</b> Su	0538	3.4	105		<b>9</b> Tu	0614	3.0	92		<b>24</b> W	0042	9.5	290	
	1014	11.1	338			1126	10.9	332			1039	11.1	337			1149	10.5	319			1215	11.1	337			0642	4.2	128	
	1636	2.8	86			1746	2.8	84			1705	2.4	74			1811	3.1	95			1846	2.1	64			1253	10.0	305	
	2228	10.6	324			2354	10.0	305			2304	10.3	314													1911	3.7	114	
<b>10</b> F	0449	2.9	88		<b>25</b> Sa	0607	3.5	108		<b>10</b> Su	0524	3.1	93		<b>25</b> M	0025	9.4	288		<b>10</b> W	0101	10.4	316		<b>25</b> Th	0139	9.4	285	
	1057	10.8	329			1221	10.3	313			1131	10.8	329			0630	4.0	123			0717	3.3	102			0737	4.6	139	
	1720	3.1	96			1843	3.4	105			1800	2.7	82			1243	10.0	305			1317	10.8	329			1348	9.7	295	
	2315	10.2	312												1905	3.6	110			1948	2.3	69			2007	4.0	122		
<b>11</b> Sa	0536	3.4	104		<b>26</b> Su	0057	9.4	286		<b>11</b> M	0004	10.0	306		<b>26</b> Tu	0126	9.2	279		<b>11</b> Th	0210	10.3	315		<b>26</b> F	0239	9.3	284	
	1148	10.5	319			0708	4.3	130			0625	3.5	106			0729	4.5	136			0825	3.5	107			0841	4.7	144	
	1813	3.5	106			1323	9.8	299			1231	10.5	320			1342	9.7	295			1422	10.6	324			1447	9.4	288	
						1948	4.0	121			1902	2.8	86			2006	3.9	120			2055	2.3	69			2109	4.1	125	
<b>12</b> Su	0014	9.8	300		<b>27</b> M	0207	9.1	276		<b>12</b> Tu	0114	9.9	301		<b>27</b> W	0228	9.1	277		<b>12</b> F	0319	10.5	320		<b>27</b> Sa	0339	9.5	289	
	0636	3.9	119			0818	4.7	143			0735	3.7	114			0836	4.6	141			0934	3.4	105			0948	4.7	143	
	1250	10.2	310			1430	9.6	292			1339	10.4	316			1443	9.5	290			1527	10.6	323			1545	9.4	286	
	1919	3.7	113			2059	4.2	127			2011	2.8	85			2110	4.0	122			2200	2.2	66			2210	4.0	121	
<b>13</b> M	0125	9.6	293		<b>28</b> Tu	0316	9.1	277		<b>13</b> W	0232	10.0	305		<b>28</b> Th	0330	9.3	282		<b>13</b> Sa	0422	10.8	329		<b>28</b> Su	0436	9.		

# Yekaterininskaya, Russia, 2015

## Times and Heights of High and Low Waters

July				August				September															
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
<b>1</b> W	0034	2.9	88	<b>16</b> Th	0125	2.4	73	<b>1</b> Sa	0142	2.1	63	<b>16</b> Su	0228	2.6	79	<b>1</b> Tu	0253	1.1	33	<b>16</b> W	0310	2.7	82
	0646	11.1	339		0730	11.8	361		0740	12.5	381		0826	12.1	369		0845	13.5	412		0904	11.7	358
	1305	2.9	88		1354	2.1	65		1407	1.4	42		1448	2.2	66		1513	0.1	2		1523	2.4	72
	1854	10.5	320		1951	11.0	335		2004	12.0	367		2050	11.4	347		2119	13.2	401		2128	11.5	350
<b>2</b> Th	0116	2.5	75	<b>17</b> F	0208	2.3	71	<b>2</b> Su	0227	1.6	50	<b>17</b> M	0303	2.6	79	<b>2</b> W	0338	1.1	34	<b>17</b> Th	0341	2.9	87
	0722	11.6	353		0810	12.0	365		0822	12.9	394		0901	12.0	367		0932	13.4	407		0934	11.5	350
	1345	2.3	70		1434	2.0	61		1450	0.8	25		1522	2.2	67		1559	0.3	8		1554	2.6	80
	1935	10.9	333		2033	11.1	337		2051	12.4	377		2126	11.3	345		2208	12.9	392		2158	11.2	342
<b>3</b> F	0158	2.1	64	<b>18</b> Sa	0248	2.4	72	<b>3</b> M	0312	1.4	43	<b>18</b> Tu	0337	2.7	83	<b>3</b> Th	0426	1.5	45	<b>18</b> F	0414	3.1	96
	0800	12.0	365		0849	12.0	366		0907	13.1	400		0935	11.8	361		1022	12.9	392		1004	11.1	339
	1425	1.8	54		1513	2.0	61		1535	0.5	15		1555	2.4	73		1647	0.9	27		1626	3.0	92
	2018	11.3	344		2113	11.0	335		2139	12.5	380		2201	11.1	339		2259	12.3	375		2230	10.9	333
<b>4</b> Sa	0241	1.8	56	<b>19</b> Su	0326	2.5	77	<b>4</b> Tu	0358	1.4	44	<b>19</b> W	0411	3.0	91	<b>4</b> F	0516	2.1	63	<b>19</b> Sa	0448	3.5	107
	0841	12.3	374		0927	11.9	362		0954	13.0	397		1009	11.5	351		1115	12.1	370		1039	10.7	327
	1508	1.3	41		1550	2.1	65		1622	0.5	16		1628	2.7	82		1739	1.8	54		1701	3.5	106
	2104	11.5	352		2153	10.9	331		2229	12.3	375		2236	10.9	331		2355	11.6	355		2308	10.6	323
<b>5</b> Su	0326	1.8	54	<b>20</b> M	0403	2.8	85	<b>5</b> W	0447	1.8	54	<b>20</b> Th	0445	3.3	102	<b>5</b> Sa	0611	2.8	86	<b>20</b> Su	0528	3.9	119
	0925	12.4	378		1005	11.6	355		1043	12.7	387		1042	11.1	339		1213	11.3	344		1121	10.3	314
	1553	1.1	34		1626	2.4	74		1711	0.9	28		1702	3.1	94		1837	2.8	85		1742	4.0	121
	2153	11.6	354		2233	10.6	324		2323	11.9	364		2312	10.6	322		2352	10.2	312		2354	10.3	313
<b>6</b> M	0414	1.9	57	<b>21</b> Tu	0441	3.1	95	<b>6</b> Th	0538	2.3	70	<b>21</b> F	0522	3.8	115	<b>6</b> Su	0056	11.0	335	<b>21</b> M	0616	4.3	131
	1012	12.3	376		1043	11.3	344		1136	12.1	369		1117	10.7	325		0714	3.5	108		1213	9.9	301
	1641	1.1	33		1703	2.8	85		1803	1.5	47		1739	3.5	108		1319	10.5	320		1835	4.5	136
	2246	11.5	350		2314	10.3	315		2357	10.0	306		2352	10.2	312		1944	3.7	112		1944	4.8	146
<b>7</b> Tu	0504	2.2	66	<b>22</b> W	0518	3.5	108	<b>7</b> F	0020	11.4	348	<b>22</b> Sa	0603	4.2	129	<b>7</b> M	0206	10.5	321	<b>22</b> Tu	0052	10.0	306
	1103	12.1	369		1122	10.9	331		0633	2.9	89		1159	10.2	311		0826	4.0	122		0717	4.6	139
	1732	1.3	39		1741	3.2	97		1233	11.4	348		1821	4.0	123		1437	10.0	304		1318	9.6	292
	2342	11.3	343		2357	10.0	306		1901	2.3	71		1913	4.5	136		2059	4.2	129		1944	4.8	146
<b>8</b> W	0558	2.6	79	<b>23</b> Th	0559	4.0	121	<b>8</b> Sa	0122	10.9	333	<b>23</b> Su	0040	9.9	303	<b>8</b> Tu	0320	10.4	316	<b>23</b> W	0203	10.0	304
	1157	11.7	356		1204	10.4	318		0736	3.5	108		0652	4.6	141		0943	4.1	126		0830	4.6	139
	1826	1.6	50		1822	3.6	110		1337	10.7	327		1250	9.7	297		1558	9.9	301		1441	9.6	293
					2006	3.1	93		2006	3.1	93		1913	4.5	136		2215	4.3	132		2104	4.7	144
<b>9</b> Th	0043	11.0	334	<b>24</b> F	0046	9.8	298	<b>9</b> Su	0231	10.6	323	<b>24</b> M	0140	9.8	298	<b>9</b> W	0427	10.5	321	<b>24</b> Th	0321	10.2	312
	0656	3.1	94		0645	4.4	135		0847	3.9	120		0755	4.9	150		1054	3.9	118		0945	4.1	126
	1255	11.2	342		1250	10.0	304		1449	10.2	312		1353	9.4	288		1704	10.1	308		1601	10.1	308
	1925	2.1	64		1909	4.0	122		2118	3.5	108		2019	4.7	144		2319	4.1	125		2221	4.2	129
<b>10</b> F	0147	10.7	326	<b>25</b> Sa	0141	9.6	292	<b>10</b> M	0344	10.5	321	<b>25</b> Tu	0253	9.8	299	<b>10</b> Th	0522	10.9	331	<b>25</b> F	0426	10.8	330
	0800	3.5	106		0741	4.8	146		1002	4.0	121		0908	4.9	149		1149	3.4	105		1051	3.3	101
	1357	10.8	328		1344	9.6	292		1606	10.0	306		1511	9.4	288		1756	10.5	320		1702	10.9	332
	2030	2.5	76		2005	4.3	131		2231	3.7	113		2135	4.6	141		2319	4.1	125		2324	3.4	105
<b>11</b> Sa	0255	10.6	322	<b>26</b> Su	0244	9.5	291	<b>11</b> Tu	0450	10.7	327	<b>26</b> W	0403	10.2	310	<b>11</b> F	0009	3.7	112	<b>26</b> Sa	0519	11.6	353
	0909	3.7	112		0846	5.0	151		1112	3.7	113		1021	4.5	136		0608	11.3	344		1146	2.3	71
	1504	10.4	318		1447	9.4	285		1715	10.2	310		1627	9.8	300		1233	3.0	92		1753	11.8	359
	2137	2.8	84		2110	4.4	135		2335	3.5	108		2248	4.2	127		1838	10.9	332				
<b>12</b> Su	0402	10.7	325	<b>27</b> M	0348	9.7	297	<b>12</b> W	0545	11.1	337	<b>27</b> Th	0501	10.8	328	<b>12</b> Sa	0051	3.2	99	<b>27</b> Su	0015	2.6	78
	1019	3.6	110		0957	4.8	147		1209	3.2	99		1123	3.7	112		0648	11.6	354		0606	12.3	376
	1613	10.3	314		1554	9.4	286		1811	10.5	320		1726	10.5	321		1312	2.7	81		1234	1.3	41
	2244	2.8	86		2217	4.3	130		1857	10.8	330		2348	3.5	106		1915	11.3	344		1839	12.6	384
<b>13</b> M	0505	10.9	332	<b>28</b> Tu	0446	10.1	309	<b>13</b> Th	0027	3.3	100	<b>28</b> F	0549	11.5	350	<b>13</b> Su	0129	2.9	89	<b>28</b> M	0102	1.8	54
	1124	3.3	100		1101	4.4	134		0631	11.5	349		1214	2.7	83		0724	11.9	362		0651	13.0	396
	1719	10.4	317		1655	9.7	295		1256	2.8	86		1815	11.4	346		1347	2.4	73		1320	0.5	16
	2345	2.7	83		2318	3.8	117		1857	10.8	330						1950	11.5	352		1925	13.2	402
<b>14</b> Tu	0600	11.2	342	<b>29</b> W	0535	10.7	325	<b>14</b> F	0111	3.0	90	<b>29</b> Sa	0038	2.7	81	<b>14</b> M	0204	2.7	82	<b>29</b> Tu	0147	1.2	36
	1221	2.9	87		1154	3.7	114		0712	11.8	359		0633	12.2	373		0759	12.0	365		0737	13.4	408
	1816	10.6	323		1748	10.2	311		1336	2.5	75		1300	1.7	53		1420	2.2	68		1405	0.0	1
									1937	11.1	339		1901	12.1	370		2024	11.6	355		2010	13.5	411
<b>15</b> W	0038	2.6	78	<b>30</b> Th	0010	3.3	100	<b>15</b> Sa	0151	2.7	83	<b>30</b> Su	0124	1.9	59	<b>15</b> Tu	0237	2.6	79	<b>30</b> W	0232	0.9	27
	0647	11.5	352		0618	11.3	344		0750	12.0	366		0717	12.9	393		0832	11.9	364		0823	13.5	410
	1310	2.5	75		1240	3.0	90		1413	2.2	68		1345	0.9	27		1452	2.2	68		1450	0.	



# Yekaterininskaya, Russia, 2015

## Times and Heights of High and Low Waters

October				November				December															
Time	Height			Time	Height			Time	Height			Time	Height										
	h	m	ft		h	m	ft		h	m	ft		h	m	ft								
<b>1</b> Th	0317	0.9	28	<b>16</b> F	0313	2.8	84	<b>1</b> Su	0433	1.9	57	<b>16</b> M	0359	2.8	85	<b>1</b> Tu	0503	2.5	75	<b>16</b> W	0429	2.3	69
	0911	13.2	402		0901	11.3	343		1036	11.4	348		0951	10.8	328		1111	10.6	323		1028	11.1	337
	1536	0.4	11		1522	2.6	80		1653	2.6	78		1612	3.2	98		1722	3.5	108		1649	3.1	96
	2144	13.0	397		2125	11.4	348		2303	11.6	353		2215	11.3	343		2328	11.2	340		2247	11.7	356
<b>2</b> F	0404	1.3	40	<b>17</b> Sa	0345	2.9	89	<b>2</b> M	0526	2.6	78	<b>17</b> Tu	0442	2.9	89	<b>2</b> W	0553	3.1	94	<b>17</b> Th	0518	2.4	72
	1001	12.6	384		0933	11.0	335		1134	10.7	325		1039	10.5	321		1207	10.1	308		1123	10.9	333
	1624	1.1	35		1555	3.0	90		1748	3.5	106		1659	3.6	109		1814	4.2	127		1743	3.4	105
	2235	12.4	377		2157	11.2	341		2359	10.9	333		2303	11.0	336		2303	11.0	336		2341	11.4	348
<b>3</b> Sa	0454	1.9	59	<b>18</b> Su	0420	3.2	97	<b>3</b> Tu	0624	3.2	99	<b>18</b> W	0532	3.1	95	<b>3</b> Th	0022	10.6	324	<b>18</b> F	0612	2.5	77
	1055	11.8	360		1010	10.7	326		1238	10.0	306		1135	10.3	314		0647	3.6	111		1224	10.8	328
	1715	2.2	66		1631	3.4	103		1849	4.3	130		1756	4.0	121		1306	9.7	297		1842	3.8	115
	2329	11.6	355		2236	10.9	332		☉	☉	2359		10.8	328	☉		☉	1911	4.7		142	☉	☉
<b>4</b> Su	0548	2.7	82	<b>19</b> M	0501	3.5	106	<b>4</b> W	0100	10.4	317	<b>19</b> Th	0630	3.3	100	<b>4</b> F	0120	10.2	311	<b>19</b> Sa	0039	11.1	339
	1154	11.0	334		1055	10.3	315		0727	3.8	116		1240	10.2	310		0745	4.1	124		0711	2.7	82
	1813	3.2	98		1715	3.8	117		1347	9.6	294		1902	4.2	129		1408	9.6	292		1331	10.7	327
	☉	☉	2323		10.6	323	1957		4.8	145	☉		☉	2013	10.6		323	2015	5.0		151	1947	4.0
<b>5</b> M	0028	10.9	333	<b>20</b> Tu	0550	3.8	115	<b>5</b> Th	0206	10.1	308	<b>20</b> F	0103	10.6	323	<b>5</b> Sa	0220	10.0	304	<b>20</b> Su	0143	10.9	333
	0650	3.4	104		1149	10.0	305		0835	4.1	126		0735	3.3	100		0848	4.3	130		0815	2.8	84
	1302	10.2	311		1811	4.3	131		1455	9.6	292		1355	10.3	313		1509	9.7	295		1440	10.8	330
	1919	4.1	126		☉	☉	2107		4.9	148	2013		4.2	129	2013		4.2	129	2122		4.9	150	2057
<b>6</b> Tu	0136	10.4	317	<b>21</b> W	0021	10.3	315	<b>6</b> F	0309	10.0	306	<b>21</b> Sa	0212	10.6	324	<b>6</b> Su	0320	9.9	302	<b>21</b> M	0250	10.8	330
	0800	3.9	120		0650	4.0	122		0941	4.1	126		0843	3.1	93		0949	4.2	129		0922	2.7	82
	1419	9.8	298		1256	9.8	298		1557	9.8	299		1507	10.6	324		1608	10.0	304		1546	11.1	339
	2033	4.6	141		1920	4.6	140		2212	4.7	142		2125	4.0	121		2223	4.7	143		2205	3.7	112
<b>7</b> W	0247	10.2	311	<b>22</b> Th	0129	10.2	311	<b>7</b> Sa	0407	10.2	311	<b>22</b> Su	0319	10.9	331	<b>7</b> M	0416	10.0	304	<b>22</b> Tu	0355	10.9	333
	0915	4.1	126		0800	4.0	121		1038	3.9	119		0949	2.6	80		1044	4.0	122		1027	2.5	76
	1534	9.7	297		1417	9.9	301		1650	10.2	311		1610	11.2	342		1700	10.4	316		1647	11.5	352
	2148	4.7	143		2038	4.5	138		2306	4.3	130		2230	3.4	104		2316	4.3	132		2308	3.2	98
<b>8</b> Th	0353	10.3	313	<b>23</b> F	0244	10.4	317	<b>8</b> Su	0459	10.4	318	<b>23</b> M	0419	11.3	343	<b>8</b> Tu	0508	10.1	309	<b>23</b> W	0457	11.1	339
	1024	4.0	121		0913	3.6	109		1126	3.5	108		1050	2.0	62		1132	3.7	112		1126	2.2	67
	1637	10.0	304		1534	10.4	316		1736	10.7	325		1706	11.8	361		1747	10.8	329		1742	12.0	365
	2251	4.4	134		2154	4.1	124		2352	3.8	116		2327	2.8	84		2327	2.8	84		2327	2.8	84
<b>9</b> F	0449	10.6	322	<b>24</b> Sa	0351	10.9	331	<b>9</b> M	0544	10.7	326	<b>24</b> Tu	0515	11.7	357	<b>9</b> W	0002	3.9	119	<b>24</b> Th	0004	2.7	81
	1118	3.6	111		1019	2.9	88		1208	3.2	97		1144	1.5	45		0554	10.3	315		0555	11.4	347
	1727	10.4	317		1636	11.1	339		1817	11.1	338		1757	12.4	378		1213	3.3	102		1221	1.9	59
	2341	3.9	120		2257	3.3	102		☉	☉	☉		☉	1828	11.2		340	1833	12.4		377		
<b>10</b> Sa	0537	10.9	333	<b>25</b> Su	0448	11.5	350	<b>10</b> Tu	0033	3.4	103	<b>25</b> W	0019	2.1	65	<b>10</b> Th	0043	3.5	107	<b>25</b> F	0056	2.1	65
	1203	3.2	99		1117	2.0	61		0625	10.9	332		0607	12.1	368		0634	10.5	321		0649	11.6	355
	1810	10.9	331		1729	11.9	364		1245	2.9	87		1235	1.1	33		1251	3.1	93		1311	1.8	55
	☉	☉	2351		2.5	77	1855		11.4	348	1855		11.4	348	1845		12.8	391	1904		11.5	349	1919
<b>11</b> Su	0024	3.5	106	<b>26</b> M	0539	12.1	370	<b>11</b> W	0110	3.1	94	<b>26</b> Th	0108	1.6	49	<b>11</b> F	0119	3.2	97	<b>26</b> Sa	0144	1.7	53
	0618	11.3	343		1208	1.2	36		0701	11.0	336		0658	12.3	375		0710	10.7	327		0739	11.8	359
	1241	2.9	87		1817	12.7	386		1319	2.6	80		1323	0.9	28		1327	2.9	87		1359	1.8	56
	1848	11.3	344		☉	☉	1929		11.6	354	1929		11.6	354	1931		13.0	396	1936		11.6	355	2003
<b>12</b> M	0102	3.1	94	<b>27</b> Tu	0039	1.8	55	<b>12</b> Th	0144	2.9	87	<b>27</b> F	0155	1.3	40	<b>12</b> Sa	0154	2.9	87	<b>27</b> Su	0229	1.6	48
	0656	11.5	350		0627	12.7	386		0734	11.1	338		0747	12.3	375		0743	10.9	332		0827	11.7	358
	1317	2.6	78		1256	0.6	17		1352	2.5	77		1410	1.0	32		1402	2.7	83		1444	2.0	62
	1923	11.6	353		1903	13.2	401		2000	11.7	356		2017	13.0	395		2006	11.8	360		2047	12.6	385
<b>13</b> Tu	0137	2.8	85	<b>28</b> W	0126	1.2	38	<b>13</b> F	0216	2.8	84	<b>28</b> Sa	0241	1.2	38	<b>13</b> Su	0228	2.6	79	<b>28</b> M	0313	1.6	50
	0730	11.6	353		0715	13.0	395		0805	11.1	338		0837	12.1	369		0818	11.1	337		0913	11.5	352
	1350	2.4	72		1342	0.3	8		1423	2.5	77		1457	1.5	45		1438	2.7	81		1528	2.4	73
	1956	11.7	357		1949	13.4	408		2028	11.6	355		2103	12.7	387		2039	11.9	363		2130	12.4	377
<b>14</b> W	0210	2.7	81	<b>29</b> Th	0211	1.0	29	<b>14</b> Sa	0248	2.7	82	<b>29</b> Su	0328	1.4	44	<b>14</b> M	0304	2.4	73	<b>29</b> Tu	0355	1.9	58
	0803	11.5	352		0802	13.0	396		0836	11.0	336		0927	11.7	357		0856	11.2	340		0958	11.2	342
	1421	2.3	70		1428	0.3	10		1456	2.7	81		1544	2.1	63		1517	2.7	83		1610	2.9	87
	2027	11.7	357		2035	13.3	404		2058	11.6	353		2150	12.2	373		2116	11.9	364		2212	12.0	366
<b>15</b> Th	0242	2.7	81	<b>30</b> F	0257	1.0	30	<b>15</b> Su	0322	2.7	82	<b>30</b> M	0415	1.9	57	<b>15</b> Tu	0344	2.3	69	<b>30</b> W	0438	2.3	71
	0832	11.5	349		0851	12.7	386		0910	10.9	333		1018	11.2	341		0939	11.2	340		1044	10.8	330
	1451	2.4	73		1514	0.8	25		1532	2.9	88		1632	2.8	85		1601	2.9	88		1653	3.4	103
	2056	11.6	353		2122	12.9	392		2133	11.5	349		2238	11.7	357		2159	11.9	362		2256	11.5	351
			<b>31</b> Sa	0344	1.3	40									<b>31</b> Th	0520	2.9	87					
				0942	12.1	369										1132	10.4	318					
				1602	1.6	49										1737	3.9	120					
				2211	12.3	374																	

# Kem, White Sea, Russia, 2015

## Times and Heights of High and Low Waters

January				February				March															
Time		Height		Time		Height		Time		Height		Time		Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> Th	0200	5.6	170	<b>16</b> F	0132	5.2	160	<b>1</b> Su	0330	5.6	170	<b>16</b> M	0246	5.6	170	<b>1</b> Su	0210	5.6	170				
	0842	2.0	60		0816	2.3	70		1019	1.3	40		0939	1.6	50		0859	1.6	50	<b>16</b> M	0805	2.3	70
	1418	5.6	170		1347	5.2	160		1551	5.2	160		1506	5.2	160		1438	5.2	160		1347	5.2	160
	2109	1.6	50		2037	2.0	60		2235	1.3	40		2157	1.3	40		2122	1.6	50		2034	2.0	60
<b>2</b> F	0257	5.9	180	<b>17</b> Sa	0226	5.6	170	<b>2</b> M	0417	5.9	180	<b>17</b> Tu	0335	5.6	170	<b>2</b> M	0307	5.6	170		<b>17</b> Tu	0218	5.6
	0943	2.0	60		0916	2.3	70		1107	1.3	40		1029	1.3	40		0957	1.3	40	0911		2.0	60
	1514	5.6	170		1440	5.2	160		1637	5.2	160		1556	5.6	170		1533	5.2	160	1446		5.6	170
	2203	1.3	40		2131	1.6	50		2320	1.0	30		2246	1.3	40		2215	1.3	40	2135		1.6	50
<b>3</b> Sa	0348	5.9	180	<b>18</b> Su	0314	5.9	180	<b>3</b> Tu	0459	5.9	180	<b>18</b> W	0422	5.9	180	<b>3</b> Tu	0356	5.6	170	<b>18</b> W	0312	5.9	180
	1035	1.6	50		1007	2.0	60		1149	1.0	30		1116	1.0	30		1045	1.0	30		1005	1.3	40
	1604	5.6	170		1528	5.6	170		1718	5.2	160		1644	5.6	170		1619	5.2	160		1538	5.6	170
	2251	1.3	40		2220	1.3	40		0000	1.0	30		0507	6.2	190		0438	5.6	170		0400	5.9	180
<b>4</b> Su	0433	6.2	190	<b>19</b> M	0359	5.9	180	<b>4</b> W	0000	1.0	30	<b>19</b> Th	1200	0.7	20	<b>4</b> W	1126	1.0	30	<b>19</b> Th	1053	1.0	30
	1122	1.3	40		1053	1.6	50		0537	5.9	180		1731	5.9	180		1658	5.2	160		1626	5.9	180
	1650	5.6	170		1614	5.6	170		1229	1.0	30		0016	1.0	30		0515	5.6	170		0446	6.2	190
	2335	1.3	40		2305	1.3	40		1756	5.2	160		0552	6.2	190		1204	1.0	30		1138	1.0	30
<b>5</b> M	0515	6.2	190	<b>20</b> Tu	0442	6.2	190	<b>5</b> Th	0039	1.3	40	<b>20</b> F	1818	5.9	180	<b>5</b> Th	1734	5.2	160	<b>20</b> F	1713	6.2	190
	1206	1.3	40		1137	1.3	40		0614	5.9	180		0245	0.7	20		0515	5.6	170		0446	6.2	190
	1733	5.6	170		1700	5.9	180		1306	1.0	30		1818	5.9	180		1204	1.0	30		1138	1.0	30
	<b>6</b> Tu	0017	1.3		40	2349	1.0		30	1833	5.2		160	0102	0.7		20	0017	1.3		40	0532	6.2
0555		6.2	190	0526	6.2	190	0115	1.3	40	0639	6.2	190	0548	5.6	170	1223	0.7	20					
1247		1.3	40	1221	1.0	30	0648	5.9	180	1341	1.0	30	1240	1.0	30	1759	6.2	190					
1814		5.6	170	1747	5.9	180	1908	5.2	160	1907	6.2	190	1807	5.2	160	0532	6.2	190					
<b>7</b> W	0057	1.3	40	<b>22</b> Th	0033	1.0	30	<b>7</b> Sa	0150	1.3	40	<b>22</b> Su	0147	0.7	20	<b>7</b> Sa	0052	1.3	40	<b>22</b> Su	0043	1.0	30
	0634	6.2	190		0611	6.6	200		0723	5.9	180		0727	6.6	200		0621	5.6	170		0618	6.6	200
	1327	1.3	40		1305	1.0	30		1414	1.0	30		1414	0.3	10		1313	1.0	30		1308	0.7	20
	1854	5.6	170		1835	5.9	180		1943	5.6	170		1957	6.2	190		1839	5.6	170		1846	6.2	190
<b>8</b> Th	0136	1.3	40	<b>23</b> F	0118	1.0	30	<b>8</b> Su	0222	1.3	40	<b>23</b> M	0233	0.7	20	<b>8</b> Su	0125	1.3	40	<b>23</b> M	0129	0.7	20
	0713	6.2	190		0658	6.6	200		0757	5.9	180		0817	6.2	190		0652	5.6	170		0706	6.6	200
	1405	1.3	40		1349	0.7	20		1446	1.3	40		1501	0.7	20		1344	1.3	40		1353	0.7	20
	1934	5.6	170		1925	5.9	180		2019	5.6	170		2049	5.9	180		1912	5.6	170		1935	6.2	190
<b>9</b> F	0213	1.3	40	<b>24</b> Sa	0203	1.0	30	<b>9</b> M	0254	1.3	40	<b>24</b> Tu	0321	1.0	30	<b>9</b> M	0157	1.3	40	<b>24</b> Tu	0215	1.0	30
	0751	6.2	190		0746	6.6	200		0832	5.9	180		0909	6.2	190		0724	5.9	180		0756	6.2	190
	1443	1.3	40		1435	0.7	20		1517	1.3	40		1550	0.7	20		1413	1.3	40		1439	0.7	20
	2015	5.6	170		2017	5.9	180		2058	5.6	170		2145	5.9	180		1945	5.6	170		2025	6.2	190
<b>10</b> Sa	0249	1.6	50	<b>25</b> Su	0250	1.0	30	<b>10</b> Tu	0325	1.6	50	<b>25</b> W	0415	1.3	40	<b>10</b> Tu	0226	1.3	40	<b>25</b> W	0303	1.0	30
	0830	5.9	180		0836	6.6	200		0910	5.6	170		1008	5.9	180		0758	5.9	180		0848	6.2	190
	1519	1.3	40		1522	0.7	20		1548	1.3	40		1646	1.0	30		1441	1.3	40		1527	1.0	30
	2056	5.6	170		2111	5.9	180		2142	5.6	170		2247	5.6	170		2022	5.9	180		2119	6.2	190
<b>11</b> Su	0326	1.6	50	<b>26</b> M	0340	1.3	40	<b>11</b> W	0358	2.0	60	<b>26</b> Th	0517	1.6	50	<b>11</b> W	0254	1.6	50	<b>26</b> Th	0355	1.3	40
	0910	5.9	180		0931	6.2	190		0955	5.6	170		1114	5.6	170		0835	5.9	180		0945	5.9	180
	1557	1.6	50		1614	1.0	30		1623	1.6	50		1751	1.3	40		1507	1.3	40		1620	1.3	40
	2141	5.6	170		2211	5.9	180		2235	5.2	160		2355	5.6	170		2103	5.6	170		2218	5.9	180
<b>12</b> M	0405	2.0	60	<b>27</b> Tu	0436	1.6	50	<b>12</b> Th	0441	2.0	60	<b>27</b> F	0630	1.6	50	<b>12</b> Th	0324	1.6	50	<b>27</b> F	0453	1.6	50
	0955	5.9	180		1032	5.9	180		1051	5.2	160		1225	5.2	160		0918	5.6	170		1049	5.6	170
	1638	1.6	50		1713	1.3	40		1712	2.0	60		1906	1.6	50		1537	1.6	50		1722	1.6	50
	2233	5.2	160		2316	5.6	170		2339	5.2	160		0104	5.2	160		2151	5.6	170		2323	5.6	170
<b>13</b> Tu	0451	2.3	70	<b>28</b> W	0543	2.0	60	<b>13</b> F	0554	2.3	70	<b>28</b> Sa	0748	1.6	50	<b>13</b> F	0401	2.0	60	<b>28</b> Sa	0601	1.6	50
	1046	5.6	170		1139	5.6	170		1159	4.9	150		1335	5.2	160		1011	5.2	160		1159	5.6	170
	1727	2.0	60		1822	1.6	50		1832	2.0	60		2019	1.6	50		1618	2.0	60		1832	2.0	60
	2331	5.2	160		0026	5.6	170		0047	5.2	160		0104	5.2	160		2253	5.2	160		2253	5.2	160
<b>14</b> W	0551	2.3	70	<b>29</b> Th	0700	2.0	60	<b>14</b> Sa	0726	2.3	70	<b>14</b> Sa	0500	2.3	70	<b>14</b> Sa	0500	2.3	70	<b>29</b> Su	0032	5.6	170
	1146	5.2	160		1250	5.2	160		1309	4.9	150		1955	2.0	60		1121	5.2	160		0715	2.0	60
	1828	2.0	60		1936	1.6	50		1955	2.0	60		0006	5.2	160		1731	2.0	60		1308	5.2	160
	<b>15</b> Th	0033	5.2		160	<b>30</b> F	0134		5.6	170	<b>15</b> Su		0150	5.2	160		<b>15</b> Su	0640	2.3		70	<b>15</b> Su	0006
0705		2.6	80	0817	2.0		60	0840	2.0	60		1238	5.2	160	0640	2.3		70	0826	1.6	50		
1249		5.2	160	1358	5.2		160	1411	5.2	160		1915	2.3	70	1238	5.2		160	1412	5.6	170		
1935		2.0	60	2046	1.6		50	2102	1.6	50		0006	5.2	160	1915	2.3		70	2052	2.0	60		
<b>31</b> Sa	0236	5.6	170	<b>31</b> Sa	0924	1.6	50	<b>31</b> Tu	0924	1.6	50	<b>31</b> Tu	1506	5.6	170	<b>31</b> Tu	0236	5.6	170				
	1458	5.2	160		2145	1.3	40		2145	1.3	40		2145	1.3	40		0926	1.6	50				

# Kem, White Sea, Russia, 2015

## Times and Heights of High and Low Waters

April				May				June															
Time		Height		Time		Height		Time		Height		Time		Height									
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm								
<b>1</b> W	0326	5.9	180	<b>16</b> Th	0248	5.9	180	<b>1</b> F	0332	5.9	180	<b>16</b> Sa	0316	6.2	190	<b>1</b> M	0410	5.9	180	<b>16</b> Tu	0436	6.2	190
	1015	1.3	40		0940	1.6	50		1021	1.6	50		1007	1.6	50		1101	2.0	60		1125	1.6	50
	1552	5.6	170		1520	5.9	180		1558	5.9	180		1549	6.6	200		1635	6.2	190		1703	6.6	200
	2234	1.6	50		2206	2.0	60		2244	2.0	60		2236	2.0	60		2330	2.3	70		2357	1.6	50
<b>2</b> Th	0408	5.9	180	<b>17</b> F	0338	6.2	190	<b>2</b> Sa	0410	5.9	180	<b>17</b> Su	0405	6.2	190	<b>2</b> Tu	0446	5.9	180	<b>17</b> W	0523	6.2	190
	1057	1.3	40		1030	1.3	40		1100	1.6	50		1055	1.6	50		1138	2.0	60		1211	1.6	50
	1631	5.6	170		1608	6.2	190		1633	6.2	190		1635	6.6	200		1710	6.6	200		1748	6.6	200
	2314	1.6	50		2254	1.6	50		2322	2.0	60		2324	1.6	50								
<b>3</b> F	0445	5.9	180	<b>18</b> Sa	0425	6.2	190	<b>3</b> Su	0444	5.9	180	<b>18</b> M	0451	6.6	200	<b>3</b> W	0008	2.0	60	<b>18</b> Th	0042	1.6	50
	1134	1.3	40		1116	1.3	40		1135	1.6	50		1141	1.3	40		0522	5.9	180		0610	5.9	180
	1705	5.6	170		1653	6.6	200		1706	6.2	190		1720	6.6	200		1215	2.0	60		1256	1.6	50
	2352	1.6	50		2340	1.3	40		2359	2.0	60						1747	6.6	200		1833	6.6	200
<b>4</b> Sa	0518	5.9	180	<b>19</b> Su	0511	6.6	200	<b>4</b> M	0517	5.9	180	<b>19</b> Tu	0010	1.6	50	<b>4</b> Th	0046	2.0	60	<b>19</b> F	0128	1.6	50
	1209	1.3	40		1201	1.0	30		1209	1.6	50		0538	6.2	190		0602	6.2	190		0658	5.9	180
	1738	5.9	180		1739	6.6	200		1739	6.2	190		1227	1.3	40		1252	2.0	60		1340	1.6	50
													1805	6.6	200		1827	6.6	200		1919	6.6	200
<b>5</b> Su	0026	1.6	50	<b>20</b> M	0026	1.3	40	<b>5</b> Tu	0034	2.0	60	<b>20</b> W	0057	1.6	50	<b>5</b> F	0125	2.0	60	<b>20</b> Sa	0212	1.6	50
	0549	5.9	180		0557	6.6	200		0550	5.9	180		0626	6.2	190		0646	6.2	190		0746	5.9	180
	1242	1.3	40		1246	1.0	30		1243	2.0	60		1313	1.6	50		1331	2.0	60		1424	2.0	60
	1809	5.9	180		1825	6.6	200		1813	6.2	190		1852	6.6	200		1910	6.6	200		2005	6.6	200
<b>6</b> M	0100	1.6	50	<b>21</b> Tu	0112	1.3	40	<b>6</b> W	0109	2.0	60	<b>21</b> Th	0143	1.3	40	<b>6</b> Sa	0205	2.0	60	<b>21</b> Su	0256	1.6	50
	0621	5.9	180		0645	6.6	200		0626	5.9	180		0716	6.2	190		0733	6.2	190		0836	5.9	180
	1313	1.6	50		1332	1.0	30		1315	2.0	60		1358	1.6	50		1412	2.0	60		1507	2.0	60
	1841	5.9	180		1912	6.6	200		1849	6.6	200		1940	6.6	200		1956	6.6	200		2053	6.6	200
<b>7</b> Tu	0132	1.6	50	<b>22</b> W	0159	1.3	40	<b>7</b> Th	0143	2.0	60	<b>22</b> F	0230	1.6	50	<b>7</b> Su	0248	1.6	50	<b>22</b> M	0340	1.6	50
	0653	5.9	180		0735	6.2	190		0705	6.2	190		0808	6.2	190		0825	6.2	190		0926	5.9	180
	1342	1.6	50		1418	1.3	40		1348	2.0	60		1445	1.6	50		1456	2.0	60		1553	2.0	60
	1915	6.2	190		2002	6.6	200		1929	6.6	200		2030	6.6	200		2046	6.6	200		2142	6.2	190
<b>8</b> W	0203	1.6	50	<b>23</b> Th	0246	1.3	40	<b>8</b> F	0219	2.0	60	<b>23</b> Sa	0317	1.6	50	<b>8</b> M	0334	1.6	50	<b>23</b> Tu	0426	2.0	60
	0729	5.9	180		0828	6.2	190		0748	6.2	190		0901	6.2	190		0922	6.2	190		1018	5.9	180
	1411	1.6	50		1505	1.3	40		1423	2.0	60		1532	2.0	60		1546	2.3	70		1642	2.3	70
	1952	6.2	190		2054	6.6	200		2013	6.6	200		2122	6.6	200		2142	6.6	200		2234	6.2	190
<b>9</b> Th	0234	1.6	50	<b>24</b> F	0336	1.3	40	<b>9</b> Sa	0258	2.0	60	<b>24</b> Su	0407	1.6	50	<b>9</b> Tu	0426	2.0	60	<b>24</b> W	0516	2.0	60
	0808	5.9	180		0924	6.2	190		0837	6.2	190		0958	5.9	180		1025	6.2	190		1113	5.9	180
	1440	1.6	50		1556	1.6	50		1503	2.0	60		1623	2.3	70		1646	2.3	70		1737	2.6	80
	2034	6.2	190		2150	6.2	190		2102	6.6	200		2218	6.2	190		2245	6.2	190		2329	5.9	180
<b>10</b> F	0307	1.6	50	<b>25</b> Sa	0431	1.6	50	<b>10</b> Su	0343	2.0	60	<b>25</b> M	0500	2.0	60	<b>10</b> W	0528	2.0	60	<b>25</b> Th	0610	2.3	70
	0853	5.9	180		1025	5.9	180		0934	5.9	180		1057	5.9	180		1134	5.9	180		1210	5.9	180
	1513	1.6	50		1653	2.0	60		1552	2.3	70		1720	2.3	70		1757	2.6	80		1839	2.6	80
	2122	5.9	180		2251	6.2	190		2159	6.2	190		2317	6.2	190		2354	6.2	190				
<b>11</b> Sa	0347	2.0	60	<b>26</b> Su	0531	2.0	60	<b>11</b> M	0439	2.3	70	<b>26</b> Tu	0558	2.0	60	<b>11</b> Th	0639	2.0	60	<b>26</b> F	0026	5.9	180
	0947	5.6	170		1130	5.6	170		1041	5.9	180		1157	5.9	180		1242	5.9	180		0709	2.3	70
	1557	2.0	60		1757	2.3	70		1658	2.6	80		1824	2.6	80		1914	2.6	80		1306	5.9	180
	2221	5.9	180		2356	5.9	180		2307	6.2	190								1942		2.6	80	
<b>12</b> Su	0445	2.3	70	<b>27</b> M	0638	2.0	60	<b>12</b> Tu	0549	2.3	70	<b>27</b> W	0016	6.2	190	<b>12</b> F	0101	6.2	190	<b>27</b> Sa	0121	5.9	180
	1057	5.6	170		1236	5.6	170		1155	5.9	180		0700	2.3	70		0748	2.0	60		0807	2.3	70
	1706	2.3	70		1907	2.3	70		1820	2.6	80		1257	5.9	180		1345	6.2	190		1358	5.9	180
	2333	5.6	170								1929		2.6	80	1929		2.6	80	2025		2.6	80	2042
<b>13</b> M	0610	2.3	70	<b>28</b> Tu	0059	5.9	180	<b>13</b> W	0019	5.9	180	<b>28</b> Th	0114	5.9	180	<b>13</b> Sa	0202	6.2	190	<b>28</b> Su	0211	5.9	180
	1215	5.6	170		0746	2.0	60		0705	2.3	70		0800	2.3	70		0852	2.0	60		0859	2.3	70
	1845	2.6	80		1338	5.6	170		1305	5.9	180		1351	5.9	180		1441	6.2	190		1444	6.2	190
					2014	2.3	70		1940	2.6	80		2030	2.6	80		2126	2.3	70		2133	2.3	70
<b>14</b> Tu	0046	5.6	170	<b>29</b> W	0158	5.9	180	<b>14</b> Th	0126	5.9	180	<b>29</b> F	0206	5.9	180	<b>14</b> Su	0258	6.2	190	<b>29</b> M	0256	5.9	180
	0734	2.3	70		0846	2.0	60		0815	2.0	60		0854	2.0	60		0948	1.6	50		0946	2.0	60
	1326	5.6	170		1432	5.9	180		1406	6.2	190		1439	6.2	190		1532	6.6	200		1526	6.2	190
	2007	2.3	70		2112	2.3	70		2048	2.3	70		2124	2.3	70		2220	2.0	60		2219	2.3	70
<b>15</b> W	0151	5.9	180	<b>30</b> Th	0248	5.9																	

# Kem, White Sea, Russia, 2015

## Times and Heights of High and Low Waters

July				August				September																		
Time		Height		Time		Height		Time		Height		Time		Height												
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm											
<b>1</b> W	0418	5.9	180	<b>16</b> Th	0510	5.9	180	<b>1</b> Sa	0524	6.2	190	<b>16</b> Su	0048	1.3	40	<b>1</b> Tu	0103	1.0	30	<b>16</b> W	0130	1.6	50			
	1109	2.0	60		1156	1.6	50		1211	1.6	50		0617	5.6	170		0639	6.6	200		0659	5.9	180			
	1644	6.6	200		1733	6.2	190		1746	6.6	200		1300	1.6	50		1321	1.3	40		1346	2.0	60	1346	2.0	60
	2342	2.0	60		●						1831		6.2	190	1831		6.2	190	1857		6.6	200	1909	5.9	180	
<b>2</b> Th	0459	5.9	180	<b>17</b> F	0027	1.6	50	<b>2</b> Su	0042	1.3	40	<b>17</b> M	0126	1.3	40	<b>2</b> W	0147	1.0	30	<b>17</b> Th	0201	1.6	50			
	1149	2.0	60		0555	5.9	180		0611	6.2	190		0655	5.6	170		0728	6.6	200		0733	5.9	180			
	1724	6.6	200		1239	1.6	50		1256	1.3	40		1337	1.6	50		1407	1.3	40		1418	2.0	60	1418	2.0	60
○			1814		6.2	190	1831		6.6	200	1908		5.9	180	1946		6.6	200	1943		5.9	180				
<b>3</b> F	0023	2.0	60	<b>18</b> Sa	0110	1.3	40	<b>3</b> M	0126	1.0	30	<b>18</b> Tu	0201	1.3	40	<b>3</b> Th	0233	1.0	30	<b>18</b> F	0231	1.6	50			
	0542	5.9	180		0639	5.6	170		0700	6.2	190		0732	5.6	170		0820	6.6	200		0809	5.9	180			
	1231	1.6	50		1321	1.6	50		1341	1.3	40		1413	1.6	50		1456	1.3	40		1450	2.0	60	1450	2.0	60
	1806	6.6	200		1856	6.2	190		1919	6.6	200		1944	5.9	180		2039	6.6	200		2019	5.9	180			
<b>4</b> Sa	0105	1.6	50	<b>19</b> Su	0151	1.3	40	<b>4</b> Tu	0211	1.0	30	<b>19</b> W	0236	1.6	50	<b>4</b> F	0322	1.0	30	<b>19</b> Sa	0259	2.0	60			
	0628	6.2	190		0722	5.6	170		0751	6.2	190		0810	5.9	180		0915	6.2	190		0849	5.9	180			
	1314	1.6	50		1401	1.6	50		1427	1.3	40		1449	2.0	60		1549	1.6	50		1523	2.3	70	1523	2.3	70
	1851	6.6	200		1938	6.2	190		2008	6.6	200		2021	5.9	180		2137	6.2	190		2101	5.9	180			
<b>5</b> Su	0148	1.6	50	<b>20</b> M	0230	1.3	40	<b>5</b> W	0257	1.0	30	<b>20</b> Th	0310	1.6	50	<b>5</b> Sa	0417	1.3	40	<b>20</b> Su	0329	2.0	60			
	0718	6.2	190		0806	5.9	180		0844	6.2	190		0850	5.9	180		1016	6.2	190		0936	5.9	180			
	1358	1.6	50		1441	2.0	60		1515	1.6	50		1524	2.0	60		1649	2.0	60		1602	2.3	70	1602	2.3	70
	1938	6.9	210		2020	6.2	190		2101	6.6	200		2101	5.9	180		●	2243	5.9		180	2153	5.6	170		
<b>6</b> M	0232	1.3	40	<b>21</b> Tu	0309	1.6	50	<b>6</b> Th	0346	1.3	40	<b>21</b> F	0344	1.6	50	<b>6</b> Su	0520	1.6	50	<b>21</b> M	0409	2.3	70			
	0810	6.2	190		0849	5.9	180		0941	6.2	190		0934	5.9	180		1124	5.9	180		1035	5.9	180			
	1444	1.6	50		1521	2.0	60		1609	1.6	50		1603	2.3	70		1800	2.0	60		1701	2.6	80	1701	2.6	80
	2029	6.6	200		2102	6.2	190		2200	6.2	190		2145	5.6	170		2355	5.6	170		●	2301	5.6	170		
<b>7</b> Tu	0318	1.3	40	<b>22</b> W	0349	1.6	50	<b>7</b> F	0441	1.3	40	<b>22</b> Sa	0422	2.0	60	<b>7</b> M	0632	2.0	60	<b>22</b> Tu	0515	2.3	70			
	0905	6.2	190		0935	5.9	180		1044	5.9	180		1025	5.6	170		1235	5.9	180		1145	5.6	170			
	1533	2.0	60		1603	2.3	70		1711	2.0	60		1649	2.3	70		1917	2.0	60		1824	2.6	80	1824	2.6	80
	2123	6.6	200		2147	5.9	180		●	2306	5.9		180	●	2240		5.6	170								
<b>8</b> W	0408	1.6	50	<b>23</b> Th	0430	2.0	60	<b>8</b> Sa	0546	1.6	50	<b>23</b> Su	0510	2.3	70	<b>8</b> Tu	0107	5.6	170	<b>23</b> W	0018	5.2	160			
	1005	6.2	190		1024	5.9	180		1152	5.9	180		1125	5.6	170		0747	2.0	60		0649	2.6	80			
	1629	2.0	60		1649	2.3	70		1824	2.3	70		1754	2.6	80		1342	5.9	180		1255	5.6	170	1255	5.6	170
	●				2237	5.9	180						2345	5.2	160		2030	2.0	60		1943	2.6	80			
<b>9</b> Th	0506	1.6	50	<b>24</b> F	0517	2.0	60	<b>9</b> Su	0016	5.9	180	<b>24</b> M	0618	2.3	70	<b>9</b> W	0214	5.6	170	<b>24</b> Th	0127	5.6	170			
	1110	5.9	180		1119	5.6	170		0658	2.0	60		1230	5.6	170		0855	2.0	60		0807	2.3	70			
	1734	2.3	70		1745	2.6	80		1300	5.9	180		1910	2.6	80		1442	5.9	180		1355	5.9	180	1355	5.9	180
	2329	6.2	190		●	2334	5.6		170	1941	2.3		70				2131	1.6	50		2047	2.3	70			
<b>10</b> F	0612	2.0	60	<b>25</b> Sa	0613	2.3	70	<b>10</b> M	0126	5.6	170	<b>25</b> Tu	0052	5.2	160	<b>10</b> Th	0311	5.6	170	<b>25</b> F	0225	5.9	180			
	1218	5.9	180		1217	5.6	170		0810	2.0	60		0732	2.3	70		0951	1.6	50		0908	2.3	70			
	1849	2.6	80		1850	2.6	80		1404	5.9	180		1331	5.6	170		1533	6.2	190		1448	6.2	190	1448	6.2	190
									2051	2.0	60		2019	2.3	70		2222	1.3	40		2140	1.6	50			
<b>11</b> Sa	0038	5.9	180	<b>26</b> Su	0033	5.6	170	<b>11</b> Tu	0229	5.6	170	<b>26</b> W	0153	5.6	170	<b>11</b> F	0359	5.9	180	<b>26</b> Sa	0316	6.2	190			
	0723	2.0	60		0715	2.3	70		0914	1.6	50		0838	2.3	70		1038	1.6	50		1000	2.0	60			
	1323	5.9	180		1315	5.6	170		1501	5.9	180		1425	5.9	180		1616	6.2	190		1535	6.6	200	1535	6.6	200
	2003	2.3	70		1957	2.6	80		2151	1.6	50		2117	2.3	70		2306	1.3	40		2227	1.3	40			
<b>12</b> Su	0143	5.9	180	<b>27</b> M	0131	5.6	170	<b>12</b> W	0325	5.6	170	<b>27</b> Th	0247	5.6	170	<b>12</b> Sa	0441	5.9	180	<b>27</b> Su	0403	6.2	190			
	0831	2.0	60		0816	2.3	70		1009	1.6	50		0933	2.0	60		1121	1.6	50		1047	1.6	50			
	1423	6.2	190		1407	5.9	180		1551	6.2	190		1513	6.2	190		1655	6.2	190		1620	6.6	200	1620	6.6	200
	2109	2.3	70		2056	2.3	70		2242	1.6	50		2207	1.6	50		2345	1.3	40		2311	1.3	40			
<b>13</b> M	0242	5.9	180	<b>28</b> Tu	0223	5.6	170	<b>13</b> Th	0414	5.6	170	<b>28</b> F	0335	5.9	180	<b>13</b> Su	0518	5.9	180	<b>28</b> M	0447	6.6	200			
	0931	1.6	50		0910	2.0	60		1056	1.6	50		1022	1.6	50		1200	1.6	50		1131	1.3	40			
	1516	6.2	190		1455	5.9	180		1635	6.2	190		1558	6.2	190		1731	6.2	190		1704	6.6	200	1704	6.6	200
	2206	2.0	60		2148	2.3	70		2327	1.3	40		2252	1.6	50		●				●	2355	1.0	30		
<b>14</b> Tu	0335	5.9	180	<b>29</b> W	0310	5.6	170	<b>14</b> F	0458	5.6	170	<b>29</b> Sa	0421	6.2	190	<b>14</b> M	0022	1.3	40	<b>29</b> Tu	0532	6.6	200			
	1023	1.6	50		0959	2.0	60		1140	1.6	50		1107	1.6	50		0552	5.9	180		1216	1.3	40			
	1605	6.2	190		1539	6.2	190		1716	6.2	190		1641	6.6	200		1237	1.6	50		1748	6.9	210	1748	6.9	210
	2257	1.6	50		2234	2.0	60		●				●	2335	1.3		40	1804	5.9		180					
<b>15</b> W	0424	5.9	180	<b>30</b> Th	0355	5.9	180	<b>15</b> Sa	0008	1.3	40	<b>30</b> Su	0506	6.2	190	<b>15</b> Tu	0057	1.3	40	<b>30</b> W	0039	1.0	30			
	1111	1.6	50		1044	1.6	50		0538	5.6	170		1151	1.3	40		0626	5.9	180		0617					

## Kem, White Sea, Russia, 2015

## Times and Heights of High and Low Waters

October				November				December															
Time	Height			Time	Height			Time	Height			Time	Height										
	h	m	cm		h	m	cm		h	m	cm		h	m	cm								
<b>1</b> Th	0124	1.0	30	<b>16</b> F	0129	1.6	50	<b>1</b> Su	0238	1.3	40	<b>16</b> M	0202	2.0	60	<b>1</b> Tu	0307	1.6	50	<b>16</b> W	0227	1.6	50
	0705	6.6	200		0700	6.2	190		0826	6.6	200		0751	6.6	200		0857	6.6	200		0818	6.6	200
	1348	1.3	40		1351	2.0	60		1511	1.6	50		1439	2.0	60		1543	1.6	50		1506	1.6	50
	1924	6.6	200		1910	5.9	180		2053	6.2	190		2009	5.9	180		2130	5.9	180		2046	5.9	180
<b>2</b> F	0210	1.0	30	<b>17</b> Sa	0157	2.0	60	<b>2</b> M	0329	1.6	50	<b>17</b> Tu	0236	2.0	60	<b>2</b> W	0358	2.0	60	<b>17</b> Th	0310	2.0	60
	0755	6.6	200		0735	6.2	190		0922	6.6	200		0835	6.6	200		0953	6.2	190		0907	6.6	200
	1437	1.3	40		1423	2.0	60		1606	1.6	50		1519	2.0	60		1637	1.6	50		1552	1.6	50
	2016	6.6	200		1947	5.9	180		2156	5.9	180		2101	5.9	180		2231	5.9	180		2144	5.9	180
<b>3</b> Sa	0259	1.3	40	<b>18</b> Su	0224	2.0	60	<b>3</b> Tu	0426	2.0	60	<b>18</b> W	0317	2.3	70	<b>3</b> Th	0455	2.3	70	<b>18</b> F	0400	2.0	60
	0849	6.6	200		0815	6.2	190		1024	6.2	190		0928	6.2	190		1053	6.2	190		1005	6.2	190
	1529	1.6	50		1455	2.3	70		1707	2.0	60		1609	2.3	70		1736	2.0	60		1649	2.0	60
	2114	6.2	190		2030	5.9	180		2304	5.9	180		2204	5.9	180		2335	5.6	170		2252	5.6	170
<b>4</b> Su	0352	1.6	50	<b>19</b> M	0253	2.0	60	<b>4</b> W	0531	2.3	70	<b>19</b> Th	0413	2.6	80	<b>4</b> F	0559	2.3	70	<b>19</b> Sa	0507	2.3	70
	0949	6.2	190		0900	6.2	190		1131	6.2	190		1031	6.2	190		1155	5.9	180		1112	5.9	180
	1628	2.0	60		1534	2.3	70		1815	2.0	60		1714	2.3	70		1841	2.0	60		1757	2.0	60
	2220	5.9	180		2121	5.9	180						2319	5.6	170								
<b>5</b> M	0453	2.0	60	<b>20</b> Tu	0332	2.3	70	<b>5</b> Th	0014	5.6	170	<b>20</b> F	0534	2.6	80	<b>5</b> Sa	0039	5.6	170	<b>20</b> Su	0004	5.6	170
	1055	6.2	190		0955	6.2	190		0642	2.6	80		1144	5.9	180		0707	2.6	80		0628	2.6	80
	1735	2.0	60		1627	2.6	80		1239	6.2	190		1831	2.3	70		1257	5.9	180		1224	5.9	180
	2332	5.6	170		2228	5.6	170		1925	2.0	60						1944	2.0	60		1912	2.0	60
<b>6</b> Tu	0603	2.3	70	<b>21</b> W	0432	2.6	80	<b>6</b> F	0121	5.9	180	<b>21</b> Sa	0033	5.9	180	<b>6</b> Su	0138	5.9	180	<b>21</b> M	0113	5.6	170
	1205	5.9	180		1104	5.9	180		0752	2.3	70		0702	2.6	80		0814	2.3	70		0748	2.6	80
	1849	2.0	60		1744	2.6	80		1340	6.2	190		1254	5.9	180		1353	5.9	180		1330	5.9	180
					2347	5.6	170		2029	2.0	60		1944	2.3	70		2042	2.0	60		2022	2.0	60
<b>7</b> W	0045	5.6	170	<b>22</b> Th	0609	2.6	80	<b>7</b> Sa	0219	5.9	180	<b>22</b> Su	0139	5.9	180	<b>7</b> M	0230	5.9	180	<b>22</b> Tu	0214	5.9	180
	0718	2.3	70		1219	5.9	180		0855	2.3	70		0816	2.6	80		0911	2.3	70		0857	2.3	70
	1314	5.9	180		1907	2.6	80		1434	6.2	190		1356	6.2	190		1442	5.9	180		1430	5.9	180
	2002	2.0	60						2123	1.6	50		2048	2.0	60		2132	1.6	50		2122	1.6	50
<b>8</b> Th	0152	5.6	170	<b>23</b> F	0100	5.6	170	<b>8</b> Su	0308	6.2	190	<b>23</b> M	0236	6.2	190	<b>8</b> Tu	0315	5.9	180	<b>23</b> W	0308	6.2	190
	0828	2.3	70		0735	2.6	80		0946	2.0	60		0918	2.3	70		1000	2.3	70		0955	2.0	60
	1415	6.2	190		1325	5.9	180		1520	6.2	190		1450	6.2	190		1525	5.9	180		1523	5.9	180
	2104	1.6	50		2016	2.3	70		2208	1.6	50		2142	1.6	50		2215	1.6	50		2215	1.3	40
<b>9</b> F	0250	5.9	180	<b>24</b> Sa	0203	5.9	180	<b>9</b> M	0349	6.2	190	<b>24</b> Tu	0326	6.6	200	<b>9</b> W	0354	6.2	190	<b>24</b> Th	0357	6.2	190
	0927	2.0	60		0843	2.3	70		1031	2.0	60		1010	2.0	60		1042	2.0	60		1046	1.6	50
	1507	6.2	190		1422	6.2	190		1559	6.2	190		1539	6.6	200		1603	5.9	180		1613	5.9	180
	2156	1.6	50		2114	2.0	60		2248	1.6	50		2230	1.3	40		2253	1.6	50		2303	1.3	40
<b>10</b> Sa	0338	5.9	180	<b>25</b> Su	0256	6.2	190	<b>10</b> Tu	0425	6.2	190	<b>25</b> W	0412	6.6	200	<b>10</b> Th	0429	6.2	190	<b>25</b> F	0443	6.2	190
	1015	2.0	60		0939	2.0	60		1110	2.0	60		1058	1.6	50		1121	2.0	60		1134	1.3	40
	1551	6.2	190		1512	6.6	200		1634	6.2	190		1626	6.6	200		1638	5.9	180		1700	5.9	180
	2239	1.3	40		2203	1.6	50		2324	1.6	50		2316	1.3	40		2329	1.6	50		2349	1.3	40
<b>11</b> Su	0418	6.2	190	<b>26</b> M	0344	6.6	200	<b>11</b> W	0458	6.2	190	<b>26</b> Th	0456	6.6	200	<b>11</b> F	0503	6.2	190	<b>26</b> Sa	0528	6.2	190
	1058	1.6	50		1027	2.0	60		1147	2.0	60		1145	1.6	50		1158	2.0	60		1220	1.3	40
	1630	6.2	190		1559	6.6	200		1706	5.9	180		1712	6.6	200		1712	5.9	180		1747	5.9	180
	2318	1.3	40		2249	1.3	40		2357	1.6	50												
<b>12</b> M	0453	6.2	190	<b>27</b> Tu	0429	6.6	200	<b>12</b> Th	0530	6.2	190	<b>27</b> F	0001	1.3	40	<b>12</b> Sa	0004	1.6	50	<b>27</b> Su	0033	1.3	40
	1136	1.6	50		1113	1.6	50		1222	2.0	60		0541	6.9	210		0537	6.2	190		0612	6.6	200
	1704	6.2	190		1643	6.6	200		1738	5.9	180		1232	1.3	40		1234	2.0	60		1306	1.3	40
	2354	1.6	50		2333	1.3	40						1758	6.2	190		1748	5.9	180		1834	5.9	180
<b>13</b> Tu	0526	6.2	190	<b>28</b> W	0513	6.9	210	<b>13</b> F	0030	2.0	60	<b>28</b> Sa	0047	1.3	40	<b>13</b> Su	0039	1.6	50	<b>28</b> M	0118	1.3	40
	1212	2.0	60		1159	1.6	50		0601	6.2	190		0627	6.9	210		0613	6.6	200		0658	6.6	200
	1736	5.9	180		1728	6.9	210		1256	2.0	60		1318	1.3	40		1310	1.6	50		1350	1.3	40
									1810	5.9	180		1847	6.2	190		1826	5.9	180		1922	5.9	180
<b>14</b> W	0027	1.6	50	<b>29</b> Th	0018	1.0	30	<b>14</b> Sa	0101	2.0	60	<b>29</b> Su	0133	1.3	40	<b>14</b> M	0113	1.6	50	<b>29</b> Tu	0202	1.3	40
	0557	6.2	190		0557	6.9	210		0634	6.6	200		0714	6.9	210		0651	6.6	200		0744	6.6	200
	1247	2.0	60		1245	1.3	40		1330	2.0	60		1405	1.3	40		1347	1.6	50		1434	1.3	40
	1806	5.9	180		1815	6.6	200		1845	5.9	180		1939	6.2	190		1909	5.9					



## TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

### EXPLANATION OF TABLE

The publication of full daily predictions is necessarily limited to a comparatively small number of stations. Tide predictions for many other places, however, can be obtained by applying certain differences to the predictions for the reference stations in Table 1. The following pages list the places called "subordinate stations" for which such predictions can be made, and the differences or ratios to be used. These differences or ratios are to be applied to the predictions for the proper reference station which is listed in Table 2 in boldface type above the differences for the subordinate station. The stations in this table are arranged in geographical order. The index to stations at the end of this volume will assist in locating a particular station.

**Time differences.** — To determine the time of high water or low water at any station listed in this table there is given in the columns headed "Differences, Time" the hours and minutes to be added to or subtracted from the time of high or low water at some reference station. A plus (+) sign indicates that the tide at the subordinate station is later than at the reference station and the difference should be added; a minus (–) sign indicates that it is earlier and should be subtracted.

To obtain the tide at a subordinate station on any date, apply the difference to the tide at the reference station for that same date. In some cases, however, to obtain an a.m. tide it may be necessary to use the preceding day's p.m. tide at the reference station, or to obtain a p.m. tide it may be necessary to use the following day's a.m. tide. For example, if a high water occurs at a reference station at 2200 on July 2, and the tide at the subordinate station occurs 3 hours later, then high water will occur at 0100 on July 3 at the subordinate station. For the second case, if a high water at a reference station occurs at 0200 on July 17, and the tide at the subordinate station occurs 5 hours earlier, the high water at the subordinate station will occur at 2100 on July 16. The necessary allowance for changes in date when the international date line is crossed is included in the time differences. In such cases use the same date at the reference station as desired for the subordinate station as explained above.

The results obtained by the application of the time differences will be in the kind of time indicated by the time meridian shown above the name of the subordinate station. Summer or daylight saving time is not used in the tide tables.

**Height differences.** — The height of the tide, referred to the datum of charts, is obtained by means of the height differences or ratios. A plus (+) sign indicates that the difference should be added to the height at the reference station, and a minus (–) sign indicates that it should be subtracted. All height differences, ranges, and levels in Table 2 are in feet but may be converted to centimeters by the use of Table 6.

**Ratio.** — For some stations, use of predicted height differences would give unsatisfactory predictions. In such cases they have been omitted and one or two ratios are given (\*). Where two ratios are given, one in the "height of high water" column and one in the "height of low water" column, the high waters and low waters at the reference station should be multiplied by these respective ratios. Where only one is given, the omitted ratio is either unreliable or unknown.

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

As an example, at Porto Grande, the values in the time and height difference columns in Table 2 are given as –2 14, – 2 07, and (\*0.67 + 0.5) as referred to the reference station at Dakar, Senegal. If we assume that the tide predictions in column (1) below are those of Dakar on a particular day, application of the time and height corrections in columns (2) and (3) would result in the tide predictions for Port Grande in column (4).

TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

(1)		(2)	(3)	(4)		
<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft.</i>	<i>Time</i> <i>Corrections</i>	<i>Height</i> <i>Corrections</i>	<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft.</i>	<i>Height</i> <i>centimeters</i>
0453	0.8	-2 <sup>h</sup> 07 <sup>m</sup>	x0.67 + 0.5	0246	1.0	30
1101	4.9	-2 <sup>h</sup> 14 <sup>m</sup>	x0.67 + 0.5	0847	3.8	116
1702	1.0	-2 <sup>h</sup> 07 <sup>m</sup>	x0.67 + 0.5	1455	1.2	37
2316	5.1	-2 <sup>h</sup> 14 <sup>m</sup>	x0.67 + 0.5	2102	3.9	119

**Range.**—The *mean range* is the difference in height between mean high water (MHW) and mean low water (MLW). The *spring range* is the average semidiurnal range occurring semimonthly as a result of the Moon being new or full. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal. Where the tide is chiefly of the diurnal type the table gives the *diurnal range*, which is the difference in height between mean higher high water and mean lower low water.

**Caution.** — For stations where the tide is chiefly diurnal the time differences and the height differences and ratios are intended primarily for predicting the higher high and lower low waters. When the lower high water and the higher low water at the reference station are nearly the same height the corresponding tides often cannot be obtained satisfactorily by means of the tidal differences.

**Datum.**—The datum of the predictions obtained through the height differences or ratios is also the datum of the largest scale chart for the locality. To obtain the depth at the time of high or low water, the predicted height should be added to the depth on the chart unless such height is negative (-), when it should be subtracted. To find the height at times between high and low water see Table 3. On some charts the depths are given in meters and in such cases the heights of the tide can be converted to centimeters by the use of Table 6. For the area covered by these tables the datums generally used are approximately *mean low water springs*, *Indian spring low water*, or the *lowest possible low water*.

**Mean Tide Level** (Half-Tide Level). — The mean tide level is a plane midway between mean low water and mean high water. Tabular values are reckoned from chart depth.

NOTE.—Dashes are entered in the place of data which are unknown, unreliable, or not applicable.



TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
		<b>South</b>	<b>West</b>	h	m	ft	ft	ft	ft	ft
	Detached Islands Time meridian, 0°			<b>on Takoradi, p.12</b>						
1	Tristan da Cunha	37° 03'	12° 18'	-3	32	-2.3	-0.9	1.8	2.6	1.6
	Time meridian, 30° W									
3	Martin Vaz, Ilhas	20° 29'	28° 53'	-0	08	-1.8	-1.2	2.6	3.5	1.7
5	Trindade, Ilha da	20° 30'	29° 22'	-0	01	-1.3	-1.1	3.0	4.0	2.0
	Time meridian, 0°									
7	St. Helena Island	15° 55'	5° 43'	-0	19	-1.1	-0.2	2.3	3.2	2.5
9	Ascension Island	7° 55'	14° 25'	+2	21	-1.1	-0.2	2.3	3.0	2.5
	Republic of Cape Verde Time meridian, 30° W			<b>on Dakar, p.16</b>						
11	Porto da Praia, Sao Tiago Island	14° 55'	23° 31'	-2	29	-0.7	-0.5	3.1	4.1	2.6
13	Porto da Faja, Brava Island	14° 52'	24° 45'	-2	25	-1.6	-1.1	2.8	3.7	1.8
15	Porto Grande, Sao Vicente Island	16° 53'	25° 00'	-2	14	( <sup>*</sup> 0.67+0.5)		2.2	3.0	2.6
	Canary Islands, Etc. Time meridian, 0°			<b>on Casablanca, p.20</b>						
17	Puerto Hierro	27° 46'	17° 55'	-1	21	<sup>*</sup> 0.63	<sup>*</sup> 0.59	4.6	6.4	4.3
19	Santa Cruz, Palma Island	28° 40'	17° 45'	-1	21	<sup>*</sup> 0.63	<sup>*</sup> 0.59	4.6	6.4	4.3
21	San Sebastian de la Gomera	28° 06'	17° 07'	-1	01	<sup>*</sup> 0.63	<sup>*</sup> 0.59	4.6	6.4	4.3
23	Santa Cruz, Tenerife Island	28° 29'	16° 14'	-1	22	<sup>*</sup> 0.67	<sup>*</sup> 0.68	4.7	6.4	4.7
25	Puerto de la Luz, Gran Canaria Island	28° 09'	15° 25'	-1	01	<sup>*</sup> 0.70	<sup>*</sup> 0.59	5.3	7.1	4.7
27	Puerto del Rosario, Fuerteventura Island	28° 29'	13° 51'	-0	51	<sup>*</sup> 0.63	<sup>*</sup> 0.59	4.6	6.4	4.3
29	Puerto Arrecife, Lanzarote Island	28° 57'	13° 32'	-1	06	-2.5	-1.4	6.0	7.8	5.0
31	Ilheu de Fora, Ilhas Selvagens	30° 02'	16° 03'	-0	44	<sup>*</sup> 0.70	<sup>*</sup> 0.56	5.4	7.2	4.6
	Madeira Islands									
33	Porto do Funchal, Madeira Island	32° 38'	16° 55'	-0	26	<sup>*</sup> 0.68	<sup>*</sup> 0.62	5.0	6.7	4.6
35	Porto Moniz, Madeira Island	32° 52'	17° 10'	-0	19	<sup>*</sup> 0.70	<sup>*</sup> 0.53	5.6	7.2	4.6
37	Porto da Cruz, Madeira Island	32° 47'	16° 49'	-0	14	<sup>*</sup> 0.70	<sup>*</sup> 0.50	5.7	7.4	4.6
39	Porto Santo	33° 03'	16° 20'	-0	14	<sup>*</sup> 0.70	<sup>*</sup> 0.53	5.3	7.1	4.6
	Azores Time meridian, 15° W			<b>on Ponta Delgada, p.4</b>						
41	Vila do Porto, Island da Santa Maria	36° 57'	25° 09'	-0	07	+0.1	-0.1	3.6	4.7	3.3
43	PONTA DELGADA, Sao Miguel Island	37° 44'	25° 40'					3.4	4.6	3.3
45	Porto da Horta, Ilha do Faial	38° 32'	28° 37'	+0	01	0.0	+0.2	2.9	3.9	3.3
47	Porto de Angra, Ilha Terceira	38° 39'	27° 13'	+0	03	+0.1	+0.1	3.1	4.1	3.3
49	Baia Praia, Ilha Terceira	38° 44'	27° 03'	+0	05	+0.9	+0.1	3.7	4.9	3.3
51	Santa Cruz, Ilha Graciosa	39° 05'	28° 00'	-0	01	+0.02	0.0	3.4	4.4	3.3
53	Lajens, Flores Island	39° 23'	31° 11'	-0	05	-0.06	+0.3	2.7	3.6	3.3
	AFRICA <1> South and Southwest Africa Time meridian, 30° E	<b>South</b>	<b>East</b>	<b>on Cape Town, p.8</b>						
55	Knysna	34° 04'	23° 03'	+0	33	+0.23	+0.2	3.7	5.2	3.8
57	Mosselbaai	34° 11'	22° 09'	+0	16	+0.12	0.0	4.0	5.8	3.7
59	Hermanus	34° 25'	19° 14'	-0	04	-0.05	+0.2	3.5	4.7	3.6
61	Simons Bay	34° 12'	18° 26'	-0	06	-0.04	+0.1	3.5	4.9	3.5
63	CAPE TOWN, Table Bay	33° 54'	18° 25'					3.4	4.7	3.4
65	Saldanha	33° 01'	17° 57'	0	00	-0.03	0.0	3.5	4.9	3.3
67	Port Nolloth	29° 15'	16° 52'	-0	06	-0.07	-0.3	3.8	5.1	2.9
69	Luderitz Bay	26° 38'	15° 09'	+0	01	-0.03	-1.0	3.3	4.4	2.4
71	Walvisbaai	22° 57'	14° 30'	+0	11	-0.01	-0.4	3.5	4.7	3.0
	Angola to Gabon Time meridian, 15° E			<b>on Takoradi, p.12</b>						
73	Baia dos Tigres	16° 36'	11° 44'	-0	15	+0.01	+0.3	3.1	4.0	3.6
75	Porto Alexandre	15° 48'	11° 51'	-0	19	-0.20	+0.2	2.9	3.7	3.6
77	Mocamedes	15° 12'	12° 09'	-0	14	-0.07	+0.3	3.0	3.8	3.6
79	Baia de Santa Marta	13° 53'	12° 29'	-0	12	-0.05	+0.3	3.0	3.9	3.6
81	Baia dos Elefantes	13° 14'	12° 43'	-0	04	-0.05	+0.4	3.2	4.2	3.6
83	Benguela	12° 34'	13° 24'	-0	07	-0.07	+0.4	3.2	4.2	3.6
85	Lobito	12° 21'	13° 33'	-0	12	-0.04	+0.3	3.1	4.1	3.6
87	Porto Amboim	10° 44'	13° 45'	-0	04	-0.04	+0.4	3.2	4.2	3.6
89	Porto de Luanda	8° 47'	13° 14'	+0	02	+0.05	+0.4	3.3	4.4	3.6
91	Ambriz	7° 52'	13° 08'	0	00	0.00	+0.3	3.2	4.2	3.5
93	Ambrizete	7° 15'	12° 54'	+0	10	+0.10	+0.3	3.2	4.2	3.5
95	Ponta do Padrao, Congo River entrance	6° 05'	12° 20'	+0	18	+0.21	+0.4	3.4	4.4	3.5
97	Baia de Cabinda	5° 33'	12° 12'	+0	15	+0.22	+0.6	3.6	4.7	3.6
99	Pointe Noire	4° 48'	11° 50'	+0	05	+0.13	+0.1	3.5	4.4	3.2
101	Mayumba	3° 23'	10° 38'	+0	21	+0.21	+0.7	3.7	4.6	3.7
103	Cape Lopez	0° 37'	8° 42'	+0	43	+0.51	+1.1	3.9	5.1	4.0
105	Kondjo entrance, Cape Lopez Bay	0° 43'	8° 56'	+0	57	+1.26	+1.1	3.9	5.1	4.0

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	AFRICA Angola to Gabon—cont. Time meridian, 15° E	<b>North</b>	<b>East</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Takoradi, p.12</b>						
107	Pointe Owendo, Gabon River	0° 17'	9° 30'	+1 24	+1 31	+2.6	+0.6	5.2	6.8	4.8
109	Cape Esteiras	0° 37'	9° 20'	+0 55	+1 02	+1.9	+0.6	4.5	6.0	4.5
		<b>South</b>	<b>East</b>							
111	Annobon Island	1° 25'	5° 37'	+0 18	+0 18	-0.6	-0.8	3.4	4.4	2.5
		<b>North</b>	<b>East</b>							
113	Bahia de Ana Chaves, Soa Tome	0° 22'	6° 34'	+0 42	+0 33	+0.9	+0.5	3.6	4.6	3.9
115	San Antonio Bay, Ilha do Principe	1° 38'	7° 25'	+1 01	+0 50	+0.9	+0.4	3.7	4.8	3.9
	Equatorial Guinea to Nigeria									
117	Kogo, Rio Muni	1° 05'	9° 42'	+0 48	+1 10	*1.75	*1.75	5.6	7.6	5.1
119	San Benito River, Rio Muni	1° 32'	9° 40'	+1 03	+0 50	+0.3	-0.3	3.8	4.8	3.2
121	Bata Bay, Rio Muni	1° 51'	9° 48'	+0 53	+0 40	+0.3	-0.3	3.8	4.8	3.2
123	San Carlos Bay, Fernando Poo	3° 30'	8° 34'	+0 57	+0 51	+0.2	-0.3	3.7	4.8	3.2
125	Santa Isabel, Fernando Poo	3° 46'	8° 47'	+0 52	+0 46	+0.7	-0.2	4.1	5.3	3.5
127	Kribi, Cameroon	2° 56'	9° 55'	+1 29	+1 29	+0.7	-0.5	4.4	5.7	3.3
129	Cap Cameroon, Cameroon River	3° 54'	9° 29'	+1 53	+1 40	+2.2	+0.3	5.1	6.5	4.5
131	Douala, Cameroon River	4° 03'	9° 41'	+2 06	+2 14	+2.7	+0.6	5.3	6.8	4.9
133	Bimbia River entrance	3° 58'	9° 17'	+1 43	+1 30	+1.5	-0.5	5.2	6.7	3.7
135	Tiko, Bimbia River	4° 04'	9° 24'	+2 40	+2 40	+1.7	-	-	-	4.0
137	Rio-del-Rey entrance	4° 18'	8° 51'	+1 20	+1 16	+2.6	+0.1	5.7	7.4	4.6
139	Calabar River approach	4° 20'	8° 22'	+1 17	+1 17	+1.3	-0.7	5.2	6.7	3.5
141	Tom Shot Point, Calabar River	4° 36'	8° 20'	+1 37	+1 37	+1.6	-0.9	5.7	7.4	3.6
143	Akpa-Yafe River	4° 41'	8° 32'	+2 05	+2 05	+2.5	+1.3	4.4	6.2	5.1
145	Calabar, Calabar River	4° 58'	8° 19'	+2 37	+2 59	+4.6	+0.9	6.9	8.1	6.0
147	Opobo River entrance	4° 29'	7° 35'	+0 53	+0 49	+1.4	-0.6	5.2	6.7	3.6
149	Bonny River Bar, Niger River Delta	4° 20'	7° 05'	+0 53	+0 40	+2.2	+0.7	4.7	6.1	4.7
151	Bonny, Bonny River	4° 27'	7° 10'	+1 29	+1 27	+2.2	+0.6	4.8	6.2	4.6
153	Port Harcourt, Bonny River	4° 46'	7° 00'	+3 02	+2 31	+2.5	-0.3	6.0	7.2	4.3
155	New Calabar River Bar	4° 21'	7° 02'	+0 40	+0 40	-0.5	-0.7	3.4	4.4	2.6
157	Bakana, New Calabar River	4° 44'	6° 58'	+2 28	+2 28	+1.7	-0.8	5.7	7.4	3.7
159	Sambreiro River	4° 47'	6° 46'	+2 38	+2 38	-	-	-	-	-
161	Brass River entrance	4° 19'	6° 15'	+1 33	+1 33	+0.7	-0.7	4.6	5.9	3.2
163	Nun Entrance, Niger River	4° 19'	6° 04'	+1 27	+1 23	-0.5	-1.0	3.7	4.6	2.5
165	Forcados River Bar, Niger Delta	5° 23'	5° 13'	+1 00	+0 43	-0.2	-0.4	3.4	4.4	2.9
167	Forcados, Forcados River	5° 22'	5° 26'	+1 57	+2 07	-0.6	-0.6	3.2	4.2	2.6
169	Ogidigbe, Escravos River	5° 34'	5° 11'	+1 18	+1 17	0.0	0.0	3.2	4.1	3.2
171	Benin River Bar	5° 43'	5° 02'	+0 43	+0 43	-0.2	-0.2	3.2	4.2	3.0
173	Lagos entrance	6° 24'	3° 24'	+1 16	+1 16	-2.0	-1.4	2.6	3.4	1.5
175	Lagos, Lagos River	6° 27'	3° 23'	+1 36	+1 36	-	-	-	-	-
	Togo to Liberia Time meridian, 0°									
177	Lome, Togo	6° 07'	1° 14'	0 00	0 00	-0.6	-0.3	2.9	3.8	2.8
	Ghana									
179	Ada Panya, Volta River	5° 47'	0° 38'	+0 09	+0 11	-0.9	-0.6	2.9	3.7	2.5
181	Tema	5° 37'	0° 00'	0 00	0 00	-0.4	-0.4	3.2	4.2	2.8
		<b>North</b>	<b>West</b>							
183	Accra	5° 32'	0° 12'	-0 01	+0 07	-0.3	-0.4	3.3	4.2	2.9
185	Cape Coast	5° 06'	1° 14'	+0 02	+0 02	-0.3	-0.4	3.3	4.2	2.9
187	TAKORADI	4° 53'	1° 45'			<i>Daily predictions</i>		3.2	4.2	3.2
189	Dixcove	4° 48'	1° 57'	-0 19	-0 19	-0.7	-0.8	3.3	4.2	2.5
191	Axim	4° 52'	2° 15'	-0 02	-0 02	-0.7	-0.8	3.3	4.2	2.5
	Ivory Coast									
193	Vridi	5° 15'	4° 00'	+1 07	+1 14	*0.69	*0.69	2.0	2.8	2.3
195	Grand-Lahou	5° 09'	4° 59'	+0 13	+0 13	-0.7	-0.8	3.3	4.2	2.5
197	Mouillage de Sassandra	4° 57'	6° 03'	+0 17	+0 17	-0.1	-0.4	3.5	4.4	3.0
199	San Pedro River	4° 44'	6° 37'	+0 19	+0 19	-0.1	-0.4	3.5	4.4	3.0
201	Tabou River	4° 25'	7° 21'	+0 47	+0 47	-1.4	-1.0	2.8	3.6	2.0
	Liberia Time meridian, 11°15' W									
				<b>on Cape Town, p.8</b>						
203	Harper	4° 22'	7° 44'	+1 38	+1 58	(*0.68+0.7)		2.3	3.0	3.0
205	Greenville	4° 59'	9° 02'	+2 16	+2 04	(*0.68+0.7)		2.3	3.0	3.0
207	Bafu Bay	5° 10'	9° 18'	+2 26	+2 14	*0.71	*0.65	2.5	3.2	2.4
209	Cestos Bay	5° 26'	9° 35'	+2 31	+2 19	*0.71	*0.65	2.5	3.2	2.4
211	Upper Buchanan	5° 55'	10° 04'	+2 41	+2 29	*0.63	*0.41	2.5	3.2	2.0
213	Junk River entrance	6° 08'	10° 23'	+2 46	+2 34	*0.63	*0.41	2.5	3.2	2.0
215	Marshall, Junk River	6° 09'	10° 23'	+3 53	+4 02	*0.55	*0.41	2.1	2.8	1.8
217	Harbel, Farmington River	6° 16'	10° 20'	+4 34	+5 00	*0.57	*0.41	2.2	2.9	1.8
219	Monrovia	6° 20'	10° 48'	+2 51	+2 39	*0.75	*0.59	2.8	3.6	2.4
221	Cape Mount Bay	6° 44'	11° 23'	+3 01	+2 49	*0.53	*0.29	2.2	3.2	1.6

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	Sierra Leone Time meridian, 0°	<b>North</b>	<b>West</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Casablanca, p.20</b>						
223	Kerefe River	7° 00'	11° 39'	-7 05	-7 05	*0.38	*0.26	3.1	4.0	2.5
225	Shenge Point, Sherbro River	7° 55'	12° 58'	-6 46	-6 17	-1.8	-1.8	7.1	9.2	5.2
227	Buoy Point, Sherbro River	7° 42'	12° 42'	-6 02	-5 26	-1.8	-1.5	6.8	8.8	5.3
229	York Island, Sherbro River	7° 32'	12° 29'	-5 19	-4 09	*0.54	*0.47	4.1	5.3	3.7
231	Banana Islands	8° 08'	13° 11'	-6 44	-6 33	-1.9	-0.8	6.0	8.0	5.6
233	Freetown	8° 30'	13° 14'	-6 29	-6 21	-1.5	-1.2	6.8	8.8	5.6
235	Maroon River	8° 25'	13° 07'	-5 49	-5 54	-0.9	-0.9	7.1	9.2	6.1
237	Pepel	8° 35'	13° 04'	-5 46	-5 34	-1.3	-1.7	7.5	9.7	5.5
	Guinea									
239	Tana Island, Melikhoure River	9° 10'	13° 16'	-6 28	-5 58	+1.1	-1.2	9.4	11.3	6.9
241	Conakry	9° 30'	13° 43'	-6 28	-6 19	+0.2	-0.5	7.8	10.3	6.8
243	Dubreka	9° 47'	13° 32'	-5 35	-5 35	+2.8	-1.0	10.9	14.1	7.9
245	Taboriya	9° 58'	13° 57'	-6 33	-6 37	+0.5	-0.6	8.2	10.6	6.9
247	Port Kakande, Rio Nunez	10° 39'	14° 37'	-5 26	-5 06	+4.6	+0.5	11.2	14.3	9.5
	Guinea-Bissau Time meridian, 15° W									
249	Joao Vieira Island	11° 03'	15° 38'	-5 36	-5 22	+2.7	+0.1	9.7	12.2	8.4
251	Cacine	11° 08'	15° 01'	-5 38	-5 25	+7.0	+0.8	13.3	17.3	10.9
253	Bubaque, Bubaque Island	11° 20'	15° 52'	-5 11	-5 14	+2.8	-0.1	10.0	12.4	8.3
255	Porto de Bolama	11° 35'	15° 29'	-4 26	-4 22	+4.8	-0.3	12.2	15.1	9.2
257	Porto de Bissau	11° 51'	15° 35'	-3 49	-3 18	+5.1	-0.4	12.6	15.5	9.3
259	Jabada, Geba River	11° 53'	15° 21'	-3 19	-2 39	+7.6	0.0	14.7	17.8	10.8
261	Biombo	11° 44'	15° 57'	-4 32	-4 14	-2.1	-0.8	10.0	11.3	7.6
263	Ilheu de Caio	11° 50'	16° 20'	-4 59	-4 58	-0.9	-0.6	6.8	8.5	6.2
265	Porto do Cacheu	12° 17'	16° 10'	-4 16	-4 12	*0.77	*0.50	6.4	7.8	4.9
	Senegal to Mauritania Time meridian, 0°									
267	Riviere Casamance entrance	12° 34'	16° 44'	+0 17	+0 27	+0.1	0.0	3.4	4.4	3.2
269	Karabane, Riviere Casamance	12° 33'	16° 42'	+0 27	+0 51	-0.1	+0.1	3.1	4.2	3.2
	<i>Gambia River</i>									
271	Cape St. Mary	13° 29'	16° 40'	+0 10	+0 19	+0.4	-0.4	4.1	5.3	3.2
273	Banjul	13° 27'	16° 34'	+0 57	+1 09	+0.5	-0.2	4.0	5.1	3.3
275	St. James Island	13° 19'	16° 22'	+2 19	+2 37	+0.7	-0.1	4.1	5.3	3.5
277	Salekini Point	13° 26'	16° 02'	+4 00	+4 30	+1.7	-0.8	5.8	7.5	3.6
279	Balingho	13° 29'	15° 36'	+5 45	+6 30	+2.4	-0.8	6.5	8.4	4.0
281	Kuntaur	13° 39'	14° 52'	+10 44	+11 34	+0.5	-0.8	4.6	6.0	3.0
283	Pointe de Sangomar, Saloum River	13° 51'	16° 46'	+0 11	+0 21	-0.1	+0.5	2.7	3.6	3.3
285	DAKAR	14° 40'	17° 25'	<i>Daily predictions</i>				3.3	4.4	3.2
287	St. Louis	16° 01'	16° 30'	+0 40	+0 40	0.0	0.0	3.3	4.4	3.3
289	Portendick	18° 35'	16° 05'	+1 50	+1 50	+0.3	0.0	3.6	4.8	3.3
291	Bale d'Arguin	20° 33'	16° 31'	+2 50	+2 50	+0.2	-0.1	3.6	4.8	3.2
293	Port Etienne, Levrier Bay	20° 55'	17° 02'	+2 44	+2 55	+1.4	+0.8	3.9	5.3	4.3
	Spanish Sahara									
				<b>on Casablanca, p.20</b>						
295	La Guera	20° 50'	17° 06'	-3 13	-2 59	*0.40	*0.38	2.9	4.0	2.8
297	Rio de Oro	23° 38'	15° 59'	-1 32	-1 37	*0.64	*0.56	4.8	6.3	4.3
299	Villa Cisneros	23° 42'	15° 55'	-1 12	-1 17	*0.67	*0.65	4.8	6.3	4.6
301	Cabo Bojador	26° 07'	14° 30'	-1 24	-1 10	*0.57	*0.50	4.3	5.9	3.9
	Morocco									
303	Cap Juby	27° 57'	12° 56'	-1 20	-1 20	-1.6	-1.2	6.7	9.0	5.6
305	Tamajarusch, Ifni	29° 33'	10° 04'	-0 38	-0 32	-1.0	-0.3	6.4	8.3	6.3
307	Agadir	30° 25'	9° 37'	-0 32	-0 26	-0.2	+0.4	6.5	8.5	7.1
309	Essaouira	31° 31'	9° 47'	-0 34	-0 26	+1.0	+0.7	7.4	9.9	7.8
311	Safi	32° 20'	9° 17'	-0 16	-0 10	-0.1	+0.2	6.8	8.6	7.0
313	El Jadida	33° 15'	8° 30'	-0 09	-0 04	-0.3	+0.1	6.7	8.9	6.9
315	CASABLANCA	33° 36'	7° 37'	<i>Daily predictions</i>				7.1	9.5	7.0
317	Rabat	34° 02'	6° 50'	+0 02	+0 08	-0.5	+0.4	6.2	8.2	6.9
319	Mehdiya	34° 16'	6° 40'	+0 01	-0 04	+0.3	+0.7	6.7	8.8	7.5
321	Kenitra	34° 16'	6° 35'	+1 00	+1 20	*0.71	*0.82	4.7	6.3	5.2
323	Larache	35° 12'	6° 09'	+0 09	+0 15	-1.9	-0.4	5.6	7.9	5.8
325	Asilah	35° 28'	6° 02'	+0 14	+0 20	*0.79	*0.88	5.3	7.6	9.6
327	Tanger, Strait of Gibraltar	35° 47'	5° 48'	+0 24	+0 19	*0.64	*0.56	4.8	6.4	4.3
	AFRICA, Mediterranean Sea Morocco-cont.									
				<b>on Gibraltar, p.32</b>						
329	Ceuta, Strait of Gibraltar	35° 53'	5° 16'	-0 52	-0 57	+0.8	+0.2	2.1	2.8	1.9
331	Tetouan Bay	35° 37'	5° 17'	-0 46	---	-0.1	+0.3	1.7	2.5	1.8
333	Alhucemas Bay	35° 14'	3° 55'	-0 40	---	*0.67	*1.17	1.1	1.5	1.2
335	Melilla	35° 18'	2° 57'	-0 38	---	*0.63	*1.00	1.1	1.5	1.2
337	Islas Chafarinas	35° 11'	2° 26'	-0 36	---	*0.56	*0.83	1.0	1.4	1.0

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	Algeria Time meridian, 0°	<b>North</b>	<b>East</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Gibraltar, p.32</b>						
339	Cap Ivi .....	36° 07'	0° 13'	-0 32	---	(*0.43+0.7)		0.9	1.2	1.4
341	Algiers .....	36° 47'	3° 04'	---	---	---		0.2	---	---
343	Collo .....	37° 00'	6° 35'	-0 15	---	(*0.48+0.8)		1.0	1.4	1.7
	Tunisia									
345	Banzart <2> .....	37° 17'	9° 53'	---	---	---		---	---	---
347	Halq al Wadi, Tunis entrance <2> .....	37° 49'	10° 18'	---	---	---		---	---	---
349	Susah <2> .....	35° 50'	10° 39'	---	---	---		---	---	---
				<b>on Sfax, p.24</b>						
351	SFAX .....	34° 44'	10° 46'	---	---	---		3.1	4.6	3.2
353	Gabis .....	33° 54'	10° 07'	+0 14	+0 09	+1.4	+0.8	3.7	5.5	4.3
355	Hawmat As Suq .....	33° 53'	10° 51'	+0 25	+1 08	(*0.77+1.0)		2.4	3.6	3.5
357	Jarjis .....	33° 30'	11° 07'	+0 03	-0 02	(*0.55+0.3)		1.7	2.5	2.1
	Libya Time meridian, 30° E			<b>on Gibraltar, p.32</b>						
359	Tripoli (Tarabulus) .....	32° 54'	13° 11'	+1 25	+1 25	*0.52	*1.33	0.6	0.9	1.0
361	Banghazi .....	32° 07'	20° 03'	-0 19	---	*0.37	*0.33	0.8	1.2	0.6
	Egypt <4>									
363	Alexandria .....	31° 12'	29° 52'	---	---	---	---	1.1	1.5	0.6
365	Port Said .....	31° 16'	32° 19'	-5 20	-4 45	*0.74	*1.83	0.9	1.3	1.6
	ASIA, Mediterranean Sea Israel and Lebanon									
367	Tel Aviv-Yafo .....	32° 03'	34° 44'	-5 05	---	*0.41	*0.33	0.9	1.5	0.6
369	Beirut .....	33° 54'	35° 30'	-4 56	---	*0.44	*0.33	1.0	1.4	0.7
371	Tarabulus (Tripoli) .....	34° 27'	34° 49'	-4 42	---	*0.63	*1.00	1.1	1.7	1.2
	Asia Minor and Islands									
373	Kyrenia, Cyprus .....	35° 20'	33° 19'	-5 07	-4 46	(*0.33+0.8)		0.7	1.1	1.4
375	Famagusta, Cyprus .....	35° 07'	33° 57'	-5 00	-4 38	(*0.38+0.7)		0.6	0.9	1.4
377	Izmir <4> .....	38° 25'	27° 08'	-5 39	---	-0.6	0.0	1.5	2.5	1.4
	EUROPE, Mediterranean Sea Greece									
379	Thessaloniki .....	40° 38'	22° 57'	+1 44	---	*0.56	*0.83	1.0	1.4	1.0
381	Volos, Gulf of Volos <4> .....	39° 22'	22° 58'	-5 20	---	-0.5	+0.1	1.5	2.1	1.4
383	Patras, Gulf of Corinth .....	38° 14'	21° 45'	+2 15	---	-0.8	-0.2	1.5	2.3	1.2
	Yugoslavia Time meridian, 15° E									
385	Bar .....	42° 04'	19° 05'	+1 00	+1 15	*0.41	*0.83	0.6	0.9	0.8
387	Dubrovnik (Ragusa) .....	42° 38'	18° 06'	+0 46	+1 11	*0.30	*0.17	0.7	1.0	0.5
								<b>Mean Diurnal</b>		
389	Sant Andrea Island † .....	43° 02'	15° 46'	---	---	---	---	---	0.8	1.7
				<b>on Venezia, p.28</b>						
391	Komiza, Vis Island † .....	43° 03'	16° 05'	-7 09	---	---	---	---	0.9	0.8
393	Rogiznica † .....	43° 32'	15° 58'	-6 00	---	---	---	---	0.8	0.8
395	Sibenik † .....	43° 44'	15° 52'	-6 12	---	---	---	---	0.8	0.8
397	Zadar † .....	44° 08'	15° 12'	-2 50	---	---	---	---	0.7	0.8
399	Senj † .....	44° 59'	14° 54'	-2 30	---	---	---	---	1.0	1.2
401	Rijeka † .....	45° 20'	14° 26'	-2 17	---	*0.60	*0.87	---	1.3	1.1
403	Pula † .....	44° 52'	13° 50'	-1 43	-1 44	*0.68	*0.62	---	1.9	1.1
	Italy									
405	Trieste <5> .....	45° 39'	13° 45'	-1 18	-1 15	+0.2	-0.1	2.0	2.8	1.7
407	Grado <5> .....	45° 41'	13° 23'	-0 20	-0 20	0.0	0.0	1.7	2.4	1.7
409	VENEZIA (Punta della Salute) <5> .....	45° 26'	12° 20'			<i>Daily predictions</i>		1.7	2.4	1.7
411	Malamocco <5> .....	45° 20'	12° 21'	-0 39	-0 39	0.0	0.0	1.7	2.6	1.7
413	Chioggia <5> .....	45° 14'	12° 18'	-0 30	-0 30	0.0	0.0	1.7	2.4	1.7
								<b>Mean Diurnal</b>		
415	Pesaro † .....	43° 55'	12° 55'	---	---	---	---	---	1.1	1.2
417	Ancona † .....	43° 37'	13° 30'	---	---	---	---	---	1.1	1.0
				<b>on Gibraltar, p.32</b>						
419	Brindisi .....	40° 39'	17° 58'	---	---	---	---	0.5	0.9	0.6
421	Taranto .....	40° 28'	17° 13'	---	---	---	---	0.3	0.5	0.6
423	Messina, Sicily .....	38° 12'	15° 34'	---	---	---	---	0.3	0.4	0.5
425	Valletta, Malta .....	35° 53'	14° 31'	---	---	---	---	0.2	0.5	1.5
427	Palermo, Sicily .....	38° 08'	13° 22'	+6 18	+6 34	*0.33	*0.17	0.8	1.0	0.5

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	Italy-cont. Time meridian, 15° E	<b>North</b>	<b>East</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Gibraltar, p.32</b>						
429	Lipari, Lipari Islands	38° 29'	14° 58'	+6 21	+6 31	*0.41	*0.50	0.8	1.1	0.7
431	Milazzo, Sicily	38° 13'	15° 15'	+6 27	+6 32	*0.41	*0.50	0.8	1.1	0.7
433	Cagliari, Sardinia	39° 12'	9° 06'	---	---	---	---	0.6	0.8	0.7
435	Naples	40° 50'	14° 15'	---	---	---	---	0.9	1.3	0.8
437	Genoa	44° 23'	8° 56'	---	---	---	---	0.5	0.7	0.6
	France							<b>Mean Spring</b>		
439	Nice	43° 42'	7° 16'	---	---	---	---	0.5	0.7	---
441	Toulon	43° 07'	5° 56'	---	---	---	---	0.3	0.5	1.2
443	Marseille	43° 18'	5° 22'	---	---	---	---	0.3	0.5	1.2
	EUROPE, West Coast Spain, South Coast	<b>North</b>	<b>West</b>							
445	Malaga	36° 43'	4° 25'	-0 09	+0 15	*0.63	*0.67	1.3	1.8	1.1
447	GIBRALTAR	36° 08'	5° 21'		<i>Daily predictions</i>			2.1	2.9	1.7
449	Tarifa, Strait of Gibraltar	36° 00'	5° 36'	-0 22	-0 27	+0.9	+0.2	2.8	3.7	2.2
				<b>on Lisbon, p.36</b>						
451	Conil	36° 17'	6° 05'	-0 43	-0 20	-3.2	-0.9	6.1	8.5	5.2
453	La Carraca	36° 30'	6° 11'	+0 13	+0 27	-1.4	-0.3	7.3	9.7	6.4
455	Cadiz	36° 32'	6° 17'	+0 02	+0 30	-1.9	-0.4	6.9	9.3	6.1
457	Rota	36° 37'	6° 21'	-0 08	+0 15	-1.6	-0.9	7.7	10.1	6.0
459	Bajo Salmadina	36° 44'	6° 28'	-0 36	-0 10	-1.8	+0.1	6.5	9.1	6.4
461	Sanlucar, Rio Guadalquivir	36° 47'	6° 21'	+0 22	+0 59	-2.3	-0.6	6.7	8.9	5.8
463	Sevilla, Rio Guadalquivir	32° 22'	6° 00'	+3 29	+4 54	-2.2	0.0	6.2	7.7	6.1
465	Huelva, Rio Odiel	37° 15'	6° 58'	+0 13	+0 41	-1.2	-0.7	7.9	10.3	6.3
467	Ayamonte	37° 13'	7° 25'	+0 02	+0 34	-2.2	-0.8	7.0	9.0	5.7
	Portugal Time meridian, 0°									
469	Vila Real de Santo Antonio	37° 11'	7° 25'	-0 58	-0 12	-1.5	+0.2	6.7	8.6	6.6
471	Faro bar	36° 58'	7° 52'	-0 50	-0 08	-1.5	+0.4	6.5	8.4	6.7
473	Ponta da Balieira	37° 05'	8° 16'	-0 40	-0 09	-1.3	+0.7	6.4	8.6	6.9
475	Ponta do Altar	37° 06'	8° 31'	-0 53	-0 22	-1.3	+0.7	6.4	8.6	6.9
477	Lagos	37° 06'	8° 40'	-1 05	-0 38	-1.3	+0.1	7.0	9.4	6.6
479	Ponta de Sagres	37° 00'	8° 57'	-0 43	-0 17	-1.4	+0.2	6.8	8.9	6.6
481	Arrifana	37° 17'	8° 52'	-0 14	+0 12	+1.4	+0.2	6.8	8.9	6.6
483	Vila Nova de Milfontes	37° 43'	8° 47'	-0 25	+0 01	-1.5	+0.2	6.7	8.9	6.6
485	Enseada de Sines	37° 57'	8° 53'	-0 30	-0 04	-1.7	+0.1	6.6	8.7	6.4
487	Setubal, Setubal Harbor	38° 31'	8° 54'	-0 25	-0 04	-1.3	-0.2	7.3	9.5	6.5
489	Sezimbra	38° 26'	9° 06'	-0 51	-0 23	-1.4	+0.1	6.9	9.1	6.6
491	LISBON, Tagus River	38° 42'	9° 08'		<i>Daily predictions</i>			8.4	10.8	7.2
493	Cascais	38° 42'	9° 25'	-0 33	-0 07	-0.9	+0.9	6.6	8.7	7.2
495	Peniche	39° 21'	9° 23'	-0 18	+0 08	-2.0	-0.4	6.8	8.9	6.0
497	Baia de Pederneira	39° 36'	9° 05'	-0 16	+0 10	-1.6	-0.3	7.1	9.3	6.2
499	Figueira da Foz	40° 09'	8° 52'	-0 13	+0 13	-1.6	-0.3	7.1	9.3	6.2
501	Barra de Aveiro	40° 38'	8° 45'	-0 10	+0 03	*0.61	*0.73	4.8	6.2	4.6
503	Cantareira, Rio Douro	41° 09'	8° 40'	-0 03	+0 20	-1.6	+0.2	6.6	8.6	6.5
505	Oporto, Rio Douro	41° 08'	8° 36'	-0 05	+0 35	-1.6	-0.1	6.9	8.9	6.4
507	Porto de Leixoes	41° 11'	8° 42'	-0 06	-0 13	-1.2	-0.1	7.3	10.0	6.6
509	Povoa de Varzim	41° 22'	8° 46'	-0 12	+0 14	-1.5	+0.2	6.7	8.8	6.5
511	Esposende, Rio Cavado	41° 32'	8° 47'	-0 13	+0 13	-1.8	+0.2	6.4	8.5	6.4
513	Viana do Castelo	41° 41'	8° 50'	-0 12	+0 14	-1.7	+0.1	6.6	8.7	6.4
	Spain, West and North Coasts Time meridian, 15° E									
515	La Guardia	41° 54'	8° 53'	+0 37	+1 09	-1.4	-0.7	7.7	10.2	6.1
517	Puerto de Bayona	42° 08'	8° 50'	+0 27	+0 59	-1.1	-0.4	7.7	10.2	6.4
519	Vigo	42° 15'	8° 43'	+0 40	+1 11	-1.1	-0.4	7.7	10.1	6.5
521	Marin	42° 24'	8° 42'	+0 50	+1 21	-1.4	-0.3	7.3	9.7	6.4
523	Villagarcia de Arosa	42° 36'	8° 46'	+0 40	+1 11	-0.8	-0.2	7.8	10.2	6.7
525	Santa Eugenia de Ribeira	42° 33'	8° 59'	+0 32	+1 04	-1.1	-0.4	7.7	10.2	6.4
527	Cabo Corrubedo	42° 35'	9° 05'	+0 32	+1 04	-1.4	-0.7	7.7	10.2	6.2
529	Freixo	42° 48'	8° 59'	+0 27	+0 59	-0.8	-0.4	8.0	10.5	6.6
531	Muros	42° 46'	9° 03'	+0 47	+1 19	-1.1	-0.4	7.7	10.2	6.4
533	Corcubion	42° 57'	9° 12'	+0 52	+1 24	-1.4	-0.7	7.7	10.2	6.1
535	Ria de Camarinhas	43° 08'	9° 11'	+0 51	+1 18	-0.5	-0.4	8.3	11.0	6.8
537	Corme-Puerto	43° 16'	8° 58'	+0 41	+1 08	-0.8	-0.7	8.3	11.0	6.5
539	La Coruña	43° 23'	8° 23'	+0 52	+1 23	-0.6	-0.4	8.2	10.8	6.7
541	El Ferrol	43° 28'	8° 16'	+1 00	+1 32	-0.3	-0.2	8.3	10.8	7.0
543	Cedeira	43° 40'	8° 04'	+1 36	+2 03	+0.2	-0.4	9.0	11.8	7.1
545	Carino	43° 44'	7° 52'	+1 21	+1 48	+0.2	-0.4	9.0	11.8	7.1
547	Ria de Viveiro	43° 43'	7° 36'	+1 25	+1 53	+0.1	-0.5	9.0	11.8	7.0
549	Ria de Foz	43° 34'	7° 14'	+1 25	+1 53	+0.1	-0.2	8.7	11.5	7.2
551	Ribadeo	43° 32'	7° 02'	+1 25	+1 53	+0.1	-0.5	9.0	11.8	7.0
553	Luarca	43° 33'	6° 32'	+1 25	+1 53	+0.7	-0.2	9.3	12.2	7.5
555	Ria de Pravia	43° 34'	6° 05'	+1 10	+1 38	+0.1	-0.2	8.7	11.5	7.2
557	Aviles	43° 36'	5° 57'	+1 06	+1 38	+0.3	0.0	8.7	11.4	7.4
559	Luanco	43° 37'	5° 47'	+1 05	+1 33	+0.1	-0.2	8.7	11.5	7.2

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	Spain, West and North Coasts—cont. Time meridian, 15° E	<b>North</b>	<b>West</b>	h	m	h	m	ft	ft	ft
				<b>on Lisbon, p.36</b>						
561	Gijon	43° 33'	5° 40'	+1	10	+1	38	+0.5	-0.1	9.0 11.8 7.4
563	Ribadesella	43° 28'	5° 04'	+1	20	+1	48	+0.4	-0.2	9.0 11.8 7.3
565	Llanes	43° 25'	4° 45'	+1	20	+1	48	+0.1	-0.2	8.7 11.5 7.2
567	San Vicente de la Barquera	43° 23'	4° 23'	+1	12	+1	39	+0.4	0.0	8.8 11.7 7.4
569	Ria de Suances	43° 27'	4° 02'	+1	37	+2	04	0.0	-0.3	8.7 11.6 7.1
571	Santander	43° 28'	3° 47'	+1	21	+1	46	+0.5	-0.2	9.1 12.0 7.4
573	Santona	43° 26'	3° 27'	+1	27	+1	54	+0.4	0.0	8.8 11.7 7.4
575	Castro Urdiales	43° 23'	3° 13'	+0	57	+1	24	0.0	-0.3	8.7 11.6 7.1
577	Bilbao Bay	43° 21'	3° 02'	+0	54	+1	21	+0.5	-0.3	9.2 12.1 7.3
579	Portugaleta, Abra Bilbao	43° 20'	3° 02'	+1	19	+1	46	+0.5	-0.3	9.2 12.1 7.3
581	Bilbao	43° 16'	2° 56'	+2	03	+2	03	+0.6	0.0	9.0 11.8 7.5
583	Bermeo	43° 25'	2° 43'	+1	43	+2	06	+1.9	0.0	10.3 13.3 8.2
585	Lequeitio	43° 22'	2° 30'	+1	23	+1	46	+0.6	0.0	9.0 12.0 7.5
587	Ondarroa	43° 19'	2° 25'	+1	28	+1	51	-0.1	-0.3	8.6 11.6 7.0
589	Deva	43° 18'	2° 21'	+1	33	+1	56	+0.6	0.0	9.0 12.0 7.5
591	Guetaria	43° 18'	2° 12'	+1	33	+1	56	+0.6	0.0	9.0 12.0 7.5
593	Ria de Orrio	43° 17'	2° 08'	+1	28	+1	51	+0.6	0.0	9.0 12.0 7.5
595	San Sebastian	43° 19'	2° 00'	+1	28	+1	51	+0.6	0.0	9.0 12.0 7.5
597	Pasajes	43° 20'	1° 56'	+1	14	+1	40	+0.7	-0.1	9.2 12.1 7.5
599	Fuenterrabia	43° 22'	1° 48'	+1	38	+2	01	+0.9	0.0	9.3 12.3 7.7
	France, Bay of Biscay			<b>on Pointe de Grave, p.40</b>						
601	St. Jean de Luz (socoa)	43° 24'	1° 41'	-0	31	-0	22	-3.6	-1.9	9.3 12.5 7.5
603	Le Boucau, Adour River	43° 31'	1° 30'	-0	29	-0	23	-5.6	-3.1	8.5 11.5 5.9
605	Cap Ferret, Bassin D'Arcachon	44° 37'	1° 15'	-0	04	0	00	-4.8	-2.2	8.4 11.3 6.7
607	Arcachon	44° 40'	1° 10'	+0	24	+0	28	-3.5	-2.7	10.2 19.9 7.1
	<i>Gironde River</i>			<i>Daily predictions</i>						
609	POINTE DE GRAVE	45° 34'	1° 04'							11.0 14.1 10.2
611	Cordouan	45° 35'	1° 10'	-0	18	-0	18	-1.3	-0.7	10.4 14.0 9.2
613	Royan	45° 37'	1° 02'	-0	05	-0	03	-0.5	-0.3	10.8 13.8 9.8
615	La Marechale	45° 19'	0° 47'	+0	44	+1	31	+0.4	-1.3	12.7 15.8 9.8
617	Pauillac	45° 12'	0° 45'	+0	58	+1	59	+0.8	-1.8	13.6 16.8 9.9
619	Blaye <6>	45° 08'	0° 40'	+1	20	+2	43	+0.1		13.4 16.2 9.1
621	Bordeaux, Garonne River <6>	44° 50'	0° 34'	+2	24	+4	22	-0.2		15.2 17.5 7.9
623	La Cayenne, Seudre River	45° 47'	1° 07'	-0	28	-0	12	+1.4	+1.4	11.0 14.3 11.6
625	Rochefort, Charente River <6>	45° 57'	0° 58'	-0	10	+1	06	+3.3		13.2 16.4 12.4
627	Ile d'Aix	46° 01'	1° 10'	-0	18	-0	08	+2.5	+0.2	13.3 17.5 11.6
629	La Rochelle	46° 09'	1° 09'	-0	24	-0	10	+1.2	-0.7	12.9 16.8 10.5
631	La Pallice	46° 10'	1° 13'	-0	24	-0	15	+0.8	-0.8	12.6 16.3 10.2
633	St. Martin, Ile de Re	46° 12'	1° 22'	-0	33	-0	04	+1.7	-0.1	12.8 17.6 11.0
635	Les Sables d'Olonne	46° 30'	1° 47'	-0	23	-0	01	-0.9	-0.7	10.8 14.2 9.4
637	St. Gilles sur Vie	46° 42'	1° 56'	-0	43	-0	19	-0.2	-0.6	11.4 15.0 9.8
639	Port Joinville, Ile d'Yeu	46° 42'	2° 20'	-0	59	-0	19	-1.9	-1.9	11.0 14.5 8.3
641	Fromentine	46° 54'	2° 10'	-0	41	+0	15	-0.3	-1.0	11.7 15.3 9.6
643	Bois de la Chaise, Noirmoutier Island	47° 01'	2° 13'	-0	42	+0	10	-0.3	-1.6	12.3 16.0 9.3
645	Pornic	47° 07'	2° 06'	-0	43	+0	17	0.0	-1.6	12.6 16.6 9.4
647	St. Nazaire, Loire River	47° 16'	2° 12'	-0	23	+0	17	+0.1	-1.3	12.4 16.1 9.6
649	Paimboeuf, Loire River	47° 17'	2° 02'	+0	07	+1	09	-0.6	-1.0	11.4 14.9 9.4
651	Nantes, Loire River <6>	47° 13'	1° 35'	+1	14	+3	24	+0.9		11.8 14.2 10.7
653	Le Pouliguen	47° 17'	2° 25'	-0	37	+0	02	-0.3	-0.8	11.5 15.7 9.6
655	Le Croisic	47° 18'	2° 31'	-0	37	-0	09	+0.8	0.0	11.8 15.5 10.6
657	Penerf	47° 31'	2° 37'	-0	27	-0	05	+0.2	-0.7	11.9 15.7 10.0
659	Port Navalo, Morbihan entrance	47° 33'	2° 55'	-0	19	+0	09	-1.2	-1.0	10.8 14.0 9.1
661	Vannes, Morbihan	47° 40'	2° 46'	+1	43	-	-	-1.4	+0.8	8.8 11.4 9.9
663	Auray, Morbihan	47° 40'	2° 59'	+0	08	-	-	-0.2	-0.4	11.2 15.2 9.9
665	La Trinite, Crach River	47° 35'	3° 02'	-0	27	-0	05	+0.1	-0.4	11.5 15.2 10.1
667	Le Palais, Belle Ile	47° 21'	3° 09'	-0	37	-0	16	-0.5	-0.7	11.2 15.3 9.6
669	Port Louis	47° 42'	3° 21'	-0	33	-0	11	-1.1	-1.0	10.9 14.2 9.2
671	Lorient	47° 45'	3° 21'	-0	27	-0	13	-1.1	-1.0	10.9 14.2 9.2
673	Ile de Penfret	47° 43'	3° 57'	-0	33	-0	14	-1.4	-1.0	10.6 13.9 9.0
675	Concarneau	47° 52'	3° 54'	-0	29	-0	13	-1.3	-0.9	10.6 13.9 9.1
677	Benodet, Odet River	47° 53'	4° 07'	-0	28	-0	13	-1.4	-1.0	10.6 13.9 9.0
679	Loctudy	47° 50'	4° 10'	-0	31	-0	13	-1.4	-0.7	10.3 13.8 9.2
681	Penmarch	47° 48'	4° 22'	-0	35	-0	17	-1.1	-0.9	10.8 14.0 9.2
683	Audierne	48° 01'	4° 33'	-0	41	-0	19	+1.9	+1.6	11.3 15.2 11.9
	France and Channel Islands English Channel			<b>on Brest, p.44</b>						
685	Ile de Sein	48° 02'	4° 52'	-0	14	-0	18	-2.6	-1.0	13.2 17.6 12.8
687	Douarnenez	48° 06'	4° 20'	-0	10	-0	22	-0.8	0.0	14.0 18.6 14.2
689	Camaret	48° 16'	4° 36'	-0	08	-0	10	-0.2	+0.2	14.4 19.4 14.6
691	BREST	48° 20'	4° 29'							14.8 19.6 14.6
693	Le Conquet	48° 22'	4° 47'	-0	05	0	00	-0.2	+0.1	14.5 19.4 14.6
695	Ile de Molene	48° 24'	4° 58'	+0	08	+0	14	+0.1	-0.4	15.3 20.7 14.5
697	Ile d'Ouessant	48° 27'	5° 06'	-0	04	+0	03	+0.2	0.0	15.0 20.3 14.7
699	L'Aberbenoit entrance	48° 35'	4° 38'	+0	22	+0	33	+1.9	-0.3	17.0 22.3 15.4
701	L'Abervrach (Fort Cezon)	48° 36'	4° 35'	+0	42	+0	34	+1.9	-0.2	16.9 22.2 15.5
703	Roscoff	48° 43'	3° 58'	+0	54	+1	00	+3.2	-0.9	18.9 25.0 15.8
705	Morlaix River entrance	48° 41'	3° 53'	+1	01	+1	05	+4.3	+0.3	18.8 24.8 16.9
707	Ploumanach	48° 50'	3° 29'	+1	15	+1	12	+4.7	-0.4	19.9 26.2 16.7
709	Plougrescan, Treguier River	48° 51'	3° 13'	+1	18	+1	23	+6.6	+0.6	20.8 27.3 18.2
711	Heaux-de-Brehat	48° 54'	3° 05'	+1	53	+1	46	+6.8	+0.1	21.5 29.0 18.0

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	English Channel—cont. Time meridian, 15° E	<b>North</b>	<b>West</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Brest, p.44</b>						
713	Ile de Brehat	48° 51'	3° 00'	+1 49	+1 48	+8.9	+0.2	23.5	30.8	19.2
715	Lezardrieux	48° 47'	3° 06'	+1 49	+1 48	+8.1	-0.8	23.7	31.1	18.3
717	Paimpol	48° 47'	3° 02'	+1 51	+1 58	+8.4	-1.6	24.8	32.6	18.0
719	Binic	48° 36'	2° 49'	+2 01	+2 13	+11.2	+1.6	24.4	32.6	21.0
721	Le Legue entrance	48° 32'	2° 43'	+2 01	+2 13	+11.2	+1.6	24.4	32.6	21.0
723	Erquy	48° 38'	2° 28'	+1 59	+2 17	+11.3	+1.5	24.6	32.6	21.0
725	St. Malo	48° 38'	2° 02'	+2 04	+2 37	(*1.77-3.3)		26.2	35.1	22.5
727	Cancale	48° 41'	1° 51'	+2 07	+2 49	(*1.88-1.8)		27.8	37.2	25.6
729	Granville	48° 50'	1° 37'	+2 06	+2 49	(*1.91-4.2)		28.2	37.8	23.7
731	Carteret	49° 22'	1° 47'	+2 30	+2 58	+10.5	+1.7	23.6	31.5	20.7
733	Dielette	49° 33'	1° 52'	+2 40	+2 57	+6.3	+0.6	20.5	27.4	18.1
735	Iles Chausey	48° 52'	1° 49'	+2 13	+2 49	(*1.82-2.0)		26.9	35.9	24.6
737	Les Minquiers	48° 57'	2° 08'	+2 27	+2 46	(*1.70-3.6)		25.1	32.9	21.2
739	St. Helier, Jersey Island	49° 11'	2° 07'	+2 23	+2 38	(*1.59-3.0)		23.6	32.1	20.2
741	St. Peter Port, Guernsey Island	49° 27'	2° 31'	+2 29	+2 35	+4.2	-0.2	19.2	26.1	16.6
743	Braye, Alderney Island	49° 43'	2° 12'	+2 52	+3 03	-3.9	-3.7	14.6	19.3	10.8
				<b>on Cherbourg, p.48</b>						
745	Omonville	49° 42'	1° 50'	-0 24	-0 26	-0.6	-0.3	12.7	17.7	11.6
747	CHERBOURG	49° 39'	1° 38'	<i>Daily predictions</i>				13.0	18.0	12.1
749	Barfleur	49° 40'	1° 15'	+0 49	+0 44	+0.3	0.0	13.3	17.5	12.2
751	St. Vaast la Hougue	49° 35'	1° 16'	+0 52	+1 11	+1.5	0.0	14.5	19.1	12.8
				<b>on Le Havre, p.52</b>						
753	Port-en-Bessin	49° 21'	0° 49'	-0 50	-0 32	-2.4	-0.8	15.6	19.9	13.4
755	Ouistreham	49° 17'	0° 15'	-0 30	-0 06	-1.2	-1.1	17.1	21.8	13.9
757	Trouville	49° 22'	0° 05'	-0 31	-0 03	-0.5	-1.2	17.9	22.3	14.2
	Seine River									
759	LE HAVRE	49° 29'	0° 07'	<i>Daily predictions</i>				17.2	21.8	15.0
761	Quillebeuf <7><8>	49° 28'	0° 32'	-0 34	+2 08	--	--	13.8	16.7	17.5
763	Caudebec <7><8>	49° 32'	0° 44'	+0 42	+3 23	--	--	9.6	11.5	19.3
765	Duclair <7><8>	49° 29'	0° 52'	+2 12	+4 41	--	--	6.3	7.4	20.3
767	Rouen <7>	49° 27'	1° 05'	+4 42	+6 18	--	--	5.4	6.2	21.7
				<b>on Dover, p.72</b>						
769	Fecamp	49° 46'	0° 22'	+0 15	-0 27	+4.0	+1.5	18.3	23.0	14.9
771	St. Valery-en-Caux	49° 52'	0° 42'	+0 22	+0 01	+6.5	+1.2	21.1	25.9	16.0
773	Dieppe	49° 56'	1° 05'	+0 39	+0 11	+7.3	+1.0	22.1	28.0	16.3
775	Le Treport	50° 04'	1° 22'	+0 41	+0 19	+10.2	+3.2	22.8	28.7	18.8
777	Cayeux	50° 11'	1° 29'	+0 47	+0 13	+9.9	+1.9	23.8	29.9	18.0
779	Le Hourdel, Somme River	50° 13'	1° 34'	+1 03	--	+9.4	--	--	--	--
781	Le Touquet	50° 31'	1° 35'	+0 51	--	+6.7	+1.8	20.7	25.9	16.4
783	Boulogne	50° 44'	1° 35'	+0 58	+0 53	+6.8	+1.4	21.2	26.3	16.2
785	Calais	50° 58'	1° 51'	+1 20	+1 05	+0.9	-0.3	17.0	20.4	12.4
787	Gravelines	51° 01'	2° 06'	+1 38	+1 24	-1.8	-0.9	14.9	18.0	10.8
789	Dunkerque	51° 03'	2° 22'	+1 48	+1 24	-2.6	-1.1	14.3	17.0	10.3
	Scotland, East Coast Time meridian, 0°	<b>North</b>	<b>West</b>	<b>on Leith, p.56</b>						
791	Duncansby Head	58° 39'	3° 03'	-4 35	-4 23	*0.54	--	--	--	--
793	Wick	58° 26'	3° 05'	-3 23	-3 18	*0.60	*0.67	7.0	9.4	6.6
795	Golspie	57° 58'	3° 59'	-3 07	-2 45	*0.71	*0.72	8.6	11.3	7.6
797	Portmahomack	57° 50'	3° 50'	-3 00	-2 28	*0.69	*0.65	8.6	11.4	7.3
799	Invergordon	57° 41'	4° 10'	-2 40	-2 23	*0.75	*0.65	9.6	12.6	7.8
801	Inverness	57° 30'	4° 15'	-2 35	-2 35	-2.5	-0.8	10.4	13.7	9.0
803	Lossiemouth	57° 43'	3° 18'	-2 57	-2 31	*0.65	*0.48	8.7	11.3	6.6
805	Banff	57° 40'	2° 31'	-2 40	-2 23	(*0.67-1.7)		8.1	10.2	5.5
807	Peterhead	57° 30'	1° 46'	-1 55	-1 41	*0.69	*0.70	8.3	10.8	7.4
809	Aberdeen	57° 09'	2° 05'	-1 15	-1 03	-4.0	-1.0	9.1	11.9	8.2
811	Stonehaven	56° 58'	2° 12'	-1 05	-0 52	-3.2	-0.9	9.8	12.7	8.6
813	Montrose	56° 42'	2° 27'	-0 15	-0 28	-2.2	-0.5	10.4	13.5	9.3
815	Arbroath	56° 33'	2° 35'	-0 29	-0 19	-1.7	-0.7	11.1	14.2	9.5
817	Tay River Bar	56° 27'	2° 38'	-0 17	+0 02	-1.1	-0.5	11.5	14.9	9.9
819	Dundee, Tay River	56° 27'	2° 58'	+0 15	+0 35	-0.9	-0.5	11.7	15.0	10.0
821	Anstruther Easter	56° 13'	2° 42'	-0 22	-0 20	-0.3	-0.3	12.1	15.7	10.4
823	Burntisland, Firth of Forth	56° 03'	3° 14'	0 00	-0 03	0 00	0 00	12.1	15.7	10.7
825	Rosyth, Forth River	56° 01'	3° 27'	+0 09	-0 03	+0.7	+0.2	12.6	16.4	11.1
827	Grangemouth, Forth River	56° 02'	3° 39'	+0 27	-0 37	+0.2	-0.8	13.1	17.1	10.4
829	LEITH, Firth of Forth	55° 59'	3° 10'	<i>Daily predictions</i>				12.1	15.7	10.7
831	Fidra Island	56° 04'	2° 47'	-0 05	-0 10	-0.8	-0.3	11.6	15.1	10.1
833	Dunbar	56° 00'	2° 31'	-0 08	+0 14	-1.0	-0.3	11.4	15.0	10.0
835	Eyemouth	55° 52'	2° 05'	-0 20	-0 09	--	--	--	--	--

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	England, East Coast Time meridian, 0°	<b>North</b>	<b>West</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Leith, p.56</b>						
837	Berwick-upon-Tweed	55° 47'	2° 00'	+0 02	+0 16	-2.7	-1.6	11.0	13.5	8.5
839	Blyth	55° 07'	1° 29'	+0 54	+1 29	-2.0	-0.7	10.8	14.0	9.3
841	Tyne River entrance	55° 01'	1° 24'	+1 00	+1 20	-1.8	-0.5	10.8	14.1	9.5
843	Newcastle-on-Tyne	54° 58'	1° 36'	+0 58	+1 33	-1.1	-0.6	11.6	14.8	9.8
845	Sunderland, Durham	54° 55'	1° 21'	+0 55	+1 25	-1.1	-0.2	11.2	14.5	10.0
847	Seaham	54° 50'	1° 19'	+0 57	+1 26	-1.4	-0.4	11.1	14.6	9.8
849	Hartlepool	54° 41'	1° 11'	+1 02	+1 34	-1.7	-0.6	11.0	14.1	9.5
851	River Tees Entrance	54° 38'	1° 09'	+1 12	+1 41	-0.5	0.0	11.6	15.2	10.4
853	Whitby	54° 29'	0° 37'	+1 26	+1 52	-0.7	-0.1	11.5	15.1	10.3
855	Scarborough	54° 17'	0° 23'	+1 52	+2 11	+0.3	+0.6	11.8	15.5	11.1
				<b>on Immingham, p.60</b>						
857	Bridlington	54° 05'	0° 11'	-1 14	---	-6.0	-2.7	12.9	16.7	9.2
	<i>Humber River</i>	<b>North</b>	<b>East</b>							
859	Spurn Head	53° 35'	0° 07'	-0 15	-0 25	-1.3	+0.1	14.8	19.4	12.9
		<b>North</b>	<b>West</b>							
861	Grimsby	53° 35'	0° 04'	-0 07	-0 08	-0.7	+0.3	15.2	19.8	13.3
863	IMMINGHAM	53° 38'	0° 11'	<i>Daily predictions</i>				16.2	21.0	13.5
865	Hull	53° 44'	0° 15'	+0 20	+0 12	+0.1	-0.4	16.7	21.5	13.4
867	Goole	53° 42'	0° 52'	+1 32	+3 50	-6.4	-3.8	13.6	17.0	8.4
		<b>North</b>	<b>East</b>							
869	Skegness	53° 09'	0° 21'	+0 16	+0 24	-0.9	-0.2	15.5	20.2	13.0
		<b>North</b>	<b>West</b>							
871	Boston	52° 58'	0° 01'	+0 34	+1 49	-2.0	-2.6	16.8	22.3	11.2
		<b>North</b>	<b>East</b>							
873	Wells Bar	52° 59'	0° 49'	+0 22	+0 22	--	--	--	--	--
875	Cromer	52° 56'	1° 18'	+0 56	+1 04	*0.73	*0.70	11.9	15.5	9.8
				<b>on Sheerness, p.64</b>						
877	Gorleston, Great Yarmouth	52° 34'	1° 44'	-3 49	-3 48	*0.38	*0.45	5.0	6.4	4.0
879	Lowestoft	52° 28'	1° 45'	-3 14	-3 18	*0.38	*0.45	5.0	6.4	4.0
881	Orford Ness	52° 05'	1° 35'	-1 39	-1 48	*0.52	*0.64	6.9	7.8	5.6
883	Harwich, Stour River	51° 57'	1° 17'	-0 56	-1 11	*0.71	*0.73	9.8	11.9	7.3
885	Brightlingsea, Colne River	51° 48'	1° 00'	-0 35	-0 25	*0.79	*0.45	12.1	14.7	7.6
887	Osea Island, Blackwater River	51° 43'	0° 46'	-0 05	-0 16	-1.3	-0.7	13.4	16.0	9.3
889	Southend Pier, Thames River	51° 31'	0° 45'	-0 10	-0 02	-0.5	-0.7	14.2	17.1	9.7
891	SHEERNESS, Medway River	51° 27'	0° 45'	<i>Daily predictions</i>				14.0	16.9	10.3
893	Chatham, Medway River	51° 27'	0° 32'	+0 07	+0 11	-0.3	-1.6	15.3	18.3	9.4
895	Tilbury Dock, Thames River	51° 28'	0° 22'	+0 20	+0 20	+1.5	-1.0	16.5	19.6	10.6
897	Royal Albert Dock, Thames River	51° 30'	0° 05'	+0 49	+0 44	+3.1	-1.2	18.3	21.5	11.2
		<b>North</b>	<b>West</b>							
899	LONDON BRIDGE, Thames River	51° 30'	0° 05'	<i>Daily predictions</i>				18.7	21.7	12.2
		<b>North</b>	<b>East</b>							
901	Margate	51° 24'	1° 23'	-0 42	-0 43	*0.74	*0.45	11.3	13.7	7.2
				<b>on Dover, p.72</b>						
903	Ramsgate	51° 20'	1° 25'	+0 20	-0 07	-4.9	-2.1	13.0	16.1	8.6
905	Deal	51° 13'	1° 25'	+0 10	+0 04	-3.7	--	--	--	--
	England, South Coast									
907	DOVER	51° 07'	1° 19'	<i>Daily predictions</i>				15.8	19.4	12.1
909	Folkestone	51° 05'	1° 12'	-0 12	-0 10	-1.1	-2.2	16.9	20.9	10.5
911	Dungeness	50° 54'	0° 58'	-0 14	-0 16	+1.6	-1.0	18.4	22.9	12.4
913	Rye Bay	50° 56'	0° 45'	-0 02	--	+1.6	--	--	--	--
915	Hastings	50° 51'	0° 35'	-0 05	-0 30	+0.4	-1.3	17.5	22.1	11.7
917	Eastbourne	50° 46'	0° 17'	-0 08	-0 37	-0.3	-1.2	16.7	21.3	11.4
		<b>North</b>	<b>West</b>							
919	Brighton	50° 49'	0° 08'	-0 08	-1 00	-3.0	-2.3	15.1	19.2	9.5
921	Shoreham Harbor entrance	50° 50'	0° 15'	0 00	-0 55	-3.6	-2.1	14.3	18.1	9.3
923	Littlehampton	50° 48'	0° 32'	+0 08	-1 08	-5.1	-2.8	13.5	17.1	8.2
				<b>on Southampton, p.78</b>						
925	Selsey Bill <9>	50° 43'	0° 47'	+0 25	+0 46	+2.1	+0.3	12.1	15.5	9.8
927	Portsmouth <9>	50° 48'	1° 07'	+0 30	+0 11	+0.3	+0.3	10.3	13.4	8.9
929	Ventnor, Isle of Wight <9>	50° 36'	1° 12'	+0 02	-0 17	*0.67	*0.38	7.9	10.2	5.3
931	Cowes, Isle of Wight <9>	50° 46'	1° 18'	+0 30	+0 01	*0.79	*0.47	9.2	12.0	6.2
933	SOUTHAMPTON <10>	50° 54'	1° 24'	<i>Daily predictions</i>				10.3	13.4	8.6
935	Calshot Castle <10>	50° 49'	1° 18'	+0 40	-0 04	-0.3	+0.5	9.5	12.4	8.6
937	Yarmouth, Isle of Wight <10>	50° 42'	1° 30'	-0 15	-0 15	*0.55	*0.41	6.2	8.2	4.5
939	Poole entrance <10>	50° 40'	1° 56'	--	-0 34	--	--	3.9	5.5	3.1
				<b>on Ringaskiddy, p.98</b>						
941	Portland <11>	50° 34'	2° 26'	+1 14	-0 30	*0.48	*0.50	4.5	6.3	3.5
943	Bridport	50° 42'	2° 45'	+0 44	-0 03	-1.3	-0.2	8.4	11.7	6.6
945	Lyme Regis	50° 43'	2° 55'	+1 02	-0 03	-1.2	-0.4	8.7	12.1	6.6
947	Exmouth	50° 37'	3° 25'	+1 02	+0 32	-0.8	-0.3	9.0	12.3	6.8
949	Teignmouth	50° 33'	3° 30'	+0 44	-0 03	+1.7	+1.3	9.9	13.6	8.9

Endnotes can be found at the end of table 2.



TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	England, South Coast—cont. Time meridian, 0°	<b>North</b>	<b>West</b>	h	m	h	m	ft	ft	ft
				<b>on Ringaskiddy, p.98</b>						
951	Torquay	50° 28'	3° 31'	+0 47	+0 02	+0.1	-0.5	10.1	13.8	7.2
953	Dartmouth	50° 21'	3° 34'	+0 40	+0 02	+1.9	+0.7	10.7	14.5	8.7
955	Salcombe, Salcombe River	50° 13'	3° 47'	+0 17	-0 03	+3.5	+1.7	11.3	15.1	10.0
957	Plymouth breakwater	50° 20'	4° 09'	+0 06	-0 09	+4.1	--	--	--	--
959	Devonport	50° 22'	4° 11'	+0 12	-0 03	+4.3	+1.9	11.9	15.7	10.5
961	East Looe	50° 21'	4° 27'	+0 02	-0 08	+3.9	+1.5	11.9	15.7	10.0
963	Fowey	50° 20'	4° 38'	0 00	-0 11	+3.9	+1.5	11.9	15.6	10.1
965	Falmouth	50° 09'	5° 03'	-0 18	-0 13	+3.6	+1.2	11.9	15.5	9.8
967	Penzance (Newlyn)	50° 06'	5° 33'	-0 40	-0 35	+4.5	+1.9	12.1	15.7	10.6
969	St. Mary's Pool, Scilly Isles	49° 55'	6° 19'	-0 39	-0 54	+2.7	0.0	12.2	15.8	8.7
	England, West Coast			<b>on Brest, p.44</b>						
971	Sennen Cove, Lands End	50° 04'	5° 42'	-0 18	-0 17	-4.1	--	--	--	--
973	St. Ives	50° 12'	5° 28'	+0 13	+0 07	-2.1	-2.2	14.9	20.0	12.6
975	Newquay	50° 25'	5° 05'	+0 28	+0 20	-2.2	--	--	--	--
977	Padstow	50° 33'	4° 56'	+0 37	+0 27	-1.7	-4.3	17.4	21.8	11.6
979	Bude Haven	50° 50'	4° 33'	+0 48	+0 37	-1.9	--	--	--	--
				<b>on Liverpool, p.82</b>						
981	Appledore, Bristol Channel	51° 03'	4° 12'	-5 53	-6 04	*0.75	*0.43	18.3	23.9	11.8
983	Bideford, Torridge River <12>	51° 01'	4° 12'	-5 51	-5 49	--	--	15.7	19.5	--
985	Barnstaple, Taw River <13>	51° 05'	4° 04'	-5 33	-8 08	--	--	8.0	12.4	--
987	Ilfracombe, Bristol Channel	51° 13'	4° 07'	-5 49	-6 27	-0.8	-0.1	21.0	27.8	16.4
989	Watchet, Bristol Channel	51° 11'	3° 20'	-5 05	-5 49	+6.0	+1.1	26.6	34.6	20.4
991	Burnham, Parrett River	51° 14'	3° 00'	-4 43	-4 49	(*1.38-5.4)	--	29.9	37.6	17.9
993	Bridgwater, Parrett River <14>	51° 08'	3° 00'	-4 30	-1 05	--	--	9.6	14.2	--
995	Weston—super—Mare, Bristol Channel	51° 21'	2° 59'	-4 48	-5 28	(*1.36-2.9)	--	29.5	37.1	20.1
997	Port of Bristol (Avonmouth)	51° 30'	2° 43'	-4 27	-4 30	*1.39	*1.15	31.5	40.3	22.7
999	Bristol, Avon River	51° 27'	2° 37'	-4 17	--	+0.6	--	--	--	--
1001	Wellhouse Rock, Severn River <15><16>	51° 44'	2° 29'	-3 41	-1 22	-3.5	--	22.7	27.7	12.9
1003	Chepstow, Wye River	51° 39'	2° 40'	-4 07	--	--	--	--	--	--
1005	Newport, Bristol Channel	51° 33'	2° 59'	-4 37	-4 42	(*1.40-3.6)	--	30.3	38.9	20.0
	Wales									
1007	Cardiff, Bristol Channel	51° 27'	3° 09'	-4 43	-5 19	*1.30	*1.32	28.1	36.5	22.0
1009	Barry, Bristol Channel	51° 23'	3° 16'	-4 47	-5 25	(*1.25-0.5)	--	27.1	35.2	20.6
1011	Porthcawl, Bristol Channel	51° 28'	3° 42'	-5 14	-5 47	+1.2	+0.6	22.3	29.4	17.8
1013	Swansea, Bristol Channel	51° 37'	3° 55'	-5 19	-5 55	+0.4	+0.6	21.5	28.2	17.4
1015	Whiteford Lighthouse, Burry Inlet	51° 39'	4° 15'	-5 25	-5 48	-2.1	-0.1	19.7	25.7	15.8
1017	Ferryside, Towry River	51° 46'	4° 22'	-5 28	-5 55	-9.2	-4.7	17.2	21.7	9.9
1019	Tenby, Bristol Channel	51° 40'	4° 42'	-5 31	-6 02	-3.4	0.0	18.3	24.5	15.2
1021	Neyland, Cleddau River	51° 42'	4° 57'	-5 13	-5 44	-7.4	-1.1	15.4	20.6	12.6
1023	Ramsey Sound	51° 51'	5° 19'	-5 09	-5 28	*0.55	--	--	--	--
	<i>Cardigan Bay</i>			<b>on Dublin, p.94</b>						
1025	Fishguard	52° 00'	4° 58'	-4 37	-3 48	-0.1	-0.6	9.7	13.3	6.7
1027	Port Cardigan	52° 07'	4° 42'	-4 35	-3 44	+0.8	--	--	--	--
1029	Aberystwyth	52° 24'	4° 05'	-4 02	-2 59	+1.3	0.0	10.5	13.6	7.7
1031	Aberdovey	52° 32'	4° 03'	-3 44	-2 36	+1.6	0.0	10.8	14.0	7.8
1033	Barmouth	52° 43'	4° 03'	-3 37	-2 11	+2.3	+0.4	11.1	14.2	8.4
1035	Portmadoc (Borth)	52° 55'	4° 08'	-3 36	-1 48	+2.0	+0.1	11.1	14.1	8.1
1037	Pwllheli Road	52° 53'	4° 24'	-3 46	-2 13	+2.0	+0.2	11.0	14.2	8.1
1039	Bardsey Island	52° 46'	4° 47'	-3 51	-2 39	+1.4	+1.0	9.6	12.2	8.2
1041	Belan Point, Menai Strait	53° 07'	4° 20'	-1 50	-1 11	+2.2	+1.3	10.1	13.5	8.8
1043	Holyhead	53° 19'	4° 37'	-1 22	-0 56	+3.3	0.0	12.5	16.2	8.7
				<b>on Liverpool, p.82</b>						
1045	Amlwch	53° 25'	4° 20'	-0 59	-1 24	-6.4	-1.4	16.7	21.2	13.0
1047	Trwyn du, Menai Strait	53° 19'	4° 02'	-0 44	-0 59	-5.4	-1.4	17.7	22.6	13.5
1049	Menai Bridge, Menai Strait	53° 13'	4° 09'	-0 25	-0 25	-5.7	-0.8	16.8	21.6	13.6
1051	Llandudno	53° 20'	3° 50'	-0 41	-0 54	-4.6	-0.5	17.6	22.7	14.3
	England, West Coast—cont.									
1053	Hilbre Island, Dee River	53° 23'	3° 13'	-0 16	-0 18	-0.8	+0.8	20.1	25.5	16.9
1055	Chester, Dee River	53° 12'	2° 54'	+1 05	+5 02	--	--	8.6	12.3	--
1057	LIVERPOOL, Mersey River	53° 25'	3° 00'	<i>Daily predictions</i>				21.7	27.5	16.9
1059	Eastham	53° 19'	2° 57'	+0 25	+0 22	+0.9	-0.3	22.9	29.0	17.2
1061	Preston, Ribble River	53° 45'	2° 43'	0 00	--	--	--	14.3	17.4	--
1063	St. Anne's, Ribble River	53° 45'	3° 02'	-0 04	+0 13	-0.4	+1.9	19.4	26.1	17.6
1065	Fleetwood, River Wyre	53° 56'	3° 00'	0 00	-0 02	+0.5	+0.7	21.5	27.4	17.5
1067	Morecambe, Morecambe Bay	54° 04'	2° 52'	+0 01	+0 04	+0.4	+0.2	21.9	27.6	17.2
1069	Barrow (Ramsden Dock) <i>Solway Firth</i>	54° 06'	3° 12'	+0 15	+0 20	-0.9	-0.1	20.9	26.8	16.4
1071	Whitehaven	54° 33'	3° 36'	+0 02	-0 11	-3.6	-0.6	18.7	24.0	14.8
1073	Workington	54° 39'	3° 34'	+0 09	+0 01	-3.2	-0.7	19.2	24.6	14.9
1075	Maryport	54° 43'	3° 30'	+0 24	+0 12	-2.5	-0.6	19.8	25.2	15.3
1077	Silloth	54° 52'	3° 24'	+0 35	+0 50	-1.1	-1.0	21.6	27.5	15.8

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	England, West Coast—cont. Time meridian, 0°	<b>North</b>	<b>West</b>	h	m	h	m	ft	ft	ft
				<b>on Liverpool, p.82</b>						
1079	Isle of Man Ramsey .....	54° 19'	4° 22'	+0 04	-0 05	-6.2	-1.2	16.7	21.3	13.2
1081	Douglas .....	54° 09'	4° 28'	-0 04	-0 27	-7.2	-1.0	15.5	20.1	12.8
1083	Peel .....	54° 14'	4° 42'	-0 02	-0 05	*0.57	*0.50	12.7	15.8	9.4
	Scotland, West Coast									
1085	Garliestown, Wigtown Bay .....	54° 47'	4° 21'	+0 20	+0 10	--	--	--	--	--
1087	Isle of Whithorn, Wigtown Bay .....	54° 42'	4° 22'	+0 20	+0 10	-6.4	-1.2	16.5	21.0	13.1
1089	Drummore, Wigtown Bay .....	54° 41'	4° 53'	+0 25	-0 05	*0.62	*0.63	13.5	17.0	10.6
				<b>on Greenock, p.86</b>						
1091	Stranraer, Loch Ryan .....	54° 55'	5° 03'	-0 20	-0 17	-1.3	-0.8	7.8	9.1	5.2
1093	Ayr, Firth of Clyde .....	55° 28'	4° 39'	-0 20	-0 08	-1.1	+0.4	6.8	8.4	5.9
1095	Ardrossan, Firth of Clyde .....	55° 38'	4° 49'	-0 20	-0 08	-0.8	-0.1	7.6	9.3	5.8
1097	GREENOCK .....	55° 57'	4° 46'	<i>Daily predictions</i>				8.3	10.1	6.3
1099	Glasgow, Clyde River .....	55° 51'	4° 17'	+0 41	+1 08	+4.2	+1.6	10.9	13.4	9.2
1101	Bowling, Clyde River .....	55° 56'	4° 29'	+0 24	+0 55	+1.8	+0.8	9.3	11.4	7.6
1103	Rothesay Bay, Firth of Clyde .....	55° 51'	5° 03'	-0 11	-0 07	0.0	0.0	8.3	10.1	6.3
1105	Inverary, Loch Fyne .....	56° 14'	5° 04'	+0 11	+0 34	0.0	-0.9	9.2	10.1	5.8
1107	Campbeltown, Firth of Clyde .....	55° 25'	5° 36'	-0 32	-0 18	-1.4	0.0	6.9	8.4	5.6
				<b>on Ullapool, p.90</b>						
1109	Port Askaig, Sound of Jura .....	55° 51'	6° 06'	-2 06	-1 38	(*0.35+1.1)	--	3.8	5.3	3.9
1111	Rudha Mhail, Isle of Islay .....	55° 56'	6° 07'	-1 26	-1 23	-3.6	0.0	7.4	10.1	6.3
1113	Oban, Firth of Lorne .....	56° 25'	5° 29'	-1 16	-1 18	-3.8	-0.3	7.5	10.4	6.1
1115	Port Appin, Loch Linnhe .....	56° 33'	5° 25'	-1 21	-1 33	-2.7	+0.4	7.9	11.0	7.0
1117	Tobermory, Sound of Mull .....	56° 37'	6° 05'	-1 06	-0 58	-2.0	-0.1	9.1	12.3	7.1
1119	Scarinish, Tiree Island .....	56° 30'	6° 48'	-1 18	-1 15	-3.1	-0.5	8.4	11.3	6.3
1121	Inverie Bay, Loch Nevis .....	57° 02'	5° 41'	-0 59	-0 57	-0.4	+0.1	10.5	14.2	8.0
1123	Kyle Akin .....	57° 17'	5° 43'	-0 16	-0 10	-0.7	-1.1	11.4	15.4	7.2
1125	Portree, Raasey Sound .....	57° 24'	6° 11'	-0 21	-0 25	-0.3	-0.3	11.0	15.0	7.8
1127	Uig Bay, Skye Island .....	57° 37'	6° 23'	-0 34	-0 25	+0.4	+0.7	10.7	14.6	8.7
1129	ULLAPOOL, Loch Broom .....	57° 54'	5° 10'	<i>Daily predictions</i>				11.0	14.8	8.1
1131	Loch Inver .....	58° 09'	5° 18'	-0 01	-0 05	-0.4	+0.4	10.2	13.8	8.1
1133	Loch Incharid .....	58° 27'	5° 01'	+0 24	0 00	-1.7	-0.6	9.9	13.2	7.0
	Scotland, North Coast									
1135	Cape Wrath .....	58° 37'	5° 00'	+0 29	+0 25	*0.98	--	--	--	--
1137	Rispond, Loch Eriboll .....	58° 33'	4° 40'	+0 39	--	-1.1	--	--	--	--
1139	Kyle of Tongue .....	58° 33'	4° 22'	+0 54	--	*0.98	--	--	--	--
1141	Thurso .....	58° 36'	3° 33'	+1 49	+1 37	-0.9	+0.5	9.6	13.2	7.9
	Northern Ireland, East Coast									
				<b>on Dublin, p.94</b>						
1143	Red Bay .....	55° 04'	6° 03'	-0 33	-0 15	*0.43	*0.29	4.3	4.5	2.9
1145	Larne .....	54° 51'	5° 47'	-0 37	-0 08	*0.75	*0.79	6.8	7.8	5.3
1147	Belfast .....	54° 36'	5° 55'	-0 39	-0 10	-1.0	0.0	8.2	10.0	6.5
1149	Donaghadee .....	54° 38'	5° 32'	-0 19	+0 13	+0.5	+0.2	9.5	11.5	7.4
1151	Strangford, Lough Strangford .....	54° 22'	5° 33'	+1 13	+1 48	-0.5	-0.4	9.1	10.7	6.6
1153	Newcastle .....	54° 12'	5° 53'	-0 09	+0 20	+3.6	+0.7	12.1	14.9	9.2
1155	Cranfield Point, Lough Carlingford .....	54° 01'	6° 03'	-0 19	+0 05	*1.18	*1.12	11.0	13.4	8.2
	Eire, East Coast									
1157	Dundalk (pile light) .....	53° 58'	6° 17'	-0 16	+0 22	+3.0	+0.6	11.6	14.7	8.8
1159	Boyne River (bar) .....	55° 43'	6° 14'	-0 20	+0 35	+0.8	--	--	--	--
1161	DUBLIN (Baile Atha Cliath) .....	53° 21'	6° 13'	<i>Daily predictions</i>				9.2	11.7	7.0
1163	Dun Laoghaire (Kingstown) .....	53° 18'	6° 08'	-0 04	-0 02	-0.2	+0.2	8.8	11.3	7.0
1165	Wicklow .....	52° 59'	6° 02'	-0 41	-0 41	*0.66	--	--	--	--
1167	Arklow .....	52° 47'	6° 08'	-2 35	-2 35	*0.30	--	--	--	--
1169	Wexford .....	52° 20'	6° 27'	-5 35	-5 25	*0.45	*0.50	4.0	5.1	3.2
	Eire, South Coast									
				<b>on Ringaskiddy, p.98</b>						
1171	Great Saltee Island .....	52° 07'	6° 38'	+0 12	-0 06	-1.1	--	--	--	--
1173	Dunmore, Waterford Harbor .....	52° 09'	6° 59'	+0 11	-0 06	+0.5	+0.4	9.6	11.8	7.8
1175	Dungarvan Bay .....	52° 05'	7° 33'	+0 06	-0 04	-0.3	-0.6	9.8	12.0	6.9
1177	Youghal .....	51° 57'	7° 50'	+0 04	+0 01	-0.4	-0.5	9.6	11.8	6.9
1179	Queenstown, Cork Harbor .....	51° 50'	8° 18'	-0 02	-0 07	+0.1	+0.2	9.4	11.9	7.5
1181	RINGASKIDDY (Cobh) .....	51° 50'	8° 19'	<i>Daily predictions</i>				9.5	12.2	7.5
1183	Cork, Cork Harbor .....	51° 54'	8° 27'	+0 18	+0 13	-0.1	-0.8	10.2	12.9	6.9
1185	Kinsale .....	51° 42'	8° 31'	-0 14	-0 23	-0.2	+0.4	8.9	11.3	7.5
1187	Courtmacsherry .....	51° 38'	8° 42'	-0 20	-0 13	-2.6	-1.7	8.6	10.6	5.2
1189	Clonakilty Bay .....	51° 35'	8° 50'	-0 24	-0 37	-1.9	--	--	--	--
1191	Baltimore .....	51° 29'	9° 23'	-0 31	-0 47	-2.4	-0.7	7.8	9.6	5.8
1193	Skull .....	51° 31'	9° 32'	-0 48	-1 04	-2.7	-1.0	7.8	9.4	5.5

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	Eire, West Coast Time meridian, 0°	<b>North</b>	<b>West</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Ringaskiddy, p.98</b>						
1195	Bantry, Bantry Bay	51° 41'	9° 28'	-0 57	-1 10	-1.2	+0.2	8.1	10.2	6.9
1197	Dunkerron Harbor, Kenmare River	51° 51'	9° 38'	-0 54	-1 22	-2.3	-1.1	8.3	11.0	5.7
1199	Knights Town, Valencia Harbor	51° 56'	10° 18'	-1 00	-1 23	-1.9	-0.7	8.3	10.8	6.1
1201	Cromane Pt., Castlemaine Harbor	52° 09'	9° 54'	-0 18	-0 34	-0.3	-0.2	9.4	12.4	7.1
1203	Dingle Harbor	52° 07'	10° 15'	-0 58	-1 11	-2.0	-0.7	8.2	10.7	6.0
1205	Fenit Pier, Tralee Bay	52° 18'	9° 52'	-0 39	-0 56	-0.1	-0.7	10.1	13.1	7.0
1207	Kilrush, Shannon River	52° 38'	9° 30'	-0 06	-0 25	+0.2	-0.6	10.3	13.6	7.2
1209	Foynes Island, Shannon River	52° 37'	9° 07'	+0 34	-0 07	*1.18	*0.96	11.8	15.5	8.4
1211	Limerick Dock, Shannon River	52° 40'	8° 38'	+1 06	+0 58	+4.2	0.0	13.7	16.5	9.5
1213	Liscanor	52° 56'	9° 23'	-0 19	-0 49	*1.04	--	--	--	--
1215	Galway	53° 16'	9° 03'	-0 14	-0 53	(*1.12-0.1)	--	10.6	14.1	8.3
1217	Clifden Bay	53° 29'	10° 04'	-0 09	-0 37	*0.97	--	--	--	--
1219	Inishraher, Westport Bay	53° 48'	9° 38'	+0 07	-0 11	*0.94	*0.81	9.3	12.4	6.8
1221	Broadhaven	54° 16'	9° 53'	+0 16	-0 06	-2.8	-0.7	7.4	9.6	5.6
1223	Killala Bay (Moynes), Donegal Bay	54° 12'	9° 10'	+0 29	+0 03	-2.8	--	--	--	--
1225	Sligo Hbr. (Oyster I.), Donegal Bay	54° 18'	8° 34'	+0 35	-0 05	-1.8	--	--	--	--
1227	Killybegs, Donegal Bay	54° 38'	8° 26'	+0 30	0 00	-1.6	--	--	--	--
1229	Rutland Island	54° 58'	8° 28'	+0 34	-0 01	-1.8	--	--	--	--
	Eire, North Coast									
1231	Inishbofin Bay	55° 10'	8° 10'	+0 19	-0 14	-1.8	--	--	--	--
1233	Rathmullan, Lough Swilly	55° 05'	7° 31'	+0 54	+0 29	*0.97	*0.96	9.2	12.4	7.1
1235	Moville, Lough Foyle	55° 11'	7° 03'	+1 59	+1 30	(*0.54+0.2)	--	5.1	6.5	4.2
	Northern Ireland, North Coast									
1237	Londonderry, Lough Foyle	55° 00'	7° 19'	+2 51	+2 30	-4.9	-1.2	5.8	7.7	4.3
1239	Inishtrahull	55° 26'	7° 14'	+0 46	+0 45	(*0.65+0.7)	--	6.2	8.7	5.6
1241	Coleraine	55° 08'	6° 40'	+1 34	+1 41	(*0.49-0.3)	--	4.7	6.1	3.4
1243	Portrush	55° 12'	6° 40'	+1 11	+0 50	*0.40	*0.42	3.8	5.6	3.0
1245	Ballycastle Bay	55° 12'	6° 14'	+2 24	+2 16	*0.26	*0.26	2.4	3.3	1.9
	Hebrides									
				<b>on Ullapool, p.90</b>						
1247	Village Bay, St. Kilda Island	57° 48'	8° 34'	-0 51	-1 00	-5.3	-1.4	7.1	9.4	4.8
1249	North Bay, Barra	57° 00'	7° 24'	-0 53	-0 51	-2.4	-0.2	8.8	12.0	6.8
1251	Loch Boisdale	57° 09'	7° 16'	-0 50	-0 48	-1.8	-0.1	9.3	12.9	7.2
1253	Loch Maddy	57° 36'	7° 06'	-0 35	-0 33	-1.1	-0.1	10.0	13.7	7.5
1255	Leverburgh	57° 46'	7° 01'	-0 36	-0 30	-1.3	+0.2	9.5	13.0	7.6
1257	East Loch Tarbert	57° 54'	6° 48'	-0 35	-0 30	-0.8	+0.1	10.1	13.9	7.8
1259	West Loch Tarbert	57° 55'	6° 55'	-0 49	-0 34	*0.79	--	--	--	--
1261	Berneria Harbor	58° 16'	6° 52'	-0 22	-0 32	-2.8	-0.9	9.1	12.4	6.3
1263	Stornoway	58° 12'	6° 23'	-0 06	-0 10	-1.1	+0.1	9.8	13.4	7.6
	Orkney Islands									
				<b>on Narvik, p.142</b>						
1265	Stromness <17>	58° 58'	3° 18'	-3 02	-3 08	-0.3	-0.7	7.0	10.1	5.4
1267	Kirkwall	58° 59'	2° 58'	-2 00	-2 22	*0.82	*0.69	5.7	7.8	4.7
1269	Pierowall	59° 19'	2° 58'	-3 00	-3 06	+0.4	-0.2	7.2	10.4	6.0
1271	Fair Isle	59° 33'	1° 38'	-1 54	-2 12	*0.83	*0.65	5.9	7.1	4.6
	Shetland Islands									
				<b>on Bergen, p.138</b>						
1273	Lerwick	60° 09'	1° 08'	-0 06	-0 05	+1.1	+0.1	4.2	5.5	3.2
1275	Scalloway	60° 08'	1° 16'	-1 48	-1 45	+0.4	+0.8	2.8	3.7	3.2
1277	Hillswick	60° 27'	1° 30'	-2 14	-1 49	+1.7	+0.9	4.0	5.5	3.9
	Faeroe Islands									
				<b>on Reykjavik, p.102</b>						
1279	Lopransfjordhur, Sudhuroy Island	61° 27'	6° 46'	+1 45	+1 45	*0.79	*0.23	8.5	9.6	4.8
1281	Vagur, Sudhuroy Island	61° 28'	6° 48'	+1 52	+1 52	*0.29	*0.27	2.7	4.0	2.0
1283	Trangisvagur, Sudhuroy Island	61° 34'	6° 50'	+1 38	+1 38	*0.31	*0.32	2.8	4.2	2.1
1285	Sudhuroyarfjordhur	61° 39'	6° 49'	+1 45	+1 45	*0.79	*0.23	8.5	9.6	4.8
1287	Sandsvagur, Sandoy Island	61° 50'	6° 48'	+1 56	+1 56	*0.54	*0.50	5.0	7.2	3.6
1289	Mykines	62° 06'	7° 38'	+4 45	+4 45	*0.79	*0.23	8.5	9.6	4.8
1291	Vestmanna, Strey moy Island	62° 09'	7° 09'	+2 47	+2 47	*0.49	*0.41	4.7	6.6	3.3
1293	Torshavn, Strey moy Island	62° 00'	6° 46'	+1 33	+1 33	*0.07	*0.04	0.7	1.0	0.5
1295	Hoyvik, Strey moy Island	62° 02'	6° 45'	--	--	--	--	--	--	--
1297	Nes, Eysturoy Island	62° 05'	6° 43'	--	--	--	--	--	--	--
1299	Eidhi, Eysturoy Island	62° 18'	7° 05'	-1 05	-1 05	*0.75	*0.23	8.0	9.6	4.5
1301	Leirvik, Eysturoy Island	62° 13'	6° 42'	+2 10	+2 10	*0.54	*0.23	5.6	6.6	3.3
1303	Klaksvik, Bordhoy Island	62° 14'	6° 35'	+4 43	+4 43	*0.33	*0.32	3.1	4.6	2.3
1305	Svinoyarfjordhur	62° 16'	6° 25'	+3 10	+3 10	*0.54	*0.23	5.6	6.6	3.3
1307	Fugloyarfjordhur	62° 19'	6° 18'	+2 25	+2 25	*0.48	*0.18	5.1	6.6	3.0
	Jan Mayen Island Time meridian, 15° W									
1309	Mary Muss Bay	71° 00'	8° 28'	+0 01	+0 07	-1.0	-0.6	2.8	3.7	1.8

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No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	Iceland Time meridian, 0°	<b>North</b>	<b>West</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Reykjavik, p.102</b>						
1311	Keflavik Harbor	64° 00'	22° 33'	-0 05	-0 05	-0.5	-0.2	8.9	12.1	6.5
1313	REYKJAVIK	64° 09'	21° 56'	<i>Daily predictions</i>				9.2	12.5	6.8
1315	Hvammsvik	64° 22'	21° 34'	-0 02	-0 01	+0.6	+0.2	9.6	12.5	7.2
1317	Akranes	64° 19'	22° 06'	+0 03	-0 05	0.0	+0.4	8.8	11.8	7.0
1319	Hrutafjordur	65° 15'	21° 07'	+3 48	+3 58	(*0.39+0.5)		3.6	4.5	3.2
1321	Hrisey	65° 59'	18° 22'	+4 22	+4 10	(*0.33+0.6)		3.0	3.8	2.8
1323	Akureyri	65° 41'	18° 05'	+4 17	+4 09	(*0.34+0.6)		3.1	3.9	2.9
1325	Vestdalseyri	65° 17'	13° 59'	-4 46	-4 46	*0.31	*0.32	2.9	4.0	2.2
	Belgium Time meridian, 15° E	<b>North</b>	<b>East</b>	<b>on Vlissingen, p.110</b>						
1327	Nieuwpoort	51° 09'	2° 43'	-1 10	-0 30	+0.9	-0.1	13.5	16.4	8.5
1329	Oostende	51° 14'	2° 55'	-0 56	-0 32	+0.9	+0.6	12.8	15.7	8.5
1331	Zeebrugge	51° 21'	3° 12'	-0 36	-0 37	-0.4	+0.3	11.8	14.4	8.5
				<b>on Antwerp, p.106</b>						
1333	ANTWERP (Prosperpolder) Schelde River	51° 14'	4° 14'	<i>Daily predictions</i>				15.9	17.9	9.7
1335	Antwerp (Roads) Schelde River	51° 14'	4° 24'	+0 22	+0 42	+0.8	-0.1	16.8	18.8	10.0
	Netherlands			<b>on Vlissingen, p.110</b>						
1337	VLISSINGEN, West Schelde River	51° 27'	3° 36'	<i>Daily predictions</i>				12.7	14.7	8.0
1339	Terneuzen, West Schelde River	51° 20'	3° 50'	+0 19	+0 26	+1.2	+0.1	13.7	15.8	8.7
1341	Hansweert, West Schelde River	51° 27'	4° 00'	+0 56	+0 52	+2.1	0.0	14.7	16.6	9.1
1343	Roopot, East Schelde River	51° 37'	3° 40'	-0 06	-0 10	-3.6	-0.4	9.4	10.8	6.0
1345	Stavenisse, East Schelde River	51° 36'	4° 01'	+1 39	+1 08	-3.6	-0.7	9.7	10.6	5.9
	Maas River									
1347	Dordrecht	51° 49'	4° 40'	+2 16	+4 48	*0.21	*0.25	2.6	2.9	1.7
1349	HOEK VAN HOLLAND <18>	51° 59'	4° 07'	<i>Daily predictions</i>				5.7	6.2	3.5
1351	Rotterdam <19>	51° 55'	4° 30'	+1 48	+3 28	*0.45	*0.51	5.6	6.1	3.6
1353	Scheveningen <19>	52° 06'	4° 16'	+1 01	+2 37	*0.46	*0.43	5.8	6.5	3.6
1355	Ijmuiden (Ymuiden)	52° 28'	4° 35'	+1 42	+3 14	*0.44	*0.43	5.6	6.2	3.5
				<b>on Cuxhaven, p.126</b>						
1357	Den Helder <20>	52° 58'	4° 45'	-6 11	-6 06	-4.9	+0.4	4.6	5.1	3.3
1359	West Terschelling	53° 22'	5° 13'	-4 01	-4 34	-3.2	+0.5	6.2	7.0	4.1
1361	Harlingen	53° 10'	5° 25'	-3 45	-2 58	-3.4	+0.1	6.2	6.8	3.9
1363	Delfzijl, Ems River	53° 20'	6° 57'	-1 17	-1 30	+0.8	+0.8	9.8	10.9	6.3
	Germany, North Sea			<b>on Helgoland, p.118</b>						
	Ems River									
1365	Approach	53° 46'	6° 04'	-2 07	--	-1.0	0.0	6.6	7.8	3.9
1367	Borkum, west coast	53° 35'	6° 39'	-1 06	-1 24	-0.4	0.0	7.2	8.2	4.2
1369	Knock	53° 20'	7° 03'	+0 20	+0 18	+1.1	-0.3	9.0	10.0	4.8
1371	Emden	53° 21'	7° 12'	+0 42	+0 26	+2.3	+0.1	9.8	11.0	5.6
1373	Pogum	53° 19'	7° 16'	+0 57	+0 47	+1.9	-0.4	9.9	10.7	5.2
1375	Leer	53° 13'	7° 27'	+1 57	+2 31	-0.6	-0.5	7.5	8.1	3.9
1377	Juist, north coast	53° 41'	6° 59'	-0 50	-1 14	-0.6	0.0	7.0	8.1	4.1
1379	Norddeich	53° 37'	7° 10'	-0 21	-0 40	+0.7	+0.1	8.2	9.4	4.8
1381	Norderney-Seeqat	53° 42'	7° 10'	-0 24	-0 43	+0.3	+0.1	7.8	9.1	4.6
1383	Baltrum, west approach	53° 44'	7° 22'	-0 24	-0 25	0.0	-0.4	8.0	8.8	4.2
1385	Langeoog	53° 44'	7° 28'	-0 03	-0 23	+0.9	+0.1	8.4	9.8	4.9
1387	Neuharlingersiel	53° 42'	7° 42'	+0 11	--	+1.0	--	--	--	--
1389	Spiekeroog, west approach	53° 45'	7° 40'	-0 03	-0 20	+0.6	-0.1	8.3	9.4	4.7
1391	Wangerooge, west end	53° 47'	7° 51'	0 00	-0 07	+0.8	0.0	8.4	9.6	4.8
1393	HELGOLAND	54° 11'	7° 54'	<i>Daily predictions</i>				7.6	8.8	4.4
				<b>on Bremerhaven, p.122</b>						
1395	Wangerooge, east end	53° 47'	7° 58'	-1 28	-1 29	-1.8	+0.1	9.1	10.5	5.4
1397	Schillighorn	53° 42'	8° 03'	-1 03	-1 00	-1.5	-0.1	9.6	10.9	5.4
1399	Hooksiel	53° 38'	8° 03'	-0 46	--	-1.3	0.0	9.7	11.3	5.6
1401	Genius Bank	53° 37'	8° 09'	-0 34	-0 44	-0.8	0.0	10.2	11.6	5.8
1403	Wilhelmshaven	53° 31'	8° 10'	-0 15	-0 35	+0.4	-0.1	11.5	13.1	6.4
1405	Schweiburger Tief	53° 27'	8° 16'	-0 08	-0 28	+0.8	-0.1	11.9	13.5	6.6
	Weser River									
1407	Roter Sand	53° 51'	8° 05'	-1 24	-1 22	-2.0	0.0	9.0	10.3	5.2
1409	Hohe Weg Light	53° 43'	8° 15'	-0 58	--	-1.0	-0.2	10.2	11.3	5.6
1411	BREMERHAVEN	53° 32'	8° 35'	<i>Daily predictions</i>				11.0	12.3	6.2
1413	Nordenham	53° 30'	8° 30'	+0 21	+0 27	-0.3	-0.3	11.0	12.3	5.9
1415	Sandstedt	53° 22'	8° 31'	+0 48	+0 59	-0.2	+0.1	10.7	12.1	6.1
1417	Brake	53° 20'	8° 29'	+0 59	+1 17	-0.3	-0.3	11.0	12.0	5.9
1419	Elsfleth	53° 15'	8° 28'	+1 21	+1 42	-0.7	-0.3	10.6	11.6	5.7
1421	Farge	53° 12'	8° 31'	+1 33	+2 04	-1.2	-0.6	10.4	11.3	5.3
1423	Vege sack	53° 10'	8° 38'	+1 54	+2 26	-1.2	-0.3	10.1	11.0	5.4
1425	Bremen (Oslebshausen)	53° 07'	8° 43'	+2 09	+2 50	-0.9	-0.3	10.4	11.3	5.6
1427	Bremen (bridge)	53° 05'	8° 47'	+2 20	+3 18	-0.6	-0.3	10.7	11.6	5.8

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	Germany, North Sea—cont. Time meridian, 15° E	<b>North</b>	<b>East</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Cuxhaven, p.126</b>						
1429	Elbe River Scharhorn	53° 58'	8° 28'	-0 46	-0 57	-0.1	+0.1	9.8	11.1	5.5
1431	CUXHAVEN	53° 52'	8° 43'			<i>Daily predictions</i>		10.0	11.1	5.5
1433	Brunsbüttelkoog	53° 53'	9° 08'	+1 00	+1 18	-0.9	-0.2	9.3	10.2	5.0
1435	Gluckstadt	53° 47'	9° 25'	+2 03	+2 13	-0.9	-0.1	9.2	9.9	5.0
1437	Stadersand	53° 38'	9° 32'	+2 40	+2 57	-0.4	-0.1	9.7	10.4	5.3
				<b>on Hamburg, p.130</b>						
1439	Luhedeich	53° 34'	9° 38'	-0 41	-0 58	-0.8	+0.3	10.1	10.7	5.4
1441	Schulau	53° 34'	9° 42'	-0 33	-0 48	-0.7	+0.2	10.3	10.9	5.4
1443	Cranz	53° 32'	9° 48'	-0 22	-0 26	-0.4	+0.2	10.6	11.2	5.5
1445	HAMBURG	53° 33'	9° 58'			<i>Daily predictions</i>		11.2	11.8	5.7
				<b>on Bremerhaven, p.122</b>						
1447	Busum, Norderpiep	54° 08'	8° 51'	-0 31	-1 07	-0.6	0.0	10.4	11.7	5.9
1449	Falsches Tief	54° 04'	8° 35'	-0 46	---	-0.5	+0.2	9.9	11.1	5.8
1451	Suderpiep	54° 06'	8° 26'	-0 57	---	-0.5	+0.2	9.9	11.1	5.8
1453	Norderpiep	54° 11'	8° 24'	-0 53	---	-0.5	+0.2	9.9	11.1	5.8
1455	Blauort Sand, Norderpiep	54° 10'	8° 38'	-0 26	---	-1.0	-0.2	10.2	11.4	5.6
	Eider River									
1457	Approach	54° 14'	8° 18'	-0 55	---	-1.1	0.0	9.9	11.1	5.7
1459	Entrance	54° 14'	8° 35'	-0 41	---	-1.0	+0.1	9.9	11.1	5.8
1461	Vollerwiek Plate	54° 17'	8° 47'	-0 25	-0 11	-1.4	-0.5	10.1	11.1	5.3
1463	Tonning	54° 19'	8° 57'	+0 04	+0 16	-0.6	-0.2	10.6	12.0	5.8
	Hever River									
1465	Mittel Hever	54° 23'	8° 21'	-0 42	---	-1.6	+0.1	9.3	10.6	5.5
1467	Sudfall, Hever Strom	54° 27'	8° 43'	+0 15	-0 33	-1.8	-0.1	9.3	10.5	5.3
1469	Nordstrand, Hever Strom	54° 28'	8° 56'	+0 30	+0 04	-1.3	0.0	9.7	11.2	5.6
1471	Husum	54° 29'	9° 03'	+0 32	+0 29	-0.4	0.0	10.6	11.8	6.0
1473	Ochsen Sand, Pellworm	54° 30'	8° 42'	+0 04	-0 07	-0.7	-0.1	10.4	11.8	5.8
				<b>on Helgoland, p.118</b>						
1475	Hooge, Suder Aue	54° 35'	8° 34'	+1 37	+1 38	+1.1	-0.4	9.1	9.8	4.8
1477	Wyk, Fohr, Norder Aue	54° 41'	8° 35'	+2 16	+2 03	+0.9	-0.1	8.6	9.5	4.8
1479	Dagebull, Norder Aue	54° 43'	8° 41'	+2 27	+2 37	+1.1	-0.2	8.9	9.8	4.9
1481	Kniep Hafen, Amrum, Vortrapp Tief	54° 40'	8° 18'	+1 29	---	-0.3	0.0	7.3	8.5	4.3
1483	Hornum Odde, Vortrapp Tief	54° 45'	8° 17'	+1 40	+1 29	*0.77	*0.50	6.0	6.5	3.3
1485	Munkmarsch, Lister Tief	54° 55'	8° 22'	+3 01	+2 11	*0.74	+0.50	5.8	6.5	3.2
1487	List, Lister Tief	55° 01'	8° 27'	+2 42	+2 06	*0.72	*0.50	5.6	6.2	3.1
1489	Lister Tief approach	55° 04'	8° 18'	+2 03	+1 26	*0.68	*0.50	5.6	6.2	3.1
	Denmark, North Sea			<b>on Esbjerg, p.134</b>						
1491	Hojer Sluice	54° 58'	8° 41'	+0 08	+0 25	+2.6	+0.2	7.0	7.8	3.8
1493	Romo, South Point	55° 05'	8° 34'	-0 14	---	+0.8	0.0	5.4	6.1	2.8
1495	Sonderho, Fano Island	55° 21'	8° 29'	-0 24	+0 21	+0.1	+0.1	4.6	5.5	2.5
1497	Nordby, Fano Island	55° 27'	8° 25'	+0 16	+0 24	-0.4	+0.2	4.0	4.8	2.3
1499	ESBJERG	55° 28'	8° 27'			<i>Daily predictions</i>		4.6	5.2	2.4
1501	Hjerting	55° 31'	8° 21'	-0 01	+0 09	-0.5	0.0	4.1	4.8	2.2
1503	Blaavands Huk	55° 33'	8° 05'	-1 01	-0 48	+0.4	0.0	5.0	5.8	2.6
1505	Horns Rev	55° 34'	7° 20'	-2 13	-2 07	---	---	---	---	---
1507	Nymindegab	55° 48'	8° 11'	-0 04	-0 12	*0.64	*0.64	3.0	3.5	1.5
1509	Thyboron Channel	56° 42'	8° 14'	+1 18	---	*0.30	*0.30	1.6	1.8	0.6
				<b>on Gibraltar, p.32</b>						
1511	Agger	56° 47'	8° 15'	+0 49	+0 40	*0.37	*0.17	0.9	1.1	0.6
1513	Hirtshals	57° 36'	9° 57'	+1 33	+1 58	*0.33	*0.17	0.8	1.0	0.5
1515	Skagen	57° 43'	10° 36'	+2 29	---	*0.37	*0.17	0.9	1.3	0.6
1517	Kobenhavn (Copenhagen), Baltic Sea	55° 42'	12° 36'	---	---	---	---	0.4	0.6	0.0
1519	Aarhus, Kattegat	56° 10'	10° 13'	+8 04	---	(*0.43-0.7)	---	0.9	1.2	0.0
	Norway			<b>on Bergen, p.138</b>						
1521	Oskarsborg	59° 40'	10° 37'	-5 30	-6 14	*0.36	*0.40	1.1	1.2	1.0
1523	Oslo	59° 55'	10° 44'	-5 13	-6 01	*0.33	*0.40	1.0	1.1	0.9
1525	Arendal	58° 27'	8° 46'	-6 23	-6 48	*0.24	*0.20	0.8	0.9	0.6
1527	Mandal (Tregde)	58° 00'	7° 34'	-6 40	-6 33	*0.21	*0.30	0.6	0.7	0.6
1529	Tjorvebugten (Lister)	58° 06'	6° 36'	---	---	---	---	0.3	0.4	---
1531	Stavanger	58° 58'	5° 44'	-0 46	-0 31	*0.40	*0.30	1.4	1.9	1.0
1533	BERGEN	60° 24'	5° 18'			<i>Daily predictions</i>		3.2	4.1	2.6
1535	Floro	61° 36'	5° 02'	-0 08	0 00	+0.7	+0.2	3.7	4.9	3.1
1537	Kristiansund	63° 07'	7° 44'	+0 17	+0 33	+2.1	+0.6	4.7	6.1	4.0

Endnotes can be found at the end of table 2.

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No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	Norway—cont. Time meridian, 15° E	<b>North</b>	<b>East</b>	h	m	h	m	ft	ft	ft
				<b>on Narvik, p.142</b>						
1539	Trondheim	63° 27'	10° 24'	-0 54	-1 00	-0.3	-0.2	6.5	8.7	5.7
1541	Rorvik	64° 52'	11° 15'	-0 38	-0 36	*0.79	*0.73	5.4	7.1	4.6
1543	Mo, Ranenford	66° 19'	14° 08'	-0 21	-0 17	-0.9	-0.3	6.0	7.8	5.3
1545	Bodo	67° 17'	14° 23'	+0 04	+0 10	*0.87	*0.85	5.8	7.6	5.1
1547	Finneid	67° 15'	15° 26'	+1 54	+1 54	*0.54	*0.46	3.8	4.5	3.1
1549	Kabelvaag	68° 13'	14° 30'	+0 04	+0 14	-0.5	-0.3	6.4	8.4	5.5
1551	NARVIK	68° 26'	17° 25'	<i>Daily predictions</i>				6.6	8.7	5.9
1553	Andenes	69° 19'	16° 07'	+0 17	+0 10	*0.65	*0.58	4.5	5.8	3.8
1555	Tromso	69° 39'	18° 58'	+1 03	+1 00	-1.1	-0.6	6.1	7.9	5.1
1557	Hammerfest	70° 40'	23° 41'	+1 41	+1 39	-0.8	-0.4	6.2	7.9	5.3
				<b>on Yekaterinskaya, p.146</b>						
1559	Vardoya	70° 22'	31° 06'	-2 44	-2 46	-1.5	-0.7	7.1	9.0	5.8
	Russia, Barents Sea Time meridian, 45° E									
1561	Bazarnaya Bay	69° 46'	31° 02'	-0 29	-0 29	-0.8	-0.2	7.3	9.2	6.5
1563	Linakhamari, Petsamonvuono	69° 39'	31° 22'	-0 36	-0 36	-0.9	-0.2	7.2	9.0	6.4
1565	Pummanki, Bolshaya Volokovaya	69° 47'	31° 56'	-0 39	-0 39	-0.6	-0.2	7.5	9.4	6.6
1567	Vaida Bay	69° 56'	32° 00'	-0 23	-0 32	-0.2	0.0	7.7	9.7	6.9
1569	Zubovskaya Bay	69° 47'	32° 41'	-0 14	-0 14	+0.2	+0.1	8.0	10.0	7.1
1571	Bolshaya Korabelnaya Bay	69° 41'	33° 06'	-0 05	-0 05	0.0	0.0	7.9	9.9	7.0
1573	Malaya Korabelnaya Bay	69° 35'	32° 45'	-0 01	-0 01	0.0	0.0	7.9	9.9	7.0
	<i>Motovskii Gulf</i>									
1575	Eyna Bay	69° 38'	32° 25'	+0 01	+0 01	0.0	0.0	7.9	9.9	7.0
1577	Motka Bay	69° 40'	32° 10'	-0 07	-0 07	0.0	0.0	7.9	9.9	7.0
1579	Ozerko Bay	69° 44'	32° 09'	-0 10	-0 10	0.0	0.0	7.9	9.9	7.0
1581	Titovka Bay	69° 35'	32° 04'	-0 02	-0 02	0.0	0.0	7.9	9.9	7.0
1583	Zapadnaya Bay	69° 29'	32° 30'	-0 03	-0 03	0.0	0.0	7.9	9.9	7.0
1585	Vichany Islands	69° 28'	32° 39'	-0 13	-0 13	0.0	0.0	7.9	9.9	7.0
1587	Ara Bay	69° 26'	32° 51'	-0 05	-0 05	0.0	0.0	7.9	9.9	7.0
1589	Nasha Bay, Ura Bay	69° 23'	32° 55'	-0 03	-0 03	0.0	0.0	7.9	9.9	7.0
1591	Port Vladimirski	69° 25'	33° 09'	-0 02	-0 02	0.0	0.0	7.9	9.9	7.0
1593	Kislaya Harbor	69° 23'	33° 05'	-0 03	-0 03	-0.6	-0.1	7.4	9.3	6.6
	<i>Kola Inlet</i>									
1595	Kuvshinskaya Strait	69° 18'	33° 25'	+0 02	+0 02	0.0	0.0	7.9	9.9	7.0
1597	Sayda Bay	69° 15'	33° 15'	+0 03	+0 03	0.0	0.0	7.9	9.9	7.0
1599	Bolshaya Volokovaya Bay	69° 16'	33° 36'	+0 01	+0 01	0.0	0.0	7.9	9.9	7.0
1601	Olenya Bay	69° 13'	33° 21'	0 00	0 00	0.0	0.0	7.9	9.9	7.0
1603	YEKATERININSKAYA	69° 12'	33° 28'	<i>Daily predictions</i>				7.9	9.9	7.0
1605	Veliki Point	69° 05'	33° 17'	+0 01	+0 01	0.0	0.0	7.9	9.9	7.0
1607	Bazisnyy Point	69° 01'	33° 04'	+0 17	+0 17	0.0	0.0	7.9	9.9	7.0
1609	Murmansk	68° 59'	33° 04'	+0 17	+0 17	0.0	0.0	7.9	9.9	7.0
	<i>Kola Inlet</i>									
1611	Drovyanoi Point	68° 56'	33° 01'	+0 34	+0 34	0.0	0.0	7.9	9.9	7.0
1613	Kola	68° 53'	33° 01'	+0 59	+0 59	0.0	0.0	7.9	9.9	7.0
1615	Zyelyenyets Bay	69° 18'	33° 45'	-0 01	-0 01	0.0	0.0	7.9	9.9	7.0
1617	Dolgaya Bay	69° 17'	33° 52'	-0 02	-0 02	0.0	0.0	7.9	9.9	7.0
1619	Bik Point, Kildin Island	69° 20'	33° 58'	+0 08	+0 08	0.0	0.0	7.9	9.9	7.0
1621	Mogilnyy Point, Kildin Island	69° 19'	34° 20'	+0 17	+0 17	+0.8	+0.2	8.5	10.6	7.5
1623	Mali Oleni Strait	69° 15'	34° 42'	+0 15	+0 15	+0.5	+0.2	8.2	10.3	7.3
1625	Teriberka Bay	69° 11'	35° 08'	+0 20	+0 20	+0.5	+0.2	8.2	10.3	7.3
1627	Podpakhta Bay	69° 09'	35° 56'	+0 45	+0 40	+1.4	+0.4	8.9	11.2	7.9
1629	Porchnikha Cove	69° 05'	36° 18'	+0 46	+0 41	+1.6	+0.5	9.0	11.3	8.0
1631	Rynda Bay	68° 55'	36° 50'	+1 01	+0 57	+1.4	+0.4	8.9	11.2	7.9
1633	Kharlovka River mouth	68° 47'	37° 20'	+1 10	+1 06	+2.4	+0.7	9.6	12.1	8.5
1635	Semiostrovski Road, SE. entrance	68° 44'	37° 30'	+1 07	+1 06	*1.23	*1.23	9.7	12.2	8.6
1637	Vostochnaya Litsa Bay	68° 38'	37° 48'	+1 24	+1 17	*1.30	*1.30	10.3	12.9	9.1
1639	Drozdozka Bay	68° 20'	38° 25'	+1 27	+1 19	*1.39	*1.39	10.9	13.7	9.7
1641	Savikha Bay	68° 11'	39° 07'	+1 43	+1 38	*1.50	*1.50	11.8	14.8	10.5
	White Sea									
1643	Gryemikha Bay	68° 04'	39° 30'	+2 00	+1 48	*1.54	*1.54	12.2	15.2	10.8
1645	Zyelyony Island	68° 02'	39° 37'	+1 56	+1 49	*1.54	*1.54	12.2	15.2	10.8
1647	Gorodetskaya Bay	67° 43'	40° 57'	+2 26	+2 20	*1.68	*1.40	14.1	16.9	11.3
1649	Cape Orlov	67° 12'	41° 20'	+3 52	+3 54	*1.75	*1.47	14.7	17.6	11.8
1651	Three Islands	67° 06'	41° 23'	+4 05	+4 04	*1.86	*1.57	15.6	18.7	12.5
1653	Sosnovets Island	66° 29'	40° 41'	+4 50	+4 44	+2.1	0.0	10.0	12.0	8.0
				<b>on Kem, p.150</b>						
1655	Tetrino	66° 04'	38° 17'	-1 43	-1 43	0.0	0.0	4.1	4.8	3.6
1657	Varzukha River entrance	66° 16'	36° 58'	-1 13	-1 13	-0.9	-0.2	3.4	4.0	3.0
1659	Cape Turiya	66° 33'	34° 31'	-1 29	-1 08	+0.5	+0.1	4.5	5.2	3.9
1661	Volostrov	66° 37'	34° 21'	-1 30	-1 04	+0.6	+0.2	4.5	5.3	4.0
1663	Mal Piryu Bay	66° 42'	34° 20'	-1 30	-1 04	+0.7	+0.2	4.6	5.3	4.0
1665	Tar Bay	66° 42'	33° 54'	-1 34	-1 05	+0.8	+0.2	4.7	5.5	4.1
1667	Porya Anchorage	66° 46'	33° 48'	-1 30	-1 22	+0.8	+0.2	4.7	5.5	4.1
1669	Kandalaksha	67° 08'	32° 25'	-1 31	-0 57	*1.70	*1.70	7.0	8.2	6.1
1671	Kovda River entrance	66° 42'	32° 53'	-1 14	-1 14	+1.6	+0.5	5.2	6.1	4.6
1673	Sredni Anchorage, Keret Bay	66° 18'	33° 36'	-1 20	-1 02	+0.7	+0.2	4.6	5.3	4.0

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level		
		Latitude	Longitude	Time		Height		Mean	Spring			
				High Water	Low Water	High Water	Low Water					
	White Sea—cont. Time meridian, 45° E	<b>North</b>	<b>East</b>	h	m	h	m	ft	ft	ft		
				<b>on Kem, p.150</b>								
1675	Gridina Bay	65° 54'	34° 40'	-1	07	-1	10	+0.2	0.0	4.3	5.0	3.7
1677	Kaigalaksha Bay entrance	65° 40'	34° 53'	-0	33	-0	33	-0.1	0.0	4.0	4.7	3.5
1679	Kaigalaksha, Kaigalaksha Bay	65° 46'	34° 41'	+0	08	+0	08	-0.3	-0.1	3.9	4.5	3.4
1681	Pongama Bay	65° 19'	34° 34'	-0	22	-0	22	-0.2	0.0	3.9	4.6	3.5
1683	KEM, Popov Island	64° 59'	34° 47'					<i>Daily predictions</i>		4.1	4.8	3.6
1685	Rombaki Island	65° 02'	35° 02'	-0	01	-0	13	0.0	0.0	4.1	4.8	3.6
1687	Kuzov Island	64° 57'	35° 08'	+0	22	+0	22	-2.0	-0.5	2.6	3.1	2.3
1689	Lukovatyy Island	64° 49'	35° 00'	+0	42	+0	39	-1.2	-0.3	3.2	3.8	2.8
	Time meridian, 60° E											
	<i>Gulf of Onega</i>											
1691	Zhuzhmuy Islands	64° 39'	35° 35'	+2	06	+2	06	-2.6	-0.7	2.2	2.6	1.9
1693	Sorokas Road	64° 34'	34° 56'	+2	12	+2	36	-0.3	-0.1	3.9	4.5	3.4
1695	Molchanov Island	64° 30'	35° 02'	+2	00	+2	43	-0.6	-0.1	3.6	4.2	3.2
1697	Sum Island	64° 23'	35° 14'	+2	02	+2	57	0.0	0.0	4.1	4.8	3.6
1699	Raz Island	64° 24'	35° 26'	+2	30	+2	30	0.0	0.0	4.1	4.8	3.6
1701	Berejnoi Island	64° 21'	36° 07'	+3	37	+3	06	+0.7	+0.2	4.6	5.4	4.0
1703	Parusnitsa Beacon	64° 11'	36° 18'	+4	09	+4	01	+1.9	+0.6	5.4	6.3	4.8
1705	Ponomarev Point	64° 08'	36° 14'	+4	17	+4	17	+0.7	+0.2	4.6	5.4	4.0
1707	Kond Island	64° 12'	36° 37'	+4	42	+4	42	+1.7	+0.5	5.3	6.2	4.7
1709	Malaya Korepalka	64° 01'	36° 35'	+4	33	+4	08	*1.46	*1.46	6.0	7.1	5.3
1711	Unezhemskaya Bay	63° 55'	36° 45'	+4	35	+4	14	*1.54	*1.54	6.3	7.4	5.5
1713	Nyapa Beacon	64° 02'	37° 09'	+4	46	+4	25	*1.66	*1.66	6.8	8.0	6.0
1715	Paskanets Islet	63° 53'	37° 18'	+4	50	+4	26	*1.90	*1.90	7.8	9.1	6.8
1717	Onega River entrance	63° 56'	38° 01'	+5	04	+5	39	*1.90	*1.90	7.8	9.1	6.8
1719	Kii Island, Onega Bay	63° 59'	37° 54'	+4	57	+4	48	*2.00	*2.00	8.0	9.4	7.1
1721	Cape Gluboki	64° 21'	37° 20'	+5	05	+5	05	+1.7	+0.5	5.3	6.2	4.7
1723	Cape Chesmenski	64° 43'	36° 32'	+4	29	+3	45	-2.0	-0.5	2.6	3.0	2.3
1725	Pushlakhta Bay	64° 49'	36° 32'	+3	33	+3	33	-2.0	-0.5	2.6	3.1	2.3
1727	Cape Letni Orlov	64° 55'	36° 27'	+1	28	+1	28	-1.4	-0.3	3.0	3.6	2.7
1729	Muksalma Island	65° 01'	36° 00'	+1	48	+1	48	*0.54	*0.54	2.2	2.6	1.9
1731	Solovets Roads, Solovetski Island	65° 01'	35° 42'	+1	22	+1	32	*0.54	*0.54	2.2	2.6	1.9
1733	Sosnovaya Bay, Solovetski Island	65° 08'	35° 38'	+1	01	+1	01	0.0	0.0	4.1	4.8	3.6
1735	Anzerski Island	65° 08'	36° 12'	+0	44	+0	44	-1.4	-0.3	3.0	3.6	2.7
1737	Zhizhgin Island	65° 12'	36° 49'	+0	36	+0	02	-1.2	-0.3	3.2	3.7	2.8
1739	Lopshenga River entrance	64° 57'	37° 42'	-0	38	-0	38	*0.66	*0.66	2.7	3.2	2.4
1741	Unskaya Inlet	64° 47'	38° 27'	+0	54	+0	14	*0.61	*0.61	2.5	3.0	2.2
	<i>North Dvina River</i>											
1743	Nikolskoi Bar	64° 35'	39° 47'	+1	19	+1	19	*0.63	*0.63	2.6	3.1	2.3
1745	Kyegostrov	64° 32'	40° 28'	+3	12	+2	39	*0.50	*0.50	2.0	2.4	1.8
1747	Archangel, Solombala Island	64° 34'	40° 30'	+3	12	+2	39	*0.51	*0.51	2.1	2.5	1.9
	White Sea											
	<i>North Dvina River</i>											
1749	Novo Dvina Fortress	64° 42'	40° 25'	+2	29	+2	29	*0.63	*0.63	2.6	3.1	2.3
1751	Lapominka Island	64° 46'	40° 30'	+2	03	+0	57	-1.4	-0.3	3.0	3.6	2.7
1753	Mudyugskiy Island	64° 51'	40° 17'	+1	31	+0	08	-1.7	-0.5	2.9	3.4	2.5
1755	Berezovyy Bar	64° 54'	40° 11'	+1	42	+1	42	-1.4	-0.3	3.0	3.6	2.7
1757	Kuya River entrance	65° 05'	40° 06'	+1	09	+1	09	-0.9	-0.2	3.4	4.0	3.0
1759	Kerets Point	65° 20'	39° 45'	+0	24	+0	24	+0.7	+0.2	4.6	5.4	4.0
1761	Lisunov Point	65° 34'	39° 47'	+2	04	+2	34	*0.27	*0.27	1.1	1.3	1.0
1763	Bolshaya Tova River entrance	65° 47'	40° 26'	+5	58	+5	58	-1.4	-0.3	3.0	3.6	2.7
1765	Intsi Point	65° 59'	40° 47'	+7	09	+6	10	+1.3	+0.4	5.0	5.9	4.4
1767	Ruchi River entrance	66° 03'	41° 16'	+7	37	+7	37	+1.9	+0.5	5.5	6.4	4.8
1769	Megra River entrance	66° 09'	41° 37'	+7	17	+6	59	+2.2	+0.6	5.7	6.6	5.0
1771	Mayda River entrance	66° 20'	41° 56'	+7	40	+8	42	*2.00	*2.00	8.2	9.6	7.2
1773	Bolshaya Kedovaya River entrance	66° 30'	42° 08'	+7	35	+7	35	*2.34	*2.34	9.6	11.2	8.4
	<b>on Yekaterininskaya, p.146</b>											
1775	Cape Voronov	66° 31'	42° 17'	+4	49	+4	49	*1.85	*1.85	14.6	18.3	13.0
1777	Morzhovetz Island	66° 45'	42° 25'	+6	06	+6	03	*1.62	*1.37	13.6	16.3	10.9
	<i>Gulf of Mezen</i>											
1779	Yurovati Point	66° 27'	42° 34'	+6	03	+6	12	*2.08	*2.08	16.4	20.6	14.6
1781	Cape Abramov	66° 25'	43° 16'	+6	34	+7	04	*2.42	*2.42	19.1	24.0	16.9
1783	Nerninski Point	66° 14'	43° 40'	+6	40	+7	35	*2.75	*2.75	21.6	27.1	19.3
1785	Kuloy River	66° 12'	43° 45'	+7	08	+7	08	*2.16	*2.16	17.1	21.5	15.2
1787	Semzha River mouth	66° 09'	44° 07'	+7	09	+8	14	*2.85	*2.85	22.5	28.2	20.0
1789	Piya River mouth, Mezen River	66° 02'	44° 09'	+7	20	+9	10	*1.98	*1.98	15.6	19.6	13.9
1791	Kamenka, Mezen River	65° 53'	44° 08'	+7	48	+11	05	+1.4	+0.4	8.9	11.2	7.9
1793	Cape Konushin	67° 11'	43° 47'	+7	11	+7	02	*1.83	*1.53	15.4	18.5	12.3
1795	Litke Bank	67° 11'	42° 48'	+5	12	+5	12	*1.63	*1.63	12.9	16.1	11.4
1797	Kiya River entrance	67° 40'	44° 06'	+4	53	+5	50	+2.0	+0.6	9.3	11.7	8.3
1799	Tarkhanovo	68° 30'	43° 39'	+4	46	+5	02	-0.6	-0.2	7.5	9.4	6.6
	Barents Sea—cont.											
1801	Cape Kanin	68° 40'	43° 15'	+4	10	+3	58	-1.7	-0.4	6.6	8.3	5.9
1803	Kambalnitsa River entrance	68° 19'	45° 58'	+6	46	+6	34	-2.0	-0.5	6.4	8.0	5.7
1805	Indiga River entrance	67° 42'	48° 46'	-2	41	-2	41	*0.68	*0.68	5.4	6.7	4.8
1807	Bugrino, Kolguyev Island	68° 48'	49° 21'	+6	05	+7	32	*0.41	*0.41	3.2	4.1	2.9

Endnotes can be found at the end of table 2.

TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level		
		Latitude	Longitude	Time		Height		Mean	Spring			
				High Water	Low Water	High Water	Low Water					
	Barents Sea—cont. Time meridian, 75° E	<b>North</b>	<b>East</b>	h	m	h	m	ft	ft	ft		
				<b>on Yekaterininskaya, p.146</b>								
1809	Russki Zavorot	68° 59'	54° 20'	-3	15	-3	15	*0.27	*0.27	2.1	2.7	1.9
1811	Gulyayevskiy Koshki	68° 58'	54° 40'	-2	28	-2	28	*0.27	*0.27	2.1	2.7	1.9
1813	Pyechora River bar	68° 24'	54° 26'	-0	08	+0	03	*0.27	*0.27	2.1	2.7	1.9
1815	Cape Bolvanski	66° 17'	54° 27'	+0	12	+0	12	*0.27	*0.27	2.1	2.7	1.9
1817	Zyelyony I., Pyechora River mouth	68° 16'	54° 18'	+0	46	+1	09	*0.22	*0.22	1.7	2.2	1.5
1819	Varandei Island	68° 49'	58° 00'	-1	29	-1	29	*0.27	*0.27	2.1	2.7	1.9
1821	Dolgoi Island	69° 12'	59° 10'	-1	31	-1	31	*0.27	*0.27	2.1	2.7	1.9
1823	Lyamchin Cape, Vaygach Island	69° 51'	59° 11'	-1	29	-1	33	*0.15	*0.13	1.2	1.6	1.0
	<b>Novaya Zemlya</b>											
1825	Petukhovskiy Strait	70° 34'	56° 24'	+9	55	+9	29	*0.19	*0.19	1.5	1.9	1.3
1827	Rakhmanova Inlet, Sakhanikha Bay	70° 38'	55° 38'	+9	26	+9	26	*0.11	*0.11	0.9	1.1	0.8
1829	Propashchaya Inlet	71° 03'	53° 43'	+4	25	+4	04	*0.10	*0.10	0.8	1.0	0.7
1831	Nekhvatovo River	71° 18'	53° 40'	+3	43	+3	43	*0.07	*0.07	0.6	0.7	0.5
1833	Byelushya Bay	71° 32'	52° 19'	+3	39	+3	39	*0.13	*0.13	1.0	1.3	0.9
1835	Malye Karmakuly, Moller Bay	72° 23'	52° 45'	+3	37	+3	37	*0.20	*0.20	1.6	2.0	1.4
1837	Pukhovoy Bay	72° 39'	52° 42'	+3	28	+2	52	*0.26	*0.26	2.1	2.6	1.8
1839	Matochkin Strait, west entrance	73° 19'	54° 20'	+3	43	+3	43	*0.32	*0.32	2.5	3.2	2.2
1841	Lagernyy, Matochkin Strait	73° 20'	54° 22'	+3	40	+3	40	*0.20	*0.20	1.6	2.0	1.4
1843	Uzki Point, Matochkin Strait	73° 19'	55° 36'	-4	13	-4	11	*0.14	*0.17	1.0	1.3	1.0
1845	Matochkin Strait, east end	73° 16'	56° 24'	-4	37	-4	35	*0.14	*0.17	1.0	1.4	1.0
1847	Mityushikha Bay	73° 39'	54° 48'	+3	50	+3	17	*0.27	*0.27	2.1	2.7	1.9
1849	Krestovaya Bay	74° 07'	55° 30'	+3	26	+3	26	*0.20	*0.20	1.6	2.0	1.4
1851	Gorbovi Islands	75° 55'	58° 55'	+3	51	+3	51	*0.21	*0.21	1.7	2.1	1.5
1853	Foki Bight	76° 00'	59° 55'	+3	42	+3	45	*0.14	*0.14	1.1	1.4	1.0
1855	Russkaya Harbor	76° 12'	62° 30'	+3	20	+3	20	*0.14	*0.14	1.1	1.4	1.0
1857	Cape Zhelaniya	76° 57'	68° 34'	+3	46	+3	46	*0.18	*0.18	1.4	1.8	1.3
1859	Blagopoluchiya Bay	75° 42'	63° 41'	+5	20	+5	22	*0.17	*0.20	1.2	1.6	1.2
	<b>Kara Strait</b>											
	<i>Novaya Zemlya</i>											
1861	Kamenka Bay	70° 36'	57° 25'	-3	00	-3	05	*0.20	*0.23	1.5	2.0	1.5
1863	Bolshoi Loginov Island	70° 30'	57° 24'	-2	35	-2	33	*0.20	*0.23	1.5	2.0	1.5
1865	Kusova Zemlya Island	70° 29'	57° 02'	-2	28	-2	26	*0.17	*0.20	1.3	1.7	1.3
1867	Bolvanski Point, Vaigach Island	70° 28'	59° 05'	-3	10	-3	08	*0.22	*0.27	1.6	2.1	1.6
1869	Bolshaya Voronov I., Vaigach Island	70° 21'	58° 32'	-3	22	-3	26	*0.15	*0.13	1.2	1.6	1.0
1871	Dolgaya Bay, Vaigach Island	70° 15'	58° 29'	-3	05	-2	42	*0.15	*0.13	1.2	1.6	1.0
	<b>Yugorski Strait</b>											
1873	Varneka Bay	69° 42'	60° 03'	-0	43	-0	25	*0.20	*0.20	1.6	2.2	1.4
1875	Khbarovo	69° 39'	60° 25'	-1	42	-1	46	*0.17	*0.17	1.4	1.9	1.2
1877	Sokoli Island	69° 49'	60° 45'	-2	57	-3	01	*0.17	*0.17	1.4	1.9	1.2
	<b>Kara Sea</b>											
1879	Mestnyy Island	69° 49'	61° 12'	-2	47	-2	45	*0.20	*0.23	1.5	2.0	1.5
1881	Karskaya Bay	69° 15'	64° 57'	-0	52	-0	56	*0.17	*0.17	1.4	1.9	1.2
	<b>Time meridian, 90° E</b>											
1883	Cape Morrasale	69° 37'	66° 50'	-1	55	-1	53	*0.14	*0.17	1.0	1.3	1.0
1885	Payndte River mouth	72° 39'	69° 00'	+1	05	+0	52	*0.17	*0.20	1.2	1.6	1.2
1887	Cape Ragozina, Belyy Island	73° 20'	70° 02'	+3	42	+3	44	*0.25	*0.30	1.8	2.4	1.8
1889	Cape Droyvanoy, Yamal Peninsula	72° 38'	72° 54'	-2	47	-2	45	*0.52	*0.63	3.8	5.1	3.8
1891	Sabule-Yaga River mouth	72° 10'	75° 00'	-1	18	-0	31	*0.30	*0.37	2.2	3.0	2.2
1893	Sabu-to River mouth	70° 58'	73° 56'	+2	26	+3	14	*0.17	*0.20	1.3	1.8	1.3
1895	Cape Kharse, Obskaya Gulf	70° 10'	73° 43'	+5	51	+6	04	*0.21	*0.20	1.7	2.2	1.5
1897	Khampyl-Yaga River mouth	69° 23'	73° 56'	+6	04	+7	09	*0.14	*0.17	1.0	1.3	1.0
1899	Cape Kamenni, Obskaya Gulf	68° 30'	73° 35'	-2	01	-1	23	*0.17	*0.20	1.3	1.8	1.3
1901	Novyy Port, Obskaya Gulf	67° 40'	72° 55'	+1	23	+2	18	*0.17	*0.20	1.3	1.8	1.3
1903	Cape Yamsale	66° 54'	71° 45'	+5	38	+6	45	*0.09	*0.10	0.7	0.9	0.7
1905	Shirokaya River mouth	68° 54'	75° 45'	-2	07	-2	17	*0.16	*0.16	1.3	1.6	1.1
1907	Khorlyanka River mouth	68° 06'	77° 12'	-	-	-	-	-	-	0.5	0.6	0.5
	<b>Time meridian, 105° E</b>											
1909	Oleniy Island	72° 36'	77° 41'	-2	01	-2	02	*0.18	*0.17	1.5	2.1	1.3
1911	Cape Daleki	72° 18'	75° 42'	-1	51	-1	49	*0.25	*0.30	1.8	2.4	1.8
1913	Cape Minina	72° 02'	76° 46'	-0	09	+0	05	*0.19	*0.23	1.4	1.9	1.4
1915	Cape Chernyy	71° 09'	77° 21'	+3	15	+3	17	*0.15	*0.17	1.1	1.5	1.1
1917	Cape Leskina	72° 20'	79° 31'	+1	04	+1	00	*0.10	*0.10	0.8	1.1	0.7
1919	Korsakovskiy Islands	72° 14'	81° 06'	+1	17	+1	19	*0.14	*0.17	1.0	1.3	1.0
1921	Olginski Sand, Yenisey River	72° 02'	82° 24'	+2	40	+2	40	*0.22	*0.22	1.7	2.2	1.5
1923	Cape Sopochnaya Korga, Yenisey Gulf	71° 53'	82° 45'	+2	38	+2	34	*0.17	*0.20	1.3	1.8	1.3
1925	Golchikha, Yenisey River	71° 44'	83° 28'	+5	11	+5	50	*0.11	*0.13	0.8	1.1	0.8
1927	Nasonovskiy Island, Yenisey River	70° 52'	83° 14'	+8	51	+9	05	*0.09	*0.10	0.7	1.0	0.7
1929	Cape Efremov-Kamen	73° 10'	80° 20'	-4	02	-4	06	*0.07	*0.07	0.6	0.8	0.5
1931	Dickson Island, Yenisey Gulf	73° 30'	80° 25'	-3	41	-3	39	*0.09	*0.10	0.7	1.0	0.7
1933	Rastorguyeva Island	73° 59'	84° 04'	-4	14	-4	18	*0.12	*0.13	0.9	1.2	0.9
1935	Cape Zveroboi	73° 48'	85° 34'	-4	00	-4	03	*0.14	*0.17	1.0	1.3	1.0
1937	Pyasina River entrance	73° 49'	85° 52'	-3	57	-3	55	*0.14	*0.17	1.0	1.3	1.0
1939	Rybnyye Islands	74° 17'	85° 36'	-3	55	-3	59	*0.10	*0.10	0.8	1.1	0.7

Endnotes can be found at the end of table 2.



TABLE 2 – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	Kara Sea—cont. Time meridian, 105° E	<b>North</b>	<b>East</b>	h m	h m	ft	ft	ft	ft	ft
				<b>on Yekaterinskaya, p.146</b>						
1941	Sev. (North) Plavikovy Island . . . . .	74° 33'	84° 55'	-4 16	-4 14	*0.08	*0.10	0.6	0.8	0.6
1943	Cape Sterlegova . . . . .	75° 25'	88° 54'	+5 42	+5 44	*0.09	*0.10	0.7	1.0	0.7
1945	Isachenko I., Sergeya Kirova Island . . . . .	77° 13'	89° 16'	— — —	— — —	— —	— —	0.5	0.6	0.4
	Time meridian, 90° E									
1947	Vai I., Arkticheskogo Instituta Island . . . . .	75° 12'	82° 07'	— — —	— — —	— —	— —	0.5	0.7	0.5
1949	Uyedineniya Island . . . . .	77° 30'	82° 12'	+5 17	+5 19	*0.09	*0.10	0.7	0.9	0.7
1951	Vize Island . . . . .	79° 29'	76° 53'	+4 52	+4 46	*0.11	*0.10	0.9	1.2	0.8
	Franz Josef Land Time meridian, 75° E									
1953	Cape Flora . . . . .	79° 57'	49° 59'	+3 58	+3 54	*0.12	*0.10	1.0	1.2	0.8
1955	Teplitts Bay . . . . .	81° 47'	57° 59'	-0 05	-0 10	*0.15	*0.17	1.1	1.5	1.0
	Svalbard Time meridian, 15° E									
				<b>on Bergen, p.138</b>						
1957	Bear Island, Barents Sea . . . . .	74° 29'	19° 12'	+2 55	+3 02	-1.4	-0.6	2.4	3.2	1.6
1959	Advent Bay, Vestspitsbergen . . . . .	78° 15'	15° 34'	+2 36	+2 44	-0.3	-0.5	3.4	4.4	2.2
1961	Magdalenefjord, Vestspitsbergen . . . . .	79° 33'	11° 13'	+3 50	+3 23	-1.4	-0.8	2.6	3.2	1.5
1963	Sorgfjord, Vestspitsbergen . . . . .	79° 53'	16° 54'	+4 49	+5 18	*0.55	*0.40	1.9	2.6	1.3

Endnotes can be found at the end of table 2.

## ENDNOTES

\* Ratio. If the ratio is accompanied by a correction factor, multiply the heights of the high and low waters at the reference station by the ratio and then apply the correction factor. SEE NOTE AND EXAMPLE ON PAGES 155 AND 156.

† The tide at this place is chiefly diurnal. SEE CAUTION NOTE ON PAGE 156.

- <1> For places on the east coast of Africa, see "Tide Tables, Central and Western Pacific Ocean and Indian Ocean."
- <2> On the north coast of Tunisia and on the east coast, as far as the entrance to Kerkenah Channel, the tides are small and are often masked by the effects of wind and atmospheric pressure which may cause the water level to vary by as much as 3 feet.
- <4> Tide data questionable.
- <5> For places on the Red Sea, see "Tide Tables, Central and Western Pacific Ocean and Indian Ocean."
- <6> For the following stations there are separate low water corrections for periods of neap and spring tides. The height differences are given in feet.

No.		Neap	Spring
698	Blaye	-3.4	-1.5
701	Bordeaux, Garonne River	-5.6	-3.6
705	Rochefort, Charente River	+0.4	+1.8
731	Nantes, Loire River	-1.5	+1.3

- <7> For the following stations there are separate high and low water height corrections for periods of neaps and spring tides. The height differences are given in feet.

No.	Place	High Water		Low Water	
		Neap	Spring	Neap	Spring
847	Quilebuf	+0.4	+1.0	+1.9	+6.1
849	Caudebec	+0.3	+0.6	+4.9	+0.9
851	Duclair	+0.1	-0.4	+7.0	+4.0
853	Rouen	+1.3	+0.3	+8.8	+5.9

- <8> A double high water occurs in La Seine below Rouen, the second following by about 1 hour the one obtained through the differences. At springs the first high water occurs about 1/2 hour earlier than given by the differences and the second follows about 2 hours later.
- <9> Apply differences to first of double high waters at Southampton.
- <10> A double high water occurs at this station. The differences may be applied to both high waters except at Poole entrance where the high water time differences and the high and low water height differences are variable. SEE PAGES 76 AND 77.
- <11> There is a double low water at Portland. Low water time difference is for first low. Second low water is about 3h 25m later than first low.
- <12> Height of high water is about 19 1/2 feet at springs and 12 feet at neaps. Low water is about 0.0 foot.
- <13> Height of high water is about 13 1/2 feet at springs and 4 1/2 feet at neaps. Low water is about 1 foot.
- <14> At Bridgwater the height of high water is about 15 feet at springs and 6 feet at neaps; low water is about 1 foot. In the Parrett River, a bore occurs immediately after low water near springs and may attain a height of about 2 feet.
- <15> The Severn Bore which occurs only near springs begins near the bridge just after low water and attains its maximum height of 4 to 5 feet near Framilode.
- <16> Low water is about 2 feet at springs and 1 foot at neaps.
- <17> High water, in Scapa Flow and approaches, occurs approximately as follows with respect to high water at Narvik: Hoy Sound, Hoxa Sound and inside the Flow, -2h 50m; western end of Holm Sound and Water Sound, -2h 20m; Burray Ness, on the outer coast, -1h 00m.
- <18> Low water usually lasts for 1 to 2 1/2 hours with a variation in level of up to 0.7 foot.
- <19> A double low water occurs at this station. Predictions are for second low water. First low water occurs about 3 hours earlier.
- <20> At this station there occurs a high water stand lasting about 4 hours. Predictions are for the end of the stand.

### TABLE 3.—HEIGHT OF TIDE AT ANY TIME

#### EXPLANATION OF TABLES

Although the footnote of Table 3 may contain sufficient explanation for finding the height of tide at any time, two examples are given here to illustrate its use.

Example 1.—Find the height of the tide at 0755 at Bergen, Norway on a day when the predicted tides from Table 1 are given as:

<i>Low Water</i>		<i>High Water</i>	
<i>Time</i>	<i>Height</i>	<i>Time</i>	<i>Height</i>
<i>h.m.</i>	<i>ft</i>	<i>h.m.</i>	<i>ft</i>
0502	0.1	1117	4.4
1723	0.3	2355	4.5

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

The duration of rise is  $11^{\text{h}} 17^{\text{m}} - 5^{\text{h}} 02^{\text{m}} = 6^{\text{h}} 15^{\text{m}}$ .

The time after low water for which the height is required is  $7^{\text{h}} 55^{\text{m}} - 5^{\text{h}} 02^{\text{m}} = 2^{\text{h}} 53^{\text{m}}$ .

The range of tide is  $4.4 - 0.1 = 4.3$  feet.

The duration of rise or fall in Table 3 is given in heavy-faced type for each 20 minutes from 4h 00m to 10h 40m. The nearest tabular value to  $6^{\text{h}} 15^{\text{m}}$ , the above duration of rise, is  $6^{\text{h}} 20^{\text{m}}$ ; and on the horizontal line of  $6^{\text{h}} 20^{\text{m}}$ , the nearest tabular time to  $2^{\text{h}} 53^{\text{m}}$  after low water for which the height is required is  $2^{\text{h}} 57^{\text{m}}$ . Following down the column in which this  $2^{\text{h}} 57^{\text{m}}$  is found to its intersection with the line of the range 4.5 feet (the nearest tabular value to the above range of 4.3 feet), the correction is found to be 2.0 feet, which being reckoned from low water, must be added, making  $0.1 + 2.0 = 2.1$  feet or 64 centimeters which is the required height above the chart datum for Bergen.

Example 2. —Find the height of the tide at 1045 at Hamburg, Germany, on a day when the predicted tides from Table 1 are given as:

<i>High Water</i>		<i>Low Water</i>	
<i>Time</i>	<i>Height</i>	<i>Time</i>	<i>Height</i>
<i>h.m.</i>	<i>ft</i>	<i>h.m.</i>	<i>ft</i>
0710	7.9	1433	- 0.4

The duration of fall is  $14^{\text{h}} 33^{\text{m}} - 7^{\text{h}} 10^{\text{m}} = 7^{\text{h}} 23^{\text{m}}$ .

The time after high water for which the height is required is  $10^{\text{h}} 45^{\text{m}} - 7^{\text{h}} 10^{\text{m}} = 3^{\text{h}} 35^{\text{m}}$ .

The range of tide is  $7.9 - (-0.4) = 8.3$  feet.

Entering Table 3 at the duration of fall of  $7^{\text{h}} 20^{\text{m}}$ , which is the nearest value to  $7^{\text{h}} 23^{\text{m}}$ , the nearest value on the horizontal line to  $3^{\text{h}} 35^{\text{m}}$  is  $3^{\text{h}} 40^{\text{m}}$  after high water. Following down this column to its intersection with a range of 8.5 feet which is the nearest tabular value to 8.3 feet, one obtains 4.2 which, being calculated from high water, must be subtracted from it. The approximate height at  $10^{\text{h}} 45^{\text{m}}$  is, therefore,  $7.9 - 4.2 = 3.7$  feet or 113 centimeters.

When the duration of rise or fall is greater than  $10^{\text{h}} 40^{\text{m}}$ , enter the table with one-half the given duration and with one-half the time from the nearest high or low water; but if the duration of rise or fall is less than 4 hours, enter the table with double the given duration and with double the time from the nearest high or low water.

## TABLE 3.—HEIGHT OF TIDE AT ANY TIME

### EXPLANATION OF TABLE

Similarly, when the range of tide is greater than 20 feet, enter the table with one-half the given range. The tabular correction should then be doubled before applying it to the given high or low water height. If the range of tide is greater than 40 feet, take one-third of the range and multiply the tabular correction by 3.

If the height at any time is desired for a place listed in Table 2 predictions of the high and low waters for the day in question should be obtained by the use of the difference given for the place in that table. Having obtained these predictions, the height for any intermediate time is obtained in the same manner as illustrated in the foregoing example.

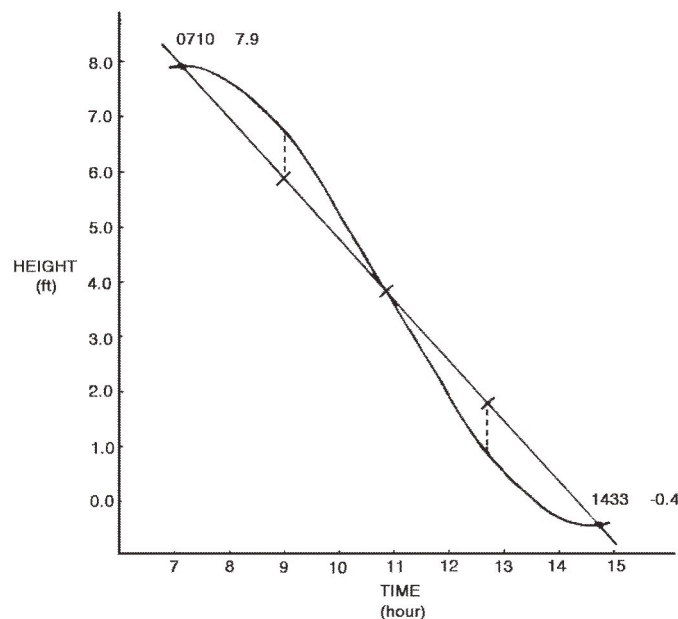
### GRAPHIC METHOD

If the height of the tide is required for a number of times on a certain day the full tide curve for the day may be obtained by the one-quarter, one-tenth rule. The procedure is as follows:

1. On cross-section paper plot the high and low water points in the order of their occurrence for the day, measuring time horizontally and height vertically. These are the basic points for the curve.
2. Draw light straight lines connecting the points representing successive high and low waters.
3. Divide each of these straight lines into four equal parts. The halfway point of each line gives another point for the curve.
4. At the quarter point adjacent to high water draw a vertical line above the point and at the quarter point adjacent to low water draw a vertical line below the point, making the length of these lines equal to one-tenth of the range between the high and low waters used. The points marking the ends of these vertical lines give two additional intermediate points for the curve.
5. Draw a smooth curve through the points of high and low waters and the intermediate points, making the curve well rounded near high and low waters. This curve will approximate the actual tide curve and heights for any time of the day may be readily scaled from it.

**Caution.**—Both methods presented are based on the assumption that the rise and fall conform to simple cosine curves. Therefore the heights obtained will be approximate. The roughness of approximation will vary as the tide curve differs from a cosine curve.

An example of the use of the graphical method is illustrated below. Using the same predicted tides as in example 2, the approximate height at 3<sup>h</sup> 00<sup>m</sup> could be determined as shown below.



**TABLE 3.—HEIGHT OF TIDE AT ANY TIME**

	Time from the nearest high water or low water															
	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>
Duration of rise or fall, see footnote	<b>4 10</b>	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00
	<b>4 20</b>	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10
	<b>4 40</b>	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20
	<b>5 00</b>	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30
	<b>5 20</b>	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40
	<b>5 40</b>	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50
	<b>6 00</b>	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00
	<b>6 20</b>	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10
	<b>6 40</b>	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20
	<b>7 00</b>	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30
	<b>7 20</b>	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40
	<b>7 40</b>	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50
	<b>8 00</b>	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00
	<b>8 20</b>	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10
	<b>8 40</b>	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 36	2 53	3 11	3 28	3 45	4 03	4 20
	<b>9 00</b>	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30
<b>9 20</b>	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	
<b>9 40</b>	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	
<b>10 00</b>	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	
<b>10 20</b>	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	
<b>10 40</b>	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	
	Correction to height															
	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>
Range of tide, see footnote	<b>0.5</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
	<b>1.0</b>	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5
	<b>1.5</b>	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.8
	<b>2.0</b>	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
	<b>2.5</b>	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
	<b>3.0</b>	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5
	<b>3.5</b>	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8
	<b>4.0</b>	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.8	2.0
	<b>4.5</b>	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2
	<b>5.0</b>	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5
	<b>5.5</b>	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8
	<b>6.0</b>	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.0
	<b>6.5</b>	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.2
	<b>7.0</b>	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5
	<b>7.5</b>	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8
	<b>8.0</b>	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0
	<b>8.5</b>	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2
	<b>9.0</b>	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5
	<b>9.5</b>	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8
	<b>10.0</b>	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0
	<b>10.5</b>	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2
	<b>11.0</b>	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.7	2.3	2.8	3.3	3.8	4.4	4.9	5.5
	<b>11.5</b>	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.8	2.3	2.9	3.4	4.0	4.6	5.1	5.8
	<b>12.0</b>	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.5	3.0	3.6	4.1	4.8	5.4	6.0
	<b>12.5</b>	0.0	0.1	0.3	0.5	0.8	1.2	1.6	1.9	2.6	3.1	3.7	4.3	5.0	5.6	6.2
	<b>13.0</b>	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5
	<b>13.5</b>	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8
	<b>14.0</b>	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0
	<b>14.5</b>	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2
	<b>15.0</b>	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5
<b>15.5</b>	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	
<b>16.0</b>	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	
<b>16.5</b>	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	
<b>17.0</b>	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	
<b>17.5</b>	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	
<b>18.0</b>	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	
<b>18.5</b>	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	
<b>19.0</b>	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	
<b>19.5</b>	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8	
<b>20.0</b>	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0	

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low, add the correction.



## TABLE 4.—LOCAL MEAN TIME OF SUNRISE AND SUNSET

### EXPLANATION OF TABLE

This table gives the local mean time of the rising and setting of the Sun's upper limb for every fifth day of the year. The times were computed for the instant when the true zenith distance of the Sun's center is  $90^{\circ} 50', 34'$  having been allowed for horizontal refraction and  $16'$  for semidiameter. No allowance has been made for elevation of the observer.

Because of the sensible variations which may be made in the time of rising or setting of the Sun by a difference in elevation of the observer, and by changes in the refraction, any great refinement in the interpolation of intermediate dates or latitudes in this table is unnecessary.

The value obtained from Table 4 may be converted to standard time by means of Table 5, which follows it.

TABLE 4.-SUNRISE AND SUNSET, 2015

Date	0°		5° N.		10° N.		15° N.		20° N.		25° N.	
	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan. 1	06 00	18 07	06 08	17 59	06 17	17 50	06 26	17 41	06 35	17 32	06 45	17 22
6	06 02	18 09	06 10	18 01	06 19	17 53	06 27	17 44	06 36	17 35	06 46	17 25
11	06 04	18 11	06 12	18 03	06 20	17 55	06 29	17 47	06 37	17 38	06 47	17 29
16	06 06	18 13	06 14	18 06	06 21	17 58	06 29	17 50	06 38	17 42	06 47	17 33
21	06 08	18 15	06 15	18 08	06 22	18 00	06 30	17 53	06 38	17 45	06 46	17 36
26	06 09	18 16	06 16	18 09	06 23	18 02	06 30	17 55	06 37	17 48	06 45	17 40
31	06 10	18 17	06 16	18 11	06 22	18 04	06 29	17 58	06 36	17 51	06 43	17 44
Feb. 5	06 10	18 17	06 16	18 12	06 22	18 06	06 28	18 00	06 34	17 54	06 41	17 47
10	06 11	18 18	06 16	18 13	06 21	18 07	06 26	18 02	06 32	17 57	06 38	17 51
15	06 11	18 18	06 15	18 13	06 20	18 09	06 24	18 04	06 29	17 59	06 35	17 54
20	06 10	18 17	06 14	18 13	06 18	18 09	06 22	18 05	06 26	18 01	06 31	17 57
25	06 10	18 16	06 13	18 13	06 16	18 10	06 20	18 07	06 23	18 03	06 27	18 00
Mar. 2	06 09	18 15	06 11	18 13	06 14	18 10	06 17	18 08	06 19	18 05	06 22	18 02
7	06 08	18 14	06 10	18 13	06 12	18 11	06 13	18 09	06 15	18 07	06 18	18 05
12	06 07	18 13	06 08	18 12	06 09	18 11	06 10	18 10	06 11	18 09	06 13	18 07
17	06 05	18 12	06 06	18 11	06 06	18 11	06 07	18 10	06 07	18 10	06 08	18 10
22	06 04	18 10	06 04	18 10	06 03	18 11	06 03	18 11	06 03	18 11	06 02	18 12
27	06 02	18 09	06 01	18 10	06 00	18 11	05 59	18 12	05 58	18 13	05 57	18 14
Apr. 1	06 01	18 07	05 59	18 09	05 58	18 11	05 56	18 12	05 54	18 14	05 52	18 16
6	05 59	18 06	05 57	18 08	05 55	18 10	05 52	18 13	05 50	18 16	05 47	18 18
11	05 58	18 04	05 55	18 07	05 52	18 10	05 49	18 14	05 46	18 17	05 42	18 21
16	05 57	18 03	05 53	18 07	05 49	18 10	05 46	18 14	05 42	18 18	05 37	18 23
21	05 55	18 02	05 51	18 06	05 47	18 11	05 43	18 15	05 38	18 20	05 33	18 25
26	05 54	18 01	05 50	18 06	05 45	18 11	05 40	18 16	05 34	18 22	05 29	18 27
May 1	05 54	18 01	05 48	18 06	05 43	18 12	05 37	18 17	05 31	18 23	05 25	18 30
6	05 53	18 00	05 47	18 06	05 41	18 12	05 35	18 19	05 28	18 25	05 21	18 32
11	05 53	18 00	05 46	18 06	05 40	18 13	05 33	18 20	05 26	18 27	05 18	18 35
16	05 53	18 00	05 46	18 07	05 39	18 14	05 31	18 21	05 24	18 29	05 15	18 38
21	05 53	18 00	05 46	18 08	05 38	18 15	05 30	18 23	05 22	18 31	05 13	18 40
26	05 53	18 01	05 46	18 08	05 38	18 16	05 30	18 25	05 21	18 33	05 12	18 43
31	05 54	18 01	05 46	18 09	05 38	18 18	05 29	18 26	05 20	18 35	05 10	18 45
June 5	05 55	18 02	05 46	18 10	05 38	18 19	05 29	18 28	05 20	18 37	05 10	18 47
10	05 56	18 03	05 47	18 12	05 38	18 20	05 29	18 29	05 20	18 39	05 10	18 49
15	05 57	18 04	05 48	18 13	05 39	18 22	05 30	18 31	05 20	18 40	05 10	18 51
20	05 58	18 05	05 49	18 14	05 40	18 23	05 31	18 32	05 21	18 42	05 11	18 52
25	05 59	18 06	05 50	18 15	05 41	18 24	05 32	18 33	05 22	18 43	05 12	18 53
30	06 00	18 07	05 51	18 16	05 43	18 25	05 33	18 34	05 24	18 43	05 13	18 54
July 5	06 01	18 08	05 52	18 17	05 44	18 25	05 35	18 34	05 25	18 44	05 15	18 54
10	06 02	18 09	05 53	18 17	05 45	18 26	05 36	18 34	05 27	18 43	05 17	18 53
15	06 02	18 10	05 54	18 17	05 46	18 26	05 38	18 34	05 29	18 43	05 19	18 52
20	06 03	18 10	05 55	18 17	05 47	18 25	05 39	18 33	05 31	18 42	05 22	18 51
25	06 03	18 10	05 56	18 17	05 48	18 24	05 41	18 32	05 33	18 40	05 24	18 49
30	06 03	18 10	05 56	18 17	05 49	18 23	05 42	18 31	05 35	18 38	05 26	18 46
Aug. 4	06 03	18 10	05 56	18 16	05 50	18 22	05 43	18 29	05 36	18 36	05 29	18 43
9	06 02	18 09	05 56	18 15	05 51	18 20	05 44	18 26	05 38	18 33	05 31	18 40
14	06 01	18 08	05 56	18 13	05 51	18 18	05 45	18 24	05 40	18 30	05 33	18 36
19	06 00	18 07	05 56	18 12	05 51	18 16	05 46	18 21	05 41	18 26	05 36	18 32
24	05 59	18 06	05 55	18 10	05 51	18 14	05 47	18 18	05 42	18 22	05 38	18 27
29	05 58	18 04	05 54	18 08	05 51	18 11	05 47	18 14	05 44	18 18	05 40	18 22
Sept. 3	05 56	18 03	05 53	18 05	05 51	18 08	05 48	18 11	05 45	18 14	05 41	18 17
8	05 55	18 01	05 52	18 03	05 50	18 05	05 48	18 07	05 46	18 09	05 43	18 12
13	05 53	17 59	05 51	18 01	05 50	18 02	05 48	18 03	05 47	18 05	05 45	18 07
18	05 51	17 57	05 50	17 58	05 50	17 59	05 49	18 00	05 48	18 00	05 47	18 01
23	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56
28	05 48	17 54	05 48	17 53	05 49	17 53	05 49	17 52	05 50	17 51	05 51	17 50
Oct. 3	05 46	17 52	05 47	17 51	05 49	17 50	05 50	17 48	05 51	17 47	05 53	17 45
8	05 44	17 51	05 46	17 49	05 48	17 47	05 50	17 45	05 53	17 42	05 55	17 40
13	05 43	17 50	05 46	17 47	05 48	17 44	05 51	17 41	05 54	17 38	05 57	17 35
18	05 42	17 49	05 45	17 45	05 49	17 42	05 52	17 38	05 56	17 35	05 59	17 31
23	05 41	17 48	05 45	17 44	05 49	17 40	05 53	17 35	05 57	17 31	06 02	17 26
28	05 40	17 47	05 45	17 43	05 50	17 38	05 54	17 33	05 59	17 28	06 05	17 23
Nov. 2	05 40	17 47	05 45	17 42	05 51	17 36	05 56	17 31	06 02	17 25	06 08	17 19
7	05 40	17 47	05 46	17 41	05 52	17 35	05 58	17 29	06 04	17 23	06 11	17 16
12	05 41	17 48	05 47	17 41	05 53	17 35	06 00	17 28	06 07	17 21	06 14	17 14
17	05 41	17 48	05 48	17 42	05 55	17 35	06 02	17 27	06 10	17 20	06 18	17 12
22	05 42	17 50	05 50	17 42	05 57	17 35	06 05	17 27	06 13	17 19	06 21	17 11
27	05 44	17 51	05 52	17 43	05 59	17 36	06 07	17 28	06 16	17 19	06 25	17 10
Dec. 2	05 46	17 53	05 54	17 45	06 02	17 37	06 10	17 28	06 19	17 19	06 28	17 10
7	05 48	17 55	05 56	17 47	06 04	17 38	06 13	17 30	06 22	17 20	06 32	17 11
12	05 50	17 57	05 58	17 49	06 07	17 40	06 16	17 31	06 25	17 22	06 35	17 12
17	05 52	18 00	06 01	17 51	06 10	17 42	06 19	17 33	06 28	17 24	06 38	17 14
22	05 55	18 02	06 03	17 54	06 12	17 45	06 21	17 36	06 31	17 26	06 41	17 16
27	05 57	18 05	06 06	17 56	06 15	17 47	06 24	17 38	06 33	17 29	06 43	17 19
Jan. 1	06 00	18 07	06 08	17 59	06 17	17 50	06 26	17 41	06 35	17 32	06 45	17 22

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



TABLE 4.-SUNRISE AND SUNSET, 2015

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

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

TABLE 4.-SUNRISE AND SUNSET, 2015

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

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

TABLE 4.-SUNRISE AND SUNSET, 2015

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

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

TABLE 4.-SUNRISE AND SUNSET, 2015

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

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

TABLE 4.-SUNRISE AND SUNSET, 2015

Date	0°		5° S.		10° S.		15° S.		20° S.		25° S.	
	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan. 1	06 00	18 07	05 51	18 16	05 42	18 24	05 33	18 33	05 24	18 43	05 13	18 53
6	06 02	18 09	05 54	18 18	05 45	18 26	05 36	18 35	05 27	18 44	05 17	18 54
11	06 04	18 11	05 56	18 20	05 48	18 28	05 39	18 36	05 30	18 45	05 21	18 55
16	06 06	18 13	05 58	18 21	05 50	18 29	05 42	18 37	05 34	18 46	05 24	18 55
21	06 08	18 15	06 00	18 22	05 53	18 29	05 45	18 37	05 37	18 45	05 28	18 54
26	06 09	18 16	06 02	18 23	05 55	18 30	05 48	18 37	05 40	18 45	05 32	18 53
31	06 10	18 17	06 04	18 23	05 57	18 30	05 50	18 36	05 43	18 43	05 36	18 51
Feb. 5	06 10	18 17	06 05	18 23	05 59	18 29	05 53	18 35	05 46	18 41	05 39	18 48
10	06 11	18 18	06 06	18 23	06 00	18 28	05 55	18 33	05 49	18 39	05 43	18 45
15	06 11	18 18	06 06	18 22	06 01	18 27	05 57	18 31	05 52	18 36	05 46	18 42
20	06 10	18 17	06 06	18 21	06 02	18 25	05 58	18 29	05 54	18 33	05 49	18 38
25	06 10	18 16	06 06	18 20	06 03	18 23	06 00	18 26	05 56	18 30	05 52	18 34
Mar. 2	06 09	18 15	06 06	18 18	06 04	18 21	06 01	18 23	05 58	18 26	05 55	18 29
7	06 08	18 14	06 06	18 16	06 04	18 18	06 02	18 20	06 00	18 22	05 57	18 24
12	06 07	18 13	06 05	18 14	06 04	18 15	06 03	18 17	06 01	18 18	06 00	18 19
17	06 05	18 12	06 05	18 12	06 04	18 13	06 03	18 13	06 03	18 14	06 02	18 14
22	06 04	18 10	06 04	18 10	06 04	18 10	06 04	18 10	06 04	18 09	06 04	18 09
27	06 02	18 09	06 03	18 08	06 04	18 07	06 05	18 06	06 06	18 05	06 06	18 04
Apr. 1	06 01	18 07	06 02	18 06	06 04	18 04	06 05	18 02	06 07	18 01	06 09	17 59
6	05 59	18 06	06 01	18 03	06 04	18 01	06 06	17 59	06 08	17 56	06 11	17 54
11	05 58	18 04	06 01	18 01	06 04	17 58	06 07	17 55	06 10	17 52	06 13	17 49
16	05 57	18 03	06 00	18 00	06 04	17 56	06 07	17 52	06 11	17 48	06 15	17 44
21	05 55	18 02	06 00	17 58	06 04	17 54	06 08	17 49	06 13	17 45	06 17	17 40
26	05 54	18 01	05 59	17 56	06 04	17 52	06 09	17 47	06 14	17 41	06 20	17 36
May 1	05 54	18 01	05 59	17 55	06 04	17 50	06 10	17 44	06 16	17 38	06 22	17 32
6	05 53	18 00	05 59	17 54	06 05	17 48	06 11	17 42	06 18	17 35	06 24	17 29
11	05 53	18 00	05 59	17 53	06 06	17 47	06 13	17 40	06 19	17 33	06 27	17 26
16	05 53	18 00	06 00	17 53	06 07	17 46	06 14	17 39	06 21	17 31	06 29	17 23
21	05 53	18 00	06 00	17 53	06 08	17 45	06 15	17 38	06 23	17 30	06 32	17 21
26	05 53	18 01	06 01	17 53	06 09	17 45	06 17	17 37	06 25	17 28	06 34	17 19
31	05 54	18 01	06 02	17 53	06 10	17 45	06 19	17 37	06 27	17 28	06 37	17 18
June 5	05 55	18 02	06 03	17 54	06 12	17 45	06 20	17 37	06 29	17 28	06 39	17 18
10	05 56	18 03	06 04	17 55	06 13	17 46	06 22	17 37	06 31	17 28	06 41	17 18
15	05 57	18 04	06 05	17 55	06 14	17 47	06 23	17 38	06 33	17 28	06 43	17 18
20	05 58	18 05	06 07	17 56	06 15	17 48	06 24	17 39	06 34	17 29	06 44	17 19
25	05 59	18 06	06 08	17 58	06 16	17 49	06 25	17 40	06 35	17 30	06 45	17 20
30	06 00	18 07	06 09	17 59	06 17	17 50	06 26	17 41	06 36	17 32	06 46	17 22
July 5	06 01	18 08	06 09	18 00	06 18	17 51	06 27	17 42	06 36	17 33	06 46	17 23
10	06 02	18 09	06 10	18 01	06 18	17 52	06 27	17 44	06 36	17 35	06 45	17 25
15	06 02	18 10	06 10	18 02	06 18	17 54	06 27	17 45	06 35	17 37	06 44	17 28
20	06 03	18 10	06 10	18 02	06 18	17 55	06 26	17 47	06 34	17 39	06 43	17 30
25	06 03	18 10	06 10	18 03	06 17	17 56	06 25	17 48	06 33	17 40	06 41	17 32
30	06 03	18 10	06 10	18 03	06 16	17 56	06 23	17 50	06 31	17 42	06 39	17 35
Aug. 4	06 03	18 10	06 09	18 03	06 15	17 57	06 22	17 51	06 28	17 44	06 36	17 37
9	06 02	18 09	06 08	18 03	06 14	17 58	06 20	17 52	06 26	17 46	06 32	17 39
14	06 01	18 08	06 07	18 03	06 12	17 58	06 17	17 53	06 23	17 47	06 29	17 41
19	06 00	18 07	06 05	18 03	06 10	17 58	06 14	17 53	06 19	17 48	06 24	17 43
24	05 59	18 06	06 03	18 02	06 07	17 58	06 11	17 54	06 15	17 50	06 20	17 45
29	05 58	18 04	06 01	18 01	06 04	17 58	06 08	17 54	06 11	17 51	06 15	17 47
Sept. 3	05 56	18 03	05 59	18 00	06 02	17 57	06 04	17 55	06 07	17 52	06 10	17 49
8	05 55	18 01	05 57	17 59	05 59	17 57	06 01	17 55	06 03	17 53	06 05	17 51
13	05 53	17 59	05 54	17 58	05 55	17 57	05 57	17 55	05 58	17 54	06 00	17 53
18	05 51	17 57	05 52	17 57	05 52	17 56	05 53	17 56	05 54	17 55	05 54	17 54
23	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56
28	05 48	17 54	05 47	17 55	05 46	17 56	05 45	17 56	05 45	17 57	05 44	17 58
Oct. 3	05 46	17 52	05 44	17 54	05 43	17 55	05 42	17 57	05 40	17 58	05 38	18 00
8	05 44	17 51	05 42	17 53	05 40	17 55	05 38	17 57	05 36	18 00	05 33	18 02
13	05 43	17 50	05 40	17 52	05 38	17 55	05 35	17 58	05 32	18 01	05 28	18 05
18	05 42	17 49	05 39	17 52	05 35	17 56	05 31	17 59	05 28	18 03	05 24	18 07
23	05 41	17 48	05 37	17 52	05 33	17 56	05 29	18 00	05 24	18 05	05 19	18 10
28	05 40	17 47	05 36	17 52	05 31	17 57	05 26	18 02	05 21	18 07	05 15	18 13
Nov. 2	05 40	17 47	05 35	17 52	05 30	17 58	05 24	18 03	05 18	18 09	05 12	18 16
7	05 40	17 47	05 34	17 53	05 28	17 59	05 22	18 05	05 16	18 12	05 09	18 19
12	05 41	17 48	05 34	17 54	05 28	18 01	05 21	18 07	05 14	18 15	05 06	18 22
17	05 41	17 48	05 34	17 55	05 27	18 02	05 20	18 10	05 12	18 18	05 04	18 26
22	05 42	17 50	05 35	17 57	05 28	18 05	05 20	18 12	05 12	18 21	05 03	18 30
27	05 44	17 51	05 36	17 59	05 28	18 07	05 20	18 15	05 11	18 24	05 02	18 33
Dec. 2	05 46	17 53	05 37	18 01	05 29	18 09	05 21	18 18	05 12	18 27	05 02	18 37
7	05 48	17 55	05 39	18 03	05 31	18 12	05 22	18 21	05 12	18 30	05 02	18 40
12	05 50	17 57	05 41	18 06	05 33	18 15	05 23	18 24	05 14	18 33	05 04	18 44
17	05 52	18 00	05 44	18 08	05 35	18 17	05 25	18 26	05 16	18 36	05 05	18 47
22	05 55	18 02	05 46	18 11	05 37	18 20	05 28	18 29	05 18	18 39	05 08	18 49
27	05 57	18 05	05 48	18 13	05 40	18 22	05 30	18 31	05 21	18 41	05 10	18 52
Jan. 1	06 00	18 07	05 51	18 16	05 42	18 24	05 33	18 33	05 24	18 43	05 13	18 53

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

TABLE 4.-SUNRISE AND SUNSET, 2015

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

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

**TABLE 5.—REDUCTION OF LOCAL MEAN TIME TO STANDARD TIME**

<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>	<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>	<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>
° ' ° '	Minutes	° ' ° '	Minutes	°	Hours
0 00 to 0 07	0	7 23 to 7 37	30	15	1
0 08 to 0 22	1	7 38 to 7 52	31	30	2
0 23 to 0 37	2	7 53 to 8 07	32	45	3
0 38 to 0 52	3	8 08 to 8 22	33	60	4
0 53 to 1 07	4	8 23 to 8 37	34	75	5
1 08 to 1 22	5	8 38 to 8 52	35	90	6
1 23 to 1 37	6	8 53 to 9 07	36	105	7
1 38 to 1 52	7	9 08 to 9 22	37	120	8
1 53 to 2 07	8	9 23 to 9 37	38	135	9
2 08 to 2 22	9	9 38 to 9 52	39	150	10
2 23 to 2 37	10	9 53 to 10 07	40	165	11
2 38 to 2 52	11	10 08 to 10 22	41	180	12
2 53 to 3 07	12	10 23 to 10 37	42		
3 08 to 3 22	13	10 38 to 10 52	43		
3 23 to 3 37	14	10 53 to 11 07	44		
3 38 to 3 52	15	11 08 to 11 22	45		
3 53 to 4 07	16	11 23 to 11 37	46		
4 08 to 4 22	17	11 38 to 11 52	47		
4 23 to 4 37	18	11 53 to 12 07	48		
4 38 to 4 52	19	12 08 to 12 22	49		
4 53 to 5 07	20	12 23 to 12 37	50		
5 08 to 5 22	21	12 38 to 12 52	51		
5 23 to 5 37	22	12 53 to 13 07	52		
5 38 to 5 52	23	13 08 to 13 22	53		
5 53 to 6 07	24	13 23 to 13 37	54		
6 08 to 6 22	25	13 38 to 13 52	55		
6 23 to 6 37	26	13 53 to 14 07	56		
6 38 to 6 52	27	14 08 to 14 22	57		
6 53 to 7 07	28	14 23 to 14 37	58		
7 08 to 7 22	29	14 38 to 14 52	59		

If local meridian is east of standard meridian, subtract the correction from local time.

If local meridian is west of standard meridian, add the correction to local time.

For differences of longitude less than 15°, use the first part of the table. For greater differences use both parts thus: 47° 23' is equivalent to 45° + 2° 23', the correction for 45° is 3 hours, the correction for 2° 23' is 10 minutes; therefore the total correction for the difference in longitude 47° 23' is 3 hours and 10 minutes.





**TABLE 6.—CONVERSION OF FEET TO CENTIMETERS**

Feet	Tenths of a Foot										Feet
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
0	0	3	6	9	12	15	18	21	24	27	0
1	30	34	37	40	43	46	49	52	55	58	1
2	61	64	67	70	73	76	79	82	85	88	2
3	91	94	98	101	104	107	110	113	116	119	3
4	122	125	128	131	134	137	140	143	146	149	4
5	152	155	158	162	165	168	171	174	177	180	5
6	183	186	189	192	195	198	201	204	207	210	6
7	213	216	219	223	226	229	232	235	238	241	7
8	244	247	250	253	256	259	262	265	268	271	8
9	274	277	280	283	287	290	293	296	299	302	9
10	305	308	311	314	317	320	323	326	329	332	10
11	335	338	341	344	347	351	354	357	360	363	11
12	366	369	372	375	378	381	384	387	390	393	12
13	396	399	402	405	408	411	415	418	421	424	13
14	427	430	433	436	439	442	445	448	451	454	14
15	457	460	463	466	469	472	475	479	482	485	15
16	488	491	494	497	500	503	506	509	512	515	16
17	518	521	524	527	530	533	536	539	543	546	17
18	549	552	555	558	561	564	567	570	573	576	18
19	579	582	585	588	591	594	597	600	604	607	19
20	610	613	616	619	622	625	628	631	634	637	20
21	640	643	646	649	652	655	658	661	664	668	21
22	671	674	677	680	683	686	689	692	695	698	22
23	701	704	707	710	713	716	719	722	725	728	23
24	732	735	738	741	744	747	750	753	756	759	24
25	762	765	768	771	774	777	780	783	786	789	25
26	792	796	799	802	805	808	811	814	817	820	26
27	823	826	829	832	835	838	841	844	847	850	27
28	853	856	860	863	866	869	872	875	878	881	28
29	884	887	890	893	896	899	902	905	908	911	29
30	914	917	920	924	927	930	933	936	939	942	30
31	945	948	951	954	957	960	963	966	969	972	31
32	975	978	981	985	988	991	994	997	1000	1003	32
33	1006	1009	1012	1015	1018	1021	1024	1027	1030	1033	33
34	1036	1039	1042	1045	1049	1052	1055	1058	1061	1064	34
35	1067	1070	1073	1076	1079	1082	1085	1088	1091	1094	35
36	1097	1100	1103	1106	1109	1113	1116	1119	1122	1125	36
37	1128	1131	1134	1137	1140	1143	1146	1149	1152	1155	37
38	1158	1161	1164	1167	1170	1173	1177	1180	1183	1186	38
39	1189	1192	1195	1198	1201	1204	1207	1210	1213	1216	39
40	1219	1222	1225	1228	1231	1234	1237	1241	1244	1247	40
41	1250	1253	1256	1259	1262	1265	1268	1271	1274	1277	41
42	1280	1283	1286	1289	1292	1295	1298	1301	1305	1308	42
43	1311	1314	1317	1320	1323	1326	1329	1332	1335	1338	43
44	1341	1344	1347	1350	1353	1356	1359	1362	1366	1369	44
45	1372	1375	1378	1381	1384	1387	1390	1393	1396	1399	45
46	1402	1405	1408	1411	1414	1417	1420	1423	1426	1430	46
47	1433	1436	1439	1442	1445	1448	1451	1454	1457	1460	47
48	1463	1466	1469	1472	1475	1478	1481	1484	1487	1490	48
49	1494	1497	1500	1503	1506	1509	1512	1515	1518	1521	49

Feet to Meters = Centimeters divided by 100 (from above table)

Example: 09.40 feet = (287 centimeters) / (100) = 02.87 meters.

1 Meter = 100 centimeters  
1 Meter = 3.2808399 feet

1 Foot = 0.30480061 meters  
1 Foot = 30.480061 centimeters

# **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.

## GLOSSARY OF TERMS

- ANNUAL INEQUALITY**—Seasonal variation in the water level or current, more or less periodic, due chiefly to meteorological causes.
- APOGEAN TIDES OR TIDAL CURRENTS**—Tides of decreased range or currents of decreased speed occurring monthly as the result of the Moon being in apogee (farthest from the Earth).
- AUTOMATIC TIDE GAGE**—An instrument that automatically registers the rise and fall of the tide. In some instruments, the registration is accomplished by recording the heights at regular intervals in digital format, in others by a continuous graph in which the height versus corresponding time of the tide is recorded.
- BENCH MARK (BM)**—A fixed physical object or marks used as reference for a vertical datum. A *tidal bench mark* is one near a tide station to which the tide staff and tidal datums are referred. A *Geodetic bench mark* identifies a surveyed point in the National Geodetic Vertical Network.
- CHART DATUM**—The tidal datum to which soundings on a chart are referred. It is usually taken to correspond to low water elevation of the tide, and its depression below mean sea level is represented by the symbol Zo.
- CURRENT**—Generally, a horizontal movement of water. Currents may be classified as *tidal* and *nontidal*. Tidal currents are caused by gravitational interactions between the Sun, Moon, and Earth and are a part of the same general movement of the sea that is manifested in the vertical rise and fall, called *tide*. Nontidal currents include the permanent currents in the general circulatory systems of the sea as well as temporary currents arising from more pronounced meteorological variability.
- CURRENT DIFFERENCE**—Difference between the time of slack water (or minimum current) or strength of current in any locality and the time of the corresponding phase of the tidal current at a reference station, for which predictions are given in the *Tidal Current Tables*.
- CURRENT ELLIPSE**—A graphic representation of a rotary current in which the velocity of the current at different hours of the tidal cycle is represented by radius vectors and vectorial angles. A line joining the extremities of the radius vectors will form a curve roughly approximating an ellipse. The cycle is completed in one-half tidal day or in a whole tidal day according to whether the tidal current is of the semidiurnal or the diurnal type. A current of the mixed type will give a curve of two unequal loops each tidal day.
- CURRENT METER**—An instrument for measuring the speed and direction or just the speed of a current. The measurements are usually Eulerian since the meter is most often fixed or moored at a specific location.
- DATUM (vertical)**—For marine applications, a base elevation used as a reference from which to reckon heights or depths. It is called a *tidal datum* when defined by a certain phase of the tide. Tidal datums are local datums and should not be extended into areas which have differing topographic features without substantiating measurements. In order that they may be recovered when needed, such datums are referenced to fixed points known as *bench marks*.
- DAYLIGHT SAVING TIME**—A time used during the summer in some localities in which clocks are advanced 1 hour from the usual standard time.
- DIURNAL**—Having a period or cycle of approximately 1 tidal day. Thus, the tide is said to be diurnal when only one high water and one low water occur during a tidal day, and the tidal current is said to be diurnal when there is a single flood and single ebb period in the tidal day. A rotary current is diurnal if it changes its direction through all points of the compass once each tidal day.
- DIURNAL INEQUALITY**—The difference in height of the two high waters or of the two low waters of each day; also the difference in speed between the two flood tidal currents or the two ebb tidal currents of each day. The difference changes with the declination of the Moon and to a lesser extent with the declination of the Sun. In general, the inequality tends to increase with an increasing declination, either north or south, and to diminish as the Moon approaches the Equator. *Mean diurnal high water inequality* (DHQ) is one-half the average difference between the two high waters of each day observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). It is obtained by subtracting the mean of all high waters from the mean of the higher high waters. *Mean diurnal low water inequality* (DLQ) is one-half the average difference between the two low waters of each day observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). It is obtained by subtracting the mean of the lower low waters from the mean of all low waters. *Tropic high water inequality* (HWQ) is the average difference between the two high waters of the day at the times of the tropic tides. *Tropic low water inequality* (LWQ) is the average difference between the two low waters of the day at the times of the tropic tides. Mean and tropic inequalities as

## GLOSSARY OF TERMS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## GLOSSARY OF TERMS

- HARMONIC ANALYSIS**—The mathematical process by which the observed tide or tidal current at any place is separated into basic harmonic constituents.
- HARMONIC CONSTANTS**—The amplitudes and epochs of the harmonic constituents of the tide or tidal current at any place.
- HARMONIC CONSTITUENT**—One of the harmonic elements in a mathematical expression for the tide-producing force and in corresponding formulas for the tide or tidal current. Each constituent represents a periodic change or variation in the relative positions of the Earth, Moon, and Sun. A single constituent is usually written in the form  $y=A \cos (at+\alpha)$ , in which  $y$  is a function of time as expressed by the symbol  $t$  and is reckoned from a specific origin. The coefficient  $A$  is called the amplitude of the constituent and is a measure of its relative importance. The angle  $(at+\alpha)$  changes uniformly and its value at any time is called the phase of the constituent. The speed of the constituent is the rate of change in its phase and is represented by the symbol  $a$  in the formula. The quantity  $\alpha$  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.



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- MEAN HIGHER HIGH WATER (MHHW)**—A tidal datum. The arithmetic mean of the higher high water heights of a mixed tide observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Only the higher high water of each pair of high waters, or the only high water of a tidal day is included in the mean.
- MEAN HIGHER HIGH WATER LINE (MHHWL)**—The intersection of the land with the water surface at the elevation of mean higher high water.
- MEAN LOW WATER (MLW)**—A tidal datum. The arithmetic mean of the low water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a 19-year value.
- MEAN LOW WATER SPRINGS (MLWS)**—A tidal datum. Frequently abbreviated *spring low water*. The arithmetic mean of the low water heights occurring at the time of the spring tides observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch).
- MEAN LOWER LOW WATER (MLLW)**—A tidal datum. The arithmetic mean of the lower low water heights of a mixed tide observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Only the lower low water of each pair of low waters, or the only low water of a tidal day is included in the mean.
- MEAN RANGE OF TIDE (Mn)**—The difference in height between mean high water and mean low water.
- MEAN RIVER LEVEL**—A tidal datum. The average height of the surface of a tidal river at any point for all stages of the tide observed over a 19-year Metonic cycle (the National Tidal Datum Epoch), usually determined from hourly height readings. In rivers subject to occasional freshets the river level may undergo wide variations, and for practical purposes certain months of the year may be excluded in the determination of tidal datums. For charting purposes, tidal datums for rivers are usually based on observations during selected periods when the river is at or near low water stage.
- MEAN SEA LEVEL (MSL)**—A tidal datum. The arithmetic mean of hourly water elevations observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Shorter series are specified in the name; e.g., monthly mean sea level and yearly mean sea level.
- MEAN TIDE LEVEL (MTL)**—Also called half-tide level. A tidal datum midway between mean high water and mean low water.
- MIXED TIDE**—Type of tide with a large inequality in the high and/or low water heights, with two high waters and two low waters usually occurring each tidal day. In strictness, all tides are mixed but the name is usually applied to the tides intermediate to those predominantly semidiurnal and those predominantly diurnal.
- NATIONAL TIDAL DATUM EPOCH**—The specific 19-year period adopted by the National Ocean Service as the official time segment over which tide observations are taken and reduced to obtain mean values ( e.g., mean lower low water, etc.) for tidal datums. It is necessary for standardization because of periodic and apparent secular trends in sea level. The present National Tidal Datum Epoch is 1960 through 1978. It is reviewed annually for possible revision and must be actively considered for revision every 25 years.
- NEAP TIDES OR TIDAL CURRENTS**—Tides of decreased range or tidal currents of decreased speed occurring semimonthly as the result of the Moon being in quadrature. The *neap range* (Np) of the tide is the average semidiurnal range occurring at the time of neap tides and is most conveniently computed from the harmonic constants. It is smaller than the mean range where the type of tide is either semidiurnal or mixed and is of no practical significance where the type of tide is diurnal. The average height of the high waters of the neap tides is called *neap high water* or *high water neaps* (MHWN) and the average height of the corresponding low waters is called neap low water or low water neaps (MLWN).
- PERIGEAN TIDES OR TIDAL CURRENTS**—Tides of increased range or tidal currents of increased speed occurring monthly as the result of the Moon being in perigee or nearest the Earth. The *perigean range* (Pn) of tide is the average semidiurnal range occurring at the time of perigean tides and is most conveniently computed from the harmonic constants. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal.
- RANGE OF TIDE**—The difference in height between consecutive high and low waters, the *mean range* is the difference in height between mean high water and mean low water. Where the type of tide is diurnal the mean range is the same as the diurnal range.

## GLOSSARY OF TERMS

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

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

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

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

**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  $2/\pi$  or 0.6366 of the speed of the corresponding strength of current.

**SUBORDINATE CURRENT STATION**—(1) A current station from which a relatively short series of observations is reduced by comparison with simultaneous observations from a control current station. (2) A station listed in the *Tidal Current Tables* for which predictions are to be obtained by means of differences and ratios applied to the full predictions at a reference station .

**SUBORDINATE TIDE STATION**—(1) A tide station from which a relatively short series of observations is reduced by comparison with simultaneous observations from a tide station with a relatively long series of observations. (2) A station listed in the *Tide Tables* for which predictions are to be obtained by means of differences and ratios applied to the full predictions at a reference station.

**TIDAL CURRENT TABLES**—Tables which give daily predictions of the times and speeds of the tidal currents. These predictions are usually supplemented by current differences and constants through which additional predictions can be obtained for numerous other places.

**TIDAL DIFFERENCE**—Difference in time or height of a high or low water at a subordinate station and at a reference station for which predictions are given in the *Tide Tables*. The difference, when applied according to sign to the prediction at the reference station, gives the corresponding time or height for the subordinate station .

**TIDE**—The periodic rise and fall of the water resulting from gravitational interactions between the Sun, Moon, and Earth. The vertical component of the particulate motion of a tidal wave. Although the accompanying horizontal movement of the water is part of the same phenomenon, it is preferable to designate the motion as tidal current.

**TIDE TABLES**—Tables which give daily predictions of the times and heights of high and low waters. These predictions are usually supplemented by tidal differences and constants through which additional predictions can be obtained for numerous other places.

**TIME MERIDIAN**—A meridian used as a reference for time.

**TROPIC CURRENTS**—Tidal currents occurring semimonthly when the effect of the Moon's maximum declination is greatest. At these times the tendency of the Moon to produce a diurnal inequality in the current is at a maximum.

**TROPIC RANGES**—The *great tropic range* ( $G_c$ ), or *tropic range*, is the difference in height between tropic higher high water and tropic lower low water. The *small tropic range* ( $S_c$ ) is the difference in height between tropic lower high water and tropic higher low water. The *mean tropic range* ( $M_c$ ) is the mean between the great tropic range and the small tropic range. The small tropic range and the mean tropic range are applicable only when the type of tide is semidiurnal or mixed. Tropic ranges are most conveniently computed from the harmonic constants.

**TROPIC TIDES**—Tides occurring semimonthly when the effect of the Moon's maximum declination is greatest. At these times there is a tendency for an increase in the diurnal range. The tidal datums pertaining to the tropic tides are designated as *tropic higher high water* ( $T_cHHW$ ), *tropic lower high water* ( $T_cLHW$ ), *tropic higher low water* ( $T_cHLW$ ), and *tropic lower low water* ( $T_cLLW$ ).

**TYPE OF TIDE**—A classification based on characteristic forms of a tide curve. Qualitatively, when the two high waters and two low waters of each tidal day are approximately equal in height, the tide is said to be *semidiurnal*; when there is a relatively large diurnal inequality in the high or low waters or both, it is said to be *mixed*; and when there is only one high water and one low water in each tidal day, it is said to be *diurnal*.

**VANISHING TIDE**—In a mixed tide with very large diurnal inequality, the lower high water (or higher low water) frequently becomes indistinct (or vanishes) at time of extreme declinations. During these periods the diurnal tide has such overriding dominance that the semidiurnal tide, although still present, cannot be readily seen on the tide curve.







	No.		No.
Dundee.....	819		
Dungarvan Bay.....	1175		
Dungeness.....	911		
Dunkerque.....	789		
Dunkerron Harbor.....	1197		
Dunmore.....	1173		
E			
East Loch Tarbert.....	1257		
East Looe.....	961		
Eastbourne.....	917		
Eastham.....	1059		
Egypt.....	363,365		
Eider River.....	1457-1463		
Eider River approach.....	1457		
Eider River entrance.....	1459		
Eidhi.....	1299		
Eire, east coast.....	1157-1169		
Eire, north coast.....	1231-1235		
Eire, south coast.....	1171-1193		
Eire, west coast.....	1195-1229		
Elbe River.....	1429-1445		
El Ferrol.....	541		
El Jadida.....	313		
Elsfleth.....	1419		
Emden.....	1371		
Ems River.....	1363-1375		
Ems River approach.....	1365		
England, east coast.....	837-905		
England, south coast.....	907-969		
England, west coast.....	971-1005,1053-1083		
English Channel.....	685-789		
Enseada de Sines.....	485		
Equatorial Guinea.....	117-125		
Erquy.....	723		
Esbjerg * (134).....	1499		
Esposende.....	511		
Essaouira.....	309		
Exmouth.....	947		
Eyemouth.....	835		
Eyna Bay.....	1575		
F			
Faeroe Islands.....	1279-1307		
Fair Isle.....	1271		
Falmouth.....	965		
Falsches Tief.....	1449		
Famagusta.....	375		
Farge.....	1421		
Faro Bar.....	471		
Fecamp.....	769		
Fenit Pier.....	1205		
Ferryside.....	1017		
Fidra Island.....	831		
Figueira da Foz.....	499		
Finneid.....	1547		
Fishguard.....	1025		
Fleetwood.....	1065		
Floro.....	1535		
Foki Bight.....	1853		
Folkestone.....	909		
Forcados.....	167		
Forcados River Bar.....	165		
Fowey.....	963		
Foynes Island.....	1209		
France.....	439-443,601-789		
Franz Josef Land.....	1953,1955		
Freetown.....	233		
Freijo.....	529		
Fromentine.....	641		
Fuenterrabia.....	599		
Fugloyarfjordhur.....	1307		
G			
Gabis.....	353		
Gabon.....	73-115		
Galway.....	1215		
Gambia River.....	271-281		
Garliestown.....	1085		
Genius Bank.....	1401		
Genoa.....	437		
Germany, North Sea.....	1365-1489		
Ghana.....	179-191		
Gibraltar * (32).....	447		
Gijon.....	561		
Gironde River.....	609-619		
Glasgow.....	1099		
Gluckstadt.....	1435		
Golchikha.....	1925		
Golspie.....	795		
Goole.....	867		
Gorbovi Islands.....	1851		
Gorleston, Great Yarmouth.....	877		
Gorodetskaya Bay.....	1647		
Grado.....	407		
Grand-Lahou.....	195		
Grangemouth.....	827		
Granville.....	729		
Gravelines.....	787		
Great Saltee Island.....	1171		
Greece.....	379-383		
Greenock * (86).....	1097		
Greenville.....	205		
Gridina Bay.....	1675		
Grimsby.....	861		
Gryemikha Bay.....	1643		
Guetaria.....	591		
Guinea.....	239-247		
Guinea-Bissau.....	249-265		
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January			
	d	h	m
N	3	18	..
○	5	04	53
A	9	18	..
E	11	06	..
☾	13	09	46
S	18	07	..
●	20	13	14
P	21	20	..
E	24	09	..
☾	27	04	48
N	31	02	..

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

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

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

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

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

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

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

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

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

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

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

## LUNAR DATA

- -- new Moon
- ☾ -- first quarter
- -- full Moon
- ☾ -- last quarter
- A -- Moon in apogee
- P -- Moon in perigee
- N -- Moon farthest north of Equator
- E -- Moon on Equator
- S -- Moon farthest south of Equator

## SOLAR DATA

- ☾<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.