

U.S.C.G. Merchant Marine Exam
Operator Uninspected Passenger Vessels
Q357 Navigation General – Great Lakes Inland
(Sample Examination)

Choose the best answer to the following Multiple-Choice Questions.

1. While on a course of 159°T , a light bears 11° on the starboard bow at a distance of 10.6 miles. What course should you steer to pass 2 miles abeam of the light leaving it to starboard?
- A. 159°T
 - B. 171°T
 - C. 163°T
 - D. 167°T

Correct answer: A

2. While on a course of 349°T , a light bears 13° on your starboard bow at a distance of 10.8 miles. What course should you steer to pass 2.5 miles abeam of the light, leaving it to starboard?
- A. 323°
 - B. 336°
 - C. 002°
 - D. 349°

Correct answer: D

3. Your vessel is on a course of 221°T at 15 knots.

At 0319 a light bears 198.5°T , and at 0353 the light bears 176°T .
At what time and distance off will your vessel be when abeam of the light?

- A. 0417, 6.0 miles
- B. 0427, 7.4 miles
- C. 0407, 4.3 miles
- D. 0410, 5.2 miles

Correct answer: A

4. Your vessel is on a course of 343°T at 14 knots.

At 2156 a light bears 320.5°T , and at 2217 the light bears 298°T .
At what time and distance off will your vessel be when abeam of the light?

- A. 2228, 4.9 miles
- B. 2235, 4.3 miles
- C. 2241, 6.9 miles
- D. 2232, 3.4 miles

Correct answer: D

5. You are steering 349°T , and a light is picked up dead ahead at a distance of 17.2 miles at 2122. You change course to pass the light 4.5 miles off abeam to port. If you are making 19.5 knots, what is your ETA at the position 4.5 miles off the light?
- A. 2216
 - B. 2207
 - C. 2210
 - D. 2213

Correct answer: D

6. You are steering 173°T , and a light is picked up dead ahead at a distance of 13.9 miles at 0054. You change course to pass the light 4.5 miles off abeam to port. If you are making 21 knots, what is your ETA at the position 4.5 miles off the light?
- A. 0122
 - B. 0131
 - C. 0125
 - D. 0134

Correct answer: B

7. Your vessel is steering 195° per standard magnetic compass. Variation for the area is 13°W , and the deviation is 4°E . The wind is from the west-southwest, producing a 2° leeway. Which true course are you making good?
- A. 178°T
 - B. 180°T
 - C. 182°T
 - D. 184°T

Correct answer: D

8. Your vessel is steering a course of 337°psc . Variation for the area is 13°W , and deviation is 4°E . The wind is from the south, producing a 3° leeway. Which true course are you making good?
- A. 349°T
 - B. 331°T
 - C. 328°T
 - D. 325°T

Correct answer: B

9. You are underway on course 160°T at 10 knots. The current is 210°T at 0.9 knots. What is the course made good?
- A. 156°T
 - B. 160°T
 - C. 164°T
 - D. 169°T

Correct answer: C

10. You wish to make good a course of 035°T while turning for an engine speed of 12 knots. The set is 340°T, and the drift is 2 knots. What course should you steer?
- A. 027°T
 - B. 037°T
 - C. 044°T
 - D. 054°T

Correct answer: C

11. What should you apply to a fathometer reading to determine the depth of water?
- A. Subtract the sea water correction.
 - B. Add the sea water correction.
 - C. Subtract the draft of the vessel.
 - D. Add the draft of the vessel.

Correct answer: D

12. Which information must automatic identification systems (AIS) automatically provide to appropriately equipped shore stations, vessels and aircraft?
- A. Navigational status
 - B. Vessel's course
 - C. Vessel's type
 - D. All of the above

Correct answer: D

13. What is the color scheme of navigational marks used for informational or regulatory purposes?
- A. White with orange geometric shapes
 - B. Solid yellow
 - C. Green and red horizontally-banded
 - D. Red and white vertically-striped

Correct answer: A

14. You sight a buoy fitted with a double-sphere topmark. If sighted at night, what color and light sequence would you expect to see?
- A. A flashing red light showing a group of three flashes
 - B. A quick-flashing green light
 - C. A quick-flashing red light
 - D. A flashing white light showing a group of two flashes

Correct answer: D

15. When entering a channel from seaward, which is TRUE concerning the numbers on buoys?
- A. They are marked in 6-inch figures with retro-reflective material
 - B. The numbers increase with the even numbers to starboard
 - C. The numbers decrease with the odd numbers to starboard
 - D. The numbers are the same as their Light List number

Correct answer: B

16. Which is TRUE of a vertically-striped buoy?

- A. It may be lighted with a white light
- B. It may be lighted with a red light
- C. It may be striped black and green
- D. It may be striped black and yellow

Correct answer: A

17. Which of the buoys listed below could be used to mark an anchorage?

- A. Yellow buoy lettered "N"
- B. White buoy with a green top
- C. White buoy with orange bands
- D. White buoy numbered "3"

Correct answer: A

18. A daymark used to indicate the safe water in a channel will have which of the shapes shown in illustration D045NG below?

- A. A
- B. B
- C. C
- D. D

Correct answer: C

19. You are sailing south on the Intracoastal Waterway (ICW) when you sight a red nun buoy with a yellow triangle painted on it. Which statement is TRUE?

- A. This is an information or regulatory buoy that also has lateral significance.
- B. The yellow triangle identifies a sharp turn (over 60°) in the channel.
- C. Geometric symbols such as squares and triangles replace letters and numbers on ICW aids to navigation.
- D. The ICW and another waterway coincide in this geographical area.

Correct answer: D

20. A List of Lights entry (L Fl) is a single flashing light which shows a long flash of not less than which duration?

- A. 1.0 second duration
- B. 1.5 seconds duration
- C. 2.0 seconds duration
- D. 3.0 seconds duration

Correct answer: C

21. What is the approximate geographic range of Fenwick Island Light, Delaware, if your height of eye is 42 feet (12.8 meters)? Refer to "Reprints from the LIGHT LISTS AND COAST PILOTS".

- A. 15.4 nm
- B. 10.3 nm
- C. 13.1 nm
- D. 18.3 nm

Correct answer: D

- 22.** The Light List indicates that a light has a nominal range of 10 miles and is 11 feet high. If the visibility is 15 miles and your height of eye is 20 feet, at what approximate distance will you sight the light?
- A. 12.0 miles
 - B. 10.0 miles
 - C. 11.0 miles
 - D. 9.0 miles

Correct answer: D

- 23.** The compass rose on a nautical chart indicates both variation and which other information?
- A. Deviation
 - B. Annual rate of precession change
 - C. Annual rate of variation change
 - D. Compass error

Correct answer: C

- 24.** Mean lower low water is the reference plane used for which measurements?
- A. The water depths on the U.S. east coast only
 - B. The heights above water for lights, mountains, etc.
 - C. The soundings on the U.S. east and west coasts
 - D. All vertical measurements

Correct answer: C

- 25.** In IALA Region B, entering from sea, how would a daymark on the port side of the channel be indicated on a chart?
- A. A green square with the letter G
 - B. A red triangle with the letter R
 - C. A white square with the letters GR
 - D. A white triangle with the letters RG

Correct answer: A

- 26.** Which government agency publishes the U.S. Coast Pilot?
- A. National Geospatial-Intelligence Agency
 - B. National Oceanic and Atmospheric Administration
 - C. U.S. Coast Guard
 - D. Army Corps of Engineers

Correct answer: B

- 27.** What is published by the U.S. Coast Guard?
- A. U.S. Coast Pilot
 - B. Tide Tables
 - C. Nautical Charts
 - D. Light List

Correct answer: D

28. Which item contains information about temporary, short-term changes affecting the safety of navigation in U.S. waters?

- A. Daily Memorandum
- B. HYDROLANT or HYDROPAC broadcasts
- C. Local Notice to Mariners
- D. Summary of Corrections

Correct answer: C

29. Which action should be taken prior to assuming the Deck Watch while the vessel is in port?

- A. Ensure that the vessel's moorings are adequate
- B. Make a security call on VHF channel 16
- C. Visually inspect and test operation of the blue mooring light
- D. Ensure that all crew members are onboard

Correct answer: A

30. Your vessel is proceeding up a channel steering on a pair of range lights that are in line ahead. The chart indicates that the direction of this pair of lights is 249°T , and the variation is 14°E . If the heading of your vessel at the time of the sighting is 226° per standard magnetic compass, what is the correct deviation?

- A. 5°E
- B. 5°W
- C. 9°E
- D. 9°W

Correct answer: C

31. Your vessel is proceeding up a channel, and you see a pair of range lights that are in line ahead. The chart indicates that the direction of this pair of lights is 196°T , and the variation is 7°E . If the heading of your vessel at the time of the sighting is 192° per standard magnetic compass, what is the deviation?

- A. 3°E
- B. 3°W
- C. 4°E
- D. 4°W

Correct answer: B

32. In North America, which direction do the majority of the weather systems move?

- A. From north to south
- B. From west to east
- C. From south to north
- D. From east to west

Correct answer: B

33. What enables you to estimate the bearing of a storm's center?

- A. Buys Ballot's Law
- B. The left-hand rule
- C. Pascal's Law
- D. An educated guess

Correct answer: A

34. What will a veering wind do?

- A. Circulate about a high-pressure center in a clockwise manner in the Southern Hemisphere
- B. Vary in strength constantly and unpredictably
- C. Change direction in a clockwise manner in the Northern Hemisphere
- D. Circulate about a low-pressure center in a counterclockwise manner in the Northern Hemisphere

Correct answer: C

35. Which type of cloud formation should be of immediate concern to small craft operators?

- A. Cirrus
- B. Nimbostratus
- C. Cumulonimbus
- D. Altostratus

Correct answer: C

36. On a clear, warm day, you notice the approach of a tall cumulus cloud. The cloud top has hard well defined edges and rain is falling from the dark lower edge. What should you expect if this cloud passes directly overhead?

- A. A sudden increase in wind speed
- B. The wind speed will not change as it passes
- C. A sudden decrease in wind speed
- D. The wind will back as it passes

Correct answer: A

37. Which form of cloud, that is often known as "mackerel sky", is generally associated with fair weather?

- A. Cumulonimbus
- B. Stratus
- C. Nimbostratus
- D. Cirrocumulus

Correct answer: D

38. Which condition would most likely result in fog?

- A. Warm moist air blowing over warm water
- B. Airborne dust particles
- C. Dew point falling below the air temperature
- D. Warm moist air blowing over cold water

Correct answer: D

39. Which term is given to a line on a weather chart connecting places which have the same barometric pressure?

- A. Isotherm
- B. Isallobar
- C. Isotope
- D. Isobar

Correct answer: D

40. In a weather report, which defines the term "visibility"?

- A. The distance in miles at which prominent objects are identifiable by the unaided eye
- B. The distance an observer can see with the unaided eye
- C. The distance an observer can see a prominent object with a telescope or binoculars
- D. The ability to identify an object at night utilizing binoculars

Correct answer: A

41. To predict the actual depth of water using the Tide Tables, how does one use the number obtained from the Tide Tables?

- A. The number is divided by the charted depth
- B. The number is added to or subtracted from the charted depth
- C. The number is multiplied by the charted depth
- D. The number is the actual depth

Correct answer: B

42. When daylight savings time is kept, the times of tide and current calculations must be adjusted. How can this be accomplished?

- A. Add one hour to the times listed for the reference stations
- B. Subtract one hour from the times listed for the subordinate stations
- C. Apply no correction as the times at the reference stations are adjusted for daylight savings time
- D. Add 15° to the standard meridian when calculating the time differences

Correct answer: A

43. Which term is used to describe the small differences between the heights of two successive high tides or two low tides, in a tidal day?

- A. Mixed tides
- B. Diurnal tides
- C. Semidiurnal tides
- D. Solar tides

Correct answer: C

44. What does the drift and set of tidal, river, and ocean currents refer to?

- A. The speed and direction toward which the current flows
- B. The type and characteristic of the current's flow
- C. The position and area of the current
- D. The duration and height of the current

Correct answer: A

45. What describes a flood current?

- A. Horizontal movement of the water toward the land after low tide
- B. Horizontal movement of the water away from the land following low tide
- C. Horizontal movement of the water away from the land following high tide
- D. Horizontal movement of the water toward the land after high tide

Correct answer: A

46. On 10 November 2023 at 0130, you are inbound at Charleston Harbor Entrance Buoy "10" (ACT6611). What is the direction and velocity of the current you are encountering as you pass Buoy "10"? Illustration D058NG

- A. 0.8kts at 335°T
- B. 0.8kts at 172°T
- C. 0.3kts at 280°T
- D. 0.3kts at 104°T

Correct answer: C

47. On 14 October 2023, you will be docking at the Southern Branch Elizabeth River, VA at the second high tide. The berth is located between NOAA reference tidal station #8638660 and subordinate station #8639348. What time (LST) will you be docking? Illustration D063NG

- A. 2057
- B. 2102
- C. 2053
- D. 2159

Correct answer: A

48. Which defines a light's luminous range?

- A. The maximum distance at which a light may be seen under existing visibility conditions
- B. The maximum distance at which a light may be seen considering the height of the light and the height of the observer
- C. The maximum distance at which a light may be seen in clear weather
- D. The average distance of visibility of the light

Correct answer: A

49. Which item in illustration D034NG below shows a fixed and flashing light?

- A. A
- B. B
- C. C
- D. D

Correct answer: A

50. The Light List indicates that a light has a nominal range of 13 miles and is 36 feet high. If the visibility is 17 miles and your height of eye is 25 feet, at what approximate distance will you sight the light?

- A. 10.0 miles
- B. 12.9 miles
- C. 14.2 miles
- D. 17.0 miles

Correct answer: B



D034NG



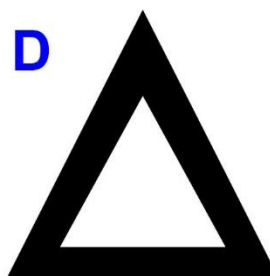
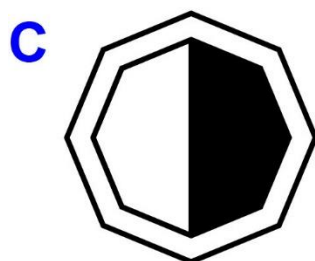
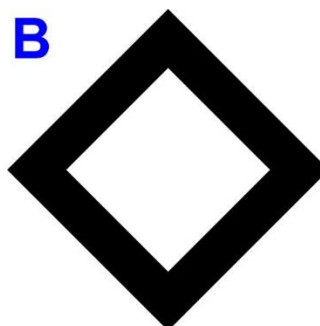
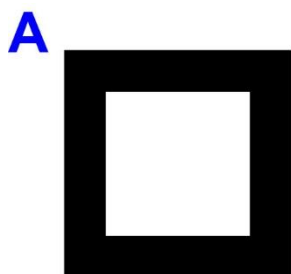
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Abbreviations and Terms, 10 edition

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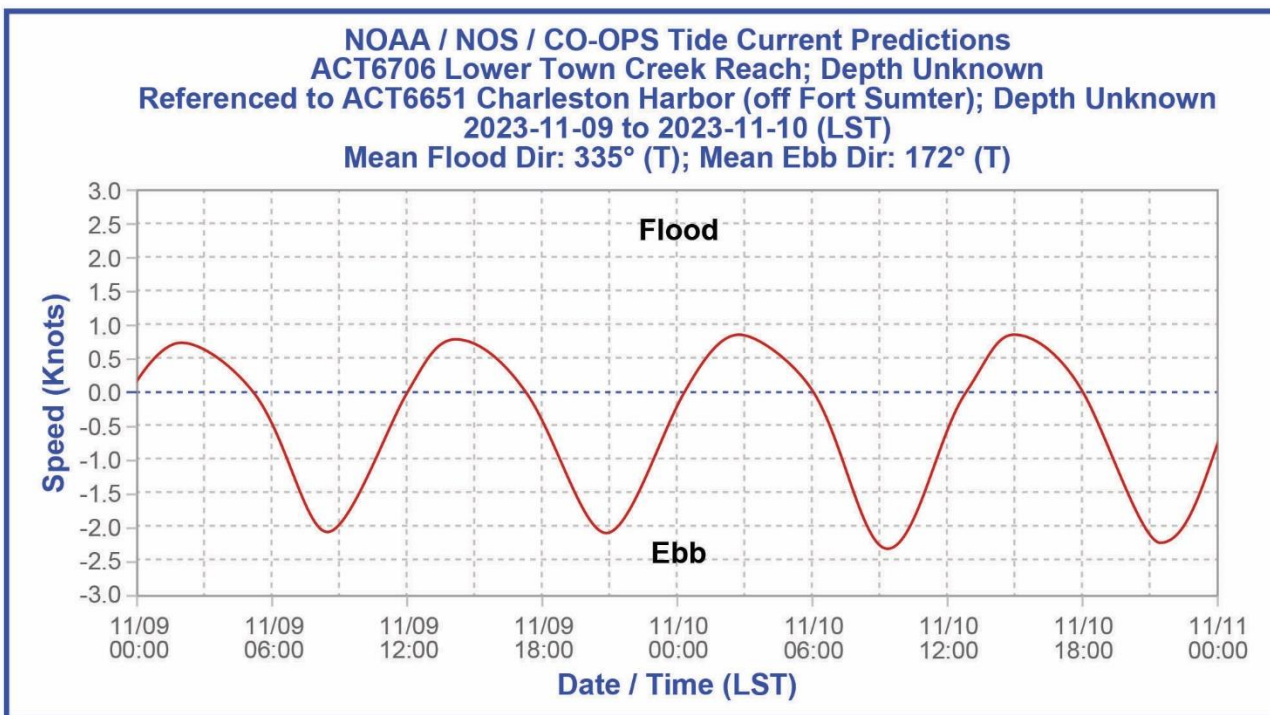
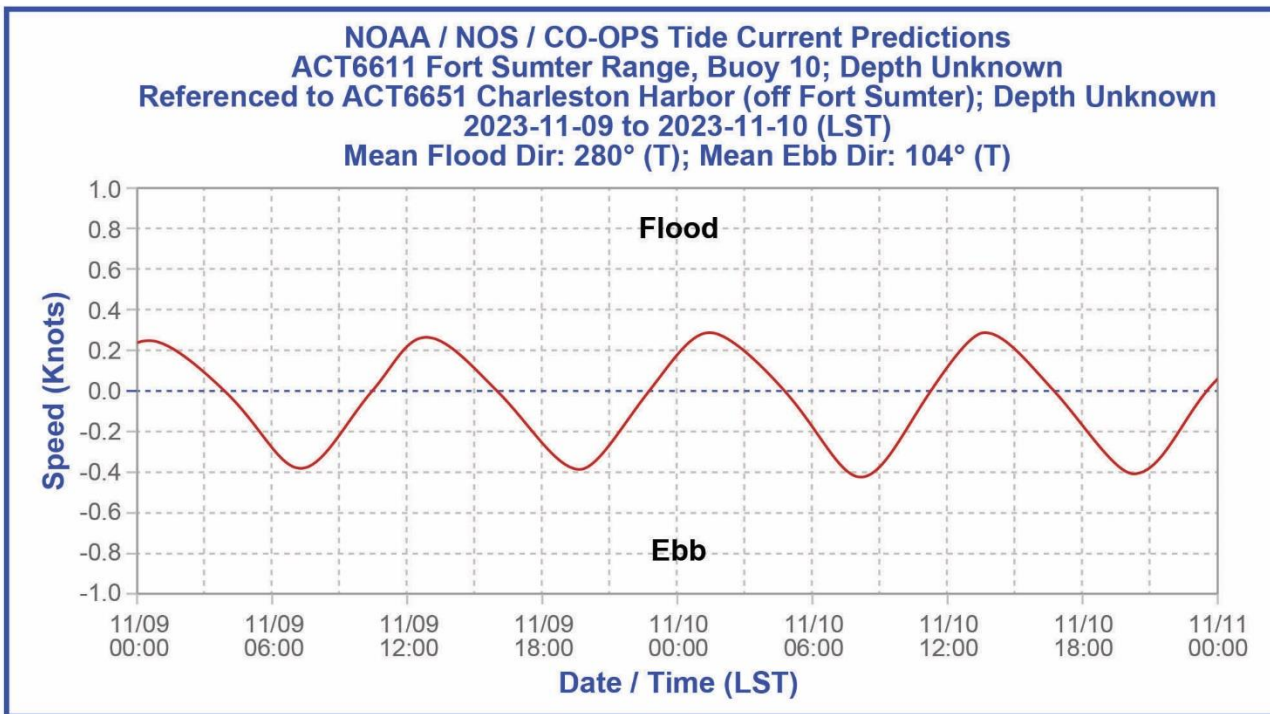


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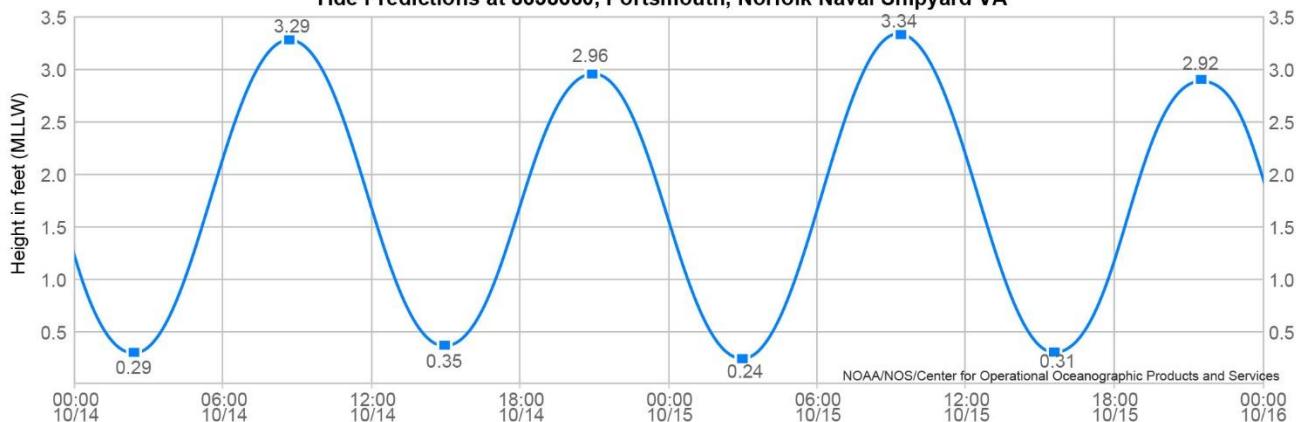
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D063NG

NOAA/NOS/CO-OPS

Tide Predictions at 8638660, Portsmouth, Norfolk Naval Shipyard VA



High/Low Tide Prediction Data Listing

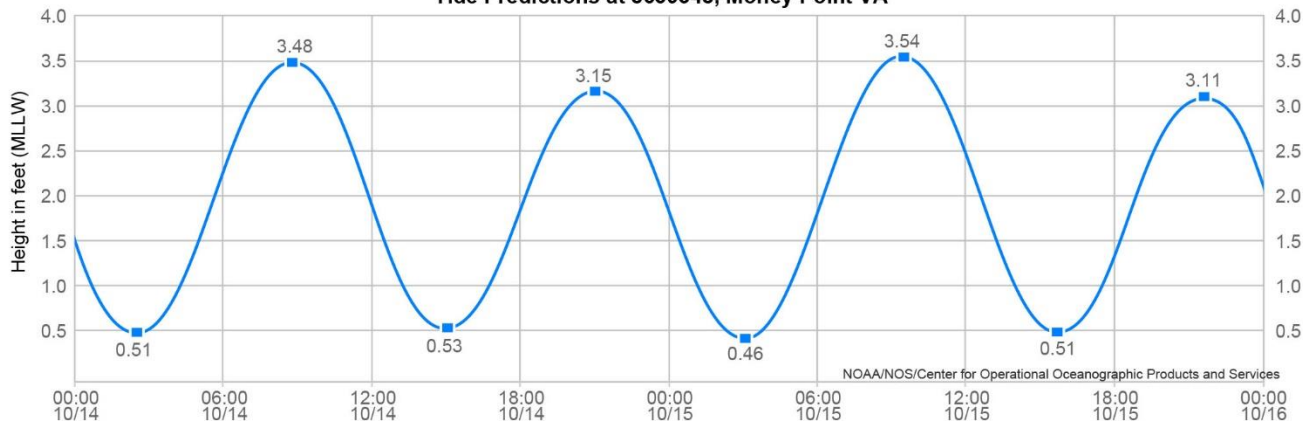
Station Name: Portsmouth, Norfolk Naval Shipyard, VA
Action: Daily
Product: Tide Predictions
Start Date & Time: 2023/10/14 00:00
End Date & Time: 2023/10/15 23:59

Source: NOAA/NOS/CO-OPS
Prediction Type: Harmonic
Datum: MLLW
Height Units: Feet
Time Zone: LST

Date	Day	Time	Hgt	Time	Hgt	Time	Hgt	Time	Hgt
2023/10/14	Sat	02:25	0.29 L	08:40	3.29 H	14:58	0.35 L	20:53	2.96 H
2023/10/15	Sun	03:00	0.24 L	09:17	3.34 H	15:37	0.31 L	21:32	2.92 H

NOAA/NOS/CO-OPS

Tide Predictions at 8639348, Money Point VA



High/Low Tide Prediction Data Listing

Station Name: Money Point, VA
Action: Daily
Product: Tide Predictions
Start Date & Time: 2023/10/14 00:00
End Date & Time: 2023/10/15 23:59

Source: NOAA/NOS/CO-OPS
Prediction Type: Harmonic
Datum: MLLW
Height Units: Feet
Time Zone: LST

Date	Day	Time	Hgt	Time	Hgt	Time	Hgt	Time	Hgt
2023/10/14	Sat	02:25	0.51 L	08:48	3.48 H	15:00	0.53 L	21:02	3.15 H
2023/10/15	Sun	03:01	0.46 L	09:25	3.54 H	15:40	0.51 L	21:40	3.11 H

Note: The interval is High/Low, the solid blue line depicts a curve fit between the high and low values and approximates the segments between.
Disclaimer: These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.

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