
Q183 - Navigation General: Oceans

1. At 0000 you fix your position and plot a new DR track line. At 0200 you again fix your position, and it is 0.5 mile east of your DR. Which statement is TRUE?

- The current is westerly at 0.5 knot.
- The current cannot be determined.
- **The drift is 0.25 knot.**
- You must increase speed to compensate for the current.

Note:
The drift is calculated by dividing the distance between the DR and fix by the elapsed time: 0.5 nautical miles in 2 hours equals 0.25 knots.

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2. On 6 July, at 1000 zone time, you cross the 180th meridian steaming westward. What is your local time?

- It is 2200, 7 July.
- It is 1000, 6 July.
- It is 1000, 5 July.
- **It is 1000, 7 July.**

Note:
Crossing the 180th meridian westward maintains the clock time while advancing the calendar date by one day; therefore, the local time becomes 1000 on 7 July.

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3. When adjusting a magnetic compass for error, which is TRUE concerning the deviation table?

- Construct the deviation table before the quadrantal correctors are placed on the compass
- Construct the deviation table after correcting for variation
- **Construct the table after adjusting the fore-and-aft permanent magnets**
- Construct the deviation table before correcting for any deviation

Note:
The deviation table is created after adjusting the fore-and-aft permanent magnets to accurately record the remaining deviation after mechanical adjustments.

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4. Which aid is NOT marked on a chart with a magenta circle?

- Radar transponder beacon
- Radio beacon
- Radar station
- **Aero light**

Note:
Aero lights are not marked with a magenta circle on nautical charts; this symbol is reserved for radio and radar-based aids to navigation such as radar transponder beacons, radio beacons, and radar stations.

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5. When is an air mass termed "warm"?

- If it originated in a high-pressure area
- **If the ground over which it moves is cooler than the air**
- If it originated in a low-pressure area
- If the mass is above 70°F

Note:
An air mass is classified as warm when its temperature is higher than that of the surface it traverses, a distinction based on relative temperature rather than origin or absolute temperature.

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6. You are anchored in the Aleutian Island chain and receive word that a tsunami is expected to strike the islands in six hours. What is the safest action?

- Plant both anchors with about a 60° angle between them, and let out a long scope to each anchor.
- Increase the scope of the anchor cable and drop the second anchor underfoot at short stay.
- Get underway and be close inshore on the side of the island away from the tsunami.
- **Get underway and be in deep, open-ocean water when the tsunami arrives.**

Note:
The safest action during a tsunami warning is to move the vessel to deep, open-ocean water, as tsunamis are most dangerous in shallow coastal areas where wave height and currents are amplified.

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7. 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".

- 15.4 nm
- 10.3 nm
- 13.1 nm
- **18.3 nm**

Note:
The geographic range of a light is the sum of the distances to the horizon from the observer and the light. For Fenwick Island Light, Delaware, with a 42-foot height of eye, the Light List/Coast Pilot tables indicate a combined geographic range of 18.3 nautical miles.

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8. What is the approximate geographic range of Point Judith Light, Rhode Island, if your height of eye is 62 feet (18.9 meters)? Refer to "Reprints from the LIGHT LISTS AND COAST PILOTS". (use charted range of 20 miles as nominal range)

- 9.6nm
- 16.5nm
- **18.6nm**
- 20.7nm

Note:
The geographic range of a light is determined by adding the horizon distances for the observer and the light, limited by the nominal range. Using the provided formula and heights of eye (62 ft) and light (65 ft), the geographic range is calculated to be approximately 18.6 nautical miles, which is less than the nominal range of 20 nautical miles; therefore, the visible range is 18.6 nm.

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9. Which term is given to the arc of an hour circle between the celestial equator and a point on the celestial sphere, measured northward or southward through 90°?

- Altitude
- Azimuth angle
- **Declination**
- Latitude

Note:
Declination is the angular distance of a celestial body north or south of the celestial equator, measured along its hour circle to a maximum of 90.

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10. The ARPA may swap targets when automatically tracking if two targets are in which situation?

- **The targets pass close together**
- The targets are tracked on reciprocal bearings
- The targets are tracked at the same range
- The targets are tracked on the same bearing

Note:
An ARPA may swap target tracks when two targets pass close together, causing their radar echoes to fall within each other's tracking gates.
