



# **SAFETY AND RESCUE BOAT HANDLING**

## **REVIEW QUESTIONS**

PO Box 1260  
Portsmouth, RI 02871  
Tel 401 683-0800 Fax 401 683-0840  
powerboat@ussailing.org www.uspowerboating.com



US POWERBOATING an affiliate of US SAILING





## SAFETY AND RESCUE BOAT HANDLING REVIEW QUESTIONS

### PAGE REFERENCES TO *SAFETY, RESCUE & SUPPORT BOAT HANDLING (SRS) TEXTBOOK AND CHAPTER 14 OF *START POWERBOATING RIGHT! (SPR) TEXTBOOK**

*Read each question carefully and select the best answer. There is one best answer for each question.*

#### SRS CHAPTER 1: OPERATOR & CREW

1. Which of the following U.S. Coast Guard licenses has geographic limitations which may limit the operator within the locality of a club or facility?
  - a. 100-ton Captain License
  - b. OUPV License
  - c. Master License
  - d. Limited Masters License

**Ref: SRS pg 5**
  
2. Which of the following conditions requires a safety-rescue boat operator to have an appropriate U.S. Coast license?
  - a. operating on Lake Michigan with no passengers for hire on board
  - b. operating on an inland lake within a state with no outlet at any time
  - c. operating on navigable waters with passenger(s) for hire on board
  - d. operating on navigable waters with no passenger(s) for hire on board

**Ref: SRS pp 5, 6**
  
3. Which of the following is a definition of a *passenger for hire*?
  - a. a person who has contributed a consideration as a condition of carriage
  - b. a person who has volunteered only to the actual expenses for the trip
  - c. a person who has only donated fuel, food, beverage or other supplies
  - d. a person who is a paid crew member and not contributed consideration

**Ref: SRS pp 5, 6**
  
5. Which VHF radio channel should be used to make a radio check?
  - a. Channel 9
  - b. Channel 13
  - c. Channel 16
  - d. Channel 68

**Ref: SRS pg 16**
  
6. What word is used to indicate a distress call when a vessel or person is threatened by grave and imminent danger requiring immediate assistance?
  - a. Pan-Pan
  - b. Securite
  - c. Mayday
  - d. Distress

**Ref: SRS pp 17, 18**
  
7. What word is used to indicate an urgent message concerning the safety of a vessel or person on board that is not life threatening?
  - a. Pan-Pan
  - b. Securite
  - c. Mayday
  - d. Wilco

**Ref: SRS pg 18**
  
8. Which VHF radio channel is restricted to only intership communication for recreational boaters?
  - a. Channel 22A
  - b. Channel 24
  - c. Channel 68
  - d. Channel 72

**Ref: SRS pg 19**

#### SRS CHAPTER 2: EQUIPMENT & PREPARATION

4. What position should the High Power/Low Power switch be set to when initially making a VHF radio call?
  - a. neutral power
  - b. high power
  - c. low power
  - d. standby

**Ref: SRS pg 14**
  
9. Which VHF radio channel(s) is (are) used for non-emergency communication with the U.S. Coast Guard?
  - a. Channel 13
  - b. Channel 22A
  - c. Channels 24 through 28
  - d. Channel 70

**Ref: SRS pg 20**

10. What is the Procedure Word (PROWORD) used to indicate the end of a transmission and no response is desired or required?
- Out
  - Over
  - Roger
  - Standby

**Ref: SRS pg 20**

11. What is the Procedure Word (PROWORD) used to indicate the end of a transmission and a response is desired?
- Out
  - Over
  - Roger
  - Standby

**Ref: SRS pg 20**

### **SRS CHAPTER 3: CONCEPTS FOR EMERG. & RESCUES**

12. What is the basic concept for emergency and rescue situations?
- liability considerations always come first
  - supervision first and rescue second
  - people first and equipment second
  - equipment first and people second

**Ref: SRS pg 22**

13. Which of the following describes a person who has aquatic distress?
- is unconscious and has reached a critical distress stage.
  - may have only 20 to 60 seconds to final submersion.
  - is unable to shout and arms are pushing down on water.
  - needs help and is able to shout or wave and grab a line.

**Ref: SRS pg 24**

14. Which of the following describes a person who has gasp reflex?
- is unconscious and rigid and has reached a critical distress stage.
  - falls into cold water, immediately quick intake of breath and hyperventilates.
  - needs help and is able to shout or wave and grab a line during the rescue.
  - is unable to shout, arms are pushing down on water to avoid suffocation.

**Ref: SRS pg 24**

15. What does this hand signal indicate?
- I'm okay
  - I need assistance
  - slow down
  - stop

**Ref: SRS pg 26**



16. What does this hand signal indicate?
- I'm okay
  - I need assistance
  - slow down
  - stop

**Ref: SRS pg 26**



17. What does this hand signal indicate?
- I'm okay
  - I need assistance
  - slow down
  - stop

**Ref: SRS pg 26**



### **SRS CHAPTER 4: SAFETY & RESCUE OPERATIONS**

18. What is the maneuver used to bring a boat back onto its reciprocal track?
- Parallel Track Return
  - Sector Return
  - Williamson Turn
  - Anderson Turn

**Ref: SRS pg 29**

19. What is an essential element for conducting a search pattern?

- able to operate at high speed.
- determine speed with a knotmeter.
- have at least one mile of visibility.
- establish a datum for the search.

**Ref: SRS pg 30**

20. If your eyes are five feet above the water, how many miles away is the horizon?

- 1 nautical mile
- 2½ nautical miles
- 5 nautical miles
- 10 nautical miles

**Ref: SRS pg 31**

21. What is the definition of a visibility measurement (V)?

- the maximum distance at which a person or object can be spotted
- the minimum distance at which a person or object can be spotted
- the maximum visibility distance of the horizon at the time of the search
- the minimum visibility distance of the horizon at the time of the search

**Ref: SRS pg 31**

22. What is a simple method to use for the spacing between the tracks of a search pattern?

- half the horizon distance at the time of the search
- twice the horizon distance at the time of the search
- one or two times the visibility measurement (V)
- five times the visibility measurement (V) distance

**Ref: SRS pg 32**

23. Which basic search pattern is often used for smaller search areas?

- expanding square search
- random crisscross search
- expanding spiral search
- ever-decreasing circle search

**Ref: SRS pg 32**

24. What scanning technique should be used by lookouts during a search?

- search the area between the horizon and the boat in 90-degree sectors.
- search the area between the horizon and the boat in 180-degree sectors.
- scan their assigned search sector using regularly spaced eye movements.
- back up other lookouts by searching their assigned sectors as well.

**Ref: SRS pp 33-34**

25. How should a safety-rescue boat make its final approach during a person in the water (PIW) rescue?

- stern first with the wind and waves on the stern
- bow first and perpendicular to wind and waves
- stern first and headed into the wind and waves
- bow first and headed into the wind and waves

**Ref: SRS pg 35**

26. When contact has been made with a person in the water (PIW) with a boathook, line or Lifesling, what is the next step?

- reverse the engine.
- turn off the engine.
- keep idling in neutral.
- make an emergency stop.

**Ref: SRS pg 35**

27. What is a good knot to use when a loop needs to be put in a towing bridle?

- bowline on a bight
- overhand knot
- rolling hitch
- sheet bend

**Ref: SRS pg 38**

28. If a loop needs to be made in a towing bridle, what knot could be used to do this?

- bowline
- lineman's loop
- clove hitch
- slip knot

**Ref: SRS pg 39**

29. What is recommended for the safety-rescue boat when towing boats astern?
- a flashing blue all-round light over a red light to indicate a tow
  - lighted running lights at all times to indicate limited maneuverability
  - a readily available hacksaw to cut the towline in an emergency
  - a person to serve as an observer and to handle the towline
- Ref: SRS pg 39, 42**
30. When towing a boat astern, what may affect its positioning on the tow?
- size and type of the towline being used
  - if the towline is attached to a bitt or bridle
  - transverse waves of the safety-rescue boat
  - experience level of people on the towed boat
- Ref: SRS pp 39-40**
31. When a sport powerboat is being towed, where is usually the strongest place to attach a towline?
- the eye on its stem
  - a secondary cleat
  - the bow pulpit
  - the console rail
- Ref: SRS pg 40**
32. When towing a sailboat with the towline attached to the mast and not led through a bow chock or fairlead, what will be required?
- the centerboard down all the way
  - a person to steer the sailboat
  - sailors to sit all the way forward
  - a towing bitt to elevate the towline
- Ref: SRS pg 40**
33. What technique may be used for towing Lasers short distances?
- detach the sail from the boom allowing it to flap.
  - detach the gooseneck allowing the sail to flag.
  - transfer the sailors to the safety-rescue boat.
  - make sure the daggerboard is down all the way.
- Ref: SRS pg 40**
34. How should towlines be rigged with a single-line tow of multiple sailboats?
- be less than one boat length.
  - be hand-held by the sailors.
  - run from stern cleat to bow cleat.
  - run from mast to mast.
- Ref: SRS pg 43**
35. If towlines are tied to masts on a single-line or double-line tow of multiple sailboats, what method should be used to reduce the load on the masts?
- emergency release knot
  - bowline-to-bowline
  - bowline on a bight
  - double rolling hitch
- Ref: SRS pp 43, 45**
36. What is an advantage of the Daisy Chain tow used for sailing prams?
- breaks up by pulling the towline through the loops.
  - allows the boats to be towed at higher speeds.
  - can easily tie and untie painters to the towline.
  - eliminates the need to tie and untie knots.
- Ref: SRS pg 44**
37. What is the preferred knot to secure bow lines or painters to the towline of a Herringbone tow?
- bowline on a bight
  - lineman's loop
  - rolling hitch
  - clove hitch
- Ref: SRS pg 45**
38. When using a double-line tow, why are boats usually staggered?
- to avoid having alongside boats be drawn together by suction.
  - to avoid having alongside boats being forced apart by pressure.
  - to equalize the wave pressure gradients and reduce transverse waves.
  - to reduce interacting bow and stern waves for improve boat control.
- Ref: SRS pg 45**

39. Which towing method is most suitable for maneuvering a boat in a confined area or alongside a dock?
- alongside tow
  - double-line tow
  - herringbone tow
  - wishbone tow

**Ref: SRS pg 46**

40. What does the term *cast off* mean?
- untie and release a line from the boat and bring it back aboard.
  - untie and release a line from the boat and do not bring it aboard.
  - untie and let out a line so tension is eased and it hangs slack.
  - untie and remove double lines to prepare for getting underway.

**Ref: SRS pg 46**

41. What does the term *slack* mean?
- let out a line while maintaining some tension.
  - release a line on your boat and cast it off quickly.
  - let out a line until tension is eased, but not hang slack.
  - release all tension on a line and let it hang slack.

**Ref: SRS pg 46**

42. What is a disadvantage of a windward approach to a drifting boat where a towline will be used?
- is a risk of contact with misjudged approach.
  - is limited to lighter wind and sea condition.
  - has limited maneuverability during approach.
  - is difficult to perform if drifting boat has forward speed.

**Ref: SRS pg 50**

43. What could be a disadvantage of a bow first rescue?
- risk of grounding propeller
  - increased risk of fouling towline
  - poor maneuverability during rescue
  - water coming over the transom

**Ref: SRS pg 54**

44. What rescue method has a high risk of damage to the safety-rescue boat when rescuing a grounded boat in windy conditions?
- Anchor and Float a Line
  - Beach and Assist
  - Kedging
  - Stern First

**Ref: SRS pg 55**

45. Which of the following is an advantage of the Kedging rescue of a grounded boat?
- is a quick and easy method.
  - keeps towline away from propeller.
  - is good in strong winds or surf.
  - does not require using an anchor.

**Ref: SRS pg 56**

46. If a safety-rescue boat sees a capsized sailboat, what should its first action be?
- stay clear of the boat until a head count is done and all sailors are accounted for.
  - deploy an emergency flare and make a Mayday distress call on the VHF radio.
  - immediately proceed to the capsized boat at high speed and tie alongside it.
  - proceed to the capsized boat and immediately start to perform a rescue of it.

**Ref: SRS pg 60**

47. How should a safety-rescue boat be positioned near a capsized sailboat that is performing a self-rescue?
- keep within half a boatlength distance.
  - position its stern toward the sailboat.
  - position the boat to see the sailors.
  - circle the sailboat every three minutes.

**Ref: SRS pg 61**

48. A doublehanded sailboat has capsized onto its side with the sails lying near the surface of the water. Which of the following would be expected if the sailors were performing a self-rescue?

- both sailors at the mast tip lifting it to rotate the boat up out of the water
- both sailors sitting on top of the hull holding onto the lines and shroud
- a sailor grasping the centerboard and the other one underneath the sail
- a sailor on the centerboard and the other one in the cockpit scoop position

**Ref: SRS pg 63**

49. How should a safety-rescue boat make its approach to a capsized sailboat when performing a Mast Tip Lift rescue?

- at a minimum idle speed from aft of the mast
- at a minimum control speed forward of the mast
- at a moderate idle speed to the centerboard tip
- at a moderate safe speed parallel to the transom

**Ref: SRS pg 65**

50. Which of the following should be checked before starting to right a turtled sailboat?

- halyard and outhaul are cleated.
- self-bailers are closed and secured.
- rudder is removed from the transom.
- mast tip is not stuck in the bottom.

**Ref: SRS pg 67**

51. When rescuing a turtled sailboat with its mast stuck in the mud, what should be done to minimize damage to the mast?

- pull in a direction along the axis of the mast.
- put sailors on the centerboard to rotate the mast.
- put sailors on the boat to bounce the mast free.
- pump the centerboard to rotate the mast free.

**Ref: SRS pg 69**

52. In an assisted capsize recovery of a turtled catamaran, where should the towline and/or righting line be attached to the catamaran and in what direction should it be pulled to bring the catamaran upright?

- at the center point of the after trampoline crossbar and pull forward on the catamaran.
- at the bridle on the after crossbar and apply a towing load either forward or aft.
- at the trampoline crossbar near the mast base and pull astern of the catamaran.
- at the trampoline crossbar near the mast base and pull perpendicular to the hulls.

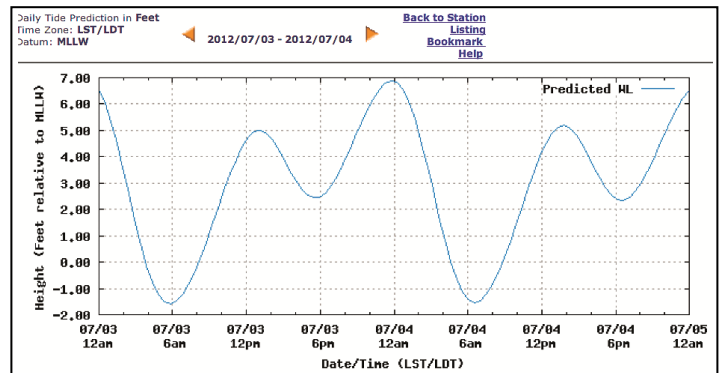
**Ref: SRS pg 71**

### SRS CHAPTER 5: THE ENVIRONMENT

53. How many low tides (waters) are there on July 4<sup>th</sup> on the tide prediction graph (below) and what is (are) the time(s)?

- only one at about 6:30 am
- two at about 6:30 am and 6:30 pm
- two at about 5:30 am and 6:30 am
- four at about 5:30 am, 5:30 pm, 6:30 am and 6:30 pm

**Ref: SRS pp 75-77**



54. What is (are) the predicted height(s) of low tide (water) on July 4<sup>th</sup> on the tide prediction graph (above)?

- only minus 1.6 feet
- two at minus 1.6 feet
- minus 1.6 feet and plus 2.3 feet
- plus 2.5 feet, plus 2.3 feet and two at minus 1.6 feet

**Ref: SRS pp 75-77**



55. What is the actual depth of the water at low tide (water) at a location?
- height of low tide (water) indicated on a tide prediction graph
  - charted depth (sounding) of the location on a nautical chart
  - height of low tide added to the charted depth of the location
  - range of tide added to the charted depth of the location

**Ref: SRS pp 75-76**

56. What is the depth of the water at low tide (water) if the predicted height of low tide (water) is plus 2.5 feet, the tide range is 7 feet, and the water depth on the chart at the location is 4 feet?
- 2.5 feet
  - 6.5 feet
  - 9.5 feet
  - 13.5 feet

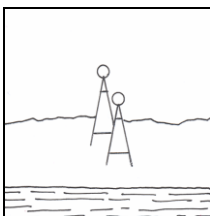
**Ref: SRS pp 75-76**

57. What is the depth of the water at low tide (water) if the predicted height of low tide (water) is minus 2.5 feet, the tide range is 7 feet, and the water depth on the chart at the location is 4 feet?
- 1.5 feet
  - 2.5 feet
  - 6.5 feet
  - 8.5 feet

**Ref: SRS pp 75-76**

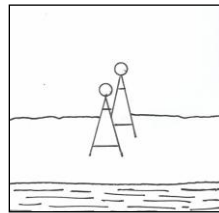
58. If a safety-rescue boat is inbound on a range and the range appears as shown in the diagram (below) where the near marker is to the right of the far marker, what action should be taken to line up the range?
- maintain a steady course to close the opening range.
  - steer a course slightly to port of the far marker.
  - turn left away from the direction of the near marker.
  - turn right toward the direction of the near marker.

**Ref: SRS pg 78**



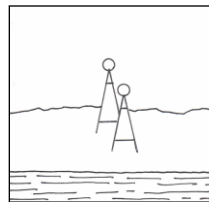
59. If a safety-rescue boat is inbound on a range and the range appears as shown in the diagram (below) where the near marker is to the left of the far marker, what action should be taken to line up the range?
- steer a course slightly to starboard of the far marker.
  - turn right away from the direction of the near marker.
  - turn left toward the direction of the near marker.
  - maintain a steady course to close the opening range.

**Ref: SRS pg 78**



60. If a safety-rescue boat is outbound on a range and the range appears as shown in the diagram (below) where the near marker is to the right of the far marker, what action should be taken to line up the range?
- turn the boat to port.
  - turn the boat to starboard.
  - turn the boat 180 degrees.
  - maintain a steady course.

**Ref: SRS pg 78**



61. A safety-rescue boat is heading back to the marina on a course of 185 degrees and the marina's building is aligned with a tower behind it. The building starts to move slowly to the left of the tower. What should the safety-rescue boat do to keep the building and tower aligned?
- turn left until they line up again and then return to the course of 185 degrees.
  - turn right until they line up again and then return to the course of 185 degrees.
  - turn left until they line up again and then steer 180 degrees to correct for drift.
  - turn right until they line up again and then steer 190 degrees to correct for drift.

**Ref: SRS pg 78**

62. What is the definition of *slack water*?
- direction of the current is ebbing.
  - direction of the tide is decreasing.
  - velocity of current is at maximum speed.
  - velocity of current is at minimum or zero.

Ref: SRS pg 98

**SPR CHAPTER 14: BASIC NAVIGATION & PILOTING CONCEPTS**

63. What is the definition of *latitude*?
- a measurement east or west of the Greenwich Observatory
  - a magnetic direction east or west of the Greenwich Observatory
  - a magnetic distance measured north or south from the equator
  - a measurement that is taken north or south from the equator

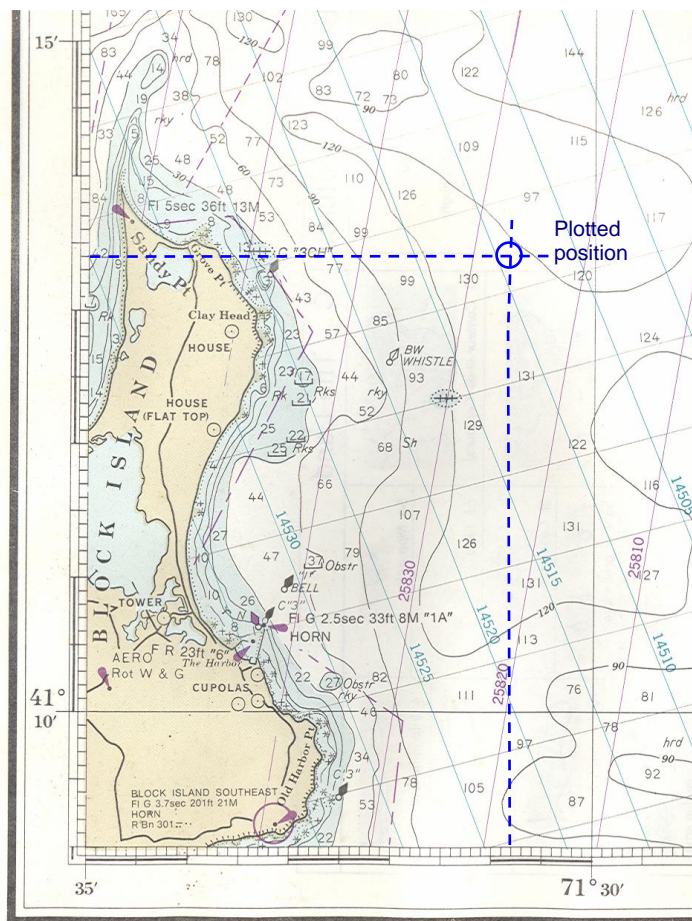
Ref: SPR pp 115, 160

64. What is the definition of *longitude*?
- a measurement east or west of a line through the Greenwich Observatory
  - a magnetic distance east or west of a line through the Greenwich Observatory
  - a magnetic distance measured north or south from the equator
  - a measurement that is taken north or south from the equator

Ref: SPR pp 115, 160

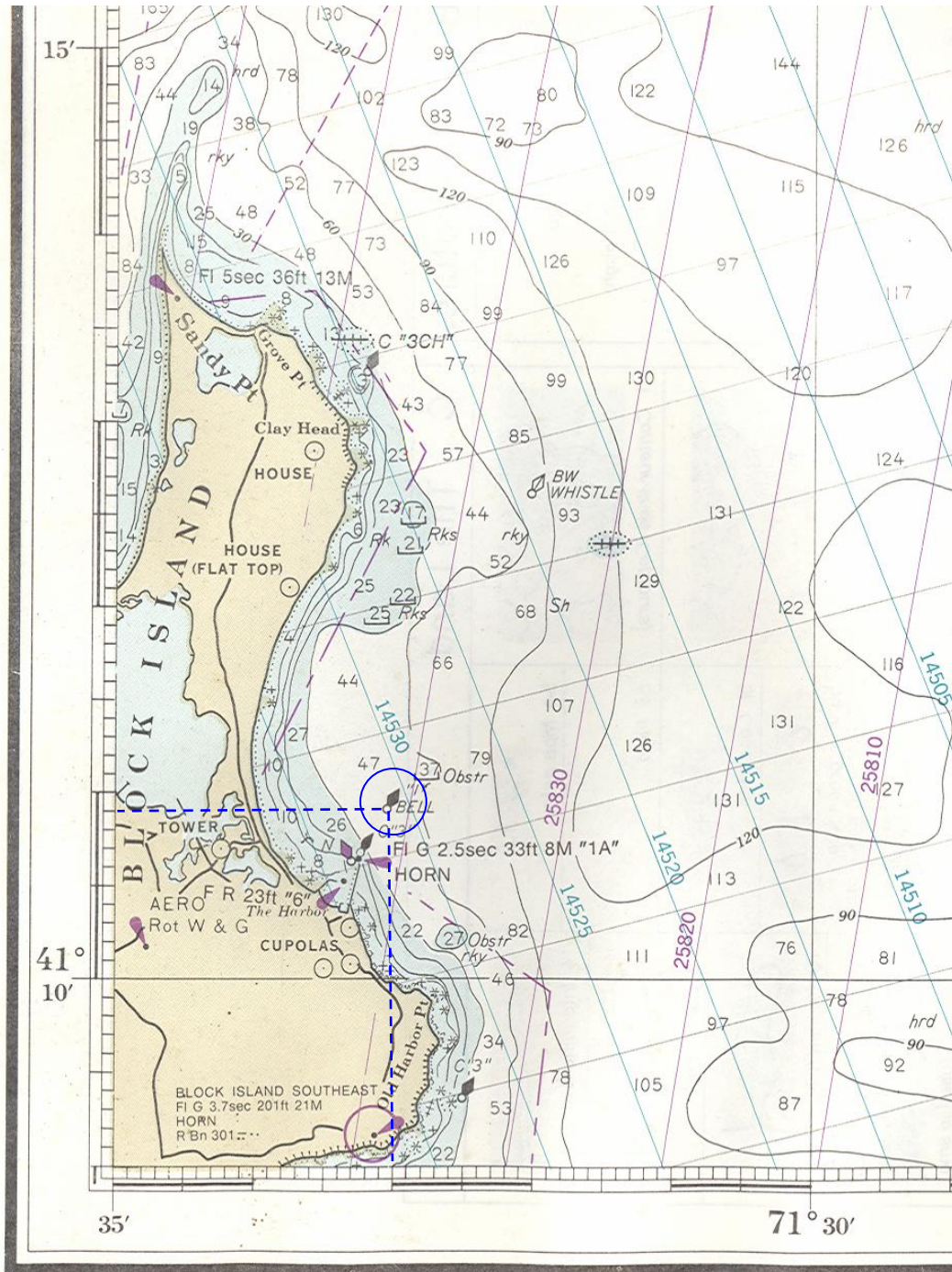
65. What are the latitude and longitude of the plotted position on the chart below?
- 71 degrees 30.8 minutes North and 41 degrees 13.4 minutes West
  - 41 degrees 13.4 minutes North and 71 degrees 30.8 minutes West
  - 44.4 degrees North and 70 degrees 92 minutes West
  - 41 degrees 44 minutes North and 71 degrees 0.8 minutes West

Ref: SPR pg 115



66. What are the latitude and longitude of the circled bell on the chart below?
- 41 degrees 10.9 minutes North and 71 degrees 33.0 minutes West
  - 71 degrees 33.0 minutes North and 41 degrees 10.9 minutes West
  - 41 degrees 19.0 minutes North and 71 degrees 33.0 minutes West
  - 71 degrees 33.0 minutes North and 41 degrees 19.0 minutes West

Ref: SPR pg 115



67. For navigation purposes, what is one minute of latitude equal to on a nautical chart?
- a. 0.1 nautical mile
  - b. 1 nautical mile
  - c. 10 nautical miles
  - d. 100 nautical miles

**Ref: SPR pg 116**

68. If a distance between two points on a nautical chart measures 3.4 minutes on the latitude scale, what is its distance in nautical miles?
- a. 340
  - b. 34
  - c. 3.4
  - d. 0.34

**Ref: SPR pg 116**

69. If a safety-rescue boat is moving at 10 knots, how far does it travel in 3 minutes?
- a. 0.3 nautical mile
  - b. 0.5 nautical mile
  - c. 1.0 nautical miles
  - d. 3.0 nautical miles

**Ref: SPR pg 117**

70. A GPS indicates that your heading should be 240 degrees True to the desired waypoint. If there is a 10 degrees West variation, what compass heading should you steer?
- a. 60 degrees
  - b. 230 degrees
  - c. 240 degrees
  - d. 250 degrees

**Ref: SPR pg 118**

