

OFFSHORE STANDARD

Objective

To be able to safely act as skipper and crew in a sailing cruiser on an offshore passage navigated by celestial and electronic means without visual reference to terrestrial objects.

Prerequisites

Basic Cruising, Intermediate Cruising & Advanced Cruising;
Coastal Navigation and Celestial Navigation Standards;
ROC(M) VHF with DSC endorsement;
Nationally recognized Standard First Aid and CPR (level A or higher);
Pleasure Craft Operator's Card;
Completing the Advanced Navigation Standard is highly recommended.

Ashore Knowledge

Section I: Passage Planning

The candidate must be able to:

1. Plan a passage across the North Atlantic or Pacific and to be able to state the advantages, disadvantages and hazards of various routes. *Ocean Passages for the World, World Cruising Routes, Climatic Charts, Great Circle Plotting Charts, plotting instruments, etc.*, may be used;
2. Plot a series of rhumb lines on a mercator chart to approximate a great circle route;
3. List the publications required for prudent navigation on an offshore passage to include the following:
 - a) Coastal charts and publications,
 - b) *Nautical Almanac*,
 - c) Sight reduction tables,
 - d) Plotting sheets,
 - e) Work sheets,
 - f) Pilot charts,
 - g) *Ocean Passages for the World* or *World Cruising Routes*.

Section II: Voyage Preparation

The candidate must be able to:

4. State the essential factors to be considered when selecting the vessel:
 - a) Displacement,
 - b) Hull shape,
 - c) Keel,
 - d) Rudder,
 - e) Rig,
 - f) Sails,
 - g) Interior layout,
 - h) Fuel capacity,
 - i) Water capacity,
 - j) Engine / machinery;
5. List items to be carried to effect minor repairs to vessel and rigging;
6. Describe items required to prevent chafing;
7. Describe three methods of self steering, their advantages and disadvantages;
8. List items necessary to repair sails;
9. Plan meals for a minimum of four people for a seven day passage;
10. Describe:
 - a) Proper methods of preserving and storing food,
 - b) The expected storage life of all food;
11. State the factors to be considered when selecting the crew:
 - a) Health,
 - b) Compatibility,
 - c) Experience/competence,
 - d) Attitude,
 - e) Capability;
12. Describe suitable clothing for the voyage;
13. State source of obtaining advanced first aid information;
14. Identify and describe the basic treatment of potential medical problems;

15. List the items to be carried in the first aid kit;
16. Describe methods of preventing injury to the cook or nearby persons while cooking at sea;
17. Prepare and file a passage plan.

Section III: Ship Board Routines

The candidate must be able to:

18. Describe three watch keeping systems and their application, advantages and disadvantages;
19. Describe alternate watch keeping arrangements in the event that crew is incapacitated;
20. Describe the duties of the crew on watch and off watch;
21. Establish a routine schedule to periodically inspect and maintain the following items:
 - a) Bilges,
 - b) Sea cocks,
 - c) Heads,
 - d) Hatches,
 - e) Galley and supplies,
 - f) Rigging,
 - g) Helm,
 - h) Electronic Equipment,
 - i) Safety Equipment,
 - j) Fuel and Water,
 - k) Engine / Machinery;
22. Set up a routine schedule for the cleaning of the vessel.

Section IV: Emergency Procedures

The candidate must be able to:

23. Describe how to rig a trailing crew overboard line with an alarm;
24. Describe an alternative method of alerting the crew to a crew overboard situation. State what other emergency situation to which you would limit the use of this device;
25. Describe what action should be taken on a crew overboard situation when the location of the crew has not been determined on the first pass;
26. Describe methods of steering a vessel without the use of the rudder;
27. Describe the various methods of stopping and controlling serious leaks;
28. Describe how to organize the crew in establishing a fire drill routine;
29. In the event of dismasting describe possible methods of jury rigging your vessel and what course you would then assume;
30. Describe what action you would take after your vessel had been struck by lightning;
31. List the items most essential for your survival to be kept in an abandon ship bag and any additional items you might add given available time;
32. State the hardships you may encounter in a life raft at sea and possible solutions;
33. List safety equipment which you would carry in addition to Transport Canada requirements.

Section V: Rules of the Road

The candidate must be able to:

34. Operate a vessel in a safe and responsible manner, applying rules 1-37, 40 and 45 of the *Collision Regulations* competently and correctly in order to maintain safe, responsible navigation in any waters by day and night;
35. Describe the shapes and characteristics of the Canadian Buoyage System.

Section VI: Weather

The candidate must be able to:

36. Describe the major cloud types, the weather and future weather associated with each;
37. State the sources of offshore weather information in one region;
38. Interpret the weather forecast and make up a rough synoptic chart for the area to be sailed;
39. Describe the formation, features, and accompanying weather of a depression in both the northern and southern hemisphere;
40. Describe the major wind belts of the world;
41. Discuss the warning signs, features, localities and seasons of the various tropical storms;
42. Describe the best course of action if a vessel is unavoidably in the path of a tropical storm.

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Afloat Skills

The candidate must be able to:

1. Act as skipper or watch keeping crew on a passage of no less than five consecutive days covering at least 500 nautical miles with at least 72 consecutive hours spent more than 100 nautical miles from the nearest land;
2. Obtain, reduce and plot a celestial fix using a sun-run-sun method;
3. Obtain, reduce and plot a night time celestial fix using 3 bodies;
4. Make a celestial compass deviation check;
5. Obtain the available weather information by radio while underway and interpret the forecast;
6. Coordinate the recovery of a simulated crew overboard, sailing a minimum of 5 minutes on a steady course after falling overboard;
7. Demonstrate the various possible techniques to be used in heavy weather situations;
8. Maintain a proper and legal ship's log;
9. Demonstrate ability to sail at the advanced level of skill;
10. Demonstrate ability to assume total competent command of all operations of the vessel and its crew in an offshore environment.

Resource Material