

# Fairwinds Massilia Checkout Exam

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## FAIRWINDS CHECK OUT WRITTEN EXAM - MASSILIA

Rev. February 2021

Candidate: \_\_\_\_\_

Date: \_\_\_\_\_

Examiner: \_\_\_\_\_

Date: \_\_\_\_\_

NOTE: a score of **90%** or better is required for a passing grade. This exam is open book with no time limit. However, it shouldn't take more than 3.5 hours.

1. List the procedures for safe refuelling (in sequence). 7 points
2. When should PFD's or lifejackets be worn on deck? 3 points
3. Assume you have 3 crew members on board and are close hauled in 10 knots of wind.
  - a. What sequence of actions would you take as skipper when your foredeck crew member falls off the boat? 6 points
  - b. What would change in your routine if there were only 1 crew member on board and you were suddenly single handing? 4 points
4. What is the total length of anchor rode you would use on Massilia when anchoring overnight in 40 feet of water (Canadian chart depth) that currently reads 44 ft. deep (depth sounder reading) at a low tide that is 2 ft. above datum and rising to 10 ft. above datum by the morning? Show your calculations & note any assumptions. 4 points
5. List the sail configurations you would use sailing Massilia close hauled against tide and current in Massilia for each of the following wind speeds. 4 points
  - a. 0-15 knots
  - b. 16-20 knots
  - c. 21-25 knots
  - d. 26-30 knots
6. Two vessels under power approach each other head on. 2 points
  - a. Which vessel gives way?
  - b. In which direction?
7. What actions must be taken by any motor vessel overtaking another? 2 points
8. You are out on the water motoring to Sidney Spit and you notice a 30 ft. power boat about 800 metres away which is sitting unusually low in the water and

## Fairwinds Massilia Checkout Exam

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- appears to be adrift. You use the VHF radio to notify mariners in the vicinity.  
What do you say? 10 points
9. What signal(s) must be given when sailing Massilia in fog? 2 points
10. What light configuration must Massilia display at night: 3 points
- a. When sailing?
  - b. When under power with sails raised?
  - c. When under power with sails lowered?
11. You are the skipper of Massilia and have only one crew member aboard. You are 1.5 miles south of Ganges Harbour and have just finished raising sails in 8 knots of wind and turned off the engine. You look below and notice water sloshing above the floor boards and hear the automatic bilge pump running constantly. You quickly look around for the water source but can't find it. You put your crew member on the manual bilge pump but the water level appears to keep rising so you grab the radio to call for help.
- a. What channel do you use? 1 point
  - b. What do you say? 9 points
12. At night you see a vessel displaying three white lights in a single vertical line and a green light.
- a. What type of activity is the vessel involved in? 1 point
  - b. In which direction (relative to you) is it proceeding? 1 point
13. You have moored Massilia to the dock at the end of the day.
- a. Draw and label the lines you have used. 2 points
  - b. What is the purpose of each one? 3 points
14. You are sailing along pleasantly in 12 knots of wind (close hauled on a port tack). The port shroud suddenly breaks off at the mast and falls to the deck.
- a. What do you do (in sequence)? 3 points
15. Describe sailing by the lee. 1 point
16. Give two reasons why you would prefer to tack rather than gybe when sailing Massilia in +20 knots of wind. Note any assumptions you make. 2 points
17. You have just anchored Massilia safely for the night and it is dusk. You realize that the mast-top anchor light is out of order. What light should you display? 1 point

## Fairwinds Massilia Checkout Exam

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18. One of your crew fell overboard while under sail. You got them back into Massilia 10 minutes later but they are shivering, have no strength or coordination, their lips are losing color and they are not conversant. You assume this is moderate hypothermia; you know they have no chronic conditions. What actions should you take to treat this person? 5 points
19. Describe the difference between compass deviation vs. variation. 2 points
20. Name 6 possible sources of fire or explosion on Massilia. 6 points
21. Describe the minimum emergency flare requirements for Massilia. 2 points
22. You are sailing Massilia close hauled in 10 knots of wind (and with the tide) down the Plumper Sound when the wind dies and a fog bank that was in the distance now envelops you and reduces visibility to about 200 metres. What should you do? 5 points
23. You are sailing Massilia on a broad reach in light wind against a 2 knot current. You're about half way up the south channel into Montague Harbour and heading north. The wind dies so you try to start the engine but it sputters and stops and won't start again (and you can hear the ignition battery losing power as you try). What sequence of actions would you undertake? (Note any assumptions you make.) 5 points
24. You have booked Massilia for the day and have two inexperienced crew members coming. The weather forecast indicates a small craft warning for the area you're headed to.
- a. What does this mean? 2 points
- b. Do you go sailing? 1 point
25. Describe "wind over tide" and its effect on sea conditions. 2 points
26. Describe the difference between "Chart Datum" on US vs. Canadian nautical charts. 2 points
27. What is the tide range and times for Tsehum Harbour for Aug. 15 this year? Document your source and show your calculations. 3 points
28. You have anchored Massilia at Sidney Spit (no moorings available). The tide changes and the wind increase, so now your anchor is dragging. What do you do? 3 points
29. You have unfortunately just run aground on Southey Point in a falling tide that is 4 hours (and 3 feet) from its low point. What actions do you take? 10 points

## Fairwinds Massilia Checkout Exam

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30. Identify and locate an example of each of the chart symbols described below on either Chart #3440 or Chart #3441 using a location description and/or latitude/longitude coordinates. 12 points

- a. Overfalls and Tide Rips
- b. Eddies and Whirlpools
- c. Kelp and Edible Seaweed
- d. Rock which does not cover with heights in metres above high water.
- e. Rock which covers and uncovers with heights in metres above datum of soundings and rocks of small area.
- f. Occulting light
- g. Rocky Bottom, rocks
- h. Mud bottom
- i. Rock with 6 feet (2 metres) or less over it at datum
- j. North Cardinal Buoy
- k. East Cardinal Buoy
- l. Current Direction with rates of flow (ebb).

## Fairwinds Massilia Checkout Exam

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31. Massilia has just been stripped out of all its safety equipment (except docking lines, flares & the emergency steering assembly) by thieves. We're insured, so what replacement equipment should you buy to meet safety standards? 9 points
32. Describe the actions you would take when (under power) cooling water stops flowing out of Massilia's exhaust and the engine's cooling water temperature sounds. 5 points
33. You're out sailing in Massilia with another boat. What VHF channel(s) would you use to contact and converse with them on when planning your menu? 2 points
34. You hear a high pitched whine and you discover it is the propane alarm. Describe what steps you take and any assumptions you make. 5 points