Seaforth ASA 105 Study Guide

Coastal Navigation Standard (105)

Prerequisites: None
General Description: Able to demonstrate the **navigational theory** required to safely navigate a sailing vessel in coastal or inland waters. There is no Sailing Skills part to this Standard and practical application of this Sailing Knowledge is found in the Advanced Coastal Cruising Standard.

SAILING KNOWLEDGE
A Certified Sailor has successfully demonstrated his or her ability to:

1. Explain the chart symbols and conventions on U.S. nautical charts in accordance with the terminology of chart #1.

2. Identify a source of official U.S. Coast Guard navigation publications.

3. List the publications required for prudent navigation in the local area including the following ASA minimum requirements:

    - Large scale charts of the area and chart #1
    - Federal Requirements for Recreational Boats
    - USCG Navigation Rules
    - State small vessel regulations
    - Local rules and regulations, if applicable
    - Local sailing directions
    - Tide and current tables, if applicable
    - List of lights, buoys, and fog signals
    - Radio aids to navigation (if using radio or RDF)

4. List the instruments required for prudent navigation in the local area including the following minimum requirements:

    - Steering compass and deviation table
    - Hand bearing compass and / or pylorus
    - Binoculars
    - Protractor or parallel rule
    - Depth sounder or lead line
    - Pencil, eraser, and notebook
    - Dividers
    - Watch or clock
    - Log / Knot meter

5. Describe the purpose of "Notice to Mariners."

6. Use the tide and current tables to find:

- Times and heights of tides at reference and secondary ports.
- Direction and rate of current at referenced and secondary stations.

7. Convert courses and bearings between true, magnetic, and compass.

8. Check compass deviation by means such as a transit bearing.

9. Plot a dead reckoning position on a chart using speed, time and course to steer.

10. Allow for the effect of current and leeway to plot the estimated position.

11. Determine a course to steer which takes into account known current and leeway.

12. Determine current given the course steered and speed and two observed positions.

13. Plot a chart position from terrestrial objects using:

- Two or more bearings on different objects taken at one time.
- Bearings at different times (i.e. a running fix).
- One bearing and transit range.
- One distance (i.e. a sounding or dipping a light) and one bearing.

14. Use the above techniques to chart a course of at least 20 miles and 3 course changes.

15. Explain the terms and characteristics used for lighted navigation aids.

16. Explain the significance of shapes, colors, and lights used in the buoy system.