Yachtmaster Ocean Study Guide

Draft 1 dated 20 November 2022

Background:

Yachtmaster Offshore CoC entitles you to cross an ocean. There is no need to go further than that. SA Sailing has however retained the Yachtmaster Ocean qualification for those who wish to learn how to fix their position in mid ocean as was done in the old days before GPS.

Prerequisites:

The prerequisites for Yachtmaster Ocean are

1. A South African Sailing Yachtmaster Offshore qualification.
2. An eye test. Colour vision is required.
3. A South African SRC Radio Operator's Certificate or a higher level GMDSS certificate such as the LRC or GOC

The YM Ocean examination

The Yachtmaster Ocean examination procedure consists of two separate exams:

1. A practical exam where you demonstrate the use of a sextant and sextant corrections.
2. A written chart work exam.

The chartwork exam will be based on the use of the following publications:

1. Sight Reduction Tables for Air Navigation – Selected Stars Publication 249 Volume 1
2. Sight Reduction Tables for Air Navigation – Latitudes 0° to 40° – Declinations 0° to 29°. Publication 249 Volume 2
3. Nautical Almanac Commercial Edition

You can buy the books. Alternatively, it is quite acceptable to access or download the pages you need from https://www.thenauticalalmanac.com/. In the exam, the sheets you need will be supplied with the exam paper.

The chartwork exam might involve any of the following:

1. Determining latitude from a pole star sight
2. Determine latitude and approximate longitude from the meridian passage of the sun or any other celestial body.
3. Reducing star, sun, planet, and moon sights using Tables for Air Navigation Volume 2.
4. Planning star sights using Tables for Air Navigation Volume1 – Selected Stars
5. Reducing star sights using Tables for Air Navigation Volume 1 – Selected Stars.
6. Plotting sights on a universal plotting sheet
7. Running up sights from one time to another by transferring a line of position.
8. Checking compass deviation using the azimuth of a celestial body or the amplitude of the sun.

The practical exam will check that you are able to use a sextant. You will be asked to demonstrate dropping the sun or some other celestial body onto the horizon (or a surrogate horizon such as an appropriate roof) and to correct the sextant for perpendicularity, side error and index error.

Study Material

There are several excellent books on celestial navigation using Air Navigation Sight Reduction Tables. For example:

1. RYA Astro Navigation Handbook by Tim Bartlett
2. Celestial Navigation by Tom Cunliffe
3. Down to Earth Celestial Navigation by Russell Sher Kindle edition.

If you are going the self-study route, you should consider obtaining more than one book. This is quite a technical subject, and you might benefit from reading several different explanations of the same topic.

Jan Hofmeyr
SA Sailing National Senior Examiner

Russell Sher
SA Sailing WC Regional Senior Examiner