

ASA117 Basic Celestial Endorsement is for those who want to learn just the basics of how to operate a sextant to determine position at sea, or for those who want an introduction before taking the more comprehensive ASA107 Celestial Navigation.

Prerequisites: None

Class taught at Hartsville Fire Co., 1195 York Rd., Warminster, PA.

ASA117 Basic Celestial Endorsement-Three day class includes text, universal plotting sheets, and certification. \$269

After completing ASA117 Basic Celestial Endorsement, take ASA107 Celestial Navigation available as home study for \$199. Includes test, certification, and e-mail support.

Phone: 215-499-0335

ASA117 Basic Celestial Endorsement

Nockamixon Sailing School, Inc.

New three day class forming:

February 11, 18, and 25. Time: 10:00AM-4:00 PM Daily

Learn to apply basic celestial navigation theory and practice to determine longitude and latitude at sea using a sextant and nautical almanac. Learn basic terms and theory of celestial navigation including time conversion between Standard and Greenwich Mean Time, calculation of zone time at a given longitude, determination of time for sunrise, sunset, and civil twilight given your position. Also learn the parts principals and operation of a marine sextant, and learn to determine the altitude of the Sun and Polaris. Also learn to obtain longitude and latitude at noon by applying sextant corrections to raw sextant altitudes to true celestial altitudes of the sun, and learn to determine your vessel's latitude and estimated position at morning and evening twilight using the altitude of Polaris, and more.



Discover the Captain in You

Sextant not required to take course.

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What is the difference between ASA 117 Basic Celestial Endorsement and ASA107 Celestial Navigation Class?

ASA offers two programs in Celestial Navigation. ASA117 is an introductory program which introduces students to basic celestial navigation theory and practice. ASA117 students learn basic terms and theory of celestial navigation, time conversion between Standard and Greenwich Mean Time, how to calculate zone time at a given longitude, determine time for sunrise, sunset, and civil twilight given your position, learn the parts principals and operation of a marine sextant, learn to determine the altitude of the Sun and Polaris, obtain longitude and latitude at noon by applying sextant corrections to raw sextant altitudes to true celestial altitudes of the sun, learn to determine your vessel's latitude and estimated position at morning and evening twilight using the altitude of Polaris. The ASA117 program is a fun 3 day class and ends with a two hour test that most pass with little problem.

ASA107 class is a more comprehensive and difficult celestial program and covers all types of celestial bodies, not just Polaris and the sun at local apparent noon. This includes all the major celestial bodies such as sun, moon, stars, and planets. This class focuses on students becoming familiar with use of work forms for each type of celestial body and plotting solutions on plotting sheets. A lot is covered in ASA107 in terms of use of the work forms, DR plotting, estimated position, running fix, use of the Rude Star Finder, and using a planet to check the accuracy of your compass. Not much time is available to use the sextant, as is done in ASA117. ASA107 is more of a math and plotting class. ASA107 ends with a written test that takes most students 5-7 hours to complete. Certification to ASA107 is required for students who eventually want to get certified to the ASA108 Ocean Passage Making Class.

Although there are no prerequisites for ASA117 or ASA107 students who take either must already be familiar with coastal navigation concepts including conversion from Compass to True, running fix, estimated position, and speed time distance relationships associated with plotting of DR positions. I also recommend that students who want to take ASA107 should take an introductory celestial class first. I am certified to teach both ASA117 and ASA107 but currently only offer ASA107 as home study. I feel that students can get the concepts in the ASA117 class, and then take ASA107 via home study at their own pace. When they are ready they can then take the test.

Three sextants will be demonstrated in the ASA117 Celestial Navigation class:

Cassens & Plath Horizon Ultra- 2010

Weems & Plath- 1977

Davis Mark 25- 2011



Weems & Plath



Davis MK 25



Cassens & Plath Horizon Ultra

Other things that make the Nockamixon Sailing School Celestial Endorsement class the best:

Unless you live near a coastline where you can view a natural horizon you will need to learn to use an artificial horizon in order to practice taking altitudes of celestial bodies. Use of a bubble and use of a Davis artificial horizon are included in the Nockamixon Sailing School ASA117 Celestial Endorsement Class.

See all three commonly used sight reduction tables; Publication number 229 Sight Reduction Tables for Marine Navigation, Publication number 249 Sight Reduction Tables for Air Navigation, and the sight reduction tables in the Nautical Almanac. Decide which you like the best and then purchase your own.

View Textbooks commonly used in Celestial Navigation, to determine if you want to purchase them for yourself: Bowditch's the American Practical Navigator, Dutton's Nautical Navigation, and the official textbook used in the ASA107 Coastal Navigation class, Edward Bergin's A Star to Steer her By.



Hartsville Fire Co., 1195 York Rd., Warminster, PA