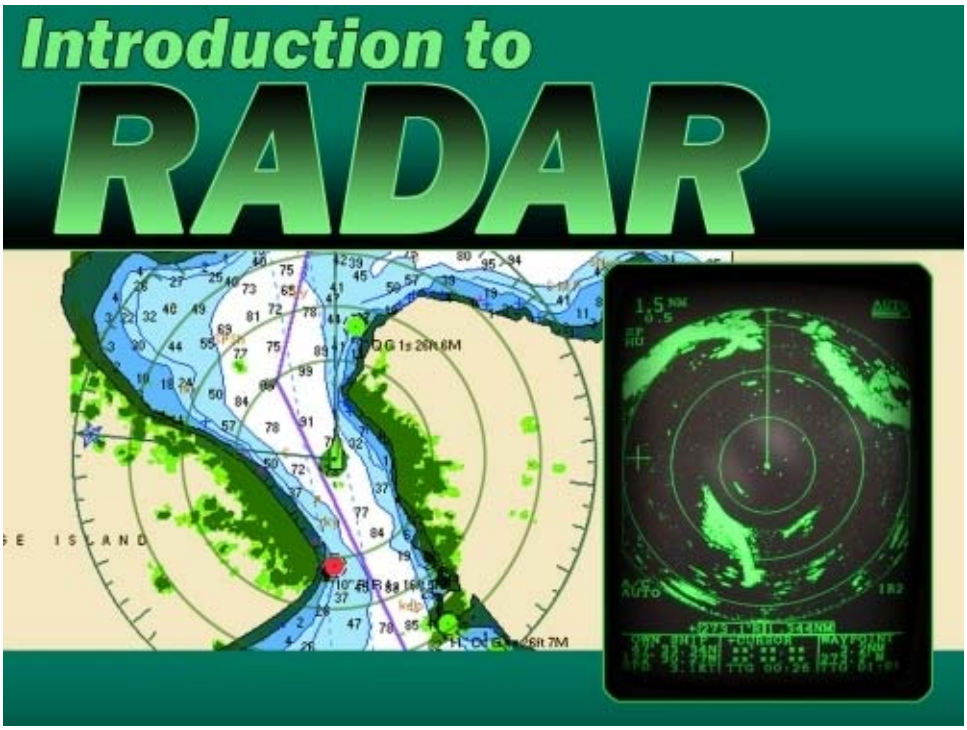


Duration

You work at your own pace on your own schedule, but we suggest that the course might take about 4 to 6 weeks, doing about one lesson per week, at approximately 2 to 4 hours per lesson.

Dates

The complete course is online. You can start any time.

Course description

The course covers all aspects of practical small-craft radar usage that would be needed to get underway using your radar. It covers the topics of the text book *Radar for Mariners*and fills in the details on radar functions and operations while honing your skills with more emphasis on evaluating risk of collision and subsequent maneuvers that might be called for.

How the course works

Please read the general description of How the Courses work. Those notes apply to all courses. You can enroll and start work anytime. You have access to the full set of lessons when you enter the course, but the quizzes must be submitted sequentially. This course also has a thorough set of slides, each annotated as they might be in a classroom course.

Prerequisites

There are no formal prerequisites for the Radar Course, but a some experience with chart navigation and piloting would be helpful.

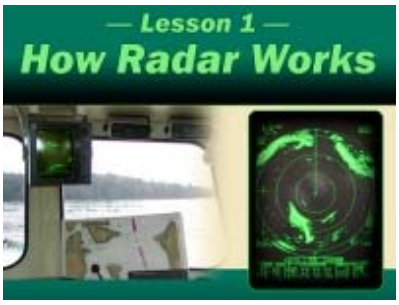
Student Objectives

- Basics of radar operation and controls
- Corroborate a GPS position using the radar
- Pinpoint your position on a chart from radar alone
- Use of radar as a general tool for seeing where you are
- Use radar for a piloting aid to hold a desired course or maneuver
- Evaluate the risk of collision with an approaching vessel
- Radar performance and specifications
- Radiation safety near radar antennas
- Practical use of AC-Rain (FTC) and AC-Sea (STC)
- Identifying radar interference
- Figure true course and speed of a target vessel from its radar trail
- Value and uses of compass and GPS input into a radar unit
- Pros and cons of Head-up, Course-up and North-up displays
- Understand how the Nav Rules apply to radar usage
- Radar maneuvering in the presence of traffic

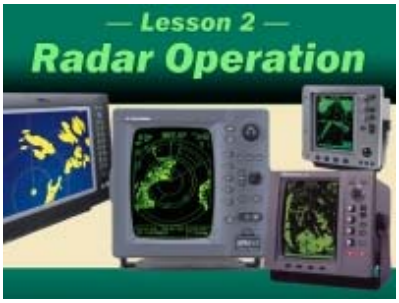
Certification

We offer an optional Starpath certification exam upon completion of the course. Successful completion of that exam provides certificate and logbook stickers that can be used to document your training. We can also offer the ASA radar endorsement exam as well. See Certification Standards.

This course is endorsed by the American Sailing Association

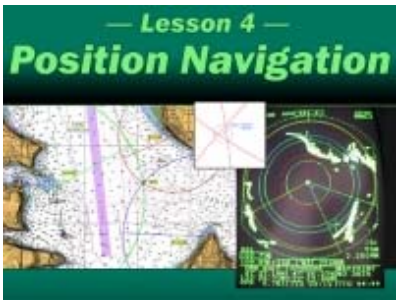


Overview of system components • Microwave pulse and beam structure • Radar target characteristics • Range of detection, scanner design, and mounting options • Power requirements • Radiation safety near radar scanners



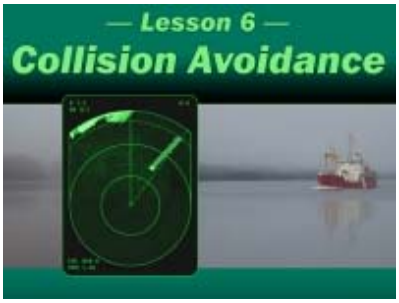
Turning on, warning up, and initial adjustments • Gain adjustments • Use of anti-clutter controls for rain (FTC) and sea state (STC) • Pros and cons of optional display modes: Head-up, North-up, and Course-up • Optimizing pulse-length selection • Measuring target range and bearing with VRM, EBL, and cursor mode • Use of guard sectors and alarms

Optimizing radar picture for specific observations • Radar shadows • Effect of horizontal beam width on target images • Effect of pulse length on target images • Identifying interference and other unwanted echoes

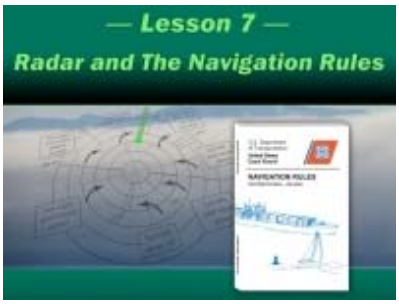


Coordinating electronic chart displays with the radar screen • Quick radar range and bearing confirmation of GPS positions • Accurate multi-range fixes using radar

Use of radar to hold a desired course • Use of electronic range and bearing line (ERBL) • Finding and keeping track of position relative to prominent landmarks • Identifying distant harbors or channels • Rounding a corner at a safe distance off • Anchoring with radar



Use and value of target trails and wakes • Tracking targets with EBL and VRM • Estimating time, range and bearing to closest point of approach (CPA) • Figuring true course and speed of approaching targets (relative motion diagram) • Determining expected running lights based on radar observations • Rules of thumb for radar maneuvering • Radar reflectors • Overview of ARPA and AIS



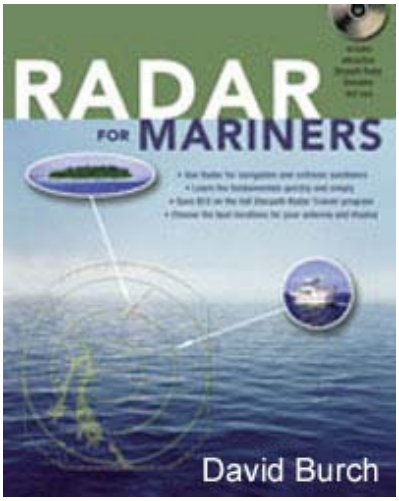
Role of radar in evaluating risk of collision • Cautions (limitations) for radar use cited in the rules • Rules' requirements for checking various ranges and adjustments • Application of Rule 19d — when detecting a converging target by radar alone

Required Materials

The online course on Basic Radar requires the Starpath Radar Trainer simulator software program and the textbook *Radar for Mariners*. The reading assignments are from the book and many of the practice exercises are carried out using the simulator.

You will need your Radar Trainer software serial number to register for this course. You can purchase these materials online here or at other outlets worldwide. Package options are available depending on what part if any of the materials you aready own. These are presented in the Enroll Now tab.

Click the picture to go to order page.



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