# **ABB**

## **BUZZARDS BAY SAIL AND POWER SQUADRON**

#### 2024 Seminars

# **Coastal Navigation Series**

Three 2-hour seminars provide the basics of coastal, near-coastal and inland navigation. The three seminars are:

## Nautical Charts, they are Changing

Charts provide the essential information needed by boaters to plan, navigate and check their passage. Charts are changing as they migrate toward vector charts alone with the elimination of traditional paper charts and their electronic equivalents. This seminar explains how to obtain needed charts, and understand and use these charts, either on-screen or printed. You will learn how to determine position, direction, and distance on a chart. You will practice these skills.

### Coastal Navigation – Part I

You will learn the fundamentals of waypoint navigation which is an essential ingredient in navigation using GPS. We then move on to the planning process using waypoint navigation to determine a series of pre-qualified, safe legs from one location to another. Once the plan is complete, navigation involves successfully following these pre-qualified paths (legs) and monitoring progress. You will practice these skills and apply them in a practice cruise as homework before the final seminar session.

## Coastal Navigation – Part 2

Navigation today centers around the use of GPS and chartplotters. We will demonstrate how to accomplish the planning and navigating using electronics. The final step is to regularly check your position to assure that you are where you intended to be. In other words, we are checking the electronics and your operation of it. This involves the use of your eyes and techniques involving bearings to charted landmarks and navigation aids. You also will learn how to navigate in the event of an electronics failure. We finish by comparing notes on the results of the practice cruise.

# **Boat Handing Series**

Two 2-hour seminars cover boat handling under varying conditions

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### Close Quarters and Docking

Successfully maneuvering a boat in close quarters near other boats and fixed objects is considered to be the most stressful part of boating. The key to the solution is understanding how a boat behaves and how it responds to your actions at the controls. Dealing with wind, currents, and local conditions can lead to a wide range of conditions. Therefore, knowing how to control the boat is essential to deciding what to do. You will learn how to minimize speed using intermittent power, and precisely control direction and position of all parts of the boat. You will learn how to depart and return to the dock, slip, or mooring under various conditions of wind and current. And, you will learn how to avoid fixed objects and other boats. In addition, you will learn about handling twin engine boats as they are somewhat different from a single engine.

### Underway on Open Water

When operating on open water you must deal with the seas more than dodging obstacles. You will learn about trimming the boat for various conditions, getting the boat up on a plane and how that affects handling. You will learn about how pivot point changes and its effects on steering and handling. Then you will deal with various sea conditions and directions with respect to the waves to maintain optimum control of your boat. You will also learn how to safely stop the boat quickly if needed.

# **Collision Avoidance Series**

Two 2-hour seminars cover the essential task in avoiding collisions

## • Nautical Rules of the Road – simplified

The whole purpose of the rules of the road is to avoid collisions. They provide a means of telling each other what to expect as two boats encounter one-another. Understanding the why and how of the rules makes them easy to remember. You will learn a simple method to tell what you need to do based on the relative position of the other boat, day or night. You also will learn how to recognize aids to navigation and how they affect you.

## • Using Radar, AIS, and you

The best tools for collision avoidance are your eyes, radar, and AIS. You need to post one or more lookouts to scan the horizon for other boats. They alert

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you and observe how they are responding. On the water, a collision situation can arise from any direction as there are no predefined roads. You will also learn what to do when the other boat is not following the rules. The best electronic tools to assist in collision avoidance are radar and AIS (Automatic Identification System). You will learn how to use radar and how to interpret the display to determine the risk of collision, and when that could happen. Newer radar units employ solid state transmissions and signal processing to assist in telling you which boats are coming nearer. AIS is a beacon system carried on commercial and many recreational boats. It tells the identity, location, course, and speed of vessels with a transponder aboard. You only need an AIS receiver to "see" those vessels. You will learn how to select, install and use AIS. AIS also is used for many other functions which you will learn.

## **Single-session Seminars**

### **Boating & Navigating with Electronics**

Electronics have vastly helped make boating safer and more enjoyable. They also can come with a price tag. You will learn which electronics you should prioritize and what features you should look for, and the range of associated costs. You also, will get an overview of how to use them effectively. Some electronic devices such as radar and sonar must match the display unit or chartplotter, others can be provided by almost any manufacturer. They also need to be interconnected, so knowing how and why is important even if you have someone install them for you. Categories of electronics discussed include navigation, radio, radar, AIS, sonar, autopilot, vision systems, and boat monitoring.

## **Anchoring**

The whole purpose of anchoring is to keep the boat safely in one location, at least temporarily. There is a wide variety of anchors and anchoring systems available. You will learn which work best for various types of boats and conditions. You will learn about the various components involved including the rode, type of rode material, and interconnections. You will also learn how and where to deploy your anchors, and how to safely retrieve them. You will learn about stowing the anchor and the use of a windlass. Tips will be provided for handling various conditions including deploying two anchors, and crew communications during the anchoring process.

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#### **Marine Weather**

Weather is a major factor in operating your boat on open water. Predicting what you are likely to encounter is a determining factor in deciding whether to go and when. You will learn how you can use your own resources to determine what the emerging weather conditions are likely to be for your location. We will begin by explaining what produces the weather and how it is indicated by visual cues, wind directions, temperature, barometric pressure, and humidity. You will learn of valuable weather resources you can tap into for predictions and updates, and how using your own eyes you can refine those predictions for your location. Finally, we will discuss the somewhat unique weather environment in New England to help you decide when to go out.