

“The Surface Pressure Chart Workshop”

This reinforcement workshop takes a closer look at & examines in-depth Surface Pressure Maps

- There will be a reinforcement exercise built around surface pressure map symbols, beginning with reviewing one’s understanding the surface station plot (wind direction & speed), atmospheric pressure, & current weather conditions (fog, rain, or thunderstorms)).
- Attendees will be given an opportunity to practice drawing isobars around surface atmospheric pressure readings from station plots; then one will learn what it means to identify where low and high pressure systems are.
- Attendees will practice determining true wind direction & speed wind barbs as depicted on a surface pressure map based on the proximity of low & high pressure systems.
- Based on reviewing additional surface pressure maps symbols (fronts, troughs, squall line, dry lines & ridges), there will be a practice exercise on being able to identify the specific weather conditions associated with the aforementioned map symbols; such as associated clouds, visibility restricting weather conditions (fog, or precipitation types; rain, or thunderstorms).
- Ref: the National Weather Service marine advisory, watch, and warning program; there will be a couple of virtual voyage scenarios for attendees to consider strategy options before leaving the dock, as well as after leaving the dock.

Prerequisites: None

“Understanding the 500 mb Chart Workshop”

We will breakdown the different components of a 500 mb chart, considered to be the holy grail of weather forecasting, & then go deeper into your understanding of weather forecasting; Specifically in addition to the 500 mb station plot, we will delve into the components of a 500 mb chart (altitude versus pressure); iso-height contours, wind barbs & their spacing, iso-height labeling.

You will learn:

- How to identify upper level troughs and ridges.
- How 500 mb has direct impact on where surface low and high pressure weather systems originate, intensify, weaken, and move (direction & speed of motion).
- How to identify and recognize through practice exercises the four (4) basic flow patterns well depicted on 500 mb charts.
- How to apply and practice the 500 mb “Rules of Thumb” as it impacts surface weather conditions and forecasting including predicting where the strongest winds on the surface will be.
- How to use and exercise the A,B, C, & D zones associated with a 500 mb chart (as discussed in

detail in Heavy Weather Avoidance by Chen & Chesneau,
(www.chesneamarineweather.com/?p=214)

Attending the “*Surface Pressure Workshop*” held earlier from 8:30 to 11:30 AM will be helpful

"Tropical Cyclone 1-2-3 Rule for Avoidance Workshop"

This workshop will review the basics of tropical cyclone (hurricane) systems and its impacts on the eastern North Pacific Ocean basin which includes the Mexican west coast, & sometimes even Hawaii, & the US East & Gulf Coasts. Tropical Cyclones are different in size and dynamics than their middle latitude cousins (both provide their challenges to all boaters). However, the environmental conditions for tropical weather systems are different from those of the middle latitudes. So this particular seminar will complement the “*Surface Pressure Workshop*” (*Not a Prerequisite*) held earlier in the day from 8:30 AM to 11:20 AM. The Eastern North Pacific & North Atlantic Oceans are not limitless, as the Gulf of Mexico is, with its restricted boundaries. There is also a hostile envelopment for these tropical systems moving northward from the warmer waters of the tropical & subtropical latitudes into the cooler waters of the middle latitudes. Thus the lead time for avoidance & strategies will be different in the coastal areas than those issues over open waters. Thus we introduce the 1-2-3 Rule for avoidance, concentrating on the 34 knot wind radii. We will also breakdown the Tropical Cyclone Message (TCM) for interpretation, clarity, & application. The Hurricane Season in the Eastern North Pacific (begins May 15th) is earlier than the North Atlantic (begins June 1st). Both end at the end of November. Specifically, this workshop will:

- Tropical Cyclone (Hurricane) basics & their unique & distinguishing characteristics.
- Tropical Cyclone (Hurricane) threat assessments.
- Discuss in detail the interpretation of the Tropical Cyclone Message (TCM) & construct a “Danger Area to Avoid”.