

## A few reasons why you might want to take the Starpath Online Marine Weather Course

Did you know that...

when the wind gusts, it usually shifts to the right, and when we see a squall to weather, we know it is not coming to us—it is the ones to the right of the wind direction that are coming our way. The reason for both of these behaviors is essentially the same. It is the influence of surface friction on the flow of the wind. It is the same reason we often see boats tacking along a low flat beach on a much better heading than those just a little farther off the shoreline. It is the same reason a building sea breeze generally shifts to the right throughout the day

These are just a few of the nuances of how wind interacts with the land that we can appreciate and use to our advantage by studying marine weather. Weather entails a lot of subjects: temperature, humidity, clouds, fog, rain and snow, pressure and wind, but when it comes to *marine* weather, it is mostly wind we care about, because wind is our engine, and because wind makes the waves. We study the other aspects of weather, but mostly only in so far as how they can help us predict the wind. And we add sea state forecasting to the course, as it is fundamental to seamanship, and this is the logical place to learn it. The Beaufort Wind Force scale ties these two subjects together. When we are done we should be able to look at the waves and have a good guess of the wind speed... but we may want to first know what the current is doing, since it has a big influence on what we see. Or put another way, once we know the relationship between wind and waves, and we know the wind from our instruments, we can look at the waves and gage what the current must be doing.

And we care about all the waves. Big rolling swells (they tell us about winds a long way from us), wind waves of all sizes and shapes that we have to sail in, and the tiny ripples on the surfaces of the wind waves and swells. The tiny ripples tell us what the instantaneous wind is doing, and they also tell NOAA's Quick Scat satellite, 800 km above the earth, what the wind is doing. It sends down radar pulses and detects the backscatter from these tiny ripples, and from this it can compute the wind speed and direction, over all the open waters of the earth, and it reports it back to us two or three times a day for our location. It is exactly what sailors in ocean and coastal waters want to know. Quick Scat winds and the use of GRIB formatted weather maps, now used extensively in electronic charting software, are two modern sources that dominate marine weather today, among multitudes of amazing Internet and email sources of marine weather data.

We cover all of these sources (modern and long-standing) for planning before the trip and for navigation once underway, and we cover all the shipboard observations underway that help with wind forecasting (barometer, wind shifts, clouds, swells), but the real goal of practical marine weather is not either of these alone, but the productive combination of the two. And though we do cover all the strong wind systems (squalls, fronts, storms, hurricanes) that are often associated with "marine weather," the reality is in the long run you reap more benefit more often from your knowledge of marine weather finding more wind than you do in avoiding too much wind. You go where the wind is 17 kts and your competitor goes where it is 15 kts and you have won the race—by a lot!

Students who have studied wind, waves and currents with us have gone on to circumnavigate the globe, to win ocean races, and even to row their way across the Atlantic and into the Guinness Book of World records. It is engaging practical study, guaranteed to make your sailing safer and more efficient.

To learn more check out [www.starpath.com/weather](http://www.starpath.com/weather) or call 800-955-8328.

