

Getting Weather Data Underway

By Chris Edmonston

PHOTO FORECAST:

A low-pressure system moving in from the west causes a mixed layer of clouds, cumulus (upper) and stratus (lower), to thicken over the Chesapeake Bay

The weather report you saw before you left your house for the boat might have been accurate, but the only constant thing about weather is that it will change, so it's important to keep up with that ever-changing forecast in order to react in time, and keep you and your crew safe.

Smart boaters rely on NOAA's marine weather reports, broadcast continuously on VHF radio, to stay on top of the weather coming their way. This is still the most reliable and best source for you to get your marine forecast while boating, (check local coverage at www.nws.noaa.gov/nwr/Maps/index.php) so it's critical that you always carry a VHF radio aboard, no matter the size of your boat. Beyond that basic safety rule, additional weather resources also are available using modern communications and satellite technology, including some that offer live radar imaging. The BoatU.S. Foundation took a look at some of these other options, focusing on those that use cell phones and computers, as well as satellite radio feeds and marine electronics that can display weather information.

The Phone Front

Cellular telephones are one of the most widely used electronic devices. Finding simple weather applications for your phone is an easy task — you can even send a text to Google at 466453 (Google on your phone pad). Type in “weather” or even just “w” and then your zip code and your weather forecast will be sent, via text, to your phone in a few seconds.

It's important to note, that unlike NOAA's marine forecasts, land-based weather reports often relate more to a bad hair day than what boaters need to know to be safe on the water. So, be aware of the limitations of these forecasts. Also, cell phone reception may not always be reliable once you leave land. With these caveats in mind, and your VHF on hand, it's interesting to see the options available to you through your phone.

Text-based products available from Yahoo and The Weather Channel, among others, can be set up to send you an update on pre-determined intervals, or, in the event of a significant weather event, they send an alert. The Weather Channel offers a variety of options such as current conditions and even a “surf and sea” option that would benefit coastal boaters. Best yet, these are free of charge and won't cost any more than your cell-carrier fee for the text. You can try this service by sending a text

to 42278 and typing in phrases such as “curr” for current conditions, or “sea” for sea conditions, then type in the zip code or city/state combination that you want. We tried this for Annapolis, Maryland, and received air and water temps, wave height, and sea conditions.

Other options for cell phones depend upon the service and phone type you have. If you have Internet connectivity, you can access any number of websites using your phone. These web-based services work moderately well, but often are challenging to navigate. For example, the free site www.mobile.weather.gov has everything a mariner could want, from marine weather forecasts to buoy data and radar, but frequently required several clicks to root out the information. Others don't really give you any more information than you could get from a text.

Outsmarting The Weather

There are some subscription-based cell-phone services available that do give quite a bit of good information, far more than basic weather information. Because marine weather is what boaters really want, that's where the next phase of testing took us. Marine weather in general can be more difficult to find and is more dependent on the phone and service you use. While our testers looked at applications and services using regular cell phones, we found that most of the better services were downloadable applications found on “smart” phones. We looked at several platforms including iPhones, Blackberries, Windows Mobile, and Android-based phones.

Foundation testers first looked to see which applications were available across all platforms. The big players, such as Weatherbug, Accuweather, and The Weather Channel all had smart-phone services, although marine weather was not a service they provided. While these applications were available on all phones, certain features were available on some platforms, but not others. The Weather Channel didn't provide radar images of incoming weather fronts on the Android platform, but could display them on Blackberries. The two products that produced the most interest among testers were the Marine Cast and Mobile Mariner applications. Sailors liked these products as they provided wind and current data that easily identified oscillating or persistent wind shifts and building or falling wind strength.

More specific weather applications were available for certain platforms with Apple's iPhone having the widest assort-

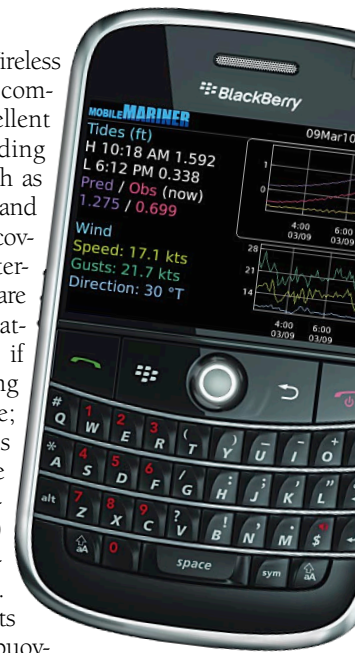
ment of dedicated marine weather applications. Android currently had the fewest applications available, but is adding them at a fairly steady rate. The biggest disappointment was with the Windows Mobile platform. While there were several options, many were quite difficult to load or use on the test phone, which brings us to an important caveat. You can easily find more than 30 weather applications on the Internet for use on your phone. It's very important to understand what model phone and platform you have, and whether or not the applications are available on your provider's network. It's also important to know whether or not your phone has coverage on the waters where you need the information.



Computer Connection

While you can certainly access Internet weather programs using your phone, some features, such as weather radar, don't have the necessary detail needed to make an informed decision. Using a computer onboard, or surfing the Internet before you head to the boat, provides another way to utilize weather programs. Here again, your service plan plays a major part in successfully getting the weather information you want. WiFi and 3G networks are optimal — anything less and the storm might pass you by before your program loads, unless you're using the most basic of applica-

tions. Verizon Wireless Broadband for computers is excellent for downloading weather info such as radar and charts and has the widest coverage. Computer-based options are quite sophisticated, particularly if you're planning a trip offshore; some programs can use satellite phones or single-sideband (SSB) radio to download information. Notable products were offered by buoy-weather.com. Sophisticated weather forecasts and interpretations from OCENS Weathermet were popular with testers, though this is a subscription service. Satellite weather services are also available for your computer through subscription radio services Sirius and XM. (While Sirius and XM are now the same company, they still have separate weather services, with different features.)



Your Eye In The Sky

Satellite-based weather allows boaters to go to areas that don't have adequate cell phone coverage, or even farther offshore, because there's no requirement for a connection to land-based cell service. Satellite weather is available up to approximately 100 miles offshore, which should cover most boating trips except for diehard canyon runners. Sirius and XM services are fee-based; package prices range from \$10 to \$50 a month, with a corresponding increase of information sophistication. Satellite services can be used on a computer, but are increasingly available on marine electronics such as chartplotters or other types of multi-function displays.

We tested a fixed-mount Raymarine C120, a multifunction display that may be used as a chartplotter, radar screen, depth/fish finder, and other functions. Coupled with the Sirius “Charter” service, we were able to get weather information seamlessly

Marine Weather @ My.BoatUS.com

Before packing up the car to drive to the boat, check out the members-only site, My.BoatUS.com to get your latest marine weather. BoatU.S. has made it easy to select the weather information you want. Featuring NOAA marine forecasts, current buoy data, and an endless database of tide stations, My.BoatUS.com weather is a great resource for trip planning. Set it up once and it will always display the weather that is important to you.

Learning To Read — The Skies, That Is

Take a course, read a book, or just observe. Mastering weather will keep you and your crew safer — By Michael Vatalaro

Last February, I participated in the Cruiser's Winter Workshop put on by the Annapolis School of Seamanship. One of the seminars was a two-hour mini-course taught by marine-weather expert Lee Chesneau titled "Understanding Weather Maps And Symbols." That two-hour primer gave me a serious desire to gain a more sophisticated grasp of weather and of interpreting forecasts. As boaters, we have no excuse for having a poor understanding of weather; it's too important. Weather workshops are put on by schools around the country. Books and websites on weather abound. To get you started, here's a list of weather education resources.

COURSES:

■ **Annapolis School of Seamanship (MD)**
"Understanding Marine Weather"
Two-day courses
www.AnnapolisSchoolofSeamanship.com
866 369-2248

■ **Lee Chesneau Weather Workshops**
Two-day workshops available at Trawlerfest and Strictly Sail events around the country
www.marineweatherbylee.com

■ **Star Path online courses**
"Marine Weather"
Approximately 30 hours of course work
www.StarPath.com

■ **United States Power Squadrons**
"Onboard Weather Forecasting"
(Two hours, open to the public)
"Wx2008" (10 sessions, must be a member)
www.usps.org

■ **North Pacific Fishing Vessel Owners' Association** (professional mariner organization based in Seattle, but open to non-members, inquire ahead on availability)
"Marine Weather Workshop"
www.npfvoa.org

■ **North U.**
"Weather for Sailors"
One-day seminars held around the country in the offseason
www.northu.northsails.com

■ **Landfall Marine Training Center (CT)**
"Marine Meteorology"
One-day seminar covering basic and intermediate marine weather
www.landfallnavigation.com

■ **QuickNav Boating School**
"Global and Marine Weather"
Two-night course in The School of Sailing and Seamanship

■ **Orange Coast College (CA)**
"Marine Weather I and Marine Weather II"
Four evening classes
www.occsailing.com

RECOMMENDED BOOKS:

■ **Coastal and Offshore Weather, The Essential Handbook, By Chris Parker**

■ **Essentials of Meteorology**
By C. Donald Ahrens

■ **Heavy Weather Avoidance and Route Design, By Ma-Li Chen and Lee S. Chesneau**

■ **Reeds Maritime Meteorology, By Cornish and Ives**

■ **Modern Marine Weather, By David Burch**

■ **The Sailor's Weather Guide, By Jeff Markel**

■ **The Ultimate Guide to America's Weather**
By Jack Williams

■ **Weather Predicting Simplified**
By Michael William Carr

integrated into our chartplotter. By using the cursor, we selected specific weather buoys and got the information for that buoy. A glitch occurred when a large front moved through, engulfing the chart; you couldn't tell where you were without turning off the weather info. This is a display issue perhaps not found on other units.

We also tested a portable GPS from Bushnell, the Onix 400. This unit used XM weather, but wasn't capable of displaying the "master mariner" package, which is what would be needed for use on the water. This interesting product, capable of also being a satellite radio receiver, is more suited to hunting or hiking than boating. The weather service coupled with downloadable topographical maps is a unique and useful package. The Onix is the only portable device we could find. Surprisingly, we found that the XM "Skywatch" service only provided radar detail covering up to about eight miles offshore.

The Human Factor

The other way that these technologies come into play is by allowing you access to weather information and forecasts generated by professional weather routers. Marine Weather & Communications, run by Chris Parker, is a popular choice for cruisers in the Bahamas, for instance. His subscription-based, personalized forecasts are accessible by SSB, e-mail, or phone.

We were impressed with the variety of weather products available, particularly those accessible by phone. The more we looked, the more we found — and by the time you read this, there will be more apps on the market than were available at testing time in early spring. Marine-specific applications, while not quite as numerous, could be quite useful for specific boating activities, such as fishing or sailing. The big caveat is that you should fully understand what you need, and whether or not you can dependably use the application where you're boating. Inland boaters might have very different needs than coastal boaters, so having certain features might not be important, or even available.

The key is to always have a backup. Your VHF (portable or installed) is your gold standard; all these other cool options only enhance your ability to forecast and plan for the weather. For more info on the specific platforms and apps, including a chart of all 30 applications and services tested, visit www.BoatUS.com/Foundation/findings.

PHOTO FORECAST:
An approaching warm front...
"red sky in the morning, sailors take warning"