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GAM

on yachting

A Canadian Sailing Tradition since 1957
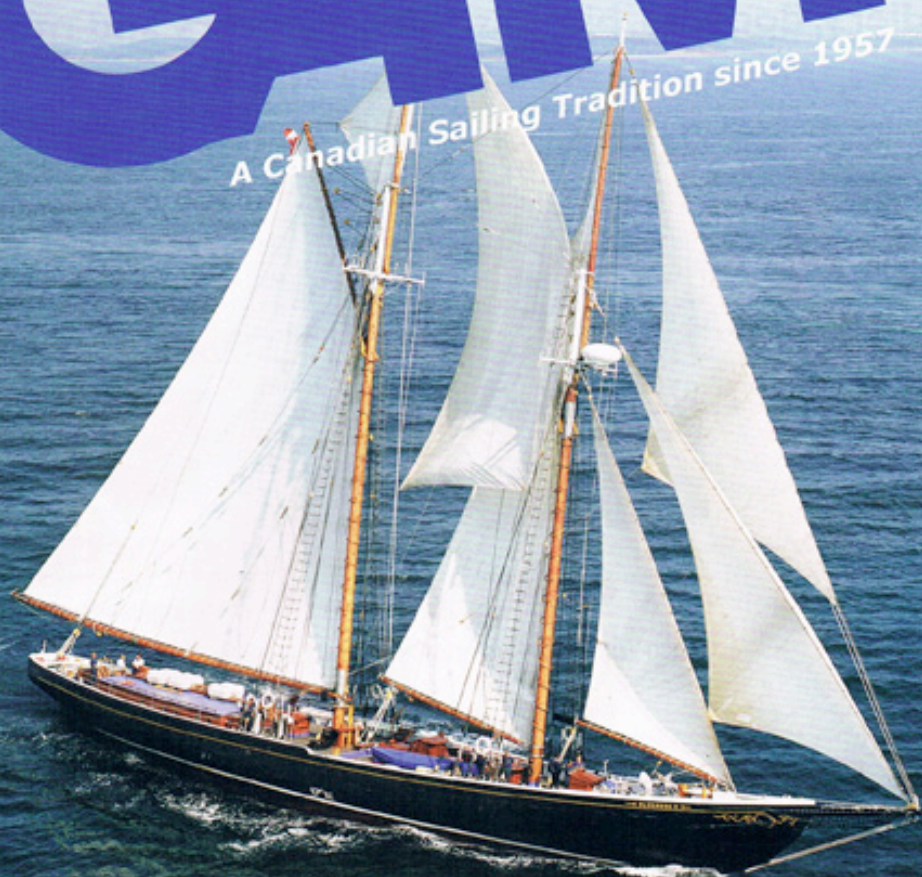
Bluenose II

Maurice R. Crosby ©

APP•ART

Sailing Watercolors in the Digital Age
Now appearing in SailTimer App for iPad and iPhone

Watercolour of Alexander Graham Bell's 55' yawl Elsie by Kathy Brown of Halifax

Much of the popularity of sailing could be attributed to the freedom to sail over the horizon, using simply wind power. Yet in spite of using that natural power, sailing has always had interesting connections to technology. For example, Captain Cook used his own innovations with geometric tools for measuring and mapping distances (including the distance to the sun) when he explored New Zealand, Australia, Hawaii and North America under sail power. The "Marconi rig" is the standard mast arrangement for all modern sailboats, but takes its name from the spreaders used on Marconi's radio antenna towers circa 1900. Now, we have the development of GPS, Google Maps and mobile devices like iPads, technology that sailors can use to great advantage.

Another example of the juxtaposition of technology and tradition is a new collaboration in which watercolor artist Kathy Brown is featured in the popular SailTimer chartplotter app. Part of the advantage of sailing in the digital age is that now you can have advanced navigation features and widespread

nautical chart regions in your pocket on your smart phone in your SailTimer app! No more unwieldy and expensive paper charts that try to blow away in the wind. The smartphone revolution is changing all that: you can send email, look at charts, use GPS, and calculate your optimal tacks and your Tacking Time to Destination on your mobile device. More advanced features, yet at a tiny fraction of the cost of a GPS chartplotter or traditional paper charts

Kathy Brown has been a watercolor painter for many years, connecting sea and sky, and often featuring charts in her paintings. Now, when someone uses the low-cost SailTimer app, they can tell a friend where they have been sailing, and include one of these paintings in the message. Each time a message is sent they see the next painting in a series.

SailTimer Inc. uses wireless technology including Bluetooth and wifi in the chartplotter app and wireless SailTimer Wind Vane, a century after Marconi sent the first verified trans-Atlantic wireless radio

transmission from the Canadian east coast in 1902. Marconi was invited to do the test in Cape Breton Island by Alexander Graham Bell, who had a residence

Kathy Brown

nearby across from Baddeck on the Bras d'Or Lakes. From 1914-17, Bell built the leading-edge 55' yawl Elsie there (shown in the Kathy Brown painting above), as a wedding present for his daughter of the same name and his son-in-law Gilbert Grosvenor (the founder of National Geographic magazine). Artist Kathy Brown has sailed on the Elsie, and has done a lot of coastal exploration under sail in the same region.

The innovations in the SailTimer app mean that out of the thousands of apps now available, this is the first app to display the optimal "tacks" overlaid on charts. It is also unique in calculating the Tacking Time to Destination, so that sailors can

tell how long it is going to take to sail to a waypoint. Standard GPS chartplotters were designed for aircraft, vehicles and powerboats, and don't calculate the tacking distances for sailboats (even though the distances between GPS locations are easily available). But if they don't know how far the sailboat will travel, how can they calculate the Estimated Time of Arrival (ETA) correctly? The SailTimer calculations solve this problem.

Like the tacking angles that the SailTimer app places on charts, course lines appear in Kathy Brown's watercolors such as the one at right.

Often the courses are based on actual experience because of her years of navigating while racing out of Halifax and cruising the coasts of Atlantic Canada.

Traditional sailing, and modern GPS navigation… Paintings made with watercolors, and iPad displays made from pixels… Like these foils, the unusual juxtaposition of charts, sea and sky in her paintings is an interesting parallel to the navigation display in the SailTimer app. Both the painter and the interface designer have a creative challenge involving composition, lighting, and focal point, in their changing natural surroundings.

To get the free app and view Kathy's watercolors, visit www.SailTimerApp.com and www.FromTheSea.ca

Watercolour
"Cruising the Eastern Shore"
by Kathy Brown
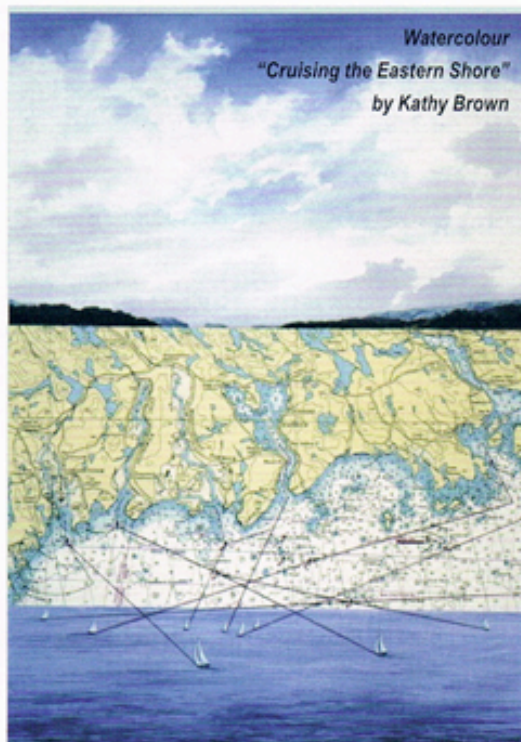
SailTimer Wifi, Solar-powered Wind Vane...*UPDATE*
The only anemometer in the world that sends data through the air to your iPad/iPhone.

Bird on a Solar powered Wind Vane courtesy of G. Willecke, skipper of Wahoo II.

The SailTimer Wind Vane is the first marine anemometer that can send wind speed and direction through the air to an iPad or iPhone. Just attach it with two screws or U-bolts, and it is ready to use. No wires to install. You can then see the wind speed and direction on an app on the iPad/iPhone, as with any traditional analog anemometer. But better still, as the wind changes, the SailTimer app (and Charts Edition) will update your optimal tacks and Tacking

Time to Destination automatically.

Polar plots are also a central part of the SailTimer app (and Charts Edition) now. These were previously advanced features that were hard to understand and difficult to obtain. Now, as with the intuitive interface on iPads and iPhones, polar plots are now a feature that can be used by all sailors, right on their mobile device. Velocity prediction simulations have been the standard way that manufacturers and advanced racing teams have gotten polar plots. However, these are only estimates, and are the same for all boats of the same type. The SailTimer app collects actual data on your individual boat's speed on all points of sail. You can see the data being saved while you are underway, which is kind of interesting!

You can turn on/off the Polar Learning as needed, and save

as many polars as you want, for different sail combinations. When the SailTimer app has more accurate data on your boat speed, it can provide better results for your optimal tacks and Tacking Time to Destination.

It is kind of a sign of the times that sailors can do more with a low-cost app on the iPad/iPhone than you can with an expensive GPS chartplotter now. For example, standard GPS chartplotters do not calculate the tacking distances for sailboats when calculating Estimated Time of Arrival - ETA (even though the distances to waypoints are easily available on a GPS). But if they don't account for the distance you are going to travel, how can they calculate your ETA correctly? GPS chartplotters haven't really changed the methods for calculating VMG and ETA back in the LORAN and

"Large wind speedometer in the SailTimer app (left). Custom polar plot learning (right) allows more accurate results for optimal tacks and Tacking Time to Destination."

earlier sliderule days, which were really designed for aircraft, vehicles and powerboats -- all of which go in a straight line to the destination. But for sailing in the digital age when so many people have mobile devies, the patented calculations in the SailTimer app solve this problem. The SailTimer app is also the only one out of the thousands of apps now available that overlays optimal tacks on a chart, for sailing.

The SailTimer app (and Charts Edition) now includes sailing features like Tacking Time to Destination, polar plots, custom polar learning, True/Apparent wind conversion, overlaying the optimal tacks on nautical charts, and showing a graph of the day's wind conditions. You can get all of these advanced sailing capabilities, along with a giant region of hydrographic charts, all at a low price on your iPad or iPhone. It shows how fast the technology is evolving.

You can get the free SailTimer Charts Edition app from iTunes, through the website. Now for a low price you can carry around digital charts of the entire Great Lakes on your phone, in your pocket. Other third-party apps do work with the SailTimer Wind Vane as well, since it sends out standard NMEA data. You can also receive data from the SailTimer Wind Vane via wifi on an Apple computer in the popular chartplotter program MacENC (www.macsailing.net/fbb/showtopic. php?tid/2041/).

The solar-powered SailTimer Wind Vane is the only anemometer in the world that sends data through the air to an iPad/iPhone. Attach it to a stanchion in about 3 minutes (until the masthead is accessible), and then start using it on the iPad/iPhone right away. Its that simple. GAM