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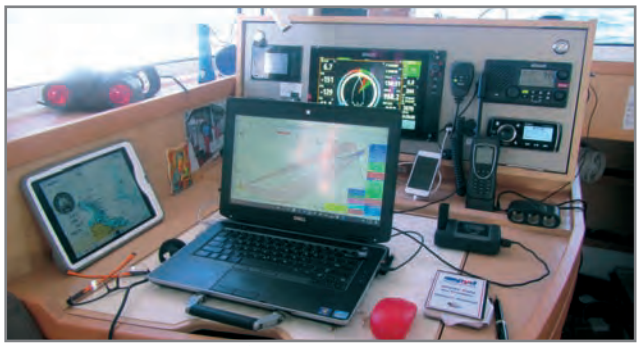
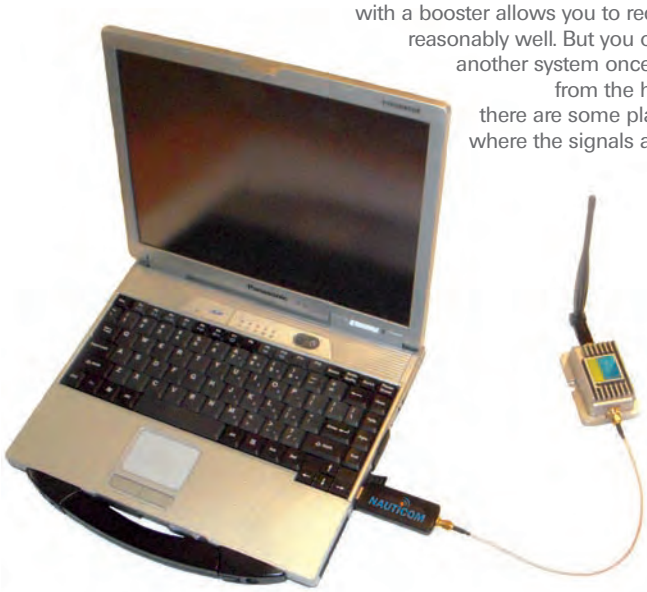
Internet aboard when COASTAL cruising

Nowadays, internet connection systems have been greatly perfected, and are above all discreet and reasonably priced. So, why deny yourself? In this first part, we will see how to connect to the internet during coastal cruises. In a future edition of Multihulls World, we will consider the possibilities of connecting offshore.



Casting off your mooring lines is above all about getting away from your daily life. However, it remains hard to disconnect at sea. We actually find it hard to do without an internet connection which allows us to communicate and cruise in complete safety. Sending and receiving an e-mail, or communicating on social networks allows you to remain in contact with those ashore. Downloading weather files or consulting them directly on dedicated sites has caused the barometer, electronic weather station or Navtex to age prematurely. And if you want to peaceful holidays with your children, being able to watch videos is now essential… When you arrive in the anchorage, it's also very practical to be able to choose a restaurant or an activity with advice from those who were there before you, or even book a plane ticket or check your bank account. In short, having a connection 'just like at home' has now become essential!

To do this, there are several solutions. Depending on the boat's position and the number of connections necessary aboard, we won't be using the same systems. In this first part we will be looking at the majority of cases - when we are at anchor, close to (or in) a marina, or between 5 and 20 miles from the coast - or rather from a transmitting antenna, because this is how you must be thinking. This covers 90% of cases, whether sailing round the world, on a summer cruise or laid up for winter…



To connect to the marina's hotspot, an aerial with a booster allows you to receive the internet reasonably well. But you often need to use another system once you move away from the hotspot. However there are some places, such as Fiji, where the signals are very powerful.

IN PORT

In a port, or its close surroundings, you can connect directly with your computer to the marina's wifi or a public wifi network. Quite often you can do this from the cockpit, but once inside the boat, the signal is reduced and if you move away a bit it is lost completely, as the transmitter's range is often very limited. To compensate for this, several types of aerial are available. The simplest are fitted outside on the coachroof or a pushpit, and the cable plugs into the USB socket on your terminal. If it is equipped with a booster, you will be able to pick up a signal a few cables from the coast, but rarely more. Then there are more powerful aerials such as the Web Catcher from Silentwind, which is linked to a wifi router and will allow you to pick up the signal from a hotspot at up to 3 miles, and broadcast it to several PCs or smart phones aboard. This is not very costly, but you are dependent on an external signal transmitter which is insecure and/or to which you must have access rights which most often have to be paid for. In this case, speeds are often good, but if a lot of people want to connect, the network can quickly become saturated. A solution which works well when the network offered by the marina is well-dimensioned.

IN THE ANCHORAGE

The most effective solution to having good internet access is to use the connection you already possess…on your smart phone, with your subscription. If you have a mobile contract with sufficient capacity to surf the net (at least a few gigabytes) and a recent smart phone or tablet, you can use it as a modem-router by activating the 'share my connection' function in the settings menu of your iPhone and iPad, or the 'modem and mobile hotspot' function from the parameters menu of yourAndroid tablet. If your contract's speed allows it, several devices can be connected by wifi or Bluetooth. Nowadays, 3G and especially 4G (very high speed mobile) have speeds almost the same as those of domestic ADSL broadband (100 Mb) and in under five years, 5G will be even faster, and very close to fiber optic performance. 4G now covers many territories, allowing the network to be picked up easily as long as you remain very close to the coast, (less than five miles, depending on your operator). This works well and with no additional cost. Beware however, as in certain cruising areas or anchorages off the beaten track, reception is much worse, or even non-existent. If you don't want to increase your contract, you can also use a 4G dongle which will be dedicated solely to this use and leaves your mobile phone available for your conversations. This technique is perfect as long as you limit yourself to the harbor and nearby anchorages. Although there are aerials which will improve reception, once you go more than five miles from a coastal transmitter , you lose the network. Finally, to limit costs abroad, it may be worthwhile purchasing a SIM card from a local operator.

1 : By activating the shared connection on your mobile phone, you can use it as a genuine router. With an aerial kit amplifying the signal, you can receive up to five miles from a transmitter.

2 : Certain 4G dongles equipped with an aerial ensure a very good connection and allow the smart phone to be reserved for telephone communications.

WHEN COASTAL SAILING

If you have a coastal program where you will be sailing more than five miles from the shore, a 4G antenna with a built-in SIM will be essential for maintaining your internet connection aboard. Several models allow a good signal to be retained up to 20 miles from a relay aerial, meaning 10 to 20 miles from the coast, depending on the area. These relays transmit over an angle of 120 degrees. They are oriented as a priority to serve users ashore and are limited to a range of 20 miles by the operators themselves.

The 4G aerials are actually equipped with at least two aerials so as to optimize reception. They also include a router which will take care of redistributing the connection via wifi or an Ethernet cable to the on-board devices. Finally , they work on 12 volts and draw no more than 1 amp. They provide a stable connection and speeds of more or less 100 Mb/s, allowing you to download large GRIB files and stream a film. Prices range from 700 euros exc. tax to 3,000 euros exc. tax, depending on the level of sophistication and performance. At entry level, the Connect 4G aerial from Digital Yacht uses MIMO technology, with two external aerials in its Pro version. It is supplied with a Vodafone SIM card which can be replaced with the one of your choice, notably if you leave Europe. An Ethernet WAN port allows a wifi aerial or a satellite system connection to be added.

The Gomex 4G Plus aerial from Webboat has four 4G aerials, can hold two SIM cards and a wifi aerial with an automatic switch to the marina hotspot, thus limiting the costs of surfing the net.

Finally, the latest model from MVG, the Neptulink, has all the previous attributes and seems to be the most high-performance at sea, thanks to two aerials positioned vertically in opposition, taking into account the pitching and rolling movements, as well as the reflection of the radio waves off the water.

With these different systems, which we recommend you have installed by a professional, you will no longer have an excuse for saying you didn't receive the message.

3: The Pro version of the Connect 4G aerial from Digital Yacht is equipped with two external aerials. The router remains inside and the SIM card can be changed very easily, depending on your cruising area.

4: The Glomex aerial from Webboat has four aerials inside its housing. Its size, 25 cm in diameter, and its weight, 1.2 kg, allow it to be fixed in the rigging, but height is not of prime importance for good reception.

5: The aerodynamic body of MVG's Neptulink hides two aerials, one of which is oriented downwards, to optimize reception of the radio waves which are reflected by the surface of the sea.