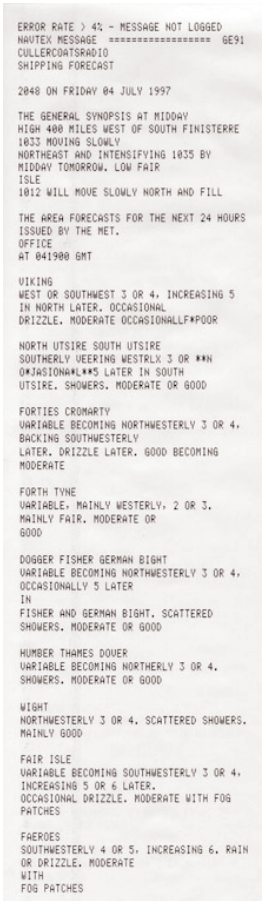
WEATHER INFORMATION

For boat users, knowing what the weather is likely to do is of serious importance, particularly offshore sailors and cruisers. Knowing the upcoming weather patterns allows you to plan your route to take advantage of or avoid the weather ahead of you. There are several different ways of keeping up to date with weather patterns depending on the equipment you have available and the size of your pockets!

Navtex



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ERROR RATE > 4% - MESSAGE NOT LOGGED
NAVTEX MESSAGE ================ GE91
CULLERCOATSRADIO
SHIPPING FORECAST

2048 ON FRIDAY 04 JULY 1997

THE GENERAL SYNOPSIS AT MIDDAY
HIGH 400 MILES WEST OF SOUTH FINISTERRE
1033 MOVING SLOWLY
NORTHEAST AND INTENSIFVING 1035 BY
MIDDAY TOMORROW. LOW FAIR
ISLE
1012 WILL MOVE SLOWLY NORTH AND FILL

THE AREA FORECASTS FOR THE NEXT 24 HOURS
ISSUED BY THE MET.
OFFICE
AT 041900 GMT

VIKING
WEST OR SOUTHWEST 3 OR 4. INCREASING 5
IN NORTH LATER. OCCASIONAL
DRIZZLE. MODERATE OCCASIONALLF*POOR

NORTH UTSIRE SOUTH UTSIRE
SOUTHERLY VEERING WESTRLX 3 OR **N
O*JASIONA*L**S LATER IN SOUTH
UTSIRE. SHOWERS. MODERATE OR GOOD

FORTIES CROMARTY
VARIABLE BECOMING NORTHWESTERLY 3 OR 4.
BACKING SOUTHWESTERLY
LATER. DRIZZLE LATER. GOOD BECOMING
MODERATE

FORTH TYNE
VARIABLE. MAINLY WESTERLY. 2 OR 3.
MAINLY FAIR. MODERATE OR
GOOD

DOGGER FISHER GERMAN BIGHT
VARIABLE BECOMING NORTHWESTERLY 3 OR 4.
OCCASIONALLY 5 LATER
IN
FISHER AND GERMAN BIGHT. SCATTERED
SHOWERS. MODERATE OR GOOD

HUMBER THAMES DOVER
VARIABLE BECOMING NORTHERLY 3 OR 4.
SHOWERS. MODERATE OR GOOD

WIGHT
NORTHWESTERLY 3 OR 4. SCATTERED SHOWERS.
MAINLY GOOD

FAIR ISLE
VARIABLE BECOMING SOUTHWESTERLY 3 OR 4.
INCREASING 5 OR 6 LATER.
OCCASIONAL DRIZZLE. MODERATE WITH FOG
PATCHES

FAEROES
SOUTHWESTERLY 4 OR 5. INCREASING 6. RAIN
OR DRIZZLE. MODERATE
WITH
FOG PATCHES
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Navtex has been around for many years and provides weather and navigational information worldwide in English on 518 kHz. The system has in more recent years been expanded by adding a second frequency, 490kHz which is used for transmissions in the local language. To take advantage of this you will need a dual-frequency Navtex receiver. These can either display the information on screen, or print it out on paper.

The weather information consists of a text-only forecast, which is transmitted every few hours.

As with any radio signal, you cannot expect to receive everything all the time, particularly in mid ocean where you may be hundreds of miles from the nearest transmitter. Therefore, for maximum performance the quality of the installation is very important, as is the quality of the receiver, which needs to be adequately earthed.

Navtex units cost typically between £200 and £500 pounds, depending on the quality of the equipment and whether it is a paper or LCD receiver. Call Cactus for advice on the best unit to go for.

Synoptic Charts via Weatherfax receivers

Units such as the Furuno FAX207 and ICS Fax4 offer world wide coverage, surface analysis charts every six hours and weather forecast maps up to five days in advance. The ICS Fax4 needs to be connected to an SSB radio, but the Furuno FAX207 has an inbuilt SSB receiver, so it's a completely standalone unit. Both models give you a hard copy printout of a synoptic chart (4in wide from the ICS, 8in from the Furuno). We believe that this is the best option.

SSB & PC

Synoptic charts are more useful to anyone attempting weather routing, as they allow you to visually see where the weather patterns are developing in relation to where you are and where you are heading.

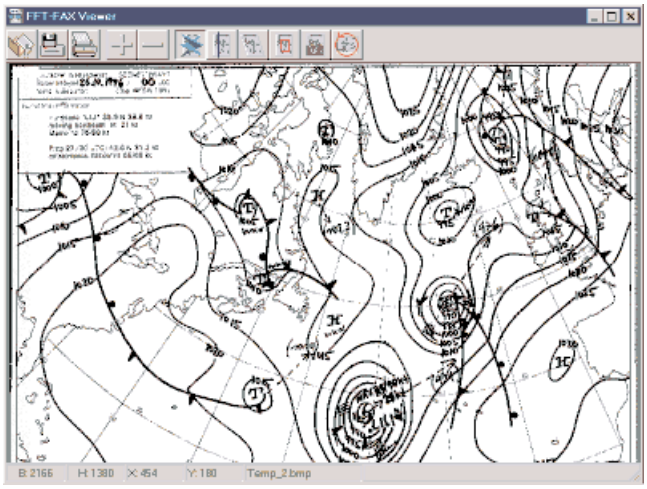
The lowest cost solution is to use an SSB receiver connected to a PC to receive the charts. This involves connecting the audio out of the SSB to a demodulator which then goes to a PC or laptop with the appropriate software.

What you get from this depends on the quality of the antenna and the groundplane connection of the SSB. However good your setup, the results will always be limited if you're a long way from the transmitter - the signals can travel for hundreds of miles due to ionospheric refraction but they degrade with each atmospheric "bounce" to the point where they're unusable.

Another point to consider is that in order to receive a synoptic chart you'll need to manually detune your SSB by 1.5kHz each time.

The Cactus Experience - Can be a bit hit and miss, sometimes this will not work.

A better option



Bonito (www.bonito.net) offer a software package called Board Terminal which works best with the Icom 710 and 802 SSB radios, as these have a serial port allowing the PC/laptop to plug directly into it. The software can then directly control the SSB without any manual intervention, even automatically detuning the SSB for you. ICS Electronics' FAX6 software has fewer features, but still offers automatic control/detuning of the SSB.
If you don't want to invest in an SSB, another option is Bonito's Pro Meteo software which works with Icom's PC-operated PCR1000 black box receiver and allows it to receive Weatherfax and Navtex transmissions.

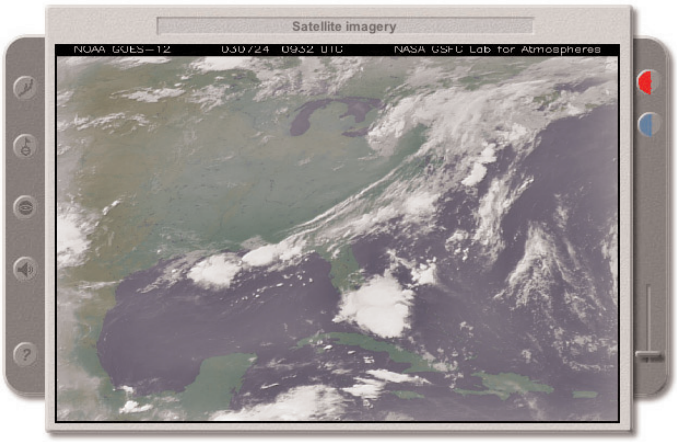
WEATHER INFORMATION ctd

Sat-C

INMARSAT offers a service for Sat C users called Enhanced Group Call (EGC) which sends regular information to multiple subscribers. The FleetNET option enables you to receive commercial weather analyses

Iridium/Thuraya/Mini-M

If you have one of these satphones, you can connect it to your PC/laptop and access websites containing weather charts and forecast information, such as www.navcenter.com from Maxsea -



The main limitation of this option is the relatively slow data rate - anything between 2.4 and 9.6k/sec which means downloading a weather chart can take a very long time. Refer to the Long Range Communications technical guide for information on high-speed internet options.

A general advantage of using internet based sites is the option of importing the charts into popular PC navigation applications from Euronav and Transas etc.

Useful Websites

US National Weather Service marine forecasts
www.nws.noaa.gov/om/marine/home.htm

UK Met office - marine forecast
www.metoffice.gov.uk/weather/marine/index.html

Conclusion
No one system offers everything, Navtex is the best option for coastal cruising because of price, ease of use and reliability. For offshore and blue water cruising you should have at least one mthod of receiving offshore forecasts, preferably with at least one backup method.