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From: Luis Soltero  
To: Bulletins  
Copy:  
Subject: Technology Update

Hello Every One,

This e-mail is specifically for our HF users. If you are a Satellite only user please ignore this e-mail.

As you have all herd MarineNet is expanding it's services.

What you haven't heard is that in order to improve performance, reliability, and coverage we are moving towards a new technology called "FREE SIGNAL".

What is Free Signal you ask...

Let me start by describing what we currently have... explain it's draw backs and then tell you how free signal fixes all these problems.

You currently use HF scanning technology. Our station in Jupiter (wks) currently only has one transmitter. It scans through about 10 frequencies ranging from 4 Mhz to 18Mhz. When you wish the connect to wks you must first scan all the frequencies to determine if the transmitter is free. Then guess dial in a frequency, you broad cast into thin air hoping that WKS will pick up your signal as it scans through it's frequencies.

If wks happens to hear you then a connection is established and you get your mail.

Problems with the scanning approach.

a) Just because you scan all the frequencies and hear nothing does not mean marinenet is not busy broadcasting to another station. If you happen to be in Trinidad and you can't connect it could be that wks is communicating with a station the Bahamas on a 4Mhz frequency and since this frequency is only active for short ranges you hear nothing. So you try to connect and fail.

b) You the user must guess a frequency to use to connect with wks. If you guess wrong then wks may not hear you in which case you don't connect, or you do connect but have a horribly slow and long session. If you notice a bad connection (lights mostly red on the modem) we currently recommend that you disconnect and try another frequency.

c) In scanning systems you the user establish the connection to the server. So you might be connected having a wonderful e-mail session with wks and then some idiot tries to connect over the top of you and every thing comes to a halt. This situation is caused because the e-mail client starts the connection to

the server and any one can start broadcasting at any time... I am sure you have all suffered from this at one time or another.

Free signal fixes all these problems.... In a free signal system the shore station transmits a continuous "free" signal at all times except during a pactor session.

This means:

a) That there is exactly one transmitter per frequency. No scanning. If you want to connect to wks (or any other marinenet affiliate station) you dial in to one of marinenet's supported frequencies. If there is a transmitter on the frequency that is ready to do service you will hear the free signal. No free signal no connection, no point in even trying... So you look on another frequency.

b) If you can hear the free signal well then you know you have good propagation to the shore station and you will have a good pactor connection. If the free signal is weak or just barely audible then you are better off looking for another frequency.

c) Finally the pactor III modem will ONLY connect to the shore station if it hears the free signal.. So once you are connected and doing an active session NO ONE ELSE CAN INTERRUPT YOUR SESSION! Again this is because the interrupters modem will not hear the free signal and will not transmit. period.

d) Free signal also gives you higher availability because the transmitters are not wasting time scanning.

All this translates to shorter, faster, more reliable, less frustrating connects....

So when will this transition happen....

Well it's happening as we speak... Our station in Rogers City Michigan has 3 transmitters all doing Free Signal...

Our new station in Marathon Florida which is expected to be up and running in production by the end of this month will also be a Free signal station.

My station in Knoxville, TN which should also be operational by the end of this month will be a Free Signal station.

We expect that once the TN and Marathon Florida stations become fully operational then WKS with two transmitters will also go Free Signal. That will be a total of 7 transmitters doing Free signal into the Atlantic.

After the wks conversion we do not expect to support scanning station ever again. (never say never they say...)

So what does this mean to you... Well fortunately the conversion will not be difficult...

Firstly, we will give you plenty of warning before we turn off the current scanning scheme. Secondly you will have time to practice with free signal using our 3 free signal stations.

As the time approaches we will send you technical information on doing the conversion... This conversion will require you to do one of two things.

a) Download and re-install the marinenet software.

or

b) make a minor change to your modem settings.

That's it.

More on this subject soon.

--luis