



SQUELCH TALES



NEWSLETTER FROM THE MERRYMEETING AMATEUR RADIO ASSOCIATION FOR AUGUST 2018



Yaesu's new FT-818ND QRP transceiver, Is it really new?

A review by Bruce Randall, W1ZE

Back in June I managed to sell a couple excess transceivers that I was not using. A IC-736 in excellent condition and an almost new FT-857D that was in my old F150. Since the truck usage is minimal now since we are no longer driving back and forth to southern California, the rig ended up just a fancy two meter FM transceiver. Way to much overkill.

Then we decided to do a little more traveling while we can still do it, so XYL Donna went and booked us passage on a Princess Cruise ship through the Caribbean to and into the Panama Canal in February next year. Thinking to myself, maybe a small HF QRP rig would be fun to take along, when I found out Princess Lines are Ham Radio friendly if you get the ship Captain's blessing.

Several years ago I had a Yaesu FT-817 QRP rig that always worked slick but traded it off for a FT-897D. Wish I still had it.



With the funds received for the two transceivers I started looking on line for a new or used (clean) FT-817nd. Yaesu has quit making the 817ND and has come out with the FT-818ND. According to reviews on the 818 it gets good marks for performance but almost all the reviews say, if you already have the FT-817, upgrading to the 818 is not worth the added expense.

So what is new with the FT-818, not much. Power out went from 5-watts to 6-watts, the radio comes with a higher capacity battery pack and the TCXO-9 now comes installed for increased frequency stability, plus you can change the screen backlight from blue to amber or violet. That's it.

I spent several days on Ebay and other suppliers websites looking for a 817ND. I found a few overseas supplies but the cost savings would be less than \$100 and

it would take a week or two to ship it to the US. I checked Giga Parts, DX-Engineering, HRO, Ham City and the going price was about 849 US greenbacks for the new FT-818nd. Then a few days later I noted that HRO dropped their price to \$799.95. So I called Cal at the Salem HRO and had him send me one.

The little transceiver arrived the next working day by my friendly USPS mailman. That afternoon I actually opened the manual and it was almost identical to the old FT-817nd manual I had in my computer files. It looks identical to the 817 except for the model number says FT-818nd vs FT-817nd. I ran it through its paces and the little radio did not disappoint me in the least. It hears very well and programming is easy, the same process as the 817, 857 & 897 transceivers.

The only thing that did disappoint me was, why didn't Yaesu make it a SDR type QRP radio and call it the FT-819SDR, in my opinion they would have had a real winner.

Bottom Line: Is it worth \$800? – Maybe. Does it do what it says it will do? – Yes, very well. Will I be happy with it? -- Yes, I think so. The radio will fit into my travel bag and not take much room. It is an all-mode all-band (160M to 70cM) and can run on internal batteries. I think I am going to enjoy it, again.

73, W1ZE



H.R.555

POLITICO ARTICLE RAISES VISIBILITY OF AMATEUR RADIO PARITY ACT PROGRESS CHALLENGES

On May 23, the US House version of the National Defense Authorization Act (NDAA) that included the language of the Amateur Radio Parity Act (HR 555) cleared the House. The following day, a fiscal year 2019 Financial Services appropriations bill also containing Parity Act language cleared the Financial Services and General Government subcommittee of the House Committee on Appropriations and is now working its way through the full Appropriations Committee. As a result, the Parity Bill has attracted some attention from outside the Amateur Radio and homeowners association (HOA) communities.

ARRL Hudson Division Director Mike Lisenco, N2YBB, who chairs the ARRL Board's AdHoc Legislative Advocacy Committee, called attention to a recent Politico article that addresses the challenges the bill faces.

On May 25, Politico reported, "Lawmakers are making a multi-pronged push to drive the bipartisan Amateur Radio Parity Act through Congress and finally bypass objections from top Senate Commerce [Committee] Democrat Bill Nelson of Florida, whose allegiance to his state's homeowners associations drove his panel to yank the bill from consideration last fall. The legislation, H.R. 555, would direct the FCC to let Amateur Radio operators get around private rules, like those imposed by some HOAs, that keep them from putting up

radio antennas. "Politico cited a spokeswoman for the US House sponsor of the Parity Act, Representative Adam Kinzinger (R-IL), who told the journal that Kinzinger is "hopeful that Senator Nelson will see its value." "When disaster strikes and the power goes out, like when Hurricane Irma hit Senator Nelson's home state of Florida back in September, Amateur Radio operators become critical to emergency response efforts," Kinzinger's spokeswoman said.

At this point, it's unclear how the Parity Act language or legislation will fare in the US Senate. The measure's Senate sponsor, Senator Roger Wicker (R-MS), told Politico that it would suit him to see the Senate follow the lead of the House in the matter. "I think we've done enough that Senator Nelson's concerns should have been answered," Wicker was quoted as saying. Wicker and Nelson are both senior members of the Armed Services Committee, which will oversee the NDAA.

ARRL General Counsel Chris Imlay, W3KD, has stressed that the Parity Act "does entitle each and every Amateur Radio operator living in a deed-restricted community to erect an effective outdoor antenna. That is the principal benefit of this legislation."

To read H.R.555 go to:

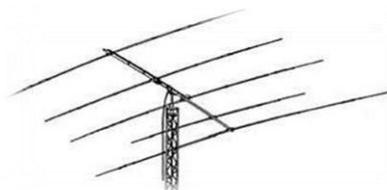
<https://www.congress.gov/bill/115t/h-congress/house-bill/555/text>



KA1PTT Has a complete Tower, Rotor & Antenna package for sale



Forty foot (40') crank-up tower including the following:
Hy-Gain TH5/MK2 5 element three band beam antenna for broadband performance operation on the 10, 15, and 20 meter bands.



Including a Yaesu G1000DXA heavy Duty Rotor cabling and Controller.



Buyer will need to take it down.

Selling price of \$1,500.00.

POC: Dwight S. Sommers, KA1PTT
27 Litchfield Road
Bowdoin Maine 04287
207 751 2351

revcycleconsult@gmail.com



MARA Members volunteer for L.L. Bean July 4th Run



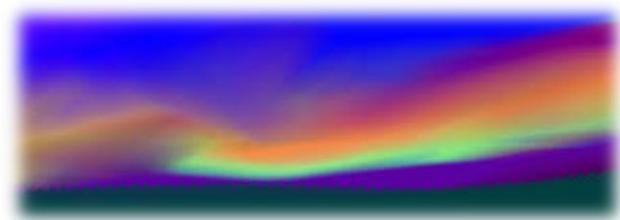
Photo provided by Marjory Turner, KX1I

In the early morning of July fourth a small group of MARA volunteers arrived in downtown Freeport to lend their communications skills to the 2018 L.L. Bean Independence Day Run. Even with the high temperature the event went off without a hitch.

A big Thank You goes out to:

John Goran (K1JJS), Jim McIrvine (N1IPA), Danial Lindsley (N5AGG), Net Control - Don Wakeman (KA1WAL) and Marjorie Turner (KX1I).

Well done MARA team members.



AURORA CAN BE FUN

By W1ZE

In the Amateur Radio Extra Class Question Pool, Propagation Sub element C3, Question C01 asks:

Which of the following effects does Aurora activity have on radio communications?

- A. SSB signals are raspy
- B. Signals propagating through the Aurora are fluttery
- C. CW signals appear to be modulated by white noise
- D. **All of these choices are correct**

Starting this month and extending through until next April when Aurora activity over the North Polar Region is high and we hams experience sporadic enhance radio communications called aurora propagation.

This propagation is caused by the interaction of charged particles from the Sun with the Earth's magnetic field and In the E-region of the ionosphere allowing radio signals to be reflected back.

The reflected signals in your receiver sound raspy and fluttery caused by selective fading with partial cancellation of some frequencies within the received pass band.

Aurora propagation can best be experienced in the higher HF bands of ten and twelve meters and the six and two meter VHF bands. During Aurora activity successful communications can be made with other stations up to 1000 to 2000 miles. SSB QSO can be made but good old CW seems to work best because

a dot and a dash, even though raspy is still just dots and dashes.

I have made many a contact into the Ohio River valley and Great Lakes region from here in Maine by pointing my beam(s) due north. Yes voice (SSB) QSOs can be made and understood but I prefer CW.

When exchanging signal reports in SSB for example you would give a report of "FIVE NINE AURORA," and In CW the RST report you would send is 5 9 A, The A indication aurora.

If your HF multi-mode transceiver includes six meters you have three bands that work well during an aurora propagation enhancement. Give it a try some evening when you hear raspy fluttery signals on those bands most likely that is AURORA.

You can have a lot of fun.

-73, Bruce, W1ZE-



By Sysop Donnie Dauphin, WD1F

The BRUNS packet node Alias has change to "BURG" to reflect it's location change from Brunswick to Phippsburg.

The node has been updated. It now runs URONode software created by N1URO. This new software has many features including call sign lookup,

weather reports, DX clusters, and more. There is also a BBS system at our node for bulletins, messages, file transfers, and a conference room for keyboard to keyboard chats.

To get into the conference/chatroom, connect to KS1R-7 directly or via the BRUNS (BURG) node by typing BBS. After connection to the BBS type **C** to enter the conference mode and join into the roundtable conversation if one is going on. To exit the conference just type **.Q** and you will be disconnected.

Other nodes, that can be reached from our node, offer access to the Winlink, a Global Radio Email system. This gives you the ability to send emails via packet. N1ZRL-10 in Lisbon falls and WD1O-10 in Tenants Harbor offer this. The WD1O-10 has the ability to deliver emails to the internet via HF as needed.

URONode also has improvements to the NetRom protocol to keep link qualities more accurate. For those not familiar with what NetRom is, or does here is my overview. My usual disclaimer.. ..Still learning this myself, could be wrong.

Packet started with the AX.25 protocol. Cool stuff. You could connect from computer to computer. With the use of a gateway you could go from computer to gateway, to more gateways, and eventually to the computer you wanted to reach. This required you know the SSID (Usually a call sign - #) of all the

pieces in between. There were several negatives here.

--If ten people are talking between the same two gateways there would be ten maintained connections.

--You needed to know the full path (each hop) to your destination machine.

--It was a manual process of connecting between each gateway.

--Changing conditions could mean you need a different path.

Then comes NetRom. It encapsulates AX.25 messages. Like this..



--Supports multiple AX.25 messages in a single packet.

--Automatic node / service discovery.

--Monitor link quality, pick the best path to your requested destination automatically.

After I got the node running I made a connection to BBSEOC (KX1EMA-2 in rockland) and then CAL (W1LH-6 on Cooper Mtn in Alexander, ME). I did this with a simple 'C CAL' for example. I can not reach these stations direct so NetRom was doing its thing. Our node has 2 ports and can support many more. On one occasion I was seeing my traffic going out on UHF and returning via VHF.

Check this out..

.....
=> c YARLAN

*** connected to YARLAN:VE1YAR-0
IYARLAN:VE1YAR} Yarmouth LAN

Yarmouth, Nova Scotia

Freq: 145.070 MHz

Sponsor: YARC (Yarmouth Amateur Radio Club) Local BBS: VE1RB

=> c ve1scr-0

*** connected to VE1SCR-0

ISHLbrn:VE1SCR} MARCAN Network Node

NSIMRS Tower Site: Middle Ohio,NS Freq: 144.970 MHz

South Shore VHF Packet Network

Sponsor: NSARA

Info: VE1BXK@VE1AIC.PE.CAN.NOAM

How was I connecting to the above two nodes? Good question. :)

1200 BPS (Bits Per Second) is the standard packet speed. AFSK is used and AFSK translates to I just switch back and forth between a couple of audio tones into the mic jack. You could even get away with holding the mic up to the speakers of your computer. If your getting started 1200 BPS is where its at. Most users and services use 1200 baud. Its very forgiving.

Next steps would be 9600 baud. This uses FSK (Frequency Shift Keying). This means the TNC needs to shift your transmit frequency. It needs to have access to literally change the frequency of your radio, very slightly. It doesn't

change it much but it could in theory lower the TX freq for a sustained time period. This is highly unlikely to work through a mic connector. Your radio must have a 9600 baud data port or be modified requiring test equipment or very good luck.

I have heard several times how 9600 baud is not worth the trouble. That may be true for keyboard to keyboard chats but when it comes to file transfers its a big deal. I transferred a 3K file in ~7 seconds at 9600 baud. The same file was 29 seconds at 1200 baud.

Check out the video here: (case sensitive)
http://www.ddrov.com/packet/images/1200_9600_3KFile.mp4

Our packet node is even setup for TCP/IP. What this means is you could even use common programs your familiar with like your web browser and email client over the packet system. Keep in mind that even at 9600 baud with radio turnaround time and the fact its half-duplex we're only seeing about 3.5 KBPS of realized speed. Also this assumes you have the full frequency to yourself. It would have to be setup to not transfer images unless you specifically requested one.

As recent as November 2017 I lost all communications to my home except HAM radio. I would have loved to have had even 1200 baud packet connection to a source of information such as weather forecasts or latest power outage totals. What better way is there of relaying

information when there is no internet or phone lines?

On Friday July 20th I climbed the tower and added ten feet to the KS1R/R two meter and D-Star repeater antenna. A little bit if added height may help repeater coverage, but the real intent is to add additional separation between the repeater antenna and the packet antenna in an attempt to reduce a bit of intermodulation (IMD) between the two systems on two meters. I think it works.

For more information you may want to consider joining the Maine Packet Radio Group at:

<https://groups.io/g/MainePacketRadio>

The groups web page:

<http://www.ddrov.com/packet/>

A Map of know services / nodes:

<http://www.ddrov.com/packet/images/MainePacketMap.jpg>

73, Donnie, WD1F

