MESSAGE FROM THE PRESIDENT:

It has been a busy spring at the PRA. Bruce Blain, K1BG, gave a thought-provoking presentation on what went right to get youth licensed as Radio Amateurs, and then what went wrong; twice!

Special Events Chair David, W3DRE introduced us to the Parks On The Air© program with a great presentation including hints and lessons learned for successful operation. This was followed on April 16 with a POTA activation from Rocky Point State Park attended by 14 members activating 5 separate stations across 40, 20, 17 and 10m. It was a micro-Field Day, complete with coffee and donuts! Watch for the announcement of our next POTA activation!

Ten PRA members and countless friends gathered in Deerfield, NH on April 29 and 30 for the 31st New England Amateur Radio Festival (NEAR-Fest). Full report inside. The New England QSO party topped things off last weekend with several PRA members participating form various Counties throughout New England. Thanks to all who participated!

Yet the greatest activity has been that of our House Committee. See the article inside on the total restoration of our clubhouse exterior. Enormous thanks to Treasurer John, KZ1K and House Chair Gil, N1BBM who volunteered their time and expertise to this project. BRAVO!

We have a lot more coming throughout 2022. Did someone say “FIELD DAY”?

73,

Dave Tessitore, K1DT, President

HOW DID WE FIND TIME TO GET THE HOUSE DRESSED?

DAVE TESSITORE, K1DT

INSIDE THIS ISSUE

From the President.................................1
Club News.............................................2
On the Air—What is JS8?...........................5
Happenings............................................13
Calendar ...............................................14
In Closing .............................................16

PRA Clubhouse Under Construction Circa 1957
CLUB NEWS:

You may recall that back in December, the PRA participated in several commemorative activities to celebrate its 100 anniversary of affiliation with the American Radio Relay League. Well, in case any of you missed this excitement, the PRA had one more opportunity on April 12th celebrate again.

During the club’s monthly business meeting, New England Division Director Fred Kemmerer, AB1OC, and Vice Director Phil Temples, K9HI, presented the club with a plaque and special certificate to honor the PRA’s 100 years of ARRL affiliation. The meeting was then followed with a presentation by Fred Kemmerer of the ARRL’s new club grant program.
CLUB NEWS:

Have you seen the clubhouse’s new clothes? After the 65 year old clapboards had been pretty much turned to sawdust and splinters by woodpeckers, the clubhouse is now sporting brand new vinyl siding. As of press time, the siding is complete and awaiting painting of the front door and installation of new gutters. The sill was also repaired to prevent the intrusion of mice who seem to have an appetite for Collins gear. At least they have good taste.

CLUBHOUSE UPGRADES, W1OP 5-BAND AWARD

Have you heard of the W1OP FTx Five-Band Award? Vic, Ne1Y and Bob, N1ET scoured the logs to locate all stations that have worked W1OP on FT4 and FT8 since we started the digital endeavor.

With more than 86,000 QSO’s now in the log, many stations were candidates for having been worked on 5 bands. Cards have been sent via email to the qualifying stations.

- January: 2442 Cards Sent
- February: 2665 Cards Sent
- March: 224 Cards Sent
- April: 303 Cards Sent

Feedback has been positive and the lucky recipients have been pleased to receive the award from much coveted Rhode Island.
Another successful Near-Fest was held on April 29th and 30th. This was the first spring Near-Fest in three years due to the Covid pandemic. The crowds were not as great in comparison to the pent up excitement of the fall 2021 Near-Fest after two years without a flea, but unlike years past where there would be a mid to late Saturday morning surge of foot traffic, the traffic was steady almost all morning long right up until noon time.

Dom, N1DM, picked up a more portable service monitor and assisted Tom, W1ER, to reduce the quantity of material that would be enjoying the trip home by purchasing a 900 MHz mobile duplexer that had been following me for years.

Frank, W1EYH unloaded many great items but an Astron RM-50 power supply was passing telepathic messages to prospective buyers to make sure it went home with Frank. Weather was cloudy, cool, and windy but Saturday morning the clouds had moved away and we were warmed by the sun beaming down on us. In a very rare occurrence for the flea, not one drop of rain fell.

Hope to see you all in the fall. Near-Fest XXXII is planned for October 14th and 15th.

NEAR-FEST XXXI HONOR ROLL

Congratulations to the following members for their attendance this year:

- W1NZR, Brown Beezer
- W1EYH, Frank DePetrillo
- W1PRA, Paul DePetrillo
- K1CW, Mike Gibbemeyer
- W1GS, John Good
- W1ER, Tom Greenwood
- KC1NAB, Bob Hart
- N1DM, Domenic Mallozzi
- KV4DN, Don Stanford
- K1DT, Dave Tessitore
ON THE AIR:

JS8Call

A few weeks ago, K1DT asked the members who would be the first on JS8. Well, Don KV4DN beat me to it, but I thought I might write a bit about JS8 and pass on some lessons learned.

JS8 is a keyboard-to-keyboard QSO mode like PSK31 using FT8 and FT4 technology to allow grabbing signals well into the noise. It was developed over the past four years by KN4CRD and is formally referred to as JS8 CALL. I was happy that when I installed the software it recognized my Signalink USB interface I use for FT modes with no problem.

“Patience is a virtue”. Well, JS8 requires patience, as breaking each text group you want to send into roughly four-word groupings and using 15 seconds (in NORMAL mode) to transmit that four-word grouping means any meaningful message could (and does) take minutes. When signals are strong the faster modes described below make QSO’s noticeably less tedious.

JS8—WHAT IS IT?
DOMENIC MALLOZZI, N1DM

Characteristics

Let’s start with the obvious what frequencies are used for JS8.

![JS8 Operating Frequencies]

The most popular of the bands appear to be 20 and 40 meters.

While FT modes have two speeds FT4 and FT8, JS8 has 4 speeds:

As you can see the slower you go the farther into the noise you can work people. I was in a QSO with a W5 who was running QRP and we could not make it in NORMAL but by going to SLOW we were able to have a nice QSO about Raspberry Pi computers.

I had a nice QSO with a very strong W4 in Turbo mode and that went fine and the faster rate allowed for a more fluid QSO.
ON THE AIR:

**Getting Setup**

As JS8 was based on FT8 it takes the same hardware as FT8, so those of you on FT8 are all set. If you are not on FT8 there are quite a few club members on who can offer advice. The software is available for IBM/ Microsoft PC’s, LINUX machines, MACS and Raspberry PI’s. Its screens do not look like WSJT FT modes screens but is very easy to configure.

KN4CRD provides a manual and this is one case where I say read before you start. The big issue is that the software has a lot of built-in functions and knowing they are there and how they function leads to less confusion while using the software.

The first time you use JS8 go to the Settings menu in the File tab and enter your call, your grid square and what you want the definable message buttons ‘Station Info’ to say. Don’t forget to click on OK to save those settings. This is only required the first time you use the software.

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**JS8 Setup**

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**JS8—WHAT IS IT? CONT’D**
ON THE AIR:

Because JS8 like the FT modes is a continuous envelope mode (like FM) it appears to the transmitter as a continuous carrier when transmitting. Unlike FT modes which have fixed transmit and receive cycles JS8 will transmit in 12.6 second chunks with a 2.4 second space and then string as many of those chunks together as it needs to get the whole message sent. After it has sent the whole message it goes into a receive mode. Your solid-state rig may not appreciate this duty cycle from a thermal point of view. KN4CRD recommends running the transmitter at 50% power to reduce the possibility of overheating the radio output stage. I agree with his recommendation.

When you hit OK on the SETTINGS menu you will return to the QSO screen. When you start your screen will look like this.

![JS8 QSO Screen At Startup](image)
ON THE AIR:

**FREQUENCY WINDOW**
Right click to pick a band. Display will show the correct frequency to use.

**QSO WINDOW**

**LOG WINDOW**
Shows recent activity heard on this band.

**ACTIVITY WINDOW**
Shows current activity on the frequency.

**WATERFALL WINDOW**
Shows a spectral plot of activity on the frequency.

**OUTGOING MESSAGE WINDOW**
Type here the text you want to send.

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**JS8—WHAT IS IT? CONT'D**

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The Providence Radio Association, Inc.  June 2022  Volume CIII, Issue II
ON THE AIR:  

When you hit the **MODE** tab from the Menu line you can select your speed, you should start in NORMAL. There are also 4 ENABLE functions shown to choose from. I suggest you check the first 3 but not ENABLE HEARTBEAT ACKNOWLEDGMENTS (ACK), as this will allow automatic operation when someone sends a HB query and is confusing until you are aware of what it is doing.

The waterfall display is part of the QSO screen and is available when you start the software running on your PC.

The buttons just above the waterfall are:

**HB** sends a ‘heartbeat’ message which asks ‘who is hearing me’? I discuss this function in detail below.

**CQ** sends a CQ

**REPLY** sends your call to a station and HW CPY? which will usually result in a SNR (signal) report from the other station.

**SNR** sends the station you are working their signal report in the typical FT format (i.e.: -12, +28, etc.)

**INFO** sends the brag tape (station equipment list) you entered in the SETTINGS tab.
**Who is hearing me?**

If you selected 'ENABLE HEARTBEAT NETWORKING (HB)' from the MODE tab at the top of the page. That will cause your screen to add a button labelled 'HB' that allows you to send a 15 second 'canned' heartbeat message that looks like:

*N1DM: @HB HEARTBEAT FN42*

All stations on frequency who have 'HB ACKNOWLEDGMENTS' checked on their setup will send you a SNR if you click on HB.

Here is what responses to a heartbeat transmission look like.

![JS8 Heartbeat Messages](image)

The red highlighted entries on the left in the activity box are signal reports from stations that can hear you. They will appear as:

*N1DM: EI4JN HEARTBEAT SNR +03.0*

This lets you know you are being heard and decoded by other stations. It also gives you an idea of what propagation looks like instantaneously.
ON THE AIR:

It appears a few DX stations have turned on the “ENABLE HEARTBEAT ACKNOWLEDGMENTS (ACK)” and leave it on all the time. I say this because I have seen few QSO’s from them but they seem to answer every heartbeat call that I hear. This mode of automatic operation is legal in some countries. Many US and VE stations turn on “HEARTBEAT ACKNOWLEDGMENTS” when they are in the shack.

Some observations after a few QSO’s:

- JS8 appears to be not as tolerant of QRM as FT4/8. While you can have two FT QSO’s practically on top of each other in the audio frequency band JS8 does not appear to like that. The strongest signal appears to win.

- It appears many hams in restricted living situations where antennas are an issue are on JS8 running less than 25 watts. I have worked quite a few QRP stations and also POTA stations.

- Some people do not type ahead in to the message buffer (the TYPE YOUR OUTGOING MESSAGE HERE box, so in some cases you don’t see a response for 15 to 45 seconds while they compose their response. Others use the buffer to answer questions as they receive them and their response is transmitted in the next available time sequence once you finish your message.

- Many operators send “BTU”, ‘back to you’ at the end of text to let you know it’s your turn.

- If you are in QSO, the software will automatically add the header, THEIR CALL:YOUR CALL (i.e.: EI4JN:N1DM), to whatever is in the message buffer or the pre-canned message you select. There is no need to type your call in with each message or when sending SK.

- Most QSO’s start in the NORMAL mode.

The most activity I have heard is on 20 and 40, there are times of day when you can call CQ and get no answers, but usually if you wait couple of minutes or try again you will get an answer. The domestic and DX ops on JS8 seem to want to ragchew, that is a nice change from FT modes. I have had some real nice QSO’s about everything from satellites to Raspberry Pi PC’s to Italian food.
ON THE AIR:

The Providence Radio Association, Inc.

June 2022   Volume CIII, Issue II

ON THE AIR:

Each year, one week prior to Armed Forces Day, several of US Military radio communications facilities along with a handful of MARS and Museum stations engage in the Annual Armed Forces Day Crossband Test.

On this day, Amateur Radio stations are allowed to communicate directly with participating military stations by copying their transmissions on assigned military frequencies and responding as directed on Amateur frequencies.

For several years the PRA has been authorized by the DoD to operate callsign NAF on US Military frequencies for one day under the auspices of the Newport Naval Radio Station Museum, representing historic station NAF, NAVCOMSTA Newport, one of the first 5 US Naval Radio stations, operational in 1900.

In past we have operated from former NAVRADSTA(T) Beavertail Point, the now closed NAF transmitting site. This year, due to COVID, we operated from our clubhouse in Johnston, using one of the original NAF Collins 237B-1 Log Periodic antennas, acquired by the PRA in 1983.

W1GS, N1DM, W3DRE, and K1DT operated station NAF using both SSB and CW, making 200 contacts with grateful Amateurs throughout the country.

Want to learn more?  https://js8call.com/

ARMED FORCES DAY CROSSBAND TEST

Want to learn more?  http://www.arrl.org/news/annual-armed-forces-day-cross-band-exercise-set-for-may-14

JS8—WHAT IS IT?  CONT'D

♦ The software occasionally loses lock on the station you are having a QSO with. When their block in the left hand ‘messages’ box changes from blue to another color just click on the box again to reestablish the proper sequencing.
♦ I have yet to find the autolog function in JS8 for recording QSO’s and generating an appropriate ADIF file for use with N3FJP, LOTW or HRD logs. You must ‘click’ on the LOG button in the upper right quadrant of the screen during or right after a QSO if you want an ADIF record for export into your favorite logging program.
♦ Do not try to run FT4 or FT8 on JS8 channels. The messaging formats are not compatible so you will have no QSO’s and only cause confusion.

Want to learn more?  https://js8call.com/
Congratulations and Welcome to the following new members who have joined the ranks of the Providence Radio Association, Inc. Glad to have you on-board.

Len Arzoomanian
Art Daniels, K1GTI
Jack Plum, WX3P
Meg Wilson

A hearty welcome back to PRA members Paul Goselin, N1RHS and John Bedford, N1WGG. Paul is a former President of the PRA. John is our esteemed Neville Bedford, W1ESQ’s father. Great to have you both back home!

Congratulations to Jim Meltzer, WA2TNX on passing his Extra exam on April 17, 2022.

Congratulations to Bob Simoneau who shall now forth be known to all as N1ET and Jim Meltzer who shall now forth be known to all as K1TNX.

Congratulations to Team PRA on achieving confirmation of its 200th DXCC entity on digital. The 200th entity was Iraq on 20 meter FT8 with YI3WHR.

During the PRA Net on DMR of Sunday, May 15th, a first was achieved. We had check-ins from all 6 New England states. While we have had check-ins from 6 states before, this was the first time that all New England states were represented.
Our **Calendar** section is the place to list events either sponsored by the PRA or of general interest to the PRA membership and including its participation.

Events take place year round, be it contests, conventions, flea markets, or just casual get togethers.

If you think there is an event that should be listed in our **Calendar**, please let our Club President know as soon as possible and we will do our best to get it included.

Also, don’t forget we meet weekly every Tuesday evening on the web. Members should watch your email for meeting announcements.
25 June 1800Z –26 June 1800Z
At Beavertail State Park and the home of the former Fort Burnside and NAVRADSTA Jamestown
Come Join the Fun and Be Ready To Operate !!
As we come into this time of year, many are thinking of dinner on the patio, golf, boating, gardening, and mowing the lawn. But to the True Believers there is one other thing on our minds, 6 Meter Season!

Six Meters, a.k.a. the Magic Band, is steeped in mystery and lore. Like the fickle 160M band on the other end of our spectrum, its challenges and idiosyncrasies are what attract us. We wish to understand these band’s mechanisms and phenomena which has yet to be fully explained.

We know this late spring/early summer period of enhanced propagation has to do with elusive, and Sporadic, areas of ionization in the E layer of our atmosphere. These so-called “clouds” of ionization effortlessly reflect our signals from 700 to around 1500 miles. Peaking each day after your morning coffee and running through lunch, the modest station will easily work W4s, 8s, and 9s and the closer 5s and 0s.

Stations between 300 and 700 miles are workable on random scatter off these E Clouds and occur less frequently. Closer than 300 miles is via groundwave and requires a good station.

But what makes the Sporadic E (Es) season truly special is the spectacular multi-Hop modes. Earth-cloud-earth-cloud-earth, earth-cloud-cloud-earth, even combinations of both will produce spectacular propagation well beyond the 1500 miles. European stations will pop out of nowhere to be 20 over S9, sounding like 20 Meters. JA, ZL and VK are also known to appear from nowhere!

Like it or not, even more so than the HF bands, FT8 has become the go-to mode of 6M. No surprise, Joe Taylor designed FT8 for 6 Meter operation There remain some, like your scribe, who hold fast to the Analog modes, but we do so being fully aware that only a small percentage still choose to operate on SSB and CW.

While seasonal Es is surely one of the most fascinating modes on 6M, it is not the only one. In the late 1950’s, the SSN was high enough to raise the MUF above 50 MHZ, supporting F Layer propagation just like our HF bands. Six Meter stations with 2-Watt AM transmitters, regenerative receivers and hunks of wire were working around the world daily.

The state Lottery has a saying, “You can’t win if you don’t play!” Put up a simple 6M (horizontal) antenna and find out what the 50MHz band is all about. I think you’ll agree, It’s Magic!

73 and good DX,
Tess, K1DT

THE MAGIC BAND
DAVE TESSITORE, K1DT

Many thanks to all who contributed for this issue. It could not be done without you.

This is Your Newsletter !!
Forward your items of interest, short articles, and photos to W1ER@ARRL.NET We will make every effort to include your submission.

73 AND SEE YOU IN SEPTEMBER