



# The Old Professor

The Providence Radio Association, Inc. March 2025 Volume CVI, Issue I



## MESSAGE FROM THE PRESIDENT:

### MESSAGE FROM YOUR NEW PRA PRESIDENT **DAVE STEUSSIE, W3DRE**

**P**rovidence Radio Association (PRA) members, I would like to take a minute and tell you a little about me. Before I start, I want to thank you for the appointment. I moved to Rhode Island from California after 27 years of law enforcement. I was last assigned to Traffic at the Los Angeles Police Department (LAPD) where I was a motorcycle cop. Later, I became a motorcycle Sergeant in charge of the DUI enforcement team and the Off-Road Unit.



Why Rhode Island you ask? My wife Kerry is from Rhode Island. After graduating nursing school, she decided on becoming a travelling nurse. I met her while she was on assignment in a California Emergency Room. We started dating and later got married. Over 20 years ago, I promised that we would move to Rhode Island when I retired from the police department. As the years went by, we vacationed in Rhode Island, came out for holidays and her family events.

Before moving to Rhode Island, my wife and I liked to travel in our RV, ride dirt bikes and go off-roading in her Jeep in the deserts and

mountains of Southern California. As fate would have it, we were off-roading in the Jeep, going from the High Desert Town called Pioneertown to the mountains around Big Bear Lake in the Southern California desert. I studied the maps, watched the You Tube videos and was comfortable I could navigate the route of dirt roads and back country. A couple of hours into our adventure we lost cellphone service. We were not travelling in a group. Every couple of hours we would see a vehicle coming the opposite way. We were a little nervous that if we broke down, we might be on our own for a while. We continued, it started getting darker and we were gaining elevation as we crawled our way up the mountains in the Jeep. We started at 3000 feet elevation and our destination was 6700 feet. As we travelled in the dark it started to snow, we did not travel in the snow for more than an hour when we arrived at our destination. We were relieved but my wife and I reflected on the lack of communication. I told her I had CB radios as a kid and maybe we should investi-



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# WELCOME

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### The Providence Radio Association, Inc.

**The Old Professor** is The Newsletter of The Providence Radio Association, Inc. and is published quarterly.

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2/22/2025

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#### Johnston, RI Repeaters

144 MHz Analog/C4FM: 146.835 / 146.235 PL 192.8

222 MHz Analog: 223.980 / 222.380

440 MHz DMR: 447.725 / 442.725 CC2







### FREE ADVERTISING

TOM GREENWOOD, W1ER

Recently I was on a business trip for my employer's annual sales kickoff meeting. Lots of great information about where the industry is heading, my company, and planning for 2025. I learned a lot and met a lot of people, many of whom I had only had an opportunity to meet during email exchanges. What a great time! But maybe one of the most satisfying parts of the meetings was to finally meet the members of the team I'm so honored to manage, face-to-face.



As typical of these events, days are packed with presentations, break out sessions, and team building exercises, hardly a minute to learn about who your team members really are. Amazing! You designed a system that used to require a warehouse but now fits in a cigarette pack. And you, salesperson of the year, you convinced our customers to buy in the words of Carl Sagan, "billions and billions"! But when not performing these heroic feats, what else do you do? This is where end of the day social events fill in. When the meetings are over, the dress pants, shirt, and shoes vanish and the real me turns back on, dungarees, flannel shirt, sneakers, and my W1ER hat.

Now it just so happens that I had my hat on and one of my team members saw it and asked if that was a ham callsign. That was where I learned he also was a ham, not only that, but he used to repair ham equipment as a job. He confessed that he hadn't operated in years but after three days of side conversations, I think I was successful in getting him to start thinking about how to get an antenna back up in the air and back on the air. The power of free advertising.

A few days back, I was passing through my old home town and saw my father-in-law standing in front of his house. I had my hat on. We were chatting and one of his neighbors approached. He saw the hat and asked if I was a ham. He asked a couple more questions and then told me that he was a retired electrical engineer. He wanted to know more so he gave me his phone number and asked me to call. Let's see what happens. Maybe I can convert him. The power of free advertising.

How much free advertising do you do? Do you wear your ham callsign hat to events other than flea markets? Do you have ham callsign license plates on your car? Do you have your callsign on your car anywhere else? For years my work email signature has had my call letters in morse. For many, just noise, but to a few trained eyes, it and has led to some interesting conversations. The power that comes from free advertising.

What does this free advertising do? It opens doors, it opens opportunities. When people ask what this is all about, the door is opened for our story and hopefully entice them to consider becoming part of it. The power of free advertising.

Many great articles this issue. Planning for the biggest operating event of the year, Field Day, starts soon. Check out Leo Smith's article on batteries for field day. Want to operate from parks while overseas, check out Andy Stenberg's article on his recent European tour. We've added a new section on Emcomm courtesy of the PRA's Emcomm Chairman, Barry Noel.

I hope you enjoy this issue. Happy reading!

73

*Tom*

W1ER



## MESSAGE FROM THE PRESIDENT:

CONT'D

gate it. I started researching and learned about Ham Radio repeaters all over Southern California. A couple of days later, a package showed up via Amazon, Kerry surprised me with a gift, a Ham Radio, Baofeng UV-5R Handie Talkie.

### Creating a Monster

Whenever I buy a new radio, antenna, battery or any other Ham Radio equipment, I get to blame her for starting me down my Ham Radio addiction. I started watching You Tube Videos and learned how to program the Baofeng to the many local repeaters that dot the landscape in Southern California. With the many mountains and repeaters on top of them, the activity is impressive. I started listening to nets and decided to study for my technician license. It was still in Covid times and online testing just started. I signed up for my test with the Greater Los Angeles Amateur Radio Group (GLAARG). I passed my technician the first attempt and then a month later I passed my General. The home I had in Long Beach California had a small yard and power lines just a few feet from the house. I was unable to set up a functioning antenna for HF. I then heard about a program called Parks



yon National Recreation Area (US-0645) in Lake Powell, Utah, or Grand Canyon National Park (US-0030). Travelling and ham radio went hand in hand with POTA. As most know you can work all states (WAS), POTA has an award for doing a POTA activation in each state. You get an award where you activate a park in-

On The Air (POTA). In California, camping season is year-round, you just chase the temperature of 72 degrees. In the summer, you camp at the beach. In the winter, you camp in the desert. I quickly learned that Ham Radio works very well in these desolate locations. Any time we went camping, my ham radio equipment would go with me. Most of the campgrounds we would go to had little to no trees. I frequently used my MFJ-2289 portable dipole. I would occasionally use my End Fed Half Wave antenna on a kite at the beach.

We travelled to many parks; some I would have never considered had not been for POTA. I was amazed at the beauty of Valley of Fire Park (US-2637) outside of Las Vegas, Glen Can-



yon National Recreation Area (US-0645) in Lake Powell, Utah, or Grand Canyon National Park (US-0030). Travelling and ham radio went hand in hand with POTA. As most know you can work all states (WAS), POTA has an award for doing a POTA activation in each state. You get an award where you activate a park in-

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## MESSAGE FROM THE PRESIDENT:

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side each state and Washington DC. I am well on my way due to my RV travels.

### Ocean State

When it came time to move to Rhode Island, we sold our house in Long Beach and sold most of our stuff and the rest was shipped. We loaded up the RV and drove across the country. My brother-in-law is a Cranston police officer and knew I wanted a house in the country with some land. He was generous with his time and looked at houses for us. We bought our house after only looking at photos. I ended up buying a house with 12 acres in North Scituate, Rhode Island. While all of this was going on I was looking for Ham Radio Clubs online. I stumbled onto the Providence Radio Association website, with an impressive clubhouse with that Log Periodic Antenna on the roof. The hook was set when I saw the meetings were on Zoom. I logged in and met the membership including a charismatic fellow, K1DT, and over the span of several months I attended several more zoom meetings. When I finally got situated in my new house, I attended my first meeting in person at the PRA and later became a member.



### First Field Day with W1OP

The PRA was my first and only ham club. I learned a lot about ham radio and the impressive history of the PRA. I also learned about an event called Field Day and it was being held at Beavertail State Park (US-2868). I was a new member, and I quickly sensed that Field Day was a big deal here. So, in the Summer of 2021, I attended my first Field Day. I arrived at Beavertail on Saturday ready to set up the stations, Oops, that was done on Friday. Dave, K1DT, directed me to the 40-meter station. I brought my Yaesu FT-891, plugged into the tun-

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## MESSAGE FROM THE PRESIDENT:

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er. I was told when Field Day was scheduled to start. I figured we were at a POTA location, so I called CQ before Field Day and operated a POTA activation until the second before the event started. Since I held the frequency, I switched logs and switched to the Field Day exchange. I started turning and burning and thought to myself that Field Day was not any different than POTA. At POTA, every day is Field Day!

Being retired I have more time on my hands and had the opportunity to take the position as Secretary for the PRA for the last 2 years and learned a lot from K1DT. When Dave announced he would not be running for President this year. I decided to step up and run for President. The PRA has been a great place for me to make friends and learn about Ham Radio. My transition from California to Rhode Island, retiring from 27 years of police work and learning about Ham Radio late in life has been a culture shock at many levels. I am thankful for those of the PRA that took a chance with a guy that just happened into the club from California. Thank you for the allowing me to become the club President, I hope I can give back as much as I have received. The members of the PRA are my friends, I have big shoes to fill following K1DT's lead. I appreciate all the support transitioning to the club President. Field Day is just around the corner, time to start preparing. As Tom Brady used to say,

73

*Dave Steussie*

W3DRE

President

Providence Radio Association







### AJ1S EUROPEAN TOUR

ANDY STENBERG, AJ1S

*Andy, Stenberg, AJ1S, provided a quick rundown of his European Tour in the December issue of the Old Professor. In this issue, he provides the details of the trip and helpful hints for those who may want to do the same while travelling internationally!*



The plan was to do this European Road Trip about 8 -10 years ago with our sons when they finished up high school, but owning a business did not allow for the time off. After selling the business and before their life schedules, even at the tender ages of 26 and 28, became more complex, we decided to make it happen.

My XYL, Eva, did all of the planning. She had family we wanted to visit and had a better handle on what to see and how we would get around. I did put in a few requests such as going the SAQ/Grimeton – the Alexanderson Alternator and try to fit in a few POTA/SOTA activations. We had a very aggressive schedule which worked out to seven countries in three weeks.

Getting the privilege to operate in CEPT

participating countries was fairly simple. At a minimum you need three documents - Government issued ID (you will have your Passport), an original copy of your license (get a copy from the FCC website) and FCC Public Notice DA 16-1048 (Available from the ARRL website – search CEPT). Check the ARRL website for the details. Another useful website is the German Amateur Radio Club (DARC) site, Check under the International Affairs Committee – it provides CEPT information including an extensive amount of information regarding many countries Band Plans and privileges. Here's their link: <https://www.darc.de/der-club/referate/ausland/english-version/#c227392>

The next challenge was the STUFF. Our plan was to backpack it. As recommended by Rick Steves' travel tip number 1, TRAVEL

LIGHT– Limit yourself to one carry-on 21” x 14” x 9” (backpack or roll-around) which allows for 5 days or so of clothes (not much more) with the ability to grab and go without the hassle of large baggage. I have a FT818nd but all of the extras i.e. microphone, keyer, paddles, antenna(s), ATU, batteries, was really putting a strain on the packing and weight. A trip to Dayton and seeing the new Elecraft

KH1 really seemed to provide the answer. Can I afford it? Do I NEED it? Will she approve? If the answer is “No” to all three... Then you absolutely must have it. The order was made and delivery was taken. A few extras were brought along: 3Ah battery and

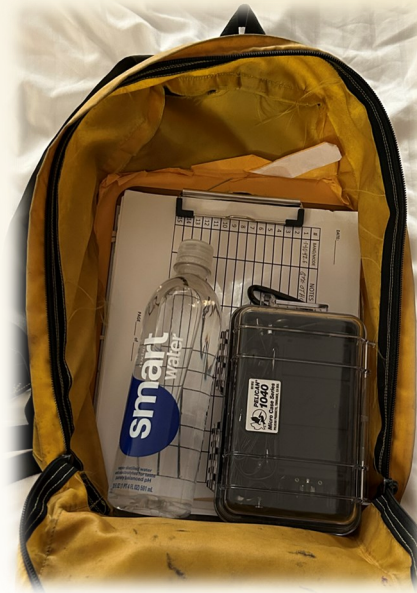


**All the equipment packed into a single bag**

charger, log sheets, throw line and weight, a few wire antennas for specific bands and counterpoise. IPAD with HAMRS. Still more compact and about 7 pounds lighter than the FT818 option. The lesson learned, except for the POTA activation in Sweden, the extra wire antennas, throw line and weight were not used, the KH1’s 4’ whip and counterpoise were used at the other sites. The POTA activation was tough as there was a CME a week or so earlier and Aurora was in full force, it was nice to have the more efficient wire antenna available. In the city park and on the mountain summits, there wasn’t much to hang a

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rope over, so the 4’ whip worked well. Might just leave the wires at home next time, if conditions are good.



**The Day Pack**

Locations, do some homework before you leave. POTA ATNOs a.k.a “All Time New Ones” seemed to be ripe for the picking. It appears that Europeans are

more in tune with SOTA but POTA is catching on. If you are not on SOTA, see about getting an account, it will open up some opportunities.

Bring a smaller backpack for day trips. In it, you can have your POTA/SOTA needs (rig, log sheets etc), water, snack, light jacket and room to carry items picked up during the day.

To save article space, except for SAQ content, the radio activity was posted on the W1OP Facebook page for more content and pictures you can check there.

Thanks to K1DT and K1MD for checking openings and spots. We were going to try to work across the pond but conditions and time differences did not work well. K1MD reported a spot from Japan. AMAZING, using a handheld radio running a 4 foot whip from Europe.

The trek went as such:

Sweden - visiting family, POTA activation





**Andy operating as OE/AJ1S Mirabelli Gardens Salzburg**

Garphyttan National Park POTA SE-0020, (ANTO) on to SW Sweden to see other family locations and SAQ/Grimeton Alexanderson Alternator

Demark – Roamed around Copenhagen with some cousins as we were waiting to pick up the night train to Germany. No activity planned, not enough time.

Germany – two stints. First, roaming around Berlin. Saw Tuffelsburg in the distance from the TV Tower observation deck and the Victory Column. Too far away.

Prague, Czech Republic – Sight-seeing, the Castle and hike through a park. Missed an opportunity to get on the air in the park but it wasn't a POTA site, should have packed the rig in the day pack.

Second German stint was in the Bayern region, Munich for Oktoberfest, Neushwanstien Castle, Breitenburg – SOTA DL/AL-0158.

Austria – Salzburg – Roaming and touring the city. Toured Fortress Hohensalzburg and went to Mirabel Gardens. Made quick QSO from a park bench with a French station. We were planning on Berchtesgarden and Eagle's Nest but due to snow it was closed.

Switzerland – Lauterbrunnen, Schilthorn (SOTA – HB/BE-048), Lausanne, Montreux, Geneva. Missed a POTA Activation opportunity in Geneva, should have packed the rig in the day pack.

France – Took the boat over from Lausanne, Switzerland to have lunch in Evian (Evian Spring Water) and came back to Lausanne. Not enough time.

73

*Andy*, AJ1S



**HB9/AJ1S Schilthorn SOTA - HB/BE-048 @ 2969m**





### FIELD DAY ON BATTERY

LEO SMITH, K1LFS

*Need power for those off the grid moments, club member Leo Smith, K1LFS, provides details for an excellent system that was recently put to the test during Winter Field Day!*

**W**ith the possible exception of the small QRP sized Bioenno batteries, I have rarely found a battery that could not be improved by being put in a box.

Recently, my preference for batteries took on an additional direction, wanting a portable, flexible way to a) power a full sized refrigerator for up to 24 hours, and b) power a field day station for a weekend. With winter field day approaching, the refrigerator solution became secondary to the radio solution

This winter, with the Field Day location switched to the PRA clubhouse, generators were planned, but I wanted to try a battery option. Working with Ted NE1U, the setup for two stations was quick. By the end of the weekend, radios and computers were proven to run on LifePO<sub>4</sub> batteries, with no fuss.

Honestly, there was bit more to it than just “no fuss”. A test setup to an external generator hookup was successful, however the generator needed some tweaks to handle the dynamic heater load. While these early issues were getting worked out, power in the club went on/off a few times for the first few hours, but the radios and laptops, being on battery, received a steady 13.3 volts. As the power fluctuated, I was glad the radios were isolated.

“A steady 13.3 volts” while not a headline, pointed to new options. In the past few years the cost of LifePO<sub>4</sub> batteries have dropped so



much that running a Winter Field Day station, a K3 plus a laptop on a \$180, 25 pound LifePO<sub>4</sub> battery is feasible. The setup is impervious to generators, or power issues. For \$20 more, this battery is in a box with fused PowerPole connections.

Each station can be setup by a single person, in any location, with minimal protection from the elements. Increased power will demand more batteries, but at 25 LBS for each 12.8V @ 100 Ah battery, that’s manageable. If air conditioning is required, there are reasonable options e.g. EcoFlow Delta, or inverters. Generators, if needed, could be limited to air conditioning or personal needs.

What follows is how the above winter field day use case answers the question, “What battery approach would work for a Summer Field day station?” Summer field days have much heavier use, so the original goals need to be more detailed





### Goals

◆ A solution that can be used during a power outage, and support running a home refrigerator. Refrigerators use ~2000WH per 24 hours. AC power demands are not high, averaging less than 100W continuous, but the compressor can have an initial power surge over 1000W. 1500W plus AC power inverter should work.

◆ A solution that can be used to run a field day radio station for 30 hours plus an additional five hours of setup time. Field day station AC demands are minimal or optional and may vary from station to station. The source of AC power should be radio quiet.

### Some History

As you've probably guessed, I'm not a fan of large, loud generators used for portable power, be it for an outage or a field day. If situations arise that demand more power than I have batteries for, then a smaller, quieter generator such as the Honda inverter shown is what I prefer. If there's a neighborhood outage, I don't want a generator running 24x7, announcing "steal me".



Before focusing on the LifePO4 battery solution, the following types of battery systems had been in use:

◆ 3 Ah and 4.5 Ah Bioenno batteries for QRP POTA's.

◆ 12 Ah Bioenno in a harbor freight case running a ICOM 7100 for my car. I have a Toyota Rav4 Prime, with a small 12V battery that will not support a radio. Using a 12 AHhBioenno can drive the amps needed for a

7100, while simultaneously charging it via a 12V socket.

◆ 40 Ah hospital lifepo4 in harbor freight case, for POTAs running 100 watt radios.

◆ Anker Solux F2000 - For run the office and radios and acting as UPS with 8+ hour power backup.

◆ Battery box with 16 Ah Miady battery with too many terminals, USB ports, switches, etc. It's where I learned 'simpler is better'. It was gifted to a nephew and he uses it for camping.

### Options Considered

Based on the battery experiences above, three options were identified that could meet the goals.

#### 1. 2048WH power station

#### 2. One or more 100 Ah 12V batteries with DC-AC inverter

#### 3. "Hybrid" - One or more 100 Ah 12V batteries with 1024 WH or smaller power station

The 2048WH power station was discounted due to weight and cost. I like the Anker F2000, but at 75 pounds and \$1200 (~\$1k on Black Friday), it's okay around the house, but not portable enough for field use.

The multiple 12V battery plus inverter option raised some questions. The inverter being considered, a Giandel 1500W <https://www.amazon.com/dp/B092QSPSG8/> states that it is an FCC low emissions design, but there was not much ham related information available on the web. The cost is \$209 (as of 1/2025) plus 2AWG wire plus 2AWG connectors plus high current fuses. This can add up quickly, so the inverter system cost was rounded to a likely total cost of \$300



The hybrid option came about after almost buying the inverter. After finding an Ecoflow Delta 1024WH during 2024 Black Friday for \$399, it became a balance between a two or three battery option with the Giandel inverter or a hybrid two battery option with the Ecoflow Delta. The choice became the hybrid solution, the deciding factors being portability and my expected use cases.

A two or three battery option with the Giandel inverter is the best option if there are higher AC demands. With 100+ ampere connectors, batteries can be added or removed as needed ensuring longer run times as batteries are added. The Giandel price has recently come down and hopefully more information will come on how quiet it is. Powering radios or refrigerators are not heavy AC demands, so this is out of the running.

With a hybrid solution the batteries and Ecoflow can be carried and used separately. Each component is about 25 lbs.

By separating the AC requirements from the 12V batteries, all 12V battery wiring can be limited to 10 AWG wire & Powerpole or XT-90 connectors.

**Calculating Battery - Radio Requirements**

Radio power calculations were required for the battery requirements based on the following assumptions:

- ◆ 25% TX Average Power
- ◆ 50% TX / RX Duty Cycle
- ◆ Heavy use and summer field day, 35 hours of operation (32 hours summer, 35 hours winter)

The numbers are intended to overestimate the power needed to increase the margin for error (e.g., 50/50 transmit ratio not used during 5 hour setup time, and winter field time of 35 hours).

From the table, two 100 Ah batteries were deemed to be sufficient to power a SSB or CW station for (27+5) 32 hours. Power would be running low for CW, or three batteries for a more power hungry rig could be used.

**Battery Usage - Winter Field Day**

In January, two stations were setup at the PRA clubhouse, each with a laptop. I

The first station, in PRA studio A, had a 12V 100 Ah battery operating an Elecraft K3 radio and Ecoflow running the laptop. This station was the busiest. The second station, in the main room of the clubhouse, had a 12V 100 Ah battery operating an Elecraft K3 and a laptop.

The stations were powered from 1100 Sat-

Radio	Receive Amp Draw	Transmit Amp Draw	SSB LifePO4 Capacity @ 90% 32 hours	CW LifePO4 Capacity @ 90% 32 hours	FT8 LifePO4 Capacity @ 90% 32 hours
Elecraft K3	1.2	18	101 Ah	181 Ah	341 Ah
Icom 7300	1.3	21	116 Ah	188 Ah	356 Ah
Yaesu FT-710	2.2	20	128 Ah	195 Ah	394 Ah
Yaesu FT-DX10	2.2	21	145 Ah	246 Ah	412 Ah
Yaesu FT-991A	2.2	23	141 Ah	244 Ah	448 Ah
Icom 7100	1.6	22	126 Ah	224 Ah	420 Ah

**Radio Power Requirements For Popular Radios**  
<https://qrper.com/wp-content/uploads/2023/05/Battery-Sizing-Calculator-by-KA4KOE-Rev1.xlsx>  
**Fleep KA4KOE**

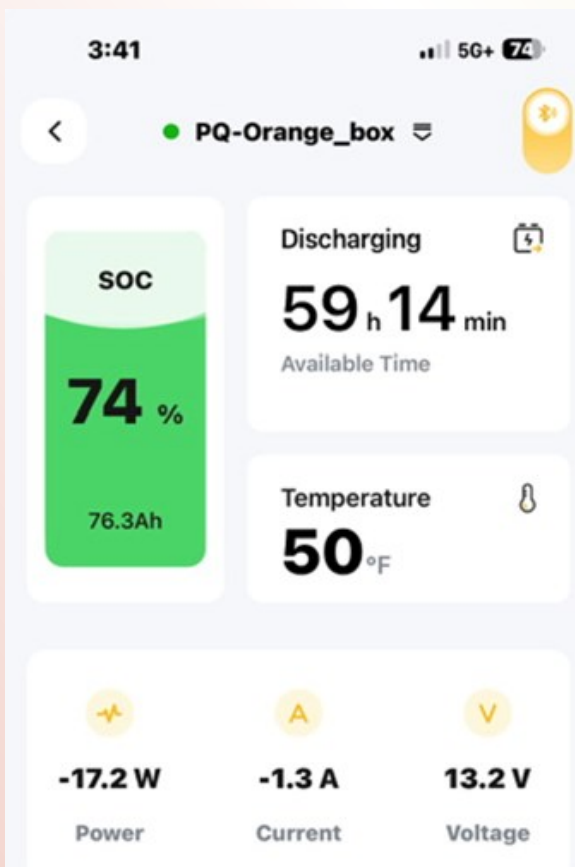




## ON THE AIR:

urday to 1600 Sunday with approximately an eight hour break overnight while the team worked 160 meters. Radios were powered for approximately 21 hours. Batteries started at 13.3V, and ended at 13.2-13.1. Battery voltage was stable, fluctuating only +/- 0.1 V during transmit.

Below are screen captures from the battery app showing power use.



**PQ-Orange box” - Used in Studio A**

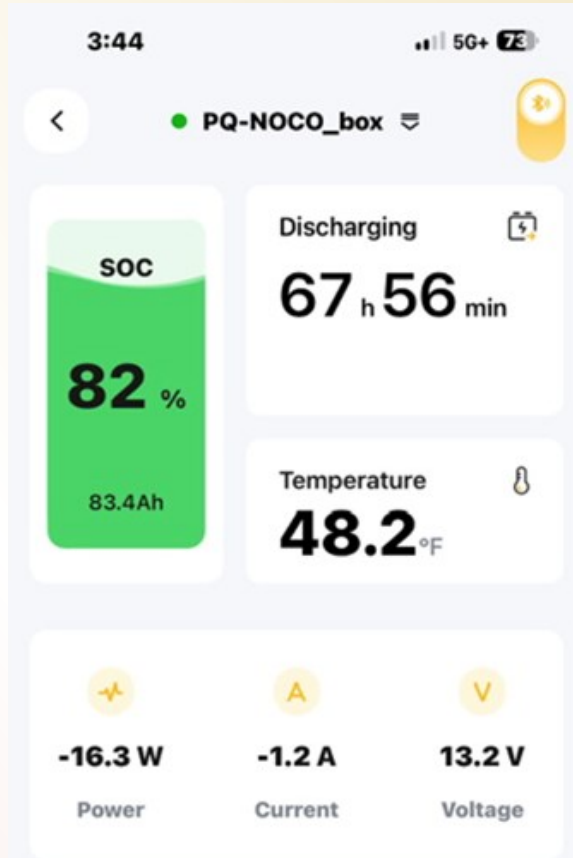
In Studio A the K3 was connected to the battery and the laptop was connected to the Ecoflow. The battery usage was 25% at 25 Ah. The EcoFlow used 25%. Ten to twenty percent of the 25% usage may have been due to efficiency loss for the internal DC-DC inverter. The laptops were low power.

In the Main Room, both the K3 and the

CONT'D

laptop were connected to the same battery. Battery usage was 18% at 18 Ah.

The remainder of the clubhouse was running on generator, so the monitor screens were not running on battery, or Ecoflow AC inverter. This is a pending use case to test.



**PQ-NOCO box” - Used in the Main Room**

### Hybrid Battery Solution Details

A list of most parts used can be found on Amazon at [https://www.amazon.com/hz/wishlist/lv/2V4Q5GPAQNTZX/ref=nav\\_wishlist\\_lists\\_2](https://www.amazon.com/hz/wishlist/lv/2V4Q5GPAQNTZX/ref=nav_wishlist_lists_2). Comments have been added to each part in the list. Some major parts are below

The EcoFlow Delta can also be found on Amazon and was \$399 on Black Friday, <https://www.amazon.com/dp/BoB9XB57XM>, but is much more expensive



now. If you're going to pay more, then get the newer version.

The batteries - Power Queen Group 24. \$178 - There are less expensive options, however, I wanted cold temperature protection from charging.

<https://www.amazon.com/dp/B0BMTNVQMB>

The Noco Battery Box - \$11 <https://www.amazon.com/dp/B0CSTBDM4V>. Designed for the Group 24 battery.



Plano Extra Large Dry Storage box orange \$41 - <https://www.amazon.com/dp/B001ECQPUW>.

A good fit for the Group 24 Battery. I

used foam on the sides to keep the battery from moving. Top to bottom the fit was so tight I had to make holes in the tray for the battery connectors.

**As Built**

Two Batteries connected with 40A Powerpole connectors & 40A fuse. Designed so the powerpole connections on the top of the orange box are for battery connection, and the powerpole connections on side of the box are for radios. All powerpoles use 10 gauge wire.

**Lessons Learned - If I Would Do It Again**

1. The number one lesson was that technology gets cheaper and better and it's true for batteries. In January the MINI version was

**CONT'D**

released with cold temperature protection. Right now, I'm too cheap to pay \$70 more for the mini version, but eventually, it will be on sale. I used group 24 size batteries. Mini batteries can fit in Harbor Freight cases, which are cheaper and a good option.

<https://www.amazon.com/Mini-LiFePO4-Battery-Bluetooth-Monitoring/dp/B0DNHNXVT3/>.

2. A minor improvement: make the connectors between the batteries using XT-90 instead of PowerPoles.
3. Have a time machine to show data using a battery on field day. Alternatively, if anyone can lend a battery load tester, I'd like to set it to the average load for a K3, at 4.5 amps, and create a voltage/time graph, so more accurate times are known.

**Home Refrigerator Battery Usage**

One last consideration was powering my home refrigerator. The refrigerator is an old cabinet depth unit, an energy hog drawing more power than modern units. It will require the Ecoflow Delta and two or more 100 Ah batteries to make it through 24 hours. As a general rule, refrigerators made before 1990 typically use more than 2000 W hours per day. Newer refrigerators use less, eg, a 2020 model uses about 1500W.

A YouTube video showing an example with a MINI lifePO4 battery and solar generator can be viewed at the link below.

<https://www.youtube.com/watch?v=E2EzffOhysg>

73

*Leo, K1LFS*







What would you do with this free space?

Have an idea for article that you'd like to see? Send us an email and share with us your ideas. We'd love to hear from you. This is your newsletter.

[W1ER@ARRL.net](mailto:W1ER@ARRL.net)

73





## CLUB NEWS:

### RECAP OF THE LAST 90 DAYS

Without question, this is a busy club. Let's attempt to recap what has happened over the last 90 days. Apologies for anything that gets missed.

**Club Elections** - Elections were held at the PRA's annual meeting on January 14, 2025. For 2025, we welcome significant changes to the leadership team of the Providence Radio Association. Late in 2024, former Club President Dave Tessitore, K1DT and Club Treasurer John Winman, KZ1K announced their intentions to step down and turn the reigns over to a newer and younger crowd. We thank Dave and John for the many years of fine service that they provided to the club.

For 2025 our officers are as follows:

- Dave Steussie W3DRE—President
- Ted Casasa NE1U—Vice President
- Bob Hart, KC1NAB—Secretary
- Rich Mancini, K1COI—Treasurer
- Gilbert Brown N1BBM—Board of Directors
- Rocco Quattrucci WQ1Q—Board of Directors
- Andy Stenberg AJ1S—Board of Directors

Although not elected positions, the following are our committee chairs for the many operations that help to keep the club operating.

- Bob Hart, KC1NAB—House Committee
- Domenic Mallozzi, N1DM—Technical Committee
- Vic Farmer, NE1Y—Station Manager
- Barry Noel, W1BSN—Emcomm Committee

- David Steussie, W3DRE—Program and Special Events Committee
- Tom Greenwood, W1ER—Newsletter
- Rich Mancini, K1COI—Librarian
- John Winman, KZ1K—Station Trustee
- Paul DePetrillo, W1PRA—Sergeant-at-Arms
- As Required—Special Projects and Ad Hoc Committees

**Please provide your support to our officers and committee chairs. They work hard to make this the best club ever!**



**Field Day** - The results from Field Day 2024 were published in QST in the December issue. The club made a formidable presence on the air, Rhode Island being one of the more difficult sections to work so it's always in demand. In the end, W1OP and the GOTA station, W1C, placed seventh in the 3A category scoring 10,520 points with 2,718 contacts and 48 operators.

Planning for 2025 Field day will be commencing soon. If you are interested in participating in the planning, reach out to the Club President.



**Aeronautical Mobile Hybrid** - Dave Tessitore, K1DT reports operating the W1OP club station in Johnston, RI from aboard a Delta flight enroute to San Jose, California.

*“Interesting that I happened to be flying over Visalia, CA, home to the annual DXers convention, and Delano, the former VOA west*





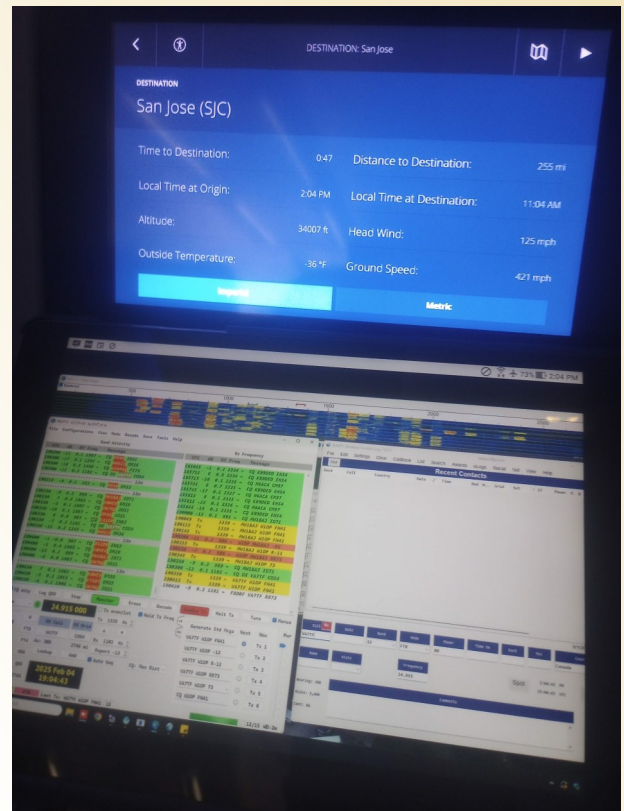
## CLUB NEWS:

coast transmitting station. In plane was just my Android tablet running AnyDesk. Connected to the W1OP HQ-1 PC running FT8, barefoot K3 on 12m, into LogPeriodic Simple. Long flight, did some stock trading, also. Delta Wi-Fi was solid, latency was noticeable but quite manageable, maybe 500-700mS. Only issue was positioning the mouse during turbulence. Looking forward to working some 6m next week on the flight home.” In the process, Dave set some new records for the station.

- Most distant remote access to the W1OP station, 2420 miles
- Highest altitude 34007 feet AMSL, gives a whole new meaning to Summits on the Air
- Coldest operating temperature -36F, try to top that Winter Field Day Team
- And, greatest ground speed while operating, 421 MPH. Were you operating hands free?



CONT'D



**Contests** - As we full tilt into contest season, the club has been busy with several contests recently. N1DM and AJ1S operated during the CQ Worldwide 160 meter contest during January 24th through 26th placing much coveted Rhode Island on the air.

During the day while the 160 contest was not active, many members operated during Winter Field Day from the club house while removed from commercial power during January 25th through 26th. Participating in the event were K1COI, N1DM, NE1U, N1SXB, KW1X, K1LFS, N1BAQ, AA1II, KC1TWM, KC1QYD, AJ1S, KZ1K, W3DRE, KV4DN, Ben Del Rosario and Wayne Pimbleby. Many lessons were learned and will be addressed in the coming year to make the clubhouse better prepared for emergency use. For their effort, the club received a certificate of participation.





## CLUB NEWS:

CONT'D

**Flea Markets** - On February 15th several members of the Providence Radio Association participated in the Algonquin Amateur Radio Flea Market, Marlborough, MA and hosted a table to sell equipment. A good time was had by all. We later followed up to Kennedy's where we enjoyed libations and club camaraderie.

Finally, don't forget that Near-Fest XXXVII is coming up on May 2nd and 3rd in New Boston, New Hampshire. Keep your eyes open for further announcements and details.

# Winter Field Day 2025 Certificate of Participation

presented to Amateur Radio Station

## W10P

for their active and invaluable participation during the 2025 Winter Field Day Event. The WFDA, gratefully thanks you for your effort and recognizes your dedication to improving your operating skills, which may be crucial during an emergency event.

Contacts Logged: 97



We passionately believe that Ham radio operators should practice portable emergency communications in winter environments as the potential for freezing temperatures, snow, ice, and other hazards present unique operational concerns. WFD is formatted to help increase your level of preparedness for disasters and improve your operational skills in subpar conditions.

*Marvin Turner*  
Marvin Turner, President  
Winter Field Day Association



**AJ1S, W1ER, N1DM, K1COI, NE1U, WQ1Q, KC1SJR, W1PRA, KV4DN, and W3DRE  
enjoying lunch at Kennedy's**







*With the March 2025 issue, we introduce to you a new quarterly column to be hosted by the PRA's Emergency Communications Coordinator, Barry Noel, W1BSN.*

**T**he Providence Radio Association is no stranger to the mission of EMCOMM in the Amateur Radio Service. A review of the exceptional article on the history of the Providence Radio Association written by Dominic Mallozzi N1DM in 2005, reveals the role our predecessors filled providing emergency communications by “supporting Civil Defense, the WWII home front efforts, and Red Cross operations among many others.” Some members even “joined the Providence Police Radio Patrol”. You may enjoy viewing “Radio At War” (1944) <https://www.c-span.org/program/reel-america/radio-at-war/642905> which depicts that period of time in history. But that was a long time ago!

Yet as the article points out, the PRA has a history of public service:

**“The support of public service that has always been a keystone of amateur radio was shown by the fact that in 1955 through 1957 the PRA meet at the RI Civil Defense Agency site at Darby Road in North Scituate. There, the PRA first established the call W1OP at that location that is still heard today. The club supported the Red Cross by assisting in everything it could, including open houses at the local chapter house.”**

It is in this spirit that I write about the PRAs EMCOMM activities today!

### EMCOMM Today

Those PRA members who participated in the early days of EMCOMM would be surprised to see the evolution of Civil Defense with its “Cold War” emphasis on preparing for nuclear war to

present day “all hazards” Emergency Management and Homeland Security agencies. No doubt they would also be in awe of the technological advances that are part of EMCOMM operations during a disaster incident. Yet those changes require amateur radio operators to be properly trained to meet the demands of EMCOMM during a disaster incident.

The modern EMCOMM operation not only involves radio operations, but also a broader range of communications needs. For example, Winlink <https://winlink.org/> is a radio messaging system that uses amateur frequencies to provide radio email for emergency and relief communications and to relay messages. Winlink messaging can also include the US Department of Homeland Security SHARES Winlink Radio Email System as well as Non-Government Organizations (NGOs) such as the American Red Cross and Salvation Army Team Emergency Response Network (SATERN). Winlink messages can be transmitted via VHF/UHF and HF using protocols that interface with computer software. Winlink's value is the ability to convey messaging without relying on the Internet in the event of a cyberterrorism attack.

If there were a need for amateur radio operators to support their community during a disaster incident, I have no doubt that PRA members would step up to help as spontaneous volunteers. But ideally, today's amateur radio operators would do themselves well to have a basic understanding of the management of disaster operations so they know where they fit in the grand scheme of the disaster response operation. Free on-line self-paced training is readily available on the FEMA Emergency Management



Institute (FEMA-EMI) Independent Study website <https://training.fema.gov/is/>. ICS 100.c and ICS 200.c as well as IS 700.b and IS 800.d are basic courses that can be easily completed in 1-2 hours per each course and are prerequisites for AUXCOMM training. AUXCOMM is the acronym for Auxiliary Communications which is the emergency communications function in the Incident Command System (ICS). ICS is the process used to coordinate resources during an emergency incident. AUXCOMM training is a more advanced in-person course that amateur radio operators can attend when the course is offered by a state Emergency Management Agency. These are the necessary courses expected of amateur radio operators by FEMA and local emergency management agencies (EMA) to be considered credentialed. More information about AUXCOMM can be found at <https://www.cisa.gov/safecom/comu-training-resources>.

PRA members can contribute to the EMCOMM mission with agencies in their local community. Amateur Radio Emergency Service (ARES) is the ARRL sponsored program which supports EMCOMM and Public Service communications. ARES provides communications for community events such as charity road races and parades. Such activities serve as practice for EMCOMM activation. Radio Amateur Civil Emergency Service (RACES) is an emergency radio service authorized in Part 97.407 of the FCC rules and regulations governing the amateur radio service. It allows amateur radio operators to support state, county, and local **emergency management agencies** with EMCOMM. <https://www.ecfr.gov/current/title-47/chapter-I/subchapter-D/part-97/subpart-E/section-97.407>. PRA members can participate in the National Traffic System (NTS) or Military Auxiliary Radio System (MARS) as well as other organizations.

## What is the Mission?

We know that EMCOMM is one of the “fundamental purposes” of the Amateur Radio Service. Specifically, a basic tenet of the Amateur Service is “recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.”

Yet the question has been raised in the PRA about the mission in Rhode Island of the EMCOMM function. Today in Rhode Island there are various means of communication that can be used by agencies as contingencies in times of emergency. These mechanisms include cell phones, EMSTARS (the states EMA simplex radio network), Web EOC (an emergency management Internet system), satellite phones, and of course, landlines. Rhode Island public safety agencies primarily rely on the Rhode Island Statewide Communications Network (RISCON) for their radio communications. This robust network allows for interoperable radio communications across public service jurisdictions and services (police, fire, etc.). RISCON also supports non-governmental organizations (NGOs), such as the Red Cross, that provide support during emergencies.

So, where does the Rhode Island amateur radio operator fit in?

I think the answer to that question is...it depends! It depends on who you ask. It depends on which agency needs help from amateur radio operators. It depends on the need of an agency, charity race or marathon, parade, or full-scale disaster. For example, PRA members have been trained as SKYWARN spotters for the National Weather Service by functioning as “situational awareness” for the weather bureau. The Boston





Marathon seeks amateur radio operators for the annual marathon. FEMA advocates for the use of Winlink by amateur radio operators to support emergency communications with the threat of cyberterrorist attacks in mind. State and local EMAs seek a variety of skills that range on a spectrum from use of an HT to computer skills and even the capability to fly drones. Many local EMAs encourage volunteer participation in Community Emergency Response Teams (CERT). The bottom line...it is up to the individual to decide where they fit into the EMCOMM role.

**PRA EMCOMM and “The Old Professor”**

For those of members of the PRA who, like me, get such enjoyment from amateur radio (I think that is everyone), and in recognition of the contributions of our forebearers, I hope to contribute to the Old Professor with regular columns regarding ENCOMM. Please let me know if there is anything of particular interest that you have regarding PRA and Emergency Communications.

73

*Barry*

W1BSN



**LET'S TALK FIELD DAY**

During the February 11 meeting we discussed practice sessions to familiarize ourselves with our equipment. We need to test individual's headphones, practice switching between SSB, Digital and CW on the K3s. We still need to test our coax, develop strategies, set ups etc. Let's discuss having Thursday meetings day time/night time, in person or zoom for anyone available to talk about Field Day.



**HAMSHACK HOTLINE**

Rich Mancini, K1COI reminds us “Due to the limited number of extensions and users not informing the Hamshack Hotline that they are not utilizing their phones, they have been forced to transition to a "use it or lose it" policy. To keep your line active, you should call 451 every 30 days and listen to the recorded message. While it is not explicitly stated that calling another ham on the Hamshack Hotline will achieve the same result, the recommendation remains to dial 451 every 30 days.”



## POTA ACTIVATIONS NOVEMBER 1, 2024—JANUARY 31, 2025

*Courtesy of Dave Steussie, W3DRE, here are the POTA activations by PRA members for the above mentioned period.*

Date	Park	Location	Station(s)
November 8, 2024	US-7508 Pulaski State Park	US-RI	W3DRE
November 11, 2024	US-2676 Rollins State Park	US-NH	AJ1S
November 15, 2024	US-4918 Kearsarge Mountain State Forest	US-NH	AJ1S
November 15, 2024	US-2685 Winslow State Park	US-NH	AJ1S
November 22, 2024	US-2680 Wadleigh State Park	US-NH	AJ1S
November 27, 2024	US-2872 Colt State Park	US-RI	AJ1S
November 29, 2024	US-7722 Scarborough North State Beach	US-RI	AJ1S
December 19, 2024	US-2880 Snake Den State Park	US-RI	N1DM
December 19, 2024	US-2880 Snake Den State Park	US-RI	N1SXB
December 19, 2024	US-2880 Snake Den State Park	US-RI	W3DRE
December 21, 2024	US-10547 Silver Spring State Recreation Area	US-RI	AJ1S
December 21, 2024	US-2873 Fisherman's Memorial State Park	US-RI	AJ1S
December 29, 2024	US-10548 Barber Pond State Recreationa Area	US-RI	KC1NAB
January 2, 2025	US-2670 Northwood Meadows State Park	US-NH	AJ1S
January 6, 2025	US-7508 Pulaski State Park	US-RI	W3DRE
January 18, 2025	US-4972 Upton Morgan State Forest	US-NH	AJ1S
January 18, 2025	US-7508 Pulaski State Park	US-RI	N1DM
January 18, 2025	US-7508 Pulaski State Park	US-RI	KC1MPO
January 18, 2025	US-7508 Pulaski State Park	US-RI	W3DRE



**AJ1S Operating from Camp Cronin State Recreation Area US-10542 Pt. Judith RI - 10/20/2024 Elecraft KH1 with 4ft whip on 20m**

### POTA ACTIVATIONS

Have you operated from a state or national park or other similar area? Let our Club President know and we'll publish it here.

Are you planning a POTA activation? Send an email to our club president and we'll publish an alert in our weekly mailings.

Want to know more about the Parks On The Air program?

Visit: <https://parksontheair.com/index.html>





## HAPPENINGS:

**C**ongratulations to Frank DePetrillo, W1EYH on receipt from the ARRL recognition of 60 years of loyal membership.

### FB OM

**O**n February 6, 2025, Representative August Pfluger (R-TX-11) introduced **H.R. 1094—To amend the Communications Act of 1934 to prohibit the application of certain private land use restrictions to amateur station antennas, and for other purposes.** For more information please see <https://www.congress.gov/bill/119th-congress/house-bill/1094/text>.

**C**ongratulations to the W1XPO/1 team for their achievement in placing number 1 in the United States 1st call area, third place in all of North America, and ninth place in the world during the 2024 World Wide Digi DX Contest while operating at the New England HamXposition. Way to go team!!



**2024 WORLD WIDE DIGI DX CONTEST**

**THIS CERTIFIES**  
**W1XPO/1**  
 Operators: AJIS KICDI KIDT KILFS KINS KCINAB KCINTI KCITCM KCITDZ KCIVDP KWIX KZIK NIGRY NISXB NEIU NIDM WIBSN WIER WIEYH WSDRE WQID  
**IN CATEGORY**  
 Multi-Operator Single-Transmitter Low Power  
**HAS ACHIEVED**  
 20,944 Points  
 Successfully Logging 220 Contacts in 68 Grid Fields

**#1 United States 1st Call Area**  
**#3 North America**  
**#9 World**

Signatures:  
 President WWRDF: Tim Duffy K3LR  
 Contest Director: Ed Muns W0YK  
 President SCC: Tim Brejnik S5DA

**P**lease keep members John Good, W1GS and Frank Donovan, W3LPL in your thoughts for speedy recoveries from some recent and serious medical conditions they have been fighting. We wish you all the best and look forward to having you back playing the active roles you've been known for in the Club!

Our **Happenings** section is the place to list member accomplishments and other short notices pertaining to club members and other items of member interest.

If you think there is an item of interest or event that should be listed in our **Happenings**, please let our Club President know and we will do our best to get it included.



## CALENDAR:

### SPRING 2025

<b>ARRL International DX Contest, SSB</b> 1 Ludlow St	<b>Mar 1-3, 2025</b>	Multiop entry <a href="http://www.arrl.org/arrl-dx">http://www.arrl.org/arrl-dx</a>
<b>North American Sprint SSB</b> 1 Ludlow St	<b>23 Mar 2025</b>	Short, intense competition that will challenge the best operators and allow others to sharpen their skills <a href="https://ssbsprint.com">https://ssbsprint.com</a>
<b>CQ WW WPX Contest, SSB</b> 1 Ludlow St	<b>Mar 30-31, 2025</b>	Multiop entry <a href="https://www.cqwpw.com/rules.htm">https://www.cqwpw.com/rules.htm</a>
<b>NEAR-Fest XXXVII</b> Hillsborough County Agricultural Society Fair-grounds 17 Hilldale Lane, New Boston, NH	<b>May 2-3, 2025</b>	New England Amateur Radio Festival and Flea-Market <a href="https://near-fest.com/">https://near-fest.com/</a>
<b>New England QSO Party</b>	<b>May 3-4 2025</b>	Contact as many New England stations in as many New England counties as possible <a href="https://neqp.org/">https://neqp.org/</a>
<b>FIELD DAY! W1OP</b> Masonic Youth Center, 116 Long St, Warwick, RI 02886	<b>June 28-29, 2025</b>	Big Effort Field Day. W1OP and GOTA at Masonic Youth Center with large crew. <a href="https://www.arrl.org/field-day">https://www.arrl.org/field-day</a>



*More events to come. Keep your eyes open for our weekly announcements !!*



**Send Calendar Events to our Event Committee Chairman, David Steussie, W3DRE  
[president@w1op.com](mailto:president@w1op.com)**



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.

### PRA NET ON DMR

Don't forget that the PRA conducts a weekly net on DMR every Sunday night at 2000 EST/EDT, hosted by the New England Digital Emergency Communications Network (NEDECN) on talk group NETAC1.

**All are welcomed to attend.**





## IN CLOSING:

### GOING FORWARD

DAVE STEUSSIE, W3DRE

**T**he PRA has grown in membership and responsibilities since I came to the club. The grants that the PRA foundation have secured enabled the purchase of new equipment for the club and repaired existing equipment. The PRA will be using these grants for community outreach via amateur radio, outreach to students, and emergency communications.

Our success comes from membership involvement. Challenge yourself, try a new mode, upgrade your license, participate in a working party, jump on a net, go on a POTA activation. Have an idea? Let's hear it.

When I came to the club, I started club POTA activations. Maybe you have an idea that others may enjoy, they just don't know it yet. Let's have fun. I plan on continuing the growth of the PRA, I would love to hear your ideas on how to support our great club.

73

*Dave Steussie*

W3DRE



## STOP THE PRESS !!

We received notification from the Algonquin Amateur Radio Club that someone left behind a lunch box with personal items at the Marlboro Flea Market on February 15th.

The lunch box has been retrieved and is in good hands.

If you know who it may belong to, please reach out to Ken, KA1GFN.

[AARCvendors@hortons.biz](mailto:AARCvendors@hortons.biz)

## 73 AND SEE YOU IN JUNE

**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](mailto:W1ER@ARRL.NET)**

**We will make every effort to include your submission.**

