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The

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Messenger^{2.0}



Blackstone Valley Amateur Radio Club's Triennial Newsletter

W1DDD.org



Setbacks, triumphs and camaraderie permeate Winter Field Day 2025

BY PETER SICHEL—K1AV



At BVARC's Summer Field Day 2022 I got to play with Mike Kenney's, K1ETA, Elecraft KX3 and was bitten by the portable/QRP bug. I've always loved CW and being able to hear and make contacts from such a tiny radio was inspiring. Soon after, I had the crazy idea it would be fun to operate portable during an upcoming trip to Aruba. I had dreamed of going on a DXpedition someday and this could be a first taste of what it might be like (see P4/K1AV in Aruba)[<https://www.qrz.com/db/P4/K1AV>).

By Winter Field Day (WFD) 2023 I had my own portable station with Aruba and some POTA activations under my belt, but I had no idea how BVARC did Winter Field Day. My entire station fit in a modest knapsack so I gathered my gear and showed up at the Polish National Catholic Church for WFD. When I arrived the QSO-a-Go-Go trailer was largely set up and a couple other hams were setting up to operate from their vehicles. I enjoyed talking with the crew and seeing what everyone was doing. I took a turn operating SSB and logging from the QSO-a-Go-Go station. It was fun but after

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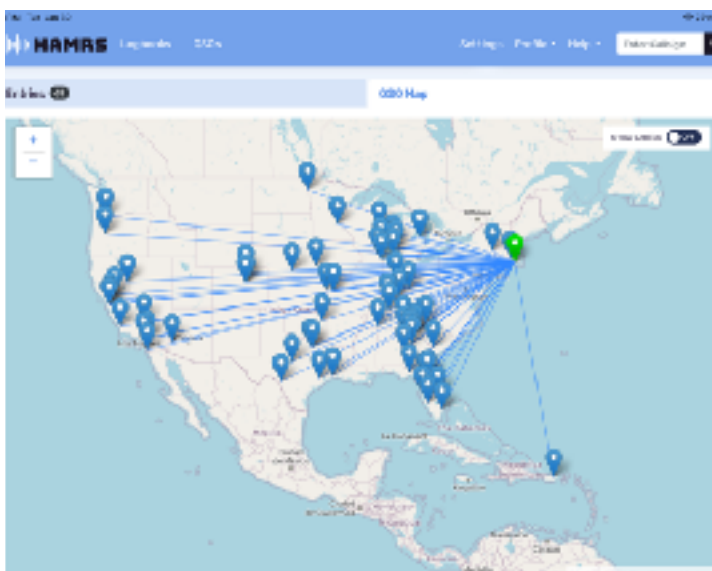
a while many of us were cold. The on air period starts at 2 p.m. and, by 4:30 or 5 p.m., the team was ready to pack up and head home.

As an Eagle Scout I'm used to winter camping, so as the 2025 WFD approached, I wanted to set up my own portable station in a tent with a heater. I reached out to Mark Hofstra, KW1X, the field day committee chairman and asked to attend the WFD planning meeting. There were only a few of us in attendance and I volunteered to bring my little portable station, a tent, and a generator. The WFD committee was totally supportive and encouraging. We would operate as "2O RI" (2 transmitters, Outdoor from RI).

I arrived Saturday morning about a half hour early (11:30am) and people were just starting to set up. I checked in with folks, surveyed the site for where I could put my antenna, and then setup my family's camping tent accordingly.

My plan was to set up a 40-meter EFHW (End Fed Half Wave) (End Fed Half Wave) as an inverted L using an arborist throw kit to set a rope over some branches. I had read the inverted L configuration was very effective combining vertical and horizontal polarization with a low take off angle. For the corner of the "L" I used a 1.5" nylon pulley that opened to accept the wire. To make the top of the inverted L flat after I hoisted the pulley I would need a clear path to a rope in another tree. I didn't want to drag the premium antenna wire over branches directly. With a little practice it's easy to set a throw line over a tree at 50', but harder to target a lower branch with a clear path toward another tree. It took 3 throws to set the pulley rope and another couple for the far end. Then I threw a line over the antenna wire to help guide it past some low branches.

The beauty of the throw kit is that it's small, portable, and quiet. For the other station Mark set up a generator and air compressor and then used a "potato gun" to fire a line over the treetops. When I first heard the noise I was worried I might have to relocate to operate. I was relieved to learn it was the air compressor making most of the noise. This would not be good for POTA. Even throwing ropes in trees is questionable unless you



get permission and are careful to leave no trace. This is why the quarter-wave 20-meter vertical on a mini-tripod has become so popular for POTA. Twenty meters is open most days and the setup can be quick with minimal impact.

With the EFHW in place, I set up my station in the tent. A small table, a couple chairs, the IC-705 transceiver with Micro PA50 amp and LDG Z-100Plus tuner. The station is battery powered but I wanted the generator to power an electric space heater. BVARC is a friendly crew and as people arrived they were glad to help. It was fun to see the antennas and stations come to life.

I tuned the station on 20m and everything seemed to work well. It was now 1 p.m. and a good time for some lunch. I checked with Mark and we agreed they would start on 20m and I would operate on 15m. When I switched my station to 15m a little before the 2 p.m. start time, I had an unexpected problem with the automatic antenna tuner and EFHW. The antenna wouldn't tune and the radio kept switching the tuner off. After a few failed attempts, I decided to setup my POTA vertical. I knew from experience the setup could be ready in less than 15 minutes. As the other crew began operating I was outside setting up a second antenna. With 18 radials and a full quarter wave on 15m, the antenna was easily tuned to an SWR of under 1.2:1. The radio and Micro PA50 were now happy.

The problem I encountered with the tuner and EFHW turned out to be a combination of unexpected behavior and operator error. The IC-705 has a radio interface to the tuner which will automatically re-tune if the SWR goes above 1.5:1. By inserting a 50-watt amp between the radio and the tuner it confused the radio. I now believe what happened is that the amp didn't fully bypass even when the amp was turned off so the radio didn't see the SWR come down and switched the tuner to bypass mode.

It worked on 20m because the amp was last used on 20m with the corresponding LPF selected. When I switched to 15m it confused the radio. The work around would have been to disconnect the tuner from the radio, or to

physically disconnect the amp before tuning from the radio after switching bands. As an emergency exercise it was a good experience. I'm just sorry I missed the opportunity to compare the two antennas side-by-side.

Once on the air, it was great fun. My station was getting out and I was making contacts easily up and down the band. WFD is much less crowded than summer field day. After working the stations I could find on 15m in about 30 minutes I began running stations by calling CQ WFD. I used HAMRS on iPad to keep my Winter Field Day log and it was often hard to keep up. I ended with 65 entries but two were dupes (63 unique calls).

Between the tent and heater I was quite comfortable. People were enjoying sitting in the second chair to warm up. I encouraged others to operate but I seemed to be on a roll and they were glad to let me continue. I was calling CQ at 22 WPM. When Randy Thompson, K5ZD, stopped by he suggested I would get more responses if I sped up. I hadn't thought of it that way but he was right. I bumped up the speed and got more stations calling after each QSO.

As the sun began to set we started packing to go home. It was nice so many people stayed to help until everything was safely packed in our vehicles. I can imagine leaving the tent and antenna setup overnight and returning Sunday morning to make more contacts, if we had a suitable site.

Thanks to Mark for organizing our WFD effort. I had a great time. At its core, Winter Field Day is an emergency communication exercise and opportunity to help each other have fun. I hope next year more of the club will consider bringing some field gear they'd like to try out, and perhaps take a turn at operating. It's easy. Think about what experience you'd like to have and ask ahead to find others who might join you.

Mark teased I could be the Winter Field Day chairman next year. With enough warm tents, I think we could set a new club record.

JOIN US AT THE LIBRARY

April 5, from 10 a.m. to 1 p.m

The Blackstone Valley Amateur Radio Club will conduct an amateur radio demonstration Sat., April 5, from 10 a.m. to 1 p.m. at the Bellingham Public Library, 100 Blackstone St. Club **volunteers are asked to report to the library at 8:30 a.m. for set up.**

The club will operate two radio stations outside the library as an introduction to ham radio.

An indoor display will feature the history of ham radio, its purpose, the benefits of the ham radio

hobby and the public service hams render during national emergencies and natural disasters. Some vintage radio equipment will be displayed as well as a continuous Morse code demonstration.

Experienced hams will welcome visitors, explain the day's proceedings and answer questions regarding their hobby.

Questions may be directed to Mickey Callahan, K1WMC, at mickc@comcast.net



Welcome Aboard

BVARC has welcomed several new members to its roster since the last newsletter. If you meet them at club meetings or functions, please say hello.

NEW MEMBERS SINCE NOV. 2024:

TOM TESTA—KC1VNG
JOE D'ETTORE—KC3WMX
AARON TERENTIEV—KC1SJR
BOB GRUNDNER—K1RPC
STEVEN DUGUAY—WJ1W
JON YOFFE—W1YOF



*The Messenger Is Produced
3 Issues a Year
End of March,
Beginning of June,
And Beginning of November*

*Editorial Contributions
Are Done by our Members*

Edited by Ronald Blais

Produced by Teri Diiorio

Across

Spectrum

BVARC FIELD DAY

June 28 and 29, Location tentatively set for grounds of the Scituate Senior Center, Route 102, Scituate.

NORTHEAST HAMXPOSITION 2024

August 21-25 at the Best Western Royal Plaza in Marlborough, MA. Tickets on sale at: <https://ticketing.hamx.org/>

BVARC simplex net

Every Wednesday at 7 p.m. on 146.565.

RI SWAP AND SELL NET

Net: Saturdays 9 a.m. on the NB1RI repeaters

Website: RISWAP.NET

A place where RI amateur radio operators can swap and sell items free! The net runs on Saturday mornings at 9 a.m. on the NB1RI network.

SKYWARN:

Every Wednesday at 7:30 p.m. on the NB1RI repeater network.

Website: <http://www.wx1box.org>

RI ARES NETS

Repeater net every First & Third Tuesday 7:30 p.m. on the W1RIA repeater network.

VHF Simplex is held every second Tuesday on 147.420 starting at 7:30 p.m. The Digital net is held the Fourth Tuesday of the month at 7:30 p.m. Check RIARES.org for details of the digital net

ARRL audio news can be heard each Sunday at 8 a.m. on Woonsocket radio station WOON 1240 AM and 99.5 FM.

ARRL Rhode Island Monthly Newsletter:
[ARRL RI Section News](#)

RADIO EXAM SESSION DATES

LOCATION: our Saviour Parish,
500 Smithfield Road,
Woonsocket, RI 02895

TIME: Sessions Start at 9:00 A.M.
Here Are the Dates for 2025:

JANUARY 11

MARCH 08

MAY 10

AUGUST 9

OCTOBER 11

DECEMBER 13

FOR INFORMATION, PLEASE CONTACT
BOB JONES, WB1P AT 401-333-4787 OR
BGJONES49@VERIZON.NET

Or on the Website at:

[HTTP://WWW.W1DDD.ORG/EXAMS.HTML](http://WWW.W1DDD.ORG/EXAMS.HTML)



THE ARRL OUTGOING DX QSL SERVICE

BY JIM JOHNSON—K1GND

Exchanging paper QSL cards to confirm a two-way contact is a tradition that dates back to the beginning of Amateur Radio. Today many amateurs prefer electronic exchange of contacts because exchanging QSL cards can be expensive. Blackstone Amateur Radio Club (BVARC) members can take advantage of a service offered by BVARC when QSL with DX stations is required.

In the past, cost of mailing cards destined for DX stations had to be absorbed by the amateur radio operator. Now that cost can be covered by BVARC.

Most of us know that Bob Beaudet, W1YRC, has been undergoing some medical issues and temporarily will not be able to handle the requirements of seeing that the DX cards make it to the bureau for distribution. In Bob's absence, I will be attempting to handle the DX QSL's, with Bob's help. Each member is asked to get cards to Jim, K1GND. It is suggested cards be brought to either a club meeting or the Consortium.

How To Use The ARRL Outgoing QSL Service Sorting Cards

Presort your DX QSL's alphabetically by parent call sign prefix (AP, CE, DL, EZ, F, G, JA, LY, PY, UN, YL, 5N, 9Y, and so on). Canadian and Australian cards should be sorted by numerical call sign (VE1, VE2, VE3 and VK1, VK2, VK3, etc.). When sorting countries that have multiple prefixes, keep that country's prefixes grouped with the parent prefix in your alphabetical stack. Addresses are not required.

Do not separate the country prefixes by use of paper clips, rubber bands, slips of paper, or envelopes. This only slows down the processing.



As a footnote, you may send QSLs via the bureau to any QSL manager who manages a non-US call sign. However, you must look up the QSL manager and clearly indicate the QSL manager's call sign on your outgoing card.

Example 1: 8P8P via N1NN. Sort this card in with other cards going to US manager (in this case N1NN)

Example 2: 6Y1V via OH3RB. Sort this card in with cards to Finland.

There are many sources of QSL information, including QRZ.COM, logging programs, the GoList, www.qsllinfo.de, and *The Daily DX* website at [http://www.dailydx.com / routes.html](http://www.dailydx.com/routes.html).

To use the service via BVARC:

1. A Slip with your name, call sign, and the weight of the cards *enclosed*.
2. Proof of ARRL membership (you must be an ARRL member.)
3. Your QSL cards sorted as instructed.
4. Do not send cash or any other form of payment with QSL cards.

Go work some new DX.



CHRISTMAS PARTY

BY PATTY VILNIT—W1AUT

Our annual Christmas party went off this year without a hitch. I believe all those in attendance will agree that it just keeps getting better and better. For those that have not attended, you don't know what you are missing.

Bella Restaurant's banquet room is beautiful and elegant, the food is of high quality and



the staff and service are all wonderful, while striving to exceed our needs.

One highlight of the evening is the camaraderie shared not only with our fellow hams, but also with their spouses, friends, families or dates that accompany them. We



get a chance to meet them all and just relax with good conversations.

Thanks to Judson Mitsock (W1JMZ) and Ed Fox (N1JIL), as well as, Bob Beaudet (W1YRC) who each year handle all the equipment. The light music playing in the background, provided by Judson, makes for a lovely and relaxing night to mingle and socialize. As he has for several years, Matt Penttila (NA1Q) continues to provide the holiday cake.

Bob Jones (WB1P) and Ginny Jones (N1WWG) have faithfully helped plan the celebration, and each year provide the decorations. Ray Vilnit (KC1HQP) and I print and sell the tickets, and coordinate the details with Bella's.

A special thanks to club members, and/or their spouses, who generously donate raffle gifts.

We now have the party down to a science in

which it doesn't cost any money from the club treasury to have such a wonderful evening. Everything now falls into place, which makes our jobs pretty sweet.

All we need now is more members to participate and experience what we have been enjoying for years. I promise you won't be disappointed! In addition, thanks to all the individuals that provided donations for the raffle, and those that worked at the event in various capacities to make the Christmas Party a huge success.

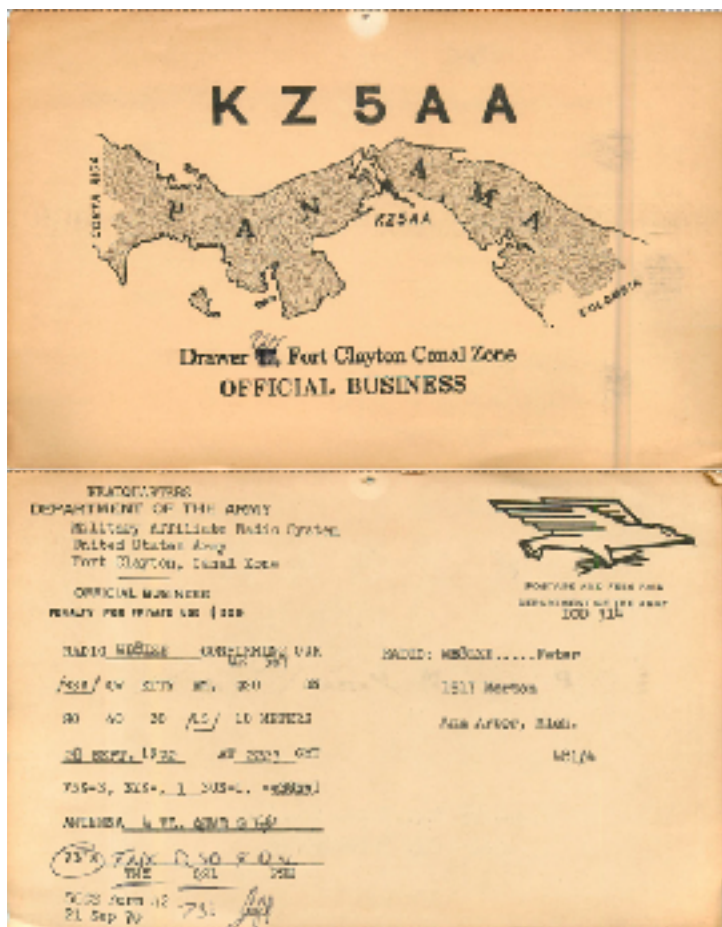
We have tentatively reserved our next Christmas Party for Saturday December 7, 2024. We hope to see you there.

***A Big Thanks to The
Christmas Party Committee:***

Bob Jones (WB1P),
Ginny Jones (N1WWG),
Patty Vilnit (W1AUT) and
Ray Vilnit (KC1HQB).



SWELL QSL'S



SUBMITTED BY PETER SICHEL - K1AV

Peter Sichel, K1AV, was first licensed in 1970 at age 12 as WN8LZE and later WB8LZE, in southeast Michigan. Then, any contact outside the US and Canada from the Midwest felt special. At the time, international phone calls were prohibitively expensive. Peter recalls American hams stationed overseas were excited to make contacts with hams back home to help stay in touch.

Look who was featured on the front page of The Valley Breeze North Smithfield-Woonsocket edition.



A Touching Tribute

Patty Vilnit, W1AUT, holds a vacuum tube mounted on a wooden base she received at BVARC's 2024 Christmas party in memory of her late father, Norman Thibault, W1AUT, a founding member of BVARC in 1953. The gift was created by Jim Johnson, K1GND, and Mickey Callahan, K1WMC. Patty and her husband, Ray, KC1HQB, were surprised and deeply moved by the keepsake and the club's thoughtfulness.



HOMEBREW



and gadgets

FROM THE WORKBENCH
OF MATT PENTTILA, NA1Q

I am looking forward to Parks On The Air (POTA) this summer, and wanted a rather minimal setup.

I love operating FT8 and FT4, but do I really want to lug my Icom IC-7300 around, plus need a battery to power it, a laptop or tablet. So I started searching the internet for an inexpensive FT8-capable transceiver.

I had built the QRPLabs QDX Transceivers and thought about them, along with the (tr)USDx Transceivers, but they still require an external power source, and a laptop, tablet, or cellphone to operate.

Then I came across an open source project developed by Barbaros Asuroglu, WB2CBA, and Charles Hill, W5BAA, called the DXFT8 transceiver. Originally a five-band QRPp transceiver with built in tablet was expanded to seven bands, and basic design consisting of a STM32F746 Developer Board with Touchscreen and a RF board. The only issue is that you must buy every component, the RF board and the STM32F746 Development Board. Next, upload firmware into the STM32, attach the RF board to the STM32 and away you go.

There's been enough interest in this

An inexpensive FT8 set up for POTA

transceiver that now Asuroglu made it a bit easier to get and build. Teamed up with Kees Talen, K5BCQ, the seven-band RF board kit is available.

The kit consists of the RF board with SMD components installed, two switches, a CR2032 battery holder, SMA port, DC Coaxial Port, DC Plug with short two wire cord, a three-pin 90 degree male header and plug, a 40-pin male header strip, top and bottom covers and standoff hardware. That's the first part.



Next, you'll need to order a STM32F746 Discovery Board from Digikey. That's the two main parts, but you'll need a couple more things.

Remember the old Mini-USB cellphone charger cable with a USB-A or USB-C we used to use before they switched to Micro-USB then USB-C? Well you'll need one of them along with a CR2032 button cell battery for the real time clock and a Micro SD card to program your station info and record the .ADIF files for your logbook.

You can 3D print a case off Thingsiverse, and have a nifty little enclosed transceiver once built.

So after ordering the 7-band RF board kit from



Tale, the STM32 from Digikey, and having a 3D printer service in NH print the case, I had to make a trip to the store for a Micro SD card and a CR2032 battery.

I patiently waited as each of the three orders showed up. First to arrive was the STM32 board, then the case. While waiting for the case I pulled out my Windows 10 Lenovo laptop and downloaded the latest DXFT8 firmware and installed it on the STM32. Then I wrote in Notepad a simple file labeled StationData.txt which include call sign and grid square like this, NA1Q:FN42, and put that on the Micro SD Card.

Once the RF board kit arrived, it became build time. There's a bit of soldering involved, starting with the switches, the SMA connector and DC Barrel Connector. Then solder in the battery holder and finally you'll end up cutting the 40 pin header into smaller sections and solder them on the board, along with the 90- degree three-pin header. Make sure the pins are all vertical as they sandwich into the STM32 board.

And before sandwiching, make the audio connections. Using three short 1 1/4" wires, solder one end to three points on the STM32 blue jack, audio in out and ground, the other to the three-pin female plug.

Next, install the standoffs. Start with the top and work downward, so top board, standoff,

STM32, standoff, make sure to swap jumpers on the STM32 as per instructions to provide power through the RF Board. Install the CR2032 battery and attach the plug with the innermost wire on the STM32 connected to the pin closest to the



outer edge of the RF Board, then sandwich the boards together. Finally, install the last standoffs and bottom board.

Next, install the Micro SD card and power up using the lower Mini USB port or DC Power source. Hook up an antenna and start operating.

If nothing shows up on the waterfall check with a SWR meter to see if any RF is being sent. If it is, more than likely the problem is SMD IC U1. A few boards were soldered and U1 had shifted in the soldering process losing connection on two of the pins. Using a heat gun and tweezers move it back on the pads and back in service.

Now if this seems like a lot, you'll have a bit of a time getting the radio in the 3D printed case. Make sure to pull the SD card before trying to install, same for opening the case up to get the radio out. It is a very tight fit, so test before installing and I would recommend installing Firmware Version 1.9.2, which includes POTA and SOTA text choices along with the CQ and any other short message like Park or Summit Designator, or my favorite QRPP, as this is a sub one-watt radio.

The operation is pretty much straight forward.

Call CQ and let the system do its thing. Or tag a call sign and let it do its thing. It will log QSOs upon the RR73 or 73 message.

Regarding costs. The RF board kit is \$45 shipped US Mail. The STM32F746 Board is available from Digikey for \$74.18 shipped FedEx Ground. The 3D printed case cost \$13.28 printed by WizardryThings in New Hampshire on Treatstock.com. The button cell and Micro SD card cost me less than \$20 locally (two-pack of button cells and a 32 GB SD card because that was the smallest they had).

The cord I actually had from my Icom RC-28 Remote Encoder I use with my tablet for my remote operation of the Icom IC-7300, but they're available for around \$6 to \$10 on Amazon. So all total you're looking at spending

other than time, a grand total of \$132.46, not including the battery, power cord or Micro SD Card.

As for operation, it's fun, QRPp is a challenge but FT8 doesn't need a lot of power to make a QSO. As for power, a 7- to 15-volt 1A battery on the DC cord, Cell phone Charger or using a 5-volt Power Bank on the Mini USB are all fine. Any resonant antenna for the band will work. An end fed, a hamstick, PAC-12, just about anything will work. So see you on the bands,

If you're interested in this go to:

<https://github.com/WB2CBA/DX-FT8-FT8-MULTIBAND-TABLET-TRANSCIVER>

Or

DXFT8.Groups.io

