# B-PLUS

## **A**lbany **A**mateur **R**adio **A**ssociation – AARA

## March 2023


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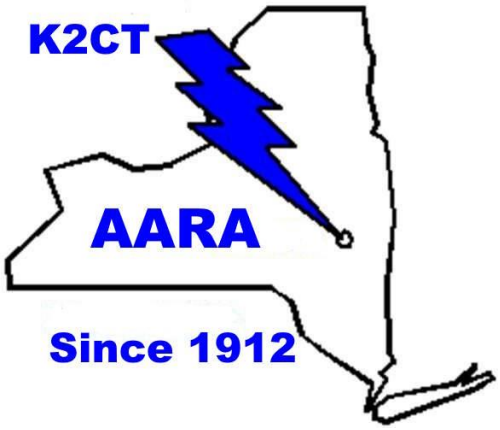



AARA March Meeting
March 1st 7:30 PM
Slingerlands Fire Dept.

Program: To Be Announced

PLEASE Pay Your Dues
Dues are $20
Checks can be sent to:

Saul Abrams, K2XA
307 Maple Rd.
Slingerlands, NY 12159

## Words from the president:

I have been in contact with Mike Brodeur N2NSL this weekend and everything is all set for our first meeting at Slingerlands Fire Department, this Wednesday (March 1st) at 7:30PM. The Fire Department is located at 1520 New Scotland Ave. Slingerlands, NY 12159. Coming from Albany it will be on the left-hand side, just prior to Village Pizza.

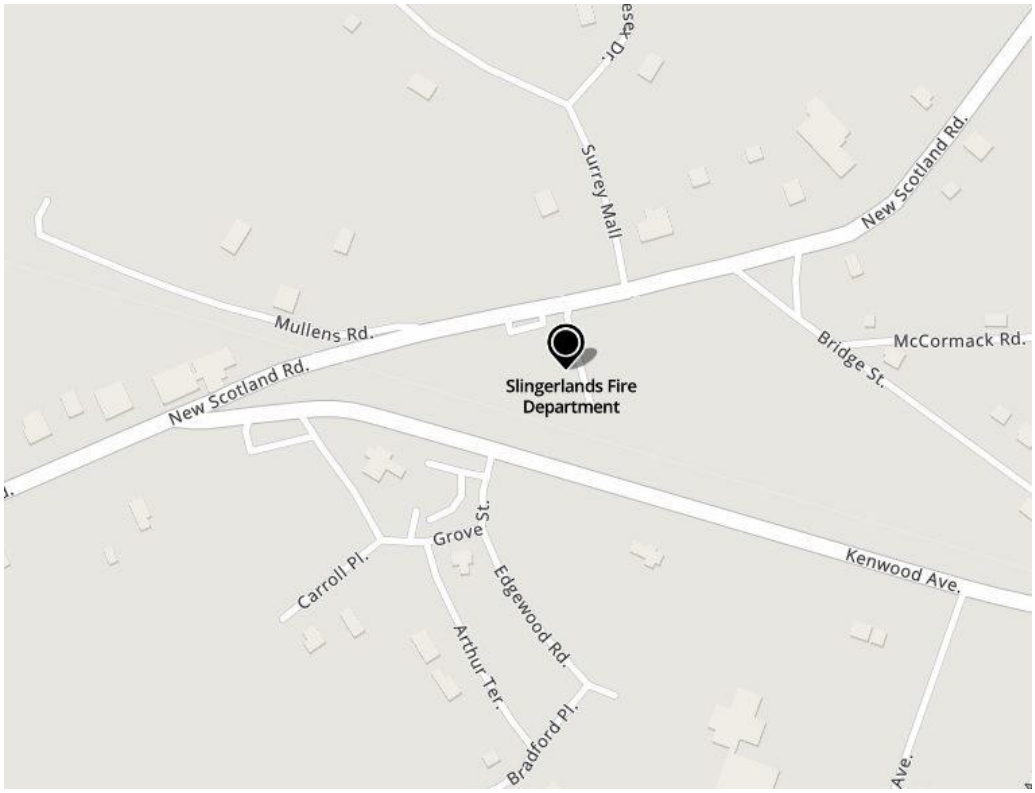
Mike has asked that we park towards the back of the lot leaving space for any first responders if the need arises.

Looking forward to seeing everyone! 73 de

John

K2QY

## *New Meeting Location*




## Bouvet DXpedition (3Y0J) - A Success or a Near Disaster?

Looking around on social media, its apparent that there are both happy and disappointed hams depending on if they made a confirmed contact or not. Some are even pretty upset or angry.

But let's put the island into context. Bouvet is the most isolated island on the planet, located at 54 degrees southern latitude. They don't call it the "furious 50s" for no reason. That far south, there are no large land masses to temper the winds. Forty knots are the norm with up to 70 knots not

uncommon. Such strong winds and long fetch yield huge seas. Weather at that latitude can shift in minutes which is evident by the chain of events as they unfolded. If you have never seen 30-50 foot seas, it is something to behold.

The following notes are paraphrased from accounts by Ken LA7GIA and Dave WD5COV:

By their own admission they did not achieve all their goals, but they did make 19,000 contacts. The 2018 and the 2021 DXpedition never landed on the island. On January 31st four members went ashore with basically no supplies, having to sleep outdoors their only shelter being a tarp. On the second day they did land some supplies under high seas with a risky operation where surf and rocks actually punctured their Zodiac, resulting in the loss of several items. At that point they decided to pare down the operation to 100 watts only, simple antennas, a single tent, no chairs and a small generator. They focused on fewer bands. The result being only 50% were unique calls (many dupes!) and they had to call between 3 to 5 times before logging a QSO. They couldn't work FT8 because the computer clocks were off by 14+ seconds. But the entire team is safe with no one hurt.

The following are some of my random thoughts:

They say that hindsight is 20/20 so please take my thoughts with a grain of salt. These guys are lucky to be alive is an understatement. Having sailed in some pretty sketchy weather and following some of the "around the world" sailing races I can only imagine how astounding the seas must be, even on a settled day in the "roaring 40s" or the "furious 50s". That said, the very first trip the guys made to the island should have included enough supplies for 24 to 48 hours. You really don't need much to just survive if you plan properly. There are no details about the Zodiac, so I wonder if a more robust Zodiac (hard bottomed, larger, etc.) may have been possible. The last couple attempts by earlier groups to access the island were planned by helicopter so perhaps putting the DXpedition on hold for another year to raise more money for that mode of transportation may have been a wiser choice.

I find it discouraging that so many hams were QRMing, not listening or using poor operating practices which only exasperated the pileups. The fact that there were so many dupes make it all the more difficult for the little pistols to snag an ATNO. Just as expected the wall of RF from the Europeans made it more difficult for US hams to even hear 3Y0J. If they had been able to work FT8 or other weak signal modes that may have leveled the playing field for many hams with smaller stations. Obviously, the power limits and smaller antennas were exasperated by the terrain blocking propagation to the outside world.

All in all, I congratulate the team for an operation under such austere conditions. I will definitely be looking forward to more and more details as they become available. For me, an ATNO is on hold until the attempt.


# Winter Field Day 2023

By David Galletly KM2O

For those of us in the Albany area, Winter Field Day (WFD) returned to an in-person activity this year. After a three-year hiatus, amateur radio operators made the trip to Lawson Lake County Park in Feura Bush to set up and execute this event. Using the call K2ALB of Albany County ACES (Albany's ARES group), hams from that group, the Albany Amateur Radio Association (AARA) and the Troy Amateur Radio Association (TARA) joined forces to participate in a successful return to the field.

Here is the tale of the tape:

| Band | CW | Phone | Dig | Total | % |
|---|---|---|---|---|---|
| 80 | 27 | 62 | 19 | 108 | 18 |
| 40 | 150 | 191 | 20 | 361 | 61 |
| 20 | 10 | 45 | 23 | 78 | 13 |
| 15 | 0 | 41 | 0 | 41 | 7 |
| 10 | 0 | 4 | 0 | 4 | 1 |
| Total | 187 | 343 | 62 | 592 | 100 |

Contacts = 592

QSO Points = 9,251

ACES, joined by AARA, first did WFD at Lawson Lake in 2019 after inquiring with the Albany County Sherriff's Office Critical Incident Unit as to the availability of their office in

Clarksville for the event. Lawson Lake was quickly offered as an alternative location. A former summer camp, Lawson Lake came into county possession several years back as a joint project of the County Executive, Legislature, and the Sherriff's Office. It has been under development as a multi-use area since. Now used for year-round recreational activity as well as summer youth programs and emergency response training, the facility is centered around Lawson Lodge. This former dining hall sports a huge stone fireplace, a full kitchen, and its newest addition, fully functional rest rooms. A gas fired heating system and Wi-Fi are a bonus.

Back in August 2022, discussions began on the availability of the park for WFD 2023 on the fourth weekend of January. With a new online reservation system about to come into use, Lawson Lake has come under the County Recreation Department. We became the first to sign up on the new system and shortly thereafter were granted access for the weekend of January 27-29.

A subsequent meeting between members of AARA and TARA resulted in proposals being ratified by both clubs to cooperate on future ARRL Field Day operations in June. When WFD became a go, the invitation to TARA was moved up to January. During the fall, presentations on WFD were given at AARA and TARA meetings and people from all clubs began to sign up. A planning session was held at the ACES January meeting.

As the list of attendees began to grow, initial plans for a three-radio set up started to seem limited. A discussion about the unavailability of a triplexer to allow usage by multiple radios on a single antenna spurred Fred K2TR into action. The result was a system to combine separate transceivers on 20 and 15 meters. By June, Fred hopes to add a 10-meter component. Ernie K2EP was willing to bring lots of stuff, including AARA's tower trailer to the site for the first time to support a light beam provided by Dave KM2O. These developments made a five-radio operation possible. With meal catering spearheaded by John K2QY, and generator furnished by Nathaniel KB2HPX, things began to fall into place.

Nature smiled on our plans with higher-than-normal temperatures and little snowfall in the preceding weeks. Despite some dire forecasts in the days before WFD, conditions were good as we began setup on Friday the 27th. Tower and beam assembly went smoothly as did the erection of the first of our 80/40 dipole antennas, leaving addition of the second 80/40 and other antennas for Saturday.

Work on antennas and assembly of stations started smoothly the next morning and following lunch, a row of 6 transceivers (including our satellite station) was set up. The N3FJP WFD logging network was up and running. The generator fueled and operating, we were ready to begin at 2 PM. Enter Murphy.

At about 1:55 we noticed that the rigs were still plugged to shore power. This was hastily addressed with rigs and computers back online with initial operating bugs cleared in time for our first 40-meter SSB QSO with N1PTT 2 Oscar New Hampshire in the log at 19:11 UTC, followed at 19:13 by our first 40-meter CW QSO with W1BOS 2 In Western Massachusetts. 15-meter operations quickly followed suit as the line of radios came to life.

Some connector issues, and a vexing server dropout occurred. Lesson: Always check to make sure the laptop (server) power saving settings are all off after a Windows Update...

During early operations, we lost not one, but two laptops and an issue took away one radio. Fuel consumption became a concern. Fortunately, a spare PC and a late evening trip to Stewart's got us through. Though in need of serious sedation, KM2O kept going. Apologies to all.

By the close of operations Sunday, we had made 592 contacts on 5 bands with 11 mode multipliers garnering 9,251 QSO points. Adding 2,000 in bonus points for noncommercial power, setup away from an established station location, using antennas specifically set up for WFD and a satellite contact (quick work from John K2QY!) our K2ALB's submitted score was 11,251. Due to a change in rules limiting all stations to a maximum of 100 watts, last year's X2 multiplier for this category was removed. In 2022 our equivalent score would have been 18,502 QSO points + 2,000 Bonus for a total of 20,502. Overall, a good effort. WFD logs are matched against each other, so expect some changes to the 2023 submitted results

Next year? Let us try to log some more bands. Even one QSO on 6 or 2 meters and 70 centimeters would give us more multipliers to boost the score even further. This rule is exclusive to WFD as ARRL FD does not allow for mults.

A shout out to our operators is in order. Here is the order of finish:

| Operator | Total | % |
|---|---|---|
| W2EG | 186 | 31 |
| WA3AFS * | 114 | 19 |
| K2TR | 109 | 18 |
| KB2LZ | 50 | 8 |
| K2QY ** | 39 | 7 |
| KD2ROS | 39 | 7 |
| KM2O | 38 | 6 |
| KC2EBA | 8 | 1 |
| N2KAD | 6 | 1 |
| KD2MPX | 3 | 1 |

* WA3AFS score was as a multi-op with Grandson Zach. Zach pulled off 67 QSO's to Bruce's 47. Zach, please take your license exam soon! You are one FB op! Ask Grandpa what that means.

** K2QY's score does not include a BIG ONE, our 500-point satellite contact with N2FYA.

This makes our actual order of finish:

| Operator | Total | % |
|---|---|---|
| W2EG | 186 | 31 |
| K2TR | 109 | 18 |
| Zach | 67 | 11 |
| KB2LZ | 50 | 8 |
| WA3AFS | 47 | 8 |
| K2QY | 40 | 7 |
| KD2ROS | 39 | 7 |
| KM2O | 38 | 6 |
| KC2EBA | 8 | 1 |
| N2KAD | 6 | 1 |
| KD2MPX | 3 | 1 |

Many thanks to all those who attended WFD this year. We all needed some of what this weekend gave us: playing with radios, tinkering with antennas, eating delicious food, not sleeping, socializing, and getting nice and warm in front of that big fireplace. Let's plan to do it again on the fourth full weekend of January 2024!

Save the date: January 27-28, 2024.

Interior of the Lodge.  Operating Stations are on the Right Side.

Tri Beam Antenna on Crank Up Trailer

John K2QY  Adjusting Satellite Antennas

# *Winter Field Day 2023*

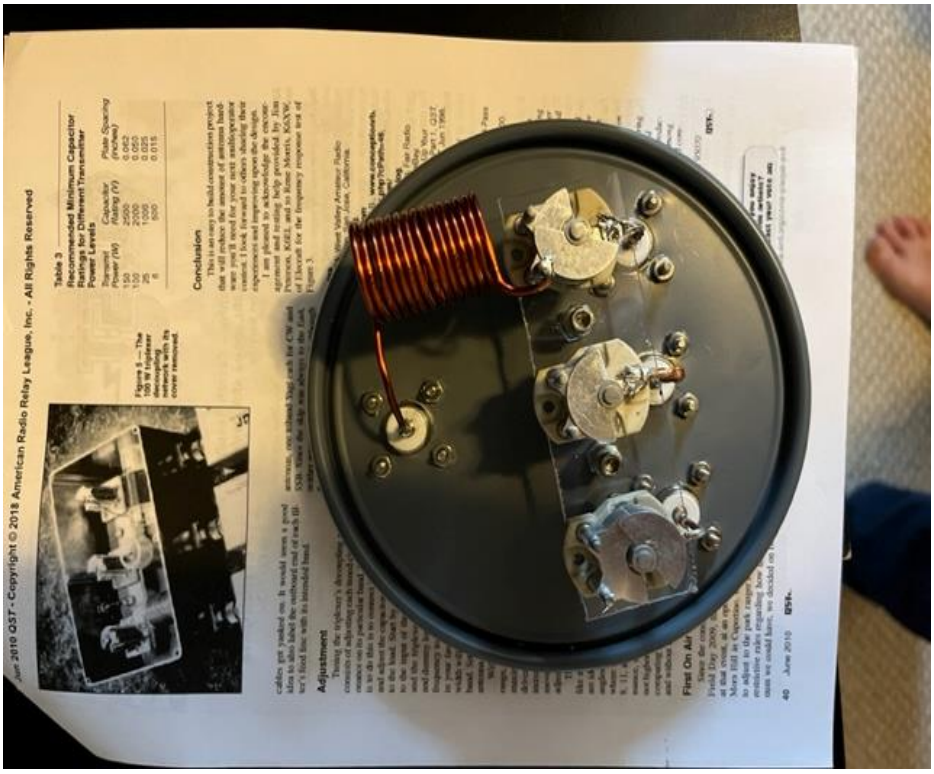

RADIO
80 CW
40
20
15
10

# Fred's Sandbox #3 - A Field Day Triplexor

Last month's Winter Field Day was incredible!  It was the first group Winter Field Day since the COVID pandemic.  The number of participants blew me away.  It was great to see so many of you there.

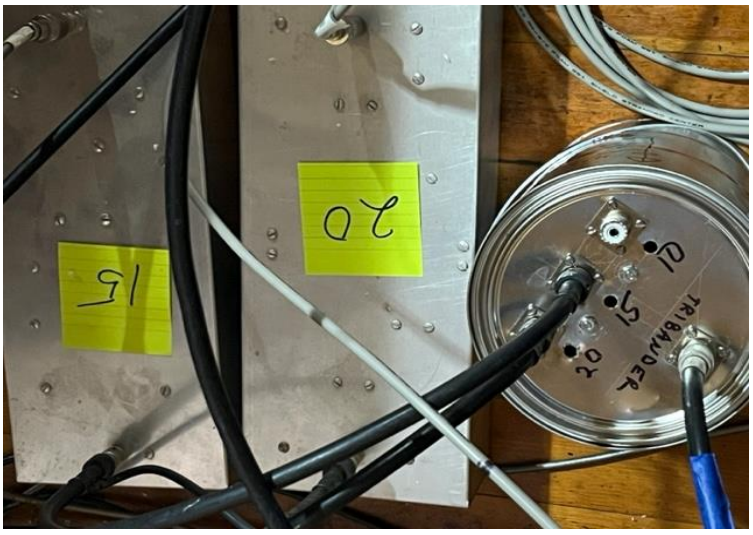
The key to the success was the advance work done by Dave Galletly, KM2O.  From obtaining the Lawson Lake site, to preparing the computer network, to deciding on the transmitters, Dave's vision was spot on!  One of Dave's wishes was to use a tribander on three bands simultaneously.  Dave dug into purchasing a Triplexor and discovered that they were not available and had been previously constructed in Moscow.  The Ukrainian situation was not going to get resolved soon, so I volunteered to build a Triplexor for Field Day.

There was a design published in QST many years ago that I had downloaded and kept in my file cabinet, so I knew right away that the project was feasible.  The design concept is three series tuned circuits, one for each band connected to the antenna port.  Step one was to find the parts, some of which are expensive unless purchased on the surplus market.  For an enclosure, I picked up an empty paint can at Lowes.  My goto company for variable capacitors is Surplus Sales (Nebraska).  Their offering included many parts with marginal voltage ratings, and others with adequate voltage ratings but like-new prices.  The original QST design had all three variable capacitors connected to the antenna port.  That meant that the power of all three bands was across all three capacitors.  When configured this way, the voltage across the capacitors increases exponentially.  By simply connecting the three coils to the antenna port, and each capacitor to the individual band port, each capacitor had roughly one band's voltage across it, not three.  Here is a picture with the first coil connected to the antenna port. (on the left)  The original QST article is under the lid of the paint can.



In order to get sufficient isolation between three transmitters the Triplexor requires three individual band filters.  Saul, K2XA already had filters that were made by Jim Lawson, W2PV. Here's what one of them looked like inside:

When connected together, they looked like this:




Unfortunately, we did not get a 10 meter filter ready by January.  I plan to finish that before June.

# Recipe Corner – Bruce, WA3AFS

## Easy Inverted Vee

| | Estimate | Actual |
|---|---|---|
| Design Time: | 5 Minutes | 5 Minutes |
| Antenna Placement Planning | 15 Minutes | 20 Minutes |
| Antenna Construction Time: | 1.5 hours | 1 hour * |
| Antenna Installation Time: | 45 Minutes | 55 Minutes |
| Antenna Tune Time: | 1 hour | 1 Hour |

(*) – I had a piece of coax already built which turned out to have a bad coax connector costing me 20 extra minutes.

**Ingredients:**

- Center Insulator
- 2 End insulators (I prefer glass or ceramic)
- Wire (I like 14 or 12 gage)—If insulated, then I prefer red or violet colored insulation.
- Coax with connectors (I mostly use RG-8X for 160m-10m)

**Instructions:**

1. Decide on the center frequency you want.
2. Use the formula total length in feet = 468/frequency in Mhz (each leg will be ½ of the length calculated. (Example: 468/3.6 = 130.0 feet). Thus, each leg will be about 65 feet.)
3. I add another foot or 18 inches to each leg as distance to the ground, trees, and other objects will have an effect. It is easier to trim, than to solder/clamp on more wire!)
4. Construct the antenna with about a foot folded back at the end insulators and verify the coax with connectors does not have any 'opens' or 'shorts in the connectors. (Grew up in a home where 'crimp' coax connectors were considered very poor practice! —This was in the 1960s).
5. My center support was going to be a branch of a large oak tree, so I used a compound bow with a fishing arrow. My archery skills are not great, but getting the exact branch is not critical.

6. 

7. Picture of heavy-duty fishing rod/reel and the fishing arrow

8. 

9. Picture of bow and fishing arrow. The fishing arrow has a screw-on BNC connector for its tip (adds a nice weight to the arrow and not likely to stick into any branches). Also the fishing arrows have a nice hole in the rear of the arrow which allows fishing line to be attached. I use the bucket (sometimes weighted with rocks) to hold the rod if I do not have anyone helping me.

10. Once the arrow has placed the fishing line over an acceptable branch, I attach a pure nylon rope (lasts a long time) to the fishing line and reel in the rope. Attach the center insulator/antenna and pull the antenna up by the rope.

- Once installed map the SWR and start experimenting with the goal of getting the SWR at your projected operating frequency as low as possible (I like to see my SWRs lower than 1.5 to 1 with 1 to 1 optimum.
- If the minimum dip in the SWR is higher than you want to unfold one end about 6-9 inches and remeasure the SWR. If the dip is lower than the frequency you want, then fold an additional amount to the length of one side and remeasure to see if you are going in the correct direction.
- Raise and/or lower the ends to see if that it lowers the SWR at resonance.
- Repeat the above until you are satisfied.

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