B-PLUS

Albany **A**mateur **R**adio **A**ssociation – AARA

March 2025

Ernie Popp K2EP
PRESIDENT
k2ep@arrl.net

Gerald Murray WA2IWW
VICE PRESIDENT
518 482-8700
wa2iww@arrl.net

Saul Abrams K2XA
TREASURER
518 439-5700
k2xa@arrl.net

Bruce Goldstein WA3AFS
SECRETARY/WEBMASTER
518 765-2893
wa3afs@arrl.net

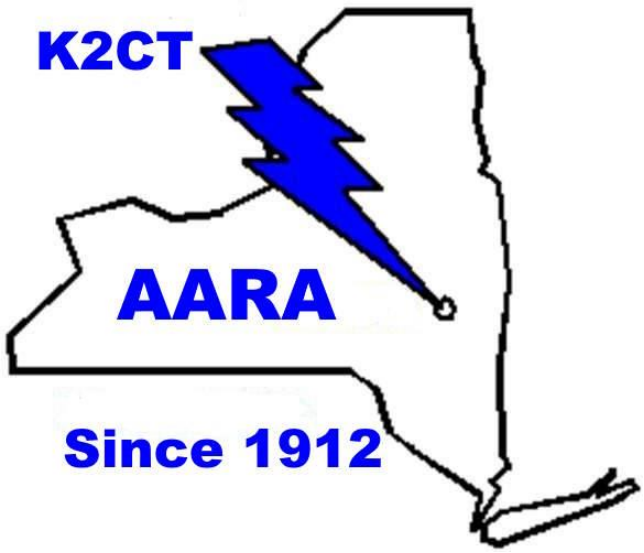
Don Herring KB2SCO
DIRECTOR – B Plus Editor
518 281-9986
dgherring@hotmail.com

Nathaniel Greenman KB2HPX
DIRECTOR
518 439-5008
ngreenman@verizon.net

Peter Hines N2KAD
DIRECTOR

Mike Brodeur N2NSL
DIRECTOR

John Fritze K2QY
TRUSTEE of K2CT
PAST PRESIDENT
k2qy@arrl.org



AARA Next Meeting:
Wednesday, March 5th, 2025
@ 7:30 PM
Slingerlands Fire Dept.

Topic:
QSL-ing For Beginners

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

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

February Meeting

Ken Goetz N2SQW gave the presentation on Contesting for Non-Contesters.

Ken explained types of contests; also operating techniques, logging and contesting procedures and etiquette.

For a list of upcoming contests: https://www.arrl.org/contest-calendar

Fred's Sandbox
Winter Field Day Technical Recap

My goal for Winter Field day this year was to streamline the antenna setup while still operating multiple bands simultaneously. At the same time I wanted to get the antennas as high as possible, and minimize interstation interference. The four antennas that we used for the low bands were as follows;

160 meter off-center-fed dipole with single trap for 80/75 meters

80-10 meter EFHW

40 meter dipole

3 element TA-33JR tribander for 20/15/10 meters connected to a triplexor for simultaneous operation on all three bands

With this setup each band from 80-10 meters had two antenna options

80 CW & Digital: EFHW or trap dipole (the trap dipole did remain on 75 SSB)
75 SSB: EFHW or trap dipole (but the EFHW was used on 80 meters all the time)

40 CW & Digital: EFHW or 40 meter dipole (sometimes on simultaneously)
40 SSB: 40 meter dipole

20 CW & Digital: EFHW or tribander (sometimes on simultaneously)
20 SSB: tribander

15 CW & Digital: EFHW or tribander (sometimes on simultaneously)
15 SSB: tribander

10 CW & Digital: EFHW or tribander (perhaps on simultaneously)
10 SSB: tribander

It was very nice to see how well this combination of antennas kept all 4 transmitters on the air simultaneously. There were always options for operation on

a band that was open. While our results on 10 meters were disappointing, that was due to propagation and not antenna related.
All of these antennas worked well, and as W2EG said, they “got out”! As usual, our best band was 40 meters. 80/75 was second and 20 was third. We made more than 100 digital contacts (thanks Kate) and over 300 CW QSOs (thanks Rich). That's a total of over 400 two point contacts!

As the cold weather reports became clear for the WFD weekend I was glad that we had only 4 antennas to put up. Thanks to everyone who braved the weather and made for a quicker setup. We did run into an issue with either the feedline to the EFHW or the barrel connector that we used to splice two cables on the ground. Checking these cables and connectors prior to summer Field day is on my todo list. The problem with many cheap barrels is that they may use brown plastic instead of Bakelite or white plastic instead of Teflon. Both of these can melt in a full power station. The center conductors can stretch and not make good contact with the center pin. While many feel that Amphenol barrels are the best, I don't favor them as they are unnecessarily expensive and have higher Passive InterMod (PIM) than silver plated connectors. I picked up some nice new barrels at Hamcation in Orlando. The first ones that I found were at the Wireman. They were silver plated outer, gold plated inner, a tight fit to a PL-259 center pin, and had real Teflon insulation. Later that day I found the same characteristics at Max Gain systems and at a lower price. Meanwhile we can continue to use the cheap barrels to wind the cable on the spool, but use the good ones for handling RF.

The next step is to check out the PL-259 connectors. The existing cable uses crimp-on style connectors, but without any strain relief nor weatherproofing. I will check and replace any connectors that show any signs of age.

The next suspect for these problems is the coax itself. Winter Field Day is tough on coax because coax gets stiff when it is cold outside. In addition, we all tend to work faster when it's cold, partly to stay warm, and partly to get inside ASAP, so kinks are more likely and may be pulled too tight at the same time. Kate has suggested Massi coax with flexible stranded center conductors. At Hamcation I asked Mr. Massi how he would solve the problem. He showed me a special coax with stiff and extremely tough outer jacket and using the finest stranding center conductor. The shield is a solid copper foil. It uses special connectors and tooling. Mr Massi said that cable is safe to drive over in a grassy field. It reminded me of the direct burial coax from DX Engineering that someone brought to Lawson Lake. That had very stiff outer jacket that was tricky to strip. Of course Massi coax is expensive, yet if our existing cable has real issues we can consider it.

The remaining issues that we had were interstation interference. I believe that one reason is that our antennas are closer together at Lawson Lake than Thatcher park. A second factor is that the EFHW is very effective at radiating second and third harmonics. The third reason is that because the second harmonic of a CW station often falls on or near a common digital frequency. I propose that I add coax stubs for 80, 40, and 20 meters on the CW station with a simple switch on a TEE connector to add the proper stub while the antenna remains connected to the radio. I don't see any advantage to filter the harmonics of 160, 15, or 10 meters, as they do not fall on frequencies where we tend to operate. The use of Elecraft K3 and Yaesu FTDX10 transceivers offer the best receiver dynamic range and lowest transmitter broadband noise possible. The Icom IC-7100 worked fine even though it is a bit lower on the Sherwood the transceiver performance list.

Additional RF interference occurred on my audio interface from my computer to my Elecraft K3S. I used this computer interface to call CQ FD. This interference happened during CW transmissions when the CW transmitter was using the EFHW antenna. My first attempt at a fix was a clip lead from the K3S ground to the computer ground, which helped slightly. The second trial was to add ferrite beads on both ends of the audio wire, which also improved the situation. The final solution was to ground the antenna patch panel to the building ground using the third wire on an unused AC outlet.

This interference shows how fussy an EFHW can be when it comes to RFI. This EFHW already has a two core 1:1 Guanella balun on the coax! I will be building a special ground wire attachment for Field Day using a 3 pin AC connector with only a connection to ground plus a clip lead to use on the patch panel. I am also considering adding a counterpoise to the EFHW instead of using 14' of coax between the 49:1 transformer and the Guanella balun.

Another issue is that my triplexor developed a problem on 15 meters. It would arc unless the power was kept below 50 watts. I believe that the inductor does not have sufficient spacing and adjacent turns were shorting. I am suggesting that the club purchase a 200 watt triplexor made by VA6AM. It has lower loss and more isolation than the one that I built.

Thank you to all of you who pitched in and helped with the antenna setup on Winter Field Day as well as all the operators who stuck with it in order to increase our score.

Saratoga County Amateur Radio Association SwapFest

WHEN: *Saturday, March 8, 2025*

Admission: *Free!!!*

Where: Cornell Cooperative Extension Building (aka Solar Building)
50 West High Street (Rt 67 W), Ballston Spa, NY 12020

Doors open at 7 a.m. • Refreshments. • Door Prize raffle!

VE Test Session for new licensees and upgrades held at Noon in the same facility.

Contact Jim KG2H@arrl.net for test session details.

For more details see: https://www.k2dll.org/

Amateur Radio Emergency Preparedness Act Re-Introduced

Legislation Will Increase Communication Options During Natural Disasters

WASHINGTON – U.S. Senators Roger Wicker, R-Miss., and Richard Blumenthal, D-Conn., and Representatives August Pfluger, R-Tex., and Joe Courtney, D-Conn. announced their joint re-introduction of legislation in the Senate and House to restore the right to Amateur Radio operators to install the antennas necessary to serve their communities.

Homeowner association rules often prevent Amateur Radio operators from installing antennas at their homes even though Amateur Radio has proven to be essential in emergencies and natural disasters such as hurricanes when other means of communication fail.
From: ARRL.org

Swap Shop

Have radio gear you want to buy, sell, trade, or give away?

Please send your item descriptions to wa3afs@arrl.net or dgherring@hotmail.com

Important Links:

Find a license class in your area: www.arrl.org/class

Find a license exam in your area: www.arrl.org/exam

The Eastern Iowa DX Bulletin:

http://www.eidxa.org/EIDXBulletin.html