

# ***B-PLUS***

## **Albany Amateur Radio Association – AARA**

July/August, 2023

John Fritze K2QY  
*PRESIDENT*  
[k2qy@arrl.org](mailto:k2qy@arrl.org)

B-PLUS Editor

Gerald Murray WA2IWW  
*VICE PRESIDENT*  
518 482-8700  
[wa2iww@arrl.net](mailto:wa2iww@arrl.net)

Saul Abrams K2XA  
*TREASURER*  
518 439-5700  
[k2xa@arrl.net](mailto:k2xa@arrl.net)

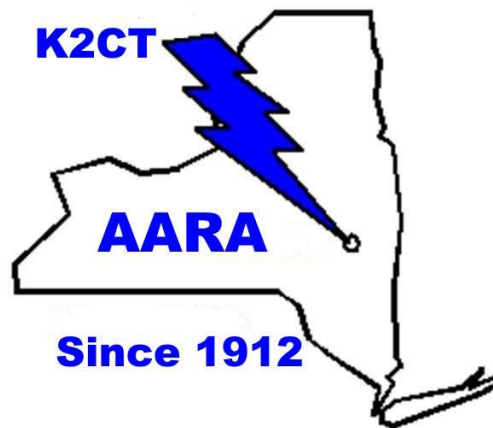
Bruce Goldstein WA3AFS  
*SECRETARY/WEBMASTER*  
518 765-2893  
[wa3afs@arrl.net](mailto:wa3afs@arrl.net)

Don Herring KB2SCO  
*DIRECTOR*  
518 281-9986  
[dgherring@hotmail.com](mailto:dgherring@hotmail.com)

Fred Lass K2TR  
*DIRECTOR*  
[k2tr@arrl.net](mailto:k2tr@arrl.net)

Nathaniel Greenman KB2HPX  
*DIRECTOR*  
518 439-5008  
[ngreenman@verizon.net](mailto:ngreenman@verizon.net)

Ernie Popp K2EP  
*TRUSTEE of K2CT*  
*PAST PRESIDENT*  
[k2ep@arrl.net](mailto:k2ep@arrl.net)



**AARA September Meeting**  
**September 6th, 2023 @ 7:30 PM**  
**Slingerlands Fire Dept.**

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

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

# *Field Day 2023*



June 24<sup>th</sup> and 25<sup>th</sup> was Field Day and our first joint effort with the Troy Amateur Radio Association (TARA). We were at our usual location of Haile's Cave in Thatcher Park.

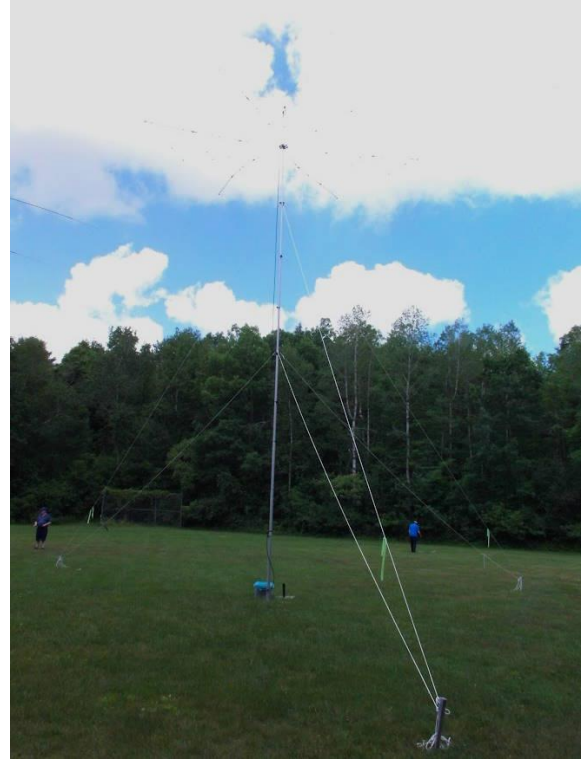


The view from the pavillion.





Crank Up Tower



Push Up Tower With Spider Beam



The Big Tower



Satellite Antennas







## **Field Day 2023 Results - David Galletly KM2O**

This year's Field Day was a bit of a new experience for members of the Albany Amateur Radio Association (AARA). We were joined at Thacher Park, for the first time, by members of the Troy Amateur Radio Association (TARA). Discussions between board members and others in both groups began several months prior to the annual Field Day weekend. Once a decision to try the grouping of the two clubs was made, a series of Zoom meetings resulted in planning a new experience for both clubs.

The decision to go 5A this June for the first time in recent memory was based, in part, on experience gained at Winter Field Day. The operation at Lawson Lake County Park, to which TARA members were invited, went bigger than ever before under the belief that more stations would allow greater participation. It was felt that the ability to operate by more people was better than having to wait for a limited number of stations to be open. The added items that TARA had in storage would complement the long-used equipment that AARA could bring. Both clubs were used to N3FJP Field Day logging software, a bonus.

Not only would five HF stations and a VHF station be made possible by having access to AARA and TARA equipment but would also allow a GOTA or "Get On The



Air” station to be part of the mix for the first time in many years. GOTA became increasingly important this year due to a rule change by ARRL. Each GOTA contact would be worth 5 bonus points as well as the points scored by combining the QSO’s with those of the main station. Plus, having a GOTA coach for at least ten contacts netted a separate 100-point bonus.

What call should be used in an AARA/TARA operation? A suggestion to get a temporary 1X1 special event call was rejected since the use of this type of call often causes confusion in a rapid-fire event like Field Day. The planning group decided to use Albany’s K2CT call for the main station and on the GOTA station Troy’s special event call NY2U, in memory of longtime TARA President Bill Eddy NY2U (SK). In future events, the clubs could alternate the calls.

As was the case at Winter Field Day 2023, an Incident Action Plan (IAP) was written to detail the steps and assignments for this event. A Google Forms signup sheet was instituted to keep track of the number of expected attendees. This proved invaluable in calculating those available for setup and tear down activities as well as those present for meals. As the Field Day weekend approached, the weather forecast took a predicted downturn. Rain, including some severe storms were forecast. Thankfully, most of the precipitation took place Friday night after setup had begun. Except for some light showers, thankfully, the weather conditions held for the rest of the weekend.

Members and equipment from both clubs came for Friday afternoon and Saturday morning setup. The array of stations and antennas was impressive. As 2 PM Saturday start time approached, we were about ready. Though Murphy did show up at times, most of the operation went fine. By the time Sunday at 2 PM hit, we were quite pleased with the results.

Here is a look at those results from our submission to ARRL:

**Call Used:** K2CT **GOTA Station Call:** NY2U **ARRL/RAC Section:** ENY **Class:** 5A

**Power Multiplier:** 2X **Preliminary Total Score:** 5,871

**Score Summary:** (File [K2CT.dup] previously uploaded)

	CW	Digital	Phone	Total
Total QSOs	249	283	654	
Total Points	498	566	654	1718

Claimed Score = (QSO points x power mult) = 3,436

Band/Mode QSO Breakdown:

CW	Digital	Phone
QSOs Pwr(W)	QSOs Pwr(W)	QSOs Pwr(W)

160m						
80m	31	100	77	100	210	100
40m	156	100	99	100	151	100
20m	62	100	48	100	159	100
15m	0	100	52	100	36	100
10m	0	100	0	100	7	100
6m	0	100	7	100	0	100
2m	0	100	0	100	5	100
222						
432						
Other						
Satellite	0	100	0	100	1	100
GOTA	85	100				
TOTAL	249		283		654	

]

### Bonus Points:

100% emergency power	500	
Media Publicity	100	
Public location	100	
Public information table	100	
Formal message to ARRL SM/SEC	100	
W1AW Field Day message	100	
Formal messages handled	100	(13 x 10, max of 100)
Natural power QSOs completed	100	
Site visit by invited elected official	100	
Site visit by invited served agency	100	
Educational activity	100	
Youth participation	60	(3 x 20, max of 100)

Safety officer	100
Social media	100
Satellite QSO	100
GOTA Station	425
GOTA Coach	100
Entry submitted via web	50
<b>Total bonus points</b>	<b>2,435</b>

Other than finding two more under 18-year-olds to make one QSO, (another 40 possible points) we came close to achieving the maximum number of bonus points. The only way to boost that total would be more GOTA contacts. That alone is an impressive achievement of which we all may be proud.

Another achievement is how close we came to achieving a "Worked All States." We worked 45 of 50 states. (Missed ND, SD, WY, AK & HI) We got Puerto Rico, Spain and most of the Canadian provinces.

At this point you must be asking how many QSO's did everyone make? Here you go:

Total Contacts by Operator: (K2CT)

Operator	Total	%
-----	-----	---
K2TR	302	28
W2EG	246	23
KC2ZDC	140	13
N2KAD	96	9
WD2AJS	59	5
KM2O	57	5
K2QY	44	4
KD2ROS	37	3
NF2F	31	3
WA3AFS	18	2



KB2SCO	16	1
KC2EBA	16	1
KF2WA	9	1
K2DEJ	5	0

Total = 14

And let's not forget our GOTA Operators:

Name/Call	QSOs	Bonus Points
David Unverhau, N2DU	17	85
Marc Jacquinot, K2DL	12	60
Nick Bennett, KE2BHW	10	50
Gerald Murray, WA2IWW	5	25
Maureen McCauley, KD2ZUF	2	10
David Kinerson, K2DRK	1	5
Zach Dounane, (NONE)	14	70
Elena Fritze, (NONE)	15	75
Jacob Fritze, (NONE)	8	40
J M, (NONE)	1	5

There were 41 people who signed in at our site this year. We must thank every single one of you for the outstanding effort. See you at Thacher in 2024!

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## Fred's Sandbox #4

Two dipoles spaced apart X plus Y axis and fed 90 degrees out of phase

Yeah, it sounds complicated, but it isn't. Let's say you start with a 2 element wire beam for 40 meters with 40' of element spacing, make the elements identical lengths, and feed both elements, one with 84.6' of 75 ohm coax, the other with 112.84' of 75 ohm coax, then add them in a TEE connector. This 75 ohm coax transforms each 50 ohm antenna to 112 ohms, and when parallel connected to the other antenna nets 56 ohms, a good match to 50 ohms. (Well, not exactly, but that's the beginner's version). Next, take the reflector and move it sideways 100'. That gets you the gain and F/B ratio of a

2 element beam, no interaction between the elements, and incredible VSWR bandwidth. Where does the bandwidth come from? Because one of the two coax lengths are  $\frac{1}{4}$  wave longer than the other, it transforms the resistive part of the impedance in the opposite direction of the other feedline. It works like this, at the center frequency, each antenna is 50 ohms, but drops below 50 ohm below the center frequency and rises higher than 50 ohms above the center frequency. The second antenna's impedance is transformed in the opposite direction because it has an extra  $\frac{1}{4}$  wavelength of coax in it's feedline. It kinda sorta adds like this:

below center frequency frequency 40 ohms + 60 ohms = 50 ohms

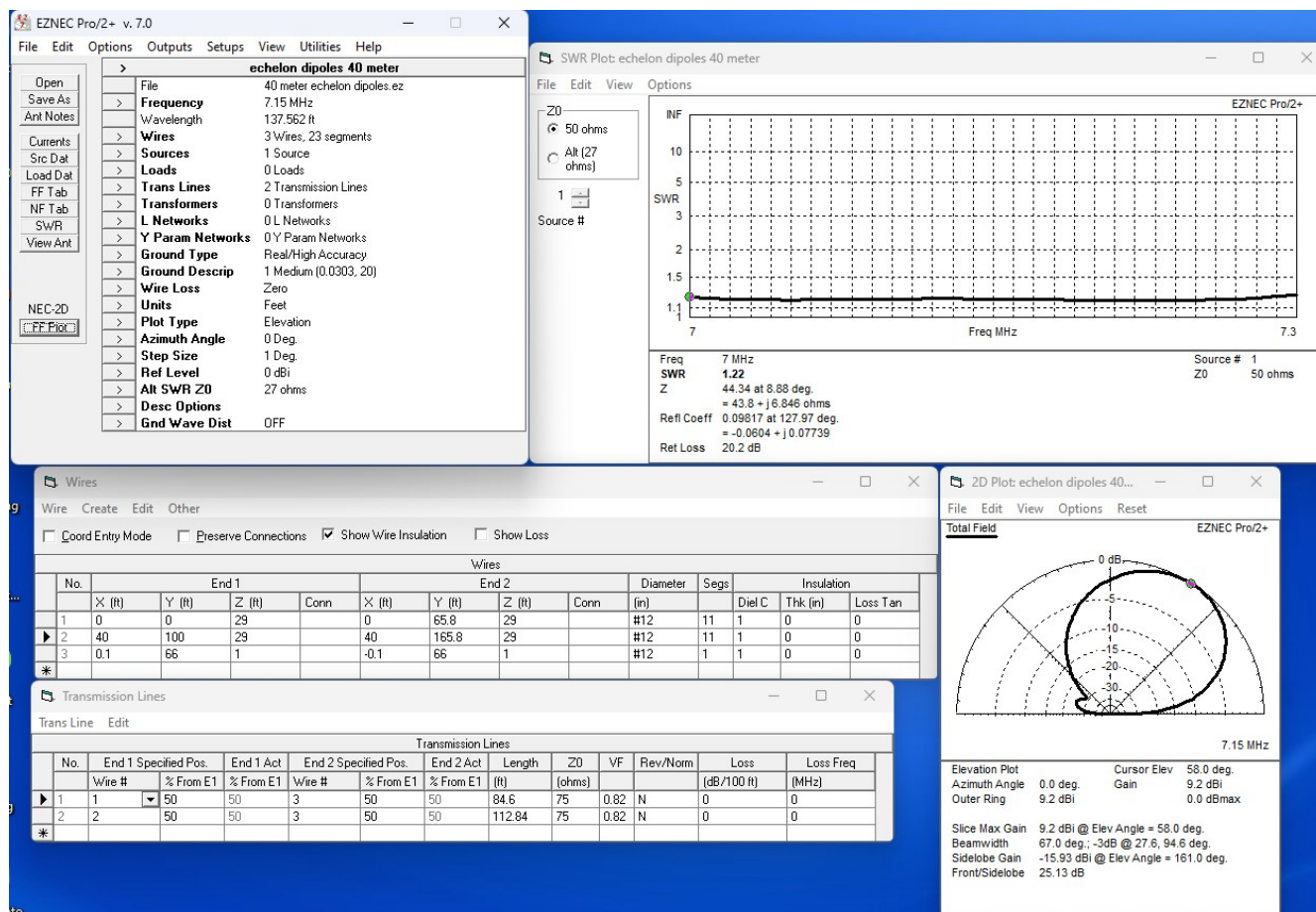
center frequency 50 ohms + 50 ohms = 50 ohms

above center frequency 60 ohms + 40 ohms = 50 ohms

But wait, there's more:

The extra  $\frac{1}{4}$  wavelength of coax also changes the sign of the reactive part of the antenna's impedance. So, when one antenna is capacitive the other is inductive and vice versa. This gets very close to eliminating the reactive part of the antenna's impedance across the entire band.

Note that this would be an easy and effective Field Day antenna. The take-off angle is optimum for 40 meters daytime and twilight. I hope to try it next Winter Field Day.



You probably notice that I play with EZNEC very often. All EZNEC versions are currently free to download on the EZNEC website. I suggest that you get your free copy while it is still available.

## Important Links:

Find a license class in your area: [www.arrl.org/class](http://www.arrl.org/class)

Find a license exam in your area: [www.arrl.org/exam](http://www.arrl.org/exam)

## The Eastern Iowa DX Bulletin:

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