

# THE SIGNAL



Newsletter of the  
Bella Vista area Radio Club

*Arkansas' Largest Amateur  
Radio Club*

**May 2023**

Monthly Meetings: 1<sup>st</sup> Thursdays @ 7 p.m.  
Arkansas Law Enforcement Training Academy (ALETA)  
3424 S. Downum Road, Springdale AR

*(HAM 101 Q&A Session for Newcomers @ 6pm preceding meeting)*

Club Call: N5BVA

Website: [www.bellavistaradioclub.org](http://www.bellavistaradioclub.org)

Repeaters: 147.255 +offset, pl 162.2

444.100 +offset, pl 162.2

## WEEKLY NETS:

### **BVRC Legacy Net**

**Wednesdays @ 7 pm on the  
BVRC Dual Linked Repeaters**

N5BVA/Bella Vista: 147.255, +offset, pl 162.2

N5BVA/Springdale: 444.100, +5 MHz, pl 162.2

### **BVRC 3830 Roundtable**

**Sunday Afternoons**

**4 pm during CST**

**4:30 pm during CDT**

**3.830 MHz**

### **BVRC HAM 101 Net**

**Tuesdays @ 8 pm on the  
WX5NAS Skywarn Link System:**

Bentonville – 146.865, -offset, pl 103.5

Fayetteville – 147.315, +offset, pl 97.4

Huntsville – 443.625, +offset, pl 97.4

Green Forest – 145.310, -offset, pl 103.5

# NEXT BVRC MONTHLY MEETING

THURSDAY, MAY 4, 2023 @ 7PM  
ARKANSAS LAW ENFORCEMENT TRAINING ACADEMY  
3424 S. DOWNUM ROAD  
SPRINGDALE, AR

## May Meeting Info

May brings another special guest speaker to BVRC, as we welcome Bruce Plantz – K9OZ from Little Rock. Bruce is a veteran ham, Arkansas DX Association member, and an excellent operator.

One of Bruce's specialties – and the topic of his presentation for us – is operating Summits on the Air (SOTA). Bruce has extensively been involved in this area of the hobby for several years, and brings to us stories and information on this very exciting phase of amateur radio.

Bruce tells us, "I was first licensed in 1965 as WNØNHG and later WAØQMZ in western Nebraska, but went inactive in the early 80s. I got back on the air in mid-90s and I currently am active primarily on CW. I operate a Kenwood TS-890, a Kenwood TS-590, Elecraft K2/100, an Icom 765, a KX-2 and a Xiego G90 to a SteppIR Vertical and a dipole. The last five years I have been getting out in the field more with the KX2 and a MTR4 and doing more SOTA activations here in Arkansas. I enjoy the SOTA activations as it gets me out in the woods and playing radio at the same time."

Bruce retired July 1, 2018 after working 30 years in business-to-business journalism, first as an editor and later as editorial director of a publishing company. He's now doing some consulting for his old company, but spends most of his time enjoying life and his hobbies. See you then for this very interesting and informative program.



# April Meeting Features Presentation On Champion DX Team Operation From Cayman Brac

The turnout was once again outstanding as BVRC members were treated to a presentation by ADXA and FSAARC member Bill Priakos – W5SJ from Fort Smith. Bill visited us several years ago with a presentation on DXing which was excellent, and the quality of his second program for us did not lower the bar at all. For this month's feature, Bill related his involvement and participation with two other world renowned DX competition icons, Stan Stockton – K5GO from Siloam Springs and also a BVRC member, and Bob Allphin – K4UEE CQ DX Hall of Fame member from Marietta, GA.



The ARRL DXCC (DX Century Club) initial award is given for working and confirming a minimum of 100 different countries (hence the "Century") on any band or mode. After acquiring this award, you can pursue endorsements for confirming other new countries past the 100 mark. You can also acquire separate DXCC awards for confirming a minimum of 100 countries on separate bands and modes, if you wish. There are 340 entities (countries) on the current DXCC List. When you work and confirm at least 331 of the 340 entities you are on the DXCC Honor Roll. When you work all 340 countries, you have qualified for the DXCC #1 award.

Bill acquired DXCC #1 a few years ago. In addition to accomplishing this very difficult feat, Bill has also activated, either solo or with a team of operators, such locations as Fernando de Noronha Island, Monserrat, Saba Island,

the Austral Islands, Marquesas Island, and many others.

After acquiring all these massive feats in the DX world, Bill decided to explore a new avenue – DX contesting.

In 2020, he along with Stan-K5GO and Bob-K4UEE participated from Stan's contest station on Cayman Brac in the Cayman Islands using the callsign ZF5T. They used various advanced type antennas, one of which was a top loaded vertical right on the water's edge of the Caribbean (salt water makes for a terrific ground plane for vertical antennas). They coordinated their operating schedule and between the 3 of them, amassed a score of 4,264,656 points which was good enough for #1 in the world in ARRL International CW DX Contest in the multi-op/single transmitter/low power category.



**Bill Priakos – W5SJ**  
**Addresses the BVRC April meeting**

Last year, Bill returned to ZF5T with Stan and Bob, but this time they really accomplished the feat of feats. They shattered their score from 2020, with 5,898,465 points placing first in the world again in the multi/single/low power category, but this time, they set a *new world record*! Needless to say, Bill is still not only an avid DXer, but he has proven to be a worldwide top-notch DXer (along with Stan and Bob, of course!).

Bill supplied the BVRC program with beautiful scenes of the operating QTH, along with stunning photos and videos showing the team in operation as well as new antenna projects and installations at ZF5T. Bill, we thank you so very much for taking the time to provide us with yet another excellent program on DXing. And, for the future, as they say on the CW DX bands, "VY 73 ES GUD DX"!

## **BVRC Welcomes Newly Elected and Appointed Officers**

At the December BVRC business meeting, the membership voted Tom Northfell – W5XNA to the position of Public Information Officer as well as approving his appointed office position as Membership Committee chair. They also voted the approval of Rebecca Garrett – N5REB to the appointed position of Social Media Committee chair, along with the approval of Dana Widboom – KI5TGY to the Nets Committee chair position. (Dana was not available when this photo was taken at the April meeting, but you can see him in the Rookie Roundup story in this issue of The Signal!)



**New Social Media Chair – N5REB & Public  
Info Officer/Membership Chair – W5XNA**



# N5BVA PORTABLE SPECIAL EVENT STATION

## APRIL 29 AT ELM SPRINGS CITY PARK!!!

BVRC members – Mark your calendar for Saturday, April 29, when the first of 2 N5BVA Special Event Stations will be activated from Elm Springs City Park to celebrate BVRC's 30<sup>th</sup> anniversary!

**Date/Time:** Saturday, April 29, 9:00am – 7:00pm local time

**Location:** Elm Springs City Park  
111 Jayroe Avenue  
Elm Springs, AR

### Activities:

- Two Stations will be on the air. One station will be using an 80-10 meter Windom dipole; the other station will be using BVRC's newly acquired MA-5B mini-beam (this will be the premier of this antenna for the Club, as well as a test run in preparation for BVRC Field Day)
- Fox Hunting coordinated by BVRC's Elmer 911 Committee Chair, Vinson Carter – WV5C. Everyone with Fox Hunting gear, come and join-in! All others are welcome to follow the fox hunters around the park and see how it works. Jam-packed fun!

**Miscellaneous info:** Elm Springs City Park has a nice pavilion, AC mains, and restrooms. *No food or refreshments will be served* as this is a total operational event (we're saving the goodies for Field Day in June!) You are welcome to bring your own food, drinks, snacks, etc. Eating establishments or convenience stores are nearby in west Springdale, Tontitown, or Elm Springs.

**Objective:** To allow attending BVRC members to operate, enjoy, and experience a Special Event Station and work the pileups, as there will be many stations calling. We especially extend an invitation to all club newcomers to come operate, as this will be a great warmup event to prepare you for Field Day. We look forward to newcomers and veteran operators to have their turn at the rigs and have some ham radio fun as well as great fellowship, as we this special event to celebrate our 30<sup>th</sup> year.

*See You April 29!*



## BOARD MEMBERS

### President

Jan Hagan – WB5JAN  
[ianhagan51@gmail.com](mailto:ianhagan51@gmail.com)

### Vice President

Joe Hott – W5AEN  
[joe.hott@gmail.com](mailto:joe.hott@gmail.com)

### Secretary

Dana Hill – W5DGH  
[dana.hill1979@gmail.com](mailto:dana.hill1979@gmail.com)

### Treasurer

Mark Whittlesey - WØKYZ  
[almarc11@yahoo.com](mailto:almarc11@yahoo.com)

### Technical Officer

Tem Moore – N5KWL  
[temmoore@gmail.com](mailto:temmoore@gmail.com)

### Trustee

Glenn Kilpatrick – WB5L  
[wb5l@arrl.net](mailto:wb5l@arrl.net)

### Board Member At Large and Public Information Officer

Tom Northfell – W5XNA  
[w5xna@arrl.net](mailto:w5xna@arrl.net)



## APPOINTED OFFICERS

### VE Testing Committee

Chair: Don Cooper – KC7DC  
[don\\_c@hotmail.com](mailto:don_c@hotmail.com)

### Elmer 911 Committee

Chair: Vinson Carter – WV5C  
[vinsoncarter@gmail.com](mailto:vinsoncarter@gmail.com)

### Nets Committee

Chair: Dana Widboom – KI5TGY  
[dcwidboom@yahoo.com](mailto:dcwidboom@yahoo.com)

### EmComm Committee

Chair: Chris Ebert - NAØD  
[wpuc675@gmail.com](mailto:wpuc675@gmail.com)

### Membership Committee

Chair: Tom Northfell – W5XNA  
[w5xna@arrl.net](mailto:w5xna@arrl.net)

### Social Media Committee

Chair: Rebecca Garrett – N5REB  
[rebdgarrett@gmail.com](mailto:rebdgarrett@gmail.com)

### Webmaster

Glenn Kilpatrick – WB5L  
[wb5l@arrl.net](mailto:wb5l@arrl.net)

### Newsletter Editor

Don Banta – K5DB  
[arsk5db@gmail.com](mailto:arsk5db@gmail.com)



## *From the Desk of the President*

### *The "Secret Sauce" of our Amateur Radio Hobby*

What is the "secret sauce" that binds our amateur radio hobby together with ardent hobbyists willing to spend countless hours (and a large percentage of disposable income) in support of sending electrons up a wire and out into the air?

Is it the ever-growing technological improvements that seem to increase our capabilities at an exponential pace equal to that of \*Moore's Law?

Or rather, is the "secret sauce" of amateur radio popularity the joy to be had, in this age of mass-produced commercial solutions, of building DIY antennas, radio components and programs to fabricate a station matching one's own gifts, talents and personality?

Perhaps it is the joy of competition that drives the competitive spirit in some of us to reach out farther, faster and to more amateur operators than anyone else in our club, community, state, call region, country or the world?

No, I think the "secret sauce" that drives our amateur radio hobby is something else, something more primal and ingrained into our humanity. While the technology, the innovation and the competitive nature of our amateur radio hobby are certainly appealing to most of us, the one ingredient that makes our hobby not only enjoyable, but is also necessary to make our hobby possible is ..... **other people.**



Our hobby is founded on the goal of communication with other people. No matter what mode, band, or technology is employed, communicating with others is what our hobby is all about. Even more, our amateur radio hobby is about being able to make a connection with other people without the need for any infrastructure other than what we are able provide ourselves.

It is this goal of reaching out to others that makes our hobby unique and provides us with the pleasure, enrichment, and camaraderie that makes amateur radio a very special hobby. We attend club meetings to connect with our peers to share our enjoyment in the hobby. We plan and attend special events such as Field Day to share the gifts our hobby brings with others. We connect over the air through nets, roundtables, special event stations, and contests to spend time with and connect with others who share our interests.

This is why making a connection with other amateurs in the hobby is the "secret sauce" that binds us together. This is why we love to share with others our accomplishments, our frustrations, and our journey through this wonderful hobby.

And, this is why, after we have met another person involved in the hobby as much as we, they become someone in our life who matters, and often becomes a friend who matters for life.

Here's to the camaraderie, the fellowship and friendship that is the real "secret sauce" of our amateur radio hobby!

I hope to see you all at our next BVRC club meeting!

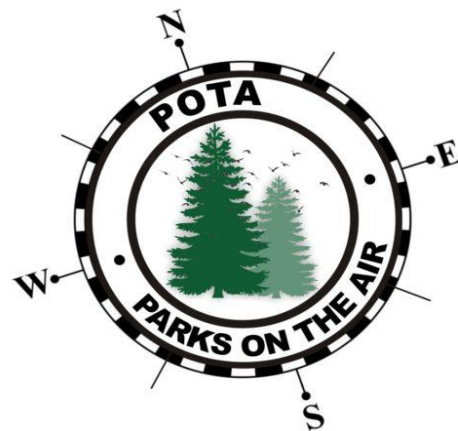
73 – Jan, WB5JAN

#### \*MOORE'S LAW TAKEAWAYS

- Moore's Law states that the number of transistors on a microchip doubles about every two years, though the cost of computers is halved.
- In 1965, Gordon E. Moore, the co-founder of Intel, made this observation that became known as Moore's Law.
- Another tenet of Moore's Law says that the growth of microprocessors is exponential.



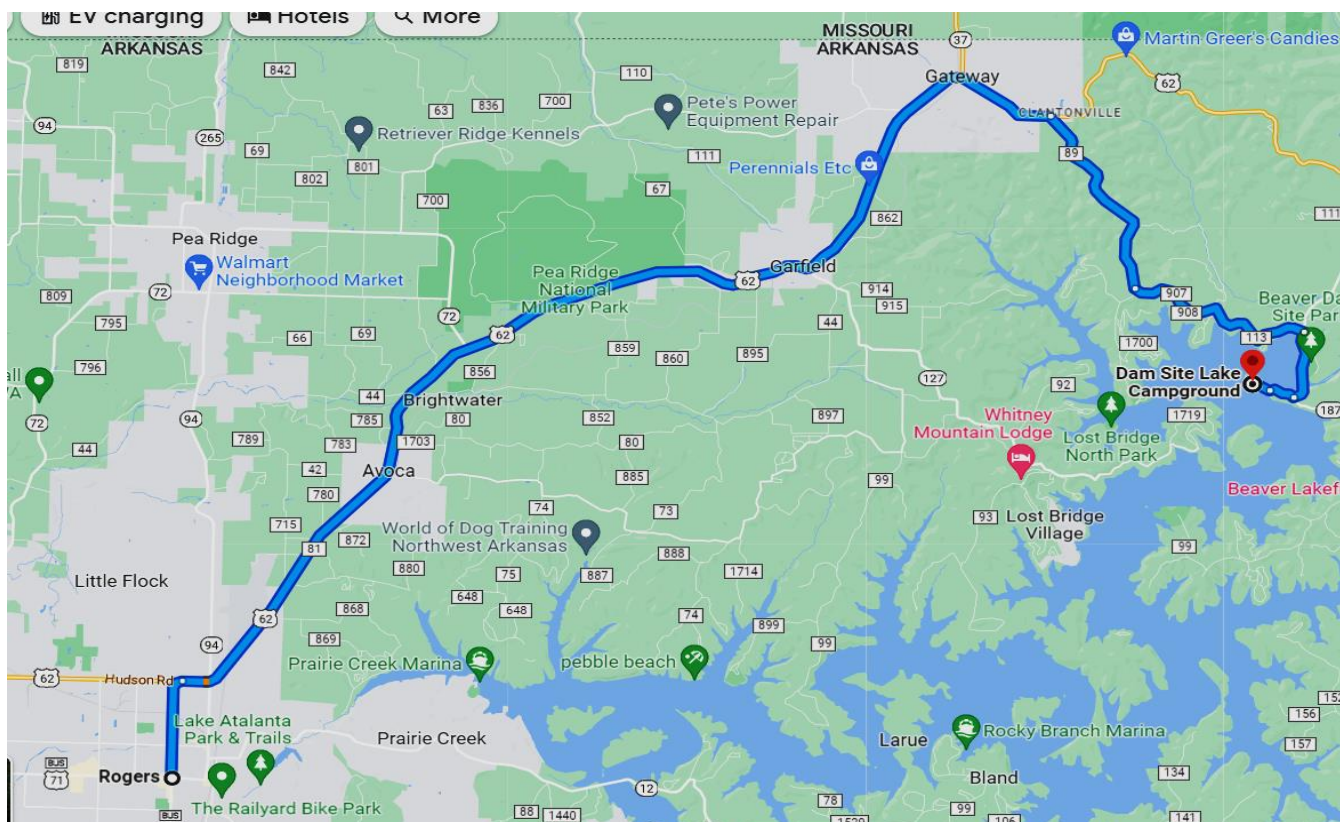
# JAN & GLENN'S POTA ADVENTURE #2 COMING MAY 11-15 !



Our club President, Jan-WB5JAN, and club webmaster, Glenn-WB5L, along with Robert-K5NZV had a blast with their POTA Adventure #1 at Natural Falls State Park a month ago. They also had several BVRC club members participate in the activation of that park.

They now invite any and all club members to come join them at Beaver Dam Campground as they activate Beaver Lake Wildlife Management Area, POTA park #K-7262. They will be operating from Thursday, May 11 through Monday, May 15.

The campground/operating site is only about 45 minutes west of Rogers.



Beaver Lake Dam Site Lake Reservations if you'd like to join them camping:

<https://www.recreation.gov/camping/campgrounds/234651>

To GPS yourself to the campground, enter your start point, then enter "Dam Site Lake Campground, Garfield, AR" for the destination, and you shouldn't have a problem finding them.

*Mark your calendar and join them for some POTA fun and good ham fellowship !*



## Bella Vista area Radio Club 30<sup>th</sup> Anniversary Calendar of Educational & Operating Events 2023

(Mark your calendar and join us for as many events as you can!)

### April 29:

**N5BVA SPECIAL EVENT STATION #1-SPRING**

Two station portable operation from Elm Springs City Park

See page 5 of this month's *Signal*

### May 11 – 15:

**WB5JAN & WB5L POTA Operation #2**

Dam Site Lake Campground, Beaver Lake Wildlife Mgmt. Area POTA #K-7262

Reservations for campground:

<https://www.recreation.gov/camping/campgrounds/234651>

Questions or more information, e-mail [janhagan51@gmail.com](mailto:janhagan51@gmail.com) or

[wb5l@arrl.net](mailto:wb5l@arrl.net)

### June 24 – 25:

**ANNUAL BVRC FIELD DAY**

Metfield Park, Bella Vista

***DON'T MISS THIS ONE!***

Information on this event forthcoming in future *Signal* issues.

### July 22 & 29:

Technician license class, ALETA in Springdale (Tom, W5XNA – Instructor)

Preliminary information on this event is in this issue of *The Signal*

### August 19:

**3<sup>rd</sup> Annual BVRC CW Roundup**

Information will be in the August issue of *The Signal*

### October 14:

**N5BVA SPECIAL EVENT STATION #2-FALL**

Two station portable operation from Park Springs Park – Bentonville.

More info in future issues of *The Signal*



# BVRC VE REPORT

From Don Cooper – KC7DC, BVRC VE Coordinator  
April 8, 2022



## CONGRATULATIONS!

**James Rinehart – KJ5AQF**  
**Bentonville – New General!**

**Craig Tanner – KI5PMV**  
**Bella Vista – New General!**

**Rebecca Tanner - KI5PSF**  
**Bella Vista – New Amateur Extra!**

*Test sessions are conducted each 2nd Saturday of the month:*

- 10 am at Shiloh Museum, 118 W. Johnson Ave, Springdale and
- 2 pm at Bella Vista Fire Station #1, 103 NE Towncenter, Bella Vista

*Help promote the availability of the Club's monthly test sessions.  
Tell your friends and acquaintances!*





# WELCOME NEW BVRC MEMBERS!!!

CHRIS MOYERS — KC5AHP — FAYETTEVILLE

DAVID AUERNHEIMER — STUDYING FOR TECHNICIAN — EAGLE ROCK, MO

## 2023 Technician Class Coming Soon!

**JULY 22 & 29, 2023**

BVRC Past President and current Public Information Officer/Membership Coordinator Tom Northfell – W5XNA announces that he will be the instructor for the 2023 BVRC Technician radio license class on two consecutive Saturdays in July, the 22<sup>nd</sup> and 29<sup>th</sup>. Be sure and tell all your family and friends that you think would be interested in obtaining their entry level FCC amateur license! **Registration for the class will begin July 1.** Here are the current details:

**Dates and times:** Saturday, July 22 and Saturday July 29, 9am – 3pm

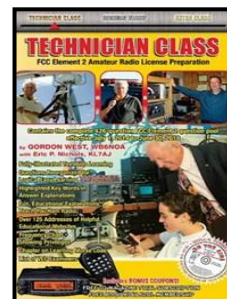
**Testing:** There will be a VE test session immediately following the conclusion of the July 29 class at 4pm.  
(Test fee is \$15.00, \$5.00 for persons 17 years of age or younger.)

**Location:** Arkansas Law Enforcement Training Academy  
3242 S. Downum Road  
Springdale, AR 72764

**License Manual:** Technician Class Manual - 2022/2026 Element 2- Gordon West WB6NOA  
The manual will be available at a discounted cost TBD

**Free Class:** Although there will be a fee  
for the manual and the license exam,  
the class is free!

**Information:** If you need more information, contact  
Tom at: [w5xna@arri.net](mailto:w5xna@arri.net)



*Be sure and spread the word to interested persons wishing to begin their ham radio adventure!*

**BVRC  
NEEDS  
YOU!**



**FOR  
FIELD DAY 2023  
JUNE 24-25**

*From Tom Northfell – W5XNA, 2023 Field Day Coordinator*



The annual ARRL Field Day is the last weekend in June (24-25). The Bella Vista Area Radio Club will once again participate. ARRL Field Day has been an annual event since 1933, and remains the most popular event in ham radio. Last year,

BVRC had an award winning FD. We were 1st place in Category 3A- Commercial. We tallied 1,589 QSOs for all modes and scored a grand total of 6,622 points. The 2<sup>nd</sup> place station was over 2,500 points behind us.

So many folks, including curious visitors, came out last year to give of their time and resources on a very HOT weekend to make this event successful. If you have not seen the BVRC YouTube Channel video by Adnan KDØKCY it captures BVRC FD 2022 very well.

SO WHAT'S THE PLAN FOR 2023?

## ***All Hands on Deck!***

SCHEDULE (tentative - Contact [w5xna@arrl.net](mailto:w5xna@arrl.net) with any suggestions and/or to volunteer.)

### **Friday, June 23:**

**Location** - Metfield Skills Park, Bella Vista, AR

**Time:** 1 PM - A crew of volunteers for pre - antenna setup

### **Saturday, June 24**

**Time:** 8 - 9 am, station and antenna setup

**Station Captains:** CW Captain - Chuck KM5G, SSB Captain - Vinson WV5C,  
Digital Captain - Joe W5AEN, GOTR (Get on the Air) Co-Captains - Dana W5DGH &  
Robert K5NZV

**Talk-In:** 147.255/444.1, (YLS or teens would be appreciated to help with this position.)

## **Field Day Agenda**

### **Saturday, June 24**

12:30 pm: Welcome, BVRC President Jan Hagan – WB5JAN

12:40 pm: Proclamation by Bella Vista Mayor

12:45 pm: Reading of The Radio Amateur's Code, Don – K5DB

12:50 pm: Reading/synopsis of the ARRL FD Rules, Tom – W5XNA

1:00 pm: Field Day 2023 contest begins

1:00 pm – 6:00pm: Parking Lot Tailgate

2:00 pm: VE Testing, Don – KC7DC & Don – K5DB

4:00pm: Fox Hunt, Vinson – WV5C

6:00 pm: Dinner, Hospitality Committee Bill – KG5ZCI & Alan – KEØQFO

### **After 6:00 pm – Saturday, June 24**

- “The Nocturnals” operating dusk to dawn (we need some folks willing to operate overnight)
- “The Diurnals” operating dawn to the finish line 12:59:59 local time. (help us make a strong finish)

### **Sunday, June 25**

6:00 am – 9:00 am: Breakfast run (local Bella Vista fast food)

1:00 pm: Tear down/dismantle stations

(Some of us will have been up for 30+ hours - **volunteers appreciated.**)

***Volunteers are still needed to work the Welcome Tent (information brochures, sign-in sheet, visitor name tags, etc.)***

***If you would like to volunteer for any position to assist the Club in another successful Field Day, contact Tom – W5NXXA at: [w5xna@arrrl.net](mailto:w5xna@arrrl.net)***







## From BVRC EmComm Committee Chair Chris Ebert - NAØD

**Hello BVRC members!**

This month's Emcomm corner is a little different in that we are asking for a call to action for volunteers! A committee is no good if it's empty and I shouldn't and can't do this alone, so we *need YOU!*

I am looking for 4-7 highly motivated volunteers to formulate our club's actual EmComm committee! This number can change as needed but should give us a good point to really move the club forward with events and all things EmComm. I am looking for a good mix of new, excited members as well as some seasoned, experienced volunteers. You do NOT necessarily have to have EmComm experience. However, you must be deeply interested in it, willing to make a commitment to further your education in EmComm, and help the club move to where it needs to be in EmComm activities.

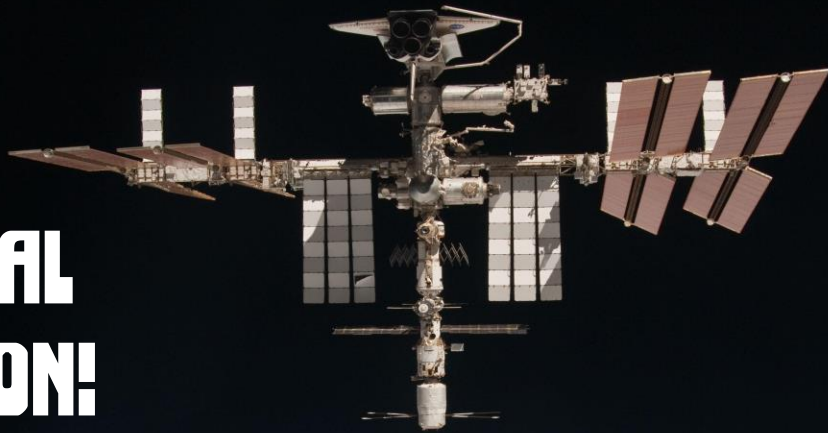
This committee will look at ways that the club can provide public service, training, and emergency communications preparedness. These ideas will be presented to the club membership and leadership for approval to get it moving! In addition, the committee can help organize events that club members may participate in when dealing with public service. The only real "requirement" I ask is that eventually all committee members should become ICS trained (remember it's free and at home study), and be a role model for the other members when it comes to all things EmComm. *If this is you, let me know!* There are quite a few BVRC members that are interested in EmComm (well over 25), so we have the numbers to participate in a great many things. I know you're out there!

There are bike races, marathons, and other events that really could use amateur radio assistance that happen around our area throughout the year. And of course, these events help hams train for larger things while providing that valuable public service. We can explore and practice the use of 2M/70cm net traffic handling, HF traffic, Winlink, APRS, and so on. Remote operation, setting up field stations, and alternative power needs may be required at events. Even Field Day is coming up and this is one of the best events to plan and practice EmComm training. There is also weather spotting and incidents that may require amateur radio service. All of these wonderful tasks as a ham are not only fun and satisfying, but will stress test your abilities and equipment to provide valuable feedback to you as well as the team for improvements or even showcase your successes! Additionally, there are opportunities to work with public agencies and other VOAD (Voluntary Organizations Active in Disaster) groups in times of need or beyond.

So in the end, we need active volunteers to join this committee and really bring our club the robust EmComm program that it deserves. We will communicate via email, online team meetings and in person when needed. I would like to see the committee work together and be excited to bring the Bella Vista Radio Club a great EmComm program with continuity and results. **If you're interested, send me an email at [wrbk701@gmail.com](mailto:wrbk701@gmail.com) or call me at: 479-216-2690**, and I will announce final selections once the team is formulated and consultation with the Club board. I really look forward to working with many of you and also the opportunities we will have together as a club to provide valuable public service via amateur radio! Hope to hear from you soon!

73 – Chris Ebert-NAØD, BVRC EmComm Committee Chair

# SPOT THE INTERNATIONAL SPACE STATION!



For those interested in an email notification of when the ISS will be visible, you can go to NASA's website using this link <https://spotthestation.nasa.gov/signup.cfm>. Just pick a "blue pointer" that is closest to your location instructions. This service will only notify you of "good" sighting opportunities - that is, sightings that are high enough in the sky (40 degrees or more) and last long enough to give you the best view of the orbiting laboratory.

## Spot The Station

International Space Station

Watch the International Space Station pass overhead from several thousand worldwide locations. It is the third brightest object in the sky and easy to spot if you know when to look up.

Visible to the naked eye, it looks like a fast-moving plane only much higher and traveling thousands of miles an hour faster!

201,602 people are Spotting The Station ©

Space Station Website

Space Station Research & Technology

### Explore and Find Sighting Opportunities

Enter your city or town

Powered by Esri | National Geographic, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN



## 2023 BVRC Rookie Roundup Enjoys Great Turnout & Fun Learning Experiences

Once again for 2023, 7 BVRC experienced operators opened their shacks as coaches and elmers to 18 hams new to the amateur radio hobby. They do this every year to enable the newcomers to experience the excitement and rewarding satisfaction of competitive type operating on the HF bands. That is what the annual ARRL SSB Rookie Roundup is all about. This year was a record number of both coaches and attendees for the annual BVRC occasion. According to feedback from both the coaches and rookies, everyone had an outstanding time and a huge amount of enjoyment from the event. There were 7 multi-operator stations.

A huge word of “Thanks!” goes out to our endearing coaches: Glenn Kilpatrick – WB5L, Don Cooper – KC7DC, Jan Hagan – WB5JAN, Mark Whatley – K5XH, Tom Northfell – W5XNA, Vinson Carter – WV5C, and Don Banta – K5DB.

The coaches always have just as much fun helping and observing the rookies as do the rookies themselves enjoying the excitement of HF operation.



Although the band conditions on Rookie Roundup day, Sunday April 16, were generally sub-par, this did not deter the rookies from learning how to make contacts, how to correctly copy callsigns and information from other stations during difficult receiving conditions, and how to use a computer logging program.

*(By the way, the term “rookie” in this application is not a term for a slow learner or someone who is totally ignorant of the hobby. A rookie by ARRL standards is simply a new operator to the hobby who has been licensed in the current year, or the previous three years. All of our rookies, as was evidenced at the seven coaches locations, are sharp, quick learners, and are those who take the first steps in being a quality, quick-witted, top-notch ham operator.)*

Even with semi-poor band conditions the 7 stations averaged 63 QSOs, and several of them worked some DX stations including Mexico, British Virgin Islands, Scotland, Spain, Puerto Rico, and several others. They collectively worked 31 of the United States, and 9 Canadian provinces in the short 6-hour event period. The total # of QSOs logged by all seven stations was 445 (would have been much more with better band conditions).

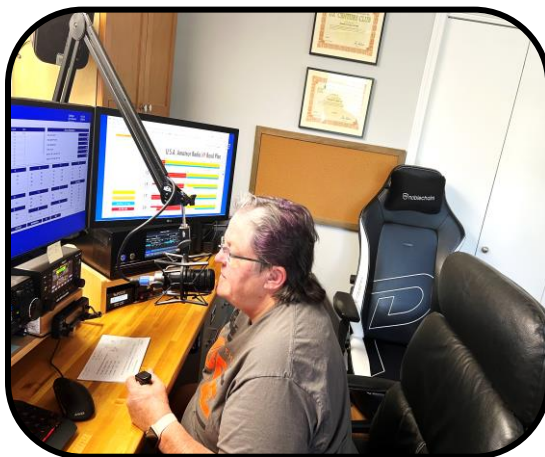
Please enjoy these photos of some of the excitement from the 2023 SSB Rookie Roundup:

**From the shack of coach WB5JAN:**



**BVRC new Net Committee Chair Dana Widboom – KI5TGY and Fred Fanning – KI5WVN pause for a pic.**

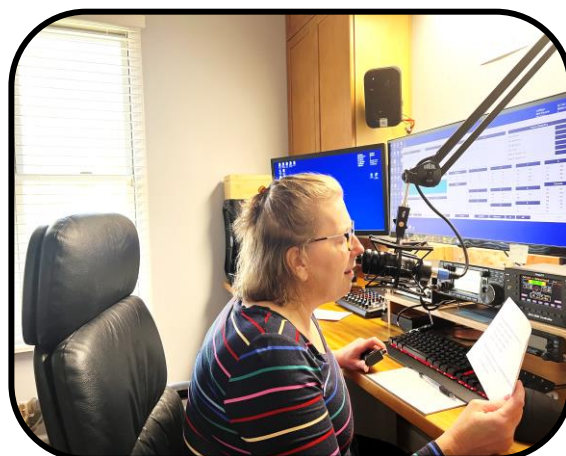
## From the shack of coach KC7DC:



**Sharron Edmondson – KC5SKY at the mic of KC7DC**



**Craig Tanner – KI5PMV making another QSO. Craig recently upgraded to General. Congrats Craig!**



**Craig's XYL Rebecca – KI5PSF, logs a QSO during Rookie Roundup. Rebecca recently upgraded to General *and* to Amateur Extra. A big congrats Rebecca!**

## From the shack of coach WV5C:



**Justin Kelly – KJ5E works another station with Alex Smith – KI5EQK logging and Dave Benson – KI5WHF watching the action.**



## From the shack of coach K5XH:

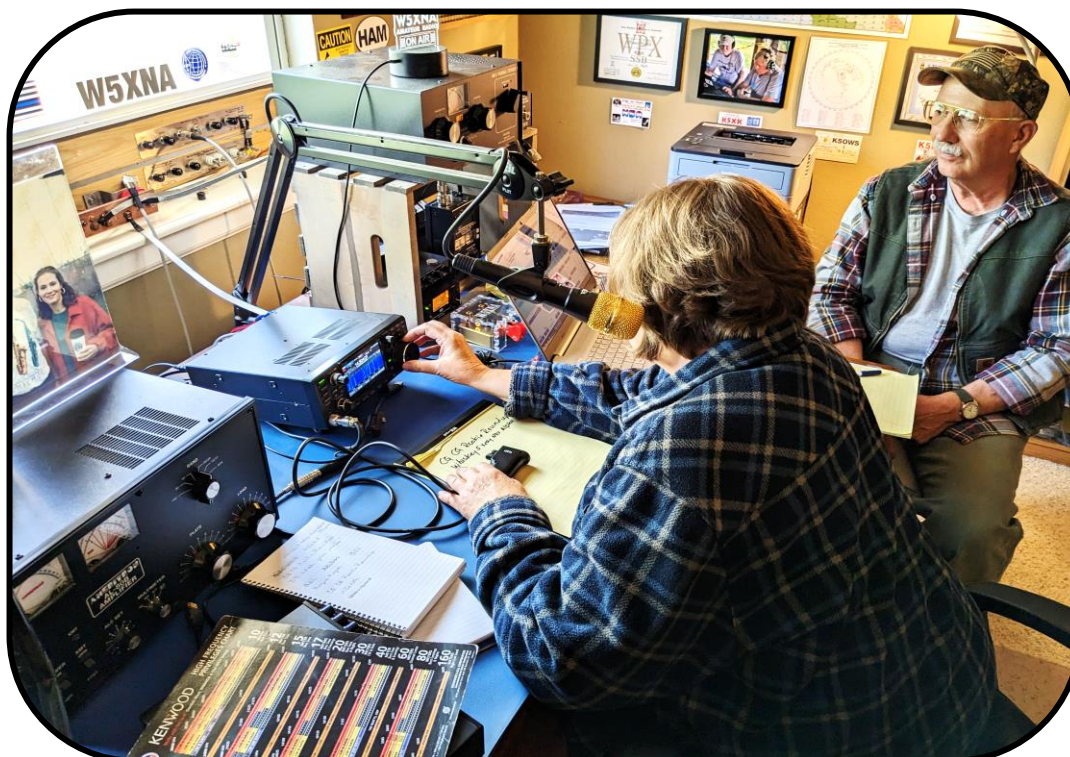


**Jack Brooks – KI5UGX at the mic of K5XH's Flex radio station.**



**Charlie Stuttle – W5VYT works a QSO on 20 meters.**

## From the shack of coach W5XNA:



**Debbie Johnson – KI5WUI tunes the band for a QSO with hubby Darrel – KI5NDJ logging.**



## From the shack of coach WB5L:



**Graceyn Moore – KI5WUE makes a SSB QSO while dad Topher – KI5WUF runs the logging software.**



**As well as operating, Topher Moore – KI5WUF is shown here also logging for Dustin Serio – KK5SDS at the mic of WB5L's FB Flex station.**

## From the shack of coach K5DB:



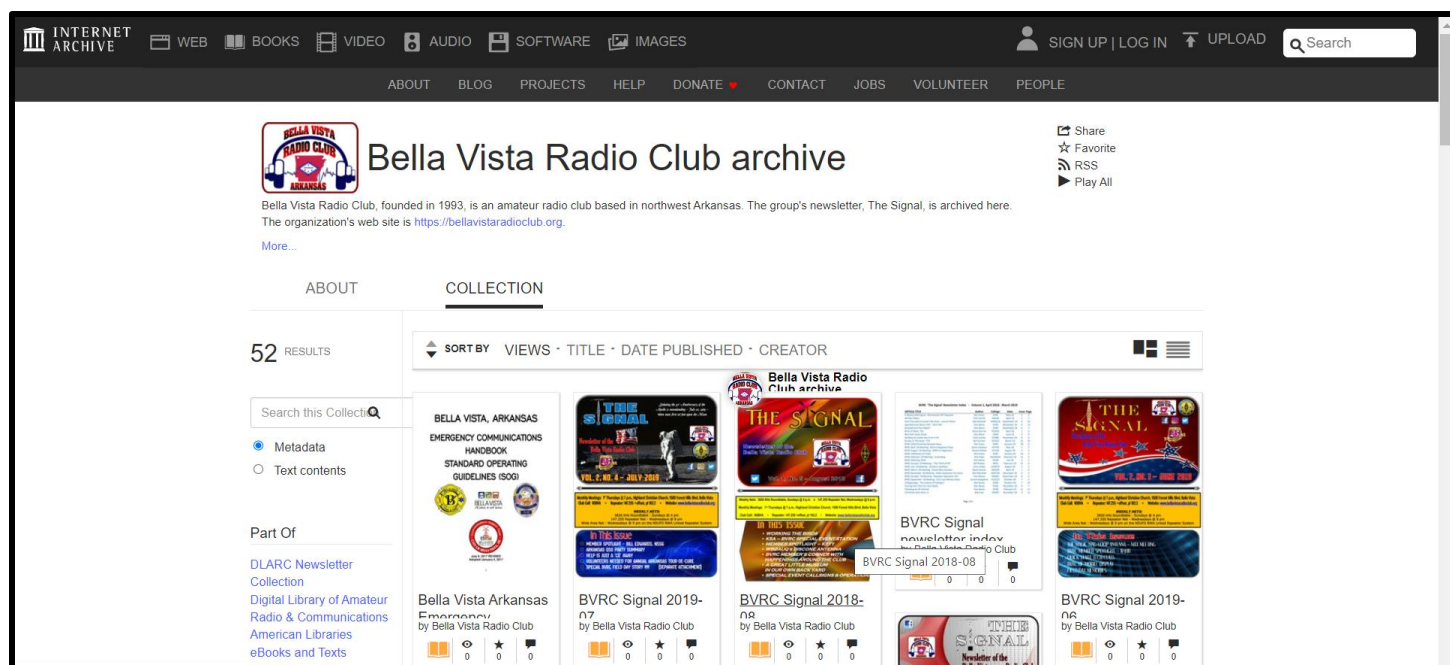
**Isabelle Harrison – KI5ZXG (great niece of Gregg Harrison – K5GKH) works a pileup on 20-meters.**



**BVRC Social Media Committee chair Rebecca Garrett – N5REB works another 20-meter pileup.**

As you can see, all our rookies had a marvelous time working the HF bands. If you are new, or still relatively new, to amateur radio and you were first licensed in 2020 or after, you can participate with us next year on Sunday, April 31, 2024 for SSB Rookie Roundup! If you'd like to sign-up and join one of our coaches for next year, send an e-mail to Don – K5DB at: [arsk5db@gmail.com](mailto:arsk5db@gmail.com).

# 'The Signal' Is Now on the Internet Archive



On the Bella Vista area Radio Club website, you can use the great archive of all Signal newsletter issues and view them for entertainment, research, or information. Our webmaster Glenn Kilpatrick – WB5L maintains one of the best amateur radio club websites in the country.

Speaking of archives, BVRC was recently approached by Kay Savetz – K6KJN from West Linn, OR for our permission to allow her to post all the past BVRC Signal issues on the Digital Library of Amateur Radio and Communications (DLARC), which is part of the Internet Archive website. Kay is the curator of DLARC. DLARC is growing to be a massive online library of the past and present of ham radio and related communications. It is funded by a grant from Amateur Radio Digital Communications.

The BVRC Officers voted in favor of granting authorization to DLARC to display all the newsletter issues from beginning to current, and will add each new issue each month.

Many of our readers have probably used the Internet Archive at one time or another. The Internet Archive, a 501(c)(3) non-profit, is building a digital library of Internet sites and other cultural artifacts in digital form. Like a paper library, they provide free access to researchers, historians, scholars, people with print disabilities, and the general public. Their mission is to provide Universal Access to All Knowledge.

The Internet Archive began in 1996 by archiving the Internet itself, a medium that was just beginning to grow in use. Like newspapers, the content published on the web was ephemeral - but unlike newspapers, no one was saving it. Today they have 26+ years of web history accessible through the 'Wayback Machine' and they work with 1,000+ library and other partners through their Archive-It program to identify important web pages.

As their web archive grew, so did their commitment to providing digital versions of other published works. Today their archive contains: 735 billion web pages, 41 million books and texts, 14.7 million audio recordings (including 240,000 live concerts), 8.4 million videos (including 2.4 million Television News programs), 4.4 million images, and 890,000 software programs.

We cordially thank Kay for making this opportunity available to BVRC, which will now give the club international exposure and potential.

If you would like to visit BVRC's page on the DLARC, here is the web address: <https://www.archive.org/details/bella-vista-radio-club>.



# 10-Mtr AM/FM With The Anytone AT-500M

BY MIKE SCHROEDER – NØALJ

10 meters is one of my favorite HF bands. You don't need a big antenna for this band and a lot of power which is great for those who don't have a lot of space.

I use either a coaxial dipole or my HYGAIN AV-12AVQ Tri-Band 10M/15M/20M. This vertical antenna has a great SWR (without a tuner or even radials) and is *only 13 FT. tall*. You already know from my previous article how much I like 10 meter FM. I remember how back in the late 70's, propagation was at its best. You could commonly hear propagation "noises" in the band as swishing sounds and sunspots were so active that ionization levels never fully diminished after sunset. You could also work the world as a QRP station on 10 meters.

So, here we are, now entering Solar Cycle 25, and 10 meters is already showing great signs. I have already started seeing solar flux index readings over 200 and started hearing Europe on 29.6 FM now! You hear Europe in the mornings like England, Germany and Sweden and Japan in the late afternoons around 4:30 PM. I have also heard the KQ2H 10 meter repeater up in NY during lunch time, where Hams in the U.S. were working stations in England when it wasn't possible to do that simplex on 10 meter FM.

The primary calling frequency 29.600 MHz FM, has been quite busy lately with 29.500 MHz being the secondary frequency to move FM QSO's off to. Last Christmas 2022, I got a new radio. It's the Anytone AT-500M 10 meter transceiver. Yes, this is a Chinese radio, but Anytone is a good company - Qixiang Electron Science & Technology CO., Ltd.). I love my Anytone At-588 for 1.25 Meter FM!







I setup this radio so that I could monitor 29.6 MHz FM continuously because of the squelch. I have been very pleased with the operation of this radio and wanted to make everyone aware of this low cost way to get on 10 Meter FM with 15 Watts of RF power (on AM you get 7 watts). Yes, it is QRP, but you will be surprised what can be done QRP on 10 meters with the right conditions.

Back in the 70's, I will never forget the hour long conversation I had with School Teacher Edgar, down in South America, using a converted CB radio to 10 Meter AM with it's mere 4 watts of RF output! I was just using a 10 Meter Coaxial Dipole outside between two trees. The Anytone AT-500 M is different as it does not have a VFO, you have to select pre-programmed channels and Bands. This was fine with me as I am usually parked on 29.6 MHz FM anyway. Setting the Band of frequency channel coverage range requires turning the radio off and holding the EMRG button in while powering on, then turning off again after selecting the Band letter. So for operation on 29.6 MHz, you set the radio to Band "I" and channel 3.5 as

### Hygain AV-12AVQ Tri-Band Vertical

seen in my photo on the preceding page. You must also use the +5KHz offset option (menu selectable) which can be turned on or off so that your frequencies end in either 0 or 5KHz. 10 Meter AM operation is usually down around 29.00 MHz and above. Use Band "H" for 10 meter AM and Band "J" to get overage of 10 Meter Repeaters on 29.66 and 29.68 MHz.

Here are the Pro's and Con's of the Anytone AT-500M:

#### PROS

- Repeater Split and DCS/CTCSS selectable Tone Support
- Very Sensitive Receiver With LED Signal Meter
- Frequency Readout
- Powerful, 2W Of Good Audio
- Low Price (Under \$100.00 from WalMar.com)
- Great Squelch Operation (Including AQ)
- Good Transmit Audio Reports
- Display Background Color Selectable In 7 Different Colors
- EMRG Button Can Be Programmed To 2 Channels
- Lots Of Good Reviews
- Bonus Coverage Of 11 And 12 Meters (No Internal Modifications Required)

#### CONS

- No VFO - Channelized Operation (Select Band And Channels)
- Poorly Written Instruction Manual (I Got Help From Internet On What Was Missing)



# EQUIPMENT CORNER

FOR SALE: Kenwood TS-430S and power supply, with matching Kenwood AT-20 auto antenna tuner and Kenwood MC-50 microphone. Fully operational, in very good condition. Great starter for HF newcomers. **Price reduced to \$350.00 for the package.**



FOR SALE: Galaxy V transceiver with power supply. Also fully operational and in very good condx. 300w output. Another good starter radio for newcomers to HF. **Price reduced to \$195.00**



***If interested in either of these items, contact Joe – K5JWR in Bentonville:***

**E-mail: [rhinoj1@gmail.com](mailto:rhinoj1@gmail.com)**

**Phone: 501 – 516 - 5410**

# HOW TO TEST AND REPAIR YOUR ANTENNA AND CABLE WITH THE RIGEXPERT ANALYZER



By Randy Marion – NMØG

*In recent years, BVRC has been enormously blessed with new members joining our club who are already qualified and/or certified in various areas of our hobby. Randy Marion – NMØG who has recently moved to Farmington, is one of those persons. Randy is a certified ARRL Technical Specialist who has written many technical articles for numerous amateur radio publications and journals. The Signal welcomes Randy to our ranks of article authors, and look forward to many more from him in future Signal issues.*

*Randy's first installment for us should prove valuable to all our readers concerning the ultimate components of any ham station – the antenna and feedline. Welcome, Randy! .....*

In this article series, we will explore and analyze the scientific principles behind amateur radio in simple terms. We will focus on real-life topics such as radio frequency interference (RFI), electromagnetic interference (EMI), and exposure to radio waves. We will also show you how to test, evaluate, and improve your radio systems for optimal performance and safety. Our main message is: Advancing the radio art requires both theoretical knowledge and practical skills, as well as ethical and social awareness.

## **Why I Needed an Antenna Analyzer**

I had a new MFJ-1982mp EFHW (End Fed Half Wave) antenna that is designed to cover 10-80 meters with little or no need for an antenna tuner. I couldn't get it to work with my Yaesu FT-991A radio without diagnosing and repairing the resonance problems I was having on most of the HF bands.

This type of antenna is a multiband half-wave that requires a matching network and a suitable physical setup to achieve low SWR (Standing Wave Ratio) and resonance from 10-80 meters. The FT-991A's internal tuner was not able to match the antenna's impedance on most bands in my installation.



The antenna analyzer helped me adjust the antenna system's input impedance, SWR, reactance, and radiation pattern. With the analyzer, I was able to troubleshoot my antenna system and was able to get my HF station functional and efficient.

### ***Introducing the RigExpert AA-230: A Versatile Antenna Analyzer***

This analyzer measures SWR, return loss, cable loss, and other parameters of cable and antenna systems from 100 kHz to 230 MHz. It has the following features:

- The BLE version has Bluetooth connectivity to software on a Cell Phone, Tablet, or PC for remote operation and easier analysis and display.
- The built-in ZOOM feature enhances graphical measurements.
- The integrated Time Domain Reflectometer mode locates faults within the feedline system.

With this analyzer, you can easily do the following tasks:

- Check out an antenna quickly
- Tune an antenna to resonance
- Compare an antenna's characteristics before and after a specific event (high winds, etc.)
- Make or measure coaxial stubs
- Test cables and locate faults, measure cable loss and characteristic impedance
- Measure capacitance or inductance of reactive loads
- Provide SWR and Smith charts.

Specifications:

- Frequency range: 0.1 to 230 MHz
- Measurement for 25, 50, 75 and 100-Ohm systems
- SWR measurement range: 1 to 100 in numerical modes, 1 to 10 in chart modes

### ***Testing the antenna system performance***

I used the analyzer to test the performance of my 10-80 meter EFHW antenna and the feedline. I measured the SWR, impedance and other characteristics of the antenna at different frequencies from 3.5 MHz to 30 MHz.

Here are the main steps I followed:

- I connected the analyzer to the antenna feed point with a coax cable.
- I set the analyzer to sweep mode and selected the frequency range.
- I started the sweep and watched the SWR and impedance values for each frequency on the analyzer screen.

- I connected the analyzer to my tablet via Bluetooth and viewed the results in graphical form.
- I measured the cable loss and return loss of the coaxial cable.
- I displayed the SWR and impedance curves on a Smith chart and zoomed in on specific regions of interest.
- I repeated the process for different antenna configurations and environmental conditions to compare the results and optimize the antenna performance.

*(Note: The Smith chart is a graphical tool that shows the complex impedance of an antenna or a transmission line as a point on a polar coordinate system. It can help determine the matching condition and bandwidth of an antenna system.)*

### ***Diagnosing and fixing the problems***

During one of the tests, I noticed that the SWR and impedance values were very high and erratic at some frequencies. This indicated that there was definitely a problem with the antenna or the cable.

I used the analyzer to check the cable loss and return loss of the coaxial cable and found that they were within acceptable limits. This meant that the cable was not damaged or faulty.

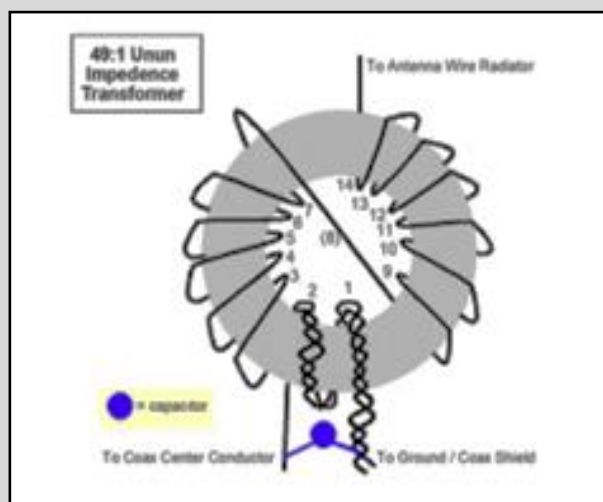
I then reevaluated the antenna installation and realized that running the wire through and around trees and branches was seriously affecting its performance. This type of installation caused the wire to have a high reactance due to parasitic capacitance and inductance from nearby objects.

The manufacturer recommended a clear and straight installation of the wire, such as an inverted V, sloper, or L configurations. Since I did not have enough room for the 132-foot wire to run straight, I experimented with a couple of configurations and settled on this one:

My EFHW matchbox is mounted on the west corner of a 14-foot-high by 16-foot-wide deck. The 132-foot wire starts off almost vertical in a NW direction for about 50 feet where it crosses over the top of a tree and bends back east for about 60 feet on a 45-degree downward slope. It then passes through the branches of another tree and turns south for a direct horizontal run at about 15 feet high where it's tied back to the deck with paracord and an insulator. It is loosely shaped like a horizontal loop, with one side 50 feet higher than the other.

I also inspected the feedpoint matchbox and discovered a shorted capacitor internally. The capacitor in an EFHW 49:1 matching unit is used to improve the impedance match across a wide range of frequencies. It helps to cancel out some of the inductive reactance of the transformer and reduce the SWR.

The value of the capacitor depends on the design of the matching unit and the antenna impedance, but typically it's around 100 pF (picofarads) to 150 pF. The capacitor is connected across the input terminals of the matching unit, and very often multiple capacitors are used in series to increase the power-handling ability.



Here is a picture and a schematic of the 49:1 matching unit that is typical on an EFHW.

Notice the blue capacitor shown below:

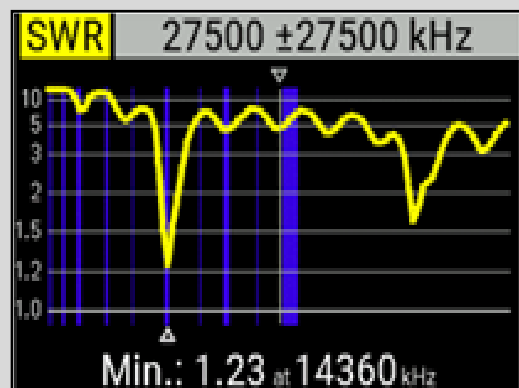


In my unit there were two 220pF, 500V capacitors soldered in series that were used instead of a single one to improve power handling. The capacitance for two 220 pF, 500V capacitors connected in series is 110pF, 1,000 V.

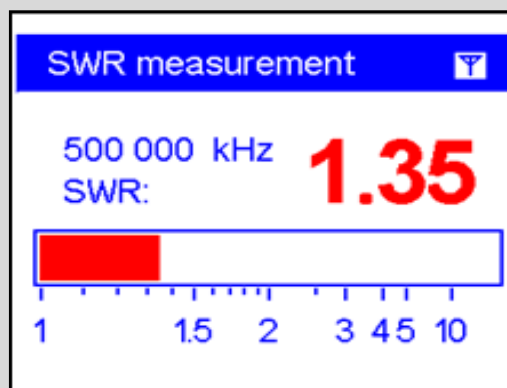


A blob of glue accidentally connected the center wires of the two series capacitors to ground, creating a short circuit. This was a mechanical fault that led to an electrical problem. The short circuit effectively bypassed one of the capacitors, making the total capacitance 220pF instead of 110pF. This may have been a little high for this antenna configuration and resulted in impedance mismatch across multiple frequency ranges.

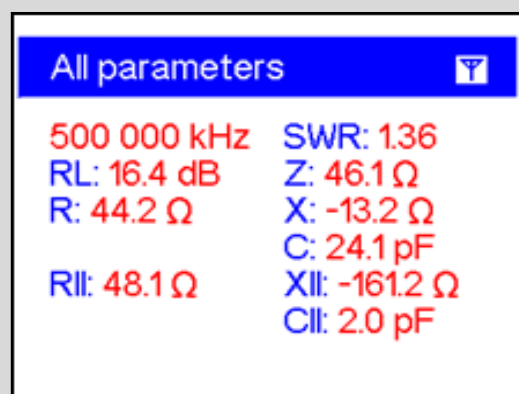
**Sample screenshots from the RigExpert AA-230:**



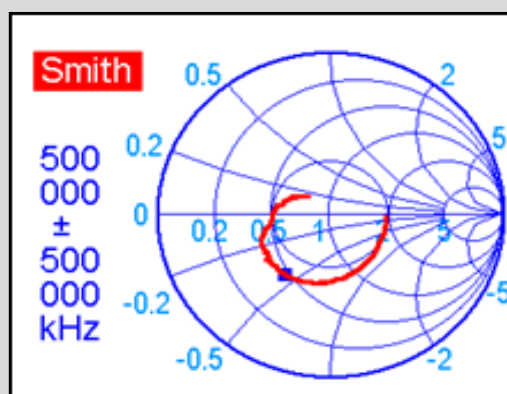
**A typical band scan**



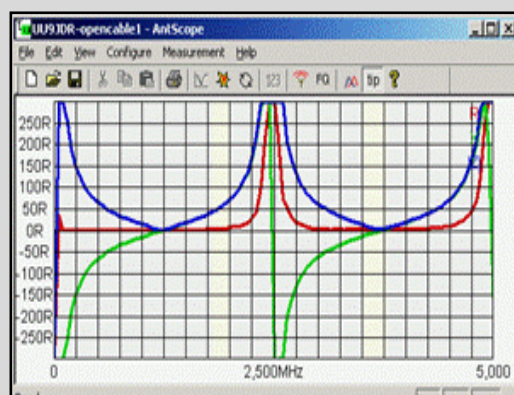
**Direct SWR measurement**



**All antenna parameters**



**Smith chart**



**Sample of RigExpert  
AntScope software**

## Conclusion

The RigExpert AA-230 Zoom BLE antenna analyzer stands out among its competitors due to its extensive hardware and software properties. For example, it has a color TFT LCD display that can show graphical measurements of various parameters of cable and antenna systems, such as SWR, return loss, cable loss, and impedance.

Additionally, it has a built-in ZOOM capability that allows you to magnify the details of the graphs and adjust the frequency range and span. It also has a Bluetooth module that enables wireless connection with smartphones and tablets. These features make the RigExpert AA-230 Zoom BLE antenna analyzer a versatile and user-friendly device for testing, tuning, and repairing antennas and feedlines.

## Afterthought

I had decided to set up a simple HF station with a Yaesu FT-991A so I searched for low-cost antennas and I chose a 10-80 meter EFHW because I had no hands-on experience with them. These antennas intrigue me because they operate differently than most others and can require special attention to address potential RFI, EMI and RF-Exposure problems.

The EFHW comes from the end-fed Zepp antenna, which is one of the oldest antenna designs in Ham Radio. It was originally used by airships (known as Zeppelins) in the early 20th century. It is a half wave wire that radiates in free space and can present some interesting benefits and challenges as a Ham Radio antenna. In a future article, we will go deeper into the science behind the EFHW and how to optimize its efficiency.



Hey BVRC members, if you've been enjoying the articles and stories in THE SIGNAL, I'm sure there are a LOT of you that have had some ham radio related experience along those same lines during a vacation trip, around the house, or around town. Don't think for a minute that your story would be "boring". Send it to us! Interesting stories – short or long – go a long way in making the newsletter interesting, because they are coming from folks that we know and interact with in the club. Jump on the bandwagon with us and send 'em in! We look forward to hearing about and including any and all interesting radio related stories from you.

Send your short story/article/pics to Don at:

[arsk5db@gmail.com](mailto:arsk5db@gmail.com)

THANKS & 73!



One of the most exciting DXCC countries to work, if nothing else because of its avaricious history, is Pitcairn Island. Pitcairn is the main island of the four island Pitcairn Group - Pitcairn, Oeno, Ducie, and Henderson. It is a very, very isolated island in the south Pacific Ocean.

Pitcairn made history in 1789 when Fletcher Christian and a group of mutineers commandeered the British vessel HMS Bounty, captained by William Bligh. The history of this mutiny is extensive. So, we will relate the incident with a fairly brief description:



The Bounty had sailed to Tahiti to pick up and transport breadfruit plants from there to British settlements in the West Indies. While in Tahiti, many of the Bounty's crew became romantically involved with the native Tahitian women and became disinterested and apathetic about the British admiralty's orders and the mission of the voyage.

After departing Tahiti with the breadfruit plants onboard and bound for the West Indies, 9 crew members chose Christian along with "second in command" John Adams to lead a mutiny, take over the vessel, and set Bligh and his small group of dedicated followers adrift in a longboat to fend for themselves. They then returned to Tahiti to pick up their Tahitian women and depart with them and a few male Tahitians as 'scab' crewmembers to search for a place to settle and live out their lives. They attempted to settle different islands in the South Pacific, but were unsuccessful in that the islands were either not topographically suited to live on, or were already inhabited by hostile natives.



**Fletcher Christian**



**Capt. William Bligh**

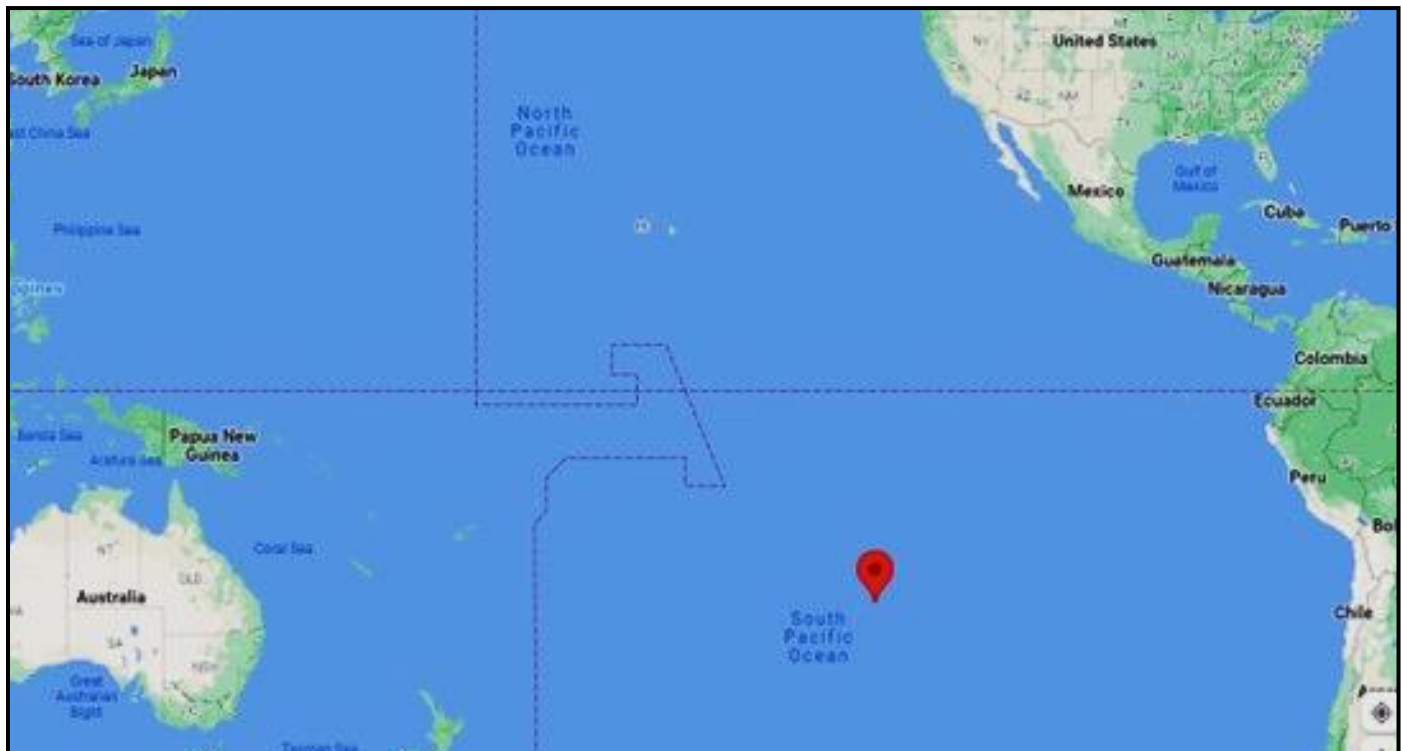
Christian then discovered in some of Bligh's logs in the captain's quarters, that an island known as Pitcairn had been reported in 1767 but its exact location was never verified. After months of searching, Christian rediscovered the island on 15 January 1790, 188 nautical miles east of its recorded position. This longitudinal error contributed to the mutineers' decision to settle on Pitcairn.

On arrival, the ship was unloaded and stripped of most of its masts and spars for use on the island. It was then set ablaze and destroyed on January 23 as a precautionary measure against discovery, as they knew the Admiralty would be searching for them as traitors and mutineers. They knew there was now no means of escape, as Pitcairn – along with Bouvet, Peter 1, and Heard to name a few – is one of the most isolated islands on earth.

**The mutiny –  
Bligh and followers being  
set adrift in a longboat**



Bligh and his men did make it back to civilization, returned to England, and reported the incident to the Admiralty. A court martial was held. For the results of the tribunal, you can go to many historical websites that will give you the full account of the voyage, mission, mutiny, and outcome.



### Location of Pitcairn Island

Back on Pitcairn, the island proved an ideal haven for the mutineers – uninhabited and virtually inaccessible, with plenty of food, water, and fertile land. For a while, the mutineers and Tahitians existed peaceably. Christian settled down with his wife Isabella, and they had several children together. Unfortunately though, Christian's authority as leader gradually diminished, and he became prone to long periods of brooding and introspection.

Gradually, tensions and rivalries arose over the increasing extent to which the Europeans regarded the Tahitians as their property, in particular the women who were "passed around from one 'husband' to the other". In September 1793, matters degenerated into extreme violence, when several of the mutineers – possibly including Christian – were killed by the Tahitians in a series of murders.

In conclusion of this brief synopsis of the Bounty mutiny, because of Pitcairn's very dubious location, it wasn't until 1814 when two British warships, HMS Briton and HMS Tagus, chanced upon Pitcairn. Among those who greeted them were Thursday October Christian (Fletcher and Isabella's firstborn child). Upon ferrying from the ships to the island, on shore they found a population of 46 mainly young islanders led by John Adams. Adams had evaded murder by the Tahitians by becoming fair and trustworthy to them, and upon whom the islanders' welfare was wholly dependent, according to the captains' report. After receiving the Briton's and Tagus' report, the Admiralty decided to take no action.



Today, Pitcairn Island is still part of the British Commonwealth, but a very small part. As of 2020, there were only 47 inhabitants on the island. They are a biracial ethnic group descended mostly from the nine Bounty mutineers and a handful of Tahitian consorts – as is still apparent from the surnames of many of the islanders. The mutiny and its aftermath have been the subject of many books and films.

In the amateur radio world, one of the more world renowned operators on Pitcairn was Tom Christian – VP6TC, who became known as “the voice of Pitcairn”. He was a long-time radio amateur being first licensed in 1957, lifelong resident of Pitcairn, and is interred there. He passed away in 2013 with possible Alzheimer’s disease. The Member of the British Empire (M.B.E.) honor was bestowed upon him. His ham shack was (of course!) on the highest point of Pitcairn. He was the great-great-grandson of mutineer Fletcher Christian. During his lifetime, many said that along with the late King Hussein of Jordan – JY1, he was the most popular contact in the ham radio world.

To my knowledge, there are just a handful of native operators on Pitcairn. I have researched those ops and even though I have never worked her, it appears the most active of the Pitcairn hams is Meralda Warren – VP6MW. Her QRZ.com page states that she is a 7th generation Bounty descendant, and she has received almost 37,000 hits. It would seem that she has taken Tom Christian’s “amateur radio mantle” for Pitcairn.

Although many of us avid DX chasers have worked Pitcairn Island on different bands in the past, it is still fairly rare. It is #74 on the current DXCC Most Wanted List. Since Tom Christian’s death in 2013, two DXpeditions have gone there to help it become an ATNO (All Time New One) for newcomers in the hobby. VP6T activated the island in 2012, followed by VP6R in 2019. *If you’d like to view a 14-minute YouTube video of the 2012 DXpedition, click [here](#).*

If you need Pitcairn and haven’t been able to work Meralda – VP6MW as yet, perhaps another DXpedition team will form to go there in the near future.



**Tom Christian – VP6TC**



**Former shack – VP6TC**



**Meralda Warren  
VP6MW**



**Pitcairn Island QSL card**



# The 2023 Arkansas QSO Party Is Just Around the Corner, May 20!



**Join in on the fun & excitement !!!**

Each year on the 3rd Saturday in May, the state of Arkansas takes center stage in the amateur radio world, as hams from all over the globe tune the bands to make a QSO with one of the fine hams in our great state. This year's Arkansas QSO Party date is May 20.

Whether non-Arkansas stations are pursuing their Worked-All-States award, needing a particular county or counties, or just enjoying operating in our annual event, they know that Arkansas is a fairly rare state to be found and worked, no matter if they are a stateside or DX operator. So, they will be scanning the bands for Arkansas stations.

Each year The Noise Blankers Radio Group is pleased to sponsor The Annual Arkansas QSO Party. NBRG promotes the ARQP by keeping all national journals and major ham radio websites updated on the event, and maintaining the ARQP website.

For some, it's a contest...for others, it's a relaxing opportunity to get on the air and help showcase our state, and to enjoy working new states and even some DX stations. If you've never operated in an Arkansas QSO Party, give it a try this year! For returning participants.....see you on the bands!!!

*The Noise Blankers Radio Group – callsign WR5P – will be the Bonus Station for this year's ARQP.*

**Get all the info you need at:**

**[www.arkqp.com](http://www.arkqp.com)**

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