



THE SIGNAL

Newsletter of the Bella Vista Radio Club

August 2022

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

Club Call: N5BVA • **Repeater:** 147.255 +offset, pl 162.2
Website: www.bellavistaradioclub.org

WEEKLY NETS:

- 3.830 kHz Roundtable - Sundays @ 4 pm
- 147.255 BVRC Legacy Net - Wednesdays @ 8 pm
- Wide Area Net - Tuesdays @ 8 pm on the
NWA 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, AUGUST 4, 2022 @ 7PM
ARKANSAS LAW ENFORCEMENT TRAINING ACADEMY
3424 S. DOWNUM ROAD
SPRINGDALE, AR

AUGUST MEETING INFORMATION

Currently on the ham bands, the most popular mode going is the digital mode of FT8. From almost obscurity when it originally was introduced in 2001 and then the software going through several rewrites, to being officially announced as a viable, usable mode in 2017, FT8 is now on fire worldwide. It is especially advantageous for those operating the HF bands who are pursuing collecting grid squares, Worked-All-States awards, counties, and the DXCC (DX Century Club sponsored by ARRL) along with endorsements to that award. So, it is by far the most popular digital – and overall – mode for award chasing and working DX. FT8's most paramount characteristic (which is what it was designed for) is to receive very weak incoming signals. Before its appearance, CW was the mode of choice for receiving, copying, and contacting weak signal stations, but FT8 has substantially passed CW in this area of performance.

For our August meeting, BVRC welcomes member Scott Branyan – W5AAJ to explain this new and fascinating mode and how to use it to successfully make DX contacts. Scott's program will be very informative and beneficial to present and future newcomers to the HF bands, as well as possibly shedding some new light on FT8 operating techniques for FT8 veteran operators.

Although Scott is still relatively new to the hobby, he has learned HF operation very quickly and is a juggernaut on the HF bands in working DX. Since he started just 3½ years ago, his current ADXA (Arkansas DX Association) numbers show him with a total of 217 countries confirmed, 214 of those on FT8! – Incredible! So, it is quite evident that he has become accustomed to, and knows how to operate, this exciting mode. Scott, we welcome you and look forward to your presentation!

***DON'T MISS SCOTT'S PROGRAM ON THURSDAY, AUGUST 4!
SEE YOU THEN!***

REMINDER: DON'T FORGET TO AVAIL YOURSELF OF THE MANY RESOURCES ON OUR GREAT BVRC WEBSITE!

GLENN KILPATRICK – WB5L, WEBMASTER



✴ **BVRC MEETING INFO**

✴ **DX INFO**

✴ **NEWSLETTER ARCHIVES**

✴ **CONTEST INFO**

✴ **VE TESTING INFO**

✴ **EVENTS INFO**

✴ **AREA EVENT CALENDAR**

✴ **ELMER 9-1-1 HELP**

✴ **AREA NET INFO**

✴ **CLUB MISSION**

July Meeting Features Tips For Ham Newcomers

BVRC's own Vinson Carter – WV5C, who is also our ELMER 9-1-1 Coordinator, took center stage for the BVRC July meeting with a really fun and informative program on "Amateur Radio From the Rookie's Point of View." Vinson's synopsis on the evening's topic basically dealt with all the hints, kinks, hacks, and tips he has learned from websites, publications, and "rubbing shoulders" with many of our area ham veterans. He then related many of those items to the great turnout for the meeting, and especially to newcomers to the hobby who were in attendance.



Vinson has come a long way in a short amount of time because of his excitement in amateur radio. He has operated on all bands 80 – 6 meters, is very close to obtaining his DXCC (working and confirming his first 100 countries), has already obtained his Worked-All-States award, and has participated in several contests and Special Event stations. He is also getting ready to pursue learning the Morse code and operate CW.

One of Vinson's first exposures to amateur radio was through celebrity ham Joe Walsh, guitarist for The Eagles music band, WB6ACU. Vinson has also been involved with music for many years. Years ago, Joe came to a Fayetteville High School reunion, and wanted to use a particular guitar amplifier and the only one available in the entire area was owned by a friend of Vinson's. His friend took him "along for the ride" to loan the amp to Joe and meet him. They discovered in visiting with Joe that one of the reunion classmates who invited him, was a ham operator and actually knew Joe from the hobby, which was the only reason that Joe came. It was during that conversation with the rock icon that Vinson first learned of amateur radio.



He and his brother-in-law, Jere – W5JRO, purchased Baofeng handi-talkies about 3 years ago, which really whetted Vinson's appetite to obtain a ham license and learn how to run ham equipment, as well as the ins-and-outs of the hobby.

Vinson said he will always be grateful for the great elmering and help he has received from area hams such as K5DVT, W5XH, K5XK, K5XH, W5XNA, KG5MWG, K5DB, and many others that he is eternally grateful to. Vinson told the attendees, "The most important thing you need to do to learn this hobby as a beginner is to secure a good Elmer. Don't be afraid to ask for help!"

Vinson said that the publication "Ham Radio for Dummies" by Ward Silver – NØAX is excellent and

was one of the tools he used that provided him with easy-to-understand, yet vital, information on the hobby.

Along the way, Vinson learned the different aspects of radios and antennas, learned what Q-codes are and how they are used, and most importantly, learned phonetics. He was quite active on the local VHF/UHF nets while holding his Technician license, but after acquiring his General and being first exposed to HF, he was immediately hooked. He then became active with FT8 which showed him that amateur radio was much more than just speaking into a microphone. Many other new things that were helpful to him was QRZ.com, Logbook of the World, logging software, repeaterbook.com, and many other resources and tools.

He discussed discovering the ARRL Outgoing DX QSL Service and how the membership fee to ARRL is well worth not only receiving QST each month, but saves a lot of money in sending QSL cards internationally. He also shared the importance of using the Incoming DX QSL Bureau for receiving incoming DX QSL cards. Both of these are excellent money-saving services for those working on confirming DX countries.

Vinson said that he finally ended-up with the vanity callsign WV5C ("V" and "C" being his initials) because, especially in contesting and DXing, shorter callsigns are easier to send than longer ones. Vinson is also an avid supporter of the AE7Q Vanity Callsign website (as are many other hams).

He also discovered the art of operating grey line propagation. The "Ham Universe" website has been a valuable tool for him in his quest to learn more about amateur radio. He has participated in Field Day, Jamboree On The Air, Rookie Roundup, Sweepstakes, Special Event Stations, and the Arkansas QSO Party, and has really enjoyed portable operating and the challenges associated with it. He has also obtained VE (Volunteer Examiner) accreditation and enjoys the rewards associated with that area. Vinson has just returned from Dayton OH where he received accreditation with the ARRL Teachers Institute of Wireless Technology, to help grades K-12 learn about, and get involved in, our hobby. Thanks for a great program, Vinson!



BVRV President Tom-W5XNA presents Vinson Carter-WV5C with the program Certificate of Appreciation

BVRC TALLIES ONE OF BEST FIELD DAYS EVER!



The numbers are in from Bella Vista area Radio Club President and this year's Field Day Coordinator, Tom Northfell – W5XNA. The hot weather did not at all hamper the results, member participation, and overall success of BVRC FD 2022 – it was an incredible event!

The club had an even 100 attendees and participants! Generator and solar power were used for 100 bonus points. The club garnered an additional 100 bonus points in each of these categories: media publicity, public location, public information table, youth participation, social media, and the FD entry being submitted via the web.

Three stations/modes were in operation: CW, Phone, and Digital (FT8). The CW station amassed 1,232 QSOs, with the Phone station logging 102 contacts, and the Digital station with 255, for a total of 1,589 QSOs!

20 and 40 meters were the main bands used, while the Club also scored contacts on 80 and 15 meters. It also scored 42 contacts on 10 meters with some small band openings.

The BVRC total claimed score for this year's Field Day is a whopping 6,152 points! Congratulations and a HUGE word of “thanks” to all the station captains, operators, helpers, food and snack preparers, and grill Meister Alan - KEØQFO for this stellar job!



THE LARGEST AND FASTEST GROWING AMATEUR RADIO CLUB IN ARKANSAS!

(165 members and counting)

Thanks for your support!

BVRC OFFICERS

President

Tom Northfell - W5XNA
w5xna@arrr.net

Vice - President

Don Banta - K5DB
arsk5db@gmail.com

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dana.hill1979@gmail.com

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Repeater &

Club Call Trustee

Glenn Kilpatrick - WB5L
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V E Testing Coordinator

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don_c@hotmail.com

Elmer 9-1-1 Coordinator

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Ron Evans - K5XK
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Social Media Coordinator

Open

EmComm Coordinator

Chris Ebert - NAØD
wpuc675@gmail.com

Public Information Officer

Open

Newsletter Editor

Don Banta - K5DB
arsk5db@gmail.com

From the Desk of the President



Welcome - Welcome members to the August 2022 issue of *The Signal* – the monthly newsletter of the Bella Vista Radio Club produced and edited by Don K5DB. Articles and photos for the newsletter are always appreciated.

Wow! – I thought the weather for the club's Field Day was hot, but July has been hotter and drier. As I write this, NWA is experiencing drought and extreme heat.

Thanks! – Thanks to the several new members of BVRC. We hope that you will become actively involved in the club and our great hobby. Welcome aboard!

Special thanks to Vinson WV5C for his excellent presentation, *Ham Radio from the Rookie's Point of View*. This was very timely, as BVRC has had several new members who are also recently licensed. The video of this presentation, on the BVRC YouTube channel, will be very beneficial for the folks who earn their license at the *Accelerated Amateur Radio License Class* August 20-21.

Adnan – KCØKCY filmed, edited, and uploaded 3 versions of Field Day to the BVRC YouTube channel. I sent these videos to the ARRL Delta Division Director, David Norris K5UZ, and the Arkansas Section Manager, James Ferfuson N5LKE.

Field Day – Field Day 2023 is June 24-25. Mark your calendar!

Joplin Hamfest – I want to encourage everyone to attend the Joplin ARC Hamfest, 9/30 & 10/1, 2022.

On the Air - BVRC Weekly nets (detailed information on the BVRC website)

- Tuesday - BVRC Wide Area Net 8 pm - NWA Skywarn Linked System
- Wednesday - BVRC Legacy Net 8 pm
- Sunday - BVRC 75-meter Round Table

BVRC Planning Calendar

- K5DB CW Class (late summer) **This class is filled.** Please contact Don to enroll in a future class.
- Accelerated Technician Class and VE Testing (The weekend of August 20-21). This is a great opportunity for someone to get a license in one weekend and it is FREE!
The class is filling up fast.
- BVRC Holiday Banquet and Awards (December 1)

Please contact me with any suggestions or concerns at w5xna@arrl.net and/or 479-530-0967.

73 es gud DX,

Tom - W5XNA
BVRC President

BVRC ANNOUNCES NEW EMERGENCY COMMUNICATIONS COORDINATOR !



It is with great pleasure and elation that Bella Vista area Radio Club announces the appointment of Chris Ebert – NAØD as our new Emergency Communications Coordinator. Chris has recently moved into the area from Mena, AR and has already attended several club meetings, which has enabled club officers and many members to become acquainted with him. Chris is the new Director of Operations and Engineering at television station KNWA.

We are extremely pleased that a person of Chris' caliber has moved into our area and made himself available to oversee (and rejuvenate) BVRC's EmComm program.

If BVRC ever had an EmComm Coordinator who is *well* qualified to serve in this position, Chris is it. Check out Chris' ham radio resumé and track record:

- Started in amateur radio and EmComm in 1995
- Served as ARES public safety liaison to an ARES group, while also serving as a firefighter
- Regional District Coordinator in Colorado for Region 9, District 5 (3-county area)
- Former ARRL Section Emergency Coordinator for North Texas Section ARES
- Has coordinated numerous running events, triathlons, on-road bike competitions, and off-road bike competitions
- Has coordinated numerous Field Day events, Simulated Emergency Tests, and mock training
- Has managed EmComm crews, worked in aid stations, SAG vehicles, and extraction teams
- AUXCOMM certified (when he was in Arizona) as well as multiple ICS certifications

Chris has held several different callsigns as he has frequently moved around the country. His first call was N9ZYA and he currently holds NAØD.

When asked how he got started in amateur radio, Chris told us, "My grandfather was a professional truck driver and had a CB radio. I thought it was neat that he could talk into a box and people would respond to him. As I got older, I dabbled with CB radios and got into public

safety radio as a 911 dispatcher. A police corporal at the time spoke with me about ham radio (who he himself was a ham and is now a Silent Key), and coached me into taking the first ham exam. I've been hooked ever since."

It was no surprise that when asked what his favorite facet of amateur radio is, Chris replied, "I like EmComm and public service communication. I got into amateur radio mostly for that. I have been part of ARES/RACES on-and-off for most of my career."

One of Chris' most memorable radio experiences was, "...The first time I got on the HF bands and made contact with someone in Ukraine. Once again, I thought it was neat that I could talk into a little box, and someone would respond from far away. Even with the ubiquity of the internet, radio still amazes me because of its simplicity."

Chris has been married to his lovely wife, Maryann, for 22 years. He says although she does not mind radio and communicates with him on GMRS, she can't be bothered with a ham test, but he also said, "After living with me so long, I'm quite certain she could probably pass the test., but still won't take it, and that is okay."

Chris, THANK YOU SO VERY MUCH for stepping forward to assume this vital Club appointment and position. There is no doubt you will have some great programs and activities on the horizon for all of the BVRC members who enjoy working with, and operating in, the expanse of ham radio emergency and public service communication. We look forward to hearing more from you in the near future!



Would you be interested in presenting a program for an upcoming monthly meeting on a radio related topic? BVRC is always looking for presenters, and nothing is better than a program from our own Club members. It's always great to have a Club member share an area of amateur radio from their perspective. If interested, contact Tom or Don at: w5xna@arrl.net or arsk5db@gmail.com



BVRC WELCOMES NEW VIDEO DIRECTOR!



When Bella Vista area Radio Club moved into our new meeting facility at the ALETA building in north Springdale, not only were we blessed with a wonderful meeting place, we were also blessed with a new videographer!

Meet BVRC's new Video Director, Adnan Ademovic – KDØKCY! Adnan is a resident of Huntsville, where he lives with his wife Kristy and their children. When Adnan attended his first BVRC meeting last January when we were meeting at the Golden Corral, he was immediately attracted to the Club.

Shortly thereafter, Adnan volunteered his services to video, edit, and upload Club meetings and activities to the [BVRC YouTube Channel](#). If you haven't checked-out our recent videos that have been recorded and edited by Adnan, take a few minutes to view them. *They are excellently produced.*

Adnan was first licensed in February, 2010, although he hasn't had time to devote to the hobby until the beginning of this year. "Unfortunately in the beginning I've only heard that using ham radios is a good way to communicate when all other communications go down," Adnan told us. "I've always been an outdoorsman so I thought having the ability to communicate with someone in the middle of nowhere would be a good position to be in from a survival or emergency perspective. After I got my license and started looking into ham radio more and more, I realized that this goes way beyond just quick, temporary emergency communication, but that you can spend a lifetime learning about it and still have plenty of learning and exploring left to do. That's why I took the opportunity to start back at it this year and finally go down the path of learning more about it in all the ways that I find exciting."

Adnan said that he has enjoyed setting-up his shack very much because throughout the process, the hobby has methodically taught him step by step about the varied aspects of amateur radio. He has already learned a lot from different types of cables, resistance, Alpha Delta switches, antennas, SWR, tuning, grounding, lightning arrestors, grounding rods, stranded wire vs solid wire, what gauge of wire to use and for what purpose, RF interference, radio waves and different lengths, Morse code, propagation, vertical vs dipole antennas... he said he could go on and on but one thing is for sure – there has never been a dull moment.

He also told us that one of his most memorable radio experiences...."Was quite a few years ago. I had moved out of my parents' house and had bought my own. It was about 50 minutes south of St. Louis, MO. I had worked on the house for several months and one day I decided to take a break and hook up my antenna and radio (Yaesu FT-2900) to see if I can possibly reach anybody out there. I put the antenna in the window just resting on the windowsill, hooked the radio up to a battery that I had close by, and went straight for the repeater that was roughly 50 miles from my location. I wasn't expecting anything whatsoever, but to my surprise someone (several hams) answered, and they were clear as a bell and so was I. I had told them how far away I actually was, and they were impressed that I could still hold the repeater from that distance. Then, of course, in the rare but occasionally encountered ham operator tradition, I was informed that my address was out of date and that I should update it immediately so it would accurately reflect my location. That was my first experience with the wonders of propagation and super hard-core operators who were really, really..... really "by the book" to say it in a friendly manner, hi hi."

He said that he and Kristy presently have a GMRS license and use that mode for communication between each other, but he is hoping that in the near future she will progress to the next level of study and obtain her Technician license.

As far as other hobbies, Adnan said, "I have a YouTube channel about UFOs called "UFO HUB" and I've been traveling, interviewing and filming UFO researchers and experiencers since 2014. That's where I get my super-duper cool video editing skills which the BVRC club has been able to benefit from," hi hi.

Adnan it is a pleasure and an honor to have you aboard with BVRC. We graciously thank you for stepping forward as our new video director, and appreciate the very FB job you're already doing in this very important position. THANKS ADNAN!!!!!!!!!!!!!!

HAM RADIO HELPS COGNITIVE SKILLS

Amateur radio is helping lifelong hobbyists stay mentally fit in their later years. It comes with all the benefits of social media but without "any of the downsides" and one of Australia's oldest ham radio enthusiasts says it is also the perfect hobby for retirees looking to stay mentally sharp.

West Australian-based Norman Gomm – VK6GOM, took to ham radio over forty years ago and now aged 82 has no intention of signing off just yet. As one of Australia's estimated 10,500 licensed ham radio operators, Mr. Gomm is also the president of the Bunbury Radio Club.

He says it is rare that a day goes by without him spending at least a couple of hours in his 'purpose-built ham shack'. "I find it's very good for me," Mr Gomm told the ABC amid a dazzling display of flashing lights and crackling radio static.

"I'm 82 years of age and you need to keep your mind working actively all the time," he said. "Ham radio requires a lot of cognitive skills and a lot of understanding technology, so I find that's very good for keeping me active."

Watch the video and read the full story at:

<http://www.abc.net.au/news/2018-06-27/ham-radio-helping-older-hobbyists-stay-mentally-fit/9908468>



BVRC VE REPORT

From Don Cooper – KC7DC, BVRC VE Chair
July 9, 2022

PASSED

CONGRATULATIONS!!!!

**Dustin Serio – KI5WHI – Pea Ridge
New Technician!**

**David Benson – KI5WHF - Huntsville
New Technician!**

Test sessions are conducted each 2nd Saturday of the month:
• 2 pm at Bella Vista Fire Station #1, 103 NE Towncenter, Bella Vista
• 10 am at Shiloh Museum, 118 W. Johnson Ave, Springdale

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

THE 'XH' GUYS

BVRC members Murray Harris – W5XH and Mark Whatley – K5XH have been ham acquaintances and friends for many years. Murray gave the Club a splendid program on operating through amateur radio satellites just a few months ago, and Mark has a great program lined-up for the club in a few months on coax use and connectors.

Years ago, Murray received his callsign through the FCC vanity callsign program. Shortly thereafter, Bernie – K5XS who lives near Mark in Elkins, encouraged Mark to apply for an Extra Class formatted vanity callsign (commonly known as a “1 by 2 call – a 1-letter prefix preceding the number, and a 2-letter suffix following the number). To ensure he would receive *some type* of an Extra callsign, he submitted 25 callsign requests (which you can do if you wish when applying for a vanity call). Out of all those 25 callsign requests, the FCC awarded Mark the callsign K5XH.

Think of the odds of two gentlemen – from the same city, even! – receiving the same suffix in an Extra Class callsign, with only the ‘W’ and ‘K’ prefixes to distinguish them apart! BVRC is happy to have both of these cavaliers in our Club, and extends thanks both of them for their many contributions to amateur radio. – The Signal salutes THE XH GUYS!



Murray – W5XH and Mark – K5XH pause for a historic *first picture together* donning their ham license plates after a recent Ozark Wireless Society meeting.

EQUIPMENT CORNER

FROM CHUCK KORZENDORFER – KM5G (ckorz@multi-craft.net) :

I have antennas looking for a new home:

- 1) Off Center Fed Dipole by AB7LT – Covers 40-6 Meters (May need a tuner on some of the bands) | Rated for 200 watts maximum | Comes with a 4:1 balun allowing for a 50 ohm coax feed | Can be installed as a dipole, inverted V, or sloper | Mounted at 25 ft. with 100 watts I worked China on 10 meters years ago
- 2) ALPHA DELTA DX-A 1/4 WAVE TWIN SLOPER – Covers 160-80-40 Meters Needs to mount at top of a tower | The sloper antenna is notoriously fickle, & you have to play with it awhile

I have the paperwork on both antennas. You are welcome to take them & try them out, as I am not looking for a cash sale on these guys. The OCF dipole is a good starter antenna for HF. Contact me if interested. 73 - Chuck

BVRC Receives Ultra-Generous Donation From Charter Member

By Ron Evans – K5XK

ONE of BVRC's original charter members, now a valued Senior Life Member, is Hugh Maddox – WAØTDQ, in Neosho, MO. When Hugh moved into an assisted living apartment, he built a nifty portable station that allowed him to operate from park and other venues. Now in his late 90s, Hugh has generously gifted his station to the Club (which he helped start around 1990). – Wow!

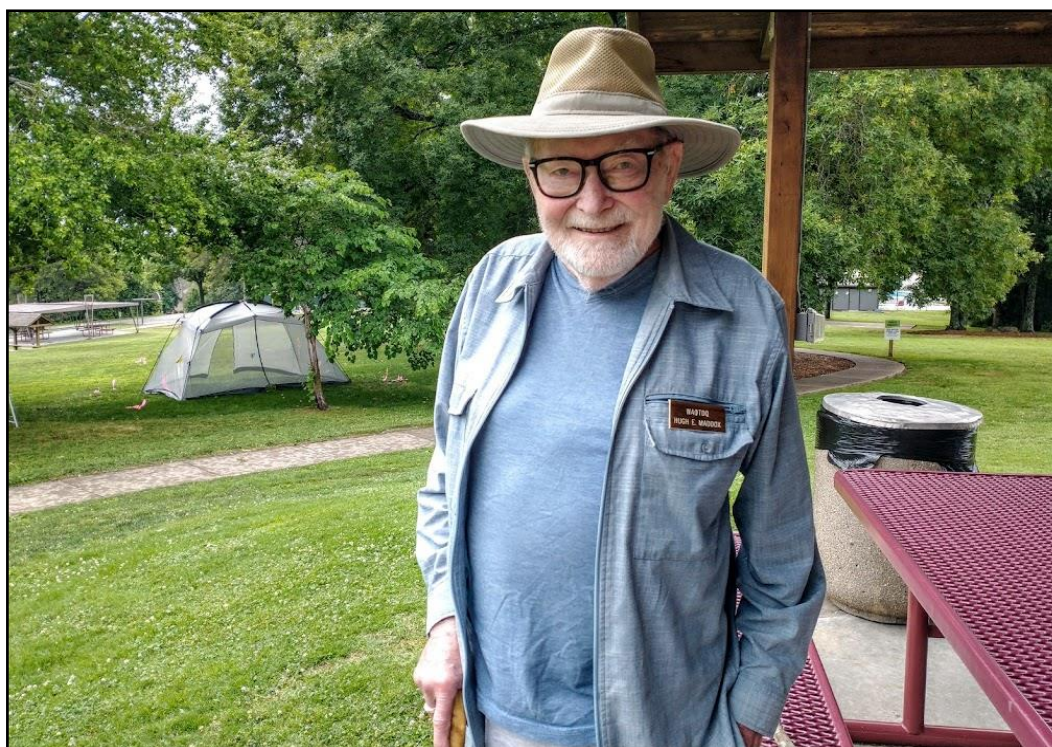


The array of gear consists of an ICOM IC-7100 (160M-70cm) transceiver, Diamond 13.8vdc power supply, Kenwood TM-281A 2M xcvr, ICOM T-70A dual band HT, MFJ-949E antenna tuner, MFJ269C and 259 analyzers, SignalLink USB digital interface, a Field Strength Meter, a G5RV antenna, RF Choke, odds 'n ends, accessories, and WAØTDQ Memorabilia.



Preliminary plans are to convert Hugh's fine station into a tough, hardened 'Go Box' to be used in a myriad of portable Club functions.

Hugh – WAØTDQ during World War II, was assigned to the 209th Engineer Combat Battalion. This photo was taken when he was on the Ledo Road in Burma, June 1944.



Hugh Maddox – WAØTDQ today, enjoying life.
(Photos courtesy K5XK)

Thank you so very much, Hugh! BVRC salutes you and infinitely thanks you for your very kind and considerable donation!

BVRC DIYers: Need Help With a Project?

From Bill Durham, KG5ZCI



I can provide a variety of metal working experience, as I own an extensive machine shop.

Welding (TIG MIG, steel or aluminum, silver brazing), milling, turning, bending, grinding and others are routine. So, if you need a hole drilled or some other work on a project that is holding up the works, just drop me an e-mail.



KG5ZCI Workshop

I also enjoy reproducing broken parts when possible – plastic, steel, aluminum, brass...

Over the many years that I have been in the electronics game, I have collected an extensive supply of resistors, capacitors, semiconductors, inductors and hardware. Again, if you are stuck, my inventory may be one of the best locally. Just ask!

Best of all, since I am retired and in good shape financially, **NO PAYMENT** is accepted. I love to shop at hamfests, tractor shows, and any other variety of junk sale so I am always adding on. If you need help with a project, just e-mail me at: bdurham@uark.edu. 73 – Bill, KG5ZCI

(Editor's note: Bill already came to my rescue a couple of months ago when he formed and welded great looking brackets onto 3 steel pipes for my new tower anchors. He did a fantastic job. THANKS BILL! – Don, K5DB)



**Welcome
New BVRC
Members!!!**

**REBECCA GARRETT – KI5NZR
FORT SMITH**

**DAVID GILBERT – KB5SEZ
LOWELL**

**TESS KANNUCK – KI5UWG
EUREKA SPRINGS**

**BOBBY SHEPPERD – KF5GCK
FAYETTEVILLE**

**JEREMY BOYD – W5TTM
BENTONVILLE**

**DAVID BENSON – KI5WHF
HUNTSVILLE**

TECH TIPS

by Steve Werner – K5SAW

CONNECTING DEVICES TO A TRANSMITTER KEYING LINE – PART 2

In the June issue of The Signal a couple of months ago, we presented information on connecting one or more devices to the transmitter keying line. These techniques required the maximum voltage and the maximum total current (the sum of the currents when connecting multiple devices) be lower than the maximum voltage and current sink as listed in the transmitter owner's manual. This tech tip will address some methods for keying devices that exceed the current and/or voltage limits of a radio transmitter keying line.

One common method of keying external devices with the transmitter keying line is a relay. The relay coil voltage and energizing current must be lower than the transmitter keying line specifications, and the relay contacts must be rated for the maximum voltage and current needed by the external device. See figure 1 for some example relays.

Most relays will have a coil voltage printed on the case, but the energizing current and/or resistance of the coil is often not printed on the case. The coil resistance can easily be measured with an Ohmmeter, and the energizing current could be calculated with Ohm's law by dividing the voltage across the coil by the coil resistance ($I = V/R$). A better way to determine the relay energizing current is direct measurement with an ammeter, and this direct measurement will also verify relay is working correctly. See figures 2 and 3.



Figure 1 – Typical relays that could be used to key external devices that exceed the keying line voltage or current limits.



Figure 2 – Measuring the relay coil resistance with an Ohmmeter. The energizing current can be calculated with Ohm's law: ($I = V/R$).



Figure 3. Measuring the relay energizing current with an ammeter. This setup is using the same power supply as the transmitter (i.e. 13.8V), but the current should be measure with the actual power supply that you intend to use for the relay. The setup will energize the relay coil so you can see if the contacts are working.

Relays used in your transmitter keying line should **always** use a Flyback diode across the coil terminals to protect the transmitter keying line from the high voltage spike generated when the relay is de-energized. The Flyback diode provides a path for the coil current to dissipate when keying line is turned off (i.e. the keying line is not pulled to ground). See figure 4 for the relay circuit diagram.

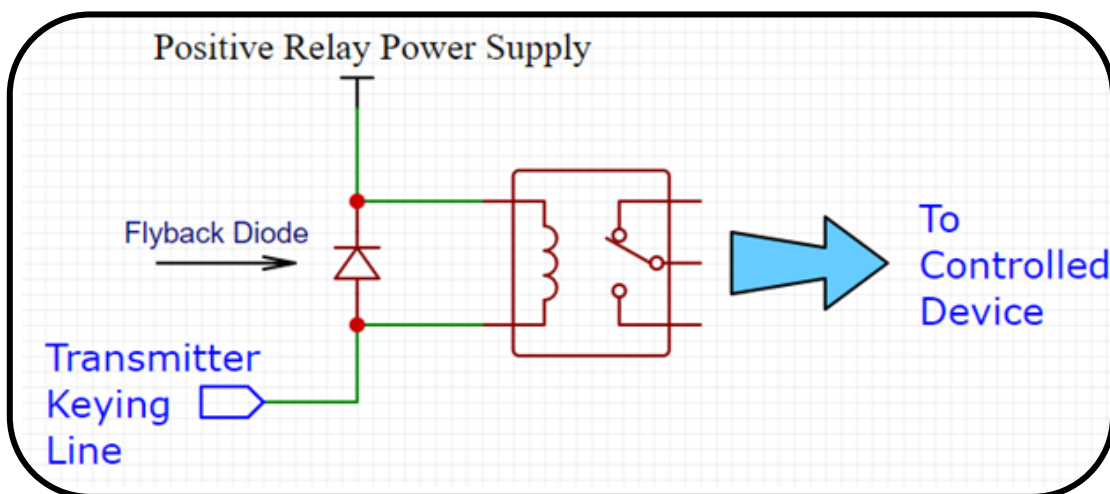


Figure 4 – Circuit diagram for a relay to control an external device. The relay is energized when the transmitter keying line is pulled to ground. The Flyback Diode prevents a high voltage spike on the coil when the transmitter keying is released from ground.

Note that the coil current for the relay or relays used for the transmitter keying control must be less than the maximum sink current of the transmitter keying line, and the relay power supply must be less than the maximum voltage specified for the transmitter keying line.



ARKANSAS RAZORBACK NET CONDUCTS OFF-GRID NET

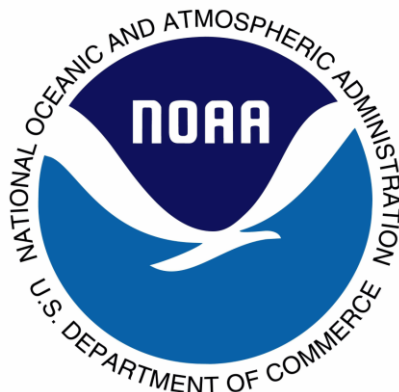
***From ARRL Arkansas Section Emergency Coordinator
J.M. Rowe – N5XFW***

The Razorback Net is held at 6:30 pm local time (1830Z) Central every day on 3.9875 MHz. This will be a good opportunity to check your station capabilities. Please pass this information to your ham friends in and around the State of Arkansas. The following is from Susie – KC5SM, Arkansas Razorback Net Manager:

On August 3rd the Arkansas Razorback Net will be conducting an *OFF THE GRID EMERGENCY PREPAREDNESS NET*. We will begin the net with a prayer and pledge and then move on into the 'off the grid' check-ins. Anyone with solar, battery, or generator power operating at a hundred watts or less is welcome to check-in. We will ask that you state your call, location and what type of power you are running, along with your wattage. Everyone is welcome to participate wherever they are located. After we have taken as many operators that want to check-in off the grid, we will then move on to our regular net. Hope to have many check-ins. If anyone has any questions feel free to send me an e-mail. I am good on QRZ.com, or call me at 870-926-5498. Thanks & 73, Susie – KC5SM

This net is to show that we as amateur radio operators are ready and able to help in disaster situations. 73, J.M. – N5XFW

(EDITOR'S NOTE: I will be checking-in to this special Razorback Net exercise with battery power. I hope as many of you BVRC members that have alternate power capability that can, will join me. Let's make a good showing for BVRC while at the same time showing our Club support for J.M. and the Arkansas EmComm program. – Thanks, Don)



Receiving NOAA Weather Satellite Pictures Live From Space

by Mike Schroeder - NØALJ

For a long time, I had been wanting to try out receiving live NOAA Weather Satellite photos direct from outer space on 137 MHz. You can use an SDR USB dongle and a PC or a dedicated weather satellite receiver like the R2FU. There are videos on YouTube that show you how to go the SDR USB dongle route. I ordered my R2FU direct from Holger – DF2FQ in Germany, and I am very happy with my purchase! It comes with a nice manual too on operation. There is a simple USB and audio sound card cable connection along with the antenna. The R2FU is powered by the 5VDC on the USB cable. It's now integrated part of my Ham Radio station. I was able to order it using PayPal, by way of an email invoice he sent me. His contact information:

<http://www.df2fq.de/kontakt.html>



To process received weather satellite photos, I run the freeware 64 Bit Linux version of the program WXTOIMG on Linux Mint 20. It is working very well for me. I am so pleased that there was a Linux version available. I took my older Shuttle KPC computer and dedicated it to the project. It's 2M of memory and 64 bit dual core Celeron CPU work just fine for Linux Mint 20 and WXTOIMG for this project. But first I had to repair the motherboard. If anyone has ever owned this slick little PC, they probably later learned about the known issue that plagued this line of little desktop PC's. A series of cheap electrolytic capacitors failed after a few years resulting in a dead PC. Mine was no exception. After checking the internet, I found a repair kit was available on EBAY and ordered one with hope. I was delighted when I soon had my Shuttle KPC back up and running again, it was the first time I had ever repaired a motherboard!

On my first attempt at receiving, I discovered that I had my PC's sound card input level wrong. It was yellow to red instead of green (50-75% range) using the program WXTOIMG. After I corrected the input level for the sound card, under Linux sound controls, I got my first working photos on 06/28/2021. I was so excited and also just astounded to clearly see the swirl of Tropical Storm Danny making landfall along the South Carolina coast! Later I got to see a live photo of Hurricane IDA! The software tells you information about orbital passes for these



three weather satellites:

NOAA 15 137.62 MHz - CH. 4

NOAA 18 137.9125 MHz - CH. 5

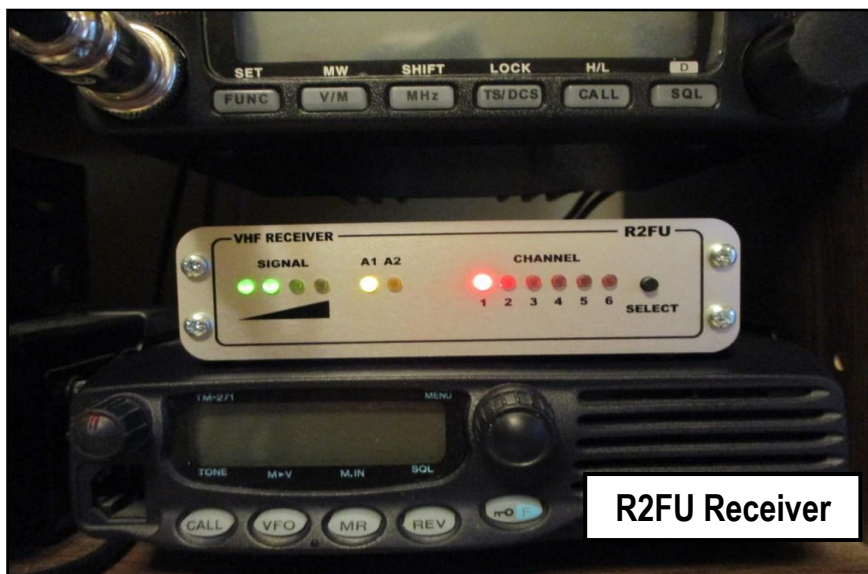
NOAA 19 137.100 MHz - CH. 1

Raw reception, from the satellite, is in black and white and is kind of like watching a SSTV picture fill in, line by line as you receive it. The WXTOIMG software then processes the raw photo data into a color photo with state outlines and details after the satellite pass ends. My best satellite passes are in the mornings (nothing available in the afternoons here locally). Next best are the early evening passes up until sunset. I can see the Gulf and Florida in my morning passes which are of most interest to me when we are in Hurricane and Tropical Storm season. My first 137 MHz antenna was a simple dipole that I put up in my attic. It worked well to start out

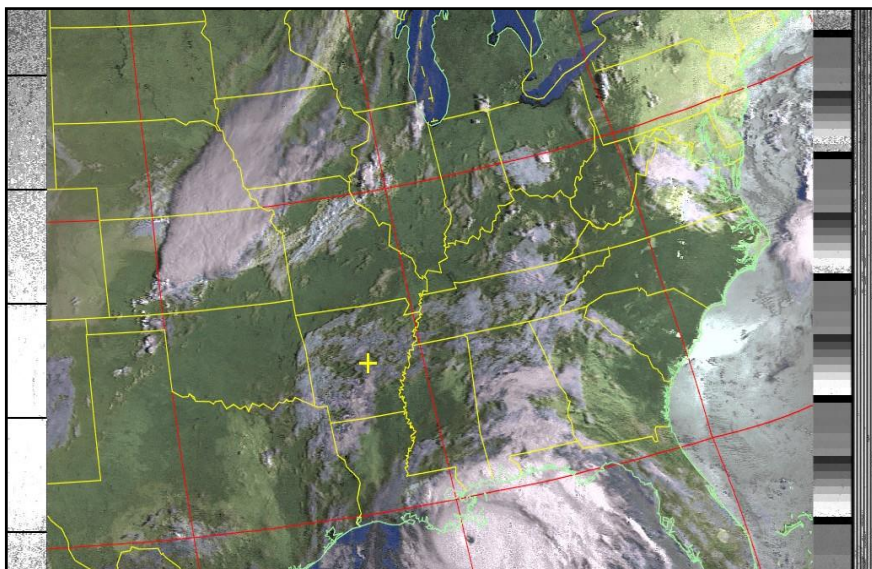
with, but you get some signal dropout at times causing lines in the picture. So next I later upgraded to a much better antenna called the UC-1374-531 Quadrifilar Helix antenna which I ordered from antennas.us. It is also up in the attic and offers the best photo reception. See the following website for all the details:

<https://wxtoimgrestored.xyz/>

73! – Mike, NØALJ



R2FU Receiver



Editor's Note: Mike has blessed The Signal with several other article submissions which are excellent and will provide interesting information to many of our readers. We will be featuring Mike's additional articles in future issues, so don't miss them!

Mike is also our new featured Club member on the BVRC website. If you'd like to know more about him, click his photo on the left side of the home page entitled "Spotlight". 73 – Don, K5DB

Were you unable to attend a club meeting and want to see the program you missed? Do you need to review a club video for information and research purposes? Or, would you like to see some of the great programs you missed before joining BVRC?

You surely can! Go to YouTube and query "Bella Vista Radio Club", then go to the BVRC Channel page and subscribe! BVRC has many interesting and informative videos that you will enjoy!

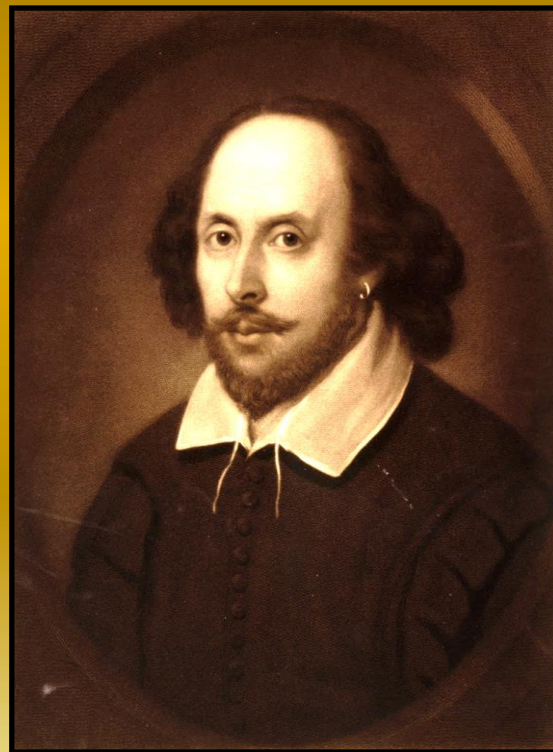


You Tube

Our BVRC Video Coordinator is Adnan – KDØKCY who does a very FB job in recording, editing, and uploading our programs to the BVRC YouTube channel. Check some of them out!

You don't have to write like William "Bill" Shakespeare in order to write an article for The Signal. --- In fact, we prefer articles without the words "thy", "whilst", "tis" and "oft".

Working on a new kit or homebrew project? Have you recently received a rare or interesting QSL card to share? Received a new radio award? Or do you just have a neat photo (ham radio related) or some comments to share with other



BVRC members? Maybe you have acquired a new piece of equipment, or constructed a new antenna? Taken a trip focused around ham radio to share an amateur radio related experience? *Why not write an article for The Signal?* The article can be short or long, simple or elaborate. Please include pictures! We're always looking for material for the BVRC newsletter and feedback from our readers goes a long way toward keeping the newsletter interesting. So why not give it try? Write an article and send it to the newsletter editor, and we'll get it in there! It's fun, and at the same time your contribution helps support BVRC and our hobby! Articles can be submitted electronically or on paper, whichever way you feel most comfortable with. As The Signal editor, I *particularly* look forward to putting a new issue together when I have material submitted by our club members. Hope to hear from you soon & 73! (Send it in!)

Submit your material to:

Via e-mail: arsk5db@gmail.com

Via regular mail: Don Banta, K5DB

3407 Diana St.

Springdale, AR 72764



AMATEUR RADIO ACCELERATED TECHNICIAN LICENSE CLASS

AUG. 20-21 --- **FINAL REMINDER**



This is the second accelerated Technician license class that the Club has hosted. There was an excellent turnout for the first class a few years ago, and we expect even more candidates for this one. Be sure and tell your relatives and friends who might be interested in obtaining their first ham license of this important and FREE event! Time is growing short to register.

Purpose Of Class: The goal for this weekend class is to enable attendees to pass the FCC Technician license exam at the conclusion of the class on Sunday afternoon, and walk out the door with their new Technician license.

Date: Saturday and Sunday,
August 20-21, 2022

Duration: Class runs from 8:30 am – 3 pm, Saturday the 20th and Sunday the 21st, with a one hour lunch break each day.

Location: NW Arkansas Law Enforcement Training Academy building
3424 S. Downum Road
Springdale, AR 72764

Testing: The FCC Technician class license exam will be given at the conclusion of the of the class, around 3 pm on Sunday.

Cost: *The class is free of charge*, however there is a \$15.00 charge to take the exam. (The testing fee for persons 17 years of age or under is \$5.00.) **NOTE:** We cannot accept credit or debit cards. Only a personal check or cash (exact amount please) is accepted.

Registration: Register for the class on the BVRC website by clicking [here](#), then scroll down to the registration form. *There is also a link on the registration webpage that you can click to download the full details of the class – cost, what to bring, etc.*

FULL INFORMATION ON THE CLASS CAN BE FOUND [HERE](#)

REGISTRATION ENDS FRIDAY, AUGUST 13

For any additional information, you can contact Tom-W5XNA or Don-K5DB at:

w5xna@arrl.net or arsk5db@gmail.com

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