

THE SIGNAL



Newsletter of the Bella Vista area Radio Club

ARKANSAS' LARGEST AMATEUR RADIO CLUB

September 2023



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

(HAM 101 Workshop for Newcomers @ 6pm preceding meeting)

Club Calls: N5BVA / W5NX

Website: 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 @ 7 pm on the
WX5NAS Skywarn Link System:**

Bentonville – 146.865, -offset, pl 103.5

Fayetteville – 147.315, +offset, pl 97.4

Huntsville – 443.625, +5 MHz, pl 97.4

Green Forest – 145.310, -offset, pl 103.5

NEXT BVRC MONTHLY MEETING

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

SEPTEMBER MEETING INFO

HAM 101 WORKSHOP, 6 PM – Our Ham 101 Workshops are geared for newcomers to the hobby (licensed 3 years or less) on basic amateur radio topics to help them in getting started on the right foot in the varied areas of amateur radio. For September's workshop, BVRC's Technical Officer Tem Moore – N5KWL will be on hand to discuss the topic of "*What Is A Repeater and How Does It Work?*". Tem will have an excellent presentation planned that will be beneficial to new and experienced operators alike. Don't miss it!

SEPTEMBER MEETING, 7 PM – BVRC has had several programs in meetings past on HF operation and DXing, but what about the DX Century Club (DXCC) Award? The ARRL DXCC Award is the 'granddaddy' and most prestigious of all ham radio awards, but what is it and how do you get one?

To answer those questions, Jay Bromley – W5JAY and Don Banta – K5DB will 'tag team' September's program to show you how exciting DXCC can be! It will be a very informative presentation on the award itself as well as all the areas that accompany it from propagation to logging to record keeping to software programs that will help you acquire it, and the endorsements that go with it.

If you're already involved in DXing, you might pick-up some extra tips on how to improve your DX pursuit and make it even more exciting. If you're not a DXer, you might consider it a definite new activity to add to your current ham radio endeavors after seeing this program.

See you then!!!

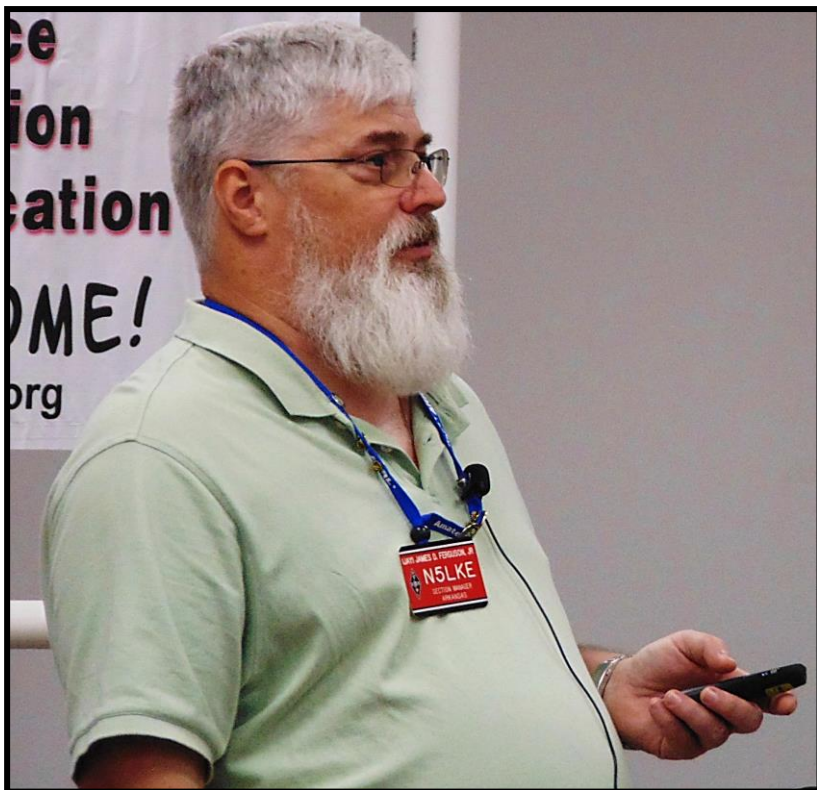
ARRL Arkansas Section Manager Provides Excellent BVRC August Program



It was another packed house at the ALETA facility in Springdale, as BVRC welcomed ARRL Arkansas Section Manager Jay Ferguson – N5LKE from Searcy for its August meeting. Jay has headed the ARRL state leadership for several years and has done an excellent job. Jay got his first license in 2013 and in those ten years, has progressed by leaps and bounds not only to attaining the office of ARRL SM with quality state officers in his administration, but also being an avid and talented amateur operator in his own rite.



Jay shared some of the state data and demographics from the Arkansas section, one of which was very provocative – currently, the average age of an ARRL member being 68 years of age. Jay said that number has risen to an older level than what it was 10 years ago and that clubs in Arkansas and the entire U.S. need to be aware of this statistic and do their best to help and encourage newer generation hams into the hobby. Jay is well aware of BVRC's commitment and pledge to this very important aspect of the U.S. ham population, and commended the club on the excellent job it is doing in continuing its pursuit in this area. Jay also advised everyone to watch for ham radio events related to the total solar eclipse in Arkansas on April 8, 2024. This event will be an excellent opportunity to further expose amateur radio to the public.



Jay Ferguson – N5LKE

Jay then described – and encouraged BVRC members and guests – to get involved and operate in the year-long ARRL VOTA event (Volunteers On The Air). This year, ARRL is saluting its staff, ham volunteers, leadership, members, and executive committee with this exciting event. Here is the basic information Jay shared with attendees:

ARRL Officers, Directors, Section Managers (and their appointees), Staff, and Members domestically (and DX) can be contacted for points. (See the [POINTS TABLE](#) for the full list of points.) **The ARRL Logbook Of The World** will be used as the data source for this event. The VOTA event will include W1AW activations from all 50 states (twice) and several territories during 2023. The activation weeks for these W1AW/# stations will begin on a Wednesday and end on a Tuesday. Some weeks will be shown as off weeks to avoid other major operating events.

Arkansas has already activated W1AW/5 in June for the VOTA event, with the 2nd activation scheduled for Oct. 25 – Oct. 31. Jay commended BVRC experienced operators for their successful W1AW/5 operations from NW Arkansas. Teaming with other operators from around the state, almost 3800 QSOs were made.

Participants will work W1AW portable stations and ARRL volunteers and members (see links in the dashboard at the top of the [VOTA page](#)) to earn QSO points.

If you are not a Logbook Of The World (LOTW) user, no problem. You do **NOT** need to upload to, or participate in, 'Logbook Of The World'. Uploads to LOTW by W1AW portable stations and by the volunteers will feed the points scoring system. (Participants are not required to be ARRL members. However, the ARRL encourages all amateur radio operators who are not members to consider joining the comradery with the 160,000+ current members. When joining, you'll discover support, inspiration, and advice to elevate your amateur radio experience.) A Leader Board is also available on the VOTA page, so be sure and save the page to your favorites and revisit it regularly for updates! Certificates will be available during and after the event which ends on Dec. 31, 2023, after which a final summary will be released. (It's not too late to get started!)

Jay, thanks so very much for your excellent and informative program, and we hope you'll come back and see us soon!

(Thanks to Nick-WA5BDU for a great Ham 101 Workshop!!!)



BVRC President Jan-WB5JAN presents ARRL Arkansas Section Manager Jay-N5LKE with the BVRC Certificate of Appreciation

BOARD MEMBERS

President

Jan Hagan – WB5JAN
ianhagan51@gmail.com

Vice President

Joe Hott – W5AEN
joe.hott@gmail.com

Secretary

Dana Hill – W5DGH
dana.hill1979@gmail.com

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Mark Whittlesey - WØKYZ
almarc11@yahoo.com

Technical Officer

Tem Moore – N5KWL
temmoore@gmail.com

Trustee

Glenn Kilpatrick – WB5L
wb5l@arrl.net

Board Member At Large and Public Information Officer

Tom Northfell – W5XNA
w5xna@arrl.net



APPOINTED OFFICERS

VE Testing Committee

Chair: Don Cooper – KC7DC
don_c@hotmail.com

Elmer 911 Committee

Chair: Vinson Carter – WV5C
vinsoncarter@gmail.com

Nets Committee

Chair: Dana Widboom – KI5TGY
dcwidboom@gmail.com

Membership Committee

Chair: Tom Northfell – W5XNA
w5xna@arrl.net

Social Media Committee

Chair: Rebecca Garrett – N5REB
rebdgarrett@gmail.com

Webmaster

Glenn Kilpatrick – WB5L
wb5l@arrl.net

Newsletter Editor

Don Banta – K5DB
arsk5db@gmail.com

FROM THE DESK OF THE PRESIDENT



As I write September's President's Message, I have just returned from a successful and rewarding trip to the Joplin hamfest.

"Why was it successful and rewarding?", you may ask. Did I find the perfect piece of kit that I couldn't live without? Did I sell equipment that had been filling an ever-increasing amount of storage space in my shack?

No, neither of these were what made the Joplin trip successful and rewarding. The reason has more to do with one of the main things that makes the amateur hobby and our club so special ... it's the people!

First, it was so fulfilling to see so many interesting and active hams from a four state area enjoying the hobby and coming together to celebrate and enjoy amateur radio. Everywhere you looked there were "eyeball" QSOs between familiar faces and new friends.

More than that, it was a nice day to spend time "hanging out" with so many of our BVRC club members, sharing our successes, laughing at our failures, and in general, enjoying each other's company as we gathered at the Bella Vista tables after making the rounds of the endless rows of tables of new and used equipment.

But finally, what was most special to me was how, as a group, we turned a potential trip to dispose of e-waste into an opportunity to support our club's several licensing classes held during the year.

You see, BVRC had received a significant donation of radio equipment and parts to be used for our Loaner/Donor program. A portion of the donated equipment was inoperable and there were parts and supplies that were not useful to the club. Rather than disposing of the excess equipment as e-waste, we decided to take the left over items to the Joplin hamfest, set up on the BVRC tables and give the items away, only asking for a donation to support the BVRC license classes in purchasing teaching materials.

What was special was how several club members pulled together to bring this about. Through the tireless efforts of several members we collected a significant amount of money from generous donations at the Joplin hamfest and those donating found something useful to support their amateur radio hobby. A win-win.

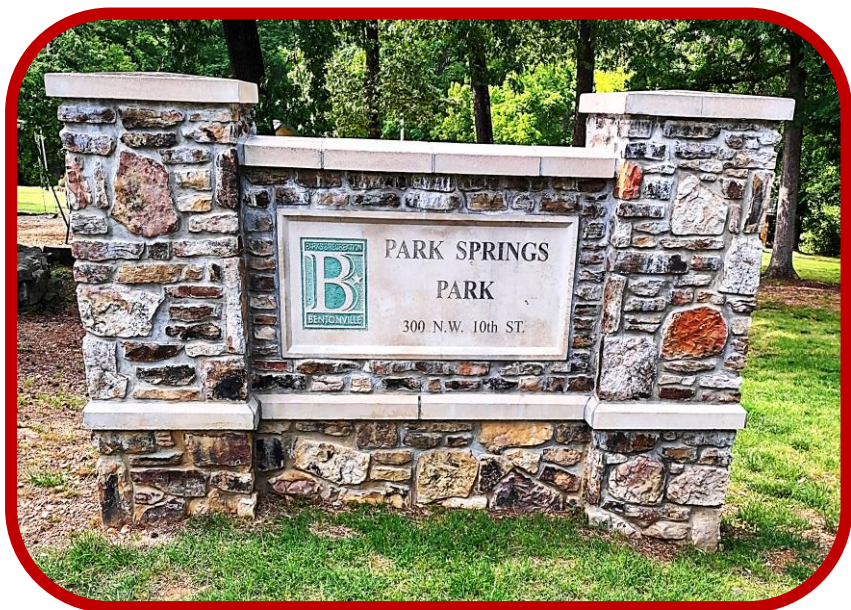
Yes, it was a successful and rewarding trip to the Joplin hamfest. It was the people in our hobby and in our club that made it so!

73,
Jan – WB5JAN



A portion of BVRC attendees at the Saturday Joplin Hamfest session at the BVRC tables – Back Row, L-R: Tom-W5XNA, Mark-K5XH, Don-K5DB, Joe-W5AEN, Dana-W5DGH, Robert-K5NZV. Front Row: Dana-KI5TGY, Tom-KN4SLP and Jan-WB5JAN. (Many also attended Friday's session as well.)

N5BVA PORTABLE SPECIAL EVENT STATION AT PARK SPRINGS PARK - BENTONVILLE!!!



BVRC members – Mark your calendar for Saturday, October 14, when the second of two N5BVA Special Event Stations will be activated from Park Springs Park to celebrate BVRC's 30th anniversary!

Date/Time: Saturday,
October 14
9:00am-7:00pm local time

Location: Park Springs Park
300 NW 10th St.
Bentonville, AR

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 MA-5B mini-beam.

Miscellaneous info: Park Springs Park has a nice pavilion and AC mains, ***but no restrooms.*** (There are restrooms about 5 minutes away at eating establishments on Walton Blvd.) *No food or refreshments will be served* as this is a total operational event, but you are welcome to bring your own food, drinks, snacks, etc. if you wish. Eating establishments are nearby on Walton Blvd. The event will appear on the Special Event Station page in the October issue of QST, and can presently be viewed on the ARRL website, S/E/S page.

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 experience for you who have not worked the HF bands very much, or not at all. 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 celebrate our 30th year.

SEE YOU OCTOBER 14!



BVRC GRADUATES 2nd CW ACADEMY CLASS!

It was a special night for 7 CW Morse Code-ers on Monday evening, August 7, as they received their Certificates of Completion for the second Bella Vista area Radio Club CW Academy. Classes began on April 3.

The group not only studied and learned the important characters (letters, numbers, punctuation marks, and prosigns), but they also learned to use “CW shorthand” that operators use during on-air QSOs. They also studied the CW protocol that is used during an on-air contact. At the completion of the class curriculum they are now copying between 5 to 10 words per minute, and will improve as time passes.

A big “CONGRATULATIONS!” to this excellent class of avid CW Academy students, who will make very good CW operators as they progress in the hobby and the mode of CW!



From left to right: Dennis Tune – W9DCT, Darrel Johnson – KI5NDJ, Kathy Bromley – WQ5T, Mike Calvi – KF5RUO, Sharron Edmondson – KC5SKY, Jeff Crawford – K5DRJ, Rick Pope – KG5MWG, and Don Banta – K5DB (instructor)

**BREAKING
NEWS**



BVRC ACQUIRES 2ND CLUB CALL

W5NX

Some of our BVRC members have never heard of him while many others remember him well, but Charles Tillotson – W5NX was one of NW Arkansas' most avid amateur radio operators. Charles immensely enjoyed DXing – especially on CW, was an Elmer to many, many newcomers to the hobby, and was one of the founders of *The Ozark Wireless Society* (which meets each 4th Saturday of the month – except Nov. & Dec. – at 10 am at Shiloh Museum in Springdale).

Upon Charles' passing in 2019, OWS adopted his callsign as an "in memoriam" club call. Since that time however, the callsign has scarcely been used. With several OWS members growing older coupled with very little growth of the club, OWS decided to intercede to insure that Charles' callsign would remain in NW Arkansas and place it under the umbrella of a club that is active, would use it in good practice on the HF ham bands, and preserve it for posterity.

OWS thereby approached the BVRC Board with a proposal to adopt W5NX for a second club callsign for BVRC. The BVRC Board voted unanimously in favor of the proposal, as this would supply BVRC with an Extra Class formatted callsign to be used for club *HF activities*. Also, many BVRC members hold dual membership with BVRC and OWS, and were already familiar with W5NX. Following BVRC Board approval, a modification application was made by callsign trustee (and also BVRC member) Jay Bromley – W5JAY, and was granted by the FCC. As of August 21, 2023, W5NX is now the callsign of Bella Vista area Radio Club.

The adoption of W5NX by BVRC assures the callsign will be used extensively by BVRC for HF activities (Field Day, contests, etc.) and will keep the call under the auspices of a NW Arkansas club.

Most importantly, BVRC's flagship callsign N5BVA is NOT going away nor being replaced with this second club callsign. It will continue to be proudly used in our weekly repeater nets and local applications as needed.

In addition, since the adoption of a second club call has just occurred, N5BVA will be used – as scheduled – for the October BVRC 30th Anniversary Special Event Station in Bentonville. The BVRC leadership team is very excited about this second club callsign adoption. It is a win-win for both amateur clubs.

BVRC heartily thanks the membership of Ozark Wireless Society – and in particular, its long-standing members – for partnering with BVRC in preserving W5NX for posterity in northwest Arkansas, in addition to BVRC now having two excellent callsigns for use in VHF/UHF and HF activities.



WELCOME NEW BVRC MEMBERS!!!

Bill Schmidt – NOØBS – Beaver, AR

Chris Rolls – KJ5CCH – Bentonville

Bob Eoff – KJ5CCA – Tontitown

Wayne Blankenship – KJ5CCI – Springdale

David Atchison – KJ5CCW – Springdale

Joel Scott – KJ5CEY – Fayetteville

Luke Williams – AE5AU – Alexander, AR

Brian Green – KF5MDY – Bella Vista

Adam Kelso – KJ5CGL – Fayetteville

Scott Cook – N9TLU – Bella Vista

Hunter Williams – KJ5CHZ – Bella Vista

BVRC VE REPORT

FROM DON COOPER – KC7DC
BVRC VE COORDINATOR
AUGUST 12, 2023



Congratulations!

Joel Scott – KJ5CEY – Fayetteville – New Technician!

Chris Rolls – KJ5CCH – Bentonville – New Technician!

Wayne Blankenship – KJ5CCI – Springdale
New Technician!

David Atchison – KJ5CCW – Springdale – New Technician!

Bob Eoff – KJ5CCA – Tontitown – New Technician

Adam Kelso – KJ5CGL – Fayetteville – New Technician!

Hunter Williams – KJ5CHZ – Bella Vista – New Technician!

Jason Korzendorfer – Prairie Grove – N5JMK
New General!

Caleb Whitsett – Joplin, MO – KCØYGO – New General!

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!***

BVRC Members:

**CELEBRATE
BELLA VISTA AREA RADIO CLUB'S
30TH BIRTHDAY WITH A
COMMEMORATIVE CLUB MUG!**



NEW



Embroidered Memories, official supplier of BVRC accessories (owned and operated by club members John and Kim – W5HB & KD5TVX), now has available the Bella Vista area Radio Club commemorative mug. This handsome mug includes the club's N5BVA commemorative QSL card on both sides, with your callsign opposite the handle.

The mug price is \$15.00, not including s&h.
(Can be delivered to club meetings free of charge.)
A great piece of memorabilia for years to come!

To order your mug, click [here](#).

ATTENTION ALL NEWCOMERS TO AMATEUR RADIO AND THE BELLA VISTA AREA RADIO CLUB!



HAM 101 WORKSHOP

Each month before BVRC's regular monthly meeting at 7:00 pm, we offer a unique benefit for all new hams – the HAM 101 Workshop.

HAM 101 Workshop is a special meeting that convenes at 6:00 pm, one hour before the regular monthly meeting, just for you. Each month, one of our veteran hams moderates the meeting with a topic, followed by a Q&A session on any and all topics of amateur radio. It is a great time of discussion, learning, fellowship, and fun. If you're new to the hobby, these meetings are geared just for you. Bring your questions and we'll see you there!

TIME: 6pm, before each regular BVRC monthly meeting at 7

PLACE: Arkansas Law Enforcement Training Academy (ALETA)
3424 S. Downum Road
Springdale, AR



NEWCOMERS: BVRC Is Here For You!

If you're new to BVRC and amateur radio, there are many of us who know **EXACTLY** what you're going through:

- What do I do now?
- How do I program my HT?
- How do I make a contact?
- What is FT8 all about?
- What's the best coax to use?
- What is APRS?
- What is a "hamfest"?
- What does "greyline" mean?
- What kind of radio should I get?
- Where can I find the repeater frequencies?
- Can I buy a decent HF radio on a budget?
- What kind of logging software should I use?
- What are these strange calls I'm hearing?
- Should I use just a VHF, or dual band, radio?
- What are the good ham radio apps?
- How do I ground my station?
- What kind of antenna should I use?
- I have high SWR – what can I do?
- How do I learn Morse code?
- How can I learn about propagation?
- How do I operate on a Net?
- What are radials?
- How do I become a Storm Spotter?
- What is UTC?

All of us have "been there and done that". That is why BVRC has several experienced hams that are here to guide and help you avoid some of the "walls" that you might run up against when learning the ins-and-outs of the hobby. And.....even if you're not new to ham radio and are in a quandary about something, *we're here for you too!* With BVRC, you have several resources that are available to you that will assist you in understanding what amateur radio is and how it works, and they're all out there waiting on your call for help!

- **ELMER 911** – This is an exclusive service for BVRC members, and in particular, our newcomers. You can pose a question 24/7 through ELMER 911. All you have to do is go to the ELMER 911 page on the BVRC website, then go to the ELMER 911 tab: <https://bellavistaradioclub.org/elmer-911/>. You will see a form that you can complete that describes your question or issue. Complete the form, then click "SEND". Our ELMER 911 Coordinator will then assign your question to one of our team of Elmers who will contact you via e-mail. You should get your answer in 12-24 hours, and sometimes sooner.
- **HAM 101 Workshops** – Just before each regular BVRC monthly meeting at 7:00 pm at the ALETA facility, come join us for the HAM 101 sessions, beginning at 6:00 pm. These sessions are designed specifically with newcomers in mind, so you can bring your questions, have those questions answered by our experienced Elmer hams present, and also learn more about the hobby from the Q&As of other participating newcomers. We've had very good attendance on each BVRC meeting night. Our ELMER 911 feature is, of course, ultra-convenient. But if you'd rather enjoy the fun and excitement of in-person newcomer get-togethers, you can join-in with the monthly HAM 101 sessions, or you can join on-air newcomer gatherings each week on the BVRC HAM 101 Net. *And, of course, experienced hams are welcome to these sessions, anytime.*
- **BVRC HAM 101 Net** – Get your questions answered or issues resolved (as well as gaining on-air experience!) by joining us on our weekly HAM 101 Net. This net resembles the in-person HAM 101 monthly meetings, except it occurs on-air. A panel of Elmers will be on hand to field any questions or issues you might have. It's a fun on-air experience that you'll really enjoy and also learn net operation protocol in case you're unfamiliar with nets – a great learning experience! This net takes place on the WX5NAS Skywarn Link System. You can find the repeater that is closest to you and it's operating frequency, offset, and PL tone on page 1 of this newsletter. *Experienced hams are also encouraged to join us. You're welcome anytime!*

So, take advantage these opportunities if you need help with something (experienced operators, too!) Send-in your question via the website, join us at the Ham 101 Workshop newcomer meetings, and check-in on the HAM 101 Net. Even if you may not have a question, join us anyway! BVRC has your back!

From QST, September 2023 – Arkansas operators made almost 3800 QSOs! :

Volunteers On the Air Update

Have you worked all the VOTA W1AW portable state activations?

July marked the beginning of the second half of the event. We are excited to report that our first pass of all 50 state activations was completed, and some states have already completed their second activations. On the weekend of the IARU HF World Championship Contest (July 8 – 9), W1AW/KH6 was available on both phone and CW from two big Hawaiian stations (KH6YY and KH6LC). Watch out for other W1AW activations through the end of the year on our schedule at <https://vota.arri.org>!

Listed below are initial QSO tallies from recent W1AW portable state activations, as of July 10:

- W1AW/KL7 (May 3 – 9) = awaiting logs
- W1AW/2 New York (second operation May 24 – 30) = 4,869 QSOs
- W1AW/0 Colorado (May 24 – 30) = 7,653 QSOs
- W1AW/0 Missouri (May 31 – June 6) = 2,911 QSOs
- W1AW/7 Wyoming (May 31 – June 6) = 1,918 QSOs
- W1AW/5 Alabama (June 7 – 13) = awaiting logs
- W1AW/5 Louisiana (June 7 – 13) = 4,869 QSOs
- W1AW/8 West Virginia (June 14 – 20) = awaiting logs
- W1AW/5 Arkansas (June 14 – 20) = 3,792 QSOs

VOTA Leaderboard Functionality Updates

- The leaderboard (<https://vota.arri.org/leaderboard.php>) was updated to allow filtering by US or state only, and to list overall and state rank.
- The search-by-call-sign feature on the leaderboard now provides participant ranking overall within the country and state.
- The state leaderboard has been added to show participants' ranks within a state.

Strays

Motus Project Seeks Help from Hams

Glenn Pollock, WA0FMY, volunteered to install a migratory bird telemetry receiver at a nature center.

The Motus Wildlife Tracking System is a collaborative network of automated radio telemetry stations used to track the movements of migratory animals. A growing network of more than 1,500 receiver stations worldwide detect and log VHF or UHF signals emitted from small radio transmitters attached to the animals. The data generated by Motus can help people better understand the effects of climate change, habitat loss,

- Participant call signs have been hyperlinked to www.qrz.com for easy lookup.
- A MY VOTA page (<https://vota.arri.org/my-info.php>) has been added to show overall and state rank information, W1AW portable states contacted, the W1AW portable states still needed to achieve all 50, the schedule of when they are on next, and QSO details (with cursor over points) for more information.

Hint

For VOTA points, if you are using a call sign that is different than your FCC-assigned personal call sign (on account of your volunteer position having a modest point value or if you believe your point value is at the incorrect volunteer-points tier), please send an email to vota@arri.org with an explanation of your operations, your personal call sign, your volunteer position, the call sign being used, and the duration of the event(s). We will tabulate contacts you make at your volunteer point value.

If you are wondering what the point value is for your call sign, or someone you contact, visit <https://vota.arri.org/callPoints.php>.

Send your comments, suggestions, stories, and photos to vota@arri.org.

Follow what other VOTA participants are discussing on Facebook at www.facebook.com/hashtag/volunteersontheair.

and human development on migratory animals, and inform conservation decisions for priority species. Motus is a non-profit organization that brings together wildlife conservation efforts throughout the world.

Motus US Director Adam Smith relayed that there is a need for technical help with the radio installations and the resolution of various noise problems that often occur after the installations. If other hams are interested in helping, contact Adam Smith at asmith@abcbirds.org or Glenn at pollock@cox.net.

BVRC 2024 CW ACADEMY NOW TAKING ENROLLMENTS

Of course, with today's computer technology, you can learn CW (Morse code) on your own at home and at your convenience with all the great CW tutorial websites and organizations (LCWO.org, Long Island CW Club, and others). However, if you would like to incorporate camaraderie in learning CW in a classroom atmosphere with other CW students with your at-home studies, join us in BVRC CW Academy next year! Classes begin on April 1, 2024. For more information and to sign-up, send an e-mail to Don-K5DB: arsk5db@gmail.com



VINSON CARTER – WV5C ATTENDS YEAR-2 OF THE ARRL TEACHERS INSTITUTE OF WIRELESS TECHNOLOGY

This past July, BVRC's Elmer 911 Committee Chair Vinson Carter – WV5C, participated in the second ARRL Teacher Institute on Wireless Technology (TI2). The 5-day workshop taught by Wayne Greene – KB4DSF, focused on remote sensing and data gathering. The event was held at ARRL headquarters in Newington, CT with 11 teachers in attendance from across the nation. The ARRL Teacher Institute is an expenses-paid professional development through the ARRL Education and Technology Program and is funded by the ARRL Foundation.



Vinson was able to attend TI1 last year in Dayton, OH, but says that this year's institute was even better. Throughout the week, the teachers developed a remote sensing buoy using an Arduino microcontroller, radio shield, and different sensors (GPS/APRS, humidity, and temperature) through an HT radio. Wednesday was a special treat for the class, as they built tape measure antennas and decoded a special SSTV just for them that was sent via the Columbus Module Repeater aboard the International Space Station. The remainder of the week was spent learning about software defined radio, various digital modes, and satellite communications.



While at ARRL headquarters, Vinson was able to operate W1AW and talk to several BVRC members back home in NW Arkansas, as well as other folks around the country. One of the home QSOs he conducted was with Signal Editor Don – K5DB. You can hear that QSO [here](#).



Vinson at the mic of one the stations at the ARRL Hiram Percy Maxim Memorial Station W1AW

Vinson advises if you are an educator, please consider applying for this excellent program at <http://arrrl.org/teachers-institute-on-wireless-technology>.

I have been a fan of 6 meter FM contacts on 52.525 MHz, in earlier solar cycles where there were lots of openings on the "Magic Band", but that was mostly domestic contacts. Now that we are in Solar Cycle 25, I wanted to try out some other modes on 6 meters like SSB, especially during VHF Contests, and the digital FT8 mode using the freely available WSJT-X software. As popular as FT8 has

become on HF, it is now a mode of choice for most 6-meter DXers because FT8 is ideal for making contacts during weak, multi-hop and sporadic-E openings on 6-meters. Transcontinental and intercontinental DX is possible with FT8. It was on 6-meter FT8, in 2022, that I was able to work my first out of country DX with Mexico and Brazil and I even saw Japan on 6-meter FT8! Approaching June, in the northern hemisphere, means we enter the prime weeks of DXing on 6 meters. Most 6 Meter FT8 activity takes place on 50.313 MHz but a secondary frequency of 50.323 MHz is also a place to check for activity when the band is crowded with intercontinental DX activity.

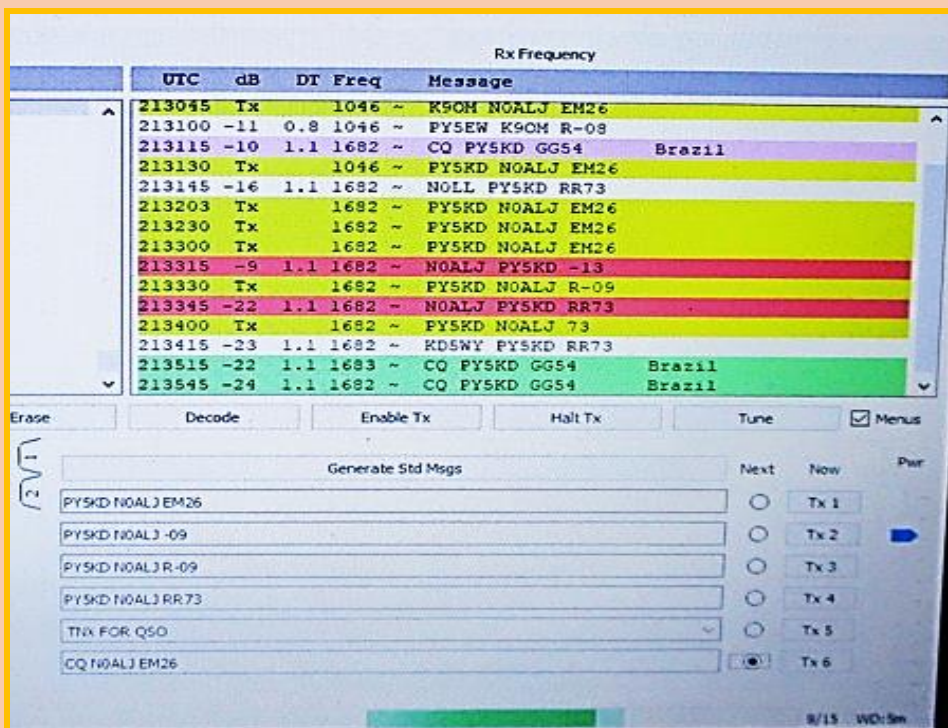
I didn't know much on how to setup a digital FT8 station, so I ordered the great ARRL book "Get On The Air With HF Digital" by Steve Ford – WB8IMY. I used the 2nd edition of his book at the time but now a new 3rd edition has been released by the ARRL. I used this book as a guide to setup my FT8 station using a Yaesu FT-450D HF transceiver and the Tigertronics Signalink USB sound card - radio

interface. The Signalink USB interface works with virtually all radios and features its own built in sound card, is powered from your PC's USB port and offers complete radio isolation. When you order your Signalink USB, you specify the radio type so that it ships with the proper cables needed to interface to your radio and your PC. You also have the option of ordering a radio specific plug and play jumper module, which I highly recommend, as it plugs in place of the jumper wires you would otherwise have to configure for your radio.

Working 6-Meter FT8

By Mike Schroeder - NØALJ





This greatly simplifies installation and completely eliminates the possibility of installing the jumper wires incorrectly. The SignalLink comes with a nice manual to help you configure your PC's audio support for using the interface with WSJT-X.

The SignalLink USB interfaces to my HP Notebook PC, running

Windows 10, using only a single USB cable and to my radio using a second cable that plugs into the back data port. I have had good results both when I tried vertical polarization with my Comet GP-15 Tri-Band base antenna and horizontal polarization using the Par Electronics OA-50 6 meter Omniangle antenna.

When I first got started on 6-meter FT8, I tried leaving my FT8 station running over night, when I went to bed, to see if I caught any activity when the band wasn't really even considered open before spring.

I was surprised to see brief activity which I believe may have been from a meteor burn. There was the time when I started making my first CQ call, when the band seemed dead, and to my surprise got an answer back from a station on the east coast and suddenly more activity began to appear. And, there were times when I woke up to check the screen and found a band opening in progress! I once even saw my own CQ get reflected back somehow which is a mystery to me. You just never know on 6-meters. I think FT8 is even more exciting on 6-meters than HF, and is a challenging mode. I like to check out the column "The World Above 50 MHz" by Jon Jones, NØJK, which appears each month in QST magazine for pertinent information on 6-meter DX actual activity and historical events.

73,
Mike – NØALJ



HAVE YOU WORKED ALL CONTINENTS?

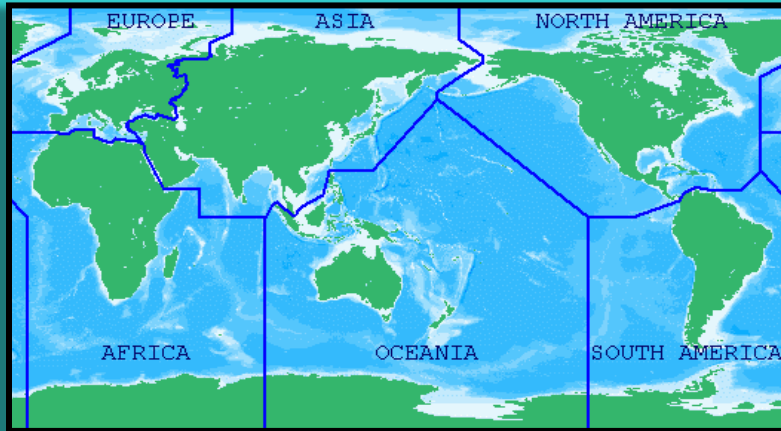
By Don – K5DB

In my 54 years in amateur radio, I have had loads of fun acquiring various operating awards. I have Worked-All-States many times in different ways, 5-Band Worked-All-States, 8-Band DXCC, 5-Band Worked-All-Continents, Worked All Zones, activated 13 National Park units during 2016's National Parks On The Air, have over 20 combined 1st-place finishes in CW and Phone Sweepstakes either with groups or as a solo op, numerous first place finishes in various state QSO parties, and the list goes on. I have experienced and enjoyed all types of operating situations and venues and have countless memories that I will never forget.

But probably the nearest and dearest award to my heart goes back to 1970 when I was 14 years old. I'd been on the air with my Novice license for about a year when I acquired my very first award – *The Worked All Continents award*. I was only allowed to operate CW and had a 75-watt CW/AM transmitter with a modest dipole about 20' high. This award really whetted my appetite for all the other operating activities and pursuits that I've enjoyed over the years.

Why? Because in pursuing the WAC award, I learned about band conditions, band characteristics, greylining, foreign callsigns, tuning and listening and tuning and listening (no spotting networks or websites then!), and above all – patience.

But the most significant element of the WAC award (sponsored by the International Amateur Radio Union) is that you do NOT have to work and confirm 50 states as in the WAS award, nor do you have to work and confirm 100 countries as in the DXCC award. (Although you want to pursue those as well!) ***ALL YOU HAVE TO DO IS WORK AND CONFIRM 6 LITTLE OL' CONTACTS***, one for each continent: Europe, Asia, Africa, North America, South America, and Oceania.



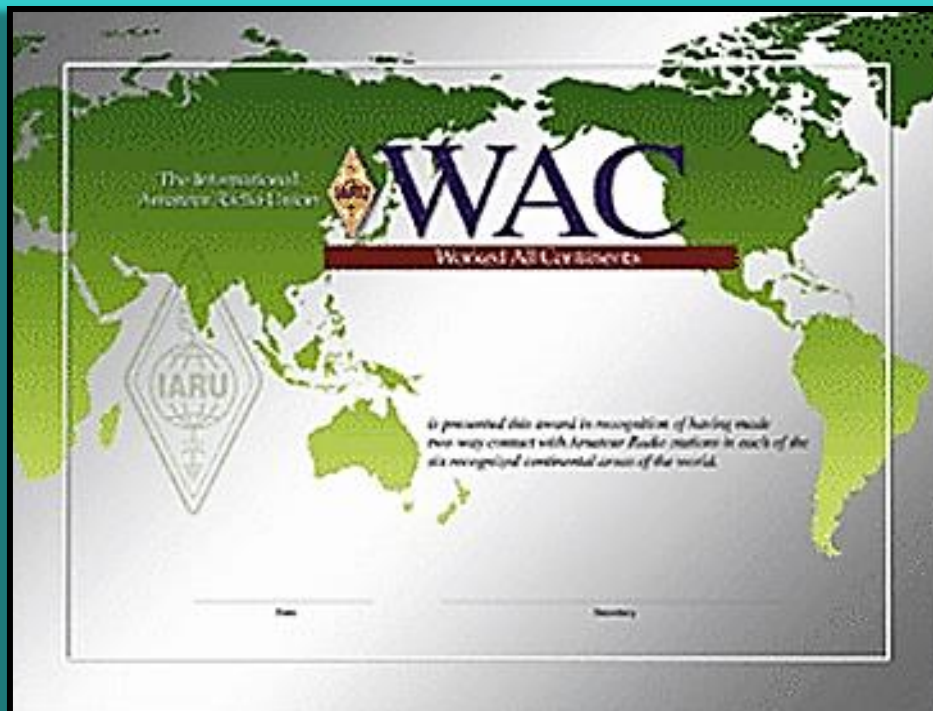
The 6 continents needed for the WAC award

Nowadays, and with all the spotting aids available, sometimes during a DX contest you can work those 6 contacts in one evening! For sure in one weekend!

The WAC award is one of the oldest awards in ham radio. Brandon Wentworth – 6OI, was the first to qualify for it in 1926. If you've never thought about venturing-out and

acquiring WAC, consider it...you'll have a new challenge and experience the enjoyment in pursuing and attaining it. Full award instructions, guidelines, and additional information about the Worked All Continents award can be found [here](#). You'll have fun doing it and walk away with a handsome piece of "wallpaper" for your shack! Give it a try sometime. It's fun, rewarding, and you will discover along the way on how to operate the HF bands as I did.

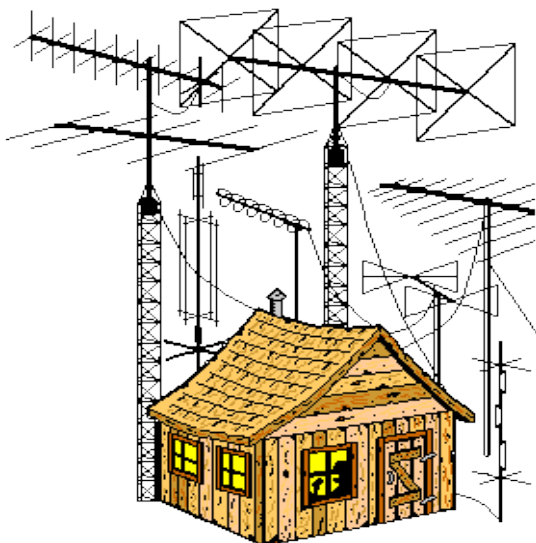
(Note: You must be an ARRL member to apply for the award – an advantage of ARRL membership!)



BVRC-30 WAS AWARDS

- #1 Michael Kemper – W5KMK
- #2 Jan Hagan – WB5JAN
- #3 James Wood – N5ZMX
- #4 Mark Whatley – K5XH
- #5 Mike Calvi – KF5RUO
- #6 Tom Thibeault – KN4SLP
- #7 Don Cooper – KC7DC
- #8 Dennis Tune – W9DCT

(If you have HF privileges and an HF rig, join these club members on the BVRC 30th Anniversary award Worked All States list and acquire your WAS! The deadline for working all 50 states is Dec. 31, 2023. Award rules and guidelines are available from Don – K5DB: arsk5db@gmail.com Go work ‘em!)



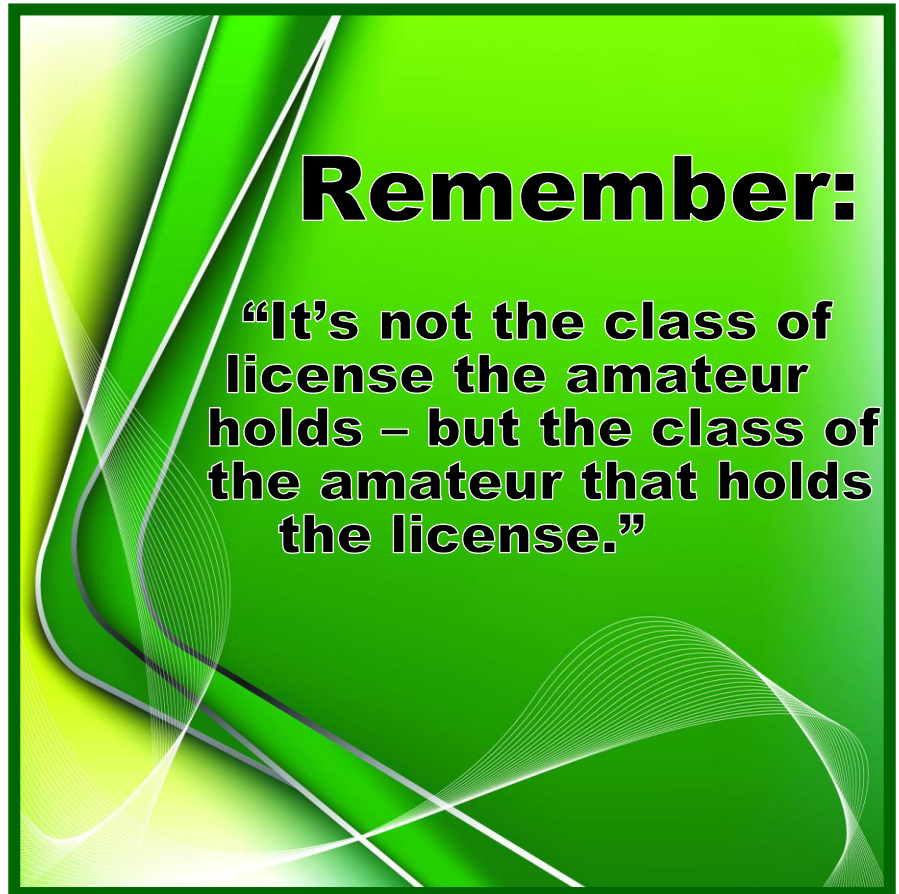
***BVRC TECHNICIAN LICENSE CLASS
A SUCCESS!!!***

THE BVRC 2023 TECHNICIAN LICENSE CLASS BATTED 1.000 WITH FIVE STUDENTS ATTENDING, AND ALL FIVE GRADUATING! INSTRUCTOR TOM NORTHFELL – W5XNA DID A STELLAR JOB TEACHING THE 2-SATURDAY CLASS, AND THE STUDENTS DID A FINE JOB IN PREPARING FOR THEIR INTRODUCTORY LICENSE EXAM. THE CLASS WAS HELD ON JULY 22 AND JULY 29.

CONGRATULATIONS TO THE GRADUATES: JOEL SCOTT – FAYETTEVILLE, CHRIS ROLLS – BENTONVILLE, WAYNE BLANKENSHIP – SPRINGDALE, JOHN ATCHISON – SPRINGDALE, AND BOB EOFF – TONTITOWN. WE WISH THESE FIVE THE BEST AS THEY BEGIN THEIR HAM RADIO JOURNEY AND HOPE TO SEE THEM AT MANY BVRC MEETINGS AND EVENTS!

Remember:

“It’s not the class of license the amateur holds – but the class of the amateur that holds the license.”



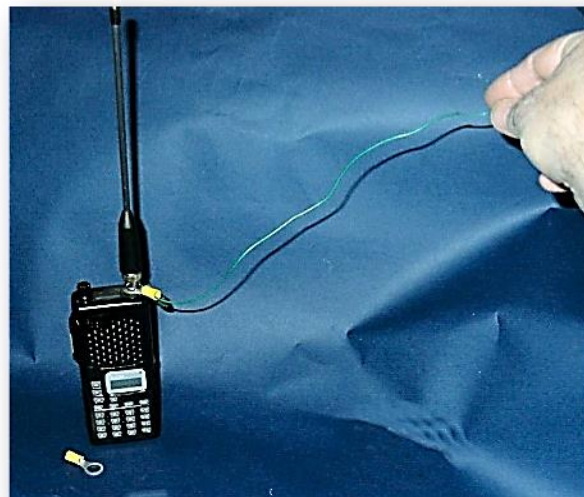
DOUBLE YOUR RANGE

A Counterpoise For Your Handheld

The counterpoise (sometimes referred to as a 'Tiger-Tail') is typically used in antenna systems for radio transmitters where a good earth ground connection cannot be constructed. In this application, it is simply a 19-inch length of common wire attached to the ground of your hand-held transceiver antenna terminal.

In the photo, it is attached to a ring terminal with sufficient diameter to fit under the antenna. Alternatively, it can also be stripped of insulation and simply be wrapped around the antenna base, as long as it makes a good electrical contact.

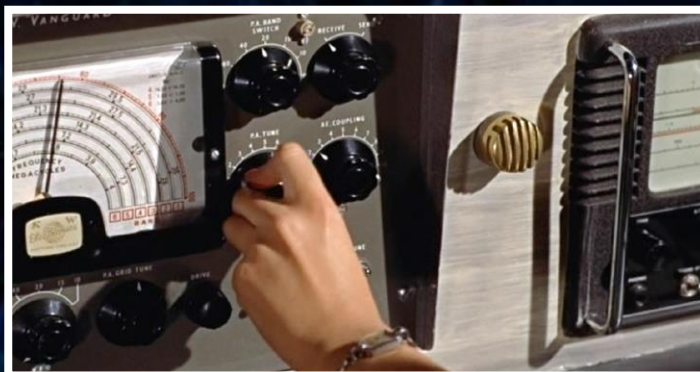
It is very effective in extending the range of a portable transceiver in that it provides the 'missing' half of the dipole antenna for 2m or 70cm operation. In order to keep antennas short and manageable, radio manufacturers coil the antenna wire into a rubber covered spring – half the antenna. The transceiver body is the other half but is not very effective from an RF perspective. Those little rubber antennas can have a very high SWR, power reflected back to your radio rather than radiating out. The counterpoise left hanging straight down beside the radio on receive and transmit provides a much more efficient solution. Try it with a weak station – you'll surely notice the difference. (Authored by John Schouten – VE7TI)



James Bond and Ham Radio???



When Sean Connery first hit the big screen as James Bond in the 1962 motion picture "Dr. No", isn't it ironic that in one of the first scenes of the very first picture of a series of Bond movies that would span decades ----- you see a ham radio. A British Secret Service secretary unveils a hidden ham station to make a check-in call to the home office in London from Jamaica.



It's difficult to identify the receiver, but the transmitter is a British built K.W. Electronics Vanguard. It ran a pair of 6146 tubes for the finals and had an RF output of 50 watts. It was manufactured from the late 1950s through the 1960s in Kent, England.

RUNNING SPLIT MODE

Single sideband (SSB) operations on the HF bands sometimes require slightly cleverer operating techniques than we're accustomed to with most FM or digital operations on the VHF/UHF bands. Operating in split mode is one of those techniques that can come in handy in a difficult situation. Here's the scoop...

Suppose you're dialing across the 20-meter band one fine sunny afternoon, and you hear a station calling from Mauritius, an island in the Indian Ocean off the east coast of Madagascar. What a DX catch that would be! But after hearing the snippet of the station operator's call followed by "QRZ" or "CQ", your receiver gets blasted with a pile of strong, local (mostly USA and Canada) transmissions, all in response to the Mauritius station's call. And some of the US stations go on and on for many seconds, striving annoyingly to make their call signs heard to Mr. Mauritius, the highly desired and rare DX contact.

As a result of the cacophony of strong-signal responses in the US, no one was able to hear the relatively weak signal of Mr. Mauritius responding to one of the stations in the pileup that he desired to contact. Everybody loses because of this operational inefficiency – even though contacts will be made within the chaos, a larger number of contacts could be achieved in the same time with smarter operating.

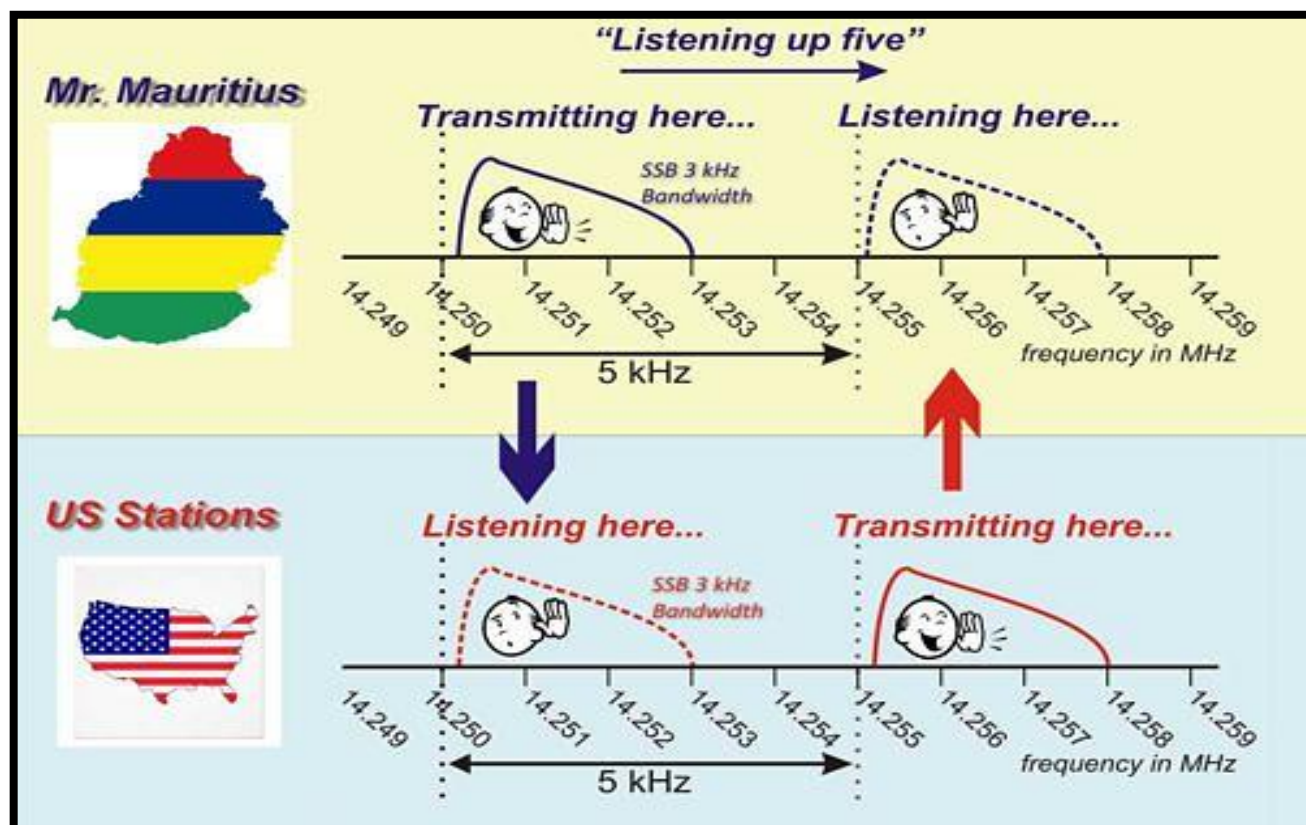
There is a better way to handle such a pileup. The highly desired station that is running the pile up can operate in **split mode**. In split mode, the operator adjusts the transceiver to transmit on one frequency and receive on a different frequency. With the other stations complementing this operational arrangement, the pileup chaos is reduced significantly.



Let's look at this scenario again, but with split mode operation:

- Mr. Mauritius establishes a 5 kHz split: He transmits on 14.250 MHz, but he listens (receives) on 14.255 MHz.
- The pileup stations complement by moving their transmit frequency to 14.255 MHz while receiving on 14.250 MHz, *exactly inverse* of Mr. Mauritius.
- Mr. Mauritius picks out a station callsign from the pileup heard on 14.255 MHz and responds with a transmission on 14.250 MHz.
- The strong-signal pileup stations are no longer transmitting on 14.250 MHz, so the weak signal of Mr. Mauritius can be heard by the pileup stations without all the strong QRM masking his signal on *his transmit* frequency.
- The lucky pileup station identified by Mr. Mauritius gets the contact, the other stations hear that he is not responding to them, and end their raucous transmissions to await the next "QRZ" call from Mr. Mauritius so they can try again.

With this operating technique, the pileup runs smoother, more efficiently, and more contacts can be squeezed into the airtime made available by Mr. M and the often capricious atmospheric conditions of our planet. However, this is not the end of the story.



In order for split mode operation to work well, everyone needs to play along. Just as with our imagined scenario, there will be other stations tuning across the band and discovering this exceptional DX contact opportunity over time. And those stations will jump into the fray, transmitting in ignorance on 14.250 MHz instead of 14.255 MHz because that's where they hear Mr. M transmitting. The whole problem has again reared its ugly head.

So, it's up to Mr. M to run the pileup properly. He should include the split mode information in his transmissions very frequently so that new stations stumbling across the pileup understand the protocol. For instance, Mr. Mauritius may want to state at the end of each contact, "This is 3B8DX listening 5 up." This way, any new stations wishing to attempt contact will know to set up a split mode on their transceiver and transmit 5 kHz above his transmit frequency (which is also their listening frequency).

Other splits are also common, with the DX station listening 5-10 kHz up, or even a larger spread. In rare occasions, the DX station may be listening down as well as up (as in our example).

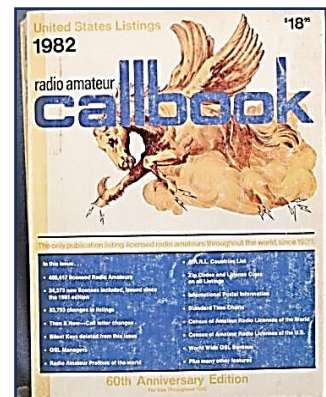
You will find split mode in operation quite common, especially when DXpeditions are on the air. It is just a better, easier, less confusing, and more efficient method of operation to handle pileups. (Authored by Stuart Turner, WØSTU)

LOOKUP FRIENDS FROM LONG AGO AND SILENT KEYS ON THE INTERNET ARCHIVE



Just as the Internet Archive is now storing BVRC's Signal issues into their gargantuan database, they have also stored pages from many hard copy editions of The Radio Amateur Callbook from years gone by:

<https://archive.org/details/callbook> .



For those of you with family or friends from long ago, or who are now SKs (Silent Keys), check out the archive and take a stroll down memory lane.

By the way, The Radio Amateur Callbook is still available today on CD-ROM. (<https://www.callbook.biz/>)

KE6BY	A	Jan A Hagan, 11985 Via Zapata, El Cajon	CA
N4UJS	G	Glenn D Kilpatrick, 3195 Spring Dr, Doraville	GA 30360
WASIED	E	Mark S Whatley, 2748 Ed Edwards Rd, Fayetteville	AR 72701
KA5DGH	A	Harvey J Bromlèy, 102 Stirling Ct, Fort Smith	AR 72903
WN5BOT		RONALD L. EVANS, 6805 CLOVERDALE DR, LITTLE ROCK	ARK
WN5XN	E	Charles C Fillionson, 506 Andr. Springdale	AR 72764
WN5ZKE	N	RALPH D BANTA, RFD 1, GREEN FOREST	72638

THE DXCC DEN



This month's featured country:

Vatican City

Callsign prefix: HV



Vatican City, officially termed Vatican City State, is a landlocked independent country/city-state and enclave within Rome, Italy. It became independent from Italy in 1929 with the Lateran Treaty.



Vatican City flag

With an area of 121 acres and a 2019 population of about 453, it is the smallest country in the world both by area and population. As governed by the Holy See, Vatican City State is an ecclesiastical state ruled by the Pope who is the bishop of Rome and head of the Catholic Church.

Vatican City contains religious and cultural sites such as St. Peter's Basilica, the Sistine Chapel, and the Vatican Museums. They feature some of the world's most famous paintings, sculptures, books, and documents.

The word "Vatican" is derived from the name of an Etruscan settlement, Vatica or Vaticum, located in the general area the Romans called Ager Vaticanus, "Vatican territory".

Concerning amateur radio, the callsign prefix for Italy is "I". Since Vatican City is not Italy but its own principality, any ham station within Vatican City has the callsign prefix "HV". To obtain a ham license for Vatican City, approval must be granted by the Governor of the State and the Secretary of State of the Holy See.

In present day, the official ham station in Vatican City is **HVØA**. The station manager is Francesco Valsecchi – IKØFVC. Francesco lives about 10 miles from the Vatican station in the northern part of Rome, and his own personal QTH and shack are located on one of the highest locations within the city.

Francesco is an avid amateur operator in his own rite. He has achieved 10-band DXCC, 5-band Worked All Zones, #1 ARRL DXCC Honor Roll on SSB (he hopes to achieve #1 CW soon), and on May 20th, 2021, he was inducted into the CQ DX Hall of Fame.



**Sunset at Vatican City
amateur radio station HVØA**



HVØA antennas



Francesco – IKØFVC at the HVØA controls

All equipment at HVØA is donated. Currently, the station uses two Icom 756 Pro transceivers, a Kenwood TL-922 linear amplifier, and a full auto-tune Expert linear amplifier. The antennas include a vertical, dipole, and a SteppIr beam.

The station is located on the campus of The Pontifical North American College in the southern portion of Vatican City.

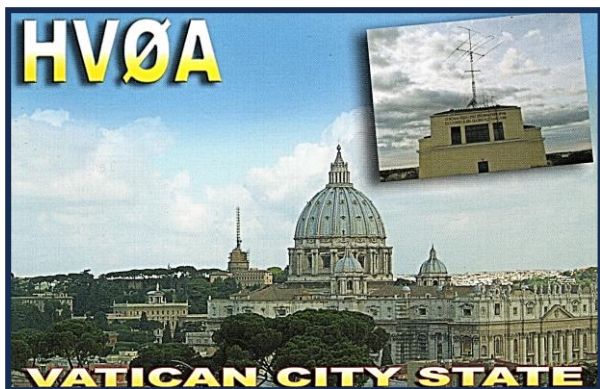
The multi-building, multistory complex guards HVØA with strict security and a guarded gate. A panoramic view of Rome is available from the building’s rooftop.

One highlight of operation from HVØA occurred in 2016 when Martin Faraglia – IN3EYI became the youngest amateur to operate the station at age 13. You can see a 3-minute YouTube video of Martin’s operation [here](#).

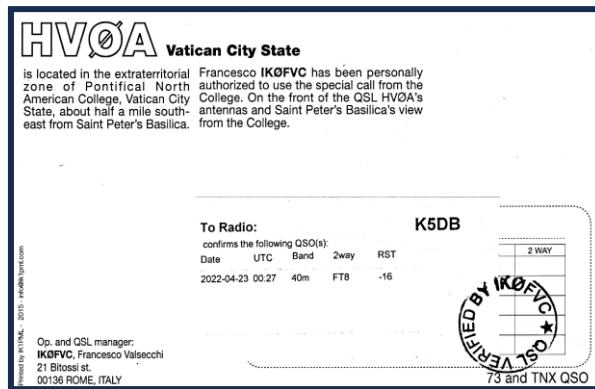
Vatican City is fairly rare as there is only one station there. Currently, it is #105 on the Club Log Most Wanted List. It is one the air infrequently depending on when station manager IKØFVC activates it, or allows a guest operator to operate. Francesco says he receives hundreds of requests to operate HVØA and, of course not having the time to honor all of them, he is very selective on who he allows to operate. So, activity from the station is generally sparse.

I worked HVØA last year when it was on the air commemorating the 100th anniversary of the trans-Atlantic Marconi radio tests. (It was the first time I had ever worked the Vatican, and it was on – you guessed it – FT8.) It was, to me, a small miracle Francesco copied me, because I worked him at 4:30 in the afternoon our time.....on 40 meters! (One of the advantages of running FT8 at times.)

The best way to work the Vatican is to watch the DX websites for announcements of when it is going to be on the air ([DX News.com](#) is a good one), as well as keeping an eye out on the DX spotting websites.



Front and back of my HVØA QSL card



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 type of 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.

I always get excited when a club member sends-in an article to place in the newsletter! We have already had numerous club members submit some really good ones, with more to come! Jump on the bandwagon with us and send ‘em in! We look forward to hearing about any and all interesting radio related stories from you!

Send your story or article to Don-K5DB at: arsk5db@gmail.com

THANKS & 73!

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