

Ham Chatter



Volume 56 Issue 2

An Official BARC, W4AMC, Publication

February 2022

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BARC General Meetings, Mask Required

Have you paid your Membership Dues?

BARC Club Event Feb 19-20, 2022

Voice Of America Anniversary Event

BARC will be the "W4A" Station in the Greenville, NC area. Other stations will be "W3V" in Washington DC and "W8O" in West Chester, OH.

Operations will be on 20, 40 and 80 Meters. Modes are CW, SSB and Digital FT8. Volunteers are needed to operate and any additional work to log etc. Please Contact Peter on how you can help.



BARC's Next Meeting in Person and Zoom Feb 8, 2022 at 7PM,

Location:

Oakwood School, in the Music Room. 4000 MacGregor Rd, Greenville, NC.

All members, families and guests are invited to attend.

Speaker:

Clark Macaulay, WU4B, "Little Pistol With Wires." Southeastern DX Club
North Georgia QRP Club.

Following Meeting is March 8, 2022.
Josh Landewee , DMR (BridgeCom)

Reminder, Dues were due January 1,

Please send in your checks to the Treasurer or go to our W4AMC.com webpage and use PayPal. Thank you.

Awaiting Surgery

Rick W4ZRA had a heart attack, two weeks ago, as of Jan 24,2022. Awaiting heart Surgery.

Board Meeting - Feb 22, 2022
The meeting will be on ZOOM at 7:00 PM. All members invited.

VE News

To find the next VE testing session please go to the ARRL web site: <http://www.arrl.org/find-an-amateur-radio-license-exam-session> and find one in your local area. For local Hams, look up Gerald KN4CKL as he has been doing limited testing all through the pandemic. GO Gerald!!!!” You will need a reservation in order to be tested. Practice taking the test on line with <https://www.hamradiolicenseexam.com>. Study material at: <http://www.arrl.org/courses-training>.

The contents of this Newsletter doesn't necessarily express the opinion or views of Brightleaf Amateur Radio Club or it's members. No offence is intended.

Happy Birthday

Brightleaf Amateur Radio Club members birthdays :

02-10	AC4JL	James
02-11	KK4GC	Gary
02-15	N4PVH	Peter
02-17	K4ROK	Doug
02-22	K4HMW	Dan

Please let me know of any additions or corrections. If yours is missing, I don't have it! Email hamchatter@w4amc.com

Next VE Session

Please bring to the Test the following, required:

- Photo ID (drivers license)
- Original Amateur Radio License
- Copy of Amateur Radio License
- Original CSCE's
- Copy of CSCE
- Test fee (Cash) .
- ◆ FRN number is required. *
- ◆ A valid Email address will need to be provided.

See this link for further information: <https://w4amc.com/get-your-license-ve/>

Gil Cartoons Courtesy of ARRL's 2021 Calendar(2020) and Gil, a Collection of Classic Cartoon from QST(1986-2007)

Articles in the Chatter may be from the ARRL Newsletters, ARES Newsletters and Section Managers. Others may be Material provided by others. Please respect possible copyrights.

Well Wishes

Thoughts and Prayers go out to the following:

N4PVH Peter, for working so hard on the VOA and other projects.

Rick W4ZRA - heart attack

Please inform the Vice President and Ham Chatter of any changes or needs. This can be of death announcements, sickness or prayers requested.

Presentation Ideas Needed

Please send ideas of new presentation topics and presenters to our new 2nd VP Judy W3JUJ
Email: info@w4amc.com

BARC Needs YOU!

BARC needs to know where You think we should go as a Club.

Service the Community, Contesting, Teaching, Elmering, What? Give us your thoughts.

Contact Peter or the Ham Chatter

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PUBLISHED MONTHLY BY THE BRIGHTLEAF ARC, P. O. BOX 8387, GREENVILLE, NC 27835 * NON-COPY - RIGHT MATERIAL CONTAINED HEREIN MAY BE REPRINTED WITHOUT PRIOR PERMISSION WITH CREDIT GIVEN TO THIS PUBLICATION * PRESIDENT - PETER , N4PVH * 1ST VICE PRESIDENT - BYRON, K4BMH* 2ND VICE PRESIDENT - JUDY, W3JUJ * SECRETARY - BETH , KN4FZB, * TREASURER - TERRY, K4ZYD, * VE LIAISON - GARY , KK4GC *PUBLIC RELATIONS/PUBLIC SERVICE COORDINATOR - VACANT * W4AMC/W1VOA/W4UHS TRUSTEE'S, BILL , WA4SLC and DAVE, W4EJ * HAM CHATTER EDITOR - MARK , KG4GVJ * WEBMASTER - PETER , N4PVH * EMAIL ADDRESSES ON BARC WEB SITE * OPINIONS BY WRITERS MAY NOT NECESSARILY BE THAT OF THE BRIGHTLEAF ARC * CONTRIBUTIONS ARE TAX DEDUCTIBLE. .

President's Corner, Peter, N4PVH



Dear Members:

Another month has rolled by and as I write this, we are freezing with snow on the ground! Let's dream of field day and 90 degree weather! As I promised a long time ago, there is a BARC Roster on the [web page!](#) It is protected by two passwords. One to get you to the protected page, and the second one to actually download and open the file. These passwords will be sent via email to all current members shortly. If you have made dues payment after the date of the roster, it will not show up until the next edition of the roster is published (about once a month). If you find errors in the roster, please send me a [Contact!](#) form from the web page with the issues that need correcting. Thank you.

Dues are DUE! Please support your club now as two years of the pandemic has made all of us "sofa vegetables" or "couch potatoes" and all of us have not participated in much. Let's get out there and enjoy the hobby this year. Dues are still \$20 for regular members. Please go to the [membership page](#) and fill out the new application form to update your info and send your check by mail (or use PayPal on the page). If you are not a paying member, you will not be able to use the antennas at VOA via remote control when this project completes! There are many other benefits to membership, I will spare you the sales pitch.

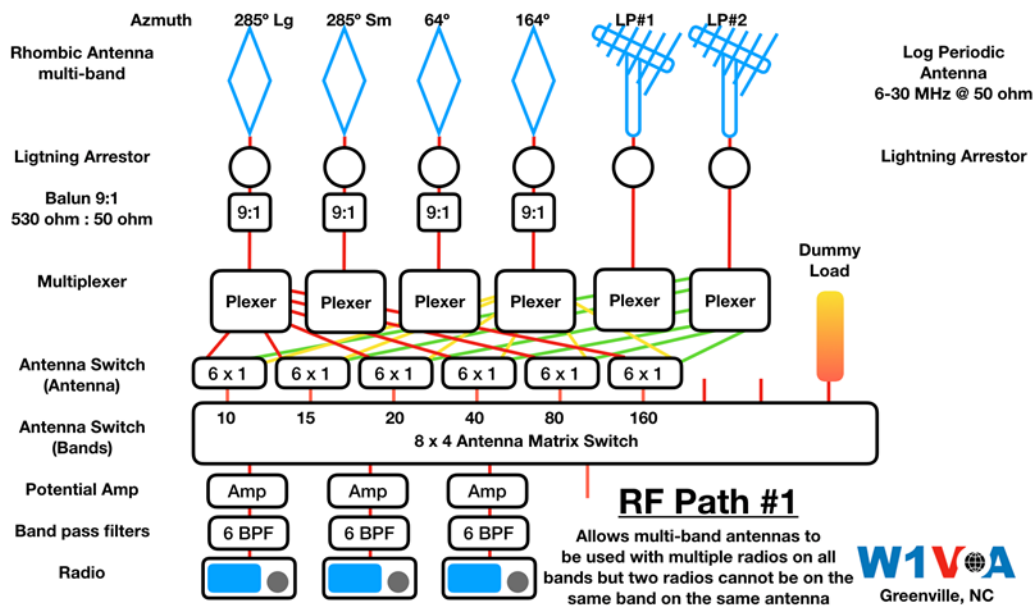
Next up: **VOA 80th anniversary** of the first transmission being celebrated on **February 19-20th, 2022** from 9am to 5pm each day. We are one of three special event stations: W8V (Ohio), W3O (Washington DC), W4A (Greenville, NC) where the suffix spells "**VOA**" for the event. We need operators to sign up by sending me an email. You can either work from your ham shack or come to one of ours to run the stations and make a ton of contacts. We need to make sure we collect the "contacts made" placed in an ADIF file and emailed to me so that we get QSO contact info and the cards out to them on time. We suggest the free logging software N1MM but if you can produce an ADIF file with your favorite logging software, we do not mind. We need to coordinate the passing of the call sign W4A to each station at shift change so that there is only one W4A on each mode. We will take turns running about two hours each then use the local repeater to pass the "torch" (W4A) to the next operator for that mode. Please send me an email to info@W4AMC.com to volunteer a time and mode to operate.

President's Corner

Continued

BREAKING NEWS * * * Unfortunately our first Vice President Byron K4BMH has resigned his position as he has been pulled in many directions at the same time and cannot commit the time to the BARC Board. He can and will continue to be the "EnComm Chief" for BARC and will post issues and information about AuxComm/EmComm on the BARC web page dedicated to this topic as things surface. Thank you Byron for trying to help as much as you could but we all understand the family issues come first. We need someone to step up to the plate and volunteer to be first VP NOW! Please email me, info@w4amc.com of who you think might fit the bill (nominate someone! Can you see in your minds eye the Uncle Sam poster that said "We need YOU for the U.S. Army!").

Now on to THE PROJECT OF THE CENTURY: VOA Site C. Here is a progress report: We have contacted contractors to get estimates for the antennas to be checked out, repaired and the feed lines replaced. We have redesigned the ham shack to accommodate the new radios so that we can compete in contests and do emergency communications when needed (has generator power and high speed internet to the room). In order to get the grants to make this possible, we also need to do education (state mandate to ECU) and we need to develop educational or community service for our grant to float to the top. Here is a proposed diagram of how the radios will be connected to the antennas. This allows multiple radios to use the same multi-band antenna on different



bands. With filters, it should eliminate harmonic interference between the bands (as I understand it). Eventually we will integrate the station so that with any browser on any device can connect with the station and use it. There is the possibility of configuring the interface in such a fashion that hand-hams could also use the station. More development will need to happen.

The excitement that this project is generating is astounding. We will be interviewed on several blogs (Ham Nation) right before the 80th anniversary event (Feb. 13) and again by QSO Today's Eric Guth at the QSO Today Expo. Stay tuned as this is really exciting! Hopefully we will get funding to make this all happen.

BARC Board
January 25, 2022

In Attendance:

Richard Campbell W4JNC, Bill Dawson WA4SLC, Beth Gonzalez KN4FZB, Dave Langley W4YDY, Mark Raysin KG4GVJ, Gerald Seighman KN4CKL, Peter Van Houten N4PVH, Dave Wood W4EJ

Reports:

Secretary: Read minutes from last meeting, they were approved.

Business:

Peter has developed a password protected section of the webpage for us to post any information that might be sensitive or private. Check your email for the passwords.

The club has been having trouble sending emails to suddenlink addresses. If you have an @suddenlink email, please send a message to Peter with an alternate email.

Peter has arranged for us to have the site W1VOA.com for info and updates about the project.

Our February 8th speaker is Clark McCauly WU4B, from Little Pistols With Wires.

There is a new application for renewal or membership on the website and the meeting page has been updated.

Join us February 19 and 20 from 9-5 to commemorate the 80th anniversary of the VOA's first broadcast overseas. We are watching the weather and checking with ECU about operating from the VOA site. We would not have access to the building, just the BARC trailer. Dave will operate from his house. You can operate from your own location too. We are hoping for three operators on each mode, CW, digital, and SSB. We are building the schedule now.

Need to log name and callsign and be able to export an adif file to Peter. He and Richard will take care of certificates and qsls.

If your contact is registered on QRZ, (s)he will receive an electronic qsl.

FT8 has a macro that can be set to identify as the special event (VOA 80 W4A)

Lou will help at Dave's need to cover 20, 40, and 80 with digital, cw, and ssb, Need to do 9-5 on Saturday and Sunday Gary Faust to help Sunday am.

Richard wants cabrillo file

Play with your database and get familiar with it m1mm

Two other special stations, W3V in Washington, DC, and W8O in West Chester, Ohio.

If anyone asks about the VOA Project, send them to W4AMC.com for details and photos.

Any suggestions for presentations for Judy?

VOA Project:

We are trying to get access cards and keys, waiting on that to come through from ECU.

ECU has agreed to fiber optic internet, with four drops into the radio room, which means super high speed internet. The room is also in a part of the building that is backed up by a generator

There is old equipment that needs to be sorted. Some is non-radio related junk that was stored there but some things might still be useful or of interest to a museum.

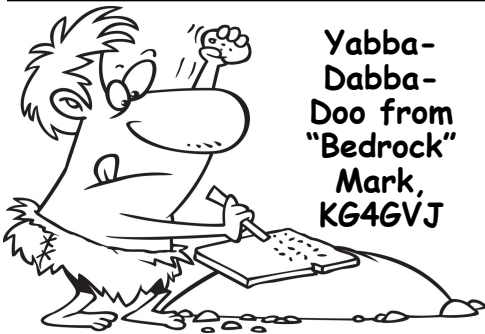
Flex radios are being priced right now, can be automated to give access via android, iphone, or laptop.

Feedlines are being supported on telephone poles, and lightning arrestors and ground rods will be just outside.

As part of the grant application process, we need to submit a concise narrative explaining how the project will provide community engagement, especially to young and new radio amateurs, how it could be used educationally, for training and licensing, or offering historic lectures.

Let's brainstorm some ideas that would fit those categories and submit ideas.

Submitted by Beth KN4FZB



Other Club's Zoom Meetings and News

Forsyth Amateur Radio Club (FARC) W4NC

Like us, FARC is also having to deal with the Virus these days. They meet on the 2nd Monday of the month at 7:30 PM at the Red Cross Blood Center on Coliseum Drive in Winston-Salem. As this is a medical site, mask are required please.

ARES/Auxcomm training is on the 3rd Thursdays at 8:30 PM at 897-9792-5844.

Tech-Talk is on Wednesdays at 7:30 PM (informal) 549 621 524.

Password is their Call sign. From FARC website.

Due to Valentines Day, the meeting will be the **THIRD MONDAY**, February 21.

New Bern Amateur Radio Club started Live Meetings

Next meeting @ 6:30 PM (Always 1st Monday of each month) at Moore's Old Tyme Chicken, BBQ & Seafood, 3621 Dr. M.L.K. Jr Blvd. New Bern, NC 28562 (next to Harris Teeter Shopping Center). Be sure to drop by and check out the New Bern Amateur Radio Webpage at <https://nbarc.org/> and check out the wealth of info on the LINKS page at <https://nbarc.org/ham-links/>

Valentines day is coming folks!

Perhaps we should look around us and thank those who has put up with us and our Hobby. Not to mention some being away for long periods of time as they take care of parents and other needs.

Well with snow forecasted, I had put out a special one pager to remind folks to charge up batteries. Glad I did mine. Had one that took a few hours to reach full charge. Glad we didn't need them and glad I was somewhat prepared.

Interested in the Ham Chatter?

If you are not receiving *Ham Chatter* email notices and would like to receive them, please send an email to hamchatter@w4amc.com so we can get your email address. You may miss some important BARC notices. - *KG4GVJ*

Help the Editor.

Do you have something to say or post? Want to write an article? Any ideas? Comments and notice's of help needed (Personal or club needs or activities. Can be BARC related or other Club's). Have interesting photo's or articles? Done something related to radio? Please let us know and we may add them to the Ham Chatter and web page Blog.

Send it along to the Editor at Ham Chatter. We will see if we can fit it in.

Be a Net Control

Volunteer to help with the Weekly Net for BARC, or other nets. All are welcomed. It's great practice for if you need it for later, it's like First Aid training. A script is available to read off of to help in the progress on the web site.



Please note that a full color pdf of this communication is available here: http://arrl-roanoke.com/Roanoke_Newsletter_New_Years_2022.pdf

Greetings and Happy New Year! I wanted to take a moment to wish everyone a healthy and happy 2022 ahead. Not only is it a new year, but also a new term of office for Roanoke Division officers. Vice Director Bill Morine, N2COP, and I will be representing through 2025 the almost 12,700 ARRL members in the four sections which make up the Roanoke Division - North Carolina, South Carolina, Virginia and West Virginia. I am a practicing physician, so most folks call me "Dr. Jim."

Many of you may recall I served as Roanoke Division Director from 2015-2018 and was the Division's Vice Director before that from 2010-2015. Prior to that time, I served as South Carolina Section Manager from 2003-2009. After serving as an ARRL elected representative for 16 straight years, it was quite an adjustment for me to no longer serve in that capacity. However, while I was out of office for three years, I retained a good grasp on the issues affecting the thousands of Hams in our region and am ready to "hit the ground running." I am very pleased and thankful to return as your ARRL board representative.

For those who voted for me in the Roanoke Division Director election, I thank you from the bottom of my heart. For those who didn't, I hope that I can gain your confidence over the next three years.

We all should take a moment to thank my predecessor Bud Hippisley, W2RU, for his service. Pandemic restrictions limited much of his personal appearances while in office, but in conjunction with many clubs and organizations, the Roanoke Division's leadership reached out to many members through videoconferencing. Bud also spearheaded the movement to revitalize how ARRL approaches public service and emergency communications. The reorganization he began is at the front end of the process, but he left a foundation upon which we can build to make ARRL's efforts in this arena once again dependable and effective.

I also wish to thank one of my other challengers in the election, Marv Hoffman WA4NC, North Carolina Section Manager. Within a few minutes after the election results were known, he reached out and offered to me any help I needed in my role as Director. I have already taken him up on his offer, and I thank him for his knowledge and experience.

We are beginning to see encouraging signs of in-person meetings starting again. (Further down on this newsletter is a list of clubs which have filed to hold in-person hamfests, most of which had to be cancelled in 2020 and 2021.) You can count on us to be staffing the ARRL table at those hamfests designated as section, state, and division conventions, and to be speaking at the ARRL forums on issues affecting you. We will work closely with leadership in your sections to ensure that matters which impact you will be addressed.

ARRL's Washington counsel recently delivered some encouraging news – as part of her recent confirmation hearings to become Chairwoman of the FCC, Commissioner Jessica Rosenworcel made a commitment to Connecticut U.S. Senator Richard Blumenthal that she will address many outstanding issues affecting Amateur Radio. In addition, a fulltime person dedicated to Amateur Radio has reportedly been hired, filling a vacancy left open for many years.

Meanwhile, Solar Cycle 25 keeps improving steadily, with the Solar Flux Index hitting a new high of almost 140 just before Christmas.

All these signs point to better times ahead. Above all, we are grateful for your being an ARRL member. It costs an average of 13 cents per day to be an ARRL member, a negligible amount to get the most out of one of the greatest hobbies/services around. Bill and I look forward to hearing from you and seeing you in the years ahead.

'73 de Dr. Jim N2ZZ, Roanoke Division Director Bill Morine N2COP, Roanoke Division Vice Director

UPCOMING HAMFESTS IN THE ROANOKE DIVISION

Friday & Saturday, March 11 & 12, 2022

Charlotte Hamfest

Cabarrus Arena & Event Center - Gold Hall, 4751 Highway 49, Concord, NC
28025

Website: <http://www.charlottehamfest.org>

Talk-In: 146.655

Saturday, March 19, 2022

Charleston Hamfest, the West Virginia Section Convention Charleston Coliseum and Convention Center, 200 Civic Center Drive, Charleston, WV 25301

Website: w8gk.org

Talk-In Freq: 145.35 91.5 PL

Sunday, March 27, 2022

Winterfest, the ARRL Virginia Section Convention Northern Virginia Community College, 8333 Little River Turnpike, Annandale, VA 22003

Website: <https://viennawireless.net/wp/events/winterfest/>

Talk-In: 146.685 MHz Repeater (neg offset, 110.9Hz CTCSS))

Saturday, April 16, 2022

RARSfest—the ARRL Roanoke Division Convention North Carolina State Fairgrounds, 4285 Trinity Road, Raleigh, NC 27601

Website: <https://www.rarsfest.org>

Talk-In: 146.640, no tone

Attention Club Officers: Please be sure your club's listing on ARRL's website is up to date, especially if you have changed officers in the past year. It's important to keep this information current so prospective members and those interested in your club can find you and how to contact someone. Updates only take a few minutes. Go to:

<http://www.arrl.org/club-update>

Please visit the Roanoke Division website: www.arrl-roanoke.com and follow us on our Facebook page: ARRL Roanoke Division

We are looking forward to seeing you at a hamfest or working you on the air in 2022

'73 de Dr. Jim Boehner - N2ZZ

Director

n2zz@arrl.org

Bill Morine - N2COP

Vice Director

n2cop@arrl.org

ARRL Roanoke Division

Director: James F Boehner, N2ZZ

n2zz@arrl.org

Amateur operation in the 3.45 - 3.5 GHz of 9 centimeters must cease by April 14, 2022.

Secondary operations will be permitted to continue indefinitely in the remainder of the band, 3.3 - 3.45 GHz, pending future FCC proceedings. On January 14 the FCC [released](#) DA 22-39, which announces the results of Auction 110 for the 3.45 - 3.55 GHz band. Release of this notice triggered FCC rules adopted last year requiring that amateur radio operations between 3.45 GHz and 3.5 GHz cease within 90 days of the public notice. In October 2021, ARRL President Rick Roderick, K5UR, urged Congress to direct the FCC to preserve Amateur Radio's secondary use of the 3 GHz band in a written [statement](#) responding to H.R. 5378, the Spectrum Innovation Act of 2021, before the US House Commerce Communications and Technology Subcommittee. A [chronology of actions](#) responding to amateur access on the 3.5 GHz band can be found on the ARRL website.

Greetings from the High Country.

We have had some bitterly cold weather in the past week but this week we expect milder temperatures, less wind and some rain. On January 7, near Tweetsie Railroad, we had a wind chill of -5 degrees. Winter certainly has arrived and the ski slopes have a good coverage of man-made and natural snow on their slopes.

MONTHLY SECTION TRAFFIC NET REPORT

Here is an abbreviated version of the monthly Section Traffic Report submitted by Dave Roy, W4DNA, STM for North Carolina. The ARRL email system makes it very difficult to include Word or Excel files so the report is truncated. A complete copy of the December 2021 STM report is posted at the NCARRL.org web page.

W4DNA - NC Section Net Report - DECEMBER 2021

NET	NMGR	QNI	LISTED	PASSED	TIME	SESSIONS	TFC %	
SECTION NETS								
CN	KC4PGN	417	116	102	559	62	87.93%	
CSN	KI4KZS	129	24	22	585	31	91.67%	
NCEN	WK4WC	337	101	95	494	31	94.06%	
NCMN	W3OJO	339	156	150	623	31	96.15%	
THEN	K4SEH 306			521	28			
LOCAL NETS								
CWTN	N4CNX		438	149	149	732	31	100.00%
ENCTN	W4DNA	126	33	33	221	31	100.00%	
PCTN	W4TTO	240	58	58	295	31	100.00%	
TOTAL		2332	637	609	4030	276	95.60%	

BULLETIN – NATIONAL TRAFFIC SYSTEM TRAINING

Dave Roy, W4DNA, Section Traffic Manager, asked me to include information on a set of Zoom training sessions covering NTS procedures that will be useful to new operators and those who wish to brush up on their NTS skills. John, N4CNX, will lead three sessions running from 7:30-9:30 p.m. on January 17, 24 and 31. If you wish to register for this training, John asks you to send an email to 232trull@gmail.com advising your call sign, email address and a valid phone number. John will reply to you with a link and password to the Zoom sessions. Certificates will be issued to operators who complete the course and its assignments.

CONGRATULATIONS TO NEW HAMS

The Five County Ham Radio Enthusiasts VE Team, led by Richard Hall, K7RLH, held a test session on this past Saturday which resulted in five new Technicians, one person who passed both Tech and General, one person who upgraded to General and one person who upgraded to Extra. Congratulations go out to the new and upgraded hams and to Richard and his team for making the test session possible.

ARRL MATTERS

The ARRL Board of Directors will meet on January 21-22, 2022. The Board Agenda can be found at <http://www.arrl.org/files/file/ODV/Board%20Meeting%20Jan%202022/01%20Agenda%20January%202022.pdf>.

Newly elected Directors in the New England and Roanoke Divisions will be seated and elections will be held for various ARRL Officers. Committee reports will be reviewed and acted upon by the Board.

Volunteer Monitoring Program Report.

Riley Hollingsworth, K4ZDH, head of the ARRL Volunteer Monitoring program, posted the December 2021 report which can be found at <https://www.arrl.org/news/the-volunteer-monitor-program-report-for-december-2021>.

You are encouraged to read the report to see that the volunteer monitors are doing a good job in identifying rule violations as well as examples of good operating practices. This month, monitors identified operators who were operating outside their licensed privileges and for excessive bandwidth. A notice from the VM program is not an action by the FCC against the operator but it does give the operator a heads up that they may be unwittingly violating rules. Commendations were also issued for good operating practices. Prior to the initiation of the Volunteer Monitoring Program in 2020, numerous hams felt that the bad actors were taking over the ham bands. Thanks go out to the volunteers and to Riley for their work in keeping ham radio enjoyable for all of us.

Emergency Management Director Hired at ARRL HQ

Josh Johnston, KE5MHV, formerly Director of the Johnson County (Arkansas) Department of Emergency Management, where he served for sixteen years, has joined the Headquarters Staff as the ARRL Director of Emergency Management. John is an Extra Class ham and will take over leadership of the ARES® program along with further enhancement to the ARES Plan which has been under review by the emergency Management and Public Service Committee that the ARRL Board created at its July 2021 meeting. Information about Josh can be found at <https://www.arrl.org/news/arrl-welcomes-new-director-of-emergency-management>.

ARRL Survey of 2020 and 2021 Field Day Participants

The ARRL Programs and Services Committee is conducting a survey of individuals and groups that participated in Field Day on 2020 and 2021.

The Committee is gathering data prior to making recommendations for Field Day Rules for 2022. Information about the survey and a link to the survey can be found at <https://www.arrl.org/news/arrl-surveying-field-day-participants>. The Committee has set a deadline of January 17, 2022 for persons who wish to offer opinions and input to Committee.

New Question Pool Released for Technician Exams – Effective July 1, 2022

The National Conference of Volunteer Examiner Coordinators has released the 2022-2026 Question Pool for Technician Exams beginning on July 1, 2022. Information about the changes in the question pool can be found at

<https://arrl.org/news/new-technician-question-pool-released-effective-july-1-2022>

HAMFEST INFORMATION

The following hamfests have been scheduled for 2022.

Orlando Hamcation will be held on February 11-13, 2022 at the Central Florida Fairgrounds and Expo Park. Information about the Hamcation can be found at <https://www.hamcation.com>. The Orlando Hamcation is reported as being the second largest hamfest held in the United States (second only to the Dayton Hamvention held in May).

The ARRL will hold its National Convention prior to the Orlando Hamcation. ARRL will have several morning and afternoon training tracks and its luncheon at the DoubleTree by Hilton Orlando at SeaWorld on February 10. Information about the ARRL National Convention and the training program can be found at <https://arrl.org/arrl-expo>

The Mecklenburg Amateur Radio Society will hold the Charlotte Hamfest on March 11 and 12 at the Cabarrus Arena and Events Center which is located at 4551 Old Airport Road, near Concord NC. Information about the hamfest can be found at <https://charlottehamfest.org>.

The Raleigh Amateur Radio Society will hold its RARSfest on Saturday, April 16, 2022 at the Jim Graham Building at the NC State Fairgrounds in Raleigh. Information about RARSfest can be found at <https://www.rarsfest.org/>

The Waynesville Hamfest is scheduled to be held at the Smoky Mountain Event Center (Haywood County Fairgrounds) which is located near Lake Junaluska. The date is July 23, 2022.

EMCOMM TRAINING

NCEM postponed several EmComm courses that were scheduled for January 2022. The Auxcomm class has been postponed until late March or early April at the Caldwell County EOC in Lenoir, NC. Persons who wish to take the course are urged to use the time between now and March to complete or upgrade the four on-line ICS courses (100c, 200c, 700b and 800d) which can be completed in about one hour each (and at no cost) at <https://training.fema.gov/is/crslist.aspx>. You are reminded that persons who travel 50 miles from home to attend the Auxcomm course are eligible to be reimbursed for mileage, meals and lodging in accordance with NC State Government Travel Policies. The Auxcomm course plus upcoming CommEx events will be listed here as well as in TERMS (<https://terms.ncem.gov/TRS/>).

BALLOTING UNDERWAY FOR NC SECTION MANAGER

Numerous persons have reported receiving their ballots for the NC Section Manager Election. Ballots must be received at ARRL HQ no later than February 18 in order to be counted on February 22.

SILENT KEY REPORTING

A sad but important part of the job of Section Manager involves advising ARRL HQ about the passing of hams so that their name and call is listed in QST. For example, I was advised of the passing of two hams in the past week or so and word has been sent on to ARRL HQ.

One was Jeff Blythe, KA4WYC, who was serving as the President of the Charlotte Amateur Radio Club, W4CQ. If you have ever been to the Charlotte Hamfest you likely saw and spoke with Jeff near the ticket counter or while he moved around in the hamfest. A second Silent Key that I learned of was Bill Turner, W4WNT, who lived near Waxhaw and was known as a Champion DX'er and past President of the Carolina DX Association. He was an on-the-air presence from Waxhaw and from Oak Island.

Both these gentlemen made significant contributions to ham radio and will be recognized in QST.

One of the more active clubs in the state recently posted a video tribute to its members who had passed away in 2021. I noticed that there were several hams whom I did not know had passed away and as a result word had not been sent to ARRL for their calls and names to be listed in QST.

If you know of a ham passing away, please drop me a line, including a link to a published obituary, so that appropriate recognition can be given in QST.

CLOSING COMMENT

ARRL HQ has asked me to request that each club designate someone to check on the accuracy of information on the ARRL webpage about your local club. Visitors and new hams use the club information at ARRL to know where and when club meetings are held and who the local officers are when seeking advice on local activities.

Marv, WA4NC
Boone

ARRL North Carolina Section
Section Manager: Dr Marvin K Hoffman, WA4NC wa4nc@arrl.org

ARES/AUXCOMM News



The five USB channelized 60-meter frequencies are available for interoperability (communication between services). By convention, Channel 1 is designated the calling channel. This convention is established to train the amateur radio community to reach out on Channel 1 in times of national emergency, for information from the federal government. The amateur radio community uses 60 meters on a secondary basis with federal agencies. This and similar 60-meter interoperability exercises are conducted during the first full week of each month. More information [here](#). - ARRL News

ARES Resources

- [Download the ARES Manual \[PDF\]](#)
- [ARES Field Resources Manual \[PDF\]](#)
- [ARES Standardized Training Plan Task Book \[Fillable PDF\]](#)
- [ARES Standardized Training Plan Task Book \[Word\]](#)
- [ARES Plan](#)
- [ARES Group Registration](#)

· [Emergency Communications Training](#)

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an amateur radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable, but is not a requirement for membership.

How to Get Involved in ARES: Fill out the [ARES Registration form](#) and submit it to your local Emergency Coordinator.

AUXCOMM Training

REQUIRED TRAINING

The State of North Carolina has mandated that all personnel performing any functions within any Emergency Operations Center, forward Command Post, or any Incident where Incident Command System (ICS) is used have

We suggest keeping clear of the Frequencies use by Hurricane nets during the Hurricane season along with posted frequencies during other Emergencies.

Editor

completed basic ICS training. This training is available via the FEMA Learning Institute's on-line training system at <https://training.fema.gov/nims/>. Training required is ICS-100, ICS-200, ICS-700 and ICS-800.

It is recommended taking the courses in the following order: ICS-700, ICS-800, ICS-100 and ICS-200. You will be asked to register for the courses and a certificate of training will be issued upon successful completion. Team members are requested to forward an electronic copy of their certificate's to the AuxComm - ARES EC at the email address below. Completion of these courses will permit AuxComm - ARES team members to perform Radio Operator at duties an EOC or other ICS Command location. Each course is self-paced and should take approximately 3 hours to complete on-line.

US Department of Homeland Security's AUXCOMM Course February 7-9, 2022 Orlando, Florida, precedes the ARRL National Convention hosted by HamCation -- The AUXCOMM class information can be found below. When asked how he enjoyed the course, Arc Thames, W4CPD, Assistant Northern Florida Section Emergency Coordinator said: "It was hands down one of the best emergency communications courses I've taken. It really tied together many of the other individual courses I had taken. The hands-on activities and the group exercise at the end were invaluable. If you're interested in emergency communications, this course is for you." Only 30 seats are available, so be sure to apply for the course as soon as possible.

Register now for the 2022 [ARRL National Convention](#) *Emergency Communications Training Track* -- Plan on attending the 2022 ARRL National Convention, set to take place at [Orlando HamCation®](#) on February 11 - 13. A day-long workshop on emergency communications is scheduled as one of the training tracks that will be offered as part of the National Convention program that will precede HamCation on Thursday, February 10. The training presentations will feature current protocols, techniques, and responsibilities for the modern volunteer radio operator serving partner public safety entities. The presenters are subject-matter experts. Topics to be covered include the ARRL Emergency Communicator Position Task Books, an overview of amateur radio communicator responses to disasters, basic voice traffic handling with hands-on voice traffic net/message transfer practice, using the ICS-213 form, Winlink's Amateur Radio Digital Open Protocol (ARDOP) and VARA protocols, and the Radio Mail Server (RMS) hybrid internet/HF radio gateway system. [Register for the National Convention Training Tracks](#).

DHS Cybersecurity and Infrastructure Security Agency (CISA) Auxiliary Communications (AUXCOMM) Training Course Planned for February

The DHS/CISA Auxiliary Communications Training Course will be conducted February 7-9, 2022, in cooperation with the 75th Orlando HamCation™ in Orlando, Florida (30 student maximum capacity). This class is designed for auxiliary communicators (AUXCOMM) and other communications groups who volunteer to provide backup radio communications support to public safety agencies. This typically includes volunteer amateur radio communicators from such organizations as SATERN, the Red Cross, REACT, and others. This class is free to anyone

who is accepted into the course. This course focuses on auxiliary communications interoperability, the relationship between the Communications Leader (COML) and AUXCOMM volunteers, emergency operations center (EOC) etiquette, on-the-air etiquette, Federal Communications Commission (FCC) rules and regulations, auxiliary communications training and planning, and emergency communications deployment. The course is intended to supplement and standardize a volunteer operator's experience and knowledge of emergency amateur radio communications in a public safety context.



DHS Auxcomm Course Graduates, Orlando, Florida, 2016.

Prerequisites for Attendance

Personal experience: A valid/signed FCC amateur radio license; Past experience in auxiliary emergency communications; An affiliation with a public safety agency (served agency); A desire to work with COMLs in a NIMS ICS environment. Must have completed the following online courses from the FEMA EMI website: IS-100, Introduction to the ICS; IS-200, ICS for Single Resources and Initial Incidents; IS-700, National Incident Management System (NIMS), an Introduction; IS-800, National Response Framework (NRF). How to Apply: Send an email with the below listed information to: TrainingRequest@commscollabcenter.com Subject Line: [Last Name] Application for HAMCATION AUXCOMM Course 2022. Text of email: Applicant's name; the name of the public safety agency you are, or will be, supporting; the public safety agency's email address; the agency's point of contact

name and their email and phone number. Attach completion certificates for all courses listed above. Applications will be considered incomplete if any of the prerequisite course completion certificates are missing from the email. All applications and other requested documents, must be received by close of business on Friday, January 28, 2022. The first 30 qualified applicants will be notified that they are registered once the appropriate information has been received. Selected individuals will be notified of the course location/schedule once their registration is approved. Questions regarding the course prerequisites should be directed to CISA by contacting John Peterson via email at AUXCOMM@cisa.dhs.gov

Spotlight: Lake Superior AuxComm Group Forms for Mutual Assistance

We as radio communicators have through our training and regular activity become familiar with other operators in neighboring communities, townships, counties, and even states and provinces. We knew who to call if we needed assistance in supporting an incident or event response and we were prepared to assist them if asked, the essence of a mutual assistance plan. Assistance and support come from those equipped and trained to provide it.

The potential for a wide-scale emergency/disaster warranting a greater regional response around the Great Lakes was an indication for a better organized, more efficient mutual assistance team approach when involved by an emergency management entity. In answer to this need, the *Lake Superior AuxComm Group* (LSAG) has been formed.

LSAG functions as a resource collective, coordinating organization of the region's auxiliary communication groups and personnel, equipment and group/operator capabilities. The database is updated and shared with emergency management entities by their local Emergency Coordinators.

Should an emergency manager in an incident-affected area need support from auxiliary communicators, the manager may contact the local LSAG member-entity and request assistance. The local group then works with the LSAG to garner and activate the appropriate level of mutual assistance needed from other LSAG members, AuxComm and ARES[®] groups in the region that includes Ontario, Minnesota, Wisconsin, and Michigan.

LSAG will promote and facilitate training in operator message handling via data and voice modes and evaluate/develop an emergency communications frequency/mode plan for the Lake Superior region. -- *Tim Hass, KD8ZYW, Emergency Coordinator, Alger County, Michigan; LSAG Board member*

Staying Flexible and Adaptable: Planning for Communications Continuity

Achieving secure and resilient voice and data communications across the Emergency Communications Ecosystem is essential for public safety agencies to execute their missions. However, as emergency communications systems and functions become more interconnected, they also become more vulnerable to impacts from physical and cyber-based threats and hazards. The [National Emergency Communication Plan](#) (NECP) highlights the critical need for public safety organizations to plan for continuity and recovery of critical communications. Despite its importance, the [SAFECOM Na-](#)

[tionwide Survey](#) found that less than half of public safety organizations build processes into their plans to ensure continuity of communications during out-of-the ordinary emergencies or disasters.

A webinar hosted by the Cybersecurity and Infrastructure Security Agency highlighted the importance of continuity capabilities in the emergency communications ecosystem and provided participants with best practices for ensuring limited loss of critical communications during incidents. Speakers discussed specific communications elements that should be considered; explained how existing capabilities should be updated or upgraded to ensure continuity based on lessons learned; and provided real-world experiences on how jurisdictions have adapted to mitigate mission impacts from communications vulnerabilities.

Continuity capabilities-building principles, practices, and resources are available at the FEMA [National Continuity Resource Toolkit](#) and other sites. It's important to periodically review and update or upgrade capabilities and leverage the NECP to understand and build emergency communications resilience. [Get additional information on the webinar series](#).--Cyber Security and Infrastructure Security Agency (CISA), US Department of Homeland Security

Operating Tips: Simplex and Programming Channels

Many opine that simplex is the ultimate mode of communication during a major emergency. Bob Pickering, KB4RSY, communications tech for the large EOC in Flagler County, Florida, conducted an all-simplex exercise annually. Recently while reprogramming my radios I devised a method to incorporate simplex frequencies to make "retuning to simplex" easy and fast. All of my local repeaters are programmed to the uneven channel numbers and the simplex frequencies to the even channels. One rotational click and I can check a simplex channel for use. - *Lou Mecseri, KE1F, Palm Coast, Florida*

A Case for Not Programming Repeaters into the Memories of your Radios

If you are like me and most other operators, you have programmed your area repeater frequencies into the memory channels of your radios. Recently, when I needed to switch to a new repeater frequency, I could not remember how to enter the PL tone and offset - an aggravating factor may be that I'm almost 70 years old with a slowly eroding memory! I resorted to reading the radio's operating manual. Now, I forego using the memory channels and instead enter the repeater frequency, offset, and PL tone manually each and every time so that I'll have the muscle memory needed to select repeater parameters on the fly in the field. Think about it - it only takes a second to enter the parameters. - *K1CE*

ARRL Welcomes New Director of Emergency Management

ARRL has announced the hiring of Josh Johnston, KE5MHV, into the role of Director of Emergency Management. Johnston is from Ozone, Arkansas, and comes to ARRL with 16 years of experience as the Director of Johnson County (Arkansas) Department of Emergency Management. He holds an Extra-class amateur radio license and is an [ARES](#)[®] Emergency Coordinator, Volunteer Examiner, and ARRL-registered Instructor. Johnston is also certified in FEMA NIMS and is a Cybersecurity and Infrastructure Security Agency ([CISA](#)) AUXCOMM Communications Unit Leader. He holds a bachelor's degree in emergency administration and management from Arkansas Tech University.

"I am happy to welcome Josh to the ARRL staff and to add his talent and knowledge to our team," said ARRL CEO David Minster, NA2AA. "His contribution will help ARRL continue to support our dedicated volunteers of the Amateur Radio Emergency Service[®], improve opportunities for training,

and advance our relationships throughout the EmComm community."

With extensive experience in inter-agency cooperation and planning, Johnston is well versed in the different aspects of emergency management and leading both professional and volunteer operators. He has experience in communications planning and execution in the field and at the local and state level. As an Arkansas Master Certified Emergency Manager and past Board Member of Arkansas Emergency Management Association, where he served as president for 2 years, Johnston has experience working with government and agency representatives as well as boots on the ground in the field.

Johnston will be based at ARRL's headquarters in Newington, Connecticut, working with staff and member-volunteers, and coordinating with the ARRL Board's new Emergency Communications and Field Services Committee (EC-FSC).

Youth on the Air Camp to Return in June

After a successful pilot camp program in 2021, the next Youth on the Air for the Americas camp has been set for June 12 - 17, 2022. The camp will return to the National Voice of America Museum of Broadcasting in West Chester Township, Ohio.

The application period will open online February 11. Eligible participants are amateur radio operators between ages 15 and 25. A total of 30 campers will be accepted. Some of the 30 spots will be reserved for campers who reside outside of the US but do reside in the Americas. Priority will be given to first-time attendees. Returning attendees will serve as camp leaders.

"We know that changes in the COVID-19 pandemic status between now and June will have an impact on hosting the camp," said Youth on the Air camp Director Neil Rapp, WB9VPG. "Should we not be able to host the camp or need to reschedule, we will let everyone know with as much notice as possible.

Beginning in 2022, the camp will alternate as much as possible each year between June and July. Rapp says the camp planning working group acknowledges that avoiding all scheduling conflicts is not possible, but hopes that alternating months will provide some diversity with school schedules, extracurricular activities, and major ham radio events.

Beginning in 2023, the location of the camp will rotate to various locations within the Americas. A system will be announced in which IARU member-societies and clubs will bid to serve as host of the region-wide camp.

For details about the camp and/or to sign up for updates by email, visit the [YouthOnTheAir](#) camp website. [Contact](#) Rapp for more information.

CAMSAT XW-3 (CAS-9) is Designated Hope-OSCAR-113 (HO-113)

At the request of the Chinese Amateur Satellite Group (CAMSAT), AMSAT Vice President of Operations Drew Glasbrenner, KO4MA, has announced the designation of the new Chinese XW-3 (CAS-9) satellite as Hope-OSCAR-113 (HO-113). Developed by CAMSAT, in cooperation with the Chinese government's aerospace and education departments, XW-3 was launched on December 26 at

0311 UTC on a CZ-4C Y39 vehicle from China's Taiyuan Satellite Launch Center. CAMSAT completed the design and manufacture of the amateur radio payload and manages the satellite's in-orbit operation. Alan Kung, BA1DU, of CAMSAT announced the successful launch, and reports of telemetry and contacts soon followed. XW-3 has a linear transponder and a camera that can take photos of Earth.

The CW beacon frequency is 435.575 MHz at 22 WPM. GMSK telemetry is at 435.725 MHz. The amateur radio inverting V/U 100 mW linear transponder uplink is 145.870 MHz, and the downlink is 435.180 MHz. The transponder passband is 30 kHz.

Kung said, "A space camera carried on the satellite has undergone preliminary engineering tests, and the download function of compressed photos will be opened to amateur radio enthusiasts in the future."

On January 3, CAMSAT announced the release of the [XW-3 \(CAS-9\) Amateur Radio Satellite User's Manual](#), version 1.1 2022-1-3. The latest version adds information on the satellite's test mode telemetry data format. The satellite's test mode is used for in-orbit engineering monitoring, diagnosis, and maintenance and is only used when the satellite passes over China. -- *Thanks to AMSAT News Service and Alan Kung, BA1DU*

The Amateur Radio Emergency Service® (ARES®) team of Centralia, Washington, activated following an early morning bombing on December 19.

Authorities say two men planted the bomb, which blew up the ATM at a local bank. The Washington State Patrol Bomb Squad and the FBI responded to assist the Centralia Police Department (CPD) in the investigation. The Centralia ARES team staged its communications van next to the scene. The 13 ARES team members who responded to a call for assistance were paired with CPD detectives to assist in the evidence search at the crime scene. ARES team members had been trained to perform evidence searches for the police department and were able to put those skills to work. Teams of three to five ARES members, led by a detective, gloved up and slowly searched an estimated 10,000 square feet around the bank, along nearby railroad tracks, and an adjoining field, retrieving as many potential pieces of evidence as they could find. The ARES team was released after about 1 hour. -- *Thanks to [Bob Willey, KD7OWN](#), Centralia, Washington, ARES Emergency Coordinator*

A February webinar will discuss amateur radio and AUXCOM support to the US Department of Defense.

On Thursday, February 18, at 0100 (the evening of February 17 in North American time zones), the US Army Network Enterprise Technology Command (NETCOM) will host a Zoom call to discuss amateur radio and AUXCOM support to the US Department of Defense. During this presentation, the NETCOM representative will discuss the authorities for these operations; upcoming DOD exercise opportunities for 2022 where outreach to the amateur radio/AUXCOM community will be a primary training objective; use of the five 60-meter channels, and the concept for the types of amateur/AUXCOM outreach. There will be an opportunity for Q&A throughout the presentation. Use [this Zoom link](#) to attend. This is meeting ID 837 8115 4615, and the pass code is 670665. Dial in by location: (346) 248-7799 (Houston); (669) 900-6833 (San Jose); (253) 215-8782 (Tacoma); (929) 205-

6099 (New York); (301) 715-8592 (Washington DC), and (312) 626-6799 (Chicago). One tap mobile: +13462487799,,83781154615#,,,,*670665# US (Houston); +16699006833,,83781154615#,,,,*670665# US (San Jose)

Amateur Radio Digital Communications Grants Continue

Amateur Radio Digital Communications ([ARDC](#)) has continued its largesse, funding a variety of projects through individual grants. Among the latest is a nearly \$900,000 award that will permit the [Internet Archive](#) to build the Digital Library of Amateur Radio and Communications (DLARC), "an online, open-access resource that preserves the vital resources -- past, present, and future -- that document the history of amateur radio and communications," as the project proposal explained. Internet Archive is a nonprofit library of millions of free books, movies, pieces of software, pieces of music, websites, and more.

"The DLARC will be both an education program building a unique and unparalleled collection of primary and secondary resources, but also an innovative technical project that will build a digital library that combines both digitized print materials and [original] digital content," Internet Archive said in its proposal.

It will incorporate three distinct areas: a large-scale scanning program to digitize relevant print materials from institutions and individuals; a large-scale digital archiving initiative that seeks to curate, archive, and provide specialized access to such media as digital photos and audio-video presentations, as well as websites and web-published material, and a personal archiving campaign to ensure the preservation and future access of notable individuals and stakeholders involved in the founding and activities of ARDC and the broader community.

The ARDC grant program stems from the proceeds of the July 2019 sale of some 4 million unused consecutive AMPRNet internet addresses. Using those funds, ARDC established a program of grants and scholarships in support of communications and networking research, with a strong emphasis on amateur radio.

Another ARDC grant for nearly \$34,000 will permit the [Fauquier 4-H Ham Radio Club](#) in Virginia to purchase and equip a 4-H Youth Station and Outreach Trailer for the club's youth to use at regular meetings, public demonstrations, and special events.

"A big thanks to Amateur Radio Digital Communications for awarding our new Ham Radio Club a grant to build a ham radio trailer," the club posted on its Facebook page. "Building out the trailer and using the modern amateur radio equipment will be a fun STEAM [science, technology, engineering, arts, and mathematics] project for our club members. Once it is all built out, you can plan to see the trailer out at some local events -- hopefully the Fauquier County Fair and the Manassas HamFest in mid-June."



The Fauquier 4-H Ham Radio Club learning beginning circuitry skills by building code practice oscillators. [Dalyah Ronzio, photo]

The Fauquier 4-H Ham Radio Club offers local youth ages 9 to 18 opportunities to explore STEAM through amateur radio communications and electronics projects. "An amateur radio license is not required to join, but the club strives to inspire and help members who are interested in getting their license achieve that goal," the proposal said.

A \$318,000 grant to the Society of Women Engineers ([SWE](#)), will fund 30 SWE global scholarships and "contribute to programs that will help women in engineering excel professionally and showcase their achievements." According to SWE, these programs include the High School Leadership Academy, a virtual, year-round program aimed at building self-confidence and resilience among high school students who are interested in pursuing engineering and technology degrees; the Community College Women of Color Pathways Research, a new year-long program to encourage undergraduate women studying at Historically Black Colleges and Universities (HBCUs) and Hispanic-Serving Institutions (HSIs) to pursue STEM graduate degrees, and its Collegiate Leadership Institute, a program designed to equip collegiate SWE members with the skills, knowledge, and leadership abilities that will enable them to become leaders in engineering and technology.

Important Links

ARRL Home: www.arrl.org

Find an ARRL Affiliated Club: www.arrl.org/clubs

Find Your ARRL Section: www.arrl.org/sections

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

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

Find a Hamfest or Convention: www.arrl.org/hamfests

Email ARRL Clubs: clubs@arrl.org

ARRL on the Purpose of Amateur Radio



For over 100 years amateur radio and ARRL — the National Association for Amateur Radio® — have stood for the development of the science and art of communications, public service, and the enhancement of international goodwill. Amateur Radio's long history and service to the public has solidified the well-earned reputation that "Amateur Radio saves lives."

Amateur Radio Operators, due to their history of public service, their training, and the requirement that they be licensed by the FCC have earned their status as a component of critical communications infrastructure and as a reliable resource "when all else fails."

Amateur Radio is about development of communications and responsible public service. Its misuse is inconsistent with its history of service and its statutory charter. ARRL does not support its misuse for purposes inconsistent with these values and purposes.



ARRL Learning Network Webinars

Visit the [ARRL Learning Network](#) (a members-only benefit) to register, check on upcoming webinars, and to view previously recorded sessions.

More webinars are coming soon!

ARRL members may register for upcoming presentations and view previously recorded [Learning Network](#) webinars. ARRL-affiliated radio clubs may also use the recordings as presentations for club meetings, mentoring new and current hams, and discussing amateur radio topics.

The ARRL Learning Network schedule is subject to change.

ARRL Podcasts Schedule

On the Air podcast (Episode 24) features tips on how to improve the effective range of your handheld transceiver.

(Episode 25) features a conversation with Michael Fluegemann, KE8AQW, about how to get started with CW.

Eclectic Tech podcast Tech (Episode 50) of the *Eclectic Tech* podcast -- the final edition for 2021 -- features a discussion with Nelson Sollenberger, KA2C, about the filter he designed that allows two nearby stations to operate on the same band during ARRL Field Day and contests. The episode also offers a brief explanation of the so-called POST beeps that

many computers make, and what they mean.

(Episode 51) features a chat with H.P. Friedrichs, AC7ZL, about his new book *Marvelous Magnetic Machines* and the pleasures of "extreme homebrewing."

(Episode 52) features a chat with Sal DeFrancesco, K1RGO, about his 630-meter receiving loop antenna design that appears in the February issue of *QST*. Also, there is a brief discussion of the new YubiKey Bio password protection device.

The *On the Air* and *Eclectic Tech* podcasts are sponsored by Icom. Both podcasts are available on iTunes (iOS) and Stitcher (Android) as well as on Blubrry - [On the Air](#) | [Eclectic Tech](#)

Amateur Radio in the News

ARRL Public Information Officers, Coordinators, and many other member-volunteers help keep amateur radio and ARRL [in the news](#).

[Pandemic Project: Trailer renovation allows for extended emergency radio assistance](#) *The Spokesman-Review* (Washington) December 30, 2021

[Amateur Radio Club bands together during pandemic](#) *OrilliaMatters.com* (Ontario) December 26, 2021

[How the huge volcanic eruption in Tonga was picked up by amateur radio enthusiasts in Har-](#)

[borough -- over 10,000 miles away](#)" / *Harborough Mail* (United Kingdom) January 18, 2022

["Pandemic Project: Trailer renovation allows for extended emergency radio assistance"](#) *The Spokesman-Review* (Washington) December 30, 2021

["Radio to the rescue"](#) / *Georgetown Gazette* (California), January 20, 2022

["Tecumseh School Project Catches NASA's Attention"](#) / *Countywide & Sun* (Oklahoma), January 20, 2022

["Networks of service"](#) / The American Legion, January 20, 2022

["How the huge volcanic eruption in Tonga was picked up by amateur radio enthusiasts in Harborough -- over 10,000 miles away"](#) / *Harborough Mail* (United Kingdom), January 18, 2022

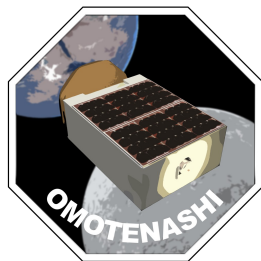
["Inspiring Students through Volunteer Work"](#) / Dakota State University (South Dakota), January 17, 2022

["Amateur Radio Club bands together during pandemic"](#) *OrilliaMatters.com* (Ontario) December 26, 2021

Announcements

World's Smallest Moon Lander from Japan will Put Ham Radio Transmitter on the Moon

Japan's [OMOTENASHI](#), the world's smallest moon lander, will have an X-band and UHF communication system, although it will not carry an amateur band transponder. OMOTENASHI is a 6U CubeSat set for launch via a NASA SLS rocket as early as February 2022. It will have a mission period of from 4 to 5 days. The name is an acronym for Outstanding Moon Exploration Technologies demonstrated by Nano



Semi-Hard Impactor. Wataru Torii of the Japan Aerospace Exploration Agency (JAXA) Ham Ra-

dio Club, JQ1ZVI, said radio amateurs can play a role in gathering data from the spacecraft.

The spacecraft is made up of two separable components, both having independent communication systems -- an orbiting module and a surface probe. The orbiting module will take the surface probe to the moon. It will transmit beacon or digital telemetry data on UHF (437.31 MHz). The surface probe -- the moon lander -- will transmit digital telemetry or three-axis acceleration analog-wave with FM modulation on UHF (437.41 MHz). Transmitter power will be 1 W in both cases.

"If we succeed in receiving the UHF signal from the surface probe, we could know the acceleration data on the impact on the moon and the success of the landing sequence," Torii explained.

"We already have a station for uplink and downlink at Wakayama in Japan -- used as an EME [moonbounce] station. However, if the satellite is invisible from Japan, we cannot receive the downlink signal. So, we need a lot of help from ham radio stations worldwide."

The orbiting module beacon will transmit on 437.31 MHz using PSK31. The surface probe beacon will transmit on 437.41 MHz using FM, PSK31, and PCM-PSK/PM.

[Contact](#) Torii for more information.

Dayton Hamvention Expects to be Live Event in 2022

[Dayton Hamvention](#)[®] organizers are planning to mount an in-person show in 2022, the first following 2 years of COVID-related cancellations. The event is set for May 20 - 22 at the Greene County Fairgrounds and Expo Center in Xenia, Ohio. Last January, Hamvention organizers from the sponsoring Dayton Amateur Radio Association ([DARA](#)) announced they were calling off the 2021 event after considerable planning was already under way. The Hamvention

Executive Committee cited lagging COVID-19 vaccine distribution in the US and the emergence of a more communicable form of the virus.

Southgate Amateur Radio News quoted Hamvention General Chairman Rick Allnutt, WS8G, as saying that Hamvention committees "have been meeting, and volunteers are committed to making up for the time lost to pandemic cancellations." The Hamvention website is already accepting bookings from vendors and inside exhibitors, and individual visitors can already buy tickets, which Allnutt said, "are all printed and ready to go."

Nominations for the 2022 Hamvention Awards opened on November 1. Hamvention seeks "the best of the best" nominees for its Technical Achievement, Special Achievement, Amateur of the Year, and Club of the Year awards. Nominations close on February 15, 2022. Submit nomination forms via [email](#) or USPS to Hamvention Awards Committee, Box 964, Dayton, OH 45401-0964. The 2022 Dayton Hamvention is an [ARRL-sanctioned event](#). Read [an expanded version](#).

New Low-Power Limit for ARRL HF Contests Goes into Effect on January 1, 2022

ARRL has set a new standard for what counts as low power for ARRL-sponsored HF contests. The new limit is 100 W, which is down from the 150 W limit that has been permitted in some events, including the ARRL November Sweepstakes.

With the exception of ARRL Field Day, this change goes into effect on January 1, 2022, for all ARRL-sponsored HF contests, as well as the [IARU HF World Championship](#).

This change has been implemented to standardize low-power categories within the contesting community. However, on a more practical level,

the typical modern HF transceiver has a maximum power output of 100 W.

For more information, [contact](#) the ARRL Contests program. -- *Thanks to The ARRL Contest Update*

The US Department of Defense has issued an updated Military Auxiliary Radio System (MARS) [instruction](#), DODI 4650.02, replacing MARS DODI 4650.02 issued in 2009. The document establishes policy, assigns responsibilities, and provides procedures for MARS. It further establishes MARS organization, membership, and functions. -- *Thanks to Gary Sessums, KC5QCN*

A new release of *WSJT-X* is available.

The *WSJT-X* development group -- Joe Taylor, K1JT; Steve Franke, K9AN; and new member Nico Palermo, IV3NWX -- have announced the release of *WSJT-X* 2.5.3. This new release includes a feature of special interest to users participating in the ARRL January VHF Contest (January 15 - 17). This new feature is an enhanced macro facility for text messages that is aimed at making it easier to ask another station to move to another band. This feature is described briefly in the updated [WSJT-X User Guide](#). Installation packages for *WSJT-X* 2.5.3 are available on the [WSJT-X website](#).

The *WSJT* development group has released a "bug-fix" update of *WSJT-X* -- version 2.5.4. The primary fix repairs a defect that caused occasional crashes when contacting stations with non-standard call signs. It also allows [MAP65](#)'s "best-fit Delta Phi (Dphi)" solution to be displayed to the user. The *WSJT* development group has welcomed new members Chet Fennell, KG4IYS, and Dr. Uwe Risse, DG2YCB. "Each brings important skills and experience[s] to the project, after the loss of Bill Somerville, G4WJS," said Joe Taylor, K1JT, on behalf of the group. "The newly constituted group has been working to redefine standard operating procedures for new releases." [Installation pack-](#)

[ages](#) for *WSJT-X* are available for Windows and Linux. An installation package for macOS will be added soon.

Special WRTC 2022 call signs will be active starting in January.

The World Radiosport Team Championship (WRTC) 2022 Organizing Committee has announced that more than 100 Italian radio amateurs will be activating special WRTC call signs, one for each Italian call district, starting on January 1, 2022, and concluding on July 10, 2022. A [first-time-ever award](#) will be available promoting WRTC 2022, which has been postponed until 2023. Look for these call signs to be active during some contests, concluding with the 2022 [IARU HF World Championship](#). Each participant's contact totals and award-hunter scores will be displayed on a [real-time leaderboard](#). Participants can download the award in digital format. -- *Thanks to The ARRL Contest Update.*

FEMA's Emergency Management Institute (EMI) will offer the [K0428 CERT Train-the-Trainer course](#) online. This course prepares participants to deliver FEMA's CERT Basic Training course. For additional information, [contact](#) Jamie "Betsy" Mauk, EMI Course Manager. Refer to the [EMI website](#) for course date availability.

The YOTA (Youngsters on the Air) Contest Committee has released [claimed scores](#) for the third round of the 2021 YOTA Contest.

The [State QSO Party website](#) has been updated. It includes the 2022 rules for the SQP Challenge and Worked All QSO Parties, the SQP calendar, an updated 2022 WAQP submission form, and the addition of the [Quebec QSO Party](#) to the approved list of QSO parties. -- *Thanks to Stan Zawrotny, K4SBZ*

Pete Smith, N4ZR, announced that the [Reverse Beacon Network](#) (RBN) node at T17W is up and running. The node fills a gap in the RBN network's coverage, as it is the

first in Central America.

Launch of a Wooden Satellite Still Pending

Two spacecraft comprised of wood or using wooden framing are hoping to launch this year and next. One will carry an amateur radio payload.

WISA Woodsat, a Finnish spacecraft that planned to include an amateur radio payload, was forced to postpone its announced launch target from 2021 to 2022 after the



WISA Woodsat, with its selfie stick extended.

International Amateur Radio Union (IARU) Amateur Satellite Frequency Coordination system turned away its request to use amateur radio frequencies.

"I regret to inform you that IARU is not in a position to support the WISA Woodsat Coordination request," the coordinator said. "The main reason is that the primary mission doesn't seem to be an amateur mission."

As announced last year, WISA Woodsat was designed to accommodate multiple missions -- from materials science, space education, and awareness to promoting and facilitating amateur radio communication with and via satellites. No transponder was on board, but the satellite's sponsors said they had the support of Finland's IARU member-society, SRAL, to use amateur radio frequencies. They are now reworking the spacecraft to use commercial radio frequencies.

Meanwhile, LignoSat, a 1U-sized CubeSat with an outside structure mainly composed of wood, has applied for IARU frequency coordination and

hopes to launch from the ISS in 2023. Built by students at Japan's Kyoto University, LignoSat includes a unique amateur radio payload but not a transponder.

The LignoSat application for IARU Satellite Frequency Coordination in December said the CubeSat would carry amateur radio equipment that will extract call signs of amateur radio stations from uplinked FM



An artist's depiction of LignoSat. [Photo courtesy of Kyoto University]

messages. The plan proposes UHF downlinks for CW and FM.

The satellite's development team, comprised of Kyoto University and Sumitomo Forestry Company, said it's aiming to harness the environmental friendliness and the economy of wood in spacecraft development. They say a satellite with a wooden exterior would burn up upon re-entering Earth's atmosphere at the end of its mission, lessening its burden on the environment. The wooden framework also will permit the satellite's antennas to be inside the spacecraft. A plan is under way to use an experimental apparatus on the International Space Station to hold wooden sheets of varying hardness, taken from several tree species, attached. These would remain exposed to the space environment for about 9 months to determine their deterioration.

LignoSat would be deployed from the ISS in July 2023. Read [an expanded version](#). -- *Thanks to Joey Ferguson, W4JF, and Japan Times.*

packet signals and respond to them via the CW downlink and the sender's call signs to convey thank you

The Boston Marathon is seeking amateur radio volunteers for its Patriots Day event in April. New volunteers can sign up [online](#). The site includes a [step-by-step guide](#) on how to select amateur radio volunteer positions during the registration process. [Email](#) with questions. -- *The Boston Marathon Communications Committee*
Nominations for the 2022 Amateur Radio Software Award are being accepted until February 14, 2022. The Amateur Radio Software Award is an annual international award to recognize software projects that enhance amateur radio. The award aims to promote innovative, free, and open amateur radio software development. A nomination form is on the Award website.

The non-competitive St. Patrick's Award on-the-air event will take place March 16 -18. The St Patrick's Award encourages radio amateurs worldwide to join the celebration by "going green for St Patrick's day." [Email](#) for additional information. -- *Thanks to Bobby Wadey, MI0RYL*

ARES Activates as Wind-Driven Year-End Fire Destroys 1,000 Colorado Homes

Members of the Amateur Radio Emergency Service® ([ARES](#)®) in Colorado, volunteering for the Boulder County (Colorado) Amateur Radio Emergency Services ([BCARES](#)), turned out on December 30, 2021 as the devastating Marshall Fire roared through Superior and (portions of) Louisville, Colorado. Intense winds whipped a grass fire south of Boulder near Marshall into a massive firestorm that became too large and fierce for firefighters to battle.

"The only battle was evacuation, as the towns of Louisville and Superior and [the] northern suburbs of Denver lay in the fire's wind-driven path," said Amateur TV (ATV) enthusiast and equipment dealer Jim Andrews, KH6HTV, of Boulder. Andrews said the only thing limiting the fire's spread was the fact that the winds diminished by that evening.

"By that time, hundreds of homes had burned

down," Andrews said, whose own house was among them. "This was not a typical forest fire, but an urban firestorm." Thousands of people were evacuated.

BCARES Board of Directors Chairman and Region 1, District 3 Emergency Coordinator Allen Bishop, K0ARK, said that a request from the Boulder Office of Emergency Management (OEM) to activate the emergency operations center (EOC) is what initiated the ARES activation. "At that time, staffing was initiated with the activation of the BCARES Radio Network, with three BCARES members assigned to the EOC," Bishop said. The BCARES Net was promptly activated.

ARES volunteers supported communication at evacuation sites and established emergency communication as commercial power failures and preventive shutdowns by utilities caused a loss of commercial communication.



Jim Andrews, KH6HTV, shared this photo of what remained of his home. [Jim Andrews, KH6HTV, photo]

"Within about 8 hours," Bishop said, "battery back-up systems for cell phones and landlines failed, and 911 services went down."

"To facilitate a restoration of these emergency services, BCARES activated the Mountain Emergency Radio Network ([MERN](#))," Bishop said. Established in 2010, MERN consists of repeaters installed at fire stations in Gold Hill and Allenspark, at community centers in Ne-

derland and Raymond, and the privately owned Airlink Repeater. "These repeaters provided the emergency communication links that facilitated the restoration of 911 communications back to the dispatch center for the duration of the power outages," Bishop explained. The Allenspark Neighbors Emergency Network (ANEN) and Airlink (Alternate Access Radio Network) participated.

According to Bishop, as the Marshall Fire expanded, evacuation center support was requested at three locations to provide on-site situation reports using Winlink. Bishop said BCARES members and mutual-aid ARES operators from neighboring Districts established local communication with the BCARES EOC radio position from designated field locations. BCARES was activated for 2 days. One person died as a result of the fire.

As Andrews reported, Boulder County announced on New Year's Day that nearly 1,000 homes were lost. In addition to his own home, the fire destroyed his daughter's home next door, as well as the homes of all his close neighbors. "We had no official warning of the coming firestorm," Andrews said. "My only warning was from our daughter who saw it happening." Andrews added, "KH6HTV VIDEO, as a supplier of ATV gear, will be out of operation for a very long time to come." Andrews edits the monthly Boulder Amateur Television Club TV Repeater's REPEATER newsletter.

BARC Website, some Blog page Titles

[JOTA at Greenville, NC](#) with
BARC.

[VOA Site "C" Project](#) (Blog)

[Morserino 32 adventure](#)

[What to do when you see a
need... – Brightleaf Amateur Ra-
dio Club \(w4amc.com\)](#)

[CQ WW VHF Contest – Bright-
leaf Amateur Radio Club
\(w4amc.com\)](#)

[Antenna Fun! – Brightleaf Ama-
teur Radio Club \(w4amc.com\)](#)

[Field Day Report 6/27/2021 –
Brightleaf Amateur Radio Club
\(w4amc.com\)](#)

Even more than this on the
website.

Feel free to view, comment
and add.

*** Membership Dues***

Membership dues for BARC are due **January 1** every year. Membership dues are as follows and are almost the same as 2020: • Regular Member \$20.00 • Family Member \$2.00 • Associate Member (Non-Licensed) \$5.00 • Life Members \$0.00 • New Hams: Free first calendar year (Jan. to Dec.)

We are requesting that you send the application form in, so that we can have your correct information on file. The form can be downloaded at:

<https://n4pvh.files.wordpress.com/2020/11/application-for-membership.pdf>

Please give the application and dues to the Treasurer at the meeting or mail your dues, along with the member application form to:

Brightleaf Amateur Radio Club, P.O. Box 8387, Greenville, NC 27835

Or go to <https://w4amc.com/membership/> to use PayPal at the page bottom.

If there are any questions concerning membership status or dues, please contact Treasurer@w4amc.com.

Thank you for your continued support and participation in BARC.

****Renew/Join Now****
Help Support BARC.

Announcements

2022 ARRL National Convention Emergency Communications Training Track Not to be Missed

It's not too early to plan on attending the 2022 ARRL National Convention, set to take place at Orlando HamCation® (www.hamcation.com) on February 11 - 13. A day-long workshop on emergency communications is scheduled as one of the training tracks that will be offered as part of the National Convention program that will precede HamCation on Thursday, February 10. The training presentations will feature current protocols, techniques, and responsibilities for the modern volunteer radio operator serving partner public safety entities. The presenters are all subject-matter experts. Topics to be covered include the ARRL National and Florida Emergency Communicator Task Books, an overview of amateur radio responses to disasters, basic voice traffic handling with hands-on voice traffic net/message transfer practice, using the ICS-213 form, Winlink's ARDOP (Amateur Radio Digital Open) and VARA protocols, and the Radio Mail Server (RMS) hybrid internet/HF radio gateway system. Registration for the National Convention Training Tracks will open later this summer at www.arrl.org/expo.

According to a [tweet](#) from Icom Japan, the company is developing amateur radio equipment for the 2.4 and 5 GHz bands, under the theme of "Icom SHF Project-Challenge."

Two YOTA special event call signs have been obtained in Canada for YOTA Month, by Harrie Jones, VE3HYS, on behalf of participating young amateurs. Listen for [VE3YOTA](#) and [VA7YOTY](#) and other YOTA-suffix stations. --
Thanks to RAC

From ARRL Headquarters

Newington CT January 6, 2022

To all radio amateurs

New Technician Question Pool Released, Effective July 1, 2022

The National Conference of Volunteer Examiner Coordinators (NCVEC) Question Pool Committee (QPC) has released the 2022 - 2026 Technician Class FCC Element 2 NCVEC Question Pool Syllabus & Question Pool into the public domain. It's available as a Word document or PDF. The three graphics required for the new Technician question pool are available within the documents, or separately as PDF or JPG files.

The new pool incorporates some significant changes compared to the 2018 - 2022 pool. Its 257 questions were modified slightly to improve wording or to replace distractors; 51 new questions were generated, and 62 questions were eliminated. This resulted in a reduction of 11 questions, bringing the total number of questions in the pool from 423 to 412. The difficulty level of the questions is now more balanced, and the techniques and practices addressed have been updated.

The new 2022 - 2026 question pool is effective July 1, 2022 - June 30, 2026, and must be used for Technician-class license exams administered on or after July 1, 2022.

The Danish DX Group celebrates its 50th anniversary in 2022.

For that occasion, special event station OZ50DDXG will be on the air, and radio amateurs can apply for an anniversary award by working the station. More information is in the [OZ50DDXG QRZ.com profile](#).

- Members of the Czech DXpedition group have announced plans for the TU5PCT DXpedi-

tion to the Ivory Coast in early February. Plans are to arrive on February 4, with full operation February 7 - 12. Activity will be on SSB, CW, RTTY, and FT8 on 1.8 through 50 MHz.

The [EZNEC](#) antenna-modelling software by Roy Lewallen W7EL, is now a free download.

Rol Anders, K3RA, will conduct an Amateur Extra-class licensing course on Zoom, January 20 - March 31. The course is sponsored by the National Electronics Museum. [Contact](#) Anders for more details.

Robert Kaska, S53R, is now on the air from Nepal as 9N7AA, although he is still working on his station.

[PA22L](#) is the commemorative call sign recognizing the city of Leiden as the European City of Science. Leiden is hosting a year-long science festival.

[4A90FMRE](#) is on the air to mark the 90th anniversary of the Federacion Mexicana de Radio Experimentadores. Operation is taking place from all 31 Mexican states plus Mexico City.

ARES® Briefs, Links

The ARRL Puerto Rico Section leadership signed a new memorandum of understanding with the US territory's Red Cross organization on January 13. There are 3.2 million residents on the island, which receives the brunt of many major hurricanes, some of historic proportion such as Hurricane Maria in 2017 with its resulting humanitarian crisis. The section has a very active ARES and ARRL Field Organization.

The 2022 [ARRL National Convention Emergency Communications Training Track](#) is next month! Plan on attending the 2022 ARRL National Convention, set to take place at [Orlando HamCation®](#) on February 11 - 13. A day-long workshop on emergency communications is scheduled as one of the training tracks offered as part of the National Convention program that will precede HamCation on Thursday, February 10. The training presentations will feature current protocols, techniques, and responsibilities

for the modern volunteer radio operator serving partner public safety entities. The presenters are subject-matter experts. Topics to be covered include the ARRL Emergency Communicator Position Task Books, an overview of amateur radio communicator responses to disasters, basic voice traffic handling with hands-on voice traffic net/message transfer practice, using the ICS-213 form, Winlink's Amateur Radio Digital Open Protocol (ARDOP) and VARA protocols, and the Radio Mail Server (RMS) hybrid internet/HF radio gateway system. [Register for the National Convention Training Tracks](#).

Tip: Don't forget about the 222 MHz band for ARES operations. There is good activity there. A quick look at the repeater directory for 222-MHz repeaters in my area yielded three here in rural northern Florida. - K1CE

FEMA's Emergency Management Institute (EMI) will offer the [K0428 CERT Train-the-Trainer course](#) online. This course prepares participants to deliver FEMA's CERT Basic Training course. The audience for this course includes those who will have or currently have either of the following responsibilities: serves as the course manager for the CERT Basic Training course or serves as a CERT Basic Training course instructor. For additional information, contact Jamie "Betsy" Mauk, EMI Course Manager, at jamie.mauk@fema.dhs.gov. Please refer to the [EMI website](#) for course date availability.

The publication [National Hurricane Center Snapshots:1949 to present day](#) is a look behind the scenes during the more than 7 decades of the NHC. It includes a photo and story on page 18 dedicated to Amateur Radio's first station set up at NHC in 1980.

K1CE for a Final: "This is not a drill" - The 1989 Sioux City Airliner Crash

I don't know about you, but I like to browse through old issues of QST for ARES and

emergency communications-related reports and articles. The idea is to look at "that was then, this is now" comparisons. I ran across the October 1989 QST article by Mike Nickolaus, NF0N; Doug Potts, KA0VHV, and Alan Pedersen, KA0VNM, all Emergency Coordinators, about the ARES response to the horrific July 19, 1989 crash landing of United Airlines Flight 232 at the Sioux Gateway Airport. The DC-10 ripped apart, and of 296 passengers and crew, 112 ultimately died.

When the crew declared an in-flight emergency, ARES was among the many entities that were alerted, facing a crisis of unknown proportions. At 3:30 PM, the fire department's "Alert 2" indicated a flight crew had declared an emergency and fire and rescue vehicles were sent out. On its heels an "Alert 3" signaled the worst - crash imminent. The crash came at 3:55 PM. ARES operators were summoned less than an hour later. Little did they know that the 12 hams budgeted for a 1987 drill would balloon to 60 operators for the real thing.

John Bylin, K0AAR, and NF0N quickly received Red Cross i-d's and reported to the disaster site. They brought a motor home packed with ARES radios and supplies; the entire airport had already been secured. Other amateurs were assigned to the Red Cross chapter office, hospital emergency rooms, the airport control tower, the EOC, and at Briar Cliff College, where survivors would be billeted. Net control was established at KA0VHV's home. Later, amateurs were dispatched to the flight line at the airport and the temporary morgue on the Iowa Air National Guard grounds.

NF0N and KA0VHV were chosen to take charge to make major decisions, and started a loose net operation, allowing check-ins to bypass the net control station as necessary. They were able to react quickly to the needs of many agencies and groups. With Red Cross facilities scattered over a wide area, and other agencies at several different sites, finding people became a shell game. Rather than telephone half a dozen sites in search of an important official, those in need looked to ARES: One call on the radio touched every important site. Some sites had no telephone.

Some hams with handhelds were needed to walk and track someone down. A portable repeater was established at the airport. More manpower was needed at all posts, and as many as five radio amateurs manned each post for 5 days. United Airlines assumed the task of handling health and welfare messages, but ARES was ready with two packet BBS stations if needed.

Offers of assistance came from hams from as far away as 200 miles; several amateurs from the Omaha-Council Bluffs area came with Red Cross vans. Communications with and for the American Red Cross were especially important. Hams established stations at the food prep site, at the Red Cross chapter house, and with survivors of the crash at Briar Cliff College. ARES passed traffic for police and fire departments, the county EOC, Air National Guard, the airport, Salvation Army and the NTSB. And also for the hospitals, ambulance service, medical personnel, and morticians. A dedicated simplex channel was established between the temporary morgue and the crash site, where the state ME was identifying the victims.

Lessons learned: centralize control and decision making; plan for the worst; extend handheld coverage with a portable repeater; and record all repeater communications; among others.

The reason for including this summary of that tragic event and the ARES response is to (1) share the ARES lessons learned that still apply today, and (2) to inquire of any operators that were in-

involved in this response (or other responses) who have possibly suffered post-traumatic stress (PTSD) and if so, what were their symptoms. I will be writing an article on the subject, the purpose of which is to discuss the potential for risk of this aspect of mental health in emergency/disaster radio communications responders. The last time this subject was discussed was in the July 2012 QST Public Service column: "ARES[®], EmComm and Mental Health Risks."

[Post-traumatic stress disorder (PTSD) is a disorder that develops in some people who have experienced a shocking, scary, or dangerous event. It is natural to feel afraid during and after a traumatic situation. Fear triggers many split-second changes in the body to help defend against danger or to avoid it. Post-traumatic stress disorder (PTSD) can develop after exposure to a potentially traumatic event that is beyond a typical stressor. Events that may lead to PTSD include, but are not limited to, violent personal assaults, natural or human-caused disasters, accidents, combat, and other forms of violence. --*National Institute of Health*]

Postscript

While on a trip as an ARRL HQ staffer to a convention in Iowa circa 1985, I drove out of town to visit the Flight 232 Memorial, which commemorates the rescue and response efforts undertaken by the Sioux City community after the crash, and thought of the courage of the ARES responders in meeting the needs of victims, responding agencies and others in such a challenging and grim disaster area. -- *K1CE*

HURRICANE AND EMERGENCY INFORMATION RESOURCES

National Hurricane Center
<https://www.nhc.noaa.gov/>

Tropical Tidbits (current forecast models)
<https://www.tropicaltidbits.com/>

Active Red Cross Shelters
maps.redcross.org/website/maps/ARC_Shelters.html

Red Cross Safe and Well
www.redcross.org/get-help/disaster-relief-and-recovery-services/contact-and-locate-loved-ones.html

Facebook Safety Check
www.facebook.com/about/safetycheck

Hurricane Watch Net
hwn.org

VOIP Hurricane Net
voipwx.net

Amateur Radio at the National Hurricane Center
www.WX4NHC.org

FEMA - Federal Emergency Management Agency
www.fema.gov

Ready.gov - Plan ahead for disasters
www.ready.gov

Hurricane Central - The Weather Channel
<https://weather.com/storms/hurricane>

Nets to Know

[Caribbean Emergency Weather Net](#) - Meets daily at 1030Z and 2230Z on 3815 kHz.

[Hurricane Watch Net](#) -- 14.325 MHz, 7.268 MHz -- Activated whenever a hurricane is within 300 nautical miles of expected landfall. Dis-

seminates storm information and relays meteorological data to National Hurricane Center via embedded NHC station WX4NHC. Also relays post-storm damage reports and other relevant information.

[Intercontinental Net](#) operates from 7 AM to noon US Eastern Time on 14.300 MHz, providing a means of emergency communications to any location where normal communications are disrupted.

[Marine Maritime Services Net](#) -- 14.300 MHz -
- The network acts as a weather beacon for ships during periods of severe weather and regularly repeats high seas and tropical weather warnings and bulletins from the National Weather Service and the National Hurricane Center.

[Salvation Army Team Emergency Radio Network](#) (SATERN) -- 14.260 MHz -- The purpose of the SATERN net is to support the Salvation Army operations in local, regional and international disaster situations. - *ARRL US Virgin Islands Section News*

W1AW 2022 Winter Operating Schedule

ZCZC AG01

QST de W1AW

ARRL Bulletin 1 ARLB001

From ARRL Headquarters

Newington CT January 5, 2022

To all radio amateurs

SB QST ARL ARLB001

ARLB001 W1AW 2022 Winter Operating Schedule

Morning Schedule:

Time	Mode	Days
-----	----	-----
1400 UTC (9 AM EST)	CWs	Wed, Fri
1400 UTC (9 AM EST)	CWf	Tue, Thu

Daily Visitor Operating Hours:

1500 UTC to 2045 UTC - (10 AM to 3:45 PM EST)

Afternoon/Evening Schedule:

2100 UTC (4 PM EST)	CWf	Mon, Wed, Fri
2100 " "	CWs	Tue, Thu
2200 " (5 PM EST)	CWb	Daily
2300 " (6 PM EST)	DIGITAL	Daily
0000 " (7 PM EST)	CWs	Mon, Wed, Fri
0000 " "	CWf	Tue, Thu
0100 " (8 PM EST)	CWb	Daily
0200 " (9 PM EST)	DIGITAL	Daily
0245 " (9:45 PM EST)	VOICE	Daily
0300 " (10 PM EST)	CWf	Mon, Wed, Fri
0300 " "	CWs	Tue, Thu
0400 " (11 PM EST)	CWb	Daily

Frequencies (MHz)

CW: 1.8025 3.5815 7.0475 14.0475 18.0975 21.0675 28.0675 50.350 147.555
DIGITAL: - 3.5975 7.095 14.095 18.1025 21.095 28.095 50.350 147.555
VOICE: 1.855 3.990 7.290 14.290 18.160 21.390 28.590 50.350 147.555

Notes:

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15, 13 and 10 WPM CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.

DIGITAL = BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2330 UTC (6:30 PM EST), Keplerian Elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0100 UTC (8 PM EST) Thursdays and 0100 UTC (8 PM EST) Fridays.

Audio from W1AW's CW code practices, CW/digital bulletins and phone bulletin is available using EchoLink via the W1AW Conference Server named "W1AWBDCT." The monthly W1AW Qualifying Runs are presented here as well. The audio is sent in real-time and runs concurrently with W1AW's regular transmission schedule.

All users who connect to the conference server are muted. Please note that any questions or comments about this server should not be sent via the "Text" window in EchoLink. Please direct any questions or comments to w1aw@arrl.org.

In a communications emergency, monitor W1AW for special bulletins as follows: Voice on the hour, Digital at 15 minutes past the hour, and CW on the half hour.

All licensed amateurs may operate the station from 1500 UTC to 2045 UTC (10 AM to 3:45 PM EST). Be sure to bring a reference copy of your current FCC amateur radio license.

The weekly W1AW and monthly West Coast Qualifying Runs are sent on the normal CW frequencies used for both code practice and bulletin transmissions. West Coast Qualifying Run stations may also use 3590 kHz.

The W1AW Operating Schedule may also be found on page 86 in the January 2022 issue of QST or on the web at, <http://www.arrl.org/w1aw-operating-schedule>.

WinLink Nets and Practice

Great Lakes Area Winlink Net Started

A new Great Lakes Winlink Net has been started to promote the use of Winlink and training on the various facets of the hybrid amateur radio data/internet system. The net is open primarily to those states that border any of the Great Lakes: Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania, and New York, and the Canadian province of Ontario. However, radio amateurs wishing to check in from other states or provinces anywhere are welcomed to participate. This net is modeled on the [Wisconsin ARES Winlink net](#).

The net check-in process is as follows: Send either a basic, plain text message, or use any of the forms templates on the Winlink Express platform available that will allow you to include the following line of text in the body of the message or in an appropriate part on the form you choose to send: FIRST NAME, CALLSIGN, CITY, COUNTY, STATE, COUNTRY. For example: RYAN, KB8RCR, REMUS, MECOSTA, MICHIGAN, USA.

The net is on each Wednesday, amateurs may send their messages or forms any time during the day using Winlink in any mode available, RF or via Telnet. Send your message to KB8RCR as the recipient on Winlink. - *Ryan Lughermo, KB8RCR, ARRL Assistant Section Emergency Coordinator for Data Management/Special Pro-*

jects, Michigan Section; and Official Relay Station From ARES March 2021 Newsletter (Editors Note: Great way to learn and practice)

The EmComm Training Organization (ETO) will continue the popular Winlink Thursday exercises to foster Winlink-knowledgeable operators across the country. Procedures will include a weekly exercise for routine practice with a fourth Thursday exercise of a more challenging nature. Exercises will almost always include a Winlink Express Check-in form. Please [send questions about Winlink Thursdays](#). Questions about the ETO group can be sent [here](#).

The Canadian American Net ([CANAM](#)) aims to unite hams in the Eastern US and Canada. Some 40 amateurs from Canada and the US typically check in for each session, and the net accommodates CW and SSB. The Canadian-American Net operates 7 days a week on 7.153 MHz, with check-in starting at 1300 UTC.

Recommend: Programming your local Emergency Simplex frequency's into your Radio's. It's easier now than when you need them. Brightleaf Amateur Radio Club uses the Repeater frequency in case of Repeater failure.

NETS

VHF/UHF

- ◆**BARC Net**, Mondays, 2000 on 147.09 MHz, W4GDF Repeater.
- ◆**Down East Hospital Net**, 2nd Tuesday of each month at noon
Greenville 444.725 MHz, 91.5 tone N4HAJ
Fountain 444.425 MHz, 88.5 Tone N4HAJ
- ◆Newport SkyWarn Tues. nights 2100E Grifton-146.685-88.5 tone
- ◆Newport-145.450..... IRLP 8561 links to Columbia
- ◆Jacksonville-147.000- 88.5 tone
- ◆Oriental-147.210-151.4 tone
- ◆444 Newport-444.825- 88.5 tone
- ◆Swansboro-146.760- 88.5 tone
- ◆Grantsboro-145 230 - 85.4 tone.
- ◆Kinston Amateur Radio Society Net, 1,3,4 Tuesdays, 2000 hrs. on 145.47 MHz., W4OIX repeater in Kinston.
- ◆Eastern North Carolina Traffic Net, Every night, 2030 on 146.685 MHz.
- ◆Wilson Amateur Radio Club Net, Thursdays @ 2000 on 146.76 MHz.
- ◆ Piedmont Coastal Traffic Net, Nightly 2030 on 146.88 MHz.
- ◆Carteret County ARS (CCARS) Emergency Net, Tuesdays, 1930 on the Newport 145.45 (-) MHz.
- ◆Coastal Emergency Linking Net, Wednesday, 2100 ET on Ahoskie 145.13, Buxton 145.15, Columbia 146.835 & 443.30, Elizabeth City 146.655, Greenville, 145.35, Hertford 147.33, Williamston 145.41 & 444.25
- ◆ 220 Net, Wednesday 2000hrs, 224.840 MHz -1.6, PL 91.5

HF

Tar Heel Emergency Communications Net on 3923 kHz Nightly 1930.

NTS CW Nets

- ◆3.571 2000 hours, slow speed (5-8 wpm) Carolinas Slow Net
- ◆3.573 1900 hours, high speed (20wpm)
- ◆3.573 2200 hours, slow speed (12-14 wpm), South Carolina/North Carolina **National Traffic System**
- Eastern North Carolina Traffic Net (ENCTN)
146.685 (146.085 in) MHz (PL 88.5) 2030E

Virginia EmComm (A Winlink practice group)



This is a Facebook Group that practices Winlink and other related modes every Wednesday. Many Hams all over involved. All are invited to take part in it.

PRIMARY NET CONTROL: KW6GB

See Facebook Group for more details. Joining group required to see page and comment.

(Example of a Wednesday)

***** Winlink Wednesday (Episode #252) *****
07/07/2021

This being the first Wednesday of the month, weather snapshots are requested; see below for details (no attachments of any type, please). Standard check-ins are always welcome.

WHO: All amateur radio operators

WHAT: Winlink Wednesday

WHEN: Wednesday, 7 July 2021, 0000-2359 EDT (*UTC: 0400 Wed - 0359 Thu*)

HOW: *This net will accept check-ins via Winlink only. Send a check-in via any RMS during the timeframe above, or participate in one or both of the P2P sessions below.*

Please do not use a "Telnet Winlink" connection (which defeats the purpose of Winlink). The goal is to have the message leave your station via RF.

Please remember to use the correct format for check-in, as shown below (check-in message on a SINGLE LINE), or with optional weather snapshot on second line, over an RF connection.

To: **KW6GB** (*or alternate NCS, as appropriate*)

Subject: **Winlink Wednesday Check-In**

Message body: **call sign, first name, city or town, county, state (HF or VHF, etc.)
observation time, weather conditions, temperature <<<--- WEATHER ON SECOND
LINE**

See example in my signature line, below.

PEER-TO-PEER SESSIONS:

Morning session: 0730-0930 EDT, (*UTC: 1130 - 1330*), **ARDOP P2P**, several frequencies (see chart below).

Net Control Stations - Morning P2P Session Only

Role	Station	Dial Frequency	Operator	Location
Primary	KW6GB	3582 kHz	Greg Butler	Warren County, VA
Alternate	KM4DC	3585 kHz	Don McCubbin	Fairfax County, VA
Alternate	KN4LQN	3590.5 kHz	David Elkins	Chesterfield County, VA
Alternate	N4ACK	3565 kHz	Lyle Piner	Isle of Wight County, VA

Messages sent to Alternate NCS must be addressed to the receiving station.

Afternoon session: None.

Evening session: 1900-2130 EDT, (UTC: 2300 Wed - 0130 Thu), **VARA P2P**, 3582 kHz (dial).

Net Control Station - Evening P2P Session

Role	Station	Dial Frequency	Operator	Location
Primary	KW6GB	3582 kHz	Greg Butler	Warren County, VA

No Alternate Net Control Stations.

Watch Facebook for details when active.

On Thursday, all check-ins will be acknowledged, and a net report and complete roster will be published to the Web.

73,

KW6GB, Greg, Front Royal, Warren, VA (VHF)

0815L, clear, winds calm, 69dF



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Ham Ads

Ham Ads will be run, free of charge in Ham Chatter for three months for each renewal. Ads must be received by the last week of the month to be included in the following issue. Send ads to: **Ham Chatter, PO Box 8387, Greenville, NC 27835. Or Email the Ham Chatter.**

Used Radios and equipment for Sale:

Tytera MD 380 UHF DMR & Analog HT, includes one battery, and charger, and box.

Programmed, but buyer will need to get an DMR ID, and change the ID in the HT

Asking \$75.00

Bernard Nobles WA4MOK

wa4mok@embarqmail.com

HEATHKITS

All for sale by Jeff AC4YN. If you want instant respect on 80 Meter AM, the DX-100 is your #1 option. There are two HW-101 and one SB-102. Asking price is \$100 for each. jeffstaff@juno.com

HALLICRAFTERS SUPER SKYRIDER

de W4BOH: I have a neat Super Sky rider that needs to participate in my downsizing. If you actually want one you can turn on and listen to, this is it. It was worked over and had some external paint touched up by a serious collector in NM. I bought from his estate and don't know anything about him, but all the eight things I bought are in fine shape. Someday, you may want to buy one of my Pilot Wasps! Anyhow, the Super Sky rider is hot and I've made several QSOs with it. Halli was bad about reusing names and it has no number, but I think it's much like an SX-16. The often lost plug in xtal filter is present and works. It's one of the few with variable BFO injection level. The chrome is great and the RX will look good on any operating table or display shelf. Are you sold? It's \$200, picked up in Hillsborough. I'll even deliver, if you are sure you want it and pay upfront! Of course you'll want a picture, so just email me at infomet@embarqmail.com and I'll send you one, or more. 73, Wilson, W4BOH infomet@embarqmail.com

Ham Ads

Commercial Ad Rates

1/8 page, Business Card Size
 \$10 per Month - \$100 per Year
 Send ads to: **Ham Chatter,**
PO Box 8387, Greenville, NC 27835
 Help support *Ham Chatter* and the club.
Donations accepted!

How to print a copy of your FCC License

by Jim, KV4SJ

To access an official copy of your license:

1. Go to: [HTTPS://wireless2.fcc.gov/UISEntry/licManager/login.jsp](https://wireless2.fcc.gov/UISEntry/licManager/login.jsp)
2. Log in with your FRN and password. (Also has links to find or get your FRN.)
3. Click on "Download Electronic Authorizations" in the links on the left hand side.
4. Select your call sign in the box labeled "My Authorizations" and click on the Add button to copy it into the "Authorizations to Download" box.
5. Click on the Download button to download an official copy of your license in PDF format.
 via *Forsyth ARC Newsletter, August 2020*

BARC on FACEBOOK

<https://www.facebook.com/w4amc/>

Facebook and Group details

<http://www.w4amc.com/barcnews.html#BARC>

Pitt County Repeater Association

<http://www.pcra.us/>

Monday & Monday, CPA's, PA

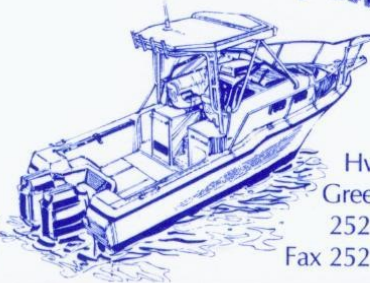
Certified Public Accountants

TERRY A. MONDAY, CPA, CVA, EA
K4ZYD

105-D East Victoria Ct.
 Greenville, NC 27858

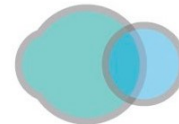
Phone (252) 321-6007
 Fax (252) 321-2991

MARK'S MARINE, INC.



Mark Langley
 Mike Langley
KD4MTT

Hwy. 33 East
 Greenville, NC
 252 758-3309
 Fax 252 758-1396



East Carolina Retina CONSULTANTS

Peter Van Houten, M.D.

2501a Stantonsburg Road
 Greenville, NC 27834

252-758-2402

<https://ECRetina.com>

Bruce Draper, AA5B, aa5b.corral@gmail.com

Contest Corral

February 2022

Check for updates and a downloadable PDF version online at www.arrl.org/contest-calendar.

Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish	Date-Time	Date-Time	Bands	Contest Name	Mode	Exchange	Sponsor's Website
2 1700	2 2000	144	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en	
2 2000	2 2100	3.5	UKEICC 80-Meter Contest	Ph	6-char grid square	ukeicc.com/80m-rules.php	
3 0000	4 0300	7	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or power	qrpcontest.com/pigwalk40	
3 1800	3 2200	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrllcontest.no	
3 2000	3 2200	1.8-50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com	
5 0000	6 2359	1.8-UHF	Vermont QSO Party	CW Ph Dig	RS(T), VT county or SPC	www.ranv.org/vtqso.html	
5 0001	6 2359	28	10-10 International Winter Contest, SSB	Ph	Name, mbr or "0," SPC	www.ten-ten.org	
5 0600	5 1800	1.8-28	EurAsia HF Championship	CW Ph	RS(T), 6-char grid square	www.eurasia-contest.com	
5 1200	6 1200	3.5-28, 144	F9AA Cup, CW	CW	RST, serial	www.site.urc.asso.fr	
5 1200	6 2359	3.5-28	Mexico RTTY International Contest	Dig	RST, XE state or serial	www.rtty.fimre.mx	
5 1400	5 2359	1.8-28	Minnesota QSO Party	CW Ph Dig	Name, MN county or SPC	www.w0aa.org/mnqp-rules	
5 1400	5 2359	1.8-28	FYBO Winter QRP Sprint	CW Ph Dig	RS(T), SPC, name, power, temperature	arizonascqrptions.apps-1and1.com	
5 1600	5 1800	3.5-28	FISTS Saturday Sprint	CW	RST, SPC, name, mbr or "0"	fistsna.org/operating.html#sprints	
5 1600	5 1900	3.5	AGCW Straight Key Party	CW	RST, serial, class, name, age	alt.agcw.de/index.php/en	
5 1600	6 2359	1.8-28	British Columbia QSO Party	CW Ph	RS(T), BC district or SPC	orcadxcc.org/bcqp_rules.html	
5 1800	6 1800	1.8-28	European Union DX Contest	CW Ph	RS(T), EU region or ITU zone	eudxcc.altervista.org/eu-dx-contest	
5 2300	6 0300	3.5-14	North American Sprint, CW	CW	Others' call, your call, serial, name, SPC	ncjweb.com	
6 1400	9 0800	1.8-144	Classic Exchange, CW	CW	Name, RST, SPC, rig information	www.classicexchange.org	
7 1630	7 1729	3.5, 7	OK1WC Memorial (MWC)	CW	RST, serial	memorial-ok1wc.cz	
7 2000	7 2130	3.5	RSGB 80-Meter Club Championship, SSB	Ph	RS, serial	www.rsgbcc.org/hf	
8 0200	8 0400	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com	
9 0130	9 0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info	
9 1700	9 2000	432	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en	
12 0000	13 2359	3.5-28	CQ WW RTTY WPX Contest	Dig	RST, serial	cqwxrtty.com/rules.htm	
12 1100	12 1300	7, 14	Asia-Pacific Spring Sprint, CW	CW	RST, serial	jsfc.org/apsprint/aprule.txt	
12 1200	13 1200	1.8-28	Dutch PACC Contest	CW Ph	RS(T), PA province or serial	pacc.veron.nl	
12 1200	13 2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com	
12 1200	13 2359	1.8	KCJ Topband Contest	CW	RST, JA prefecture or continent code	www.kcj-cw.com	
12 1400	14 0200	All	YLRL YL-OM Contest	CW Ph Dig	Serial, RS(T), SPC	ylrl.org/wp/yl-om-contest	
12 1500	13 1500	1.8-28	OMISS QSO Party	Ph	RS, SPC, mbr (if any)	omiss.net/Facelift/qso-party.php	
12 1900	12 2300	1.8	RSGB 1.8 MHz Contest	CW	RST, serial, UK district code (if UK)	www.rsgbcc.org/hf	
12 2300	13 2300	1.8-14	AWA Amplitude Modulation QSO Party	Ph	Name, SPC	antiquewireless.org	
13 1300	13 1700	3.5, 7	Balkan HF Contest	CW Ph	RS(T), serial	arabih.ba	
14 0000	14 2359	1.8-7	PODXS 070 Club Valentine Sprint	Dig	Name, OM or YL, SPC	www.podxs070.com	
14 0100	14 0259	3.5-14	CQC Winter QSO Party	CW	RST, SPC	www.coloradoqrpclub.org	
14 0100	14 0300	1.8-28	4 States QRP Group Second Sunday	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com	
14 1300	18 2359	All (no WARC)	ARRL School Club Roundup	CW Ph Dig	RS(T), class (I/C/S), SPC	arrl.org/school-club-roundup	
14 1630	14 1729	3.5, 7	OK1WC Memorial (MWC)	CW	RST, serial	memorial-ok1wc.cz	
16 1900	16 2030	3.5	AGCW Semi-Automatic Key Evening	CW	RST, serial, year first used a bug	alt.agcw.de/index.php/en	
16 2000	16 2130	3.5	RSGB 80-Meter Club Championship, Data	Dig	RST, serial	www.rsgbcc.org/hf	
17 0000	18 0300	14	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or power	qrpcontest.com/pigwalk20	
19 0000	20 2359	1.8-28	ARRL International DX Contest, CW	CW	RST, state or province; DX, power	www.arrl.org/arrl-dx	
19 1200	20 1159	1.8-28	Russian PSK WW Contest	Dig	RST, oblast or serial	rdclub.ru/russian-ww-psk-contest	
19 1900	19 2059	1.8-28	Feld Hell Sprint	Dig	RST, mbr, SPC, grid	sites.google.com/site/feldhellclub	
20 2100	20 2300	3.5-28	FISTS Sunday Sprint	CW	RST, SPC, name, mbr or "0"	fistsna.org/operating.html#sprints	
20 2300	21 0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrpcontest.com/pigrun	
21 1630	21 1729	3.5, 7	OK1WC Memorial (MWC)	CW	RST, serial	memorial-ok1wc.cz	
23 0000	23 0200	1.8-50	SKCC Sprint	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com	
23 2000	23 2100	3.5	UKEICC 80-Meter Contest	CW	6-char grid square	www.ukeicc.com/80m-rules.php	
24 2000	24 2130	3.5	RSGB 80-Meter Club Championship, CW	CW	RST, serial	www.rsgbcc.org/hf	
25 2200	27 2200	1.8	CQ 160-Meter Contest, SSB	Ph	RS, SP or CQ zone	cq160.com/rules.htm	
26 0600	27 1800	3.5-28	REF Contest, SSB	Ph	RS, French department or serial	concours.r-e-f.org/reglements	
26 1200	27 1200	3.5-28	FTn DX Contest	Dig	4-char grid square	europeanft8club.wordpress.com	
26 1300	27 1300	3.5-28	UBA DX Contest, CW	CW	RST, serial, ON province (if ON)	www.uba.be/en	
26 1500	27 0159	1.8-50	South Carolina QSO Party	CW Ph Dig	RS(T), SC county or SPC	scqso.com	
26 1800	27 0559	3.5-28	North American QSO Party, RTTY	Dig	Name, SPC+DC	www.ncjweb.com	
26 1800	27 0559	3.5-28	NA Collegiate Championship, RTTY	Dig	Name, SPC+DC	www.w9smc.com/nacc	
27 1400	27 1700	3.5-28	High Speed Club CW Contest	CW	RST, mbr or "NM"	www.highspeedclub.org	
27 1500	28 0100	3.5-144	North Carolina QSO Party	CW Ph Dig	NC county or "SPC"	ncqsoparty.org/rules	
28 1630	28 1729	3.5, 7	OK1WC Memorial (MWC)	CW	RST, serial	memorial-ok1wc.cz	
28 2000	28 2130	3.5-14	RSGB FT4 Contest	Dig	4-char grid square	www.rsgbcc.org/hf	

There are a number of weekly contests not included in the table above. For more info, visit: www.qrpfoxhunt.org, www.ncccsprint.com, and www.cwops.org. All dates refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or NCJ. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. Data for Contest Corral is maintained on the [WA7BNM Contest Calendar](http://www.wa7bnm.com) at www.contestcalendar.com and is included for publication in QST 2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WA7BNM, in providing this service.

BARC

CALENDAR OF EVENTS

2022 Starts Here: Just some of the MANY contests and Events

February 2 -- VHF-UHF FT8 Activity Contest

February 2 -- UKEICC 80-Meter Contest (Phone)

February 3 - 4 -- Walk for the Bacon QRP Contest (CW Maximum 13 WPM)

February 3 -- NRAU 10-Meter Activity Contest (CW, phone, digital)

February 3 -- SKCC Sprint Europe (CW)

Feb 8 BARC Meeting

Feb 14-18 School Club Roundup

**** Feb 19-20 2022 VOA Anniversary Event "W4A" BARC Club Event ****

March 8 BARC Meeting

March 5-6 [International DX- Phone](#)

April 10 [Rookie Roundup - Phone](#)

April 14-15 The CW-only [Maritime Radio Day](#) 2022 is set for 1200 UTC on April 14 until 2200 UTC on April 15.

June 1-13 [June VHF](#)

June 18 [Kids Day](#)

June 25-26 [Field Day](#)

Contest Calendar: For more Contest and all the rules: <https://www.contestcalendar.com/weeklycont.php>
There's more than I could post available.

Regular Meeting - 2nd Tuesday @ 7:00 PM Live and Zoom

Board Meeting - Last Tuesday @ 7:00 PM ZOOM

Upcoming ARRL Section, State, and Division Conventions:

February 10 - 13, 2022 -- [2022 ARRL National Convention](#) at Orlando HamCation®, Orlando, Florida

February 18 - 19, 2022 [ARRL Southwestern Division Convention](#) (Yuma Hamfest), Yuma, Arizona
February 26, 2022 [ARRL Vermont State Convention](#) (HAM-CON), Colchester, Vermont
[QSO Today Virtual Ham Expo](#) will be held live from March 12-13, and then on demand for 30 days afterward.

Find conventions and hamfests [in your area](#).

Check the calendar of canceled events on the ARRL website.

Other events:

UPCOMING HAMFESTS IN THE ROANOKE DIVISION

Friday & Saturday, March 11 & 12, 2022

Charlotte Hamfest

Cabarrus Arena & Event Center - Gold Hall, 4751 Highway 49, Concord, NC 28025

Website: <http://www.charlottehamfest.org>

Talk-In: 146.655

Saturday, March 19, 2022

Charleston Hamfest, the West Virginia Section Convention
Charleston Coliseum and Convention Center, 200 Civic Center Drive, Charleston, WV 25301

Website: w8gk.org

Talk-In Freq: 145.35 91.5 PL

Sunday, March 27, 2022

Winterfest, the ARRL Virginia Section Convention Northern Virginia Community College, 8333 Little River Turnpike, Annandale, VA 22003

Website: <https://viennawireless.net/wp/events/winterfest/>

Talk-In: 146.685 MHz Repeater (neg offset, 110.9Hz CTCSS)

Saturday, April 16, 2022

RARSfest—the ARRL Roanoke Division Convention North Carolina State Fairgrounds, 4285 Trinity Road, Raleigh, NC 27601

Website: <https://www.rarsfest.org> Talk-In: 146.640, no tone

BARC 2 METER NET - MONDAY NIGHTS AT 8:00 PM - 147.09 W4GDF REPEATER - 131.8 Tone
Down East Hospital Net - 2nd Tuesday at noon - Greenville 444.725 MHz, 91.5 tone N4HAJ
BRIGHTLEAF AMATEUR RADIO CLUB STATIONS

W I V O A - W 4 A M C - W 4 U H S