

Ham Chatter



Volume 57 Issue 1

An Official BARC, W4AMC, Publication

January 2023

Editor, Mark, KG4GVJ

Email: hamchatter@w4amc.com

REMINDER

New time and location for the General Meetings for BARC.

See page 6 for details

General meeting January 10, 6:30pm

All members, families and guests are invited to attend.

Speaker: Clint K6LCS, see page 2

Reminder, Dues due January 1, 2023

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



Editor getting the January 2023 Edition done!

Board Meeting - January 31, 2023. The meeting will be on ZOOM at 7:00 PM. All members invited. See Zoom information.

2023 Presentations

January 10th 6:30pm

Clint K6LCS has been a ham since 1994, and found his niche in the hobby: working amateur satellites with minimal equipment and telling ALL about it! He has served a liaison between NASA, the ARISS team, and schools coordinating amateur radio contacts between the International Space Station and students (and also orchestrated a wildly successful ARISS contact). Audiences have never found his presentation slides "wordy" nor dull. Trivia questions are included throughout the session - audiences are never bored.

For reference materials, Clint has created a support Web site at work-sat.com. The Web site has become a one-stop source for ALL the citations and equipment recommendations and software suggestions made in the presentation.

Professionally, Clint was sales manager for ADI / Premier Communications / Pryme, worked for a Motorola commercial two-way dealer a couple of years, and for Ham Radio Outlet a couple more. He resides in Jurupa Valley, California, with his wife, Karen, and their rescued lab, Freja (FRAY-ya)

Oliver Dully K6OLI Winlink Basics

February 14 6:30pm

Oliver Dully, K6OLI, serves as District Emergency Coordinator for ARES LAX Northeast, which provides amateur radio communications backup for 911 receiving hospitals in northeastern Los Angeles County. Operators with ARES LAX Northeast use innovative technologies like Winlink with VARA HF, VARA FM, Packet and AREDN mesh, for example, to provide amateur radio solutions for the complex communications demands of medical facilities when commercial options may have been compromised. He is one of the initiators of the VARA FM Winlink Autobahn connecting Los Angeles and Ventura Counties.

Oliver has authored several popular Winlink Quick Guides for Packet and VARA FM.

He also coordinates the Winlink Did-you-feel-it (DYFI) project, a Winlink Development Team collaboration with the United States Geological Survey. In his role as Forms Manager for the Winlink Development Team Oliver coordinates the creation and management of Winlink forms.

With his radio friends Oliver enjoys supporting events like races and charity events.

Oliver and Tran K6NHI live in Pasadena, CA.

Publications

Dully, O. (2019), AREDN Mesh Tunnel via Satellite at Baker 2 Vegas 2018, February 2019 QST, 78-80; copyright ARRL, <https://southpasradio.org/wp-content/uploads/2019/01/02-2019-QST-Dully-AREDN-Mesh-B2V.pdf>

[AREDN Mesh Tunnel - W6SPR](#)

78 February 2019 www.arrl.org Oliver Dully, K6OLI From March 17 to 19, 2018, Dave Gross, W6JDG; Brian Kanegawa, KM6IGY; Tran Huynh, K6NHI, and

southpasradio.org



[Amateur Radio Operators Help Fill Earthquake Donut Holes - Eos](#)

Ham radio networks gear up to provide real-time, on-the-ground information about earthquake shaking and damage when other communication pathways are knocked out of commission. doi.org

Wald, D. J., V. Quitoriano, and O. Dully (2021), Amateur radio operators help fill earthquake donut holes, Eos, 102, <https://doi.org/10.1029/2021EO155013> . Published on 22 February 2021.

Quick Setup Guide: VARA FM 4.x.x

By Oliver K6OLI
Last Update: Nov 28, 2022

Special thanks go to Scott KI6SC, Martin HB9AUR, Keith KD6PYD, Brian KM6IGY, Jeff W2JQL, Tom KN6BKT, Mike KM6KAQ, Jim KM6TGJ (SK), Ken KI7EIH, Scott NS7C and Denis K0TX for your testing, for your suggestions, insights and encouragement.

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[Quick Setup Guide: VARA FM 4.x.x \(2022-November\)](#)

Quick Setup Guide: VARA FM 4.x.x By Oliver K6OLI Last Update Special thanks go to Scott KI6SC, Martin HB9AUR, Keith KD6PYD, Brian KM6IGY, Jeff W2JQL, Tom KN6BKT, Mike KM6KAQ, Jim KM6TGJ (SK), Ken KI7EIH, Scott NS7C and Denis K0TX for your testing, for your suggestions, insights and encouragement... bit.ly/4...

Quick Guides

Quick Setup Guide: VARA FM 4.x.x by K6OLI, <https://bit.ly/QG-VARA-FM>

Quick Setup Guide: UZ7HO Packet Soundmodem by K6OLI, <https://bit.ly/K6OLI-Winlink-Packet>

Quick Setup Guide: Packet Soundmodem (K6OLI)

Last Update Sep 5, 2022

Thank you, Mike KM6KAQ, Scott KI6SC, Brian KM6IGY, Lew AC6LS, Keith KD6PYD, Jim KM6TGJ, Ken KI7EIH, Joe AH0A, Tom N5TW, Mike XE2/N6KZB, Scott NS7C, Roger K6WDX and Denis K0TX for testing, for your suggestions, insights and encouragement. And special thanks to Phil W4PHS and Andy UZ7HO whose programming skills, smart work and dedication make Winlink and soundcard Packet the powerful and robust combination that it is.

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Quick Setup Guide: Packet Soundmodem (K6OLI) Last Update , Mike KM6KAQ, Scott KI6SC, Brian KM6IGY, Lew AC6LS, Keith KD6PYD, Jim KM6TGJ, Ken KI7EIH, Joe AH0A, Tom N5TW, Mike XE2/N6KZB, Scott NS7C, Roger K6WDX and Denis K0TX for testing, for your suggestions, insights and encouragement....

bit.ly

Thank you

Quick Setup Guide: IC-7100 VARA FM, UZ7HO & VARA HF by K6OLI, <https://bit.ly/K6OLI-IC7100>

Quick Setup Guide: IC-7100
VARA FM, UZ7HO & VARA HF

By Oliver K6OLI

Last update Nov 28, 2022

Thank you, Jeff W2JCL and Robert WY7AA for testing, for your suggestions, insights and encouragement.

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Quick Setup Guide: IC-7100 VARA FM, UZ7HO & VARA HF By Oliver K6OLI Last update , Jeff W2JCL and Robert WY7AA for testing, for your suggestions, insights and encouragement. Table of Contents Table of Contents 1 VARA FM Winlink Settings 3 VARA FM Modem Setup 4 VARA FM Setup 4 VARA F...

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Thank you Presentations

Great ShakeOut 2021 - Winlink Did-you-feel-it in Action: <https://youtu.be/EYuTQv85rjk> Published on 19 November 2021

VARA FM for Emcomm: <https://youtu.be/FAn8eg3Lk3A> Published on 16 July 2021

Winlink for Emcomm 3 - Gateways: <https://youtu.be/wJdLLqy88Bw> Published 29 April 2021

Winlink for Emcomm 2 - Peer-to-peer: https://youtu.be/5sy1_tjsq2k Published 30 April 2021

Winlink for Emcomm 1 - Setup and Basic Operation: <https://youtu.be/Wd9BU5nznB0> Published 29 April 2021

Winlink Did-you-feel-it Intensity Reporting: <https://youtu.be/Ao2WmypyVGg> Published 27 May 2021

ShakeOut for Volunteer Radio Groups: <https://youtu.be/IILXriPkn3c> Published October 17 2022

We have a request to help take a tower down...from Bernie: (Email)

Peter, Rick Lamonica is in bad health.

He wants to donate his tower to the club, which is a

Heights free standing aluminum tower, not sure it's about 40 feet.

We will need a working party to take it down, and get all the coax out.

I'm still weak from covid, but getting better, so it might be awhile before I could help.

Maybe you & I can meet in the near future and discuss a plan to help Rick.

Take Care

Bernard Nobles WA4MOK

——>Please contact Bernie and we will make a tower takedown party! Who can help with this?

New BARC Meeting Time and Location for 2023 6:30pm

BARC member meetings will have a new time and location beginning with the January 2023 meeting. Thanks to Scott James (K9SPJ) and Sheppard Memorial Library the meetings will move to the main library in downtown Greenville in meeting room A. The day remains the same - second Tuesday of each month - but the meeting start time shifts to 6:30pm to allow BARC attendees to enter before the library closes to the public at 7:00pm. The room entrance is just inside the main entrance, on the left just beyond the Coca-Cola machine.

The library's address is 530 Evans Street, Greenville. The parking lot is accessed from Reade Circle or Dickinson Avenue. The exterior doors are locked at 7:00pm, so if you arrive after that you will need to call K9SPJ on the 146.520 2-meter simplex calling channel for entry.



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.

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 :

01-06	W4ESO	Frank
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:

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 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.

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BARC's President's Corner, Beth, KN4FZB



Happy 2023 BARC Friends! I wish you health, peace, prosperity, and opportunities to make memories.

As 2022 comes to an end, and our thoughts turn to new beginnings, I was trying to come up with new beginnings for the club, as well as for myself. BARC has done a great job keeping the club running with the Zoom meetings throughout the pandemic and it has afforded us the opportunity to have speakers from all over the world. But I am hoping that we can incorporate more opportunities for face-to-face meetings and operating events. I have only been with the club since September of 2020, so I don't know if this is a new beginning, or returning to what once was, but it seems like it's time to start getting out together more, both socially and for radio operating.

One thing already in the works, is to revive breakfast meet ups, and maybe other meals eventually too. We are going to meet on the Saturday after the Tuesday meeting, at 9:00 at Great Harvest. Please stop by, have some coffee, and chat for a while.

Additionally, I want to find ways to get us more involved in the community as a club. Let's get more visibility for amateur radio. It could be just meeting as a group in the park for a little outdoor radio play, or setting up an informational table at some local events. I'd love to have more BARC representation at the Bike MS event in New Bern. Maybe the Fair, maybe a JOTA with the Scouts or a foxhunt, maybe at a science expo... keep your eyes open for opportunities.

I have a few other ideas brewing, but I don't want to lay them all out yet. I also want to hear from you about what you would like to see the club doing. What do you like, and what do you want to change? Feel free to let me know, I'd love to discuss these types of things.

And finally, as I step into Peter's shoes as president, I want to thank him in particular, and all the other board members, who have so diligently worked behind the scenes to keep the club running smoothly. Kudos to you all for a job well done!

And so my friends, I'm looking forward to another year with BARC. Let's make 2023 a great year.

Sincerely,
Beth, KN4FZB



Gary NG9T's PARC President's Corner



It's the start of a new year and I'm happy to be back with PARC and having the opportunity to serve another term as their Club President. I served as president of PARC in 2017 and 2018 until family needs took me to Cape Carteret. During my 4 years in Carteret County, I was a member of the Carteret County Amateur Radio Society (CCARS) and was elected president starting January, 2022. Family matters again required another move and I've bought a house in Blounts Creek and the distance from Carteret County caused me to resign as CCARS President. Now that I'm back with all of my great friends in PARC, I've again been elected to be President of PARC starting January of 2023. It's a real honor to be asked to serve again and I'm looking forward to the new year.

PARC is a fun club that works toward advancing the Ham Radio hobby and helping interested people to learn about radio and to become licensed Hams. We give exams to new Hams and to Hams looking to upgrade their licenses. We participate in Field Day, Winter Field Day, POTA activations, Youth on the Air, Boy Scouts, contests, etc. We are always looking for ways to keep Ham Radio an interested hobby and for ways to get young people involved.

Come out and join us, we look forward to having all join us.

Gary Faust NG9T
gfaust1963@gmail.com

Upcoming Events:

Winter Field Day, Jan 28-29. We plan to operate from Goose Creek State Park.

Club Meetings:

We meet on the third Thursday of each month at 7:00pm at:
Zion Episcopal Church
7322 US 264 East
Washington, NC 27889

Nets:

2m Net 1st Thursday of each month at 8:00pm
Bath repeater 146.955mhz PL131.8
Alternate: Washington Repeater 147.255 PL131.8

80m Net every Tuesday at 7:00pm
3807 SSB (or close by if freq in use)

Weekly Breakfast (Social):

Every Wednesday at 9:00am at:
Shep's Grill
129 N. Market St
Washington, NC 27889



July, 1941

GREETINGS FROM THE HIGH COUNTRY

Dec 18, 2022

On Friday night (12/16) it was 31 degrees at 7:30 pm. On Sunday at 12:45 pm. it was 24.8 degrees and the overnight low was 21.4 degrees. By 6:30 pm on Sunday, the temperature had dropped to 23.2 and an chill factor of 9 degrees.

Bundle up, Baby, on next Thursday night 12/23, the low here is expected to get down to 0 degrees with an uncertainty over how much snow will fall on Thursday and Friday of next week. You might not have a White Christmas but the odds are increasing that the High Country will have some white stuff around Christmas-time.

ARRL MATTERS

VOLUNTEERS ON THE AIR CONTEST

ARRL is sponsoring a year-long contest during 2023 that is designed to increase on the air participation by members while also acknowledging that thousands of ARRL volunteers serving in various Field Service positions, or are ARRL officers a or Board Members.

The January 2023 issue of QST, which along with the webpages cited below, give additional information about the contest.

A special web page has been set up (<http://www.arrl.org/volunteers-on-the-air>) to offer information about the contest and to display current leaders based upon the points they have accumulated after entering their contacts in Log Book of the Word. Portable operation of W1AW is planned and each state will be highlighted twice during the year in order to fascinate earning WAS and other awards.

Differing amounts of points will be awarded to operators depending upon the ARRL position held by the person you contact.

As can be seen in the table posted at http://www.arrl.org/files/file/VOTA%20-%20Volunteers%20On%20The%20Air/VOTA_2023_Points_v1_0.pdf there is a considerable range of points that can be earned depending upon who you contact during the contest and enter the data in LOTW.

Information on when each state will be highlighted as well as W1AW portable operation can be found at https://www.arrl.org/files/file/VOTA%20-%20Volunteers%20On%20The%20Air/2023%20VOTA%20W1AW%20Activation%20-%20V_2_6.pdf

NEW QUESTION POOL FOR GENERAL LICENSE TAKES EFFECT ON JULY 1 2023

The National Conference of Volunteer Examination Coordinators' (NCVEC) Question Pool Committee (QPC) has released the 2023 - 2027 General Class FCC Element 3 Syllabus and Question Pool to the public. The new General Question Pool is effective July 1, 2023, through June 30, 2027. General Class License Exams given on or after July 1-2023 though June 30, 2027 will use the new question pool. For information, go to <http://arrl.org/news/new-general-question-pool-released-for-ham-radio-licensing-effective-july-1-2023>.

PRIZE FOR NC CLUB DOING BEST IN ARRL MEMBERSHIP RECRUITMENT

ARRL recently established a Club Commission program that provides funding from ARRL to clubs that handle the paperwork and collect dues from new ARRL members as well as renewing members. Clubs collect the ARRL membership applications and the annual dues from the new or renewing member and submit these items to ARRL. ARRL in turn will return to the club \$5 for each renewal and \$15 for each new ARRL membership processed by the club.

Details on the CLUB COMMISSION program can be found at <http://www.arrl.org/affiliated-club-benefits>.

The North Carolina Section will provide an additional incentive for clubs to engage in the Club Commission program in addition to the funds coming back from ARRL. The NC ARRL Affiliated Club that is most successful in the club commission program will be given a the paperbound version of the 100th Anniversary edition of the ARRL Handbook.

To be specific, the Handbook set will go to the club that processes the most new ARRL members or renewing hams through the Club Commission program between January 1 and March 31 2023.

NC SECTION TRAFFIC MANAGER REPORT

Dave Roy, W4DNA, submitted his report for traffic net activity during November 2022. Because of the limitations on the ARRL email system, the Excel file has to be condensed in this newsletter but the entire report can be viewed at <https://www.ncarrl.org/W4DNA-NC-Section-Net-Report-NOVEMBER-2022>

NET	NMGR	QNI	LISTED	PASSED	TIME	SESSIONS	TFC %
SECTION NETS							
CN	KC4PGN	380	105	101	489	60	96.19%
CSN	KI4KZS	112	19	18	509	30	94.74%
NCEN	WK4WC	447	124	119	513	30	95.97%
NCMN	W3OJO	364	105	100	454	30	95.24%
THEN	K4SEH	Report will be updated upon receipt					
LOCAL NETS							
CWTVN	N4CNX	417	52	52	501	30	100.00%
ENCTN	W4DNA	92	9	9	160	29	100.00%

PCTN	W4TTO	260	40	40	217	30	100.00%
TOTAL		2072	454	439	2843	239	96.70%

REMINDER ABOUT SILENT KEY LISTINGS

If you know of the passing of a friend, a club member or someone who made an impact on ham radio in your area, please drop me a note so I can request the person being listed in QST.

Be sure to include a link to an obituary published in a newspaper or listed by a funeral home. A recent policy change set by the ARRL Board allows a notation in the QST listing that indicates if the SK was a veteran so be sure to indicate his or her veteran status in the information you send me.

EMCOMM MATTERS

EASTERN HEALTHCARE PREPAREDNESS COALITION

Matt McMahon, WU2V, from Greenville NC and the Disaster Communications Specialist for the Eastern Healthcare Preparedness Coalition offered a very interesting RATPAC presentation last Thursday about the EmComm capabilities used in the EHPC that links hospitals and medical care providers in Eastern NC.

There are eight such coalitions in North Carolina

(<https://nchealthcarecoalitions.org/>) and each NC County is served by one of the Coalitions. Each coalition supplements their VIPER and satellite communications to meet local needs.

Properly trained amateur radio operators can become EmComm participants with the Healthcare Preparedness Coalitions. However, a standard practice throughout the Emergency Management community involves completion of Incident Management System training and hams having an on-going relationship with and endorsement by EM.

Watch the RATPAC presentation at

<https://www.youtube.com/watch?v=mySnLa37uTs> .

MISCELLANEOUS RADIO ITEMS

MINNESOTA PBS CARRIES DOCUMENTARY ABOUT HAM RADIO

Grace Walcott, a University of Minnesota student enrolled in the Media Arts program at the school, took on a project to produce a documentary about ham radio. Minnesota PBS broadcast her documentary on Thanksgiving Day. I think you will enjoy half hour show, which highlights many aspects of ham radio. The show could also be used for a club program. The documentary can be found at <https://www.montanapbs.org/programs/ham/>

NEW 220 MHz REPEATER ON RICH MOUNTAIN NEAR BOONE The W4AWU repeater was recently placed in service on Rich Mountain (elevation 4200 ft amsl).. It transmits on 224.680 MHz (using a -1.6 MHz receive offset) and a 114.8 hz tone. This is a wide area repeater and is part of an expanding network of 220 mhz analog repeaters in North Carolina.

SANTA ON VIPER

As has been done for several years, Charlotte Fire Communications will be broadcasting Santa Claus' movements of Christmas Eve. Their transmissions will be broadcast over the VIPER system on the Statewide Talkgroup and carried by all VIPER towers. If you have a digital scanner capable of picking up VIPER system traffic, you can follow Santa's movements on Statewide Call or on the Charlotte System on CFD-Alarm.

HEIL PRODUCT YOU MIGHT WANT TO HAVE

Few experienced hams will fail to recognize who Bob Heil is, mostly because of the quality microphones that he has produced for amateur operators and for professional musicians. What many people do not know is that Bob's professional career

Information on Bob's career can be found at https://en.wikipedia.org/wiki/Bob_Heil including the fact that the University of Missouri granted Bob an Honorary Doctorate in Music and Technology for his contributions to the music and audio technology.

Bob has produced a ham radio handbook that has many tips on ham radio best practices and explanations of radio theory. I just ordered an autographed copy of Bob's Ham Radio Handbook which is described at <https://heilhamradio.com/product/autographed-heil-ham-radio-hand-book/>.

BLUE RIDGE AMATEUR RADIO CLUB TO OFFER ADVANCED RADIO TRAINING SESSIONS Zach Thompson (km4blg@gmail.com) posted on the Mt. Mitchell Hams Amateur Radio Group's Facebook page that BRARC in Hendersonville will offer specialized training sessions at the Salvation Army Building from 6-8 pm on these topics:

January 4 –powering your rig, covering issues of power cables, fuses, power connectors and related issues.

January 19–batteries, types, battery capacities, and care and feeding of batteries.

February 2 – Slow Scan TV using a Baofeng two meter radio.

February 16 – Slow Scan TV, Part 2, covering advanced SSTV topics as well as other digital modes.

These sessions will be hands-on and you do not have to be a member of BRARC to participate.

CLOSING COMMENT

As we close out 2022, I want to thank the many hams who are active in their local clubs and who are keeping amateur alive and well in North Carolina. 2023 is shaping up to a very good year for the NC Section and I look forward to visiting with as many clubs as I can and heading east to Field Day sites in June.

Please accept my best wishes that you and your families have a Christmas filled with love, good health, and some time to enjoy ham radio.

Marv, WA4NC

Dec 23, 2022

Several items have come up that require quick action on your part and justify sending out a special newsletter a few days after the previous issue.

AUXCOMM COURSE IN LEE COUNTY (SANFORD) NC

Registration is now open on TERMS (<https://terms.ncem.gov/TRS/logon.do>) for the Auxcomm Course which will be held in Lee County (Sanford) on January 27, 28 and 29. This is an in-class course designed to train radio operators to be able to support emergency management during disasters and other emergencies while operating with the incident management system.

Prerequisites for enrolling are:

- An affiliation with a public safety agency and approval to enroll given by the local emergency manager
- A currently valid FCC amateur radio license.
- A desire to work within a Communications Unit in a NIMS/ICS environment.
- Past experience in auxiliary communications.
- Completion of the current versions of four ICS courses:

IS 100.c, Introduction to the ICS

IS 200.c, for Single Resources and Initial Incidents

IS 700.b, National Incident Management System (NIMS), an Introduction

IS 800.d, National Response Framework (NRF)

The four ICS courses are available online at no cost at <https://training.fema.gov/nims/>. All four can be completed in an afternoon while it is too cold to be outside.

Travel expenses (mileage, lodging and meals) up to state limits are available for persons who travel at least 50 miles from home to attend the course.

Questions should be directed to Virginia Enzor (NC4VA) at nc4va@nc.rr.com.

PENDER COUNTY EXERCISE

COMU trainees (COML and AUXCOMM) with open PTB's who need an exercise and an opportunity to get portions of the Task Book signed off may want to consider an upcoming exercise in Pender County in South-eastern North Carolina.

This portion of the email contains information from Brandy Osborne and is forwarded in order to make each of you aware of an upcoming land search exercise in Pender County, NC. PENSAR, in conjunction with NCEM and Pender EMS and Fire will be hosting the Swamp Stomp in the Holly Shelter Game Lands January 19-21, 2023.

Along with being a land search exercise, there will be a communications component supported by the exercise that will provide an opportunity for those with open position task books to demonstrate the skills necessary for sign off. There will also be an opportunity for those with completed task books to serve as mentors for those still in training to further enhance already acquired skills.

The opportunity is best suited for the following Communications Branch positions: COML, INTD, and AUXC. However, there will be equipment on site to aid in the development of COMT and ITSL skill development, though there will be less structured training in those positions.

This event does not allow for state reimbursement for hotel accommodations or per diem for food, though there is a primitive camping area on site for tent camping and limited space for campers, though there will not be generator hook up available. Hotel rooms are available in Wilmington at the attendee's expense.

The event is scheduled to begin at 1800 on January 19, but communications personnel would not necessarily need to attend until Friday, January 20th. The first night is structured to be a local event, as a real incident would traditionally unfold.

Registration is completed at TERMS
(<https://terms.ncem.gov/TRS/logon.do>)

RARS RECEIVES ARRL CLUB GRANT

Congratulations go out to the Raleigh Amateur Radio Society for being selected by ARRL to receive one of 20 grants awarded during the second phase of the Club Grant program which was made possible by a very large grant to ARRL from the Amateur Radio Digital Council.

John Honeycutt, N8ZU, RARS President, advised me that the grant will provide the following;

"First, we will purchase two complete HF stations and 2 FM Satellite stations that can be used at club group activities and also lent out to individuals so that they can get active on the air from their homes, or on personal portable operations throughout the month between our club's monthly get-on-the-air group activities.

Next, we will purchase Radio Direction Finding (RDF) equipment so that we can host regular "fox hunts" during our monthly get-on-the air meetings. This gear will also be used for educational purposes and during other events such as Field Day, etc.

Finally, once our monthly on the air activities are running solidly with this new equipment, we will mail a post card to every ham in Wake County, inviting them to participate in our activities."

NWS RALEIGH WINTER STORM VIRTUAL TRAINING

Virginia Enzor (NCVA) asked me to make note of two training webinars put together by the National Weather Service Raleigh. The webinars focus on Winter Weather.

a. Saturday, January 7, 2023, 10 AM EST. Register at <https://attendee.gotowebinar.com/register/3781400136263181654>

b. Wednesday, January 11, 2023, 7 PM EST. Register at <https://attendee.gotowebinar.com/register/3039731164816763737>

BABY ITS COLD OUTSIDE IN THE HIGH COUNTRY

It is bitterly cold up here in the High Country (11:40 am Friday temp is -2.5 degrees and the 25 mph winds giving us a -26 degree chill factor).

I checked the temperature up on Grandfather Mountain which is -10 and the wind is blowing at 25 mph.

No matter how cold it is where you live, I hope your spirit is filled with the blessings of Christmas and that you take time to do what you can to help homeless people and animals in this very dangerous weather.

Merry Christmas and Happy New Year. I hope you are looking forward to 2023 as much as I am.

Marv, WA4NC

ARRL North Carolina Section

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

Dear ARRL Roanoke Division Members:

Dec 28, 2022

A Christmas message of hope. ARRL has worked with Congress to introduce legislation which would bring relief to those operators living in communities, neighborhoods and subdivisions with antenna restrictions. For the past three years, ARRL's Legislative Advocacy Committee has met with congressional leaders and staff to develop a bill containing language which can realistically pass and become law. U.S. Rep. Bill Johnson (R-Ohio 6th District) introduced H.R. 9670 -- the Amateur Radio Emergency Preparedness Act. Rep. Johnson plans to refile the bill in the upcoming 118th Congress when that session convenes in January. Other sponsors are being lined up to support the bill and ARRL will be developing programs where members can contact their House representatives to support the legislation.

Antenna relief is critical to many Hams in the Roanoke Division. Vice Director Bill Morine, N2COP, and Section Managers Jack Smith, KE4LWT, of Virginia; Marv Hoffman, WA4NC, of North Carolina; Marc Tarplee, N4UFP, of South Carolina and West Virginia's Dan Ringer, K8WV, and I have all heard from members frustrated at attempts to get on the air in antenna restricted communities. This is especially true in areas with high concentrations of housing units, especially near cities in metropolitan areas. Many Hams have complained they have little choice in housing in some areas, especially if they need to be close to work. Also, an increasing trend are Hams who are downsizing into retirement and senior communities with antenna restrictions. According to building trade associations, an estimated 70%-90% of new housing has private deed covenants, many of which contain antenna restrictions.

Another benefit which H.R. 9670 — the Amateur Radio Emergency Preparedness Act will bring is encouragement to those who live in communities with antenna restrictions to become licensed for the first time. The title of bill H.R. 9670 — the Amateur Radio Emergency Preparedness Act emphasizes that Amateur Radio operator volunteers offer emergency communications in natural and manmade disasters at no cost to the public.

In addition to H.R. 9670 -- the Amateur Radio Emergency Preparedness Act, introduced this week in Congress was H.R. 9664, the ARRL Symbol Rate Bill. Its purpose is to force the FCC to act on the 2016 proposal to replace the archaic maximum 300 baud symbol rate for digital communications and require a bandwidth maximum of 2.8 kilohertz. The United States is the only remaining developed nation with this obsolete constraint which hampers high speed data exchange and experimentation in digital modes.

More information will be forthcoming on this and on other developments in the Roanoke Division in the upcoming end year division newsletter which will be released this coming week. Until then, Merry Christmas and Happy Holidays to all ARRL members and Hams and their families in the four states of the Roanoke Division.

73 de Dr. Jim Boehner, N2ZZ
Roanoke Division Director
ARRL Roanoke Division
Director: James F Boehner, N2ZZ
n2zz@arrl.org

To all ARRL Roanoke Division members:

Dec 28, 2022

I am proud to present to you the Roanoke Division end of year newsletter for 2022. Due to the HTML restrictions of this ARRL mailer, here is the link to the newsletter at the Roanoke Division website:

https://www.arrl-roanoke.com/Roanoke_Newsletter_New_Years_2023.pdf

As there are sometimes challenges to go to a link, either caused by internet service providers (ISPs) or Anti-Virus programs, here is an alternative way to access the newsletter: 1) go to the Roanoke Division's webpage www.arrl-roanoke.com which will land you on the home page. 2) go down the text column on the right until you see the highlighted term "NEWSLETTER". Click on that and you will be taken directly to the newsletter.

I have many to thank for the administration of the Roanoke Division this year. First, Vice Director Bill Morine N2COP for his extensive work on the newsletter and numerous other events in the Roanoke Division, Assistant Director Woody Woodward K3VSA for maintaining the Roanoke Division Website, and Assistant Director Brad Humphries AE4VJ for his outstanding production of the first Roanoke Division Town Hall.

I would especially like to thank the Roanoke Division members for re-electing me as your Director this past year. It is wonderful to be back as your Representative to the ARRL Board of Directors!

Lastly, I have a message from Vice Director Bill, N2COP:

Please share this newsletter with your non-ARRL friends to show them what's happening in our region and that this newsletter is part of the benefits you received as an ARRL member. It costs 13 cents per day to be an ARRL member. If you forego one cup of convenience store or fast-food coffee per week, you've paid for your membership.

From our families to yours, we wish all of you a wonderful holiday season and a very happy, healthy, and prosperous New Year!

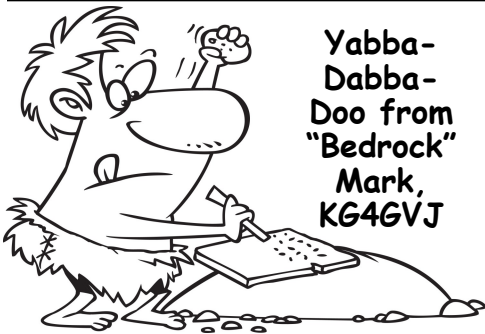
'73 de JIM N2ZZ

Roanoke Division Director

ARRL Roanoke Division

Director: James F Boehner, N2ZZ

n2zz@arrl.org



Hi Folks,

Happy New Year! Much has happened for us all thru 2022 and now we get to start a fresh. Like last year, I've tried to make changes in hopes of making the Newsletter more readable and to clean out some old content that is out of date or no longer needed. But now I need to somehow add another club's news into the editions for the year. It isn't Christmas when I start to write this column, so still have a wait ahead.

Now it's New Years Eve. Will I get it out to Peter in time and will he get it out tonight?? I guess I'll know tomorrow. I've been out of town for a week and so I had to play catch up, and I delayed on doing it.

First Month with new input from others, so I hope to get it a bit better with time.

New Item: a Article from the past from another Club. We might be having this in more future Issues. Stay turned.

If your Club use to do Newsletters but stopped, see if the Club would like to start again. Have old articles in it? You can scan it in and send it over. Peter can add you and members of your club emails to the list for news of a Issue ready to read. Your Club is also invited to join us in this and have your own "President's Corner".

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 and put you on the list. 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 notices of help needed (Personal or club needs or activities? Can be BARC related or other Club's) are welcomed. Have interesting photos 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 soon.

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.

PUBLIC SERVICE?

Website for NC hams who are interested in public service, Check it out at <https://hpsnc.org/>.

Other Club's 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, masks 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, <https://w4nc.com>

Repeaters: 145.47 (100), 146.64 (100), 444.275 (100)

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/> Repeater 146.610 T-100, Net every Tuesday at 7pm

CARTERET COUNTY AMATEUR RADIO SOCIETY W4YMI

Regular club meeting is normally held on the fourth Saturday of each month (except December) at Cox Family Restaurant on Highway 70 (4109 Arendell St.) in Morehead City. We meet for breakfast at 8:00 am, with the meeting getting underway promptly at 8:30. Please park your car in the parking lot behind the barber shop and enter through the door on the east side of the building.

IMPORTANT: Due to the corona virus, we ask that people attending are vaccinated. Also, please use your best efforts to maintain social distancing.

[Carteret County Amateur Radio Society \(w4ymi.com\)](http://www.w4ymi.com)

Repeaters:

W4YMI Digital (DMR) - 444.975+, Color code 1.
Analog Repeaters:
K4GRW Newport 145.450, Offset of +5, tone 100.
W3ENK Newport 444.825+ offset of +5, tone 88.5
KD4KTO Stacy 444.000+ offset +5, tone 162.2
Area 6-meter repeater 53.090 MHz, offset of -1, tone 162.2

Nets every Tuesday night at 7:30 PM -8:30PM

New Club Website: From the Secretary
Last week my work on the CCARS website included adding a public forum. The forum is an interactive area of the website where users can post news, ask questions, socialize, post photos of their projects and events, post ham gear for sale or wanted to buy, and post comments or Elmer advice on various Ham radio topics such as antennas, radios, digital and CW modes, etc.

As far as I am aware, CCARS is the ONLY CLUB in the area that has this feature on their Club website. So we are setting the bar as far as our Club webpage goes. I hope to get participation on the forum from CCARS members and I would like to see Hams in the area Clubs such as New Bern and Onslow use it as well. A forum is only practical if

there's activity on it. Currently I am the only member there. One of the advantages of the forum is that when the Hurricanes hit our area, the Internet is usually still working. Even those without generators who have no power still often have a working cell phone that can access the Internet. Therefore, those who can't power their Ham equipment can still communicate both with other club members, locals, and even with Ham friends in other areas via the Club forum.

Please take a minute to check out your forum. It is accessible from the CCARS website at www.w4ymi.org. Click on the "forum" link at the top right of the navigation bar, or directly at [Home | W4YMI \(freeforums.net\)](http://Home|W4YMI(freeforums.net)).

A few things to keep in mind, you have to register to post to the forum. The "Ham gear for sale" and "Ham gear wanted" section is hidden from the public. Only those who join the forum can see these sections. I did it that way to deter the scammers and con people who would surely contact you from Nigeria and elsewhere to run their scams if they could see your items for sale/items wanted posts. Also bear in mind the forum reflects on our Club, so please keep your posts family-rated and civil just like you would if you were speaking on the radio.

Enjoy the new forum and if you think there should be new categories added, just let me know and I can add it.

73 de Anthony, KD3Y

Feb 9, 2022 **2022 Public Service Events**

Greetings Volunteers,

The 2022 public service event season is just around the corner and I am happy to announce that I expect a full schedule of at least 9-10 events. As usual, the schedule is bike-event heavy but there is at least one event, the MS Walk on April 2nd, that will not need SAG vehicles and will be mostly stationary.

I am also happy to announce the creation of a new [Ham Public Service North Carolina \(HPSNC\) website](http://Ham Public Service North Carolina (HPSNC) website) where you will find the new event list and other information about volunteering for public service events. You can sign up via this new website. The RARS website public service page still has the schedule and other information posted and you can still sign up there as well. However, all sign-ups will move to

the new website in the near future. The HPSNC website includes a blog page where I plan to post articles of interest, photos, information about public service, etc., so keep an eye on that space.

As you are all aware, each event needs several volunteer radio operators to ensure the transmission of consistent, accurate, and timely information to the event organizers. I will be asking for volunteers throughout the season and relying on all of you to help make this year a success. I am also working hard to add new volunteers to the roster this year. There seems to be a lot of new hams getting their licenses lately. Perhaps I can lure some of them in with the promise of a free volunteer T-shirt! Seriously, I can't think of a better way for new hams to get over mic fright and to learn good radio and communication skills.

I thank all of you for your past participation and your continued commitment to supporting worthy causes while doing something we love – talking on the radio. I hope to see all of you at this year's events.

73,
Jeremy Lindsley – K2HJX
On behalf of HPSNC

ARRL North Carolina Section Traffic Manager
NTSD MBO TCC/EAN/4RN
RRI Digital/Winlink Liaison

From: Mark *****
Sent: Monday, May 9, 2022 17:04
To: w4dna@*****
Subject: Eastern North Carolina Traffic Net

Mr. Roy,

I am Mark Raysin, KG4GVJ in Greenville, NC. I've noticed the Traffic Net has not been in operation from the 146.685 repeater as listed. In talking with another operator on the repeater, I learned the long standing Net Control operator had retired from the position and no one had stepped in to run the Net. Would it be alright to try to startup the Net again and if there is a list of control tones to bring up and drop the Net and a script?

Thank you.

73,
Mark ***** , KG4GVJ
Brightleaf Amateur Radio Club
"Ham Chatter" , Editor

Email about the Traffic Net:

Hi Mark – great to meet you!
We have moved the net to the N4HAJ 440 linked system, including the 444.725 repeater in Greenville.

Long story short, the receive antenna for the .685 repeater is gone – totally. Only the hard line left. Some can still get into it, but not reliably. We are trying to get a replacement antenna installed, but access was limited to the primary users antenna modes. Now the elevator is broken...

Feel free to join us at 2030L on the linked system. I call it nightly, except Saturdays. Doug, K4ROK calls it that night.

73 de W4DNA – Dave



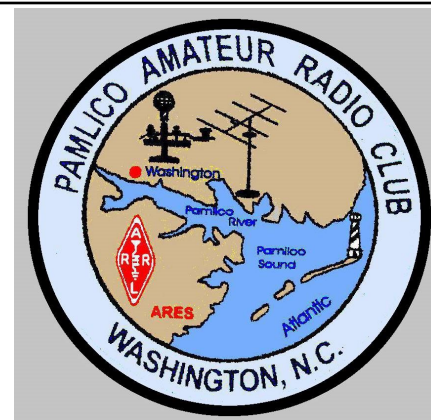
Pamlico Amateur Radio Club, K4BCH

Club Meeting Location:

Zion Episcopal Church
7322 US Highway 264 East
Washington, NC 27889

Contact info:

Pamlico Amateur Radio Club, Inc.
104 Bluegill Dr.
Washington, NC 27889
info@k4bch.com



PARC is a 501c3 non-profit organization legally form under the laws of North Carolina.

The club meets at 7pm on the THIRD Thursday of each month. The Club Net monthly on the FIRST Thursday at 8pm.

These monthly Nets offer practice in Message-handling procedures in the event of actual emergencies. The formal portion last about 20 minutes, followed by informal comments from Net check-ins. The Net VHF frequency is 146.955 MHz, minus 600 offset, PL tone 131.8 operated through the Bath, NC repeater. A new club repeater is at 147.255 MHz, plus 600 offset, PL tone 131.8.

Club News

Winter Field Day, Jan 28-29. We plan to operate from Goose Creek State Park.

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

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.

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

Editor

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 Nationwide 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
Email ARRL Clubs: clubs@arrl.org

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*

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

National Preparedness: List of Disasters

Consistent with the goals and objectives of National Preparedness Month, here is a list of natural and man-made disaster scenarios we should all be familiar with.

[All Hazards](#)

[Emergency Alerts](#)

[Attacks in Public Places](#)

[Avalanche](#)

[Bioterrorism](#)

[Chemical Emergencies](#)

[Cybersecurity](#)

[Drought](#)

[Earthquakes](#)

[Explosions](#)

[Extreme Heat](#)

[Floods](#)

[Hazardous Materials Incidents](#)

[Home Fires](#)

[Household Chemical Emergencies](#)

[Hurricanes](#)

[Landslides & Debris Flow](#)

[Nuclear Explosion](#)

[Nuclear Power Plants](#)

[Pandemic](#)

[Power Outages](#)

[Radiological Dispersion Device](#)

[Severe Weather](#)

[Space Weather](#)

[Thunderstorms & Lightning](#)

[Tornadoes](#)

[Tsunamis](#)

[Volcanoes](#)

[Wildfires](#)

[Winter Weather](#)

[Recovering from Disaster](#)

K1CE for a Final: Send It In (Please)

This newsletter goes out to a subscriber list of almost 40,000 each and every month. There are a number of significant aspects of the newsletter, which has been in monthly production and circulation for almost 20 years. As with any newsletter of this nature, there is a regular group of contributors that provide the majority of articles, reports and other input. If you and/or your ARRL Section ARES program administrators are not one of them, please consider providing reports of your section's activities: the ARES community at large will benefit and learn from them, and your hard-working ARES volunteers will receive national exposure and the recognition they deserve. Thank you.

ARES[®] Briefs, Links

The ARES Letter

ARES® Briefs, Links

Orlando HamCation® has announced, in cooperation with the Florida Division of Emergency Management, that the [DHS Auxiliary Communications \(AUXCOMM\) Training Course](#) will be conducted February 6-8, 2023 in Orlando, Florida. Click the link for information.

The Pennsylvania Auxiliary Communications Service (ACS) has a new Pennsylvania Emergency Management Agency (PEMA) ACS Coordinator -- Victor Yartz, KC3MQI. Travis Best, W3TMB, continues to serve as Commonwealth ACS Officer, a volunteer position. The PEMA Auxiliary Communications Service is a volunteer-based emergency communications reserve program that has both operational and educational components. ACS offers ongoing and technically diverse training to its members. It serves as a redundant communications resource, ready to enhance or assume emergency communications duties for governmental agencies (county, regional, state, and federal) during times of actual or potential disaster, or when normal communications are either unavailable or are unable to adequately transfer traffic as needed. -- *Blair ARES Alert!*, Blair County, Pennsylvania

Following a successful full-scale exercise in June 2022, which was developed using a Cascadia Subduction Zone full-length "megathrust" rupture scenario (described in the [August 2022 ARES Letter](#)), the National Tribal Emergency Management Council has begun planning for the next exercise in this biennial series. Named "Thunderbird and Whale 2024" (TW24) in recognition of the ages-old oral tribal histories where Thunderbird represents the earthquake and Whale represents the tsunami, this full-scale exercise will again rely heavily on amateur radio communications.

The ESF #2 component of the TW24 exercise is quite important due to the fact that many of the tribal nations are in more remote areas where communications will be sparse. Several drills are planned for 2023 to give ham radio volunteers who may be supporting tribes for the first time a chance to practice. -- *Steve Aberle, WA7PTM, Assistant Director - Tribal Liaison, ARRL Northwestern Division*

2022 SKYWARN Recognition Day in the History Books

Saturday, December 3, 2022 was SKYWARN® Recognition Day (SRD), an event that recognizes SKYWARN volunteers for their contribution to public safety. SRD was observed by several National Weather Service (NWS) locations across the United States. Amateur radio volunteers set up temporary operations from forecasting offices and made contacts with other stations to demonstrate their readiness to operate in emergency conditions and to act as observers for the NWS. As of the last count, there were more than 4,700 SKYWARN spotters taking part in SRD.

Near Los Angeles, California, at the NWS office located in Oxnard, volunteers set up six stations on different frequencies and operated through the day under simulated emergency conditions. Several members of the general public visited the NWS office during the exercise.

ARRL Headquarters, participating as WX1AW, was activated by ARRL Emergency Management Assistant Ken Bailey, K1FUG. WX1AW was active on 40 - 10 meters using SSB and FT8, and monitored local VHF and UHF repeaters.

Radio amateurs participating as SKYWARN volunteers assist the NWS with real-time observations of adverse weather conditions that pose an imminent threat to life and property. Those alerts may include tornadoes, waterspouts, damaging hail, blizzard conditions, sleet, strong winds, heavy rain-falls and flooding, dust storms, damage assessment, and other significant anomalies. NWS personnel can use information from ham radio operators to issue alerts or assess threat levels to areas that may be affected by abnormal conditions.

The 2022 NWS Spotter of the Year Award was given to Bryan Loper, WX5CSS, of Atlanta, Texas. The award noted that Loper is very active with the amateur radio network and weather community within the Ark-La-Tex region, and is always reliable in providing weather reports. Loper is also an ARRL member. - *The ARRL Letter*; thanks to Jeff Reinhardt, AA6JR, Public Information Coordinator, ARRL Santa Barbara Section, for contributing to this story.

Backup Communications Planning for Alachua County (Gainesville), Florida

by Gordon Gibby, KX4Z

Our local ham radio volunteers normally provide fairly simple volunteer service to our county during hurricanes, mainly in the form of staffing shelters. However, in this day and age, we're very aware that many additional dangers lurk (recent examples include both attempted and successful attacks on grid power systems in two states). As citizens, we bear some of the responsibility for having plans for backup communications in case something damages critical communications.

Until recently, Alachua County ARES® did not appear to have any written volunteer communication plan. One was attempted in 2017, but didn't reach consensus of agreement. The [ARRL ARES\(R\) Plan 2.1](#) makes hearty recommendation for having some type(s) of local communications plan(s) suitable for the potential threats.

In the intervening years, our volunteer group has grown in its training, assets, and capabilities, and has become even more closely allied with the local Emergency Management group, as they also have grown and developed. In 2021, our EOC mentor asked us to come up with written plans for growing our response to the major perceived communications threats. The result was an [Integrated Preparedness Plan](#). We had never before performed that level of assessment of communications risks and our group's response strengths and weaknesses.

Although our capabilities (so far) have never been desperately needed, we've tried to exercise them repeatedly through simulation exercises, and at every storm event. We learned a lot about how to allow our tiny backup radio room at the EOC function smoothly in a broad-based volunteer communications effort. As a result, we proposed, discussed, improved, amended, and reached unanimous consensus such that now we have a written [Plan](#) for our volunteer communications, for the "usual" issues, as well as extensible to ones that are more threatening. The recent intentional power systems destruction in North Carolina and attempts in the Pacific Northwest draw attention to how easily multiple systems (such as water, sewer, traffic lights, communications, temperature control, security alarms, etc.) can be brought down.

Notification

Notification of volunteers is a key part of our planning because potential situations include the loss of

normal internet/telephone service. We don't have any sort of huge independent "radio beeper" system that can reach out with "push" notifications to volunteers independent of telephone/internet. We depend on our members sensing "something is odd" and then (a) checking a well-known VHF repeater for human response with instructions, or (b) connecting to one or more of our local fixed radio assets, which can automatically (without human continued effort) display a "sign-on message" (Winlink RMS) or "status" or "info" scripts (JS8 relay cache). The VHF repeater requires human staffing to communicate; the radio assets can be programmed and will then automatically present information to searching volunteers. Much more detailed written information can be provided via WINLINK radio email (accessible via distant, still-functioning RMS's or via "local user" functions on local RMS assets).

The above plans are worst-case solutions. For slow-onset incidents with normal internet/telephone still working, notification is much easier, with email, county Everbridge automated phone notification, and/or a groups.io web page can all reach out with terse or detailed information as indicated. (We just use what our county has; we aren't promoting them commercially.)

Security/Confidentiality

Some of our information/notifications require more confidentiality and therefore we have a breakdown of which groups receive what information based on need-to-know. For example, our emergency manager's tentative shelter openings cannot be made available on a public-facing asset prior to actual opening (such as a repeater that can be monitored by news media or anyone in the public). Similarly we don't want a publicly available list of which volunteers' homes might be unoccupied because of emergency deployment assignment! Recent Hurricanes Ian and Nicole were our first instance of using these principles to use tiered information distribution and were viewed very positively.

Our Communications Plan provides guidance for which information should be sent to which vetted groups, to protect the security of our volunteers and protect civil authorities' privileged planning.

Communication Highways

Although the EOC is a hub of information gathering and dissemination, we plan to have local tactical net control handled elsewhere to limit work load on EOC volunteers. Similarly, experience showed our EOC volunteers can't really serve regional net control functions, despite our desire to be helpful. And we can't tie down the small EOC volunteer crew to continuously monitor multiple radio frequencies, which will only be needed in critical situations. Instead, we have our EOC volunteers maintain capability to reach out to, but only monitor certain specific systems such as the SLERS (Statewide Law Enforcement System), and the local tactical net. Humans just can't monitor multiple busy systems simultaneously. That allows them to respond quickly to calls for immediate response over systems that remain "radio quiet" most of the time.

Information Capture

One of our volunteers is familiar (because of federal disaster-response employment) with the expression "Feed The Beast" -- the need to assimilate and provide information to decision-makers from the periphery. To receive detailed inbound logistical data, a continuous radio data-based receptacle at the EOC has proved to be an excellent solution that doesn't tie down a volunteer.

This can be a peer-to-peer or server-type WINLINK repository (or similar, such as YAPP) that any shelter or deployed volunteer can asynchronously send detailed information at any time.

Modulation/Protocol: At present we have the option of multiple different modulations, including AX.25-Packet or VARA-FM, and our ICS-205 will serve to notify volunteers which is available in a given operational period. Tactical net requests can also accommodate special needs.

Simultaneous Radios Usage

To our chagrin, we discovered that co-located VHF/UHF antennas on our tower mean using two or more radios simultaneously is a prescription for failure! We want our tactical voice comms and asynchronous data comms both simultaneously functional. One solution might have been separation by bands, but unfortunately we didn't set up radio network assets that way. So we came up with an alternative solution involving high-Q mechanical filter duplexor "cans" to separate our voice comms (usually transmitting on 146.220MHz) from our data comms (144.990/145.010/.030/.070 MHz). Testing has recently shown that a single notch can inline with each radio provides 10-20dB notching of the unwanted transmissions, and gives us significant immunity. (Manual tuning may optimize for a specific need.) This was a direct outgrowth of an after-action report/improvement plan document.

Value of Written Documents

Our county officials are extraordinarily interested in getting documentation of our volunteer efforts, for each and every operational period of a declared emergency. (To the extent that our deployed volunteers aren't approved to demobilize until the paperwork is done!) This represents significant income to the county from Federal coffers. We're told that our volunteer hours are highly valued, and that the match required for federal dollars can be as little as 12.5%, meaning our in-kind contributions can be multiplied eightfold if properly documented. This isn't so hard when cell phone cameras can still send in photos of signed ICS-214's, but how to do it when cell comms are down? Some investigation has come up with a solution of digitized signatures that appears to be very workable and completely acceptable -- even in a radio-dependent comms environment. We will be rolling this out starting in December and growing in the coming year, thanks to some of our recent high-speed data systems deployment.

Emergency Notifications

Our efforts are driven directly by local authority notifications and directives. How would this even happen in the event of sudden and complete loss of normal public switched network systems, potentially even with loss of normal modern repeaters? Our newly developed comms plan has a specific solution for direct notification from our Emergency Management group, using EMP-hardened radio systems. We test that pre-set system frequently.

Summary

Our volunteer efforts are highly appreciated by our local authorities and ever more-tightly integrated into their response. We have finally managed to get a written set of plans into play that better guide our volunteers and can be further improved with more experience.

Noble Skywave - The Value of HF

Since 2013, the Canadian Communications and Electronics Branch has brought hundreds of teams from dozens of nations together to test, strengthen expertise, and compete in a friendly atmosphere to what is now known as the most prestigious military led HF competition in the world: Noble Skywave.

Noble Skywave acquired its "letters of nobility" through highly skilled and proud participating teams, which are either HAM/Canadian Forces Affiliated Radio System/US Military Auxiliary Radio System (MARS) or Military Radio Operators around the globe. As the Leading Nation for this event, the Canadian Armed Forces are committed to provide the best possible training experience to all participants and looks forward to crowning the best HF Radio Operators in the world.

A few years ago, Joint Force Headquarters-National Capital Region and the U.S. Army Military District of Washington (JFHQ-NCR/MDW) deployed their mobile command post on Fort Lesley J. McNair, Washington, D.C., to compete in the 7th annual Noble Skywave. The exercise challenged competitors with voice and data contacts between domestic and international teams via HF skywave propagation.

The JFHQ-NCR/MDW team consisted of three telecommunications specialists from the Communications-Electronics Directorate and two telecommunications specialists from the 744th Communications Squadron from Joint Base Andrews. The 3d U.S. Infantry Regiment (The Old Guard) also sent members from their Communications-Electronics Directorate to observe and learn.

The exercise consisted of four events: *Establishing the Net*, *Free Play*, *Team Contact Challenge*, and *Back to the Future*. During the competition portion, voice and data contacts were logged with as many stations as possible, with bonus points awarded during certain phases for the longest distance contacts. Once both stations logged the contact, the results and high score for the top twenty competitors were displayed in real time on the [Noble Skywave](#) website.

"The capabilities of HF are so important and relevant because it delivers global reach without the use of repeaters or satellites," said Michael Koeniger, Jr., Telecommunications Specialist, JFHQ-NCR/MDW Communications-Electronics Directorate. "If the satellites fall out of the sky, cell towers go down, and the internet goes out, HF will still work. These abilities provide our command with more flexibility during real-world contingency events." The 2019 competition included 183 registered competitors from Active-Duty, Reserve, National Guard, and Auxiliary Force units, representing 13 countries.

"Exercise Noble Skywave is designed to improve participants' high frequency radio communications abilities using the spirit of competition," said Koeniger. "By competing, not only are we using our equipment in a real-world scenario, but we are also instilling goodwill and confidence among friendly military and auxiliary volunteer forces."

The Military Auxiliary Radio System (MARS) mission provides contingency HF communications to support the Department of Defense and the military. Additionally, MARS also supports communication for combat commands by providing humanitarian assistance and disaster relief, contingency communications for Defense Support to Civil Authorities (DSCA), and morale and welfare communication in support of the DoD.

The 2022 competition brought together 429 military units from across 13 nations competing to determine who can most efficiently utilize high-frequency radio technology. During the contest, teams set up a fully functioning radio station and utilized their skills to connect with other radio stations, some being thousands of miles away. "There is a set number of stations playing in this contest, and our objective is to contact as many of them as possible," said Airman 1st Class Matthew Recchia, 1st Combat Communication Squadron cyber infrastructure technician. "Whoever contacts the most stations, wins." - *US Army Public Affairs Office, Thanks to [Bart Lee, K6VK](#)*

California County Radio Communication Volunteer (RCV) Project

The Marin County (California) Dept. of Public Works' Radio Communication Volunteer (RCV) project is looking for experienced amateur radio operators with an interest in public service and the time to support Community Based Organizations (CBOs). Those CBOs provide needed services like food, shelter, information and professional referrals to the most vulnerable Marin residents. During the fires and public safety power shutoff (PSPS) event in 2019 thousands of residents and evacuees turned to Marin's CBOs for shelter, food, medical assistance and financial advice. Unfortunately, without power for communications devices, many CBOs could not function effectively. Nor could the Emergency Operations Center (EOC) get accurate situational awareness to help coordinate relief efforts. By working with our colleagues in ACS-RACES, the VOAD and CBOs who need our help, amateur radio operators can change that for the better.

Marin County Amateur Radio operators are collaborating with the Director of the Marin Voluntary Organizations Active in Disaster (Marin VOAD) and Marin County's ACS-RACES. The purpose is to provide backup communications between key CBOs like SF-Marine Food Bank, Canal Alliance, and North Marin Community Services, among others, and the EOC when all other means of communications are unavailable. The Radio Communication Volunteer (RCV) program is officially sponsored by Marin County Public Works Telecommunication Section. RCV is parallel to ACS-RACES, but serves CBOs rather than public safety agencies. We've completed 2-plus years of activities successfully and are recognized by the Board of Supervisors as a standing volunteer program for as long as needed. RCV volunteers are being enrolled as Disaster Service Workers and must pass a background check. You can read a [media report](#) on the program. [Skip Fedanzo, KJ6ARL](#), is the RCV lead operator. Fedanzo said "Over the past 2 and a half years, RCV's work with our local VOAD has developed into 20 licensed operators supporting the seven largest community based organizations (CBOs). We're structured similarly to RACES, but have different types of clients to serve in case a disaster strikes. So far, RCV has logged well over a dozen field exercises, including participation in two UASI "Golden Eagle" exercises, and this year's "Great ShakeOut" (earthquake-oriented) multi-day exercise trainings. - *County of Marin, California*

ARRL ARES Section News

Connecticut

The BEARS of Manchester Amateur Radio Club in Manchester, Connecticut, spent Thanksgiving Day providing amateur radio communications support for the 86th Manchester Road Race. The race, a 4.748-mile course that begins and ends on Main Street in downtown Manchester, has been a Thanksgiving Day tradition since 1927. This is the 30th consecutive year the BEARS of Manchester Amateur Radio Club has provided communications support, with more than 10,000 runners participating and over 30,000 spectators lining the course.

Radio operators began arriving at 6:00 AM on Thanksgiving morning. Fifty-five operators staffed 39

positions around the course and were stationed every quarter mile to provide safety communications and report the lead male and female runners to the public address announcer.

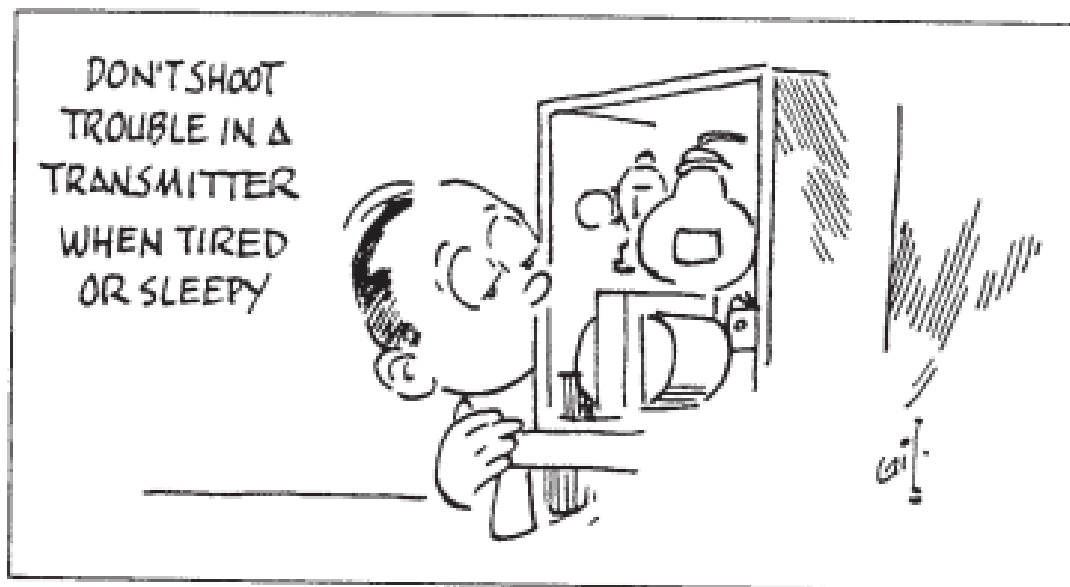
Shadow operators helped 10 race officials stay in communications. Operators also started and ran four clocks around the course to help pace runners, and operated a station in the public safety EOC to relay safety-related information to representatives of various agencies. Ham radio operators also provided communication for a shuttle bus operation that brought runners and spectators from a remote parking area to Main Street and then returned them at the end of the race. Check-in and check-out were accomplished through a net control station to maintain accountability.

Communication for the event was made on six repeater and simplex frequencies, and three cross-band repeaters were used for signal quality to avoid interference. The BEARS of Manchester Amateur Radio Club is an ARRL Affiliated Club. -- ARRL News Desk; *Thanks to Phil Crombie, Jr., K1XFC, Race Communications Coordinator, for providing information for this story.*

K1CE For a Final: Reflection

It's time to look back on an historic year of disaster response, other public safety-related incident and event communications coverage by ARES and indeed all emergency communications-oriented operators, and finally a major leap in professional-grade training and planning by radio amateurs in accordance with ever-evolving FEMA and DHS standards. The year kicked off with the ARRL Emergency Communications Academy held in conjunction with the ARRL National Convention at Orlando HamCation. The day-long workshop was standing room only, and hugely successful thanks to an exemplary array of expert panelists and hands-on demonstrations. Other increasingly sophisticated exercises and training opportunities were covered in this newsletter over the course of the year.

Happy holidays from all of us here at *The ARES Letter!* Special thanks go to ARRL Director of Emergency Management (DEM) Josh Johnston, KE5MHV, for his expert review of each issue prior to its release. DEM Johnston joined the ARRL HQ staff in January.



Columns from the Past

The following is a column written by Andy Griffith W4ULD of Carteret County, originally published in the Carteret County Amateur Radio Society's November 1995 Newsletter.

LIGHTNING AND AMATEUR RADIO , . . Andy Griffith, W4ULD(SK) ^

At a Club meeting last summer I was asked to comment on lightning protection I have taken a while to respond because I wanted to separate the facts from the folklore about this controversial subject. This month I will begin a discussion of isolating equipment for protection. The next one or two installments will continue the isolation discussion and cover alternatives.

Damage to Amateur Radio equipment may occur from a direct hit on the antenna system and/or the house power service or from a strong surge from a nearby strike. In either case an extremely high voltage will seek a path to ground. If Amateur equipment is in a path to ground, it will likely be damaged or destroyed. The path to ground does not have to be the most direct path. Although outside, low resistance grounds for the antenna system and the power service should handle the main thrust of a strike, a high voltage surge will flow along the higher resistance house wiring and any antenna feed lines and control cables entering the shack. Anyone who has experienced fire balls rolling through their house knows that the voltage in these surges can be very high. Unfortunately it takes less than 100 volts to damage modern solid state equipment.

As I have stated in previous News Letters I do not know of a practical way available to the average Amateur to protect solid state equipment from a direct strike if the equipment is in a direct path to ground. I understand that commercial broadcasters and the military have combinations of devices that will protect against a direct strike but these devices are very expensive. Thus for the Amateur I have advocated a good outside ground to handle most of the strike together with complete isolation of the equipment from the antennas and the power service and from the ground system during electrical storms. Some old timers say, "Pull the plug and throw the coax out the window." This assumes that the equipment ground is through the coax shield.

Isolation can be accomplished in several ways. Ground isolation together with antenna isolation can be accomplished by letting the coax shield be the connection to ground for the station ground bus. By simply disconnecting the coax and pulling the power plug, the rig will be isolated. This works well as long as the coax shield is grounded to a good outside ground and the length of the shield is not a quarter wavelength at any operating frequency. A quarter wavelength to ground may cause RF on the chassis of the station equipment; i.e., the "hot mike" which will bite the operator's lip. The coax ground also may not be adequate to "ground out" noise from auxiliary station equipment such as computers if the coax is 10 to 15 feet or more in length. A short heavy wire (at least #4) or 1 inch copper strap may be needed. This should be connected to a good ground immediately outside the shack. A heavy duty knife switch can be used to isolate the ground bus during storms.

73, Andy

Register to Log in to ARRL.ORG (Web site was been updated)

Follow these steps to sign in and access ARRL features and services: Go to arrrl.org and click "Login" which will redirect you to "Register" (please note, even if you have an ARRL account you will need to register).

This will log you in to arrrl.org, which now allows you to renew, donate, and shop all in one transaction.

If you need help, we're here for you. Call us Monday - Thursday from 8 am - 7 pm (ET) and on Friday from 8 am - 5 pm (ET) or e-mail us at membership@arrrl.org.

ARLB020 W1AW 2022 Winter Operating Schedule

ZCZC AG20
QST de W1AW
ARRL Bulletin 20 ARLB020
From ARRL Headquarters
Newington CT November 7, 2022
To all radio amateurs

SB QST ARL ARLB020
ARLB020 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 Echo-Link 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 28 in the November 2022 issue of QST or on the web at, <http://www.arrl.org/w1aw-operating-schedule>.





ARRL The National Association for
Amateur Radio®

Emails



ARRL on the Purpose of Amateur

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

ARRL Podcasts

Listen to [ARRL Audio News](#), available every Friday. ARRL Audio News is a summary of the week's top news stories in the world of amateur radio and ARRL, along with interviews and other features.



ARRL Podcasts Schedule

On the Air podcast:

Arc Thames, W4CPD, the Section Emergency Coordinator of ARRL's Northern Florida Section and Emergency Coordinator of Santa Rosa County Florida. Thames shares some of his experiences from supporting emergency communications during Hurricane Ian.

Details from avid satellite operator Sean Kutzko, KX9X, about how to get started on the amateur satellites -- an activity that's available to hams of all license classes.

Ginger Wilder, KI5TJE, discusses her first time running an amateur radio net. Get ready to be the next Net Control operator for your local net.

Of the ARRL [Eclectic Tech](#) podcast: (Episode 67) features a discussion of power generation using graphene, synchronizing

clocks with cosmic rays, multifrequency "vascular" antennas, and listening to Very Low Frequency (VLF) atmospheric signals as part of NASA's INSPIRE project.

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

["Redding veterans use HAM radio to connect to people across the globe on Veterans Day"](#) / KRCCR TV (California), November 11, 2022 -- *Thanks to the CalVet Redding, California Veterans Home and the Redding Veterans Amateur Radio Club special event station, W6VET.*

["Amateur radio-aided rescue highlights useful hobby"](#) / Green River Star (Wyoming), November 23, 2022 -- *The Buffalo Amateur Radio Klub is an ARRL Affiliated Club.*

["Pearl Harbor commemoration events to be hosted on the Battleship North Carolina"](#) / WECT-TV (North Carolina), December 6, 2022 -- *The Azalea Coast Amateur Radio Club is an ARRL Affiliated Club.*

["New Ham radio antenna placed on tower high above Mattoon"](#) / Journal Gazette & Times-Courier (Illinois), December 9, 2022. - *The Moultrie Amateur Radio Klub is an ARRL Affiliated Club.*

["Amateur radio operators sworn in by Nevada County OES"](#) / The Union (California), December 9, 2022. - *Thanks to the Nevada County Amateur Radio Emergency Service®.*

["Amateur Radio Club works to provide radio communication for local community"](#) / LaGrange Daily News (Georgia), December 9, 2022. -- *The LaGrange Amateur Radio Club is an ARRL Affiliated Club.*

["Ham radio repeater connects lost hiker with help"](#) / The Laconia Daily Sun (New Hampshire), December 13, 2022. -- *Thanks to the New England Digital Emergency Communications Network, NEDECN.*

["Amateur radio donation impacts local food center during time of need"](#) / The Portager (Ohio), December 12, 2022 -- *The Portage County Amateur Radio Service (PCARS) is an ARRL Affiliated Club.*

["Radio club recognizes members for running nightly ham system"](#) / Houston Herald (Missouri), December 19, 2022 -- *The Ozark Mountain Amateur Radio Club is an ARRL Affiliated Club.*

["Goderich Air Cadets speak with astronaut aboard the International Space Station"](#) / Goderich Signal-Star (Canada), December 19, 2022 - *Thanks to the 532nd Royal Air Cadet Squadron for their help in preparation for this event.*

Announcements

Ukraine Maintains Ham Radio Silence in State of Emergency

Radio amateurs in Ukraine appear to be diligently maintaining radio silence as the state of

emergency declared there just prior to the Russian military invasion remains in effect. A February 24 decree from President Volodymyr Zelensky included "a ban on the operation amateur radio transmitters for personal and collective use." *No Change heard as of Oct 14, 2022, Editor.*

CW Operators' Club Accepting Nominations for Advancing the Art of CW Award

The CW Operators' Club (CWops) is now accepting nominations for the 2023 Advancing the Art of CW Award. This award recognizes individuals, groups, or organizations that have made the greatest contribution(s) toward advancing the art or practice of radio communications by Morse code.

Award candidates must be one or more of the following: authors of publications related to CW; CW recruiters, trainers, mentors, coaches, or instructors; public advocates of CW; organizers of CW activities; designers and inventors who advance the art or practice of CW, and other contributors to the art or practice of CW.

The award is not limited to amateur radio operators or their organizations, and nominations may be made by anyone, not just CWops members.

Nominations must be emailed to awards@cwops.org and secretary@cwops.org by March 10, 2023. Those submitting nominations will receive an email confirmation acknowledging receipt. Nominations must include: a detailed explanation supporting nominee qualifications according to the above criteria; nominee(s) name(s), call sign(s) if applicable, and contact information, including their postal address(es), email address(es), and telephone number(s); as well as the name, telephone number, email address, and call sign (if applicable) of the person submitting the nomination(s).

The winners will be announced and presented with a plaque at Dayton Hamvention® 2023. If a recipient is not present, their plaque will be sent to them.

Information about past recipients, dating back to 2016, can be found at <https://cwops.org/cwops-award-winners>. For more information about the award criteria, visit <https://cwops.org/the-cwops-award-for-advancing-the-art-of-cw>.

The Federal Emergency Management Agency (FEMA) Emergency Management Institute (EMI) has released a new online study course and exam, titled, [Preparing the Nation for Space Weather Events](#). The course identifier is IS-66. ARRL Director of Emergency Management Josh Johnston, KE5MHV, took the course and passed the exam. "This course provides some interesting insight into the federal government's role and response to space-weather events," Johnston said. He went on to say that the course "explains the levels of response the government uses in regard to [these] events. [It] would be a good training course for any ham to gain a better understanding of how space weather affects communications here on Earth." Johnston deemed the course useful and shared that it only takes about 2 hours to complete online. A FEMA student ID is required, and is free from the EMI website. -- *Thanks to ARES Letter Editor Rick Palm, K1CE, for the information contained in this story.*

ARDC Awards Grant for New Amateur Radio Station

Amateur Radio Digital Communications (ARDC) has awarded a \$16,495 grant to fund a modern amateur radio station in the soon-to-open [Museum of Information Explosion](#) (MIE) in Huntsville, Alabama.

Dan Romanchik, KB6NU, ARDC Communications Manager, said the amateur station will be staffed and maintained by members of local amateur radio clubs, including the Radio Club of the MIE, who will install and operate the equipment and serve as docents for the station. "Licensed amateurs can use the station to try out new modes and techniques without making a major financial commitment. Specialized tools

and test equipment will be available to use on-site," said Romanchik.

The station will present a contrast between modern digital technology and the historic, yet classic equipment found in the museum's other exhibits. The juxtaposition of old and new is designed to illustrate the accelerating evolution of amateur radio.

Dr. Marcus Bendickson, Executive Director of the museum, said they expect to open in early fall 2023, and visitors will be able to explore the history of communication, computing innovation, and how these technologies have shaped our modern way of life.

Youth on the Air Camp 2023 Application Period Now Open

Applications are now being accepted for campers interested in attending Youth on the Air (YOTA) Camp 2023.

Licensed amateur radio operators ages 15 through 25 are encouraged to apply online at YouthOnTheAir.org. The Radio Amateurs of Canada will be the local host for the 2023 YOTA Camp. It is scheduled to take place July 16 – 21, 2023, at the Carleton University campus in Ottawa, Ontario, Canada.

Applications will be accepted through May 31, 2023, but for the best chance at being selected, applications should be submitted by 2359 UTC on January 15, 2023.

The application process is free. However, a \$100 deposit is required upon acceptance. If a camper is unable to pay the deposit, they may be able to apply for a scholarship or waiver. Camp Director, Neil Rapp, WB9VPG, said campers are responsible for their transportation to the camp location, though some assistance may be available. Travel during camp events is provided.

Campers will be selected by the working group and notified by February 1. To encourage attendance from across the Americas, allocations for

campers are being held open for various areas of North, Central, and South America. If countries do not use their allocation, or should someone within an allocation decline acceptance, those positions will be filled from the remaining pool of applicants. As this will be an ongoing process, everyone will not receive notification of acceptance at the same time. Preference will be given to first-time attendees.

COVID-19 guidelines are still in effect and may have an impact on offering the camp. Currently, the outlook on offering the camp in July 2023 is positive. If the camp cannot be hosted, or would need to reschedule, all applicants will be notified as soon as possible. Appropriate requirements on masking and vaccination statuses will be announced as needed.

A [YouTube](#) video is now available about the 2023 YOTA Camp. For details and additional information, contact the Camp Director Neil Rapp, WB9VPG, at director@youthontheair.org.

A Christmas Message to the World

On Christmas Eve morning, December 24, 2022, the [Alexander Grimeton Friendship Association](#), in southern Sweden will be on the air sending out a special [Christmas message](#) to the world.

The event will begin at 08:30 CET (07:30 UTC) with the startup and tuning of the Alexanderson alternator transmitter through Grimeton Radio Station, call sign SAQ. The transmission will begin at 09:00 CET (08:00 UTC) with the 98-year-old 200 kW Alexanderson alternator on 17.2 kHz CW.

Grimeton Radio Station, SK6SAQ, will be QRV (ready) on the following frequencies:

3.535	MHz	CW
7.035	MHz	CW
14.035	MHz	CW
3.755	MHz	SSB
7.140 MHz	SSB	

QSL reports can be sent to SK6SAQ via email at

info@alexander.n.se.

The event will also be live streamed on the Alexander SAQ Grimeton Friendship Association [YouTube Channel](#).

The Alexanderson alternator transmitter is the only remaining example of early pre-electronic radio transmitter technology. The station, built in 1922 - 1924, has been preserved as a historical site. From the 1920s through the 1940s, it was used to transmit telegram traffic by Morse code to North America and throughout the world during World War II.

More information about the December 24 Christmas Eve event and the transmitter can be found at the [Grimeton Radio Station](#) website.

New General Question Pool Released for Ham Radio Licensing Effective July 1, 2023

The National Conference of Volunteer Examiner Coordinators' ([NCVEC](#)) Question Pool Committee ([QPC](#)) has released the [2023 - 2027 General Class FCC Element 3 Syllabus and Question Pool](#) to the public. The new General Question Pool is effective July 1, 2023, through June 30, 2027.

The new pool incorporates some significant changes compared to the 2019 - 2023 version. Its 432 questions were modified slightly to improve wording and to replace distractors; 51 new questions were generated, and 73 questions were eliminated. This resulted in a reduction of 22 questions, bringing the total number of questions in the pool down from 454. The level of difficulty of questions is more balanced, and the techniques and practices addressed have been updated.

The [pool](#) is available as a Microsoft Word document and PDF. The single graphic required for the new General Question Pool is available within the documents, or separately as PDF and JPG file formats.

"The newly revised pool must be used for General-class license exams starting July 1, 2023," said ARRL VEC Manager Maria Somma, AB1FM, who is a member of the NCVEC Question Pool Committee. "New test designs will be available to [ARRL Volunteer Examiners](#) on that date. The ARRL VEC will supply its officially appointed, field-stocked VE teams with new General exam booklet designs around mid-June."

General class examination candidates preparing for their exams using the 9th edition of [The General Class License Manual](#), and/or the 6th edition of [ARRL's General Q & A](#) are encouraged to test by, or before, June 30, 2023. New editions of ARRL licensing publications will be available in May, for exams taken on, or after, July 1, 2023.

Amateur Radio Operators and National Weather Service Mark SKYWARN Alliance

Saturday December 3, 2022 was SKYWARN® Recognition Day (SRD), an event that recognizes SKYWARN volunteers for their contribution to public safety. SRD was observed by several National Weather Service (NWS) locations across the United States. Amateur radio volunteers set up temporary operations from forecasting headquarters to make contacts with other stations to demonstrate their readiness to operate in emergency conditions and to act as observers for the NWS. As of the last count there were over 4,700 SKYWARN spotters taking part in SRD.



Near Los Angeles, California, at the NWS office locat-

ed in Oxnard, volunteers set up six stations on different radio frequencies and operated through the day under simulated emergency conditions. Several members of the general public visited the NWS office during the exercise.

SKYWARN event coordinator Rick Tate, KQ6NO, operates from the Ventura County, California Sheriff's Emergency Operations trailer. Photo courtesy of Jeff Reinhardt, AA6JR.

ARRL Headquarters, participating as WX1AW, was activated by ARRL Emergency Management Assistant Ken Bailey, K1FUG, during SRD. WX1AW was active on 40 - 10 meters using SSB and FT8 modes and monitored local VHF and UHF repeaters.

Radio amateurs participating as SKYWARN volunteers assist the NWS with real-time observations of adverse weather conditions that pose an imminent threat to life and property. Those alerts may include tornadoes, waterspouts, damaging hail, blizzard conditions, sleet, strong winds, heavy rainfalls and flooding, dust storms, damage assessment, and other significant anomalies. NWS personnel can utilize information from ham radio operators to issue alerts or assess threat levels to areas that may be affected by abnormal conditions.

The 2022 NWS Spotter of the Year Award was given to Bryan Loper, WX5CSS, of Atlanta, Texas. The award noted that Loper is very active with the amateur radio network and weather community within the Ark-La-Tex region, and is always reliable in providing weather reports. Loper is also an ARRL member.

Thanks to Jeff Reinhardt, AA6JR, Public Information Coordinator - ARRL Santa Barbara Section for contributing to this story.

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Santa is On the Air Via Ham Radio

As Christmas approaches, many amateur radio clubs carry out an annual tradition of helping

kids talk directly to Santa Claus while he is still at the North Pole before his big ride.

On Saturday, December 10, 2022, the Wallingford Amateur Radio Group in Connecticut will connect kids to Santa and Mrs. Claus via amateur radio during their [Calling Santa](#) event. The group organizes the event in cooperation with the Wallingford Health Department, Youth & Social Services, and support from an Amateur Radio Digital Communications (ARDC) grant to the [Meriden Amateur Radio Club](#) (MARC).

MARC President Dr. Ed Snyder, W1YSM, said this will be the third year for Calling Santa. "The location is ideal for this event," said Dr. Snyder. "Our communications van will be there, and the kids go inside and talk to Santa and Mrs. Claus on a real amateur radio. There will also be a fire truck, coloring books, crayons, and allergy-safe snacks." Each child will receive a full-color certificate signed by the Clauses.

Already in operation for the 16th consecutive year, The 3916 Nets are hosting the [Santa Net](#) on 3.916 MHz. Kids can talk to Santa Claus nightly via amateur radio at 7:00 PM CST now through Christmas Eve, December 24, 2022. The shortwave net welcomes radio amateurs to help their children and grandchildren get on the air to talk to Santa (third-party rules and regulations apply).

The [Big Bend Amateur Radio Club](#), covering the Big Bend area of west Texas and based in Alpine, will have their 15th annual Santa Net ready to go on December 14, 2022. Local 2-meter repeaters are used to



Nevada County ARES members are sworn in as Nevada County OES Disaster Service Worker Volunteers. L-R (seated) Robin De Negri, N6ZPO and Peter Mason N6ERL. L-R (standing) Cal McKittrick, AI6MC; Martin Twer, AJ6OH; Mark Triolo, N6PVI; Sean Robichaud, K6ACN; John Hart, KE6FIQ; Jeff Wagner, KK6CUG, and Jan Woldseth, KB6FMZ. Not pictured is Drew Mazer, KN6MMK. [Cal McKittrick, AI6MC, photo]

make the connection to Santa. The club highlights that "Santa Net introduces kids to ham radio." The event is promoted through the local elementary school and its teachers. Participants get a candy cane and a card commemorating the radio contact with Santa.

The ARRL Special Event Stations database is updated regularly and includes other Christmas and holiday-themed on-the-air events. You can search the database at www.arrl.org/special-event-stations, and use keyword searches such as "Christmas" or "holiday." Fill out the Special Events application form at www.arrl.org/special-events-application to add your event.

Amateur Radio Emergency Service Members Support Nevada County Office of Emergency Services

Ten [Nevada County Amateur Radio Emergency Service](#)[®], NC-ARES[®], members were sworn-in as Nevada County Office of Emergency Services (NC-OES) Disaster Service Worker Volunteers during their December 1, 2022, meeting at the Nevada County Airport in California.

Lt. Sean Scales, Nevada County Safety Officer (NCSO), Emergency Operations Coordinator and Office of Emergency Services, administered the oath.

NC-ARES and NC-OES signed a Memorandum of Understanding in May to establish the cooperative relationship.

"NC-ARES volunteers are another local resource Nevada County OES can call upon to support our community," said Lt. Scales.

Peter Mason, N6ERL, NC-ARES Emergency Coordinator added, "ARES members use their radio equipment and training to provide radio communications support to local agencies during emergencies, including Nevada County OES and the American Red Cross."

NC-ARES sponsors a free educational program for local neighborhoods called Neighborhood Radio Watch. "In three in-person meetings, households learn the benefits of, and how to use, handheld General Mobile Radio Service (GMRS) radios to communicate during emergency situations when internet, phone, and cell services become unavailable or fail," said Mark Triolo, N6PVI, NC-ARES GMRS Program Leader.

[ARES](#) is a program of ARRL The National Association for Amateur Radio®.

Thanks to Peter Mason, N6ERL, Nevada County ARES Emergency Coordinator for information contained in this story.

Colonel Jerry Wellman, W7SAR, Former ARRL Utah SEC and Life Member, Receives Top Honors

Colonel Jerry Wellman, W7SAR, former ARRL Utah Section Emergency Coordinator (SEC), was recently named the National Volunteer Emergency Manager of the Year, the highest honor given to a volunteer emergency manager, by the International Association of Emergency Managers (IAEM).

Wellman served as the Utah Wing Civil Air Patrol commander from September 2009 to May 2013. He served as the emergency services training officer for the Salt Lake Senior Squadron, and currently serves as the Phoenix Cadet Squadron's assistant officer for communication and for education and training.

At the award ceremony on November 14, 2022, Wellman was cited for being "active in enhancing his own emergency management professional development, while relentlessly contributing to his community." He taught emergency management communications classes in Arizona, Utah, and Colorado, and chaired the Kearns, Utah, Metro Township Emergency Planning Commission.

He also served on the Utah State Emergency

Response Team and volunteered in the state Emergency Operations Center, contributing more than 150 days during the COVID-19 response and during floods, fires, and winter storms. He also served as an air operations coordinator on three search and rescue missions.

Wellman was licensed in 1972 and holds an Amateur Extra-class license. He is an ARRL Life Member and a Life Member of REACT International.

Amateur Radio Featured on Montana Public Television

On Thursday, November 24, 2022, Thanksgiving evening, MontanaPBS aired a documentary about amateur radio that was appropriately titled, HAM. The 25-minute program was produced by students, in cooperation with the Greater Montana Foundation, as well as the School of Journalism and the School of Visual & Media Arts at the University of Montana (UM) in Missoula. Several local amateur radio operators were featured in the program, including Lance Collister, W7GJ; Dennis Lane, KR7Q; Mike Leary, K7MSO, and Keith Graves, NE7R. Together, they talked about how amateur radio has evolved and their experiences as active hams.

The program is available to watch on the MontanaPBS website, at www.montanapbs.org/programs/ham.

"I was happy to agree to the interview," said ARRL member Dennis Lane, KR7Q, who was among a handful of hams fea-

tured in the video, such as Lane and his wife, Debi; Lance Collister, W7GJ; Karen Orzech; Mike Leary, K7MSO; Keith Graves, NE7R, and Lois Graves, W7LAG. "The students visited my home



ARRL member Lance Collister, W7GJ, of Frenchtown, Montana, was among the hams featured in the student-produced documentary.

and ham shack in early March of 2022. They seemed to be interested in the human-interest aspect of ham radio," Lane continued. "I tried to emphasize the relationships and lifelong friendships that I have enjoyed over my 45 years in the hobby."

Lane also shared, "When I told the students about Parks on the Air®, they asked if they could come with me on my next POTA activation. I was happy to have them join me at Lee Metcalf National Wildlife Refuge in Stevensville." During the activation, Lane made radio contacts on both VHF and shortwave, using an end-fed half-wave antenna. "One of the first contacts I made was in Alaska. They seemed very excited about that."

The UM student film crew included Grace Wolcott, Kal Bailey, Jared Benge, Karter Bernhardt, Julien Dousset, Maiya Fleck, Marcia Heydt, Natalie Verploegen, and Ryan Weibush. Lane published these personal videos from the filming:

<https://www.montanaartqwerks.com/My-Ham-Radio-Page-de-KR7Q/Mpbs/i-wqc9jJz/A>
https://youtu.be/S_UBc-b-Nek (YouTube)

When All Else Fails: Amateur Radio Helps Rescue Lost Hiker

Editor's note: The following event took place on Sunday afternoon, December 11, 2022, and was told to ARRL News by Raul "Skip" Camejo, AC1LC, Public Information Coordinator for the ARRL New Hampshire Section.

A New Hampshire man and his dog went out for a day hike yesterday in the Belmont area of central New Hampshire. Things went well until his cell phone battery died. With darkness near and a prediction of snow, a leisurely day hike was quickly turning into a serious health and safety issue for the hiker.

Fortunately for him, he is also an amateur radio operator and brought along his digital mobile radio (DMR) handheld radio with him. With no cell

phone capability, he made a call on the DMR New Hampshire statewide channel through the Gunstock (Mountain) DMR repeater, seeking assistance. His call was answered by Bill Barber, NE1B, who was monitoring the channel. The hiker asked Barber to call his wife, because he could not text or get "pinged" with his dead cell phone. Barber contacted the hiker's wife, and she was glad to hear that someone was in contact with him. Unfortunately, he did not know exactly where he was and believed he would have to walk through brush for an hour or more to get to a road.

His wife called the local police department, who began a search with their local fire department. Amateur radio was the only communication from about 4:30 to 6:30 PM. Barber was able to make contact with Rick Zach, K1RJZ, who lives closer to the search area, and was familiar with the area's snowmobile trails and roads. Zach coordinated communication between the responding police units and the lost radio operator on the New Hampshire Statewide talkgroup.

Police and fire units attempted to assist in the search by activating their sirens in different locations to try to obtain a location on the ham operator, but he was not able to hear them.

Another amateur radio operator, Chuck Cunningham, K1MIZ, was monitoring the events on Net Watch and noticed that the lost ham had accidentally changed channels. This information was passed along, and 2-meter DMR communication continued until the lost ham walked out to a road and was able to advise searchers of his location. The search and checkout ended successfully at 6:30 PM.

Thanks to the efforts of Bill Barber, NE1B (ARRL Life Member); Rick Zach, K1RJZ (ARRL member), and Chuck Cunningham, K1MIZ.

Barber listed some very important lessons learned from the incident:

- Radio batteries last longer on DMR radios than on analog mode.

- Even his wife had trouble with her cell phone coverage at home.
- Monitor your local state DMR channel to help others nearby.
- You may want to program 146.52 FM next to your state channel for signal strength direction finding if and when you're out of repeater range. Some hams still monitor 146.52 MHz simplex.
- Stay on the primary channel until you know more hams are nearby to direction find your signal.
- Hike with DMR. Network sites cover many areas of New England that do not have any cell service.
- Hike with a flashlight.

And I would like to add one more item to the list. My son is one of the leaders of Pemigewasset Valley (New Hampshire) Search & Rescue Team and unfortunately responds to too many calls for lost hikers. One very important item that he stresses is that hikers file a "flight plan." Let someone who is not going on the hike know where you are going, how long you expect to be gone, and what communication equipment or capability you have with you. This also applies if you are going out hunting, fishing, or boating.

Raul "Skip" Camejo, AC1LC
Public Information Coordinator
ARRL New Hampshire Section
ac1lc@arrl.net

Rep. Lesko Introduces Bill to Replace Symbol Rate Limit with Bandwidth Limit

Congresswoman Debbie Lesko (AZ-08) introduced a bill in the U.S. House of Representatives (H.R. 9664) on December 21, 2022, to require that the Federal Communications Commission (FCC) replace the current HF digital symbol rate limit with a 2.8 kHz bandwidth limit.

After being petitioned by ARRL The National As-

sociation for Amateur Radio® in 2013 (RM-11708) for the same relief, in 2016 the Commission issued a Notice of Proposed Rulemaking (WT Docket No. 16-239) in which it agreed that the HF symbol rate limit was outmoded, served no purpose, and hampered experimentation. But the Commission questioned whether any bandwidth limit was needed in its place. Most amateurs, including the ARRL, objected to there being no signal bandwidth limit in the crowded HF bands given the possibility that unreasonably wide bandwidth digital protocols could be developed, and since 2016 there has been no further FCC action.

In conjunction with introducing the legislation, Congresswoman Lesko stated that "With advances in our modern technology, increased amounts of data can be put on the spectrum, so there is less of a need for a regulatory limit on symbol rates. I am pleased to introduce this important piece of legislation to update the FCC's rules to support the critical role amateur radio operators play and better reflect the capabilities of our modern radio technology."

ARRL President Rick Roderick, K5UR, hailed introduction of the bill. Roderick stated that "the FCC's delay in removing this outdated restriction has been incomprehensible, given that the biggest effect of the delay is to require totally inefficient spectrum use on the already-crowded amateur HF bands. I hope that the Commission will act to remove this harmful limitation without waiting for the bill to be passed."

ARRL Legislative Committee Chairman John Robert Stratton, N5AUS, added that "the symbol rate limit hampers experimentation and development of more efficient HF data protocols by U.S. amateurs. For all practical purposes the field has been ceded to amateurs outside the U.S., where there is no comparable limit. Removing the restriction not only will allow U.S. amateurs to use the most efficient data protocol suitable for their purpose, but it also will promote and incentivize U.S. amateurs to experiment with and develop even more efficient protocols."

Marines To Gain Radio Op Expe-

ience Via Amateur Radio

On Wednesday, December 7, 2022, 22 Communication Officers at the Marine Corps Communication-Electronics School (MCCES) in Twentynine Palms, California, became amateur radio operators. W6BA, the [Morongo Basin Amateur Radio Club](#) (MARC) administered the exams and 21 candidates passed their Technician exam, and one passed their General exam. 14-year-old Kalynn Cossette, KN6WVD, was the youngest candidate who passed her Technician exam.

Retired Marine Corps Warrant Officer 4 Robert Cloutier, WO4ROB, and MARC President says it was a great event and he is excited to see so many new amateur radio operators. So, what drove the officers to want amateur radio licenses? Cloutier pointed out that all of the candidates already have a background in radio administration but not operating experience.

"Chief Warrant Officer (CWO3) Kalem Cossette, KK4KC, one of the training officers at MCCES, introduced amateur radio to the Communication Officers," said Cloutier. "Most of the students were curious on how to get their license, so CWO3 Cossette contacted the MARC to schedule an exam session."

Cloutier said that all new license holders were offered a free club membership but many of them will be deployed to other locations around the world and will be able to join other amateur radio clubs. He said they hope to conduct exams every three months.

The Morongo Basin Amateur Radio Club is an ARRL Affiliated Club.

Ugly Sweater Activation in Massachusetts

The Western Massachusetts Chapter for Portable On The Air, [POTA*413](#), recently conducted their 9th Annual Ugly Sweater Activation.

The event is held every year and known to the club members as USPO-TA*413. The club welcomes this holiday, public-driven event that



has the group activate a local state/national park (or SOTA summit, when possible), with several operators organized from several station setups.

USPOTA*413 members (left to right) Daniel Vierno, K1VWQ; Jason Giguere, KC1ABT; Ralph Carpenter, KA1V; Todd Hoessler, N1GNX; Michael Favreau, N1LZF; John Ewell, N1JIE (not in photo, but attended). [Jason Giguere, KC1ABT, photo]

Hosting member Dan Vierno, K1VWQ, noted, "We normally like to have at least two stations running multi operations, like 20 and 40 meters, simultaneously. However, we have also been known to operate the event on 17, 10, 6, and 2 meters." Vierno added, "[Being] portable on the air [means] welcoming all avenues of operations that are conducted outside. Even though this year was along the beach of Hampton Ponds State Park, we have been known in the past to hold an Ugly Sweater Activation from a SOTA summit, such as W1/CR-013, Quabbin Hill."

The POTA*413 club was established and began operating in 2012, while the annual Ugly Sweater Activation event was first launched in 2014 at the Mt. Tom State Reservation.

The annual event has occurred outdoors every year, with the exception of 2020, during the Covid-19 pandemic, when participants of USPO-TA*413 wore their ugly sweaters and chased parks and summits from home. Though it was not as much fun, they updated contacts and photos via social media.

More US Schools Selected for Ham Radio Contacts with the International Space Station in 2023

Amateur Radio on the International Space Station ([ARISS](#)) has announced a list of seven schools/ host organizations selected to host scheduled amateur radio contacts with the astronaut crew on the International Space Station (ISS) from July to December 2023.

Earlier this year, nine schools and organizations were selected for contacts that will take place from January to June 2023 with the ISS.

The primary goal of the ARISS program is to engage young people in science, technology, engineering, arts, and math (STEAM) activities that raise their awareness of space communications, radio communications, space exploration, and related areas of study and career possibilities. ARISS does this by organizing scheduled contacts via amateur radio between crew members aboard the ISS and students. Before and during these radio contacts, students, educators, parents, and communities take part in hands-on learning activities tied to space, space technologies, and amateur radio.

ARISS anticipates that NASA will be able to provide scheduling opportunities for these host organizations in the US between July - December 2023:

<u>Organization</u>	<u>Location</u>
A.L. Burruss Elementary School	Marietta, GA
Augusta Preparatory Day School	Augusta, GA
Bowman Middle School	Bakersville, NC
Camp William B. Snyder	Haymarket, VA
Covenant Christian Academy	West Peabody, MA
Orangeburg Christian Academy	Orangeburg, SC
Webb Bridge Middle School	Alpharetta, GA

The 16 schools and organizations selected for 2023 are now working to complete an acceptable plan that demonstrates their ability to execute a ham radio contact with the ISS. Once their equipment plan is approved by the ARISS Technical Mentors, the final selected schools/organizations will be scheduled as their availability and flexibility match up with the scheduling opportunities offered by NASA.

ARISS is a cooperative venture of international amateur radio societies and the space agencies that support the ISS. In the US, participating organizations include [ARRL](#) The National Association for Amateur Radio®, and the Radio Amateur Satellite Corporation (AMSAT). Sponsors are NASA's Space Communications and Navigation program (SCaN), and the Center for the Advancement of Science in Space (CASIS).

NASA "Decodes" Secret Messages Onboard the Orion Spacecraft

NASA has a long history of hiding secret messages in its spacecraft and that tradition continued with the launch of the Orion crew capsule in November on top of the Artemis I rocket.

Five hidden messages were placed in the Orion capsule ranging from Morse Code to musical notes.

On the right side of the capsule below a window and next to the pilot's seat were the letters "C, B, A, G, F" - five musical notes for the first words in Frank Sinatra's song, "Fly Me to the Moon."

In the middle of the capsule, above the cockpit control console, was a Morse Code message that spelled out the name "Charlie" in remembrance of former Orion Deputy Program Manager Charlie Lundquist, who died in 2020.

Other messages included a picture image of a cardinal to the right of the pilot seat as a tribute to former Orion Program manager, Johnson Space Center director, and St. Louis Cardinals fan Mark Geyer, who died in 2021.

The other two messages were on top of the pilot's seat including Binary code representing 18. This is in honor of NASA's history of travel to the moon with the Apollo Program and to celebrate a spacecraft's return to the Moon after Apollo 17 for the Artemis Generation. The final message was in front of the pilot's seat, the country codes of each country with the European Space Agency (ESA) that participated in developing and building the spacecraft's European Service Module.

Amateur Radio Operators Invited to participate in Asteroid Bounce Experiment

The High-frequency Active Auroral Research Program (HAARP) will be conducting a research campaign/experiment on December 27, 2022, with transmissions between 1100 - 2300 UTC (0200 - 1400 AKST).

This experiment will reflect HAARP transmissions off of Near-Earth Asteroid (NEA) 2010 XC15, and the echo will be received by the Owens Valley Radio Observatory Long Wavelength Array (OVRO-LWA) at the California Institute of Technology (Caltech) and by the University of New Mexico's Long Wavelength Array (UNM-LWA). The target asteroid will be roughly two lunar distances away from Earth at the time of transmission. Characterizing the interior structure and composition of NEAs is critical for advancing the understanding of solar system evolution and aiding in planetary defense.

Actual transmit times are highly variable based on real-time ionospheric conditions and all information is subject to change. Currently, the Asteroid Bounce (2010 XC15) experiment will take place Dec. 27, 2022, from 1100 UTC to 2300 UTC; 9.6 MHz, LFM (linear FM), 0.5 Hz WRF (waveform repetition frequency), 30 kHz bandwidth. Reports recording echo are encouraged; demodulated recordings in .wav or .mp3 are recommended.

For real-time ionospheric conditions in Gakona, please consult ionograms from the HAARP Diagnostic Suite at <https://haarp.gi.alaska.edu/diagnostic-suite>.

Amateur radio and radio astronomy enthusiasts are invited to listen to the transmissions/echoes and submit reception reports to the HAARP facility at uaf-gi-haarp@alaska.edu and request a QSL card by mailing a report to:

HAARP
P.O. Box 271
Gakona AK 99586
USA

ARRL Straight Key Night (SKN) is January 1, 2023, from 0000 UTC through 2359 UTC. In the US, SKN begins on New Year's Eve. Many hams look forward to SKN as one of the highlights of their operating year. Operators participate using Morse code (CW). All you need is your favorite straight key or bug. Many participants dust off vintage radios and keys and put them back into service each year, just for SKN. SKN is not a contest, so there's no need for quick exchanges. However, all hand keys, regardless of age, are welcome. The number of contacts you make is not important. The reward is meeting many new friends as you get together on the air. Send a list of stations contacted, SKN stories and photos, and your votes for Best Fist and Most Interesting QSO to straightkey@arrl.org by January 31, 2023. More information at www.arrl.org/straight-key-night.

On January 1, 2023, an international year-long amateur radio contest to honor Guglielmo Marconi will begin, and is appropriately titled, "Marconi was here!" The main objective of the contest is to historically commemorate some of the most important and significant Italian cities where Marconi performed scientific experiments. Marconi conducted experiments in radio engineering, long-distance communications, radio direction finding, and many others. Overall, the experiments were crucial to the technical and scientific advancement and progress of wireless com-

munications. Each month is dedicated to a specific Italian city connected to the story of Marconi and is paired to a different special call sign. The "MARCONI WAS HERE!" award is an international amateur radio award organized by A.R.I. [Fidenza Radio Club](http://www.arifidenza.it) in collaboration with [A.R.I. Associazione Radioamatori Italiani](http://www.arifidenza.it) and the [Marconi Museum](http://www.arifidenza.it). Further details about the special call signs, special certificates, and all of the rules are available on the official website www.arifidenza.it.

The Greater Cincinnati Amateur Radio Association (GCARA) 1936 Net will host its annual AM night on Thursday December 29th, 2022, on 1936 kHz. The activities get underway with pre-net check-ins beginning at 6:30 PM EST. The official net begins at 9:00 PM EST (0200 UTC) and typically lasts two hours. The net control station is Bill Donnermeyer Jr., NM4A, located in Union, Kentucky. The net typically attracts about 65 stations from across the United States during the course of the evening. All AM check-ins are welcome. This is a great opportunity to hear some classic AM rigs, heavy metal military and broadcast AM transmitters, and state-of-the-art software defined radio AM. *Thanks to net manager Geoffrey "Geoff" Mendenhall, W8GNM, and other members of the GCARA, an ARRL Affiliated Club.*

On Christmas Eve, 1906, Canadian inventor, experimenter, and entrepreneur Reginald Fessenden claimed to have made his first voice -- and music -- broadcast from Brant Rock, Massachusetts, although his account of the event over the years has been disputed. Nonetheless, Brian Justin, WA1ZMS, of Forest, Virginia, will make his annual program recreation on 486 kHz to commemorate Fessenden's accomplishments. Justin will broadcast for 24 hours beginning at 1800 UTC on December 24, with a repeat transmission on New Year's Eve, beginning at 1800 UTC, as Fessenden was reported to have done on both nights in 1906. Justin will transmit on 486 kHz, under authority of his FCC Part 5 Experimental License WI2XLQ, using equipment substantially more modern than Fessenden's gear. Justin will use a home-brew

setup to achieve Heising modulation similar to what was used in amplitude modulation (AM) transmissions during World War I. Justin explained that Fessenden's transmitter was a high-speed alternator, a predecessor to the Alexander Alternator still in use today at the historic Grimeton Radio Station in Sweden. Modulation then was achieved using a carbon microphone, but Justin will use a laptop computer for his audio broadcast. Justin said there is a cult-like following of amateur radio and shortwave listeners who tune in for the annual broadcast. Justin has been licensed since 1976 and is an ARRL Life Member.

The Grimeton Christmas Eve message has been cancelled. [The Alexander Grimeton Friendship Association](#), in southern Sweden, has announced the cancellation due to Covid-19. The radio station will be closed for visitors and SK6SAQ will not be QRV or on the air.

In Brief...

The Intrepid DX Group has announced the winners of the 3rd annual Youth "Dream Rig" Essay Contest. Essays were received from young amateurs from all over the world and gave interesting perspectives on how to reach out and connect with the youth of today. First Place -- Maria Polyanska, VE3OMV, and receiving an Icom IC-7300 transceiver. Second Place -- Ryan Kocourek, N7RSK, and receiving a Yaesu FT-65R VHF/UHF handheld. Third Place -- Toby Latino, AG5ZM, and receiving a Yaesu FT-65R. Intrepid DX Group President Paul S. Ewing, N6PSE, added, "Having read your many essays this week, we can tell you that our youth are full of great ideas, and they are brimming with enthusiasm to keep our hobby alive well into the future." Ewing also thanked Robert Chortek, AA6VB, for providing the funds for this year's prizes.

ARLB026 Rep. Bill Johnson Introduces Bill to Eliminate Private Land Use Restrictions on Amateur Radio

Congressman Bill Johnson (OH-6) introduced a bill in the U.S. House of Representatives (H.R.9670) on

Thursday, December 22, 2022, to eliminate private land use restrictions that prohibit, restrict, or impair the ability of an Amateur Radio Operator from operating and installing amateur station antennas on property subject to the control of the Amateur Radio Operator.

The exponential growth of communities subject to private land use restrictions that prohibit both the operation of Amateur Radio and the installation of amateur station antennas has significantly restricted the growth of the Amateur Radio Service. These restrictions are pervasive in private common interest residential communities such as single-family subdivisions, condominiums, cooperatives, gated communities, master-planned communities, planned unit developments, and communities governed by community associations. The restrictions have particularly impacted the ability of Amateur Radio to fulfill its statutorily mandated duty of serving as a voluntary noncommercial emergency communications service.

Congress in 1996 directed the Federal Communications Commission (FCC) to promulgate regulations (Public Law 104-104, title II, section 207, 110 Stat. 114; 47 U.S.C. 303 note) that have preempted all private land use restrictions applicable to exterior communications facilities that impair the ability of citizens to receive television broadcast signals, direct broadcast satellite services, or multichannel multipoint distribution services, or to transmit and receive wireless internet services. ARRL attempts to obtain similar relief for Amateur Radio were rejected by the FCC with a statement such relief would have to come from Congress.

ARRL Legislative Advocacy Committee Chairman John Robert Stratton, N5AUS, noted that Congress, in 1994 by Joint Resolution, S.J.Res.90/H.J.Res.199, declared that regulations at all levels of government should facilitate and encourage the effective operation of Amateur Radio from residences as a public benefit. He continued by stating that "H.R.9670, the Amateur Radio Emergency Preparedness Act, is intended to

**BARC Website, some Blog
page Titles**

[How to run a special-event
station](#)

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

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

[Morserino 32 adventure](#)

[What to do when you see a
need... – Brightleaf Ama-
teur Radio Club
\(w4amc.com\)](#)

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

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

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

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Feel free to view, comment and
add.

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

***** 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 • Honoree 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.

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*

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.

National Hurricane Center

[Voice over Internet Protocol \(VoIP\) Hurricane Net](#), Nets: 14.325MHz, 7.268MHz

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, Traffic Net 2030 local Fountain 444.425 MHz, 88.5 Tone N4HAJ
- ◆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 444.725-91.5 tone.
- ◆Wilson Amateur Radio Club Net, Thursdays @ 2000 on 146.76 MHz.
- ◆ Piedmont Coastal Traffic Net, Nightly 2030 on 444.725MHz, 91.5 tone
- ◆Carteret County ARS (CCARS) Emergency Net, Tuesdays, 1930 on the Newport 145.45 (-) MHz, tone 100
- ◆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

More Nets:

New Swap and Trade Net - There will be a new swap and trade net starting up on 6 meters 53.25 N4YR repeater -1.0 MHz, tone is 100 Hz at 8PM.

Thursdays: 8:30 PM Forsyth County Auxcomm net on 145.47 MHz. 3rd Thursdays are training programs on Zoom at 8:00PM.

Thursdays: 9:00 PM 2 Meter SSB on 144.200 MHz

Sundays: 8:30 PM 6 meter SSB net on 50.155 MHz

Sundays: CW Legacy Net every Sunday from 12:30-1:45 p.m. every Sunday afternoon on 7.060. All speeds and brands of rigs welcome. Net control: Rick, WO8L

Tar Heel Emergency Communications Net on 3923 kHz Nightly 1930.

South Carolina/North Carolina National Traffic System 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),

The have been Ten-Tec Legacy CW slow net and CW fast net discontinued.

The nets operate on:

Ten-Tec Legacy SSB 3.927 MHz on Saturday morning from 6:00 am until 9:30 am

7.195 MHz on Sunday afternoon from 1:30 pm until 3:30 pm

Any radio type is welcome. Netlogger is the preferred check-in method but CQ calls are made for those that don't have access to Netlogger. More information can be found at www.groups.io (search for Ten-Tec Legacy nets).

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.

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 or Buy:

Wanted: Looking for a vintage transmitter. A Johnson Valliant or Ranger or similar. Or a crystal controlled rig of the Adventurer or DX35 type. If you have one and can part with it, Give me a call. Glen W7GS, 252-975-1070 or at VOA in the day time 252-758-2171 Tuesday thru Saturday.

Antenna and Tower For Sale

Name: Robert K Lyon (Pat)

Email: pklyon@gmail.com

Message: Daughter of Paul Copeland, former amateur radio operator who died in 2011, owns an antenna and tower that she would like to sell. I am a family friend trying to help Elizabeth survive. If you know anyone interested in purchasing this equipment, please have them contact me at the above email.

Time: September 25, 2022 at 4:59 pm

Tower is on the ground ready for inspection.

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

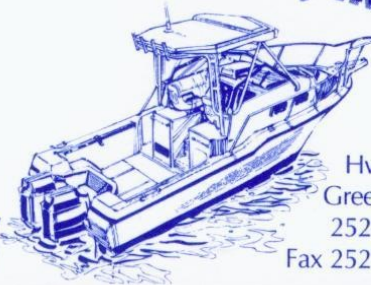
Certified Public Accountants

TERRY A. MONDAY, CPA, CVA, EA
K4ZYD

105-D East Victoria Ct.
 Greenville, NC 27858

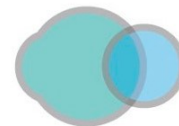
Phone (252) 321-6007
 Fax (252) 321-2991

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>

CALENDAR OF EVENTS

Contest, Events and Meetings

2023 Starts Here: Just some of the MANY contests and Events

January Club Dues are due

Jan 1 Straight Key Night

January 1 -- AGB New Year Snowball Contest (CW, phone, digital)

January 1 -- SARTG New Year RTTY Contest (digital)

January 1 -- AGCW Happy New Year Contest (CW)

January 1 -- AGCW VHF/UHF Contest (CW)

January 2 -- K1USN Slow Speed Test (CW)

January 3 -- Worldwide Sideband Activity Contest (phone)

January 3 -- ARS Spartan Sprint (CW)

January 4 -- QRP Fox Hunt (CW)

January 4 -- CWops Test (CWT) (CW)

January 4 -- VHF-UHF FT8 Activity Contest (digital)

January 4 -- CWops Contest (CW)

January 4 -- UKEICC 80-Meter Contest (phone)

Jan 7 Kid's Day (January)

Jan 7-8 RTTY Roundup

Jan 10 BARC Meeting **6:30pm, Great time to pay Dues if not done yet. NEW LOCATION!**

Jan 14 BARC Breakfast 9am ****New Event** Talk, eat, talk, you got the picture****

Jan 21-23 January VHF Contest

Jan 31 BARC Board Meeting, 7pm, **Chatter needs reports please, Zoom**

Feb 14 BARC Meeting 6:30pm and **Valentine's Day**

Feb 13-17 School Club Roundup

Feb 18 BARC Breakfast 9am

Feb 18-19 DX Contest (CW)

Feb 28 BARC Board Meeting 7pm, Reports please for Chatter

March 4-5 DX Contest (SSB)

March 14 BARC Meeting 6:30pm Zoom

March 18 BARC Breakfast 9am

March 28 BARC Board, 7pm, Zoom

April 11 BARC Meeting, 6:30pm

April 15 BARC Breakfast 9am

April 16 Rookie Roundup (SSB)
April 25 BARC Board 7pm Zoom
May No ARRL events
May 9 BARC Meeting 6:30pm
May 13 BARC Breakfast 9am
May 30 BARC Board 7pm Zoom, Reports please for Chatter
June 3-4 International Digital Contest
June 10-12 June VHF Contest
June 13 BARC Meeting 6:30pm
June 17 BARC Breakfast 9am
June 17 Kid's Day (June)
June 24-25 ARRL Field Day (always 4th full weekend)
June 27 BARC Board 7pm

Contest Calendar: For more Contest and all the rules:

<https://www.contestcalendar.com/weeklycont.php>

Visit the [ARRL Contest Calendar](#) for more events and information.

Bruce Horn, WA7BNM, [Contest Calendar](#) website. The site now includes a [5-Week Calendar](#) .
There's more than I could post available.

CALENDAR OF EVENTS

BARC Meetings are open to all.

BARC Regular Meeting - 2nd Tuesday @ 6:30 PM
Live and Zoom

BARC Board Meeting - Last Tuesday @ 7:00 PM
ZOOM Except in December.

Upcoming ARRL Section, State, and Division Conventions and Hamfest:

2023:

January 7 | [Ham Radio University](#), hosting the ARRL New York City-Long Island Section Convention, an Online Event

January 20 - 21 | [Southwest Florida Regional Hamfest](#), hosting the ARRL Southern Florida Section Convention, Fort Myers, Florida

January 27 - 28 | [Capital City Hamfest 2023](#), hosting the ARRL Mississippi State Convention, Jackson, Mississippi

January 28 | [Winterfest](#), hosting the ARRL Midwest Division Convention, Collinsville, Illinois

Feb. 10-12, Orlando Hamcation, Central Florida Fairgrounds and Expo Park near Orlando <https://www.hamcation.com/> .

February 25 | [HAM-CON](#), hosting the ARRL Vermont State Convention, Colchester, Vermont

May 19-21, Dayton Hamvention, Greene County Fairgrounds and Expo Center near Xenia Ohio, <https://hamvention.org/>

March 3 - 4 | [Greater Houston HamFest](#), hosting the ARRL Texas State Convention, Rosenberg, Texas

March 3 - 4 | [BirmingHamfest](#), hosting the ARRL Alabama Section Convention, Trussville, Alabama

March 10-11, The Charlotte Hamfest, will held at the Cabarrus Arena & Events Center – Gold Hall, located near Concord, NC <https://charlottehamfest.org/>

April 8, RARSFEST, Jim Graham Building at the NC State Fairgrounds in West Raleigh, <https://www.rarsfest.org/> .

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