

# Ham Chatter



Volume 57 Issue 4

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April 2023

Editor, Mark, KG4GVJ

Email: [hamchatter@w4amc.com](mailto:hamchatter@w4amc.com)

## World Amateur Radio Day (WARD) on April 18.



### 50/50 drawing re-starting

At the April 11 BARC meeting.

\$1 a ticket or \$5 for 6 tickets.

50% to Club and 50% to winner of the night.

### ELMERS WANTED

Need folks willing to help others get their license, learning or with help on their radio needs.

Please contact [hamchatter@w4amc.com](mailto:hamchatter@w4amc.com)

A list will be made of those willing to help and in what area for those looking for help.

### BARC General meeting April 11, 6:30pm

*All members, families and guests are invited to attend.*

Sheppard Memorial Library, 530 Evans Street, Greenville, NC. Access is at the parking lot.

#### Speaker:

Show and Tell, Bring something to show or tell about.

#### May 9, 2023 Speaker:

John Leonardelli VE3IPS  
Solar Powered Portable Operations

#### Oct 10, 2023 Speaker:

Dale Burmester  
About FT8 Digital mode.

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**BARC Board Meeting - April 25, 2023. The meeting will be on ZOOM at 7:00 PM. All members invited. See Zoom information.**

Hello Fellow Hams and Friends,

2-23-2023

I am passing along information for my ham friends in Carteret County. The Carteret County Amateur Radio Society (CCARS) has a motorized wheelchair that was donated to their club for the use of a needy individual. The current user no longer needs it and has returned it to CCARS so that someone else can have use of it.

The wheelchair is a high end motorized chair that originally sold for approximately \$20,000. The only stipulation for use is to agree to return it to CCARS when no longer needed. I do not have information on maintenance but can find out if someone has interest.

The wheelchair is being offered to anyone (Ham, relative, etc) in Eastern NC, basically in Beaufort, Pitt, Craven, Jones, Carteret Counties. It is currently located in Newport NC and the borrower will need to provide for pickup and transportation.

For further information contact me and I will pass along requests for more information to CCARS. Please feel free to pass along this information to other local club members (Danny Garris, Beth Gonzales)

73 and Respectfully,

Gary Faust NG9T

(Photo's on President's corner)

President, Pamlico Amateur Radio Club

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October 10, 2023 Speaker Dale Burmester about FT8 Digital mode.

Dale Burmester, KA9SWE, has been a ham radio operator since 1985 and has held an Amateur Extra license for the last decade. Dale made his first digital mode HF contact using PSK31 in 2009 and continued on his HF digital mode journey using JT65 in 2010, JT9 in 2013, FT8 in 2017, and FT4 in 2019. The KA9SWE log-book contains over 28,000 entries with LOTW confirmed 5 Band Worked All States and 202 DXCC contacts. A Kenwood TS-480SAT running 25 Watts or less into a vertical multi-band antenna is responsible for the majority of those contacts. In 2015, Dale placed 1st in the CQ WW 160m DX contest "Single Operator - Low Power - WI" category. The KA9SWE shack runs Ham Radio Deluxe, WSJT-X, and JT-Alert on a Windows 11 PC. Dale is also a registered professional engineer in the state of Wisconsin and manages the Economic and Stakeholder Planning team at ATC (<https://atcllc.com>).

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Dear BARC Members:

A sad day to report that a very long member of BARC has become a silent key. Rick LaMonica W4ZRA. The info is for the visitation to be on Sunday April 2nd 6pm to 8 pm at Wilkerson's, and the funeral to be Monday April 3rd at Wilkerson's cemetery.

Thanks for your attention.

73 Bernie, WA4MOK

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John Leonardelli VE3IPS

I am active on all bands and all modes and also enjoy QRP, SOTA and Portable Ops

I enjoy building QRP radios, homebrew, antenna work and experimentation.

I am using the following radios:

Icom 7610, 7300, 746pro, 756Proii, 703, 7200 and the 705

Yaesu 991, 891, 817, 818, FT-100D, FTDX-3000

Xiegu G90 - sold

Drake 4 Line

Yaesu FT101E

I use my Full legal limit linear amplifiers when needed but my focus is on low power QRP activities.

Several military manpack radios - Classified as LRRP missions are still ongoing in the XXXXXX zone

AB5Fc6

Several QRP radios from kits or home brew

Operated as 6Y5IPS in Jamaica with over 150 Dstar contacts from the beach and 1st place in Winter Field Day

Operated as XE3 in Oaxaca, Mexico, VK3 Australia, JA1 Japan, I/VE3IPS in Italy, VX3HIRAM/150, CF3BP

Transatlantics for Edward S Rogers

Antennas: Chameleon MPAS, Chameleon Emcomm, Chameleon TD, Chameleon TD Lite, Buddistick with lots of extras, Super Antenna MP1, Super Antenna MP Screwdriver, Hustlers and Hamstick, PackTenna mini and the regular ones - all the baluns, LDG baluns, Hygain 12avq, MFj 43 footer with 160/80/40m coils, OCFD, NVIS antennas, T2FD, AT-271

I am also a Volunteer Examiner with over 90 hams licensed from 13 years old to 65 years old.

Active in the York Region Amateur Radio Club and ARES

Licensed for Experimental VLF transmissions - beacon is down currently pending a new antenna system

I blog at [ve3ips.wordpress.com](http://ve3ips.wordpress.com) and suggest you take a look to see what I am up to as I share some ideas that may be of interest to you.

Icom 705 owners go look here

<https://ve3ips.wordpress.com/2020/07/27/getting-ready-for-the-icom-705-delivery-for-september-2020/>

<https://ve3ips.wordpress.com/2018/04/03/drum-roll-please-6y5ips-takes-1st-place-in-winter-field-day/>

<https://ve3ips.wordpress.com/2018/01/15/packtenna-mini-1-1-balun-arctic-field-test/>



### [PackTenna Mini 1:1 Balun – Arctic Field Test](https://ve3ips.wordpress.com/2018/01/15/packtenna-mini-1-1-balun-arctic-field-test/)

I have just gotten the new PackTenna 1:1 balun shipped from San Jose and wanted to test it out in cold weather conditions. Please see the link below for operation in frigid arctic weather. The balu...

[ve3ips.wordpress.com](https://ve3ips.wordpress.com)

## 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>.  
[www.hamradioPrep.com](http://www.hamradioPrep.com)  
[HamStudy.org](http://HamStudy.org)

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 :

04-16	KJ4DMV	Geraldine
04-18	WB4PMQ	Macon
04-28	K4EEP	Reggie
05-09	KD4NGW	Jack
05-20	W3LPR	Louis
05-26	N4PIR	Gary

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

“Chris” Bremer, WI4O on his lost of Barbara Bremer, his wife. She had the call of N4XCK until it expired in 2019.

*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](mailto: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



So here we are in April and I'm really looking forward to this month's meeting. Our guest speaker is ... all of us. I'm hoping that all attendees will bring something hammy or ham-related and tell why you like it or how you use it. It could be an antique radio that you built with your grandpa or your gadget du jour that you've just started trying out. Something you found in a junkyard or an overpriced set of Gear-ties that you bought at Lowes (those things are so useful). I feel like it's a great way to learn a few tricks from both new hams or those with years of experience. If you can't bring the item, bring some pictures or email them to me ahead of time.

We are also reviving the 50/50 drawings that we used to have. Tickets will be \$1 each or 6 for \$5. Wear your lucky socks and bring some extra cash. Maybe you can go home with a little extra in your pocket.

We would like to start incorporating a shack tour in the Ham Chatter. We want to include pictures and maybe have a "reporter" interview you or maybe just have you fill out a questionnaire. Watch for details as we get this new feature rolling.

Also, Field Day will be upon us before we know it. It is scheduled for June 24 and 25 and we are getting underway with the planning. One way that we can earn bonus points is by having an elected government official visit, so I'd like to brainstorm a list of government officials that we might invite to stop by. I'm going through the rules and summarizing everything into a planning checklist and we can start putting down names and duties and fine tuning the details.

I hope to see you at some of our meetings, breakfast, or maybe at RARSfest. Spring is here and things are starting to happen!

73s,

Beth



# Gary NG9T's PARC President's Corner



## Upcoming Events:

### Club Meetings:

We meet on the third Thursday of each month at 7:00pm at:  
Zion Episcopal Church  
7302 US 264 East  
Washington, NC 27889  
Next Meeting: March 16

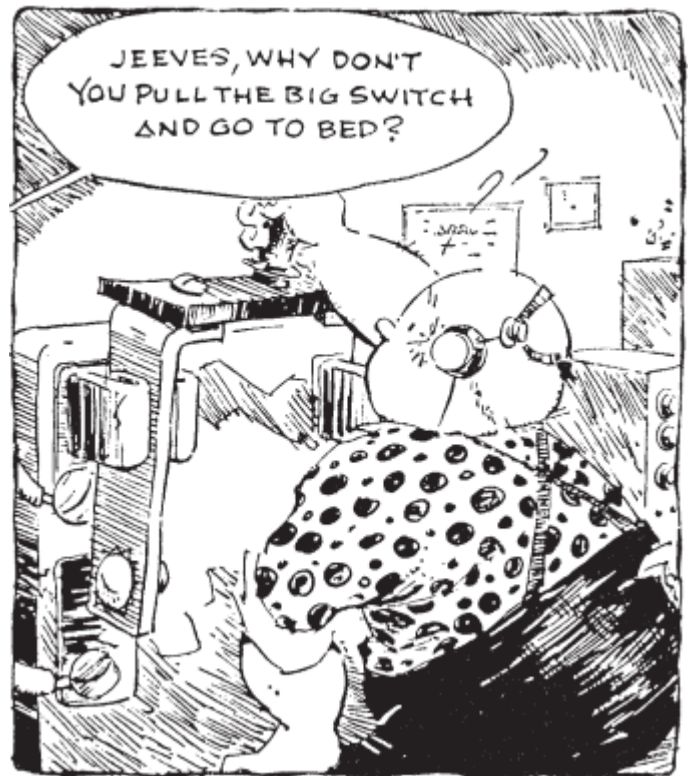
### Nets:

2m Net 1st Thursday of each month at 8:00pm  
Bath repeater 146.955mhz PL131.8  
Alternate: Washington Repeater 147.255 PL131.8  
Upcoming Net: March 9

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

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

Gary Faust, NG9T  
President, Pamlico Amateur Radio Club  
[gfaust1963@gmail.com](mailto:gfaust1963@gmail.com)  
(252)531-4982





**BARC Board**

**BARC Board Meeting on Zoom 3/28/23**

**Voting Board members: (need 4)**

- President: Beth KN4FZB,
- V.Pres: Judy W3JUU,
- Secretary: Peter N4PVH,
- Treasurer: Dave W4EJ,
- Trustee #1: Bill W4SLC
- Trustee #2: Scott K9SPJ

**Non Voting Committee Members:**

- Public Relations/Historian: Sherry
- VE Liaison: -
- QSL/Equipment: Richard
- Gerald KN4CKL, VE
- Webmaster: PVH,
- Ham Chatter Editor: Mark Raysin,
- Susan Jones.
- Dave Langley W4YDY (OM)

**Items for discussion:**

—

**Treasurer report:** Dave MIA. Not much changed since last meeting, Beth will contact Dave.

—

**New meetings:**

<b>Apr 11, 2023</b>	Confirmed	Beth KN4FZB	Show and Tell Your Stuff	Library 6:30PM
May 9, 2023	Confirmed	John Leonardelli VE3IPS	Solar Powered Portable Operations	Library 6:30PM
Jun 13, 2023	Confirmed	Beth KN4FZB	Field Day Prep	Library 6:30PM
Jul 11, 2023				Library 6:30PM



Aug 8, 2023				Library 6:30PM
Sep 12, 2023	Proposed	Dave Wood W4EJ	Annual Picnic	Dave's House?
Oct 10, 2023	Confirmed	Dale Burmester KA9SWE	FT8 Digital mode	Library 6:30PM
Nov 14, 2023			Elections &	Library 6:30PM
Dec 12, 2023	Proposed	Christmas Party	Pot Luck	Immanuel Church?

April meeting is a local "Show and Tell" where members bring their pride and joy item to show the club and talk about it for 5 minutes.

3 talks needed for July, August and November. Any suggestions?

Mark to get the church location confirmed for about Dec 12?

Nov 14 to be hosted by Scott's wife at the board room at the library as Scott is away.

Thanks to Judy for getting the schedule up to date with two new talks!!!

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**Ham chatter:** Mark

Need reporter to interview Ham's or have an Interview questionnaire for Ham chatter to be sent to hams as an interview form, request photos, sent to membership, put form on web page. Send to Mark to have as articles to fill the pages.

—

**Miscellaneous:**

**RARSfest:** Who is going? Saturday before easter. 4/8//23

**Breakfast:** 4/18/23, 5/13/23 at 9am Great Harvest Bread co

**Cookout w PARC** suggest 4/29/23 where? Beth to call Gary. Possibly at Firestation w Bill at Washington.

**CSS Neuse POTA:** , Scott to investigate. Could put the trailer there and put up a vertical or inverted V. Suggest a date? Also possibly with other clubs?

**ARES Trailer:** Need to upgrade the battery on the trailer, does BARC want to spent \$ on this?

Board members want to investigate cost of update trailer battery: YES, by PVH, will make a budget and outline needed items.

**Repeater issue:** broken elevator, no climber to put the antenna up. receive antenna is broken at 1600'

Dave Roy W4DNA is president ENC repeater association W4BNR, 146.685 Grifton, needs commercial climber

**Elmer program:** As a lot of potential new hams get their license classes on line then take a virtual VE test on line, the thing they need help with is setting up their first station and other ham activities. We need to have a good elmer program. We need to add information about which club members are willing to answer questions from new hams and help a new ham with a particular interest. Put it on the roster of members and their primary Ham interests so that new hams can contact the person that shares their primary interest.

Ask Question an Membership form: "What aspect of ham radio interests you the most?"

Change the roster to include what they are interested in helping others?

Beth to present this to the membership next meeting.

**Improving attendance of In person meetings,** 50/50 raffle has been fun and generates funds for the club: \$1/ticket, 6 tickets for \$5. , roll of tickets w Dave?

**HamTestOnline shutting down,** suggest [hamradioPrep.com](http://hamradioPrep.com), [HamStudy.org](http://HamStudy.org)

**Field Day:** at Oakwood, same as last year 3A, Gota station but not a separate station. Battery issue in trailer to be taken care of by FD, Discuss with membership Bonus points and who to assign to get them done, Beth to make a summary of FD, article about FD in ham chatter. June 24-25.

—  
Respectfully submitted, Peter N4PVH (acting secretary).  
—————

**GREETINGS FROM THE HIGH COUNTRY**

Feb 28, 2023

The sky is clear, the fog is gone, but there is a 25 mph wind and the temperature is around 55 degrees at mid-day. The webcam at Beech shows no activity and Sugar shows about a dozen people out on some pretty skimpy snow.

**NC QSO PARTY**

A big congratulation goes out the Raleigh Amateur Radio Society for the very successful NC QSO party they organized and held this past Sunday (February 26). I got on the air and made contact with stations in 30 of the 100 North Carolina counties and heard lots of familiar calls. It seems that most people had a good time.

**HOW IS MY SIGNAL?**

In any contest, operators want their signal to sound good and have good coverage. Lots of factors are involved: band conditions, audio settings, transmit power, antenna efficiency and interference from adjacent frequencies. Something that is more often a problem than many of us wish to admit is the rf noise at our location which may seriously limit our ability to hear another station which would be otherwise be clear except for localized rf noise.

You may want to take some time and watch a recent YouTube that deals with tracking down local interference sources in your neighborhood.

The video gives some useful tips that you might want to consider. Here is a link to the video: <https://youtu.be/rKTKLI7zsOc>

**HAMFESTS, HAMFESTS COMING YOUR WAY**

The following hamfests are on the schedule over the next two months.

March 4, the Clingman Hamfest is to be held at the Clingman Community Center near Ronda in Wilkes County. Information can be found at <https://www.clingmanhamfest.com/>

March 10-11, the Mecklenburg Amateur Radio Society will hold its Charlotte Hamfest at the Cabarrus Conference and Event Center near Concord, NC. Friday afternoon from 3-7 pm and Saturday from 8 to 4. Details can be found at <https://charlottehamfest.org/> ,

RARSFEST will be held on April 8 at the Jim Graham Building of the NC State Fairgrounds. Information can be found at <https://www.rarsfest.org/>

The Forsyth Amateur Radio Club will hold the Winston-Salem hamfest on April 15 at the Robinhood Road Baptist Church, 5422 Robinhood Road, Winston-Salem, NC. Details can be found at <https://w4nc.com/hamfest/> ,

## EARTHQUAKE INFORMATION

Widespread devastation and loss of life in Turkey due to a massive earthquake has heightened interest in EmComm on getting rapid information about the location and magnitude of earthquakes around the world. There is a free site that immediately disseminates information about earthquakes. The site can be found at <https://earthquake.usgs.gov/earthquakes/map/?extent=-60.23981,-291.79688&extent=82.89699,101.95313>

## NEW GENERAL LICENSE QUESTION POOL RELEASED, EFFECTIVE JULY 1, 2023

The National Conference of Volunteer Examiner Coordinators (Question Pool Committee) has released the 2023 - 2027 General Class FCC Element 3 Question Pool which will become effective on July 1, 2023.

According to the Conference of Volunteer Examiner Coordinators, "the new pool incorporates some significant changes compared to the 2019 - 2023 pool. Its 432 questions were modified slightly to improve wording or 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 from 454 to 432. The difficulty level of the questions is now more balanced, and the techniques and practices addressed have been updated."

For more information, go to <http://www.ncvec.org/page.php?id=369>.

## NEW RULES FOR 2023 FIELD DAY IN THE WORKS BUT NOT YET RELEASED

Public comments seem to indicate that the point differential between CW and voice contacts will be eliminated and that there will be a 500 watt power limit. Information from the January board meeting suggests that a committee at HQ is working on the changes but no document has been released yet.

Field Day is always held on the fourth weekend in June and will be held this year on June 24 and 25.

SCHOOL KIDS AND THE INTERNATIONAL SPACE STATION Steve Ewald, WV1X, at ARRL HQ, sent out an invitation for the 71 ARRL Sections (which includes our NC Section) to work with local public schools and submit an application for the local school to be chosen for to have students contact the Astronauts on the International Space Station.

ARISS (Amateur Radio on the International Space Station) reviews applications and coordinates activities once the schools are selected.

North Carolina has had two schools selected in the past year, one was in Spruce Pine and one was a Magnet School focusing on Engineering that is located in Raleigh.

Information on how to apply to participate in ARISS can be found at <https://www.ariss.org/> . The deadline for applying is March 31, 2023.

#### DMR NEWS

Two DMR repeaters that are part of the PRN DMR system were recently reconnected to the PRN CBridge after having operated in stand-alone mode for a while. Road and weather conditions prevented access to the Wytheville PRN repeater but, after a service party, it is communicating with the PRN CBridge and carries the standard PRN talkgroups that are described at <https://ncprn.net/talkgroups/> . Work was also recently done at Fancy Gap which resulted in the WX4F DMR repeater. It, too, carries the standard PRN talkgroups.

Operators in this part of the state are reminded that the High Country UHF Digital Net is held at 8 p.m. on Tuesday night on the local talkgroup on the following uhf PRN DMR repeaters: Roanoke, Wytheville, Fancy Gap, West Jefferson, Wilkesboro, Boone, Sugartop, Lenoir, Spruce Pine, Albemarle, Crowders, Wingate, Charlotte, Hendersonville, Sylva, Cashiers and Franklin. If you are within range of any of the listed repeaters you are invited to check in and offer comments.

In addition to the weekly scheduled net, these repeaters can be linked at any time there is a need (flood, ice storm, tornado, etc.) and can provide a direct connection from counties to the NCEM Western Branch Office near Conover which will likely be relocated later in the year.

A very good but separate DMR system, referred to as the WNC system, holds a net on Thursday evenings at 8:30 p.m. The WNC system consists of uhf DMR repeaters near Morganton, Marion, Asheville, Mars Hill, Hendersonville, Waynesville and Franklin. These stations are not part of the PRN system and carry a different set of talkgroups than the PRN system, Information about the WNC system can be obtained by dropping a note to WA4TOG or W4FOT.

Still another DMR system is being built out in eastern North Carolina as part of the NC4ES system which is affiliated with the Eastern Healthcare Preparedness Coalition. The EHCP system links a number of hospitals and provides rf coverage for a large portion of Eastern North Carolina.

Information can be obtained at [nc4es.org](http://nc4es.org).

#### CLUB COMMISSION PROGRAM

ARRL recently initiated a program in which clubs process new and renewal applications for membership in the ARRL. The club collects the application and the membership dues and sends both items to ARRL. ARRL will return to the club a commission of \$5 for renewing member or \$15 for a new member.

As an added incentive to get NC clubs to participate in the club commission program, the NC ARRL Section will award a copy of 100th Anniversary Edition of the ARRL Handbook to the club that submits the largest number of new or renewed memberships through the CLUB COMMISSION program between January 1 and March 31 2023.

#### MEMBERSHIP NUMBERS

ARRL data on membership is posted at the end of each month, along with comparisons for the same month a year earlier. Set out below is data for the end of January.

	January 2023	January 2022
North Carolina	4482	4677
Roanoke Division	12395	12867
USA	150933	158573

#### SILENT KEY

Readers are reminded that ARRL publishes a listing of silent keys in each issue of QST. If a family member, friend or club member passes away, please drop me a note with a link to a published obituary or funeral home notice. I forward the information to ARRL, including a notation if the Silent Key was a veteran, requesting the the name and callsign be published in a future issue.

#### CLOSING COMMENT

2023 will likely be the hamfest year to be remembered. After a huge slowdown due to COVID, there are a lot of hamfests coming up. In addition to those listed above, there will be hamfests in Cary, Fayetteville, Goldsboro, Shelby as well as two hamfests in South Carolina that are not far away. Get out, visit with friends, and support the clubs and dealers that have gone to a lot of trouble to make the hamfest possible.

Marv, WA4NC

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ARRL North Carolina Section

Section Manager: Dr Marvin K Hoffman, WA4NC [wa4nc@arrl.org](mailto:wa4nc@arrl.org)

**GREETINGS FROM THE HIGH COUNTRY**

March 19, 2023

We have had some interesting weather since the last newsletter came out on March 1, 2023. On 3/1/23 and 3/4/23 my weather station recorded high temperatures for those two days at 66 degrees. By contrast, March 15 saw a low temperature of 17 degrees with a chill factor of 7. Snow fell and icy conditions were encountered making driving on some roads dangerous. All of these are part of the joy of living in the mountains.

When I drove down to Concord for the Charlotte Hamfest last week, I saw lawns that had been mowed plus numerous trees and bushes with buds and flowers in full bloom. Up here, whatever greenery that had started with the false springtime a week ago took a hit with the sub-freezing temperatures.

Today, March 19, at 1 p.m. the outside temperature here (near Tweetsie Railroad) was 24 degrees with a chill factor of 16 degrees.

**FOR YOUR INFORMATION****BREAKING NEWS – POSSIBLY A BIG DEAL**

The RARSFEST Facebook page indicates that HRO will return to the hamfest after several years during which there was no major dealer present. I hope they bring some great deals and that hams take advantage of the opportunity to buy from a major dealer which wants to sell their merchandise rather than take it all back to the store.

I am looking forward to seeing many of my friends at RARSFEST. Along with Jim Boehner and Bill Morine, I will be there to update you on ARRL matters and take your questions.

**ARRL CLUB COMMISSION PROGRAM**

A message sent out by Mike Walters at HQ a few days ago advises:

“One of the benefits of being an ARRL Affiliated Club is having the ability to participate in the Club Commission Program. This program allows clubs to earn a commission for enrolling new and renewing ARRL members. Participation in the program involves clubs:

- Distributing the application forms to prospective and existing members.
- Collecting the applications and filling out a Club Reconciliation Form.
- Sending all the forms with the dues to ARRL.

Once the above steps are done, the club will then receive a commission check from ARRL. The necessary forms are located at Affiliated Club Benefits ([arrl.org](http://arrl.org)) under the Club Commission Program link.

Consider having a quarterly event at a club meeting to discuss ARRL membership and offer this to members. Members can renew at any time without losing time. If your renewal is normally in July and you renew in May, the time is added to your July date.

In the spirit of 2023 and ARRL's Year of the Volunteers, we are offering the following promotion to clubs using the Club Commission Program:

For every five new members signed through the Club Commission Program through the end of 2023, ARRL will give the club a copy of The ARRL Handbook, which can be used as a promotion, a door prize, be auctioned off at hamfests, or used however you choose."

#### DARE COUNTY AUXCOMM COURSE IS NOW LISTED IN TERMS

North Carolina Emergency Management has opened for registration the Auxcomm course that will be held in Manteo on April 21, 22, and 23 in Dare County. Course prerequisites are spelled out in TERMS (<https://terms.ncem.gov/TRS/courseDesc.do?sourcePage=courseSearch&cofid=1507280>) including the need for course completion certificates for FEMA courses (IS 100c, 200c, 700b and 800d). The independent study courses can be found at <https://training.fema.gov/is/>.

Applicants for the Auxcomm courses are expected to have prior experience gained from operating in an emergency net. A valid amateur radio license is required as is an endorsement from the local emergency management agency. NCEM is providing meal and lodging reimbursement for this course for persons who travel more than 50 miles from home and complete the course.

As of March 19, two of the 15 student slots have been filled and seven are pending while prerequisites are completed and evaluated. Apply now if you want to get in the course.

#### SECTION TRAFFIC MANAGER REPORT

##### W4DNA - NC Section Net Report - FEBRUARY 2023

NET	NMGR	QNI	LISTED	PASSED	TIME	SESSIONS	TFC %
SECTION NETS							
CN	AA4MP	333	151	144	512	56	95.36%
CSN	KI4KZS	129	15	15	587	28	100.00%
NCEN	WK4WC	353	72	70	389	28	97.22%
NCMN	W3OJO	372	154	153	358	28	99.35%
THEN	K4SEH	201	0	0	258	14	#DIV/0!
LOCAL NETS							
CWTN	N4CNX	366	80	80	520	28	100.00%
ENCTN	W4DNA	88	3	3	133	24	100.00%
PCTN	W4TTO	226	53	53	260	28	100.00%



TOTAL                    2068   528   518                    3017   234                    98.11%

#### HELP PLAN MY FIELD DAY TRAVEL

Please drop me a note if your group plans to participate in Field Day in June. My goal this year is to travel eastward from the Raleigh area but I have not decided whether to wind up in Manteo or to travel down towards Wilmington or somewhere in between.

In my two prior Field Days as your Section Manager, I made approximately a dozen stops in 2021 and 2022 and traveled close to 800 miles each year.

My plan is to get to the Raleigh area on Friday night so that I can begin my visits on Saturday morning. If you will be operating in Eastern North Carolina, please drop me a note so I can finalize my travel plans.

#### UPDATE CLUB INFORMATION

ARRL HQ staff very much hopes that you will designate someone in your club to update the information listed at [arrl.org](http://arrl.org) concerning your club.

Who are your officers? When and where does the club meet? Do you have a webpage? What about a local repeater and do you operate a net?

Current information on the ARRL webpage will help visitors and would-be hams to find your club and make new friends.

#### GMRS

Last weekend, there was a GMRS group's table located adjacent to the ARRL table at the Charlotte Hamfest. As some of you already know, the General Mobile Radio Service (GMRS) is a radio service licensed by the FCC that allows individuals to have 462 MHz repeaters over which family members can use portable and mobile radios under a GMRS license. There is no testing required and the application fee for a GMRS license is \$35 for a ten-year period and covers use of radios by the whole family.

I stopped by to see if there was literature about how GMRS repeater owners are linking their repeaters for wide-area networks. I talked about our extensive network of analog and digital repeaters in the ham bands in NC (check out [SERA.ORG](http://SERA.ORG) for a listing of ham repeaters in the Southeast) and got a reply from the guy at the contact table that GMRS do not require any tests and the repeaters can run 50 watts output, often being located at high elevations and offering wide area coverage that can be extended by linking several GMRS repeaters together.

A quick search of the FCC database showed that as of March 18 there are 5,886 active GMRS licenses in North Carolina (as well as untold numbers of portables and mobiles included under family licenses). By contrast, today the FCC database shows 10,481 active Technician licenses in North Carolina.

## NTS 2.0

On March 21, ARRL will hold a TEAMS meeting for the 71 Section Managers across the country. Primary on the agenda is a report by Fred Kemmerer (AB1OC) who chairs five subcommittees involving 50 people who are working on plans to improve the utility of the National Traffic System to meet the needs of emergency agencies during disasters.

Primary among the NTS2.0 group's goals is to speed up the ability of NTS to deliver traffic when normal communications are disrupted. The committee has been tracking the delivery time for delivery of messages sent via CW, Radiograms and via Winlink. Work is also being done by the NTS2.0 committee to develop a training program to increase the number of operators familiar with NTS procedures.

## STATEWIDE POTA ACTIVATION

While at the Charlotte Hamfest, I spoke with Zach Thompson (KM4BLG) who agreed to head up our plan to have all State Parks activated during one of our beautiful Fall weekends. If you are interested in helping Zach put this fun-filled event together, please drop him a note expressing your interest and willingness to help. His email is km4blg at gmail dot com. We want to have all state parks activated during a single Fall weekend and you can make it happen.

## QSO TODAY VIRTUAL HAM EXPO

Later this week you may be interested in taking a look at the QSO TODAY VIRTUAL HAM EXPO which is a commercial venture that has drawn manufacturer representatives showing off new equipment and answering questions from the public in addition to presentations by well over 50 individuals on a wide variety of topics. Information on the Expo can be found at <https://www.gsotodayhamexpo.com/>.

The Expo will be held on March 24-26 and even though there is a registration fee, it is less than what most hams would have to pay to drive to a hamfest, plus there is more content in the virtual event than almost every hamfest except Orlando and Dayton.

“Discover the social side of the QSO Today Virtual Ham Expo! Not only does the event offer over 40 top-notch ham radio presentations, but it's also a social gathering. The Expo will kick off on March 24, 2023, at 1800 PDT and will remain open for 48 hours straight. There's no need to worry about missing out on any presentations, as the RoundTable Lounge and person-to-person interactions will be open for the duration of the event. Whether you're an early riser on the East Coast or a night owl, you can join your friends and make new acquaintances at any time.”

## CLOSING COMMENTS

If you know of a family member, friend, club member who is a ham and has passed away, drop me a note. Include a link to a funeral home notice or published obituary. One of my jobs as Section Manager is to advise ARRL when a ham passes so the ham can be listed on the Silent Key page in a future issue of QST. I have reached out to ARRL over 160 times about Silent Keys since I became your Section Manager on April 1, 2020. You might be surprised by how much the family appreciates having their loved one recognized for a life that included being a ham radio operator.

Marv, WA4NC

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ARRL North Carolina Section

Section Manager: Dr Marvin K Hoffman, WA4NC [wa4nc@arrl.org](mailto:wa4nc@arrl.org)

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March 2, 2023

Hello Bike MS New Bern Volunteers!

It is my pleasure to officially introduce you to the new Volunteer Engagement Specialist, Bonita Jones! She started with us in December and is gearing up for Walk MS season that starts in just a few short weeks. Bonita is learning our systems, our staff and our volunteers and she is excited to meet all of you! She can be reached at [Bonita.Jones@nmss.org](mailto:Bonita.Jones@nmss.org) so do not hesitate to reach out and introduce yourselves!

As she's gearing up for a year of great success, thank you in advance for your patience as she successfully executes Walk MS event season in the coming months!

In the meantime, [volunteer registration is OPEN](#) for Bike MS: New Bern for the weekend of September 9-10, 2023. I've done nothing but brag to her about all of you—and she is ecstatic to get to know you. BONUS: This event received FANTASTIC feedback about volunteers from participating cyclists. KUDOS for setting the standard so high and THANK YOU for showing up in such a valuable way.

If you have specific questions about the 2023 event, do not hesitate to reach out to Bonita. She's learning something new everyday! The main [Bike MS website is also live](#) if you want to start there.

Additionally, transition is tricky so if you are receiving this message and you have moved or would like to be removed, please respond to me directly and I will make that update to our records.

Thank you all again for being such fantastic partners in the MS movement. We appreciate you!

Best,

Brittany McGarry, MA, CVA

Senior Manager, Volunteer Engagement

Pronouns: She/Her

My office hours are 7:30a.m.-3:30p.m. MST

[nationalMSsociety.org](http://nationalMSsociety.org)



National  
Multiple Sclerosis  
Society

**GREETINGS FROM THE HIGH COUNTRY**

March 29, 2023

No fooling, there is some evidence that Spring may be coming to the mountains. Up here at 3850 ft amsl, there are some lawns that have started to turn green and a few, but not many, buds are in bloom. Earlier this week, the noontime high temperature was hovering around 51 degrees and overnight lows were around 42. When I got up this morning on March 29, the overnight low shown on my weather station was 32.6 degrees. There have been projections that the lows later in the week will be in the low- to high-30's so the visits of Springtime weather so far this year have been brief.

**EMCOMM MATTERS****FEMA APPROVED POSITIONS WITHIN THE COMMUNICATIONS UNIT**

A few weeks ago, in mid-March, FEMA's bureaucracy completed a three-year process that resulted in the official designation of a number of positions within the COMU that is part of the organizational chart within the Incident Command System. The FEMA approval process identifies the duties and reporting relationships among several positions previously identified as "Technical Specialist".

The approval by FEMA allows states to adopt the Position Task Books (and to include additional duties appropriate to their particular state) that will lead to credentialing for the AUXCOMM (AUXC), COMMUNICATIONS TECHNICIAN (COMT), INCIDENT TACTICAL DISPATCH (INTD), and INCIDENT COMMUNICATIONS CENTER MANAGER (INCM) positions. Additionally, the FEMA action recognizes positions in the Information Technology and Cybersecurity functions within the overall COMMUNICATIONS unit (COMU).

The FEMA document can be found at

[https://www.fema.gov/sites/default/files/documents/fema\\_ict-functional-guidance.pdf](https://www.fema.gov/sites/default/files/documents/fema_ict-functional-guidance.pdf)

North Carolina is a leader in advocating training standards and identifying skills recently approved by FEMA. For nearly a decade, NCEM has required COMU personnel to meet NIMS/ICS training and has been offering courses to train Communications unit personnel to work within the expanded COMU structure while meeting the Homeland Security PTB standards for various COMU positions.

ARES task books published by the ARRL are different than the Homeland Security task books and the two training regimes are not interchangeable. The ARRL ARES training course certificates and training levels are not recognized by any state or territory while the AUXCOMM training is recognized across the United States Government, the states and territories. NIMS/ICS training is a basic requirement for states and territories to receive Stafford Act funding before and during disasters.

Josh Johnston, K5MHV, ARRL Director of Emergency Management stated, "This is a major step in the recognition of the need and usefulness of amateur radio and other communications services in our national preparedness" ...." It also gives official guidance to pave the way for future training and education of volunteers in ARRL's Amateur Radio Emergency Service® (ARES®)," Johnston added. The ARRL comments can be found at <http://arrl.org/news/amateur-radio-included-in-fema-guide-for-national-emergency-preparedness>.

#### ONE SLOT REMAINS IN THE MANTEO AUXCOMM COURSE

NCEM is offering the AUXCOMM course in Manteo, at the Dare County EOC, on April 21, 22 and 23. Fifteen slots were approved by NCEM and all but one slot has been filled by persons who have met the published pre-requisites (ICS 100c, 200c, 700b, and 800d as well as holding a valid amateur radio license and an endorsement from the local Authority Having Jurisdiction (the local County Emergency Management Agency). NCEM will provide reimbursement for travel, lodging and meals for persons travel more than 50 miles to complete the course. Information can be found at <https://terms.ncem.gov/TRS/logon.do> .

#### SOUTHEASTERN NORTH CAROLINA HURRICANE EXERCISE TO BE HELD ON MAY 4

Matt McMahon, WU2V, SMAT 100, is the Director for a hurricane exercise involving a variety of disaster agencies, hospitals and Auxcomm stations in Southeastern North Carolina which will be held on May 4. The exercise is listed in TERMS at (<https://terms.ncem.gov/TRS/courseDesc.do?sourcePage=courseSearch&cofId=147490>)

. Auxcomm personnel with a an open Position Task Book may want to contact Matt McMahon to determine if Winlink participation can be used to as an Incident and count towards getting closer to completing their open PTB. Completed PTB's are referred to a qualifications committee before being submitted to the Statewide Interoperability Executive Committee which meets once each quarter.

#### EMERGENCY POWER FOR YOUR SHACK

Because of power outages seem to be occurring more often, many hams are thinking about how to keep their shack powered up when the commercial power is interrupted. One of the many presentations given by the RATPAC (Radio Amateur Training Program Advisory Committee) focuses on this topic. Although the presentation was made on March 23, it is viewable at your convenience via a YouTube video. Go to [https://www.youtube.com/watch?v=rxtVrl87\\_I8](https://www.youtube.com/watch?v=rxtVrl87_I8) .

A listing off hundreds of RATPAC videos on a wide array of ham-radio topics prepared by subject matter experts can be found at <https://sites.google.com/view/ratpac> .

#### WINLINK APP FOR IPHONES

You may find this information to be helpful. A recent addition to the Winlink webpage describes a new app that allows telnet connections to the Winlink system via you iPhone. Information can be found at [https://winlink.org/content/announcing\\_radiomail\\_ios](https://winlink.org/content/announcing_radiomail_ios) .

#### AMATEUR RADIO MATTERS

**PLANNING FOR STATEWIDE PARKS ON THE AIR IN THE FALL IS MOVING AHEAD**

Zach Thompson (KM4BLG), who lives near Asheville, graciously agreed to organize a POTA event which will have all NC State Parks activated on a single weekend this Fall. I have seen emails from across the state in which clubs and individuals have offered to help Zach on this exciting event. If you are interested in participating or helping organize activities at a nearby state park, please drop Zach a note at km4blg at gmail dot com.

**RARSFEST ON APRIL 8 IS COMING UP QUICKLY**

There will be a huge All Indoor Flea Market with 230+ Tables, Satellite Communications Demonstration, Commercial Dealer Booths,

Walk-In License Exams at 11:30, You will see a Hands-On You-Build-It

Project Table to teach kids and adults new skills. Check out the Door Prizes, Meetings and Forums. Cousin's Confections will have food and beverages for sale in the restaurant area, including assorted Danish, sausage, bacon and ham biscuits, assorted juices, and fresh brewed coffee for breakfast, and burgers, hot dogs, BBQ pork sandwiches, assorted wraps, soft drinks, and lemonade for lunch! There will be no charge for the amateur radio exams that will be available at RARSFEST, just like Hamvention! On-line tickets for RARSFEST costing \$10 ends at

11:59 pm on April 1. \$12 tickets will be available at the door. Go to <https://www.rarsfest.org/admission.php>.

Info about RARSFEST is available at <https://www.rarsfest.org/>.

**WINSTON-SALEM HAMFEST ON APRIL 15**

The Forsyth Amateur Radio Club will be holding its Spring Hamfest from 7

-11 am at the Robinhood Road Baptist Church, 5422 Robinhood Road, Winston-Salem, North Carolina 27106.

Info can be found at <https://w4nc.com/event/ham-fest/>

**PLAN AHEAD FOR FIELD DAY!!!**

Field Day is always held on the fourth weekend in June and will occur this year on June 24 and 25. Rules can be found at <http://www.arrl.org/field-day#rules>. – BE SURE TO READ GOTA STATION RULES (4.1.1.5) which awards 5 points for each contact made on a GOTA station.

As your Section Manager I will be traveling through Eastern and Southeastern North Carolina during the Field Day weekend. Let me know if you would like me to visit your Field Day site and I will see if I can make the logistics work.

**ARRL DUES INCREASE SEEMS LIKELY - READ ARRL CEO COMMENTS IN APRIL 2023 QST**

ARRL CEO David Minister posted an editorial on page 9 in the April 2023 issue of QST laying the ground work for the ARRL Board to increase the annual dues which have been at \$49 for several years.

Board minutes over in the recent past have contained information that ARRL has spent more than it is has taken in in revenues, requiring transfers from the ARRL Endowment and requests to outside funding sources (including the Amateur Radio Digital Communications) for substantial grants to pay for programs that were not anticipated earlier in the year when the ARRL annual budget was adopted. An item on page 62, April 2023 QST noted that the Board was advised that ARRL spent approximately \$760,000 more than it took in during 2022.

You have the opportunity to share your opinions with Roanoke Director Jim Boehner (N2ZZ) and Vice Director Bill Morine (N2COP) prior to the July 2023 Board Meeting when this matter is expected to be voted on by the Board.

**CLOSING COMMENT**

Amateur radio is alive and well in North Carolina. The tempo of activity is picking up. A couple of weeks ago we were at the very successful Charlotte hamfest and now we are getting ready to travel to RARSFEST next weekend and then the Winston-Salem hamfest on April 15.

Along with Virginia Enzor and Karl Bowman we will be in Manteo on April 21, 22, and 23 with the Auxcomm course. May will involve a trip to the Dayton Hamvention and in June there will be lots of visits as part of Field Day.

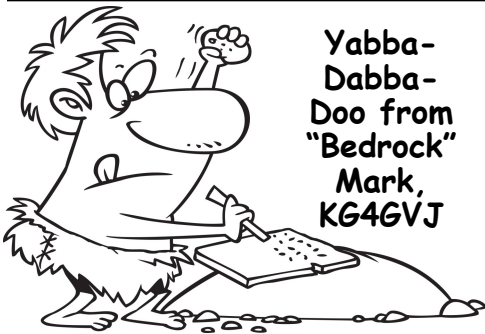
Hamfests, Field Day and training opportunities all depend upon your enthusiastic participation.

Get on the air and reach out to someone who wants to get into ham radio but needs an Elmer. You can make a difference in the future of amateur radio by passing along the enthusiasm that has kept many of us interested in ham radio for two, three, four, five and even and more decades.

Marv, WA4NC

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ARRL North Carolina Section

Section Manager: Dr Marvin K Hoffman, WA4NC [wa4nc@arrl.org](mailto:wa4nc@arrl.org)



Hi Folks,

Another Month will be done by the time you get this. As I write this, my lower back is hurting from my start of installing a new set of coax to my fan dipole. I still need to lay-out the longest piece from the lightning protector at the ground rod, to the Tuner at the base of the antenna. Then I need to bury it at least 4 inches to protect it from future yard work where it will go from the house to the tuner. For a guy who would kneel before Furnaces and AC units to trouble shoot and repair them, I'm just not cutout for it now. Hopefully I can do more this week.

Saturday, March 25, was the Walk MS in Raleigh, NC. I was one of the seven Hams helping out with the Event that was intended to be a 1 mile and 3 mile walk. Due to rain coming in, the 3 mile was canceled and the rain started coming down as the walkers started out. There was no problems other than a noisy mic and a bent antenna for one of the Hams. It was also a help and hinderance that I forgot my hearing aids. The RARS club done a first that weekend, before they only done only one event a weekend. This time they were helping in two or three events that weekend.

## 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](mailto:hamchatter@w4amc.com) so we can get your email address and put you on the list. You may miss some important BARC or PARC notices.  
- *KG4GVJ*

## Help the Editor.

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

Send it along to the [Editor at Ham Chatter](#). We will see if we can fit it in 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/>.

## RARSFEST - APRIL 8, 2023

From: Nancy KB2TNR  
<[rarsfest@icloud.com](mailto:rarsfest@icloud.com)>

I'm Nancy Torborg, KB2TNR, the Chair of RARSfest, Raleigh Amateur Radio Society's hamfest.

Each Spring for the last 48 years, the Raleigh (NC) Amateur Radio Society has presented RARSfest™, our radio club's hamfest.

This year, RARSfest will be held on Saturday, April 8, 2023 in the air-conditioned Jim Graham building at the North Carolina State Fairgrounds in Raleigh. This is the largest hamfest in the mid-Atlantic, typically attracting nearly two thousand visitors from North Carolina and neighboring states. In addition to a huge indoor flea market (230+ tables) and dozens of commercial vendors, we also offer license exams, demonstrations, a build-an-antenna session, hourly door prizes, ample free parking, DXCC card checking, meetings and forums – and this year's ARRL North Carolina State Convention.

We did not mail sales flyers this year (it was getting too expensive!).

You can purchase tickets online (we now take credit/debit cards in addition to PayPal)



<https://www.rarsfest.org/admission.php>

or you can print out an order form (attachment) and mail in your check.

Tickets are \$10 before April 1st; \$12 at the door.

We won't be mailing you your tickets (again, expense). Simply pick them up at the dedicated "Will Call" table!

If you have items to sell, you can either get a flea market table <https://www.rarsfest.org/fleamkt.php>

We have lots of exciting returning and new vendors:

Amateur Satellite Corp. (AMSAT)

ARRL NC Section

ARRL / RARS Info & Membership

Blue Wireless

Central Carolina Skywarn-NWS

DSS Tech Services/Fluke Repair

DZ KitsNew!.gif

Electronic Product Design, Inc.

G & G Electronic

The Ham Badgers

Ham Public Service NC

Ham World

JARS COMNew!.gif

KE4WMF/RNew!.gif

N4OOC's Attic

Phase Dock Inc.

QCWA

QuickSilver Radio

Real Time Relief

RF Connection, Inc.

Satellite Headquarters

Summit Outdoors GearNew!.gif

The Sign Man of Baton Rouge

Southeast Repeater Association

Tarheel Designs LLCNew!.gif

TARPN

The Wireman, Inc.

And several exciting vehicles are coming!

To bring all this excitement to the Triangle, we need VOLUNTEERS!

Please go to <https://www.rarsfest.org/helpwanted.php>

to register. You can do "Talk-in" from home! Working the "Stage"

or "Admissions" is perfect for someone with limited mobility.

Please check out our re-vamped website:

[www.rarsfest.org](http://www.rarsfest.org)

Nancy KB2TNR Torborg

RARSFest 2023 Chair, [rarsfest@rars.org](mailto:rarsfest@rars.org)

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### **All Planned FARC Programs by Michael, K4OLD FARC Vice-President**

March 13: SkyWarn Weather Training, in person  
 April 10: Matt, N3NWV & Ken, K2KXK Parks On The Air  
 April 15 Winston-Salem Hamfest, May 8 TBD  
 June 12 Field Day, July 10 Keith Thomas KA3JAH about VOACAP, (Voice Of America Coverage Analysis Program), Aug 14 Fox Hunt & Attenuators Building, Aug 19 Attenuator Build Day, Sept 11 Moonbounce, Gray Fulk, WX4F (?), Oct 09 Deputy Lasley, Forsyth County Sheriff Dept Drone Program, Oct 14 Winston-Salem Hamfest  
 Nov 13 N1MN Logging, FLDigi and How to do CW without knowing CW, Dec 11 Dinner, Jan 08 2024 Home Brew Show-&-Tell Date TBD SWR Date TBD The Old Emergency Broadcast System Date TBD EZNec and NEC Date TBD Ken POTA All of these are subject to change depending on FARC's, presenters schedules and whatever challenges the future holds. The meeting is normally the Second Monday night at the Red Cross Building on Coliseum Drive with the meeting starting at 7:30 PM (7:29:56.5 PM this month!) and Zoom attendance is always possible for those who can't come in person. FCC testing is usually available t (but no December), please preregister at info w4nc com . Exams start at 6 PM sharp



submitted by Melissa,

W4RXG NASA's been recruiting citizen scientists lately, and their latest call is looking for help from ham radio operators. They want you to make and report radio contacts during the 2023 and 2024 North American eclipses. From their website: Communication is possible due to interactions between our Sun and the ionosphere, the ionized region of the Earth's atmosphere located roughly 80 to 1000 km overhead. The upcoming eclipses (October 14, 2023, and April 8, 2024) provide unique opportunities to study these interactions. As you and other HamSCI members transmit, receive, and record signals across the radio spectrum during the eclipse, you will create valuable data to test computer models of the ionosphere. The upcoming eclipses are in October of this year and in April 2024, so you have some time to get your station in order. According to NASA, "It will be a fun, friendly event with a competitive element." So if you like science, space, or contesting, it sounds like you'll be interested. Right now, the big event is the Solar Eclipse QSO Party. There will also be a signal spotting challenge and some measurements of WWV, CHU, AM broadcast stations, and measurements of the ionosphere height. There will also be some sort of very low-frequency event. Details on many of these events are still pending. Hams, of course, have a long history of experimenting with space. They routinely bounce signals off the moon. They also let radio signals bounce off the trails of ionized gas behind meteors using special computer programs. (From FARC Newsletter)

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**LICENSE STUDY SESSION VIA ZOOM**  
**Ham Radio Zoom Training Courses 2022-2023**

The following is our schedule of General and Technician class courses from November 2022 through September of 2023. (FARC) Note that we skip December after the 7th.

General: April 5,12,19,22  
 June. 7,14,21,28  
 August. 9,16,23,30  
 November 9,16,30,  
 Dec 7

Technician:  
 March. 1,8,15,22  
 May 3,10,17,24  
 July 12,19,26  
 August 2  
 September. 6,13,20,27

Classes are held on Wednesday evenings from 6:30 - 9:30 pm. The Gordon West Technician class or General class license manual is recommended in conjunction with online hamstudy.org.

Instructors: KK4RR, AJ4TF, KA4JAH, AE4TI, K4AX. No charge for the classes.

**Preregistration required:** contact Richard Weinbaum at [KK4RR@mac.com](mailto:KK4RR@mac.com).

Thanks and 73,  
 Keith - KA4JAH

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**All Local Area FCC Exams:****WINSTON-SALEM NC**

2023

**2ND Monday, 6PM at Red Cross on Coliseum Drive**

No Exams are scheduled in December, the Club has its Christmas party. Sponsored by the Forsyth Amateur Radio Club (FARC), Red Cross Chapter House, 690 Coliseum Drive. Pre-Registration Only. Exams start at 6:00 PM. Bring 2 forms of identification (one with picture). Pre-registration, FRN number, are required before test session date. NOTE: COVID-19 protocols still in effect. Please bring the ORIGINAL, COPY of any CSCE's and signed license to the test session. Exam fee is \$12.00. For more information, contact: Dale Mierisch-WB9SZL, [Email](mailto:DMierisch@w4amc.com), [Phone 336-766-9675](tel:336-766-9675)

The following testing dates and sites are from:

<https://www.w4vec.org/ar.html>

**GREENSBORO NC****TESTING 2ND SATURDAYS**

All sessions begin at 9:00 AM Hinshaw United Methodist Church, 4501 Gate City Blvd, Greensboro, NC 27407 ([MAP](#)) [For more information contact: David Macchiarolo-AJ4TF EMAIL](#)

[336-420-9424](tel:336-420-9424)

**HIGH POINT NC****TESTING LAST SATURDAYS**

All sessions start at 10:00 AM. Location: Hickory Chapel Wesleyan Church, 301 Hickory Chapel Road (off MLK Jr Drive) High Point, NC 27262 [MAP](#) [Pre-registration is required. Contact: David Macchiarolo Email 336-420-9424](#)

**KERNERSVILLE (?)****King/Rural Hall, NC**

Piedmont Triad VE offers free of charge testing, at the King Public Library, 101 Pilot View Drive, King, NC. This is a free of charge exam session for April 2023

subject to the \$35.00 fee to be paid to the FCC. Contact Jeff Webset at webstej <at? windstream <dot> net for next exam.

**SALISBURY NC**

PRE-REGISTRATION ONLY

Bostian Heights Fire Dept. Community Room  
[\(MAP\)](#)

8211 Old Concord Road Salisbury, NC 28146

For more information contact:

Fred - WB4QOC [EMAIL phone 704-534-1031](mailto:fred@w4amc.com)

Last updated 1/26/22

**THOMASVILLE NC**

Tri-County Amateur Radio Club

Test Session at 9:30am, Davidson-Davie Community College, 297 DCC Rd. Thomasville, NC 27360 ([MAP](#)) Building: Finch \*Building marked with RED arrow), room 221, Preregistration and FRN number is required before test session date. NOTE: COVID19 protocols still in effect. For more information contactL Rick Weinbaum, KK4RR, cell: 446-687-8001 email: [weinbaum <at> mac <dot> com](mailto:weinbaum@mac.com). Last updated 6/1/22

**New Ham? New Upgrade?****Live in Forsyth County?****Or just want to join FARC?**

For new hams, or upgrades, who have taken an exam, please complete the information on the FARC application (usually the next-to-last page of the Newsletter), if you have not already done so, for a free membership to the Forsyth Amateur Radio Club (FARC). Mark the form "New Ham - Exam date". Even if this is not an FARC exam session, since we are limited in exam offerings at this time. Once the form is completed, bring to the next club meeting, or please scan and email to secretary <at> w4nc <dot> com [and an email to newsletter <at> w4nc <dot> com].

Exams usually will be offered before the FARC meeting (2nd Monday at the Red Cross) and start at 6:30 PM in room 109 at the Red Cross building **see above to make sure a session is offered**. You are encouraged to arrive early at 6:20 PM Preregistration is required at info <at> w4nc <dot> com.

[From the FARC Newsletter](#)

## 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  
C/O Cheryl McGuire KX4EC  
530 Jamaka Rd  
Washington NC 27889

### Club President:

Gary Faust NG9T  
[gfaust.parc@gmail.com](mailto:gfaust.parc@gmail.com)  
(252)531-4982



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 (EST).

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.

PARC 80M Net every Tuesday at 7pm (EST) on 3.807Mhz or close by if frequency is in use.

**Weekly Wednesday Breakfast:** All are invited for breakfast every Wednesday morning at 9:00am EST at Shep's Grill at 129 N. Market St, Washington NC 27889. Parking is in the rear and rear door entry is best.

### Club News

A second 2 meter net starting in March. The original 2m net remains on the first Thursday of the month. This second net will be on the fourth Thursday of each month.

Our second 2m net check in at 8pm if you are able to make it.

Repeater: Bath 146.955, pl: 131.8

Time: 8:00 pm EST

Net Control: Scott Pollard K4WSP

## 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](#)

Note from Editor: This section is added for information for those interested in Emergency services. Pitt County doesn't have a active ARES Presence. But the practices and lessons available can be useful if working for or helping pass traffic in times of need.



## Important Links

ARRL Home: [www.arrl.org](http://www.arrl.org)

Find an ARRL Affiliated Club:  
[www.arrl.org/clubs](http://www.arrl.org/clubs)

Find Your ARRL Section:  
[www.arrl.org/sections](http://www.arrl.org/sections)

Find a License Class in your area: [www.arrl.org/class](http://www.arrl.org/class)

Find a License Exam in your area: [www.arrl.org/exam](http://www.arrl.org/exam)

Find a Hamfest or Convention:  
[www.arrl.org/hamfests](http://www.arrl.org/hamfests)

Email ARRL Clubs:  
[clubs@arrl.org](mailto:clubs@arrl.org)

## The ARES Letter

### ARES<sup>®</sup> Briefs, Links

After the devastating earthquake in Turkey and Northern Syria on February 21, 2023, BBC's Digital Planet spoke to Aziz Sasa, TA1E, who is the President of the [Turkish Amateur Radio Association](#). Aziz explained the vital role of amateur radio as a key communication method in the region. He also talked about how radio amateurs were aiding relief efforts with the use of repeaters on VHF and UHF frequencies. You can [hear the interview](#) on BBC Sounds -- it starts at 2 minutes and 40 seconds into the broadcast. - *Radio Society of Great Britain (RSGB)*

The Keystone Emergency Management Association (KEMA) in Pennsylvania is seeking proposals for the 6th Annual Pennsylvania Emergency Preparedness and Homeland Security Conference presented by KEMA, October 15-17 in Altoona, Pennsylvania. The conference will provide educational workshops and presentations to showcase concepts, technology, processes, and evidence-based practices in emergency management around the theme "Meeting the Challenge of Tomorrow." Radio amateurs have presented at this conference in the past. "The key to a successful Amateur Radio related presentation submission is to tie the presentation to the conference theme, focus, and audience." - *Blair ARES Alert*, March 2023 issue [The *Alert* is the newsletter of the Blair County, Pennsylvania, Amateur Radio Emergency Service<sup>®</sup>].

John Gendron, NJ4Z, has been named the recipient of the 2022 Roanoke Division ARRL Service Award. This award is the highest and most prestigious recognition of an ARRL member operator who has shown consistent and extensive leadership within the Division's four states. First licensed as a Technician in 2016, Gendron quickly advanced to the General- and Amateur Extra-class licenses. At the same time, he helped revitalize the Amateur Radio Emergency Service<sup>®</sup> (ARES<sup>®</sup>) in his area.

[Amateur Radio Digital Communications](#) (ARDC) has released its 2022 Annual Report detailing grants made for amateur radio projects. In 2022 overall, ARDC approved nearly \$6.7 million in grants, and distributed nearly \$7.7 million. An example of a standout project is the one proposed by Bay Area Mesh (BAM). BAM's goal is "to install a resilient, high-speed, wireless network throughout San Francisco and the greater Bay Area." The network would be used by responders, volunteers, and served agencies during disasters, emergencies, and large community events. ARDC is a private foundation that exists to support amateur radio and digital communication science and technology.

Colorado ARES members are encouraged to enroll in Colorado Volunteer Mobilizer (CVM). CVM is provided to Colorado ARES by the Colorado Department of Public Health and Environment (CDPHE). CVM is a volunteer management tool providing: Member Roster, Training Tracking, Contact Management, Activation Notification, State Issued Credentialing, and Routine Background Checks. There are approximately 200 Colorado ARES members currently enrolled on CVM. CO ARES District Emergency Coordinators and their District designees can sign up for CVM Administrator training.

### A Brief History of Amateur Radio EmComm Organization

In the early days, amateur radio and hams were considered irritations and nuisances to the "real" communicators -- the commercial sector and the military. We were almost outlawed, and ultimately relegated to the "useless" frequencies of "200 meters and down." That was until it was demonstrated

that we could actually be of use as a service. In 1913, college students/hams in Michigan and Ohio passed disaster messages when other means of communications were down in the aftermath of severe storms and flooding in that part of the country. A Department of Commerce bulletin followed, proposing a dedicated communications network of radio amateurs to serve during disasters. Five special licenses were reportedly issued. A magazine article noted that amateurs were now considered to be essential auxiliary assets of the national public welfare.

ARRL was formed in 1914, and disaster response communications as provided by radio amateurs became organized and useful. In 1920, amateur radio was used to help recover a stolen car, of all things! Soon, the use of amateur radio for natural disasters that we traditionally think of now emerged with hams active in responding to deadly flooding in New Mexico and an ice storm in Minnesota.

More organization followed, with a memorandum of understanding emerging with the American railroad system for amateur radio support when the railroad's wire lines were down: There was an ARRL Railroad Emergency Service Committee. There was even a Q-signal designated: QRR, a kind of land SOS. More reports of disaster response communications provided by amateurs appeared in *QST*, much as they do there and here in this newsletter today. A major New England flood had amateurs supplying the only efficient means of communications from the devastated areas to the outside world, prompting the chairman of the Federal Radio Commission to say the future of radio depended on the amateurs.

Hams worked with the Burgess Battery Company for emergency radio power. Many of us old-timers, including myself, used those batteries when we were kids for our electrical experiments and kits. They looked like tall, thick candle columns! We learned our electrical principles from them. More organization followed, and traffic handling was recommended as the best way to gain discipline and proficiency to prepare for the efficiency and effectiveness needed in response communications situations.

ARRL Field Day was started to prepare amateurs for portable operation, as was necessary in disaster situations when commercial power and means of communications were down. In 1935, the ARRL Emergency Corps was formed with the goal of having an Amateur Radio Emergency Station in every community -- a goal that remains just as urgent today as it did then! To wit, just look at today's emphasis on the neighborhood and community as "first responder" and on self-reliance in the post-disaster survival chain. More "served agencies" emerged as potential partners, including the Red Cross. In 1936, major flooding across a 14-state region served as the ARRL Emergency Corps' first major testing, serving well, and solidifying amateur radio's status as a critical disaster response communications asset and public service. Communications operating protocols and the appointment of Emergency Coordinators followed.

Technical advances supported this evolution. Spark-gap transmitters gave way to the vacuum tube, making portable operations more viable. Articles on portable transmitters and receivers appeared in *QST*. Exploration and experimentation in the VHF region also spurred more development of portable equipment. The development of the variable frequency oscillator, or VFO -- something that modern generations of hams take for granted -- was at the time a liberating breakthrough offering more versatility and flexibility, and of course more efficiency in meeting the demands of a disaster response communications situation.

World War II meant a shutdown of amateur radio, but many hams joined the War Emergency Radio

Service, which did provide some communications during the war period for natural disasters. After the war, ARRL reconstituted its disaster response communications programs and networks, and the first Simulated Emergency Test was run in 1946. The Cold War followed, and the government formed the Radio Amateur Civil Emergency Service (RACES) for civil defense (CD) purposes. It served as the forerunner of the modern emergency management model that we know so well today.

Throughout the 1960s and later up to today, the role, procedures, protocols, equipment, and techniques of amateur radio in public service, disaster, and emergency communications continue to evolve, ebb and flow. This evolution is fueled by advances in Amateur Radio technology and its application, lessons learned from each and every incident that involves amateur communications support. - *Rick Palm, K1CE, based on an excellent article titled "QRR: The Beginnings of Amateur Radio Emergency Communications" by Gil McElroy, VE3PKD, that appeared in the September 2007 issue of QST*

## In-Building Radio Signal Considerations

First responders such as fire, EMS, and police depend on reliable two-way radio communication when lives and property are at risk. That's not always an easy task in many buildings. In-building radio signals are often absorbed or blocked by structures that are larger, underground or constructed of concrete or metal. Additionally, building features designed to create more sustainable facilities such as low-E glass windows can attenuate the signal from public safety radio systems. When this occurs, weak or non-existent signals result in radio communication "dead zones" within commercial structures that can jeopardize coordination among and the safety of first responders during an emergency. As a result, most fire codes now mandate the installation of Emergency Responder Communication Enhancement Systems (ERCES) for both new and existing commercial buildings. These advanced systems boost the signal inside the building, providing clear, two-way radio communication without dead spots.

"The challenge is that first responders operate on many different frequencies which vary significantly from city to city, so the ERCES equipment must be designed to amplify only the specific assigned channels," said Trevor Mathews, Wireless Division Manager at Cosco Fire Protection, a provider of business fire suppression and life safety systems for more than 60 years. [*This article first appeared last month in the FEMA Disaster Emergency Communications News Clippings and Topics of Interest. Published twice monthly for the FEMA Regional Emergency Communications Coordination Working Group (RECCWG) stakeholders, this newsletter provides articles of interest from various sources across the emergency communications and homeland security communities.*]

## Tips for New ARES Operators

Most hams new to public service operating begin their efforts on the air through a local 2-meter FM repeater. Area hams tend to congregate there for sundry activities: traffic and ARES nets, swap nets, weather spotter nets, club meetings, training nets, and informal chats, discussions, and weather report exchanges. You will quickly learn their protocols, courtesies, and nuances of repeater and net operating, which, along with simplex (i.e., direct communication without repeaters) operation, form the bedrock of public service operating. Listen at first, and don't transmit until you feel that you have a basic idea of the above. It could take listening to several nets over the course of many evenings before you feel comfortable transmitting and checking in.

To do it, you'll need a radio, of course! Start with a simple-to-operate 2-meter/70-cm FM handheld with a short, flexible rubber-coated antenna, or better yet, a simple "whip" antenna that will yield



more gain. The marketplace has a plethora of choices available from many manufacturers, and most are advertised in *QST*. Browse the ads, and check out *QST*'s Product Review, which regularly features reviews of handhelds. Search for past reviews on ARRL's website -- [www.arrl.org/product-review](http://www.arrl.org/product-review) -- and ask local hams for their recommendations; try other hams' handheld radios.

You will be taking your radio into the field for public events, emergencies and disasters, so portability is a critical, needed feature. You will have to operate "off the grid," that is, away from commercial mains, so you will need alternative power sources such as batteries, portable generators, and solar panels. The same goes for antennas: you will want to find a balance between getting antenna gain sufficient to initiate and maintain communications from potentially remote locations, and the ability to easily transport and erect them in the field.

Keep power output as low as possible: Just a watt or two should be enough power to talk across your neighborhood or community on simplex and through your local repeater. Higher power output translates to faster battery discharge and depletion. Most handhelds come with a basic rechargeable battery pack and "wall wart" battery charger, but have as options larger capacity battery packs, and higher-power desk "drop-in" chargers that will charge your batteries faster (although faster charging rates tend to reduce the life of the battery). Buy a second battery pack to use when you're charging your first battery. Buy the optional alkaline battery holder as a backup in the event your standard rechargeable battery pack(s) fail(s). The use of batteries for handhelds and other types of radios was addressed in the Public Service column in the March 2015 issue of *QST*. The use of portable generators is discussed in the Public Service column in the October 2015 issue of *QST*.

For enhancing your reception and transmitted signal, forego higher power in favor of a better antenna instead. Consider purchasing a telescoping 5/8 wave whip antenna that replaces the rubber-coated shorty antenna that your radio came bundled with, which will give you higher gain, and hence, wider coverage for your signals and better "copy" on weak or distant stations. (Don't toss out the flexible rubber antenna, however: it's useful for close-in communications). - *Originally written by K1CE for The ARRL Operating Manual.*

## Lightning Protection Basics for the HF Station

*By Walt Mahoney, KC1DON*

With spring (hopefully) just around the corner, late winter is a great time to evaluate our station lightning protection arrangements prior to lightning season. This short article is not a comprehensive review of the subject, but does suggest some basic protective measures we can all take. The suggestions are based on my experiences as an AM broadcast engineer, and later in my career with industrial plant control systems. Two comprehensive resources are *Grounding and Bonding for the Radio Amateur* (2nd Ed., ARRL), and a three-part series, "Lightning Protection for the Amateur Radio Station," by Ron Block, KB2UYT (now NR2B), which was published in the June, July, and August 2002 issues of *QST*. The later articles are available for free online at <http://www.arrl.org/lightning-protection>.

Lightning as a natural phenomenon is usually (~90% of the time) a downward negative electric discharge, with the earth as the anode. The length of the discharge is usually 1 second or less, and the potential can vary between 40 and 120 kV. Once the arc is established, the rise time to peak current is about 0.3 seconds, during which time the peak current flow can be from 5 to over 200 kA. If we consider the time integral of the lightning current over the entire flash duration, the energy released is something on the order of 10 billion watts. The key takeaway with this amount of energy is, we

don't need to take a direct hit to cause harm to people or damage equipment. A lightning strike will induce hazardous voltages in nearby conductors through induction or via any reasonably conductive material.

I am assuming that nobody will be operating their station when lightning is anywhere in the vicinity, and all equipment is de-energized and grounded per recommendations in the *ARRL Handbook*. Even in this condition, the two routes that damaging amounts of energy can be coupled to a transceiver are via the power supply and the antenna connections, with the antenna connection being far more vulnerable. These two routes require different protection strategies.

On the power input side, obviously the best protection is to unplug the power supply from the branch circuit. I realize this isn't a practical solution for everyone, and we may not even be at our operating location when the storm arrives. The next best thing in this case is to use a quality surge protected power strip having an on/off switch. The quality and effectiveness of these surge protective devices (SPDs) vary greatly, and as always one "gets what they paid for." I recommend the Tripp Lite "Isobar" power strips.

Look for units that are circuit breaker protected and provide a minimum of 900 joule protection, and be aware that some imported power strips offer zero surge protection beyond a simple fuse. Our most common transceiver configuration now uses an outboard 14 V dc power supply. Obtain a broadband ferrite ring and wind as many turns as can comfortably fit of the dc transceiver cable through the ferrite. It's important to wind the positive and negative conductors together, and locate the ferrite as close as possible to the transceiver.

Protecting the antenna connection is a little more challenging. As a kid I would unscrew the feed line PL-259 and stick it in a pickle jar, which sort of worked. In modern times we have coax antenna switches, and it goes without saying your transceiver should always be switched to a dummy load of an appropriate power rating when not in use. The dummy load is highly recommended to avoid transmitting into an open circuit when one inevitably forgets to throw the switch. Some switch manufacturers such as Alpha-Delta and Daiwa also incorporate gas discharge tube (GDT) surge protection. Look for a switch that grounds all unused connections, and be sure to ground the switch body itself. 450-ohm ladder line can be protected by old-time knife switches, which are getting scarce. The second step is to add a GDT-type lightning arrestor which will shunt current to ground when the gas ionizes at a given voltage. As with SPDs, not all GDT arrestors are suitable for amateur use. Ideally, we want a device having a low let-through energy and minimal insertion losses. As part of my professional work with industrial radio modems, I found the Polyphaser IS-NEMP series offers the happy combination of low VSWR from 1.8 MHz through low-band VHF and a very fast-acting GDT. The housing and connectors are built to mil-spec standards. Again, there are less expensive arrestors of dubious provenance available through online sources. I caution some of these will demonstrate much greater VSWR than is advertised.

## On Building Relationships: Editorial by Northern Florida Section Emergency Coordinator Arc Thames, W4CPD

As we move into 2023, we're looking forward to an exciting year filled with new challenges and opportunities. This year we will continue to work to enhance our readiness and improve our response capabilities, but it's important that we also focus on building strong relationships with our served agencies. As ARES volunteers, we play a crucial role in supporting our communities during times of crisis. To be most effective, it's essential that we have close partnerships with our served agencies,

such as county Emergency Management. Why is this so important? There are several key benefits to developing a good working relationship with these agencies:

- **Improved Coordination:** When we have established relationships with our served agencies, it's easier to coordinate our efforts during an emergency. This leads to a more efficient and effective response, which ultimately benefits those who are impacted by the disaster.
- **Enhanced Communication:** Good working relationships help to ensure clear and consistent communication between all parties involved in an emergency response. This can greatly improve response times and minimize confusion.
- **Increased Trust:** Trust is a critical component of any partnership, and it's especially important in emergency response. By working closely with our served agencies, we can build trust and establish a mutual understanding of each other's roles and responsibilities.

**Access to Resources:** Our served agencies often have access to valuable resources that can greatly enhance our ability to respond during an emergency. By partnering with them, we can tap into these resources and use them to our advantage. Whether it be equipment or training, our served agencies are a wealth of knowledge and support. Don't lose sight of the small things you can do to build a relationship with your agency. Even if it's baking the Emergency Management staff a cake or some cookies, every little step helps build a foundation of trust and understanding.

- *Arc Thames, W4CPD, Northern Florida Section Emergency Coordinator*

## *Virginia Clubs Tour Greenville VOA Sites*

Eighteen members and friends from three radio clubs in Virginia, the Richmond Amateur Telecommunications Society, Richmond Amateur Radio Club and Virginia Amateur Radio Club visited the Voice of America April 17. BARC sponsored the affair and Bob Knapp/W4OMW was tour guide.

Joe O'Connor/N4BLV, a Greenville member and now living in Richmond, lead the Richmond group. The receiving site "C" was visited that morning and during the afternoon the group went to the transmitting site "A". A visit was also made to the BARC club room where the 147.96/36 repeater is housed.

1982 Chatter



**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

Sponsored by [Icom](#)

The latest episode of the ARRL [On the Air](#) podcast addresses Radio orienteering (aka Amateur Radio Direction Finding, or ARDF) is a radio sport like no other. It gets you out of your shack chair and bounding through the woods or a park, using a handheld receiver and directional antenna to find a transmitter that's located somewhere in the vicinity. People of all ages and skill levels can have fun with radio orienteering - and you don't even need a ham radio license to join in. In this episode, we talk to USA ARDF Co-coordinator Charles Scharlau, NZØI, about how to get involved in what he calls, "the only athletic radio sport."

ARRL has designated 2023 "The Year of the Volunteers," to shed light on the work of the hundreds of volunteers who

make ARRL and amateur radio what it is. We've got a year-long, on-air event to go with it; Volunteers On the Air (VOTA) is already taking the bands by storm just two months into the fun. In this episode, "How to Be On the Air All Year with VOTA," we talk to ARRL Director of Operations Bob Naumann, W5OV, and ARRL Radiosport Manager Bart Jahnke, W9JJ, about rules, awards, special activations, and all things VOTA.

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](#)

**ARRL Audio News Diventa Italiano!** The English translation of this Italian phrase reads, "ARRL Audio News Goes Italian!" The weekly ARRL Audio News will soon be available on the internet radio station [RTA PLANET](#), in Italy. Station owner and ARRL member Tiziano An-

tei, IU3LZL, will add the weekly report so that it airs in three different time slots and time zones.

Airing every Friday, ARRL Audio News is heard by 82 amateur radio clubs across the United States. The program highlights current news in amateur radio and ARRL special features and announcements. It's hosted by ARRL News Editor, John Ross, KD8IDJ.

Each edition of ARRL Audio News runs between 10 - 15 minutes. For those airing Audio News on repeaters, every three minutes or so, the letter "K" is transmitted in Morse code to signal a four-second pause in the audio. These breaks prevent a repeater from timing out and provide a moment to insert a repeater ID.

ARRL Audio News is distributed through [Blubrry.com](http://Blubrry.com). You can subscribe to the podcast via your IOS or Android mobile device with your favorite podcast app, or you can listen and download episodes directly from the Audio News page at Blubrry. Each week, the current edition is available at [ARRL Audio News](http://ARRL Audio News).

## Amateur Radio in the News

["Amateur radio enthusiasts ham it up in Milford"](#) / The Daily (Connecticut), February 23, 2023. *The Woodmont Amateur Radio Association is an ARRL Affiliated Club.*

["From Social Activity to Lifeline: Thermal Belt Amateur Radio Club"](#) / Tryon Daily Bulletin (North Carolina), February 23, 2023. *The Thermal Belt Amateur Radio Club is an ARRL Affiliated Club.*

["Columbiana HS student presents at amateur radio conference"](#) / Salem News (Ohio), February 23, 2023. *Columbiana High School Amateur Radio Club.*

["Astronauts will be reached by students with Amateur Radio"](#) / KHON (Hawaii), March 5, 2023 -- The Lana'i High and Elementary School.

["Steubenville-Weirton Amateur Radio Club donates books to library system"](#) / Herald - Star (Ohio), March 8, 2023. *The Steubenville-Weirton Amateur Radio Club is an ARRL Affiliated Club.*

["Free amateur radio instruction offered in Stillwater"](#) / Twin Cities Pioneer Press (Minnesota), March 6, 2023 -- *The Stillwater Amateur Radio Association is an ARRL Affiliated Club.*

["Amateur radio system expands in Calvert County"](#) / Southern Maryland News (Maryland), March 11, 2023 -- *The Calvert Amateur Radio Association is an ARRL Affiliated Club.*

["Out of this world! Lanai kids get picked for live Q&A with ISS astronauts"](#) / Hawaii News Now (Hawaii), March 14, 2023, --The Lanai Elementary School.

["Dayton leader of world's largest gathering of radio amateurs dies"](#) / Dayton Daily News (Ohio), March 18, 2023 --*The Dayton Amateur Radio Association is an ARRL Affiliated Club.*

["Amateur radio operators like Bob McArthur of New Ipswich make connections"](#) / Monadnock Ledger -- Transcript (New Hampshire), March 22, 2023 -- Bob McArthur, K1QT.

["Ham radio kept Upland man connected during pandemic"](#) / The Sun (California), March 23, 2023 -- *Michael Guerin, W6MVT, of Upland California, is an ARRL Member.*

["FCC grants seven new amateur radio operator licenses to Caribou residents"](#) / The Country (Maine), March 24, 2023 -- Caribou Radio Amateur Civil Emergency Service.

## World Amateur Radio Day is April 18

In less than a month, 2023 World Amateur Radio Day (WARD) will be celebrated, literally, around the world!

WARD is held on April 18 every year and is cele-

brated by radio amateurs and their national associations which are organized as member-societies of the International Amateur Radio Union (IARU). It was on this day in 1925 that the IARU was formed in Paris. American Radio Relay League (ARRL) Co-Founder Hiram Percy Maxim was its first president.

The IARU [announced previously](#) that Human Security for All (HS4A) will be this year's World Amateur Radio Day theme. The day is being celebrated with a 2-week operating event occurring April 11 - 25. Special event stations will be operating from around the world, making two-way radio contacts to call attention to the HS4A campaign. The United Nations Trust Fund for Human Security describes 'human security' as "a more powerful, lasting approach to the most difficult deficits in peace and development," such as poverty, war, and natural disasters.

ARRL encourages all radio amateurs to take to the airwaves for WARD, to enjoy our global friendship with other amateurs, and to show our skills and capabilities to the public.

More information about 2023 World Amateur Radio Day is available at [www.arrl.org/world-amateur-radio-day](http://www.arrl.org/world-amateur-radio-day) and [www.iaru.org/on-the-air/world-amateur-radio-day](http://www.iaru.org/on-the-air/world-amateur-radio-day).

## Amateur Radio Activity Honors African American Heritage

Parks on the Air® (POTA) sites that honor African American heritage are the focus of a casual operating event organized by the OMIK Amateur Radio Association, Inc (OMIK). The [OMIK POTA Challenge 2023](#) will run from April 1 to December 31.

OMIK was founded in 1952 by black amateur radio operators. While it is still a predominately African-American organization, today it represents a multi-racial, multi-cultural organization with members from the US and around the globe. OMIK is an ARRL Affiliated Club.

The group hopes to attract at least 750 radio contacts for the program by the end of the year. All modes permitted by the POTA program are eligible. OMIK members are encouraged to activate sites using the OMIK club call sign, K0MIK. The club's call sign must be reserved at least a week in advance.

The group has a list of suggested sites that are known to have a significant role in African American history. They hope that at least five unique national parks will be activated as part of the event, contributing to a total of at least 10 successful activations.

[Parks on the Air](#) is a movement to get radio amateurs to set up portable operations in recognized park locations. It promotes a culture of operators who make as many contacts as possible from and with such locations.

## HamCation 2023 Attendance Update

Orlando HamCation announced the attendance number for this year's 76th annual event, which was held February 10 - 12 at the 87-acre lake-front Central Florida Fairgrounds and Expo Park.

This year's attendance was the third largest for HamCation, at 21,830.

HamCation organizers reported the weather was great during show hours and the rain held off each night until after closing.

A big thank you was issued to all the sponsors, volunteers, visitors, and vendors for their participation, dedication, and making HamCation a true five-star event.

Planning is already underway for next year's HamCation, which will be held February 9 - 11, 2024. Dates have already been set for the following three years:

- HamCation 2025: February 7 - 9
- HamCation 2026: February 13 - 15

HamCation 2027: February 12 - 14

For more information, visit the [HamCation](#) website.

## ARISS Contact Scheduled for March 31, 2023

Amateur Radio on the International Space Station (ARISS) has received schedule confirmation for an ARISS radio contact between an astronaut aboard the International Space Station (ISS) and students at Stone Magnet Middle School located in Melbourne, Florida.

The ARISS radio contact is scheduled for March 31, 2023, at 2:07 PM EDT (18:07 UTC, 1:07 PM CDT, 12:07 PM MDT, 11:07 AM PDT).

This direct contact will allow students to ask Astronaut Steve Bowen, KI5BKB, questions.

The downlink frequency for this contact is 145.800 MHz and may be heard by listeners within the ISS-footprint that encompasses the Platinum Coast Amateur Radio Society (PCARS) ham station in Melbourne, Florida.

A live stream of the contact will be available at: <https://youtube.com/channel/UCuO96ZDAoLWVlko5CyATxzw>.

ARISS conducts anywhere from 60 to 80 of these special amateur radio contacts each year between students around the globe and crew members with ham radio licenses aboard the ISS.

Stone Magnet Middle School currently has 649 students from ages 12 to 15. The school's educational foundation provides science, technology, engineering, arts, and mathematics (STEAM)-based programs with interdisciplinary STEAM connections for students across all classrooms. Prior to this ARISS contact, students will research and learn about the ISS, conduct their own ISS-based experiments, and study radio science concepts, such as radio waves. Members of PCARS are supporting the school during this ARISS contact.

ARISS is a cooperative venture of international amateur radio societies and the space agencies that support the ISS. In the US, participating organizations include from NASA's Space Communications and Navigation program (SCaN), the ISS National Lab - Space Station Explorers, [ARRL The National Association for Amateur Radio®](#), and AMSAT.

## ARRL Announces Leadership Changes in the Hudson Division

ARRL Director Ria Jairam, N2RJ, who has represented the [Hudson Division](#) since 2019, has stepped down, effective March 31, 2023, at 5 PM Eastern.

Vice Director Nomar Vizcarrondo, NP4H, of Englewood, New Jersey, will accede to the Director's chair. Vizcarrondo, who earned his amateur radio license in 1978 at the age of 11, will serve as Director for the remainder of a 3-year term ending December 31, 2024. He was appointed as Vice Director of the Hudson Division in February 2022, following the retirement of previous Vice Director William Hudzik, W2UDT, who held the position from 2011 to 2022.

ARRL President Rick Roderick, K5UR, will announce a successor to Vizcarrondo to fill the vacant Vice Director's seat. The ARRL Hudson Division is comprised of the ARRL Sections of Eastern New York, New York City - Long Island, and Northern New Jersey.

## Announcements 2023 Hamvention Awards Announced

The 2023 Hamvention Awards committee for Dayton Hamvention® has announced this year's award winners.

The Special Achievement Award recipient is Dr. Jason McDonald, N2TPA

Dr. McDonald began a career as a radio frequency engineer before becoming a trauma surgeon. He brings amateur radio to the world through youth projects and Scouting, particularly through Radio Scouting.



Dr. Jason McDonald, MD, N2TPA.

He has helped form Scouting clubs around the world. To date, more than 500 youths in these clubs have become licensed and are on the air.

The Amateur Radio Club of the Year is the Delaware Valley Radio Association (DVRA). This ARRL Affiliated Club was formed in 1930 and serves the Trenton, New Jersey, area. DVRA has tripled in size over the last 6 years, due to the wide range of amateur radio activities and events they offer.

The Technical Achievement Award recipient is Dr. James Breakall, WA3FET.

As a Professor of Electrical Engineering at Penn State University from 1989 to 2022, Dr. Breakall developed cutting-edge antenna technology and mentored his students in amateur radio. Through his mentorship, he inspired 700 of his students to become new licensees. Now a retired Professor Emeritus, he serves as a consultant to the Army, Air Force, and Navy on many antenna-related projects.



Dr. James Breakall, WA3FET.

Amateur of the Year 2023 is Carsten Dauer, DM9EE.

For 30 years, Dauer has been active in European amateur radio through the World Radiosport Team Championship and Youth on the Air.



Carsten Dauer, DM9EE.

Recently, he spearheaded a movement that provides amateur radio equipment to Ukraine by collecting donations and personally delivering them.

You can read more about the 2023 Hamvention Awards at their [website](#) or at [ARRL.org](http://ARRL.org).

Dayton Hamvention® is May 19 - 21, 2023 at



the Greene County Fairgrounds and Expo Center.

## AMSAT Recruiting Engineering Volunteers

AMSAT is looking for an electrical engineer with RF experience to join its FOX-PLUS team. The team will be a collaboration of up to 10 electrical, mechanical, software, and systems engineer volunteers.

There will also be an opportunity to design and build the RF communications subsystems for a series of low-Earth orbit 1U - 3U CubeSats to support AMSAT's educational and engineering objectives.

Candidates should have working knowledge of analog and digital communications protocols (e.g., FM, PSK, and FSK) to provide digitally synthesized audio for FM modulated VHF/UHF/SHF voice and telemetry channels. Development opportunities can begin with modification of previous FOX designs and/or with an original design.

Mechanical engineers are also needed to join AMSAT's FOX and GOLF CubeSat teams. There will be a collaboration with an all-volunteer team of up to 12 electrical, mechanical, software, and systems engineers. The positions entail an opportunity to use structural design and analysis skills to develop a series of low-Earth orbit and highly elliptical orbit 1U - 3U CubeSats.

Contributions may include:

- The development of the space frame and deployable solar panel subsystem
- The analysis of the thermal characteristics of the CubeSat and the design of the thermal management system
- Preparation and oversight of the environmental testing procedure

Management of documentation of the CubeSat's adherence to the launch provider's and space vehicle owner's specifications

AMSAT volunteers typically spend 5 hours per week on their projects and attend a weekly meeting online. An amateur radio license and CubeSat experience are helpful, but not necessary. US citizenship or proof of permanent residency is required.

Interested persons should send an email with their resume/curriculum vitae to [volunteer@amsat.org](mailto:volunteer@amsat.org).

- Thanks to AMSAT Assistant VP, Engineering Jonathan Brandenburg, KF5IDY, for the above information.

## Schools Set to Talk with Astronauts via Amateur Radio

Amateur Radio on the International Space Station (ARISS) has announced that several schools are planning to communicate with orbiting astronauts in the coming weeks.

Lana'i High & Elementary School in Lana'i City, Hawaii, will attempt the contact between March 20 and 24, 2023. Students attending the high school already study amateur radio and the research being done on the ISS, among other scientific pursuits.



Stone Magnet Middle School in Melbourne, Florida, will make their contact between March 27 and April 1, 2023. In their application, Stone Magnet wrote that they work to inspire students to develop interest in science, technology, engineering, arts, and mathematics (STEAM) careers. The school has a special program for science research, and students from that program place well in district and statewide science fairs

each year.

ARISS is a cooperative venture of international amateur radio societies and the space agencies that support the ISS. In the US, participating organizations include NASA's Space Communications and Navigation program (SCaN), the ISS National Lab - Space Station Explorers, [ARRL The National Association for Amateur Radio®](#), and AMSAT.

ARISS is presently [seeking contact proposals](#) for the next round of school selections.

## Radio Merit Badge Sees Biggest Gain in Scouting

According to a *Scouting* magazine study of Merit Badges earned in 2022, Radio had the biggest jump.

It is now the 81st most popular Merit Badge, up from being 98th in 2021. Trailing just behind it on the biggest gains list is the Electronics Merit Badge,



Special event station K4S in Jasper, Tennessee, 2018 photo; Radio Scouting.

which jumped 15 spots, from 80th to 65th. To earn the rank of Eagle Scout, members must earn 21 badges, 14 of which are standard. The Scout gets to choose the remaining badges based on personal interests.

Many Scouts take part in Jamboree on the Air, which is being held October 20 - 23, 2023.

**ARRL International DX Contest Log Upgrades are Now Available for HamDash.** N3FJP's *ARRL International DX Contest Log 5.1.4* (for US and Canadian users)

and the DX version (for users outside the US and Canada), *ARRL International DX Contest Log 3.7.4*, are now available. These upgrades include:

- Support for HamDash

Ability to sort the Notes list (Ctrl + H) by clicking on the column header

Upgrades are free for registered users. If you are running a version of the software released after January 2021, it will detect the new upgrade and offer to retrieve it for you. If you have any problems with the automatic upgrade, or if you are running an older version, you can install the latest version directly from the website at <https://www.n3fjp.com/intdx.html>

## ARRL International DX Contest a Success

Last weekend (March 4 - 5, 2023) was the phone segment of the ARRL International DX Contest.

Although the deadline to submit logs is 2359Z on March 12, preliminary numbers already show an increase in submissions compared to the same period last year. Conditions were favorable for much



of the world, and many operators took to social media to talk about their wins.

Some of the operators hitting the airwaves for the 2023 ARRL International DX Contest included ARRL CEO David Minster, NA2AA (foreground) from PJ4G, "Radio

Italian ham Chris Diemoz, IX1CKN, wrote in to express his gratitude for the contest, saying, "I haven't come back to the US since 2001, but... I [count last] Sunday afternoon [as] a true trip to the States, from east to west." Diemoz made 80 contacts in the US.



From his parked car in Ozein, Italy, Diemoz operated during the contest using QRP power from a Xiegu G90 transceiver and an Outback-1899 HF antenna. He enjoyed making a lot of contacts on 10 and 15 meters, which are opening due to Solar Cycle 25. He made a video with some of his QSOs and posted it to YouTube. Click on the screenshot above or [click here to view the YouTube video](#).

## 2023 Ulrich L. Rohde Award Call for Papers

The Software Defined Radio Academy (SDRA) has issued a call for papers for the 2023 Ulrich L. Rohde Award. This award, named after Dr. Ulrich L. Rohde, N1UL, was created in 2022 and is presented to those who have completed innovative research in the field of software-defined radio (SDR). It's a paper award that requires a written submission by applicants. There are first - second - and third -place winners who are awarded €500 (\$527), €300 (\$316), and €100 (\$105) respectively.

All submitted papers are eligible for the award. The deadline for the abstract submission is April 30, 2023, and the acceptance notification date is May 15, 2023. The Award Committee for 2023 includes:

- Dr. Michael Hartje, DK5HH, HS Bremen
- Dr. Michael Niemetz, DG2RAM, OTH Regensburg

- Dr. Hervé Boeglen, Univ. Poitiers (European GNURadio Days)

Dr. Jean-Michel Friedt, FEMTO-ST, Univ. Besancon (European GNURadio Days)

Dr. Rohde is an avid amateur radio operator, holding several licenses in the US and Germany. He has been licensed since 1956, and is mostly involved in technology and systems. In 2015, he won first place in the ARRL DX Contest in the Northern New Jersey Section. He also operates N1UL/MM on his yacht, the *Dragonfly*, and is Trustee of the Marco Island Radio Club, K5MI.

Rohde holds 50 patents, and in December 2016, he was invited to deliver the Sir J.C. Bose Memorial Lecture on "Next-Generation Networks: Software-Defined Radio -- Emerging Trends," at the IEEE meeting in Hyderabad, Telangana India, in the fourth edition of *Communications Receivers: Principles and Design*, Rohde and his co-authors set SDR at the core of modern communications systems design.

For additional information on the Ulrich L. Rohde Award, including how to send an award for submission and other award categories, visit the [Software Defined Radio Academy](#) website.

## Amateur Radio Digital Communications Awards \$420,000 to the FreeDV Project

Amateur Radio Digital Communications (ARDC) has awarded a \$420,000 grant, one of the first for 2023, to develop and document FreeDV, an open-source amateur radio technology. The grant will be used to help advance the state of the art in HF digital voice and promote its use.

FreeDV is a graphical user interface application for Windows, Linux, and macOS that allows any SSB radio to be used for low-bit-rate digital voice. Speech is compressed down to 1600 bits/second, then modulated onto a 1.25 kHz wide 16 QPSK signal, which is sent to the microphone input of an SSB radio. The technology was initially developed by David Rowe, VK5DGR. Now, an interna-

tional team of radio amateurs are working together on the project.

Among the many opportunities for FreeDV, the ARDC grant will also allow:

- Experienced digital signal processing developers to work with the volunteer staff to improve speech quality and low signal-to-noise ratio operation, making FreeDV performance superior to SSB over poor HF channels.
- Commercial HF radio companies to embed FreeDV into at least two commercial radios, greatly reducing set up effort and latency.
- Widespread adoption of a truly open-source, next-generation digital voice system for HF radio.
- A mature, open-source low-bit-rate codec that's useful for a variety of amateur radio and commercial applications.

A suite of high-performance, HF data modems for open-source data applications, usable by any radio amateur.

To learn more about the technical specifications of FreeDV, go to <https://www.freedv.org>.

[ARDC](#) is a California-based foundation with roots in amateur radio and the technology of internet communication.

### **It is with deep sadness that we report that ARRL Michigan Section Manager Les Butler, W8MSP, passed away on March 8, 2023.**

Butler, of Gregory, began serving his first term as Section Manager in January 2022. "Les was attending Michigan's Statewide Interoperable Communications Conference and, in the evening, became ill," reported ARRL Great Lakes Division Director Dale Williams, WA8EFK, in a message sent to Division members. "Our thoughts and prayers go out to Les' wife Karen, the family, and all of his many friends in amateur radio." More information will follow as it becomes available.

**The National Capitol DX Association (NCDXA) Board of Directors has appointed Jack Ference, W3KX, as the new ARRL Third Call Area (W3) Incoming QSL Bureau Manager.** He fills the position of the late Fred Laun, K3ZO (SK), who passed away on January 3, 2023. There were some delays in the transition, and QSLs that were forwarded to the old PO Box were not able to be collected. Incoming QSLs that were sent between December 2022 and March 2023 were returned to the senders by the US Postal Service. Please send any returned QSLs and new shipments to the new address:

W3 QSL Bureau  
NCDXA  
PO Box 190  
Glenelg, MD 21737-0190

Amateurs who are in contact with active foreign QSL bureaus or international QSL managers are asked to pass this information along to them. Foreign bureau managers and international QSL managers are asked to contact Ference by email, so their mailing address and contact information can be updated for future business. All questions and inquiries sent to the new PO Box will be answered. Ference can be contacted directly at: Jack J. Ference, W3KX, Bureau Manager, ARRL Third Call Area Incoming QSL Bureau, [W3KX@arri.net](mailto:W3KX@arri.net).

### **Tornado Season and Amateur Radio**

Tornado season is fast approaching, and amateur radio operators will again play a key role in helping the National Weather Service (NWS) issue accurate and timely warnings. In fact, March through May is considered the most active period for tornadoes to develop.

The NWS reports there have already been 255 preliminary filtered reported tornadoes and 213 confirmed tornadoes in the United States in 2023. Worldwide, nine tornado-related deaths have

been confirmed, all of them in the United States.

January saw the third-highest number of tornado watches and confirmed tornadoes of any January on record in the United States. Additionally, the first two months of the year saw the fourth-highest number of confirmed tornadoes for the first 59 days of any year on record.

[The SKYWARN® \(weather.gov\)](#) Storm Spotter Program is available to anyone interested in helping the NWS track and report potentially dangerous weather. Anyone can become a SKYWARN weather spotter, and the information is available at the SKYWARN website. Most states have amateur radio networks that are activated during severe weather. Trained volunteers use their radios to report rapidly changing activity and share the information with local weather offices. A list of the states that have scheduled special weather awareness activities can be found at the [NWS Awareness and Preparedness Calendar \(weather.gov\)](#).

The NWS Forecast office in Norman, Oklahoma, uses amateur radio as one method of communicating with spotter groups and emergency management organizations. For decades, amateur radio operators have provided invaluable service in support of the SKYWARN storm spotter program by using their unique communications capabilities to share critical information between the NWS, the local emergency management officials, and storm spotter networks.

In 1999, the NWS, along with ARRL, founded SKYWARN Recognition Day to honor the voluntary contributions of thousands of amateur radio operators who play a critical role in keeping the public safe and informed about severe weather conditions. The day is celebrated on the first Saturday in December, and amateur radio spotters can earn awards for participating.

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 Arkansas/Louisiana/

Texas region, and is always reliably providing weather reports. Loper is an ARRL member.

To learn more about amateur radio licensing and SKYWARN visit [ARRL.org](#).

## USA Radio Orienteering Championships Set for April 19 - 23, 2023

Registration is now open for the 22nd USA Radio Orienteering Championships.

The event will be held April 19 - 23, 2023, at Cooper Lake State Park in Texas, and is hosted by the [New Mexico Orienteers](#), Albuquerque, New Mexico, using maps provided by [North Texas Orienteering](#) Association.

The [White Rock Lake Amateur Radio Club](#) will provide communications support.

The name Radio Orienteering has been transitioning to this new name but it is actually the same radio navigation sport known as Amateur Radio Direction Finding (ARDF). The sport involves using special radio receivers to find hidden transmitters in timed events.

USA ARDF Co-coordinator Gerald Boyd, WB8WFK, said the event is open to everyone of all age groups, and three medals will be awarded for first, second and third place in all groups. "We have events beginning with the Sprint," said Boyd. "Participants will have 60 minutes to find their transmitters. After that, three more events, the Fox -O, and two Classics events, all lasting three hours." Results of the competitions on April 20 - 23, 2023, will help determine the members of Team USA who will compete in the ARDF World Championships scheduled for the fall of 2023 in Liberec, Czech Republic.

Charles E. Scharlau, NZ0I, USA ARDF Co-coordinator, said they are hoping for a good turnout. "It is difficult to estimate attendance this year. We can accommodate up to 100 persons," said Scharlau. "Historically, we've had about 35 or fewer competitors in non-pandemic years, but

we are hearing rumors of many people who are eager to get out and do things, so perhaps attendance will be up this year."

Scharlau said this year everyone participating in or attending the event will need to pay a \$5.00 parking fee at the park.

Detailed information about registration and the event site can be found [here](#). More information about Radio Orienteering is available on the [ARRL website](#).

## In Brief...

**VOTA operations continue at a brisk pace, with tens of thousands of volunteer and W1AW portable contacts having been made.** All points for VOTA scoring must come through Logbook of The World uploads. As announced in the January 2023 issue of QST, this is not a QSL card event (there will not be any W1AW portable state activation VOTA QSL cards issued from ARRL Headquarters). Please do not send W1AW portable VOTA QSL cards for VOTA contacts to ARRL Headquarters. W1AW portable VOTA QSL cards received by ARRL Headquarters will not be acknowledged.

## World Amateur Radio Day Theme: Human Security for All

The International Amateur Radio Union (IARU) announced that Human Security for All (HS4A) will be this year's theme of [World Amateur Radio Day](#) on April 18, 2023.

The day is being celebrated with a 2-week operating event occurring April 11 - 25. Special

event stations will be operating from around the world, making two-way radio contacts to call attention to the HS4A campaign.



The [concept of human security](#) measures the security of an individual by things essential to one's well-being. This includes economics, food, health, the environment, personal factors, the community, and political factors.

Amateur radio is uniquely positioned to address those challenges by promoting technical knowledge, practical skills, innovative technology, and the deployment of backup systems at the community level that can be called upon in times of emergency.

IARU, a federation of the national amateur radio societies of over 150 countries worldwide, is the global advocate for amateur radio through its Sector Membership in the International Telecommunication Union, an agency of the U.N., and other activities.

The [United Nations Trust Fund for Human Security](#) and the [World Academy of Art and Science](#) are partnering with [IARU](#) in the campaign.

In a release, the partners wrote, "Amateur radio has repeatedly demonstrated its ability to address human security needs. It is a truly global communications medium comprising some three million radio enthusiasts connecting communities and the peoples of the world."

ARRL participates in World Amateur Radio Day each year. It was on this day in 1925 that the IARU was formed in Paris. ARRL co-founder Hiram Percy Maxim was its first president. For additional World Amateur Radio Day resources, visit <http://www.arrl.org/world-amateur-radio-day>.

Click the image below to watch a video about HS4A:

## State Proclamations Recognize Amateur Radio

Several states, counties, and communities across the US have officially recognized the public contributions of amateur radio in advance of [World Amateur Radio Day](#) (WARD) on April 18.

Connecticut Governor Ned Lamont has released an official statement designating April 16 - 22, 2023, as Amateur Radio Recognition Week. Members of the [Meriden Amateur Radio Club](#) (MARC) in Connecticut pursued the proclamation with the Governor's office. "We want the public to know that many of their friends and neighbors are amateur radio operators," said MARC President Ed Snyder, W1YSM. "Amateur radio is a worldwide community of volunteers who use their knowledge and skills to serve our communities," added Snyder.

Snyder said that his radio club participates in many outreach activities to help introduce ham radio to the public. Club members support demonstrations for schools, student groups, and scouts. The club also provides communications support for the National Weather Service storm spotting program, SKYWARN®, and an annual cycling event that benefits the Hole in the Wall Gang Camp. An annual scholarship is awarded to a deserving, local high school senior.

Snyder also cited the club's involvement with training members to provide emergency communications when disasters or other incidents damage or disrupt critical communications infrastructure, including cell towers. MARC is closely linked with the Wallingford Fire Department and the town's Medical Reserve Corps (MRC), and holds its monthly meetings at the Wallingford Emergency Operations Center.

"There are over 40 radio clubs in Connecticut. We're grateful for the Governor's recognition of our amateur radio community," noted Section Manager of the ARRL Connecticut Section Bud Kozloff, W1NSK.



A similar resolution was made by the Maine State Legislature, recognizing April 18, 2023, as World Amateur Radio Day, and acknowledging "the accomplishments and public service provided by amateur radio operators." The resolution was advanced by ARRL Maine Section Manager Phil Duggan, N1EP. Duggan said he pursued the resolution on behalf of all radio amateurs in the state of Maine.

The March issue of [ARRL Club News](#) encourages radio clubs to seek local government proclamations to build relationships and foster recognition for club events, and amateur radio in general. Proclamations are typically sought leading up to World Amateur Radio Day and ARRL Field Day. Radio clubs and other amateur radio groups are encouraged to share a copy of their proclamations with ARRL via [pr@arrl.org](mailto:pr@arrl.org). ARRL will often share the proclamations to advance legislative efforts, creating additional support of awareness for amateur radio among lawmakers.

Read the full text of the proclamations at [ARRL News](#).

ARRL members can subscribe to the free monthly Club News e-newsletter by visiting their account on the ARRL [website](#) (requires log in).

## Amateur Radio Included in FEMA Guide for National Emergency Preparedness

The Federal Emergency Management Agency (FEMA) has released a final version (March 2023) of the National Incident Management System (NIMS) Information and Communications Technology (ICT) Functional Guidance. The guidance, which provides a framework for communications resources within incident management, officially includes support from amateur radio operators. The expanded Communications Unit (COMU) structure now includes the Auxiliary Communicator (AUXC) role, which covers personnel from services that provide communications support to emergency management, public safety, and other government agencies. This includes amateur radio.

NIMS guides government, non-governmental organizations, and the private sector to work together to prepare for, respond to, and recover from disasters and other emergencies. "This is a major step in the recognition of the need and usefulness of amateur radio and other communications services in our national preparedness," said Josh Johnston, KE5MHV, Director of Emergency Management for [ARRL The National Association for Amateur Radio](#)®. "It also gives official guidance to pave the way for future training and education of volunteers in ARRL's [Amateur Radio Emergency Service](#)® (ARES®)," Johnston added.

The NIMS ICT guide (PDF) is available at [https://www.fema.gov/sites/default/files/documents/fema\\_ict-functional-guidance.pdf](https://www.fema.gov/sites/default/files/documents/fema_ict-functional-guidance.pdf).

## New Chief Named for Air Force Military Auxiliary Radio System

David L. Antry, Jr., WD9HBA, has been named Chief of the Air Force Military Auxiliary Radio System (MARS).

MARS is a Field Operating Agency of the US Air Force's Air Combat Command (ACC) and HQ Cyberspace Capabilities Center (CCC).

Prior to his new assignment, Antry served as a Logistics Manager in the 635th Supply Chain Operations Wing War Reserve Materiel Program Integration Office.

He enlisted in the US Air Force in January of 1985 and worked in Avionics. He received a Palace Chase assignment in 1989 and spent the rest of his uniformed career working in Avionics and Supply for the Air National Guard.



David L. Antry, Jr., WD9HBA, Chief, Air Force Military Auxiliary Radio System (MARS).

Antry retired from the 126th Air Refueling Wing at the Scott Air Force Base in October 2011 with the rank of E-7, Master Sergeant. In addition to his daily Air Force duties, Antry has voluntarily served with Air Force MARS since November 2012 as a member of the amateur radio community, operating both Very High Frequency (VHF) and High Frequency (HF) radio equipment.

Prior to being named Chief of MARS, he served as Operations Officer for the 51st Air Force MARS Communications Group.

Reid Snider, N4SPY, Public Information Officer of US Air Force MARS, said Antry brings with him a broad skill set for MARS operations. "Chief Antry has the understanding, knowledge, ability, and respect to help Air Force MARS plan and position its programs for communications of [the] future," said Snider.



Today, US Air Force MARS is an organization of about 800 licensed amateur radio operators who volunteer their time and radio equipment to assist government agencies in the event that normal communications channels are disrupted, either by natural calamity or deliberate hostile action.

MARS members are trained to meet the requirements of any communications emergency. In recent years, greater interoperability between the Air Force and the Army has facilitated accomplishment of this objective. Individual civilian MARS stations operate throughout the continental US alongside civil agencies and military MARS stations in the US and overseas.

Antry will be stationed at the Scott Air Force Base in Illinois. He has been a licensed amateur radio operator since 1977.

For more information about [Air Force MARS](#), visit their website.

**To raise awareness of World Autism Acceptance Week (March 27 - April 2), a team of international amateur radio operators will operate eight special event stations from March 25 through April 2, 2023.** According to the Center for Disease Control's Autism and Developmental Disabilities Monitoring Network, Autism spectrum disorder (ASD) affects about 1 in 44 children. The special event stations are sponsored by the Ten Mile River Scout Museum Amateur Radio Club, [W2TMR](#), in Narrowsburg, New York. Event stations W2A, GB2AA, GB2AAW, GB0AAW, 8A0RARI, 4X0AAW, HI0AUT, and S76A will be joined by more than 40 operators across the US and Puerto Rico and two dozen international operators from 19 countries on six continents. More information and QSL cards are available from the Ten Mile River Scout Museum Amateur Radio Club, W2TMR, at [QRZ.com](#).

**AMSAT needs volunteers for the Dayton Hamvention. Amateur radio's biggest event of the year is less than eight weeks**

**away at the Greene County Fairgrounds in Xenia, Ohio.** The 2023 Hamvention is May 19 - 21. AMSAT is a major Hamvention exhibitor with different displays, ranging from engineering, operations, educational relations, the AMSAT Store, and much more. In 2022, about 35 people assisted with the AMSAT booth. It was the efforts of those volunteers that made the 2022 Dayton Hamvention a success for AMSAT. The interaction with AMSAT members, satellite operators, designers, and builders make the whole experience a lot of fun. Would you consider helping AMSAT at the Hamvention this year? Whether you're available for only a couple of hours, or if you can spend the entire weekend with us, your help will be greatly appreciated. If you will be attending Hamvention and can help, please send an e-mail to Phil Smith, W1EME, AMSAT Hamvention Coordinator, at [w1eme@msat.org](mailto:w1eme@msat.org).

[A special thanks to Phil Smith, W1EME, AMSAT Hamvention Coordinator for the above information.]

**[Georgia State Parks on the Air](#) will be held April 1 - 2, 2023.** ARRL member Claude Ray, AC4SH, said all 50 state parks will be involved in this inaugural event. "The objective is to encourage ham radio operators to visit Georgia state parks and experience the fun of Parks on the Air activations. This is a fun contest only, the rules are minimal, the scoring is simple, and the main award is simply the fun of getting on the air," said Ray. The contest period begins at 8:00 AM EDT on April 1, and ends at 7:59 PM EDT on April 2. Operating hours are subject to park rules and times. Every station participating in the event and submitting a log will, upon request, receive a Certificate of Participation indicating the number of parks contacted. "Incredibly, we've had enough interest among Georgia hams that we now have at least one ham signed up at each of Georgia's 50 state parks," Ray added. "Many parks have multiple hams doing activations over both days. The enthusiasm for this event has been remarkable." More information and a complete list of rules can be found at [gaparks.org/rules](http://gaparks.org/rules).

**On February 25th, 2023, the Calvert Amateur Radio Association (CARA) participated in the 10th annual Science and Engineering Expo held at Calvert High School in Prince Frederick, Maryland.** CARA members Shawn Donley, N3AE; Andy Charland, KC3WRX; Les Silva, KH6CUJ, and Dale Sollars, KC3RKP, set up amateur stations for 2 meters, 70 centimeters, and HF. They helped introduce students and their family members to the wonder and fun of amateur radio operation. Handouts were available, including youth-specific flyers provided by ARRL. Recently, CARA has been exploring ways to reach out to the community, especially young persons, regarding the fun and science of amateur radio, which is a priority for ARRL. Even though the club's planning time was short, much of the supplies and operating equipment were close at hand due to the club's involvement with ARES® and RACES®. With that kind of experience, along with ARRL Field Day and other events that take place outside normal home station operations, club members had their gear ready to operate at this event. Some of the interesting things the attendees experienced included: HF contacts, different types of antennas, how their first name sounds in Morse code, and how ham radio works when other kinds of communications fail. Participants were also able to talk on the local 2-meter repeater system with local hams! The club's display received a lot of attention due to its proximity to the Expo's main entrance and attendee sign-in desk. At the club's request, the school staff arranged for them to be near an exit and away from participants, which allowed for coax cables to run to temporary antennas positioned outside. Erik Johnson, KC3QQD, CARA President, reported that the club, attendees, and event organizers said it was very exciting and they are looking forward to next time! CARA would like to thank Dr. Yovonda Kolo, Supervisor of Science and STEM of Calvert County Public Schools, for the opportunity to participate.

*[ A Special thanks to Erik Johnson, KC3QQD, CARA President for the updated information.]*

**Letter from Reader:** "[The] inclusion of our recent call for engineering volunteers for our FOX-

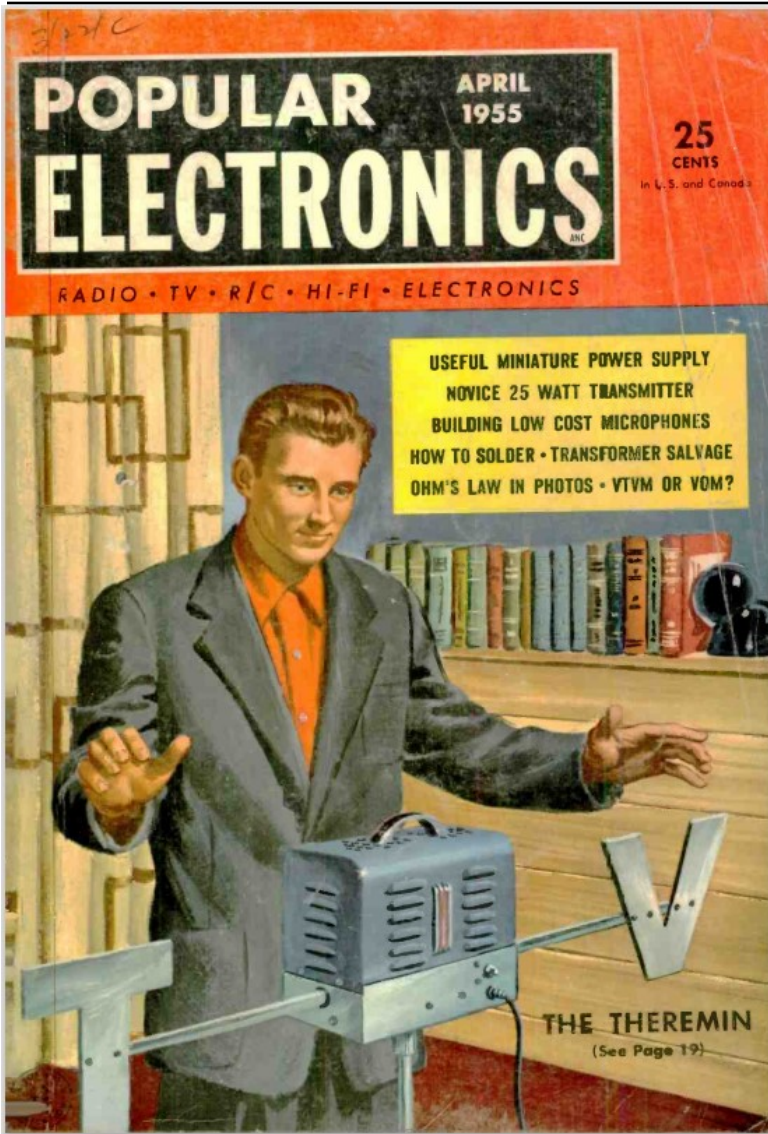
PLUS and GOLF satellite programs really paid off. We received over a dozen emails from highly qualified mechanical and electrical engineers offering to join the team. I think that speaks to the consistently high quality of the stories you report and the wide readership of the ARRL Letter. Congratulations!" -- Frank Karnauskas, N1UW, AMSAT Vice President, Development.

**John Gibbons, N8OBJ, introduced the Grape Version 2 at the 2023 HamSCI Workshop that was held March 17 and 18 at the University of Scranton in Pennsylvania.** Grape is a high frequency (HF) Doppler receiver that is used as a low cost, personal space weather station (PSWS). The project was created for ionospheric research. The Grape collects Doppler measurements of time standard stations, like WWV in Fort Collins, Colorado. The data is used by professional and academic researchers to learn about solar flare impacts and geomagnetic storms. Grape receivers can be easily deployed by amateur radio operators. A video introducing the Grape Version 2 is available on ARRL's [YouTube channel](#).



**The ARRL Laboratory is looking for two new staff members to join our team in Newington, CT.** The Digital RF Engineer will serve as the subject matter expert in the areas of digital RF and RF-based networking topologies, including LAN- and WAN-based systems. The Senior Lab Engineer will perform a wide range of technical duties in support of ARRL publications, membership services, and spectrum defense objectives. Visit the ARRL website for complete job descriptions at [www.arrl.org/careers](http://www.arrl.org/careers). Those interested may send their resumes and cover letters to ARRL HR Manager Luci Goodwin at [hr@arrl.org](mailto:hr@arrl.org). *ARRL is an equal opportunity employer.*





### Helicopter Finds Ideal Antenna Height

THE German TV station at Torfhaus (Harz) solved the problem of finding the best antenna height for a new transmitter by putting a portable unit in a helicopter and hovering over the spot where the tower was to be built. The 'copter stayed at each altitude for four or five minutes while 21 receivers noted the strength of the signals and reported back to a base camp. Tests were used to find if the antenna of the new station should be as low as 150 feet, or as high as 900 feet. The tests took two weeks and saved the future station several thousand dollars in research expenses.



By H. B. SMITH,  
W8VVD

*Amateur transmitters can be inexpensive and simple enough for a novice to build. Here is an example.*

**O**PERATING a novice ham station is not only interesting, but one of the few hobbies where the participants can enjoy every minute of it with an outlay of only a few dollars. Catalogue prices of radio transmitters are disheartening when the pocketbook is thin, but putting a transmitter together for the novice ham bands is not an expensive proposition. This article describes a complete, easily-constructed transmitter that costs about \$20.00—if all the parts are purchased new. Or, the novice may purchase it in kit-form to save himself the trouble of punching holes in a suitable chassis. The photographs show the appearance of the completed transmitter.

#### Assembling the Parts

The first step to be taken after deciding to build this transmitter is to make a list of the parts required and to take it to the nearest ham radio jobber or distributor. Ask for someone interested in ham radio—they generally have at least one ham on the staff—and get the salesclerk to take the parts out of stock, or to make suitable recommendations, if substitutions are required. Don't worry about substituting other manufacturers' parts for the ones shown in our list. Radio parts of the specifications can be used regardless of the manufacturer. In the case of the

power transformer  $T_1$ , we strongly recommend the one specified, because of the physical size and shape. A larger transformer will require a larger chassis and a smaller one might not do the necessary work without overheating.

#### Wiring and Construction

This transmitter has been made very compact and the wiring procedure must be followed step-by-step. If it is not, the builder may find himself with the problem of squeezing one part into the space already occupied by another component previously soldered in place.

Punch out the chassis holes for the four tube sockets with a *Greenlee Punch*, or comparable tool. Mount all of the sockets as shown in Fig. 1 with their keyways exactly in the positions in this drawing (this is *very* important). Now mount the two rotary switches,  $S_1$  and  $S_2$ . The power transformer,  $T_1$ , is put in place with the color coded leads facing the directions shown in Fig. 1. Put a small soldering lug under the mounting nut in the lower left hand corner. Then bolt down the "terminal strip" with another soldering lug—this time under the right hand nut.

Begin the wiring by twisting the two yellow leads together and then cutting and soldering them, one to pin 2, and the other to pin 8 of the 5Y3GT tube socket. Take

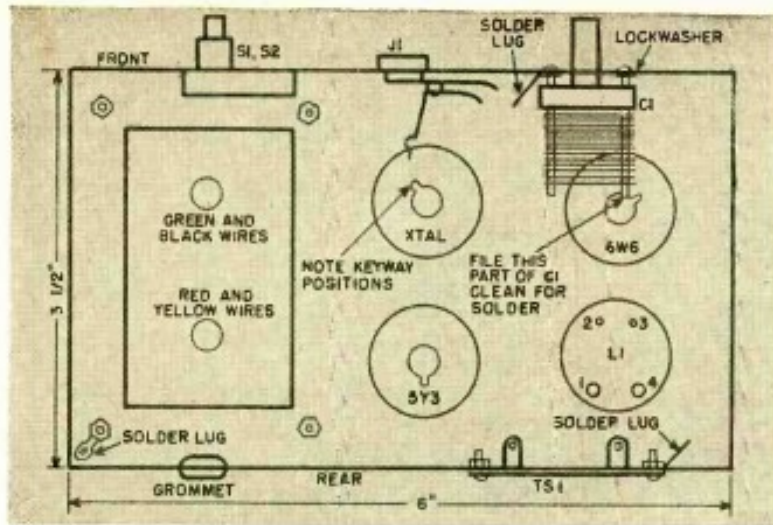


Fig. 1. This bottom view of the chassis shows the placement and orientation of the most important parts of the transmitter.

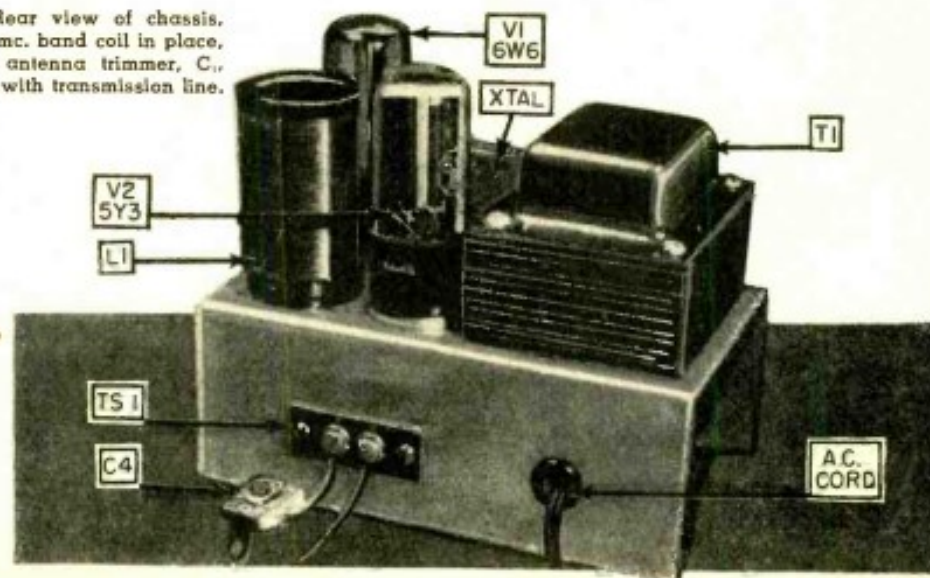
the red/yellow lead and the green/yellow lead of  $T_1$  and solder them to the soldering lug in the corner. Now run one red lead from  $T_1$  to pin 4 of the 5Y3GT socket and the other red lead to pin 6. Twist the two green wires together and cut and solder them, respectively, to pins 2 and 7 of the 6W6GT socket. The last step in the transformer wiring is to cut one of the black wires so that it will connect to pin 1 of the 5Y3GT socket and the other black wire to connect to pin 3. These pins are unused by this tube so it is safe to use them in place of soldering lugs.

Cut and solder one of the leads from  $S_1$  to pin 3 of the 5Y3GT socket. The other

$S_1$  lead is connected to pin 5 of the 5Y3GT socket. The line cord runs through a grommet at the rear of chassis and is soldered to pins 1 and 5 of the 5Y3GT socket.

To put the filter capacitor  $C_2$  into the circuit, solder the red positive lead to pin 8 of the 5Y3GT. The black, or negative lead is soldered to the lug near  $T_1$ . Leave about  $1\frac{1}{2}$  inches of wire on the positive lead before cutting and soldering. Now take the two resistors,  $R_1$  and  $R_2$ , and twist their leads together so that they are parallel to one another. Then solder one of these twisted leads to pin 8 of the 5Y3GT and the other to the soldering lug under

Fig. 2. Rear view of chassis, with 3.7 mc. band coil in place, showing antenna trimmer,  $C_1$ , in series with transmission line.



April, 1955

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one mounting screw for the terminal strip.

With some hookup wire run a lead from pin 8 of the 5Y3GT to pin 2 of the  $L_1$  coil socket. Another lead should run from pin 2 of  $L_1$  to pin 4 of the 6W6GT socket. Now cut one lead of  $C_1$  so that it is  $\frac{1}{2}$  inch long and also solder it to pin 4 of the 6W6GT. Leave the other lead temporarily disconnected. Run a lead from pin 5 of the 6W6GT to pin 4 of the crystal socket. Connect together pins 1, 4, 5, and 8 of the crystal socket with a single piece of bare wire. Do the same to pins 2, 3, 6, and 7. Then solder a wire about  $1\frac{1}{2}$  inch long to pin 3 of the crystal socket. Leave the other end temporarily disconnected.

Shorten one lead of  $R_2$  (33,000 ohms) until it is  $\frac{1}{2}$  inch long and solder to pin 7 of the crystal socket. Fasten one lead of  $RFC_1$  to pin 5 of the same socket. Shorten, twist and solder the leads from  $R_2$  and  $RFC_1$  together.

Put a rubber grommet in the upper center hole on the front of the chassis. Press  $PL_1$  into it until approximately  $\frac{1}{4}$  inch of the glass bulb protrudes beyond the grommet (see photograph). Carefully solder to the tip of  $PL_1$  one of the leads from switch  $S_2$  and a short lead running to the terminal strip. The other lead of  $S_2$  is soldered to the threaded portion of  $PL_1$ . Also run a wire from the threaded base of  $PL_1$  to pin 4 of the  $L_1$  socket. Then solder a wire between pin 1 of the  $L_1$  socket and

the last free tab on the terminal strip.

Mount  $C_1$  with a long soldering lug under the left hand screw as shown in Fig. 1. To make sure that the rotor plates of  $C_1$  are grounded, solder a short lead from the wiping contact to the soldering lug. Then solder in the free wire running from pin 3 of the crystal socket to this lug. One end of  $C_2$  is still hanging free and this should also be soldered to the lug under  $C_1$ .

Trim the leads of  $C_2$  until it will just fit between pin 8 of the 6W6GT socket and the grounding lug under  $C_1$ . Short pieces of spaghetti tubing should be fitted over these bare leads before they are soldered into place. Resistor  $R_3$  now has its leads trimmed until it will fit between pin 3 of the 6W6GT socket and pin 3 of the coil  $L_1$  socket. A short wire is then soldered between the fixed plates (stator) of  $C_1$  and pin 3 of the coil socket. The connection to  $C_1$  is made at the ends of one of the support arms.

The last few wiring steps include mounting  $J_1$  and soldering a lead from unused pin 7 of the 5Y3GT socket and the springy contact of  $J_1$ . Then trim the leads of  $R_1$  and put on short lengths of spaghetti tubing. Solder  $R_1$  between pins 8 of the 6W6GT socket and 7 of the 5Y3GT.

### Tuning Up the Transmitter

We have now completed wiring the transmitter and it may be tested (provided of

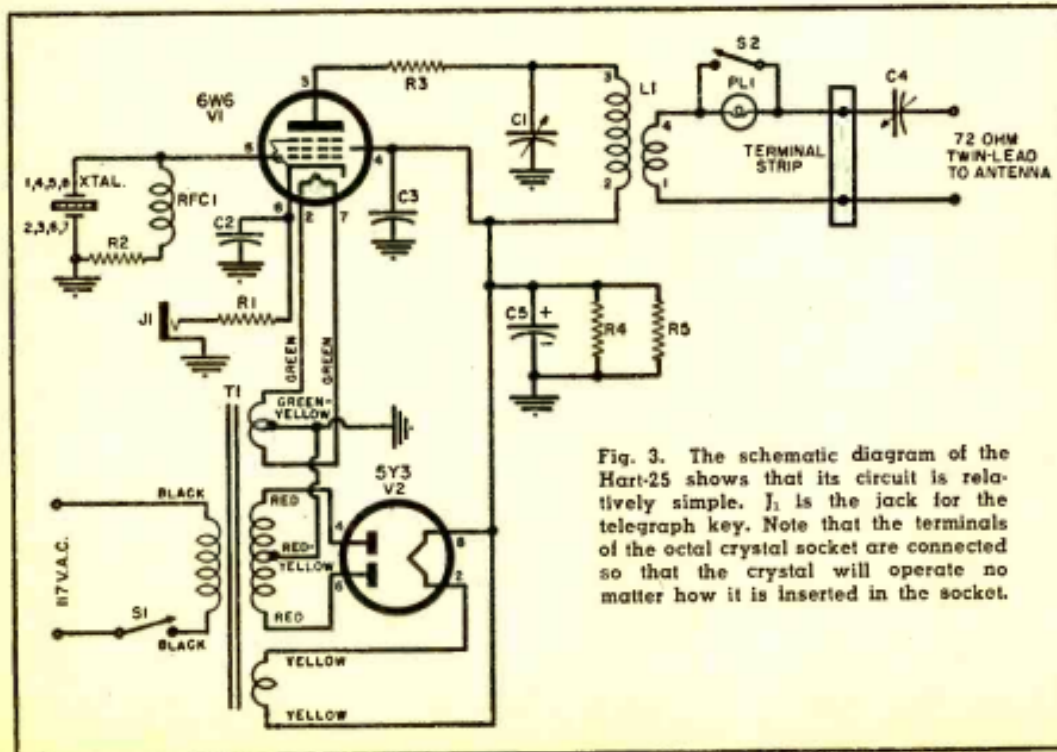


Fig. 3. The schematic diagram of the Hart-25 shows that its circuit is relatively simple.  $J_1$  is the jack for the telegraph key. Note that the terminals of the octal crystal socket are connected so that the crystal will operate no matter how it is inserted in the socket.

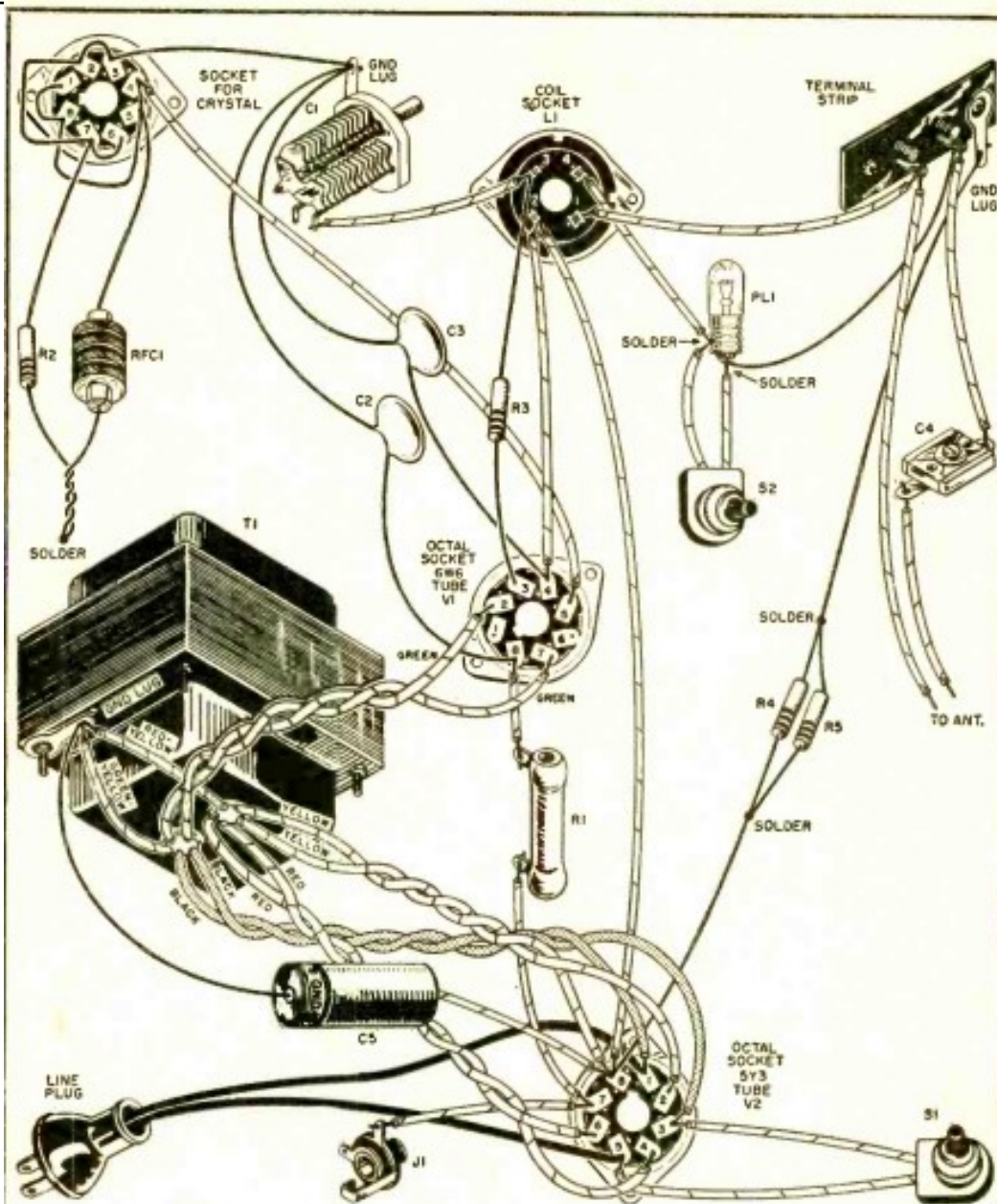


Fig. 4. The pictorial wiring diagram of the transmitter shows how the parts are connected; relative positions of the parts are not the same as on the actual chassis.

*R*<sub>1</sub>—250 ohm, 5 w, wirewound res.  
*R*<sub>2</sub>—33,000 ohm, ½ w, res.  
*R*<sub>3</sub>—27 ohm, 1 w, res.  
*R*<sub>4</sub>, *R*<sub>5</sub>—330,000 ohm, 1 w, res.  
*C*<sub>1</sub>—140 μfd, variable capacitor (Hammarlund APC 140 with short length of ¼" shaft added)  
*C*<sub>2</sub>, *C*<sub>3</sub>—.01 μfd, disc ceramic capacitor  
*C*<sub>4</sub>—25-280 μfd, mica padder capacitor  
*C*<sub>5</sub>—20 μfd., 500 v., electrolytic capacitor  
*J*<sub>1</sub>—Open circuit phone jack  
*L*<sub>1</sub>—3.7 mc. band; Plate coil 31 turns, #20 enamel closewound; Antenna coil 18 turns, #20 enamel closewound; ICA type 2158 coil form

*L*<sub>1</sub>—7 mc. band; Plate coil 16 turns, #20 enamel spaced diameter of wire; Antenna coil 13 turns, #20 enamel closewound; ICA type 2158 form  
*RFC*<sub>1</sub>—2.5 mhy, r.f. choke  
*S*<sub>1</sub>, *S*<sub>2</sub>—S.p.s.t. rotary switches (H and H type 41047)  
*T*<sub>1</sub>—Power transformer, sec 650 v.c.t. @ 40 ma., 5 v. @ 2 a., 6.3 v. @ 2.0 a. (Stancor type PM-8406)  
**TERMINAL STRIP**—2 screw terminal strip  
*V*<sub>1</sub>—6W6GT tube  
*V*<sub>2</sub>—5Y3GT tube  
*PL*<sub>1</sub>—#45 pilot bulb  
*XTAL*—3.7 mc. or 7 mc. transmitting crystal  
 Misc.—Screws, nuts, wire, solder



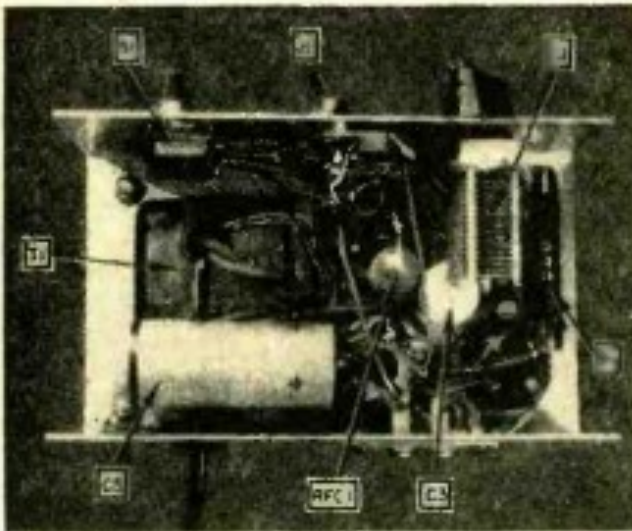


Fig. 5. Bottom view of the Hart-25 chassis. Most of the major components are visible, except the socket for  $V_1$ , the 6W6GT, which is hidden by the variable tuning capacitor,  $C_1$ .

course, that the builder has a novice or ham ticket). Best results will always be obtained if a resonant antenna is used with this type of transmitter. Many antennas have been described in the various handbooks for amateurs. Make sure that the length of the antenna fits the operating frequency. Connect the lead from

the antenna to the "terminal strip" with capacitor  $C_1$  in series with one lead.

Plug in the tubes, coil, crystal, and telegraph key. Turn on  $S_1$  after the a.c. line cord is connected. Hold the key down and rotate  $C_1$  until  $PL_1$  glows. If the bulb does not glow it may be that  $S_2$  is shorting it out. Throw  $S_2$  and then attempt to make  $PL_1$  glow. After it has started to glow, rotate  $C_1$  and  $C_2$  to get maximum brilliance. When it is glowing the brightest, the transmitter is drawing between 22 and 26 watts and is putting out around 9 watts of c.w.

When the transmitter is tuned, throw  $S_2$  to short out  $PL_1$  again. It may be used occasionally to check the tuning, but when left continuously in the circuit it will burn up valuable antenna power.

*Warning:* This transmitter is safe according to modern electrical standards. However, do not work on it while the a.c. line cord is connected. Electric shocks can be fatal.

A kit containing all of the parts and components used in the construction of this transmitter is available from *Hart Industries*, 467 Park Ave., Birmingham, Mich. Additional information may be obtained by writing to the above address. END

## Tower accident report - DON'T work alone! (Be sure to read this)

*I am writing in response to your request for additional information.*

In Block No. 3 of the accident report form, I put "Poor planning" as the cause of the accident. You said in letter that I should explain more fully, and I trust that the following details will be sufficient.

**I am an Amateur Radio operator.** The day of accident, I was working alone on the top section of my new 80 foot antenna tower. When I had completed work, I discovered that I had, over the course of several trips up the tower, brought up about 300 lbs. of tools and spare hardware. Rather than carry the now unneeded tools and material down by hand, I decided to lower the items in a small barrel by using a pulley which, fortunately, was attached to the top of the tower.

**Securing the rope at ground level,** I went to the top of the tower and loaded the tools

and materials into the barrel. Then I went back to the ground and untied the rope, holding it, tightly to insure a slow decent of the 300 lbs. of tools. You will note in block number eleven of the accident form that I weigh 155 lbs. Due to my surprise at being jerked off the ground so suddenly, I lost my presence of mind and forgot to let go of the rope. Needless to say, I proceeded at a rather rapid rate up the side of the tower. In the vicinity of the 40 foot level, I met the barrel coming down. This explains my fractured skull and broken collarbone. Slowed only slightly, I continued my rapid ascent, not stopping until the fingers of my right hand were two knuckles deep into the pulley.

**Fortunately, by this time, I had regained my presence of mind** and was able to hold tightly to the rope in spite of my pain. At approximately the same time however, the barrel hit the ground and the bottom fell out of the barrel. Devoid of the weight of

the tools, the barrel now weighted 20 lbs.

I refer you again to my weight in Block No. 11. As you might imagine, I began a rapid descent down the side of the tower. In the vicinity of the 40 foot level, I met the barrel coming up. This accounts for the two fractured and the lacerations of my legs and lower body. The encounter with the barrel slowed me enough to lessen my injuries when I fell onto the pile of tools and, fortunately, only three vertebrae were cracked. I am sorry to report, however, as I lay there on the tools, in pain, unable to stand, and watching the empty barrel 80 feet above me, I again lost my presence of mind.

**I LET GO OF THE ROPE!**

*Author unknown  
Originally written with the victim as a bricklayer and was converted to ham radio by another unknown writer.*

April 2019

PAGE 5



May 1982



ANTENNA ART? . . . Burnie Nobles and Donnie Hudson make final adjustments to a double stacked "Boomer Jr." array on Donnie's tower recently. The results of the system were not

available at presstime. The job took the two "monkeys" about 1½ hours to complete with the help of Murray Adams and Tommy Forrest.

ARLB004 W1AW 2023 Spring/Summer Operating Schedule

ZCZC AG04

QST de W1AW

ARRL Bulletin 4 ARLB004

From ARRL Headquarters

Newington CT March 13, 2023

To all radio amateurs

SB QST ARL ARLB004

ARLB004 W1AW 2023 Spring/Summer Operating Schedule

Morning Schedule:

Time	Mode	Days
1300 UTC (9 AM EDT)	CWs	Wed, Fri
1300 UTC (9 AM EDT)	CWf	Tue, Thu

Daily Visitor Operating Hours:

1400 UTC to 1945 UTC - (10 AM to 3:45 PM EDT)

Afternoon/Evening Schedule:

2000 UTC (4 PM EDT)	CWf	Mon, Wed, Fri
2000 " "	CWs	Tue, Thu
2100 " (5 PM EDT)	CWb	Daily
2200 " (6 PM EDT)	DIGITAL	Daily
2300 " (7 PM EDT)	CWs	Mon, Wed, Fri
2300 " "	CWf	Tue, Thu
0000 " (8 PM EDT)	CWb	Daily
0100 " (9 PM EDT)	DIGITAL	Daily
0145 " (9:45 PM EDT)	VOICE	Daily
0200 " (10 PM EDT)	CWf	Mon, Wed, Fri
0200 " "	CWs	Tue, Thu
0300 " (11 PM EDT)	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 2230 UTC (6:30 PM EDT), 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 0000 UTC (8 PM EDT) Thursdays and 0000 UTC (8 PM EDT) Fridays.

Audio from W1AW's CW code practices, and CW/digital/phone bulletins is available using EchoLink via the W1AW Conference Server named "W1AWBDCT." The monthly W1AW Qualifying Runs are presented here as well. The CW/digital/phone 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](mailto: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.

FCC licensed amateurs may operate the station from 1400 UTC to 1945 UTC (10 AM to 3:45 PM EDT) Monday through Friday. 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 complete W1AW Operating Schedule may be found on page 28 in the March 2023 issue of QST or on the web at, <http://www.arrl.org/w1aw-operating-schedule>.

**BARC Website, some Blog  
page Titles****\*\*\* Membership Dues\*\*\***

Even more than this on the  
website.

Feel free to view, comment and  
add.

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](mailto:Treasurer@w4amc.com).

Thank you for your continued support and participation in BARC.

**\*\*Renew/Join Now\*\***  
**Help Support 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](https://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](https://www.redcross.org/get-help/disaster-relief-and-recovery-services/contact-and-locate-loved-ones.html)

Facebook Safety Check  
[www.facebook.com/about/safetycheck](https://www.facebook.com/about/safetycheck)

Hurricane Watch Net  
[hwn.org](http://hwn.org)

VOIP Hurricane Net  
[voipwx.net](http://voipwx.net)

Amateur Radio at the National Hurricane Center  
[www.WX4NHC.org](http://www.WX4NHC.org)

FEMA - Federal Emergency Management Agency  
[www.fema.gov](http://www.fema.gov)

Ready.gov - Plan ahead for disasters  
[www.ready.gov](http://www.ready.gov)

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

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## 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

March 2021 Newsletter (Editors Note:  
Great way to learn and practice)

A new Great Lakes Winlink Net 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 Projects, Michigan Section; and Official Relay Station From ARES*

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 Simplex 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
- ◆ PARC Bath Repeater 146.955 PL Tone 131.8 1st Thursday of month at 2000 hours

### HF

- Tar Heel Emergency Communications Net on 3923 kHz Nightly 1930.
- PARC Tuesday net 3.807Mhz SSB 1900 hours(EST)
- 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),

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**Ten-Tec Legacy**

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](http://www.groups.io) (search for Ten-Tec Legacy nets).

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**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](mailto: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.

## Antennas for Sale

Little Tarheel II with mount. \$150

Hustler 6BTV Vertical Antenna \$100

offered by Kirk Blackmon N5NC in Washington, NC, Contact: [n5nc@msn.com](mailto:n5nc@msn.com)

## Cushcraft R-7 vertical antenna,

In very good condition, works very well, covers 10-40m.

I want to give it to a new ham who is working to get onto the HF bands. Will help install. Free to a good home.

Gary Faust NG9T in Blounts Creek.

[gfaust1963@gmail.com](mailto:gfaust1963@gmail.com)

March 2023

I am dealing with an estate containing several table model and console BC sets. Please help me connect with anyone in our area who may be interested

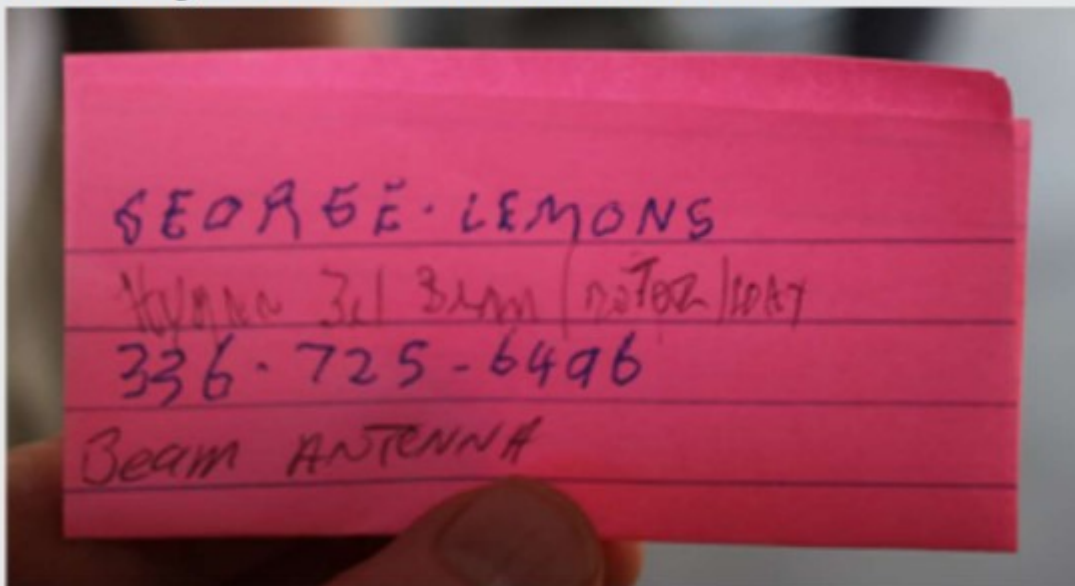


in these. I doubt there are any hidden gems, but it's not my field. There are also some low frequency ARC-5 receivers, two SX-42, and one R42 speaker. email: infomet <at> embarqmail <dot> com

Thanks, Wilson, W4BOH

### HY-GAIN BEAM/ROTOR/COAX

Hy-Gain Tribander beam, with rotor and coax. On the ground. Call George Lemons 336 Seven Six Two 6496



# 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!**

No Charge for Ham's selling or looking for items.

### 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

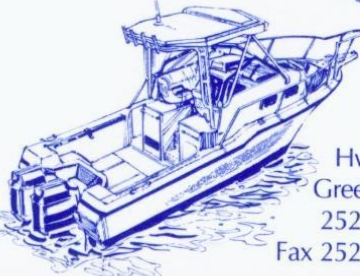
<http://www.pcra.us/>

*Monday & Monday, CPA's, PA*  
 Certified Public Accountants

TERRY A. MONDAY, CPA, CVA, EA  
**K4ZYD**

105-D East Victoria Ct. Phone (252) 321-6007  
 Greenville, NC 27858 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>

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# CALENDAR OF EVENTS

## *Contest, Events and Meetings*

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

- April 1-2 . . . . . [Georgia State Parks On the Air](#)
- April 1 -- RSGB FT4 International Activity Day (digital)
- April 1 - 2 -- PODXS 070 Club PSK 31 Flavors Contest (digital)
- April 1 - 2 -- EA RTTY Contest (digital)
- April 1 - 2 -- Louisiana QSO Party (CW, phone, digital)
- April 1 - 2 -- Mississippi QSO Party (CW, phone, digital)
- April 1 - 2 -- Missouri QSO Party (CW, phone, digital)
- April 1 - 2 -- Florida State Parks on the Air (CW, phone, digital)
- April 1 - 2 -- SP DX Contest (CW, phone)
- April 3 -- RSGB 80m Club Champ, (CW)
- April 4 -- ARS Spartan Sprint (CW)
- April 5 -- UKEICC 80m Contest (phone)
- April 11 . . . . . BARC Meeting, 6:30pm
- April 15 . . . . . BARC Breakfast 9am Great harvest Company, Greenville
- April 16 . . . . . Rookie Roundup (SSB)
- April 20 . . . . . **Pamlico** Meeting 7pm
- April 25 . . . . . BARC Board 7pm Zoom
- May . . . . . No ARRL events
- May 9 . . . . . BARC Meeting 6:30pm
- May 13 . . . . . BARC Breakfast 9am
- May 18 . . . . . **Pamlico** Meeting 7pm
- 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, Field Day Prep
- June 15 . . . . . **Pamlico** Meeting 7pm
- 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 Zoom
- July 8-9 . . . . . [IARU HF World Championship](#)
- July 11 . . . . . BARC Meeting
- July 15 . . . . . BARC Breakfast

July 20 . . . . . **Pamlico Meeting 7pm**  
 July 25 . . . . . BARC Board 7pm Zoom  
 Aug 5-6 . . . . . [222 MHz and Up Distance Contest](#)  
 Aug 8 . . . . . BARC Meeting 6:30pm  
 Aug 12 . . . . . BARC Breakfast 9am  
 Aug 12-13 . . . . . [EME - 2.3 GHz & Up](#)  
 Aug 17 . . . . . **Pamlico Meeting 7pm**  
 Aug 19-20 . . . . . [10 GHz & Up – Round 1](#)  
 Aug 20 . . . . . [Rookie Roundup – RTTY](#)  
 Aug 29 . . . . . BARC Board 7pm Zoom  
 Sept 9-10 . . . . . **Bike MS: New Bern**  
 Sept 12 . . . . . BARC Picnic, Dave Woods 6pm (Still to be confirmed)  
 Sept 16 . . . . . BARC Breakfast 9am  
 Sept 21 . . . . . **Pamlico Meeting 7pm**  
 Sept 26 . . . . . BARC Board 7pm Zoom  
 Oct 10 . . . . . BARC Meeting 6:30pm, **Speaker:** Dale Burmester, About FT8 Digital mode.  
 Oct 14 . . . . . BARC Breakfast 9am  
 Oct 19 . . . . . **Pamlico Meeting 7pm**  
 Oct 31 . . . . . BARC Board 7pm Zoom Reports please for the Chatter  
 Nov 14 . . . . . **BARC Meeting and Elections for Board, 6:30 pm**  
 Nov 16 . . . . . **Pamlico Meeting 7pm**  
 Nov 18 . . . . . BARC Breakfast 9am  
 Nov 28 . . . . . BARC Board meeting 7pm  
 Dec ? . . . . . BARC Christmas Party, TBA  
 Dec 26 . . . . . BARC—No Board Meeting

## 2024 Starts Here:

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.

**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.

**Year-long -- [ARRL Volunteers On the Air \(VOTA\)](#). See also the State Activations Schedule for weekly [W1AW Portable Operations](#) including these:**

April 5 - April 11 Pennsylvania W1AW/3

April 5 - April 11 Oregon W1AW/7

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## CALENDAR OF EVENTS

### Upcoming Section, State, Division Conventions and Hamfest

2023:

**April 7 - 8** | [Green Country Hamfest](#), hosting the ARRL Oklahoma Section Convention, Claremore, Oklahoma

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

**April 15** | [Sussex Amateur Radio and Electronics Expo](#), hosting the ARRL Delaware State Convention, Georgetown, Delaware.

**May 7** | [Warminster Amateur Radio Club Hamfest](#), hosting the ARRL Eastern Pennsylvania Section Convention, Bristol, Pennsylvania

May 13 | [ARRL Nebraska State Convention](#), Lincoln, Nebraska

**May 19-21**, Dayton Hamvention, Greene County Fairgrounds and Expo Center near Xenia Ohio, <https://hamvention.org/> (Or May 19-26 per ARRL newsletter)

**June 2- 4**, [SEA-PAC](#), hosting the ARRL Northwestern Division Convention, Seaside, Oregon

**June 3**, [Atlanta Hamfest](#), hosting the ARRL Georgia Section Convention, Marietta, Georgia

Search the [ARRL Hamfest and Convention Database](#) to find events in your area.

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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**