

THE YCARS TRANSMITTER



Ham Radio News, Events and Information

YCARS Club House - 2051 Squire Rd. Rock Hill, SC 29732 – Mailing Address YCARS PO Box 4141 C.R.S., Rock Hill, SC 29732

Contents

Pg.2 – Welcome, Contest and Hamfest Calendar

Pg.3 – From NJ4Z’s Hamshack

Pg.7 – Radio Expedition Calendar

Pg.7–YCARS in Action

Pg.9 –YCARS Aware -Club News and Updates

January Club Activities

Every Wednesday 18:00 local – Club open House

Thursday Jan 5, Contest Team 18:00-20:00

Thursday, Jan 12, Business Meeting clubhouse and virtual 19:30

Friday Jan 13 – Monthly Simplex Net 146.580MHz – 21:15

Thursday, Jan 19, YC ARES Meeting – clubhouse and virtual 19:30

Thursday Jan 25, October Presentation Meeting – Clubhouse and Virtual 19:30 Hillary AB1CD – Basic CPR and AED use

2023 YCARS Officers

PRESIDENT – AB1CD
HILLARY RAMSEY

VICE PRESIDENT – K4TTM
Theo Moore

TREASURER – K4DQP
DARCY PACH

SECRETARY – KG9V
SCOTT PUTNUM

CUSTODIAN – KD4RNP
WAYNE REEVES

TRUSTEE – NJ4Z
JOHN GENDRON

YCARS Net Schedule

2 Meter Morning Net
Weekdays Mon-Fri
11:00 K4YTZ Repeater
147.030MHz (-) pl 88.5

2 Meter Evening Net
Weekdays Mon-Sun
20:30 K4YTZ Repeater
147.030MHz (-) pl 88.5

ARES 2 Meter Weekly
Net Mondays 19:30
K4YTZ Repeater
147.030MHz (-) pl 88.5

Monthly Simplex Net –
2nd Friday of the month
21:15

Welcome to the YCARS TRANSMITTER

Vol.3 No.1 January 2023

Hello everyone,

Happy 75th Anniversary to the York County Amateur Radio Society!!!! Founded in 1948 YCARS has been providing service and education to York County radio amateurs for 75 years. It has expanded membership to other states as well over the years and continues to grow.

We are pleased to announce we will be adding a DX-Pedition column "Radio Expeditions Calendar" to the Transmitter. This column will outline ongoing and upcoming DX-Peditions. It should be very helpful to those of our members who chase DX.

John Gendron, NJ4Z reviews successes of 2022 and looks forward to 2023 in "From NJ4Z's Hamshack"

On Page 8 you will find NJ4Z's design and build for the Emergency Scrap Antenna Build Challenge issued by MOMCX on the DX Commander YouTube Channel

On Page 12 you will find the YCARS Aware Column.

Please consider writing and article for the newsletter, as the saying goes, "Many Hands Make Light Work,"

We would also like to thank those who contributed this month to the Transmitter.

Until next month, all the best and much DX....

73

The Transmitter Staff

Jan 2023 Contest Calendar

1/7 – RTTY Round-up
18:00UTC
1/7 – ARRL Kids Day
18:00UTC
1/14 – N America QP CW
18:00UTC
1/21 – N America QP SSB
18:00 UTC
1/21 – ARRL Jan VHF
19:00UTC
1/28 – Winter Field Day
19:00UTC

Upcoming Local Hamfests

1/14 – Greenwood ARC –
Piedmont Tech College, J
Medford Center– 630 South
Emerald Rd, Greenwood, SC
0900h

3/10 - 3/11 – Charlotte
Hamfest – Mecklenburg ARS
Cabarrus Arena & Event
Center 4551 Old Airport Rd
Concord, NC 3/10 1500-1900h
3/11 0830-1600h

4/8 - Raleigh Hamfest – RARS
– NC State Fairgrounds,
Raleigh, NC



From NJ4Z's Hamshack

Musings from the Editor

Greetings YCARS Family,

2022 has come and gone. Welcome to 2023 and YCARS 75th Anniversary Celebration.

I want to wish everyone a Happy, Healthy, Prosperous New Year. I also want to thank W3SPC for his amazing leadership and effort over the last two years as club president. We should all welcome and congratulate our new incoming leadership team for 2023; President Hillary Ramsey, AB1CD, Vice President, Theo Moore, K4TTM, Treasurer Darcy Pach, K4DQP, Secretary Scott Putnum, KG9V, Custodian Wayne Reeves KD4RNP and Trustee John Gendron, NJ4Z.

As I reflected back on 2022, although a personally and professionally challenging year for, it was an amazing year for my amateur radio hobby and for our club. So, let's take a quick trip down 2022 Memory Lane



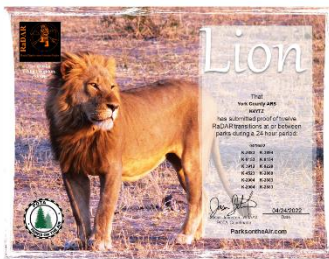
January 2022 – The Club participated in great Winter Field Day

February 2022 – Club Officers John Gendron, NJ4Z, Darcy Pach, K4DQP, Scott Putnum, KG9V, and Steve Czaikowski, W3SPC represented YCARS at Hamcation in Orlando Florida.

The Club participated in the **SC QSO Party** and brought home the 1st place Plaque for a Multi/Multi station



March 2022 – The YCARS Public Service Team provided communication support for the Sandblast Rally Race in Cheraw, SC

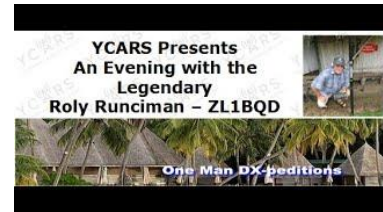


The Club also Participate in the Spring Parks on the Air Support Your Parks event and one team of Vicki, AD3I, Theo, K4TTM and Jason, K4HEF completed a Lion RaDAR Activation, 12 parks in 24 hours.



The Antenna refresh project was completed, with a very generous donation by Comporium Communications of the use of a bucket truck and manpower to install the new 5 band Yagi, 17m Yagi and 6m Yagi on the towers at the club house.

April 2022 - For the April Presentation Meeting we were joined by ZL1BQD Roly Runciman from New Zealand to talk about one-man DXpeditions in the South Pacific.



May 2022 – The YARCS Public Engagement provided a demonstration of Amateur Radio to residents of the Blake in Fort Mill, SC Team Until next month – Stay Passionate about Ham Radio and Be Your Best Ham!

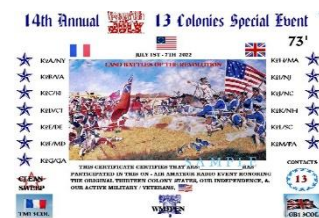


The Public Service Team was at it again in May as we provided communications for the Mike Doty Run in Fort Mill, SC. 13 operators from the club manned the command center, course positions and the YCARS booth in the vendor area.

June 2022 – YCARS participated in a very successful and fun ARRL Field Day at Westminster Park in Rock Hill, SC. 20+ club members manned the 3 stations for 24 hours. The Club completed several satellite contacts, but the best of the bunch was working NA1SS – 1D-DX the International Space Station low Earth orbit.



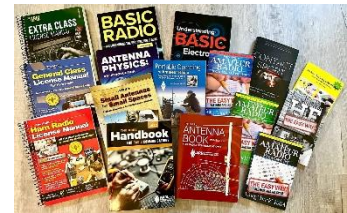
July 2022 – YCARS had a big month in July 2022. Many of our members were part of the K2L operators for the 13 Colonies special event station. During the week of the Independence Day the K2L team logged 26,527 contacts and took home the Top State Activator Award.





The 3rd weekend of July was Parks on the Air “Support Your Parks” Plaque weekend. 13 members of the YCARS contest team operated from 6 parks and completed 5,238 contacts to win the event for the second straight year and cementing its reputation as the best POTA Club in the country. We also had a visit from our most distant active club member Andy Moran, AA0AM and his wife attended the July Club Meeting and participated in SYP.

August 2022 - YCARS members noticed the York County Library only had one book on the subject of amateur radio. With a generous donation to the club from a member YCARS donated sixteen amateur radio books to the York County Library



YCARS also held the watch party at the clubhouse for the Support your Parks Awards ceremony over 30 members attended and were overjoyed to be bringing home the hardware again for 2022.

September 2022- September was another exceptionally busy month for YCARS the first weekend of September YCARS attended the Shelby Hamfest with a booth teaming with members and visitors. YCARS promoted the club and the upcoming Rock Hill Hamfest.



The second weekend in September saw the YCARS Youth Engagement Team out at several SC State Parks with the Girls Scouts Love State Parks Program helping the young ladies earn their Radio Communication Badge.

In September an article about YCARS’s rebirth was featured as the inaugural “Club Station’ in the ARRL’s QST magazine.



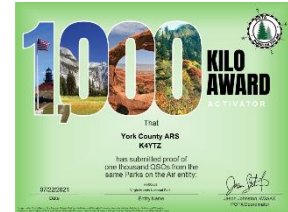


October 2022 – YCARS member Linda Fox KM4GSF was featured in the ARRL “On Air” magazine Connecting with Others column with Vicki AD3I.

The club also had to postpone the Rock Hill Hamfest due to Hurricane Ian. The YCARS club picnic at Chester State Park went off without a hitch and was well attended.



November 2022 – YCARS member John Gendron, NJ4Z operated as a DX station from Virgin Island National Park K-0066 to earn YCARS their first DX Kilo award. Operating under the KP2/K4YTZ callsign John logged 1285 contacts from the park.



November also saw the rescheduled 69th Annual Rock Hill Hamfest at Covert Presbyterian Church. It was well attended for a reschedule hamfest and a great success for the club.

December 2022 -The YCARS Youth Engagement Team was active again in December with a presentation to the STEM education team at Fort Mill School District. The meeting resulted in an engagement with 450 students at Pleasant Knoll Middle School scheduled for January 2023.



Girl Scouts Receive ARRL Radio and Wireless Technology Patches

On Saturday, September 10, 2022, the York County Amateur Radio Society (YCARS) in Rock Hill, South Carolina, helped 22 Girl Scouts earn their ARRL Radio and Wireless Technology patch.

Created in 2016, the Radio and Wireless Technology Patch Program offers Girl Scouts opportunities to learn about wireless technology. Including amateur radio. Girl Scouts are encouraged to participate in activities that help them gain knowledge and skills in subjects that involve science, technology, engineering, and mathematics (STEM).



The program activity was part of the Girl Scouts Love State Parks annual event. YCARS Outreach Coordinator Vicki Carnes, AD3I, and six other club members presented the program. Other hams were available to help the Girl Scouts get on the air and communicate.

Carnes said some of the most enjoyed activities included a hands-on demonstration of Lenz's law that used copper tubing and a magnet, making string telephones out of tin cans, and coding and decoding words

54 December 2022 QST www.arrl.org

The December issue of the ARRL QST Magazine also featured YCARS and the Youth Engagement Team for the second time in this calendar year An Article about the Girls Scout Event was featured in the Happenings column.

YCARS also held its annual Christmas party in December.

All in all, it was a wonderful and successful year for the club. We all look forward to what the club can accomplish in 2023. Congratulations again to the club and the new incoming leadership.

John Gendron, NJ4Z - Editor, YCARS Transmitter

"Radio Expeditions Calendar"

Helping You Chase the DX

This Calendar is based upon reported upcoming DX-peditions to DX locations around the globe. Great source for DX-pedition information DXnews.com

Jan 1, 2023 – April 1, 2024 FH4VVK (Marek, F4VVJ) will be active on Mayotte a French owned island off the coast of Africa in the Indian Ocean.

Jan 1 – 18, 2023 6W/WA3DX (Earl, WA3DX) will be active from several locations (Dakar, Mbao, Kaolack and Saloum Islands) in Senegal

Jan 1, 2023 – March 2023 FT4YM (David, F4FKT) will be active on the continent of Antarctica from various locations.

Jan 1, 2023 – Jan 31, 2023 FT8WW (Thierry, F6CUK) will be active on Crozet Islands Southern Ocean the #3 requested Dx entity

Jan 1, 2023 – Jan 31, 2023 RI1ANU (Oleg, ZS1OIN) will be active at the Novolazarevskaya Station in Antarctica

Jan 1, 2023 – Jan 31, 2023 ZS7ANF (Oleg, ZS1OIN) will be active at the Wolfs Fang Runway in Antarctica.

Jan 1, 2023 – March 13, 2023 HR5/F2JD (Gerard, F2JD) will be active in Copan Ruinas, Honduras, Central America

Jan 1, 2023 – Feb. 24, 2023 C5YK (Andre, ON7KY) will be active from Bijilo, Gambia, Africa.

Jan 1, 2023 – Mar. 31, 2023 VK9WX (Sands, VK4WXW) will be active from Willis Island Australia

Jan 1, 2023 – Jan 31, 2023 RI1ANC, RI30ANT (Alex, RG1A) will be active at the Vostok Station in Antarctica

Jan 1, 2023 – Mar. 15, 2023 TR8CR (Roland, F8EN) will be active from Gabon, Africa

Jan 3, 2023 – Jan 21, 2023 D44TWO (Harald, Df2WO) will be active from Praia, Santiago Island, Cape Verde (Africa)

Jan 6, 2023 – Jan 20, 2023 TN8K (Peter, OK1BOA, Palo, OK1CRM, Pavel OK1GK, Ruda, OK2ZA, Karel, OK2ZI and David, OK6DJ) will be active from Congo Republic, Africa

Jan 12, 2023 – Jan 24, 2023 T33BA (Norbet, DF6FK) **and T33BB** (Judith DL2ZAD) will be active from Banaba Island, Oceania South Pacific

Jan 13, 2023 – Jan 19, 2023 T88RH (JR6DRH) will be active from Koror Island, Palau, Oceania, South Pacific.

Jan 13, 2023 – Jan 19, 2023 T88AQ (Kazuyoshi, JH6WDG) will be active from Koror Island, Palau, Oceania, South Pacific.

Jan 13, 2023 – Jan 19, 2023 T88SM (Mike, JA6EGL) will be active from Koror Island, Palau, Oceania, South Pacific.

Jan 24, 2023 – Feb. 8, 2023 V47JA (W5JON) will be active from St Kitts Island, Caribbean.

3Y0J – Bouvet Island, South Atlantic #2 requested DXCC entity. The team of 12 will leave the Falkland Islands on or about Jan. 14 and should be operating late in January. Updates to follow via E-mail and Facebook.

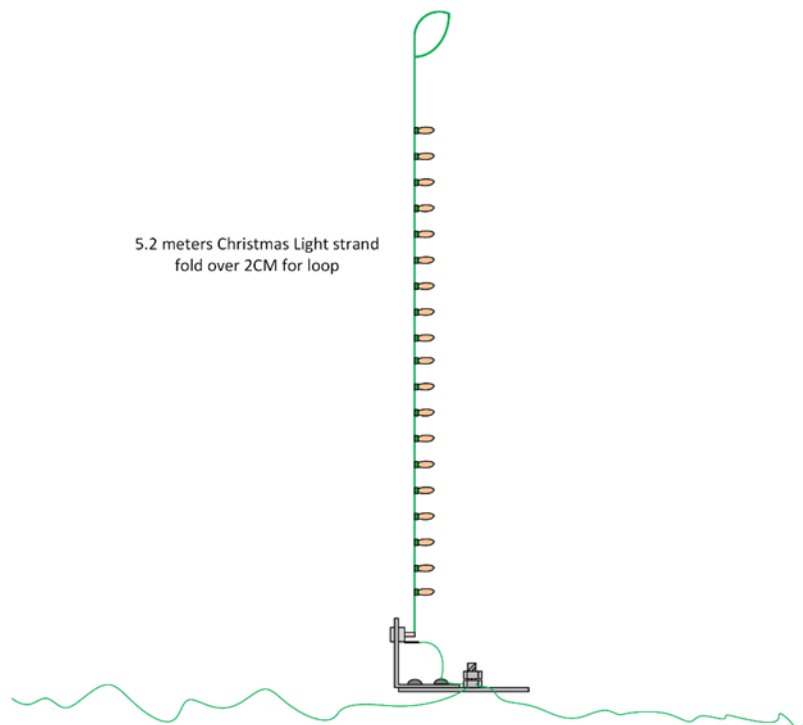
THE WORKBENCH

HAM RADIO PROJECTS, TIPS AND TRICKS

Emergency Improvised Scrap Antenna – John Gendron, NJ4Z

In Early December of 2022, Callum McCormick, M0MCX, also known as the DX Commander, put forth a challenge on his YouTube channel. The challenge was a build-off competition to create an improvised emergency antenna from scrap material laying around. Link to the video <https://www.youtube.com/watch?v=fxFg6UavC0c>. This was not a homebrew finished antenna project. The design parameters required a simple vertical on for use on 20meters and could have no more than 40meters of total ground radials.

I always enjoy a good challenge and set off to have a go at it. I routed through the boxes of excess materials and junk laying around in the ham shack and garage. After much thought and spit balling, I settled on the idea of making the antenna from Christmas Lights. I had just finished putting up the lights outside and had made the determination that I had 5 or 6 sets that needed to be scraped or donated the Christmas Thrift Shop that benefits the York County Humane Society. I pulled two of the set of lights and some other material and begin the build.



The basic design for the antenna was as simple as I could make it and not be a home brew project. It also needed to be something you could improvise quickly. I started with a radiating element made of 5.2meter of Christmas lights. You must use incandescent bulbs as LED lights will not work to radiate RF. The radial field would be made up of four 5-meter radials from the extra wire from the disassembly of the light string. I needed a way to get the coax from the radio to the antenna so I built a plate that would house a scrap RCA connector I scavenged from an old piece of paging equipment, and allow for the connection of the radiating element and radials.

The loop at the top of the element is to allow connection to a rope which can be thrown over a tree branch at 16feet or higher above ground.

Build was quite easy – separating the Christmas lights was the most time consuming and tedious portion of the project. Overall build video <https://youtu.be/-m77N0NpU6Y>



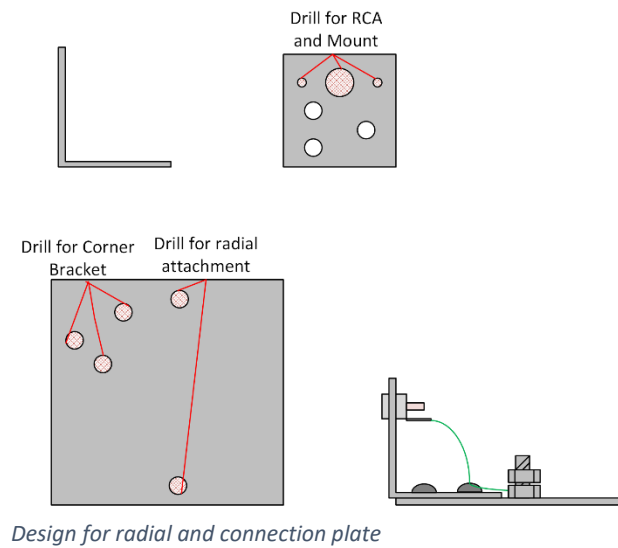
Dissected Christmas light string

Materials List

- 1 – 2" X 2" corner bracket
- 1 – 4" blank box cover
- 5 - #6 machine bolts
- 5 - #6 nuts
- 2 – ¼" x 2" machine bolts
- 4 – ¼" nuts
- 1 – scrap RCA connector
- 1 – 100 strand incandescent Christmas lights
- 1 – small wire nut
- Electrical tape

Construction and Assembly of Antenna

- Drill 3/8" hole in corner bracket for RCA
- Drill 2 – 1/8" holes in corner bracket for RCA mount
- Drill 3 – 1/8" holes in 4" cover plate to match corner mount bracket
- Drill 2 ¼" holes in 4" cover plate for ¼" Machine bolts
- Disassemble Christmas lights and save all wire
- Cut one section of light strand to 5.2 meters
- Fold over 2 centimeters of the light strand to form a loop and use electrical tape to secure (use Field Day tag)
- Strip one end of the light strand to connect to scrap RCA cable with small wire nut.
- Cut the leftover wire to the Christmas lights into 4 x 5meter sections for radials
- Install RCA connector to corner bracket
- Attach corner bracket to the 4' plate
- Install the 2 ¼ bolts with nuts.
- Install 4 radials to the 2 ¼" bolts, strip wire and wrap on screws and secure with ¼ nuts.
- Use a throw rope to get line up in a tree and pull up antenna to vertical and spread radials out on the ground

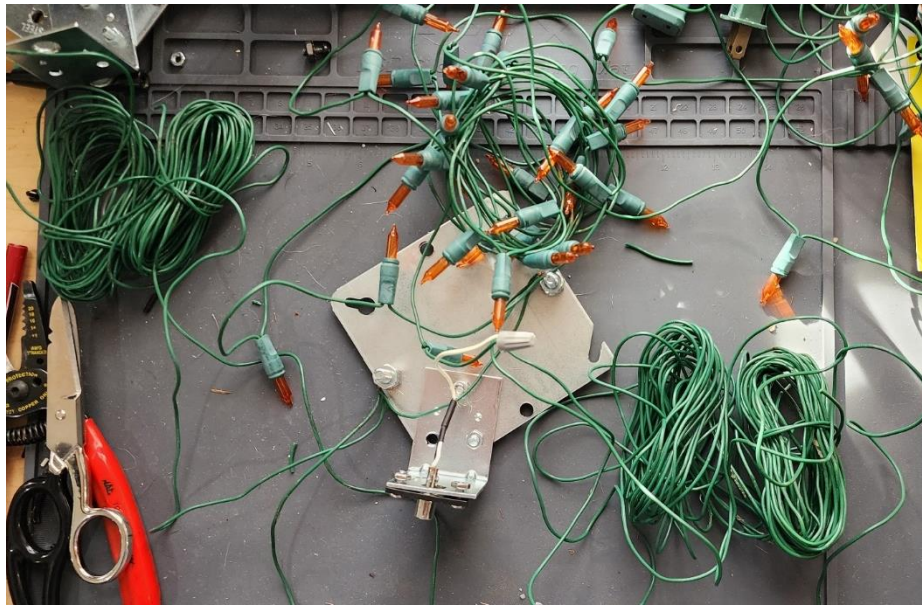


Design for radial and connection plate

Completed assembly ready for testing

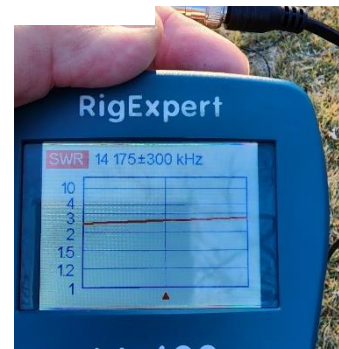


Completed Radial/Connection Plate



Completed antenna ready to be deployed

I used 100ft of RG58u coax from the radio to the antenna, with two sections of 20ft coiled up at the feed point and before the radio to choke any common mode currents coming in. I was quite surprised the SWR was as low as it was for the antenna on first test. The overall impedance for the system was 93 ohms, with a resistive component of 75 ohms. It was wide banded with a 2.4: 1 SWR at the lowest point and a 2.7:1 at the highest point within the band. My guess is the impedance of the lights is why this antenna is so broad banded.





Antenna assembled and deployed in the field

The internal tuner on the radio had no issues tuning the antenna at all. Reception was good on the antenna was able to hear stations from all over the US.

The first test was 20watts to make sure there was no possibility of damaging the radio or myself. Ramped up power to 50 watts and you could start to see the lights illuminate. At 100watts from the FT-DX10 the lights brightened significantly. I made 5 contacts on the antenna 2 POTA operators, one in Texas (Video link for contact

<https://www.youtube.com/shorts/gnqVudxVcdM>) and one in Arkansas. I also called CQ and worked three stations one in Arkansas, one in NY and one in Arizona. The antenna is light weight and easy to transport.

It was an awesome experiment and a fun build. I submitted the antenna to Callum for the contest. That same day Callum reached out to me and asked if I would like to be a judge for the challenge. It is hard to say no to an offer like that, so I recused my entry and decided to be a judge for the two livestreams covering the 40+ entries. Links to the judging livestreams.

Part 1

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

Part 2 <https://www.youtube.com/watch?v=S7Vf3CL8Idk>

I also took the concept one step further and built a full-on DX Commander out of Christmas lights with three elements for 4 bands (40,20,17 &15M). Video Links

<https://www.youtube.com/shorts/GmhzU1fsP8k>

<https://www.youtube.com/shorts/9zOACVXkRBk>

I hope this build inspired to take on a challenge and build something new. It is just amazing to watch and judge the ingenuity of operators who can design and build these kinds of antennas that work.

Until Next TIME – Be Your Best Ham.

YCARS News and Updates

Be YCARS Aware

YCARS – Welcomes **6** new club members in the last Quarter of 2022 and total of **37** for 2022 – continuing to grow.

Please extend a very warm welcome to all of our new members from 4th Quarter 2022

Name	Call Sign
Sheila Dills	KQ4DOU
William Adams	N4ICW
Ana Goforth*	K4BAX
Chris Metzl	NB9V
Chris Reeves	KR4EZ
Lawrence Yerkes	KB2ETY

*Returning past Member

YCARS – NEW SWAG SITE

The YCARS leadership team with help from the communications and IT teams created a YCARS Store on the Printful Website. The new store has T-shirts, sweatshirts, jackets, mugs and more you can purchase. Proceeds go to the general operating fund of YCARS.

YCARS SWAG store is <https://www.printful.com/dashboard/sync?store=8966314>

ARRL Unveils Volunteers On the Air Operating Event.

As announced in the January 2023 issue of *QST* (see announcement link above), ARRL is celebrating a year-long operating event honoring all ARRL volunteers: **Volunteers On the Air**.



In similar fashion to the 2014 ARRL Centennial Celebration, and the 2018 International Grid Chase, this event will be exclusively driven only by QSOs uploaded to Logbook of The World (LoTW).

Highlights of the event include:

- **Earning Points for contacting W1AW Portable Stations:** There will be week-long activations of portable W1AW/# stations in all 50 states, and in several US Possessions/Territories, that will generate on-air activity to earn points. Each state will be activated twice. The schedule of when which states will be activated as posted in the dashboard above will be updated as changes/additions occur. See the POINTS TABLE for the full list of points.

- **Contacting ARRL Volunteers or Members on the air:** ARRL Officers, Directors, Section Managers (and their appointees), Staff, and even Members domestically (and DX) can be contacted for points. See the POINTS TABLE for the full list of points.

Using Logbook of the World (LoTW – see <http://www.arrl.org/logbook-of-the-world>) as the QSOs data source, the 2023 Volunteers On The Air event features W1AW activations from all 50 states (twice) and several territories during 2023. Weeks will begin on a Wednesday and end on a Tuesday. Some weeks will be shown as off weeks to avoid other major operating events.

Participants will work W1AW portable stations and ARRL volunteers (see links in dashboard at top of this page) to earn QSO points.

Participants do not need to upload to, or participate in LoTW. Uploads to LoTW by W1AW portable stations and by the volunteers will feed the points scoring system. [Participants are not required to be ARRL Members. Even so, we encourage all Amateur Radio operators who are not members to consider joining the comradery with our 160,000+ current members. When joining, you'll discover support, inspiration, and advice to elevate your Amateur Radio experience.]

A Leaderboard will be activated after the event ramps up, and Certificates will be available during and after the event concludes. Once the year is completed, a final summary will be released.

The York County Amateur Radio Society

www.YCARS.org

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