

# 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

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### November 2021 Club Activities

- Every Wednesday 18:00 local – Club open House
- Thursday, Nov.4 Radio Room Operating Night 18:00-20:00
- Thursday, Nov 11 – Business Meeting – Clubhouse/Teams 19:30
- Friday Nov 12 – Monthly Simplex Net – 21:00

### 2021 YCARS Officers

- PRESIDENT – W3SPC  
STEVE CZAIKOWSKI
- VICE PRESIDENT –  
KM4WLS PHILIP  
CHANDLER
- TREASURER – K4DQP  
DARCY PACH
- SECRETARY – KN4KCD  
RON PRYOR
- 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 –  
2<sup>nd</sup> Friday of the month  
21:15

# Welcome to the YCARS TRANSMITTER

Vol.1 No.11 November 2021

Hello everyone,

November is here and what a great October we had!!! Now bring on the Holiday Season....

This month, in the transmitter – NJ4Z gives us a look back at October and also explains why the October Presentation meeting was so important to him as an operator, in the From the Hamshack feature.

Joe, W8DKR gives us a lesson on Smith Charts, which we use in determining the efficiency and impedance of our antenna systems, in this month's Octogenarian Observations column.

We also have a fairly new member of the club, Brian Ferguson, KO4PQT giving us details on getting an antenna farm growing in your attic, due to HOA restrictions

And as always, we have the Boneyard, YCARS AWARE and Wall of Arrogance columns as well as, a welcome to new club members.

Please consider writing an 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

73

The Transmitter Staff

## Nov 2021 Contest Calendar

11/6 – NA Sprint -SSB  
Contest 00:00UTC

11/6 – ARRL  
Sweepstakes - CW  
21:00UTC

11/13 – Worked All  
Europe - RTTY 00:00  
UTC

11/20 – ARRL  
Sweepstakes-SSB  
21:00UTC

11/27 – CQ WW - CW  
00:00 UTC



# From NJ4Z's Hamshack

## Musings from the Editor

What an awesome October... Rock Hill Hamfest, Club POTA activation, a visit from DX Commander, and the CQ Worldwide DX SSB contest...

We are through October and on to November. I look back at October and am just amazed at all we accomplished in the club. We had a successful Hamfest on October second. It was wonderful to see the great turnout we had and such beautiful weather. We had a very successful POTA activation with many club members getting their feet wet as activators and working the pile-ups!!!! We participated the in the CQ Worldwide DX contest, training new operators for the contesting team.

The highlight of the month for me was the visit by DX Commander, M0MCX. I have followed Callum since I was new to amateur radio. I have learned much from his YouTube channel. His ability to make the complex simple and deliver content in an entertaining way, is what keeps me coming back. In the process of following his product and the channel, I began to experiment with antennas and their design. I have built several successful antennas that club has used for field days and other activities. The confidence I gained by watching and learning has been invaluable to my experience as an Amateur Radio operator. I learned how to model my designs in MMANA-GAL software and in doing so I can design antennas and build them with confidence that they will be performers. What I have learned has helped me share my knowledge and what I garnered from Callum to other amateurs. It all adds to the experience. I hope you found the presentation valuable and let you expand your possibilities.

On another note, Cycle 25 is really ramping up, conditions on the high bands have been great over the last month. We are seeing the SFI in the 100+ range on a regular basis. It really made a huge difference during the CQ Worldwide DX contest. Just casually operating and working almost exclusively on 15 and 10 meters, I was able to work 79 different DXCC entities and 26 zones in just over 175 contacts. I am working on closing out my 5 band DXCC and I fairly certain I managed to complete 15Meters this weekend and put a huge dent in the number of entities I needed on 10meters. I wanted to work more 80 meters but conditions were so good it was difficult for a lot time to 80 when 10 and 15 were gangbusters. I will have more time during the winter and spring to work DX on 80, I hope to have the 5 band DXCC complete by the end of 2022. As a quick aside, 12meters and 17 meters were great during the contest as well. I did some rag-chewing with some great operators during the weekend.

I have to tell you, the deeper we going into cycle 25 I get more excited. We all have another couple of big contests this month to help the DX contacts rolling CQ WW DX CW and the ARRL Sweepstakes. So, get out and join in the fun.

So, until next month, stay passionate about Amateur Radio... 73 - NJ4Z out

John Gendron, NJ4Z - Editor, YCARS Transmitter

## Octogenarian Observations with Joe W8DKR

November 2021 Smith Chart:

The Smith Chart was introduced in my first course in transmission lines. I wondered why it was necessary since it was easy to plug numbers in an equation and use the slide rule to get the answer (1964). Yet the Smith chart is still used today (2021), but it is computer generated. There are books and college course about the Smith Chart and many excellent youtube videos done by professionals. What is confusing is most people say impedance when they mean characteristic impedance. The characteristic impedance is determined by the physical dimensions and materials of the coaxial line. In amateur radio the characteristic impedance is 50 ohms. The actual impedance of a coaxial line is the magnitude and phase of the voltage divided by the magnitude and phase of the current at any location on the coaxial. It is expressed as a real part(resistive) and + or - a reactive part. See <https://www.arrl.org/files/file/Technology/tis/info/pdf/q1106037.pdf>

## “Getting on the Air”

Helping New Hams Advance

### Getting on the Air in a HOA

By: Brian Ferguson- KO4PQT

I thought I would share some of my very brief experience attempting to get a station set up in less-than-ideal circumstances using attic antennas and running 100 watts. If anyone else is in a similar situation and has been considering the attic dipole option, I hope this helps. Everyone’s situation is going to be unique, but maybe this gives some idea of what you may expect.



2M/70CM J-Pole Antenna

My house is in an HOA governed neighborhood on a postage stamp sized lot with power lines running about 60 feet away at the rear of the lot. I have no good option for an antenna and a very noisy suburban environment as well. I searched the web for some type of compromise antenna that might work for my situation and saw that there were some folks putting antennas in their attic space. After reading through message board posts and whatever other info I could find from people who had shared their experiences I decided to give it a try.

I started with a j-pole for 2 meters/70 cm. I chose Dr. Ed Fong’s DBJ-1 as it was inexpensive, simple to install, and is well reviewed. I managed to run some coax up through the wall into the attic and got it hooked up. I was able to hit most of the 2-

meter repeaters within roughly 30 miles of me and make contacts. Encouraged by the results, I decided to try a dipole for HF.



*20-17-15 Fan Dipole*

I now have a half wave dipole for 6-meters, one for 10-meters, a 20-17-15-meter fan dipole, and an off center fed 40 -meter dipole. Not sure if it is due to inexperience on my part or the poor environment, but I was not able to get the 20-17-15 antenna to work using the 15-meter leg. I could not get it resonant, and it would interact with and make 17-meters unusable. I settled for just using the 20 and 17-meter legs. Fortunately, the 40-meter off center fed, which is an 82%-18% split each side of the feed point with a 4:1 balun, is resonant on 15-meters so I am able to use that band (it is also resonant on 20-meters but doesn't seem to transmit on that band as well as

the fan dipole). I had just enough space to run the wires for the 10-meter and 20/17-meter antennas in straight lines at roughly 60 degrees to each other. The off center fed dipole is run in an "L" shape around the perimeter of the roof line. I have the 6-meter dipole hung in what is more or less an inverted "V".

I obviously have limited performance, and there is a degree of frustration involved as my noise levels are high, digging out signals can be challenging, and I know there are a lot of signals that I cannot hear. I am probably more at the mercy of the band conditions than most and I get a lot of unpredictable interference from neighborhood noise, appliances, the power lines, etc. due to my location. I average about an S-4 noise floor, sometimes a little better and often worse. It is far from ideal, but I am on the air and making some contacts. I am able to work some limited DX, hunt POTA activators, and chase some of the special event stations. When I get what I believe to be an honest signal report from DX stations, it is typically a 5/4 to 5/7. It takes some patience to get through a moderate pile up and small miracle to get through a big one. I typically need to tinker with my receiver settings to eliminate as much noise as possible to get a good signal and headphones really help. However, I do routinely make SSB contacts into Europe and South America, and I was able to work a lot of the special event stations for both 13 Colonies and Route 66 on the Air. I don't have a lot of experience operating the digital modes, but I have been able to make contacts using FT8 and FT4.



*10 M Dipole*

All in all, I am satisfied with the results and feel it was worth the time and expense. Despite all the limitations, the results have been better overall than I expected. I can use the 40, 20, 17, 15, 10, and 6-meter bands only having to use the built-in tuner on the radio to touch up about a 2:1 SWR at the high end of the band on 40-meters. I think I can improve that to close to 1.5:1 with a little more trimming which will have to wait until the weather cools off. I have done all the crawling around in the attic in the summer heat that I can take.



*40 Meter OCF Dipole*

I am hopeful that this new sun cycle improves band conditions in the near future, as in my brief experience with seeing some days with more favorable band conditions it has made a big difference in what signals I am able to hear and work. Someday I hope to have a better antenna solution. In the meantime, I will just keep making what contacts I can and continue to have fun and try to keep learning.

I would add that one thing I will take away from this experience is that am forever grateful to all the stations that have had the patience and made the effort to make a contact with me. I have been pleasantly surprised at how often another operator has picked up my signal and taken the time to complete a QSO with me even when it means digging me out of the noise and asking me to repeat my call a few times. I am always thankful for any contact I make.

## THE YCARS BONEYARD

A place to sell, trade or find Ham related Equipment

WB4JR – Jimmie Rogers – less than a year old 1KW amp - Ameritron AI-80B HF linear Amplifier - for \$1,450.00 and a Diawa CN-901 SWR meter \$75.00 – Please call 803-517-4003

KM4KGH – “the Bear” is offering a Wouxun KG-UV899 Dual Band HT for \$60.00, Radioddity GD-77 DMR Dual Band Hand Held for \$60.00 and TYT- TH-9800 Quad Band 70cm/2m/6m/10m FM mobile for \$185.00 Call 803-372-8487

K4Ytz – the club has several items for sale – please see [YCARS Boneyard – Page 1 – K4Ytz – YCARS](#) for details.

## YCARS News and Updates

Be YCARS Aware

### 69<sup>th</sup> Rock Hill Hamfest Report – October 2<sup>nd</sup> 2021

The 69<sup>th</sup> Rock Hill Hamfest was a great success for the club. It was very well attended and we had absolutely beautiful weather for the event. Below are the reported metrics for the Hamfest and the comparative analysis.

Paid Admissions – 247 (+ 50 Attendees over 2019)

Paid Tailgate posts – 49 (+15 spots over 2019)

Paid vendor tables – 20 (-30 tables from 2019)

Raffle tickets sold – 279 (+133 from 2019)

Total Income for the event – \$3,688.25

Admissions	\$	1,235.00
Raffle	\$	915.00
Tailgate	\$	490.00
Vendor	\$	340.00
Kitchen	\$	371.25
Club Table	\$	337.00
Total	\$	3,688.25

Total Expenses for the Event - \$ 851.94

Venue	\$	300.00
Shelby Table	\$	50.00
Table Rental	\$	286.76
Ticket printing	\$	100.40
Food Expense	\$	114.78
Total	\$	851.94

Net Profit for the event - \$ 2,836.31

Profitability: 76.90%

2019 results

Income: \$ 5,022.75

Expenses: \$ 1,446.82

Profit: \$ 3,575.93

Profitability: 71.20%

Comparative Analysis: Although total revenue and profit from the event we reduced from 2019. The event was very successful in light of the challenges of dealing with Covid-19 and supply chain issues.

We did not have the opportunity to conduct early raffles at other hamfests in 2021 as we did in 2019 – Those raffles resulted in \$ 609.00 in added revenue for 2019.

We did not perform much of the planned promotional and presales visits to other clubs. This was due to inconsistencies in other club's meetings and our inability to find volunteers within our organization to perform the club visits. Although we did not do as much promotion of the event we still had improved attendance, for the event.

Our recruitment of tailgate vendors at the Shelby Hamfest, showed good results as we had an increase of 70% in tailgates spots for the event. We also had some larger tailgate vendors with much more desirable product.

We faced significant challenges with recruiting inside vendors, between supply chain and pandemic issues our inside table sales were down 60%. Several of long term vendors like AC/DC and DB&J Electronics have ceased operations. Other vendors like Buy Two-Way Radios and the Wireman had supply chain and other personal issues.

Our club table sales were down 70%, as we did not have big ticket items sell as we did in 2019. We had a \$600.00 amplifier sell in 2019, which accounted for about half of the club table sales.

Overall, we did reduce expenses significantly as many of expenses in 2019 were long term or multi-year investments in signage, branding etc.

The mood of the event was great, I spoke with many attendees and vendors. The attendees were excited about the event, and will return next year. The Vendors were pleased with the attendance and the quality the facility. Most vendors thanked the club for holding the event and said they would return if able in 2022.

## **YCARS Christmas Party – December 9<sup>th</sup>, 2021 19:30h**

The YCARS Christmas party will be held December 9<sup>th</sup> at the Catawba Baptist Church in Rock Hill. Due to the incredible growth in our club, we cannot expect to accommodate members and guests at our club house. We will continue the traditional Gift Exchange Game. Each person attending is asked to bring a wrapped gift of \$10.00 or more in value for the game. It is exciting and always fun. More details to follow at the November meeting and in subsequent e-mails.



## **Team K4YTZ - POTA – Fall Support Your Parks Weekend and CQ Worldwide DX SSB contest - October 2021**

Vicki Carnes – W4NQX – lead the Team K4YTZ on a POTA activation and during the CQ Worldwide DX – SSB contest during October.

On October 16 -17 – Vicki and many of the club members participated in the Fall edition of the Support Your Parks Weekend for Parks on the Air. Team K4YTZ activated Chester State Park in SC (K-2889) from Park Shelter 1.

Team K4YTZ was active from the clubhouse for the 2021 CQ Worldwide DX SSB contest. Many club members were out at the clubhouse on Friday evening 10/29 thru Sunday Evening 10/30. The team used this opportunity to bring new operators into the contesting world. It was an opportunity for seasoned contesters to share their knowledge.



## YCARS September Net Report:

York Co. ARS 2M Nets 51 nets with 1031 check- ins  
York Co. ARES Nets 4 nets with 47 check-ins



### YCARS SKYWARN Recognition Day:

YCARS will be hosting Skywarn Recognition Day 2021 at our facility. 12/04/2021 from 0000z to 2400z. This will be a Chili Cookoff and radio contesting event. Working with NWS to secure a virtual office tour and presentation. We will be inviting GSP Regional Skywarn and any other statewide partners to enjoy some YCARS hospitality and fellowship.

### YCARS Participates in the 7<sup>th</sup> Annual Fort Mill Scarecrow Crawl

Joe Avampato – W8DKR crafted Leroy (a nod the voice of our Repeater) to participate in the 7<sup>th</sup> annual Scarecrow Crawl. Leroy was placed near a lamp post just outside Hobo’s Restaurant on Main St. in Fort Mill. Over 100 Scarecrows were displayed produced by various businesses, schools and organizations.



NEW YCARS MEMBERS  
WELCOME TO THE  
FAMILY

New members from  
October 2021

Hyrum (Alex) Simms - KO4UBZ

Matthew Krinn - KR1NNS

Georgii Iesaulov - WW4ZZ

YTD new members for 2021 -37

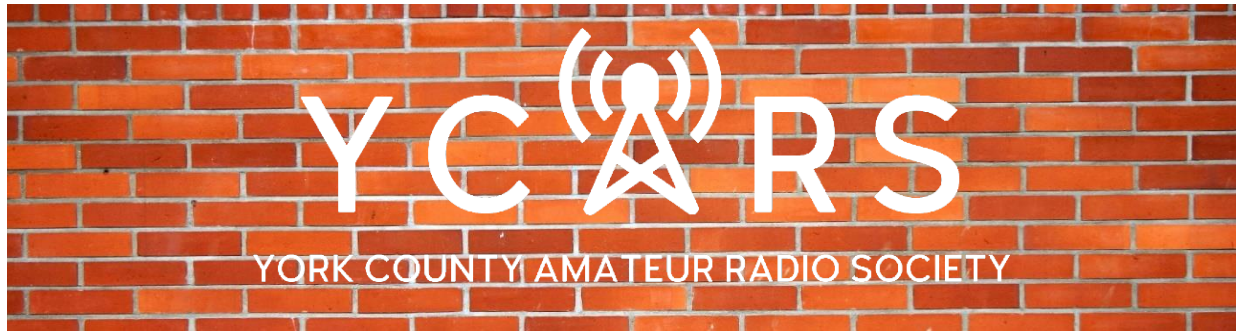
### YCARS Community Support: Rock Hill Christmas Parade:

We are asking for HAM radio volunteers to help support the Rock Hill Christmas Parade on Dec 3, 2021 from 5pm to 9pm. If you want to have some fun and celebrate the start of the Christmas season, Come out and help us provide a Safe and Memorable time for our community. We will provide more Details and have couple of Pre Event meetings for those that sign up. To be in the loop for those meetings, please take time to Sign Up and show your support.

[YCARS: YCARS Rock Hill Christmas Parade Support \(signupgenius.com\)](https://signupgenius.com)

## YCARS Leadership Elections:

We have leadership elections coming up in December – we are looking for officer nominations for the upcoming year if you would like to run and have been a member for a year or have a nomination for a member who would be a good officer, please let us know at the November business meeting



## WALL OF ARROGANCE

**NJ4Z - Stenogyne Kanehoana Award:** POTA award for working **400** different reference areas.

**K4DQP – Western Prairie Fringed Orchid Award:** POTA award for working **1000** different reference areas

YCARS is proud to recognize the achievements and awards earned by club members this month.

If you have earned a Ham Radio Award you wish to share with the YCARS family please let us know.

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The York County Amateur Radio Society

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