

# 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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### MARCH CLUB EVENTS

Mar. 4, 2021 – Ask an Elmer virtual meeting 18:00 (6:00pm) on MS teams  
 Mar. 11, 2021 – Business meeting 19:30 (7:30pm) (virtual MS Teams)  
 Mar. 12, 2021 – Simplex Net 146.580MHz following the YCARS 2m Evening Net, approx. 21:15 (9:15pm)  
 Mar. 20, 2021 VE Test Session 09:30 YCARS Clubhouse  
 Mar, 25 2021 Program meeting 19:30 (7:30pm) YouTube Live stream – KG9V – Scott – ICS Training

### 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

### CLUB 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  
 KD4EOD (W4FTK)  
 147.255 (+) PL 110.9  
 Hoodlum Friendship Net  
 Saturdays 22:00  
 10meters 28.340 USB

# The YCARS Transmitter

Welcome to the YCARS Transmitter Vol. 1 No. 3 for Mar 2021.

Hello everyone,

Welcome to March, 2021 and the latest edition of the YCARS Transmitter. Is it just us or does 2021 really seem to be flying by? We really do have a packed issue for you all this month, enjoy the read.

In this edition, NJ4Z explores mentoring and on-air manners in "From NJ4Z's Hamshack." Look for him coming down from the mountain, you'll see what we mean. From the mountains to the sea, as Joe, W8DKR our resident octogenarian, gives us a Navy story leading to a better understanding of oscilloscopes.

We head into UHF/VHF antenna basic projects for the new hams, helping them "Get on the Air" with better receive and transmit. Then we journey to near earth orbit, as Tom, WA0POD, the clubs satellite guru, is kind enough to give us the basics on working satellites and the ISS in our "Ask an Elmer" feature.

It is a visual feast on "The Workbench" as Darcy, K4DQP serves up some Ham and a Slice of Pi. Darcy gives us the "Poorman's Geochron" project using a Raspberry PI and some code.

We go to the Boneyard to see what is available from club members. We also visit's Jeff KA4WYC's Wild Yella Chicken Coup for a great piece of history concerning a young lady named Annie and her place in communications history.

It is all about food in this months' "The Prepared Ham" feature by Jack, N3NSA.

We also have Club Updates as we say hello to new members and say good bye to one of our family. Finally, we have updates from Ares and Skywarn and Welcome new Hams to the Hobby and recognize those members who have upgraded their licenses.

Please help us keep this newsletter rolling along. You can e-mail [NJ4Z@YCARS.org](mailto:NJ4Z@YCARS.org) with submissions and questions. Deadline for April Submissions is March15<sup>th</sup>, 2021.

## MARCH 2021 CONTEST CALENDAR

**MAR 6- ARRL DX  
SSB – 00:00 UTC**

**MAR 13 – OK QSO  
Party – 14:00UTC**

**MAR 13 – ID QSO  
Party – 19:00UTC**

**MAR 13 – NA RTTY  
Sprint – 23:00UTC**

**MAR 14 – WI QSO  
Party - 18:00UTC**

**MAR 27 – CQ WPX  
– SSB - 00:00UTC**



# FROM NJ4Z's HAM SHACK

## Musings from the Editor

### Mentoring, Manners and the 10 Commandments of Ham Radio

Fun Stuff this Ham Radio Hobby. My involvement in the hobby has helped me grow as a person. It has made me a better communicator, expanded my ability to be a mentor, and has given me the opportunity to help care for and add to the legacy of a wonderful club.

In the last year, I was more active in bringing people into the hobby. By doing so, I have had the opportunity to meet some great people, help them enter and grow in this hobby. I have also learned from them and expanded my knowledge of the hobby and my knowledge people in general. We have some amazing people in this hobby and in this club. I could not be prouder to be a member of YCARS and part of "best damn hobby on the planet."

While exploring our new "Ask an Elmer" live events, one our members asked about tips for good manners while on air. That got me thinking my experience and some of the Good, the Bad and the Ugly that I have witnessed on air. There is plenty of good out there, much more than the bad and the ugly. There are a few frequencies we, as good operators, know to avoid at times. We all know there are rude people everywhere in life, they are in this hobby as well. There are very few of them, but they do make an impression. When we upgrade from Technician to General class operators and begin to operate on HF it is always good to remember our manners and forget our egos. Just like social media, it becomes easy to say things to others you wouldn't say to someone's face, let our egos and pride get the better of us.

There are good guidelines like the "DX Code of Conduct" (DX-Code.com). That is a guideline for best practices for not only working DX but HF in general. In an effort to help those that might be just starting out I added a few things and explained much of those items in the "DX Code of Conduct."

So, in some seriousness and mostly tongue in cheek, let me set the scene... I descend down the mountain, all Charlton Heston like, chin pointed high, faraway look in my eyes, in my pajamas and bath robe, with my hair standing up due to all the RF in my shack, carrying this coffee-soaked napkin, presenting you with NJ4Z's 10 Commandments of Ham Radio...

1. **Thou shalt not break FCC rules.** – no profanity, no malicious interference, no operation on frequencies that are out of the Ham bands, no coordinating illegal activities, etc. "They only way to be really cool, is to follow the rules."- Captain America.
2. **Thou shalt obey the band plan** – It is a friendly agreement and a guideline that should be honored. This way we can all enjoy the bands in the differing modes we enjoy. There is plenty of space in the band most days to have our fun, just have it where it is supposed to be.
3. **Thou shalt ask if the frequency is in use before you use the frequency** – come on folks sometimes you can only hear one side of a QSO, so it is always a good idea to ask. Of course, you may wake up a ham that dozed off during a net that ended an hour ago and he may tell you the frequency is in use and has been for this net for the last 50 years. Just politely QSY or wait until he dozes off again.

(Cont.Pg.4)

4. **Thou shalt be a courteous operator** – Rudeness has no place in Amateur Radio. Be courteous and kind. Doesn't matter whether you are on HF or a repeater, it costs you nothing to be nice and to be kind. On HF let the operators tie a ribbon on the QSO before throw your callsign over one side or the other. If you are really bent on talking to one of the parties, than at least transmit "Contact" and wait to be acknowledged by one party or the other. If wanting to join a QSO on a repeater transmit your callsign and say "comment" and wait to be acknowledged. Always remember to thank other operator for the contact, yes, even in a contest or on a repeater. Just remember, "Be Excellent to each other."
5. **Thou shalt not be a LID** – for those who do not know what is a LID. Traditionally, a LID is a poor operator that is not very skilled operator. Today a LID is an operator that just calls repeated in a pile-up and is disruptive enough to the calling station they cannot pick up contacts. Thus said, don't repeatedly call over other stations when trying to make a contact, call once and listen for the station to come back to you. Pay attention to who the calling station is hearing, the first station, the last station, the loudest? Take time to listen and you will get a feel for the pile-up. You will know when to call, how vary your cadence. He just has to hear part of your call. You cannot hear him coming back to you if you are constantly calling. For goodness sakes if the station is not calling your call sign don't respond. If they are calling by the numbers and he is calling 2's and you are a 4, don't call him, he isn't going to call you back. I know some very good operators that will ignore the Lids or will flat out tell the offending station they will not work them. I have heard it done and I have done it myself. "Manners maketh man,"
6. **Thou shalt not repeatedly "Kerchuck" the repeater.** If you are programming a radio, you really should not key up the repeater repeatedly without identifying. That is simply "Bad form, Jack, bad form." If you need to test, your ability to open the squelch or hitting the repeater, just key up, give your call sign and say testing or ask for a radio check.
7. **Thou shalt not tune up on the DX station frequency.** – Oh man, you want to talk about a pet peeve of mine and a way to really piss off a lot of operators, go ahead and tune up on the frequency the DX station is calling on... "Oh my stars and garters" you will have kicked over the hornets' nest. If you need to match your antenna or tune a tube amp, please for all that is Holy and Good, move off the frequency a bit and do your business. Then come back to the frequency, ready to bust the pile-up. If the station is working split don't tune up on the QSO frequency either.
8. **Thou shalt not call a station that you cannot properly copy** – Spotting clusters are a wonderful thing, especially if you are chasing DX and the wallpaper that goes along with it. There is a downfall to having the spotting clusters. Some operators will go to the frequency and listen... and if they hear anything, they will call the DX station. If you cannot clearly copy that station, you will not hear him if he is coming back to you for a QSO. Listen, listen and listen some more, sometime propagation may change and you will get a solid enough of a copy to work the station. Be Patient... it does not do you or anyone else any good to act like a LID on a station you cannot copy. How sad would it be if you have just enough signal to be heard by that DX station but you have no idea he is calling you back because you cannot copy.

(Cont. Pg.5)

- 9. Thou shalt remember to QSL** – It is a basic courtesy to confirm a contact with another operator. There is nothing like getting a QSL card in the mail or a bulk shipment from the bureau. Now I realize, that paper QSL cards have associated costs with the card itself and the postage involved. If you cannot afford to do that, that is fine. Most operators that want a QSL card will send you a self-addressed, stamped envelope. It is important to send them a card back, even if you just print it on your printer at home. That said, it is simple and easy to provide a confirmation of your contact with one of the electronic confirmation services such as Logbook of the World (ARRL), QRZ, e-QSL, etc. All you must do is set up your account and log your contact or upload your contact log file and the software does the rest. It will query the database of contacts and find matching contacts to yours and boom, you have a confirmation. There really isn't any excuse not to log the contact and confirm. You may be the contact that gets the other party an award.
- 10. Thou shalt Elmer other Hams** – We all share a common bond in this hobby and that is passion for Radio and learning. One of the best parts of Amateur Radio is being an Elmer. Forming a bond with other Hams, mentoring others, and having others as mentors, is priceless. The hobby is full of opportunities to build friendships that may last a lifetime. It provides opportunities for a shared experience. It is our duty as Hams to help others find the hobby and help them grow in it. It is how the hobby lives through the generations and it will be our legacy when we become Silent Keys. Do not miss the opportunity to enjoy one of the best parts of this hobby, there is nothing else like it to build and nurture those bonds. "Always pass on what you have learned." – **Yoda**

So, until next month, stay healthy, stay safe, and of course, stay passionate about Ham Radio.

73

John Gendron, NJ4Z

## Octogenarian Observations – Joe Avampato – W8DKR

As a new Ensign responsible for all the electronics aboard ship, I decided one day to use an oscilloscope to measure the clock on a PDP-8 computer. I expected to see a nice square wave, but instead I observed a completely distorted voltage waveform. This really disturbed me because the computer was completely functional. What is going on?

<https://housetechlab.com/what-is-oscilloscope-bandwidth/>

## Getting on the Air Helping New Hams Advance!

### **So, you have earned your Ticket, what is next? The Antenna!**

Sooner or later, as Hams we all learn that the most important piece of gear in Ham Radio is the ANTENNA. If you want to hear and to be heard, an efficient, a resonant antenna is the key. No matter what rig you have, especially, when dealing with FM simplex or repeater communications, the antenna makes all the difference.

Most new techs first foray into Ham radio takes place on local repeaters and possibly some FM simplex. A good antenna is going to allow you to use even a low wattage handheld transceiver to hit repeaters quite far away, giving you the opportunity to reach out and have some real fun. Same goes for FM simplex, the better your antenna the farther you are going to communicate, barring geographic and geological issues.

This month we are going to look at two easy to build antennas that will serve most beginning amateurs very well as base and portable antennas for VHF/UHF (2m and 70cm) FM communications.

Yes, it is much less time consuming, much easier to go online and place an order for a diamond dual band X-300 or other manufactured antenna, but building something will give you a deeper knowledge and understanding of the theory and practical applications of the science that is amateur radio. Even folks that are not very handy can build these simple antennas and save significant money and have the satisfaction of communicating on something they built. Again, I am not discouraging anyone from purchasing a manufactured antenna, I am encouraging you to experiment.

The two designs that I would recommend for first time builds for a dual band (2m / 70cm) antenna are a vertical dipole and a roll-up ladderline j-pole.

The dual band vertical dipole is a simple build and works very well. Here is the link to one of the best designs I have found for this antenna: [2 Meter 440 Vertical Dipole Antenna Project by W7LPN \(hamuniverse.com\)](http://hamuniverse.com)

The roll-up j-pole works well as a base, but it is really great to carry as a portable. Throw a line up in a tree and raise it up for portable communications or Emcomm. You can roll it up and put in your pack with a handheld or small mobile rig. The roll-up j-pole is an inexpensive and easy to build. The following link gives you a good review and build plan for one of these: [Microsoft Word - Building an Emergency J.doc \(qsl.net\)](#)

Whether you choose to build one of these antennas or purchase one, the important thing is to get on the air, hone and expand your operating skills. Get on the air and stay passionate about Ham Radio.

# ASK AN ELMER

## HAM RADIO ADVICE AND ANSWERS

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*This column will be a forum to ask questions and seek knowledge of amateur radio... we are looking for someone to help answer these questions for members, if you would like to volunteer to help answer or have a question, please email [NJ4Z@ycars.com](mailto:NJ4Z@ycars.com) –*

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The Question for this month is from **Michael Siward, KO4HTK**

**Michael asks... “I would like to hear if anyone in the club has connected and was able to communicate with ISS. If so, what equipment did they use, antennas, radios, etc.? “**



### **“Working Amateur FM Satellites and the ISS”**

Tom Mikkelsen

WA0POD

Hello to everyone at YCARS. Recently we had a question in the “Ask an Elmer” section about working the ISS and Amateur Satellites. The simple answer is yes, I have been doing this for many years. Of course, as you can imagine the subject is diverse and like our hobby this area has many facets.

#### **Introduction**

What I will try to do here is briefly give you some simple introductory guidelines to initially listen to the FM satellites and ISS. You will use some equipment you may already have, and I will provide suggestions for resources including web sites to begin to explore how to work the satellites in greater detail.

#### **Resources**

Probably the simplest web site with actionable information is Clint Bradford’s (K6LCS) personal site called Work-Sat. Here is the link: <https://www.work-sat.com/> Be sure to visit his site and look at what he has there to help you.

There are other terrific resources from AMSAT, The Radio Amateur Satellite Corporation. These are the folks who design and launch the amateur satellite here in the US. AMSAT also has partner organizations



around the world as many other countries build and launch amateur satellites. Once the satellite bug has bitten you one of the very best resources for details is AMSAT ([www.amsat.org](http://www.amsat.org)). AMSAT publishes a handbook titled "Getting Started with Amateur Satellites". You can purchase and download this in PDF form directly from the AMSAT Store for \$15.00. Here is the link for that purchase:

<https://www.amsat.org/product/2020-edition-of-getting-started-with-amateur-satellites-digital-download/>. I highly recommend you get this book as it will save you significant time and energy including helping you succeed with working the satellites.

### **Quick Start Guide**

Operating on the satellites is relatively straightforward, but over the years many tips, tricks, and secrets have been discovered which make operating more efficient and pleasant. Here is the "Fox-1 Operating Guide" updated for 2019, includes pointers on getting started and provides a handy reference to the Fox-1 cube-sat operating frequencies. This color PDF file is designed to print double-sided:

[https://www.amsat.org/wordpress/wp-content/uploads/2019/03/FoxOperatingGuide\\_2019\\_Lo.pdf](https://www.amsat.org/wordpress/wp-content/uploads/2019/03/FoxOperatingGuide_2019_Lo.pdf)

Please note that as of this writing *all* of the Fox series satellites are at or nearing end-of-life so I would suggest that you substitute Saudi-Sat SO-50 for you initial efforts. All the batteries were purchased for the Fox series around the same time 6 years ago and sadly they are all now failing at the same time. Regardless, the Fox Operating Guide is a great document just substitute the satellite to SO-50.

### **Suggested Initial Equipment and Tracking Applications**

So now let's look at your equipment. What do you have?

*Good:* Dual band VHF/UHF HT FT-60 or equivalent with a standard rubber duck antenna.

*Better:* Dual Band VHF/UHF HT FT-60 or Yaesu FT-817 with gain flexible antenna, Diamond, etc.

*Best:* Dual Band VHF/UHF HT FT-60 or Yaesu FT-817 with VHF/UHF Arrow Antenna or VHF/UHF Elk.

Oh and some other stuff... You will need a satellite tracking app for your smart phone or use the internet to give you some access times when SO-50 or the ISS is overhead. You want a 30 Degree elevation pass or higher since you will most likely be using a low gain antenna. The higher the satellite is in the sky the stronger and of course an un-obstructed view is important, houses, building and heavy foliage are not your friends 😞.

Free web tracker: <https://www.heavens-above.com/main.aspx>

Free Android Tracker: <https://play.google.com/store/apps/details?id=uk.me.g4dpz.HamSatDroid>

Apple Satellite Tracker (not free at \$29.00, but my favorite!):

<https://apps.apple.com/us/app/satellite-tracker-prosat/id307559728>

This is the one I use, but you can use your browser and use Heavens-Above for free.

For ISS there are tons of them out there free, so look around and choose one. The Web, Android and IOS applications above all support the ISS.

Now one last comment about the actual satellite passes. Remember SO-50 and the ISS are in what we call a Low Earth Orbit (LEO). SO-50 is in an orbit above the earth at 390 miles or 627 km. The ISS is much lower orbit at 260 miles or 418 km. The higher the orbit (SO-50) the satellite will be in "view or acquisition" longer maybe 10 minutes for high elevation passes or when directly overhead. The lower (ISS) the satellite will be in "view or acquisition" for 7 minutes for high elevation passes or when directly



overhead. These objects are booking at somewhere between 16,000 and 17,000 miles per hour so things happen fast here on the ground!

### ***Walk Before You Run – Lets just Listen!***

OK, now you are now armed with some good information, you have your equipment ready, you should know when you will have AOS (Acquisition of Satellite). You also need to program your radio for the downlink:

**SO-50 (Saudi-Sat)** center receive downlink frequency is **436.795 MHz**

**ISS** cross-band repeater center receiver downlink frequency is **437.800 MHz**

### *Listening Tips:*

- Be sure you have a fully charged battery.
- For either SO-50 or ISS, be sure to open your squelch and turn the volume up.
- Earphones help if you have them available.
- If you are using a short rubber duck antenna or longer hold the antenna horizontal or actually parallel to the spacecraft as it passes overhead. It also helps to sort-of move the radio and antenna due to the moving body of the spacecraft.
- You will also have to compensate for Doppler shift on UHF “start high and go low”. I like to program my HT’s with 5 or 6 memories. You will step through these about every 2 minutes. I like to bounce between any 2 slowly working to the lowest frequency but tuning for best clarity.

**SO-50** Memory 1: 436.805, 2: 436.800, 3: 436.795, 4: 436.795, 5: 436.790, 6: 436.785

**ISS** Memory 1: 437.810, 2: 437.805, 3: 437.800, 4: 437.795, 5: 437.790, 6: 437.785

### *Final reminders*

Remember on the ISS you are listening to the amateur cross-band repeater on the ISS. If the astronauts are doing a spacewalk, they will shut this off. Also, you will be hearing hams! The astronauts don’t talk to us hams very often (they have day jobs) and then only during scheduled ARISS activities when working with classrooms on scheduled educational programs.

Both SO-50 and the ISS will be very strong, and I hope you will have a good experience. It would also be a good practice to check the status of SO-50 or the ISS-FM on the AMSAT Satellite status page:

<https://www.amsat.org/status/> Amateurs constantly update last-heard information about the spacecraft and it will keep you from being frustrated when you don’t hear anything. In general SO-50 is very stable and reliable so I really suggest you start with that satellite and move on from there. Lastly, I did not begin to discuss how to transmit yet, which we can address in a future newsletter or conversation.

### ***Wrapping Up***

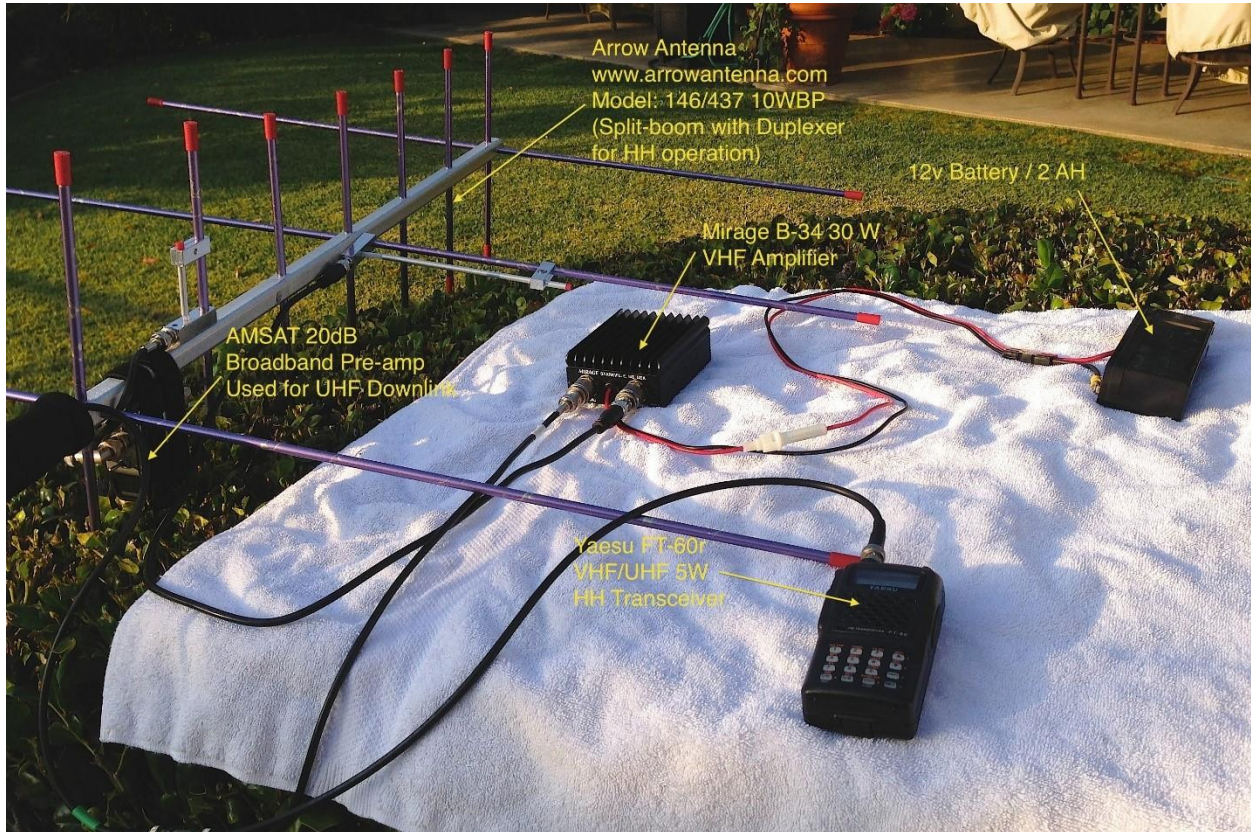
This all looks complicated, but like anything once you understand the basics and begin to practice listening you will be ready to move to having a QSO and enjoying the hobby even more. In the last photo that is annotated you will find the basic set-up I used for many years very successfully working the FM satellites.

I am sure I have created as many questions as I have provided answers. Please feel free to reach out directly to me and I would be happy to assist you in learning more and helping you work the satellites.

**Join AMSAT**

I would be remiss if I did not encourage you to join AMSAT and continue support the continued development and launch of our amateur satellite resources. <https://www.amsat.org/join-amsat/>

Here is my contact information: Tom Mikkelsen, e-mail: [tomm@att.net](mailto:tomm@att.net), Cell: 858-692-8314



Join AMSAT!

<https://www.amsat.org/join-amsat/>



# THE WORKBENCH

HAM RADIO PROJECTS, TIPS AND TRICKS

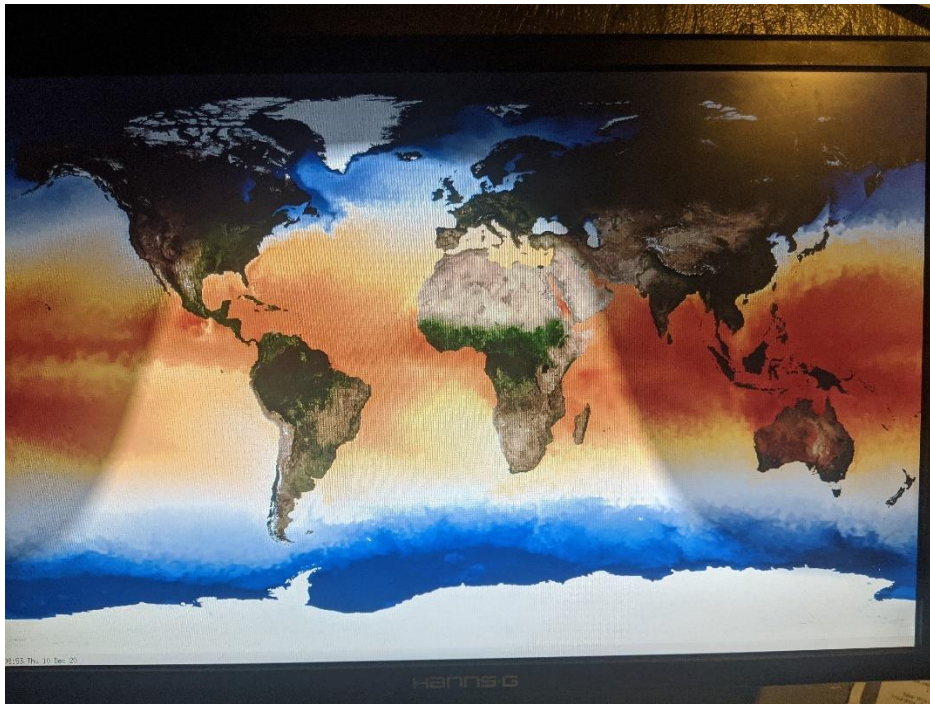
This Month's Workbench Article is by Darcy Pach, K4DQP

## Ham and Slice of Pi

by Darcy Pach, K4DQP

### Poor Man's Geochron

*Using a Raspberry Pi Zero, a spare monitor and a little coding, K4DQP created a beautiful addition to his hamshack on the cheap.*



One only has to look at a mechanical Geochron clock (<https://www.geochron.com/>) to appreciate the beautiful blend of mechanical time and greyline map that is the apex of all hamshack adornments.

Several years ago, Geochron added a 4k digital addition that can be displayed on a flat-screen tv. This addition allows for real-time global mapping layers of weather, transportation and other interesting display collections.



At \$449 it's a little out of my reach, but since I'm always looking for a new Raspberry Pi project, I decided to try making something similar to a Geochron on a budget...enter the Poor Man's Geochron.

My project is based on Sunclock, a Linux based solar mapping application. I modified the code to be able to download daily maps of Global Sea Surface and Land Temperatures, Snow and Ice Cover and Ozone Levels. My map collection is updated with the help from the script below. For now, changing maps is a simple process of changing one line of code, but the goal is to make this happen at regular increments and change maps every few minutes to give the whole project that Geochron feel.

My project included the following;

- Raspberry Pi Zero, although any Raspberry Pi will do
- A spare monitor, HDMI preferred, but I had a spare VGA monitor and used an HDMI to VGA converter
- VESA wall mount (purchased at Harbor Freight...don't forget to use a coupon)
- Code based on K2GC's instructions (see <http://kd2iff.com/node/20> for base code instructions) and notes below for modifications I made

Note: For the Raspberry Pi Zero, I noticed the following file locations differ from the instructions above.

**Autostart file:** `/etc/xdg/lxsession/LXDE-pi`

**lxde-pi-rc.xml:** `/etc/xdg/openbox`

Below is **sunclock\_download.sh** file I created to download the daily map updated.

```
#!/bin/bash
# script to download sunclock image files
cd /usr/share/sunclock/earthmaps/jpeg/big
wget https://www.nnvl.noaa.gov/images/globaldata/SnowIceCover_Daily.png -O SnowIceCover_Daily.tmp && mv
SnowIceCover_Daily.tmp SnowIceCover_Daily.png
wget https://www.nnvl.noaa.gov/images/globaldata/LandTemp_Daily.png -O LandTemp_Daily.tmp && mv
LandTemp_Daily.tmp LandTemp_Daily.png
wget https://www.nnvl.noaa.gov/images/globaldata/GoesSST_Daily.png -O GoesSST_Daily.tmp && mv
GoesSST_Daily.tmp GoesSST_Daily.png
wget https://www.nnvl.noaa.gov/images/globaldata/Ozone_Daily_Mapped.png -O Ozone_Daily_Mapped.tmp && mv
Ozone_Daily_Mapped.tmp Ozone_Daily_Mapped.png

#convert .png files to jpg
mogrify -format jpg *.png
rm *.png
```

Below is the altered **sunclock\_startup.sh** file. Map selection is achieved by commenting out all but the desired map name. This code actually calls the script above to download the latest files before starting Sunclock.

```
#!/usr/bin/sh

#Downloads Latest NOAA Map Files
sudo ./sunclock_download.sh
```

```
#Default SunClock Map
#/usr/bin/sunclock -nomoon -nosun -twilight -image /usr/share/sunclock/earthmaps/jpeg/big/photo_big1.jpg

#NOAA SnowIceCover_Daily
#/usr/bin/sunclock -setfont -nomoon -nosun -twilight -image
/usr/share/sunclock/earthmaps/jpeg/big/SnowIceCover_Daily.jpg

#NOAA Ozone_Daily_Mapped
#/usr/bin/sunclock -nomoon -nosun -twilight -image
/usr/share/sunclock/earthmaps/jpeg/big/Ozone_Daily_Mapped.jpg

#NOAA Sea Surface Temperatures Daily
#/usr/bin/sunclock -nomoon -nosun -twilight -image
/usr/share/sunclock/earthmaps/jpeg/big/GoesSST_Daily.jpg

#NOAA Land Temperatures Daily
/usr/bin/sunclock -nomoon -nosun -twilight -image
/usr/share/sunclock/earthmaps/jpeg/big/LandTemp_Daily.jpg

unclutter -display 0:0 -noevents -grab
```

Future plans for this project include some type of automated cycling of images on a timer and daily automated updates. For now, just reboot your Pi when you want an update, or manually run the `sunclock_download.sh` script and restart SunClock.

If you are interested in building one of these, give it a try. I'm always happy to help if you get stuck. E-mail me at [K4DQP@ycars.org](mailto:K4DQP@ycars.org).

# THE YCARS BONEYARD

A Place to Sell, Trade or Find Ham Related Equipment

NU4S – “Shep” Shepard is looking for a Chuscraft R-9 or similar Vertical [rtoller1@cfl.rr.com](mailto:rtoller1@cfl.rr.com)

NJ4Z – John Gendron has two Kenwood TH-F6A handhelds with accessories \$ 530.00 for the pair. Contact [NJ4Z@YCARS.ORG](mailto:NJ4Z@YCARS.ORG) for details.

WN4DVJ – Bill Wells is listing a TYT-MD9600 DMR Mobile unit for \$200.00 and a TYT-MD380 DMR Handheld for \$60.00 Contact Bill for details at [Bwells@comporium.net](mailto:Bwells@comporium.net) or 803-417-7117

AE8J – Andy - Just in time for sun spot cycle 25. Hy-Gain TH-11DX--- Eleven element, 5 band Yagi beam antenna. Covers 20 thru 10 meters. 20m, 17m, 15m, 12m, 10m. New in box, never assembled. DX Engineering price \$1,299.00 Asking price is \$750.00. Contact Andy, AE8J at [akunik@bellsouth.net](mailto:akunik@bellsouth.net).

KN4KCD – Ron - FT-70DR/DE HT from Yaesu. It is NIB, never fired up, asking \$140.00.



## Jeff Bylthe - KA4WYC's Wild Yella Chicken Coup

### ***So, Do You Know Who Annie G. Ellsworth was?***

Well, as most of you know, I love CW. I'm not good at it, but I love hearing it and collecting telegraph keys. I also like the mystique of the history of Morse Code. I'll try to bring y'all some interesting facts on CW in upcoming articles. Now, do you know who Annie was, without looking it up on Google (like I did!)?

Let's go back to the EARLY days of The Wireless, say 1843. Yep, our old friend Samuel F. B. Morse has been experimenting with electrical currents and the possibility of sending messages through the wires from one place to another. But to do this he needed CAPITAL, so he petitioned the US Congress for \$30,000.00 to install a line from Washington to Baltimore.

But who's Annie...??? I'm getting there! Morse had an ally in Congress, an old College chum from Yale, Henry L. Ellsworth, Commissioner of Patents. Henry was standing in Congress as they had 119 bills in front of Morse's plea for funds. It was getting late, and although Morse had hopes of gaining the funds to build the wire, it did seem hopeless. Some members of Congress thought it was a joke. Others wanted to cut the funds up to suit their interests. But Henry was as passionate as Morse, so with a mere 5 minutes till Congress adjourned for that Session, Morse got his funds! Only one other bill was passed after Morse's request!! That's close to changing history, as we know it!!

Morse also had a young protégée that joined him in history. Enter Annie G. Ellsworth, yep Henry's Daughter! She came to Morse's hotel room to deliver the news of his long-awaited Congressional triumph. They were to celebrate by having breakfast with her parents. For her report of the good news, Samuel Morse stated Miss Ellsworth will present the first **Recorded Telegraphed** message! Although it took a year to build the span of wires 28 miles, from Washington to Baltimore, Morse was true to his word. Miss Annie brought, from her Mother, the most famous message ever to be penned, "**What Hath God Wrought?**"!!! Just where did that phrase come from? Look up Numbers 23:23(KJV). Below, the handwritten message found on the tape used in the Transmission:

***"This sentence was written from Washington by me at the Baltimore Terminus at 8.h 45min. A.M. on Friday May 24.th 1844, being the first ever transmitted from Washington to Baltimore by Telegraph and was indited by my much loved friend Annie G. Ellsworth." {signature-Sam F. B. Morse.} Superintendent of Elec. Mag. Telegraphs.***

So, as the famous Newscaster, Paul Harvey stated, ..."now you know the rest of the story". Hope you enjoyed the story and want to see more!! If you have a thought or idea for an article or want to pen one yourself, contact me.  
73 Jeff KA4WYC

\*\*Alfred Vail made this **key**, believed to be from the first Baltimore-Washington **telegraph** line, as an improvement on **Samuel Morse's** original transmitter. Vail helped **Morse** develop a practical system for sending and receiving coded electrical signals over a wire, which was successfully demonstrated in 1844.

\*\*Information for this article was gleamed from several other articles in the Inter Web. Mostly from an article from **The Electrical Engineer**, New York, New York 8-19-1891 (that's not a TYPO !!)

73 Jeff KA4WYC

# THE PREPARED HAM

Insight into preparedness from Lt. Col. Jack Wiles (RET), N3NSA

## Some Thoughts on Food

I have some fond memories of my childhood when things were not quite so easy.

That may sound like a strange opening for a discussion on food. My mom raised me by herself from the time that I was six months old. I grew up very much on the poor side of the tracks, but I was never cold (other than the neighborhood snowball fights), or hungry thanks to the resourcefulness and ingenuity of my mom.

She was a young teenager during the depression and was always determined to keep enough food on hand for us to not go hungry. She purchased some can goods when they were on sale and we could afford to pick up a few extras, and she kept track of the use-by dates to always use the oldest cans first. She also canned her own vegetables, fruits, jelly's, relishes etc., etc.

As simple as our house was in that poor area of Baltimore, she always had a pantry in the cool, dark area of our basement. She was the ultimate - Prepared Mom! As I look back at those days, I am reminded that most of the other moms in that poor neighborhood were like that too.

Flash forward to today! I'm pretty certain that many of my friends don't do any sort of planning for a possible disruption of their quick access to groceries. We are all so used to hopping in the car and heading to the grocery store, sometimes every day. I have six major grocery stores within 10 minutes of my home. Most of them compete for my business with weekly special sales and other promotions to have me decide to but from them.

A few other things such as canning vegetables, meats, fruits, etc. have gone out of favor as well as even having a garden of our own. My mom still grew tomatoes in her tiny back yard until the day that she died 20 years ago. We have just become way too dependent on an unlimited availability of EVERYTHING that we need, as quickly as we need it.

Let me take a little time to address several categories of food that you may want to add to your pantry. (You are going to begin starting or adding-to your pantry, aren't you?) Adding some of these things can be a fun and rewarding new hobby that goes well with our Ham Radio addiction 😊. There are many things in addition to food that we will be adding, but for this discussion, we'll stick with food other than what's in your refrigerator.



## FROZEN FOOD

While frozen foods are convenient, there are some concerns when relying on them for your long-term needs. Time is a concern since there is a relatively short time that frozen foods retain their quality. For most items, that's less than a year. Space is somewhat of a concern depending on how much you plan to store. Most of us have relatively small amount of freezer space in our combined freezer/refrigerator appliances. And finally, there is a concern for losing power for any extended time. One of the main reasons that people own generators is to attempt to keep their freezers working as long as possible so as not to lose everything in them.

**Quick tip from a friend** - Fill a small container 3/4 full of water and freeze it. Place a coin, or something metal, on top of the frozen water in the container. If you ever open the freezer and see that coin in the bottom of the container, you will know that everything in the freezer has thawed and been refrozen when then power came back on. I keep one of these in all my freezers.

[Cold Food Storage Chart | FoodSafety.gov](#)

## FOOD IN A CAN - (Notice that I didn't say Canned Food which will be food that you 'Can' yourself)

These are always a good option to have in your pantry. Many times, cans of various items can be purchased for \$1 or less. (Regarding that, sometimes I find things for less than \$1 while on sale or on a buy 1 get 1 free sale.) These same items will still be \$1 at the Dollar Tree. I really like getting things from the Dollar Tree, but sometimes I can find them cheaper. You need to shop around.

One more suggestion about canned foods. Always track the expiration dates and use the oldest first. Our club regularly donates food goods to charities. Rather than going to the grocery store to buy the things that you want to donate, just donate some of your older (But still well in date) from your pantry. The people who receive these donations will most like use them immediately because they need to. You can then begin restocking your pantry with newer items. Most canned goods that I purchase have a use-by date of 18 months to 2 years in the future.

## CANNED FOOD

Canning is a complete subject of its own that will probably need an article of its own. For now, let me just say that canning your own food for longer-time storage is an excellent idea. I'm just starting the process/new hobby and now have the 'toys' needed to do all three types of canning. I'll explain that a lot more in its own article.

## DEHYDRATED FOOD

I've had a dehydrator for many years. Here's a link that will answer many questions about this form of preserving food. You will need to do a little reading to fully understand the difference between the shelf storage times and taste of dehydrated food and freeze-dried food. I store and enjoy both types for different reasons.

[A Beginner's Guide to Dehydrating Food | Eartheasy Guides & Articles | Eartheasy Guides & Articles](#)



### [A Beginner's Guide to Dehydrating Food | Eartheasy Guides & Articles | Eartheasy Guides & Articles](#)

What can you dehydrate? You can dehydrate almost any fresh food, but some things dehydrate better than others. Here are some favorites. Fruits (apples, bananas, apricots, peaches, pears, cherries, blueberries) for eating as snacks or chopped in granola and trail mixes, or dried as purees for fruit leather.; Vegetables (carrots, mushrooms, onions, peas, beans, tomatoes) for adding to soups ...

[learn.eartheasy.com](http://learn.eartheasy.com)

## FREEZE DRIED FOOD

This is the king of long-term storage when it comes to food. My first experience with freeze dried food was in Vietnam way back in 1968. Back then our primary food while away from our base camp was "C" rations. These were primarily food in a can for the main meal. At one point, we were given some meals that were called LRRP Rations. These were freeze dried meals that only needed hot water (we always had that in our canteens) to bring them back to life. I can remember really liking them, especially the spaghetti with meat sauce. It must have been some sort of an experiment because we only had them for about a month if I remember correctly.

There are several advantages to freeze dried food. They are very light relative to other foods. They have a very long shelf life (25 years) if stored properly. And finally, they seem to taste pretty much like the they did before being freeze dried.

## MRE's

And that brings us to MRE's. While they are convenient, I don't care for them as much as I did the freeze dried LRRP rations that we had in Vietnam. They do have a shelf life of 7 - 10 years if stored properly. From what I saw online just now, it looks like they are running about \$8 - \$10 each. There is more food in the MRE's for total calories however, and most of them come with an interesting way of heating them. Inside the main pouch are a bunch of goodies including a heating pouch that will heat them to a very hot temperature just by adding any water to the heating pouch and placing the sealed meal pouch inside the heating pouch.

### [FAQ: MREs vs Freeze Dried & Dehydrated Foods \(theepicenter.com\)](#)

#### [FAQ: MREs vs Freeze Dried & Dehydrated Foods](#)

[1] The shelf life of all food is dependent upon storage temperature and conditions. Higher temperatures will decrease shelf life, while lower temperatures can extend shelf life. [2] 30+ year shelf life for pouches except the ice creams and cheesecake pouches which have a 2-year shelf life, and Military Long Range Patrol Ration LuRPs and Military Foil Pouches which have a stated 3-year shelf ...

theepicenter.com

### [MRE Menus | MRE Info](#)



#### [MRE Menus | MRE Info](#)

U.S. Military MRE menus have changed greatly over the past 35 years. Since MRE XIII (1993 Date-of-Pack), 70 new items have been approved as MRE improvements.

www.mreinfo.com

## THE FATHER OF PREPPING IN MY OPINION

I've rambled on long enough in this article. I'll add a little more info on food when I discuss canning.

Being prepared (sometimes called Prepping) is looked at by some people as not trusting God for all our needs. I've heard comments along those lines even from some of my Christian friends over the years. I do understand that some people go overboard and almost make a god out of prepping while they get ready to live in their bunker way off the grid. That's not what we're talking about here. What we are talking about is being prepared to NOT NEED to run to the grocery store in a possible panic mode should the food supply chain ever be disrupted for any length of time. Many things, including a natural disaster, can cause that to happen in any area of the country at any time.

I really enjoy the many stories and examples of how God interacts with us throughout the Bible in both the old and the new testaments.

To me, the absolute best example of this interaction between man and God was in Genesis and a guy named Joseph.

He really had an interesting life full of wonderful things and several terrible things. Throughout his life, the Lord revealed His plan for Joseph to Joseph in visions. Joseph shared such accurate descriptions of his visions that he became known for it even while he was in prison in Egypt.

One night, Pharaoh had a really bad dream, and none of his priests could interoperate it. They brought Joseph out of prison to see if he could tell the Pharaoh what it meant. Joseph provided the explanation of what Pharaoh's dream meant regarding the fat and then skinny cows.

**Seven years of plenty were going to followed by seven years of drought.**

Joseph was immediately hired to be the head prepper to make sure that they stored up enough extra during each of those first seven years to survive the seven years of drought. Because of the Lord giving Joseph that prophecy, all of Egypt AND all of Israel were saved from the drought.

**AND FINALLY, FOR NOW**

A link to my favorite preparedness book:

[11th Hour Preparedness - 2nd Edition: Making Choices While We Can: Woods, Tyler: 9781492268116: Amazon.com: Books](https://www.amazon.com/11th-Hour-Preparedness-2nd-Edition-Making-Choices-While-We-Can-Woods-Tyler/dp/9781492268116)

[11th Hour Preparedness - 2nd Edition: Making Choices While We Can: Woods, Tyler: 9781492268116: Amazon.com: Books](https://www.amazon.com/11th-Hour-Preparedness-2nd-Edition-Making-Choices-While-We-Can-Woods-Tyler/dp/9781492268116)

11th Hour Preparedness - 2nd Edition: Making Choices While We Can [Woods, Tyler] on Amazon.com. \*FREE\* shipping on qualifying offers. 11th Hour Preparedness - 2nd Edition: Making Choices While We Can

[www.amazon.com](http://www.amazon.com)

And a link to the latest video on how to prepare in 24 hours .....

[prepsteaders - YouTube](#)

73 for now YCARS brothers and sisters and stay safe out there.

Jack Wiles - N3NSA

**NEW HAMS AND UPGRADES**

## Welcome to the Hobby

**New Hams that earned their Tickets in the February 13, 2021 test session**


Chris Wheaton	KO4MNN
Steve Gribble	KO4MNO
Larry Byrd	KO4MNP
Bobby Goforth	KO4MNQ
Jay Rossi	KO4MNR

## Congratulations on the Upgrade

**Club Members who have successfully upgraded General class operator.**

Ron Thompson	K4RRT
Tim Garren	K6FNV
Skip Hagen	KO4DGK
Thomas Williamson	KO4FAX



# YORK COUNTY ARES & SKYWARN

Congratulations to David McLaren, KX4UV and Gene Merklein, KB9JYC on their appointment to be Assistant Emergency Coordinators for York County ARES.

**SKYWARN TRAINING CLASSES – ONLINE**

BASIC Spotter Training

Monday 3/1/2021 – 13:00 – 15:00

Monday 3/15/2021 – 19:00 – 21:00

Tuesday 3/16/2021 – 14:00 – 16:00

Info: [PowerPoint Presentation \(weather.gov\)](#)

# Club Updates and News

BE YCARS AWARE

YCARS remembers one of its family members that passed on January 24, 2021. KM4WJT, SK – Bill Stinson.

Bill served as the VE testing coordinator for the club for the past three years. He was very excited to bring people into the hobby and loved giving people their tickets. He will be sorely missed by the club and by his friends and family.

William Donald Stinson. KM4WJT, SK  
June 4, 1946 - January 24, 2021



Rock Hill, South Carolina - Rock Hill, SC - Mr. William (Bill) Donald Stinson, 74, passed away on Sunday, January 24, 2021 at his home.

Bill was born in Mt. Pleasant, MI, and was the son of the late Donald Jay Stinson and the late Lorraine Ledebuhr Stinson. Bill served in the U. S. Air Force from 1968 until 1972. He was a Certified Addictions Counselor with Lancaster Recovery Center and Keystone Substance Abuse Center. He later worked and retired from the 16th Circuit Solicitor's Office as their Diversion Programs Supervisor. Bill was a member of the York County Amateur Radio Society

where he served as the VE testing coordinator.

Bill is survived by his wife, Denise Greene Stinson; his son, Andrew (Claire) Stinson of Newnan, GA; his daughter, Tracy Stinson Ziegler of Taylors, SC; two grandchildren, Luke Stinson and Elizabeth Stinson; and his two brothers, David Stinson of Lansing, MI and Thomas Stinson of Fort Worth, TX

## **WELCOME, WELCOME, WELCOME to our new members:**

A big, warm YCARS welcome to our newest club members that were present and accepted in to the club during the 2/11/2021 business meeting.

- Vicki Carnes – Associate member – no call
- John Corbin – NK4X
- Joe Eichorn – KO4LAT
- David Meeler – KO4GBK
- Harry Miller – KF4HMM
- Ed Prentice – K4EGP
- James Weeks – KM4AQC

**“ASK AN ELMER” The live version...**

The club will be hosting a virtual meeting on Thursday March 4<sup>th</sup> at 18:00 (6:00PM) until 20:30 (8:30PM) via Microsoft teams. This meeting is a new endeavor for the club and we eventually hope to take it to a live stream for the Ham Radio community in general. The meeting will be geared toward the new Technicians or Generals that have questions or need advice on setting up stations, programming radios, operating tips and etiquette. It will be a Q&A session with several experienced operators. It will also be a chance for new members to find Elmers within the club. Please join us, an e-mail invite will be sent to the club with the meeting invite.

**CLUBHOUSE CLEAN\_UP AND BEAUTIFCATION**

Saturday February 20, 2021 several club members assisted in the cleaning of the outside of the clubhouse and the organization and clean-up the radio room, storage spaces and the meeting room. A huge thank you to all who participated in the work. The results were amazing.



There will be a notification from the Hamshack and Fundraising committees about some of the surplus gear that will be available to club members to purchase. The committees will meet and decide how to handle the sales of the equipment. Please be on the lookout for the E-mail.

**Microsoft makes generous donation to YCARS**

In fiscal year 2020, Microsoft provided \$1.9 billion in donated or discounted products and services to help 243,000 nonprofits globally better serve their communities. YCARS has become one of the latest nonprofit organizations to receive a generous software donation from Microsoft. Virtually every organization relies on technology today to manage its operations, and YCARS is no exception. Microsoft's best of breed cloud services will help YCARS further expand its communications and collaboration capabilities.

This new donation will allow every YCARS member to have a single account that will be used to access all YCARS online technologies, including Teams, our website, and other services that will be made available soon.

YCARS members will soon have the ability to have an email account hosted on Microsoft's enterprise cloud. A [callsign@ycars.org](mailto:callsign@ycars.org) email address will be offered to all members. This email



account can be accessed from any browser or smart phone and will allow up to 100 GB of email content.

Members will also be able to collaborate more effectively with Microsoft Teams. The Teams platform offers far more than just online meetings. It is an ideal platform for committee members to collaborate with each other.

A training session on the web technologies utilized by YCARS will be conducted soon. Be on the lookout for a Teams meeting invitation!

### **Committee News**

Committees - PLEASE consider volunteering for a committee. We'd like to let our members gravitate to the committee that aligns with their personal interests and capabilities to maximize individual member impact. To join a committee, please reach out to the respective committee chair and let them know you're willing and able to help!

Community Service - KX4UV - David McLaren, [KX4UV@ycars.org](mailto:KX4UV@ycars.org)

Communications - NJ4Z - John Gendron, [NJ4Z@ycars.org](mailto:NJ4Z@ycars.org)

WHI - AB1CD - Hillary Ramsey, [AB1CD@gmx.com](mailto:AB1CD@gmx.com)

Fundraising - KM4GSF - Linda Fox, [lfox368806@yahoo.com](mailto:lfox368806@yahoo.com)

Facilities - WB4QNI - Steve Kelly, [WB4QNI@comporium.net](mailto:WB4QNI@comporium.net)

HAM Shack - W3PAL - Andre Ivanov, [aeivanov@comporium.net](mailto:aeivanov@comporium.net)

**Bedeep, bedeeep, bedeeep, That's All Folks!!!! See you in April!**