Mount Vernon Amateur Radio Club
Serving Greater Knox County, Ohio

Meetings are held on the 2nd Monday of each month at 7:00 pm at the Knox County Chapter of the American Red Cross (Annex) 300 North Mulberry Street Mount Vernon, OH 43050

K8EEN Repeater: 146.790. MHz (600KHz with PL of 71.9 Hz)
K8EEN-R Echolink Node: 809800
K8EEN Repeater: 444.600 MHz (+5 MHz with PL of 71.9 Hz)

INSIDE THIS ISSUE:

President's View

As I write this, it is warm and raining out. But this is Ohio and the weather is subject to change at a moment's notice. Hopefully the rain will just go away! If you missed last month's meeting you missed a good one. We had a short meeting mainly discussing organization of upcoming events such as NVIS day, Field Day, Dan Emmitt Special Event station, and Ohio State Parks on the Air. We also discussed other topics such as the repeater, mesh, web page, server etc. To not have been there, to take in all the info that was discussed would be a loss, save for the minutes that should follow in this newsletter. Keep in mind that a firsthand experience is far better than reading the minutes, since most if not all in attendance have difficultly remembering our own calls let alone what we just said. Now we are talking about what was said last month?? Following the meeting we had a presentation by Stan Broadway N8BHL, Ohio Section Emergency Coordinator. It was an excellent presentation, discussing ARES and some new information concerning the direction of the organization. I'm always glad to have him come and speak.

Wow, I started this article a week ago, what a difference. We had a wind storm which blew down several trees out back; fortunately, my antenna is still hanging in the trees, correctly, I might add. And this morning there is an inch or so of snow on the ground! This is Ohio and it is March. Tonight, it's to get down into the single digits. Enough of the weather up date, let's move on.

We have been busy here in the KC8EVS household getting our youngest off on an adventure. She left the end of February for Papua New Guinea, when we meet, I will be glad to fill you in on all the details as to what she is doing. In the mean time I have been working on a battery box to power my radio away from the shack. I just wanted something easier to transport and connect to my radio. I think I have accomplished that, but I also know that I will probably change the design as I put it into use. I used it the other day to power my 817 and test a couple of antennas that I plan to use. No fuses blew and I didn't release any smoke from my radio. I also made a couple contacts, so that was good.

I'm interested in what you are up to, let me know, or write up a short article and submit it. We would be glad to have your contribution to the newsletter. Or if you have had a project i.e., put together a battery box, bring it in and show it off. Also, attend the meeting to hear firsthand what we are up to. Don't depend upon our memory or interpretation of what was discussed, be there and join in we would be glad to see you.

The meeting is in the same place at 7pm on March 11.

73, Frank KC8EVS

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2019 ARRL National Convention at the Hamvention

May 17-19, 2019

Green County Fairgrounds and Expo Center
120 Fairground Road
Xenia, OH 45385

Tickets and Info: http://www.hamvention.org/

http://www.arrl.org/expo

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Traffic Nets:

http://www.ossbn.org/
Ohio Single Side-band Net.org, our Ohio connection for what is going on in the Ohio Traffic System. The Net meets on 3972.5 KHz at 10:30 a.m., 4:15 p.m. and 6:45 p.m. daily.
Alternate Frequency for all sessions 3968 KHZ

http://www.cotn.us/ The Central Ohio Traffic Net is a part of the Ohio Section of the National Traffic System. We meet daily to handle traffic; all licensed amateur radio operators are welcome to check in and to learn how to handle traffic. The Net meets daily at 7:15 p.m. local time.

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Area Radio Clubs:

Delaware Amateur Radio Association: Radio http://k8es.org/

Newark Amateur Radio Assoc: https://www.n8ara.org/

(Mansfield) InterCity Amateur Radio Club: https://iarc.club/

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SDR

http://websdr.org/
A WebSDR is a Software-Defined Radio receiver connected to the internet, allowing many listeners to listen and tune it simultaneously. Go to the chart in the middle of the page and select **Band** you want, then **Region** (North America). This will bring up 18 listening stations in the United States and Canada. Pennsylvania, Alabama and Utah are favorites for this area.

February 11, 2019 Meeting Minutes

By Terry Windsor

Frank, KC8EVS called the meeting to order at 7:00 pm.

There were 13 MVARC members and two visitors present.

January Meeting Minutes accepted: Motion by Scott, N8SY and seconded by Bill, KD8WHQ.

Treasurers Report presented by Terry, KI8N. Motion to accept by Scott, N8SY and Seconded by Michael, KE8HGE. Motion passed to accept Treasurers Report. For club finance specifics please contact Terry, KI8N.

Repeaters:

Don, W8PEN, reported the 146.79 repeater is working. Some noise/static has been observed and reported by Emery, W8TW. Input appears to be noisy keeping receiver open. Don was going to visit site and check for loose connections, grounding, water in connectors and possibly install a band pass line filter. Also going to switch to battery power for a short time to see if noise clears.

The 444.6 repeater at Knox County Hospital is working. Still need internet connection and equipment to install and operate WiresX.

Mesh:

Don, W8PEN, reported Mesh network is working but hasn't been used lately. After meeting last month, there is a desire to add the following this spring: three portable nodes and IP cameras.

ARES:

Radio is at the Mount Vernon 911 center, awaiting opportunity to install and check out.

April 6 is the Ohio Section ARES Conference at OSU Marion Campus, Marion, OH.

State wide Exercise is scheduled August 6 – 8 and locally will utilize the Knox County Fairgrounds.

Old Business:

Frank, KC8EVS discussed upcoming 2019 club events. These events are the normal activities the club participates in:

NVIS Day April 27, 10 am to 4 pm. Decided to hold event at the Centerburg Conservation Corps again.

Field Day June 22 and 23. Don, W8PEN to chair and Terry, KI8N to assist. Frank, KC8EVS to inquire about using Apple Valley ball fields again.

Dan Emmitt in August. Only one day this year and inquire as to setting up close to Dan Emmitt house by Foundation Park.

Ohio State Parks on the Air September 7. Will operate from Mohican State Park again

Upcoming activities noted:

Mansfield Hamfest February 17.

Michael, KE8HGE started a new Tech class starting Thursday January 24 at 7 pm. The first class went well. Three students with possibility of two more joining. The class is scheduled for seven weeks with a testing session on March 16.

Michael, KE8HGE stated the MVARC web page is at a standstill waiting on Ruben to determine if a new server will be implemented. Louie, NT8I has offered to host the web page – need to discuss with Louie as to hardware and implementation. Don, W8PEN moved to pursue this effort and Scott, N8SY seconded.

New Business:

Winter Field Day on January 26 was attended by four club members and operated from the club station at the Red Cross Training Center.

ARES presentation by Stan Broadway, N8BHL as to changes and training requirements.

Adjournment

Motion to adjourn by Scott, N8SY and seconded by Mike, W8MJL. Motion passed and meeting adjourned.

50/50 Drawing won by Bill, KD8WHQ and donated to club.

Terry Windsor, KI8N
MVARC Secretary/Treasurer
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ARES NEWS -Weather Awareness Week

From Mark Maxwell, Knox County EMA Director

As part of Ohio's Severe Weather Awareness Week, Knox County will participate in a statewide tornado drill on Wednesday, March 20 at 9:50 a.m. During this time, the county will sound and test the outdoor warning sirens. Schools, businesses and households are encouraged to take this opportunity to practice their tornado drills and emergency plans.

Severe Weather Awareness Week is a great time to prepare for weather and home emergencies.
·   Homes, schools and businesses should update their safety/communications plans. Practice tornado and fire drills. Replenish supplies in emergency kits. Get informed about the different disasters and hazards that can affect families where they live, work and go to school. Include children in emergency planning.
·   Spring and summer weather hazards include tornadoes, thunderstorms, floods, and even snowstorms through early spring. Visit the OCSWA website to review severe weather safety and preparedness information. www.weathersafety.ohio.gov.
·   Ensure that everyone knows the difference between a Tornado Watch and a Tornado Warning. A tornado watch means conditions are favorable for the development of tornadoes. A tornado warning is issued when a tornado is imminent or occurring. If a tornado warning is issued for your area, do not stop to take photos or shoot video. Seek safe shelter immediately.
·   During tornado drills or actual tornado warnings, remember to DUCK!
      D – Go DOWN to the lowest level, stay away from windows
      U – Get UNDER something (such as a basement staircase or heavy table or desk)
      C – COVER your head
      K – KEEP in shelter until the storm has passed
 During storm watches or warnings, listen to your NOAA Weather Radio or your local news for current weather conditions and information. You can also receive notification of severe weather and other emergencies through cellphones and mobile devices by signing up for
"Knox Alerts". http://entry.inspironlogistics.com/knox_co_oh/wens.cfm

ARES Conference coming up

Ohio ARES Conference April 6 in Marion. Go to http://www.arrl-ohio.org/SEC/form.html for more information and to sign up.

Get ready for NVIS Day April 27!

By Don Russell, W8PEN

How to Remote Your Ham Radio, Part I

I have, for several years now, operated parts of my station via remote control. I use my local network wifi. This keeps me off the internet and away from those who like to mess with you. When I plan on being away from home, I can easily set up the remote so that I can operate the radio over the internet. Or, in fact, I can do both using separate IP addresses.

I have had a few inquires on how I do this, so this article attempts to explain how I remote my shack.

To start, lets keep it simple. Let's set up a remotely controlled digital station. Later, we will add SSB and/or FM to the mix. Why start out this way? With digital modes there is no need to pass audio over the network. Simply set your station up to run digital modes while being in the shack. While you are at it, make a few contacts to get the feel. After this initial step, remote control will be easy.

Step 1: Sound card Interfacing

For running digital, you will have to set your station up with a sound card interface or something similar. Techtronic's SingleLink is only one of many ways to do this. Most sound card interfaces now have a pre-made cable that connects directly to your radio. You also run stereo cables from your computers mic and earphone jacks. Depending you the computer, these jacks could be labeled as line in and line out.

So, the easiest method would be to buy a commercial sound card interface and install it as instructed in their user manual.

I do not use a commercial sound card interface. I simply plug the headphone jack from the radio into the mic input to the computer. This works for receive and there are usually no grounding issues that may cause hum.

For connecting the computer to the radio microphone or line-input, I use a ground loop noise isolator. Plug one end into the computer headphones or line-out jack, and the other end to the radio microphone or line-in jack. You will have to add a microphone connector that matches your radio to the end of this isolator, but it is worth the money and effort to keep hum out of your signal.

There is nothing wrong with using an isolator on both receive and transmit lines for extra protection either. This system costs about $20 compared to $100 for a sound card interface. This system works well for me.

Step 2: Digital Software

Simply select your favorite digital software. I often use FLdigi. It is simple and supports many modes. If you are into ARES, I believe this is the software of choice for digital nets on HF. https://sourceforge.net/projects/fldigi/

If you do not have a preference, I would suggest HRD (Ham Radio Deluxe). This is a very popular program and will be useful when remoting SSB and FM. This program is commercial and you will have to buy it. You can still find the free version, which is fine for our little project. The free version is getting hard to find. http://www.dj0ip.de/ricki-leaks/hrd-software/

I use WSJT-X Version 2 for my meteor scatter (MSK100), EME (JT65B), and FT-8.   https://physics.princeton.edu/pulsar/k1jt/wsjtx.html

There are many more programs out there. Most are free.

If you are not familiar with setting up a digital station, this web site may help: https://bpsk31.com/operation/

By Don Russell, W8PEN

Step 3: Computer Control

Notice this is "Computer Control". We are not ready to remote just yet.

After installation of the sound card interface and digital software, the next task is to get the software to control your radio. You will want to be able to change frequency, change modes, modify your macro keys, etc. All without touching your radio.

The one problem I have run into is that with most digital software, you cannot tune the antenna with the radios internal antenna tuner. You may have to add special control software specific to your radio to be able to do this. Hint: HRD does allow you to use the radios internal antenna tuner.
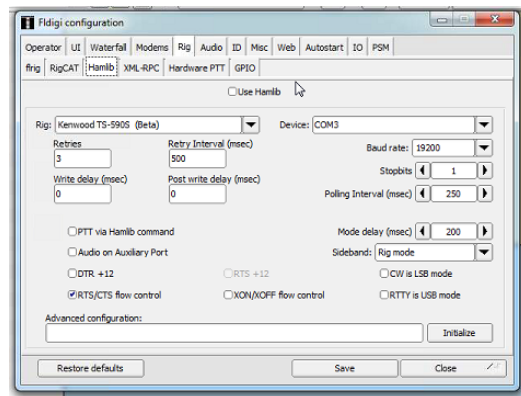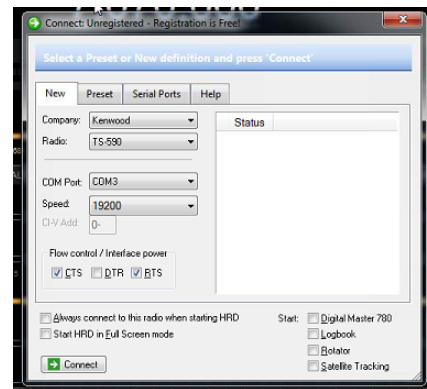

Figure 1

Figure 2

Figure 1 is a screenshot from Fldigi. Select your radio brand and model number. If you are going to use cat control to turn on the transmitter, then check the "PTT with Hamlib command". If you are planning to use VOX, then leave this unchecked. Select the com port that you are using to connect to the radio.

Figure 2 shows the radio setup box for Ham Radio Deluxe (HRD). This screen appears the very first time run the program. Provide your radio brand and model number, and the com port to be used.

Step 4: System Check!

Before we continue, check out all the functions that you would like to remote. In FLdigi, you should be able to change bands and modes and edit the macro files. All the Function keys should work properly (F1, F2, etc.). Transmit and receive functions should work. You should be able to make contacts using computer functions only and not have to touch the radio.

With HRD, you will have more functionality. You will be able to control almost all functions of your radio via the computer. That includes things like using the internal antenna tuner, adjusting mic gain, selecting filters, and much much more. Indeed, HRD is the way to go if you want complete control of your radio.

Next installment of this article will quickly get you started in using your radio remotely. Trust me, It is not hard to do. If you have gotten everything going as in above, you are ready to remote.

2 Meter Repeater Update

The 2 meter repeater has been a problem child for a while now. For several years there has been a mysterious static that comes and goes. It is intermittent and attempts to locate the cause have not been successful. Then, last year, the final amplifier failed. After 15 years of continuous service, this repeater finally had to be repaired!

Adding to our problems, the backup battery originally installed 15 years ago has failed to hold a charge. In retrospect, we probably should replace this battery every three to five years just to ensure that we have backup power if ever needed.

Frank, KC8EVS purchased a new battery and it has been installed. That was the easy problem to solve

Radio Activity, continued from page 6

By Don Russell, W8PEN

There is also a unique problem in which a signal starts out noisy into the repeater. This noise may last 15 seconds or so, or may continue for several minutes before the signal becomes full quieting.   My theory is that corona is building up on the antenna and for some reason starts to drain off when the receiver hears a signal.

Not sure this theory is sound, but to try to resolve this problem, I put a shorted coaxial stub in the antenna feed line. This stub shorts anything electrical to ground, yet passes the 2 meter RF signal on to the repeater. This stub should keep corona from building up on the antenna by shorting it to ground. The stub may actually improve the static problem mentioned earlier. After listening to the repeater for a week or so, I think this stub did help, but did not entirely resolve the problem. Now there is a sometime noise on a signal for a few seconds. Then the signal is full quieting.

Next problem! There is an occasional hum on the transmitter. Once again, this is an intermittent problem and hard to locate. Adding to this, there is a new cabinet in the water tower room. I do not think the equipment in that cabinet has anything to do with the hum, but you never really know.

Barry N8PPF and I checked all the connections and grounding of the repeater. All cables where removed, sprayed with contact cleaner, and reinstalled. Also, ferrite cores where installed on the power supply cable and repeater control cables. The hum is still there on occasion.

I am thinking that the repeater power supply has a problem. There is also the possibility that the repeater itself has a problem.

Current plans are to replace the repeater with our Yaesu DR-1X backup repeater. The Yaesu will become our new repeater. The old repeater will be worked over and kept as the backup. A role reversal here.

Since the Yaesu DR-1X has a built in power supply, this should solve the hum issue if indeed the power supply of thirty years or so is failing. I have put together a control cable so that we can use the cat controller along with the Yaesu DR-1X. Users will not notice any difference in repeaters except hopefully no hum or other strange problems.

Wrap up

See you all at the March meeting

Amateur radio (illegally) aiding yacht racers

By Dan Romanchik, KB6NU

The Golden Globe Race (https://goldengloberace.com), a 30,000 mile, non-stop solo yacht race to celebrate Sir Robin Knox-Johnston's historic 1968/69 world first solo non-stop circumnavigation. There are 18 sailors in the race, which started on July 1, 2018 from Les Sables-D'Olonne, France.

Amateur radio is at the heart of the latest controversy surrounding the race. *Scuttlebutt Sailing News* reported (https://www.sailingscuttlebutt.com/2019/01/21/maintaining-information-barrier/) on January 21, 2019 (day 205 of the race):

> "Sailors have been making use of the Amateur Radio net (ham radio) for decades, and while National telecommunication authorities have often turned a deaf ear to unlicensed operators using made-up call signs while at sea, warnings from a National regulator to Golden Globe Race skippers has created intrigue into an exciting finale for race leaders.

> "Modern navigation and routing tools are restricted from use in the 2018-19 contest, limiting GGR skippers to the type of equipment available for the inaugural Sunday Times Golden Globe solo non-stop round the world race in 1968-69. That includes Amateur Radio.

> "The skippers have been using this free communication system to gain weather forecasts and maintain contact with their teams, which is allowed under the Race Rules. However, it is the responsibility of each skipper to ensure that they abide by National and International regulations which Jean-Luc Van Den Heede and Mark Slats, in first and second in the race, have not been doing. [[Neither Van den Heede or Slats have valid amateur radio licenses… Dan]]

> "Said the warning, 'You use an amateur callsign and are making connections with amateur radio operators. The call sign letters are not registered, and thus illegal. I ask you to stop. If you have a legal amateur callsign then I urge you to present it.'"

As a result of this warning, Slats is considering dropping out of the race, even though the race is nearly complete. *Yachting Monthly* reports (https://www.yachtingmonthly.com/boat-events/golden-globe-race/golden-globe-race-slats-considers-quitting-comms-row-68574):

> "Mark Slats, who is less than 50 miles from Golden Globe Race leader Jean-Luc Van Den Heede, has announced he is thinking about retiring from the race after being banned from broadcasting on the Ham Radio Net. "Race organizers said the Dutch skipper does not have the required license, and has been warned by the Dutch authorities to stop broadcasting, which has left him unable to communicate with his shore team."

> "Under the rules of the race, all of the entrants are able to use this free communication system to gain weather forecasts and maintain contact with their teams, but, it is the responsibility of each skipper to ensure that they abide by national and international regulations."

It's not only the yachters that are flouting the rules, it's the amateur radio operators who are communicating with them. According to *Yachting Monthly,* OFCOM, the UK regulator issued the following warning:

> "Fair warning both to unregistered GGR skippers and to legitimate Ham radio operators communicating with them. In Britain, the Ham Radio net is controlled by OFCOM, which recently revoked more than 500 licenses for non-compliance. This includes communicating with unregistered Ham radio operators. The maximum penalty is 6 months in prison, a £5,000 fine and loss of their license."

This is a fascinating story, and I wish that I'd found out about this sooner. It would be interesting to listen in on some of these communications. One question I have is why these guys failed to obtain a valid amateur radio license? The Golden Globe Radio website notes, "[The race] will be sailed under the auspices of the Royal Nomuka Yacht Club in the Kingdom of Tonga. His Royal Highness, Crown Prince Tupouto'a Ulukalala is Patron of the Race." They probably could have issued valid amateur radio licenses to all the racers. If any of you have heard the communications or know any more about the technical details, I'd love to hear from you. Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and one of the hosts of the No Nonsense Amateur Radio Podcast (NoNonsenseAmateurRadio.Com). When he's not think about operating maritime mobile, you'll find him on 30m, 40m, and 80m.

March, 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3 9:00 pm ARES Sunday Night Net on K8EEN **KC8BB – Bill**	**4**	**5**	**6** 5:00 pm Dinner at Southside Diner	**7**	**8** 10:00 am Breakfast at Club Meeting room	**9** 10:00 am Breakfast at Barb's Diner Columbus Road
10 9:00 pm ARES Sunday Night Net **W8PEN – Don**	**11** **7:00 p.m. MVARC Monthly Meeting -Red Cross Annex**	**12**	**13** 5:00 pm Dinner at Southside Diner	**14**	**15** 10:00 am Breakfast at Club Meeting room	**16**
17 9:00 pm ARES Sunday Night Net on K8EEN **NT8I – Louie**	**18**	**19**	**20** 5:00 pm Dinner at Southside Diner	**21**	**22** 10:00 am Breakfast at Club Meeting room	**23**
24 9:00 pm ARES Sunday Night Net on K8EEN **KE8HGE -Michael**	**25**	**26**	**27** 5:00 pm Dinner at Southside Diner	**28**	**29** 10:00 am Breakfast at Club Meeting room	**30**
31 9:00 pm ARES Sunday Night Net on K8EEN **W8DOH– Greg**	**1** **April**	**2**	**3** 5:00 pm Dinner at Southside Diner	**4**	**5** 10:00 am Breakfast at Club Meeting room	**6**
7 9:00 pm ARES Sunday Night Net **KC8BB – Bill**	**8** **7:00 p.m. MVARC Monthly Meeting -Red Cross Annex**	**9**	**10** 5:00 pm Dinner at Southside Diner	**11**	**12** 10:00 am Breakfast at Club Meeting room	**13** 10:00 am Breakfast at Barb's Diner Columbus Road