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

Well it seems that we are finally thawing out. Still a little on the cool side but I've been able to get out and start cleaning up around the house and not worry about whatever I'm trying to pick up is frozen to the ground. Now is the time to start implementing those plans for new antenna's or fix what you have up.

This is April so what is up for this month?

NVIS Day, April 27, 10a to 4p at the Centerburg Conservation Club, it is always fun. If you have an idea for an antenna bring it out and give it a try, never know you just might have the antenna idea that we have been looking for. Unfortunately I won't be there as I will be gone for the weekend, bummer. Nevertheless (I like using this word), we will be firming up plans on Monday. So come to the meeting and find out all the details as we hash them out.

If you cannot make it to NVIS keep you sights set on Field Day, Dan Emmitt Special Event, and Ohio State Parks on the Air all are fun and get you on the air and you get to hob nob with others in the club.

Hope to see you Monday, April 8 at 7p at the American Red Cross Annex for the monthly meeting. Come and take part in the upcoming activities.

Frank, KC8EVS

April 6 Ohio Section ARES Conference:
OSU Marion Campus, Marion, OH; 8am – 5pm.
Registration on Ohio Section ARRL web page:
https://arrl-ohio.org/SEC/form.html

NVIS Day

April 27, 10 am to 4 pm at the Centerburg Conservation Club
5680 Sycamore Road, Centerburg, OH 43011

Click line for map: https://goo.gl/maps/SQYTKddoGeD2

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

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.

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/

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 the **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. There is also a mobile application available for free.

March 11, 2019 Meeting Minutes

By Terry Windsor

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

17 MVARC members present.

February Meeting Minutes accepted: Motion by Bill, KC8BB and seconded by Bill, KD8WHQ.

Treasurers Report presented by Terry, KI8N. Motion to accept by Don, W8PEN and seconded by Louie, NT8I. Motion passed to accept Treasurers Report. For club finance specifics please contact Terry, KI8N.

Repeaters:

Don, W8PEN, reported the 146.79 repeater is working. Noise/static issue causing problems so the BUP Yaesu repeater was installed. A new battery for the repeater was purchased and it was switched to battery power for a short time to isolate the power supply to see if noise clears. Don is testing the old 2M repeater and controller at his house; so far no issues.

Don stated it could be the internal amplifier is too close to the receiver after last year's repair and causing the amplifier to go into oscillations; may need to be isolated. Further testing and troubleshooting planned. There was a tabled discussion of what to do with the old repeater if there is no confidence it will continue to operate.

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.

ARES:

Bill, KD8WHQ reported the following:

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

March 20 is statewide tornado drill at 9:50am.

April 6 Ohio Section ARES Conference at OSU Marion Campus, Marion, OH; 8am – 5pm. Registration on Ohio Section ARRL web page. https://arrl-ohio.org/SEC/form.html

State wide Exercise is scheduled August 6.

ARRL EC-001 course is fully booked at this time.

Old Business:

Frank, KC8EVS discussed upcoming 2019 events.

NVIS Day April 27, 10 am to 4 pm. Centerburg Conservation Corps.

Dayton Hamvention starting May 17.

Field Day June 22 and 23. Frank, KC8EVS to inquire about Apple Valley ball field.

Ohio Hamfest August 3.

Dan Emmitt August 10.

Possible participation in Ohio Courthouses Special Event August 24, 9am – 4pm.

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

It was noted that there is no Earth Day Challenge marathon this year.

The ARRL Ohio Section calendar lists most of these events:
https://arrl-ohio.org/g-calendar/default.html

Technician Training Class

Michael, KE8HGE progressing with Technician licensing class. Testing session scheduled March 16.

MVARC Webpage

Louie, NT8I has received the transfer of the website domain from Ruben and downloaded all information. Working on database for membership access and waiting on information from Ruben.

New Business:

Short discussion about the club's Special Service Club status and renewal. Issue was tabled until a later date.

Don, W8PEN discussed Ed Liddle, KE8ANU is planning a summer event activity operating from his local library to attract new and young amateur radio operators. Don asked if anyone would be interested in doing this in Mount Vernon in conjunction with Ed's planned event on 2 Meters or DMR. Date TBD.

Motions for club expenditures:

Bill, KC8BB postage stamps for newsletter: Louie, NT8I and Greg, W8DOH – Approved

Frank, KC8EVS repeater battery ($59.95): Emery, W8TW and Barry, N8PPF – Approved.

Adjournment

Motion to adjourn by Louie, NT8I and seconded by Scott, K8AEC. Motion passed and meeting adjourned.

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

Terry Windsor, KI8N
MVARC Secretary/Treasurer

By Don Russell, W8PEN

Happy April everyone,

A few things to cover before we get to Part II of How to Remote Your Ham Radio.

2 Meter Repeater

Most members active on 2 meter FM know the problems we have been having with our 2 meter repeater. Things have not been good. However, I think we have turned the corner and things are looking up.

Originally it was thought that putting our backup repeater (a Yaesu DR-1X) would solve the problem entirely. We would then simply rewire the repeater controller to work with the new repeater. Then repairing the older repeater (Maggiore) could be dealt with without it becoming a serious priority.

That all changed when the Yaesu repeater developed the same static type noise that the older repeater had developed. Yes. It was a big improvement over the Maggiore repeater. It did solve the oscillation problem we were having. But that static was much worse on the Yaesu than it was on the Maggiore. This is most likely due to the two repeaters having different audio characteristics. The Maggiore cuts out higher end frequencies whereas the Yaesu does not.

The other problem with the Yaesu is that it is much more difficult to use the Cat-1000 repeater controller with it than previously thought. Yes, it did work. However, the CTCSS function would not work. All the reading I have done suggested that the CTCSS should work with an outboard controller. I could not get it to do so.

Solving this CTCSS problem would involve buying a CTCSS board and installing it as an outboard device. The board is cheap enough, but was not worth the effort if we could get the Maggiore working properly.

The Amplifier on the Maggiore repeater had started to fail, which caused the oscillation some of you heard on one of our Sunday night nets.

The fix for this was to remove the amplifier, which was a used amplifier to begin with, and wire the repeater transmitter directly to antenna connector. This essentially gave us a 4 watt repeater. An outboard amplifier was added to the repeater to boost the power up to 50 watts. This amplifier is rated at 160 watts output, so 50 watts works out well for repeater service where the amplifier may be working for hours.

The Maggiore was reinstalled at the repeater site and so far has performed excellently. The static is still there, but so far, greatly reduced.

The repeater team is working on the static problem. Sometime this month we will be replacing the antenna feed line from the antenna to the hard line. We will also check for other things that may be causing this static.

I would like to thank Louie Wilkinson NT8I for helping with this project. I can tell that Louie is going to be a great addition to our repeater team.

Mesh Network

We continue working on the Mesh Network. When we do the antenna work at the repeater site, we plan on installing the long delayed mesh node at the site too. This should give use great coverage.

The node at KCH hospital is going to be replaced. It has not been working correctly since we did an update on the firmware.

The two nodes needed to accomplish the items above are currently being tested. Work will begin as soon as weather permits.

By Don Russell, W8PEN
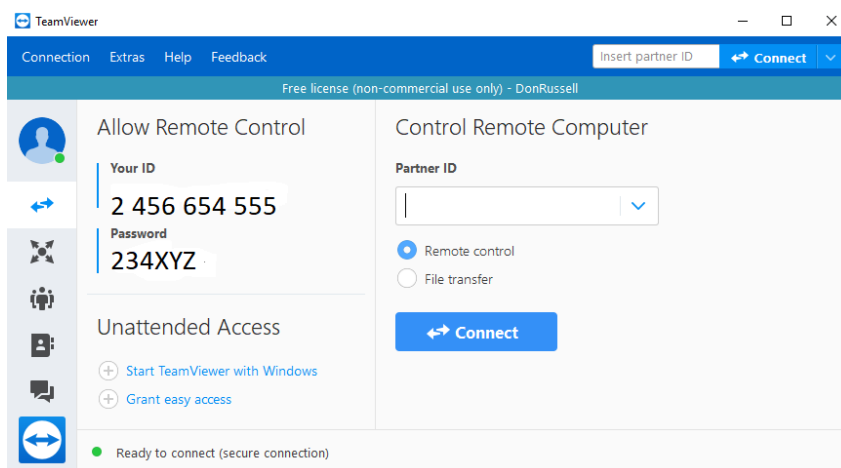
How to Remote Your Ham Radio Part II

In part one of this series, it was learned how to set up your computer to run digital modes on HF, VHF, or UHF. Same principles apply regardless of frequency. Congratulations to those that successfully accomplished this. You are half way to remote controlling your station. You are now ready for step 4.

Step 4 The Virtual Network Computer

To control the "shack computer", I use software to create a Virtual Network Computer (typically called a VNC). The software I use is a bit difficult to set up. Maybe we will look at it at a later date. The software we will be using for this article is called TeamViewer. This program is popular software that is free to use for personal or home use. If used commercially, you must pay a monthly fee. The reason I do not use this software personally is because it has a nag screen every time you close a connection that wants you to buy the commercial version. Not really a biggie and tolerable for being able to use the program free. I do like the easy setup of TeamViewer.

Download TeamViewer at: https://www.teamviewer.com/en/

You will need to download and install TeamViewer on both computers. Once this is done, simply start the program on each computer. You will be awarded with a connection screen that lists your ID number and password. The same thing on the second computer, but the ID number and password will be different than on the first computer (of course). Here is a screen shot:

For clarification, the main computer is called the CLIENT. This is the computer that you have by your side when operating remotely. The shack computer is referred to as the SERVER. This is the computer located in your shack running software that controls the radio.

On the Server computer, there are several things you need to do. First, looking at the figure above, click the boxes for "Start TeamViewer with Windows" and "Grant Easy Access". These are located under "Unattended Access. Next, enter the Partner ID number from the Client and password if available.

Now, on the Client computer, enter the Partner ID of the Server computer and its password.

If everything was set up right, you will see the Server computer on the Client computer screen. You will have mouse control and keyboard control of the Server computer. In fact, you will have complete control of the shack computer via the client computer. Makes no difference if you are in the same room, or across town. If you have an internet connection, it will work.

Start your digital software using the client computer. Just point and double click as you would sitting at the shack computer. You should observe that you can do everything you ordinarily would. In fact, I have removed programs, installed programs, run virus scans, used the word processor, and even surfed the web using the client computer to control the server computer. Pretty neat.

By Don Russell, W8PEN

Depending what software is being used to control the radio, there will be lots of flexibility.

If using HRD (Ham Radio Deluxe) you will be able to change bands, activate the internal antenna tuner, change modes, change filter settings, and so on and so forth. I repeat myself: Pretty neat.

If using a simple digital program, you may be limited to changing bands and modes.

One of the software programs I use is made especially for the Kenwood TS-590S. I can make any adjustment using this program remotely that I could when sitting next to the TS-590S. This includes AF and RF gain controls, programming the receive filters, make microphone gain adjustments. Like I say, just anything I want to do.

Step 5: Getting On The Air

This is the fun part. Now you can operate your radio from anywhere in the world! Okay, right now you are limited to digital, but we will fix that later on.

I use the ability to remote control my radio most often just from my home. In the summer, I can sit outside in a lawn chair and operated any mode I want. If I want to demo ham radio, it is a simple matter to simply take my laptop to where ever and make a contact or two.

I also know if I ever decided to buy a new home in an antenna restricted area or a condo, as long as I owned an acre of land somewhere (or had some really good friends), I could set up a remote station and not miss a beat.

Club members could benefit by remote controlling the clubs Kenwood TS-570D. Any member without a station could operated HF using the clubs radio and the internet. From home!

Wrap Up: Stay Tuned For Part III

In Part III we will finally find out how to operate SSB by remotely. I have been experimenting with this for a few weeks and my friend Lynn KG8D has been helping me perfect things. I know have a quality SSB signal on HF bands. Unless I tell them, nobody knows I am operating a remote station.

We may also cover how to operate Morse Code CW. I have used Morse Code remotely before by using a keyboard. I would like to set it up so I can use an actual key. That might be a challenge.

That is a wrap

Being radio active is a lot of fun. Build an antenna. Build a radio from scratch or kit. Restore an old ham radio set. Learn something new! After 54 years of being a ham, I am finally learning how to use an oscilloscope.

There is lots of help out there. Just get radio active. See you at the April meeting.

Can Indoor Antennas Work? Yes!

By Dan Romanchik, KB6NU

Recently, a reader asked:

I am studying your "No Nonsense" book as I prep for the Technician test. I am also learning CW. I am going to buy a Yaesu FT450D as my first radio, and I want to use an indoor antenna as my first antenna. What do you recommend for CW?

I replied:

To be honest, I've never had a lot of luck with indoor antennas. Don't let that dissuade you, though. I have worked many hams with indoor antennas. Just recently, for example, I worked a guy who was using a Buddipole (http://www.buddipole.com/) inside his apartment.

If you have an attic, you could easily install a dipole up there. The ARRL web page on indoor antennas (http://arrl.org/indoor-antennas) notes:

"Attics are great locations for indoor antennas. For example, you can install a wire dipole in almost any attic space. Don't worry if you lack the room to run the dipole in a straight line. Bend the wires as much as necessary to make the dipole fit into the available space.

.....

"Ladder-line fed dipoles are ideal for attic use—assuming that you can route the ladder line to your radio without too much metal contact. In the case of the ladder-line dipole, just make it as long as possible and stuff it into your attic any way you can. Let your antenna tuner worry about getting the best SWR out of this system."

There are plenty of remote tuners now, too. You could install a doublet with elements as long as you can make them, connect them directly to the remote tuner, and then run coax to your shack.

I have also worked guys who have used Slinky antennas inside a house. The advantage of using a Slinky is that it is electrically longer than a wire of the same length.

An attached garage might also make a good location for an indoor antenna. VE3SO, who I've worked several times, uses a magnetic loop antenna installed in his garage (https://www.kb6nu.com/magnetic-loop-antenna-at-ve3so/).

If you do a web search for "indoor amateur radio antennas," you'll get many more ideas. Here are a few that looked promising to me:

Indoor antenna for 7 MHz (http://www.iw5edi.com/ham-radio/37/indoor-antenna-for-7-mhz)

An Indoor Reduced Size Rectangular Loop (http://hamuniverse.com/kl7jrindoorloop4010.html)

By Dan Romanchik, KB6NU

Another option might be to load up your gutters! I've worked a couple of guy who use gutter antennas, including WA8KOQ

(https://www.kb6nu.com/operating-notes-gutter-antenna-rac-contest-161-countries-worked/)

and K3DY (https://www.kb6nu.com/operating-notes-computer-virus-club-net-gutter-antenna/).

This blog post garnered a couple of interesting comments. *K2MUN wrote,* "For many years I've used an attic mounted off-center fed 40 meter dipole. With an automatic antenna tuner and a 4:1 balun I've worked lots of dx with both QRP and, more easily, 100 watts! Certainly, outdoors is much superior but an attic is a nice location in bad weather making playing with your antenna a pleasure :-).

John, KD0JPE, said, 'If you have an attic available, check out the following 6-band coax trap-based antenna:

http://degood.org/coaxtrap/.

I constructed one of these 9 years ago and have had great results with it.

The bottom line is that indoor antennas can definitely work. They may take more work to put up than outside antennas, but as the saying goes, "Any antenna is better than no antenna."

April, 2019

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