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)

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President's View

October! Time flies, we here EVS land just returned from a trip to Australia. We went to visit with our daughter who is a missionary in Papua New Guinea. We had a great time visiting and seeing the sites around the city of Cairns QLD, Australia. If you enjoy being bored with pictures on a cell phone I have several hundred from this trip on my phone.

Two things that we did that were impressive was snorkeling on the great barrier reef and a train ride up to the table lands and a cable tram ride back down, both fantastic days. I recommend if you ever get the chance to go to Australia go, you won't regret it. Oh, by the way, if you rent a car over there, they drive on the left side of the road and think that it is perfectly normal thing to do and will get upset if you drive on the right side, trust me. Also they or the English invented the round about they are everywhere.

I'm really excited as Don, W8PEN just informed me that my chicken coop node has been seen occasionally by Matt,KB8UVN in Johnstown which can see the mesh node on the water tower. This means my chickens are no longer isolated from the rest of the mesh world. Now to get it up a little higher and maybe a directional antenna on it to improve my signal. Now the real test can I remember the password?? I'll be working on that over the next few days.

Hopefully everyone got the notice that we will be voting on some changes to the by-laws and constitution at our next meeting, so plan to attend. Also, think about how you might want to help the club next year by serving as one of the officers. We are looking for some new faces to join into the fray.

Well, I want to surprise Bill, KC8BB and get this to him before he asks for it, that will be a first. So, to wrap it up I would love to see all at the next meeting Monday, Oct. 14 at 7p at the Red Cross. If you can't make that, Friday mornings at 10a again at the Red Cross.

Frank KC8EVS

The ARRL Ohio Section calendar lists many interesting events around Ohio. The webpage is shown below:

https://arrl-ohio.org/g-calendar/default.html

Visit us on Facebook:

Mount Vernon Amateur Radio Club

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Visit our new website:

https://mvarc.net/

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 3.972.5 KHz at 10:30 a.m., 4:15 p.m. and 6:45 p.m. daily. Alternate Frequency for all sessions 3.968 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: 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 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.

September Meeting Minutes
September 9, 2019

Frank, KC8EVS called the meeting to order at 7:00 pm with 16 members and 2 guests present.

August Meeting Minutes accepted as noted.

Treasurers Report presented by Terry, KI8N; accepted as noted.

Repeaters:

Noted the 146.79 and the 444.6 repeaters are working.

Some interference has been noted on the 444.6 repeater which required it to be shutoff for one evening. Don has found a solution for remote controlling/shutoff of the repeater to control future interference incidents.

Mesh:

Mesh network is working.

Matt Johnson has connected to the water tower from Johnstown (19 miles). Pursuing a 5 GHz connection between water tower and Johnstown.

WiresX – Still on hold for internet connection at Hospital.

ARES:

Nothing new per Scott, N8SY.

Old Business:

Frank, KC8EVS discussed upcoming 2019 events.

Ohio Courthouses Special Event was August 24 and MVARC operated from the Knox County Courthouse parking lot with the Knox County Mobile Command Center. Eight members participated and attempted to contact Ohio courthouses.

Ohio State Parks on the Air was September 7 and MVARC operated from the North Shelter. Seven members participated and we made approximately 49 contacts with Ohio State Parks. The entire event was operated on battery power.

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

MVARC Webpage

Web site is live at the following addresses: MVARC.net and K8EEN.net.

Secure area still being worked on and posted pictures need to be identified.

Direct questions to Scott, N8SY or Louie, NT8I.

New Business:

Nominating Committee to be selected at October meeting for securing candidates for elected MVARC officers for 2020.

Adjournment

Meeting adjourned at 7:45 pm and Larry, AC8YE did a MESH demonstration. Larry discussed setting up a mesh node and antenna options. Matt, KB8UVN also talked about and showed 5 GHz MESH equipment that could be utilized to connect from Mount Vernon to Johnstown.

50/50 Drawing won by Don, KB8PQO.

Terry Windsor, KI8N
MVARC Secretary/Treasurer

By Don Russell

Are you radio active? I hope so.

This month I will catch everyone up on what has been happening with our local mesh network. Things are finally in high gear and the possibilities are endless with this fascinating aspect of amateur radio.

But first, a few other things, as I know not all members are interested in the mesh network.

Antennas at W8PEN

The new antennas mentioned last month are working extremely well. That is what happens when you can get the antennas up high in the air. It is really nice not having to use an external antenna tuner, and usually, not even the internal antenna tuner built into the radio.

Steve, KD8TNT helped me with some tower work. I had him install a new antenna rotator and a 432 MHz antenna. The old antenna rotator has been giving me problems for several years now, so I am happy to have the problem solved. The 432 MHz antenna is not performing as well as I had hoped even though I have made some contacts with it. I am looking at alternatives that won't break the bank.

Overall, I am very happy with the improvements made here at home. I just need to get a 160 meter antenna up before the next contest and I will be set for the winter.

Because it seems that trouble never ends, I have been having problems with the elevation rotator on my EME antenna. There is the possibility that the rotator just removed from the main tower has the same motor in it that the elevation rotator has. If so, I am planning on swapping them out since the motor was not the problem with the rotator on the main tower. It was more a control box issue.

The elevation rotator has been giving me problems for a few months now. I finally traced the problem down to the internal brake in the rotor motor. After alternately spraying WD-40 and contact cleaner on the brake system for almost two days, the rotor started working again. After reinstalling on the EME tower it worked for about two weeks. But now it is starting to stick once in a while again.

K8EEN Repeaters

The local repeaters have been working flawlessly for the last several months. Thanks to the replacement of the fitting on the 2 meter antenna, we are finally rid of the bothersome noise the plagued our system for several years. NICE!!

Plans are to purchase a DTMF control board for the 70cm repeater. We need a simple way to just turn the repeater off and on occasionally. The control board I have in mind will do over the air DTMF, telephone DTMF, or computer control via the RS-232 port. I am thinking that we should take advantage of the Mesh Node located at the hospital to help control the repeater.

The Wires system for the 70 cm repeater is on hold due to lack of internet. Here again, the Mesh Node at the hospital is a possible solution to this issue.

Local Mesh Network

We are looking to greatly expand our Local Mesh Network. I feel very fortunate that I now have a team of local hams that are interested in expanding on the Mesh Network that I had worked so hard to get going over the past five years. Most important is the fact that this group has much background in computer networking.

Matt KB8UVN, Larry AC8YE, and Louie NT8I all have more experience with computer networking than I do and all three are wanting to expand the local mesh network into other areas such as Delaware, Licking, and Richland Counties. In fact, we are already doing so, although the current system is working strictly on 2.4 GHz and signal strengths are low and throughput a bit on the slow side.

The next step is to install 5 GHz nodes for the long hauls between Johnstown and Mt. Vernon, and Johnstown and Delaware. We are fortunate in that Matt's location is high and able to reach the Mt. Vernon Node at the water tower; as well as a clear shot to Delaware. Our first efforts assured us that a 5 GHZ link from Johnstown to Mt. Vernon is not only possible, but very strong.   The 5 GHz links will be key in providing high speed throughput between the different communities. We are also looking a 5 GHz link from Mt. Vernon to Fredericktown at Louie's QTH. In addition, thoughts are to have a 5 GHZ link between the water tower and KCH hospital.

Fortunately the 5 GHz nodes are small in physical size and several can be put on the same mast. We can also use multiple frequencies for these links because there is a lot of channels to choose from on the 5 GHz band. We do want to keep our footprint to a minimum.

Plans are to replace the Bullet M2 and Omni antenna that is currently on the water tower with a Rocket M2 and Rocket M5 (2.4 GHz and 5 GHz) and use a dual band, dual polarized antenna. The footprint would be just about the same and performance should increase significantly.

Thanks to donations of equipment from Matt, KB8UVN; Frank, KC8EVS and myself, we have all the equipment we need to do the planned expansion, plus get individuals set up with their own nodes on 2.4 GHz or 5 GHz. I am also changing my philosophy at bit on the individual nodes. With the expansion, it is no longer necessary for individual nodes to be on all the time. Individuals will be able to turn on their nodes when they want to use them and turn them off when done. Of course if you set up an IP mesh phone, you may want to leave things run.

It is possible that all this work will be done before the newsletter is published. The equipment install itself can be accomplished in a couple of hours.

I know not all members are interested in our Mesh Network, and that is fine. But we are at a point where things are going to start happening and I can see the Mesh Network being very useful not only for our ARES activities, but for some day to day operations. Things like Mesh Chat, Teamspeak3, and the Mesh phones are very useful things to do that club members can participate in. Think of it as packet on steroids.

I might be dreaming, but wouldn't it be nice to set up our club station to be remote controlled over the Mesh Network. Then anyone that is "on the mesh" could operate the club station from home over the mesh.   Sure, this can already be done over the internet, but if we did it on the Mesh Network there would be less chance of abuse by non-members.

I am very excited about what is happening with the Mesh project. See you all at the club meeting.

October, 2019

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