The Mount Vernon Amateur Radio Club
PO Box 372, Mount Vernon, Ohio 43050

Meetings are held on the 2nd Monday of each month at 7:00 pm
at the Knox County Chapter of the American Red Cross,
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:

Presidents View

NVIS, I want to thank all who participated this year. Not so many contacts, but a good time, especially if you enjoy the cold.

Earth Day Challenge again thanks to all who participated. It was a beautiful day, cool in the early morning but sunny and nice by noon.

Hamvention, it's that time of the year again, May 19, 20, 21. Hamvention has a new location this year the Green County Fairgrounds. The O'Hara Arena served them well for many years but was getting old and in need of major renovation. It will take some getting used to I'm sure. I'm looking forward to the new venue. Hope to see you there.

Field Day 2017 (June 24-25), is quickly approaching. We are going to be out at Apple Valley again this year. Don't miss the next meeting to be up to date on the plans and how things are going to run this year. For those of you who have taken the ICS courses we are applying some of the tools to the planning and running of the event as a practice. I'm sure that it will bring up many questions and point out some weak points and be a good learning experience for all who participate.

Hope to see everyone May 8 at 7pm. As usual if you are free through the week, consider stopping in at the Southside Diner 5pm on Wednesdays or Hardees at 10am on Friday.

73

Frank KC8EVS

By Patrick Valentino

On April 10, 2017 Knox County ARES participated in a facilitated Table Top drill "Tornado in Knox County". The drill was designed to test the Operations Manual for ARES notification / activation do to a severe weather event. What we learned from the drill was that the Operations Manual has gaps and additional updates are necessary.

The primary notification / activation tool for ARES is Knox Alerts http://entry.inspironlogistics.com/knox_co_oh/wens.cfm. Other tools are used as appropriate to provide warnings to the general public, such as; Wireless Emergency Notification Systems (WENS), Reverse 9-1-1 Systems, the Integrated Public Alert Warning System (IPAWS), the Emergency Alert System (EAS), weather radios, radio broadcasts, public address systems and outdoor warning sirens.

In March of 2017 the National Weather Service conducted a Statewide Tornado Drill where the outdoor warning sirens were energized. Some Knox County residents reported to the Emergency Management Agency (EMA) they did hear the outdoor weather sirens, while others reported they did not. Knox County EMA is responsible for the integration, coordination and management of the county's warning systems. Director Maxwell has requested our help to assess the situation.

There are 17 outdoor warning sirens in Knox County. They are tested the 1st and 3rd Friday each month at 12:00 noon. If you are interested in participating in a self-assessment of the outdoor Weather Sirens. Please contact Patrick Valentino KD8PSM, pvalentinoknoxco@gmail.com. 740-393-6772

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MINUTES FROM THE APRIL 10TH, 2017 MVARC MEETING

Meeting called to order at 2302 UTC by KC8EVS.
19 members and 1 guest present.
AC8PT moved, KD8HSA 2nd, motion to accept March minutes. Approved.
KC8UR moved, W8TW 2nd, motion to accept April Treasurer's report. Approved.
Repeater report by W8PEN: Stated we still occasionally have a crackling type noise one the 146.790 repeater. Due to it being intermittent, it is going to be a hard problem to track down and eliminate.
Reported we now have a higher gain antenna on the 444.600 repeater, and will be conducting range coverage experiments over the next several weeks.
Advised the MESH system is still a work in progress, however it is growing.
KD8PSM gave a report on ICS-201 and other ARES happenings.

GENERAL OLD BUSINESS

NVIS Day is April 22nd at the Centerburg Conservation Club. Set up to start around 9 AM. If you have an antenna you would like to try out for this mode of communications, bring it and any necessary materials to raise it. Event should end around 4 PM. Bring a sack lunch, as there will not be anyone available to prepare a meal for the group.
The organizational meeting for the Earth Day Half Marathon at Kenyon College will be held on April 21st. The event will be held on Sunday, April 23rd on the Kenyon College Campus. Members are ask to meet a the EMA Command Trailer behind the bleachers at the Kenyon football field at 6 AM to be assigned to their event positions. This event usually is over by 12 Noon.
KC8EVS reviewed the upcoming events for the year. Field Day, Daniel Emmett Days, and The Ohio State Parks on The Air Events.

NEW BUSINESS

W8TW moved, AC8PT 2nd motion to donate $150.00 to the Red Cross for the use of the facilities for club meetings and functions, along with the club stations. Approved.
KE8ANS moved, W8TW 2nd a motion to pay the amount of $173.00 to Mercer Consumer Insurance to Protect the communications equipment that the club owns. This includes our 2 GO BOXES of our Repeater Systems, (repeaters, power supplies, antennas, and fed lines), and our 2 club stations at the Red Cross, (again radios, antennas, power supplies, and fed lines). Approved.
W8PEN announced we may hold an additional VE testing session in July or August if enough interest is shown.
W8PEN also stated he is in the early planning stages for classes covering the General Class Amateur License.
KC8EVR stated that VASU (his employer) may be willing to donate 2 used laptop type computers for use at our 2 Red Cross stations. He stated that we would have to secure power supplies for these computers, but they can generally be found for around $40.00 apiece. He also stated we may need to update the laptops to at least Windows 7.
N8PPF moved, KE8ANS 2nd a motion that we accept the donation of the 2 laptops and purchase the needed Power supplies. Approved.
We received 2 donations after the meeting to cover the cost of the power supplies. Two members donated $40.00 each for the total of $80.00. It was decided to wait and see if we needed to upgrade the programming.

GENERAL COMMENTS

More volunteers are needed to assist with the Weather Nets. Contact W8TW, KC8EVS, or KE8ANS if you are interested in helping.

Motion to adjourn made by AC8PT, 2nd W8PEN. APPROVED. Meeting adjourned at 0010 UTC.

Respectfully submitted,

N8IBR, Secretary MVARC

Radio Activity

By Don Russell, W8PEN

Club members had a busy, busy month of April this year. Lots of work on the Mesh Network, Club Station, and Radio Events.

My Loop Antenna

But first, I want to tell everyone about my loop antenna. I had taken down my 80 meter loop earlier in the year. I wanted to "clean up" my tower and area in front of the house. Too many wires! My intention was to replace the 80 meter loop antenna with a new loop antenna in the lower yard where it would not be so noticeable.

Since I was going to go to all that work of putting up a new antenna, I thought I would try a different configuration. My old loop was a triangle, 90 feet per side, and resonated on 3.750 MHz . This antenna also had reasonable SWR on 40, 20, 15, and 10 meters making it a very good all around antenna. Indeed, at time I felt like I was the strongest signal on the band during a contest. At least on 80 and 40 meters.

For my next antenna, I wanted to make it a square, and longer. I would have loved a 160 meter loop, but that would have been a loop antenna with four sides of 135 feet. Yes, I have the room, but it did not fit into my tree line very well and I would have had to put up a mast or two. Something I wanted to avoid. I decided on a loop antenna that would be 100 feet per side. This fit well into my landscape and I would be able to use four trees and get the antenna up reasonably high. It would also be long enough that I could probably tune it to 160 meters with an antenna tuner and not have too much of a lose.

The next decision I needed to make was how to feed the antenna. Since this antenna was not going to be resonant on any band, I did not think I would have a low enough feed point to be able to use standard 50 ohm coax. I ran my antenna through EZNEC antenna analyzer software and it showed infinite SWR on all ham bands. So, I figured I would have to use ladder line all the way into the shack, or if lucky, use a 4:1 balun at the antenna feed point and run coax into the shack. I decided that I would wait until the antenna was up before deciding how to feed it.

The project went rather smoothly with the help of my sling shot antenna raiser. This is a neat device I put together. It uses half of a spin casting fishing rod, spin casting reel, and a slingshot I found at a Garage Sale. It works really well at getting rope up over trees as high as 30 or 40 feet for wire antennas.

The end result was a loop antenna up a bit more than 25 feet at the drops. I know because I have a 22 foot pole that I was able to stand up at the low parts of the antenna. The top of the pole was still about two or three feet under the wires. I could hear the signals already, and I had not even turned on the radio!

I used about 30 feet of ladder line to get the feed point down to where I could work on it near the ground. First, I directly connected RG-8X coax to the ladder line and used my MFJ antenna analyzer to check the SWR. This confirmed that the SWR was infinite on all bands. Not being deterred, I ran coax from the antenna to my antenna switch box on the tower and checked the SWR in the shack. Same results. SWR was so high that the internal antenna tuner would not even attempt to tune the antenna to any band. On to plan B.

I have a home brewed 4:1 air balun that I had built for another antenna project. I have used this balun on a few antennas with good results, so what the Hay, I decided to try this balun on my loop antenna. After installing the balun, I once again checked the SWR with the analyzer. This was promising. SWR on 80 meters was about 5:1. That was the bad news. SWR readings on 40, 20, 15, 10, and 6 meters was 2:1 or lower. Nice. I thought I could live with high SWR on 80 meters. The good news was that the internal antenna tuner could tune the antenna through the whole 80 meter band.

160 meters was not good. SWR was high enough that the internal antenna tuner would not tune it. The manual antenna tuner will tune the loop to 160 meters. I will have to play on that band a little and see if the antenna gets out any or is just a dummy load on 160 meters.

Radio Activity, continues on page 5

By Don Russell, W8PEN

Readings in the shack backed up the reading of the analyzer in the field. In fact, SWR was even better in the shack, probably due to the 70 foot run of coax to the antenna switch at the tower. In fact, I did not need to use any antenna tuner on 40 through 6 meters. Excellent!

Results have been encouraging. I talked to Scott, AC8PT, one night on 80 meters. Band was not very good because of QRN (static). Scott gave me a 57, which I thought was pretty good for conditions. I also checked the antenna on 20 meters and worked 10 stations in the Florida QSO Party without much problem. I would say the antenna is working well.

Not everyone has room for a 400 foot loop antenna. I feel very lucky to be able to put this antenna up. I am going to delay putting up any other antennas for now. This antenna and my trusty 160 meter Windom Antenna may be the only antennas I need to do well in the upcoming contests.

NVIS DAY

The club had a very nice turnout for NVIS day. I won't say too much because there is probably an article by someone elsewhere in this newsletter.

Frank, KC8EVS, brought his NVIS antenna. This antenna is easy to set up and seems to work well. Terry, KE8ANS, also brought an antenna. Looked like a folded dipole, but I did not get a chance to question him about it. I believe it held its own. I had put together my 400 foot loop antenna Friday afternoon and decided to take it for a test drive for NVIS day before putting it up at home. We put the loop antenna up at about ten feet. It was drooping down to five feet. We made several contacts on it, but signal reports were not great. That is why, when I got the antenna home, I decided to shoot for as high as I could get it.

I think we all had a great time. This is a fun event where no one feels pressured to make a lot of contacts.

Kenyon College Earth Day Marathon

Another good turnout by our club. We have provided communications for this event since its beginning. It is a good event for new hams to get their feet wet in Public Service.

This year I was posted at Check Point Two. I was later joined by Scott, AC8PT, and Greg, KE8GFK. They had been relieved of their duties at other checkpoints as the runners advanced. It was a fun social gathering.

I was keeping an eye on our new UHF repeater on 444.600 MHz (pl 71.9). It seemed to hear everyone on the trail without a problem. Maybe we can use this repeater next year so that the regulars can use the 2 meter repeater during the event. That is why we put this new repeater up, to give us options and a backup.

Club Station at the Red Cross

Last month I stated that we had sent the Yaesu FT-847 out for repair and that it had been returned but I had not had a chance to check it out. Well, we checked the radio out at NVIS day. I also took it home with me. Barry, N8PPF and I further checked it out on 10 meters and 80 meters. The radio appears to be working well.

We are still looking at the club station setup. Currently we have funds set aside to buy a new dual band radio for the VHF/UHF station. While I like this, I am wondering if we would not be better served using the FT-847 for the VHF/UHF station. We would have 6 meters available by doing so. Six meters is a band the Ohio ARES is pushing for to supplement the nets on 80 meters. We would still need to purchase a power supply for the FT-847.

Radio Activity, continues on page 6

It would save the club on the purchase of a new radio. Although there is the thought that a second VHF/UHF radio would be a nice backup rig. In this scenario, you would have the Yaesu FT-900 as the main HF radio because it has an internal antenna tuner. The Yaesu FT-847 would be the main VHF/UHF station and be a backup to the HF radio. The new VHF/UHF rig would back up the FT-847. But is all this redundancy really necessary? We are not NASA! Any way you look at it, the future is looking good.

Local Mesh Network

Not much has happened with the Mesh Network. We are having some problems with the KC8BB node, but plan on having this issue resolved shortly.

There is talk of putting a node at the EOC. If this pans out, then the ARES team will have Mesh Phone Service and Mesh E-Mail Service between the EOC, Hospital, and the Red Cross. This could be BIG during a disaster event.

The remaining piece of the Mesh Network is to get the node online at the Water Tower where the 2 meter repeater resides. We already have permission from the city. And we have the equipment to do so. We just need to get it done.

There is some thought that when we do this installation, we should put two nodes up. One as a backup to the other. Might not be a bad idea.

The Final

That is it for this month. I am pretty excited about what is happening with the club. I think Frank, KC8EVS, has done a very nice job leading the club for several years now.

We are finally being recognized locally as a valuable tool in the event of a disaster or Emergency. It is time to put up or shut up. Please consider joining the Knox County ARES. We are spread pretty thin and could really use the help.

See you all meeting night.

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NVIS 2017

By Frank, KC8EVS

Never fails to be cold on this day! We had a great turn out and thanks to all those who did. It was fun setting up and playing radio. We did not do so well as far as contacts go, but propagation had a lot to do with that. We had four antennas this year. I brought my 40/80 meter modeled of the military AS2259 NVIS antenna.

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Barry brought out an end fed which we strung up about 8 to ten feet. Don made a 100 ft. on a side loop and it was up about 8-10 ft. Terry made a 50 ft. end fed antenna with a 50 ft. counterpoise and set up in an inverted V configuration. It's difficult to take pictures of wire antennas. Below are a couple of pictures of mine and Terry's.

We started off at 10am on 80 meters. The plan for the day was to work 80 meters from 10am to 12pm, then switch to forty meters from 12pm to 2pm. At 2pm we were to switch to 160 or 60 meters. I heard lots of stations on 80 meters in the morning but when we switch to 40 meters I did not hear any.

We were not set up to try 160 or 60 so we gave up soon after 2pm.

The radios we were operating were the club radios 847 and 857 and they were working well.

73, Frank

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Earth Day Challenge 2017

This year, like in the past, the weather could not have been better, cool in the morning warming up as the sun came up. We utilized the mobile command trailer courtesy of the Knox County EMA as our base of operation (net control). It was a little cool inside the trailer and Pat KD8PSM says that he will park it on the other side of the parking lot next year, so the sun hits it first thing in the morning. Tom, KD8HSA and Pat, KD8PSM worked as net control from the trailer. The trailer has plenty of room and comfortable seating to work the event. No heat and all the doors open it makes for a pretty cool place to operate.

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Earth Day Challenge continued from page 7

I have included a map of the course to give everyone an idea as to what we were doing and the course lay out. The Earth Day Challenge is two races in one a 4 miler run or walk through Gambier (circled in red) and a 13.5 mile half marathon (the 4 mile course plus a jaunt out the bike trail and back). The red X in the circle is where we set up the mobile command trailer (net control) close to the start/finish line. We also have a radio operator at each of the aid stations (AS1, AS2, AS3, AS4). Then we post someone out at the turn around point on the bike trail (to watch all the squirrels). This year we used the 2 meter (79) repeater and it looks like we could use the 440 (600) repeater in the future for this event and not tie up the 79. Arlin KD8EVR and RayAnn KD8NGW secured the use of a fancy two seater quad to follow up the last participant and/or locate lost participants on the on the course. This year they were put to work to find a couple of the participants lost on the 4 mile course.

Our job is to relay any information concerning the course conditions, where the first and last runners are, any special needs that may come up, any questions that may come up for the race coordinators. This year everything went smoothly (except for a couple of lost runners on the 4 mile course) and we got to enjoy a nice day out along the Kokosing river.

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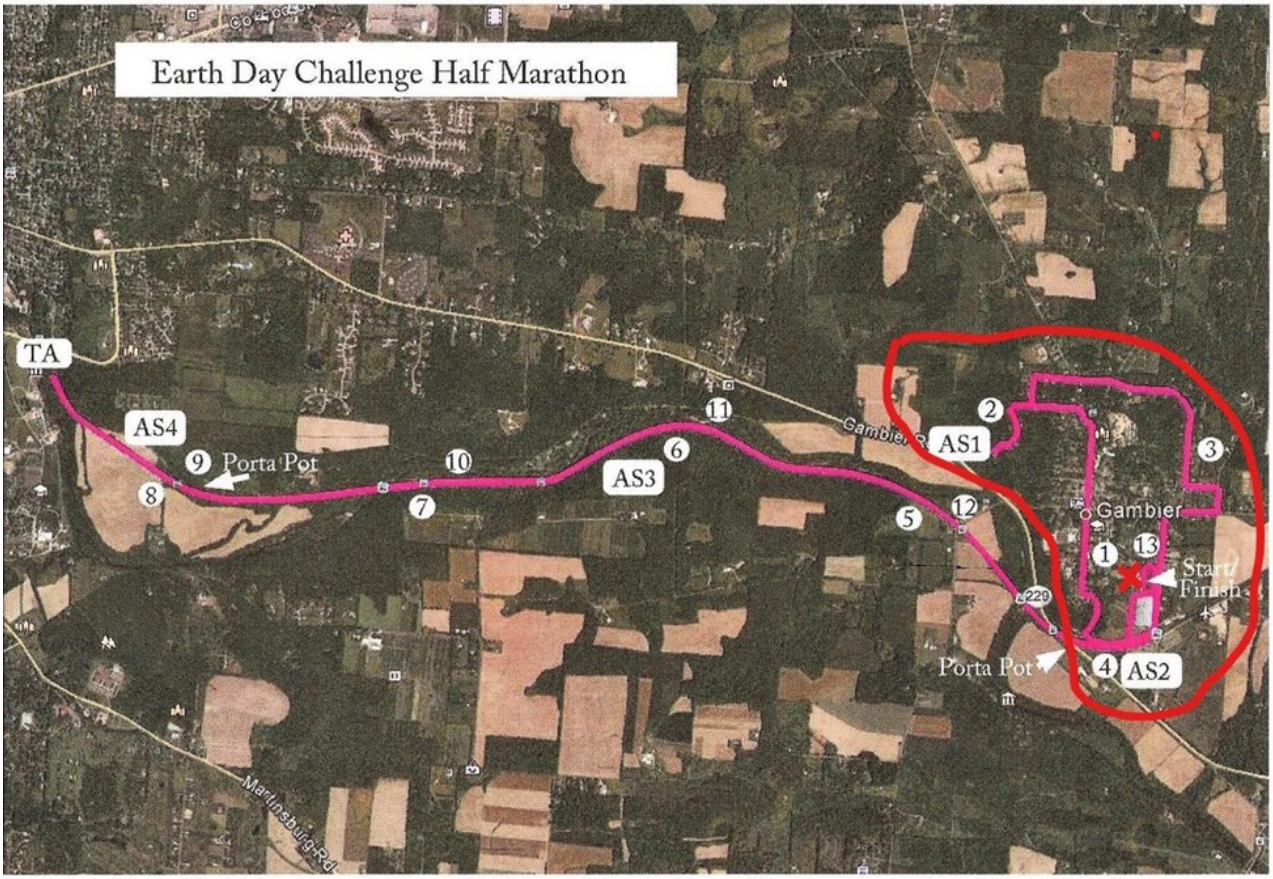
Earth Day Challenge continues from page 8



AS1-Scott AC8PT

AS2-Don W8PEN

AS3-Terry KE8ANS (he got his exercise as there is a little hike to get to this aid station)

AS4-Greg KE8GFK

TA-Frank KC8EVS and several squirrels

The last picture is of the TA all the runners had to run around the cone and start back for Gambier.

Frank, KC8EVS

May, 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	**2**	**3** 5:00 pm Dinner at Southside Diner	**4**	**5** 10:00 am Breakfast at Hardee's	**6**
7 9:00 pm ARES Sunday Night Net on K8EEN **KC8BB –Bill**	**8** **7:00 pm** **MVARC Monthly Meeting**	**9**	**10** 5:00 pm Dinner at Southside Diner	**11**	**12** 10:00 am Breakfast at Hardee's	**13** **9:00 am** Breakfast at Allison's Finer Diner
14 9:00 pm ARES Sunday Night Net on K8EEN **W8PEN – Don**	**15**	**16**	**17** 5:00 pm Dinner at Southside Diner	**18**	**19** 10:00 am Breakfast at Hardee's	**20**
21 9:00 pm ARES Sunday Night Net on K8EEN, **KE8ANS –Terry**	**22**	**23**	**24** 5:00 pm Dinner at Southside Diner	**25**	**26** 10:00 am Breakfast at Hardee's	**27**
28 9:00 pm ARES Sunday Night Net on K8EEN **KD8HSA Tom**	**29**	**30**	**31** 5:00 pm Dinner at Southside Diner	**1 June**	**2** 10:00 am Breakfast at Hardee's	**3**
4 9:00 pm ARES Sunday Night Net on K8EEN **KC8BB –Bill**	**5** **7:00 pm** **MVARC Monthly Meeting**	**6**	**7** 5:00 pm Dinner at Southside Diner	**8**	**9** 10:00 am Breakfast at Hardee's	**10** **9:00 am** Breakfast at Allison's Finer Diner