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

It seems that this year is flying by as we are already at the half way mark. Hamvention is past and it was in my opinion a good one, no rain. I believe that attendance was good. It will be a while before they release the numbers, so we will have to wait and see. One thing that stuck out to me, was it was not as crowded as in the past. I believe that was due to good weather and folks being out in the flea market area, instead of seeking shelter in the buildings. I was able to make a few contacts from my camp at Caesar Creek State Park, which is always good. I wasn't camped out next to the water tower this year, as it draws lighting, and that's not good when you are in a tent. Somehow thunder is louder when in a tent with rain coming down .

Since this is the June meeting, we will be preparing for Field Day, so be sure to attend to find out what is going to take place on June 22-23. Please plan come out to the field day site, even if it is just a couple of hours just to say Hi, or check out the set up. I think that I will camp out there for the weekend. Hopefully that does not mean rain, as that often happens when I get my tent out.

Another reason to attend this meeting is Larry, AC8YE is going to give a demonstration of his portable mesh node. This should informative and demonstrate what we can do with our station as we get more nodes on the air.

Next meeting is June 10th, at 7pm at the American Red Cross hope to see you there. Also, we have a lively discussion on Friday mornings at 10am at the Red Cross with plenty of coffee and whatever you like to bring for your breakfast. Come join us if you can, we would be glad to see you.

Frank, KC8EVS

2019 Field Day

June 22 and 23

Apple Valley ball Field behind Flora Valley Community Center

See directions and map on page 6

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.

May Meeting Minutes
By Terry Windsor

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

19 MVARC members present.

April Meeting Minutes accepted as noted.

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

Repeaters:

Don, W8PEN, reported the 146.79 repeater is working.

The 444.6 repeater at Knox County Hospital is fully operational after the squelch was adjusted. Awaiting internet connection and equipment to install WiresX.

Mesh:

Don, W8PEN, reported Mesh network is working. A node has been installed at the water tower.

ARES:

Bill, KD8WHQ had no items for ARES.

Old Business:

Frank, KC8EVS discussed upcoming 2019 events.

- Dayton Hamvention starting May 17.

- Field Day June 22 and 23.

  Frank, KC8EVS has reserved the Apple Valley ball field. Plan to have four operating stations; CW, 2 on SSB, and digital. Quinton is working on media and publicity events. Bill, KD8WHQ Safety Officer, Don to check on borrowing shelter, and each attendee to bring a side dish with meat items catered.

- 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.

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

Dan Emmett 2019 Ham Club event is on hold pending what Mount Vernon does for the celebration.

MVARC Webpage:

Michael, KE8HGE is working on content and security updates. These items should be working before moving to a new server – On hold.

New Business:

Discussion about Director's meeting and proposed changes to Constitution and By Laws. Information will be sent to each member.

Club equipment insurance policy is due for renewal in June. Decision/vote to change to ARRL insurer.

Discussion of community event to clean the area around the Red Cross building - TBD.

Adjournment

Motion to adjourn by Louie, NT8I and seconded by Larry, AC8YE. Motion passed and meeting adjourned.

50/50 Drawing won by Frank, KC8EVS.

Terry Windsor, KI8N
MVARC Secretary/Treasurer

Field Day 2019!

By Don Russell W8PEN

Field Day is upon us once again! My favorite club operating event!

This year, Field Day will be Saturday, June 22nd starting at 2PM and ending Sunday, June 23rd at 2PM. That is 24 hours of excitement!

For those not familiar with Field Day. Field Day is the biggest operating event of the year sponsored by the American Radio Relay League. Clubs, groups, and individuals come together to set up emergency type stations all over the US and Canada, most using emergency or backup power and temporary antennas. For many clubs, it is the main event of the year. The object of the event is to work as many other stations as possible in the 24 hour period. Public awareness of amateur radio is one of the main goals of Field Day.

As the club has done the last ten years or so, we will be setting up for Field Day at the Apple Valley Floral Community Center around the baseball diamond.

Per Field Day rules, groups are allowed to set up stations the day before the event. Therefore, our club will be setting up antennas and possibly some stations Thursday, June 21st starting at around 2PM.

The Field Day picnic will begin around 4PM Saturday. The club will provide meat, drinks, picnic plates, etc. Everyone is requested to bring a covered dish of some sort.

Here is a run down of the stations we will be setting up:

Station 1:   80 / 40 Meter SSB

Greg Short will be station manager. This station normally sets up somewhere close to the baseball diamond and dog park. Greg is planning on using a dipole antenna. This station will be active on 40 meters until 80 meters opens up around sunset. Then they will switch between the two bands as needed. Station 1 will communicate with Station 2 so that they can share operating time on 40 meters.

Station 2:   20 / 40 Meter SSB

Station manager is Barry Butz, N8PPF. This station will be set up at the main tent. Barry will be using a 40 meter windom antenna so that he can operate all bands from 40 through 10 meters. The emphasis will be on 20 meters though.

Station 3: All Band Digital

This station will be managed by Terry Windsor, KI8N. This station will share space with Station 1. Terry will be using an 80 meter windom, or another antenna of his choice. Each year our digital score increases. This year should be no different.

Station 4: All Band CW

Managed by Don Russell, W8PEN. We will be using an 80 – 10 meter doublet. Two 20 meter dipoles will also be installed. One running E/W, the other N/S. This will give a signal boost in one direction or the other.

GOTA station:

The GOTA station will be directed by Tom Evans, KD8HSA. Tom will be using the clubs go box and antenna for this station. The idea of the GOTA station is so ham just licensed or hams with little "on the air" experience can participate in Field Day at a comfortable level. If you participated in Field Day last year, either the GOTA station or elsewhere, you are not eligible to operate the GOTA station this year. Graduates of this years tech class are eligible, as well as any newly licensed hams during 2019. Per FCC rules, if you are a Tech, or unlicensed, please be sure Tom is there with you as the control operator.

In part, here are the Field Day rules regarding the GOTA station:

4.1.1. Get-On-The-Air (GOTA) Station. Any Class A (or F) entry whose transmitter classification is two or more transmitters may also operate one additional station without changing its base entry category, known as the GET-ON-THE-AIR (GOTA) station. This GOTA station may operate on any Field Day band, HF or VHF, but is limited to one GOTA station transmitted signal at any time.

4.1.1.1. This station must use a different callsign from the primary Field Day station. The GOTA station must use the same callsign for the duration of the event regardless if operators change. The GOTA station uses the same exchange as its parent.

4.1.1.2. The GOTA station may be operated by any person licensed since the previous year's Field Day, regardless of license class. It may also be operated by a generally inactive licensee. Non-licensed persons may participate under the direct supervision of an appropriate control operator. A list of operators and participants must be included on the required summary sheet to ARRL HQ.

VHF station:

The VHF station is a free station in that it does not count as an additional transmitter. Barry, N8PPF usually sets up this station next to his 20 meter station.

100% Emergency Power:

Our club strives to earn the 400 bonus points by operating all stations on Battery, Generator, or other backup power. No commercial means for the transmitted signal. **This includes the GOTA Station.** Also, **no charging batteries by commercial power. Solar or generator charging only.** I bring this up because a couple of years ago we lost our bonus points because of a battery being charged off of commercial power.

Per contest rules, everything else may use commercial power. Lights, computers, etc.

Logging Software:

As usual, the club will be using software provided by N3FJP. This software has worked extremely well for us in the past. We will be networking all computers again this year. The network will be run off of a battery so that an interruption in commercial power will not affect the logging. Any questions? Come to the June meeting and have them answered. Till then, 73.

Floral Valley Community Center on Crestrose Drive

US 36 to the Apple Valley entrance (Apple Valley BLVD, County Road 4A):

Stay left onto Apple Valley Drive. Follow Apple Valley Drive to Crestrose Dr. Turn Left on Crestrose Drive. Community Center is on the left.

If you don't like the winding roads through the Apple Valley's labyrinth, try one of these alternatives:

US 36 East to Monroe Mills, (County Rd 3):

Turn Right onto Floralwood Dr (County Rd 14) Then turn left onto Apple Valley Drive (County Rd 4). Crestrose Drive will be first road to the left

US 36 East to Gilchrist Road (County Rd 8):

Following Gilchrist there is a sharp left at Vincent Rd.　　After turning left to stay on Gilchrist turn at next right, Harding (Twp. Rd 245).　Turn left on Monroe Mills (County Rd 3). Turn Right onto Floralwood Dr (County Rd 97), Then turn left onto Apple Valley Drive (County Rd 4). Crestrose Drive will be first road to the left
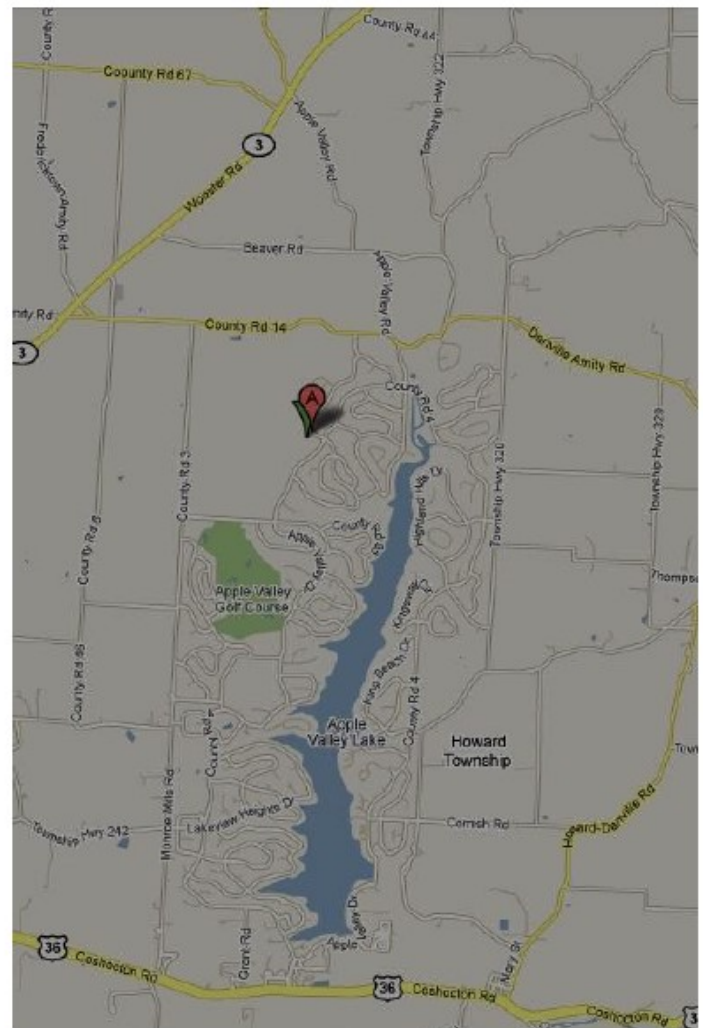
SR 3 to Amity Danville Amity Road (County Road 14):

Turn Right (East), then turn Right onto County Road 84 Ridge Heights (aka Apple Valley). Turn right onto Apple Valley Dr (County Road 4). Follow Apple Valley Drive to 2nd Crestrose Drive. (Note: the first road you pass is one end of Crestrose Drive, it will get you there but winds around a good bit) See map

GPS Coordinates are:

40 degrees 27.531' N (40.45885 Degrees N)

82 degrees 21.053' W (82.35083 Degrees W)
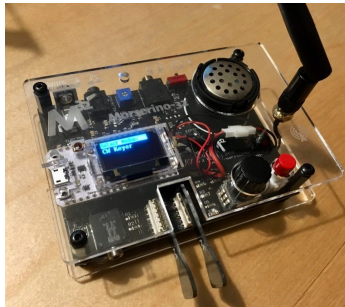
Learning about Batteries

By Dan Romanchik, KB6NU

I often say that getting an amateur radio license is as much getting a license to learn as it is getting a   license to operate on the amateur radio bands. Lately, I've been learning about batteries, LiPo batteries to be exact.

It all started when I purchased a Morserino (http://morserino.info/). The Morserino is a Morse Code learning aid that has a number of unique features. For example, in addition to helping you learn the characters, it's also supposed to help you learn how to copy in your head. It also has a built-in touch keyer function, and a LoRa interface that lets you send and receive code from other Morserino units.

I'll be writing more about the Morserino in a future column, but let's get back to batteries. The kit did not come with a battery. Instead, it was suggested that one purchase a 600 mAh LiPo battery commonly used for powering drones.I found this battery on Amazon , and purchased a six pack of them, thinking that I'd find uses for the other five in some project or another.
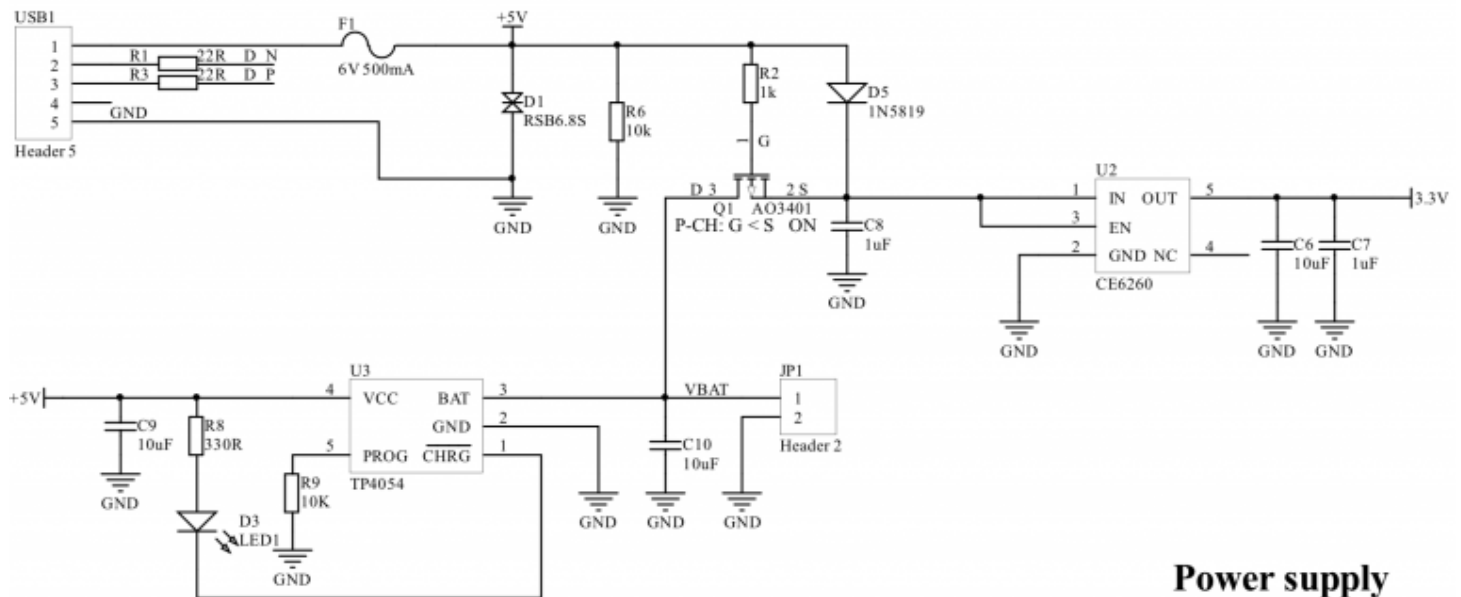

Well, sooner than expected, I did find another application for one of the batteries. I'm building a little Arduino project for a client, and I reckon that this, or one with more capacity, will make a great power source for the project.

Now, I have two immediate challenges:

1. Figure out how to charge the battery.

2. Figure out how to connect it to the Arduino.

On the Morserino, the battery plugs directly into a connector on the bottom of the computer board (the white board with the LED display). I knew that connecting the 5V line from the USB connector directly to the battery was a no-no, but I'd lent out the Morserino to a friend, and I didn't have the schematics for the board. So, how they managed to charge the battery from the USB port was a bit of a mystery

I emailed Willi, OE1WKL, the designer of the Morserino, and he sent me a wealth of information. There actually is a battery-management IC, the TP4054, on the board:

Power supply

He also gave me the part number for the battery's mating connector. He said, "The mating connector for the Molex connector on the battery is a Molex 51006. It is sometimes referred to by vendors as 51005 female, but 51005 is the connector on the battery." You can, of course, buy pre-made cable assemblies on Amazon

https://www.amazon.com/gp/product/B07P54QTR8

You can also buy lithium battery charging modules

https://www.amazon.com/gp/product/B01LZSC7I8

These modules have a TP4056 on them, which is similar to the TP4054. It's amazing to me that you can purchase ten of these things for less than seven bucks.

So, that's where I'm at right now. Once I get the modules and cables, I'm going to hook it all up and get the Arduino system running from the battery. The next step will be to integrate a small solar panel and run the whole thing from solar power, hopefully.

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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). He often wonders if he can learn things fast enough.

By Don Russell, W8PEN

Welcome to another addition of Radio-Activity.

Are you Radio-Active? Field day is a good chance to become so. Please see my article elsewhere in this Newsletter.

Because of the Field Day article, I will keep this column short for this month. Just a few updates.

Local Repeaters:

Both the 70cm and the 2meter repeaters are working well. I believe we have totally eliminated the noise on the 2meter repeater. I have not heard any noise on the repeater since the repair.

I am considering adding a receiver preamp to both the 2mtr repeater and the 70cm repeater. I am pretty sure a preamp would benefit the 70cm repeater. Not so sure about the 2mtr repeater. I do have an extra preamp for 2 meters, so may give it a shot.

Local Mesh Network:

Our local mesh network continues to run flawless. We did make a few modifications and added two nodes since last month.

We switched the network from 10 MHz bandwidth to 5 MHz bandwidth in hopes of improving throughput. While this theoretically reduces the speed of the network, the improved throughput more than makes up for that.

Michael Jacobs, KE8HGE, has added a node and it is working well. Michael is pretty much line of site, with the node on the water tower.

Mary Sargent, KE8GFY, has added a node. Sometimes it is connected, sometimes not. But her node is currently in an upstairs room. She is planning on getting it outside on the roof soon. Once again, her main connection is to the node at the water tower.

Louie Wilkinson, NT8I, is planning to install a 5 GHz link from his house to the water tower. If this works out, then his 2.4 GHz link will be switched to an omni directional antenna and serve as a Fredericktown link to the local network.

Our mesh node is growing. Please stay tuned as I prepare a few articles on what to do with, and how to use our local mesh network. It is time to stop playing and start using this network.

That is a wrap for this month. See you all at the June meeting and hopefully Field Day.

73 all

June, 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2 9:00 pm ARES Sunday Night Net on K8EEN **W8DOH, Greg**	**3**	**4**	**5** 5:00 pm Dinner at Southside Diner	**6**	**7** 10:00 am Breakfast at Club Meeting room	**8** 10:00 am Breakfast at Barb's Diner Columbus Road
9 9:00 pm ARES Sunday Night Net on K8EEN **W8PEN, Don**	**10** 7:00 p.m. MVARC Meeting -Red Cross Annex	**11**	**12** 5:00 pm Dinner at Southside Diner	**13**	**14** 10:00 am Breakfast at Club Meeting room	**15**
16 9:00 pm ARES Sunday Night Net on K8EEN **NT8I, Louie**	**17**	**18**	**19** 5:00 pm Dinner at Southside Diner	**20**	**21** 10:00 am Breakfast at Club Meeting room **Field Day**	**22** **Field Day 2019**
23 Field Day 2019 9:00 pm ARES Sunday Night Net on K8EEN **KE8HGE, Michael**	**24**	**25**	**26** 5:00 pm Dinner at Southside Diner	**27**	**28** 10:00 am Breakfast at Club Meeting room	**29**
30 9:00 pm ARES Sunday Night Net on K8EEN **Member TBD**	**1** July	**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 on K8EEN **W8DOH, Greg**	**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