

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

March, 2018



**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

It's March already! I hope everyone is thawing out in good shape. We have had several days of nice weather, along with some really wet days but soon it will be warming up and greening up. Time to check out the mowers, tractors and other equipment that has set idle all winter to make sure that they are ready to go for the upcoming summer season. Thinking about that, have you considered trying one of the contests. I just worked the ARRL DX contest for 2 or 3 hours and made 37 contacts all DX. They are a lot of fun and they get you to become more familiar with your radios operation. Reading the manual is the last thing you want to do but a contest gives you more motivation to figure things out and read the manual.



Looking forward to next month as April looks like we will be busy Earth Day Challenge, NVIS and the Rookie Round Up. So, it is important to attend the upcoming meeting to find out what happening. If you are interested in helping, let me know.

The last week has been extremely busy as we have a new addition to our family, Obadiah. He came into this world on the 27th and spent a couple of days in the NICU. He is home and doing well now.

Looking forward to seeing you soon at one of our gatherings,

73,

Frank, KC8EVS

Skywarn Spotter class, this year it is scheduled for March 29, 2018 at 6:00 p.m., Central Ohio Technical College 236 South Main Street. Located at the intersection of South Main and Ohio Avenue in downtown Mount Vernon. Make a note of the location as this is a new location from past years.

You can find all classes available at this web site:

http://www.weather.gov/cle/SKYWARN_schedule

I have again inserted a picture of the building. You may find the building familiar, as the COTC on South Main Street.



Raffle

Mount Vernon Amateur Radio Club, we are planning to raffle off a Yaesu FT-70DR handheld. This is a nice C4FM Fusion digital radio, dual band, so you can make use of the digital repeater soon to be on top of the hospital. It also has analog, so you will be able to work both repeaters. We will sell 30 tickets at \$10 each. Tickets will be on sale at the March 12th meeting.

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February 12, 2018 Meeting Minutes



Frank, KC8EVS called the meeting to order at 7:01 pm.

15 Members present.

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

Treasurers Report was presented by Frank, KC8EVS. Motion to accept by Don, W8PEN and Seconded by Emory, W8TW. Motion passed to accept Treasurers Report. For club finance specifics please contact Terry.

Repeaters

Don, W8PEN, reported the old repeater is back in service and working order. The backup repeater should be put in service at the hospital soon (as I type up the minutes the 440 repeater is up and working).

Mesh

Don, W8PEN, reported Mesh network is working well.

Old Business

Tech Classes are winding down two more weeks and the testing session will be on Saturday February 24 at 10:00 am.

Winter Field Day (WFD) was a success. There was discussion as to how we could do better next year, so it looks like we have something to keep us busy in the winter. Berry, N8PPF reported that he really enjoyed WFD, but the bands were in poor condition. Over 100 contacts were made.

Winter Freeze In at Faith Baptist Church March 9th and 10th.

New Business

Frank, KC8EVS discussed upcoming 2018 club events and the need for coordinators to assist. These events are the normal activities the club participates in:

April 22: Earth Day Challenge

April 28: Ohio NVIS Day

June 24 – 25: Field Day

August: Dan Emmitt Special Event Station

September 8: Ohio State Parks on the Air

December 9: MVARC Christmas Dinner

Don, W8UMH (SK) equipment list will be available soon.

Something new for Mount Vernon Amateur Radio Club, we are planning to raffle off a Yaesu FT-70DR handheld. This is a nice C4FM Fusion digital radio, dual band, so you can make use of the digital repeater soon to be on top of the hospital. It also does analog so you will be able to work both repeaters. So, we will sell 30 tickets at \$10 each. Motion to accept by Michael KE8HGE, and seconded by Louie KE8HNF. Motion to accept raffle passed. Tickets will be on sale at the March 12th meeting.

50/50 winner Don, W8PEN.

Adjournment

Motion to adjourn by Barry, N8PPF and seconded by Emory, W8TW. Motion passed and meeting adjourned.

Stan Broadway, N8BHL gave a nice presentation concerning ARES.

Scott, K8AEC / Frank, KC8EVS

By Don Russell, W8PEN



Here we are, one month closer to Summer and the weather is getting better each day. We had a few 60 degree days in February, which makes a ham think about antennas. First though, we need to take care of some business.

VE Testing

The club sponsored a VE Test session in February corresponding to another successful completion of our Technician Class course. The test session was headed up by Frank Counts, KC8EVS.

I am happy to report that our class of six students passed their Technician class exam:

Nicole Williams KE8IXR (Daughter of Emery, W8TW)

Brittany Wilkinson KE8IXS (XYL of Louie, KE8HNF)

Aaron Meighen KE8IXV

Michael Lahmon KE8IXY

Don Oaklief KE8IXW

Debby Oaklief KE8IXX

In addition, Louie KE8HNF upgraded from General to Extra. Terry Windsor was granted the vanity call KI8N (previous call was KE8ANS).

There were two from out of town that took and passed their exam. Everyone went home happy.

Congratulations to all for a job well done.

2 Meter Repeater

As everyone already knows, the 2 meter repeater has been fixed and working well. We should be able to get another ten to fifteen years out of this repeater if the club does not break down and follow the crowd to DMR. Presently, I think that unlikely, but you never know.

Arlin Bradford's (KD8EVR) team at Vasu communications in Mansfield, repaired the repeater for us. Nice to have Arlin in the fold to bail us out when we are in need.

Barry, N8PPF and my own initial assessment of the problem with the repeater ended up being correct. The power amplifier had failed. Barry and I figured it was the power transistor and ordered one according, but after installing the new transistor, the amplifier still would not put out power. This caused us to look elsewhere, which was a waste of time.

The Tech at Vasu replaced the whole amplifier board with a recycled amplifier off of a Kenwood VHF radio. He also added a fan to help keep things cool. The new and improved old repeater now puts out 30 watts or more. At least a 5 watt upgrade from the previous amp.

The repeater has been back in service for a few weeks now. It is nice to have the old bells and whistles back.

By Don Russell, W8PEN

70 Cm Repeater

The backup repeater which the club bought about a year ago proved invaluable during the problems with our old reliable 2 meter repeater. We had put this new repeater in service as a repeater on 444.600 MHz Just as a backup and an extra repeater for the Mt. Vernon ham community to use. The idea was that we would pull this repeater and use it on 2 meters if we ever had a failure with the 2 meter repeater.

I would say our strategy paid off big time. This repeater spent several months as our main repeater on 2 meters. Yes, no bells and whistles, but a very capable repeater.

During this time, the club decided it would have been nice to keep both repeaters in service during equipment failure. Our timing was pretty good because the Mansfield club was looking to sell one of their repeaters, which was a Yaesu DR-1X, exactly like the clubs backup repeater. The price was right, so we jumped on the chance to get this repeater.

This repeater is now being used at KCH as the 444.600 MHz repeater. After some initial problems, it is playing well and we have the original backup repeater in storage. The backup repeater can be used to replace either the 146.790 repeater or the 444.600 repeater should either one fail. It also occurred to me that we could use this repeater in a remote area for ARES work should the need arise. We are in good shape I would think.

The 444.600 MHz repeater is located at KCH hospital and has analog and digital modes. The specifics are 444.600 MHz with plus 5 MHz offset and a ctcss on 71.9 Hz. Please feel free to give this repeater a workout on either FM or C4FM.

Mesh Network

The local mesh network continues to be in service although not much has been happening. I have to take a few days and make sure everything is working properly. I will do this before the March meeting and give an update then.

In the meantime, I still have a few nodes available for install should anyone wish to join the part. Let me know if you would like to host a node. Ideally the node should be placed on a tower as high as possible. It helps, but not necessary, if the one hosting the node lives on a hill. The equipment can be used free of charge but remains my property. The only thing I ask is that the node remains in service 24/7, as it would be part of the local network and would need to be a full time link.

While everything is working as far as the linking goes, I need to check out the phones and email server to make sure those are still working. I have checked the phones on occasion, but not the email server.

Using a Mobile Antenna as a Base

I have been working with Lori, KE8GFZ to solve her typical ham problem of working HF from an apartment building which frowns on outside antennas. I think we have found a nice solution that will get Lori on the air with something much better than an inside wire antenna.

By Don Russell, W8PEN

Lori is putting together an HF mobile antenna system consisting of a Hustler mobile antenna mast, which is about 8 feet long. She will have loading coils for each band, 80 – 10 meters, and a large magnetic mount that will go onto the hood of her car.

These whips will be tuned for the middle of General Class SSB frequencies, which should allow her to transmit without an antenna tuner plus or minus about 50 KHz or more. She also has a manual antenna tuner should she desire to stray further from her center frequency. Mobile antennas are very narrow banded, so the antenna tuner will help keep her transmitter happy and not blow any expensive tubes.

The plan is when she wants to operate, she will move the mobile antenna from her garage to the car. When she is done, she will put the antenna back in the garage keeping the neighbors happy.

An alternative plan is to mount a mobile antenna mount to her back deck. Then she could probably simply lay the antenna on the deck floor when not in use. If doing this, she will probably need to install a few short radials to make up for a lack of using the car as the second half of an antenna.

Either way, I think this is a great plan for an apartment dweller. It gets the antenna outside where it will radiate best. Also keeps the RF out of the phones and TV plus less human exposure to RF that would occur if the antenna were placed indoors.

The efficiency of a mobile antenna certainly is not that of a full sized antenna, but I have run mobile before and have had no problems working stations. This fixed mobile antenna system should work well for Lori.

Equipment for Sale

Here is a list of Equipment for sale from the estate of Don Blizzard, W8UMH.

All prices are the typical E-bay prices and any reasonable offer will be accepted.

Please contact Don Russell W8PEN to buy or make an offer, or to make an appointment to look at the major items (Radios and amplifiers).

I have two boxes of miscellaneous items that I will be bringing to the clubs March meeting.

Don Russell, W8PEN

740-397-0249 (Be prepared to leave a message)

w8pen@yahoo.com or w8pen@arrl.net

J-28 Straight Key	Fair	\$50 / OBO
Heathkit AM-2 SWR Meter	Good	\$30 / OBO
Vibroplex Keyer	Good	\$150 / OBO
Astron 35 Amp Power Supply	Good	\$100 / OBO
Kenwood TS-830S HF	not working	\$400 /OBO (very good cosmetically)
Kenwood VFO-230	Not tested	\$265 / OBO (Matches the TS-830S)
Kenwood TR-751 -2 Meter	Good	\$350 / OBO (No tone Board (CTCSS) (All Mode)
Hallicrafters to Keyer	Good	\$75 /OBO
Icom IC-7300 HF Radio	Very Good	\$1100 / OBO
Gonset GSB-201 KW Amp	Very Good	\$500 / OBO
Heathkit SB-220 2KW Amp	Very Good	\$900 / OBO
Kamtronics KPC-3	NOT Tested	\$100 / OBO
Heathkit HD-1410 Keyer	Very Good	\$60 / OBO
Vista 12V 10 Amp Power Supply	Fair	\$10 / OBO (Unregulated, 2 available)
Vibroplex Bug	Good	\$200 / OBO
Speed-X Straight Key	Good	\$30 / OBO
Swan 350 HF Radio / Power Supply	Not working	\$250 / OBO (Very nice and clean, but not working)

By Dan Romanchik, KB6NU



Which way does current really flow?

I was recently taken to task by one of my blog readers regarding my description of current flow in my *No Nonsense Technician Class License Study Guide*. He wrote:

You casually say that current flows from Positive to Negative (with cool accompanying directional arrows), without any accompanying qualifying statement. Over the years I have looked at ALL the views on the subject. Positive to Negative is NOT what I was taught 48 years ago, and I have never seen a good reason to change my view.

In a subsequent email, he pointed me to a Nuts ‘n Volts article, [“Which Way Does Current Really Flow?”](#) and asked my opinion. In the article, the author, who is a ham by the way, does a good job of explaining the various types of current flow.

I agree that in electronic circuits electrons flow from negative to positive, but it really doesn’t matter. I agree with one the article's commenters who says,

This is a silly argument. It’s like comparing apples and oranges and challenging people to take sides.

Electron flow is not current flow. Electron flow is easy to understand, an actual physical property, and a real help in understanding vacuum tube operation. But it falls apart when one needs to understand complex electronic systems.

[Conventional] current flow is a mathematical abstraction. It is defined as a net flow of positive charge, irrespective of the polarity of the physical charge carriers — whether electrons, holes, positive or negative ions, or whatever.

When looking at any circuit containing a resistance with a voltage across it, conventional current through that resistor says that the voltage drop occurs as the current through it meets resistance. On the other hand, in negative (electron) flow, a voltage INCREASE will correspond to the ‘current’ flow through it, clearly violating physical laws. Conventional current flow is consistent with the laws of physics and those of other engineering disciplines.

You are correct that engineers, professors and scientists use conventional current flow. That is not because they are too obtuse to understand electron flow; I assure you they fully understand it. It is because in their world they have to solve more general problems involving complex math and science, and, again, conventional current flow is consistent with physical laws.

It is unfortunate that electron flow and current flow are so often confused. They both have their place.

After reading that article, I thought I’d see what the ARRL Handbook has to say about current. In the 1963 edition, they don’t mention electron flow at all. They have one diagram showing the direction of current flow in both series and parallel circuits, but the voltage source has no polarity. It’s simply labelled “Source of E.M.F.” Diagrams giving practical examples of series and parallel circuits do include a battery, and if the reader were to mash up the two diagrams, they would conclude that current flows from the positive terminal to the negative terminal.

Current flow, continues on page 9

By Dan Romanchik, KB6NU

The most recent edition of the Handbook that I have is the 2005 edition (it might be time to get another copy!).

It says,

Electrons move from the negative to the positive side of the voltage, or EMF, source. Conventional current has the opposite direction, from positive to negative. This comes from an arbitrary decision made by Benjamin Franklin in the 18th century. The conventional current direction is important in establishing the proper polarity sign for many electronics calculations. Conventional current is used in much of the technical literature. The arrows in schematic symbols point in the direction of conventional current, for example.

Having said all that, I really don't see that there's much of a controversy here. I did learn to think of current as conventional current in college, although it was mentioned that electrons actually flow in the opposite direction. Using the concept of conventional current has never seemed to hold me back. I've been able to design circuits and repair electronic equipment thinking that current flows from positive to negative.

Although it's a departure from my "no nonsense" style, I am thinking of including a sidebar, similar to the paragraph above from the 2005 Handbook explaining the two ways of looking at current flow. What do you think?

When he's not trying to figure out which way current flows, Dan blogs about amateur radio at KB6NU.Com, teaches ham radio classes, and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him at cwgeek@kb6nu.com.

March, 2018

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