

**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)**

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**Presidents View**

I just lost a good friend on Saturday, Jim Williams N8IBR. I met Jim for the first time at one of my first Field Days at a tree farm in Licking County. He and Howard Tharp K8PWL and I were the only ones operating that night and they amazed me with how they got their antennas up and were able to make contacts with everyone across the United States. I was a tech then and they took me in and started the ember which drove me to continue to advance my license. I got busy with kids and work and we only met occasionally until 7 years ago when I retired and started back up in the club, Jim was there with his easy to get along with manner, always ready to support whatever was needed, and an expertise second to none when it came to radio. I have been fortunate to work side by side with Jim as an officer in the club for the last three or four years. His functioning as the Secretary/Treasurer will be greatly missed. Goodbye good friend, N8IBR SK.

Please keep his family in your thoughts and prayers, as of my writing of this I have not heard of any funeral plans but as soon as I hear we will make them known.

It's September and that means OSPOTA (Ohio State Parks on the Air) September 9, beginning at 10am at the Gorge Overlook in Mohican State Park, looking forward to seeing everyone at the Gorge Overlook. This event is sort of like Field Day but on a much smaller scale. We will start operating about 10:00 am and stop when we get tired, I think the official quitting time is 6:00 p.m. Come on out even if it is just to view the park.

Oh, almost forgot this is also the second Saturday and we will meet at Allison's for breakfast a little early, 8:30 a.m. That will get us off to a good start.



Dummy load project is complete and working.

Only one snag in the process and that was a cold solder joint. The BNC connector was tough to get hot enough to make a good solder joint but after a couple of attempts I was able to get the job done. Next project I will have ready for next month's newsletter.

## *In Memory of*

### **James Edward Williams**

**May 6, 1951 - September 2, 2017**

James Edward Williams, 66, of Johnstown, passed away unexpectedly on Saturday, September 2, 2017 at St. Ann's Hospital. He was born on May 6, 1951 in Newark, OH, a son to the late Clark and Gwen (Kimball) Williams. James spent majority of his life as a teacher for Amateur Radio Licensing. He retired from Kroger after 37 years of employment. Since retirement James loved and enjoyed spending time with his grandchildren. He is survived by his loving wife, Donna; children, Clark, Heidi Moran, Matthew and Kimberly; grandchildren, Amber, Samantha, Alex, Zach, Collin, Nick and Ayrianna; siblings, Louis (Millie), Pete (Alyce) and Margie (Mike) Ennis and several nieces and nephews. Memorial service will be at 11:00 a.m. on Friday, September 8, 2017 at Alexandria United Methodist Church, 72 Church St., Alexandria, OH 43001 with Pastor Kenn Barton officiating.



### **The Mount Vernon Amateur Radio Club Officers**

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## August 14TH, 2017 MEETING MINUTES FOR THE MVARC

KC8EVS called meeting to order at 2302 UTC.

There were 18 members in attendance.

KE8ANS moved, KE8GFK 2<sup>nd</sup>, to accept minutes for July 10<sup>th</sup> meeting. Approved.

KD8WHQ moved, W8PEN 2<sup>nd</sup>, to accept treasurers report for August 14<sup>th</sup>. Approved.

### Committee Reports

W8PEN stated VHF and UHF repeaters running OK. He then stated he had added e mail capabilities to the MESH System. He will explain how to use in the future.

KD8PSM informed ARES personnel that on September 20<sup>th</sup> they will be meeting at the EOC to have ARES/EOC ID's issued and background checks ran. Make sure KD8PSM has all the needed information on your ICS courses. He also mentioned the upcoming SET on October 7<sup>th</sup>.

### General Business

It was reported we had over 160 contacts with the Daniel Emmett station this year.

KD8HSA reminded Members that the Ohio State Parks On the Air was going to be in the same location as in the past in Mohican State Park.

W8PEN stated that a General Class license course would be starting Thursday, September 7, 2017 at 7:00 p.m. at the Red Cross Annex. These classes would be 2 and ½ hours long, and the course length would be 7 to 8 weeks. While the class itself is free, the students will be expected to supply their own copy of the ARRL General Class License Guide.

KE8ANS moved to adjourn meeting, N8PPF 2<sup>nd</sup>. Approved at 2339 UTC.

Respectfully submitted;  
N8IBR Secretary-MVARC

By Don Russell, W8PEN

I have had a pretty busy month, ham radio wise, so lets get to it. I hope readers find months Radio Activity column interesting.



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### **My EME efforts**

First for new hams: EME is communicating by bouncing signals off the moon. It is also called Moon Bounce. An EME station bounces about 7% of his signals off the moon. EME is weak signal work to a multiple degree. In the past, most EME stations used very large antennas and maximum allowable power. They used mostly CW with some stations successful using SSB. Most present day EME stations use digital modes much like the popular PSK31. Currently, EME stations are using a digital mode called JT65-B, which is designed specifically for EME, but is similar to the JT65 used on the HF bands. JT65-B can decode a received EME signal at -30 db (yes, minus 30 db) below the noise in the receiver. You cannot hear this weak of a signal in your speaker. The success of JT65-B has allowed stations equipped with small antennas and 100 watts output power to successfully communicate by EME with the larger big gun EME stations. Still, any EME contact is a major achievement.

### **Now, on with the show**

My EME station consists of an 11 element Cushcraft A144 beam antenna (a boom length of 24 feet), A Mirage B-2516 160 watt amplifier, a 2 meter transverter which puts out 20 watts, and my Kenwood TS-590S transceiver.

For those wondering what a transverter is. A transverter is a mixing device designed to take a signal from one band and convert it to another. In my case, the transverter is receiving a signal on 144 MHz and converting this signal to 28 MHz . When I transmit, just the opposite happens. I transmit on 28 MHz and the transverter converts this signal to 144 MHz . The advantage of a transverter is that you have all the advantages of using your HF radio on a VHF or UHF frequency.

Back to my station. The antenna is a little small for EME work. Most EME stations that use a single yagi antenna use about 13 elements and the boom length is about 24 feet. I thought I would give it a try anyway. Everything else about my station is pretty normal for a small EME station. Although 300 to 400 watts would be much better than 160 watts.

I am taking this in small steps. My first goal is to be able to receive EME stations. I will worry about transmitting later.

I set up my antenna on a picnic table on the deck in back of the house. I used a small tripod so that I had manual control of both azimuth and elevation. You need to point the antenna at the moon. The amplifier was located on the picnic table with a very short run of coax to the antenna. Reason for this is that the amplifier has a built in preamp. I needed that preamp as close to the antenna as possible to avoid signal losses. The transverter was located in the shack and connected to the amplifier with a long run of coax.

The software was WSJT-X designed by K1JT running JT65-B.

The first day proved a complete failure. Lots of false decodes, but nothing like callsigns or signal reports that I was hoping to hear. I spent about six hours the first day closely monitoring and re-aiming the antenna at the moon every 15 minutes or so.

The next day was much the same for most of the day. However, I finally got a decode. I can't remember the call but it was a station in Indiana. Maybe EME, or perhaps ground wave being so close.

The next day I had a bit more success. One of the calls decoded was VK4EME. Certainly not ground wave! I decoded another station but don't remember his call. He was DX though.

By Don Russell, W8PEN

The rest of the week I was monitoring off and on but did not get any more decodes. From what I see on the web, I am trying to decode stations in very bad EME conditions. I actually knew that going in, but wanted to try anyway. I have been watching the EME page on the internet and not many stations are having success so perhaps I just picked the wrong time to try this. I will try again next month when EME conditions are supposed to be good around September 9<sup>th</sup>.

In the mean time I am doing two things. One, the 2 meter beam is going on top of the tower. This might give me a better chance at EME. Even though I will not have control of the elevation, I understand that EME contacts can be made at moon rise and moon set. You also get a 3 to 6 db boost from ground wave when your antenna is horizontal. This is something my small station needs.

Another reason for putting the antenna on the tower is because I want to become more active in Meteor Scatter work. Meteor Scatter is bouncing signals off of the ionized meteor tail that meteors leave when entering the earths atmosphere. This is another weak signal mode.

The second reason is because I am planning on building a 2 meter Quagi antenna. This antenna will be 24 foot long and have 12 elements. I should have much more success with this antenna.

Perhaps I will expand on my meteor show efforts next month. Unfortunately, I have used up my allotted space for this month. Just a few short items to finish off this column.

### **Mesh Network**

Our Mesh Network is still working well. There are a few things that still needs done, but what we have up seems to be reliable. We also have a few of the newer hams interested in our network, which may give our system a boost of new thinking.

### **Club Laptops**

I received the clubs laptops that Arlin Bradford KD8EVR offered the club a few months ago. The laptops were donated by Vaesu, the company Arlin works for. The computers have Win XP on them. We will have to discuss what we want to do as far as the operating system goes. For now, I am in favor of leaving XP on them and using them for digital modes and logging and not connecting to the internet.

We will see what the club decides at the September meeting.

\*\*\*\*\*

## **How Good is Your Coax?**

By Don Russell, W8PEN

Are you getting the signal you think you are to your antenna?

I am working on setting up an EME (Moon Bounce) station. I have also become active in working stations via meteor scatter. Both of these types of communications require a very efficient station, especially when it comes to signal loss due to feed lines.

To insure the best possible signal at the antenna, I decided to replace my 2 meter coax feedline of 20 plus years. Even though I felt that the coax was good, it had several splices from when I move my shack to a different room. Every fitting creates a bit of loss and from my count I had six UHF fittings and three barrel connectors in this old run of coax.

Before replacing this run of coax, I did a loss measurement. I checked the power out directly at my 2 meter FM transceiver and got 20 watts. I then checked the power again at the end of the coax feedline at the second splice (barrel) which was about a 50 foot run. This reading was 17 watts. So I was losing 3 watts with a 50 foot run. Not really that bad, but I was hoping for better.

**Coax, continues on page 6**

**By Don Russell, W8PEN**

I decided to use some low loss “poor mans hardline” from “The Wireman” that I had in storage and had obtained second hand. This coax looked to be in very good condition. Loss at 144 MHz was supposed to be 1.5 db at 100 feet, which is comparable to LMR-400 cable. If the specifications were correct, then I would loose about 2.5 watts with a 100 foot run.

After several hours of removing the old coax and replacing it with this supposedly better coax, it was time to put the fittings on. In preparing the coax for the fittings, I noticed that the center conductor of the coax had a brownish look to it. Not the bright copper look I was expecting. I thought this could be trouble. Dumb me. I went ahead and put the fittings on the coax. I had to file the inner conductor before soldering.

I checked this run of coax the same way I test the old run. The results were 7 watts at the end of the coax. YES, 7 WATTS! 7 WATTS! I was loosing 13 watts where previously I was only loosing 3! Not going in the right direction here. Obviously, this coax had at some point been contaminated by water. I threw it in the garbage along with the 100 feet I had left over.

Lucky for me, I had another piece of coax to replace this old contaminated coax run. When checking the loss on this run, I had 18.5 watts out at the end. This was in spec and I was happy with improving my loss from 3 watts to 1.5 watts. Remember, this also affects the receive.

I will be spending some time checking my outside coax for loss. I have several runs of coax going up my tower but do not connect to anything right now. I did tape the ends of these coax runs, but still, I should check each of them for loss before putting them in service again.

If you wish to check your coax runs, here is a good procedure to follow. Equipment needed are only a 2 meter transceiver, a VHF watt meter, dummy load or antenna, and access to the Internet.

I use 2 meters as an example simply because most readers will already have 2 meter equipment. Besides, if the loss is low at 2 meters, it will be fine on HF.

1. Check online and find the specifications for your coax type. Example: RG-8X.
2. Check the attenuation spec, usually per 100 feet. RG-8X has a loss of 4.5 db per 100 feet at 146 MHZ.
3. Run a short piece of coax from your 2 meter radio to a wattmeter. Keep it under 12 inches if possible. The watt meter should be connected to a dummy load or antenna. Check the power output and write it down. Let's say it is 50 watts. After reading steps 4 and 5, go to step 6.

Coax, continues on page 7



4. Measure the length of coax you need to test (in feet). Then go to this website:  
<http://kv5r.com/ham-radio/coax-loss-calculator/>
5. This website will calculate how much power loss you should have for any type of coax. Just fill in the numbers and click “calculate”. Look at the result. In our example, a 100 foot run of RG-8X at 1.5:1 SWR and 50 watts will be 18.85 watts at the other end. This is a good reason NOT to use RG-8X for anything but short runs at 146 MHz
6. Now, replace your short run of coax between the transceiver and the wattmeter with the 100 feet of RG-8X you want to test.
7. You should get a reading of 18.85 watts on your watt meter as in step 5. Plus or minus a watt or two. If anything much less, then your coax might not be up to spec and may be a candidate for replacement. I say maybe because if you are using this coax on HF, it may work okay. You should repeat the test on the highest frequency that you use.
8. Running this test on 10 meters, you should get about 34 watts out.
9. One word of warning. If the coax checks bad, make sure it is the coax and not a bad fitting. Some pre installed fittings and indeed some fittings installed by hams can have bad connections or solder joints.

After using the calculator, I am beginning to wonder if RG-8X should be used even on HF!

Now, how do you prevent moisture from entering your coax? The most obvious answer is to seal all outside connections against moisture. UHF fittings are not water tight! Type N connectors are, but I would not trust it. Seal those up too.

One of the best products I have found is called “Coaxial Seal” and is available at Universal Radio or at most Hamfests. Hardware stores sell a product called Moretite Weather Strip and caulking chord. I have never tried it, but it was in QST magazines Hints and Kinks. Flexible weather proof tape should be fine too.

DO NOT leave open end fittings on coax out in the weather. These fittings will adsorb moisture during a damp night and this moisture will be absorbed by the inside of the coax, thus ruining that piece of coax. If you are not going to use the end of a coax run that is placed outside, seal it up with tape or coaxial seal.

Do not buy old coax without checking it first. That chunk of coax at a Hamfest may not be such a bargain after all.

## ARRL finally realizes status quo isn't going to cut it

By Dan Romanchik, KB6NU

An item in the July 2017 ARRL board meeting caught my attention. It notes that a committee of staff members was tasked with identifying the challenges facing ARRL and possible solutions. The August 3, 2017 issue of the ARRL Letter ran the following report:

“ARRL Chief Executive Officer Tom Gallagher, NY2RF, presented the report of six Headquarters staffers who had been tasked with identifying the challenges facing ARRL and devising feasible solutions. Specifically, the committee addressed market research findings that have continued to reveal that only a small percentage of new hams join the League, and only about one-half of new hams actually get on the air. “The committee began with the premise that ARRL must act in order to remain relevant going forward. It proposed instituting a Lifelong Learning Program to focus on developing a clear developmental path for all radio amateurs, from newcomers to established radio amateurs. The committee recommended the creation of new programs and services to increase the knowledge base of newcomers in order to get them active, as well as programs to keep experienced amateurs up to date with changing technology and practice.”

### The board meeting minutes were a little more detailed:

“Mr. Roderick yielded the floor to CEO Gallagher who presented the report of a committee of staff members tasked with identifying the challenges facing ARRL and possible solutions”. The members of the committee – Diane Petrilli, KB1RNF; Norm Fusaro, W3IZ; Becky Schoenfeld, W1BXY; Debra Jahnke, K1DAJ; Steve Ford, WB8IMY; and Sean Kutzko, KX9X, joined the meeting at 9:20 AM, to present this report. Their findings show the importance to ARRL of getting newly licensed hams actively on the air and how that relates to continued growth of the organization. In order to achieve that goal, the committee proposed developing a lifelong learning department, which would address the needs of all amateurs with the focus being on developing a clear knowledge path for all amateurs. They proposed creating straightforward programs and services to enhance the knowledge base of new amateurs as well as to enhance their sense of community within the hobby.

“Another recommendation involved refocusing the priorities of the emergency preparedness department to address the current trends in public service”.

“A third recommendation was to improve the value proposition of membership. The committee proposed doing a survey, which would include test material that is targeted to the interests of newer hams. The content would include a strong emphasis on serving communities, agencies, and partners; digital communications, and human interest. Projects would be simple. The survey would obtain information on new ham’s interests and needs in the hobby. The survey would also try to determine the delivery system that might best meet the newcomer’s desire for



By Dan Romanchik, KB6NU

receiving this type information (print, digital, messaging, etc). The test material is proposed to be delivered to recipients in fall 2017.

“From the committee’s vantage point, **the status quo is no longer adequate: we need to have a vision of the future and convey it to our current membership** [*emphasis is mine...Dan*]. If we do not convey the need to change the paradigm, the ARRL’s relevancy will not move forward.”

The good thing here is that the ARRL finally realizes that there are some serious problems. I’ve written about these in the past. I’ve challenged the ARRL to set a membership goal of 25% of the licensed amateurs in the U.S (<http://www.kb6nu.com/arrl-membership-is-25-asking-too-much/>). I’ve also encouraged the ARRL to play a bigger part in emergency communications research (<http://www.kb6nu.com/go-big-go-early-go-fast-smart/>).

Unfortunately, it appears that the ARRL is approaching this issue in typical ARRL fashion. That is, working on these issues in their little cocoon in Newington and then issuing these statements as if they expect everyone to just fall in line. I quote, “From the committee’s vantage point, the status quo is no longer adequate: we need to have a vision of the future and convey it to our current membership.” That approach is doomed to failure. Any “visioning” or strategic planning that doesn’t get the membership involved right from the start just isn’t going to work.

The ARRL HQ staff just doesn’t have the horsepower to pull this off properly. The staff is already pretty bare bones, and they still have to publish QST every month, keep Logbook of the World running, process thousands of license applications, etc., etc. The only way this is going to be a fruitful effort is if they get members—and lots of them—involved in this process.

If you agree with me, please let your director know. Contact your director and tell him that you want to be involved. The status quo of having the HQ staff not working with the membership “is no longer adequate.” That’s how we got here in the first place.

Dan Romanchik, KB6NU, blogs about amateur radio at KB6NU.Com, and is the author of the “No Nonsense” amateur radio license study guides and the CW Geek's Guide to Having Fun With Morse Code.” You can reach him by emailing [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).

# September, 2017

| Sunday  | Monday   | Tuesday   | Wednesday   | Thursday  | Friday  | Saturday   |
|---|--|-----------|---|-----------|---|--|
| <b>3</b><br>9:00 pm<br>ARES Sunday Night<br>Net on K8EEN<br><b>KC8BB – Bill</b>         | <b>4</b>   | <b>5</b>  | <b>6</b><br>5:00 pm<br>Dinner at<br>Southside<br>Diner  | <b>7</b>  | <b>8</b><br>10:00 am<br>Breakfast<br>at Hardee's  | <b>9</b> 8:30 am<br>Breakfast at<br>Allison's Finer<br>Diner<br><b>10:00 a.m.</b><br><b>Ohio State Parks</b><br><b>OTA Mohican State</b><br><b>Park, Loudonville</b> |
| <b>10</b><br>9:00 pm<br>ARES Sunday Night<br>Net on K8EEN<br><b>W8PEN – Don</b>         | <b>11</b><br>7:00 pm<br><b>MVARC</b><br><b>Monthly Meeting</b> | <b>12</b> | <b>13</b><br>5:00 pm<br>Dinner at<br>Southside<br>Diner | <b>14</b> | <b>15</b><br>10:00 am<br>Breakfast<br>at Hardee's | <b>16</b>  |
| <b>17</b><br>9:00 pm<br>ARES Sunday Night<br>Net on K8EEN<br><b>KE8ANS – Terry</b>      | <b>18</b>  | <b>19</b> | <b>20</b><br>5:00 pm<br>Dinner at<br>Southside<br>Diner | <b>21</b> | <b>22</b><br>10:00 am<br>Breakfast<br>at Hardee's | <b>23</b>  |
| <b>24</b><br>9:00 pm<br>ARES Sunday Night<br>Net on K8EEN<br><b>KD8HSA —Tom</b>         | <b>25</b>  | <b>26</b> | <b>27</b><br>5:00 pm<br>Dinner at<br>Southside<br>Diner | <b>28</b> | <b>29</b><br>10:00 am<br>Breakfast<br>at Hardee's | <b>30</b>  |
| <b>1 October</b><br>9:00 pm<br>ARES Sunday Night<br>Net on K8EEN<br><b>KC8BB – Bill</b> | <b>2</b>   | <b>3</b>  | <b>4</b><br>5:00 pm<br>Dinner at<br>Southside<br>Diner  | <b>5</b>  | <b>6</b><br>10:00 am<br>Breakfast<br>at Hardee's  | <b>7</b>   |