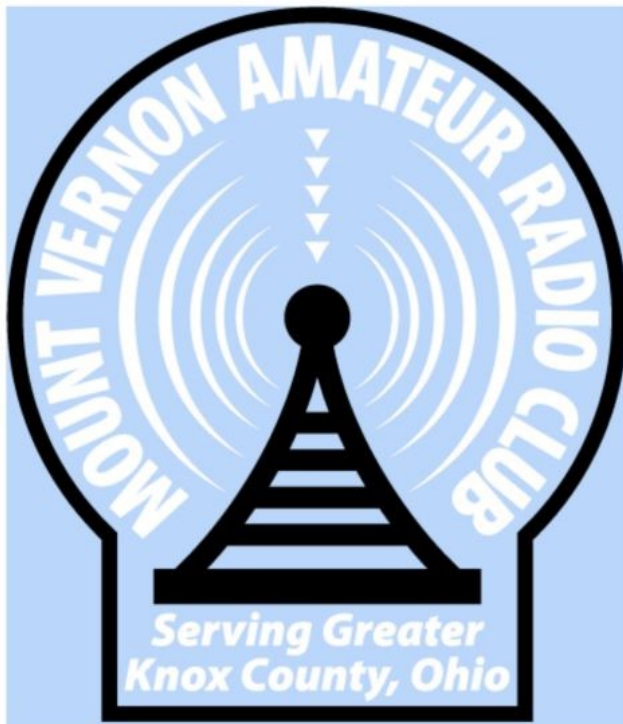


June 2023

2023 Edition 6



# Mount Vernon Amateur Radio Club



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## MVARC Repeaters

K8EEN VHF Repeater

146.790 MHz

- 600KHz / PL = 71.9 Hz

K8EEN-R Echolink Node:

809800

K8EEN UHF Repeater

444.600 MHz

+5 MHz / PL = 71.9 Hz

## President's View

### Frank Counts KC8EVS



Dayton.

I'm writing this while in Florida visiting my daughter. We drove down just as soon as I got home from



Hamvention was great. The weather couldn't have been better. It rained one night, and I thought the parking and flea market area would be a mess, but they were fine. Lots to see. I always enjoy walking around all vendors and talking with them. I learn a lot discussing what makes their equipment better than others or different. I also sat in on a couple of the forums, I always enjoy these. I camped at Cesar Creek State Park, it is a great campground. Some of the campsites did not have electricity as they are updating the electrical system. Mine wasn't supposed to have power but it did, so I didn't have to worry about running my batteries down.

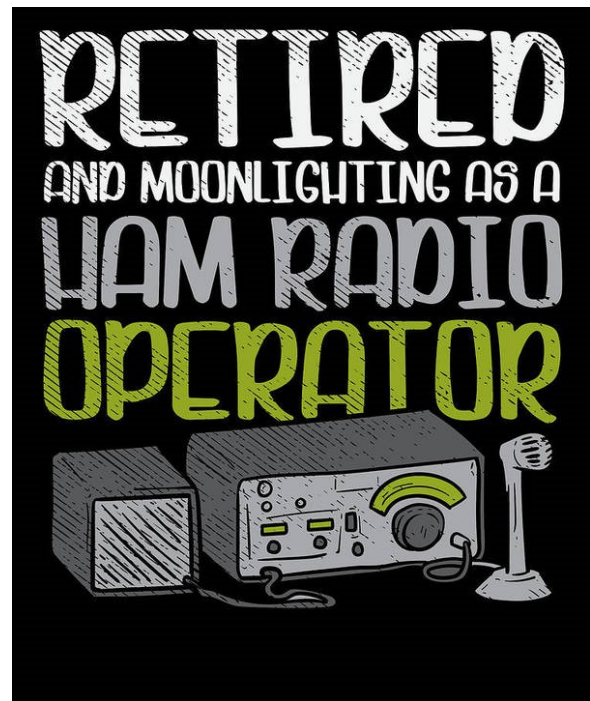
A couple of related items to mention testing and tech classes. We will start a test session in June on the 14th at 7pm.

We will do these on the second Wednesday of every month by appointment only. So, I will need at least two VEC's that are Extra's on the 14th to give a general exam. Let me know if you can help.

Then starting June 6th Tuesday and every Tuesday through July 11th (skipping the 4th) Michael KE8HGE will have a tech class starting at 6:30 pm. We will test this group on Wednesday July 12th at 7pm. All this will take place on the third floor of the Academia Administration Building on Fairgrounds Rd.

One last thing, don't forget to read the position description for PIO (Public Information Officer) and be ready to provide input in the formation of this MVARC office.

See you Monday June 12th at the meeting.



## Meeting Minutes

**Bill Stroud**  
**KD8WHQ**



The meeting was called to order at 7:00 pm by Frank, KC8EVS and he asked if there were any additions or corrections to the April meeting minutes as published in the

newsletter. Hearing none, the meeting minutes were approved as published.

### Treasurers Report

Terry, KI8N gave the Treasurers report. There were no corrections or changes and will stand as read. He reported we will have two bills, club insurance and equipment insurance, to pay next month.

### Committee Reports

#### ARES

Terry, KI8N, states that he attended the IC-191 class presented by the Knox County EMA. He states that one of the takeaways was how fast an incident is on social media and that this can cause issues.

#### ARRL

Scott, N8SY was not at the meeting.

#### Repeaters

Steven, N8RLW reported that the Yaesu repeater was installed and working and PL tone would be added later this month. He is starting a new net on the 440 MHz repeater on May 27 at 10 am.

### MESH / EchoLink

Don, W8PEN stated that Echolink was running fine. The Mesh unit at the Hospital was not working.

### Club Station Lease

Frank reported there has been no new news to report.

### Tech Class / V.E. Testing

Frank, KC8EVS would like to set up a testing session on the second Wednesday of each month. People would have to sign up in advance, if no one signs up then there would be no testing. He stated he would like to use that night to show how to do the paperwork before and after testing.

A testing session was held on May 5 and two people passed the Tech test.

### Events

- ◆ NVIS Day – We had two locations.
- ◆ Gravel Grinder was on May 6<sup>th</sup>. Steven, N8RLW, thanked everyone who worked the Gravel Grinder.
- ◆ Field Day will be on June 24 and 25 at Apple Valley. There is a sign up on the Club web page. Please sign up so we will know how much pizza to order.
- ◆ Ohio State Parks on the Air is in September.



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“Thank you again to everyone who supported the effort to improve the repeater system we have.” Steven, N8RLW

### Public Information Officer

Michael, KE8HGE presented suggested changes to the By-Laws for the position of Public Information Officer. Frank asked everyone read the changes and we will discuss it next month.



The 50/50 drawing was won by Barry, N8PPF. A motion to adjourn the meeting was made at 7:50 pm EDT with no dissenting votes.

Members Present	
Frank Counts, KC8EVS	Jim Bostic, KD8IZT
Ralph Bower, KC8REB	Wayne Bower, WB8WB
Emery Bennet, W8TW	Barry Butz, N8PPF
Tom Evans, KD8HSA	Roger Gorrell, KE8ICI
Don Russell, W8PEN	Darlene Pudlinski, KE8TJN
Michael Jacobs, KE8HGE	Ralph Dunmire
Don Bunner, KB8QPO	Terry Windsor, KI8N
Steve Harvey, N8RLW	Bill Stroud, KD8WHQ



## ARES

Terry Windsor

KI8N



This month Don, W8PEN, Roger, KE8IC, and myself reinstalled the HF radio power supply at the EMA office. In our last visit we found the power supply was not outputting 13.8 vdc so we

removed it and JT DeChant, EMA Director sent it to Astron for repair. It was repaired and returned at the beginning of May.

We tested the Kenwood TS-2000 with the newly repaired power supply and it is working fine.

We did find one of the HF antennas has a high SWR reading. The antenna is resonant at 3.450 MHz which is below 80 meter amateur frequencies. In the near future I will arrange with JT to allow us to work on this antenna so that it is usable for future emergency communications. At this time, the second HF antenna is working and available should the need arise.

## CONTINUING:

This is a great time for all club members interested in ARES to review the [Ohio Section ARES](#) web pages and complete or update any NIMS ICS training courses.



MVARC MONTHLY  
BUSINESS MEETING

**JUNE  
12  
2023  
7:00 PM**

Academy Building  
790 Fairgrounds Rd.



# SAVE THE DATE

<https://MVARC.net>



**Mount Vernon Amateur Radio Club**

690 likes • 716 followers

Liked

Message

Search

Posts About Mentions Reviews Followers Photos More ▾

## NOTICES

### 2023 Upcoming Events

The following are 2023 club participation events.

- Field Day, June 24 and 25 at Apple Valley
- Ohio State Parks On The Air—September 9 at Mohican State Park
- Various ham radio contests from club station.
- Christmas Party 2023

### MVARC has a new a new mailing address

Mount Vernon Amateur Radio Club  
812 Coshocton Avenue  
PMB #145  
Mount Vernon, OH 43050

NOTE: When sending mail to this address the PMB and # must be used.

The new 2023 – 2027 question pool is effective July 1, 2023 – June 30, 2027, and *must* be used for General-class license exams administered on or after July 1, 2023.

### MVARC now has an active Facebook presence

<https://www.facebook.com/mvarc>

Watch for announcements and reminders of upcoming events.





# June 2023

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			3	1 7 PM Roundtable Discussion on 146.79	2 9:00 am— Breakfast	3
4 9:00 pm ARES Sunday Night Net—Don (W8PEN)	5	6 <b>D-Day</b> OHDEN Net 7:45 pm	7 4:45 pm Dinner - Southside Diner	8 7 PM Roundtable Discussion on 146.79 Repeater	9 9:00 am— Breakfast	10
11 9:00 pm ARES Sunday Night Net— Roger (KE8ICI)	12 7 pm <b>MVARC Meeting</b>	13 OHDEN Net 7:45 pm	14 <b>Flag Day</b> 4:45 pm Dinner - Southside Diner	15 7 PM Roundtable Discussion on 146.79 Repeater	16 9:00 am— Breakfast	17 440 Repeater Discussion— What is C4FM
18 <b>Father's Day</b> 9:00 pm ARES Sunday Night Net— Michael (KE8HGE)	19	20 OHDEN Net 7:45 pm	21 <b>First Day of Summer</b> 4:45 pm Dinner - Southside Diner	22 7 PM Roundtable Discussion on 146.79 Repeater	23 9:00 am— Breakfast	24 <b>FIELD DAY</b>
25 <b>FIELD DAY</b> 9:00 pm ARES Sunday Night Net—Terry (KI8N)	26	27 OHDEN Net 7:45 pm	28 4:45 pm Dinner - Southside Diner	29 7 PM Roundtable Discussion on 146.79 Repeater	<b>30</b> 9:00 am— Breakfast	

## Ham Radio Contest Calendar



## Repeater Update

**Steven Harvey**  
**N8RLW**



Hello Everyone,

It's amazing how quickly this year has been flying by. I wanted to update you on the repeaters, so you know what is going on.

First is the 146.790 machine. In preparation for the arrival of the amplifier we had Vasu Communications come out to the site to check our duplexers to make sure they are able to handle the power. The Wacom duplexers allows for 275 watts of power, but it never hurts to check before turning up the wick, so to speak. After a few hours of checking, we unfortunately found out they will need to be taken out of service before placing the amplifier on the air.

Here is the issue we discovered, the Yaesu repeater is putting out 20 watts at this time and we are only getting 7 watts out of the duplexer before it goes up the feedline and that is a big difference between power in verses power out. A well-tuned duplexer you should only lose about a watt or two when they're spot on and the rest of power should go out the feedline to the antenna. The same is noticed on receive, the duplexer is consuming more signal than it should before it gets passed on to the receiver and thus that affects our coverage.

It was discovered that the receive was at -70 dB of isolation which when in spec should be -90 dB of isolation between transmit and receive. This makes a difference with handheld coverage and fringe mobile coverage for the repeater to be able to hear you. A trip to the duplex doctor will get it realigned and put back into spec. We have worked out a swap with Vasu to keep the repeater operational by

borrowing a set of duplexers while ours are in the shop.

Hopefully once Vasu's workload eases, they'll have time to tune their loaner duplexer and we'll do the swap. In the meantime, we are good, and the current issue is not causing any damage to the system just that the amp will not be put online till the issue is resolved.

Speaking of the amplifier, it should be here for me to show everyone at the next club meeting. Thank you again to everyone who supported the effort to improve the repeater system we have.

The second update is the 444.600 machine. I recently took the spare 440 duplexer up to Vasu and had it tuned to help improve receive coverage. I'm happy to say it was worth the trip to have them look at the spare duplexer. Just like the 2-meter duplexers the 440 ones started at -72 dB of isolation and when finished have -92 dB of isolation. You want the number in the end to be larger and more negative so it allows the receiver and transmitter not to interfere with each other and any other unwanted signals around our antenna's.

The duplexer has been installed back on the 444.600 machine and the primary one is at Vasu for a touch up. I have tested the machine and I can now almost get all the way to Mount Gilead via mobile and have noticed improvements in coverage going to Centerburg via mobile and handheld around Mount Vernon. Hope to see everyone on the air and we'll keep these improvements going so the club has very stable and reliable machines.

That is all for now and hope you have a great month of June!

73

## Member Ham Shack

Terry Windsor

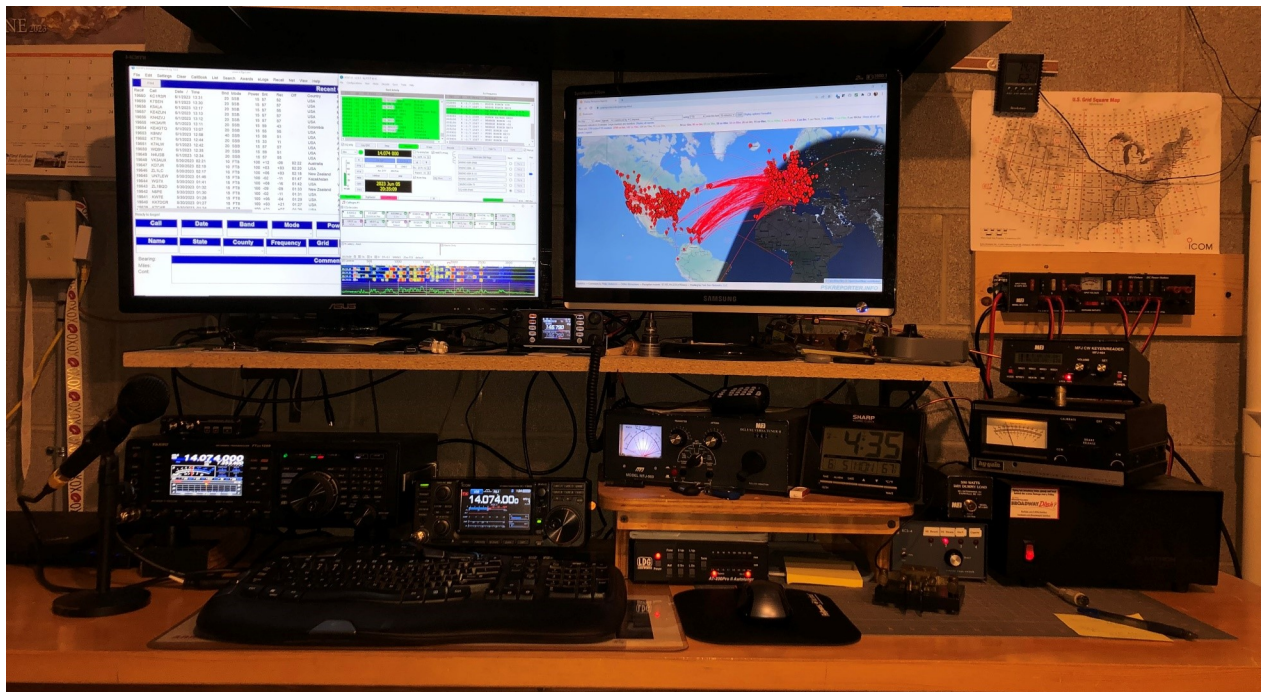
KI8N



My shack is in the basement and I also like to use two monitors. One is showing WSJT-X on top of N3FJP logging software and the other screen is displaying PSK Reporter.

I have the Yaesu VHF/UHF radio above the Yaesu and Icom HF radios. I have the manual tuner on a shelf above the LDG autotuner, then there is the 4 position antenna switch, rotator controller and an Astron power supply. Above the rotator controller is a CW keyer/reader I use to keep in practice sending CW. It is not connected to any radio,

just there to practice sending.



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“One last thing, don’t forget to read the position description for PIO (Public Information Officer) and be ready to provide input in the formation of this MVARC office.” Frank, KC8EVS

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## Radio Activity

**Don Russell**  
**W8PEN**



Field Day is approaching at light speed! Where did it come from!

Steven Harvey N8RLW and Scott Yonally N8SY have put together a Field Day signup form on the club webpage. I invite

club members to head that way and simply fill in the form. Be assured, you will be welcome at Field Day whether you fill this form out or not. It is just something the club is trying that might help document the event and perhaps get a bit more organized.

To be honest, I have done little to prepare for Field Day this year. However, the club usually sets stations up at the same locations. One spot decision was needed last year because a group was having a wedding where we usually put the CW station. No Problem. We handled it. It has been promised that this will not happen again.

Some Field Day rules have changed but will not affect the basic operations of Field Day. The FD exchange will be the same. I will have to reread the rules, but most of the changes simply make some of the COVID exceptions to the rules permanent.

As far as our operations go, the club will operate three or four transmitters. Our class will either be 3A or 4A largely to be determined by if we have a digital station this year. Terry, KI8N was not sure he was going to make Field Day this year.

Anyone with experience in HF digital who may wish to operate, let me and Terry know by the June meeting so we can make plans.

Other than digital, we will have our standard

two SSB stations and the CW station. Perhaps a GOTA station.

The club picnic will change this year. Instead of Potluck, we are going to see how many people are there Saturday evening and order pizza. Recommended donation for the pizza is \$5.00 per person and the club will cover excess costs. I believe the club will supply water and coffee, but we will need to make final plans for this at the June meeting.

Usually, I give a rundown of each station setup for Field Day. Not going to do that this year. Let's just set up the best possible stations to make lots of contacts and have fun doing so.

### Field Day need to knows:

- 1) **Field Day will once again be held at the Floral Valley Community Center in Apple Valley. We set up in the field behind the building by the baseball field.**
- 2) **Antenna set up will be Friday, June 23rd starting at 2:00 PM. With any luck, we will be done setting up antennas by 6:00 PM. If we have commercial power, I will sponsor a fish fry for those that helped set up. I did this last year, and the year before, but really didn't broadcast it. The menu will be Walleye and Crappie and a cold side like Potato Salad. We eat until all the fish is gone or we are full.**
- 3) **A small group of us usually stay Friday night. Anyone wishing to do so is welcome to join us. Bring your own tent. Lol.**



- 4) **Official Field Day operations begin Saturday, June 24th at 2:00 PM. All stations should be up and running before the start of Field Day. Field Day will end 24 hours later, Sunday, June 25th at 2:00 PM.**
- 5) **Hint. Any club members who for one reason or the other do not participate in Friday's antenna setup, or Field Day operations, but want to provide a little help, tear down will start around 2:00 PM Sunday with a lot of tired folks doing the work. Any help would be appreciated.**

Hope you all can make it Field Day. Be at the June meeting so we can make final plans.

### **History of the Mt. Vernon ARC 2 Meter Repeater—PART III**

Repeater number 5 was installed on a 100 foot tower at the Armory. Walter McCutchen, N8CIY, was repeater tech. Again, I was not very active in Ham Radio at the time. This was the mid 80's. I remember my former employer shut down their manufacturing plant in Mt. Vernon (Chattanooga Glass, Diamond Bathurst, and whatever else in between!), I found work in Columbus and drove back and forth.

I was using the repeater a little bit then. Coverage seemed to extend out to Route 3 and Route 605. I can remember using it right along 605 but would drop out before I got to the Route 605 and Route 37 intersection. I also had to be on this side of Johnstown on route 62 to be able to get into the repeater reliably. I have no idea what kind of equipment was being used. Jim Woodland (WB8AYM (SK)) was Knox Emergency Coordinator at the time. For long forgotten reasons, Walter decided to give up the Repeater Tech job.

This was about the time that Jim Woodland and I started talking about yet another repeater. Apparently the one at the Armory was going down-

hill fast. So, I talked to my brother (Chuck, WA8ONN (SK)) and he was nice enough to help us out.

Since Chuck worked for Ohio Mobile in Westerville, getting a transmitter and receiver was not a problem. The receiver was a solid state unit. The transmitter was mostly solid state but had a tube final. It ran about 60 watts output. For the controller, we used an Atari 400 computer (remember them?). Chuck wrote a basic program with machine language sub routines. Even had a digital voice IC connected to it. We didn't use that part of it too much, but it worked.

The duplexer was a home brew job that Chuck had built when we first got into repeaters. I didn't dare touch that! Either it was going to work or not. Well, this was repeater number 6. It worked okay. About the same coverage as repeater number 5, but then again, the location and antenna were the same. We had some problems keeping the controller working. If the power went off, I had to go out there and reload the control program. No disk drive then. Just a tape drive! I made some slight modifications to the basic program controlling the repeater but didn't get too involved in how it performed distance wise. Local was good enough for me at the time and anything extra was okay.

Jim Woodland passed away sometime while repeater number 6 was going and from here on in, the picture is not quite so clear. I remember Rudy Maxwell, W8NLQ (SK), being involved in the repeater, but not sure how much of a part I played in it. This was the late 80's because I was still driving back and forth to Columbus, and I got my present job at Ariel in 1990. Rudy and Bill Morain (SK, sorry, I cannot remember his call) were the official greeters on the repeater. Anyone calling in would most likely be answered by one or the other.

About this time, a Ham from Johnstown took over the repeater. I believe he installed a Commodore computer in place of the Atari computer (I call that a downgrade). I was out of radio again and have no idea how well this worked. We will call this repeater number 7, since at least the controller was changed.

Repeater number 8 was the first repeater at the water tower. I need to get the story on this repeater. This may be the first repeater that Kelly, N8NMQ, was involved in. I would say the club bought the present Cat 1000 controller and duplexer at this time. The receiver and transmitter from the Armory repeater were used. I am not sure about these facts though.

This repeater was on par with the one out at Woody's. It had great coverage according to Bob, N8PCE. The major problem with this repeater was the final in the transmitter kept going out, and the Diamond antenna was being hit by lightning quite frequently.

Repeater number 9 was the next upgrade. It was the GE Master II that was eventually replaced by our present repeater. We all know about this one. At times it worked well, at other times it wasn't worth a lot. When Kelly gave up the repeater tech business, this repeater quickly went downhill.

This is when I offered to look at it. I believe most of the problems with this repeater were the result of lightning strikes and the corrosion of some of the coax fittings. From what I could determine, it had a lot of desense problems. It also had a lot of noise problems in the audio, which were partly caused by desense, and some caused by grounding problems. It would sound terrible one day, and great the next. I am sure that it worked as planned when first installed. After installing our present repeater, it was found that the receiver in this repeater had a lot of corrosion in the se-

lective cavities. So much so that Andy, KC8EVM, just threw it away!

Repeater number 10 was the Maggoire repeater that we just replaced. I was involved from the get-go on this one and must admit, that I am very proud of the results. This repeater is almost as good as the one at Woody's, and as good as the first one at the water tower. The audio is very clean, and I have never detected any desense.

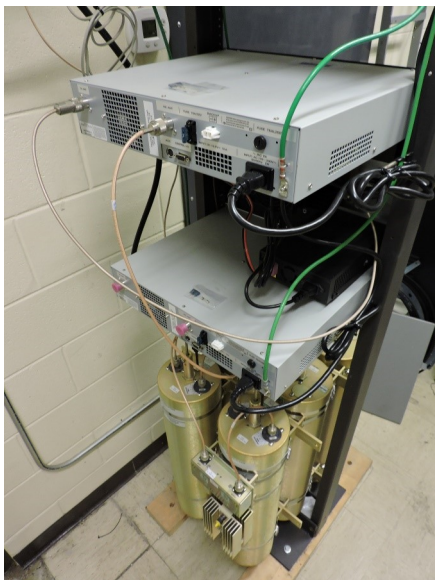
The repeater committee decided that a new repeater was in order. What really convinced me to start from scratch was the lack of documentation. If anything, serious happened, we would have been in a world of hurt to fix it ourselves. With our present repeater, there has been a real effort to keep information handy to those that may need it. There is a book at the repeater site that contains all the information needed to do any trouble shooting. There are also at least two other books, one I have and the other belongs to Barry, N8PPF. There is also a computer CD with all the info in Word processor files.

In doing this, we have assured you that the club will not be left stranded if for some reason we lose a repeater technician. Right now, I would say the Club is well set. Even though not official, I would say that Bob, N8PCE, Barry, N8PPF, and myself (Don, WA8YRS/W8PEN) are the repeater techs. Numbers are a blessing. Double insurance is that the repeater was built by a reputable company that backs their products with a two year warranty. Even though this warranty has passed, they will still service this repeater. We also have a backup Repeater Tech in Andy, KC8EVM. Andy is available whenever needed to help us with the more technical nature of repeater servicing. With Andy's experience and knowledge, our repeater is assured of a long and useful life. I am very glad we have Andy as a friend.

This repeater will continue to be a work in progress. There are many things we can do to improve its performance. Being considered, but probably not likely to happen is a receiver site out East to improve coverage in the Eastern part of Knox County. That would be a good choice. In fact, I would have no problem with multiple receiver sites spread throughout the county. This may be too much to ask of a Club the size of Mt. Vernon's. The constant financial strain could be overwhelming, not to mention the increased technical problems. You can figure a minimum of about \$300 per site to start.

This repeater already has an internet connection via Echolink. This capability has not been used much lately, which is too bad because it is neat. If anyone hears a station calling via Echolink, please give him a call. This wraps up the three part series on the history of the Mt. Vernon Repeater System. What is next? Hard to tell. I guess I could go into the 440 MHz Repeater and the 6 meter Repeater, but maybe later. We need to build some "history" on these two repeaters.

I believe our current 2 meter repeater will last a very long time. Baring a severe event such as a lightning strike that would take out everything. This repeater should last another decade or two. Oh, if such an event did happen there would certainly be some downtime. But since our Club Treasurer (N8PCE) keeps the repeater insured through the ARRL insurance program, the cost of putting another repeater together would at least be minimal.



Well, this brings us up to date. Steven N8RLW and Roger KE8ICI recently installed number 11, the Yaesu DR-1X and a new controller. The history of this repeater is still to be written.

In the past year, the club has installed a new repeater antenna, installed the new repeater, and ordered a repeater amplifier which should be installed soon.

A problem with the duplexer has been discovered, so the club is looking to repair or replace this unit. Once done, I think this repeater will again provide the coverage we have had in the past.

## Black Fork Gravel Grinder

Steven received this message from Matt Simpson Black Fork Event Director;

Hi Steven,

I wanted to thank you and your team for supporting the Black Fork. It was a BUSY day for sure. Being able to check in on aid stations, receive rider updates and work with the EMS was critical to our success. We hope you'll be back next year on May 4th!

Attached is a photo of the start in case you want to share it with friends.

Thanks again and have a great summer!





**Black Fork Gravel Grinder Photos. Taken by Frank, KC8EVS and Steven, N8RLW**



## Miscellaneous Rambling

Terry Windsor

KI8N



I am a little late getting the newsletter written and in a publishable format this month. We have our 5 year old granddaughter visiting

and my time has been taken doing things with her. One thing we did was in St. Louis, MO when I picked her up from her parents was attend opening night of [Circus Flora](#). It had been decades since I had attended a circus and we had a great time. The acts were amazing and we got to see the Flying Walenda family in person. That is something I always wanted to do.

Her and I drove from St. Louis to Chesterville which took about 7 hours. I listened to kid music, Kid BOP, that entire trip and was unsure if my headache was ever going to go away. Seriously thought about pulling the radio out of the dash at several rest stops!

She is attending, and me and her Gigi are working at New Life Community Church's VBS the first week of June and then she will be returning home. This is the longest that she has been away from home and it is a learning experience for all of us!

At least on the trip to MO I did get in a POTA activation in Indiana. It was my first attempt in that state. It was at Chinook State Fish and Wildlife Area (K-4190) outside of Terra

Haute. I do have one irritating find, especially in wildlife and natural areas. Why do they allow power companies to run high voltage lines in these beautiful lands? Besides being ugly (this is supposed to be a wildlife area) they make it hard to work HF with all the radiated noise. I made 12 SSB contacts and finished. It was just overly tough to hear stations calling with the power line noise. (OK, rant over.)

Most of May I did not do much ham radio. Seems there was always something else competing for my time, especially with the weather getting nicer. Started working on my 1964 convertible to fix some engine and transmission leaks. The transmission was easy to fix, new shifter seal, modulator valve, cooler lines, and pan gasket. However, Ford made it so the oil pan gasket cannot be changed unless the engine is jacked up or pulled. So hopefully I will get it pulled in another week or so. Then while it is out perform some other much needed maintenance and clean up the engine bay. The old "while I am doing this I might as well ..." has bitten and I am sure will result in a lot more work which also equals cost than I had originally intended.

As Don, W8PEN noted, I have decided not to run the digital station at Field Day this year so if someone else wants to it is all yours. I will attend but just to hang out for a while. My heart is just not in it this year, I lost a good friend in GA on 6/02 who I texted when doing POTA and it is hard to know he will not be there.

Until next month "Ham it UP!

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**"This repeater already has an internet connection via Echolink. This capability has not been used much lately, which is too bad because it is neat. If anyone hears a station calling via Echolink, please give him a call." Don, W8PEN**

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## Let's Be 440.600 Radioactive

Steven Harvey

N8RLW



You need to join us for the 440 FM and Digital Tech Net on the MVARC 444.600 machine.

This new net will be held monthly on the 3<sup>rd</sup> Saturday of the month starting **10:00 AM to 11:00 AM** on the 444.600 pl 71.9. The FM and Digital Tech will be hosting various topics of digital nature such as, what is C4FM, why is it different from DMR. What is the difference between a Talk Group and a Room. Many other topics in the digital ham radio world will be explored and this will also give our lonely 444.600 machine some exercise besides Terry, KI8N and Steven, N8RLW using it to listen to Wire-X groups all over the world.

We'll all check in and have discussion on the topic and see where it goes from there. My hope over time is to get enough local people with C4FM radio's so I can open this net up to others who can check into the net via our Wires-X room on the repeater. In the meantime, dig out your dusty 440 rig or dual band handheld and set it up for an outside antenna and program it to 444.600 pl 71.9. Give it a try before the net starts that way if you have any questions let me know. Let's become 444.600 Radioactive.

### Schedule and Topics

June 17<sup>th</sup>, 2023 – What is C4FM and Wires-X and how can I use it?

July 15<sup>th</sup>, 2023 – What is DMR and how is it different from C4FM?

August – TBA

September – TBA



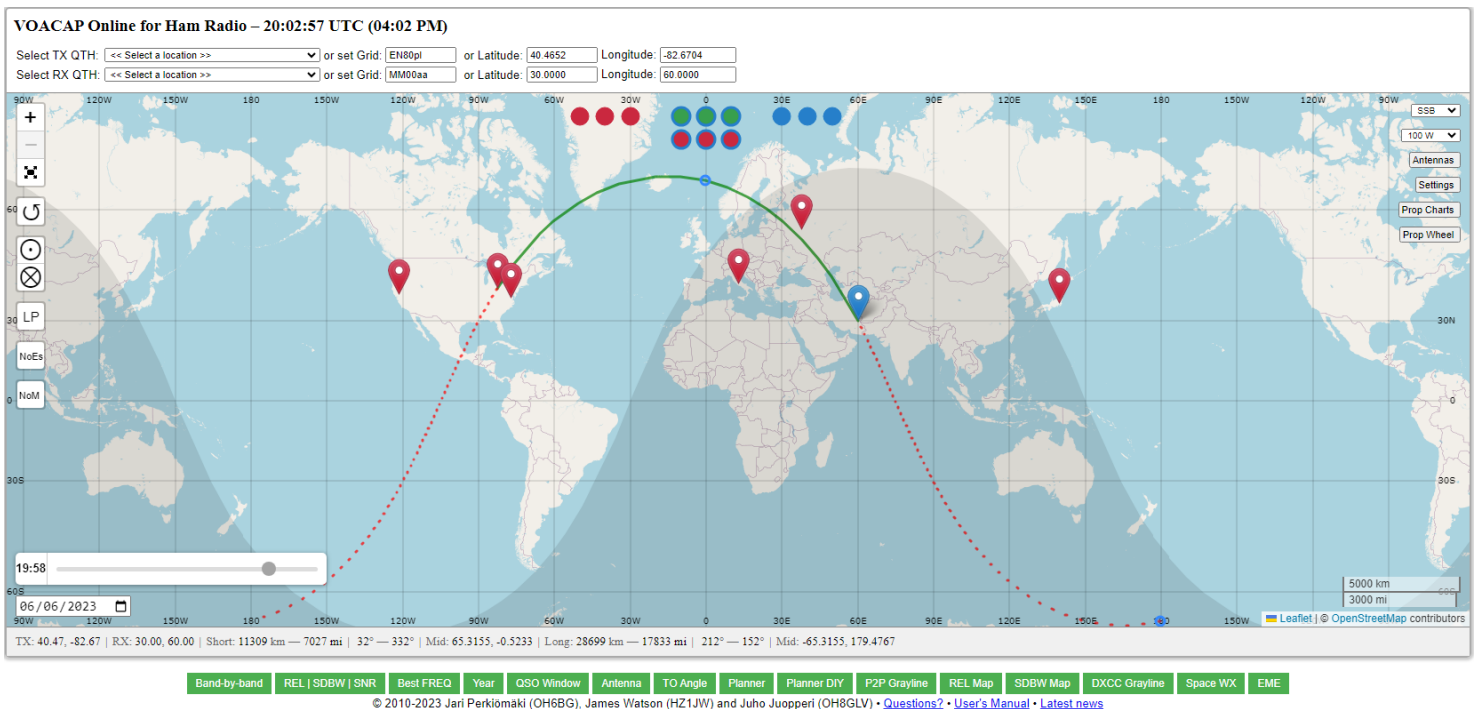
440.600 MHz  
PL 71.9

**FM and Digital  
Tech Net**



## Final Takeaway

I have been playing with [VOACAP Online](https://www.voacap.com/) for Ham Radio for a little bit and trying to figure out what it actually shows. There are several popup windows that allow the operator to set antennas, bands, power, and type of modulation (SSB, CW, Digital).



This is the visual that appears and provides a quick look at HF propagation. VOACAP stands for Voice of America Coverage Analysis Program.

This page gives an overview of what the program provides: <https://www.voacap.com/overview.html>.

There is a lot to this prediction program and I have just started learning a little about it. I wanted to add it this month in hopes someone else has some familiarity with the settings and can provide more information on its use. It would be great if someone could provide more information at the next meeting.

I plan to spend some time in the next couple of months and determine if it is worth learning for typical ham radio usage.

## General Exam Sample Test Questions:

**G0B02** According to the National Electrical Code, what is the minimum wire size that may be used safely for wiring with a 20 ampere circuit breaker?

- A. AWG number 8
- B. AWG number 12
- C. AWG number 16
- D. AWG number 20

**G0B05** Which of the following conditions will cause a Ground Fault Interrupter (GFCI) to disconnect the 120 or 240 Volt AC line to a device?

- A. Current flowing from one of more of the voltage-carrying wires directly to ground
- B. Overvoltage on the voltage-carrying wires
- C. Current flowing from one of more of the voltage-carrying wires to the neutral wire
- D. All these choices are correct

## Extra Class Exam Sample Test Questions:

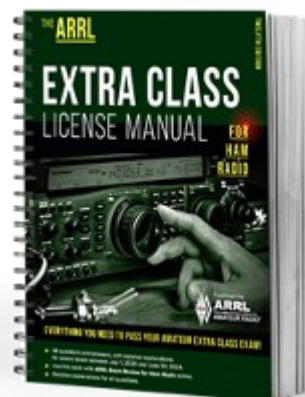
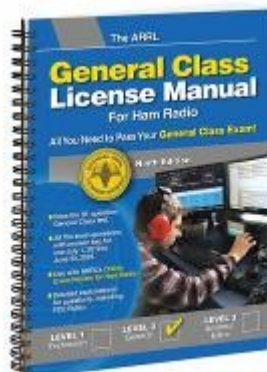
**E7C04** How does an impedance-matching circuit transform a complex impedance to a resistive impedance?

- A. Reactive currents are dissipated in matched resistances
- B. It introduces transconductance to cancel the reactive part of impedance
- C. It cancels the reactive part of the impedance and changes the resistive part to a desired value
- D. It introduces negative resistance to cancel the resistive part of impedance

**E7C05** What filter type is described as having ripple in the passband and a sharp cutoff?

- A. A Chebyshev filter
- B. A passive op-amp filter
- C. A Butterworth filter
- D. An active LC filter

These test questions are from the current test pools for their respective license classes. How did you do? The answers are on the last page. Practice tests for all license classes can be found here: <https://www.qrz.com/hamtest/>. The ARRL license manuals shown are available from the [ARRL](https://www.arrl.org/) or Amazon.



## Miscellaneous Amateur Radio Information

Join us every Sunday night on the Mt. Vernon 146.79 repeater for our weekly **MVARC ARES Sunday Night Net. Check-in starts at 9 pm.**

Unable to access the repeater from where you are? We are on IRLP (EchoLink) - Just look us up.  
K8EEN-R Node 809800.

## Ohio Traffic Nets



### The Ohio Single Side-Band Net (OSSBN)

Ohio Single Side-Band Net; Ohio connection for what is going on in the Ohio Traffic System. The Net meets on 3.972.5 MHz at 10:30 am, 4:15 pm, and 6:45 pm daily. Alternate Frequency for all sessions is 3.968 MHz.



### Central Ohio Traffic Net

The Central Ohio Traffic Net is a part of the Ohio Section of the National Traffic System. They meet daily to handle traffic; all licensed amateur radio operators are welcome to check in and to learn to handle traffic. COTN meets daily at 7:15 pm on 146.970, -.600 MHz, PL 123.0. Signal Operating Instructions and frequencies given here: <https://www.cotn.us/sop>.

### The Ohio ARES HF Digital Net—OHDEN

Tuesday at 7:45 pm 1804.5 MHz, USB, Olivia 8-500 with waterfall frequency 1500.

Sunday at 4:00 pm 3584.5 MHz, USB, Olivia 8-500 with waterfall frequency 1500.



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“Usually, I give a rundown of each station setup for Field Day. Not going to do that this year. Let’s just set up the best possible stations to make lots of contacts and have fun doing so.” Don, W8PEN

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## FM Repeater Nets In And Around Knox County

County	Net	Frequency	Day and Time
Ashland	No net as of 03.30.2023		
Coshocton	CCRA	147.045 PL 71.9	Every Sunday 9:00 PM
	ARES	147.045 PL 71.9	Every Monday 8:00 PM
Delaware	Monday Night Net	145.170 PL 74.4	Every Monday 8:00 PM
Holmes	No net as of 03.30.2023		
Knox	<b>MVARC Roundtable</b>	<b>146.790 PL 71.9</b>	<b>Every Thursday 7:00 PM</b>
	<b>ARES Sunday Night Net</b>	<b>146.790 PL 71.9</b>	<b>Every Sunday 9:00 PM</b>
	<b>440 FM and Digital Tech Net</b>	<b>444.600 PL 71.9</b>	<b>3<sup>rd</sup> Saturday of the month starting May 2023 at 10:00 AM</b>
Licking	N8RA Tuesday Night Net	146.880 PL 141.3 444.500 PL 141.3	Every Tuesday 9:00 PM on the 146.880 except for the last Tuesday of the month they check in on the 444.500 repeater.
Morrow	Morrow County Net	146.775 PL 107.2	Every Sunday 9:00 PM
Richland	IRAC Net - Mansfield	146.940 PL 71.9	Every Wednesday 8:00 PM

**Has anyone tried contacting any of the other nets? We have several operators from Licking County joining our Sunday Night Net and it would be great if we could reciprocate and join their net!**

## FCC and License Updates



### First-Time Exam Applicants Must Obtain an FCC Registration Number before Taking an Exam

All amateur examination applicants are required to provide an FCC Registration Number ([FRN](#)) to the Volunteer Examiners (VEs) BEFORE taking an amateur exam. **Social security numbers are no longer accepted at exam sessions.**

Amateur candidates who already have an FCC license, whether for amateur radio already have an FRN and can use the same number. All prospective new FCC licensees, however, will be required to obtain an FRN before the examination and provide that number to the volunteer examiners on the Form 605 license application

All applications will be required to contain an email address for FCC correspondence. Applicants will receive an email direct from the FCC with a link to the official electronic copy of their license whenever a license is issued or changed.

### FCC Application Fee and VEC Filed Applications

EXAMINEES MUST PAY WITHIN 10 DAYS.

Examinees do **NOT** have to wait for the email from the FCC to pay the fee. As soon as an the application file number is issued by

the FCC, they can pay by logging into the CORES [Payer FRN System](#).

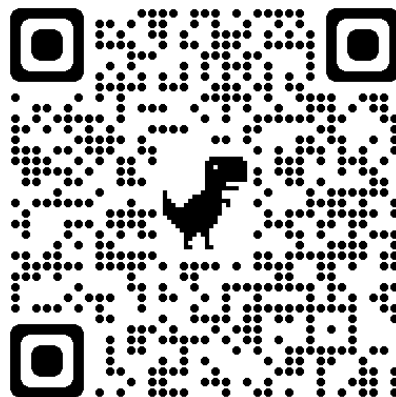
Application File Number search using an FRN: [FCC Application File Number Search](#)

### FCC Legacy CORES System—Retired

The Federal Communications Commission (FCC) retired the [Legacy version](#) of its Commission REgistration System (CORES) on July 15, 2022.

CORES is designed to identify those who hold certain types of FCC licenses and FCC authorizations, including amateur licenses, and organize them in an easily accessible manner under a common FCC Registration Number (FRN) regardless of whether one holds a single such authority or more.

Starting on July 15, 2022, the Legacy CORES website will re-direct users to the [Commission's updated CORES](#) site. Although some functionalities in the old system will continue to work for a short time, the [FCC has urged all users](#) to transition to the updated CORES system to take advantage of its enhanced security and functionality.



## MVARC

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Barry Butz, N8PPF

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Answers to sample test questions on page 20.

G0B02: B

G0B05: A

E7C04: C

E7C05: A

## Editors Notes



The MVARC Newsletter is delivered to club members via email containing a link to the MVARC webpage, Newsletters heading.

*Thanks to all for your assistance with the MVARC Newsletter; in 2022 we were selected as the second best newsletter in the Ohio Section.*

Please note the contact email for the MVARC newsletter is: [admin@mvarc.net](mailto:admin@mvarc.net).

The **MVARC CQ** is the official newsletter of the Mount Vernon Amateur Radio Club.



## Web Page

MVARC.net

## Facebook Page

[https://  
www.facebook.com/  
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