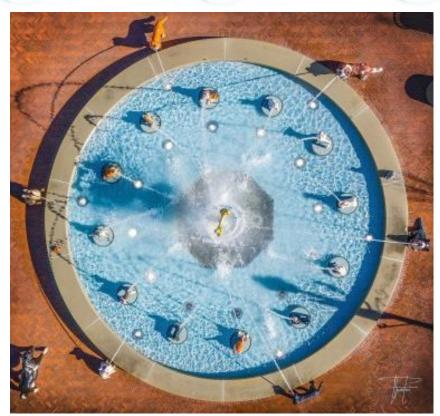
# **Mount Vernon Amateur Radio Club**

# May 2024 2024 Edition 5













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# **MVARC Repeaters**

K8EEN 146.790 MHz - 600KHz / PL = 71.9 Hz K8EEN-R Echolink Node: 809800 K8EEN 444.600 MHz **OFFLINE** +5 MHz / PL = 71.9 Hz

## **Meeting Notice**

May Meeting— May 13<sup>th</sup> at 7:00 pm at the Academy Building.

### **President's View**

Frank Counts, KC8EVS



It's May already, hard to believe, this year seems to be going by quickly. We just finished up NVIS day. It was

fun just getting out and operating. We did not make that many in-state contacts, but there were plenty of POTA stations to be worked. So that is what I did. It was a beautiful day except for one thing, wind. It was windy, I thought the canopy that Emery brought was going to take off, fortunately it stayed put. Overall, a great day to be out.

This weekend is the Black Fork Gravel Grinder, and it looks like we might have a bit of weather to contend with but if there are no thunderstorms or tornado threats, they will be on their bikes. I think I heard that there will be close to 850 bicyclist participants this year. I think the first race only had 350 to 400 participants, so it is really growing.

The next club event will be Field Day and I hope to see all of you there. We will be at Apple Valley again, somewhere behind the new pickle ball courts that have been built. I have not been out to the site, but several others have, and they have reported that it is doable, so we are going for it. Attendance has been down for the last couple of years so, if possible, come out, even if it is only for a couple of hours. There's always something to learn and great fellowship. I'm sure that there will be much more discussion concerning the event over the next couple of meetings so be sure to attend.

Hamvention also takes place in May (17-19<sup>th</sup>). I will be attending and camping in a new state park, Cowan Lake State Park. I was late in getting my reservation in and Ceaser Creek was full for that weekend! Next year I will make my reservation in December rather than January. It seems that camping and attending Hamvention is up. A few years back Ceaser Creek was only half full, with plenty of open sites. Last year most sites were taken so I should have known that I needed to get my reservation early. It was crazy there as it seemed that everyone was a ham and on the radio. Lots of fun and I'm looking forward to it again this year.

I'm going to wrap this up and get it off to Terry. Hope to see you at our monthly meeting, Field Day or maybe Hamvention. Let me know if you are going to attend Hamvention and maybe we can meet up.

73!

# Every Sunday night on the Mount 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) K8EEN-R Node 809800.

## **Bill Stroud**

#### Bill Stroud, KD8WHQ



The April 2024 meeting of the Mt. Vernon ARC was called to order by Frank, KC8EVS at 7:00 pm.

Fifteen (15) members attended the meeting.

The minutes for last month were presented. There was one change. The mesh

node at the hospital is a 5g node, not a 2g node. The minutes were passed as read with the change.

#### **Treasurers Report**

Terry KI8N provided an account of the current balance of all bank accounts and expenditures through April 2024. There were no additions or corrections, and the report was approved as presented.

#### **Committee Reports**

#### ARES

The club was not needed for the Eclipse. The EMA office has not updated when they will have a tabletop exercise.

Reminder: The ARRL put a new hour tracking program into service. We need to report **every** hour that we do anything ham radio-related other than making contacts. Examples: meetings, Friday breakfasts, training, working on club radios/antennas/repeaters, field day, POTA.

#### Repeaters

Roger, KE8ICI reported that the 146.79 MHz repeater is running on his repeater equipment. MVARC's repeater was sent out for repair. He replaced the final in the 440 repeater and is testing it.

Roger also reported that the repeater was working. He will be putting the amplifier in and testing it later in the week. He has all the equipment Steven had at his house. He is working on getting the 440.600 MHz repeater installed at the hospital.

#### MESH / EchoLink

Don, W8PEN reported that it is running fine except the hospital node is offline. EchoLink has had problems with the internet at Don's house.

#### Show and Tell

Frank brought in his Wolf River Coil Silver Bullet Mini telescoping antenna. It is 17 ft and operates on 10 through 40 meters. It has wire radials, but he has been using a piece of metal window screen as a radial field and it works fine. He showed a Faraday fabric cloth with a metal backing that he will be testing as a radial.

#### **Old Business**

Nothing discussed.

#### **New Business**

Looking at setting up a tent for First Friday, possibly in August.

The 50/50 raffle was won by Mike Deane - W80IO

A motion to adjourn the meeting was made at 8 pm by Roger, KE8ICI, and seconded by Don, W8PEN. The motion passed.

#### **Coming Events**

- Black Fork Gravel Grinder May 4 <u>Black Fork</u> <u>Gravel Grinder</u>
- Field Day June 22—23 <u>ARRL Field Day</u> Apple Valley Ballfield (Same spot as previous years)
- Ohio State Parks On the Air Sept. 7 10 am 6 pm – <u>OSPOTA</u>



"It was amazing how the sky went from light to dark and the temperature changed. "Terry, KI8N

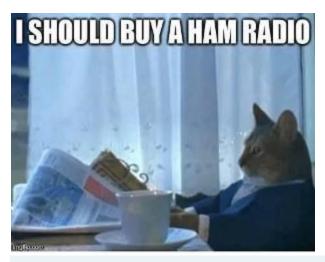
Personnel present at the 4/09/2024 meeting						
Michael Jacobs, KE8HGE	Bill Stroud, KD8WHQ	Tom Evans, KD8HSA				
Emery Bennet, W8TW	Don Bunner, KB8QPO	Terry Windsor, KI8N				
Don Russell, W8PEN	Barry Butz, N8PPF	Kevin Adams, KD8NGV				
Frank Counts, KC8EVS	Roger Gorrell, KE8ICI	Mike Deane, W8OIO				
Sean Lehman, KE8YUS	Dave Hayslip, KC8TDX	Darlene Pudlinski, WS8W				

"We just finished up NVIS day. It was fun just getting out and operating." Frank, KC8EVS

# **Contact Us**

MVARC 812 Coshocton Ave. PMB #145 Mount Vernon, OH 43050

Email admin@mvarc.net



Especially after hearing how much they helped during the recent Eclipse!

# 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) K8EEN-R Node 809800.



# **May 2024**

Sun	Mon	Tue	Wed	Thu	Fri	Sat	
			1 4:45 pm Dinner	2	3 9:00 am— Breakfast McDonalds	4	
5 9:00 pm ARES Sunday Night Net—Don (W8PEN)	6	7	8 4:45 pm Dinner	9	10 9:00 am— Breakfast McDonalds	11	
12 <b>Mothers Day</b> 9:00 pm ARES Sunday Night Net	13 7 pm MVARC Meeting	14	15 4:45 pm Dinner	16	17 9:00 am— Breakfast McDonalds	18	
19 9:00 pm ARES Sunday Night Net— Michael (KE8HGE)	20	21	22 4:45 pm Dinner	23	24 9:00 am— Breakfast McDonalds	25	
26 <i>9</i> :00 pm ARES Sunday Night Net	27 Momarial	28	<b>29</b> 4:45 pm Dinner	30	<b>31</b> 9:00 am— Breakfast McDonalds		

# Link to: Ham Radio Contest Calendar

#### **Hamvention**

Greene County Fair and Expo Center 210 Fairground Road, Xenia 45385 Coordinates are 39.702 N – 83.9420 W

May 17: 9:00 am—5:00 pm May 18: 9:00 am—5:00 pm May 19: 9:00 am—1:00 pm



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## **Radio Activity**

#### Don Russell, W8PEN



I read an article on the internet about an antenna the author claims works on all bands 80 - 10 meters with an SWR of less than 1.5:1. The author claims he has been using this antenna for years with good success. With low SWR, the antenna does not

need an antenna tuner on any band.

Strangely, this antenna is fed directly with coax. The dimensions of the antenna are one wire 65 feet long followed by an insulator, then another 12 feet of wire on the other side of the insulator. The inside wire of the coax is attached to the 65 feet wire, while the coax braid is attached to the 12 feet of wire. Of course, two more insulators are needed on each end of the antenna.

After reading this article, I had my doubts. I figured it might resonate on 80 meters, but nothing else would even be close. I decided to build one and find out.

I was right and wrong. The antenna did not resonate on any band 80 - 10 meters, although a few bands were close enough that an antenna tuner could be used. The amazing thing was that this antenna had a good match for 160 meters. At 18.030 MHz, the antenna was 1:1! That is interesting and I am leaving the antenna up to see how the performance is on 160 meters. It could be a dummy load, but I intend to find out. It would make a great alternative 160-meter antenna to the 125 feet inverted L that I routinely put up in the Winter so I can do the 160-meter contests.

After seeing the true results of this antenna, I went back to the original article and reread it. I did not notice the counterpoise that ran from the end of the 12-foot wire down to an extensive radial network below the antenna. I did not use a counterpoise and that could be the difference in the antenna not working on all bands.

I have no intention of laying out a radial system, so the antenna will have to show it is effective on 160 meters or it will be taken down.

#### **Darn Computer**

Micro Center in Columbus has these neat minicomputers called Evolve III Mastro. These computers are small laptops with nine-inch screens. The drive is not very big by today's standard at 57 gigs, and the processor is a bit slow, but it does run Win10 Educational.

One advantage to this computer is that it runs off 12 volts. Perfect for portable or mobile operating.



I bought one a bit over a year ago to replace my shack computer. This computer works but has some glitches. The Wi-Fi comes and goes and sometime the touch pad gets too touchy and throws the mouse cursor all over the place. I talked to Terry, KI8N, about this computer because he had bought one to use for POTA. Terry has had no issues with his.

I solved the touch screen issue by using a mouse full time. The Wi-Fi still comes and goes randomly. I checked out both these issues on the web and found that these issues are common to this computer.

Recently, in need of a field computer myself, I bought a second one of these computers. All was well for a while, and I had several POTA operations under my belt. Then the Wi-Fi and touchpad issues started popping up. While it was a bit more difficult for mobile work, I started using a mouse for this second computer, which solved the touch pad issue. I didn't really need the internet, so wasn't too concerned about the Wi-Fi.

"The local mesh system is working reliably. We need to have a discussion on whether it is worth keeping this system going." Don, W8PEN

Then I got the bright idea that I should reset this computer and see if that fixed any of the issues. Windows reset simply installs a fresh copy of windows onto your computer. You can do a complete reset, where you lose all your files, or a partial reset where you keep all your files.

I did a full reset. I was disappointed. The issues did not go away. In fact, it got worse. Now I had no sound. I was not discouraged. Next, I tried installing Linux Mint onto this computer. Linux Mint works very well on this computer except I couldn't get the sound to work. But no sound was okay. The important thing was that there is a Linux version of WSJT-X which runs the digital programs FT-4 and FT-8. My Icom IC-7100 has its own USB sound card, which worked without issue when running WSJT-X and the Evolve III computer.

There are several logging programs written in Linux. I thought one of them would satisfy me. But none did. N3FJP'S AC log has me spoiled.

I was hoping I could run my logging program (N3FJP's AC log) via Wine, which is a program meant to allow window programs to run in Linux. However, that did not work out. I started thinking of a program called Virtual Box.

Virtual Box allows you to install an alternate operating system on your computer without facing the issues of dual booting. Windows does not like dual booting. But Windows doesn't like much of anything that is not designed for Windows.

There are versions of Virtual Box for Linux and Windows. I installed Virtual Box onto the Evolve III computer running Linux without issue. I was curious if I could run Windows 10 via Virtual Box with such a small computer. There was barely enough disk space for both operating systems, and as I said, the computer is a bit on the slow side.

However, Windows 10 did run nicely in Virtual Box. Running Windows this way seemed to solve the touch pad and Wi-Fi issues.

AClog ran great with this set up. I could run WSJT-X in Linux and run AC log in Windows via Virtual Box. One problem. I could not get the two programs to talk to each other for automatic logging of FT-4 and FT-8 contacts into AC log. I know it is possible. I just couldn't get it to work. Another issue was the product code I had to run Windows was not accepted when running via Virtual Box. I think this was because the computer stores the product code digitally inside the computer and Virtual Box is by nature its own separate Virtual Computer.

After playing with this system for about a week, I removed Linux and reinstalled Windows 10 Educational. The product code was accepted, and I was good to go. WSJT-X and AC log work well together on this computer. With the new installation, the touchpad and Wi-Fi issues seem to have disappeared. Although I still have no sound from the external speaker, sound from the IC-7100 seems to work well and I can make contacts all day long with this setup.

#### **EchoLink and Local Mesh**

EchoLink still has a few issues, although things are better. I have had Spectrum out working on my internet four times in the last few months. I think they finally found the problem in a waterlogged cable coming from the utility pole.

I still had issues, but nothing I could trace back to Spectrum. So, I bought a new Wi-Fi router. My second one in six months. This new router seems to be working well and my internet finally seems to be stable.

Now for some reason, the battery on the EchoLink computer has failed and any little power glitch shuts down EchoLink. I just bought a new battery for the EchoLink computer a few months ago. Obviously, I wasted my money. For now, I do a check each day to make sure the computer is on.

The local mesh system is working reliably. I would like to work a bit more on the mesh, but I am dealing with some health issues that are limiting me to what I can do physically on my own.

We need to have a discussion on whether it is worth keeping this system going.

#### Wrap up

That is it for this month. Hope to see everyone at the meeting. In the meantime, build antennas, do a POTA activation, work a contest. But do it safely. Above all else, be radio active in any area of our hobby that interests you. Honestly, there is something for everyone in ham radio.



## **Learning About Electricity**

#### Barry Butz, N8PPF



In the Second World War, my dad served as a radio technician working on P-47 fighter planes. That involved repairing or replacing nonworking equipment. Each morning, he tested the aircraft onboard radios before the pilots took off on the day's mission. After D-day, his unit hopped across France, Belgium, and Germany on the way to Berlin.

After two years in Europe, he came home to Mom and me (I was just 2 ½ years old). He brought along his knowledge of radio and used it for tinkering or repairing home appliances including radios. One he put together was an old car radio and installed it in an old empty console radio cabinet. That of course involved converting the power

from 6-volt DC to 120-volt AC. I thought that radio was cool because it had push buttons to select the stations.

Dad used the kitchen table for his workbench while working on radios. I watched him at work. He used a big soldering iron, not a puny one we'd use today. It made lots of smoke in the kitchen. Another of his upright consoles was open in the back, as they all were. A 12" speaker was mounted low on the front. Speakers of that size made a good sound coming from WGR. In those days some radios used the speaker voice coils as chokes for the anodes at around 200 volts. Once when I was about ten, I explored within that radio. That's when I learned not to join skin with electricity. No harm done but that lesson has lasted till today.

A few years later I tinkered with adding speakers (not the choke kind) to my record player. I didn't know how to join wires together except by using plugs like those used on lamps. Luckily, I remembered the earlier lesson and had no more mishaps.

But later I got even bolder. I must have seen myself as a journeyman electrician. Well, I learned that I wasn't. Dad owned a multimeter. It could measure volts, amps, and resistance. I decided to first measure voltage, I selected the proper settings and plugged it into my bedroom outlet. The needle went right to 120 volts. Perfect. Next came to see what the amps are. I never got to check the amps or resistance be-



cause the needle now was round instead of straight. Dad didn't scold me and never said a word. Soon I went to the store and bought a new multimeter for him with my paperboy money. He used that one for the rest of his days. Now it is mine and it still works.

"Next came to see what the amps are. I never got to check the amps or resistance because the needle now was round instead of straight." Barry, N8PPF

## **Miscellaneous Rambling**

**Terry Windsor, KI8N** 



This month was quiet in my ham shack. I did not get out to activate any parks and I was not that active on the ham bands. Not sure (or remember why) but just didn't make time to stay active. I did take a trip to DX Engineering because I wanted to play with their Yaesu

FTDX 101D. I had an interest in getting a new transceiver and wanted to get some experience using this particular model.

The guy in the DX Engineering store was very helpful and allowed me to use and make several QSOs with their 101D. I spent about an hour playing with the radio and shooting the breeze with him. I also bought some crimp on PL259 connectors and a keyer cable. Turned out to be a good trip.

The following week I ordered the FTDX 101D through Gigaparts via their employee program. The transceiver was shipped to me directly from Yaesu and I spent a couple of days reading the manual and trying to learn the menus. So far have a few contacts with it on both SSB and FT digital modes. I also have it configured for Winlink Express VARA HF and Ham Radio Deluxe. I still have to configure FLDIGI for the various digital modes. No hurry, there seems to be plenty of time.

Did everyone watch the solar eclipse? Cath and I sat in the backyard and watched the entire occurrence. It was amazing how the sky went from light to dark and the temperature changed. One noticeable effect was just as it was getting darker, the birds became quiet. Then after the sun reappeared the birds started chirping again. Definitely worth the time to just sit and observe.

Prior to the start of the eclipse I was testing some of my various portable antennas, Wolf River Coil, Hustler Resonators, and Chameleon Hybrid with the NanoVNA. My goal was to determine how small adjustments to each affected their SWR and bandwidth. I used NVA Saver software on my Evolve laptop to get good visual indications.

I did have one big event happen this month and that was the rotator on the tower failed. During one of the big wind storms I noticed the tri-beam antenna was rotating back and forth about 90 degrees. A trip to the shack and discovered the rotator controller had no con-



trol of the rotation. Saturday, May 27<sup>th</sup> I had a crane come out to lay the tower down and found the rotator had completely come apart. The top and bottom sections were no longer joined together and all the bearings were gone. So I ordered a Yaesu G-1000DXA rotator and controller to replace the failed Hy-Gain Ham-IV. I may be able to rebuild the rotator and get it working again but will then attempt to sell it.

I also figured while everything is apart it is time to upgrade the 200 feet of coax that goes between the shack and tower and I can install the new 6-meter Yagi I bought some time ago. Since this rotator is different than the previous one I also opted for new controller cable. Then to build on this I have to reassign the remote antenna switch inputs to add the 6-meter Yagi. Removing the 43 foot vertical coax from the switch frees up a port but then I needed another 200 feet of coax from the shack to the vertical. I selected M&P Airborne 10 for the coax runs due to its low loss and burial capabilities.

In the meantime the only antenna I have working is the 43 foot vertical. This was not the optimum time for an antenna failure since there are so many dxpeditions with what would have been all time new contacts.

Eclipse Photos from my backyard.



Street lights are on.



Lights in the sky in the south.



Sun covered by moon.

Knox County, OH

I am shooting to have the tower and antennas ready to raise and put back on the air by the middle of May. I used to be able to work faster but I get fatigued easily now and things just take longer.

Last month I stated I had enrolled in <u>CW Academy</u> to retake their CW beginner's class starting in May. I was accepted and there are six of us in the class. We had our get to know each other meeting via Microsoft Teams the last week of April. First day of class starts May 2<sup>nd</sup> at 9:00 am. We meet twice a week, Monday and Thursday for one hour until June 24<sup>th</sup>. My goal is to copy CW better than I had been before I got sick.

I also stated I was working with a volunteer at the Selover Library in Chesterville and we were going to set up a ham radio station and use it to teach interested people about amateur radio. We have made some progress and now have an end-fed antenna, power supply, radio, CW keyer and coax. This month our goal is to get everything installed and start developing the introductory class materials.

Starting in mid-May I am back to having more medical procedures regarding my cancer diagnosis. There is still cancer activity on my spleen so I am scheduled to take daily radiation treatments for 20 days at OSU's James Hospital. Not sure how this is going to affect my schedule and activities yet.

Well, it is time to get busy doing projects outside, mowing the grass, weeding, and enjoying the weather. So until next month; "Be safe and Ham it UP"!

# Ladder Line Update

#### Don Russell, W8PEN



In the March Newsletter, I presented a DIY project involving building ladder line. I enjoyed writing the article and building the first experimental set of ladder lines.

While I thought using the shell from ballpoint pens was effective and cheap, there

are a couple of drawbacks. I found one drawback when I accidentally stepped on a section of the ladder line. Crushed it! The second drawback is that I am not sure how the plastic will perform out in the weather. Especially in sub-freezing weather.

I therefore went on the search for an alternative to the plastic pen shell. What I found, I believe, is something

much better.

Amazon.Com sells 1/8" ID, 1/4" OD polyethylene tubing, in five-foot lengths. While flexible at five-foot lengths, when cut into one or two-inch pieces, it is very stiff and nearly indestructible. The package price was \$2.34. I bought two for \$4.68.

If making one-inch spacers, a package of two will make 120 spacers. I can live with that! It takes 100 spacers to make 50 feet of ladder line if the spacers are 6 inches apart.

Cutting the spacers is much easier too. No more miter box and saw. Simply mark the tubing into one-inch pieces and use wire cutters to cut the tubing. Took me about fifteen minutes to cut the 120 spacers.

These spacers are too small for the seven-inch ties used with the pen shells. I used four-inch ties, two each per spacer. It worked great. You can buy four-inch ties at Rural King for \$1.00 per hundred.

USA Sealing ZUSA-HT-3406 Polyethylene Tubing, 1/8" ID, 1/4" OD, 5' Length and Cable Ties





#### **Finished Project**

This is an easy project that turned out well for me. However, I am considering using the spacers every 3 inches when doing runs of 50 feet or more. A bit more expensive, but a more stable ladder line.



# FM Repeater Nets In And Around Knox County

County	Net	Frequency	Day and Time
Coshocton	CCRA	147.045 PL 71.9	Every Sunday 9:00 PM
Coshocton	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
Кпох	ARES Sunday Night Net	146.790 PL 71.9	Every Sunday 9:00 PM
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 Information 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

## **Final Takeaway**

With the loss of Wires-X capability on the 444.600 MHz repeater (even when the repeater is returned to service) there are methods each of us can use to connect our Yaesu Fusion radios to a digital node and also to analog nodes.

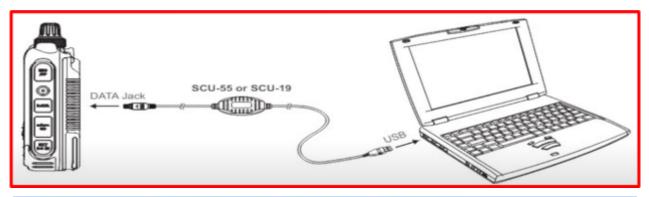
#### Yaesu SCU-57 Wires-X PDN for Handheld Yaesu Radios

https://www.youtube.com/watch?v=E\_cLTikTe9g

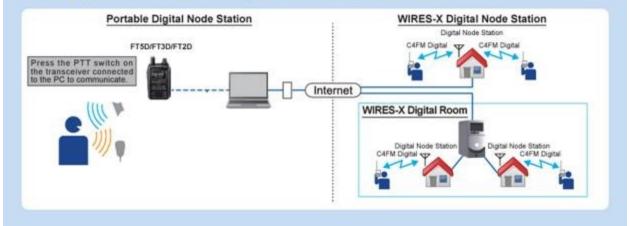
To establish a portable digital node with the SCU-57 Wires-X connection cable, follow these steps.

- User registration (acquire a Wires-X ID— this is free)
- Install the Wires-X PC software
- Install the SCU-57 Wires-X PC connection cable driver on the PC
- Connect the PC and transceiver with the SCU-57 cable

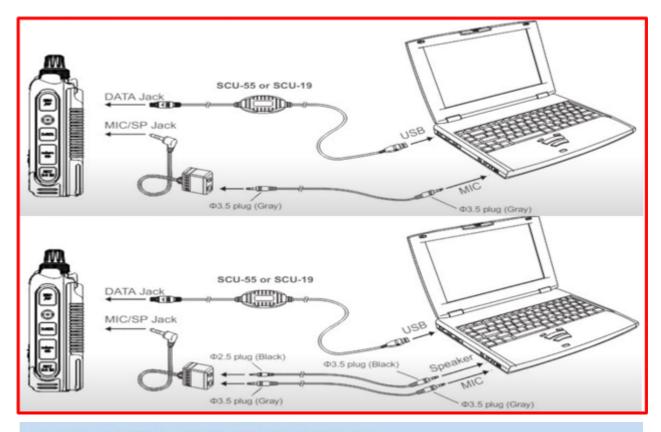
<u>Direct Mode Operation</u> – Use your Fusion radio VIA the SCU-55 cable to talk into the computer and listen to others via the computer to your radio. Direct operation only works with digital node stations. Any analog stations connected via Wires-X will not be able to hear you.



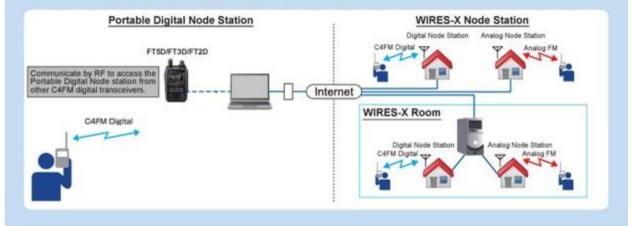
# **Direct Operation (Portable Digital Node Mode) Illustration**



<u>Access Point Operation</u> – This mode uses another Fusion radio to talk to / access the radio that is connected via the SCU-55 to your computer. To listen to others in a Wires-X digital room the connected radio will transmit to the Fusion radio you are using. Access Point operation allows connection with both digital and analog nodes.



## Access Point (Portable HRI Mode) Illustration



#### Yaesu SCU-58 Wires-X PDN for Yaesu Mobile Radios

https://www.youtube.com/watch?v=tzN8cEo6crc

The SCU-58 for mobile radios is similar to the Direct and Access Point Operation for handheld radios.

The Wires-X PDN Function OM ENG 2304-K manual is located on the Yaesu web page in the Files tab;

https://www.yaesu.com/indexVS.cfm?

cmd=DisplayProducts&ProdCatID=249&encProdID=1D23D01F7B34D76072988D9857AA1A7C&DivisionID=65&isA rchived=0

# **Frequency Privileges**

From N3FJP Amateur Contact Log



	Novice	Technician	General	Advanced	Extra	💌 On Top	General Freque	ency Privileges	HF Only	
		Frequer	ncies Effective: March	5, 2012	Show DX Spots		CW	PH		
160					1.800 - 2.000					
80		3.525 - 3.600					3.800	0 - 4.000		
40			7.025 - 7.125				7.175	7.300		
30					10.100 - 10.150					
20			14.025 - 14.150				10	4.225 - 14.350		
17	18.069 - 18.110				18.110 - 18.168					
15			21.025 - 21.200				21.27	75 - 21.450		
12		24.890	0 - 24.930				24.930 - 24.990			
10	28.	000 - 28.300				28.300 - 29.700				
6	<del>50.</del>				50.100 - 54.000	)				
2	144				144.100 - 148.00	0				
1.25					222.000 - 225.000					
70					420.000 - 450.000					
33					902.000 - 928.000					
23					1,240.000 - 1,300.000	0				



	Novice	Technician	General	Advanced	Extra	🛛 On Top	Extra Frequency F	Privileges	HF Only
		Frequen	cies Effective: March	15, 2012	Show DX Spots		CW	PH	
160					1.800 - 2.000				
80		3.500 - 3.600				3.600 - 4.000			
40		7.00	00 - 7.125				7.125 - 7.300		
30					10.100 - 10.150				
20		14.0	000 - 14.150				14.150 - 14.350		
17		18.0	68 - 18.110				18.110 - 18.168		
15		21	1.000 - 21.200				21.200 - 21.450		
12		24.890	) - 24.930				24.930 - 24.990		
10	28	.000 - 28.300			28	.300 - 29.700			
6	50.				50.100 - 54.000				
2	144				144.100 - 148.000				
1.25					222.000 - 225.000				
70					420.000 - 450.000				
33					902.000 - 928.000				
23					1,240.000 - 1,300.000				

## **General Exam Sample Test Questions:**

G9B06 Where should the radial wires of a ground mounted vertical antenna system be placed?

- A. As high as possible above the ground
- B. On the surface or buried a few inches below the ground
- C. At the center of the antenna
- D. Parallel to the antenna

G9C01 Which of the following would increase the bandwidth of a Yagi antenna?

- A. Loading coils in series with the element
- B. Tapered-diameter elements
- C. Larger-diameter elements
- D. Closer element spacing

## **Extra Class Exam Sample Test Questions:**

E9C05 Which of the following is a type of OCFD antenna?

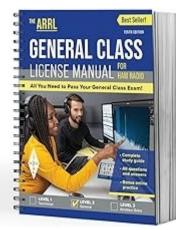
- A. A multiband dipole antenna using one-way circular polarization for frequency diversity
- B. A remotely tunable dipole antenna using orthogonally controlled frequency diversity
- C. A folded dipole center-fed with 300-ohm transmission line
- D. A dipole fed approximately 1/3 the way from one end with a 4:1 balun to provide multiband operation

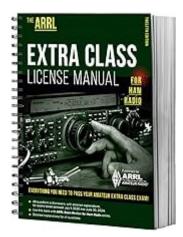
E9C08 What is a folded dipole antenna?

- A. A dipole one-quarter wavelength long
- B. A half-wave dipole with an additional parallel wire connecting its two ends
- C. A dipole configured to provide forward gain
- D. A type of ground-plane antenna

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: <u>https://www.grz.com/hamtest/</u>.







# **Ohio ARRL Sanctioned Hamfests**

The current listing of **Ohio Great Lakes Division ARRL Sanctioned hamfests** May through June, 2024.

#### 05/05/2024

Lucas County ARES Trunk Sale and Swap Location: Toledo, OH Sponsor: Lucas County ARES Website: https://www.gsl.net/w8mtu/Swap.html

#### 05/17/2024-5/19/2024

Dayton Hamvention Location: Xenia, OH Sponsor: Dayton Amateur Radio Association Website: https://hamvention.org/

#### 6/01/2024

FCARC Summer Hamfest Location: Wauseon, OH Sponsor: Fulton County Amateur Radio Club Website: <u>https://k8bxq.org/hamfest</u>













## **Editors Notes**

The MVARC Newsletter is delivered to club members via email containing a link to the MVARC webpage, 2024 Newsletters button.



Thanks to all for your assistance with the MVARC Newsletter; in 2023 we were selected as fourth best newsletter in the ARRL Ohio Section. Contact email for the MVARC newsletter is admin@mvarc.net.

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

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## **Practice Amateur Radio Exam Question Answers**

- G9B06—B G9C01—C
- E9C05-D
- G9C08—B

