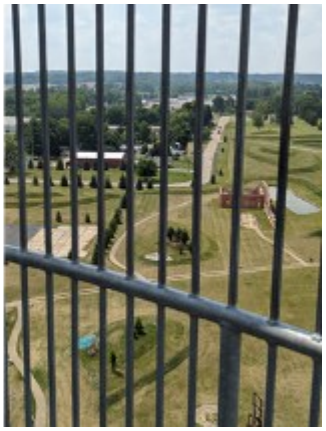
# Mount Vernon Amateur Radio Club

## May 2025

2025 Edition 5


## Inside this issue:



## MVARC Repeaters

**K8EEN**
146.790 MHz
- 600KHz / PL = 71.9 Hz

K8EEN-R EchoLink Node: 809800

**K8EEN**
444.600 MHz
+5 MHz / PL = 71.9 Hz

## Meeting Notice

**MVARC Meeting:** May 12 @ 7:00 pm—Academy Building on Fairgrounds Road

## President's View

**Frank, KC8EVS**

We have been getting glimpses of spring weather, Saturday for NVIS wasn't one of them. It was cold and wet. Hope everyone is doing well and enjoying the warm days as we get them. I took down my HF antenna to inspect it and I brought it out for NVIS Day to use this year. It is a 160-meter OCF antenna and for NVIS I had the center up about 16 feet and the ends were about 8 feet off the ground. 160 meters wouldn't tune well at that height but 80 through 10 would and that is all that I needed. I did not hear a single NVIS station on 80 meters and did call there some but no takers. I might not have been getting out well even though the antenna tuned up, who knows.

Terry, KI8N was on 40 so I went to 20 meters and of course on a Saturday morning there were a bunch of POTA Stations and Florida was having a QSO party. I was there to do NVIS but the urge to make radio contact was too great and I succumbed to it and started making contacts. I made approximately 30 contacts in the time we were there which isn't bad for me. The radio I was using is the clubs 857 in the go box. It does 160 through 6 meters plus VHF and UHF. I really like this radio (out of production) and I think it makes a great POTA radio.

Terry was having the same luck as I on 40 meters. He was using his 706 and various antennas that he brought out to try. Tom Evans was there also and helped me to get things set up and the radio going, he's the one who put the box together and he did a great job. We had a couple of visitors out mainly to play Frisbee golf, but they all stopped and asked what we were up to. Evan, Bill, and Barry were out also. Evan took some pictures and uploaded them to the Parks face book page as we were operating.

Next weekend is the Gravel Grinder, hope the weather is good for that, it has been in the past. It's amazing what a week's difference can make. Now that I have said that it might be the first cold, wet and rainy Gravel Grinder.

Hope to see everyone at the next meeting on May 12 at 7 pm.

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.

"The saddest aspect of life right now is that science gathers knowledge faster than society gathers wisdom."
Isaac Asimov

## Meeting Minutes

### Michael, KE8HGE

**Call To Order**

The April 2025 meeting of the Mount Vernon Amateur Radio Club was called to order by President Frank Counts (KC8EVS).

**Minutes of the Last Meeting**

The minutes of the previous meeting were approved as presented in the Club Newsletter without objection.

**Treasurers Report**

The Treasurer's report is postponed until the next meeting due to the absence of the Treasurer, Terry Windsor (KI8N), although he gave Frank (KC8EVS) a comment to pass on to the Club: the membership roll is currently at 35, down from about 50 at this time last year.

**Committee Reports**

**ARES**

Tony Aristide (KE8OOE) gave the ARES Report.

- WinLink training had only a couple of people show up. He said that WinLink is being used by ARES as it has the FEMA forms/templates to facilitate message handling and emphasized the importance of our ARES members becoming familiar with the platform.
- Simplex Radio Test results are in: Roger Gorrell (KE8ICI) was the one person who could be heard by all the participants. Terry (KI8N) could also be heard by most participants, but not as strongly.
- Darlene Pudlinski (WS8W) has joined Knox County ARES.
- CERT (Community Emergency Response Team) in Ohio is being reorganized, and Knox County is now a part of a 6-county region (due to low CERT membership in the individual counties being consolidated).
- It is confirmed that 911 Dispatch Center does not have an amateur radio, despite the reports to the contrary.
- D-STAR vs DMR: DMR wins with the State and ARES beginning to adopt its use.
- Zello app: a communication tool (described as a Push-To-Talk app) that is being adopted by ARES for mass communication. It does rely on cell phone networks, but those networks are more robust than they have been in the past. Knox County EMA wants to include ARES in their group and ARES members are encouraged to download the app. Those that do should reach out to Tony.
- Background Checks are now done. The Sheriff's department did these at no cost for ARES.
- The new Ops manual for ARES is on the Website. There is also an ICS-217 (Radio Frequency Assignment Sheet) for Knox County on the Website as well.
- VolunteerHam.com is a site that ARES members should join. ARES is adopting it nationwide as it documents your volunteer time (nets, events, training, meeting, etc.) and allows served and participating organizations to access this information.

**Repeaters**

The Repeater Report was made by Roger (KE8ICI). Duplexers were switched out for a pair that Steven Harvey (N8RLW) donated to the Club. This did not resolve the issues that we have been experiencing. A capacitor was swapped in the controller on the recommendation of Technical Support, but this did not resolve the issue, either. The old duplexers will be put back and the current Hytera repeater swapped out with a backup so that the Hytera can be checked out again. Several possible alternative sources for our repeater issues were offered and discussed by the membership.

**EchoLink / Mesh Network**

The Network Report was made by Don Russell (W8PEN). EchoLink developed an issue after being moved from his house to the Club Room. He thinks it is a local RF issue, but he will do what he can to find the cause and address it. Mesh Net is going to be taken down. It has never been used to the extent it was hoped and so our various installations will be taken down.

**Directors**

Director's report was made by G Michael Jacobs (KE8HGE). The By-Laws are going to be amended to account for new circumstances that the Club is experiencing for the first time: "earmarked" cash donations, donated equipment, loaned equipment. If there are any other issues that should be addressed during this amendment effort, please contact me. He also mentioned that we will be having a testing session this Wednesday (April 16). Sufficient VEC examiners acknowledged that they would be in attendance. Finally, he asked for any thoughts on plans the Club should be looking towards new equipment at the Water Tower, new equipment in the Club Room for ARES participation, etc. to help the Club plan for future expenditures.

Frank (KC8EVS) added to this that he would like to see more presentations at the meeting in the future, but getting events scheduled was an issue.

**Old Business**

Frank (KC8EVS) reviewed Coming Events

- NVIS Day: Saturday, April 26, 10:00 am - 4:00 pm. Frank (KC8EVS) will be at Thayer Ridge; Don (W8PEN) and Roger (KE8ICI) will be at Wolf Run.
- Gravel Grinder: Saturday, May 3. A decision was made to use only MARCS radios at the event this year; no amateur radios will be used. As a result of this change, there will be a training session at the Club on April 23 on the use of MARCS radios. Members are still encouraged to participate in this event, especially if they have never worked a bike race before.
- Field Day: Saturday June 28, 2:00 pm - Sunday June 29, 2:00 pm. Setup on June 27. Apple Valley has been contacted. We have our usual spot reserved (out behind the Floral Valley Community Center) and they will set up the tent for us again in the usual location. The number of stations was discussed, and we are looking at 3 stations: 1 digital and 2 voice. Don (W8PEN) will not be setting up his CW station this year.
- First Friday: August 1. We will be setting up a table during this day's event starting about 5:00 pm.
- Ohio State Parks on the Air: September 6.

**New Business**

Barry Butz (N8PPF) still has equipment available for purchase; contact him if you are interested in finding out what he currently has.

A Motion to Adjourn from Tony (KE8OOE), seconded by Roger (KE8ICI), brought the meeting to an end. The 50/50 drawing followed the adjournment.

"The work of an hour reduced to minutes...."

## MVARC Calendar / Events


**WEEKLY EVENTS**

Sunday: 9 PM ARES Sunday Night Net

Wednesday: 4:45 PM — Dinner at Southside Restaurant

Friday: 9 AM Breakfast

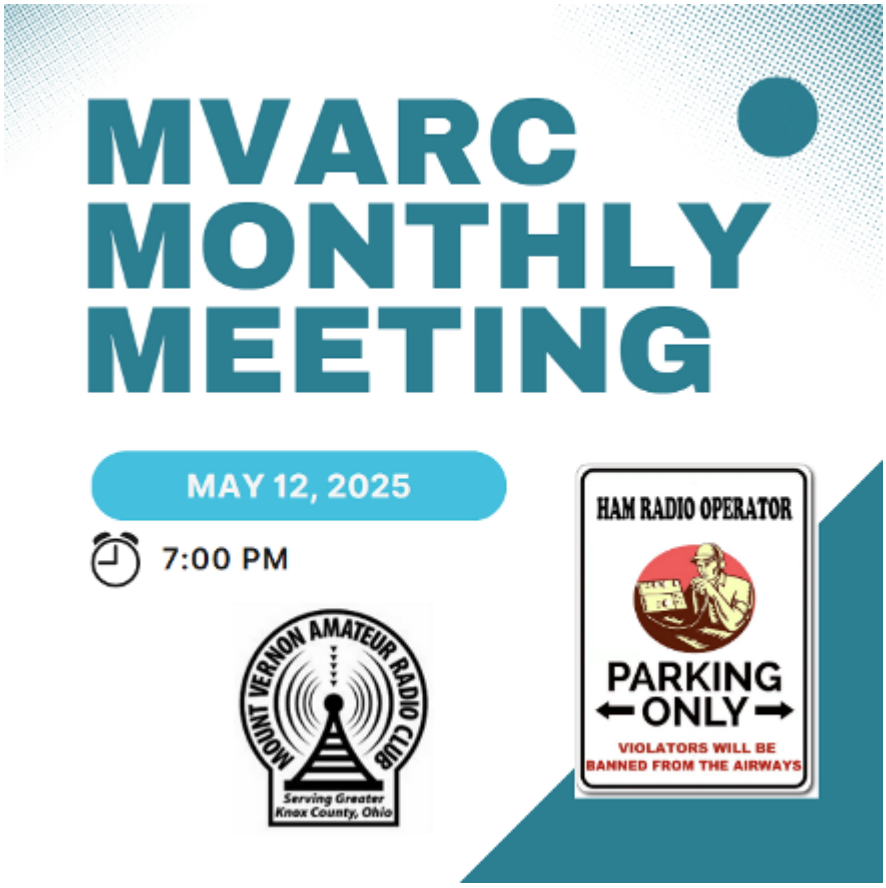
**CLUB MEETING**

Monday May 12: Club Meeting 7 PM

**UPCOMING MVARC EVENTS**

| | |
|---|---|
| Field Day | June 27-29 , 2025 |
| OSPOTA | Sep 6, 2025 |
| POTA Activation | TBD |
| First Friday | August 1: Space #9 |
| Family Palooza (Apple Valley, Floral Valley) | TBD |

Link to: **Ham Radio Contest Calendar**



## ARES

**Tony, KE8OOE**

Simplex net that was held on March 31, 2025.

Roger KE8ICI hit just about every radio that was testing at full quieting. Roger will most likely be the ARES Simplex net control. With KF8APC Evan as the secondary. Thanks Evan and Stephan for running the net!

Winlink training was held, due to some technical difficulty it was hard to communicate between zoom and the members that attended. We will be holding future training and exercises with Winlink. All ARES members should download Winlink and Vara HF or FM depending on what mode you are using stand by for more information. If you have any questions let me know!

Zello Will be incorporated as a means of backup mass communication. Zello is being used by multiple counties and states as well as Ohio ARES as a backbone for backup communications. I have a lot of experience using Zello and it is a great tool to have in our toolbox. You can use this on your PC or on your smartphone (preferred). You can download Zello from your Play store onto your phone, and we will start doing some training. Zello tries to get you into the paid side but all you must do is back out and get into the free side which I've been using since 2018, if you have any questions let me know and I'll help you out. Once you get into the free side, set up your account. Once your account is set up let me know and I will send you an invitation to the Knox County ARES and Ohio ARES Zello channel or you can get in yourself by requesting KxCARES, and I will let you in. Zello is very easy to use.

The new KxCARES Ops manual has been posted on the ARES page along with the new 217, which will be a working document. ARES members please make sure your radio has the current 217 frequencies programmed and named.

All ARES and Club members are encouraged to train with the revamped CERT. For more information check the FB page or contact me and I will fill you in. You may also check the Knox County CERT website.

All ARES members are encouraged to also join Volunteerham.Com, free to join and use and a very good tool for your EC, EMA. Director and State EC to see what we are doing as Volunteer amateur radio operators. Check it out and begin logging all your activities including weekly nets and training. Thanks for your support


## NVIS Day

Another cool and rainy Ohio NVIS day. As though anyone expected anything else!

At Thayer Ridge we made “zero, none, zilch” contacts with Ohio NVIS operators. However, we made several contacts with POTA operators and hams contesting in the Florida State QSO Party.

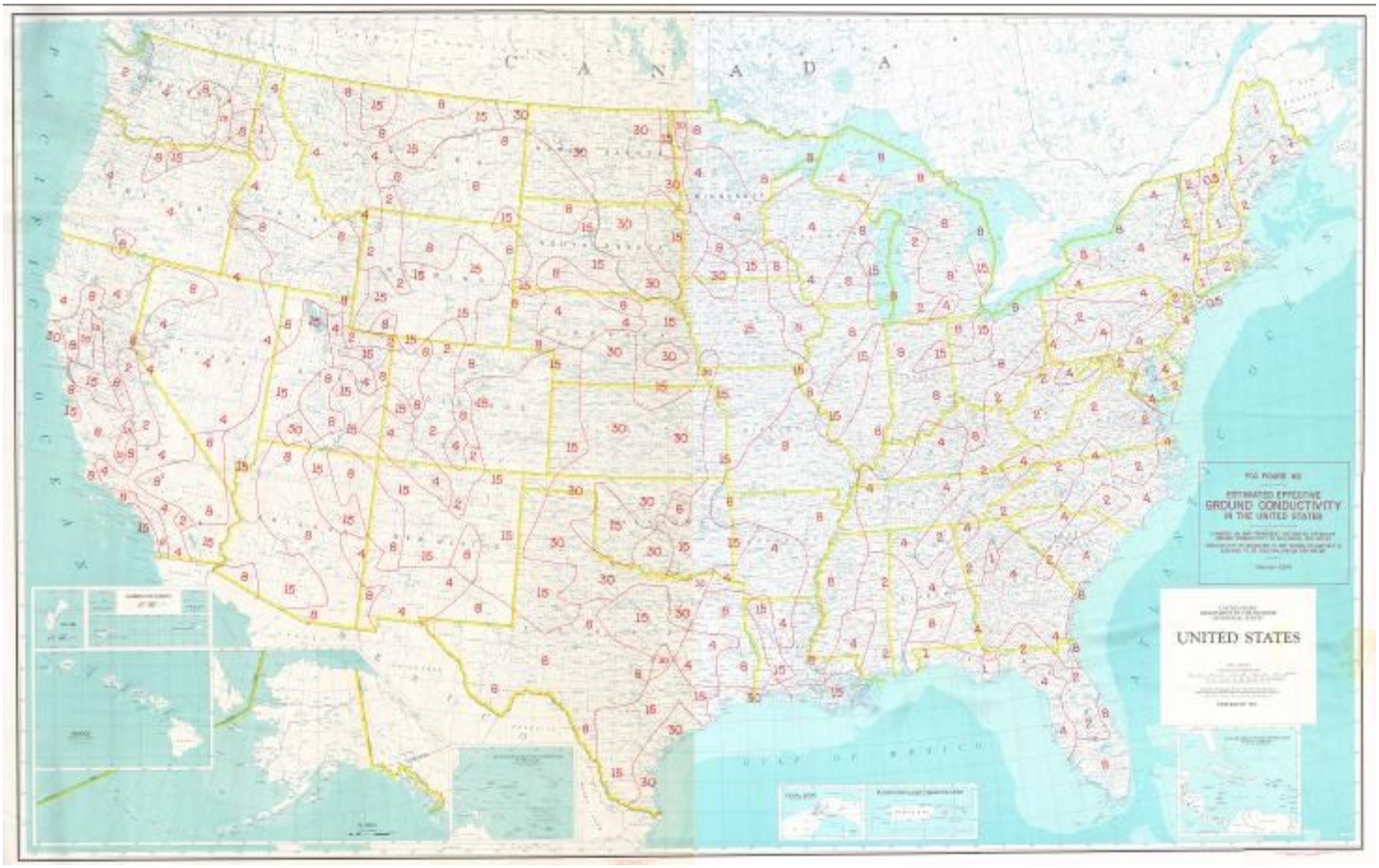
We had two transceivers set up, the club’s 857D in the Go Box and Terry’s 706 MKII.

The Go Box was connected to a 160 meter OCF antenna and the 706 was configured with a 40 meter Hustler Resonator.


## April 2025 Meeting Attendees

| | | | |
|---|---|---|---|
| Frank, KC8EVS | Roger, KE8ICI | Tyler, K8RTS | Nathan, KE0RYO |
| Don, W8PEN | Larry, AC8YE | Evan, KF8APC | Barry, N8PPF |
| Tony, KE8OOE | Don, KB8QPO | Jim, KD8IZT | Tom, KD8HSA |
| Michael, KE8HGE | | | |

## Map of Effective Ground Conductivity in the United States




A higher ground conductivity indicates better AM propagation characteristics. The map shows that the ground conductivity in the U.S. ranges between 0.5 and 30 millimhos (or millisiemens) per meter. The conductivity of sea-water is 5,000 millimhos per meter, resulting in the best propagation of AM signals. Note our area of Ohio is rated an 8.

Numbers on map represent estimated effective ground conductivity in millimhos per meter.

A **mho per meter (mho/m)** is an older unit of electrical conductivity (also known as specific conductance). The mho is the reciprocal of the ohm. Though siemens was introduced in the late 1970s, this unit can still be found in some old measurement instruments. 1 mho/m = 1 S/m.

**Link to the Ground Conductivity Map**

"In three words I can sum up everything I've learned about life: it goes on." Robert Frost

## Balun Building

I found a web page from VK6YSF, Peter Miles, when I was looking for plans to build a balun so I thought I would share this with club members. Each of the topics is a link that will take you to Peter's webpage with the plan to build your own type of Choke, Balun, or Unun.

I found his designs and photos to be especially helpful as previous attempts building baluns from YouTube videos and such did not turn out well and most were better dummy loads than signal aids.

BALUN 1:1 CHOKE & 1:4 BALUN: HF ladder feedline to coaxial cable combination choke and 1:4 balun. (0.1MHz - 30MHz).

BALUN 1:1 CHOKING balun for lower HF and MF bands. (200kHz - 10MHz).

CHOKING 1:1 BALUN - HF BANDS Reisert choking balun. (1.0MHz - 30MHz). FT240-43 Ferrite Toroid Core.

CHOKING 1:1 BALUN - HF BANDS Reisert choking balun (1.5MHz - 30MHz). FT140-43 Ferrite Toroid Core.

CHOKING 1:1 BALUN - LOW VHF BAND Choking balun. (10MHz - 60MHz). FT140-43 Ferrite Toroid Core.

BALUN 1:1 CURRENT 1:1 Guanella Current balun using a L15 ferrite core (1.8 - 30MHz).

BALUN 1:4 CURRENT 1:4 Guanella Current balun using a L15 ferrite core (1.8 - 30MHz).

BALUN 1:4 SINGLE CORE CURRENT 1:4 Guanella Current Balun, single FT240-43 ferrite toroid cores. (0.3MHz - 30MHz).

BALUN 1:1 VOLTAGE 1:1 Ruthroff voltage balun using a T-200-2 powdered iron toroid core (1.8 - 30MHz).

BALUN 4:1 VOLTAGE 4:1 Ruthroff voltage balun using a T-200-2 powdered iron toroid core (1.8 - 30MHz).

BALUN 6:1 VOLTAGE - VERSION 1 6:1 Voltage balun using a L15 ferrite toroid core (1.8 - 30MHz).

BALUN 6:1 VOLTAGE - VERSION 2 6:1 Voltage balun using a FT140-43 Ferrite Toroid Core (1.8 - 30MHz)

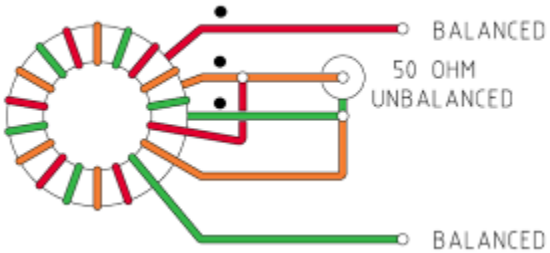
BALUN 9:1 VOLTAGE - VERSION 1 9:1 Voltage balun using a L15 ferrite toroid core (1.8 - 30MHz).

BALUN 9:1 VOLTAGE - VERSION 2 9:1 Voltage balun using a FT140-43 Ferrite Toroid Core (0.5 - 60MHz).

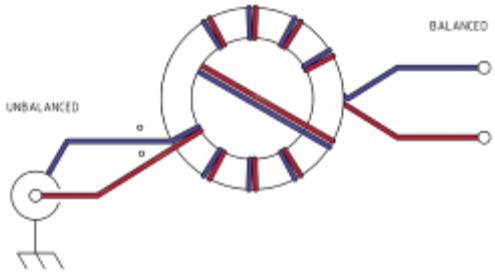
UNUN 9:1 VOLTAGE 9:1 voltage unun using a T-200-2 powdered iron toroid core (1.8 - 30MHz).

UNUN 9:1 VOLTAGE VERSION 2 9:1 voltage unun using a L15 ferrite core (1.8 - 30MHz).

UNUN 9:1 VOLTAGE VERSION 3 9:1 voltage unun using a FT140-43 ferrite core (0.5 - 60MHz).




9:1 Voltage Balun (Version 2)




1:1 Guanella Current Balun

## Miscellaneous Rambling

**Terry, KI8N**

I finally decided it was time to try a new mode of amateur radio and bought an Anytone AT-878UVII handheld. This is my first foray into DMR and it has been quite a learning experience. Ever built a code plug? Neither had I. Using YouTube as a tool to learn code plugs is a trying experience. There are some really bad videos that jump around and confuse newbies and then there are some that are very good. I found the videos from Bridgecom have the most accurate and easy to follow information. I came to the belief that just because you can make a video not everyone should.

The Anytone D878UVII software takes time to get used to. There are so many different folders that need information and it has to be input in a specific order. The software has the programmer jumping back and forth between folders.

I finally have a working simple code plug that allows me to parrot a contact and has other talk groups that allow contacts with world wide hams. This week I programmed the local area talk group and will work on making contact with the ham group from Mount Gilead area, as they are almost exclusively DMR. I have two DMR repeaters programmed so far. The repeater in Mount Gilead and Arlin's repeater in Mount Vernon. I know I can parrot on both and make contact via the Worldwide talk group from home.

Next is inputting analog repeaters into the code plug. Then time to discover how well this HT works on local repeaters. If this works I am considering selling the Yaesu FTM-300DR in my shack, since I haven't been on Fusion in quite a while, and getting a DMR mobile radio to replace it.

I also received the Yaesu FTM-150Rasp mobile radio the last week of April. As of this writing I still haven't unboxed it. Hoping to get it connected in the shack, programmed with various repeaters, and eventually installed in the Jeep. Too many projects and so little desire to jump back and forth between them.

The biggest project the last couple of weeks is yard work! Where did all these weeds in the flower beds come from and who thought having large beds was a good idea? Did I mention I despise dandelions? Their little yellow flowers drive me crazy. With most of the flower beds weeded it is time to spread mulch and we bought plenty, I hope. Then it is just simple ongoing maintenance to keep weeds diminished. "Yeah Right!"

Anyone seen many snakes this year? I have seen three little brown snakes where two of them were about the size of a new number 2 yellow pencil. The third one, which I named "Hiss" was about 20 inches long and about half an inch across. Sadly, it appears Hiss was caught and mutilated by a bird. We found his mangled carcass in the yard not far from his flower bed hangout. I am not a fan of snakes but these tiny little critters probably keep the bug population controlled so I am letting them live rent free in the yard.

Another cold and wet NVIS day has passed where my biggest question is why do I do this? I have no idea! This year at Thayer Ridge Park I thought I would try a 40-meter ham stick and see if it would work NVIS.

Typically I am not a fan of ham sticks and this experiment solidified that belief. Mounted on a tripod and elevated about 15 feet it's SWR would not tune to a useable level. Perhaps on a vehicle with a much better ground plane it would be better, but I still think these things are junk designed to trap the unknowing. Mine will go back into the building probably never seeing the light of day again.

I then went to a 40-meter Hustler Resonator mounted on the tripod with two elevated radials and made several contacts with an Icom 706 MKII. I know the resonators work as I have used them for many POTA activations and have several thousand contacts. No more ham stick experiments for me.

Dayton Hamvention, or should I say Xenia, is only a few days away. I have my ticket and I am planning to go Friday the 16th. Looking forward to the various seminars and just wandering around. Don't need anything big but will pick up some more coax dust caps. Mostly just want to look at and touch some new items.

Have a good month and now back to your regularly scheduled day, me working on my ongoing project list, and hoping everyone is radio active!

"Be safe and Ham it UP"!

"By three methods we may learn wisdom: First, by reflection, which is noblest; Second, by imitation, which is easiest; and Third by experience, which is the bitterest." Confucius

## Knox County Repeaters

**K8EEN**

146.790 Pl 71.9

Type: Analog Only

Features: Weather Net, ARES Net at 9:00PM on Sunday EchoLink: 809800

444.600 PL 71.9

Digital ID 00 for C4FM/Fusion

Type: Automatic Mix mode, Analog and Yaesu C4FM/Fusion

Features: Backup to the 146.790 machine.

**KD8EVR Repeater**

442.100 PL 71.9

Type: Automatic Mixed mode, Analog and DMR

Color Code: CC7 (which is the digital PL of DMR)

TalkGroups with TimeSlots

TimeSlot1

Local 9 - Local Traffic Only

313964 - Knox, Morrow and Marion County Link

31395 - ARES USA only

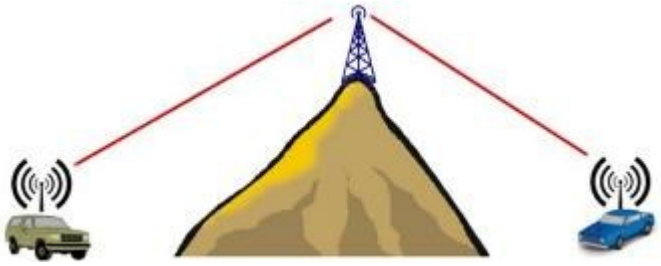
Timeslot2

Local 2 - Local Traffic Only

3139 - Ohio Statewide 10-minute limit

31391 - Northeast Ohio

31398 - EMCOMM



Please **NOTE**: All mail to the club **MUST** have the full address!

## Contact Us

### Mail

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

### Email

**admin@mvarc.net**

"Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover ." H. Jackson Brown Jr.

## Final Takeaway—Morse Code

Morse code is a communication system that uses a series of dots and dashes, or dits and dahs, to represent letters, numbers, and punctuation marks. These signals are then transmitted and can be translated into written language.

Here's a more detailed explanation:

**Dots and Dashes:**

Morse code utilizes two distinct signal durations: a short signal called a "dit" (represented by a dot.) and a longer signal called a "dah" (represented by a dash -).

**Combining Signals:**

Different combinations of dits and dahs represent each letter of the alphabet, numbers, and punctuation marks.

**Transmission Methods:**

Morse code can be transmitted through various methods, including:

**Electrical signals:** Via telegraph, transmitting electrical pulses across a wire.

**Light signals:** Flashing lights.

**Sound signals:** Beeps or clicks.

**History:**

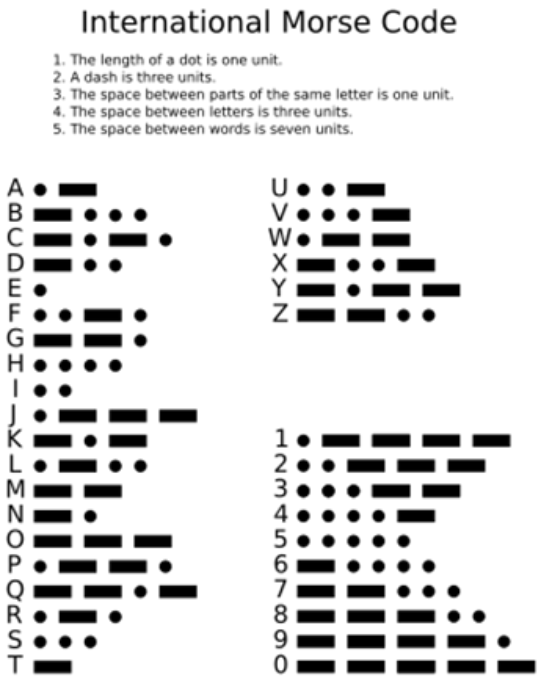
Morse code was developed by Samuel Morse and Alfred Vail in the 1830s and 1840s to facilitate communication over long distances using the telegraph.

**Modern Applications:**

While less common than in the past, Morse code is still used in various contexts, including amateur radio communication, emergency signals, and certain educational applications.

**Example:**

The letter "A" is represented by "dit-dah" ( . - ), and the letter "B" is represented by "dah-dit-dit-dit" ( - . . . ).




"I am nothing special, of this I am sure. I am a common man with common thoughts and I've led a common life. There are no monuments dedicated to me and my name will soon be forgotten, but I've loved another with all my heart and soul, and to me, this has always been enough." Nicholas Sparks, The Notebook

**Morse Code Keys**

Morse code keys, also known as telegraph keys, are essential tools for transmitting Morse code. They are essentially switches that allow the operator to send electrical pulses, representing dots and dashes, to be sent over a telegraph wire. These pulses are the foundation of Morse code communication.

Here's a more detailed look:

**How they work:**

A Morse key typically has a lever or button that, when pressed, completes an electrical circuit. This action sends a pulse of electricity, and the duration of the pulse determines whether it's a dot (short) or a dash (longer).

**Types of Morse keys:**

There are several types of keys, including:

- **Straight keys:** These keys have a single lever that the operator swings or presses to create dots and dashes.
- **Iambic paddles:** These keys have two paddles, allowing the operator to send alternating dots and dashes by squeezing both paddles simultaneously.
- **Semi-automatic keys (bugs):** These keys have a lever that can be tapped to send a string of repeating dots or dashes, and the operator can also control the timing.
- **Electronic keyers:** These use electronic circuitry to generate dots and dashes based on the operator's input, often using paddles or other interfaces.

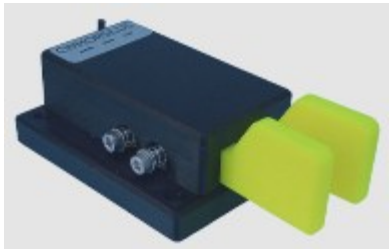
**Keyer Paddles:**

Keyer paddles are dual-levered keyers that allow you to send dots and dashes by pressing one of the paddles while alternating between them.

**Uses:**

Morse keys are used in amateur radio (ham radio), telegraphy, and for practicing Morse code.

Straight Key



Iambic Paddles

Bug

Single Paddle

## Ohio ARRL Sanctioned Hamfests

**Ohio ARRL Hamfest gatherings and Conventions**

**Ohio Great Lakes Division ARRL Sanctioned Hamfests.**

**Or**

**https://arrl-ohio.org/hamfests/**

## Training Class Schedule

**G. Michael, KE8HGE**

**Sessions** meet weekly, every Tuesday evening, starting at 6:30 pm.

**Study Session Schedule, 2025**

- General Class license
  July 1 to August 19, testing session August 20.
- Technician Class license
  October 28 to December 16, testing session December 17.



"You don't forget the face of the person who was your last hope." Suzanne Collins, The Hunger Games

## Editors Notes


**The MVARC Newsletter is delivered to club members via email containing a link to the MVARC webpage, 2025 Newsletters button.**

We **NEED** your input - help eliminate missing articles on club events or interests!

Submit an article as a Word, OpenOffice or text file attachment to an email. ***"Do not"*** submit a PDF file.

Contact email for the MVARC newsletter is:**admin@mvarc.net**.

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

President
Frank, KC8EVS

Vice President
Emery, W8TW

Secretary / Treasurer
Terry, KI8N

PIO
**Evan, KF8APC**

No Photo Available

Director
Michael, KE8HGE

Director
Scott, N8SY

Director
Tyler, KF8AVA

No Photo Available

Director
Evan, KF8APC

No Photo Available

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