January 2026

Mount Vernon Amateur Radio Club

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Mount Vernon Amateur Radio Club
Serving Greater Knox County, Ohio

Inside this Issue:

MVARC ARES Sunday Night Net

Mount Vernon 146.790 repeater

Check-in starts at 9:00 pm

Unable to access the repeater from where you are?

We are on IRLP (EchoLink) K8EEN-R Node 809800

2026 Membership

Club dues run from January 1 to December 31. Regular membership dues are $20.00 or $15.00 for those over 65 years of age, additional members in the same family, or people who do not hold an active FCC amateur radio license.

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

Name: _____ Call Sign: _____

Street or PO Box: _____

City: _____ State: _____ Zip: _____

Phone: _____ License Class: _____

Email Address: _____

ARRL Member (Y/N): _____

Quotes to ponder about being involved.

"What **you** do makes a difference, and **you** have to decide what kind of difference **you** want to make." Jane Goodall

"Perhaps your quest to be part of building something great will not fall in your business life. But find it somewhere. If not in corporate life, then perhaps in making your church great. If not there, then perhaps a nonprofit, or a community organization, or a class you teach. Get involved in something that you care so much about that you want to make it the greatest it can possibly be, not because of what you will get, but just because it can be done." James C. Collins

Presidents View

Roger, KE8ICI

Greetings All!

Happy new year and welcome to 2026, I hope you all had a great Christmas and are looking forward to all the Ham Radio activities scheduled in the upcoming months.

We held our annual Christmas party at Bob Evans on Coshocton Road the 14th of December and approximately 16 brave souls ventured out in the 12 degree temperature ice covered and snowy roads to attend. Our server did an excellent job of keeping us supplied with drinks and rolls, banana bread, honey, butter and jelly until the main course arrived. We could not have asked for better service. Frank (KC8EVS) opened a brief meeting to get the approval of the nominees for club offices for 2026 and there were no dissenters in the group, so all the positions were filled with the nominees or volunteers that were listed in the December 2025 newsletter. But in case you missed it, here are the results.

President _____ Roger Gorrell (KE8ICI)
Vice President ___ G. Michael Jacobs (KE8HGE)
Secretary _____ Darlene Pudlinski (WS8W)
Treasurer _____ Terry Windser (KI8N)
PIO _____ Evan Koontz (KF8ACP)

Chairman of Directors _____ Frank Counts (KC8EVS)

Directors:
Barry Butz (N8PPF)
Emery Bennett (W8TW
Scott Yonally (N8SY)
Evan Koontz (KF8APC)

If I missed anybody, please let me know, I am going to try and do my best to be a good representative for the club, but my typing and grammar skills may be a little lacking, well probably a lot would be closer to the truth.

The next upcoming event is Winter Field Day, and we will hold this at my house the same as last year (15590 Lower Fredericktown Amity Road). I am thinking that we will have two stations set up for the event, one for CW and phone and one just for phone. I am not sure at this time what equipment we will be using but I can set up my Yaesu FT-891 for the phone station and one of the club radios for CW.

I am going to put up one of my HF Kits 10 through 80-meter antennas on the north end of the building and run a coax from my 43 ft DX Engineering MBVE-5A vertical which will tune 10 through 160 meters. I have added an LDG RC-RT-100 remote turner at the base of the antenna to help with reducing the loss in the coax. I used this antenna during the November Sweeps and the performance was outstanding. I was switching back and forth between the Big Thunder beam and the vertical and the difference was negligible at best, so I hope that it works well for us.

My wife and I will be providing sandwiches (shredded chicken and sloppy joes) baked beans, coffee, tea and pop, if you want to bring any other items feel free to add them to the list. The food should be available starting Saturday afternoon and through the night. Sunday Morning my wife will be baking blueberry

muffins for breakfast. I do hope that we can have a good turnout for this event, it is a lot of fun and helps sharpen our operating skills.

The list of other events that are coming up this year was included in the December newsletter, but I thought that I would add it again just as a reminder to reserve these dates so we can have lots of participation in the events to help show the community what we are all about.

Winter Field Day	January 24-25
NVIS	April 25
ARRL Field Day	June 26-28
Boy Scouts	TBD
Mount Vernon First Friday	August 7
OSPOTA	September 12
Centerburg Old Time Farm Festival	September 26-27
Club POTA	TBD
POTA Activations Anytime	

One more item that I thought of the other day is when we renew our dues would everyone, please fill out a new application when paying your dues. It helps to keep the list of members' addresses, phone numbers, email addresses and call signs up to date; also, a lot of members give extra money as a donation and sometimes we are not sure if they are paying for two or more years or donating. I hope it is not too much of an inconvenience, it just helps with record keeping.

Hope to see everyone at the meeting @ 10:00 AM on January 10, 2026

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Meeting Minutes

Call To Order

The December 2025 meeting of the Mount Vernon Amateur Radio Club was called to order by President Frank, KC8EVS at 5:00 PM at Bob Evans restaurant.

The only order of business was to elect club officers for 2026. All nominees were elected without comment and will take office starting January 1, 2026.

Meeting adjourned to enjoy the Christmas dinner.

Christmas Party

The MVARC annual Christmas party was held on December 14th at Bob Evans with several club members in attendance. The photos were provided by Frank, KC8EVS.

Starting on the left and going around the table.

Patricia Gorrell, Stephen Harvey (N8LRW), Tom Evans, (KD8HSA), Jim Bostic, (KD8IZT), Barry Butz (N8PPF), Connie Butz (KC8DLG), Empty Chair = Frank Counts (KC8EVS), Roger Gorrell (KE8ICI), Nathan Kisinger (KE0RYO)

In the back on the right: Brian Hockenberry (KE8ANV) Don Bunner (KB8QPO)

Starting on the left and going around the table.

Emery Bennett (W8TW), Diana Bennett, Darlene Pudlinski, (WS8W), G. Michael Jacobs, (KE8HGE)

Nathan Kisinger (KE0RYO) Don Russell, (W8PEN)

Radio Activity

Don, W8PEN

Happy New Year to all our club members. May your New Years resolutions last more than twenty-four hours!

EchoLink

A curious thing happened to the EchoLink Station in late December. I was out and about, and I always have the mobile on and set to .79. Someone must have used EchoLink because I heard the EchoLink ID in Morse Code. However, the EchoLink signal into the repeater was very weak and noisy. In FM terminology, I would have said ninety percent noise!

Great! I thought. The transmitter just failed on the EchoLink station.

When I got home, I put my VHF watt meter on the transmitter, and it was running about five watts. Since I had the transmitter set for Low Power, I figured that it was close.

My first guess being wrong (and I was happy being wrong), the next thing to try was to move the antenna I was using. The whole system is in my basement, including the antenna, which I noticed was very close to the metal heating duct.

So, I moved the antenna to a better spot and checked performance. I was awarded with a much better “full quieting” signal”.

The good news is that I don’t have to buy another transceiver. However, I should check the EchoLink signal into the repeater a bit more often. Just to remind club members, I rely on someone reporting if they hear something wrong with EchoLink.

Router Upgrade and More

The Wi-Fi router that I have been using failed Saturday after Christmas. It was a cheap router and had been giving me some problems anyways. I was not too disappointed when it stopped working. It only gave me an excuse to buy a new one.

Since I had to replace the router, I decided to spend some time running Ethernet cables to the devices that were fixed in place. Two smart TV’s, my shack computer, the EchoLink computer, and my telephone. This took the better part of the day, but I think it was well worth the effort.

As I installed the cables, I checked the internet speed at the end of each line. Bear in mind that Spectrum internet speeds vary depending on neighborhood use. This was a Saturday afternoon, so I assume things were quite busy. Starting at the Spectrum modem with nothing plugged in except a laptop, the speed was a bit over 500 Mbps. I thought that was pretty good. I don't really know what Spectrum's specs are though.

The two TV lines were over 300 Mbps and the shack computer was 50 Mbps. The EchoLink computer was 350 Mbps. I forgot to check the telephone, but it has always been connected by Ethernet cable, and I have had no issues with it.

So, I was happy with the results. I attributed the relatively slow speed on the shack computer to using a USB Ethernet dongle. It was plenty fast for anything I would be doing.

I still have one computer, two tablets, and two cell phones on Wi-Fi, but that is half of what it used be. Even now my Wi-Fi speed is all over the place. It does hang around 100 plus Mbps but occasionally drops to under 50 Mbps or close to 300 Mbps. It's wild!

Long story short, my Wi-Fi performance has been much better since cutting the devices connected by Wi-Fi in half. Running Ethernet cables was worth the effort.

Ryoko Pro WIFI Hotspot

I kept seeing ads on YouTube and other websites for a device call Ryoko Pro portable Wi-Fi. They were advertising 70% off the device and 70% off unlimited data for 6 months.

I have been looking for a good Hotspot to take on my fishing trips to Michigan and New York. This one seemed a little too good of a deal. Claimed speeds were up around 250 Mbps, which to me sounded like a little too much to ask out of a 4G cell signal. The ads also claimed that this device maintained its speed even if the cell tower signals were poor.

Curiosity got better of me and after almost a month of procrastinating, I decided to give it a try. Total cost for me was around $177. That was the Ryoko Pro, plus 6 months unlimited data. There was also a 60-day money back guarantee, but I was not planning on returning it regardless. I read in one of the reviews that returning one of these was an adventure in frustration.

It took two weeks to be delivered. I presume from China.

Before doing anything, I gave the battery a good charge. Then frustration sets in. Turned the Ryoko Pro on. It booted up without issue, and everything looked good. Except it would not connect to the cell tower that I could get from home. The screen was a little confusing and I thought I had a cell tower signal. After playing around for about half an hour, I decided to relocate the Ryoko to another window.

Okay, now I see a cell tower signal. Fairly strong for my neck of the woods. I thought things were going to work. Kinda did. I was getting about 2 Mbps download speed. Not good, but signal was only fair. I played some YouTube videos and the Ryoko delivered without needing to buffer, which was good. Then it quit working!

The screen said I was out of data, which couldn't be since I had an invoice saying I purchased the 6-month unlimited data plan.

So, I go to Viaota.com, the webpage of the company who provides the data service for Ryoko. Their web page said I had no data plan. Using their online chat, I was able to solve the problem with some difficulty. However, I was a little worried. My dashboard said I would run out of data again in a month, not six months. I decided that they probably automatically renewed the data each month. They didn't.

So, this Ryoko device worked pretty good even though the cell tower signal was not the best. I found a window that allowed me download speeds of close to 30 Mbps, which was fast enough for anything I would need.

In town at McDonald's during the club's Friday breakfast, Ryoko did much better. Of course, the cell tower was within spitting distance. I wasn't getting 250 Mbps like in their ads, but I was getting 50 plus Mbps, which was entirely satisfactory.

Then my month of data ended and Ryoko quit working, prompting me to another visit to the Viaota.com webpage. This time during a chat they insisted that I would have to choose a plan and pay for it. Even giving them the invoice number so they could see I already had a 6-month plan, they couldn't understand. So, I ask for a phone number and called them.

The lady on the other end was very nice and eventually restored my data. So, I am back in business. However, once again it says my data expires in 30 days. I might have to go through this monthly.

Bottom line is, the Ryoko Pro does work. It is just not as good as advertised. My worry is that I won't have enough signal when in Michigan or New York, but since I have Ryoko, I will find out.

I have serious reservations about their data partner, Viaota. They have enrolled me auto renewing after six months. If I must call them each month, I may just drop them. I understand you can insert your own sim card and buy data somewhere else.

That's it for this month. See you at the January meeting.

MVARC Calendar / Events

WEEKLY EVENTS

Sunday: 9:00 PM ARES Sunday Night Net
Wednesday: 4:45 PM — Dinner at Southside Restaurant
Friday: 9:00 AM Breakfast—McDonalds on Newark Rd.

ARRL Sanctioned Hamfests

Ohio ARRL hamfest and conventions

[Ohio Great Lakes Division ARRL Sanctioned Hamfests]

Or

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

Miscellaneous Rambling

Terry, KI8N

I want to thank those that supported me for Treasurer. I checked and I started performing this position in December 2017 right after Jim Williams, N8IBR (SK) became a silent key. Amazing how fast time flies when not paying attention!

Last month I stated Frank, KC8EVS had given me a satellite dish mount which is the new mount for my dual-band antenna and will be attached to the eave of the house. I am still without a VHF/UHF radio in the shack. I have the mount painted with new stainless steel hardware and the antenna mounted to it but I just cannot bring myself to go outside and climb a ladder in this weather. Yes, I am officially a weather wimp! Also, part of my procrastination is the aluminum eave cover is new and I do not want to immediately start drilling holes into it. Soon, I keep telling myself as I have to get the radio operational again.

We visited family in Memphis in December for an early Christmas, which is why we were not here to attend the MVARC Christmas party. We figured Memphis would be warm for the entire weekend but that was a huge mistake. Temperatures Saturday and Sunday were in the 30's and it was damp feeling. Just enough to make us believe it would have been warmer to have stayed in Ohio. However, Friday the 12th was a beautiful day around 70° so we went to Meeman-Shelby Forest State Park (US-2957) and did a POTA activation. Made 81 SSB contacts with the FT-891 in about an hour before I lost interest (lots of incosiderate hunters), then we explored parts of the park we had never been to.

Did everyone have a chance to read the article about MVARC, "Old school communications remains in style with MVARC" in the December 6th Knox Weekly News? The article was written by Geoff Cowles with Frank, KC8EVS providing the information. If you did not read this, I will bring a copy to the January meeting and you can look it over. I picked up an extra copy of this edition of the Knox Weekly News with the intent to have it in the club room for everyone to read and to keep as part of our library.

I received an email from John Jensen, AE0HL regarding YouTube videos his club the Brainerd Area Amateur Radio Club is developing. Here is a copy of his email.

"I am a License Instructor for the Brainerd Area Amateur Radio Club in Brainerd, MN. We work with a very rural area in northern Minnesota. Because of distance and weather (snow and five below in the winter) many of our students cannot attend classes. Many students who have zero experience with radios and electronics have a tough time, as they struggle to get through a testing manual. Words in a book are not inspiring. As a result of this, we developed a video education program for the technician class, to assist students who cannot attend classes. The goal is to answer the questions: What is ham radio and how does it work? What can I do with amateur radio and how do I become a competent operator? And my favorite question: Is that still a thing?

> *I are proud of what we are doing and we want to share it. As a result we created a YouTube channel called: PORK CHOP RADIO. We have uploaded our core videos to YouTube. The site currently has 21 videos, with more being developed. Each video addresses a specific topic*

related to the hobby of amateur radio. This is purely educational material. There are no internet stars. To answer the criticism we get from students that many sites on the internet are "over my head", each video is simple, straight forward and basic, yet loaded with information, tips, and tricks. It is designed to be used by amateur radio clubs in a classroom setting, and can be used by individuals who want to learn something about amateur radio. Most importantly, the goal is to assist students working on their own, to not only gain a license, but become an awesome operator. Best part is it's FREE.

I am hoping you will take a look at Pork Chop Radio, and if you feel it is worthwhile and useful, please share it with others. When you go to the channel hit the OLDEST tab and it will take you to the first video in the series, and the beginning of the journey. Our goal is simple, to increase the awareness of amateur radio and to assist individuals in joining the hobby.

This is the link to Pork Chop Radio:

https://www.youtube.com/@porkchopradio

Respectfully,

John Jensen

AE0HL, 73"

I have looked at a couple of the videos and found them to be informative. These are worth sharing if you know someone with questions or you just want to refresh. Take a look and leave comments so the developers can make changes or know which topics could use more information or clarity.

While we were in Memphis I did something I swore I would never do. I took the dog into a store, Bass Pro at the Pyramid. When I worked at Cabela's I thought it was irrating when people brought their dogs with them and allowed them to bark and get close to other shoppers. However, since our dog, Izzy, is small, a Minature Schnauzer, and we do not allow her to wander loosely so we would keep her in the cart. I hoped we could make this work. We kept her in the shopping cart, with a leash, and talked to her so she would not get overstimulated. To my surprise she acted great and seemed to enjoy the cart ride as long as she knew where Cath, WA8KJJ was.

I am planning a new Final Takeaway series about Ham Radio Survival topics. This was topic was mentioned at the November meeting so I am going to put some effort into trying to define what survival would amount to regarding amateur radio. This month will begin with these items;

- Emergency communications basics
- Calling frequencies - VHF/UHF
- Net operations - how to check in, pass messages, stay concise
- Emergency traffic procedures - priority, emergency, welfare
- ICS / served-agency communications - ARES, Red Cross

I have planned for several monthly articles with topics such as, what to do when the repeater is unavailable, when electrical power is out at your home, antennas you can build, training and practice, and a ham radio survival checklist. My thought is to stick with VHF/UHF and HF NVIS as this series progresses. I will be looking for any additional material you want to include or corrections to what I write about.

One last item, have you ever wondered how to send an NTS message without having to be on the radio?

Such as your family wanting to surprise and send a routine, non urgent, radiogram to you or you to a friend. This weblink, Send a Radiogram will allow this to be accomplished. The online form has a few predetermined standard messages to select from, so no writing your own rambling message. However, if this method becomes popular it wouldn't surprise me if a real piece of "traffic" eventually needs to be passed on our Sunday night net!

That is it for this month. See you at the meeting on the 10th. – "Stay safe and Ham it UP"! 73

My Adventures in Ham Radio

Don, W8PEN

Assisted by Microsoft Copilot

CHAPTER 4: CHRISTMAS ON THE AIR

"I WAS A HAM! AS IN AMATEUR RADIO OPERATOR. MY CALL WAS WN8ODK!"

But now what? I didn't have a transmitter. My license was real, but my station was silent. I kept monitoring the Morse Code bands, growing more fluent by the day, but I longed to transmit.

My brother Chuck was away at college, and we wrote often. We were closer than just siblings, we were radio buddies in spirit.

Then came a letter in early December. Chuck had joined the Dayton University Amateur Radio Club and passed both his Novice and Technician Class licenses. His calls were WN8ONN and WA8ONN, dual calls were allowed back then. The Novice license meant CW-only on the shortwave bands, while the Technician license opened everything from 50 MHz and above. Full privileges!

"Wow," I thought. Chuck could operate the club station. He was already on the air, living the dream. He was excited to come home for Christmas and share stories of his on-air adventures.

I thought, "If only I had a transmitter, Chuck and I could talk over the air. That would be amazing."

I dove into my ham radio books, hoping to build something. I had scavenged parts; tubes, resistors, capacitors from junk TVs donated by the repair shop down the street. But I was inexperienced. I probably had the parts, but no chassis to build on, and no money to buy one.

Still, the thought of Chuck's arrival lifted my spirits. At least I'd have someone to talk to about my favorite hobby.

When Chuck arrived, we began building a transmitter together. Mom gave us an old cake pan to use as a chassis. Ingenious! Why didn't I think of that?

But Chuck didn't seem in much of a hurry. I was a little disappointed.

Then came Christmas morning.

I tore open a package—and there it was: a Heathkit DX-35 transmitter!

Oh-my-gosh.

Chuck had bought it from another student at Dayton. He also included a Heathkit antenna coupler, knowing we'd need it for whatever antenna we could rig up. Mom and Dad had sent him money to make it happen.

The rest of Christmas Day was spent on the roof, stringing up an antenna. My station was coming to life.

What Was a Heathkit DX-35?

- Type: CW/AM transmitter kit
- Bands: 80, 40, 20, 15, and 10 meters
- Power: ~50 watts input
- Build Style: User-assembled from components
- Legacy: A classic entry point for hams in the 1950s – 60s

Chapter 5: First Contact

The back porch had a flat tin roof, and Dad had mounted a ten-foot mast with a TV antenna to the A-frame of the house. It wasn't much, but it was sturdy and it gave Chuck an idea.

"One wire from the mast should work," he said. "But two would be even better."

Dad rummaged through the garage and handed us a roll of wire, maybe 18 gauge, tops. Not ideal, but it would do.

It didn't take long to rig the antenna. We ran one wire from the mast to one edge of the tin roof, and another to the opposite corner. A single wire led from the mast into the bedroom, where we'd decided to set up the station. The back porch was far too cold in December!

Inside, the wire connected to the antenna coupler. From there, a coaxial cable ran to a knife switch, which we'd throw depending on whether we were transmitting or receiving. The receiver's headphones had an on/off switch to mute the transmitter during transmission, a simple but effective setup.

This arrangement was typical of beginner stations. Honestly, I'm surprised we didn't fry the receiver with overload. But it held up.

Finally, ready to make contacts!

With Chuck guiding me, I slowly tuned the band, listening for anyone calling CQ. That's ham shorthand for "I'm open to chat with anyone."

Found one! W8XYZ was calling CQ at a speed I could easily copy. His signal was strong—strong.

I waited nervously for him to finish his call. Then I jumped in:

W8XYZ W8XYZ W8XYZ DE WN8ODK WN8ODK WN8ODK K

A classic 1x3 call. "DE" meant "from," and "K" at the end meant "over." I remembered that from the club class.

I switched to receive. Nothing. He was calling CQ again. He didn't hear me, I guess. I tried again. Still no luck, he answered someone else.

And that is how it went. All Christmas Day, I called station after station. No one came back. Same the next day. And the next.

Chuck was stumped. So was I. But we kept trying.

Eventually, Chuck had to return to school, leaving me to troubleshoot solo. Still no contacts.

Frustrated, I dove into my stack of ham radio books and magazines. Something had to be wrong.

Then I saw it, a diagram of a simple antenna. What were those things on the wire ends? Insulators?

I read more. Turns out, insulators are critical. They isolate the antenna from ground. We'd missed that. Our wires were attached directly to the tin roof. We had one insulator at the mast, but nothing at either end of the wire.

Dad helped me install proper insulators. Then, back to the shack!

By now, I wasn't nervous anymore. I'd called so many stations it felt routine.

Then I heard W8QPR calling CQ. His signal was solid. I gave it a shot:

W8QPR DE WN8ODK K

He came right back!

My first contact!

His name was Don too, and he lived in Ashtabula, Ohio. He gave me a 579 signal report. I was ecstatic, floating! We chatted for half an hour. Don promised to send a QSL card to confirm our contact.

My first QSL card!

The rest of the day was a blur. I made contact after contact. I was on the air all day.

I wrote Chuck and set up a schedule to talk over the air. When the time came, it was a breeze. Signals were strong both ways, and we talked for over an hour.

Man, that was fun.

Chapter 6: Heathkit AC-1 Antenna Coupler

The Heathkit AC-1 is a compact, vintage antenna coupler designed for amateur radio use, especially with the Heathkit AT-1 transmitter.

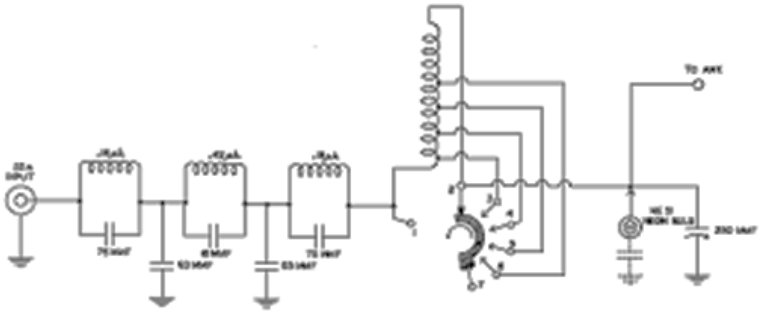
Here are some key facts about the AC-1:

Purpose And Compatibility

- Designed for the AT-1 transmitter, the AC-1 was introduced in the early 1950s to help match the transmitter's output to various antenna impedances.
- It supports transmitters with up to 75 watts RF input power, making it suitable for entry-level ham setups of the era.

Technical Specifications

- Frequency coverage: 80 to 10 meters (3.5 to 30 MHz), aligning with the popular amateur HF bands at the time.
- Circuit type: A three-section Pi-type low-pass filter, with a cutoff frequency of 36 MHz, designed to reduce harmonic radiation.
- Tuning network: Includes a variable capacitor and a tapped inductor for impedance matching.
- Tuning indicator: A neon lamp provides a visual cue for resonance and gives a rough indication of power output.



AC-1 ANTENNA COUPLER

Construction And Design

- Chassis: Copper-plated and shielded for RF containment and durability.
- Connectors: Features a 52-ohm coaxial output on the rear panel.
- Dimensions: Approximately 7.1" × 4.3" × 4.9".
- Power: Passive device, no external power required.

Historical Context

- Released around 1953, the AC-1 was part of Heathkit's early line of amateur radio accessories, complementing their transmitters and receivers like the AT-1 and AR-2.
- It was marketed as a kit, allowing hams to build it themselves, a hallmark of Heathkit's DIY philosophy.

Thanks for reading about my ham radio adventures. I have enjoyed reliving and writing about my radio beginnings. "73"

Final Takeaway

Emergency Communications Basics

To participate in ham radio emergency communications an operator should have the fundamental skills, knowledge, equipment, and practices necessary to properly relay reliable information during disasters such as power outages or when commercial communication systems are overwhelmed or experience complete failures. What this series of articles is **not** going to address is prepper or survivalist beliefs when the sh*t hits the fan (SHTF). There are plenty of these types of videos on YouTube that you can view.

First what is the purpose of emergency ham radio? It is our task, *when called upon*, to support emergency services and public safety by relaying messages for the following reasons.

- Supporting shelters and evacuation centers
- Providing situational updates from affected areas
- Reconnecting isolated communities

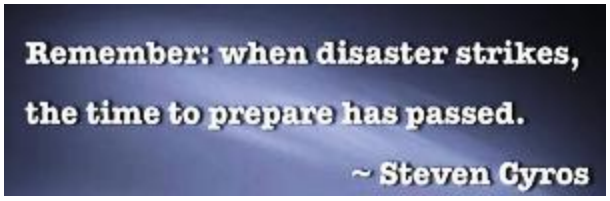
This also means an operator has the knowledge to work safely, have the proper communications gear, improvise antennas, connect to or carry power sources, and operate from non-standard locations. Further the operator must remain professional, perform tasks as directed, and keep detailed records of what they have done.

Another part of emergency communications is knowing when it is safe or prudent for an operator to participate when called. No one should put themselves or their families in dangerous situations just to be a communications hero.

To legally participate in ham radio emergency situations the operator must meet the licensing requirements set by FCC Part 97. This means an operator must have at least a Technician class license to communicate via VHF and UHF radios. If the situation calls for HF operations, then the control operator must have a General class license.

Most emergency communications requirements are described in FEMA National Incident Management System (NIMS) training courses. As an emergency communications operator you should have completed the following NIMS training courses:

ICS-100 – Introduction to the Incident Command System
ICS-200 – ICS for Single Resources and Initial Action Incidents
ICS-700 – National Incident Management System. An Introduction
ICS-800 – National Response Framework. An Introduction



Amateur Calling Frequencies and Net Operations

An important part of participating in emergency communications is knowing what type of radio is needed for the situation, VHF/UHF or HF. This table states the differences when this decision must be made.

Factor	Urban	Rural
Main obstacles	Buildings, noise, congestion	Distance, terrain, isolation
Best bands	VHF/UHF, NVIS HF	HF and possibly VHF
Radio power	Low power	Higher power + better antennas
Repeater Reliability	Often fails early	If available, still may fail
OPSEC (Operations Security) risk	High – many listeners	Moderate – possibly fewer listeners
Mobility	Foot based or where directed	Vehicle based

An operator must know how to program or change the frequency to the specified emergency frequency or to your local ARES net control frequency. In some cases, this frequency or operating mode may change depending on local conditions or interoperability needs. An operator must know how to input frequencies, offsets, PL tones and save this to memory.

In the United States the recognized 2-Meter (VHF) simplex calling frequency is 146.520 MHz while the UHF (70 cm) simplex frequency is 446.000 MHz. However, the net director will determine the net control frequency and there may be more than one net/frequency depending on circumstances. In Knox County Tony, KE8OOE the ARRL Emergency Coordinator has designated the initial net control frequency to be 146.520 MHz. Note that if an HF net is necessary, NVIS is typically only viable on 80 and 40-meter frequencies

When called to work an emergency, ask the person making the call where you are required to meet or go to. When safely arriving at the requested location, let the communications director know you have arrived and ask where you should set up your equipment. Take their direction and get organized in that location. Call the amateur radio net control station and let them know you are set up and on location. An important part of working with emergency services is being flexible, professional, and doing what is requested by the personnel on site.

Participating in closed controlled nets (run by a net controller) has these requirements.

- Always listen before transmitting
- Request recognition from the net controller
- When recognized, state your message
- calling frequencies are not chat channels — make contact, then maintain silence until the next communications requirement

When communicating to the net controller, be aware of OPSEC issues. Typically, the following items are not stated over amateur frequencies. Exact locations where emergency situations are occurring, no sharing supply list details, no names of emergency personnel or victims are given out, no giving out any information to bystanders, news people or friends/family, and avoid any non-pertinent conversations as these distract from your assigned task.

A good way to practice controlled net communication techniques is to sign into or listen to any of the local ARES or club schedule nets.

Emergency Traffic Procedures

Knowing how to handle and transmit traffic is a requirement in emergency situations. Not only how to send the messages but the four main precedence's:

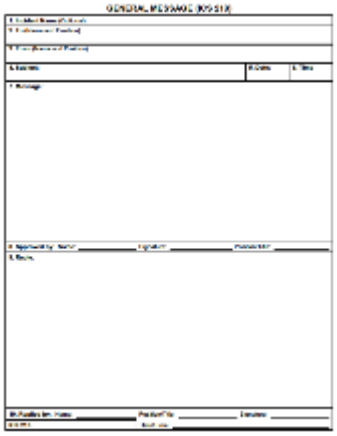
Emergency – dealing with life-or-death urgency.

Priority – messages with a specific time limit or official messages.

Welfare – an inquiry as the health and welfare of an individual or stating that all is well in the disaster area.

Routine – traffic to be handled last or not at all when circuits are handling higher precedence traffic.

The operator must be cognizant of message handling techniques. Is the message in the correct format or on the required ICS, Radiogram, or Red Cross form? Is it ok to be read the message on a radio frequency, or does it have to be transmitted via digital or email techniques? The net traffic controller will determine the transmission method. Was the contact, time, and message number logged?



So based on the traffic procedures, have you practiced sending and receiving messages? Do you have the correct equipment and knowledge to be able to send digital formatted messages by VHF/UHF and HF? If your answer is no to either of these two questions you need to learn how, set up your equipment at home and practice and volunteer to send and accept traffic on your local nets.

Served Agencies

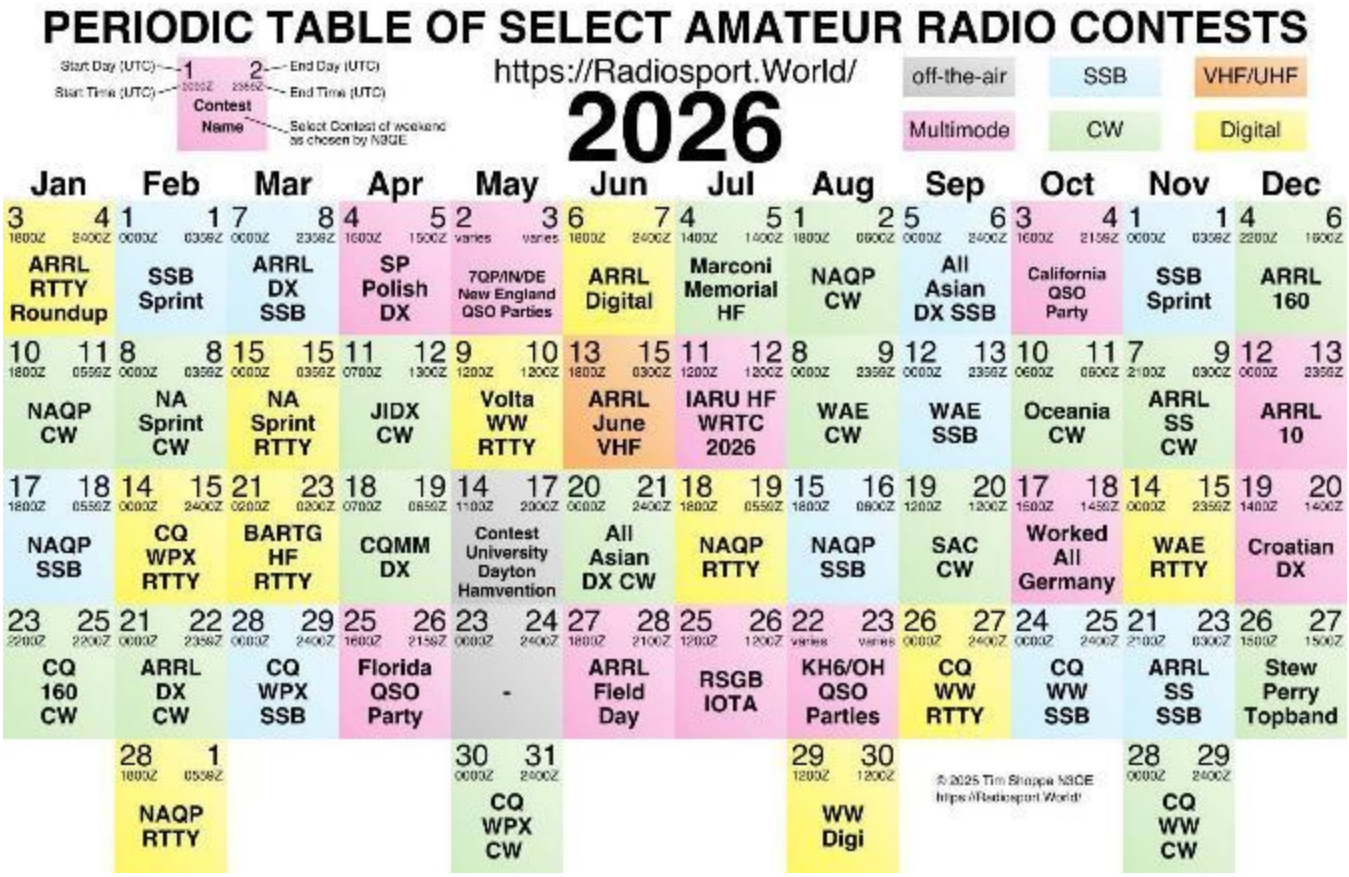
In Knox County the served or supported agencies are the county Emergency Management Agency (EMA) and the Red Cross. These agencies have been supported and recognized by Memorandums of Understanding (MOU) with our ARRL Amateur Radio Emergency Services (ARES). When an emergency happens and our assistance is needed, they will contact our local county EC who will then contact each of us requesting our participation and stating where to deploy. **NOTE**: Amateur radio operators do not self-deploy to any disaster or situation.

A less urgent possible use of our communications talents would be supporting public events such as bicycle races, parades, or public gatherings. Again, our services would be requested by that official organizing body. However, we still respond with professional attitude, operational equipment, and the desire to ensure public safety.

Next month we continue this series with equipment types, power requirements, and operating without infrastructure.

Ham Radio Contest Periodic Table

I found this self-described ham radio contest Periodic Table and thought it would be interesting to add to the newsletter. This is not a comprehensive list of all contests but attempts to show the major contest activities for each weekend. If you click on the link and go to the webpage you can print a full-size page.



Ham Radio Contest Calendar

2026 Upcoming MVARC Events

Winter Field Day	January 24-25
NVIS Day	April 25
ARRL Field Day	June 26-28
Boy Scouts	TBD
Mount Vernon First Friday	August 7
OSPOTA	September 12
Centerburg Old Time Farm Festival	September 26-27
Club POTA	TBD

The Beginning of Ham Radio

Don, W8PEN

Assisted by Microsoft Copilot

Amateur radio began as a bold experiment in the early 20th century, driven by curiosity, innovation, and a passion for wireless communication. Here's how it all started.

The Spark That Started It All

The roots of amateur radio stretch back to the late 19th century, when scientists like *Heinrich Hertz* proved the existence of radio waves. Building on this, *Guglielmo Marconi* developed the first practical wireless telegraphy systems in the 1890s. His groundbreaking transatlantic transmission in 1901 marked a turning point, inspiring a wave of experimentation among hobbyists around the world.

The Rise of the Wireless Experimenter

By the early 1900s, thousands of individuals—mostly young men with technical curiosity—began building their own rudimentary transmitters and receivers. These early setups often used *spark gap transmitters*, which generated radio waves through electrical sparks. Though crude and noisy, they were effective enough to send Morse Code over short distances.

These enthusiasts, often called "wireless amateurs," operated without regulation, leading to a chaotic and crowded radio spectrum. Despite this, they made significant contributions to the development of radio technology, including antenna design, signal propagation studies, and early long-distance communication techniques.

Clubs, Community, And Birth of Ham Culture

The first known amateur radio club was formed at *Columbia University in 1908*, and by 1909, more clubs began to appear across the United States and Europe. These groups fostered collaboration, shared technical knowledge, and helped standardize practices among operators.

The term “ham” emerged around this time—originally a derogatory term used by professional telegraphers to describe amateur operators, it was later embraced by the community as a badge of honor.

Regulation And Birth of the ARRL

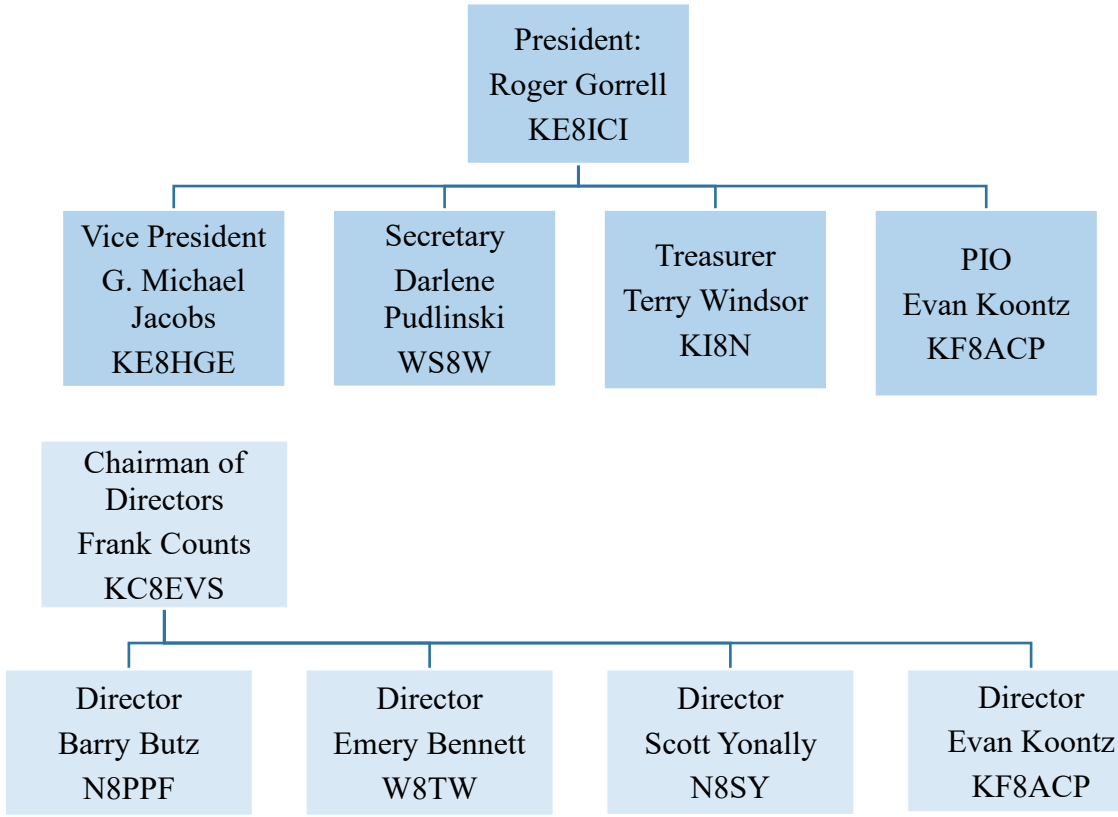
As amateur transmissions began interfering with commercial and military communications, governments stepped in. The *Radio Act of 1912* in the U.S. required amateurs to be licensed and restricted them to wavelengths below 200 meters (frequencies above 1.5 MHz), which were then considered useless. Ironically, this limitation pushed amateurs to explore shortwave frequencies, where they discovered long-distance (DX) communication potential.

ARRL
The national association for
AMATEUR RADIO®

In 1914, *Hiram Percy Maxim* founded the *American Radio Relay League (ARRL)* to organize amateur operators into a nationwide relay network, enabling messages to be passed across the country. This marked the beginning of a more structured and influential amateur radio movement.

From humble spark-gap transmitters to a global community of innovators, the early days of amateur radio laid the foundation for modern wireless communication**.** It was a time of discovery**,** camaraderie, and relentless experimentation—values that still define the ham radio spirit today.

MVARC 2026 Club Officers



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

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

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Facebook Page
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Ohio Highway System

If you live in Knox County you can definitely say **"You can't get there from here"**. A challenge I read about is visiting all 88 Ohio counties. How many counties have you visited where you got out of the car and either went sightseeing, shopped in a store, or ate a meal in a restaurant in that county? Just driving through the county does not count as visiting it.