# **Mount Vernon Amateur Radio Club**

# June 2025

2025 Edition 6







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# **MVARC Repeaters**

#### **K8EEN**

146.790 MHz

- 600 KHz / PL = 71.9 Hz

K8EEN-R EchoLink Node: 809800

#### K8EEN

444.600 MHz

+5 MHz / PL = 71.9 Hz

# **Meeting Notice**

# **MVARC Meeting:** June 9 @ 7:00 pm—Academy Building on Fairgrounds Road

#### **President's View**

Frank, KC8EVS



Well, I'm ready for it to warm up some and the rain to stop. Seems that I'm always racing to mow before it rains again and sometimes, I'm mowing in the rain. Fortunately, only MaryAnn and I usually see our yard so if it looks like a recently mowed hay field no one knows but us. It's June and that means we will be discussing Field Day (FD) at the next meeting so make sure to attend our next meeting to get all the information concerning FD 2025. Hope to see you at both events.

Two other items to be discussed at the meeting are updates to the By-laws, and we plan on bringing out the go box and demonstrating the equipment

using digital modes. This will be our second discussion of the changes to the By-Laws, and we will vote to incorporate them or not at the July meeting, so it's important for you to attend and give your input on these changes. Secondly, it's also important to be familiar with the operation of the equipment in the go box and the reason for dragging it out at the meetings. You will see it again on FD 2025.

Since we last met, I attended Four Days in May (FDIM) and Hamvention. FDIM is the annual meeting of the QRP Amateur Radio Club International (QRP-ARCI). They have an all-day symposium on Thursday before Hamvention and a couple of other get togethers in the evenings Thursday and Saturday nights. If you are interested in operating QRP this is a great bunch to get to know. Look up their web page qrparci.org for more information concerning the organization. What can I say concerning Hamvention, it is a good place to go and drool over equipment that you can't afford, pick up a Yeasu hat (they are free), and walk the flea market (more affordable equipment). There were some new equipment announcements, Yeasu brought out the FTX-1 (a very expensive replacement for the 817/818 radio), TenTec has a new radio on the horizon, and Kenwood has a mobile radio to be released this fall, to top all of them Flex radio announced a new radio the Aurora AU-510, I believe. It's one that everyone will be rushing out to buy when available at \$6000+.

The weather at Hamvention was great. As most of you know I go and camp at one of the state campgrounds near Xenia (usually Caeser Creek State Park). I enjoy camping even though I don't get to do it much. This year I could not have asked for better weather, cool not too hot and mostly no rain. I say mostly because Friday night that was not the case. At about 8:30p storm clouds started rolling in and I got out my cell phone and looked up the weather and it did not look good. For the next 2-3 hours I thought my tent was going to fly away. I have never seen it flap so much, and the rain just poured. Of course, my wife was encouraging me by texting and letting me know just how bad the weather was getting, as if in a tent I wouldn't know. Also, the radio was full of reports there in the campground of just how fast the wind was blowing and how much rain was coming down per hour. These guys must have weather stations attached to their campers. All I knew was I was keeping dry but my tent was flapping as if it was going to fly. All was good and by 10:30-11p it quieted down, and I fell asleep. Oh, I forgot to mention Roger KE8ICI joined me Thursday afternoon and we attended FD on Friday. He saw the weather forecast for Friday night and decided it would be best to pack up his tent and return home Friday night, probably a very wise decision on his part. Does that tell you anything about my decision making? I need to get this off to Terry. So, I will say 73,

"Everyone thinks of changing the world, but no one thinks of changing himself." Leo Tolstoy

#### **Meeting Minutes**

#### Terry, KI8N



#### **Call To Order**

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

#### Minutes of the Last Meeting

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

#### **Treasurers Report**

Terry KI8N provided an account of the current balance of all bank accounts and expenditures for March and April 2025. There were no additions or corrections, and the report was approved as presented. Motion by Roger, KE8I-CI and Tom, KD8HSA.

#### **Committee Reports**

#### Repeaters

The Repeater Report was made by Roger (KE8ICI). Still experiencing some cyclical noise on the 2-meter repeater, Roger to checkout the cables. Roger is getting the controller software from Steve, N8RLW and will be removing the Kenwood repeater and reinstalling the club's unit. Noted repeater is not Identifying as required.

#### **EchoLink**

EchoLink is working but the equipment has been relocated to Don's house, W8PEN due to issues with its operation in the Club Room.

#### **Directors**

Director's report was made by G Michael Jacobs (KE8HGE). The amended By-Laws were presented for present club members to review and discuss. The June meeting will be open to comments or any changes and it is planned to vote on the changes at the July meeting.

#### **Old Business**

NVIS Day— No Ohio stations heard but contacts were made with POTA activators. Discussion about organizing and operating differently next year. Possibly running NVIS Day in a state park and also combining it with a POTA activation.

#### Frank (KC8EVS) reviewed Coming Events

- Field Day: Saturday June 28, 2:00 pm Sunday June 29, 2:00 pm. Setup on June 27. Apple Valley has been contacted and we have our usual spot reserved (out behind the Floral Valley Community Center). 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.
  - Evan, KF8APC will put a notice in the Apple Valley Cider Press and will follow up regarding notices in other news vendors—WNZR, WMVO, and Knox Pages. Motion by Terry, KI8N and Roger, KE8ICI to pay for the \$16.00 fee for the Cider Press notice.
- First Friday: August 1. We will be setting up a table and canopy at space #9 during this day's event starting about 5:00 pm.
- Ohio State Parks on the Air: September 6.

#### **New Business**

The club's room in the Academy Building is a mess so a clean-up date was set for May 21 at 6:30 pm.

Wendell, KE8NUX was contacted by the Boy Scouts about a ham radio presentation and demonstration. They were hoping to have three separate dates, 6/19, 6/26, and 7/10 at the Gay Street Presbyterian Church. After discussion it was determined that MVARC could not do this on 6/19 or 6/26. We can participate on 7/10. We asked Wendell to have them visit their local Coshocton club's field day location on 6/26. Wendell is going to contact the organizer and get their response.

A Motion to Adjourn from Michael, KE8HGE, seconded by Roger, KE8ICI, brought the meeting to an end.



"It seems I've run out of sports analogies, so meeting adjourned."

#### **May 2025 Meeting Attendees**

Frank, KC8EVS	Roger, KE8ICI	Tyler, K8RTS	Michael, KE8HGE
Bill, KD8WHQ	Larry, AC8YE	Evan, KF8APC	Terry, KI8N
Ralph, KC8REB	Wendell, KE8NUX	KE8NUX	Tom, KD8HSA

# MVARC ARES Sunday Night Net Mount Vernon 146.790 repeater Check-in starts at 9 pm

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

<sup>&</sup>quot;Never forget what you are, for surely the world will not. Make it your strength. Then it can never be your weakness. Armour yourself in it, and it will never be used to hurt you." George R.R. Martin, A Game of Thrones

# **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 June 9: 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



# **Proposed By-Law Changes/Additions**

#### Michael, KE8HGE



This month will be the final discussion/question period of the following proposed changes to MVARC's By-Laws. Please read and review the proposed changes and be ready to discuss revisions or changes with plans to vote to on acceptance at the July meeting.

The current By-Laws, amended 08/14/2023, can be read here; MVARC By-Laws

#### **ARTICLE V. OFFICERS' DUTIES**

#### **SECTION 4. TREASURER**

Adding two items to clarify the Treasurer's responsibilities

- The Treasurer is authorized to make payment on any bills incurred by or obligations entered into by the Corporation when due, to the extent allowed by the funds of the Corporation. These payments may include (but are not limited to) rent for space or Corporation post box, utilities for the Corporation, and Corporation insurance premiums.
- The Treasurer shall oversee any investments authorized by the Corporation and shall include their status in the Annual Statement of Financial Condition.

Adding the following article (bumping the existing Articles 7 & 8 to Articles 8 & 9)

#### ARTICLE VII. REIMBURSEMENTS, GIFTS, AND LOANS OF EQUIPMENT

#### **SECTION 1. REIMBURSEMENT**

Members of the Corporation making purchases for the Corporation without the prior approval of the Board of Directors or a vote of the membership may not be reimbursed for their purchase.

Members of the Corporation making unapproved purchases may be reimbursed by the Corporation (whether in part or in whole) as determined by a vote of the membership.

#### SECTION 2. GIFTS

Gifts of Equipment

- Gifts of Equipment may be accepted by the Corporation with the simple-majority approval of the Membership.
- Any Gift of Equipment will include the information necessary for the Equipment to be insured by the Corporation's policies before being considered by the Membership for acceptance.
- Accepted Equipment shall become the property of the Mount Vernon Amateur Radio Club and be placed in the custody of the Equipment Trustee.
- Such Gifts may be presented to any Officer or Director, and are to be added to the General Fund of the Corporation.

Gifts of Money to the General Fund

• Gifts for the General Fund can be accepted by the Corporation.

Gifts of Money intended for the Purchase of Specific Equipment for the Corporation

- Gifts of Money for Purchase of Specific Equipment for the Corporation may be accepted by the Corporation.
- Such Gifts will be added to the General Fund and an accounting of these Gifts will be maintained by the Treasurer and included in any monthly report as well as the Annual Statement of Financial Condition
- When the purchase of the Specific Equipment is made, the funds gifted to the Corporation for this purchase shall be used first, with the Corporation providing the balance of any funds required.
- If the funds gifted to the Corporation are in excess of the amount required for the purchase, a vote of the Membership shall determine how these excess funds are to be used. This may include the excess funds being refunded to the Gifter(s).
- If the purchase of the Specific Equipment is not made, for whatever reason, the funds gifted to the Corporation for this purpose shall be returned to the Gifter(s)

Receipts for any Gift may be issued by either the Treasurer or the Equipment Trustee (as appropriate for the Gift received) if requested by the Gifter.

#### **SECTION 3. LOANS OF EQUIPMENT**

The Corporation may accept a Loan of Equipment with a simple-majority vote of the Membership.

- The Membership will be made aware of the Equipment to be loaned as well as the circumstances under which the Loaner may withdraw the Equipment prior to voting on its acceptance.
- The Corporation will expect at least a 30-day notice of the Loaned Equipment being withdrawn by the Loaner.
- The Corporation may return the Loaned Equipment to the Loaner at any time at the recommendation of the Equipment Trustee, or by vote of the Membership.
- Any insurance for damage to the Loaned Equipment is the responsibility of the Loaner.

#### **SECTION 4. PRIOR GIFTS**

• Any Gifts and/or Loans of Equipment made to or received and accepted by the Corporation prior to the Adoption of these By-Laws are not affected by these By-Laws.



#### **Frank's Hamvention Adventure**





Hamvention Camping



Hamvention-Saturday morning after the storm





Four Days In May Symposium and Lunch

Photos by Frank, KC8EVS

"Every man has his secret sorrows which the world knows not; and often times we call a man cold when he is only sad." Henry Wadsworth Longfellow

#### **Field Day**

This is the ad Evan, KF8APC placed in the Apple Valley <u>Cider Press</u> to let residents know what we are doing and invite them to come out and see what ARRL Field Day is all about.

# **EVENTS**

The Mount Vernon Amateur Radio Club will be participating in the ARRL Ham Radio Field Day at Floral Valley (outside under a canopy near the pickleball courts) from 2pm Saturday June 28th until 2pm Sunday June 29th. Field Day participants establish temporary Ham Radio stations and demonstrate the ability to establish reliable communications under conditions that simulate when Ham Radio is called into public service during an emergency. All are welcome to stop by and see how the club uses Ham Radio to talk with radio stations around the country and across international borders.



**NOTE**: There was an Ohio Section wide Zoom meeting in May discussing resources for Field Day 2025. Here is a link to the presentation. <u>Field Day</u>

#### **Radio Activity**

#### Don, W8PEN



This is June. June equals Field Day!

However, before I get to Field Day, there are several items that I need to report on.

#### **K8EEN Remote Base**

For the time being, I have stopped working on the remote base station. After working very nicely for several weeks, I suddenly started having issues with the audio portion of the software.

Another reason for putting this project on hold was that I didn't want to tie up the club stations Icom IC-7300 as the remote base transceiver. Although honestly, the software

(WFView) was designed by its author with the IC-7300 in mind. The graphical display works beautify with the IC-7300, right down to the waterfall. When not using an IC-7300 as the remote transceiver, the waterfall will likely not work.

WFView is advertised as remote software for Icom and Kenwood radios. One problem. The Programming for Kenwood radios is in its early stages, with lots of bugs. I could not get the club's Kenwood TS-570D to work properly with the software. It has been a month or so since I checked the software, so a revisit to the site is in order.

When I find the programming has advanced far enough to be usable on the Kenwood, I will reboot the project.

That has always been the goal here. Use the Kenwood TS-570D as the remote transceiver.

#### EchoLink

Finally! The EchoLink has been running perfectly for about a month now. I have had a devil of a time with Echo-Link.

It all started when I decided to put the EchoLink station in the club room. For whatever reason, I would get Echo-Link working at home without any issues. However, when I took everything out to the club, the system would not perform as expected.

This time around, I switched to a different computer. Switching computers appears to have solved some ongoing issues. The EchoLink is still at my home, but I am about ready to give it another try at the club. Probably do that before meeting night.

#### Field Day 2025

Finally, we come to Field Day 2025.

Once again, Club Field Day will be held at the Floral Valley Community Center, 850 Crestrose Dr, Howard, Ohio (Apple Valley).

For our club, this year's Field Day will begin Saturday, June 28, starting at 1800 UTC (2:00PM EDT) and ending Sunday, June 29, at 1800 (2:00PM EDT).

As usual, the club will set up antennas on Friday June 28 starting around 2:00PM.

Field Day will be run a little differently this year, although things could change a bit after our June meeting when members have a chance to voice their opinions or desires.

This year, instead of operating 4A as we have for several years, we are eliminating one transmitter and going to go 3A. This means we can only have three transmitters running at one time.

There are several reasons for reducing the number of transmitters. Primarily, member participation in Field Day has been down for several years now. Ideally, we would like to keep all transmitters operating for most of the Field Day period. To do so, we need operators willing to stay for the whole period, or at least some operators willing to come in after midnight to relieve operators who have been going at it all day Saturday. Recently we have been shutting stations down sometime after midnight to get some sleep.

Another reason is that I no longer have a helper running the CW station. Loren, W5HIO, my sidekick for several years now, passed away in 2023. No tears. Loren had a good run and was 86 years old.

I no longer have the desire to run a CW station by myself for 24 hours. I'm getting old too, you know. So, I have decided not to set up a dedicated CW station. In fact, I have sold my camper that has been the base of CW operations for the last five years.

What I plan to do is have one or both SSB stations set up to also run CW. Then, if available, I will run CW on one of those stations. I also have a little desire to do some SSB operating myself. So that will limit CW a bit too.

Unfortunately, this decision results in two things happening. Since CW contacts count as two points per contact and SSB contacts count as one, and we will obviously make fewer CW contacts, the club's total score will be down even if we make more contacts than in past years. Also, the friendly rivalry of SSB VS CW groups will be over.

In the past, the club would set up a GOTA station, which acted as a free station that did not count against the total transmitter count. Very limited success with it. We may set up a GOTA station this year and really try to use it. GOTA stands for **Get On The Air** and this station is set aside for newly licensed hams, non-hams under supervision of a control operator, or hams that do not usually contest. Experienced contesters are not allowed to use this station (other than being the control operator).

We will have to discuss the Club Picnic during the June meeting. Do we want to do Pizza again? We have done that in the last two years. Or something else?

With the above in mind, here is the set up that I imagine:

Station One: Clubs IC-7300 and multiband antenna. This station will run SSB and CW.

Station Two: Equipment supplied by Roger, KE8ICI, as in past Field Days. Perhaps we can have this one set up for SSB and CW too.

Station Three: Digital station supplied by Scott, W8HK

GOTA Station: Clubs Yaesu FT-857.

I may set up the clubs TS-570D alongside station one or two and use it for the CW operations.

Like I say, this is all subject to change depending on what is decided at the June meeting. Members who want to participate in Field Day should try to make this meeting.

In place of my camper I bought one of those inflatable tents. I will be staying overnight Friday if possible.

See you all at the June meeting.

#### **ARES**

#### Tony, KE800E

Winlink training and participation is a slow go so far, the object is to train with Winlink and hopefully get some of us participating in monthly emcomm exercises.

Emcomm can play a vital role in any disaster situation. If you can use Winlink look up Winlink emcomm they do an exercise every month on a Thursday.

I participated in 2 LEPC meetings this month, more about LEPC at the meeting. Reminder, make sure your HTs are always charged and ready. Summer simplex net to be announced soon.



#### **WSPR Experiments**

#### Larry, AC8YE

#### What is WSPR?

WSPR (pronounced "wisper") is an acronym for *Weak Signal Propagation Reporter*, a protocol Dr. Joe Taylor K1JT developed about fifteen years ago. WSPR is designed for sending and receiving low-power transmissions to test propagation paths on the LF, MF, HF, VHF and UHF bands. A network of listening stations around the world reports signal strengths to websites like WSPRnet (<a href="https://www.wsprnet.org">https://www.wsprnet.org</a>), so it's very easy to see where and how well a band and path is working.

Wikipedia has a good info page about the WSPR protocol here.

#### My interest in WSPR.

I've been interested in packet radio since the 1980s. I attended Hamvention multiple years, primarily because of the many vendors selling PC hardware and accessories during the 80's and 90's, but also to review the latest amateur radio offering from the various manufacturers. I always visited the TAPR (Tucson Area Packet Radio) booth to see their latest offering. I always wanted to get re-licensed, but constant business travel didn't allow me to pursue that goal until I retired at the end of December 2016.

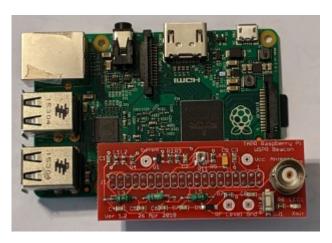
During the COVID shutdown I was fighting boredom by spending time searching amateur radio web sites, and eventually visited the TAPR site in January 2023. They were featuring their WSPR Raspberry Pi "hat" transmitter for \$32, which caught my interest. I decided to give one a try, so I bought the 30m version, since 30m is my favorite HF band.

#### The TAPR hardware.

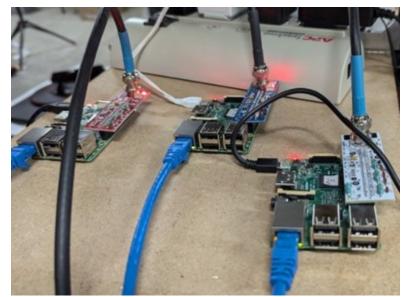
Copied from <a href="https://tapr.org/product/wspr/">https://tapr.org/product/wspr/</a>

\$30.00 —TAPR offers two versions of a WSPR "hat" to use with Raspberry Pi single-board computers:

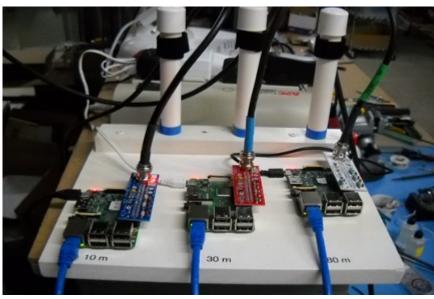
- 1. WWoT (WSPR With out Tears) board: 30m and 40m fully assembled and tested (these are being phased out and replaced with the Universal WSPR board
- 2. UW board: 160m, 80m, 20m, 15m/17m, 10m/12m partial kit user has to solder low pass filter components (supplied)



My first TAPR hat was a WWoT 30m that I mounted on a Raspberry Pi 3 connected to a 30m dipole in my attic. Based on the results over the next ten months, I added an 80m UW that required soldering the filter capacitors and inductors before connecting to my OCF 80m dipole, soon followed by a 10m UW feeding a 10m dipole. All three are configured 100 mW (20 dBm) output, rather than the default 200 mW (23 dBm)., after determining that 100 mW worked just as well and reduced the load on the Pi PS. Several posts on TAPR chat claimed these didn't need a resonant antenna but would work just fine with a short random wire. Since I had dipoles, I didn't experiment with random wires.



Initial deployment on the end of a workbench.



Mounted on base with PVC coax supports.

**My Distance Results** 

# 30m for distance:

Timestamp	Call	MHz	SNR	Drift	Grid	Pwr	Reporter	RGrid	km
2025-05-26 01:04	AC8YE	10.140305	-28	0	EN80	0.1	VK6PK	OF88ee	18029
2025-05-25 23:04	AC8YE	10.140172	-25	0	EN80	0.1	VK5ARG	PF95ht	16301
2025-05-25 07:54	AC8YE	10.140173	-23	0	EN80	0.1	VK4BAP	QG49la	14682
2025-05-25 22:54	AC8YE	10.140303	-25	0	EN80	0.1	V51RS	JG87ql	12461
2025-05-26 00:04	AC8YE	10.140246	-18	0	EN80	0.1	ZD7GB	IH74da	10125
2025-05-25 03:54	AC8YE	10.140297	-28	-1	EN80	0.1	I0UVN	JN61nl	7601
2025-05-25 03:54	AC8YE	10.140298	-30	0	EN80	0.1	IZ6QQTRX	JN63	7462

Note: 1 km = 0.621371 mile

#### 80m for distance:

Timestamp	Call	MHz	SNR	Drift	Grid	Pwr	Reporter	RGrid	km
2025-05-27 05:24	AC8YE	3.570159	-17	0	EN80	0.1	W1BW	FN54nh	1237
2025-05-26 08:32	AC8YE	3.594054	-26	0	EN80	0.1	KJ5HY	FN34fh	888

# 10m for distance:

Timestamp	Call	MHz	SNR	Drift	Grid	Pwr	Reporter	RGrid	km
2025-05-25 00:26	AC8YE	28.126092	-20	0	EN80	0.1	WA2TP	FN30lu	844
2025-05-25 00:36	AC8YE	28.126107	-25	0	EN80	0.1	K6RFT	EM47bg	843
2025-05-25 00:26	AC8YE	28.126092	-15	-2	EN80	0.1	N2YCH	FN31jg	831
2025-05-25 00:26	AC8YE	28.126092	-15	-2	EN80	0.1	W2KGY	FN31aj	769

# **My Sequential Results**

# 30m timestamp, sequential (band open/closed, etc):

Timestamp	Call	MHz	SNR	Drift	Grid	Pwr	Reporter	RGrid	km
2025-05-29 23:32	AC8YE	3.594085	-25	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 23:32	AC8YE	3.594091	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 23:32	AC8YE	3.594085	-27	0	EN80	0.1	KD2OM	FN12gx	540
2025-05-29 23:22	AC8YE	3.594031	-25	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 23:22	AC8YE	3.594037	-27	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 23:12	AC8YE	3.594123	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 23:12	AC8YE	3.594117	-25	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 20:24	AC8YE	3.570188	-25	0	EN80	0.1	W1BW	FN54nh	1237
2025-05-29 12:52	AC8YE	3.594093	-29	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 12:52	AC8YE	3.594096	-31	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 12:22	AC8YE	3.594142	-26	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 12:22	AC8YE	3.594144	-27	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 12:22	AC8YE	3.594142	-29	0	EN80	0.1	N8GA	EN80ee	59
2025-05-29 12:12	AC8YE	3.594124	-32	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 12:12	AC8YE	3.594121	-31	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 12:02	AC8YE	3.594099	-24	0	EN80	0.1	N8GA	EN80ee	59
2025-05-29 12:02	AC8YE	3.594101	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 12:02	AC8YE	3.594098	-26	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 11:52	AC8YE	3.594098	-25	0	EN80	0.1	N8GA	EN80ee	59
2025-05-29 11:42	AC8YE	3.594057	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 11:42	AC8YE	3.594055	-26	0	EN80	0.1	N8GA	EN80ee	59
2025-05-29 11:42	AC8YE	3.594054	-25	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 11:32	AC8YE	3.594055	-25	0	EN80	0.1	N8GA	EN80ee	59
2025-05-29 11:32	AC8YE	3.594057	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 11:32	AC8YE	3.594055	-23	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 11:22	AC8YE	3.594052	-23	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 11:22	AC8YE	3.594049	-22	0	EN80	0.1	WA2N	EM85II	556
2025-05-29 11:22	AC8YE	3.594050	-27	0	EN80	0.1	N8GA	EN80ee	59

# 80m timestamp, sequential (band open/closed, etc):

Timesetemen	Call	NALL-			Cuid			DC uid	lene
Timestamp	Call	MHz	SNR	Drift	Grid	Pwr	Reporter	RGrid	km
2025-05-29 23:32	AC8YE	3.594085	-25	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 23:32	AC8YE	3.594091	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 23:32	AC8YE	3.594085	-27	0	EN80	0.1	KD2OM	FN12gx	540
2025-05-29 23:22	AC8YE	3.594031	-25	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 23:22	AC8YE	3.594037	-27	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 23:12	AC8YE	3.594123	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 23:12	AC8YE	3.594117	-25	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 20:24	AC8YE	3.570188	-25	0	EN80	0.1	W1BW	FN54nh	1237
2025-05-29 12:52	AC8YE	3.594093	-29	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 12:52	AC8YE	3.594096	-31	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 12:22	AC8YE	3.594142	-26	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 12:22	AC8YE	3.594144	-27	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 12:22	AC8YE	3.594142	-29	0	EN80	0.1	N8GA	EN80ee	59
2025-05-29 12:12	AC8YE	3.594124	-32	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 12:12	AC8YE	3.594121	-31	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 12:02	AC8YE	3.594099	-24	0	EN80	0.1	N8GA	EN80ee	59
2025-05-29 12:02	AC8YE	3.594101	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 12:02	AC8YE	3.594098	-26	0	EN80	0.1	K1RA-PI	FM18cr	490
2025-05-29 11:52	AC8YE	3.594098	-25	0	EN80	0.1	N8GA	EN80ee	59
2025-05-29 11:42	AC8YE	3.594057	-26	0	EN80	0.1	K1RA	FM18cr	490
2025-05-29 11:42	AC8YE	3.594055	-26	0	EN80	0.1	N8GA	EN80ee	59

# 10m timestamp, sequential (band open/closed, etc):

Timestamp	Call	MHz	SNR	Drift	Grid	Pwr	Reporter	RGrid	km
2025-05-25 00:36	AC8YE	28.126107	-25	0	EN80	0.1	K6RFT	EM47bg	843
2025-05-25 00:36	AC8YE	28.126108	-9	0	EN80	0.1	WA2TP	FN30lu	844
2025-05-25 00:26	AC8YE	28.126092	-15	-2	EN80	0.1	W2KGY	FN31aj	769
2025-05-25 00:26	AC8YE	28.126092	-26	-2	EN80	0.1	N2YCH-1	FN31jg	831
2025-05-25 00:26	AC8YE	28.126092	-15	-2	EN80	0.1	N2YCH	FN31jg	831
2025-05-25 00:26	AC8YE	28.126092	-20	0	EN80	0.1	WA2TP	FN30lu	844

#### Links

TAPR <a href="https://tapr.org/product/wspr/">https://tapr.org/product/wspr/</a>

WSPR Coding Process: <a href="http://www.g4jnt.com/Coding/WSPR">http://www.g4jnt.com/Coding/WSPR</a> Coding Process.pdf

WSPR Live: <a href="https://wspr.live/">https://wspr.live/</a>

#### **Miscellaneous Rambling**

Terry, KI8N



Last month I stated I had purchased an Anytone DMR radio, well it only takes one missed detail to destroy an entire code plug which I most certainly did!

I found a YouTube video which described how to enable the 1.25-meter band on the 878

radio. I was mostly following the video presenters instructions until he said now import and reload your list file. What list file? I didn't export and save a list file. Seems I missed the presenter say export the list file. Good bye all settings, code plug, and radio configuration. Hello rebuilding all of the above! Considered it code plug practice and eventually I got everything finished and the radio once again operational. Moral, pay attention to all details!

This month through a free download opportunity, I received a pdf copy of a book named "The Essential Baofeng Radio Guide". I can hear you snickering out there, yeah Baofeng, what a waste of time. However, I feel the book is also a good guide to handheld radios in general. Such topics as:

- Technical Aspects Decoded
- Licensing and Legal Considerations
- Frequency Management and Ethics
- Configuration for Survivalists
- Emergency Communications
- Long Distance Communication Skills

I bring this up because if anyone else is interested I would happily share this 149 page pdf book with club members. If you want a copy let me know and I will get a soft copy to you. I will have it on a thumb drive at the meeting and if you bring a drive, we can copy it for you.

Next topic, I was using my Elecraft KX3 in a POTA activation and found the "B" VFO knob was not doing anything. The "B" knob is also needed to adjust menu settings and without this working, nothing can be changed except the main VFO frequency. My trouble-shooting resulted in no fixes so I contacted Elecraft and sent it back for repair. Turns out the "B" rotary encoder had failed which they replaced and I will have it back the first week of June. Elecraft is quick about trouble-

shooting, repairing and sending back radios. Of course none of this free or cheap!

I came across a saying that I found enlightening; "Don't put it down, put it away." author unknown. These seven words struck me as being very powerful. I got to thinking about this and realized I am guilty of putting things down, making a mess, and not being able to find objects when I need them. So going forward, I am resolving to put things back where they go; A place for everything and everything in its place. If this is something I can do, then hopefully messes in the shack, building, and tool benches will not become difficult to work with. Piles of stuff, such as the reference material used in the SWR article, shown in the photo below, will be lightened.



I will have all this material back in the bookcase when this newsletter is finally put to bed.

It was good to see everyone that participated in the club room cleanup on the 21st. We made a fantastic effort to get rid of unneeded stuff and general old junk. Take a look at the June meeting to see how organized the room is now. Now lets see if we can keep it this way!

Lastly, I have about 250 feet of rotator cable that I am not using. It has a few splices in it where it was accidentally cut when aerating the lawn but was working when I replaced the rotator and control cable. If you would like some or all of it let me know and I will donate it to you. Note: this rotator cable was originally purchase at DXE and had been buried in my yard.

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"!

"The reason I talk to myself is because I'm the only one whose answers I accept." George Carlin

#### **Knox County Repeaters**

#### **K8EEN**

146.790 PI 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

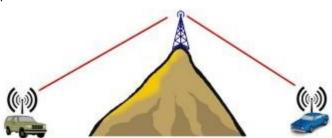
#### Timeslot2

Local 2 - Local Traffic Only

3139 - Ohio Statewide 10-minute limit

31391 - Northeast Ohio

31398 - EMCOMM



Repeaterbook.com has listings of repeaters across North America.



# **Contact Us**

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"Insanity is doing the same thing, over and over again, but expecting different results." Narcotics Anonymous

#### Final Takeaway—SWR

#### What is SWR and why is it SO important?

"SWR" means standing wave ratio. An "SWR" meter or antenna analyzer is used to measure how well the transmit power signal emitted from a transceiver (radio) is traveling through and matched to the antenna system into the atmosphere. SWR is also referred to as VSWR (Voltage Standing Wave Ratio).

Checking and setting the antenna SWR is critical to the overall performance of a transceiver.

During installation of a ham radio antenna, the SWR must be checked/measured to ensure that the output power coming from the radio is traveling through the antenna system correctly.

A poor performing antenna system significantly reduces (transmit & receive) range and can damage the transceiver. When the signal does not travel through the antenna system correctly, the transmitted power is reflected back into the transceiver which may cause reduced range and potential damage to the radio's internal parts.

An "SWR" (standing wave) meter or antenna analyzer is used in conjunction with a short coax cable between the radio and antenna system to perform the test. You can also use your radio if it has a built-in SWR meter. Please see the radio owner's manual for instructions.

A poor reading on the "SWR" meter will provide you with your SWR readings which can indicate that there is a problem with installation of your radio or antenna system. When the "SWR" test is performed, the meter will indicate if your antenna is working properly and provide a reading so the antenna can be adjusted for optimum performance. Poor readings can indicate if there is a poor or bad (radio/antenna) ground, improperly set antenna, poor antenna location or coax obstruction or short.

If you get a high SWR test reading on the "SWR" meter/analyzer, this indicates that there is a problem with the antenna system or a bad radio ground that requires correcting or adjusting prior to using the radio.





Use a "SWR" meter or antenna analyzer that will test the frequency range your radio operates in. Example: an HF radio operates on 1.8 - 54 MHz, while a VHF radio operates on 144 - 148 MHz and a UHF radio operates on 420 – 450 MHz. Checking and setting the "SWR" on all radio applications is an important step in obtaining the best performance possible.

When testing and adjusting the antenna, make sure to check "SWR" on the lowest frequency and the highest frequency the antenna will be used for. By adjusting and setting the "SWR" on the entire bandwidth (high and low frequencies), it will ensure optimum performance on all frequency selections. The radio will receive and transmit well with a good "SWR" reading of 2.5 or less across all channels. The lower the "SWR" reading the better your transceiver and antenna will perform.

"Two things are infinite: the universe and human stupidity; and I am not sure about the universe." Albert Einstein

#### **SWR Reading Range Explanations**

**SWR 1.0-1.5**: The ideal range! If your SWR is under 1.5, you're in great shape. If you're at 1.5 and really, really want to drop down to closer to 1 it's likely possible to do with additional tuning, different equipment or a different mounting location. But the drop from 1.5 to 1.0 won't make a substantial increase in performance. It's not nearly as noticeable as, say, going from 2.0 down to 1.5.

**SWR 1.5 - 1.9:** There's room for improvement, but SWR in this range should still provide adequate performance. Occasionally, due to installations or vehicle variables, it's impossible to get SWR lower than this. You should try to get it lower, but performance should still be acceptable in this range. If you've tuned the antenna, SWR in this range is likely an issue of a less-than-ideal mounting location and/or an antenna that isn't ideal for the mounting location.

**SWR 2.0 - 2.4:** While not good, this won't damage your radio with casual use. However, you should try to improve it if you can. SWR in this range is usually caused by a poor antenna mounting location and/or a poor choice of equipment. To troubleshoot, you'll likely need to move the mounting location and/or use a more suitable antenna. It's by no means a good tuning job but will function if you've exhausted all other troubleshooting possibilities.

**SWR 2.5 - 2.9:** Performance in this range will noticeably decrease, and you could damage your radio if you transmit frequently and for extended periods. You are advised not to operate your radio in this range. SWR in this range is usually caused by a poor mounting location and/or a poor choice of equipment for your specific usage. To troubleshoot, you'll likely need to move the mounting location and/or use a more suitable antenna.

**SWR 3.0+:** Performance will be severely affected, and it is possible to damage your radio with extended transmission use. You should not transmit with your antenna at SWR levels above 3.0. If your SWR needle swings off the chart when getting your 3.0+ readings, you almost certainly have a major installation problem. This is almost always the result of a poor ground or incorrectly assembled antenna, but on rare occasions can indicate a faulty coax, antenna, or incorrectly attached SWR meter/analyzer.

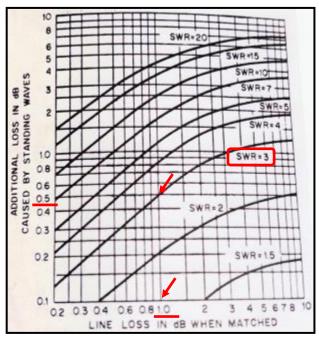
**NOTE**: If your SWR reading is below 1, you have a problem. You might have a bad SWR meter/analyzer, something wrong with your antenna or antenna connection, or possibly have a damaged or defective radio.

If the SWR reading on the lowest frequency is higher than the reading on the highest frequency, your antenna system is too short, and you need to lengthen your antenna.

Alternatively, if the SWR reading on the highest frequency is higher than the lowest frequency, your antenna system is too long, and you need to shorten your antenna system.

IMPORTANT NOTE: Radio damage will only occur when you're TRANSMITTING from an antenna with high SWR readings. Leaving the radio on to receive signals poses no risk to your radio.

#### The Effect of SWR On Line Loss<sup>1</sup>



Using the figure, the horizontal axis is the attenuation, or line loss in decibels, of the feed line when perfectly matched. The vertical axis gives additional loss/attenuation caused by SWR.

For Example, if the loss in a certain feed line is 1 dB when perfectly matched, a VSWR if 3.0 on that same line will cause an additional loss of approximately 0.5 dB. The total loss on the poorly matched line is therefore 1.0 + 0.5 = 1.5 dB.

#### SWR Myths<sup>1</sup>

#1 – A high SWR does not in itself cause RFI (Radio Frequency Interference) or TVI (Television Interference). While it is true that an antenna located close to such devices can cause overload and interference, the SWR on the feed line to the antenna has nothing to do with it, providing of course that the tuner, feed line, or connectors are not arcing. The antenna is merely doing its job, which is to radiate. The transmission line is doing its job, which is to convey power from the transmitter to the radiator.



#2 – High SWR will cause excessive radiation from a transmission line. SWR has nothing to do with excessive radiation from a line. Imbalances in feed lines cause radiation, but such imbalances are not related to SWR. An asymmetric arrangement of a transmission line and antenna can result in current being induced on the transmission line — on the shield of coax or as an imbalance of currents in an open-wire line. This current will radiate just as if it was on an antenna. A choke balun is used on coaxial feed lines to reduce these currents.

#3 – You can't "get out" if the SWR on your transmission line is higher than 1.5:1, or 2:1, or some other such arbitrary figure. On the HF bands, if you use reasonable lengths of good coaxial cable, the truth is that you need not be overly concerned if the SWR at the load is kept below 6:1 The fact is that if you can load up your transmitter without any arcing inside, or if you use a good tuner to make sure your transmitter is operating into its rated load resistance, you can enjoy a very effective station.

#### Reference

#1 - The ARRL Handbook For Radio Communications, 2019, Volume 4, Page 20.19

#### **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 evenings, 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.

#### **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

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Director Michael, KE8HGE



Director Scott, N8SY



Director

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