

June 2022
2022 Edition 6



Mount Vernon Amateur Radio Club

Club Meeting

MVARC meeting is held on the 2nd Monday of each month at 7:00 pm. The next club meeting is June 13, 2022.

Meeting Location:

Academy Building
790 Fairgrounds Road

Visit us on Facebook:

[Mount Vernon Amateur Radio Club](#)

Visit our Webpage:

<https://MVARC.net>

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MVARC Repeaters

K8EEN VHF Repeater
146.790 MHz
- 600KHz / PL = 71.9 Hz
K8EEN-R Echolink Node:
809800
K8EEN UHF Repeater
444.600 MHz
+5 MHz / PL = 71.9 Hz

Contact Us

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MVARC

President
Frank Counts, KC8EVS

Vice President
Barry Butz, N8PPF

Secretary
Bill Stroud, KD8WHQ

Treasurer
Terry Windsor, KI8N

Club Call Trustee
Don Russell, W8PEN

Equipment Trustee
Barry Butz, N8PPF

Directors
Michael Jacobs, KE8HGE
Arlin Bradford, KD8EVR
Roger Gorrell, KE8ICI
Steve Harvey, N8RLW
Scott Yonally, N8SY

Newsletter Editors
Frank Counts, KC8EVS
Terry Windsor, KI8N

President's View

Frank Counts
KC8EVS



Good morning, well it is morning when I'm writing this or at least when I start writing. As usual it is busy here on our farm, never ends, grass keeps growing along with weeds. I attended Hamvention this year and had a good time. I was

there for most of it. I did not attend Sunday, just stayed in camp and dried things out and packed up. This was the first Hamvention in two years and because of that it was well attended, and it rained. I have heard reports that the attendance was somewhere in the 31,000 range which is great. It did not seem that crowded but I know they opened a new building and rearranged some of the display areas and that has seemed to make a big difference.

One big thing that stuck out to me was that Kenwood wasn't there. So it looks like they are getting out of the amateur radio business, which is unfortunate. Other than that, there wasn't anything big and exciting on the amateur market. If you are into the flea market aspect of Hamvention, they have improved that area, it is well drained, and the mud is at a minimum. There was lots of stuff there to sort through, wonder as to what its intended purpose was, and if you could go home without of course at a good price. Overall, it was a good time and I look forward to next year.

Looking forward, we are into June and that is Field Day. It is the last full weekend in June (25-26 this year). We will start setting up on Friday the 24th at 2p. We will be at the same location as we have been for the last few years at Apple Valley. Since our meeting on the 13th is the last meeting prior to Field Day there will be a lot of discussion as to how things will be set up etc. So come to the meeting to be informed.

“We will make final plans for Field Day during the June meeting. If you want your two cents worth, please come to the meeting.” Don (W8PEN)

Speaking of the June meeting, after the meeting we will have a show and tell so if you have something that you have been working on, a project, a special piece of equipment/device, antenna build, go box bring it in. I for one would be interested in seeing what you have been working on.

Well, that is all from me this month, look forward to seeing you on the 13th.

March Meeting Minutes

Bill Stroud
KD8WHQ



The May 2022 meeting of the Mt. Vernon ARC was called to order at 7:03 pm by President Frank Counts (KC8EVS). There were 13 members in

attendance,

Frank Counts (KC8EVS)
Tom Evans (HD8HSA)
Barry Butz (N8PPF)
Roger Gorrell (KE8ICI)
Larry Howell (AC8YE)
Michael Jacobs (KC8HGE)
Emery Bennett (W8TW)
Don Bunner (KB8QPO)
Jon Gray (K8JFG)
Don Russell (W8PEN)
Ralph Bower (KC8REB)
Bill Stroud (KD8WHQ)
Steven Harvey (N8RLW)

The minutes for the April Meeting were presented and there were no changes or objections, and the minutes were approved.

The Treasurer's report was presented with no

objections or changes and was approved.

ARES

Terry (KI8N) signed the MOU document with the EMA and a copy is on the website.

Four items in the newsletter were discussed from a meeting Terry attended with the Ohio ARES group. There was a discussion on the following:

1. Amateurs participating in local and traffic nets.
2. Awareness of the power grid and vulnerabilities.
3. Nuclear attack communication planning and individual readiness.
4. Upcoming 2024 Solar Eclipse planning

Repeater

Both repeaters are working fine. The new antenna needs installed and date will be set later this month.

Mesh

The Mesh network is up and running. Installing a node in Fredericktown and Centerburg are on hold.

Old Business

NVIS – There were two locations this year and around 20 contacts were made.

Gravel Grinder – There were over 500 riders this year. The club had 3 locations setup with personnel and radios. A suggestion was next year to have 4 locations to improve communication.

Frank (KC8EVS) is working with Brain Ball, the Mt. Vernon City Engineer, to get the agreements to have equipment on city property signed.

Michael Jacobs (KE8HGE) asked if Arlin (KD8EVR) was going to be the Net Control on the 4th Sunday. Frank was going to check with him.

New Business

Field Day June 25 – 26. The location will be Apple Valley. We will discuss more at next months meeting.

A motion to adjourn was made by Barry Butz (N8PPF) and 2nd by Tom Evans (KD8HSA). The meeting was adjourned at 7:36 pm

What Does this Schematic Show?

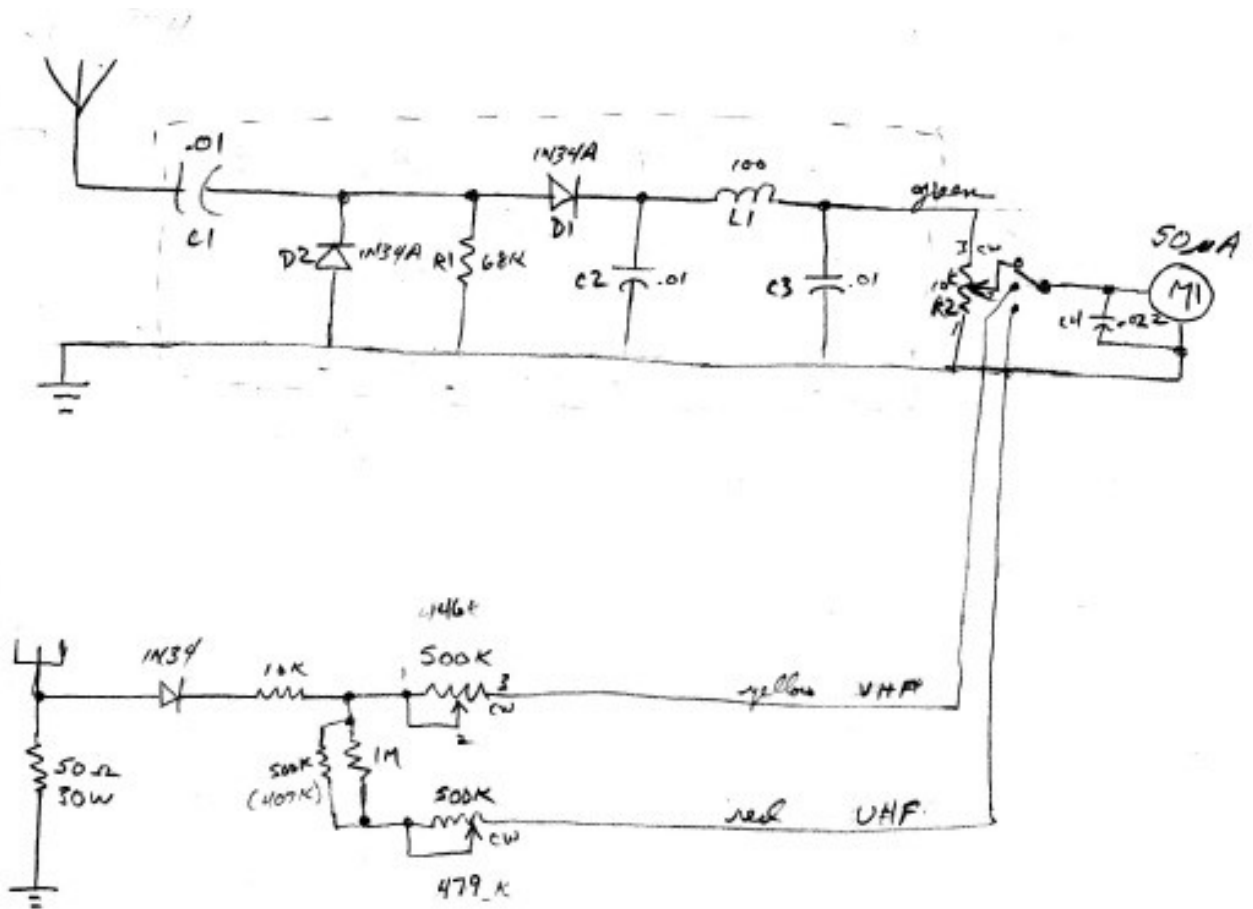
Barry Butz
N8PPF



WHAT DOES THIS SCHEMATIC SHOW?

FIND OUT AT SHOW-AND-TELL NIGHT AT OUR JUNE 13 MEETING.

BRING YOUR OWN ITEM TO SHOW.

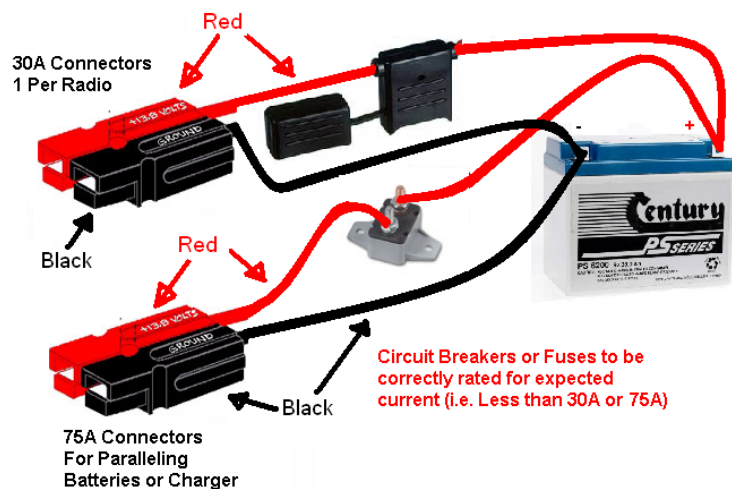
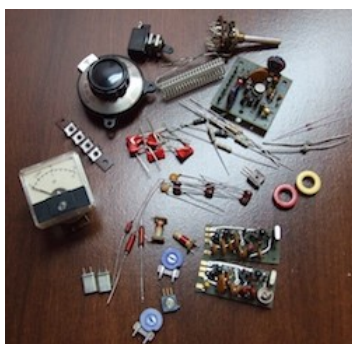
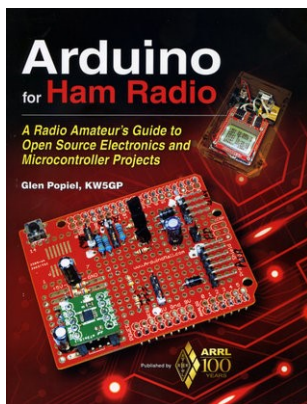


June Meeting Program Show and Tell



Are you working on anything amateur radio related and would like to share it with the group?

Bring your project, Idea, working model, or recent discovery and show it at the club meeting. We all have an interest in what works for others and might be useful in our shacks or mobile operations.



ARES

Terry Windsor KI8N



Thanks to Steven (N8RLW) and Roger (KE8ICI) for stepping up and volunteering to provide communications at points along the bicycle and marathon races. Steven worked the Baitin' the Shark gravel race on May 14 and both Steven and Roger put in over eight hours for the Mohican Marathon on June 4. Roger reported everything went well and several people commented on the MVARC radio sign. This is exactly the positive response we need to let the community know of our capabilities.

We had our first renewal ARES meeting June 4 with six MVARC personnel in attendance. We discussed the following:

- NIMS requirements including Skywarn
- Signing up for Knox County WENS
- ICS Forms
- Need for FLDIGI training sending and receiving ICS messages
- Need for Winlink training and practice
- Facility issues
- Actions related to EMA and 911 center access.

One item that came up is a need for our local ARES group to work with Mark Maxwell, Knox County EMA Director to checkout the radios and antennas located at the EMA office. It appears the HF fan dipole is in need of repair.

Another item is working with the 911 center director to determine if the 2 meter radio was ever installed and checked out. This month I plan to follow up on these two items and will get back to everyone with scheduling ideas to work with these areas.

A major concern we discussed is limited access to activate our local control station when needed, even for MVARC drills. There is only one key to the Academy building and if the key holder is unavailable we simply cannot get in to operate the radios that are planned to be installed in the MVARC room. This was discussed and needs more communication with the building owner. Frank (KC8EVS) was going to follow up on determining access issues.

Limited access is also an issue with getting into the EOC and 911 areas. I will discuss with Mark Maxwell scheduling access to the radios on a periodic basis for operational checkout.

Finally, I am planning a meeting in July to schedule an exercise; tabletop or communications, to come up with how we react and start getting ready in case we are needed in an actual event. Why July you ask? Since Field Day is this month MVARC is focused on this event and participation in an ARES exercise would distract from the necessary planning and preparation. We just have to pray there are no actual emergencies now or in the future.

ARES District 7 had their quarterly meeting in May to discuss items and concerns related to the district. It was held via Zoom and Bill Stroud (KD8WHQ) attended. The major topic of discussion was;

“... we are into June and that is Field Day. It is the last full weekend it June (25-26 this year). We will start setting up on Friday the 24th at 2p..” Frank (KC8EVS)

“All district clubs have seen a decline in attendance due to COVID, and how to increase attendance and get new hams interested.” Other topics were;

- Does your county have a CERT team and what is our relationship
- Is anyone cross trained on Marks radios
- New licensees— what do they do after getting their license
- Operation of county weather nets

As stated I will be sending out a meeting notice for an ARES exercise scheduled in July later this month. If you have any ideas or want to know more please let me know.



Miscellaneous Rambling

Terry Windsor
K18N



I attended Hamvention on Friday, looked at several things and attended a couple of conferences. Of particular note was I met a couple of

people I have talked to either via conference call or on the radio and got to say “Hi” in person. I was happy to get to meet K1BG, Bruce in person as he was the CWOPS teach-

er when I took the CW course in 2017. I also met Scott, KK4ECR who I work with as a Gigaparts chat person.



There did seem to be quite a few people at Hamvention as the parking lots filled up quickly. But, there were several empty booths in the buildings and a noticeable absence was Kenwood.

Alas, all I purchased was a \$4.00 connector adapter to go from mini UHF male to SO239. I didn't even know mini UHF existed until I found an antenna my father-in-law had in his garage. Now I can put it to use for portable operations since it will connect to a PL259.



You will notice that the System Fusion article Steven Harvey (N8RLW) wrote last month is still in this month's newsletter. Since the 444.600 MHz repeater has Wires X I thought one more month to give everyone a chance to read it and determine if digital voice is your thing.

Until next month, “Ham It Up!”

Radio Active

Don Russell

W8PEN



I will open this month's column with some good news. If all goes as planned, the new 2 meter repeater antenna will be installed Sunday, June 5th. We have been trying for a solid

month to get this done and either other activities or the weather have kept us from doing so.

So, again. With luck, this new repeater antenna will be up and running by the time members read this. I am expecting improved repeater coverage, but not sure how much. Coverage with the back-up antenna has been pretty darn good.

Now for a bit of bad news. The controller on the 2 meter repeater has quit working. Currently, the repeater is using its internal repeater controller instead of the external Cat-1000 controller.

While this is not good news, I suspect the problem itself is not in the Cat-1000 controller. I believe a relay in the audio circuit board, which was installed as part of the repeater conversion to the Yaesu DR-1X repeater, has quit working. Either the relay itself is defective, or associated circuitry. I am hoping a bad solder joint on my end and a wire has become disconnected. I have not had time to investigate the problem.

I will take this opportunity of having the Cat-1000 controller on the bench to troubleshoot the DVR. The DVR was intermittent and finally quit working altogether. Here, I believe that an IC socket needs to be replaced. At one time during the DVR's service, the backup batteries leaked. It looks like the leak only affected one IC socket. When I cleaned this socket up the last time I had the chance, the DVR started working. But it didn't last long. So, I think I just need to replace the socket so that the IC makes better contact.

Of course, there could be a major issue with the

controller. I has some issues with the controller when I was adding the modified board so we could use the Yaesu DR-1X repeater with the controller. I finally got it going by pulling most of the IC's and using some contact cleaner. If the problem is more than what I think it is, then the club may have to discuss buying a new controller. The controller has been working mostly 24/7 since the very early nineties, if not earlier. But let's face that when the time comes.

I will have an update during the June meeting.

Field Day

Well, ready or not. Field Day is upon us.

Usually, I use the June newsletter to go into detail about our plans for Field Day this year.

This year, I plan to keep it short.

Location of this year's Field Day will once again be behind the Apple Valley Floral Community Center.

This year's Field Day is Saturday, June 25th starting at 2:00PM and ending Sunday, June 26th at 2:00PM. Field Day is a 24 hour operating event.

We are allowed to set up antennas the Day before Field Day. So, as usual, we will be setting up the antennas Friday, June 24th starting at 2:00PM. There will be several of us spending Friday night at the Field Day site.

The club is planning four regular stations, which will make our category 4A. Two SSB stations on HF, one HF station on CW, and one HF station on digital. In addition, a 6 meter station will be set up. This 6 meter station is called a "free transmitter" and does not add to the total count of our transmitters. Hopefully, 6 meters will be wide open.

I am a bit disappointed that the club never received the Icom IC-7300 that we were planning on using for one of the HF SSB stations. However, that will not really affect things too much.

The club already has two nice HF transceivers and I expect to make use of these rigs. We also have an HF transceiver in the go box configuration which may be used for the GOTA stations or one of the HF stations.

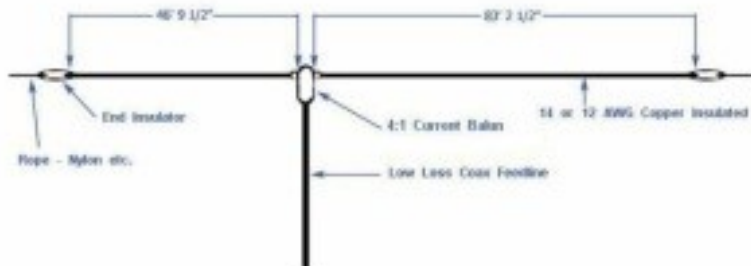
Currently the plans are to use the clubs Kenwood TS-570D as the 20 – 10 meter station. Main antenna will be an 80 – 10 meter Off Center Fed antenna. The club has a Cushcraft R-5 20 – 10 meter vertical antenna that I would also like to set up.



The 80 – 40 SSB station will use the clubs Yaesu FT-900, which was donated by Michael Dean, W8HIO. Main antenna here will also be an 80 – 10 Off Center Fed antenna.



Using Off Center Fed antennas allows either station to operate any band. The networked computer logging will keep track of band changes for each station and warn us if two stations are on the same band.



Since both the Kenwood and the Yaesu has built in antenna tuners, using the OCF's will be as easy as pushing a button. This is why I shy away from using the go box station, which is a Yaesu FT-857 and does not have an internal antenna tuner.

The CW station was going to be the Yaesu FT-900. However, since it will be used as one of the SSB stations, I will once again bring my Kenwood TS-590S to Field Day.

Terry Windsor, KI8N, will be running digital with whatever equipment he brings out.

We will need generators and logging computers. Hopefully we will have those needs filled in time for Field Day. With all this being said, if you have a radio you would like to use, feel free to bring it out. We will have to shut down one of the club stations to keep our category, but I see no reason why this would not be possible. I would like to keep the antennas going though. We will be getting these antennas up as high as possible so we can make "easy" contacts. At least that is the plan.

The Field Day picnic will be Pot-Luck. Everyone bring a dish. Let's talk about that at the June meeting. If I remember, we talked about this several months ago and decided to try a pot-luck this year. If anything changes, I will let everyone know via email.

We will make final plans for Field Day during the June meeting. If you want your two cents worth, please come to the meeting.

See you then.



Baitin' the Shark Bicycle Race
Steven, N8RLW



Mohican Marathon
Steven, N8RLW and Roger, KE8ICI



2-Meter Antenna Installation

The new replacement 2-meter antenna was installed on the Mount Vernon water tower June 5. These are photos taken of the installation.



Old 2-meter antenna



Barry Butz, N8PPF



New antenna being lifted to the top of the water tower.

Steven Harvey, N8RLW



New 2-meter antenna

“Show-and-tell at our June 13 Meeting.
Bring your own item to show.” Barry (N8PPF)

Fusion and Wires-X Tech Tip Corner

Steven Harvey

N8LRW

Greetings to everyone, if you were not able to attend the training session at the April 11th meeting here are a few items we covered so you can get started in using your Yaesu radio in Fusion (C4FM) mode.

If you have one of the following radio's, listed below in the digital radio list, you can very easily start talking digitally via the clubs' repeaters to other hams who also have digital radios.

Both repeaters (2 meter and 440 MHz) are setup to be used in Analog and Fusion (C4FM) modes but only one mode can be used at a time. If you hear via an analog only radio like packet radio going back and forth that is good indication someone talking on the repeater via Fusion C4FM mode. Only Fusion C4FM radios will decipher the digital information being sent between the repeater and the radio or via radio-to-radio communications when in this mode. Your older Analog radio will not be able to decipher what is being said. This does not exclude

Model	Type	Fusion (C4FM) Compatible	Wires-X Compatible
FTM-200DR	Mobile	Yes	Yes
FTM-300DR	Mobile	Yes	Yes
FTM-400XDR	Mobile	Yes	Yes
FT-3DR	Handheld	Yes	Yes
FT-5DR	Handheld	Yes	Yes
FT-70DR	Handheld	Yes	NO (Can't start a Wires-X session via radio)
FT-991A	Base Station	Yes	Yes

you from the conversation on purpose, but your older radio does not have the new digital chips to translate what is being passed over the air and thus you hear packet sounds coming from your speaker.

YAESU

WIRES-X

Wide-Coverage Internet Repeater Enhancement System

So, you have checked the and realize you have a one of these compatible radios or maybe not. How can I start to talk in Fusion C4FM mode? If you have a digital radio then, first and foremost is to find your owner's manual before starting the journey. I have owned most of these radios on the list and I can tell you from experience they all have a different set of key combinations to get the radio into digital mode. Please take a few minutes to refresh your memory on how to make this happen. Below are basic and general steps to get you going if you know your radio well.

Steps to talk digitally



1. Select either 146.790 or 444.600.
2. Via your user manual set the Digital ID for receive and transmit to "00"
3. In the digital world you can set different numbers so different groups of people can be talk to on the same frequency. Our club machines are set to "00" for transmit and receive.
4. Set your Yaesu radio via the user manual to digital mode. This will have a DN or a DN with a bar over the top in the display indicating you are now ready to transmit via Fusion C4FM mode.
5. Key down the radio and give your call sign just like you would in Analog mode. Now if everything goes well you will only here a short beep from your radio after you unkey. In digital mode the transmissions are as long or short as you are keying down. In Fusion C4FM mode there is no curiosity tone, CW ID's or any other items you are used to when running in analog mode. However, it will as part of your radio setup send your call sign digitally as part of the information along with your voice. This does not mean you are excused from giving your ID every 10 minutes so please keep that in mind when using Fusion C4FM.

This might seem like a lot to digest but it gives you another way to communicate with your local hams and when you are traveling. There are many repeaters that have gone to Fusion C4FM only and a good example is the Eastern Michigan linked system which runs almost all US23 and I75 from the Michigan border to the Mackinac bridge. When I travel, I use their system when I go to the Upper Peninsula of Michigan and it's a good one to monitor when you're traveling.

So, if you key up a machine in analog that is listed on a repeater directory, and it doesn't respond to you after you unkey. There is good chance that it might be in digital mode only and could be running Fusion C4FM.

I enjoy these new features and modes since I have upgraded my radios and have been able to contact hams that I would normally would not hear on an analog repeater. Give it a try and see what its like to transmit digitally.

Bonus Video

If you want to learn more about what a Digital ID is and why its used. Please see this link to the Yaesu Official YouTube page. There are many good videos and tutorials on how to setup your radio on their YouTube page.

[Episode 11 - DG-ID and DP-ID](#)

2022 ARRL Field Day Rule Changes

After taking a few detours over the past couple of years due to the COVID-19 pandemic, **ARRL Field Day** rules are being updated on a permanent basis starting this summer. ARRL conducted a Field Day community survey with invitations propagated far and wide, and direct emails sent to more than 15,000 individuals and ARRL-affiliated clubs. After sorting through, reviewing, and discussing the survey results, the ARRL Programs and Services Committee recommended a number of rule changes for ARRL Field Day, which will take place this year over the June 25 – 26 weekend.



Starting this year, the maximum PEP output for a transmitter used by anyone submitting a Field Day log will be 100 W.

The power multiplier of 2 will remain in place, and the high-power category will be removed from the rules. Until this year, the maximum low-power limit had been 150 W for most ARRL-sponsored operating events. The power multiplier will remain at 5 for QRP participants running a maximum of 5 W or less. As previously announced, 100 W is now the low-power category limit for all ARRL and IARU HF Contests, effective January 1, 2022.

A couple of changes instituted initially as accommodations for the COVID-19 pandemic will remain.

Class D (Home) stations will continue to be able to earn points for contacts with other Class D stations.

The club aggregate scoring change initiated in 2020 as a temporary measure will become part of the permanent rules.

In the aggregate scoring plan, the scores of individual stations are combined under the score of a single club.

Another change, involving Rule 7.3.2 Media Publicity, has been modified.

Rules to date have offered 100 bonus points for attempting to obtain publicity and demonstrating same. With the ease of posting via Facebook, Twitter, Instagram, and various other media websites, Field Day participants will now be required to obtain publicity, not just try to do so.

Any combination of bona fide media hits would qualify for the bonus points. For example, posting the details of your upcoming or ongoing Field Day activity, or your Field Day results, on a club or news media site, on Facebook, or via Twitter and Instagram would meet the bonus criteria. Photos and videos are encouraged as part of media posts.

June 2022

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 4:45 pm Dinner - Southside Diner	2	3 10:00 am Breakfast - Academy Bldg	4
5 9:00 pm ARES Sunday Night Net —Don Russell (W8PEN)	6	7	8 4:45 pm Dinner - Southside Diner	9	10 10:00 am Breakfast - Academy Bldg.	11 9:00 AM Breakfast— North Main Cafe
12 9:00 pm ARES Sunday Night Net—G. M. Jacobs (KE8HGE)	13 7 pm Monthly Meeting—In Person	14	15 4:45 pm Dinner - Southside Diner	16	17 10:00 am Breakfast - Academy Bldg.	18
19 9:00 pm ARES Sunday Night Net— Rog- er Gorrell (KE8ICI) Father's Day	20	21	22 4:45 pm Dinner - Southside Diner	23	24 10:00 am Breakfast - Academy Bldg. Field Day Antenna Set-U[25 FIELD DAY
26 9:00 pm ARES Sunday Night Net— Arlin Bradford (KD8EVR) FIELD DAY	27	28	29 4:45 pm Dinner - Southside Diner			

Final Takeaway





WebSDR

A WebSDR is a Software-Defined Radio receiver connected to the internet, allowing many listeners to listen and tune it simultaneously. SDR technology makes it possible that all listeners tune independently, and thus listen to *different* signals; this is in contrast to the many classical receivers that are already available via the internet.

Web Page; <http://www.websdr.org/>

One possible use for a WebSDR is to listen to stations your antenna may not be able to pick up and a station that is closer can hear. Useful for special event stations, Parks On The Air, or when traveling without your radio and still want to tune around.

Following is a listing of some WebSDR stations filtered for North America Note there are over 23 listed on the web page just for North America.

Location and URL	Frequency range	Antenna
 Northern Utah WebSDR, Corinne, Utah, U.S.A. - WebSDR #1 (Yellow) - Landing Page http://websdr1.sdrutah.org:8901/ DN31uo; 83 users	0.125 - 0.317 MHz	Omnidirectional E-Field whip at 6.5 Meters
	0.318 - 0.510 MHz	
	1.800 - 1.992 MHz	
	0.516 - 2.564 MHz	
	3.366 - 4.134 MHz	
	4.701 - 6.749 MHz	
 KFS WebSDR on the Pacific coast south of San Francisco http://websdr1.kfsdr.com:8901/ CM87tj; 66 users	3.316 - 4.084 MHz	"Omni" (TCI 530)
	4.916 - 5.684 MHz	
	6.741 - 7.509 MHz	
	9.984 - 10.176 MHz	
	13.766 - 14.534 MHz	
	18.022 - 18.214 MHz	
	20.816 - 21.584 MHz	
	27.914 - 28.682 MHz	
Home of K3FEF and W3TKP in Milford, Pennsylvania, NE USA. 160/80/40/30/20/17M and more! http://websdr.k3fef.com:8901/ FN21mh; 33 users	0.000 - 2.048 MHz	130 ft Long Wire
	3.276 - 5.324 MHz	ZS6BKW w/ RPA-1Plus LNA
	5.326 - 7.374 MHz	
	8.876 - 10.924 MHz	
	10.976 - 13.024 MHz	
	13.476 - 15.524 MHz	
16.576 - 18.624 MHz		
 North Texas RTL-SDR operated by W5CQU http://w5cqu.homeip.net:8100/ EM13kb; 7 users	3.188 - 4.212 MHz	Dipole
Lumpkin County School's WebSDR - Dahlonega, GA http://websdr.lumpkinschools.com/ EM84an; 31 users	3.494 - 4.006 MHz	Dipole
	6.638 - 7.662 MHz	
	13.151 - 15.199 MHz	
	26.545 - 29.425 MHz	Diamond X-200A
	145.296 - 147.344 MHz	
442.576 - 444.624 MHz		
 NA5B WebSDR in Washington DC area USA. VLF-MF-HF: MW-SW-CB Bands, 160-80-40-30-25-20-15-10m http://NA5B.com:8901/ FM18JS; 71 users	0.000 - 2.048 MHz	Mini-Whip
	3.200 - 5.248 MHz	Multiband Dipole with Q-Bit LNA preamp
	5.324 - 7.372 MHz	
	8.825 - 10.873 MHz	
	11.599 - 13.647 MHz	
	13.655 - 15.703 MHz	
	20.888 - 21.912 MHz	
	26.961 - 29.009 MHz	Cushcraft R-7 with Q-Bit LNA preamp

New Technician Class (Element 2) Question Pool takes effect July 1, 2022.

General Exam Sample Test Questions:

G3B08 What does MUF stand for?

- A. The Minimum Useable Frequency for communications between two points
- B. The Maximum Useable Frequency during a 24-hour period
- C. The Minimum Useable Frequency during a 24-hour period
- D. The Maximum Useable Frequency for communications between two points

G9A04 What might cause reflected power at the point where a feed line connects to an antenna?

- A. A difference between feed-line impedance and antenna feed-point impedance
- B. Feeding the antenna with unbalanced feed line
- C. Using more transmitter power than the antenna can handle
- D. Operating an antenna at its resonant frequency

Extra Class Exam Sample Test Questions:

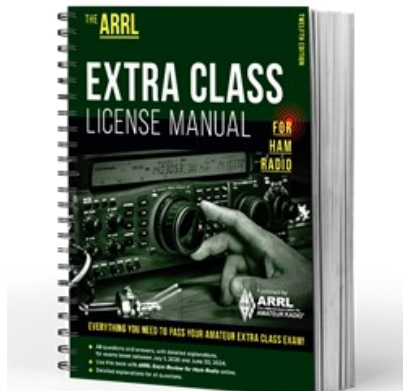
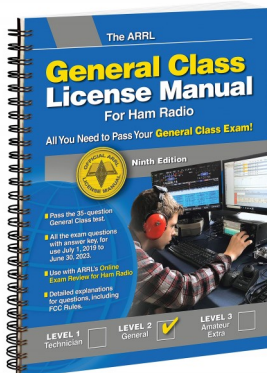
E4C07 What does the MDS of a receiver represent?

- A. The multiplex distortion stability
- B. The maximum detectable spectrum
- C. The minimum discernible signal
- D. The meter display signal

E9F01 What is the velocity factor of a transmission line?

- A. The index of shielding for coaxial cable
- B. The velocity of the wave in the transmission line divided by the velocity of light in a vacuum
- C. The velocity of the wave in the transmission line multiplied by the velocity of light in a vacuum
- D. The ration of the characteristic impedance of the line to the terminating impedance

These test questions are from the current test pools for their respective license classes. How did you do? The answers are on the last page. Practice tests for all license classes can be found here: <https://www.grz.com/hamtest/> The books shown are available from the ARRL for license studying.





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RADIOGRAM

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
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TO

THIS RADIO MESSAGE WAS RECEIVED AT

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NAME _____	E-MAIL _____
STREET _____	
CITY, STATE, ZIP _____	

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This message was handled at no charge by a licensed Amateur Radio operator, whose address is shown in the box at right above. No compensation can be accepted by a "ham" operator. A return message may be filed with the "ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225 Main Street, Newington, CT 06111 or www.arrl.org.

The ARRL is the national association for Amateur Radio and the publisher of *QST* magazine. One of its functions is promotion of public service communication among Amateur Radio operators. To that end, the ARRL has organized the National Traffic System for daily nationwide message handling.

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RADIOGRAM

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Miscellaneous Amateur Radio Information

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

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

Ohio Traffic Nets



[The Ohio Single Side-Band Net \(OSSBN\)](#)

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

Alternate Frequency for all sessions is 3.968 KHz.

[Central Ohio Traffic Net](#)



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

Area Radio Clubs

Delaware Amateur Radio Association: <http://k8es.org/>

Newark Amateur Radio Assoc: <https://www.n8ara.org/>

(Mansfield) InterCity Amateur Radio Club: <https://iarc.club/>

Marion Amateur Radio Club: <http://www.marionhamradio.com/home.html>

The ARRL Ohio Section Newsletter: <https://arrl-ohio.org/news/index.html>

“Thanks to Steven (N8RLW) and Roger (KE8ICI) for stepping up and volunteering to provide communications at points along the bicycle and marathon races .” Terry (KI8N)

Quick Updates



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

Effective Thursday **May 20, 2021**, all amateur examination applicants will be required to provide an FCC Registration Number ([FRN](#)) to the Volunteer Examiners (VEs) **BEFORE** taking an amateur exam. This is necessary due to changes the FCC has made to its licensing system.

Social security numbers are no longer accepted at exam sessions.

Amateur candidates who already have an FCC license, whether for amateur radio or in another service, already have an FRN and can use the same number. All prospective new FCC licensees, however, will be required to obtain an FRN *before* the examination and provide that number to the volunteer examiners on the Form 605 license application. An FCC [instructional video](#) provides step-by-step instructions on how to obtain an FRN through the FCC's Commission REgistration System (CORES).

The FRN is required for all new applicants to take an amateur exam and is used afterward by the applicant to download the license document from the FCC Universal Licensing System (ULS), upgrade the license, apply for a vanity call sign, and to submit administrative updates (such as address and email changes) and renewal applications.

All applications will be required to contain

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

[Print an Official or Unofficial Copy of Your Amateur Radio License \(By Anthony Luscre, K8ZT\)](#)

As of February 17, 2015, the FCC no longer routinely issues paper license documents to Amateur Radio applicants and licensees. The Commission has maintained for some time now that the official Amateur Radio license authorization is the electronic record that exists in its Universal Licensing System (ULS). The FCC will continue to provide paper license documents to all licensees who notify the Commission that they prefer to receive one. Licensees also will be able to print out an official authorization — as well as an unofficial “reference copy” — from the ULS License Manager. I’ve created a set of instructions on how you can request an “official” printed copy of your license. [Click here to download the instructions](#)

FCC Application Fee Filing Guide

The FCC fee must be paid online directly to the FCC not to the VE team or organization processing the application form.

\$35 Fee: new, renewal, rule waiver, and modification applications that request a new vanity call sign. The fee will be per application. **NO FEE:** administrative updates, such as a change of name, mailing or email address, modification applications to upgrade an amateur radio licensee’s operator class or to request a sequentially issued call sign and license cancellation.

Amateur Radio Vinyl Decals

Nichole Adessa, N8OVE

I make vinyl decals. I made two designs for MVARC. The links below are to the designs on my online shop.

The first link is a club design shown below.

https://www.etsy.com/listing/1009895981/mount-vernon-amateur-radio-club-vinyl?ref=shop_home_active_1&variation0=1971593946&variation1=1991398087

The second decal is personalized with the individual's call sign added.

https://www.etsy.com/listing/995928986/personalized-decal-with-call-sign-for?ref=shop_home_active_2

NOTE: You can see the both designs by going to the web address.



“... warm, sunny, and had a pleasant breeze. And someone decided that this was supposed to be NVIS Day?” G. Michael (KE8HGE)

New Technician Class (Element 2) Question Pool takes effect July 1, 2022.

Answers to sample test questions on page 21.

G3B08: D – The Maximum Useable Frequency for communications between two points

G9A04: A – A difference between feed-line impedance and antenna feed-point impedance

E4C07: C – The minimum discernible signal

E9F01: B – The velocity of the wave in the transmission line divided by the velocity of light in a vacuum



Editors Notes

The MVARC Newsletter is delivered to club members only by email link to the MVARC webpage. If you know a member who can not access or is not on this email chain please share this information with them and have them contact the editors.

Frank and I really need to hear from you as to layout, articles, ideas for new content and anything else you would like to read or write about.

Please have all written input to us by the fourth Friday of the month for inclusion into the next monthly newsletter.

Please note the contact email for the MVARC newsletter is: admin@mvarc.net.

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

