

July 2021
2021 Edition 7



Mount Vernon Amateur Radio Club

Club Meetings

MVARC meeting is held on the 2nd Monday of each month at 7:00 pm. The July meeting will be at Ariel Foundation Park inside the Park National Bank Pavilion.

MVARC Information

The next club meeting is July 12, 2021.

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

MVARC
PO Box 372
Mount Vernon, OH
43050

Email

MVARC.K8EEN@gmail.com

MVARC President: And now for a Word!

G. Michael Jacobs
KE8HGE

No Input this month.



MVARC

President

Michael Jacobs, KE8HGE

Vice President

Greg Short, W8DOH

Secretary / Treasurer

Terry Windsor, KI8N

Club Call Trustee

Don Russell, W8PEN

Equipment Trustee

Barry Butz, N8PPF

Directors

Emery Bennett, W8TW

Barry Butz, N8PPF

Frank Counts, KC8EVS

Don Russell, W8PEN

Greg Short, W8DOH

Scott Yonally, N8SY

Newsletter Editors

Frank Counts, KC8EVS

Terry Windsor, KI8N



"Field Day — the most radio-active event of the year."

May Meeting Minutes

Terry Windsor KI8N



The MVARC meeting held at Foundation Park was called to order by G Michael Jacobs(KE8HGE) at 7:00pm. There were 13 members present.

Reports / Minutes

The minutes of the previous meeting were accepted as presented in the MVARC Newsletter without objection.

Treasurer (Michael Jacobs, KE8HGE)

The Treasurer's report for May 2021, was accepted without objection. Copies of the monthly report are available from the Treasurer upon request.

Repeater and Mesh Report (Don Russell W8PEN)

Don (W8PEN) said that everything was running well. Seems the antenna fix corrected several issues with the repeater receive and transmit. Don noted the 2 meter repeater is picking up people quite a ways out of Mount Vernon and the 440 repeater is working county wide.

Mesh Net is working well.

ARES (Bill Stroud KD8WHQ)

Bill (KD8WHQ) reported the EMA office is moving in August across from the Memorial Theater on High Street. However, the Emergency Operations Center (EOC) is staying in the Sherriff's Building. The EOC contains a Kenwood TS-2000 and FT-8800R for use in aiding Knox county emergency communications.

Old Business

Field Day (Don W8PEN)

Don, W8PEN handed out an information sheet about our Field Day plans. We will have 3 stations this year: 1 CW and 2 sideband. The station managers will be responsible for setting up their stations and overseeing their operation. Invitations were sent to County VIPs requesting they stop by and observe the operation. Information articles were also published in the Mount Vernon News and Knox Pages. https://www.knoxpages.com/news/mount-vernion-amateur-radio-club-participates-in-national-drill/article_211cc6e3-94a2-587d-a182-ea3cc315138e.html

Road Hog Willie's will be the source of our main course and everyone is requested to bring a covered dish. Frank, KC8EVS is going to contact Apple Valley about using the tent. Note, we will be using N3FJP Field Day logging software same as has been used in past years.

Knox County Parks on the Air (Frank KC8EVS)

Frank stated there were 38 contacts made through out the United States during the parks on the air activity. There were a couple of people walk up to ask about the activity and they were told who we were and what we were doing.

New Home

Emery, W8TW is going to contact Terry Walters President of the Escape Zone about using the Armory building to hold MVARC meetings. The Armory building is at 1 Mansfield Avenue and not far from the former Red Cross facility. Bill, KD8WHQ reported Mark Maxwell Director of the EMA does not have room for us to use his facility. A member brought up contacting the Moose Lodge.

WIRES-X at KCH

Discussion regarding HRI-200 hardware for configuring Wires-X on the 440 repeater. Terry, KI8N will purchase the equipment.

New Business

MVARC Website

It has been moved to a different server. Those that previously had secure sign-ins need to request a new sign-in for the new location. You can request "callsign @ mvarc.net" email addresses. We have a lot of archived information on the site from the previous one.

OSPOTA

Emery, W8TW is going to check on and reserve the North Shelter in Mohican State Park for MVARC to use during Ohio State Parks On The Air event September 11.

MVARC Saturday Morning Breakfast

During the time of covid shut downs we have not met on the 2nd Saturday of the month for a group breakfast. Don, W8PEN asked if we were ready to restart and it was agreed to reconvene this activity starting in August. August 14, 2021 we will meet at the .North Main Café. Check the August Newsletter (next month) for time.

Mansfield Trunkfest

Mansfield's InterCity Amateur Radio Club is holding a Mid-Summer TrunkFest July 10. Hours are 8 AM through 4 PM at the Richland County Fairgrounds in Mansfield. Entry into the event is FREE. Here is a link to their page; <http://iarc.club/hamfest/index.html>

ARRL (Scott Yonally N8SY)

Scott will attend the July ARRL Board Meeting in Newington, CT. Scott also stated we can see what is going on in the ARRL Great Lakes Division by going to this web page; <https://arrl-greatlakes.org/>

Pan Ohio Hope Ride—Bike Race

The bike race coordinators have contacted Don, W8PEN about using the MVARC 2 meter repeater. This race, sponsored by the American Cancer Society, is scheduled July 22—25 and they have requested repeater access while they are in our locale. Don has told them they can use the repeater as long as they follow FCC regulations and are courteous during their operation.

Don requested we (MVARC) also respect their use of the repeater and during the time they are using it we keep our communications short. Cooperation amongst all is a good thing.

Social Activities

Michael stated the following social activities occur every week;

Wednesday; Dinner at SouthSide Restaurant at 4:45 pm.

Friday; Informal morning breakfast at Foundation Park at 10 AM. Meet at Park National Bank Pavilion.

Meeting Adjourned

Meeting adjourned at 7:45PM.



“We will have 3 stations this year: 1 CW and 2 sideband. The station managers will be responsible for setting up their stations and overseeing their operation.” Don, W8PEN

Radio Active

Don Russell
W8PEN



Well, the most radio-active event of the year is now in the history books. Club members that missed Field Day missed a really good time. Those that did come out, whether to operate, or attend the picnic, thank you for helping make this year's event a success.

This year's claimed score of 4,440 points is a bit behind the 2020 total of 5,424 points; however, we did not have a digital station this year, which cost us almost exactly the difference in score.

Please see a copy of the Field Day summary that I submitted to the ARRL elsewhere in this newsletter.

Each year the day after Field Day, I think about what we could have done better. I had a head start this year, as Frank KC8EVS and I had several discussions during Field Day on things we could do differently to encourage more participation and to help improve our score.

My goal is never the highest score possible. I consider a successful Field Day one in which everyone that wants to operate gets their fair share of operating time while making a lot of contacts. To accomplish this goal, I feel it is mandatory to put up the best antennas possible. A combination of lots of operators and good antennas will take care of the score.

For example, this year the CW station made 899 contacts. Rather good. That is averaging right around 37 contacts per hour for the entire 24-hour Field Day period. Yes, the two CW operators were motivated, hoping to break the one thousand contact barrier this year. Except for during the Field Day picnic, the CW station was on the air for the whole 24-hour period. I would estimate 23 out of the 24 hours.



The two SSB stations made a total of 422 contacts during Field Day. That would be about 18 contacts an hour between two stations. Or nine contacts an hour per station. It was noticeably dark under the SSB stations canopies for about six hours early Sunday morning while the operators got some shut eye.

With enough operators, we could have run these two stations for nearly the whole Field Day event. If you go by the average, that would have been an extra 108 contacts for the SSB stations.

Putting up better antennas for Field Day would help make contacts easier. I don't know how many times I heard the statement "I am hearing all these stations, but they are not hearing me". My idea of a good Field Day antenna is a dipole or similar up 40 feet or more. The CW station has used an 80 – 10-meter windom antenna at 40 feet for the last several years and we consistently make over 800 contacts during Field Day. Most stations answer is on the first call. This year we had an extra antenna, being the clubs Cushcraft R5 antenna. To be honest, we did not use the R5 all that much.

One of the ideas Frank and I discussed was for the club to supply and set up all the antennas. This would be on the Friday afternoon before Field Day. The club could buy or build three 80 – 10 Windom antennas easily. The club would provide two SSB stations to operate. This is easily done because the club does have a Kenwood TS-570D, which is a very capable contest radio. The club also owns a Yaesu FT-857, not a good radio for contesting, but could be put into service if needed. These two stations would cover our basic needs for two bands operating SSB. Although, honestly, I would like to see the club purchase another contest capable radio.

My reasoning for the club supplying the Field Day antennas and radios? I get the feeling during Field Day that club members do not feel comfortable using other people's equipment. This, I understand. I certainly would not want to break someone's radio and have to pay for getting it fixed. Alternately, the members who have been supplying radios may feel they need to stay at the station when someone else is operating.



Either way, the club supplying the radios would relieve any of these worries.

That is, it for this month. See you at the July meeting. In the meantime, remember to stay radio active.

K8EEN Field Day Summary

Don Russell

W8PEN



Entry received at: 2021-07-01 18:40:14 UTC

Submitted by: Don Russell, W8PEN

Call Used: K8EEN GOTA Station Call: (NONE) ARRL/RAC Section: OH Class: 3A

Participants: 20 Club/Group Name: Mt. Vernon Amateur Radio Club (Ohio)

Power Source(s): Generator, Battery, Solar

Power Multiplier: 2X

Preliminary Total Score: 5,390

Bonus Points:

Bonus	Points
100% emergency power	300
Media publicity	100
Public location	100
Public information table	100
W1AW Field Day message	100
Site visit by invited elected official	100
Educational activity	100
<u>Entry submitted via web</u>	<u>50</u>
Total bonus points	950

	CW	Digital	Phone	Total
Total QSOs	899	0	422	1321
Total Points	1798	0	422	2220

Claimed Score = (QSO points x power mult) = 4,440

Band/Mode QSO Breakdown:

Band	<u>CW</u>		<u>Digital</u>		<u>Phone</u>	
	QSOs	Pwr(W)	QSOs	Pwr(W)	QSOs	Pwr(W)
160m					2	100
80m	387	100			85	100
40m	224	100			127	100
20m	164	100			119	100
15m	95	100			18	100
10m	29	100			51	100
6m					19	100
<u>2m</u>					<u>1</u>	<u>25</u>
Total	899		0		422	

Amateur Radio Vinyl Decals

Nichole Adessa, N8OVE

My dad, Emery, W8TW had asked me to come up with a decal design for MVARC: I make vinyl decals. I made up two separate designs. 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.



“Club members that missed Field Day missed a really good time. Those that did come out, whether to operate, or attend the picnic, thank you for helping make this year’s event a success.”

New MVARC Meeting Location

Terry Windsor

KI8N



This month Frank, KC8EVS, Emery, W8TW and I met with Terry Walters, President of the Escape Zone to inquire about using the old Armory Building (Escape Zone) to hold our monthly meetings. Mr. Walters was receptive to having us use the Escape Zone as a place for us to meet, store our radio equipment and even install a couple of antennas to be used for Knox County emergency preparedness.

We discussed using the “cafeteria” room which has tables and plenty of chairs to hold our meetings. Mr. Walters even showed us a lockable closet we could use to store our radios and other various items.

However, he did have some of stipulations for use of the building;

- A financial donation similar to what we did yearly with the Red Cross.
- We do a couple of amateur radio demonstrations yearly for the children that attend the Escape Zone activities. The children that attend are between the ages of 10 and 18.
- On our demonstration nights/events we provide pizza to the children at the Escape Zone.
- Only three (3) MVARC members to have physical keys and knowledge of the combination locks to the doors and the fenced parking location.

The MVARC Board of Directors met and discussed using the facility and Mr. Walters stipulations. This will be discussed at the July Meeting and **YOUR** input is requested/required!



Armory Building / Escape Zone

Miscellaneous Rambling

Terry Windsor
K18N



I am one of those that missed Field Day this year. I was in Missouri visiting family and celebrating my mother's 81st birthday. This was the first time I have seen my mother and brothers in over 1.5 years.

During a recent Friday morning breakfast we were discussing use of the 2-meter repeater and how much distance it covers. One of the attendees made a comment that he thought the repeater used to cover further than it seems today. He attributed this to environment changes—trees growing and possibly lower quality mobile antennas. Or otherwise referred to as craptennas.

This got me researching mobile antennas and their use. One of the web pages I found and have read quite a bit of is; "[Welcome to K0BG.com—A Web Site For Mobile Amateur Radio Operators.](https://k0bg.com/)" <https://k0bg.com/> This web site, written and maintained by Alan Applegate, K0BG, contains a lot of well written information on

mobile operations.

I was especially interested since I recently replaced my mag mount dual band antenna with a front fender mount antenna. Not sure yet but I believe having the mag mount on the roof of the truck might have given slightly better distance contacts vice having an antenna on the left side fender mount. I also changed from a fixed mount antenna to an NMO mount Comet antenna which has more gain. However, I am not going back to the mag mount as I disliked what it did to the truck's paint and difficulty routing and hiding the coax.

PHOTOS wanted!! Did anyone take pictures of this year's field day set-up, operation, picnic, attendees or anything else? If so could you please let me know? We would like to get as many as you have to put on the web page and to use in the news letter. Email them to me at mvarc.k8een@gmail.com Thanks.

Until next month "Ham It UP!"

Quick Updates



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

In addition, **after June 29**, 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. ARRL VEC suggests that those without access to email to use the email address of a family member or friend. Licensees will be able to log in to the ULS using their FRN and password to download the latest version of their license at any time. The FCC no longer provides paper license documents.

Morse Code Instruction

In the last few months, we had shown resources to learn morse code. I found another new web site; *Learn CW Online*. "LCWO allows you to Morse Telegraphy (CW) online in your browser."

<https://lcwo.net/>



MVARC ARRL Membership Notes

The following was noted last month by Barry Butz, N8PPF; I have been looking at the membership list and sorting it by license class and ARRL membership. Most extras, advanced, and general class licensees belong to the ARRL. Not many technicians are members.

Perhaps this is something that needs to be brought up at a meeting to get both ARRL members and non-member input?

General Exam Sample Test Questions:

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

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

G2A08 What is the recommended way to break into a phone contact?

- A. Say your call sign once
- B. Say "QRZ" several times followed by your call sign
- C. Say "CQ" followed by the call sign of either station
- D. Say "Breaker Breaker"

Extra Class Exam Sample Test Questions:

E2E07 Which of the following is a possible reason that attempts to initiate contact with a digital station on a clear frequency are unsuccessful?

- A. All these choices are correct
- B. Your transmit frequency is incorrect
- C. Another station you are unable to hear is using the frequency
- D. The protocol version you are using is not supported by the digital station

E2E01 Which of the following types of modulation is common for data emissions below 30 MHz?

- A. FSK
- B. DTMF tones modulating an FM signal
- C. Pulse modulation
- D. Spread spectrum

These test questions are from the current test pools for their respective license classes. How did you do? The answers are on Page 19. Practice tests for all license classes can be found here: <https://www.qrz.com/hamtest/>

Miscellaneous Amateur Radio Information

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

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

<http://www.ossbn.org/>

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 a.m., 4:15 p.m. and 6:15 p.m. daily. Alternate Frequency for all sessions is 3.968 KHz

<http://www.cotn.us/>

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 how to handle traffic. The Net meets daily at 7:15 p.m. local time.

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>

The ARRL Ohio Section calendar:

<https://arrl-ohio.org/g-calendar/default.html>

Antenna Length Chart in Feet

Ham Band	Frequency (Mhz)	1/4 λ (Feet)	1/2 λ Dipole (Feet)	1 λ Loop (Feet)
160	1.800	130' 0"	260' 0"	558' 4"
	1.850	126' 6"	253' 0"	543' 3"
	1.900	123' 2"	246' 4"	528' 11"
	2.000	117' 0"	234' 0"	502' 6"
80	3.500	66' 10"	133' 9"	287' 2"
	3.750	62' 5"	124' 10"	268' 0"
	3.900	60' 0"	120' 0"	257' 8"
	4.000	58' 6"	117' 0"	251' 3"
60	5.330.5	43' 9"	87' 8"	188' 5"
	5.346.5	43' 7"	87' 5"	188' 0"
	5.366.5	43' 6"	87' 2"	187' 3"
	5.371.5	43' 5"	87' 1"	187' 1"
	5.403.5	43' 3"	86' 6"	186' 0"
40	7.000	33' 5"	66' 10"	143' 7"
	7.150	32' 9"	65' 5"	140' 7"
	7.300	32' 1"	64' 1"	137' 8"

1/2 λ dipole (feet) = 468 / frequency in Mhz.

1/2 λ dipole (meters) = 142.65 / frequency in Mhz

Full wave loop (feet) = 1005 / frequency in Mhz

Full wave loop (meters) = 306.32 / frequency in Mhz

Cut wire slightly longer for connecting insulators and pruning.

Ham Band	Frequency (Mhz)	1/4 λ (Feet)	1/2 λ Dipole (Feet)	1 λ Loop (Feet)
30	10.100	23' 2"	46' 4"	99' 6"
	10.150	23' 1"	46' 1"	99' 0"
20	14.000	16' 9"	33' 5"	71' 9"
	14.150	16' 6"	33' 1"	71' 0"
	14.300	16' 4"	32' 9"	70' 3"
	14.350	16' 4"	32' 7"	70' 0"
17	18.068	12' 11"	25' 11"	55' 7"
	18.168	12' 11"	25' 9"	55' 4"
15	21.000	11' 2"	22' 3"	47' 10"
	21.200	11' 0"	22' 1"	47' 5"
	21.450	10' 11"	21' 10"	46' 10"
12	24.890	9' 5"	18' 10"	40' 5"
	24.990	9' 4"	18' 9"	40' 3"
10	28.000	8' 4"	16' 9"	35' 11"
	28.500	8' 3"	16' 5"	35' 3"
	29.700	7' 11"	15' 9"	33' 10"
6	50.000	4' 8"	9' 4"	21' 1"
	54.000	4' 4"	8' 8"	18' 7"
2	144.000	1' 8"	3' 3"	7' 0"
	148.000	1' 7"	3' 2"	6' 9"

July 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2 10:00 AM Breakfast at Foundation Park – Park National Bank Pavilion	3
4 Independence Day 9:00 PM ARES Sunday Night Net	5	6	7 4:45 PM Dinner at Southside Diner	8	9 10:00 AM Breakfast at Foundation Park – Park National Bank Pavilion	10
11 9:00 PM ARES Sunday Night Net on 146.79 MHz	12 7 PM MVARC Monthly Meeting @ Ariel Foundation Park	13	14 4:45 PM Dinner at Southside Diner	15	16 10:00 AM Breakfast at Foundation Park – Park National Bank Pavilion	17
18 9:00 PM ARES Sunday Night Net on 146.79 MHz	19	20	21 4:45 PM Dinner at Southside Diner	22	23 10:00 AM Breakfast at Foundation Park – Park National Bank Pavilion	24
25 9:00 PM ARES Sunday Night Net on 146.79 MHz	26	27	28 4:45 PM Dinner at Southside Diner	29	30 10:00 AM Breakfast at Foundation Park – Park National Bank Pavilion	31

Final Takeaway



Mix 31

1-300 MHz



Mix 43

25-300 MHz



Mix 52

100-2000 MHz



Mix 31

Mix 43

Mix 52



Mix 61

200-2000 MHz



Mix 75

.15-10 MHz



Palomar-Engineers.com

Ferrite Mix Selection

Do you struggle with determining the proper toroid or ferrite mix selection? At every hamfest there are booths selling toroid rings some of which are marked and some not—what is the correct mix for the balun or RFI eliminator you are hoping to build? There is a page on Palomar Engineers web page that will give you guidance on what mixes are good for the frequencies and power you are running. So it seems that simply buying the cheapest most available toroid at the booth is probably not the best selection method. Using the wrong ferrite core material in you project may result in the best dummy load you could build when you were actually hoping to match impedances or eliminate RFI issues. This page will help guide you making your choices; <https://palomar-engineers.com/ferrite-products/ferrite-cores/ferrite-mix-selection>

Answers to sample test questions on page 13.

G9B06: C – On the surface of the Earth or buried a few inches below the ground

G2A08: A – Say you call sign once

E2E07: A – All these choices are correct

E2E01: A – FSK

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 would really like 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 to MVARC.K8EEN@GMAIL.COM.

