April 2022
2022 Edition 4



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 April 11, 2022.

Meeting Location:

Academy Building

790 Fairgrounds Road

Visit us on Facebook:

Mount Vernon Amateur Radio Club

Visit our Webpage:

https://MVARC.net

Inside this issue

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

New FCC Application Fee Will Not Apply to Amateur Radio License Upgrades

The Federal Communications Commission (FCC) staff has clarified in response to an ARRL request that the new $35 application fee will not apply to most license modifications, including those to upgrade a licensee's operator class and changes to club station trustees. The FCC staff explained that the new fees will apply only to applications for a new license, renewal, rule waiver, or a new vanity call sign. As previously announced, the new fees take effect on April 19, 2022.

"We are pleased that the FCC will not charge licensees the FCC application fee for license upgrade applications," said ARRL Volunteer Examiner Coordinator (VEC) Manager, Maria Somma, AB1FM. "While applicants for a new license will need to pay the $35 FCC application fee, there will be no FCC charge for future upgrades and administrative updates such as a change of mailing or email address. Most current licensees therefore will not be charged the new FCC application fee until they renew their license or apply for a new vanity call sign."

ARRL previously reported that the new $35 application fee for Amateur Radio licenses will become effective on April 19, 2022.

UPDATED INFORMATION: The $35 application fee, when it becomes effective on April 19, will apply to new, renewal, and modification applications that request a new vanity call sign. The fee will be per application processed by the FCC. If the applicant fails to pay within the 10-day window, the application will be dismissed by the FCC. The application will have to be refiled with the FCC which will restart the 10-day window. For examinees, an application can be refiled to the FCC, by the coordinating VEC, at any time before the CSCE expires.

"I must have built it right because it works! " Barry (N8PPF)

2022 Gravel Grinder

Steven Harvey

N8RLW

Steven is coordinating MVARC's participation in the 2022 Gravel Grinder Bicycle Race and he still needs a few more volunteers to man/ work communications at various aid stations.

We have three locations this year like last year. Please email or call Steven Harvey N8RLW to be assigned your location.

Volunteer Information

You can call me at 614-570-7546 or email me at **sharvey6325@gmail.com** to let me know if you can help out.

I need to know before Saturday April 9th if possible or at the latest by April 16th.

We will be doing a radio and site check on Saturday, April 9th from 10:00 am to 3:00 pm. We'll meet at Greer Landing as a gathering point and then off to assigned sites to get setup for testing. If that day is a rainy day we'll go with the backup day of Saturday, April 23rd at the same time and meeting point. I highly recommend folks who are participating on the radio and site check day, pack a lunch as there are not a lot of food options in the area.

Our testing will be to use the 146.790 repeater as the line of communications or the club's crossband station that Tom will set up at Brinkhaven.

When and where

Saturday, April 30, 2022 from 9 am to 3:30 pm.

Food will be provide after the race and it's BBQ just like last year. I need to provide Matt numbers to make sure he has enough food for us and the riders.

Setup time at the start/finish should be in place by 8:30 am to be ready by 9:30.

If you want to play radio and actually practice an ARES type of activity **this is the time FOR YOU to step up and volunteer**.

Black Fork Gravel Grinder

President's View

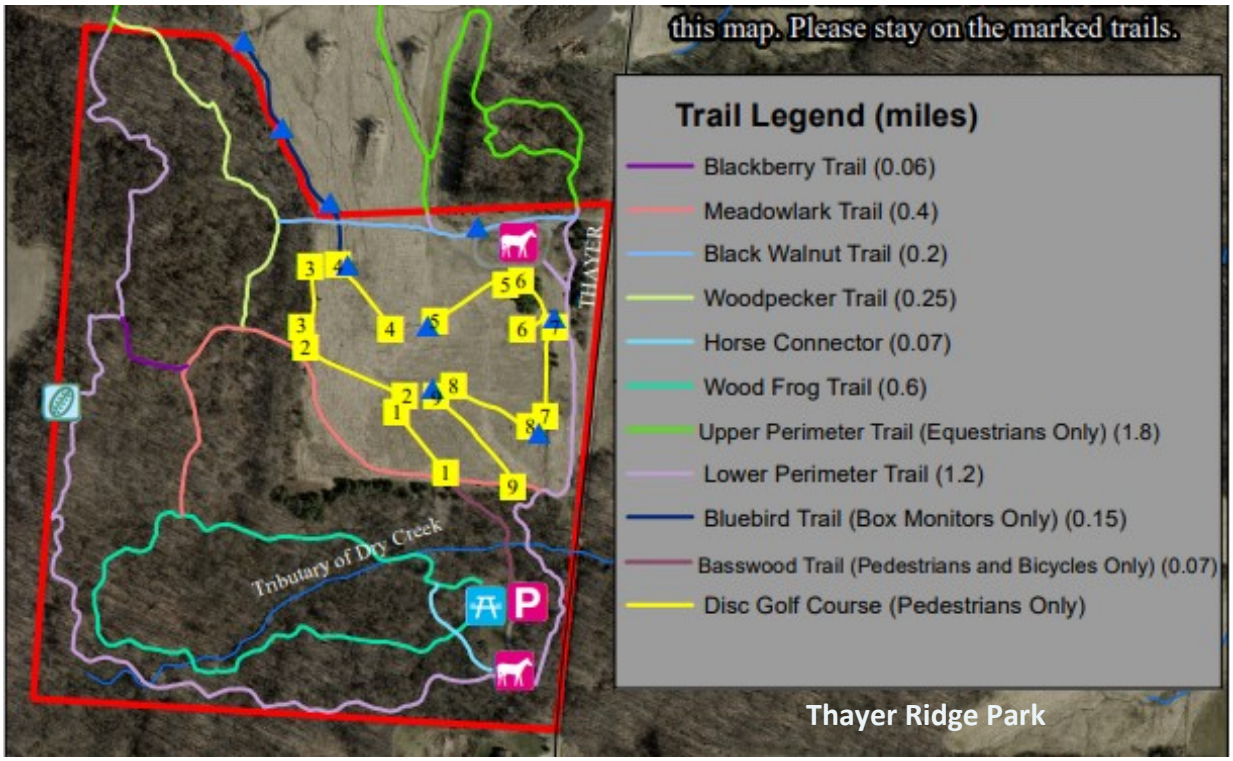
Frank Counts
KC8EVS

It's April by my calendar but still winter like out here in southern Knox County. It's my hope that it warms up soon as we have a couple of outdoor events at the end of the month.

The first event is NVIS April 23 from 10 am to 4 pm. We will be operating from two locations, Wolf Run and Thayer Ridge parks. To find the location of these two parks go to knoxcountyparks.org. If you have an idea for an NVIS antenna and want to try it out, bring it along and we can see how it performs. Keep in mind Thayer Ridge lacks shelter so if it is raining, cold etc. it will be there also. Wolf Run has a small shelter house to keep the rain off but otherwise open to the elements so dress accordingly at both locations. It's always fun, so hope to see you there.

Second event comes the following weekend April 30, The Black Fork Gravel Grinder. There is more information in the newsletter concerning this event so check it out. Steve N8RLW is the person to contact if you are interested in participating in this event.

Finally, our next meeting is going to be in person, so I hope to see everyone there April 11 at 7 pm. Old Mount Vernon Academy, 790 Fairgrounds Road. This is the corner of Route 3 and Fairgrounds Road. You can park in the front of the building and around back. The entrance is in the back of the building. Please join us as there will be more discussion of the upcoming events.



March Meeting Minutes

Bill Stroud
KD8WHQ

The March meeting of the Mount Vernon Amateur Radio Club was called to order at 7:00 pm by President Frank Counts (KC8EVS). The meeting was on ZOOM with 13 members present.

Reports / Minutes

The minutes of the previous meeting as presented in the MVARC Newsletter were approved.

Treasurer

The Treasurer's Report was presented. There were no questions and the motion to accept passed.

Repeater Report (Don Russell W8PEN)
The 2 meter repeater is working fine running on the backup antenna. The 440 repeater is at Steve Harvey's (N8RLW) house. Michael Jacobs (KE8HGE) will arrange a time and date to reinstall at the hospital. Don is waiting to hear from the Mansfield Club about buying their antenna.

Mesh Network Report (Don Russell W8PEN)

The mesh network is running without issues.

Old Business

North Fork Gravel Grinder is April 30. Steve Harvey (N8RLW) is the chairperson. There will be a need to setup 3 stations for the race. It starts at 10 am and will be done by 3 pm. Steve is still looking for additional personnel to volunteer.

NVIS – Don Russell (W8PEN) will be at Wolf Run Park this year. It is on Yeager Road in Mt. Vernon. Frank Counts will be at Thayer Ridge Park ,7077 Thayer Ridge Rd.

Technician License Classes - Michael Jacobs (KE8HGE) has been working at the Academy Building on Saturdays but has not had any students show for the class.

New Business

After a discussion it was decided to start meeting in person again for our Friday morning breakfast.

There was a discussion about next month's meeting which will be held in person at the Academy Building.

Barry's (N8PPF) son was going to give a presentation about a balloon launch but due to the west coast time difference he was unable to present.

A motion was made by Roger Gorrell (KE8ICI) and seconded by Ralph Hoffman (W8LRF) to adjourn. The motion carried.

Scott Yonally presented a video on QSL cards.

March Meeting Attendees

Frank Counts – KC8EVS
Roger Gorrell – KE8ICI
Scott Yonally – N8SY
Barry Butz – N8PPF
Terry Windsor – KI8N
Kevin Adams – KD8NGV
Don Russell – W8PEN
Bill Stroud – KD8WHQ
Emory Bennett – W8TW
Wayne Bower – WB8WB
Michael Jacobs – KE8HGE
Ralph Hoffman – W8LFR
Ralph Bower – KC8REB

Director's Meeting Minutes

Bill Stroud
KD8WHQ

The Director's meeting discussed purchasing a repeater antenna the Mansfield Club is selling for $600. There was some concern about attaching the antenna to the water tower. The manufacturers diagram suggested it needed to be attached at the antenna top and bottom. After looking at the spec sheets and calls to the antenna manufacturer, the antenna only needs to be attached at the base.

Don is going to call the Mansfield contact to check on the antenna. It was agreed that MVARC would purchase the antenna if it was still for sale.

Attendees

Michael Jacobs – KE8HGE
Don Russell – W8PEN
Steve Harvey – N8RLW
Scott Yonley – N8SY
Bill Stroud – KD8WHQ
Barry Butz – N8PPF
Arlin Bradford – KD8EVR
Roger Gorrell – KE8ICI

NVIS Day... "Be advised that it will probably be cold and perhaps windy." Don (W8PEN)

"No one would believe any different based on past occurrences, except to add rain to the forcast!" Terry (KI8N)

Skywarn Training

Bill Stroud
KD8WHQ

Weather Spotter Training – As we move into severe weather months, Skywarn training is being offered. Some classes are offered in person and others are online.

If you have any questions send me an email.

In Person Training

May 3 - Mt. Vernon Ohio at 6 pm, Ramser 4-H Activity Center, 700 Perimeter Dr. This facility is adjacent to the Knox County Fairgrounds. **You must register online to attend.**

The link to sign up; https://www.weather.gov/cle/SKYWARN_schedule Scroll down to locate the Mount Vernon class.

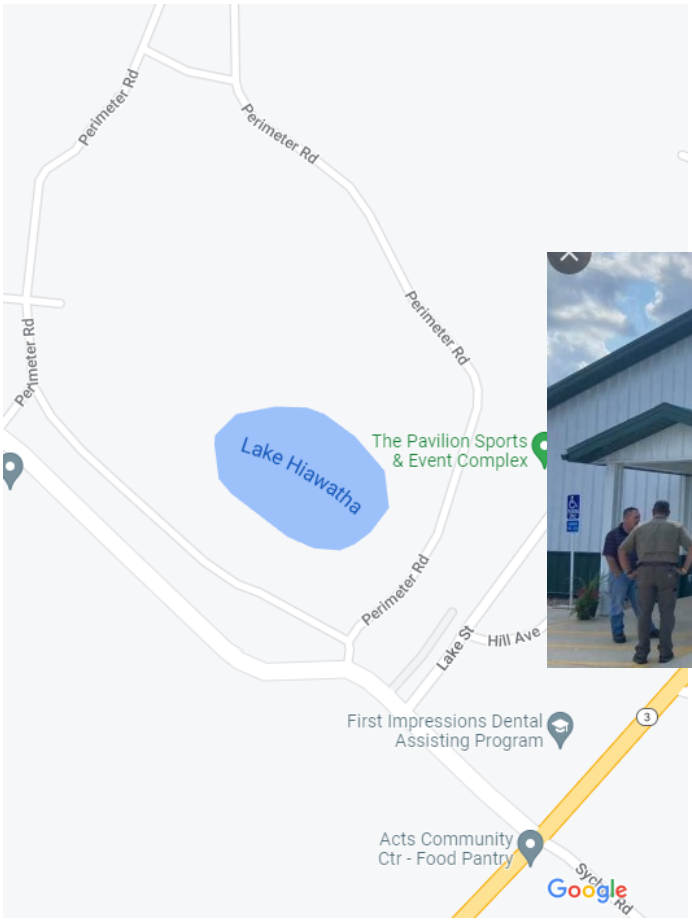
Advanced Skywarn Training

April 30; 9 am to noon

Link to register

https://register.gotowebinar.com/register/7033829192048542223?source=Partner+Emails

NOTE: Previous attendance of a Basic spotter training class is recommended—not required.



Online Operating Class

Bill Stroud
KD8WHQ

The Amateur Radio Club of the National Electronics Museum is doing their "Operating Classes". You may have missed some or want to repeat some classes, or perhaps you have friends whom you think would enjoy these.

Free weekly 3-hour Zoom sessions providing info on a wide range of Amateur Radio Operating Activities will start on Thursday, April 7 and run through June 9 at 6:30 pm Eastern time. Session will be taught by experts, and the subjects include:

- All About Operating — A general Introduction
- Amateur Radio Organizations — Local to International
- Ham Radio Awards
- DXing — History and Tips from the Experts
- QSLing — How to get that needed card for DXCC or WAS
- VHF/UHF Weak Signal Work and Roving
- Image Operating — Slow Scan and Fast Scan TV
- Remote Station control over internet
- Learning CW in the no-code era
- Digital Modes — From RTTY to FT8 and beyond
- Contesting — How to get started, tips for the beginner and intermediated contester
- Logging Software — What's available, how to use
- Propagation — A general intro to HF Propagation
- Amateur Satellites — How to get started
- Portable (backpacking) operation — Tips from an expert
- Setting Up a Modern (or not so modern) HF Station
- Lightning Protection and Grounding
- Traffic Handling
- Public Service, Emergency Communications

A detailed syllabus will be published before the classe begins. Attend them all, or any that you like, but you must register for the classes. To receive registration information, contact Rol Anders, K3RA, at roland.anders@comcast.net.

"The repeater is operational on both analog FM and digital C4FM. Wires-X can only be accessed on digital C4FM side." Don (W8PEN)

Radio Active

Don Russell
W8PEN

As I write this, it is March 27, and the ground is covered with snow. Not that this will last. It is supposed to warm up over the next week or so. Well, week or so back, it looked like Spring had arrived with temperatures in the mid 50's to close to 70 degrees. Spring is close. Hang in there. We will be playing with antennas before long.

2 Meter Repeater Report

Our 2 Meter Repeater is working fine using the backup antenna that was installed early last Spring. This backup antenna is not installed in a favorable spot on the water tower; so, it is surprising to me that it is performing so well. This just reinforces my thinking that replacing the main antenna will make a huge difference in the repeater's coverage.

The club has been in the process of finding a replacement antenna for our defective main repeater antenna. This antenna is a four bay folded dipole array, which is very popular in the commercial radio business. The downside of buying a similar antenna is the price. The price generally hovers around $1,000. Then there are shipping costs, which can be $100 or more. Several involved members have been looking for an antenna that meets our needs and close enough to Mt. Vernon for local pick up.

Thanks to Scott Yonally N8SY, the group found such an antenna. The Inter City Amateur Radio Club in Mansfield just happens to have a spare antenna that meets our needs. They are looking to sell it.

For those interested, the antenna is a Sinclair SD224-SF3PASNM. User manual and installation guide can be found here:

https://cdn.shopify.com/s/files/1/0531/8970/5898/t/7/assets/SD224-SF3PASNM-Spec-Sheet.pdf?v=1615997468

The deal has been made for the antenna and the club will buy it for $600. The group is waiting for the Mansfield membership to approve the sale.

Hopefully we will get this antenna up sometime in May.

In the meantime, I would like to remind members that the repeater itself has been upgraded from the twenty year old Maggorie repeater to the Yaesu Fusion DR-1X. To allow this new repeater to be controlled by the clubs Cat-1000 repeater controller, I bought an interface board from Arcom. Arcom specializes in repeater systems and developed this interface for their own controllers. Luckily, this interface works with any controller.

The Yaesu repeater has been online for several months now without any problems at all. Users of the repeater can use standard analog FM, or the Yaesu digital mode called C4FM. Most traffic is still analog FM. I do not expect that to change anytime soon.

70 cm Repeater

The club has been struggling to install Yaesu Wires-X on the 70 cm repeater.

The repeater was removed from service for about three weeks so that firmware updates, Wires-X installation, and Wires-X testing could be performed.

Thanks to Michael Jacobs KE8HGE and Steve Harvey N8RLW, Wires-X is now operational.

The repeater is operational on both analog FM and digital C4FM. Wires-X can only be accessed on digital C4FM side. Operators need to have a Yaesu C4FM and Wires-X capable transceiver available to access Wires-X. Many members already have the equipment to do so.

To be honest, I have yet to use the Wires-X myself. There is a learning curve to using Wires-X which I need to go through.

Here are some guides to help members learn how to use Wires-X:

https://www.yaesu.com/jp/en/wires-x/index.php

https://www.hamoperator.com/Fusion/FusionFiles/WB7OEV-Fusion-PDF-0018_WiRESX-Install.pdf

The second link has been most useful to me because it describes the functions of various Yaesu radios for accessing Wires-X.

Feel free to try Wires-X out.

The 70 cm repeater is otherwise working normal. You can hold conversations on analog FM or digital C4FM without accessing Wires-X.

Local Mesh Network

The mesh network is working fine. Pretty much just chugging away.

In May, I am hoping to finally install nodes at the Centerburg and Fredericktown water towers. We already have permission for the Centerburg project but waiting on final approval for Fredericktown. Unfortunately, Covid-19 has played a part in the delay of both installations.

I removed the telephone PBX on the mesh network. We needed a good computer to run the Wires-X on the 70cm repeater and the one I had running the PBX was overkill. I plan on putting the PBX back on with a lesser computer. In the meantime, I think the telephones can still be used by calling the IP address of the phones. I have not tried this, but plan to.

After having several club meetings on Zoom, I think it might be fun to set up something like Zoom on our mesh network. I am not sure that the mesh would be fast enough to allow multiple video streams. I am confident that I can set up an audio stream without a lot of headaches on my part. In fact, I did have an application running at one time that did just that. Think I will revisit that application.

I have a bulletin board set up on the mesh that seems to be reliable. It is structured like the early bulletin boards of the land line days of computing. The BBS has several rooms to visit, including rooms with lots of the clubs' newsletters, public domain ham documents, a local email server, etc. It also allows users to create their own rooms if they want to.

Of course, the main goal of the local mesh network is to be useful to the ARES. We are slowly moving in that direction.

Ohio NVIS Day

NVIS day is April 23, from 10:00 am until 4:00 pm. I volunteered to organize the club station at the Wolf Run Dog Park, 17621 Yauger Rd. There is a small shelter there that we can set up at. Not sure about electricity. I will have to see if the shelter has some outlets. If not, I will bring my generator.

I will be bringing the clubs Kenwood TS-570D transceiver and one antenna.

I invite club members to bring their own radios and/or antennas to try out. The idea of the event is to try out different NVIS antennas to see what would work best for close in operation on mostly 80 and 40 meters. However, if you have a new QRP rig or other rig that you want to give a try, bring it.

Be advised that it will probably be cold and perhaps windy. I plan on bringing a tarp that can block the wind. But it will still be cold.

Frank Counts KC8EVS will be setting up a similar station at the Thayer Ridge Park located at 7077 Thayer Road. Hopefully, Frank will have some details posted in this newsletter.

Please note that a six digit grid number, power, and true signal report has been added to the exchange. Should be fun!

Park Grid numbers:

Wolf Run Park is EN80sj

Thayer Park is EN80ri

From the NVIS webpage:

Date: Saturday, April 23

Time: 10am to 4pm

Power: Up to but no more than 100w

Exchange: six-digit grid, power, and true—measured—signal report

This isn't a contest, so take your time! Try different designs! Have lunch!

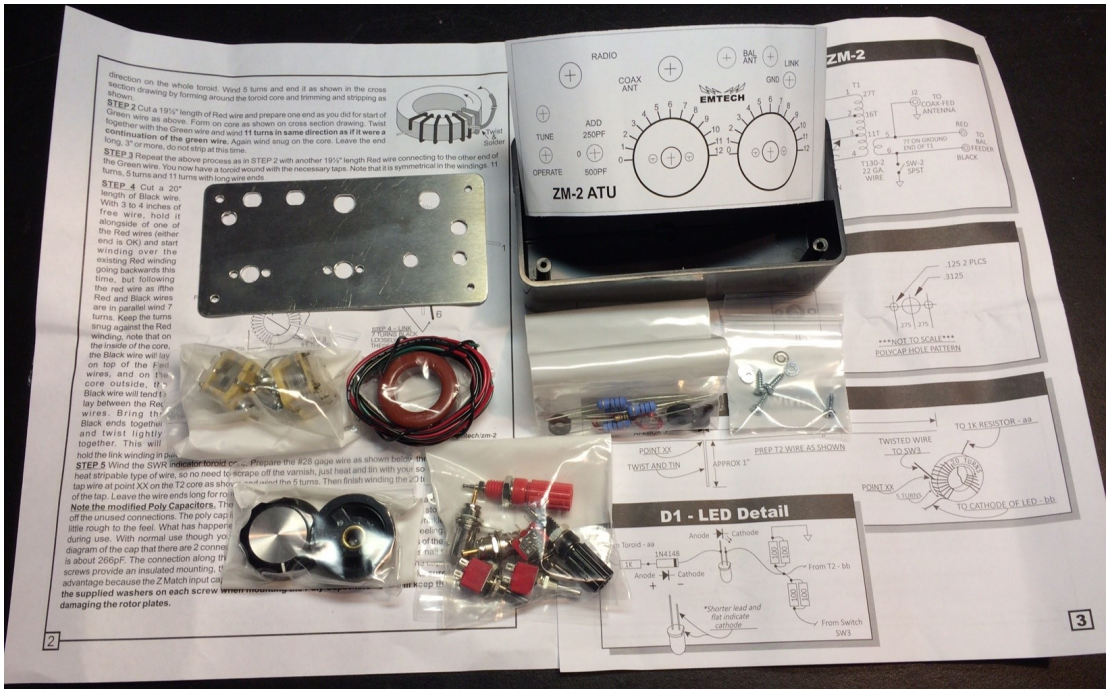
Looking forward to seeing everyone live and in person at the April meeting. 73

Kit Building a ZM-2 Antenna Tuner

Barry Butz
N8PPF

After building my µBITX last year (April 2021 newsletter) I realized a small QRP antenna tuner was what I needed. My first choice was a low price Chinese kit found on eBay. I wasn't completely happy with it but in fairness I didn't fully test it out. That is something I will do another time.

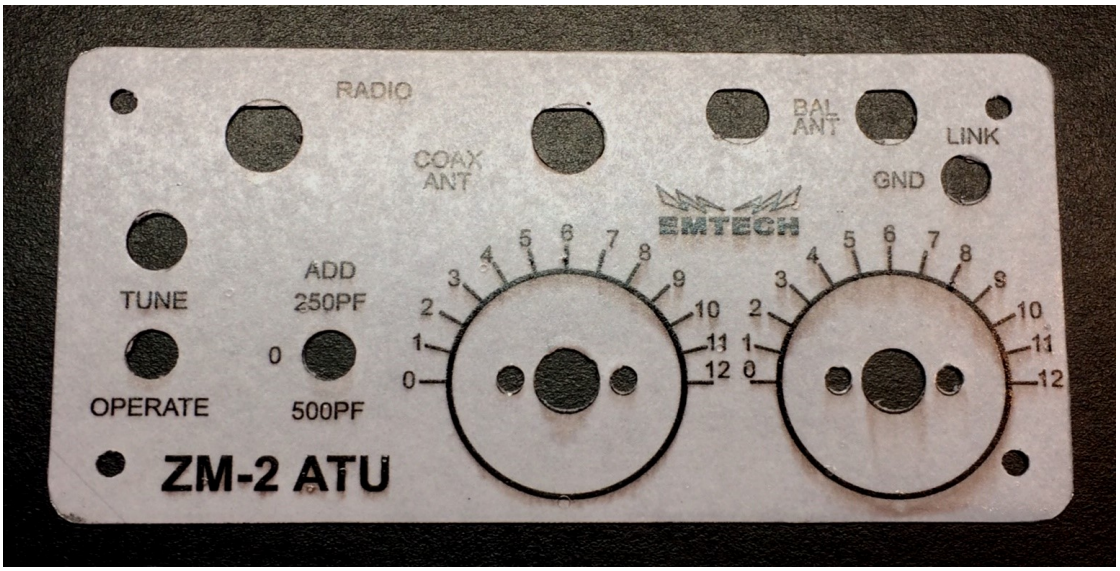
There are several suppliers on the internet specializing in QRP equipment. I chose a tuner from Emtech (https://steadynet.com/emtech/zm2-kit-bnc-connectors). The model is ZM-2 and can be purchased as a kit or fully built. I chose the kit.



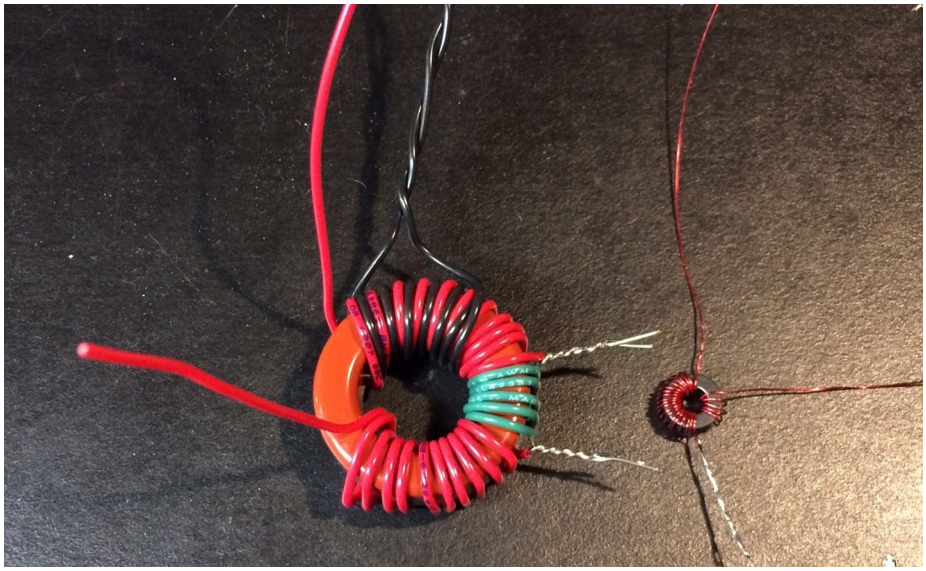
It comes with all the pieces in a plastic box that will become the case of the tuner. One nice thing is the metal faceplate being already perforated for all the components that will be mounted on it.

Paper instructions are enclosed, and some photos and videos are on the web site.

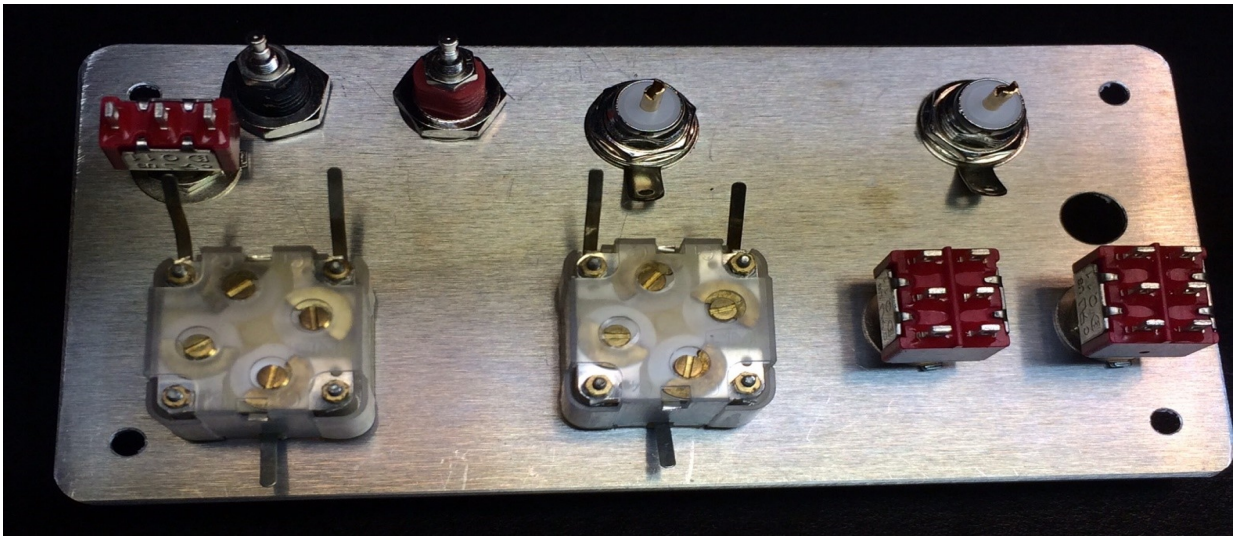
Before assembly starts a paper label is applied to the faceplate. It is advised to coat it with a transparent spray for durability. A second label is furnished just in case. There is some confusion about what kind of spray to use. The video suggests a Krylon acrylic that is no longer sold. But lacquer is suggested in the text instructions. I used an old Krylon spray that I already had. I may have sprayed too heavy coats but anyway the actual finish looks better than in this photo.

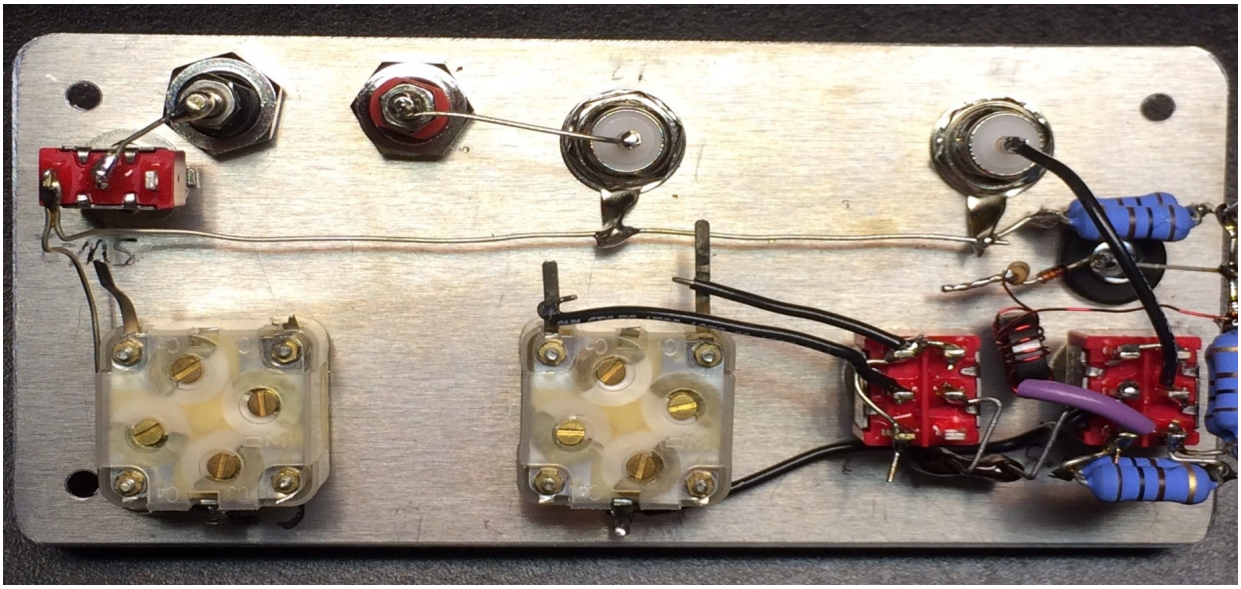


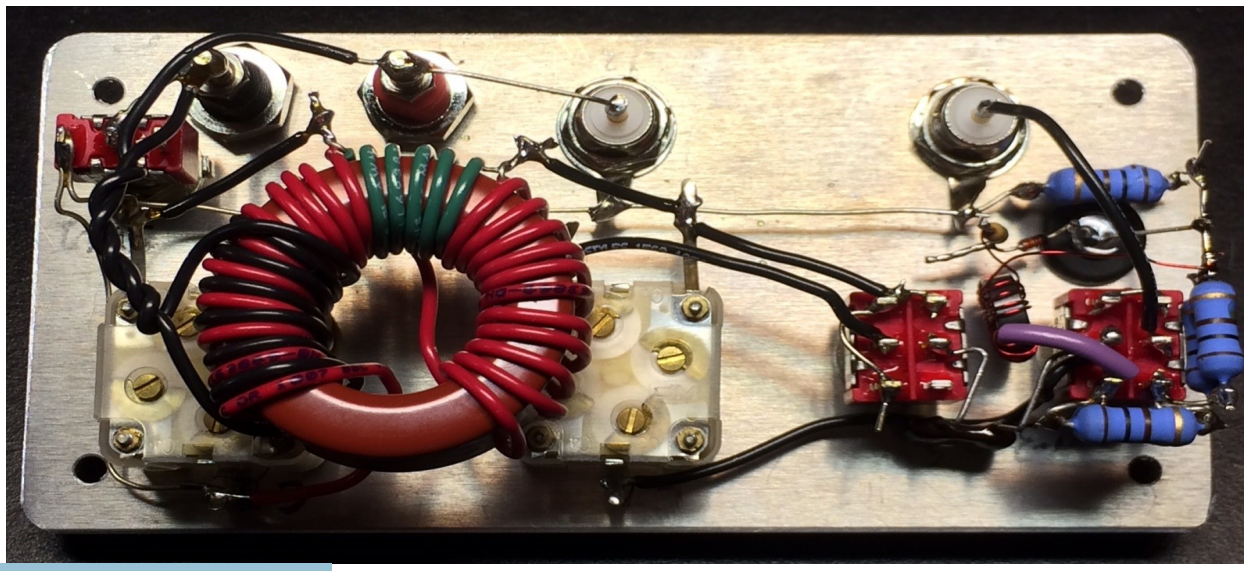
There are sub-assemblies; a large and small toroid. These aren't hard to make if you carefully count the turns.



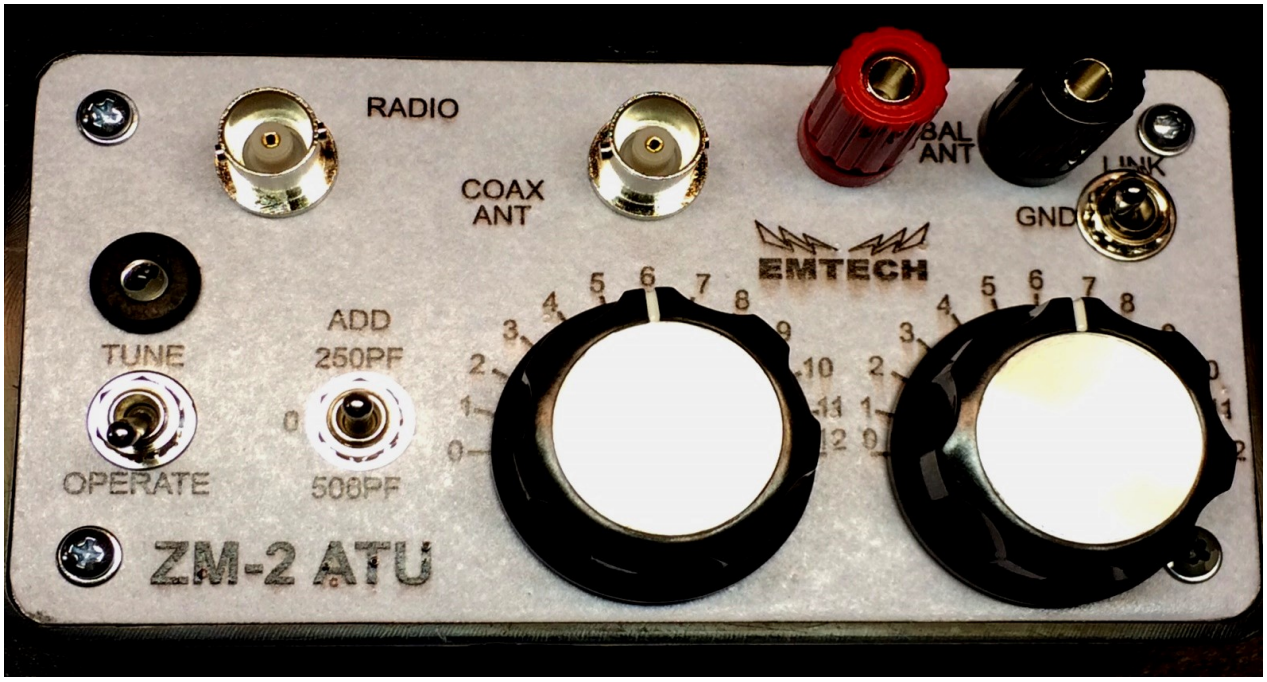
Next is adding all the pieces step-by step.







And the end result looks like this.



After connecting the tuner between the radio and antenna it is adjusted like this:

- First set the switch to OPERATE and adjust the two knobs for maximum noise
- Observe the led above the TUNE switch. It glows red and goes off at the optimum swr
- Set the switch to TUNE. Transmit a CW tone. Adjust the two knobs alternately to find the best match
- Normally the ADD switch is set to zero. If a match can't be found try the 250 or 500 pf setting
- After tuning return to OPERATE. The led stays off in the OPERATE position.
- Repeat the tuning when changing frequency

This tuner is rated for 15 watts maximum; tuning time should be kept brief.

Coax or balanced line can be connected but not both together.

There are a couple good characteristics. First, it normally needs just two adjustments, making it easy and fast to tune. Also, the design of the swr bridge limits the swr to 2:1 *while in tune mode,* not in operate mode.

I think the materials are good, but the instructions could use improvement. Winding the toroid is complicated by having all steps jumbled together in a single illustration. Carefully comparing the online photos helps, although they have some problems also, such as wires changing colors for one picture to the next. Overall, though, by careful building I am pleased with the final product. I must have built it right because it works! On the next page is a photo of the tuner together with the µBITX rig.

Miscellaneous Rambling

Terry Windsor
KI8N

This month I played radio in the park also know as POTA. I was determined to finish my Kilo award at Mount Gilead State Park. The Kilo award means that you have made 1000 or more contacts while in the park. It took me 13 activations to make 1011 contacts.

My first activation was on April 1, 2020 and I finally completed my kilo on March 20, 2022. I wasn't very active in 2021.

Now I think I will try to achieve the same at Kokosing Lake State Wildlife Area. I have one activation there and only need 930 more QSOs to meet the kilo goal.

On March 30, 2022 I activated two parks in Missouri while on vacation. I had a total of 170 contacts and was only on the air for about 2.5 hours. POTA is really catching on for day time hunters. The pile ups on 20M have been crazy.

As the weather gets better I hope to add to my 39 activations at 20 different parks.

There are 272 POTA recognized parks in Ohio and so far I have only been active in 12 of them. Lots of room to add more activations in new areas.

Until next month, "Ham It Up!"

Upcoming MVARC Events

Amateur License Testing—April 16

NVIS Day—April 30

Black Fork Gravel Grinder—April 30

Skywarn Training— May 3

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.

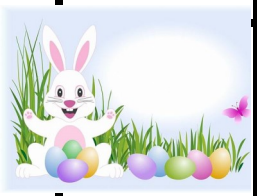
In the aggregate scoring plan, the scores of individual stations are combined under the score of a single club.

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.

April 2022

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3 9:00 pm ARES Sunday Night Net —Don Russell (W8PEN)			6 4:45 pm Dinner - Southside Diner	7	8 10:00 am Breakfast - Academy Bldg.	9 **Gravel Grinder test and check out 9 am**
10 9:00 pm ARES Sunday Night Net—G. M. Jacobs (KE8HGE)	11 **7 pm Monthly Meeting—In Person**	12	13 4:45 pm Dinner - Southside Diner	14	15 10:00 am Breakfast - Academy Bldg. **Good Friday**	16
17 **Easter** 9:00 pm ARES Sunday Night Net— Roger Gorrell (KE8ICI)		19	20 4:45 pm Dinner - Southside Diner	21	22 10:00 am Breakfast - Academy Bldg. **Earth Day**	23 **NVIS Day 10 am** **North American SSB Sprint Contest**
24 9:00 pm ARES Sunday Night Net— Arlin Bradford (KD8EVR)	25	26	27 4:45 pm Dinner - Southside Diner	28	29 10:00 am Breakfast - Academy Bldg.	30 **Black Fork Gravel Grinder 9:30 am**

[Ham Radio Contest Calendar]

ARRL — the national association for Amateur Radio™

RADIOGRAM

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

TO

PHONE NUMBER

E-MAIL

THIS RADIO MESSAGE WAS RECEIVED AT

AMATEUR STATION _____ PHONE _____

NAME _____ E-MAIL _____

STREET _____

CITY, STATE, ZIP _____

FROM DATE TIME

REC'D

TO DATE TIME

SENT

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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.

1320 2/11

ARRL — the national association for Amateur Radio™

RADIOGRAM

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

TO

PHONE NUMBER

E-MAIL

THIS RADIO MESSAGE WAS RECEIVED AT

AMATEUR STATION _____ PHONE _____

NAME _____ E-MAIL _____

STREET _____

CITY, STATE, ZIP _____

FROM DATE TIME

REC'D

TO DATE TIME

SENT

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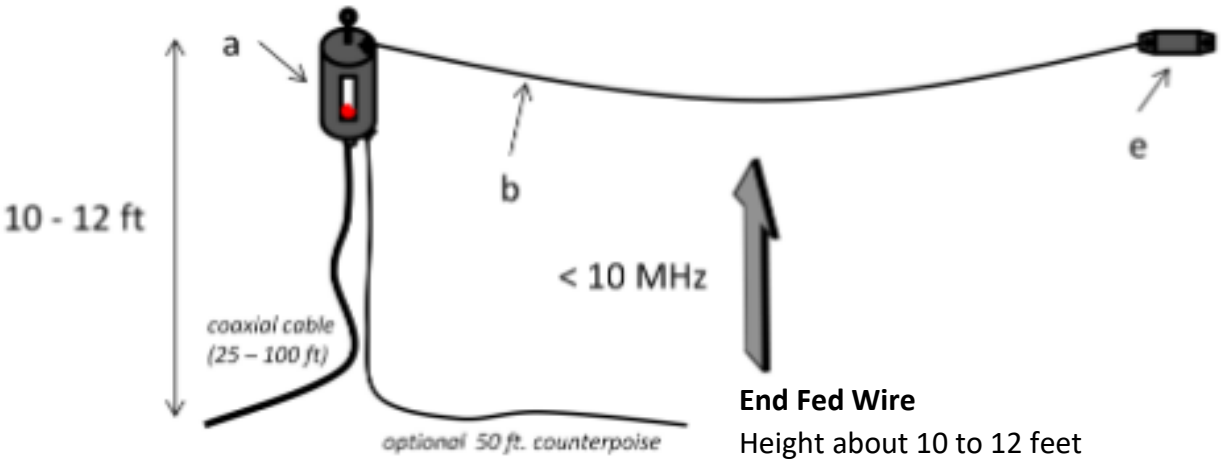
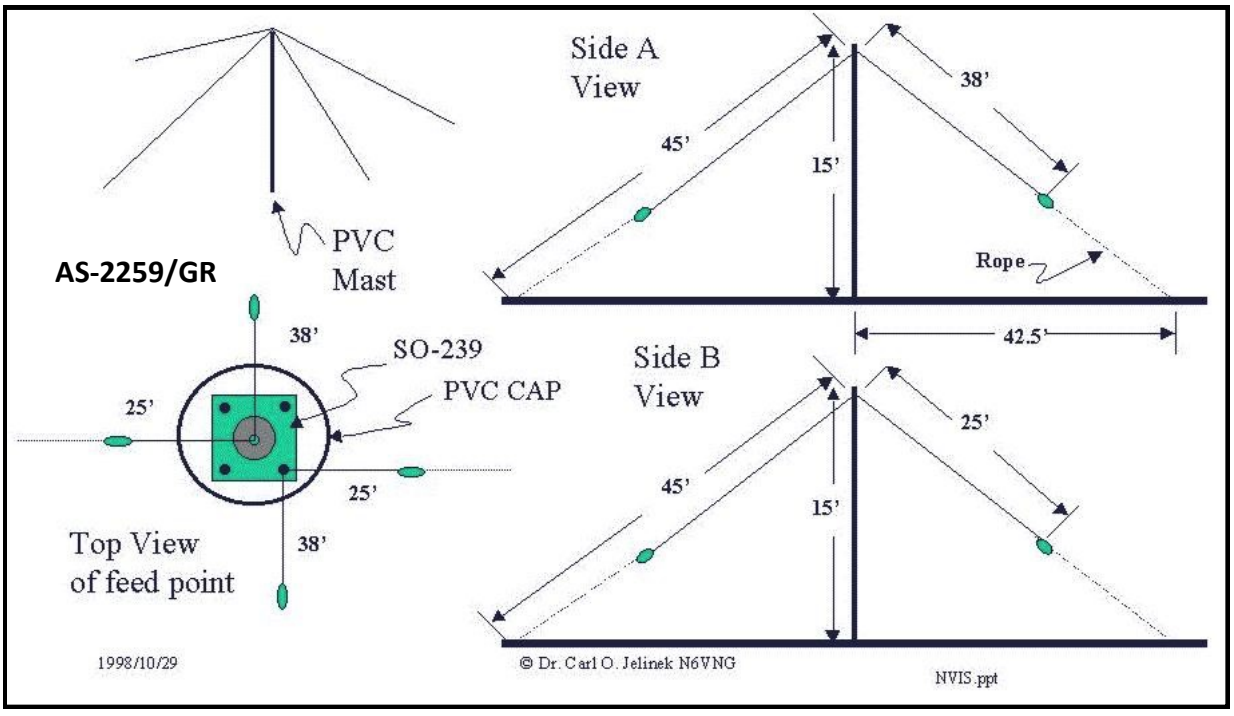
Final Takeaway

NVIS Antenna Types

Link to:
[NVIS Antennas and Propagation]
[NVIS Scattering Antenna]



End Fed Wire
Height about 10 to 12 feet
Wire length 66 feet
9:1 Transformer
Optional 50 foot counterpoise



General Exam Sample Test Questions:

G9C04 How does antenna gain stated in dBi compare to gain stated in dBd for the same antenna?

A. dBi gain figures ae the reciprocal of dBd gain figures + 2.15 dB
B. dBi gain figures are 2.15 dB higher than dBd gain figures
C. dBi gain figures are the same as the square root of dBD gain figures multiplied by 2.15
D. dBi gain figures are 2.15 dB lower than dBd gain figures

G9C07 What does the “front-to-back ratio” mean in reference to a Yagi antenna?

A. The power radiated in the major radiation lobe compared to that in the opposite direction
B. The relative position of the driven element with respect to the reflectors and directors
C. The ratio of forward gain to dipole gain
D. The number of directors versus the number of reflectors

Extra Class Exam Sample Test Questions:

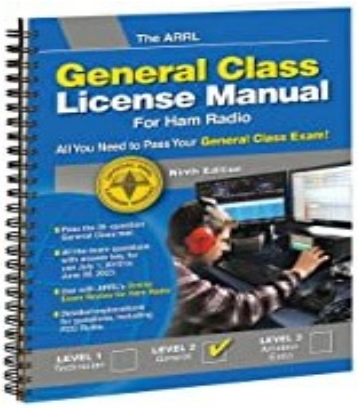
E7D02 What is a characteristic of a switching electronic voltage regulator?

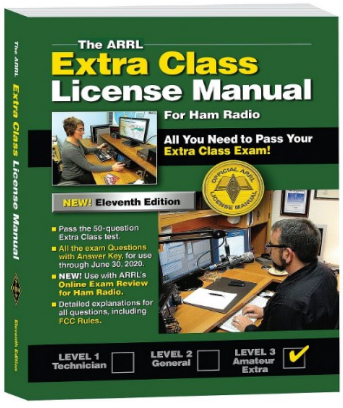
A. It gives a ramp voltage at its output
B. The controlled device’s duty cycle is changed to produce a constant average output voltage
C. It is generally less efficient than a linear regulator
D. The resistance of a control element is varied in direct proportion to the line voltage or load current

E7D09 What is the main reason to use a charge controller with a solar power system?

A. Control of electrolyte levels during battery discharge
B. Prevention of battery damage due to overcharge
C. Prevention of battery undercharge
D. Matching of day and night charge rates

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.qrz.com/hamtest/ The books shown are available from the ARRL for license studying.





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 how to handle traffic. The Net meets daily at 7:15 pm.

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

"...our next meeting is going to be in person." Frank (KC8EVS)

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.

"Spring is close. Hang in there. We will be playing with antennas before long." Don (W8PEN)

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**, 2021 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.

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

The $35 application fee for Amateur Radio licenses becomes effective on April 19, 2022.

Answers to sample test questions on page 21.

G9C09: B – dBi gain figures are 2.15 dB higher than dBd gain figures
G9C07: A – The power radiated in the major radiation lobe compared to that in the opposite direction
E7D02: B – The controlled device's duty cycle is changed to produce a constant average output voltage
E7D09: B – Prevention of battery damage due to overcharge

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.

Mount Vernon Amateur Radio Club
Serving Greater Knox County, Ohio