



# THE SCOPE



The Central Michigan Amateur Radio Club and Lansing Civil Defense Repeater Association

VOLUME 22, ISSUE 2

MAR / APR / MAY / JUNE 2022

CENTRALMIARC.COM

## 2022 CMARC Field Day

This year we will return to Rayner Park for Field Day. Many thanks to Ed Hude WA8QJE for working with the City of Mason to help secure Rayner Park again! This should allow us to have a more traditional Field Day. Looking back, we can't forget how the Ingham County Fairgrounds allowed us to operate there last year – because without Mark Filonczuk N8VMX giving me a heads up and asking me to contact the Fair Director, we wouldn't have had Field Day 2021! We are gracious for the use of the Fairgrounds last year, but also excited to return to Rayner Park. We will be working on having a more traditional potluck/picnic for the club as well as a Get On The Air station this time around.

Please keep an eye out on CMARC's Facebook page and group, the website

(<https://www.centralmiarc.com/fieldday.php>), and the list-serv for further and updated information about Field Day 2022. Information and a quick survey will be put out on these lines of communication over the next couple weeks as we continue to prepare for our 24 hours of operation! We are planning on operating 3A: One CW station, one SSB/Phone station, and one Digital (FT-8, PSK-31, etc.), plus a GOTA on backup generator power. Stay tuned and we hope to see you, or work you, in two weeks!

73,  
Daniel Beuchert / WX8MOJ  
Field Day Coordinator



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## **SAVE THE DATE**

**Ladies Night / Ziegenbein Award Presentation**  
**Friday, August 12 - More details to follow**

**CMARC Hamfest**  
**Saturday, September 10 - More details to follow**



### **CMARC OFFICERS**

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**VICE PRESIDENT:** Gregg Mulder (W8GG)  
**SECRETARY:** Shannon Ranes (WA2NVK)  
**TREASURER:** Kelly Fitzgerald (N9PC)  
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**DIRECTOR:** Michael Wetzel (W8QF)  
**DIRECTOR:** Gordy Smith (KE8JKS)

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**REPEATER TRUSTEE:** Dennis Boone (KB8ZQZ)

The Scope is a bi-monthly joint publication of the Central Michigan Amateur Radio Club and the Lansing Civil Defense Repeater Association.

Please send any articles, classified ads, or other items to the Editor, Chris Ranes, NS8Q at [scope@centralmiarc.com](mailto:scope@centralmiarc.com). Pictures should be mailed in .jpeg format, and articles in Microsoft Word or TXT format.

The views and opinions expressed by our contributing authors do not necessarily reflect the views of the Central Michigan Amateur Radio Club or the Lansing Civil Defense Repeater Association.

## Make a Tax-Deductible Donation.

Did you know you can make a tax-deductible donation to CMARC because we are a 501(c)3?

Checks can be made out and mailed to:

CMARC

PO Box 54

Mason, MI 48854-0054.

Please include your email address so our Treasurer can email a receipt to you for your records.

## Upcoming Meetings Held on the Zoom Platform

**CMARC General Meeting held on the second Friday of each month at 7 pm.**

<https://us02web.zoom.us/j/2200499691?pwd=RW9hRVNPaJCTktpNE81WXZUTCt0Zz09>

Meeting ID: 220 049 9691      Password: CMARC2022



**LCDRA Meetings held at 7 pm (January 21, April 15, July 15, and October 21).**

<https://us02web.zoom.us/j/82349525177?pwd=TIRYTkJNUUNEbnNIWFY5ZlhzVII2QT09>

Meeting ID: 823 4952 5177      Password: LCDRA

**ARPSC Meetings held on the third Monday of each month at 7 pm.**

<https://us02web.zoom.us/j/84852196879?pwd=OE9TV2pVcXRHRWFXQm9rSUo1RUUVkdz09>

Meeting ID: 848 5219 6879      Password: 601694

## Lansing Amateur Radio Public Service Corp (ARPSC)

As we move into summer, the ARPSC will shift to having only one scheduled meeting on the third Monday of each month. We will not be having the training net on the second Monday until fall to allow for summer schedule flexibility. As always, anyone who is interesting in joining, or figuring out what we are about is welcome to join our monthly meetings! There are some classes that you need to take if you want to become a member, and the information can be found here:

<https://lansingarpsc.com/membership-requirements/>

Recently, the ARPSC has been deployed for the 4/20 fest for backup Amateur TV support and we are planning ATV support for Lansing's 4th of July fireworks. We will also be running Skywarn nets as needed. Anyone who might want a refresher on where and how to join a Skywarn net can check out our Skywarn page here: <https://lansingarpsc.com/skywarn.html>

Our next meeting is at 7pm on June 20th on Zoom, and we hope to see you there!

# Treasurer's Report 2022

Shannon Ranes / WA2NVK - CMARC Treasurer

March 2022

<b><u>Beginning Business Checking Account Balance</u></b>	<b>\$6,858.28</b>
Total Monthly Income	\$41.20
Total Monthly Expenditures	(\$15.89)
Total Business Checking	\$6,883.59
Petty Cash	\$1.00
Outstanding Checks Cashed	
<b>Sub Total + Petty Cash</b>	<b>\$6,884.59</b>
<b><u>Primary Share Accounts</u></b>	
Humphreys Fund	\$384.71
Club Station	\$19.09
Building Fund	\$260.17
Field Day	\$200.61
<b>Total Net Worth</b>	<b>\$7,749.17</b>
Youth Fund Balance*	\$254.99
* Separate from CMARC Funds	

MSUFCU Total

Deposited \$41.20 AmazonSmile.

Paid \$15.89 for Zoom monthly payment.



# Treasurer's Report 2022

Shannon Ranes / WA2NVK - CMARC Treasurer

April 2022

<b><u>Beginning Business Checking Account Balance</u></b>	<b>\$6,883.59</b>
Total Monthly Income	<b>\$1,456.00</b>
Total Monthly Expenditures	<b>(\$15.89)</b>
Total Business Checking	\$8,323.70
Petty Cash	\$1.00
Outstanding Checks Cashed	
<b>Sub Total + Petty Cash</b>	<b>\$8,324.70</b>
<b><u>Primary Share Accounts</u></b>	
Humphreys Fund	\$384.73
Club Station	\$19.09
Building Fund	\$260.18
Field Day	\$200.62
<b>Total Net Worth</b>	<b>\$9,189.32</b>
Youth Fund Balance*	\$255.00
* Separate from CMARC Funds	

MSUFCU Total

Deposited \$390 Dues + \$1,066 Equipment Auction.

Paid \$15.89 for Zoom monthly payment.

# Treasurer's Report 2022

Shannon Ranes / WA2NVK - CMARC Treasurer

May 2022

<b><u>Beginning Business Checking Account Balance</u></b>	<b>\$8,323.70</b>
Total Monthly Income	<b>\$184.43</b>
Total Monthly Expenditures	<b>(\$215.89)</b>
Total Business Checking	\$8,292.24
Petty Cash	\$1.00
Outstanding Checks Cashed	
<b>Sub Total + Petty Cash</b>	<b>\$8,293.24</b>
<b><u>Primary Share Accounts</u></b>	
Humphreys Fund	\$384.75
Club Station	\$19.09
Building Fund	\$260.19
Field Day	\$200.63
<b>Total Net Worth</b>	<b>\$9,157.90</b>
Youth Fund Balance*	\$255.01
* Separate from CMARC Funds	

MSUFCU Total

Deposited \$150 Dues + \$34.43 AmazonSmile

Paid \$200 ARRL Liability Insurance + \$15.89 Zoom monthly payment.

**2022 SCHEDULE OF VE EXAMS**  
Sponsored by the  
"INGHAM COUNTY VOLUNTEER EXAMINER TEAM"

To best accommodate the various schedules of those wishing to test, the Ingham County VE Team meets on either a Saturday morning or a Thursday evening at 1435 East Miller Road, Lansing, Michigan 48910 Fire Station #44.

On the ODD MONTHS, testing sessions are held on the second Saturday of the Month at 11:00AM

On the EVEN MONTHS, testing sessions are held on the first Thursday of the month at 7:00PM

Registrations will start a half-hour before testing.

ALL THOSE IN THE BUILDING WILL BE REQUIRED TO WEAR A MASK, NO EXCEPTIONS.  
This is mandated by the City of Lansing.  
Thank you in advance for your cooperation.

John J. Doornhaag  
Ingham County VE Team  
Phone: 517-672-2759  
Email: jdoorn1@hotmail.com

**2022 SCHEDULE OF VE SESSIONS**

**SECOND SATURDAY OF THE MONTH, CHECK-IN AT 10:30AM, TESTING STARTS AT 11:00AM**

January 8th  
March 12th  
May 14th  
July 9th  
~~September 10th~~  
November 12th

**FIRST THURSDAY OF THE MONTH, CHECK-IN AT 6:30PM, TESTING STARTS AT 7:00PM**

February 3rd  
April 7th  
June 2nd  
August 4th  
October 6th  
December 1st

# Custom Woodworking Pieces by Jim Hannahs, KC8QWH

ginhannahs@gmail.com (517) 589-8346

100% of the proceeds will benefit  
LCDRA (Lansing Civil Defense Repeater Association)



Bat House - \$15



Blue Bird House - \$15



Bobbing Head Bird - \$20



Butterfly House - \$20



Large Wheelborrow - \$35



Small Wheelborrow - \$30



Log Cabin Bird Feeder - \$45



Regular Bird House - \$15



Suet Feeder - \$15



Trellis - \$20

PHOTOS BY: GINNY HANNAHS / KD8HPG





## Lansing Civil Defense Repeater Association

**By Daniel Beuchert, WX8MOJ**

Our last LCDRA meeting was on April 21st and saw some structural changes to our Board of Directors. With Troy Creed stepping down as secretary after many years of service to the organization, Jeff Goeke-Smith was elected as secretary. We also made some changes to the bylaws and are working towards updating and modernizing our constitution. Our bylaws changes included adding notification of proposals of bylaw changes a week beforehand, an increase of dues to \$20 annually (but pro-rated quarterly, so it's still \$15 to join right now!), and also merged the position of vice president and secretary into the secretary's position. This helped us to match State of Michigan requirements for reporting officers of not for profits, leaving us with three officers (president, vice president, secretary) and three directors. The revised bylaws were voted in unanimously and can be viewed here: <https://public.3.basecamp.com/p/7E9PdbwJy7n4Z667Xf6BGGPv> There are also some constitutional changes being proposed that will be further discussed.

We will be getting the website updated to include our current bylaws, proposed changes to our constitution, and our fundraising efforts. Jim Hannahs is still selling hand made woodwork with 100% of the proceeds benefiting LCDRA. Please consider checking out his work so that you can update your yard while helping out LCDRA at the same time.

Since our meeting we have continued to work with MSU Land Bank and WKAR to explore options for moving the 145.39 repeater to the Dobie Rd. site. As developments arise, we will pass this information on! We have also received a large donation from a local member of our ham community. Please look at Bruce K2BET's memorandum regarding his generous donation to help LCDRA in the costs associated with relocating the 145.39 repeater.

Our next meeting will be July 21st at 7pm, and we look forward to seeing you on Zoom then! ■



## Lansing Civil Defense Repeater Association

In memoriam to Madeline and George (N8PKC-SK) Haddad, Marcia and I (Bruce, K2BET) are honored by the acceptance of a donation offered to the Lansing Civil Defense Repeater Association as a contribution to enhance and maintain the area repeater network installed, maintained and monitored over many years by the volunteer officers and members of this organization. The Haddads were mother and step-father to Marcia, in-laws to myself for many of those years.

Mr. Haddad acquired his General Amateur license at age 70, apparently inspired by my activities at the time, and became a dedicated CW operator, making many QSOs, and friends around the world, in the twenty years he was able to enjoy the hobby. His wife, Madeline, though never licensed, was instrumental in assisting her husband in learning the information to complete the FCC testing questions, and reliably using Morse Code, the mode he eventually preferred operating above all others. George also continually monitored the various repeaters accessible from his Oakland County home.

My own interest in supporting the LCDRA organization began in my more active years of the 1970s and before, eventually accepting the position of Coordinator of the then 'Tri-County AREC' group for a brief two years. Though less active recently, I have always been aware of the importance of the development and maintenance of the local repeater network by the various volunteers and technicians who offer their knowledge and skills to provide such communications

as a service to the community in general, and amateur operators, specifically.

It is hoped that this contribution will help carry forward plans already in motion to increase the coverage and reliability of the current repeater network, particularly the 145.39 repeater active for most local weather and disaster events, as well as a communications service for many local charitable entities when called upon for that purpose.

It has not escaped my awareness that I have used the repeater system over many years, without a dues paying membership to the organization. With this donation I trust I will have paid those dues and will continue to do so. I know I am not alone in bypassing the membership and dues, due to "just occasional use of the system", but in spite of that I am realizing that the dues paid by full membership become increasingly important if our volunteer leaders are going to continue to provide the best and most reliable communications to us and the rest of the community. I encourage others in that category with me to extend themselves in dues-paying membership, in the greater effort to continue future expansion, maintenance and reliability of the system we all enjoy daily, during weather nets, or just informally, from time-to-time.

73&88's  
Bruce and Marcia Tanner  
Okemos, Michigan

# Why a strong activator might not hear your call

By Thomas Witherspoon, K4SWL



I had a conversation recently with a ham who upgraded his license for HF privileges primarily to do park activations in the POTA and WWFF programs.

He mentioned that he had a few successful park activations under his belt but was left scratching his head on a couple of occasions when he attempted a Park-To-Park (P2P) contact but could not be heard by the other activator.

He did all of the right things: announced his call sign followed by “Park To Park” twice and was patient while the activator worked a small pile-up.

In one case, he said the other operator had an incredibly strong signal—and having always heard, “if you can hear them, you can work them”—he was really baffled that he couldn’t make contact especially being a desirable P2P. His activations were successful so he knew it wasn’t an equipment issue.

He asked for my input, so I thought I might share a few points here as this is not at all uncommon—please comment if you think of others:

## Big power, small antenna

Some activators operate mobile and don’t actually deploy their gear in the field. They simply drive up to a site, turn on their mobile HF rig in the car, and start making contacts with the mobile whip antenna mounted on their vehicle. There’s nothing wrong with this approach in the POTA program (just keep in mind mobile activations are not allowed in SOTA). Mobile activators can rack up numerous park activations in one day often regardless of weather or any site restrictions.

Mobile vertical antennas like Screwdrivers, Hamsticks and whips are quite impressive and, many activators swear by them. Not only do they work well in mobile situations, but they can also be quickly set up on a tripod in the field and many models can take a full 100+ watts of power. If an activator is pumping 50-100 watts into a small, resonant mobile antenna, their signal is getting out there. But since their antenna might not actually have a lot of gain or efficiency on 40 or 60 meters, it can’t compete—in terms of reception—with a large aperture wire antenna.



See **ACTIVATOR**, Page 12



In this scenario, the activator might be logging a load of stations, but they may not be able to hear your signal if it's weaker than the others in the pile-up.

## QRM on the other end



Often summits are the location of clusters of commercial transmission antennas and towers that can cause interference.

This is a big one, actually, and affects both park and, especially, summit activations.

Sometimes the other activator's site is plagued with QRM (radio interference) emanating from power lines, nearby buildings, transmission equipment, and other electronic sources.

That QRM will not typically affect their transmitted signal, but it will have a dramatic impact on what they can receive and hear.

For example, I recently attempted to activate a game

land I'd never been to before. On Google Maps satellite view, the site looked pretty darn remote and there were no buildings in sight. When I arrived on site, I set up my station, spotted myself, and started calling CQ POTA.

When I turned up the volume on the radio, it hit me that my noise level was a solid S8-S9! Turns out, there was a nearby power line that was spewing broadband noise across the entire HF spectrum. It was pretty much inescapable—there were no unaffected HF bands.

Had I really wanted to continue with that activation (I did not) I would have only been able to work stations with signals that were above my high noise floor. Perhaps one in five contacts at best. My chasers would have all been left scratching their heads.

QRM isn't always S8, but even an S5 or S6 noise level might wipe out 40-50% of the signals the activator can hear.

While hitting the field is usually the best way to escape QRM, there are spots that are as noisy as an urban neighborhood.

## QSB



This is a big one; especially with the unsettled conditions we've had over the past couple of years. QSB, or signal fading, can be a proper obstacle in completing a contact.

If you've been watching my activation videos, you've no doubt seen chasers that call me with a 599 signal and when I respond to them, I hear nothing but silence. In

See **ACTIVATOR**, Page 13



those situations, I'll repeat my reply with their callsign and signal report a few times in a row. I do this because QSB is a bit like having a three year old playing with your volume control while you're on the air.

Seriously, imagine that three year old turning up the volume, then turning it back down, then turning it up again, and so on. It essentially has the same effect. Sometimes QSB is shallow and slow, other times it's deep and fast—or it can be any variation in between (including deep and slow which is the worst).

In those situations as an activator, I reply a few times in a row with hopes to catch the QSB on the upswing so I can have a window of contact with the other station. When I do make contact, I try to keep the contact as short as possible so there's hope for a complete exchange.

As a hunter, you have less control because your only hope is that QSB will be at the peak of signal strength when you call the activator.



My buddy Vlado (N3CZ) draws a crowd during a joint park activation on the Blue Ridge Parkway.

## Environmental distractions

If you've been doing park and summit activations for very long, you've no doubt experienced some "environmental distractions" during an activation.

I've been at parks before when the grounds crew were blowing leaves, mowing, and using other lawn equipment. It can be proper audio QRM especially if you don't have an option to wear headphones to isolate those noises.

Sometimes the wind can cause a lot of extra noise. I've also been in shelters where the rain hitting the tin roof (while

somewhat soothing) adds a lot of extra noise.

I've also been on summits and in parks where other hikers and passersby start asking questions while I'm in the middle of handling CW contacts.

They don't understand that you're actually in the middle of an exchange and need your attention focused. For so many of them, it's the first time they've ever seen/heard someone operating Morse Code and they've loads of questions. I hate to pass up an opportunity to promote amateur radio, so I'll often pause the activation to talk with them.



## In Summary

If you know your radio equipment is functioning as it should but you can't seem to grab the attention of an activator, keep in mind that it's likely them, not you.

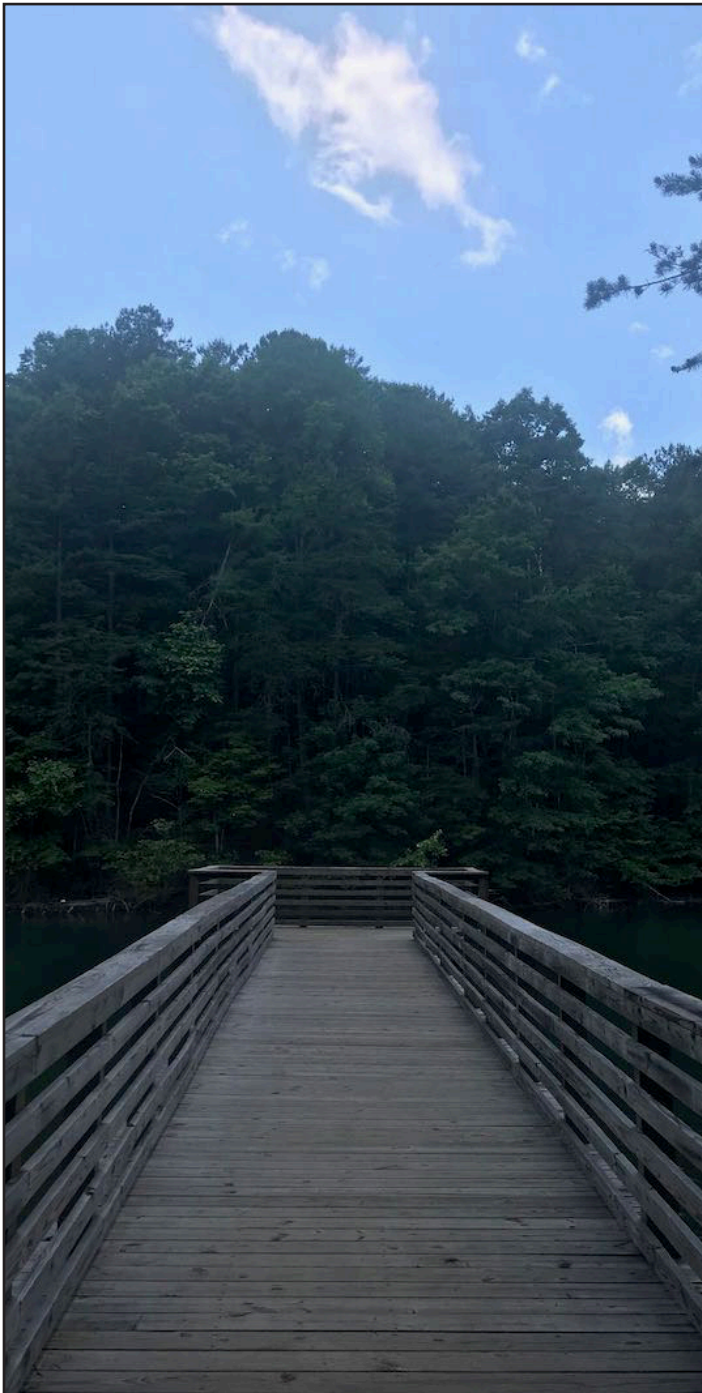
They're not ignoring you, they simply can't hear you.

The best practice for eventually making contact is to be patient and persistent. If you're an activator trying to work another activator for a P2P or S2S (Summit To Summit) contact, keep sending P2P or S2S with your call. Often, other hunters will hear you and point out to the activator during their own exchange that there's a weak P2P or S2S operator calling. More often than not, that's your ticket to busting through! ■

*Used with permission from Tom / K4SWL. Tom documents his portable POTA and SOTA activities on his YouTube channel "[Thomas\(K4SWL\)](https://www.youtube.com/channel/UCqRper)" and on his blog <https://qrper.com>.*

# Field Report: Let's build a super simple antenna on-site and activate this park!

By Thomas Witherspoon, K4SWL



**U**ntil 2016, I had never purchased a commercial field antenna; I built all the ones I had ever used.

These days, I take a number of commercial antennas to the field and use them in my real-time videos and I really enjoy deploying and using them. My buddy Eric (WD8RIF) reminded me, though, that I hadn't actually used a homebrew antenna in ages. He was right!

You see, while I believe commercial field antennas can be incredibly durable and compact, it's important to note that antennas are one of the easiest components of an amateur radio system to build yourself. They require only the most simple of tools and are very affordable. And the best part? They can perform as well as those that are available commercially.

I also get a great deal of pleasure out of building things.

## A simple goal

I've mentioned in previous posts that I often set a little goal that runs in the back of my mind for each park or summit activation I make.

On Monday, June 14, 2021, I made a simple goal: buy my antenna wire en route to Lake James State Park, build the antenna on site, and complete a valid Parks On The Air (POTA) activation.

## A very simple antenna

I also decided to employ my Xiegu X5105 since 1.) it's one of the most affordable general coverage QRP transceivers I own and 2.) it has a built-in antenna tuner (ATU). (*See Figure 1*)

See **FIELD REPORT**, Page 15



One of the cool things about having an ATU is that, if it has the matching range, you can allow it to do the “heavy lifting” in terms of matching impedance.

Although I’d never put the X5105 to the test, I suspected its internal ATU would have the matching range to forgo building a 4:1 or 9:1 transformer and simply pair it directly with a random wire.

All I would need was a 28.5 foot length of wire for a radiator, at least a 17 foot length for a counterpoise, and a BNC to binding post adapter.

The antenna would benefit from multiple 17’ counterpoises, but I really wanted to keep this setup dead simple to prove that anyone can build an effective field antenna with a very minimum amount of components.

Even though I have plenty of wire lying around the house to build this simple antenna, I wanted to pretend I had none to prove that any wire would work.

And to add just a wee bit more challenge, I also limited myself to shopping for antenna wire between my home and the park without making a serious detour from my route. That really limited my options because there isn’t much in terms of commercial areas between me and Lake James State Park.

## The wire

As I left the QTH, I decided that the best spot to shop was a Walmart in Marion, NC. It would only be a four minute round-trip detour at most. I had a hunch that Walmart would even have speaker wire which would be ideal for this application.

In my head, I imagined I would have at least three or four choices in speaker wire (various gauges and lengths), but turns out I had a difficult time finding some at Walmart. We live in such a Bluetooth world, I suppose there isn’t much demand for it these days. A store associate helped me find the only speaker wire they had which was basically a 100 foot roll of the “premium” stuff for \$17 US. (See **Figure 2**)



Figure 1



Figure 2

See **FIELD REPORT**, Page 16





**Figure 3**

While I would like to have paid a fraction of that, in the end it's not a bad price because once you separate the two conductors, you have double the amount of wire: 200 feet.

Although the frugal guy in me cringed, I bit the bullet and purchased their speaker wire. To be clear, though, I could have found another source of wire in that Walmart, but I preferred speaker wire for this application. And \$17 to (hopefully!) prove a point? That's a deal!

### **Lake James State Park (K-2739)**

Once I arrived on site, I found a picnic site I'd used before with some tall trees around it. (*See Figure 3*)

Here's how I prepared the antenna:

First, I cut 28.5 feet of the speaker wire from the roll and split the paired wires so that I'd have two full 28.5 foot lengths.

Next, I stripped the ends of the wire and attached banana jacks I found in my junk drawer. Although these aren't necessary as the binding post adapter can pair directly with the wire, I thought it might make for a cleaner install. In the end, though, I wasn't pleased with the connection to the radiator, so dispensed with one of the banana jacks on site, and later dispensed with the other one as well. The connection is actually stronger without the banana jacks.

I then deployed the 28.5 radiator with my arborist throw line, and laid the other 28.5 half on the ground (the ground of this antenna would pair with the black binding post, the radiator with the red post). I only needed 17 feet of counterpoise, but once it couples with the ground, I don't think any extra length makes a difference (although less than 17 feet likely would).

The antenna was essentially set up as a vertical random wire with one counterpoise.

I then plugged the BNC binding post adapter into the rig, hit the ATU button, and was on the air.

It's that simple! (*See Figure 4*)



**Figure 4: My new speaker wire antenna in all its glory.**



## Gear:

- Xiegu X5105
- CW Morse “Pocket Paddle”
- Arborist throw line
- Weaver arborist throw line/weight and storage bag (affiliate links)
- Tom Bihn Large Travel Tray
- Rite In The Rain Weatherproof Cover/Pouch (affiliate link)
- Jovitec 2.0 mm Mechanical Pencil (affiliate link)
- Muji A6 Notepad (affiliate link)
- Monster Standard Speaker Cable 100ft (Walmart)
- BNC to Binding Post adapter
- Tools: Wire cutters/strippers, Tape Measure, Banana Jack

## On The Air

I’ll admit: I was a bit nervous putting this antenna on the air. Although I felt the X5105 ATU *\*should\** match this antenna, I had no idea if it actually would.

Fortunately? It did.

I was very pleased that the X5105 found a match on the 40 meter band.

I started calling CQ in CW and validated my activation by logging 10 stations in 13 minutes.

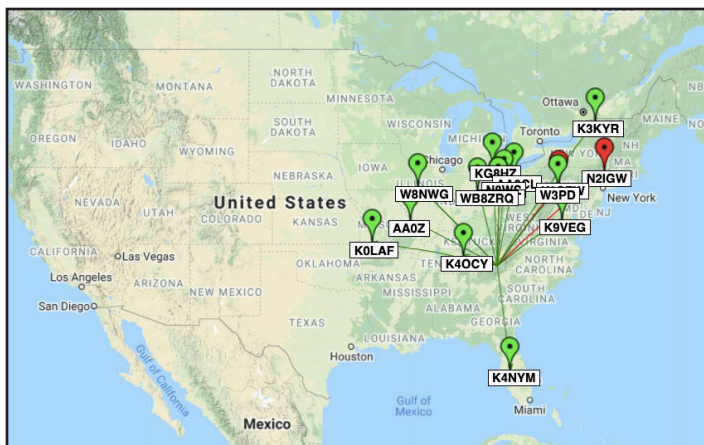
Honestly: it doesn’t get much better than this.

I logged three more stations on 40 meters CW, then moved up to the 30 meter band where the X5105 easily found a match.

I worked one station on 30 meters before heading back down to the 40 meter band to do a little SSB. I logged three SSB stations in five minutes.

## Mission Accomplished

In the end, I logged a total of 17 stations including a P2P with K4NYM.



**Figure 5**

Not bad at all for speaker wire! (*See Figure 5*)

After the activation, I tested the X5105 ATU by trying to find matches on other bands—I was able to find great matches from 60 meters to 6 meters. Most impressive!

## X5105 battery

You might recall that I attempted to deplete my X5105 internal battery at my last (rather long) activation of Lake Norman State Park. I wasn’t able to deplete the battery at that activation, but I finally did at this one.

All I can say is that I’m incredibly impressed with the X5105 internal battery. This was my fourth activation from one initial charge on May 16. The battery lasted for 20 minutes, taking me well beyond the 10 contacts needed to validate this park. I’ll now consider taking the X5105 on a multiple SOTA summit run!

## Improvements

I’ll plan to add more counterpoises to the speaker wire antenna as I know this will only help efficiency.

In addition, I’ll plan to build even more antennas with this roll of speaker wire. Thank you for reading this field report! ■

*Used with permission from Tom / K4SWL. Tom documents his portable POTA and SOTA activities on his YouTube channel “[Thomas\(K4SWL\)](#)” and on his blog <https://qrper.com>.*

# A comprehensive review of the Penntek TR-35 four band QRP transceiver

By Thomas Witherspoon, K4SWL



“Look at this, Tom! Only the stuff I need and nothing more,” cheerfully noted my good friend and Elmer, Mike (K8RAT). It was Field Day two decades ago, and Mike was gazing at his TEN-TEC Scout. I glanced over, and agreed. “So simple and so effective,” Mike added.

I’ve never forgotten Mike’s sage words. That Scout (Model 555) was about as simple as a then-modern HF transceiver could be: it had a total of three knobs—one for AF gain and IF bandwidth, one for RIT and Mic gain, and an

encoder. It also had three mechanical switches on the front: one for power, one for TUNE and NB, and one for CW speed and RIT. It also had an analog SWR/power meter. The Scout used plug-in band modules for each HF band and featured a large segmented bright green LED frequency display that was characteristic of so many TEN-TEC rigs of the day.

And Mike was right. For those of us who appreciate radios with a simple, uncluttered, and an almost utilitarian interface, the Scout was, in vintage parlance, “the bee’s knees.” And that the Scout also performed beautifully was just icing on that cake.

When the Scout first appeared in 1994, embedded menu options and spectrum displays were not yet commonplace

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among amateur transceivers. Embedded menu items can open the door to near granular level control of your radio's functionality and features. Then again, if those embedded menus aren't well thought out, it can lead to awkward operation practices in the field, during a contest, or even during casual operation.

As a radio reviewer, I spend a great deal of time sorting out embedded menu functionality and design. Perhaps it's for this reason that I so enjoyed reviewing a radio that bucks this trend and reminds me of a time that was simpler, not to mention, easier.

## Enter the Penntek TR-35

The new Penntek TR-35 is a four-band CW-only QRP transceiver that is available both as a kit (\$279) and as a factory assembled and tested unit (\$379). Penntek transceivers are designed and manufactured by John Dillon (WA3RNC).

All of his transceiver kits are available at his website WA3RNC.com.

I was first drawn to the TR-35 after reading the opening paragraph of the product description:

*"Compact but powerful 4-band, 5-watt CW transceiver kit that uses no tiny push buttons, and without those seemingly endless and hard-to-remember back menus. There is a knob or a switch for every function!"*

Sold!

I considered buying and building the TR-35 kit, but I wanted my eventual review—this one!—to focus on the radio's functionality and performance. So a factory-assembled and tested unit was right for this purpose, just so that any performance issues wouldn't be a result of any shortcomings in my kit building skills.

I decided to reach out to WA3RNC and ask for a loaner. John very kindly sent a factory built TR-35 to me along with return postage and a very flexible loan period (thank you, John!).

## Look and feel



The TR-35 is a surprisingly compact radio, measuring 5 ½ X 3 ¼ X 1 ½ inches, not including the switch and knob protrusions. The chassis is made of a durable plastic and the total weight is a mere 10.6 ounces.

The TR-35 sports a small blue monochrome OLED display that's surprisingly easy to read in the shack. Outside—in full sunlight—I have found that I needed to cover the display with my hand to read it. Still, the display works quite well and is very crisp.

Besides an encoder, the TR-35 sports four knobs: keyer speed, transmit power, RF gain, and volume.

Yes...not only does the TR-35 have a dedicated CW speed control, but it even has a dedicated RF gain control!

As of late, I've tested a number of transceivers that bury keyer speed under various menu levels. It can be challenging to access when, for example, I want to slow down or QRS for a slower CW op. With the TR-35, it couldn't be easier. There's a dedicated speed control accessible at all times. Same thing for RF gain; I find this an incredibly useful adjustment especially when operating during the summer when QRN manifests itself in ever-present static crashes. Tweaking the RF gain can make long listening/operations sessions much more pleasant and less fatiguing.

The TR-35 also sports three mechanical switches on the left of the OLED display: a red-capped power on-off switch, a white-capped receiver mode/AUX switch, and a white-capped band selection/RIT switch. The two white-capped switches are 3-position spring return toggle switches.

To change bands, for example, you simply flip the band selection switch upward momentarily then allow it to spring back to the center “off” position. Each upward flip of this switch cycles the TR-35 through the 40, 30, 20, and 17 meters bands, in that order. If you flip the switch up and hold it up for a couple of seconds, the current frequency and receive mode are stored in a “semi permanent” memory. The display momentarily will switch to a reverse optical mode to confirm that the current frequency has been stored. To recall the stored memory, simply click the switch upward twice in quick succession [note that this function changed slightly with the firmware update mentioned below].

As simple as the TR-35 is, it’s still worth reading through the operation manual to unearth extra features like this that might otherwise go unnoticed.

The TR-35 even has a RIT control which can be very useful if you’re rag-chewing with a friend who has a drifty transmitter, or if you would like to operate split in the field. RIT can be adjusted for +/- 5 kHz. There is a dedicated yellow lens LED light under the RIT toggle to indicate that it’s engaged.

The receiver mode switch toggles the filter between narrow CW, wide CW, and SSB. Keep in mind that while the TR-35 does have an SSB filter setting, this is only for listening purposes; it has no other SSB functionality.

The tuning encoder is also a push button, and like many small transceivers, pushing it will allow the user to toggle between tuning rates. The TR-35 can change frequency in 10 Hz, 100 Hz or 1 KHz steps. Short presses of the tuning knob will toggle between 10 and 100 Hz tuning steps. A long press will enable 1 KHz steps.

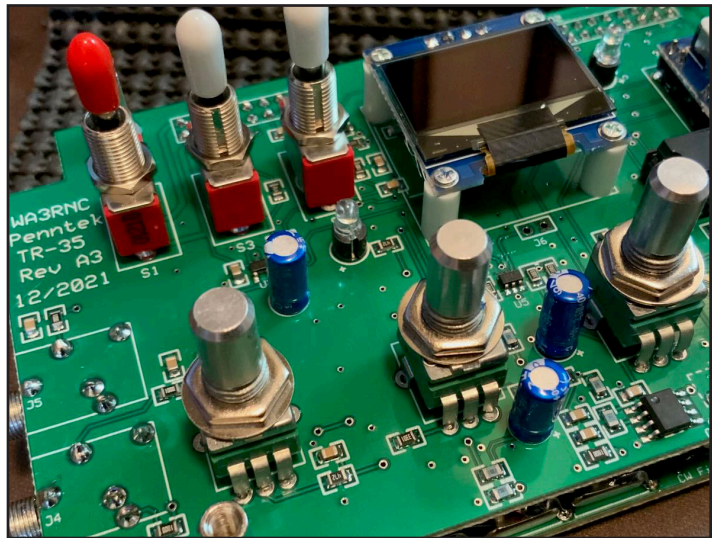
There are a total of five internal adjustments that require opening the radio chassis: PA Bias, sidetone level, signal-level LED sensitivity, audio bandpass filter frequency, and a low battery detector threshold. Other than when building

the kit, the only one I suspect might need to be tweaked at some point would be the sidetone volume.

Besides the RIT indicator, there are two other LED indicators: one with a red lens for a low battery warning, and one with a blue lens that serves as the signal level indicator. The blue LED, when tuned to a strong CW signal, gives a visual indication of the CW that’s being received. I’ve actually enjoyed trying to copy random code and callsigns with the volume turned down and simply watching the blue LED flashing code. While I’d never attempt this during a park activation (I mean, how could you handle a CW pileup?) it’s fun to do this at home.

One other thing very unique to the TR-35? It has both a dedicated straight key and a paddle port. That’s right: there’s no menu item to switch the key input from “straight” to “electronic” keying; you simply put your key into a dedicated port. What a fun little luxury!

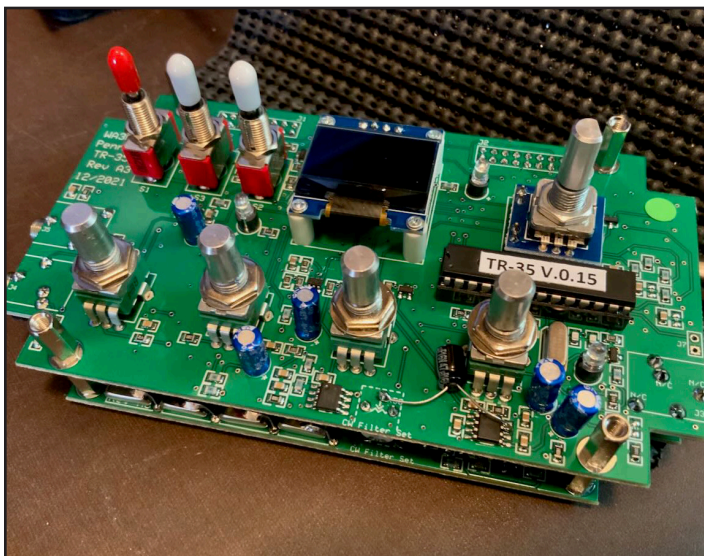
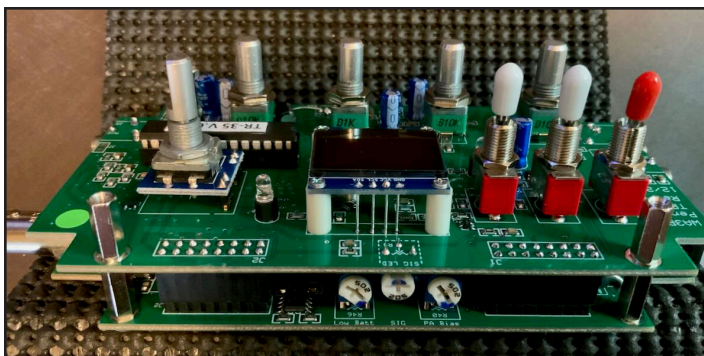
## A note about the TR-35 kit version



In my first unit, I noticed a bit of noise from the OLED display. Turns out, this was an issue with a small number of John’s earliest units, and there was a very simple fix: adding a capacitor to the amplifier chip bypass pin. For anyone with a unit thus affected, John offered to send a capacitor—or, if preferred, the owner could send in their unit to him and he would add the capacitor himself (with free shipping! Excellent customer service). As I already had a capacitor that fit the bill, I neither needed one of his,

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nor John's kind offer to install it.

I opened the TR-35 to solder in the capacitor, and it was then I discovered the superior quality of this kit's boards and components. (I instantly regretted not ordering the kit version!)

I've heard from a number of my blog readers who built the kit and many have told me it's one of the best radio kits they've ever built. The boards are of a good quality, all of the SMD components are pre-installed, and the toroids are all pre-wound! Does it get any better than that? Why, yes, it does: all of the kit's component groupings are separated into individual poly bags, making it easy to quickly identify the components needed during each stage of the build. This is such a luxury for those of us who are used to receiving a "bag-o'-parts" in our kit boxes.

In summary: if you're looking for a low-stress kit building experience, look no further!

## On the air

At the end of the day, a radio's design and ergonomics only carry it so far. For a radio operator to enjoy the whole package, the radio needs to perform.

Over the past few months, I've given the TR-35 a thorough workout on the airwaves. I've used it at the QTH for casual contacts, and for hunting park and summit activators, for working DX, and even participated in a CW contest. I've also taken the TR-35 to the field and used it during park activations of my own.

How well does it perform? In short: *beautifully*.

If you've been reading my TSM reviews lately, you might have noticed that I've pointed out an unpleasant tendency for low-cost radios to overload easily and produce harsh, unrefined audio. Being completely transparent here, I worried the TR-35—also being a small, affordable radio—might fall into this category.





Fortunately, that did not turn out to be the case! Indeed, quite the opposite.

The TR-35 has very pleasant audio. The noise floor is quite low and I've found I can operate it for extended sessions with no listener fatigue.

In my view, the filter selections are also a particularly nice addition. I primarily keep the narrow CW filter engaged unless I'm hunting for signals on the air and want the "blinders" off. The narrow CW filter is 250 Hz, but to my ear, it sounds much more like 500 Hz or so. Indeed, the narrow filter sounds almost identical to the 500 Hz Collins filter in my FT-817ND. To me, it's the perfect bandwidth because I rarely use extremely narrow filtering.

The most surprising thing to me—and to my buddy John Harper (AE5X)—is how well the TR-35 receiver could handle the RF density of a CW contest. He and I both participated in the ARRL DX Contest with our TR-35s. To be clear, I'm not actually a dedicated contester; I simply

(and rather selfishly!) participate in contests for the DX. It gives me a small thrill to poke through a big gun pileup with my meager 5 watts of flea power. And I did this numerous times with the TR-35, and even logged one all-time-new country!

While the narrow CW filter of the TR-35 doesn't have sharp skirts or the surgical precision of a contest-grade radio, the receiver made up the difference. I compared the TR-35 with the new Xiegu X-6100 (click here for my review of the X6100) in the ARRL DX contest, and the TR-35 simply wiped the floor with the X-6100. Where the X-6100 overloaded in the dense RF environment, the TR-35 front end seemed relatively stable and pretty darn bullet-proof. Frankly, I never expected a QRP portable radio in this price class to have "contest chops," but the TR-35 really does.

In the field, the TR-35 has been a sheer pleasure to use. It's compact, the chassis is rugged and feels sturdy, not to mention, it does the job.

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The TR-35 operates from 9.5 to 14 volts, thus my 3Ah LiFePo4 battery is an ideal power source. Since the TR-35 consumes no more than 100 milliamps in receive, even a modest battery will power it for hours at a time.

## Any cons?

No radio is perfect, but I'll admit that it's difficult to come up with a list of cons for the TR-35 because the whole design philosophy is built around simplicity, performance, and a successful kit building experience.

What the TR-35 does, it does exceptionally well. I'll admit, I've very few criticisms.

That said, as with my Mountain Topper MTR-3B, I wish the TR-35 had even a basic SWR meter. Since I've primarily used either resonant end-fed half-wave antennas, or paired the TR-35 with my Elecraft T1 or Emtech ZM-2 portable tuners, it hasn't really been an issue. Yet I do like a little feedback in the field to let me know if, for example, I've damaged the antenna in deployment and it has negatively affected the SWR.

Also, as I previously mentioned, the OLED screen may need a little cover to be read in full sunlight. Again, minor criticisms.

I also like built-in CW message memory keying in my field portable radios, and as the TR-35 originally did not have this, I initially listed it as a "con." However, one week before this issue of TSM went to print, John WA3RNC sent me a prototype TR-35 firmware chip to Beta-test. The new firmware adds two CW message memories. I used it heavily during a Parks On The Air (POTA) activation on Wednesday, April 20, 2022, and can confirm that it works very well indeed! On April 23, 2022, John announced that the upgraded chip will ship with all new TR-35 orders. The upgrade is also available for existing TR-35 owners, although due to chip shortages, upgrading one will require sending the TR-35 back to John for reprogramming. He will do this for free, and is only requesting \$15 for return shipping and insurance.



## Summary

If you haven't gathered, I really love the Penntek TR-35.

Why? For the same reasons my buddy Mike loves that Ten-Tec Scout: it's "so simple and so effective." Like the Scout, it doesn't offer a deep feature set, but it has "everything [you] need," and it packs meaningful performance with great audio characteristics, stable AGC, and has those all-important controls readily accessible. It's not complicated, and that's the point; it's really a joy to use.

And the fact that it's available as a kit? Woot! All the better.

The Penntek TR-35 is truly a keeper, and if all of this sounds appealing to you, I highly recommend it. ■

<http://www.wa3rnc.com/store/tr-35-cw-transceiver-kit.html>

*Used with permission from Tom / K4SWL. Tom documents his portable POTA and SOTA activities on his YouTube channel*

*"Thomas(K4SWL)" and on his blog <https://qrper.com>*

**CENTRAL MICHIGAN AMATEUR RADIO CLUB  
BOARD MEETING  
MARCH 5, 2022**

PRESENT: Dan Beuchert, Dan Dembinski, Kelly Fitzgerald, Gregg Mulder, Shannon Ranes,  
Gordy Smith, Michael Wetzel

VISITORS: Abby Beuchert, John Doornhaag, Chris Ranes, Tom Rocheleau, Dave Vick

Dan D. called the meeting to order at 7:03pm.

**Building committee** - Meeting next week. Still possibly look at building in Lansing's Old Town.

**Zoom account** - Currently in Gordy's name. CentralMIARC@gmail.com

~Dan B. saved and uploaded last month's Bob Heil presentation recording to YouTube.

~More than one Board member should know the login info. We can add other account administrators.

Probably several, approved by Board, so if something happens, more than one has information and can host. ie power outages, wifi outages, death, etc. We should also have a back-up Zoom operator.

~[Board@CentralMIARC.com](mailto:Board@CentralMIARC.com) is the email to use if we want to send a message to everyone on the Board.

Emails are forwarded to each Board member's personal email address.

~Shannon mentioned, if someone joins meeting later, they won't see the original messages on Zoom. If we give instructions, need to keep pasting them in Zoom if someone rejoins. Kelly and Dave mentioned can set up a macro so permanently leaves messages in Chat.

**General Meetings** - At this Friday night's meeting, we can use the tv that is on the stage in the auditorium. We can move it into the gym. Someone mentioned about donating a tv which could be left in the storage room.

~When we were at the Salvation Army location, there was a document that listed what things needed to be done before/at/after each meeting and who was doing what. Board members come early to the meeting at WLCC, so they know where things go?

**Auction** - After this Friday night's meeting. The items were Don McLain's and have been inventoried and priced. Dan D. said the antenna sold and he has the money. The amplifier sold and he will give the money once received on eBay. We'll use a webcam for Friday night's auction so those on Zoom can participant. Plan to have Meeting/Break/Auction. ~A pdf document that members can print off would be helpful. ~Dan D will send another message on the ListServ with auction items. ~Tom will update the website to list our next meeting and auction. ~Should we have a silent auction? ~Dan D. has researched product values online and a paper will be by each item, with the suggested price. ~About 30 items. ~Items not sold will be held for HamFest. ~An hour time limit.

**Storage at West Lansing Church of Christ** - We will have a day of down-sizing our storage footprint in the garage at South Lansing Church of Christ. Dan D. will ask for volunteers at the next meeting. We will keep the refrigerator. We paid about \$500 for it. Dan D. can store the items left over from tonight's auction. Three dates we should look at: 3/19/22, 3/26/22, 4/2/22.

~We have our inventory which was begun about five years ago and contains some updates. Look at three categories - Keep. Get rid of. Store elsewhere because we will want in the future.

~We may need to store large items elsewhere. A couple members have offered.



**Mason Building/Property** - Discussion regarding the tower and antennas still at our former location in Mason. A For Sale sign is still in front of the building. Dan D. has left messages a couple times but no return calls. He will contact Kevin as well. Suggestion to have the Antenna Men take the towers/antennas down.

**Recording meetings/YouTube** - How do we want to proceed? Dan B. recorded both the business meeting and speaker portion of the February meeting. Is everyone on board with taking business meetings and put them on YouTube? YES! If we start recording everything, it will wear people out. Items like Field Day, HamFest, special speakers and occasions like Ladies Night/Ziegenbein, etc. If someone really wants to know what took place, they can read the meeting minutes. Not everyone will want to be on YouTube. We could tell people if they interact with the speaker, they will be on YouTube.

***Motion by Dan B. to put special presentations on YouTube and not business meetings. Second by Michael and Kelly at the same time. Approved by all. Motion passed.***

Dan B will remove the business meeting portion of the February meeting and re-upload Bob Heil's presentation to YouTube.

**Ideas for promoting ham radio** - Kelly's sister is a librarian in Indiana. At a local library, this month, they have a display about ham radio. What it is, what it does. Might be something we could do with local libraries here. They have a large meeting room at their library.

**Suggestion of changing by-laws by Dave Vick** - Why don't we have a number or minimum number required for decisions at CMARC Board meetings and General meetings? A long discussion took place regarding numbers, minimums, quorums, what is considered "present", how many members CMARC currently has and what number we could use as a minimum number in attendance for a general meeting to be considered a meeting, Covid-times when numbers are low, when we were incorporated, dates, keeping votes an odd number, long-term club members mentioned a fourth member was always consulted before any purchase decisions were made like a refrigerator, bylaws specify the Board has seven members, questions about 5.7 and 5.8 wording, some of the current things we do could be from when we were a 501c7 instead of a 501c3. ~Dave will leave the Board to discuss and think about in the next month and look at the language. We will bring up at the April Board Meeting.

**Ziegenbein Nominations** - Tom is the head of the Committee. Due by 3/14/22. One of the statements in the rules is that we do not have to have a Ziegenbein Award.

**Field Day** - Dan B is the de facto leader since no one else has said they want to. He will check with Ed Hude about Raynor Park and contact the head of the Fairgrounds. Tom mentioned on the CMARC website it lists Raynor Park. If using Ingham County Fairgrounds, he can change the website. Members have asked about a more traditional Field Day with GOTA and picnic.

**HamFest** - Dan D. mentioned things are coming along.

***Motion by Dan B. to adjourn the meeting at 9:00pm. Second by Kelly. Approved by all. Motion passed.***

Dan D. is learning the ropes of running meetings and proper language and procedures. Will consult Robert's Rules of Orders. Gregg asked that we remind everyone to please have a little slack with Daniel. He is new at this position and has never done this before. Give him a little lee-way to get used to the ropes.

Respectfully submitted,  
Shannon Raney

**CENTRAL MICHIGAN AMATEUR RADIO CLUB  
GENERAL MEETING  
MARCH 11, 2022 @ 7PM  
In person (19 members + 4 visitors) and on Zoom (9)**

Dan Dembinski opened the meeting with the Pledge of Allegiance at 7:00 pm.

- ~Members and visitors introduced themselves. 4 visitors
- ~VE testing tomorrow.
- ~No cards and flowers in February.

***Motion by John Doornhaag to approve the February 2022 Treasurer's Report. Second by Ben Barker. Approved by all. Motion passed.***

***Motion by John Doornhaag to approve the February 2022 Board Minutes. Second by Gordy Smith. Approved by all. Motion passed.***

***Motion by Kelly Fitzgerald to approve the December 2021 Board Minutes. Second by John Doornhaag. Approved by all. Motion passed.***

- ~Reminder of CMARC dues.
- ~Reminder of LCDRA dues. Next meeting is 4/23/22 @ 7pm
- ~Reminder of ARPSC.
- ~Interesting DX? Gregg - Lithuania this morning
- ~We received a Thank you from Bob Heil, after having him as a speaker at last month's General Meeting. Last month's presentation is uploaded on youtube. Gregg Mulder reminded everyone there are other Bob Heil videos.
- ~Ziegenbein Award nominations are due by 3/14/22. Tom Rocheleau is the chairman.
- ~The Building Committee did not meet this week..
- ~We need to downsize our footprint/items in the West Lansing Church of Christ garage, and we'll need help. If anyone has space to store some items, please let Dan Dembinski know. Dan is planning a Spring pig roast at the church as a thank you, and CMARC members are invited.
- ~Virtual skywarn this year - Dan Beuchert explained what it is.
- ~Presentation after business portion is an auction of Don McLain's equipment.

***Motion by Dan Beuchert to close the meeting at 7:30 pm. Second by John Doornhaag. Approved by all. Motion passed.***

Respectfully submitted,  
Shannon Ranes (WA2NVK)  
CMARC Secretary

**CENTRAL MICHIGAN AMATEUR RADIO CLUB  
BOARD MEETING  
APRIL 2, 2022**

PRESENT: Dan Beuchert, Dan Dembinski, Kelly Fitzgerald, Gregg Mulder, Shannon Ranes,  
Gordy Smith, Michael Wetzel  
VISITORS: Abby Beuchert, John Doornhaag, Chris Ranes, Tom Rocheleau, Dave Vick

Dan D. called the meeting to order at 7:07pm.

**VE Testing** - Ingham County, Thursday, & Eaton County, Saturday. The FCC is raising to \$35.

**Mason Building** - Dan Beuchert spoke with Kevin (building owner). Cleanlites leasing building. Still listed for sale. Kevin is ok with us taking the tower down and not concerned with timeline while we get workers and watch weather. Kevin will get back with phone number for Cleanlites.

~Discussion regarding removing the antennas and towers. Dave has a valid boom lift license. John checked on renting a boom lift last year with AC&E in Grand Ledge. Ask Antenna Men?

**Bylaws** - Main concern of Dave Vick's bylaw change suggestion is the quorum number for Board meetings and general meetings. Instead of a percentage or majority. Also rearrange wording of 5.7 and 5.8. He emailed the proposal so we can look over, read, and be prepared to discuss at next meeting. More discussion on the subject as people read. Fortunately, anyone can attend a Board meeting, so see/hear, and keep things on track if Board members not there.

**Ziegenbein Award/Ladies Night** - Tom, Shannon, and Dan D. Kelly working on meal. Picnic?

**HamFest** - Dale Cole is working with Dan D. on some contacts.

**MIQSO Party** - Ed Hude is checking Raynor Park for the MIQSO Party and Field Day.

**Zoom Account** - Were things changed to the CentralMIARC email address?

**Items at West Lansing Church of Christ garage** - Dan D., Shannon, and Chris met to see what could be done. Will have group work on it on 4/9, 4/23, or 4/30. Mark anything "CMARC" that is going to someone's house. We can put the inventory list on the CentralMIARC login.

**Grants** - Dan D. appointed Gregg as the Grant Committee Chair. Gregg had written an email with grant suggestions and information. Discussion.

**Building Committee** - Meeting again on 4/6 on Zoom. Dan D. will contact Willow Street.

**Presentation next Friday night** after CMARC General Meeting will be Jeff Goeke-Smith and Dan Beuchert regarding LCDRA, ARPSC, and CMARC. Explanations and tower update.

***Motion by Kelly Fitzgerald to close the meeting at 8:33 pm. Second by Dan Beuchert. Approved by all.  
Motion carried.***

Respectfully submitted,  
Shannon Ranes  
CMARC Secretary



**CENTRAL MICHIGAN AMATEUR RADIO CLUB  
GENERAL MEETING  
APRIL 8, 2022  
In person ( members + visitors) and on Zoom (17)**

Dan Dembinski opened the meeting at 7:00 pm.

~Dan D. thanked Chris and Shannon Ranes for meeting with him last Friday night to look at items in the West Lansing Church of Christ garage, for downsizing footprint.

~Are there any new licensees?

~Ladies night - Indoor or outdoor? Dan asked to raise hand for preferences, food suggestions.

~VE - Ingham County last night, Eaton County tomorrow.

~The FCC is raising rates to \$35 as of 4/19/22.

~Building committee meeting 4/6/22 - Michael Wetzel, Gordy Smith, and Dan Dembinski checked out a building in Lansing's Old Town. Used to be a womens' shelter, 40 rooms. May welcome us to have a location there, possibly put up long wires. Will ask about meeting there. Questions of security. Going to be a youth center. Located at 510 Willow Drive.

~Gordy talked with Michael Boensch about the Lansing MakerSpace. Michael gave him the President's email address. He is going to talk with him.

~Dave Vick brought up a couple issues about the bylaws and correction suggestions. The Board appreciates his efforts and will bring up and be decided on at next Board meeting.  
Tom Rocheleau reminded we can read the current bylaws on the CMARC website.

~Secretary and Treasurer reports are not available and will be voted on next month.

~ARPSC - (Dan Beuchert) Training net this Monday night - Second Monday of each month. More details to come over the weekend. April 11, 2022 at 7pm on 145.39. Winlink.

~Randy Williams has been doing Winlink training on a variety of Wednesdays with Dennis Boone and Jeff Goeke-Smith helping. Next one is this Wednesday, April 13, 2022 at 7:00pm.

~LCDRA meeting on Thursday, April 21, 2022.

~Jeff Goeke-Smith and Dan Beuchert are tonight's speakers about LCDRA, ARPSC, CMARC.

***Motion by Dale Cole to close the meeting at 7:26 pm. Second by Dennis Dann. Approved by all.  
Motion passed.***

Respectfully submitted,  
Shannon M. Ranes

**CENTRAL MICHIGAN AMATEUR RADIO CLUB  
BOARD MEETING  
5/7/22 (ON ZOOM)**

PRESENT: Dan Beuchert, Kelly Fitzgerald, Gregg Mulder, Shannon Ranes, Michael Wetzel  
ABSENT: Dan Dembinski, Gordy Smith  
VISITORS: John Doornhaag, Tom Rocheleau, Dave Vick

Gregg called the meeting to order at 7:05pm.

Since Dan D. and Gordy were not at the meeting, tabled Dave V's suggestion of bylaw changes until next month's meeting.

**POSSIBLE BUILDINGS TO USE FOR MEETINGS AND STORAGE**

~Tom and Dan D. met with man at building on Willow Street. Toured building - rough shape and needs a lot of work, but may be able to give us a room. Possibly September/October, but may be more like 2023. Have to see if doable. Nothing set in stone. Looks like good possibility but requires more investigating. Tom sent a link in chat on Zoom, giving more info about building.

~Chris Ranes approached the Lansing Maker's Network a number of months ago. Gordy approached them recently. Several CMARC members are also members there. Former President came to CMARC and did a presentation a few years ago, so they are familiar with us.

~Michael mentioned we have a place to store our stuff for now (West Lansing Church of Christ's garage), but not until HamFest (September). Pastor Ron gave us "emergency storage" until April 2022. Planning to store things there. When Dan D. mentioned reducing footprint, Pastor Ron was ok with it a little longer. Keep working on a new place and don't wear out our welcome. **We should keep working and looking.**

**LADIES NIGHT**

~August 12, 2022 meeting instead of the May 13, 2022 meeting. Outdoor picnic. Nicer weather and notification. Board raised hands and recommend we have Ladies Night in August. Dan B. mentioned if we use Raynor Park, we'll still need to pay for a pavilion. Kelly will work on a reservation this week.

**FIELD DAY**

Dan B. mentioned Ed Hude put in request for Raynor Park use. Benefits at both Raynor Park and Ingham County Fair Grounds. Seems like our footprint is larger than five camping spaces if we want the social aspect of Field Day (GOTA, VE, picnic, etc.). Lindsay at ICFG said we can use it for other events, and rent the number of spaces needed. If we were to use the trees in the fence line, they belong to the City of Mason. We'll source from the generators we have (Club's, Dave V., Dan B., Brian Vissers). Randy Williams is looking at battery packs for computers. Gregg will be doing Field Day with the Source River ARC in North Dakota, so won't be chairing the CW station. Chris may be coordinating CW station?

### **BUILDING IN MASON**

Tom spoke with Dan D. who spoke with someone at the building. Told him we plan to come and remove antennas and the guy seemed open to it and ok when Dan told him need to come on property. Dan B. said Kevin (owner) ok with us removing the tower.

### **CMARC MEETINGS ON WEBSITE**

Dan B. mentioned a request for Jeff Goeke-Smith's presentation at last month's CMARC meeting to be posted on the website. Tom and Dan B. working together to get presentation on YouTube and then put on the CMARC website.

### **GRANTS**

Gregg Mulder working on some grant requests and will be at Friday night's meeting with copies.

### **MAY MEETING**

Field Day explanation/prep. Presentation by Gregg on what Field Day is and how you can participate. Will use projector and screen. An update on current status by Dan B.

### **LCDRA**

Dan B. gave an update regarding our repeater and the WKAR tower.

***Motion by Michael to adjourn the meeting at 7:50pm. Second by Dan B. Approved by all.***

Respectfully submitted,

Shannon M. Ranes  
CMARC Secretary



CENTRAL AMATEUR RADIO CLUB  
GENERAL MEETING  
MAY 13, 2022  
(18 Members, 4 Visitors, 12 on Zoom)

Dan Dembinski opened the meeting at 7:00pm.

Mike Wetzel held the flag while we said the pledge of allegiance.

Moment of silence.

Secretary's Report and Treasurer's Report for March and April will be reviewed at next meeting.

**INTERESTING DX**

~John Hosford  
~Brian Vissers  
~Gregg Mulder  
~Mike Wetzel  
~Jerry Burger

**WEST LANSING CHURCH OF CHRIST GARAGE** - Dan Dembinski

~We talked about downsizing our footprint in the garage at WLCC. Dan, Doug, Michael, Michael, Kelly, Russ did that on Saturday, April 23, 2022. Pastor is happy about our progress.

**BUILDING POSSIBILITIES** - Dan Dembinski

~Looking for two sites for a radio station. Need to meet with two people.  
~Lansing Makers Network - meet with them and talk.  
~The building in Lansing's Old Town. Possibly use a room, bathroom, power, but if they allow us to be there, it won't be available until the Fall, so we need to keep looking.

**FIELD DAY** - Dan Beuchert

~Last year we used the Ingham County Fairgrounds. This year they have a horse show taking place. Ed Hude received a call from the City, and put in a request for Raynor Park.

**LADIES NIGHT/ZIEGENBEIN AWARD**

~Shannon explained what it is. Kelly mentioned it will be at a local park in August.

**HAMFEST**

~Dan D. and Dale Cole met, as well as Doug. Already have a donation.

**ARPSC** - Dan Beuchert

~Meeting this coming Monday, May 16, 2022. Talking about an event coming up in downtown Lansing as well as an upcoming statewide emergency test.

### **VE TESTING**

~Tomorrow at Fire Station #44 at 11am.

### **BUILDING IN MASON**

~Dan Dembinski spoke with Clean Lights, the company who is leasing the building in Mason, while the building is in probate. Dan let them know about the tower and antennas. We are going to get a work party together to take them down. It will be about three hours.

### **CLASSES**

~Tom Rocheleau mentioned he will be teaching classes. More information will be coming.

### **DAYTON HAMVENTION**

~Kelly Fitzgerald said it is next weekend, May 20-22, 2022. Dale Cole has 2 extra seats in the car if someone wants to ride with him. Pam Denomme gave extra details and info about it.

***Motion by Michael Wetzel to close old business. Second by Kelly Fitzgerald. All in favor. Motion passed.***

### **GRANTS** - Gregg Mulder

~Submitted a grant request on behalf of CMARC.

### **LCDRA** - Dan Beuchert (President)

~An update on the repeater, WKAR tower.

~Also have an anonymous donor who has offered to cover the cost of moving the 145.39 repeater. Possibly matching donation.

~McLaren Hospital has moved and our antennas are on the old building.

~Explained what LCDRA is. Organization that tries to keep emergency management and public safety services running.

***Motion by Kenny Hazlett to accept new business and adjourn meeting. Second by Kelly Fitzgerald. All in favor. Motion passed.***

Dan Dembinski dismissed the meeting at 7:52pm.

Respectfully submitted,

Shannon M. Ranes  
(CMARC Secretary)

# CLASSIFIEDS

## CB-Related Equipment

Call John Winn / KE8CYC  
Email: [johnsir@aol.com](mailto:johnsir@aol.com)

### \$30 or \$50

(2) Cobra 148 GTL w/ Mag mounts  
The level of wear differs between the two.  
Asking \$30 for one and \$50 for the prettier one.

### \$20

Cobra 19 DX II w/Short Mag Mount

### \$5

Radio Shack 21.524 CB SWR meter

### \$2

4 foot piece of copper coated Steel Ground rod

## FOR SALE!

Call Ed Hude / WA8QJE  
Email: [ebhude@yahoo.com](mailto:ebhude@yahoo.com)

### \$850 for all items listed here

YAESU FT-950 Hf/50 Mhz Transceiver  
Comes with operators manual & power cord,  
hand microphone, all in matching Yaesu box.

YAESU FP-1030A Power Supply  
Comes in matching Yaesu box.

YAESU SP-2000 External Speaker  
Comes in matching Yaesu box.

YAESU MD-100 Desk Microphone  
Does not come with a box.

Nifty Mini Manual for Yaesu FT-950

## SHACK CLEARING SALE!

Call Cary Britton / N8ZC  
Email: [n8zc@mac.com](mailto:n8zc@mac.com)  
Reasonable offers considered.

### \$1200 (Firm)

Kenwood TS-590SG  
Like New. I have had this radio about a year-and-a-half, used very little. Non-Smokers shack. Have all original packaging and "stuff"... Except power cord has been cut down to about 6-feet with rings terminals.

### \$350 (Firm)

Alinco DR-MD500T DMR Radio  
Like new and used very little. Used mobile in a temporary setup twice then boxed back up (my trifocals didn't like the small screen).

### \$275 (Firm)

Alinco DR-735T VHF-UHF  
Brand new and never used. All original packaging and "stuff".

### \$175 (Firm)

Alinco DM-330MVT  
32-amp Switching Power Supply Brand New still in box.

### \$125

Kenwood MC-60 Microphone  
Like new, I have had this for 8 months and used very little (non-smokers shack).

### \$90 (Firm for the set only)

Diamond A-430S10 70cm Beam and a KB-430 70cm Offset mounting bracket.  
Both new in box/packaging.



# Lansing Civil Defense Repeater Association

## Membership Form



For Year (s) \_\_\_\_\_

For new LCDRA applicants: Please complete all sections.

For existing LCDRA members: Please include your Name and Call Sign along with only the information you would like changed.

LCDRA oversees the operation and maintenance of all Lansing Area repeaters. Use of the repeaters does NOT require LCDRA or CMARC membership, but your support is welcome and appreciated.

Mail completed form to Membership Chairman (see address below) or take to a meeting for processing. Please include payment if applicable. (Checks or Money Orders should be made payable to "LCDRA").

**Michael Boensch | 2910 Meister Ln | Lansing, MI 48906-9010**

**If you would like a membership card mailed to you,  
please include an SASE with your payment. Thank you.**

Membership Type		<input type="checkbox"/> New	<input type="checkbox"/> Renewal
<b>Full:</b>	<input type="checkbox"/> Annual Dues: \$20.00 (pro-rated quarterly) <i>Includes voting rights.</i>		
<b>Family Mbrs:</b>	<input type="checkbox"/> Annual Dues: \$7.50 ea. <b>No. of Family Members:</b> _____		
<b>ARRL Affiliation</b>	<input type="checkbox"/> I am an ARRL member <b>Membership Card</b> <input type="checkbox"/> Yes <i>(Please see above)</i>		

Contact Information	
<b>First Name:</b> _____	<b>Last Name:</b> _____
<b>Call Sign:</b> _____	<b>License Class:</b> _____ <b>Phone #:</b> _____
<b>Address:</b> _____	<b>Apt/Unit:</b> _____
<b>City:</b> _____	<b>State:</b> _____ <b>Zip Code:</b> _____
<b>Birthday:</b> _____	<b>Anniversary:</b> _____
<b>Email:</b> _____	
<small>Note: Email is used by club officers to communicate club business and may appear in the club directory for use by club members. <u>LCDRA does not share/sell contact information to other parties.</u></small>	



# Central Michigan Amateur Radio Club

## W8PLP/W8MAA

### Membership Form

For Year (s) \_\_\_\_\_



Please complete **ALL** sections in their **ENTIRETY** before submitting your application.

Membership is for the current calendar year unless otherwise specified above.

Mail completed form to Membership Chairman (see address below) or take to Club meeting for processing. Please include payment if applicable. (Checks or Money Orders should be made payable to "CMARC").

**John Doornhaag | 39121 37 1/2 Street | Paw Paw, MI 49079-8885**

Membership Type	<input type="checkbox"/> New	<input type="checkbox"/> Renewal
<b>Full:</b> <input type="checkbox"/> Annual Dues: \$30.00 <i>Includes voting rights and an annual subscription to The Scope.</i>		
<b>Associate:</b> <input type="checkbox"/> Annual Dues: \$5.00 <i>Includes an annual subscription to The Scope but NO voting rights.</i>		
<b>New Licensee:</b> <input type="checkbox"/> Current Calendar Year Free <i>(must submit your application within first 30 days of licensure)</i>		
<b>Under 18:</b> <input type="checkbox"/> Annual Dues: Free		

Contact Information
<b>First Name:</b> _____ <b>Last Name:</b> _____
<b>Call Sign:</b> _____ <b>License Class:</b> _____ <b>Phone #:</b> _____
<b>Address:</b> _____ <b>Apt/Unit:</b> _____
<b>City:</b> _____ <b>State:</b> _____ <b>Zip Code:</b> _____
<b>Birthday:</b> _____ <b>Anniversary:</b> _____
<b>Email:</b> _____ <b>Sign up for the List Serv:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Note: Email is used by club officers to communicate club business and may appear in the club directory for use by club members. CMARC does not share/sell contact information to other parties.</i>

Club Communications	
<b>Newsletter Preference</b> <i>(select only one option)</i>	<input type="checkbox"/> I will download from the web site.
	<input type="checkbox"/> Please mail to my address <i>(Note: Direct mailing increases postage costs.)</i>
<b>ARRL Affiliation</b>	<input type="checkbox"/> I am an ARRL member

Central Michigan Amateur Radio  
P.O. Box 54  
Mason, MI 48854-0054

STAMP

To: