



THE SCOPE



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

VOLUME 19, ISSUE 3

MAY / JUNE 2019

CENTRALMIARC.COM

Congratulations 2018 Ziegenbein Winner Tom Rocheleau, WA8WPI !!

Tom Rocheleau, WA8WPI, this year's Ziegenbein award winner, truly represents what it means to be an active and involved member of CMARC and the greater amateur radio community.

Tom commits himself fully to CMARC and its activities by selflessly giving of himself and of his time, often behind the scenes, and without recognition of any kind. He is a man of integrity who stands by his word by showing up

when he says he will and works hard without complaining.

Tom has served on the CMARC Board in various positions. He stepped up to become President upon the passing of our late President, Julie McLain, KB8ZXR.

Tom is our club's Webmaster and works hard to keep our website current and full of engaging content. He is a Volunteer Examiner and is an Instructor for our Technician and General licensing classes. He is a key player on our antenna committee, who brings his wealth of knowledge of antenna assembly along with his ability and willingness to climb our towers.

On behalf of the Ziegenbein Award Committee, it's with great pleasure that we present the Ziegenbein award to Mr. Tom Rocheleau, WA8WPI.



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Treasurer's Reports 2019

Daniel Beuchert / WX8MOJ- CMARC Treasurer

Bank Balances for March	
Beginning Balance	\$3,215.64
Total Monthly Income	\$186.00
Total Monthly Expenditures	(\$40.00)
Total Business Checking	\$3,361.64
Petty Cash	\$1.00
Outstanding Checks	(\$40.00)
Sub Total + Petty Cash	\$3,362.64
Primary Share Accounts	
Humphrey's Fund	\$383.86
Building Fund (Club Station)	\$19.09
Field Day	\$528.51
Total Net Worth	\$4,294.10
Youth Fund Balance*	\$254.48
* Separate from CMARC Funds	

Bank Balances for April	
Beginning Balance	\$3,361.64
Total Monthly Income	\$160.00
Total Monthly Expenditures	(\$82.28)
Total Business Checking	\$3,439.36
Petty Cash	\$1.00
Outstanding Checks	(\$0.00)
Sub Total + Petty Cash	\$3,440.36
Primary Share Accounts	
Humphrey's Fund	\$383.89
Building Fund (Club Station)	\$19.09
Field Day	\$528.55
Total Net Worth	\$4,371.89
Youth Fund Balance*	\$254.50
* Separate from CMARC Funds	

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 cmarscope@gmail.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.

June Birthdays:

2nd Clyde Tompkins / K8CPT
6th Bill Coon / KC8LRM
7th Brian Wellwood / KD8ONC
8th Cyprian Blunt / KE8FXF
Bob Strobel / KB8DQQ
12th Ted Sadilek / WA8MFQ
13th Steve Cooper / N8NTU
14th Dawn Beuchert / KD8MWA
Bob Woolever / KE8AGO
17th Gerald Waite / KD8GLN
21st Charles Cosler / KE8DVQ
24th Ginny Hannahs / KD8HPG
25th Gregg Mulder / WB8LZG
Julia Burk / KD8STP
28th Pete Strank / KC8TCS
29th Alana Blunt / KE8FXG

June Anniversaries:

4th Bill Smith / KD8INX
12th Roger Goodman / KB8YQX
18th Bill Coon / KC8LRM
22nd Ron / WD8BCS and Marybeth Harger
Ted / WA8MFQ and Bev Sadilek
24th Garry / KC8MAD and
Marie / KC8NOI Watson
26th Ed / WA8QJE and Brenda Hude

July Birthdays:

3rd Joe Norton / KD8ZZL
6th Dennis Dann / KE8ACA
7th John Schuster / KD8VON
Joe Urdzela / K8JJH
14th Bill Cote / WD8NYW
24th Carl Woodard / KE8FQO
Eric Woodward / KE0IGK
30th Doug Goodrich / N8ECL
31st Anthony Parker / KF8IU

July Anniversaries:

3rd Jerry / KD8GLN and Sharon / KD8HHK Waite
11th Dan Burk / NE8K
22nd John / KE8CYC and Evelyn Winn
26th Matthew Taylor / KD8JIA
31st Jean Wixson / K8MUS

Upcoming Meetings:

CMARC MONTHLY MEETING

When: 6:30 pm, Friday, May 10, 2019
Where: Tony M's Restaurant and Banquet Center
3420 S. Creyts Rd. Lansing, MI 48917

CMARC MONTHLY MEETING

When: 7:00 pm, Friday, June 14, 2019
Where: Lansing Mason Area Ambulance Training
Facility
807 Kerns Rd., Mason, MI 48854

ARPSM MONTHLY MEETING

When: 7:00 pm, Monday, May 20, 2019
Where: Lansing Fire Station 48
off Marshall Rd. South of Grand River.

ARPSM MONTHLY MEETING

When: 7:00 pm, Monday, June 17, 2019
Where: Lansing Fire Station 48
off Marshall Rd. South of Grand River.

ARRL Volunteer Exams



Sponsored by the "Ingham County VE Group"

To best accommodate the various schedules of those wishing to test, the Ingham County VE team meets on either a Saturday morning or Thursday evening, every other month. We test in the Community Room at Lansing Fire Station #44 located at 1435 E. Miller Rd., Lansing, MI 48911-5322.

Contact: Don McLain (KB8RAD) (517)930-7707 KB8RAD@arrl.net

Saturday, May 11, 2019

Extra: Noah Reyburn (KD8UHW), Daniel Carlson (KD8ULZ)

General: Michael Wetzel (W8PDM), Varun Venrat Rao (KE8LKD), Tim Carnahan (KC8HEQ), David Arnett (KE8MIB)

Technician: Matthew Stewart (KE8MIA), Jason Hansen (KE8MHZ), Thomas Beal (KE8MIZ), Jodie DeLine (KE8MJA)

Thursday, June 6, 2019

General: Scott Davis (N8WVH), William Billings (KE8KOR), Jacob Johnson (KD8OBQ), Shannon Ranes (WA2NVK), Marshall Bonner (KE8LVW)

Technician: Phillip Rowland (KE8MLL)

Upcoming VE Exams

Saturday, June 22 @ 1:00 PM located at Raynor Park, 730 E. Ash St., Mason MI 48854

Saturday, July 13 @ 11:00 AM

Thursday, August 1 @ 7:00 PM

Saturday, September 7 @ 11:00 AM located at the Okemos Conference Center (CMARC Hamfest)

Thursday, October 3 @ 7:00 PM

Saturday, November 9 @ 11:00 AM

Thursday, December 5 @ 7:00 PM

Thank You to this Year's Field Day Sponsors



A&W (Mason) - Root Beer

Amy's Catering (Lansing) - Hamburgers

Big Boy (Mason) - Ice

Biggby Coffee (Mason) - Coffee

Blackhawk Hardware (Leslie) - Bottled Water

City Limits (Mason) - 3 Pizzas

Hungry Howies (Mason) - 3 Pizzas

Independent Bank (Mason) - Bottled Water

Little Caesars (Mason) - 3 Pizzas

Merindorf Meats (Mason) - Hot Dogs

Supreme Rental (Mason) - Porta John

ValuLand (Leslie) - Buns

**Thanks to each of you in our CMARC family
who had a part in our Field Day event!**

**Your donations of food, drinks, supplies,
and equipment, as well as your time and support,
are appreciated.**

**Watch for Field Day follow-up reports
from the Field Day Committee
at an upcoming CMARC meeting.**

Field Day 2019 CW Station Report

By Gregg Mulder, WB8LZG

The week of Field Day, I was checking the bands daily in anticipation of another fun Field Day. I entered the NAQCC milliwatt sprint on June 19 and managed 10 QSOs at 900 mw, so I had high hopes for Field Day. Friday afternoon, I met Al Conn, Ed Ozer, and a few others to launch some lines into the trees for our antenna supports. Al soon had all of our lines up high in the air, and we pulled up the trap dipole for 40/80 meters. It proved a bit finicky to tune into the CW portion of the band, but we finally got her to “sing” in the 80 CW band. The 20-meter Bruce Array went up without a hitch, and we soon had the top up about 55 feet. For those unfamiliar with the Bruce, it is a “curtain” type array that has some gain over a dipole. Our 20-meter model has five elements and has about 5 Db gain over a dipole at the same height. This makes it quite nice at Field Day to have an antenna with some authority. I pulled out the Elecraft K2 and made a couple of quick QSOs at 10 watts with some guys out west, so I knew the curtain was playing.

Saturday morning, I found our operating trailer had been delivered and placed nicely between our two antennas. Set up went smoothly this year, and no visits from Murphy, so far. Set the Marine battery and solar panel out in the sun to charge for our solar bonus points. I got both the big rig and the K2 QRP rig on the operating desk in the trailer, and everything tested AOK. A quick bite for lunch and we were ready for action. Chris, NS8Q, and I usually alternate on who starts us out, and this

year was me. We had the K2 cranked up to a mighty 10 watts as the contest started, and slowly worked up the band. It took a bit longer this year to get our 5 QSOs, due to noise and band conditions, but in 22 mins we had 6 Qs in the log. (one for ins)

We quickly emptied out the QRP gear and fired up the big rig at 80 watts. QSOs were coming much more quickly with a bit of power behind our signal. Chris took over for the “chow break,” and he was doing well also when I came back all full from dinner. The QSOs were coming steady, but not near the rates we were getting last year. Averaging 25-35 an hour. I did have a nice run after dinner, 32 / hr. Then we went to 40 meters, and as I went up the band, I had 38/ hr until I gave up the hot seat to Tom WA8WPI for the graveyard shift.

When I returned at 630 am, Tom was up again pounding brass on 40 meters. I went back to 80 to try and catch a few more there, and was not disappointed, and got 25 more there. 80 was getting real noisy, so I switched back to 40 and had another good run up the band, with 33/hr, but couldn't seem to hold the rates. Went back to 20m as Ed W8EO came in for breakfast relief. 20 was better than the day before and still a lot of stations to work. Just before lunch I checked 15m for a bit and snagged 28 QSOs there. Back to 20m to finish out the day.

Here's the breakdown. 430 QSOs. We were down a bit from last year. (over 600) We only had four ops, and

band conditions and noise took its toll on our rates. Last year we had several hours of great runs, with 60- 70 QSOs per hour. We didn't even get close to those rates this year, but still had fun diggin' em out. Here are some of the statistics.

61 QSOs on 80 meters. 151 QSOs on 40 meters. 190 QSOs on 20 meters. 28 QSOs on 15 meters.

Top Sections: Ohio 29 Qs, Va 28 Qs, NNJ 22 Qs, EPA 20 Qs

Other interesting items were 2 QSOs with F5IN in France, on 20 m and 40 m.

Old Time CW ops know that it's not unusual to work a DX station or 2 during the contest, and in the middle of the night, it can give you a bit more “zing” after working one. But we don't usually work them on more than one band, so this was an “FD treat” for me. 26 QSOs with Canada, 2 Hawaii, and 1 Virgin Is. QSO.

Weird Items: No Brit Columbia or Manitoba. No Puerto Rico, New Mexico, or W Texas. No Orange County ?? Strange.

The 20m Bruce Array would not load up on 15m. It did last year. ?? Running 450 Ohm ladder-line instead of the usual homebrew open-wire feedline we have been using with this antenna since its infancy in 2010.

Lots of fun had by all. Thanks to everyone that came out to make this Field Day a very good, safe, and successful one. ■

Learning About Batteries

By Dan Romanchik, KB6NU

I often say that getting an amateur radio license is as much getting a license to learn as it is getting a license to operate on the amateur radio bands. Lately, I've been learning about batteries, LiPo batteries to be exact.

It all started when I purchased a Morserino (<http://morserino.info/>). The Morserino is a Morse Code learning aid that has a number of unique features. For example, in addition to helping you learn the characters, it's also supposed to help you learn how to copy in your head. It also has a built-in touch keyer function, and a LoRa interface that lets you send and receive code from other Morserino units.

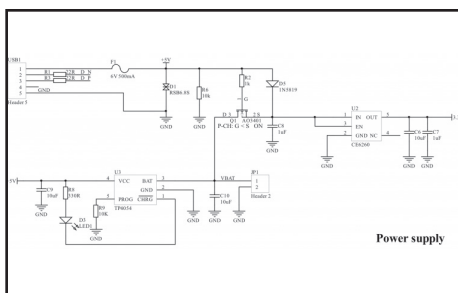
I'll be writing more about the Morserino in a future column, but let's get back to batteries. The kit did not come with a battery. Instead, it was suggested that one purchase a 600 mAh LiPo battery commonly used for powering drones. I found this battery on Amazon, and purchased a six pack of them, thinking that I'd find uses for the other five in some project or another.

Well, sooner than expected, I did find another application for one of the batteries. I'm building a little Arduino project for a client, and I reckon that this, or one with more capacity, will make a great power source for the project.

Now, I have two immediate challenges:

1. Figure out how to charge the battery.
2. Figure out how to connect it to the Arduino.

On the Morserino, the battery plugs directly into a connector on the bottom of the computer board (the white board with the LED display). I knew that connecting the 5V line from the USB connector directly to the battery was a no-no, but I'd lent out the Morserino to a friend,



and I didn't have the schematics for the board. So, how they managed to charge the battery from the USB port was a bit of a mystery.

I emailed Willi, OE1WKL, the designer of the Morserino, and he sent me a wealth of information. There actually is a battery-management IC, the TP4054, on the board:

He also gave me the part number for the battery's mating connector. He said, "The mating connector for the Molex connector on the battery is a Molex 51006. It is sometimes referred to by vendors as 51005 female, but 51005 is the connector on the battery." You can, of course, buy pre-made cable assemblies on Amazon (<https://www.amazon.com/gp/product/B07P54QTR8>).

You can also buy lithium battery charging modules (<https://www.amazon.com/gp/product/B01LZSC7I8>). These modules have a TP4056 on them, which is similar to the TP4054. It's amazing to me that you can purchase ten of these things for less than seven bucks.

So, that's where I'm at right now. Once I get the modules and cables, I'm going to hook it all up and get the Arduino system running from the battery. The next step will be to

integrate a small solar panel and run the whole thing from solar power, hopefully. ■

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Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and one of the hosts of the No Nonsense Amateur Radio Podcast (NoNonsenseAmateurRadio.Com). He often wonders if he can learn things fast enough.

A Vibro-keyer turns 50 and gets a new look

By Gregg Mulder, WB8LZG

For many years now, I've had the privilege of restoring and refurbishing telegraphy equipment.

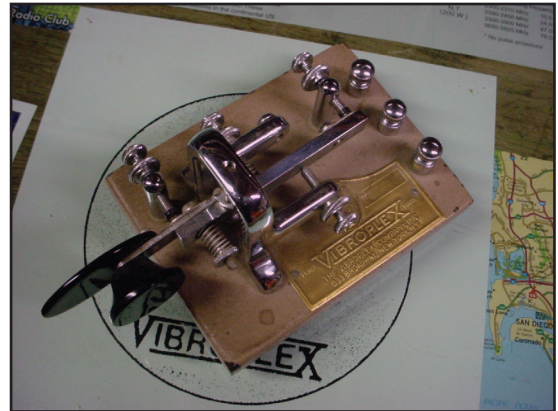
So, I did not have to think twice when Carl Canfield K8YHH, held out an old Vibro-keyer, and said that I was the one to give it to. It was a "standard" model and had been cared for, but years of use took its toll on the base paint. A quick inspection showed that the chrome parts were in good shape, however. "Certainly," I said. It would be a fine candidate for a good refurb job. I took it home, and it lay in hibernation until late spring when the weather warmed up. I looked up the Serial#, and it showed that it was a 1969 vintage. 69 was a very good year for me. I was in high school and enjoying every minute. Also, a good year for Vibroplex too. Some years you get "better" chrome plating than others.

This is what it looked like, only some paint scuffs and dust. With all of the top parts carefully removed, the base was sanded with 80 grit Emory to get the surface prepared for new paint. Here's what it looks like with a coat of "hammered finish" paint.

After three coats of paint and a good hot day to dry and "cure," the base is ready for the top hardware. All of the chrome gets a good cleaning with rubbing compound. It's slow and repetitive work, but the results are worth the "elbow grease" required to bring the parts back to their original luster. After the base had cured for many days, the pieces were re-assembled until the "new" key begins to take shape.

She turned out beautiful — very FB refurb. Now the big question. What to put on her for finger pieces? They had to be good. I dug out the "wood box" and sorted through what I had. I tried on several "pairs of slippers" before I found a set that fit. When I tried the Great Western "Tiger Maple" finger pieces, I knew at first glance they were a Perfect Fit.

Yes Sir, a nice contrast to the black base, and



compliment to the Serial # plate. Good looks, Good feel. I knew 1969 was a good year! Hope you enjoyed the photos of the refurb on this fine instrument. ■

CENTRAL MICHIGAN AMATEUR RADIO CLUB
BOARD OF DIRECTORS
MEETING MINUTES

March 2, 2019

Current Board Members Present: Michael Boensch (W8MKB), Gordy Smith (KE8JKS),
Shannon Ranes (WA2NVK), Dan Beuchert (WX8MOJ),
Gregg Mulder (WB8LZG), Don McLain (KB8RAD)

Current Board Members Absent: Carl Canfield (K8YHH)

Guests:

President Michael Boensch (W8MKB) called the meeting to order at 6:46 pm.

COMMITTEES

*Gordy mentioned Clyde Tompkins asking who is running Field Day and HamFest so he can send in information to the ARRL so we can get free stuff.

*Dan read through the names of people who have signed up for each committee.

- **Field Day** - Dan - He will stick his neck out and run it. He will talk with Tom Rocheleau regarding sending info to ARRL. Pam DeNomme interested. Dan can help contact. Michael has the weekend off so he will bring his antenna. (Same one he put up at HamFest two years ago.)
- Names on **HamFest** sign up sheet: John Doornhaag, Tim Clay, Dan Dembinski, Dave Vick, Justin Macauley, Don McLain, John Winn.
 - Shannon mentioned Holt Christian Church repaved and lined the parking lot. Some talk to using the Summit instead. The higher fee may have hindered some vendors/attenders. Michael mentioned those things need to be decided by the subcommittee.
- Next ARPSC meeting is March 18th. Michael will mention it.
- The subcommittees for Field Day and HamFest need to meet.
- Gordie talked w/ Dave at Fulton Electronics. Told him he would like to make Fulton's a sponsor. What does that entail?
 - Dan explained what has been done in the past. \$50-\$100 is generally what banks have donated in the past. Fliers for Field Day and HamFest so we can hang up around town, including Fulton's? It was explained that HamFest is something fliers are usually made for but not Field Day.

CLASSES

*Gordy has about \$120 worth of 1/2" copper pipe that he bought when they were going to build the slot box. They are going to turn that into 2 meter antennas for the kids who take the Technician class.

*Gregg mentioned MSU has a whole bin of copper cheap on sale right now.

*Gregg's recommendation to turn into J-poles. Easier to match and tune.

*Gordie hasn't met with Tom yet to coordinate Technician class and Build class.

MEETINGS

*Dan Beuchert/Randy Williams speaking at March CMARC meeting.

*Gordy has not asked Jeff Oberg about DMR. He said he sent a note to their group. (Don mentioned "Jeff and Mikey".) Wants how packets are digitized.... Not just someone who knows how to program a radio. Chris Ranes gave Jeff Oberg's contact information to Gordy.

*Ziegenbein nominations need to be turned in before March 14 to Chris Ranes. He has not received any. Dan will forward the one he received. Don will send in his nomination to Chris.

*Shannon spoke with Kelly Fitzgerald today. They are working on the location and details for Ladies Night.

*Shannon suggested we tell our members it is ok if business meetings are slightly longer than 30 minutes but keep break short and say speaker begins at 8pm. Then we can invite others and tell them the speaker meeting begins at 8pm. It seemed to go ok last month with a slightly longer than 30 minutes business meeting.

MISCELLANEOUS

*Gregg has Directory information in Excel format but doesn't know how to convert it. Michael said he knows how to do it in a mail merge. Gregg will send it to him and he will send it back. It shouldn't include anyone who isn't here or hasn't been here in the past year.

*About half of our usual Membership has paid their dues this year. Usually have those who pay in December so can vote. Some who pay in beginning of year are good through the end of the year. Some still have not paid for this year. Discussion of sending an e-mail, postcard, message to those who have not paid. Some legitimately forget.

*Michael and Dan went to MSUFCU and added Michael and removed Clyde Tompkins (former CMARC President) from the account.

*Dan is the caretaker of the Post Office Box. Each of our names is listed as someone who can pick up mail, we just need to show two forms of id.

*Chris Ranes is the new QSL Manager in place of Don Defeyter. Gregg offered to do it if no one else.

*Charitable Gaming - Dan has figured everything out. Need signed copy of by-laws. Tom Rocheleau can put copy of unsigned by-laws on the website. For the 50/50, since we don't bring in very much, they said we may not need to pay anything. We need to file the forms, wait a couple weeks, and then call them.

*Dan is still learning the ListServ.

*Dan contacted the National Weather Service. They are in recovery from shut down mode. Ingham County is on the short list. If we find out they hold SkyWarn, we'll let everyone know. If it happens, possibly meet at Harry Hill. The back up plan is at Holt Christian Church.

*Gordy asked if anyone was planning to attend the Go-Bag presentation in Charlotte at the Eaton County group's meeting.

*Dan will check with Clyde Tompkins to see if Kevin (owner of the building) has approved our calendar dates.

*Dan asked if we have any other dates for the Calendar for Kevin. Chris Ranes sent a sample of last year's calendar they sent to Kevin. Michael said they had talked about it before. Dan said we have a Google drive accessible to all Board members. We could have a shared Calendar so we can all edit and update.

*Don and Gordy posted items on Facebook but as announcements, and it doesn't show up at the top. They will repost.

MOTION: *With no further business to discuss, Dan Beuchert (WX8MOJ) moved that we adjourn the meeting, seconded by Don McLain (KB8RAD), approved, and the motion carried.*

The meeting was adjourned at 7:46 pm.

Respectfully submitted,

Shannon Ranes (WA2NVK)
CMARC Secretary

CENTRAL MICHIGAN AMATEUR RADIO CLUB

MEETING MINUTES

March 8, 2019

Attendance

Board Members Present: Dan Beuchert (WX8MOJ), Michael Boensch (W8MKB),
Carl Canfield (K8YHH), Don McLain (KB8RAD),
Gregg Mulder (WB8LZG), Shannon Ranes (WA2NVK),
Gordy Smith (KE8JKS)

Board Members Absent:

General Members: 28

Visitors: 2

Call to Order

- Michael Boensch (W8MKB) called the meeting to order at 7:00 pm.
- Dan Dembinski (KD8YDE) held the Flag for the Pledge of Allegiance.

Sign-in Sheets

- Please make sure to sign the sign-in sheets circulating around the room at each meeting. One sheet for members and another for visitors. We use these sheets to keep track of how many people visit us each month.

Cards and Flowers Report:

- 3/3 - Mary Keep passed, mother of Charlie Keep (KB8SKV). Card sent to Charlie and his sister plus \$40 sent to Capital Area Humane Society.
- Get well card sent to Ann Berger, wife of Bob Berger (K8RDN)
- Moment of silence

New Members / Visitors

- Tim Crane (WM8A) - Fenton, Livingston County RACES
- Tom Deal. Joined CMARC on the website. Not licensed yet.
- Cheryl Davage

Treasurer's Report

- Dan Beuchert read bank account balances, as well as 2019 dues and donations.

MOTION: *Bob Crawford (K8ZAP) moved to accept the Treasurer's Report as published on the CMARC website, seconded by Dave Vick (W8ZZX), approved, and the motion carried.*

Secretary's Report

MOTION: *Don McLain (KB8RAD) moved to accept the Secretary's Report as published on the CMARC website, seconded by Dan Dembinski (KD8YDE), approved, and the motion carried.*

New Licenses and Upgrades:

- VE session tomorrow 3/9/19 at Fire Station #4

Interesting DX or Other Contacts

- Dave Vick (W8ZZX) - Columbia, Cuba, Venezuela, Costa Rica 20 & 40. QSL card from Venezuela. Alaska on 160. France and Italy on 80.
- Gregg Mulder (WB8LZG) - 20 was open here tonight. Worked Costa Rica from the Club station. In process of DXCC with 1 watt. A couple Europeans were on 40 meters at 6pm. Contacted Czech Republic with 1 watt.
- Dave Held (N8CFM) - sunspots and downtown Okemos. Guatemala on 20 watts.

Bylaw Changes

- Proposed Bylaw Changes - Dan Beuchert read what the bylaws currently state and what the proposed wording is. Much discussion followed.

MOTION: *Dave Vick (W8ZZX) made a motion to move the proposal into two votes, seconded by John Winn (KE8CYC), approved, and the motion carried.*

○ **Original 6.1:**

The officers of The Corporation shall be president, vice-president, treasurer, and secretary, who shall be elected annually by the Board or Directors. All officers shall serve for one year, or until their successor is elected. Officers shall be elected at the first meeting of the Board of Directors, held after the annual meeting of the members of the corporation. All officers shall be ex-officio members of the Board of Directors during their respective terms.

○ **Proposed 6.1:**

The officers of The Corporation shall be president, vice-president, treasurer, and secretary, who shall be elected annually by the Board or Directors. All officers shall serve for one year, or until their successor is elected, and will be selected from the Board of Directors. Officers shall be elected at the first meeting of the Board of Directors, held after the annual meeting of the members of the corporation.

MOTION: *Dave Vick (W8ZZX) made a motion to approve the proposed 6.1 bylaw change, seconded by John Winn (KE8CYC), approved, and the motion carried.*

○ **Original 4.7:**

When absentee voting is in effect, the Corporation will select three members to be placed on an election committee and one officer to be the Chair. These members will be selected by random draw at a meeting prior to any votes being casted. If an objection is made regarding one of the members selected, another member will be drawn at random as his or her replacement. Random draws will continue until no objections are made.)

○ **Proposed 4.7:**

During annual board elections, the Corporation will select three members to be placed on an election committee and one officer to be the Chair. If an objection is made regarding any of the members selected, another member will be selected as his or her replacement until no objections are made.

MOTION: *Dave Vick (W8ZZX) made a motion to approve the proposed 4.7 bylaw change, seconded by John Winn (KE8CYC), approved, and the motion carried.*

Old Business

- Did you fill out your questionnaire? Blank copies are available tonight.
- Club Directory - Gregg Mulder compiling next month. Make sure your information is on a sheet. If you are a paid member and want your information to be in Directory, see Gregg at Break. If you are a paid member and DON'T want your information in the Director, see Gregg at Break.
- Committee lists - Dan Beuchert - The lists (HamFest, Field Day, Food, Work Day) have not been updated the with the names of interested people from the Questionnaires. You can be on a committee to give input and not be there on the day of an event.
- Field Day - Dan Beuchert willing to head up Field Day.
 - ~ The date is June 22-23, 2019. May set up on Friday the 21st as well.
 - ~ Collaboration between CMARC and ARPSC.
 - ~ Some years we've had 1 chair and some years 3 chairs. It is easier to have 3 co-chairs if anyone wants to come alongside Dan.
 - ~Tom Rocheleau mentioned CMARC website updated with Field Day info.

- HamFest - Gordy Smith mentioned Clyde Tompkins may come back and do HamFest. (Clyde was not at meeting for confirmation.) More than happy to do it but not everything. Don McLain reminded everyone can help, even 5 minutes.
~John Doornhaag asked if thought about moving dates of HamFest.
~Tim Clay asked if the Holt Christian Church has been secured.
~Someone asked about HamFest date but it was determined that is up to the committee.

New Business

- Technician Class - Tom Rocheleau (WA8WPI) teaching. Plan to begin next Saturday, March 16. Don has 9 people signed up. Don McLain asked if it can be put on the website. Dan can put it on Facebook, both CMARC and ARPSC.
- John Winn (KE8CYC) - If receive message from ListServ, do not "reply to all". Dan mentioned still trying to learn Admin part of things. You can forward the email and send a response to the person who sent the original email.
- Electronics Class - Gordy Smith - Hands on class after Tech class. People can stay after class or come even if not a part of Tech class. Try to make this more of a hands-on tweaking place. One hour long, one half hour after Tom's class ends. Gordy and Tom put out Facebook messages but as
- John Doornhaag asked if want special VE session but Tom said the classes should end just before the normal VE testing date. Could hold a session in Mason at 1:00/1:30 on same day, after the other VE session is done in Lansing.
- Ladies Night - 5/10 - Russ and Kelly Fitzgerald planning
- Ziegenbein Award - nominations before 3/15 to Chris Ranes.

Tonight's Presentation

- ARPSC - Dan Beuchert and Randy Williams

Adjournment

MOTION: *With no further business to discuss, Dan Dembinski (KD8YDE) moved that we adjourn the meeting, seconded by Don McLain (KB8RAD), approved, and the motion carried.*

The meeting was adjourned at 7:26 pm.

Respectfully submitted,

Shannon Ranes (WA2NVK)
CMARC Secretary

CENTRAL MICHIGAN AMATEUR RADIO CLUB
BOARD OF DIRECTORS
MEETING MINUTES

April 6, 2019

Board Members Present: Dan Beuchert (WX8MOJ), Michael Boensch (W8MKB),
Carl Canfield (K8YHH), Don McLain (KB8RAD),
Shannon Ranes (WA2NVK), Gordy Smith (KE8JKS),
Board Members Absent: Gregg Mulder (WB8LZG) - vacation
Guests: Dan Dembinski (KD8YDE), John Doornhaag (KD8NNQ),
Chris Ranes (NS8Q), Tom Rocheleau (WA8WPI),
Bill Thompson (KE8KFA)

President, Michael, called the meeting to order at 6:40 pm.

Suggestion to change the time of the Board Meeting time.

Lockbox - Michael mentioned a lockbox for keys. For example, Tom Rocheleau teaches but does not have a key. Where to put up a lock box? We have indoor keys for the cabinet and tool box. Dan will make another key to have available for Tom and others who may need to be in the building.

Skywarn - Dan mentioned it is next Saturday, April 13, 2019, from 10am -12pm. The plaque on the wall from the Fire Marshall says 160 even though possibly only 100 chairs. May ask for more chairs. The room is on the second floor next to the elevator.

HamFest - Much discussion regarding HamFest is not recorded here since it was not a part of the Board Meeting. Gordy and Dan Dembinski are working on the event. Gordy has made contact with the Okemos Conference Center and Dan has been contacting vendors and sponsors. We proposed possible dates and looked at MSU home football game dates so they would not interfere. (Date preference order is 10/5, 10/12, 9/21, 10/19.) ***Motion by Michael to spend up to \$500 on the HamFest, second by Dan, approved, motion carried. A HamFest meeting time had been set for right during the scheduled CMARC Board Meeting time. We interrupted the Board Meeting to discuss HamFest. Please see Michael Boensch, Dan Dembinski, or Gordy Smith for more information regarding the HamFest in September and the discussions.***

Local Boy Scout Group - Don mentioned Dennis Dann contacted him about a local boy scout group trying to do their radio merit badge. Dennis told him William Bill Ames would contact. Michael told Don to have him get in contact with him. Don will forward the email to Michael.

Club Directory - Gregg is currently in California and will have it once he returns.

Field Day - Dan - In the near future will be contacting former heads of each area (SSB, CW, Digital, GOTA, Food, etc.)

-Tom R. mentioned this is the last year of our contract with the city of Mason. Setting up a meeting with the City of Mason/Park, including Ed Hude, looking ahead to the future. Going to get in touch with people in the next couple weeks.

-Dan D. asked if DMR could be used at Field Day. Dan B. thinks internet-based or use of DMR are not allowed for points, but is fine if someone uses DMR on their own during Field Day.

-Michael asked if need approval for someone to show up with something not already known/approved. ie. Someone setting up his vehicle and causing interference with transmissions, or setting up a trailer or another station without approval.

-Dan D. mentioned an idea to send an email on the ListServ asking those participants if want to show Go-box at HamFest or Field Day.

Club dues and membership - Gordy asked where we are with this. Some people want to help at events that are not meetings. Some people will show up to help at HamFest and won't be able to help. Dan spoke with our insurance rep regarding those who come to HamFest and Field Day. John D. mentioned there is a difference between someone coming to HamFest or helping with HamFest. Dan brought up his list of members and we have 42 members who paid dues plus about 30 lifetime members. If Dan is given the list of HamFest volunteers, he can cross-reference with the membership list. John asked if we can put something out on the ListServ about paying for dues.

Club/Building Contact - Dan mentioned Tom Rocheleau is teaching a class this Spring at the club room and on March 23rd received a phone call from Justin (building contact) saying we did not have access to the building. On the spot Tom had to find an alternate location. Thanks to Dan B. able to meet at Best Sellers. Justin said he sent the date list to Clyde last October. Justin is not Kevin. We need to have a Board member in touch with Justin. Discussion. Someone needs to tell Clyde.

Motion by Gordy to have a Board member as the club/building contact, second by Don, approved, motion carried.

Building clean up day - Gordy - Yard work (rake, bag leaves, trim, paint). Tom asked if we clean up, could we reduce the amount of money we pay them? ***Motion by Michael to spend up to \$100 on clean up, second by Dan, approved, motion carried.*** We will ask the general membership this Friday night on what date(s) work.

Soldering Class - Gordy - Purchased 12 kits for the class he is teaching and will write it off at the end of the year. It's like giving the club \$100. Gordy didn't want participants to spend money if they did not have it. Discussion about procedure and training budgets and spending money on training. Set a date after Tech class to have the soldering class. ***Motion by Don to accept the donation of Gordy's soldering kits, second by Dan, approved, motion carried.*** In the future, things like this must be discussed first. Not all club members teaching classes can afford to donate supplies and we don't want a precedent set by one, and assumed/expected to be followed by others. We also don't want disappointed participants.

Ladies Night - Shannon read email from Kelly Fitzgerald (K9FTZ) with details and information.
Motion by Gordy to spend up to \$200 on prizes plus cake and plaque, second by Dan second, approved, motion carried.

ListServ - Discussion. Please post announcements and items to both the CMARC Facebook group and the CMARC ListServ instead of one or the other. Not everyone receives both, and only about ¼ of the Facebook group is actually even here in the area and a part of CMARC.

Next Friday night's CMARC meeting - Speaker/Presentation portion will be HamFest, since it will be after the hotel meeting.

Antenna - Tom R. mentioned the new antenna and putting it up.

Website - Dan mentioned Tom Rocheleau updated the website to include the unsigned bylaws.

MOTION: *With no further business to discuss, Gordy Smith (KE8JKS) moved that we adjourn the meeting, seconded by Michael Boensch (W8MKB), approved, and the motion carried.*

The meeting was adjourned at 8:55pm.

Respectfully submitted,

Shannon Ranes (WA2NVK)
CMARC Secretary

CENTRAL MICHIGAN AMATEUR RADIO CLUB

MEETING MINUTES

April 12, 2019

Attendance

Board Members Present: Dan Beuchert (WX8MOJ), Michael Boensch (W8MKB),
Carl Canfield (K8YHH), Don McLain (KB8RAD),
Gregg Mulder (WB8LZG), Shannon Ranes (WA2NVK),
Gordy Smith (KE8JKS)

Board Members Absent:

General Members: 33

Visitors: 9

Call to Order

- Michael Boensch (W8MKB) called the meeting to order at 7:00 pm.
- Dan Beuchert (WX8MOJ) held the Flag for the Pledge of Allegiance.

Sign-in Sheets

- Please make sure to sign the sign-in sheets circulating around the room at each meeting. One sheet for members and another for visitors. We use these sheets to keep track of how many people visit us each month.

Cards and Flowers Report:

- Beverley Stoner (K8ZJU) - Flowers sent to her funeral.
- Corbin
- Moment of silence

New Members / Visitors

- Geoffrey Richardson (N8CE) and his wife Ann. Brought some of Jim Harvey's equipment. Connie (Jim's widow) willing to give it away, but to new Hams first.
- Jarrod Jicha (KI4BYT) - Blind Ham from Ohio who just moved into the area - could use a ride to meetings - 2146 Georgetown Blvd, Apt 10.
- Ed Ponist (KE8LCU) - East Lansing. Licensed in December. 2 handheld radios and having fun.
- Cheryl Davage
- Mark Holmes - Friend of Gordy Smith.
- Mike Sjostrom (N8LOL) - Eaton Rapids. Knows Tim (KC8THC) and Diane Clay. Novice in 1991 and quickly upgraded to Tech. Tomorrow test in Charlotte.
- Craig Skoczylas - Knows Gordy Smith and Mark Holmes.

Treasurer's Report

- Dan Beuchert read bank account balances, as well as 2019 dues and donations.

MOTION: *John Winn (KE8CYC) moved to accept the Treasurer's Report as published on the CMARC website, seconded by Dave Vick (W8ZZX), approved, and the motion carried.*

Secretary's Report

MOTION: *Jerry Waite (KD8GLN) moved to accept the Secretary's Report as published on the CMARC website, seconded by Dan Dembinski (KD8YDE), approved, and the motion carried.*

Interesting DX or Other Contacts

- Dave Vick (W8ZZX) - Murdo station Antarctica on 80 meters. Putting new 9-band vertical up.
- A Guest - On 443.00, a German person, Walter. Talked about 10 minutes.
- Justin Macauley (WD8EHT) mentioned Josh Scheuneman (KE8KOI)- contact in January to Big Rapids on a Beaufung.

Old Business

- Did you fill out your questionnaire? Blank copies are available tonight. Dawn Beuchert compiling info from questionnaires on committee lists.
- Club Directory - Gregg Mulder going to print next week. 122 of us.
- Committee lists - Dan Beuchert - The lists (HamFest, Field Day, Food, Work Day)
- Electronics Classes - Gordy Smith - 12:30-1:30 each Saturdays
- Technician Class - Tom Rocheleau - 8-9 students attending. Many kids, several new to electronics and computers. Another 3-4 sessions left. One lady drives from Traverse City.
- Dave Vick asked about the antenna and putting it up. Chris Ranes mentioned planning to do it next month. Dave Vick will do research on boom lift since he will be the one driving it and report back.

New Business

- Skywarn - Dan Beuchert - Tomorrow 4/13/19 - Foster Community Center
- MI QSO Party - Chris Ranes - Next Saturday 4/20/19 - noon to midnight. Meet at the Club at 11:30ish. Pizza for dinner. It is an easy contest, no pressure, good way to get your feet wet. Gregg Mulder mentioned there is a competition between MSU and UofM. It is mentioned on page 73 of QST magazine.
- Spring Outdoor cleaning day - Gordy Smith - Yard clean up, trim bushes, scrape windows, caulk. He asked everyone to put in the effort. 5/18/19 is the best day in May. We'll contact the building owner to be sure that date works.
- Ladies Night - 5/10 - Kelly Fitzgerald passed out fliers with info. Sign up sheet tonight. RSVP. If you have dietary issues, you can order off the menu.
- Field Day - Dan Beuchert - John Tyree (W8JTT) 6m station. John Hosford (KC8QZB)/Dave Vick (W8ZZX) SSB station. Dan Dembinski offered his trailer for John/Dave. We seem to be trailer "rich" this year. Randy Williams and John Doornhaag also have trailers. **Anyone planning to bring and set up a trailer must have approval from Dan B. prior to Field Day and Dan B. will assign the parking/set-up location.** John Winn asked if we will have a sergeant at arms to man the gate and not let someone drive it. If it is wet we will severely limit driving on the grass. We will have a check-in location and

procedure for driving in when needed (on the actual Field Day area). Will have a couple of meetings soon with heads of stations. People can't just show up the day of with equipment and trailers. Gregg begins slinging wires in trees on Thursday night. We have a window to set things up. Dan Dembinski. has a slingshot he will bring. Dave Vick has one as well. Ed Hude is instrumental with the City of Mason. Plan to meet with them. This is the last year of our contract and we need to renew. Ed Hude mentioned the best time to apply is in January.

- Ed Hude (WA8QJE) working on the distracted driving bill represented by the House Bills: HR 4181, HR 4188, HR 4189. Told them they need to clarify how radio amateurs fit into the bill but are progressing nicely.
- ARRL is looking for a Public Information Officer. The former one passed away and Ed Hude has been helping out.
- HamFest will be discussed after Break in the Presentation.

Adjournment

MOTION: *With no further business to discuss, Dan Dembinski (KD8YDE) moved that we adjourn the meeting, seconded by Jerry Waite (KD8GLN), approved, and the motion carried.*

The business meeting was adjourned at 7:35 pm.

Tonight's Presentation

- Gordy Smith and Dan Dembinski discussed the current status of our 2019 HamFest, location, vendors contacted, etc.

Adjournment

MOTION: *With no further HamFest discussion, Don McLain (KB8RAD) moved that we adjourn the presentation portion, seconded by Dan Dembinski (KD8YDE), approved, and the motion carried.*

The presentation was adjourned at 8:43.

Respectfully submitted,
Shannon Ranes (WA2NVK)
CMARC Secretary

CLASSIFIEDS

Gregg Mulder / WB8LZG
(517) 646-6257 after 3pm

\$425

Elecraft K1 HF XCVR Kit

*UNBUILT, new in box, 4-bands
with backlight, extras*

\$225

**Ten Tec Argonaut 509 QRP HF
Transceiver**

*D104 Mic, Speaker, Nice
Condition, and works fine!*

\$100

**Astatic D104 "Silver Eagle"
Mic**

Excellent condition

\$100

**Vibroplex "Code Warrior"
Iambic Chrome Paddle**

*Comes with Zebrawood finger
pieces*

\$75

LDG 11 Auto Antenna Tuner

Covers HF and handles 200 watts

\$75

MFJ 949 Manual Antenna Tuner

Covers HF and handles 300 watts

\$45

**American Morse Equip KK1 Kit
Key**

Unbuilt!

Ed Oxe / W8EO
eaoyer@gmail.com

\$90 or Best Offer
Alinco DJ-V57T HT

*Covers 2 meters and 70 cm. Radio
includes a speaker mic and car
battery charger. It runs 5 watts
max and has 200 memories.*

Gregg Wesley / KD8PA
(517) 614-6573

Aluminum Tubing, Masts,
and other odds and ends
for antenna building.

Ed Hude / WA8QJE
Cell: (517) 420-7550

\$300

Icom ID-880H

*Covers 2m/440 - FM/D-
Star. It is brand new with
programming software and
cable. Excellent condition!*

CLASSIFIEDS

From the estate of Al Newell, Jr / KD8DJA.

Baofeng UV-3R

2m and 440 VHF/UHF dual band HT
Includes all standard accessories in original box.
Looks like it was never used. **\$20.00**

Radio Shack HTX-242 2-meter Mobile

45 Watts programmable tones and 30 channel memory.
with manual
Works great **\$50.00**

Micranta 12 volt power supply

2.5 amp **\$10.00**

Kenwood TS-690S HF Transceiver

auto tune/SSB filter
Desk mike/hand held mike
IF232c intrerface
MFJ 25 amp power supply
manuals
Works great
\$550 firm

KDK UHF FM-7033 440 Mobile

don't know a thing about it.
\$10.00

National NCX-5 HF Transceiver

Power supply/speaker
10-80 meters SSB/CW
200 Watts PEP
With manual
\$150

Ten-Tec Omni-D

Complete station including 243 remote VFO,
645 Electronic key-er, 252 power supply
Manuals
Band switch contacts need cleaning
worked when taken out of service
Whole station **\$200**

For more information contact:

Charlie Culton WD8PVS

wd8pvs@yahoo.com
(517) 512-5503

Greater Lansing Nets

The “**Central Michigan Slow Scan TV Net**” meets every Sunday evening from 7:00- 8:30pm on the 145.39 repeater (PL 100 Hz), with Net Coordinator Carl Canfield/K8YHH. EVERYONE is welcome to join in and have fun learning and using this interesting and useful mode of communication. Other digital modes will be explored from time to time. For more information, call Carl at: (517) 755 6627.

The “**Quarter Century Wireless Association Net**” also meets every Tuesday night but at 8pm and on the 146.70 repeater (PL 107.2 Hz), with Net Coordinator Don Tillitson/WB8NUS.

The “**Mid-Michigan Information and Traders Net**” meets every Wednesday evening at 8:00pm on the 145.39 repeater (PL 100 Hz), with Net Coordinator Bob Strobel/KB8DQQ.

The “**MSUARC Friends and Info Net**” meets every Thursday evening at 7:00pm on the 145.39 repeater (PL 100 Hz), with Net Coordinator Gregg Mulder/WB8LZG. The first half of the net is time for chatting, while the second half is for Morse Code practice. If you wanted to learn Morse Code, but didn't know how to go about doing it, then please join us. The speeds are kept down to a minimum, to make it easier to learn.

ALL are welcome on these nets, so be sure to check in to show your support. And as with all Nets, 3rd party check-ins are welcome, but must have Control Operator present at check-in time.

CMARC Officers and Appointees

President

Michael Boensch, W8MKB

Vice President

Gordy Smith, KE8JKS

Treasurer

Dan Beuchert, WX8MOJ
wx8moj@arrrl.net

Secretary

Shannon Ranes, WA2NVK
wa2nvk@gmail.com

Under 22 Director

Don McLain, KB8RAD
(517) 930-7707

Director

Carl Canfield, K8YHH

Director

Gregg Mulder, WB8LZG

Cards & Flowers

Jane Hosford, KC8FSK
(517) 515-7610

Club Contact

Don McLain, KB8RAD
(517) 930-7707

Club Historian

William Cote, WD8NYW

Antenna Projects Chairman

Gregg Mulder, WB8LZG

Lansing ARPSC Liaison

Jim Hannahs, KC8QWH

Scope Editor

QSL/Awards Manager
Chris Ranes, NS8Q
kc8caj@gmail.com
cmarcscope@gmail.com

Photographer

Kenneth Hazlett, N8BVV
(517) 348-5513

**CMARC Calls:
W8MAA & W8PLP**

LCDRA Officers and Appointees

President

John Imeson, N8JI
(517) 449-1517

Vice President

Don Tillitson, WB8NUS
(517) 321-2004

Secretary

Ron Harger, WD8BCS
wd8bcs@arrrl.net

Treasurer / Membership
Michael Boensch, W8MKB

Director

Jan Bradfield, KC8BFB
(517) 202-1779

Director

Don McLain, KB8RAD
(517) 930-7707

Repeater Trustee

Dennis Boone, KB8ZQZ

**LCDRA Call:
W8BCI**

The Scope is a bi-monthly joint publication of The Central Michigan Amateur Radio Club and the Lansing Civil Defense Repeater Association. Please send all articles, classified ads, or other information to the editor, Chris Ranes, NS8Q, at cmarcscope@gmail.com.

The deadline for each issue is midnight on the 20th of the preceding month.



Central Michigan Amateur Radio Club

W8PLP/W8MAA

Membership Form



For new CMARC applicants: Please complete all sections.

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

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').

Daniel Beuchert | PO Box 27275 | Lansing, MI 48909-7275

Membership Type		<input type="checkbox"/> New	<input type="checkbox"/> Renewal
Full:	<input type="checkbox"/> Annual Dues: \$20.00 <i>Includes voting rights and an annual subscription to The Scope.</i>		
Associate:	<input type="checkbox"/> Annual Dues: \$5.00 <i>Includes an annual subscription to The Scope but NO voting rights.</i>		
New Licensee:	<input type="checkbox"/> Annual Dues: 1st Year Free		
Under 18:	<input type="checkbox"/> Annual Dues: Free		

Contact Information	
First Name: _____	Last Name: _____
Call Sign: _____	License Class: _____ Phone #: _____
Address: _____	Apt/Unit: _____
City: _____	State: _____ Zip Code: _____
Birthday: _____	Anniversary: _____
Email: _____	Sign up for the List Serv: <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	
Newsletter Preference (select only one option)	<input type="checkbox"/> I will download from the web site.
	<input type="checkbox"/> Please mail to my address (Note: Direct mailing increases postage costs.)
ARRL Affiliation	<input type="checkbox"/> I am an ARRL member



Lansing Civil Defense Repeater Association

Membership Form

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 | 1897 Sunnymede Ln | Lansing, MI 48906-1356

**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
Full:	<input type="checkbox"/> Annual Dues: \$15.00 <i>Includes voting rights and an annual subscription to The SCOPE.</i>		
Family Mbrs:	<input type="checkbox"/> Annual Dues: \$7.50 ea. No. of Family Members: _____		
ARRL Affiliation	<input type="checkbox"/> I am an ARRL member Membership Card <input type="checkbox"/> Yes (Please see above)		

Contact Information	
First Name: _____	Last Name: _____
Call Sign: _____	License Class: _____ Phone #: _____
Address: _____	Apt/Unit: _____
City: _____	State: _____ Zip Code: _____
Birthday: _____	Anniversary: _____
Email: _____	
<i>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></i>	

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

STAMP

To:

Activities Calendar			
<div></div>			
Date	Time	Event	Place
7/12/2019	6:00 PM	CMARC Board Meeting	The Club Station in Mason
7/12/2019	7:00 PM	CMARC Meeting	The Club Station in Mason
7/13/2019	11:00 AM	VE Session	Lansing Fire Station #44
7/15/2019	7:00 PM	ARPSC Meeting	Lansing Fire Station #48
7/18/2019	7:00 PM	LCDRA Quarterly Meeting	Lansing Fire Station #48
8/1/2019	7:00 PM	VE Session	Lansing Fire Station #44
8/3/2019	6:30 PM	CMARC Board Meeting	The Club Station in Mason
8/9/2019	7:00 PM	CMARC Meeting	The Club Station in Mason