

SCOPE



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

VOLUME 20, ISSUE 1

JANUARY/FEBRUARY 2020

CENTRALMIARC.COM

CMARC Winter Field Day 2020

By Gregg Mulder, WB8LZG

he ARRL Winter Field Day was the last weekend in January.

Several of our members came out to the club station to represent CMARC, as well as providing "on the air" practice and training. We got started a few minutes late but were quickly putting new sections in the log. The new Mosley antenna performed wonderfully. We had no trouble grabbing the PAC section in Hawaii, and the Maritimes also. Propagation was a bit strange early on. We were easily able to work most of the 7th area sections as well as a "beeline" to Texas and Florida. But we couldn't catch any of the elusive 6 landers out there in California. The gang had pizza later on to satisfy the tremendous hunger of the trenchermen hard at work! The tally? We had 170 QSOs by Saturday evening when the plug was pulled for the night. Chris, NS8Q, returned later on Sunday to catch the last of the contest. He worked another 60 QSO's on 20-meters, filling in a lot of the missing California sections, and a few others too, topping the 230 mark. Signal reports on Sunday using the new tri-bander were excellant, somtimes S9+20-40 dB! Many stations out west commented that it sounded like we were sitting right next to them, while running a KW. With our 80-90 watts output, the new Mosley has met or exceeded our expectations!

Although I didn't actually make any QSOs, (mic fright) I did do logging duty for a while. We switched off teams, logging and operating, while the others got a chance to "chew the fat" and get to know each other a bit better. Contesting is a great way to have fun and make new friends. A very FB time had by all of us. Thank you to everyone who attended and we hope you will consider joining us in the next contest.



Dave W8ZZX, at the mic, with Chris NS8Q logging.



PHOTOS BY: GREGG MULDER/WB8LZG

Scott K8MTB at the helm, with John KC8QZB logging.

Inside this issue...

03	Dan Beuchert / WX8MOJ Shannon Ranes / WA2NVK Treasurer Reports
04	John Doornhaag / KD8NNQ VE Examination Schedule
05	John Doornhaag / KD8NNQ Ziegenbein Nomination Rules and Info
06	John Imeson / N8JI LCDRA Repeater User Expectations and Rules
07	Gregg Mulder / WB8LZG Copying Pictures from the ISS is easier than you think.
08	Gregg Mulder / WB8LZG Novice Notes
10	Gregg Mulder / WB8LZG An Update on a Great Old Kit.
12	Shannon Ranes / WA2NVK December 2019 Board Meeting Minutes
14	Shannon Ranes / WA2NVK December 2019 Regular Meeting Minutes
16	Shannon Ranes / WA2NVK January 2020 Board Meeting Minutes
19	Clyde Tompkins / K8CPT January 2020 Regular Meeting Minutes
11	Various Local Hams

Classifieds



CMARC OFFICERS

PRESIDENT: Gordy Smith / KE8JKS

VICE PRESIDENT: Dan Dembinski / KD8YDE TREASURER: Shannon Ranes / WA2NVK **SECRETARY:** Clyde Tompkins / K8CPT

UNDER 22 DIRECTOR: Don McLain / KB8RAD

DIRECTOR: Carl Canfield / K8YHH **DIRECTOR:** Gregg Mulder / WB8LZG

CMARC APPOINTEES

MEMBERSHIP CHAIR:

John Doornhaag / KD8NNQ

CARDS & FLOWERS: Jane Hosford / KC8FSK **CLUB CONTACT:** Don McLain / KB8RAD CLUB HISTORIAN: William Cote / WD8NYW

ANTENNA PROJECTS CHAIRMAN:

Gregg Mulder / WB8LZG

LANSING ARPSC LIAISON:

Jim Hannahs / KC8QWH

SCOPE EDITOR, QSL/AWARDS MANAGER, **CLUB STATION MANAGER:**

Chris Ranes / NS8O

CLUB PHOTOGRAPHER:

Kenneth Hazlett / N8BVV

W8PLPTRUSTEE: Chris Ranes / NS8Q **W8MAATRUSTEE:** Dan Harger / WD8BCS



LCDRA OFFICERS & APPOINTEES

PRESIDENT: John Imeson / N8JI

VICE PRESIDENT: Don Tilliston / WB8NUS **SECRETARY:** Ron Harger / WD8BCS TREASURER, MEMBERSHIP CHAIR:

Michael Boensch / W8MKB **DIRECTOR:** John Winn / KE8CYC **DIRECTOR:** Don McLain / KB8RAD

REPEATERTRUSTEE: 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 cmcscope@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.

Treasurer's Reports 2019

Daniel Beuchert / WX8MOJ- CMARC Treasurer

Bank Balances for December Beginning Balance \$2,839.84 **Total Monthly Income** \$430.00 **Total Monthly Expenditures** (\$81.63) **Total Business Checking** \$3,188.21 \$1.00 Petty Cash (\$0.00)**Outstanding Checks** \$3,189.21 Sub Total + Petty Cash **Primary Share Accounts** Humphrey's Fund \$384.13 Building Fund (Club Station) \$19.09 Field Day \$178.75 Total Net Worth \$3,771.18 Youth Fund Balance* \$254.66 * Separate from CMARC Funds

Treasurer's Reports 2020

Shannon Ranes / WA2NVK- CMARC Treasurer

Bank Balances fo	r January
Beginning Balance	\$3,188.21
Total Monthly Income	\$260.13
Total Monthly Expenditures	(\$291.65)
Total Business Checking	\$3,156.69
Petty Cash	\$1.00
Outstanding Checks	(\$40.00)
Sub Total + Petty Cash	\$3,197.69
Primary Share Accounts	
Humphrey's Fund	\$384.16
Building Fund (Club Station)	\$19.09
Field Day	\$178.77
Total Net Worth	\$3,779.71
Youth Fund Balance*	\$254.68
* Separ	rate from CMARC Funds

December 2019 Summary:

We took in \$400 in dues, and \$30 for the sale of our old Mosely Tri-bander. We spent \$81.63 in supplies (TP, soap, and a replacement Paper Towel dispenser) for the club room area.

2019 At a Glance:

We started the year with \$3,037.64 and ended the year with \$3,188.21. Not counting the \$550 of seed money taken out for change at the Hamfest, we took in \$3802.87 and spent \$3652.40, yielding a net positive balance of \$150.57. For the Hamfest, we took in \$1602 and spent \$890.85 to put it on. Some old club items were sold at the Hamfest, but even without that income the Hamfest ran in the green. We had a major one-time expense when we replaced the old antenna rotor at \$599.95, and we also purchased HF filters for Field day at \$389.97, but the checking account was reimbursed that exact amount from the Field Day fund, so it didn't affect the checking account overall.

January 2020 Summary:

We received \$200 in dues, \$40 in donations, and a refund on a soap dispenser for the club room. We spent \$80 on memorials, purchased a garbage disposal for the club room, purchased new checks, and paid the post office box rent. A \$40 memorial check has not been cashed.

2020 SCHEDULE OF VE 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 a Thursday evening, every other month. We test in the Community Room at Lansing Fire Station #44, 1435 East Miller Road, Lansing, Michigan 48911.

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.

2020 SCHEDULE OF VE SESSIONS

FIRST THURSDAY OF THE MONTH AT 7:00PM

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

SECOND SATURDAY OF THE MONTH AT 11:00AM

January 11th March 14th May 9th July 11th September 12th November 14th

SPECIAL EVENTS SATURDAY 11:00AM

June 27th (CMARC Field Day-11:00AM-Rayner Park, 730 East Ash Street, Mason, Michigan 48854)

September 19th (CMARC Hamfest 11:00AM - Okemos Convention Center, 2187 University Park Drive, Okemos, Michigan 48864)

Ziegenbein Nominations

It's time to begin thinking about who you would like to nominate for the 2019 Ziegenbein Award.

For those of you who are not familiar with the award - it is presented each May to the Full CMARC member who has contributed the most to Amateur Radio, in general and CMARC, in particular **for the previous calendar**

year.

Nomination Guidelines

- 1. The recipient must be a **full, current** member of CMARC
- 2. Nominations to be made in writing, in your own words, **no** chain letters to be accepted, stating nominees's contributions to CMARC and Amateur Radio.
- 3. All nominations are to be kept secret until the award is presented.
- 4. All nominations are to be mailed (regular postal mail **OR** email).
- 5. The same person can receive the award more than once.
- 6. The Committee shall consist of the last three recipients; the senior member shall be the chairman.
- 7. All nominations are to be closely checked and discussed by the Committee.
- 8. If the Committee feels the nominees are not deserving, the award does not have to be given.
- 9. Nominations are to be submitted before **March 15th** of each year, so the Committee can make the selection and have the plaque engraved.
- 10. The recipient will be announced at the annual Ladies' Night.

REMEMBER

Your nominations for the Ziegenbein Award are due March 15th. This year's Senior Chairman of the Ziegenbein Committee is John Doornhaag (KD8NNQ).

Send your e-mail nominations with a subject line of "Ziegenbein Nomination", to jdoorn1@hotmail.com.

If you prefer to use snail mail:

John Doornhaag 1165 South Ainger Rd Charlotte, MI 48813-9540

Write "**Ziegenbein Nomination**" on the envelope.



Lansing Civil Defense Repeater Association

User Expectations and Repeater Operation Rules

LCDRA maintains and operates high-quality, wide-coverage repeaters for the use of all amateur radio operators. Operation and use of these repeaters shall comply fully with the Amateur Radio Service (Part 97) regulations of the Federal Communications Commission's Private Radio Service, and the following rules.

- 1. The repeaters are provided for the purposes of contacting and passing information between fellow amateur radio operators, and providing service to the public as a voluntary, non-commercial communication service, particularly with respect to providing emergency communications.
- 2. In the spirit of the Amateur Radio Service, users shall respect and support each other in a courteous and positive manner.
- 3. Operators shall announce their call sign before transmitting any touch-tone commands, at the end of each communication, and every ten minutes or less during a communication.
- 4. There shall be absolutely no communications containing obscene, indecent, or profane words, language, or meaning.
- 5. No one shall cause or condone the malicious or intentional interference of anyone's communications on the repeaters.
- 6. Operators shall not communicate with, or discuss the actions of, anyone who violates these rules.
- 7. Control Operators are required to turn off a repeater to terminate improper operation or use.
- 8. LCDRA Board of Directors reserves the right to forbid the use of the repeaters by anyone who repeatedly violates these rules, or anyone who facilitates or encourages others to violate these rules.

Copyright © 2020 Lansing Civil Defense Repeater Association. All rights reserved.

Copying Pictures from the ISS is easier than you think.

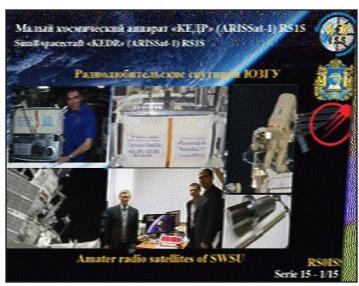
By Gregg Mulder, WB8LZG

uring the Christmas break I was reading the ARRL Letter and they were telling of an upcoming Special Operation from the International Space Station. They were going to send Slow Scan TV pictures in memory of 3 Sovi et Cosmonauts. I had previously had good luck with many of the FM "birds" in the past, but never thought about SSTV, so I figured why not give it a try.

I had some spare time and wondered if I could receive the pictures on the home station. My station is very Spartan. The antenna is a J-Pole mounted on a 2 x 2 to get it up above the roof line. 70 ft of coax runs to a well used Ft-817, feeding a homebrew RS232 interface to the computer, running MMSSTV. (MMSSTV is a freeware program)

I went to the AMSAT website to check when the passes would be for that day. I had 3 possible passes. Sure enough, at the scheduled time, the ISS came into "view", and the picture started to decode and come in on the screen. Most of the pix were a bit fuzzy on the 1st pass, but I was surprised I was receiving them as well as I did. I had great luck on the 2nd pass an hour and a half later. The signal from the ISS was 59+ and the pictures decoded beautifully. The 3rd pass of the day netted me I good pix and 2 pix that were a bit grainy and lots of noise due to satellite rotation, and my stationary antenna. To the right are copies of 2 of the pix I captured. Nice and clear. They were even dated and timed on the X-mit frame.

Very cool and easy to do. Getting these pix from space was very exciting. I think this would be a great way to "show off" ham radio to Scout groups, Schools, etc. Hope this gives everyone some inspiration to try this yourself. It doesn't take a big station with towers and "tracking" antennas to enjoy the pix. The ISS is expected to receive some new and updated Ham gear soon too. Don't miss out on another "pass".



Picture #1



PHOTOS BY: GREGG MULDER/WB8LZG

Picture #2

Novice Notes

By Gregg Mulder, WB8LZG

he tech ticket holders of today sure missed out on a lot of fun things that we novices were privileged to be apart of way back when.

I was thinking to myself the other day about how lucky we were to have gotten into ham radio in the 50's, 60's, and 70's. At that time most of us entered the hobby via the "Novice" ticket. Lucky, because we were newbies on the "cutting edge" of the latest and greatest things in electronics. Radio still had a "Magic" in those days. New transistors, IC's, and other electronic breakthroughs were happening every day. It was an exciting time to be learning about ham radio. I was already a prime candidate in Jr. High school, building crystal sets and learning radio fundamentals, but the code was my big hurdle. I just couldn't get the hang of it. Finally, in high school I found a friend, Jim Lundy, who also wanted to get licensed, and with each other help we both learned the fine art of Morse code. Having a "code buddy" to practice with made all the difference in the world. That year we both took our Novice exams and were HAMS at last! WN8KXZ, and WN8LZG.

Novice licensees at that time were only allowed to use CW. Crystal control only. No VFO. The ticket was only valid for 2 years, nonrenewable, so you had to upgrade or fold. We were granted 50 kilocycle slices in the 80, and 40-meter bands. 100 kcs on 15, and 250 kcs on 10 meters. 75 watts max power "input to the final".

I started out building my Ist transmitter, an Ameco AC-I Kit, and a used modified military ARC-5 receiver. It's amazing that I even worked at all. I built it with a Weller 100-watt trigger grip soldering gun. The tip was much too big, and I must have used a ton of solder. Even so, it played! We didn't have money for fancy new rigs, or any station extras, like an SWR meter or external tuner. Kits and surplus gear were very popular to young hams with little cash. We tuned up by putting a 25-watt light bulb in the circuit. You adjusted the transmitter for maximum glow on the bulb, then removed it from the circuit and you were ready to call "CQ". Being limited to "x-tal" control, calling CQ was an interesting operation in itself. Not to mention the fact that you may only have I or 2 crystals per band. You called a CQ for



PHOTO BY: JOE TYBURCZY/W1GFH

An actual, working, AMECO AC-1 two-tube CW transmitter.

baluns? We didn't even know what a balun was. We never worried about some stray currents that crept down the feedline. All we cared about was making QSO's. Most of us Novices were delighted to find that our 40-meter dipoles would also tune up just fine on 15 meters. Much of what we did then, was done by the "trial and error" method. Things like touching the plate circuit in your x-mitter were lessons learned the hard way, but you sure learned quick!

One of the coolest things about the Ol' AC-I was that when transmitting the oscillator tube would have a strange Blue-Green glow of plasma cloud lighting up the upper glass of the tube like some old horror show set. It was as if the tube was forming those electrons into powerful radio beams waiting to be unleashed to the antenna and into the either.

Nobody had expensive test equipment so our "freq standard" on 40m was the Canadian broadcast time station, CHU Canada. We shied away from operation too close to the band edge. No one wanted to get caught breaking the rules. We all believed that the FCC was out there listening, just waiting to catch a poor novice op straying out of band! We logged EVERY transmission, every CQ, every beep. Even if you did not get an answer, you logged it!

See NOVICE NOTES, Page 9

NOVICE NOTES, from Page 8

I did however get an OO notice once. For being heard on 20m (2nd harmonic) louder than on 40 where I was intending to be! Hmmm, 2 signals for the price of one.

There were plenty of LIDS around. Just about all of us were guilty of being LIDS at one time or another, but that's what the novice ticket was for! A place to make mistakes, and to learn from them so that you could eventually upgrade to General. Jim and I teased each other about it so often that between us, that we gave each other new monikers. He was "LID boy" and I became "LIDDY"! Stupid I know, yes, but it was fun.

Some of the other "cool" things about being a Novice were at Field Day we got "our own" station! Many contests had Novice entry classification. We had our own contest too, the Novice round-up. Many times, "Extras" would hang out in the Novice bands just to give us help with our code practice. To this day I will occasionally still listen up in the old Novice band to do just that same thing.

After washing mugs all summer at the root beer stand, I finally had enough money for a rig upgrade. I got a Heathkit HW-I6. It was a great rig. I was now King of the Airwaves. Running a full Novice Gallon! It didn't take long before I finally worked my first DX (France) on I5 meters after installing a new Gothom vertical in the backyard. From then on, I was hooked on DXing. Many times, I5m would stay open late into the evening, giving me my first taste of DX from Australia, New Zealand, and Oceania.

QSL cards were very special to us and collected by mail only. No internet, no E-QSL, no instant gratification. Cards from the USSR all had to go through "BOX 88" in Moscow. Some cards would literally take years to receive. I actually received a card from a QSO when I was a Novice, with a ham in Russia, 9 years later! I had given up on ever getting that card.

As the year went on my code speed was increasing so I went to Detroit to sit the General test at the Federal building. I flunked the 1st time. In those days you had to copy at least 65 letters in a row. I had 64. I did return and finally did pass. That was the end of my Novice career. I eventually upgraded to Advanced and Extra for the sole purpose of gaining those precious 25 Kcs slices at the bottom of every band. That's where the "rare DX" was hanging out. Yet I'll always look back at those Novice days very fondly. It eventually influenced my entire life

with a career in electronics, the satellite industry, and teaching. So yes, we Novices were lucky. Lucky in ways today's young hams will never know.

This is not to imply that Techs don't have any fun. Tech ticket holders today are very fortunate. The Tech exam is a written only, No Code, and they publish all the Q's and A's. How easy can it get? But most new Techs get a 2-meter FM handheld, and that is their experience with ham radio. So Sad. Part of the joy of that 1st license was to discover "how it all worked". To experiment with your rig, and antenna system. New bands, new modes and new things to learn about radio. I realize that part of the problem stems from large scale miniaturization of our radios. This shouldn't intimidate you Techs. Grab your computer and put it to work! Try PSK-31, FT8, SSTV and maybe even some CW. Keep learning about radio. You will find that life beyond the 39 machine is a lot more exciting than just kerchuncking the repeater.

Please join us for the...

Michigan QSO Party April 18-19, 2020 12 PM - 12 AM

807 Kerns Rd. Mason, MI 48854

Please contact Chris Ranes
NS8Q for more information or
to sign-up as an operator

ceranes@sbcglobal.net

An Update on a Great Old Kit

By Gregg Mulder, WB8LZG

had troubles with a power plug/ jack in my FT817 while on vacation and finally got around to fixing something I'd been meaning to get to for over 20 years Here's the rest of the story......

Back in the 1990's, well known QRPer Dave Benson, KISWL, came out with a nice line of inexpensive ORP transceiver kits. It was a "bare bones" kit. Just the ckt board and all board mounted parts. You supplied the enclosure, knobs, plugs n jacks, and any extras that you wanted. Affectionately named the SWL+.

For around 55 bucks you got a direct conversion, single band transceiver with a nice stable VFO, sharp crystal filter, good audio, and a bit over 2 watts out. All on a ckt board about the size of a pack of cigarettes. Low parts count and good design of the radio, along with simple Heathkit style instructions made it a hit with the QRP crowd. I was raising a family at the time, and money was tight, so a kit radio made lots of sense, and the price was right. I did want to "jazz" mine up a bit though. I had some Ten Tec equipment in the shack, and I found a matching TT style box about 5" by 6" salvaged from an old parallel port switch that would fit it nicely. I also wanted mine to have some extras. So, I added a switch and capacitor to the VFO so it could cover both the General and Novice sections of the band. I put in a companion "Freq-mite" audio frequency enunciator kit, built in speaker, and a surface mount "Tick" keyer kit. I planed on taking it with me on vacations, so I built it with adaptation in mind. The Tick surface mount keyer was so small, I mounted it directly to the "paddle" jack on the back of the rig. The radio also had both BNC, and SO259 antenna jacks, Straight Key and Paddle input jacks, headphone jack, and with 12.5 volts would do 2.5 watts on 40 meters. It all weighed in at just around a pound, so it was a good rig for portable operating. A small gel-cell battery, a homebrew K8FF paddle kit key and a dipole, was QRP operating in style!

The one regret. In the build I was frugal. Downright cheap! I copied the Ten Tec Argonaut power jack. An RCA phone jack. One of the dumbest plug/jacks combo's for power ever used, as it can short easily. (and did so on more than one occasion) Even the Ten Tec designers

shouldn't have used it. In hindsight I SHOULD HAVE modified the Ten Tec's power jack. Oh Well.... Still, I had a blast with the rig, just that darned power jack was always in the back of my mind.



Front panel of the SWL40+ in the Ten Tec style box.

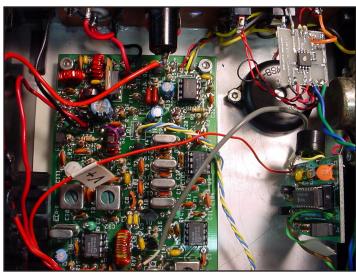


Original rear panel showing old parallel port slots.

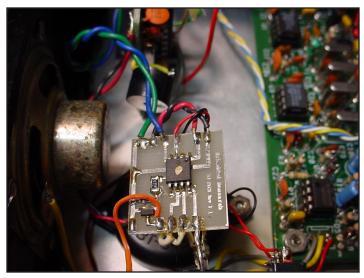
OLD KIT, from Page 10



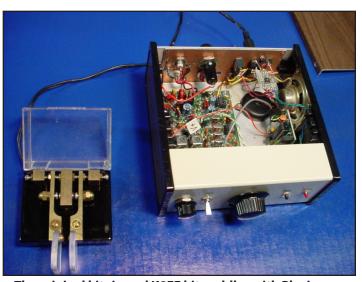
Rear panel showing all the jacks and new power connector.



The SWL40 PCB, Tick keyer (upper rt), Freq-mite (lower rt).



Close up of the "Tick 3" surface mount keyer.



The original kit rig and K8FF kit paddles with Plexi cover.



PHOTOS BY: GREGG MULDER/WB8LZG

The modified rig with key and Gel-Cell, ready for QRP fun.

In operation the radio is a pleasure to use. The direct conversion receiver audio is pure and clean. The Tick keyer and Freq-mite add "armchair" ease of tailoring the rig to your portable ops. It's just plain fun to make QSO's on a station you built yourself. Telling the guy on the other end, "running 2 watts hr the, rig, key, and antenna are all homebrew and on battery power." QRP at its finest for sure!

Hope you all enjoyed the pictures of this fine kit.

Keep melting solder. ■

CENTRAL MICHIGAN AMATEUR RADIO CLUB **BOARD OF DIRECTORS MEETING MINUTES** SATURDAY, DECEMBER 7, 2019

Current Board Members Present: Dan Beuchert (WX8MOJ), Carl Canfield (K8YHH),

Gregg Mulder (WB8LZG), Shannon Ranes (WA2NVK),

Gordy Smith (KE8JKS)

Current Board Members Absent: Michael Boensch (W8MKB), Don McLain (KB8RAD),

The meeting began at 6:45 pm at A&W since the Club Building did not have electricity.

Motion by Gordy to keep Dan Beuchert as Building Liaison and member to check the post office. Second by Gregg. Approved by all.

MEDIA COMMITTEE PERSONNEL

- ~Need to make a list of expectations and requirements. No one brought their list tonight.
- ~Gregg willing to take photos at events and next week's Christmas Party.
- ~If videos are taken, Carl mentioned the Board or Committee needs to look at videos before finalizing. All Board members agreed. It's a representation of the club and different than just photos. We are a "guest" of the Ambulance Service and need to be mindful of videos taken on premises.

HAMFEST 2020 - Saturday, September 19, 2020

~Gordy has not picked up the contract from the hotel. He will.

OLD MOSLEY ANTENNA

~We have not heard back from Steve Lyon (W8RQS). Gordy will try to get ahold of him.

CLASSES

- ~Gordy has several ideas of what he would like to do.
- ~Tom Rocheleau (WA8WPI) teach another class?

EMERGENCY SCENARIO

- ~What if we needed to run the club station in an emergency? John Hosford (KC8QZB) stores the club generator. Gordy has a generator he could bring.
- ~At meeting next week, check the building to see what we need to do and where we can run a cord through a window or door.

PORTABLE ANTENNA COMMITTEE

- ~For next year, would like to get some people together to put up the new antenna. Two or three people who have put it up two or three times and know what they are doing.
- ~In military they call it "PQS certified".
- ~Subcommittee. What they say goes because we haven't read the manual and they have.
- ~Gordy will make a copy of the manual that came with it.
- ~Do this before Field Day so people are familiar with how to do it ahead of time.

BOARD OF DIRECTORS ELECTION

~Before Break at the CMARC meeting this Friday night.

FIELD DAY 2020

- ~Dan and Randy Williams (KD8MOK), in coordination with ARPSC, drafted a letter this week to send to City of Mason.
- ~Dan willing to be 2020 Field Day Chair.

INVENTORY

- ~Add items that have been purchased since July 2018 to the inventory list that was created.
- ~ie. Antenna, rotor, portable tower, new LED lights for Field Day, tool box
- ~Key box. Whomever gets a building key gets a key box key. Safe place to keep the key box? Old Board members need to turn in keys so we can inventory them and then give to new Board members.

PAYPAL

- ~Dan asked if we want him to pursue it or wait until the next Treasurer.
- ~Decision not to pursue. See if the next Treasurer wants to pursue setting it up.

TRAILER

- ~Gordy will talk with Russ Fitzgerald (N8FZ) about the club owning a trailer, storing, and insuring. Gregg mentioned the club has owned a trailer in the past but it was licensed by a club member.
- ~Dan mentioned if we go through the ARPSC, there may be other requirements.

APRS STATION

- ~After 18 months of use, it does not seem to be a highly used mode. Chelsea is very close and seems to override our signal. Consensus, plug in APRS when we need it and unplug it when we do not need it. Don't have to get rid of/give back equipment.
- ~Much discussion. Three important ideas listed below.
- ~Repurpose the Ringo Ranger antenna.
- ~We have a dual band radio that was programmed at Sweeps and the memories hold their channels.
- ~Digital station? FT8? Instead of a dedicated station, the Club's radio is already there and anyone can come in and work FT8 any time they want if a computer and soundcard interface are available.
- ~ Echolink node? We have 4 repeaters now and only 1 gets used. Need a computer or Raspberry Pi and radio interface to run the software, and does not take much bandwidth. We need to see if LCDRA will be willing to let us use one of their repeaters for an EchoLink node.
- ~Motion by Gordy that we talk with LCDRA about connecting an EchoLink node and explore that option. Second by Dan. Approved by all.
- ~If LCDRA is not willing, maybe MSUARC would be willing to reconnect their EchoLink node.
- ~If young people come in, we want them to see multiple options to work on.
- ~What is going to further the hobby, what is going to bring more people in?
- ~Diversify or we're not going to get newbies.

MISCELLANEOUS

- ~Gregg asked about moving the Board meetings to the same night as the Club meetings. Talk with the new Board about their timing.
- ~Shannon suggested "Extra Mile Award" for Charla-Fay for the food she prepares for CMARC meetings and CMARC Board meetings.
- ~Motion by Gordy to write a \$300 check to Kevin as annual donation. Gregg second. Approved by all.

Motion by Gordy to close the meeting. Second by Gregg. Approved by all.

Meeting adjourned at 8:59pm.

Respectfully submitted, Shannon Ranes (WA2NVK) **CMARC Secretary**

CENTRAL MICHIGAN AMATEUR RADIO CLUB **MEETING MINUTES**

FRIDAY, DECEMBER 13, 2019

Attendance

Board Members Present: Dan Beuchert (WX8MOJ), Michael Boensch (W8MKB),

Carl Canfield (K8YHH), Shannon Ranes (WA2NVK),

Gordy Smith (KE8JKS)

Don McLain (KB8RAD), Gregg Mulder (WB8LZG) **Board Members Absent:**

General Members: 32 Visitors: 16

Call to Order: The meeting was called to order at 7:02 pm. Carl 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.

Visitors:

~Several spouses and friends for the Christmas Potluck Dinner.

Cards and Flowers Report:

- ~Richard Stortz/K8JNZ SK 11/8/2019. A card was sent and a \$40.00 donation was made to Alzheimer's Association of Michigan in memory of Richard.
- ~Jan Bradfield/KC8BFK SK 11/13/2019. A card was sent.
- ~Charles Keep, Sr/W8CLK & KB8SXL SK 11/27/2019. Father of Charlie Keep/KB8SKV.
- ~Moment of silence

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

- Pay membership dues to Dan Beuchert, Treasurer.
- LCDRA dues to Michael Boensch.
- ARPSC meeting Monday, December 16, 2019 @ 7pm @ FS#8

Secretary's Report: MOTION: Jerry Waite (KD8GLN) moved to accept the Secretary's Report as published on the CMARC website, seconded by Bob Crawford (K8ZAP), approved, and the motion carried.

Interesting DX or Other Contacts:

- Dave Vick (W8ZZX) Half an hour ago hit Hawaii on the new Mosley antenna.
- Steve Lyon (W8RQS) 3 QSL cards from DL1NKS Germany To his Marine Mobile Station June of 2015 - The guy made 71,924 contacts.
- Chris Ranes (NS8Q) reported they made about 90 SSB contacts during the November Sweepstakes. Everyone had a good time. The new Mosley antenna and rotor worked great.

Old Business:

- Club directories are available.
- 2020 HamFest Saturday, September 19, 2020 at Okemos Conference Center.
 - o Gordy will pick up the contract.
 - o Dan Dembinski (KD8YDE) is working on some big vendors.

New Business:

- Electronics Classes Gordy wants to know what topics members are interested in.
 - o John Winn (KE8CYC) has plans for a dual-band J-Pole
 - o Dave Vick has plans for aluminum stub no soldering J Pole \$15 at the most 3/8", SO-239 panel
 - Steve Lyon has built about 4 of those and has extra pieces.
 - o During the Break and Christmas Party, some members wrote what they are interested in on the white board.
- Field Day Dan Beuchert working with the City of Mason on renewing the contract. Michael Boensch just signed the contract and will turn in. The City of Mason is looking to do things with their parks. They inherited Raynor Park from Ingham County a few years ago.

2020 Board of Directors Election:

- Board Nominations
 - o Clyde Tompkins (K8CPT) by Gordy Smith
 - o Dan Dembinski (KD8YDE) by Gordy Smith
 - o Gregg Mulder (WB8LZG) by himself
 - o Dave Vick (W8ZZX) by himself
 - o Don McLain (KB8RAD) by himself (Under 22 Director)

Election counting committee: John Winn (KE8CYC), Allan Ostrander (KD8VJD), Bob Strobel (KB8DQQ), Carl Canfield (K8YHH), Dan Beuchert (WX8MOJ) (as Board member).

The voting took place and the new Board of Directors is:

- o Carl Canfield (K8YHH)
- o Dan Dembinski (KD8YDE)
- o Gregg Mulder (WB8LZG)
- o Shannon Ranes (WA2NVK)
- o Gordy Smith (KE8JKS)
- Clyde Tompkins (K8CPT)
- o Don McLain (KB8RAD) (Under 22 Director)

The 2019 Board will meet with the 2020 Board at the January 2020 meeting. The 2020 Board will then decide which position each person will have.

Adjournment: MOTION: With no further business to discuss, Dave Vick (W8ZZX) moved that we adjourn the meeting, seconded by Bob Crawford (K8ZAP), approved, and the motion carried.

The business meeting was adjourned at 7:26 pm.

Tonight's Presentation: Christmas Potluck Dinner

Respectfully submitted, Shannon Ranes (WA2NVK) **CMARC Secretary**

CENTRAL MICHIGAN AMATEUR RADIO CLUB **BOARD OF DIRECTORS MEETING MINUTES** SATURDAY, JANUARY 4, 2020

Current Board Members Present: Carl Canfield (K8YHH), Dan Dembinski (KD8YDE),

Gregg Mulder (WB8LZG), Shannon Ranes (WA2NVK), Gordy Smith (KE8JKS), Clyde Tompkins (K8CPT)

Current Board Members Absent: Don McLain (KB8RAD)

Visitors: Dan Beuchert (WX8MOJ), Michael Boensch (W8MKB)

Chris Ranes (NS8O)

The meeting began at 6:58 pm.

Discussion regarding liability insurance. Russ Fitzgerald will be the speaker at this Friday night's CMARC meeting.

New positions:

President - Gordy Smith

Vice President - Dan Dembinski

Treasurer - Shannon Ranes

Secretary - Clyde Tompkins (maybe). Dan Beuchert willing to take notes at meetings and give them to Clyde.

Discussion regarding running for specific Board positions versus running for the Board and then deciding among Board members which position each person will have. The by-laws would need to be changed. We need to be careful because we are a 501C3 and be specific about certain items.

Motion by Gregg to accept the names for President, Vice President, Treasurer, and Secretary. Second by Gordy. Approved by all.

Motion by Gregg to appoint John Doornhaag (KD8NNQ) as the official Membership Chair. Second by Clyde. Approved by all.

- ~Continue with Dan Beuchert as "Raffle" Chair.
- ~Michael gave Clyde his building key.
- ~Dan Beuchert gave Dan Dembinski his building key, paper towel key, toilet paper key, and tool box key. Dan D. gave Shannon the tool box key. The paper towel key and toilet paper key will be kept at the club.

IDEAS FOR "UNDER 22" OPPORTUNITIES

- ~Gordy asked about the money that is in the "Under 22" line item that never changes.
- ~Scouts Sometimes a lot of paperwork but Michael B. has gone through training and all set with that.
- ~Emergency Response Team Get kids into that. Bring their friends.
- ~Walks They just require people with a radio, not the ARPSC/RACES certification like Common Ground and Silver Bells. We don't always have enough people to help with Walks.
- ~Kids are interested in outer space.
- ~Even "juvenile delinquent" kids are interested when they see antennas on cars.
- ~Kids are fascinated that they can talk with people across the globe.
- ~Even "The Walking Dead" tv show has promoted radio.

BUILDING-RELATED ITEMS

- ~Dan Beuchert purchased a new paper towel dispenser, more paper towel, and more toilet paper.
- ~Clyde mentioned Kevin (building owner) needs to be made aware that we would like to purchase and change the garbage disposal. If Kevin is ok with it, we agree to purchase the garbage disposal. A good one and not a cheap one. Kevin has a parent in ICU. Dan was waiting until we could talk.

HAMFEST 2020 - Saturday, September 19, 2020

- ~Gordy picked up the contract. Gave it to Shannon (new Treasurer) tonight.
- ~Dan B. willing to be Raffle Chairperson.
- ~Motion by Clyde to offer a complimentary room to specific vendors for Friday night upon Board approval. Second by Dan. Approved by all.

OLD MOSLEY ANTENNA

~Gordy - Talked with Steve Lyon today, picked up the antenna at the December meeting and paid dues.

MEDIA COMMITTEE PERSONNEL

- ~Discussion regarding preferences and ideas of what would be involved as a part of committee, number of personnel, equipment, where to keep equipment, experience, photography, videography, raw video approved by CMARC Board, type of events, etc.
- ~Dan Dembinski has a video camera to donate. Has a light coming. Can use for events like Field Day, HamFest, Chum Run, etc. Interview people and promote the club. Scripted ahead of time possibly. Motion by Gordy to accept Dan's donation of the camera. Second by Clyde. Approved by all.
- ~Discussion regarding events to attend like Bath Days, Red Cedar Days, etc. Have a presence in the community.
- ~Gordy asked about someone setting up a CMARC Facebook Page. We already have a CMARC Facebook Group. Can we put a video on our club website? Someone to "work" the Facebook page, respond to queries, etc. Dan B said on Facebook we can create an event and discuss. (Comments had been made that posts were made and then "disappear" with other posts/comments and get lost.)

Motion by Dan Beuchert that the Board create a Facebook page and appoints at least two Board members to be administrators on the page, with an additional administrator upon Board approval. Second by Dan Dembinski. Approved by all. ~~Gordy and Clyde will be the two Board members.

~Shannon reminded everyone that our expectations and things discussed need to be compiled and passed on to the PIO Officer/Media Committee. Don't take for granted they know what do to or places to contact.

CLASSES

- ~Gordy January, February, and March. Has several ideas of what he would like to do.
- ~Tom Rocheleau (WA8WPI) willing to teach a licensing class. It would not begin until March or April.

EMERGENCY SCENARIO - (What if we need to run the club station in an emergency?)

- ~Gordy hasn't looked yet to see if a wire can come through a window or door
- ~Gregg said we don't need to do anything but crack open the door.

PORTABLE ANTENNA COMMITTEE

Debby has one in her garage.

Dave Vick

Tim Clav

Chris Ranes

Tom Rocheleau

John Doornhaag

Dan Beuchert

Dan Dembinski

John Tyree

Slight discussion. Gordy made a second copy of the manual. Very dangerous so people need to know how to use it. Would like to have a committee of members who have put the antenna up two or three times and know what they are doing. Dan B. mentioned since Field Day is CMARC and ARPSC, some ARPSC members may want to be involved in learning how to put it up. Do this before Field Day so people are familiar with how to do it ahead of time.

FIELD DAY 2020

~Dan B. - Dan B. and Randy Williams (KD8MOK), in coordination with ARPSC, drafted a letter this week to send to the City of Mason. It was signed by Michael, the CMARC President at the time. Ed Hude (WASOJE) took it to the City Administrator. She can either rubber stamp it or pass it to the City Council. ~Dan B. willing to be the 2020 Field Day Chair.

INVENTORY

- ~Shannon emailed the current inventory sheets to all Board members.
- ~Discussion regarding items donated and purchased such as tool box, tools, antenna, and rotor. Anything under \$25 may not need to be listed.
- ~Key box Where should it be kept?

Motion by Clyde that the Board accept the key box Gordy ordered. Second by Carl. Approved by all.

PAYPAL

Shannon will wait and see.

APRS STATION

- ~New Board members, Dan D. and Clyde, were included when Shannon emailed copies of the December meeting minutes to the Board so they could review ahead of time and be aware of some thoughts and ideas that were discussed at that meeting. Dan B, reminded of some of the discussion, in case they had not read the minutes.
- ~Discussion with several more ideas and agreement of other ideas. ie. D-Star is used all the time. Already have an EchoLink repeater in Lansing.
- ~Dan B. will mention our repeater thoughts at the January 2020 LCDRA.

TRAILER

~Gordy talked with Russ Fitzgerald (N8FZ) today and gave him a lot of info about the club owning a trailer, storing, and insuring a trailer. Gordy read Russ's email.

MISCELLANEOUS

- ~Gordy Host an open house? Could be a time when we are hosting sweeps, field day. Get a flier out to schools, etc.
- ~Dan D. -Have we ever had a club patch? Gregg and Carl don't remember having one. We have had hats, iackets.
- ~Dan B. gave us the 2019 Treasury Report.
- ~Gordy We can all "bring a friend" to meetings.
- ~Ladies Night Shannon will talk with Russ and Kelly to see if they are interested in Chairing again.

Motion by Dan Dembinski to close the meeting. Second by Gordy. Approved by all.

Meeting adjourned at 9:42 pm.

Respectfully submitted, Shannon Ranes (WA2NVK) **CMARC Secretary**

CENTRAL MICHIGAN AMATEUR RADIO CLUB

MEETING MINUTES

January 10, 2020

Attendance

Board Members Present: Carl Canfield (K8YHH), Don McLain (KB8RAD), Clyde Tompkins (K8CPT), Gregg

Mulder (WB8LZG), Shannon Ranes (WA2NVK), Dan Dembinski (KD8YDE), Gordy Smith (KE8JKS)

Board Members Absent: General Members: 32 Visitors: 1

Call to Order

The meeting began at 7:00 pm.

• John Winn (KE8CYC) held the American flag during 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:

- Richard Stortz (K8JNZ) passed away 11-07-19 A sympathy card was sent, and a \$40.00 donation was made to Alzheimer's Association of Michigan, in Richard's name.
- Michael Bofysil (KC8ZLQ) Get well card
- Jan Bradfield (KC8BFK) passed away on 11-13-19 A sympathy card was sent
- Charles Keep (W8CLK formerly KB8SXL) passed away on 11-27-19. He was the father of Charlie Keep (KB8SKV) - Sympathy card sent, and a \$40.00 donation was made to the Capital Area Humane Society, in Charles' name.
- Mark Carter (KD8YUY) Get well card sent on 12-26-2019
- Ralph Tillitson passed away on 12-24-19. He was the brother of Don Tillitson (WB8NUS) Sympathy card sent, and a \$40.00 donation was made to Grand Ledge Fire Department, in Ralph's name.
- Bob Strobel (KB8DQQ) Sympathy card sent 1-9-2020 on the passing of his brother-in-law
- Bob Burger (K8RDN) Wife had surgery
- Moment of silence

New Members / Visitors

- Diane Clay
- Dohn Smithe

Treasurer's Report

MOTION: Dave Vick (W8ZZX) moved to accept the Treasurer's Report as published on the CMARC

website, seconded by John Doornhaag (KD8NNQ), 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 Dave Vick (W8ZZX), approved, and the motion carried.

Interesting DX or Other Contacts

- Gregg Mulder (WB8LZG) 1 watt to United Nations Station in New York
- Tim Clay (KC8THC) DSTAR to Great Britain
- Justin Macauley (WD8EHT) Alabama and Florida were his first 2 HF contacts

Old Business

- Club directories are available for club members and are in a box by the club station.
- Reminder before items can be donated to the club they must be approved by the Board. All monetary donations will be accepted. There is a form that can be filled out for a tax deduction for your donations.
- Gordy Smith (KE8JKS) donated a key box for keys to go in for the club.
- Dan Dembinski (KD8YDE) donated a nice camera for recording club videos.
- Gregg Mulder (WB8LZG) did a Field Day report on the number of operators utilizing home stations for Field Day. There were 1200 home stations out of 3400 stations total. There are many more operators working from home instead of in the field. Gregg mentioned it would be nice to try to get more people to operate away from the home for field day.

New Business

- Dan Beuchert (WX8MOJ) had an update on Field Day. Our lease with the City of Mason to use Rayner Park has expired. Ed Hude (WA8QJE) has helped us write a letter asking for another 3 years.
- Gregg Mulder (WB8LZG) and Ed Hude (WA8QJE) were approached by the Lansing State Journal asking how grow lights are affecting amateur radio.
- The paper towel dispenser in kitchen has been replaced. It was installed by Tim Clay (KC8THC), Dan Dembinski (KD8YDE), and Gordy Smith (KE8JKS).
- Club Radio Station Hours of Operation: It is available one hour before each membership and Board meeting when Gregg Mulder (WB8LZG) is here. If anyone has a reason to use the radio, they can contact Board Director Gregg Mulder (WB8LZG) or Station Manager Chris Ranes (NS8Q).
- Winter Field Day This event runs for 24 hours beginning Saturday January 25, 2020 at 2pm and ending Sunday January 26, 2020 at 2pm.
- Contact Tom Rocheleau (WA8WPI) for any updates to our website regarding any Upcoming Events.
- Ladies Night Russ (N8FZ) and Kelly Fitzgerald (N9PC) will be working on new ideas and details.
- Gordy Smith (KE8JKS) and Clyde Tompkins (K8CPT) created a Facebook page so information for events can be posted and viewed by members and nonmembers. The page allows the club to share information without being covered up by group posts.

<u>Adjournment</u>

MOTION: With no further business to discuss, Dave Vick (W8ZZX) moved that we adjourn the meeting, seconded by John Winn (KE8CYC), approved, and the motion carried.

Tonight's Presentation

Russ Fitzgerald (N8FZ) - Insurance presentation on what's changing with insurance this year

The business meeting was adjourned at 7:45 pm.

Respectfully submitted,

Clyde Tompkins (W8CPT)
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!



\$25 British Tank Key Excellant condition

\$25 Little Bugger Keyer Very tiny

\$5 Each

Books

RSGB VHF-UHF Manual Radio Handbook 15th Edition

Books by Bill Orr

VHF Handbook Beam Antenna Handbook

\$2 Each

New Old Stock copies of ARRLs "Archies Ham Radio Adventures" comic books

Ed Oxer / W8EO eaoxer@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!



Central Michigan Amateur Radio Club W8PLP/W8MAA Membership Form



For <u>new</u> CMARC applicants: Please complete all sections.

For <u>existing</u> 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').

John Doornha	aag 1165 South Aing	jer Rd Charlotte,	MI 48813-9540
Membership Type			☐ New ☐ Renewal
Full: Annu	ual Dues: \$20.00 Includes	voting rights and an annu	al subscription to The Scope.
Associate: Annu	ual Dues: \$5.00 Includes	an annual subcription to 1	The Scope but NO voting rights.
New Licensee: Annu	ual Dues: 1st Year Free		
Under 18: Anni	ual 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 th	e List Serv: 🗌 Yes 📗 No
Note: Email is used by club offi members. <u>CMARC does not sh</u>			ne club directory for use by club
Club Communications			
Newsletter Preference	☐ I will download from	n the web site.	
(select only one option)	Please mail to my a	ddress (Note: Direct ma	niling increases postage costs.)
ARRL Affiliation	☐ I am an ARRL mem	ber	

Lansing Civil Defense Repeater Assocation Membership Form

For <u>new</u> LCDRA applicants: Please complete all sections.

For <u>existing</u> 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	Туре		☐ New	☐ Renewal
Full:	Annual Dues: \$15.00 Includes voting rig	ghts and an	annual subscript	tion to The SCOPE.
Family Mbrs:	Annual Dues: \$7.50 ea. No. of Fam i	ily Membe	ers:	
ARRL Affiliation	on I am an ARRL member Members	hip Card	Yes (Please	see above)
Contact Infor	mation			
First Name: _	Last Na	me:		
Call Sign:	License Class:	Phone	#:	
Address:			Apt	/Unit:
City:		State:	Zip Co	ode:
Birthday:	Annive	rsary:		
Email:				
	ed by club officers to communicate club business and A does not share/sell contact information to other pai		r in the club direc	tory for use by club

STAMP

To:

Activities Calendar







Date	Time	Event	Place
2/14/2020	7:00 PM	CMARC Meeting	The Club Station in Mason
2/17/2020	7:00 PM	Lansing ARPSC Meeting	Lansing Fire Station #48
3/7/2020	6:30 PM	CMARC Board Meeting	The Club Station in Mason
3/13/2020	7:00 AM	CMARC Meeting	The Club Station in Mason
3/14/2020	11:00 AM	VE Session	Lansing Fire Station #44
3/16/2020	7:00 PM	Lansing ARPSC Meeting	Lansing Fire Station #48
4/2/2020	7:00 PM	VE Session	Lansing Fire Station #44
4/4/2020	6:30 PM	CMARC Board Meeting	The Club Station in Mason
4/10/2020	7:00 PM	CMARC Meeting	The Club Station in Mason
4/16/2020	7:00 PM	LCDRA Quarterly Meeting	Lansing Fire Station #48
4/18/2020	12:00 PM	Michigan QSO Party	The Club Station in Mason
4/20/2020	7:00 PM	Lansing ARPSC Meeting	Lansing Fire Station #48
5/2/2020	6:30 PM	CMARC Board Meeting	The Club Station in Mason
5/8/2020	7:00 PM	CMARC Meeting	The Club Station in Mason
5/9/2020	11:00 AM	VE Session	Lansing Fire Station #44
5/18/2020	7:00 PM	Lansing ARPSC Meeting	Lansing Fire Station #48
6/4/2020	7:00 PM	VE Session	Lansing Fire Station #44
6/6/2020	6:30 PM	CMARC Board Meeting	The Club Station in Mason
6/12/2020	7:00 PM	CMARC Meeting	The Club Station in Mason
6/22/2020	7:00 PM	Lansing ARPSC Meeting	Lansing Fire Station #48
6/26/2020	5:00 PM	Field Day Loading	The Club Station in Mason
6/27/2020	11:00 AM	VE Session	Rayner Park in Mason
6/27/2020	2:00 PM	CMARC Field Day	Rayner Park in Mason
6/28/2020	2:00 PM	Field Day Unloading	The Club Station in Mason