



The Scope

Central Michigan Amateur Radio Club

Lansing Civil Defense Repeater Association

March 2017
Volume 17
Issue 3

Dont Forget to Nominate Someone for the Ziegenbein Award!!

Each year a member of the Central Michigan Amateur Radio Club is selected to receive an Award named in honor of Ralph Ziegenbein/W8PLP, who became a Silent Key in 1960. This Award is bestowed upon that member who we feel has done the most for Ham Radio in general, and CMARC in particular, this past calender year, and who exemplifies the spirit of Ralph Ziegenbein.

Who Was Ralph Ziegenbein/W8PLP?

Ralph Ziegenbein (pronounced Zig-en-bine) held Amateur Callsign W8PLP. He was a popular barber in the Lansing area, with a shop located on Michigan Avenue near Clemens, and made a large impact on our club. There is very little information on the man known affectionately as "Mr. Ham Radio", and he has no family in the area. According to past member Currin Skutt/W8FSZ(SK), Ralph was involved in many different activities, but is notably remembered as the man who was responsible for the push to bring the old Novice Class license to Amateur Radio.

When: CMARC Monthly Meeting
7:00 pm, Friday, February 10, 2017

Where: Salvation Army South Corps
701 W. Jolly Rd., Lansing, MI 48910

For more information, you can check out our website at www.centralmiarc.com or get a hold of Club contact Don McLain/KB8RAD at KB8RAD@arri.net.



Picture: Ralph Ziegenbein/W8PLP (Left) and Don Devendorf/W8EGJ(Right), circa 1955, courtesy of the Devendorf Family..

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March Birthdays:

3/5 John Goodman / KB8YQX
 3/16 Ed Hude / WA8QJE
 3/20 Bob Crawford / K8ZAP
 3/23 Alton Stoddard / KD8MB

March Anniversaries:

3/4 John Doornhaag / KD8NNQ
 3/12 Paul Keefer / KB8YQZ
 3/17 Tom Cain / KB8ZL
 3/17 Erv Bates / W8ERV
 3/28 William Rude / KE8BEN

Upcoming Meetings:

CMARC

The next meeting for the Central Michigan Amateur Radio Club is Friday, **March 10th** at 7:00 pm at the Salvation Army South Corps, located at 701 West Jolly Road, near the corner of Washington Avenue & West Jolly Road in Lansing.

ARPSC

The ARPSC meeting for the month of February is at 7:00pm on Monday, **March 20th**. We will be meeting at Lansing Fire Station 8 off Marshall Rd, South of Grand River Ave. For more information about the ARPSC, please check out our website at www.lansingarp.com

Treasurer's Report 2017

John Doornhaag / KD8NNQ - CMARC Treasurer

Bank Balances for February	
Beginning Balance	\$3,697.13
Total Monthly Income	\$212.50
Total Monthly Expenditures	(\$40.00)
Total Business Checking	\$3,869.63
Petty Cash	\$1.00
Sub Total	\$3,870.63
Primary Share Accounts	
Humphrey's Fund	\$1,093.55
Building Fund (Club Station)	\$19.09
Field Day	\$530.45
Total Net Worth	\$5,513.72
Youth Fund Balance*	\$253.96
* Separate from CMARC Funds	



2017 SKYWARN TRAINING SESSION

Saturday April 22, 10am to noon at Holt Christian Church.
 See www.lansingarp.com for details.
 Click on training link.

**Thank you, Jane Hosford, for planning
 the February Ladies Luncheon at Cracker
 Barrel. A great time of fellowship
 was had by all who attended.**

Stay tuned for the next Ladies Luncheon.

Ziegenbein Nominations

It's time to begin thinking about who you would like to nominate for the 2015 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 nominee'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 Jane Hosford/KC8FSK.

Send your e-mail nominations with a subject line of **"Ziegenbein Nomination"**, to jlhoford54@hotmail.com.

If you prefer to use snail mail:

Jane Hosford
7057 Kieppes Court
Lansing, MI 48911

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



Top:
2013 Winner & Senior Committee Chair
Jane Hosford/KC8FSK

Middle:
2014 Winner - Dan Beuchert/WX8MOJ

Bottom:
2015 Winner - Chris Ranes/NS8Q





Ladies Night/Ziegenbein Award Banquet

WHO: All CMARC's Members, their Families
and Friends are invited to attend!!

WHAT: CMARC's Annual Ladies Night & Ziegenbein Award Banquet

WHEN: Friday, May 12, 2017 – 5:30pm to about 8:30pm
Please be seated by 6pm Sharp!!

WHERE: Delhi Café, 4625 Willoughby Rd. in Holt

WHY: To Honor our Ladies, Present the Ziegenbein Award, and Enjoy Good
Food, Great Fellowship and Fantastic Entertainment by JONATHAN STARS!!

-----Cut Here-----

Reservations/Orders **MUST** be turned in by **Monday, May 1st!!** **SEND ORDERS ONLY, DO NOT**
SEND MONEY!! **You pay Delhi Café** for your bill & your tip the night of the Banquet!!

To RSVP: **Call** Jane Hosford/KC8FSK at: (517) 515-7610,

Email me at: jlhosford54@hotmail.com,
or **Snail Mail** me at: 7057 Kieppes Court Lansing, MI 48911

Name & Callsign _____ Ph. # _____
Wife's Name & Callsign _____
Guest's Name & Callsign _____
Guest's Name & Callsign _____

TO ORDER: Please choose an Entrée for each person attending with you, by writing the
number of meals requested, on the line in front of the Entrée you've selected. (Example: If two
of you want Chicken Western put a number "2" on the line in front of that Entrée to show you
want to order "2 Chicken Western meals".)

OUR ENTRÉE CHOICES ARE: (All dinners INCLUDE coffee or tea. Tax and tip are NOT
included.)

- _____ 1.) Chicken Western served w/rice and salad - \$15.00
- _____ 2.) House Sizzler served w/baked potato and salad - \$15.25
- _____ 3.) Broiled Cod served w/baked potato and salad - \$15.00
- _____ 4.) Swiss Steak served w/mashed potato and salad - \$15.00
- _____ 5.) Veggie Stir Fry served over rice and salad - \$14.25
- _____ 6.) Off The Menu - special diets

CHILDREN'S MENU: (under 12) - (Tax and tip NOT included)

- _____ 1.) Grilled cheese with fries and drink - \$5.00
- _____ 2.) Chicken Fingers with fries and drink - \$5.00

ARRL Volunteer Exams



Ingham County VE Group Ingham County VE Group

**Lansing Fire Station #44
1435 E. Miller Rd.
Lansing, MI 48911-5322**

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

During the ODD MONTHS, we meet on the
second Saturday of the Month at 11:00 AM.

**April 6th, June 1, August 3,
October 5, and December 7**

**Lansing Fire Station #44
1435 E. Miller Rd.
Lansing, MI 48911-5322**

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

During the EVEN MONTHS, we meet on the
first Thursday of the Month at 7:00 PM.

**March 11, May 13, July 8,
September 8, and November 11**

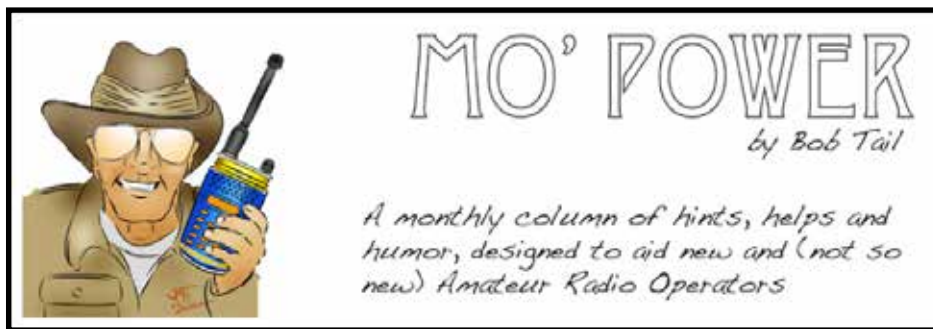
Eaton County ARC VE Sessions

**Charlotte Church of Christ
64 Van Sickle Dr.
Charlotte, MI 48813-9999**

Contact: Mark Korroch / WB8TGY
(517) 645-2378
wb8tgy@yahoo.com

All sessions begin at 12:00 PM and walk-ins are allowed.

**April 8, June 10,
October 14, and December 9**



G'Day Mates!

Went to the local hammy club meeting the other night.

After the meeting, there were several old-timers there boasting about their on-air accomplishments and jousting with the other as to their place on the "honor role."

Ned and Nil came along and listened in on the banter with interest. Nil asked, "why is everyone so passionate about their place on the Honor Role?" I had to think carefully about an answer to this one. I did not wish to demean anyone's status or ruffle any feathers, yet I wanted to explain to Nil in Layman's terms how hams "measure up" in competition against each other. Ned piped in and put it bluntly. "some guys just have to be the best, DXCC and the Honor Roll is their chance to show off and be braggarts with their buddies and to their peers."

"Well, there's more to it than that." I said, "Let us consider that our hobby, as well as the whole world, is in competition with each other." "It's a plain and simple fact of life. We all compete our entire life. In school, at our jobs, in the sports, we play. So why should Ham Radio be any different?" Yes, we compete against all of our fellow hams and along the way they developed a ruler to measure progress up the ladder to the pinnacle.

"DXCC and the honor role are fine." Said Nil, "but then what about all the other facets of the hobby that don't fall into this category?" "Good question lass. So many times Hams get caught up in DXing or another part of radio, that many of the unsung heroes of the hobby go unnoticed." "You mean like the civil emergency nets and disaster services?" Ned asked. "Yes! Exactly! Many of those net control operators and civic volunteers never receive any

recognition, or accolades of any sort for their efforts, yet they continue to do what needs to be done." "So how then may we give acclaim to these Hams?" Nil asked. "We can start by belonging to, and participate with the various local organizations." "You mean like the repeater bunch?" Ned asked. "Of course, but there is much more than that!" Nil exclaimed. "Like being a part of the police and fire auxiliary corps." "Yes, I agreed, yet there's so much more. What about the ham's who help out with the Scout troop?" I queried the kids. "What of the aerial gang that helps other local Hams with antenna parties, and examiner's who sit the comprehensive exams for those getting their tickets? There are so many ways to enjoy and participate in the hobby, it's sometimes hard to gauge just where you are in the fray, and it does not mean you're any less of a Ham because your name is NOT on the honor role." "So how DO we gauge ourselves then?" Ned asked.

"Indeed, we may all find new ways to "measure up" as they say." The Aborigines have a very wise belief, that everyone was put on this earth for a purpose, and that every person has their unique talents in life. Sharing those talents with others, grants blessings to all in the tribe. That is their measure of success."

As I departed for the night, I had a bit of advice. "Each of you has unique accomplishments as Hams, both in different ways. Enjoy radio, and follow your own path. Don't worry about not getting to the top of the Honor Roll so quickly. You'll make it someday."

Until next we meet, ask yourself, just how you "measure up!" ■

73, Bob Tail

Why Are There So Many Techs?

By Dan Romanchik, KB6NU

When he's not pondering questions about the amateur radio licensing structure, Dan blogs about amateur radio at KB6NU.Com, writes the "No Nonsense" amateur radio study guides, and teaches ham classes. You can contact him by e-mailing cwgeek@kb6nu.com.



Recently, one of my readers asked, "Why do most people have a Technician license and not a General or Extra? Is it simply not interesting enough to get more privileges?"

This is a very interesting question, one that I've

written about before. I think there are several issues at play here. In no particular order:

- * It's pretty easy to get a Tech license, so a lot of people get them just for the challenge, but really never intend to use the license.

- * Some people get a Tech license, but then find out that amateur radio isn't what they thought it was going to be.

- * Some people get a Tech license, then can't find an Elmer to help them. They lose interest and give up on ham radio.

- * Some people get a Tech license, buy an HT, and think that's all there is to amateur radio. They quickly lose interest in amateur radio, because talking on the repeaters just isn't all that interesting.

- * Some people get licenses to participate in local emergency communications or CERT organizations. There's no need for them to get anything more than a Tech license.

- * Since it's so easy to get a Tech license, even those that aren't technically inclined get them. Getting a General Class license requires a fair amount of study, and because they don't see the benefits of putting in that kind of work, they just don't bother.

I posted this question to my blog and got several interesting replies. Perhaps the most cogent was by Kenneth, W6KWF. He wrote: "The only thing General/Extra gets you is HF, which is becoming an increasingly small fraction of the possibilities of the amateur hobby.

Amateurs could easily spend their whole lives moving from FM repeaters to microwave to VHF packet to EME to CERT/event support, etc, etc, without having any interest to explore what few facets of the hobby need HF privileges."

I think this is a great point. When incentive licensing was put into place in the late 1960s, HF was where the action was. Nowadays, more of the "cool stuff" is happening on VHF, UHF and microwaves. Getting additional HF privileges is not really a big deal anymore for many hams.

Yet another new license class?

Right on the heels of this discussion, the ARRL posted a news item, "ARRL Seeks Opinions Concerning Possible New Entry Level License" (<http://www.arrl.org/news/arrl-seeks-opinions-concerning-possible-new-entry-level-license>). According to this report, the ARRL Board of Directors set up an An Entry Level License Committee in September 2016.

The committee is gathering member input via an online member survey (<http://www.arrl.org/license-1>) and will make recommendations to the Board for possible rules changes to submit to the FCC. They note, "The result could mean changes to the Technician license, but it could also be an additional, but simpler, license with privileges that would give a newcomer a taste of most facets of ham radio from HF to VHF and UHF. The survey will be online until April 7, 2017.

According to the survey page, the committee is trying to address several issues, including:

- * The declining population of new hams under the age of 30.

- * A decline in the number of new licensees who actually get on the air.

- * Amateur Radio's lack of appeal for those under the age of 30, compared to other technical hobbies.

- * The increasing challenge of engaging and retaining Technician licensees.

Why Are There So Many Techs? *Cont'd*

* A reluctance in much of the amateur community to embrace newer technologies of interest to the younger segment of the population.

Personally, I don't think that coming up with a new entry-level license class with privileges that are even more limited than the Technician Class is a bad idea, but whether or not it's successful will depend completely on the implementation. Unless the new class of license is accompanied by some kind of program that will help these new licensees really become engaged with amateur radio,

then we're just creating another class of inactive licensees. I don't know exactly what this program would consist of, but without it, this effort is doomed to failure.

And, who's going to develop and run this program? The only organization that has the horsepower to make this work is the ARRL. They are going to have to step up big time. Most clubs don't have the people or resources to do it properly. If you have any thoughts on this, I urge you to contact your ARRL division director (<http://www.arrl.org/divisions>). ■

US Amateur Radio Maker License Proposal

By Frederick Plimley, K6GWY

From Southern California Six and 10 Meter Club to our fellow Amateur Radio Operators:

We all enjoy our outstanding association of Amateur Radio and know that it has had a profound effect on our chosen vocation and hobby. Also, it has given us a wonderful camaraderie with fellow hams in our Southern California community and around the world.

Sharing this valuable gift of Amateur Radio with U.S. middle school students during their formative years will have a similar effect on them, their lives and their education, both professionally and personally.

We know that each of our fellow Amateur Radio Operators are selfless individuals who have given generously of their time and resources for the betterment and promotion of Amateur Radio and we send to you our heartfelt Thanks.

We would also like to prepare for the future now and get more U.S. citizens involved in Amateur Radio. With the proliferation of more advanced cell phones that do more and more exciting things and other diversions, it is imperative that we get more young people involved in Amateur Radio

and "bring back the past excitement" of strong activity on all amateur bands. There is a serious problem when the average age of all new amateur radio licensees is 54 years old.

In this regard, we propose a new U.S. Amateur Radio Maker License specifically targeted to U.S. middle school students. Once young people get excited about Amateur Radio and enjoy communicating with their friends and experienced ham radio operators, many will become quite involved in Amateur Radio, will upgrade and it will become a life-long rewarding hobby for them. But, we must make students aware of Amateur Radio during their formative years, when they are young and don't have so many other competing interests.

Looking into the future, for the rest of the century and beyond, we believe that every middle school student in the United States needs to understand the fundamental of radio and electronics, and understand the benefits of Amateur Radio and "what it is all about".

Our goal with the proposed Amateur Radio Maker License is to get many U.S. middle school students involved in amateur radio and to learn more about the exciting field of radio electronics. If they get to experience the "Magic of

US Amateur Radio Maker License Proposal *Cont'd*

Amateur Radio”, many of them will upgrade and continue to enjoy Amateur Radio throughout their adult lives. -- It also important that we give these entry-level operators “real privileges” and the opportunity to grow and learn.

Also, we need more of our Amateur Radio bands to be utilized so that we don't lose these bands to commercial interests. Many wireless and bandwidth providers are “chomping at the bit” to take valuable amateur radio frequencies where there is little or no radio traffic.

It is imperative for the future of Amateur Radio that we get many young people involved in Amateur Radio, gain substantial, increased Amateur Radio licensees and create more traffic on all amateur radio bands. The long-term future of Amateur Radio is at stake and it is important for us to act now to secure the future of Amateur Radio for generations of Amateur Radio operators to come throughout this century. We ask that you give our Proposal serious consideration.

Will Anderson - AA6DD - President - (951) 776-0315 - will.aa6dd@gmail.com

Steven Rapata - AC6DX - Vice President - ac6dx@arrl.org

Fred Plimley - K6GWY - Marketing Officer - (213) 254-5192 – fredplimley@gmail.com

Kim George - K6YYL - Secretary – ki6ywp@gmail.com

Tom Muller – WA6USA – Membership Coordinator – (951) 500 -9569 – wa6usa@gmail.com

U.S. Amateur Radio Maker License Proposal:

Southern California Six and Ten Meter Radio Club is proposing a new, entry-level U.S. Amateur Radio License and to expand existing Technician License privileges.

1) Proposed Maker License is designed to promote Amateur Radio for middle school students (6th, 7th and 8th grades) and we propose that the program be administered by middle school science instructors and/or VEC examiners, or a combination of both.

2) Proposed Maker License Privileges:

- 21.3 MHz - 21.45 MHz - (15 meters) - 200 watts RF maximum output power - all modes
- 24.89 MHz - 24.99 MHz - (12 meters) - 200 watts RF maximum output power - all modes
- 28.0 MHz - 29.7 MHz - (10 meters) - 200 watts RF maximum output power - all modes
- 50. 0 MHz - 54.0 MHz - (6 meters) - 200 watts RF maximum output power - all modes

3) To earn these privileges and the proposed U.S. Amateur Radio Maker License, the student or other applicant would complete 2 projects – one project would be a simple amateur radio transceiver kit and the other would be a workbook/ amateur radio operating manual.

4) The transceiver kit would be crystal controlled and the transceiver will have an output power not to exceed five watts, either a double-sideband or CW transceiver.

5) The applicant will build the radio kit themselves, with instruction or assistance from middle school program teacher and/or ham radio operators assisting the program. The radio kit will include schematics, diagrams and pictures to assist in kit construction. If mistakes are made on kit assembly, applicant will correct errors with assistance until the simple transceiver is operational.

6) Proposed Maker License Workbook will consist of basic electronic instructions about resistors, conductors, capacitors, batteries and all forms of semi-conductors, including explanations concerning how they work. Workbook will also discuss current flow, power transfer characteristics of devices, magnetism/inductance, electrostatic fields, capacitors and tuned circuits etc.

7) Proposed Maker License workbook will illustrate, as an example how current flow through a resistor changes current flow into heat. There would be pictures and diagrams of what resistors and other electronic components look like, such as the zigzag wiring inside a toaster, for example. Applicants would be asked to draw diagrams of a resistor and other electronic components in the workbook. The manual would help applicants to be able to draw schematics and understand the characteristics of various electronic components.

US Amateur Radio Maker License Proposal *Cont'd*

- 8) Proposed Maker License operating manual section would illustrate examples of 15-meter dipoles, transmission lines, transceiver connections, 10-meter and 6-meter vertical Omni antennas and their connections and transmission lines. It would also explain how to read the dial on a transceiver and illustrate what Amateur band sections the proposed Maker Licensee would be allowed to operate on.
- 9) Proposed Maker License operating manual section would also stress courtesy and the importance of sharing the radio spectrum. Also, it would include copies of U.S. Amateur band plans, U.S. Amateur License class radio privileges and stress adherence to Amateur Radio rules and regulations.
- 10) We propose that the applicant would be required to fully complete the open workbook & question pages and correct the several pages of workbook completion test question answers with classroom assistance until the workbook question answers were 100% correct. Successfully completing the workbook and simple radio kit would make the applicant eligible for the proposed U.S. Radio Amateur Maker License.
- 11) Southern California Six and Ten Meter Radio Club proposes that the middle school instructor would sign and certify applicant completion of the program, along with two certified VEs or if other public program leader, along with three certified VEs and then certification documentation would be sent to the FCC for proposed U.S. Amateur Radio Maker License. We propose that this entry-level license be issued for a period of 10 years and be non-renewable as an incentive to upgrade to more advanced Amateur Radio licenses.
- 12) Southern California Six and Ten Meter Radio Club also proposes that current U.S. Technician Amateur Radio Licenses be expanded to Include All amateur radio license privileges from 21.3 MHz and above – with full legal-limit power – including all modes.
- 13) The proposed U.S. Amateur Radio Maker License simple transceiver kit would be determined by VECs, in coordination with middle school teachers and program leaders.
- 14) Simple radio kit proposed minimum requirements – to consist of a QRP Pixie CW DIY kit with audio side tone or a Forty-9er 3W Ham Radio QRP Kit CW Radio Transmitter etc. – kit specifications would be determined by area VECs.
- 15) Proposed U.S. Amateur Radio Maker License workbook content, class content and transceiver kit specifications would be determined by VECs, in coordination with middle school teachers and program leaders. It is suggested that some communities or VECs may recommend that their required kits be inexpensive double sideband kits or they may wish other workbook modifications as desired by local programs etc. ■

Ongoing License Plate Project for the Club Room:

By Russ Fitzgerald / N8FZ

The club is trying to collect as many ham call license plates as possible from our members for a display in the club shack redesign project. Check your garage, shed, or basement and see if you have an old plate kicking around. Year or condition doesn't matter. Can't find one but still would like to participate? No problem. Here's what you do. The State of Michigan will let you order a replacement plate at any time, you do not need to wait for a renewal. All you need is a copy of your license, Amateur Radio Operator form from the state (I have

plenty of these), and a check to the state for \$2.00 for the standard plate or \$7.00 for the graphic bridge plate. When it arrives you use the new plate on your vehicle and donate the old one or donate the new one.

If you have any questions please call 517-899-2622, or email russf2211@aol.com, or see me at the next meeting. I have the forms with me.

Central Michigan Amateur Radio Club Board Meeting Minutes

Date: February 4, 2017

Time: 5:30 PM

Location: Denny's Restaurant on W. Saginaw Hwy.

OPENING:

1. President Tom Rocheleau/WA8WPI called the meeting to order at 5:40 pm.
2. The following Board members were in attendance: Tom Rocheleau/WA8WPI, Russ Fitzgerald/N8FZ, John Doornhaag/KD8NNQ, Ted Sadilek/WA8MFQ, and Chris Ranes/NS8Q

SPEAKERS FOR THE GENERAL MEETING:

1. We will not have a speaker for the February meeting.
2. Instead, we will discuss what the club wants to see for the new year.
3. Tom Rocheleau/WA8WPI mentioned he would contact Dan Burk/NE8K about the possibility of putting on another presentation on Echolink.

HAMFEST:

1. John Doornhaag/KD8NNQ mentioned we need to find someone who is willing to handle the food certification for Hamfest. If we are unable to find someone to help out, he did mention he knows a lady who has a license for Speedway, and she has agreed to sit with us that day so we could sell hot food again this year.
2. We need someone to pick up buns, condiments, and food for Leota.
3. At this point, the Grand Prize has not been picked out. The cost should be \$150.

SILENT KEYS:

1. The Board discussed the idea of compiling a Master Silent Key list, similar to a placard, with a brass plate for the name of each Silent Key.
2. It was decided that there were too many pressing issues on the table at this time. Russ/N8FZ made a motion that we table the idea until a future date. Sam/N8FPR seconded the motion, and it passed.

501(c)3 STAUS:

1. John Doornhaag/KD8NNQ will contact Larry Camp/WB8R to see what we need to do to push our 501(c)3 status forward.

SKYWARN:

1. An official date for the upcoming Skywarn training session has not been scheduled, but it may be sometime in March or April.

CLUB STATION RELOCATION:

1. Locations are being explored and discussed on the Board.
2. The LCC West Campus, Impression 5, and the Community Center in Dewitt.

CHARLOTTE VE EXAMS:

1. The Charlotte VE exam location has switched from the Eaton County Sheriff Department to the Church of Christ in Charlotte.
2. The address is 64 Vansickle Dr. Charlotte, MI 48813

ADJOURNMENT:

1. With there being no further business, John/KD8NNQ made a motion to adjourn the meeting.
2. Russ/N8FZ seconded, and the motion passes.
3. Meeting adjourned at 6:42 pm.

Respectfully submitted by,

Chris Ranes - Secretary

Central Michigan Amateur Radio Club Meeting Minutes

Date: February 10, 2017

Time: 7:00 PM

Location: Salvation Army South Corps

OPENING:

1. President Tom Rocheleau/WA8WPI called the meeting to order at 7:05 pm.
2. Sam Fitzgerald/N8FPR held the flag for the Pledge of Allegiance.
3. Please be sure to sign the sign-in sheets attached to clipboards circulating the room. One for Visitors and the other for Members.

CARDS & FLOWERS REPORT:

1. Nothing to report so a moment of silence was observed for our Silent Keys.

VISITORS:

1. For the month of January there were 24 Members and 4 Visitors (Jerrie Jenks, Chris Striebel/KD8SLU, Tim Jurmo/AC8NI, and Mike Johns/KD8ZAR).
2. 28 Members and 4 Visitors (Pete Strank/KC8TCS, Jerrie Jenks, Cypriah Blunt, Alana Blunt).

APPROVAL OF REPORTS:

1. **Treasurer's Report:** John/KE8CYC made a motion to accept the Treasurer's Report in the February Scope. Ray/KD8ZDX seconded the motion, and the motion passes.
2. **Secretary's Report:** Jerry/KD8GLN made a motion to accept the Secretary's Reports in the February Scope. John/KD8NNQ seconded the motion, and the motion passes.

GLARA M.I.S. HAMFEST:

1. A motion was made to send \$250 seed money to the Great Lakes Amateur Radio Association as our part in helping the M.I.S. swap get off the ground.
2. Various clubs in the area with help to organize the swap.
3. We may or may not be able to get some or all of the money back.
4. This will be a two-day event (October 7 & 8).
5. M.I.S. will handle the ticket sales online - costs have not been established yet.
6. A link to their website will be published on the CMARC website when established. The URL is www.glhamcon.org.
7. John/KD8NNQ will talk with Larry Camp/WB8R this week. The GLARA is in the planning stage of who is going to be doing what, and will be sending out a letter with updates as they become available.

CMARC OUTDOOR HAMFEST:

1. Clyde/K8CPT is looking for volunteers to help out this year.
2. If you are interested, please sign his form with your name, callsign, and contact information so he can contact you at a further date once plans are being finalized.

FIELD DAY:

1. We will need help with Field Day again this year.
2. The dates are Saturday, June 24 through Sunday, June 25.
3. Setup will be on Friday night the 23rd.
4. Sunday afternoon is tear down - help will be needed then as well.

501(C)3 UPDATE:

1. John Doornhaag/KD8NNQ spoke with Larry Camp/WB8R about the steps they had to go through to obtain their 501(c)3 for the Great Lakes Amateur Radio Association.
2. John mentioned that Larry knew a retired Lawyer who was able to help them get started.
3. If we are serious about this, we will need to find our own Lawyer pretty quick in order to get this started.
4. It will cost us \$275 for the application plus the cost of the Lawyer.
5. John said Larry's Lawyer had everything finalized within three weeks.
6. We have the mission statement and purpose of our club, just need to have the paperwork filled out and officially filed with the IRS.
7. Tom/WA8WPI mentioned he will contact other organizations he knows to see if they have an annual fee to refile for their 501(c)3 status.

RADIO ROOM RELOCATION:

1. Clyde/K8CPT reports that it appears we are solidified at our current location at the Salvation Army South Corps. We just need to have continual ongoing communication with the Salvation Army.
2. As a condition of us remaining in the building, we need to help the Salvation Army in any way we can.
3. Clyde is the Salvation Army Liaison - so if anybody is willing to help in any way, please let him know.

SKYWARN:

1. Training will be April 22 at the Holt Christian Church from 10am-12pm. This is the same location as our outdoor Hamfest each July.
2. For those of you who are not aware, your Skywarn card is good for 2 years.

CMARC LISTSERV:

1. There are two ways for you to sign up to receive club emails through our ListSERV. One way is to sign up on the CMARC website, and the other is to give your name, call sign, and email address to either Chris Ranes/NS8Q at a Board Meeting or by emailing cmarcscope@gmail.com.
2. As a reminder, if you are signing up for a new or renewal CMARC membership, there is a blank on the membership form for you to sign up for this great service.

MISCELLANEOUS:

1. Bob Strobel/KB8DQQ is selling candy bars to benefit LCDRA. He makes 30-centers per candy bar and recently sent LCDRA a check for \$100.
2. Russ Fitzgerald/N8FZ is still looking for license plates. He has collected about two dozen so far.
3. Mark Carter/KD8YUY made an \$18 donation to CMARC from the sale of his rope that is listed in the Classified Section. If you haven't had a chance to check out the Classified, please do so.

50/50 RAFFLE:

1. Jerry/KD8GLN won \$12.50.

ADJOURNMENT:

1. With there being no further business, Bob/KB8DQQ made a motion to adjourn the meeting.
2. Kenny/K8NNY seconded, and the motion passes.
3. Meeting adjourned at 7:46 pm.

Respectfully submitted by,

Chris Ranes - Secretary

List of Ideas from last Month's Q&A Session.

Thank you to everyone who took the time to come to last month's meeting and contribute some great ideas of what you would like to see this year. Here is a list of what was discussed. If you see something you would be interested in handling, either in a presentation or otherwise, please be sure to let a member of the Board know, and we will make sure to assist you in any way we can.

1. More local nets on HF and 2m.
2. Put on kit-building nights and other more intimate activities so we can get to know our fellow Hams better.
3. Carl/K8YHH said he is willing to do another SSTV demonstration. He also thinks we need to have a meeting where we are in the club room and do a live demonstration on some of the equipment.
4. Digital Modes, Echolink, Satellites, DMR Radio, SDR Radio, Raspberry Pi, Arduino
5. Solar and Battery Installation
6. Fox Hunting
7. EDS Services - Simulated Emergencies
8. DSTAR
9. Participate in a portable operation at Sleepy Hollow State Park for SPOTA
10. How to do mobile installations
11. Conduct another Technician class - Is someone willing to teach?
12. Conduct a Morse Code class - at least 3 people have expressed interest.
13. Compile a list of Elmers who might be willing to help answers specific questions our fellow Ham's may have.
14. How to build sound card interfaces.
15. Knot-tying and Tower Safety
16. How to rig up an antenna in an emergency situation
17. Field Water Filters - what do you do when you need to get water in an emergency and you are set up in a remote location?
18. Wire antenna building night - make it a competition to see who can get their to work first - use a noise bridge.
19. Another auction night. Possibly open it up to everyone who wants to get rid of stuff. Maybe 10% of each sale could go to CMARC, while the seller gets to keep the rest.
20. Future meeting aimed at attracting youth.

CMARC Puzzle Page

3x3 Sudoku - Varying Levels of Difficulty

Complete each grid so that every row, column, and every three-by-three box contains the digits 1 to 9. Have fun! ***The solution for these puzzles will be in next month's issue.***

VERY EASY

				5		8	4	
2					8	6	5	
	8		7					
	7	3			2		6	
	4		6		3		8	
	5		8			2	9	
					5		1	
	2	8	9					4
	1	9		6				

EASY

1		9					5	6
6	8	2	3			7		1
5		7		2		3		
2				6			7	
7			9	8	2		3	
	9	8						2
8			5		6			
4		3		7	9			
					8			3

MEDIUM

		3	8					5
			5			6	4	
	6	8				3		
		2		9		5	7	
				1				
	4	7		8		2		
		5				4	2	
	2	9			8			
7					1	9		

HARD

8	7		9					
9			3	6		5		
2			8	3				
6					2	1		
					1			8
7	1							9
	5					8	4	
								7

CLASSIFIEDS

Gregg Mulder / WB8LZG
(517) 646-6257 after 5pm

\$85

Kent single lever paddle:
Black base and adorned with
Spalted Beech finger pieces.

\$70

Bencher paddle: Black base
adorned with custom Burl
Maple finger pieces.

\$40

Four State QRP club QRP watt-
meter/ dummy load. Built into
a handsome maple case.

\$5 Each

Cleaning off the book shelves in
the shack. I have the following
books available. Many are
in "brand new" condition.

Good time to stock your
library at a big savings!

- The Joy of QRP by Ade Weiss (autographed copy)
- Your QRP Operating Companion
- The Secret Wireless War by Geoff Pidgeon
- The History of QRP 1924-1960 by Ade Weiss
- Interference Handbook by Nelson
- The Contest Cookbook
- Keys II the Emporium by Dave Ingram
- International QRP Collection by George Dobbs
- Radio Projects for the Radio Amateur Vols 2, 3, & 4
- 2007 ARRL Handbook
- 2010 ARRL Handbook

Ed Oxe / W8EO
eaoxer@gmail.com

\$90 or Best Offer

Alinco DJ-V57T HT for 2 meters
and 70 cm. Radio includes a
speaker mic and car battery
charger. It runs 5 watts max
and has 200 memories.

Mark Carter / KD8YUY
(517) 231-3108

\$.02 / Ft.
Rope for sale.

Gregg Wesley / KD8PA
(517) 614-6573

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

Steve Lyon / W8RQS
(517) 641-4543

Impedence transformer
for use in microphones.

Jason McLaughlin / KC8RBK
(517) 712-0478 or
kc8rrrbk@gmail.com

\$150 Ea.
(2) Tytera MD-380 DMR
Handheld Radios

Brian Monaghan / KC8QWJ
(517) 219-8183

FREE
(4) 1.2 meter Satellite Dishes

Jim Hein / K8UHF
k8uhf@sbcglobal.net

\$675

Icom IC-746 Transceiver HF/6/2
meters, all mode, 100 watts
on all bands, includes hand
mic HM-36, Voice Synthesizer
UT-102, power cable, built-in
auto tuner, Owners and Service
Manuals, and Original Box.

\$100

Icom IC-SM-8 Desk Microphone,
includes two cables, original
box, and manual.

\$750

Both Radio and Desk
Microphone together.

\$12

Radio Shack 21-533 SWR,
Field-Strength Meter, 3-30
MHz, Handles up to 1,000
Watts, Like New with
original box and manual.

\$300

PC Electronics ATV Transceiver
TC70-20S, 20 watts, includes
video generator for playing
video from USB, SD Flash
Cards, etc., Color Camera
and 12vdc power cube, with
a Verifocal lens, wall mount,
5" color TV/monitor, will run on
AC or DC, cables, and manuals.

\$550

For the entire ATC Transceiver
package above plus a Mirage
D1010 ATVN Amplifier. 100watt
amp, 50 watt average, video
output with only 1 watt drive.

CLASSIFIEDS

Ed Hude / WA8QJE
ebhude@yahoo.com
 517-676-4480 between
 9AM and 7PM

\$550

Kenwood TS-850-S HF transceiver with built in antenna tuner, with Kenwood PS-52 AC Power Supply, Kenwood Sp-31 matching speaker, Kenwood MC-50 desk microphone, 1 -pair of Drake headphones, with instruction manual. Clean, non smoker home

\$20 or Trade

Heathkit DX-100. Late 1950's era hf transmitter. This radio is being sold as a collectors piece and not operational until it is reconditioned.

THE FOLLOWING EQUIPMENT LIST IS FOR SALE. THE EQUIPMENT SALE IS FOR (AAR5CA) - JIM HARVEY'S ESTATE

MANUFACTURER	EQUIPMENT	DESCRIPTION	SERIAL NO.	YR MANUF.	SALE PRICE	NOTES
KENWOOD	TS-570S	160-6M HF XTR	90400014	2007	\$ 700	
KENWOOD	TS-570D	160-10M HF XTR	60700019	2004	\$ 600	
KENWOOD	TS-480 DSP SAT	160-6M HF XTR	300059	2008	\$ 1,000	
KENWOOD	TR-9000	2M ALL MODE XTR	110344	1982	\$ 195	
KENWOOD	TM-2550A	2M FM XTR	80383	2006	\$ 95	
KENWOOD	TM-D700 (DATA)	144/440 MHZ FM XTR	60100177	2004	\$ 200	
KENWOOD	TH-D72A	2M XTR W/ CHARGER & SPEAKER MIC	B1900040	2013	\$ 335	
KENWOOD	TH-79A	DUAL BAND W/ CHARGER	10900005	1995	\$ 180	
KENWOOD	TH-315A	220 FM XTR	10500038	1990	\$ 65	NO ANTENNA, NO CHARGER, GOOD BATTERY
KENWOOD	SH2P4	SPEAKERS	NA	NA	\$ 10	
ICOM	IC-2200H	2M FM TX, FM & AM RX XTR	510990	2012	\$ 110	
ICOM	IC-2100H	2M FM XTR	66904	2006	\$ 95	
ALINCO	DR-235T	220 FM XTR	T10073	2006	\$ 195	
MIRAGE	B108	2M 10-80W FM-SSB AMP	2397-480	1992	\$ 125	
SCS	PTC II USB	MODEM	NA	2007	\$ 750	
TIGERTRONICS	SIGNALINK USB	AUDIO MODEM	NA	2012	\$ 75	??
TIGERTRONICS	SIGNALINK USB	AUDIO MODEM	NA	2012	\$ 75	
HEIL	HEADSET	HEADSET	NA	NA	\$ 50	ROUGH SHAPE
MFJ	MFJ-941E	VERSA TUNER 2	NA	4/2/1996	\$ 75	

If you are interested in purchasing any of this equipment or would like more information on a specific piece, please contact Geff / N8CE at 517-626-6044 or richard0g@frontier.com.

If you are calling Geff, please make sure you are calling from a line that has a name attached to it, and not one that is "blocked". He will not be able to receive the call if you do.

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 **"Ladies Tea Time Net"** meets every Tuesday night at 7:00 pm on the 145.39 repeater (PL 100.0), with Net Coordinator Janine Lieber/KK6GYM.

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 & Trader's Net"** meets every Wednesday evening at 7:00pm on the 145.39 repeater (PL 100 Hz), with Net Coordinator Clyde Tompkins/K8CPT.

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.

[illegible]

CMARC Officers and Appointees

President / Webmaster
Tom Rocheleau, WA8WPI

Vice President / Youth Liaison
Russ Fitzgerald, N8FZ

Treasurer
John Doornhaag, KD8NNQ
(517) 672-2759

Secretary / Scope Editor
Chris Ranes, NS8Q
(517) 487-8376

Director
Ted Sadilek, WA8MFQ
(517) 881-6093

**Director /
Salvation Army Liaison**
Clyde Tompkins, K8CPT
(517) 927-3801

Under 22 Director
Sam Fitzgerald, N8FRP

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 ARPS Liaison
Jim Hannahs, KC8QWH

QSL/Awards Manager
Don DeFeyer, KC8CY
(517) 641-4533

Photographer
Kenneth Hazlett, N8BVV
(517) 348-5513

Meetings
Held Monthly on the second
Friday of the month at:
Salvation Army-Capital Area,
701 W. Jolly Rd, Lansing
at 7:00 PM.

Board Meetings are held the first Saturday of the month at Denny's beginning at 5:30 pm.

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@arrl.net

Treasurer
Jeff Oberq, KB8SXX

Director
Jan Bradfield, KC8BFK
(517) 202-1779

Director
Don McLain, KB8RAD
(517) 930-7707

Director / Membership Chair
Michael Boensch, W8MKB

Repeater Trustee
Dennis Boone, KB8ZQZ

Meetings
Held Quarterly on the third
Thursday of the month at:
Fire Station #48,
Marshall St, Lansing
at 7:00 PM.

**LCDRA Call:
W8BCI**

The Scope is a 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 cmarscope@gmail.com.

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

Livingston County and Michigan Volunteer Defense Force



Community Emergency Response Team Basic Training Class

The Community Emergency Response Team (CERT) Basic class is a program which educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. CERT is sponsored nationally by the Federal Emergency Management Agency (FEMA), and through the Michigan Community Service Commission.

WHEN:

Friday, March 17,
Saturday, March 18
Sunday, March 19, 2017

WHERE:

**Livingston County Emergency Management Department
1911 Tooley Rd.
Howell, MI 48843**

<https://www.livgov.com/emergencymanagement>

This course is offered free of charge and is open to the public. There is a limited amount of space. If you are interested in attending this class, **don't wait, register NOW**.

For more information and to register, please go to:

http://bit.ly/2017CERT-Basic_LivCoMI



Lowell amateur radio youth club hamfest 2017

Saturday, March 11th, 8AM to 12 NOON

Admission: \$5.00 – Elementary, Middle & High School Free

Advance Table Sales: Two 5' Tables & Admission
= \$12 / One 5' Table & Admission = \$9

At The Door Table Sales: Two 5' Tables & Admission
= \$15 / One 5' Table & Admission = \$12

Set-Up: Friday, March 10th, 7PM to 9PM, or Saturday, March 11th 6AM to 8AM

V.E. Exams: 10AM Walk-ins Welcome

Location: Lowell High School, 11700 Vergennes St, Lowell, MI 49331

Advance Sales: Al Eckman, 725 Bowes Rd, Apt K6, Lowell, MI
49331 616-450-4332 aeckman@lowellschools.com

Sponsored By: Lowell Amateur Radio Youth Club: K8LHS

57th Annual

Michigan Crossroads Hamfest & Radio Swap

Saturday, March 18, 2017

Wings Event Center

3600 Vanrick Drive, Kalamazoo Township, MI 49001

Sponsored by the Southern Michigan Amateur Radio Society

Vendor set-up: Friday, March 17th, 6:00 PM - 9:00 PM Saturday,
March 18th, 6:00 AM - 8:00 AM



General Admission: Saturday, March 18th, 8:00 AM - 12:00 PM

\$5.00 admission fee at the door

Vendor table or 8' space rental \$10.00

2000 Free PAVED parking spaces

Door prizes

Amateur Radio Examinations (10:00 AM)



Talk-in: 147.000 MHz (+600 kHz offset) KARC Repeater PL 94.8

For more information, visit our website <http://www.w8df.com/hamfest>,
call **(269) 815-8007** or via email at crossroadshamfest@w8df.com.

Registration Form

Name _____

Company _____

Call sign _____ Email address _____

Phone (____) _____ - _____

Mailing address _____

City _____ State _____ Zip _____

Check boxes for: Electrical hookup ☐

Wall table(s) preferred ☐

_____ Tables (8ft) at \$10.00 each =
(Or 8' space) _____

_____ Tickets for hamfest @\$5.00 _____

_____ Electrical Hookup \$10.00
(Does not include table) _____

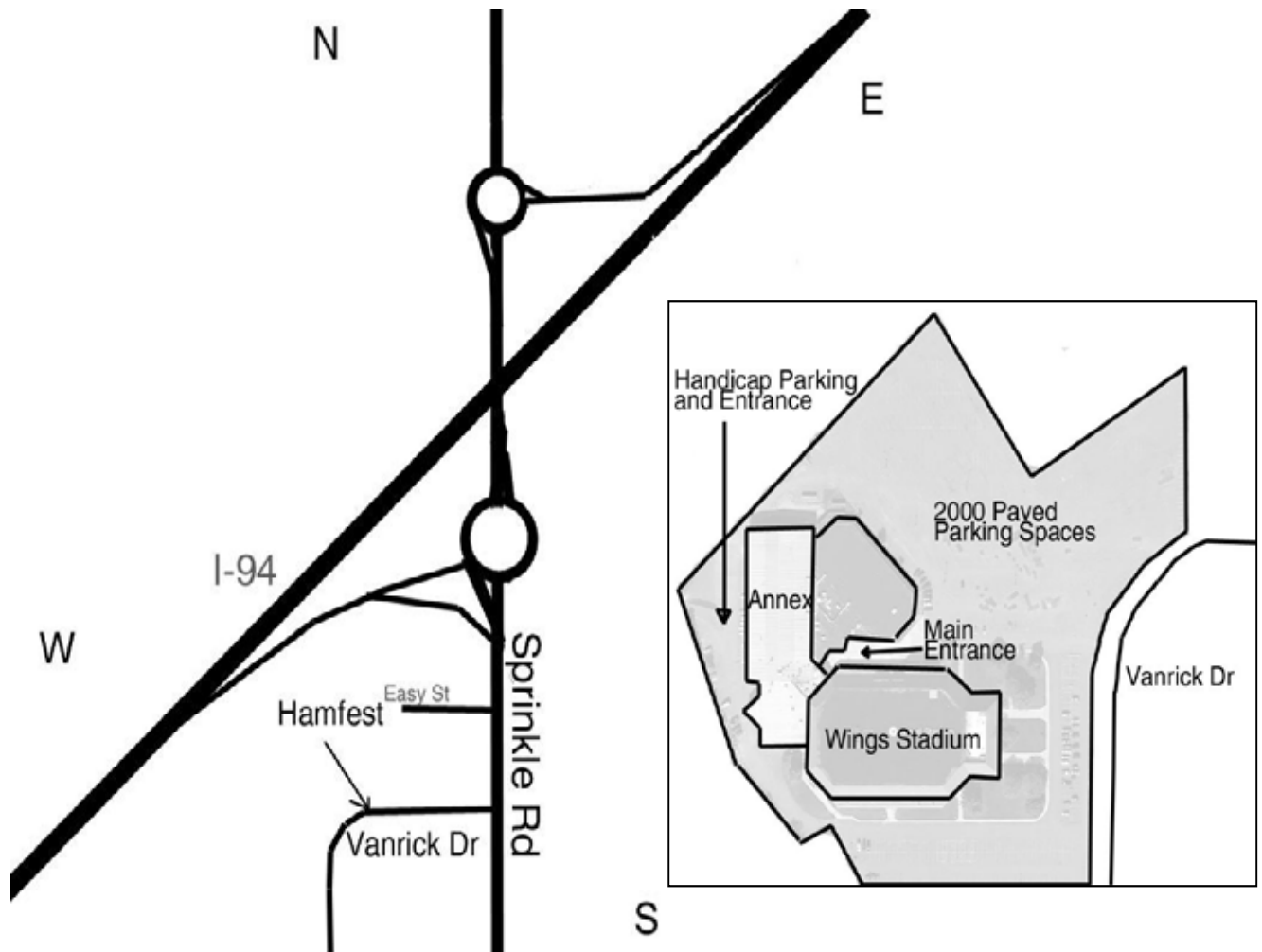
Total amount enclosed _____

To order, please send a copy of this
form, check or Money Order payable
to SMARS, and a SASE to:

SMARS
PO Box 934
Battle Creek, MI 49016

NOTE: NO RESERVATION WITHOUT THIS FORM AND PAYMENT.

There is NO SMOKING in the building. Adult material and alcohol are prohibited.
Reservations by mail accepted until March 1, 2017, Please call after March 1st.



Driving Directions to Wings Stadium

From Lansing/Charlotte: Go south on I-69 to Exit 38 (I-94). Take I-94 West to Sprinkle Rd. (Exit 80). At the end of the ramp proceed south through the two roundabouts, turn right at the first light (Vanrick Drive). Entrance is on right where the road curves to the left.

From Benton Harbor and other points west: Go east on I-94 to Sprinkle Rd. (Exit 80). Turn right at the end of the ramp onto Sprinkle Rd., turn right at Vanrick Drive. Entrance is on right where the road curves to the left.

From Detroit/Jackson/Albion: Go west on I-94 to Sprinkle Rd. (Exit 80). At the end of the ramp, proceed south through the two roundabouts, turn right at the first light (Vanrick Drive). Entrance is on right where the road curves to the left.

From Ft Wayne/Coldwater: Go north on I-69 to Exit 38 (I-94). Take I-94 West to Sprinkle Rd. (Exit 80). At the end of the ramp, proceed south through the two roundabouts, turn right at the first light (Vanrick Drive). Entrance is on right where the road curves to the left.



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').

John Doornhaag | 1165 S. Ainger Rd. | Charlotte, MI 48813-9540

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

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		

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 Club
P.O. BOX 27321
Lansing, MI 48909-7321

Central Michigan Amateur Radio Club



THE SCOPE



Lansing Civil Defense Repeater Association

centralmiarc.com Serving Our Community Since 1921 lcdra.net

CMARC	ARPSC	LCDRA
		
WWW.CENTRALMIARC.COM/	WWW.LANSINGARPSC.COM/	WWW.LCDRA.NET