

MIDLAND AMATEUR RADIO CLUB PO BOX 1049, MIDLAND, MICHIGAN 48641 www.w8kea.org

Swap Committee

John Wolters W8QN Mark Murray W8MGM Linda Hodges KC8MUD Larry Macklin N8CGP Larry Macklin N8CGP	(989) 832-9122 (989) 513-7174 (989) 835-7746 (989) 631-7748 (989) 631-7748
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#### LIFE MEMBERS

Don W8WOJ, Lee KC8ITI, Dennis N8ERF, Larry N8CGP, Denny WD8BPT, John WB8RCR

Midland County Public Service Net, Thursdays at 9 PM
W8KEA Repeater — 147.000 MHz+ PL 103.5 • W8QN Repeater — 443.325 MHz+ PL 103.5
W8KEA Digipeater — 145.090 MHz

Next ARES®/RACES Meeting — Thursday November 3, 2016, 6:00 PM Law Enforcement Center, 2727 Rodd St. Next CLUB Meeting — Thursday November 3, 2016, 7:30 PM Salvation Army Bldg., 330 Waldo Ave. Talk-in 147.000+

November

# Static Discharge

John Wolters, W8QN

Well, the first frost has hit the ground, there is a chill in the air and it's time to wrap up outdoor projects before that dreaded white stuff falls from the sky. At the last meeting Dorie, N8WTQ started the discussion on the Club Christmas Party. It was decided that the January meeting date will be utilized by the Christmas Party. She is looking for decisions on location and catering at the November meeting. Hope you're there to help make the final decisions. I want to thank Will Halpern, K8VFO for his presentation on WSPR. The kit he constructed for the project has been added to my Christmas list. At \$130 and divided between my wife and 3 kids, I have a good chance at it showing up under the tree. Hope to see you at the November meeting.

John, W8QN









The meeting was called to order by John W8QN at 7:35 pm. with 25 members and guests present.

A sign-in sheet was passed around and introductions were made.

If you have any corrections or additions to the minutes please bring them to the attention of the

#### MARC MEETINGS

Mark Murray, W8MGM, is in charge of special events and topics for the MARC monthly meetings. If you have any agenda items, or topics for the meetings, please contact Marc at (989) 513-7174, or via e-mail: mark.g.murray@icloud.com

#### **COMMUNICATIONS**

Pat Mullet, KC8RTW, is in charge of communications and publicity for the club. If you have any questions or ideas regarding these areas, please contact Pat at

EXAMINATION SCHEDULE

Saginaw - All future VE testing will be done on an appointment basis only

Corunna - Contact Thomas Carpenter (517) 579-0599 ki8as@charter.net

Bay City - All future VE testing will be done on an appointment basis only

Isabella/Clare Counties - Contact Gus Glass, K8GUS at k8gus@arrl.net

With all examinations, your original license, a copy of that license, a second photo identification (drivers license, etc.) and a check or money order for \$15.00 made out to "ARRL/VEČ" are required.

The address listed below gives testing sessions scheduled for http://www.arrl.org/arrlvec/exam-search.phtml?State=MI

SUBMISSIONS FOR NEWSLETTER Contact Pat Mullet, KC8RTW at

kc8rtw@arrl.net if you want to submit anything for the newsletter.

I need your items by the 15th of the month. Anything received after that may not make it into the newsletter for that

If you prefer to download the MARC newsletter from our web site, or have trouble with delivery via USPS, contact John, W8QN at w8qn@arrl.net

#### MEDIA HITS!

Have you seen or heard mention of the Midland Amateur Radio Club in the news or in the paper? If so, please forward it, or mention of it to either Pat, KC8RTW (kc8rtw@arrl.net) or John (w8qn@arrl.net)

secretary.

- Will Halpin K8VFO began the meeting with a presentation on WSPR. This is a weak signal propagation reporter. A discussion followed.
- Lee KC8ITI was on the WNEM-TV5 News. John brought the video of Lee on the air talking about how Amateur Radio is helping with emergency communications in places like Haiti after a hurricane.
- Treasurer's report— Larry N8CGP— Thank-you to all those members who have renewed their license.
- Michigan House Bill—John W8QN— John said be aware of distracted driver bill #5687 which has no exclusion for amateur radio. We hope that this bill gets modified.
- Vice-President Mark Murray W8MGM has asked if anyone has an idea for a presentation or would like to give a presentation please let him know.
- Santa Parade— Dorie N8WTO — The date is November 19<sup>th</sup>. The cost is \$25. Dorie is bringing her van. Everybody is welcome to come help decorate the van and pass out candy to the kids on the A donation of wrapped candy would be greatly appreciated.
- Christmas Party—Dorie N8WTQ— The party is on the

first Thursday in January and the members voted to have it take place at a restaurant. We'll still do the white elephant exchange. More details to come.

Net Control:

Oct. 13th Art K0ACP Oct. 20th John W8ON Oct. 27<sup>th</sup> Lee KC8ITI

- John W8QN— We are still looking for a replacement for EC/RO Midland Area Emergency Coordinator. A good opportunity to be involved and do some good work for the community.
- Lee— KC8ITI— Gave a report on the Middle and High School clubs.
- Tech. Class— Lee KC8ITI - The class is almost done and the testing session will be on October 22<sup>nd</sup> at the Salvation Army building in the morning.
- Badges—Mike KD8MMH— Mike knows someone who makes very nice name badges, See Mike if you are interested.
- Haunted Ship—Lou N8LOU — Lou finished the evening with a couple good ghosts stories about the haunted museum ship USS

A motion to adjourn made by Larry N8CGP and seconded by John WB8RCR.

Respectfully submitted by Linda KC8MUD MARC Secretary

## My Two Cents

Pat Mullet, KC8RTW

Life always seems to get in the way of one's radio plans. planned on playing in contest and OSO Parties the last few weekends, but it seems that something always comes up. This last weekend, it turned out that my sister decided to take her annual fall color trip up to the straits. It's a nice ride, great scenery and a great excuse for getting out of the house. We generally have lunch at a small place in St. Ignace called The Mackinac Grille—good food at a reasonable price. Better, I think, than the pricier establishments in Mackinaw City, and really, after a long drive, who wants to chow down on a chainstore burger?

# Amateur Radio is a Contact Sport!

As we pulled into the lot, we parked next to a black SUV with ham plates and a Hustler 5-resonator "tree" on the trailer hitch. As I got out of my sister's Jeep Cherokee, I noticed the control head of an Icom 7000 perched on the center console.

As we were being seated, I glanced around and spotted a gentleman sporting a ball cap with his callsign on it. (I later ran the two calls on QRZ.com and noted that they were husband and wife, and it was her vehicle.) I wish I'd had my callsign cap along, as I didn't feel I should intrude on their meal without visible evidence of being a fellow ham.

The prior week I was the recipient of a pointed letter from the village; seems my truck had sat in one spot long enough that someone had complained, and it was time to either fix it or sell it. So, I spent the last week pulling antennas off and pulling out radio wiring. It's been a long time since I'd been able to take her out, but I was still kinda sad when I pulled my ham plates off the li'l truck; I'd made some fun vhf and 10 meter contacts in the old girl, and she'd served me well.

Some time back, I'd come across a review on Eham.net for the Koss SB45 communications head-

set; marketed as a computer gaming headset at a reasonable price, the headset was available at big box stores and many felt while not the equal of Heil equipment, they were comfortable and delivered quality audio on transmit and receive. By the time I decided to look into purchasing a pair, Walmart was no longer carrying them. I'd planned on checking for availability on eBay, but never seemed to get around to it.

A week or so ago, another favorable review for the SB45 popped up on Eham.net, so I googled the product, and discovered that they were listed on Amazon. A quick check showed that not only were they still available new from different dealers, Amazon had warehouse deals of new sets in disfigured or missing packaging for half price! Two days later, a set showed up in my mailbox. I haven't had a chance to try them out yet, but they seem comfortable, and if I have a complaint, it's that the mic boom is rather inflexible and difficult to adjust. Still it should be good for running long sessions during contests.

I guess I should wrap it up for this month, hope to hear you on the air.

73, Pat, KC8RTW

# Future Club Meetings

Mark Murry, W8MGM is working on the upcoming year's programs. There have been many suggestions and people volunteering for presentations. Don't hold me to it but I think that the November presentation will be the data collected by the balloon launches last June.

Suggestions for future meetings are, Skywarn® training, Digit-

al Modes, building and tuning antennas, SWR kit and Demo, installation of coax crimp connectors, WJT65, John McDonough, WB8RCR covering another build project, info on the new KC8ARJ D-Star repeater, and direction finding and fox hunt.

More details to come.

John, W8QN

# Midland County SET Chris, KB8UIH

Midland ARES® participated in the SET (Simulated Emergency Test) on October 8. The event ran from about 8AM through Noon. Local operators included John WB8RCR, Dave N8LBF and me. Traffic was passed on VHF voice/phone, digitally via packet, and other digital means. The scenario was a Mass Coronal Ejection

#### Upcoming Events

VE Session
Santa Parade
Skywarn Rec. Day
Straight Key Night
MARC Christmas Party
Michigan QSO Party
Midland MS Walk
ARRL Field Day

#### Michigan Hamfests

10/16	Kalamazoo
10/30	Madison Heights
12/4	Madison Heights
2/4	Negaunee
2/19	Livonia
3/11	Lowell
6/17	Midland

\*Based on 2016 Event Date

Area Nets SVARA: Mn, 147.24 MHz, 2100 ET Canadian Lks, Wed, 146.8, 2100 ET Edmore, Th, 146.8, 2000 ET MARC: Th, 147.00 MHz, 2100 ET District 3 ARPSC: Su, 145.31 MHz, 1830 ET Mi VHF Trffc Net; MWF, 145.15 MHz, 0900 ET TMMTN: Mon-Sat, 147.30 MHz, 2130 ET MACS; Sun-Sat, 3953 kHz 1100 ET UPN; Sun-Sat, 3920 KHz, 17:00 ET MITN: Sun-Sat, 3952 kHz, 1800 ET QMN: Sun-Fri, 3563 kHz, 1830 & 2200 ET WSSBN, 3932 kHz, 1900 ET UP-ARES: Fr. 3932 kHz. 1930 ET GLETN: Sun-Sat, 3932 kHz, 2030 ET SEMTN; Sun-Sat, 145.33, 2215 ET MiDTN - 1900 local Tu, Th, Sat 3.583

MARC MERCHANDISE S- XL \$10 2X - 3X \$12 Long-Sleeve Tee S- XL \$12 \$15 2X - 3X S- XL \$18 2X - 3X \$20 S- XL \$24 2X - 3X \$26 S- 3X \$30 S- XL 2X - 3X \$45 Spring Jacket S- XL \$32 \$35

All garments are royal blue with white print and embroidered name and number. Extended sizes available.

Please call Bill Lee at B&C Sportswear with questions @ (989) 839-4537.

(MCE) from the Sun created a problem nationally where the electrical generation capacity was threatened if systems were not shut down. That also eliminated use of HF frequencies. Operators at the State Emergency Operations Center (SEOC) had to move antenna connections from packet

to voice to allow a communication circuit to the Quanicassee repeater on 145.31 MHz. Operators in District 3 were organized to direct traffic out from the SEOC to the district and then back to Lansing via several repeaters coordinating on 145.31 MHz and back to other counties. Some hic-

cups occurred but that was expected and those will be analyzed for learning how to avoid those issues in the future. Thank you to all that were involved.

73, Chris, KB8UIH, AEC Midland County

### VE Session Scheduled Oct 22

Midland Amateur Radio Club VE Liason Dennis Klipa, N8ERF, has announced that MARC will be conducting an Amateur Radio License Testing Session on Saturday, October 22<sup>nd</sup>, 2016 at

the Salvation Army Building, 330 Waldo Rd. Registration will begin at 8:30 am and testing commences at 9:00 am. Walk-ins are welcome.

The test fee is \$15.00. Checks

should be made out to AR-RL/VEC.

Contact Dennis at (989) 948-5427 or email Dennis at n8erf@arrl.net for more information.

# Operating Tip: Maintain Your Coax

(ARRL Contest Update—Oct. 5, 2016) Check your coax before the contest season. Faulty or degraded coax cable can be the root cause of a number of hard-to-find issues, and you may not even

know that you have an issue. Besides checking for open or short circuits, check for degraded or intermittent shielding, or water intrusion if conditions warrant. Many of today's antenna analyz-

ers have a setting to measure cable loss; if tracked over time, you will be able to note changes in your station.

## Electronics and Wireless Communications Clubs

WOW! Summer went by WAY too rapidly. We have started up both the high school and the Northeast Middle School electronics clubs and we are very pleased with the students we have this year. At the high school we have 10 students who have committed to the club. A couple of them are involved in other activities, like Marching Band which conflicts with our time, but they will join us in a few weeks. We will be doing another balloon launch near the end of April or beginning of May. Most everything we do this year will be aimed at skill development for the launch program, however tangentially.

Last year we focused on PIC microcontrollers and were capably led by John, WB8RCR. This year we are going to explore the Arduino microcontroller. We started out with an introductory Arduino lesson and the students breadboarded several simple projects, using an Arduino Kit Box, beautifully and skillfully put together by John Henley, AC8QF. At the end of each meeting the students will be able to put all of their stuff into the box with their name on it and store it until the next meeting. The students also got to play around with the code a little bit. The Arduino boards can run off power from the USB connector

but we want to have a power supply so the board can operate independent of the computer. To that end, Will, K8VFO, designed a dc to de circuit which can handle 12V or 9 volt input and output 5V and 3.3V. The students are now learning to use EasyEDA.com to draw the circuit and prepare a PCB layout. We will use the best layout design from the students to have some boards made for everyone to use. We are also going to add a little more amateur radio operating this year, with Art, K0ACP, leading that effort. The week of October 17th is School Club Round Up and Art will be leading that effort.

# It's Not Your Grandfather's Amateur Radio!

The middle school started up on October 12th. Carmen Kessler has taken over from Bernadette Wood in helping Will, K8VFO, and I run this club. Bernadette is still there to help us but her increased work load this year just made it too difficult to effectively co-lead the club. In addition, Carmen now has the classroom where we meet as her classroom. That is a big help too. We had 20 students show up, many of them returning students. We have 9 boys and 11 girls! They all appear to be excited about the club and one

student asked for a license manual! We started out by having the "veterans" teach the "rookies" how to solder while building the K8VFO LED flashlight. It was amazing to see the veterans take to the task. I can't tell you how much fun it is to be working with these students. It is going to be another great year.

I want to thank and acknowledge the volunteers who are making this all possible. It is not a one man show, believe me. At the middle school, In addition to Will and Carmen, Mr. Brown, a math teacher, and Bernadette help us out. The hams who are helping us out are Dave, N8LBF; Chuck, WA8LQD; Jackie, N8NNA and Walt, WB8WNF. At the high school the volunteers are Will, K8VFO; Art, K0ACP; Lee, KC8ITI; John, WB8RCR; John, AC8QQF and Andy, KD8ULJ, who is also the physics teacher and faculty sponsor. Thank you, thank you, thank you.

Best Regards, Dennis, N8ERF

# Michigan Section News October, 2016

(ARRLWeb—10/16/2016) Greetings to the Hams of Michigan:

It is official — Fall is here.... We have had our first frost on the pumpkin here in extreme Southern Michigan. The leaves are turning colors and thoughts turn to "I wonder if the furnace will start and run ok?"

This month I have the pleasure of making a major announcement about a new hamfest that is in the process of being organized in Michigan.

Recently, Dale Williams, WA8EFK and I have been working with officials from NASCAR (International Speedway Corp) concerning the organization of a hamfest/convention to take place in the fall of 2017 at the Michigan International Speedway (MIS) near Brooklyn, MI.

There are a number of reasons that having a hamfest at MIS is a great idea:

- 1. Unlimited potential for growth
- 2. Located in SE Michigan in the Irish Hills
  - 3. Free parking
  - 4. 24 hour Site Security
  - 5. Large buildings that can

be utilized for commercial vendors as well as for flea markets

- 6. Paved infield areas
- 7. Food services that can range from modest to downright exciting
- 8. Electronic ticket and vendor/flea market sales
- 9. Quality spaces for meeting rooms, hospitality rooms and forums
- 10. Opportunities for over night camping
- 11. A plethora of hotel rooms and unique and quaint Bed & Breakfast facilities nearby
- 12. Load in/out opportunities the day before and the day after event
- 13. Ancillary attractions relative to the racetrack
- 14. A unique and exciting place for a hamfest

How are we going to staff this venture? We are in the process of assembling a consortium of clubs to gather the necessary talent and staff to make this event successful. I will be hitting the road in the coming weeks to chat with clubs within a radius of about 50 miles of the track.

Look for more news soon....

#### HB 6857 Update

Recently, a Distracted Driving bill (HB 5867) was introduced in the Michigan House of Representatives by Representative Howyrlak. This bill, in our estimation, failed to adequately protect a number of entities, both commercial and private from the unintended consequence of potentially becoming illegal activities should the bill become law. One of those entities that are at risk was operating an amateur radio in a vehicle using a method other than handsfree.

Ed Hude, WA8QJE, MI ARRL State Government Liaison has contacted the office of Representative Howyrlak and has made an appointment for us to visit his office on October 20 to discuss how we can help him to produce a bill that does not negatively impact amateur or commercial 2 way radio.

Because we are nearing the end of the Legislative session (all bills not passed and signed by the Governor will 'time-out' at the end of the session) we don't expect this bill to see the light of day in the current session. However, we are pretty certain that it will be

# Explore the World with Amateur Radio!

reintroduced in the next Legislative term and we plan to provide the Representative with assistance to make sure that amateur radio is not negatively impacted.

Monroe County Radio Communication Assn 75<sup>th</sup> Anniversary Celebration On October 20, The MCRCA will celebrate their 75<sup>th</sup> Anniversary with a very special event. In addition to the club becoming 75 years old, they will also be celebrating 50 years of ARRL Affiliation. The MCRCA also was Michigan's first Special Service Club. I am looking forward to attend what I am sure will

be a very special evening. Thanks to the MCRCA for the invitation to attend.

73 until next month,

Larry Camp, WB8R Section Manager ARRL Michigan Section wb8r@arrl.org

# Technical Topics and Information

(ARRL Contest Update—Sept 21, 2016) You can check the format of your log for the CQWW contests before submitting it by using the <u>CQWW Log Check page</u>. Note that you still have to submit your log after using this tool. (Ed, W0YK, via CQ-Contest)

- ♦ Scott, N3FJP, has been working with Dave, W1HKJ, author of Fldigi, and Jeff, N7YG, author of PSK Express and Digital Engine, to provide greater integration between those programs and Scott's software. Scott made some changes to his API, and has re-released versions of his Amateur Contact Log and CQWW DX RTTY programs.
- ♦ In related news, the new release of Win4K3Suite supports direct logging into N3FJP's Amateur Contact Log and Contest logs from Win4K3's terminal mode. In terminal mode, CW, FSK-D and PSK-D contacts can be made using the built-in keyer and decoding capabilities of the K3/K3S, KX3, and KX2.
- ♦ If you're trying to record contest audio with an Elecraft K3/K3S, you'll want to check out

the "Recording Contest Audio" article by Bob Wolbert, K6XX, in the Northern California Contest Club's JUG newsletter for August, 2016. It makes mention of a recent firmware update that Elecraft made so that transmit audio will be routed to the Line Output at a fixed level.

- ♦ When adding extra circuits for the ham shack, you should understand the electrical codes that apply to your situation. Choosing the right conduit size is more than just making the wires fit. There's an app for sizing electrical conduit based on conductor capacity, appropriately called "Conduit Fill Calculator" and available for your iPhone. You can also use this one from a web browser. Check your local codes for the appropriate percentage of fill allowed. (Chuck, WA7BRL via WWDXC email reflector)
- ♦ The ESP8266 chip is at the heart of many low-cost electronics projects that have wireless capability. The follow-on chip, ESP32, has just been released, and the expanded capabilities are looking promising for the next few years

of wirelessly-connected projects.

 Spots that have originated from the Reverse Beacon Network (ReverseBeacon.net) are usually turned OFF as the default setting when you log into a packet cluster from your logging program. In CW and RTTY Contests, you're missing out on a lot of spots if you're not using them if your operating category allows. The usual incantation to turn them on is SET/SKIMMER or a variation of that command. During major contests, you may get more spots than your logging computer can handle, depending on the age and capabilities of your computer hardware. Symptoms will be your logging program becoming unresponsive, or the inability to send CW without delay. Cut down on the local processing burden by setting up appropriate filters to get rid of spots you can't use at your cluster node, before your computer gets them. Depending on the software used by the packet cluster you are connected to, SET/FILTER or SET/FILTERS will help you.

# More Technical Topics and Information

(ARRL Contest Update—Oct. 5, 2016) One of the ways to be successful in VHF and above contests is to use as many bands as possible, and move contacts to other bands. If you need some inexpensive Yagis, <u>WA5JVB's designs for cheap antennas</u> may

help you out. (Steve, VE3SMA, via VHFContesting reflector)

♦ GNU Radio is an open source project that can be used to build SDR radios as easily as drawing and connecting functional building blocks. Now there is a project that provides pluggable

decoders for GNU Radio to help decode various satellites' telemetry. Though covering non-Amateur satellites, some of the processing blocks support formats and protocols used by amateur satellites, such as AX.25. The project web pages also contain a

number of links to other SDR-related software that may be of interest to the SDR experimenter.

- ♦ The AMSAT news service published a link to an article on using your fist to estimate angular measurements of the sky using your hands and fingers. For example, by holding your fist at arm's length while gazing at the back of your hand, you can measure approximately 10 degrees. Other measurements between 1 and 25 degrees are possible with different hand gestures.
- ♦ MIT Researchers have come up with a way to recognize emotional state using radio waves. If

- incorporated into radio gear of the future, perhaps your radio will recognize how sad ionospheric conditions are making you, and suggest a band change.
- → Jay, WX0B, of Array Solutions, recommends Ohmite 470 ohm non-inductive resistors for beverage terminations. He also suggests putting a 75 volt 10 kA GDT (Gas Discharge Tube) in parallel with the resistor, to reduce the chance of damage from a static or nearby lighting discharge. (Jay, WX0B, via Topband reflector)
- ♦ If your electronic project is using a part for which there is no

- schematic symbol or PCB footprint, you can use a new service called <u>InstaPart</u> to find the symbol for free, or have one made for you for a nominal fee. The component symbols are compatible with Eagle, KiCAD, and Altium, and perhaps others.
- ♦ Defective electrolytic capacitors are notorious for causing problems with modern electronics, but an <u>Elektor magazine article</u> noted that between the mid 1940s and the mid 1970s, can-type electrolytic capacitors had issues too. Radio News published a picture of an exploding can capacitor in 1947.

AC8RT         KB8PGW         KC8TQS         KD8QXL         KE8EOX         N8NGT         WA8KJR         WD8ODO           AG8B         KB8SOE         KD0JHX         KD8ULA         N8CGP         N8WTQ         WA8LQD         WN8QGY           K0ACP         KB8TBI         KD8HIH         KD8ULT         N8DHF         NX8A         WA8Y           K6VWE         KC8CTG         KD8IWB         KE8CTH         N8ERF         W8LSS         WB8FYR           K8RI         KC8IHB         KD8MMH         KE8CTI         N8JBW         W8PMR         WB8RCR           K8VB         KC8ITI         KD8MRB         KE8DON         N8KRL         W8QN         WB8WNF           K8VFO         KC8MUD         KD8QAM         KE8DOP         N8LBF         W8WOJ         WD8AXR           Ourrent Active Club Membership 60           Birthdays Celebrated in October/November           W8EXT 10/3         K6VWE 11/13           W8ZSX 10/5         WB8IDY 10/23         KB8UIH 11/27           N8LTR 10/10         KB8PGW 10/25         N8UPP 11/14           N8WTQ 10/10         N8OVT 10/27         KC8GQK 11/19           WD4PIJ 10/13         KC0CJC 10/31         N8NVL 11/28           KA0KP	MARC Vital Statistics							
Memberships Expiring in November   KA9WCS   KC8IHB   N8DHF				Memberships Ex	piring in October			
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AC8QF KA9WCS KC8RTW KD8QXK KE8EOW N8LOU W8ZSX WD8BP? AC8RT KB8PGW KC8TQS KD8QXL KE8EOX N8NGT WA8KJR WD8ODG AG8B KB8SOE KD0JHX KD8ULA N8CGP N8WTQ WA8LQD WN8QG* K0ACP KB8TBI KD8HIH KD8ULT N8DHF NX8A WA8Y K6VWE KC8CTG KD8IWB KE8CTH N8ERF W8LSS WB8FYR K8RI KC8IHB KD8MMH KE8CTI N8JBW W8PMR WB8RCR K8VB KC8ITI KD8MRB KE8DON N8KRL W8QN WB8WNF K8VFO KC8MUD KD8QAM KE8DOP N8LBF W8WOJ WD8AXR  Current Active Club Membership 60  Birthdays Celebrated in October/November  W8WOJ 10/3 KC8TQU 10/19 K6VWE 11/13 W8ZSX 10/5 WB8IDY 10/23 KB8UIH 11/27 N8LTR 10/10 KB8PGW 10/25 N8UPP 11/14 N8WTQ 10/10 N8OVT 10/27 KC8GQK 11/19 WD4PIJ 10/13 KC0CJC 10/31 N8NVL 11/28 KA0KPP 10/16 WN8QGV 11/4 KD8FQF 11/21  Anniversaries Celebrated in October/November  KG8YG and Rachel 10/01 WB8IDY and Audrey 10/19 NQ8T and Barbara 10/23 KD8CUX and ???? 10/04 KB8SOE and Darcie 10/19 N8DHF and KB8QWO 11/17 KB8MCI and Cyndi 10/06 KC8GQK and Tersa 10/20 WB8RCR and Eileen 10/12 KB8LQM and KC8IHB 10/23		KD8	BULA			N8I	LOU	
AC8RT         KB8PGW         KC8TQS         KD8QXL         KE8EOX         N8NGT         WA8KJR         WD8ODO           AG8B         KB8SOE         KD0JHX         KD8ULA         N8CGP         N8WTQ         WA8LQD         WN8QGY           K0ACP         KB8TBI         KD8HIH         KD8ULT         N8DHF         NX8A         WA8Y           K6VWE         KC8CTG         KD8IWB         KE8CTH         N8ERF         W8LSS         WB8FYR           K8RI         KC8IHB         KD8MMH         KE8CTI         N8JBW         W8PMR         WB8RCR           K8VB         KC8ITI         KD8MRB         KE8DON         N8KRL         W8QN         WB8WNF           K8VFO         KC8MUD         KD8QAM         KE8DOP         N8LBF         W8WOJ         WD8AXR           Ourrent Active Club Membership 60           Birthdays Celebrated in October/November           W8EXT 10/3         K6VWE 11/13           W8ZSX 10/5         WB8IDY 10/23         KB8UIH 11/27           N8LTR 10/10         KB8PGW 10/25         N8UPP 11/14           N8WTQ 10/10         N8OVT 10/27         KC8GQK 11/19           WD4PIJ 10/13         KC0CJC 10/31         N8NVL 11/28           KA0KP				Members in	Good Standing			
AG8B         KB8SOE         KD0JHX         KD8ÜLA         N8CGP         N8WTQ         WA8LQD         WN8QGY           K0ACP         KB8TBI         KD8HIH         KD8ULT         N8DHF         NX8A         WA8Y           K6VWE         KC8CTG         KD8IWB         KE8CTH         N8ERF         W8LSS         WB8FYR           K8RI         KC8IHB         KD8MMH         KE8CTI         N8JBW         W8PMR         WB8RCR           K8VFO         KC8MUD         KD8MRB         KE8DON         N8KRL         W8QN         WB8WNF           K8VFO         KC8MUD         KD8QAM         KE8DON         N8LBF         W8WOJ         WD8AXR           Current Active Club Membership 60           Birthdays Celebrated in October/November           W8WOJ 10/3         KC8TQU 10/19         K6VWE 11/13           W8ZSX 10/5         WB8IDY 10/23         KB8UIH 11/27           N8LTR 10/10         KB8PGW 10/25         N8UPP 11/14           N8WTQ 10/10         N8OYT 10/27         KC8GQK 11/19           WD4PIJ 10/13         KC0CJC 10/31         N8NVL 11/28           KA0KPP 10/16         WN8QSY 11/4         KD8FQF 11/21           Anniversaries Celebrated in October/Nov	AC8QF							WD8BPT
K0ACP         KB8TBI         KD8HIH         KD8ULT         N8DHF         NX8A         WA8Y           K6VWE         KC8CTG         KD8IWB         KE8CTH         N8ERF         W8LSS         WB8FYR           K8RI         KC8IHB         KD8MMH         KE8CTI         N8JBW         W8PMR         WB8RCR           K8VB         KC8ITI         KD8MRB         KE8DON         N8KRL         W8QN         WB8WNF           K8VFO         KC8MUD         KD8QAM         KE8DOP         N8LBF         W8WOJ         WD8AXR           Current Active Club Membership 60           Birthdays Celebrated in October/November           W8WOJ 10/3         KC8TQU 10/19         K6VWE 11/13           W88UD 10/19         K6VWE 11/13           W88UH 11/27           N8UP 11/14         N8UP 11/14           N8UP 11/14           N8WOJ 10/13         KC0CJC 10/31         N8NVL 11/28           KA0KPP 10/16         WN8QGV 11/4         KD8FQF 11/21           Anniversaries Celebrated in October/November           KG8YG and Rachel 10/01         W88IDY and Audrey 10/19         NQ8T and Barbara 10/23           KD8CUX and ??? 10/04         KB8SOE and Darcie 10/19 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>WD8ODG</td>								WD8ODG
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Birthdays Celebrated in October/November  W8WOJ 10/3				KEODOI	NoLDI	WOWOJ	WDOAAR	
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Information in form data married 10/14/2016	WB8RCR and Eileen 10/12 KB8LQM and KC8IHB 10/23							
Information is from data received 10/14/2016								
Any corrections or questions contact Larry, N8CGP								



If you desire to join the Midland Amateur Radio Club, the dues are \$20 per year for an individual membership. A family membership is available for an additional \$5 per year which covers all of the individual's family members. Family members must reside at the same address as the primary member to be eligible for the family member rate. The membership dues help to cover the operating expenses of the Club, and its radio systems. Membership includes Autopatch privileges on the W8KEA repeater (147.000+), voting privileges at MARC meetings, and a monthly newsletter. Please supply the following information:

Name:	Callsign:	License Class
Address		
City	State	Zip
Home Phone ()	Work Phone ()	
E-mail address		
Spouse:	Callsign:	License Class
Birthday: (mm/dd)	Anniversary: (mm/dd)	_
Desired newsletter format:	Paper copy via USPS or via e-mail_	
Are you an ARRL Member	Y/N Do you want an ARES Application	on? Y/N

We request this information so we can communicate with you regarding MARC business, and periodically send you newsletters and congratulatory birthday & anniversary greetings. We do not sell this information nor will we knowingly publicize private information without your permission. Information that is publicly available may be distributed to Club members for

various purposes, including membership lists, without prior notification.

You may give this completed form to the MARC treasurer, or you may mail it to:

MARC, PO Box 1049, Midland, MI 48641-1049