

W8KEA

MARC



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

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	Pat Mullet KC8RTW	(989) 828-6657
Swap Committee	Pat Russell W8PMR	(989) 832-2924
	Chuck Cribley WA8LQD	(989) 488-9409
	Keith Johnson KB8SOE	(989) 488-4337
	Pat Mullet KC8RTW	(989) 828-6657

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 — TBA
Law Enforcement Center, 2727 Rodd St.

MARC Christmas Party — Thursday January 5, 2016, 5:30 PM

Salvation Army Bldg., 330 Waldo Ave.
Talk-in 147.000+

January

Static Discharge

John Wolters, W8QN

Wooo! Where did all this snow and below zero weather come from? This is late January weather, not December. Well at least I finished the last minute antenna projects. I hope you got yours completed.

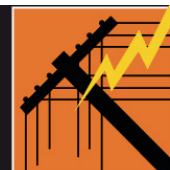
The January meeting has been canceled and replaced by the club Christmas party. The February meeting will be a presentation by John (WB8RCR) on the new digital repeater that should be on the air shortly, and the March meeting will be Skywarn® training at the Law Enforcement Center.

Our new EC/RO, Al Bailey should have an article later in the newsletter on ARES®/RACES. Glad to have him on board. There will probably not be a January ARES®/RACES meeting but look for one in February.

I hope that you and yours have had a happy holiday season. Hope to see you at the February meeting if not sooner.

John, W8QN

**When all else fails...
...Amateur Radio!**



The meeting was brought to order by Mark W8MGM at 7:33 p.m. with 25 members and guests present. A sign-in sheet was passed around and introductions were made.

Please bring any corrections or additions to the minutes to the attention of the secretary, Linda KC8MUD.

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 kc8rtw@arrl.net.

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/VEC" are required.

The address listed below gives testing sessions scheduled for Michigan. <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 month.

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)

• Presentation—Steve WA8Y — Steve gave an interesting review of the *EZNEC* Program and how to use it to design and analyze antennas.

• Treasurer's Report—Lee KC8ITI— Thank-you to all those members who have renewed their membership.

• Christmas Party—Dorie N8WTQ—For the January meeting we will be gathering at Annabelle's Own on M-20 on Thur., Jan. 5th around 5:30 p.m. for our club's annual Christmas Party. Please bring a white elephant gift and a good appetite. We will be ordering off the menu.

Net Control:

Dec. 8th John W8QN

Dec. 15th Lee KC8ITI

Dec. 22nd no takers

Dec. 29th Art K0ACP

• Top Band Contests—Art K0ACP— Art mentioned two fun radio contests coming up this weekend and also on December 12th.

• Editor —Pat KC8RTW is on the mend and will be resuming his newsletter editing. Hope you are feeling better Pat and welcome back.

• High School Club— Will

K8VFO— The middle school students are working on code oscillators. The high school students are forming groups that will be designing and building the sensors needed for the high altitude balloon launch.

• March Meeting —Mark W8MGM — Spring Skywarn® training will be coming up in March.

• General Class—Lee KC8ITI —Coming soon, more information to follow.

• Ideas— Mark W8MGM —We are always looking for ideas for presentations or winter activities for the upcoming club meetings. If you have an idea for an activity or a presentation or would like to be a presenter please let Mark know.

• Group Discussion— Walt WB8WNF— A lengthy discussion about antennas followed and finished the evening.

A motion to adjourn made by Lee KC8ITI

Seconded by Dorie N8WTQ.

The meeting ended at 8:45 p.m.

Respectfully submitted,
Linda KC8MUD

My Two Cents

A trip and fall accident combined with complications from a prescribed blood thinning medication put me in and out of the hospital and rehab for a month. That, coupled with follow-up visits to various doctors, visits from in-home therapists and nurses and simply working to get my strength and stamina back pretty much put the kibosh on my active participation in our hobby the last few months, but that didn't keep me from thinking about it, though.

First, I note from the "all

Pat Mullet, KC8RTW

hands" message sent out by Dennis, N8ERF, that he's been approached to help advise a Radio Control Technology club at Dow High, which triggered a question—has anyone thought about using a drone quadcopter to string antenna lines over trees? By necessity, it would have to be a 'copter with shrouded rotors, else the line would likely foul the blades on descent, but I would think it would be feasible.

Then, there's the use of the ARRL's Logbook of the World.

Amateur Radio is a Contact Sport!

LoTW provides near instantaneous confirmation of your contacts around the world, but there are two downsides. First, not everyone uploads their contacts in a “timely” manner—some only upload once or twice a year, which is a shame, as most logging programs will integrate with TQSL—the software for uploading contacts—so a click uploads all your contacts since the last upload session.

Then, there’s the fact that not everyone has a LoTW account, so in order to get credit towards ARRL awards, you need to supply paper QSLs.

In my case, I need 12 more confirmed QSLs to qualify for DXCC. I’ve gathered QSL info from QRZ.com, sent off QSL cards via the ARRL outgoing QSL Bureau and emailed requests for confirmation from those that indicate the use LoTW on QZ.com and exchanged QSL cards via QSL man-

agers.

Result, I’m still short 12 confirmations.

The majority of these only QSL direct. From what I’ve gathered online, the use of IRCs (International Reply Coupons) is pretty much being phased out, and many are requesting \$2.00-3.00 in cash be mailed to handle return postage. The internet is full of horror stories in which such letters are being ripped open along the line to pocket the cash.

Does anyone in the Club have any experience in exchanging QSLs overseas these days, and how do you recommend you proceed?

Last, I’d like to congratulate Al Bailey, KA9WCS, on his appointment to Midland County EC/RO.

That pretty much does it for this month. Hope to see you on the air.

73, Pat, KC8RTW

New Midland County EC/RO Appointed

We are excited and pleased to announce that Al Bailey, KA9WCS, has been appointed to the dual role of the Midland County Emergency Coordinator and Radio Officer.

The Emergency Coordinator is a position within the Amateur Radio Emergency Services organization of the American Radio Relay League. In that role he is under the guidance of the District 3 Emergency Coordinator, Dave Wallick, N8LBF.

The Radio Officer is a role within Radio Amateur Civil Emergency Services which is a federal service created in 1952 by the FCC regulation 47 CFR 97.407 and is administered in Michigan by the

Michigan State Police Department of Homeland Security. In this role, Al will function under the auspices of the Midland County Emergency Manager, Jennifer Boyer.

Al is replacing John Wolters, W8QN in this dual role.

We, Dennis and Chuck, on behalf of the Amateur Radio operators of Midland County want to thank John, W8QN, for his many years of distinguished service to the community, and look forward to his continued contributions.

Best Regards,
Midland Cty EC/RO Nomi. Comm.
John Wolters, W8QN, Chair
Dennis Klipa, N8ERF
Chuck Cribble, WA8LQD

ARES®/RACES

Al Bailey, KA9WCS

Hello all, let me introduce myself. My name is Al Bailey, KA9WCS, and I will be working with John Wolters to come up to speed as your next EC/RO.

I earned my Novice license in

1987 (KA1JMC) in Groton, Connecticut, while serving in the US Navy aboard a nuclear-powered submarine. After the Navy, I spent my career in the nuclear power industry at the LaSalle County and

Upcoming Events

12/31 Straight Key Night
1/5 MARC Christmas Party

Michigan Hamfests

1/29 Madison Heights
2/4 Negaunee
2/11 Traverse City
2/19 Livonia
3/11 Lowell
3/18 Kalamazoo Township
4/22 Chassell
5/6 Cadillac

Area Nets

SVARA; Mn, 147.24 MHz, 2100 ET
Gladwin; Tu, 147.18 MHz, 2000 ET
BARTS; Tu, 145.31 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
MIARPSC; Su, 3932 kHz, 17:00 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
+waterfall, Oivia 8/500

MARC MERCHANDISE

T-Shirt	S- XL	\$10
	2X - 3X	\$12
Long-Sleeve Tee	S- XL	\$12
	2X - 3X	\$15
Crew Sweatshirt	S- XL	\$18
	2X - 3X	\$20
Hoodie	S- XL	\$24
	2X - 3X	\$26
Zipper Hoodie	S- 3X	\$30
Winter Coat	S- XL	\$42
	2X - 3X	\$45
Spring Jacket	S- XL	\$32
	2X - 3X	\$35
Hat		\$10

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.

Clinton, Illinois stations. I upgraded to Technician in 2003, and my call changed to KA9WCS. I left Clinton in 2007 and started a consulting business, travelling across the country to work on large capital projects. We moved from Illinois to Midland in June 2010.

By the fall of 2015, I had decided to retire from full-time work and weekly travel. My wife made me promise to have hobbies other than watching daytime TV and eating bon-bons. I was reading my *QST* magazine on the plane and wondered if there was a local

club. When I got home I found the Midland Amateur Radio Club online, and came to my first local club meeting. The subject was the replacement of the local repeater transmission cable including multiple pictures of the work. I was very impressed with how many attended the meeting. I sent in my club dues shortly after. I passed my General class license this past June, and Santa brought me a new radio for Christmas this year. He knows I've been really good!

I will not be able to attend the Christmas party in January—the wife wants to go see migrating

butterflies instead! But I'll be back for the February meeting. The Midland County Emergency Coordinator will be offering Skywarn® training in March. All who are interested in learning more about weather emergencies are welcome! Hope to see you there.

I am looking forward to helping serve our hobby, fellow amateurs, and our community in this new role. Please feel free to contact me at any time.

Al Bailey, KA9WCS

Oct. VE Session Results

Dennis Klipa, N8ERF

There were eight candidates and all eight came away with a new license or upgrade.

The new Techs are: Terry Cline, Lake, MI; Phillip Wintland, Midland; Jack Robinson, Midland; Paul Morabito, Midland and Mark Li, Midland.

The new Generals (from scratch) are: Martin Crook, Midland (Son of Larry Crook, N8CCD) and Joseph Zolnowski, Midland.

Upgrade to Extra: Max Schneider, KE8DON, Midland.

The VE Team was: Dennis

Klipa, N8ERF, Liaison; Pat Russell, W8PMR; Lee Hodges, KC8ITI; Art Peters, K0ACP; Michael Daugherty, KD8MMH; Larry Macklin, N8CGP and Bob Winchester, W8LSS.

Best Regards,
Dennis, N8ERF

Electronics and Wireless Communications Clubs

The High School and Northeast Wireless Communications Clubs are in their 4th and 2nd year respectively and are doing great. We have 10 students in the high school and approximately 30 students in the middle school. After some initial projects to learn soldering and building techniques, both clubs have started learning to use Arduino microcomputers. The high school students are engaged in developing sensors that they will launch into near space this spring when both clubs launch high altitude balloons.

The high school students have also learned how to draw schematics and do printed circuit board layouts using a free program called *EasyEDA*. We held a competition for the students to design

a power supply board for the Arduinos. The winning design will be submitted for fabrication of a number of units.

While the high school students will continue to focus on the electronics payload for the HAB flight, the middle school students will be doing a few more Arduino exercises before moving on to some other activities in preparation for the balloon launch. One activity is when the students will dismantle obsolete or damaged electronic equipment just to see what is inside. When we do this it is like a feeding frenzy!

On December 19th Dennis, N8ERF, and three students will make a presentation to the school board about the high school club. It should be fun.

Art, K0ACP, has submitted grant proposal requests to the Kiwanis club in support of our activities. Thank you Art!

I also want to thank the other volunteers for their invaluable contributions; Will Halphen, K8VFO; Lee Hodges, KC8ITI; John McDonough, WB9RCR; Art Peters, K0ACP; Jackie Klipa, N8NNA; Chuck Cribley, WA8LQD; John Henley, AC8QF; Dave Wallick, N8LBF; Andy Fawcett, KD8ULJ; Carmen Kessler; Brian Brown and Bernadette Wood.

Best Regards,
Dennis Klipa, N8ERF

It's Not Your Grandfather's Amateur Radio!

Contesting Calendar

Art Peters, KOACP

Well as I write this, the Big Stew is just 24 hours from now. The Big Stew is named after Stew Perry, N1BB (SK), who is viewed by many as the “Father of the Top Band.” The contest occurs in December and is a CW event that operates on 160. Contestants make as many Q’s on the Top Band and scores are indexed by power and distance. I rather stumbled onto this a few years ago, but have become a huge fan.

But I digress, as we continue our look at the Contest Calendar for January - June, the first event is ARRL’s Straight Key Night, a CW event that occurs on New Year’s Eve and is more of an informal event than hard core contest. The first main event for the year is the ARRL RTTY Round-Up followed by the CW version of the NAQP, week three is the phone

version of the NAQP both of which will be run under the newly revised NAQP rules that have stirred up quite the chatter on the Contesting list—mostly focusing on the use of the Spotting networks, and the addition of a couple of new multipliers. Typically, I tend to run the NAQP’s blind (without the aid of the packet network); however, if you want to try, you’ll be placed into the M2 category. Anyhow, the 4th event of the year is the CQ-160 CW contest.

February 11-12 host the CQWW RTTY WPX (Worked Prefix) event, where contestants work as many different prefixes using RTTY. The following weekend is the ARRL DX CW contest, the final weekend in February is a double header the CQWW 160M Phone and the NAQP RTTY. March starts out with the

ARRL DX Phone contest and ends with the CQWW Phone WPX. April is the Michigan QSO party. May is, of course, Hamvention and Contest University, as well as finishing the month with the CQWW WPX CW event.

Our contesting year ends the last weekend in June with the ARRL Field Day operating event. This completes our look at a year’s worth of contesting, hopefully this has stirred you to get up, get on and make some Q’s.

Next month we’ll talk about logging.

If there is any topic that you may want covered in the realm of contesting, drop me a line: KOACP@arrl.net.

73, Art/KOACP

ARRL Vows Continued Pursuit of the Amateur Radio Parity Act in the 115th Congress

(ARRLWeb—12/9/2016)The Amateur Radio Parity Act, H.R. 1301, died an unbecoming death as the 114th Congress of the United States drew to a close today. After having passed the House of Representatives on a unanimous vote, the bill stalled in the Senate due to the intervention of only one member, Sen. Bill Nelson (D-FL).

Over the course of the past year, Sen. Nelson has received thousands of e-mails, letters, and phone calls from concerned constituents asking for his support of H.R. 1301. Numerous meetings were held with his senior staff in an effort to move the legislation

forward. Negotiations, which led to an agreement with the national association of homeowner’s associations and publicly supported by CAI and ARRL, were brushed aside by Sen. Nelson as irrelevant.

In a final meeting with the Senator’s staff earlier this week, it became clear that no matter what was said or done, the Senator opposed the bill and refused to allow it to move forward. Unfortunately, as the bill did not receive floor time, the only manner in which it could get passed in the Senate would be through a process that required unanimous consent, which means no one opposes the

bill.

The legislation will be reintroduced in both houses of Congress after the 115th Session begins in January. We have already been in contact with the sponsors of the bill to allow for an early introduction, which will give us more time to obtain success. We believe that we can get this bill adopted given the fact that we were inches away from crossing the goal line. We will continue to need the support of the membership, particularly in Florida, as we go forward through the next year.

Michigan Section News December 2106

Greetings to the Hams of Michigan:

We are that special time of year where we seek to spend time with loved ones, share the holidays, break

bread together, celebrate and give thanks for the things that we have. In addition, we face a new year which will be filled with challenges and rewards and with opportunities to make

the coming year better than the previous one.

Both Diane and I wish everyone the best for this holiday season and the coming year.

Explore the World with Amateur Radio!

Hamfest at Michigan Intl. Speedway

We have assembled our management team and are beginning the process of putting the pieces together to form our parent organization, which will be known as the Great Lakes Amateur Radio Association, which will be a 501(c)(3) corporation. We have settled on the dates of October 7 and 8, 2017 for our event at MIS.

In the past couple of months I have visited 8 club meetings to talk about the event and am very pleased to report all clubs were very positive and excited about the event. I have more club meetings to attend in the next 2-3 months to complete the process of getting the assistance that we need.

Flyers and other documentation are under development and will be available for distribution soon. Stay tuned for more information as this exciting event comes to life.

More details soon....

Michigan Distracted Driving Bill

The Michigan Distracted Driving bill that was known as HB 6857 will be reintroduced in the 2017 Legislative session under a new number. We will be monitoring the bill to ensure that our ability to operate our equipment from our vehicles is not affected.

Mich. St. Parks on the Air (MSPOTA)

Beginning in the spring of 2017, MSPOTA will run through 2019 and incorporate Michigan's 107 State Parks, Recreation Areas, Scenic and Memorial Sites. Our target date for startup is March 1. Starting prior to that is problematical in that Park Staff would be limited.

MSPOTA goes beyond "pulling up and keying up" as it is a cooperative program between Michigan amateur radio operators and DNR Parks & Recreation Division to mutually promote one another's interests.

MSPOTA is designed to allow regional and statewide activation opportunities throughout the event and is coordinated with other MDNR Parks & Recreation Division programs. The

event will feature about fifty parks available for activation in each of the three event years with some parks active throughout the entire event.

The schedule is being finalized and will be available after the first of the year. MSPOTA's online logging, scheduling and award tracking system is currently being assembled. We will be seeking local clubs to sponsor parks, act as QSL bureaus and tend to parks local to them. MSPOTA is sponsored by The Northern Michigan Amateur Radio Service Team (NM8RT).

For MSPOTA news and progress or to volunteer to help, please visit the "MSPOTA" group on Facebook or email Will at w8wdr@arrl.net.

Many thanks to W8WDR for this informational update and many thanks to the MSPOTA development team for working so hard to bring this fun activity to the hams of Michigan.

73 until next month,

Larry Camp, WB8R
ARRL Michigan Section Manager

Technical Topics and Information

(ARRL Contest Update—11/30/2016) I recently found a number of tantalizingly high-value high-voltage capacitors at a local electronics surplus outlet. Can't these be used to update that old tube amplifier's high voltage power supply? Not so fast! According to Ward, N0AX, capacitors like these are NOT appropriate for amplifier use: "They are not rated for continuous 120 Hz ripple current, and the resulting heat eventually breaks them down internally. Which could really be exciting, in its own

kind of way."

Class E amplifiers, credited to Nathan Sokal and Alan Sokal, and described in a *QEX* article in January/February 2001 by Alan, WA1HQC, feature high efficiency achieved by switching active components under the conditions of zero voltage and current. I recently ran across a web page entitled "[VK1SV Class-E design Class for Beginners](#)," which provides a practical design tutorial for these amplifiers. Class E amplifiers by themselves are non-linear, which

limit their simple application in amateur service to CW, FM, FSK, and other modes not requiring linearity. [AM aficionados use these amplifiers](#) in conjunction with audio modulators.

[Nominations are open for the 2017 Dayton Hamvention Technical Achievement Award](#), given to "a selected amateur radio operator who has achieved technical excellence in the world of Amateur Radio." See the press release for further information. The deadline for nominations is February 1, 2017.

More Technical Topics and Information

(ARRL Contest Update—12/14/2016) [Backscatter communications is being used by researchers at the University of Washington](#) for ultra-low-power 802.11b Wi-Fi communications. In their scheme, portable low-power

devices generate 802.11b signals by receiving an out-of-channel carrier signal, then modulating and mixing the signal so it is transmitted on the desired band. The modulating and mixing steps require much less power relative to the

generation of the carrier signal, achieving up to a 10,000-fold reduction in energy consumption.

Over-the-horizon radar is an unwelcome intruder into the ham bands. In an example of making lemonade from lemons, Daniel,

M0HXM, [received and analyzed the waveform of an OTH radar](#) operating near 40 meters to compute the height of ionosphere reflections. He used an IQ recording of the signal, processed by GNU Radio and other open source tools to perform his analysis. He has also [improved his analysis in a follow-up article](#).

While connecting some switchable bandpass filters to a K3, I no-

ticed that the recent batch of Y cables from a vendor were missing a pin compared to the previous order. As this was one of the band inputs, this would have put us off the air for at least a few minutes if we didn't catch it before the contest.

[Dave, NK7Z, has posted an article](#) on how he is using an SDRPlay SDR to characterize and count the potential RFI sources in his enviro-

onment. He also points out some tools that are available to help record spectra, and how he interprets the images that he collects. Parts 2 and 3 of his series (yet to be published) promise additional information on how to optimize the display to find particular types of RFI, and then how to find the RFI source using his SDR setup.

Swap & Shop

For Sale: Bell & Howell/Devry TV Servicing Course With Heathkit Gr-2000 Unassembled Kit And

Cabinet W/O Picture Tube \$200 note due to the number of boxes pick up only. \$16

Contact Lee, KC8ITI email kc8iti@arrl.net or call (989) 486-3771

MARC Vital Statistics

Memberships Expiring in December

KD8ULA

N8LOU

Memberships Expiring in January

AC8QF

KB8PGW

KC8CTG

KE8CTH

WB8WNF

Memberships Expiring in February

AC8RT

K0ACP

KD0JHX

KB8TBI

KD8IWB

W8PMR

Members in Good Standing

AC8QF	KB8PGW	KD0JHX	KD8ULA	N8ERF	W8LSS	WA8Y
AC8RT	KB8SOE	KD8HIH	KE8CTH	N8JBW	W8PMR	WB8FYR
AG8B	KB8TBI	KD8IWB	KE8CTI	N8KRL	W8QN	WB8RCR
K0ACP	KC8CTG	KD8MMH	KE8DON	N8LBF	W8WOJ	WB8WNF
K6VWE	KC8ITI	KD8MRB	KE8DOP	N8LOU	W8ZSX	WD8AXR
K8RI	KC8MUD	KD8QAM	KE8EOW	N8NGT	W8ZSX	WD8BPT
K8VB	KC8RTW	KD8QXK	KE8EOX	N8WTQ	WA8KJR	WD8ODG
K8VFO	KC8TQS	KD8QXL	N8CGP	NX8A	WA8LQD	WN8QGV

Current Active Club Membership 56

Birthdays Celebrated in December/January

KC8TQV 12/1	KB8TSO 12/13	K8SRH 1/1	WZ8Z 1/12	AB8TJ 1/26
KD8COB 12/5	KE8DOP 12/18	WA8KJR 1/2	KA8HQW 1/13	W8ZSX 1/28
KE8CTH 12/5	N8CGP 12/21	KD8HIF 1/6	N8NNA 1/14	KD8HID 1/29
WB8WNF 12/7	NX8A 12/22	K7GTK 1/8	KD8GRQ 1/19	KB8QWQ 1/29
N8KS 12/10	WD8KEW 12/28	KB8VNX 1/11	W8PMR 1/20	
N8ERF 12/10	WD8KTB 12/28	KD8FRH 1/12	N8KRL 1/24	

Anniversaries Celebrated in December/January

KB8UIH and Shelley 12/8	K7GTK and WZ8Z 12/22	KA8EZT and Linda 1/2
W8WOJ and KD8HIF 12/12	N8ERF and N8NNA 12/23	KD8COB and Bernadette 01/25
W8PMR and KD8IWB 12/16	W8ZSX and WD8BDM 12/23	
KD8FQF and KD8GRQ 12/19	KC8ZMQ and Karen 1/1	

Information is from data received 10/14/2016

Any corrections or questions contact Larry, N8CGP

Amateur Radio. . . We Do That!



Pat Mullet
Newsletter Editor
171 E. Orchard Ave.
Shepherd, MI 48883

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? 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