



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

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	Keith Johnson KB8SOE	(989) 488-4337
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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 May 5, 2016, 6:00 PM
Law Enforcement Center, 2727 Rodd St.
Next CLUB Meeting — Thursday May 5, 2016, 7:30 PM
Salvation Army Bldg., 330 Waldo Ave.
Talk-in 147.000+

May 2016

Static Discharge

John Wolters, W8QN

The April presentation covered SOTA and other topics. To my surprise as I looked at my new *QST* magazine the same topics are covered. Excellent, lucky timing. Thanks to Dave Wallick for his presentation. Next month we will cover Radio Direction Finding and have a Fox hunt. This is in preparation for the School Club's balloon launch in late May or early June. The meeting will start at 7 pm instead of 7:30 so I hope to see you early at the May club meeting. And finally, Chris Rose (KB8UIH) is looking for additional help to support the MS walk on April 30th. If you can help but need equipment we can cover that. Please contact Chris or myself, W8QN@arrl.net.

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



The meeting was brought to order by John W8QN at 7:05 p.m. with 30 members and guests present.

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

Any mistakes or additions to the newsletter should be brought to the attention of the secretary Linda KC8MUD.

MARC MEETINGS

Keith Johnson, KB8SOE, 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 Keith at (989) 488-4337, or via e-mail: kb8soe@arrrl.net.

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@arrrl.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@arrrl.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.arrrl.org/arrrlvec/exam-search.phtml?State=MI>

SUBMISSIONS FOR NEWSLETTER

Contact Pat Mullet, KC8RTW at kc8rtw@arrrl.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@arrrl.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@arrrl.net) or John (w8qn@arrrl.net)

• Presentation— Dave N8LBF— Dave gave an interesting presentation of Summits and Beaches On The Air. Keith KB8SOE also gave a follow-up presentation about his PC Boards.

• Michigan QSO Party —John W8QN— For those interested, April 16th is the date of this year's MIQP.

• MS Walk—Chris KB8UIH— A sign-up sheet was passed around for this year's MS Walk on April 30th. We'll meet at Midland HS at 10:00 am and should be done about 2:00 pm. There are some areas that have no parking. Let Chris know if you can walk to your location.

• Dayton— John W8QN— John has information about a bus to the Dayton Hamvention leaving at 4:30 am on May 21st. If you are interesting ask John.

• Dow Run/Walk—John W8QN— John is looking for operators to monitor walkers and runners for the annual Dow Run/Walk on May 21st. The starting point is the Community Center. A half marathon has also been added to this year's event. Operators are needed between 7:00 am and 1:00 pm. Please contact John if you have not already signed up to help.

• Swap— Pat W8PMR— The Swap will take place at the Salvation Army Building on June 18th. The fliers have been made and volunteers are needed for a few different positions. Plans for forums and a VE session are also being made for that day.

• Field Day—John KB8PGW— Field Day is on the 25th and 26th of June. More details to come at a later date.

• Tech. Class— Lee KC8ITI— Class starts on April 25th and are on Monday and Thursday night until June from 7:00 to 9:00 pm. at the Midland High School.

NET Control:

April 14th John W8QN

April 21st Lee KC8ITI

April 28th Chris KB8UIH

• Frankenmuth MS Walk—Mike KD8MMH— Call Emmit at (989) 755-5112 if you can help out with the Frankenmuth MS Walk on May 14th.

• KC8ITI brought in many items for donation in the back of the room.

• Fox Hunting—Dennis N8ERF— Bring your Fox Hunting tools to the May meeting, there will be a fox hunt on that night. This is practice so that more people will be experienced in tracking the High School Club's balloon as it nears its forecasted destination. May's meeting will start at 7:00 pm.

• Treasurer's report—Larry N8CGP— Larry reminded club members of the Cadillac Hamfest coming up on May 7th. Also he says thank-you to all those people who have renewed their memberships. And thank-you to Lee KC8ITI for his auction sale of extra club equipment.

• Press Release—Lee KC8ITI— Lee has talked to a reporter from the Midland Daily News who will write an article about Amateur Radio.

• Section Outing—John WB8RCR— The Section Outing near Hale, Mi. is on July 8th and 9th. There will be camping and many outdoor activities along with a fox hunt and a whole day of technical topics.

• U.S.S. Edson—Lou N8LOU — Lou gave an update of the U.S.S. Edson's activities.

• Wendy—KD8IWB— Wendy reported on her and Pat's recent car trip to several states.

• A motion to adjourn and seconded made by Larry N8CGP. The meeting ended at 9:10 p.m.

Respectfully submitted by,
Linda KC8MUD
MARC Secretary

Amateur Radio is a Contact Sport!

My Two Cents

Pat Mullet, KC8RTW

As we return to the continuing saga of my troubles with my Icom IC-7000, I find myself running out of options. I've installed common mode chokes—Palomar Engineers BA-1-1500 Kits—on both ends of my transmission line, as recommended and snap-on ferrite chokes on almost every lead in and out of the rig. I tried it out last week, hoping that all this had cured the rf-in-the-audio problem I'm experiencing, but the signal report I received shot any hope out of the water. About the only things I haven't tried are a choke on the DC line in, grounding the rig and tuner to the house's electrical ground, or swapping out the microphone to check the possibility of a band ground in the cable.

Since the Michigan QSO party was this last weekend, I didn't have time to check out these last few variables, so I broke out my IC-718 and set it up—so nice to not have bad signal reports coming back at me! I didn't spend as much time chasing contacts as I'd

planned, but I had fun during the time I did spend in the contest. One of the goals I'd sent myself was to make a Michigan QSO on 15 meters, the only band I hadn't made an in-state contact on. Since 15 is one of the longer bands, I was expecting that if I made a QSO, it would be with one of the Upper Peninsula counties. Imagine my surprise when a familiar call scrolled across my spotting screen—I was working "assisted"—on 15 meters. I tuned up on 21 MHz, and Steve, WA8Y was finishing up a contact with Oregon! A quick call finally filled that empty space in my log. Sometime later, I worked Lee, KC8ITI with W8QN's team on 40 meters. I ended up shutting down early, but I had fun working both old friends and some new counties, and isn't that what Amateur Radio is all about?

I think I'll pull the plug on this month's column, too. Hope to hear you on the air!

73, Pat, KC8RTW

ARES®/RACES

John Wolters, W8QN

After a talk with our new Emergency Manager it was suggested that we conduct refresher training on our involvement with the National Incident Command System process. Following that suggestion we will conduct a mandatory training session for all R.A.C.E.S. members at the May

meeting. Chuck Cribley will be conducting the training session. If you are not able to attend, other, less enjoyable, training will be required to retain your Races certification. At the June meeting we will probably get back to *FLDigi*.

Dow Run Volunteers Needed

The Dow Run occurs this year on Saturday May 21st. They have added a half marathon to the race this year which will kick off at 7am and be run on the same race course as the 10k run. It is not expected to increase the length of coverage. The only impact on us will be the requirement to be on location about ½ hour earlier.

I continue to look for operators

to help with this activity. Any Amateur Radio Operator can participate, if you lack equipment we can supply that, and if you lack experience we can team you up with another operator. Please contact me at W8QN@arrl.net to ask questions or volunteer to help

Upcoming Events

4/30	MS Walk
5/16	Dow Run
6/4-5	Museum Ships Event
6/27-28	Field Day
7/18-19	Tall Ships Weekend
8/27	Dirty Dog Run

Michigan Hamfests

5/7	Cadillac
5/14	Chassell
6/11	Newberry
6/18	Midland
6/19	Monroe
7/16	Lowell
7/30	Lansing
8/6	Escanaba
10/8	Alpena
10/15	Muskegon
10/16	Kalamazoo
10/30	Madison Heights

* Denotes date based on 2015 event

Area Nets

SVARA; Mn, 147.24 MHz, 2100 ET
 Gladwin; Tu, 147.18 MHz, 2000 ET
 BAARC; Tu, 145.31 MHz, 2100 ET
 Isabella Co EOC 146.72 Mhz, 1900 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.

Future Club Meeting Presentations

The following is a list of the future presentations that will be made at club meetings. We reserve the right to change, substitute, or change the date as the case requires.

May—Fox Hunt, Salvation Army, 7:00 pm. Bring your own equipment or use equipment from the High School club. This will

help you prepare for assisting the High School club to track its balloon launch if you choose to do so.

June—Panel discussion of Mobile HF Radio. Radios, Ant, Power, Setup, Fun. Salvation Army Building, 7:30 pm.

July—Use of HF on a Cruise Ship, Salvation Army Building,

7:30 pm.

August—SDR Receiver Discussion and Demo, Larry Macklin, Salvation Army Building, 7:30 pm.

September—WSPR Demonstration, Will Halphen, Salvation Army Building, 7:30 pm.

October—Satellite communication basics.

MARC in the Midland Daily News

Sometimes the stars align and good things happen. A pair of press releases for the club concerning Skywarn training and the start of our Spring Tech licensing class

brought a phone call from the Midland Daily News to Lee Hodges, KC8ITI, asking about the possibility of an interview. The resulting article can be viewed at

http://www.ourmidland.com/accent/midland-ham-radio-not-so-old-school-anymore-information-on/article_d5a47644-b49d-5d54-8722-10944e97bfab.html.

K6VWE Achieves DXCC Honor Roll

Stan, K6VWE, recently achieved a major milestone by working the Heard Island DXpedition, VK0EK. Heard Island was his 330th entity which qualifies him for the DX Century Club (DXCC) Honor Roll. Honor Roll status is earned by working and confirming 330 of the 339 currently available countries/entities in the world. Stan started keeping track of the entities he had worked when he returned from Japan in 1998 so it has taken him about 18 years to achieve Honor Roll status. His achievement is another illustration of the many interests and facets of ham radio that MARC members enjoy.

Stan's equipment includes a Hex Beam antenna on a 55-foot crank-up tower for 40 through 6 meters. For 80, 40 and 30 meters, he has a fan dipole up about 60 feet in the center and drooping at the ends. While the antenna is cut for 80 and 40 meters, it also works on 30 meters and well

enough that he contacted Heard Island on 30 CW. His main transceiver is an Elecraft K3 with the KPA500 500-watt amplifier. He can also run full power when necessary though he rarely uses the larger amplifier.

Stan worked Heard Island on 40, 30, 20 and 15 meter CW and 15 meter SSB. He also recently worked FT4JA, the DXpedition on Juan de Nova Island, on 30 CW, 20 SSB and 12 SSB, and VP8STI on the South Sandwich Islands on 17 and 20 meters. Overall, from Midland, he has worked 322 entities on SSB, 42 on CW and 330 overall. He rarely uses the digital modes but has made QSOs using RTTY, PSK31, and Olivia. When he lived in Japan he worked 110 entities as 7J1AFP, and 49 from Belgium as ON8UQ. His lifetime total is 331 plus 7 deleted entities.

The entities that Stan has not worked are Bouvet Island, Scarborough Reef, Pratas Island,

Turkmenistan, Glorioso Island, Crozet Island, Kerguelen Islands, North Korea and Macquarie Island. He actually worked Turkmenistan from Belgium many years ago but it does count for his DXCC award because all entities must be worked from the same country. Turkmenistan and North Korea do not presently allow amateur radio operation and working the remaining islands depends on DXpeditions activating them because they are either unoccupied or have no resident amateur radio operators.

Stan was first licensed as a Novice in southern California in 1957 as KN6VWE. He earned his General class license about a year later and his Extra Class license in 1988. He has held call signs ON8UQ, 7J1AFP, and VK2GML and VR2/K6VWE. He is a life member of the ARRL and the Historian of the Midland Amateur Radio Club. In addition to operating from home he also enjoys

It's Not Your Grandfather's Amateur Radio!

HF mobile operating especially on road trips and when his wife is driving. When she drives I play radio," he says.

Other "DXers" in MARC include Steve Linley, WA8Y, and Don Christiansen, W8WOJ. Stave has worked 304 entities since 2008 so is well on his way to achieving Honor Roll status. Steve has worked over 100 coun-

tries on five bands so holds the coveted 5-band DXCC award. Don was the longtime DX correspondent for the MARC newsletter and is believed to have over 300 entities to his credit but we were unable to contact him when this article was written to verify his count.

Working DX can be done with low power and wire antennas al-

though it may require more patience and/or operator skill. Finding and working a "rare one" is a real thrill and the excitement repeats itself when a QSL card comes in the mail. If you can operate in the HF bands, consider giving DXing a try; you may be surprised at what you're able to work and how much fun it can be.

Northeast Middle School & Midland High School Electronics and Wireless Communications Clubs

Earlier this winter, thinking it was a piece of windblown trash that littered his Tuscola County farm field, Brent Harrington decided to leave it there until spring planting season. Well he was right that it was windblown, but it wasn't trash. On April 12th, 2016, Brent decided to walk out into this field to see if the ground was dry enough to take his tractor out into the field to do some planting. As he approached the trash he could see that the trash was white polystyrene foam box, a piece of orange material, pile of shredded rubber, a weird silver kind of spherically shaped object and a bunch of thin rope. It was the oddest looking pile of trash he had ever seen in his field and it aroused his curiosity. When he picked up the foam box he read the label on it which told him that it was from the Midland High School Electronics and Wireless Communications Club. Brent then called the number listed on the label to tell Dennis Klipa, N8ERF, that he had found the club's package, thus starting the last chapter of a 5 month long High Altitude Balloon mission.

Back on November 3rd, 2015, a group of students, parents and advisors from the Midland High Electronics and Wireless Communications Club, drove to a baseball field on the east side of big rapids

and launched a helium filled balloon carrying a payload. The flight was predicted to take about two hours and land near the village of Fairgrove in Tuscola County. Shortly after lift off the signal from the APRS tracker stopped transmitting. The backup CW FM beacon was still transmitting so we were hopeful that we would find the payload by RDFing the signal. The beacon continued to transmit during the entire flight. About three hours after launch and an hour after the scheduled landing time, we reached Fairgrove and started our search. Unfortunately, after searching unsuccessfully for several hours, it was getting late and it was time to get the students home. With the batteries in the transmitter not likely to last through the night, there was little hope of finding the payload electronically. Our only hope was that someone would find the payload and give us a call!

N8ERF drove over immediately to gratefully retrieve the payload from Brent. The payload had landed 6 miles due north of Fairgrove, the predicted landing zone. Not bad for a 100 mile flight at the mercy of the winds! Since April 12th was club meeting night, Dennis decided not to tell anyone (that was not easy) but to surprise everyone at the meeting.

The students and advisors were indeed surprised and delighted to see the payload! The students immediately opened the payload and retrieved the camera. They downloaded the pictures and we got to see the entire flight. Although a little wet, after drying them out and installing fresh batteries, all of the electronics were still working, including the GoPro camera! A close inspection of the APRS transmitter also revealed the problem; a faulty SMA coax connector leading to the antenna!

Thank you, Brent!!

The students are working well to get ready for our next launch coming up near the end of the school year. This time, we are going to have RDF teams pre-positioned at the predicted landing zones so we can track it as it is coming in for a landing. At least, that will give us a good starting point to look for the payload, should the GPS tracker fail for a third time.

The Middle School Club is also preparing for their own balloon launch. They have just successfully completed building ten of the K8SB offset attenuators which are used during the radio direction finding exercises. The attenuators got a workout last week as the weather finally cooperated for a Fox Hunt! The students have gotten their job

Explore the World with Amateur Radio!

assignments for their upcoming balloon launch and are building their skill sets in order to have a successful launch. It has been great fun working with the Middle School students.

The success of these clubs is due to the tremendous volunteer

efforts of a lot of people including: John, WB8RCR, Will K8VFO, Lee, KC8ITI, Art, K0ACP, John, AC8QF, Andy, KD8ULJ, Dennis, WD8BPT, Jackie, N8NNA, Chuck, WA8LQD, Dave, N8LBF, Walt, WB8WNF and a number of teach-

ers at Northeast Middle School including Bernadette Wood, Brian Brown, Carmen Kessler, Sue Trahan and Ryan Wontorcik.

Best Regards,
Dennis Klipa, N8ERF

W1HKJ FLDigi Suite's FLMsg

(ARES E-Letter—March 16, 2016) Many digital mode operators familiar with *FLM*sg think of it as a forms utility for use only with *FLDigi*. However, it's also a great cross-platform, stand-alone program. We have used it to prepare and move forms (ICS, radiogram, etc.) within our EOC by thumb drive, shared drive and mesh network. Our county officials can put *FLM*sg on their com-

puters and send the files to the radio room without any need for transcribing or cut and paste. We also send *FLM*sg files as attachments to email and radio-email messages and they may also be placed on store-forward bulletin board systems. Additionally, amateurs have been working with W1HKJ to make the *FLM*sg ICS-213 form FEMA compliant and completely compatible for use

within the National Traffic System (NTS). The text can be transported within NTS via voice, cw and digital modes using the standard radiogram format as a "wrapper" for the file. NTS-Digital can also handle *FLM*sg files as attachments to radiograms.—Steve Hansen, KB1TCE, Knox County ARES/RACES-CERT, Owl's Head, Maine

Tech Tips: Crimping Tools

(ARES E-Letter—March 16, 2016) A few years ago when Powerpoles started to emerge as the standard connector for ARES and RACES applications, it was time for me to change out my Molex connectors. Having no initial success in finding a die set for my Paladin CrimpALL tool, I noticed that DX Engineering was not only selling a crimp tool, but also individual die sets for Power-

Poles, RG-8, RG8X and uninsulated and insulated wire connectors. After an exchange of e-mails with DX Engineering staff, I ordered the PowerPole die set. DX Engineering was not sure if it would fit my crimp tool but offered to accept its return if it did not. Eureka — it fit perfectly as if Greenlee manufactured it! Subsequently, I purchased the RG-8 and RG-8X die sets for UHF and

BNC connectors.

If any readers owns a Paladin/Greenlee 8000 series CrimpALL tool, they can be safe in ordering the dies discussed above from DX Engineering. I am in no way connected with DX Engineering, just a satisfied customer.—Joseph Walc, W4EEI, Asheville, North Carolina

Technical Topics and Information

(ARRL Contest Update — Mar. 23, 2016) AG1LE is [controlling his KX3 from his Android phone](#). He's used a Raspberry Pi 2 as a server, along with a Mumble codec for the audio; those pieces could be applicable to any rig.

♦ "I've been playing with a pre-production model of the Arduino MKR1000 (Maker 1000) board using the Atmel AT-SAMW25 SoC chip that includes Wi-Fi on a 'gum stick' form factor board. It is super easy to do IoT (Internet of Things) with it. Look

for it to become available in the next few weeks at about the \$20 price point." (Perry, K4PWO)

♦ If you need a font for your website that has ASCII zero represented with a slash, one choice is named [Anonymous Pro](#). However, it's still a mono-spaced font.

♦ Radar is being developed by the military that uses a waveform that will be [hard to distinguish from noise](#). The lack of a identifiable signature will help disguise its use. The amateur bands already

are already subject to intrusion by signals that we can today identify as radar. If this type of technology becomes pervasive, will we just have more "noise?"

♦ The [Embedded Systems Conference](#) is in Boston on April 13-14. If you're involved in the embedded electronics industry, you may qualify for free admission. While the focus is on embedded computers and IoT, at least one of the exhibitors, Rohde & Schwarz, should be a familiar name from the RF side.

More Technical Topics and Information

(ARRL Contest Update — April 6, 2016) A tuned resonator for audio is a different, low-cost way to have a mechanical filter for CW. Using a speaker at the end of a tube acts like a filter - it enhances the transmission of sound at the resonant frequency of the tube. Key is tuning the tube to your preferred audio CW frequency. If you read [this paper](#), you can calculate the approximate dimensions, build something, and then tune as necessary.

◆ Here's something I missed from last summer - [Microsoft has some SDR software](#), and they [open sourced it](#). Some of the building blocks may be useful for your amateur SDR project.

◆ Making printed circuit boards (PCBs) can be easy and inexpensive,

as [one experimenter wrote about recently](#). They used a combination of free software and an internet web site to design their own small two-layer board for about \$6 per board. An article commenter also suggested using <http://PCBShopper.com> to compare manufacturers.

◆ [Setting up your own cellular network](#) may have just gotten easier. With the appropriate hardware and a Debian linux computer, the [Osmocom project](#) has built an installer that coordinates all of the pieces necessary to get OpenBSC installed and configured. This could have application (with government permission) on DXpeditions, or in specialized environments such as mines or shielded buildings.

◆ Switching a relay under load

("hot switching") isn't the best for the contacts, or the rest of the signal chain. In UHF/VHF work where preamps may be mounted at or near the antenna, it's especially important to get switching right to avoid equipment destruction. Tektran has released the [C-SW hybrid IC](#) that it claims can help control the make and break time of relays in your signal chain.

◆ The recent likely confirmation of the existence of gravity waves have spurred more research into their detection, and a [slew of new antenna designs are being tried, across a wide range of frequencies](#). These antennas are in the microwave-to-light range, and employ such techniques as silicon lenses, and cooling to within a degree of absolute zero, to detect very weak signals.

MARC Vital Statistics

Memberships Expiring in April									
K6VWE		K8VFO				KD8HIH			
Memberships Expiring in May									
NONE									
Memberships Expiring in June									
KB8UIH		N8NGT		WA8KJR		WB8FYR			
N8KRL		NX8A		WA8Y		WD8ODG			
Members in Good Standing									
AC8QF	K8VB	KB8UIH	KC8RTW	KD8MMH	KD8ULT	N8ERF	N8NGT	W8WOJ	WB8FYR
AC8RT	K8VFO	KC8CTG	KC8TQS	KD8MRB	KE8CTH	N8JBW	N8WTQ	W8ZSX	WB8RCR
K0ACP	KA9WCS	KC8IHB	KD0JHX	KD8QAM	KE8DOP	N8KRL	NX8A	W8ZSX	WB8WNF
K6VWE	KB8PGW	KC8ITI	KD8HIH	KD8QXK	N8CGP	N8LBF	W8PMR	WA8KJR	WD8BPT
K8RI	KB8TBI	KC8MUD	KD8IWB	KD8ULA	N8DHF	N8LOU	W8QN	WA8Y	WD8ODG
Total 50									
Birthdays Celebrated in May/June									
KC8TQS 4/9		KC8IHB 4/19		KD8MQX 4/28		KC8YHQ 5/11		KD8ULA 5/18	
KC8SRT 4/11		KD8OLC 4/20		W8CVZ 4/28		KD8FSI 5/12		KC8MUD 5/19	
KB8TBI 4/14		WA8LQD 4/27		N8JBW 4/30		KD8MRC 5/12		K8CCE 5/20	
KD8CUX 4/17		KD8HIC 4/27		KC8KOC 5/5		KB8RAO 5/18		WD8AXR 5/25	
N8KFE 4/18		KA8Ezt 4/28		KD8QAM 5/5		KD8MQZ 5/18		WD8SDX 5/27	
Anniversaries Celebrated in May/June									
WD8OEU and Grace 4/17					KB8QWQ and Kate 5/16				
AC8RT and Julie 4/26					KD8EUR and Julie 05/17				
KD8OLC and Lori 5/14									
Information is from data received 4/175/2016									
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