



W8KEA



MARC

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

President	Kevin Martin KD8QAM	(989) 513-0100
Vice President	Art Peters, KOACP	(989) 600-3920
Secretary	Dorie French N8WTQ	(989) 835-5562
Treasurer	John Wolters W8QN	(989) 832-9122
W8KEA Station Trustee	Larry Macklin N8CGP	(989) 631-7748
Midland County EC/RO	John Wolters W8QN	(989) 832-9122
Midland County AEC	Chris Rose KB8UIH	(989) 832-7179
Newsletter Editor	Pat Mullet KC8RTW	(989) 828-6657
Newsletter Publisher	Art Peters KOACP	(989) 400-3745
ARRL Liaison	John Tallman KB8PGW	(989) 859-0364
Web Page Chairman	John McDonough WB8RCR	(989) 631-0178
Club Historian	Stan Rowe K6VWE	(989) 837-7252
Quartermaster	Lee Hodges KC8ITI	(989) 486-3771
Public Information Officer	Pat Mullet KC8RTW	(989) 828-6657
Field Day Committee	Kevin Martin KD8QAM/ch	(989) 513-0100
	Pat Mullet KC8RTW	(989) 828-6657
Swap Committee	Mark Rodgers, KC8GRQ/Ch	(517) 672-1060
	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 — Thursday May 1, 2014, 6:00 PM
Law Enforcement Center, 2727 Rodd St.
Next CLUB Meeting — Thursday May 1, 2014, 7:30 PM
Salvation Army Building, 330 Waldo.
Talk-in 147.000+

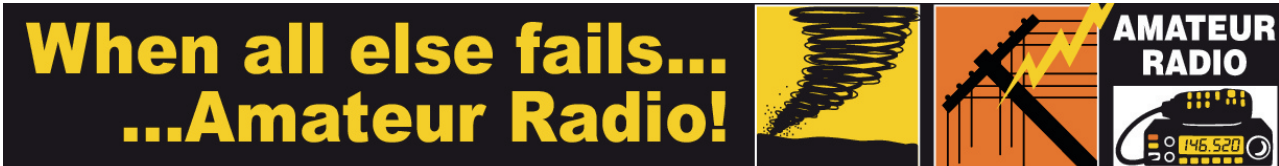
May 2014

Static Discharge

Kevin Martin, KD8QAM

I hope you all are having better luck this spring than I am. Getting spring rain in your basement isn't fun. This month I would like to thank all the folks who show up to work an event. Thank you—you folks really make the event. Operators are needed for some of the upcoming events like the M.S. Walk or the Dow Run. If you are available to volunteer, please do so, these are a lot of fun.

Kevin KD8QAM



MARC Minutes

Dorie French, N8WTQ

The Skywarn® training ended at 8:55 and there was a 5 minute break before the meeting began at 9 p.m. There were 26 members present.

• A motion was made by John, W8QN to purchase a radio and a Raspberry Pi computer for linking the repeater to Saginaw with fu-

MARC MEETINGS

Art Peters, KOACP, 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 Art at (989) 400-3745, or via e-mail: k0acp@arrl.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@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 Keith, KB8SOE, at kb8soe@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 Kevin (cherryrediroc@sbcglobal.net)

ture links to Lansing. The motion was seconded by Dennis, N8ERF. Motion passed.

• Chris, KB8UIH needs help for the MS Walk on April 26th and the Great Lakes Marathon on May 18th. The marathon runs from 6:15 a.m. till 3 p.m. If you can work for all or part of that, or for the MS Walk, contact him.

• Ryan, KB8RCR informed us of a new net on Tuesdays at 9 p.m. It's called Bay Area Regional Traffic Net and is held on the 145.310 MHz repeater with pl tone of 131.8.

• Dennis, N8ERF announced

there will be an auction of Bernie, N8CTP's equipment and he has flyers with the information.

Net Control:

April 18 John, W8QN

April 17 Kevin, KD8QAM

April 24 Lee, KC8ITI

A motion to adjourn was made by Larry, N8CGP and seconded by Dennis, N8ERF. Meeting adjourned at 9:15 p.m.

Respectfully submitted,
Dorie N8WTQ
Secretary

My Two Cents

As I write this, last weekend was the Michigan QSO party, and while I didn't spend as much time operating as I'd hoped to, I still had fun. I had problems with my desk mike—the thing seems to be hard on batteries. I can tell when they're dying, because halfway through tossing out my call sign, the rig's ALC level pegs, and I have reports that my audio tails off. Evidently, the mike's amplifier draws down whatever's left in the battery and the rig tries to compensate for the loss of input. If only I could rig it to draw from the 8 volt source at the rig's mike plug.

Conditions seemed to be off a bit—my *Ionoprobe* bug kept telling me we were in the midst of a geomagnetic storm during the contest, although none of the propagation banners on websites like *QRZ.com* mentioned this. Still, conditions on the upper frequencies seemed a bit off. I was hoping for a Michigan contact on 15 meters, but I couldn't hear anything closer than the East and West coasts, and even that was sparse. So, I spent my time tool-

Pat Mullet, KC8RTW

ing up and down 40 and 80 meters. I even heard another op working from Isabella County, but he moved away before I could contact him.

I made contact with the University of Michigan ARC on 40 meters Saturday afternoon, sticking around long enough to tell the operator that I enjoyed working the Wolverines and to "Go Blue." I cranked the dial and the next station I heard turned out to be the Michigan State ARC. What a coincidence!

I stopped running back and forth on 40 meters a couple of times to check in with the group operating under John, W8QN's call during the contest and later that evening was able to get in a short QSO after logging a contact with Steve, WA8Y.

All in all, this year's version of the Michigan QSO Party proved to be a lot of fun for me, a nice warm-up want them and really have a blast when it rolls around again.

73, Pat, KC8RTW

Amateur Radio is a Contact Sport!

ARES®/RACES John Wolters, W8QN

Well if you missed last month's meetings you missed the annual Skywarn® training session.

I thought the training was a little disjointed, moving back and forth, and lacking on some detail but it's what the NWS thinks is all we need.

At the May ARES®/RACES meeting we will cover a little Skywarn® safety, start to refresh our knowledge on packet, and if time permits, *FLDigi*. I hope to setup a packet exercise for a weekend in May or early June. We will split up for the EOC, Comm vehicle, and County Services building and do our thing.

Remember that the Dow Run and Marathon is the weekend of May 17th. I can always use your

help with the Dow Run. Commitment is from 7:00 am until noon or before depending on the speed of the runners.

Other public service opportunities are as follows:

Saginaw
MS Walk May 10 at 8:30 AM to Noon.

Meet at 601 Weiss St. Frankenthuth

Frequency: 147.240 PL. 103.5

Contact: Emmett Bengry at e.bengry@att.net

See you Thursday May 1st, 6pm at the LEC.

John Wolters
W8QN

Upcoming Events

4/26	MS Walk
5/18	Dow Run
5/19	GLB Marathon
6/22-23	Field Day
7/11-14	Lupton

Michigan Hamfests

4/26/2014	Chassell
5/3/2014	Cadillac
6/1/2014	Chelsea
6/7/2014	Hudsonville
6/7/2014	Newberry
6/14/2014	Midland
6/15/2014	Monroe
6/21/2014	Lowell
7/26/2014	Lansing
8/2/2014	Escanaba
9/13/2014	Wyoming
10/18/2014	Muskegony

* Denotes date based on 2013 event

Volunteers Needed For Events

MS Walk

The 2014 MS Walk will be held on Saturday, April 26th. However, due to a scheduling conflict with an event scheduled by the Great Lakes Loons, the Walk is being pushed back to later in the morning. Volunteers should arrive at the event site, Central Middle School, 305 East Reardon Street, by 11:00 am. Current plans are for the activity to run until 3:00 pm. To volunteer, contact Chris Rose, KB8UIH at kb8uih1@att.net

Dow Run

The Dow Run will occur on Saturday May 17th. Volunteers will need to be in place around the course by 7:30 am, and the event

will run until approximately 11:00 am. If you wish to help with communications at the run please contact John Wolters at w8qn@aol.com.

Great Lakes Bay Marathon

The 2014 Great Lakes Bay Marathon will be run Sunday, May 18th. While details aren't as firm as those for the MS Walk, Chris expects the operators will need to be in place by 6:30 am and the event to run until roughly 3:00 pm. More as things develop. The GL Marathon website (www.great-lakesbaymarathons.com) has the course maps and some general info. To volunteer, contact Chris Rose, KB8UIH at kb8uih1@att.net

Midland High School ARC

The high school club continues to have fun but the advent of warmer weather and the realization that the end of our first year at the high school is quickly approaching has us thinking about summer

activities for the students to keep them active. Summer is a great time to do ham radio, what with the swap, Field Day, maybe a remote operation, antenna work and fox hunts.

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.

The last month has been very productive. The students have completed work on the Theremin project and Mike Strobel is working on his performance with the electronic musical instrument. The students have also fabricated five 146 MHz Tape Measure beams to begin our fox hunting activities. They are currently building five Handi-Finder direction finding units. We should finish them up at this week's meeting. We will give them some training on the HTs and using the direction finding equipment and we will be off on our first Fox Hunt!

We participated in our first

Michigan QSO Party; Art, K0ACP and Dennis, N8ERF, coached Zach, KD8ULE and Mitchell, KD8VZT, in their first contest. After a little bit of training the students took over the 40 meter station and they were on their way, running the TS-450 to the BD18E SteppIR antenna. Art manned the other station using the G5RV antenna and made a number of contacts on 80, 20 and 15. The majority of the contacts were made on 40 meters. At one point I asked Zach when he had to go home. He said he told his parents he would be home by 6:00 but that he was having way too much fun and would tell them he was

going to be late. Music to our ears! By the time we quit at 7:00 they were both contesting pros. It was awesome to watch. I don't have the exact score at this time, but it was just under 11,000 points with 46 counties, 27 states, 2 provinces and 3 countries. As we were leaving, I told the students that we now had a record to break. They responded; "we will blow it out of the water"!

My thanks to Lee, KC8ITI; Denny, WD8BPT; John, W8QN; Andy, KD8ULJ and Art, K0ACP for making the MHS ARC a continuing success.

Best Regards,
Dennis, N8ERF

April 12th VE Session Results

We had a successful VE session today with six delighted participants.

The VEs were: Dennis Klipa, N8ERF; Lee Hodges, KC8ITI; Art Peters, K0ACP; Al Barlow, K8BHU; Pat Russell, W8PMR

and Mike Dougherty, KD8MMH.

The successful candidates were: Brent Gilbert, Tech, Midland; Charlie Nielsen, Tech, Midland; Brian Engelhardt, Tech, Bay City; Edoardo Nicoli, Tech, Midland; John Hull, KD8RUC, Extra,

Midland and Will Halphen, KD8WZG, Extra, Midland.

Congratulations to you all!
Best Regards,
Dennis, N8ERF

Michigan Section News

Greetings to the Hams of Michigan:

The hamfest season is beginning to ramp up here in Michigan. The "Cabin Fever" hamfests have already been held and we are now getting to the spring events. Dayton is just around the corner and before long the National Convention in Hartford, CT will be upon us. Be sure to attend as many of these great events as you can, especially the Michigan Swaps. The opportunity to see old friends and look for that treasure that you have been seeking make these excursions worthwhile and fun. And the number one reason for attending hamfests is to support the clubs that put forth the ef-

fort to host the events. Without hams attending their hamfests, they will die. Plain and simple. Please do your part (and have fun doing it!)

PRB-1 Update

On Tuesday, April 8, three members of our PRB-1 team (WA8QJE, KD8NKJ and WB8R) met in Senator Jones' office in Lansing with representatives of the Michigan Municipal League and the Michigan Township Association to discuss our common goals. Thus far the results have been determined to be positive. Stay tuned for more information as it happens.

Digital Presentation Team

Our Digital Presentation Team has already been out on the road with more presentations scheduled for the coming weeks. On April 3, WA8LMF and AC8JW presented a program in Big Rapids. AC8JW is scheduled for a program at the Branch County ARC in Coldwater on April 15. On May 3, KJ8O will be in Trenton for a workshop and on May 7, W8TFI will present a program for the L'Anse Creuse ARC in Harrison Twp. The workshop in Trenton will be an excellent opportunity to learn about the digital sound card modes with an emphasis on the Fldigi suite of programs.

This will be an excellent op-

It's Not Your Grandfather's
Amateur Radio!

portunity for Emergency Coordinators and other interested hams in SE Michigan to learn about this important communication method. The workshop will be held at 9:00 AM on May 3 at the Trenton Faith United Methodist Church, 2530 Charlton Rd, Trenton, MI 48183. Attendees are encouraged to bring their computer and interface. WiFi will be available for downloading applications.

Club meeting information is available on the ARRL website by doing a search for the club. Feel free to contact one of the team members closest to you to discuss setting up a presentation for your group.

The team members are: John Clements, KC9ON Gaylord, MI kc9on@arrl.net; Stephen Smith, WA8LMF, Haslett, MI wa8lmf@aol.com; Joe Miller, KJ8O, Troy, MI kj8o@arrl.net; Brian Johnston, W8TFI, Warren, MI w8tfi@arrl.net and John Mathieson, AC8JW, Kalamazoo, MI ac8jw@arrl.net.

Please understand that these gentlemen are volunteers who operate on their personal funds for travel. There is a chance that their availability may not mesh with your needs. Our team will do their best to provide your group with quality information on a reasonable schedule.

ARRL Centennial QSO Party

The ARRL Centennial QSO Party continues to be the highlight of 2014. Each week two new states are in the limelight and occasionally one of the US Territories is on the air as a bonus. A couple of weeks ago W1AW/KH2 Guam was on the air and readily accessible. This week it is W1AW/KP4 in Puerto Rico. Beginning April 16z, North Dakota will be on. There will be big pileups for sure, but what an opportunity to have a QSO with the hard to find states. You can even use a DX spotter network to find out exactly where they are without the endless knob turning that we had to do in the "olden days"!

There are tens of thousands of hams that are working toward an all W1AW Worked all States award and what great fun it is. See you on the bands! Complete information concerning the ARRL Centennial Celebration is available on the ARRL website at www.arrl.org.

Michigan Section Family Outing

The 16th annual Michigan

Section Family Outing will be held at the Woodlands Campground near Hale, MI on July 10 – 13. This annual event is an opportunity for us to get together in a very relaxed atmosphere for a day or two or three or four, depending on your interests and time available.

If you are a camper or an RV'er or just like to get out into the woods, the Section Outing is for you! What could possibly be better than being up north in the summer at a beautiful campground with ham radio friends? Of course, the answer is that nothing is better than that. For those that like the comfort of a hotel room, those are available in West Branch just a short drive from the campground.

There will plenty of fun events along with learning experiences for the whole family. More information can be found at www.sectionouting.info. Check that website often as more activities and details are added as we get closer to the event date.

73 until next month,

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

Edmore Repeater Tower Damage

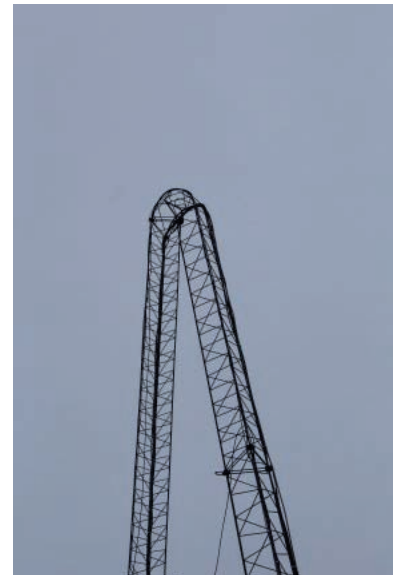


Hello Friends,

The Storm that came through the Montcalm County area Saturday evening, April 12th, 2014, damaged the tower that both the Edmore 2m and 70cm repeaters are located on. As for now, the repeaters are off the air until the tower can be rebuilt, if that is possible. We have not done anything at this point but stand in shame that the 120' tower came down. It will take a while to clean up everything and fully assess the damage. Attached you will find images of the tower.

Michael Peterson - KC8LEQ
coaxthegreat@gmail.com

Ray Peterson - WB8VWK crirt-ptch@gmail.com





Technical Topics and Information

(ARRL Contest Update—March 26, 2014) Whither steam-powered radio and the vacuum tube? Louis Frenzel, W5LEF provides his perspective in a recent *Electronic Design* [column](#), "Long Live Vacuum Tube Amps".

Occasionally Dan AC6LA posts examples showing how his EZNEC manager software *AutoEZ* can be used to address different modeling questions. Those examples are now available on the [AutoEZ web page](#). See the "Collected Short Examples" links (just below the Quick Start Guide links).

Need a new left-handed squelch knob? If you would like to try 3-D printing but aren't particularly enthused about purchasing the full set of equipment, UPS is trying out a [new service](#) to print the parts in their UPS stores. 3-D printing is still relatively new to ham radio but making it more

available could change that! (Thanks, Tim K3HX)

DX Engineering has a new calculator - the [Mast Load Estimator](#). Designed for DX Engineering's 2 and 3-inch OD masts, the program needs information about the height of the mast and where antennas will be placed. Presto - you get a pass/fail results for four wind speeds. That sounds a little less risky than "put it up and see what happens!"

"[Staying Safe from High Voltage](#)" is the topic and title of the *Design News* column "Sherlock Ohms". Read and heed - there is just no substitute for safety! While you're at it, check the test leads of that old meter. Cracked insulation can let those electrons take a short cut to your fingers instead of through the meter. And never use a meter at voltages beyond those it's rated for so that you don't experience a "flashover" which is a severe

shock hazard. "Trifle not with high voltage..." begins the old and wise saying.

When trying to pull cables through conduit, Steve N6SJ recommends using a heavy-duty fishing swivel between the pull rope and the bundle of cables. This minimizes twisting inside the conduit which can lead to tangles and a most frustrating experience.

Technical Web Site of the Week - Carl, K9LA writes in with news of a new article. "I requested data from NA stations on the azimuth arrival angle of FT5ZM on 160m and 80m. I put together a short [paper](#) on the 160m results. It is on my web site [under] the 160m link on the left on the home page. Then open or download the file "Arrival Direction of FT5ZM in North America on 160m". It also discusses some 160m basics - the "black hole" in the southwest USA, great circle paths, [and other topics of interest.]"

More Technical Topics and Information

(ARRL Contest Update—April 9, 2014) Designers of power supplies have a friend in the [Power Supply Unit Designer II](#) software, available from Duncan Amplification. Designed

for vacuum tube audio amp supplies, it is a natural tool for RF amplifier designers, too. You can look at waveforms and other behavior on a cycle-by-cycle basis, too. The program is described in

more detail in this eight-page [article](#).

Kris N5KM contributed a link to [Tindie](#) - "it has a lot of interesting "maker" gadgets, kits, and components that would be useful

for hams."

The magnetic canopy of sunspot AR2017 erupted on March 29th, producing an impulsive X1-class solar flare right in the middle of CQ WPX SSB, causing a Sudden Ionospheric Disturbance (SID) and shutting down the bands for a while. Impressive, wasn't it? More information about this flare which produced a rare "[magnetic crochet](#)" is available on

the *Spaceweather* website.

What do you mean, you "dropped the capacitor drawers"? For those unexpected times when a lot of components have to be sorted, here's a circuit from [EDN magazine](#) that will "bin" capacitors quickly and easily. Keeping the parts boxes from tipping over is up to you, though.

Did you have a little fun on April Fools' Day? Here's another

EDN magazine [article](#) about some classic pranks from, on, and by famous electronic industry figures!

Technical Web Site of the Week - Getting used to using an oscilloscope can be difficult because of all the specialized terminology. Tektronix tackles those trepidations with an [online glossary](#) on the subject.

Swap & Shop

Hi Pat,

My friend's Uncle was a ham. He passed away and the family is trying to sell his stuff.

I believe they'll be donating some gear such as 2m HTs, a call sign map of the world, and miscellaneous parts to the Midland

ARC. The rest they are going to sell. I made a Shutterfly website (<https://hamgear.shutterfly.com/>) of the items and prices. I may take the stuff to the Cadillac hamfest but MARC members can have first choice. Among the items are an Icom IC-718, a

CushCraft A3 antenna in the box and a Icom AT-180 auto-tuner which matches with the IC-706 series, the IC-7000 and the IC-718.

For more information, email me at linleysa@chartermi.net.

Steve Linley, WA8Y

MARC Vital Statistics

Memberships Expiring in April

KB8UIH

Memberships Expiring in May

KB8SOE
KC8MUD
KD8HID

KD8UCW
N8LBF
WB8FYR

WD8ODG

Memberships Expiring in June

KD8MMH
N8KRL

WA8KJR

Current Active Club Membership 36

Birthdays Celebrated in April/May

KC8TQS 4/9
KB8TBI 4/14
KC8IHB 4/19
KD8OLC 4/20
WA8LQD 4/27
KA8EZT 4/28

N8JBW 4/30
KD8QAM 5/5
KC8MUD 5/19
WD8AXR 5/25

Anniversaries Celebrated in April/May

KD8OLC and Lori 5/14

KB8QWQ and Kate 5/16

Information is from data received 3/6/2014

Any corrections or questions contact John, W8QN

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