



W8KEA



MARC

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

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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 — Cancelled
Law Enforcement Center, 2727 Rodd St.
Midland ARC Meeting — Thursday, March 1, 2018, 7:00 PM
Grace A. Dow Library Auditorium
Talk-in 147.000+

March 2018

Static Discharge

Al Bailey, KA9WCS

The end of winter is coming, though not soon enough for some. But before the complete end of this winter weather is here, come on out to the Grace A. Dow Library Auditorium for our next club meeting. This will be our annual SkyWarn® Training and it will be open to the public. The program will be in the auditorium and will start at 7:00 pm. There will not be an ARES®/RACES meeting that night, as this is a combined meeting. Feel free to bring someone who may be interested in becoming an amateur radio operator. We would love to meet them.

For those of us in the Extra class studying for our upgraded licenses, we cannot say thank you enough to Lee for putting forward this effort. I know all of us in the class are grateful as it inspires us to put in the time to read and study for the test. Thank you for all your work, Lee.

Coming up is the season of annual walks and races, followed by our annual Swap and then Field Day. Let

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

AMATEUR RADIO

me know if you are interested in helping with some or any of these events. Being an amateur radio operator is to have a special set of skills with technology and these

events allow you to use your skills in public service. So start dusting off the handhelds, fire them up and get on a net to practice. We can't wait to hear and see you in the

warm glow of spring.

73, Al Bailey, KA9WCS

MARC Minutes

Linda Hodges, KC8MUD

Art K0ACP brought the meeting to order at 7:30 pm with 20 guests and members present. A motion was made to accept the

MARC MEETINGS

Art Peters, K0ACP, 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 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)

minutes as written and passed. Please bring any corrections or additions to the attention of the secretary. A sign-in sheet was passed around.

- Next Meeting - Art K0ACP - The March 1st meeting will be held at the Grace A. Dow Library for weather spotter training.

- A sign-up sheet was passed around for the Dow Run. Please let John W8QN know if you can help out with the Dow Run.

- High School and Middle School Club - Will K8VFO gave an overview of student activities and how well the program is working. About 30 students are involved and everybody helps.

NET Control:

Feb 8th Lee KC8ITI

Feb 15th Art K0ACP

Feb 22nd John W8QN

- Treasurer's report-Larry N8CGP- Thank-you to all those who have renewed their club memberships.

Open Discussion-

- Extra Class - Lee KC8ITI -11 people have signed up for Lee's Extra class starting on February 12th and will be held on Monday and Thursday night at the High School. A VE session will be held on April 7th. Please get in

touch with Lee if you know anybody who would like to take the Extra class.

- Swap - Keith KB8SOE - June 16th date is confirmed which is the day before Father's Day. Please spread the word. Help is always needed for set-up and clean-up. Vendors are wanted and any ideas or suggestions are welcome.

- Christmas Party - Dorie N8WTQ- Everyone had a fine time, location and food is good. White elephants are always a hit.

- Future Presentations - Art K0ACP - Many ideas for future presentations were discussed including a Falling Derrick Show and Tell by Pat W8PMR. Other discussions included Winter Contesting and a Project Day.

- Recording Events - Ryan KC8RCR- Ryan has offered to make recordings of club events for the web site.

- Auction Mike KD8HMM - Saginaw Club's annual Friday night auction is Feb. 2nd.

A motion to adjourn made by Larry N8CGP and seconded by Dorie N8WTQ. The meeting adjourned at 8:30pm.

Respectfully submitted,
by Linda KC8MUD
MARC Secretary

My Two Cents

Pat Mullet, KC8RTW

For those that care, I've finished my therapy and am slowly getting back to where I was before my recent venture into the wonderful world of healthcare. I men-

tion this not because I'm so full of myself to think that everyone is hanging on my every word about my condition, but because graduating from therapy means more

Amateur Radio is a Contact Sport!

time to play radio—as they say, every silver lining has a dark cloud or some such.

Getting back on the subject, just before I went under the knife, I won an eBay auction for an old Realistic HTX-202. I got the old 2 meter brick dirt-cheap because the battery wouldn't hold a charge and it came without any accessories. I had some vague ideas of putting a low power portable APRS station together, and wanted a backup handheld, so this would be ideal.

While still ensconced in Medilodge, I was able to make the trip home for a few hours to celebrate Thanksgiving, so I took the brick back with me to test it out. I had an Icom IC-2AT, the father of the design the '202 was based on, so I took its wall charger and an antenna with me. I had some spare time over the weekend so I dragged the '202 out and plugged it in. The display lit up, I was able to flip though the memories, but once I set the squelch on 147.52 MHz, I'd see the busy indicator flicker on and off, but couldn't hear the familiar hiss of white noise when the squelch broke. Disappointed, I shove the brick back in the drawer.

Once home, I had a bit more

time, so I went through the process to program the memories for the local repeaters—I had downloaded the manual once notified that the radio had shipped—turned it on, set the squelch and set it to scan—still no results.

Last week, I decided to give the HT a final shot. This time, I hooked it up to my GP-15 clone, turned it on, and set it to scan. I still heard nothing. Figuring I had nothing left to lose, I dialed up the Pleasant Valley repeater. I realize that the power amp on the repeater is dead, but I'm close enough to it, and the repeater itself has enough oomph that I can bring it up. I keyed the brick and the repeater IDed. Evidently I'm just going to have to set down and get comfortable with how the '202 works.

The other thing on my agenda is to fire up my computer and get FLDigi set up again. I know that conditions for voice are fairly wretched, but I thought I'd try some DX on the higher bands.

That's it for this month. Hope to hear you on the air.

73, Pat, KC8RTW

ARES®/RACES

Al Bailey, KA9WCS

A neat thing happened the other day and it taught me a lesson. Those of you who have come to see my setup know my 2m radio is well... it is my hand-held radio. I keep it in the office so I can sometimes play on the radio instead of doing some other mundane office chores. The radio is on a stand and has the wall charger plugged into it to keep it ready.

Thursday, after our excellent Extra class at the high school, I went home to get on the Thursday night net, and was playing on the computer waiting for the familiar "QST, QST, QST, this is"

My mind wandered onto some things from class about beacons, and I was scrolling thru some reverse beacon maps on the computer when I looked up and realized it was 2103, and no announcement. I looked over to my radio and it looked good, so, wanting to have a net that night, I just went ahead and jumped in. It seemed like a good idea at the time. What could go wrong?

Things were going well; I used the topic of reverse beacons for the topic and was about 70% thru the net when it happened. For many of you who have done this for far longer than I, you

Upcoming Events	
MS Walk	April 28, 2018
Dow RunWalk	May 19, 2018
Museum Ships	Jun 1-3, 2018
Midland Hamfest	June 16, 2018
ARRL Field Day	June 23-24, 2018
Michigan Hamfests	
3/17	Kalamazoo
4/28	Chassell
4/29	Madison Heights
5/5	Cadillac
6/3	Chelsea
6/16	Midland
6/17	Monroe
7/21	Gladwin
8/4	Escanaba
9/16	Adrian
12/2	Madison Heights

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
OMN; 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	

know what happened. My radio just went dead. No lights, no noise and most importantly no transmit. In fact, it happened when I was in the midst of saying something. Uh oh...

I realized it was bad when I let go of the microphone switch and the screen remained blank and dead. Hmm... this is not good, not good. It took me what seemed like a few hours to go thru some basic checks, and I was reasonably sure that somehow the power was gone, so I replugged it in and then turned it back on. While it was coming back up, I checked the voltage indicator and

it was down to 11.8 volts—definitely needing charging. The charge plug had come out and when I went to use it, it was almost dead, dying of course at the worst possible moment.

The good news is we had spent some time working on our own equipment at the ARES®/RACES meetings last year. I was able to recognize it because Dave Wallick had the same radio and spent some time with me, one on one, showing me

things with my radio. Things like the battery voltage. So it worked. Spending some time at the meetings working on the equipment I use helped me during a net.

So thanks Dave for coming to the meeting and spending some time with me on my hand held radio. I can see it helped me, and we will try to spend some time with our equipment again this year. You would be amazed about the things you can learn with your own equipment. You

never know when that will really come to be helpful.

Our next meeting will be combined with the regular club meeting at the Midland Public Library auditorium at 7 pm for our annual SkyWarn® Training. This will be open to the public. So come on out and say hello to everyone. Hope to see you there.

AL Bailey, KA9WCS

2018 MS Walk

Chris Rose, KB8UIH

The Midland MS Walk for 2018 will occur on April 28th, centered on and around Midland High School. 1301 Eastlawn Drive. The event site opens at 9 a.m.; the walk begins at 10 a.m. Operators will be needed from 9 a.m. until roughly 1 p.m. Plan on using the Midland VHF repeater on 147.00+. Other frequencies

may be assigned later.

Please put this date on your calendar. Seventeen operators are requested. If you can help, contact Chris, KB8UIH. Please do contact if you are going to help. I need a head count of who may be available to plan on what positions can be filled that day. Thanks in advance for your help.

If you were interested in the trip, Frankenmuth's walk will be May 12th. Contact the Saginaw Valley ARA to volunteer.

Chris, KB8UIH
Home 989-832-7179
Cell 989-948-9153
kb8uih88@charter.net

Severe Weather Spotting Class Offered

The weather this winter has ranged from flurries to snowstorms dumping half a foot or more on our roads in less than a day. Forecasts of rain promise to melt the remaining snow, but the frozen ground promises flooding. Most of us are looking forward to the promise of spring.

Despite our longing for a res-

pite from the weather, this is Michigan, after all, and that means that now's the time to start planning of the inevitable rough weather ahead. To that end, the National Weather Service's Detroit Forecast Office is scheduling Severe Weather Training seminars across the seventeen Michigan counties they serve.

This year's Midland County Skywarn® training session will be held Thursday, March 1st, at the Grace A. Dow Library Auditorium. The session will begin at 7:00 pm and run approximately two hours. The session is free and open to the public, and there is no commitment to be a storm spotter involved, nor do you have to be a ham to attend.

VE Session April 7th

The Midland Amateur Radio Club will be conducting an Amateur Radio License Testing Session on Saturday, April 7th at the Salvation Army Building, 330 Waldo Rd., Midland, Michigan. Registration will begin at 8:30 am, with testing shortly thereafter. Walk-ins are welcome.

Candidates are reminded to bring two pieces of identification, pencils, and photocopies of any current licenses. Calculators are allowed. The test fee is \$15.00. Checks should be made out to ARRL/VEC.

Testing for all classes of license — Technician, General and

Extra — will be offered.

Contact Dennis Klipa, N8ERF, or Lee Hodges, KC8ITI for more information. You may email Dennis at n8erf@arrl.net. Lee may be reached at (989) 486-3771 or via email at kc8iti@arrl.net

ARRL Field Day — June 23-24, 2018

ARRL News

(ARRL Letter for February 1, 2018)

Anticipated New Building Won't Be Ready for Hamvention 2018, but Flea Market Could Expand

Due to circumstances beyond their control, [Hamvention®](#) 2018 organizers are reluctantly walking back an earlier announcement that a new building would be available for this year's event at the Greene County Fairgrounds and Expo Center in Xenia, Ohio.

"Despite all of the best efforts and intentions by Greene County, the Greene County Agricultural Society, and Hamvention, we have learned the anticipated new building will not be constructed in time for Hamvention 2018," Hamvention General Chair Ron Cramer, KD8ENJ, said. "The pre-fab sections bid on and architecturally required are currently backlogged. We expect construction to be delayed until after our show and the Greene County Fair." Cramer said construction should be completed this year in time for Hamvention 2019. "We regret this; however, it is well out of our control," Cramer said.

On the plus side, he continued, Hamvention 2018 will have more room for inside exhibits,

with the addition of the vacated Furniture Building, and the Flea Market may gain new space as well.

"After consultation with professionals, we are in the process of solving the mud issue in the Flea Market area," Cramer said. "We anticipate work to start as soon as weather allows. We are rearranging the soccer field parking to eliminate use of the low areas where we had problems last year."

A revised exit plan and additional off-site parking are also in the works, along with easy-to-use maps to help visitors navigate. Parking and shuttles will be free. Talk-in also has new equipment and a taller tower to extend its reach.

"There are many new ideas we are working on to make your stay with us more enjoyable," Cramer added. "Keep watching our [web-site](#) for updates." -- Thanks to Hamvention General Chair Ron Cramer, KD8ENJ

Work Progressing to Incorporate CQ Magazine's WAZ Award Program into LoTW

Beta testing for bringing CQ Magazine's Worked All Zones

(WAZ) award program into ARRL's Logbook of The World (LoTW) system continues to move forward, officials from CQ and ARRL assured this week.

Some problems in the implementation were discovered by testers and have since been corrected; the documentation has also been improved by feedback from the testers. In parallel, the LoTW server has been executing a background task that creates and populates a WAZ account for each LoTW user.

Beta testing will continue until this background task completes. When all WAZ accounts have populated, LoTW-WAZ will be made available to everyone.

"The goal is for Amateur Radio operators to be able to directly submit LoTW confirmations for WAZ credit," ARRL and CQ said in a joint statement. "Standard LoTW credit fees and separate CQ award fees will apply."

Logbook of The World is ARRL's electronic confirmation system for Amateur Radio contacts. It provides a confirmation when both stations in a contact submit their logs to the system and a match between the logs is confirmed. LoTW has supported the CQ WPX Award program since 2012.

Michigan Section News February 2018

Greetings to the Amateurs of Michigan,

I have really enjoyed meeting and talking with many of you during the last month while visiting various swaps and groups. I clearly appreciate the positive energy and support for our hobby, and look forward to future interaction with many of you. It's important to point out that if you would like to become the Michigan Section Manager, my appointment to this post would not

prevent you from running for the position. As stated in *QST*, this position will be open to candidates who file to be placed on the ballot coming up for the term beginning in July of 2018. Details can be found on the ARRL website.

DXCC Field Card Checkers have come up in many conversations recently. Director Williams has chosen to appoint an additional Field Card Checker to augment the great work being done by the existing volunteers. There have

been some changes in what Field Card Checkers can process, please review the DXCC section at the ARRL website for details. Additionally, consider extending the same hospitality to these volunteers at your next swap or club meeting.

I'm looking forward to running into you on the air!

73, Jim K8JK

James A Kvochick, K8JK
ARRL Michigan Sect. Mngr
k8jk@arrl.org

Technical Topics and Information

(ARRL Contest Update—Jan. 24, 2018) The IEEE Transactions on Antennas and Propagation has issued a Call for Papers for their special issue on Radio Wave Propagation to be published in October 2018. According to the announcement: "The goal is to publish papers which are based on Maxwellian physics and which address the basic physics related to propagation modeling that spans from guiding structures to antenna structures and propagation in complex media and environments and which can duplicate real experimental data without any massaging or any curve fitting. In addition applications related to this topic will also be considered." For more information, see the [TAP website](#). Papers must be submitted by January 31,

2018.

◆ Randy, KQ6RS, has been working through RFI generated from consumer SolarEdge solar energy installations. He suggests the following steps if you think you are hearing RFI from one of these systems. First, look for interference by tuning to USB at 14.198, 21.198, 21.398, and looking for strong interference. These systems have a distinct signature, with noise occurring every 100 kHz, with stronger spurs every 200 kHz. If it is a SolarEdge system that is making the noise, it can be reduced by about 30 dB after a few hours work installing filters and rewiring, which should be left to SolarEdge. The SolarEdge starting point of contact is [Teff Read](#). (Randy, KQ6RS, and Dennis, N6KI)

◆ [Universal Radio Hacker \(URH\)](#) is an open-source project that you can use in conjunction with SDR hardware to explore and decode RF digital signals. It helps you explore everything above and including the 'physical layer' of the protocol stack. Applications could include decoding the protocol a wireless doorbell is using, or [getting your weather station's data into your PC using a cheap DVB-T dongle](#).

◆ Forgot your footswitch for a contest, but just happen to have access to a 3D printer, and have a microswitch in the junk box? Try this ['printable' design from RemoteQTH.com](#). You might have to tread lightly to make it to the end of the contest.

More Technical Topics and Information

(ARRL Contest Update—Feb. 7, 2018) This item is courtesy of the Mt. Airy "Packrats" VHF Radio Club, and appears in their [February 2018 Cheese Bits newsletter](#): 'BNC Wrench - A Useful Tool: Many builders who use BNC jacks on the projects are faced with the problem of how to tighten the nut on the back of the connector without having the connector spin in the hole. Now if you are able to cut D-holes in the chassis the problem is solved as the shape of the hole prevents the connector from turning when you tighten the nut. I, as I suppose is the case with most hobbyists, don't have a punch to make D-holes but I have discovered and received as a Christmas present a solution to the BNC jack tightening problem. It is a [BNC Connector Wrench](#) made by Mathews Engineering of Indianapolis, IN. The wrench works by sliding over the female BNC connector. There are slots machined into the side of

the wrench to hold onto the two nubs that protrude from the barrel of the connector. Tom, KA3FQS'

◆ [Minimodem](#), an open-source audio FSK modem by Kamal, KA6MAL, that already supports RTTY and other protocols, could be a fun place to start to experiment with your own ideas for CODEC performance over atmospheric channels. Or you could put it on a Raspberry Pi to build a Terminal Unit (TU) that talks to mechanical hardware. Or...


◆ It's no secret that automotive electronics are becoming more complicated and feature-filled. Automotive electronics engineers solve some of the same issues that Amateurs do with combining and separating RF and power signals. While building some bias-T devices, aka Power Injectors for HF receiving antennas, I was struck by the wide variety of surface-mount chokes that are now available through parts distribut-

ors for tasks like putting Ethernet and power signals on the same physical cable. Most of the 'Power over Coax' components I've found so far are suitable for higher-frequency usage, for example 10 MHz and up, and some certainly appear usable at VHF and UHF frequencies.

◆ The ["XXY Oscilloscope"](#) is a web page that provides basic cathode ray tube oscilloscope functionality, including phosphor persistence. You can choose input sources from among microphone, signal file, or mathematical equation inputs. It's fun to play with, and might even be useful as a tool in a pinch.

◆ Researchers in Germany [demonstrated a new way to keep multiple optical channels separate under real atmospheric conditions](#) recently. The new modulation technique is called Orbital Angular Momentum Division Multiplexing. Two channels, sent as one beam via an air path over Er-

langen, Germany, were recovered and decoded by a receiver. Though such a transmission had been demonstrated through an optical fiber a few years before, it had been thought that dispersion of the signal over an atmospheric path would change the quantum angular momentum states. The experimental results indicated that different orbital angular momentum states were degraded by the atmosphere in different ways but were still recoverable.

◆ Mike, VE3GFN, responded to my suggestion last time that it might always be a good time to  radials' to a vertical antenna: "You mentioned, in the most

recent Contest Update, that folks should add radials to any vertical antenna. Can't agree more! However, not only vertical antennas can benefit from the addition of radials! Some years ago, I put down 3000 feet of radials, a variety of 1/4 wavelength radials for bands 160M through 20M. My QTH is on old lakebed sand, and boy, did they make a difference! My antenna analyzer told me that impedances had changed for several of my antennas. On 80M and 40M, where I use an Inverted Vee fed with open line, my signal reports, on the average, over the ensuing years, went up several S-units, both incoming and outgo-

ing. My Butternut vertical on 160M sure started being heard better, and I finished off my DX-CC Honor Roll, using paper QSLs and only 100 Watts. My technique, as advised by Bert, VE3NR, was to lay down the radials in the spring, "nailing" them to the lawns with long pins made from coat hangers, and when the grass began to grow (and be mowed), they vanished. Years later, they are down 3 inches or more in the sod, and can only be seen where grass doesn't grow. I live on a smallish corner lot in suburbia, so of course, there are many bends in the radials! ...
73 - Mike VE3GFN"

MARC Vital Statistics

Memberships Expiring in February						
K8WSR			W8PMR			
Memberships Expiring in March						
N8LBF		N8WTQ			W8QN	
Memberships Expiring in April						
K8RI N8JBW		K8VB K8VFO		KD8MMH KC8IHB		K6VWE KE8GEM
						K8AVJ KB8AWE
Members in Good Standing						
K0ACP	KA9WCS	KC8ITI	KD8QXL	N8JBW	W8QN	WB8RCR
K2VMH	KB8AWE	KC8MUD	KD8ULT	N8KRL	W8RBF	WB8WNF
K6VWE	KB8PGW	KC8RTW	KE8DON	N8LBF	W8WOJ	WD8BPT
K8AVJ	KB8RCR	KD0JHX	KE8EOX	N8NGT	W8ZSX	WD8ODG
K8RI	KB8SOE	KD8HID	KE8GEM	N8WTQ	W8ZSX	WN8QGV
K8VB	KB8UIH	KD8MMH	N8CGP	NX8A	WA8LQD	
K8VFO	KC0CJC	KD8QAM	N8ERF	W8DOD	WA8Y	
K8WSR	KC8IHB	KD8QXK	N8FUZ	W8PMR	WB8FYR	
Current Active Club Membership 53						
Birthdays Celebrated in February/March						
KC8ITI 2/2 KE8EOW 2/4		K0ACP 2/7 AC8RT 3/4		KC8RTW 3/17 KD8QXL 3/18		K8VB 3/20 W8QN 3/31
Anniversaries Celebrated in February/March						
KC8TQS and Julia 2/14 WN8QGV and Belinda 3/2			KC8ITI and KC8MUD 3/6 WD8BPT and Melody 3/13			
Information is from data received 2/15/2018 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