

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

President Vice President Secretary Treasurer W8KEA Station Trustee Midland County EC/RO Midland County AEC Newsletter Editor Newsletter Publisher ARRL Liaison Web Page Chairman Club Historian Quartermaster Public Information Officer Field Day Committee	John Wolters W8QN Keith Johnson KB8SOE Linda Hodges KC8MUD Larry Macklin N8CGP Larry Macklin N8CGP John Wolters W8QN Chris Rose KB8UIH Pat Mullet KC8RTW Art Peters KOACP John Tallman KB8PGW John McDonough WB8RCR Stan Rowe K6VWE Lee Hodges KC8ITI Pat Mullet KC8RTW	(989) 832-9122 (989) 488-4337 (989) 486-3771 (989) 631-7748 (989) 631-7748 (989) 832-9122 (989) 832-7179 (989) 828-6657 (989) 400-3745 (989) 859-0364 (989) 631-0178 (989) 837-7252 (989) 486-3771 (989) 828-6657
Swap Committee	Pat Mullet KC8RTW Pat Russell W8PMR Chuck Cribley WA8LQD Keith Johnson KB8SOE	(989) 828-6657 (989) 832-2924 (989) 488-9409 (989) 488-4337

LIFE MEMBERS

Pat Mullet KC8RTW

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 February 4, 2016, 6:00 PM Law Enforcement Center, 2727 Rodd St. Next CLUB Meeting — Thursday February 4, 2016, 7:30 PM Salvation Army Building, 330 Waldo. Talk-in 147.000+

February 2016

Static Discharge

John Wolters, W8QN

(989) 828-6657

A club operates at the pleasure of its members. I am still looking for one person or a group of people to lead our Field Day excursion in June. If you interested in helping, please send me an e-mail at w8qn@arrl.net or talk to me at our club meeting.

Keith Johnson, KB8SOE, covered small scale computers such as the Aurdino or Raspberry PI at our January meeting. Hope it gave you food for thought for a future project. We are working on the following topics for future meetings. A panel discussion on mobile HF radio, use of HF on a cruise ship, portable or field day-like operation, and for our March meeting, Skywarn® training. If you have a topic you would like to see covered at a future meeting, please let me know.









The meeting was called to order by John W8QN at 7:30 P.M. with 27 members and guests present. Introductions were made and a sign-in sheet was passed around.

 Presentation — Keith KB8SOE — Keith talked about Single Board Micro controllers

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@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/examsearch.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 Kevin (cherryredirocz@sbcglobal.net) and Computers, including the Arduino Microprocessor, the Raspberry Pi, the PIC and the Android.

- Reminder John W8QN Please let John know if your E-mail address has changed, he would like to keep an up-to-date and correct contact list.
- EC—RO Report John W8QN Looking forward to working with the new Emergency Manager, Jenifier Boyer.
- Treasurer's report—Larry N8CGP Thank-you to all who have renewed your memberships.
- Christmas Party Dorie N8WTQ the day is January 15th. We gather at 5:30 and eat at 6:00 at the brand new Lee Township Hall. The cost is \$11.00 per person. Don't forget your White Elephant gift. Let Dorie know ahead of time if you are coming.
- Skywarn[®] Training John W8QN the March 3rd meeting is scheduled for Skywarn[®] training at the LEC at 7:00 P.M.
- MS Walk—Chris KB8UIH— The MS Walk will be on April 30th and starts from Midland HS.
- Dow Run—John W8QN—Next meeting. John will bring a sign-up sheet for the Midland Dow Run which takes place on May 14th. We assume plans for the Dow Run will be the same as in the past.
- Auction Lee KC8ITI—Lee has sorted out many non-used items from the club's shelves that will be put up for auction. Auction rules and a list of the items can be seen on the club's web site or you can get a copy from Lee. Bids can be made by contacting Lee.
- Amateur Radio Parity Act Art K0ACP–Now its ACTION TIME for at least some of you in the Division. Next Tuesday, January 12th, the House Bill comes up

before the House Energy and Commerce Subcommittee on Communications and Technology. Five House members from Ohio, Kentucky and Michigan sit on that committee.

The ARRL is asking each ham in those congressional districts to contact their representatives and ask for their support for the bill. It's easy. Just go to this website: https://arrl.rallycon-

gress.net/ctas/urge-congress-to-support-amateur-radio-parity-act.

All you have to do is fill in your zip code, and get a message to your congressman. Do it today!

- Field Day there is a very good possibility that unless someone comes forward to chair the Field Day event for the club there will not be one.
- Parade Linda KC8MUD Thank you to Dorie N8WTQ and Dennis W8BPT who participated in the Santa Parade. They both did an outstanding job representing our Amateur Radio Club and what it stands for.
- USS Edson Lou N8LOU— the call sign for the Edson's Radio Club is W8EDS.
- Saginaw Auction Mike KD8MMH the Saginaw Amateur Radio Club will be having their annual Auction on February 5th. Many items both radio related and non-radio related to be going on the auction block at their February Meeting. They always have a good time with that.
- Gloria KC8IHB has heard from our friend Mary Branson KB8QYB. She's well and if you would like to give her a call and say hi she can be reached at (231) 885-1135
- The club would like to extend a welcome to our two new club members from the last testing session in December; father and

Amateur Radio is a Contact Sport!

son Blaine Colbry KE8CTG and Brant Colbry KE8CTH.

NET CONTROL:

Jan 14th Keith KB8SOE Jan 21st John W8QN Jan 28th Bob W8LSS A motion to adjourn the meeting was made by Larry N8CGP and seconded by Gloria KC8IHB.

The meeting ended at 8:45 P.M. Respectfully submitted, Linda KC8MUD MARC Secretary

My Two Cents

Pat Mullet, KC8RTW

So much for well-laid plans.... I had planned on doing more operating on the hf bands after the holidays, particularly the ARRL 10 meter contest, but between the normal demands of life and a notable lack of ambition, those plans rapidly went south. I vowed to rectify that this past weekend and out in a solid block of time during the North American QSO Party.

I missed out on the daylight period of the Party, but set down before my IC-7000 determined to put in a solid five or six hours before the contest ended. I'd changed radios since the last time I played in the NAQP, so of course, N3FJP's logging program wasn't talking to my radio—I hadn't changed the radio address in the CI-V command string used by the software. A few keystrokes, and that problem was rapidly fixed, so on to the contest. The spots started scrolling across the bottom of the program, so I clicked on the first one, which happened to be on 20 meters. It turned out that propagation on the band was lousy, so after a few different attempts on 20, I dropped down to 40 meters. Better, and I was able to rack up a few contacts, but I decided to check out 80 meters. Unfortunately, finding a spot where I could get a good match using my LDG IT-100 autotuner proved problematic, so I went back to 40 meters. I found a good, strong signal coming up from

Georgia, and tossed out my call a few times. The reply I received surprised me, to say the least. I was informed that I had RF in my audio, and was nearly impossible to understand. I'd noticed a tendency of one of my computers older LED monitors to be affected during transmissions, but I attributed that to the age of the monitor and thought nothing more about it. I'd been told that the IC-7000 often had RFI problems, but I'd thought I'd put enough snap-on ferrites and the control cables between the rig and the tuner to handle it. Now I know better.

I've a few more ferrites at hand that I'll distribute around the cables going into the rig, double check that the coax connections are tight and add one of Palomar's choke balun kits to the antenna side of the tuner. I'm also contemplating something I saw in one of the ham magazines and wrapping the 12 volt power cord around a threaded steel chain quick-link to use as a brute force noise filter. With luck, that will solve my problem. If not, I'll have to pick up more ferrites.

Still, if any of you running IC-7000s have any advice, I'd appreciate it if you'd drop me a note.

That's pretty much sums up my experiences for the month, so I'll sign off. Hope to catch you on the air

73, Pat, KC8RTW

ARES®/RACES John Wolters, W8QN

The training with *FLDigi* continues. We had tried to practice *FLDigi* on VHF after the regular Thursday night net with limited success. After some discussion it

was decided to move the practice session to the 2^{nd} and 4^{th} Thursdays at 8 pm. (before the net). We will meet on the repeater and then move to 146.490 simplex. This is a

Upcoming Events

3/3	Skywarn Training/Midland
4/16-17	Mi QSO Party
4/30	MS Walk
5/21	Dow Run*
6/4-6/5	Museum Ships Weekend
6/25-26	Field Day

Michigan Hamfests

1/24/2016	Madison Heights
2/6/2016	Negaunee
2/13/2016	Traverse City
2/21/2016	Livonia
3/19/2016	Kalamazoo
5/7/2016	Cadillac
5/14/2016	Chassell
6/18/2016	Midland*
6/19/2016	Monroe*

^{*} Denotes date based on 2015 event

Area Nets SVARA: Mn, 147.24 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

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

training session so it is not necessary to have any experience to join. There will also be some sessions that will replace the normal ARES®/RACES meeting on the

first Thursday of the month. Please look for e-mails announcing those dates.

Skywarn® training is scheduled for the first Thursday in

March, March 3rd, at the LEC at 7 pm. This meeting is open to the public at no cost and no reservation is required.

MS Walk 2016—Operators Needed

The MS Walk this year will stage at Midland HS. With the demolition of Central Middle School, the venue has changed. The Walk date is April 30th, with a start time of 11 AM. The new route is about 3.8 miles round trip. Operators are needed from 10AM

through 2PM. Interested operators please send me your email address and I will send route maps. Please keep the maps for future use. I am working with members of the advisory staff at the school club to use the school club station for net control. As more informa-

tion is released I will send it along.

On other fronts, the Great Lakes Marathon has been cancelled for lack of sponsorship.

> Thank you, Chris Rose, KB8UIH

Midland Amateur Radio Club Auction 2016

Some equipment that has been donated to the Midland Amateur Radio Club has been deemed surplus to the needs of the club by the President and Quartermaster.

The list of items for auction, rules for the auction and current bids are posted on the club web site.

Go to www.w8kea.org. On the left side of the page will be a menu item "AUCTION 2016"; click on the menu item and that will take you to the auction page. Click on one of the three items to bring up the PDF file for that topic.

The web page will be updated

on a regular basis with the most current bid on items.

Bids will be taken on the listed equipment until 6 PM on February 6th, 2016. Bids may be placed at the club meetings, by emailing your bid to kc8iti@arrl.net, mailing them to me at Lee Hodges, 134 N. Homer Rd., Midland, MI 48640 or calling Lee, KC8ITI at (989) 486-3771. I will not take bids over the air.

When bidding please identify the item you are bidding on, your name and/or your call sign and the amount you are bidding. If your bid is low I'll notify you to that effect and let you know what the current bid is on the item.

The club through the quartermaster and/or the executive committee reserves the right to reject any bid on any item if the bid is deemed not in the best interest of club. All equipment listed is "as is."

If you are interested in examining any item up for bid please call Lee, KC8ITI, to make arrangements to view the equipment. Winning bids must be paid for before equipment can be released by the quartermaster.

Lee Hodges - KC8ITI -Quartermaster, Midland Amateur Radio Club

Field Day Pins Wanted

I'd like to complete my collection of Field Day pins for the Field Days I've attended. I'm missing the pins from 2009 and

2011. If you have these pins or better yet you have extras and are willing to part with them please contact me at <u>linda.hodges@charter.net</u> or call me at (989) 486-3771.

Linda - KC8MUD

New 10 Meter SSB Net in Southwest Mi

Fowarded by John Gibson, NO8V, of the Gratiot County ARA

Every monday at 8 PM Eastern Time on 28.455 MHz SSB

there is a net directed by WJ8L in Kalamazoo. Net control runs a horizontal beam, so horizontal polarization works best. Last Monday (Dec 7, 2015) we had

check-ins from four states. Join us for ten meter fun. Phil Schmitt, WJ8L

It's Not Your Grandfather's Amateur Radio!

Michigan Section News

(ARRLWeb—1/15/2016) Greetings to the Hams of Michigan:

We are now a couple of weeks into the New Year and winter seems to have finally arrived in Michigan. My thoughts have turned to the calendar, as we are just 6 weeks from March, and everyone knows spring arrives in March. Be patient, my friends....

Michigan's Affiliated Club Coordinator Receives Surprise

Joe Miller, KJ8O is a Michigan ham who participates in a wide variety of contests. In 2014 he participated in the ARRL 10 Meter Contest, calculated his scores and submitted his logs. End of story. Well, not exactly.... The ARRL discovered that when mailing out some winning certificates that they inadvertently used incorrect addresses.

In late 2015, Joe received an envelope from ARRL HQ. The envelope contained a note of explanation along with a certificate indicating that he won first place with a final score of 34,196 points. The certificate is for First Place, Single Operator, Unlimited, Phone Only, Low Power, Michigan Section.

Congratulations to Joe for taking first place in his category!

Michigan ARRL Website

The new Michigan ARRL website (www.mi-arrl.org) is coming along nicely and we are adding content as we move forward. For late-breaking happenings directly relative to Michigan Hams, the website is the first stop to learn what is going on. An even better way to keep yourself in the know is by signing up for ARRL Section and Division news, bulletins and calls to action. You can do this by editing your profile on the

ARRL webpage (www.arrl.org) to select to receive section and division news and bulletins by email. This document (and others) will appear in your inbox just like magic.

Michigan QSO Party

While it seems like April (and spring) are still quite a ways away, now is the time to begin to think about participation in the Annual Michigan QSO Party which is sponsored by the Mad River Radio Club. You can locate all necessary information here: http://miqp.org/. On their web page, you can find the 2016 MiQP flyer which is handy for printing a few copies to

take to your club meetings to pass around to interest your members in participating. There are a number of categories of participation and room for participants from large, experienced contest groups to individual operators participating for the very first time. The contest is a maximum of 12 hours (noon to midnight), so there will still be family time available that weekend. No amplifier? No problem. 100 watts works just fine. Modest stations are able to do quite nicely.

Michigan Section Assistant Section Traffic Manager

I am pleased to report that the Michigan Section now has its first Assistant Section Traffic Manager. Jeff Miller, WB8WKQ was recently appointed to fill this brand new leadership role here in Michigan. He will be working on special projects in addition to supporting our Section Traffic Manager Mark Shaw, K8ED. You can reach Jeff at wb8wkq@arrl.net.

Amateur Radio Parity Act

During a January 12 Capitol Hill hearing, US House Subcommittee on Communications and Technology Chair Rep Greg Walden, W7EQI (R-OR), called the Amateur Radio Parity Act "a commonsense bill" and urged his colleagues to support it. H.R. 1301 was one of four telecoms bills that came before his panel.

Immediately prior to the above mentioned hearing, the AR-RL requested contact by amateurs in certain congressional districts to reinforce our interest in the bill with members of the Subcommittee. Stay tuned to the ARRL website for further updates.

Affiliated Clubs:

It is extremely important for your hamfest chairman to get your swap registered with the ARRL to take advantage of the perks of having an ARRL affiliated hamfest. It is never too early to register your swap which will help your attendees to make their plans in advance.

National Parks On The Air (NPOTA)

The NPOTA event of 2016 is underway. While winter is not necessarily the best time to set up a portable station to make contacts, it can be done. Complete information about this year-long on the air operating event can be found on the ARRL website.

Until next time and Best 73,

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

Explore the World with Amateur Radio!

Dale's Tales for January

Dale Williams, WA8EFK

(ARRLWeb—12/31/2015) Greetings everyone, welcome to "Dale's Tales" for January, 2016—already!?!

SPECIAL EVENT: National Parks on the Air has begun. This is the big operating event for 2016. Be sure to check out the full details at https://npota.arrl.org/. See the current "On the Air" list of scheduled events on the web page. There are actually 20 qualified National Park Service Units within the Great Lakes Division, so there are many opportunities to put a park on the air.

UPDATE for AMATEUR RADIO PARITY ACT: Please contact your Senator in Washington and encourage his/her support for the Act. When you do this, please reference the Bill Number S 1685. HR 1301 is the Bill number for the House of Representatives. In addition to a letter to your Senator letter to your Representative is quite appropriate. Please be sure to route your letters through ARRL Headquarters for personal delivery: ARRL, Attn: Amateur

Radio Parity Act grassroots campaign, 225 Main St., Newington, CT 06111. You can find more information at http://www.arrl.org/amateur-radio-parity-act.

73, HNY, see you on the bands.

Dale Williams WA8EFK Director Great Lakes Division wa8efk@arrl.org

TOM'S COMMENTS: Comments from our Vice Director

Happy New Year, everyone! Not a lot of ham radio news this month. The last activity (other than a club meeting) that I attended was the Grant Amateur Radio Club's hamfest in Georgetown, Ohio, back in early November.

But it will be a busy year coming up, and I'm looking forward to it. Dale and I will be attending the ARRL Board Meeting in January, where we'll find out more about our legislative efforts in 2016. Be prepared to do some more letter-writing and e-mailing

once the various pieces of legislation start making their way forward towards a vote. If we want to get the antenna bills passed, we'll need to be very active in contacting Congress. We'll let you know!

About the time you're reading this, the National Parks on the Air activity will be underway. There is already a long list of stations who will be on the air starting January 1st. Check it out on the ARRL website. And get active. There should be lots of contacts for you to make.

And as we go into 2016, we'll be around to your club meetings and hamfests, asking what we can do to facilitate your activities in ham radio. Let us know your concerns, your interests, and especially your successes in whatever projects and activities you take on. Invite us to your meetings. Depending on our schedules, we'd love to come and meet all of you.

73, Tom W8WTD Vice Director Great Lakes Division

New ARRL President Named

[ARRLWeb—UPDATED 18 January 1620 UTC] The ARRL Board of Directors has elected ARRL First Vice President Rick Roderick, K5UR, of Little Rock, Arkansas, as the ARRL's next president. The Board took the ac-

tion as it convened for its 2016 Annual Meeting January 15-16 in Windsor, Connecticut. Roderick, 63, officially assumed office for a 2 year term at the conclusion of the Annual Meeting. He is the ARRL's 16th president, succeed-

ing Kay Craigie, N3KN, of Blacksburg, Virginia, who served for three terms as the League's president.

Technical Topics and Information

(ARRL Contest Update — Dec. 30, 2015) Vacuum tubes are still relevant, and <u>innovation is still happening to improve performance characteristics</u>, in certain parts of the tube market. (N7SS via N0AX)

♦ Low-voltage relay driver

boards are inexpensive and widely available via eBay, as many Arduino projects use these. They can work great for automating various pieces of equipment in your shack, such as antenna switches, filter/stub switching, and the like. Search for "Arduino"

relay driver board" on eBay.

♦ Digital cameras of the future may not need lenses, or look much like today's cameras, given Rice University's research into "FlatCams." Surfaces (curved or flat) can be covered in a sensor film, and images are 'computed'

from the data collected by the sensor. It is similar to a light field camera, and analogous to capturing a wide swath of RF bandwidth and detecting the signals of interest after the fact.

♦ A recent New York Times

article mentions "Computational Photography" and explains how the photographic process is changing.

♦ Many of the manufacturers of the devices we use every day don't want us to be able to fix the devices ourselves, and use specialized fasteners, sealers, and other mechanisms to keep us out of them. Here are some of the techniques and tools you might need to get into your device.

More Technical Tips and Information

(ARRL Contest Update — Jan. 13, 2016) <u>DK2OM on behalf of the IARU has compiled a document with spectrum displays of RFI</u> (PDF) for various interfering devices, along with links to sound files to help identify these sources.

- ♦ Here's how <u>some wireless</u> <u>products are designed and tested</u> for EMI/RFI.
- ♦ Hydrogen Sulfide exhibits high temperature superconductor

<u>characteristics</u> when under <u>pressure</u>. The characteristics were observed at a relatively balmy -70C.

- ♦ Need to make some matter? Grab some photons and collide them! We've seen videos and pictures of matter being converted into energy in the visible spectrum, but this is the other way around.
- ♦ In other illuminating news, here's a primer on storing light, and how LASERs work.

◆ Three phase power is used primarily in commercial and industrial applications. <u>But why only three?</u> (K3HX)

Technical Web Site of the Week - http://everytimezone.com/

You don't need to do the math to figure out the time in Rio (or any other time zone) if you use this web site. (Ken, WM5R via Facebook)

MARC Vital Statistics				
Memberships Expiring in January				
AC8QF		KD8RMG		
Memberships Expiring in February				
K0ACP KD0JHX KB8TBI	KD8IWB W8PMR			
Memberships Expiring in March				
KB8RCR	W8QN			
Current Active Club Membership 3	nip 38			
	Birthdays Celebrated in January/Febru	ıary		
KC8ZMQ and Karen 1.		N8NNA 1/14 KC8ITI 2/2 KD8GRQ 1/19 AA8EJ 2/3 W8PMR 1/20 W8JBD 2/4 N8KRL 1/24 K0ACP 2/7 AB8TJ 1/26 KB8LQM 2/8 W8ZSX 1/28 W8NON 2/14 KD8HID 1/29 KB8MCI 2/15 KB8QWQ 1/29 WW9E 2/18 s Celebrated in January/February KD8ZKG and Belinda 2/12		
KA8EZT and Linda 1/2 KD8COB and Bernadette 1/25		KC8TQS and Julia 2/14 WW9E and KB9YSQ 2/15		
Information is from data received Any corrections or questions contact				



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

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

various purposes, including membership lists, without prior notification.

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

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