



W8KEA



MARC

MIDLAND AMATEUR RADIO CLUB  
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www.w8kea.org

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	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 December 4, 2014, 6:00 PM

Homer Fire Station, 222 S Homer Rd.

Next CLUB Meeting — Thursday December 4, 2014, 7:30 PM

Salvation Army Building, 330 Waldo.

Talk-in 147.000+

December 2014

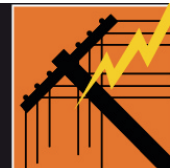
Static Discharge

Kevin Martin, KD8QAM

Happy Holidays. I look forward to seeing everyone at the Christmas party next month. Things are starting to slow down and I am able to find more time to get on the air. I have rounded up some supplies for a few antenna projects that I would like to try over the winter, and will do my best to document the builds. I would like to present them at one of the meetings. Do you have anything that you are working on and would like to share at a meeting? We can make time for it. Try not freeze with the early snow.

-73, Kevin KD8QAM

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



The meeting was called to order at 7:30 P.M. by Mark KD8GRQ with 34 members and guests present. A sign in sheet was passed around and introductions were made.

The meeting minutes are published in the newsletter. Please bring any corrections or additions

### MARC MEETINGS

Mark Rodgers KC8GRQ, 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 Mark at (517 672-1060), or via e-mail: kc8grq@yahoo.com

### COMMUNICATIONS

Pat Mullet, KC8RTW, is in charge of communications and publicity for the club. If you have any questions or ideas regarding these areas, please contact Pat at kc8rtw@arrl.net

### EXAMINATION SCHEDULE

Saginaw - All future VE testing will be done on an appointment basis only.

Corunna - Contact Thomas Carpenter (517) 579-0599 ki8as@charter.net.

Bay City - All future VE testing will be done on an appointment basis only.

Isabella/Clare Counties - Contact Gus Glass, K8GUS at k8gus@arrl.net

With all examinations, your original license, a copy of that license, a second photo identification (drivers license, etc.) and a check or money order for \$15.00 made out to "ARRL/VEC" are required.

The address listed below gives testing sessions scheduled for Michigan. <http://www.arrl.org/arrlvec/exam-search.phtml?State=MI>

### SUBMISSIONS FOR NEWSLETTER

Contact Pat Mullet, KC8RTW at kc8rtw@arrl.net if you want to submit anything for the newsletter.

I need your items by the 15th of the month. Anything received after that may not make it into the newsletter for that month.

If you prefer to download the MARC newsletter from our web site, or have trouble with delivery via USPS, contact John, W8QN at w8qn@arrl.net.

### MEDIA HITS!

Have you seen or heard mention of the Midland Amateur Radio Club in the news or in the paper? If so, please forward it, or mention of it to either Pat, KC8RTW (kc8rtw@arrl.net) or Kevin (cherryrediroc@sbcglobal.net)

to the attention of the secretary.

Announcements-

Dennis N8ERF - VE session coming up.

Steve WA8Y -Brought in awards he won participating in the Michigan QSO party this year plus the sweepstakes award.

Mike KD8MMH -Announced Saginaw's next meeting and told about an EchoLink® presentation. He also brought sad news about the passing of George N8NPW.

◆ Lee KC8ITI – Said he was winding down his Tech. class and also told about his visit to Fulton's Electronics Supply Co. in Lansing.

◆ Presentation- John WB8RCR- Let's Get Pic-N. A comprehensive study on the value and uses of PIC's.

◆ Christmas party- Linda KC8MUD- This year's Club Christmas Party is on December 5<sup>th</sup> at the Lee Township Hall. We'll gather at 5:30 P.M. and eat at 6:00. The cost is \$11.00 with Carousel Catering bringing the meal. The Sweet Adelaines will be performing a medley of Christmas songs and as always don't forget your white elephant gift.

Dorie needs a count by the 29<sup>th</sup>.

◆ Kevin KD8QAM- The Santa parade is on November 22<sup>nd</sup>. We'll have at least two vehicles to decorate. Join us at the Midland High School parking lot on Saturday morning to walk or ride. A donation of wrapped candy is also appreciated. This is an excellent source of PR for the club.

◆ Mike KD8MMH - The Santa-gram Event is going on at the Saginaw Zoo on Friday Nov. 21<sup>st</sup> between the hours of 5:00 and 8:00 p.m.

◆ Ryan KB8RCR- Has APRS rigs for sale.

◆ John W8QN- ARES®/RACES had canceled SET.

NET Control:

Dec. 13<sup>th</sup> Kevin KD8QAM

Dec. 20<sup>th</sup> John W8QN

Dec. 27<sup>th</sup> John W8QN

Larry N8CGP moved to adjourn, Seconded by Lee KC8ITI.

The meeting was adjourned at 9:00 P.M.

Respectfully Submitted,  
Linda KC8MUD

## My Two Cents

Pat Mullet, KC8RTW

I was able to play in the phone version of the ARRL November Sweepstakes this last weekend. I had planned on sticking with the 10 and 15 meter bands with an eye towards filling in some holes in my 5BWAS, but life being what it is, other activities got in the way, and I didn't get a chance to put in as much time as I wanted. I was able to net a couple of new ones, so it wasn't a total loss.

One of the things that had me occupied most of last week was updating some of the hardware in my shack computer. Shortly after

replacing the XP box when it went south earlier in the year, I had bought a pair of low-end sound cards for running on the digital modes. I had to replace the one I had installed in the old computer since it wouldn't run under Windows 7. While these C-Media boards installed properly, configuring them using the system sound application was a nightmare, especially when they both appeared with the same name, and to top it off, they shut down the onboard sound card! Judging them more trouble than they were

# Amateur Radio is a Contact Sport!

worth, I pulled them and went back to the onboard sound system. No great loss, as I was concentrating on the ARRL Portable Station WAS anyway.

I bided my time and found deals on soundcards by ASUS and Rocketfish (Creative Labs) on e-Bay, along with a four-port RS-232 serial I/O card to replace the dual port card I was using.

Installation went well, though since the ASUS card was a "pull" with no installation CD, I had to search for the drivers, as well as the updated drivers for the I/O. Once I mapped out which serial ports on the board corresponded to which ports in the device manager,

I was able get my soundcard interface set up. Everything's looking good, and I should be able to start calibrating and testing *FLDigi* on HF sometime this week. Not only that, but I now have the capability to expand to digital and/or packet on VHF once I get a radio I can dedicate to the band.

The icing on the cake was learning how to go into the computer's BIOS and enable it to use the onboard soundcard as well.

Looks like I'll have plenty to keep me busy over the long, cold winter after all.

Hope to hear you on the air!

73, Pat, KC8RTW

**ARES®/RACES** John Wolters, W8QN

There will be an ARES®/RACES meeting on Dec 4<sup>th</sup> located at the Homer Fire Station. Look for an e-mail with more detail to come.

Your current RACES card is about to expire. I do not yet have information on how we will renew these. Stay tuned.

**Midland ARC Christmas Party**

The Annual Midland Amateur Radio Club Christmas Party will be held on Dec. 5<sup>th</sup> at the Lee Township Hall. We will begin gathering at 5:30 p.m. and eat at 6 p.m. Carousel Catering will once again be serving dinner, and the cost will be \$11.00 a person. The Sweet Adelines will be singing for us. Bring your white elephant gifts. Notify Dorie N8WTQ by Nov. 28<sup>th</sup> if you plan to attend so I

can get the information to the caterers. I will be collecting money up to and including the night of the party.

If you need any other information, please call me at 835-5562 or email me at [doris.French@outlook.com](mailto:doris.French@outlook.com).

Thanks,  
Dorie N8WTQ

**Fall 2014 Technician Class Wrap Up**

The Fall 2014 Technician class has finished with 3 students completing the class. The new format for this class worked well but I intend to make some minor tweaks before I do the class again. All three students made it to the testing session on November 15<sup>th</sup> and are eagerly waiting for their call signs to be posted in the ULS database.

We've moved our classes to room 321 (the physics class room) at Midland High School. I expect that all of our future classes will be taught at Midland High School. I'm working on a schedule to teach a General and Extra license class after the first of the year.

Lee – KC8ITI

Upcoming Events

12/5	MARC Christmas Party
12/5-6	Skywarn Recognition Day
12/31	Straight Key Night

Michigan Hamfests

12/7/2014	Harrison Township
1/11/2015	Hazel Park
2/7/2015	Negaunee
2/14/2015	Traverse City
2/15/2015	Livonia
3/14/2015	Kalamazoo
10/17/2015	Muskegon

\* Denotes date based on 2013 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.

## November 15<sup>th</sup> VE Session Results

Four applicants sat for their license exams on Saturday, November 15<sup>th</sup>, all of whom passed their Technician test.

They are: Thomas Jansen, Mid-

land; Horst Wojtowicz, Saginaw; Daniel Rigg, Merrill and Jeffrey VandeGuchte, Shepherd.

The VEs proctoring the session were: Dennis, N8ERF; Lee,

KC8ITI; Art, K0ACP; Mike, KD8MMH; Pat, W8PMR; Del, WB8FYR and Jim, KB8ITI.

Best Regards,  
Dennis, N8ERF

## Midland High School Amateur Radio Club News

The Midland High School Amateur Radio Club continues to have fun. We have approximately 6 regular students coming to the meetings. Lee, KC8ITI, has been doing a great job of leading a group of students to explore the electronics inside the computer. His program will lead to the students building a 4-bit computer. The feedback and enthusiasm from the students has

been great.

John, AC8QF, is leading an effort to explore satellite communications. This last Wednesday we made our first attempt to make contacts via the FM repeater satellite SO-50 (also known as Saudisat-Ed). We were definitely heard and it was a great learning experience and we all had fun doing it, but it was definitely cold. The students are ready

to try again.

We have also been spending time learning about electronics and making contacts on the air.

My thanks to KC8ITI, WD8BPT, KD8ULJ, W8QN, K0ACP and AC8QF for the continued involvement in MHS ARC.

Best Regards,  
Dennis, N8ERF

## Michigan Section News

Greetings to the Hams of Michigan:

Winter seems to be arriving early in a number of places in Michigan. The north country received some serious amounts of snow and even the southern areas along the big lake have had to deal with lake effect snow (when I was a kid growing up here, we just called it snow!).

Looking out the window this morning (Nov 14), I see snow on the ground and I am 100 miles from the lake and nearly as far south as you can go and still be in Michigan. The optimistic view is that spring is on the way! Drive carefully out there.

I want to issue my sincerest appreciation to all Veterans, past and present for their sacrifices and service to our country.

Thanksgiving Day will soon be here and I hope that all will enjoy the holiday and reflect on the wonderful bounty that we enjoy by living in this country. In spite of our

collective shortcomings, this is still a great place to live.

### PRB-1 Update

Our Senate Bill 0493 was reported favorably out of the Energy and Technology Committee in September with a recommendation for immediate effect. Since that time, our bill has passed successfully through its second and third reading and was voted upon by the Senate and passed unanimously.

Our bill has since moved over to the House and has had its first reading and has been assigned to the House Energy and Technology Committee. There was some information that indicated that our bill would be considered in a different committee, but that has been cleared up and the proper focus has been placed.

We have mobilized the troops in a letter writing campaign to request action on our bill in committee as well as directing focus on our individual representatives who will ulti-

mately vote on our bill after it comes out of committee.

If our bill passes successfully in the House without any changes made to it, then it will head for the Governor's desk for his signature. Time is growing short as we need to complete this process before the end of 2014 or we will be faced with starting over in the new legislative term.

We are almost there and we need to keep the pressure on to get the bill passed in the House. If you have not yet written to your representative, now would be the time. The more letters they receive, the better the chance that they will vote positively on the bill. You can learn who your Representative is and his or her email address on our PRB-1 website located at <http://www.miarrlprb1.org/> along with a sample letter that can be modified to include your information and be sent via email.

Do not be concerned about using a form letter. Yes, they all look alike, but your Congressman or

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I t's Not Your Grandfather's  
Amateur Radio!

Congresswoman understands that a real person took the time to prepare the letter and send it to them. We have received some very positive comments about the number of letters received on this subject and we can assure you that they pay attention to letters from constituents. Emails are printed out and the stack of paper that results can be persuasive.

Encourage your friends (ham operators or civilians) and family to communicate their wishes to their Representative. And keep your fingers crossed!

### News From Around the Section

The second go-round of W1AW/8 from Michigan is now in the history books. In 2014, the hams of Michigan came together to provide a total of 58,652 contacts for the hams of the world. Many thanks go to Randy, AA8R and Dennis, KT8X and their respective teams for their leadership and dedication to the ham radio community in Michigan and beyond.

Thanks to all who put forth the effort to be on the air and to give and to receive all of those contacts.

Going forward, how is the ARRL going to top this? I am pretty

sure that this is the pinnacle during our lifetime.

The next ARRL “Red Badges on the Air” activity will take place on Saturday, November 22 UTC (starting the evening of Friday, November 21, in US time zones). That’s when holders of red ARRL name/call sign badges will once again be roaming the bands, offering yet another chance to boost your ARRL Centennial QSO Party total. There will be one more Red Badges on the Air activity on New Year’s Eve, Wednesday, December 31. ARRL officers, elected officials such as Director or Section Manager, as well as Headquarters staffers and volunteers, and other members of the ARRL family will take to the air en masse for both occasions. Contacts with red badge wearers are worth as much as 300 points per contact for working ARRL President Kay Craigie, N3KN. Many of the 200 or so holders of red badges will be on the air on November 22 and December 31, along with other ARRL appointees, VEs, and members. Be sure to set aside some operating time for both of these days to enhance your Centennial QSO Party point totals. See you on the bands!

Have you ever wondered how

other hams were able to get an email address composed of yourc-all@arrl.net? For ARRL members, that is one of your membership benefits. To sign up, all you have to do is to go to the ARRL website, log in and select “Edit my profile.” Once in the edit form, you can elect to use the @arrl.net service. It is simply an alias that will direct email sent to that address to your real email address.

This is the easiest way to contact another ham in that if you know their callsign, you can send them an email. This makes communication amongst hams simple, easy and neat and clean.

While you are in the profile edit mode, be sure to select the option that will allow you to receive electronic communications from the Great Lakes Division and the Michigan Section. This will get you a number of important communications delivered directly to your inbox. There are also a number of periodic newsletter type communications that you can elect to receive as well.

Until next time,  
73, Larry Camp, WB8R  
ARRL MI Section Manager  
wb8r@arrl.org

## “Amateur Radio Parity Act of 2014” Attracts More than a Dozen New Co-Sponsors

(ARRLWeb—11/13/2014) The list of co-sponsors for the Amateur Radio Parity Act of 2014, H.R. 4969, has grown to 63. Sixteen new co-sponsors signed aboard as the 113th Congress re-convened for its final session before adjournment. ARRL Regulatory Information Manager Dan Henderson, N1ND, is urging ARRL members to keep in contact with their Congressional representatives and to encourage them to become co-sponsors to the bill.

“We are excited about the addition of 16 new co-sponsors when

Congress reconvened after the November mid-term elections,” Henderson said. “Each new co-sponsor brings us one step closer to achieving our goal of getting HR 4969 enacted. We have a long way to go – but we are definitely moving in the right direction.”

A few more co-sponsors may still be in the wings. The current tally represents a considerable expansion of support from the number of US Representatives who had signed aboard as Congress adjourned prior to the mid-term elections. All 16 of the latest

co-sponsors were re-elected on November 4.

H.R. 4969, which was introduced in the US House of Representatives with bipartisan support in late June, would call on the FCC to apply the “reasonable accommodation” three-part test of the PRB-1 federal pre-emption policy to private land-use restrictions regarding antennas. The limited PRB-1 pre-emption currently applies only to state and municipal land-use ordinances. The FCC has indicated its reluctance to provide the same legal protections from private land-use

# Explore the World with Amateur Radio!

agreements — often called covenants, conditions, and restrictions or CC&Rs — without direction from Congress.

The League has opened a HR.4969 page. HR.4969 has been referred to the House Energy and Commerce Committee. Rep Greg

Walden, W7EQI (R-OR), chairs that panel's Communications and Technology Subcommittee, which will consider the measure.

## Technical Topics and Information

(ARRL Contest Update—Oct. 22, 2014) Winner of the 2014 ARRL Technical Innovation Award, Warren NRØV, has posted a [presentation](#) on Digital Predistortion he gave at Ham Radio Friedrichshafen this year. Author of the *openHPSDR* program's predistortion software, he hopes that bringing this commercial wireless ability to the ham bands will help clean up our signals. As he notes, "(It's) no problem to correct an entire amplifier chain at legal limit. No extra hardware or software is required -- one just feeds back a sample of the output from the last stage to calculate the correction." As we move beyond our purely analog, 13.8 V transceiver output amplifiers, adapting this technology provides some clear benefits at relatively little expense. Who knows - maybe someday we'll be able to hear all that receiver performance we pay for!

◆ Gary K9AY checks in with an update of his popular [low-band receiving loop](#). "I've done a lot of analysis and experiments over the past couple years that are not yet published. Among the results is a

better understanding of the role of ground. I now recommend a few radials for all installations: a minimum of (4) and preferably (8) radials that are twice as long as the loop's footprint. If you add them to an existing system, remember that the resistor should be readjusted for deepest null."

◆ Pete N6ZE found this [online site](#) that calculates Grid Locators to ten characters and also provides the distance and bearing between them.

◆ *EDN* magazine published this [collection](#) of articles about capacitors - don't bypass it! Capacitors can be surprisingly complex and there are more types of them than ever, with each having a special set of characteristics. While you're at the *EDN* website, read this blog entry about an engineer (re)discovering [super-heterodyne image response!](#)

◆ If you need an outdoor grease that won't attract dust and grit, Mike KD5KC recommends [Super Lube](#). This silicone-based, Teflon-impregnated lubricant might be just the thing for tower winches, bearings, and other exposed uses.

◆ You think you're an *Excel*

power user? While searching for an *Excel* spreadsheet to perform FFT calculations - without using the built-in Fourier analysis capability - Brian K1LI happened onto [Excel Unusual](#), "A Blog for Applied Science, Engineering and Games in *Excel*." The list of topics applicable to ham radio is too long to repeat here, but it's a treasure trove of helpful tools.

◆ Robert Dehoney found this useful [collection](#) of downloadable graph paper images (such as Smith Charts and lin-log axes) and "cheat sheets" for algebra, trigonometry, geometry — even calculus.

◆ Check out this [cross-section of a serious cable](#) - do you think it's rated for direct burial? (Thanks, Dennis N6KI)

**Technical Web Site of the Week** - What connector is that, anyway? The wireless world has moved quite beyond the UHF/BNC/N world so Pasternak has prepared this [connector identifier chart](#). Be flummoxed no more!

## More Technical Topics and Information

(ARRL Contest Update for November 5, 2014) Getting ready for B category in Sweepstakes? Be a good neighbor and be brief when tuning up that amplifier - check your drive and output adjustments before the contest. Gary K4FMX contributes a couple of tips: "You should always tune your amp for maximum output power for whatever drive power you are using...slightly "over tuning" or (setting the) loading a little heavier than maximum output so that the output

drops slightly from maximum is ideal as the amp will not flat-top (saturate) as easily if the speech level is driven a little harder." We all know that one's voice can get a little louder during a contest for some reason! Also, "When looking at your signal with a scope...remember power is E2/R. When the voltage doubles that is an increase of four times the power."

◆ Han N2JFS reminds antenna builders that grounding a coax feed line shield anywhere between the

feed point and a choke balun will give current a path to bypass the choke and defeat its purpose.

◆ If you are looking for flooded or adhesive-lined heat shrink, Don W7WLL suggests checking with ship and fishing fleet outfitters and marine stores. This is a good reminder that high-volume consumer outlets often sell the very same products at a significantly lower cost than in specialty electronics stores. He also notes, "If you live near a port, these outfitters also

typically carry lots of other 'stuff' useful to hams such as stainless steel hardware, fixtures, tubing, cable, corrosion and washout blocking greases, etc. Many also may have qualified riggers who can proficiently create high quality replacement crankup tower cables."

◆ Delighted at finding a cool project, Dave KM3T relays a link to this [portable shortwave SDR](#). No, wait, it's a vector network analyzer! Well, whatever this device considers itself, it is described as "highly hackable." Game on!

◆ While the math might be a little stiff for non-engineering students, the University of California - Berkeley course, [Integrated Circuits for Communication](#), EECS 142/242A, covers a lot of familiar territory for hams, and in depth! (Thanks, Jim N9GTM)

◆ Remember when our computers started clocking faster than our transmitters? Well, the transist-

ors are now switching up in the terahertz (a megamegahertz) region as described by this [Gizmag story](#). I wonder how many points that will count for in the ARRL VHF+ contests? (Thanks, Dennis N6KI)

◆ *Popular Science* for November 2014 published an article about [converting an old broadcast radio](#) to listen to meteor showers - with a data recorder! The technique of listening to distant FM stations as they pop in and out from reflection off of burns is time-honored. This new method records signal bursts using Radio-Sky-Pipe II computer software.

◆ How many repair projects get tangled up in glue? If you're like me, it's pretty easy for strands of the sticky stuff to sneak off to where they aren't wanted. It always seems like they're in a visible location, doesn't it? At any rate, this *Instructables* project shows how to make [disposable nozzles](#) and put the glue

just and only where you want it!

◆ Goodbye to the last vacuum tube consumer product! Solid-state technology takes over one more ["hollow-state" niche](#) but it's not what you might think they've got cooking.

**Technical Web Site of the Week** - We have a pair of *EDN* magazine online articles to share - the first is an [interview](#) with Prof. Mark Somerville of the Olin College of Engineering. He has some interesting observations and suggestions on the state of engineering education. Some of what he suggests - hands-on experimentation, accumulating practical experience, and developing a life-long love of learning - sounds an awful lot like ham radio! The second article lists some [great reference books](#) for electronics enthusiasts - it's never too early to start that holiday present list!

## MARC Vital Statistics

Memberships Expiring in November

KB8RCR

Memberships Expiring in December

KB8TBI

N8MYS

Memberships Expiring in January

K0ACP

KD0JHX

K8RI

N8JBW

KD8OLC

Current Active Club Membership 49

Birthdays Celebrated in November/December

KD8ZKG 11/4

K6VWE 11/13

KB8UIH 11/27

WB8WNF 12/7

N8ERF 12/10

N8CGP 12/21

NX8A 12/22

Anniversaries Celebrated in November/December

KB8UIH and Shelley 12/8

W8WOJ and KD8HIF 12/12

W8PMR and KD8IWB 12/16

W8ZSX and WD8BDM 12/23

N8ERF and N8NNA 12/23

Information is from data received 2/25/2013

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