



W8KEA

MARC



MIDLAND AMATEUR RADIO CLUB  
PO BOX 1049, MIDLAND, MICHIGAN 48641  
[www.w8kea.org](http://www.w8kea.org)

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Swap Committee	Keith Johnson KB8SOE / Ch	(989) 488-4337
	Pat Mullet KC8RTW	(989) 828-6657

#### LIFE MEMBERS

Larry K8SQB (SK), Don W8WOJ, Lee KC8ITI, Dennis N8ERF, Larry N8CGP, Denny WD8BPT

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 — **No January Meeting**

Next CLUB Meeting — Thursday January 3, 2013, 7:30 PM

Salvation Army Building 330 Waldo Rd.

Talk-in 147.000+

January 2013

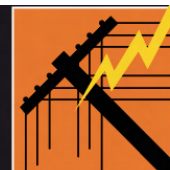
## Static Discharge

Kevin Martin, KD8QAM

Well it's another year behind us, and another great year to look forward to. Ryan KB8RCR has been looking into a spring picnic and a social gathering. It has been well received and looks like we will have another event to add to the calendar. I really enjoy seeing everyone and getting a chance to catch up on everything. Even the tall tales are fun to hear. I hope that everyone can make it out, even though the date hasn't been determined yet. We have come a long way this year, and everyone is giving the club a great effort. Thank you all for making the Midland Armateur Radio Club what it is. Without you, we wouldn't be as good as we are. Keep up the great effort.

We just had our annual Christmas party at the Lee Township Hall. Another amazing effort by Dorie N8WTQ, in getting everything ready for us. Thank you Dorie. Dell WB8FYR played his accordion for us. What a wonderful performance Del. Thank you. We all had a great time, and enjoyed all the hearty food. The highlight seemed to be the white elephant gift exchange, and

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



looking to see what ended up where. It must have been some kind of intervention for me. I ended up with a desk lamp on a mechanical arm. I may have used that more than anything else in the garage so far. I would have to call it the greatest thing since sliced bread. Thank you mystery giver.

I am looking forward to the many wonderful presentations this year. Do you have a project, or topic that hasn't been featured in a while? Would you

mind sharing it with the club? Mark KC8GRQ is always looking for presentations for the meetings.

The move for the school club from the Central Middle School to Midland High is coming along very quickly. Dennis N8ERF is leading the charge and doing a great job of getting everything in place. Dennis just arranged a tour of the Central Michigan University electrical engineering labs and a meeting with a professor. Dennis WD8BPT, John

W8QN, Lee KC8ITI, Dennis N8ERF, Andy the sponsoring teacher at MHS, and I were able to attend the tour. The classes didn't seem to have a lot of equipment, but they did have a lot of circuit modules to teach with. They were just like the snap kits that Central Middle School uses, but a little more age appropriate.

See you all at the next club meeting.

Kevin, KD8QAM

#### 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@arrrl.net

#### EXAMINATION SCHEDULE

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

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

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

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

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

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

#### SUBMISSIONS FOR NEWSLETTER

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

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

If you prefer to download the MARC newsletter from our web site, or have trouble with delivery via USPS, contact Keith, KB8SOE, at kb8soe@arrrl.net.

#### MEDIA HITS!

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

## MARC Minutes

The Midland Amateur Radio Club meeting of December 6, 2012 was called to order at 7:35 p.m. with 36 members and guests present.

The minutes for last month were published in the newsletter. There were no corrections or additions.

- Ryan, KB8RCR gave a presentation on Worked All States and the different ways to achieve this goal. Different nets where a ham could participate included OMISS, Century Club, NATA and ARRL.

- The treasurer's report was presented by W8QN.

- Our guests talked about a receiver needed for the transmitter he has. The transmitter was made by LOJAC with a frequency of 216.030. He is looking for something that can be used to find the transmitter if it gets lost, etc.

- ER/RO report—no ARES®/RACES meeting in January.

- N8WTQ talked about the Christmas Party tomorrow night. So far she has 20 people signed up.

- The Santa Parade was a success.

## Dorie French, N8WTQ

We passed out plenty of candy and a good time was had by all.

- The testing session had 5 new or upgraded hams. Congratulations to all.

- Dennis, N8ERF presented the changes to the Bylaws, most of which concern the move from Central Middle School to Midland High School of the school radio club. Denny, W8BPT stated they have a core of 9 people and almost all of them work on the air.

- Bill Albe, N8FUZ passed around an old magazine he brought back from Australia.

- Lee, KC8ITI gave information about the auction of surplus Club equipment.

- Net control: 12/13 WB8RCR, 12/20 W8QN, 12/27 KD8QAM

- The meeting adjourned with a motion by WD8BDM and second by KD8RNG at 9:20 p.m.

Respectfully submitted,

Dorie French

Secretary

## Midland Amateur Radio Club Bylaws

*Recent events concerning the fate of the Central Middle School ARC and its proposed successor has caused the Midland Amateur Radio Club to form a committee to go over the Club Bylaws with an eye toward updating them and to bring them in line with new requirements set forth by the state of Michigan. As a result, a number of amendments to the Bylaws and a structure to enable the proposed Midland High School Amateur Radio Club were presented to the club at the December meeting.*

*The Bylaw Committee consists of Kevin Martin, KD8QAM; John Wolters,*

*W8QN; Lee Hodges, KC8ITI; Dennis Caney, WD8BPT; Larry Macklin, N8CGP; Walt Kline, WB8WNF; Dennis Klipa, N8ERF.*

*Modification of the Bylaws requires that the amendments be published to the membership before a vote to pass the changes, scheduled for the meeting in January. You will find the complete Bylaws, the affected sections and the proposed changes published in an addendum in this month's Newsletter—Ed.*

## My Two Cents

## Pat Mullet, KC8RTW

Color me embarrassed. I decide to play in the ARRL Ten Meter contest, go to the trouble of installing and setting up the N3FJP Ten Meter Contest software, get it all set up to talk to my rig. I start tuning the band and lock on to a strong station in Aruba, copy down his info, hit the auto tune button and key my mike. And the power out display shows nothing . . .

Okay, back to basics, I hit the tune button again. The correct lights flash, the power display shows reduced output as it goes through the tuning cycle; everything looks right with the world. I key the mike and nothing . . .

Well, this isn't getting me anywhere, and I don't have time to troubleshoot, so I shut down the rig.

A couple of days later, I connect the rig to a dummy load key the mike, and get the same results. Okay, switch modes to AM, to give me a carrier to read. Nada. Put the tuner in the chain. I see reduced output in tune mode, no output when I key the mike. Okay, go into setup and check the power setting—hmmm, 45% power, strange. Okay, bring it back to 100%. Check the rest of the settings. Mic Gain is

0%? Why? Oh, yeah! Last time I was in the shack I was going to operate PSK-31, and to make certain no extraneous sound make it into the CW/digital section of the band, you have to either disconnect the mike or reduce the gain. Bring the gain back up, normal up the connections, and the rig works fine!

*D'oh!*

On the other hand, I purchased a TinyTrak4 APRS encoder a few months back, and I'm slowly but surely getting to the point where I can get it up and running. I found an inexpensive "mouse" style serial GPS receiver online, but it had undergone modification and arrived lacking all documentation, so it took some research to set it up for use with the TinyTrak.

After constructing the appropriate cables, I have the unit up and running, but I'm still toying with the configuration to get it working with both my HT and my laptop.

I'd like to take the opportunity to wish you all happy holidays and the best in the upcoming year.

73, Pat KC8RTW

## ARES®/RACES

## John Wolters, W8QN

There will not be an ARES®/RACES meeting on Thursday January 3<sup>rd</sup>. There will be an ARES®/RACES meeting on Thursday February 7<sup>th</sup>.

At the December meeting, we talked about our activities with Packet and the intent to move forward with the use of *FLDigi* on VHF FM. To do this each person will either have to build or buy an interface to work between the computer and radio. I will put together several circuit diagrams and get them out to the RACES members to discuss more in February. At that time, we will also talk about a build and test session to be held at a later date.

If you prefer to buy a ready-to-go interface box, there are two options that I

know of. The cheapest is the Tigertronics Signalink for approximately \$110 or one of the West Mountain Radio Rigblaster units (\$160 +). Both work so take your choice.

Once everyone has had a chance to put together a radio/computer interface we will have a training session on the software and then do some over the air testing. If you want to download *FLDigi* and play with it please do so. It is free software, and can be found online at [www.w1hky.com](http://www.w1hky.com).

Until February, have a Merry Christmas and Happy New Year.

John Wolters, W8QN

## Upcoming Events

12/31-1/1	Straight Key Night
4/20-21	Mi QSO Party
5/18	Dow Run
6/22-23	Field Day

## Michigan Hamfests

1/20	Hazel Park
2/2	Negaunee
2/17	Livonia
3/16	Marshall
4/20	Milford
6/18	Midland*
7/27	Lansing
10/5	Petoskey
10/19	Muskegon
10/20	Kalamazoo

\* Denotes date based on 2012 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.

# Amateur Radio is a Contact Sport!



## Club Auction

The following equipment that has been donated to the Midland Amateur Radio Club has been deemed surplus to the needs of the club by the executive committee. Bids will be taken on the listed equipment until 6 PM on December 31<sup>st</sup>, 2012. Bids may be placed by emailing your bid to [kc8iti@arrl.net](mailto:kc8iti@arrl.net), mailing them to me at Lee Hodges, 134 N. Homer Rd., Midland, MI 48640 or call-

ing Lee, KC8ITI at (989) 374-0032. 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.

Lee Hodges, KC8ITI - Quartermaster, Midland Amateur Radio Club

Heathkit IT-11 Capacitor Checker  
Heathkit T-3 Signal Tracer  
MFJ-202B RF Noise Bridge  
Nibbling Tool  
Micronta Transistor Tester Micronta 22-024  
Realistic Microphone Stand 33-370A  
Qual-Comp SWR Power Meter  
Adjust-a-Volt variable transformer  
Ten Tec 215 microphone  
Kenwood TS-530S Transceiver SN#4020298  
WC-528B RCA Transistor Tester  
Micronta Digital Multimeter 22-191  
Micronta VOM 22-201U  
CB-170-2 SWR meter

Kenwood BC-9 wall charger  
Alpha Delta-4 coax switch  
Daiwa CN-103 VHF/UHF Wattmeter  
Knight SWR meter  
Icom BC-77a DC car charger  
Yaesu MH-19 earphone/mic  
GE base CB  
TRC-417 CB  
TRC-30A CB  
Midland SSB CB  
Larsen 2m antenna  
Heathkit IM-25 solid state VOM  
Boman CB

## November License Session Results

The Midland Amateur Radio Club sponsored an amateur licensing examination session at the Midland Salvation Army building on Friday evening, November 30<sup>th</sup>. Of the six candidates sitting for their examinations, five left with either a new license or an upgrade. The successful candidates were: Kenneth

Williams, K1ENW-General; Audrey Gillis-Technician; John Hull, KC8RUC-General; James Curtis, KB8TBI-General; Benjamin Lanning-Technician.

The Volunteer Examiners presiding were: Dennis Klipa, N8ERF; Lee Hodges, KC8ITI; Art Peters, K0ACP; Pat Russell, KD8IVZ; John Tallman,

KB8PGW.

Planning is under way for a Spring Licensing class, followed by an attendant VE session. For more information on the class, contact Lead Instructor Lee Hodges, KC8ITI at [kc8iti@arrl.net](mailto:kc8iti@arrl.net). For more info on examinations, contact Dennis Klipa, N8ERF at [n8erf@arrl.net](mailto:n8erf@arrl.net).

## Midland High School Amateur Radio Club

Dennis Klipa, N8ERF

When the closing of the Central Middle School was announced, the hams who had been leading the Central Middle School Amateur Radio Club since 2004, primarily Denny, WD8BPT and joining him more recently, Dennis, N8ERF, decided not to let the adventure close with it. After some careful consideration, they decided move the operation to the high school level, where they could have a bigger impact on students who would

have more math and science knowledge.

In the spring of 2012, Denny and Dennis approached the Principal of Midland High School, Janet Greif, with the idea of starting an Amateur Radio club at Midland High for the high school students of Midland County. Janet Enthusiastically embraced the idea. With the support of the MPS administration, Andy Fawcett, a physics teacher at Midland High, agreed to become our faculty ad-

visor and to earn at least his General Class license!

A committee has been formed to guide this adventure forward, to figure out what needs to be done and to make it happen. The committee members are; Dennis Caney, WD8BPT; John Wolters, W8QN; Lee Hodges, KC8ITI; Larry Macklin, N8CGP; Walt Kline, WB8WNF; Kevin Martin, KD8QAM; Andy Fawcett; and Dennis Klipa,

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# It's Not Your Grandfather's Amateur Radio!

N8ERF.

At this point the committee has received tacit approval, pending final approval of a written detailed proposal, for installing a tower adjacent to Andy's classroom's where the club will conduct its activities. Equipment needs have been identified with some equipment already specified. They have begun a fund raising campaign to raise over \$25,000. Grant proposals are being written, local organizations are being approached for financial and in-kind donations and a challenge grant has been pledged, by Dr. Dennis and Jacqueline Klipa (N8ERF and N8NNA), who will match up to the first \$5,000 from private

donors.

The monies raised for this project will go to a special Fund, the MHSARC Fund, within the MARC treasury and will be used exclusively for the benefit of the Midland High School Amateur Radio Club. In order to manage this project within MARC, the committee is recommending amendments to the By-Laws, in which an Advisory Board will be established to manage the activities and monies associated with the MHSARC. While the committee was at it, they decided to recommend a number of other By-Law changes to bring them up to date. These by-law changes were discussed at the December meeting, are

printed elsewhere in this newsletter and will be voted upon at the January 3, 2013 meeting.

It has become evident that this is a significant undertaking for the amateurs in Midland County and it can have a significant impact on the youth of our community for years to come. We will need to tap into the skills and talents of a lot of amateurs in the community to give the students a rich amateur radio experience. Tax deductible donations directed to the MHSARC can be made to the Midland Amateur Radio Club, a 501(c) 3 organization, P.O. Box 1049, Midland, MI 48641.

Dennis, N8ERF

## Michigan Section News

## Larry Camp, W8BR

Greetings to the Hams of Michigan:

Here we are at the end of another year. My, the time sure goes by quickly these days. At the Holiday Season, our thoughts turn to our families, friends and neighbors and focus on the good things in life and our individual and collective wishes for the coming year to be better for everyone than the previous year. We also think of those less fortunate than we are and do what we can to help provide for them. Our thoughts also turn to those brave men and women who risk their lives to protect our country in the military forces and the police and fire departments in our communities.

I would like to pass along best wishes for the holiday season from Diane and me to you and your families. My thanks go to the Michigan family of volunteers who work so hard for amateur radio in Michigan. A special thanks to the Section Staff for their tireless efforts as well. While we have had some successes in 2012, we still have plenty of work to do in 2013.

### *PRB-1 News*

In 2012 we got really close to getting our PRB-1 bill signed into law. In the end, we just ran out of calendar and the legislative session is going to end without our bill getting onto the Senate

floor for a vote.

This was not unexpected as a result of the timing within the legislative calendar as well as some very high visibility, high priority legislation that eclipsed any opportunity for our bill to come to the top of the pile. We learned a lot, now we have been there, got the t-shirts and we are ready to begin anew in January in a fresh legislative environment.

When our 2012 bill advanced out of Committee on December 12, we decided that we needed member input to our individual Senators. We were in the proverbial "Catch 22" – We realized that most likely the end of the 2012 legislative session would work against us, but we could not afford to bet that our bill would not come up for a vote. Thus, we chose to alert our membership to generate letters to our Senators urging them to favorably consider our bill, should it come before them. I asked to be copied on the letters to Senators so as to be able to determine the response level from Michigan amateurs.

We have approximately 21,000 hams in Michigan and about 4500 ARRL members, of which about 2500 received the alert electronically. Alerts were sent out to all ARC's that are registered with the ARRL in Michigan. I received fewer than 125 copies of letters sent. If you do the math, you will see that the percent-

age of hams who responded to the call was very small. If we are to be really effective with PRB-1, we will need to do better than this. The short lead time probably had an effect on our response numbers, but this is an important issue for the hams of Michigan and we depend upon our grass roots to help us place pressure on our legislators. For those who responded to the call you have my thanks. Hopefully we can do better in 2013.

I wish to thank all who assisted in this undertaking including Ed, WA8QJE for his excellent leadership, Charlie, KB8SFR and Dale, WA8EFK for their advice and counsel. In addition, we received great support from Jay, WB8TKL; Ronnie, K4FRM; Hal, N8HAL and Raoul, W8RDR; as well as many club newsletter editors that helped to spread the word, and of course individual amateurs who distributed information within their own communities.

### *Miscellaneous Happenings*

Jeff Sell, K8OE of Big Rapids recently completed two online ARRL courses: -- Introduction to Amateur Radio Emergency Communications Course (EC-001) and Public Relations 101. Congratulations go to Jeff for his efforts!

Santa Claus will be on the air on the

# Explore the World with Amateur Radio!

W8LRC Lowell repeater, Freq 145.270 with a PL of 94.8. Also on the IRLP Node: 4635 and EchoLink Node: 87878. For all ages young and old. Santa will be checking-in with his Radio Control Elf, Dave KC8PCL, from time to time looking to talk with children and any Adult Children, about what they would like for Christmas. All the while Radar Elf, Frank N8UVI, will keep track of where Santa is, on his radar screen, delivering his presents.

### ARRL Card Checker Program

Attention Michigan hamfest committee chairpersons: You can provide a valuable service to those who attend your hamfests by making arrangements to have one of our qualified Card Checkers at your event. The only cost to your group will be providing a table for the checker to do his work. You can find information about the card checking pro-

gram at [www.arrl.org/dxcc-field-checking](http://www.arrl.org/dxcc-field-checking) and a list of Michigan card checkers at [www.arrl.org/dxcc-card-checker-search](http://www.arrl.org/dxcc-card-checker-search).

73 until next month,  
Larry, WB8R  
ARRL Michigan  
Section Manager

## Technical Topics and Information

(ARRL Contest Update—Nov 21, 2012) Frank W3LPL checked in with some solid engineering advice for antenna systems. "In the real world, receiving (or transmitting) problems are often caused by faults rather than by inadequate design. The most common problems are connectors and deteriorated coaxial cable caused by poor installation practices and moisture entry. Faults are best found through regular inspections, rather than (as many of us do) waiting for the fault to become so severe that it's obvious. A resistance measurement of your transmission line performed inside your shack takes only a few seconds and will reveal many of the most common faults. A VSWR sweep with an MFJ-259 or your favorite instrument is also very useful. VNA (vector network analyzer) and TDR (time-domain reflectometer) measurements are also very helpful if you have that capability (you should!). Keep records of your measurements so that changes will be apparent. Any change is cause for an investigation."

- Many of us use surplus 1/2-inch CATV hardline for long cables to antenna farms. Stan K5GO describes his method of attaching a PL-259 to the line - "I use about six inches of .625" OD (5/8") x .058"-wall tubing slit about 2.5 inches and four times on either end to fit over the back of the PL-259 and outer

jacket of hardline and used some hose clamps. (It) takes about ten minutes start to finish and cost is minimal. A little Penetrox, some Scotch 88, a soldered center conductor and I've not had a problem in eight years." (Thanks, Stan K5GO)

- If you need an audio mixer in the shack or elsewhere, Don W3FPR recommends the inexpensive Behringer or Xenyx 802 model. "It is a small pro-type mixer, but you can mix up to 2 stereo channels, plus 2 mono channels plus one "tape.CD" input - each with individual level controls. The output is headphone level. It (also has) faders and a three-band equalizer for each channel." Terry WA0ITP also found a website with several good mixer designs if you like rolling your own. < <http://sound.west-host.com/articles/audio-mixing.htm>>

- Use caution when using a compressed-air antenna launcher made of PVC. Grant KZ1W warns that, "...minor damage can escalate into ruptures and high-energy flying slivers and fragments...Handling damage can be concealed, cold is bad since the plastic gets brittle, and heat is bad because the pressure rating is significantly reduced. Making [the gun] from Schedule 80 PVC pipe is probably safer, since the pressure ratings are much higher (and) the fittings much stronger. Good solvent gluing is

extremely important as a 4" PVC cap on a pressure tank at 80psi has about 1000 lbs of force on it."

- In researching some old magazine articles, I stumbled on a home do-it-yourself project you just don't see much these days. The October 1924 *QST* article by 7AGI (before the days of prefixes) is titled "A 100-Foot Wooden Tower" and not much besides a saw and common hand tools was required. It was designed to hold wire antennas, not beams, and no word is given on whether it was climbable or not. The method of erection? A 40-foot gin pole!

- Recognizing that switch-mode power supplies can cause a lot of RFI, this *EDN* magazine article describes a power supply intended for use in mobile radio receivers. < <http://www.edn.com/design/power-management/4400304/Low-Noise-switching-power-supply-is-ideal-for-AM-and-FM-bands-in-automotive-radio-systems?page=1>>

- Where do you go to look up information about components and other bits of electronics, especially when you're not near your workbench library? The *Radio-Electronics* website answers a lot of those needs with this online collection of reference tables and compilations.

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# It's Not Your Grandfather's Amateur Radio!

## More Technical Topics and Information

(ARRL Contest Update—Dec 5, 2012) C-shaped screw-in electric fence insulators make neat and cheap insulator for Beverage antennas. The ends of the C overlap so the wire can be slipped into the insulator then held with a 90-degree rotation of the screw. The wire is then free to slide in the insulator. Most any farm or horse supply store should have them. (Thanks, Grant KZ1W)

- Arne N7KA recommends this explanatory website for clearing up the mystery of bearing types. <<http://www.thomasnet.com/articles/machinery-tools-supplies/bearing-types>>

- For Yagi designers, a trio of programs are available to help you with the mechanical design of the elements for survivability under wind and ice loading. *YagiStress* by Kurt K7NV <<http://k7nv.com/yagistress/>> is perhaps the

best-known of the three. Bob KØRC has converted the W6QHS (now W6NL) Lotus element taper spreadsheet to *Excel 2003* XLS format. <<http://tinyurl.com/d7m3pxn>> The spreadsheet has some new worksheets from the original and Bob's Revision 3 of an SWR charting tool is also available. Steve W3AHL recommends the \$39 DX Engineering design tool, *Yagi Mechanical*. <<http://www.dxengineering.com/parts/dxe-sof-yagimech>> Once an antenna has been designed with a constant element diameter using *EZNEC* <<http://www.ez nec.com/>> or similar modeling tools, these mechanical design tools can be used to change the element taper schedule to achieve the required mechanical properties while keeping the element resonant at the right frequency.

- To prevent vibration from loosening

the bolts holding a rotator to the tower mounting plate, Jim KØXU first installs a stud, held with *Loctite* thread locking compound and a jam nut. The protruding studs also make it easier to align the rotator with the holes in the rotator plate. A jam nut is also added to the nut below the plate. Even if the nuts come off, the rotator still can't move.

*Technical Web Site of the Week* - The December issue of the Packrat VHF *Cheese Bits* newsletter contained a detailed article about the use of multiple band scopes for VHF+ contesting. "What's All This Multiple Bandscope Stuff, Anyhow?" By Roger W3SZ is a good example of how to make good use of this new tool for testers. <<http://www.packratvhf.com/Cheese%20Bits/cheese-bits.html>>

### MARC Vital Statistics

#### Memberships Expiring in December

None

#### Memberships Expiring in January

KD8RMG

#### Memberships Expiring in February

AA8EJ

KD8MQX

KD8OLC

W8NON

WA8Y

Current Active Club Membership 47

#### Birthdays Celebrated in December/January

KC8TQV 12/1

KD8COB 12/5

WB8WNF 12/7

N8KS 12/10

N8ERF 12/10

KB8TSO 12/13

N8CGP 12/21

AB8JF 12/21

NX8A 12/22

WD8KEW 12/28

WD8KTB 12/28

WA8KJR 1/2

KD8HIF 1/6

K7GTK 1/8

KB8VNX 1/11

KD8FRH 1/12

WZ8Z 1/12

KA8HQW 1/13

N8NNA 1/14

KD8GRQ 1/19

KD8IVZ 1/20

N8KRL 1/24

AB8TJ 1/26

KD8JQY 1/28

KB8QWQ 1/29

KD8HID 1/29

#### Anniversaries Celebrated in December/January

KB8UIH and Shelley 12/8

W8WOJ and KD8HIF 12/12

KD8IVZ and KD8IWB 12/16

AB8JF and N8WTQ 12/18

KD8FQF and KD8GRQ 12/19

K7GTK and WZ8Z 12/22

KD8JQX and KD8JQY 12/23

N8ERF and N8NNA 12/23

KC8ZMQ and Karen 1/1

KA8EZT and Linda 1/2

KD8COB and Bernadette 01/25

Information is from data received 11/14/2012

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



## **BY-LAWS OF MIDLAND AMATEUR RADIO CLUB, INCORPORATED**

As Amended March 1, 2001.

We, the undersigned, hereby adopt the following By-Laws governing the conduct of this organization.

### **ARTICLE I – NAME AND PURPOSE**

1. The name of this corporation shall be the Midland Amateur Radio Club, Incorporated. The purposes of the corporation are set forth in the Article of Incorporation.

### **ARTICLE II – OBJECTIVES**

1. The objectives of the Corporation shall be:
  - a. To provide communications support for public service activities.
  - b. To provide emergency communications under the auspices of the Radio Amateur Civil Emergency Services and the Amateur Radio Emergency Services.
  - c. To conduct instructional courses designed to prepare individuals to qualify for Amateur Radio licenses.
  - d. To educate the public on amateur radio use by conducting forums and demonstrations.
  - e. Such other purposes as are stated in the Articles of Incorporation.

### **ARTICLE III – MEMBERSHIP AND PRIVILEGES**

1. Anyone who professes interest in Amateur Radio Communications, experimentation, development or design may become a member of this organization.
2. There shall be four (4) classes of membership as follows:
  - a. **LIFE MEMBER:** As voted upon by club membership at a regular or special meeting the same privileges as a Full Member
  - b. **FULL MEMBER:** Members in good standing holding a valid Amateur Radio Operator and Station License of any class.
  - c. **ASSOCIATE MEMBER:** Members in good standing not holding any class of Amateur Radio Operator License. An Associate Member, who receives his/her Amateur Radio Operator license while an Associate Member, shall be automatically raised to the status of a Full Member.
  - d. **HONORARY MEMBER:** As voted upon by club membership at a regular or special meeting.
3. Membership privileges shall be as follows:
  - a. Membership in good standing constitutes payment of dues and validity of license where it applies. Life Members are not required to pay annual dues to remain in good standing.
  - b. Life and Full Members shall have a voice on the floor, the right to vote and may hold an elective office. Members holding the Technician Class or higher and have been a member of MARC for a minimum of 12 months may hold the office of president.
  - c. Associate Members shall have a voice on the floor, but cannot vote or hold office. They may, however, be appoint to serve on committees.

- d. Members in good standing who enter the service of the United States Armed Forces shall have their membership automatically extended to expire when their service expires.
- e. Honorary Members are those persons who are recognized for their contributions to Amateur Radio with the length of membership determined at the time of voting, with the same privileges as an Associate Member.

#### ARTICLE IV – ELECTIONS AND AMENDMENTS

1. Nominations and Elections for the four (4) elective offices shall take place each September. Elections shall take place by secret ballot. Special elections may be held to replace officer(s) with prior notification to the membership as provided for in these By-Laws. Persons nominated must give their approval.
2. The voting on an amendment to these By-Laws may be conducted only if the amendment has been fully discussed at a previous meeting, authorized by a motion passed on the floor, and published in the Club Newsletter preceding the meeting on which it is to be voted upon. A new amendment shall become effective upon passing.
3. All members in good standing shall be notified by mail (and/or electronically) of all special and regular meetings and their nature not less than five (5) days nor more than fourteen (14) days prior to the meeting at which there is conducted a regular election; a special election for replacement or removal of officer(s); or the voting on an amendment to these By-Laws.
4. All members have the option to receive communications via electronically if they provide written request of this option. All communications will be made via standard mail unless the member has confirmed this option.

#### ARTICLE V – OFFICERS AND DUTIES

1. There shall be four (4) elective offices as follows: (A) President; (B) Vice-President; (C) Secretary; and (D) Treasurer.
2. The terms of all elective officers shall begin on the first day of October and end on the last day of September, twelve (12) months later.
3. The President shall preside at all meetings; see that work of all other officers is properly and timely done; serve as chairman of the executive committee; appoint temporary officers when necessary to serve until a special election can be held; appoint committees, etc. He shall vote only in case of a tie.
4. The Vice-President shall substitute for the President when necessary; be responsible for selection and promotion of a suitable program for each meeting, in coordination with the Publicity Committee and other Club officers.
5. The Secretary shall make an accurate record of the proceeding at each club meeting; read the minutes thereof to the assembled Club when directed to do so by the President and to make authorized correction of said minutes; be custodian of the records, and other documents of the organization except those specifically assigned to others; be the official Club correspondent; be the custodian of committee-proceedings; meeting attendance; properly notify all members by mail (or electronically as provided for in ARTICLE IV (4)) of all regular and special meeting as provided for in Article IV (3).
6. The Treasurer shall handle all money and keep a record of all money transactions; maintain records of Club membership, receive dues; issue receipts for dues paid; and pay out funds only on the order of this organization.

7. Officers and chairman of committees shall have a working knowledge of these By-Laws, and the Constitution, when presiding at any meeting.

#### ARTICLE VI – DUES AND MEETINGS

1. Membership dues shall be \$20.00 per year for individual membership. A family membership may be acquired for an additional \$5.00 per year. All family members of MARC Life Memberships are eligible for membership for \$5.00 per year. A family membership is limited to those residing at the same mailing address. The family shall have the option of having one copy of the newsletter mailed to their address or receive an e-mail providing a link to the Internet newsletter copy as directed by the membership.
2. There shall be at least one meeting per month, unless otherwise voted upon by the Club membership at a previous month's meeting, or cancelled due to severe weather.

#### ARTICLE VII – RESIDENT AGENT

1. The Resident Agent shall maintain the annual report to the state of Michigan; filing said report by September 25<sup>th</sup> of each year; insure this organization fulfills the requirement of Incorporation in the State of Michigan as a non-profit organization.
2. The Resident Agent is appointed by action of the Executive Committee.

#### ARTICLE VIII – CLUB LICENSES AND TRUSTEES

1. CLUB STATION (W8KEA) TRUSTEE
  - a. The club Station (W8KEA) Trustee shall be appointed by action of the Executive Committee and shall remain as such until relieved by action of the Executive Committee.
  - b. The Club Station (W8KEA) Trustee shall insure that all requirements of the Federal Communications Commission are met whenever the Club Station and/or its call sign are used in any Club sponsored event.
2. ADDITIONAL CLUB STATION LICENSES AND TRUSTEES
  - a. Additional Club Station Licenses (Emergency Services stations, etc) will be required, as deemed necessary and appropriate, by action and approval of the Executive Committee.
  - b. The Additional Club Station Trustees shall be appointed by action of the Executive Committee and shall remain as such until relieved by action of the Executive Committee.
  - c. Trustees for Additional Club Station Licenses shall insure that all requirements of the Federal Communications Commission are met whenever the Additional Club Station and/or its call sign are used in any event.

#### ARTICLE IX – EXECUTIVE COMMITTEE

1. The Executive Committee shall be composed of the following: President, Vice-President, Secretary, Treasurer, Resident Agent, and Club Station (W8KEA) Trustee.

2. The Executive Committee shall meet at least twice per calendar year and discuss the general status of this organization; reorganize committees where necessary; provide guidance for the general membership as a whole; suggest plans for future improvements of the status of Amateur Radio in the eyes of the General Public. All Executive Committee meetings shall be open to the General Membership. Minutes of the Executive Committee meeting should be published in the next Newsletter. The meeting schedule of the Executive Committee is to be at least once during the first three months following elections and at least once during the last three months prior to the September elections.

#### ARTICLE X – MEMBERSHIP LIABILITY AND COMPENSATION

1. The members of the Corporation shall not be liable for the debts or obligations of the Corporation. No officers shall receive any compensation for services rendered to the Corporation.

#### ARTICLE XI – DISSOLUTION OF THE CORPORATION

1. In the event of the dissolution or winding up of the corporation in any manner or for any reason whatsoever, its remaining assets, if any, after payment of or provisions for all liabilities of the corporation, shall be distributed as provided in the Articles of Incorporation.

Adopted November 12<sup>th</sup>, 1970 to become effective on January 1<sup>st</sup>, 1971.

WB8BRI	W8QOI	K8NIE	WA8ZZC	W8AGQ	WA8ZPU
WA8ZPV	W8JDW	WN8EDF	W8JIU	K8HGA	

Revised November 1, 1978

Revised December 6, 1979

Revised July 11, 1991

Revised March 3, 1994

Revised September 4, 1996

Revised September 2, 1999 Article VI, Article VIII, Article IX.

Revised February 1, 2001 Articles III, IV, V, and VI plus several formatting changes.

Lee Hodges, KC8ITI  
President

Bill French, AB8JF  
Vice-President

Mary Branson, KB8QYB  
Secretary

Larry Macklin, N8CGP  
Treasurer

By-Laws of the Midland Amateur Radio Club, Inc. as amended 03/01/01



## **PROPOSED CHANGES TO THE BY-LAWS**

A committee comprised of Kevin Martin, Lee Hodges, John Wolters, Walt Kline, Dennis Caney, Dennis Klipa, and Larry Macklin met in person and electronically several times to review the By-Laws as last amended on March 1, 2001. The following changes were presented and discussed at the club meeting on December 6, 2012. These changes will be voted upon at the January 3, 2013 meeting.

### **ARTICLE I – NAME AND PURPOSE, Section 1.**

#### **Old**

1. The name of this corporation shall be the Midland Amateur Radio Club, Incorporated. The purposes of the corporation are set forth in the Article of Incorporation.

#### **New**

1. The name of this corporation shall be the Midland Amateur Radio Club, Incorporated. The purposes of the corporation are set forth in the [Articles](#) of Incorporation.

### **ARTICLE III – MEMBERSHIP AND PRIVILEGES, Section 2.a.**

#### **Old**

LIFE MEMBER: As voted upon by club membership at a regular or special meeting the same privileges as a Full Member.

#### **New**

LIFE MEMBER: As voted upon by club membership at a regular or special meeting [with](#) the same privileges as a Full Member.

### **ARTICLE III – MEMBERSHIP AND PRIVILEGES, Section 3.b.**

#### **Old**

Life and Full Members shall have a voice on the floor, the right to vote and may hold an elective office. Members holding the Technician Class or higher and have been a member of MARC for a minimum of 12 months may hold the office of president.

#### **New**

Life and Full Members shall have a voice on the floor, the right to vote and may hold an elective office. [Only persons that](#) have been a member [in good standing](#) of MARC for a minimum of [2 consecutive years](#) may hold the office of president.

### **ARTICLE IV – ELECTIONS AND AMENDMENTS, Sections 3 and 4**

#### **Old**

3. All members in good standing shall be notified by mail (and/or electronically) of all special and regular meetings and their nature not less than five (5) days nor more than fourteen (14) days prior to the meeting at which there is conducted a regular election; a special election for replacement or removal of officer(s); or the voting on an amendment to these By-Laws.

4. All members have the option to receive communications via electronically if they provide written request of this option. All communications will be made via standard mail unless the member has confirmed this option.

#### **New**

3. All members in good standing shall be notified [electronically \(or by mail\)](#) of all special and regular meetings and their nature not less than five (5) days nor more than fourteen (14) days prior to the meeting at which there is conducted a regular election; a special election for replacement or removal of officer(s); or the voting on an amendment to these By-Laws.

4. All members have the option to receive communications [by mail](#) if they provide [a request of this option to the treasurer](#). All communications will be made [electronically](#) unless the member has confirmed this option.

### **ARTICLE V – OFFICERS AND DUTIES, Section 3**

#### **Old**

The President shall preside at all meetings; see that work of all other officers is properly and timely done; serve as chairman of the executive committee; appoint temporary officers when necessary to serve until a special election can be held; appoint committees, etc. He shall vote only in case of a tie.

#### **New**

The President shall preside at all meetings; see that work of all other officers is properly and timely done; serve as chairman of the executive committee; appoint temporary officers when necessary to serve until a special election can be held; appoint committees, etc. He shall vote only in case of a tie. [The President is authorized to expend club funds in an amount up to \\$200 per year, coincident with his term of office, in support of club activities without a vote of the membership in time sensitive situations where waiting for the next club meeting would not be appropriate.](#)

### **ARTICLE V – OFFICERS AND DUTIES, Section 5**

#### **Old**

The Secretary shall make an accurate record of the proceeding at each club meeting; read the minutes thereof to the assembled Club when directed to do so by the President and to make authorized correction of said minutes; be custodian of the records, and other documents of the organization except those specifically assigned to others; be the official Club correspondent; be the custodian of committee-proceedings; meeting attendance; properly notify all members by mail (or electronically as provided for in ARTICLE IV (4)) of all regular and special meeting as provided for in Article IV (3).

#### **New**

The Secretary shall make an accurate record of the proceeding at each club meeting [including meeting attendance](#); read the minutes thereof to the assembled Club when directed to do so by the President and to make authorized correction of said minutes; be custodian of the records, and other documents of the organization except those specifically assigned to others; be the official Club correspondent; be the custodian of committee-proceedings; properly notify all members [electronically \(or by mail\)](#) as provided for in ARTICLE IV (4)) of all regular and special meeting as provided for in Article IV (3).

### **ARTICLE V – OFFICERS AND DUTIES, Section 6**

#### **Old**

The Treasurer shall handle all money and keep a record of all money transactions; maintain records of Club membership, receive dues; issue receipts for dues paid; and pay out funds only on the order of this organization.

#### **New**

The Treasurer shall handle all money and keep a record of all money transactions; maintain records of Club membership, receive dues; [file annual tax report \(e.g. form 990-N\) after the annual business meeting in September](#); and pay out funds only on the order of this organization, [the Midland High School Advisory Board as prescribed in Article XII, or the President as prescribed in Article V\(3\).](#)

## **ARTICLE VII – RESIDENT AGENT, Section 1**

### **Old**

The Resident Agent shall maintain the annual report to the state of Michigan; filing said report by September 25<sup>th</sup> of each year; insure this organization fulfills the requirement of Incorporation in the State of Michigan as a non-profit organization.

### **New**

The Resident Agent shall maintain the annual report to the state of Michigan; filing said report by September 25<sup>th</sup> of each year; **ensure** this organization fulfills the requirement of Incorporation in the State of Michigan as a non-profit organization.

## **ARTICLE VIII – CLUB LICENSES AND TRUSTEES, Section 1.b.**

### **Old**

The Club Station (W8KEA) Trustee shall insure that all requirements of the Federal Communications Commission are met whenever the Club Station and/or its call sign are used in any Club sponsored event.

### **New**

The Club Station (W8KEA) Trustee shall **ensure** that all requirements of the Federal Communications Commission are met whenever the Club Station and/or its call sign are used in any Club sponsored event.

## **ARTICLE VIII – CLUB LICENSES AND TRUSTEES, Section 2.c.**

### **Old**

Trustees for Additional Club Station Licenses shall insure that all requirements of the Federal Communications Commission are met whenever the Additional Club Station and/or its call sign are used in any event.

### **New**

Trustees for Additional Club Station Licenses shall **ensure** that all requirements of the Federal Communications Commission are met whenever the Additional Club Station and/or its call sign are used in any event.

## **ARTICLE VIII – CLUB LICENSES AND TRUSTEES, Section 3.**

### **New**

**The Club Trustees, as required by the State of Michigan, shall be appointed by action of the Executive Committee and shall remain as such until relieved by action of the Executive Committee.**

## **ARTICLE IX – EXECUTIVE COMMITTEE, Section 1**

### **Old**

The Executive Committee shall be composed of the following: President, Vice-President, Secretary, Treasurer, Resident Agent, and Club Station (W8KEA) Trustee.

### **New**

The Executive Committee shall be composed of the following: President, Vice-President, Secretary, Treasurer, Resident Agent, **Club Trustees, Life Members** and Club Station (W8KEA) Trustee.

## **ARTICLE XII – MIDLAND HIGH SCHOOL AMATEUR RADIO CLUB ADVISORY BOARD**

**New**

### ARTICLE XII – MIDLAND HIGH SCHOOL AMATEUR RADIO CLUB ADVISORY BOARD

1. The Midland High School Amateur Radio Club Advisory Board, herein after referred to as the Advisory Board shall be established as a Standing Committee.
  - a. The purposes of the Advisory Board are to establish, maintain and operate, in cooperation with the Midland Public Schools, an amateur radio club for the high school students of Midland County, Michigan; to raise funds to be used to support and operate the club; to teach and mentor the students of the club in topics related to amateur radio; to spend monies designated for the club to the benefit of the club such as, but not limited to, operating stations, towers, antennas, electronic equipment, and teaching aids. The primary club will be established at Midland High School, but this should not necessarily be construed to preclude the installation of equipment in or the conducting of activities at other schools within Midland County.
  - b. The Advisory Board shall consist of five (5) members, all of whom must be Full or Life Members of the Midland Amateur Radio Club in good standing.
  - c. A member of the Advisory Board shall be elected as Chairman of the Advisory Board by the Advisory Board members by a simple majority vote.
  - d. Membership on the committee will be by nomination by the President and approval by a majority of the voting membership attending a regular meeting of the organization and shall be for a term of one (1) year.
  - e. The committee membership shall be voted upon at the same meeting at which the Club's officers are elected. In the event of a vacancy on the Advisory Board, a new member may be elected to the Advisory Board at any regular meeting by the procedure established in these By-Laws. The term of the replacement member shall coincide with the member who is being replaced.
  - f. Removal of a member from the Advisory Board shall be by either nomination by the President and approval by a majority of the voting members attending a regular meeting of the organization, by a letter of resignation from the member or by death.
2. A Fund shall be established in the Club's treasury to be used exclusively for the benefit of the Midland High School Amateur Radio Club.
  - a. Donations or other income specifically designated for the Midland High School Amateur Radio Club shall be entered into this Fund.
  - b. The Treasurer shall release funds from this Fund upon the approval of a majority of the Advisory Board.
3. In the event of the dissolution or winding up of the Midland High School Amateur Radio Club in any manner or for any reason, upon unanimous approval by the Advisory Board, the balance of the Advisory Board's Fund shall be transferred to the General Fund of the Midland Amateur Radio Club, Inc. and any remaining physical assets associated with the Midland High School Amateur Radio Club may be donated to the Midland Public Schools or be made available for the general use by the Midland Amateur Radio Club.