



W8KEA



MARCA

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

President	Kevin Martin KD8QAM	(989) 513-0100
Vice President	Mark Rodgers KC8GRQ	(517) 672-1060
Secretary	Linda Hodges KC8MUD	(989) 486-3771
Treasurer	John Wolters W8QN	(989) 832-9122
W8KEA Station Trustee	Larry Macklin N8CGP	(989) 631-7748
Midland County EC/RO	John Wolters W8QN	(989) 832-9122
Midland County AEC	Chris Rose KB8UIH	(989) 832-7179
Newsletter Editor	Pat Mullet KC8RTW	(989) 828-6657
Newsletter Publisher	Art Peters KOACP	(989) 400-3745
ARRL Liaison	John Tallman KB8PGW	(989) 859-0364
Web Page Chairman	John McDonough WB8RCR	(989) 631-0178
Club Historian	Stan Rowe K6VWE	(989) 837-7252
Quartermaster	Lee Hodges KC8ITI	(989) 486-3771
Public Information Officer	Pat Mullet KC8RTW	(989) 828-6657
Field Day Committee	Kevin Martin KD8QAM/ch	(989) 513-0100
	Pat Mullet KC8RTW	(989) 828-6657
Swap Committee	Mark Rodgers KC8GRQ/Ch	(517) 672-1060
	Pat Mullet KC8RTW	(989) 828-6657

LIFE MEMBERS

Don W8WOJ, Lee KC8ITI, Dennis N8ERF, Larry N8CGP, Denny WD8BPT, John WB8RCR

Midland County Public Service Net, Thursdays at 9 PM
W8KEA Repeater — 147.000 MHz+ PL 103.5 • W8QN Repeater — 443.325 MHz+ PL 103.5
W8KEA Digipeater — 145.090 MHz

Next ARES®/RACES Meeting — Thursday June 4, 2015, 6:00 PM
Law Enforcement Center, 2727 Rodd St.
Next CLUB Meeting — Thursday June 4, 2015, 7:30 PM
Salvation Army Building, 330 Waldo.
Talk-in 147.000+

June 2015

Static Discharge

Kevin Martin, KD8QAM

Thank you to all that volunteered for the Dow Run and the GLBR Marathon. There are still tables available for the swap meet if you would like to reserve one on June 20th. Contact Mark KC8GRQ if interested. Field Day will be held at Chippewassee park downtown near the Tridge on June 27th - 28th. If you would like to operate or just want to hang out, please stop down and see us.

73, Kevin, KD8QAM



MARC Minutes

Linda Hodges, KC8MUD

Kevin KD8QAM brought the meeting to order at 7:30 p.m. with 31 people present. A sign-in sheet was passed around and introductions were made.

Please bring any corrections or additions to the meeting minutes to the attention of the secretary.

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)

• Mark KC8GRQ gave a presentation about his Dongle Converter.

• Dow Run-John W8QN- John sent around a sign-up sheet asking for operators to help with the Midland Dow Run/Walk event taking place on May 16th. This event takes place from 7:00 a.m. to noon. Let John know if you can help.

• MS Walk-Chris KB8UIH- Chris says thank-you to all who helped for the MS Walk. There were no issues and everything ran smoothly.

• Great Lakes Bay Marathon is on May 17th. Anybody who can help with this event please contact Chris KB8UIH.

• Swap -Mark KC8GRQ- The Swap is on and the date is Sat. June 20th. The building has been approved and the date is on the ARRL website. Some jobs discussed were talk-in, ticket sales and trunk sales. \$5.00 per table and \$5.00 per ticket is the cost. Please help if you can.

• Field Day -Mark KC8GRQ- Field Day is at Chippewasee Park on June 27th-28th. Set up starts at 11:00 a.m. Everybody is invited to a Big Boy breakfast at 9:00 a.m. to socialize and discuss the weekend's activities.

NET Control:

May 14th John W8QN

May 21st Lee KC8ITI

May 28th Keith KB8SOE

Announcements:

• A request for assistance with the MS walk in Saginaw for May 9th.

• Lupton- John WB8RCR- John says the Section Outing on Sage Lake Rd. is on Saturday, July 10th, 11th and 12th. The many activities include camping, a hayride, potluck, a fox hunt and some seminars.

• Ryan KB8RCR- Ryan reminded us of the Memorial Day parade coming up.

• Cadillac Swap-Lee KC8ITI- 50 or 60 tables sold for a fun and successful day for the Cadillac Club.

• A motion made by John W8QN, Treasurer to make Larry N8CGP temporary treasurer. Seconded by John WB8RCR, passed.

• An adjournment motion made by Larry N8CGP and seconded by Dorie N8WTQ. The meeting ended at 8:00 p.m.

Respectfully submitted
by Linda KC8MUD
MARC Secretary

My Two Cents

Much to my chagrin, time spent dealing with real life cut into my operating time last month. I wasn't able to do more than check into a couple of nets. Of course, my daily perusal of the propagation applet on QRZ.com made it look as if I wasn't missing much, with conditions being fair to poor across the bands much of the time.

I was able to listen to a few small segments of both the Dow Run/Walk and the GLB Marathon

Pat Mullet, KC8RTW

nets this last weekend. Both seemed to run smoothly, with more requests for assistance being passed along during the marathon than the Dow Run.

Next up on the Club's calendar of events is the Midland Swap, Saturday, June 20th. I'm going to have to get busy and see about organizing a ride. I don't want to miss this year's event.

The next weekend is Field Day. I plan on operating "one-delta"

Amateur Radio is a Contact Sport!

again this year, and have a couple of things I need to take care of before then. Most notably, I need to wire up a computer headset adapter for my Icom IC-718. It should make things a bit more comfortable in the long run.

Speaking of Field Day and contesting, the *Hints & Kinks* column in the June 2015 issue of *QST* (p. 67) notes that many of the Icom radios, including the SATERN van's IC-7000, come equipped with internal digital voice recorders capable of making and playing back recording four 90 second messages. This a

useful function in contests enabling one to record your call, your exchange and your section in separate messages and play back as needed, saving your voice for fighting the pile-ups. The article shows how to construct a simple "keyboard" that allows you to trigger the playbacks without having to endlessly futz with the control head. This might be a project for someone in the club to tackle somewhere down the road.

Well, I think that about wraps it up for this month. Hope to hear you on the air.

73, Pat, KC8RTW

ARES®/RACES John Wolters, W8QN

There will be an ARES®/RACES meeting at the LEC on Thursday June 4th. We will talk about coverage during my absence, John McDonough and Dennis Klipa's ComL training at Dayton, and continue with

FLDIGI. If you have a laptop with speakers and a microphone, bring it. I will have the software available on a memory stick.

John, W8QN

Dow Run Review

I want to thank the people listed below for their assistance in the Dow Run. The weather was cloudy and a little warm but there were no incidents and everything went off like clockwork. Everyone was on site by 7:30 and we were all gone by 11 am. Thank you for your assistance.

Dave Wallick, N8LBF; Dorie French, N8WTQ; Mike Linton, N8XPS; Emmett Bengry, NE8B;

Michael Dougherty, KD8MMH; Keith Johnson, KB8SOE; Kevin Cuthbertson, KD8QXL; Robert Winchester, W8LSS; Sharon Winchester, WD8AXR; Larry Macklin, N8CGP; Chris Rose, KB8UIH; Lee Hodges, KC8ITI; Linda Hodges, KC8MUD; Dennis Caney, WD8BPT and Mark Rodgers, KC8GRQ.

John, W8QN

Amateur License Exams Offered at Hamfest

As part of its' annual Hamfest, The Midland Amateur Radio Club will be conducting an Amateur Radio License Testing Session on Saturday, June 20th, 2015 at the Salvation Army Building, 330 Waldo Rd., Midland, Michigan. Registration will begin at 9:30 am, with testing beginning at 10:00 am. Walk-ins are welcome.

Candidates will need to bring two pieces of identification, pencils, and photocopies of any cur-

rent licenses. Calculators are allowed. The test fee is \$15.00. Checks should be made out to AR-RL/VEC.

The team will be administering tests for all classes of license—Technician, General and Extra. Those interested in earning their licenses or upgrading should note that learning Morse code is no longer a requirement.

Contact Dennis Klipa, N8ERF, for more information. You may

Upcoming Events

6/27-28 Field Day
7/10-12 Lupton

Michigan Hamfests

6/6 Hudsonville
6/7 Chelsea
6/13 Newberry
6/20 Midland
6/21 Monroe
7/18 Shelby Township
7/25 Lansing
8/1 Escanaba
8/16 Port Huron
9/19 Shelby Township
9/20 Adrian
10/3 Wyoming
10/17 Muskegon
10/18 Kalamazoo
10/25 Madison Heights
12/6 Mount Clemens

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.

email Dennis at n8erf@arrl.net.
Please note that anyone wishing

to sit for their exam will not be charged an entry fee to the Hamfest.

If you wish to attend the Hamfest proper, there is a \$5.00 entry fee.

Volunteers Needed for Hamfest

This year's swap is now right around the corner. It will be at the Salvation Army Building, 330 Waldo Ave. in the city of Midland on Saturday, June 20th. Doors will open to the public at 8:00 am and

we will open to vendors at 6:30 am. We still have open tables for vendors that wish to join us.

Volunteers are needed for Friday setup and strike after the doors close. And, of course, as-

sistance will be needed Saturday during the event. If you'd like to volunteer, contact Mark, KC8GRQ.

Field Day on the Horizon

It's official! MARC will be returning to Chippewassee Park for Field Day this year.

The Committee will need volunteers to help set up and tear down, as well as those willing to volunteer to operate or bring their gear to help in the cause. Because we'll be in such a public place this year, we expect more in the way of foot traffic in and around the site. Volunteers will be needed to help show folks around and explain things, as well as

make certain no one gets into trouble by grabbing the wrong wire. If you'd like to help out, contact Kevin, KD8QAM. And don't forget our traditional pot luck dinner Saturday night!

In 2014, 2686 clubs and groups across the US and Canada submitted score-sheets to the ARRL, who sanctions and conducts the exercise. These logs recorded participation by 37,428 individuals all over the world--over 1.29 million two-way contacts were re-

ported during the all-too-short 24-hours of the event. Last year, MARC made 358 contacts and received a score of 2,148, working as a 5A (five radios, emergency power.) With any luck, the bands will be in better shape this year so our score should be a bit more impressive.

You may consult the flyer appearing in this newsletter for times and directions, and of course, talk-in will be on the 147.000 MHz repeater.

ARES[®] Manual Updated

(ARES E-Letter—May 20, 2015) The week following Dayton Hamvention will see the release of the new and updated ARES[®] Manual. The ARES[®] Manual and NTS Manual have together long been part of a single publication, The Public Service Communications Manual. The two manuals will now be separate publications.

NTS leadership is currently reviewing and preparing to update the NTS Manual.

The new ARES[®] Manual includes several new additions - inclusion of ICS forms 213, 205, and 214 for ARES[®] use; an expanded discussion on training resources; clarification on the role and purpose of RACES; and cop-

ies of all current ARRL MOUs. The update is the first in over two decades and was a collaborative effort of field organization leaders, federal partners, and ARRL staff. The new manual will be made available online as a downloadable PDF.

Radio Amateur Sworn In as New NASA Deputy Administrator

(ARRLWeb—05/19/2015) Massachusetts Institute of Technology (MIT) professor Dava Newman, KB1HIK, has been sworn in as the deputy administrator of NASA. President Barack Obama appointed Newman last October, and the US Senate confirmed her appointment on April 27. The swearing-in took place on

May 15 in her MIT office in Cambridge. Newman is Apollo Professor of Astronautics and Engineering Systems and the director of the Technology and Policy Program at MIT. She started her official duties as NASA's new deputy administrator on May 18 at the agency's headquarters in Washington, DC.

"I'm very excited to be at NASA," said Newman. "I'm looking forward to being a part of the agency's work to expand humanity's reach into space, advance our journey to Mars and strengthen America's leadership here at home."

NASA Administrator Charles Bolden, ex-KE4IQB, said he's

It's Not Your Grandfather's
Amateur Radio!

long admired Newman. “Her talents and skills as an educator and technological innovator will bring a new energy to our NASA leadership team, and I’m ecstatic to have her on board,” he said.

Newman had been on the MIT faculty since 1993. Her research has included modeling human

performance in low and micro-gravity conditions, examining the dynamics and control of astronaut motion, and the development of assisted walking devices for the physically handicapped. Possibly her most prominent project has been the development of the Bio-Suit, a skintight spacesuit that

would give astronauts unprecedented comfort and freedom in exploration of planetary surfaces and extra-vehicular activity.

An avid sailor, Newman has circumnavigated the globe. — *Thanks to MIT and to NASA*

AMSAT to Roll Out Updated Edition of Getting Started with Amateur Satellites

(ARRLWeb—04/30/2015) The 2015 edition of *Getting Started with Amateur Satellites* by Gould Smith, WA4SXM, will be available from AMSAT at Dayton Hamvention. This latest edition will discuss how to get ready for the Fox-1 satellites, set to launch later this year. Additional chapters will talk about tracking software, orbital mechanics, antennas, radios, Doppler tuning, and operating techniques.

Other new chapters will review the new satellites soon becoming available for Amateur Radio. It also

will provide a complete reference for new satellite users to assemble a basic station and to make their first satellite contacts as well as how hams can incrementally upgrade an initial FM satellite station to include automated tracking and for operation via the CW/SSB linear-passband satellites. A companion Fox-1A reference sheet is also being planned for release at Dayton.

AMSAT’s [Getting Started with the FM Satellites](#) is now available for download from the AMSAT website. AMSAT Director of Field Operations Patrick Stoddard,

WD9EWK, said the FieldOps team is working to make information on how to operate on the satellites more readily available on the web.

Written by Stoddard, “Getting Started with the FM Satellites” outlines the basic equipment and techniques needed to operate successfully on the satellites. The guide offers specific information on how to operate via SO-50, the only currently available FM satellite. A [Spanish version](#) is also available. — *Thanks to AMSAT News Service*

US Navy-Marine Corps MARS Program to End

[UPDATED 2015-05-14 1219 UTC] The US Department of Defense (DoD) is phasing out the [US Navy-Marine Corps Military Auxiliary Radio System](#) (MARS) program. Its operational mission will transition to the other MARS service branches by the end of September. The head of the US Navy-Marine Corps MARS program in Williamsburg, Virginia, made the announcement. The Navy-Marine Corps MARS program also supports the US Coast Guard as well as the Federal Emergency Management Agency, the US Department of Homeland Security, and local emergency management agencies. A US Department of Defense-sponsored program, MARS branches are separately managed by their respective military service branches.

MARS volunteers are Amateur Radio operators who provide auxiliary or emergency communications to local, national, and international emergency and safety organizations, as an adjunct to normal communications.

“Naval Computer and Telecommunications Area Master Station Atlantic (NCTAMS LANT) intends to work with US Army MARS and US Air Force MARS in transitioning the Navy-Marine Corps MARS (NAVMARCOR-MARS) program by 30 Sep 2015,” the announcement said. “The intent of the transition is to best align the program to support national mission requirements.” Chris Jensen of NCTAMS LANT told ARRL that the Navy no longer has any service specific requirements for Navy-Marine Corps

MARS and is working within DoD to transition the program into Army and Air Force MARS. “We will continue to publish updates as this transition progresses,” he said.

The announcement encouraged current Navy-Marine Corps MARS members and clubs to submit applications to the US Army MARS or US Air Force MARS programs as soon as possible.

“The US Navy greatly appreciates the thousands of MARS volunteers, past and present, who have been integral to the success of MARS,” the announcement concluded.

One individual who is very familiar with the MARS program said the change was not unexpected and came to a head as the US Strategic Command embraced Army MARS as the lead branch

Explore the World with Amateur Radio!

for contingency communication and Air Force MARS began partnering with the US Army program on the operations side.

"The Army and Air Force MARS branches have an obvious role in providing contingency communications for the 50 states," said the individual, who preferred not to be cited by name. "Members are everywhere 'on the ground,' and experience in Afghanistan and Iraq has proven the tactical usefulness of HF on land. There was no similar role for the landlocked membership of Navy-Marine Corps

MARS."

He said the MARS program can use all the volunteers it can attract and hopes the Navy-Marine Corp MARS volunteers will join one of the other MARS branches.

Army MARS Program Manager Paul English, WD8DBY, echoed those sentiments. "Navy leadership will continue to stay engaged with the MARS services to support the DoD quarterly exercises and other training missions and requirements as they are identified," English said. "Both Army and Air Force leadership is com-

mitted to making the transition process from the Navy MARS program as smooth as possible. Navy volunteers in good standing will transition as full members; they will not have to start over."

"We understand this will be an emotional time for Navy members to decide if they want to continue supporting the MARS program," English added. "We value the service they contributed to the Navy and invite them to continue to serve in either the Army or Air Force MARS programs."

Technical Topics and Information

(ARRL Contest Update—April 22, 2015) You might think that the big multi-multi stations have serious receiver front-end protection problems and you would be right. But where else will you find a lot of power coming back down the feed line from another transmitter? How about Field Day? Craig K9CT recommends this web page on [antenna coupling](#) from W8JI. Perhaps some protection is in order to save those fragile components?

◆ For big antenna installations, many station builders prefer a heavy-duty, self-aligning bearing to take the load off the rotator and ease the job of maintenance. Stan K5GO recommended these [flange bearings](#) as doing a good job for him. (Similar units are available from [WB0W.com](#).) He also reminds us to leave a little room in the diameter - a 2" galvanized mast requires a 2-1/16" bearing to fit cleanly - and to add a muffler clamp just above the bearing as a little insurance against set screw failure. Shaft collars also remove the need to rely on set screws. If you do use the set screws, be sure they are stainless steel to avoid rusting, since most bearings of this type are specified for indoor use. (Thanks also, Gerald K5GW)

◆ While on the subject of bearings and clamps atop your tower, Jon W4ABC notes that

Oatey makes a roofing flange (14052 Master Flash) that can easily be configured to fit around your mast, just above the bearing. It's widely available online and in home improvement and plumbing stores. A similar part is the [Fernco 1056-62 flexible coupling](#) recommended by JD KF5U.

◆ I don't expect us to have 160 meter antennas in the form of wrist-watches any time soon but science marches on. Here's a [news item](#) on how electromagnetic innovation places antennas right on a chip. (Thanks, Roger K8RI)

◆ Updated [antenna comparison tables](#) from VE7BQH have been uploaded to the website of Lance W7GJ, just in time for the summer roving season. (Thanks, Lance W7GJ)

◆ Here's a [list](#) of about 10 small receive antennas, with links to information on each type. (Thanks, Mike WØBTU)

◆ What kind of wire do you need for radials? With a big station and lots of 160 meter activity, Frank W3LPL has considered lots of options. "In most soils mechanical durability is the only consideration for long term durability of copper wire, but out of sight out of mind can be a big problem for radial systems in at least two cases.

"Galvanic corrosion will damage a buried radial system if electrical currents flow from the

shield of your coaxial cable into your radial system. Of course, small diameter wire will fail more quickly than heavier wire. This is not a trivial consideration because in many installations the buried radial system has significantly lower ground resistance than any other ground in your home or in your station. You can determine if this is a problem in your installation by using a milliammeter (or a common VOM) to check for shield current.

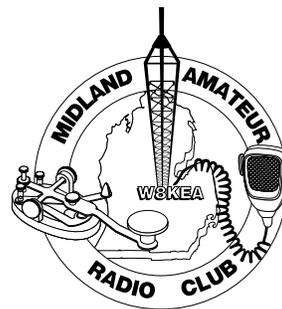
"Corrosive soils may also damage a buried radial system. Fortunately most soils are not corrosive for copper but there are important exceptions, some examples are:

- soils with large quantities of organic matter,
- poorly drained soils such as wetlands,
- soils with a history of heavy agricultural use with farm animals or fertilizer, and
- soils containing materials such as cinders or cinder blocks."

Technical Web Site of the Week - This [video](#) from Icom is an excellent demonstration of the effect from phase noise of internal oscillators creating reciprocal mixing. Transmit signal cleanliness has become the new frontier of transceiver design and it's about time! (Thanks, Scott KØDQ)

Michigan Hamfest Weekend
June 20, Midland / June 21, Monroe

Midland Amateur Radio Club



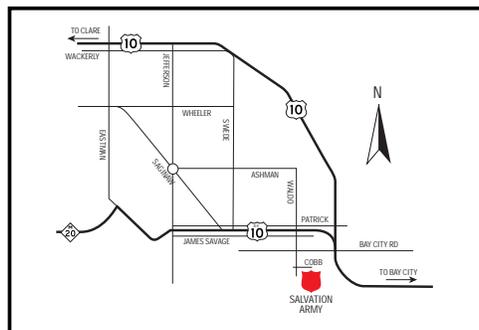
June 20, 2015
Salvation Army Building
330 Waldo Ave.
Midland, Mi

Set-Up at 6:30 AM
Show Runs 8:00 AM - Noon

Admission \$5.00
Tables \$5.00
Trunk Sales \$5.00

Featuring:

- FCC Exam
- New & Used Amateur Radio Equipment
- Parts, Coax & Connectors
- Large Selection of Vacuum Tubes
- Seminars/Demos
- Refreshments



An ARRL
Sanctioned
Hamfest

Talk-in: 147.00 MHz - Midland Repeater
For More Information & Reservations Mail

MARC Hamfest, PO Box 1049, Midland, MI 48642
or Contact

Mark Rodgers, KC8GRQ at (517) 672-1060 email: kc8grq@yahoo.com

2015 ARRL FIELD DAY

HAM RADIO

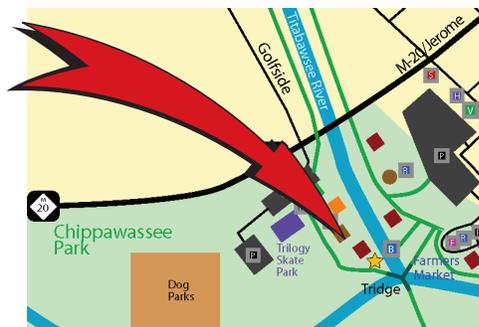
The most popular on-the-air operating event in Amateur Radio. Gear up and get in on the action!

**Participate in your local
ARRL Field Day June 27-28, 2015
All are Invited!**

The Midland Amateur Radio Club
will be operating Field Day at
Chipawassee Park from
2:00 pm Saturday, June 27 until
11:00 am Sunday, June 28.

Come see
Amateur Radio in Action!

Join the Fun!
We'll even help you Get On the Air!



www.arrl.org/FieldDay

More Technical Topics and Information

(ARRL Contest Update—May 6, 2015) Measuring RF power/signal strength accurately is a non-trivial undertaking. Mike N8MSA strongly recommends this Keysight (nee Agilent nee Hewlett-Packard) [tutorial](#) or this older, more detailed [treatment](#). Both cover the complexity caused by different modulation types, bandwidths, onset rise-time and numerous other factors.

◆ A sky full of CubeSats? There will be if [Planet Labs](#) gets enough funding to fulfill its dream of taking one full-Earth snapshot every day! (Thanks, John WV8H)

◆ Every time we turn around there is a new technique to do something in your own lab which previously required special machines and techniques. Here's an [EE Times](#) story about alternative ways to do

your own PCB fabrication.

◆ Repurposing champ, Charlie NØTT found a great method of cable control. "I use plastic guttering from the local home center for use as a wiring/cable tray. I homebrewed some brackets to attach it to the back of my desk then cut access holes I wanted with a hole saw/drill."

◆ [Transparent aluminum](#)? Unfortunately, it's not electrically conductive or the whole issue of antenna restrictions would have been rendered moot! "What antenna?"

◆ Brian N9ADG found a one-dollar [add-on clip to fix that RJ-45 connector](#) with the broken-off tab that allows your microphone to fall out of the rig and under the passenger seat where you can't reach it and have to pull all the way over to the shoulder to get it and then you can't

merge back on to the highway and wind up late! Wait, what was I talking about?

Technical Websites of the Week - Glenn WØGJ spotted this article about [disturbances in the upper atmosphere](#) resulting from the recent earthquake in Nepal. Does this imply a mechanism for short-term propagation caused by quakes? On the Sun, [nano-flares](#) can stir things up and add heat to the corona - like it needs to be any hotter - resulting in changes in our upper atmosphere, too. Elsewhere, the *Daily Mail* takes the pulse of O' Sol with an [article](#) about two-year cycles inside the Sun driving big solar storms. Big cycles, little cycles - as long as they make sunspots, who cares?

MARC Vital Statistics

Memberships Expiring in May

KB8SOE
KC8MUD

N8LBF
WA8LQD

Memberships Expiring in June

KD8HID
KD8MMH
KD8QXL
KD8ULA

N8KRL
WA8KJR
WA8Y
WB8FYR

WD8ODG
KA8HQW
WD8SDX

Memberships Expiring in July

W8ZSX

WD8BDM

Current Active Club Membership 49

Birthdays Celebrated in May/June

KD8QAM 5/5
KC8MUD 5/19
WD8AXR 5/25

WD8SDX 5/27
W8LSS 6/2
K8RI 6/16

KB8VSS 6/21
WD8ODG 6/30
KD8MMH 6/30

Anniversaries Celebrated in May/June

KD8OLC and Lori 5/14
KB8QWQ and Kate 5/16
N8CGP and N8KRL 6/5
WA8LQD and Kathy 6/16

N8STF and Mary 6/16
W8LSS and WD8AXR 6/19
NX8A and Kristina 6/24
K8VFO and Mayumi 6/27

KD8HID and ??? 6/28
AA8EJ and Beverly 6/28

Information is from data received 4/22/2015

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