



MIDLAND AMATEUR RADIO CLUB
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www.w8kea.org

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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 — Thursday August 1, 2013, 6:00pm, LEC, 2727 Rodd St.
Next CLUB Meeting — Thursday August 1, 2013, 7:30 PM
Salvation Army Building 330 Waldo Rd.
Talk-in 147.000+

August 2013

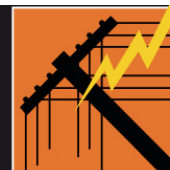
Static Discharge

Kevin Martin, KD8QAM

Everyone did a great job this year for our club's entry for Field Day. With only a few hiccups, overall it was a success. There was quite a number of new visitors who stopped in to see what was going on. From asking around, there didn't seem to be a lot of contacts made like years past. I hope it was just a slow event this year and not the location. Everybody seemed to like the move to Chippewassee Park.

The nice weather has given more opportunities to get outside and complete some projects. I now have a used truck, and have been doing some modifications to it. I just installed a mobile rig, a Yaesu FT-857D. It's piped in to a magnet mount with a 2 meter antenna. I am having trouble learning a lot of the menus and functions. It's a lot more radio than I need right now, but I need to learn it. I would like to move up to mobile HF after I am comfortable with it. I have a G5RV antenna ready to go into the trees next to the house, just waiting for a cooler day.

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



I hope everybody is getting their summer projects completed. The yard

work can be very distracting.
Hope to see you all at the next meet-

ing.

Kevin, KD8QAM

MARC Minutes

There was no July meeting due to the Independence Day holiday. Minutes

for the August meeting will appear in the next newsletter.

-Ed

Dorie French, N8WTQ

My Two Cents

Well, Field Day has come and gone for another year, and I think this year's

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@arri.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, KB8GUS at k8gus@arri.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.arri.org/arrivec/exam-search.phtml?State=MI>

SUBMISSIONS FOR NEWSLETTER

Contact Pat Mullet, KC8RTW at kc8rtw@arri.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@arri.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@arri.net) or Kevin (cherryredirocz@sbcglobal.net)

MARC effort was a good one. I certainly enjoyed it until the heat and humidity got to me and I had to call an early end to my participation. We seemed to have a lot of foot traffic and the visitors seemed to be genuinely interested in what we were doing. The club members who participated seemed to be having a good time, and of course, everyone who showed up for dinner enjoyed Dorie, N8WTQ's efforts in organizing yet another fine meal.

I worked 40 meter phone, and found a high noise floor on the band. I was able to work everyone I heard—including W3AO, who operated 29A this year—but unfortunately, no matter how many times I scanned the band, I was only hearing the same two-dozen or so stations.

On July 1st, I got confirmation that my Worked All States application had been confirmed, and I received my certificate in the mail later that week. Now, my goal is to start working toward 5BWAS while building my DXCC count. I guess I'll be working the State QSO parties on multiple bands in the future. Too bad I managed to miss the IARU contest last weekend.

I'm still working with the beta test group for Scott Davis, N3FJP's *Amateur Contact Log 4.0*. For all intents and purposes, the upgrade is complete, but work goes on in tackling the niggling little bugs that inevitably pop up in such a project. The program is chock-full of features; when you type in a call sign, you have the option of having the program look up and automatically fill in the relevant fields either from databases downloaded from the FCC and its Canadian equivalent, disk based databases, or online sources such as QRZ.com or Buckmaster's subscription based services or the free HamQTH online call book.

The program interfaces with rigs that feature computer control, reading frequency and mode and automatically filling in the appropriate spots. *ACLog* can tie into and display DX Spotting cluster information on the bottom part of the form; double-click on a desired call-sign or entity shown on the form, and the program resets the radio to the new frequency and mode.

If you do online QSLing, *ACLog* makes working with both Logbook of the World and eQSL fast and easy, allowing you to upload individual QSOs, a range of QSOs or your entire log. A click of the mouse button checks to see if any new verifications have come in, downloads the information and then logs it.

In addition, the program has built-in, programmable voice and CW macros for use in contesting and is capable of being networked to other computers running the program, same as his *Field Day Log* program. In the future, all of Scott's programs will have that capability, including the *Michigan QSO Party Log* software that's been used by club members in the past.

Trial versions of Scott's programs can be downloaded at n3fjp.com, and while all are fully functional, they are limited to the number of entries that can be logged. If you decide you like the program, you can pay the low fee and receive the password to unlock the program. Once you purchase the program, you get unlimited support and lifetime free upgrades. For a higher fee, you can get Scott's entire library of contest software. Each program purchased is prorated towards the cost of the library. By the time you purchase a few of the programs, you have earned the rights to the entire library.

Check out the software, I'm sure

Amateur Radio is a Contact Sport!

you'll like it.

Well, that's enough for this month.
Hope to hear you on the air.

73, Pat, KC8RTW

ARES®/RACES John Wolters, W8QN

There was no July meeting due to the Independence Day holiday. The August meeting will be held at 6:00pm, August

1st, at the Law Enforcement Center, 2727 Rodd St.
-Ed

Huge Tracking Dish to Become Available for EME

(ARRLWeb, 07/09/2013)—The InfoAge Science History Museum in Wall Township, New Jersey, plans to make a 60 foot tracking dish antenna available to hams for moonbounce, secondary to its function as a radiotelescope. It was on the InfoAge site, then part of Fort Monmouth, that the US Army's "Project Diana" team in 1946 first received radio signals bounced from the moon. According to InfoAge's Martin Flynn, W2RWJ, Daniel Marlow, K2QM, an InfoAge board member who teaches physics at Princeton, wants to use the dish, currently under rehabilitation after being dormant since the 1970s, to pursue radio astronomy for instructional purposes. Marlow's primary goal is to restore the TLM-18 dish antenna to working order and use it to see the 21 centimeter radiation from the Milky Way. But he also wants to observe radio pulsars, and since that activity can be per-

formed at 70 centimeters, the TLM-18 will be made available to the Amateur Radio community for EME at 432 MHz on a secondary basis. The dish, adjacent to the Ocean Monmouth Amateur Radio Club's (OMARC) N2MO at InfoAge, offers a gain of 35 dBi at 465 MHz. Project Diana occupied the building housing N2MO, Flynn noted. The after-effects of Hurricane Sandy continue to hinder the dish rehab project; power on the InfoAge campus remains out since the storm last year, and the facility is running on generator power. "It has slowed down the efforts at putting the TLM-18 back into service but has not stopped them," Flynn said, noting that OMARC members have been behind the project from Day One. It's hoped the dish will be ready for service next year. —
Thanks to InfoAge and Martin Flynn, W2RWJ

Prepping for Brownouts and Blackouts

(ARES E-Letter, July 15, 2013)—The heat is rising across the country. The high demands for electricity to keep cool are increasing the risk of areas experiencing blackouts or brownouts. Brownouts typically occur during heat waves due to heavy equipment coming online, short circuits, or electrical companies decreasing voltage in order to meet the needs of peak time. Blackouts occur when it is a complete power outage and can last from hours to weeks.

It's important that you take action now and prepare for the next time service interruptions occur in your area. Because the length of a power outage can vary from a few hours to several days, you

need to plan to get by without utilities for at least three days. Not sure how to prepare? FEMA is here to help.

Use FEMA's "Going Off Grid: Utility Outages" activity module to reference simple steps to get prepared for an outage. Some utility outage checklist items include:

- Document important phone numbers and vital power company information

- Locate and label your utility shutoffs

- Follow energy conservation measures to keep the use of electricity as low as possible, which can help power companies avoid imposing rolling blackouts

Upcoming Events

9/21 MARC Picnic

Michigan Hamfests

7/20	Utica
7/27	Lansing
8/3	Escanaba
8/4	Port Huron
8/24	Owosso
9/7	Wyoming
9/15	Adrian
9/21	Utica
10/5	Petoskey
10/6	Madison Heights
10/19	Muskegon
10/20	Kalamazoo
12/8	Harrison Township

* 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
Tri County RN; Wed 146.72 Mhz, 2100 ET
Canadian Lks, Wed, 146.8, 2100 ET
Edmore, Th, 146.8, 2000 ET
MARC; Th, 147.00 MHz, 2100 ET
District 3 ARPSC; Su, 145.31 MHz, 1830 ET
Mi VHF Trffc Net; MWF, 145.15 MHz, 0900 ET
TMMTN; Mon-Sat, 147.30 MHz, 2130 ET
MACS; Sun-Sat, 3953 kHz 1100 ET
MIARPSC; Su, 3932 kHz, 17:00 ET
UPN; Sun-Sat, 3920 KHz, 17:00 ET
MITN; Sun-Sat, 3952 kHz, 1800 ET
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.

· Have your disaster kit ready and stocked

The "Going Off Grid: Utility Outages" activity module is part of FEMA's "Preparedness Activities for Communities

Everywhere" tools, which educate individuals about relatively easy steps to take to become prepared for all types of hazards. The tools are designed for anyone to use in coordination with local emergency

preparedness partners to help better prepare for emergencies. For additional tips on blackouts visit: <http://www.ready.gov/blackouts>.

Lightning Strikes - Stay Safe

(ARES E-Letter, July 15, 2013)—Thunderstorms are dangerous due to lightning. Although lightning fatalities have decreased over the past 30 years, lightning continues to be one of the top three storm-related killers in the United States. Most lightning deaths and injuries occur when people are caught outdoors in the summer months in the afternoon and evening. Although most lightning victims survive, people struck by lightning often report a variety of long-term, debilitating symptoms. Be smart this summer to help

reduce your risks. Below are a few tips to start:

- Postpone outdoor activities when a storm is being forecasted.
- Unplug electronic equipment before the storms begin.
- Remember the 30/30 Lightning Safety Rule: The first "30" represents 30 seconds. If the time between when you see the flash and hear the thunder is 30 seconds or less, the lightning is close enough to hit you.
- During a storm, use your NOAA

Weather Radio for updates from local officials.

- Avoid contact with any metal - tractors, motorcycles, bicycles, and golf clubs.
- Avoid contact with plumbing. Do not wash your hands, do not take a shower or wash dishes and do not laundry. Plumbing and bathroom fixtures can conduct electricity.

For more tips and helpful information visit: <http://www.ready.gov/thunderstorms-lightning>.

Emergency Managers Industry Group Awards Hams

(ARES E-Letter, July 15, 2013)—Broadband-Hamnet™ (formerly HSMM-Mesh™) firmware, developed by Amateur Radio operators to provide hams with a high-speed digital wireless communication mesh network, has won both US and global awards from the International Association of Emergency Managers (IAEM). The USA Council of the IAEM designated Broadband Hamnet as a Division 2 (state/regional/national government, international, or nonprofit organization) Technology and Innovation Award winner. It went on to win the IAEM-Global Tech-

nology and Innovation Award in the same division. The awards will be presented in October at the IAEM's annual conference in Reno, Nevada. The firmware was the subject of a cover story article in the July 2013 issue of QST, "A Broadband Ham Network Crosses the Finish Line," by Lynn Jelinski, AG4IU. The firmware is available at no charge via the project website, which describes Broadband-Hamnet as "a high-speed, self-discovering, self-configuring, fault-tolerant, wireless computer network" with very low power consumption and a focus on emergency

communication. The current form uses Linksys WRT54G/GL/GS wireless routers and operates on channels 1-6 of the 2.4 GHz ISM band, which overlaps with the upper portion of the 13 centimeter Amateur Radio band. Glenn Currie, KD5MFW, David Rivenburg, AD5OO, Bob Morgan, WB5AOH, and Rick Kirchhof, NG5V, spearhead the effort, and there is a distributed development community with users in the US and abroad. -- Thanks to Broadband-Hamnet webmaster Jim Kinter, K5KTF

HAARP Facility Shuts Down

(ARRLWeb, 07/15/2013)—The High Frequency Active Auroral Research Program (HAARP) — a subject of fascination for many hams and the target of conspiracy theorists and anti-government activists — has closed down. HAARP's program manager, Dr James Keeney at Kirtland Air Force Base in New Mexico, told ARRL that the sprawling 35-acre ionospheric research facility in remote Gakona, Alaska, has been shuttered since early May.

"Currently the site is abandoned," he said. "It comes down to money. We don't have any." Keeney said no one is on site, access roads are blocked, buildings are chained and the power turned off. HAARP's website through the University

of Alaska no longer is available; Keeney said the program can't afford to pay for the service. "Everything is in secure mode," he said, adding that it will stay that way at least for another 4 to 6 weeks. In the meantime a new prime contractor will be coming on board to run the government owned-contractor operated (GOCO) facility.

HAARP put the world on notice two years ago that it would be shutting down and did not submit a budget request for FY 15, Keeney said, "but no one paid any attention." Now, he says, they're complaining. "People came unglued," Keeney said, noting that he's already had inquiries from Congress. Universities that depended upon HAARP research grants also

are upset, he said.

The only bright spot on HAARP's horizon right now is that the Defense Advanced Research Projects Agency (DARPA) is expected on site as a client to finish up some research this fall and winter. DARPA has nearly \$8.8 million in its FY 14 budget plan to research "physical aspects of natural phenomena such as magnetospheric sub-storms, fire, lightning and geo-physical phenomena."

The proximate cause of HAARP's early May shutdown was less fiscal than environmental, Keeney said. As he explained it, the diesel generators on site no longer pass Clean Air Act muster. Repairing them to meet EPA standards will run \$800,000. Beyond that, he said, it costs

\$300,000 a month just to keep the facility open and \$500,000 to run it at full capacity for 10 days.

Jointly funded by the US Air Force Research Laboratory and the US Naval Research Laboratory, HAARP is an ionospheric research facility. Its best-known apparatus is its 3.6 MW HF (approximately 3 to 10 MHz) ionospheric research instrument (IRI), feeding an extensive system of 180 gain antennas and used to “excite” sections of the ionosphere. Other onsite equipment is used to evaluate the effects.

Larry Ledlow, N1TX, of Fairbanks, Alaska, said HAARP ionosonde and riometer data have been “invaluable, especially being more or less local, to understand current conditions in the high latitudes.” He said data from other sites “simply do not accurately reflect the

unique propagation we endure here.”

To fill the gap, Ledlow said, several members of the Arctic Amateur Radio Club — including Eric Nichols, KL7AJ, author of *Radio Science* for the Radio Amateur and articles in *QST* — have discussed building their own instruments. “It’s all very preliminary,” he said, “but we really feel the pinch losing HAARP.” Nichols, of North Pole, Alaska, has conducted experiments at HAARP. He called the shutdown “a great loss to interior Alaska hams and many others.”

The ultra-high power facility long has intrigued hams, even outside of Alaska. In 1997, HAARP transmitted test signals on HF (3.4 MHz and 6.99 MHz) and solicited reports from hams and short-wave listeners in the “Lower 48” to determine how well the HAARP transmissions could be heard to the south. In 2007

HAARP succeeded in bouncing a 40 meter signal off the moon. Earlier this year, HAARP scientists successfully produced a sustained high-density plasma cloud in Earth’s upper atmosphere.

As things stand, the Air Force has possession for now, but if no other agency steps forward to take over HAARP, the unique facility will be dismantled, Keeney said. He pointed out that it would cost less to bulldoze the antenna field than it would to replace the 180 antennas.

Splashy web postings abound, blaming HAARP for controlling the weather — most recently in the case of Hurricane Sandy and the spate of tornados — and for causing other natural disasters. Quipped Keeney, “If I actually could affect the weather, I’d keep it open.”

ARRL Urges Denial of Petition to Permit Encryption of Some Emergency Communications

(ARRLWeb, 07/08/2013)—The ARRL is calling on the FCC to deny a Petition for Rule Making (RM-11699) seeking to permit the encryption of certain amateur communications during emergency operations or related training exercises. Don Rolph, AB1PH, of E Walpole, Massachusetts, petitioned the Commission in March to suggest an additional exception to §97.113, which currently prohibits “messages encoded for the purpose of obscuring their meaning.”

“While Mr Rolph has concisely stated his argument, it is ARRL’s considered view that there is no factual or legal basis for the assumption that encryption of transmissions...is necessary in order to continue and enhance the utility of Amateur Radio emergency and disaster relief communications,” the League said in its comments, filed today with the FCC. The ARRL also turned away Rolph’s assertion that the current prohibition in §97.113 “has impacted the relationship of Amateur Radio volunteers and served agencies and significantly limited the effectiveness of amateurs in supporting emergency communications.” The League said it’s unaware of any

evidence that served agencies have been reluctant to utilize Amateur Radio as part of their emergency or disaster relief communications plans because of the encryption restrictions in Part 97. The Amateur Service rule is based on a similar prohibition in international telecommunication law, the ARRL noted.

The League characterized as “erroneous” and “unfounded” Rolph’s assumption that encryption of certain information may be required under the provisions of HIPAA — the Health Insurance Portability and Accountability Act. “This mistaken assumption leads to the conclusion that the inability of Amateur Radio operators to encrypt the content of their transmissions in order to obscure the meaning of the transmissions renders Amateur Radio less (and decreasingly) useful to served agencies than it would be if encryption of those transmissions was permitted,” the ARRL said. The League also said it was unaware of any instance in which state statutes have been cited by any served agency or group as a reason not to employ Amateur Radio for emergency communication.

Radio amateurs, the ARRL countered, are not “covered entities” under HIPAA, which applies only to health care providers, health plans and health care clearinghouses. And, the League added, there is no expectation of privacy in Amateur Radio communications.

The ARRL said it’s not possible to determine the validity of the claim “that health care agencies subject to HIPAA are or might be unwilling or reluctant to utilize Amateur Radio in emergency communications and disaster relief planning” because of any lack of privacy inherent in Amateur Radio. “Permitting encryption might remedy the concern as a practical matter, if the concern exists,” the League continued, but “the complete dearth of even anecdotal evidence of the existence of that concern” makes it impossible to justify the proposed rule change on that basis.

“It is extremely important to insure that Amateur Radio remains useful to served disaster relief and emergency communications agencies, which include health care facilities,” the League stressed. “It is just as important to insure that regulatory impediments to that vo-

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lunteer work be minimized to the extent consistent with the nature of the Amateur Radio Service." Amateur Radio's utility to served agencies in supporting emergency communication, the ARRL continued, "is high indeed, and is at the present time unfettered by the inability to encrypt transmissions."

However, the ARRL said that should

it become necessary in the future for radio amateurs to protect the privacy of individuals whose medical data may be transmitted by Amateur Radio during or after an emergency or disaster, "the Commission may be asked to revisit this matter."

"It is urgent that Amateur Radio continue to be an essential component of

disaster and emergency communications planning," and that served agencies, including medical facilities, perceive the utility of Amateur Radio as unhindered by regulations that prohibit encryption, the League emphasized.

More than 200 comments were filed on RM-11699, most of them tending to support the ARRL's arguments.

Technical Topics and Information

(ARRL Contest Update, June 19, 2013) — With all the summer travel coming up, what about transporting batteries by air? Here are some notes from veteran traveler, John K7HV, who frequently travels with radio equipment and batteries. "As far as traveling on airliners, gel-cell batteries are permitted if they are labeled "non-spillable" in conformance with the international IATA/ICAO regs. All gel-cell batteries I own are labeled as such and some have a sticker referencing the IATA and ICAO regulations and the text "Not Restricted for Transport". They do not have to be associated with wheelchairs." Other rules apply to wet cells but those are rarely transported by air. "Loose lithium batteries are restricted to carry-on only and may not be larger than 100 W-hr (about 7 Ah for a 12 V battery, to be conservative). Lithium batteries installed inside a

device like a laptop or cordless drill are permitted to be checked if there are precautions taken to keep the devices from turning on." If you do need to put gel-cells in checked luggage, John recommends:

- Install and tape the terminal covers.
- Print the battery data sheet and highlight compliance notices.
- Protect the battery in some padding and place it inside a plastic bag with the data sheet.
- Cutting plastic tubing with a hacksaw leaves a pretty rough edge. Your editor's neighbor, Eugene Ohmes, passed along this tip: slip a dowel or solid rod into the tubing for support and you can use the regular tubing cutter with a sharpened wheel. This leaves a smooth, even edge every time!
- Mike VE3GFN says, "This is the

neatest idea to come down the pike in a long time! Sure wish I had a pair of these smart tweezers, back when I was doing my repairs of electronic instruments." <<http://www.smarttweezers.com/?gclid=CPvAyoic0LcCFaYW-Mgod3hsA4Q>>

• If you are interested in an inexpensive design for tri-band 144/222/432 MHz cubical quad antenna for roving or portable VHF/UHF operation, Dave K8CC recommends this design by Wayne N6NB. Several of these are in use around Southern California. <<http://commfaculty.fullerton.edu/woverbeck/vhfquad.htm>>

• Lance W7GJ reports that he has just published the latest version of the popular VE7BQH VHF+ Antenna Comparison Charts. <<http://www.bigskyspaces.com/w7gj/6mTable.htm>>

More Technical Topics and Information

(ARRL Contest Update, July 3, 2013)—Long-time readers and station builders will recognize the name Polypaser as a provider of both quality EMC products and technical literature. Polypaser is today part of the Protection Group that offers other familiar brands. The technical literature is still there - just click the Knowledge Base tab and browse to what you need.

Word to The Wise

Searching old issues of the Contest Update is easy if you use the site: function of Google's search engine. For example, to find more than a half-dozen tips and tricks for working with copperweld, enter "copperweld site:arrrl.org/contest-update-issues" into the search window. Yes, this searches the

older Contester's Rate Sheet issues, too!

• All it takes is a minute's inattention when band-changing or a little irrational exuberance when calling a rare multiplier and a bandpass filter section is toast! Field repairs hinge on having exactly the right part on hand to repair the damaged filter - usually a precision capacitor. You can't just throw in any old 0.01 μ F ceramic and expect it to work! Before the next contest, open up your filters and record the exact part values, then obtain a spare set of whatever you think you might need to effect repair. Bear in mind that matched components are often needed for symmetrical filter sections that act the same regardless of the direction of power flow. (Thanks, Steve N2IC)

• While trying out my own advice for site-specific searching (see Word to the Wise above), I stumbled upon this gem at just the right time of year for antenna builders. Copperweld Rasslin' -- is there anything that strikes quicker terror into the hearts of hams? ("Just shinny up that mast," comes to mind, but I digress.) The ability of the stuff to stay coiled is legendary and has ambushed many a wire-hanger. Tom NU7J contributed the following idea for getting it straight right off the spool. "The trick is to build a straightening die. Drive eight 4-inch nails into a plank so that the nails hold the spool in place. Four nails guide the inside of the spool and four guide the outside. I used a 2x8 that's approximately five feet long and heavy enough to prevent the board from sliding when you

pull the wire through the die. Drive three additional nails into the plank so that the wire coming off the spool is fed through the nails in an "S" pattern (opposing the natural curve of the wire -- Ed). The first nail should be four inches from the spool. The second nail is 1-7/8 inches from the first, and offset 3/8 inches. The third nail is 3-3/4 inches from and in line with the first nail. Hold one end of the wire firmly and steadily pull the wire from the spool through the nail pattern. It also helps to hold one foot on the end of the board, when pulling the wire. The resulting straight wire is a pleasure to work with."

• Mike VE3GFN went out with the Oakville, Ontario club, VE3HB, and learned a few new things, such as how to get antennas into trees. "One of their members has a huge model helicopter and flew our antenna lines up over 100-foot trees, so we had great elevation for our dipoles and such. Sure put my sling-shot to shame!" See VA3MW's QRZ.com

web page and you can see the helicopter in question, in the air, showing a trailing line, and the weight he uses, complete with red ribbon for visibility.

• What's Joe K1JT been up to lately? A recent memo from Joe to users of his WSJT-X software in development brings us up to date. "For those with transceivers that can support it, the maximum displayed bandwidth has been increased from 1 kHz to 5 kHz. My TS-2000 is a good example of this capability: it works well at 4 kHz bandwidth. That's enough so that I can set the dial frequency to 14.076 and see essentially all the 20m activity on both JT65 and JT9. (Joe has also posted an example of the resulting waterfall display - Ed.) My plan is to allow the operator to choose JT9 or JT65 decoding, or both. If you choose both, all messages will appear on screen. The mode will be indicated with a single-character flag, or perhaps a distinct color,

or some such scheme. If you double-click on a JT9 message, you'll transmit JT9. If it's a JT65 message, you'll transmit JT65." Joe observes also that, "JT9 has essentially the same (actually about 2 dB better) sensitivity, while requiring less than 10% of the bandwidth. That means ten times as many stations will fit into each kHz of spectrum!" Thanks, John W9SE <http://www.physics.princeton.edu/pulsar/K1JT/wsjsx_1.1a.png>

Technical Web Site of the Week - We have all heard plenty about the makers and the DIY movement. How about the "fixers" and FIY (Fix It Yourself)? Hams are plenty flexible and resourceful, particularly as concerns repairs and "making do". This Wired article hits the nail on the head, so to speak, ending with the never-truer observation, "We started off upgrading a machine -- and wound up upgrading ourselves." (Thanks, Tom K1KI) <http://www.wired.com/opinion/2013/06/qq_thompson/>

MARC Vital Statistics

Memberships Expiring in July

KC8IHB

KD8MRB

Memberships Expiring in August

KB8QYB

KC0CJC

Memberships Expiring in September

KD8TCH

Current Active Club Membership 48

Birthdays Celebrated in July/August

KB8RCR 7/2
KG8YG 7/6
K8RRB 7/8
KA8ORL 7/11
WB8RCR 7/21
KD8DWX 7/21
N8LMS 7/27

W8OKN 7/30
N8XD 8/1
KB8QWO 8/3
KB8QYB 8/9
N8LBF 8/17
WD8BPT 8/18
W8JB 8/23

KD8MRB 8/24
WB8FYR 8/24
KD8IWB 8/27
N8DHF 8/29
KD8EUR 8/31

Anniversaries Celebrated in July/August

KC8RTU and Brenda 07/20
W8AWS and Delores 07/20
KD8MQX and Emily 7/20
KB8TBI and Margie8/8

WB8FYR and WD8ODG 8/13
KA0KPP and Gail 08/19
W8JB and NT8Y 08/21

Information is from data received 5/17/2013

Any corrections or questions contact John, W8QN

Amateur Radio. . . We Do That!



Pat Mullet
Newsletter Editor
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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 _____
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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