W8KEA MARC

SPECIAL SERVICES CLUB

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

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Quartermaster	Lee Hodges KC8ITI	(989) 486-3771
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	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 August 7, 2014, 6:00 PM
Law Enforcement Center, 2727 Rodd St.
Next CLUB Meeting — Thursday August 7, 2014, 7:30 PM
Salvation Army Building, 330 Waldo.
Talk-in 147.000+

August 2014

Static Discharge

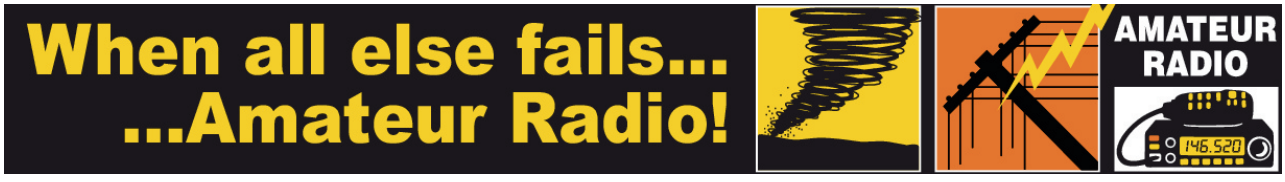
Kevin Martin, KD8QAM

Summer is starting to wind down and the biggest events for the club are done. It was great to see everyone who came out to support the swap and Field Day. It seemed as though we received a few more visitors this year. I think that everyone would have liked to make more contacts than they did. If I remember correctly we had three hams that stuck it out through the night. Thank you everyone who helped out. A special thank you goes to Dorie, N8WTQ for cooking the turkey for us all.

If you would like to be included in the club's periodic emails, make sure that you get your correct email address to Bob, W8LSS at rwinches@charter.net

I am having trouble finding time to finish all my summer projects—from landscaping to painting to a few antennas. I hope you are having better luck than I am. Hope to see you at the next meeting.

Kevin KD8QAM



My Two Cents

Pat Mullet, KC8RTW

In comparison to the last several weeks, last week's propagation has plummeted. The Solar Flux has dropped from near 200 to around 83, and it seems as if everything above 20 and 17 meters has simply shut down. Add to that the ARRL Centennial QSO Party's "bye" week after the Fourth of July, and I figured it was time to get on my horse and send out the QSL cards to the contact I need confirmation from to qualify for the DXCC award. I've worked the requisite 100 DX "entities"—in fact, at this time I've worked 103—but I only have confirmation of 70 of these through the ARRL's Logbook of the World, so it's time to revert to "old school" and send out hard copy requests.

First, I had to compile a list of stations I'd worked but from which I hadn't received confirmation. Logging software made this a simple "search" then "cut 'n paste" process—I sorted my log by confirmation, highlighted the entries I needed to send QSLs to, copied the entire list to the clipboard then pasted it into a spreadsheet. Voilà! I'd hate to have to do that with a paper log!

Next up, determine who will or won't QSL, and by what means: direct mail, via bureau or via LoTW, ad if they use a QSL manager. So, I take the spread sheet and pull up my browser and point it to QRZ.com. Running a callsign search there yields the information I need, including the fact that a number of stations have indicated they use LoTW, but I haven't gotten a nibble from them when I check my LoTW account. Go figure! Anyway, I open up a new column on my spreadsheet and again, "cut 'n paste" the information into my list. Any entries that indicate they won't QSL at all are deleted, leaving me with roughly 60 stations to which I need to send cards.

Looking at the list, I see that six stations either have US-based QSL managers, are US-based hams who operated outside the country, so I use my logging program to print out QSO strips—adhesive labels with time, date mode and frequency of the contact—and address labels. Labels are applied to cards, SASEs and cards are slipped into envelopes and we wait for the postman to pick 'em up. Now back to the rest.

Back to the list. It's a mish-mash ways to request a QSL card. Direct mail, SASE's, "green stamps," IRCs, "BURO"—what a headache. Finally, I decide to take advantage of one of the perks of ARRL membership and dump the details in the League's Outgoing QSL Bureau's lap. Members can, for a small fee (which is lower than the cost of postage) send their presorted cards to the Outgoing Bureau where they are packed with other members' cards and bulk shipped to other countries' Incoming QSL Bureaus. So, it's back to the printer where I print out my cards and QSO strips, add the callsigns of the various QSL mangers to the back of the cards and sort them according to the Bureau's guidelines. For a total of $8.00 plus the cost of postage and supplies, my cards are on their way, and I can sit back and wait for the cards to come rolling in.

I hope.

Anyway, here's hoping that HF conditions improve again, and I hope to hear you on the air.

73, Pat, KC8RTW

MARC MEETINGS

Art Peters, K0ACP, 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 Art at (989) 400-3745, or via e-mail: k0acp@arrl.net

COMMUNICATIONS

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

EXAMINATION SCHEDULE

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

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

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

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

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

The address listed below gives testing sessions scheduled for Michigan. http://www.arrl.org/arrlvec/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 Keith, KB8SOE, at kb8soe@arrl.net.

MEDIA HITS!

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

Midland HS ARC Tower Party

On July 10th Dave Wallick, N8LBF, Chuck Cribley, WA8LQD, Lee Hodges, KC8ITI and Dennis Klipa, N8ERF met at Midland High School to do some tower maintenance. This spring

Amateur Radio is a Contact Sport!

we had noticed a couple of nuts and a bolt at the base of the tower. A little later in the spring the tower was lowered and many of the bolts were found to be loose. The culprit was the use of lock washers on the tower section couplings without flat washers. Every bolt in which the split in the lock washer was aligned with the tower leg, was still tight. Presumably the loose ones had the split more perpendicular to the tower leg and, due to the small radius of the upper sections, did not compress enough to perform their intended function.

The purpose of this tower party was to add flat washers to every bolt and to secure the nuts with Loctite Thread Locker, the non-permanent version. That part of the project went well and we were done in just over an hour.

However, while lowering the tower the antenna did not want to level out like it normally did. There was some binding somewhere which eventually released, but it was not clear what the holdup was. After finishing the bolt project we raised the tower back in place and went up to the classroom shack to check everything out. On the antenna controller we had an error message that said Antenna Cable Open 1. A call to SteppIR revealed that it meant that one or more of the motor control cables was open. Chuck and Dave had to leave so Lee and Dennis went back out and lowered the tower. This time the antenna leveled out without difficulty. However, we found that the SteppIR Control Cable and the flexible coax jumper to the SteppIR had become snagged on the top plate of the tower and the thrust bearing bolts. As a result, the control cable to the SteppIR junction box had been stretched and at least three of the wires were broken AND the two plugs that terminate that cable had been pulled from their sockets!

We proceeded to cut off about 2 inches of the control cable, one lead at a time, and reconnected the lines to the connectors. We then tested all of the leads and everything seemed to be OK. We reassembled the junction box and raised the tower. However, back up in the shack we had the same error message. It was now after 5:00 pm so we decided to come back again today, Friday, July 11th. When we arrived at the school, the key card would not work and the school was closed down, so we could not get to the controller or the new tower support stand that Klipa made to support the tower when it is tilted over, so we used one of the short step ladders to perform that function.

We checked all of the connections, removed the junction box circuit board and inspected it from broken traces and back connections. Everything looked perfect. All of the motor wire pairs showed the appropriate resistance. We connected everything and went back to the remote driver board mounted on the bulkhead plate and check the motor wire pairs for resistance and everything looked good there. The only thing that we THINK we found was that connectors had been inserted backwards. This would have caused the error message. We had inserted and removed those connectors several times so we are not sure if they were inserted incorrectly or not last night when we were still getting the error problem. We are not going to know if the problem is solved or if we still have a problem until we get back into the school on Monday.

On a related note, Klipa and Purtill delivered the two sets of storage shelves to Room 323 at the high school, on Thursday morning.

Best Regards,
Dennis Klipa, N8ERF

Amateur Radio is a Contact Sport!

Upcoming Events

9/20	MARC Picnic

Michigan Hamfests

7/26	Lansing
7/26	Shelby Township
8/2	Escanaba
8/3	Port Huron
9/13	Wyoming
9/14	Adrian
10/18	Muskegon
10/19	Kalamazoo
10/26	Madison Heights
12/7	Harrison Township

* Denotes date based on 2013 event

Area Nets

SVARA; Mn, 147.24 MHz, 2100 ET
Gladwin; Tu, 147.18 MHz, 2000 ET
BAARC; Tu, 145.31 MHz, 2100 ET
Isabella Co EOC 146.72 Mhz, 1900 ET
Canadian Lks, Wed,146.8, 2100 ET
Edmore, Th, 146.8, 2000 ET
MARC; Th, 147.00 MHz, 2100 ET
District 3 ARPSC; Su, 145.31 MHz, 1830 ET
Mi VHF Trffc Net; MWF, 145.15 MHz, 0900 ET
TMMTN; Mon-Sat, 147.30 MHz, 2130 ET
MACS; Sun-Sat, 3953 kHz 1100 ET
MIARPSC; Su, 3932 kHz, 17:00 ET
UPN; Sun-Sat, 3920 KHz, 17:00 ET
MITN; Sun-Sat, 3952 kHz, 1800 ET
QMN; Sun-Fri, 3563 kHz, 1830 & 2200 ET
WSSBN, 3932 kHz, 1900 ET
UP-ARES; Fr, 3932 kHz, 1930 ET
GLETN; Sun-Sat, 3932 kHz, 2030 ET
SEMTN; Sun-Sat, 145.33, 2215 ET
MiDTN - 1900 local Tu, Th, Sat 3.583
+waterfall, Oivia 8/500

MARC MERCHANDISE

T-Shirt	S- XL	$10
	2X - 3X	$12
Long-Sleeve Tee	S- XL	$12
	2X - 3X	$15
Crew Sweatshirt	S- XL	$18
	2X - 3X	$20
Hoodie	S- XL	$24
	2X - 3X	$26
Zipper Hoodie	S- 3X	$30
Winter Coat	S- XL	$42
	2X - 3X	$45
Spring Jacket	S- XL	$32
	2X - 3X	$35
Hat		$10

All garments are royal blue with white print and embroidered name and number. Extended sizes available.

Please call Bill Lee at B&C Sportswear with questions @ (989) 839-4537.

June 25th VE Session

Dennis Klipa, N8ERF

We held a VE Session on June 25th at Midland High School.

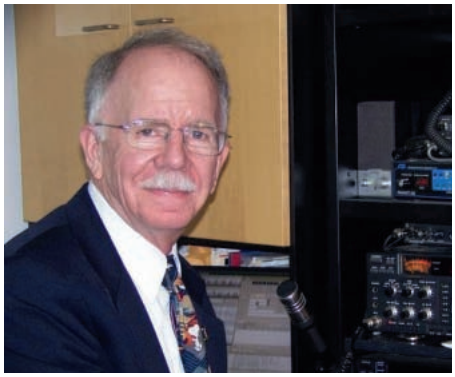
All three candidates were successful. Brent Gilbert, KD8YGF, upgraded to Extra; Zach Purtill, MHS ARC President, KD8ULE, upgraded to General and Jordan "Bilbo" Schreier, KD8ZAP, passed the Technician exam.

Zach and Bilbo are both members of the Midland High School Amateur Radio Club.

The VEs were: Dennis Klipa, N8ERF, VE Liaison; Lee Hodges, KC8ITI and Art Peters, K0ACP.

Best Regards,
Dennis, N8ERF

ARRL Great Lakes Division Leadership Changes



(ARRLWeb—07/07/2014) ARRL Great Lakes Division Director Jim Weaver, K8JE, has announced his retirement from the ARRL Board of Directors, effective at noon EDT on July 7. Great Lakes Division Vice Director Dale Williams, WA8EFK, of Dundee, Michigan, is the Division's new Director. The Great Lakes Division is made up of Ohio, Michigan, and Kentucky.

ARRL President Kay Craigie, N3KN, has appointed W. Thomas "Tom" Delaney, W8WTD, of Cincinnati, Ohio, to fill the resulting Vice Director vacancy. Both Williams and Delaney will attend the ARRL National Centennial Convention and the July ARRL Board of Directors' meeting following the convention in Hartford, Connecticut.

Weaver, who lives in Mason, Ohio, had served as the League's Great Lakes Division Director since January 2003. He was a member of the Programs & Services and CEO Candidate Screening committees. He continues to hold several Field Organization appointments in Ohio, including Official Observer and Public Information Officer.

Williams had been Great Lakes Division Vice Director since January 2012. He previously served as ARRL Michigan Section Manager — from 1992 until 1997, and from 2003 until 2011.

Delaney, the new Vice Director, was a Public Information Officer for about a decade. He is active on the Queen City Emergency Net and belongs to several clubs in Cincinnati. Active in public service work, Delaney is also the volunteer chairman of the Communications Committee for Disaster Services at the Cincinnati Area Chapter of the American Red Cross.

House Bill Would Require FCC Action on CC&Rs

(ARRLWeb—06/26/2014) A bill with bipartisan support has been introduced in the US House of Representatives that calls on the FCC to apply the "reasonable accommodation" three-part test of the PRB-1 federal pre-emption policy to private land-use restrictions. HR.4969, the "Amateur Radio Parity Act of 2014" was introduced on June 25 at the request of the ARRL, which worked with House staffers to draft the proposed legislation. The bill's sponsor is Rep Adam Kinzinger (R-IL). It has initial co-sponsorship from Rep Joe Courtney (D-CT). If the measure passes the 113th Congress, it would require the FCC, within 120 days of the Bill's passage, to amend the Part 97 Amateur Service rules to apply PRB-1 coverage to include homeowners' association regulations and deed restrictions, often referred to as "covenants, conditions, and restrictions" (CC&Rs). Presently, PRB-1 only applies to state and local zoning laws and ordinances.

"There is a strong federal interest in the effective performance of Amateur Radio stations established at the residences of licensees," the bill states. "Such stations have been shown to be frequently and increasingly precluded by unreasonable private land-use restrictions, including restrictive covenants."

The 11-page PRB-1 FCC Memorandum Opinion and Order is codified at § 97.15(b) in the FCC Amateur Service rules, giving the regulation the same effect as a federal statute. In short, PRB-1 states that local governments cannot preclude Amateur Radio communications; they must "reasonably accommodate" amateur operations, and the state and local regulations must be the minimum practicable regulation to accomplish a legitimate governmental interest. Subject to those guidelines, municipalities may still establish regulations with respect to height, safety, and aesthetic concerns.

For 28 years, FCC regulations have "prohibited the application to Amateur Radio stations of state and local regulations that preclude

or fail to reasonably accommodate Amateur Service communications," the bill points out, "or that do not constitute the minimum practicable regulation to accomplish a legitimate state or local purpose." Since PRB-1 was enacted, the FCC has said several times that it would prefer to have some guidance from Congress before extending the policy to private land-use regulations.

HR.4969 has been referred to the House Energy and Commerce Committee. Rep Greg Walden, W7EQI (R-OR), chairs that panel's Communications and Technology Subcommittee, which will consider the measure.

ARRL Hudson Division Director Mike Lisenco, N2YBB, is a principal advocate for the current legislative initiative to gain PRB-1 recognition for CC&Rs. Lisenco said the most urgent task now is to get additional co-sponsors to sign onto HR.4969.

Michigan Section News — Larry Camp, WB8R

Greetings to the Hams of Michigan:

Welcome to the second half of 2014 and I hope that you and your family had an enjoyable and safe Independence Day. Likewise, I hope all had a great Field Day. Be sure to send in your entry to make sure that we have all the data from as many FD operations as possible. BTW, now is the time to critique your club's FD to make notes of what went well and more importantly what went not so well. This is the time to fix any problems so that your group is ready for next year's event or more importantly ready for an emergency situation where you may need to set up quickly and operate from the field.

ARRL Centennial QSO Party

Dennis Ward, KT8X has taken the reigns of the Michigan W1AW/8 program with able assistance from Tom Bosscher, K8TB. The following information from KT8X will explain how this will work for the fall event for the MI Section:

W1AW/8 is coming back to Michigan!

Following in the footsteps of the successful February operation coordinated by AA8R, I have the distinct privilege to coordinate the second Michigan operation of W1AW/8. This is an opportunity for all Michigan Amateurs to operate from their own station using this special ARRL Centennial callsign.

Operation starts at 0000Z on October 15, 2014 and ends at 2359Z on October 21, 2014. Each Operation/Operator may sign up for as many 2hour slots as they wish. Available modes are CW, SSB, RTTY, & PSK31. Amateurs from around the world will be using our schedule to determine when they can work us.

This operation is meant to be fun, and to showcase our great state. However, like any other organized operation, there are some guidelines for everyone to follow.

To sign up, each operator must agree to the following:

• No paper logs are accepted, only electronic logs in ADIF format using a prescribed naming index within 24 hours of completing your slot(s)

• Sign up for operating slots is online only

• Each operator must only operate for those times/band slots which they have reserved, do not run over your time even if there's a pile up! If the next slot is open, take a break, reserve the next slot, and start again.

Manage your pile-ups and have fun!

Tom, K8TB, is managing a website where there will be information to assist the operators. There's a link to the online schedule here as well. This is a work in progress, so check back often: www.k8tb.org/w1aw.htm

In order to obtain a login, please email Dennis, KT8X, at dward8@gmail.com. In the email subject please indicate W1AW/8 Login Request and provide the following information in your email:

Call
First and Last Name
Phone Number where you can be reached while you are operating W1AW/8
Email address
QTH (Town/City & County)
Grid Square (ENxx)

I will do my best to respond in 24 hours with a password you can use to login, log instructions, and link to our W1AW/8 Operators Facebook group. You will also be subscribed to an email listserv we will use to communicate with everyone.

Last but not least, a big thank you to Sam, K8SN, for setting up the N2IW scheduling software.

Dennis, KT8X

Michigan Section Family Outing

The 16th annual Michigan Section Family Outing for 2014 is now in the books as another successful event. The turnout was great, the weather generally cooperative and the company outstanding!

Many thanks go to all who worked so hard to make this event a success and to all who attended to add their presence to the formula for success. Special thanks go to our guest speakers, Randy Williams, KD8MOK from MPSCS and to Don Bouffard from MSP Emergency Management Homeland Security Division. Both gentlemen did an excellent job and the presentations were very much enjoyed by all.

We are already working on the 2015 event and we are looking for a

person to work with Jay, WB8TKL to learn the ropes and to take charge of the event. There is not a huge amount of work to it, but rather just knowing what needs to be done and finding the right people/methods to get it done. This is where Jay comes in as his experience with the Section Outing is vast. He and his bride Mary Anne have been running the show for many years and it is time to pass the torch. If this interests you, please contact Jay at wb8tkl@arrl.net.

73 until next month,

Larry Camp, WB8R
Section Manager
ARRL Michigan Section

Broadband-Hamnet Greatly Expands its Usefulness, Adds 5.8 GHz Support

(ARES E-Letter —July 16, 2014) Broadband-Hamnet is proud to announce a new firmware release, an update to the original Linksys WRT54G/GL/GS gear, and for the Ubiquiti firmware originally released for the 2.4GHz ham band this past February. With this release, Broadband-Hamnet now supports the Ubiquiti M5-series hardware, giving hams use of the 5.8 GHz band for mesh networking. Among the release's many new features are the ability to easily connect collocated nodes into clusters and to span the mesh across both ham bands. For more information and to download the firmware, please visit http://www.broadband-hamnet.org. — Jim Kinter, K5KTF, Webmaster, Broadband-Hamnet

Technical Topics and Information

(ARRL Contest Update—July 2, 2014) Larry WØQE recommends RG-400/U for coaxial cable connections inside amplifiers where larger cable might not fit. It's about .200" diameter, PTFE dielectric, stranded (silver plated copper) center conductor, braid (silver plated copper) outer conductor, reasonably flexible, takes extreme heat and no problem with legal limit power even at 10:1 VSWR. Another option is RG-142 which is the same size as RG-58 and is rated at 30MHz and 1:1 SWR to handle 3.1 kW of average power.

♦ In many areas, it is not a good idea to use aluminum wire to expand your ground system due to corrosion loss of the aluminum metal in direct contact with the soil. Aluminum is very electronegative compared to most other metals and will become sacrificial as a buried component in your ground system. In fact, aluminum is sometimes intentionally used as a buried sacrificial anode for cathodic corrosion protections systems. (Thanks, Matt KM5VI)

♦ As more and more of us take our operating to the highways and byways, the automotive environment just gets more and more complex for electronics. This *EDN* article on the subject makes for some thought-provoking reading.

♦ Wow—an amplifier with one of these 3400 F (not µF, but F) supercapacitors in the filter section would sure have a pure dc supply. But the bleeder resistors would take forever to discharge it! (Point of order - it's only rated at 2.85 V.)

♦ From the *Electronic Design* magazine website, here's a handy function generator circuit that does triple duty: square, triangle, and sine waves.

♦ Just about the time we think vacuum tubes might finally be on their way out, another application of "field emission technology" (aka - "steam radio") makes its appearance. In this case, as a high-speed transistor operating in the THz region!

♦ Ham radio operators - devices for turning coffee into contacts, of course! And what do we do with the coffee cans? Put stuff in them, of course! This project from *Instructables* shows a new way to put all those empties to work.

♦ Get ready to trim those dipoles because the speed of light is not quite what we thought!

♦ The WRTC committee reports that Stu, K6TU, has created hourly propagation forecast maps for the WRTC2014 teams. These are computed for July, SSN 80, and the WRTC2014 antennas and heights in central MA. And they work in reverse, too! Stu's propagation prediction service is also available to home stations.

Technical Web Site of the Week - More free tools for the technically minded are listed in the *EDN* online article "10 Free Math Analysis and Design Tools for Engineers."

More Technical Topics and Information

(ARRL Contest Update—July 16, 2014) Recent problems with electronic ballasts, such as for "grow lights," has been studied by Tom WØIVJ and he has written an article about it that will be

published in the November issue of *QST*. Tom has developed a filter for these lights that you can see on his website. Larry WØQE has also contributed some useful material on RFI from electronic ballasts. (Thanks, ARRL RFI Specialist, Mike W1MG)

♦ Do you have a tower base that needs to be removed? Dexpan will do it at a cost of about $85.00 for an 11-lb bag. It's well worth the money after considering the effort required to do it with a sledge hammer or rent a pneumatic jackhammer. Drill, pour, and watch! (Thanks, Tom N4NW)

♦ The *Findchips* website's name implies that it is for finding ICs only, but it will find sources and prices for virtually any electronic part number. Enter only the part number and not the manufacturer. Try it, you'll like it! (Thanks, Bill W6WRT)

♦ After tuning around the bands in this weekend's IARU HF Championship tumultuary, I longed for some of that "white space" the cognitive radio boffins are always talking about. The closest I could get was "light gray!" Read this *Electronic Design* article and see what they have planned!

♦ I enjoy wandering through a department store and imagining all the alternative radio uses for the many household, automotive, and craft products! (OK, so I need a hobby...) Patrick KM5L must as well—he suggests using this perforated stainless steel grill saver as a dandy radial attachment plate!

♦ Scott N7SS has discovered that pedals for electric keyboards make dandy footswitches. They are heavy and made not to slip around under your foot!

Technical Web Site of the Week - We talk a lot about grounding outside our radios but how about grounding and wiring inside them? This four-part series from *EDN* is good stuff for designers and builders of all sorts. Part 1 begins a look at grounding: when to consider it, how chassis materials affect it, and the problem of ground loops. Part 2 discusses power supply returns and I/O signal grounding. Part 3 covers inter-board interface signals, star grounding, and shielding. Part 4 covers safety grounding and wiring.

MARC Vital Statistics

Memberships Expiring in July

NONE

Memberships Expiring in August

KC0CJC N8NGT

Memberships Expiring in September

KC8IHB KC8RTW

Current Active Club Membership 37

Birthdays Celebrated in July/August

KB8RCR 7/2
KG8YG 7/6
K8RRB 7/8
KA8ORL 7/11
N8NGT 7/14
KD8DWX 7/21
WB8RCR 7/21
N8LMS 7/27
W8OKN 7/30
N8XD 8/1
KB8QWO 8/3
KD8WZG 8/6
KB8QYB 8/9
N8LBF 8/17
WD8BPT 8/18
KD8MRB 8/24
WB8FYR 8/24
KD8IWB 8/27
N8DHF 8/29
KD8EUR 8/31

Anniversaries Celebrated in July/August

KC8RTU and Brenda 7/20
W8AWS and Delores 7/20
KD8MQX and Emily 7/20
KD8QXL and ??? 08/04
KB8TBI and Margie 8/8
WB8FYR and WD8ODG 8/13
KA0KPP and Gail 08/19

Information is from data received 5/7/2014
Any corrections or questions contact John, W8QN

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