



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

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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

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 Sept. 5, 2013, 6:00 PM

Law Enforcement Center, 2727 Rodd St.

Next CLUB Meeting — Thursday Sept. 5, 2013, 7:30 PM

Salvation Army Building 330 Waldo Rd.

Talk-in 147.000+

September 2013

Static Discharge

Kevin Martin, KD8QAM

With the first day of school around the corner, things are starting to wind up again. Raking, fall activities and home work will soon replace the mowing, lawn chairs and sweet tea.

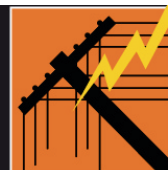
The MHS ARC seems to be off to a great start and should be ready on time for the kids to learn.

The club elections will be at the September meeting. If you would like to run for something, I would encourage you to do so.

The club picnic is September 21st, and is always a great time.

Kevin KD8QAM

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



MARC Minutes

Dorie French, N8WTQ

The meeting was called to order at 7:35 by Kevin, KD8QAM with 28 members and guests present.

- A presentation was given by Steve, WA8Y.

- The treasurer's report was presented by John, W8QN.

- EC/RO -John, W8QN reported they are working on *FLDigi* and will have a net after the August 22nd net to

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, K8GUS 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)

test it out. The SET (Simulated Emergency Test) is scheduled for October 5th and they will be using it during the test.

- Dennis, N8ERF reported on the MHS ARC. So far they have received \$40,000 in grant money. U of M sold us 15 pieces of equipment for \$450. Dennis made the desks and is working on the cabinets for the class room.

The tower is ordered and should be here in about two weeks. The base is here. They have a contractor to do the work. The antenna is ordered. He, Denny, WD8BPT, and the others are working on other considerations like recruiting students and classes.

- Field Day -there were many positive comments about the location. Nothing negative was heard.

- Lee, KC8ITI requested help for the Dirty Dog race on Oct.5th at the City

Forest from 7:00 a.m. to noon. He also said the Boy Scout Camporee will be Oct. 18-20th and Jamboree on the Air (JOTA) is part of it. He requested help getting a station for it. Glenn, WK8P from Alpena is organizing it.

- The MARC picnic on Sept. 21st will be discussed at the next meeting.

- Net Control:

Aug 8 Kevin, KD8QAM

Aug 15 John, W8QN

Aug 22 John, W8QN

Aug 29 Lee, KC8ITI

- A motion to adjourn was made by Larry, N8CGP and seconded by John, WB8RCR.

The meeting adjourned at 8:53 p.m.

Respectfully submitted,

Dorie French, N8WTQ

Secretary

My Two Cents

Pat Mullet, KC8RTW

I'd been looking forward to this last weekend as I was planning on playing in the North American QSO Party; I'd been hoping to use the opportunity to build up my state count towards the Five Band Worked All States award.

As start time neared, I noted that the icon for *IONOPROBE*, a piece of software that monitors space weather was showing an alarm. Mousing over the icon, it flashed a *RADIO BLACKOUT* message. Considering that the propagation app on QRZ.com indicated less than stellar conditions—if you'll pardon the pun—it didn't bode well for the contest.

My primary goal was to build contacts on 10 and 15 meters, but 10 was absolutely flat, and while I could detect a couple stations on 15, they were unintelligible, so I fell back on 20.

I had a lot better luck running both 20 and 40, but I ran into the same limitations with my rig that I'd encountered in the past. The Icom 718's reception is so wide that working adjacent stations is difficult if not impossible. There is a narrow filter for SSB mode available which should improve performance considerably, but it's rather pricey.

As evening fell, I went down to 80 meters, again, hoping to build up my state count. My luck was running true to form once more; between an abundance of rag-chewers that were able to burn through the S8 noise level and the late hour, I was ready to pack it in. I really need to get my vertical antenna moved and a radial field installed if I'm planning on playing in contests from my QTH.

On a positive note, after I'd shut down my station for the night, I caught up on the "paperwork" from the contest. Saving the contents of my contest log to an ADIF file, I imported it into the upgraded version of N3FJP's *Amateur Contact Log*. I selected the new entries and had *ACLog* query QRZ.com and fill in blank fields such as county, grid square and address. A few more key-strokes and the new contacts were uploaded to *eQSL* and the *Logbook of the World*. The next morning, I booted the program and queried *LoTW*, and found a half-dozen contacts had already been confirmed. It's certainly nice when all the bells and whistles work as advertised.

Maybe I'll have better luck next week in the Hawaiian, Ohio and Kansas

Amateur Radio is a Contact Sport!

QSO parties and the week after that in the Colorado and Tennessee QSO parties. If you're thinking about working towards WAS, why don't you join in? Maybe

we'll work each other.

73, Pat, KC8RTW

ARES®/RACES John Wolters, W8QN

In the ARES®/RACES space we continue to work with *FLDigi*. An on the air HF test was conducted the week of Aug. 19th. More testing is to come to get ready for the October Simulated Emergency Test

(SET). Ultimately we hope to also test on VHF/UHF FM.

The monthly ARES®/RACES meeting will occur at the LEC at 6:00 pm.

Election of New Officers

September is the month when MARC elects new officers for the upcoming year. Earlier this year our current president, Kevin, KD8QAM, was unsure of his ability to reprise his role as president due to some job changes. He asked me to form a nominations committee. I asked Lee, KC8ITI, to help me with the nomination

committee and he agreed. We have come up with a slate of officers including two candidates for Vice President. However, if you are interested in running for an office please contact me. We will also be taking nominations from the floor.

Best Regards,
Dennis, N8ERF

MARC Fall 2013 Picnic

Mark your calendar! September 21st is the date for the MARC fall picnic. Bring a dish to pass, your own table service, drinks and anything you would like to grill. Charcoal grills will be fired up for

your use. The location is the Homer Township Park on South Homer Rd. Plan on meeting around 11:00 AM for an afternoon of fellowship.

Dorie – N8WTQ

Midland High School Amateur Radio Club

The advisory board continues to work diligently through the summer in preparation of the startup of the high school amateur radio club. The fund raising campaign is complete with a total of \$45,062 raised! We want to thank the following contributors; Midland Amateur Radio Club, the Midland County Youth Action Council as administered by the Midland Area Community Foundation, The Dow Corning Foundation, also administered by the Midland Area Community Foundation, the Midland Kiwanis Foundation, the Kiwassee Kiwanis Foundation, United Steel Workers Local 12934, the Midland Rotary Foundation, the Gerstacker Foundation, the ARRL Foundation, the ARRL ETP Grant program and, of course, many individual donors.

This is a very complex project with many facets and many unknowns in uncharted waters (at least for us). It would be great if everything went according to

plan but there is always going to be challenges. Fundraising was indeed a challenge but we have overcome that hurdle. The challenge we have been attacking for several months now has been getting the tower installed. We finally have a contractor, Gerace Construction, and have accepted a bid. We have had to change the location of the tower as the cost of the installation at the first site was prohibitive. The current challenge is getting a permit to install the tower. Based on input we had gotten from the city, we thought we had the permit issue well in hand. But we recently found out that that was not the case. We will have to make a presentation to the zoning board of appeals to get a variance from the 20 ft tower height limit. We are hopeful that we will be successful. John, W8QN is working to put together the paperwork for this meeting. The paperwork was due August 23rd and the appeal board meeting is September 22nd. Keep your fingers

Upcoming Events

9/21	MARC Picnic
10/5	SET
10/5	Dirty Dog Race
10/18-20	JOTA

Michigan Hamfests

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
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.

crossed. The tower has been ordered and the base should have arrived on August 15th. The SteppIR DB-18 was purchased and delivered on August 13th. We have also done an analysis of the cabling that we will need for the various antennas and rotors. And finally, we have ordered some computers to be used at the operating stations.

We have received 5 oscilloscopes, 5 variable power supplies and 5 signal generators for use in the lab from the Electrical Engineering and Computer Sciences department at the University of Michigan thanks to Prof. Alexander Ganago. It was originally to have been a donation, but the U of M department of investment recovery had the final say and we had to pay \$450. It was a bargain. The scopes are awesome. On top

of that Agilent Technologies donated two more of the same model scope for a total of seven 100 MHz dual channel scopes. Thanks go to Prof. Ganago for the lead on that one too. The ARRL ETP grant was approved and should provide us with about \$2000 worth of equipment for a UHF/VHF station.

We started the student recruitment program before the end of the school year last May. We are starting up again at the end of August. We are still working on exactly what we are going to in the club. That has partially been up in the air due to the uncertainty about the tower. Now that we know the tower won't be in place when we start up the club near the end of September, we know what we need to focus on.

Dennis, N8ERF has built the three

desks that will be used for the three operating stations. He has also built and installed the cabinets that go behind the desks and will act as the cable chases for all of the wires. The shelving that will set on the desks and hold the equipment is under construction even as this article is being written. The cost of the desks, shelves and cabinets is just a trifle over \$1000. Thanks to John, W8QN; Zack, KD8ULE; Lee, KC8ITI and Lee's grand children for the assistance with the installation.

There is still a lot of work to be done but we are all very excited about getting the show on the air.

Best Regards,
Dennis, N8ERF

New, Higher FCC Vanity Call Sign Fee Pending for Mid-September

(ARRLWeb, 08/12/2013)—A new FCC's regulatory fee of \$16.10 to apply for an Amateur Radio vanity call sign will become effective sometime in mid-September, when the new fee schedule appears in the Federal Register. (ARRL will report the exact date as soon as it becomes available.) The FCC earlier this

year had proposed upping the vanity call sign fee from its current \$15 to \$15.20. In a Report and Order in MD Docket 13-140, released August 12, the FCC ordered a broad schedule of new fees and waived the usual 30-day waiting period following Federal Register publication, because there would not be time for new

fees to become effective before the start of the new federal fiscal year on October 1, 2013. The FCC says it expects \$230,230 in revenue to cover the costs of administering the vanity call sign program. It anticipates 14,300 vanity call sign applications.

Vandals Topple Radio Tower

(ARRLWeb, 07/31/2013)—Authorities in California suspect that vandals late on July 28 or early on July 29 cut several guy wires supporting the Rocky Ridge radio tower in the hills of the Las Trampas Regional Wilderness above San Ramon and Danville, causing the 200 foot structure to topple.

"The Rocky Ridge Tower has been a key communications tower for amateur, commercial, and public safety radio operators, alike," says Jim Siemons, AF6PU. "This was an important communications hub in the Contra Costa and Alameda counties' East Bay Regional Communications System Authority. (EBRSCA) group that is just now

providing P25 communications to many municipalities and districts within the San Francisco East Bay."

Siemons says several ham radio groups had repeater equipment on the tower, including his own Mount Diablo Amateur Radio Club. MDARC had a packet/APRS digipeater operating on 144.390 MHz that Siemons says was in constant use up until the tower came down. "There will certainly be challenges with coverage in areas unless or until the tower is replaced in parts of Walnut Creek, Alamo, Danville, Diablo, Blackhawk, San Ramon, Moraga, and Canyon," Siemons added.

KCBS Radio in San Francisco re-

ported that police were investigating the tower collapse. No injuries occurred, and authorities believe vandalism was the cause. Damage could go as high as \$1 million. A Contra Costa County Fire official told the radio station that the tower collapse has affected some dispatch services in the western part of the county, but police say back-up systems headed off any disruptions. According to KCBS, police "are trying to determine why vandals would target the tower, which is located in a remote area of the park behind multiple gates and fences." — Thanks to Jim Siemons, AF6PU, and KCBS Radio

Vandalized Tower Incident Has Silver Lining

(ARRLWeb, 08/10/2013)—After vandals toppled the tower supporting the Mount Diablo Amateur Radio Club's APRS digipeater, the club decided to

move its gear from Rocky Ridge, in the hills above Danville and San Ramon, California, to the North Peak of Mount Diablo. After recovering the digipeater

hardware from Rocky Ridge on August 2, a team of five members of the MDARC Tech Committee the next day climbed the North Peak of Mount Diablo

in a 4×4 truck re-installed the APRS digipeater and installed an amateur TV station.

“The digipeater, now 1000 feet higher in elevation, helps to cover an area with a radius as much as 150 miles,” says MDARC President Jim Siemons,

AF6PU. “According to APRS.fi, the region had virtually no APRS coverage since the collapse of the Rocky Ridge Tower. Now, a much larger area has superior coverage, and [this] may actually lead to APRS devices becoming more popular among ham operators.”

Authorities suspect that vandals in late July cut several guy wires supporting the Rocky Ridge radio tower in the hills of the Las Trampas Regional Wilderness, causing the 200 foot structure to topple. Police are still investigating. — Thanks to Jim Siemons, AF6PU

Google Doodles Campaign - Your Help Needed

Sean Kutzko, KX9X

Hi folks-

The ARRL PR Committee has been working on several ideas to help promote our 100th anniversary next year. One of those ideas is to ask Google to create a “Doodle” for us on the Friday of our Centennial Convention in Hartford next year.

What’s a ‘Doodle,’ you ask? It’s the special drawings that Google puts on their main search engine page to honor a person or event. Today’s (8/12/2013) Google Doodle honors Erwin Schrodinger, who changed the way quantum mechanics is understood. You can see it today at www.google.com

We think it would be pretty cool to have something like that on Google’s page commemorating the ARRL’s 100th birthday party. We could use your help in making this happen.

I’ve provided text you can use to email the Google Doodles team and ask them to consider the idea. There are no guarantees, of course, and submitters get no input of the design itself, but the more they hear from us, the more it will be on the radar of the Doodles team.

Their email address is proposals@google.com. I used the subject line “Doodle Proposal: 100th Anniversary of the American Radio Relay League.”

Here is the text I sent. Thanks for your help!

Dear Google Doodles team,

I would like to lend my support for a Google Doodle on Friday, July 18, 2014

to commemorate the 100th anniversary of the American Radio Relay League, the national organization for Amateur Radio.

Formed in May 1914 by American inventor and philanthropist Hiram Percy Maxim, ARRL has been the champion of Amateur Radio activity in the United States and around the world. Many of the technological advances of the 20th century, such as Amplitude Modulation (AM) and Frequency Modulation (FM) broadcasting and much of the wireless communications capabilities used by billions of people worldwide are direct results of research and experimentation by the Amateur Radio community over the last century.

There are over 700,000 Amateur Radio operators in the United States, and nearly four million worldwide, an all-time high. We are everywhere, from your neighbor’s den to Hollywood, Capitol Hill to the International Space Station. We engage daily in DIY electronics construction, social networking and education, and in disaster communications when the worst happens and the conventional infrastructure fails. We are a resource for your community in times of need.

The weekend of July 18, 2014, ARRL will be celebrating its 100th birthday in ARRL’s home town, Hartford, Connecticut. Several thousand people will be in attendance for this once-in-a-lifetime event, with hundreds of thousands more around the globe participating all year long in both in-person events and on the

airwaves. It would be appropriate for Google, a company known for being an innovator in wireless technology, to have a Doodle on their search engine page referencing the centenary of the organization that sparked much of the early research making what Google does possible.

More information about ARRL and Amateur Radio can be found at <http://www.arrl.org/what-is-ham-radio>

A link to live coverage of our convention floor on Friday, July 18, 2014 would be but one possibility of the functionality of the Doodle.

Many thanks for your consideration of the American Radio Relay League’s Centennial Convention for a Google Doodle.

Regards,

[your name, call, city & state]

73,

Sean Kutzko, KX9X

Media and Public Relations Manager

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Technical Topics and Information

(ARRL Contest Update—July 31, 2013) An oldie-but-goodie from Jim K9YC for using 75-ohm cable to feed a

50-ohm load: make the 75-ohm line an integer multiple of half-wavelengths at the operating frequency. (This only

works at frequencies for which the half-wavelength requirement is satisfied.) To calculate the length, use the velocity

Explore the World with Amateur Radio!

factor of the line, cut it a little long, then trim until it's right. Trimming the length is easy - put a connector on one end, short the far end, and measure the impedance using any antenna analyzer. At the half-wavelength length, it will measure as a short ($R + jX = 0 + j0$). SWR will be infinity at all frequencies due to the short.

- Jim has also published the slides from his 2012 Pacificon presentation on using the Smith chart with data from a Vector Network Analyzer to perform impedance matching. Jim has used these techniques to replace costly antenna tuners with switched transmission line stubs. <http://audiosystems-group.com/PacificonSmithChart.pdf>

- Magazine Roundup

- Popular Science (April 2013) - Build your own decade resistance box "Non-Futile Resistance"

- IEEE Spectrum (May 2013) - "Limor Fried - Channel Your Inner Maker" - a champion of Do-It-Yourself electronics kits

- IEEE Antennas and Propagation Magazine (Feb 2013) - "Theoretical Methods for the Impedance and Bandwidth of the Thin Dipole" by Estarki and Vaughan

- Electronic Design (6 June 2013) - Before you plug in your amplifier, read "Do You Have Enough AC For Your DC?" by Bob Zollo. Then there is the test equipment tutorial "Lifting the Lid On Oscilloscope Triggering" by Brig

Asay of Agilent Technologies in the 19 April 2013 issue.

- Here's another take on portable stations - the inflatable emergency airborne comm network. This poses an interesting situation for VHF+ contesters. Why not place the antennas and radios in a balloon way up in the air and link to them from the ground? (Thanks, Brian Fernandez) http://www.technologyreview.com/view/517436/an-inflatable-emergency-airborne-communications-network/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+arxivblog%2FG-moU+%28The+Physics+arXiv+Blog%29

- Doug NH6ZA spotted this item from Science Daily about a new form of solar cell that combines a photoelectric function with a metal oxide to generate hydrogen directly from water. There are many technologies and sciences previously unrelated that are now converging to make advances in areas like direct utilization of solar energy. (Thanks, Doug NH6ZA) <http://www.sciencedaily.com/releases/2013/07/130729111927.htm>

- What's old is new, as described in this online blog about "Pi Networks and Dipping the Final". (Thanks, Jerry WAØACF) <http://www.edn.com/electronics-blogs/living-analog/4418401/Pi-Network-and--Dipping-the-Final->

- Tom Milligan writes the Antenna Designer's Notebook column for the

IEEE Antennas and Propagation Magazine and also maintains a companion website. There are lots and lots of links to various antenna-related topics of interest to the technically-minded. <http://www.antennadesigner.org/>

- Tower veteran Pat N9RV provides three simple rules for dealing with tower legs that don't quite mate properly:

- Spreading legs apart: hydraulic jack between legs

- Bringing legs together: come-along wrapped around legs

- Legs out of round: pound simultaneously with two sledge hammers on each side where it's too fat

- John KK9A also suggests a long steel bar that fits inside the leg or a pipe that fits over the outside would be another option.

- If you have a problem with an antenna-support rope abrading where it crosses a tree limb, try taking the outer sheath off a few feet of large diameter coax and slipping it over the rope at the trouble point. Use tape to hold the sheath on the rope. Your editor notes that ropes should be limited to holding up wire antennas. (Thanks, Art KB3FJO)

- Bill N3RR is publishing an ongoing account of his conversion from a one-radio contestator to SO2R (Single-Op, Two Radios). You may find the discussion if you are wrestling with similar issues or contemplating such an upgrade to your own station. <http://users.erols.com/n3rr/>.

More Technical Topics and Information

(ARRL Contest Update —Aug 14, 2013) For those of us with a shack located far from ground - such as on the second floor - RF "grounding" is impossible as even the shortest connection to the Earth has a significant electrical length. While a safety ground connection is something you need, managing RF voltage and current in the station takes on a new importance up in the air. Tom W8JI has put together some information about his above-ground installation on his website. (Thanks, John KK9A) http://www.w8ji.com/second_floor_grounding.htm

- If you wonder about the effectiveness of silver plating on connectors and are willing to read through a fairly com-

prehensive engineering report, this paper by Tyco Electronics is for you. (Thanks, Jerry W6UV) http://www.te.com/documentation/whitepapers/pdf/Ag_use_connectors_503-1016.pdf

- While there are a lot of electronic schematic editors, not many include tube symbols as part of their library of components. Bill KU8H found TubePad, a simple symbol-based editor built on the Paint accessory in Windows. <http://www.qsl.net/w/wd4nka/TEXTS/Tubepadf.html>

- Martin KH6MB, a Ko'olau Amateur Radio Club member, designed an antenna coupler for the club's Field Day operations at the north end of Kaneohe Bay. The coupler is used for bottom

feeding two-element parasitic wire Yagis, half squares, or Bobtail Curtain antennas. The design matches several-thousand-ohm impedances to 50-ohm coaxial cable. (Thanks, Kimo KH7U) <http://www.karc.net/>

<http://www.karc.net/Antenna-Tuner/TunerProject.html>

- Gary W9XT recommends the 75-to-50Ω matching trick of using alternating short sections of 50 and 75Ω coax to match the cables over one band. This may be a better alternative at low frequencies where a half-wavelength may be a pretty long length of feed line. http://www.w9xt.com/page_radio_gadgets_hardline.html

- This EDN article discusses using

several software tools for PC board layout and fabrication. A related Wikipedia article offers comparisons between many tools. <<http://www.edn.com/electronics-blogs/open-sourced/4419232/Open-source-electrical-engineering-design-tools--continued->>

<http://en.wikipedia.org/wiki/Comparison_of_EDA_software>

- Bob KØRC recently updated his VSWR charting tool and posted Revision 5 to the public Dropbox location. The new version allows you to chart both "before and after" VSWR curves to help visualize the effect of any adjustments you made to your antenna. You can print the charts for future reference. <<https://www.dropbox.com/l/EEansReM-FYlcOH0ZcAmD29>>

- Mark N1LO's web page on towers compiles a great deal of useful information on many tower-related topics. There are several other useful collections of information on his site, as well. (Thanks,

Gene AD3F) <<http://www.qsl.net/n1lo/towers.txt>>

- LEDs have evolved rapidly over the past few years and it may be time for a refresher course in how to use the new designs. Filling that need, Don Tuite of Electronic Design wrote the informative "Understanding LED Application Theory and Practice" article in the May 2nd issue. <<http://electronicdesign.com/components/understanding-led-application-theory-and-practice>>

- Finding the right place to bypass a noisy ac line can be a time-consuming exercise. Tom W8JI used a three-wire ac plug with two 0.01 µF 250VAC UL/CSA bypass capacitors. No cord or wires were attached to the plug. Move the plug around the house from outlet to outlet and you may be able to find a "sweet spot" where conducted noise is reduced or eliminated.

- Follow Bill N3RR in the Potomac Valley Radio Club's July newsletter as he

upgrades to become a competitive SO2R station. The same issue includes a bonus cartoon by K1NSS explaining the reasons "Why I Didn't Win the Contest" - we've all been there! <<http://pvrc.org/newsletters.htm>>

Technical Web Site of the Week - The SVA (Single Vertical Phased Array) antenna designed by Floyd WA2WVL is described as being able to equal or exceed the performance of a Four-Square Array using only a single 39-foot aluminum mast. The front and back (top) guy wires, supporting the vertical, are used to create a 3-element endfire array. Only a single high-pass network is required to drive the front element (no quadrature network). Since the array is supported by a single lightweight 39 foot vertical, hinged at the ground, a single person can raise or lower the array. <<http://www.wa2wvl.com/>>

MARC Vital Statistics

Memberships Expiring in August

KB8QYB

Memberships Expiring in September

KD8TCH

Memberships Expiring in October

N8FUZ
W8LSS
WD8AXR

W8QN
WB8YAG

Current Active Club Membership 50

Birthdays Celebrated in August/September

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
KC8ZMQ 9/6
N8STF 9/9
N8FUZ 9/17

KB8PGV 9/17
KB8SOE 9/19
KB8WEE 9/24
KC8GRQ 9/27
KC8YTK 9/29

Anniversaries Celebrated in August/September

KD8QXL and ??? 08/04
KB8TBI and Margie 8/8
WB8FYR and WD8ODG 8/13
KA0KPP and Gail 08/19

N8LBF and KB8QYC 9/6
W8JBD and ??? 09/10
KC0CJC and Sally 9/12
K8RI and N8JBW 9/26

Information is from data received 8/14/2013

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 _____
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