



W8KEA



MARC

MIDLAND AMATEUR RADIO CLUB
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www.w8kea.org

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LIFE MEMBERS

Jack W8PHG, Larry K8SQB, Don W8WOJ, Lee KC8ITI, Raleigh W8QOI (SK)

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

Next ARES® /RACES Meeting — Thursday April 1, 2010
Law Enforcement Center, 2727 Rodd St. 6:00 PM

Next CLUB MEETING — Thursday April 1, 2010
Law Enforcement Center, 2727 Rodd St. 7:00 PM
Talk-in on 147.000 MHz +

April 2010

View from the Top of the Tower

Lee Hodges, KC8ITI

I hope some of you noticed that I didn't make the last club meeting. I've tried to be diligent to my duties and I can't remember the last time I've missed a meeting. Thanks to Chris, KB8UIH for taking the gavel on short notice. When the flu bug hits it can hit hard. Between grandkids and work, it seems I've picked up every strain of virus there is this year. This has been going on since late last fall. The club meeting wasn't the only thing I had to forgo. This little bout of sickness cost me a week's worth of vacation time. Not that I minded taking time off from work but I sure would've liked to have done other things rather than stay bundled up in a blanket and scarf down cold pills. I appreciate Linda, KC8MUD making the trip from here to the meeting and keeping me in the loop about your thoughts on our club activities. A lot of the information I use for this column comes from the information I get from you kind folks at the meetings so this month I'll have to rely on emails and Linda's notes and minutes of the last meeting.

Thanks to Larry N8CGP for his presentation on what it takes to keep our repeater system up and running at the last meeting. I hope somewhere down the line I can get a copy of the presentation for my own edification.

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



Our next meeting on Thursday, April 1st will be at the Law Enforcement Center on Rodd St. in Midland. The National Weather Service will be there to present Skywarn® training starting at 7 PM. We will hold an abbreviated business meeting after the training session.

It looks like we'll have a lot of

MARC MEETINGS

Chris Rose, KB8UIH, 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 Chris at (989) 832-7179, or via e-mail: kb8uih@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.html?State=MI>

AUTOPATCH

All Midland Club members have autopatch privileges. If you do not have the instructions, contact N8CGP for a copy. Please do not pass on your copy.

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, contact Michael, KB4EIZ, at kb4eiz@yahoo.com.

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 Lee, KC8ITI (kc8iti@arrl.net)

training and support events coming up in the next couple of months. On Saturday, April 10th there is a mini-SET scheduled to practice traffic handling on simplex. On Saturday, May 1st our club is supplying support for the 2010 MS Walk. There is a MS Walk in Frankenmuth on May 15th and the Saginaw club is asking for help with that event. There is an event at Swan Valley High School on May 16th that is also looking for some operators to help out. If you're interested in lending a hand with our MS Walk give Chris, KB8UIH a call. For information on any of the other activities give John, W8QN a call.

Saturday, June 19th 2010 is the date of our annual swap. We are putting a lot more emphasis on presentations and seminars this year. To that end, the swap committee is looking for ideas on all aspects of our swap. We are starting to enter the busy time for other hamfests in the area. I would like to ask you to do two things for us as you make the swap circuit. One, be sure to take some flyers with you. You don't have to pass them out because most hamfests have a table for flyers and announcements, so you can just drop them off. Two, as you look over the wares of the various vendors at the swaps you attend tell them how much you would like to see them at our swap. Over the years, we've found that the most effective advertising for our venue is word of mouth. If a vendor is trying to decide if they should make an effort to make the Midland swap and several people ask them if they are going to be there, it just might enough to tip the balance in our favor to the benefit of everyone. If you need flyers or want to have your ideas for the swap considered, contact Keith, KB8SOE or any of the swap committee.

2010 Field Day will be at Dow Diamond. Jeff, N8KS and the field day committee are doing a bang up job on tying

up the loose ends. There is still plenty of time to let the committee know your thoughts on how we can make this field day special. Give Jeff, any member of the field day committee or any of the club officers a call with your ideas and thoughts.

I have one thing that I need to draw your attention to. The FCC has put out a request for comments on a wavier request from the American Hospital Association. The number of this proceeding is 10-54. The request is for a blanket wavier of 97.113(a)(3) to allow any hospital that is accredited by the AHA to use licensed amateur operator hospital employees to take part in drills for their employer. Please go to the FCC web site and take a look at this wavier request along with the comments that have already been posted. Then, either pro or con, let the FCC know how you feel. Hopefully, the more information the FCC has from us the better decision they can make. In fact, everyone should keep abreast of all of the FCC proceedings and legislative actions that affect our hobby. The easiest place to keep up on these things is the ARRL web site.

Time to climb off my soapbox and wrap this up for this month. I made it official a couple of days ago. I gave my boss my resignation letter, effective April 30th. Our realtor has shown our house a few times but we haven't had any offers yet. I don't feel comfortable about putting down an offer on another place until we have an offer on this one so we are playing the waiting game. As my working career days are winding down, I'm looking at list of all the things I said I'd do if I just had the time. I'm sure that the rest of the family is looking at their lists of all the things I could do if I had the time. I'll stand you a cup of coffee that there is no way that any of these lists can be reconciled.

Best regards, Lee – KC8ITI

MARC Minutes Linda Hodges, KC8MUD

The meeting was called to order by Chris KB8UIH at 7:32 P.M. with 29 in attendance. Introductions were made and a sign-in sheet was sent around. A motion made by Cindy KD8JQY and seconded by Pat KC8RTW to approve the minutes. Passed.

- Swap- Keith KB8SOE- Presenta-

tions confirmed, swap fliers ready, vendors pending and food and space discussions followed.

- Treasurer's report-John W8QN- Thank you to John and Cindy Hall KD8JQX & KD8JQY, John McDonough WB8RCR, Roger Bebeau Jr. K8RRB, Bryan Haskins K8VB and Glenn Boggs

AA8EJ for your renewals.

- EC/RO Report John W8QN- Saturday April 10th from 9 A.M. to 11 A.M. is a mini SET. Learn to pass traffic with the use of simplex. A tri-county drill is on March 13th from 8 A.M. to 4 P.M. The scenario is a mid-air crash. Lots of help is needed. Please see John if you would like to participate in these drills. . Our next meeting on April 1st is at the Law Enforcement Center for Weather Watch Training. The Ares/Races Meeting starts at 6 P.M. at the same location. The Saginaw Club is looking for operators to help with the MS walk in Frankenmuth on Saturday, May 15th. Operators are also needed on Sunday May 16th at Swan Valley HS for an event. Please ask John W8QN for details.

- Field Day-Jeff N8KS – Not much new to report. There may be a problem parking the big motor home. Will check into it further.

- MS Walk -Chris KB8UIH- May 1st is the day. The walk begins at the Central Middle School and will happen rain or shine. Please see Chris and sign-up to help.

- Coats -Linda KC8MUD- Bill Lee will contact each person who has an order and make arrangements for delivery.

NET CONTROL:

March 11th Keith KB8SOE
March 18th Michael KB4EIZ
March 25th John W8QN
April 8th Ryan KC8PMX

- Free Stuff- Pat KD8IVZ- A donation was made by a family whose dad had passed away and Pat has an assortment of electronic gadgets in his truck for the taking. Please see Pat after the meeting.

- Query?-Pat KC8RTW-Has there been an announcement or arrangements made for classes yet? No date set yet.

- Pat KD8IVZ -Moxon Antenna on display at the front of the room. Thanks Pat KD8IVZ for that.

- Presentation- Larry N8CGP- The trials and tribulations of repairing, maintaining and replacing a Repeater Link Receiver. Everything you wanted to know but were afraid to ask about the W8KEA Repeater System and Remote Receiver. Wonderful job!! Well done!!

- A motion to adjourn the meeting made by Keith KB8SOE and seconded by Pat KC8RTW. Meeting adjourned at 8:50 P.M.

Respectfully submitted,
Linda KC8MUD
MARC Secretary

Upcoming Events

Apr 1	Skywarn Training
May 1	MS Walk
Jun 5	Dow Run
Jun 26/27	Field Day

Michigan Hamfests

Mar 20	Marshall Hamfest
Apr 3	Lowell
Apr 17	Milford
May 1	Cadillac
Jun 5	IRA Hamfest, Hudsonville
Jun 6	Chelsea
Jun 19	Midland
Jun 20	Monroe
Aug 7	Escanaba
Aug 15	Lapeer
Sep 19	Adrian

* denotes tentative date based on 2009 event

Area Nets

SVARA; Mn, 147.24 MHz, 2100 ET
Gladwin; Tu, 147.18 MHz, 2000 ET
BAARC; Tu, 145.31 MHz, 2100 ET
Edmore, Th, 146.8, 2000 ET
MARC; Th, 147.00 MHz, 2100 ET
District 3 ARPSC; Su, 145.31 MHz, 1800 ET
W Mi Trffc Net; MWF, 145.15 MHz, 0900 ET
TMMTN; Mon-Sat, 147.30 MHz, 2130 ET
MACS; Mon-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

My Two Cents

Pat Mullet, KC8RTW

Well, the weather's changing, and even though the common wisdom is that antenna projects yield better results when tackled during the coldest part of the year, I think that it's time to start thinking about my projects. Once the frost leaves the ground and I can maneuver in the back yard without tearing up the lawn, I'm planning on laying the conduit for the coax run out to the new location for my hf vertical antenna. Once I get that done, I can think about running the radial field. Due to the location of the antenna, the radials are going to have a semi-circular layout, so it'll be a compromise, but it should be head and shoulders above what I have now. I'm also planning on doing a simple mod to the antenna to add radiators for 17 & 12 meters, which should also allow me to work 6 meters, something I'm looking forward to. While I've got the antenna in the shop, I want to add N8FUZ's modification to the feed-point, changing it from an exposed pigtail to an

enclosed SO-239 to keep the snow build-up from shorting it out.

I've been making progress on getting my APRS/packet station up and running. Last month, I'd gotten both UI-View and Hyperterm up and running, but was having trouble getting either program to talk to the TNC, an MFJ-1274. The original serial cable I was attempting to use turned out to be a sensing cable for an old uninterruptable power supply, and didn't have the proper pins connected, so I decided to go ahead and build my own. The first attempt failed miserably, as not only did I get the wrong gender db-9 connector, but I managed to apply enough heat to relocate one of the pins. So, I replaced it with the proper connector, and this time around evidently had an open circuit, as it still wouldn't talk to the TNC. Third time's the charm, and this time, I could hear signals from the radio and talk to the TNC. But when I when I booted up UI-View, I could hear, but couldn't transmit.

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.

A bit more research showed that I had to take UI-View out of KISS host mode and select the proper TNC type. Now, it was working, and I was able to hear several digis and through them, several more APRS stations. Unfortunately, after I checked some online APRS sites, it appears that none of them picked up my transmissions.

On the packet side of things, when I tried to connect to the Midland digi, I kept timing out on my connect attempts, though once I did get a listing of the stations that had mail, and a comment from a station that was beaconing, other than that I got gibberish, so I shut down to think about the problem.

In a true “d’oh!” moment, I realized

I hadn’t told the TNC my call. Rectifying the error, I made another attempt, but still couldn’t connect.

So, I’m making progress, but I’m still behind in the learning curve. Still, that’s what makes amateur radio such an interesting hobby.

73, Pat, KC8RTW

ARES®/RACES

John Wolters, W8QN

First some dates for your calendar:

- Thursday April 1st - Skywarn® training at the Law Enforcement Center

- Saturday April 10th - District ARES® exercise 9am to noon

- Saturday May 1st - MS Walk 7am to noon

- Thursday May 13th - District Disaster Exercise

- Saturday June 5th - Dow Run 7am to noon.

For note, there *will be* an ARES®/RACES meeting on April 1st prior to the Skywarn® class (6 pm) to discuss the ARES® exercise April 10th.

The April 10th exercise is a follow-

on to the SET and is hoped to exercise district wide communications and the national traffic system—more information to come. The May 13th exercise is a midair plane collision and crash that will exercise the emergency services of Midland, Bay, Saginaw, and Flint. Amateur radio operators will be called up. More details to come, but we will need at least 10 ham operators in Midland County with Saginaw expecting a need of 30. If you are available for either the April or the May exercises please let me know. If I don’t get enough volunteers I may have to resort to some arm twisting.

The May ARES®/RACES meeting

will cover packet radio and other digital communication modes. Hope to see you there.

And finally - need of help from other counties.

- Saturday May 15th – MS Walk in Frankenmuth 8am – Noon

- Sunday May 16th – Swan Valley H.S. Run/Walk 8am – 2 pm

Contact Ron Huss KC8YVF (989) 799-2679 – Saginaw EC

John Wolters

W8QN

Midland County EC/RO

Severe Weather Spotting Class to be Offered

With Christmas barely passed and Michigan caught deep in the throes of winter, most of us will find it hard to worry about the possibility of severe weather in the spring and summer months. Even so, now’s the time to start

planning for the inevitable rough weather, and to that end, the National Weather Service’s Detroit Forecast Office is scheduling Severe Weather Training seminars throughout the seventeen counties they serve. This

year’s Midland County Skywarn® training session will be held Thursday, April 1st, at the Midland Law Enforcement Center, 2727 Rodd St. The session will begin at 7:00pm, and run approximately 2 hours.

“Standing Up For Standing Waves” Demo at the Midland Swap

In 1986 I was blown away by a demonstration at the 1986 ARRL Great Lakes Convention in Saginaw. Dave Smith, W8YZ, had put together a 200 ohm open wire transmission line made from 3/8” stainless steel rods about 12 feet long. He hooked up a 2 meter transmitter, making the transmission line about 2 wavelengths long, then terminated the transmission line in various items of different impedance values, including open and short circuits. Nothing too amazing about that but then he pulled out several little devices with little incandescent bulbs that allowed me

to see the standing waves on the line!

With one device he was able to show the voltage between the two conductors of the transmission line. You could actually see the high and low voltage points along the line as the bulb brightened and dimmed as it slid along the transmission line! He also had a current detector with a bulb that behaved the same way but not at the same points! He had another sled, as he called it because they are all constructed to slide along the horizontal transmission line, called a directional coupler or reflectometer, which measured, by brightness, either the for-

ward power or the reflected power depending on which way he oriented the sled on the line. With this set up you can perform a host of experiments and see the results with your own eyes, immediately.

In life there are certain events which are permanently burned in your brain. For me, this was one of them. Ever since then I have wanted to build one of these units. Now that I am retired, I started looking into doing just that. When I contacted W8YZ about this, I found out that he has passed the torch to Bill Hays, AE4QL, and that Bill

has upgraded and expanded the demonstration.

The good news is that now you, too, will be able to see this demonstration which he calls, "Standing Up For Standing Waves. Bill Hays has agreed to bring his demonstration to the Midland Swap on June 19th. If you're confused about SWR, reflected power, or matching an antenna to a feed line, you won't want to miss this demonstration. If you

are like me, you learn better by seeing than reading something in a book. You will actually get to see a Standing Wave on a transmission line. You will get to see firsthand the effect of dielectrics on the velocity factor of a transmission line, the SWR upstream and downstream from a matching device, stub tuners in action and what happens to the standing wave as you change the impedance at the end of the transmission line and MUCH

MORE. If you just got your ham ticket or you are an old timer, you will be amazed. Here is a link to Bill's web site where you can learn more and see pictures of his apparatus. <http://home.windstream.net/whays101/>

Mark your calendars for the Midland Swap on June 19th. You won't want to miss this one."

Best Regards,
Dennis, N8ERF

Thoughts About Go Kits

Chris Rose, KB8UIH

Someone recently commented on needing to go to their home to retrieve equipment and supplies in the event of an activation for ARES or RACES. It got me thinking. For years I have carried several items in the trunk of my car or on the floor of the back seat to alleviate such a problem. I store things in plastic containers with lift off lids, which are made by a company called Sterilite. I use something called Action Packers by Rubbermaid as well to store large pieces of equipment. These containers are available at Walmart and other retailers. If anyone has worked with me at

the MS Walks you will have seen these containers.

In total I have 3 Action Packers and one Sterilite container. One is just for coax cables. One has electronic accessories. One has clipboards, writing utensils and maps. One should have at least one of my orange vests (Yes, I have more than one). Also in the trunk is my orange and yellow rain suit.

Now, I am not saying that I carry all of the above in my car at all times. However, I have something with me at all times so I am not flat footed at the opportune time to start to respond to an

emergency.

I also know that when things occur, we may have time our side to prepare and plan a response. If I can short cut running home to grab things I can save time getting somewhere.

Thanks for thinking about your kits and how you may be able to respond to a call out to support local emergency situations.

73,
Chris
KB8UIH

Disaster Prep Tips

(ARES E-Letter — Feb 24, 2010)
As we start a new decade, let's review some of the basics of Amateur Radio disaster preparedness. The following are tips from John Covington, W4CC, of Dallas, North Carolina.

You must make sure you're personally prepared for a disaster before you can even consider helping with Amateur Radio. If you are preoccupied with personal matters, you won't be able to help ARES®. To be ready for disaster communications, do the following: Train regularly with your local ARES® group.

Think about how you might best be able to help during a disaster. Some of us are good at installing antennas and equipment, others of us are better at operating on the air. Not everyone is suited to doing every job. Sometimes just having helping hands, spare equipment or supplies can be helpful even if you cannot operate the radios yourself. Generators need fuel, operators need coffee, and stations need to be set up. Figure out where you best fit in.

Decide how you can help out if you stay home: Can you deploy at a shelter or EOC for a few hours? Operate from home?

If you must evacuate, can you deploy from where you have evacuated to, such as a shelter?

Have all resource materials you need in printed form. Don't depend on computers, PDAs and so forth as they may not work in a disaster, require electricity and are relatively fragile.

If you use a computer regularly in your on-the-air operations, make sure you practice doing things such as calling nets and handling traffic the pencil-and-paper way once in a while. Remember, you may not be able to spare the amp-hours or the table space to run a computer.

Have an Amateur Radio ready-kit to supplement your personal ready kit. Some items to include:

- Portable radio, antenna and power supply or batteries (2 sets)
- Headset or earphones (you may be

operating in a noisy area)

- Any cables you could possibly need
- Pencils and Paper
- Clipboard (firm writing surface, you may not have one otherwise)
- Radiogram forms (helpful but not absolutely required)
- Operating aids (pink card, Field Resources Manual, list of ARRL numbered radiograms, and anything appropriate for your local area)
- Small tools (multi-tip screwdriver, multitools, etc.)
- ARES® Identification Card, if appropriate
- Important phone numbers and frequencies
- Map of the area
- Flashlight
- Poncho - very small to store, only around \$2 and can be useful when you least expect
- If carried in lieu of a personal ready kit, a few other items may be helpful:
 - For a short deployment, a bottle of

water plus some crackers or something to eat requiring no preparation could make things much more bearable for you

- Medicine
- Toilet paper - small packets from MRE kits are very handy and don't take up much room
- Moist towelettes

Here are a few other suggestions

from your editor based on his perspective as a Registered Nurse:

- Know CPR.
- Know the location of the Automated External Defibrillator (AED), and how to use it.
- Know the signs/symptoms of a heart attack and stroke.

Also, be prepared physically, mentally and emotionally for the

sometimes overwhelming demands of a disaster or emergency environment. Hope for the best, but expect the worst. You are at risk for witnessing horrific scenes. Protect yourself and especially young hams; participate in psychological and grief counseling, if necessary. Your mental health is just as important as your physical health.

Hints and Kinks: Painting Letters

(ARRL Letter for March 11, 2010)
This idea comes to us from Dave Price, K4KDP, of Goldsboro, North Carolina.

As I get older, I find it is harder to read some of the smaller print on my radios. The ICOM 706 is a good example. The radio connectors are marked ANT 1, ANT 2, MIC and DC 13.8V, just to name a few. These are marked by either raised letters or letters that are indented into the radio housing. I found that if I paint these letters white, they show up much better on the black metal case. There is a fairly easy way to paint the letters white using cotton swabs with wooded sticks.

Break off the cotton tip on some of

the swabs until you have about six of them with sharp points at the break area. Throw away the cotton tip and use only the wooden stick to paint with. Now spray a small puddle of white paint onto a piece of cardboard. The cardboard will absorb some of the moisture. Just as the paint starts to thicken dip the pointed end of the stick into the paint and then gently tap the paint into the indented area of the radio housing. On raised letters I use the blunt end of the stick, repeating the same process. It is best to use very little paint and repeat the process of dipping into the paint and tapping the paint onto the letters many times.

You will find you have to replace the stick several times and spray a new puddle of paint when the old puddle gets too thick. You will also need to have some small paper towels and rubbing alcohol close by to quickly clean up any mistakes. I strongly recommend you practice this on some junk metal before attempting this on your expensive radios. I have also used this same trick on unpainted numbers for my Chevy truck 4 wheel drive shift mounted on the truck floor and for my watch bezel to make the unpainted numbers easier to read.

Technical Topics and Information

(ARRL Contest Update — Mar 3, 2010) If you want to know how to wind your own power transformer for repairing old equipment or building new stuff, you should visit Manfred XQ2FOD's Web site (<http://ludens.cl/Electron/trafos/trafos.html>). It is quite extensive with lots of illustrations and photos. Manfred has also provided a design spreadsheet to help with the calculations. Be sure to browse the other pages around the site, including the supporting Transformers and Coils page. If toroids are your cup of tea, Diz W8DIZ has published a toroidal inductor calculator (<http://toroids.info/XXX-XX.php>) using the common T, FT, and BN part numbers.

Rudy N6LF's article on radials in the May 2010 issue of QST is certainly drawing well-deserved attention. The entire set of Rudy's seven QEX articles (<http://www.antennasbyn6lf.com/2009/12/series-of-qex-articles-on-ground-system-experiments.html>) on ground systems is available online on his Web site.

(Thanks, Steve N2IC)

The previous issue's discussion of drilling holes in tubing at right angles was missing a technique for marking the drill points spaced by ninety degrees. Bob WA6GFR discovered just such a procedure in the recent August 2009 issue of QST - "Diamonds In the Sky" by KH6TY. The article shows how to mark straight lines along the tubing and do the job with a hand drill, as well.

With all the gadgets a contest operation requires, there are lots of ways to accidentally apply reverse-polarity power. This is even easier to do when operating away from home. To protect your low-power, 12-volt gear from reverse polarity without damage and with a minimum of voltage drop, install a 1N5817 Schottky diode in series with the incoming power line. It will handle up to 20 V of reverse voltage and 1 amp of continuous forward current with only 0.45 V of voltage drop. (Thanks, Chuck W5USJ)

The Winter 2010 issue of CQ VHF

shows how to convert a Bird Model 43 wattmeter to a digital readout in an article by Mark Spencer WA8SME. Mark uses a small microprocessor to convert the display to digital and digitize the sensing element output. The magazine also features spectacular photos of a "Fata Morgana" mirage and tropospheric duct by Chip K7JA.

Technical Web Site of the Week - We'd all like to have one of those low-band four-squares, but certain practical considerations often put the kibosh on those plans. Nevertheless, one can enjoy a look at four-square arrays around the world at G4ATA's "The 4-Square Site" (<http://www.4-square.co.uk/>). Pictures and construction details abound! If you do have a four-square of your own, why not contribute photos and construction details? (Thanks, Kris N5KM)

Amateur Radio is a Contact Sport!

Swap 'n' Shop

Wanted: I'm still looking for QRO project materials such as the 4CX-1500B or A. 3CX1500A7/8877 (pulls are fine) and almost any of the Russian GU84B/4CX2500, GS23B, GU73B, GU74's, the old antique 6C21, 450TH, or 750TH. Helix 7/8" or greater (used is fine) and connectors to UHF and plate transformers from 1900VAC to around 2800-3200VAC. Also need a spectrum

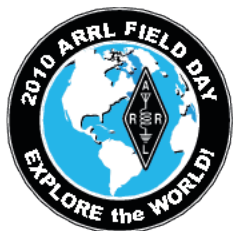
analyzer and maybe a bit of help with some tower climbing as I need to overhaul the antennas.

Missing: Bird 43 Watt meter in case with assortment of slugs. Roger (K8RI)

Want to Buy: An older 2 meter transmitter or transceiver that does not have the automatic SWR activated shut

down circuit. Crystal controlled is OK. I need something in the 20 watt range. Dennis, N8ERF

Wanted: I'm looking for the drop-in battery charger that was supplied with the old Radio Shack handheld model HTX-202. Email or phone W8WOJ



ARRL FIELD DAY 2010 June 26-27

www.arrl.org

MARC Vital Statistics

Memberships Expiring in March 2010

K6VWE

Memberships Expiring in April 2010

W8QN
WA8LQD

Memberships Expiring in May 2010

KB8LQM
KC8IHB

KC8ZMQ
W8CVZ

Current Active Club Membership 66

Birthdays Celebrated in March/April 2010

W8SEX 3/4

KC8RTW 3/17
K8VB 3/19
KC8TQS 4/9

KC8IHB 4/19
KD8HIC 4/27
WA8LQD 4/27
KD8MQX 4/28

W8CVZ 4/28
KA8EZT 4/28
N8JBW 4/30
KD8HIG 04/??

Anniversaries Celebrated in March/April 2010

K8RRB and ??? 03/04
KC8ITI and KC8MUD 03/06

WD8BPT and Melody 03/13
KB4EIZ and KD8HIC 03/24

Information is from data received 3/5/2010

Any corrections or questions contact John, W8GN

Amateur Radio. . . We Do That!



Pat Mullet
Newsletter Editor
171 E. Orchard Ave.
Shepherd, MI 48883

If you desire to join the Midland Amateur Radio Club, the dues are \$20 per year for an individual membership. A family membership is available for an additional \$5 per year which covers all of the individual's family members. Family members must reside at the same address as the primary member to be eligible for the family member rate. The membership dues help to cover the operating expenses of the Club, and its radio systems. Membership includes Autopatch privileges on the W8KEA repeater (147.000+), voting privileges at MARC meetings, and a monthly newsletter. Please supply the following information:

Name: _____ Callsign: _____ License Class _____
Address _____
City _____ State _____ Zip _____
Home Phone (____) _____ Work Phone (____) _____
E-mail address _____
Spouse: _____ Callsign: _____ License Class _____
Birthday: (mm/dd) _____ Anniversary: (mm/dd) _____
Desired newsletter format: Paper copy via USPS _____ or via e-mail _____

Are you an ARRL Member? Y/N Do you want an ARES Application? Y/N

We request this information so we can communicate with you regarding MARC business, and periodically send you newsletters and congratulatory birthday & anniversary greetings. We do not sell this information nor will we knowingly publicize private information without your permission. Information that is publicly available may be distributed to Club members for various purposes, including membership lists, without prior notification.

You may give this completed form to the MARC treasurer, or you may mail it to:

MARC, PO Box 1049, Midland, MI 48641-1049