TMRA Amateur Radio Beacon

November 2016

The Prez Sez

Not much to report this month: at our meeting on Wednesday November 9th we will have a presentation by Art, K8XG on Yaesu Fusion and Wires-X, a great opportunity to learn about these from an expert.

December meeting will be our Christmas/Holiday Party.

My wife and I have been cleaning out my in-laws' basement; my father-in-law was W8JJK (our youngest son now has that call) and an engineer at WSPD and TV13, and we have numerous radio and electronic books of his that I'll bring to the meeting – they are old, but may have some interest to some of us. He also had many mathematics texts – mainly geometry and algebra, if anyone's interested in those – let me know. He was an avid Dx-er, and kept meticulous logs – the earliest we found goes back to 1933; I'll bring it to the meeting.

Steve, W8TER, has revised and up-dated his frequency list for the LCARES IC-880H hospital radios – I'll bring my IC-880, with a power supply, and the cloning cable to the meeting on Wednesday and will clone anyone's 880 radio with the new frequency list if they wish. I'll also have it at the LCARES meeting this month.

OK – I said it would be brief this month; hope to see many of you at the meeting

73,
Brian, WD8MXR

Proposed changes to the TMRA By-Laws:

Section II Membership: 3.f.iii) currently is

Seventy (70) years and older waived dues memberships: effective with the membership year that starts January 1st, 2000, a member seventy (70) years and older, having been a member in good standing for at least the previous three (3) consecutive years, will be offered an annual membership, having all the privileges of Regular membership, with dues waived on receipt of a completed application form for each annual membership period.

Proposed change is to not offer this complimentary membership but to replace it with a reduced annual dues for anyone 70 or older, and offer a corresponding reduced Family membership for those living in the same household. We have a chronic problem with many of the 70 and older complimentary members failing to submit annual membership renewal forms, so we do not know if they still consider themselves active members, or if they have relinquished their membership. The proposed new wording for Sect II.3.f.iii is:

"Annual membership dues for Regular membership for persons 70 years of age or older will be $5.00. Annual dues for family members of such a member will be $2.00."

Wording in Appendix A would have added:

d. 70 years of age or older: Five dollars ($5.00) per year, with family member dues of Two dollars ($2.00) per year.

All TMRA Committee meetings are open to all TMRA members. The By-Laws currently do not address the presence of non-members at any of the TMRA committees' meetings. To clarify who may attend, it is proposed to add a SECTION that states

"Persons attending a meeting of any TMRA Committee must be a TMRA member in good standing, OR be an invited guest of the Chairperson of that Committee."

Proposal is to make this SECTION XV, and to renumber the current SECTION XV as XVI

ARES News

The next ARES meeting is November 26 (fourth Saturday) at 9:00 am at St. Luke's Hospital, 5901 Monclova Road in Maumee, Ohio, in the private dining room in the basement. Arrive early and enjoy breakfast in the basement cafeteria at 7:30 a.m. There is no meeting in December.

The hospital radio test will be December 3. Many volunteers are needed. Please contact Brian, WD8MXR.

Tune into the ARES IN BRIEF Net on Sunday nights at 7:30 pm on 147.270. It is open to all.

Technician License Class

TMRA's next technician level ham radio license class will be two all-day sessions, November 5 and 19, 2016. Each class will be from 8:00 AM to 5:00 PM at 2127 Jefferson Avenue in Toledo.

Call Steve, KC8TVW at 419-467-3734 for more information.

New Hams and Upgrades

A report from Steve, KC8TVW

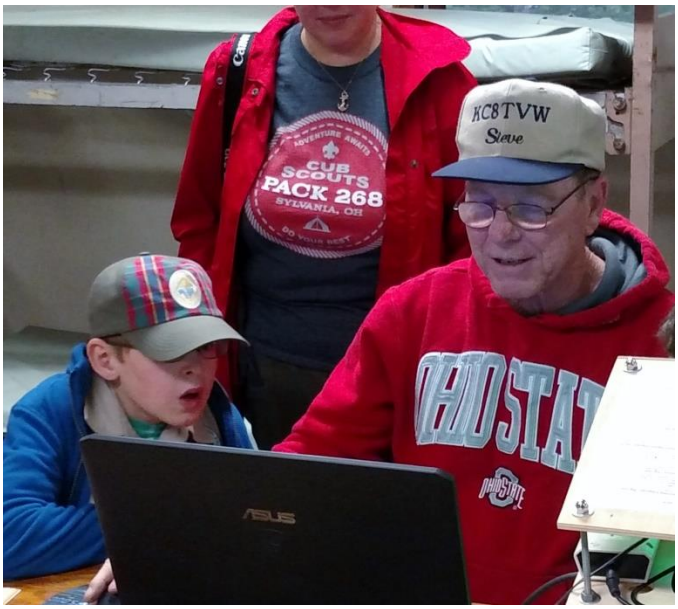
Here are the results from the October 18, VE testing. Congratulations to new Techs: KE8FFK, Michael and KE8FFL, Scott. New Generals: KE8CQC, Scott and N8HMK, Dennis. A special thank you to the TMRA VE Team.

Christmas Party

TMRA will hold its annual Christmas Party on the regular meeting night, December 14, 2016, beginning at 6:30 PM. The club will provide drinks and table service. Please bring a dish to pass.

JOTA

A report from Steve, KC8TVW



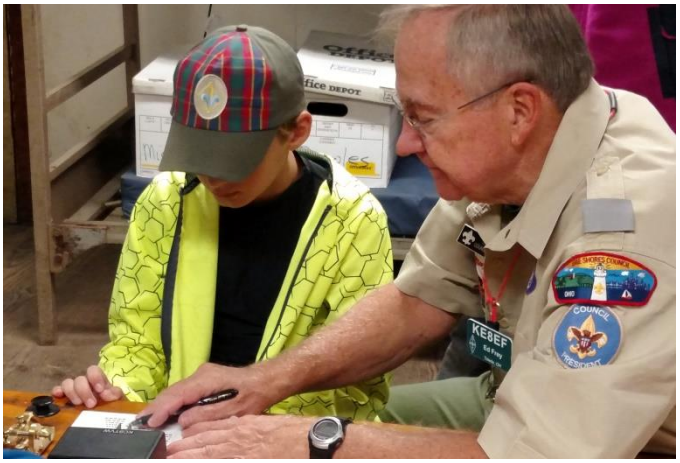
On October 15, TMRA was at Camp Miakonda for the Jamboree on the Air. Steve, KC8TVW reports that he set up on Friday, October 14 to be ready to demonstrate ham radio to the scouts on Saturday. He had about 40 kids come through the cabin where there was an HF operating station and code practice oscillators. The scouts had a few HF QSO's, and forty earned a certificate for keying their names in CW. In addition, Steve organized four foxhunts for the scouts.

Thanks to Steve for his hard work and to the Hams who stopped by to help.

Skywarn

Lucas County Skywarn is sponsoring a Net Training Class on November 12 from 9:00 AM to noon. The location is the 911 Training Center, 2127 Jefferson Avenue, Toledo, Ohio 43604. The training is open to all current and future amateur radio operators. Please email boxcar@toast.net if you plan to attend.

A shortened Skywarn Meeting will be held at 9:00.



JOTA at Camp Miakonda w8muk photo

National Parks on the Air

Ron, N8RLH and three other hams operated the afternoon of October 18 at Fallen Timbers National Battlefield Park in Maumee for another NPOTA session. Setting up on the covered porch at the shelter house just before the rain hit, they managed to make 150 contacts including 4 or 5 QRP stations. Thanks to Dave, KE8DVM for bringing his go kit. And thanks to the other hams who came to help.

Next NPOTA will be November 19 at Fallen Timbers. Come help operate, log, or just hang out.

Special Operating Event

The Yavapai Amateur Radio Club is holding a special operating event on November 17 to celebrate the NRA's 145th anniversary. Operations run from 8:00 AM to 5:00 PM (MST). Using call sign K7NRA, operations will be on 7.250, 14.050, 14.250 and 21.335 MHz. All hams are welcome to participate.

DX – The Hamshack, Part Two, Radios and Other Stuff.

The third in a series of articles by Ron, N8RLH

Hi gang. Last month we talked a little about antennas so this month we'll talk a little about radios and other stuff. I'm sure your first question is what kind of radio I need to work DX. Is Icom the best or Kenwood, and I've heard that Yaesu is the best. Any radio can work DX; some just make it easier than others. Most radios built in the last 15 to 20 years work great. All newer radios have such controls as split operation, AGC on receive and band pass tuning. These are the controls that make working DX the most fun. We'll work on the controls later.

There are two basic types of radios on the market: compact mobile type and larger 'made for the shack' type. The difference is in the way you operate them. The compact type has a few controls available on the front panel and the rest are hidden in layers of menus. The shack type has most of the controls on the front available as a knob or switch, very few menus. Which is better? I prefer the shack type because I love knobs and switches and menus drive me crazy, but I use both. With the menu driven radios you have to keep the manual or a shortened version of it close at hand to remember how to make a control change. Sometimes these are not easy, but very do-able.

Lately we have seen a new type of radio appear that looks exciting, it's the SDR radio, or Software Defined Radio. The true SDR radio works through a computer that controls the radio, no front panel at all. Now we see emerging radios that have the software built in; it looks and acts like a regular radio but is controlled by software built into the radio.

So which should I buy? My recommendation is to not buy a new radio as your first one. Several years old and several generations back will work very well for you and won't kill your wallet. It will retain its full value so when you are ready for a newer generation you can get your money back, almost all of it. New radios are like new cars, they lose value the minute you pay for them. Use your Elmer! Don't be in a hurry. Save up for what you want. YOUR radio will appear on the market like magic when you are ready for it. It's a Zen thing.

What else do you need in the shack to work DX? Nothing! But a few accessories will make your life much easier. You need a 24 hour clock that you can set to UTC (zulu or GMT). All hams operate in UTC time so we know exactly when a contact was made. Clocks are cheap and can be purchased on Amazon for a few dollars.

You need a log book, a supply of pens and note paper. Computer logs are awesome but computers crash so a paper log is very important. I keep a spiral steno notebook to make notes & write down calls as I work. Then I transfer the contacts to a regular log book and to my computer logging program. *Logger 32* (http://www.logger32.net) is a

THE TOLEDO MOBILE RADIO ASSOCIATION P.O. BOX 9673, TOLEDO, OH 43697-9673

President, Brian, WD8MXR;
Vice-President, Glenn, W8MUK;
Secretary, Zack, N8ZAK;
Treasurer, Rich, KD8WCB.

Board Members: Steve, W8TER; Skeet, KD8XKD; James,WD8IOL: Dan, KE8UE; Dave, KD8EVN.

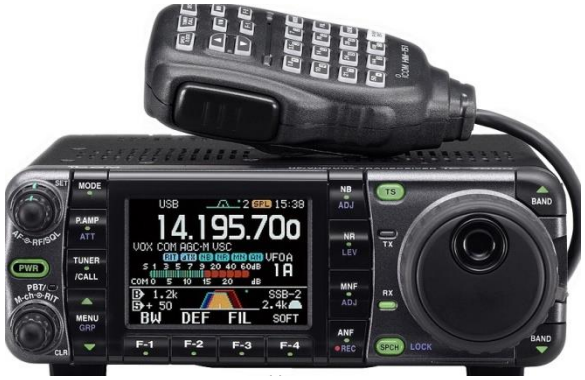
TMRA Home Page
www.tmrahamradio.org
Webmasters, Zak, N8ZAK & Mike, N8ZLW

TMRA W8HHF Repeaters; 147.270+, 224.140-, 442.850+ (TMRA 2 meter, 220, and 440 repeaters operate with a 103.5 "PL", or a touch-tone access code of 1-2-3)
D-Star Repeater: 442.750
APRS: 144.390

The TMRA meets at 7:30 PM on the second Wednesday of every month in
The Electrical Industry Building, Lime City Rd. Rossford, Ohio.

free one that works very well. Remote speakers are awesome as are headphones. Some headphones have boom microphones that are terrific.

I use several other computer programs that help me work rare countries. They are made by Afreet Software: *Band Master* to keep track of who is on the air in real time, *Ham Cap* and *Iono Probe* to predict band openings and *DX Atlas* (http://www.dxatlas.com/) to find countries in relation to the grayline (the grayline is that magical time between daylight and dark when DX is king). I subscribe to several DX newsletters to let me know who is planning to be on the air in the future. I keep track of these future possible contacts on a white board. DX at a glance!



I use a beam antenna for ten, fifteen and twenty meters so I keep a list of all the countries with a beam heading. This is a great tool if you add a list of bands so you can keep track of who you have worked and who you have a proven contact with either as a QSL card or a LOTW contact. I "x" the country when I work it and highlight it in yellow when I get it confirmed.

Prefix	Country	Beam Short	Beam Long	10	12	15	17	20	30	40	80	160
1A	**SMOM**	**53**	**233**					x				
1S	**Spratly Is.**	**340**	**160**			x						
3A	**Monaco**	**54**	**234**					x				

Well that's it for this month. Next month: How to actually make the contact. The DX QSO. This is the fun part!

(Ron, N8RLH is TMRA's Amateur of the Year for 2016.)

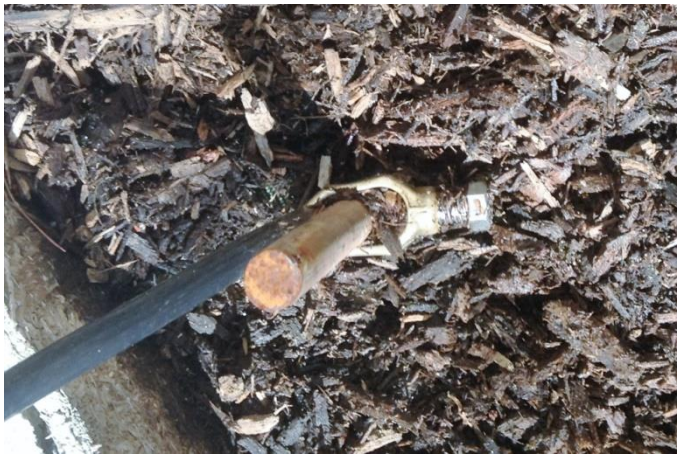
Grounding and Ham Shack Electrical Safety

The second in a series of articles by Tom, KE8CQG

Last month I talked about basic electrical safety. This month I'd like to talk about grounding.

Looking in the ARRL Operating Manual or the Technician License Manual, you will find relatively good information about AC grounding. With that said, here are a few other things to consider or check.

First, where is your ham shack located? If it's in your basement, your equipment should be plugged into a GFI receptacle (that's code), or at least downstream of a GFI receptacle. Regardless of where your ham shack may be, all electrical receptacles must have two-wire-with-ground capabilities. If not, you should have an electrician install the proper wiring with grounding.



Ground rod, cable, and clamp ke8cqg photo

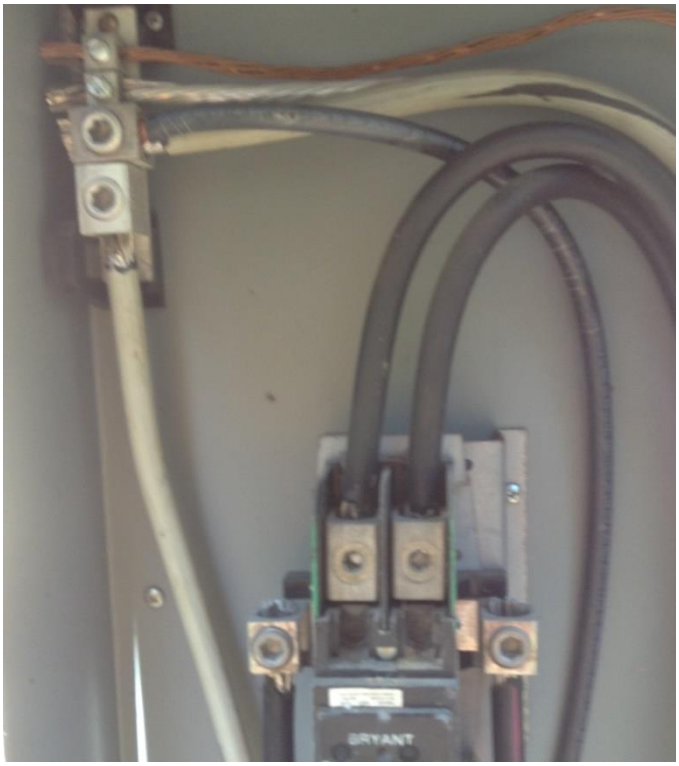
Second, if you didn't do the wiring yourself, or maybe, especially if you did do the wiring yourself, use your AC volt meter to check between the ground pin of the two-wire-with-ground receptacle and the narrow (hot) blade

of the receptacle. Be certain you can read 120 VAC. Normally, you should read 120 VAC between the hot (narrow) blade and the neutral (wide) blade as well.

Third, check the main panel (service entrance) for a solid connection between the incoming triplex cable neutral and the ground wires in the main panel. As I stated in last month's article, if you don't KNOW what I'm talking about, stop and get help from someone who does. Your life may depend on it!

Fourth, is a ground wire leaving your main breaker panel and going to a properly installed grounding rod? Probably not. This is the weak link in residential grounding that is most often overlooked. I've heard people say they had suppressors in the plug-in strips or added lightning arrestors to their power distribution panels, but they lost equipment to a lightning strike anyway.

Being tied back to the utility ground is not the grounding solution for your AC power panel. Water piping is not an adequate solution, either. You need proper copper-clad ground rods with an adequate ground conductor. For the ground conductor, I recommend a #2 copper, green insulated, stranded wire that runs from the ground strip in the AC main breaker panel or remote main breaker panel to a 5/8" x 8' copper-clad steel ground rod. The rod should be driven all but the last 3" into the ground, preferably near a rainwater down spout. And use a proper ground rod clamp for securing the wire connection to the rod. Keep the wire clamp above grade to reduce corrosion. Make the connection tight and in two months go back and tighten it again. If you can't find green insulated wire, use green tape at each end of the wire on the insulation to signify a ground conductor for the benefit of anyone inspecting the grounding connections.



Main Breaker Panel ke8cqg photo

Why such a large conductor? The conductor is sized to carry away to ground any amount of current being brought into the electrical system from all sources, including the electric company lines. The power company has standards for grounding protection in their primary and secondary systems, but these grounds are often inadequate or deteriorated with age. Just because you can see their pole butt grounding wiring, doesn't mean there is actually a wire underground adequately providing a ground connection. These are normally only a #4 solid conductor. This is not what I want to protect my expensive radio equipment.

Use ground clamps on ground rods, don't use hose clamps anywhere in your system. Hose clamps corrode quickly, are not solid, tight connections, and do not have the current carrying capacity of a brass or copper fitting that is sized for the wire you are using.

Next month I'll talk about the "static cloud", lightning, and tower grounding. I'm usually at the TMRA monthly meetings, so feel free to ask me questions.

(Tom, KE8CQG, is an electrical engineer with extensive experience in the design of oil field electrical equipment and its proper grounding. He was certified to work on electrical equipment up to 25 KV energized or

de-energized. At the age of twelve he held a ham radio technician license and built his own 27 MHz transmitters to fly model airplanes.)

ARRL Sanctioned Hamfests

From Dale's Tales for November

Nov 5 - Grant ARC Hamfest - Georgetown, OH
Dec 3 - Fulton County Winterfest - Delta, OH
Dec 4 - Lanse Creuse Hamfest - Madison Hgts, MI -- NEW LOCATION
Jan 15 - SCARF Hamfest - Nelsonville, OH
Jan 29 - TSCO Hamfest - Strausburg, OH

Did You Know?

- The Lucas County ARES Informational Net is every Sunday at 7:30 pm on 147.270.
- The TMRA Newcomers and Elmers Net is every Sunday at 8:00 pm on 147.270.
- The Tech Committee meets the second Monday of each month at Maumee Fire Station #2 on Dussel Drive (in front of the water tower).
- The TMRA digital net is Tuesday at 8:00 PM to at least 9:00 PM on the 147.27 MHz repeater for voice and on 145.555 MHz simplex for the Fldigi.
- The TMRA general meeting is the second Wednesday of each month. The December TMRA meeting is the annual Christmas party and begins at 6:30 PM instead of the usual time.
- TMRA annual dues were due by July 1st. You must fill out a membership renewal form even if you receive a complimentary membership.
- The Lucas County Skywarn Net is November 12 at 9:00 AM at the 911 Training Center, 2127 Jefferson Avenue, Toledo, Ohio. The Net Training Class will begin after the meeting and run until noon.
- The Lucas County Siren Net is the first Friday of each month from 10:30 to 11:30 AM on 147.270 + W/103.5 PL and 442.850 + W/103.5 PL.
- The Lucas County Hospital Net is the first Saturday of every other month at 10:00 AM.
- The NORC Net is the first Saturday of each month. This net typically meets at 11:00 AM on or around +/- 7.200 MHz LSB.
- VE testing is each month. Contact Steve, KC8TVW at 419-467-3734 or kc8tvw@arrl.net.
- The next TMRA NPOTA operating session is November 19.
- The calendar at the TMRA website lists numerous ham radio activities each month.

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Editor: Glenn, W8MUK
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Email: W8MUK @ arrl.net

TMRA
P.O. BOX 9673
TOLEDO, OH
43697-9673

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