



# *TMRA Amateur Radio Beacon*

*The Toledo Mobile Radio Association is an ARRL Special Services Club Serving Northwest Ohio Since 1953*



---

**JANUARY 2004**

---

## **Kid's Day Is Sunday, January 4!**

For the first time, Kid's Day will occur on a Sunday. The first 2004 running of this popular operating event will be Sunday, January 4. (the second Kid's Day in 2004 will be Saturday, June 19) Intended to encourage young people--licensed or not--to enjoy Amateur Radio, Kid's Day offers a "mentoring opportunity" for experienced amateurs while giving youngsters some firsthand hamming experience and perhaps sparking a lifelong interest.

"Kid's Day is an opportunity to introduce your own youngsters, neighborhood kids and nieces and nephews to participate in the magic of ham radio," suggests Jean Wolfgang, WB3IOS, of ARRL Field and Educational Services. Originated by the Boring Amateur Radio Club <<http://jzap.com/k7rat/>>, Kid's Day now is sponsored and administered by the ARRL with BARC's cooperation and assistance. Now entering its tenth year, each running of Kid's Day typically attracts more than 1000 participants.

Kid's Day is not a contest, and patience is the byword on both sides of each contact. The role of the licensee and control operator is to help youngsters with the basics, keep an eye on the technical aspects of the operation, observe third-party traffic restrictions <<http://www.arrl.org/FandES/field/regulations/io/3rdparty.html>> when making DX QSOs and ensure station identification at proper intervals. In this event, it's quality of the contacts that counts, not quantity.

Kid's Day will run from 1800 to 2400 UTC, and there's no limit on operating time. The suggested exchange is name, age, location and favorite color. Stations may work the same station again if an operator has changed. Call "CQ Kid's Day."

Suggested frequencies are 14.270-14.300, 21.380-21.400 and 28.350-28.400 MHz plus 2 meter repeater frequencies, with permission from the repeater's sponsor). Guidelines for this event are available on the ARRL Web site <<http://www.arrl.org/FandES/ead/kd-rules.html>>.

All participants are eligible to receive a colorful certificate. Visit the ARRL Kid's Day Survey page <<http://www.arrl.org/FandES/ead/kids-day-survey.html>> to complete a short survey and post your comments. You will then have access to download the certificate page. Or you can send a 9x12 SASE to Boring Amateur Radio Club, PO Box 1357, Boring, OR 97009.

Kid's Day participants are invited to post logs and comments on the Internet <<http://lists.contesting.com/pipermail/kids/>>.

---

## **A New Location For TMRA VE Testing**

Starting with the January 10, 2004, test date TMRA VE testing will be located at the Maumee Fire Station #2. This station is located on Dussel Drive in Maumee. Look for the water tower in the back yard. Testing will take place on the second Saturday of each month. Call Ross, N8SC, at 4196933023 for an appointment.

## FCC Announces New Universal Licensing System Interface

ARLB071

The FCC on December 14 will unveil a new on-line filing interface for its Universal Licensing System (ULS), on the web at, <http://wireless.fcc.gov/uls>, which includes the Amateur Service.

To implement the changes, the ULS on-line filing system will be down from 12 AM EST Saturday, December 13, until 10 AM EST Sunday, December 14.

Among other features, the ULS's new look will include easier-to-read on-screen forms that guide users through filing and simplify such routine tasks as applying for license renewal, address change or vanity call sign. The FCC says the introduction of its new system, called "ULS License Manager," concludes phase one of an ongoing ULS overhaul by the Wireless Telecommunications Bureau.

ULS License Manager will be compatible with most major Web browsers and computer platforms and no longer will require downloading Java and Java Script files. An FCC staffer involved with implementing ULS License Manager notes that all features may not be in place when the system debuts.

The ULS will require all filers to log into the system using an FCC Registration Number (FRN) and Commission Registration System (CORES) password. Taxpayer Identification Numbers (TINs) no longer will be accepted for log-in purposes, the FCC said.

Once the new system is up and running, all licenses and applications in the ULS database will be converted to the new ULS License Manager filing environment.

There's also a new paper version of FCC Form 605, dated December 2003. One change is that Form 605 no longer requests a date of birth and will only accept an FRN and CORES password. There are no Amateur Service-related changes to any Form 605 schedules. The FCC says Amateur Service applicants may continue to use the March 2001 (or later) edition of Form 605, although it encourages use of the newest version. The new FCC Form 605 now is available via the FCC Web site at, <http://www.fcc.gov/Forms/Form605/605.html>.

To assist with any ULS issues after the changeover, the Technical Support Hotline staff will be available Sunday, December 14, from 10 AM until 6 PM EST. Normal hours are weekdays (except holidays) from 8 AM until 6 PM Eastern Time. Technical Support is available via the FCC Web site at, <http://esupport.fcc.gov>, or telephone 877-480-3201 (TTY 202-414-1255).

ULS licensing support and forms information is available weekdays (except holidays) from 8 AM until 5:30 PM Eastern Time via e-mail at [ulshelp@fcc.gov](mailto:ulshelp@fcc.gov), or telephone 888-CALLFCC (225-5322), Option 2 (users also may call 717-338-2888).

### OTHER TOLEDO AREA AMATEUR RADIO ORGANIZATIONS

#### ARES

Lucas County Amateur Radio Emergency Service meetings are held on the 4<sup>th</sup> Saturday of the month in the "Private Dining Room" in St. Luke's Hospital, at 9:00 AM. You are welcome to meet in the cafeteria for breakfast before the meeting. Alternate meeting locations and information will be announced on the daily 6:40 PM net. Contact Mike, KC8FUG at 419-872-1880. **ARES NTS and Training Net** meets daily at 6:40 PM. 146.940- Alternate frequencies are: 147.375+ or 147.270+. **SKYWARN Net** as needed by the NWS, 147.375+ Alternate frequencies are 146.940-, 147.270+ or others announced by "net control".

**GTARA** (146.610-) Meets on the 3<sup>rd</sup> Tuesday of the month at the Red Cross Building, 3100 W. Central, 7:30 PM. Contact John, AA8XS

**SARA** Meets on the 2<sup>nd</sup> Tuesday of the month at the Springfield Twp. Hall, 7617 Angola Rd. at 7:30 PM. Contact Tom, N8MAV, 419-826-7401.

**TRAC** (147.375+, 146.940-) Meets 1<sup>st</sup> Thursday of the month at the Springfield Twp. Hall, 7617 Angola Rd. at 7:30 PM. Contact Terry Caldwell, KC8HQH, 419-874-2173.

**QCWA Chapter 142**, meets 1<sup>st</sup> Saturday of the month at The Big Boy Restaurant, 6609 Airport Hwy. (Across from Spring Meadows) Contact Paul Lentz, K8PL, 419-882-5906. Or email, [plentzk8pl@juno.com](mailto:plentzk8pl@juno.com)

**FRAT** (52.360, 146.835-, 224.280-, 444.650+) Meets on the 1<sup>st</sup> Tuesday of the month. FRAT net follows the Rain Dialup and Amateur News Weekly on Thursday nights starting at 8:30 PM.

## Do you remember Crystal Radios

Many of us had a crystal radio in the past. Whether you built your own from scratch or from a kit, or bought a pre-assembled radio, these simple devices opened up a magical world of communication. There are still people interested in crystal radios and sources for the radios and parts. The web site of "The Xtal Set Society" can be found at [www.midnightscience.com](http://www.midnightscience.com), have some fun and take a step back in time.

---

---

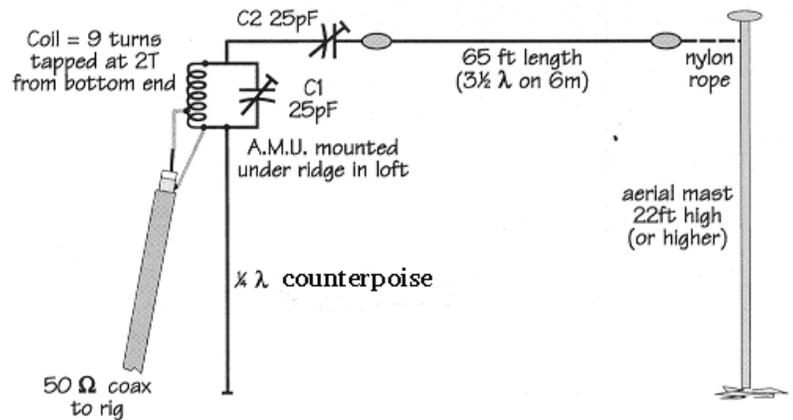
## Long-wire Antenna for Six

Doug, N8WWM

Editors note: This article describes a long wire antenna for six meters that you can build. It can be purchased as a kit, (kit info available at email address at end) or you can gather the parts and build your own. It has been used very successfully in this area. On July 6, 2003, Doug, had a SSB QSO with W7IAN in Ocean Shores, WA. running 75 watts into this antenna. Six meter activity is growing in popularity. Give it a try. The article is adapted from the kit instructions.

### Basic Description And Some Cautions/Advice:

The diagram at the right shows a schematic representation of this antenna. The antenna is 65 feet of ordinary antenna wire, insulated at the far end. The near end connects to an impedance matching unit in an ABS plastic box. The 8/32 machine screw closest to the SO-239 connector is the attachment point for the 4'8" counterpoise. The counterpoise wire effectively RF grounds the antenna system, and is necessary for proper operation. We suggest an old lug nut or something equally weighty be tied to the far end of this wire to keep it from waving around like a straw in the wind. Other than weighting down this wire end, it may be left to dangle below the matching unit. The antenna exhibits a bandwidth of about 5-600 kHz with SWR under 1.5:1 when properly erected. The antenna gives a gain of at least 4 dB over a dipole in four directions at 35 degrees to the run of the wire. There are also several smaller lobes, which are useful. This is about as good as it gets in a wire antenna, and it can of course be arranged in different directions to maximize directivity toward a desired area. In short, it is not a yagi, but it by FAR is not a dipole!



**NOTE:** There are a few extra inches of wire on each enclosed length. After the antenna is laid out and prior to erection, make sure the total length, counting the tie off knots, is as follows:

Main Antenna Wire: 65'  
Counterpoise Wire: 4'8"

### Waterproofing:

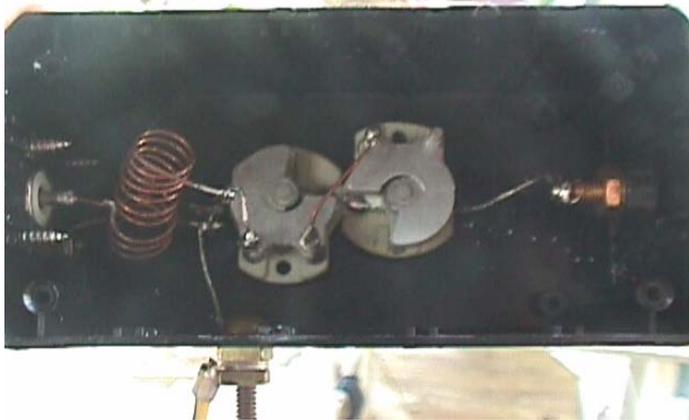
It is highly suggested that you use plumber's goop or some other sealant around the snap on top of the plastic box, the SO-239 connector, and the 2 8/32 machine screws that protrude from the matching unit as attachment points for the

antenna wire and counterpoise. Water can get in ANYWHERE! Take the proper precautions for trouble free operation! After you perform the final SWR adjustments on the assembled antenna, a length of duct tape over the face of the box and the capacitor shafts will be required to keep water out of the container.

#### *Tuning This Antenna:*

THIS ANTENNA MUST BE APPROXIMATELY 22 FT. IN THE AIR AND BE RELATIVELY FREE OF OBSTRUCTIONS WITHIN 10 FT. OR SO OF THE AREA BROADSIDE TO THE WIRE TO WORK PROPERLY. LOWER HEIGHT OR OBSTRUCTIONS WILL MAKE IT VERY HARD TO TUNE. PLEASE PLAN ACCORDINGLY.

As this unit comes to you, (in the kit) the variable capacitors are set "about right". Your mileage will vary, but a properly erected antenna will be in the ballpark. The method of adjustment is to set C2 to about half capacity and then adjust C1 for best noise on receive. Then feed in a carrier (or an audio tone on SSB) and adjust C1 for a low SWR reading. 1.2:1 was achievable with minor adjusting. The picture below shows approximate capacitor settings. No problems with 'RF in the shack' have been encountered at 90 watts SSB.



#### *Mounting The Matching Unit:*

Before the coax cable has been screwed onto the unit's SO-239 connector take a hose clamp and slide a cable tie inside it. After attaching the coax cable to the impedance matching unit, slide this assembly over the PL-259/SO-239 assembly with the "nub" of the cable tie closest to the matching unit. Tighten the hose clamp on the PL-259 connector. This will trap the nub and keep the looped cable tie from sliding out of the clamp. This nylon loop can then be used to secure the matching unit to an eave or a mast.

#### *Notes on Coax cable----PAY ATTENTION! THIS IS IMPORTANT!!!*

You should NOT use RG-58/U or RG-8X<"mini-8"> coax cable on this antenna or any VHF antenna where the cable run is more than a VERY few feet. In a 100 ft run of RG-58/U coax cable you can lose more than 50% of your output power before it gets to the antenna. This may be OK with you as long as you can hit the local repeater on 2 meters, but remember that the same is also true with your receive as well. A weak signal on 6 meter SSB that is lost due to cheap coax is lost for good, and you don't even know it until your pals ask you why you can't hear that weak one they are copying. RG-8/U cable, such as Belden 8214 or Belden 8237 is the MINIMUM quality of Coax cable practically useable on VHF, Period. Some guys with deep pockets won't even consider coax cable; they use expensive hardline cable to get the last 1/2 dB of performance. Bottom line: Get the BEST you can afford. It truly does make a difference.

#### *FINAL NOTES:*

Keep your coax runs as short as possible.

Have experienced help if you don't know what you are doing

Watch power lines

Careful with those ladders!

Questions, problems, or kit information???

Email us!

Superskyhooks@juno.com

## Foundation For Amateur Radio Solicits Scholarship Applications

The Foundation for Amateur Radio Inc (FAR), a non-profit organization headquartered in Washington, DC, plans to administer 59 scholarships for the 2004-2005 academic year to assist radio amateurs. Comprised of more than 75 area Amateur Radio clubs, FAR fully funds seven of these scholarships with income from grants and its annual hamfest. The foundation administers the remaining 52 without cost to the donors.

FAR invites Amateur Radio licensees planning to pursue a full-time course of study beyond high school and now enrolled in or accepted for enrollment at an accredited university, college or technical school to compete for these scholarships. Awards range from \$500 to \$2500. Preference in some cases goes to residents of specific geographical areas or to those pursuing certain programs of study.

FAR encourages Amateur Radio clubs--especially those in Delaware, Florida, Maryland, Ohio, Pennsylvania, Texas, Virginia and Wisconsin--to announce these scholarship opportunities at meetings, in newsletters, during training classes, on nets and on Web pages.

Additional information and an application form is available by sending a letter or QSL card postmarked prior to April 30, 2004, to FAR Scholarships, PO Box 831, Riverdale, MD 20738.

---

---

### TMRA Christmas Party

The Christmas Party was a great success with the help of Sallie, KA8NNM and her crew. There was a lot of good food, fellowship and laughter. Santa talked to the children via the radio since he was delayed at his other stop. The children enjoyed the gifts that they received. Thank you to everyone who participated and if you were not able to make it this year plan on attending next year.

---

---



### Hamfest March 21, 2004

Our hamfest is just 2 1/2 months away!! Help will be needed with security, ticket sales, set-up, take down, information table and talk-in. To help contact the following people: Security - Randi, KC8IVV, 837-5828; Ticket Sales - Jim, KC8BAA, 385-3584; Physical Arrangements - Chuck, KB8FXJ, 866-5928; Talk-In - Steve, WA8TER, 893-9106 and Information Table - Brenda, KB8IUP, 866-5928. If you do not contact them they will surely get a hold of you. This hamfest is the whole clubs responsibility not just the committee's. The hamfest is what keeps our club going. It is what we depend on for keeping up the equipment of the club and other expenses that we have. Our dues are only a minute portion our. Make it a point to be an active part of TMRA by helping with the hamfest. Sure it is nice to come and see what is there but the committee is asking for only about 1-2 hrs. of your time to help. There will be plenty of time for looking and shopping. If you have any questions you can contact Brian, WD8MXR, 385-5624.

The **TMRA Amateur Radio Beacon** is published monthly by the Toledo Mobile Radio Association. Editors: Brenda, KB8IUP, and Chuck, KB8FXJ. Email, [kb8iup@arrl.net](mailto:kb8iup@arrl.net)

## TMRA SWAP AND SHOP:

CURRENT AS OF December 29, 2003

### FOR SALE:

NEAL WA8KMM 419-729-4219 or [wa8kmm@arrl.net](mailto:wa8kmm@arrl.net). Computer with Windows 98, keyboard, monitor, 56K modem, sound card, 1GigHD, 3½" floppy drive, CD ROM, CD player. - Make offer. (Date listed 12/7/03) \*\*\*\*

DOUG N8WWM [n8wwm@arrl.net](mailto:n8wwm@arrl.net). Aluminum 2m/440MHz J pole antennas. (Date listed 12/7/03) \*\*\*\*

JACK K8MNG 419-893-1888 Johnson Matchbox ant tuner – handles up to 1.5 Kw., Alpha amplifier #76TA – 1.5Kw with three 8874s. (Date listed 12/14/03) \*\*\*

BRIAN WD8MXR 419-385-5624 from station of SK Francis W8JJK: 14 ele 2m beam KLM #144-148-14 assembled, boom in two sections, with instruction manual, new condition, never used - \$100.00. Ham IV #304 rotor, never used, still in box (no control unit) with approx 100' control cable, with instruction manual. Two Heathkit Antenna dummy loads #HN31 with instruction manual - \$10.00 each. Cobra 40 channel CB tcvr # 19X, with mike, no manual –\$25.00. Drake low pass filter # TV3300LP, up to 30MHz, handles up to 1Kw - \$30.00. Van Gorden 1:1 HiQ balun, never used - \$5.00. (Date listed 12/7/03) \*\*\*\*

### LOOKING FOR:

JIM VE3TCU [ve3tcu@rac.ca](mailto:ve3tcu@rac.ca) GE MVP UHF radio – needs the Rx part to be working. (Date listed 12/14/03) \*\*\*

The number of \* following each listing is the number of times that it has been on the Sunday evening Net.

The Swap and Shop is a service of the TMRA, open to all amateurs or interested persons in the coverage area of the repeater.

To list items of Amateur Radio interest, check into the Net Sunday evenings after the TMRA Information Net on 147.27/87, or call me at 419-385-5624, or mail to my address, or leave a message for me on the TMRA packet BBS W8HHF, or if you see me in person, or to my e-mail [bharrington@mco.edu](mailto:bharrington@mco.edu)

The TMRA reserves the right to decline to accept any listing. *Any descriptions of items listed are those of the person listing the item(s).* Items are kept on the Swap and Shop listing for a period of 4 weeks, i.e. 5 Sundays on the air - after which they are dropped from the list; renewals are welcome. Please notify me promptly when there is no longer a need to continue a listing.

When the TMRA Newsletter is published each month, the then current Swap and Shop listings are included the Newsletter .

Prices are not mentioned over the air, but will be shown in the Newsletter

73 Brian WD8MXR

---

### **The Prez Sez:**

Happy New Year TMRA members (and others who may receive this newsletter). Last month I missed another newsletter deadline, that's why you didn't read any articles written by me. But, I did (and still do) have a few things to say. Right off the bat, I would like to thank those who have responded so quickly for your renewals. I am currently playing 'catch up' processing the applications as the response has been quite good so far. But I'm loving it! You have no idea how much easier you are making the process, by not waiting until the last minute to renew. So far to date I have approximately 100 membership renewals. For those who are eligible, they will be entered into the drawing for a free membership for the year 2005. I will have the drawing at the January general membership meeting. You do not have to be present to win, but it is always encouraged.

For those who haven't yet renewed, in this issue of the newsletter you will find another copy of the club's application for membership. Please don't wait until a time when I have to remind you that your newsletter subscription will stop. If you've already taken the time to renew, thank you very much and I'm sorry I have to bother you again. Unfortunately there are those folks who miss it the first time around, and I don't want to miss them, so we include an application with this newsletter just for that purpose. Keep in mind though, I would hate to see any extra applications go to waste, so if you don't need this one, pass it along to a friend who may be interested in joining the club, or get it back to me to pass along to someone else.

Congratulations go to Howard Fuller, W8NEE. Howard was voted in as our newest trustee at the November general meeting. He fills the vacancy created because I was re-elected as president. The term is for five years through September 30, 2008. I'm sure Howard will prove to be a valuable member of the Board.

I hope everyone enjoyed the club's Christmas party, and I hope everyone had a Merry Christmas and will have a Happy New Year.

73 de KB8PAI

Tom Swartz, President and Membership Chairman

KB8PAI@ARRL.NET

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

Non-Profit Org.  
U.S. Postage  
**PAID**  
Toledo, OH  
Permit No. 906

January 2004

---

---

The January LCARES Meeting will be at Toledo Fire Station #1. (Orange and Huron Streets)  
This is where the ARES Truck and Trailer are stored. The time of the meeting is 9:00 AM. For  
more information listen (and check into) the daily LCARES training net on the 146.940-  
repeater, at 6:40 PM.

---

---

Check into the 7:30 PM TMRA net on Sunday night. Lots of good information. On the TMRA  
repeaters. 147.270+ and 442.850+.

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

President, Tom, KB8PAI; Vice-President, Steve, W8TER; Secretary, Randi, KC8IVV;

Treasurer, Chuck, N8NIR; Public Information Officer, Paul, N8XDB.

TMRA Home Page [www.tmrahamradio.org](http://www.tmrahamradio.org) Webmaster, Corey, KC8HQQ

TMRA W8HHF Repeaters; 29.680-, 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) Please "ID" before using phone-patch.

(10 digit dialing, \*up and #down)

TMRA W8HHF Packet BBS Frequencies 51.780, 145.690, 223.480, 441.060

The TMRA meets at 7:30 PM every second Wednesday in

The Electrical Industry Building, Lime City Rd. Rossford, Ohio.

The TMRA information net meets every Sunday night at 8:30 PM, followed by the "Swap 'N-Shop" net on the linked  
147.270+ and 442.850+ repeaters. All amateurs are invited to check-in. Voice Mail 419-535-6594