

# The Repeater



The Official Publication of the Twin Cities Repeater Club, Inc.

## Mission Statement of the Twin Cities Repeater Club, as Adopted on September 20, 1993

The purpose of the TCRC is to facilitate the local communication needs of its members by owning and operating a state of the art wide area coverage two meter repeater system. The club will further involve itself in secondary activities intended to (1) promote the exchange of ideas and information related to amateur radio, (2) strengthen the fellowship and camaraderie among the members, (3) serve the local amateur radio community, and (4) increase local public safety.

## PRESIDENT'S LETTER

CQ de WBØJMG

Hi everybody, I am writing this while sitting in the coffee shop in Apple Valley on a cold night in February. Some folks came in and the discussion turned to antennas and rigs. Dipoles, loops, ground planes, etc. They left, and others came in and the discussion turned to Software defined radio and even remote controlled or PC control of Ham Radio. Discussion followed about D-Star and other digital modes.

It seems to me that this is a good venue to discuss these and other ham radio topics. Sometimes someone will bring in a rig, or antenna analyzer or article and that will trigger a whole bunch of discussion. This is a very good and comfortable location to get some one-on-one time with people that have experience and are willing to share it with new hams. There are not many opportunities to have formal classes at the General and Extra Class levels. Some people like to relate on a one-to-one basis and can really get the concepts in that venue. For many years, it was assumed that once you were a Ham you would pick-up the radio art without studying, just by asking questions and listening to the OMs rag chewing on the air. It seems that we have always had this gap. A missing way to follow through after a new ham received their ticket. The Novice class was an attempt to do this. Also the concept of the so called "ELMER" to help new hams learn the culture and art of Ham Radio sometimes is too formal for the beginner.

So my standing invitation is for all the new hams and those that have burning questions about antennas, modes, rigs, etc., should come to the coffee or the breakfast, meet the experienced hams and learn a thing or two. Who knows, perhaps you will learn something without realizing it. It is the most painless method to study radio and electronic arts that exists.

73, de WBØJMG, Artie

Editor's note: TCRC members and other interested people meet at Caribou Coffee, 14638 Cedar Avenue, Apple Valley every Tuesday night after the net. People start arriving shortly after 7:00PM and usually stay until the 10PM closing. Also, TCRC members meet every Saturday morning at Perkins, 17387 Kenyon Avenue West, Lakeville (exit 85 off I35) at 6:00AM. Come on by for a cup of coffee or a complete breakfast and meet some of the fine folks you talk with on the TCRC repeaters.

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Join Us At  
**MIDWINTER  
MADNESS**  
Saturday March  
**23** in Buffalo, Mn  
**8AM-1PM**  
Stop by the TCRC  
table and say hello

**The Repeater** is published quarterly by the Twin Cities Repeater Club, Inc. (the TCRC). The TCRC is organized as a nonprofit corporation in the State of Minnesota, with Articles of Incorporation and Bylaws. The club elects officers annually. These officers are simultaneously elected for a two-year term on the Board of Directors. The Repeater Trustee is a permanent member of the Board of Directors. Unlike the other Officers and Board Members, the Trustee may select a proxy to serve in his place at meetings of the Board. Membership in the TCRC is \$25 per year. The TCRC is an official ARRL affiliated society.

#### **TCRC Officers:**

**President:** Artie Johnson, WBØJMG  
**Vice President:** Dave Ventura, KEØNA  
**Secretary:** Tanna Morse, KCØURO  
**Treasurer:** Walt Richie, KDØXT

#### **Board Members:**

All of the above Officers, plus...  
**Club Trustee:** Chris Buck, WØHO  
**Past Treasurer:** Craig Larsen, KCØDMF  
**Appointed:** Phil Lefever, KBØNES  
**Appointed:** Jeff Goodnuff, WØKF  
**Appointed:** Rod Freeborg, KC9HT

#### **Technical Committee (a/k/a Tech Team):**

Kevin Uhlir, NØBEL, **Chair**  
Phil Lefever, KBØNES, **Vice Chair**  
Doug LaBore, NØBIS  
Rich Kenney, WØRFK  
John Toscano, WØJT  
Jeff Goodnuff, WØKF  
Art Johnson, WBØJMG

#### **Field Day Committee:**

Tanna Morse, KCØURO, **Chair**  
*Open*, **Vice-Chair**  
Kevin Uhlir, NØBEL, **Site Setup Manager**  
*Open*, **FOOD Station Manager**

#### **Information Services Committee:**

Kevin Uhlir, NØBEL, **Chair** and **Head Webmaster**  
Phil Lefever, KBØNES, **Assistant Webmaster**  
John Toscano, WØJT, **Assistant Webmaster**  
Jeff Goodnuff, WØKF, **Web Calendar Maintainer**

#### **Membership Committee:**

Craig Larsen, KCØDMF, **Chair**  
Tanna Morse, KCØURO, **member**  
Dave Ventura, KEØNA, **member**

#### **Newsletter Committee:**

John Toscano, WØJT, **Editor**

#### **Net Control Operators:**

**Chair:** Jeff Goodnuff, WØKF  
1<sup>st</sup> Tuesday: Jeff Goodnuff, WØKF  
2<sup>nd</sup> Tuesday: Rod Freeborg, KC9HT  
3<sup>rd</sup> Tuesday: Artie Johnson, WBØJMG  
4<sup>th</sup> Tuesday: Phil Lefever, KBØNES  
5<sup>th</sup> Tuesday: Open

#### **Metro Skywarn Liaison:**

Jeff Goodnuff, WØKF

#### **Minnesota Repeater Council Liaison:**

Chris Buck, WØHO

#### **Emergency Services Coordinator:**

Janet Skovran, KBØZFB

#### **TCRC Club Trustee:**

Chris Buck, WØHO

# Skywarn Classes

All Skywarn spotters must take a training class every two years. That means if you didn't take one last year you must take one this year. The TCRC is again sponsoring two Skywarn spotter training classes in 2013. The first class was held on March 2 and 18 students attended. The last class will be held on Saturday, May 18. The classes are from 9AM until 1PM and are held at the Open Circle Church, 2400 Highland Drive, Burnsville, MN. They are free. If you need more information contact Jeff, WØKF, at 952-927-0201.



## New Treasurer

On December 4, 2012 at the annual membership meeting, the TCRC membership elected a new treasurer, Walt Richie, KDØXT. Walt is a long time TCRC member and formerly WBØMKG. He is holds an extra class license and lives in Farmington. Walt will be delighted to accept your annual membership dues of \$25.

The Board of Directors extends its heartfelt thanks to our long time former treasurer, Craig Larsen, KCØDMF, who will continue as our membership committee chair. Thank you, Craig, for a job well done.



## Welcome New Members

|        |     |         |           |
|--------|-----|---------|-----------|
| KCONIB | Mr. | Jeffrey | Kline     |
| KDOUER | Mr. | Paul    | Bailey    |
| KCOVOO | Mr. | Shawn   | Burckhard |
| NOYNT  | Mr. | Matt    | Genelin   |



# UTC ?

By Craig Larsen, KCØDMF

Recently a co-worker asked me, "Why do they call it Coordinated Universal Time when the acronym is UTC?" I wondered if this was some sort of Latin thing. So I dug into it. Before reading on, what do you think the acronym UTC actually represents?

For those that don't know, UTC is a primary time standard by which the world regulates time with high precision. The International Telecommunications Union (ITU) came up with the current version of UTC back in the 1970's. The ITU wanted a single abbreviation that could be used in all languages. However an agreement could not be reached between the French acronym TUC (Temps Universel Coordonne) and the English acronym CUT (Coordinated Universal Time). Consequently, UTC was reached as a compromise.

So this was really a trick question. The acronym UTC does not directly follow the ordering U T and C. It is an acronym that does not favor any particular language and can be used by all languages.



## Arnie Pung Award

Arnie Pung, WØEQS, was a member of the TCRC who took an active role in the early formation of the club. He originally joined the TCRC in 1977, served as treasurer in 1983 and on the board of directors in 1984. Arnie had a reputation for being helpful and willing to take on any task that needed doing for the club. Unfortunately, he passed away at the young age of 52 of cancer on January 15, 1988. In honor of Arnie and his good works the TCRC established the Arnie Pung Award given annually to the TCRC member that best exemplified Arnie's Good Service attitude.

The plaque is now full and has been retired and placed on display in the TCRC repeater shack.

A photograph of the plaque appears at the top of the next column.



## New Products

By Artie Johnson, WBØJMG

I recently saw an article about a 6 year old that received their ham license and was suddenly struck with an idea about a whole new market for Ham Radio equipment:

“Baby’s first oscilloscope” Offered in pastel pink or blue. Has rubber covered knobs for youngsters who are teething? Brightly colored display of dancing sine waves for endless entertainment.

“My little hand held” Her first Two meter FM radio with baby-talk speech converter. Baby monitor option.

“HF antenna fun box” Antenna tuner that will load up the crib bed-springs for the early morning feeding/dx openings. Comes with brightly colored wire, pacifier shaped insulators, and glow-in-the-dark coax.

“Crayola log-book” Big print version with extra wide margins and cute cartoons of the DXCC countries. Comes with built in sharpener and

box of 64 colors. Colors will not stain the operating desk.

“Field-day-dydees” Youth contesting “Pampers” with ARRL logo.

“High-shack” High chair with radios mounted in the tray. Extra wide base for stability and good antenna counterpoise grounding. High dielectric seat cushions and lap belt assure high Q and low angle of radiation.

“My first mobile” Car seat with built in radio and headphones. Easily detached and can be carried with one hand. Quick disconnect for the car’s HF antenna for easy transport. UHF and VHF antennas are built into the handle and the base contains an 8 Amp-Hour rechargeable battery.

“Antenna Farm” Miniature desktop hobby farm with Yagi and Delta V and Log-Periodic antennas “growing” out of the landscape. Learn the wonders of nature by “growing” your own ground-plane antenna. Learn agriculture, ecology, and antenna simulation. Antenna towers and lightning arrestors sold separately.

“Lil Camper’s DX-pedition kit” Includes back yard tent, simulated generators, pretend antennas, plastic food, bad tasting water, unfamiliar insects, and special uniform and badge to play “corrupt local officials.”

“DXCC game” You and your friends take turns being a DX station, wearing earmuffs, while the others try to “contact” you by shouting, interrupting, yelling, making rude noises and whistling. Players collect playing cards to proudly display on the wall. Fun ensues when cards may arrive years later. First person to get 100 cards wins.

“See’n Say Schematics” Hours of fun while you learn your schematic symbols. Just point to the shape and pull the lever. Also available in Oscillator, amplifier, and active filter versions. “The oscillator says ”Tweeeee” etc.

“Big numbers UTC clock” Learn to tell time the international way. Big friendly green glowing numbers between 0000z and 2359z on this large face clock make it the best nursery night-light ever. With optional sound effects like a real

WWV or CHU receiver to quickly lull you to sleep. Nighty-night!

● ● ●  
**Field Day 2013**  
By Tanna Morse, KCØURO



**Looking Forward to Field Day**

The largest on-air amateur radio event is not far away, June 22-23, 2013 and the TCRC is preparing for a weekend of fun and amateur radio adventure. Field Day 2012 saw good ham operator participation: this year the TCRC will set up operations in the comfort of Terrace Oaks West Park right in the heart of Burnsville. A good crowd is expected again this year at the family potluck picnic on Saturday, June 22<sup>nd</sup>. Stay tuned; more information about planning meetings and event details will appear soon on the TCRC web site and on the Field Day reflector. We certainly look forward to seeing you at the Field Day event in 2013!



Location: N 44°46'16.5" W 93°14'50.5"



Main Pavilion



Yes! It has A/C



Covered Picnic Area



Parking Lot



Fun For All Ages!



Picnic Area – Close-up



**Twin Cities Repeater Club, Inc.**  
**P.O. Box 11534**  
**St. Paul, MN 55111-0534**

**Place  
Stamp  
Here -**

Your Membership Dues Have Expired.  
 Please Renew your Membership Today!

## Join the Twin Cities Repeater Club!

**P.O. Box 11534, St. Paul, MN 55111-0534**

<http://www.tcrc.org>

There are two ways to register:

- 1) Return this completed application form (to the mailing address indicated above) along with your \$25 check payable to: **Twin Cities Repeater Club**

**OR**

- 2) You can fill out this form electronically (at the web address indicated above) and pay online using PayPal.

(Please check one) This is  New Application  Renewal  Change Date \_\_\_\_\_

Name \_\_\_\_\_ Callsign \_\_\_\_\_

Address \_\_\_\_\_ License Class \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Home Phone \_\_\_\_\_ Work Phone \_\_\_\_\_ Cell Phone \_\_\_\_\_

E-mail Address \_\_\_\_\_

Please note: For your privacy, an e-mail alias will be set up using ***yourcallsign@tcrc.org***. E-mails sent to this alias will be redirected to the e-mail address you indicated above.

May we list your address in club publications?  Yes  No

May we list your phone in club publications?  Yes  No

Are you available for Emergency Service?  Yes  No

Are you a member of the ARRL?  Yes  No

Are you a member of Metro Skywarn?  Yes  No; (if Yes) spotter ID: \_\_\_\_\_

Are you a member of ARES?  Yes  No

Would you like a club ID badge?  Yes  No (free to new members, otherwise \$5.00)