

# 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.

## TCRC Quarterly Membership Meeting Tuesday, September 13, 2005 7:30 PM until ???

The next Quarterly membership meeting of the Twin Cities Repeater Club will be held next Tuesday, September 13<sup>th</sup>, at the Galaxie Branch of the Dakota County Library. This is in Apple Valley, at 14995 Galaxie Avenue. If you know where the Tuesday evening coffee gatherings are held (Caribou Coffee, 147<sup>th</sup> and Cedar Avenue, in Apple Valley), you will have no problem finding the library. Just drive East on 147<sup>th</sup> until you get to Galaxie Avenue, and then turn right (South). Just before you reach County Road 42, you will see the entrance to the library on your right.

As we usually do on the Tuesday evenings of the quarterly membership meeting, we will have an abbreviated version of the TCRC Information Exchange net, from 7:00 PM to about 7:30 PM, so the meeting can get started at that time. You are welcome to show up at the library before 7:30 PM (as early as 6:45 PM is okay), so you can chat with the other folks who have come to the meeting, and enjoy the coffee and cookies that will be provided. We hope to see you there!



## Field Day – The GOTA Experience Craig Larsen, KCØDMF

This year was my first time being station manager for the GOTA station. What a blast. So much so, I wanted to share some of my experiences. For those who don't know what Field Day is, let me explain. It is a radio contest occurring the last weekend in June. The goal is to make as many radio contacts as possible in 24 hours, with only 24 hours to setup and prepare everything, simulating an emergency (disaster, etc) where normal communication are out of service. It's probably the biggest TCRC social event of the year with bonfires, chatting with friendly folk, and camping out. Basically, we have a great time.

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*Please Join Us  
for the Quarterly  
Membership  
Meeting,  
Tuesday  
Evening,  
September 13<sup>th</sup>,  
at the Dakota  
County Library  
in Apple Valley!*

**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:** Phil Lefever, KBØNES

**Vice President:** Mark Neumanm KCØITP

**Secretary:** Jim Rice, NØOA

**Treasurer:** Craig Larsen, KCØDMF

#### **Board Members:**

All of the above Officers, plus...

Ivan Frantz, WØBU, **Repeater Trustee**

*Ivan has currently appointed Mogens Dantoft, OZ9MD, as his proxy for Board Meetings.*

Steve Filek, NØOWL, Past Vice-President

Jeff Goodnuff, WØKF

Larry Jenkins, KØLEJ

Artie Johnson, WBØJMG

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

Kevin Uhlir, NØBEL, **Chair**

Phil Lefever, KBØNES, **Vice Chair**

Doug LaBore, NØBIS

Mike Ferguson, NØDGG

Rich Kenney, WØRFK

John Toscano, WØJT

John Phelps, KFØZM

Steve Filek, NØOWL

Kent Peterson, KCØDGY

John Laxson, KCØPZN

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

Mark Neuman, KCØITP, **Chair**

Jim Rice, NØOA, **Vice-Chair**

Kevin Uhlir, NØBEL, **Site Setup Manager**

Monica Filek, KBØUWZ, **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:**

Doug Ayers, NAØVY, **Chair**

#### **Newsletter Committee:**

John Toscano, WØJT, **Editor**

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

*(Vacant)*, 1<sup>st</sup> Tuesday

Larry Jenkins, KØLEJ, **Chair**, 2<sup>nd</sup> Tuesday

Steve Shaner, ABØYS, 3<sup>rd</sup> Tuesday

Phil Lefever, KBØNES, 4<sup>th</sup> Tuesday

John Toscano, WØJT, 5<sup>th</sup> Tuesday

Jeff Goodnuff, WØKF, alternate

Mark Newman, KCØITP, alternate

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

Jeff Goodnuff, WØKF

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

Jeff Goodnuff, WØKF

*Field Day, the GOTA Experience, continued from page 1.*

So, knowing about Field Day, what is GOTA? We operated five radio stations this year for the contest. One of these radios was designated our GOTA (Get On The Air) station. While the other stations focus on making contacts and getting points, the GOTA station focuses more on getting novice-class, technician-class, inactive hams, and non-licensed operators to experience amateur radio and "get on the air." It's cool, and encourages the hobby because non-operators can try out a radio without owning expensive equipment.

We started preparations the day before the event. We set up tents and placed trailers for temporary bases. We put up antennas, hooked up radios, and tested everything to make sure things were ready to go. I experienced first hand setting up a temporary station for an emergency. And I learned the items necessary for operation.

My duties were numerous during the contest:

- ensure proper legal radio operation of the GOTA station
- assist others to use the radio and make a contact
- answer questions from visitors
- stay alert to changing frequencies and stations

It was 24 hours of steady, non-stop action that kept me there all night. I loved it. (Well, ok, I cut out for a couple hours to nap.) It was busy, but it was also rewarding.

Let me tell you about some of the highlights. Sunday morning brought us a bike-powered radio. We made 10 contacts (earning extra bonus points) as we pedaled. At the station, a father brought his sons along; they all got on the radio and made contacts. They had so much fun. I believe they intended to leave before supper, but I saw them well after sunset. It was a blast working with them. Probably the biggest highlight for me came on Sunday morning. All alone with a lull in visitors, it seemed a good time to try calling CQ. As I started to call, I began getting a line up of contacts. So I worked them as quickly as I could. They kept coming one after another. I got so into it. I was so busy, I didn't even notice other hams coming into the tent to see how things were going. Some decided to leave so I could harvest points for our club. Finally, someone got my attention. I had easily gained the minimum points needed to earn a bonus for the GOTA station and could call it a day. It was awesome!

After the contest, after all the tear-down was completed, after most everyone had gone home and with only a few hours sleep, three of us went out to eat and discuss the event. We got excited with the idea of doing more contests in the future. We discussed getting more equipment for the next Field Day, things we could do differently, etc. I shared about my desire to upgrade my license. We talked a couple of hours before finally calling it a day.

I later shared my experiences with some out-of-state amateur radio friends. Their experiences were much different from mine, which showed me what a great group of people we have in our club.

I believe this was a great experience. Operating the GOTA station is a great way to learn how to contest. It prepares you to operate the more difficult stations and bands. [Begin gratuitous ad] "Obviously, I highly recommend a visit next year to the GOTA Station!" [End gratuitous ad] Overall, I had a great time and met new people. And I got to share with others (like you) my excitement for this hobby. 'nuff said. See you at the next Field Day?

# Welcome, New Members!

The following folks have recently joined the ranks of the Twin Cities Repeater Club. Please welcome them the next time you hear them on one of our repeaters! The club thanks them for their willingness to participate.

Callsign	Name
N0KCK	Jeff Smith
N0SAT	Greg Opatrny
K5SIM	Daniel Klein
K0UC	Brady Palmquist
KCOURN	Gene Grueschow
W0UYR	John Anderson

Callsign	Name
KCOUTF	Amanda Dickhut
KCOURD	Tom Green
KCOUQY	Grace E. Morris
KCOUDJ	Aaron White
KCOURO	Tanna Morse
	Dimitrios Hilton



## Request for Newsletter Submissions

**John P. Toscano, WØJT, Newsletter Editor**

The year is ¾ over, and this is only the second issue of The Repeater for the year 2005. The main reason for this is that I have had unusually few submissions of articles (or even ideas for articles) for inclusion in the newsletter. While I love to write (when I can find the time), this is not John's Newsletter, this is **YOUR** Newsletter, as in **YOU**, the readers of this publication. If you have information to share with your fellow TCRC members, this is a highly desirable commodity that can be shared by sending it to your overworked newsletter editor.

If there is some topic you'd like to see covered in a future edition of the TCRC newsletter, I'd love to hear from you. You can send me a finished article, an outline, or even an idea for an article. Don't worry about your writing skills, I will be happy to do my job as editor and tweak your submissions into an article that meets the high standards our members have come to expect from us. Any document format that Microsoft Word can understand is fine for me, including plain vanilla unformatted ASCII text. Send ideas or articles to me at: [WØJT@tcrc.org](mailto:WØJT@tcrc.org) Thanks in advance!



## Field Day 2005 – The Satellite Perspective

**John P. Toscano, WØJT**

This year, as happened in 1998 through 2002, I was the VHF/UHF/Satellite Station Manager for the TCRC. (In 2003 and 2004, for a change of pace, I ran one of the HF stations.)

The VHF station can be a lot of fun, especially if there is a lot of Sporadic E propagation on 6 meters, but when 6 meters is "closed", it can get mighty lonely up there in the VHF station. In 2001, my solution was to bring out equipment for 6 bands (50 through 1296 MHz), and to invite one of our other club members to bring out 10 GHz equipment too. It was a lot of fun, but it was an incredible amount of extra work in setup and

teardown, and we barely averted a disaster while raising the VHF tower when the mast turned out to be too weak to support my (nearly \$1,000 worth of) antennas!

Anyway, this year I decided to keep things simple, but to improve the setup for working the Amateur Radio Satellites. I needed only one radio, my FT-847, for the three bands we used (50, 144, and 432 MHz), left behind the extra power amplifiers, and all the other radios and transverters. The upgrade for satellite operations was to include the ability to elevate the 144 and 432 antennas to allow me to better track the satellites. In past years, without elevation ability, we were restricted to satellite passes that were close to the horizon, and we couldn't work any high overhead passes.

In keeping with the plan to keep things simple, I set up my Palm Pilot (handheld PDA) with the information on the satellites I planned to work, pre-computed all the passes that would occur during contest hours, and set an alarm on each pass. That way, instead of having to continually watch a laptop display for the next pass, or flip through dozens of printed pages of pass predictions to see when the next one would occur (oops, it just went by 10 minutes ago!), I could operate in regular VHF/UHF mode, and be "beeped" by my PDA when the next satellite pass was about to begin. I could then decide if I would go for it or not, depending on what was happening with terrestrial contacts. So this year, I got the chance to work most of the satellite passes that occurred during the Field Day hours, instead of only a few.

I only concentrated on three "linear transponder" satellites this year, because the FM satellites all suffer from the same limitation as a repeater – only one QSO at a time is possible, and dozens of stations would all be "fighting" for that single available channel on FM. I stuck with SSB on AO-7, FO-29, and VO-52. On these satellites, there could be a dozen or more QSO's taking place all at the same time, each one using a small "slice" of the transponder's bandwidth.

To make a long story short, I got "skunked" on FO-29, which was the satellite we had usually worked in prior years. I managed a couple of QSO's on AO-7, a satellite that was launched in 1974, but went "dead" due to battery problems from 1981-2002, at which time it miraculously "arose from the dead" when the short circuit in the batteries opened up, and power could once again flow from the solar panels. My most pleasurable (and most numerous) contacts were on Hamsat, a/k/a VO-52, which was just launched earlier this year, by Amsat India. This newcomer was fabulously easy to work. Even with my transmit power turned down to 10 watts, I could hear my downlink with crystal clarity, once I got the settings in my FT-847 entered correctly! It has become my new favorite satellite!

I probably didn't set any records for the VHF station this year, but I know that we had more satellite contacts this year than in any year since I've been coming to Field Day, which is 1998 to the present! And for a change, I spent more time having fun and less time setting up, tearing down, and putting the station gear away after getting home on Sunday!



**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>

Fill out this Membership Application Form, and mail it with your check for \$25.00 payable to the Twin Cities Repeater Club, to the mailing address listed above. You can also fill out this form electronically at the web address listed above, and either send us a check, or pay online using the PayPal system.

Name \_\_\_\_\_ Callsign \_\_\_\_\_ License Class \_\_\_\_\_

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

Home Phone \_\_\_\_\_ Work Phone \_\_\_\_\_ Computer Phone \_\_\_\_\_

Ok to list your address in club publications?    \_\_\_No \_\_\_Yes

Ok to list your phone in club publications?    \_\_\_No \_\_\_Yes

Are you available for Emergency Service?    \_\_\_No \_\_\_Yes

Are you a member of the ARRL?    \_\_\_No \_\_\_Yes

Are you a member of Metro Skywarn?    \_\_\_No \_\_\_Yes, spotter ID: \_\_\_\_\_

Are you a member of ARES?    \_\_\_No \_\_\_Yes

Would you like an autodial speed dial number?    \_\_\_No \_\_\_Yes, to phone # \_\_\_\_\_

Would you like a club ID badge?    \_\_\_No \_\_\_Yes (free to new members, otherwise \$5.00)

What is your internet e-mail adress, if any?    \_\_\_None

Would you like an e-mail alias set up, so that mail sent to **yourcallsign@tcrc.org** gets redirected to the e-mail address you listed above? This can be handy on the air!    \_\_\_No \_\_\_Yes

Do you want a copy of the TCRC Handbook?    \_\_\_No \_\_\_Yes (add \$9.50, which includes postage)

Do you want a TCRC binder to hold it?    \_\_\_No \_\_\_Yes (Add \$5.50 to the above)

This is \_\_\_New Application \_\_\_Renewal \_\_\_Other Change \_\_\_Callsign update, old call was \_\_\_\_\_