

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.



I Need You. . . for Field Day 2003

The ARRL sponsored Field Day event takes place on the 4th full weekend of June in each year. This places it on the weekend of June 28-29th this year.

Field Day, for those that aren't familiar with it, is an amateur radio Contest/Social Event with its major intent of being that of an Emergency Preparedness drill. The intent is to teach us how to operate in "less than ideal conditions" using a station that is temporarily assembled just for the event. Amateurs that participate in Field Day learn just what it takes to set up a workable communication system in the event of a local disaster that takes existing means of communication down. This is a highly useful experience, and everyone will agree it is a lot of fun too!

Our effort will cover the HF and VHF bands using a total of 5 stations. We will erect temporary towers and run everything with generator power. The ARRL does give us the advantage of starting our setup period 24 hours before the operating event starts. This means that we will start setup on Friday afternoon around 1:00PM. The actual radio operation part of the event will run from 1:00PM Saturday to 1:00PM Sunday. Starting shortly after 1:00PM Sunday we will need to take everything down and pack it all up.

For us to pull off a successful effort we need the help of as many people as possible! So far this year enthusiasm for the event has seemed to be down compared to years past. We do normally see interest build as the event approaches. While the world events of the past years have changed people's lives, the need for emergency Amateur Radio communications has only increased. It is my hope that as many TCRC members and their friends can come out to join us for the event this year

Involvement in Field Day can be as little or as great as you want it to be. We are currently looking for a few more people to head up stations and other organizational tasks. We will also need a number of people to help with the setup and tear down on Friday and Sunday afternoons. Let's not forget that we will also need operators to keep the radios active for the entire 24-hour event duration! This is a great chance to try out a new band or mode when the bands are hopping. Of course we will also need a number of people to partake in the camaraderie and good food on Saturday evening! Four of the stations will be operating under the callsign of Ivan Frantz, WØBU, so even if you have a Technician license, or no license at all, you can be "an Extra Class Ham For A Day" at Field Day!

If you would like to know more about Field Day, or if you are curious as to how you can help out, please drop me an email at kb0nes@tcrc.org. During the event we will use the club's 147.21 repeater for coordination and talk in for the event. I hope to see many old members, and especially new TCRC members at Field Day 2003!

73, Phil Lefever, KBØNES, TCRC Field Day Chairman for 2003, kb0nes@tcrc.org

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Inside this issue

Mission Statement.....	1
I Need You...for Field Day 2003	1
Club Contact List	2
President's Report	2
FØOD Station Reminder	2
Welcome, New Members	2
Volunteers (Still) Needed	2
Volunteer Spotlight – VE's	3
Email Lists: Are You Connected?.....	3
Welcome to 56 Meters!	3
Kids' Day 2003.....	3
Membership Application	4



Remember!
ARRL Field Day 2003
Setup: June 27, 1:00 PM
Operate: June 28-29
Takedown: June 29, 1:00 PM
Please Join Us!

The Repeater is published quarterly by the Twin Cities Repeater Club, Inc. (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: Shanon Haralson, KCØEIG
Vice President: Phil Lefever, KBØNES
Secretary: Jim Rice, NØOA
Treasurer: Pat Cain, KØPC

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.
 Ian Boje, KCØITQ, **Past Vice-President**
 Tim Cole, KØOLE, **Past Secretary**
 Kevin Uhlir, NØBEL
 John Toscano, WØJT

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

Kevin Uhlir, NØBEL, **Chair**
 Phil Lefever, KBØNES, **Vice Chair**
 Shanon Haralson, KCØEIG, **Manager**
 Doug LaBore, NØBIS
 Mike Ferguson, NØDGG
 Rich Kenney, WØRFK
 Steve Filek, NØOWL
 Kelvin Olson, NØMQL
 John Toscano, WØJT
 John Phelps, KFØZM
 Tyler Williams, KØZDA
 Ed Walsh, KØCKK

Field Day Committee:

Phil Lefever, KBØNES, **Chair**
 Kevin Uhlir, NØBEL, **Site Setup Manager**
 Monica Filek, KBØUWZ, **FØOD Station Manager**

Information Services Committee:

Kelvin Olson, NØMQL, **Chair and Head Webmaster**
 Ian Boje, KCØITQ, **Foot Webmaster**
 Phil Lefever, KBØNES, **Assistant Webmaster**
 John Toscano, WØJT, **Assistant WebSlave**

Membership Committee:

(vacant), **Co-Chair**
 (vacant), **Co-Chair**
 Steve Kickert, WØGXO, **Member Meeting Guest Speaker Coordinator**

Newsletter Committee:

John Toscano, WØJT, **Editor**

Net Control Operators:

Kevin Plummer, KBØUEU, **Chair**, 1st Tuesday
 Ian Boje, KCØITQ, 2nd Tuesday
 Thomas Gagnon, KBØDCO, 3rd Tuesday
 Phil Lefever, KBØNES, 4th Tuesday
 John Toscano, WØJT, 5th Tuesday

Metro Skywarn Liaison:

Jeff Goodnuff, WØKF

Minnesota Repeater Council Liaison:

Jeff Goodnuff, WØKF

President's Report

by Shanon Haralson, KCØEIG

Due to technical difficulties beyond our control, the President's report was not available in time for printing in this issue. I guess I should have had him dictate it to me over the radio instead of relying on his email to reach me any of the half-dozen times he tried to send the article to me! Better luck next time! – editor.



FØOD Station Reminder

We welcome one and all to the Twin Cities Repeater Club's Field Day Cookout, at the Field Day site in Empire Township, on Saturday night, June 28th. Please bring a dish to share, so everyone will have plenty to eat without blowing the entire TCRC budget! We'll have one or two grills going! Hope to see you there! You won't be disappointed!



Welcome, New Members!

The Twin Cities Repeater Club would like to welcome the following fine folks who have joined our organization since the last newsletter. Listen for them on the air, and give them a friendly TCRC Hello!

Callsign	Name	Residence
KCØMSQ	Paul Penrose	Hastings, MN
KCØNBV	Brent Petit	Minneapolis, MN
KCØOIP	Rick Johnson	St. Paul, MN
KCØOXM	Patrick Lehnher	Savage, MN
KCØOYA	Chuck Rowen	Inver Grove Heights, MN
KCØPMT	Victor Wanchena	Robbinsdale, MN
KGØTX	David Messer	Burnsville, MN
NØAIM	Christian Hermenson	Scarville, IA
NØQFM	Matt Holden	Apple Valley, MN



Volunteers (Still) Needed!

TCRC is still seeking volunteers to help out with the ongoing needs of the organization. We are looking for a couple of folks to handle the Membership Committee Co-Chair responsibilities. This is an important duty, because if we don't maintain (or even increase) the size of our membership, the organization will have difficulty fulfilling its mission statement. The job is not terribly difficult, but some basic computer skills are very helpful, as the Membership Committee Chairs are expected to mail out notices of membership dues lapses, and welcoming information packets to prospective members and new members. Any expenses for printing and postage that might be incurred would be reimbursed from the club treasury, so your personal finances should not be an impediment to your signing up for these positions.

And as always, your Newsletter Editor is always on the lookout for articles or even ideas for articles for future newsletters. Although I do enjoy writing, I appreciate it when I get to actually do some editing of articles written by other folks, as happened for this issue. Have something to share with your fellow TCRC members? Please send it in! And my thanks to those who contributed to this issue and made my job a bit easier!

73 from your Newsletter Editor, WØJT

Hobby Spotlight: Volunteer Examiners

by Keith, KCØIVN

I see it nearly every month: a man taking his Element 3 (General written test), and beside him his wife taking her Element 2 (Technician test). Last month a man and his two sons came to the testing session; two were taking the Element 3 while one was taking his Element 2. They all passed! Being able to watch families doing an activity together is one of the rewards of being a Volunteer Examiner. Volunteer Examiners, or VE's for short, administer the FCC required tests for people wanting to become amateur radio operators, or wanting to upgrade their current license.

So who are those Volunteer Examiners? They are fellow HAMs who enable others to enjoy the hobby. They are willing to give a couple of hours to make a test happen, by proctoring the testing session. They hold a General, Advanced, or Extra Class license and are accredited by one of the FCC recognized Volunteer Examiner Coordinators (VEC). The ARRL-VEC requires applicants for accreditation to complete a three-page, fill-in-the-blank test. The answers and test form are found in the ARRL-published VE Handbook that contains the rules and guidelines governing VE test sessions. The applicant takes the open book test, faxes it to the ARRL-VEC, and two or three weeks later their credentials show up in the mail.

The schedule of local testing sessions can be found on the calendar page of the <http://www.tcr.org> web site. Additional information on becoming a VE can be found at <http://www.arrl.org/arrlvec/#arrlve> or see one of our friendly, neighborhood VEs. Club members who are VEs include: Steve, W16L; Bill, KØKGS; Jim, NØOA; Mark, KCØITP; and Pat (KØPC).

~

Email Lists @tcr.org Are you connected?

by Phil, KBØNES, TCRC Vice president

One of our club's best methods of communication is also one of the least utilized. I am referring to the [tcr.org](http://www.tcr.org) Email reflectors. For those that aren't familiar with an Email reflector, this is basically a "repeater" for Email. Sending an Email to the list address will forward your message to all the people that are subscribed to the list. This is a very powerful and convenient communication tool!

The single most useful list for our members in general is TCRC-L, which is a general forum. Currently, we have a total of only about 70 people signed up on the list, and I wouldn't doubt that many of these Email addresses are no longer current. This is only about 1/3 of the club's membership. The reflector is a great way to get announcements from the club about upcoming events like Field Day and other club activities. Also, you may use the reflector for any other amateur radio related posts or questions. For example, need help with an antenna project? Post a help wanted message! It is also useful for wanted / for sale ads, as well as even announcing band openings etc. I encourage *all* TCRC members to subscribe to this list! The amount of traffic is very light and it shouldn't pose a problem for most people, unlike some mail lists out there that will bombard you with enormous numbers of messages.

To subscribe to TCRC-L, simply send an Email to majordomo@tcr.org with the words *subscribe tcr-l* in the body of the message. If you later wish to unsubscribe from the list follow the same instructions except substitute the word *unsubscribe* for *subscribe* before the list name (tcr-l). Please note that the *subscribe* and *unsubscribe* commands don't go to the list itself, they go to the special address for list management!

We also have the capability of creating other lists to foster the needs of Special Interest Groups or SIGs. In an organization the size of ours, we have to maintain a very broad focus overall. By starting SIGs, we could specialize more on specific topics that are of interest to parts of the general membership. Examples could be Field Day, HF Operating, QRP, Bicycle Mobile or VHF/UHF etc. Any member could subscribe to any or all of the lists that are of interest to them! Ideally we would like to have a volunteer to head up each group and help spur activity on it. If you have a special interest that you think could make a good SIG be sure to let someone on the Board know of your suggestion!

Welcome to 56 meters!

by Jeff, WØKF

As of midnight (local time) on July 3, 2003, all hams holding a General, Advanced, or Extra Class ticket have privileges on 56 meters! However, before you go out and fire up that kilowatt and change the traps on your 40 meter beam, you better pay close attention to the restrictions (there are a lot of them). First, the "band" isn't a band at all. We have operating privileges on five distinct frequencies only. And there are bandwidth restrictions too. You must confine your signal to a maximum bandwidth of 2.8KHz centered on 5332KHz, 5348KHz, 5368KHz, 5373KHz, and 5405KHz. Secondly, you may operate upper sideband only, no AM, CW, LSB, PSK31, or any other mode. And finally, you must not have an effective radiated power (ERP) of more than 50 watts PEP into a dipole, or the equivalent (lower) power into a gain antenna.

These are strange new rules and will take some getting used to. For example, this is the first amateur allocation that does not permit CW! How did this situation come about, you ask? For a while it looked like the FCC would grant us privileges in the form of a 150KHz wide band somewhere in the 5 MHz region. At the last minute, objections were raised by the NTIA (National Telecommunications & Information Administration), on the grounds that hams in the 60 meter area would cause interference with homeland security needs. This was clearly a political move, and the FCC washed its hands of the whole affair. The frequencies were not picked by the FCC, but by the NTIA, to "minimize interference" with government communications. They are also the source of the USB requirement, because "almost all government radios use USB and that makes it easier to identify interfering amateur transmissions."

The NTIA also suggests that you set your carrier (or where it would be if you had one) 1.5KHz below the above center frequencies, i.e. 5330.5KHz, 5346.5KHz, 5366.5KHz, 5371.5KHz, 5403.5KHz. (*This last channel is also available in the United Kingdom. – editor*)

Unfortunately, no other guidelines were supplied by the FCC or by the NTIA. In particular, there were no tolerances for frequency or bandwidth given. This is a bit disconcerting, but Ed Hare, W1RFI, manager of the ARRL laboratory, states that a frequency tolerance of a few tens of Hertz (well under 50 Hertz) seems reasonable, as most government radios are constructed to these specifications. Ed cautions that many amateur transceivers are fully capable of transmitting sideband signals of 3.0 KHz or even wider. You should, therefore, be sure your audio is limited to 200Hz-2800Hz to be certain you have a signal within the 2.8KHz bandwidth. (This will result in a 2.6KHz wide signal centered 1.5KHz above your "carrier" frequency, thus leaving 100Hz to spare on each side)

So, grab some wire, make an 88 foot inverted V, and turn your power down to 50 watts ERP. See you on 56 meters. (*or 60 meters – editor*)

73, WØKF

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ARRL Announces Kids' Day 2003

by Jim Rice, NØOA

The second Kid's Day for 2003 will be June 21, from 1800-2400 UTC. There's no limit on operating time within that time period. The twice-annual event, held in January and June, offers a chance for Amateurs to invest in the future of Amateur Radio by participating in a simple, but rewarding, on-the-air event. Now in its ninth year, each running of Kid's Day typically attracts more than 1000 participants.

Kid's Day is intended as an opportunity to share Amateur Radio with young people – licensed or not – in the hope that they'll enjoy the experience and possibly pursue their own license in the future.

Activity for Kid's Day <http://www.arrl.org/FandES/ead/kd-rules.html> takes place on 20, 15 and 10 meters, and can also include local 2-meter repeaters. Specific operating frequency recommendations from the ARRL are: 28350 to 28400 kHz, 21380 to 21400, 14270 to 14300 kHz and 2-meter repeater frequencies with permission from the repeaters' sponsors. It's an opportunity to introduce your own youngsters, the neighborhood kids, and your nieces and nephews to participate in the magic of Ham Radio, and perhaps spark a lifelong love for the hobby.



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



**Place
Stamp
Here**

Your Membership
Dues are Up-To-
Date. Thank you
for your Support of
the TCRC!

Your Membership
Dues Have Expired.
Please Consider
Renewing 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 _____