



Saint Paul Radio Club, Inc. www.stpaulradioclub.org

The Ground Wave

Field Day, June 2009



Looking for a reason to get out and enjoy a June evening? Does a nice picnic in green surroundings sound like fun? What if someone else had everything ready and all you had to do was show up with an appetite? It must be time for the Annual SPRC Picnic!

Just as last year, we'll be holding the Picnic in conjunction with the Field Day activities at Tartan Park on Saturday, June 27th. The traditional spaghetti and meatball supper will be served along with an assortment of side dishes and drinks. Dale Maroushek's (NØPEY) sister-in-law Lisa wowed everyone with an assortment of desserts last year and she will be back again with fresh-baked taste treats.

The Tartan Park location has plenty of space and playground facilities so bring the kids if you have them. There is a nice pavilion with adjacent bathrooms so we are comfortable rain or shine. Everyone is welcome. Food will be served at 1800 but because this is Field Day, there will be lots of activity all day. Come on out early and have some fun. Directions to the site are included with the Field Day information on page 4. If you have any questions, please contact Jay Maher (NJØM), at jay@umn.edu.



Field Day 2009—are you ready?

What some feel is the best Amateur Radio event of the year is coming up on June 27th and 28th. To get the full experience, join us on Friday the 26th about 1500 hrs—that's when the setup crews from the Saint Paul Radio Club and the Mining Radio Club converge on the Tartan Park site in Lake Elmo and perform the magic that makes it happen. Towers and beams are put together and erected, wire antennas are strung around available supports, shelters are set in place and supplied with electricity and coax feed lines and our portable food service is established. We do what we can until dusk, then setup continues on Saturday morning until everything is operational. Anyone interested in helping with setup is welcome.

Operation starts Saturday, June 27th, at 1300 and continues until 1300 Sunday.

We have the additional feature again this year--you are all invited out on Saturday evening at 1800 for the SPRC Picnic Feast (see the other page one story).

If you would like to participate in any way, please contact the appropriate chair listed on page two.

Neat stuff we do to make this easy:

Computer aided CW operation; You still have to copy by ear, but you have keyboard response and control. Builds the rate up to 50 to 70 QSOs per hour when calling. Ready to install with the N3FJP logging software and their radios.

Phone Station will be in an air-conditioned RV again this year and, with Digital and VHF, will be relocated to the north area for easier set up and less crosstalk.

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Logging will be on a WiFi network so you can see what bands our stations are on.

Both generators will have 12-gallon gas tanks so no manual refueling in the dark will be necessary.

We'll again enjoy surprise desserts by Lisa with the Picnic meal.

These old reliable standards will continue:

Site is handicapped accessible with full indoor restrooms and showers.

Food and drinks all the time, anytime, with some new variations.

Campfire in a Can and TV for the evening entertainment, BYO adult beverages.

Breakfast cooked to order 0830 to 1000 both Saturday and Sunday.

The Saturday night Spaghetti and meatball feed at 1800 with all the trimmings.

Dale's air-conditioned RV and the Mining station trailer down the road are available to sleepover. Bring your own bedding.

What's the status?

The CW station operating schedule is

full thanks to the good work of our CW chair (John, K9NJ). However, the SSB station is in need of operators. If you are interested in scheduling a time to operate or log for the SSB please contact the new SSB chair Jeff (WB9DAN). We will also have a GOTA (get on the air) station, PSK31 station, VHF station (6m and 2m), and possibly a APRS/ Packet demonstration station setup. If things go as planned, SSB, CW, PSK31 and VHF will have a tower and beam as well as a wire antenna this year. Also, GOTA will have a log periodic for 40, 15, and 10m, so we should have a good signal on the air.

We need help to wrap it up:

We start the shut down process after breakfast Sunday and always need extra helpers during this time. Before the operation ends at 1300 everything that can be is consolidated and staged for loading. After closing, the computers are collected and everything else is taken down and put away, usually 3 to 4 hours work.

Please contact the chair people:

Let them know you are ready to help (see the list, below). If you're not sure who to contact, get hold of the FD chair, James Klassen.

Membership Meeting

May 1, 2009

A meeting of the St. Paul Radio Club membership was called to order on May 1, 2009, at 7:30 PM by President Dale Maroushek, NØPEY.

Signed in on Members sheet: 30

Signed in on Guests sheet: 2

April membership meeting minutes approved as printed in the *Ground Wave*.

Treasurer Report, Allan Klein, WØNLY: club funds are in good shape.

Membership Registrar Report, Skip Jackson, KSØJ: 103 members.

Education Report, Allan Klein, WØNLY: 10 students completed General upgrade class. Washington Middle School have built oatmeal box radios (AM), will be building FM radios; active on 40 and 2 meters on Monday afternoons at about 3:00 PM.

The members present expressed gratitude to the Door Prize Committee for the work they have done throughout the year.

The members present expressed gratitude to the *Ground Wave* editor for the work he has done throughout the year.

Ed Jacobson, WBØVHF, will be picking up Field Day t-shirts, etc. at the Dayton Hamvention. Get requests to him.

Mike Sigelman, KØBUD: Announced the Twinslan Tailgate Swapfest will be Saturday June 6th on the 3M Campus.

Field Day Chair, Jim Klassen, KBØUAZ: June 27-28th. Set-up June 26th. There will be a planning meeting in June. Lou Sica, ACØX, will be SSB chair; John Warinsky, KN9J (Mining Club)

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Get involved in Field Day! Contact one of these volunteers

FD Chair: James Klassen KBØUAZ, kb0uaz at yahoo.com

CW Chair: John Warinsky K9NJ, k9nj at arrl.net

SSB Chair: Jeff Iverson WB9DAN, jaiverson at junos.com

Digital Chair: Orcy Lyle WØQT, oyle at usfamily.net

GOTA Chair: Tim Diekmann, KDØCVS,
tjdiekmann at mmm.com

VHF/UHF Chair: Dallas Fogg NØLKD, fdfogg at gmail.com

Education Chair: Allan Klein WØNLY, allankm at cs.com

Food Chair: Dale Maroushek NØPEY, n0pey at arrl.net

Picnic Chairs: Jay Maher NØJM, jay at umn.edu, and Allan Klein WØNLY, allankm at cs.com

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will be CW chair--get operating requests to them. Everyone is invited to the picnic dinner at 6:00 PM. We still need a VHF chair, publicity chair, solar-panel/batteries.

Jay Bellows, KØQB, Dakota Division Director: A bill has been entered into the House of Representatives asking Homeland Security to assess whether antenna CCR's restrict amateur radio's ability to train for and respond to disasters and other emergencies.

Mike Sigelman, KØBUD: Announced that KTCA is having a DTV conversion call-in on May 12th, and amateur radio operators are asked to help.

The meeting was adjourned at 8:08 PM.

Post adjournment, the program was by Skip Jackson, KSØJ, on "Batteries for Amateur Radio Use."

Board Meeting May 8, 2009

A meeting of the St. Paul Radio Club Board of Directors was called to order on May 8, 2009, at 7:05 PM by President Dale Maroushek.

BOARD MEMBERS PRESENT:

Dale Maroushek, NØPEY, President
Orcy Lyle, WØQT, Past-president
James Klassen, KBØUAZ, Vice President
Allan Klein, WØNLY, Treasurer
Jeff Iverson, WB9DAN, Secretary
Skip Jackson, KØSJ, At-large Board Member

COMMITTEE CHAIRS AND OTHER INTERESTED MEMBERS PRESENT:

Don Kelly, WA6ZMT, Ground Wave editor.

Field Day: Planning meeting, June 16th at Tartan Park. Picnic will be Saturday 27th at 6:00 PM, menu will be spaghetti, Dale will make pasta, Allan sauce, Jay bread; cole slaw will be bought. Dale's sister-in-law

will make treats. Dallas will chair VHF station. Orcy will do PR.

Autism bike race, July 26th.

KTCA DTV telethon is next Tuesday, May 12th.

June Ground Wave out 6/19 (deadline 6/12).

2009-2010 tentative meeting dates:

Membership: 9/11, 10/2, 11/6, 12/4, 1/8 (auction), 2/5, 3/5, 4/2, 5/7.

Board: 8/28, 9/18, 10/9, 11/13, 12/11, 1/15, 2/12, 3/12, 4/9, 5/14.

Banquet in March? Instead of meeting or 2 weeks apart?

There was a discussion of possible program topics; we will solicit ideas from the members.

Skip proposed that the SPRC once again become an ARRL Special Service Club (SSC). We were in the past, but dropped out during our transition away from the Red Cross. Skip will fill out application. Motion Moved, Seconded, and Carried.

Orcy has been negotiating for better terms with our web host.

Skip will have our membership form updated and ready for distribution at Field Day.

**The meeting was adjourned
at 8:25 PM.**

MAGIC Yard Sale

The Sixth annual MAGIC Yard sale will be July 25, 2009.

It will start at 8 am and go to 12 noon.

Free admission for buyers and sellers.

Sellers please bring your own tables and chairs.

magicrepeater.net/fest.htm

Rochester DX Convention by Scott Wright, KØMD

The WØ DXCC 2009 will be in Rochester July 18, 2009 co-sponsored by the TCDXA, The Rochester amateur radio club and the Minnesota Wireless Association.

The program will be a single day event on Saturday July 18th. We will have a cocktail reception the night before if you want to come to Rochester to spend the night and not have to journey early in the morning. We are planning to charge \$25.00 for entry.

We will have a DX Banquet Saturday night with the grand prize being the FT 2000 PEP Yaesu transceiver. The Banquet will be a tribute to the Desecheo DX Expedition.

The Banquet will start at 6 PM and it is also \$25.00.

Please watch for more information at www.W0dxcc.com.

This Space Available

Contributions to the
Ground Wave are
always welcome

Send your report, story,
monthly column, ad or what-
ever to

dk@donkelly.biz

or

Fax: 651 842-1001

or

Don Kelly
1547 University Ave W #350
St Paul MN 55104

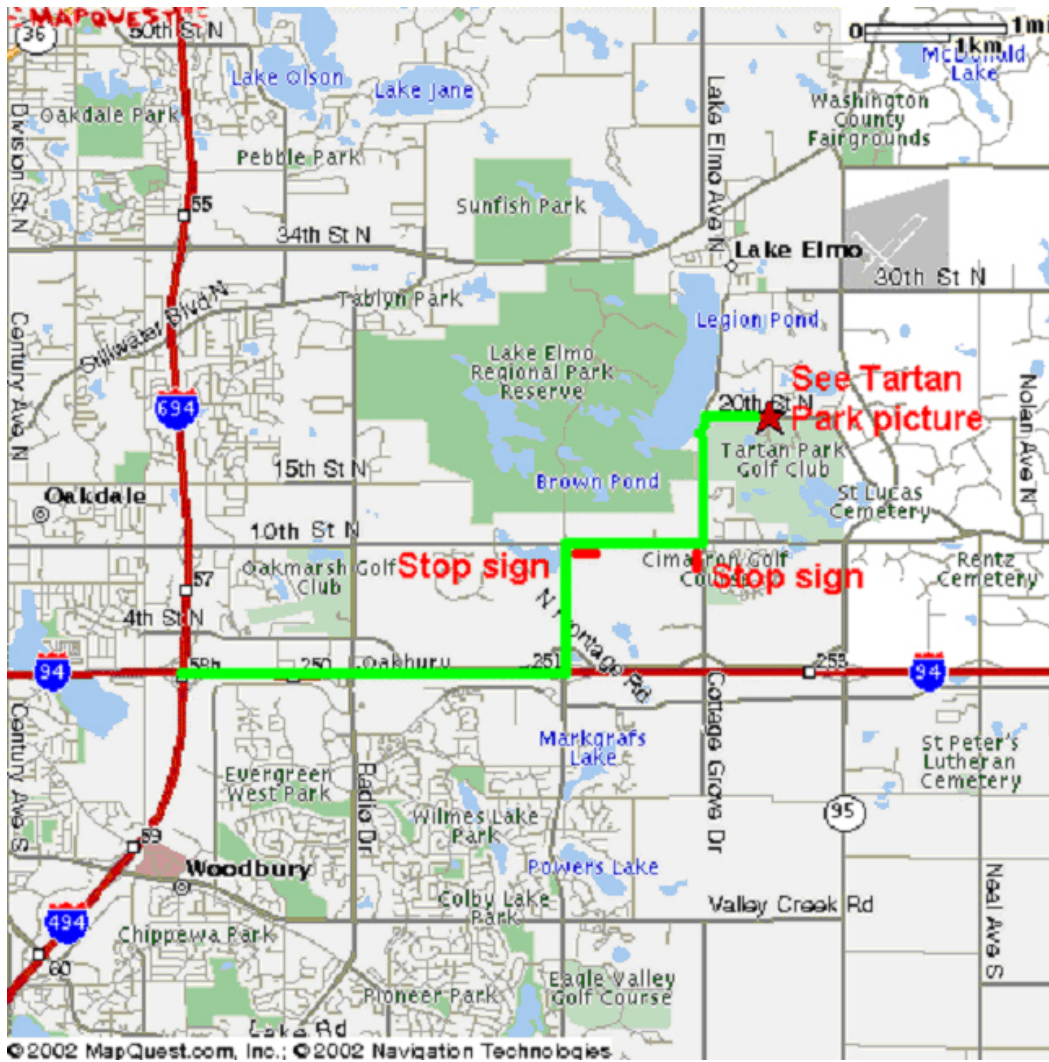
Field Day and Picnic Directions

From the west or south:

Green route, take Co Rd 19/Keats Ave exit off I-94 East, turn left/north onto Keats. Go to the first stop sign which will be 10th Street and go right/east. Go to the first stop sign on 10th which will be Co Rd 17 and go left/north. About a mile north the speed limit will change to 45 MPH and the road will bend and drop as you approach a lake on your left – 20th Street will be on your right/east. Go down 20th Street to the first right – the sign will list “Picnic”, among other things. Follow the “Field Day” signs on the yellow route (lower map) to the site.

From the east: From I-94 West, exit on Co Rd 13/Manning Ave, take a right/north onto Manning Ave for about 1.4 miles, take a left onto Manning Trail and in about .6 miles take a left onto 20th Street. Go to the second available left (at the “Picnic” sign) and follow the “Field Day” signs on the yellow route (lower map) to the site.

From the north: Either go down to I-94 and follow the green route (see first instructions, above), or from I-694 East/South, exit on Hwy 5 and go east. In the town of Lake Elmo, turn right/south onto Co Rd 17/Lake Elmo Ave and proceed about 2 miles to 20th Street. Go left/east onto 20th and go to the first right – at the “Picnic” sign. Follow the “Field Day” signs on the yellow route (lower map) to the site.



Here are most of the Washington Middle School mentors for the 2008-2009 school year. Are they smiling because this was the last day of class? With their help, students operated the school club's station (KDØCNH) and learned about electricity and radio. The students also built a number of projects, including an oatmeal box AM crystal radio and a one transistor/one diode FM radio.

Absent from the picture, but also participating: John Hunt, Mert Nellis and Don Greenheck.



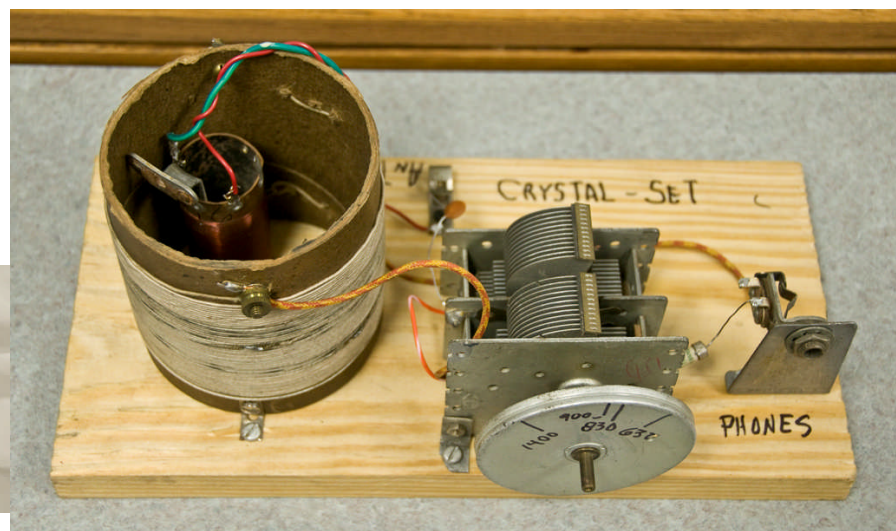
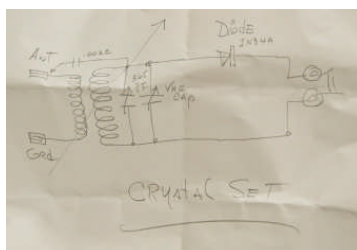
From left to right:
Jay Maher, Twila Greenheck, James Klassen, Allan Klein, Denise Kapler (KDØCOT), Orcy Lyle, Steve Huntsman and Keith Miller.



At the May meeting, Skip Jackson presented a very informative program "Batteries & Amateur Radio."

Photos at left and below courtesy of
Dawn Holmberg, WXØZ

One of our members brought this example of current technology to the May meeting.



A Tale of Two Tubes

by Dan Romnanchik, KB6NU

A couple of weeks ago, I worked N4QR on 40m CW. I could tell by the tone of his signal that he was operating a homebrew transmitter. There wasn't any 60 Hz on his signal, and it didn't chirp exactly, but I could tell it wasn't the pure tone you get out of today's radios.

I asked him about his rig, and he told me that it was a one-tube transmitter made with a 6L6. I forgot to ask him where he got the schematic, but a quick Internet search turned up the following: The May 2005 issue of the K9YA Telegraph (<http://www.k9ya.org>) has an article written by N4QR titled, "The Wonderful One-Tuber," that contains the schematic for the transmitter. The K9YA folks don't make issues of The Telegraph available on their website, but I was able to get a copy of the issue by e-mailing them.

* A 6L6 Classic (<http://www.io.com/~nielw/6l6/6L6.htm>)

* WB2MIC 6L6 Transmitter Project (http://www.metaphoria.us/hamradio/6L6_transmitter_schematic.htm)

The 6L6 is a pentode that, according to Wikipedia (<http://en.wikipedia.org/wiki/6L6>), was introduced by the Radio Corporation of America (RCA) in July 1936. Apparently, it was used quite a bit in public address systems.

After the tube became successful, tube manufacturers introduced a number of variations, including the venerable 807. The original 6L6 was capable of delivering 19 W; the latest

variation, the 6L6GC is rated for 30 W. The 6L6GC is still used in guitar amps, and is still manufactured in Russia, China, and by Groove Tubes (www.groovetubes.com) in the U.S. They sell a number of different 6L6 variants; the cheapest is \$16, the most expensive \$180!!

One of the reasons I was interested in the 6L6 is because about a year ago I came across a schematic for a transmitter using 6A6 dual triode. I had just come into possession of a couple hundred tubes, and while I didn't have a 6A6 (at least I haven't found one yet), I do have a couple of 6J6 dual triodes. They're not quite as high power as the 6A6, but I'm still thinking about building a little transmitter with one.

As you might expect, there's a bunch of information on the Internet about this tube:

* The Jones Push-Pull Transmitter (http://wv7g.home.mindspring.com/jones_6j6.html) was built with a 6J6 instead of a 6A6.

* Another schematic can be found on the AKØB website (<http://www.qsl.net/ak0bj/>).

* 6J6 data sheet (<http://www.gargnas.net:3000/tubedata/6J6.pdf>) from the GE data book.

One interesting fact about the 6J6 is that IBM used it in the 604 computer. Unfortunately, they found it to be not as reliable as they wanted it to be, but at first none of the tube manufacturers were interested in making a more robust version. This led IBM to set up a tube-making laboratory where they could experiment with designs. They developed a more reliable version of the 6J6 and

finally convinced RCA to manufacture the tube. According to the author of the history of the 604 (<http://ed-thelen.org/comp-hist/IBM-604.html#new>), part of the concern is that IBM would decide to get into the tube business.

So, the next time you hear a signal that doesn't sound so perfect, remember that there just might be a story behind it. Ask the op about his transmitter, and listen to what he or she has to say.

When not pondering the mysteries of vacuum tube part numbers, KB6NU teaches ham classes, works CW on the HF bands, and blogs about ham radio at <http://www.kb6nu.com>.

St. Paul Radio Club Nets

The St. Paul Radio Club has two nets: The 2 meter net at 7:00 p.m. on Wednesdays on 145.310- MHz (no PL tone), coordinated by **Andy Lokken, KCØTUD**, followed by the "Friendly Net" at 8:00 p.m. ("pre-net" at 7:45 p.m.) on 28.310 MHz, hosted by **Marty Gammel, KAØNAN**.

Anyone wishing to serve as net control on either net, please contact the relevant person via contact information on the Volunteer page of this *Ground Wave*. The 2 meter net takes place via the SPRC repeater, which is located at the University of St. Thomas in St. Paul. The 10 meter net takes place via ground wave, so needs to have NCOs who are centrally located in the Twin Cities

The St. Paul Radio Club, Inc., has served the amateurs of this area since 1931 except between 1941-45 when most of the members were in the military service. The first issue of *The Ground Wave* was published in November 1938, under editor Frank Vowles, W9BBL. The club call is KØAGF issued in 1956.

Club Meetings are held monthly (except June, July and August), generally on the First Friday at 7:30 p.m. Consult current Ground Wave or club website for meeting location. Social time 7-7:30 p.m. If you have any interest in radio communications, whether you are licensed or not, please accept this cordial invitation to join us as a member or come visit us at one of our meetings or events. All are welcome!

Annual dues are payable on September 1. Individual or family: \$20.00, student: \$10.00. Children 18 and under are free. Members joining mid-year are prorated.

Want Ads... The *Ground Wave* solicits your want ads...free to club members, \$1.00 to others.

Free Classes... The club usually conducts Technician level classes in the fall and General level classes in the spring.

The Mission of *The Ground Wave* is to bring a good blend of local, national and world news affecting amateurs in addition to technical knowledge, club events and humor. The editor solicits your letters, knowledge and first-hand experiences and stories for future articles.

The St. Paul Radio Club is affiliated with the ARRL.



VHF NETS

145.17 MAGIC Repeater Net Saturday 7:00 p.m.
146.76 Saturday Swap Shop Saturday 9:30 a.m.
146.85 MARA Bulletin Board Sunday 7:00 p.m.
145.31 SPRC 2 meter Net Wednesday 7:00 p.m.

HF NETS

28.310 SPRC Friendly Net Wednesday 8:00 p.m.
3.860 Minnesota State Phone Net Noon and 5:30 p.m. daily
3.860 Minnesota ARES Net 6:00 p.m.
3.710 Minnesota Slow Speed CW Net 6:00 p.m. daily
3.605 MN State CW Traffic Net 6:30 p.m. and 9:50 p.m. daily
3.925 MN PICO Net 9-Noon Mon-Sat, 3-5 p.m. Mon-Fri

SPRC REPEATER KØAGF 145.31 – 600 Open access no tone

ST. PAUL RADIO CLUB VOLUNTEERS

President	Dale Maroushek	NØPEY	651 777-5309	president
Vice President	James Klassen	KBØUAZ	651 451-8612	vp
Treasurer	Allan Klein	WØNLY	651 291-8815	treasurer
Secretary	Jeff Iverson	WB9DAN	763 560-4458	secretary
Past President	Orcena (Orcy) Lyle	WØQT	612 827-2707	past president
Board of Directors	Don Greenheck Skip Jackson	NØJPG KSØJ	651 483-1214 651 451-2313	n0jpg ks0j
Nominations	Fred McCormick	KBØNVC	651 633-1103	nominations
Membership Liason	Twila Greenheck	NØJPH	651 483-1214	membership
Membership Registrar	Skip Jackson	KSØJ	651 451-2313	registrar
Call Trustee	Tom Sturm	NØBGO	651 699-4270	trustee
Education Coordinator	Allan Klein	WØNLY	651 291-8815	education
VE Exams	David Buending	AD2B	952 486-0836	ve
Ground Wave Editor	Don Kelly	WA6ZMT	952 474-2766	editor
Club Historian	Joe Zwirn James Klassen	WØXL KBØUAZ	651 483-4784 651 451-8612	historian vp
Field Day	James Klassen	KBØUAZ	651 451-8612	fieldday
Parliamentarian	Tom Sturm	NØBGO	651 699-4270	parliamentarian
Annual Banquet/Picnic Coordinator	Jay Maher	NJØM	612 850-0810	banquetpicnic
January Auction	Coordinated by the board			auction
Refreshment Coordinator	Jay Maher	NJØM	612 850-0810	refreshments
Emergency Service Liaison	Ralph Bierbaum Janet Bierbaum	NØAWN KDØBZZ	651 490-9859 651 490-9859	ec
Skywarn	Dallas Fogg	NØLKD	651 644-2361	skywarn
Door Prizes/Drawings	John Hunt, Chair Tom Bredemus	KGØJD KCØINP	651 647-1341 651 414-5535	doorprizes kc0inp
Member Technical Assistance	Brian McNerney	NØBM	651 738-5932	technical
Circuit Builders Chair	Jake Jacobson	NØEIZ	651 554-0441	circuitbuilders
Friendly Net	Marty Gammel	KAØNAN	651 646-5428	friendlynet
2 Meter Net	Andy Lokken	KØAJL	651 224-5553	2mnet
Repeater Committee	Joe Zwirn, Chair Tom Sturm Skip Jackson Keith Miller Joe Kreitzer Jeff Iverson	WØXL NØBGO KSØJ AGØH KCØJK WB9DAN	651 483-4784 651 699-4270 651 451-2313 651 777-0109 651 785-9402 763 560-4458	repeater trustee ks0j ag0h kc0jk wb9dan
University of St Thomas Liason	Tom Sturm	NØBGO	651 699-4270	ustliason
Webmaster	Orcena (Orcy) Lyle	WØQT	612 827-2707	webmaster

To send email to these club volunteers, use the prefix listed followed by an at-sign and "stpaulradio.org" (note: The word "club" is not included)

DAKOTA DIVISION ARRL OFFICERS

Director	Jay Bellows	KØQB	651 222-7253	k0qb@arrl.org
Vice Director	Greg Widin	KØGW	651 436-8811	k0gw@arrl.org
Asst. Directors	Michael Siegelman Brian McNerney	KØBUD NØBM	612 542-8450 651 738-5932	n0oel@aol.com briann0bm@aol.com
MN Section Manager	Richard (Skip) Jackson	KSØJ	651 451-2313	ks0j@arrl.org

St. Paul Radio Club - Summary Calendar of Events

Sat Jun 20 9am St. Paul Radio Club Breakfast. Perkins Midway on University east of Snelling
Sat Jun 20 11am SPRC Circuit Builders. University of St. Thomas OSS 415*
Fri Jun 26 Field Day Setup, Tartan Park (see page 1)
Jun 27 – 28 Field Day, Tartan Park (see page 1)
Sat Jun 27 6pm SPRC Field Day Picnic, 3M Tartan Park Field Day Site (see page 1)
Sat Jul 18 9am St. Paul Radio Club Breakfast. Perkins Midway on University east of Snelling
Sat Jul 18 11am SPRC Circuit Builders. University of St. Thomas OSS 415*
Sat Jul 18 WØDXCC and Contest Central Convention 2009, Rochester MN, www.w0dxcc.com
Sat Jul 18 9am – 1pm Brainerd Area Hamfest, Brainerd National Guard Armory, 1115 Wright St.
Sat Jul 25 8am – noon Sixth Annual Magic Repeater Yard Sale, 37 Hatch Street, St. Paul
Sat Aug 1 8am – 3pm Red River Radio Amateurs Radio Hamfest 2009, Red River Valley Fairgrounds, West Fargo, ND
Sat Aug 8 8am – noon Chippewa Falls Amateur Radio Club Tailgate Swapfest, www.w9cva.org
Sat Aug 15 9am St. Paul Radio Club Breakfast. Perkins Midway on University east of Snelling
Sat Aug 15 11am SPRC Circuit Builders. University of St. Thomas OSS 415*
Fri Sep 11 St. Paul Radio Club Meeting

* Visit <http://groups.yahoo.com/group/SPRCCB> or email [circuitbuilders at stpaulradio.org](mailto:circuitbuilders@stpaulradio.org) to confirm CB schedule.

NOTE: The dates listed above for VE exams are the usual session dates for each VE team; occasionally sessions are canceled or changed. We urge our readers to call the contact number to confirm the test time, place and space.

The calendar is provided as a service to our readers; the St. Paul Radio Club is not responsible for errors or omissions.

To list your general interest amateur event in the calendar, contact the editor. Priority given to SPRC events, area events and national/international events in that order, space permitting.

June 26-28 Field Day and SPRC Picnic—see page 1.

ADDRESS CORRECTION REQUESTED

St. Paul Radio Club, Inc.
P.O. Box 9375
North St. Paul MN 55109

