



Saint Paul Radio Club, Inc.

www.stpaulradioclub.org

The Ground Wave

April/May 2008

SPRC VE Team Celebrates 23 Years of Service

Brian McInerney, NØBM

The years have slipped by and sometimes it even surprises the St. Paul Radio Club Volunteer Examiner team that it has been twenty-three years since their inaugural examination session. It has been so long that many of today's hams never sat for an exam at an FCC field office.

It was in 1982 that the Goldwater-Wirth Act permitted the FCC to use the voluntary services of amateurs in administering license exams. In 1983, Congress authorized VECs to recover the cost of test administration. The approval followed closely on the heels of a successful test session assisted by the ARRL at the 1983 Dayton Hamvention, where there were 600 examinees.

On July 24, 1984, the ARRL VE Coordinator office was created when the League signed an agreement with the FCC at its National Convention in New York. In September, the first ARRL exam session occurred at the Pacific Division Convention. And in May 1985, the St. Paul ARC VE team convened and began administering exams.

Jay Bellows, KØQB (then KØQBE) organized the team and served as the first VE liaison for the club.

Over the years, the club has conducted more than 184 sessions, served more than 2000 examinees, administered more than 3000 exam elements and assisted more than 1400 people to earn a license and many others to upgrade.

As with all the club's activities, there are a number of individuals "guilty" of service to the team. Of course, there was Jay, KØQB, organizer and first liaison. But it is important to note that we have had only five team liaisons in

(Continued on page 2)

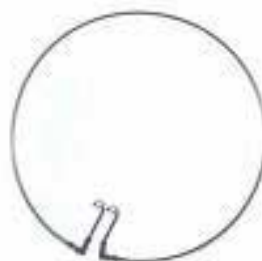
Saint Paul Radio Club Meeting

Friday, May 2nd, 2008, 7:30 p.m.

Socializing 7:00 - 7:30 p.m.

University of St. Thomas

Murray-Herrick Campus Center, Room 155



Small Loop Antennas

Mike Bates, KAØKLQ, will be presenting on the topic of small loop antennas.

Directions to Meeting: Take the Cretin-Vandalia exit from I94 and take Cretin Avenue six blocks south to the St. Thomas campus. Murray-Herrick Campus Center, site of the meeting, is off of Cleveland Ave. South, which is two blocks east of Cretin. Enter the parking lot from Cleveland Avenue South, between Ashland and Portland Avenues. Go in the door at the west end of the parking lot and turn right after the second set of double doors, then around through an open area to **Room 155, on the 1st floor.**

Parking permits are not needed after 6 p.m. on Fridays in the red and yellow lots.

Maps are available at www.stthomas.edu/campusmaps/stpaul.asp. The color version is easier to read but takes longer to download than the black and white version. MHC is #5 on the map; the most convenient parking is lot G..

Monitor the club repeater, KØAGF, for talk-in help. 145.31—no tone needed

Don't forget the

**Rochester Amateur Radio Expo
and
Dakota Division 2009 Convention**

August 8-10, 2008

Rochester, Minnesota

www.rarchams.org

April Ground Wave

Don Kelly, WA6ZMT

Did you miss the April Ground Wave? It was a victim of my work schedule,—and this issue was delayed because I've been fighting off the crud (the doctor's term).

I could use help getting the monthly Ground Wave out.; please give me a call at 651 842-1000.

(Continued from page 1)

the history of the team. In addition to Jay, they include: **Mary Ketzler, KAØOMX; Ed Van Cleave, WØVC; Lou Sica, ACØX** and the present liaison, **Dave Buending, AD2B**. What a phenomenal contribution for a handful of individuals.

Of course, there are many more who can plead "guilty" of service to the team: **WØPIG, NØPEY, WØQT, WØTBC, AAØZZ, NØAGH, KCØRET, KGØDK, KØMG, Dave Harrel** (my memory fails for Dave's call), **NRØY, WAØBNX, WXØZ and NØBM**.

This past December, KØQB was recognized for his membership in the VE Century Club... "guilty" of having participated in more than 100 exam sessions. Jay's numbers would have been much higher but he lessened his commitment to the team when he was elected Dakota Division Director for the ARRL.

KØQB joins WØVC and NØBM in the century club, both with more than 115 exam sessions under their belts.

Over the years, the VE team has carried the banner of the club in a very constructive way. Hams throughout the state have met our examiners in a number of locations over time: St. Luke's school, Hamline United Methodist Church, St. Paul Technical College, St. Paul Red Cross, and Roseville City Hall.

Additionally the team has conducted hamfest sessions at the State Fair Grandstand, Pioneer Hall, Aldrich Arena, and the Xcel Energy Arena.

So...when you get the chance, thank these members of the club for their efforts. Many have missed club meetings because their limited time was devoted to exam sessions the following morning. That has been the rhythm for a number of them, including our current team liaison, Dave, AD2B. Also, don't forget to congratulate KØQB for his entrance into the VE century club...he's much younger than you might think.

NOOZ from the PREZ May 2008

This is my last "NOOZ from the PREZ" column, it being my **last month as Prez!** It has been a great four years as Prez, but by now I am happy to hand the reins to someone else. This club has wonderful volunteers, both long-term members and newer members, who do the work of the club, and I thank you all. I also thank **Tom Sturm, NØBGO**, for making the wonderful University of St. Thomas facilities available to SPRC.

During my first two-year term as Prez, I decided that I would run for a second term if two things happened: 1) Club members (some at least) would agree to take on volunteer tasks when asked, and 2) Club members would volunteer out of the blue when a call was made for volunteers. Both these criteria were met, in the order stated, so I continued for a second term. My approach has been to have volunteers do work that they like to do. No one should have their arm twisted to do anything that they don't enjoy and anyone should feel free to say no if asked to do something that they don't want to do. I considered it to be one of the presidential duties to get to know club members, especially new members, in order to have an idea of what they might be willing to do, if anything, for the club. Once a member has volunteered to do a job, it is their job to do as they see fit--within reason of course, but without having to endure micromanagement.

I enjoyed being Prez until toward the end of my second term, when I started thinking of other things that I would like to do and will have time to do after I step down. These things include doing more actual radio work and I will reorganize my shack and antennas to this end. I will continue doing the SPRC website, hoping to upgrade it to a new program soon, and I plan to help with club activities from time to time as well as staying involved with the Circuit Builders Group.

I am writing this column while in western **Colorado** for two weeks, secure in the knowledge that SPRC VP and Program Arranger **Jim Klasen, KBØUAZ**, will be looking after things while I am away.

I've been having fun with **APRS tracking**. I recently set up the Kenwood TM-D700A in my Subaru to do APRS. On Sunday, April 13th, I drove 285 miles south on I-35 to Osceola, Iowa, about 40 miles south of Des Moines, where I boarded the **California Zephyr** at the **Amtrak** station there, to go to Colorado. While driving to Osceola, I was tracked by APRS until I was just north of Des Moines, at which point there were no more functioning APRS nodes on the rest of my way south.

I bought a Byonics TinyTrack3Plus combo shortly before leaving for my trip. I didn't have time to build the TinyTracker (TT) so I paid \$15 extra to get it already built. The combo includes a state-of-the-art GPS which tracks 20 satellites and is incredibly sensitive, even picking up satellites from inside a room. The GPS runs on 5 volts from the TT unit. I also bought a cable which has wires to the radio mic and speaker jacks and to power. The power wires went to a cigarette lighter plug. I cut this off and put Anderson Power Poles™ on the end of the radio power cable, to connect with Power Poles that I put on wires to a 9 volt battery holder. With the 9 volt battery, I can use the TT anywhere. I'm using the TT with an Icom T8A which I bought at the 2007 SPRC Auction. This HT had belonged to **Floyd Winters, WAØFW**. I took it on this trip to use with APRS because it is a small unit with a good amount of power for an HT (4.5W on hi power). Later I learned that APRS runs better on low power, so I didn't need the 4.5W after all.

I had planned to set up the TT while on the train to Colorado but got sidetracked with another new toy, an **aircard** which plugs into my laptop's PCMCIA slot to receive Internet. I found that, using the aircard, I could

pick up Internet, from the train, across Iowa and Nebraska and through Denver. Once the train went over the Rocky Mountains, out of range of Denver, few opportunities arose for Internet reception. The train tracks have switchbacks between mountains and go through 29 tunnels on the front range (east side) of the Rocky Mountains. The tracks peak out at about 9,000 ft. at Fraser/ Winter Park ski area and Granby (The I-70 Interstate freeway peaks out closer to 12,000 ft. over the Rockies).

On the western slope of the Rockies, the train runs between mountains and through deep rock cuts, so there wasn't much opportunity to receive Internet on this part of the trip. My aircard picked up Internet at Fraser/ Winter Park and Granby but not again until the Glenwood Springs area, and after that, no reception until about an hour or two before the Grand Junction area.

I spent my last hour and a half on the train downloading the TT configuration program and setting up the TT unit to do **APRS tracking**. I got off the train at Grand Junction, where my host picked me up and drove me south to Montrose, Colorado. I had brought a quarter wave mag mount 2m antenna, I think it is called an Earth Antenna, to put on my host's van. Whenever my host and I drive someplace, I have had the TT running and, returning to my host's home, observe my APRS tracking on www.aprs.fi. The TT didn't work at first and I found several things wrong, such as the squelch on the radio being set to "open." After getting APRS to work, I have been experimenting with various settings for APRS variables. Some of this experimenting would have been easier if I had brought a second HT, in order to hear right away whether the APRS signal is getting out. The TT is now ready to use on the train as well, on my way back to Minnesota April 28th-29th.

I was afraid there would be no nodes for APRS around **Montrose**, but I

was wrong. I had looked on the www.aprs.fi map for nodes around Montrose, but hadn't looked far enough south to see the node symbol. There are two towers with relays near Montrose and a node further southeast on a hill at 9,346 ft. These are the work of a fellow who owns a local tower company: Mark Young, KCØRIA. It looks like he has APRS units also in his van, truck, and helicopter. Some of these units also may have Internet gateways. It is an elaborate system and I haven't figured it all out yet.

Most of the time, I am the only ham being tracked near Montrose, besides KCØRIA. On three occasions, the map shows that cars with APRS have passed through Montrose. My host and I went to a **Montrose Amateur Radio Club** meeting Friday night. I asked why there weren't more hams on APRS. Turns out there are, but they live further north in or near this valley, out of range of KCØRIA's APRS network of relays and towers. The valley runs 70 miles north to Grand Junction.

On Saturday, my host and I went to **Montrose County's Emergency Preparedness & Safety Fair**, which was held in a mall parking lot near Wal-Mart. The Fair included 16 booths related to safety, although their canopies were blown down by the extremely strong wind of the day. Safety and preparedness information was handed out, along with information on how citizens could sign up for notification of emergency situations via text messages on cell phones (or email for those lacking cell phones.)

The Montrose Amateur Radio Club had a booth at the Fair, along with the club's communications trailer. A club member's van also was there, being used for a Special Event from the Fair. A 2m vertical was set up, with a dipole running from it. You can see the bottom of the vertical (on the far side of the brown van) and the dipole running

from it, if you look real closely in the photo on page 4. The dipole runs just above the highest light pole between the van and trailer. The dipole is only a few feet higher than the vehicles, not a problem where the altitude is close to 6,000 ft.

Before signing off, I want to thank **Jay Maher, NJØM**, for recently taking over as SPRC Refreshments Chair. **Dale Maroushek, NØPEY**, had been filling in for this role, and Dale signed up Jay to continue it.

Again, tnx to everyone who made SPRC activities and events a success during my tenure as Prez!

SPRC ELECTION

An Election of Officers/Members of the Board of Directors will be held at our SPRC meeting on May 2. The Slate to date, submitted at the April 4 meeting, is as follows:

PRESIDENT: DALE MAROUSHEK, NØOPY

VICE-PRESIDENT: JAMES KLASSEN, KBØUAZ

SECRETARY: JEFFREY IVERSON, WB9DAN

TREASURER: ALLAN KLEIN, WØNLY

Nominations of any additional Candidates will remain open until the time of the Election on May 2.

ORCENA (ORCY) LYLE, WØQT, our retiring President, will continue as a Member (PAST PRESIDENT) of the Board of Directors.

Andy's New Call

Andy Lokken is now **KØAJL**. The previous holder was a Mr. Munday from MO.

It will take a while to get used to this new call on the SPRC two meter net for those of us used to KCØTUD as the net control.

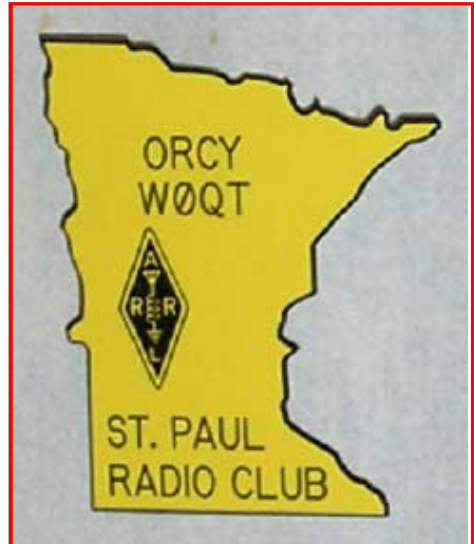


The Montrose, Colorado, ARC set up at Montrose County's Emergency Preparedness & Safety Fair. See NOOZ from the PREZ, May 2008, on page 2.



Randy Gawtry makes a point about safety during his presentation at the March, 2008, SPRC meeting (above). Club members gather for a little show-and-tell after Randy's presentation (below).

Photos by Dawn Holmberg, WXØZ



St. Paul Radio Club Name Tags

To order your name tag, go to:

www.tagme-engraving.com, click on "Name Tags" then click on "Ham Radio" then click on "St. Paul Radio" and the order form will come up.

Price per tag is \$9.00.

Our tags run three bucks higher than other club tags. We once considered changing to a simpler (and cheaper) style, but our members said to keep the current unique style.

New Members

A hearty welcome to our new members

Noel Mason, KDØCAG,
Minneapolis

David Johnson, NØMNO,
St. Paul

Let's build something! Jay Maher, NJOM

I'm a 48 year-old new ham. As I write, I've had my license for just under a year. I've been interested in electronics since I was a kid, back when tubes were the norm and portable radios proclaimed they were modern by embossing "Seven Transistor Radio" on the case. As a hobby, it has mostly been in the background, pursued off and on as time and interest allowed. Many times my electronics projects and studies have been driven by needs at work and so have tended to be in the areas of instrument data collection, automation and control. But you know, I'm a biologist and not an electrical engineer. When you don't work with these things very often you tend to forget even some of the basics between projects. I found myself spending a lot of time crawling up, and then slipping back down, the steep part of the learning curve.

Last winter I decided I needed to make the time to develop my interest in radio--an interest I've had for over thirty years, but never seriously acted upon. Amateur Radio could be the framework to help keep my core interests in electronics fresh in my mind and hopefully I'd avoid having to relearn so many things. After about three months of keeping my nose in the manuals during spare moments and answering co-workers' "People still DO that?" type questions, I took the tests at an SPRC VE session and had my license.

What have I found since then? I've found that Amateur Radio isn't a bunch of cranky guys bickering at each other on an unnamed website and that radio



Photo by Dawn Holmberg, WXØZ

Gretel Keene told of her experiences with FEMA after Hurricane Katrina at the SPRC April meeting.

equipment isn't all just big buck black box appliances. There are an incredible number of really talented people out there (and in our club) working on a huge range of projects. To me, this is what it is all about, putting the bits and pieces together and seeing them work--or learning why they don't. Reading it in the manual is fine, but it really starts to make sense when I can measure it and see it in action. The great thing is that there are all sorts of opportunities out there for this kind of hands-on learning, including our very own Circuit Builders group. If this strikes a chord with you, or you'd like to blow the dust off some of those technical brain cells, perhaps you should become a member of the group.

Contact **Jake Jacobson, NØEIZ**, (Circuit Builders Chair) for more information--you can find his contact info on page 7.

The Circuit Builders are a bunch of Club members who get together occasionally to work on radio projects. **Tom Sturm**,

NØBGO, has graciously provided access to his lab on the St. Thomas campus for a workspace. Most of the time the focus is a group project that everyone builds at their own pace and they can look to the group for help. Sometimes members bring in other projects to share or get feedback. Experience levels range from long time builders to RF beginners like myself. I've picked up hints and a lot of inspiration from the other group members and their projects and I'd like to see more. If there is a project that interests you (big or small) and you'd like to have someone to help a bit or would just welcome companion builders, put the idea out to the group. If you are already a builder, I encourage you to bring in a project to share. Past, present, or "in progress" works are all welcome. Check the SPRCCB Yahoo group for meeting times. If possible, give the group a heads up that you'll be bringing something in to show. Now let's build something!

NOOZ from the PREZ April 2008

SPRC **Skywarn**, held March 15th, had at least 30 attendees this year, a good fit for the amount of table space in Murray-Herrick Campus Center Room 155. This is the third year that Skywarn has been held at the University of St. Thomas. The first year saw 25 attendees. Attendance was down the second year, it being the first year that Metro Skywarn was limited to hams. Thanks to **Dallas Fogg, NØLKD**, for coordinating the Skywarn class.

Everything seemed to click for the **Midwinter Madness Hamfest** this year, the fourth year of the hamfest in Buffalo. The table arrangement included larger aisles. The table groupings extended from one end of the arena to the other. People did not have to drive through fog or snow to get to the hamfest this year. The event was well attended and the crowd thinned out slowly. For the first time in years, there was a selection of coax connectors

and adapters to choose from; in fact, there were two selections to choose from (two different vendors had them).

I bought hardly anything at the hamfest, just some glossy photo printer paper and an antenna modeling program, **Nec2Go**, which was favorably reviewed in the January 2008 QST. The inventor of the program, **Pat Wintheiser, WØOPW**, lives in Darwin, MN, near St. Cloud. Also at the hamfest, I picked up a free cassette player and a free computer monitor of fairly recent vintage. I need two monitors at home, since I am using one desktop computer while fixing up another one, and one of the monitors is so old that it is barely useful, thus the need for a newer one.

Our SPRC table was in a central location and was sufficiently manned by SPRC members.

Thanks to **Gretel Keene, KDØBLB**, for coordinating the

schedule and helping set up and take down. Thanks to the other people who helped man the table: **Tom Bredemus, KCØINP** and Tom's wife **Monica Bredemus; Dale Maroushek, NØPEY; Jeff Iverson, WB9DAN; Trent Iverson, KCØKQJ; Kathi Hilton, NØFKA; Jim Mohn, NØRQR**.

The SPRC Board had an informal discussion of having members bring things they've built to the SPRC 2008 **Holiday Party**, in lieu of a formal program. The building projects would be displayed on tables around the edge of the room and builders would be available to answer questions about their projects. So builders--get those projects finished!

I've had a Kenwood TM-D700A radio in my car for years and never used the tnc feature until recently. I spent some time last Sunday figuring out how to set it up for **APRS**. The GPS I am using for APRS is a Radio Shack DigiTraveler, which I bought cheap years ago when they were being discontinued by RS. I am acquainted with the tracking programs at www.findu.com and www.aprs.fi and I have looked at others. The aprs.fi program is a new one and is my favorite because it is so quick and easy.

I will end my ramblings on a cheerful note: **Ralph Bierbaum, NØAWN**, sez he will return to **Field Day** this year, after a year's absence. Maybe we can also put **Jan Bierbaum, KDØBZZ**, to work there at FD!

Magazine Exchange

Wanted: Back issues of QEX - looking for 1999 - 2002, Nov/Dec 2005, possibly others -offering 2.00/issue.

Back issues of QST - looking for 2005, early 2006, anything from 1998 back to mid 80's? Prefer someone looking to give these away or looking for small payment.

Available: I have 28 of the 36 issues of QST available between 1999 and 2001, plus a few later (1 from 2003, 3 from 2007). Free to anyone interested.

Back issues of Nuts and Volts magazine (a wide ranging electronics hobby magazine with some good tutorials). I have extra copies available (5 from 2004, 2005 - all, 2006 - all, 4 from 2007). Free to any fellow electronics geek - must acknowledge geekhood.

Contact Jay Maher - NJ0M at jay@umn.edu or 612-850-0810



From The Best of Beasley by Robert Beasley, K6BJH

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!

Individual or family dues are \$20.00 per year payable on September 1; new members joining in mid-year are prorated. Student dues are \$10.00 per year. Children 18 and under are free.

The St. Paul Radio Club's "Friendly Net", an informal get acquainted net, meets at 8:00 p.m. every Wednesday on 28.310 MHz.

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

Free Classes... SPRC conducts free classes in Code and Theory between September and May for Technician and General licenses.

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

ST PAUL RADIO CLUB REPEATER KØAGF 145.31 – 600 Open access no tone

ST. PAUL RADIO CLUB VOLUNTEERS

President	Orcena (Orcy) Lyle	WØQT	612 827-2707	president	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)
Vice President	James Klassen	KBØUAZ	651 451-8612	vp	
Treasurer	Allan Klein	WØONLY	651 291-8815	treasurer	
Secretary	Dale Maroushek	NØPEY	651 777-5309	secretary	
Board of Directors	Don Greenheck Skip Jackson Jeff Iverson	NØJPG KSØJ WB9DAN	651 483-1214 651 451-2313 763 560-4458	n0jpg ks0j wb9dan	
Membership Chair	Steve Huntsman	AAØP	952 894-3341	membership	
Membership Registrar	Skip Jackson	KSØJ	651 451-2313	registrar	
Call Trustee	Tom Sturm	NØBGO	651 699-4270	trustee	
Education Coordinator	Allan Klein	WØONLY	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	Ed Jacobson	WBØVHF	952 884-2335	fieldday	
Parliamentarian	Tom Sturm	NØBGO	651 699-4270	parliamentarian	
Annual Banquet/Picnic Coordinator	OPEN			banquetpicnic	
January Auction	Coordinated by the board			auction	
Refreshment Coordinator	Jay Maher	NJØM	612 850-0810	refreshments	
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 McInerney	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	ustliaison	
Webmaster	Orcena (Orcy) Lyle	WØQT	612 827-2707	webmaster	

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 McInerney	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

Fri May 2 7pm St. Paul Radio Club Meeting (see page 1)
Sat May 3 9am SPRC VE followed by EC Exams – Call David M. Buending AD2B, 952 486-0836, or ad2b at arrl.net for info
Sat May 3 9am - 2pm Arrowhead RAC Swapfest, Superior WI www.thearac.org
Fri May 9 7pm St. Paul Radio Club Board Meeting. University of St Thomas OSS 435 (4th floor lounge, across from elevators)
Sat May 17 9am St. Paul Radio Club Breakfast. Perkins Midway on University east of Snelling
Sat May 17 11am SPRC Circuit Builders. University of St. Thomas OSS 415*
Jun 6-7 Northland Antique Radio Club Annual Radio Daze. www.geocities.com/northland.geo
Sat Jun 7 9am SPRC VE followed by EC Exams – Call David M. Buending AD2B, 952 486-0836, or ad2b at arrl.net for info
Sat Jun 7 7am - 1pm TwinsLAN Tailgate Swapfest, 3M Center. www.twinslan.org
Jun 27-29 Field Day
Sat Jul 12 9:00am - 1:00pm Brainerd Area Hamfest www.brainerdham.org/
Sat Jul 26 8:00am - noon. Fifth Annual MAGIC REPEATER Yard Sale. www.magicrepeater.net/marty.htm
Aug 8-10 Rochester Amateur Radio Expo and Dakota Division Convention. www.rarchams.org

* Check the SPRCCB Yahoo group or contact Jake at [circuitbuilders](#) (see page 7) 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.

St. Paul Radio Club Meeting
Friday May 2nd — UST Room MHC 155 (see page 1)

ADDRESS CORRECTION REQUESTED

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

