



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

The Ground Wave

September 2009



Dale's Details

by Dale Maroushek, NØPEY

While writing this column, I spent some time thinking of a clever title. Nooze from the Prez, All the Ships at Sea, Favre is a Viking, Grind my Gears and others have been used, so, something simple. Welcome to *Dale's Details*

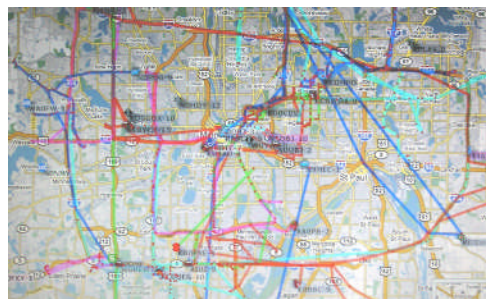
Since the May meeting where **Skip Jackson, KSØJ**, told us all about Batteries, I've rebuilt some Nickel Metal packs for my FT-470, replaced the starting batteries in my lawn tractor, van and the RV. I also switched or replaced two deep cycle batteries in the RV and boat. The Ham shack battery backup is just fine, probably from lack of use!

In June, we had a fantastic time at Field Day, probably the best one yet, but we'll do it even better next year! Lots of help putting it up and down, full schedules of operators, hefty antenna systems all around, and the Picnic serving over 50 people made it a success. The weather wasn't the best—wind and rain and wind and sun and wind and cold.

Of course, we had the lessons-learned department too. When the rotor cable requires a 2/16 and 6/20 gauge wire minimum, believe it. Those 2/16's carry the current that releases

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Saint Paul Radio Club Meeting
Friday, September 11th, 2009, 7:30 p.m.
Socializing 7:00 - 7:30 p.m.
University of St. Thomas
Murray-Herrick Campus Center, Room 155



APRS Demystified

Orcy Lyle, WØQT, in a PowerPoint presentation, will describe APRS (Automatic Position Reporting System—previously called Automatic Packet Reporting System) and explain what it is, how it works, the equipment used for doing it, and some of the many uses for it. The most popular use of APRS is for tracking of location, making it possible to follow one's car, airplane, helicopter, boat, bicycle, or other means of transportation by computer, using free, downloadable, tracking software. Instructions for setting up tracking on APRS tracking devices (GPS/tnc/transceiver) can be quite intimidating. Orcy will show how easy it really is to set up these devices, explaining what is necessary and important for doing APRS tracking, and what can be skipped or left for later learning, should one want to pursue other aspects of APRS. Orcy also will explain how APRS is becoming mainstream in ham radio

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. **See parking notes on page 2.**

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

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the rotor brake and run the motor; the other 6 are indicator controls with little current. Sure, 20 gauge works at 4 feet of cable, but at 50 feet, nothing happens. So the CW beam stayed fixed looking east. Beams are different too. Mosley is none traditional, with element spacing reversed, has to do with their dipole style feed system. So, the coverage pattern was weird too. BUT, IT WORKED FINE!

Power generation was taken over by **Dan Meyer, NØKFB**, this year, and he found some interesting things too. The 12-gallon gas tanks require no refueling, a big blessing. But when we start running long extensions to three stations and asked a 30-amp circuit to run the 20-amp air conditioner and all the radios and lights, it took a flyer. Voltages dropped below minimums and radios lost power. So, on went the RV Genset, and all were happy. Used more gas and can be solved with a bigger generator next year. I've got my auction houses working on that, or new will do too.

We had no problem with power in the kitchen, thanks to Tartan Park allowing us access to more circuits from the building. Tartan also let us use two Golf Carts for intra-park transportation. We

got our own ice and saved many walking steps between the two ends of the site. New coolers hold temps better than old ones, too.

Leaving CW to the south and moving VHF, Digital and Phone to the north end cleared the cross band interference we had before. Digital could actually work this year.

The GOTA Station wasn't fully covered, but provided good results and much learning. Lots of young Hams had some fun. Although fully set up Friday night, Dan Karg and the gang virtually redid the antenna system Saturday morning. We didn't get the Log Periodic up because of the wind, but they worked well with what they had. Next year it goes up for sure.

CW had a new portable crank up tower platform to use this year, thanks to someone who knows firemen somewhere. Hopefully it will return in years to come.

Then the volunteer helpers came, what a difference it makes when we have a crowd. The late Friday night feeding took half of my food stock based on last year's data! They came, they worked, and they ate and came back for more on Sunday take down. Looked like a monkey house at the zoo, with hams busy everywhere. The towers and wires

went up and down about as fast as can be done.

The Picnic spaghetti and meatballs, garlic bread, cold slaw and desserts was tops again. Jay and Allan and Lisa did a fine job.

Fred McCormick, KBØNVC, got to spend the whole weekend with us this year and if you ask him if he had fun, you should expect a 20-minute answer.

Two lessons on WiFi networks in open areas. When you use a beam to aim at the router, nail the sucker down in all dimensions so the wind doesn't spin it around. When you put an indoor router on top of an RV, cover it with the nearest fiberglass garbage can dome to keep it dry. Ham's, they find a way to do everything!

We didn't have enough volunteers to help with the Autism Bike race in July, disappointing but understandable. Maybe we can next year if they ask for help again.

A new adventure with the Mining Club came up in August, providing communication for a Rowing Regatta on Lake Elmo. **Allan Klein, WØNLY, Ed Jacobson, WBØVHF, Don Kelly, WA6ZMT; James Klassen, KBØUAZ**, and I helped out with what will become the talk of the town in rowing world news. According to **John Warinsky, K9NJ**, Mining ARC President and chair of this endeavor, previous Ham participation was minimal and health and welfare related on 2M FM. Somehow, and it was not easy, we provided 27 operators, over two days, 6am to 6pm+, ran 2 simplex nets with on the water stations at start and finish lines 2000 Meters apart, a control commission station working in conjunction with their rental commercial band radios, and a Net control rover person who got a lot of exercise...PLUS

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Parking at University of St Thomas

Construction at UST has closed half of lot H (the big lot at the corner of Cretin and Summit) ; lot H will be replaced completely with a new student center at some point. People with limited mobility will find lot G (off of Cleveland) the best option; those who enjoy a bit of a walk can park in surface lots on South Campus, entering at Cretin and Grand. When major events are scheduled, the Anderson Parking Ramp on South Campus may also be available. **A Cretin-Derham Hall football game is scheduled at UST on September 11th at 7:15 p.m.** Parking is available without permits from 6:00 Friday until 6:00 Sunday in lots marked with red or yellow (or red and yellow) signs.

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a 1.2Ghz D-Star data link from on the water finish line to the Results station to pass all statistics back to the Regatta people. I pulled the last shift on Saturday and I will still admit that the 3C's (that's Confused Chaos Controlled) were overcome by Ham radio, again! If you're interested, I know where you can get your hands on an 8 person rowing shell for only \$23,999! And these teams from up to 800 miles away came with 2 each: 2, 4, 6 and 8 person shells! You think ham radio costs a lot? Forgetaboutit!

Next up, August 30, Woodbury Country Mile Marathon, with Mining ARC, but I'm the only one on board. If you knew what you were missing, you would be there! Maybe next year?

So I'll see you at the meeting on September 11th, sorry that's 911 again, and Patriots Day! Let's remember that and say a prayer for the unfortunate people who perished that day only eight years ago. Then we get cracking on the next year's worth of activities.

SARA General License Class

The Stillwater Amateur Radio Association will again offer a General license class this fall. The class will be on Thursdays at 6:00 p.m. beginning September 17th and continue through November 12th at the Stillwater Public Library in Stillwater. There will be no class on October 15th. A VE session will be held on November 19th at Boutwell's Landing. The text is General Class License Manual, by ARRL, 6th Edition (2007). All earlier versions are obsolete. See www.radioham.org or contact **Greg Widin, KØGW**, for complete information.

SPRC on Facebook

If you are a Facebook user, please join our group, "St. Paul Radio Club." Check out the social networking site at www.facebook.com. It's not just for college kids anymore. It's a great way to connect with people.

Washington Middle School "Back to School" Meeting

A planning meeting will be held the week of September 14th to get ready for the upcoming school year at Washington Technology Magnet Middle School. Any SPRC member interested in working with the 7th and 8th graders there is encouraged to attend. SPRC mentors will meet with kids on Monday afternoons from 2:50 to 4:40 starting September 14.

Denise Kapler, KDØCOT, is the leader of the Washington Middle School Radio Club. The Club operates under the call KDØCNH. The Club has its own HF transceiver and VHF rig, courtesy of the ARRL's Education and Technology Project. The kids operate the equipment, go on fox hunts, build small projects like a crystal radio, and learn the basics of radio and electronics. SPRC members mentor the kids in these activities. **Jay Maher, NJØM**, will be the SPRC-WMSRC Coordinator this year. He said, "Working with the kids is fun and rewarding. It's challenging to come up with interesting ways to explain how radio works."

The planning meeting will begin at 3:00 PM in Room 3063 at the school--1041 Marion Street in St. Paul (about four blocks south of the corner of Rice and Maryland). When you enter the school, go into the office and sign in as "Radio Club" in the visitor's book, then put your name on a Visitor name tag and proceed to the 3rd Floor. The room is at the North end of the hall in the "old" section of the building. Just ask for Denise Kapler's room.

Contact Jay Maher, NJØM, (see page 7) for the date and to confirm the above details.

2009 Picnic

by Jay Maher

The Field Day picnic went well again this year, thanks to all who pitched in to help. It was a beautiful evening at Tartan Park and we had about sixty people counting Club members and their families. As usual, we had more than enough food so I'd encourage everyone to plan to come next time. **Fred McCormick, KBØNVC**, worked tirelessly from preparation to clean up as usual. **Dale Maroushek, NØPEY**, found some special break-apart spaghetti which had all the taste but none of the messy slurping of long strands. He kept the pasta coming while bringing the rest of the food together. **Allan Klein, WØNLY**, did exhaustive taste testing and industrial strength shopping to provide the ingredients that he and **Jay Maher, NJØM**, turned into gallons of sauce. Be on the lookout for Allan's Field Guide to the Meatballs of Saint Paul due out soon. Dale's sister-in-law **Lisa** did wonders again with assorted baked delights—a special thanks to her for sharing her talent with us. Thanks to all who came for everything you did. Hope to see you there in 2010!

Tech License Class

by Allan Klein, WØNLY

Technician (entry level) classes will begin on Tuesday, October 6 and run through December 1.

We will meet every Tuesday at 6:30 p.m. and be finished by 8:30 in the Roseville Fire Hall, one block north of the intersection of Lexington and County Road C. Books will be available there for \$25.00, or you can get one at Radio City in Mounds View. The book is *The Ham Radio License Manual*, published by ARRL.





All pictures on page 4 & 5 courtesy
of
Dawn Holmberg, WXØZ

What's Going On

Here are some odds and ends of things happening with the St Paul Radio Club. Maybe there's something you can help with.

We're always looking for program ideas. Some ideas include cell phone engineering tech, modern electronic comms via all the new formats, antennas and wave propagation, state of CW, etc.

The repeater is due for an update—the board will discuss options at the September 18th board meeting.

Research of the many types and sizes of generators is underway to find a good fit at a good price.

We elect two Board members at large in November, a good way to become active while learning how the Club operates. It takes more dedication and extra time, but the satisfaction is great. Fred McCormick is seeking nominees (see page 7).

You don't need to be on the board to help. For the new members and younger members, this is a good year to take on an active position. I know any of the current committee Chairs would just love to have assistants, to learn the ropes.

We're looking for entertainment for the Holiday party, as well as a great program for the banquet in March or April.

The club is working on becoming a 501(c)(3) corporation so people can donate and get tax credit.

Some people have expressed interest in an Extra license class in Winter.

The Auction, or some parts of

it, needs to be revamped this year, as more Estate items are being donated.

Another Banquet for the Ham of the Year award presentation needs leadership.

Net control alternates for both Tuesday 2M and Wednesday Friendly net are still wanted.

Direct help with the Ground Wave is always helpful.

Our Washington School Project is always looking for new helpers on Monday afternoons. The Elmers tell us that the kids are great to work with.

Education classes, we do the Tech, have some requests for an Extra Class, so why not a General one too? A complete licensing year would be great. Can you teach a class?

ARRL positions are open too. Learn to be a VE and give the tests you passed.

If you like to listen, be an Official Observer and help maintain our airwaves. Check the ARRL web site for more info.

So, if you can contribute, let us know, live or email—see contact information on page 7.

New ARRL SEC

Dan Anderson, KDØASX, was appointed to the position of Section Emergency Coordinator to replace Frank Kar-nauskas, N1UW. Frank had requested over a year ago to be replaced. Arl N. Wainrebe, KDØBJW, who has been serving as District Five DEC will replace Dan as DEC. If you would like to volunteer in the emergency communications field organization, email Dan at danderson1@iw.net. Frank will continue to work with Dan as an assistant SEC.



Google had fun with their logo again on Nicola Tesla's birthday. The word is out, though, that the Tesla Fest in Baraboo wasn't up to par this year.

St. Paul Radio Club Wearables

When people want to order a total of 10 items, we will put in an order. If you are interested in ordering Wearables, plz let **Orcy, WØQT**, know.

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	ustliaison
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

Fri Sept 11 7pm Socializing, 7:30pm St. Paul Radio Club Meeting. UST room MHC 155
Program – Orcy Lyle, WØQT– APRS Demystified
Sat Sept 12 9am - noon 17th Annual Rush City Radio Rendezvous Hamfest. Rush City High School
Fri Sept 18 7pm SPRC Board meeting. University of St. Thomas OSS 435 (4th floor lounge, across from elevators)
Sat Sept 19 9am St. Paul Radio Club Breakfast. Perkins Midway on University east of Snelling
Sat Sept 19 11am SPRC Circuit Builders. University of St. Thomas OSS 415*
Fri Oct 2 7pm Socializing, 7:30pm St. Paul Radio Club Meeting. UST room MHC 155
Program – TBA
Sat Oct 3 9am SPRC VE followed by EC Exams – Call David M. Buending AD2B, 952 486-0836, or ad2b at arrl.net for info
Fri Oct 9 7pm SPRC Board meeting. University of St. Thomas OSS 435 (4th floor lounge, across from elevators)
Sat Oct 17 9am St. Paul Radio Club Breakfast. Perkins Midway on University east of Snelling
Sat Oct 17 11am SPRC Circuit Builders. University of St. Thomas OSS 415*

* The lab may be open other Saturdays, too. 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.

St. Paul Radio Club Meeting
Friday September 11th — UST Room MHC 155 (see page 1)

ADDRESS CORRECTION REQUESTED

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

