



Saint Paul Radio Club Ground Wave

Dan Meyer, NØKFB, Editor
Dale Maroushek, NØPEY, Publisher
http://www.stpaulradioclub.org/

KØAGF

Club Repeaters: 145.310 MHz, 442.450 MHz Both use a 114.8 Hz tone

PO Box 9375 North St. Paul, MN 55109

Devoted to the future of Amateur Radio as a hobby and public necessity. SPRC Nets: Wednesday 7:30 PM 28.310 MHz USB; 8:30 PM 145.310 MHz FM 114.8 tone

NEWS AND NOTES FOR May 2024

Volume 84, Issue 04

NEXT MEETING: FRIDAY MAY 3rd, 2024

6:00 PM Board Meeting (all are welcome to attend and observe)

7:00 PM Membership meeting, refreshments and socializing

7:30 PM Membership Meeting Followed by Program

Entrance to CDH for our meeting

Meetings are held at Cretin-Derham Hall High School located at the intersection of Hamline and Randolph in St. Paul. Park in the lot off Hamline near the athletic field.

Enter door 21 at the Ryan STEM Center addition. The meeting room is down the hallway on the right (the Commons). Door 21 will lock at 7:45; if you arrive after that, please call 612-201-0818 to be let in. Br. Bob.

Program

Our meetings are hybrid meetings. That means there will be an in-person meeting at Cretin-Derham Hall (CDH) and a meeting on Zoom for those unable to attend in person. Zoom meeting information can be found at the end of the newsletter.

The speaker at our May meeting will once again be Bob Parnell, NØKLC, and the topic will be "Let's speed up your computer". Dean, KF0DLX has volunteered his laptop that is running very slow and we'll see what we can do with it using the big screen so everyone can watch. I will run a few programs to clean it up first and then show some simple tricks in the Command Prompt to make it run faster. Everyone should bring something to write on if they want to take some notes.

Bob is an extra-class ham, licensed since 1985. He had an extensive career in information technology with the State of Minnesota and AT&T. During his career with the State of Minnesota he had full technical responsibility for both governors Tim Pawlenty and Jesse Ventura. Please join us Friday May 3rd!

Dale's Details by Dale Maroushek NØPEY

So here we go for the May issue of the GW. I mentioned last month that if you have questions about the club or events and times, check the GW first, the info is probably in there. The only thing we try to keep secret is the Boards choice of Member of the Year. And we did it again.

Congratulations to Leon Dill, W0COE for his years of club contributions and especially his thirteen years as Volunteer Examiner Liaison! I tried to make his introduction with little secrets built in that might tip the results. Like since he is an avid St. Louis Blues hockey fan, I included things like net and lines and shouting goal in the introduction. He had the surprised reaction when he was called.

Elections are upon us. Any volunteers to join the leadership of the Club? I still have too many jobs and I could do better with less. You would be joining a well situated group that has experience and longevity in keeping the Club active and involved. Throw your hat in the ring and write a good champagne speech.

No Progressive Ham Fest this spring. I still like the idea but just can't get guys to do it.

I'm running late with this file so I will have to postpone the last chapter, or maybe send it out as a special.

Dale Maroushek, NOPEY 73

SPRC Banquet 2024 Recap By Jay Maher NJØM,

We had a nice showing at Jameson's Irish Bar (27 people) for the 2024 Banquet. This year we didn't have to sing along with a wedding band next door and the service was great. The food was excellent from all reports and we came close to finishing off the cake! Pat Gearty, WØYES, put on an excellent presentation about his travels with his wife Dianne and how they activated more than six hundred parks and made over 40,000 QSOs in their RV. Goes to show what you can do if you are intentional and plan your trips. Being out and about during Covid was a plus. Pat had a photo of their solitary RV in a State Park which I don't think will be duplicated any time soon. The Member of the Year award went to Leon Dill, WØCOE, for his 13 years of service as the Club's VE Coordinator and always being there to lend a hand on Club activities. I'm just sorry we didn't have any asparagus to send home with him. The coveted canned ham was snapped up by Steve Scott ,WA7HPK, and his wife Eileen.

Ramblings from the VP's Work Bench by Kevin Welna W5LNA

Been a bit preoccupied of late so I'm starting this months article just a few days after the SPRC Banquet. So, I'll report on that first. I had the Walleye and it was wonderful. The mashed potatoes were delicious and the green beans were tasty and not over cooked. Looking over at steaks that were served, they looked to be cooked to perfection (medium\medium rare-ish). The starting salad was pretty standard as far as the components, but I do believe the dressing was made in house. It was quite good. It all must have been good as conversations were at a minimum while everyone dug into their meals. Less talking and more eating is a sure sign of a delicious meal. The cake served as the desert was moist and wonderful as well. The speaker afterwards was very engaging as well and made me even more excited to try my hand at activating a (POTA) park this summer. Thank you Jay, the speaker and everyone else involved in the banquet for a wonderful time!!!

On the Ham bench, I have been building a QMX radio for 80-20 meters. I got it completed but I am having issues getting the software loaded. For some reason, my computer does not see the radio when I plug it into the USB port for loading the program. More on this and the radios performance once I get this figured out. Oh the joys of home brew and kit building!

While fighting with my computer on the above issue, it seemed only logical to start yet another building project. To that end, I created a board in Easy EDA based on the design for a Memory Keyer I found in one of my books. Sent off the gerber file to China and in a couple weeks received the boards. First off they are HUGE! I did not realize just how big I made them until I received them from the board maker. I could have cut the board in half and still had a board where all the components would be spread out far enough apart for easy soldering. I really do need to spend more time with the Easy EEDA program and refine my skills. A quick order made to both Amazon and DigiKey and all my components were on hand and ready for the soldering iron. The board only took about 3 hours to solder up and then.....more issues with my computer and the Programer\IDE. The pre-written and tested program (Its actually called a Sketch) will not compile! LOL. Even more stuff for me to research. At least this should be easier as it looks like I am missing some of the required libraries called out in the program. I just have to find them and load them. Again more on this project once I get the sketch to compile and load. I did order some extra boards if any one is interested. (FYI - Same rules as the Dummy Load\Power Meter if you want a free board.)

Still nothing on the Xiegu x6200. They posted a video of one on line, but still nothing in the stores. I am starting to tire of the teasing. If this goes on much longer, I have a feeling that my interest will fade and my ADHD will drag me in another direction. Besides, the QRP Lab radios are WAY cheaper and actually all that I want\need sans the waterfall display. Maybe Hans at QRP Labs will design a separate waterfall display kit in the near future.....You never know! Huh, maybe it is time to move on.

Still no movement on my wanting to do some antenna upgrades at the QTH. The gentleman that I originally spoke with has not since returned my phone calls\emails so I must assume he has no interest is doing the work. I find it quite odd since this is\was something he advertised that he does. Oh well. Anyway, I have to do something at least on the VHF\UHF bands as I am having a heck of time hitting the St. Paul Club repeater and I seem to be a bit scratchy on the other repeaters as well. Even when I'm running 50 watts. Location, location, location!

The Hobby ADHD Net seems to be doing well. I am now averaging about 10+ check-ins each time. Most of those checking in are becoming regulars on the net! Hoping for a bit more participation by those checking in, but, I think that will happen as time goes on and everyone becomes more comfortable with each other.

As for other interests, I was approached by a fellow glider guider and he asked if I had any kind of 3D printed glider pod and boom system that he could use for a left over 2 meter glider wing that was languishing in his basement. I said no but then thought HEY I could just scale up the little glider pod and boom I have been working on to accommodate the larger wing. My hobby ADHD kicked in and I ended up spending the last 2 weeks redesigning the little glider (yet again) and then designing and printing a larger glider pod and boom system for the 2 meter wing. Turns out I too have a left over wing from a previous ill fated RC plane outing. This larger pod and boom set up utilizes 8mm arrow shafts for the fuselage and amazingly it looks to be lighter that the original balsa glider even after you add in the motor and battery. If you have a left over wing and the left over radio gear, the cost to make the pod and boom system is only about \$15 in material and that's mostly due to the arrow shafts. Not bad!!

Both pod and boom systems are back to being about 80% completed in both their design and build. I just need to add a few more tweaks and refinements that are\may be needed as I install the radio gear and motors. The redesign is not only lighter, but it's stronger and simpler than my original design. I think it may be a winner, but I will need to fly it first before I pat my self on the back. Come on warmer weather!

Speaking of 3D printing, I saw that Micro Center has a few Ender 3 Pro printers back in stock for \$125. That's a great deal for an entry level printer if you are interested. Mine is still going strong and is still running almost non stop. I need a 3rd printer like a hole in the head but I may just pick one up......Speaking of picking up stuff, my hankering for a stereo microscope is starting to rear its ugly head once again. Hmm, fathers day is coming and if I'm not getting the Xiegu radio.......If I get the microscope, I wonder if I would like engraving......Well if I had a good microscope....... It never ends!!

On a completely different track. (You will get the pun in a minute.) My wife and I are thinking of taking a train trip (Via the Empire Builder) out to Seattle, WA for a huge glass blowing event in October of this year. I figured we would take the train out and then fly home or vise versa. Have any of you taken a "longish" train trip in the recent past? Any suggestions? Any warnings? For now it is just a whim but as you may have ascertained through my ramblings. whims can be dangerous for me. HI HI

For now, I need to focus on finishing up the planes, learning how to program Arduinos and my radios, improve my sending and receiving in Morse Code, build the rest of my HAM kits and once again clean up\out my workroom\shack and work benches. Speaking of cleaning, I really should organized all my electronic components and model airplane supplies....... Hmm I see that they sell those multi compartment cases at both Menards and Harbor Freight......Next time its raining.....

As usual, attached are a few pics for your amusement:

Here is a pic of the memory keyer that I built. Pretty simple actually only 21 parts including switches and sockets.. The full color touch screen is 3.2" diagonally. It can store up to ten pre-programed messages and the messages can be reprogrammed in the field via the couch screen. It also has a built in Morse Code decoder. Like I said its physically huge!!



This is the QMX I built. I still need to load in the program. It should put out about 5 watts from 80m to 20m. Soldering is a little tight in places but not that bad. Notice the microphone? The designer is planning on adding SSB Phone in the future! Wow!



This is the front ½ of the pod and Boom 2 Meter glider I am designing.



(continued on next page)

Here is another shot of the pod with the canopy removed. The canopy is held on by a small square magnet that you can see on the right side of the pod. The entire pod and boom will be just over 3' when completed and all tail surfaces added. The propellers folds back against the pod to reduce drag when the motor stops and it is in glide mode.



Here are the balsa tail surfaces for the 2 meter glider. Built sanded and ready to be covered



(continued on next page)

Finally here is the little glider. It only has a 30" wingspan. Its total weight with the motor, battery and radio controls should be under 5 oz. I am trying to get it under 4 oz if possible. Even at under 4 oz it will be considered slightly heavy for its class.



Well, that about it for now, If you have any interest in any of things I talk about, let me know and I will what I can do to help get you set up.

Got any pictures of your latest project or passion? Why not send in a couple pics and a a few words so we can see what you are up to? Enquiring minds want to know!!

Remember to stop by the Hobby ADHD Net every Tuesday night at 8 pm on the 146.850 repeater!

That's about it for now.

OK one last thought: "He who dies with the most toys wins!!"

May your signals be strong and your antennas have extra gain. 73

73 Kevin Welna W5LNA

Thinking about improving reception by Scott NØAR

Noise on the HF bands is the main factor in limiting reception at our stations. Noise covers reception of weak signals. The constant hissing can cause operator fatigue. The good news is there are ways to lessen the effects and make your on air time more enjoyable. With luck your noise is predominantly normal band noise and not reception of all the switch mode wall warts we live with. With a good antenna you can expect to have some level of noise all the time.

Most HF radios have more sensitivity on the low bands than necessary for urban operation. This is a good thing, you might find yourself at a POTA site with a wire in a tree calling CQ and can use the rig to it's maximum capability. However if you are at home and have an S-4 noise floor today it might be better to crank in a bit of attenuation and cut that crud down to S-0. You might find that the reduction means that you will have to increase the audio setting a bit, but that's an easy adjustment. The big advantage of reducing the noise by attenuation is that it increases your overall dynamic range that the radio has to work with. If it's Field Day and you put in 10 dB of receiver attenuation it's the same effect as having the other station a few hundred feet away reduce their power to one tenth!

I'll bet that the most underutilized knob on any HF radio is the RF Gain. We just crank it to full-tilt and leave it. On the higher bands, say above 20 meters this might be OK. On the lower bands you may find that the RF Gain can be reduced and improve the overall copy of the other station even with attenuation added in.

Let's touch on the AGC settings. Most rigs give you a choice of Fast/Slow/Off. These are the release or "decay" times after the signal goes away. Some radios offer an adjustment on how quickly the attack or beginning of the action takes place. There are even rigs that allow for adjustment of how quickly the slope takes action. The "off" selection is used when you control the RF Gain manually. Slow is best for SSB reception and Fast is useful for running Break-in on CW, when you use the RF Gain to reduce the noise pumping effect.

DSP can be a great tool to improve reception. The down side is it can also create some pretty bad sounding audio if you don't have it set properly. Using the rigs controls to keep the signal as free of noise before you process it often results in a much cleaner reception.

Try improving reception at your home station by lowering the noise floor and S-meter reading to minimum. Adjust the AGC time constant to stop that fatiguing "pumping action". Now when you get to Field Day and sit at the rig see do the same procedure and improve the copy.

Public Service Events By George Power KØGCP

If you have never participated in a public service event, please consider doing so. It helps to keep the participants and public safe, and for you it allows you to practice your amateur radio skills, have a lot of fun and you will meet many like-minded people. A list of some of the public service events in the area this year are listed below.

For more information on any of the activities please do a web search on the activity name or email georgecpower@gmail.com.

```
2024-05-05 MS Twin Cities Walk (Mpls)
2024-05-11 MS Twin Cities Ride (Mpls)
2024-05-16 Washington Cty Prairie Island Nuclear drill training
2024-05-18 Waconia Walk-on-Waconia
2024-05-18 ARA's Headwaters Road Rally
2024-06-01 Tour de Cure (ADA) ride (Mpls)
2024-06-01 FreeBike (aka MN Ironman) bike ride (Shakopee)
2024-06-08 MS-150 (June 8 and 9)
2024-06-22 FIELD DAY (setup 21, FD 22-23)
2024-06-26 Prairie Island Nuclear drill (Fed graded)
2024-07-06 Afton Trail Run (Rocksteady Running)
2024-07-13 MAGIC Tailgater (St. Paul)
2024-07-21 Tour of Saints ride (St. Joseph)
2024-07-22 MS-TRAM (22-26)
2024-07-27 Richfield Urban Wildland marathon
2024-08-03 Tour de Tonka (Orono)
2024-08-10 Gaylord Eggstravaganza
2024-08-23 Ojibwe Forests Rally (Park Rapids) (2324)
2024-09-?? Lake Elmo hamfest (K0IKV)
2024-09-15 River Falls Autumn Trek
2024-10-05 Northstar Radio Convention
2024-10-06 Twin Cities Marathon (Mpls)
2024-10-12 Belle Plaine half marathon (Don Burgess)
2024-10-?? MAEN SET
2024-12-07 Nemadji Forest Rally (Kerrick)
```

Ham Radio Test Session News by VE Coordinator Ron Lundeen KØKWN

We have two examinees signed up for the May test session as of the writing of this column; there is plenty of room for more people so if you are thinking of taking a test, please do not hesitate to sign up now!

I've notified our president Dale that I'll complete this school year as Lead ARRL VE examiner but my personal disease is progressing and it's difficult for me to get around. Moreover, it's been a joy for me to serve.

If you can help with ham radio exams, or would like to take an exam, please contact Volunteer Exam coordinator Ronald Lundeen at ronald@lundeen.net or 320-321-2744

Training Update Update for Pete's Sake by Pete Guldan KDØSQJ

The Extra study group has concluded and once again all the students who stuck with us received their upgrade. That's a 100% pass rate for the math nerds among us. I would like to do better at retaining more of our students so if you have any ideas please share them with me. I would like to give a big shout out like the kids say for all the "Mentors" who helped our students. Thank you. Next plan for training might be this fall for the Tech license.

Field Day Update Save the date: June 22. Stay tuned to your email for the special Field Day Extra edition of the Groundwave which should be out in June. If you have any FD articles please get them to Dan by May 25th. Here is a teaser: we think that we will be able to live stream the event from a camera on top of one of the antenna trailers.



St. Paul Radio Club Breakfast

Saturday May 18th, 2024 9:00 am

(Third Saturday of each month)





Denny's Restaurant 1664 University Ave. W. One block West of Snelling Ave. (Across from Ax Man)

Club Wearables

Many different items with the Saint Paul Radio Club logo may be ordered at: https://www.hamthreads.com/ Dale spoke with the owner Diane and she assured him they still have our logo in three sizes, hat/chest/back, so you can have it positioned on your favorite item wherever you like. You can shop on line, pick the clothing piece you want, list the logo, name and callsign and pay. Sit back and it comes to your house. If you have questions, give them a call 817.602.1834

Notes from the A/V Tech guy by Dan Meyer NØKFB

A big Thank You to Dan McArdell, KAØIZK for setting up and operating the A/V equipment and Zoom meeting at the April Meeting. I was out of town and was only able to attend remotely; Dan made the Zoom meeting look and sound Great!

The Minnesota Affiliated Radio Clubs is hosting another conference Saturday October 5th. I am the A/V lead responsible for recording the seminars, and need a few helpers to record the meetings. If you can help, please contact me; my e-mail address is n0kfb@n0kfb.org, and my text/telephone is 763-238-8239.

As always, thank you to everyone who has contributed articles to the Ground Wave. It makes the job a lot easier than me having to come up with interesting material.

BoD Meeting Minutes – by Art Thell, NØIWQ

Saint Paul Radio Club
Hereinafter referred to as "SPRC"
Board Meeting Minutes
04-05-2024 6:00 PM

Board members present: (If * or E or R)

Dale Maroushek (Pres.)-NØPEY * Kevin Welna (V. Pres.)-W5LNA *
Art Thell (Secy.)-NØIWQ * George Power- (Treas.)-KØGCP *
Br. Bob Walsh-WCØJ * Don Kelly-WA6ZMT R

Ralph Bierbaum-(P. Pres.)-NØAWN E

Also present (If * or R):

Jay Maher-NJØMJeff Iverson-WB9DANDan Meyer-NØKFB *Pete Guldan-KDØSQJJohn Crabtree-KCØG *Ben Otto-KEØRFZJanet Bierbaum KDØBZZDawn Holmberg KØWCSteven Scott-WA7HPK

Andy Parent-KFØMJQ * Doug Lueck KFØMPG *

6:00 Pres. Dale called the meeting to order.

Pres. Dale: Announced that SPRC has received a thank you letter from the ARRL Spectrum Defense Fund for the \$3200 donation, predominantly auction proceeds, toward their efforts.

Old Business:

Secretary's Report: Art

Move to accept Minutes as published in the Ground Wave by Art Second Kevin Passed

Treasurer's report: George

General Fund: \$7172.93, Repeater Fund: \$1001.61, Education Fund: \$1495.38,

Total Cash on Hand: \$9669.92. So noted and filed: Secretary

CDH ARC Report: Br. Bob

He is retiring from the Trusteeship and Moderator position. Working to find staffer to assume function.

Repeater Report: Dale

Some noise occasionally. Will continue to monitor.

Membership Report: Dale,

Paid members: (129)

Website report: (stpaulradioclub.org)

Don: Old one is taken down. New site is being rebuilt. Also working on email forwarding for officers.

George submitted information on flutter flags, double-side print, for outdoor events. His samples were \$283 for the 10' and \$310 for the 13' models. Tabled.

Motion was made by Dale to pay \$100 to Galilee Lutheran Church for hosting the VE Testing program. Seconded by Kevin. Passed.

Motion was made by George to pay \$50 to each of the 5 maintenance people at CDH for their extra duties. Seconded by Kevin. Passed.

May—Board elections: All (6) positions open.

Looking for more candidates. One person expressed interest in serving.

VE Report: (7) candidates for the April 6 session.

Field Day: Pete (Chair) Doug L. (Co-Chair) All current details are in the Ground Wave.

Banquet

Jay reported that the SPRC Banquet is on April 20 at Jameson's, same place as last year. He is looking for a potential head count. Cost is \$15 per person & \$15 paid by the club. Send reservations to Jay at jay@umn.edu and he will return a confirmation.

Pay by check made out to "St. Paul Radio Club".

Club Breakfast: April 20 at 9:00 AM. (Normally third Saturday)

Place—Denny's at 1664 University Ave. W.—Across from the AxMan

Adjourn:

Move: Art Second: Kevin Passed

6:47: Adjourn.

Membership Meeting Minutes – by Art Thell, NØIWQ

Saint Paul Radio Club Hereinafter referred to as "SPRC" Member Meeting Minutes 04-05-2024 7:30 pm

| 7:30 Call to order by Pres. Dale |
|---|
| 42 Members present plus Remote. |
| (continued on next page) President call for other agenda items |
| Old Business: Treasurer's Report: General Fund: \$7172.93, Repeater Fund: \$1001.61, Education Fund: \$1495.38, Total Cash on Hand: \$9669.92. |
| Membership report, Dale: (129) paid members |
| Repeater Report, Dale: Works pretty good. Some noise. Monitoring. |
| May—Board elections: Need more candidates. One person has indicated interest in serving. |
| VE Report: (7) Candidates for the 4/6 session. |
| Training Report, Pete: (8) Students progressing. |
| Field Day: All current information is in the <u>Ground Wave</u> . |
| Mining Repeater Tailgater—20 th Anniversary. July 13 at Galilee Lutheran Church. 8:00 am. Sellers fee \$5.00. |
| Hams in the Park: Second Saturday of the month. |

Brainerd Hamfest April 27. Time 9:00-1:00. National Guard Armory.

Website Report:

Actively in process. Old site is removed. Rebuilding new.

SPRC Banquet:

Jay reported that the SPRC Banquet is on April 20 at Jameson's, same place as last year. He is looking for a potential head count. Cost is \$15 per person & \$15 paid by the club. Send reservations to Jay at jay@umn.edu and he will return a confirmation.

Pay by check made out to "St. Paul Radio Club".

New Business:

Dayton Hamvention: May 19, 2024

Club Breakfast: Normally Third Saturday---- April 20 at 9:00 AM. Place: Denny's at 1664 University Ave. Across from the AxMan.

Adjourn: 7:42

Program:

SPRC Contact Information

| President | Maroushek, Dale NØPEY | n0pey@comcast.net | 651-238-5720 |
|--------------------|-----------------------|------------------------|--------------|
| Vice President | Welna, Kevin W5LNA | kwelna@gmail.com | 651-354-5515 |
| Past President | Bierbaum, Ralph NØAWN | rwbierbaum@comcast.net | 612-201-9510 |
| Treasurer | Power, George KØGCP | georgecpower@gmail.com | 651-233-3215 |
| Secretary | Thell, Art NØIWQ | thellaj@comcast.net | 651-492-0254 |
| Member At-Large | Kelly, Don WA6ZMT | dk@donkelly.biz | 651-276-4838 |
| Member At-Large | Walsh, Bob WCØJ | brw.fsc@gmail.com | 612-201-0818 |
| Ground Wave Editor | Meyer, Daniel NØKFB | dan@meyer-family.net | 763-238-8239 |

SPRC Calendar

- Fri May 3 6 PM SPRC Board meeting, Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School. *
- Fri May 3 7 PM Socializing followed by 7:30 PM SPRC Membership meeting. Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School.
- Sat May 4 9:30 AM Amateur Radio testing administered by Saint Paul Radio Club volunteer examiner team. Galilee Lutheran Church, 145 N McCarrons Blvd, Roseville, MN. Reservations required; Contact Ron Lundeen, KØKWN, Telephone 320-321-2744 or e-mail Ronald@lundeen.net
- Sat May 18 9 AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.
- Sat Jun 1 9AM- 5PM. Northern Lights Radio Society Aurora '24 Conference. West Medicine Lake Community Club. 1705 Forestview Lane N, Plymouth, MN
- Sat Jun 1 9:30 AM Amateur Radio testing administered by Saint Paul Radio Club volunteer examiner team. Galilee Lutheran Church, 145 N McCarrons Blvd, Roseville, MN. Reservations required; Contact Ron Lundeen, KØKWN, Telephone 320-321-2744 or e-mail Ronald@lundeen.net
- Sat Jun 15 7AM-Noon TCFM Club Spring Tailgate Swap Meet.

 West Medicine Lake Community Club. 1705 Forestview Lane N, Plymouth, MN
- Sat Jun 15 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.
- Jun 22-23 Field Day Weekend. SPRC at Benson Airport, details to come
- Sat Oct 5 North Star Radio Convention Brooklyn Park MN http://mnconvention.org/
- * Depending on business to be considered, Board Meetings are sometimes held electronically. Check with a Board member beforehand to confirm a meeting.

Zoom Meeting Information

Simply click the link below (or copy and paste link into your browser if that doesn't work) or for audioonly call in from any phone; dial 507-473-4847 and follow the prompts.

If you are not familiar with Zoom and would like to arrange to practice, text Don at (651) 276-4838 or email dk@donkelly.biz.

SPRC Monthly Meeting

Time: May 3rd, 2024 06:00 PM Central Time (US and Canada)

To Join the Zoom Meeting use Meeting ID: 651 842 1000 and Passcode: 6512764838

Or this link:

https://us02web.zoom.us/j/6518421000?pwd=djluU3dha0FBN1hERIRoUVA0RVNUQT09Or

https://tinyurl.com/ys4efevx

One-tap mobile:

- +13462487799,,6518421000#,,,,*6512764838# US
- +12532050468,,6518421000#,,,,*6512764838# US

For audio-only, dial 507-473-4847

To find other dial-in numbers, see: https://us02web.zoom.us/u/kuWkJhGiz