

 www.arrl.org		<p align="center">St. Paul Radio Club</p> <p align="center">Ground Wave</p> <p align="center"><i>Dan Meyer, NØKFB, Editor</i> <i>Dale Maroushek, NØPEY, Publisher</i> http://www.magicrepeater.net/sprc.htm</p>	<p align="center">KØAGF</p> <p align="center">Club Repeaters: 145.310 MHz, 442.450 MHz Both use a 114.8 Hz tone</p> <p align="center">PO Box 9375 North St. Paul, MN 55109</p>
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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 DECEMBER 2023 – Volume 83, Issue 10

NEXT MEETING: SPRC Holiday Party FRIDAY December 1st, 2023

6:00 PM Board Meeting (all are welcome to attend and observe)
7:00 PM Membership meeting, refreshments and socializing

It's time for the annual SPRC Holiday Party! We won't have a program for December, just a short business meeting and then on to the food and hanging out with friends. The club will provide the usual meat and cheese tray with rolls for sandwiches. We'll also have a veggie platter and plenty of soda and coffee. Members usually bring in something to share but it isn't required. We always have quite a range of sweet to savory to sample. We hope to see you there!!!

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 so if you arrive after that, please call 612-201-0818 to be let in. Br. Bob.

Dale's Details by Dale Maroushek NOPEY

I hope Thanksgiving and the actual Black Friday weekend went well for you, if you participated at all. I'm guess Menards will have the usual cheap stuff stacked up high and I probably don't need it anyway.

Then we get prepared for the meeting and Holiday party on Friday night. The Board will take care of business and inform you of the results. Then we line up and share all the goodies that the members bring in and compare notes on anything and everything. I wonder if there might be some surprise food items that maybe people have not seen or tasted for a long time.

It turned out to be a busy November. A couple three estate sales to look over. I didn't go. No VE session since we had no candidates. Our Breakfast drew in 15 this month and the service has improved. They even leave the coffee pots on the table again! Just some quick math on coffee price tells the story. They charge each drinker \$3.89, whereas, each cup costs less than 20 cents to make. I try my best to chug down 6 or 8 cups, but I'll never break even.

My license was due for renewal on Nov. 30th. My experience with the FCC's new on line procedures took me for a painful joy ride. I even asked Leon for advice for myself and Jim out in Eden Prairie. I tried my best to follow the guides and do what was needed. First thing was getting reassigned. Since my FRN and e-mail association was from the OLD system, I had to get the FRN assigned to my e-mail again. Got that done and confirmed. Next was to register with CORES so I could pay them. Got that done. That's when I skidded off the road to success. I read some more info, tried again with ULS and they said all is well. But it wasn't. Did that over the next two weeks, sometimes running into the "site is down for maintenance until 2 a.m. EST" or the phone contact telling me that the site was down in the morning. We talked about it at Breakfast and no one else had any problems. So I try again and it fails, so I call the help line Monday morning. Took about 5 minutes, and I had a human on the line! How can I help you? I seem to be stuck between ULS and Cores. Oh yes sir, let's confirm your information. Bla Bla Bla 55109. Ok, I see the problem and will send you and e-mail with a link to what you need to do. Are you sure that will fix my problem? Yes! OK, I'll give it a shot.

The email comes, I read the fine print first and click the link. It goes right back to where I have been a dozen times before. But, there is a new paragraph with a new link! I read it all again to be sure. Yes, click the new link and there I am, back on another page I had seen before but with another new link. Whal La! Finally at the page I need to tell ULS what I need to do and for them to tell Cores they should ask and accept a payment from me. I do what it says and answer the questions. It says go to Cores for pay. With apprehension, I click on the Cores link, and the page is familiar, but it now has a payment due! Gangbusters, I have conquered the beast! Some typing later giving the government more of my information, it is now up to the banks and internet to fulfill the event. It did so and now I will continue to be NOPEY for at least another ten years.

I'm not sure that procedure is easier than filling out a 605, attach a check, send it in and wait. If had a 10 year old son, it would have been a ten minute job!

Auction team gained more helpers for various duties coming up and the end of January. Andy Parent, Ben Premack , Doug Lueck and Jay Bellows have joined the adventure. We still need more helpers to make the event better each year. We will be picking up a few test gear items from another donator. I'll attach the flyer/rules thing again. Let's try to hit a hundred buyers this year!

The web site issues will be dealt with this month. We know the problems and have a good staff to fix them. Once more, let our volunteer people do what they do best.

Maybe just one Okinawa story tonight, since it is the year end time too. So let us examine how overseas military bases work with local employees. To keep the soldiers doing what the military wants them to be doing without interfering with their usual duties, the military hires hundreds of thousands of local labor workers to do all the jobs GI's hate. And why not? They have a Budget, the cheap labor fits into it, and they are good workers and No medical insurance.

Anybody ever been in a Union strike? Think about it. There are four sides to a strike: labor and management, and the people/businesses that are readily effected by the strike. Well, in Okinawa, the military vs labor contract is simple. Labor worked day to day at a fixed rate. Then, big then, at the end of the year, they would get a bonus. So if labor worked a full year (and they did without fail), they would get a bonus of 100 per cent of their yearly waged! I'll confirm, we paid them very little so two times very little is still not much.

The year end is near, management and labor are working out a new contract, and it fails. So GI's have to pick up all the jobs that they did. This causes all GI's to be confined to bases. That cause no business at the bars and restaurants in the local economy. Which causes the show girls to really get upset that their nails can't be done and the local bar owners and bar girl delegation decide to let others know of their concern.

So, since Torii station was a large employer of locals, we were restricted to base and union picketers were at the gate. About ten days into the strike, if you were near the gate, you saw the picketers run with the wind as a trio of cabs brought about twelve guys with baseball bats to let them know that the local girls were not happy. We found out later that was happening all over the Island. A couple days later, the strike was over and we returned to normal operations. Yup, we had Girl Power way back in the 60's!

Dale Maroushek NOPEY 73

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

Spring has Sprung

Fall has Fell

It's Now Winter and Cold As.....Ever

HI HI

The garage is finally completely cleared out and it only took 5 pickup truck trips to the dump to get there. Once again I can not believe the amount of junk one can accumulate over 35 years of marriage! It was pretty much 50/50 between my XYL and myself as far as quantity of accumulated junk. So I ain't pointing any fingers..... How does the saying go? When you point a finger at someone, 3 more are pointed back at you? Anyway the cars are in the garage and there is enough space between them so we can open the doors and get out. I think we are ready for what comes next...or at least as ready as we can be. With that being said, It's now time for indoor stuff! To start with I did get my Raspberry Pi HAM computer set up and working. I have even made a few FT8 contacts to test it out and it seems to be working great. I did however run into a few problems along the way.

OK let's talk about the Ham\Raspberry Pi portable computer. Before I started, I made a general list of what I wanted in the computer. First, no need for 120v AC. The whole thing needs to run on 12 Volts DC or less. It needs to be rechargeable and ultimately needs to be able to run off of or at the very least recharge via solar panels. It needs to run all the software I might need for operating out in the field (Think POTA, Hams in the Park etc.) It all needs to fit into a single armored case. Like the ones sold at Harbor Freight. Finally the cost should not break the bank! (See pictures below of the final project sans solar power and charging.)

As it turns out, I am not the first one to think of using a Raspberry Pi for this project. Thank god for that! I am not all that computer literate and definitely not a programmer! Anyway, a couple people have all ready done the hard work and have made their work available to us mortals. Here is the link:

<https://www.kb6nu.com/km4ack-on-building-the-ultimate-raspberry-pi-for-your-shack/>
(Ed.note: <https://tinyurl.com/4adfh7we>) Even better there are a couple you tube videos on installing the "Software" on your Pi. It actually comes as a package where you get to pick and choose what you want installed with the option of adding additional features if needed any time in the future. And it's all FREE.

There were 3 major hiccups with this project.

First, was a compatibility issue with the latest PI operating system and 2 of the programs, WSJTx and Nano VNA Reader. I was unable to resize or move the WSJTx windows and currently the Nano VNA Reader will not run due to a driver incompatibility. The first hiccup was easily fixed by using an earlier version of the operating system (Bullseye). This second incompatibility issue should be fixed in the near future or so I am told. So for now I can not interface nor control my Nano VNA from the Ham Computer. I'll let you know when this is resolved.

The last hiccup is that the 1GB PI 4 is so SLOW when downloading the software, it crashes or locks up. (We are talking 3-4 hours to load all the software!) To get around this, I bought a Pi 4 8GB for downloading. This shortened up the down load time to about 1 hour and no more lock ups. One of the cool things about the Pi is that you can swap the memory cards between Raspberry PIs and there by change its functionality. Stupid EASY!!! So while I used a \$75- 8gb Pi to do my down loading, I am running it on a \$35 – 1GB Pi and it works great! If you decide to build this, I will happily download the software to a memory card for you so all you need to do is plug the card into your 1GB PI and you are off and running!

That was the only “difficult” part and it was not hard at all.

Alas, not being the brightest bulb on the tree (See how I slipped in a Christmas reference there?), these issues only took me 4 or 5 days to figure out. (Big shout out to MNARTS without their guidance and suggestions I would probably still be trying to figure this out.) Had I talked with them in the first place, these issues would have been resolved in about 10 minutes....Lesson learned! HI HI

OK, On with the story. Next I needed a monitor. Initially, I tried a smaller 10” monitor and while it worked, I could not get it to display in a way that I could read it (Every thing was too small!) Its hell getting old! So skip the extra small monitor besides as it turned out, the 15” monitor I went to was about the same price.

Turns out they make a portable 15” monitor that does not require 120v AC, plus they are quite light and compact. Here is an example: https://www.amazon.com/MNN-Portable-15-6inch-Ultra-Slim-Speakers/dp/B0B9NNWXVP/ref=sr_1_1_sspa?keywords=portable%2Bmonitor&qid=1700071364&sr=8-1-spons&ufe=app_do%3Aamzn1.fos.18ed3cb5-28d5-4975-8bc7-93deae8f9840&sp_csd=d2lkZ2V0TmFtZT1zcF9hdGY&smid=A1HZGVV5ISYYWY&th=1

(Ed. Note: <https://tinyurl.com/mr39yt86>)

Please note the monitor actually runs on 5 volts. So if you purchase the new Raspberry Pi 5 you can actually power it off one of the USB connectors on the Pi 5! (Assuming you have the correct 5 amp 25 watt power supply.) Powering the monitor with the Pi 4 will not work as the USB has a limited current output of about 200-300mA. Alas, the Pi 5s are a bit more expensive (\$60 – 4GB to \$80 8GB) and are currently as rare as hens teeth! But that should change in the next few months. Once they are more available, I will be buying the Pi 5 4GB model as it has lower current requirements and is twice as fast. Plus with the right power supply it will deliver up to 3 amps via its USB ports.

For a key board and mouse, I went with a rechargeable set up:

https://www.amazon.com/dp/B07P7MB88J?ref=ppx_yo2ov_dt_b_product_details&th=1
(Ed. Note: <https://tinyurl.com/znxtu7mx>)

It is also wireless and smaller than a regular keyboard and mouse and will fit in my field box. (These were the 2 of the 4 requirements I had for them.) The keyboard has a number pad and power switches for each device so I can power them down when not in use. All requirements met!

Whats left? Well, I need to build a 5 Volt Power Supply that runs off of a 12 V battery. I am probably going to use a Boot Buck with an LCD output monitor and solar panels and some kind of a solar charger. Again if possible I want it all to fit in my harbor freight case. Its a bit iffy on the solar panels. <https://www.harborfreight.com/material-handling/parts-storage/utility-cases-ammo-boxes/protective-cases/4800-weatherproof-protective-case-x-large-green-56863.html>
(Ed. Note: <https://tinyurl.com/bdfr4tvr>)

OK now for some numbers:

Power Consumption:

Monitor 5V @ .85 A at full brightness

PI 4 5V @ 0.5A at idle about 1.5 A when starting up and 1 amp running the software.

Total Cost:

PI	\$35
Keyboard and Mouse	\$30
Monitor	<u>\$80</u>
Total	\$145

So a little more that I wanted, I was hoping for under \$125, but I think if you watch for deals you could get the total price under \$125. Plus you can reuse the PI for any other projects you want by swapping out the memory card. Curious? Interested? Contact me and lets talk!

What else is going on? Well the next RC plane is almost ready for covering and paint (See Pics), Still not practicing enough on my Morse Code but then again there is no white fungus and the temps are warm so I am trying to get all fun outdoor activities in be for the fungus falls.

A few pics:



This is the whole set up.
About the size of a

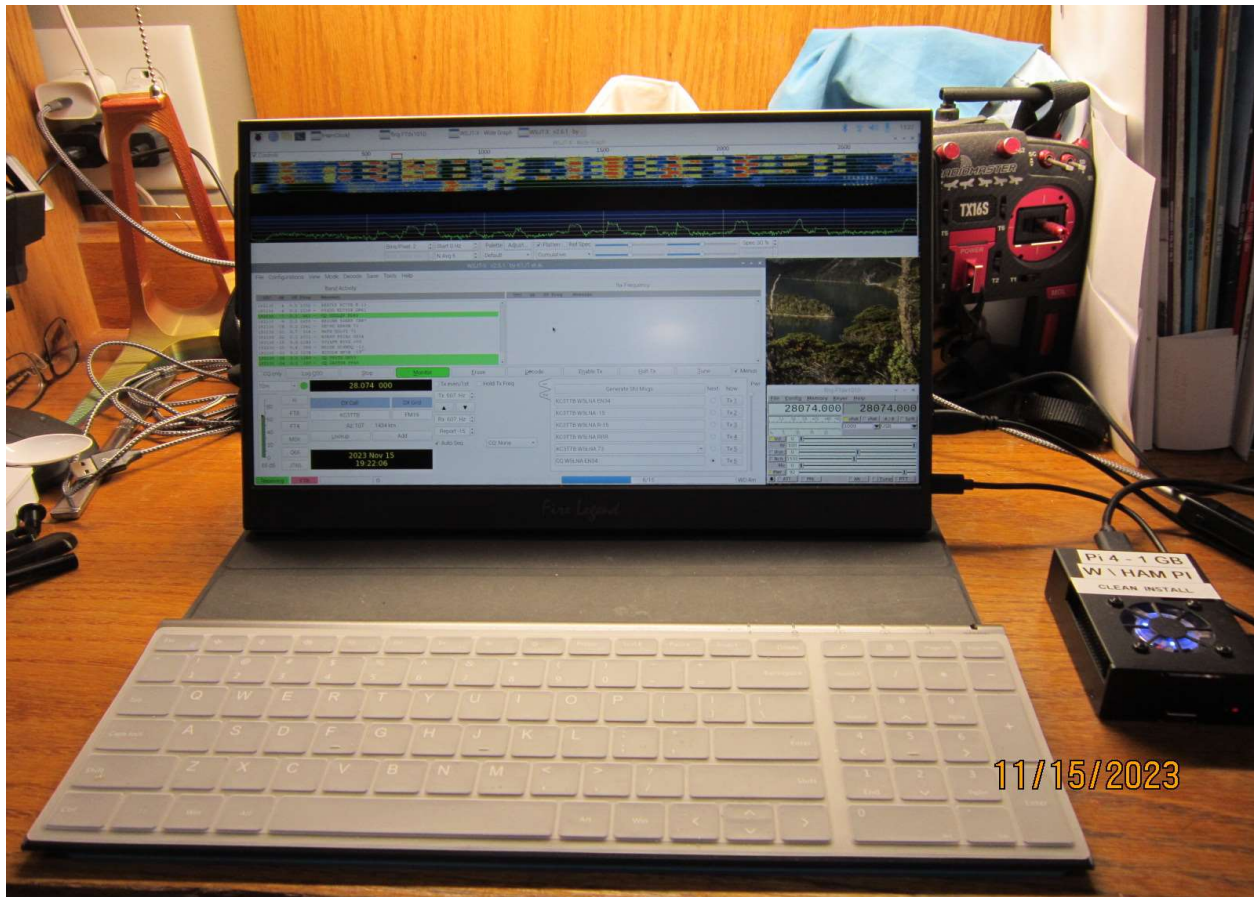


This is the actual computer.

pack of cigarettes.



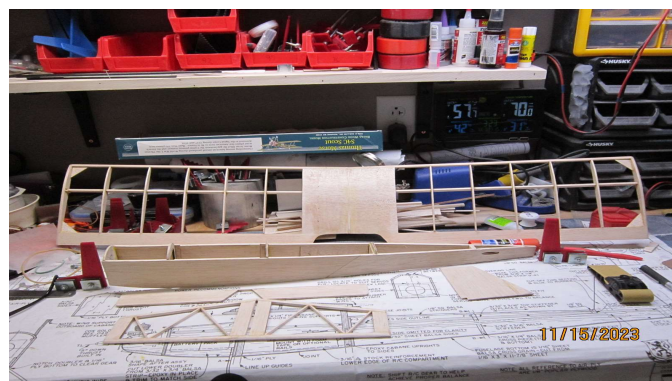
Here is the 3D printed case for the PI once the project is complete. Notice the cooling fan. It is a must for the PI 4 and the P5. They run a bit warm without one.

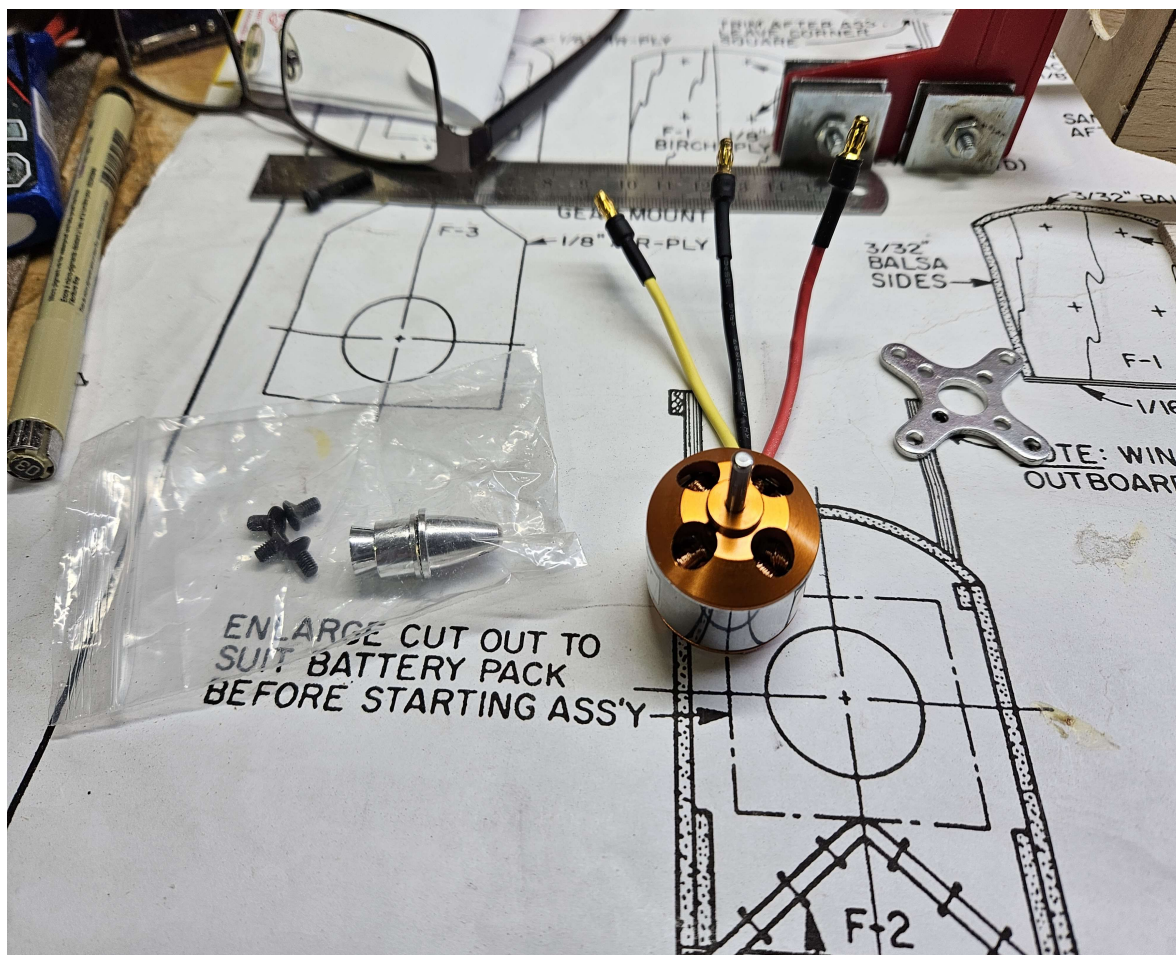


The full set up, tied to my FTDX 101D and running FLRIG and WSJTx. I am not experiencing any lag in the set up. I'm still in the testing and experimenting stage, once I get it all configured and working, I will figure out how to get it all in the field box. More pictures to come in future Ground Waves.

On to Planes:

This model is called a Q-Tee. It is mostly built and sanded. I have a little more to do on the fuselage and 3D print an engine mount then it will be time to cover and install the radio control. Total time to build about 4 days. Super simple design. And easy to fly. All the parts were cut out with my laser in about an hour.





Here is a picture of the motor. Notice it has 3 wires. This is a brushless motor that puts out about 200 watts of power and is about 70%-85% efficient. They're quite interesting as they are essentially an AC motor that runs off a DC battery but require a motor controller to make them work. If weather permits, I'll try and add a video of it flying....weather permitting.

That's if for this month. Till next time:

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

Kevin Welna W5LNA

Field Day Results by Pete Guldán KDØSQJ

Page 66 of the December QST has the Field Day results. First my hat is off to the Minnesota Wireless Association for 1st place for Minnesota and 8th place overall for 3A stations. They had just 17 participants and scored a bunch of Q's. I did see a 10A station in South Texas listing 204 participants. We can be proud of our 65 count. Next year I would like to see our numbers grow. We are in discussions for added signage to direct people to our location. My idea is to have Kevin stand out by the road with one of those giant spinning arrows wearing a Batman costume. I might get hungry so maybe that's not such a good idea. Perhaps a better idea would be for each of us to bring somebody new along with us. Don't let the white fungus get you down and program your brain to think about Field Day. Now does anyone know where I can get a Batman costume? 73

Art's (NØIWQ) Reminders

**As Ham Radio Operators, our core function is getting on the air.
There are many good reasons (excuses) to do that.**

Besides our own regular operating we do from the 'shack' and club-organized events like Field Day, other, more recent initiatives have opened up new opportunities.

Break out those Go-Kits: (Need not be Board-initiated)

POTA (Parks on the Air): Great Elmer-activity for new operators to get their HF feet wet. Right in our backyard is the 72-mile long **MNRRA (Mississippi National River Recreation Area)**. Designated as **National Park # K3381**, it contains some real local gems:

Kaposia Landing (SSP). Beautiful, underused park, several shelters, easy access.

Questions: SSP Parks & Rec. Shannon 651-366-6200

Spring Lake (Dakota Co. off Co. Rd. 42) Dakota Count Parks

And a myriad of others.

More Special Events: Commemorating a place or event in history—you decide. Get a few Hams together and do it.

Keep it simple. Such as Pete and his annual W4P event.

Please Get on The List

Volunteers have made the Saint Paul Radio Club what it is for nearly a century and a number of our members have been volunteering since the last century.

When we talk about needing your help, we tend to talk about the big jobs, but the real need is for lots of members to each do a little job—anywhere from a few hours a year to a few hours a month.

I have a list of a couple dozen SPRC members who are doing about 40 “jobs” for the club—and a few are not getting done. I need to expand the list!

To get on the list, please contact Don Kelly, Volunteer Coordinator, at dk@donkelly.biz or 651-276-4838. Let me know what sort of things you like to do.

Club Wearables

Some folks have been asking about our Club Wearables. Many different items may be ordered at: <https://www.hamthreads.com/> It's the same website with a new owner. Dale spoke with 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

St. Paul Radio Club Breakfast

Saturday December 16th, 2023 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)

BoD Meeting Minutes – by Art Thell, NØIWQ

Saint Paul Radio Club

Hereinafter referred to as “SPRC”

Board Meeting Minutes

11-03-2023

Board members present: (If * or R)

Dale Maroushek-NØPEY *

Kevin Welna-(V. Pres.)-W5LNA *

Art Thell-(Secy.)-NØIWQ *

George Power- (Treas.)-KØGCP *

Br. Bob Walsh-(AL)-WCØJ *

Don Kelly-(AL)-WA6ZMT *

Ralph Bierbaum-(P. Pres.)-NØAWN *

Also present (If * or R):

Jay Maher-NJØM *

Jeff Iverson-WB9DAN

Dan Meyer-NØKFB R

Pete Guldán-KDØSQJ *

John Crabtree-KCØG *

Ben Otto-KEØRFZ

Lou Michaels-WD8NOV

Janet Bierbaum KDØBZZ *

Dawn Holmberg KØWC R

6:06: Pres. Dale called the meeting to order.

President: Call for added agenda items:

President:

Old Business:

Secretary's Report:

Art moved to accept Minutes as published in the Ground Wave: Art Second: George Passed

Treasurer's report: George

General Fund: \$6860.09, Repeater Fund: \$1204.25, Education Fund: \$1435.38,

Total Cash on Hand: \$9499.72.

So noted and filed: Secretary

CDH ARC Report: Br. Bob:

Following up and checking on new portable equipment for the club.

Will transition some club activity to teachers who interact regularly with the students.

Repeater Report: Dale: Both working fine.

Membership Report: Dale: 92 paid members to date.

Website report: (stpaulradioclub.org)

Is everything available? Is extraneous stuff gone?

In process. Don, George, Tom, & Andy are collaborating.

Are migrating the Ground Wave Archive over. More capacity is needed.

Group reported that expansion will cost about \$200. Discussion was to bill the cost to SPRC. No formal approval was enacted.

A request has been made to provide some promotional portable SPRC signage to be used at special events where SPRC is being represented.

Don moved to authorize the club to spend up to \$300 for the project

Seconded by Kevin. Motion passed.

VE Report: No candidates for Tech or upgrade.

Training Report: Pete: Planning Spring formal online sessions. Will attempt to time the end with the VE schedule.

Auction: January 27, 2024

Dale (Auction Chair) presented a copy of the Auction Flyer and the updated Auction Rules for Board Member review and correction. No further action taken.

New Business:

Dale initiated a discussion regarding some Bylaw changes. After some discussion, no action was taken.

Holiday Party—Social Chair Jay Maher. Watch for more info.

Don presented an updated annual planner for 2024 regarding volunteers and board members.

A letter was received from ARRL requesting additional donations.

Moved to decline: Kevin Second: George Approved.

Club Breakfast: Normally third Saturday November 18, 2023 at 9:00

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

Adjourn:

Move: Art Second: Don Approved

7:00: Adjourn.

Membership Meeting Minutes – by Art Thell, NØIWQ

Saint Paul Radio Club

Hereinafter referred to as “SPRC”

Member Meeting Minutes

11-03-2023 7:30 pm

7:30 Call to order by Pres. Dale

33_ Members present plus Remote.

Treasurer’s Report,

General Fund: \$6860.09

Repeater Fund, \$1204.35

Education Fund: \$1435.38

Total Cash on hand: \$9499.72

Pres.: Minnesota Convention was a success.

Membership report, Dale: 95 paid members

Repeater Report, Dale: Both work

VE Report:

Training Report, Pete: Planning formal spring session, to be timed with VE Session.

Auction: January 27, 2024

Informational flyer copies were available.

Auction items for sale or donation were requested.

Holiday Party: Social Chair, Jay Maher has it in planning process.

Field Day:

Election of two at-large Board positions:

Br. Bob and Don Kelly both accepted nominations.

Pres. called for nominations from the floor. None forthcoming.

Move to approve via acclamation by Dan Kelly (KCOQHZ). Second by Steve Scott. Approved.

Open volunteer positions report:

Club Breakfast: Normally Third Saturday---November 18, 2023 at 9:00 AM.

Place: Denny’s at 1664 University Ave. Across from the AxMan.

Move to adjourn by John KØUBA Second by Kevin.

Adjourn: 7:52

Program to follow:

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 Dec 1 6PM SPRC Board meeting, Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School. *
- Fri Dec 1 7PM Brief SPRC Membership meeting followed by Holiday Party. Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School.
- Sat Dec 2 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 Dec 16 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.
- Fri Jan 5 6PM SPRC Board meeting, Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School. *
- Fri Jan 5 7PM Socializing followed by 7:30 PM SPRC Membership meeting. Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School.
- Sat Jan 6 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 Jan 20 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.
- Sat Jan 27 8:30 AM – Noonish. SPRC Auction. Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School. *

* 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 audio-only 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: October 6, 2023 06:00 PM Central Time (US and Canada)

If you would like to join either the Board of Directors meeting or the membership meeting via Zoom, please contact Don Kelly at dk@donkelly.biz by Thursday November 30th.

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

Or this link:

<https://us02web.zoom.us/j/6518421000?pwd=djluU3dha0FBN1hERIRoUVA0RVNUQT09>

Or

<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>