

 <p>www.arrl.org</p>		<p align="center">Saint Paul Radio Club Ground Wave</p> <p align="center"><i>Dan Meyer, NØKFB, Editor</i> <i>Dale Maroushek, NØPEY, Publisher</i> http://www.stpaulradioclub.org/</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 February 2025

Volume 85, Issue 2

NEXT MEETING: SPRC Holiday Party Friday February 7th, 2025

- 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 Br. Bob at 612-201-0818 to be let in.

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 program for our February meeting will be presented by Jonah Clausen, WØCLW; the topic will be JS8 digital communication.

Jonah got his ticket in September 2024 and about a month later upgraded to general. He went to collage for computer repair and networking, and ended up in banking. Currently he is a mortgage closer for Wells Fargo.

If you would like to make a presentation to our group, either in-person or via Zoom, please contact any board member. Contact information is located in the back pages of this newsletter.

Please join us Friday February 7th!

Dale's Details, After Auction Report

by Dale Maroushek NØPEY

It's only the night after the auction now, but I will have more results before the end. We had two Estate recoveries this year, both with some fantastic gear. The most expensive items will be made available soon on eBay to try and get the maximum return for the estate. Add to that three direct to the club donations and we had labeled over 200 items on Friday night. Then the sellers came in on Saturday and we ended up with over (250) items for sale. Over 80 buyers were active.

Some improvements this year, George redesigned the Blue tickets which made them easier to fill out and for the staff to utilize doing the bookkeeping. It also simplified the closing for the silent auction. All we had to do was collect the bottom section for items that sold, and enter them into the system. We definitely saw a shorter checkout wait time this year.

Every year I tell people that the auction is the cheapest place to purchase used gear, and we proved it once again. It's was actually hard to sell VHF/UHF HT's or mobiles!

Helpers, I was also impressed and thankful for the extra help the club has had this year. We had helpers out collecting, inventorying and storing the estates. Then on Friday, we had over 16 people in and out from 3 to 6 pm carrying it all up to the sale, labels attached and computer network set up, tested and tickets logged in. Special thanks to John Crabtree and Ray Johnson for making all the old crap go away.

And another group stayed behind a bit to clear the floor of chairs and tables. Lead by Doug and Pete and John and my other brother John they were out about 1330.

The weather played in our favor landing between an extreme cold one and a normal cold one, but the wind came back around to make it feel colder.

All the auctioneers had their own style, which breaks things up a bit, and our newest volunteer Ben Premack, WØKZD, did a wonderful job and is coming back next year, God willing. Ralph and Bob really know the gear and have found some secrets to get the bidding going. We had Mark try using a camera to show the items too heavy to lift, but the light contrast with the screen didn't help much. Maybe try more light? Many thanks to all of them.

The free tables collected a bunch of stuff that came to us in a dump box from a storage place of 20 years ago. Some old stock new package or some dirty but may be a surprise gold mine.

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Now let me try to explain again what we have been trying to do in May called the Progressive Ham fest. In short, it means that you don't go to a ham fest, you go to as many sellers as we can sign up, within a general 10 to 20 mile area. The sellers are at home and set up individual sales areas be it inside/outside/garage/yard. You would get a map of these locations and plan your route around them. Ray and I are up for it again, and we really need more sellers to add to the routes. I believe May 10th is the target date.

The club has some completion jobs to do this spring too. Some roof antenna system removal in Circle Pines and some antenna sorting and picking up in Roseville. Those that are needing a beam or vertical might get lucky and be the new owner. We may use the Tailgater fest in July to complete things.

Switching modes now, back to the ebb and flow of SPRC normal business.

MN QSO party, it may be too late for this. Hope you all enjoyed it.

Be sure to make reservations for you and your Valentine. A nice dinner is suggested.

Midwinter Madness. I'm sure this will be on the Board agenda. We have been renting a table for \$20 and 4 tickets \$10 each to establish SPRC at the fest. Offhand results of the endeavor usually run one or two new members, and the same for yearly dues payments. That's \$60 expense to gain a \$20/\$40 in total dues. Formerly, the Club only paid for the table, and member volunteers manned it. We have John and Andy and the booth hardware, and they need help filling a schedule. Something has to be adjusted.

April brings showers and the Banquet, and the Ham of the Year award. Anybody have a ham related guest friendly speaker? We need more choices. Nominations are open for HOTY!

We have to say a few words about Steve, WA7HPK and his band of VE's. Years ago it was tough to get enough VE's at an exam, now we usually have more than candidates. He must be doing something right! The second part of the job is to train a replacement so you can get a session off once in a while.

Then we have Brother Bob and Jay Maher who fatten our tummies and quench our thirst at the meetings. That's a bunch of work to do every month and they cover it well. Now if only there was a Microwave oven in the room, we could have hot sandwiches!

In the other corner we have Jan "She has a cane and she knows how to use it", KDØBZZ, who has increased sales participation to a point of needing an armed courier to carry the money to the bank. Always has a great mix of good stuff and some crap for the hell of it. Where else can you spend a buck and get a 10 year old book?

I just booked a program for the February meeting! Only 4 to go. (*editor's note – the program fell thru.*)

Dale Maroushek

NØPEY, President Again

St Paul Radio Club - BSA Scouting Activities

Dan Dionne K9ALV

CQCQCQ Kilo Zero Bravo Sierra Alpha. CQCQCQ K0BSA. CQCQCQ Kilo Zero Boy Scouts of America

Hello SPRC members. I'm overdue for a report on what I've been doing as your liaison to Scouting. Here is what I have accomplished.

First, my **introduction** for SPRC members who don't know me from gatherings. I'm Dan Dionne, K9ALV, and I'm the Scouting Liaison for our club. I have a 1970's electronics background (1973 First Class Radio Telephone FCC License), 45 years with IBM as a large system service tech (SSR) and facility planner (IPR) and I retired a year ago. I got my Tech and General license in 2017. I've been slow to build up this hobby. I'm receiving some excellent help and am as active as possible. I was a Scout in the 60's, spent a year in the Civil Air Patrol and have been a Scout Den Leader for the past four years. Along with my grandson, I'm transitioning to a BSA troop soon. A year ago I obtained the Merit Badge Counselor certification for Radio, Electronics and Electricity. I'm a member of MNYARC (Minn Youth Amateur Radio Club). I've given radio support in a half dozen MS Bike rides and three Twin City Marathons. I've had the pleasure of participating three June Field Days at Benson Airport and two in Colorado. My QTH is a tight HOA that prohibits penetration, anything external, ladders, etc. so I'm mostly portable with an icom 7100. On my ToDo list are: an Extra license, ARES involvement, POTA and maybe CW. The bulk of my Scout radio work is with Tim Arimond N0BYH and Rick Clem WØIS.

In December I'll be married for 50 years to my wife Jan. I have two daughters. Grand kids are 6, 11 and 22 years old – the younger two are Cub Scouts. I'm a musician in the Somewhat Dixieland Band. I grew up in Milwaukee, WI (30 years), then Denver, CO (35 years) and Twin Cities (6 years). 9ALV is the 1925 call ID for my grandfather and my dad was KA9IWR and, before marrying mom, had a Piper Cub. KI7PJL is my sister.

I believe there's an unspoken **mission** for us ham / Scout leaders which is to attract STEM (science, technology, engineering, math) interest, to impart useful skills and lead them into an FCC license.

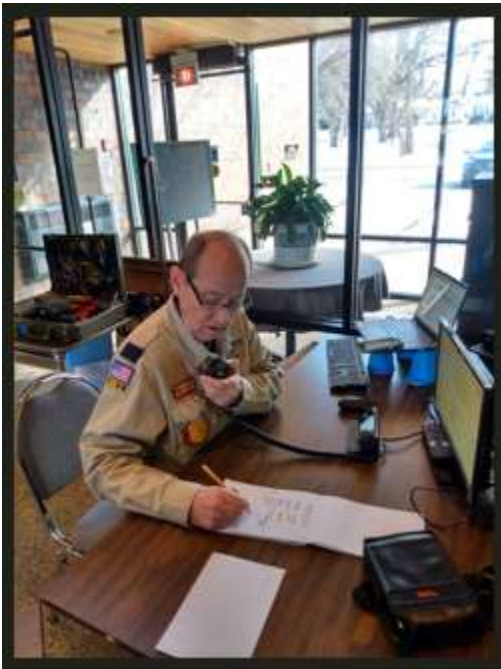
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Winter Field Day

(WFD) conducted at the Scouting Museum in North Saint Paul on January 25, 2025.

Pictures at the Scouting Museum:

#1 me, #2 lobby operation, #3 Rick (middle), #4 Tim.



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In November I thought it could be fun to **combine WFD activities with Scouting**. I figured the airwaves would be active and odds would be good for contacts for the Scouts.

Rick Clem and I succeeded with WFD operation setup **at the Scouting Museum** in North St Paul. Scouts have a program called **Scout Stations On The Air (SSOTA)** of which I'm just in the learning phase so I didn't take advantage of procedures that might help with Scout related QSO's. We operated on the club call of **KØBSA**. We occupied the lobby from 10AM to 1:45PM. Winter hours for the museum are short so, not a lot of time and it flew because we were having fun. In that time Rick cranked out 19 CW QSO's. We made only three phone (radio voice) contacts. We did spend some time analyzing the antenna. My antenna analyzer indicated problems, however, our radio SWR meter looked great. We wondered about the extreme cold on the roof antenna - more specifically antenna attached capacitor(s) acting up.

The idea arose to **operate a second WFD radio station (KØBSA/2)** at the Fred C. Andersen Scout Camp about 2mi up the St Croix from Stillwater. Coincidentally, the outdoor Scout skill competition called the **Klondike Derby (KD)**, was in progress the same day as WFD. The KD Coordinator liked this idea and asked if we could conduct skills tasks for Scouts to earn competition points. I agreed, thinking of actions like: a) using FRS HTs to relay communication traffic in camp and judge accuracy, or b) communicate locally to the Museum or on repeaters, or c) do an HF QSO, or d) a Fox Hunt. I researched the **SCOTA (Scout Camps On The Air)** program and researched **Radio Scouting** and made some progress with registration but not enough to prearrange QSOs / spotting with other Scout troops. I know they're out there, I'm close, but I just haven't found what I need yet as a success factor. Ah, the best laid plans of mice. I ran out of time and canceled. I'll shoot for next year to work the KD. My past four WFD sites were in the woods - I couldn't pull it off this year.

This year the WFD organizers aligned with **World Radio League (WRL)** and their **logger** app. Google: WFD 2025 and you'll get lots of hits on WRL. The promotional video looks good, it has a **spotter** function and the WFD specific formatted logger. Because Rick was so fast with CW contacts, I didn't bother with the spotter. I couldn't make the WFD format logger load. The app only presented a POTA or a general format. So, I successfully submitted our WFD QSO list in a .txt format. K2BSA and others have recommended LogBook of the World (LoTW) and N3FJP. NetLogger sounds great but it's not Scout specific. I'm still deciding which is best.

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Scout **Jamboree-On-The Air** (JOTA),
Scouting Museum, 3rd Sat of October, 2022, 23 and 2024.



JOTA is a global Boy and Girl Scouting event that involves more than 1.5 million participants in over 160 countries using ham radio. Contacts are made from Friday evening to Sunday evening on the 3rd weekend of October. The ARRL supports JOTA and has easy to find information on their web site. As with many amateur special events, JOTA (and SCOTA), recommends frequencies, modes, talkgroups, reflectors, Echolink, etc. (JOTA has recommended the N3FJP logger in the past.)

I have a list of over 100 BSA related participating club call signs – examples: KBØBSA, KK4BSA, KB3BSA, etc. I shall research the contacts for these stations in the hope of prearranging QSOs for events. By far, the most prolific and active is K2BSA in New Jersey. I've registered with K2BSA, as have numerous other Scout radio stations who operate with an extended ID such as K2BSA/9. I'm still sorting through K2BSA programs.

Jamboree On The **Internet** (JOTI) is also an international event that utilizes internet **Scout chat rooms, virtual Zoom-like sites, puzzles, points, interactive activities, videos, etc.** During our 2023 and 2024 JOTA events at the Museum, Northern Star Scout Council Scouter Bob Elliott ran a JOTI laptop station.

Tim Airmond has **conducted a JOTA station for the past 20 years.** I assisted with the past three events.

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Picture: **Radio Merit Badge class is conducted by Rick at the Museum, during JOTA** in lobby. These Scouts will operate the KØBSA station in the lobby. (The proper name is: North Star Museum of Boy Scouting and Girl Scouting)



SCOTA & SSOTA, Radio Scouting (Scout Camps On The Air & Scout Stations...) programs.

My hope (objective?) is to **reestablish SCOTA and SSOTA at Scout camps and sites** in the Scout Northern Star Council area (southern MN and western WI).

I touched on these programs earlier. I'm still in the early stages of drilling into them so I can't say much from experience. I hope that in the future these programs will be critical success factors. One objective for my mission is to find an easy and effective way for Scouts-to-Scout QSO's. As I see it, there are four **methods** to accomplish this:

1) Prearrange with another Scouter / ham / troop, via phone call / text or virtual session or other channel which communication on the side to do live adjustment of radio frequency and mode for the duration of QSO sessions. This seems to be the simplest method, but I've not had much luck with it and not planned ahead will enough to be effective. If at first you don't succeed, try, try again and I will. (JOTA encourages Echolink.)

2) Find and use a Scout version of a **spotting app like POTA has.** I think SCOTA or Radio Scouting has something like this, but I've not quite found it yet and I'm still drilling into it.

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3) Hunt-and-pounce / call-out appears to work well for CW QSOs, but kids' attention span being only few minutes, moves us to phone or video. I've had what I feel is poor experience with this method. That said, in the 2022 and 2023 JOTA we found a Scout troop on the air and worked them with other Scouts for an hour – good!

4) RTL-SDR (waterfall) dongle on a laptop. I love this for finding action and had a good v1 dongle for UHF/VHF setup at home. It died with Windows 10. The disadvantages are: a) not portable friendly, b) added complexity, c) learning curve for HF. A portable HF rig with waterfall isn't feasible for now.

Last summer I had den leader duties at several Scout camps. While there I had the pleasure of operating my radio to test my ability to hit repeaters and do HF and it was rather good and fun. I also talked about radio with the **Camp Director at Tomahawk Camp in WI**. He said at one time **there was an active ham radio program and radio merit badge program and he wanted to reactivate it and have the ability to communicate with other camps via radio both for fun and emergency comm's** – this is the root of SCOTA. I've not heard back from the Director and suspect he'll reply when camp operations resume in spring. In the meantime, I'm researching ham clubs that could help in the Tomahawk camp area.

I **visited other Scout camps last summer** and did informal operational tests at: a) Sterns (about 60 miles NW of Minneapolis), b) Rush Creek Camp about 15 miles NW of the metro area, and c) Birch Bend Scout Camp (about 15 miles west of Mille Lacs Lake).

This coming August I'll spend a week at Many Point Scout camp, up north MN where I hope to visit leadership involved radio. I hear Many Point has a strong Radio Merit Badge program. Perhaps I'll get ideas of how to help other camps. Fortunately, I'm still happy with tent camping.

The three High Adventure wilderness Scout camps are: 1) Northern Tier in Ely, MN, 2) Philmont Ranch in the Rocky Mts in NM and 3) Summit Bechtel on Mt Hope in WV. [I'll skip 4) Sea Base in FL as they use marine radio.] For now I consider involvement at High Adventure beyond my resources and skills – maybe for future.

Merit Badges and Education (MB)

The standalone Radio MB class is normally one, four to six hour classroom session that includes a hands-on communication activity – we prefer ham radio operation. And there's a workbook which is filled in using an open book method. And no homework.

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The Northern Star Scout Council informs me that there are **40 Radio MB Counselors** in this part of MN and WI. I hope to contact some of them to share resources, information and ideas.

It turns out that the Radio MB book follows the wire bound ARRL Tech License Manual rather closely. For years Tim taught classes that **combine Radio, Electronics and Electricity MB'es AND FCC Tech license prep**. These are so many shared concepts that teaching them together has great economy of scale. Examples: they all cover Ohms Law, there are many similar safety concepts, etc. Last spring one of his classes was in North Branch. The format was ten sessions on Saturdays from 10AM to noon – there is homework. The class had about eight students consisting of Boy Scouts (two were girls) and two parents. Parents are invited and sometimes participate for the purpose of obtaining a Tech license. Although this particular class didn't produce any Tech License, they usually do. We're hoping to **do a combined class this year at the Museum**.

To date I've worked with Tim on his combined class. I've not done any Radio MB classes myself. I will soon and do have Radio MB class opportunities. I'm a member of the Birch Bend Association which manages the Birch Bend Scout Camp. During camping season about 40 MB sessions are conducted there. I'm working with the leaders to add at least two Radio MB sessions.

I received a request to provide a 30 minute presentation / **demonstration to a Cub Scout** (grades 1 to 5) Pack Meeting in St Paul to do in February. I'm also working this up for my Pack Master in Golden Valley. Bring out: tin-can telephones, FRS HTs, the telephone game, a crystal radio and set up mobile with prearranged QSOs.

Girl Scouts of America (GSA) I'm not ready yet.

Currently my focus is to bring my practice to a base level before I expand. That said, I feel it should be easy to open merit badge enrollment to GSA. I've not yet reviewed the GSA Merit badge as I'm still studying BSA books. A Google AI search says the GSA and BSA MBs are similar, but the GSA program is offered through the ARRL whereas BSA does its own version.

Other Youth Radio Programs

Other than a couple of short conversations with Brother Bob WC0J, I've not investigated radio programs with schools, youth groups, non-scout camps, STEM programs, etc. It's on my radar, just not on my schedule.

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Conclusion

I have indeed scratched the surface of engaging Scouts in ham radio. I have a way to go before I can list Scouts who I directly helped earn a license, receive the Radio Merit Badge, show significant number of Scout radio event QSOs, and establish Scout Camps On The Air. I'm laying groundwork and receiving help. You SPRC folks have helped me with great suggestions that led to good things happening. A few of you have attended the above-mentioned events. For now, my focus is on the Radio Merit Badge and bringing Scouts into events.

Thank you Saint Paul Radio Club for giving me the opportunity to do this program. Please let me know if you have questions, comments, suggestions, or want to help. Regards, Dan Dionne, K9ALV@ARRL.net

Oh, for Pete's Sake!!! **by Pete Guldan KDØSQJ**

Sign up now for the Extra Upgrade Study Group. Email kd0sqj@arrl.net

On the big Sunday that football ends their season we will start our 12 week study group for the Extra upgrade. Our 2PM start time should not interfere with any bean dip or other snacking because they don't do their kick off thingy until later. I guess the cat's out of the bag, I'm not the biggest sports fan out there. If I'm actually participating in the 'sport' that's different. I do like Banana Ball because they do more to involve their fans. My team the Party Animals have defeated the Savannah Bananas in their season opener. If you have your Technician license that is the equivalent of watching the game on TV or in my case YouTube. When you upgrade to General that's equivalent to being in the stadium to cheer on your team as an active fan. When you upgrade to Extra you are the team. You are the ones making the magic happen. You are leading our hobby/service into whatever the Big Game means to you.

If you have ever thought of playing the game at it's highest level by upgrading to Extra join us on Zoom and study along with us. The cost is free. The price is you studying the material and passing the test. We also welcome anyone who would like to brush up on that Extra knowledge to make you a better 'player.' Some experts say the best way to learn something is to have to teach it. Sunday February 9th at 2PM on the same Zoom we use for club meetings is the place where all the 'players' need to be. I hope to see you there. Go Bananas!!!

73 Pete KDØSQJ

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

Well, It looks like the cold may have finally gotten here. I'm now OK with that as I can just stay inside where it's warm and play. Even better, since most of the stuff I need to buy to mitigate my hobby ADHD can be found on line (No one in town carries the the stuff I want\need. Otherwise I would shop locally!) Plus, I can get it delivered to my door step. That being said, I now find that I drive so little that a tank of gas lasts me a good 2-3 weeks. Take that oil companies!!

With the holidays over, I find I actually have a bit more free time. Lookout hobbies! With this free time I do believe I will be able to wrap up some of my unfinished projects a bit sooner than expected.

On 1/10/2025 , I finished my last commitment of designing and running a D&D campaign. It went well and I think I would be willing to do another in 6 months or so. My character is now a level 6 Ranger and is finally able to take a hit or two before being killed. (Did I tell you he has a pet baby blue dragon?) Anyway, I now last a bit longer during battles. It's stupid fun to play and a great way to socialize with family and friends.

The Auction:

As usual, the Annual Saint Paul Radio Club auction was well attended and there were a ton of great deals to be had. For those of you that did not attend, you missed out on quite a number of great items that went for really low prices\deals. I walked away a little poorer as I bought a single paddle keyer. Its not really a cootie\side swiper as it differentiates between left (Dahs) and right (Dits). Yes I key backwards\left handed. A long time ago, I had a CW only ham tell me to learn it left handed if I was right handed. That keeps the right hand free to write\type etc. Since I had no preconceived idea of which hand to use, I did this. I tried to buy the Bengali iambic paddle, but I was out bid by another ham. (Damn!) Well now at least I have a Unicorn (A seeming impossible item to find other than new tool.) to hunt for ...SO I guess its back to surfing the for sale pages on the ham websites and keep looking.. I do enjoy the auction. It gives me and others a chance to connect face to face which is always a good thing. I do believe we are becoming way too isolated in our day to day lives and attending a social gathering where you all share a common interest is really good for your mental and physical health especially in the dark cold months of winter. Plus you can usually save a few bucks in the process. Whats not to like??!!

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In the Electronics\Ham arena, I am still trying to get my CG scale to work as well my memory keyer. Both need to be programmed and as usual I am having issues with getting the pre-written program (These are called sketches) to compile and run. If anyone that reads this is well-versed in programming Arduinos, please call me!!! There is a free lunch waiting for you if you can help me get these going. (Even if you\we don't, I'll still buy lunch.)

I took the level 3 test for getting accepted to the intermediate class offered by CW Ops and failed it miserably. Obviously I need to practice more and then try again. It's OK that I failed as the classes were all booked up and I would have been put on a waiting list. WOW It seems a lot of hams are interested in using Morse Code! This is a good thing. Actually, I think interest in CW is being fueled by Hams wanting to do POTA and are looking for way to get on the air with a smaller, less expensive and more portable HF rig. (Can you say QRP Labs CMX?) Regardless, this does motivate me (a little bit anyway) to practice more and get my speed and instant character recognition up to snuff.

I have finally actually started to learn to program in C++. I think I will be better served writing my own sketches for the things I want to build, like the CG scale. This will give me something to do in the evenings while watching TV with the XYL. Once you start digging into it, it does not look to be an insurmountable task. There are a lot of tutorials and there is even an animated simulator that you can use to help debug your programs\sketches. Its pretty cool!

At the suggestion of Jonah (WØCLW), I did pick up a Microsoft surface tablet for well under \$100. It seems that businesses are dumping them due to a lack of support by Microsoft and they can not be upgraded beyond Windows 10 (I believe). For my use, this is not an issue. These would\will make a perfect POTA computer. Originally there were like \$600-\$800 computers that are being dumped on eBay for \$60 to \$120 refurbished, tested and cleaned up. They will run all the ham software you can find and are more than fast enough for our needs. They even have a micro SD card programming slot on the backside for those of you that want to try your hand at Raspberry Pi and Arduinos. I now have a separate computer for POTA and electronics. Life is good!

On the model plane bench I am finishing up my R/C glider project and hopeful magazine article I've been working on for the last few months. Its been a learning experience to say the least. I have a new found admiration for people that can write these articles and do so on a monthly basis!

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Speaking of model airplanes, do you find that some aspects of your hobbies are less fun than others? For instance, I find that I am not a fan of sanding the wooden parts of a plane. I don't hate it, but I tend to put it off as long as possible. Oddly, once I do start sanding, it goes well and does not take an inordinate amount of time. I wonder why I avoid it.....?

I still have not had a chance to use the microscope other than to look at stuff for fun. I must say when you zoom in on things, it is amazing how rough their surfaces look. Think razor blades and hobby knife blades. It's so cool. Maybe I need to go the other way and get a telescope next??!! AH....maybe not...HI HI

Sort of new for me is that I am also trying to learn a new piece of software called InkScape. It can be used to create drawings and art and it turns out there is an add on tool that will help you design and make laser cutting files of divided boxes. I want to use this for making divided boxes and maybe a field box for R/C flying and a "model plane box" for on the RV. More on this and what I want to do with it in later issues of the Ground Wave.

Having given myself a moratorium on starting new projects, I get a bit frustrated as I think of something new, then don't start it and then forget what it was that I wanted to start all in the course of a couple days. Hobby ADHD can be frustrating!! Although, so far I have been able to stick to my guns and not start anything new... well mostly anyway. Thankfully, it's only mid-January and I have a few more months of cold weather. So, I do think I will be able to get most of my current projects wrapped up and start a few new things rolling before spring. Time will tell.

All my shooting buddies are still swamped with life stuff and do not look to be free until sometime in February. This puts action shooting on the back burner for now. I do miss pulling the trigger and I really miss going out for a meal afterwards and talking smart. We have solved the world's problems on multiple occasions during these B.S. sessions on more than one occasion. Our combined wisdom and knowledge is staggering! Well at least we think so. Hi Hi

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On a sad\scary note, it looks like the company that makes my laser cutter is stopping production of my model. Before they run out, I did purchase a bed extension which has since arrived and looks to be a great addition to the laser cutter. I'm glad I picked it up before they are all gone. Unfortunately, I still need to build a new smoke enclosure for the laser once the bed extension is added on. I plan on using the T-Slot 2020 aluminum extrusions that are available on Amazon. They are awesome. I used them to build a vapor enclosure for my resin printer and they go together like the old erector set only MUCH stronger. They are super solid and super strong. They would also be great for making a support system for ham equipment. All you need is a hack saw or band saw with a metal blade and a couple Allen\Hex Wrenches to build what ever you want and the prices are reasonable for what you get. Take a look and think of the possibilities.

I have actually started re-organizing my shack. Its a slow process, but I am making headway. I was able to throw out a large trash can of stuff that I no longer want or need. It is quite cathartic. I'm trying to clean and organize each bench as I go. I save each of these cleaning\organizing tasks for when the temp falls below zero. It sort of makes me look forward to and enjoy the sub zero days....Well sort of anyway.

On a money saving side note, I have found a great place for haircuts (ADHD just hit me). Molar Barber School in West Saint Paul. \$5 for a hair cut and \$5 for a shave (Straight edge razor with the hot towel etc.) They do a good job and are overseen by instructors. There is nothing better than a straight edge shave! So far the haircuts have been as good as I can get anywhere else and they have yet to nick me when getting shaved. Unfortunately, they do not use the lilac water that I remember as a kid. Do any of you remember that? It smelled great! They take plastic for payment but you need to use cash to tip the barber. Don't forget to tip!!! For most of them its their only source of income. Where else can you get a haircut and shave for \$20 including tip. Give them a try! It's now my go to place for haircuts.

As always: May your signals be strong and your antennas have extra gain.

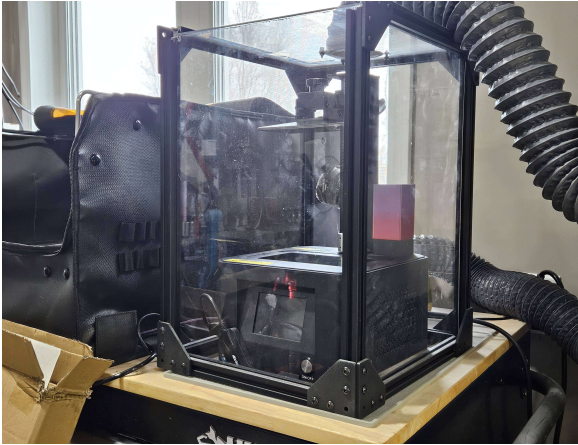
73

Kevin - W5LNA

(pictures on the next pages)

A few pics for your amusement:

Vapor Enclosure using T-Slot 2020 Extrusions



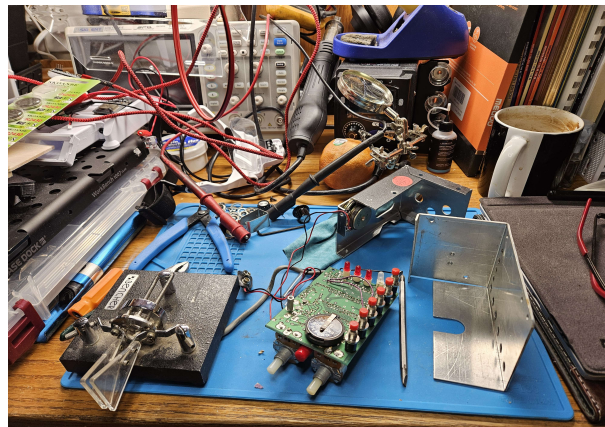
Latest E-Glider almost done!



Stereo Microscope waitin' for engravin'

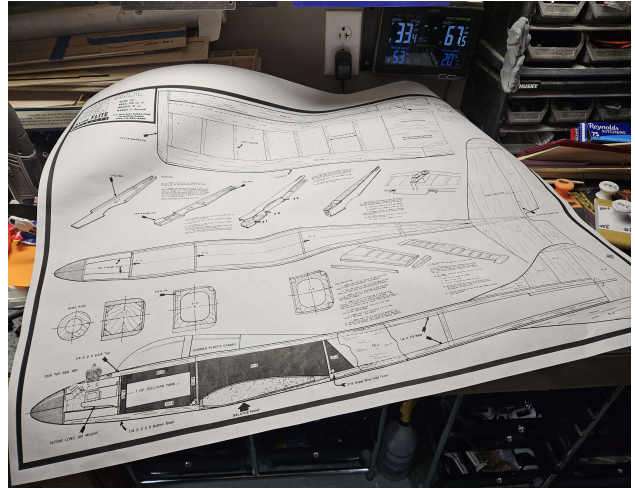


MFJ 490-X programmable key, fixed and ready for reassembly. It comes with a Bencher key





Model plane bench – top 2 shelves re-organized.



Next on the list of planes to finish. The wings are mostly done, I still have to build the fuselage.

The new to me Paddle



Coax Measurements by Scott NØAR

Most of us put up an antenna, adjust it if needed and move on. That is until a problem arises and we are left wondering what changed and where to start to fix it. Spending a little time to write down the description and details of a new antenna installation can pay off down the road. If working on an antenna requires a trip to the roof or a tower climb I'm more likely to save even more information on how it measures up. With the ease of using an antenna analyzer or VNA to snap pictures of the antenna there's no reason not too. Even if you just record the SWR of the antenna it gives you a starting point to troubleshoot the system. If you keep a log book of your antennas it helps to add the type of coax and the length of the run to the antenna. Doing a quick check every year is a good practice. I have coax that has been outdoors for many years, it still tests just fine and I can't find a reason to replace it. I know that at some point moisture will find it's way in or it will suffer "squirrel chew" so having a way to confirm that helps a lot.

There are several on-line coax loss calculators that are easy to use and quite useful. You can find ones to download to your computer or just use the web version. All are straight forward and have a multitude of coax choices to match what cable you use. You can also use them to determine the power that should be available at the end of a coax run or what amount of power loss to expect. If all you have is a watt meter and dummy load you can quickly compare the power going into the coax to what is coming out to what it should be. For most coax fault finding this is all you need. All the math of converting to decibels, watts and percentages is conveniently done for you.

The calculators are also a great tool for "what if I..." planning. It is fun to know how much replacing a run of cable really will improve your antenna system. You can see the actual numbers of how much less loss one type of coax will have over another. On some of the programs you can include SWR. So if you know your antenna shows a reading of say 2:1 is it really worth the time to improve the match down to 1:1? Plug in the numbers and find out! The calculators also use the frequency you intend to operate at to come up with the loss figures. It is easy to justify the extra expense of high quality coax if you can put numbers on the loss.

Google is your friend and will give you many sites to find calculators. I just typed "ham radio coax loss calculator" to explore the choices. I like the KV5R site for on-line use.

One more thing. We almost always look at the SWR as the indicator of problems with the coax or antenna. The lower the reading does not always mean the better performance. This is where having a log of the previous readings help out troubleshooting the issues. I'm reminded of a 250 foot run of LMR-400 that had great SWR but the antenna just didn't work. Turned out the local mice shredded the coax over 50 feet! It was still electrically intact but laying in the grass had turned it into a long dummy load.

February VE Report by Steve Scott WA7HPK

We tested four candidates at our February 1st exam date – all for their technician class. All passed and one walked out with a general class ticket. With the 1st Saturday exam session falling prior to our 1st Friday club meeting this month, we don't yet have call signs for our newest hams but they'll get a shout out in our March Ground Wave.

Congrats to Alex Askew (Minneapolis); Jamy May (Lonsdale) and Gordy Pankratz (Inver Grove Heights) who all gained a technician class license. Jamy also has a GMRS license WRJC339 and Andrew Surine (Oakdale) who gained his general. After some paperwork snafus w/FCC, one of our successful January session candidates, ARRL and FCC finally got it sorted out and Stephanie Douglas (Chaska) was issued a new call sign of KFØTCI. She had a previous call sign of KDØGQW which had expired more than the 2 year grace period but she sailed through the current technician exam last month and is very anxious to jump in with both feet.

Unknown to us is the church had another function scheduled for the February session so that pushed us downstairs where the accommodations are a bit more cramped but we managed.

Eleven VE's participated! Ralph Beirbaum NØAWN; Michael Derner AEØTQ; Leon Dill WØCOE; Scott Holisky NØAR; Terry Londrach NØGOI; Dale Maroushek NØPEY; Gregory Merth KCØRET; Shep Shepardson NØNMZ; Curt Trout ACØCT; Michael Walsh KFØNYX and myself WA7HPK.

Steve Scott WA7HPK

Pictures from the Auction

By Dawn Holmberg WXØZ



Deb Maroushek selling a wide variety of snacks.



George Power KØGCP and Evelyn Jaconson WBØVHF handling auction recordkeeping.



Auction participants and merchandise.



Ralph Bierbaum NØAWN auctioneer.



Ben Premack WØKZD auctioneer.



Ralph running a competitive auction.



Bob Parnell NØKLC auctioning another item.



Kevin Welna W5LNA and George taking payments at auction completion.

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 it allows you to practice your amateur radio skills, have a lot of fun, and meet many like-minded people. There are two public service events in December, and more in the coming year. Stay tuned!

DATES

Event

2025-03-02/03	John Beargrease Sled Dog Marathon https://beargrease.com
2025-04-11/12	Zumbro Endurance Run (100mi, 50mi, 34mi, 17mi) https://www.zumbroendurancerun.com/
2025-04-26	TCM (Get in Gear) half marathon https://www.tcmevents.org/allevantsandraces/getingear
2025-05-03	MS Twin Cities Walk (Mpls) (date is tentative)
2025-05-10	MS Twin Cities Ride (Mpls) https://www.bikemn.org/events/bike-ms-twin-cities-ride-2024-985/
2025-05-TBD	Prairie Island Nuclear drill training https://www.mnwashcoares.net/
2025-05-17	Waconia Walk-on-Waconia http://www.walkonwaconia.com/
2025-05-17	Superior Spring Trail Run (50k,25k,12.5k) https://www.superiorspringtrailrace.com/
2025-05-17	Headwaters Road Rally https://www.americanrallyassociation.org/blog/categories/headwaters-regional-rally
2025-05-31	Tour de Cure (ADA) ride (Mpls) https://tour-diabetes.donordrive.com/index.cfm? fuseaction=donorDrive.event&eventID=653 (unwrap the url)
2025-06-7/8	MS-150 Bike Tour https://www.bikemn.org/events/bike-ms-ms-150-minnesota-2024-865/
2025-06-14	FreeBike (aka MN Ironman) bike ride (Shakopee)
2025-06-27/29	FIELD DAY (setup 21, FD 22-23)
2025-06-TBD	Prairie Island Nuclear drill (2026 Fed graded) https://www.mnwashcoares.net/

(continued on next page)

- 2025-07-05 Afton Trail Run (Rocksteady Running) (50km, 25km)
<https://www.aftontrailrun.com/>
- 2025-07-20 Tour of Saints ride (St. Joseph)
<https://www.bikemn.org/all-events/tour-of-saints/>
- 2025-07-21/25 MS-TRAM (22-26)
<https://www.bikemn.org/events/bike-ms-ride-across-minnesota-2025/>
- 2025-07-26 Richfield Urban Wildland marathon
https://www.richfieldmn.gov/around_town/wood_lake_nature_center/urban_wildland_half_marathon_and_5k/index.php (unwrap the url)
- 2025-08-02 Tour de Tonka (Orono)
<https://www.minnetonkaschools.org/district/mcec/events/tour-de-tonka>
- 2025-08-TBD Gaylord Eggstravaganza
<https://www.exploreGaylord.org/event/9646/>
- 2025-08-22/23 Ojibwe Forests Rally (Park Rapids)
<https://www.americanrallyassociation.org/blog/categories/ojibwe-forests-rally>
- 2025-09-05/6 Superior Fall Trail Race (100mi,50mi, 26.2mi)
<https://www.superiorfalltrailrace.com/>
- 2025-09-TBD River Falls Autumn Trek
<https://www.rivervalleytrails.org/autumn-trek/>
- 2025-10-TBD MAEN SET
- 2025-10-11 Northstar Radio Convention
<https://northstarradio.org/>
- 2025-10-05 TCM - Marathon (Mpls)
<https://www.tcmevents.org/allevantsandraces/medtronictwincitiesmarathonweekend>
- 2025-10-17/18 Mankato Marathon
<https://www.mankatomarathon.com/>
- 2025-12-06 Nemadji Forest Rally (Kerrick)
<https://www.americanrallyassociation.org/nemadji-trail>
- 2025-12-06 Arlington "Arlidazzle" (date is tentative)
<https://www.arlidazzle.com/schedule/>

One other public service opportunity for SPRC members: The Metro Hospital Compact.

Check this link <https://www.metrohealthready.org/our-coalition/metro-hospital-compact/> and find a Hospital they either live near or work near. Then contact Tim Arimond at 612-741-9307 who will get them in touch with the people to arrange registration and training for the project.

Thank you very much for helping with this project.

Saint Paul Radio Club Breakfast

Third Saturday of each month at 9:00 am



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 then pay. Sit back and it comes to your house. If you have questions, give them a call 817-602-1834

BoD Meeting Minutes – by Art Thell, NØIWQ

Saint Paul Radio Club
Hereinafter referred to as “SPRC”
Board Meeting Minutes
01-03-2025

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 *	

Also present (If * or R):

Jay Maher-NJØM	Jeff Iverson-WB9DAN	Dan Meyer-NØKFB *
Pete Guldán-KDØSQJ R	John Crabtree-KCØG	Ben Otto-KEØRFZ
Janet Bierbaum KDØBZZ *	Dawn Holmberg WXOZ *	Steven Scott-WA7HPK
Andy Parent-KFØMJQ	Doug Lueck KØDLX	

6:12 Pres. Dale called the meeting to order.

President:

Old Business:

Secretary’s Report:

Move to accept Minutes as published in the Ground Wave: George, Second: Kevin. Passed

Treasurer’s report: George

General Fund: \$5589.17, Repeater Fund: \$1211.09, Education Fund: \$1265.38,

Total Cash on Hand: \$8065.64.

So noted and filed: Secretary

CDH ARC Report: Br. Bob

Nothing new.

Br. Bob reminded the membership that all members are entitled to use the WØCDH Station. Contact Br. Bob Walsh WCØJ at Cretin Derham High School.

Pres. Dale:

Repeaters are working

Membership Report: 94 paid as of meeting time.

Passed the spare N. St. Paul P.O. Box key to Art NØIWQ

PayPal account is working

(continued on next page)

Training Report: Pete:

Online session Sunday 1/5 at 2:00 PM. Online session. Scheduled are 3 Gen. and 1 Extra upgrade.
Related comment: SEMARC is running Technician Classes at this time for new Tech. candidates.

Auction—Saturday, January 25. 8:00 AM until approx. 1:00 PM.

Includes 2 estates plus.
Preliminary Item count 150 plus
Ralph is reviewing software.
Ralph, George, and Dale are working on correlating PayPal.

Set-up: Friday January 24 3:00 PM.

Need all hands on deck. Last year we had a crew of 17 which really helped the effort.

Related item:

The Auction committee has received a pre-auction bid for an amplifier in the amount of \$600.00.
Motion by Kevin to accept the bid. Seconded by Dale. Passed.

New Business:

The issue of adopting a formal SPRC Annual Budget was brought up by Don resulting in some discussion between George, Ralph, Art, and Dale regarding advantages to controlling spending and added workload for the Treasurer. No motion came forward and Dale suggested we table the item until after the Auction.

This followed a short discussion regarding the SPRC filing for a 501c3 classification as a non-profit entity with the IRS. From the discussion it is apparent that other clubs have taken different routes on this and that the necessity for that may be related to where the SPRC receives the preponderance of its operating income. No motion was offered.

Club Breakfast: Sat. Jan. 18 at 9:00 AM. (Normally third Saturday)
Place—Denny’s at 1664 University Ave. W.—Across from the AxMan

Adjourn:

Move: Second: Passed

6:55: Adjourn.

Membership Meeting Minutes – by Art Thell, NØIWQ

**Saint Paul Radio Club
Hereinafter referred to as “SPRC”
Member Meeting Minutes
01-03-2025**

7:36 Call to order by Pres. Dale.

36 Members present plus 4 Remote.

Old Business:

Treasurer’s report: George

General Fund: \$5589.17, Repeater Fund: \$1211.09, Education Fund: \$1265.38,

Total Cash on Hand: \$8065.64.

So noted and filed: Secretary

Membership report, Dale:

94 paid as of meeting timer

Repeater Report, Dale:

They work

VE Report:

Steve reports Tech. Testing at Roseville on Saturday, 1/4.

Training Report, Pete:

Upgrade class (online) at 2:00 PM Sunday 1/5. Contact Pete Guldán for participation and info.

CDH Report:

Dale reminded the membership that all members are entitled to use the WØCDH Station. Contact Br. Bob Walsh WCØJ at Cretin Derham High School for access.

Auction—Saturday, January 25. 8:00 AM until approx. 1:00 PM.

Includes 2 estates plus.

Preliminary Item count 150 plus

Set-up: Friday January 24 3:00 PM.

Open volunteer positions report:

(continued on next page)

New Business:

Other operating events: (Need not be Board-initiated)

Dale: Resurrect the Minnesota All counties contest?

Dale and Ralph related several "Pied Piper" Mert Nellis tales from the past reflecting that personage's ability to engage young people in the hobby of Amateur Radio from the tailgate of his pickup..

Ralph Bierbaum (NØAWN) has a 60 ft. near new aluminum self-supporting tower for sale at \$600. It needs a base section.

Club Breakfast: Normally Third Saturday---- Date Jan. 18 at 9:00 AM.

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

Attendance last month: 13

Move to adjourn: Ben Second: Mark

Adjourn: 7:42

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 Feb 7 6PM SPRC Board meeting, Commons Meeting Room,
John R. Albers Center, Cretin-Derham Hall High School. *

Fri Feb 7 7PM Socializing followed by 7:30 PM SPRC Membership meeting.
Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School.

Sat Feb 15 9AM-1PM St. Cloud ARC Cabin Fever Reliever Hamfest 2025.
St. Cloud Armory, 1710 Veteran's Drive, St. Cloud, MN 56303

Sat Feb 15 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.

Sat Mar 1 9:30 AM Amateur Radio testing administered by the Saint Paul Radio Club
volunteer examiner team. Galilee Lutheran Church, 145 N McCarrons Blvd,
Roseville, MN. Reservations required; Contact Steve Scott WA7HPK,
Telephone 651-503-7441 or e-mail pipemajor2@gmail.com

Fri Mar 7 6PM SPRC Board meeting, Commons Meeting Room,
John R. Albers Center, Cretin-Derham Hall High School. *

Fri Mar 7 7PM Socializing followed by 7:30 PM SPRC Membership meeting.
Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School.

Sat Mar 15 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.

Sat Mar 22 8AM-Noon Midwinter Madness Hamfest.
Buffalo Civic Center. 1306 County Rd 134, Buffalo MN 55313

* - 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: 1st Friday of the month, 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=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>