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# St. Paul Radio Club
# Ground Wave

*Dan Meyer, NØKFB, Editor*
*Dale Maroushek, NØPEY, Publisher*
http://www.magicrepeater.net/sprc.htm

**KØAGF**
Club Repeaters:
145.310 MHz, 442.450 MHz
114.8 kHz 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 FEBRUARY 2023 – Volume 83, Issue 2**

## NEXT MEETING: FRIDAY February 3, 2023

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| 6:00 PM | Board Meeting (all are welcome to attend and observe) |
| 7:00 PM | 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 so if you arrive after that, please call me to let you in. 612-201-0818 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 February Program will be presented by Mr. Mike Aesoph is the GEO (Geek Executive Officer) of Old Trails STEM, a STEM program that originally started with the local Boy Scouts, but has since evolved to support local schools. Old Trails STEM started with a small Robotics Workshop for scouts to earn the Robotics Merit Badge. High Altitude Ballooning was added to the mix about seven years ago followed by pico ballooning (around the world) more recently. Old Trails STEM is also the world record holder for the "World's Fastest Ping-Pong Ball Cannon".

Just for fun video here: https://www.youtube.com/watch?v=c29WyPQYG4U

The purpose of the balloons and cannon is to give the kids a "WOW!" factor that they might be willing to discuss with other kids and potentially lead to more involvement in scouting and/or STEM in general.

Mr. Aesoph will be showing two short videos on each of the balloon types that typically interest HAM Clubs followed by open discussion.

High Altitude Ballooning: These are basically weather balloons that ascent to heights greater than 100,000 feet with roughly a 3 - 4 hour total flight time. Beautiful pictures and movies! Great desktop or screen saver pictures for your computer.

Pico Ballooning: These are small solar powered transmitters carried by a super pressure balloon to somewhere between 30,000 feet and 60,000 feet and ideally circle the globe!! These balloons typically transmit APRS and/or WSPR. APRS has a range of 275 miles roughly and there is only APRS coverage over the industrialized world. WSPR can transmit over 10,000 miles and global coverage is generally pretty good. Standard WSPR only include four character Maidenhead grid location, but there is a dual packet mode that transmits six character Maidenhead Grid location, altitude and system voltage.

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Pictures from the January meeting by Dawn Holmberg

Left: Jeff Windsor, our guest speaker and CDH STEM coordinator explains notable features of the robots students are working on.

Right: Jeff Windsor explaining to members how the drone is used in the STEM program.

## The Prez Sez by Ralph Bierbaum NØAWN

Starting off with an announcement – beginning with the February meeting, the door prize drawings return. Thanks to Br. Bob, the ticket roll has been located, we have acquired a host of prizes and KDØBZZ, aka "The First Lady" will be handling the ticket sales.

WHEW !! What a whirlwind January has been. We started off on Monday, the 1st, New Year's eve, Friday the 6th, lunch with some Ham friends. the board meeting followed by the January meeting, then on the 7th, the fun-filled SPRC VE Exam session. I worked on the SPRC Auction computer setup on the 8th, 10th and 12th, then on the 9th Emergency Management business. On the 11th hauled NØKFB & WXØZ to the airport, on the 13th met with Br. Bob to pick up the club printers. House guests from the 13th to the 17th, miscellaneous work around the house (6 days with the snow blower – REALLY!?!), various nets and QSO's to fill in the spare part time and finally on the 23rd did a Go-Box presentation for the TCFMC. (That's Twin Cities FM Club) gang. Coming up, Club treasurer business on the 26th with KØGCP, Auction setup on the 27th, the **AUCTION** on the 28th and Emergency Management training on the 30th.

So what's this retirement thing I've keep hearing about? In the movie Shawshank Redemption, there is a line that goes ***"Get busy livin' or get busy dyin'"*** I'll stick with the living, thank you very much.

See you all at the February meeting. Bring those dollar bills for your door prize tickets and throw a couple in the refreshments can.

73 DE NØAWN

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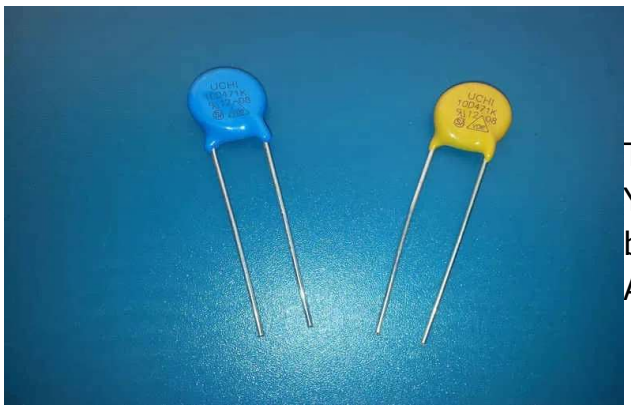
Right: From the January meeting: An impressive row of 3D printers used by students in the STEM program. Photo by Dawn Holmberg

## Surge protector?  by Scott NØAR

Everybody with a whole house surge suppressor raise your hand! Your Prez and I have both had the positive experience of taking a surge big enough to do damage to the neighbors electronics while ours didn't. The magic is a small box containing Metal Oxide Varistors. This is connected to your AC entry panel and it absorbs any damaging spikes. Putting a surge suppressor right at the entry point of your electrical service is a much more effective way of dealing with AC line spikes. It offers "whole house" protection as opposed to a power strip or outlet. Your path to an outside ground is whole lot shorter which helps maximizing effectiveness. You do want your favorite electrician to mount and install the unit. Aside from the safety issues of playing around in the entrance panel, you want to make sure all local codes are followed on the installation.

MOV devices are those cute little "lolly pop" looking components. They look like they were dipped in plastic. You see them in just about in every power supply. Some are put in power strips or surge suppressor housings. What they are is a special type of resistor made of Zinc oxide and other compounds. They normally don't conduct until the voltage threshold is reached and then the resistance drops dramatically! This "shorts out" the spike. As you would expect they have a limited lifetime based on how many times they are asked to work. The failure mode of theses devices starts with warming and eventually breaking into an uncontrolled catastrophic self-destruction. Yes we are talking the magic smoke and even flames! For this reason I am not a big fan of plastic power strips with MOV devices inside them. At a bare minimum don't bury MOV devices behind beds or under rugs.



Typical MOV's. You can search the Google or YouTube for more detailed information. Units can be sourced from the big supply houses or even Amazon.

## Get On the Air From Almost Anywhere Part II by John Hines NØKCJ

A few thoughts on making your own small Transmitting loop

If the last article piqued your interest in small transmitting loop antennas (STLs) but the price was a bit daunting then an explanation and a few suggestions on some less expensive but, none the less, effective home brew units may be of interest to you. They are after all, simply 2 loops of some kind of large conductor such as rg 8 co-ax, a capacitor and a PL 239 connector. For fixed frequency operation such as for the 28.310 MHz ten-meter Friendly Net and about 5 Khz either side a simple piece of co-ax will work as a fixed capacitor!

First the legal stuff.

As with any antenna care must be taken to maintain a safe distance from the antenna while transmitting, less than six feet is NOT recommended. The ARRL publishes a table of safe distances and do not proceed until you consult this table (https://www.manualslib.com/manual/2225357/Mfj-Mfj-935c.html?page=8#manual, see page 5)! NEVER TOUCH ANY PART OF THE ANTENNA WHILE TRANSMITTING OR WHEN THE ANTENNA IS ACTIVATED FOR ANY REASON!! The author and /or associated entities will not in any way be responsible for damage to equipment, your ego, county wide power outages, spontaneously generated mini (or larger) black holes, cosmic disruptions, personal injury or worse that may result from the use of this material. The author and any individual or entity associated with the author assume no liability associated with the construction or use of any of object(s) described herein. Let it also be understood that I have no interest, financial or otherwise, any business mentioned herein. They are included only for reference and the convenience of the reader.

Now for some built it yourself notes. Most small magnetic Loop antennas are considered to be about a tenth of a wavelength in Diameter. This can vary depending on circumstances and conditions. The most convenient loop size for most purposes is about three feet in diameter, it will fit on most patios, balconies or even a card table near a window.

Lets get one thing out of the way, right off the bat, YOU DO NOT NEED A "BUTTERFLY" CAPACITOR FOR A LOOP ANTENNA! Almost any "Bread Slicer" capacitor with WIDE plate spacing (3KV per mm is a generally accepted "Rule of Thumb") will allow 100-watt capability for transmit. As motioned above, a simple piece of Co-Ax will suffice for a fixed frequency operation. For the "Home Brew" Small Transmitting Loop (STL) the inductively coupled variety seems like the easiest and best way to get going. I have also noted that the inductively coupled loop gives the widest tunable frequency range The inductively coupled STL also known as the magnetic Loop (or simply mag loop) consists of two loops of of conductor with a capacitor inserted in the large loop and a smaller feed loop located coplanar directly opposite the capacitor. In the following descriptions the terms "feed loop", "coupling loop", "driven loop", "Faraday Loop" and "small loop" are all names referring to the smaller of the two loops, "large loop"," Transmitting Loop" and "main loop" refer to the larger of the two loops.

For the base of the assembly, I usually use a piece of plastic cutting board 5/16 (or thicker), I usually cut it down to about 6" X 17'. Attach a piece of 1 X 4 wooden board cut to the width of the plastic base to each end of the base with 1' wood screws. this gives clearance to allow the base to sit on a table without the mounting hardware that protrudes from the bottom of the base contacting the surface of the table when you set it down and causing instability.  Position a 1" PVC mounting flange (available in the Menard's PVC fitting Dept.) near one end of the base and, using the holes in the flange as a guide, mark the base and drill 2 ea. 1/4" holes in it. There are four holes in the flange, but you only use two of them that are diametrically across from each other. From the bottom of the base, pass a 1/4-20 X2" screw with a 1/4" fender washer under the head through each hole, the threaded part of the screw should be pointed up, place a 1/4" fender washer on top of each screw. If you don't do this the slightly convex base of the flange will not let the flange sit flat on the base. Thread a 1/4-20 nut on each screw and firmly tighten them down. At this point, if you have one, fasten the capacitor to the base so that the center line of the cap lines up with the center of the mounting flange. It should look something like Fig2. I used flattened copper tubing for the connections between the cap and large loop, but any NON-MAGNETIC (Brass or stainless steel) "L" brackets or even heavy copper wire would work. whatever material you use should be fastened in place with two more washers and nuts to the two screws protruding upwards from the base.  From the 10 Ft piece of PVC pipe cut 3 ea. 1 1/2 Ft lengths and firmly insert them into the X fitting. Now cut a 2 Ft length of PVC and firmly insert it into the remaining free opening in the X fitting, insert the free end of the 2Ft length of PVC into the mounting flange. On the free ends of the three pieces of PVC pipe firmly attach T fittings. Strip and solder the ends of a 10'piece of Co-Ax (see Fig. 1).  Thread the 10Ft length of RG8 coax through the three T fittings. Don't worry if it looks too long, that's what they make wire cutters for. Using the appropriate size screws attach the two ends

of the large Co-Ax loop to the two terminals leading the capacitor, once again one end of the loop to one set of plates and the other end to the other set of plates (I didn't really have to say that did I?). At this point the large or radiating loop is finished. The ends of the loop should be mechanically fixed to the two screws with more washers and nuts, if the ends move around erratic SWR will result.

Now for the feed loop also called the small loop. The feed loop should be about 20% of the length of the main loop and can be made out of anything from #14 wire to RG-8. Or simplicity use #14 wire, bare or insulated. Form the wire into roughly a circle and solder one end of the wire circle to the shield of the feed line and the other end to the center conductor of the feed line. Check for and remove any "cat whiskers" shorts and insulate the connections. Now you have what appears to be a piece of co-ax with a PL259 on one end and a DC short on the other but remember we're applying RF. In the following description the portion of the small loop directly opposite the feedline connection will be referred to as the top and the feedline connection as the bottom. Now using electrical tape or Velcro wire ties, the preferred method, attach the top of the feed loop to the main loop support near the top of the main loop, there should NOT be any DC connection between the feed loop and the main loop! the coupling is purely inductive. Using Velcro wire ties to lightly fix the small loop in place on the main loop's center vertical support. you want to be able to move the small loop up and down to achieve the best SWR.

Set the cap to mid-range and attach the PL259 to an antenna analyzer. Sweep the analyzer between 10 and 20 MHz and note the SWR dip, now move the small loop either closer to or farther away from the main loop and slightly retune the cap and retune the analyzer to find the new SWR dip. If a lower SWR can be achieved continue moving and retuning the cap and analyzer. If the SWR gets worse move the small loop in the other direction. A 1/4-inch movement at a time between retuning should give enough variation to determine the best position for the small loop. If the dip is above 1:1.5 the feed loop may have to be adjusted up or down, once the lowest SWR is achieved tightly fix the small loop in place using electrical tape and wire ties. The small loop may have to be actually bent a little or a lot and wind up looking more like a football, or large egg, rather than a circular loop.

Above should get you started on the path to a working Small Loop Antenna. You may want to check: https://www.66pacific.com/calculators/small-transmitting-loop-antenna-calculator.aspx for the dimensions and electrical values of the parts to build your first loop antenna.

For more Construction ideas look at some of these sites:

https://www.amateurradio.com/diy-magnetic-loop-antenna-part-2/

https://kk5jy.net/magloop/

https://www.youtube.com/watch?v=2Ba-9rwPY7g...good construction ideas

https://www.youtube.com/watch?v=Cv_RnLpZ9gw...a crude but effective loop with a simple capcitor for tuning

https://www.aa5tb.com/loop.html...good general info on Loop Antennas

Fig.1 Strip, twist together and solder Co-Ax Ends

Fig 2 Here is a base with the flange and cap mounted

## Dale's Details by Dale Maroushek NØPEY

I'm gaining on it, but punching in 2023 still seems odd. Not like the "old days" when we wrote 2023 on our checks so we didn't make that mistake at the checkout…well, some of us did that.

In review, we had the January meeting, did the VE session (still looking for a couple VEC's to take over from Leon), Missed the MARC breakfast, did the nets on Wednesday and that brings us to SPRC breakfast today. We broke the record, at least that I remember. Seventeen bodies all together, with one in and out, and Major the dog. Pete, SQJ, brought his daughter coming back from an overnight under the MOA aquarium. Patrick stopped by to get info on the auction and new from January testing Tim Bontrager KF0LFW, with girl friend to meet us. Many conversations going on many tables, it was great! Denny's staff has changed again so service came in 5 feedings. It didn't matter, we all talked and ate and learned and ate and spent another 40 minutes just talking later. Car clock said 1130 when I got back to it.

Speaking of St. Paul side street snow removal, it wasn't. Maybe it was my choice of houses back then. My first apartment was at the end of the building area, on the road to the Hospital, so it was always kept open. Next was East St. Paul next to one the playgrounds with a building. So we got the front street plowed very well. Moved to Oakdale, just between the sanitation lift pump and the fire station, so we were well plowed out early. Next to Maplewood, a house south of the fire station, which has now been rebuilt into the Maplewood multi service center, we have action and lights all the time.

Getting ready for the Auction, which should be history by know, so let's move one.

The Banquet is now set, Venue, speaker and menu has been confirmed. Hey, it's probably the cheapest big time meal with show you can find. I would suggest jumping at the chance to be there and have a great time. April 22nd at Jameson's, just like last year.

February brings us to the St. Cloud "cabin fever reliever" if you choose to drive up there, weather permitting. I have not attended, but heard it is a growing event again. And March will bring us to "Midwinter Madness" of the old days, out in Buffalo. The club will need table sitters and event management people since this is another event that I would love to be out of.

Meanwhile, back to 1967 in Massachusetts. Think about Ham Radio Emergency Management and feeding people. If you have ever attended a practice or real emergency operation, you know that there are groups of volunteers to feed everyone involved or effected by the disaster. They come from Church groups, Red Cross, Salvation Army and others. Well, the army does that every day, not as an emergency, but a daily routine.

So, after I went through all the "other" jobs, a causal could do, I settled in as a KP (Kitchen Police) slave. Very bad hours but the "army" didn't bother us as much cause they thought we were belittled enough already. So you did your KP/Cooks hours routine and did as many of the job divisions it offered.

Once again, time in service, became a governing factor. The longer you had been there, the better the job as a KP. This Consolidated Mess (Army talk for Banquet facility) had semi control of us, until we received order for our schools. So what happens to us that are waiting the longest, like 3 to 4 months? You get to join the night KP's. The eight of us, two bakers and 2 cooks had the task of preparing the next day's food. We peeled and prepped all the produce, the bakers made massive amounts of biscuits, rolls and breads. One cook prepped all the breakfast stuff as we served the night school guys about midnight. And the other cook was the meat man. Well, just before I enlisted, I had worked in a meat market, and had some experience handling it. So one night I see him with a mountain of livers that needed to be sliced. I asked him if he had his "liver skinners" with him. His first reaction was "good joke, livers don't have skins". I then showed him that indeed they do have a membrane around them and it comes off. Makes the liver cook flat and taste much better. Then it was "so what is a liver skinner"? I held up my thumbs and proceeded to skin one with them. I told him of my meat cutting days, and he shouted over to the Head cook, "this guy is mine", and I stayed working with him until my seniority came up. I was the longest on KP, so I was designated the "Honcho" and didn't have to do much work, but helped make sure the others were doing their jobs. Sort of mid management.

So, we got our orders and packed up all our processions(sp) and were moved to another "school" company. Being that we were in Massachusetts, the bread basket of America, many area towns would have patriotic events and the Military wanted to help them out. So, each of the Companies had a specialty. I remember a marching band, a precision drill team and I joined "F" company with a choir. We would sing at the officers or NCO's clubs, any place that asked. Marching in the summer heat wearing Class A uniforms is not fun.

Since we were all too young and stupid to manage ourselves, training days where controlled. Wake up, get dressed, make your bunk, off to chow, eat and come back, clean the barracks and be in formation to be marched to your appropriate school. Ditty boppers went across the playground, the rest of us down the hill to the "bird cage". So named as it had three rows of wire around it, and guarded gates. To your class room until lunch time, march back, eat, reform and march back to school, repeat after class. The best part was we never had homework cause all the material was Top Secret.

Weekends and holidays were free time, some of the guys had cars and there was always the bus. Boston was the usual target or anyplace to "not" be in the army for as long as possible. Four of us rented a Mustang and spent Easter touring Cape Cod. Not the best place in early spring. Still have my picture of Plymouth Rock!

Four months of Radio Traffic Analyst School. I was the youngest, least educated of the group. The others had from one to seven years of college. So it was a huge surprise at the end when I was the Honor Graduate. That and a quarter got me a cup of coffee, but it looked good in the 201 file.

So one morning I got a notice to report to the Orderly Room, Company HQ where the First Sargent and commanding officers hang out. Normally, one does not want to be anywhere near it because it usually means trouble. Turns out eight of us recent graduates had been called there. We were handed our orders and we had some time to read them before the leaders arrived. One of the guys spoke up that all of us were single, under thirty, in good shape and ready to go anywhere, implying we might go directly to VN, or beautiful Southeast Asia as we called it. The explanation was that we had been selected to attend a special two month school called Laughing Eagle. It would be given at Ft. Meade, MD, at NSA. So off we went to the National Security Agency. Spent July/August 1968 there with the team, then a short leave at home and off to the War.

Reported to Oakland Army Base, we turned in our clothes and got jungle fatigues and boots, was given a lot number and told to stay in area F, and listen for my number. How long is the wait sir? One to four days he says. We stayed in that tin shed only about 30 hours. Then on the bus to Edwards Air Force base, on to a Boeing 707, the Airbus of choice in '68. My Trans Pacific route was to Hawaii, where we deplaned but could not leave a confined area, back on the jet to Clark Air Force Base in the Philippines. They let us out on the tarmac, I think just to let us know what heat and humidity near the equator feels like! The last leg to Bien Hoa Air Base was dead quiet, flying into the unknown, counting the days until you get to leave. We'll pick it up from arrival in VN next month.

Dale Maroushek, N0PEY

## Ramblings from the VP's Work Bench - Kevin Welna - W5LNA

My goodness the time flies! It seems like only yesterday I was writing my article for the January Ground Wave. I guess its time for a few updates and a rant. As I'm writing this article, I have the radio on and dialed into 10m and it is hopping! I actually made a contact in Cuba...I guess Homeland Security and the Feds now have me on file... This in not the first time this has happened to me. I dated an FBI agent's daughter back in high school and that's when my folder was created, but that's a story for another day.

An update on the old house in St. Paul. Its finally on the market and listed in MLS. Hooray!!!! Had a few lookers but no bites....fingers crossed.

I've been spending time at the bottom of 10, 20 and 40 meters and listening to CW exchanges and trying to decode their conversations while I work on R/C model planes and ham radio stuff. I'm getting about 1 in 2-3 letters and 1 in 8-10 words. Believe it or not, that very exciting and motivating for me. I have also been more diligent in getting in practice time and working on my ICR (Instant Character Recognition). As my ICR improves, so does my ability to pick out letters\words as they are being sent. A quick funny, I tried to make a contact with a beacon. Kept calling and calling it but no answer...Huh I wonder why not! Oh the mistakes of a rookie!!! I guess had I bothered to decode the entire call sign I would have heard the " \B" at the end. LOL

I caught the COVID at the beginning of January and so I missed the meeting as I figured I did not want to kill off 50% of the active members. HI HI Actually it was not that bad. Thanks I am sure to the boosters that I have received. GET YOUR BOOSTER SHOT!!! Felt a bit punk one day and fairly crappy on day 2. On day 2 I also got a prescription for some kind of antiviral and by day 4, I was feeling fine\great. Alas, I missed the tour of the STEM Center at CDH. I am a bit bummed as I wanted to see if there was a way for us to use the center as a place for circuit builders to meet and maybe use some of the equipment? I will have to find an alternative route to speak with those in charge of the center.

Speaking of active members, Here comes my rant! (I warned you earlier.) It seems that all of the activities, projects and work is getting done by the same few members. I \They\We could use a bit of help and assistance. I am not asking for a full time commitment, but how about ½ - 1 days worth of work spread out across a year? How about an hour? Its neither hard nor an egregious strain on your life\ free time. You could write an article for the Ground wave or show up and lend a hand at the Auction or Field Day, man the club table at local Hamfest, you get the idea. Better yet, find a speaker for a meeting. If you surf You Tube and you see a good video posting, contact the person that recorded it and ask them of they would be willing to do a speaking engagement at one of the club meetings. The worst that can happen is they say no or never reply. Neither is a big deal. This is your club, to keep it viable you need to participate in some fashion less the club dies due to a lack of participation. Those doing the work will tire, burn out and walk away eventually. Then what!!?? Maybe start with joining us for the Ham Breakfast held each month? 'Nuf said. - Rant Over -

I have still not started on my latest Ham project. (Memory Keyer using an ESP32) However I have watched a couple video tutorials on using the PC Board designer (EasyEDA) and it looks to be fairly easy\straight forward. (Yep, I just jinxed it! Damn) It seems that I have been side tracked by learning to program my Radio Control Transmitter for my airplanes. Yep they are now totally programmable. Its a bit intimidating, but doable, its somewhat like programming a ham radio. Again, thank God for YouTube! O.K. Fine, it ain't Ham radio but both the hand held transmitter and the flight receiver are are actually transceivers on 2.4ghz. The flight receiver can actually send back telemetry of the aircraft to the transmitter. Things like battery use\health\ charge, motor RPM and altitude can be monitored and then verbally reported to the pilot via the transmitter speaker. Yep it will talk to you while you are flying! It will even play music. Ain't technology great! The technology is quite affordable. You can purchase a full set up for less than a medium to higher end hand held U\V ham radio. Anyone else out there fly or interested in flying RC planes? Ping me and lets get together! Remember: He who dies with the most toys wins! HI HI

Last but not least, remember we have an auction coming up in the near future. Time to clean out your shack and get that stuff into someone elses' shack. There by making room for new stuff in your shack. Additionally we have a banquet in the not too distant future. I am hoping to be able to attend both events this year. I am hope you all will participate\attend as well.

Till then: May your signals be strong and your antennas have extra gain….73
Kevin Welna VP
W5LNA

## HELP WANTED

Your St. Paul Radio Club is looking for a VE Liaison – someone to coordinate the amateur radio exam sessions.

Our exam year runs from September through June with a session on the first Saturday of each month, plus an additional session in conjunction with the MAGIC Repeater Tailgater in July. All sessions are being held at Galilee Lutheran Church in Roseville at 9:30 am.

No experience is necessary, as you will be provided with on-the-job training for five months if you act now. All you really need to qualify is a willingness to help out the club and your fellow hams. The person for this position needs to be 18 years of age or older; and never have had your amateur station or operator licenses suspended or revoked, hold a valid Amateur Extra class license and be an accredited ARRL Volunteer Examiner. To become a VE, you merely have to take an open book exam from the ARRL, and you don't even need to purchase a manual as it's all online. You don't even need to be a member of the ARRL to qualify!

We currently have a large team of experienced VEs who help out with the monthly exams so anyone volunteering for this position will have plenty of help. The time commitment for this position is about 3 hours per month plus the exam sessions themselves, which are typically another 2 hours. All paperwork / forms and instruction on their use will also be provided. This is a great opportunity for someone to help out our club with this important position. Please consider doing this. Contact Leon, WØCOE, with your willingness to help or with any questions by sending an email to w0coe@arrl.net.

***Leon, WØCOE***

## 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

## The Amateur's Code

As seen in a recent ARRL letter

The radio amateur is:

CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement, and support to other amateurs, local clubs, and the American Radio Relay League, through which amateur radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY...slow and patient operating when requested; offers friendly advice and counsel to the beginner; kind assistance, cooperation, and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school, or community.

PATRIOTIC...station and skills are always ready for service to country and community.

--The original Radio Amateur's Code was written by Paul M. Segal, W9EEA, in 1928.

This was written over 90 years ago and should be applicable to every operator today. If we're operating on the air or working to mentor a new operator, are we living up to this ideal and passing it along to others?

# January Board Meeting Minutes – by Art Thell, NØIWQ

**Saint Paul Radio Club**
**Hereinafter referred to as "SPRC"**
**Board Meeting Minutes**
**1-06-2023**

Board members present: (* present)

| | |
|---|---|
| Ralph Bierbaum-(Pres.)-NØAWN * | Kevin Welna (V. Pres.)-W5LNA |
| Art Thell (Secy.)-NØIWQ * | George Power- (Treas.)-KØGCP * |
| Br. Bob Walsh-WCØJ * | Ben Otto-KEØRFZ * |
| Lou Michaels (Pres.)-WD8NOV Exc. | |

Also present:

| | | |
|---|---|---|
| Jay Maher-NJØM * | Jeff Iverson-WB9DAN | Dale Maroushek-NØPEY * |
| Pete Guldan-KDØSQJ * | John Crabtree-KCØG | Don Kelly-WA6ZMT |
| Dan Meyer-NØKFB * | Janet Bierbaum KDØBZZ * | Members on Zoom. |

*Denotes present

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**6:06 Pres. Ralph** called the meeting to order.

President: Call for added agenda items: _____

**Old Business:**

Secretary's Report: Art. Moved to approve minutes of the December meetings as published in the Ground Wave.

Second Br. Bob Approved

Move to modify the SPRC Treasurer Duties that were adopted on September 14, 2022 to permit the Membership Chairman to have visual (only) access to the SPRC bank account. The proposed language is submitted to board members in the red typeface on a printout of the original document.

The motion is to insert language (underlined) so that Item #1 of the SPRC Treasurer Duties will now read:

Recognize detailed deposits of funds as reported by the Membership Chairman or other. <u>The Membership Chairman shall have online visual (only) access to the bank account for verification and reconciliation purposes</u>.

Motion by Art Seconded by Br. Bob Approved.

Document on file has been modified to reflect the change.

Treasurer's report: George
General Fund: $7891.20, Repeater Fund: $1204.25, Education Fund: $1272.00.
Total Cash on Hand: $10,367.45.

Moved to accept report: Art Seconded: Br. Bob Approved

Repeater Report: Dale: "All are working".

Membership Report: Dale: 111 paid members. Later report: 114.

Training Report: Pete
Ham Cram for Tech scheduled for 3/11-12. Testing on 3/12.
General Classes beginning 2/19. Tentative to interest

Pete requested the possibility of getting five General Class manuals even though the questions will change in June 2023. Art moved to have the Board tentatively approve the purchase of up to five (5) manuals (cost $35 ea. less discount) as needed. Seconded by Ben. Motion approved.

Auction:
Ben Otto Chair, guided by Dale.
Committee is managing details including hardware, software, and procedures.
Open call for auctioneers, and assistants. Please contact Ben.
Also please note Auction Brochure published in the Ground Wave.

Banquet:
Jay: In process. Date to be determined.
Location: --University Ave.

**New Business:**

Subscription for "Zoom" or other remote meeting software. Several possible contributors to the discussion.
Indications are possibly <$100 per year base rate.
More details forthcoming at February meeting.

Adjourn:
Move: Art Second: George Approved
**6:58: Adjourn**.
Respectfully submitted: Art Thell NØIWQ

# December Membership Meeting Minutes – by Art Thell, NØIWQ

**Saint Paul Radio Club**
**Hereinafter referred to as "SPRC"**
**Member Meeting Minutes**
**1-06-2023 7:30 pm**

**7:30 Call to order** by Pres. Ralph

Members present: 29 plus Remote.

Treasurer's Report,
General Fund: $7891.20, Repeater Fund: $1204.25, Education Fund: $1272.00.

Membership--Dale: 114 paid members

Training Report--Pete:
Ham Cram for Tech 3/11 & 3/12 with testing on 3/12.
General Class possible to begin February 19.

Auction:
Auction January 28 at CDH.
Committee is in full swing.
Calling for auctioneers and helpers. Please contact Chairman, Ben Otto.

Banquet: In process

Membership Meeting door prizes:
Program is reinstated. First event: February meeting.
New Door Prize Chair: Janet Bierbaum (First Lady) KDØBZZ

Club Breakfast: Third Saturday of the month, January 21 at 9:00.
Place: Denny's on University Ave. Across from the AxMan.

Program:
Program by Jeff Winsor, leader with the STEAM Program housed in the Ryan STEM Center.
We toured two of the lab areas and enjoyed an interesting discussion on the activities of the Robotics Program which had its beginnings in 2008 at CDH.

Several interesting tidbits: Minnesota, the 'hockey state" is #3 in the nation for robotics teams and has more robotics teams than hockey teams.

**Adjourned** 8:42. Respectfully submitted, Art Thell NØIWQ.

## SHORTWAVE LISTENING TOOK ME TO CHINA…FREE!

**How getting a QSL led me to the Great Wall**

**Hear the story at The Saint Paul Radio Club Banquet**
**at Jameson's Restaurant on Saturday, April 22nd.**

## St. Paul Radio Club Breakfast

**Saturday February 18th, 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)**

## Officer Contact Information

| | | | |
|---|---|---|---|
| President | Bierbaum, Ralph, NØAWN | rwbierbaum@comcast.net | 612-201-9510 |
| Vice President | Welna, Kevin W5LNA | kwelna@gmail.com | 651-354-5515 |
| Past President | Michaels, Lou WD8NOV | louthephotoguy@gmail.com | 612-638-8159 |
| Treasurer | Power, George KØGCP | georgecpower@gmail.com | 651-233-3215 |
| Secretary | Thell, Art NØIWQ | thellaj@comcast.net | 651-492-0254 |
| Member At-Large | Otto, Ben KEØRFZ | ke0rfz@gmail.com | 651-352-9590 |
| Member At-Large | Walsh, Bob WCØJ | brw.fsc@gmail.com | 612-201-0818 |

## SPRC Calendar

Sat Jan 28 SPRC Auction. Commons Meeting Room,
John R. Albers Center, Cretin-Derham Hall High School.

Fri Feb 3 6PM SPRC Board meeting, Commons Meeting Room,
John R. Albers Center, Cretin-Derham Hall High School. *

Fri Feb 3 7PM Socializing followed by 7:30 PM SPRC Membership meeting. Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School.

Sat Feb 4 9:30 AM VE testing. Galilee Lutheran Church.
145 N McCarrons Blvd, Roseville, MN 55113.
Reservations required. No walk-ins until further notice.
Contact Leon Dill, WØCOE@arrl.net or 651-425-0338.

Sat Feb 18 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.

Sat Feb 18 9AM-1PM St. Cloud ARC Cabin Fever Reliever Hamfest 2023.
St. Cloud Armory, 1710 Veteran's Drive, St. Cloud, MN

Fri Mar 3 6PM SPRC Board meeting, Commons Meeting Room,
John R. Albers Center, Cretin-Derham Hall High School. *

Fri Mar 3 7PM Socializing followed by 7:30 PM SPRC Membership meeting. Commons Meeting Room, John R. Albers Center, Cretin-Derham Hall High School.

Sat Mar 4 10AM VE testing. Galilee Lutheran Church. 145 N McCarrons Blvd, Roseville, MN 55113. Reservations required. No walk-ins until further notice. Contact Leon Dill, WØCOE@arrl.net or 651-425-0338.

Sat Mar 18 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.

Sat Mar 18 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 call in from any phone.
If you're not familiar with Zoom and would like to arrange to practice, text Don at 651 276-4838 or email dk@donkelly.biz.

Saint Paul Radio Club is inviting you to a scheduled Zoom meeting.

Topic: SPRC Monthly Meeting

Time: Feb 3, 2023 06:00 PM Central Time (US and Canada)

Feb 3, 2023 06:00 PM
Mar 3, 2023 06:00 PM
Mar 31, 2023 06:00 PM
May 5, 2023 06:00 PM

To Join the Zoom Meeting use this link:
https://us02web.zoom.us/j/87882794434?pwd=bGdueVVhNmZXVjQrRjFOL2tZMlhmZz09
or
https://tinyurl.com/2tyybeuc

Meeting ID: 878 8279 4434 Passcode: 6512764838

One tap mobile +13092053325,,87882794434#,,,,*6512764838# US

For audio-only, dial +1 312 626 6799 US (Chicago)
To find other dial-in numbers, see: https://us02web.zoom.us/u/kuWkJhGiz

Please download and import the following iCalendar (.ics) files to add the meeting to your calendar system: https://us02web.zoom.us/meeting/tZMlf-uvpz8uGdAS6IYyFBq9uL1cXxTVtmJ-/ics?icsToken=98tyKuGvpjMoHd2RtBqDRpwEGoqga-3xmClbjad8r0nMOjl1QBKvI84TMYpnJO7E