



[www.arrrl.org](http://www.arrrl.org)



# St. Paul Radio Club Ground Wave

*Don Kelly, WA6ZMT, Editor*  
*Dale Maroushek, NØPEY, Interim Publisher*

**KØAGF**

[www.stpaulradioclub.org](http://www.stpaulradioclub.org)  
Club Repeater: 145.310 MHz  
PO Box 9375  
North St. Paul, MN 55109

## NEWS AND NOTES FOR DECEMBER 2017 — Volume 77, Issue 12

### Holiday Party December 1st

7:00 pm, UST OWS LL54

The holiday party will be mostly socializing and potluck munching plus a very brief business meeting.

Come hungry and bring something yummy to share—the club will supply meat and cheese trays as well as coffee and soda.

The OWS building is located on the **University of St. Thomas (UST) South Campus**.

From I-94, take Cretin Ave south about a mile to Grand Ave. Turn right, then park in the ramp on your left or the surface lot on the right. In general, on-campus parking restrictions are not enforced after 6:00 p.m. on Fridays, but do not park in spots with parking meters unless paying or displaying a handicapped placard.

Enter the building just north of the parking ramp and take the elevator (in the hallway to the right) or stairs to the lower level. LL54 is not far from the stairs.

For detailed maps, see [www.stthomas.edu/campusmaps](http://www.stthomas.edu/campusmaps).

OWS: Owens Science Hall

Contact Kim Schumann in Disability Services at 651-962-6315 or [kjschumann@stthomas.edu](mailto:kjschumann@stthomas.edu) for any accessibility requests.

### Presidential Ponderings

Again, another deadline for the Ground Wave! And, again, I need to start with talking about members helping to keep the club going. This is a common problem in other hobbies I've been into and, depending on the hobby and your interests, it can be close to a full time job or it can take just a little time each month. SPRC is looking for board and committees members, generally involving not much more than a few hours per month. If we get multiple people sharing some of the committees, it can take just an hour or so per month and eliminate the burnout that happens when too few do too much. The vice president position is still open, and we'll elect a president in a few months. Lack of Internet is a challenge for me, and looking for a new spot for my RV may take me out of state and out of the running.

There's a lot of stuff I could talk about forever, but I try to keep things limited to ham radio related stuff here. A favorite subject of mine is learning more about the technology of ham radio. With very limited resources it becomes very important to prioritize subjects. For an example, as a new ham I found from others that first on the list is learning about antenna theory and building antennas on the cheap. Lots of this can be done with scrap, but you do not need to be a scrapper—there's lots of free stuff on Craigslist (dang I just gave away one of my secret sources).

A \$20,000 HF rig is not going to work any better than the cheapest what-

### Dale's Details

#### Dale Maroushek, NØPEY

Thank you all for picking up some of my jobs and correcting mistakes. From my insiders report, the Board is working on some luscious programs for the 2018 spring season.

Ralph's 90-minute cruise through his emergency deployment to the Keys was top rate, showing what we can do and how we get it done. Since I'm the Food Guy for the club and did some practices with groups years ago, it still comes down to "the Army travels on its stomach." Without food and water, people don't do well. If you missed the show, it will be on stage at the Mining Radio Club meeting on November 28<sup>th</sup>, 6 p.m., building 224 (watch for access info).

I'm sure some have been wondering about the Auction this winter—and rightfully so. Sometimes getting to the "decision makers" for event planning is the hard part. We are sorry to leave Our Lady of Guadalupe, but things just didn't work out. You will be happy to see we have found a new location in Roseville. Thanks to a pointer from Dawn Holmberg, we will be ready to go on January 27<sup>th</sup> at the Roseville Lutheran Church—the Flyer is attached. Spread the word, collect your saleable or donatable gear, apply for funds from the YL, and prepare for a fun Saturday!

Field Day results that I reviewed showed our effort was a "fun" success, and 2<sup>nd</sup> place in the MN section. Hard to beat a group of hard core testers up north. Still looking for POSSIBLE locations for the 2018

*(Ponderings, continued on page 2)*

*(Details, continued on page 2)*

(Ponderings, continued from page 1)

ever on a dummy load, so you get into mid-range stuff, maybe \$500-\$1,000, and, except for the bells and whistles, you would be hard pressed to find a lot of difference between a \$500 radio and a \$10,000 rig on the same large beam a half wave above ground.

I am looking for a rare bird that does not seem to exist, but I keep hearing about this rare bird so I keep looking. Maybe it's two birds: getting access to Internet and using it well. Using coffee shop Wi-Fi is where I hear about the rare--unlimited data, cheap. I'm looking at buying refurbished hotspots (around \$75) and \$5-\$20 per month. These do show up, but like one this morning in a RVer forum, the offer ended by the time I found out. Doggy doo!

Forums on various subjects can be good sources of info; you may be familiar with QRZ forums, but there are many more. I've ended up on too many to use regularly, including all kinds of engineering forums like HP (now Keysight), DavesEEVblog, YouTube, etc. Hanging out on a forum, you learn about other resources along with recommendations by others on these groups. Many posters hang out on each others' sites and YouTube channels and link to each other, often saying something like "I will not cover this part on my video, because Joe Blow has already done a good job."

Some of the best are:

YouTube  
TRX Bench  
The Signal Path  
EEVblog  
Mr Carlson's lab  
W2AEW  
ROBRENZE  
Keysight Technologies

I'll stop here because these have lots of ham & electrical stuff, and I have maybe over 200 subscriptions on YouTube. There is not enough TIME!

73 de John, KDØCAC

(Details, continued from page 1)

event. The more free facilities the better, ideally like we had at the Park formerly known as Tartan.

The Holiday Party is coming up December 1<sup>st</sup>. No program--just food, a short meeting to cover business, food, conversations, food, that big debate over what an antenna tuner really does, and more food. The Club will do what it has provided in the past, anything and everything you bring to share will be consumed, the more original or ethnic the better! I'm thinking Bacon wrapped shoe leather or car bumpers.

See you all there,

Dale, NØPEY



## Your email Bounced

Well, maybe yours didn't—but some of them do. If you haven't been receiving email every month from SPRC, make sure that we have your correct email address. Send it to:  
NOPEY at comcast.net

## Building Blocks Jay Maher NJØM

The holidays are around the corner and perhaps your significant other is asking for some guidance on a gift. Blank stares are bound to be rewarded with wool socks. A good book might be a better choice for me as I can always warm my toes on the Astron power supply under the bench. The perennial favorite for builders is *Experimental Methods in Radio Frequency Design* (EMRFD for short) with lots of projects and information to absorb every time you go back to it. Everyone is probably aware the long (really long) awaited third edition of Horowitz and Hill's *The Art of Electronics* has been a reality for about two years now. They first developed the

book in the 80's as a text for a class they taught to give graduate students some proficiency in laboratory electronics. Then, as now, a companion lab manual is more hands-on. To keep the waiting game going, they plan to release another volume as the *Art of Electronics* "x-chapters" with material they didn't have time to refine for the third edition. Should be out any day now... The AoE is a great resource but not what I would call an introductory text. Less dense and geared more towards Makers is one of my favorites, *Practical Electronics for Inventors*, 4<sup>th</sup> edition, by Paul Scherz and Simon Monk. The Scherz and Monk book is a good bridge between theory and application with material suitable for beginners and yet going beyond what many other introductory books might cover. Any of these three books would keep you busy for the winter.

What about the bench? As I age and parts get smaller I need more light, more magnification, and some help holding things steady. A gooseneck LED work light from Ikea (the [Jansjö](#) desk lamp) has become popular with Makers as it is easily positioned and puts out a lot of light. Cost is around 10.00 at Ikea and many folks have modified them with a magnetic base to use on machine tools (search for the lamp name on YouTube for examples).

A way to fill the light and magnification needs simultaneously is with a magnifying lamp. They offer a reasonable field of view for larger parts/boards and plenty of light. As with most of my equipment, I purchased an older used model which in this case means a bulky unit with a circular fluorescent tube. A more compact LED version might get more use on my bench. At this magnification level (around 2x), I prefer a visor magnifier and have a few different used Donegan Optivisors with different diopters. They are around 40.00

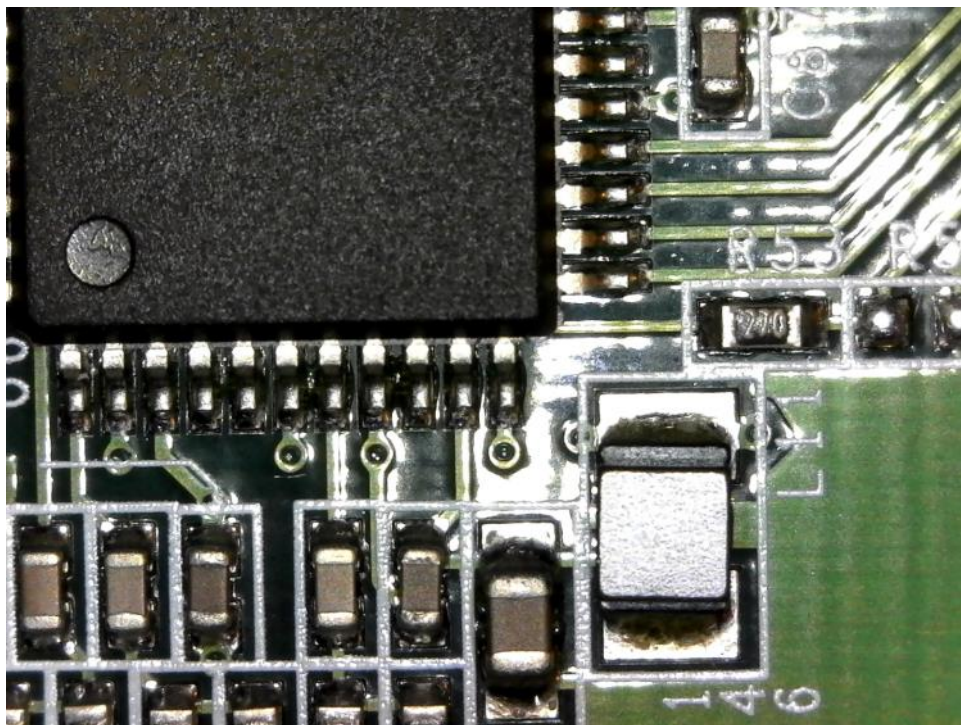
(Building Blocks, Continued on page 3)

*(Building Blocks, Continued from page 2)*

new so I might have opted for a slightly cheaper version if buying off the shelf. For tiny surface mount work at higher magnification, a zoom stereomicroscope is extremely useful. They can be purchased used at a reasonable price if you have the time and patience, but it might not be a good fit for a wish list. You might consider one of the USB microscopes available now instead. I've used a 2MP version from Plugable (about 35.00) which worked well and had very little lag time in the display. The quality was definitely sufficient for soldering and inspection. I've included a photo captured with their software on this page.

For those times when you need a little help, Panavise always seems to come through. I have several versions I have picked up over the years with different heads and baseplates. They are just the thing when you are trying to solder a heavy cable into the back of an Amphenol connector and wish you had three (or four) hands. The pcb holder head may be a bit of overkill for today's boards but there are plenty of alternatives. Two others I have tried are the Aven and the Vastar circuit board holders (both under 15.00). The Aven has a metal base with plastic uprights and a fairly wide adjustment range. In my opinion, the Aven is best suited to boards with through-hole components. For surface-mount components, I prefer an ESD safe mat or a flat metal pcb holder like the Vastar if the board is small enough. Hold down "fingers" are easier to employ flat on the bench and there seems to be less launching of parts off the board.

I hope you have a wonderful sock-free holiday season.



## Membership Meeting November 3, 2017

George Power (KØGCP) called the UST radio club to order at 7:35 p.m. No one had UST business to discuss. He adjourned the UST club meeting at 7:36 p.m.

As President John Faughn (KDØCAC) was dealing with car trouble, George called the SPRC meeting to order at 7:37 p.m. We did self-introductions of 33 members and three visitors.

### Business meeting reports:

The minutes of the October meeting were approved as printed in the November Ground Wave.

Treasurer Allan Klein (WØONLY) reported that the Repeater balance is \$602, Education balance is \$982 and the General Fund balance is \$6,759. A check for \$1,114 was forwarded to the ARRL Spectrum Defense Fund.

VE Coordinator Leon Dill (WØCOE) reported that there would be an exam tomorrow. There were six examinees last month.

Membership Chair Dale Maroushek (NØPEY) maintains the club database and said there had been questions about making member data available

"in the cloud." Most members present do not want phone numbers and email addresses public.

President John Faughn returned to chair elections for two board members at large. As current members Mike Thompson (AEØMT) and Orcy Lyle (WØQT) expressed willingness to continue and no additional nominations were made from the floor they were elected by acclamation.

Dale reported that the previous years' auction location, Our Lady of Guadalupe Church, has proposed raising their fees to \$800. The board has been discussing options via email and will make a selection soon so the venue selection can be communicated to everyone in plenty of time. The auction will be the last Saturday in January.

Orcy announced that there would be no Circuit Builders tomorrow as people may choose to go to the Buildathon from 11-4.

The business meeting was adjourned at 8:04 p.m.

### Program:

The program was Ralph Bierbaum

*(Membership Meeting, continued on page 4)*



Support the  
League  
[www.arrl.org/](http://www.arrl.org/)



(Membership Meeting, continued from page 3)  
(NØAWN) sharing his deployment experience with the Minnesota All-Hazard Incident Emergency Management team to the Florida Keys in response to Hurricane Irma.

Following the raffle we wrapped up the meeting at 9:37 p.m.

## UST Tobacco-Free

UST's St. Paul and Minneapolis campuses are tobacco free.

In the St. Thomas policy, "tobacco" is defined as any lighted cigarette, cigar, pipe, clove cigarette, hookah smoked products, electronic cigarettes and any other smoking product, as well as smokeless or spit tobacco, also known as kip, chew or snus. Promotion, sale and distribution of tobacco products and merchandise, including any items carrying tobacco logos, also are prohibited on the campuses or at any university-sponsored events.

## Board Meeting November 10, 2017

President John called the meeting to order at 7:16 p.m. in room OSS 111

### BOARD MEMBERS PRESENT:

John Faughn (KDØCAC) President  
George Power (KØGCP) Past Pres.  
Allan Klein (WØNLY) Treasurer  
Don Kelly (WA6ZMT) Secretary  
Orcy Lyle (WØQT) Member at Large

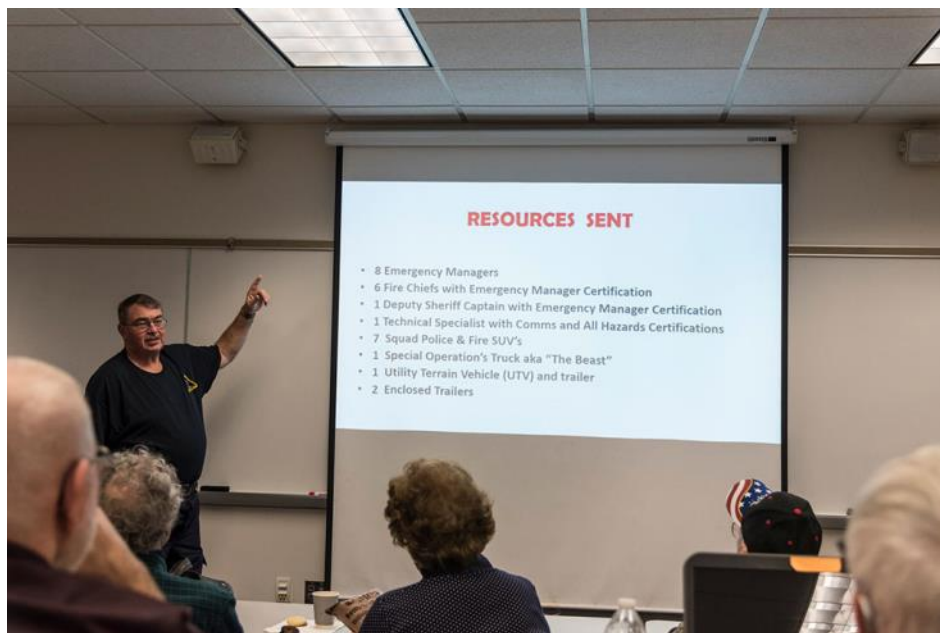
### COMMITTEE CHAIRS AND OTHER INTERESTED MEMBERS PRESENT:

Dale Maroushek (NØPEY) Membership Chair, Auction Chair  
Jay Maher (NJØM), Food Chair

**Auction:** The auction will be Saturday, January 27, 2018.

Potential locations were discussed because Our Lady of Guadalupe would be substantially more expensive than previously.

George has had discussions with St. John the Evangelist Episcopal Church. 60 Kent Street N., Saint Paul, MN. Space would be available downstairs in the gym. Cost would be \$80 if we help setup for the



We were fascinated by Ralph's presentation of his Hurricane Irma deployment.  
Photo courtesy Dawn Holmberg (WXØZ)

activity the next day. It's available Friday 5:30—8:30 p.m. and Saturday 8:00 a.m. to 1:00 p.m.

Roseville Lutheran Church, 1215 Roselawn, has space available on the parking lot level and includes a sound system. Dale had discussed costs in the \$400 range. Available Friday afternoon for setup and Saturday 8:00 a.m. to 1:00 p.m.

Leon has suggested a high school cafeteria.

The board expressed appreciation for Siearra Jagne (KEØMUY) looking at locations in the Midway area, but none found are suitable.

George moved, Don seconded a motion that Dale proceed with making arrangements with Roseville Lutheran Church at a cost of up to \$500.

**Repeater:** Need Mike to reprogram it. Dale will contact him.

**Programs:** John suggested Dave Casler's radio classes on YouTube, specifically a 30-minute class on SWR. Orcy will talk to Chuck Stroud regarding a MNARTS meeting for January. George had considered Mike Ostland on AERO. He feels it would be interesting, but perhaps not pertinent to our members. He

attempted to contact Peter Zidek about a "History of Computers" program without success. George will attempt to get John Dean to do a February program about the John Glenn Middle School ARISS activity. Matt Genelin could do a DMR presentation, but this may duplicate a recent program. Chris Peterson (K9EQ) could do a Fusion program.

**Holiday Party:** No formal program is necessary for December as that will be the holiday party. Jay will order a Deli Platter for 35, a Small Domestic Cheese & Cracker tray, 4 regular coffee, 2 decaf coffee, and will bring six sodas. Members will bring delectable goodies to share.

**Banquet:** There was a brief discussion of a program for the April banquet. Perhaps a "Space Weather" program. Paul Douglas or the Minnesota Geological Society may be a resource.

**Fox Hunt:** Orcy reported that George Thurow was unable to lead fox hunts this fall due to health issues. She spoke to a new member, Joe, interested in fox hunts.

**UST:** Tom Sturm will be in town until Christmas.

**Finance:** Allan reported that the bank balances are the same as reported at the membership meeting except dues have been deposited.

**Adjourned:** 8:20 p.m.



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

## ADDRESS CORRECTION REQUESTED

- Fri Dec 1 7PM Socializing followed by 7:30 PM SPRC Membership meeting and Holiday Party. UST classroom OWS LL-54. See Page 1.
- Sat Dec 2 10AM VE testing. Ramsey County Library, 3025 Southlawn Dr., Maplewood. Contact Leon Dill, WØCOE@arrl.net or 651-688-9964
- Sat Dec 2 9AM Circuit Builders. OSS 415 UST Campus\*
- Fri Dec 8 7PM SPRC Board meeting, OSS 121 UST campus (Alternate location is OSS 415) \*\*
- Sat Dec 9 9AM Circuit Builders. OSS 415 UST Campus\*
- Sat Dec 16 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.
- Sat Dec 16 After Breakfast. Circuit Builders. OSS 415 UST Campus\*
- Fri Jan 5 7PM Socializing followed by 7:30 PM SPRC Membership meeting. UST classroom OWS LL-54.
- Sat Jan 6 10AM VE testing. Ramsey Cty Library, 3025 Southlawn Dr., Maplewood. Contact Leon Dill, WØCOE@arrl.net or 651-688-9964
- Sat Jan 6 9AM Circuit Builders. OSS 415 UST Campus\*
- Fri Jan 12 7PM SPRC Board meeting, OSS 121 UST campus (Alternate location is OSS 415) \*\*
- Sat Jan 13 9AM Circuit Builders. OSS 415 UST Campus\*
- Sat Jan 20 9AM SPRC Breakfast. Denny's, 1664 University Ave, west of Snelling.
- Sat Jan 20 After Breakfast. Circuit Builders. OSS 415 UST Campus\*
- Sat Jan 27 8:30AM – 1PM Saint Paul Radio Club Auction, Roseville Lutheran Church, 1215 Roselawn Ave W, Roseville, MN 55113

\*Circuit Builders is each Saturday morning if someone is available to open the lab and there is no conflicting activity. Check the SPRCCB Google Group to confirm that the lab will be open.

\*\* Depending on business to be considered, Board Meetings are sometimes held electronically. Check with an officer or board member to confirm that the meeting will be at UST.