

 <p>www.arrl.org</p>		<p>St. Paul Radio Club</p> <p>Ground Wave</p> <p><i>Jeff Iverson, WB9DAN, Editor</i> <i>Dale Maroushek, NØPEY, Publisher</i></p>	<p>KØAGF</p> <p>www.stpaulradioclub.org</p> <p>Club Repeaters: 145.310 MHz, 442.450 MHz 114.8 kHz tone PO Box 9375 North St. Paul, MN 55109</p>
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NEWS AND NOTES FOR FEBRUARY 2021 – Volume 81, Issue 2

NEXT (ON-LINE) MEETING: FRIDAY FEBRUARY 5, 2021

- 6:00 PM Board Meeting (all are welcome to watch)
 - 7:00 PM Fellowship and (your own) Refreshments
 - 7:30 PM Short Business Meeting with Program Following
- (Zoom details are at the end of the newsletter)

Program

Our December program will feature members telling stories about their ham experiences. Think of something from your ham career to share. We are still in need of a volunteer program director to arrange monthly presentations.

Elections

Nominations for Saint Paul Radio Club Secretary remain open:

Secretary: Keeps a record of the proceedings of the Club, including all regular and special meetings of the Board and Members, conducts the correspondence of the Club, and keeps a record of the same. The Secretary keeps the bylaws of the Club and makes them available to members upon request. The Secretary is a member of the Board of Directors.

From the President – Lou Michaels WD8NOV

I hope that we are all doing well and staying safe and being safe. I hope that we will all have a chance to do some club things in the near future. As president of the Saint Paul Radio Club and the Board we are looking for someone to take over the job of finding a guest speaker for our meeting every month. Again, please be safe and stay safe.

Dale's Details by Dale Maroushek NØPEY

Picking it up where we left off last month, the Club really needs someone to be the Program Chair. That is, if you still want live programs? We can do videos, u tube, webinars and others, but you can do those at home anytime you want to. It would also be a plus if the chair is not a Board member, they have enough to do already. It gives

other members experience in what it take to run the Club, so they can move into Board positions later on.

Unfortunately, our plan to have Tamara Michaels become our new Secretary has fallen through. Her work hours have taken a huge change making it impossible for her to complete the job. So back to square one, like above, and find a volunteer to fulfill that office. The sooner the better in my mind.

So, what's coming up in Ham radio? Our nets are cruising along very well. Check-ins running teens and twenties with interesting topics and chatter. We have 4 Net controls for the 2M side, but still only me on the HF side. If you can do either, would like to learn more about it, can get on 10M local HF, we need you.

Last weekend was Winter Field Day, for those that wanted to play. I will attempt to do some contesting and will report back next month. N3FJP.com has the software.

Then Feb. 6th is the MN QSO Party, w0aa.com for details. Starts at 8am local and you can be the big guns the rest of the guys are looking for. When our/CDH station is up and running, we should be able to win our own donated plaque back.

Leon, WØCOE, and the VE gang will be testing new and old hams that same Sat. at 10am. Sign up early, no walk-ins anymore.

I did stumble across an article in the Legion magazine. Seem they have some interest in Ham radio and certain Posts around the country host clubs. I ran this through my mind and put together what a Club station needs to make it worth the effort. Then I thought about what the Legion clubs I have visited have for structure and facilities. Ask Bro. Bob about how much red tape it took to get his and the CDH station going, not easy. So, I'm just throwing it out here for some feedback and possibly an investigative effort to explore the situation.

The Auction chair is another one of the jobs I am trying to pass along. Ben Otto has stepped forward showing interest with training once we get this going again. The more I wait for covid to slow to a controllable beast, the stronger it shows more meanness. There is plenty of room for others who are willing to help run the event. It is a big job, and the new people this year can carry on later.

Next job up for grabs is Food Guy. I really loved doing food for the events through the years. It started with FD, I think in 1999 or 2000. I used to do much more back then. We had more people involved, who came out earlier and stayed later. We did full breakfasts, lunches and the big dinners. We learned as we went, made changes to procedures to refine the events to be manageable and fun for all. Many will remember the drenching rain during spaghetti dinner at Tartan Park. We learned about raccoons early on when they had a fun Friday night eating our breads and snacks. The wonderful Barn Swallows that darted in and out of the pavilion to feed the babies, while using the

tables as a poop bomb run. Blowing electrical circuits until we found out which plugs where on what breaker. Then we did the Auction and special events food. I recall getting many compliments on the chili we had at the train station event. All I could do was pass them on to Hormel and chuckle to myself. The secret recipe is mixing one #10 can each of chili with and one without beans. Add some crackers, Cheddar cheese and chopped onions on the side. Boy, some "Slap ur Mama" seasoning would have made it even better. (2M net inside joke)

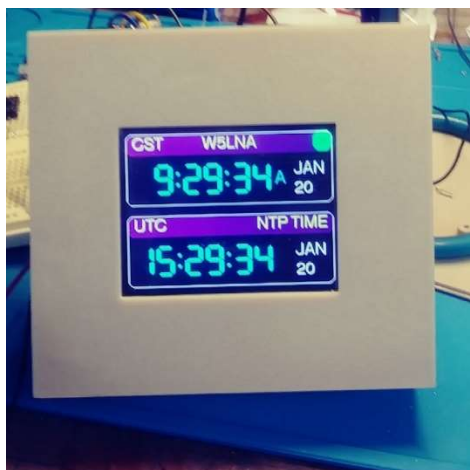
Again, with covid, where do we go from here with food service at events? I foresee a big liability problem on this issue for a long time to come. One unfortunate victim and the whole Club could go down. Some options, at least to get it out of my storage, take it to CDH, sell it at the next auction, or donate what is worth anything to someplace, using the rest for our coffee service once that is ok to get going again. Maybe I'm over complicating this, but rather safe than sorry. I'll put it on the agenda for the Board.

My shack improvement project is slowed by lack of other places to put stuff until a time when it can be sold or given away to new hams. Deb has been happy I'm doing something but is getting concerned about the pile that is growing in the hallway. The printer continues to work flawlessly with its extra parts that fell out beside it. Meanwhile, printer ink, the most expensive fluid in the world, increases in price as with printer paper. Remember when "computers" were supposed to eliminate paper files?

From the Workbench of the VP – Kevin Welna, W5LNA

First let me start off by apologizing for not getting a meeting going for the bench top power supply. I do still plan on doing this. Alas, we had a death in the family that kind of threw off my whole itinerary.

In the meantime, I have completed the second project, it's a dual shack clock that uses your internet's NTP (Network Time Protocol) to stay accurate.



It shows both local and UTP time. It has battery backup and automatically adjusts for Daylight Savings Time. It has a battery charger board and will run for a good 3-4 hours on battery. It has a 2.8" TFT display, It's a fairly simple project to build and it will introduce you to programming an Arduino. (Actually, it will introduce you to loading a program written by others but configured by you.)

I have a set of STL files for printing the enclosure should you need one.

You can start by visiting the original creator's sight and downloading the PDF instructions

http://w8bh.net/NTP_DualClock.pdf

This project utilizes the Arduino ESP32 Wroom Dev board (Purchased from Microcenter (\$10)

<https://www.microcenter.com/product/613822/inland-esp32-wroom-32d-module>

And a 2.8" Display from Bangood (\$7-\$10)

https://usa.banggood.com/2_8-Inch-ILI9341-240x320-SPI-TFT-LCD-Display-Touch-Panel-SPI-Serial-Port-Module-p-1206782.html?cur_warehouse=CN&rmmds=search

The battery backup is a pair of 18650 "E-Cig" batteries. and utilizes a battery charging\protection board purchased from Amazon as was the charging socket on the back of the enclosure. FYI I had to buy 5 boards and sockets so I do have a few spares! Here is the link for the charger and power socket.

[Anmbest 5PCS 2S 7.4V 8.4V 8A 18650 Charger PCB BMS Protection Board for Li-ion Lithium Battery Cell](#)

[5.5 x 2.1 MM 5A DC Power Jack Socket Threaded Female Mount Connector Adapter with 3.94Ich 20AWG Cable + DC Barrel Jack Plug Male \(5.5 x 2.1 MM\)](#)

The entire clock measures 4.5"x4.0"x1.25". It's easy to see and read.

A couple of quick notes on this project:

The ESP32 has 2 voltage inputs 3.3v and 5v. The 3.3 volt input cannot handle a lot more than 3.3 volts if you try and power it with 5 volts, you will probably let the magic smoke out and it will cease to function!

I would strongly urge you to build it using a proto bord first to help with any trouble shooting. Most importantly you can use the bench top power supply to power it until you buy a 9v wall wart.

If you wanted to get your feet wet with Arduinos and need a shack clock, this is a great way to kill two birds with one stone!

Once we are done with the Benchtop Power supply, I will host a meeting for this project. Interested? Email me: kwelna@gmail.com

Changes Coming from the FCC for New Examinees

According to the ARRL, the FCC has indicated VECs/VE teams should discontinue the practice of accepting social security numbers at exam sessions. An implementation date has not yet been announced but the FCC said it would be soon. Examinees should register in the FCC CORES registration system and receive an FRN before exam day.

“Dorothy Stifflemire, the Associate Division Chief of the WTB Technologies Systems and Innovation Division told VECs that new license applicants should create an FCC user account and register their social security number in the FCC Commission Registration System (CORES) before attending exam sessions. Registrants will be assigned a Federal Registration Number (FRN) which will be used in all license transactions with the FCC.”

She explained that auto-registration in CORES for examinees using a social security number will be going away. In addition, since no mail is being sent because of the COVID-19 pandemic, applicants will not receive their auto-created password and FCC FRN and will not be able to access their personal license record in the FCC License Manager database or their FRN record in CORES.

The FCC also advised VE teams to make it clear to candidates that some information about them will be made publicly available on the FCC's website, including their name, mailing address, and felony conviction status.

Examinees can be directed to this information on our website or directly to the FCC website.

FRN registration information: <http://www.arrl.org/what-to-bring-to-an-exam-session>

FCC Privacy information: <http://www.arrl.org/fcc-licensee-privacy>

FCC CORES User Account and Registration: <https://apps.fcc.gov/cores/userLogin.do>

Your St. Paul Radio Club VE team has already been requiring new examinees to procure their FRN ahead of exam time.

Ben's Bulletin by Benjamin J. Otto KEØRFZ

My Journey with Morse Code

Hello fellow members of the SPRC. I am pleased to announce a new recurring article in our Club publication.

Constantly finding myself awash in an ocean of ham radio related plans, projects and activities, I concluded it could be of some instructional benefit to elucidate them here. The primary purpose of my column will be examining a small facet of amateur radio; perhaps trying a new mode, programming a radio, or a small project. By sharing my experience, I aspire to the possibility it can help those interested replicate or pursue these topics further

Taking on this commitment, also--I hypothesize--will assist me in my effort to get more projects in 2021 moved from the “started/interested” category into the “completed/ongoing” category.

For this month, I offer a topic that has achieved the transition.

Having had the code test requirement abolished long before I sat for my technician license in 2017, putting off learning CW until later became an easy rationalization to make. And it took the back burner to advancing through the licenses.

It wasn't long before I had been a 'no code' Extra for a couple years. But on any given night I could tune around the CW portion of a given HF band and overhear an orchestra of staccato dits and dahs. A feat of amateur communication, as impressive as how unequipped I was to participate. I wanted in.

Finally, in Nov 2020, I set about in earnest to learn the code, with the arguably ambitious goal of completing a proper CW QSO on Straight Key Night 2020. What better a way to ring in the new year, quarantined home in the covid era.

There were three tools I utilized in my CW training. First, a classic with an earned reputation: Introduction to Morse code "0-5 WPM." The beginning in a series of CD sets by Gordon West for which he is famous within the amateur community.

These CDs, of course, were originally cassette tapes, designed for getting a new operator from knowing nada about Morse to passing the now defunct Novice license code test. Gordo employs the Farnsworth method in teaching receive. Individual characters are sent at 10-15 character speed, but with an effective speed of 0-5 WPM as a result of the spacing between characters.

I found that this was a great place to start to learn the characters. Limited to the confines of an audio recording, only receive copy is taught.

It soon dawned on me that if I was going to be pounding the straight key on New Year's Eve, I was going to have to take a more aggressive approach to studying

On the local repeaters and nets I've heard other CW newbies mention smart phone apps. So, I decided to take a look for myself on the Play Store. I tried several apps but found one in particular to be the most instrumental tool in accelerating my CW education: Morse Mania.

The free version of the app trains the entire alphabet. The app is interactive and divided into levels. Once you master a set of characters and validate your ability to recognize them, you progress to new characters.

Within a month, I roughly knew the full alphabet. It was onto numbers and punctuation. A payment of \$2.99 to the developer unlocks full functionality, including punctuation, numbers, and prosigns.

I could not recommend Morse Mania highly enough.

Finally, the third component of my beginning CW journey is a computer program developed by a German ham: MRP40 Morse Decoder.

This is a fantastic program. If you have WSJT-X or Fldigi set up for your digital modes on the PC in your station, it will fall into place with setting its COM port and audio inputs and outputs.

It's ability to decode weak CW signals at varying rates of speeds is better than all other programs I tried. When tuned to a CW conversation simply click on the visual representations of the transmitting station within the waterfall. It automatically starts decoding and printing the text to your screen.

MRP40 also has the built-in capability to key CW for you, at your chosen WPM speed. This is a feature I'm not using, but an impressive aspect of the program. MRP40 is free to download and try for 30 days. After which, a purchase is required to continue to use it. With the exchange rates for the Euro, the current price is \$63.65. Well worth the investment in my opinion.

With the aid of my decoder program, and 1.5 months of practice copying, on December 31, 2020 I made a handful of SKN contacts. With my great appreciation to the replying stations who tolerated my ham-handed CW.

Over the next month, I've continued to practice and make contacts in my spare time. One closing observation: another useful application of the MRP40 program I've found is as a quality check on my send legibility. Since I don't own a practice oscillator I've opted to hook up a radio with a key to a dummy load. I tune the digital modes radio connected to the station PC to the same frequency and launch MRP40.

Doing drills of the alphabet, formulating words, and counting numbers while monitoring MRP40's copy has helped me improve my send. When I first started transmitting CW in December, the Reverse Beacon Network spotting robots did not copy my call. Recently, I've found myself spotted within a few CQs.

January 8, 2021 Board Minutes

President Lou called the Zoom meeting to order at 6:02 PM.

A quorum was present: President Lou Michaels (WD8NOV), Vice President Kevin Welna (W5LNA), Treasurer Allan Klein (WØNLY), Past President Don Kelly (WA6ZMT), Board Members-at-Large Ben Otto (KEØRFZ) and Bob Walsh (WCØJ).

Also attending were Jeff Iverson (WB9DAN), Dale Maroushek (NØPEY), Jay Maher (NJØM), and Leon Dill (WØCOE). Other members arrived during the board meeting.

The club currently has no Secretary. Don Kelly volunteered to take minutes.

The minutes of the December meeting were approved (Motion Bob, 2nd Ben, Unanimous).

REPORTS PRESENTED

Vice President – Kevin explained his interest in establishing a club-wide project and suggested conversion of desktop computer power supplies into bench power supplies for a first project. Don, Jeff, and Lou expressed interest in this first project; Dale said he probably could contribute parts.

Secretary—Tamara is excused. Will join in February.

Treasurer—Allan reports that the general account is \$7,232, Education \$1,257, Repeater \$852.

Past President—Don has nothing to report.

Ben—Nothing new

Bob—Nothing new with the school. He received a call from a YL interested in ham radio; after discussion she decided maybe it's not for her.

Membership--Dale says the paid membership is 81. He also has heard from several people interested in ham radio.

There was no report regarding the repeaters.

OLD BUSINESS

Auction: Nothing new. On-line options appear impractical for us.

Website: Not much new. Jay and Tom Bredemus (KCØINP) are staying in touch—we are bumping against our storage limit due to backed-up files. Tom will reach out to George.

ID Card: Lou has a friend who would produce the cards if we provide a design. Allan feels that a wallet card is not necessary. A badge on a lanyard might be practical. Bob said a school-issued ID or guest pass is required for access to the school during the day—a club badge would not be adequate.

NEW BUSINESS

Dale pointed out that we need a program chair as well as other volunteers.

Lou said that Tammy would call Don regarding secretary responsibilities.

A donation was suggested to Galilee Lutheran Church where we hold VE sessions. A donation of \$100 was approved (Motion Don, 2nd Kevin, Unanimous)

John Crabtree (KCØG) asked if the letter had been sent to Mrs. Grossman. It had been.

Meeting was adjourned at 6:33 p.m. (Motion Allan, 2nd Kevin)

January 8, 2021 Meeting Minutes

Our meeting was held via Zoom with 36 attending.

After the ragchew from 6:33-7:30, President Lou Michaels (WD8NOV) called the meeting to order at 7:30 p.m.

A few announcements were made:

We need a new program coordinator.

Some members have not renewed for the current year. The member application is available on-line.

The Cabin Reliever Hamfest was canceled.

There was no other business.

The meeting adjourned at 7:39 p.m.

Tim Burd (WD9IGX) gave us some pointers for replacing tube rectifiers with solid-state "tubes."

Editor's Notes – by Jeff Iverson, WB9DAN

I earned my Novice license, WN9DAN, in 1969 at the age of 14. Back then the Novice license was two years, non-renewable, and required a basic theory and 5wpm code test. CW operation was permitted on 50khz slices of frequency on each of the 80, 40, and 15 meter bands with a maximum power of 75 watts input (about 35-40 watts output in today's standards). Novice transmitters were required to be crystal-controlled (no VFO's). My Novice transmitter was a homebrew job built by my Elmer, Tip Nelson, W9LQC. I tuned it up using a 75 watt light bulb. My original receiver was a desktop shortwave receiver that didn't work that well and I soon replaced it with an Allied A-2515. My crystal (and I only had one) was for 7180kHz. After calling CQ, you had to tune around in case the other guy had a different crystal. There was camaraderie on the Novice bands. Generals stayed away unless they wanted to work Novices. I remember making friends with two other high schoolers in Omaha, Nebraska. I was only a Novice about 6 months before upgrading to General, but I remember it fondly.

Ham activity has been limited to checking into some 2 meter nets and trying to make a few DMR contacts. I have been working through a book on the C++ programming language and playing with my Linux (Ubuntu) computer.

Remember, contributions to the *Ground Wave* are always welcome. Send them in a Word document (.docx) or Open Office document (.odt) as an email attachment to jaiverson@juno.com. Deadline is one week before the next meeting.

Officer Contact Information

President	Michaels, Lou WD8NOV	louthephotoguy@gmail.com	612-638-8159
Vice President	Welna, Kevin W5LNA	kwelna@gmail.com	651-354-5515
Past President	Kelly, Don WA6ZMT	dk@donkelly.biz	651-276-4838
Treasurer	Klein, Allan WØNLY	allankmn@cs.com	612-720-1324
Secretary			
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

Zoom Information

Until further notice, our monthly meetings in the new SPRC year will be in Zoom. Simply click the link below 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.

SPRC is inviting you to a scheduled Zoom meeting.

Topic: SPRC Monthly Meeting

Time: First Friday, 7:30 PM Central Time (US and Canada)

You may join at 7:00 for the half-hour "ragchew," or at 6:00 to sit in on the SPRC Board meeting.

Click to Join Zoom Meeting

<https://us02web.zoom.us/j/83683855241?pwd=Zi9tR2FVanlsVEFoTENCZlI0WTJWZz09>

Or, using any telephone, dial 312 626-6799

Meeting ID: 836 8385 5241

Passcode: 651842

One tap mobile

+13126266799,,83683855241#,,,,,0#,,651842# US (Chicago)

+16465588656,,83683855241#,,,,,0#,,651842# US (New York)

If you use a calendar, download and import the following iCalendar (.ics) files.

Monthly: <https://us02web.zoom.us/meeting/tZcrf->

[ggqz4oHtVwLbEZHWpwR3LQGBE6qJXL/ics?icsToken=98tyKuGrqDMpEtGQsh2GRpwqBlqgb_zwmCVBgrdrizPnJhp7VRPhBLFuA5VdNY7B](https://us02web.zoom.us/j/83683855241?pwd=Zi9tR2FVanlsVEFoTENCZlI0WTJWZz09)

SPRC Calendar

Fri Feb 5	On this day in 1924, the Royal Greenwich Observatory starts broadcasting the hourly time signal known as the BBC pips.
Fri Feb 5	6PM Virtual SPRC Board meeting.
Fri Feb 5	7PM Virtual SPRC Membership meeting (7-7:30 ragchew, 7:30 meeting).
Fri Mar 5	6PM Virtual SPRC Board meeting.
Fri Mar 5	7PM Virtual SPRC Membership meeting (7-7:30 ragchew, 7:30 meeting).
Sat Mar 14	Albert Einstein, a relatively well-known physicist, was born on this date in 1879