



K4GSO.us

The Oracle

Newsletter of the Silver Springs Radio Club

Oldest Radio Club in Marion County, FL



August 2024

President's Message

Adam Parker, NY5E

The hot summer month of August has fallen upon us full force! I am amazed at the persistence of the Club's POTA enthusiasts! I was not as successful as I'd hoped to be on my last outing POTA-style at US-1912, but my issue was resolved after some rough operating and that's really what it's all about right? Finding out how to deal with adversity while assuring the next activation goes without a hitch! Again, congrats to the activators approaching and achieving "kilo" status, well done!

This month's presentation is a "down to Earth" look at the wonderful World of GEOCHRON! A particularly interesting story behind the evolution, and revolution, of this wonderful mechanical map, making an impact on a global level (sorry).

Our foray into the World Equestrian Center's fifth annual Outdoor Exposition was a great success. We had more all-ups than in years past and handed out some great literature. Operators Izzy KT4WA, Elbert KQ3K, and Ron KS4SW were active on CW, digital, and phone bands respectively, making contacts through the US and Europe on low power! Impressive results with temporary antennas and portable, battery operated rigs. Again, Well done! And thank you to all who participated in various support roles, glad handing and talking up the club. We were well turned out and oft visited for our efforts.

Hoping to hear a good many of our members checking in on the net(s) Monday night and I expect a big group Tuesday with several first time attendees that have contacted us through our website, the repeater and "community outreach" (haha).



Next Meeting

Tuesday, August 20, 2024

Green Clover Hall

319 SE 26th Terrace, Ocala

6:00 PM Mentoring & Socializing

7:00 PM Meeting

Program: GEOCHRON

SSRC Board of Directors, First Tuesday, 7:00 PM
Green Clover Hall
All are welcome

Upcoming Events

September 10 — VE Testing

7:00 PM Green Clover Hall

Check out upcoming Events: K4GSO.us

Silver Springs Radio Club Net
K4GSO Repeater, 146.610, PL 123
Mondays at 7:30 PM

ARES/SKYWARN Net
K4GSO Repeater, 146.610, PL 123
Wednesdays at 7:30 PM



Our club is growing and Green Clover Hall has a limited number of chairs. Please consider bringing a folding chair or two as a back up.

Membership

Elbert Wilkinson, KQ3K

LICENSED MEMBERS	107	Technicians	24
INDIVIDUAL MEMBERS	85	Generals	30
FAMILY MEMBERS	16	Advanced	7
LIFE MEMBERS	7	Extras	44
PENDING MEMBERS	3	Associates	2
ASSOCIATE MEMBERS	2	Total	107

Well, we have done it again - continuing to grow with new membership applications.

In the July meeting, the following individuals were approved by the General Membership who are included in the above totals. Please welcome our newest members and assist them in getting involved in our various activities.

- Dewayne Kendall, KD9RWH, General
- Peter Malloy, KD3YO, Advanced
- Cristine Nicolas, KG4CEA, Technician
- Scott Seeman, Associate

We also have three new applications pending for the August meeting.

Current dues paying members will receive priority on club activities like Field Day, VE team participation and access to Perry Field and GCH. Non -members can still access the Oracle on the club website but will not be included on member emails. As a final note, subscription to the club's Groups.io page is restricted to dues paying members.

Our 2024 goal is to continue to grow and increase member participation in the club's various activities. If you know of other hams who would be interested in joining, please invite them to our meetings, operating days or club activities. There is an online application and a link to a paper application on the K4GSO.us website. We continue to encourage our technicians to up-

grade to at least General Class and Generals to Extra to enjoy the full benefits and privileges of their licenses. Regardless of your license class, we continue to learn from each other. Newer hams and members – don't be afraid to ask questions and for help.

HAMFEST:

Mark your calendars for Saturday, December 7 at First Christian Church, Ocala. Vendor setup will occur on the 6th. I know it is early to start thinking about Hamfest, but I'm getting older and now need a running start to stay ahead. Wayne Peterson, AB4WP, has stepped up to as co-chairman, so there is hope for the future. We have great Hamfest teams who know their assignments and their continued participation is vital to our success. More details to follow at club meetings, the Oracle and the club website.

2024 OUTDOOR EXPO

Mark your calendar for the 2024 Outdoor Expo. Here are the details:

When: Setup – Friday afternoon, August 16
Event - Saturday, August 17

Where: World Equestrian Center Expo II

Time: 9:00am to 4:00pm

What: Club exhibit at this well attended community event

Who: Club members to volunteer setup several operating stations and demonstrate the art and skill of amateur radio operations

Ethan Rodriguez KQ4EIC Chairs the Operating Day Committee

SSRC President, Adam Parker, NY5E and the board of directors, they are pleased to announce that Ethan Rodriguez, KQ4EIC, will be leading the Operating Day committee. Ethan brings youth, enthusiasm and new perspective to this activity. He would welcome any suggestions and assistance to continue to make Operating Day a fun and educational activity.

Power Pole Emergency Repair Adapter

Kim Umbaugh, KO4OIG

Do you need one in your go bag? YES, and here's my long answer and story why.

I arrived at my local park for a few hours of POTA. I have most of my POTA equipment connected to or inside the Milwaukee Pack-out Boxes. The Milwaukee boxes help me keep everything together I need for POTA and make for an easy setup. I grabbed my antenna bag, set up my Wolf River Coil, tested the SWR and the antenna was ready to use and connect to my radio. Because I was parked next to the picnic table, I could leave most of my pack-out boxes and gear in the back of my SUV and all I needed was my Icom 7100 which is connected to the top shelf accessory made by Milwaukee. I disconnected the top shelf containing my radio and tuner from my pack-out box and placed it on the picnic table next to my SUV.



I connected the antenna to the radio and now I'm ready to connect power from my battery that's inside my pack-out box to my radio.

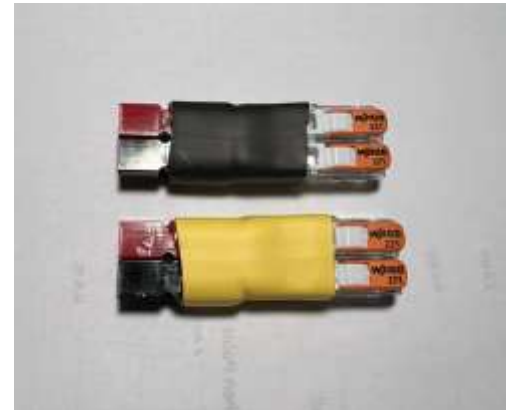
When I picked up the power cord connected to my radio, I noticed the black negative wire had pulled out of the power pole adapter. I was thinking NOW WHAT, should I just pack everything up and head back to the house, I knew I had everything I need at the house to fix the broken wire.

I remembered I made an adapter called a power pole to wire adapter. I went back to my pack-out drawers and found the adapter I made.

I thought this will be an easy fix and I'll be up and running in 5 minutes. WRONG, I couldn't find anything in my SUV to cut off the broken power pole and strip back the wire. Not giving up I found a box cutter laying on the back shelf of my SUV. It was broken but I could get the blade out and use it to cut off the damaged power pole and strip back the wires. I connected the power pole to wire adapter, and it worked great, and I now have power to my radio.

I don't remember where I found the article on the power pole to wire connection, but I'm glad I made a few. The power pole to wire adapter cost me around \$8 to make. You can find them on the internet selling for around \$10. Etsy sells them for around \$11.

I now have wire cutter/stripper and a few other tools in my go box.



Operating Day—July 27, 2024 Ethan Rodriguez, KQ4EIC, Chairman

Thank you to everyone who attended and supported our Operating Day. I am truly touched by all the kind words and pats on the back from our members. However, the real credit goes to all of you for making the event a success. My role was simply to announce it.

I am grateful to be part of a club that supports such events and to be surrounded by a fantastic group of

individuals who enjoy this hobby and are eager to share their knowledge. I cannot thank each of you enough for your support, and I look forward to many more events in the future. If you have any feedback or suggestions, I would love to hear them.

Below are some photos of the event. I apologize for not capturing everyone's setup, but I will be sure to take more photos at our next event.



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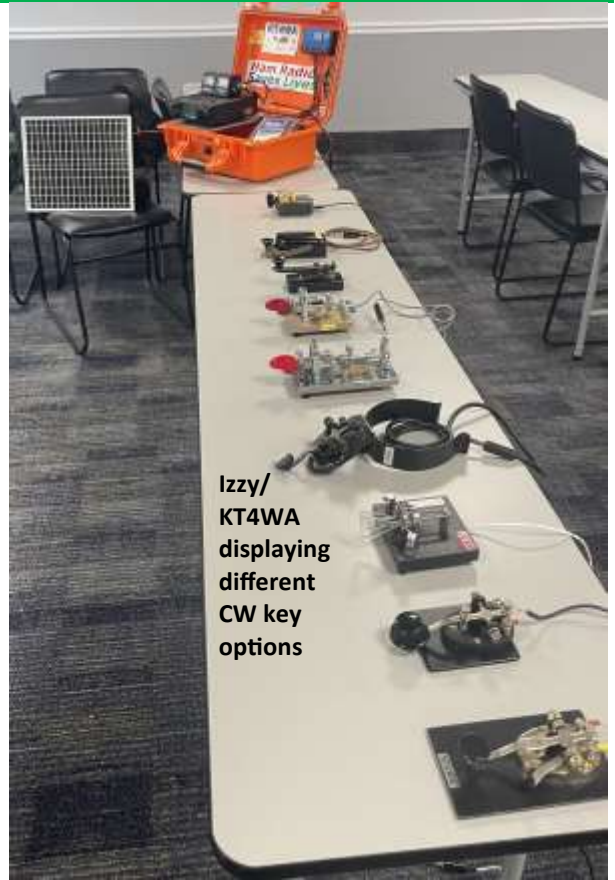
Humor Submission from Izzy, KT4WA



Operating Day—July 27, 2024 Izzy Irizarry, KT4WA



Elbert KQ3K racking up the FT8s



Izzy/
KT4WA
displaying
different
CW key
options



Arthur/KC9BKS with his QRP station



Hayden and Bill doing that Digital thing



Nathan/KQ4EIC hosted the event at GCH



KW5BG

N2HAY

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Operating Day—July 27, 2024
Wayne Peterson, AB4WP



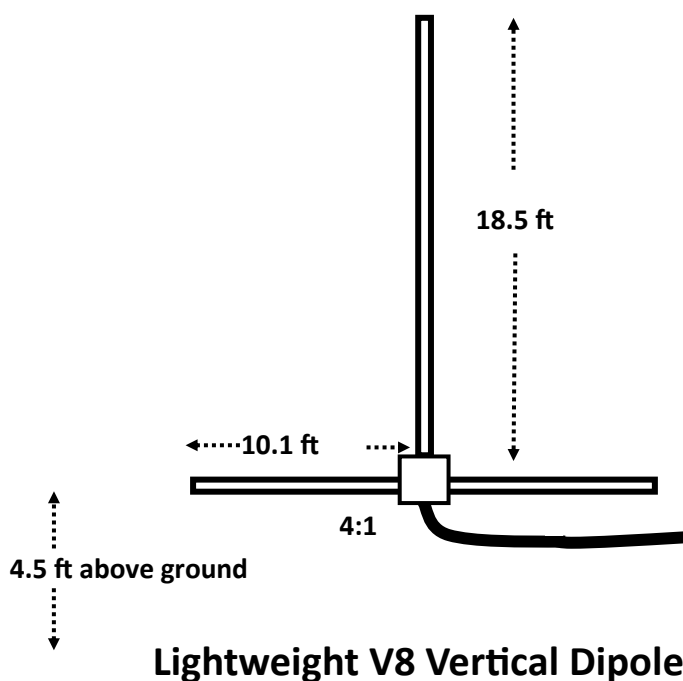
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Portable Vertical Dipole Antenna – Lightweight Version

by Bert Garcia N8NN

After building two versions of Tom Schiller N6BT's V8-Bravo vertical dipole antenna [1, 2] I decided that significant improvements can be made to my version to reduce the weight and reduce setup time. The previous version weighed 5 pounds, not including the tripod, and this new version is 3-1/2 pounds. The more significant improvement is replacing the aluminum tubing with telescopic whips, thus reducing the setup time from 20 minutes to less than 5 minutes. As I write this, two V-8 Bravo antennas are being used successfully on the N5J DXpedition to Jarvis Island, so the basic design has proven itself for portable operation.

The V8-Bravo is an off-center fed dipole mounted vertically with the shorter side of the dipole turned horizontal. The horizontal portion is duplicated and installed 180 degrees in the opposite direction. This configuration gives a low angle of radiation, shortens the over height, and locates the feedpoint at a convenient height. Read Tom's description of the antenna [3].



Construction details. The vertical element is an 18-ft telescopic whip [4], and the horizontal elements are 10-ft telescopic whips [5].

The 4:1 balun [6] is mounted inside a 4"x4"x2" PVC box [7] which serves as the center insulator and a mounting point for the whips. This box is a very tight fit for the 4:1 balun. I recommend using a 6"x6"x4" PVC box to make construction easier.

An L-bracket provides a sturdy mount to connect to the tripod base [8].

Threaded rod couplings [9, 10] and bolts* were used to mount the whips. Fender washers [11] were used to strengthen the mounting points for the whips. Double male and double female coax connectors were used to extend the balun connection out of the box. The two horizontal elements are connected together at the feedpoint with a short jumper wire.

Photos 1 (L) and 2 (R) show the installed antenna, Photo 3 shows the center insulator housing the 4:1 balun, and Photo 4 shows the inside of the center insulator housing.



Continued on next page...



Photo 3 Center Insulator and Mount



Photo 4 – 4:1 Balun Installed

So how does it perform? Excellent! It performs better than my two previous versions!

Chart 1 shows the SWR for each band 80 – 10 meters. The SWR on 17 – 10 meters is excellent, marginal on 30 - 20 meters and unacceptable on 80 – 40 meters. This is to be expected considering this off-center fed dipole is only 28-1/2 feet long, shorter than a 20 meter dipole which is 33 feet.

The SWR was measured with an MFJ-845 Digital SWR/Wattmeter and a Comet CAA-500 Mark II antenna analyzer – both giving identical readings. Using the built-in antenna tuner in my Yaesu FTDX10, all bands were easily tuned close to a 1.0:1 match as indicated on the built-in SWR meter.

V8 Vertical Dipole - Lightweight Version			Chart 1 – SWR Measurements					
BAND	80	40	30	20	17	15	12	10
SWR - no tuner	8	3.6	2.7	2.3	1.5	1.0	1.5	1.1
SWR - tuner	1.2	1.1	1.0	1.1	1.2	1.0	1.2	1.0

This vertical dipole design does not require radials. Tom Shiller says that the angle of radiation depends on the ground conductivity. Poor soil can be improved by laying one or more wires under the antenna; however, these wires should not be connected to the antenna itself. The ground wires do not need to be longer than 10 feet on each side to be effective. I would expect the efficiency on 80 meters to be very poor, marginal on 40 and 30 meters and acceptable on 20 to 10 meters due to the small size of the antenna.

This version of the V8-Bravo Vertical Dipole antenna is small, lightweight, and rapidly deployed. It’s perfect for a POTA operation.

References and Parts Information:

- [1] *A Portable Vertical Dipole Antenna*, by Bert Garcia N8NN, *The Oracle*, February 2023, page 8, <https://k4gso.us/wp-content/uploads/2024/03/The-Oracle-February-2023.pdf>.
- [2] *Portable Vertical Dipole Antenna - Revisited*, by Bert Garcia N8NN, *The Oracle*, July 2024, page 4, <https://k4gso.us/wp-content/uploads/2024/07/The-Oracle-July-2024.pdf>.
- [3] *V8-Bravo Vertical Dipole*, by Tom Schiller N6BT, <https://tinyurl.com/mtsvwc5r>.
- [4] Telescopic Antenna, 5.6M, M10 Interface, <https://tinyurl.com/2p8uz264>.
- [5] Telescopic Antenna, 10-ft, MFJ-1976, <https://www.dxengineering.com/parts/mfj-1976>.
- [6] 4:1 Balun, Model 411, Balun Designs, <https://tinyurl.com/4e7zwkcv>
- [7] Cantex Junction Box, <https://tinyurl.com/yppp7f9u>.

[8] Mast Mount L-Bracket, <https://tinyurl.com/2fptw8xs>

[9] Threaded Rod Coupling, M10 Metric, <https://tinyurl.com/bdc4jxr2>

[10] Threaded Rod Coupling, 3/8"-24 S.A.E., <https://tinyurl.com/3zytrtb8>

* Use M10 and 3/8"-24 bolts to attach the rod couplings to the box.

[11] Fender Washers, M10, <https://tinyurl.com/2jzw5dz7>

Lightning Strike

Izzy Irizarry, KT4WA

KT4WA's QTH took lightning strike 20 feet from the radio shack and his 2 meter yagi. Thanks to 8 foot ground rods and equipment grounding, no radios were damaged.



Carl & John's Fabulous POTA Adventure

Cary Berry, KC5CMX



On Sunday, July 21st, I set up with John, KQ4BFO, at Santos. We were just out to have a good time. John was working 20, so I tried 15, no contacts there but I was heard well.

After tinkering about an hour and a half, I went to 12 meters. There was a definite band opening. I was being heard in both ends of Russia and Japan stations. I made 2 POTA contacts, so, although not stellar, I still had fun, talked to lots of passers by and explained what we were doing, honing our skills, etc.

Nice and toasty there. I recommend a small fan, lots of liquid refreshment, and patience.

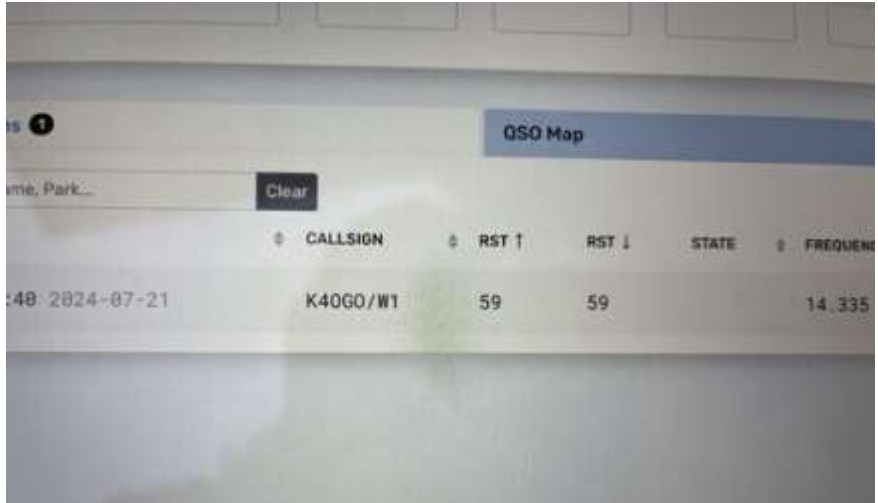
The toybox was at 1.2:1 to 1.75:1 without a tuner. John was having fun, too, but I'll let him post his summary. Two contacts in the log for me is more than I had before so it was worth it!

Ethan KQ4EIC July 21st POTA

Sunday, July 21st POTA. As you can see from the QSO map, the antenna is on fire!

First contact of the morning was Walt (K4OGO) from YouTube channel "Coastal Waves and Wires". Was actually using an antenna I got off of his channel when we made the QSO. We talked for couple minutes about our portable setups before moving on.

Also made contact with a Japan station but could not quite get his callsign into the log because of his heavy accent. Guess Japan QSO will have to wait for another day.



From Wayne AB4WP July 20th POTA Silver Springs State Park



Elbert KQ3K



Roger K4ZFW

Jonathan Kadegis, K4JJK POTA, July 30th



Us-3637 Marjorie Harris Carr Cross State Park, Santos trail head parking lot



Where did those signals come from?

Dave Alvarez, WA3LXD

The before picture



If you experience interfering signals anywhere from 12 through 20 meters that are evenly spaced approximately 18kHz apart, then the most probable cause is either your or your neighbor's home air conditioner.

The way manufacturers improved the SEER ratings in home AC units was to utilize one or more ECM's (electronically commutated motors). *The motor is a brushless DC motor that uses electronic controls to regulate its speed, torque, or power output without external devices or sensors. EC motors differ from standard PSC (permanent split capacitor) motors, which only turn on and off at constant speeds.*

This power saving technology can be used in your outdoor condenser fan, indoor blower fan, and even the compressor.

The RFI interference as shown above was generated by my outdoor condenser fan, and it covered the entire spectrum between 24 and 15 mhz. The installation of 6ea Snap on Ferrite Cores on Fan control/power harness.

- DigiKey Part Number
- 1934-1176-ND
- Manufacturer
- Fair-Rite Products Corp.
- Manufacturer Product Number
- 0431177081
- Description
- FERRITE 375OHM HINGED 25.65MM Mix 31



Continued on next page...



Installation of 15 ea. Snap on Ferrite Cores within power/ control outside condenser access panel

- DigiKey Part Number
- 1934-1375-ND
- Manufacturer
- Fair-Rite Products Corp.
- Manufacturer Product Number
- 0431167281
- Description
- FERRITE 240OHM HINGED 10.16MM Mix 31

Did I really need that much ferrite? Who knows? I just wanted to be done with it!

This is the after picture

If needed, the addition of two .01 μfd 500V capacitors type Y* on each leg of the 220VAC from the contactor to ground with the shortest leads possible can further reduce the RF emissions if necessary.

**For safety purposes it is important to use type Y capacitors because their failure mode is an open rather than a short circuit.*

Remember to try to eliminate the interference as close to the source as possible.

This is a link to an excellent resource that provides a thorough and detailed presentation of the ECM technology and RFI remedies for amateur radio.

“Mitigating Furnace and Air Conditioning RF”

By: Roger Hillson / KM4LHZ, Steve Nardin / W9SAN

https://viennawireless.net/wp/wp-content/uploads/2021/09/HILLSON_RFI_PDF_3SEP2021.pdf



August 16, 2024 Outdoor Expo Setup

World Equestrian Center—TNX Kim KO4OIG



Bert N8NN



Elbert KQ3K & Izzy KT4WA



RON
KS4SW

August 17, 2024 Outdoor Expo Event World Equestrian Center



Hayden N2HAY & John KQ4BFO

TNX N8NN



Kevin KQ4CBP

Izzy KT4WA



TNX N8NN

Ekbert JQ3K & Jonathan K4JJK



TNX N8NN

Ron KS4SW & Kim KO4OIG

From Kim KO4OIG—Who said he (KT4WA) doesn't own a mic? And he knows how to use one.

Continued on next page...



TNX KQ4BFO

Izzy KT4WA

& Adam NY5E



TNX KO4OIG

Ron KS4SW

Bert N8NN



TNX KO4OIG

Elbert KQ3K

Hayden N2HAY

TNX KO4O



KC5CMX Says:
Even Jake from State Farm was sporting a radio today.



Izzy KT4WA

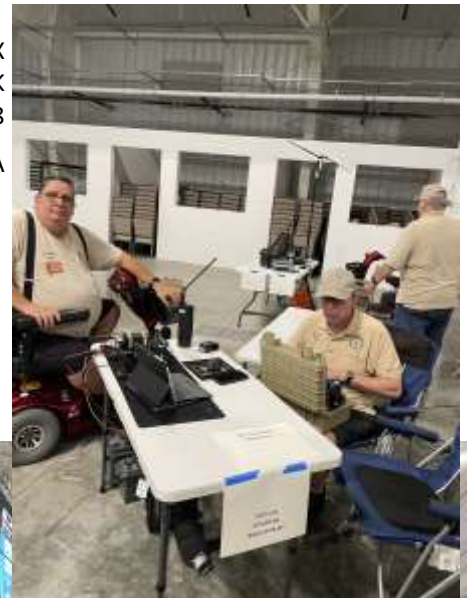
Kevin/KQ4CBP

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Kim/KO4OIG, Hayden/N2HAY, Bert/N8NN and John/KQ4BFO at booth—TNX KT4WA

Carl/KC5CMX and Elbert/KQ3K on FT8
TNX-KT4WA



Izzy/KT4WA QRP CW and Kevin/KQ4CBP taking notes—TNX KT4WA



Ron/KS4SW QRP Phone—TNX KT4WA

Johathan K4JJK, Ron KS4SW and Adam NY5E Meet & Greet TNX—KC5CMX



SSRC Has a Group Email! Have You Signed UP?

Andy Allen, NA4DA, Director

Our group is: K4GSO. Just type groups.io in your search bar and follow the link to the site. Sign up if you don't have an account and search for our group: K4GSO. You will see our group: K4GSO / Silver Springs Radio Club. Click on the button: Apply for membership in this group. You're now a member.

Questions? Andy NA4DA 212-729-0446
andy@na4da.com



2024 SSRC Officers

- President - Adam Parker, NY5E
- Vice President - Hayden Kaufman, N2HAY
- Secretary - Dee Seagraves, KO4TMZ
- Treasurer - Annie Allen, KN4RIC
- Past President - Hayden Kaufman, N2HAY

Directors:

- Andy Allen, NA4DA
- Terry Strey, KN4FMH
- Tim Trombley, K8TAT

SSRC Board of Directors

*first Tuesday, 7:00 PM
Green Clover Hall
All are welcome*



Committee Chairs

- Membership & Events – Elbert Wilkinson, KQ3K
- Trustee K4GSO—Bruce Richardson, WA4IPU
- Newsletter – Marty Brown, N4GL
- Perry Field—Terry Strey

- QST NFL – NFL Section Newsletter
- Silver Springs Radio Club Website
- NFL Section Website
- WA7BNM Contest Calendar
- NG3K DX