



The Oracle

Newsletter of the Silver Springs Radio Club

Oldest Radio Club in Marion County, FL



K4GSO.us

March 2023

President's Message

Hayden Kaufman, N2HAY, president@k4gso.us

March is upon us, and as such we should be getting ready for some of the best events in our hobby!

Firstly, Marion County Day is rapidly approaching. Friday March 24th is our setup evening, and Saturday the 25th from 7am until 2pm. Please join us for this most enjoyable day out. It's a great way to meet our community and show off our skills.

Secondly, we're coming up on the State Emergency Test on the 22nd of April. This event is open to all hams, not just those who are regular participants in EMCOMM. If you're interested, please check out the ARES website at aresmcf.org.

Lastly, Field Day rapidly approaches! The 24th and 25th of June is the designated weekend. We'd love to participate in as large of a group as possible. More information to follow at the club meetings.



Marion County Traffic Net

Gray Moffett, KC3DWY, Assistant Emergency Coordinator
Marion County Amateur Radio Emergency Service

Welcome to the home of the Marion County Traffic Net. The MCTN is the local affiliate of and is sponsored by the American Radio Relay League's National Traffic System. The primary function of the MCTN is to handle formal Radiogram message traffic as part of the NTS. We encourage you to visit the NTS website for training materials and other resources.

<http://www.arrl.org/NTS>

<http://aresmcf.org/useful-nts-links/vhf-traffic-net>

The MCTN meets Monday at 2015 hours on the 146.330(-) repeater, PL tone 123. We encourage everyone, with or without traffic, to check in. If you need assistance or have questions about anything we do on the MCTN, or if you have any interest in becoming a member of the MCTN staff, please contact Gray Moffett, KC3DWY, Assistant Emergency Coordinator, Marion County Amateur Radio Emergency Service, www.aresmcf.org, 610.417.8744

Next Meeting

Tuesday, March 21, 2023

Green Clover Hall

319 SE 26th Terrace, Ocala

6:00 PM Socializing and Mentoring

7:00 PM Meeting

Program: Roger Ackley, WA2CZR

Lightning Protection

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

Upcoming Events

VE Testing—May 8, 7 PM, GCH

Marion County Day—March 25, 9-3

McPherson Governmental Complex

SSRC Tailgate Event—June 3, GCH

Silver Springs Radio Club Net

K4GSO Repeater, 146.610, PL 123

Mondays at 7:30 PM



Net Statistics (February 2023)

QNI	14	(Total Check-Ins)
QTC	6	(Total Messages)
QND	120	(Total Minutes)
Total Sessions 4		

Membership/Upcoming Events

Elbert Wilkinson, KQ3K, Chairman

Membership Dues:

Last call...last call...last call! Time's almost up for paying your dues to remain a member in good standing. Don't be that person, OK. Save yourself from us having one of "the boys" pay you a "visit" to collect.

Seriously, and all fun aside, your annual club dues are now due. Annual dues help support club activities, equipment and activity insurance, Perry Field and repeater operations. These activities are vital functions of our club. As of now, 82% of our members have renewed. For those still dragging their feet (you know who you are), now is the time to get this done before you get distracted by the April 15 tax filing deadline.

We've made it as easy as possible for you to renew in one of three ways:

1. Cash
2. Check
3. Online at <https://k4gso.us/fr2022/>

Individual memberships are \$25 and Family memberships are \$35. Please note there is a \$2 upcharge for Online payments to offset the PayPal convenience fee.

Please note that for those members who joined after March 31, 2022 and paid via a pro-rated membership - that was up to December 2022. You will need to pay the full dues for 2023.

As a reminder, DO NOT MAIL CASH. Please pay the club Treasurer in person at the General Meeting and get your receipt. Checks can be delivered in person or mailed to:

Silver Springs Radio Club
P. O. Box 787
Silver Springs, FL 34489

Finally, if paying online or by check and the payment is from an entity that does not clearly state your name so that we can identify you, please note your name and call. Otherwise, your payment may be misapplied or not applied while we attempt to identify who paid.

Membership Growth:

I am pleased to report that the club continues to grow with more members just about every month. We are pleased to welcome our newest member Elizabeth Fisher, KF5ORO, who was approved at the February General Meeting:

If you know of other hams who would be interested in joining, please invite them to a meeting, an operating day or club event. We encourage our technicians to upgrade to at least General Class to enjoy the full benefits and privileges of their licenses. There is an online application and a link to a paper application on the K4GSO.us website.

Finally, to all members - there are lots of opportunities to get involved. Regardless of your license class, we can all learn from each other. Newer hams – don't be afraid to ask questions and for help. Older hams – take a newer ham under your wing. Our new club leadership team has some good ideas on member involvement – so, get radio active!

UPCOMING EVENTS

MARION COUNTY DAY 2023:

Once again, our county will be having a community wide celebration on Saturday, March 25 at the McPherson Governmental Complex. There will be lots of vendors, displays, other participants and hopefully large crowds to enjoy an early spring day outside. SSRC has submitted its application and plans to setup a couple of stations to demonstrate our skills and portable emergency operations to the public. Last year, we setup our operations in front of Green Clover Hall. We asked to move closer to the other vendors but won't know the county's decision until the week of the event.

Mark your calendars to attend and participate in this club event. More details to follow at club meetings and in [The Oracle](#).

TAILGATE 2023:

Our tailgate last June was a success and brought out a lot of hams to have fun and tailgate. We will be rinsing and repeating this year! Mark your calendar for Saturday, June 3 from 9:00am to Noon in the Green Clover Hall parking lot. Tailgate vendor spots are \$5. All tailgater vendors are responsible for their own displays: tables, chairs, etc. Tailgate sale items are limited to radio and radio related items. More details to follow in the Oracle and General Meetings.

The Oracle Starts a New Series in March!

Show Us Your Shack!

Marty Brown, N4GL, Editor

CQ CQ CQ! SSRC Members want to see your shack! This idea comes from our hard-working, forward-thinking VP, Adam, N5YE.

Starting in March *The Oracle* will feature pictures of members, member's radios, antennas, shacks. No need for a lengthy write-up.. just equipment brands, antenna heights, and any comments you might want to make. You know the drill.

The Silver Springs Radio Club Presents....

Show Us Your Shack!



Nick DelZotto, K4NDZ

- Icom IC-746 Pro
- Yaesu FTDX-1200
- Yaesu FT-857d
- MAT-30 tuner
- MFJ 4230MVP power supply
- Kenwood HS-5 headphones
- Palomar noise filter
- MFJ 1708b-sdr RF sensing switch
- RTL-SDR v3
- Raspberry Pi 4b

Antennas:

- 74' non-resonant end fed horizontal L at 25' with a 9:1 UnUn
- Diamond x200a dual band vertical at 15'

K4NDZ can usually be found operating JS8Call on 40 meters or chasing VHF DX.



Adam Parker, NY5E, SSRC VP

The "shack" in its current state...

Radios & Equipment:

- YAESU FTdx101D- main HF rig. paired to Yaesu M-100 dual element mic.
- YAESU FT897D- UHF/VHF and back-up HF. Also use as portable station in the barn.
- Amplifier: Tokyo Hy-Power HL-1.5Kfx provides 800 watts on all bands.
- Antenna Tuner: Palstar AT2K manual tuner
- Meter: Telepost LP-100A vector watt meter.

Antennas:

- HF Antenna: Palomar Engineers End Fed non-resonant long wire with 9:1 Unun at 40' above ground.
- UHF/VHF Antenna: Diamond X510HDM 17' vertical
- Coax: LMR 400





Izzy Irizarry, KT4WA

Izzy takes Vintage to a whole new level.



Shack is currently in use. Only update has been the less vintage Kenwood TS-570S and Begali keyer. The Czech Army straight key gets daily use, not so much the Astatic "lollipop" mic. The Thomas Cathedral Radio and wall telephone has been converted to Bluetooth speakers. Here is pic of vintage "Lollipop" mic.

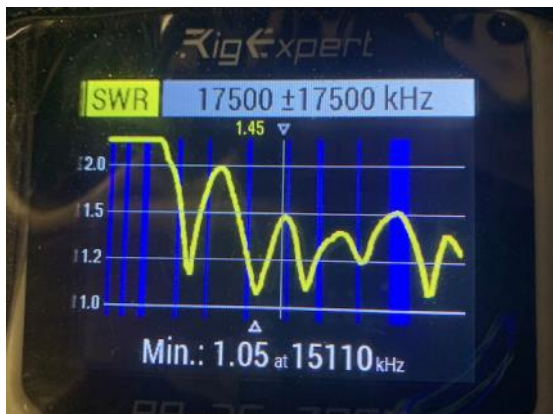


BOTA Activation

Adam Parker, NY5E

Just for a hoot, I thought it might be fun to "activate" my barn. I spend several nights out there each time we have a mare ready to foal, and it gets rather boring (and I'm sick of cleaning tack). I thought it might be fun to set up a portable station and so set to work at that end.

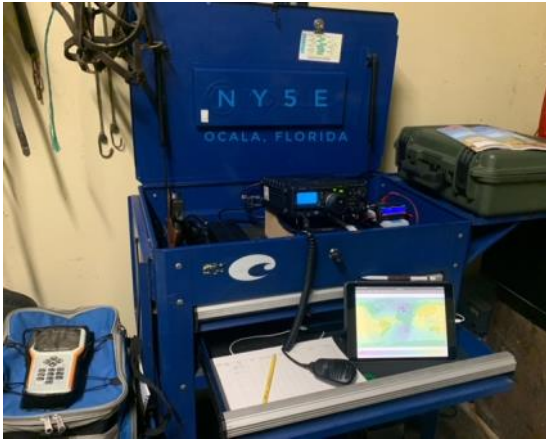
I used a fishing pole to throw a medium sinker up and over a nearby tree limb about 25' up, and hoisted the Palomar 9:1 Un-un up and set to work clearing small limbs for a clear path for the wire antenna. Antenna tested great, providing SWR's lower than 1.5:1 from 40 meters to 6!



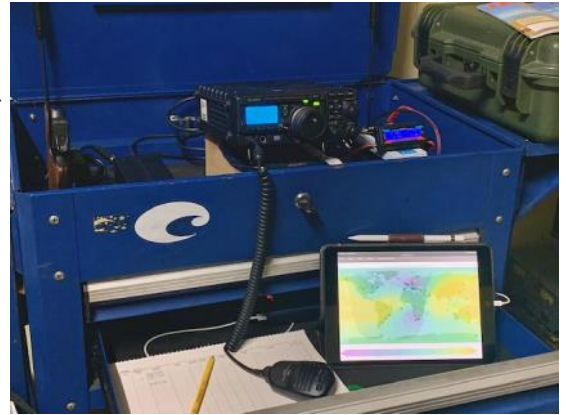
I set up a station in the tack room using the FT897D and its matching FC-30 tuner powered by a 7Ah LiFePo battery. On the first night, calling CQ BOTA, along with a quick explanation of the activity, I gathered 13 QSO's over a 2 hour period operating at 80W output.

Having so much fun, I tried to make a few DX contacts, but managed just one Maritime Mobile station in the North Atlantic. All in all, not bad for a moderately powered quickie station!

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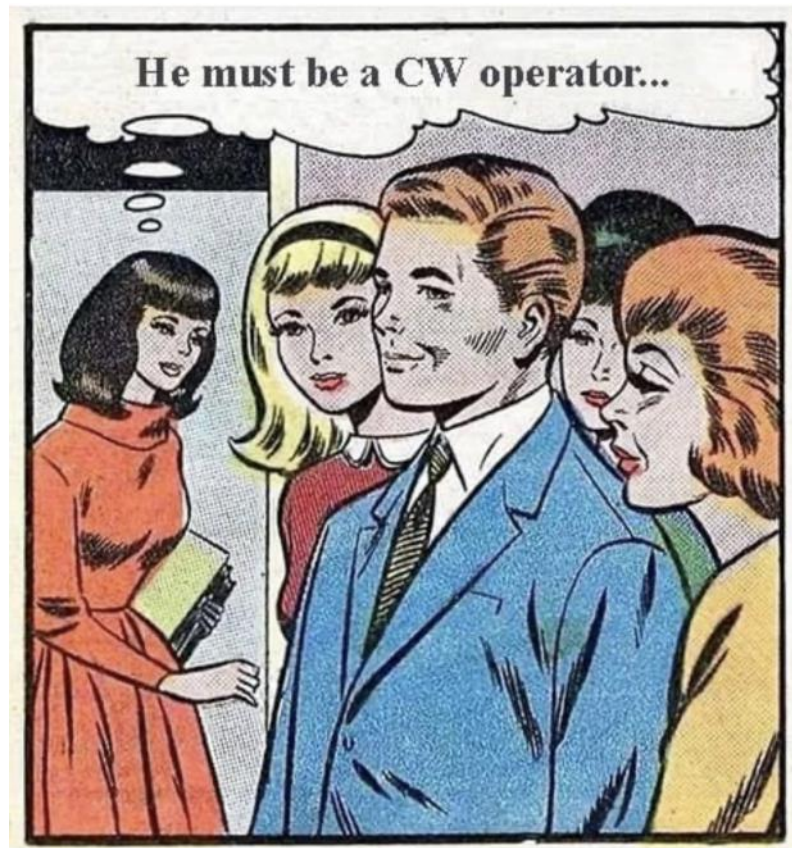


The idea really seemed sensible at the time, as most ham radio endeavors do, and I think it's working as not only entertainment for the long solo nights in the barn, but also to master skills and techniques necessary to get "up and operational" anywhere.



Calling "CQ BOTA" causes a bit of a stir, but attracts attention enough to get spotted on a cluster and get noticed. I was scolded by one POTA enthusiast for "capitalizing on a valid concept". I bid him 73 and gave him a 3x3 signal report, telling him he was fading into the noise!

I'm having fun on the radio AND working at the same time. Not sure it gets much better than that!!



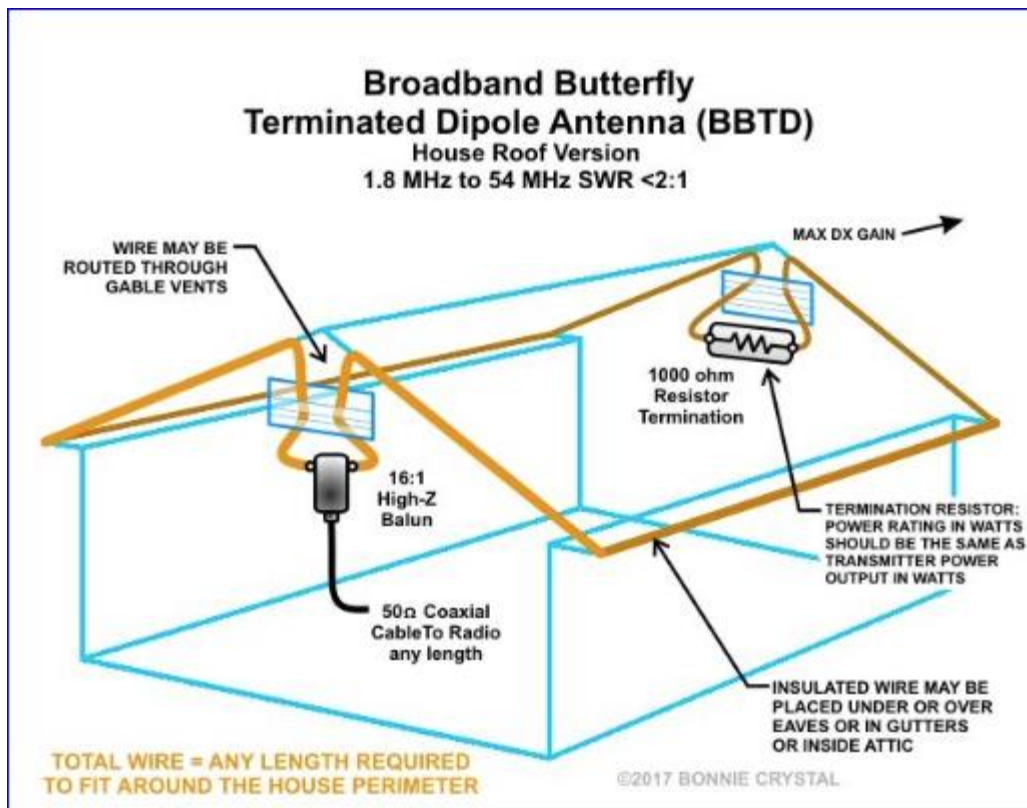
Broadband Butterfly Terminated Dipole Antenna – Attic Version

Darrell Franchuk – KG4CCB

The community where we are building our new house, our third last house, has an Architectural Control Committee (ACC) and a subsequent building guidelines “Blue Book” which contains a section on outdoor antennas. The restrictions are reasonable, except for anyone with a strong desire for a tower and beam. My plan is to install a multi-band vertical at grade in the rear yard area and string my DX-CC dipole between two trees. I will also install my 2m/440cm vertical at the rear of the house. But as a backup, and in part just for the fun of it, I will also be putting one or more antennas in the attic. My first antenna will be a Broadband Butterfly Terminated Dipole (BBTD) which is arranged in a loop configuration.

Phase 1 – Design and Preparation

I stumbled upon the design while searching for a horizontal attic loop. The BBTD was invented by Bonnie Crystal (KQ6WA). The relevant version I found is illustrated below.



The article indicates the antenna is optimized for 7 MHz to 30 MHz and does not call for a predetermined length of wire, but rather indicates the more the better. In my case the antenna will consist of two legs which are around 70-ft in length. The two wires will terminate at a 1k ohm 100-watt resistor at one end and a 16:1 balun at the other. The balun is made from four #31 ferrite beads and a 28-in piece of wire. The 16:1 KISS Balun design is by Mel K6KBE. I chose to put my balun in a plastic box which will be affixed to an attic girder. The 1k ohm wire wound resistor is mounted to a 1-1/2 x 10-in piece of wood which will be affixed to an attic girder on the opposite side from the balun. At 14-MHz and above the resistor termination point makes the antenna somewhat directional, so in this case it will point northwest.

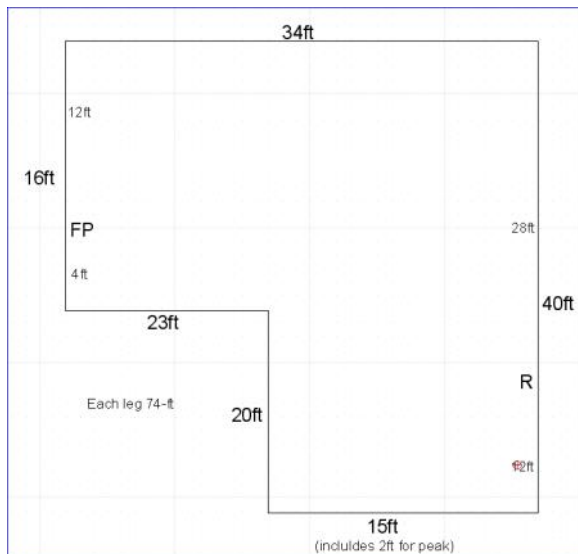
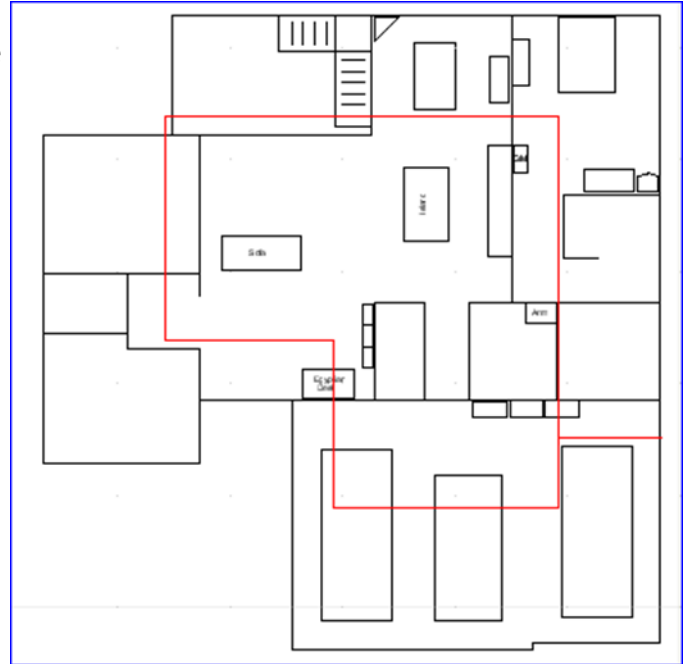


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Fence post stand-off insulators will support the antenna wire legs looped around the attic at the corners. When the house framing is complete, and well before sheetrock is hung, the antenna wire, termination resistor, and balun will be installed in the attic. Then my 200-mw WSPR unit will be used to initially determine antenna performance.

Phase 2 – Installation and Testing

The design was applied to the house floor plan and adjusted to attic configuration. The two long legs were estimated to be 35-ft each yielding a total perimeter of 140-ft. To begin the installation process, standoff insulators were screwed into roof support beams at the six corners. Because the hip roof framing is stick built, rather than prefab trusses, the attic space is very open and the peak over the central portion of the house is about 12-ft above the ceiling rafters. The two legs of the BBTD need to be similar in length, so measurements were taken between the corner standoff insulators to determine the total length and then the length of each leg. As the design article indicates the antenna is somewhat directional, I chose to have the antenna oriented to the west-northwest, therefore the resistor needed to be somewhere on the west side. This works well as the balun / feed point is then at the east side of the house where the ham shack will be in the basement below. The specific location was determined by playing with dimensions to select a spot where the legs were of equal length. The balun was then installed at the feed (FP) point location and the resistor (R) was installed at the loop termination location. The antenna wire was then run from the FP to the R for each leg and connected to the respective devices. The wire legs were then supported with ½-inch nylon cable clamps affixed to the roof rafters at approximately 10-ft spacing. The wires are routed 5-ft above the ceiling rafters.



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Following antenna installation, a 20-ft section of RG-8x coax was routed from the balun and connected to an MFJ Antenna Analyzer. Without a tuner, it was observed that the SWR was very flat. For example, the SWR was 1.5:1 or less from 3.9-MHz to 10.0-MHz (the first range on the Analyzer).

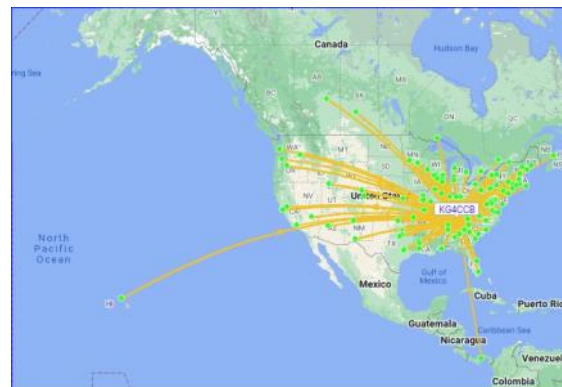
Range	3.9-MHz to 10.0-MHz	1.5:1 SWR	Impedance varies
40 meters	7.0-MHz to 7.5-MHz	1.5:1 to 1.4:1	90-ohms
Spot check	5.37-MHz	1.0:1	53-ohms
	9.37-MHz	1.3:1	54-ohms
20 meters	14.230-MHz to 14.350 MHz	1.5:1 to 1.4:1	38-ohms
Range	10.0-MHz to 16.3-MHz	1.5:1	Impedance varies
Spot check	10.0-MHz	1.1:1	53-ohms
Range	28-MHz and above	Greater than 2.0:1	

An MFJ tuner enabled the antenna to be readily tuned to desired frequencies, for example:

7.4 MHz / 1.2 SWR / R-50	21.2 MHz / 1.4 SWR / R-70	28.9 MHz / 1.1 SWR / R-56
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Having determined that the antenna was suitable for transmitting, the WSPR unit was set to operate on 40-meters. The session ran from 1308 hours (EST) to 1622 hours and generated 250 spots (77/hour). Most stations receiving the WSPR transmissions were located north of TN and ranging from MO in the west to NY in the east. It is not apparent why the geographical distribution of receiving stations was predominantly to the north.

The following day the WSPR unit was set to operate on 20-meters. The session ran from 0844 hours to 1102 hours and generated 878 spots (390/hour). Receiving stations were located throughout the U.S. including Hawaii plus Canada and Panama.



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Following the WSPR sessions, the FT-818 was set up and two contacts were made with POTA Activators; one in North Carolina and one in Illinois. Both contacts were made on 20-meters. The band was quite active and there were numerous POTA Activators and Hunters who piled on to each CQ call. My 6 watts had a difficult time breaking through the pile-up. In addition, construction activities in the house were quite noisy and severely hindered additional activity.



Summary

This was an interesting and enjoyable project, though a day of accessing and climbing around in the attic was rather tiring. The limited amount of time with both WSPR and the FT-818 provides only a limited picture of the antenna performance, but certainly indicates it is promising. I look forward to additional testing both during the remainder of the construction period when we make visits and when the house is complete and we are moved in. Based on this initial activity the BBTD in this, or similar, configuration is rather suitable to HOA locations. Though difficult to retrofit into an attic in a completed house, it could be installed around the perimeter as illustrated by the first drawing above and would most likely not be visible.

Additional information is available at <http://hflink.com/antenna/>



Update on James Lea, WX4TV

Submitted by Tom Lufkin, W4DAX

<https://gofund.me/475e1c9e>

Dear Supporters,

We are writing to give you an update on James Lea's recovery journey. As many of you know, James is a multiple amputee who has lost both feet and at least part of all ten of his fingers. He has been fighting hard to regain his independence and quality of life, but unfortunately, he had to undergo another surgery yesterday.

The surgery was needed to reopen the wound from the amputation on his left leg. James had his leg amputated on February 8, 2022, and the wound still has not healed. The surgery was supposed to be a quick outpatient procedure, but due to an insurance mess-up, James will have to spend the next few days in the hospital while waiting for a wound VAC to be approved.

Despite this setback, James is in good spirits and fighting hard. He is in a lot of pain, but he is determined to keep pushing forward. We ask that you keep James and his family in your prayers during this difficult time.

We also want to take this opportunity to thank all of you who have supported James and his family during this challenging time. Your generosity and kindness have been truly incredible, and we are grateful for every donation and message of support. However, donations to the GoFundMe campaign have slowed down, and we desperately need more support.



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As you can imagine, James's medical bills are incredibly high, and the cost of his ongoing care is a significant financial burden for his family. They have been doing everything they can to make ends meet, but they need our help now more than ever.

We are sharing a photo of James in the hospital, taken just after his surgery. We hope this photo will serve as a reminder of the challenges he faces every day and inspire us all to continue supporting him in his journey towards recovery.

We ask that you consider making a donation to the GoFundMe campaign and sharing the link with your friends and family. Every little bit helps, and together we can make a real difference in James's life.

Thank you for your support and kindness during this difficult time. We will continue to keep you updated on James's progress, and we ask that you keep him and his family in your thoughts and prayers.

Sincerely,

James, Michelle, Zechariah, Hope, and Grace



10-METER WSPR RECEPTION

Darrell Franchuk, KG4CCB

After hearing the comments during the Monday evening Net about the activity on 10-meters I decided to run a WSPR session on 10-meters to get a quantitative feel for band propagation. During the subsequent 24-hour period 2,044 transmissions were received by my SDR Play 1A and 14AVQ vertical antenna at grade and processed by SDR Uno and WSJT-X software on a 14-in refurbished Dell laptop. The transmissions were received from 50 European stations plus one in Israel, S Africa, the Antarctica, 6 stations in S America, 4 in Australia, and the German research vessel off the coast of Argentina. Plus, of course, from stations throughout the mainland U.S. This is nearly comparable to what I have commonly received in recent times on 40-meters. Nearly all of these stations were transmitting 5-watts or less and many of them were just 200-milliwatts.



Hi-Per-Mite Active CW Filter

by Bert Garcia N8NN

If you like to operate CW, here's an outstanding filter you can build to improve reception. I have several QRP radios that do not have a CW filter, and this is just what I needed. Designed by David Cripe NM0S, a kit of this HI-PER-MITE High PERFORMANCE Small audio filter is sold by the Four State QRP Group [1]. It features a 3 dB bandwidth of 200 Hz with no ringing. It operates from 5 to 13 VDC and uses less than 15 ma, ideal for battery power. During construction, you can select from 0 dB gain for headphones or as much as 50 dB gain for one-half watt to drive an 8 ohm speaker. The center frequency is 700 Hz, but you can select a different center frequency during construction.

Figure 1 shows the kit components with a quarter coin for size comparison. The small double-sided circuit board is clearly labeled and easy to assemble since all components are through-hole. The two integrated circuit chips, shown in their anti-static cases and wrapped in foil, are mounted in sockets. Construction time is about four hours. I strongly recommend using a circuit board holder and a lighted magnifying glass and stand as shown in Figure 2.



Figure 1: Kit components.



Figure 2: The construction site.

The completed filter circuit board is in Figure 3. Figure 4 shows the complete filter. I have added a 9 volt battery and holder, a DPDT switch, and 3.5 mm input and output jacks. When the DC power is turned off, no audio passes through the filter, so I used the DPDT switch to turn the power on/off and to bypass the filter when the power is off. If you plan to power the filter from a typical 13.8-volt power supply, you should add several diodes in series with the positive line to drop the voltage down to 13 volts, as recommended by other builders.

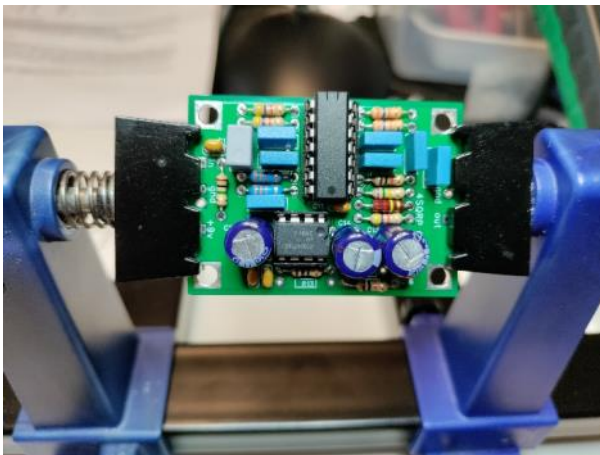


Figure 3: Completed circuit board.



Figure 4: Completed filter.

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I mounted my filter in a 2.0 x 2.5 x 3.0 inch plastic box from Hobby Lobby. Figures 5 and 6 show the completed filter mounted and ready to go on my next POTA operation.



Figure 5: The filter in its case.



Figure 6: The filter ready to travel.

Does it work? You bet! Here's a YouTube video demonstrating the filter while it is switched in and out of the audio path: <https://youtu.be/k1Xm29q-V1Q>. This is a handy gadget to add to any CW radio. It is available for \$28.65 shipped from the Four State QRP Group.

Reference:

[1] Four State QRP Group, <https://www.4sgrp.com/hipermite.php>

The 2023 Florida QSO Party will be held the weekend of April 29th – 30th.



Since the Florida QSO Party was re-introduced to the contest scene in 1998, the FQP has become one of the fastest-growing and most popular State QSO Parties today. This is due, in part, to the tremendous effort by the mobile teams to activate as many counties as they can in order to allow those participating from out-of-state to achieve a county “sweep” working all 67 Florida counties. Florida stations operating from home are also valuable since that increases the chances that stations will work all counties! If you are a serious or casual participant from Florida or outside of Florida, the Florida QSO Party was designed to be a FUN operating event. Why not give it a try? [More Info](#)




- **Date:** 03/25/23
- **Location:** McPherson Government Complex
- **Time:** 10:00 AM to 2:00 PM

Marion County invites your family to attend MARION COUNTY DAY - our annual community festival – at the McPherson Governmental Campus in Ocala.

Marion County invites residents and visitors to our annual community festival, celebrating our history and showcasing everything that makes Marion County great! Organizations from around the area will participate in telling Marion County's story in a fun, informative and interactive way. Stop by and enjoy food, games and more!

Free Admission



ARRL Volunteers On the Air

ARRL.org VOTA Home Leaderboard Certificates Call Sign Points W1AW Portable Operations Help

A Year-Long Operating Event Recognizing Volunteers



2023 SSRC Officers

[President - Hayden Kaufman, N2HAY](#)
[Vice President - Adam Parker, NY52](#)
[Secretary - Gray Moffett, KC3DWY](#)
[Treasurer - Tim Trombley, K8TAT](#)
[Past President - Bill Gillespie, KW5BG](#)

Directors:
[Carl Berry, KC5CMX](#)
[Andy Allen, NA4DA](#)
[Terry Strey, KN4FMH](#)

[Club Minutes and Financial Reports](#)



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

- [SSRC Logo Shirts & Caps](#)
- [Green Clover Key Card](#)
- [Perry Field Access](#)
- [Membership Application](#)
- [Buy/Sell/Trade](#)
- [QST NFL](#) – NFL Section Newsletter
- [Silver Springs Radio Club Website](#)
- [NFL Section Website](#)
- [WA7BNM Contest Calendar](#)
- [NG3K DX](#)

Committee Chairs

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[Trustee K4GSO – Wayne Brown, N4FP](#)
[Newsletter – Marty Brown, N4GL](#)