



[K4GSO.us](http://K4GSO.us)

# The Oracle

## Newsletter of the Silver Springs Radio Club

Oldest Radio Club in Marion County, FL



July 2023

### Membership/Upcoming Events

Elbert Wilkinson, KQ3K, Chairman

#### MEMBERSHIP:

I'm being redundant but then again..I'm repeating myself. Like the Federal debt, we are continuing to grow! We approved one new full membership application and one associate application at the June General Meeting. Please welcome our newest members:

Lynn Palmer, KD9BVG, General  
Marcelo Calero, Associate

We also have a former member, Curtis Newman, KG4DIW, also returning from a medical hiatus.

As noted in previous *Oracles*, we are a healthy club where members are involved in our activities and welcoming to our guests. We must be doing something right, so keep it up.

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 also continue to 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 be involved. Regardless of your license class, we continue to 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, not only get radio active - stay radio active!

#### FIELD DAY 2023:

Field Day has come and gone and is now quickly receding in the rear view mirror. However, we would be remiss not to look back in satisfaction at our efforts and successes.

Pre-event, Andy tackled publicity by sending out invitations to elected officials, served agency personnel and press releases to various media outlets. Local radio stations K-Country 93.7 and WIND-FM graciously posted nice write-ups on their website's community events pages. As a surprise, WCJB Channel 20 TV sent a reporter to film the K4GSO site on Sunday morning.

### Next Meeting

**Tuesday, July 18, 2023**

**Green Clover Hall**

319 SE 26th Terrace, Ocala

**6:00 PM Socializing and Mentoring**

**7:00 PM Meeting**

**Program: Leon K8ZAG**

**nanoVNA**

**SSRC Board of Directors**, first Tuesday, 7:00 PM

Green Clover Hall

All are welcome

### Upcoming Events

**August 12—Outdoor Expo**

**World Equestrian Center**

**Silver Springs Radio Club Net**

**K4GSO Repeater, 146.610, PL 123**

**Mondays at 7:30 PM**

### \*\*\* Notice \*\*\*



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.

Field Day setup began at Green Clover Hall late Friday evening and resumed Saturday morning. Our team bravely battled the oppressing Florida heat, humidity, sun and ever present threat of rain to set-up around GCH. Andy also copied the Friday evening W1AW Field Day message for us.

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The "inside" GCH crew setup a variety of different antennas for the event. Ron - his new BuddiHex, Jim - a hamstick dipole, Tim - another dipole, Hayden - a portable vertical, Elbert - a portable vertical and Maurice, who manned our GOTA station, - various hamsticks on top of his van.

The "field" crew had their challenges. Roger operated from his off-road trailer and used a variety of homebrew antennas. Andy and Annie operated from their travel trailer away from GCH and setup a multi-band vertical. Fortunately, both trailers were air conditioned. Did I mention it was HOT!

Hayden and Andy setup a computer to network all of the operating stations inside and outside GCG. There were a few minor glitches but nothing that they could not solve. Networking greatly aided the logging and potential band and mode conflicts that might have otherwise occurred.

We went live at 2:00pm as a 7A plus a GOTA station using 100% emergency power using a Honda generator, batteries and solar panels. Modes operated were Digital and SSB. Band conditions were up and down during the event with some better than the others. Hayden and Tim worked the full 24 hours with the rest of the operators leaving around 10:00pm and returning early Sunday. Gray was a real trooper and came in during the night to send out our messages to the section manager and other recipients. Also, we would be remiss not to mention John Norman and Terry Strey who were there to help setup, takedown and spell the operators. Lastly, thanks to all the members who took the time out to drop by and check out our operation.

How did we do? Our results follow below. Tim and the Andy/Annie team led the way with the majority of our contacts. All of us learned something new and had fun doing it. There was no drama although a few bad words were directed at uncooperative computers and balky software when necessary. We had a few visitors drop by and spend some time with us. Unfortunately, none of our elected officials and folks from our served agencies visited. We'll keep inviting them and maybe one year

Total Contacts by Band and Mode:						Total Contacts by Country:			
Band	CW	Phone	Dig	Total	%	Country	Total	%	
----	--	-----	---	-----	---	-----	-----	---	
40	0	23	212	235	41	USA	537	94	
20	0	53	89	142	25	Canada	19	3	
15	0	23	84	107	19	Puerto Rico	8	1	
10	0	0	77	77	13	Alaska	1	0	
6	0	0	11	11	2	England	1	0	
						Hawaii	1	0	
Total	0	99	473	572	100	Mexico	1	0	
						Namibia	1	0	
						Portugal	1	0	
						US Virgin Is.	1	0	
						Venezuela	1	0	
						Total = 11			

  

Total Contacts by CQ Zone:			Total Contacts by Station:		
CQ Zone	Total	%	Station	Total	%
-----	-----	---	-----	-----	---
05	255	45	K8TAT	212	37
04	234	41	NA4DA	161	28
03	67	12	KN4RIC	73	13
08	9	2	KQ3K	59	10
14	2	0	KN4MIV	26	5
01	1	0	KS4SW	24	4
06	1	0	K42FW	8	1
09	1	0	N2HAY	8	1
31	1	0	KC3DWY	1	0
38	1	0			
Total = 10			Total = 9		

Thanks again to everyone who participated in this year's Field Day...good job and well done.

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they will.

**2023 OUTDOOR EXPO**

When: Saturday, August 12, 2023

Where: World Equestrian Center

Time: Early morning to mid-afternoon

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. More details to follow in the next few weeks.



**POTA with KQ3K**

Elbert Wilkinson, KQ3K

This week's POTA activations from K-1832 (Anastasia State Park) and K-1926 (Washington Oaks Gardens State Park). I had an unlicensed visitor who tried to take a bite out of my BuddiStick Pro.



The Silver Springs Radio Club Presents....



# Show Us Your Shack!

**Kim Umbaugh**  
**KO4OIG**



Icom 7300 and Anytone 578.



Lacey running FT8

## Kim's Mobile Installation!

Icom 5100 mounted in Ford Expedition. Radio mounted on back of 2nd row seats and head and mic on front center console.



## Welcome to the K4GSO Repeater, Ocala

By Carl Berry, KC5CMX

**Reprint and updated from 2020**

Anyone who has spent any time in Ocala or on the 146.610 repeater in Ocala has heard our daughter Krystal, making the announcement. Well, I will paint a picture in your mind of what we have and how it all comes together to work and get the messages through.

We presently have our Hytera DMR Repeater online. It is transmitting at 450 feet on a CommScope VHF antenna. A replacement antenna was ordered in May 2023 and, hopefully, will be delivered so it will be ready to go, should disaster strike or if we just get a chance to replace the old one.

The way it works is the signal initiates from your radio on 146.010 which is the receive frequency for the repeater. It comes in from the antenna on the tower, goes through the duplexer (basically filter cavities for desensing), and into the repeater. From there, the signal is simultaneously retransmitted back through the transmit cavities on the duplexer on the frequency you hear, 146.610. There is a PL tone of 123.0 which means your radio must transmit a subaudible tone to activate the receive circuitry on the repeater. The signal and audio is heard by your radio or the person you want to talk to and the contact is made. Simple.

The repeater controller is an [ARCOM RC-210](#). It has an internal clock and a DVR module used to store and make announcements. Presently, it is connected to the repeater as an external controller and makes the announcements according to either a schedule or sent randomly. It may handle up to four different repeaters at the same time and direct the signals accordingly.

The repeater also has an internal controller which allows it to operate independently of the RC-210. Changes to the settings may be made either onsite, or through RF transmissions. The controller is presently not capable of supporting the Yaesu, but a \$35.00 cable will take care of that. It will operate with CW ID only without it.

The Hytera repeater is also capable of operating DMR, Digital Mobile Radio. However, internet service is not available at this site for our use, so it is not active. It also must be licensed by Hytera for DMR, which it is not.

Our backup repeater is a Yaesu DR-1X. It is capable of operating Fusion in digital or analog mode. It is capable of automatically switching to analog from digital and vice versa, depending on the signal received. It is presently set and locked in analog mode only, so when it is in operation, only analog signals are received and transmitted.

When transmitting in digital mode, it sounds like a really loud fan with an annoying grinding buzz. If we operate digital on this repeater then the radios must have a DCS code set to filter out the noise. It really aggravates those who use it, so it remains in the analog mode.

The power supply is currently a 50 amp Samalex. It is more than adequate for running the Hytera, and the Yaesu has its own internal power supply with the ability to run on external 12 volts, if necessary.

A computer is needed to update either the repeater or controller onsite. The software for it is relatively straight forward, but there is a learning curve.

The coax to connect the repeater to duplexer and duplexer to hardline up the tower is LMR-400. 1 ¼" hardline connected via Polyphaser lightning arrestors run up to the tower, then to the antenna. When there is a strike, the electricity is shunted to ground thereby avoiding the possibility of frying the finals. (We did lose the Hytera in 2018 when hams were talking on it and it was hit. It fried the finals and the Yaesu was put online until it was repaired. The reason it fried was the circuit was open and was unable to shunt to ground at that exact time.)

The ground strap is 10" copper sheet and it is fastened onto wood throughout the structure. All electrical outlets, coax connectors, repeaters and other equipment is grounded to this strap. The strap is bonded to ground outside the building.

We have an Icom 2 meter radio on low power that is used onsite for testing the repeater, and making announcements when it is taken down for maintenance.

There is another Yaesu repeater identical to ours in another rack owned by one of the members, Andy Allen, NA4DA. His is setup strictly for Fusion. It is remotely connected to the internet side of Fusion via RF link to his home station. There is a whole book to be written about Fusion, so that's all I will say about it.

Lastly, we have our call sign trustee shown on the cabinet. This is an FCC requirement, along with our contact information. The repeater must be coordinated with the powers in charge, such as FASMA on a bi-annual basis.

The old duplexers were installed around 1985 and were in continuous operation. One was found defective in 2015 and removed from service. The set was subsequently tuned to work with three on receive and two on transmit (or vice versa).

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They were checked in 2019 for alignment and were still spot on, however they had been showing their age. The company that made them, TX/RX, was very surprised to hear that they have been in operation for way over 35 years. The people that work for the company have been there about that long and don't remember that model as it was made way before they started. Hard paper records were required to pull the specs on them.

New ones were installed in 2020 to replace the aged cavities and the old ones were retired to Andy & Annie Allen's Animal Farm for storage and maintenance.

There is a backup diesel and LP gas backup generator that the city maintains and comes on automatically during power outages. They were updated after one of the big hurricanes (Michael?) and we now have a generator with a constant feed of natural gas.

Agencies supported at that site include the National Weather Service which is connected via telephone hardline to their equipment. Marion County, the City of Ocala and several commercial cell phone companies' equipment are also located there. The NWS repeater and equipment was updated in 2022.

The tower was erected in 1995, is 500 feet tall and encompasses a rather large chunk of real estate in Ocala. It is located near College Road (SR200). When facing north towards Sonny's BBQ it is the tower directly behind it. The property was donated to the city by Ernie O'Berry, K4OSM/SK, many years ago. It is known as the Pistol Range tower site.

One last thing before I let you go. SSRC has an ECHOLINK connection. It is K4GSO-R. This enables you to use your smartphone, tablet, computer, or another web-enabled device capable of supporting the software as an amateur radio connected to our repeater! There is a slight delay when using Echolink, but with practice, you'll get the hang of it. It's a great thing to have when you're away from home traveling or all you have is a phone.

I hope this has helped take some of the mystery out of our repeater and tower, where it's located and maybe explained some things you didn't know. Drop a line if you have any questions. [antenna@ssshores.com](mailto:antenna@ssshores.com) or [k4gso2012@gmail.com](mailto:k4gso2012@gmail.com)



## Marion County Traffic Net

Gray Moffett KC3DWY  
Assistant Emergency Coordinator  
Marion County Amateur Radio Emergency Service  
[www.aresmcfi.org](http://www.aresmcfi.org)



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, which provides an organized method for moving messages related to the event. Called traffic, these messages can provide information critical for saving lives or property, as well as inquiring about the health or welfare of those affected into and out of our area.

Traffic is relayed from one location to another. When areas are hit by large-scale events, such as hurricanes, earthquakes, landslides, or technology failures that impact electricity or communications, amateur radio operators can set up equipment in the affected area to restore communications.

This is the primary function of the MCTN to practice handling formal Radiogram message traffic as part of the NTS. We encourage you to visit the NTS website for training materials and other resources as well as the other useful links below.

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

<https://aresmcfi.org/useful-nts-links/vhf-traffic-net>

The MCTN meets Monday at 2015 hours on the 145.330(-) repeater, PL tone 123. We encourage everyone, with or without traffic, to check in. If you need assistance in formatting a Radiogram or have questions about anything we do on the MCTN, please ask us on the air or call the Net manager. We are here to practice sending and receiving message whether Radiograms or [ICS Forms](#).

### Monthly Net Statistics update for June 2023

QNI 11 (Total Check-Ins)  
QTC 8 (Total Messages)  
QND 115 (Total Minutes)  
Total Sessions 3

## Show Us Your Shack, Simple Fixes, One Thing or Another

SSRC Members want to see your shack and hear about some of the everyday Ham radio situations that you successfully addressed. See pages 3,4 & 6 in this issue for ideas.

Drop the info in an email to: [n4gl.marty@gmail.com](mailto:n4gl.marty@gmail.com)



**ARRL VOLUNTEERS ON THE AIR 2023**

**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, NY5E](#)  
[Secretary - Gray Moffett, KC3DWY](#)  
[Treasurer— Carl Berry, KC5CMX](#)  
[Past President - Bill Gillespie, KW5BG](#)

#### Directors:

[Andy Allen, NA4DA](#)  
[Terry Strey, KN4FMH](#)  
[Tim Trombley, K8TAT](#)

### [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

[Membership & Events – Elbert Wilkinson, KQ3K](#)  
[Trustee K4GSO – Wayne Brown, N4FP](#)  
[Newsletter – Marty Brown, N4GL](#)