



QST NFL

Newsletter for the Northern Florida Section

Come join the FUN!

Volume 11 Issue 4

www.arrl-nfl.org

April 2024

From the Shack of the Section Manager

Scott Roberts, KK4ECR (kk4ecr@gmail.com)

Hello, Awesome NFL Section Members!

Get ready to mark your calendars because we have some super cool events and activities lined up that you won't want to miss! From staring up at the sky during the Great Solar Eclipse to making our voices heard in the Section Manager election, there's so much to learn, enjoy, and participate in. And that's not all - we've got some fantastic plans for the next two years, including "Town Hall" meetings where you can chat directly with our leaders. Let's dive into all the fun and learning coming your way!

☑ **The Amazing Solar Eclipse Adventure!**

First up, get ready for an out-of-this-world experience with the Great Solar Eclipse happening on April 8, 2024. This is a rare chance to see the moon cover the sun, turning day into twilight! It's not just cool to watch; it's a perfect opportunity to learn more about how our universe works. Plus, watching the eclipse together is a great way to bond with friends and family. So, grab your eclipse glasses, and let's make some memories under the sky! Click here for more information in the [Solar Eclipse QSO Party](#)

☑ **Field Day 2024 – Be Radio Active - Fun, Learning, and Helping Out!**

Next on our adventure list is Field Day, scheduled for June 22 & 23. Field Day is not just about having fun (though there's plenty of that!) - it's a chance to practice our radio communication skills and learn how to help our community during emergencies. It's like being a superhero with a radio! This weekend is all about teamwork, challenges, and showing our community the power of communication. Let's shine together and make this Field Day the best one yet! Click here for more information on [Field Day 2024](#).

NFL Section Manager Election - Let Your Voice Be Heard!

Voting is how we make sure the NFL Section keeps being a fantastic place for all of us. So, let's get to know the candidates, ask questions, and make our votes count. Your vote is super powerful - let's use it to shape our future! Check your mailbox for your ballot.



NFL Section Manager Election - Let Your Voice Be Heard!

Here's something very important - the upcoming Section Manager election. This is our chance to choose who leads us into the future. The election is happening soon, and every single vote counts. Voting is how we make sure the NFL Section keeps being a fantastic place for all of us. So, let's get to know the candidates, ask questions, and make our votes count. Your vote is super powerful - let's use it to shape our future! Check your mailbox for your ballot.

☑ **Town Hall Meetings – Your Questions, Your Voice!**

And now, for some really exciting news - over the next two years, we're planning regular virtual and in-person Town Hall meetings, open to all NFL Section Ham Radio Operators. This is your golden opportunity to meet with our section leaders, ask any questions you have, and share your ideas and feedback. Whether you're curious about upcoming events, have suggestions for improving our section, or just want to chat, these Town Hall meetings are for you. Your voice is important to us, and we can't wait to hear from you!

Why Join In?

Participating in these events and meetings is not just about having a good time (although we have plenty of that too!). It's about learning new things, connecting with friends old and new, and making a positive impact in our community. Whether it's learning about the wonders of space during the eclipse, practicing vital communication skills on Field Day, making our voices heard in the election, or sharing our thoughts at Town Hall meetings, there's something for everyone. We're not just a group of Ham Radio Operators; we're a family that learns, grows, and helps together. So, are you ready to jump into this exciting season? Let's fill it with learning, laughter, and community spirit. Mark your calendars, get involved, and let's make these unforgettable times in our section. Together, we can achieve amazing things!



NFL Officials

Section Manager

Scott Roberts KK4ECR

Assistant Section Managers

Kevin Bess KK4BFN

Helen Straughn WC4FSU

DJ Stewart KI4ZER

Joe Bassett, W1WCN

Section Emergency Coordinator

Arc Thames W4CPD

Section Public Info Coordinator

Jim Bledsoe, KI4KEA

Section Technical Coordinator

Frank Haas KB4T

Section Affiliated Club Coordinator

Section Traffic Manager

Helen Straughn WC4FSU

Section Official Observer Coordinator

Robert Leasko WB8PAF

Section State Government Liaison

Darrell Brock N4GOA

NFL Committees

Webmaster, www.arrrl-nfl.org

Kari McClure, NW4R

Newsletter, *QST NFL*

Earl McDow, K4ZSW

QST NFL is a monthly publication of the ARRL Northern Florida Section. *QST NFL* is intended for wide distribution within the NFL Section, including club Leaders and all licensed Amateurs in Florida. A current issue of this publication can be found at the ARRL Southeastern Division web site, Northern Florida Section.

www.ARRL-NFL.org Opinions expressed by contributors are their own, and may not express the positions of the ARRL.

Submissions may be made to the editor: Earl McDow, Earl.McDow@gmail.com

All submissions are subject to editing prior to publication.

Digital Library of Amateur Radio & Communications: Past issues of [QST NFL are now online](#)

It's Election time for Northern Florida Section Manager

Ballots will be mailed April 1st, 2024 and should be returned by May 20th. NFL has 2 candidates running, and they have each submitted information on their candidacy.

See below.

For details on how the election is handled:

[ARRL Section Terms and Nominations Information](#)

NFL Section Member of the Month!

We are always accepting nominations for the NFL Section Member of the Month. To submit a nomination, please send an email to Section Manager Scott Roberts at kk4ecr@gmail.com. Include the nominee's name, call sign, county, reason for the nomination, and a photo of the nominee. Arc and I will review the nominations and reach out to you if we have any questions.

What's Inside...

[Section Manager](#)

[Section Emergency Coordinator](#)

[Section Manager Candidate—Scott Roberts](#)

[Section Manager Candidate—Jim Kvochick](#)

[Loften High School ARC & April Events](#)

[Scouting for Summer Field Day location](#)

[MERT Update](#)

[Hearing Deficit Equalization](#)

[SPARC Swap Meet & Mobile Hamfest & Tallahassee Auction](#)

[HamCation Report](#)

[Crazy Stuff with Alachua County Crew](#)

[Digital Library of Amateur Radio](#)

[Suwannee County ARC & ARES®](#)

[The nanoVNA](#)

[The Future of Data Communications](#)

[Okaloosa County](#)

[Playground Amateur Radio Club](#)

[Friendship Amateur Radio Club](#)

[Quarter Century Wireless Association](#)

[Testing Information](#)



From the Section Emergency Coordinator

Arc Thames, W4CPD



It's hard to believe we've already reached the end of March and are headed into April. Unfortunately, this puts us one month closer to hurricane season. Many of our ARES teams have already begun testing and exercising their equipment. If you haven't started the preparation process for hurricane season, I highly encourage you to begin preparations.

While we focus on hurricane season a lot in our state, it's important to stay in a state of readiness. Earlier this month, many parts of our country experienced a cellular service outage of at least one carrier and in some locations more than one. I know some people tend to breathe a sigh of relief when hurricane season ends but hurricanes aren't the only incidents our ARES volunteers could be called upon to help with.

Does your team have a plan that you've worked with your served agency to determine how your ARES volunteers might be utilized in a non-hurricane communications outage? You might stage your volunteers at strategic locations to be able to relay information to a dispatch center. Maybe you'll be needed to relay information to and from hospitals. We never know when these types of outages may occur and it's worth making plans ahead of time with your agency to determine how your team could possibly be used in these incidents.

Monthly ARES Statistics

In February 2024, ARES volunteers in our section reported 1,160 hours. Thanks to the Emergency Coordinators who submitted their monthly report and for all of you that have volunteered and contributed to those hours.

| | Number | Person-Hrs |
|--------------------------------------|--------|------------|
| Exercises this month: | 4 | 59.00 |
| Training events this month: | 12 | 93.00 |
| Public service events this month: | 1 | 16.00 |
| Community service events this month: | 5 | 396.00 |
| Emergency events this month: | 0 | 0.00 |
| SKYWARN events this month: | 4 | 32.00 |
| Meetings this month: | 24 | 272.00 |
| Unclassified events this month: | 45 | 292.50 |

Call signs of DECs/ECs reporting:

K4BJS, K4SOP, KB4HAH, KC4NVU, KD4EZW, KM4BTW, KN4PFZ, KO4YOL, N2HAY, W4RFJ, W4UFL, WE4MJ, WF3F, KO4KUS, KW4MO, W4KEF, W4CJB, N9EE



ARRL Section Manager in the North Florida Section Candidate.

Jim Kvochick - K8JK

[Click here for more information](#)

I am Jim Kvochick, K8JK, an ARRL Life member, actively licensed since 1968. Prior to relocation to the state of Florida, it was my privilege to serve as the ARRL Section Manager in the state of Michigan.

During my tenure in that position, the section team was able to grow the amateur radio population within the state, as well as provide ARRL members with access to resources and services provided by both the ARRL and its members.

In nothing but the most positive of spirit, I have successfully submitted my candidacy for the position of ARRL Section Manager in the North Florida Section.



Amateur radio has served me well in both my personal and professional life, and I look forward to returning the favor by providing servant leadership to the North Florida Section - its members and volunteers, as together we continue to expand our ranks, and support our many emergency preparedness objectives, along with continuing our own education and growth within the hobby.

My experience in supporting a large geographical area like Michigan can serve us in Florida too, as we reach out to more amateurs in more places within the North Florida Section. Additionally, we need to continue to explore new avenues to expose amateur radio to more potential new members of our fraternity.

Together, lets apply our talents and energies in making our hobby even more visible in the North Florida Section. Not just the communities where we live who count on us to be ready to provide communications assistance, but also those individuals who may be new to amateur radio and its many facets looking to us all for support and guidance.

I look forward to working with you all as we apply our energies to make the ARRL North Florida Section even greater together. I'm always happy to assist. If you have additional questions for me, do not hesitate to reach out.

I humbly ask that you consider supporting me in becoming the next ARRL Section Manager in North Florida.

73
Jim Kvochick K8JK
K8JK@Outlook.com
330-283-7070



ARRL Section Manager in the North Florida Section Candidate.

Scott Roberts, KK4ECR

A Renewed Commitment: Running for ARRL NFL Section Manager

As the sun rises on new opportunities and challenges in the world of amateur radio, it's with a heart full of enthusiasm and a vision for our collective future that I announce my candidacy to run once more for the position of ARRL NFL Section Manager.

Reflecting on the past two years, it's not just the activations we've navigated together that fill me with pride, but the tangible contribution our community has made to society. From coordinating critical deployments during hurricanes to liaising with our served agencies, we've proven that amateur radio is an invaluable asset to our communities.



KK4ECR & KN4KSI

Looking ahead, I am eager to champion a three-pronged philosophy that scales the lessons learned during my two years as YOUR Section Manager.

First, we will strengthen the bonds of support among ARRL associated organizations, civic leaders, and individual operators. By fostering these relationships, we build and reinforce the foundation of our amateur radio community.

Second, I am committed to expanding educational programs that recruit and equip operators throughout our section. This includes adult training as well as strategic youth education initiatives in schools, Scouting, and beyond. Our aim is to ignite the spark of amateur radio in the hearts of the young and old alike, ensuring a robust future for our hobby and its service to the community.

Last, in the wake of lessons learned from Hurricane Maria in Puerto Rico, I pledge to focus on preparing a contingent of operators. Together we will train to be ready to respond to disasters, embodying our availability to tackle regional crises.

The future of amateur radio shines brightly, and I am honored to be a part of it. Together, let's embrace the exciting changes and challenges ahead, continuing our journey of enjoyment, service, and contribution.

I look forward to two more years as YOUR Section Manager.



K4WTL/M Loften High School ARC Student News

Bob Lightner W4GJ



Our students tested our new Champion gasoline generator for our ECOMM trailer in preparation for our participation in the [Florida QSO Party](#). We will take our trailer to the new Alachua County Fire Rescue Station #80 where we will operate the two-day event to be held on April 27-28. The Florida QSO Party has become one of the fastest growing and most popular State QSO Parties around today.

We have two FQP plaques from previous years for the highest scoring Florida school, and our students will be working towards securing our third.



Plaque 1



Emergency Trailer

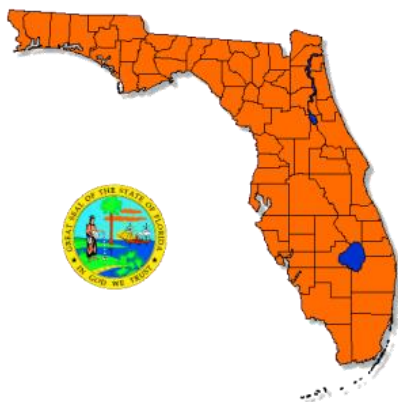


Working inside the Trailer



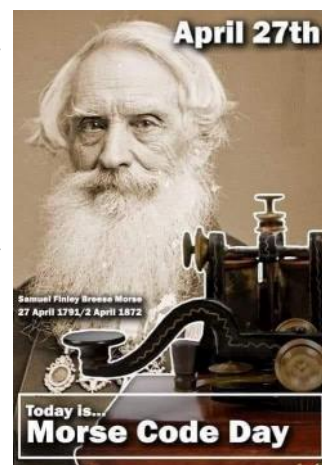
Plaque 2

The 2024 Florida QSO Party will be held the weekend of April 27th – 28th.



Stay tuned for details. Since the re-introduction of the Florida QSO Party to the contest scene in 1998, the Florida QSO Party has become one of the fastest growing and most popular State QSO Parties around today. This is due, in part, to the tremendous effort by the mobile teams to activate as many counties as they can 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 from outside of Florida, the Florida QSO Party was designed to be a FUN operating event. Why not give it a try?

<https://floridagsoparty.org/>



April 18, 2024 World Amateur Radio Day:

<https://www.iaru.org/on-the-air/world-amateur-radio-day/>

April 8, 2024 Contest Information Page for the 2024 HamSCI Solar Eclipse QSO Parties

<https://hamsci.org/contest-info>

Scouting a Field Day Site Next To a 28kW FM Transmitter

by Gordon Gibby KX4Z

Our North Florida Amateur Radio Club / ARES(R) group was offered the use of an Alachua County Park, "Cuscowilla," for summer Field Day. This 211-acre park was formerly owned by the YMCA, but purchased by the county with conservation funds and significantly upgraded. It includes a beautiful lodge, large swimming pool, Frisbee golf course, and multiple cabins nestled between huge oaks, each sleeping 20--and all the buildings are air-conditioned!

The Problem: 1200 feet away is 50kW effective radiated power (ERP) FM Station WSKY 97.3 MHz.... whose 500 foot antenna is plainly visible just northwest of the park's parking lot.

- We were concerned that have such a powerful antenna/transmitter just 1/4 mile away from our Field Day would wreck havoc with something -- whether HF or VHF. That's a LOT of RF!
- A bit of internet research revealed how to calculate E-field strength in the far-field of a transmitter: <https://www.giangrandi.ch/electronics/anttool/tx-field.shtml> WSKY has a 28kW amplifier, and their 50kW ERP comes from a somewhat focused multi-bay Shively 6510. (<https://www.shively.com/product/6510/>) Our site being 1200 feet away, the downward angle from horizontal from their antenna to our ground is approximately 23°. Not knowing the elevation plot for multi-bay Shively's, I used 28kW as their power, resulting in a 97.3 MHz E-field of 2.5 Volts/meter in the park. At FM frequencies, a full size antenna has an antenna factor of approx. $9.72/l = 3.16^1$, and will therefore have have 2.5V/meter / 3.16 = 791 mV at the antenna terminals². That's enough to completely forward bias and possibly damage a mixer diode. (And my MFJ antenna analyzer has *already been repaired once from front-end damage....don't want to do that again....*)



Lodge Great Room



Full Size HF Antenna Testing in Parking Lot

If a 5 foot- FM antenna picks up 0.8 volts, what will happen with a 65-foot 40 meter antenna or a 135-foot 80 meter antenna? Will the off-frequency losses be enough to protect against the longer length potentially picking up MORE voltage?

Our group had to know these answers before planning a Field Day at the park....so we organized a scouting party. With our generator/mast trailer, we set up a 65 foot inverted-V antenna in the parking lot, as well as tested a mag-mount 2-meter antenna for voice and digital, and a QRP Xiegu G-90 rig with a modest antenna.

¹ This equation for AF comes from: https://en.wikipedia.org/wiki/Antenna_factor

² See, for further information: https://en.wikipedia.org/wiki/Antenna_factor

Here is what we found:

| Test or Measurement | Outcome |
|---|--|
| 97.3 MHz signal received on VHF mag mount antenna | -10 dBm (about S9+ 60dB) (for safety used 36 dB external pad and 20 dB internal, but turned out not needed) |
| VHF ICOM transceiver, truck roof mag-mount vertical | No problem hearing or reaching local VHF ham repeater No problem making WINLINK VARA-FM connection to local VHF RMS |
| 97.3 MHz signal on 65-foot off center fed (Guanella FT-240-43 Balun) dipole, approx 100 feet of RG8X coax | -4 dBm (For safety used lots of internal and external attenuation here also, although this would have been OK) |
| ICOM 7300 via QuintPlexor port offering 40dB 97 MHz attenuation | Operation appeared completely normal on 20 meters. Copied signals without any difficulty. |
| Xiegu G90 operated on short wire antenna < 10 feet above ground (no additional attenuation) | 20- and 40-meter operation appeared unaffected |

I also measured the protection against 97.3 MHz offered by our QuintPlexor (alone, without external bandpass filters)

| Band | Attenuation of 97.3 MHz | Comment |
|---------------|-------------------------|---|
| 10 meters | -3 dB | 10-meter port is only a high pass filter, so offers little protection |
| 15 meters | -24 dB | Bandpass filter |
| 20 meters | -40 dB | Bandpass filter |
| 40 meters | -35 dB | Bandpass filter |
| 80/160 meters | -26 dB | Modest low-pass filter |

Having concluded the RF investigation we studied the accommodations and found them excellent. A huge meeting room with available tables and chairs allowing multiple ham stations. A full kitchen. Wonderful balcony overlooking the pool. We visited one of the cabins and found they are organized into two sides, each with bunk-beds for 10. Add some plywood and nice table for a remote ham station just inside the allowed 1000-foot diameter circle.

The group thought this new site looked very attractive and voted to pursue it for 2024 Field Day. We're investigating different types of antennas that have reduced coupling, and special receiving filters that might allow us to operate more than one station per band.

MERT

Marion County Emergency Radio Team



Marion County Sheriff's Office
Division of Emergency Management

COMMUNICATIONS UPDATE

March 2024

MERT's primary role is to support all open Evacuation Shelters throughout Marion County during declared Emergency events. We also support EOC and emergency personnel along with Community Emergency Response Teams (CERT) with voice, image and data communications resources.



"Call MERT When all else fails!"

Welcoming Spring!

Warmer temperatures, longer days, greens in every shade and beautiful flowers - spring is a cause for celebration. Welcoming this new season is about smelling the flowers, literally.

Harlan Cook (KN4VRM)
MERT Coordinator

Summer will sneak up on us before we know it, so make sure you take the time to appreciate nature's revival before Florida's heat and humidity returns.

With the warming weather, MERT will be conducting two major exercises in March and April. First will be a remote Field Exercise on March 20th where members will set an emergency communications station at the Price Scrub's State Park in far northern Marion County. Multiple bands will be used along with sending Winlink digital messages. A second team will staff the EOC radio room for the exercise. It should be great fun for all!

The second exercise is scheduled for April 27th at the Emergency Operations Center. It's called MERT20 when we celebrate over 20-years of service to the Division of Emergency Management. This Special Event Station exercise will be using every radio in the communications room (HF on multiple bands, 2 Meter and 70 cm) along with our NVIS HF antenna. Members are welcomed in bringing their personal Go Radios too so plan to attend and sign up for a shift(s) at KG4NXO.com (click the MERT20 tab) or MERT20.org.

I also want to thank all the members for the enthusiastic support of the new "Training Skill Book and New Member Orientation Guide". Classes have been provided on several topics and a detailed plan has been put together for many more by Pat Davis and Leon Jurczyn that I know everyone will enjoy participating in. Classes are conducted each Wednesday and special classes will occur on Saturday mornings in March. Look for more details soon.

Contact me if you haven't signed up for the March 29th Volunteer Appreciation Dinner. See you at a meeting, training class or field exercise soon!

Mark your calendars!
MERT Monthly Meeting
The next Meeting will be on April 19th @ 10:00 am.
See you there!



MERT needs YOU!

MERT Secretary Position Open

We sincerely thank Gray Moffett (KC3DWW) for being our Secretary, the last 2 years. Gray’s support included conducting our “MERT Annual Meeting Report” and the report of MERT Highlights of 2022 and 2023.



Gray Moffett KC3DWW

What does the Secretary do? The Secretary completes an annual report of the MERT activity highlights and conducts the Annual Meeting. If you can help for 5 hours **per year**, please let the MERT Coordinator or Assistant Coordinator know you can help! **Thank You Gray for your great support and being our Secretary the last two years!**

¿Nos puedes ayudar?

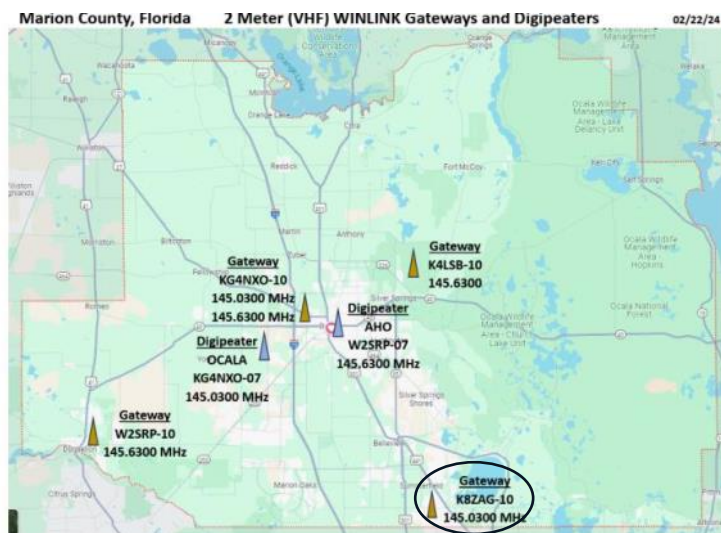
Can you help translate our updated MERT Information Brochure into a Spanish language format? If so, contact Harlan or Bill.

MERTrak Volunteer Time Reporting System

Thank you for documenting your volunteer hours weekly at mertrak.com. Your weekly volunteer hours can include all amateur radio on-air time, setup and testing time, repairs, reading the MERT newsletter and other ham radio materials, meeting and field exercise time along with your time getting to and back home from all MERT activities. It also includes preparing for your first license and an upgraded FCC license!

New Marion County WINLINK Gateway ON AIR

Leon Jurczynyn K8ZAG activated a new WINLINK Gateway at his residence in the Villages last month and invites all Hams sending Winlink messages to test their radios with his station on 145.0300 MHz. If you can’t reach it, use MERT’s digipeater “OCALA” (KG4NXO-07) at 145.0300 MHz. Visit MERT’s website <https://kg4nxo.com/>, click the WINLINK tab then the “MERT WINLINK LOCAL MAP” for a copy.



A new Marion County WINLINK Gateway and Digipeater map is now available on <https://kg4nxo.com/>. Click the WINLINK tab for a copy.

“When we strive to become better than we are, everything around us becomes better too.”

New Administration Manager and current New Member Manager- Pat Davis (KQ4BRW).

MERT Coordinator Harlan Cook announces Pat Davis (KQ4BRW) has volunteered to become the new Administration Manager. Pat joined MERT in 2022 and is a former teacher and IT professional with the Marion County Public Schools where she completed many significant and important projects enhancing the resources and support for teachers and administrators.

Pat became interested in community emergency preparations and completed the CERT certification class where she learned about MERT. Shortly afterwards, she received her FCC Technician license, joined MERT and soon passed the General license. Pat is also owner of a very successful and active business supporting the equine industry.

Pat has Activated twice (2022 – Hurricane Ian and 2023 - Hurricane Idalia). Pat also received a MCSO Division of Emergency Management Achievement Award for her actions during Hurricane Ian in helping save the life of a person in Lee County.

Please congratulate and thank Pat for her past and future contributions supporting MERT. **Thank You Pat!**

Get your Training Skill Book

MERT's new resource helps members gain the knowledge and skills needed to complete critical tasks when activated... and at their own pace! Our original supply of 24 binders has now been restocked so see Pat Davis, Harlan Cook or Bill Gillespie for your copy.

Thank You Kraig Pritts!

MERT sincerely thanks Kraig Pritts (KA2LHO) for his major contributions since 2019 as our immediate past Administration Manager. His contributions have been numerous, varied and creative over the years but three really stand out.



- His creation of an amazing Member database to help document volunteer details, developments and accomplishments is especially noteworthy. Accomplishment logs are records that track your achievements over time which are especially important for volunteer organizations like MERT having complex requirements for membership.
- **MERTrak** is a special time and activity documentation resource supporting MERT's ability to report each volunteers' activities in detail should the Division of Emergency Management require it for FEMA reimbursements. As a specialty volunteer organization, our time is uniquely related to AUXCOMM and EMCOMM events.
- **MERT20** is a unique Special Event Exercise encouraging every MERT member to learn and participate in activities they may or may not do on a regular basis. The opportunity to spend significant time practicing on-air communications time over multiple bands is not a usual event by amateur radio operators... but it is during MERT20! Have you talked with other hams in 7 countries and 24 states?
 - ◇ MERT20 also encourages members to become familiar with all the radios provided by the Division of Emergency Management in the EOC radio room. While some are not used by members at their residence, future activations require MERT volunteers at least be familiar with the basic operation and adjustments of each radio unit;
 - ◇ The extended operations over the 12-hour timeframe introduces members to the probable schedule of Shelter support assignments.

I'm happy sharing that Kraig is remaining a member but he is going to enjoy a new perspective (and change of view) in his very hectic personal life. When you see Kraig, please thank him for his many wonderful contributions helping the Marion County Emergency Radio Team (MERT) advance and reach new heights!

From everyone at MERT... Thank You Kraig!



MERT Administration



CERT Rodeo



Hurricane Nicole



Community Presentation

FEMA ICS-214 General Message Practice

I hope everyone enjoyed the radio ICS-213 message practice class. Thanks go to Gray Moffett (KC3DWY) for leading the class which will return regularly this year.



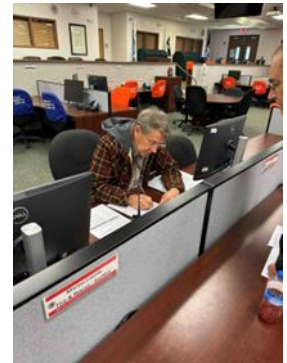
ICS-213 Training



Gary Neron sending a message



Bill Davis & Bruce Twiss reviewing the message



Bill Davis receiving a new message



Sharon Malik & Gray Moffett



Reviewing the results



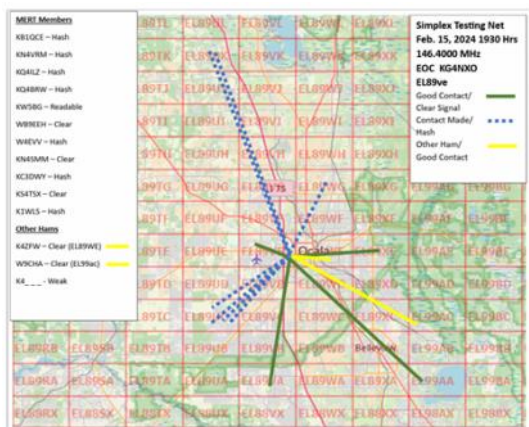
Nick Kiddey & Mike Condon



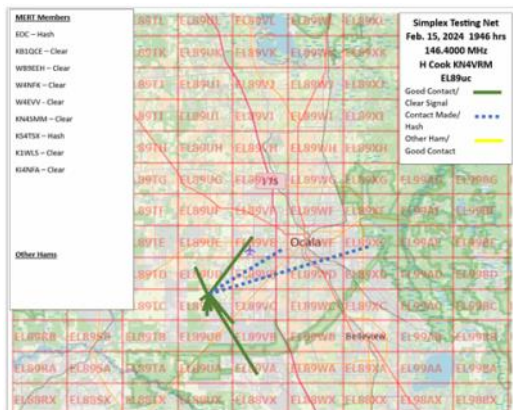
Rene Perron & Kathy Oxendine

Simplex Testing Underway

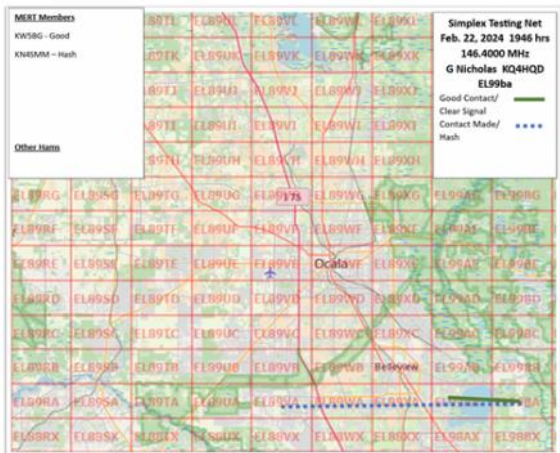
Our Simplex Test Net has started and the results of the first two week are in.



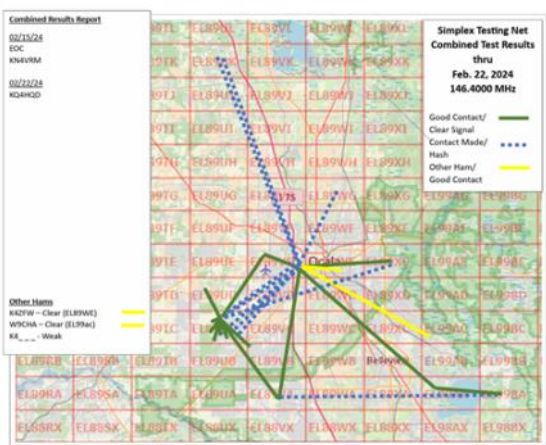
EOC Simplex results from 2-15-24 shows a diverse contact field with good to moderate distances



Test results for KN4VRM showed a mixed bag of contacts. Harlan shares he was surprised over the limited range that his radio/antenna system performed but is glad to learn the facts.



Test results for KQ4HQD from far SE Marion County appears as predicted. Note: A few Members living in the SE were unable to join the Net on that date.



The combined Simplex Net results map as of Feb. 22nd shows some potential relay Operators.

New Communications Building

The new communications hut at the Sheriff's Office Complex has been placed and is going through the final steps of construction. MERT will be moving our repeaters over when it is completed. This site has KG4NXO (2 Meter & 70 cm) and the Winlink Gateways (145.030 and 145.630 MHz).



Continued on next page

Upcoming Special Events

Let's have some FUN! Mark your calendars for these special events:

MERT20 Special Event Station-2024 KG4NXO



Marion County Emergency Radio Team (MERT)
 April 27, 2024 (1200 UTC) - (0000 UTC) April 28, 2024

Home About MERT Frequencies Schedule Certificate MERT Member Sign-Up

Welcome to the 2024 edition of the MERT20 Special Event website celebrating more than two decades of the Marion County Emergency Radio Team (MERT) service to the Marion County Sheriff's Office. We are extremely proud of our service providing emergency communications service to the Division of Emergency Management.

MERT has a well equipped radio room embedded in the Emergency Operations Center with operating capabilities on FM, SSB, CW and digital modes. There are several MERT FM and D-Star repeaters throughout the county to maximize our capabilities when called into service.

When shelters are opened during declared emergency situations, MERT members deploy to these shelters as well as offsite emergency locations to support communications back to the Sheriff's Emergency operations Center.

All members are FCC licensed Amateur Radio Operators who have completed FEMA/NIMS and incident Command System (ICS) training. Every member has also been fully vetted/Background checked through the Sheriff's Department. We stand ready to serve during critical events including hurricanes, tornadoes and other emergency events as requested by the Director of Emergency Management.

Thank you for your interest and participation in our 2024 MERT20 Special Event operation. Look around the site to sign-up and operate (MERT members only) see a sample of the 2024 certificate and how to receive one via email, how to find us on the air and the various frequencies/modes we will be using to help you be a part of our celebration.

We look forward to meeting you on the air!

[Click here for more details about MERT!](#)

MERT 20 Special Event Exercise

Saturday, April 27th – 8:00 am to 8:00 PM

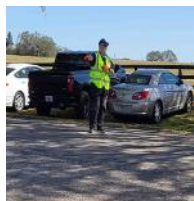
Have you signed up for MERT20 yet? If not, visit MERT20.org or KG4NXO

Following up on last year's very successful event when members made contact with other amateur radio operators in 7 countries and 24 U.S. states, MERT will do it again April 27th. This exercise event celebrates 20 years of MERT service to the Division of Emergency Management.

MERT Members support the Florida Sheriff's Youth Ranch Fundraiser Rodeo

Doing good has *no boundaries!*

On Feb. 24th, three MERT Members joined MCSO officials and other Marion County CERT Members in supporting the Florida Sheriff's Youth Ranch Fundraiser Rodeo.



MERT Members Kraig Pritts (KA2LHO), Pat Davis (KQ4BRW) and Bill Davis (KQ4ILZ) assisted with traffic control.

The Sheriff's Youth Ranch (placement is a voluntary decision) is where young people get another chance at life.



Stock pens and pavilion at the Youth Ranch.

MERT salutes these Members who volunteered their time for this important event!



(L-R) Lt. Paul Bloom, Bill Gillespie, Robert Ethridge and Harlan Cook.

Wow - How neat is this!

"We needed a mobile radio unit for our CERT/MERT activities. This one is all-terrain and can go over fallen trees, through flooded streets, and runs on treats. Radios, batteries, and spare cords can fit in some saddle bags. During the last storm our truck couldn't get around the neighborhoods because of fallen trees and this may be the solution!

The plan is to put the antenna on the highest point, by drilling a hole through the top of the hard hat and putting the mobile antenna up through it. We ran into difficulties when the hubby chickened out doing a test ride while I push the transmit button. He's concerned about RF or something buzzing between Wiley's

Learn more about MERT at..... KG4NXO.com

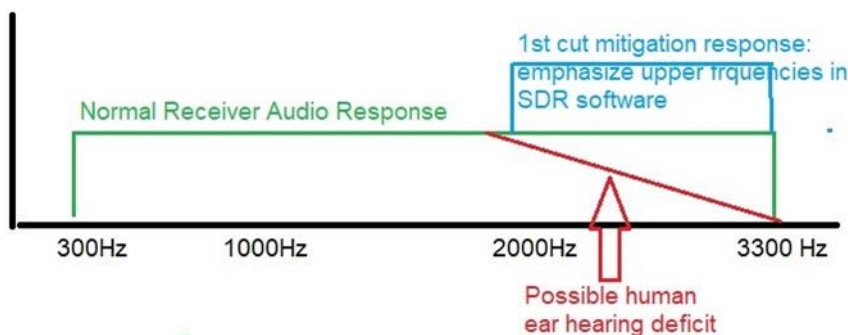


Wiley models the new MERT "Mobile Radio Unit" design. Testing has been delayed though!

Hearing Deficit Equalization Home Brewed into SDR Radio

by Gordon Gibby KX4Z

As individuals grow in years, it is common for hearing losses in the higher-audio-frequency ranges to develop. These may be accentuated or show up earlier for individuals who were exposed to damaging levels of sound. The loss of higher frequency sensitivity makes understanding speech, especially when there is interference such as other speech in the same room, much more difficult. Consonants involve sudden expulsions of air ("b- c- d- g- " etc) and thus have higher frequency components and can be difficult to differentiate with sensory-neural high frequency hearing loss. You pick this up when individuals in your group start having problems understanding "new" call signs, or during voice contests.

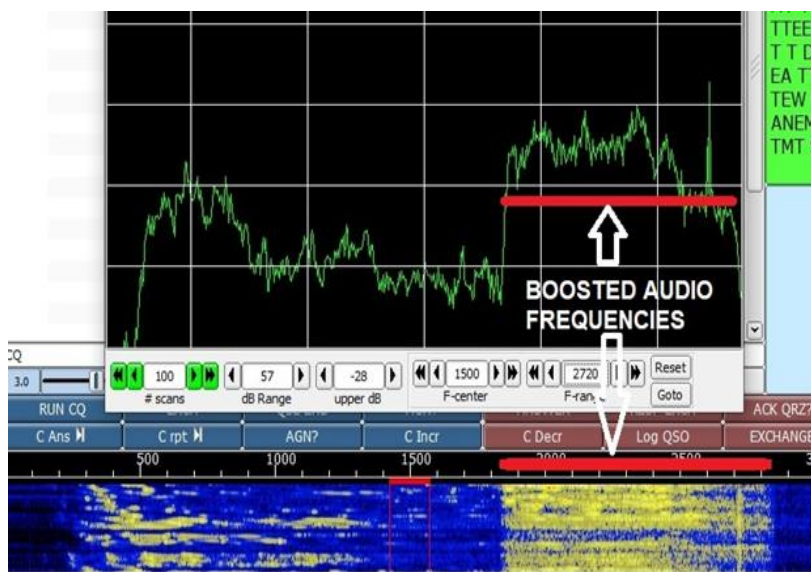


Schematic of high frequency hearing loss of first-cut mitigation implemented in this development

The market has responded with **equalization products** that can be used to mitigate this hearing issue by emphasizing the necessary region. See for example: <https://w2ihy.com/> and <https://heilhamradio.com/product/parametric-receive-audio-system-equalizer-praseq/> But these products aren't cheap!!

The ground-breaking public-source software defined radio sBitx produced by hfsignals.com, and developed by Ashhar Farhan VU2ESE interested me precisely because *anyone* can edit the software and add new features. *Why not build in audio equalization right into the radio with software upgrades, which are \$FREE?*

I started this trek with my Cornerstone Academy AP precalculus students (3 teenage high school YL's) and managed to create a software simulation of "old-ears" so the young students experienced (via their headsets) significant losses of >20dB in receiver audio above any desired frequency, such as 1500 or 2000 Hz. They were impressed at how much more difficult understanding words became! Then we created an offsetting pre-emphasis in a separate transmitter, and sure enough, their testing, using Defense Department SPRINT random test words, showed significant reversal of the simulated handicap. The students have begun writing this experiment up for their school's Science Fair and learned a lot about the practical uses of advanced mathematics in the process. Trigonometry and sine waves took on new meaning!



RECEIVER: I've now extended that work to create initial software for the sBitx that allows the operator to add in mitigating EMPHASIS (gain) in the receiver, starting at any desired frequency, and in amounts up to +26dB -- very significant assistance indeed! This could benefit many mild-moderate high frequency deficit hams.

TRANSMITTER:

I have also added software that allows the operator to remove wasted audio power below a desired point (usually 300 Hz) in the transmitter. And I have added the ability to add gain for the transmitted treble (higher) frequencies, which can be used to reverse a mushy mic or to help the fellow at the other end who might have some hearing loss. This isn't really new -- other radios, including the ICOM 7300, allow modification of the transmitted equalization. I did add some limits to reduce the risk of over-modulating or damage to the PA transistors.

MAKING THE ADJUSTMENTS:

In the sBitx, Ashhar provided for typed commands (e.g. /help brings up a list) and I merely added additional commands to his list, including: /treblerxfreq (e.g. /treblerxfreq 2000 to start boost at 2000 Hz); /treblerxboost (1-20, used as a multiplier of Fourier components above treblerxfreq) and similar commands to control the transmitter response as well. Other volunteers have come up with graphical controls to initiate these kinds of commands, and that may eventually happen for these equalization commands. But there will soon be no real need to pay for expensive add-on products: the audio equalization can be done right in the radio at virtually \$0 cost.

Despite selling over 1,000 units, the sBitx radio is still evolving and somewhat experimental and most suited to persons with at least passing understanding of Linux, or the Raspberry Pi line of single-board computers, or of the Apple line of computer operating systems. However, the prices of this modest-power SDR ham transceiver are becoming quite enticing, with working boards in the \$200 class and full units in the \$400 class. With the growing user base of world-wide hobbyist software programmers, for this design and others, hams are going to see *lots* of fascinating products at quite reasonable prices.

For those who wish to try out the audio-equalized sBitx software that I've developed, a README.pdf can be found at: <https://qsl.net/nf4rc/Tech/SciFair2/README.pdf> and the zipped software at: <https://qsl.net/nf4rc/Tech/SciFair2/sbitxSciFair.zip> The executable can be found at: <https://qsl.net/nf4rc/Tech/SciFair2/sbitx>, which works well if you have already loaded the standard sBitx software (which formed the required data directories etc) and `chmod +x sbitx` to make it executable again. Otherwise, compile the provided source files with `./build sbitx` as usual. Discussion of this and many other advances for the sBitx can be found at: <https://groups.io/g/BITX20>





Saturday, April 20, 2024
10:00AM to 2:00PM

SPARC

(Sportsman's Paradise Amateur Radio Club) www.K4WAK.com

3rd Annual Swap Meet

WAKULLA COMMUNITY CENTER

318 Shadeville Road

Crawfordville, FL 32327

A Place Where Amateur Operators Can Buy, Sell, & Trade Equipment

No Fees. Free Entrance/Set Up.

FOR INFORMATION Email: INFO@K4WAK.COM or Call Ken Fields W4KEF @ 850-508-9310



MOBILE HAMFEST

Saturday April 27, 2024 8 AM – 2 PM

Greater Gulf State Fairgrounds

1035 Cody Rd North, Mobile, AL 36608
Corner of Cody Road and Zeigler Blvd.



Beautiful 21,000 sq. ft. facility! Drive up to your tables during setup Friday.

ARRL approved event.

Setup Friday, April 26th 12pm – 3pm, Hamfest Saturday, April 27th 8am – 2pm.

ADMISSION \$7.00 per person

Tables \$10.00 each

Door Prize tickets \$1 or 6 for \$5

Door prize drawings hourly! Each admission includes one free door prize ticket!

TESTING 9:00 am SATURDAY by the NF4J South Alabama VE Team.

Grand Prize tickets \$5 each, 6 for \$25. Grand Prizes to be Awarded at 2pm Saturday:

1. Yaesu FT-710 Field Edition!
2. Yaesu FT-2980!
3. NanoVNA H4 complete kit!



Info: call or text Dave Huber at 251-802-6588 or email Rod Mollise W4NNF@ari.net

Tallahassee Amateur Radio Society Club Auction

April 4th, at 7pm, in the American Red Cross building located at 1115 Easterwood Dr, Tallahassee, FL 32311. The Tallahassee Amateur Radio Society (TARS) will hold its annual auction. Radio related items to auction are welcomed. A list of auction items will be sent out before April 4th.

For more information or to receive an email of the list. Email:

tallyamateurradio@gmail.com

Contact Information:

Orlando HamCation
Alejandro Malave
386-450-0133
PR@hamcation.com

Release Date:
March 7, 2024

**FOR IMMEDIATE RELEASE****Orlando HamCation Announces 2024 Attendance Numbers**

ORLANDO, FL – From February 9 to 11, 2024, the Orlando Amateur Radio Club hosted the 77th annual Orlando HamCation at the Central Florida Fairgrounds and Expo Park in Orlando—an 87-acre lakefront fairground. HamCation enjoyed splendid weather throughout the weekend, with temperatures hovering around the mid-seventies and no rainfall. This year's attendance reached a record high of **25,321**, making 2024 the largest attendance in HamCation history.

Orlando HamCation extends its heartfelt gratitude to our 2024 sponsors: our platinum sponsor, GigaParts, and both of our bronze sponsors, DX Engineering and PreppComm. We also extend our appreciation to all the volunteers from around the world whose dedication has contributed to making HamCation the beloved 5-star event it is.

We would like to express our gratitude to all the visitors and vendors for their participation in this fantastic show.

Looking ahead, preparations are already underway for 2025. We eagerly anticipate welcoming you to HamCation on **February 7-9, 2025**.

Orlando HamCation www.hamcation.com

###

What Crazy Stuff Are the Alachua County Crew Up to NOW?

by Gordon Gibby KX4Z

Well, it seems in many newscasts, that there is **doom and gloom** everywhere around us, but this Newsletter comes out on APRIL FOOLS' DAY and *why not have a little fun?* So, this month's article will highlight how we in Alachua County have FUN! There's an article out there for retirees on "*how to combat loneliness*"¹ -- and it looks like we have a decisive victory in Alachua County!

THREE ARENAS: We'll break it down to (a) fulfillment; (b) enrichment and (c) beating back senility. Important enough goals for a ham club?

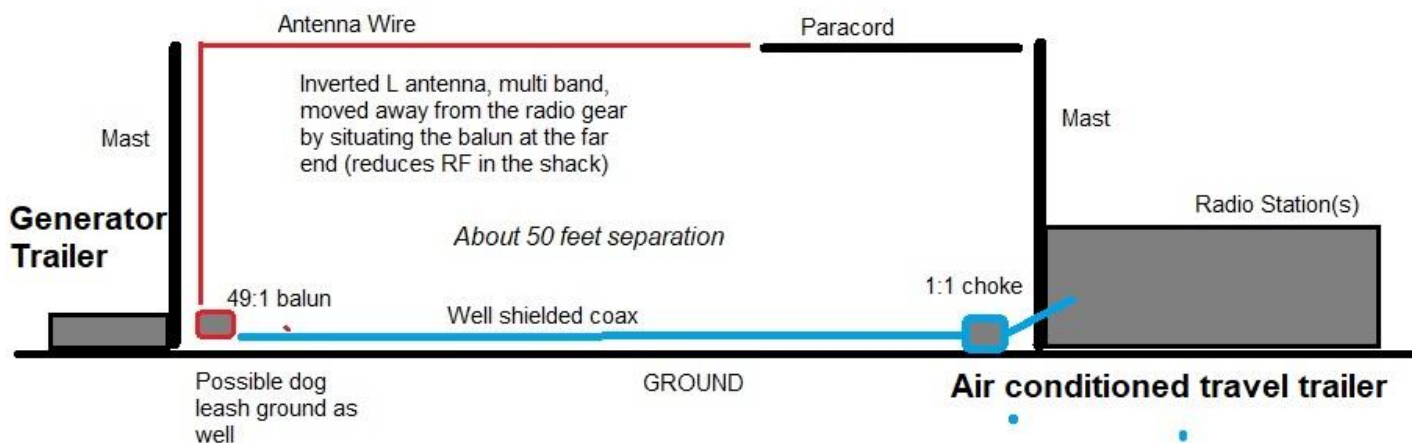
Fulfillment -- while pre-retirees think their biggest activities will be traveling (79%) and exercising (71%), in reality, for 83%, watching TV is their #1 activity and this does NOT conquer loneliness! NOT SO for Alachua County NFARC/ARES(R) hams! My word, they have trouble finding enough room in their day! If we are not EXERCISING and TRAVELING by doing a full radio deployment to Cuscowilla park, and surveying the 211-acre facility, we are all cramming into the EOC backup radio room on Wednesdays to make desperate contacts to National and Southeast SHARES nets and the State Net. And then there's Reid with his far-flung new group of volunteers, radios and stations all over east Alachua County -- get ready to squeeze ONE MORE into our tiny radio room, Reid is on the way!! For the more armchair-crowd we have Thursday night VHF net and every-other-Friday-night HF net. *So, we definitely win on fulfillment!*

Enrichment -- Was that monetary or life experiences? We do BOTH! We occasionally hold FINANCE NETS where we teach investing -- and way back during Covid when the S&P was around 2500, we begged people to start investing. Wow!! *They have made 100% since then!* Can't beat THAT for enrichment monetarily! But life experiences can be even more valuable. Who can never forget gathering around that meal table with soldering irons and spread out all over the kitchen counter-top learning how to count turns through a toroid for a 49:1 Balun, or learning a VNA or Spectrum Analyzer to tune the Triplexer?

Only 46% of retirees have fewer financial problems after retiring than before -- so the majority have MORE -- but we tackle that by constantly showing folks how NOT to need or buy that \$3,000 fancy radio. Instead, we **build our own** antennas, **our own** baluns, **our own** polarity protectors, our own Signalink-equivalents (have you seen Signalinks are \$140 these days???). And now our folks are using cheap Xiegu's or sBitx's! Even our tower trailer is home-grown, and our diesel generator is a US Navy cast-off.

Beating Back Senility -- Some of the suggestions in the article for folks include mentoring, volunteering, maintaining social connections and hobbies! We are on top of all of those! We've got Reid out there giving talks to the neighborhoods about putting together Neighborhood Ham Radio Watches and mentoring the rest of us on how to get our GMRS license and stations. Then there is that guaranteed head-scratcher, WINLINK! We are on that, too! And if that were not enough, our latest target is TRI-BAND YAGI's and come Saturday March 23rd we will be figuring out clamps and directors, feed points and traps, as we put together our first Yagi antenna and try to get it on top of our G800 rotator! And if that is not enough, we are helping several learn how to do MORSE CODE!! A new language in your Golden Years? What could possibly keep those neurons popping any more than that?

¹<https://www.newsmax.com/finance/streettalk/retirement-savings-health/2024/03/15/id/1157373/>



We had a blast during Winter Field Day and now our plan is to train for Summer Field Day by doing an EXPEDITION for Florida QSO Party Saturday! A bunch of us are going to hitch up two of our sad-sack repaired trailers, each of which has a MFJ telescoping fiberglass mast -- and head west to activate Gilchrist County and Dixie County and give some of our newbie CW/ SSB operators some pile-up time! The QUINTPLEXOR will have us operating two simultaneous stations, probably 40m and 20m. Hope to make your contact!

Where I think we possibly lack is in plain old get-togethers over meals (no teaching, or building, just getting to spend time together). So, Leland is going to work on starting up some lunch-time gatherings. Good work!

When we put time into working and growing together, everyone goes home richer



Digital Library of Amateur Radio & Communications

Marty Brown, N4GL, Editor

Digital Library of Amateur Radio & Communications is now archiving **QST NFL** issues. DLARC is a project of the Internet Archive (the not-for-profit online library best known for The Wayback Machine.) DLARC is growing to be a massive online library of the past and present of ham radio and related communications. It is funded by a grant from Amateur Radio Digital Communications. You can see what we have so far at <https://archive.org/details/dlarc>.

Three years of [QST NFL are now online](#), and I am working with the curator, Kaye Savetz, K6KJN, to eventually get all the issues that I have edited since 2014. DLARC can also scan paper issues. So if you have any stashed in your attic, let me know.



Suwannee ARC

Steve Kostro, N2CEI

Suwannee ARC would like to report this month that we are doing some upgrades to the club station and will be participating in the Florida QSO Party with the 1x1 call sign N4S. We intend to be on 10-40 M both SSB and CW. If anyone needs Suwannee County for their **Worked all Florida Counties Award**, we will be there on April 27th and 28th.

Suwannee ARES®

Gordon Beattie W2TTT

We had a solid month of Wednesday morning ARES nets and afternoon SARNET County and agency nets. The new rule that requires each county or agency operator to be physically present in their EOC or other organizational station has not been an issue. In fact, it has given rise to renewed interest in operating from the EOC by more members of the team. We developed a weekly roster for morning and afternoon assignments and worked seamlessly to provide coverage for each other when conflicts emerged. Further, we held sessions of the Suwannee County ARES Net each Sunday evening at 8:30 pm on the 145.27 MHz (-600 kHz, 123.9 Hz). These nets provide an opportunity to test our stations, train pur operators, disseminate information and to engage in a bit of individual activity discussion. It is followed at] 9:00 (by the Madison ARC & ARES Net on their 145.19 MHz (-600 kHz, 123.9 Hz) repeater.

In the month of March our ARES team has grown by three with one new operator and two who have rejoined. This is progress! Additionally, we are renewing our previous custom of encouraging those ARES operators who are available on Wednesday mornings to come by the EOC radio room starting at 8:30 am to engage in informal discussions, training and station projects over coffee.

The capstone event of the month was to have the first in-person Suwannee County ARES meeting at the EOC since before 2020. We discussed operator availability, deployability, training, activities and equipment. We set a date of April 10th to swap out the old 80m dipole for an 80m/60m/40m fan dipole built by our Emergency Coordinator Mike Meador KM4BTW. We also discussed the next steps in installing Anderson PowerPole connectors and power distribution in the EOC station to support "surge" equipment such as additional computers, radios and accessories.

Going forward we will be asking the Emergency Management staff to include members of the ARES team in training opportunities such as the recently held ICS-300 course hosted by Suwannee County Emergency Management. Our objective is to continuously elevate the training and operational experience of team members. We also discussed possible operational roles for moving the ARES team from its "When all else fails" mode of training and operations to ones when we provide or augment situational awareness and in other "AUXCOMM" roles. It was during the January 9th ARES activation in support of the State EOC that this capability became apparent to our Emergency Management staff and they appreciated our efforts and capabilities. We will need to refine and formalize these tasks and work with Emergency Management to define mission and personnel parameters. All in all it was a good month for Suwannee County ARES.

The Suwannee County ARES team wishes you a peaceful and joyful Easter Season!

The NanoVNA: A Multipurpose Device with Many Uses

By Bryan Phillips KQ4FMY

In the realm of amateur radio there are numerous gadgets and gizmos that offer a multitude of benefits. At the same time however, some either fall into the category of being useful and proving their worth in one's setup, while others are demoted to the box or bin of items that do nothing more than occupy space. Among items I've purchased in the quest of being efficient in my set up, one that has proven its usefulness has been my NanoVNA.

I originally bought a used MFJ-207 to measure the SWR of my homemade antennas. It powered up, the needle moved, and as a newly minted general license holder I felt assured I was prepared to build my HF antennas. About a month later that was no longer the case. While visiting my in-laws in Mississippi, I took my POTA set up with hopes to make contacts, as well as get on the lower bands to talk with people back home. While setting up the Wolf River Coil, no matter how I adjusted it, I couldn't get an acceptable SWR. I was essentially playing ping pong with the meter, and the position of the loading coil. After replacing the battery, I found myself in the mindset of there has to be something better than this because no adjustment was good enough to tune. I entered the thought that plagues each operator sooner or later in their quest for gear, "what is better than this?"

While looking at alternatives for a more efficient meter I stumbled upon some YouTube videos promoting this little device called a NanoVNA, short for Nano Vector Network Analyzer. This tiny device was promoted as being the Swiss army knife of compact antenna measuring, and at the time was on Black Friday sale of 77.00. Could this possibly work for being so cheap? One video led to another, posts were made on Facebook groups asking for opinions, texts were sent, and an order was eventually made on Amazon.

The NanoVNA, or Nano for short, is a compact analyzer that can do a multitude of tasks. Supported by an internal rechargeable lithium battery that charges by a USB cord. The unit is able to be left on, graph the SWR of a selected band or bands, and when set or calibrated, you can see the specific SWR on a specific frequency, which is advertised as being able to measure between 10KHz to 1.5 GHz. Sporting a four-inch touch screen, the analyzer is able to be clearly seen in various conditions. An added bonus is the ability to calibrate a range that is set for example, 3-30 MHz, and be able to recall the set without having to recalibrate. Just install an adapter to whatever coax you're using, recall the band you saved, and you are on your way to checking the tune of your antenna. This makes tuning antennas like the Wolf River Coil easier. An example of this is tuning for the nightly HF phone net on 3.950. You simply move the jog wheel to 3.950 and as you adjust the antenna there is a real time graph and SWR readout of that specific frequency. This proves helpful because not only does one see the specific SWR on the selected frequency, but you can also see if the SWR rises or falls over the general coverage area. Judging by how the graph is presented one can see if the antenna is tuned across the entire band, or is it too short or too long, simply by how the graph is plotted on the screen.

The NanoVNA is supposed to be able to be hooked up to a laptop, as well as plot impedance via smith chart, however at the time of writing this I have mainly used it portable as an analyzer for not only my antennas but also those in our local ARES group. Packed away in a small container it resides in my antenna go box with minimal footprint, and stowed with the included calibration lugs, stylus, a small bag of adapters for various coax, and a 6" USB cable for charging on the go. The benefit of having this analyzer in the antenna box, allows one to have the ability to deploy either the coil or end fed, while making sure the antenna deployed is resonant where the desired operating frequency is located.

At the time of this writing, the current price of the NanoVNA H4 is \$98.00 on Amazon's site, but there is an instant coupon for \$18.00 off. Buyers should look at the nanovna.com website at a list of approved sellers. There have been some known to be copies from other sites, so it is encouraged to purchase one from the approved retailers. This way, one is guaranteed to receive an actual NanoVNA and not a clone. The seller of the one purchased was the seller Aursinc, who is the approved seller on Amazon.

The setup to calibrate the NanoVNA and put it into service is rather simple. There are numerous videos on YouTube explaining how to go into the setting and use the calibration lugs. However, I found a write up that was sent to me, originally written by the Utah Valley Radio club helped the best. Upon reaching out to their club, I was given permission to include said article as well as an article about how one can use their NanoVNA to calculate coax length. Both articles are included below. I owe much thanks to Noji Ratzlaff (KN0JI) of the Utah Valley Radio Club for letting me include their articles.

All in all, I was somewhat apprehensive that something so small, at such a low price point would be of any value. I have found that that is not always the case, as several fellow ham operators have either ordered one to add to their current set ups or have added one to their growing list of tools they would like to acquire. When constructing antennas at home, activating a park during POTA, traveling, or helping a fellow operator out with getting an antenna on the air, the NanoVNA has become a valuable addition to my ever-growing hobby. 73's and see you on the air!

Helpful Links: <https://noji.com/hamradio/pdf-ppt/noji/Noji-Article-NanoVNA-SWR-Guide.pdf>
<https://noji.com/hamradio/pdf-ppt/noji/Noji-Article-NanoVNA-Coax-Length.pdf>

How Secure are your Computer Passwords?

Carl Berry ,kc5cmx

This handy chart applies to all our computers used with our Ham Radio equipment (or not). Also note that it isn't wise to use the same password for multiple logins. A good password vault program is well worth the investment.

Time It Takes For Hacker To Crack Your Password

| Number of characters | Numbers Only | Lowercase Only | Upper and Lower Case | Number, Upper, Lower | Number, Upper, Lower, Symbols |
|----------------------|--------------|--------------------|----------------------|-----------------------|-------------------------------|
| 8 | Instantly | Instantly | 2 minutes | 5 minutes | 3 hours |
| 9 | Instantly | 9 seconds | 2 hours | 5 hours | 12 days |
| 10 | Instantly | 4 minutes | 2 days | 14 days | 3 years |
| 11 | Instantly | 2 hours | 132 days | 3 years | 279 years |
| 12 | Instantly | 2 days | 19 years | 159 years | 26.5 thousand years |
| 13 | Instantly | 6 weeks | 995 years | 10 thousand years | 3 million years |
| 14 | 3 minutes | 3 years | 51 thousand years | 608 thousand years | 239 million years |
| 15 | 26 minutes | 82 years | 2 million years | 37 million years | 22.7 billion years |
| 16 | 5 hours | 2136 years | 140 million years | 3 billion years | 3 trillion years |
| 17 | 43 hours | 56 thousand years | 8 billion years | 145 billion years | 205 trillion years |
| 18 | 18 days | 2 million years | 379 billion years | 9 trillion years | 20 quadrillion years |
| 19 | 6 months | 38 million years | 20 trillion years | 557 trillion years | 2 quintillion years |
| 20 | 5 years | 977 million years | 2 quadrillion years | 35 quadrillion years | 176 quintillion years |
| 21 | 49 years | 26 billion years | 54 quadrillion years | 3 quintillion years | 17 sextillion years |
| 22 | 490 years | 660 trillion years | 3 quintillion years | 133 quintillion years | 2 septillion years |

The Future of Communications—Q2 2024 Update

The following is taken from a recent press release issued thru FS Marketing in Marlboro.

DIGITAL ANNOUNCES PIPELINED ETHERNET

At a recent press conference in Marlboro, a Digital Spokesperson announced an exciting new product which has been the result of several years of joint development between Digital and the United States Navy Submarine Communications Research Centre based at Norfolk, Virginia.

Navy engineers have for years been experimenting with Ultra Low Frequency (ULF) radio communications for contacting submarines whilst they are submerged, thus eliminating the need for the vessel to surface or send up radio buoys and risk visual or radar detection. This practice makes use of the sea itself as a transmission medium and initial tests have proved very successful, under all weather conditions, in maintaining contact with a Trident class nuclear submarine during a trans-Atlantic crossing.

Now in a joint project working with Digital's Networking and Resources Centre in Colorado, a new product using Ethernet on ULF has been developed - DEUPT - Digital Ethernet Ultra Low Frequency Pipeline Transponder.

Using the existing cold water pipes within offices and factories will provide a cheap and realistic medium for Ethernet distribution, no longer requiring an expensive thick-wire or Broadband cable to be installed. The DEUPT is installed into the cold water pipe at each required distribution point and a transceiver drop cable will then run to the Ethernet device. The hardware consists of a ULF Transceiver and a Radio Frequency Modem contained in a watertight package the same size as a Terminal Server 200 (DSRVB). Power is

supplied externally and units are not mains frequency sensitive enabling one power supply to be used worldwide with only voltage switching. Water connections are via 15mm Copper Compression Connectors on the rear of the device. Adapters will be available to convert to Imperial and U.S. 1/2 inch pipe, and reducing pieces and T-connectors are also available for 22mm/3/4in and 28mm/1in pipe.

Initially designed for use on IEEE 802.3 networks, the DEUPT is also backwards compatible with 802.2 devices such as the DEUNA and DELNI, although it is not possible to run both protocols on the same network.

For those customers wishing to run only a Local Area Network (LAN), it is necessary to install a ULF blocker on the incoming water main supply pipe from the Utility Company. This prevents ULF signals being transmitted along the main water supply pipes to other locations.

Conversely, Wide Area Networks (WAN's) are now possible using a ULF Amplifier on the incoming water main to transmit data packets to other users within the same Water Utility Company area, doing away with expensive telephone networks and satellite links. Such WAN's are limited to a 100km radius from the "Hub" system, i.e. ULF networks must be based on a star configuration. The DEUWA (Digital Ethernet Ultra Low Frequency Wide Area Network Amplifier) should be available in Q2, 90.

Expected developments within the next two years include the Country Wide Network (CWN) and the World Wide Network (WWN).

According to the Digital Spokesperson "Where theres running water, Digital will soon have the technology to use it for a data transmission medium. No ocean will be too wide, no stream too small,. for soon Digital will have the whole world DEUPT."

Okaloosa County

DJ Stewart, KI4ZER ARRL ASM, NFL

What a wonderful month this has been! Hams from near and far traveled to our beloved Okaloosa County and we to them as well! What for one asks? Hamfests! That's right! The Playground Amateur radio club put on a show in Fort Walton Beach at the Northwest Florida Fairgrounds and WOW the 2-day event was just superb! The deals were great, the gear was better, the prizes were enticing and the best part, the vendors! Of course, none of this is possible without the patrons! And they (along with me) thank you for you ever generous giving and continuation to support this very wonderful hobby (lifestyle) of Amateur Radio! We are all a part of something great that consistently provides for our communities and fosters development globally! Pat yourselves on the back for being a Ham and show it off with pride! You, like me, volunteer to represent a community that holds value, garners respect, and shares its experiences while training (in many cases for free) to continue the communications hobby! Wherever you are, and whatever you are doing, share your enthusiasm and positivity with members of old, new, and potentially new ones. You never know how well the positive impact will affect their lives for the better!

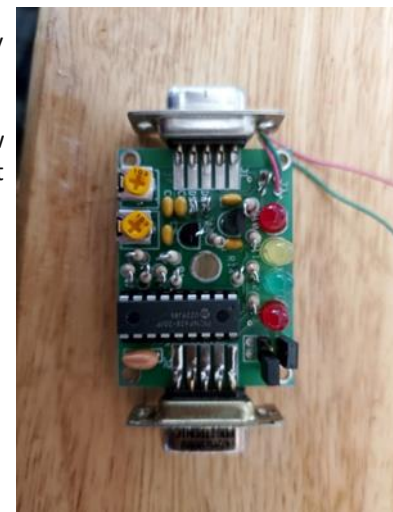


Right after the Playground Amateur Radio Hamfest the team met at the Clubhouse the very next day to plan out next years annual event and make it even better! Forward progress being the name of the gam here. As well, they had their traditional weekly Sunday Pile-Up! Members worked on radios and equipment procured from the Hamfest, tested out new to them computer devices, operated the Club Station reaching DX's as far away as Japan, and planned upcoming Technical Training Nights! Check out their Calendar and News page at <https://w4zbb.org/>



Want to know a fun fact?! WA4SXZ, Rich, from the Twin Cities Amateur Radio Club donated a rotor, a rotor controller, cabling, and other goodies to the Playground Amateur Radio Club! This rotor is important to the Playground team as the embark upon more projects for their Clubhouse! The Playground Amateur Radio Club is always expanding their capabilities to provide signals of the past and enhance their aptitudes for the future! If you want to know about their exact plans of expansion and development, be sure to attend one of their meetings or gatherings! Especially the upcoming Field Day on the 4th weekend in June of 2024! Speaking of communication devices,

Playground Member, Elmer, and Mentor NOKBS took on a project to rebuild a Tiny Track 3 Plus that was also donated by WA4SXZ! The controller chip for it was



outdated and there was no software for it (even on those awesome GITHUB pages). So, a new programmable chipset is ordered and will be soldered in making the apparatus useable. What is a Tiny Track 3? It is an APRS GPS encoder used for radios that do not have the chipset built in! This just goes to show you do not always need to set aside an older radio and go buy something new to achieve a simple goal. More to come on this project soon!

Don't know what GITHUB is? GITHUB is an online software platform. It is used by developers and P2P users for tracking, storing, sharing, collaborating, and developing files to expand the understanding of Amateur Radio and beyond. Amateur radio is just one of the thousands of examples. You can (and will) get lost for hours on any topic your heart desires!

<https://github.com/topics/amateur-radio>

That week the North Okaloosa Amateur Radio Club held its Business Meeting! Wow the plans in this organization are amazing! From working on their trailer and making consistent improvements, to announcing Field Day, hosting Workshops in the Club Shack and developing plans for local community event support there is no shortage of things to do ham related! They also are developing plans for their Hamfest in October on the 5th and 6th in 2024! More information to come soon as they finalize their details! Check out their calendar and schedule at <https://w4aaz.org/noarc/>

↓



The Saturday following, the North Okaloosa Amateur radio Team met at the club for the Workshop in the Shack! What a great time it was, and we are looking forward to more events like this! The team under the wonderful instruction of its Vice President and Activities Director KN4UDS were taught how to read circuit diagrams, identify proper components, how to solder and build a battery charger cutoff switch for Go-Kits! Everyone learned something and refreshed some skills that perhaps have gone by the wayside to the purchasing of items versus building them. This just shows that not always does a product have to be one off the web and the desire to build, test and make your own product has its own rewards!



We all know by now the meeting schedule of the active Clubs in Okaloosa County, so you know what is next! The Playground Amateur Radio Club and its monthly business meeting! Let me just say, this team of people function as one entity! They are introducing change into the club at a rate that is in direct result of the empowerment to its members and executive committee! Plans are under way to add to the already regular testing sessions by beginning to offer license classes! This has been a long-time dream of the club and after multiple inquires from Hams and non-Hams, they are laying the groundwork to perform just that task! More information will come as it is released but keep your ears to the ground for your chance to get a license and/or upgrade!



The Triple B!!! What is the Triple B?! It is Blues Brews and Bar b' Que! That's right! And in Crestview it is a staple in the community! Members from the North Okaloosa Amateur radio club came together as a rock-solid team to begin work getting vendors to their assigned spots working with the City of Crestview Police Department, The City of Crestview Mayor's Office, The City of Crestview's Downton Main Street Association, and the Okaloosa County Sheriff's Office to communicate and coordinate on safety and needs from not only street fair vendors, but national organizations as well! After the hard work was done the team even set up their own booth and showcased amateur radio to thousands of people in attendance! This event served as a wonderful chance to engage with people about sustainable communications and strengthen the bond as a reliable means of information exchange during times of stability and times of peril. If you take the time to engage as they do with your community, the rewards are untold and expands not only the trust, but also the need for Amateur Radio! Volunteer as you can and promote the airwaves!



Just when you think the month is about over, Hams in the Community step up to help out in Gulf Breeze Florida!



Meet the Moroccan Ham!

KC4R, John, originally licensed as WA4RHU in Morocco while deployed on active duty with the United States Navy in 1963 (20-year Veteran) had not only the Playground Team but the North Okaloosa Team come out for completion work on a beam and rotor install (from a previous build) located in gorgeous Gulf Breeze Florida!

While in Morocco John recalls details of DX'ing along with the former King of Morocco CN8MH! That's right!!! Amateur Radio is fit for a King and for all of you as well (depicted below)!

The stacks of the QSL cards that John has offers a long history and informational view point of how the hobby has evolved over the years and remained worthy of the crown! Depicted below is KI4ZER, KN4UDS, KQ4FRB and Michelle (studying in progressish). As you can see in the photos, John's shack has great equipment and is simple to use. His tilt over tower and beam are manual crank (like the catapults you'll still find in Morocco! <-True Story, look it up! The weather was perfect for this task and the shade provided by a beautiful tree!



Be sure to listen for John, KC4R in CW across the bands but this time, from the wonderful coast of Florida!

We close the month with two more events for the Okaloosa Organizations! The first being a Technical Night with the team at the North Okaloosa Amateur Radio Club! Since they are opening their club station on a regular basis, it is only appropriate that they show off the club station and teach folks how to use it for operations and events! The club station has been in use for years but with the sudden increase in new members and activities taking place (along with the improvements inside) the team from the North Okaloosa Amateur Radio Club is taking the time to ensure that the club's equipment inside is operated effectively!

The second event being the Playground Amateur Radio Club’s Sunday Pile-Up! This event occurs weekly on Sundays unless published differently on their calendar! While it is Easter Sunday, many are taking the time to stop in at the club and make some DX Contacts and solidify other plans that benefit the Club, it’s members and the community at large!

Nets on Holidays. Let’s take a second here to discuss Okaloosa County Amateur Radio Nets. Occasionally there are Sundays with holidays. While the GCVTN continues 365 days a year, the Playground Amateur Radio Club and the Twin Cities Amateur Radio Club will not be having an Easter net. Enjoy the time with your families, loved ones and friends. Well hop into full swing in April! Until then, be safe and enjoy Amateur Radio!

For a net schedule please see the following link and be sure to join them as applicable. Please note, this is not an all-inclusive listing and if you want your net featured on the webpage to reach out to the Playground Amateur team through their contact page.

<https://w4zbb.org/nets/>



Friendship Amateur Radio Club

Ken Simpson, W8EK

The Friendship Amateur Radio Club normally meets at the Marion County Sheriff’s substation on Route 200, SW of Ocala. We needed to change our location for our March meeting, however, since there was early voting at the Sheriff’s substation. Instead we met at Calvary Baptist Temple, in Rainbow Lakes, Dunnellon.

This meeting was our annual election of officers.

Elected were:

- Ralph Rabice, W4RER, President
- Charles Lukas, W1DOH, Vice President
- Sue Simpson, N8AJU, Secretary
- Ken Simpson, W8EK, Treasurer

Charles Lukas presented a program about preparedness for catastrophic events, such as EMPs. He showed us how to protect our equipment.

We meet on the second Monday of the month, at 1:30 PM, normally at the Sheriff’s substation on Route 200, located between WalMart and On Top of the World. Our next meeting will be on Monday, April 11. You are encouraged to attend.

Quarter Century Wireless Association

Ken Simpson, , W8EK President, Chapter 62

QCWA stands for the Quarter Century Wireless Association. If you have been licensed 25 years or more, you are eligible to become a member.

With over 4000 members internationally, QCWA is divided into over 200 chapters. Chapter 62 is based out of Ocala, FL. Each chapter holds its own meetings, which means one can get together with local hams. Chapter 62 meets on the fourth Thursday of the even numbered months.

That means that our next meeting will be on Thursday, April 25.

We meet at the China Lee Buffet, 3743 E Silver Springs Blvd, Ocala, FL 34470 at 12:30 PM. If you have never been to China Lee, you are in for a real treat. Great food, and if you go home hungry, it is your own fault!

You are welcome to join us, and we look forward to seeing you.

FCC Testing Information

Daytona Beach Amateur Radio Assn (DBARA)

- Monthly, third Monday, 5:30 PM, prior to meeting
- Lehman Building, Embry-Riddle Aeronautical University
- Registration Required
- Info: <https://dbara.org/testing/>

Hog County Amateur Radio Association, Bushnell FL

- First Saturday, 11:00 AM
- Cross Connection Church, 1451 West County Road 476, Bushnell, FL 33513
- Info: sumterVE@gmail.com

Lake ARA, Leesburg FL

- Monthly on the 3rd Saturday, prior to meeting. (Except December)
- 8:00 AM
- LARA Clubhouse (11146 Springdale Ave, Leesburg – off of CR 473)
- For more information and registration, contact: Dave Templeton N4NG, 386-804-2806
n4ng@icloud.com in advance of the meeting.

Lake Monroe ARS FCC Testing, Sanford FL (LMARS)

- Third Saturday of every month
- Seminole County Sheriff's Office, 100 Eslinger Way, 1st Floor, Sanford, FL
- Registration Required
- For more information and registration, contact Bob Cumming, W2BZY, 407-333-0690 or w2bzy@cfl.rr.com

Milton Amateur Radio Club, Milton FL

- Check date at miltonarc.org
- Walk-in
- Bagdad United Methodist Church
- Info: Chuck, N4QEP, merlinman3@yahoo.com

Orlando Amateur Radio Club

- First Wednesday
- 5:30 PM, Walk-ins allowed
- ARRL/VEC
- William Beardall Senior Center 800 S Delaney Ave Orlando FL 32801.
- Info: testing@OARC.org Robert Cumming, 407-333-0690

Santa Rosa County FL ARES® Testing (Walk-in)

- Information and dates can be found at srcares.org

Seminole County

- Every month on the third Saturday
- 9:15 AM
- Seminole County Sheriff's Office off SR 17-92, on 100 Eslinger Way in Sanford, FL
- Info: Bob Cumming, W2BZY, w2bzy@cfl.rr.com

Silver Springs Radio Club, Ocala FL (SSRC)

- Go to <http://k4gso.us/class/> to signup for classes
- Go to <http://k4gso.us/test-signup/> for testing. Testing is held on the 2nd Tuesday of odd months at 7 PM.
- Note <http://k4gso.us/ncvec605/> is requested to be filled out before you show for testing. It is best to download the form and open it as a PDF so you can fill in the blanks.

Suwannee ARC, Live Oak, FL

- Last Saturday of the month
- Suwannee Regional Library
- Contact Gerald Guy, geraldguy@gmail.com

Tallahassee Amateur Radio Society (TARS)

The Tallahassee Amateur Radio Society (TARS) has begun limited License testing. Please refer to the following for the updated testing dates and requirements for individuals wishing to take exams. [®]<http://www.k4tlh.org/getting-started/license-testing>

West Volusia Amateur Radio Society

- Second Saturday of each odd numbered month
- 6:00 AM
- St. Johns Lodge #37, 2557 N. Spring Garden Ave, Deland FL
- Info: <https://westvars.org/testing>

Playground Amateur Radio Club's

- 0900 on the second Saturday of every odd month
- PARC's clubhouse 1st and Church St Ft Walton Beach.
- Except March meet at PARC Hamfest
- See also the Exams tab at w4zbb.com

Statewide Digital Radio Resources

Did you know we have designated ARES® DSAR Reflectors & a DMR Talkgroup?

DSTAR Reflector 046

- REF046A – Florida Statewide
- REF046B – NFL ARES®
- REF046C – NWS Mobile, AL SKYWARN

DMR Florida State ARES® TG 31127

Feel free to link your local repeaters to help create a digital repeater network throughout the state!

Testing information is subject to change. Check with the testing venue to confirm the testing session and requirements.