

OSTNIFL

Newsletter for the Northern Florida Section Come join the FUN!

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From the Shack of the Section Manager

Scott Roberts, KK4ECR (kk4ecr@gmail.com)

Wow, it is hard to believe that a year has passed since I became YOUR Section Manager. It has been an honor and privilege to be Section Manager for the NFL Section. With your help, I look forward to another great year! The mission of the ARRL is to advance the art, science, and enjoyment of Amateur Radio. This is accomplished through 5 pillars:

The ARRL Five Pillars consist of **public service**, **advocacy**, **education**, **technology**, and **membership**. These pillars have been used in our materials and information to support other guiding principles, as a rallying call, and to define the organization. Each pillar underscores ARRL's broad authority and association as Amateur Radio's witness, partner, and forum.

This month, our pillar is **Technology**.



The ARRL serves as a valuable resource for Amateur Radio operators in the United States. While the primary focus of the ARRL is on promoting and supporting amateur radio activities, the organization also provides significant assistance to its members in terms of technology. Through various initiatives and programs, the ARRL helps its members stay informed, develop their skills, and navigate the everchanging landscape of amateur radio technology.

One of the key ways in which the ARRL supports its members is by providing a wealth of technical information. The organization offers a wide range of publications, online resources, and forums that cover diverse topics related to amateur radio and technology. Members can access articles, tutorials, and guides on subjects such as radio equipment, antenna design, digital modes, radio propagation, and more. This extensive collection of technical information empowers

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members to expand their knowledge and make informed decisions when it comes to their amateur radio endeavors.

In addition to providing technical information, the ARRL assists its members in obtaining amateur radio licenses. The organization offers resources and study materials to help individuals prepare for license exams. Through study guides, practice exams, and online courses, aspiring radio operators can acquire the technical knowledge required to operate amateur radio equipment safely and effectively. The ARRL's licensing support ensures that members have access to the tools and guidance necessary to enter and participate in the amateur radio community.

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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.arrl-nfl.org Kari McClure, NW4R

Newsletter, QST NFL Marty Brown, N4GL

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: Marty Brown N4GL.MARTY@gmail.com.

All submissions are subject to editing prior to publication.

Looking for Something?

Gordon Gibby, KX4Z, has taken the time to index the articles from all the 2021 issues of *QST NFL*! https://arrl-nfl.org/wp-content/

up-

loads/2021/12/2021QSTNFLIndex.pdf

The ARRL also recognizes the importance of technical support and advice for its members. The organization maintains a dedicated technical support team that is available to assist members with questions and issues related to amateur radio technology. Whether it's equipment setup, troubleshooting, or general technical advice, members can reach out to the ARRL's technical experts for guidance. This valuable support system helps members overcome technical challenges and ensures that they can enjoy a smooth and successful amateur radio experience.

The ARRL actively represents the interests of its members in regulatory and technical standardization processes. The organization works closely with government agencies, such as the Federal Communications Commission (FCC), to ensure that regulations and standards are fair and supportive of amateur radio activities. By advocating for favorable spectrum allocations and promoting the development of new technologies in the field, the ARRL safeguards the interests of its members and helps create an environment conducive to the growth and innovation of amateur radio technology.

The ARRL takes a proactive approach to technology education and training. The organization organizes workshops, training sessions, and educational programs to enhance the technical skills of its members. These programs cover various topics, including radio operation, antenna construction, digital modes, emergency communications, and more. By providing opportunities for learning and skill development, the ARRL ensures that its members stay updated with the latest technological advancements in the amateur radio community. This commitment to education empowers members to harness the full potential of amateur radio technology and contribute meaningfully to the field.

In addition, the ARRL fosters a sense of community and collaboration among its members. The organization facilitates networking opportunities through events, conferences, and online platforms. These platforms allow members to connect with likeminded individuals, share knowledge and experiences, and collaborate on technology-related projects. By fostering a supportive community, the ARRL encourages the exchange of ideas and the formation of partnerships that drive the advancement of amateur radio technology.

To sum it up, the ARRL provides comprehensive support to its members with regards to technology. Through the provision of technical information, licensing assistance, technical support, regulatory advocacy, education, and networking opportunities, the organization equips its members with the tools and knowledge they need to excel in the world of amateur radio. By empowering its members with technology-related resources and expertise, the ARRL plays a crucial role in advancing amateur radio and ensuring the growth and success of its vibrant community.

Section Updates

What an amazing Field Day weekend we just finished. I hope you were able to participate. It has been great to scan Facebook, Twitter and other social media and see the photos of all the various Field Day sites. Please take time to email me your best Field Day photos. If you would like, I can email you a link to upload photos. I plan to use these photos as promotion for our section as I travel and speak and various events. You can email me at kk4ecr@gmail.com.

While Field Day is a great social and contest event, I also hope you took advantage of the emergency preparation aspect of Field Day. I hope you were able to test and work out any bugs or kinks in your EMCOMM equipment and make sure you are ready for the 2023 hurricane season. While this year is predicted to be a lighter than normal hurricane season, it ONLY TAKES ONE storm. We need to make sure that we are ready. I recommend that you get with your county's Emergency Manager and check your shelters to make sure that the equipment there is ready in the event of an activation. You can never be TOO prepared.

If you would like me to visit your club meeting and/or speak, please email me, and let me know the date, time and location of your meeting -- I'd be honored to be part.

Thank you for allowing me to be YOUR Section Manager.

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NFL Section Member of the Month—Arc Thames W4CPD

Scott Roberts, KK4ECR, SM

This month, I wanted to send out "KUDOS" to our Section Emergency Coordinator, Arc Thames, W4CPD, and name him as the Norther Florida Section Member of the Month. Arc puts in more time than many of us realize to make sure that our section is ready to serve our section when called upon. Arc is the liaison to the State EOC and has worked very hard to build great working relationships with them.

Not only has Arc worked hard on the State level, but he has also worked very hard in his county to build relationships with his served agencies there.

Arc, "Thank you!" for all of your hard work and service to your county and to our section!







Submit your candidate for NFL Section Member of the Month!

If you know someone who deserves recognition, please submit their information to Scott at, kk4ecr@gmail.com, or SEC Arc Thames, W4CPD, arc.thames@srcares.org. Please include name, call sign, the name of the club or group, the name of the person making the submission, a description of why they deserve to be the NFL Section Member of the Month, a photo of the person, and a bit of background.

From the Section Emergency Coordinator

Arc Thames, W4CPD

In the fast-paced realm of emergency communications, the importance of ongoing learning and skill development cannot be overstated. As emergencies become increasingly complex and technologies advance, volunteers, and professionals alike in this field must continually grow their skills to effectively provide auxiliary communication services.



Effective emergency communication requires individuals with a diverse skill set, including incident management, decision-making, and interpersonal communication skills. Through training and exercise, emergency communication volunteers can hone their skills and be better prepared to respond when disaster strikes. Whether it be from YouTube, FEMA, your local served agency, or the State, there are numerous opportunities available to continually expand your knowledge and stay current.

One such place to find ICS & FEMA based training in your area is via Florida's SERT TRAC system (https://trac.floridadisaster.org/). SERT TRAC is a place that you can upload certificates from the various courses you complete to have an official State training transcript but also lists all the training offerings in our various regions throughout the state. If you're interested in continuing your journey with FEMA and the Incident Command System (ICS), SERT TRAC is the place to find it. I won't go into the "how to" of using the system as it's pending a major upgrade but take time to create your account and see what training you might be interested in.

I'm excited to announce that we're pending a confirmation for an AUXCOMM class in Walton County. Tentatively it's planned for Friday September 15 through Sunday September 17 of this year. This class is designed for auxiliary communicators and groups who volunteer to provide backup radio communications support to public safety agencies. I can honestly say, it was one of my favorite classes as it ties so many areas of what we do together. Be watching for an announcement on how to register in the coming weeks.

Section ARES Report

In May our section reported 2,155 hours of volunteer time to various ARES duties within our section. Thanks to the counties and EC/AEC's for reporting their time. The information provided by our team is consolidated and then forwarded to the ARRL.

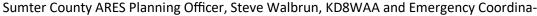
	Number	Person-Hrs
Exercises this month:	7	121.00
Training events this month:	13	731.00
Public service events this month:	1	16.00
Community service events this month:	4	66.00
Emergency events this month:	0	0.00
SKYWARN events this month:	4	561.00
Meetings this month:	16	298.00
Unclassified events this month:	84	362.00

Call signs of DECs/ECs reporting:

W4CPD KO4KUS KK4ECR K4SOP KN4PFZ N2HAY KC4NVU W4KKJ W4CJB KB4HAH WE4MJ KM4BTW KO4YOL KX4LEO N4JTK

SUMTER COUNTY ARES PARTICIPATES IN FIELD DAY 2023

Mark Newby, KX4LEO, EC



tor, Mark Newby, KX4LEO participated in Field Day 2023 with The Villages Amateur Radio Club, K4VRC. The Sumter County ARES Emergency Communications trailer was set up in The Villages' Eisenhower Recreation Center along with the Sumter County Sheriff's Office's mobile command trailer, from which club members operated their equipment for Field Day. This proved to be an excellent opportunity to recruit new members and introduce the Sumter County ARES program to club members, as well as those who just came to see what Field Day was all about.







Loften HS Prepares for Incoming Freshmen

Bob/W4GJ, Trustee for W.T. Loften High School ARC, K4WTL

New, incoming freshmen students at Loften High School have a new door mat to greet them as they enter their HAM Shack. They will come back to school on August 10th. We should have 16 new freshmen exposed to HAM Radio. If they are anything like last year's freshmen, we will have a really good crop of young operators! We have to get them prepared for National Fire Prevention week in October. We will again be using the Special Event call, N4F. (See hamfire.com) for details.

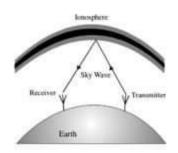
A few of our sophomores participated in the ARRL Field Day on CW. We made 613 QSOs on 20 Meters and 121 QSOs on 40 Meters for an eleven hour operating period. I am very proud of our 45 students who continue to enjoy the hobby of HAM Radio here at K4WTL.



Is your Technician License no longer enough?

ARE YOU READY TO UPGRADE TO GENERAL?

Share the excitement of world-wide communication on the High Frequency (HF) bands!







Attend our Intermediate-level* class for the Amateur Radio "General" License.

Offered by the North Okaloosa Amateur Radio Club.

You will:

- · Expand on the radio knowledge you gained with the Technician license.
- Gain access to ALL the amateur bands 160 meters through microwave.
- Enjoy world-wide, point-to-point contacts, even at low power with simple antennas.
- · Learn how to send E-mail even when the Internet is down (Emergency Comm).

Dates/Times: Tuesday nights, Aug 22nd through Oct 10th, 6:45 PM to 9:30 PM

Location: Live Oak Baptist Church, 4565 Live Oak Church Road, Crestview FL

Cost: \$23 for the book, \$15 for the class

Registration: E-mail Bob Hurley, school@w4aaz.org, with phone number to begin registration process. You will be contacted with registration information.

Class size limited to first 20 people who register and submit payment.

(*Note: This class assumes you have a Technician license or prior knowledge of the Technician material prior to the first class. It is not designed as an Introductory course.)

REGISTRATION DEADLINE Friday, August 04, 2023.

Alachua County May 2023 NVIS Emergency Exercise

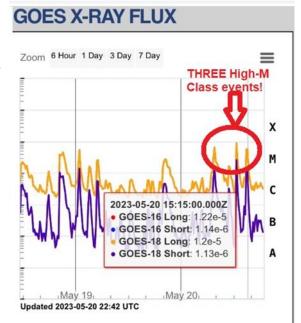
by Gordon Gibby KX4Z

Alachua County volunteers have been BUSY recently. In May, we participated in TWO substantial radio exercises, the Florida SET (Simulated Emergency Test) and also in our own special local NVIS Functional Exercise "Get the Message Out." This exercise was May 20th, 2023, and written, prosecuted and written up by first-timer Reid Tillery K9RFFT, who becomes the 5th Alachua County ARES(R) volunteer to carry out an HSEEP-based exercise.¹

Reid is fascinated with HF NVIS operations, and runs a 75-m voice net on two Friday nights of the month that has proven very popular². He is also our current local WINLINK trainer-guru, pioneering a multi-step series of short hands-on courses to get folks up to speed. Our volunteers really appreciate his patient hands-on training..

SCENARIO

Reid's scenario (https://qsl.net/nf4rc/2023/NVIS-VHFGTMOFunctionalExercise.pdf) involved hacker damage to all internet systems (public phone/internet) and loss of high-masted assets such as voice repeaters and our county-wide digipeater



GOES X Ray Flux showing 3 high-M class events on Saturday 5/20/23

(NF4RC-7, 144.990, which has zero internet connection). He created multiple objectives as close to S.M.A.R.T. format as possible, including moving both agency and citizen-generated traffic (health and welfare) around and out of the disaster area, and gaining additional familiarity with our volunteer Communications Plan (https://gsl.net/nf4rc/AlachuaCountyCommsPlan2022.pdf).

Exercise Preparation

Reid was very instrumental toward involving *lots* of volunteers, placing the Gainesville Amateur Radio Society group at the Waldo EOC radio room as "net control" of the HF net at the center of his NVIS efforts (ably manned by Shannon Boal K4GLM, Dave Dockus KO4GCZ, Mike Martell KK4KRZ, Larry Rovak WB2SVB), and including multiple "out of county" resources (Gordon Beattie W2TTT, Michael McCarthy K3COW, Amy Woods WA4AMY) to accept peer-to-peer outbound H&W traffic. Others staffed helper stations, "shelters" and nets. There were 16+ volunteers involved. His exercise had traffic moving in myriad ways, including VHF voice & data (Winlink VARA-FM) from simulated shelters, around town via voice/data, out of the county via HF peer to peer voice/data, and also outward using distant WINLINK RMS stations, far from the disaster area. He encouraged volunteers to pick out potential survivor "catchment" locations, such as a fire station near him (where he also volunteers) that agreed to collect messages in the event of a disaster for outbound relay by ham radio. Reid is a very enthusiastic and motivating ham!

Reid set a goal of moving 500 pieces of traffic, using the total of all originations plus all relays, by all techniques. We used a generous counting protocol, so H&W "books" of traffic counted as multiple messages either originated or relayed, and multiply-destined WINLINK comms-plan announcements also counted for multiple originates. Nevertheless, his goal was *far* more than we have ever moved in one Alachua County exercise.

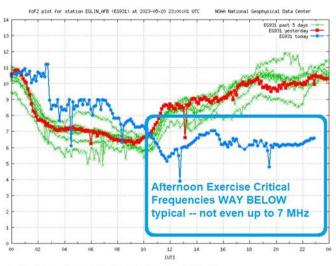
¹Other writers include myself, Leland Gallup AA3YB, Susan Halbert KG4VWI, John Troupe KM4JTE. HSEEP-based exercises are introduced to ARES(R) volunteers in Level 3 Taskbook challenges

²1st and 3rd Friday evenings, 7 PM local time, 3.970 MHz Lower Side Band.

Totally Unexpected Events

It started normally. Following our Communications Plan, an Everbridge alert went to potential volunteers on Friday evening encouraging them to be "ready" for a potential (test) activation (despite everyone knowing the Exercise was Saturday). On Saturday morning, the simulated Internet outage triggered the WINLINK / JS8 / RMS signon messages to our volunteers. These included announcements of the Incident Action Plan (for the exercise) and frequencies. Having contacts and groups already entered to our systems worked well. But we were oblivious to what was happening in the sky above us **for real**.

What happened above us on May 20 was totally unanticipated, throwing us real-life curve balls that were far beyond anything we could have written. We learned a TON from his exercise. In the hours before and involving his 2-hour morning session, there were not one, but THREE high **M-class solar flares**. M-class is known to damage HF communications, and is just below the highest level, X-class. Xrays from these solar flares reach the earth at the speed of



Critical Freq, Eglin AFB (Florida), BLUE = 5/20/2023

dio comms...

light and are measured by the GOES satellites. (https://www.swpc.noaa.gov/phenomena/solar-flares-radio-blackouts) At the top edge of the M-Class, the morning flares drove the D-ionospheric layer to very high absorption for significant periods of time -- playing havoc with our 75-meter NVIS voice net, chaired ably GARS volunteers. In spite of this, the group persevered and hundreds of messages were moved.

We soon learned that most of our volunteers did not realize they should be checking WINLINK email for messaging outside of normal channels -- and all three planned Shelters went *un-manned* for the entire first session! During the "intermission" we made phone calls to reach the missing volunteers, and worked on improved techniques for the afternoon session. But at that point we were *beginning* to learn of the solar flares and what was really going on in ra-

AFTERNOON IONOSPHERIC ANOMALY

We were therefore even further caught off guard in the afternoon session. Reid's NVIS plan was for a 40-meter net. Unfortunately, our frequency choice collided with a popular east-coast net, but even worse, the solar flares apparently did a number on the lonosphere, and the critical frequency was dropping instead of rising, going FAR below that of any recent days (see figure). With the critical frequency below the 40 meter band, and D-layer absorption also high, the Waldo Net Control station could not reach ANY of the Gainesville shelters, Alachua County EOC, or any other participants by HF! Point-to-point VHF relays and short-distance point-to-point or ground wave HF relays were the techniques we had to adopt to move all local traffic in the afternoon session. This was a big learning experience for us, and we'll need to develop plans to obtain better insight into the ionosphere on a real-time basis during disasters³.

Despite all these very unusual impediments, we met and exceeded the message traffic goal! 513 messages (using our generous counting of outbound survivor messaging) were logged.

³Probably by developing out-of-state trusted associates who can use working Internet to provide solar data.

No Internet - No Problem! Small GPS-Derived Time Servers for Ham Radio

by Gordon Gibby, KX4Z

Our Alachua County ARES(R) / NFARC team wanted an Internet-free way to set time synchronization after our 2022 Field Day. **JTSync** can synchronize your internal clock to some 15-second boundary to match received signals, which allows successful decoding, but won't necessarily get you to the correct time. Since we use a private WIFI/mesh microwave network for logging etc., without Internet access, we don't have access to NTP servers. Thus the request for our own GPS-derived server.

Jim Bledsoe KI4KEA came up with a working Windows-based system using W32Time (Windows time service) internal process of Windows as the ntp server and using other programs to connect to an inexpensive USB-GPS receiver (https://qsl.net/nf4rc/2022/GPSNTP.pdf) and I worked to copy his success on an inexpensive 12-volt powered Evolve III Windows-based laptop (https://qsl.net/nf4rc/2023/GPSServer.pdf). I used a generic VK-162 type



GPS receiver (see figure). I used gpstime (https://www.coaa.co.uk/gpstime.htm) to capture the 4800-baud signal from the GPS USB dongle. However, there is *some bug* in the USB drivers or hardware of the inexpensive Evolve III laptop, and there were random failures of my USB-based WIFI connection on that computer. This was disconcerting, although Jim's solution would likely work fine on a better computer.

Raspberry Pi's are finally becoming more inexpensively available, so I turned to attempting to create an NTP-server in a Linux environment, using a modest Pi 2. The Raspberry doesn't natively have a real-time clock, a disadvantage compared to the Evolve III, but the software for ntp is decades old and quite solid. A readily available Linux daemon gpsd grabs data from the GPS dongle and can make it available to the ntp routines either by a socket connection or a shared memory segment. There were a few "gotchas" in the process, but I came up with a very detailed document (https://qsl.net/nf4rc/2023/GPSrpisetup.pdf) that explains not only how to create the server, but also **how to troubleshoot your installation,** step by step. After learning how to initiate ntp as "root," both the shared memory and the socket connections worked well, allowing me to choose the shared memory system, and simultaneously utilize monitoring routines such as cgps and gpsmon to watch the gps time without interfering with my rock-solid ntp server. (cgps will even display your grid square!)



The only disadvantage of that system was that if the fake-hardware clock of the raspberry was more than 4 hours off, ntp would not lock. It is an easy workaround to set the time to at least that accuracy from your own watch using the Linux date command, so this provides a very cheap and solid ntp server for contesting or emergency service volunteer groups.

However, I wanted the system to be "turnkey." So I added a very inexpensive DS3231-based real-time clock (<\$10) to the raspberry pi. It mounts directly onto a few of the GPIO pins, providing both electrical and physical connections. Software configuration details are

readily available and take about 10-15 minutes. Now my NTP server is completely independent, and able to turn on, lock to time within a minute or two and provide endless solid time services within a tiny fraction of a second.

PPS Signal For Highest Accuracy

More advanced GPS systems provide a 1 pulse per second (PPS) signal that allows the gpsd/ntp solution to provide accuracy some orders of magnitude even more accurate. These GPS devices are also inexpensively available (for example, https://www.adafruit.com/product/5440), but the accuracy achieved with a simple USB dongle easily meets our needs.

Windows-based Client Time Synchronization

In the process, I learned some of the disadvantages of the brute force adjustments of Dimension 4, our go-to Windows sync solution, and also learned of BktTimeSync (https://www.maniaradio.it/en/bkttimesync.html) which worked well for me, and is said to also be able to synchronize directly from a GPS dongle for an individual who doesn't need a group NTP server. For our purposes, the typical-quality Windows laptop computer at most needs to sync up with our NTP server once an hour or so, to be perfectly usable.

Alachua County ARES® May NFL S.E.T. Participation

by Gordon Gibby KX4Z

Oops! I simply forgot to send this in, for the June newsletter.

SECTION EXERCISE SERVICE DENIED participation Emergency Coordinator Jeff Capehart W4UFL, the local exercise planner and conductor of this exercise, reported in our May meeting:

Measure	Total or %	
Total Participants (all of Alachua County)	22	
Total official messages generated	129	
Total # of H&W messages	15	
Percent of badged volunteers participating	16 of 25 = 64%	
Percent of ARES(R) registered volunteers participating	19 of 39 = 50%	
Did you withstand the loss of power	7 successful of 9 who received inject	
Did you withstand antenna failure?	8 successful of 10 that received inject	
Did you get the mixed group characters located at the end of the JS8 and SHARES bulletins	EOC: Yes	
ICS 309 submitted	10	
ICS 214 submitted	8	

We were all pretty happy about these outcomes. We do not yet have an AARIP for our group to report for this exercise. We were VERY appreciative of the work put in by NFL leadership to put together this S.E.T.!

Milton Amateur Radio Club

25th Annual

HAMFEST

MiltonARC.org

Best HamFest in Northwest Florida!

Santa Rosa County Auditorium 4530 Spikes Way, Milton FL 32583

July 7, Public 3 pm - 8 pm & July 8, 8 am - 1 pm

Silver Springs Radio Club 2nd Annual Tailgate

Marty Brown, N4GL

The Silver Springs Radio Club hosted it's 2nd Annual Tailgate on June 3, 2023 at Green Clover Hall, the club meeting location in Ocala, FL. Tailgaters began arriving at 8:00 AM and quickly filled the allotted spaces. Members were very pleased to have representation from all over Central Florida, including Ocoee and Gainesville. Deals were done, and a great time was had by all.

Izzy, KT4WA, Sets the Tone for the Event!



Alachua County NFARC/ARES® June Report / Field Day Ends With A BANG!

by Gordon Gibby KX4Z

Our local volunteers did a lot of work in May for Field Day, but I mistakenly failed to send the report.

Tower Trailer

Stewart Reissener KK4DXF has outdone himself! With pass-the-hat donations he obtained enough steel and has welded up our very first Tower Trailer to handle our donated ~35'aluma-tower! This is the first time we have had access to such a radio asset, and it should be able to support dipoles and a lightweight beam (if we had one!) for emergency communications. In the accompanying photo, Stewart is the gentleman to the left helping hold the nested tower vertical.

Stewart's design was easily rotated up from the tilted storage position by 2 or 3 guys, and also easily taken down. The base is welded to a pivoting axis in beefy angle-iron bushings. The entire system, including the antenna and the rear support brackets, can be REMOVED from the equipment trailer so it can do its ordinary equipment hauling jobs. Well Done, Stewart!!! He also built very impressive stabilizer outriggers for the front. We used this tower system in our June "Dress Rehearsal."



Field Day Asset Development



Figure 1: (L to R) Eric Pleace KO4ZSD, Leland Gallup AA3YB and Susan Halbert KG4VWI assemble baluns

Our Field Day was at a county continuity-of -operations alternate site, so we had to do a lot of the work of a 4A station, including putting up 5 HF antennas, and 3 VHF antennas, as well as emplacing five stations. David Huckstep W4JIR did a wonderful job putting our EOC HF station into the handcrafted beautiful wooden go-box created by Stewart Reissener KK4DXF. We were blessed to have additional go-boxes being brought by Leland Gallup AA3YB, Wendell Wright KN4TWS, Craig Fugate KK4INX and David Huckstep W4JIR, as well as mine, which will go into the G.O.T.A. effort at a travel trailer in the Veterans Memorial County Park.



Figure 2: Homebrew 1:1 Choke Baluns

Our LunchNLab

line radiation.

crew also created two more "paint-can" BANDPASS FILTERS so that we have a complete set now. Running out of time, our 15-meter and 10-meter are simple 3-pole homebrew Butterworth Filters. Although their insertion losses are low and the SWR's good, the isolation between 10- and 15-meter bands isn't much, so we'll have to keep those stations on the best-isolated antennas. Our filter isolation to 20 meters and below, and 6 meters above is 30 dB+. Our crew had a lot of fun winding in-



We constructed all FIVE HF antennas, from end-fed half wave with 49:1 baluns, through OffCenterFed with 4:1 Guanella baluns, to a center-fed window line non-resonant. All are wound on commercial extension cord holders. Our May 13th LunchNLab crew created two more 1:1 choke baluns to help reduce interference between all the stations from feed-

Figure 3: "Paint Can" 3-pole Bandpass Filters for 10and 15-meters Continued on next page...

ductors and measuring them with a MFJ259 antenna analyzer, and then using the spectrum analyzer to finish the tweaking of the bandpass filters!

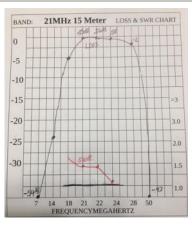
EOC ANTENNA WOES

During county exercises in May we discovered one end of our EOC 270-foot off-center fed antenna had come down in windstorms. Despite the "chigger risk," Leland Gallup AA3YB,

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Dave Huckstep W4JIR, Eric Pleace KO4ZSD and myself got the end fixed and also moved the Balun away from a dead tree. In the dense underbrush this took a lot of coordination and cooperation.



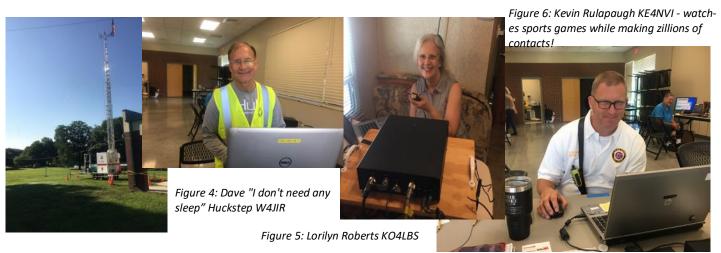


NF4AC/NF4RC 4F FIELD DAY

Following last year's Improvement Plan, we attempted a Full Dress Rehearsal in June. Setting up five HF antennas was arduous but we had many volunteers and everyone agreed that the confusion that was solved was well worth the sweat! Even Terry Gordon of the Gainesville Amateur Radio Society joined in! A spectrum analyzer was then used to map 3-to-30-MHz interactions between almost all permutations of the antennas. On Saturday morning when we did the "radio station" part of this Dress Rehearsal it was storming violently so we met inside, and Brad Swartz N5CBP and the president of the Columbia County club joined us. Studying the data from the interactions, we had some antenna pairs showing 30-dB isolation (judged inadequate for safety or operating) and other pairs on other bands showing > 50 dB isolation (excellent). This information proved crucial in guiding our actual Field Day operation. Outside activities rained out, we set up CW, Voice, FT-x and RTTY stations inside and practiced logging etc.

Field Day Friday

When Field Day Friday arrived we were ready to pass color-coded paracords to the able Florida Region 3 MARC Unit staff ably led by Kevin Rulapaugh KE4NVI. Nevertheless, we worked almost 8 hours with a slew of volunteers including Craig White KO4ZRZ, to get all the antennas and cables and ground systems installed. Dave Huckstep W4JIR commanded the lightning pro-



Continued on next page...

tection system and it was very impressive! That evening 3 of us worked on the ARRL Field Day bulletin and succeeded in copy for bonus points.

Saturday

Field Day Saturday started at 0700 for us, moving travel trailer and generator trailer and setting up the expansive air-conditioned Veterans' Memorial Park Freedom Center. The cooperation and comraderie of our group has become just truly impressive. Earl McDow K4ZSW's microwave mesh system was up and running very quickly and the Raspberry Pi GPS-based NTP time server was immediately available and both functioned flawlessly throughout the entire Field Day, a truly huge improvement from last year! Rosemary Jones KI4QBZ took over hospitality for Saturday Lunch, Sunday Buffet and snacks all in between and she was a huge hit in everyone's view. Wendell Wright KN4TWS handled Logistics, Leland Gallup AA3YB did operations, and Jeff Capehart W4UFL did great work on a main banner out front and our PIO table. Lorilyn Roberts KO4LBS was key to handling many of our visitors and tours with a wonderful touch. Pat Benson K00O stepped in to mentor many of our newer players with a very patient touch, and Mike Hasselbeck WB2FKO helped get some computer-averse people soaring on FT8 and FT4 -- he really turned the group onto FT4. Dan D'Andrea KF4OJV and Wendell Wright KN4TWS were absolutely determined on Phone and we hit 101 QSO's. We had heard a lot of complaints about the boring nature of FT8 and promises that people would do VOICE -- but in the end almost everyone was hooked on data and we had over 1000 contacts on data alone! Pat Benson K0OO, Lorilyn Roberts KO4LBS and myself kept up a CW effort and the latter two saw huge improvements in our capabilities, with Pat's hours and hours, reaching a total of 153 CW contacts. Dave Huckstep W4JIR (who apparently never sleeps) was our MVP with 376 contacts of his own!





Figure 8: GOTA/HF#4. Diesel Gen ran 30 hours-- Hooray for AC!



Figure 9: Very relaxed 6m Craig Fugate KK4INX

Figure 7: Pat Benson KOOO so patiently mentored others

Other volunteers included Jim Bledsoe KI4KEA who engineered a County Ham Radio Week Proclamation, did yeoman work for our PIO effort and then got called to Florida Guard Training and missed Field Day! Steve Panaghi KC2ASY did incredible work on data, hitting 94 contacts. Ron Lewis KN4ZUJ made many contacts and was our Satellite Guy but things didn't work out until he was called away to his firefighter job -- where he succeeded at 5 contacts that we couldn't count! **Darn!** Eric Pleace KO4ZSD did huge work for our antenna setup but then was sidelined by a medical flare-up.

We worked straight through 22 hours, only off-lined by a thunderstorm. Our total QSO's were 81% above last year's effort! After a sumptuous buffet we spent over an hour doing "hotwash" and working on improvement ideas. Susan Halbert KG4VWI was a star in the cleanup effort doing the mopping and everyone pitched in to move out gear.

THE BANG

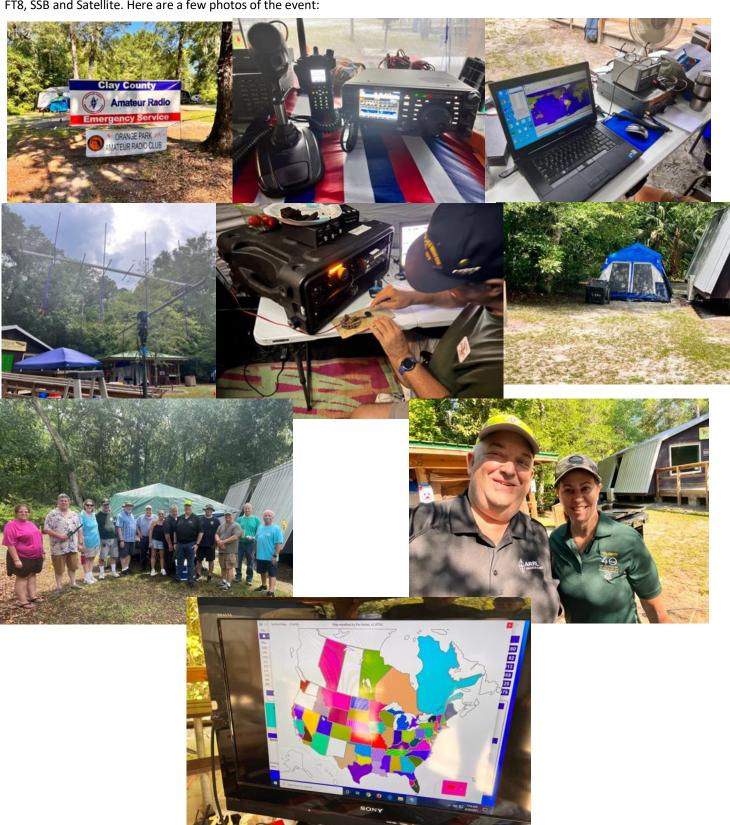
That's when the first BANG happened. We actually never heard it. I was on a ladder pulling down microwave gear when a passerby pointed to the silver Toyota that had backed into, and t-boned Wendell's F-150. There was a driver slumped over, unresponsive in the locked and running vehicle! 911 call! Kevin Rulapaugh KE4NVI's fire crew was at the other end of the parking lot taking down the MARC unit and they came to help with a fire truck, along with Alachua County Sheriff and EMS equipment. BANG! (#2) went the rear passenger window and firefighters were able to rescue the unconscious driver and administer NARCAN and other medications. He was breathing the last I saw him as they took him off but he had been very, very blue. A sobering reminder that disasters do happen and we need lots of people and gear to save lives.



Field Day - Clay County Style

Scott Roberts, KK4ECR, Section Manager

This year Clay County ARES and Orange Park Amateur Radio Club held Field Day at Camp Chowenwaw in Green Cove Springs. We had a great event with guests from the community and several public officials. We had 5 stations setup and worked CW, FT8, SSB and Satellite. Here are a few photos of the event:





-73 O.M., I REALLY MUST SIGN NOW - - ----

K4A 911 Special Event

Bob Beaudoin, WA1FCN Alabama Contest Group

The Third Annual Special Event to Honor the Victims of 911 in New York City, Shanksville PA, and Washington DC, sponsored by the Alabama Contest Group, will be September 8, 2023, from 00:01 GMT through September 12, 2023 at 23:59 GMT. The title for this year's event will be "9-11 Still in Our Hearts and Minds."

Many members of the Alabama Contest Group (ACG) will activate K4A, operating all modes, SSB, FT8, CW, and RTTY. We will try to be on all bands 160 through 10 meters.

A special QSL will be available. For those who contact K4A on 3 bands, using any combination of modes, we will offer a full color glossy certificate mailed postage paid in a full size manila envelope. This includes DX stations. Put each QSO information on your QSL card. We request a \$2.00 donation to help cover costs.



Send QSL requests to:

Robert Beaudoin 970 Mountainview Road Cordova, AL 35550

https://alabamacontestgroup.org/

Walton & Okaloosa Counties!

DJ Stewart, KI4ZER, Assistant Section Manager, NFL, ARRL President of W4ZBB, WF4X, W4AAZ, #HamOn!









Greetings and salutations fellow Hams!

What a month we have had in June of 2023! Can you believe its already July! Wow what a great 6 months in the new year! Outstanding work by many teams brought forth new experiences in experimentation with all things radio and even some beyond! Up first out pals at the Playground Amateur Radio Club hosted N7XDL featuring an informative presentation on Creating a Go Kit that is right for you and holy smokes what a great tech night that was! N7XDL sure hit the nail on the head in showcasing his own kits and encouraging members to interact with their builds during the presentation! Now that is collaboration!

Following that we went to the fun in front in DeFUNiack Springs with the Walton County Amateur Radio Club! I'll bet you can guess what the main topic of FUN was?! If you said Field Day, then you're knocking on the right door! The North Okaloosa Amateur Radio Club's Business meeting was next! While they had a lot to go over, the fun was all about enhancing the skills of all those new Techs in the area and planning a General Class! Those details are to be released very soon!

The Playground Amateur Radio Club held their business meeting as well the very next week! Guess what they talked about? That's right...Business, and maybe some awesome plans for continuous upgrades to station equipment along with the new Wires-X Station at the Club House! See of you can hit it! AA0EU, America Link, 190, 290, 390, #21080 Node 91172 Room 01172.

The Walton County ARES team met the following Tuesday! And they held more instruction on DRATS & WINLINK! What a great chance to teach new hams the great tools and practice using them in a real-time environment!

The North Okaloosa Amateur Radio Club held their Tech Night that Thursday! They discussed Control Operators as a lead in for Field Day and final plans on deployment supporting two Clubs! That's right! The fine folks of the North Okaloosa Amateur Radio Club invited the Playground Amateur Radio Club to share space and combine efforts in Okaloosa County! More on that to come in a bit!

Let's rewind a minute to Sunday, Sunday, Sunday, and the Awesomeness that is the Pile-Up at the Playground Amateur Radio Club! Each weekend this club with a full test bench gathers to mentor and Elmer those new and old in this wonderful hobby, assist with projects or improves their facility! The energy is exceptional, and everyone comes in the door and leaves with a smile on their face! Be sure to check it out if you are ever in the area!

Moving into the next event, FIELD DAY 2023!

Whoa the events!!! From all the sites visited (and it was a lot of miles) the sheer cooperation from all and the set ups they had continued to instill the great capabilities of each organization along with the motivation to put on great and wonderful events!

NOARC/PARC joined forces in Crestview that Spanish Trail Park! They showcased all bands, satellite, trained operators, refreshed some skills and had an overall fun time! They also trained! An educational event was held to teach how to make a homebrew ladder line antenna. That's right, the echoes of antenna building are spreading from place to place! This skill is often a rabbit hole but the people who teach it, take the time to share their wealth of knowledge and make it all fun! Educational events from basic to complex are taught routinely in all areas and cover all aspects of Amateur Radio! This is all free! You don't have to be a member to get the training either. We have a vested interest in teaching people how to be resilient, prepare for the inevitable and be able to communicate during nominal times, and those of peril. If you have any interest in even using Amateur Radio occasionally, these three clubs are the place to be in the Panhandle of Florida! Company made here, is friendship for life! A large thank you to all who work so diligently to continue to volunteer their services and expand the capabilities of others! Your dedication is more appreciated than you know!

Walton County ARC met in Wee Care Park and put the operators to the test while offering instruction and education not only on how to contest, but how to make vital communications successful in a simulated emergency environment!

Did we mention the food! Well, we did now, and all the clubs had a great amount of wonderful fixings to serve up and satisfy

every appetite and keep people fed while they made those contacts and worked tirelessly to host a wide array of visitors from Local Officials to National Representatives!

Guess what happened after Field Day?! The FUN in DeFUNiack crowd gathered for their tech night and offered a course for how to build a ladder line J-Pole antenna! What a great way to teach the skills of making something out of nothing and utilize it immediately to make contacts!

The clubs in the Okaloosa and Walton County areas sure are energetic and they never disappoint! If your thirst is for camaraderie along with a very social aspect of Amateur Radio and are in the area, you will not be disappointed in any of your chances to catch them! We included some pictures below, for more, go to their respective websites and social media!































W4AAZ.Org W4ZBB.Org WF4X.Com

What's happening? Santa Rosa County Edition

On Monday June 19 at the Santa Rosa County Board of County Commissioners meeting, we received a proclamation for "Amateur Radio Week in our county. We greatly appreciate the board for taking time each year to recognize the contributions that our amateur radio operators provide to Santa Rosa County.

that our amateur radio operators provide to Santa Rosa County.

Unexpectedly, Tom Lloyd, the Public Safety/Emergency Management Director, took time at the County Commission meeting to recognize Arc Thames W4CPD for his individual contributions to Santa Rosa County. While Arc is our ARES Emergency Coordinator, he also wears many additional hats as part of his volunteerism with the county. Arc serves as the CERT (Community Emergency Response Team) coordinator and the Alternate Logistics Section Chief for Santa Rosa County Emergency Management. Thanks, Arc, for all you do for our county! If you'd like to watch the proclamation and Arc's recognition, the video is available on Youtube via this link.

DE LA COUNT POR LA

Center-Arc W4CPD and Jon-KM4QQO with the SRC Board of Commissioners

Once again, this year we utilized field day as "Volunteer Santa Rosa Day." We invite other volunteer organizations that support Santa Rosa County

to share with the community what they do as well as recruit volunteers and network with the other organizations. We take the first 5 hours of field day as that event and our radio operators focus on connecting with the visitors, showing them Winlink, and helping them make a contact on our GOTA (Get on the Air) station.



We were able to secure the Santa Rosa County Fairgrounds and their horse arena, which is covered, so it protected us from the sun and potential rain. This location had plenty of room for antennas, indoor restrooms, and plenty of parking.

This was a milestone event for our team as our EC, Arc-W4CPD, was permitted to drive one of the county Emergency Management vehicles and tow the mobile command post ourselves. In the past, this had to be done by an

Emergency Management staff member.





Another huge highlight of this year's event was landing zone training presented by Shands UF Health. Through the relationship we've built over the years with Emergency Management, we were able to do this training along with have an actual live helicopter landing. Many of our ARES & CERT volunteers attended the training and it was a big hit with those in attendance.





Center-Arc W4PD with the flight crew and Milton Fire Department

This year United Way, RSVP of Santa Rosa County, Legal Services of NWFL, the Red Cross of NFL, and the Santa Rosa County Animal Shelter participated with information tables. We also had food vendors to ensure our volunteers and visitors didn't go hungry. One of the additional things we do to give back to the community, but selfishly also get visitors, is we provide free meals for any first responders that visit. At one point we had 4 ambulances on site.







For actual field day operations, this year, we ran as a "3 Alpha" with all 3 stations setup in the county's Mobile Command Post. Each year they graciously offer us the use of it and it certainly comes in handy in the hot florida sun and heat. It's also equiped with a 50' pneumatic mast which is incredibly helpful in having a place to hang antennas. The trailer is equiped with a diesel generator allowing us to run completely on emergency power.

Left-Jon KM4QQO with Steve W4SJV working FT8/FT4

We're gearing up for a very busy July, especially the first week. Our ARES & CERT volunteers have been asked to provide volunteers for the Milton Riverfest & fireworks

and possibly the Blue Angels Beach Airshow. We look forward to sharing with you next month!



For more information about Santa Rosa County's ARES or CERT programs, visit santarosacc.com or email info@santarosacc.com

Editors Choice...

13 Colonies Special Event - 2023

Click Here for More Information



2023 Event Dates / July 1 (9AM Eastern) to July 7 (Midnight Eastern)
(July 1, 2023-1300 UTC to July 8, 2023-0400 UTC)
YOU DO NOT NEED ALL 13 COLONIES TO GET THE CERTIFICATE
YOU DO NOT NEED TO GET THE 2 BONUS STATIONS FOR A CLEAN SWEEP

Madison & Suwannee Counties ARES® Conduct Joint Field Day Operation

J. Gordon "Gordie" Beattie, Jr., W2TTT W2TTT@ATT.NET

Several ARES operators from Madison and Suwannee Counties conducted a joint Field Day operation once again this year and had great success and loads of fun!

FIELD DAY OBJECTIVES

For Field Day, our objective was to establish a "communications center" with mulit-band HF/VHF/UHF Voice and Data capabilities in a "blank slate" environment.

Our objectives were:

- 1. Up to four HF Transceivers (Regular and/or GOTA)
- 2. 6m, 2m and 70cm Transceivers
- 3. Voice/Data on all bands
- 4. Computers on a common wired and wireless LAN supported by a cellular modem
- 5. Field install new or upgraded copies of essential software without using the Internet (at least one)
- 6. Operate transceivers, computers and network from solar-charged battery.
- 7. Deploy, test and operate all station components including antennas shortly after arrival.
- 8. Operate for the entire period on solar-charged batteries.
- 9. Demonstrate Amateur Radio to visitors, provide follow-up literature and obtain contact information for follow-up.
- 10. Bring together inexperienced and experienced operators from multiple jurisdictions with these objectives as the primary guidance for participation.

LOCATION

We were able to use the St. Francis Xavier Church Parish Hall on US Rt 90 in Live Oak through the civic preparedness initiative of the Knights of Columbus and the support of the Pastor, the Rev. Anthony Basso. Operators were Nancy N2FWI and Gordon W2TTT from Suwannee County, Efrain KP4CW from Columbia County, and Jim K4DBC, Bill AA4TM, Ken KI4IMN and Bob KF4JPI all from Madison County. We were also blessed with 100 quarts of ice in a 120 quart cooler and a generous stipend that came from the Madison County Amateur Radio Club that paid for a wonderful pizza lunch.



L-R Jim K4DBC, Gordon W2TTT. Bill AA4TM, Ken KI4IMN, and Efrain KP4CW inside St. Francis Xavier Church Parish Hall.

OPERATIONS

Starting just before 9:00 am, the team quickly deployed antennas and equipment, and had time to enjoy lunch. We were informal about pre-planning antenna types, but reasonably careful about their placement. We had two 80-6m OCF dipoles, a few end-feds, an HF vertical, a 6m square loop and a 146/440 MHz vertical.

Setup progress continued right up to the start of the event and things went very well. The deployed gear included an almost "All-ICOM Station" setup including an IC-7100, three IC-7300s, an IC-705 and a Yaseu FT-

991A. We also had a Kenwood TS-140S and a Flexradio 6600 in reserve! We decided to keep things simple by keeping the ICOM gear going once Ken left for work with his FT-991A. We had a few standard or powerful laptops, and three of the \$60 Evolve III laptops.

We cut off operations at 11 pm as we lacked an overnight crew, but we were back on the air by 8:00 am through 2:00 pm. Before 4:00 pm we were packed up, cleaned up and driving home. We ran the callsigns of W2TTT and AA4TM for the GOTA station to produce about 200 contacts.

At one point, two of our radios had a small, but noticeable interference between them. As they were both operating FT8, the solution was to have the two stations transmit at the same time.

We met all our goals, except that we found that our "upgraded" Windows 11 machine would not enable file sharing which disabled our shared logging plan using N1MM+. The separate files will be combined and processed this weekend for submission.

Gordon W2TTT's "lashed up" mini tower and masts support 80-6m OCF dipole and omni vertical and a 6m square loop antennas. This is an example of how we test out new ideas at Field Day



Jim K4DBC's deployable mast uses a spackle bucket with a short mast set in concrete to stand up a 30 ft mast.



LESSONS LEARNED AND INTERIM ACTION PLAN

Next year we will have improved in several areas including:

- 1. A fix for log file sharing
- 2. A practiced CW capability led by Bill AA4TM
- 3. Add measurement devices to batteries as a digital fuel gauge.
- 4. Develop and maintain a standard software load list including versions and critical parameters.
- 5. Do Winter Field Day (WFD) and other events
- 6. Improve and practice FM simplex operation
- 7. Master QSOs in JS8CALL for EMCOMM and WFD
- 8. A deployable kit for a flatbed trailer that will have antennas, transmission lines, masts, roof towers, solar-charged batteries, a weather station and support electronics for demonstrations, EMCOMM, POTA, and "Roving".

All in all, we confirmed that because our rural counties have limited numbers of interested and capable operators to deploy, that it is essential to practice operating together. We can also strive to offset the human resource gap through more promotion of Amateur Radio and license classes. In the last eighteen months that has been a productive effort with great results. Finally, we all had fun and agreed to do this again next year!



FCC Testing Information

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 monthly 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
- Central Florida Fairgrounds Craft Building, 4603 W Colonial Drive, East Gate off Fair Villa Road
- •Info: testing@orac.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, geraldlguy@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. https://www.k4tlh.org/getting-started/license-testing

West Volusia Amateur Radio Society

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

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

Statewide Digital Radio Resources

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

- DSTAR Reflector 046
- o REF046A Florida Statewide
- o REF046B NFL ARES
- o 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 through the state!