



# QST NFL

Newsletter for the Northern Florida Section

Come join the FUN!

Volume 10 Issue 12,

[www.arrl-nfl.org](http://www.arrl-nfl.org)

December 2023

## From the Shack of the Section Manager

Scott Roberts, KK4ECR ([kk4ecr@gmail.com](mailto:kk4ecr@gmail.com))

I hope everyone had a safe and Happy Thanksgiving. Were you able to steer clear of the infamous "Turkey Coma" that often follows such a large amount of food on Thanksgiving Day?

It is hard to believe that December is already here, and as we reflect on the year gone by, I am filled with incredible gratitude for being part of such an awesome community. Ham radio is not just a hobby; it's a passion that unites us across frequencies and continents. It's a world where every dial turned and every signal received is a new adventure, a new story.

The beauty of our hobby lies in its diversity and inclusivity. From Morse code to digital modes, from local rag chews to DX expeditions, every aspect of ham radio offers a unique experience. I encourage each one of you to explore the vastness of this hobby. Whether you're a seasoned operator or a newcomer, there's always something new to learn, a new band to conquer, or a new mode to master.

Speaking of learning and sharing, I'm always thrilled to be able to attend your club meetings. I am currently working on my January - June 2024 and would be honored to be asked to speak and share my passion for ham radio with your club.

Start planning now! The Orlando Hamcation is just around the corner. I hope to have the chance to see many of you there.

As we approach the end of the year, let's remember to keep our frequencies alive with warm conversations and

## Net Announcements

- **NFL ARES® Net** moved to 7198
- **TARS K4TLH 6M Net**, Tuesday, 1900 (-1.000 MHz offset, TSQL 94.8) Net Manager KA5USN, Chief. Now listed on the ARRL Section Nets page <https://arrl-nfl.org/nets/>



our hearts open to the endless possibilities that ham radio brings. Let's continue to reach out, connect, and explore the world through our radios.

In closing, I wish you all a safe and Merry Christmas. May this season be filled with joy, peace, and wonderful QSOs. Let's embrace the new year with renewed enthusiasm and a commitment to keeping our airwaves vibrant and our community thriving.

I am honored to be YOUR Section Manager.

P.S. Stay tuned to the bands, and perhaps we'll have a chance to meet on the airwaves soon!

## What's Inside

- 1 [NFL Section Manager](#)
- 2 [NFL Section Emergency Coordinator](#)
- 3 [NFL Member of the Month](#)
- 5 [Promote Your Clubs and Organizations](#)
- 6 [Tallahassee Hams Assist in Charity Events](#)
- 7 [Ham Radio sBitx Troubleshooting](#)
- 8 [Sumter County Hearts for Our Hospital Event](#)
- 11 [Our Christmas Gift: 2805!](#)
- 13 [Columbia ARS News](#)
- 14 [Duval County Has New Comm Trailer](#)
- 15 [What's Happening? Okaloosa & Walton Counties](#)
- 18 [Madison & Suwannee ARES® News](#)
- 21 [What's Happening? Alachua County](#)
- 23 [High Springs Forms New Club](#)



## From the Section Emergency Coordinator

Arc Thames, W4CPD

I hope you all had a truly wonderful Thanksgiving and have the Merriest of Christmas' coming in just a few weeks. During this holiday season, I encourage you to take time to call an old friend you haven't spoken to in a while or check-in on someone you know who has little or no family. The holidays can be an extremely challenging time for many and it's up to us to make it a little brighter!



The holidays are a great opportunity to send a radiogram to put a smile on someone's face and great practice using the National Traffic System. You can visit <https://arrl-nfl.org/nts/> for information on how to send a radiogram using the NTS.

Again, my apologies for the delays in any responses as my father continues to be in the hospital and not doing well following his open-heart surgery, along with additional sad news from my in-laws. This year has certainly been a challenging one for me personally but I'm thankful to those who have reached out in support!

I'd like to take a moment to recognize Leland-AA3YB for all his contributions to Alachua county and the state. Leland will be moving out of Florida within the coming weeks but has always been a great asset and colleague in emergency communications. Leland was instrumental in helping us pull off the statewide communications exercise earlier this year and has always been available anytime anyone needed assistance. Leland, sincerely, thank you for all that you've done!

### Monthly ARES® Statistics

In October, ARES® volunteers in our section reported 1,378 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:	9	99.00
Training events this month:	21	178.00
Public service events this month:	16	160.00
Community service events this month:	7	286.00
Emergency events this month:	0	0.00
SKYWARN events this month:	7	30.00
Meetings this month:	22	260.00
Unclassified events this month:	103	365.00

#### Call signs of DECs/ECs reporting:

KO4KUS KW4MO K4SOP KK4ECR KC4NVU WE4MJ W4UFL KO4YOL  
KB4HAH N5CBP WA4MN KA3OGG K4BJS W4KKJ KX4LEO KM4BTW W4CJB

## A Little Ham Radio Humor

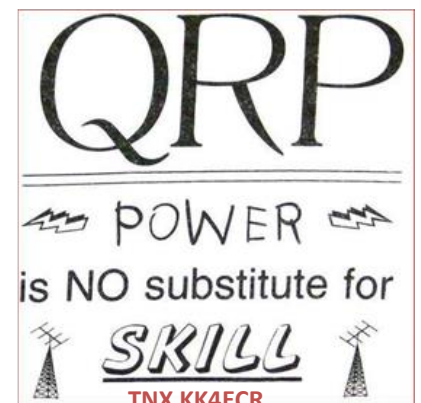
TNX KK4ECR



Just how many antennas can you get on a car?



TNX KC5CMX



### 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](http://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](http://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](mailto: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/uploads/2021/12/2021QSTNFLIndex.pdf>

### NFL Member of the Month.....Leland Gallup, AA3YB

Submitted by Gordon Gibby, KX4Z

Leland Gallup AA3YB, came to our Alachua County, Florida, ARES® group in 2017 when he and his wife moved here in retirement to escape "the big city." He had already had his Extra Class for some 14 years, but had actually never gotten on the air! He is an Army man, a lawyer and a Judge, a Colonel with the U.S. Army's Judge Advocate General's Corps, who retired from active duty in 2009 and then served for years as a civilian attorney for our nation's Army.



Leland briefing before 2019 Power Out! -Exercise

Leland bought a great house in a gated neighborhood, 2 doors down from a certain Winlink RMS known as KX4Z. Angela, his wife, went to work on the landscaping, and both of them poured into even further beautification of their new home with renovations, eventually including a combined man-cave for his hobbies, and a gardening storage area for Angela. They have also both been active with the local Catholic church and with several Church ministries to the needy, particularly a book ministry.

But the biggest change was with Leland's Extra Class previously *unused ham radio license*. He got into the Alachua County ARES® group, bought transceiver after transceiver, dove into voice and then data communications, learned how to do all things in any circumstances, how to deploy antennas, provide electricity....anything needed. Although an Assistant Emergency Coordinator in Alachua County, he rapidly ascended straight through Level III of the Florida ARES® Taskbook, and then through Evaluator status as well! Leland deployed to the Panhandle with two other volunteers back when all of us in Alachua County were still just figuring things out. He has written and carried out an HSEEP exercise and done the AARIP as well (Power Out! March 2019). In all of our marathon License Classes (from Technician through Extra) he has been one of the constant teachers, and he grew to love the more esoteric parts of antenna and transmission line theory.



Wendell Wright, Leland Gallup, and Lorilyn Roberts all working on Field Day 2023 Antennas

Leland has been the driving force and the constancy behind our weekly training at the

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Alachua County EOC, mentoring several others in how to get into SHARES nets, move WINLINK traffic, make SLERS and satellite radios work, and everything else that Flagler County could pile into a wonderful monthly training exercise.

For years he has been the Secretary for the North Florida Amateur Radio Club, giving us an accurate record of our growth as a club, month by month. When we started doing ARRL Field Days, Leland was just as strong at providing leadership there as he has been in all our exercises and Conferences. He has always been a key player in organization, getting the antennas up, and then plowing through contact after contact -- and our scores with his help grew by leaps and bounds year after year until he was a key part of our 1st Place 4F score in the 2023 ARRL Field Day.



Making Contacts -- Field Day 2023

Now Leland and Angela have grown tired of Florida landscape duty, and there have been some losses in their extended family, so they have decided to leave all his great friends and gorgeous home here, to move closer to very significant remaining relatives in Washington State....where tsunamis are the big concern instead of hurricanes!

We're going to miss Leland and Angela dearly. You just don't find solid, wise, consistent and dependable people like Leland very often. It is very hard to replace such a loving, caring, generous, patient Leader as Leland Gallup has been to our NFARC/ARES® group for the last 6 years!

### NFL Section Member of the Month!

We are 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](mailto: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.



**The 48th annual Tampa Bay Hamfest will be held December 8th and 9th, 2023.**

Be sure to mark your calendar and plan to visit your ARRL West Central Florida Section Convention and Hamfest at the Florida Strawberry Festival in Plant City.

For information check <https://tampabayhamfest.org>

Both amateur and commercial license testing will be available. Don't forget to check out the Forum Schedule. Indoor tables are available at \$20, booths at \$60 and tailgate at \$10 per space. Camping is also available on-site. Much more information on all these can be found on the above website.

Tickets are \$10 if ordered before December 6th, thereafter \$13 at the gate. To keep ham radio alive and thriving we need all the support we can muster from the ham community. Hamfests do their part in gathering hams together to enjoy meeting of friends, young and older.

## Promote your Clubs and Organizations, a bullet point write up by KI4ZER

DJ Stewart, KI4ZER

### **What Each and every one of us is capable of to promote our organizations!**

- Create an event on social media for each time we meet. This can be done by anyone, not just a specific officer or member. Engage with your team to assist them!
  - Share ideas with other members and discuss key times to promote.
    - Just after dinner, first thing the next morning (posts and emails can be “scheduled”).
  - Use a flyer, generate specific ones for each Ham that is instructing or use a general one for mass gatherings when there is no instructor.
  - Post (share) the event from the main group or page (where sharing is allowed) to nonaffiliated community groups on social media.
    - Rehearse making videos, performing in less than two takes and posting/sharing from the event (well before the event is over).
    - If you don't use social media, find ways to assist those that do.
  - Use poster my wall for a free resource.
  - Advertise with the ARRL and the FCC and invite officials to major events.
- Send out an email from the club email to all area club distribution lists inviting them to the location where the event will take place.
  - Invite people via zoom or google meet.
  - Discuss on multiple Amateur Radio Nets, multiple times.
  - Invite people that you see in person if they express an interest following an inquiry.
- Reach out to other local organizations and advertise.
  - Promote the ability to enhance each other's core mission and community resiliency through fellowship and common goals.
  - Promote and join other business pages, chambers of commerce, community interest groups and pages.
  - Pass out flyers at events that are not Amateur Radio Related.
- Make notes to later use in article submissions for the QST—NFL, The ARRL QST, publish on EHam, Ham QTH, QRZ and other associated Amateur Radio Forums and discussion boards.
- Recruit for Club membership, expanding and training tomorrow's operators and leaders, today.
  - Be the ambassador and follow through.
  - Invite people to your club or organization and help them understand their projects.
    - This can be done on days when no official function is scheduled allowing for time to explain theory, implement practice and provide resources.
    - You will learn with them regardless of your own knowledge.
- Source external Amateur Radio Licensee's to share their experiences and offer them ownership of teaching a free course to benefit the Amateur Radio Community at large.
- Promote on social media with pictures, captions, hashtags, and positivity following the event.
  - Recognize the members that put it together and host.
  - Include any businesses or associations that sponsor an event or occurrence of events.
- This only takes minutes to do. It's as normal as conversation. 90% of anything, is calling CQ, in all forms!

## Tallahassee Hams Assist in Local Bike Event

By Chris Pandolfi KO4DN

On October 28<sup>th</sup>, Tallahassee hams assisted communications during the Spaghetti 100 bike event. This event sponsored by the Capitol City Cyclist, starts at the Miccosukee Community Center in North West Leon County and rides into the scenic back country of North Florida and South Georgia. The road routes take riders through historic Thomasville and Boston in Georgia and then through Monticello in Florida. The dirt routes are non-technical, following the beautiful canopied clay roads through the heart of classic Red Hills plantation country. The cyclists have five ride options: 100, 65, or 32 miles on beautiful paved roads, and 68- or 40-miles dirt options on mostly gorgeous clay roads that north Florida is famous for.

The Amateur Radio team was assembled and led by Todd Cark, KN4FCC. His team included Gerald Bell, KG4BLL, Gerry Gross, WA6POZ, Chuck Basham, AI4KA, Alan Terrell, N4KGT, Phil Fusilier, KA5USN, Garret Langston, KO4KKX, Keith Krivit, K4KRV, Adrienne Hendrix, AJ4D, Stan Zawrotny, K4SBZ, and Paul Eugenio, K00KE. The team assisted in providing communications throughout the different routes and keeping track of the last cyclist. Good experience and fun were had by all.



Left—Cyclist leaving the starting line.



Right—Garret KO4KKX was "Tail End Charlie" for the event.

## Tallahassee Hams Assist in Veterans' 5K Run

By Chris Pandolfi KO4DN

On November 10<sup>th</sup>, members of the Tallahassee Amateur Radio Society participated in the Veterans' Day 5K run, which was sponsored by the Florida Department of Veterans Affairs and Veterans Events Tallahassee by providing communications support. The run started at the Vietnam Memorial in Tallahassee, then around Cascades Park, up Franklin Blvd., to Tennessee St., back down Franklin Blvd, around Cascades Park for the second time to finish at the Korean War Memorial on Suwannee St.

The communications team was led by Chief, KA5USN. Members who also participated were Jim, KQ4HMF, Mike, KQ4LIK, Adrienne, AJ4D, Todd, KN4FCC, Chuck, AI4KA, Gary, KA3FZO, and Chris, KO4DN. Ham radio operators were posted in key areas throughout the run with a rover/"Tail End Charlie" on a bike. It was a good experience with lots of fun for all. The sponsors were very appreciative of the communications support.



Adrienne, AJ4D and Jerry (Hubby) at a checkpoint in Cascades Park.



Runners at the Starting Line.



Chief, KA5USN and part of the team after the run.

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## Ham Radio sBitx Troubleshooting: *What sets hams apart*

Gordon Gibby KX4Z

After getting my "Developers' Edition" of the extremely innovative hybrid SDR Raspberry Pi sBitx into on-the-air shape, I was fascinated by the improvements that Ashhar Farhan VU2ESE made in the Version 2 of the sBitx, released for sale several months back.

The Developer Edition already had transmit/receive (T/R) diode switching, so that unlike an Icom 7300, it can do near full break-in without any relay clattering at all! In Version 2 (V2) Ashhar used ideas helpfully provided by Hans Summers G0UPL (<http://www.hanssummers.com/>) and dispensed with relays for the low pass filters, using diodes for *all transmit switching!* This has big advantages for 24/7 radios in Winlink or ALE server service. Full diode switching is quite esoteric in ham radio HF transceivers. Even the FLEX models use a combination of a PIN diode and a reed relay. When a secondhand unit without a Pi became available at an attractive price, I scooped it up. The previous owner packed it wonderfully and indicated it had never been used for transmitting.

### Starting Out With The New Rig

I put a Raspberry Pi 4 into it, and the microSD card which accompanied it, and quickly had it working. From experience with "new" rigs from innovative development, I decided first to run some spectral tests on the unit "as received" -- and that is where this story gets tangled. The lower bands were OK, but once I got to 20 and 15 meters there were real problems. Here is a typical spectrum from 15 meter CW, showing excessive 2nd and 3rd harmonics, way above the FCC spec of -43dBc (referenced to the fundamental carrier): I later learned of some deficiencies in my dummy load used for that test which helped to contribute to the horrid harmonics -- but even when those were corrected, the problem was very severe.



### Paging Sherlock Holmes!

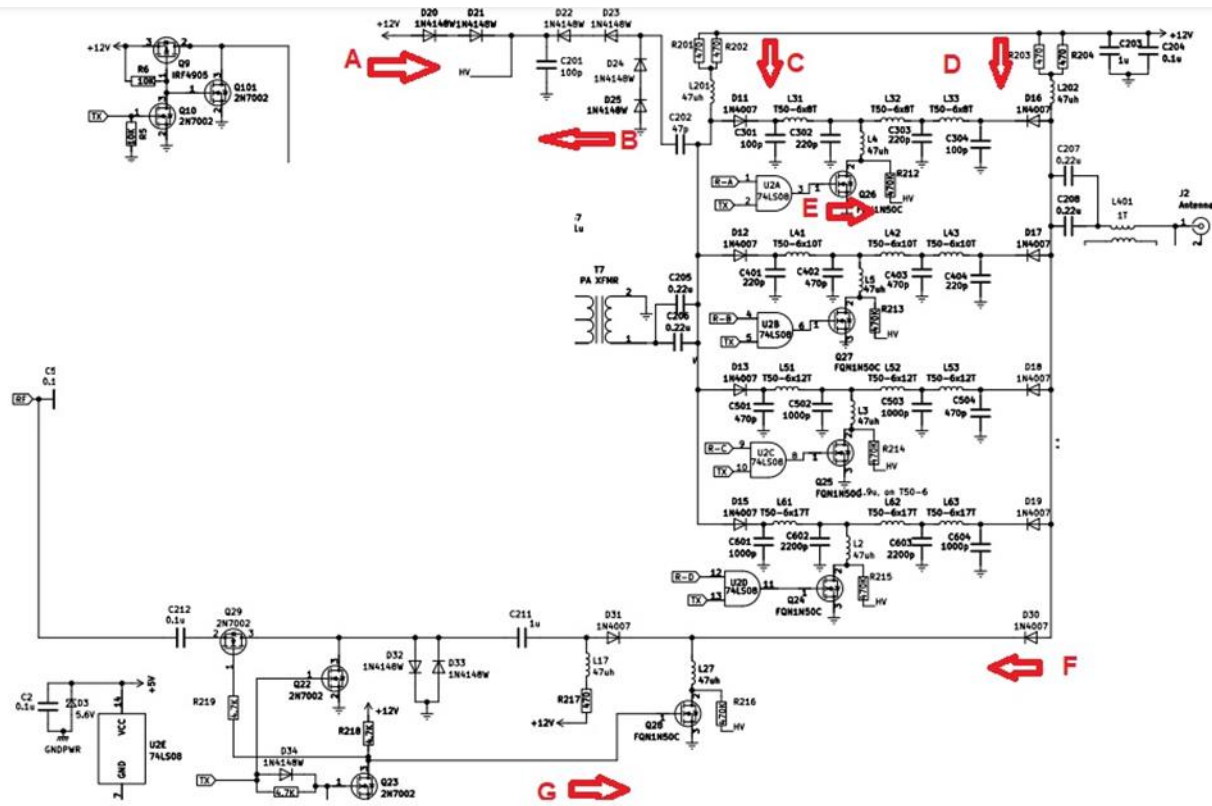
That was the start of a very protracted search for what was causing the problem with Serial No. 141 of the sBitx V2. Other users were not reporting similar results (although few had any measurements to show) and Ashhar had no similar problems, either. What's wrong?

*As Received 20-meter spectrum showing excessive 2nd and 3rd harmonics (10dB per major division)*

This is one of the strengths of amateur radio, particularly in service to communities in times of stress and disaster: we are encouraged, trained and legally able to troubleshoot right down into the guts of our radios! Almost no other service (of which I am aware) is given that privilege. To continue our justification for existence, encouraging hams to develop their technical skills is a must.

The sBitx transmit-receive diode switching is quite complex. Hans Summers G0UPL of separate QRP radio fame helped contribute to the diode switching. Here is a portion of the schematic that shows all of the DC signals that help with the switching. Note particularly an RF voltage doubler that develops a DC voltage equal to twice the peak RF voltage, used to help switch back and forth, and enable/disable appropriate low pass filters. (Further information is available at: <https://www.nf4rc.club/how-to-docs/sbitx-t-r-troubleshooting/>)

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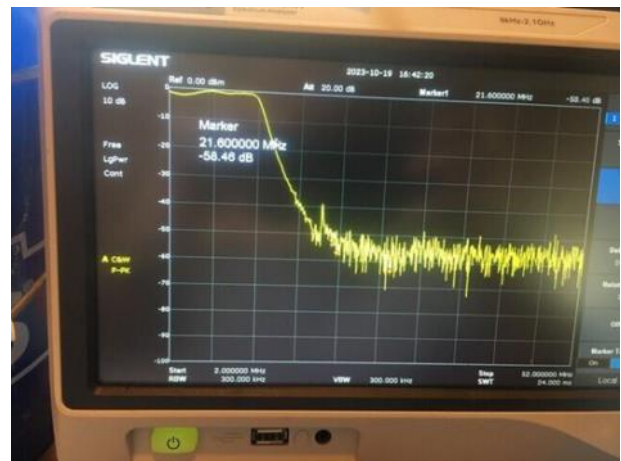


Annotated Schematic of sBtix Diode T/R and Low Pass Filter switching. A= power supply biasing of switching system; B= RF voltage doubler to develop high voltage peak signal C&D: biasing currents for switching diodes.

The action of each lettered signal is further explained in a detailed document available on the NFARC web site.

### Modularizing The Problem: Break It Into Parts

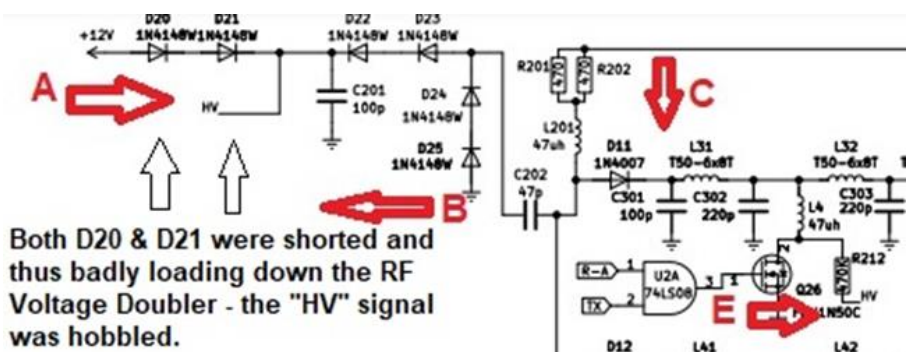
When faced with a difficult radio problem whether on a deployment in a disaster or back in your shack, you first try to "modularize" it -- break the problem into parts. In order to track this down, I ended up dissecting every portion of this multi-part system. Disconnecting all these connected systems, I could re-connect one portion at a time to see if it added in the harmonics. I was able to characterize Ashhar's low pass filters using a Siglent spectrum analyzer by separating their inputs and outputs and confirmed that indeed they are excellent filters.



Excellent low pass filter response down past 50-db suppression

### The Culprit Discovered!

It became evident that undesired transmitter signals were bypassing the desired filter. After many false trails, I finally discovered that two series diodes from the +12V (nominal) supply were shorted, and therefore were dramatically hobbling the RF voltage doubler by excessively loading it -- and this caused a failure of deselection of the incorrect low pass filters.



Both D20 & D21 were shorted and thus badly loading down the RF Voltage Doubler - the "HV" signal was hobbled.

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**What Caused This & How Do We Prevent It?**

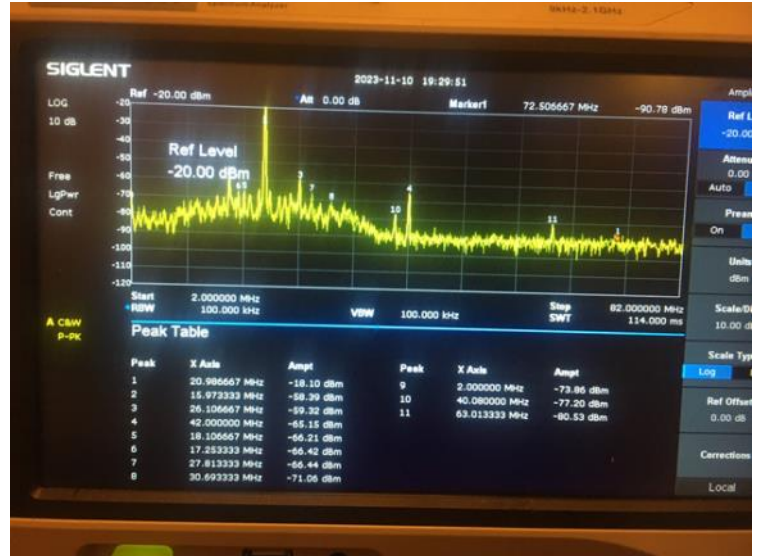
The cause of the shorted diodes is not known. Shorted diodes indicate a period of excessive current flow sufficient to melt the die material, but not excessive enough to blow it apart. Those diodes in the original design connect directly to the external +12V supply without any current limiting series resistance and then to relatively high impedance loads on the HV supply, which has only a 100pf capacitor. Simulations by Evan indicate none of this would provide enough current to damage the diodes -- but they were in fact damaged. The cause remains unknown. In a hobbyist radio like this, fragile diodes connected to a high power supply without current limiting resistance might be a trap.

However, a preventative fix is easy -- **I placed a 470 ohm resistor in series with the 1N4148's that I used to replace the surface mount diodes.** No further damage to the diodes.

And the spectrum is now far, far better!!

**The Amazing 1N4007**

How is this possible that the lowly 1N4007 can switch up to 40 watts of RF without distortion? PIN diodes are normally very pricey items. The 1N4007 happens to be constructed with a similar "intrinsic" layer of not-so-doped semiconducting silicon in between the doped n- and p-regions. Charge carriers in sufficient number in this area that are not "swept clean" in between sine waves of RF are available to actually propagate the RF signal. It turns out that just 50-75 mA of DC forward bias is enough to allow for quite a bit of RF to be transported across. The system breaks down at lower frequencies, where the time of a half wave is long enough that the intrinsic region has a good chance of being swept clear of carriers. Ashhar recommended a slight change to the resistors feeding the "pin" 1N4007 diodes as a result of studies of the 80 meter performance.



*Spectrum after repair showing dramatically suppressed 2nd and 3rd harmonics--clearly below -43dBc*

**What are the lessons from this saga?**

- A new radio design is likely to have some "issues" (New airplane designs frequently bankrupt multiple firms before becoming certifiable!)
- Ham radio hobbyists putting together "kits" or "semi-kits" are individually responsible for the purity of their signals.
- Signals can be much more easily studied these days because of inexpensive reasonably performing spectrum analyzers -- and simple attenuators can be built or purchased (Amazon is your friend)
- groups.io/BITX20 is a valuable resource for developing new high performance and cheaper radios!
- More detailed information on the sBitx T/R troubleshooting can be found here: <https://www.nf4rc.club/how-to-docs/sbitx-t-r-troubleshooting/>
- The sBitx is an extremely innovative multiband DSP radio (<https://www.hfsignals.com/>) with publicly available software and design (<https://github.com/afarhan/sbitx>), with full diode switching and power output from QRP all the way to 40 watts on the lower bands with very innovative digital signal processing. It shows fantastic promise!
- This makes my second sBitx radio and I'm having fun and learning a ton!





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

**ARRL Volunteers On the Air**

A Year-Long Operating Event Recognizing Volunteers

## Sumter County ARES® Hearts for our Hospital Bicycle Challenge

Mark Newby, KX4LEO, Emergency Coordinator

# HEARTS FOR OUR HOSPITAL BICYCLE CHALLENGE

THE VILLAGES, FL  
11 NOVEMBER 2023  
CAAM EVENTS CYCLING SERIES  
www.CAAMCyclingSeries.com



Sumter County ARES® again coordinated amateur radio support for the 8<sup>th</sup> Annual Hearts For Our Hospital Bicycle Challenge, held on Saturday, November 11, 2023.

Amateur radio operators from Sumter, Lake, Citrus and Marion counties worked together to provide communications for the event, which consisted of 10-mile, 20-mile, 32-mile, 64-mile and 100-mile routes. Amateur operators were positioned at rest stops along each route. Amateur operators in vehicles patrolled their assigned routes providing assistance to riders and to keep the command post informed of the progress of the riders.

The command post was staffed by the Incident Commander, Net Control Operator, the Sumter County Sheriff's Office, APRS operator, and the liaison to the event host.

Our volunteers in field assignments used APRS to report their positions which were displayed on a large monitor in the command post. When incidents were reported, the location of those incidents were plotted on APRS making it easier for responding personnel to locate.

A Directed Net for this event was conducted on the K4HOG repeater. We want to thank the Hog County Amateur Radio Association for the use of their repeater.

The following amateur radio operators helped make this year's event safe and enjoyable for the 363 cyclists who participated:

Ed Nance - N4ZIV, Kristen and Rob McKeivitt - K7KLM, Larry Peterson - N2AMW, Mark Tetlow - KB1UHA, Gil Chapin - WB2UTI, Straight Hollis - KT4YA, Jeff Taffuri - KO4NCC, Lionel Hector - WD0DBT, Roger Weed - KV4I, Joe Cohen - N1EFE, Carl Berry - KC5CMX, Steve Walbrun - KD8WAA, Verne Betlach - K4VEB, Paul Kock - KD2HQV, Greg Madore - K1MGR, "Michael "Spike" McKenzie - N4EBF, and Incident Commander Mark Newby - KX4LEO.



*Carl Berry, KC5CMX, sets up at Rest Stop C for the Hearts for our Hospital Bike Challenge*



## OUR CHRISTMAS GIFT: 2805!!

Patrick E. Lightcap, K4NRD  
Madison County, Florida, [k4nrd01@gmail.com](mailto:k4nrd01@gmail.com)



The “Stocking Stuffer” this year is “2805”. It is more than a random number—it is a way to know what length (in inches) a quarter wave antenna should be for any known transmitting frequency. It has already considered the speed of light, radio frequency in megahertz (Mhz), the 95% velocity factor and the conversion to inches. If you are building a ¼ wave antenna simply divide 2805 by the transmitting frequency upon which you are operating and you will have the antenna length in inches for your project.

An example for 2 meter VHF would be appropriate for showing how quickly you can know the needed length of the vertical rod for a quarter wave antenna in that band. If you do a lot of simplex work on 146.52 then divide 2805 by 146.52 and you get 19.144 inches. That was quick and no conversions needed to use your tape measure. Well, you may need to convert .144 to 1/7 of an inch (use ¼ and trim just a bit).

What about UHF? You can use the same process. If you are on the Statewide Amateur Radio Network using the Christmas Repeater you will be transmitting on 447.875. Divide 2805 by 447.875 and you know your antenna for a quarter wave should be 6.263 inches long (6 1/4 would be close enough).

You ask it this will work on HF? Yes it will. If you want to build a dipole antenna with a quarter wave wire on each side of the center insulator try this. Be aware you will need to convert the inches to feet by dividing the inches by 12. Let's use 3.950 Mhz in the 80 meter band. Divide 2805 by 3.950 and you get 710.127 inches. Divide the 710.127 by 12 and you need to cut two pieces of wire at 59.18 feet each. Converting the decimal it comes out to about 59 feet 2 inches.

Remember this principle in disaster communications: You can only use what you have left. You may be asked to quickly build antennas to get public service or military communications back working within the first four hours of the disaster event. 2805 is your friend—no time to find all the formulas, no internet—just your memory of 2805. If the National Guard needs comms on 312 Mhz their quarter wave antenna would be 2805 divided by 312 or 8.99 inches (round to 9.00 and you are fine).

And you said that you would never use Algebra! This is Algebra with all the hard work done for you. Have fun with 2805 and quarter wave antenna building. Oh, one more thing. If you find a metal rod or piece of wire that is 22 inches long you can compute the frequency for which it can be used by dividing 2805 by 22 (the antenna length). That gives you 127.5 Mhz or the AM Aircraft Band.

Take care of your family first and have a wonderful Christmas!



## Digital Library of Amateur Radio & Communications

Marty Brown, 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.



**ORLANDO**  
**HamCation**  
**2024**

**CENTRAL FLORIDA FAIRGROUNDS AND EXPO PARK**  
**February 9th, 10th, & 11th**

**Host of the 2024 ARRL Florida State Convention**

Start the 2024 Hamfest season by visiting the 2nd largest Hamfest in the United States. Come check out the latest in amateur radio electronics, accessories, and gear. Stroll thru the largest tailgate in the Southeast. Find great deals in our swaps building with more than 200 swap tables. You can even catch a great lecture or forum while you're here. Bring the family and spend some time before or after HamCation at one of our area attractions. Attending is so easy because we partnered with a select group of preferred hotels to provide you with great accommodations at special rates. So make HamCation your next vacation destination!

- Special Guest Speakers
- Over 150 Commercial Booths
- More than 200 Swap Tables
- Largest Tailgate in the Southeast
- Testing on Friday and Saturday
- Forums on Great Topics
- Onsite Scooter & Wheelchair Rentals
- Guest Friendly Florida Atmosphere
- RV Camping on Premises
- Free & Convenient Parking
- Visit Nearby Theme Parks
- Casual or Fine Dining Nearby

**WWW.HAMCATION.COM**

Friday/Saturday 9AM - 5PM, Sunday 9AM - 1PM.  
Tickets are \$25 at the gate.

Orlando HamCation®  
4046 N Golden Road STE 106  
Winter Park, FL 32792  
(407) 841-0874

**Orlando HamCation needs your help!** It takes an army of Volunteers to make HamCation happen every year. If you volunteer for HamCation for just four hours, we will give you a ticket to get into HamCation all weekend. We need volunteers starting on Tuesday morning all the way through Sunday afternoon, after the show ends.

Just to highlight a few of the areas that are needing help right now, Tailgate, RV, Forums, IT, Logistics, On Site Ticket Sales, Security, and Talk-In.

For more information on volunteering for HamCation, including signing up, go to [www.hamcation.com/hamcation-volunteer](http://www.hamcation.com/hamcation-volunteer). Also on this page is the full list of volunteer areas and the description and duties of each area.

\*\*\*HamCation gives back\*\*\* Track your hours that you volunteer and HamCation will make a donation to your Ham Club/501 C 3 organization of your choice. (We'll provide you with the form)

## Columbia Amateur Radio Society News

J. Gordon "Gordie" Beattie, Jr., W2TTT

[W2TTT@ATT.NET](mailto:W2TTT@ATT.NET)

### Elections for 2024

On Monday, November 20th, members voted for their 2024 Officers. The new faces/positions for this year are our current Vice-President, Mike Harding KN4YGT as President, Gordon Beattie W2TTT as Vice-President and the current President, Marcus Perry KN4DCJ as a Director. All other officers will remain in their current positions.

### HF Band Filters

As a club, we are taking a page from our friends in Alachua County and are going to create a set of HF Band filters to be used in our ham shacks, for Field Day, demonstrations and EMCOMM exercises and deployments. Many of us have experienced cross-band interference when operating two or more HF bands in close proximity. For several of us, that can even happen at home when using separate antennas. The solution is to build filters for different bands to provide 20 or more additional decibels of isolation between a transmitter on one band and a receiver on another. So far six club members have decided to participate and soon we will know for what bands.

Members should provide their filter band and power preferences as soon as possible via the club [groups.io](mailto:groups.io) email list or via an email to [W2TTT@ATT.NET](mailto:W2TTT@ATT.NET). The project reference files including parts and participation lists will be posted to the files section on the [groups.io](http://groups.io) club site shortly. Oh! If you are not on the club email list, then email Gordon at [W2TTT@ATT.NET](mailto:W2TTT@ATT.NET) and we'll get you going.

### Club Christmas Dinner

C.A.R.S. members will enjoy Christmas Dinner together on December 11th at 6 pm at the Bob Evans Restaurant, on US Rt. 90 East in Lake City, Florida.



### CARS Officers/Directors/Administrators - 2024

President	Mike Harding KN4YGT
Vice-Pres.	Gordon Beattie W2TTT
Treasurer	Colen Boutwell WA5RKR
Secretary	Dalton Weatherford KK4KSM
Director	Jim Taylor KQ4CIJ
Director	Marcus Perry KN4DCJ
Director	Richard Heston KE4BQJ
Web-Admin	Dalton Weatherford KK4KSM





## Silver Springs 2023 HAMFEST

Saturday, December 2, 2023  
FIRST CHRISTIAN CHURCH  
1908 EAST FORT KING STREET, OCALA, FL 34471  
DOORS OPEN AT 7:30 AM



VE Testing

Commercial Vendors

- Tower Electronics
- Signman Of Baton Rouge
- J T Communications
- Paradan Radio
- Satellite Sam
- And others

Flea Market & Tailgate

General Admission	\$10
Tailgate - Car & Driver	\$20
Each Extra Tailgate Space	\$10
Additional Person	\$10

**MORE INFORMATION ON THE  
SSRC WEBSITE:  
[WWW.K4GSO.US/HAMFEST](http://WWW.K4GSO.US/HAMFEST)**

### Grand Prize



YAESU FTM 300DR

TALK-IN ON K4GSO  
VHF 146.610 PL-123



## Duval County ARES® Has New Communications Trailer

Brian Schultheis, K4BJS, Emergency Coordinator

Duval County ARES® conducted familiarization and user training for the new Duval County ARES® communications trailer on November 18th. Twelve members of the group came over Saturday morning to get some hands-on experience with their new communications trailer setup at Hogan Road Baptist Church. Students were briefed on the communications trailer's components, fuel supply, documentation, radio systems, 120 volt and 12 volt electrical systems. Training also included instructor-led demonstrations and students hands-on practice with connecting shore power, generator operation, fiberglass mast erection, antenna system, towing safety, and sectional ground rod installation. This familiarization training is the culmination of a ten month effort by Duval County ARES® to procure, build and commission an auxiliary communications trailer.





## What's Happening? Okaloosa & Walton Counties

Assistant Section Manager, NFL, ARRL  
President, W4AAZ, W4ZBB, WF4X

Hello all and Happy Holidays!

If you are looking for events that are coming up, then you are in for a treat! Of course, that, is after we tell you about the last amazing month in Amateur Radio!

November started off with a great Tech Night at the Playground ARC in FWB showcasing Limited Space antennas as taught by KX4LD, the current VP of the Walton County ARC in DFS! What a great night as he covered HOA antennas and ways to get around some of the "considered" unsightliness of communications equipment! Mark's willingness to share ideas inspired others to act and install similar items in the support of their communicating hobby and prepare their home stations for Winter Filed Day in January! If you missed this tech night, never fear, there is always more fun at the Playground!

WF4X met next, but for Breakfast! And just in time before we set all the clocks back! If you have not attended these breakfasts, you sure are missing out on great food, comradery, and hot coffee!

Sunday Funday Every Sunday (except for Christmas eve and New Years Eve)! The Playground ARC hosts Pile-Ups and at these weekly events they sure knock things out of the PARC! From DX to Free training, to Radio Work, and teaching each other the members here are all on the same path to enhance to hobby as best they can! Be sure to stop in with them and see what you can demonstrate or maybe, just maybe, get that help you need with you project. We do recommend asking them to be prepared for arrivals of projects that may take extra time.



The 7th of November takes us back to DFS for the WF4X meeting! This club has grown exponentially in the last year! From under 10 to over 40! This is in part to the teaching of classes and active recruitment of the local population and the well-rounded interaction of the Walton County EOC and ARES® teams! WD9GIU, the current Activities Director has sought to get the community on the air! And the support of the entire club is behind him! Be sure to catch up with what's cooking in DFS!

The NOARC team was next! And that a night W4AAZ had! Members showed up in droves to go over their Annual Meeting and establish the plan for the next year! Not only that, The NOARC team gathered to discuss and volunteer for their community support as it is the giving season and participating in the community is all the goal!

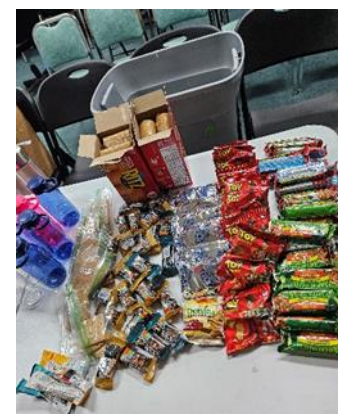
Veterans Day touted NOARC and PARC working with the American Legion to pull off a Veterans Day Parade! What a great time this was and easy event! The American Legion sure is thankful for the continued Communication support that is provided as is the city and the Main Street Association in Crestview as all were in attendance!



That next week we go back to the Playground for their Annual meeting and Hamfest planning! That's right! The 54<sup>th</sup> annual Playground Amateur radio Club Hamfest in Fort Walton Beach at the Northwest Florida Fairgrounds is only months away! In 2024 it will be on the 8/9 of March 2024. For more details, please see their website at W4ZBB.Org

Tailgate Time! And wow what a day! Fellowship, food, raffles, fun and sales! The team from the Playground hosted their Annual SwampFest and what a great day it was to be in the sun! The prizes alone were worth the trip! Prizes at a tailgate! You betcha! Guess what, a brand-new Ham who had just passed his test on Thursday won big! Dale (no callsign yet) won a HT and a DX Engineering Gift card!

Continued on next page...



We trotted into Thanksgiving the next week and had a wild spread of all sorts! We sure hope all of you did as well and that you got to partake with those you hold close!

The Saturday after the Holiday the Playground ARC got with the Greater Vision Church and the Waterfront Mission in FWB to make wellness bags for the homeless with items they can use in the shelters. These bags were part of a larger community driven event to aide those in need who would otherwise go without. Great job to KQ4FRB as the Chief organizer on this event and AA0EU for the dedicated support of the less fortunate.

To cap off the month the DFS team at WF4X is holding a technical night for home-built Yagi Antennas! This will be occurring following the due date of this writing, but we can assure you, it will be an awesome night, and all are welcome!

**PARC**  
PLAYGROUND AMATEUR RADIO CLUB  
FT. WALTON BEACH  
FLORIDA  
SERVING OUR COMMUNITY

Flea Market  
Raffles  
Prizes  
Food  
Testing  
Camping  
Talk-in 146.790, -,  
0.6, 100Hz

54th ANNUAL  
**PLAYGROUND  
HAMFEST**

Friday & Saturday  
8/9 March 2024

1958 Lewis Turner Blvd, FWB, FL  
NWFL Fairgrounds  
W4ZBB.ORG / PARCFWB@GMAIL.COM  
CALL 850-359-9186

1958 Lewis Turner Blvd Fort Walton Beach Florida  
**Friday, March 8th— 4pm to 6pm**  
**Saturday, March 9th— 8am to 5pm**  
 Vendors set up Friday starting 8am. No public show until 4pm. Vendors set up Saturday 6am. No public show until 8am.  
 Testing, must pre-register PARCFWB@GMAIL.COM  
 Swapmeet, Tailgate, Indoor Booths, Food Concessions, National Vendors, Local Ham Radio Dealers Area Club Tables, ARRL Representatives  
 Reserve your tables and spots: PARCFWB@GMAIL.COM  
**\$8.00 admission, \$10.00 per table/spot**  
 Boy Scouts in Uniform Free  
 12 and Under Free  
 90 and Above Free  
 Contact Information: PARCFWB@GMAIL.COM, or the NWFL Hamfest Hotline at 850-359-9185.  
 All voicemails will be returned if no answer.



## EFHW Ferrite Core Mystery Solved

by Gordon Gibby KX4Z

For quite a while, our Alachua County group has built end-fed-half-wave antennas using modest-priced FT-240-43 ferrite cores, using a turns ratio of 14:2. However, our measurements at 10 meters have always been disappointing. Higher SWR into a 2400 ohm dummy load, somewhat higher loss (a dB or maybe a bit more)...just not as good as they perform at 80 meters. Type 52 has lower permeability and type 61 even lower, so difficult to get any 80 meter performance with either. And you'll need so many turns that the capacitance will damage the upper end performance.

Meanwhile, vendors such as MyAntennas.com advertise great EFHW baluns that our measurements indicate have much better SWR into a 2400 ohm dummy load -- even through the 10meter band. How is this possible? Our windings are similar.

At least for the higher power versions sold by MyAntennas.com, the answer is likely in the core material itself. Gary Rondeau has published extremely enlightening material in which he studied an unknown ferrite material with a  $\mu$  of approximately 600 and found it much better than the type 43 material. (see: <https://squashpractice.com/2021/06/23/performance-of-491-ferrite-core-transformers/>) The problem with widely used type 43 NiZ ferrite is that the lossy (resistive) component begins to predominate above 10 MHz, and by 30 MHz, it is a *huge problem*. In back-to-back configuration the losses are still tolerable, but the SWR's into a 2450 ohm load are way out of control.

MyAntennas gives a few **clues** that for their high power EFHW baluns they found a "new" material with a higher Curie temperature. Enter TDK ferrite type HF57. with a  $\mu$  of 600, and a Curie temperature > 150 C. While it may have been discontinued by TDK (see: [https://product.tdk.com/en/search/ferrite/ferrite/ferrite-core/info?part\\_no=EMC\\_SP\(HF57\)](https://product.tdk.com/en/search/ferrite/ferrite/ferrite-core/info?part_no=EMC_SP(HF57))), this ferrite type, or something similar seems very likely to be the clue.

Further corroboration: I measured the primary inductance (at the 50-ohm connector) of a 2kW MyAntennas primary at about 1.7MHz (MEF-330-2K-Plus) and found it to be about 13mH, whereas the same inductance of a 3-core FT-240-43 homebrew device wound similarly was approx 28mH. Both have 2 turns to their primaries. Pretty clear that the  $\mu$  of the MyAntennas core is lower than that of the FT-240-43. This fits with being a ferrite similar or identical with TDK type HF57.

I have briefly analyzed one other product from a different vendor that demonstrated inferior performance at the low frequency (80-meter) end. It is likely that this device either used a turns ratio of 7:1 or type 52 or another ferrite.

I suspect strongly that MyAntennas (at least their 2kW models) have significantly better cores than the FT-240-43. For those of us "stuck" with type 43 material, Gary gives some suggestion on the best compromises for making HF EFHW baluns: <https://squashpractice.com/2021/07/20/engineering-the-efhw-491-transformer-and-antenna/>



*Comparison: homebrew top Balun FT-240-43x3cores; commercial bottom Balun. Both use similar winding technique with a "jump" half-way through the turns. Both 14turns/2turns, primary bifilar twisted.*



## QCWA Chapter 62

Ken Simpson, W8EK

Chapter 62 of the Quarter Century Wireless Association will be meeting on December 14, at 12:30 PM at the China Lee Buffet on East Silver Springs Blvd in Ocala. In December we move from the fourth Thursday to the second Thursday, to avoid the holidays. Please join us on December 14. Chapter 62 also holds a net on 3940 MHz at 9 AM every Saturday morning. You are encouraged to join us.



## Madison & Suwannee Counties ARES® News

J. Gordon "Gordie" Beattie, Jr., W2TTT

[W2TTT@ATT.NET](mailto:W2TTT@ATT.NET)

Well this has been a busy month for the Madison and Suwannee ARES® teams with weekly nets, a great social event and a few interesting projects! There's a lot of talent on these teams and it's being shared throughout our communities. New skills are being shared through friendly Interactions in-person, via text messages, through emails and with over the air conversations. We are fortunate to be able to work together to make each ARES® team stronger.

### Madison ARC Tailgate in Lee

The Madison Amateur Radio Club held its 2nd Annual Tailgate gathering at the Lee Town Hall parking lot on Saturday, November 11th. It featured free admission, items for sale from individual hams, a demonstration POTA/EMCOMM station, a demonstration of some advanced test equipment a lighter weight, compact LiFePO4 battery and wonderful conversations!

Aaron KQ4DCB and Club President Ken KI4IMN did an exceptional job arranging for awesome grilled breakfast tacos, lunchtime burgers, plenty of cold beverages and the use of the facility.

We welcomed attendees from Madison, Suwannee, Taylor, Leon, Columbia and Marion Counties in Florida and two counties in Georgia. The widespread participation made for great conversations with great ideas! Many thanks to all who trekked to participate! A special thanks goes to Steve W4XCO who brought warm fresh donuts from Johnsons!



*The Lee, Florida water tower and the home of the Madison ARC's 145.19 repeater (-600 kHz, Tone 123.0 Hz). This was the site of the Tailgate gathering.*



*Scott(?), Madison County Emergency Coordinator Junior KC4VPI, Joe KI4TRR, Joe's YL Robin and Jim K4DBC chatting over the tailgate goodies.*

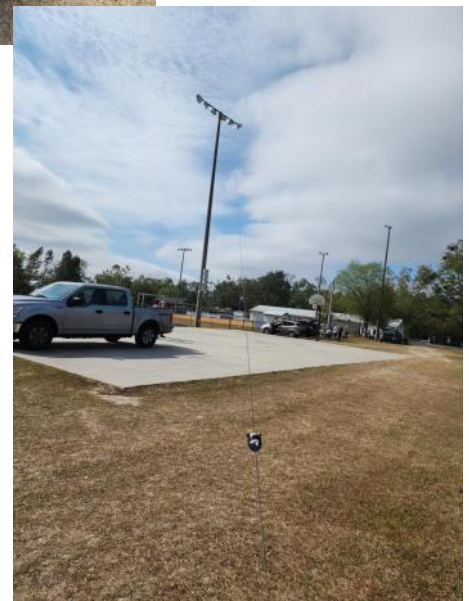


*Interesting goodies for sale!*



*Left—Bill KF4KHJ, Bill AA4TM, Bob KF4JPI and Taylor County ARC President and Emergency Coordinator Steve W4XCO enjoying a day together.*

*Right—Jim K4DBC used a kid's 6lb bow to get an antenna pull line up and over a light pole.*



Continued on next page...





End-fed Half-wave balun and a coaxial choke at Jim K4DBC's POTA/EMCOMM demonstration.



Madison ARC President Ken KI4IMN, Jim K4DBC and Chef Extraordinaire Aaron KQ4DCB.

### INOVATO Quadra Project

Recently, Jim K4DBC noted the availability of the INOVATO Quadra microcomputer after watching Jim Heath W6LG's YouTube video on the topic. He was struck by the \$39.95 price for an Allwinner H6 Quad core A53 processor running at 1.7 GHz with 2GB RAM and 16GB eMMC. The tiny desktop machine has an Ethernet port, 2.4 GHz Wi-Fi, a 1080p/4K HDMI port, a USB 2.0 port, a USB 3.0 port and a micro SD memory card slot. It comes preloaded with Debian Bullseye 64 bit Linux and a bunch of Amateur Radio apps including WSJT-X, GridTracker, HamClock, JS8CALL, FIDigi and WinLink. It also has a bunch of desktop and developer applications loaded.

So when Jim mentioned his interest in the INOVATO Quadra, I told him that I had two sitting on my desk if he wanted to try them. He [took.me](https://www.took.me) up on the offer and soon he configured both for HamClock which allows for displays of the day/night phases Sun phases and much more! He has added VOACAP propagation, satellite tracks, DX spotting and more to his screen.



Now with two of us online with these two tiny desktop computers, several others including Bryan KQ4FMY, Bill AA4TM, Aaron KQ4DCB, Ken KI4IMN and W1JXG have ordered, received and set them up. More in the group are waiting for theirs to arrive.

The jewel or "eye candy" application is "HamClock" and Jim has gotten that running based on W6LG's YouTube video.

You can order the INOVATO Quadra, but they are backordered a few weeks.

<https://inovato.com/products/hamclock-bundle>

In the meantime check out their website <https://www.inovato.com> and Jim Heath W6LG's YouTube video and others describing uses for the INOVATO Quadra.

Continued on next page...

Station improvements

There has been a flurry of station improvements around here as we get the time and opportunities to do things bigger and better following the cleanup from Hurricane Idalia.

Joe KI4TRR has been impressed with Gordon W2TTT's 280 foot horizontal loop and so they installed a new multi-band 80-10 meter loop at Joe's during a recent Saturday afternoon. It is located in Joe's front pasture on four twenty-two foot long galvanized fencing "top rail" screwed into 8 foot 4x4s placed two feet into the ground. A 5/8 inch eyebolt on top of each pole act as a "pulley" for a loop of black Dacron(tm) rope that supports a six inch piece of 3/4 inch PVC that supports each corner. The next task is to run some 450 Ohm window line to the 4:1 balun by the house and then run some LMR-400 into the shack. This will happen soon.



Joe KI4TRR standing by the feedpoint pole of his new 280 foot-long 80-10 meter loop antenna.



Loften High School's Fire/EMS Academy Practices Procedures

Bob Lightner W4GJ

Students at W.T. Loften High School's Fire/EMS Academy spent the final day before the Thanksgiving holidays learning and practicing applying Hare and Sagar splints to patients broken legs. K4WTL will be silent until after the holiday. QSX for us on 10 meter SSB on November 27th!



Photo by W4GJ  
November 17, 2023 9:56 AM



Photo by W4GJ  
November 17, 2023 8:55 AM



TVARC Holds Licensing Courses

Brad Castelli, KN9B



**Amateur General Licensing Course** on Monday evenings, Jan. 8 - Feb. 26, 2024 in The Villages, Florida  
The Villages Amateur Radio Club is holding an in person General license course. You will meet once a week for seven weeks followed by exams on the last night. The course is free and open to the public. More class details and study resources are listed on the club website; [www.K4VRC.com](http://www.K4VRC.com) ("Interest in becoming a ham" tab). You are encouraged to get your friends to sign-up too, so you can study together. Contact: Brad KN9B, [kn9b@arrl.net](mailto:kn9b@arrl.net)

**Amateur Extra Licensing Course** on Monday evenings, Mar 4 - Apr. 8, 2024, in The Villages, Florida  
The Villages Amateur Radio Club is holding an in person Extra license course. You will meet once a week for five weeks followed by exams on the last night. The course is free and open to the public. More class details and study resources are listed on the club website; [www.K4VRC.com](http://www.K4VRC.com) ("Interest in becoming a ham" tab). You are encouraged to get your friends to sign-up too, so you can study together. Contact: Brad KN9B, [kn9b@arrl.net](mailto:kn9b@arrl.net)



## What's Happening in Alachua County ARES®/NFARC!

by Gordon Gibby KX4Z <https://www.nf4rc.club/>

**Started the Month with Winter Field Day Training.** TechNite topic Thursday Nov 2nd on Winter Field Day Rules and how to operate RTTY during Winter Field Day. Our group can do FT8 reasonably well (>1000 contacts last Summer Field Day) but we're novices at RTTY....and JS8....

**Group POTA Deployment.** We followed that Tech Nite with a real life POTA OP at San Felasco State Park (K-3651) on Saturday, Nov. 4 -- and livened it up with a first-ever cookout brunch and invitations for folks to bring their own gear. The results were unexpected, chaotic, and FUN!

We made lots of discoveries: Ron KN4ZUJ brought his G90 and vertical with magic carpet ground -- and his satellite gear also! This was fantastic. **He works DX right and left with that vertical!!** Dave Huckstep W4JIR brought his **weight-lifter-training-Go-Box** (we're not kidding!) and did Voice with a new EFHW 1.2kW Balun/antenna that he put up with his air-powered lead-weight shooter. (THAT got a lot of attention from Stewart Reissener KK4DXF). I brought the generator-trailer which includes a 30+ foot fiberglass telescoping antenna....and had to use a chair to extend it because I forgot a ladder (oops!). An EFHW went up quickly anyway. As if that were not enough, **David Fox NN4DF brought another easy-setup-vertical** and complete setup and positioned a beach umbrella and started working DX, too!

My heavens, these guys are GOOD!



**We tried to distract them with FOOD.** New General Class licensee Manish KQ4KTE helped with cooking and Rosemary Jones KI4QBZ brought sausage-slathered biscuits -- pretty soon we had a good spread -- but our ops were deep into HAM RADIO and we had booku food left over despite our temptations! DISTRACTION FAILURE!! Learning experience! Our folks like OPERATING even more than eating! Susan KG4VWI was everywhere helping out. Wendell Wright KN4TWS took note that we were forgetting to "spot" and Steven Panaghi KC2ASY did an on-the-spot training and pretty soon we were all spotting right and left and wow! were the results impressive!

**POTA CW PILEUP.** I had one of my only CW PILEUPS of my life -- so many people calling me (I was running 300 watts from a vacuum tube SB-200 on a park bench) that *I could barely separate them.* (Bunch of guys zero-beated together just make a blur!) Dave Huckstep W4JIR had some of the same problems for a while. *It was a great experience* -- then David F. dropped over to tell us all all the DX he was working on 12 meters, and later Ron had Slovenia on voice. I'm not much of a voice DX operator so I just had to go listen to the crystal clear QSOs that several of our folks were having with 20-watts and a make-do vertical.

What an awesome training event!



Along the way, I discovered our VHF Contest Guru Mike WB2FKO can copy CW! Another op for that mode!



**Important Change At Our Meeting.** We have our own county-specific TASK-BOOK to go with the ARRL ARES® taskbook and we've worked hard at both-- we have 3 Evaluators in our group! But we have a dearth of "Level III" Alachua County operators who can operate every one of our EOC radios without "coaching":

- HF Voice / Ham and SHARES nets
- HF Winlink / Ham and SHARES
- HF ALE (SHARES --> Florida Div of Em Mgt)
- VHF Voice
- VHF Winlink
- SLERS (Statewide Law Enforcement Radio System)

- Satellite phone (in both modes)
- All three HF radios -- ICOM, commercial Yaesu, EMP-proof Heathkit
- Either HF Antenna

And to make matters worse, **we're losing cornerstone Leland Gallup AA3YB** who hears the call of far-away relatives and is moving to Washington State to practice tsunami drills! (A short tribute: Leland has been a huge training and organizational force for our EOC and for our Field Days also!)

Susan Halbert KG4VWI took the lead to suggest a change to our county-specific requirements for supervisory operation to remove the FEMA Professional Development Series and the G-191 (in person) course. We're a consensus-driven group, so after a month to mull it over, and several folks trying out one or another of the FEMA PDS series, we pretty unanimously **jettisoned those courses** from the supervisory requirement at our EOC. It was a great discussion and consensus development

**FIELD DAY RESULTS.** Our group worked our hearts out at June ARRL Field Day. We are still pretty new at it, and putting up SEVEN antennas at an EOC alternative deployment location and operating FOUR transmitters in relatively close quarters was quite a stretch for us. But some of our guys (who really aren't contesters at all....) wouldn't give up! We had some help also from Pat Benson K000 and District Fire Chief Kevin Rulapaugh KE4NVI was also a high scorer. We thought we had done "OK" but we had no idea....

- We pulled off **FIRST PLACE of all 4F entries** nationwide.
- We were **#2 of ALL EOC entries nationwide**, bested only by a Rhode Island club.

For a pretty modest-sized group in a medium sized city, with no fancy antennas, we were VERY pleased with that outcome! I'd like to honor all the hard-working participants of our 2023 Field Day:



High-scorer Mr. "I SWEAR I'm only going to do VOICE!" David Huckstep of FT8 Field Day fame

David Huckstep W4JIR	Wendell Wright KN4TWS	Kevin Rulapaugh KE4NVI	Patrick Benson K000	Steve Panaghi KC2ASY
Leland Gallup AA3YB	Yours Truly KX4Z	Dan D'Andrea KF4OVJ	Craig Fugate KK4INZ	Jeff Capehart W4UFL
Lorilyn Roberts KO4LBS	Mike Hasselbeck WB2FKO	Earl McDow K4ZSW	Ron Lewis KN4ZUJ	Susan Halbert KG4VWI
Eric Pleace KO4ZSD	Rosemary Jones KI4QBZ	Jim Bledsoe KI4KEA	Craig White KO4ZRZ	Reid Tillery K9RFT



**Remote Fire Station Radios.** Energizer bunny Reid Tillery K9RFT is bringing THREE remote fire stations "radio-online" for simplex connections direct to the EOC with new antennas and working to hold Tech classes with help/approval from the chief at each station. Way to go, Reid!

**Winter Field Day** We have never done a Winter Field Day before. But we're gearing up for Jan27-28 2024 with a Tri-plexer turned into a QuintPlexor, a new MyAntenna EOC simple wire antenna, and hopes of learning JS8 or RTTY and better managing our fairly pitiful voice capabilities this go around. We have scheduled some **Tech Nites** to teach skill-sets, some **LabNLunches** to finish building equipment and get logging systems working. And lastly, we have a Christmas Luncheon scheduled for Saturday June 9th at LosPollos in Gainesville on 43rd St for lunch -- a great time to wish Leland well and reminisce about all the crazy stuff our group has done together!



## High Springs Forms New Club

Jim Van Houten NJ7Y

Hello North Florida QST!

Just outside of Gainesville Florida in High Springs our newly formed club The High Springs Amateur Wireless Klub and Society (The HAWKS...or as K4VZX...per the FCC) is looking for hams with an interest in radio experimentation and pushing the envelope. Our preferred mode of communication is CW with low power.

But we'll play around with any other modes and are known to use some juice when necessary to reel in a contact.

You might have noticed the backwards lighting bolts on our logo. That initially was a mistake in the original draft. But we decided to keep it that way as there is some truth in the symbolism...that being if you can't hear 'em, you can't work 'em!

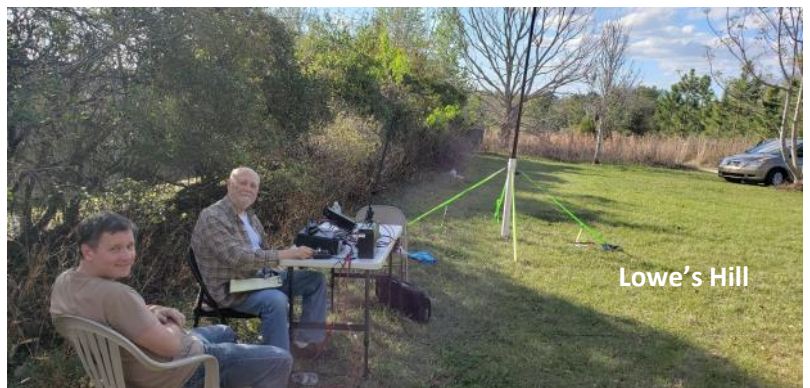
Experimentation sounds good, but we like to "tinker". A typical outing involves the use of two or three different qrp transceivers with different antenna types (mag loop, long wire, mag mount vertical antennas). Members of the club are encouraged to develop projects for testing in the field or bring in new "toys". Our most recent outing involved testing of project created with the hope of providing location information in the event of GPS failures...one member was out and about transmitting from different points while other members remained at the base camp to confirm reception. See the link for details of the project. <C:\Users\Lenovo\Downloads\Edited Cross Band repeater.odt> <C:\Users\Lenovo\Desktop\projectsketch.odt>

Our club likes to search out for locations that allow for potentially good propagation and also a good outdoors experience that allows for good eating and radio! We try for at least one good all day outing per month. Past expeditions have involved visits to state parks overlooking the Suwannee and Santa Fe Rivers and a trip to the Atlantic coast.

If you're interested in becoming a member of the HAWKS, contact Jim NJ7Y or Karl KR6G via their email addresses on QRZ.COM



Lake City Field Trip



Lowe's Hill



## 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](mailto: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](mailto: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](mailto:w2bzy@cfl.rr.com)

### Milton Amateur Radio Club, Milton FL

- Check date at [miltonarc.org](http://miltonarc.org)
- Walk-in
- Bagdad United Methodist Church
- Info: Chuck, N4QEP, [merlinman3@yahoo.com](mailto: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](mailto: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](http://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](mailto: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](mailto: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>

**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!