QST NFL

Sharing information of interest to Radio Amateurs in North Florida

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Keeping up with the Hobby

By Scott Roberts, KK4ECR
Assistant Section Manager / Public Information Coordinator

There are so many ways that we can keep up with what is going on in Amateur Radio. So where do you go to find up to date information on our great hobby. The ARRL offers some great resources to help. Here are some links to great sources and social media sites used by ARRL.

ARRL Magazines
QST – http://www.arrl.org/qst
On the Air – http://www.arrl.org/on-the-air-magazine
QEX – http://www.arrl.org/qex
NCJ -- http://www.arrl.org/ncj

ARRL Letter – https://www.arrl.org/arrlletter
ARES Letter – http://www.arrl.org/ares-letter/

ARRL Audio News – http://www.arrl.org/arrl-audio-news

Facebook-
ARRL: @ARRL.org
On the Air magazine: @ARRLOTA

Facebook Groups-
ARRL Field Day: groups/arrlfd
ARRL Collegiate Amateur Radio Initiative: groups/ARRLCARI

Twitter – @arrl

Instagram and Instagram TV – @arrlhq

YouTube – ARRLHQ

LinkedIn – ARRL The National Association for Amateur Radio

Discord
ARRL Collegiate Amateur Radio Initiative: **https://discord.gg/Rd5BcrWcxb**

In addition, the Northern Florida Sections publishes a monthly newsletter with awesome articles on what is happening in our section. You can get that newsletter sent to you each month by going to https://arrl-nfl.org/1007-2/. Oh wait, if you are reading this article, then you already know about this newsletter – Thanks for reading!!!

ALWAYS LISTEN FIRST – Of the utmost importance is to listen to the frequency prior to making a call. If you observe that the frequency is already in use, wait until the frequency is no longer in use before making a call. If someone else made a call, allow time for the station that they called to respond before making your call (note that the calling station will likely repeat the call). If the call is an emergency, you may break in at any time to make an emergency call. If the call is not an emergency, but is urgent or time critical, you may break in and, when acknowledged, explain that you would like to make a quick call and will vacate the frequency shortly if allowed to make a quick contact (most Amateur Radio operators will accommodate such a request). If the frequency is not in use, you are free to make a call.

What's Inside

*You can email your **QST NFL** input to* n4gl.marty@gmail.com, Marty Brown, N4GL, Editor.

All submissions are subject to editing prior to publication.

From the Section Emergency Coordinator

Arc Thames, W4CPD

February is shaping up to be a busy month! The Emergency Communications track at the ARRL National Convention on Thursday, February 10, the day before HamCation, is looking to be a great event. There are several presentations lined up and it's a wonderful opportunity to meet and fellowship with other members of the team. In addition to the presentations at the convention, there are numerous emergency communications related presentations at Ham-Cation including a forum called "ARRL – Emergency Communications" at 3:15 PM Eastern on Friday February 11. This forum is being moderated by the ARRL's new Director of Emergency Management, Josh Johnston – KE5MHV, and will include participants from our section and others in Florida. Additionally, an ARES booth at HamCation will be available and I'll be helping with it so please do stop by and say hello!

I want to congratulate the following individual on their recent appointment as Emergency Coordinator for their county. We appreciate your willingness to serve!

Columbia County - Brad Swartz N5CBP

This month I was invited to visit with the Bay County ARES team to attend their monthly meeting. Doug Gibson – KN4PFZ is working to grow their team and ensure their members are trained on various tools such as Winlink and DSTAR.

Pictured from Left to Right – Doug-KN4PFZ, Arc-W4CPD, Mark-KD4IMA

We are in need of additional net control stations for the Northern Florida ARES Net that takes place Monday through Saturday at 9A Eastern/8A Central on 3950 KHz. If you transmit and receive well across the section, **please** email me at arc.thames@srcares.org. This is a great opportunity to practice for emergency activations and also counts towards completion of your ARES Task Book.

I want to end this month's article by sending out my heartfelt condolences to the friends and family of our former Section Emergency Coordinator, Karl Martin K4HBN, who became a silent key on January 24. Karl's leadership was instrumental in leading our section's emergency communications team through Hurricane Michael and bringing all our various ARES teams together. I will certainly miss Karl's guidance and ideas in our section as well as his friendship.

Karl's services will be on Saturday February 5 in Daytona Beach. If you live near or are in the area for HamCation, please try to attend. Karl served as SEC in NFL from summer of 2018 through November 2021 and had also served as an EC and AEC in Volusia county. If you do happen to attend, please wear a callsign badge to show our support from the ham radio community.

More information can be found on the funeral home's website.

Obituary | Karl Jesse Martin of Daytona Beach, Florida | Lohman Funeral Homes

Loften High School Receives Donation

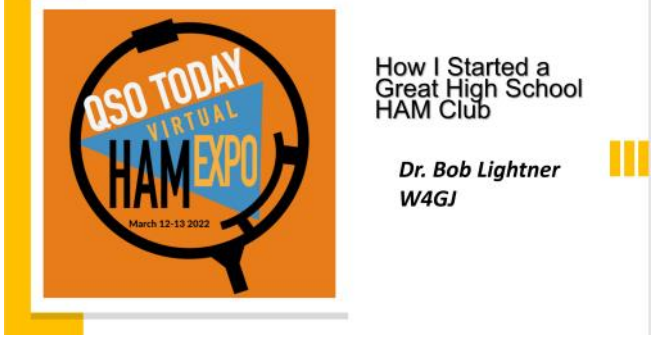
Bob Lightner, W4GJ

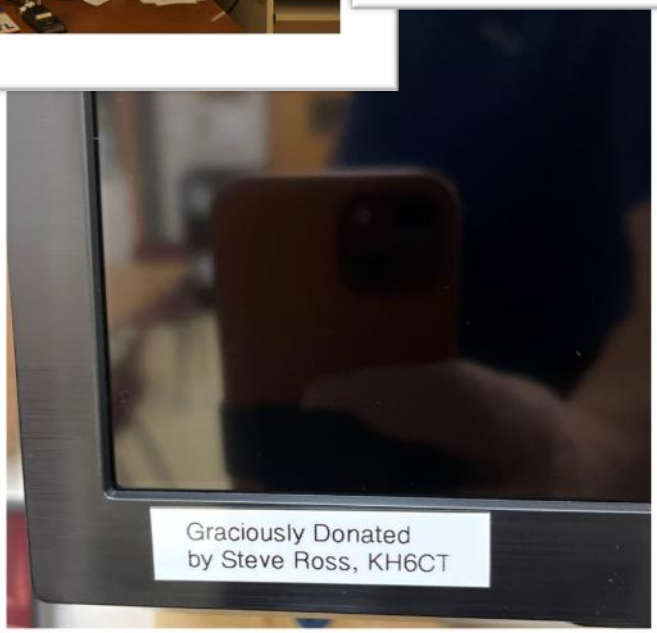
Students at Loften High School, here in Gainesville, received a new gift, courtesy of Steve Ross, KH6CT. A new 50-inch 4K HD TV which helps us see our electronic logbook better. "It was like Christmas in January," said club president Joshua Wystrock. The club is enjoying working DX, rag-chewing and contesting. We are gearing up for the Florida QSO Party in April and also National EMS Week in May. We will be using the Special Event call: **N4E** for NEMS week. During FQP please QSX for our club call sign, **K4WTL**.

W4GJ Makes Presentation at QSO Today

QSO Today—Virtual Ham Expo

Mark your calendar for **March 12-13** as Bob Lightner, W4GJ, will be making a presentation on his success with the **Loften High School radio club** in





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North Florida Section Shines at ARRL National Convention
EmComm Training Forum

by Gordon Gibby KX4Z

The NFL Section is contributing heavily to the leadership and teaching functions of the ARRL 2022 National Convention on February 10 (Thursday) at the very beginning of Hamcation in Orlando, Florida. Rick Palm K1CE from our Section is the head of the **Emergency Communications Academy** for the ARRL. Rick was so impressed with the 2020 Amateur Radio Emergency Communications Conference held in Gainesville, Florida that he tapped our team to put together the same type of training for the ARRL National Convention.

The result is a great program (https://qsl.net/nf4rc/2022/EmCommTrainingTrack0106.pdf) that leverages emergency communications leaders from so many areas: our section's ARES(R) groups, our Section Traffic Manager (the incredibly friendly Helen Straughn WC4FSU) and reaches out to include Ohio Section's versatile traffic guru, Matthew Curtin KD8TTE.

Live Training. We're doing things that may seem unusual for a "forum": rather than lots of speeches, we plan LIVE TRAINING on the air for both simple and complicated skillsets! Tried-and-true techniques for moving tactical and formal emergency comms will actually be *put into action* during morning sessions. For the afternoon, HF radios will take the stage as participants load up WINLINK, create accounts, and get some hands-on practice with digital data techniques! The logistics of pulling all of this off in a resort hotel are....interesting! But our emergency communications volunteers are ready to travel!

And that's not all! We have an **ARES(R) Forum** with information from Florida Section Emergency Coordinators, an **ARRL National Luncheon** with key national leadership, and then a fascinating chance for participants to learn the latest about **AUXCOM** and how it relates to Emergency Managers' needs, and ARES(R) as Leland Gallup AA3YB has assembled an *amazing* group of panelists! We are expecting involvement from the new Florida Statewide Interoperability Coordinator from FDEM, Roger Lord, a former head of FEMA (Craig Fugate KK4INZ) , and also from the incredibly experienced new ARRL Emergency Director, Josh Johnston KE5MHV.

WHAT TO BRING: If you're coming, we would encourage you to bring at least a simple low power VHF Handheld, and certainly your Windows laptop if you have one. Volunteers from our area are amassing HF Go-Boxes to assist in the afternoon training. (You're welcome to bring a full HF go-box with a small dummy load for low-power work.) There is a cost for the forum--hotels don't give you the use of their facilities for free!--but it also includes the ARRL mid-day luncheon. Registration information is here: https://form.jotform.com/213015399866161 (also see: http://www.arrl.org/arrl-expo) and mentors can sign up here for mentoring: https://docs.google.com/forms/d/e/1FAIpQLSdCqVAOs7zeuF6DhW3AwX1QoacVt-LzYbMltD0Becx5CD2kag/viewform?vc=0&c=0&w=1&flr=0&usp=mail_form_link

Small Circuits That Add Big Life Extension to Older Electronic Keyers

by Gordon Gibby KX4Z

The *hardware* of an electronic keyer is the most important part -- how the paddle feels, whether it slides around the table or stays put, how easily the speed can be quickly changed to accommodate a ham sending CW a bit slower -- so older, well-made keyers/paddles are quite valuable, even when a minor circuitry issue sidelines them. Using a couple of really simple transistor interface circuits, I was able to add additional life to two keyers.

LIL BUGGER K5 Keyer

John Curtis K6KU revolutionized electronic keyers and even had an integrated circuit developed to create precisely the control he wanted. Plenty of information is available about the unique contributions and the chip he designed (see for example: https://users.ox.ac.uk/~malcolm/radio/8044print.pdf and https://va7gur.ca/curtis-k5-lil-bugger/) My father-in-law Harry E. Wickham WD4RKZ (still going at 95!!) gifted me with a beautiful Bencher paddle and "Lil Bugger" K5 keyer....but the output reed relay seemed to have bad contacts and wasn't reliable. The keyer was a joy to use -- big wheel to change the speed without having to go through a zillion radio menus, and a "TUNE" button to instantly provide a steady signal to tune the amp if needed. Over Christmas at my sparsely-equipped "North Carolina home," I decided to connect a 2N3904 as a switch to replace the reed relay.

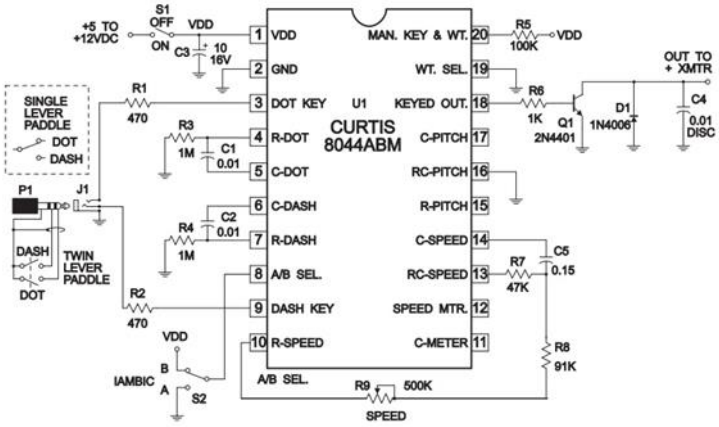
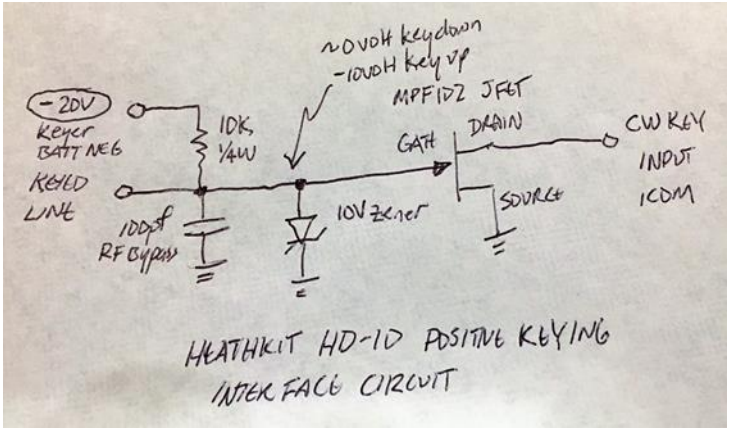


Figure 1: Example keyer circuit using Curtis 8044 chip. From https://users.ox.ac.uk/~malcolm/radio/8044print.pdf

A simple circuit modeled after the suggested keyer circuit in Figure 1, with very few components connected to the output pin of Curtis' integrated circuit and perfectly keyed the Icom 7300. I drove the base with a 4700 ohm resistor and used the 2N3904 instead of the 2N4401. The reverse diode protects against accidental connection to one of my older Heathkits with their huge NEGATIVE keyed-line voltages. The 100pF capacitor for C4 wards off radio-frequency-interference to the keyed line.

HEATHKIT HD-10

Revealing my age, I still have the Heathkit HD-10 keyer that I soldered together as a teenager. These venerable old keyers actually use germanium transistors! It's likely you could substitute 2N3906's for a lot of them (except the high-voltage output transistor) if you had to. Replace a few aged power supply electrolytics and a lot of these keyers will instantly come to life. However, they were made to switch a mighty NEGATIVE voltage of a "grid-blocked" older tube rig. How to get it to be able to key a modern transceiver, which usually has a few positive volts at low current that needs to be grounded to send CW? After going in circles for a while, I finally realized that the keyer provides a negative voltage (about -20VDC) on one of its many rear terminals (from the internal power supply) which perfectly controls an n-channel MPF-102 JFET with a zener to limit the voltage seen by the gate. The keyer happily keys the modest negative voltage sent to the gate and the JFET goes from near-open to low resistance and will perfectly key a positive voltage modern CW rig.



Looking for Something?

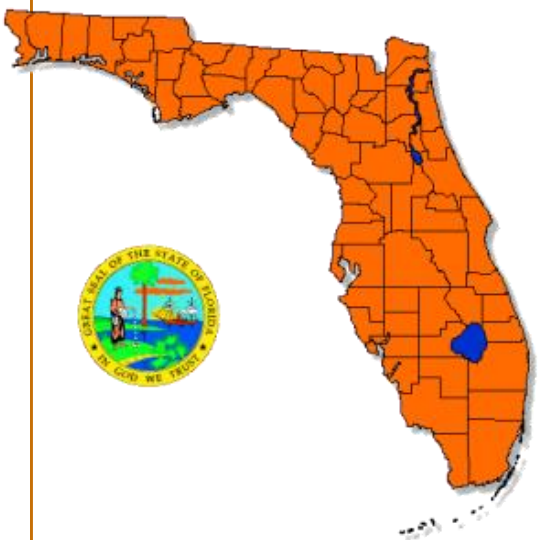
Gordon Gibby, KX4Z, has taken the time to index the articles from all the 2021 issues of ***QST NFL***! The link below takes you to a pdf of all the articles in alphabetical order. This link is also on the arrl-nfl.org website newsletter tab.

https://arrl-nfl.org/wp-content/uploads/2021/12/2021QSTNFLIndex.pdf

The 2022 Florida QSO Party, April 30th – May 1st

FQP INFO

Since the re-introduction of the Florida QSO Party to the contest scene in 1998, the Florida QSO Party has become one of the fastest-growing and most popular State QSO Parties around today. This is due, in part, to the tremendous effort by the mobile teams to activate as many counties as they can to allow those participating from out-of-state, to achieve a county "Sweep" (working all 67 Florida Counties). Florida stations operating from home are also valuable since that increases the chances that stations will work all counties!



if you are a serious or casual participant … from Florida, or from outside of Florida … the Florida QSO Party was designed to be a FUN operating event. Why not give it a try?

LARA Replaces its HF Beam Antenna

Frank Anders, KK4MBX

Our old HF Beam Antenna has been in service longer than many of us can remember and was in need of an update or considerable maintenance. The project was to remove the old HF beam from the clubs 50' tower and replace it with a refurbished a tri-band beam.

Our team cleaned all connections, replaced missing or damaged parts and brought the antenna into a like new condition. Pictured team members include Lenny, KD4MBN, Glenn, AA4UC, Dave, KE7BMG, Jay, N4KXO, Gary, KJ4HYV, Teresa, KN4CFJ and Chris, KM4RNR.

As with any large scale project, we needed to take a lot of care in getting ready. In this case it took a number of ropes, pulleys, climbing hardware, and a considerable amount or rigging to assure we could safely maneuver the antennas in the air between the ground and the mast. For this effort our team was led by a professional in tower work, Ken, KN4MD. Assisting with the set up included Larry, KN4LSY, Lenny, KD4MBN, Glenn, AA4UC, Dave, KE7BMG, Jay, N4KXO, Teresa, KN4CFJ, Frank, KK4MBX, Joe, KO4FRR, and Chris, KM4RNR, along with members of Ken's professional team, and some Scouts who came to learn about this area of ham radio operations. One of the scouts was able to complete his radio merit badge.

Once we completed the necessary rigging we were able to disconnect the old antenna and lower it to the ground.

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Once the old antenna was removed, we made some final adjustments to the new antenna and raised it into place. As part of the project, the damaged VHF coax was replaced well due to damage, and we have 2 loops at the rotor so it can spin 5-6 times before getting too tight and abrading the coax cables completing the project.

Some Thoughts about Antennas

Bert Garcia N8NN

Every antenna system is a compromise. Compromises are imposed by space limitations, financial limitations, restrictions by the HOA, neighbors, and the XYL. This discussion is focused on HF antennas, and it applies to commercial antennas or antennas you construct. Here are some thoughts about methods to produce an effective HF antenna system.

1. Build or adjust your antenna to match 50 ohm coax AT THE ANTENNA FEEDPOINT. This will present a good match to your 50 ohm transceiver output. The goal is to have no antenna tuner at the radio. When your antenna is matched to the feedline, you have no feedline radiation and feedline losses are minimized. Methods for adjusting your antenna to match 50 ohms include changing the length of the antenna, using a hairpin, stub, loading coil, or tuned network. Depending on the type of antenna, use a balun or unun to transform the antenna impedance closer to 50 ohms. Use an SWR meter or antenna analyzer at the antenna feed point to measure your success at achieving a 50 ohm match.

2. Single-band antennas can easily be matched to 50 ohms; however, many multi-band antennas can be difficult to achieve a 50 ohm match on all bands simultaneously. For example, with a multi-band end-fed wire antenna you can choose a compromise wire length and use a 9:1 unun to achieve a reasonable match on multiple bands. Balun Designs [1] has published several charts for selecting end-fed antenna wire lengths when using a 9:1 unun [2].

Recommended Wire Lengths for 9:1 ratio (in feet) for 160m to 10m. Lengths of 53 feet and 124.5 feet provide the best overall compromise for low SWR.

53	59	72	88.5	98.5	**124.5**	146	162	175

Recommended Wire Lengths for 9:1 ratio (in feet) for 40m to 6m:

36	44	49

The wire lengths in the charts do not provide a 50 ohm match but can easily be matched with most transceiver built-in antenna tuners. You can use a remote antenna tuner at the antenna feed point to match 50 ohms and minimize feedline loss. Using an antenna tuner is a compromise you may not be able to avoid with multi-band antennas.

3. Use quality coax. Manufacturer's specifications will tell you the dB loss per 100 ft at various frequencies, allowing you to make a price/performance compromise. Some typical coax loss specifications are shown in this table:

Loss per 100 ft at 28 MHz							
Coax Type	RG-58	RG-8X	RG-8	RG-213	LMR 400	LMR 600	7/8" Heliax
dB Power Lost	2.5	2.0	0.9	1.0	0.7	0.4	0.195
Power Lost	43%	37%	19%	20%	15%	9%	4%

Coax feedline losses have two components – the loss in a matched system and the additional loss due to an SWR greater than 1:1. The loss values in the table are for a matched system; that is, the antenna input impedance is 50 ohms. When the antenna is not matched to the coax, the losses due to the SWR are greater. You can use the online calculator provided by KV5R to determine total coax loss [3].

4. Don't be obsessed with obtaining a 1:1 SWR at the antenna feed point. An SWR of 2:1 at the radio represents an 11% loss of power to the antenna [4]. If you achieve an SWR of 1.5:1, your power loss is only 4%. A power loss of 4% would not be noticed on the air. Your transceiver built-in antenna tuner will allow the radio to see a 50 ohm load; however, the power loss still remains in the feedline as heat. An antenna tuner at the radio does not correct for power lost in the feedline. The goal is to bring the SWR down as low as possible by adjustments at the antenna. Correct the mismatch before it gets to the coax.

5. A 1:1 SWR does not mean you have an efficient antenna system. For example, a ground mounted 1/4-wave vertical over a perfect ground system has an input impedance of 36 ohms, and this is a mismatch to 50 ohm coax. A

Continued on next page...

perfect 1/4-wave vertical will have an SWR of 1.4:1 with 50 ohm coax. If you measure a 1:1 SWR you may think everything is OK, but in reality, you have a poor ground system and about 50% of your RF is going into heating the ground! Add radials to improve your ground system. Twenty radials will decrease the losses to about 30%. Sixty radials will lower the losses to less than 10%. An extensive radial system can be costly, so you have a cost/performance compromise to consider. Ground radials may be less than a 1/4 wavelength long and still be effective. Numerous short radials are better than a few long ones.

The impedance of a perfect half-wave dipole is 73 ohms. With 50 ohm coax that's an SWR of 1.46:1. The impedance of a real dipole will vary with the height above ground from 45 to 93 ohms, so expect the SWR to vary. Placing loading coils in the dipole or using a section of open wire feedline as a matching stub can achieve a match to 50 ohm coax. These are both single-band solutions. Don't forget to use a balun with unbalanced coax feeding a balanced dipole. Everything is a compromise.

Band in meters	Antenna Type	Matching Network at the Antenna Feedpoint
160	Half-Bazooka Inverted-L	Motor driven capacitor, 400 pF
80	Inverted-L	Motor driven capacitor, 400 pF
80/40	Trap Vertical	Shunt coil, 18 turns, 2-in diameter
40	3-element Yagi	Hairpin, Balun, 7.0 – 7.2 MHz below 2:1 SWR
30/17/12	1/2/2-element Yagi	Hairpin, Balun
20/15/10	2/2/2-element Yagi	Balun
6	3-element Yagi	T-match
2	5-element Vertical Yagi	Gamma-match
1-1/4	4 Vertical Dipole Phased Array	none
3/4	3-element Vertical Yagi	Gamma-match

7. Previously, I installed an antenna farm for all bands 160 meters to 3/4 meters with no antenna tuners in the shack. All antennas were coax fed. Each antenna was matched to 50 ohm coax at the antenna feed point to present an SWR of 1.5:1 or less on the entire band, except for a 40 meter Yagi which was 2:1 or below on 7.0 to 7.2 MHz. No remote automatic antenna tuners were used. A motor driven capacitor for 160 and 80 meters allowed tuning to a 1:1 SWR across the entire bands. All baluns were 5 KW from Balun Designs.

Whether you live on a postage stamp-sized HOA lot or on a 10-acre antenna paradise, all antennas will be a compromise to that ideal free-space radiator. Make good choices and get on the air!

References:

1. Balun Designs, https://www.balundesigns.com/.
2. Recommended End-Fed Wire Lengths, https://www.balundesigns.com/content/Wire%20Lengths%20for%204%20and%209-1%20ununs.pdf.
3. KV5R Coax Loss Calculator, https://kv5r.com/ham-radio/coax-loss-calculator/.
4. Power Loss Table, http://www.firestik.com/Tech_Docs/SWRLOSS.htm.
3. ARRL Handbook, https://www.arrl.org/shop/ARRL-Handbook-2022-Softcover/.
4. ARRL Antenna Book, https://www.arrl.org/shop/ARRL-Antenna-Book-Softcover/.
5. Small Antennas for Small Spaces, https://www.arrl.org/shop/Small-Antennas-for-Small-Spaces-2nd-Edition/.

What's happening? Santa Rosa County Edition

Arc Thames, W4CPD

At our January meeting, Bruce Adams-KA5DLV, trained our team on Radiograms, the National Traffic System, and ICS-213 forms. Bruce's presentation dove into the history of Radiograms and how the National Traffic System got its start.

Following Bruce's presentation, we had a hands-on exercise to give those present an opportunity to practice preparing, sending, and receiving a Radiogram and ICS-213 form. Each student was given text that a person wanted to send and they were responsible for formatting it correctly on the appropriate form.

Pictured from Left to Right – Sam-W4SLY, Ray-KF4FXW, Janet-K4JGP, and Mark-K4MMP working on their assignment

After everyone completed their assignments, our Emergency Coordination team verified the forms were completed correctly and then signed off on the completion of their ICS-213 task in their Task Books. We received overwhelmingly positive feedback on this session, especially with incorporating the hands-on training.

Pictured from Left to Right – Ed-K4PFL, Mark-K4MMP, Jon-KM4QQO, Jack-W4JPH

Our February 26 meeting will focus on Winlink. We will start with a classroom session and then move to hands on training with various TNC's to use Winlink to send radiograms, ICS-213 forms, and shelter reports. Due to the length of this meeting, **breakfast and lunch will be provided**. We may not need the entire time, but we wanted to get it on your calendars just in case.

For information on joining or participating in the Santa Rosa County ARES team, please reach out via email info@srcares.org, visit our website srcares.org, or find us on Facebook.

The Panhandle Reports

DJ Stewart , KI4ZER -.- .. ....- --.. . .-.

- North Okaloosa Amateur Radio Club (NOARC) – Vice President
- Walton County Amateur Radio Club (WF4X) – Vice President
- Playground Amateur Radio Club (PARC) – Activities Director

Hello fellow Hams and Radio enthusiasts! The first month of the New Year has passed and what a wonderful time for Amateur Radio! Before we get into all of the great things happening in out wonderful area it is important to take a moment and wish many well that are going through challenges related to the Coronavirus. All of us hope that recovery goes smooth for those affected and we wish everyone to remain safe. We have all known some folks that have passed on as a result and others that have passed as of natural causes. As we honor them and the hobby remember to take the time to take care of yourselves and if you need help, be sure to ask for it.

First up for the New Year events took us to the Playground Amateur Radio Club Tech Night! A presentation was given for the ham shack set up and proper station grounding! It was a great and interactive meeting as expertise was asked of the audience to collaborate on a small space ham shack that is being set up in a younger hams home for the first time! These folks have been busy for sure as they have been the receiver of donations from some silent keys and their family members. If you recall, they had their annual auction and shared the wealth in order to raise funds for their upcoming Hamfest in March on the 18th and 19th. They since have been the receivers of more items and took them to the next event on the list, The Walton County Amateur Radio Clubs Tail 'Gator coined "Coffee, Donuts and Dogs"!

The team at WF4X on January 8 2022 put on a great free to all ARRL sponsored event! Free coffee, donuts and hot dogs were served alongside multiple vendors selling, trading, swapping and rag chewing the day away! Many folks from the local area in the Northwest Florida Panhandle were in attendance and guests from as far away as Tennessee! Of note the ARRL SEC made and appearance and browsed the goodies! Twenty-seven in total showed up to this event and WF4X sure knew what they were doing! Look for another fine event by these folks in the future! https://wf4x.wordpress.com/

Our next event takes us to Crestview for the North Okaloosa Amateur Radio Club's monthly Business meeting! There they went over the usual business and continued on plans for their second annual fall event in October on the 15th! If you were at their1st show last October you know they took the area by storm and had a really great sow benefiting the area at large! This is sure one to not miss so make sure it is on your calendars!

NOARC Hamfest
What: Amateur Radio Hamfest
Where: 1446 Commerce Drive Crestview Florida 32539
When: (Day 1): Friday 14 October 2022 @ 8 am vender set up.
When: (Day 2): Saturday 15 October 2022 Doors Open at 8 am and runs to 2 pm Event Clean up and done by 8 pm

Prices: Vendor Tables/Table Spots: $7.00* each (good for the entire show). Limited tables must plan on bringing your own tables if setting up more than 5. First come, first Serve.
Admittance for Vendors and Guests: $7.00. Each Day
Talk in Frequency: 147.360 + .6 MHz 100 Hz tone
Contact Information: KI4ZER@ARRL.Net or call 850.359.9186
https://w4aaz.org/noarc-hamfest/

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Moving into the following week we returned to the Playground Amateur Radio Club for their Business meeting. Discussions covered multiple topics to include needing more fair weather conditions to complete the final section of their tower, the upcoming Ham Fest in March on the 18th and 19th and the plan for Field Day. More to come on the June field day from them in the near future! They also began discussions as Officer Elections are to be held in June! This is a great club with a lot of energy and is expanding rapidly. Be sure to come and visit them in Fort Walton Beach as you do not want to miss out here! Don't forget to put the March event on your calendar as it will be your chance just before Hurricane Season to get that gear you need which might just save your life! http://w4zbb.org/w4zbborg/index.php?page=Hamfest

Over the second to last weekend in January members from the North Okaloosa amateur Radio Club met up with the widow of a Silent Key to assist with the cleanup of equipment that had been in storage for some time. It can be exceptionally overwhelming when having to deal with loss and more so when a widow and her family realizes just how much gear, components and parts accumulate over a lifetime of active participation in this beloved hobby.

Keep your radios and antennas tuned and be listened to the nets as well social media and email chains as more announcements are to come for more fabulous events in the near future! As always, Ham On!

Clean Out Your Shacks!

DJ Stewart , KI4ZER

Calling all Hams, Radio Enthusiasts, XYL's and Amateur Radio Family Members!

Do you have closets, garages, rooms, trunks desks or even kitchen tables with gear you do not touch? Are you looking to upgrade, consolidate or generate that budget for a project that will enhance your skillset or make radio communications easier for you or a loved one, maybe even a friend? Well, search no more for a solution and bring the items out to the Playground Amateur Radio Club Hamfest on March 18th and 19th 2022! This event is the 52nd annual and the fine folks at the Playground Amateur Radio Club would love to have you in attendance! Not only as patrons of the show but also as vendors! Come set up a table or two or maybe even five! If you need the space, date, and time to sell, swap, trade, or even just to show off the cool stuff you're working on the Playground Amateur Radio Club has got you covered!

Whether you want to be inside the two showrooms, outside as a tailgater, or even in your RV at a 30A hook up with Water and Sewer included there is room to host you at this wonderful annual event! Come sell your extras and pick up some new goodies while you are there! Who knows, maybe even win those prizes that will enhance your collection! See you all there in the very near future!

http://w4zbb.org/w4zbborg/index.php?page=Hamfest

Alachua County LunchNLab Builds Skills & SoundCard Interfaces

by Gordon Gibby KX4Z

With lots of new people in our group, it was time once again to do a "solder-session" to build more electronics understanding and repair skills. We have yet another new printed circuit board for our little "sound card interface" circuit that better leverages one of the newer versions of $9 sound card dongles on the market. We trade sweat equity for lots of knowledge and a *far cheaper* interface than those commercially available. JS8, FT8, PSK31, APRS, Packet, Winlink and other techniques are then possible with even the simplest radio.

So once again we assembled at a local fast-food establishment for lunch and distributing building information, and then headed out to my house for hours of camaraderie and learning. One of group brought along a youngster to get some rare expertise. Hot soldering irons are carefully shepherded in holders on cardboard over the breakfast table, and pretty soon parts and clippings and tools EVERYWHERE. All the parts are scotch-taped to an illustrated set of instructions, to help the builders. (https://qsl.net/nf4rc/2022/SolderingIsolator.pdf)

The ability to FIX a connection that is broken, and UNDERSTAND simple electronics is key to success in so many situations -- so we try to give our emergency communications volunteers a healthy dose of experience! Learning electrolytic capacitors from ceramic capacitors, how does a diode go in?

Do LED's have a polarity? Which way does this transistor go? How do I connect to the microphone, speaker and push-to-talk of my radio? HOW DOES A PUSH TO TALK WORK, ANYWAY??

Figure 1: $9 sound dongle used in our project. Extension USB cable to computer; careful solder connections to the dongle.

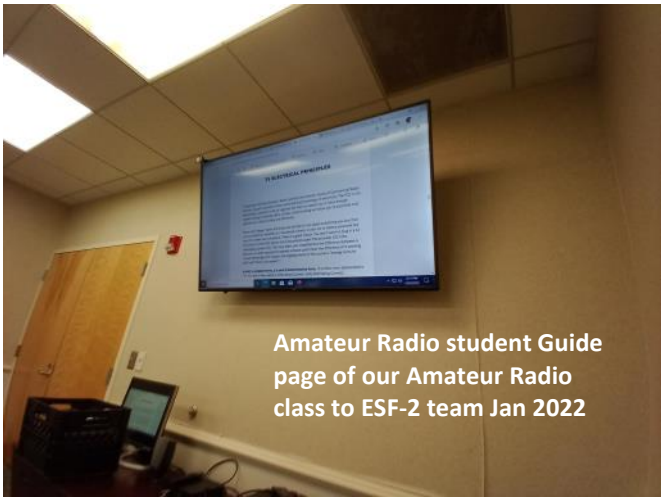
Everything is foreign at first. One of the participants needed help with another project at her ham station: What kind of a connector does a CW paddle need, to connect to my ICOM radio? Out comes the MANUAL and new learning goes forward. How do you connect these wires to this **1/4" stereo phone connector**? Where does each wire go? Lots of inspection, thought and learning at every step! A success is the physical result, but the LEARNING that happens develops what I call "radio sophistication" and that is what makes volunteers from ham radio land so incredibly valuable to emergency managers. A lot of this learning often doesn't happen when studying for licenses.....but the real work of building a station and repairing and keeping it all going, putting up your own antennas, learning how to measure and tune them --- these are skills that make us so valuable to our communities. We are by no means the only ones with handi-talkies in our possession these days during a disaster -- but we build that extra skill of being able to make things work even though this-or-that was damaged, cut, doesn't work right..... That makes us able to serve our communities despite obstacles.

If your group would like to build some simple but inexpensive projects that build practical knowledge, the "manual" for our simple circuit is online and it isn't difficult to order your own boards and get the parts. (https://qsl.net/nf4rc/2019/SmallBoxSoundCardInterfaceManual2.2.pdf) It will be a treasured experience for some of your members!

Escambia County Reports

Gene Bannon, kb4hah

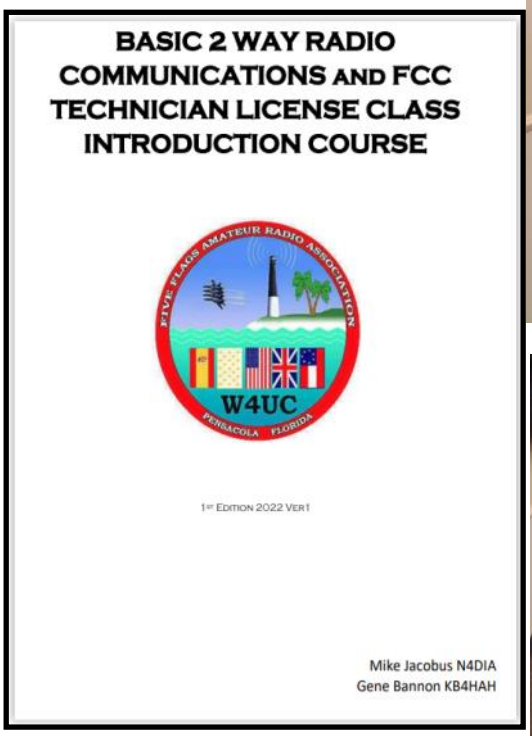
AMATEUR RADIO CLASS for our Escambia County Public Safety/ Emergency Management communication team employees (911 service and ESF-2)



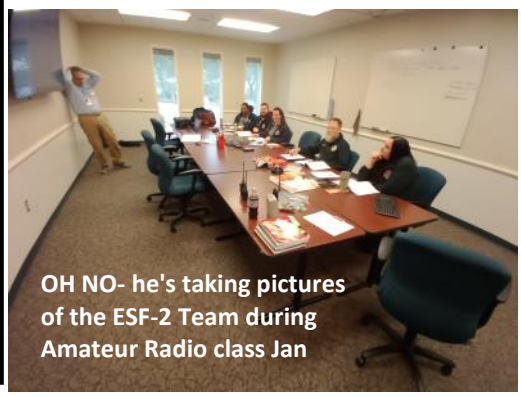
Amateur Radio student Guide page of our Amateur Radio class to ESF-2 team Jan 2022

Approximately Thanksgiving Weekend, Mike-N4DIA (AEC) and I (Gene-KB4HAH - Escambia County EC) were approached by our County ESF-2 asking if we could have a 2-3 day class on basic radio operations for the county's Public Safety Department Communication team. The goal was to get a better understanding of the various RF communication systems they routinely use, and how Amateur Radio differs from their operations. We ended up deciding that an Amateur Radio Technician level class would be the best way to provide the information and training for their needs. It was decided that the last Week of January (Jan 25th-27th) would be the date for the class. Since Both Mike and I are Instructors for the Five Flags Amateur Radio Assoc (FFARA) / Pensacola State College (PSC) "Amateur Radio Introduction & Upgrade" course that is held every Fall and Spring term, we had a wealth of instruction material to build this course. So in December, Mike and I created the student lesson guide and PowerPoint lesson for the class. We finished our 117-page student guide plus glossary at the beginning of January, with Mike doing a majority of the proofing and putting the book together. We went to our ESF-2 and the Public Safety Dept to print out our student guide (since the 2 commercial copying places Mike went to want over $1,300 to do it). Due to work schedule and operations schedules, it was finally decided that the Communication team Supervisor would attend the class, and if it is successful they would schedule another session for the rest of the team. Finally, everything was ready, and the class started on time. After the first day of class, several of those supervisors commented, "You all are NOT Amateur's, you're more professional than most of us." Needless to say, we completed the course in 2 days. at the end of the course, our ESF-2 asked if we could schedule that second session. It was determined we will find a time in March to do it again. Since we didn't have enough students to meet our VEC team minimal requirements for a testing session, we decided that the second session (combined with the 1st lesson students) will probably have enough folks interested in taking the Technician level exam, and we'll schedule a VEC testing then. It was a great experience for both Mike and me, and now we have something better for our FFARA/PSC amateur radio class that we can use there as well. We already have PSC making copies of the student guide for that course now.

GEne-kb4hah Teaching ESF-2 team Amateur Radio class Jan 25th 2022



Mike-N4DIA teaching ESF-2 team on Amateur Radio Jan 25th 2022



OH NO- he's taking pictures of the ESF-2 Team during Amateur Radio class Jan

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The Five Flags Amateur Radio Assoc and Pensacola State College "AMATEUR RADIO INTRODUCTION & UPGRADE" Spring term is starting

THE Five Flags Amateur Radio Assoc (FFARA) in conjunction with Pensacola State College is about to start their Spring term. The course "Amateur Radio Introduction and Upgrade" (R-06254) course is out of the Continuing Education Dept of Pensacola State College. The course will start Tuesday, Feb 1st 2022. The 10-week course is held every Tuesday and Thursday Evening from 6 to 8:30 PM. The course will cover the Technician through Extra, but will be specially tailored to the or the class make up. Meaning, for example: if there are no students wishing to upgrade to extra, will only teach to General level and so on. THE class is taught at the main campus (1000 College Blvd), in Bldg 96, room 9663. Student have to register through the Continuing Education Dept catalog not the college credit catalog, since this is not a college credited course. The cost is $22.00 for PSC's administrative and the use of facilities cost. The class will have a class syllabus given on the 1st night of the class, this is, so if a student has to miss a class, the student will know what he/she missed. Thus, mandatory attendance is not required, but strongly encouraged. The class has 2 field trips (the first is to demonstrate ARES operations at the Escambia County Public Safety - Emergency Management EOC, and the other is FFARA monthly meeting), an amateur radio station demonstration (our mini Field Day), and antenna construction project (VHF/UHF Vertical). The details of the class can be found in the ARRL webpage (American Radio Relay League | Ham Radio Association and Resources). We are all looking forward to teaching this class.

Santa Rosa County Winter Field Day

Arc Thames, W4CPD

The end of January brought us Winter Field Day and what a great time we had! Utilizing our Santa Rosa County ARES station call, K4SRC, we setup at Bear Lake Campground in north Milton, FL. This campground provides a great pavilion outdoor and indoor space that was equipped with a full commercial kitchen. Being at a campground, several of our team members setup their campers for the weekend. Originally, we had planned to operate outdoors but, due to the overnight temperatures being in the 20's, the team opted to move indoors.

Pictured – Arc-W4CPD placing the field day sign out for visitors

We setup six operating positions with several antennas including 2 Skyloops, a folded dipole, a TN07 "My Go2 Antenna", and as a bonus used an Alpha Antenna "HOA buster" connected to the metal roof of the building. We successfully made several 80M contacts using the roof of the pavilion as an antenna. It just goes to prove that you truly can use just about anything as an antenna. Arc-W4CPD and Brian-KM4BWW both setup their personal ICOM 7300 go-kits and we utilized four of our EOC go-kit and station radios for others to utilize that didn't want to setup their own gear.

Pictured – Brian-KM4BWW placing antennas and members of the team listening to the event briefing

For radios we provided two ICOM 7100's, a Kenwood TS-2000, and a newly acquired Yaesu FTDX-10. The FTDX-10 definitely got a lot of attention from some of the more seasoned operators but the ICOM 7100's ended up doing most of the contact work. All radios were operated from various types of battery power ranging from AGM to Lithium Iron Phosphate (LifePo) batteries. Only one of the batteries had to be swapped during the event so we were very pleased with their duty cycle.

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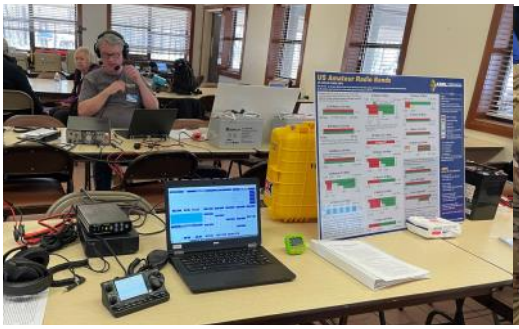


Pictured in the background Steve-N4SFS operating the new Yaesu FTDX-10 and Brian -KM4BWW working the bands on his go-kit radio

Several members of our team brought friends and family members to the event with them to showcase amateur radio in use and to give them a better understanding of what we do and how easily we can talk around the world with some wire (or event the roof of a building.) The campground host even stopped by as she was interested in getting her license so we helped her make several HF contacts.

Pictured – Alan-KW4MO showing his friend Jay how to operate the ICOM 7100

We had close to 25 people at the event during the peak but, as the hours waned into the night, the number of operators went down so some could rest. The MVP of the night was Mark-K4MMP who stayed overnight to make contacts. Mark and his wife Janet-K4JGP both thoroughly enjoyed the event and spent more time on the air than they've gotten to at other events. Overall, all 4 of our available stations for guests and team members to use stayed occupied throughout the full 24-hour event.

Pictured – Mark-K4MMP and Janet-K4JGP

Of course, you can't have a field day without food and it was certainly in abundant supply. A special thanks to our cooks in the kitchen, James-K9JHR, Josie-WD4DCL, and Tom-N9UY for all their hard work and keeping us well fed.

Below—James-K9JHR, Josie-WD4DCL, and Tom-N9UY

The team rounded out the event with 225 voice and 38 digital contacts, including DX contacts to Italy and Barbados. Everyone had a fantastic time and the resounding vote has been to have Winter Field Day at Bear Lake once again in 2023. Thanks so much to all who came out, operated, or help setup. We couldn't have done it without you!

Left—Arc-W4CPD braving the cold outdoors

Right—Jon-KM4QQO and Joe-KO4RNO programming a radio

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

- First Tuesday of the month prior to the meeting
- Saturdays available with advanced notice
- N4SVC, 9707 58th Street, Live Oak, FL 32060
- www.suwanneearc.org for more information

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://k4tlh.net/faq/license-testing/

West Volusia Amateur Radio Society

- Second Saturday of each odd numbered month
- 9:00 AM
- Elks Lodge, 614 S. Alabama Avenue, Deland, FL
- Info: https://westvars.org/testing

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

Remember: Bring photo ID, CSESs, copy of current license, exam fee in cash, $15 exact change. Large print exams are available.

NFL Web Site

For net, hamfest and other events go to www.arrl-nfl.org. Webmaster Brian McClure, NW4R, maintains an up-to-date and detailed listing of all NFL nets and activities. If you need to make a change to an existing net or activity, or add a new one, you can contact Brian on the website.

NFL Officials

Section Manager – *Kevin Bess, KK4BFN*

Assistant Section Managers

Joseph D. Bushnel W2DWR
John C Reynolds W4IJJ
Jeff Capehart W4UFL
Neil Light KK4VHX
Ray Crepeau K1HG
Steve Szabo WB4OMM
Scott Roberts KK4ECR

Section Emergency Coordinator – Arc Thames W4CPD

Section Public Information Coordinator— *Scott Roberts KK4ECR*

Section Technical Coordinator – *Frank Haas KB4T*

Affiliated Club Coordinator – *Appointment Pending*

Section Traffic Manager – *Helen Straughn WC4FSU*

Official Observer Coordinator – *Robert Leasko WB8PAF*

State Government Liaison – *Darrell Brock N4GOA*

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!

Email your QST NFL input to **n4gl.marty@gmail.com, Marty Brown, N4GL, Editor. All submissions are subject to editing prior to publication.**

QST NFL

Newsletter of the Northern Florida Section of the ARRL

1.Spread the word about our website www.arrl-nfl.org and ***QST NFL*** on your club web-site, in a newsletter or at a meeting.
2.Send a write-up and picture of your next activity.
3.Make sure you, or the appropriate member of your club is on the email reminder list.
4.Contact: Marty Brown N4GL, n4gl.marty@gmail.com

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 writers 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.