QST NFL

Newsletter for the Northern Florida Section

Come join the FUN!

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From the Shack of the Section Manager

Scott Roberts, KK4ECR (kk4ecr@gmail.com)

Get Ready for September: Celebrating the Spirit of Amateur Radio!

The amateur radio community is buzzing with excitement as we gear up for several special events this September, designed to engage both seasoned operators and newcomers alike. One event stands out like a beacon on the horizon: **Route 66 On The Air**. This isn't just any event; it's a celebration of one of America's most iconic highways, bringing together operators from all corners of the country to share in the adventure of communication and camaraderie.

Route 66 On The Air: A Journey Through History

Picture this: You're sitting at your radio station, tuning in to make contacts along the historic U.S. Route 66. The airwaves are alive with excitement as operators set up their stations along this legendary route, utilizing special event call signs that pay homage to the history and spirit of adventure associated with the highway. "Route 66 On The Air" is not just an event; it's an experience that celebrates our shared heritage while fostering connections among amateur radio enthusiasts.

Event Overview

Every year, amateur radio operators eagerly anticipate "Route 66 On The Air." This annual tradition invites participants to activate stations along various points of Route 66, often referred to as the "Main Street of America." From Illinois to California, operators will be making contacts across state lines, exchanging QSL cards and engaging in conversations that highlight both their technical skills and personal stories tied to this historic road.

This year, expect to hear lively exchanges filled with nostalgia, excitement, and a bit of friendly competition. Operators will share tales from their own journeys along Route 66—whether they've traveled it in a vintage car or via their trusty radio equipment. Each contact becomes a thread in the tapestry of our collective experience as amateur radio operators.

Community Engagement

"Route 66 On The Air" provides an excellent opportunity for clubs and individual operators alike to showcase their skills while promoting their local areas. It's more than just making contacts; it's about shining a light on what makes each region unique—be it local landmarks, history, or culture.

This inclusive experience encourages participation from all levels of operators—from newcomers eager to make their first contact to seasoned veterans sharing their expertise. It's a chance for everyone involved to spark interest in amateur radio among friends and family who may be curious about this fascinating hobby.

Imagine setting up your station at a local park or community center alongside fellow hams who share your passion for communication. You'll have the chance to connect with others who understand the thrill of making that perfect contact or troubleshooting technical issues together.

Attracting Newcomers: A Bright Future Ahead

While we celebrate our past through events like "Route 66 On The Air," we must also face an important reality: our community is aging. Discussions surrounding how to attract younger people into amateur radio have become increasingly vital as we recognize the need for fresh enthusiasm and new perspectives within our ranks.

Emphasizing STEM Education

One promising avenue for attracting newcomers is through initiatives aimed at promoting STEM (Science, Technology, Engineering, and Mathematics) education among youth. There's a growing recognition that engaging young minds early can inspire them not only about technology but also about communication and creativity—the very foundations upon which amateur radio stands.

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Inspiring Future Generations
By creating spaces where youth can explore technology through practical applications like amateur radio operations, we aim not only to inspire interest but also cultivate skills that could lead them toward future careers in fields related to engineering or telecommunications.
As part of these initiatives focused on STEM promotion within amateur radio:

- **Workshops** will introduce young people to electronics basics.
- **Demonstrations** will showcase how radios work.

Mentorship programs can connect students with experienced hams who provide guidance on getting licensed or building equipment.

These efforts align perfectly with broader trends emphasizing educational outreach within technical fields—ensuring that today's youth have access not only to knowledge but also inspiration as they navigate potential career paths.

Embracing Tradition While Looking Ahead
The combination of special events like "Route 66 On The Air" alongside initiatives such as World Amateur Radio Day Open House represents a proactive approach by our community leaders committed not just preserving traditions but embracing innovation too!
By celebrating rich history during events steeped in nostalgia while simultaneously fostering interest among younger demographics through STEM-related activities—we ensure that amateur radio continues thriving! It remains relevant amidst rapid technological changes transforming how we communicate today.

A Call To Action
So what can you do? If you're already involved in amateur radio:

1. **Participate** in upcoming events! Whether you're joining "Route 66 On The Air" or planning ahead for World Amateur Radio Day Open House—your involvement matters.
2. **Engage** with your local clubs! Share ideas on how best attract newcomers by brainstorming creative outreach strategies tailored towards younger audiences.
3. **Mentor** someone new! Offer guidance based on your experiences—it could make all difference inspiring someone else take leap into this amazing hobby!

If you're considering diving into ham radio yourself:
1. **Explore resources available online**, including courses covering licensing exams tailored specifically towards beginners looking familiarize themselves before taking test.
2. **Join local clubs**, where you'll find welcoming communities ready support each other regardless skill level—from novices seeking advice all way seasoned pros eager share knowledge gained over years spent tinkering equipment!
3. **Attend open houses & Hamfests**, where you'll meet passionate individuals excited show off what makes ham so special—and maybe even discover hidden talents yourself along way!

Keeping Our Frequencies Alive
As September approaches let us come together—celebrate both past achievements present possibilities awaiting us ahead! Events like "Route 66 On The Air" remind us why we fell love with this hobby initially—the thrill connecting across distances through sheer ingenuity perseverance!
Let's keep those frequencies buzzing—not just during special occasions—but every day moving forward! Together we can build bridges between generations ensuring future success growth within our beloved community long after current members hang up headsets pass down legacy next wave enthusiastic operators ready carry torch forward into bright future await us all!
So grab your gear dust off those microphones—it's time make some noise out there folks! Let's show world what true spirit amateur radio really looks like—and invite others join adventure along way too!

From the Section Emergency Coordinator

Arc Thames, W4CPD

As the song says, the thunder rolls and the lightning strikes. We've had a very busy year for severe thunderstorms and have had numerous counties reporting lightning strikes that have impacted either their EOC or volunteers directly. If you're struggling with proper grounding and lightning protection, the ARRL does offer a publication on their website and don't forget that your ARRL membership includes technical service that you can get assistance directly from experts!

Last week we had a great turnout for our NFL Section ARES leadership meeting. I again briefed our leaders on the important information about hurricane activations and how to communicate with the State Emergency Operations Center during an emergency. Please remember, floridaemergency.net is where we post all activation information as it happens as well as it's provided as a Winlink Catalog request. At the end of our meeting Gordon Gibby provided a brief overview of ALE (Automatic Link Establishment) which helps take the guesswork out of finding the best frequency to communicate on. This technology is being used at this time and we're hoping to see more EOC's begin to support it.

As we enter September, it really begins the time when we have to stay alert and vigilant to the tropics. Typically, this month is when we see the first storm that impacts our state. Make sure to test your emergency gear and have 72 hours worth of personal supplies. It's also a great idea to make sure your gas tanks stay at least half full during hurricane season as we know how those lines at the gas stations get anytime there's a pending threat of a storm.

Monthly Radiogram Challenge

Want to practice using the national traffic system (NTS)? instructions on using the NTS on our website at arrl-nfl.org/nts/ For the month of September, please send me (W4CPD located in Pace, FL) a radiogram via the NTS with your answer to this question "What's one thing you think is critical for ham radio operators to know to support disaster communications?"

Thanks to the following individuals for their participation in August:

AJ4D Adrienne – Tallahassee
KG4VWI Susan – Gainesville

Website updates

If you find information that is out of date on the section website (arrl-nfl.org), please fill out the online form and one of the team will take care of it as soon as possible.

Monthly EC Reports

Out of the 34 appointed ARES Emergency Coordinators we have in the section, we only received monthly reports for 14 last month. If you're an EC and are having trouble submitting your reports, please reach out to me. This information is so critical to knowing who of our teams are still out there and also hearing about the incredible work that's being done. Last month ARES volunteers provided 918 hours of service to our communities! Thanks to the following counties for providing their reports: Alachua, Bay, Citrus, Duval, Gadsden, Gilchrist, Madison, Seminole, St. Johns, Santa Rosa, Sumter, Volusia, Walton Washington.

Callsigns of EC's reporting: K4BHP, K4BJS, K4SOP, KD4EZW, KD4IMA, KF4ZZ, KM4QQO, KO4KUS, KO4YGV, KO4YOL, KX4LEO, W4UFL, WA4MN, WE4MJ

Highlights from some of the counties:

- ALACHUA-The ARES meeting was well attended with 18 persons. Support for the Alachua EOC Radio Room continued with participation in FDEM monthly drills.
- BAY-Our SkyWarn team has been on guard with several intense storm systems this month although we have not been required to activate.
- DUVAL-Seeing an increase in weekly net participation.
- SANTA ROSA-Monthly meeting we had APRS training. SRC ARES members attended Red Cross Disaster Shelter training on July 19. SRC EC provided NCS training to new NCS on July 29.
- SEMINOLE-Supported Red Hot n Boom Fireworks event.
- SUMTER-We gained 2 new members pending completion of Level-1 required training within 6 months from acceptance.

NFL Officials

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Assistant Section Managers
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Helen Straughn WC4FSU
DJ Stewart KI4ZER
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Section State Government Liaison
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Newsletter, *QST NFL*
Earl McDow, K4ZSW

QST NFL *is a monthly publication of the ARRL Northern Florida Section.* ***QST NFL*** is intended for wide distribution within the NFL Section, including club Leaders and all licensed Amateurs in Florida. A current issue of this publication can be found at the ARRL Southeastern Division web site, Northern Florida Section. www.***ARRL-NFL.org*** Opinions expressed by contributors are their own, and may not express the positions of the ARRL.

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

All submissions are subject to editing prior to publication.

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

What's Inside…

NFL Section Member of the Month!

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

Digital Library of Amateur Radio & Communications

Marty Brown, N4GL

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.

Frank M. Butler , Jr W4RH (SK)

DJ Stewart

Many knew the call, many new the name, no one can forget having an interaction or association with him. W4RH. A century worth of time had come to pass on August 3, 2025.

Frank, Born March 6th, 1925. Frank was beloved by many, admired by more. Over the years Frank had earned some nicknames. One, group referred to him as “the Beagle”. This was because Frank was always listening, monitoring, and responding to calls on multiple frequencies at any given time. On many occasions, Frank was the first QSO many people experienced after getting their license from the FCC.

In person, Frank always had a smile and a handshake. W4RH was and remains a staple in the community. He was a benefactor of many organizations, institutions, and community partners. Franks legacy, honored as Ham of the Century last year, stands to showcase that being a club member, an ARRL Official, participating in the community, serving in official organizations, and being a sound voice of reason embodies the mission of Amateur Radio and beyond.

Please take a moment to reflect on your interactions with Frank. He will surely be missed.

73’s Frank, from your entire Amateur Radio Family.

W4RH Obituary: https://www.nwfdailynews.com/obituaries/psar1250302

Loften High School

Bob Lightner W4JG

Another school year has begun at Loften High School. We have 24 new freshmen (mostly YLs) in our Fire/EMS Academy. They are studying the phonetic alphabet and getting prepared to make their first 20 Meter SSB QSOs next week!
We are awaiting news from the ARDC regarding our grant application to replace our old Rohn 6 tower with our new 100-foot Aluma tower. The current antennas were cranked up from their Summer "nested" position, but with the tropics heating up, we may have to lower them again on short notice!

We fired up our ECOMM generator to make sure it was still operational and ready should we need it for any emergency.

Our school is now in charge of the annual National Fire Prevention Week October 5-11. This year's theme will be: **"Charge into Fire Safety™: Lithium-Ion Batteries in Your Home,"** works to educate everyone about using these batteries safely. We will have twelve stations on the air N1F, N2F, etc. Special certificates and QSL cards are available for this special event. {Our website **hamfire.com** is currently down for maintenance.}

QSX for K4WTL and give our new kids a contact!

We also adopted a sister high school in Wick, Scotland. Their club's call sign is GM0WHS. We plan on taking some students there to visit them this next Summer.

Satellite Part V:
Inexpensive HF Through 148Mhz Mast-Mounted Preamp Bypass Relay Board
Part I: Useful Applications & Validation

Gordon Gibby KX4Z August 2025

Ref: https://www.nf4rc.club/how-to-docs/satellite-mast-mounted-preamp-protection-board/

Introduction: How This Can Help Defeat Coax Loss

Modern HF to VHF receiver front ends often provide adequate to excellent front-end noise figure. However, *every dB of coaxial cable loss between the antenna and the receiver front end adds directly to the effective noise figure of the receiver*. For this reason, a lot of satellite- and weak-signal-operators want a low-noise preamp right at their antenna, boosting the signal.

But they aren't the only ones. Our EOC has *hundreds* of feet of coaxial cable between our tower-mounted antennas and our operating position, easily adding 5+ dB of loss and adding considerable "deafness" to our VHF stations. A mast-mounted preamp would do wonders!

Field Day: When operating multiple transmitters in close proximity, as in a disaster radio camp or a Field Day competition, receiver desensing is a real problem, and one solution is a **remote receiving antenna**, at least 200 feet and possibly 900 feet away (per the Field Day rules). Even using RG8, 900 feet of coaxial cable at 30 MHz is about 9dB of loss! So there are multiple situations where one might want a remote preamplifier, and some of those situations require protection of the preamplifier from transmitted energy. A good review of the usage of antenna-end preamplifiers can be found here: https://www.qsl.net/zl3dw/pdf/Masthead Mounted Preamplifiers and Noise Figure.pdf

What is already commercially available?

For VHF/UHF satellite communications participants, there are a limited number of specially designed mast-mountable preamplifiers that allow for protection from transmitted energy. One such device is the MHP series of German-manufactured low now amplifiers, retailing upwards of $600. (https://www.wimo.com/en/ssb-electronic-mast-preamp-6m-4m-2m-70cm) M2 offers their 2m mast mounted preamplifier for $376, with switching to protect the preamp during transmit (https://www.m2inc.com/FG2MPA). The ICOM AG-25 and AG-35 mast-mounted preamplifiers are discontinued. The Advanced Receiver Research products were much more reasonably priced 10+ years ago but not certain they are still available (https://www.eham.net/reviews/view-product?id=7972) There were some issues with waterproofing. There may be other preamplifiers available that I haven't found.

Those are some pretty pricey preamps! After destroying a less-expensive model, I discovered very inexpensive low-noise GaAsFET preamps (such as $20 https://www.amazon.com/dp/B07T59B9C5). Add in an external filter and some means of transmitter-protection and you would have a very inexpensive high quality preamp!

I designed such a system for frequencies up to the 2-meter band. The goal of this investigation was to test an externally keyed (via coaxial cable-delivered "bias-Tee" voltage) relay system of much lower cost, using inexpensive (Omron) relays, a low pass filter, and a wideband inexpensive mass-produced GaAsFET $20 preamplifier.

Some transceivers can provide a coaxial-cable DC signal ("bias T") to activate (and possibly power) a mast-mounted preamplifier. This design is based on sensing that signal, possibly using either it or a separate +12V to power the relays.

A subsequent article will provide additional construction details.

Note: Sequencer Required

To avoid hot-switching relay contacts and likely damage to the preamplifier, a **sequencer system** is needed to delay the arrival of real RF transmitted power somewhat later (e.g. 30-50mSec) after the DC bias voltage is removed, to move the relay board into "transmit" configuration. Expensive commercial versions of sequencers are also available off-the-shelf. In a separate development, an Arduino-based sequencer is being developed to control the ALC input of ICOM-type transceivers.

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Presuming that the board can be obtained as part of a group purchase for approximately $10 each, the components needed for this board are likely under a total cost of $30. As mentioned above, the wideband preamplifier is approximately $20, and the low pass filter utilized was one portion of a Comet CF-146 "duplexer" available for $55 (https://www.dxengineering.com/parts/cma-cf-416a) A suitable multi-section lumped constant or other low pass filter could easily be constructed at even less cost (but filters can be tricky!). Some waterproof container (possibly a plastic box) would be needed, but the entire system should be possible for less than $100. Unfortunately this current design is not suitable for 70cm; a later development may solve that problems.

The basic schematic of the preamplifier bypassing board is shown below.

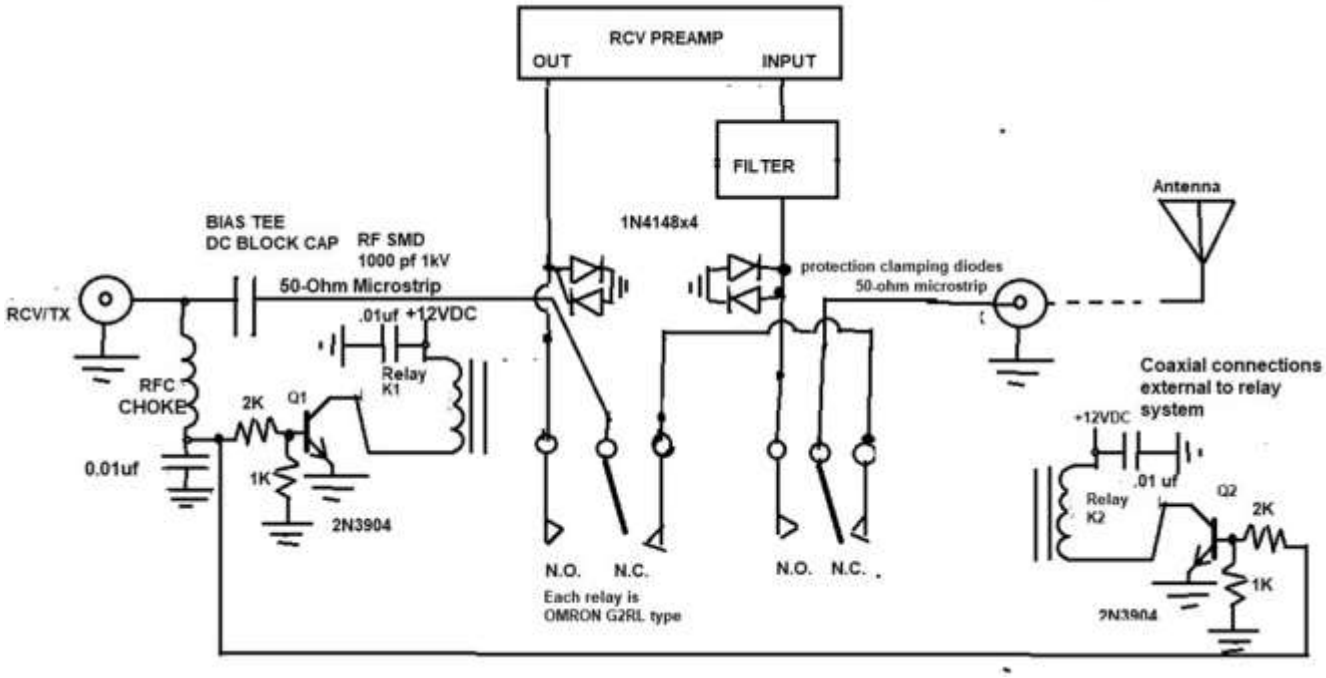

Figure: Basic schematic of Preamplifier Bypass Board. The low pass filter is necessary to protect from nearby 70cm power and to prevent oscillation of the preamp.

A photo of the layout of the board is shown in the next figure, laid out including an effort at a 50-ohm microstrip line for the transmitted signal from input to output. (RED = top trace; GREEN = bottom trace or grounded copper pour).

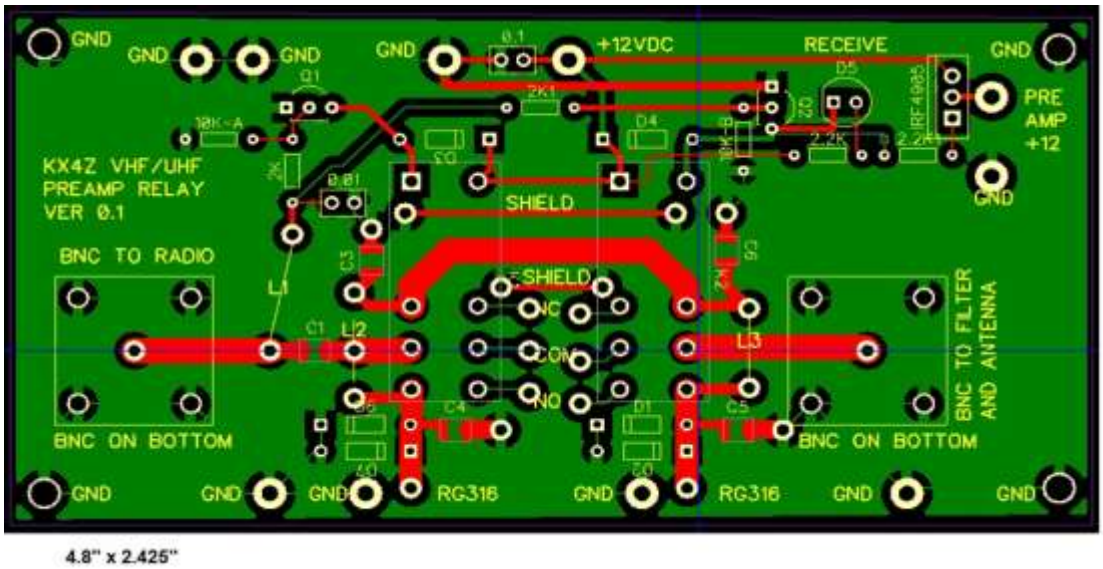

Figure: Two-layer layout of the preamplifier bypass board.

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This design attempts to use inexpensive general purpose Omrom G2RL-2-DC12 $3.32 low-profile relays to switch RF energy at up to 148 MHz. These are available from mouser.com as: https://www.mouser.com/ProductDetail/653-G2RL-2-DC12

W6PQL's Pioneering Work

Jim Klitzing, W6PQL, has written and experimented quite extensively on VHF and UHF communications and equipment construction. He made crucial measurements on these relays (and others) which were instrumental in this effort. That excellent work can be found at: https://w6pql.com/using_inexpensive_relays.htm I simply adopted several of his suggestions and other VHF/UHF printed circuit board design techniques, although I'm quite the beginner. Following Jim's suggestions, the board allows for surface mount capacitors at relay terminals that might further reduce the SWR seen by the transmitter, at C3, C4, C5, C6. At this time, I haven't utilized those potential improvements.

For possibly the best performance, the BNC connectors are mounted on the underside of the board; the 1N4148 and other components are mounted with the shortest possible leads right at the board surface, and the relays were mounted flush at their contact end, and raised approximately 1mm at their coil connection end to give slight vertical clearance to the transmitter microstrip transmission line.

Control

An impressed DC voltage of approximately 10V on the center conductor of the input coaxial cable will move the board into "RECEIVE" condition. Removing that voltage causes the board to bypass the preamplifier and go into "TRANSMIT" condition. Relays are not instantaneous and the protection provided by just the 1N4148 diodes before relay settling provides 36dB of isolation, is inadequate to protect the board and/or preamplifier from damage. A proper sequencer should be used to delay arrival of actual RF energy by 30-50 milliseconds or more to allow for relay settling.

1. Transmit SWR and Losses

The board, as tested, did not include any of the 5pf contact-to-ground mica capacitors recommended by W6PQL to reduce SWR at 144MHz. At one point a 3pf was attached to the output normally closed contact to ground with an apparent decrease in the (tiny) throughput loss, so it is likely that his improvement would work, but for simplicity none were included in this test.

Loss at 144 MHz was measured compared to a double-female BNC connector used to normalize a Siglent spectrum analyzer to 0dB. When reconnected to the BNC connectors of the board, using the inexpensive Omron relays, the loss at 144MHz was 0.14dB, which is equivalent to 3.2% of input power (into a 50 ohm load).

SWR @ 144 MHz: With a suitable 50-ohm 25W dummy load attached via BNC to N connector adapter at the antenna end of the board, the input SWR (at the radio end) was measured by a calibrated nanoVNA at <= 1.1 throughout the 135-145 MHz region. This is the most accurate measurement I have available, and might be reduced further by adding in 3-5 pf surface mount capacitors to ground from some of the relay contacts, as suggested by W6PQL.

The bias tee series capacitor is a 1000 pf 1kV KEMET surface mount "1210"-sized capacitor using COG dielectric said to have very low equivalent series resistance. https://www.mouser.com/ProductDetail/80-C1210C102JDGAUTO Each such capacitor is $1.79.

Power testing was accomplished with an available approximately 50-ohm dummy load capable of handling significant power, manufacturer unknown, and using a TYT MD9600 FM transceiver rated for 50W output, at 144.990 MHz. Full power was maintained for 60 seconds with no observable change in input SWR on an available unknown-accuracy VHF/UHF wattmeter/SWR meter. **No component showed any trace of warming to observation or touch.** I was satisfied by this test that the bias T capacitor was sufficient and that losses on the board were truly negligible.

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2. Preamp Isolation From Transmitted Energy

During TRANSMIT, the input and output of the preamp connections are both "grounded" and disconnected from the transmission pathway. The "grounding" of the lines to the preamp is certainly not perfect, nor is the isolation by the inexpensive relay perfect, because of radio frequency capacitive and inductive effects of even small conductor lengths, and proximity of relay contacts. In order to protect the preamp from the <=50 watts of 144MHz transmitter energy (approx 47dBm) we need significant isolation -- and the board provides on the order of 36dB isolation to both ports at two meters.

Each port is protected by a pair of 1N4148 small signal diodes, to ground, in each direction. Theoretically these will conduct around 0.7V and protect against signals rising above 10dBm.

50Watt Power Test

The inexpensive (< $20) preamplifier in use is rated at 0.6 dB NF and 16dB gain at 5V power supply. https://www.amazon.com/dp/B07T59B9C5 Its specifications do not note the maximum safe applied RF, but 10dBm is a common level and 0.7V is well below the damage level for many semiconductors.

With the preamplifier wired into the relay board with a low pass filter (see below) on its input port, and the board in "transmit" condition (hence, not powering the preamplifier), the full RF power from the 50watt FM transmitter was against passed through the board to a suitable dummy load for 60 seconds. Following this test, the spectrum analyzer tracking generator was used to supply a signal of approximately -50dBm and the normal amplification by the preamplifier was again observed, as allowed by the low pass filter throughout its bandpass. This test suggested there was no apparent damage to the preamplifier for 60 seconds of 2-meter energy through the board.

Figure: Isolation between preamp coaxial connectors and transmit pathway (1MHz-2.1 GHz) -- both input and output are similar. This shows the isolation of the preamp from the transmit pathway at two meters is approximately 36dB, but the isolation declines markedly at higher frequencies.

WARNING: Insufficient protection at 70cm

While the 2-meter isolation is adequate to get the power heading to the preamp down into the 10mW level (approx 0.7 Vrms -- tripping the protection diodes), the isolation from transmitted signal path to preamplifier input/output connections, at 70cm, is inadequate. Attempts to correct this were unsuccessful and instead brought in new problems. So this inexpensive Omron relay in this configuration aren't suitable for 70cm usage. (It is likely that an improved, and more costly relay, with 40dB isolation, will allow usage at 70cm; see a later article for details.)

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3. Feedback & Preamp Stability

The input and output connections to the preamp must have sufficient isolation to prevent oscillation, even with the gain (16dB) of the wideband GaAsFET preamp. *Unfortunately, the feedback loop around the preamp has insufficient isolation (approx -13dB) just below 1GHz and oscillation (and likely damage, as I experienced in testing) will result if a low-pass filter isn't used right at the input of the $20 preamp.* I used the low-pass side of a simple $50 Comet duplexer for this purpose, with good success.

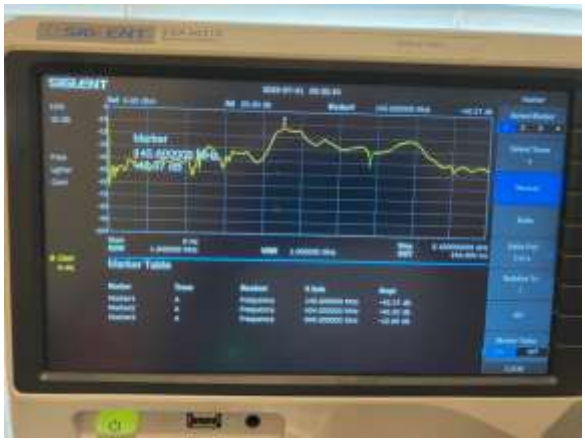


Figure: Spectrum Analyzer used to measure gain(loss) around the feedback loop via the connections to the preamp. This test shows a risk of preamp oscillation just below 1GHz, because the remainder of the feedback loop has a loss < 16dB.

Preamp Performance With LPF

To prevent oscillation, the low-pass filter side of the duplexer was inserted at the input side of the preamp. Tracking generator output measuring about -45 dBm was utilized at the antenna connector. The signal at the output of the preamp demonstrates approx 16dB gain within the low pass filter range, and no oscillations (with filter in place).

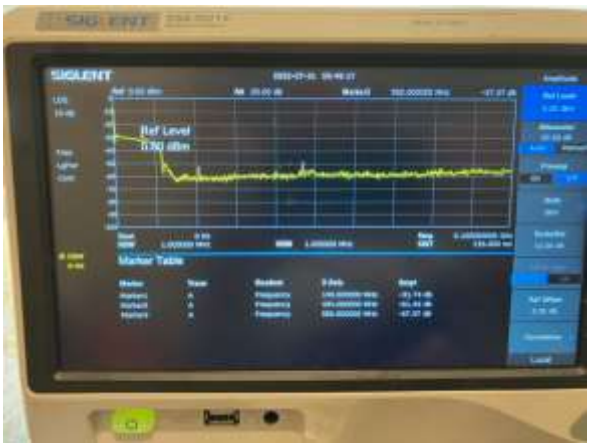


Figure: With the LPF at preamp input (inside the possible feedback loop), the system is quite stable with no oscillations visible to 2.1 GHz. The gain of the preamplifier of approx 16dB is visible.

Conclusion

These measurements demonstrate that the 2M Preamplifier Bypass board has

1. adequate transmit performance with low SWR and low loss;
2. adequate protection of the preamplifier board from transmitted energy; and

with proper placement of a low pass filter, adequate and stable performance of the wide band preamplifier to improve system receiver performance.

This is a much lower cost solution for mast-mounted weak-signal HF- 2meter communications, than some commercially available systems. A subsequent article will provide construction information.

Spice Up Your Club With Some Technical MUSCLE!

Gordon Gibby KX4Z

ARRL designates 2026 as the "Year of the Club" and has great ideas for strengthening your local club in their online primer: http://www.arrl.org/files/file/Clubs/ARRL Club Primer-rev March 2025.pdf

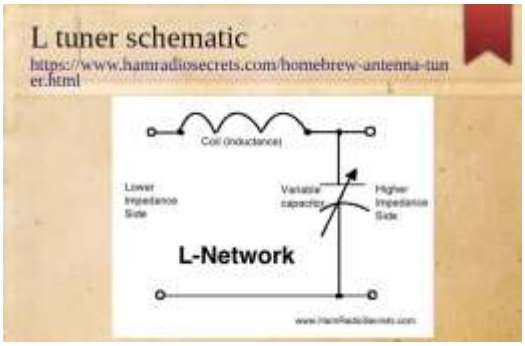
One great tip for strengthening YOUR local club is to have a **variety of activities to be inclusive and serve the social and significance needs of lots of different kinds of people**. Along that line, consider boosting your club members' radio prowess by TEACHING RADIO. It is not hard and will have Big Benefits for your group!

Ordinary People

Most of the folks in modern clubs aren't electrical engineers or tcp/ip network wizards -- they are just ordinary people with a bit more interest in radio. They may have dabbled in CB or GMRS -- family-oriented radio services that don't include much in the way of radio knowledge requirements -- but were drawn to the greater freedoms, stimulation and variety of amateur radio.

So *stoke that nascent interest in radio and electronics* by including some real TEACHING in your club activities. One way is to add in a 20-minute segment into monthly meetings, another is to have a special "Tech Night" to really open up technical subjects. Using ZOOM makes these even easier, eliminating transportation time, and allowing your members as well as distant viewers to grab some knowledge easily.

Alachua County ARES(R) (with two supportive clubs) has been doing this now for almost three years, first Thursday of every month, the 7PM hour just before our weekly VHF Net. Zoom link: https://us02web.zoom.us/j/89530741792 It has been quite a success, with a couple dozen slide show talks now immortalized on our club educational page: https://www.nf4rc.club/how-to-docs/
We don't hit EVERY month, but we get most of them! Participation has been steady and runs in the 10-15 range most months.



Anyone can do this for their local club, and anyone (from anywhere) is also welcome on our Alachua County Tech Nites, perhaps just to get the ideas! I use free Libre Office productivity software IMPRESS to create slide talks, and often include live demonstrations whenever possible. The most recent talk was a hit with our group and touched on two topics that fit well, since we just graduated some new Technicians: how to avoid disaster when using CHIRP to program Baofengs, and an introduction to Technician 10-meter FT8 Fun! I combined both of those into a lively 1-hour Zoom program. The WSJT-X part included a ton of LIVE DEMOS using "screen sharing" direct from my QRP station in an RV Park in Kentucky.

People Learn From Your Live Goofs

Live Demo's during online talks are fraught with GOOFS and this one didn't disappoint, with the Windows COM port flaking out -- but this is even better for your viewers, because they get to see "what do you do?" solutions on the fly. Reboot, disconnect, reconnect, check if the right port is selected, that sort of thing -- and you show them how to fix the problem right where they can see it. And my homebrew 52-foot non-resonant end-fed over the RV fiberglass mast with the 9:1 homebrew Balun and extension-cords-counterpoise didn't disappoint with a couple of great FT8 contacts right there live for the audience!

I have my own **paid-for zoom account** so talks aren't squelched right at the good part when 40 minutes have elapsed. I use a cheap gamers' headset/boom mic so I can hear and be heard well. Often I'll use TWO inexpensive refurbished laptops to manage the talk. One is the "host" and allows me to continuously SEE everyone who is logged in, and also watch the "Chat" screen and see anyone popping in and wanting to join late.

Continued on next page...

On the second laptop (amazingly this works fine over Starlink!) I can join and share the WSJT-X screen so everyone can see in real time which controls do what, and how it actually works. I can also do "slide talk" from that computer as well and I usually have 15-30 slides made up to keep the talk running smoothly, to hit all the important points in timely fashion.

Some of the topics we've taught over the last few years, to give you some ideas (and feel free to purloin these talks!):

Introduction to Antenna Tuners https://www.nf4rc.club/how-to-docs/tech-nite-compendium/antenna-tuners/
Digital Connection HOW TO https://www.nf4rc.club/how-to-docs/data-comms/digital-connection-how-to/
How to wire up older radios for data https://www.nf4rc.club/how-to-docs/data-comms/how-to-wire-for-data/
Simple Antennas for Beginners https://www.nf4rc.club/how-to-docs/tech-nite-compendium/beginners-corner-simple-antennas/

Impact of Nuclear Attack on Radio https://www.nf4rc.club/how-to-docs/tech-nite-compendium/nuclear-attack-emergency-comms/

What is STANDING WAVE RATIO? https://www.nf4rc.club/how-to-docs/tech-nite-compendium/technite-march-2025-swr/

How to copy the ARRL Field Day Bulletin (teaching just prior to Field Day) https://www.nf4rc.club/how-to-docs/technitejune2024-copying-digital-bulletins/

Ocala Chapter 62 of QCWA met for lunch on August 28 at the China Lee Buffet.

Ken Simpson, W8EK

The "30-30" QCWA QSO Party was discussed, and all were asked to participate.

Although not radio related, there was extensive discussion about changing oil in our cars. How often? Use regular oil, synthetic blend, or full synthetic?

Lee Couch, son of K4GWQ; Sue Simpson, N8AJU; Leon Couch, K4GWQ; Doug Hawkins, W3HH.Photo by Ken Simpson, W8EK

Unfortunately, after all of the discussion, there was no consensus.

The next meeting of Chapter 62 will be on October 23, with lunch at China Lee.

Chapter 62 holds a net every Saturday morning at 9 AM on 3940 KHz. Everyone is encouraged to check in.

Playground & North Okaloosa Amateur Radio Clubs

DJ Stewart KI4ZER

COME ONE COME ALL! OPEN YOUR TRUNKS, DROP YOUR TAILGATES, AND BRING YOUR GEAR FROM YOUR STORAGE AREAS!

The Playground Amateur Radio Club is proud to host another ARRL Sanctioned Tailgate! ABSOLUTELY FREE to attend! Come out for a morning of swaps, wants, sales, & trades! Pick up that gem you have been on the hunt for or find that next project!

665 Denton Blvd NW, Fort Walton Beach, Florida, 32547

Free Admission

Food and Drinks for Donation!

All Hams and interested parties are welcome!

PARC Exam Session

Saturday, September 13·at 9:00 – 11:00am

PARC Club House

17 First St. SE, FT. Walton Beach Florida 32547

Please feel free to contact Rey at PARCFWB@GMAIL.COM

"The purpose of life is not to be happy, but to matter – to be productive, to be useful, to have it make some difference that you have lived at all." – Leo Rosten

Continued on next page...

Calling all Radio Enthusiasts, Amateur Radio Operators, GMRS, FRS, CBRS, Aviation Band, Shortwave, Communications Dealers, Wholesalers, Distributors, and anyone else who loves or is involved in all modes of radio communication!

Gather your gear, set-up your booth, and partake in one of the BEST Hamfests in Sunny Florida! Over the nearly last half of a decade, the North Okaloosa Amateur Radio Club in Crestview Florida has been hosting an absolutely wonderful Hamfest! This Annual Autumn event is lauded by many and always brings out a surprise or two during its course!

Stay tuned with the links below to follow along for more announcements!

Bolstering 40,000 useable square feet, this facility offers ample space inside with HVAC, restrooms, refreshments, meal hosting, ample parking and more! the house is packed with Vendors and Patrons alike filling the capacity of the facility!

What: North Okaloosa Amateur Radio Club's Annual Autumn Amateur Radio Hamfest!

When (Day 1): Friday October 10th, 2025, VENDORS SET UP ONLY 1030 - 500pm. NO SHOW.

When (Day 2): Saturday October 11th, 2025, 0600 Vendors, 0800 Show Start and goes until 100 pm!

Where: 1446 Commerce Drive, Crestview, Florida in the Crestview Community Center! Do not let them name fool you; this place is massive!

Admittance for Visitors & Guests: $8.00 each person. Boy Scouts in Uniform FREE! 12 and Under FREE! 90 and above FREE!
Prices: Vendor Tables/Table Spots: $15.00 each spot/space/table (good for the entire show). First reserve first served. If you are a walk-in the day of the show, tables may be limited as this show typically sells-out.

Food: Meal & bake sale services provided by Live Oak Baptist Church! Menu to be announced! If you recall them in the past, you know you're going to be eating just as well if your grandmother was baking you a pie for that after dinner desert!

TALK IN: 147.360, +, 0.6, 100 Hz Tone

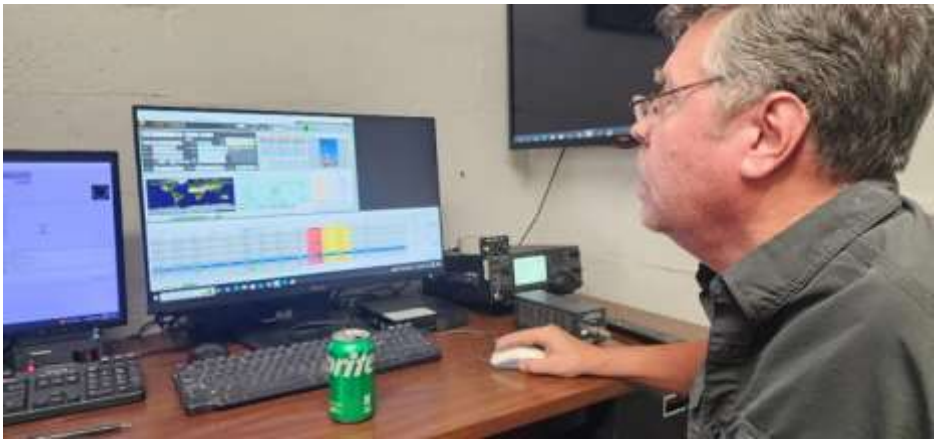
Want to have us advertise your business as attending?
Just email us or drop us a line!

Activities Offered:
License Testing at 1000 Saturday, Oct 11th, 2025!

Refreshments!
Local Vendors!
National Vendors!
Area Club Booths and Tables!
Private Individual Tables!
Raffles & Prizes!
Deals, Deals, Deals!

Continued on next page...

PARC completed the connection to the Frank antenna R7 / R9 build! We made contacts on multiple bands and its back! But wait, there's more! We also helped our fellow members with a flat tire and fixed a tangled web of coax on an antenna system! If that is not enough, we learned more about the W4ZBB FT8 Station! WHAT?! PARC does FT8?! Yuppers!



We also had others at the Club benefiting discussion on upcoming events and Radio work! Here's a teaser for two such events…watch in and upcoming release for the PARC B Q Open House! Also, be on the lookout for more details concerning this year's Ham for the Holidays dinner in partnership and sponsored by North Okaloosa Amateur Radio Club – NOARC!

Tech Night at the Playground Amateur Radio Club brought you the CSFL! The subject of the August Technical Night will be "Integration of Amateur Radio and Other Community Networks". That means we'll be talking about GMRS, MURS, and other radio types and how we can work with them for the benefit of us all!

Lessons were learned about other groups in the area who have a desire to assist the communities at large and support a broader network of communications in the event of a disaster. The talk of the evening delved into a conversation about their capabilities and how they could expand with Amateur Radio concluding with points on how to integrate communications with ARES, the area Emergency Operations Center, and local Clubs and Organizations to achieve support should they ever be needed. Check out the website: https://amrron.com/ for more information concerning their particular objective.

Continued on next page...

What a Saturday!

A large thanks to John, N8JDD for organizing the LOBC Parking event where we were able to assist with traffic coordination and safety for their Back to School Bash!

We may have gotten rained on not once, not twice, but count 'em, three times but we had a grand time working as a team to facilitate the Churches request! We sure love our home, and we enjoy participating when they ask for assistance!

Bonus feature!

Thanks to Rob, KM4SPJ and Alan for working the trailer clear coating and knocking it out of the park! Wait! Didn't it rain? Yup! But Alan had the trailer parked in an inflatable tent while he performed his work!

Big things are being accomplished in the Club and members are driven! We could only ask for a cool glass of lemonade at this point!

NOARC continues to lead the way with in-depth classes and programs outside of class!

The North Okaloosa Amateur Radio Club in Crestview Florida has been making great strides in educating area residents about Ham Radio! To date this year, the NOARC Education and Advancement Committee and Volunteer Examiners have been teaching a Technician level class and are now embarking upon a General License Class! NOARC has set a standard for years to devote time each week during class sessions to Elmer, Mentor, and train radio and communication enthusiasts on how to become a licensed Amateur Radio Operator and how to enhance their skillset. Practical approaches to today's available technology fostering a positive role for the journey tomorrow and beyond!

To compliment the classes, each Technical Night with NOARC is geared toward educating and inspiring all who are in the class and seasoned operators alike to increase the awareness of what Amateur Radio is truly capable of. If you are not attending their Technical Nights on the 4th Thursdays of the month you are completely missing out on a vital resource of a very robust and involved organization!

Who loves FOX hunting event?! We all do!! FOX Hunts in Okaloosa County have become the norm in conjunction with all kinds of events. Teams gather for breakfast, they join and work together, show up to the meeting point, deploy once the Fox is activated, and work in conjunction to enhance their skills! But most importantly, they train during the event showing techniques, explaining the equipment in use, how to tune to not only the Fox Hunt frequency, but also cover what a harmonic is. Teams and individuals alike have a ton of fun trying to find the Fox Transmitter in an 8.2 square mile area! That does not sound like much you say. Well while mathematically you are not wrong, stopping to isolate the signal in an urban area with infrastructure, buildings, foliage, rf interference, and reflectivity will sure add to the perplexity in signal location and identification. By the time you read this the Fox Hunt will have already occurred but have no fear and stay tuned for announcements on Club Websites for another Fox Hunt in the works!

Continued on next page...

Announcement!

Coming in Spring 2026, The Playground Amateur Radio Club 56th Annual Hamfest!

In Beautiful Downtown Fort Walton Beach Florida there is a long-standing tradition of putting on a Spring Amateur Radio Hamfest! Through the years the team at the Playground Amateur Radio Club has brought Amateur Radio Operators and Communication Enthusiasts from all walks of life together to participate in one of the Southeast's best shows!

Coming in 2026 with dates tentatively set for the third weekend in March on the 20th (Friday) and the 21st (Saturday), the Playground Amateur Radio Club, Inc. of Fort Walton Beach invites **YOU** to the Rigdon Center (formerly the Northwest Florida Fairgrounds) at 1958 Lewis Turner Blvd, Fort Walton beach Florida for its 56th consecutive and annual tradeshow!

As we embark upon this journey together, watch this page for more information concerning prices for tables, admission fees, reservation instructions, prize notifications, and more! This hobby is great because **YOU** choose to be involved! We function as a team to proudly give back to the community and extend our handshake in welcoming you to the 56th Playground Amateur Radio Club Hamfest!

Low-Cost Ham Radio RV Traveling Across America

Part 1: The PLAN

Gordon Gibby KX4Z

"Everyone has a plan -- until they get punched in the mouth!"

This is the story of the PLAN.

After teaching AP STEM courses part-time for a few years after retiring from Anesthesiology, it was time for a change -- so Nancy plotted a course all the way from Newberry, FL to Yellowstone National Park in Wyoming. Would our 2007 24-foot ancient travel trailer make it? How 'bout the truck? And what radio and antenna? Would I succeed at POTA?

TRUCK: We had a **total transmission failure** in the 2001 Silverado (~280,000 miles) , so after replacement, it went to our middle son (who loves it!). We then picked up a 2016 Silverado with the huge 5.3L engine and just over 100,000 miles. Thankfully, the **starter motor & wiring** died BEFORE the trip, so we got that fixed!

TRAVEL TRAILER: We have years of experience with this lovable old beast from 2007 that has bunk beds, a short-queen, good rear exterior wall access to bolt-on a mast, and enormous storage space everywhere. We have applied a new roof coating, changed out and re-caulked most of the roof vents/skylights, etc. (Result: went through 3 hurricanes with no significant leaks.) We have GOOD tires on it and have learned to run them at RATED pressures. Current tires are a ply-rating *above* what is really needed, so they run < 70% load and much cooler. Also.....we DON'T SPEED.

SPARE TIRES: I took the time and expense to buy a second spare, both tire and wheel, for both truck and travel trailer -- so we have TWO spares for each on board. That comes from a short trip where I had not just one, but TWO travel trailer tires explode.....a poorly made brand.

ROUTE: Nancy refuses to drive the behemoth. So using an RV camping app that loads every RV park in the nation, she meticulously mapped out a route with just about 250 miles every day -- five hours of driving the way we take breaks. She also studied each park -- some won't admit concealed-carry citizens!

POWER: The propane fridge bit the dust long ago and was replaced by a $159 Lowes mid-sized dormitory fridge....while it will stay cold for many hours, we were going to boon-dock camp for some days in Yellowstone...no shore power. So we needed not only a quiet inverter generator, but also some form of battery system capable of the fridge surge starting current at 120VAC. I settled on a beefy system

a) Two 100-AHr Eco-Worthy LIFEPO4 batteries that allow Bluetooth monitoring with a phone
b) My trusty 2kW Xantrex pure sine way inverter - an older model with some "oomph"
c) A 20Amp LIFEPO4 charger.
d) 3 bargain-basement "100W" solar panels, small enough to stack on the spare bunk bed.
e) A 40A MPPT charger

Continued on next page...

I wrote extensively about this system in the August issue of the NFL-QST, including photos, bill of materials, and schematic: https://arrl-nfl.org/wp-content/uploads/2025/08/01-QST-NFL-August-2025-1.pdf

The trick to using this system to safely power the RV is to be CERTAIN that the trailer cannot be simultaneously be connected to both INVERTER power and SHORE POWER. A simple solution was to was to route the 120VAC inverter output to a 30-Amp Travel Trailer receptacle (identical to what the trailer connects to at a park) tied to the rear bumper. Then instead of plugging the RV power cable to shore power, it can go into the inverter output. That makes it impossible to try and use "both at once." A small block glued to the side of the trailer allowed safely supporting the heavy power wiring so the cord wouldn't spool out while driving.

RADIO: My 7300 go-box is NICE, but it is big and heavy and the trailer is *tiny* and the dining table *tinier*. So I switched to using a lower-power sBitx system with a smaller antenna tuner and some homebrew adaptations.

ANTENNA: When RV camping, you are under many restrictions. Some campsites won't let you tie to anything, or even put a stake in the ground. I have a board mounted on the rear of the travel trailer, a 35-foot telescoping mast secured by huge U-bolts. Several trips have shown that a 52-foot random wire with a 9:1 Balun provide a "workable" RV antenna that can slope down even within the tiny sliver of real-estate your park allots to you, and still work!

NEXT PART: Will we make it to Yellowstone, some 2,500 miles away? Will the DC power system work when we don't have shore power? What things will BREAK on the trip?

What's Happening in North Florida Amateur Radio Club?

Gordon KX4Z

FALL TECHNICIAN COURSE

One of the key service and growth steps our club has consistently practiced is holding ham radio license classes -- even up to the Amateur Extra Level. Our Fall Technician Course will be our 2nd Tech class this year:

Information and Signup Page: https://forms.gle/xpGb9EZvs8ZBTPEa6

Information Article: https://alachuachronicle.com/get-your-ham-radio-license-for-fun-and-emergency-communications/

Trying a different setup -- weekly Thursday night courses at the Alachua County EOC -- and only in person!

We have 13 potential students signed up already. We have a full calendar of volunteer instructors for 13 classes -- see our club calendar, click on that option in the top menu bar at: https://www.nf4rc.club/

Helpful Ham-Friendly Local Newspaper

We have also been very pleased that **Alachua Chronicle** newspaper has been accepting just about every announcement we've sent them, including this ham radio course! Hooray for this small town newspaper that also prints a fascinating who's-who list of the day-before-arrest-lineup! https://alachuachronicle.com/

SPECIAL PROGRAMS BROADEN OUR LEADERSHIP

At our August meeting, Jeff Capehart W4UFL and Leland Gallup AA3YB garnered a great crop of volunteer leadership to host additional training opportunities for a variety of topics and in widely different settings. Hooray! So much FUN in store! The Table below gives the opportunities. Our monthly meetings are all available on ZOOM: https://us02web.zoom.us/j/89530741792

UPCOMING SPECIAL PROGRAMS		
DATE / Setting	**Topic**	**Leadership**
Special Meeting Presentation September Meeting Wed Sept 10	Why we do ICS - a completely different look	Brett NH2KW Susan KG4VWI
LabNLunch Sat Sept 27	Create a VHF/UHF Antenna Lab Measure the GAIN of your antenna!	Gordon KX4Z
POTA - Sat Oct 4	POTA Experience at San Felasco State Park	Leland AA3YB
Special Meeting Presentation October Meeting Wed Oct 8	Modern Comms: FLDGI / FT8	Brett NH2KW
LabNLunch Sat Nov 8	Coaxial Cable Installation (Hands-On Learning)	Earl K4ZSW
Hands-On Training	Winlink Part One Alachua County EOC	Reid K9RFT

You don't have to be a member of OUR particular club to come join in the learning!

Continued on next page...

2025 WINTER FIELD DAY RESULTS

The 2025 Winter Field Day Results are finally in! NFARC participated using our Alachua EOC Radio Club callsign NF4AC in the 3-Indoor category. https://winterfieldday.org/results.php

We submitted our results as:

Phone	Digital	CW
196	146	154

However, in their first online presentation of the results, **our listing showed 0 Phone contacts, and 342 Digital contacts**. (In other words, they lumped all our phone contacts into the Digital category.) That had the effect of raising our score significantly, since Digital counts more than Phone). I noted that several randomly chosen submissions also appeared to have zero phone contacts, and a very large number of digital contacts -- raising their scores as well! I emailed the WFDA leadership to correct the reporting, and they quickly seemed to agree there was a problem, but were not sure how to fix it....but they did correct OUR score, which lowered our ranking.

How We Fared Nationally

In the current presentation of their Results, our Alachua County/Gainesville club was the 17th highest 3-Indoor entry out of 103 entries. That got us a very respectable **Top 16.5% ranking** of all 3-I entries nationwide -- and we worked HARD for that! WFD is one of our two main "marathon performance exercises" each year. However, Looking at the 16 clubs out-ranking us, it seems unusual that 11 of them reported ZERO phone contacts and a large number of digital contacts (similarly to how our scoring was first reported). If those are erroneously reported (just as ours was originally) -- we were actually even higher! So there may be issues that just can't be solved in retrospect in the data collection of a small volunteer group running a great national exercise.

ARRL FIELD DAY AARIP

After every exercise, we hold a HOTWASH all-input-accepted session and then draft an After Action Report / Improvement Plan. Ours is now approved! https://www.nf4rc.club/historical-exercises/2025-arrl-field-day-aarip/ We had a LOT of discussion this time about how we could streamline our "setup" with the basic goal that "everyone is RESTED at the start!" For the 2025 Field Day we had some HUGE new help, and some FANTASTIC 5-Star meals -- but several of us still got burned by a faulty stretch of coaxial cable that had us manually raising and lowering and tilting and stowing our portable tower FIVE TIMES. Wow! that was hard! So we have some ideas up our sleeves to make our next ARRL FIELD DAY less stressful -- and we should be in our NEW EOC location, the refurbished old Army Armory, a huge building on 8th Avenue in Gainesville. As you might expect, however.....we have not been able to get complete plans for installing ANTENNAS....and our group manages about seven different antennas at our present site to cover various backup services from 80m all the way to 800 MHz... So, there may be some "issues" and frustrations that we'll have to work through. It took us several years to get the great antennas we have at the current Alachua County EOC.

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Participating in Inter-county Comms Plans

A healthy delegation of our group, including Alachua County Asst EM David Peaton, joined in a comms meeting hosted by Marion County communications on Aug 13. Leland Gallup, David Huckstep and Brett Wallace, our volunteer attendees, came away very excited at the growth possibilities. We've posted Brett as our official volunteer to interface with the MERT effort. Go Bret!!

Helping Technicians Advance

It is widely acknowledged that a large percent of Technicians don't advance, and many become inactive. A southwest Florida Technician was encouraged to contact me when he couldn't seem to make any contacts -- from an extremely rural area near Everglades City. I explained how VHF propagation works, and noted he had an amazing HF setup with an ICOM 7300 and expensive multi-band vertical HF antenna -- so we started getting him on 10-meter FT8. He had not realized that was legal for him! Quickly he was receiving and elated -- a few YouTubes later, he had transmitting worked out and let me know today how well he is doing with over 100 contacts! Helping people SUCCEED is a big part of GROWTH!

North Florida Amateur Radio Club NF4RC created to support Alachua County ARES(R)	https://www.nf4rc.club/ https://groups.io/g/NF4RC/topics
Alachua EOC Radio Club NF4AC created to support Alachua County ARES(R)	Our 2nd club - call sign for EOC
Zoom Link for meetings, Tech Nites	https://us02web.zoom.us/j/89530741792
Info and Sign-Up for Fall Tech Class	https://forms.gle/xpGb9EZvs8ZBTPEa6

Alachua County Amateur Radio Emergency Service (ARES®
North Florida Amateur Radio Club (NFARC)
Alachua EOC Radio Club

(*three groups that work together*)

CONTACT: Gordon L. Gibby MD Public Information Officer,

NFARC/ARES 2025 Fall Technician Class 15216 NW 41st Ave

Newberry FL 32669

Phone: 352 246 6183

Email: docvacuumtubes@gmail.com

PRESS RELEASE FOR IMMEDIATE RELEASE

Get your HAM RADIO Technician License For Fun & Emergency Communications!

Get ready to enter the exciting world of local and world-wide personal radio communications in Amateur Radio! Our local EOC-affiliated ham radio club is opening up a 13-week Thursday night class to pass your Technician FCC license test and get going in ham radio! You can sign up here: https://forms.gle/xpGb9EZvs8ZBTPEa6

The FREE course is taught at the Alachua County Emergency Operations Center -- a building few citizens ever get to enter -- at 1100 SE 27th Street, 7-9PM every Thursday evening 7-9PM beginning September 4th. Most sessions will end early, but we have an incredible passing rate on the FCC multiple choice exam you can take on December 4th. Get your low-cost training materials either online or in hard-copy format, from: https://www.hamradioschool.com/

Ham radio is a wonderful hobby for both adults and children, so the entire family and get involved. We're in the digital age now, with radio email and lots of ham radio satellites as well as direct radio connections to friends all over the USA and the world. We even use microprocessors in many of our radios! What a chance to learn! Many successful careers were assisted by early ham radio experiences -- so come join in!

Get Your Ham Radio Technician License and Jump Into The Family FUN!

Wonderful Chance to Volunteer for Alachua County

- Classes at the Alachua County Emergency Operations Center
- 7PM - 9PM Thursday evenings, Beginning September 4th
- Free Class taught by our local volunteer hams
- SIGN UP LINK: https://forms.gle/FQQ6URLwUESZn4UA6

The FREE course is taught at the Alachua County Emergency Operations Center at 1100 SE 27th Street, 7-9PM every Thursday evening beginning September 4th. Most sessions will end early, but we still have an incredible passing rate on the FCC multiple choice exam you can take on December 4th.

We do ask you to get low-cost training materials either online or in hard-copy format, from: https://www.hamradioschool.com/

Ham radio is a wonderful hobby for both adults and children, so the entire family can get involved. We're in the digital age now, with radio email, multiple ham radio satellites in orbit as well as direct radio connections to friends all over the USA and the world. We even use microprocessors in many of our radios, and we experiment and program them also -- what a chance to learn! Many successful careers began with early ham radio experiences -- so come join in!

Passaic County Fair AREDN MESH

Gordon Beattie W2TTT

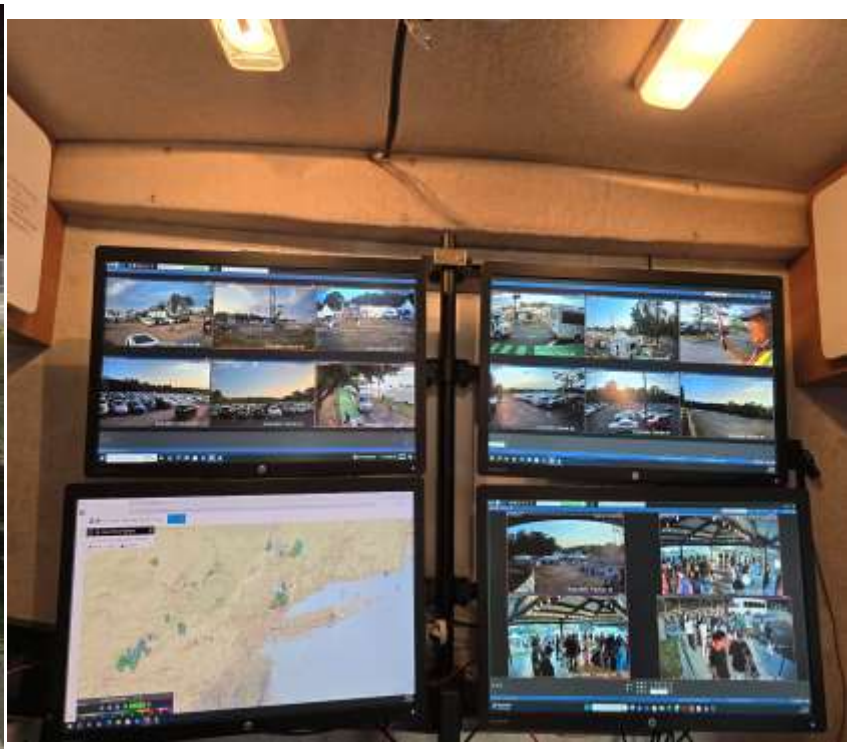
2025 Hurricane Season Status

Well so far, the 2025 hurricane season has been somewhat quiet with one serious Atlantic storm rolling up the east coast between North Carolina and Bermuda. As this is being written, only a few tropical depressions are in the pipeline, so while we're not out of the woods yet, it seems that we'll get to September without a major hurricane.

There's still time for some serious weather, so we're maintaining batteries, radios, food stocks and fuel "just in case". By this time last year Debbie had brought its wrath to the Big Bend and served as a "warm-up" for Helene later in September. Both made a serious mess of things around here. The point here is that September can be the worst time of the season, so stay prepared!

Passaic County (NJ) Fair

During the Passaic County (NJ) Fair in August, Nancy Beattie N2FWI and Gordon Beattie W2TTT ventured up to their old stomping grounds to lend a hand for this big event. Along with Dave Henninger N3UXK, Aly Badawy AL0Y, Nancy and Gordon, under the guidance of Passaic County Sheriff's Officer and Deputy Emergency Management Coordinator Rob Scott KD2ION built and deployed and managed an AREDN mesh network to support cameras providing enhanced situational awareness and security for a broad area.



The image shows a four screen display setup created by Dave N3UXK with cameras integrated on an i7 computer and a display monitoring real-time weather.

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The Blue Iris software is a Windows application that allows for the integration of diverse video sources, provides efficient recording and has event triggers and process automation in addition to a web server that allows for camera management across a broad range of camera brands and models. See https://blueirissoftware.com/

Continuous Training in Depth Matters

This is an experienced team with over a decade of service to this event. In addition to ARES and SkyWarn Spotter training Rob, Dave and Gordon are all trained Incident Command System Communications Team Technicians/ Communications Team Leaders (ICS COM-T/COM/L) and Nancy and Aly are trained Technical Specialists and Radio Operators (ICS TS/RO). Their level of training and experience provides enough depth to sustain and overcome setbacks as they occur in any multi-day operation. Even with this experienced team, year-round practice is essential to maintain operational readiness. The members of this team, along with others, participate in local events throughout the year.

Upgrades and Readiness

The equipment and software used this year was upgraded to include Ubiquiti and Mikrotik 802.11ac nodes upgraded from the older 802.11n devices. Dave and Gordon had made a substantial investment across two years to evolve most of the equipment to this new level. Year-round they run a mesh network with a tunnel that spans parts of Suwannee County in Florida, Passaic County in New Jersey and additional sites of opportunity throughout the year to exercise the equipment and periodic software upgrades. By working with these technologies, "muscle-memory" is heightened, defects are identified and fixed and new solutions and capabilities are achieved.

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For example, the AREDN development team has been on an active track to evolve the routing portion of the code from "OLSR" to "BABEL" in order to meet current needs of scale and functionality. In addition, the team changed the administrative user interface which has taken a few months to develop a level of confidence and skill in operations. After over a decade using the old user interface originated by the Broadband Hamnet team in Texas, it took awhile to be quick and efficient. We also were able to uncover bugs in selected device types and to report them. More importantly, we were able to have in place enough devices to complete the mission. See https://www.arednmesh.org for more information.

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This team has a need to rapidly and simply deploy nodes with cameras on a reliable basis. Over time Dave and Gordon have settled on 802.11ac nodes using the Ubiquiti Rocket 5ac nodes with a Ubiquiti AMO-5G13 antennas, a POE injector in a 4x4 inch electrical boxes with a camera mounted to its front. This is powered from a LiFePo4 battery in a small rugged, weatherproof box. Other nodes such as the Mikrotik SXTac and LHG ac nodes are used for directional RF links. Mikrotik hAP nodes and now lately the newer hAC nodes are set up as hubs with Ethernet and Wi-Fi access capabilities.

We also had to coordinate with Verizon Wireless to ensure that our cell modem and phones were given priority on their network. Note that the RF equipment for 700, 800 and 1900 MHz is on the vehicle roof and is feeding the large antennas on top, while the 3.45 and 3.8 GHz bands are supported by a power and fiber cable directly to the small radio units with integrated antennas below the larger antennas.

Well, after a 900 mile drive up to New Jersey with a load of gear, we were satisfied that our six days of briefings, deployment and operations had been a success. Here's the load out

Nancy's full F-150 truck bed .
Dave’s vehicle had a similar amount of stuff

Here is a stockpile of gear getting ready to be loaded into vehicles for

"Yard Art"

W2TTT/N2FWI

A vintage Radio Shack sign became available in northwest Georgia a few months ago and it was thought to be a cool retro accent for the radio shack of Gordon W2TTT and Nancy N2FWI. It needs to be dressed up and backlit, but with some help from Bill AA4TM, Jim K4DBC and Lance KQ4TGY, Gordon W2TTT was able to lift and secure the sign in place following a very successful test session hosted by Bryan K4BHP and the Madison Amateur Radio Club. It was a good day on Saturday of Labor Day weekend.

MERT

Marion County Sheriff's Office
Division of Emergency Management

COMMUNICATIONS UPDATE

April 2025

MERT's primary role is to support all open Evacuation Shelters throughout Marion County (FL) during declared Emergency events. We also support the Emergency Operations Center Incident Commander, staff and other EMCOMM groups (CERT, HEC, ARES) with voice, image & data communications locally, statewide and across the United States.

Next Bimonthly Meeting

Sept. 20th, 10:00 am at the EOC

All Amateur Radio Operators are Welcomed!
Meetings conducted in Jan, March, May, July, Sept. and Nov.

Why Volunteer for MERT?

In times of disaster, information is more than power—it's survival.

Hurricanes and severe storms can knock out traditional communication channels, leaving communities disconnected just when they need help the most… like we've seen multiple times across our state and the U.S.

That's when MERT steps in. MERT isn't just about radios. It's about readiness, resourcefulness, and reaching people when others can't. As a volunteer with the Marion County Emergency Radio Team, you become an essential part of Marion County's emergency response system, working alongside Division of Emergency Management staff and other public safety partners.

Your role could be sending important communications from a shelter, relaying updates from another EOC in an adjoining county, helping a hospital team member (HEC) get important resources to a hospital or receiving an emergency message from a community CERT member requesting support from Fire Rescue personnel. No matter what the radio report, **you** make it possible for someone needing help - to receive help when it matters most!

Volunteering with MERT means gaining hands-on experience in real-world emergency communications. From coaxial cables and antenna systems to repeater networks and EOC operations, you'll develop skills that are technical, practical, and deeply impactful. And whether you're new to amateur radio or a seasoned pro, there's room for you to grow and help others when they need it. There's also room for you to Elmer others!

But volunteering at MERT is more than technical - it's transformational. You'll be part of a mission-driven team that is focused on service, teamwork, and innovation. You'll experience firsthand what it means to help make the Division of Emergency Management stronger, more resilient, and better prepared for the future support of all Marion County residents.

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As we have now expanded our EMCOMM coverage with the new repeater launched in the Ocala National Forest, we've significantly raised the capabilities of the Division of Emergency Management in helping other counties in need, or in asking for help for Marion County.

MERT is a powerful resource during emergencies. When the winds rise, power fades and normal communications resources fail, MERT volunteers keep the information flowing at the Shelters, our EOC… and now other EOC's across Florida. Our motto is our guide….

"When all else fails. Call MERT!"

HRCook

New Forest Tower Repeater Update

Bill Gillespie, Deputy Coordinator, and I are very pleased sharing that the new Division of Emergency Management "Ocala Forest" repeater went active on Monday, August 18, 2025. The repeater now provides critical Emergency Communications (EMCOMM) radio services to the far NE areas of Marion County (including the entire Ocala National Forest). Previously, all these areas were unserved by MERT during prior declared emergencies.

Preliminary radio coverage tests are very positive using mobile and handy-talkie radio units. Recent tests were also successful with Alachua and Sumter County EOC's. Tests have been conducted near the Volusia EOC, with other tests scheduled with Lake, Flagler, Putnam, Levy and Citrus County EOC's.

New "Forest" repeater on 147.210 MHz.

(L-R) The activation crew included - Harlan Cook KN4VRM; Phil Lewis W4EVV; Royce Hagerman KD7SNN; Ray Woody WB6FKJ; Nick Kiddey W4NFK; and Bill Gillespie KW5BG. Not shown Mark Weible N4GPA and behind the camera Hayden Kauffman N2HAY.

Coordinator Harlan Cook sent this message to Director Preston Bowlin…

"To: Preston Bowlin, Director of the Division of Emergency Management, MCSO

We extend our thanks to you and the Sheriff's Office for your continued support in making this significant enhancement in MERT emergency radio coverage in the northeast areas, along with the Ocala National Forest, a reality. Activation of the new repeater also now provides EMCOMM capability and direct EOC to EOC radio access across Florida should any emergency arise in the future."

MERT EMCOMM Network diagram on KG4NXO.com's website at:
https://kg4nxo.com/wp-content/uploads/2025/08/MERT-EMCOMM-Network-2025-08-22.pdf

"As you grow older, you will discover that you have two hands — one for helping yourself, the other for helping others."
- Audrey Hepburn

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A BIG Thank You to Kraig Pritts!

I am very pleased sharing long-time member Kraig Pritts (KA2LHO) has donated his all-band Yaesu FT-891 radio to MERT. This is a richly featured radio capable of supporting EMCOMM operations on all amateur radio bands (HF, 2 M & 70 cm). The radio will also be upgraded to SHARES HF band operations as a backup to the new SHARES radio unit at Station 1.

Kraig Pritts KA2LHO

His donation is especially noteworthy in now supporting continuous emergency operations monitoring of the Forest tower repeater (NA4DA, 147.210 MHz) dedicated to providing EOC to EOC direct communications between 11 northern counties from the Atlantic to the Gulf. This new initiative is part of an expanded effort by the North Florida AUXCOMM Work Group in supporting each county's Emergency Management organization.

Thank you, Kraig for your long-time service… and very meaningful donation to MERT!

EOC Radio Room Changes

Please update your Radio Room Layout document in keeping your records current

With the donation mentioned above, the EOC radio room has undergone another operational change. The new layout has been documented in the revised "Radio Room Layout" version 08/24/2025".

The revision captures the move of our SHARES radio to **Station 1** and the addition of a new radio at **Station 2** monitoring the new repeater dedicated to **EOC to EOC** emergency communications across northern Florida.

North Florida AUXCOMM Work Group

To address a growing concern… with positive action… Marion County Director Preston Bowlin, Division of Emergency Management invited 11 northern Florida counties to a concept meeting on August 13th. He wanted to explore development of an inter-county AUXCOMM Work Group providing Emergency Management Leaders a new option for regional voice and digital message communications directly between County EOC's.

AUXCOMM Work Group attendees at the Marion County EOC

The invitees included Directors and Managers of Emergency Management; County Comm. Leaders responsible for AUXCOMM (or EMCOMM) programs; and, the AUXCOMM Leader (amateur radio) personnel responsible for supporting each EOC.

Invited participants were from Alachua, Bradford, Citrus, Flagler, Hernando, Lake, Levy, Putnam, Sumter and Volusia. 36 personnel attended.

Director Bowlin introduced the topic in having the potential to provide him, and his peers, another important communication resource when existing systems and telecom utilities fail - as has been experienced in other Florida counties with recent and past hurricanes.

"Volunteering is at the very core of being a human. No one has made it through life without someone else's help." – Heather French Henry

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Sgt. Jason Matthews of the Lake County Sheriff's Office, Communications Unit Leader, then shared his support for the Work Group with a recent example on the need to have inter-EOC communications. It focused on the failure of a telecom utility fiber optic network when it was damaged by underground contractors resulting in a total **911** blackout for several counties in north central Florida. He offered this was a perfect example on the benefits of having this capability available 24 x 7 as a "County fast-reaction communications resource".

Harlan Cook, MERT Coordinator then presented a PowerPoint deck proposing the AUXCOMM Work Group focus on several topics, including:

- Creating contact lists and establishing Leadership communications channels between County AUXCOMM teams; Identify, catalog and share regional resources and networks (voice and Winlink digital) available & used by each AUXCOMM team;
- Be a resource sharing information and best practices;
- Develop/share cooperative training resources with each AUXCOMM team in helping achieve each county's Mission; Provide speakers sharing the benefits of volunteer service by amateur radio operators in support of County
- EOC's;
- Develop common EMCOMM procedures used during emergencies;
- Conduct regular <u>EOC network tests</u> verifying operational readiness of inter-EOC communications by all AUXCOMM teams;

His presentation concluded with three (3) long-term goals the Work Group could focus on:

1. Be a regional resource for Emergency Management Leaders in providing information and expertise on AUXCOMM matters.
2. Provide Emergency Management Leaders a new communications link which is separate and independent of all traditional telecom networks now in existence.
3. **Foster the <u>creation of a coast-to-coast voice and digital message radio network between EOC's</u>.**

Proposed Inter-County EOC to EOC voice and digital AUXCOMM network from the Atlantic to the Gulf.

Attending Leaders of the County Emergency Management organizations decided to support the project and determined the next meeting will be at the Lake County EOC. Meeting details are pending.

A copy of the **AUXCOMM Work Group Concept Meeting** presentation can be found at:

https://kg4nxo.com/wp-content/uploads/2025/08/EM-Slideshow-AUXCOMM-Workgroup-FINAL-2025-08-13.pdf

New SHELTER Announced – South Marion High School

(L-R) David Romero, Senior Project Mgr.; Warton-Smith Construction Group

Preston Bowlin & Logan Stamp MCSO Div. of EM with other MCPS officials

MERT Shelter Mgr. Ray Woody WB6FKJ and Santos Pagan KR4FEP participate

Designer rendition of new South Marion High School

Director, Preston Bowlin and Logan Stamp, Emergency Management Coordinator, invited MERT to participate in the first site inspection of the first new high school under construction in the county since 2003. It's scheduled to open in August 2026 at 1350 SW 165th Street, in Marion Oaks. MERT values the opportunity providing input on the best location for operators.

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ARES Updates

Marion County Coordinator Hayden Kauffman (N2HAY) shares these updates:

- ARES will conduct an extensive operational Exercise on Sept. 6th simulating an EOC environment for "Operation Iron Spill" on Saturday, Sept. 6th at Green Clover Hall, located in the MacPherson Governmental Complex. **Sign up at: https://aresmcfl.org/operation-iron-spill/**
- The ARES BEACON newsletter is now monthly. See: **https://aresmcfl.org/**

NEW Weekly Radio NET is on the air

Member Mark Weible (N4GPA) announces a new weekly NET has been started by the Marion Baptist Association and is scheduled to operate every Tuesday at 8:00 PM on repeater KA4WJA repeater on 146.970 MHz. Offset: -600 kHz offset (146.370 MHz). No PL tone. (Anthony, FL)

This repeater will also support a "Disaster Relief Ham Radio Net" throughout Marion County when emergencies arise. For more information, visit: https://www.reach.mba/blog/disaster-relief-ham-met

A Special Thanks

Andy Allen NA4DA

MERT shares a special thanks to Andy Allen, NA4DA, for use of his license and duplexer. Andy also serves as a Director for the Silver Springs Radio Club.

Thank you, Andy for your support to MERT!

For more information about the Marion County Emergency Radio Team (MERT), visit:

KG4NXO.com

"The greatness of a community is most accurately measured by the compassionate actions of its members." – Coretta Scott King

FCC Testing Information

Daytona Beach Amateur Radio Assn (DBARA)
- Monthly, third Monday, 5:30 PM, prior to meeting
- Lehman Building, Embry-Riddle Aeronautical University
- Registration Required
- Info: https://dbara.org/testing/

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

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

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

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

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

Santa Rosa County FL ARES® Testing (Walk-in)
- Information and dates can be found at srcares.org

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

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

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

Suwannee ARC, Live Oak, FL
- Last Saturday of the month
- Suwannee Regional Library
- Contact Gerald Guy, geraldlguy@gmail.com

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

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

Gainesville Amateur Radio Society
- 1st Saturday of even numbered months
- Tech day two weeks after testing
- https://gars.club/Testing.html

Hernando County Amateur Radio Association (HCARA)
2nd Thursday of each month at 6:00 PM
For details and to register—http://www.hamstudy.org and go to **Find A Session**
Exam cost is free. FCC charges do apply

Statewide Digital Radio Resources
Designated ARES® **DSAR Reflectors & a DMR Talk group?**
DSTAR Reflector 046
REF046A – Florida Statewide
REF046B – NFL ARES®
REF046C – NWS Mobile, AL SKYWARN
DMR Florida State ARES® TG 31127
Link your local repeaters to help create a digital repeater network throughout the state!