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)

A Great Time to Be a Ham: Clubs, Congress, and the Road Ahead

If you have been paying attention to what is happening in the amateur radio world lately, you know there is a lot going on. We have got a national celebration of our clubs, a federal bill that could change everything for hams living in HOA-controlled neighborhoods, and a Florida bill working its way through Tallahassee that every mobile operator needs to know about. This one is worth reading all the way through.

2026: THE ARRL YEAR OF THE CLUB

Let's start with the good news.
The ARRL Board of Directors officially designated 2026 as the Year of the Club, and it is exactly what it sounds like. This is a full-year, league-wide celebration of the clubs that make amateur radio what it is. And right here in the Northern Florida Section, that means the groups you belong to, volunteer with, and show up for every week deserve some recognition.

The timing is meaningful. 2026 marks the 100th anniversary of the ARRL Field Organization. One hundred years of affiliated clubs training operators, serving communities, running emergency communications, and welcoming new hams into the hobby. That is worth celebrating.

The message from ARRL is refreshingly simple: celebrate what your club already does well, try something new, and get on the air. Big club, small club, brand new or approaching your 50th anniversary, the Year of the Club is for all of you.

This is also a great time to think about what your club contributes to the community around you. Does your club support SKYWARN? Run license exam sessions? Activate for public service events? Show up for ARES callouts? Tell that story. Post it on your website. Write about it in your newsletter. Log your activities in the ARRL Amateur Radio Activity Report system at clubs.arrl.org. This is the year those reports actually get noticed.

And if you are reading this and you are not a member of a local club, consider this your invitation. Clubs are where mentoring happens. They are where new hams find their footing and where emergency communication teams are built. The hobby is genuinely better when more of us are connected. Find an affiliated club near you at arrl.org and come to a meeting.

THE HOA BILL: YOUR VOICE IS NEEDED IN WASHINGTON

Here is a situation many of you know firsthand. You hold an FCC license. You want to put up an antenna. But your HOA says no. Not "we need to review it." Just no. No wire in the attic, no flagpole antenna, nothing.

That is the reality for thousands of licensed operators across the country, and it is exactly what the Amateur Radio Emergency Preparedness Act is designed to fix. The bill has been introduced in both chambers of the 119th Congress. In the Senate it is S. 459. In the House it is H.R. 1094. Both bills have bipartisan support.

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The legislation would prevent HOA rules from prohibiting or unreasonably restricting amateur radio antennas on property controlled by a licensed operator. That covers antennas hidden in trees, mounted in attics, installed on vehicles, and yes, the ones that look like flagpoles. The bill also gives operators a private right of action if an HOA violates these protections.

Here is some context worth knowing. Since 1996, federal law has protected Americans' right to install TV antennas and satellite dishes regardless of HOA rules. Since 2005, Americans have had the federally protected right to install a flagpole. This bill asks Congress to extend those same protections to licensed amateur radio operators. We are not asking for anything new. We are asking for equal treatment.

The opposition is organized. The Community Associations Institute, which represents HOA management companies and developers, has fought this legislation for years. That is why every contact to a congressional office matters. The good news is that ARRL has made taking action incredibly easy. Go to arrl.org/HOA. Enter your callsign. Click the red SEND MY LETTERS button. The system generates letters addressed to your U.S. Representative and both of your U.S. Senators and sends them automatically. The whole thing takes about 30 seconds. You do not have to be an ARRL member to use it. Any licensed amateur radio operator in the United States qualifies.

Club officers, this applies to your club too. ARRL is asking clubs to send formal letters of support. A sample letter and instructions for clubs are available at the same arrl.org/HOA page. Get your officers to sign it and send it in. A letter from an organized group of operators in a congressional district carries weight that individual letters alone do not.

Florida's two U.S. Senators are Senator Marco Rubio and Senator Rick Scott. You can reach Senator Rubio's office at rubio.senate.gov and Senator Scott's office at rickscott.senate.gov. To find your specific U.S. House Representative, go to house.gov/representatives/find-your-representative and enter your zip code. But honestly, the arrl.org/HOA tool handles all of this for you automatically, so just use that.

If you live in an HOA and you have watched your neighbor install a satellite dish while you were told you could not put up a wire antenna, this bill is for you. If you are one of the lucky ones with a tower in the backyard and no deed restrictions, this bill still matters to you. It protects the operators who will serve alongside you in the next hurricane.

Go to arrl.org/HOA and hit that button today.

THE FLORIDA HANDS-FREE DRIVING BILL: PAY ATTENTION TO THIS ONE

Now for the item that caught the attention of a lot of mobile operators in the section. Florida is moving closer to passing a hands-free driving law, and if the language is not right, it could create real legal uncertainty for hams using mobile stations.

Here is where things stand. Senate Bill 1152, filed by Senator Erin Grall, would make it illegal to hold or physically support a wireless communications device while operating a motor vehicle in Florida. That restriction applies even when you are stopped at a red light. A companion measure, House Bill 1241, is moving through the House. Florida is one of the last states in the country without this type of law, and momentum is building to pass it during the 2026 session.

The public safety argument behind these bills is legitimate. Distracted driving is a real problem. But the language in these bills matters enormously for us. The definition of "wireless communications device" is broad, and how that definition is applied to amateur radio equipment will determine whether mobile operators face legal exposure every time they key up a hand microphone while driving.

Operators who run mobile HF or VHF rigs, who participate in ARES activations from their vehicles, or who simply check into a morning net on the drive to work need clarity in this law. We need specific language that exempts licensed amateur radio operators using FCC-authorized equipment. Not a vague carve-out. A specific, clear exemption.

The 2026 Florida legislative session began January 13th and is running through the spring. That means the window to influence this legislation is open right now, but it will not stay open long.

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Here is what to do. Contact your Florida State Senator and Florida State House Representative. Keep the message simple. Tell them you support safer roads. Tell them you also hold an FCC amateur radio license and that your mobile radio is essential to the public service work you do. Ask them to include a specific exemption for licensed amateur radio operators using FCC-authorized equipment.

To find your Florida State Senator, go to flsenate.gov/Senators. To find your Florida State House Representative, go to myfloridahouse.gov/representatives. Both sites let you search by address or zip code. Contact information including phone numbers and email addresses is listed directly on each member's page. Most offices respond to constituent contacts. A polite, specific, personal email or phone call goes a long way.

Bring this up at your next club meeting. A coordinated effort from a club sends a stronger signal than individual contacts alone. Assign someone to draft a short message the whole group can send, or ask your club president to reach out on behalf of the membership.

The bill has not passed yet. This is exactly the right moment to make noise.

THE BIGGER PICTURE

There is a lot to feel good about in amateur radio right now. The Year of the Club is giving our clubs a well-deserved spotlight. But staying relevant and staying operational requires more than getting on the air. It requires showing up when legislation threatens our ability to operate. The HOA bill needs your voice in Washington. The hands-free driving bill needs your voice in Tallahassee. Both need to hear from you while the sessions are active.

You have a license. You have a voice. Use both.

HERE IS YOUR ACTION CHECKLIST

Federal HOA Bill (H.R. 1094 / S. 459)
Visit https://www.arrl.org/current-legislation
Enter your callsign and click SEND MY LETTERS
It takes 30 seconds and reaches your Representative and both Senators automatically

Florida Hands-Free Driving Bill (SB 1152 / HB 1241)
Find your Florida State Senator at flsenate.gov/Senators
Find your Florida State House Representative at https://www.flhouse.gov/FindYourRepresentative
Call or email and ask for a specific exemption for licensed amateur radio operators

ARRL Year of the Club
Log your club activities at https://www.arrl.org/year-of-the-club
Check out the Club Newsletter and Club Website contests at the same site
Not in a club yet? Find one at arrl.org and get involved

Send a Message over the NTS to Your Section Manager
One of the best parts of this job is hearing what clubs across the section are actually doing, and the Year of the Club gives us a perfect reason to connect. I would love to hear from you. Send me a message through the National Traffic System addressed to:
Scott Roberts, KK4ECR
Orange Park, Forida
kk4ecr@gmail.com
904-759-7812
and tell me what your club has going on. Maybe you are planning a special event, recruiting new members, upgrading your website, or just getting together more often. Whatever it is, I want to know about it. Not sure how to send an NTS message? Ask someone at your next club meeting. Chances are good that someone in the room knows exactly how it works, and walking you through it is the kind of thing the NTS was built for. Get on the air, pass some traffic, and let me know what your club is doing. I am looking forward to hearing from you.

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From the Section Emergency Coordinator

Arc Thames, W4CPD

In our daily lives, communication is simple with a text, a call, or an app keeps us connected. But in an emergency, communication can be the difference between safety and chaos. That's why being prepared and understanding how emergency communications work is so critical, not just for you, but for your community.
Emergencies don't follow a schedule. Severe weather, accidents, or other crises can happen when you least expect it. Having a plan for how you'll receive alerts and how you'll stay in touch with loved ones is key. Simple steps like keeping your phone charged, having a backup power source, and signing up for local emergency alerts can make a huge difference.

Being prepared doesn't stop at personal readiness. When you volunteer with local emergency management or fire departments, you help build a stronger, more resilient community. Volunteers play vital roles from staffing communication centers and coordinating shelter operations to helping neighbors understand emergency plans. Even a few hours a month can save lives when disaster strikes.

Thanks to everyone that said hello at Hamcation. It was great seeing so many of you and touring your emergency communication assets.

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 March, please send me (W4CPD located in Pace, FL) a radiogram via the NTS with your answer to this question "How can you better share with the community about amateur radio?"
Thanks to the following hams for participating in last month's challenge:
Mark- KX4LEO
Susan- KG4VNI
Emmett-WA5EWN
Mike-W4BZM

Monthly EC Reports

Out of the 33 appointed ARES Emergency Coordinators we have in the section, we only received monthly reports for 13 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 1,093 hours of service to our communities. Thanks to the following counties for providing their reports: Alachua, Bay, Citrus, Duval, Escambia, Gadsden, Gilchrist, Leon, Seminole, Santa Rosa, St. Johns, Sumter, Suwannee, Walton

	Number	Person-Hrs
Exercises this month:	7	244.00
Training events this month:	19	356.00
Public service events this month:	1	80.00
Community service events this month:	2	67.00
Emergency events this month:	0	0.00
SKYWARN events this month:	16	4.80
Meetings this month:	14	265.50
Unclassified events this month:	19	76.00

Call signs of DECs reporting:
K4BJS, K4SOP, KB4HAH, KD4EZW, KD4IMA, KF4ZZ, KM4BTW, KM4QQO, KO4YGV, KO4YOL, KX4LEO, W4UFL, WE4MJ

NFL Officials

Section Manager
Scott Roberts KK4ECR

Assistant Section Managers
Kevin Bess KK4BFN
Helen Straughn WC4FSU
DJ Stewart KI4ZER
Joe Bassett, W1WCN

Section Emergency Coordinator
Arc Thames W4CPD

Section Public Info Coordinator
Jim Bledsoe, KI4KEA

Section Technical Coordinator
Frank Haas KB4T

Section Affiliated Club Coordinator

Section Traffic Manager
Helen Straughn WC4FSU

Section Official Observer Coordinator
Robert Leasko WB8PAF

Section State Government Liaison
Darrell Brock N4GOA

NFL Committees

Webmaster, www.arrl-nfl.org
Kari McClure, NW4R

Newsletter, *QST NFL*
Earl McDow, K4ZSW

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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 continues to lead the way. Arc Thames (Section Emergency Coordinator) was awarded the Florida AUXCOMM Volunteer of the Year Award at Hamcation. Congratulations Arc!

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.

Loften High School

Bob Lightner W4GJ

The W. T. Loften High School ARC has submitted two grants. One is to purchase replacement 8877 tubes for our linear amplifier. The other is to replace our 30-foot Rohn 6 tower with a 100-foot Alumatower we already have. Our students are hopeful that the "grant gods" will look upon our efforts with favor!

We have secured N4E and N4P for our upcoming Special Events (see QRZ.COM) for more info on these two SEs.

We won last year's Florida QSO party for the best score by a Florida school.

Our club renewed our FCC license for another ten years and we are planning to enter this year's FQP in April to see if we can keep our winning streak alive!

One of our freshmen ops, Chloe, won the most QSO award for this past January's Winter Field Day.

Keep us in your prayers for funding of our two grant applications!

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The APP TRAP: How Getting "Addicted" to HamStudy Got Me What I Wanted

Vicki Miller, W0VIX

It's just past six in the morning. I'm hunched over a bowl of oatmeal at the kitchen counter, spoon in one hand, phone in the other. I tap the mini antenna icon, and the HamStudy app pulses to life.

I select the Amateur Extra link. A glance at the clock over the pantry door tells me I have just enough time for another practice test. I breeze through the first eight questions. Then, I hit number nine: *"Which of the following describes an optical shaft encoder?"* I know this one, but I can't remember the answer. I scan through the answers until I spot it: "Patterned wheel." That's the one. "A light source with a patterned wheel." I don't understand the question or the answer as much as I would like, but I'm certain about my choice.

I've been studying for almost two months now and have been through what feels like a hundred tests at this point. I think I've seen this question at least a dozen times; every time I get it wrong, the HamStudy app cycles it back into the rotation. It's what I love about this program. As I pass question thirty-five, my pulse slows. I can miss twelve out of fifty questions and still get a passing grade. By my count, I've only missed a couple so far.
I blame my husband (N1KLM) for this obsession. He'd wanted his ham license since college, back when the FCC still required Morse code. Since the testing requirements changed in 2007, he finally dove back in. In 2025, he blew through his Technician, General, and Extra exams in rapid succession.

Soon after he passed his General license exam, packages containing various odds and ends began arriving at our door. I started asking questions, and he answered using words I did not understand: Vector network analyzer, toroids, ferrets, as in (?)… no, *ferrite* beads, something about a dipole, and did he say counterpoise? We are a "play together, work together" couple, so I was happy to help him build something called a "ham shack," which it turns out has nothing to do with a shack, in the closet in his office.

Next on the list was the antenna. We live in an HOA community, so he had to be creative. He wanted to put up a 40-meter End-Fed Half-Wave antenna, with a loading coil to make it 80-meters. "End" what? I pitched in and helped him wind copper around a piece of PVC to make a loading coil, then snip pieces off the antenna until the SWR dips were in the right places. I'll admit, I was still concerned about the coax cable strung across my yard, until I watched his ICOM 7300 crackle to life. Did we really just do that?

Despite my lukewarm reception to his new hobby, I decided I would at least make an attempt to learn more about it. So, when the local Ham Radio club offered a Technician course, I signed up. I was only a few weeks into my Technician course when I asked my husband if he thought I could pass the Extra exam. He looked at me with a knowing smirk. "Maybe," he said. *Wasn't I only planning to get my feet wet?* I guess we both knew then that I was about to use this hobby as a personal challenge.

The material in the Ham Radio School Technician License Course reminded me of my Physical Science class in 8th grade. I enjoyed that class and it seemed like this course was pulling from a lot of the same elements. When I was halfway through the course, my husband told me to download the HamStudy app and start taking practice tests. I failed my first test, but I hadn't finished the course, so I kind of expected to fail. The Study Mode link was more my speed. It doled out one question at a time. Whenever I got a question wrong, the information tab provided me with a full explanation. A good portion of the explanations also had useful hints. Running through questions on a daily basis became pretty addictive, and before I knew it, I had dumped my doom-scrolling habit for time on HamStudy.org.

Within a couple of weeks on the HamStudy app I was really starting to jam. I felt oddly confident, considering I still had a month to go before testing day. I felt so good, in fact, I wondered if I might go on and take the General exam.

"You think I can do it?" I asked my husband.

"Why not?"

Yeah, why not, I thought. What do I have to lose?

The next time I logged into the HamStudy app, I clicked on the General Study Mode. By this point I was getting pretty familiar with most of the technical jargon, but the context of the General exam questions was completely over my head. I kept going, working through the explanation tabs every time I guessed wrong, which was most of the time. Within a couple of days, I started to remember some of the answers. I was committed now.

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There were moments when I still wasn't sure why I was doing any of this. The amount of information was almost overwhelming. I'm not an engineer. I don't have a background in any of this stuff. I started using word associations. If '*device'* was in the question, I looked for 'device' in the answer. I pulled out keywords like '*below'* to help me remember that it corresponded with '*decreasing.'* And if I didn't like the hint, I made one up myself. But was this learning or was I just memorizing? I felt like I was cheating. Despite everything, my methods were working. At the end of each day, I racked up another few percentage points on my HamStudy competency score. Slowly but surely, I realized I was learning. I was starting to connect the dots.

I passed my Technician and my General license exams on the same day in December 2025. It was an awesome feeling. Before I let the proverbial ink dry on my license grant, I decided I was all in on the Extra license. I was determined not to let the knowledge I had gained go to waste. That's the advice everyone gives you and that was what I was going to do. The pool of questions on the Technician License exam is just over 400. That grows to 450 for the General License exam. The pool of questions for the Extra exam is over 700. And a quick look at some of the questions let me know I was in the deep end of the pool this time around.

Other than being able to get on the same frequency bands as my husband, I didn't have a real reason to get my Extra license. That is, unless feeling intelligent is a reason, and that was a good enough reason for me. It was time to retreat and repeat. So, I went back to the online Ham Radio School program and logged back onto the HamStudy app.

In February 2026, I passed my Extra exam. In that moment, it felt really good to live in the *rarefied air* of an Extra, although I am fully aware that I don't understand a fraction of the stuff most Hams out there know. After all, this is a "learn as you go" type of hobby. I think most Hams would actually call it an "experiment as you go" kind of hobby. And that seems to be the fun of it.

Ham Radio Operators, at least the people I have gotten to know over the past couple of months, are a very intelligent bunch. They come from all walks of life, from the obvious electrical or mechanical engineering backgrounds to information technology, medicine, law, military, emergency management operations, and so on. Our local club has one member who stood on the mobile launch platform at NASA's Kennedy Space Center. These are pretty cool people. They are also some of the friendliest people I have ever met, who are excited to make new friends anywhere. It just might be part of their DNA. Tune into any of the Ham Radio frequencies and you will hear people from all over this country and all over the world making contacts with people they have never met before. Another thing I quickly found out is that they are more than eager to teach you anything you want to know and help you in any way they can.

I am not an engineer, I don't code, and although I loved Biology in high school, I hated chemistry and didn't even bother taking physics. Despite all that, I'm inquisitive by nature and a do-it-yourself type. Both are essential characteristics of a good Ham. I also love learning new stuff. That's how I made it through three tests.

So, if you're looking for a challenge that clears the brain fog of social media, fall into the "App Trap." Head over to HamStudy.org and see how far you can get. You might just find yourself hunched over a bowl of oatmeal at 6:00 AM, chasing a passing score.

Playground Amateur Radio Club

DJ Stewart President, PARC &, NOARC & ASM, ARRL, NFL

Amateur radio isn't just a hobby, it's a passport to connect with fellow enthusiasts from every corner of the planet, all without needing the internet! Whether you're chatting with someone across town or bouncing signals off the atmosphere to reach another continent, every conversation is an adventure.

What makes ham radio so incredible? You're part of a community that values skill-building, emergency preparedness, and the pure joy of making contact. From learning Morse code to experimenting with digital modes, there's always something new to explore. Plus, when disaster strikes and modern communication fails, amateur radio operators become lifelines for their communities.

Getting started is easier than you think! Study for your license, grab a starter radio, and suddenly you're part of a global network of operators who share your passion. The thrill of making your first contact, hearing that voice crackle through the static, and exchanging call signs—it never gets old.

Whether you're interested in contesting, satellite communication, or just making new friends worldwide, amateur radio offers endless possibilities. Its technology, community, and adventure all rolled into one.

Ready to get on the air? The frequencies are waiting! This hobby is rewarding and is listening for you!

PARC Goes Digital! Great Tech Night at the Playground Amateur Radio Club Technical Night! Mark NC4MR took the reins and taught us a thing or two about digital modes in ham radio. Starting with a great presentation followed up with some time at Station 2 to demonstrate using WSJT-X and GridTracker on FT8.

What a great gathering today at the Playground Amateur Radio Club! The Pile-Up was wonderful and had many visitors! ***The Super Bowl and DX Watch Party*** were great! The Sunday Night Nets were wonderful! In all, we had visitors from multiple areas with Hams and Non-Hams alike joining and visiting us! Thank you to all who made this another successful event and thank you to the DX contacts all over the globe!

This coming week the parking lot will finally be getting repaved! This is a wonderful thing that has been needed for a long time! Be sure to catch the ball and make your first down with the Playground Amateur Radio Club by following our Calendar for your next touchdown!

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PARC Takes Flight at HAMCATION!

What the what?! You heard us! Several members of PARC are attending HAMCATION this year in Orlando! Larry, K4LWM is one of them and he is rocking our Club Flag to represent!

Mike, KR4ETE is also down there and it's his first trip! We sure hope all have a ton of fun and wish them a safe and enjoyable experience! Also, other members of PARC made it to Hamcation that made it known were KG4Y, and KB4OIF. We know there may be more in attendance but what a great way to engage from a Club and personal perspective!

Tom, N2XU Showed off the Starlink mini! This useful tool comes in handy for reliable internet when conventional methods are down! Here's how:

The Starlink Mini is the ideal, compact solution for internet access in a pinch, featuring a built-in router, low power consumption, and portability for rapid deployment in emergencies. It offers speeds over 200 Mbps, allowing essential communication during grid failures. It can be powered by portable power stations or 12V DC, making it highly versatile for remote areas or outages.

Key Aspects of Using Starlink in a Pinch:

- **Portability & Setup:** The Mini is designed to fit in a backpack and can be set up in minutes.
- **Power Options:** While it comes with a 120V adapter, it supports 12V DC input, allowing it to run off portable power stations (e.g., Anker Solix) or vehicle power for long-term outages.
- **Emergency Reliability:** Starlink has proved useful for maintaining internet access during natural disasters (like tornadoes) when cellular towers fail.
- **Performance:** Capable of high-speed, low-latency internet (200+ Mbps) for browsing, streaming, and Wi-Fi calling.
- **Cost-Effective Option:** The Mini allows access to cheaper service plans (e.g., $50/month) for sporadic, emergency, or remote use.

Limitations & Considerations:

- **Power Consumption:** Although lower than standard kits, it still requires a consistent power source.
- **Physical Obstructions:** Requires a clear view of the sky to function.

Alternative Devices: For true, remote, or wilderness emergencies (where power isn't available), satellite messengers or PLBs are more suitable.

For a 3-day outage scenario, a portable power station like the Anker Solix 522 can keep the Mini running for roughly 9-10 hours, according to one user experience.

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NOARC is revamping its Club Trailer!

What did you say?! Pictures speak a thousand words and, in this case, NOARC is getting closer to a mobile Ham-shack to showcase to the Club, The Community, and the Public, what Ham radio can be and invest in the future of portable communications. This is key for establishing communications in an area during emergencies sure, but did you know that this consolidated unit will also be able to be utilized in nominal times as well?! It's true! Contesting with NOARC is about to take a whole different approach and the contest will now be able to be shown off in real-time apart from traditional methods. This trailer will have heat and AC as well to keep the communications going in almost any hot or cold wave! This steps up NOARC's capabilities greatly so be on the lookout to have an opportunity to operate from this apparatus soon!

The North Okaloosa Amateur Radio Club

John Duren Vice President, N8JDD!

Listen if you have not met John, you are missing out on one of the most positive hams in the area! John is also the NOARC Activities Director! At NOARC, John oversees the many wonderful activities in the Club and brings members together! John got his start by volunteering to work with the former Activities Director and take the Club into the next level of representation. John coordinates with the City of Crestview and many other organizations in Okaloosa County to ensure community service is offered and staffed with hams for Safety, position reporting, event coordination, and more! Together with other Non-Profits, John has made sure that events like 5K runs and parades have gone off without a hitch providing reliable communications so that the general population can participate without having to worry about concerns of barriers to enjoyment.

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PLAYGROUND AMATEUR RADIO CLUB
PARC
FT. WALTON BEACH
FLORIDA
SERVING OUR COMMUNITY
Flea Market
Raffles
Prizes
Food
Testing
Talk-in
146.790, -, 0.6, 100Hz
56th ANNUAL
PLAYGROUND
HAMFEST
Friday & Saturday
20/21 March 2026
1958 Lewis Turner Blvd, FWB, FL
NWFL Fairgrounds
W4ZBB.ORG / PARCFWB@GMAIL.COM

Volunteerism: Teaching TECHNOLOGY to High School Students

Gordon Gibby MD KX4Z

There are frequent wailing and gnashing of teeth about the dearth of "young people" in amateur radio, but not as much action to change the scenario. I applaud the ARRL's efforts to introduce amateur radio in multiple parts of school curriculum. https://www.arrl.org/amateur-radio-in-the-classroom They have detailed "lesson plans" for a wide variety of ways to spice up courses with valuable experiments etc.,, found here: https://www.arrl.org/lesson-ideas-and-learning-activities More lesson plans here: https://learn.arrl.org/courses/50103 See for example this page with 10 different complete, very detailed lesson plans: https://www.arrl.org/lesson-ideas-basic-electronics There is a detailed brief on how to teach amateur radio in a variety of settings here: https://www.arrl.org/files/file/Instructor resources/The Teachers Guide AR rev 2014.pdf They also hold an intensive in-person, donor-supported training program for teachers: https://www.arrl.org/teachers-institute-on-wireless-technology.

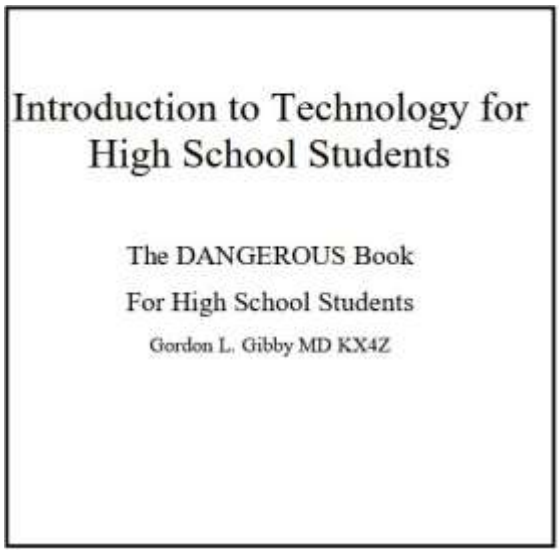

Figure: Front Page of new ham-radio based Technology Course.

Used by permission.

But what might be the Most Needed are **VOLUNTEERS** to teach!

Part-Time Teaching: Fulfillment

There was this Carpenter who taught that the best place to store up "treasure" was where it could not be destroyed by insects or corrosion, or stolen by thieves -- but where it would persevere eternally. Rather than sit on the couch and absorb the *never-ending-PrimeTime News* and reruns of entertainment in my retirement (and even before) I prefer to be ACTIVE in my community. I get my fulfillment and enjoyment from serving others to help them grow and do things they would not have achieved without my impact on their lives. I think research bears out this is a wise strategy for delaying your own funeral in addition to having a Ton of Fun!

Teaching is not difficult. Especially one hour a day in retirement! Many of us have had the experience of "elmering" a newer participant, and some of us have taught Technician license classes using any of the excellent resources out there. There are all kinds of opportunities to teach and mentor in local schools, particularly smaller private schools. (1) You have to have a love for students. (2) You have to want to see them succeed. (3) You have to CARE. (4) And then you have to have something to say.

That last part is what I'm working on, to help future teachers.

I'm still licensed to practice medicine in the State of Florida and volunteer from time to time in a local homeless/indigent free medical clinic (which has its ups and downs, too!). But even while practicing medicine, I dipped my toes into teaching at a local private school and taught some science and math just an hour a two a day. In so doing, I re-learned a lot of stuff that I had decades earlier. After formal retirement from my day job in the operating room, I was asked to teach a Chemistry class at a local school and thus began my introduction to Advanced Placement courses. Pick up a book and learn, then teach it to the students; design experiments if needed (I wrote a book for 10th grade chemistry experiments, and I'm an electrical engineer!). **My AP students had great fun (and so did I!) and they PASSED**. How many little private schools can find someone who can get their students to pass AP college level work?

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You can be extremely valuable

Many schools would LOVE to have a teacher qualified to teach at these levels. I jumped through the hoops of the organization that manages AP classes, got my course plans approved in multiple subjects, Chemistry, Physics, Calculus, Precalculus and taught small classes and had great fun!

Florida

If you want to get "formal" about it (certainly not required), in Florida, they apparently are so needy for folks like experienced amateur radio operators, that they will even giving you a 5-year teaching license if you have a college degree and can pass a test in any of dozens and dozens of subjects. The system is litterally rigged in your favor: While it does cost cash to take one of their subject tests, the results are completely and totally secret (no embarrassment at all!) -- unless you pass! If you pass (even on your 2nd or 10th try), they forward the results to the State Board of Education and with a tiny bit more paperwork and some fingerprints **you, too, can be a fully licensed Florida Teacher** with a real teaching certificate!

I picked up a review text that taught me some "teacher lingo" and also helped me review geometry (my weakest subject) and I easily passed the Mathematics Grade6-12 test -- and now I'm a fully accredited Florida Teacher. I went back to the same nationwide testing center and passed the Chemistry and Physics tests also! I have to tell you, they must be DESPERATE for chemistry teachers -- the test was about at the 10th grade level. EVERY ONE of my AP students in chemistry would have easily passed that simple test! The Mathematics test included only a tiny tiny bit of calculus and was mostly at the level of logarithms and exponents -- stuff that makes up the dB that we use all the time as hams. By contrast the Physics exam was truly impressive, about at the level of an AP test, so study up if you want that one.

But you certainly DO NOT NEED a Florida teaching certificate to teach in school after school. They are so desperate for skilled people that for a single course or so you are likely to be signed up on the spot!

The Technology Course

So I looked into other local schools and I found one that was doing a great outreach to generally underprivileged students and were indeed **desperate for volunteers**. So I offered to teach a 2-quarter course (one semester) on "*technology that you need to know as a homeowner*." Everything from electricity to plumbing to small engines and in between. Maybe even a little robotics (otherwise known as 2-axis satellite-chasing VHF/UHF antenna system.) As you would expect, they signed me up instantly.

Couldn't Find Any Good Textbook

There is not an available curriculum (textbook) that I could find for this, which I thought was useful. So I decided to simply write my own. Once this is created, volunteers can just follow it to teach a great course that will benefit innumerable students.

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Teaching Electricity

Of course, the way I started the course was with electricity. But in a special way -- the Technician License! What better way to give people a fantastic introduction to not only electricity and electronics, but also how their cell phone works, and how to deal with the Government (represented by the FCC)? I start with a couple of inspiring chapters on how desperately every adult needs to know how electricity, plumbing etc work -- or else prepare to make multiple tradesmen RICH paying their fees to fix the leaky sink, the faulty circuit, the lawnmower that won't start.

Since I've written umpteen texts already on Amazon (including my high school Chemistry Lab Manual), I'm writing my own text, chapter by chapter as I go along this quarter with a small number of students who are probably headed into the "trades" (most of them). Since one of my sons is a Mechanic, I'm very, very familiar with the pro's and con's of working in the trades and how the systems are rigged. Another son is a RN nurse (trying to get into CRNA school and triple his already nice salary) -- while another is a rising database guru with a consulting firm, flying all over the nation advising major corporations/universities on improving their administration with databases.

Make It Easy On Yourself

Rather than totally re-invent the wheel, I'm using one of the available Technician ham radio course programs as a basis also -- and then paralleling their chapters with my own wider-focus chapter to put it all into a larger context. (Their material gives me slide sets to make teaching even easier, and online quizzes for the students as well -- what incredible help!) We just finished the chapter on how receivers and transmitters work (in ham radio) -- but I added a full explanation of the quadrature-AM OFDM and how their cell phones actually work. The students loved it!

Give Them Accomplishment & Self-Esteem

I take students who have frequently been at the lower end of academic rewards (some have real trouble doing subtraction) and I introduce them to technology they never dreamed they would understand (even a light touch of quantum physics) and I constantly point out that they are the only students in their school who now understand this or that. You can see them brighten when they hear that kind of encouragement! Yes, I have had troubles because their study skills are atrocious and their grades on tests reflect that -- but I keep hammering home the 74% you have to get to get that valuable Technician License and how they will be the FIRST STUDENTS EVER at their school to achieve that. And I point out that (thanks to ARRL FIELD DAY) I know how to get their names in a local paper to celebrate their achievement if they pass! Study habits slowly improve, students slowly start to answer my questions better and better in class. Learning gets stronger. They know things that no one else in their school knows, and they have a good feeling from that.

We just did "transmission lines"' and one student was furiously googling while I lectured and asking question after question about what I was explaining -- enlarging their learning. Found "ladder line" on the web, "Is that the same as the window line, you're describing?" YES!! Independent learning, I love it!

Full Textbook Coming Soon

So my text should be finished at the end of this school year. I have NINE chapters already written including lesson plans, and Projects and Questions for homework. The lesson plans I'm developing will guide a new teacher day by day to move through the material, assign homework, give tests etc. I have a lot still to go. My own experiences with leaky sinks and solar panel systems and engine repair will guide the later chapters as I try to give these students the best possible technology grasp that will help them move into trades or even college (if they start working a lot harder) and allow them to keep a house "going".

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I have reminded these students multiple times of one of my son's life history: passed grade after grade with poor work, flunked out of community college, 4 years in the Marines, a wife and kids, and set his posterior in the library chair for HOURS studying when he was back out of the desert pushing artillery around in the dirt and in beloved air conditioning -- and a string of Honor Roll and Dean's List in that same community college, followed by an RN degree and then a BAN degree.

Serving students is one of the most rewarding things you can do as an amateur radio enthusiast. The skills that you know are so incredibly valuable to the next generation. Find your niche, serve students, and the future of ham radio will continue to be bright.

Sumter County ARES

Amateur Radio Emergency Service

501(c)(3) Tax-Exempt Non-Profit Organization

Sumter County ARES® and M.A.R.C. Training

February 18, 2026

Mark Newby KX4LEO

The Florida Mutual Aid Radio Communications (MARC) system consists of several deployable units strategically located across Florida to provide emergency communications during disasters, such as hurricanes and wildfires, where local communication infrastructure is damaged or overloaded.

Training was conducted during the week of February 16th, 2026, for public safety personnel who serve as operators and/or technicians for the deployment, setup, maintenance, and operation of MARC units. This training was held at the Florida State Fire College in Marion County, Florida. Sumter County ARES was invited to participate in this training.

On Wednesday, February 18th, Mark Newby, KX4LEO, the Sumter County ARES Emergency Coordinator, provided an overview of the Amateur Radio Emergency Service (ARES)®, SKYWARN, Radio Amateur Civil Emergency Service (RACES), and the National Traffic System (NTS). He explained how they all work together to support local and state emergency management operations.

Students had a chance to tour the Sumter County ARES EmComm trailer and become familiar with its equipment and capabilities.

For more information about Sumter County ARES, please visit www.sumterares.org.

What's Happenin' in Alachua County ARES!

Gordon Gibby KX4Z

Reviewing our Winter Field Day Results

https://www.nf4rc.club/historical-exercises/2026-winter-field-day-aarip/ We had similar or slightly better overall participation in our Winter Field Day this year (15 total, many observing or helping set-up/teardown), but during planning, our group had mixed views on whether we should be involved and in what way. One distinctly-presented opinion was that *we shouldn't put our time into this, but instead should just hold a Training Conference*. It turned out that an internal poll found minimal volunteer support for this view, but I think it might have damaged our outreach to encourage people to operate during the Winter Field Day (my opinion). I tried to compromise by joining a small Training Conference to our WFD effort. Our group doesn't do many large-scale participation exercises, and I don't get the opposition to people putting skills to use in them. We subsequently had a greatly reduced number of actual operators, down to SIX in the log. I don't think that was good.

Top 7% Nationally of INDOOR Category

The other major group in the area (Gainesville Amateur Radio Society https://gars.club/) had a **much more successful outreach to get more involvement, from which I think we could learn!** Perhaps we could improve our outreach? Sometimes perhaps I make it too "complicated." The approach of ***"Come On In, We'll Get Your On The Air!"*** might be more successful.

Nevertheless we ended up in the top 7% nationally in the "Indoors" Category, out of 340 submitted logs (as of this writing). So we did well -- primarily because we worked very hard to achieve as many of the emergency preparedness Objectives posed by the Winter Field Day Association and thus had many "multipliers," and also because we are very strong at high-scoring CW and Digital techniques. Other groups in our area are somewhat weaker in those areas.

My take on our effort was that **we seem to have a declining number of volunteers who have normal traditional amateur radio multi-band expertise, including HF**. And we have fewer volunteers who are willing to get on the air and stay there for longer periods of time. I think those are important weaknesses that we need to address! Emergency comms needs much more than Baofeng skills!

We need to increase participation in the basic effort of making contacts!

Winter and ARRL Field Day exercises are a test of many different skills and capabilities -- including willingness to get in there and do ham radio communicating for hours, managing a receiver, finding openings, dealing with interference, getting messages through. I think those are important skills!

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Effort to Build Traditional Ham Radio Skills

We're trying to increase the number of our participants who aren't limited to the "Two-Band Ham" situation (only what a Baofeng UV-5R can do). Started in February with a TechNite discussion of NOISE and how it limits communication -- galactic, lightning and man-made noise, in addition to the thermal noise that is unavoidable unless you can cryo-refrigerate your front end!

Next we held perhaps our most-successful LabNLunch building a dozen and a half UnUn (Baluns) using a variety of ferrite cores and a slew of custom 3-D printed enclosures.

Special Ferrite Type 43 Cores for Lower-loss End Fed 36:1
FT240-43 cores for 9:1 (for non-resonant ad- hoc antennas)
FT240-31 cores for 1:1 choke baluns

We had my entire kitchen and breakfast nook completely saturated with hams having FUN



building together! Everyone building one or more of the 3 different types of baluns (un-uns). Helping each other figure it out. Learning crimping, soldering, wrapping. If purchased commercially, our efforts would have been in the $1,500 total range! Everyone loved the custom 3-D printed boxes in multi-colors. A bit hit!

Next items in our Building Traditional Skills set include

Testing the constructed baluns with resistive loads (next large meeting)
Learning how to get your transmission line out of your house (next TechNite, Thursday 7PM March 4)
Going over the Traditional Casual Ham Radio QSO (next large meeting)
Building window-pass throughs and siding pass-throughpass-through (next LabNLunch, March 28

Another Social Nite Dinner: Dave's BBQ 39th Avenue 6PM March 7
Come have fun with friends!

Technology Class High School

Meanwhile, my small Technology Class with local high school students is doing reasonably well - they are 75% or more done with the Technician License material-- a huge step up in their technology grasp in many areas! I've written twelve chapters in a text that will come out to help others teach technology (with a ham radio foundation) to students.

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I started a new groups.io forum: https://groups.io/g/HighSchoolTechnologyEducation to help allow discussions of how better to push technology education out to high school students. This immediately attracted 20-odd participants, and many have shared very enlightening ideas of how they have successfully brought technology to students -- both through "clubs" and "courses."

Upcoming Adventures

In keeping with our effort to break free of the TwoBandHam trap (come on down to the lower bands, the water's WARM and the sunspots are hot!) -- we have more operating activities in April:

Florida POTA -- locally headed up by Ron Lewis KN4ZUJ -- at San Felasco and multiple parks!
Florida QSO Party -- we have scheduled the San Felasco Pavilion for multiple stations, join us!

Alachua County ARES® contact: docvacuumtubes at gmail.com	https://groups.io/g/NF4RC	https://www.nf4rc.club/

ANTENNAS!!!

Alachua ARES Building High Performance Low Cost HF Antenna Items

Gordon Gibby KX4Z

3D printing has made a lot of things easier -- including building enclosures for UnUn/Baluns -- so Alachua ARES(R) is holding a **monster LABnLUNCH** in February to build all kinds of HF baluns very inexpensively (in the $25 range) (These are all more properly named "un-un's" but that name just doesn't roll off the tongue so easily.)

36:1 or 49:1 HF Multiband End Fed HalfWave Baluns
9:1 Multiband Non-Resonant Wire Baluns
1:1 Choke Baluns

Modifying a public design, I came up with a neat box for making these devices:

These 3D designs come in 3 parts: the "box", the "cover" and a plate that holds the toroid with cutouts for the zip ties. I added holes at the end for a stainless steel 1/4" eyebolt, and a 10-24 bolt for the connection to the antenna. A wire from the SO-239 end connects to the counterpoise.

I also improved the SO-239 cutouts and built a 2nd version that has two SO-239's for the CHOKE BALUNS.

These boxes can be built for about $2 worth of filament -- takes a couple of hours. Use ABS filament to survive in Florida Sun. Always print with the FLAT SIDE DOWN on the plate, to avoid lifting up and catastrophic prints....

BIG CORE DISCOVERY

For years we've known that the performance of the FT-240-43 core falls off a bit above 20 meters and some manufacturers have (very pricey) EFHW baluns with lower loss -- but I didn't know what they were using. DISCOVERY: In 2023 two very accomplished hams published a paper revealing a specific FAIR RITE type 43 core that works with about half the loss of what we've used. https://batteryeliminatorstore.com/blogs/ocf-masters-articles/ocfmasters-white-paper-different-cores-for-end-fed-transformers I found the cores on Mouser: https://www.mouser.com/ProductDetail/Fair-Rite/2643251002?qs=MLldULe7zY21cbRcW1YXeQ%3D%3D

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MULTIBAND HF ANTENNAS

End Fed Half Wave Dipoles are multiband antennas. There are lots of tricks to make them resonate better across a very wide range of bands -- but they are pretty good in many different designs and sometimes don't even need a tuner to give you multiple HF bands.

For constrained deployments (e.g., my travel trailer) a NON-RESONANT length (e.g. 28 feet, 52 feet etc) can be better. So we're ALSO building 9:1 trifilar unun (baluns) for this purpose, using FT-240-43 cores.

CHOKE BALUNS

All these antennas can be thought of as "severely off-center fed dipoles" -- but they are very unbalanced antennas and are great for developing large "common mode" currents that play havoc with digital modes and equipment. A "choke Balun" (current mode 1:1 Balun) helps tremendously. So we're building those too! Using a purposely lossy type 31 core for this purpose. (In the future we might build an AC Line Filter to replace the MIF23 using these.)

WHAT FUN!! It is a great chance for our participants to gain skills, renew friendships and learn more and more about this exciting hobby!

QCWA

Ken Simpson, W8EK Chapter 62 President

Ocala Chapter 62 of the Quarter Century Wireless Associate met for their regular meeting on Thursday, February 26 at noon at the China Lee Buffet on East Silver Springs Blvd.

Our Vice President, Charles Lukas, W1DOH, has become a silent key. The majority of the meeting was a memorial to Charlie. He was extremely active and will be sorely missed. As we always do, it was voted to send a $50 contribution to the national QCWA scholarship fund in memory of Charlie.

Since Charlie had been our Vice President, we need a new VP. Leon Couch, K4GWQ, was elected to fill this spot.

We were also fortunate to have visitors with us from Colorado.

Chapter 62 meets on the fourth Thursday of the even numbered months (February, April, etc). The next meeting will be on Thursday, April 23 at the China Lee Buffet.

Chapter 62 also holds a next every Saturday, at 9 AM local time, on 3940 KHz. All are invited to attend.

QST NFL - A Revised Digital Network Box - DNB2

James Gordon Beattie Jr<w2ttt@att.net>

INTRODUCTION

The Revised Digital Network Box or "DNB2" offers a flexible platform for networking that one can configure in a variety of ways. It is a direct decendent of the original platform. This article describes the genesis and gaps of the original DNB, its evolution into the DNB2 and a discussion of future possibilities for additional Digital "X" Boxes based on the availability of components. This article seeks to go beyond the more common "Go Box" platform solutions to address more mission-specific capabilities than bringing an HF or VHF-UHF radio into an EMCOMM or POTA context. Much of my portable gear supports these use cases, but there is also a pile of gear and tools focused on bringing AREDN Mesh nodes to the field along with key application, integration and support elements.

DNB

Several years ago, I built a Digital Network Box with a few basic objectives including a Mikrotik hAP router running AREDN Mesh software, some battery capacity, a cellular modem and storage for accessories such as an external AREDN Mesh RF node charger/power supply and cables. The hAP node provides a 2.4 MHz Wi-Fi access point, three LAN ports, a WAN port for cases where the cellular modem or a physical network connection can be used. It also had the option of accessing a WAN via 5 GHz Wi-Fi networks.

This box started with a basic set of objectives which were largely met, however their implementation was somewhat evolutionary and grew in response to organic requirements taken from the field. For example, the original 7AH battery grew to a 12AH battery and then to a pair of 9AH batteries from Bioennopower. Having 18AH of battery capacity allowed us to have post-hurricane Internet access for a day or so without charging. 3M Dual-Loc strips were used to secure batteries, nodes and a 12VDC to USB power block for the cellular modem and the occasional DMR hotspot into the bottom of a Harbor Freight Apache 2800 case. It was also used to secure an aluminum plate that was installed over these components for neat layering of additional components. I could not find a form-fitting panel, but Amazon had aluminum rectangular plate that covered much of the footprint without cutting and drilling. This allowed space for several different Netgear 4G/LTE modems. Ultimately, it was an LM-1200/1300 that proved functional and cost-effective.

Later, it was realized that we needed a laptop or an RPi with a screen, keyboard and touchpad. Almost on cue came the flood of surplus Evolve III Windows 12VDC laptops that fit neatly inside the case, but not without a few tough issues to address. The aluminum plate was too low to mount the laptop in the bottom part of the case, so we secured the screen portion to the lid with strips of Dual-Loc and used screws and cut off large zip-ties to create retention tabs. This allowed us to pull down the keyboard/touchpad. It would comfortably rest on the modem at a proper height. Access to the left side of the laptop with power USB3 and mini-HDMI was messy and mechanically unreliable. To make it worse, the wrap-under mini-HDMI male to HDMI female adapter and HDMI male-male cable had no reasonable path through the bulkhead of the case. When we need to present a large video or slide show, we needed to crack open the case to allow for an HDMI cable to egress. Finally, we had to pull up on the aluminum plate to connect and disconnect the batteries. This was really ugly and annoying, but so functional that we used it for several years without issues. There were other issues, but we'll discuss them in the context of how we implemented improvements.

THE DNB2

The new Digital Network Box or "DNB2" retains all the same features, but streamlines and enhances the appearance, functionality and the robustness of the unit.

These measures include:

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Batteries

The two 9AH Bioennopower LiFePo4 HARD SHELL batteries were retained and moved from the original unit to the DNB2. The batteries were placed bottom to bottom and relocated to the top left corner to conserve space.

Hard shell batteries are mechanically more robust than the shrink-wrapped types. They offer better protection for the Battery Management System (BMS), the cells and their connections. Don't cut corners when you are holding a huge amount of energy in your hand or on your back.

The DNB2 Panel

The DNB2 panel is a finished proper panel with internal Anderson PowerPole connectors, a voltmeter with a dual USB A and USB C power outlet and a power switch, so there is no more pulling connectors apart to turn the unit off. This photo was taken prior to the installation of the power switch.

Panel Sourcing & Options

The DNB2 uses a form-fitted aluminum panel designed for the Apache 2800 case from a company called "Data-Pro". The panels aren't cheap and shipping drove me to buy two for economies of scale. You can even buy it installed in a case (Apache or other) and punched and populated with a wide variety of connectors, controls and indicators. All parts placed through the panel and case were hand measured and drilled.

https://www.datapro.net/cgi-bin/search?terms=apache+2800

Fuse Protection & Power Distribution

In the original unit not everything was fused and now everything in the DNB2 is fused for safety. The DNB2 uses #12 and #14 molded ATC fuse holders with leads to make a one to four power distribution cable assembly with WAGO 221 -615 connectors. The batteries, the internal and external Anderson PowerPole duplex bulkhead connectors and the main power switch also used several smaller WAGO connectors. Lower current needs were met with #14 fuse holders and wire along with WAGO connectors. A metal six position Anderson PowerPole distribution block was also installed in the lower section of the Apache case.

Boosting 12-14.6VDC to 24VDC

Because we sometimes struggled with voltage drop in the original unit through the Mikrotik hAP AREDN Mesh node to the RF mesh node, we added a 12 to 24 VDC booster. This runs the Mikrotik AREDN mesh node and its remote Power Over Ethernet (PoE) RF node with improve flexibility and reliability when it was up a pole or routed a distance out of a vehicle. Almost any 3A or larger voltage booster model on Amazon is fine.

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HDMI Port
The external HDMI video will go through a bulkhead connector instead having to leave the cover open. The angled mini-HDMI connector cable is routed across the front of the panel to the HDMI bulkhead connector on the right.

RJ-45 Jacks, PowerPole & HDMI Bulkhead Connectors
Another feature of the DNB2 is the use of smaller and less expensive RJ-45 jacks. This allowed for closer jack spacing without crowding. Further, the weather resistance is sufficient.

You will also notice on that on both the original and DNB2 units, that all the connectors are on the right side. This was intentional as it allows for neater cable management and to have some free "uncrushed" space for connectors when carried in a comms type of backpack. Examples of these include:

The Roaring Fire Tactical Backpack - very useful and affordable
https://a.co/d/0fOmctvV

The Kelty Raven 2500 - Discontinued. Hard to find. Includes built-in rain cover.

https://shop.opticsplanet.com/kelty-raven-2500-backpacks-bags.html?_iv_code=X18-BP0-RVN2500-25909073&gad_source=1&gad_campaignid=21665960106&gclid=CjwKCAiA2PrMBhA4EiwAwpHyCzL7ubD2yDC_T2iy81_jmhf2LVIWmmFou1JGZYHbaSFliHqCDcNVuBoCi1QQAvD_BwE

The Eberlestock Romad - top choice
https://eberlestock.com/products/r4-romad?variant=46211854336236

I own at least one of each of the packs listed above and often add additional pouches using the MOLLE attachment system. They all can accommodate the Apache 2800 case in some manner.

The photo on the right was taken before the HDMI bulkhead connector was installed above the Anderson PowerPole bulkhead connector. The black screws are holding up the angled panel brackets. Two were used on each side.

Shielding & RF Immunity The issue of shielding in the jacks was raised and met with the point that the Apache 2800 case and everything in it is using unshielded Ethernet ports and cables without issues. With nearby 100+W HF-VHF-UHF transmitters along with receivers with antennas not having problems, we have a level of confidence in the system. Your operating environment might require a complete component, case and cable refit if higher power or an "unfortunate" configuration should emerge

Evolve III Windows 10/11 Computer
The computer is mounted on the panel and not in the lid as was done previously. With the higher placement of the panel in the DNB2, we can easily access the computer's keyboard and touchpad. The 12VDC power input and the USB3 and the mini-HDMI cables are all angled connectors with the USB3 facing rearward behind the display and the others toward the front.

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5G Modem Upgrade
The modem has been upgraded to a Netgear Nighthawk M7 Pro 5G cellular modems which works on cellular bands from 594 MHz to 3.98 GHz. This unit is currently locked to AT&T and provides a substantial improvement over my 4G/LTE cellular modem where service is supported.

Internal Accessory Storage
The lid has room for the charger, 5G cellular modem, a voltage and current monitor, an external AREDN Mesh RF node and cables. We can also carry a small Pi Zero W DMR or other hotspot inside.

OPTIONS AND ADAPTATIONS

PC Issues
While DNB2 offers lots of capabilities, for its PC we are considering the reality of the end of Windows 10 Extended Support and a migration of the Evolve III to an unsupported Windows 10 or 11 installation or to a compact version of Linux. Open Office and various media players run on all of these.

Higher Capacity Computing
Sitting about here is an older Windows 11-compatible Intel i7 NUC with 24 GB of RAM and two HDMI outputs that with a USB3 adapter could support three video outputs. This computer runs on 19VDC and yes, there are several 12 to 19VDC voltage boosters and 12AH LiFePo4 batteries available. Two of these batteries would provide some resilient power even with accessories.

Linux & Storage Boneyard Revival
There are times when one needs a small format Linux box for specialized processes and storage. It wouldn't take much to dig out an idle RPi 2/3/4 and SSDs to accomplish these tasks. Having a lightweight network server or servers is another likely project.

Networking and Timing Bits
There are also spare Mikrotik hAP and hAC AREDN Mesh nodes, small managed 12VDC switches and a number of GPS units and GPS-Disciplined Oscillators that could be included in a project.

Leftovers in the Junkbox
As mentioned earlier, the batteries from the original DNB unit were repurposed into the DNB2, but so were the Mikrotik AREDN Mesh nodes. This leaves the question of what to do with the old Apache 2800 DNB case, another brand-new one and the second form-fitted panel, which happens to be black anodized. These sit with several Apache 3800 and 4800 cases. With another Data-Pro panel, a nicely finished project or projects could emerge rather quickly.

Cooling fans and filter screens, DC switch plates and interface plates, bulkhead connectors, RigRunners, temperature and voltage sensors, IP cameras and VOIP phones are all on hand, so more digital boxes are likely to emerge.

Ideas?
It might be interesting to hear your project ideas. These Digital "X" Boxes can go in a variety of directions and your ideas would be welcome! The objective here is that they are deployable as a type of "Go Box".

Thoughts? Get on the Air!

Silver Springs Radio Club

Carl Berry, KC5CMX

Another awesome SSRC Operating Day! For February, Ethan/KQ4EIC gathered us at Silver Springs State Park for a Parks-On-The-Air themed day.

We had a great time!

Various portable stations and antennas were setup throughout the grounds.

Ethan even cooked for us

Here are some pictures highlighting our event:

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.

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

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