



QST NFL

Newsletter for the Northern Florida Section

Come join the FUN!

Volume 13 Issue 9

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September 2026



From the Shack of the Section Manager

Scott Roberts, KK4ECR (kk4ecr@gmail.com)



Scott Roberts, KK4ECR | ARRL North Florida Section Manager (kk4ecr@arrrl.org)

Section Manager's Report: Town Hall Recap, Huntsville Highlights, and the Year of the Club

Northern Florida had a full few weeks. Here is a recap of the Town Hall meeting, a look back at Huntsville Hamfest, an update on the Year of the Club, and two issues every ham in the section should watch.

Section Manager Training in Newington

ARRL Northern Florida Section Manager Scott Roberts, KK4ECR, received an invitation to speak to the newest class of Section Managers at the 2026 Section Manager Training Session. The training runs September 12 and 13 in Newington, Connecticut, at ARRL Headquarters. Twelve sections hold new Section Manager terms starting October 1, 2026: Connecticut, Eastern Pennsylvania, Idaho, Minnesota, North Dakota, Ohio, Oklahoma, Pacific, Puerto Rico, Southern Florida, Virgin Islands, and Western New York. ARRL has not published a final attendee roster for this session, so the actual number walking through the door in Newington may land below twelve, depending on how many section races drew no opposition or already had returning managers win reelection.

Speaking to this group matters. New Section Managers walk into the job carrying a two-year term and a section full of members who expect leadership from day one. A veteran SM sharing lessons learned, mistakes made, and habits worth building gives the incoming class a running start most of us never got. Watch next month's issue for a full report on the trip.

Town Hall Recap

About 45 hams from across the Southeastern Division joined our Town Hall meeting, held around the ARRL Board of Directors meeting in July. Members came from clubs and counties across the section, and the discussion stayed lively from start to finish.

People raised real concerns and real ideas. Our team collected the strongest of these and sent them straight to ARRL's Board of Directors. Several topics made their way into the July Board meeting discussion. This is the whole point of a Town Hall: member voices reach the people who write policy, not only people who read newsletters. A Town Hall only works if members show up. Forty-five people did this time, and every one of them added something to the conversation. Some raised questions about local club growth. Some raised questions about how ARRL communicates decisions back down to the section level. Every topic got written down, and every topic got forwarded.

Missed this one? Watch for the next round. A section grows stronger when members show up and speak up. Let's aim for double the turnout next time. Bring a question. Bring a concern. Bring a new idea for your club. The Board hears these when we send them. The format matters here too. A Zoom meeting removes the excuse of a long drive on a weeknight. Anyone in the Southeastern Division could log in, whether an ARRL member or not, and plenty of first-time attendees did. This open-door approach is worth keeping. The next time a Town Hall gets scheduled, share the registration link with your club, your net, and anyone who has ever grumbled, "nobody at ARRL listens." Forty-five voices already proved otherwise once.

Huntsville Hamfest 2026

The Huntsville Hamfest doubled as the 2026 ARRL National Convention this year, and Northern Florida hams made the trip. Held August 21 through 23 at the Von Braun Center, the convention pulled attendees from 37 states for the Friday program alone.

Three training tracks opened the weekend. Mini Contest University, led by Tim Duffy K3LR and sponsored by DX Engineering, gave testers a room to trade notes and sharpen skills. The Emergency Communications Academy covered ARES, PACE planning, and digital tools for served-agency work. A youth lounge kept the next generation of hams engaged all weekend.

Huntsville earned its nickname, "The World's Friendliest Hamfest," again this year. The air-conditioned South Hall hosted a full flea market, a long list of commercial exhibitors, and the W1AW America250 special event station running the whole weekend. Congratulations go to Carsten Glasbrenner, KQ4SJM, of Brooksville, a fourteen-year-old General class operator who won the Bill Pasternak Young Ham of the Year award. Morrighan Phillips, KR4FTP, took home the Alabama Outstanding Youth Ham Award. Both wins point toward where this hobby heads next.

Never made the drive to Huntsville? Put next August on your calendar now. Tickets sell out, hotel rooms fill fast, and the forums alone earn the trip.

Year of the Club

ARRL named 2026 the Year of the Club, and the push behind the initiative has not slowed down. Icom America signed on as the official sponsor, backing content in QST and section newsletters highlighting club work all year. Field Day carried the theme too. "Amateur Radio: A National Resource" put club call signs and club participation front and center. The America250 Worked All States event, running all year, rewards operators who contact ARRL Affiliated Clubs in all 50 states, and clubs nationwide are leaning into the challenge.

Closer to home, our own clubs answered the call. Gainesville Amateur Radio Society ran a standout GOTA station at Summer Field Day, coaching new operators onto HF for the first time and logging over a thousand contacts across six bands. Columbia County ARES trained members while running a bare-bones VHF station out of a cargo truck. Sumter County ARES opened a new clubhouse in Webster with three HF stations and full backup power. None of this happens without members who show up and pitch in.

Every club in Northern Florida holds a chance to grab a piece of this year. Host a joint event with a neighboring club. Coach a new operator toward their first HF contact. Send your story to QST NFL. The Year of the Club rewards clubs who act, not clubs who wait.

Two Issues Every Ham Should Watch

Antenna restrictions still choke the hobby. Federal law protects your right to communicate, but HOAs and landlords answer to their own bylaws, not the FCC. A fully licensed operator holding every privilege in the book still gets told no antenna, period. Not on the roof. Not in the yard. Not hidden in a tree. The Amateur Radio Emergency Preparedness Act, backed again this session by Senators Wicker and Blumenthal and Representatives Pfluger and Courtney, aims to close this gap. Until Congress acts, ARES readiness in Clay County and every other county depends on volunteers who legally cannot put up the antenna their role requires. Raise this bill with your county commissioners and state representatives. Emergency management offices pay attention once they realize their backup plan runs on volunteers stuck using stealth antennas and park benches.

Commercial companies keep testing the edges of our spectrum. This spring, the FCC granted AST SpaceMobile limited use of five channels in the 430 to 440 MHz band, amateur spectrum, for satellite telemetry work. This single grant stays narrow. The pattern behind the grant does not. Every foothold a commercial player gains sets up the next request, and spectrum given away rarely comes back. ARRL's Washington counsel tracks and comments on nearly every petition touching our bands. Your ARRL membership dues fund this fight, even on days the work behind the fight stays invisible.

Neither issue gets solved by one person complaining online. Both get solved by members who stay informed, who show up to Town Halls, and who back the organization doing the work in Washington.

Closing

Northern Florida keeps showing up: at Town Halls, at Field Day, at Huntsville, and on the air every week. None of the work described above happened by accident. Members drove to Huntsville. Members logged onto a Zoom call on a weeknight. Members built a clubhouse, ran a GOTA station, and packed an antenna into a cargo truck for Field Day. This pattern is the section, plain and simple.

Thank you for making this section strong. Keep checking in, keep training, and keep fighting to keep your antenna in the air.

From the Section Emergency Coordinator

Arc Thames, W4CPD

I'm not sure where the year has gone but it's already September and we only have 4 months left this year! While we are in hurricane season, I encourage you to stay weather ready and keep your equipment in good operating condition. As we all know, the tropics can change at the drop of a hat, and our teams will be needed.

I had the honor of speaking at the ARRL National Convention in Huntsville last week. Well over 30 people in attendance. I spoke about the importance of building solid relationships with our partner and supporting agencies as well as how our team here in Santa Rosa County has leveraged CERT to build a stronger team. Over our 160+ individuals on our roster, close to 70% of them have their amateur radio license. We see both programs as a complement to each other

At the end of the day ARES volunteers are communicators. We spend far too much time worrying about the sign on the door or the logo on our nametags. We all do what we do because we enjoy supporting our communities. It doesn't matter how we communicate or what technology we're using as long as we have the ability to get the message across.

With the advancement of communication technologies, one of the areas in which we really have an opportunity to work on is providing health and welfare messaging following a disaster. While cellular networks are more reliable than they used to be, they still become quickly overloaded following a storm. Providing a station where resi-

dents can send outgoing messages to their loved ones could be a huge benefit to your community.

Thanks to the following hams for participating in last month's radiogram challenge. We will be pausing for this month.

Emmett-WA5EWN

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 33 appointed ARES Emergency Coordinators we have in the section, we only received monthly reports for 15 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 861 hours of service to our communities. Thanks to the following counties for providing their reports: Alachua, Bay, Duval, Escambia, Gadsden, Gilchrist, Madison, Marion, Seminole, St. Johns, Sumter, Suwannee, Washington



	Number	Person-Hrs
Exercises this month:	9	28.00
Training events this month:	17	126.00
Public service events this month:	1	187.00
Community service events this month:	0	0.00
Emergency events this month:	0	0.00
SKYWARN events this month:	3	8.00
Meetings this month:	24	371.10
Unclassified events this month:	22	141.80

Call signs of DEC's reporting:

K4BHP, K4BJS, K7PCS, KC3DWY, KD4EZW, KD4IMA, KM4BTW, KO4YGV, KO4YOL, KX4LEO, W4UFL, WA4MN, WE4MJ

NFL Officials

Section Manager

Scott Roberts KK4ECR

Assistant Section Managers

Kevin Bess KK4BFN

Helen Straughn WC4FSU

DJ Stewart K14ZER

Joe Bassett, W1WCN

Section Emergency Coordinator

Arc Thames W4CPD

Section Public Info Coordinator

Jim Bledsoe, K14KEA

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

Section Youth Coordinator

Hope Lea, ND2L

NFL Committees

Webmaster, www.arrrl-nfl.org

Kari McClure, NW4R

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 South-eastern 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://arrrl-nfl.org/wp-content/uploads/2021/12/2021QSTNFLIndex.pdf>

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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.

Editor's Notes:

Please check your FCC Testing Information!

If you have

- **Red letters the links returned the dreaded 404 Error. Please review and fix.**
- **Yellow something isn't correct. Ie GARS dates are based on 2024 calendar.**
- **Green your links work but please review and update if necessary**
- **If you're not on the page, please let the world know you are there.**

Submitting Articles to QST NFL month year Preferences:

- **To increase your chances that I will get your article please put "QST NFL" in the email subject line**
- **Calibri font—size 11 for text and 14 Bold for major headings**

Next month the plan is to add links to groups that aren't getting the attention they deserve. If you want to be listed, drop me an email.

Please send corrections to earlmcdow at gmail dot com

Keep your excellent contributions coming!



Silver Springs Radio Club, Inc.

2026 HAMFEST



Saturday, December 5, 2026
8:00 AM - 3:00 PM

Location:

First Christian Church
1908 East Fort King Street
Ocala, FL 34471

Event Contact:

Email: hamfest@k4gso.us

Web: www.k4gso.us

Registration:

See: k4gso.us - click
"OCALA HAMFEST"
for info and to register

- **Admission:** \$10 entry to exhibit hall includes one Raffle ticket! Advance tickets available online.
- **Raffle Prize: Yaesu FT-710 Field Transceiver** — Additional tickets: only \$5 each!!
- Multiple raffle tickets sold only with at least one admission ticket.
- Raffle Tickets available online at k4gso.us
- Need not be present to win the raffle prize (Yaesu FT-710 Field)
- Other door prizes throughout the day
- Multiple commercial vendors in the indoor exhibit hall
- Outdoor Flea Market/Tailgating
- Plenty of **FREE PARKING** directly across the street
- **VE FCC License Testing:** - Fee \$15 - cash only - Bring ID and your FRN number
- **VE signup, contact:** TestingChair@k4gso.us
- VE testing begins at 10:00 AM - Walk-ins accepted
- Food available on site by the Boy Scouts

INSIDE COMMERCIAL EXHIBITORS (Indoor tables reserved for exhibitors only until October 31):

- Tables \$15 each - please indicate number of tables desired
- Advance registration highly recommended. Tables on first come basis for commercial vendors.
- Unsold inside tables will be open to individuals after October 31 if space is available.
- All indoor tables must be Amateur Radio related equipment, products or services.
- Doors open for exhibitor setup at 6:00 AM

• TAILGATE (Outside):

- Tailgate fee \$20
- Tailgate fee includes one admission ticket to exhibit hall and one tailgate spot. Additional tailgate spots can be purchased separately for \$10. Must purchase admission ticket and tailgate spot to purchase additional tailgate spots.
- Tailgate setup outside begins at 6:00 AM

Silver Springs Radio Club Repeater - K4GSO 146.610 — 123.0 PL

Interested in joining the Silver Springs Radio Club? See our website at k4gso.us or contact membership@k4gso.us

We can help you obtain your Amateur Radio license if you are not licensed or to upgrade your existing license
Visit our club meetings via Zoom on the third Tuesday of each month at 7:00 PM. Link is on our website at k4gso.us

ANNUAL HAMFEST

10 OCTOBER
2026

Event



1446 COMMERCE DR
CRESTVIEW FLORIDA
TESTING SAT 1000



FRI VENDOR SET UP ONLY

1030AM - 5PM

W4AAZ.ORG

SAT ONE DAY SHOW 8AM TO 1PM

Loften High School—K4WTL NEWS

Bob Lightner W4GJ

We got some of our freshmen on the air for the first time today



**We just got our ARDC grant approved
to put up the 100 foot Aluma tower!**



Four Generations of Amateur Radio All in One Family

DJ Stewart KI4ZER

Assistant Section Manager, NFL, ARRL

President, W4ZBB, W4AAZ

For nearly 60 years the Stewart family hailing from Wisconsin has had more just a last name in common...they have amateur radio as part of their DNA!

It started with Orville, WN9INY/KA9ONQ (now SK). He worked in advertising for a local brewing company, and it was his supervisor, an amateur radio operator, who first suggested about getting licensed. So, Orville asked his son "Bud" (Walter) Stewart to come along to classes at the old Allied Radio company...and both passed. Orville worked phone and AM and he started the Southeast Info Net, the fist in Wisconsin. He went on to become treasurer of the Milwaukee Amateur Radio Club, which was founded in 1917, and is one of the oldest amateur radio clubs in the world. Orville Stewart became a Silent Key in 1999 after almost 30 years as a ham.

But the story does not end just yet. Son Bud, W9INY/N0KBS, celebrated 65 years as a ham thanks to his father's interest. Bud's son, DJ, KI4ZER, also joined the family legacy and his son Tyler Stewart KQ4ACS also found joy in amateur radio. It seems that Tyler, without any prodding from his father or grandfather, became interested in amateur radio at his college radio club at the University of Central Florida.

The Stewart family is just one the remarkable stories which amateur radio generates. Bud Stewart said it is not just the radio but the friends you make and keep for decades honoring the legacy you leave behind.

This morning, August 26th, 2026, my Father, our Family Patriarch, passed. He is now N0KBS (SK). His inspiration reached many, our families devotion to this lifelong hobby crossed many paths, allowed for untold learning, encouragement, and the opportunity to lead in multiple roles supporting and promoting amateur radio.



VHF DX Report: A Memorable Sporadic-E Season

Mike Hasselbeck WB2FKO

Working DX on the VHF bands is a very different experience compared to HF. Just about any night will provide propagation to far-off places on the 40m band. The 20m band is well known to shine during the daylight and evening hours. This, of course, depends on daily and long-term variations in the ionosphere, which reflects radio waves depending on its charged particle density and radio wavelength. For most of the year, the ionization density is too low to reflect VHF signals [1]. Communication is still possible on these very high frequencies, but it is mostly confined to the local region.

The amount of ionization in the *E*-layer at an altitude 80--150 km increases substantially around the time of the summer and winter solstices. The summer months strongly favor the northern hemisphere. This ionization is often sufficient to reflect 50 MHz signals. On rare occasions the critical frequency can reach 144 MHz and higher. This mode of ionospheric propagation has minimal correlation with the 11-year sunspot cycle and is notoriously difficult to predict. DX paths may last for many hours but often less than a minute, hence its characterization as "sporadic-E", often abbreviated as *Es*. This is the challenge and allure of chasing VHF DX.

Favorable propagation and luck can reward the patient 6-meter operator with new DXCC entities. Worked All States is within the reach of a moderately equipped station with FT8 capability. Working new maidenhead grid squares is another pursuit. As of summer 2026, more than sixty 6-meter operators have confirmed contacts with all 488 grids that define the 48 continental United States. The ARRL issues the Fred Fish Memorial Award for this accomplishment in honor of the first operator (W5FF/SK) to do it -- long before the availability of WSJT-X digital modes. Several grids are more than 99 percent

ocean water with no permanent residents. Grid-expeditions by dedicated portable operators, often in challenging conditions, are needed to activate them. These grids are the VHF equivalent of rare countries on HF [2].

On 144 MHz, ionospheric reflection is exceptionally rare. Unless you are doing moon-bounce (Earth-Moon-Earth), awards like WAS and DXCC are out of reach for even the best-equipped 2m station. Working new states and grid squares are the goals. The ARRL offers the VUCC award for confirmed contacts with 100 or more grid squares on 6 and 2-meters.

Here's how some Florida weak-signal VHF operators fared during the very productive 2026 summer sporadic-E season:

WA2LLN in Alachua County (EL89) worked 77 new 6m DXCC entities giving him 81 total. Of note was 5H1KB in Tanzania on 50.313 MHz FT8. Art recently added 2m capability and picked up 13 states on that band during the summer.

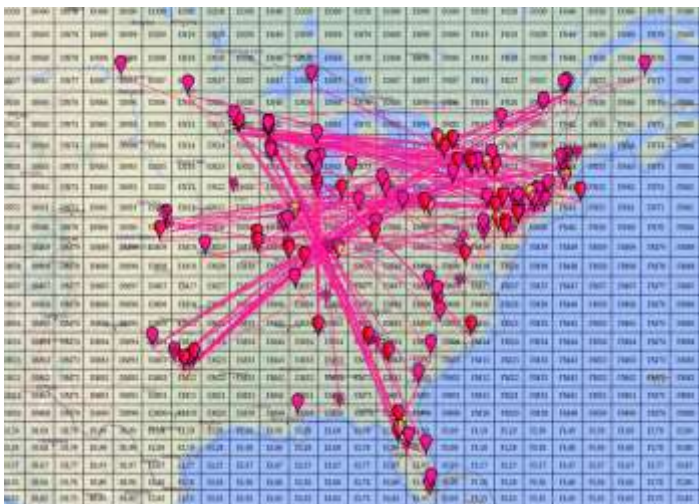
Also in Alachua County, **K4TMG** is an avid DXer and decided to use the enhanced conditions to go hunting on 6m. Terry came away with eight new countries on the band including E73S in Bosnia-Herzegovina to put him at 47 confirmed.

NN4X in St Cloud (EL98) caught several 144 MHz sporadic-E openings in June and July. On June 11 the 2m band opened to the Midwest and yielded grids EN12 and EN31, then June 14 he scored Iowa in EN12, and the day-long opening on July 19 produced 46 DX QSOs to the north and northwest including grids EN43, EN44, EN71, EN82, EN91, and a 1374 mile QSO with VA2CY in FN46. On 50.313 MHz, FT8 gave him three new DXCC countries: Tanzania, Belarus, and China.

W9BS down in Ft Myers (EL96) made 40 QSOs via 144 MHz *Es* despite HOA restrictions forcing him to use indoor antennas. Gary logged 22 new grids bringing him up to 76 total. He nearly doubled his confirmed states with 12 new ones increasing the overall count to 23. Best DX was WORPR in Minnesota at 1392 miles. On 6m, three new DXCC put his updated tally at 59.

Using FT8 on 6m, **K1DS** added 38 new confirmed DXCC entities from his south Florida QTH in grid square EL96. Rick is running high-power into a 7-element Yagi at 50 ft.

WB4OMG in Lakeland missed many of the summer openings but was at the radio for at least one of them and connected with Erica W7WXR in Fargo, ND via FT8 on 144.174 MHz. The path between their two stations (EL98 to EN16) spans 1521 miles. On 6m FT8, Buddy worked CU7MD in the Azores for a new DXCC entity.



Snapshot of 144 MHz FT8 signals as displayed on pskreporter.info during the *Es* opening of July 24, 2026

I (**WB2FKO** in EL89) was also QRT for most of the June action, but was home for excellent 2m *Es* conditions on July 24-25. Using FT8, 35 QSOs were recorded with stations primarily in the upper Midwest, including K9ALO in Wisconsin who was running just 10 Watts. This pushed the 2m grid total to 140 with 137 confirmed. Six new DXCC entities were added on 6m bringing the total to 133/131 confirmed. On July 30, A71AE and A71XX in Qatar were worked on 6m FT8 in the span of a few minutes,

but disappeared into the noise just as quickly as they appeared. 132 miles south of me, **NN4X** also decoded A71XX but could not complete. Steve thinks that instead of the Magic Band, 6-meters should be known as the *Tragic* Band because of how often it breaks his heart.

AA4FL in Hawthorne is already on the ARRL DXCC Honor Roll and picked up 11 new ones on 6m, putting him 113/112 confirmed. Jay earned 6m VUCC way back in 1986. With a stealth dipole at 20 ft due to his Fleming Island HOA, **NO4J** has 109/97 confirmed DXCC entities on 50 MHz.

Not everyone doing weak-signal VHF is using digital modes. In western Massachusetts, Mark **K1MAP** copied the 3 Watt cw beacon signal on 144.291 MHz that originates from his Florida home located in EL89 northwest of Trenton. He then worked five Florida stations on 2m SSB including Terry **N4TWX** in Worthington Springs. He encourages FT8 operators to check for analog signals when the band is open.

Jim **NU4Y** in Orange Park is a renowned DXer who finally scored Alaska in 2026 to give him WAS and 132 DXCC entities on 6m. Alaska is always a challenge but is particularly difficult from Florida on 50 MHz. **N4CC** calls Boise, Idaho home and from there he remotely operates his station in north Florida (EM80). Greg picked up Albania and Belarus in 2026 to put his 6m DXCC count at a stratospheric 156.

- [1] It is widely asserted that refraction by the ionosphere returns radio waves back to earth. This is pervasive in ARRL instructional material, YouTube tutorials on radio propagation, and can even be found in the VE question pool. But it's not correct. While refraction can alter wave trajectory, it is *total internal reflection* at path apogee that enables DX communication. It is the same principle that allows light -- another form of electromagnetic radiation -- to travel in an optical fiber. This concept was well understood by scientists in the early days of radio, but has been almost entirely unlearned by the amateur radio community in recent decades.
- [2] The Dry Tortugas National Park in EL84 is Florida's contribution to the list of rare VHF grids.

Alachua County Update!

Gordon Gibby KX4Z

"Voluntary Deployment" Touches 10 States



Nancy and I are still "on the road" having put 3,000 miles on the 25-foot travel trailer visiting state after state, and activating I-don't-know-how-many State Parks for POTA.... WHAT FUN!!!!!! For the last week we have been at our cozy 90-year-old family home in the mountains/foothills of Black Mountain NC, visiting our friends here, joining early-morning rag chew nets on 75

meters, and enjoying morning temps in the SIXTIES and afternoon highs only in the 80's!! Wonderful weather! Up north, often we actually had to run propane heat at night! Amazing! In the summer!

We travel back home this coming week. We'll reach close to 5,000 miles on the truck, which means about 400 gallons of fuel for the entire 6-weeks-long escapade, and \$1400 in fuel costs -- but a ton of fun and learning! The microwave receivers and the 2.3 acre DISH at Greenbank Radio Observatory were amazing! Got to see the first oil well in the world, too. And do my own, REAL WORLD, antenna shootout between two deployment antennas. Huge opportunities in real world communications!

Alachua County Emergency Management Moves!

Alachua County Emergency Management has finally moved into their new offices and also is now organizationally under an Asst. County Manager, rather than the Fire/Rescue group. That's new, and I don't know exactly how it will affect our volunteers. All our radios are still boxed up and will stay that way until the **pass-through hole in the concrete wall** for coaxial cables is cut....We have no coax access to the outside world right now. In a disaster we'll have to pull up our tower trailer, I guess? Thank goodness we have one, thanks to **Stewart Reissener KK4DXF!!**

UPCOMING SEPT OPPORTUNITIES

If you're not learning, you're dyin'!!

Talk: Basic Ham Radio Measurements

<https://us02web.zoom.us/j/89530741792>

Social: Sept 5th 6PM Dinner in Gainesville, FL

LabNLunch—Sept 12th 12Noon: Building Deployable Ground Bus

Also Wiring Yaesu G-450 Rotator

October Newsletter Plans:

Article/Oct: Add a Few dB To Your Signal!

Article/Oct: Antenna Shootout: POTA Head-to-Head Results

Article/Oct: Add a Few dB To Your Signal!

Artificial Intelligence

Brett Wallace NH2KW graciously opened up his home and chaired the August ARES meeting (as President of our Alachua EOC Radio Club, one of two clubs/callsigns we utilize). **Thanks, Brett & Emily!** He gave a **fascinating** discussion of how Artificial Intelligence can be utilized, and how he actually used it to create a custom "repeater directory" for his wife's recent multi-state trip. He even had it spit out all the frequencies and produce a comma-delimited-file so he could upload into her radio with CHIRP. Wow!! Brett is so good at this now, that he can have AI whip up a talk for him lickety-split, while I just take hours.

We took that great talk and morphed it into a committee chaired by **Mark McDow N4TEK** of computer-fame, to investigate how we can create a "large language model" help-system for our deployed volunteers, and then potentially get a grant to fund the hardware for that. Gotta have something independent of the Internet, right?? We'll be looking for great plans at the next meeting and see if we can make it a go!

Portable Antennas

I have been comparing two deployable antennas -- a \$49 17-foot telescoping vertical and a 52-foot random Sloper on my deployments. I'll have an article on what I found soon! **Mike Hasselbeck WB2FKO** steered me toward using real statistics and the results surprised me. I learned a LOT about what works, and how to make POTA quick and fun, activating a zillion parks in state after state.

TWO HUGE STEPS FORWARD in our Alachua County ham radio outreach

#1) Is our "activity level" dipping just a bit in Alachua County ARES?? Maybe folks are a little more "senior"? My doc has me in this "program" to lose a few lbs. and stay out of metabolic trouble -- and it WORKS! I'm full of even more energy now! But on the ham-front, we have **really huge growth sprouting in the youth-outreach category!** At Gainesville Christian Community School (GCCS) we now have a math teacher working on his Tech license and literally teaching a real, full, elective **STEM-Technology course** built around ham radio. A complete TEXTBOOK for that course is on Amazon at an intentionally-minuscule price: <https://www.amazon.com/Introduction-Technology-High-School-Students/dp/BOH5X7FH5T> John Seppala, the math teacher is going great guns and has **16 students in the course!** (At breakfast this morning in Black Mountain, ran into two hams who were intrigued by the idea and gave them a copy of the book.)



#2) Meanwhile another year-old outreach effort finally **caught fire!** A year ago I wrote several local private schools and basically offered to do almost anything that would benefit their schools in developing STEM / ham radio efforts. Clubs, courses, mentoring, classes, whatever! Guess what? Only one answer at that time -- and that was GCCS where it turned into a really great opportunity. Lesson: most groups are so busy they can't even respond to offers of help! You have to either have an "in" with them or literally show up -- and I've had one school not even be willing to talk to me when I stood at their office counter....their loss!! **But NOW, The Rock School (another private, religious based school) hired a go-getter (Lacy Basford) to be their Academic Advisor and she reached out to me from the year-old email I had sent.** My son and daughter-in-law run a

4H group there. Mrs. Basford is a power to reckon with: not only has she fostered and adopted children, she singlehandedly created a Foster Foundation to support foster families! Wow!! Now I'm scheduled to go see both her and their school next Friday in Gainesville, and then a week later, **meet with interested students** to explain the vast opportunities we could bring to them -- including space communications, digital comms, and a chance to compete for an ARISS ISS contact. Finally this initiative is growing! In my mind, the potential growth with the youngsters sorta balances out the ebbing effort I see from some of the more "mature" crowd. The circle of life?

"If you aren't growing, you're dying!"

Famous Quote from A SHANDS CEO

GARS does a GREAT PRESENTATION! Honors James Lamb W1CEI

HOORAY!!! I had recommended to the Gainesville Amateur Radio Society to re-introduce "programs" to their meetings. Turns out one of their newer hams then discovered descendants of a famous ARRL leader by the name of James Lamb W1CEI, and wrote up a fantastic history of his efforts and how it influenced ham radio and his family. Lamb was the Technical Editor (and very frequent contributor) for ARRL QST magazine from 1929-1939. He developed a single-crystal (series mode) filter that made CW receivers have a fantastic narrow bandwidth. The modern crystal-ladder filter that is used to a zillion analog receivers and transmitters has Lamb's work as its father. Vicky gave a great presentation! https://gars.club/documents/James_Lamb.pdf GARS used to have a strong educational program and I have given several presentations in past years. I'm hoping they will make this a growing trend. GARS is also **doing a fantastic series of show-and-tells at county libraries** -- something that other groups could copy! Fabulous idea!! (I've encouraged them to write that wonderful effort up for the Section Newsletter.)

NEW MEETING LOCATION -- Alachua County ARES(R) / NFARC

Another huge success!! Thanks to my teaching at Gainesville Christian Community School, we have secured permission to hold some of our monthly 2nd Wednesday evening meetings at their fantastic facility at the corner of NW 16th Ave and NW 34th Street -- the same location we held meetings a couple years ago when it was Cornerstone Academy (where I also once taught and still help out). The "key" situation isn't figured out yet, and our NEW EOC may shortly come online, but the GCCS School is closer to many of our participants, and in a really nice neighborhood also and with abundant parking since now there is no Church currently meeting there. This is a big step forward for our group!

ARES HAM STATION POSSIBILITY OUTSIDE EOC

As the TECHNOLOGY course at GCCS plows through the Technician License, we may be able to establish a ham radio station there to facilitate students' education and hopefully their future satellite ground station to help them compete in the ARISS project for a contact with the astronauts aboard the ISS!

RADIO DONATIONS

I think I forgot to mention last month that a lady in Gainesville had a ton of radio gear left over when her husband passed -- *and she graciously donated it all to our group!* She wanted it to be USED -- so we just invited everyone over and TAKE WHAT YOU WANT. We passed out all kinds of ham radio goodies -- including a working ICOM 706 "shack-in-a-box" HF/VHF/UHF that **Manish Sahni KZ4KC** gladly put to use (and got it working for our Field Day GOTA station) and handi talkies and hundreds of feet of low-loss coax and bunches of other stuff. We have kept an ICOM 718 for possible go-box deployment to the new radio station we hope to put up at GCCS. **If you know someone who wants to donate, we'll take it and deal with all of it!!**

HAM RADIO WONDERFUL OPPORTUNITIES TO PUT ON YOUR RADAR

- TechNite -- always the first Thursday evening of the new month, ZOOM, at 7 PM -- a chance to learn! Open to all.
- September 12th LabNLunch -- building deployment grounding cables & beginning a ROTATOR SYSTEMS. Also open to all!
- Possible Simulated Emergency Test involvement Oct 3-4 <https://www.arrl.org/simulated-emergency-test> I don't know current plans of the NFL section at this time.
- Wednesdays -- SHARES Exercises every Wednesday for County-based EOC's
- Winter Field Day -- January 23-24, 2027 -- excellent chance to gets your team's cold-weather readiness!
- TECHCON 2027 -- WCF Section technical meeting, February
- Northern Florida Section Newsletter -- comes out the 1st of each month! Encourage members of your club to keep up with the newsletter! **Earl McDow K4ZSW** does a great deal of excellent work every month on this.

Do Something Ham Radio Every Day -- It Will Keep You Young!

Website	https://www.nf4rc.club/
Groups.io Forum	https://groups.io/g/NF4RC
Meetings / Calendar	2nd Wednesday of each month https://us02web.zoom.us/j/89530741792

Keeping High Power Glass-Envelope Transmitting Tubes Happy 572-B, 3-500Z

Gordon Gibby KX4Z



These highly successful transmitting tubes are readily available even today, still being manufactured. Introduced in 1961, the 572-B can be purchased newly manufactured for \$95 (plate dissipation 160Watts). The mid-1960's 3-500Z is still manufactured overseas and easily available in the USA for \$330 (plate dissipation a whopping 500W). *Try finding the transistors used in an early solid state transmitter for comparison!* These directly heated cathode (filament), graphite anode glass-envelope tubes were widely used in amplifiers by Heathkit (SB-200, SB220) and Ameritron, Kenwood (TL-922 / TL-922A dual 3-500Z) and Yaesu (e.g. FL2100B dual 572B tubes). Many of those amps are still in service, often after power supply capacitor replacements. They are resilient against SWR problems. (I run three refurbished SB-200 dual 572B amplifiers.)

These are great amplifiers for club stations due to their resilience -- unlike solid state amps, it is difficult to destroy them in a single moment.

Turns out some of the myths I had believed about higher power ham radio tubes (like 572-B, and the 3-500Z etc) were not only wrong, they were backwards. Information from Tom Rauch W8JI, an incredibly productive and authoritative expert, has shown me much more about the true ailments that can afflict these ubiquitous ham radio vacuum tubes for the middle-to-high-power amplifiers.

If you've ever experienced a high power **ARC** in a transmitting tube (I have) you don't forget it! The capacitors of your high voltage power supply are nearly instantaneously drained by a very low-resistance arc between the plate and some grounded portion of the vacuum tube (frequently the grid support structure). The arc results from residual gas molecules within the tube, which are ionized when some level of potential difference is ex-

ceeded. Vacuum tubes are pumped to very high vacuums, first with a mechanical pump, and then with the aid of a "getter" chemical that oxidizes to capture residual gas. There are always infinitesimal leaks around pin seals, and there may be some movement of tiny atoms (hydrogen) through the glass. Tubes that have sat unused for long periods of time may be at greater risk. (And certainly tubes where the allowable glass-metal interface temperature was exceeded by inadequate seal cooling.)

The peak current of the arc can be 150 Amperes! Hopefully your amplifier is equipped with a special purpose 10 ohm resistor or some other technique to somewhat limit the peak current. If not, sometimes this wrecks the power supply and possibly some other components. Read on to learn how to avoid this fate.

"SOFT" TUBES: A Cathode Problem

The other "popular" method for eventual tube senescence is a decrease in emissivity of the cathode (particularly in directly heated thoriated tungsten (wire) filament like the 811A, 572B and 3-500Z). Indirectly heated cathodes (separate filament and cathode) use metal oxide coatings and aren't suitable for high power transmitting tubes, according to what I read. Directly heated, thorium-alloyed filaments are more resistant to damage from ion bombardment in high voltage tubes. Thorium is part of the filament and is vital to emission of electrons -- and it can be depleted (making the tube unable to produce adequate current: "soft"). **This can be greatly hastened by excessive filament voltage**, and greatly, greatly delayed by proper filament voltage. (For more information: https://www.w8ji.com/filament_voltage_life.htm You would be very wise to use a quality voltmeter to check the voltage right at the pins of your tubes. (Ref: https://en.wikipedia.org/wiki/Hot_cathode)

There are some reports that brief moderate over-voltages on a dying directly heated, thorium-based tungsten filament can bring more thorium to the surface, but I have never tried that. (Ref: <https://antiqueradios.com/forums/viewtopic.php?t=396174>)

For Many Hams, the 600+-watt Output Class Amplifiers Are Convenient and Improve Their Signal

Run From 120V Outlets | Cheaper Than 1500W Output Amplifiers

Lots on the market: SB-200, Ameritron ALS-600, AL-572, Yaesu FL-2100

PREVENTING ARCING

But back to ARCS. In a normal amplifier, the instantaneous plate voltage can swing from *twice* the power supply voltage down to only a few hundred volts. (That's because of the AC power superimposed on the DC supply.) So your high power tube needs to withstand 5kV or more. A 572-B in good shape should tolerate even 10kV. To do this, it needs to have a very high vacuum with very few ionizable gas molecules (of any time) remaining. Here we need to remove the minute amount of gas molecules that slip in over time. And the solution to this lies in the PLATE of the vacuum tube, which is coated with an alloy, primarily zirconium, but possibly with some vanadium, cobalt, or aluminum. It turns out that to absorb gas molecules, the plate must be heated to a high temperature -- optimally 1000°C

At these high temperatures, graphite glows with a color related to the "black-body radiation" equation. Exactly what color will be visible is a bit murky, but here is a table from Google AI:

Room Temp to 500°C:	no visible glow
~650°C:	dull cherry red
~850°C - 1000°C	bright red
1100-1200°C	orange to deep orange

Most of my amateur radio career I was terrified to see any color at all on a higher powered vacuum tube plate. And indeed, there are true horror stories of 811A plates literally melting. The 811A plate is metal, not graphite, and quite THIN metal coated with zirconium. By contrast, the graphite plate of the 572B is fairly thick and substantial. So the 572B may be a much "tougher" tube in the hands of beginners who are slow to get the tuning of an older amplifier completed. The 3-500z, while more expensive, is even "tougher."

Here are some photos of 572-B plates (photographed through the high voltage protective shielding) at low and high amounts of "color" showing:



Normal operation of 572B's is expected to occasionally show some "color" (some amount of red) and this is considered useful to reabsorb any gas that has entered the tube. This might be similar to the left photo above. One way to arrange this is to **intentionally badly mistune the pi-network** and carefully adjust the RF drive to the point of showing some color. I'm willing to do that for 20-30 seconds before I get nervous, but with my QRP transmitter in Black Mountain, that's about the only way to get any gas absorption. The photo on the right shows LOTS of color and that may be excessive; it was done by creating 400-500 watts of dissipation on a pair of tubes only rated for 320 total. I probably wouldn't do that for more than a few seconds. At "normal" dissipation, I didn't see any real color in the plates in my experiments.

The moral of this story for avoiding arcing is to **occasionally get the plates to a dull red color** to ensure some on-going absorption of gas. For tubes that have been out of service for many years, it may be necessary to decrease the plate voltage (e.g. with a VARIAC driving just the plate transformer) and spent some time with a bit of gas-absorption, before applying normal high voltage.

GLITCH RESISTORS

Older amplifiers were manufactured with little protection against tube arcs (probably because of cost issues). Many writers have strongly suggested adding a specific (safe) type of 10 ohm power resistor in the high voltage lead to reduce the peak arc current. Some types might explode dangerously. One that is recommended is: <https://harbachelectronics.com/shop/amp-supply/10-ohm-10-watt-ohmite-series-glitch-resistor/> I have also carefully placed 3AG glass fuses in line with the high voltage. In the one case of an actual arc (with a very very old 572B out of service for a long, long time....) the power supply survived and the fuse was obviously destroyed. I considered that a success. Tom Rauch suggests that such arcs may even improve the tube (but not the power supply!). I haven't used that tube since, however. There are also diode modifications to protect the meters in such amplifiers which are highly recommended. Keep that high power glass transmitter tube happy! Correct filament voltage, and no free gas molecules!

Consider Winter Field Day 2027 for Your Group!

Gordon Gibby KX4Z

Winter Field Day is an exciting and growing complement to the ARRL Field Day. Approximately 2,600 logs are submitted to WFD, compared to about 4,500 typically for ARRL Field Day, so the event is less crowded and sometimes more amenable to new participants. It is held on the 4th full weekend in January (that's a change from their previous statement) and in 2027, will be Sat/Sun Jan 23-24, 2027.



The rules for this event are considerably different from ARRL Field Day, and are **custom written to try and encourage specific skills for emergency communications**. They don't include as many "grow your club and the hobby" goals. They change a bit every year, and the rules for 2027 are not yet (at the time of this writing) available. However, a lot remains the same, year to year.

Saturday / Sunday
January 23-24, 2027
Voice, CW, Non-FT8 type Digital Modes

What are the advantages to your local club or team participating in Winter Field Day? Let's look at some benefits and advantages:

1. Better Southern Weather.

The weather is much cooler in late January! This is a huge difference for those of us in Florida! We may even have fairly cold temperatures. For the safety of our older members in our team, the cooler weather can be a big plus.



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2. **Diverse Team Skills** The allowed modes encourage improvement in team skills. CW/SSB are favorites. FT8/FT4 are not allowed, because they would be extremely cumbersome to transmit real emergency communications. Digital IS allowed, and no specific mode is required. I've seen lots of different modes, but **PSK31 is usually the primary one**. This is an easy digital mode to learn; it is typewriter texting based; it is available for FREE in the FLDGI free application. While you would be better off to arrange some specific canned text and to set up automated logging to your log application, *none of that is required*, and it is a great chance to help your newbie team get agile on a great digital mode!

3. **Stations are fairly simple.** There is no "Get On The Air (GOTA)" station in Winter Field Day (yet). CW, Phone, and Digital are allowed. There is a big advantage (incentive) to be able to work lots of different (non-WARC) bands –

so they are encouraging your team to develop simple stations on lots of bands!

4. **Entry Classes.** The classes of entry are pretty straightforward.

- Home stations are anything inside your personal living structure.
- Indoor is not at your home but is inside a real insulated structure on a foundation.
- Outdoor is without a real insulated structure; tents, pavilions, etc.
- Mobile includes cars and RV's but don't have to actually move during the event.

You can have more than one of these different types of stations, but the most common one in your stations determines your Class.

5. **Logging is straightforward.** Similar to ARRL Field Day, your USA exchange is **category number, class identifier, and your section**. (Example: 4H NFL for a team of 4 stations operating inside a home, in our section.) You can even use paper logs, or any of a slew of computer logging systems, as long as you can send in the required Cabrillo or ADIF logs. There is an advantage to your team to have your logs coordinated by some software system so you don't have a ton of "duplicates" where the same station was worked more than once on the same band-mode. Our team uses N3FJP which nicely warns you and can even remove duplicates after the event, but there are many others. *Learning the basics of computer usage will be a growth step for some members and is well worth it to help them in daily life.*

6. **Emergency Power.** There is an incentive for your team to operate from non-utility power sources. Winter Field Day uses their own form of “multipliers” and you can **drastically increase your score** by getting all of your stations (including any computers) on generator, battery, solar, wind, or any other kind of alternative power. A simple 100Ahr LIFEPO4 battery will likely power an HF rig for the entire event. Use a filtered DC inverter, or filtered generator to run your computers -- you can move them far away and run a simple extension cord to run your laptop charger. (This IS an emergency preparedness exercise, anyway, right?)

7. **“Emergency Bulletin”** There is an incentive to learning how to copy a bulletin. Pretty useful skill, don’t you think?

8. **Staying Power.** There is an incentive to operate at least 6 continuous hours – a good goal for your team to be able to accomplish. Even two or three volunteers can easily achieve this goal!

9. **Team Dynamics Growth.** Any effort like this improves your team’s ability to plan out an activity, carry it out, and get along with each other! All of us are different, and so far I haven’t found any “perfect” volunteers (including myself) – so efforts like this encourage us to learn how to put up with each other (“forbearance” used to be the word for that) and that is good for teams!

10. **Limited Setup.** You can start setting up generally on Friday at 11AM EST before their Saturday 11AM start time, but your setup cannot be more than 12 hours.

11. **Low-Stress Practice!** It is a fantastic time for making lots of contacts! Plenty of stations to contact, but the pace is much slower than Field Day. It just isn't worth it to stay up all night (you won't make very many contacts) - - so GET SOME SLEEP after 10 PM Saturday and start again well-rested Sunday when the Sun wakes up the ionosphere!

Winter Field Day is just a near-perfect emergency training exercise for clubs and individuals who wish to be ready for disasters. Get your team thinking about it NOW and see what growth you can bring about through this worthy exercise!



Ham Radio-Based Technology Course in Gainesville

Gordon Gibby KX4Z

The second iteration of my "Technology" course for students has now kicked off in a really big way for the 2026-2027 school year! Math teacher **John Seppala** of Gainesville Christian Community School (GCCS <https://gainesvilleccs.org/>) is teaching the course -- and furiously working on his own Tech license at the same time.



Sixteen students from middle and high school opted in to take the elective course. This is a HUGE increase from the three students with whom I worked last year to develop the pilot course.

Young Students

Over half of the students are actually in middle school, starting with the 6th grade. They are going to have multiple years to grow, grow, grow in technology as a result! Some years back I worked with 6th graders and found that they absolutely love being able to solder and build things -- we built a single-conversion receiver! How many hams have wound toroid transformers and soldered in a diode demodulator?

Great Teacher Leads to Great Opportunities

Mr. Seppala is a very friendly and engaging math teacher -- he will be great for the course. This will come easily for him. There will be huge spillovers into his math courses from all the technology in the course. Ham radio gives you so many opportunities to show math in action. He's also teaching standard high school math, and also some college-level courses for high school students. GCCS has worked out a great "adjunct-professor" relationship with an accredited Florida college, Baptist University of Florida (<https://buf.edu/>), which allows them to teach dual-enrollment college classes right in their own classrooms! Baptist Univ. of FL is a liberal-arts Baptist-affiliated college with about 1,500 students in Graceville, FL. I'm in the process of on-boarding with them, to teach some dual-enrollment Chemistry courses



in the Spring semester.

Good Start!

Using my cheap \$10 text (<https://www.amazon.com/Introduction-Technology-High-School-Students/dp/B0H5X7FH5T>) and the \$27 parallel Ham Radio School text (<https://www.hamradioschool.com/>), Seppala has gotten off to a good start with the students. He will have access to the amazing teaching slide sets from Ham Radio School. These costs to a school are far lower than most textbooks. The course could also be taught using ARRL materials, if desired. The course leverages all the science learned in the Technician license and then moves into house wiring, plumbing, 3-D printing, and small engines -- **things that young adults need to know!** At the beginning of the course, the text explains how costly it can be to always need an expert to fix every little thing about your vehicle or your house, and why it is such a good idea to learn some technology!

Building toward ARISS: Satellite Communications



So many hams wring their hands about how few youngsters seem to be coming into ham radio -- this course is a way to powerfully change that! Yes, it will be months before these youngsters have their first FCC license, but I'm encouraging Mr. Seppala to plan to take the students right into ham radio satellite communications. Put that FCC license and satellite comms experience on a college application!

- 3D printing will build the gears to add to aluminum tubes driven by a linear actuator to do the elevation control on the dual-axis satellite rotator.
- Students will learn drilling, fasteners, gluing in the process.
- 3D aiming requires understanding a bit more math and Mr. Seppala will enjoy teaching polar coordinates (which fits right into electronics impedance and the General Class license).
- The Arduino is programmed and controlled through a USB port -- more chances to explain serial communications and baud rate and logic signals.

These great learning experiences should culminate in a great **ARISS application** to compete for a direct communication with the astronauts aboard the International Space Station next year. <https://www.ariss.org/hosting-an-ariss-contact-in-the-us.html>

Local Volunteer Help

Already two of our local Alachua County volunteers, Ron Lewis KN4ZUJ and Brett Wallace NH2KW, have volun-

teered to help Mr. Seppala in any way they can. Thanks!!

Starting A Technology Course In Your Area

You can help a local school (public or private) put together a similar wide-ranging Technology course, with a strong component of amateur radio. Your local club can help mentor a math or science teacher to teach this course. That would be a great way to get some young people into your local ham radio crowd!

Protecting the Lifespan of your LiFePO₄ Batteries

Gordon Gibby KX4Z

I ran across an interesting article discussing how to extend the lifespan of your rechargeable batteries by avoiding damaging storage conditions. The article was a summary of work by the National Renewable Energy Laboratory (aka Laboratory of the Rockies). <https://www.energy.gov/ea/national-renewable-energy-laboratory> Bob Rodgers, who edits a popular "prepper" website, did a deep dive into research results, pointing out that improvements in batteries means that how you store them can be even more important than using them often! (<https://prepperswill.com/batteries-degrade-faster-in-storage-than-in-use-heres-the-actual-data>)



Rodgers explains there are parallel degradation processes at work at the same time in the chemistry of every type of battery. For older lead-acid battery chemistries, we all know to store them on a trickle charger, because otherwise "sulphation" on the plate surface will severely damage their capacity as they self-discharge over time. But more and more, emergency communicators are using lithium-ion or LiFePO₄ type batteries, which have many more cycles possible in their lifespan, than do lead-acid. That can make them a superior economic choice, even though the purchase price is higher. For these lithium-based batteries, there are three degradation issues/mistakes to avoid:

- Allowing the cells to **completely discharge** is very bad: it causes copper inside the cell to dissolve from one structure and potentially cause **internal shorts**. Also, electrolyte chemistry decomposes, and lithium ions are also lost permanently from the useful battery chemistry. I've experienced huge loss (2/3) of capacity in a battery that I forgot about and let get totally discharged. Check your lithium batteries regularly (like every 6 months) and be certain they don't drop toward full discharge.
- Storing lithium-ion (and so some extent, LiFePO₄) batteries at completely full charge also causes degradation of their lifespan. Turns out there is a continual developing of a "film" over the graphite electrode. A thin film has some advantages; a thick-thick film is a

bad-bad thing for the battery. The strong advice is to **store your lithium-ion type batteries at around 50% of full charge**, NOT at 80-100%. LiFePO₄ may be less susceptible to this, some say. But storing them at full charge may not be the brightest idea, either!

- Storing either type of lithium battery at **higher temperatures** (think your Florida garage, or even worse, the trunk of your vehicle) is much, much worse! All the bad chemistry pathways get a big boost if you store your batteries in hot temperatures. So find an air-conditioned storage place in your Florida home.

Conclusion

The take-home message from Bob's well-researched article is to adopt a twice-yearly check of your lithium type batteries, and unless you really do expect to need them soon, get them to about 40-50% charge each 6 months. Choose an air-conditioned storage space that will keep them comfortably cool in our Florida weather year round. These batteries are expensive, so little choices like these can make a very big difference in getting that 10-year, 2,000-cycle lifespan you were expecting when you purchased them!

Our Battery Choices

Currently the Alachua County ARES(R) team has had really good results with 100-AHr Eco-Worthy batteries. Some of these come with a blue tooth-readable set of gauges that is really, really helpful, and some come with a battery-cover *state of charge gauge* that is also a huge help. Not the absolute cheapest on the market, but far less expensive than some others we've seen. I notice a steady increase in their prices, perhaps due to world events? But mine have been serving me extremely well, through Field Days and travel trailer trips.

<https://www.amazon.com/ECO-WORTHY-Bluetooth-Max-1280Wh-Temperature-Protection/dp/B09L89LW3P> Currently \$232

<https://www.amazon.com/dp/B0DTP7K2FJ> Case-top state of charge monitor as well as blue tooth monitoring. Currently \$240

PARC/NOARC/EARS – ARRL ASM NF

DJ Stewart KI4ZER

Well Howdy Doody fellow Hams and interested Parties of Communications Enthusiasts! Let's just say that July has been packed with ups and downs across all bands and methods of DX. The highs and lows and the frequency of activity, information, news, and gratitude all shared, and felt. So, what has Okaloosa County been up to?



New Desk, Same Home! The Playground Amateur Radio Club has sure been productive. Pardon their cobwebs as they clean, reorganize, and bring project enhancement into full forward view. Team PARC has had quite the time balancing projects, events, assistance, classes, testing, training, Elmering, Mentoring, antenna building and more for a great long time now! One of the things PARC is boasting about is their revamping of the primary HF station in the Clubhouse! A custom-built desk to operate from allowing for a better utilization of space, equipment utilization and familiarity all while attending to the roles listed above. A desk? Is it really that exciting? Yes! After all, a single new piece of furniture in your house can inspire you to change an entire room's theme so why not at a Radio Club?! Inspire others by introducing some changes to advance into the next realm of radio exploration. There are plans for redoing the radios as well but that comes after some other projects get underway and are completed. If you want to know, stop by PARC, the team is there on the 1st and 3rd Thursdays at 730 pm and every Sunday at 3 pm! W4ZBB.Org

Michelle KQ4CGN (SK)

Some somber news. We continue with the announcement of the passing of our long-time friend Michelle KQ4CGN (SK). [OBIT Link](#). Michelle was truly a genuine person, caring, compassionate, friendly, and supportive



of all who she came across. She will be sorely missed. This was a beautiful Celebration of Life presented by Rob KM4SPJ and attended by many family members, friends, hams, colleagues, and more. She leaves behind her husband Phil, N4PRC. IF you hear him or see him, say hello and share your condolences. RIP Michelle, 73 ~KI4ZedER

The Vault

How many Hams can fit in the Playground Amateur Radio Club Vault? Wait, why is it called the vault? Short version – The Playground Amateur Radio Club has been in the same Clubhouse for a long time. Before the location was set up for amateur radio, the facility was the City Hall, Water department, and Police



Department. Our own Vice President once stayed the night in the room we use for our meetings as it used to have the cells installed. True story, just ask KK4SSM. Anyhow one of the closets we have is called the vault because of what it used to be before it was reconfigured with shelving for us to use as we see fit. Hence, "The Vault". So again, how many can fit in the vault? Quite a few actually now that it's cleaned for the 1st time in a year! That doesn't mean we have more room for more items. This means PARC can now focus on some projects and goals that are in development and expand the club even further! How many Hams can fit in the Playground Amateur Radio Club Vault? Wait, why is it called the vault? Short version – The Playground Amateur Radio Club has been in the same Clubhouse for a long time. Before the location was set up for amateur radio, the facility was the City Hall, Water department, and Police Department. Our own Vice President once stayed the night in the room we use for our meetings as it used to have the cells installed. True story, just ask KK4SSM. Anyhow one of the closets we have is called the vault because of what it used to be before it was reconfigured with shelving for us to use as we see fit. Hence, "The Vault". So again, how many can fit in the vault? Quite a few actually now that it's cleaned for the 1st time in a year! That doesn't mean we have more room for more items. This means PARC can now focus on some projects and goals that are in development and expand the club even further!



Who went to Huntsville and what's the News?! Did you find Larry K4LWM? We found him, live on camera! See if you can. But before you do let's make a congratulatory note on the following upgrades from the testing event:

Scott KF0ASK / AG

Larry K4LWM / AE

Not the same testing event but still an upgrade:

Terrence KR4MEB / AG



Guess what else? Photographic evidence of PARC and NOARC meeting up in Huntsville! We heard there were so many people there it was hard to spot your friends! Even the ones in identifying appare!! But that did not stop KR4FWN and N8JDD from coming across each other! Zach is a PARC Member and John is the VP and the Activities Director of NOARC as well as a PARC member! Here in Okaloosa County, we all share the same spirit and invest in multiple organizations. Not only in Florida either!

Speaking of NOARC, the volunteerism, community support, and efforts to continue a local food pantry's mission are unceasing. supporting the Live Oak Baptist Church

(LOBC) Food Ministry! The church gave out 200 boxes today and actually had to turn a car down because of running out. This is pretty rare and just a reminder that things are tough out there right now. The good news is that the church will restock and do it again Thursday. We also handed out fliers listing other agencies that have food donations in our area. Crestview and the community are blessed to have this great group of volunteers at LOBC. Many volunteers are down at the church numerous times a week preparing for the Tue and Thursday Food Drives. Also, very special thanks to the local grocery stores who donate the food that makes this all possible! A big community effort for a great cause! If you are interested in donating to a cause that specifically supports the community, contact the Live Oak Baptist Church via their [website](#).

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Speaking of entities to recognize, The North Okaloosa Amateur Radio Club formally recognizes WAAZ 104.7 FM. We are not only named after them as our callsign is W4AAZ, but we also have space on one of their towers for two area repeaters. This long-time relationship has benefited the entire Florida Panhandle for decades, inspired an until audience and ensure Amateur Radio is viable and relatable! Give [104.7 WAAZ](#) some due credit, a listen, make sure to say thank you and support them as if they were your neighbor as they are ours!





Want to know more about NOARC? They meet every 2nd & 4th Thursday of the month at 7 pm. 4565 Live Oak Church Road Crestview Florida. Be sure to join in for your community volunteer opportunities, quality Elmering, mentoring, and just good old fashion dedication to the radio hobby as a whole! Be sure to follow their [website](#), [Facebook](#) and, [Instagram](#)!



All EARS! Huh?! What?! Did we hear you right? Sure Did! E.A.R.S. Eglin Amateur Radio Society – W4NN is still operational on 147.120, 444.800 and APRS. We have reported on EARS before and showing off that there is a Team working to keep the origination structure intact and the machines operational. Now, that same team is working together to re-vitalize the EARS Organization. “This will take time” a spokesperson said, “but this Organization needs to be brought out of the dormant status to benefit the longstanding relationships with the area Hams and the Community at large.”. Navigating the water to re-stand up an organization can be a feat. Add in full-time employees and professionals dedicating spare time apart from other obligations and community support and they kindly ask for your patience as EARS is strengthened. EARS is on social media on [Instagram](#) and [Facebook](#). Be sure to follow them and engage in the conversation!



Upcoming event!

The North Okaloosa Amateur Radio Club’s Fall [Hamfest](#)! This is always a wonderful and energetic show! Get your tables now while you can, prepare for your license or earn an upgrade! SPECIAL GUESTS! The [RV Radio Network](#)! They will be concluding their camp in Milton and coming to the NOARC Show! Be sure to come meet them and get their advice for Ham Radio from the RV! This is a great opportunity to see firsthand how others operate and that ladies and gentlemen is one of the best ways to continue to experiment and learn! Do it your way, then do it through someone else’s eyes! You never know what you will learn until you take the time to hear it from someone else!



Homeschool Library Presentations by the Gainesville Amateur Radio Society

Lorilyn Roberts, KO4LBS

On January 16 and June 20 of this year (2026), the Gainesville Amateur Radio Society had the opportunity to present amateur radio to two homeschooling groups in Alachua County.

As a former homeschooling mom (Lorilyn Roberts, KO4LBS) of two college graduates, I wish I had known about ham radio when I homeschooled my daughters. I would have incorporated it for the STEM requirements—science, technology, engineering, and math. Ham radio focuses on these subjects, vital for the AI-driven days ahead.

I truly believe one of the biggest mistakes we can make in educating the next generation is teaching boring facts that have no relevance to students or to life in general. Ham radio excels in this arena.

When GARS (Gainesville Amateur Radio Society) was approached to do a presentation at the Millhopper Library for homeschooling families, I jumped at the opportunity.

I was impressed with how the Millhopper Library went out of its way to accommodate our presentation. They had spread the word to the public, and many families attended with toddlers in tow; young people were immediately intrigued by ham radio and asked lots of questions.



We brought walkie-talkies and CW paddles to demonstrate the unique art and skill of amateur radio. After the presentation, some teens went outside to learn how to make long-distance contacts using a handheld Baofeng radio. Others stayed inside to experiment with the CW oscillators and paddles.

The Millhopper presentation was such a success that several other local libraries asked us to come and share. On June 20, we presented to a smaller crowd at the rural Archer Library, focusing particularly on CW/Morse Code, which is always a big hit with teens.



With over 3,000 homeschooling families in the Gainesville area, the reach for amateur ham radio is massive. However, the hardest part is exposure. How do you make a dynamic group of would-be homeschooling operators aware of how ham radio can enhance their learning, particularly in the STEM subjects, in preparation for college? Another question one might ask is: how is amateur radio even relevant in today's high-tech world?

I asked ChatGPT for the names of some very successful people who became licensed amateur radio operators at a young age. The list was impressive. Here are a few that stood out to me.

- Nobel Prize winner Joe Tayloe, K1JT. Licensed at 13 years old.
- Apple Computer co-founder, Steve Wozniak, WA6BND. Licensed at 10 years old.
- King Hussein of Jordan, JY1. He used amateur ham radio in unique ways to promote peace and goodwill with Israel, including the Mount Nebo Peace Operation in July 1995.
- Owen Garriott, W5LFL. NASA astronaut and electrical engineer, becoming the first person to operate ham radio from space aboard Space Shuttle Columbia. Licensed at 15 years old.
- Chuck Missler, W6OHD. Licensed at 9 years old. Dr. Missler graduated with honors from the U.S. Naval Academy and received a master's degree in engineering at UCLA. He worked as an executive at many high-profile companies in the aeronautics and defense industries. Later, he became a renowned Biblical scholar, integrating science and Christian theology in thought-provoking books and seminars.



The presentation we did at the Millhopper Library was well-attended, with several presenters, including Shannon Boal, K4GLM, focusing on the history of amateur radio; Terry Gordan, K4TMG, introducing ham radio jargon for newbies; Ken Miller, KF4ULO, Q&A facilitator; Mike Martell, KK4KRZ, spokesperson and coordinator for GARS with the library; and Lorilyn Roberts, KO4LBS, a CW (Morse Code) enthusiast.

The Archer event included presentations by Terry Gordan, K4TMG; Lorilyn Roberts, KO4LBS; and Vicki Miller, WOVIX. We handed out a word list of radio jargon to help everyone better understand what we were sharing, including a crossword puzzle featuring ham radio terms from the presentation.



Two attendees were not homeschoolers but were former merchant marines. Because the group was small, we had plenty of time for one-on-one sharing and answering questions.

Amateur radio, because it's so broad, is a phenomenal teaching tool for everyone, not just homeschoolers. For example, I have made many contacts around the world using CW (continuous wave). For some of those contacts,

I wasn't even sure where on the globe the CW operator was located. That is a tiny example of how anyone can use ham radio in unlikely ways to learn new things.

Other hands-on things include building antennas and soldering wires.

Amateur radio is unique in that you can make friends all over the world. There are [kids' groups](#), [women's groups](#), [contesting groups](#), and you can meet new amateur operators through special events like [Parks on the Air](#).

The best way to share the art of amateur radio is through exposure. As I noted above, those introduced to ham radio at a young age may be destined to make significant contributions in science and technology. In times of emergency, those with amateur ham radio skills have saved lives. Who knows what our young people might accomplish. Amateur ham radio might be that door to a successful career bordering on genius.

For information on future presentations, as well as updates on meetings, events, photos, and articles, please visit our [GARS webpage](#).

ARES Looks to the Future: Relationships, Technology, and Service

Craig Fugate, KK4INZ

The ARES track at this year's ARRL National Convention in Huntsville was billed as an Emergency Communications Academy. What came out of the room was a clear message: the future of ARES is not just about radios. It's about relationships, usefulness, and adapting our skills to the communications environment emergency managers face today.

The session was moderated by Josh Johnston, KE5MHV, ARRL Emergency Communications and Field Services Director. Presenters included Steve Smith, KM4CJ; J.M. Rowe, N5XFW; Arc Thames, W4CPD; and Mike Watkins, WX4AL.

Relationships come before the disaster

ARES groups cannot wait for a hurricane, tornado, wild-fire, or communications failure to introduce themselves to emergency management. Those relationships must exist before they're needed – with emergency managers, fire departments, law enforcement, EMS, hospitals, the Red Cross, CERT programs, local broadcasters, and other voluntary organizations.

Arc Thames gave one of the best examples. His Santa Rosa County CERT program doesn't treat volunteers as people waiting around for the next disaster. CERT members work community events, races, parades, and festivals. They assist with communications and first aid, train through realistic exercises, and even support firefighter rehab during extended incidents.

That routine work does two things at once. Volunteers get real experience, and public safety agencies learn who they are and what they can do. By the time a disaster hits, the relationship is already built.

CERT and ARES are natural partners

CERT stands for Community Emergency Response Team. FEMA's CERT program trains civilian volunteers in basic disaster response skills, including fire safety, light search and rescue, team organization, and disaster medical operations. CERT offers a model ARES organizations can study. CERT volunteers train for disaster response and then work alongside professional responders, not in place of them. Amateur radio operators fit into that structure well, especially when they are trained to operate inside the Incident Command System.

The workshop was clear on this point: amateur operators supporting government operations are auxiliary communicators. Their job isn't to show up with a favorite radio mode and go looking for something to do with it. Their job is to understand what the served agency needs and help solve that problem.

Bring capability, not just a radio

The other major theme was future-proofing ARES. The technology discussion went well past traditional VHF/UHF repeaters and HF voice. Presenters covered Winlink, Meshtastic, MeshCore, SHARES, APRS, D-STAR, DMR, WIRES, GMRS, P25, VoIP, portable mesh networking, and Starlink. J.M. Rowe's PACE session – Primary, Alternate, Contingency, Emergency – reinforced the need to plan multiple ways to keep communicating when a preferred system or path fails.

The point wasn't that ARES needs to chase every new technology that comes along. Amateur radio operators often bring something more valuable than a radio: technical problem-solving ability. Modern EOCs run on computers, networks, displays, software, and internet connections as much as they run on radios. A technically capable ARES volunteer might troubleshoot a network, restore a data link, establish an alternate path, configure equipment, or simply get a balky EOC laptop working again – under the direction and policies of the served agency.

One slide put it plainly: we should be thinking about "technologists over radio operators."

Don't forget the broadcasters

One gap I'd add is the relationship between ARES and local radio and television stations.

If the internet goes down, how does the EOC get warnings and emergency public information to local broadcasters? Local radio and television remain among the most resilient ways to reach large numbers of people during a disaster, but much of the routine information flow between government and newsrooms now depends on internet-based systems. ARES and AUXCOMM can help plan an independent path for getting authenticated emergency information from the EOC to broadcasters when normal systems fail – whether that path uses amateur radio, Winlink, SHARES, public safety communications, satellite, or something else. The technology matters less than building the relationship and exercising the procedure ahead of time.

Local ARES groups should know their broadcasters. Broadcasters should know their ARES and emergency management communications contacts. And both sides should know, before the outage, how emergency information will move when the normal path is gone.

New ideas and old ideas, together

One slide summed it up better than I could: "*We must be open to New and Old Ideas and Technology!*"

HF still works when much of the supporting infrastructure doesn't. VHF and UHF remain workhorses. None of that goes away just because digital messaging, mesh networks, satellite internet, and public safety radio systems are now part of the toolkit. The goal isn't to prove amateur radio can replace modern communications. It's to

make sure emergency managers have another option when the system they normally depend on isn't working.

What local ARES should take home

The question worth carrying back to our own counties is simple: what communications problem does our emergency manager actually have that we can help solve?

Sometimes the answer is HF radio. Sometimes it's Winlink or a mesh network. Sometimes it's connecting the EOC to a local broadcaster. And sometimes it's simply someone who knows how to get a computer running again.

That's a broader role for ARES than many of us were trained for. It's also a more valuable one.



Presenters: Josh Johnston, KE5MHV; Steve Smith, KM4CJ; J.M. Rowe, N5XFW; Arc Thames, W4CPD; Mike Watkins, WX4AL.

Notes taken with ChatGPT during the sessions; editing assisted by Claude.

MERT



Marion County Sheriff's Office
Division of Emergency Management

COMMUNICATIONS UPDATE

September 2026

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, all cities in the county and other EMCOMM groups (CERT, HEC, ARES & MBA) with voice, image & data communications locally, statewide and across the United States.

"Call MERT... When all else fails!"

Next Bimonthly Meeting

Saturday, Sept. 19th, 10:00 am
at the EOC

All are Welcomed!

**Meetings conducted in Jan,
March, May, July, Sept. and Nov.**

Coordinator's Corner



Harlan Cook
(KN4VRM) MERT
Coordinator

I share (with mixed emotions) in announcing the retirement of Director Preston Bowlin on September 4th. While I am genuinely saddened to see him leave Emergency Management, I am equally grateful and happy for him as he begins the next chapter of his well-earned retirement.

There will be a special ceremony celebrating his leadership and support guiding MERT on September 2nd at MERT's regular Wednesday meeting (9:00 am till 11:00 am).

Members of HEC, ARES, MBS Disaster Relief, SSRC and all amateur radio operators are invited to participate in recognizing his decade of support of MERT and the greater emergency radio community.

Please see the tribute article celebrating his retirement following Ray Woody's Update.

Next, forecasters looking into the Atlantic basin weather for the next month expect a mixed-level possibility of hurricane development resulting from the effects of the strong El Niño in the Pacific Ocean but sea surface temperatures in the Atlantic slightly above average. Time will tell what the future holds.

While the future weather forecasts look mixed for us in north central Florida, our work upgrading the SHREK kits has been very successful. Next in line to tackle are several projects to complete from testing all our SHREK radios; preparing for our new 30 ft. towers adding four (4) new HF antennas to the EOC Capabilities; and then documenting the equipment at all eight (8) radio stations in moving us forward in our capabilities. The great news is these are all fun projects to tackle!

Last month, I announced the purchase and delivery of two new repeaters (KG4NXO 70 cm D-Star and the KJ4CLL open FM unit at the Baseline Transfer station), replacing units that have served the county for more than 15-years. We remain extremely grateful in the incredible support by Director Preston Bowlin, Deputy Director Erin Miller and the entire staff supporting the replacement of all amateur radio repeaters owned by the Marion County Sheriff's Office and managed by MERT. This effort was started over 5-years ago under former Coordinator Leon Jurczynszyn and Deputy Coordinator Bill Gillespie. I am extremely proud to see the long-term support we needed to see it completed! I am really tickled to share the great news that both units are installed and now in operation helping MERT's network reach a new benchmark in operational reliability and dependability. Our long-term future is strengthened by this financial support and MERT member follow-through.

Thank you for remembering the spirit of our intentions is shown in the results of our actions. Your presence matters. Your skills matter. Your voice matters. Please answer the call when it comes.

With sincere appreciation, Harlan Cook KN4VRM MERT Coordinator

A handwritten signature in black ink that reads "HRC".

Deputy Coordinator Update - MY TRIBUTE TO DIRECTOR PRESTON BOWLIN

Our team is saying a heartfelt goodbye to an exceptional leader. As Director Preston Bowlin transitions into the next chapter of his life, he leaves behind a legacy of dedication at the MCSO Department of Emergency Management. He will be sorely missed, and I owe him a personal expression of gratitude—he is the direct reason I joined MERT.



In late 2023, Director Bowlin gave a presentation to a Stone Creek community club about the department and the functions of the Emergency Operations Center (EOC). He completely captured the audience, as he shared many personal stories that illustrated the demands and responsibilities of emergency management, especially during activations. When he highlighted the vital role volunteer organizations play in supporting the MCSO—with special emphasis on MERT—it immediately piqued my interest. I had been looking for a meaningful way to give back to our community.

At the end of his talk, Director Bowlin provided his contact information to the audience along with an offer to provide anyone interested with a tour of the EOC. While I initially thought this might just be a polite gesture; I decided to call his office the next day. To my surprise, he personally returned my call that afternoon and invited me to meet him at the Sheriff's complex the very next morning at 7:00 AM.

Despite his demanding schedule, Director Bowlin spent a full hour showing me everything in the EOC. I could instantly sense his pride when he showed me the MERT Radio Room. Seeing a leader of his stature invest individual time in a potential volunteer completely impressed me. That is when I decided to submit my application!

Director Bowlin has always been a staunch supporter of MERT, as well as its greatest ambassador. He consistently treated our team as a valuable resource within his organization. As a result, he leaves behind a MERT team that is stronger, growing in capabilities, and ready for future challenges. This is precisely the lasting impact Director Bowlin has had on MERT.

Director Bowlin, we thank you for your years of service and your unwavering commitment to our team. Best wishes from all of us.

Ray Woody, MERT Deputy Coordinator

Celebrating Director Preston Bowlin's Legacy of Support and Partnership



**Director
Preston Bowlin,
Division of
Emergency
Management,
Marion County
Sheriff's Office.**

While past Directors of Emergency Management have certainly supported MERT, it is difficult to imagine any who have made a more significant and meaningful impact than Director Preston Bowlin. For nearly a decade, he has been one of the strongest champions of MERT, all volunteers, and the broader amateur radio community. His leadership, advocacy, and personal commitment have shaped MERT into the highly capable, well-equipped AUXCOMM team it is today.

Director Bowlin's support extended far beyond his administrative duties. He maintained an open door, a welcoming environment for questions, and a steady willingness to engage in thoughtful discussion. As MERT faced the challenges and difficulties of upgrading nearly two-decade-old radio systems, he regularly met with the Coordinator and Deputy Coordinator to review current activities, evaluate technical needs, and plan for future goals. In every conversation, he demonstrated his focus on MERT's mission, the dedication of licensed amateur radio volunteers, and the critical role that resilient, multi-layer communications plays in an emergency response. Over the years, he championed major upgrades to MERT's infrastructure, training, and operational readiness by securing the funding, essential resources, and county-level support that helped leadership transform our capabilities.

Because of Director Bowlin's continuous support, MERT now stands as one of Florida's premier AUXCOMM teams, equipped with new-generation systems, expanded technical capacity, and a renewed mission focus. These improvements directly contributed to a life-saving outcome during a real hurricane emergency. His belief in our volunteers—and in the amateur radio service itself—made a measurable difference for the citizens of Marion County.

"Your talent determines what you can do. Your motivation determines how much you're willing to do. Your attitude determines how well you do it" — Lou Holtz

As Director Bowlin steps into retirement, we extend our deepest appreciation for his unwavering partnership, his trust in our objectives, and his genuine respect for the amateur radio community throughout Marion County. His legacy will continue to shape MERT for years to come, and his impact will be felt every time our volunteers key up a microphone and transmit across the upgraded communications systems which serve this county.

On behalf of all MERT members and amateur radio operators across Marion County:

Thank you, Director Bowlin, for your leadership, your advocacy, and your heart. You have made a lasting impact on our team and our community!

A selfless leader sees the value in volunteers long before the world depends on them. Director Bowlin understood that, and MERT is stronger because of it.

Marion County Amateur Radio Breakfast

On August 1st, over 20 amateur radio operators met at Mimi's Café on SW College Rd. for breakfast to talk about our hobby and share information about the many clubs & volunteer organizations available within Marion County.

The event was organized by Don Webb (W9EBB) from Crosspointe Church (who is also a MERT member) to see old friends and meet new hams in discussing our hobby.

Members of the hospital group HEC, MBA Disaster Relief Team, Silver Springs Radio Club (SSRC), MERT and ARES shared brief overviews about each organization.

On behalf of the MERT members attending, we all enjoyed participating. Our thanks to Don Webb for organizing the event.



MBA Disaster Relief Team Coordinator Mark Weible (N4GPA) shares more about his organization's activities at the Ham Radio breakfast meeting.

SHREK Safety and Power Supply Upgrades

Over the last two months, MERT volunteers completed several revisions and key modifications improving our SHREK radio kits supporting our Shelter operators during all future activations.

- ⇒ New First Aid Travel Kits - Raising our focus on safety, Basic First Aid Travel Kits were added. These packs now include Lense/Cleaning wipes for operators to use should radio screen, microphone or other components need attention. Our thanks to Don Webb (W9EBB) for his suggestion and donation!
- ⇒ New Power Supplies - The new solid-state Switching Power Supplies have been placed in our kits resulting in an 11-pound weight reduction. Wow – nice! These units have protected DC outlet terminals in reducing potential electrical short circuits in confined spaces too!
- ⇒ All DC power cables have been replaced with new dual-fused types (protecting the radio from potential positive and negative voltage surges) then terminated with Anderson Powerpole (AP) “quick-connect” outlets.
- ⇒ All fuses were changed to 15-amp protecting the radios while the power supply connectors were also terminated with ferrules adding strength at the power supply outlets while eliminating any exposed wires in reducing potential short circuits.
- ⇒ SHREK spare parts were revised in adding four (4) 15-amp backup fuses should they be needed.



A BIG thank you to all the members who participated with a special thanks to Gavin Karelitz (K2ETC) for introducing the ferrule termination idea at the power supply outlets. Thanks Gavin! (Ferrule crimp tool kit: <https://www.amazon.com/dp/B07PJK2VNT>)

“Wherever you turn, you can find someone who needs you. Even if it is a little thing, do something for which there is no pay but the privilege of doing it. Remember, you don’t live in the world all of your own.”— Albert Schweitzer

Protective Cover for our new Tower Motor

Ray Woody (WB4FKJ) (nickname “Vanna”) shows MERT’s new cover protecting the EOC Tower motor unit which is used in raising and lowering the telescoping second section. This unit was replaced in June by the Div. of EM.

While the previous motor provided 11-years of reliable service, it is hoped the new cover will extend the life of the donated the new water-resistant cover to MERT this month.

Radio Room Internet Update

I am pleased sharing the Winlink.org port blockages have been cleared allowing full and complete access now. We thank the IT team for their work to resolve this issue.

In the EchoLink service side, the “EchoLink Network Test” continues to show the “STUN test failed” indicating that a router at Lumen’s facility is changing the source port numbers of the outgoing UDP packets. We look forward to getting this resolved ASAP.

Communications Update Editor — Invitation to Grow & Contribute

The *Communications Update* has been a very rewarding project for me for nearly seven years, and now it’s time to open the door for new leadership and fresh perspectives. We’re inviting a volunteer to take on the role of Editor and help shape the next chapter of MERT’s monthly newsletter. Training and support will be happily provided.

For me, sharing the stories of our members, events, and activities each month — in both words and photographs — has been a true joy. Serving as a “history writer” for MERT has been a meaningful part of my volunteer work, and I know you will find the same satisfaction in helping preserve our story. The future of MERT is bright, and this role is a wonderful way to be part of that momentum.

MERT Members Amazing Experiences during the “Cold War”

Member Ray Sherwood (WA9MID) shared the following story which is an amazing look back in time when our country was dealing with unpredictable and aggressive world governments.

My Navy Service Experience...



(Far Right) Ray Sherwood, Nov. 1967, Pensacola, FL

“In 1964 I got my ham license then in 1966 joined the Navy Reserves as a Communication Technician cryptologist. I also got married to my beautiful wife Carol. What a year!

In 1967, I was sent to Pensacola for six-months for the “A” school copying CW at 25 WPM on a manual typewriter. In September, 1968 I reported to Naval Communication Station, Honolulu where my wife joined me a month later. About a week after I got there, I was told I would be working in the “elephant cage”... to which I said, “What is that?” ... the officer said... “You will know it when you see it!”

The next morning, they hauled six of us out through the antenna field of rhombics, discons and satellite tracking antennas. When we rounded the last curve of the road, I saw what they were talking about. The “elephant cage!” (In 1962, it cost \$900,000 and the electronics to run it was estimated \$20 million (\$219 million in '26)! Another amazing fact is the “Navy Security Group” built 14 of them (7 around the Atlantic Ocean and 7 around the Pacific.)

“Wherever you turn, you can find someone who needs you. Even if it is a little thing, do something for which there is no pay but the privilege of doing it. Remember, you don’t live in the



Deputy Coordinator Ray Woody shows the new motor cover!



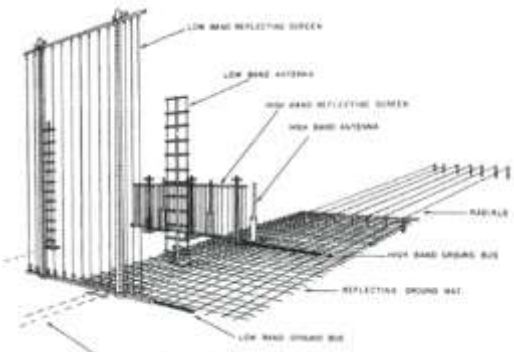
The first edition of the *Communications Update* was in February, 2020.



Ray Sherwood, WA9MID



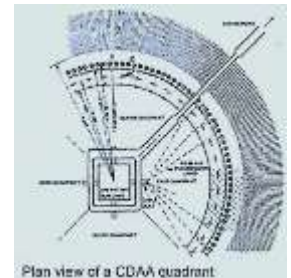
Circularly Disposed Antenna Array (CDAA) built for HF monitoring & direction finding. Wahiawa, HI



(Above) The CDAA electrical circuit grid designed for radio signal detection and direction finding from 2-30 MHz.

The antenna covered 2 - 30 MHz and there were 40 folded dipoles for 2-9 MHz spaced every 9° for full 360 coverage. There 120 sleeve monopole high-band (HF) antennas for 9-30 MHz monitoring were spaced every 3° for full 360° coverage. The complex had a ground grid with high & low-band ground busses around the perimeter and 360° radials extending out from that.

The whole sub-basement was RG-85 coax (a 50-ohm Mil Spec version of RG-6 coax [75-ohm]) coming in from each antenna to signal splitters, signal amplifiers and what they called beam formers that could combine several antennas at once to provide up to 15 dB gain. This all fed to a goniometer (the heart of a radio-direction finder) in the electrical center of the antenna. Each feed line was tuned to the exact same electrical length as all the others. The goniometer rotated the antennas electrically several times a second.



Plan view of a CDAA quadrant.

I worked in three different rooms, rotating weekly working 2 evenings, 2 days and 2 mid-nights then 80 hours off. One room was general searching for targets and reporting. Another was sitting in front of an oscilloscope and trying to get a direct bearing fix on suspect radio signals and the other room was for recording and analyzing data afterwards. It was a truly amazing instrument in which you could be in one room and use it as an omnidirectional antenna and go into the next room and use the same antenna as a rotating set of vertical beams. 970, I received an early out and we left Hawaii. However, 6-months later we spent Christmas and New Years in Winter Harbor, Maine operating the CDAA there. Wow – what a change from Hawaii where we experienced 65-inches of snow and -20°F temperatures!



25 ft high-band reflector screens on the left, behind the high-band monopole antenna at right.

My service days ended in 1972 when I was discharged and returned to civilian life. Thanks for the opportunity to share this with you."

Ray WA9MID

MERT Repeater Repairs

I'm pleased sharing the "RF Input" connector on our new Icom repeater has been repaired and is back online. The "N" connector was damaged by an attempt to insert a PL-259 connector which broke one of the center-pins.



"I am only one, but I am one. I cannot do everything, but I can do something." – Edward Everett Hale

August Meetings Update



Besides the SHREK kit activities, members participated in classes on Identifying common coaxial connectors, DC Cable Fusing, and Polyphaser design, uses and testing.

MERT Receives a Wonderful Donation!

Ray and I were extremely surprised (and excited) when member Bruce Twiss (KI4NFA) shared with us a resident living in OTOW near him asked him if he knew of a public service organization that could use his ham radio, tuner and CW keyer? We are thankful Bruce said... "Yes. MERT!"

When Bruce delivered the equipment, we thought it was brand new. To recognize his donation, Deputy Coordinator Ray Woody crafted the following message to Mr. Eugene Chicoine KA4UXZ.

"Dear Mr. Chicoine:

Thank you very much for your very generous donation of amateur radio equipment to our volunteer Marion County Emergency Radio Team (MERT).

The Icom IC-718 HF Transceiver and MFJ-969 Antenna Tuner you have provided are invaluable additions to our communications gear. Moreover, these items are in pristine, like new condition. We cannot thank you enough.

Operating within the Marion County Sheriff's Office Department of Emergency Management, our team relies on dependable equipment to maintain vital communications during emergency activations. Your donation strengthens our response capabilities and ensures we remain ready to serve our community when traditional communication systems fail.

We would love to invite you to a future weekly MERT meeting so our team can thank you in person. We meet every Wednesday morning from 9:00 - 11:00 AM at the Marion County Sheriff's Office Emergency Operations Center, located at 692 NW 30th Avenue in Ocala. If there is a Wednesday that works well for you to drop by, please let us know. You can coordinate your visit with either Harlan Cook (MERT Coordinator) at 210-331-3240 or yours truly (Ray Woody, Deputy Coordinator) at 770-328-5459. Our friend and colleague, Bruce Twiss (KI4NFA), is also available for this purpose.

Harlan and I will be showing off these items to our team next Wednesday, August 12. We will take a few photos and share these with you in a follow-up email.

We deeply appreciate your support of MERT and your shared commitment to the amateur radio community. 73 and best wishes!

Ray Woody
MERT Deputy Coordinator
770-328-5459
WB6FKJ

MERT has a similar radio at Station #3A and is analyzing how best to use this wonderful donation as a possible "hot standby" or for other applications as we expand our HF antenna resources. ***Thank you, Mr. Chicoine, for your wonderful gift to MERT!***



ICOM PRE-RELEASE INFORMATION **NEW**
HF/VHF/UHF ALL MODE TRANSCEIVER
IC-7110

*All band, all mode
for every operating environment.*

See: <https://www.youtube.com/watch?v=onBMk07UHDc>

HF/VHF/UHF ALL MODE TRANSCEIVER
IC-7110

- HF/50/70/144/430/440 MHz ALL Mode Coverage
- Real-Time Spectrum Scope and Waterfall Display
- CW Decoder
- Comprehensive D-STAR Functionality
- 4.3-inch Large Color Display with Touch Operation
- Dualwatch for HF/VHF and HF/UHF
- Simple Configuration for FT8 Operation
- Wi-Fi® (2.4 GHz / 5 GHz) and Bluetooth® Connectivity

D-STAR

IT'S TRUE! ICOM Introduces the IC-7110

I just learned from Dave Smith KG5RF about ICOM's latest announcement at the "Tokyo Ham Fair 2026".

They are introducing a new addition to Icom amateur radio family... the **IC-7110**!

For MERT members, this all-band radio is a perfect match for our operations as it includes D-Star capabilities along with "Dualwatch scanners.

More new features include simple setup FT8 operation, WiFi and Bluetooth connectivity with real-time Spectrum Scope and Waterfall display.

This is an amazing package of radio features and capabilities built into a touch-screen for fast and easy operations. (No price yet.)

ICOM

PRE-RELEASE INFORMATION

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- Simple Configuration for FT8 Operation
- Wi-Fi® (2.4 GHz / 5 GHz) and Bluetooth® Connectivity

D-STAR

MERT has a new email - Please note it for the future - MERT.AUXCOMM@gmail.com

All amateur radio operators and the general public are welcomed to attend all MERT meetings every Wednesday from 9:00 am till Noon at the
Emergency Operations Center (EOC)
692 NW 30th Ave., Ocala, FL.

"Remember that the happiest people are not those getting more, but those giving more." - H. Jackson Brown Jr.

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

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

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!

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