QST NFL

Newsletter for the Northern Florida Section

Come join the FUN!

Volume 12 Issue 1 | www.arrl-nfl.org | **January 2025**

From the Shack of the Section Manager

Scott Roberts, KK4ECR (kk4ecr@gmail.com)

Happy New Year to the ARRL NFL Section!

As we ring in 2025, I want to extend heartfelt wishes to all of you for a year filled with health, happiness, and plenty of time on the air. This fresh start offers us the opportunity to not only grow as amateur radio operators but also deepen our connections with the communities we serve. Together, let's make 2025 a year of impact, innovation, and service.

Our hobby is more than just a technical pursuit—it's a bridge to our communities. Across the Northern Florida (NFL) Section, we have countless opportunities to demonstrate the value of amateur radio. This year, let's make a commitment to step out, get involved, and make a difference.

Our guiding slogan for 2025 is: ***"Elevate, Educate, Energize: Ham Radio for Our Communities!"***

Elevate: Be Present in Your Community
Ham radio is at its best when we're actively engaged with the people around us. From supporting local events like marathons, parades, and emergency preparedness drills, to partnering with schools and civic organizations, let's show our neighbors what amateur radio can do. Every event we participate in strengthens the visibility and value of our hobby while fostering goodwill.

Educate: Share the Passion
Every interaction is an opportunity to educate others about the power and purpose of amateur radio. Consider hosting public demonstrations, inviting others to Field Day, or giving presentations at local schools or clubs. By educating others, we open the door for new operators to join us and bring fresh energy into our community.

Energize: Lead by Example
We are ambassadors for amateur radio, and the enthusiasm we bring to our activities can inspire others. Attend community events with your radio gear, share your experiences, and offer hands-on demonstrations. Your passion can be contagious, sparking interest and curiosity in the next generation of operators.

Supporting our communities goes hand in hand with supporting one another. Let's focus on building stronger local clubs, mentoring new operators, and being the friendly, helpful faces of ham radio. When disaster strikes, let's be ready to assist served agencies, showing the world the critical role we play in emergency communications.

This year, let's aim to leave a positive and lasting impact in every community we touch. Amateur radio is a gift, and when we share it generously, everyone benefits. Thank you for your dedication to this incredible hobby and to the communities we're privileged to serve.

Here's to a phenomenal year of growth, connection, and service. Together, let's Elevate, Educate, and Energize—not just for ham radio, but for our communities!

Thank you for allowing me to be YOUR Section Manager.

Continued on next page...

From the Section Emergency Coordinator

Arc Thames, W4CPD

As the year comes to a close, and we look upon a new year, I want to extend a special thank you to all of the volunteers that supported the numerous severe weather and hurricane activations that we've had over the last year. Your help and support is the only way that we can do what we do.

Leaders and volunteers alike, I encourage you to start planning your training goals for the year. Hurricane season will be back before you know it. The ARES task book is a great way to make a training plan for your year. the new emergency communications courses are now available from the ARRL and align with the new ARES task book. The courses can be found online - https://www.arrl.org/online-course-catalog and the taskbook can be found via this link. For more information on having your taskbook signed off, please visit our website (there are evaluators throughout the section.)

Some of the additional areas I'd encourage you to train on:

- Traffic handling (including health & welfare messaging)
- Winlink
- Field deployments
  - Antenna building
  - Portable power/solar
  - Go-kits
  - POTA (Parks on the Air) is a great way to practice
- Radio programming
- Radio direction finding/fox hunting
- ICS forms (213, 213RR, 205, etc)
- Interfacing with agency representatives

Updates to the NFL ARES NET

To better align with our emergency preparedness mission, we have moved to a check-in format of calling for check-ins by section, district, and county. This goes into place on January 1, 2025. This will better help us identify where our resources are located, where we have gaps in amateur radio coverage, and (hopefully) speed up the check-in process. Please be sure to check-in daily on 7197 LSB at 0900 ET/0800 CT.

Monthly Radiogram Challenge

We're bringing back the monthly radiogram challenge this year to help our volunteers and new operators practice using the NTS. Please remember, this message must be sent via the NTS. You can use Winlink to inject a message into the NTS but it must be sent to via the NTS, not direct to W4CPD. We have full videos and instructions on using the NTS on our website at arrl-nfl.org/nts/ Check out that link for the January 2025 challenge.

Annual AUXCOMM Class

I highly encourage everyone to take advantage of the upcoming AUXCOMM class in Orlando February 3-5, 2025. For more information and to signup, visit the Florida SERT TRAC website. This is one of the best classes that you can take to help understand where we fit in the grand NIMS/ICS structure. Especially for those of you that may be interested in deployments outside of your county, this is a critical course for you to take.

I have received several questions about when the course will be offered in the panhandle area. There was one offered in Walton County earlier this year. I'm personally working towards my certification to be able to teach the course. It requires several other ICS courses that I have to travel to take so I'm doing the best I can squeezing them in with my day job to get it done so we can offer the course more frequently in the panhandle area of the state.

Your help is needed

If you have experience with website design or social media, we can use your help to maintain & update the website and our Facebook group. We'd love to see articles posted on a regular basis to the section website as well as assisting with updates to activation information during declared events. If you have those skills, please send an email to arc.thames@srcares.org with some samples of your work and your availability to help.

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

My contact information

For those that aren't aware, I still have a full-time job (at least 20 more years left to go), travel quite frequently for work, and volunteer locally between 80-120 hours a month (on top of my personal life taking care of numerous elderly family members.) If you've sent me an email that I've happened to miss or have something critical you need addressed, please call or text me. My cell # 850-889-3767. I may not be able to respond immediately during the day but will reach back out as soon as I can. When we have an activation, I work diligently with our partners at the State and take vacation time from work to ensure I'm at the State EOC the day any storm makes landfall.

Monthly ARES Statistics

The ARRL has now reported that the online form to report monthly reports is now back online. I'm working to finalize the reports that have been submitted and will be able to start providing statistics again next month.

NFL Officials

Section Manager
Scott Roberts KK4ECR

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

Section Emergency Coordinator
Arc Thames W4CPD

Section Public Info Coordinator
Jim Bledsoe, KI4KEA

Section Technical Coordinator
Frank Haas KB4T

Section Affiliated Club Coordinator

Section Traffic Manager
Helen Straughn WC4FSU

Section Official Observer Coordinator
Robert Leasko WB8PAF

Section State Government Liaison
Darrell Brock N4GOA

NFL Committees

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

Newsletter, *QST NFL*
Earl McDow, K4ZSW

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

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

All submissions are subject to editing prior to publication.

Looking for Something?

Gordon Gibby, KX4Z, has taken the time to index the articles from all the 2021 issues of ***QST NFL***!
https://arrl-nfl.org/wp-content/uploads/2021/12/2021QSTNFLIndex.pdf

What's Inside…

Dick Peterson, W4KFA (SK) a long time Gainesville HAM is now a Silent Key; . His family is having a service in Gainesville on January 11th at Forest Meadows on 23rd Ave with visitation at 1PM and service 2PM. Our thoughts and prayers go out to the family.

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.

Central Florida Area - Radio Scouting

WB4SA STEM
https://www.gofundme.com/f/stem-center-conversion

KB5SA Scouts

Our STEM center project is progressing with a new $25k ARRL Foundation Club Station Grant. This covers our Radio Equipment, 3d Printer and STEM Demo displays. After two years we still need grants and donations to cover the buildings remodel and construction before we can proceed with installing the windows, ac and insulation.

Our local program impacts over 10k youth each year and with this dedicated center we can double it and also offer license training and testing indoors during summer camp. Using this STEM center we'd be able to offer 1,000 Radio Merit Badges and license nearly 200 youth per year.
Ken Lyons, KN4MDJ – Radio Scouting WB4SA

West Central Florida Area
Our Orlando STEM center project is progressing with a new $25k ARRL Foundation Club Station Grant. This covers our Radio Equipment, 3d Printer and STEM Demo displays. The Tampa area program (N4RSI Radio Scouting Tampa Bay) got stalled due to camp staff changes but we're working to get more adult hams involved. Once restaffed we'll still need local clubs to assist with event volunteers, license training and youth testing as there are no facilities at camp. We've had to decline two recent camp events this fall due to staff shortages but urgently need hams to help out in the spring. Camp directors are eager to restart the Ham Radio demonstrations and start including us in their STEM lineup. Later next year we'd like to work on setting up a permanent camp-station so that Tampa can be part of Scout Camps on the Air, a national effort to set up every scouting camp with a permanent ham station. Maybe a few local clubs could start digging in their SK gear to build an HF and 2/70cm station for the Flaming Arrow camp.

South Florida Area
Sam Wilfond - WS4BSA

KB5SA Repeater at Camp

It is with great pleasure that we congratulate and give a big round of applaud to three outstanding Scouts from the Gulf Stream Council, who have successfully passed the FCC licensing exams. At the GSC Jamboree on the Air camporee 2024, one Scout achieved the Technician License. Another Scout, who faced initial disappointment at JOTA, showed remarkable resilience and passed the Technician, General, and Amateur Extra exams two weeks later. Additionally, a third Scout, inspired by their experience at JOTA, passed the Technician exam this weekend. The JOTA camporee provides an ideal setting for youth to become acquainted with amateur radio. The knowledge and skills acquired by these Scouts through events like JOTA may spark their interest in pursuing careers or hobbies in radio technology and communication.

One thing of note, all newly licensed scouts can get a free radio from https://www.radioscouting.us/donate/ and from https://www.Gigaparts.com/explorer. Just pay for shipping.

Northwest Louisiana Radio Scouting
Billy Netherland KB5SA

We would like to thank volunteers from K5SAR Shreveport Amateur Radio Association and Barksdale AFB for taking time out of their schedules to come and get the repeater set up at Kinsey Scout Reservation. Which we used during JOTA. Several scouts earned their Radio Merit Badge. The scouts made contacts across the US and as far away as Canada, Belgium, and Czech Republic.
John Christopher - W5GAM

73 & YIS (yours in scouting),
Ken Lyons, KN4MDJ / Trustee for **WB4SA**, Cell 407-496-6694
BSA - Central Florida Council - www.RadioScouting.US/cfc

ARRL Southeastern Assistant Division Director - Radio Scouting, *www.kn4mdj.com*
"Bringing Amateur Radio Scouting programs to a half million scouts in AL, GA, FL, PR, USVI"

Continued on next page.

Gainesville Amateur Radio Society Operation Santa Delivery

Mike Martell KK4KRZ

Great support for the GARS booth at Santa Delivery. This year ARES had a booth next to the GARS booth and together we had something for everyone. Amateur radio is alive and well and supporting the area communities.

First a big "Thank you" to our radio communication team which made contact with Santa and Mrs Claus at the North Pole. Many kids talked with Santa and Mrs Claus

Alex Guy, KQ4PCF, Santa
Barbara Mathews, KO4TWZ, Mrs Claus
Karyn Shander, KQ4JBR, Helper ELF

We were using FRS radios this year but we had a GMRS base station radio with loud speaker on so everyone could hear the reply's from Santa and Mrs Claus. Last year we used VHF but the call signs slowed down the process so we switched to FRS. The Helper Elf assists a young radio operator "future HAM" with a hand held FRS radio.

Lorylin Roberts KO4LBS, John Troupe KM4JTE, and Tom Gause W4YGT provided Morse code oscillators and laptop computer to demonstrate Morse code to the kids. Kids practice sending their name in Morse code. Lorylin showed them how to use a paddle and a laptop to show what they where sending. One parent said she was going to buy a code practice oscillator for her young daughter who loved the idea of Morse code.

Karyn Shander had a large jar of M&M's for the kids to guess how many where in the Jar. There where 74 kids guessed at the number (some parents helped), (you had to be under 18 to guess). The prize was four FRS radios.

Amateurs from both booths helped each other and teamed up to provide landing zone security for the helicopter delivering Santa. Side note Leland Gallup AA3YB and I were assigned to the west side of the landing zone. The helicopter landed on the west side and blew my Santa Hat off (I think Barbara Mathews has a video of that).

Dave Kaufman K9OBW was selling raffle tickets to help support the maintenance of our local repeater equipment. Contact Dave dkinnomed@gmail.com if you would like to buy a ticket (their going fast).

All in all it was a great success.

Annual AUXCOMM Class

I highly encourage everyone to take advantage of the upcoming AUXCOMM class in Orlando February 3-5, 2025. For more information and to signup, visit the Florida SERT TRAC website. This is one of the best classes that you can take to help understand where we fit in the grand NIMS/ICS structure. Especially for those of you that may be interested in deployments outside of your county, this is a critical course for you to take.

Loften High School

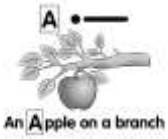
Bob Lightner W4GJ

Last night we had several hundred middle school students come to W.T. Loften High School to see our six Academies. Several of them actually got on the air and made some contacts from our school station! Here is one young 8th grader from a local Middle School tearing up the 20 meter band!

One of the faculty members at the high school that I substitute teach at, asked me to give a lecture to his two Communications classes on the Morse Code (my favorite subject). I was worried that I would have enough information to fill two 80-minute periods, so I brought some extra material on Braille writing and reading.

I began my presentation dressed in an old telegrapher's outfit and talked about how Samuel F.B. Morse constructed the Code. I used an authentic sounder to give them a taste for what the old telegraphers heard and showed them insulators from old telegraph poles. We discussed how only one wire was strung and how the circuit was completed using earth grounds.

Next, we discussed how the Continental Code evolved into what is used today as the International Code.



I taught them simple combinations of letters, E, I, S, H, 5 and T, M, O, plus other ones that are easy to learn. I showed them flash cards that helped me learn the code for my First Class badge in Boy Scouts. I then showed them signal (wig-wag) flags and semaphore flags and how they were used. I demonstrated the old Instruct-o-graph machine and how it was used for testing of Morse Code exams.

I told them about High Speed Radiosport Telegraphy contests and how hundreds of thousands of HAM operators use the Morse Code every day. We had three students from our HAM radio club there for them to answer questions about the hobby and we showed them a video of their fellow students using their terrific HAM Radio station in the next building.

I mentioned the Navaho Code Talkers and how the last living one just passed away. That code was never broken by Japan, Germany, or Italy.

We discussed Encryption during the Civil War and I showed them a CSA encryption disc. We then discussed the Nazi Enigma machine and how it was used in WWII. The students and faculty asked many questions and got to try sending code with a hand key, semi-automatic bug, and a paddle/keyer.

I let them hear the sound of Sputnik 1 flying over the worried world in 1957. I recommended that they look for movies like "October Sky" and "Independence Day."

I showed them the video of the Jay Leno show where there was a contest between modern Text people and two Morse operators. I also told them about how modern Cell phones evolved from HAM Radio repeaters and autopatches.

Lastly, I exhibited how blind people read and write in Braille. I passed out three Braille magazines/books

The Villages Amateur Radio Club

Brad Castelli KN9B

Fall 2024 Ham Radio Class was Electrifying!

The Villages Amateur Radio Club Fall Technician Class has concluded on October 28, 2024. We had 26 candidates take the test, and are pleased to welcome 25 new Technician Class hams, 3 new General Class hams and 1 new Extra Class ham. Outstanding!

Photo submitted by Maryann KU9H

Amateur General Licensing Course in The Villages, Florida

January 13 – March 3, 2025

Traditional classroom style course based on ARRL General text book 2 Hours every Monday for seven weeks plus Exam on March 3rd

The Villages Amateur Radio Club is holding an in person General license course. The course is free and open to the public. Class will meet once a week for seven weeks followed by an ARRL/VE License Exam.

More details:
website; www.K4VRC.com ("Interest in becoming a ham" tab)

TO REGISTER: Email your Name, Call Sign & Phone to kn9b@arrl.net

Questions : Contact Brad KN9B Email: kn9b@arrl.net

May the MORSE be with you!

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"... that's three hundred and twenty four souls on board, and we are sinking fast. Standby for our coordinates"

"Roger copy three twenty four souls and sinking fast, and ready to send coordinates. Say, you sure have a great signal for a boat in so much trouble. Thanks so much for getting back to me. My name is Geoff, Golf Echo Oscar Foxtrot Foxtrot. Merry Christmas to you and your family. This is my first sinking ship, so going in the log. Nice signal. Good dx. I'm running 6 watts and a dipole. Very good signal in Massachusetts. I hope to catch you down the log and seventy three, merry Christmas and good luck with your contacts"

Although a meme and humorous, it is something that all hams need to be mindful of.

If you hear an SOS, don't overload with rag chew garbage. KISS.

Keep it super simple (yes, I changed that), to the point and don't tie up the frequency.

Location
Type of emergency
Other pertinent information and then report it.

73
Carl Berry, KC5CMX

Annual AUXCOMM Class

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Mars Needs Moms – And We Need More Amateurs
Jim Kvochick K8JK

Mars Needs Moms was a movie released by Disney Studios in 2011. If you don't recall seeing it, you're not alone – this flick stands out as the worst financial disaster in all of Disney's history – and made it to the top 25 box office bombs for all movies in history.
Senior executives who approved the creation of the project tried to pass the blame for this epic failure on many things, citing poor focus group information, less than perfect advertising, bad release date timing, and the list goes on and on.

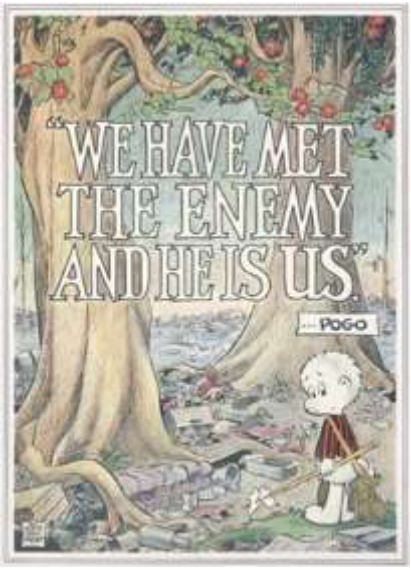
Finally, (I suspect to save their jobs, but I have little data to support this) the team who created this nightmare blamed themselves for this, owning up to the fact that Disney Pictures had never failed on a project before. The good news is that Disney now cranks out hit after hit, but I suspect they do not lose sight of this solid failure.

It's easy to get caught up in hubris – being so excessively proud of your past accomplishments and becoming complacent about what is really happening. Sergio Marchionne was once quoted as saying "Don't believe your own press releases", probably a wise statement.

What does this have to do with Amateur Radio?

In a very similar fashion, it's easy to buy into the "When all else fails" mantra of amateur radio, high five each other, make a few more contacts on 20 meters, and call it a day. Even easier to blame issues on the ARRL, cellular devices, and the Internet - everything from on the air offensive hijinks to poor attendance at swaps and conventions, and my favorite, losing frequencies we once held to other services.

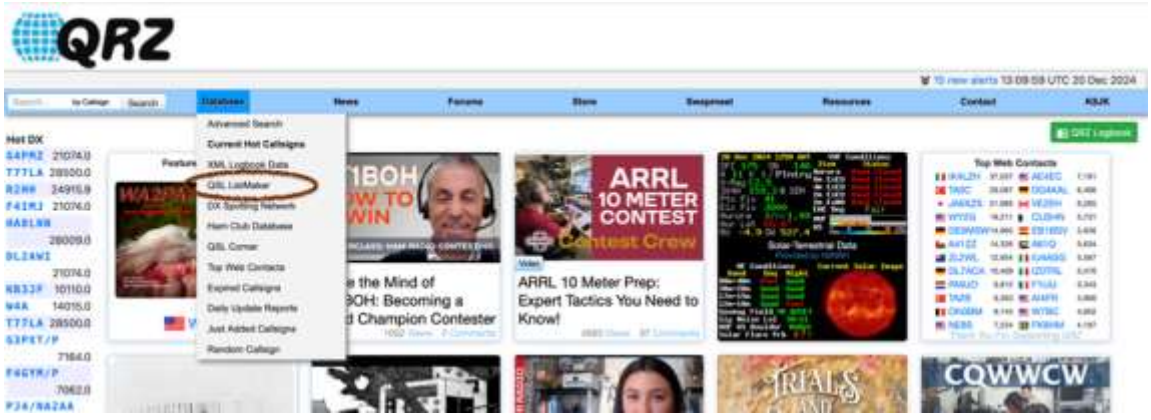
As Walt Kelly, cartoonist and creator of Pogo penned back in 1970: The good news is that although we are part of the problem, we can all be a part of the solution.



Lies, Damn Lies, & Statistics

The only effective tool to measure the number of amateur radio operators is the number of licenses issued. Since renewals of amateur licenses happen on a 10-year cycle, it's very possible this data can be badly skewed to make it appear that we have plenty of amateur radio operators. Let me share an example of how far off this can be from the reality.

I moved into a brand-new area a few years ago, and immediately (OK, I did unpack a little first), join the 3 large radio clubs near me. I was a bit surprised by what appeared to be a lack of radio operators near me and decided to do some detective work. QRZ.com has an excellent tool – QSL Listmaker that made it easy to gather details on amateur radio operators in my grid square.



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The data reported by the tool suggested there were 104 amateurs in my grid square. My next step was to create a physical letter to mail to every one of the 104 folks on the list, of course including a little about me, and my contact information. My results were not quite what I had hoped for:

10 amateurs had moved geography without updating their license information
2 amateurs had never lived in this geography – they picked a grid square number they liked
69 operators were silent keys – although their licenses would be on the books for at least 7 to 9 years
23 radio operators were alive and living in my grid square

Roughly one quarter of the licenses listed were alive in my geography. With the help of a few others, I've run this experiment in several geographies and find similar results.

So, assuming our license count is skewed a bit, that suggests for us as amateur radio operators to live up to the principles defined by the FCC in 97.1, all of us need to be working very hard, with significantly fewer resources, or we need to gather more amateur radio operators. Just in case you don't remember what 97.1 suggests, the image below may help:

§ 97.1 Basis and purpose.

The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

(a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.

(b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.

(c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.

(d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.

(e) Continuation and extension of the amateur's unique ability to enhance international goodwill.

Where Do We Start?

We all own a piece of gathering new amateur radio operators. Especially for those who focus on emergency service support, it's critical to get new younger amateurs licensed and expose them to the many facets of amateur radio.

An "elevator pitch" is a concept of introduction and expression of basic ideas or thoughts generally delivered in 30 to 60 seconds. To be most effective, they should be in your own words.

To cover the entire avocation of amateur radio in 30 to 60 seconds would be next to impossible, but to cover a part of the hobby that particularly has your interest can be much more effective. As an example, one of my elevator pitches begins "There are many facets of the amateur radio hobby and one that attracts much of my attention is the building and experimenting with new technologies related to the communications field…"

I have two or three pitches in my head, and I've even practiced them speaking to the cats at home (cats are often a very critical audience). Try to avoid jargon and terms that require detailed explanations, you're just trying to pique the audience's curiosity (in the case of cats, treats often help).

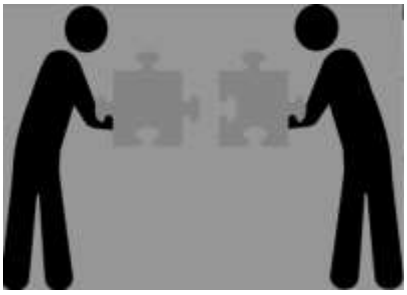
Continued on next page.

Amateur Radio Clubs

Motivational experts will often use TEAM (Together Each Achieves More) to express the magic that happens when a group of individuals work together to achieve outcomes even greater than the raw aspects of their individual talents. If you're not part of an active radio club, consider joining one, and if there isn't one near you, consider starting one.

A club can also help pull together ideas and resources that you may not have on your own.
For all of us to build our amateur radio ranks, a club can be a very important part of the equation.

Looking For New Amateurs



If we want to grow our ranks, we need to be recruiting outside of existing organizations. In my mind, almost every event is an opportunity to invite new radio operators into our community. Here are a few examples some obvious and others not so, that you could point yourself toward. Again, having an active club behind your efforts can make these a great success.

Fairs are an obvious choice. Consider keeping the table or area neat and as interesting as possible. Remember, just because you think a stack of radios, coax switches, and other toys jumbled together is cool, others may not have the same opinion. One radio club passed out refrigerator magnets with the club information on them, another gave away bottles of water with their personal branding….

Air, Boat, and RV shows are great places to show off amateur radio. Some of your club members may have already combined these hobbies with radio. Again, the same details apply - be neat, try to express the basics of amateur radio, there will be plenty of time to point them into the various facets of the hobby after you get them licensed. Club shirts can help present the solid image of your group.

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Road Rally & Gun Shows will often not only garner folks new to amateur radio but also connect you to folks who are licensed and perhaps not active. Have club applications handy at all the events you attend, you can always use a few more members.

Quilt Shows

One radio club very cleverly arranged to provide a "spousal retreat" area at a quilt show. Comfortable chairs, some bottles of water, and a place for a person not quite so interested in the event to hang out for a spell. I've seen this in action, and it works surprisingly well.
(Just be careful, a shiny sewing device may attract your attention.)

At one time I was even asked to present about amateur radio to an **HOA board**. This can be a little tricky, but honestly very useful to further the positive side of amateur radio in the community. Some of the same rules apply, consider dressing better that they are and keep to a very brief high-level script.

Try Everything

Seriously, we need more active amateurs. Some may come from the youth of the world, but many more may come from the older thirty something folks as well. Again, many clubs and individuals may already be doing these things, but we all need to be pitching in to keep amateur radio the exciting and robust hobby that it has been. Keep good notes of the experiences and share with others. Share the details with the folks at the ARRL as well.
Together, we can be a positive solution….

MERT

Marion County Sheriff's Office
Division of Emergency Management

COMMUNICATIONS UPDATE

December 2024/January 2025

MERT's primary role is to support all open Evacuation Shelters throughout Marion County during declared Emergency events. We also support EOC and emergency personnel along with Community Emergency Response Teams (CERT) with voice, image and data communications resources.
"*Call MERT… When all else fails*!"

MERT Monthly Meeting

The next meeting is on
January 18th @ 10:00 am.
All Amateur Radio Operators are Welcomed!

Another Year for the Record Books!!

As 2024 comes to close, MERT completes its 20th year of operations supporting the Division of Emergency Management. *All current and former Members* should be extremely proud of our collective contributions over the last two decades in making a positive impact on the operations and success of this important governmental agency.

Harlan Cook (KN4VRM)
MERT Coordinator

In researching our history, I've learned that Marion County experienced four (4) hurricanes during late 2004 which had major impacts for weeks and weeks on city, county and institutional operations along with sustained power and utility service outages, flooding and high wind damages to thousands of structures.[1]

It began with Hurricane Charley on August 13-14th, and was closely followed by Hurricane Frances on Sept. 6-7th; Hurricane Ivan on Sept. 15-16th and finally Hurricane Helene on Sept. 27-28th. These 6-weeks of hurricanes had a lasting impact till today

While Hurricane Charley was a major rain machine, Hurricane Frances caused the majority of damages due to its center passing just a few miles south of Marion County as it travelled east towards Orlando which pushed many FL residents into emergency shelters here in Marion County for weeks when homes were severely damaged or flooded and made unlivable. The following two hurricanes added to damages caused by winds and flooding and that further delayed the repairs to damaged infrastructure.

Marion County and the City of Ocala provided shelter, food and water to many hundreds for weeks. It was these recurring events in 2004 that caused the need for continuous radio support at the shelters and the creation of **MERT** by the Division of Emergency Management.

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[1] – "*20 years ago: When the hurricanes kept hitting Florida"*; Ocala Star Banner; Published July 29, 2024; Article and photographs at: https://www.ocala.com/picture-gallery/news/local/2024/07/29/20-year-anniversary-of-back-to-back-hurricanes/74588616007/

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MERT Members – Thank you for your support and commitment to help others when they need help!

Special Note: With this edition, we salute **Leon Jurcyszyn** whose decade of service to MERT is being recognized. We honor the many examples he set and know it inspired others to learn more, do more and reach a little higher than they thought possible! Leon, *you will be missed good friend*!

Sending Merry Christmas and Happy Hanukkah to all.

2024 Hurricane Facts

What was the most destructive and costly hurricane duo hitting the U.S. in history?
Helene and Milton (2024 - $295 billion) rank second all-time, just behind Hurricanes Harvey and Irma (2017 - $300+ billion).

MERT supports local 5K Walk/Run Event

June Benoit, Stone Creek CERT Leader stopped by to thank MERT member Phil Lewis (W4EVV) for organizing and leading the communications teams supporting each aid station during the "Spooky Striders 5k Walk/Run Event".

MERT provided licensed and trained radio Operators supporting the event organizers with real time information from each Aid Station. Congratulations to members Nick Kiddey (W4NFK), Ray Woody (WB6FKJ) and Bill Sobel (K1WLS) for their fantastic support!

Training Focus – MERT's HF Go Kit

MERT's HF Go Kit

MERT membership participated in several deep dive training sessions into our High Frequency radio capabilities in the radio room.... along with the HF Go Kit we have. The details are:

A. Why MERT's HF resources supporting emergency communications (EMCOMM) is vital in maintaining radio contact with the State EOC and the Federal Government in Washington.
B. Members learned what is included in the HF Go Kit (radios, power supplies, cables and specialty hardware), why is each piece vital to EMCOMM op's and how are each piece used.
C. Members learned the kit actually is an "All Band" supporting 2 Meter and 70 cm communications with the included Icom IC-880H D-Star radio.
D. An updated inventory list was created which included the addition of several pieces needed for deployments.
E. A detailed review of what antennas can be used with the HF Go Kit when deployed. The classes included when to use which type and then a deep dive into long range antennas like MERT's tunable vertical and temporary end-feed long wire antennas (for national and international communications) to the NVIS Go Kit (for local and state-wide coverage).
F. Members were trained on how radio propagation affects HF communications and where to find current HF propagation information on MERT's website (KG4NXO.com) under the "Quick Links" tab.
G. Additionally, specific information about the two HF antennas on the EOC tower along with the radio stations #4 and #5 dedicated to HF communications was reviewed. It included the new support tower Preston had built and which will be installed soon.
H. The review included basic information on the Yaesu Motorized Mobile Antenna: ATAS-120A. This is a unique mobile antenna designed for use with Yaesu Radio which uses a motorized tuning system that resonates the radiating element for the lowest SWR.

When more favorable weather returns, a Field Exercise is planned to deploy, set up and operate both radio systems using multiple antenna types (mag-**"All our dreams can come true, if we have the courage to pursue them"** - Walt Disney
base tuned 2 Meter, ATAS-120A multi-band dipole and the 80 Meter/40 Meter NVIS antenna).

All our dreams can come true, if we have the courage to pursue them" - Walt Disney

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We sincerely thank Royce Hagerman (KD7SNN) for his gift in constructing an antenna case for the Yaesu ATAS-120A multi-band antenna MERT owns. His gift will protect this specialized antenna from damages in storage and while being transported on exercises and deployments. He has also labeled the protection case making its identification quick and easy for all members in the future.
Thank you, Royce!

Royce Hagerman (KD7SNN)

New High Strength Tower is Hurricane Rated Installation Pending

Existing 20 Year Old Pole is Showing its Age

New Location of the HF Tower Supporting the OCF Antenna

(L) The upgraded hurricane rated HF tower will be placed at a new location further from the building and trees. This move will also improve HF radio receiver quality.

(L) Bill Gillespie (KW5BG), Phil Lewis (W4EVV) and Leon Jurcyszyn (K8ZAG) starting the software upgrades for the new 2 Meter repeaters.

Leon and Phil waiting for the new software to load.

Not shown: Harlan Cook (KN4VRM)

Leon and Phil reviewing the error messages. As with most programs, new software does have bugs needing to be resolved.

Thank You, Farewell and Good Luck to our Good Friend!

December 11, 2024 saw the end of a decade of service to MERT and the Division of Emergency Management by Leon Jurcyszyn K8ZAG who tirelessly supported, lead and Elmered dozens and dozens of MERT members and hams in this area.

His contributions have been significant along with his passion to share the wonders of all that amateur radio can provide as a hobby and as a life-saving resource in emergency communications.

This tribute is dedicated to his knowledge, enthusiasm and passion leading MERT

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His contributions have been significant along with his passion to share the wonders of all that amateur radio can provide as a hobby and as a life-saving resource in emergency communications.

When the pandemic hit the U.S. in early 2020, Coordinator Chuck Richards resigned and moved to home school his grandchildren in MD. Leon stepped up and became MERT Coordinator and faced the immediate challenge that no meetings at the EOC were allowed. To keep MERT functioning, Leon single-handedly kept MERT active by organizing Zoom resources for all meetings and training events from his personal funds.

A commitment to Service: Did you know that Leon and other Members spent 72-hours of continuous service during Hurricane Irma in 2017 when our area of Florida experienced significant damages knocking out power, cellular phone, Internet and landline services throughout Marion County? He demonstrated his commitment to MERT's Mission by his own service and support to the Members staffing the Shelters and EOC.

After the retirement and passing of several key members around 2015/16, another role Leon took on (and mastered) was learning the highly technical and complex programming requirements of the digital D-Star radio system MERT has. Through thousands of hours, he taught himself the programming language necessary to support the radio system controllers. Leon also added VARA FM digital Winlink capabilities to MERT's Digipeater KG4NXO-10 on 145.030 MHz located at the Sheriff's Office Complex tower.

We celebrate these events and special times with Leon in service to MERT!









Leon Jurcyszyn – 10-year Member, Technical Advisor and MERT Coordinator

Continued on next page.

You are hereby awarded this Meritorious Volunteer Service Award to acknowledge your service to the Marion County Sheriff's Office. For the last decade, your great generosity has had a profound and lasting impact on the Marion County Sheriff's Office – Division of Emergency Management and the Marion County Emergency Radio Team (MERT). Your willingness to share your time by volunteering to act as MERT Leader and Coordinator during the pandemic was very successful and resulted in MERT's continued readiness and ability to support the Hurricane Impact Shelters. Your leadership and profound knowledge working in multiple Emergency Activations over the years speaks volumes about your care for others needing help, your strength and the quality of your character. You have set a high standard for others to follow.

Your above and beyond efforts have helped the Sheriff's Office in maintaining a high quality of service to the citizens of Marion County, Florida.

His ***Meritorious Volunteer Service Award*** from Sheriff Billy Woods is presented by Major Kevin Rowe, Bureau Chief; Marion County Sheriff's Office.

Major Kevin Rowe, Leon and Joann Jurcyszyn

Recognizing a Decade of Service by Leon Jurcyszyn
(L – R) Harlan Cook, MERT Coordinator; Major Kevin Rowe, Marion County Sheriff's Office; **Leon Jurcyszyn, Past MERT Coordinator; Joann Jurcyszyn**; and, Bill Gillespie, MERT Assistant Coordinator.

"I don't know what your destiny will be, but one thing I know: the only ones among you who will be really happy are those who will have sought and found how to serve." - Albert Schweitzer

Continued on next page.

“All - View from the rear of our new condo, Imlay City MI. Leon”

Goodbye, good friend. You will be missed!

Alachua County Simplex Connection

Mike Martell KK4KRZ

The Alachua County Simplex Connection is a process to test area VHF simplex communications. The goal of the Simplex connection process is to determine which area amateurs can hear other amateurs and in-turn what amateurs can hear them using VHF simplex.

The process starts by designating a date, time, and test/net controller. This information is advertised to the Alachua area amateur community.

Next is the creation of an “Alachua County Simplex Test Data Form” (form). An Alachua County Simplex Test Team member (team member) collects the name and call signs of area amateurs who would like to transmit during the next simplex test. These collected names are used to complete a form (by another team member) and the form is posted on the Gainesville Amateur Radio Society (GARS) website

Continued on next page.

Alachua County Simplex Test Data Form			
Simplex Frequency	**Date/Time**	**Net Controller**	**Listening Station Callsign**
146.55	11/20/24 7pm	Sample	GO4FY
NAME	**CALL**	**If heard mark "X"**	**COMMENTS**
Mickey Mouse	DI4SNY		
"	"		
"	"	X	Week Signal
"	"		
"	"		
"	"	X	
"	"	X	
"	"	X	
"	"		
"	"		
"	"		
"	"	X	
Minnie Mouse	M4CAT		
Location	**Antenna**	**Ant. Height**	**Radio (circle one)**
Boston	**J-pole**	20 Feet	Base Station Mobile HT

This form is for recording simplex transmissions.
Mark an X if heard or leave blank if not heard.
Put your call sign in box below "Listening Station".
After the simplex test please send this completed form via email to donaldduck@gmail.com

Once the form is posted area amateurs can down load the form and use it during the simplex test.

Amateurs participating in the simplex test must be able to switch between the VHF simplex frequency (now testing 146.550 MHZ) and the Alachua area repeater (146.820 MHZ).

The test begins on the 146.82 repeater with the test controller providing a brief introduction. The controller provides these following instructions.

1. Do not transmit unless requested to do so.
2. Talk slowly giving your name and call sign phonetically two times. (This insures there is time to switch between repeater and simplex frequency, as well as preventing two amateurs from transmitting at the same time.)
3. When you are finished, contact the test controller by using the repeater.

Continued on next page.

The test controller then goes through the list of transmitters on the form one by one. Amateur stations listening (includes those transmitting) can follow the progress of the test on the 146.82 repeater even though they may hear only a few simplex transmitting stations.

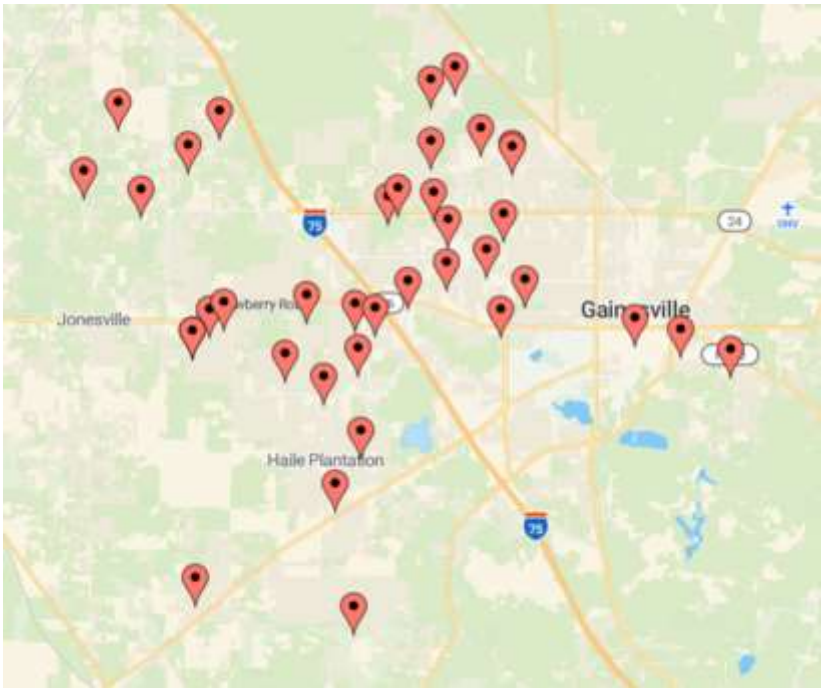
As the stations transmit, amateurs will mark the stations they have heard on the form and can make comments about signal strength or noise.

When all transmitting stations on the list are complete the test controller will ask for volunteer transmitters. If there are any volunteer transmitters the process is repeated for volunteer amateur transmitters.

When testing is complete the controller will remind the participants to email the completed forms to the email address at the bottom of the form.

The simplex data is collected in a spreadsheet which is available on-line. Area amateurs can look at the spreadsheet and determine who is able to hear their simplex transmissions. This is helpful to know who can hear them and also to determine how well their equipment works. Some participants check their VHF base stations, mobile stations, and HT's to see what coverage they have.

The spreadsheet has Listening stations going down the first column and transmitting stations across the top row. Where an "X" appears in the spreadsheet that is where a station in the first column can hear a transmitting station in the top row. There is a lot more information on the spreadsheet but it would take up too much space to show in this report.
The Alachua Simplex Testing Team also maintains an on-line interactive map showing the approximate location of the amateur stations (security prevents exact locations). (see sample below)



By clicking on the map bubble markers, the call sign will appear.

Please note this simplex testing does not replace emergency simplex testing procedures. The Alachua area ARES team conducts emergency simplex testing to include relays and proper procedures to use during an emergency. The ARES team works with the simplex testing team to include using simplex team format during a recent simplex weekly check-in.

The following are the members who make the simplex testing possible;
Lorilyn Roberts KO4LBS Maintains the Alachua County Simplex Connection spreadsheet and co-manager of the simplex testing.
Eric Pleace KO4ZSD Maintains the Test/Net controller script and updates the GARS simplex website.
Debra Boal KI4CVS Maintains the Alachua County Simplex Test Data Form
Karyn Shander KQ4JBR Provides testing support
Dave Dockus KO4GGZ Provides testing support
Jeff Capehart W4UFL Provides ARES support of the simplex testing
Ken Miller KF4ULO Maintains the interactive map

Interview of Gordon Beattie by John Facella K9FJ, a Past President of the Radio Club of America on the topics of:
"Test Equipment - Making the Jobs of Comms Easier, and Following Future Trends", 12/10/2024,

J. Gordon Beattie, Jr., W2TTT

https://youtu.be/NgKjkmcXty8?si=pFr6kwO1z7-YB2pI

The Radio Club of America is our nation's oldest wireless communications society and not a radio club. It is focused on the development of professionals skilled in the wide scope of all things wireless.

This interview came about through a request by the RCA for a referral of someone who could provide an interview on the topics noted above. Several of my colleagues recommended me, and after questioning their wisdom, I agreed.

To them and to John Facella and others in the Radio Club of America and VIAVI Solutions, I express my humble thanks for this opportunity to engage in some thoughtful introspection on some of the topics (not the questions) they sought to explore in hope of sharing something if not thought-provoking, useful to others.

To you the potential audience, I thank you for considering taking an hour or so to listen to our discussion and ask for your grace and thoughtful comments in the hope that we can learn together about we can encourage more growth in all types of enthusiastically capable wireless professionals.

73,

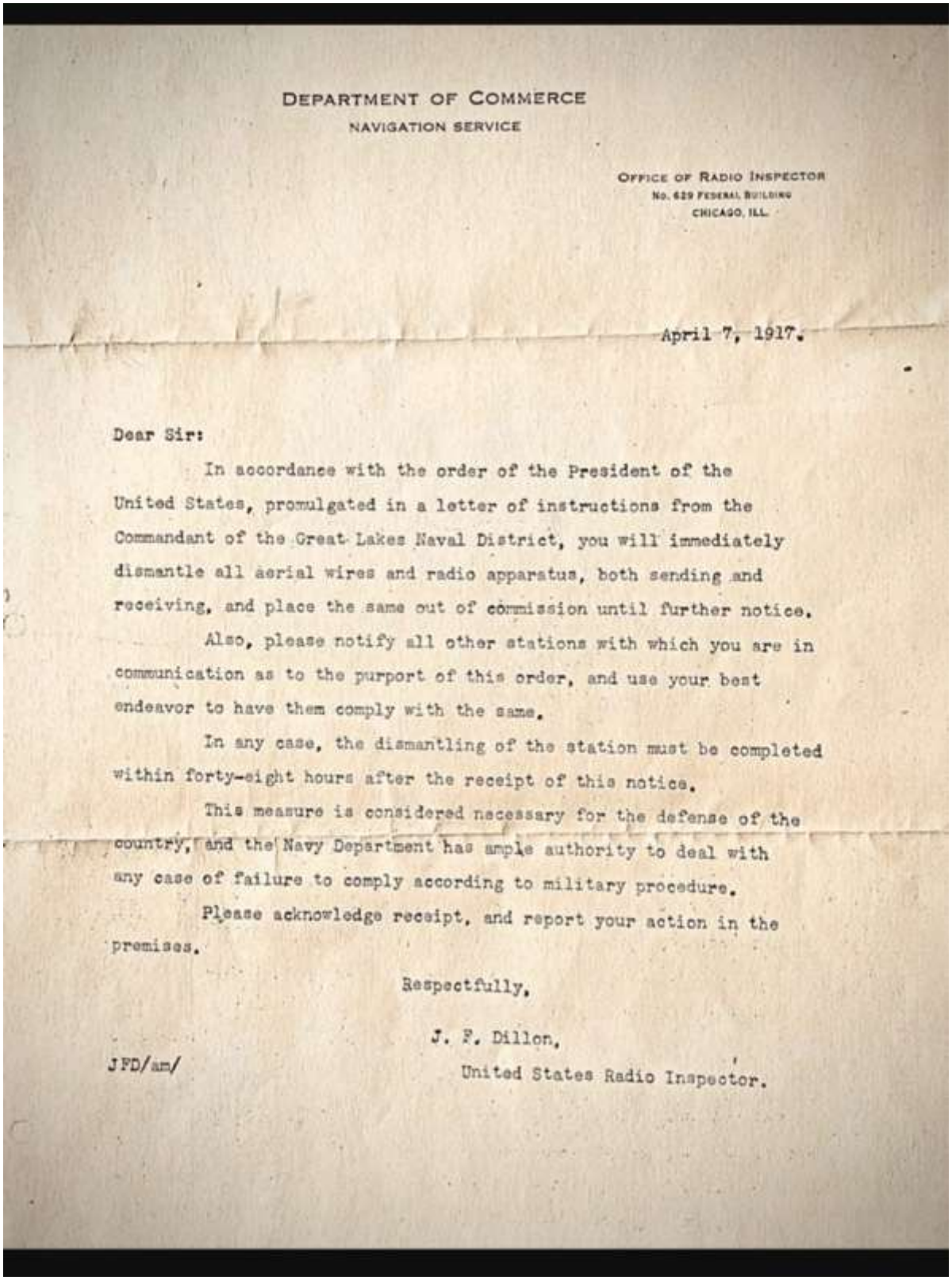
J. Gordon Beattie, Jr., W2TTT
Senior Principal Research Scientist/Engineer

RF and Wireless Architecture, CTO Office
VIAVI Solutions – www.viavisolutions.com
Mobile: +1.201.314.6964
Email: Gordon.BeattieJr@VIAVISolutions.com

Historical Documents (From Facebook)

Carl Berry, KC5CMX

For those not old enough to have known Marconi, or lived through WWI, I'm passing these historical documents along for all to see.
This predates the Communications Act of 1934, and the creation of the FCC by 17 years.
The act was signed into law in June.



DEPARTMENT OF COMMERCE
NAVIGATION SERVICE

OFFICE OF RADIO INSPECTOR
No. 629 FEDERAL BUILDING
CHICAGO, ILL.

April 7, 1917.

Dear Sir:

In accordance with the order of the President of the United States, promulgated in a letter of instructions from the Commandant of the Great Lakes Naval District, you will immediately dismantle all aerial wires and radio apparatus, both sending and receiving, and place the same out of commission until further notice.

Also, please notify all other stations with which you are in communication as to the purport of this order, and use your best endeavor to have them comply with the same.

In any case, the dismantling of the station must be completed within forty-eight hours after the receipt of this notice.

This measure is considered necessary for the defense of the country, and the Navy Department has ample authority to deal with any case of failure to comply according to military procedure.

Please acknowledge receipt, and report your action in the premises.

Respectfully,

J. F. Dillon,
United States Radio Inspector.

JFD/am/

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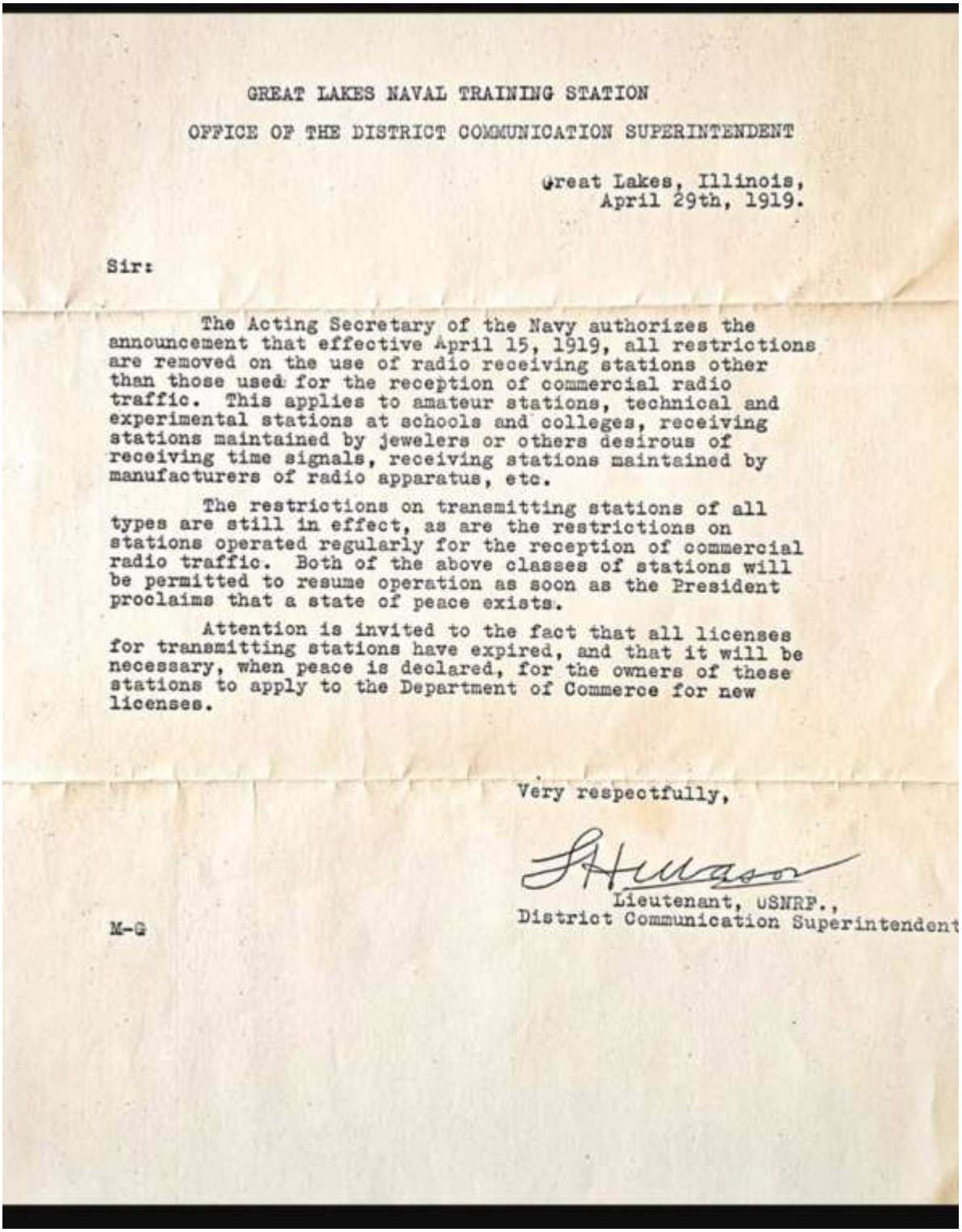


GREAT LAKES NAVAL TRAINING STATION

OFFICE OF THE DISTRICT COMMUNICATION SUPERINTENDENT

Great Lakes, Illinois,
April 29th, 1919.

Sir:

The Acting Secretary of the Navy authorizes the announcement that effective April 15, 1919, all restrictions are removed on the use of radio receiving stations other than those used for the reception of commercial radio traffic. This applies to amateur stations, technical and experimental stations at schools and colleges, receiving stations maintained by jewelers or others desirous of receiving time signals, receiving stations maintained by manufacturers of radio apparatus, etc.

The restrictions on transmitting stations of all types are still in effect, as are the restrictions on stations operated regularly for the reception of commercial radio traffic. Both of the above classes of stations will be permitted to resume operation as soon as the President proclaims that a state of peace exists.

Attention is invited to the fact that all licenses for transmitting stations have expired, and that it will be necessary, when peace is declared, for the owners of these stations to apply to the Department of Commerce for new licenses.

Very respectfully,

S H Hutson

Lieutenant, USNRF.,
District Communication Superintendent

M-G

We should be thankful we live in a free and open society. If you think the FCC is too restrictive, look to the far east, to North Korea, Burma or some of the other trashy 3rd world countries.

I am proud to be part of an exclusive club of U.S. Radio Amateurs who do take pride in supporting the communities, and the country we live in.

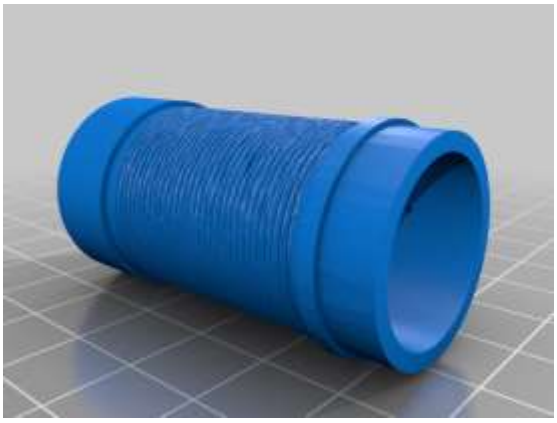
God Bless America and the true freedoms we have.

Playground Amateur Radio Club

DJ Stewart KI4ZER

December was full of prep for celebration. But not without first having a Technical Night! Paul, KC5RFU, gave an astounding lesson in 3D printing. He described how the hardware and software worked and demonstrated what could be made. Antenna mounts, coils, and fixtures oh my! In a direct quote "you are only limited to your imagination" as to what you can produce from a 3D printer in support of Ham Radio! Paul in reference to inspiration suggested thingverse.com where there are many Hams who have made useful and practical designs which compliment Ham Radio as a whole and aides you in achieving self-sufficiency for products you can make at home versus spending a fortune on someone else's product. The best part, you can make it the way you want it and eliminate the base line product that "should have more features" For a relatively low starting cost, you too, can make your hobby more enjoyable and learn while inspiring others!

Here is a useful video that shows dome of the basic entry level products that you could start with and make in your home!



Tech Nights like these are exceptionally active each month in Okaloosa County Florida and are always well put together! Expanding the knowledge base of Hams and guests are the basis of continuing interest and exploring the world of communications! Stay tuned at W4AAZ.Org and W4ZBB.Org for more upcoming future events and fun with all things Amateur Radio! Want a hint? FOX Hunts, Tech Nights, Pile-Ups, and more!

How do you 10 Meter Contest?! Head out to a public location and set up portable gear that's how! Maybe even set up as an educational non-profit at a local Holiday Market! That's just what some area Hams did in the wonderful town of Valparaiso Florida did! Together, KQ4FRB, AA0EU, KC5RFU, and I, KI4ZER, set up a canopy and low footprint communication capabilities inspired by experiences with POTS and our North Georgia SOTA friends accomplished! As we contested, wee took turns interacting with the public, Scouts, and all other walks of life educating them about the importance of Amateur Radio communications and shared the fun in making the best contacts worldwide with battery power and minimal, inexpensive equipment! Using just 10 watts of power from an Icom 575 H on a Buddistick Pro, we were even able to contest to multiple locations in the United States, Canada, South America, and Europe! And that was just one of the three stations! We also had a GOTA station set up and were able to teach proper repeater usage to interested attendees! [some of us even got to knock out a little holiday shopping during a small break]. Events like these are great for exposure and the overall effort to ensure a viable future for Amateur Radio while also participating holistically with the community at large!

On a balmy December evening in Fort Walton Beach, Florida, the Playground Amateur Radio Club transformed Angler's Beachside Grill into a festive hub of camaraderie and connection. The sun dipped below the horizon, casting a golden glow over the ocean, while inside, the air buzzed with excitement as members gathered for their annual holiday party.

In representation there was in attendance members from The Eglin Amateur Radio Society, the Okaloosa County Amateur Radio Service, the Playground amateur Radio Club, the North Okaloosa Amateur Radio Club, the Walton County Amateur Radio Club, The Amateur Radio Relay League with the Assistant Section Manager Northwest Florida along with Diamond and Life Members! Also in attendance were supporters, volunteers and affiliates of Amateur Radio stemming from the United States Air Force Active -Duty Military and from families and friends involved in this wonderful community ensuring we prosper! Even the former President of the University of Central Florida Amateur Radio Club, K4UCF, was in attendance!

Continued on next page.

As club members and fellow amateur radio operators along with other guests arrived, they were greeted by the tantalizing aroma of seafood and spices wafting from the kitchen. The restaurant's second floor was adorned with holiday decorations—twinkling lights, garlands, and pleasant smiles! Laughter and cheerful chatter filled the room as friends reunited, sharing stories from their latest radio adventures. DJ, the club president, welcomed everyone. "I'm thrilled to see so many familiar faces tonight! Let's celebrate our shared passion for amateur radio and the friendships we've built over the years!"

The evening kicked off with a delicious buffet featuring local seafood and chicken dishes and holiday favorites. As members filled their plates, conversations flowed freely about recent hamfests, new equipment, and upcoming contests. After dinner, it was time for a presentation of Ham of the year! The winner from the North Okaloosa Amateur Radio Club was Mike, W4BZM! The winner from the Playground Amateur Radio Club was DJ, KI4ZER! Another presentation, held in close concert unfolded as Frank, W4RH was awarded as the Ham of the Century! Another highlight of the evening: a "Secret Santa Gift Exchange" session where gifts were exchanged, and fun was had by all!

As the clock approached seven o'clock, DJ said "To friendship, connection, and community! May we continue to share our love for amateur radio and spread joy wherever we go!". The warmth of camaraderie filled the room as stories were shared and laughter echoed off the walls. As members began to say their goodbyes, it was clear that this holiday party had been more than just an event; it had been a celebration of connection—both through radio waves and human hearts. Walking out into the cool night air, the area amateur radio operators felt grateful for their commitment and involvement into this great hobby. The glow of festive lights behind illuminated the pathway to their homes—a reminder that no matter how far apart they might be physically, they were all connected through their shared love for amateur radio and their commitment to community spirit. Thus concluded another successful holiday party for Amateur Radio—a night filled with laughter, connection, and hope for many more adventures ahead in the vibrant world of radio communications!
Thank you for all who attended and many more to all who are involved in Amateur Radio you are the reason there is so much activity and as we continue to operate in concert, we inspire generations to come!

Merry Christmas and Happy New Year! -DJ, KI4ZER

Speaking of the New Year! Mark your calendars for

the 55th Playground Amateur Radio Hamfest

in beautiful Downtown Fort Walton Beach Florida! March 14/15 2025!

Continued on next page.

Continued on next page.

Join us for the 55th Annual Playground Amateur Radio Club Hamfest!
1958 Lewis Turner Blvd Fort Walton Beach Florida
Friday 3pm to 6pm
Saturday 8am to 1pm
Vendors set up Friday starting 8am. No public show until 3pm.
Vendors set up Saturday 6am. No public show until 8am.
The show closes at 1pm.
We offer:
Testing, *must pre-register, must have FRN* (Federal Registration Number)
PARCFWB@GMAIL.COM
Testing will be at 10:00 AM CST
Indoor Booths
Food Concessions
National Vendors
Local Ham Radio Dealers
Area Club Tables
ARRL Representatives
Camping
RV's Welcome
Reserve your tables and spots: PARCFWB@GMAIL.COM
$8.00 admission
$15.00 per table/spot
Boy Scouts in Uniform Free
12 and Under Free
90 and Above Free
Contact Information: PARCFWB@GMAIL.COM,

Meteor Scatter | Santa Delivery | Dress Rehearsal
Alachua County ARES(R) North Florida Amateur Radio Club Busy December 2024!

by Gordon Gibby KX4Z

Dress Rehearsal for Meteor Scatter

A bunch of us got together Sunday afternoon, December 1, to practice for our Geminids Meteor Scatter effort. **Mike Hasselbeck WB2FKO** has donated a 3-element 6-meter Yagi to the group, and guided us to assembled it. The photo shows **Eric Pleace KO4ZSD** (L), **Leland Gallup AA3YB** (C) and **Dave Huckstep W4JIR** (R) installing one of the parasitic elements on the boom, while **Susan Halbert KG4VWI** watches from behind. Up onto the trailer-tower mast the little Yagi went and soon we had it up in the air way above my house. Next we learned how to send hundreds of watts to it from the Icom 7300 / Ameritron ALS-606 amplifier. Mike coached us in how to set up WSJT-X for 6-meter 144MSK signals. We had the beam pointed northwest. Of course, there weren't any meteors that afternoon, but we moved to 6-meter FT8 and were stunned to see a **pskreporter.info monitoring station** in Alaska pick us up with a **+18dB** signal on 6 meters!! Even Mike was impressed! And then we tried to use an LDG AT600 tuner on 6 meters with > 300 watts coursing through it....***and let out the magic smoke!*** OOPS!!

SANTA DELIVERY 2024

Just 6 days later, we followed up on our Dress Rehearsal *ill-fated escapade*, with our first-ever exhibit at the huge Gainesville LIFESOUTH Santa Delivery event. Hosted by the local blood banking charity, this event draws 30-odd local groups every year, and hundreds and hundreds of little children and families, highlighted by the helicopter arrival and fully decked out SANTA CLAUS! Our ARES group (https://www.nf4rc.club/) has never put together an exhibit before, while the Gainesville Amateur Radio Society (https://gars.club/) always has a great amateur radio exhibit, complete with 2-meter radio to "talk to Santa." The GARS team was out there again this year with a fantastic display and games and Morse code as well. (Great job!)

We put on our first try at this with a technically-oriented display with a Willys 1946 Jeep with radio gear that grabbed the attention of older children, and our homebrew $7 Morse Code paddle and homebrew Arduino keyer that magically decodes letters that children made up on the paddle, and the ability to send simulated emergency messages. The paddle was fascinating to many kids who loved to push it back and forth to make all manner of sounds! However, our conclusion was that we needed to "dress up" our display with more "Christmas" type colorful decorations, and put together even more "fun and games" type things for younger children, with a more muted emphasis on our vast technology. One surprising finding -- a simple display of a **572- B vacuum tube on a stand** garnered a lot of attention!

Right in the midst, a University of Florida EE student working on a NASA project showed up with a rocket antenna model needing help -- and on the fly with an antenna analyzer we created an off-center-fed ground plane vertical with capacitive top hat to meet his constraints with much better matching -- we were delighted to be able to help this enterprising student!

For our first-ever effort (and it was ***COLD*** -- we set up our HF antenna mast in finger-numbing freezing temperatures!) we thought it was a great first step -- that can be significantly improved upon next year!

Continued on next page.

GEMINIDS Meteor Scatter / POTA Event

Now came the Big Event of the month -- our first-ever attempt to do METEOR SCATTER on 6 meters while deployed to the north end of San Felasco State Park, with our trailer-mounted 30+ foot tower, new 6-meter beam, ICOM 7300 and our choice of TWO 6-meter amplifiers! Plus, we opened it up for POTA efforts and the ARRL was holding the 10-meter Test that same weekend. We brought out 6-band antenna multiplexer so we could handle a zillion stations and offered for folks to put up their own stations also -- almost a Field Day effort!

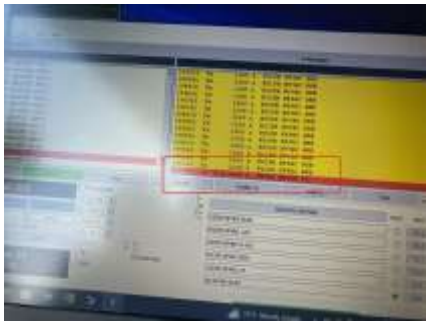
We all assembled at the park in gorgeous Florida sultry winter weather at 0800, Saturday Dec 14. That was when almost everyone there disavowed ANY KNOWLEDGE of how to assemble the 6-meter beam that I have photographic ***proof*** that they had just assembled two weeks earlier! It was COMICAL! Nevertheless they figured it out and soon we were working to get it on the mast of the tower. Big Discovery -- it is MUCH easier to just put the mast in the rotator and thrust bearing FIRST, and THEN add the beam....than it is to try and manhandle both the mast and the beam together when you're on the top of a shaky ladder! The photo shows **David Huckstep W4JIR** (L) and **Leland Gallup (R)** trying to get the Yagi pointed the right direction.

Did I mention that right when we got to the Park we discovered there was NO ELECTRICITY? Every other time we've been there, there was electricity! A frantic call to the Park Ranger and he said he would get there eventually.....but we lost the crucial morning hours when geometry favored the Geminids meteors -- thankfully we all have lots of BATTERIES and we were able to carry out our first ever Meteor Scatter.....with barefoot ICOM7300 as our only power.

HOW METEOR COMMS WORK

Meteors shoot through the upper atmosphere creating an *ionized trail of molecules* behind them for a brief, brief moment in time. Radio signals can bounce off that conductive trail of ions as if it were a slender linear mirror up in the sky. Because it is so evanescent, all the information for each "line" of a traditional QSO is compacted by MSK144 into a **70-millisecond burst** -- and then about 200 of these bursts are compacted together into the 15-second synchronized transmissions of MSK144. It doesn't work just like FT8 -- decoding is in real time -- and you can sometimes see multiple decodes all at once of the repetitive information from the other station. For each line of a contact, you need a NEW METEOR! What a challenge!

Almost immediately we began to hear the little BURSTS of incoming signals as meteors coursed through Earth's atmosphere. Everyone there very quickly recognized the ***zzzzt!*** of a new signal arriving. Some of them were amazingly LOUD!! We saw double-digit Signal to Noise ratios often! There were stations all the way from the north, and all the way down to Louisiana and Alabama all calling on the 50.260 Meteor Scatter Frequency. We heard them easily -- but our puny penny-whistle non-amplified 7300 running off batteries wasn't that loud at their end so we started a couple of QSO's but were not able to finish all the required back-and-forth -- **until we heard K5CPR, in Texas**.



(The photo shows Susan Halbert KG4VWI being coached by Mike Hasselbeck WB2FKO.)

Mike has been doing this stuff for two decades - even when he lived up north and couldn't put up much of an antenna, so he knows all of these niche hams by name! He could just about rattle off beam headings merely by seeing their callsign! When he saw K5CPR he skillfully guided us to zero in on this powerful station and ***voile!*** We had a full completed contact! The photo shows the FINAL message. In the panel to the left you can see parts of the contact. In the right panel you can see that we had to send the last message over and mover and over until we got it through..... I think once in the mix we even got instructions to QSY frequency, which we did! There were so many stations they were QRMing each other! **Who would have believed it?**

Continued on next page.

When the Park Ranger showed up and graciously turned on the electricity for us, we hauled out the incredibly HEAVY King Conversion 6Meter SB-220 amplifier. This is a MONSTER and frankly it is the highest-voltage system I've ever worked with. I've never been willing to fork out enough $$$$ for a 3- 500Z amp -- and **George Deitz KN3PAT just DONATED this one to our effort**. Mike Hasselbeck WB2FKO redid the entire power supply (Harbach unit) and also fabricated a replacement meter and meter switch. I rewired for 110VAC. This thing has so much gain it is AMAZING. We gingerly powered it up at the park and fed it about 20 watts of drive and were getting HUNDREDS out input and output power. The tuning was EASY. We don't dare run this monster through an LDG tuner, of course. It was way to late in the day (due to the geometry) for more meteor contacts, but at least we got it working, without any problems at all. More to come from this amp, I'm sure!!

POTA POTA POTA

After we finished up on the 6 meter escapade, radios of all kinds and antennas were broken out our crew devolved into avid POTA foxes and 10-Meter ARRL Test participants. **David Huckstep W4JIR** was all over the 10 meter phone band -- the technician swath was ***wall to wall*** with stations -- just like a Field Day event! I almost never work phone, but I couldn't pass up a DL2 who was booming in on our end-fed half-wave 80-meter antenna with our antenna multiplexer allowing multiple stations. **Manish Sahni KZ4KC** was busy plying the 20 meter FT8 realm. **Ron Lewis KN4ZUJ** was working stations on his G90 and coaching **Susan KG4VWI** on her Wolf River Coil new antenna. **Leland Gallup AA3YB** was testing out just how many dB of **LOSS** he could coax (pun intended) out of the *thinnest 50-feet of coaxial cable I've ever seen*! I swear, I think it was about the diameter of pencil lead! Leland is a good-hearted fellow and he takes ribbing about his setup quite well, and this provided ample opportunities! **We had a fabulous time**, and retreated only after some hours to our Annual ARES(R) Luncheon to swap stories about the year.

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We were in the top 10% of our 3I category in 2024 Winter Field Day!
We were in the top 6.5% of our 4A category in 2024 Summer Field Day!
Give us long enough, and we might *learn how to do this stuff!*
In the meantime, we are having FUN, trying to compete
with our friends in **Columbia County**!!
Go Alachua ARES!!!

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A Review

This year has seen incredible growth in our people. We are slowly losing a few due to illness, age, the press of other things, and one of our number wants to return to the Cold North for less heat.... but we also pick up the occasional new person, like the amazing Manish (a gerontologist MD at the VA hospital, one of our high-scorers at Summer Field Day) and Mike H, our amazing VHF guru. Ron Lewis, the indefatigable POTA guy! Logan, the EE student whom we're helping with his NASA project, may stick around a bit. Our most committed folks are just assembling more and more radio assets and getting better and better at what they do! This year at summer field day I had configuration issues the first hour and was astonished to watch the performance of the remaining team -- they were collectively making more contacts in one hour than we had made in twelve our first year! I think almost every person operating in our group was going at twice their previous high performance rate! Thanks to people like **Stewart KK4DXF** we have a portable trailer tower, and **Jeff Capehart W4UFL** found us an HF beam, and **Mike WB2FKO** is donating a VHF beam. I think Santa is about to deliver a new rotator for that! **David W4JIR, and Leland W4JIR** are never ceasing to pony up resources to improve our EOC's radio assets. We don't even collect dues. If we need money, people quietly pass cash to the Treasurer and the matter is taken care of.

This year we deployed for more hurricanes than I can remember, tired us all out thoroughly, and qualified the county for more federal money ($60,000) that ever before!

Continued on next page.

WHAT'S NEXT in ALACHUA COUNTY ARES®

- If you would like more TECHNICAL INPUT for yourself, the first Thursday of every month at 7PM we do a **TechNite Zoom lecture** (open to everyone: https://us02web.zoom.us/j/89530741792), and dozens of these are now slide shows on our web page (See the "Educational Articles" at https://www.nf4rc.club/)
- Our **monthly meeting**s are at 7:00 PM the second Wednesday of the month, **open to everyone** on the zoom above. Come at 6:30 for "chit-chat"
- Our **CALENDAR** is on our webpage, also, and generally up to date.
- **Winter Field Day**: We plan to do 3-Indoor, but we may try a *remotely controlled station* (inside the 1000-foot circle) to allow us two stations on the same band (different modes) -- something we've never done before.
- **Our EOC is moving**, and we are nervous about getting adequate antennas and preventing scores of new noise-sources as they build out the World War II huge structure they are slowly renovating. More challenges for us, but we have been told we'll have a TOWER!
- Alachua County Emergency Management is moving to have **formal MOU**'s with each badged volunteer and integrate us formally into the normal County Volunteer structure. That will give us valuable health and liability insurance protection while deployed. Huge win! Leland, our volunteer lawyer wants it precisely this way as we continue to run a very unique ARES(R) group (which is not a club, but "supported" by North Florida Amateur Radio Club NF4RC, and Alachua County EOC Club NF4AC)
- We are just getting all the Improvement Plans from our previous hurricanes and Field Day **accomplished**, one by one! Training for some of us on Everbridge (a county notification system) is in the offing, and county "Flash Reports" prior to incidence are now scheduled for many more of us. Our EM team at Alachua County really treats us well

See Page 2

Alachua County ARES® New Ground—Gordon Gibby KX4Z

NEW GROUND

We are just breaking all kinds of "new ground" as we develop more and more hams with extensive capabilities that would serve our community more effectively if there were a huge need for backup communications. As you observe, we now have active sabotage of Internet going on in the Baltic sea and continued hacking attempts all over the world. Higher up officials of the US Government were just recently urgently asked to use only ENCTRYPTED applications on their cell phones due to the successful hacking into most of our telecommunications systems in the USA.

POTA ACCOMPLISHMENTS

1. We successfully got the 6 meter beam going on the tower and everyone learned how to do METEOR SCATTER communications.
2. At the same time, we got more experience running multiple HF stations in a small area, and Susan got a chance to try out her new field-expedient vertical antenna. Ron's "suitcase" setup is amazing!
3. 10 meter activity was off the charts and thanks to Huckstep's gear several of us got to work European voice DX on our ad-hoc 135-foot end fed antenna -- on ten meters!!
4. For the FIRST time I was able to get the incredible 6 meter amplifier working, wired now for 120VAC. The grid metering doesn't yet work and I have not yet tried to improve the T/R relay. We need a new stage there, because the voltage and currents exceed what our 7300 rigs can do for that relay. There are several options, but I can't get to it QUITE YET. It will happen. We gingerly pushed it to around 300-500 watts output (about 0.35 Amps input @ 2200VDC plate voltage). This is in the FIELD on a PICNIC TABLE.

LONG RANGE POSSIBILITIES

Now thinking through what we could do in the LONG RUN: Pennies have been accumulated a few at a time, and a new medium-duty Yaesu rotator (DC motor control!) is now in shipping to us to add to our gear. This means we can have independent rotating of a 6-meter antenna for the next Summer Field Day! But it also means that we can potentially have 2-axis control eventually of either 6-meter or 2-meter/70cm antennas -- and that means that eventually we could do:

a) any satellite we want

b) Moon bounce!

We would need to rig up a bit of hardware/software to do either of those (raspberry pi's etc to control the two rotators) but I can see a TON OF FUN in our eventual future: with JT65 and MSK144 and a 6 meter amplifier, and all the radios some of you own.....this is going to be a LOT of fun!

---------WINTER FIELD DAY----------

Dave Huckstep is starting the process of going through Emergency Management to ask for permission to put one station in the grassy parking lot for Winter Field Day. If granted, this would allow us to have complete frequency freedom, to have TWO stations on 20 meters when it is hot, and even to remotely control from the EOC, a psk31 type station in the field without a human there. This might allow us a lot more freedom during nighttime when normally there are only two frequencies that work -- 80 meters and 40 meters. The key advantage is daytime when we could rack up points on TWO MODES simultaneously on 20 meters or whatever is "hot" at that moment. The ability to do things like this is a key skill for a radio "camp" in a region-wide disaster.

Simplex VHF Opportunities

We also have the EOC tower mounted antennas and can use WINLINK to set up a time for 2-meter simplex QSOs.

At the grassy field, we could also pull up my homebrew 6 meter antenna on a rope and probably make a good number of 6 meter contacts in the local area on voice.

Winter Field Day is basically THREE OPERATOR SKILLS:

a. Voice
b. CW
c. PSK31 (there is no FT8/FT4)

The first two rely on operator innate skills; the third (PSK31) revolves around getting the WSJT-X set up properly and having a bit of "canned text" on function keys (a computer where you can hit the function keys without needing to also hit some special key to enable them, is also a must) so you don't have to TYPE so much. When you do this correctly, you can run contact after contact with just a very few keystrokes and about as fast as FT8.

We will need to have a bit of January training on

1. Remote operation of radios via computer (basically remote desktop)
2. LabNLunch to help people get their 12V to 120vAC Inverters up to speed without RFI (we're going to try to run off emergency batteries for the event and have to run laptop computers and potentially more from inverters
3. A bit of practice on PSK31

TRAINING SCHEDULES: JANUARY

The LABNLUNCH is Saturday January 11, and we may do some PSK31 review/training at the January 8th meeting at Queen of Peace.

I'll go over remote desktop operation of PSK31 etc in the Thursday TECHNITE on January 2nd (from North Carolina). I'll probably remote control the sBitx up there in the back room, from the Zoom computer in the living room to demonstrate how you do that. Don't miss it -- you can get on the air and make a QSO with me! Probably 40 meters or 20 meters. There is a telephone pole up there making a huge amount of RFI, which I'll talk to the power company about this time, but I probably can't get it FIXED by then.

I'll come up with a SCHEDULING system over the break up in North Carolina. I just finished my high school classes Friday.

Continued on next page.

FIRST METEOR SCATTER ARES(R) CONTACT!

Gordon Gibby KX4Z

Under the expert guidance of **Mike Hasselbeck WB2FKO**, the Alachua County ARES(R) group made their FIRST **meteor scatter 6-meter contact** this Saturday, Dec 14 2024, at the San Felasco State Park -- using only about 80 watts and a 3- element beam. After a LOT of trying (this is not easy like FT8....) we got the entire contact done with K5CPR, in Texas. Carl is apparently an avid meteor scatter ham and our contact (to our North Florida Amateur Radio Club call NF4RC) shows up on his QRZCQ page.

We arrived to San Felasco expecting to use our "new" 6-meter dual-3-500Z amp only to find there was **no electricity**! So we were barefoot on batteries for the morning optimal times. We were actually HEARING a lot of stations -- and we all got very good at recognizing the unmistakable sound of an incoming MSK144 "ping" when a meteor hit the atmosphere and briefly opened up a window for reflection. Other stations were not hearing us nearly as well as we were hearing them -- many of the signals we heard had very positive S/N ratios on MSK144 and the signals were LOUD. We actually also got a STRONG signal report (positive) from one station also. Thanks to the Geminids meteor shower, we were hearing and seeing signals very, very often. But to get five or ten necessary to finish one complete two-way contact.....that is harder!! K5CPR was our only total success of the morning.

Later (when the earth geometry no longer favored meteor scatter) a helpful park ranger showed up, turned on the power for us and explained the registration process I had not known about.... so we'll be better prepare the next time! We hustled the hefty SB-220 amplifier over and fired it up for the FIRST TIME for us (Mike H had it working before but we rewired it to work on 120VAC) and actually got it working on 6 meters into the beam! We didn't have an output power meter at that point, but we had it running about 0.3+ Amp plate current @ 2200VDC so around 700 watts "input" and estimate 350+ watts output into the antenna.

Another FIRST for us! The T/R relay turns out to be 21VDC @ 62 mA and that exceeds safety for an ICOM 7300 "send" output so we will need to work on that, but we are almost "there" at having a real working 6-meter monster amplifier, thanks to George Dietz KN3PAT, who generously donated the amp to our group -- and Mike, who redid the entire power supply and created a replacement meter as well.

Elsewhere I'll report on the 10 meter and POTA and other great work other folks in our group were doing on the same outing. Everyone was having a ton of fun!!

Suwannee ARC

Steve KostroN2CEI, President,

Repair work continues at the Suwannee ARC Clubhouse. Many of us are now finishing final details on repairs made to our homes and businesses and will be able to devote some hobby time to club work parties. Nothing left to do is major, just time consuming. But, we all took time out to celebrate the holiday season together in place of our standard December meeting.

The decoration committee did an outstanding job in providing a festive mood, the meal procurement team provided an outstanding BBQ dinner for all and everyone chipped in by bringing their favorite holiday desert to share. We had a great time. We started with our traditional Social Hour to catch up with what everyone has been doing with their families and Radio Activity. Discussions were made concerning the next work party and plans were developed of whom and when the work would be done. There was even talk about the clubs participation at the Orlando Hamfest in Feb. Just got to stay on top of these things!

The club did miss operating in the ARRL 160M and 10 M contests this year due to not having enough time to prepare for the events. We also made decision not operate in the ARRL Jan VHF contest due to needing time to do the antenna re-alignment that Helene left us.

Then, it was time for Dinner! The Chow line developed quickly and all found a seat to continue the party with discussions about who made what desert and all calling dibs!

As always, our group has a great time with storytelling and some "tomfoolery" and we all agreed to meet again on Jan 7th for our first Business meeting of the 2025 year. Happy New Year from all of us at the Suwannee ARC!

AND----- member, Please if you are passing through the Live Oak area, take time to say hello on our 145.410 repeater (-600, 100 PL) and as always, (after our repairs are finalized) if you hear us on the bands 160M through 3cm, give us a call and say HI! Then if you worked us in any past operation event, or even just in a casual QSO, you will find your QSO information on LOTW. We hope you are enjoying your favorite aspect of the hobby and maybe catch you on the bands some day! See you soon and all the best from all of us at the Suwannee ARC!

re-

W2TTT Worked WB4OMG on 1296 MHz over 160+ Miles

Thanks to Doug K4LY who kindly, but persistently nudges me, I finally made a1296 MHz CW "DX" contact today with WB4OMG.

Buddy WB4OMG is down in Lakeland and I am in Suwannee County west of Live Oak over 160 miles away. We completed on 1296 MHz CW with a grid dish at roof level at W2TTT! I also heard him on 2304 MHz, but he didn't hear me.
Thank you Buddy!

I need to get the IC-905 RF unit and antennas up higher and finish mounting my feed for 10 GHz on another dish.

Read on, as when setting up, we discovered a huge problem with the 5760 MHz port on the IC-905.

Gordon W2TTT with an IC-905, 12AH LiFePo4 battery, a key and pen and paper logging. Ham shack is in the background. Far background is James KO4LFB's QTH across the road.

Gordon W2TTT using an "Armstrong rotator" to peak up on WB4OMG's signal. The antennas are grid dishes for 600-6000 MHz found on Amazon. One was on 1296 MHz and the other 2304 MHz. The antennas were only ten feet above the ground.

Gordon W2TTT working Buddy WB4OMG on 1296 MHz CW.

Grid dishes on 1296 and 2304 MHz at roof level.

Continued on next page.

A broken SMA shield on the IC-905 5760 MHz port. I also discovered that a piece of RG-400 broke the SMA bulkhead barrel off the top of the IC-905 and prevented the use of 5760. It had proper strain relief so I am annoyed. I am working on a fix, but I would welcome ideas.

A good 2304 MHz SMA port on the IC-905.

Again, thanks to Buddy, Doug and others who motivated me to get on the air and not defer to perfection. If you would like a QSO on any VHF-UHF or SHF band, please send me an email, a text or even give me a phone call.

73,
J. Gordon "Gordie" Beattie, Jr., W2TTT
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W2TTT@ATT.NET
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THE MELROSE EMERGENCY COMMUNICATIONS INIATIVE

Reid F. Tillery, K9RFT, WRZM878

The 2024 hurricane season made us all painfully aware of the need for robust emergency communications. In Western North Carolina, for example, there were no normal communications in many parts. No cell phone. No landline. No internet. In fact, the only way messages moved in and out of some areas was through amateur (ham) radio. The Mt. Mitchell repeaters and others, along with various high-frequency nets, were often the only way information was getting in or out of the area, proving the point that ham radio works when all else fails.

This same year we here in Melrose received only the outer edges of Hurricanes Helene and Milton, sparing us major damage. But what if we had lain directly in the path of either one or both of these storms? Helene hit the Florida Big Bend coast as a CAT4. Milton hit around Sarasota as a CAT3+. Imagine either one of these hurricanes slamming into Cedar Key and coming across the state, perhaps hitting Gainesville and us as a CAT2. Trees would be down, many houses would be demolished, power would be out, there would be some flooding, and cell towers which depend on both the internet and electricity could well be out of commission.

In short, it would be a disaster. Normal communications would likely be disabled. Even if there were working cell-phone towers, they can handle only a fraction of subscribers at any one time. When too many people try to make a call, as would likely be the case, there's not much chance of any one subscriber actually completing a call. Landlines might work, but there's no guarantee. Besides, few people have landlines these days, relying instead solely on cellular phones.

With no power and no means to call for help or to communicate with friends/loved ones out of the disaster zone, what would we do? Unless prepared, the answer is we'd be out of luck. How do we prepare?

GMRS COMMUNITY RADIO NETWORK

The simple answer is we'd use two-way radios to form a community-wide radio network. The radios of choice here are those of the General Mobile Radio Service (GMRS). These radios use ultra-high frequency (UHF) waves, which are line of sight, meaning they won't go past the earth's curvature, nor will they go over hills. With GMRS radio, communications distances are limited by the height of our antenna and the power of our radio. The reason GMRS are the radio of choice is that the FCC allows them to have up to 50 watts of power and you can place an antenna about as high as you're going to want. Also, repeaters, which receive your radio's signal, amplify it, and send it out again are allowed. Using a repeater, we can improve local communications by increasing the distance we can talk.

The structure of a local communications network can consist of "Key Stations" and handheld radios. The more Keys, the better because they have more power and can talk farther.

Key Station – This term came from California where some communities established GMRS radio networks to be used in case of wildfires. Those stations high on a hill could see the fires off in the distance and were called "Keys." Here in Melrose, we don't have those kinds of hills, but we can raise a high antenna giving us a longer communications reach, probably around three miles. Plus, we can have a 50-watt radio with backup power available. Such backup power could be a battery or two. It could also be household electricity if you have a generator or some other way to keep the lights on should commercial power fail. A station then with an antenna at least 30 feet high, a 50-watt radio, and backup power is called a "Key station."

Handheld Stations – Many people on the network will have a handheld station, known as a handi-talkie or HT. These have a maximum power of around 5 watts and have a reach of about a mile when using the "rubber duck" antenna which normally comes with the radio. The rubber duck, however, can be replaced with a longer antenna. Also, using an adapter attached to the radio's antenna port, you can attach some coaxial cable which feeds a raised antenna. An easy way to raise an antenna is to throw paracord over a tree limb and raise the antenna as you would a flag. It's easy to string paracord over a tree limb using an arborist's throw bag. The raised antenna gives your HT a much longer range.

SIMPLEX OPERATIONS vs. REPEATER OPERATIONS

Simplex – Simplex operations means that we are talking "from my antenna to your antenna." There's no infrastructure whatsoever between us. There's nothing a hurricane can knock down or put out of commission. As long as my radio works and your radio works and we are in range of each other, we can talk. Keys as mentioned earlier will have a longer range because of their high antennas and increased transmitting power. The longer range of Key Stations is particularly valuable in a simplex radio network because a Key can often relay for another station.

Example: Jane's husband Stan may be suffering a stroke. With no 911 to call, Jane calls out on her HT for help. George's Key Station hears the call. George relays Jane's message to the Net Control Station (NCS), which is like the network's host station. The NCS is also a ham-radio operator and relays Jane's message via ham radio to the County EOC.

In simplex operations, relay can help messages travel farther, making the ability to relay an important skill for any operator on the network.

Continued on next page.

Repeater – Repeater operations are a bit different. A repeater is a pair of radios usually attached to a high antenna. As mentioned, a repeater receives a signal, amplifies it, and sends it back out. The advantage of using a repeater is that the communications range between two radios can be extended.

Example. Matt and Sam both have HTs with rubber duck antennas. Antenna-to-antenna, they can probably communicate if they're no more than about a mile apart, assuming there are no hills between them. Their town, however, has a repeater with a high-quality antenna about 50 feet in the air. When Matt transmits to Sam, Matt's signal is received by the repeater's antenna, is amplified and instantaneously re-transmitted. Sam's radio picks up the repeater's signal, meaning Sam is hearing Matt. Same thing happens when Sam transmits. The height of the repeater's antenna allows it to receive signals from about two miles away, meaning Matt and Sam could be about four miles apart and still communicate. If the repeater's antenna were higher, say 200 feet, Matt and Sam could communicate from a much farther distance, maybe 15 miles or more from either side of the repeater, meaning they could be up to 30 miles apart and still communicate. Antenna height makes all the difference since UHF waves are line of sight.

Repeaters often use "privacy tones," or sub-audible signals accompanying a transmission. Only those signals received by the repeater which contain the proper tone are allowed. These tones come in two varieties: continuous tone-coded squelch system (CTCSS) and Digital Squelch System (DCS). CTCSS is by far the most used. You set the proper tone in your radio. The term "privacy tone" is a misnomer. It doesn't make your conversation private. Anyone with no tone on their receive function can hear you. You just can't hear them if they don't have the proper tone. It's analogous to a one-way mirror in your living room. Outsiders can see in, but the mirror screens them from your view. So, with a privacy tone, others can hear you, but you are not bothered by hearing them when they transmit. This is not privacy in the normal sense of the word.

A repeater extends communications, but a repeater can fail, normally because it loses power. Most repeaters are battery-powered so they can operate during a major power outage. At some point, however, the repeater will need fresh batteries to continue to operate. If batteries can't be recharged or replaced, the repeater will die. Fortunately, batteries can often be recharged using generators or solar power.

Repeater – Repeater operations are a bit different. A repeater is a pair of radios usually attached to a high antenna. As mentioned, a repeater receives a signal, amplifies it, and sends it back out. The advantage of using a repeater is that the communications range between two radios can be extended.

Example. Matt and Sam both have HTs with rubber duck antennas. Antenna-to-antenna, they can probably communicate if they're no more than about a mile apart, assuming there are no hills between them. Their town, however, has a repeater with a high-quality antenna about 50 feet in the air. When Matt transmits to Sam, Matt's signal is received by the repeater's antenna, is amplified and instantaneously re-transmitted. Sam's radio picks up the repeater's signal, meaning Sam is hearing Matt. Same thing happens when Sam transmits. The height of the repeater's antenna allows it to receive signals from about two miles away, meaning Matt and Sam could be about four miles apart and still communicate. If the repeater's antenna were higher, say 200 feet, Matt and Sam could communicate from a much farther distance, maybe 15 miles or more from either side of the repeater, meaning they could be up to 30 miles apart and still communicate. Antenna height makes all the difference since UHF waves are line of sight.

Repeaters often use "privacy tones," or sub-audible signals accompanying a transmission. Only those signals received by the repeater which contain the proper tone are allowed. These tones come in two varieties: continuous tone-coded squelch system (CTCSS) and Digital Squelch System (DCS). CTCSS is by far the most used. You set the proper tone in your radio. The term "privacy tone" is a misnomer. It doesn't make your conversation private. Anyone with no tone on their receive function can hear you. You just can't hear them if they don't have the proper


THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM

Roscoe Bremer
123 Elm Street
Anytown USA

Happy	birthday	old	man	X
Hope	this	day	goes	well
for	you.	X	See	you
in	February	for	our	ski
trip				

REC'D SENT

tone. It's analogous to a one-way mirror in your living room. Outsiders can see in, but the mirror screens them from your view. So, with a privacy tone, others can hear you, but you are not bothered by hearing them when they transmit. This is not privacy in the normal sense of the word.

A repeater extends communications, but a repeater can fail, normally because it loses power.

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Most repeaters are battery-powered so they can operate during a major power outage. At some point, however, the repeater will need fresh batteries to continue to operate. If batteries can't be recharged or replaced, the repeater will die. Fortunately, batteries can often be recharged using generators or solar power.

Whatever, the mail must go through. Traffic handling is not a hobby. It's a commitment. There are ham-radio operators who devote a large part of their lives to handling traffic.
With your GMRS radio, you can originate a Radiogram to anyone in the country and to anyone in many places around the world. The reason for that reach is ham radio, which we'll look at next.

GMRS NETWORKS CAN INTERFACE WITH HAM-RADIO NETWORKS

Since GMRS radio uses UHF frequencies, GMRS networks are limited to local, line-of-sight communications. Messages needing to leave the local area must go out by some means other than GMRS. That other means can be amateur (ham) radio.

Ham-radio operators using very high frequency (VHF) and high-frequency (HF) communications can get messages across the county, across the nation, and even across the world. VHF waves are similar to the UHF waves your GMRS radio uses. Barring some unusual circumstances, they are line of sight, making them good for local communications. HF waves on the other hand can travel thousands of miles because they can bounce off the ionosphere, which is about several hundred miles above the earth. Think of ham-radio operators as the community's long-distance carriers. GMRS networks can interface with ham-radio networks when some of the GMRS operators are also ham-radio operators.

The Alachua County Amateur Radio Emergency Service (ARES) group has a well-developed VHF ham-radio network in the County. During emergency situations, ARES members are embedded in the Alachua County EOC and County shelters. These plus several dozen ham-radio operators at home and in other locations make up an emergency communications net run by highly qualified and experienced NCSs. The net meets for practice every Thursday evening at 8 pm local time. During actual emergencies, the NCS is on the air 24/7 and the entire net comes together several times a day.

Should someone local have some type of medical emergency, a call on the GMRS network can contact a ham/GMRS operator. That operator can relay the message to the ARES net's NCS who can contact the EOC to inform them of the situation. The more ham-radio operators on the GMRS net, the better chance any GMRS operator will have of reaching one, underscoring the obvious need for more licensed ham operators on our GMRS net.

Moreover, even if a message does reach the EOC, during a disastrous emergency there's no guarantee that help can be forthcoming, but at least the message will have gotten through. The possible lack of immediate response from emergency medical services points out the fact that when things get tough, we will need to be our own first responders, tending to situations as best we can, perhaps with the aid of neighborhood doctors, nurses, paramedics, or EMTs. A good local radio communications network helps us get to know our neighbors, learning who has what skills and who might be willing to help when need arises.

TYPES OF MESSSAGES AND HOW THEY CAN LEAVE THE LOCAL AREA

Most disaster messages fall into one of three different types:

- **Emergency (911) messages** – Urgent calls for emergency medical services or law enforcement. Normally, a ham on the GMRS network could relay these types of messages to the ARES VHF emergency net, which is in contact with the EOC.
- **Health-and-welfare messages** – Relate the status of those inside the disaster zone to friends and relatives outside the zone. These are normally, but not always, sent out as a Radiogram.

  These messages do not go to the EOC but can be sent out in one of three ways:

  Ham radio's National Traffic System (NTS), a chain of interconnected radio networks used for relaying messages.

  Winlink. a radio email program which can use either VHF or HF to get the message out. The first hop of the radio email's journey is over the airwaves to a Radio Message Server (RMS), a station run by a volunteer or volunteers which can send the message on to an internet gateway. There are some 2,500 RMSs scattered throughout the world. Once onto the internet, the message is delivered just like any other email. The recipient can even reply, and the ham-radio operator can receive the reply.

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Starlink, satellite-based internet. Space X's Starlink Mini is small and portable and can be set up in any spot with a clear view of the sky. Set up takes about 3 minutes and Starlink can deliver high-speed internet via a Wi-Fi router built into an antenna about the size of a standard sheet of paper and two inches thick. Starlink Mini can be powered by batteries, using either AC or DC current. For use with AC current, an inverter is necessary. Starlink can run straight off a 12-volt battery, including any random car battery, making it an excellent emergency communications tool.

Utilities availability messages – Reports to the EOC concerning the status of different utilities such as power, water, cell phones, land lines and commercial TV and radio. These messages can go out by Winlink, using a special template built into Winlink for just such reporting. These messages can also be delivered by voice, although a Winlink template is preferable.

HAM-RADIO OPERATIONS

As mentioned above, ham-radio operators can use VHF and HF waves. They can also use UHF waves but those aren't as robust as VHF for local communications, so VHF is generally preferred over UHF. Ham radio is decidedly different from either GMRS or CB radio. On-air privileges are much expanded. With greater privileges come greater responsibilities to use the airwaves properly and wisely. Unlike GMRS which requires no test to receive an FCC license, ham-radio operators have all passed at least one required test to be able to operate. The idea is that those on the ham waves must have at least a minimum of education and knowledge. Testing helps ensure that.

One aspect of ham radio is emergency communications (EmComm). They say when all else fails, ham radio works. This is because ham radio requires no infrastructure between operators other than the antenna of each. Moreover, these operators can be hundreds of miles apart, often farther.

To better use the power of radio waves for EmComm, hams have developed the NTS, mentioned earlier. This interconnected chain of radio networks can move Radiograms around the state, the country, and to many places abroad.

NTS nets meet on the air as much as once a day. Here in Florida, for example, we have the Florida Phone Traffic Net which meets on air every morning at 0700 Eastern time. It's a directed net in which traffic is handled and moved to other nets as necessary. We also have the Northern Florida Phone Net, another directed net, which meets each day at 1930 Eastern time. There are other nets. These are just two examples.

Once your Radiogram is delivered by a ham-radio operator to any traffic net, it is considered sent out. Of course, as we've discussed, an NTS net is just one way to get messages out of the disaster zone. There's also radio email and satellite email via Starlink.

Without ham-radio operators, your GMRS messages will likely stay in the local area. What this means is not only do we need more GMRS operators on our community radio network, but we also need more ham-radio operators on the network. Anyone with an interest in developing the skills of emergency communications is more than encouraged to do so. The knowledge you gain and the skills you develop can help your community in times of emergency. Even if your skills are never needed, there is beauty and order in being properly prepared.

As a ham-radio operator, you will meet lots of good people in the local area. We have two ham-radio clubs, (1) Amateur Radio Emergency Service (ARES), and (2) Gainesville Amateur Radio Society (GARS). Both are great organizations. The first is, as the name implies, more focused on EmComm. ARES volunteers staff the Alachua County EOC and the County's disaster shelters. GARS members have a variety of radio interests, including EmComm.

THE WILDERNESS PROTOCOL

Okay. It's great having these radio networks, but in an emergency situation people can't hang out on their radio all the time. They'll be tending to urgent issues such as property damage and other issues created by a disaster. Plus, with no power, they're going to want to turn off their radio to save batteries, even though they can charge their handheld radio from their vehicles. What if I get on the radio to deliver some traffic and nobody's there?

Excellent question. The answer is “The Wilderness Protocol,” a suggestion of certain times when everyone should be on their radio for ten minutes beginning at the top of the hour for specified hours. Those hours are 7 am, 10 am, 1 pm, 4 pm, 7pm, and 10 pm. This way, anyone needing to communicate will find as large a group as possible to communicate with. You don't need to limit your radio use to these times. It's just that these times are when you're most likely to have the most people listening. Falcon stations are encouraged to be on the air not only at these times but whenever it makes sense given their particular situation.

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The more people on the air, the better it is for you:

> **Example.** With no power, you're making lunch over an open fire—hot dog and canned beans. You're not much of a cook but you can put hot dogs on a stick and roast them. You decide to warm the canned beans in the fire. Putting the whole unopened can next to the hot coals seemed like a good idea, so that's just what you did. As you bent down to check the can, it exploded and boiling hot pork-and-bean juice splattered all over your face, leaving you with second-degree burns on your face and head by your left ear. You instinctively splash cool water on your face, but the pain is unbearable. It's a quarter of a mile to the nearest neighbor. You feel faint and can't manage to travel there. You call out on the air, but sadly no one responds (we need more people on the air). It's 1235 so you decide to wait until 1 pm and call when others should be on the air. At 1 pm you call out on the radio. The NCS answers and you tell him your problem. Net control asks if anyone can help. Your neighbor down the road, Robyn, responds. She is a registered nurse and has worked in the burn unit of a local hospital. NCS dispatches her there and also asks a ham on the GMRS network if she can contact the EOC to see if they can send someone. Because of the Wilderness Protocol, people were on the air at the prescribed time.

RADIO NETWORKS AND ADVANCING TECHNOLOGY

As technology advances, some may wonder if a radio network is a necessary solution. Apple, for example, offers satellite messaging on its phones. Space X and T-Mobile are planning to allow T-Mobile customers to use Space X satellites for off-grid messaging. Data and voice services are not yet available but may be in the future. Plus, more partnerships between terrestrial mobile carriers and satellite networks may soon appear. These are wonderful advances and can help people stay in touch in disaster situations.

Do these new advances then eliminate the need for local radio networks? At this point, no. The ability to text message using satellites is helpful, no doubt, but the advantage of a radio network over point-to-point messaging is that you can reach multiple people at the same time. Consider the case in the example above. Via the local radio network, you were able to get help from a nearby burn-unit nurse. With point-to-point texting that would not have happened.

Let's look at an example from marine radio. Boats are encouraged to have a VHF radio aboard and to monitor channel 16, the hailing and distress channel. Now, let's say you're 5 miles offshore and your boat is sinking. Using your Apple phone, you can satellite text your spouse or a friend at home, letting them know of your distress. By the time they contact 911 who then calls the Coast Guard who then sends out a rescue boat, you're floating around in your life jacket. On the other hand, if you issue a Mayday call on your VHF marine radio, you talk to everyone in the vicinity. Not only does the Coast Guard hear your call, but also boats nearby. In this case, we'll say a boat two miles away heard the call, noted the position you gave, and came to your rescue before your boat went down.

Although point-to-point texting has its place in EmComm, talking to everyone in the vicinity has definite advantages as the examples above show. This means our local radio network is necessary and definitely not outdated.

CONCLUSION

The Melrose Emergency Communications Initiative (ECI) is being duplicated in other rural communities here in Eastern Alachua County. Windsor, for example, has a GMRS repeater with backup power and a GMRS radio network with meets periodically. Their repeater has a range of about six miles.

Cross Creek is in the process of putting up a GMRS repeater at Fire Station 63, which has backup power. They already have a solid Rohn tower, the repeater's antenna, and the repeater itself. Once it's up and running, people should be able to talk from one end of Orange Lake to the other end of Lochloosa.

Fire Station 63 in Cross Creek has a ham-radio antenna and a ham-radio volunteer operator. Station 61 in Windsor has a ham-radio operator and a volunteer operator. And in Melrose, Station 24 – 42 has a high-gain ham-radio antenna and an operator. All these stations can reach the EOC if necessary, by ham radio, helping to ensure these rural communities won't be isolated when and if disaster strikes.

We need a “deep bench” of ham-radio operators who will volunteer at these stations during times of disaster. Such volunteers must have a ham license and be able to pass a background check or to be otherwise vetted by each station.

Finally, the Town Council of LaCrosse has agreed to accept and erect a 58-ft Rohn tower at the Town's Fire Station. We have a couple of volunteer operators for that station. We can always use more. Things happen. Sometimes people can't be available, which is why we need that deep bench of operators.

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We hope the ECI is ultimately implemented all over Alachua County to provide a county-wide emergency communications network. We never know when we'll need it. Who would have ever thought North Carolina and Tennessee would be affected in the disastrous way they have been? It's up to us to develop these communications for the benefit of everyone. The two-way radio is a workable and fairly simple means to do that. In a disaster, it can save lives, reduce misery, and provide people with the comfort of knowing they are not alone. Informing our neighbors of radio's benefits and helping them learn to use it is incumbent upon those of us who understand radio. We know we have a decent solution to disaster communications.

So, in closing, there are just two questions which should weigh heavily on our minds and hearts:

IF NOT US, WHO? IF NOT NOW, WHEN?

PowerPole Tricks

Along the way, some people simply wanted to have some guidance on their proper use of these handy connectors. Others were expressing their views about why some equipment vendors such as Flexradio sell equipment with Anderson PowerPole bulkhead or pigtail connections. To dispel any myths of nefariously misplaced
vendor frugality, please understand that their adoption and use is customer-driven. Customer users have made their product integration a wise choice in the marketplace. You can agree with its selection or not, but their functionality and convenience draws people to use them in their equipment.

Below is a consolidated set of my PowerPole guidance that were previously observations scattered across several email postings. I would welcome email or phone calls with differing or additional thoughts.

Baseline Experience
Since the introduction of the 15/30/45 Ampere red/black Anderson PowerPole connectors into the ARES and broader EMCOMM community, I have used thousands of Anderson PowerPole connectors without difficulty because:

1. I use the REAL Anderson PowerPole connectors. The "real-deal" just works if you use them correctly.
2. I crimp the connections. Soldering creates a stiff and brittle connection at the junction of the pin and the wire.
3. I use the proper crimp tool in good condition. A crimp tool with slots for each of the 15, 30 and 45 ampere tips is essential. A barrier cap on the tool ensures that the crimp is placed over the wire immediately behind the crimp barrel of the tips. Also make sure that the tool die doesn't become worn and fail to provide a proper crimp connection.
4. Set up the associated wiring to reduce strain, stress and where possible, vibration on the connector.
5. You can use contact spray or paste treatments, but I haven't had to do so.
6. Exercising any connection periodically is generally a good idea. I don't as a matter of routine maintenance practice, but then again, things get moved around here throughout the year so the "connector exercise" might be "baked in" to actual operations.
7. I generally don't use a pin to lock the two parts of an Anderson PowerPole pair via the alignment hole.

NEVER use a conductive alignment pin.

There are too many concerns over heat due to other marginal factors outlined throughout this discussion that give me caution as it could create a short through the metal pin if somehow the connections heat up and melt or burn.

I will sometimes use A DROP of Crazy Glue, Gorilla Glue or other similar adhesive if I see a need to keep two conductors of Anderson PowerPole connectors need to stay aligned. When using glue or other adhesives, take care not to block the electrical connections on the pins with flowing liquid.

In extension leads where two pairs of Anderson PowerPole connectors are joined together, I have used a non-metallic clamping pin that keeps each pair aligned and the two pairs joined through their respective alignment holes. If you have them, use small sized, non-conductive zip ties across the connector pairs by looping the zip tie between the wires going into the plastic shells.
8. It is nice to squirt A SMALL AMOUNT of Silicone RTV into the back of the individual Anderson PowerPole shells and terminals to help protect them from wire movement and moisture. It's not perfect, but seems to help in light moisture use cases such as placement on the ground when there is dew, other condensation and even light rain.

Another step to help protect Anderson PowerPole connector pairs or double/triple/quad pairs is to use a commercial flexible shroud made specifically for the purpose. Alternatively, you can use small pieces of heat shrink tubing on each lead and then a bigger piece of heat shrink tubing over the collected wires.

A variant of that approach uses just the bigger piece of heat shrink tubing and when the back end over the wires is not quite shut, to inject A SMALL AMOUNT of Silicone RTV.

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Caveat Emptor
There have been a few wonky situations traceable to using cheap connectors:

1. Do not use connections where the connectors are cheap imported imitations. These may not make reliable connections initially or over time, resulting in low voltage and/or heating conditions. Neither of these is good.
2. You may run into assembly and installation issues where the connectors are cheap, imported imitations and NOT REAL Anderson PowerPole connectors.

Don't cut corners with what you use and how you use them and they will give you good service.

Supplementary Thoughts

I do use the correct Anderson PowerPole tips with one exception:

I only use 30A and 45A pins. When I have a need for a smaller gauge wire, I use a 30A connector tip with the wire tripled up under the crimp. This has never been a problem.

For any connection, soldered or crimped, it is important to not yank the wire to break connections. Instead, pull from the connector and to control for wire movement or all kinds near the connector, Anderson PowerPole or anything else!

Closing Thoughts
Following these simple guidelines will give you a good experience with your Anderson PowerPole connections. If you have concerns or additional ideas, please drop me an email, text or phone call. See you on the bands!

Lake Panasoffkee Christmas Parade 2024

Mark Newby KX4LEO

Sumter County ARES Supports the Lake Panasoffkee Christmas Parade

December 7, 2024

Sumter County ARES, in cooperation with the Hog County Amateur Radio Association, provided communications for the annual Christmas parade in Lake Panasoffkee, Florida on Saturday, December 7th, 2024. Amateur radio operators were paired up with event organizers to facilitate communications among parade officials while others helped coordinate the parade's line-up. Amateur operators were positioned along the parade route to report any incidents and provide updates on the progress of the parade.

The event's Incident Commander was the Emergency Coordinator from Sumter County ARES who coordinated road closures with local public works crews and local law enforcement. Amateur radio support for this event was coordinated by Gene King, KI4LEH, the Sumter County ARES Planning Section Chief and President of the Hog County Amateur Radio Association. The Hog County Amateur Radio Association repeater was used as the primary repeater for this event.

We want to thank the following amateur radio operators who helped make this event safe and enjoyable for all who attended:

- Hank Dupont - KQ4DAF,
- Bob Hadden - KK4IAF,
- Doug Durkie - KN4OVA,
- Gary Roth - KD0RIS,
- Jeff Taffuri - KO4NCC,
- Verne Betlach - K4VEB,
- Gail King - KJ4GEK,
- Gene King - KI4LEH,
- Paul Koch - KD2HQV,
- Rusty Blankenship – WV1TPR,
- Michael "Spike" McKenzie - N4EBF,
- Greg Madore - K1MGR,
- Bob Smith - KC8KCM,
- Ken Simmons - K9TPT,
- Ron Fournier - N8BKB,
- Jeremy McCook - KM4BXQ,
- Mark Newby - KX4LEO

FCC Testing Information

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Statewide Digital Radio Resources

Did you know we have 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**

Feel free to link your local repeaters to help create a digital repeater network through the state!

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