QST NFL

Newsletter for the Northern Florida Section

Come join the FUN!

Volume 11 Issue 8 | www.arrl-nfl.org | **August 2024**

From the Shack of the Section Manager

Scott Roberts, KK4ECR (kk4ecr@gmail.com)

Ham Radio and Public Service: Making a Difference in Your Community

Amateur radio, or ham radio, is not just a hobby, it's a vital part of public service. Ham radio operators, with their unique ability to step up in times of need, play an integral role in their communities. In this article, we will delve into how these operators contribute to public service efforts, showcasing their significant impact on community well-being and safety.

1. Emergency Communications: When conventional communication networks fail during emergencies, ham radio operators become a reliable lifeline. Their equipment and skills enable them to establish dependable communication channels, connecting individuals and organizations when it matters most. Whether it's providing vital updates during natural disasters, coordinating search and rescue operations, or assisting with medical emergencies, ham radio operators are often the first and last line of communication in critical situations.
2. Public Events Support: Ham radio operators frequently volunteer their time and expertise to support public events, ensuring smooth operations and enhanced safety. From marathons and parades to festivals and community gatherings, hams bring communication equipment to facilitate coordination between event organizers, security personnel, and volunteers. By providing real-time updates and effective communication, ham radio operators help create a secure environment and enhance the overall experience for participants and attendees.
3. Disaster Relief Assistance: In the aftermath of disasters, ham radio operators are at the forefront of relief efforts. They establish communication networks in areas where infrastructure has been damaged or destroyed, enabling rescue teams to coordinate their operations effectively. Additionally, hams assist in gathering and relaying critical information, such as supply needs, medical emergencies, and missing persons, helping relief agencies prioritize their efforts and provide timely assistance to those in need.
4. Community Support: Beyond emergencies and disasters, ham radio operators proactively engage with their communities, supporting various local initiatives. They volunteer for public service organizations, offering their communication skills to aid community programs, fundraisers, and charity events. By providing reliable communication, hams ensure that these events run smoothly and efficiently, contributing to the overall success and positive impact on the community.
5. Education and Outreach: Ham radio operators are crucial in educating and inspiring others to participate in the hobby. They organize training sessions, license classes, and workshops to introduce newcomers to amateur radio. By sharing their knowledge and experiences, hams encourage others to explore the endless possibilities of communication and public service ham radio offers.

Ham radio operators possess unique technical skills, community spirit, and a passion for public service. Their dedication and contributions make a significant difference in the well-being and safety of their communities. During emergencies, public events, disaster relief efforts, or community support initiatives, ham radio operators reliably provide communication, coordination, and assistance when traditional methods fail. Their commitment to public service is a testament to the positive impact that amateur radio can have on communities, inspiring others to get involved and make a difference. So, let's celebrate the ham radio operators who selflessly give their time, skills, and expertise to serve their communities and ensure a safer and better-connected world for all.

Youth in Ham Radio: Empowering the Next Generation of Radio Operators

As the world becomes increasingly interconnected, inspiring and empowering the next generation of radio operators is crucial. With its rich history and technical challenges, Ham radio provides a unique opportunity for youth to engage in a hobby that nurtures their technical skills and instills a sense of community and public service. In this article, we will explore how youth involvement in ham radio is essential for the hobby's future and its impact on public service efforts.

Continued on next page...

1. Encouraging STEM Education: Ham radio is an excellent platform for engaging young people in Science, Technology, Engineering, and Mathematics (STEM) education. The technical aspects of ham radio, such as understanding radio waves, building antennas, and operating equipment, create a hands-on learning experience that sparks curiosity and fosters a passion for science and technology. By involving youth in ham radio, we can inspire them to pursue careers in STEM fields, contributing to the growth and innovation of the global community.
2. Mentorship and Guidance: Experienced ham radio operators have a significant role in mentoring and guiding young individuals interested in the hobby. By sharing their knowledge and experiences, seasoned hams can help young operators navigate the complexities of ham radio, including licensing, equipment selection, and operating procedures. This mentorship provides invaluable support and encouragement, fostering a sense of belonging and creating a strong bond within the ham radio community.
3. Developing Communication and Leadership Skills: Engaging in ham radio at a young age allows individuals to develop essential communication and leadership skills. Through participating in contests, public service events, and community initiatives, young hams learn the importance of clear and effective communication, teamwork, and problem-solving. These skills are transferable to various aspects of life, empowering them to become confident and effective communicators in their personal and professional endeavors.
4. Public Service Involvement: Youth involvement in ham radio is crucial for the future of public service efforts. By inspiring and empowering the next generation of radio operators, we ensure the continuity of the important role ham radio plays in emergency communications, public events support, and disaster relief assistance. Young hams bring fresh perspectives and innovative ideas, contributing to the growth and advancement of public service initiatives within the ham radio community.
5. Creating a Supportive Community: Involving youth in ham radio creates a supportive and inclusive community where they can connect with like-minded peers. By attending ham radio clubs, youth-oriented events, and online forums, young hams can build friendships, share experiences, and learn from each other. This sense of community provides a nurturing environment for personal growth, fostering lifelong connections and a continued passion for ham radio.

Youth involvement in ham radio is essential for the hobby's future and its impact on public service efforts. By encouraging young individuals to explore ham radio, we inspire them to pursue STEM education, develop communication and leadership skills, and contribute to the growth and innovation of the hobby. Empowering the next generation of radio operators ensures the continuity of public service initiatives, creating a safer and better-connected world. Let us celebrate and support youth in ham radio, for they are the future leaders who will carry the torch of this incredible hobby, making a difference in their communities and beyond.

Tribute to Jeff Beals, WA4AW

Written by SE Division Director Mickey Baker, N4MB

Dear ARRL members in the Southeastern Division,

I'm writing you with the sad news that our Vice Director, Jeff Beals, WA4AW, became a Silent Key on Saturday, July 20, 2024, after a battle with cancer. Jeff was a friend to many over the years. He helped with all sorts of issues when I was president of the Broward ARC, including testing and listening to my complaints. I saw Jeff with every Section Manager at club meetings since 2000, guiding them, making sure ARRL was part of program! Jeff was a connector – his "super power" was finding volunteers and organizing events so that others would see the value of their service.

We'll see you next time!" And you knew he would call.

He "volunteered" many of us to charitable runs and bike rides, the South Florida Fair and many other events that promoted amateur radio, and hamfests. He volunteered entire clubs then challenged us to show!

I will miss Jeff at ARRL Board meetings – he would lean over and give me insight into ongoing (live) issues, and we always discussed difficult issues. Jeff has long-time friends, some from high school, on the ARRL Board. Jeff gave most of his free time to the ARRL and amateur radio. He was a dedicated "Servant Leader," with most weekends at activities with others. His life as an amateur radio leader and generally good person was exemplary.

Let us all remember Jeff's life of contributions with thanks and fondness. 73, Jeff. You will be missed

A tribute to Jeff Beals, WA4AW

By ARRL Southern Florida Section Manager Barry Porter, KB1PA

Jeff Beals, WA4AW became a silent key on July 20, 2024. He lived a life dedicated to community service and Amateur radio. Jeff was elected as Vice Director for the ARRL Southeastern Division in 2022, and was previously Vice Director in the SE Division from Aug 2009- Dec 2010.

He was active with the ARRL Field Organization since the late 70s. In the Southern Florida Section he served as the Section Manager, Assistant Section Manager, Affiliated Club Coordinator, Section Membership Coordinator, Technical Coordinator and Technical Specialist.

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Jeff was first licensed in the early 60s as WN2OUK at age 12 in Long Beach, NY , where he was active with the local 5 Towns Radio Club and Nassau County AREC/RACES.

He even had a 2 meter radio on his Bicycle. He held an Amateur Extra Class license and FCC First Class Radiotelephone license (now called a GROL).

Jeff's service with amateur emergency communications includes serving as Section Emergency Coordinator for the Southern Florida Section, Assistant SEC, District Emergency Coordinator for the Gold Coast District, Emergency Coordinator and County RACES Officer for Lee and Palm Beach Counties and member of the ARRL National Emergency Response Planning Committee. He was certified at all 3 levels of ARRL ARECC, EC-015, EC-016 and advanced FEMA training, He was also deployed to Hurricanes Frances , Jean, Wilma, Matthew & Irma.

Jeff was active with the Quarter Century Wireless Association (QCWA) He served as Secretary/Treasurer of the Palm Beach Chapter 111 since 1999 and a member of the National Board of Directors and Historian. He was a member of the Highlands, Edison, Everglades & Citrus Chapters of QCWA. He was elected Vice President of QCWA in 2023.

He was a life member of the ARRL, QCWA , OOTC and AWA and a Fellow of the Radio Club of America. Past President of the Fort Myers and West Palm Beach ARCs and a member of the Wellington RC, Port St. Lucie ARA, Florida Contest Group, FL East Coast DX Club and life member of the Fort Myers ARC, West Palm Beach ARC, Gold Coast ARA and Martin County ARA. He held membership in the ARRL A-1 Operator Club, Old Timers Club & Royal Order of the Wouff Hong. He also was named " Ham of the Year " by the West Palm Beach ARC. He was a CE and VE with the ARRL and W5YI VEC and VE with the Laurel VEC.

His personal tribute to the fathers of electronic communications are memorials to Major Edwin H. Armstrong and Philo T. Farnsworth and was trustee of the callsigns for their pioneering FM and TV stations.

He curated the Yesteryear Village Old Radio & TV Museum at the South Florida Fairgrounds in West Palm Beach. That club call is W4YYV. His other interests include collecting and restoring classic radios, traveling to hamfests, antique cars and radio-TV history. Professionally, He was the communications supervisor in SE Florida for the State of Florida Forestry Service. He was also a licensed insurance adjuster in the State of Florida and previously, a licensed insurance broker in New York State. He also owned a taxi company in Long Island.

Jeff's XYL, Myra, K3PGH is retired and they split their time between residences in Lake Placid & Royal Palm Beach, FL. They also volunteered at many amateur radio events throughout the year.

His presence will always be with us, but he will be deeply missed.

Rest in Peace.

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…

NFL Section Member of the Month!

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

Digital Library of Amateur Radio & Communications

Marty Brown, N4GL

Digital Library of Amateur Radio & Communications is now archiving ***QST NFL*** issues. DLARC is a project of the Internet Archive (the not-for-profit online library best known for The Wayback Machine.) DLARC is growing to be a massive online library of the past and present of ham radio and related communications. It is funded by a grant from Amateur Radio Digital Communications. You can see what we have so far at https://archive.org/details/dlarc .

Three years of QST NFL are now online, and I am working with the curator, Kaye Savetz, K6KJN, to eventually get all the issues that I have edited since 2014. DLARC can also scan paper issues. So if you have any stashed in your attic, let me know.

From the Section Emergency Coordinator

Arc Thames, W4CPD

Well hurricane season is certainly upon us and we may, in the next few days, see our first activation of the year. Now, well honestly last month, is the time to make sure you have your emergency gear tested and that you know how to reach your fellow ARES volunteers before, during, and after a disaster.

I wanted to take a moment to refresh everyone on where you can find important information about any activation that may occur. I try my best to keep each of these up to date before, during, and after, an activation statewide:

floridaemergency.net – The Florida AUXCOMM site. If I don't have time to update anything else, this site will always be up to date for an activation
arrl-nfl.org – Our section website. Updated with current section wide activation status
Florida EmComm Facebook Group – Not owned by our section but usually updated

ARRL Northern Florida Section Facebook Group – Usually updated with section status

As you can see, there are quite a few places I have to keep up to date and it sometimes can be daunting during an activation, but I do the best I can to keep them all in sync.

As a reminder, be kind and courteous during any activation period. Stress levels are high and the last thing we need is someone making rude comments or other activities on SARNET or HF. Activations generally don't last that long so please give way to those emergency communications activities for the small amount of time they generally operate on a frequency. We continually, year over year, end up with individuals who like to cause problems during these emergency situations. If you encounter a bad actor, the best thing you can do is ignore them and notify me of the activity. Technology has come a long way, and we do have ways to track these individuals down.

I hope you all stay safe this hurricane season and, should we encounter any storms that impact our section our state, I wish you all the best and will be here to support you in any way I can. If you're an experienced net control station, be on the lookout on the above-mentioned sites for calls for assistance when we activate our statewide emergency net.

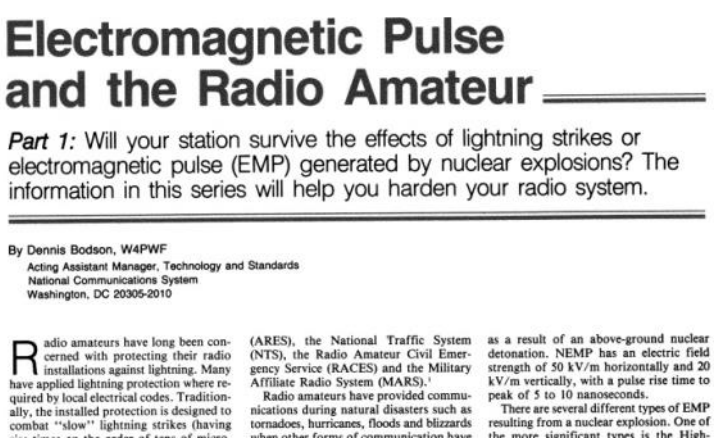
Monthly ARES Statistics

The ARRL is still experiencing server issues, so we are unable to provide the monthly report at this time.

Another EMP-Hardened Radio Back On The Air

Gordon Gibby KX4Z

Older vacuum-tubed based transceivers were tested and found basically invulnerable to simulated EMP effects. That makes them valuable to groups or agencies that want EMP-compatibility.



Electromagnetic Pulse and the Radio Amateur

Part 1: Will your station survive the effects of lightning strikes or electromagnetic pulse (EMP) generated by nuclear explosions? The information in this series will help you harden your radio system.

By Dennis Bodson, W4PWF
Acting Assistant Manager, Technology and Standards
National Communications System
Washington, DC 20305-2010

Radio amateurs have long been concerned with protecting their radio installations against lightning. Many have applied lightning protection where required by local electrical codes. Traditionally, the installed protection is designed to combat "slow" lightning strikes (having

(ARES), the National Traffic System (NTS), the Radio Amateur Civil Emergency Service (RACES) and the Military Affiliate Radio System (MARS).[1]

Radio amateurs have provided communications during natural disasters such as tornadoes, hurricanes, floods and blizzards

as a result of an above-ground nuclear detonation. NEMP has an electric field strength of 50 kV/m horizontally and 20 kV/m vertically, with a pulse rise time to peak of 5 to 10 nanoseconds.

There are several different types of EMP resulting from a nuclear explosion. One of

(See series of QST articles archived: https://www.nf4rc.club/how-to-docs/emp-resources/emp-the-radio-amateur/) There is NO NEED to "protect" them squirreled away in Faraday Cages. Rather they can be out and **in use.** They also provide great teaching examples of resonant tuned circuits for new hams! Our Alachua County EOC has a 500+-watt output system of an SB-100 and SB-200 amplifier. We often use these venerable radios to make connection to a SHARES nationwide voice net, and with a few connections, it can even send and receive MT63! Their "frequency accuracy" isn't great, but a simple inexpensive frequency counter can help a lot with that.

Maladies of Age

These old radios do suffer from many of the maladies of age, primarily in their extensive and complex **rotary switches**, used for the "band switch" and the "mode switch" (TUNE / USB / LSB / CW) Contacts corrode and cease making good connections. Several sprays of "contact cleaner" and vigorous exercise (along with some grease on the indent ball bearings) can revitalize some of these, along with some regular usage, but the MODE switch in particular switches 300 VDC to some oscillators, and is prone to significant damage. In the February 2024 NFL QST (https://arrl-nfl.org/wp-content/uploads/2024/01/00-QST-NFL-February-2024.pdf) I presented a novel printed circuit board allowing replacement of all of the functions of this switch by simple relays, which maintains the EMP-hardening of the radio.

Resurrected Transceiver!

The prototype radio for this refurbishment is now airwaves-ready again after this project rose back to the top of the list after Field Day. The mode switch replacement board required some innovative mounting, but works ***well***.

The band switch was more of an effort, as was retuning the transceiver. It is now working on 80/40/20 meters with typically 50 watts output, and I'm elated to have this radio ready for action again. A bit more work and possibly replacement of one or more of the final tubes (6146) may bring it to full 100-watt output on these bands.

Interesting historical details of the 6146 / 6146A / 6146W / 6146B: https://k9axn.com/attachments/THE_6146B_STORY_9U1.pdf

Loften High School Grant Request

Bob Lightner, W4GJ

The Loften high school Amateur Radio Club K4WTL, submitted an ARRL Grant proposal to acquire a satellite tracking station and some funding for our 100' Aluma tower install. We are praying that the grant request will be approved! Classes begin next month, so new freshmen will be exposed to HAM Radio!

North Florida Amateur Radio Club—Alachua County ARES®

Gordon Gibby KX4Z

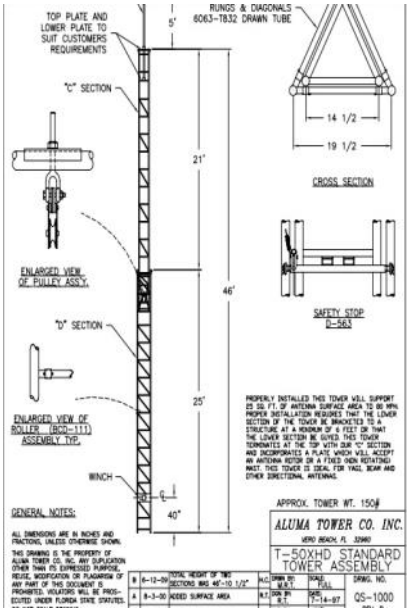
Highly Successful Field Day – AARIP written / Approved

Highly successful -- 1643 contacts, the group often exceeding 100 contacts per hour! -- but it was also **A LOT OF WORK**, we all concluded after transporting almost 200 pieces of equipment to operate 4A in 2024 Field Day with a team of only 14. Further, because the beautiful Park was also used for children's' day-camp, we had a **very compressed time schedule** to emplace all our gear.

In our post-event discussions, we think a 4F entry at the new EOC under construction could require as much as 70 fewer items to be transported -- and also allow spreading out the logistics over much longer time. Hence, everyone wants to do 4F next year!

Let's hope the new Alachua County EOC will be nearly finished by then!

We had over 30 items to "improve" in our notes, even though this Field Day was perhaps the smoothest one we've ever done, with more contacts than ever before. The full report can be studied here: https://www.nf4rc.club/historical-exercises/2024-field-day-aarip/



Fire Rescue Funds Upgrades to EOC Assets

David Huckstep W4JIR met with Fire Rescue Chief Theus and successfully presented the case for a backup portable ICOM 7300 station with amplifier AND a tilting, telescoping 50-foot tower at the new facility to allow our volunteer team to reach likely County Shelters even if repeaters fail.

Hooray for Chief Theus and Dave, too! This will make our backup efforts a lot more reliable.

Microwave Networking Big Success Once Again

Earl (K4ZSW) and Mark (KN4POZ) McDow hit it ***outta' da park*** again this year with their microwave networking that allowed our Field Day effort to span hundreds and hundreds of feet.

We put a promotional ARES(R) table at the July 13th Christian Preparedness seminar at Grace Baptist -- and garnered several new potential members!

Club Website	Club Discussion Forum	Email / Phone
https://www.nf4rc.club/	https://groups.io/g/NF4RC	docvacuumtubes@gmail.com 352 246 6183

Report from July 2024

The Villages Amateur Radio Club September Technician License Course

Brad Castelli KN9B - kn9b@arrl.net

The Villages Amateur Radio Club is holding a free in person Technician license course. Class will meet once a week for nine weeks followed by an ARRL/VE License Exam. The course is free and open to the public. Class meets on Monday evenings, Sep. 9 - Nov. 4, 2024 in The Villages, Florida. More class details and study resources are listed at ARRL.org and club websites; www.K4VRC.com ("Interest in becoming a ham" tab). You are encouraged to get your friends to sign-up too, so you can study together.

EWEphoria Radio Club Field Day 2024

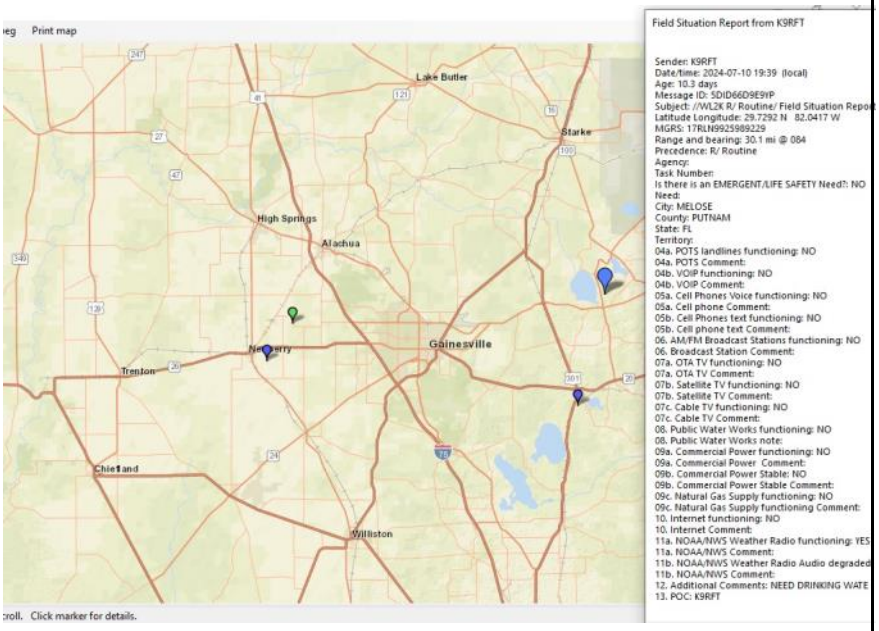
The EWEphoria Radio Club operated on Field Day from the Stonecrest Community Center in Summerfield, FL. Five stations were on the air operating phone, CW, and several digital modes. Participating were Randy N1JOO, Jerry KN4JER, Jim W2ODH, Angelo, KO4IPV, Brian KQ4LJC, Tom KQ4KHR, Kathy N8TKY, Bob KC8MLB. Carol W8EWE, and Bert N8NN.

This was a great opportunity to demonstrate amateur radio to the community.

GIS-Mappable Situation Reports via Ham Radio

Yet another volunteer capability to serve our nation

New WINLINK Capability Provides Backup Situational Awareness for Public Safety



Illustrative example of four volunteer reports mapped on an arcGIS street map background, with one report opened to show the detail within the report. Structured file outputs can also be provided.

CROWDSTRIKE Worldwide failure illustrates again need for backup systems

The security system Crowdstrike, widely utilized by larger companies and systems, caused massive Internet failures on July 20, 2024 with an "upgrade" that caused computer software failure.

The more our nations' systems become so dependent on the same few software systems, the more devastating are the outcomes when those systems have a flaw – or get hacked!

Volunteer ham radio operators can provide an alternative modest communications system for times like that…

Alachua County – The WINLINK developers apparently built this new capability quite a while ago, but I only recently began to understand its power. With this tool and a dispersed group of volunteer hams, you can hand your county's GIS team a file that has geographical reports of the field situation all over your county! Massive Internet failures seem to be on the rise, and this is an internet-free backup system that can be created with ham radio alone!

Here is how it works: volunteers use WINLINK message creation, and select a GIS-mapping Field Situation Report from the available "templates" – an option when creating a new message. Try to get your volunteers to use their GPS or cellphone-GPS (independent of cell networks) to enter their actual physical location (decimal degrees) – because using the 4-digit Maidenhead that is used by default is not very specific. Then they simply fill out the Field Situation Report, clicking to record whether each utility or information or power system is still working properly at their location.

In Alachua County, we have a nice VARA-FM digipeater system and we run a continuous peer-to-peer Winlink instance on 144.990 during disasters. Volunteers can connect and upload their message and it all aggregates right there at the EOC.

We can also receive regular reports via HF, etc. From there we can display the results on a arcGIS street background, or hand them off as a .kml file to the GIS team. The .kml file can be visualized using Google products, but the GIS team will be able to capture it and convert as needed into their systems.

Winlink web site:	https://www.winlink.org/	Report from July 2024

The Fascinating WINKEYER -- and a cheap club project!

Gordon Gibby KX4Z

Ham radio is such a fascinating and diverse hobby! We can work on community service, and delve into electronics experiments, and even try our hand at contesting!

David Fox NN4DF taught us the incredible features of the WINKEYER USB and how it could make Field Day CW so incredibly easy and productive. Thanks, Dave!! Took me a while, but the lesson took! (I had incredible fun during the 2024 Field Day and did 8 or so hours of CW with my personal best performance ever!)

That wily WINKEYER caused us fits however, because it didn't always seem to respond to N3FJP function keys (N1MM seems a little more forgiving?) -- and after two years of experimentation we may have found the answer.

The Winkeyer Secret

N3FJP opens and closes the keyer com port many times....and this works best if the default baud rate of the port in use is **set to the lowly 1200 baud**. Without this little point....the port can fail to make connections until you "open" it again....and it will then fail again shortly. What a tricky little beast!! It is possible this pertains only to certain computers or certain of the thousands of Microsoft Windows confusing "builds" -- but I have tested this and found it identical on two different Windows 10 computers.

Behold, a Cheaper Way!

Steve K1EL, who wrote the WINKEYER protocols has done a huge service to all of us CW ops. I have really enjoyed his product and wished I could afford many more! Anthony Good K3NG liked it so much that he wrote a complete emulation of the keyer for an Arduino micro-controller. The Arduino Nano can run his publicly available code, and is only $5. This is my chance! I can get another "Winkeyer" (equivalent)! And this has the look of a great club project, also!

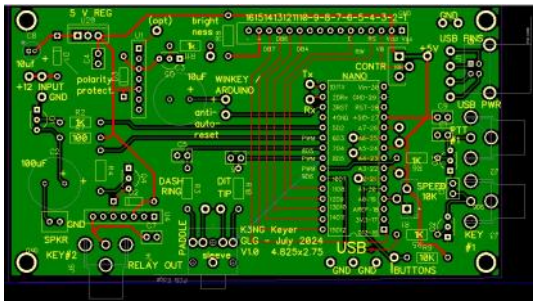
The Project

There are a few other crazy CW ops like me in our Alachua County groups (and also Brad in Columbia County) -- and so we're going to try to build our own Arduino-based Winkeyer.

Sure, you can BUY the K3NG keyer all commercially made, with a great enclosure -- but it isn't much cheaper than the REAL Winkeyer and what's the learning or fun in that?

I already have the keyer working on a $5 Arduino, interfacing perfectly with N3FJP logging software....so K3NG's software looks good!

So I put myself to work and came up with a draft printed circuit board and soon we'll be soldering away. The PCB is sized to fit into an $11 (Amazon) BUD CU 3006-A 5.25" x 3" 2.13" aluminum enclosure, using inexpensive standoffs. Suitable jacks etc will make it pretty easy to put into a station. I'm even going to include the 2-line LCD so it may be able to some amazing tricks in the future.



The PCB includes a fair number of "optional" circuits which can be ignored by those who just need a simple keyer. Did I mention cheap? Eric Pleace KO4 ***Zed*** SD has 3-D printed a great paddle! Wow!

Look for updates in future issues as we work on this project!

North Okaloosa and PARC

The Start of July had us running! Literally!

The North Okaloosa Team take a short jog (hihi) to Niceville and participates with the Ground Up Project for a newly established annual run benefiting Special Needs Adults. Read more about their organization here!

As you know 9and even if you didn't), NOARC is heavily involved in Volunteering throughout Okaloosa County and beyond! The team provides safety and security reports for events of all kinds to a central control station who then relays it to event officials. This cuts down on the need for the staff hosting the event to spend time in areas that pull away from their mission statement and provides direct engagement about the benefit of Amateur Radio and its uses in times of need and in times of established basic communications! Great job NOARC and keep up the momentum!

Want to do something fun and purposeful? Alex, KO4OJQ, came to the Club with an interesting build in work to show off! A Fox Hole Radio? *Editor Note: Thanks for the memories 5th Grade/Fox Hole & 6th grade/Cat's Whisker Crystal Radios & Novice Ticket*

What is a fox hole radio?! A foxhole radio is a makeshift crystal radio that soldiers built during WW2 to listen to local radio stations for entertainment. The radios were a safer alternative to vacuum tube radios, which could be traced by the enemy, and were often built using basic parts that didn't require a battery. That's right!! No power required!
Supplies
• Toilet paper tube
• Razor blade (If you can find a Blue one like the "PAL Super Single Edge" then great. Otherwise, you'll have to blue it by heating it up)
• Earphone
• Large safety pin
• Wood pencil stub
• Magnet wire
• A scrap of wood
• Paper clips
• Tacks

To make it, in short, 120 wire wraps around a tube tied to an antenna, a ground and a detector. They serve in conjunction with a cat whisker (pencil) and a razor blade with a high impedance earphone as a monitoring device.

This is essentially a crystal radio that can be used to listen to music, news, and all other information transmitted over the AM broadcast band. AM radio is still viable the world over and in the United States, vital information is still passed over it. Don't believe us? Turn off your Spotify and take a listen!

For detailed instructions go here: https://cdn.makezine.com/make/wp_foxholeradio.pdf

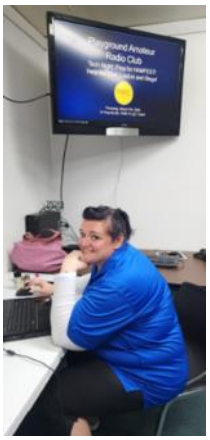
Don't forget to stop in at the Playground Amateur Radio Club on Sunday's at 3 pm central time! You never know what will come in the door!

The Playground ARC tests on a regular basis each odd month on the second Saturday at 9am CST. The last test session was on July

Continued on next page.

Don't forget to stop in at the Playground Amateur Radio Club on Sunday's at 3 pm central time! You never know what will come in the door!

The Playground ARC tests on a regular basis each odd month on the second Saturday at 9am CST. The last test session was on July 13. The next test session is September 14. The location is at the Clubhouse located at 17 A First St SE Fort Walton Beach Florida!



We would like to thank all of our Volunteer Examiners for their time and continued support for all of those who wish to embark on their journey or upgrade their skills!

At this time, we are highlighting our very own Activities Director from the Playground Amateur Radio Club! KQ4FRB/AG, Queenie is now a General License Holder! She has been a ham and heavily involved with the club since September of 2022, licensed since January of 2023, and now UPGRADED to general after studying vigorously while also hosting Amateur Radio Events, participating in the community as a member of the Playground Amateur Radio Club and the North Okaloosa Amateur Radio Club! Well deserved and an honor to have this level of commitment in the hobby!

Meet Paul Sapp, N4HFZ, a former USAF Flight Simulator VET (30 Years) used to go to Castle AFB in California and was able to sign for excess equipment that had passed its technological service due to the rapid technological expansion following WW2. His collection includes operational gear from the 1950's and on. The old military equipment from his MARS days at Castle AFB is to be considered a donation to the Playground Amateur Radio Club!

The following items are now added as Playground Club property and enhance the test bench!

- OS-8E oscilloscope got it new, Replaced parts over the years, but still functional. With manual
- TS-505 Electronic Multimeter: worked ok years ago, haven't used it in 15 years. With manual.
- URM-26 Signal Generator works ok, but attenuation circuit may be faulty. Tunes about 200 kHz to 30 mHz.

To see and learn to use these assets, please stop in at the Playground Amateur Radio Club based on our Calendar for our weekly Pile-Ups! You never know, you too can learn the ways of the old to understand what influenced the new! Be more than an operator, be a technician!

Coming soon to Amateur Radio! EVENTS! Lots of them! As we get into the coming cooler temperatures we begin our journey to hamfests, swapmeets, tailgates and in the middle of all of that, the Holidays! Yes, that's right! Amateur Radio Clubs are already planning our wonderful Holiday parties! For announcements concerning what, who, where, and when, you'll just have to tune in as planning develops. For other events upcoming in a part of the Florida Panhandle all you have to do is look below!

What: **NOARC's Annual Amateur Radio Hamfest**
When (Day 1): Saturday October 5th, 2024. VENDOR ONLY set up @ 0800. Soft show opening at 3pm until 6PM.
Amateur Radio License Testing: Saturday, October 5th, 2024, at 1PM CST. Details below!
When (Day 2): Sunday October 6th, 2024. VENDORS ONLY set up @ 0600. The full show opens @ 0800.

Admittance for Visitors and guests: $7.00 each person. Ages 12 and under FREE, ages 90 and above, FREE, Scouts in uniform, FREE!
Prices: Vendor Tables/Table Spots: $10.00 each spot/space/table (good for the entire show). First reserved, first served. If you are a walk-in on the day of the show, tables may be limited as this show typically sells-out.
Food: Meal and bake sale services provided by the Playground Amateur Radio Club of Fort Walton Beach Florida.
TALK IN: 147.360, +, 0.6, 100 Hz Tone
Contact Information:
Hamfest Hotline 850.359.9186 or email KI4ZER@ARRL.Net

Continued on next page.

License Testing:

- Saturday 5 October, 2024 @ 1pm CST. Cost is $10.00. Pre-registration is required at: https://w4aaz.org/exams-contact-form/.
- Only FRN's will be accepted and must be obtained prior to the show. FRN's may be obtained HERE or go to https://apps.fcc.gov/cores/userLogin.do.
- You must provide a printed copy to test.
- Current License holders must provide a copy of their license as part of the testing. This can be done by following this LINK. or go to https://www.fcc.gov/wireless/support/knowledge-base/universal-licensing-system-uls-resources/how-obtain-official.

The Playground Amateur Radio Club's 3rd Annual Swampfest Tailgate!

If you have not attended this YOU ARE MISSING OUT! While it's a tailgate, the Playground Amateur Radio Club with 53 years of full scale Hamfests under their Mic and Key uses the same energy, enthusiasm and skill to bring you a fall tailgate just before Thanksgiving! What's more,

The PARC Team hosts it all FOR FREE! No Charge for spots! Just show up and have a good time!

Donations are accepted for food!

Comments that you may find helpful

Gordon Gibby, KX4Z

FEMA OPERATIONAL BRIEFING

One of things I got was something from FEMA so I signed up for their "daily operational briefing" -- an AMAZING amount of information, some of which is very interesting! Since we like to know about the weather, you have it ALL RIGHT THERE in front of you!

Direct Link to a Briefing

https://www.disastercenter.com/FEMA%20Daily%20Operation%20Brief.pdf

To Sign up for this and other FEMA publications

https://public.govdelivery.com/accounts/USDHSFEMA/subscriber/new?topic_id=USDHSFEMA_153

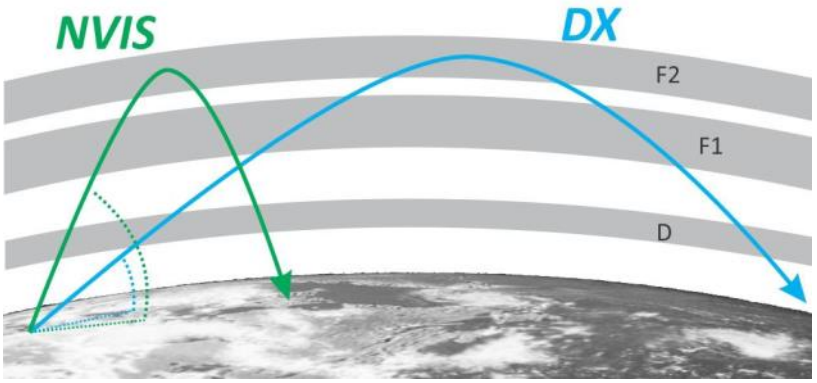
Group Growth

Groups don't automatically GROW. To the contrary, they automatically WITHER. And if groups don't do OUTREACH they end up with the "automatic" outcome. Groups like us require VERY SPECIAL PEOPLE. People who are **SMART, FLEXIBLE and COMMITTED**. There are plenty of people who have one or two of those characteristics, but few who have all three and therefore are really valuable to their communities in a volunteer role where they have to SERVE and not COMMAND. If we don't do OUTREACH.....I think you get the picture.

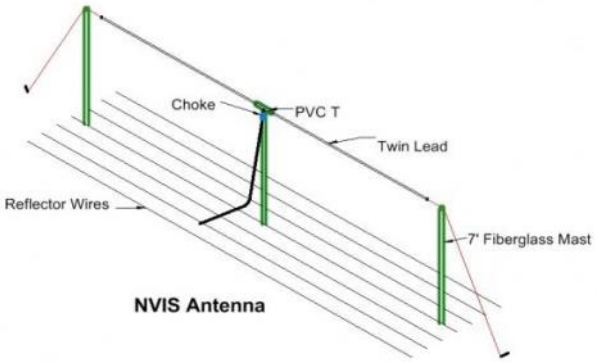
For the September Newsletter tell us how you're growing your group.

MERT - What is NVIS?[1] Near Vertical Incidence Skywave Antenna?

NVIS is a skywave radio-wave propagation path that provides usable signals in the near-field distance range up to 400 miles. It is used for military and para-military communications, broadcasting (especially in the tropics), and by HAM radio amateurs for nearby contacts circumventing line-of-sight barriers. The radio waves travel near-vertically upwards into the ionosphere, where they are refracted back down and can be received within a circular region up to 400 miles away.



If the frequency is too high (that is, above the critical frequency of the ionospheric F layer), refraction fails to occur and if it is too low, absorption in the ionospheric D layer may reduce the signal strength. There is no fundamental difference between NVIS and conventional skywave propagation; the practical distinction arises from different desirable radiation patterns of the antennas (near vertical for NVIS, near horizontal for conventional long-range skywave propagation).



Two types of effective Near Vertical Incidence Skywave (NVIS) antennas. Others exist.

1 Wikipedia (https://en.wikipedia.org/wiki/Near_vertical_incidence_skywave)

Continued on next page...

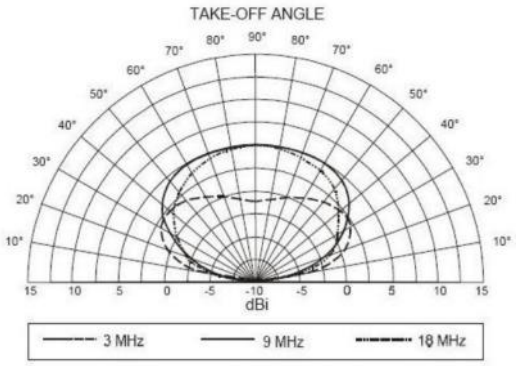
What does that look like in real life?

The effective result of the antenna is shown on the drawing. This mode of operation makes it ideal **for in-state communications during disasters or other emergency situations.** This is the reason it is a critical antenna resource for MERT and our need to communicate with the Florida Department of Emergency Management (FDEM) in Tallahassee, FL.

The most reliable frequencies for NVIS communications are between 1.8 MHz and 8 MHz (160 Meters to 40 Meters). Above 8 MHz, the probability of success begins to decrease, dropping to near zero at 30 MHz. Usable frequencies are dictated by local ionospheric conditions, which have a strong systematic dependence on geographical location.

Common bands used in amateur radio at mid-latitudes are 3.5 MHz (80 Meter) at night and 7 MHz (40 Meter) during daylight, with experimental use of 5 MHz (60 Meter) frequencies. During winter nights at the bottom of the sunspot cycle, the 1.8 MHz band (160 Meter) may be required.

Broadcasting uses the tropical broadcast bands between 2.3 and 5.06 MHz, and the international broadcast bands between 3.9 and 6.2 MHz Military NVIS communications mostly take place on 2–4 MHz at night and on 5–7 MHz during daylight.



What does the NVIS antenna radiation pattern look like?

The antenna name accurately describes the radiation pattern for most NVIS antennas. With the high take-off angle, the majority of the radiated energy is directed vertically and near-vertically towards the ionosphere.

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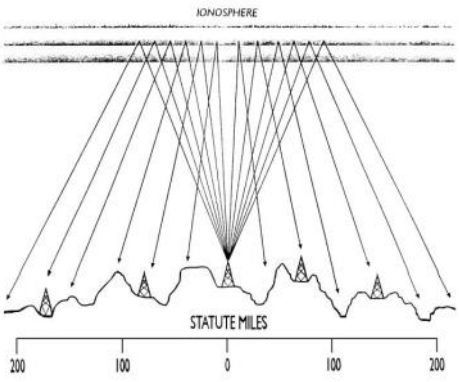
What does tMERT NVIS Antenna Test hat look like in real life?

The effective result of the antenna is shown on the drawing.



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MERT NVIS Antenna Test

Annually, MERT conducts a NVIS test for all members education and experience. MERT thanks past Coordinator Roger Staley (K4ZFW) for selling his NVIS antenna and past Coordinator Leon Jurcyszyn (K8ZAG) for donating it to MERT.

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!