



ARRL Affiliated Club Coordinator

August 2024 Newsletter

“Get the most from your ARRL membership by distributing this newsletter to all your fellow club members. And as always, I’m here to help you with all your ARRL needs!”

73,

Dudley KM4IYQ – ARRL E. TN. ACC

“Helping to preserve the future of Amateur Radio.”

ARRL TN Section/Division/National/International News

ARRL Audio News

Listen to the latest audio news from ARRL at: [August Audio News](#)

ARRL Latest QST Issue Link

Be sure and be logged into the ARRL Website: [August QST](#)

ARRL Urges Protecting the Amateur Radio 902-928 MHz Band

The Federal Communications Commission (FCC) accepted for public comment a Petition for Rulemaking filed by NextNav Inc., a licensee in the 900-MHz Location and Monitoring Service (LMS), to completely reconfigure the 902-928 MHz band and replace the LMS with high-powered 5G cellular and related location services.

The FCC Notice requested comment on the effects that NextNav’s proposals would have on amateur radio operations in the band. ARRL® The National Association for Amateur Radio® is preparing comments urging protection of existing and future amateur uses in this band and urges all amateurs to file their own comments describing their activities in this band and the expected effect of the proposed changes. Click here for a guide to filing comments. NextNav currently holds licenses in the 900-MHz band that authorize it to provide services

limited to determining the location and status of mobile radio units. NextNav ties its request to provide high-power broadband, cellular and location services to the vulnerabilities of the current satellite-based GPS system and argues that implementation of its proposal would complement GPS by providing an alternative nationwide terrestrial location system in addition to cellular and broadband services. Under its proposal, NextNav would be designated the sole nationwide licensee for this spectrum in exchange for its more limited licenses.

The new nationwide license would authorize NextNav to provide much higher-powered traditional broadband and 5G cellular services as well as the related location service occupying 15 of the total 26 megahertz available in the band. The reconfiguration proposed by NextNav would create a 5-megahertz-wide uplink subband at 902-907 MHz paired with a 10-megahertz downlink subband at 918-928 MHz. The 5-megahertz uplink subband would be limited to use by mobiles with a maximum of 3 watts ERP. On the 10-megahertz downlink subband, up to 2000 watts ERP would be permitted in rural areas and 1000 watts ERP in urban and suburban areas, radiating from tower structures that could reach 1000 or more feet above average terrain. These configurations reflect the FCC's rules for standard cellular configurations that have been adopted to govern a number of other bands used for similar 5G and like services.

Although uses by the Amateur Radio Service in this band are secondary to LMS, NextNav is proposing substantial technical and use changes that would completely alter the foundation upon which the current rules and spectrum sharing arrangements rely and undercut shared use of the band by amateurs as well as a variety of other users. In addition, NextNav proposes deletion of a specific interference provision in the Commission's rules that was adopted to encourage and protect continued sharing with amateurs and other secondary users.

NextNav, in its petition, argues without evidence that the changes that it proposes to the 902-928 MHz band "will not impede amateur operations." In an 8-page description of NextNav's proposal released by the FCC's Wireless Telecommunications Bureau, the FCC staff asks a series of questions that would clarify the proposal and help the Commission ascertain the likely effect of the proposed changes on existing users if the requested changes were adopted. Comment was specifically requested on the extent of amateur operations in the band, the potential impact of the proposed changes, any other spectrum options that may exist, and the costs for relocations if other options exist.

ARRL is preparing comments urging protection of existing and future amateur uses in this band. ARRL urges all amateurs to study the proposal and file their own comments describing their activities in this band and the expected effect of the proposed changes. The filing deadline is September 5, 2024. Replies to comments are due by September 20, 2024.

Click here for a guide to filing comments: [Comment Instructions](#)

ARRL IT Security Incident - Report to Members

Sometime in early May 2024, ARRL's systems network was compromised by threat actors (TAs) using information they had purchased on the dark web. The TAs accessed headquarters on-site systems and most cloud-based systems. They used a wide variety of payloads affecting everything from desktops and laptops to Windows-based and Linux-based

servers. Despite the wide variety of target configurations, the TAs seemed to have a payload that would host and execute encryption or deletion of network-based IT assets, as well as launch demands for a ransom payment, for every system.

This serious incident was an act of organized crime. The highly coordinated and executed attack took place during the early morning hours of May 15. That morning, as staff arrived, it was immediately apparent that ARRL had become the victim of an extensive and sophisticated ransomware attack. The FBI categorized the attack as “unique” as they had not seen this level of sophistication among the many other attacks, they have experience with. Within 3 hours a crisis management team had been constructed of ARRL management, an outside vendor with extensive resources and experience in the ransomware recovery space, attorneys experienced with managing the legal aspects of the attack including interfacing with the authorities, and our insurance carrier. The authorities were contacted immediately as was the ARRL President.

The ransom demands by the TAs, in exchange for access to their decryption tools, were exorbitant. It was clear they didn’t know, and didn’t care, that they had attacked a small 501(c)(3) organization with limited resources. Their ransom demands were dramatically weakened by the fact that they did not have access to any compromising data. It was also clear that they believed ARRL had extensive insurance coverage that would cover a multi-million-dollar ransom payment. After days of tense negotiation and brinkmanship, ARRL agreed to pay a \$1 million ransom. That payment, along with the cost of restoration, has been largely covered by our insurance policy.

From the start of the incident, the ARRL board met weekly using a continuing special board meeting for full progress reports and to offer assistance. In the first few meetings there were significant details to cover, and the board was thoughtfully engaged, asked important questions, and was fully supportive of the team at HQ to keep the restoration efforts moving. Member updates were posted to a single page on the website and were posted across the internet in many forums and groups. ARRL worked closely with professionals deeply experienced in ransomware matters on every post. It is important to understand that the TAs had ARRL under a magnifying glass while we were negotiating. Based on the expert advice we were being given, we could not publicly communicate anything informative, useful, or potentially antagonistic to the TAs during this time frame.

Today, most systems have been restored or are waiting for interfaces to come back online to interconnect them. While we have been in restoration mode, we have also been working to simplify the infrastructure to the extent possible. We anticipate that it may take another month or two to complete restoration under the new infrastructure guidelines and new standards. Most ARRL member benefits remained operational during the attack. One that wasn’t was Logbook of The World (LoTW), which is one of our most popular member benefits. LoTW data was not impacted by the attack and once the environment was ready to again permit public access to ARRL network-based servers, we returned LoTW into service. The fact that LoTW took less than 4 days to get through a backlog that at times exceeded over 60,000 logs was outstanding.

The board at the ARRL Second Board Meeting in July voted to approve a new committee, the Information Technology Advisory Committee. This will be comprised of ARRL staff, board members with demonstrated experience in IT, and additional members from the IT industry

who are currently employed as subject matter experts in a few areas. They will help analyze and advise on future steps to take with ARRL IT within the financial means available to the organization.

We thank you for your patience as we navigated our way through this. The emails of moral support and offers of IT expertise were well received by the team. Although we are not entirely out of the woods yet and are still working to restore minor servers that serve internal needs (such as various email services like bulk mail and some internal reflectors), we are happy with the progress that has been made and for the incredible dedication of staff and consultants who continue to work together to bring this incident to a successful conclusion.

The ARRL Simulated Emergency Test (SET) is coming this fall.

This nationwide exercise is the chance to test your personal emergency-operating skills and the readiness of your communications equipment and accessories in a simulated emergency-like deployment.

ARRL Field Organization leaders at the section and local levels, and many other volunteers who are active in public service and emergency communications, are developing scenarios in consultation with a variety of agencies and organizations for whom radio amateurs are known to provide service during emergencies.

The League's ARES, National Traffic System (NTS), the governmental Radio Amateur Civil Emergency Service (RACES), SKYWARN [™], Community Emergency Response Teams (CERT), the Salvation Army Team Emergency Radio Network (SATERN), and other allied groups and public-service oriented radio amateurs are among those who are eligible to participate in the exercise to practice emergency operation plans, nets and procedures. The ARRL has longstanding relationships with several national organizations including the American Red Cross, the National Weather Service, the Federal Emergency Management Agency, and the Salvation Army (among others). More information on these and other national served agencies may be found at www.arrl.org/served-agencies-and-partners.

Let this year's ARRL Simulated Emergency Test be a chance to reach out to these partners to establish or review plans and develop working relationships. More information can be found at <https://www.arrl.org/simulated-emergency-test>

National Preparedness Month is September.

This is a nationwide effort to encourage all citizens to take steps to prepare for emergencies in their homes, workplaces, schools and communities. The U.S. Department of Homeland Security works with a wide variety of organizations to highlight the importance of emergency preparedness and to promote individual involvement through events and activities across the nation. We encourage you to consider this year's Simulated Emergency Test (and all preparations for it) as a demonstration of amateur radio's readiness. More information on National Preparedness Month is found at www.ready.gov.

ARRL Teachers Institute on Wireless Technology Adds Third Level



ARRL continues to develop the highly successful ARRL Teachers Institute on Wireless Technology. Much as is done with new equipment in the amateur radio hobby, a prototype is being tinkered with this week: TI3. The third phase of the program is centered around space. Teachers who have each been through the previous versions of the program are at ARRL Headquarters in Newington, Connecticut, to test the program.

ARRL Education and Learning Manager Steve Goodgame, K5ATA, said having the experienced educators on hand to test out the new training is invaluable. “This is really about taking it a step further – providing a highly specialized form of training. We’ve developed a good program, but you never know how well something is going to work in practice until you try it.”

The educator-hams of this first cohort couldn’t be happier to experiment with it.

“I like that it’s a small group and that it’s laid back and that we’re all in it knowing it is a beta group – so if something doesn’t go exactly as planned, the people that are here are very flexible in changing what we’re doing,” said Megan Tucker, KQ4MAM, Dean of Curriculum/STEAM Specialist at Hillsborough Charter Academy in Hillsborough, Virginia.

Tucker earned all three levels of amateur license since last October. “For me, as someone who has been very dialed in to aerospace, it’s nice to get into something that is a little more technical. I was petrified coming in and the best part about this is that, once you’re here and you’re with other people, you see that everyone had different strengths and that is possible.”

The educators have built and released pico balloons, antennas for radio astronomy, and other more advanced projects within amateur radio. The cohort will cap off the week with a field trip to the Massachusetts Institute of Technology Haystack Observatory.

The ARRL Teachers Institute on Wireless Technology is funded entirely by gifts to the ARRL Education Fund.

New York High School Helps License Young Hams



On August 1, 2024, Steve Goodgame, K5ATA, ARRL Education and Learning Manager, took a train trip to New York City to visit the Staten Island Technical High School. He was there to help administer amateur radio exams to 49 students and all passed their exams. Several upgraded their licenses from General to Extra class and two students went from unlicensed to Extra class in one sitting.

Their teacher, Everton Henriques, KD2ZZT, attended ARRL's Teachers Institute on Wireless Technology TI - 1 last year and TI - 2 this year. Since then, Everton has helped over 100 kids successfully test for their amateur radio licenses. He has built a program incorporating HF, local repeater use, foxhunting, and space communications and has plans to incorporate mesh networking with his students this coming school year.

On August 6, 2024, Henriques was helping his students build antennas to help make contact with the International Space Station. They made a 5-element VHF "bad boy" antenna with a mounting mechanism to rotate and pitch the heading using 3D-printed materials, PVC, and aluminum rods. They tried using an IC-2730a VHF/UHF radio on medium power. While that didn't go as well as planned, they were able to hear a lot of activity on 70 centimeters.

Staten Island Technical High School began as a New York City public high school in 1988. Its student body is comprised of lifelong learners, innovation facilitators, contributors to the betterment of society and intellectually inquisitive young men and women. In September of 2005, the school was granted the status as New York City's 7th Specialized High School by the New York City Department of Education. New York City's Specialized High Schools are comprised of the most academically gifted and talented students.

Ethics and Operating Procedures For The Radio Amateur and Radio Amateur's Code

This is a subject that is rarely explored or discussed among clubs and radio enthusiasts. So, it is fitting that time to time we should review ethics and operating procedures in order to better improve our operating skills on the bands, especially the newly licensed radio amateurs.

Today, when scanning the bands for activity, one will sometimes experience poor operating habits and in some cases, deliberate use of foul language and rudeness. This is unfortunate and these operators only contribute to radio interference and lowers the overall operating "bar" so to speak. Also, for the newly licensed operators, this can make for a very disappointing discovery in their newly found endeavor.

There's an old saying, "Lead by example". Experienced radio amateurs should do just that by maintaining and honing their operating skills routinely for others to learn by. Think about it. One of the first things we ask newly licensed operators to do is listen and learn and then talk. So, what should they hear? This question is easily answered.

On the flip side, don't be a "grumpy ham" playing frequency police! There are monitoring services that takes care of those issues. The last thing we need is a "grumpy" pointing out on the air everything another radio amateur is doing wrong. This just creates unnecessary chaos and confrontation resulting in more QRM. Instead, make a contact with that operator and have a friendly textbook QSO. Just another way to "lead by example". Maybe your skills will be noticed and have an impact.

In conclusion, and in the spirit of my continuing efforts in "preserving amateur radio", I am providing a link to an interesting pdf document from the International Amateur Radio Union (IARU) on this very subject. Amateur Radio is a world community. The ethics and operating procedures discussed in this document still apply today. I suggest that you share this link with all your radio amateur friends and club members. You might even consider having a discussion on key subjects addressed in the document at one of the coming club meetings.

Please join me in my continued effort to preserve amateur radio for our future!

73 and good operating,
Dudley Pitts KM4IYQ

[Ethics and Operating Procedures for the Radio Amateur](#)

ARRL Student Membership

Discover and explore radio communications and technology through amateur radio. As an ARRL member, you'll learn skills and make connections that may advance your education and future career goals.

ARRL Student Membership was established to increase youth participation and long-term involvement in amateur radio. Student members can access ARRL membership benefits including the digital versions of ARRL magazines, and the extensive courses and training materials available through the ARRL Learning Center.

Please note: ARRL requires age verification for all student members. Parental/Guardian consent is required for applicants under 18 years of age. Student memberships are not eligible for add-on printed membership magazine subscriptions. Student membership benefits are subject to other restrictions and exclusions.

Student Membership options:

- **Option 1: Full Student Membership.** Dues rate \$30 per year. This low-cost membership option is available to US Amateur Radio licensees under the age of 26 years. Applicant must be a resident of the US, its possessions, or Puerto Rico. A full member may vote in ARRL elections for Division Director, Vice Director, and Section Manager. Other restrictions and exclusions may apply.
- **Option 2: Free Student Membership.** This no-cost, Associate membership option is available to full-time students aged 21 years or younger. Applicant must be a resident of the US, its possessions, or Puerto Rico. Free Student Membership excludes access to the ARRL E-mail Forwarding Service, and Associate members may not vote in ARRL elections. Other restrictions and exclusions may apply.

Become an ARRL student member today!

[Student Member Application](#) or [Student Membership Renewal](#)

How to Plan and Apply for an ARRL Hamfest or Convention

If your amateur radio club is planning to host a convention, hamfest, tailgate, or swapfest, please consider applying for it to be an ARRL-sanctioned event. To learn what it means to be an ARRL-sanctioned event, and to get some ideas on how to prepare for and conduct a hamfest or convention, visit: <https://www.arrl.org/arrl-sanctioned-events>

To have your event sanctioned, complete the online application at :
<https://www.arrl.org/hamfest-convention-application>

Please send a copy of the application that returns to you to Steve Ewald at sewald@arrl.org.

The ARRL Hamfests and Conventions Calendar can be found online at
<https://www.arrl.org/hamfests-and-conventions-calendar>.

In addition, the Convention and Hamfest Calendar that runs in QST each month also presents information about upcoming events.

TN Hamfests/Conventions

Click on the name to take you to their website or ARRL details for more information:

08/24/2024 - [Cedars of Lebanon Hamfest](#) – Lebanon, TN.
10/18-19/2024 – [Chattanooga Hamfest](#) – Chattanooga, TN.

Handy ARRL Links

- ARRL Home: www.arrl.org
- ARRL Property/Liability Club and Personal Insurance: <https://www.arrlinsurance.com/>
- Find help with RF assessments: <http://www.arrl.org/rf-exposure>
- Find an ARRL Affiliated Club: www.arrl.org/clubs
- Find your ARRL Section: www.arrl.org/sections
- Find a license class in your area: www.arrl.org/class
- Find a license exam in your area: www.arrl.org/exam
- Find a hamfest or convention: [Hamfests Calendar](#)
- ARRL Teachers Institute: [Teachers Institute](#)
- ARRL Learning Center: [Learning Center](#)

East Tennessee Affiliated Club Links

The following is a list of all the affiliated amateur radio clubs in the eastern half (my area) of TN.:

American Legion Amateur Radio Club – Sevierville, TN. <https://www.legion.org/hamradio3>

Andrew Johnson Amateur Radio Club – Greenville, TN. <https://ajarc.org/>

Amateur Radio Club of the University of TN – Knoxville, TN.
<https://www.utarc.org/p/home.html>

Big South Fork Amateur Radio Club – Huntsville, TN. <https://bsfarc.org/>

Bristol Amateur Radio Club – Bristol, TN. www.facebook.com/groups/w4udbarc/

Campbell County Amateur Radio Club – Jonesboro, TN. www.CCARClub.org

Carter County Amateur Radio Association – Elizabethton, TN. <http://www.wr4cc.org>

Chattanooga Amateur Radio Club – Hixson, TN. <https://www.w4am.net/>

Cleveland Amateur Radio Club – Cleveland, TN. <http://www.carc.cc/>

Cumberland Plateau Amateur Radio Club – Crossville, TN. <http://CPARC.net>

Dekalb-Cannon County Amateur Radio Club – Smithville, TN. <http://www.dccarc.org>

East Tennessee DX Association – Knoxville, TN. <http://www.etsdx.net>

Hawkins Hancock Amateur Radio Team, Inc. – Rogersville, TN.
<https://www.facebook.com/groups/536078334756112/>

Johnson City Radio Association, Inc. - Jonesborough, TN. <https://jcara.org/wp/>

Johnson County Amateur Radio Club – Mountain City, TN. <https://www.w4mct.com/>

Kingsport Amateur Radio Club – Kingsport, TN. <http://w4trc.org>

Bays Mountain Radio Club – Kingsport, TN. <http://w4trc.org>

Lakeway Amateur Radio Club – Talbott, TN. <https://www.facebook.com/lakewayamateurradio/>

Macon Area Amateur Radio Society – Lafayette, TN. <http://MaconHamRadio.com>

Middle East Tennessee Emergency Radio SE – Knoxville, TN. <http://www.metersinc.org>

Oak Ridge Amateur Radio Club, Inc. - Oak Ridge, TN. <http://www.orarc.net>

Off-Grid AuxComm Radio Club – Knoxville, TN. <https://off-gridauxcommradioclub.com/>

Plateau Amateur Radio Club – Monroe, TN. <http://parcltn.com/>

Radio Amateur Radio Club of Knoxville – Knoxville, TN. <https://www.w4bbb.org/>

Rhea County Amateur Radio Club – Dayton, TN. <https://www.rheacountyarc.org/home>

Roane County Amateur Radio Club – Kingston, TN. <http://www.ke4rx.org>

Sevier County Amateur Radio Society – Sevierville, TN. <https://seviercountyars.com/>

Smoky Mountain Amateur Radio Club – Maryville, TN. <https://w4olb.org/about>

Tellico Lake Amateur Radio Club – Lenoir City, TN. <https://tlarc.org/>

Unicoi County Amateur Radio Association – Unicoi, TN. <http://www.ucara.org>

University of Tennessee Amateur Radio Club – Knoxville, TN. utarc@utk.edu

University Amateur Radio Club – Johnson City, TN. info@etsu.edu

Wilson Amateur Radio Club – Lebanon, TN. <https://wilsonarc.org/>