



# Ham Radio in the 21st Century

## ARRL New England Division Town Hall Meeting

Fred Kemmerer, AB1OC - New England Division Director  
Phil Temples, K9HI - New England Division Vice Director

SEPTEMBER 5<sup>TH</sup>, 2024

# Topics



- Protecting Our Spectrum
- Cyber Attack
- Assistance for Hams in Restricted Situations
- Our Path Forward
- Help with RFI
- Public Service and EmComm
- Hamfests and Events
- Q&A

# Protecting the Amateur Radio 902-928 MHz Band



## ARRL Urges Protecting the Amateur Radio 902-928 MHz Band

08/15/2024

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.

- More information at - [www.arrl.org/news/arrl-urges-protecting-the-amateur-radio-902-928-mhz-band](http://www.arrl.org/news/arrl-urges-protecting-the-amateur-radio-902-928-mhz-band)
- ARRL is submitting comments
- ARRL urged all amateurs to study the proposal and file comments describing their activities in this band and the expected effect of the proposed changes.
- Over 500 comments have been filed from multiple sources including many Hams
- A big "Thank You" to members who have filed comments,

# Shortwave Modernization Coalition Proposal to the FCC



- The ARRL lab has reviewed the technical rules proposed in SMC's petition from the standpoint of potential interference to Amateur Radio communications.
- A technical analysis has been prepared for submission to the FCC.
- The ARRL analysis demonstrates that the rules as proposed in SMC's petition, if adopted, would pose a clear potential for interference into the Amateur bands.
- It may be possible for high-power HF transmissions to co-exist with Amateur communications, but not with the technical rules proposed by SMC.
- More on ARRL's filing on this matter can be found at - <http://www.arrl.org/news/arrl-files-comments-against-seriously-flawed-hf-rules-petition>

# Cyber Attack



## ARRL Member Bulletin



August 21, 2024

### 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.

- This was a ransomware attack.
- Within hours, a crisis management team was 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.
- That ransom payment, along with the cost of restoration, has been largely covered by ARRL's insurance policy.
- Most systems have been restored or are waiting for interfaces to come back online to interconnect them. 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.



# Hams in Restricted Situations



- The board formed a new working group to develop resources to help Hams in **restricted operating situations**
- Areas that are being worked on include -
  - Updated and new publications for Hams in these situations
  - Briefs on antennas and other station resources for Hams with restrictions
  - Guidance for working with administrators in restricted situations
  - Guidance and assistance for developing shared stations
- The board approved the first of the Work Group's recommendations in July
  - Work is continuing
- Ideas and success stories from Hams in these situations are helpful and welcome – [ab1oc@arrl.org](mailto:ab1oc@arrl.org)

# The Future of Amateur Radio



## Some important facts...

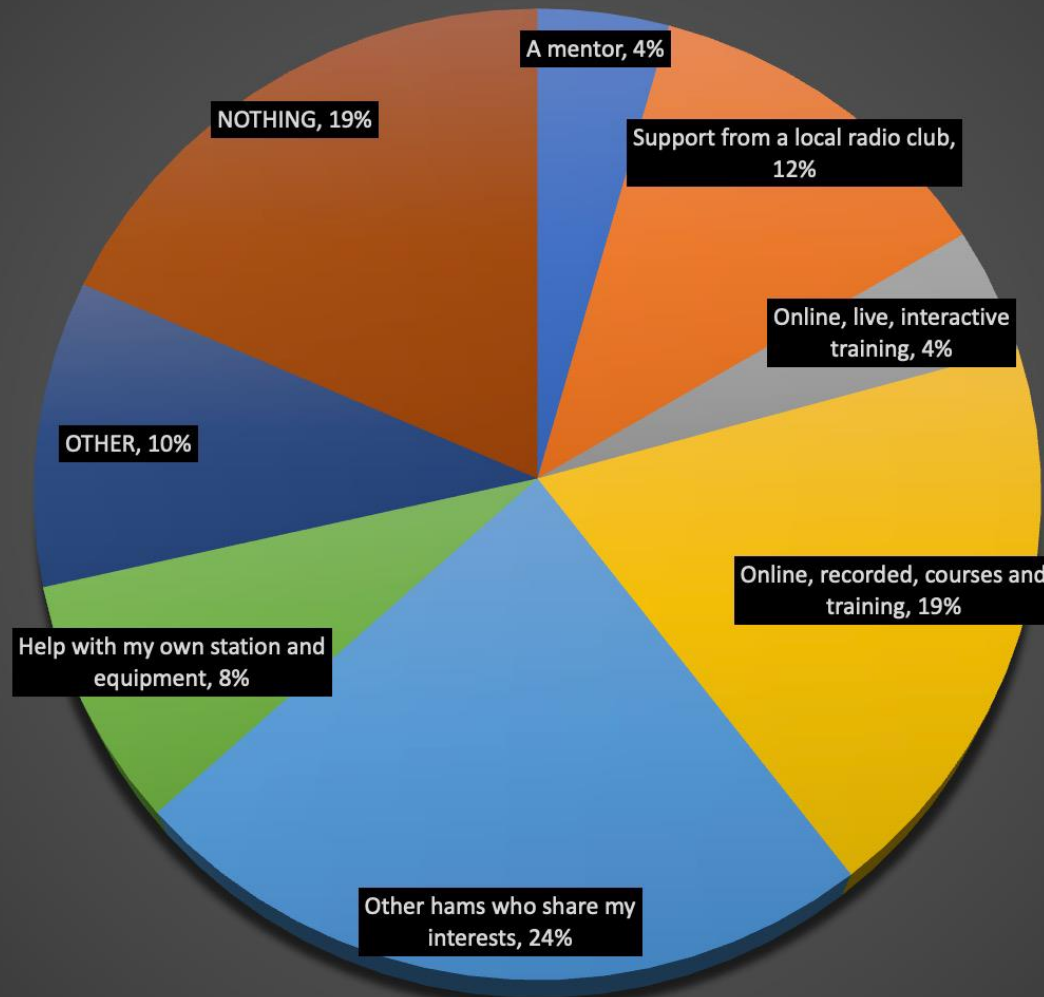
- The U.S. Amateur Radio population is aging. This is having significant impacts on many aspects of Amateur Radio.
- While we are licensing new people, many new Hams are not becoming active
- Club membership is declining in many places. A few clubs are growing rapidly – why?

Bringing New People of All Ages into Amateur Radio is Fundamental to a bright future for almost every aspect of our hobby/service.

# Member Survey Results



Question 11: What, if anything, might help you stay active (or become more active) in amateur radio?





# New Ham Development



## ARRL Support

- The updated ARRL Strategic Plan adds a new advocacy for STEM learning through Amateur Radio (approved unanimously)
- Club Grant Program is making \$1M available for projects including STEM Learning, Mentoring, and Ham Development
- Acquisition of Gordon West Licensing resources
- Board Actions and Motions (all approved unanimously):
  - Initiate programs supporting Licensing, Bootcamps, and Live Interactive Training
  - Promotion and Training to help Techs and others utilize 10m and 6m
  - No-cost associate membership for full-time students under 22
  - Coding Competition for Amateurs under the age of 22
  - Programs to support Remote Stations
  - Support for Amateurs with limited time and/or funds

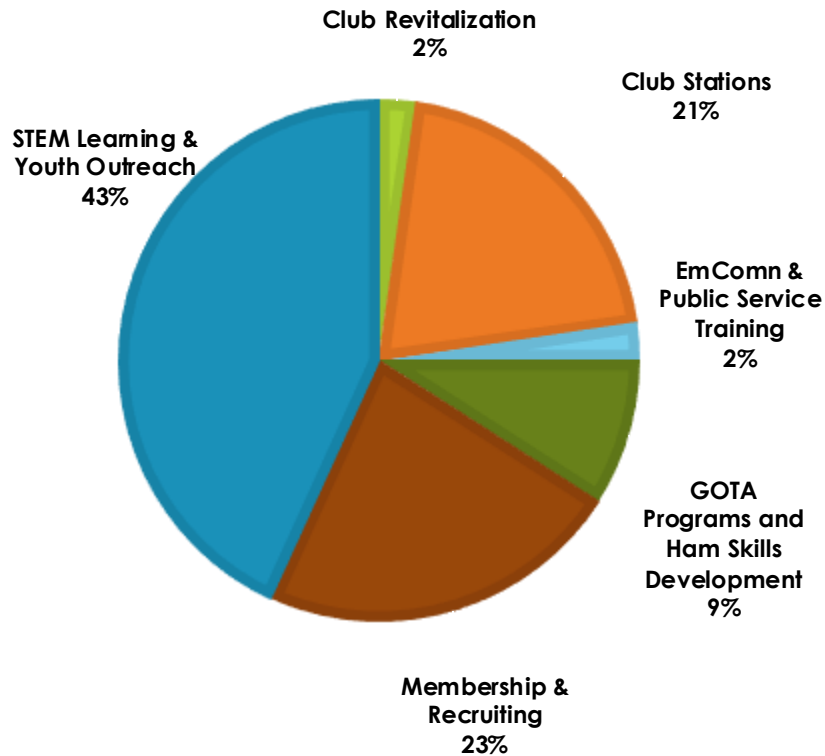
The ARRL is putting a lot of “wood” behind its New Ham Development and STEM Learning “arrows.”

# ARRL Foundation Club Grants

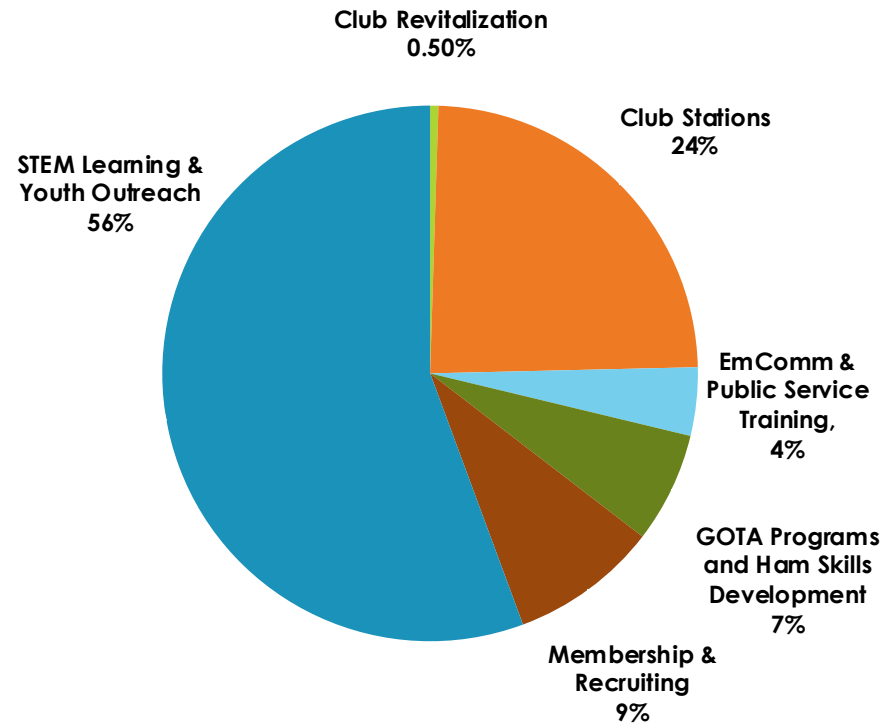


## 2023 Grants

### By Category



### By Amount



# Gordon West Licensing Resources



- ARRL completed the acquisition of Gordon West, WB6NOA licensing manuals
- Gordon named the ARRL National Instructor
- The acquisition supports Ham Development and Licensing initiatives passed by the Board

More information on [arrl.org](http://arrl.org) [here](#).

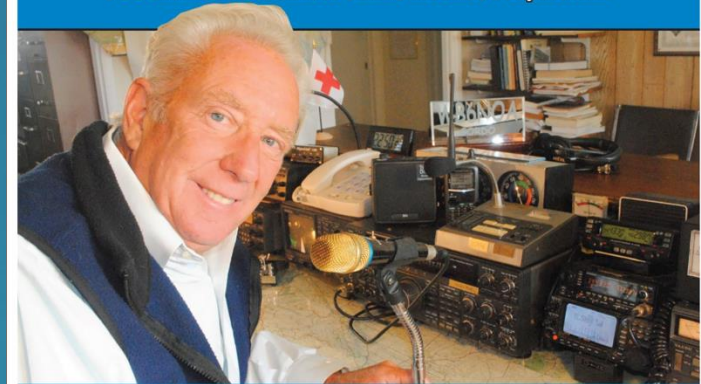
Contains the complete 430-question  
FCC Element 3 question pool effective  
July 1, 2023 to June 30, 2027



by **GORDON WEST, WB6NOA**

**2023  
2027 GENERAL CLASS**

FCC Element 3 Amateur Radio License Preparation



with **Eric P. Nichols, KL7AJ**



# The Future of Amateur Radio



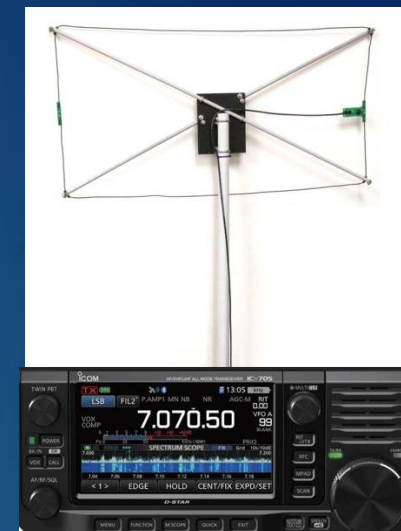
## What else can we do? Where do we need help?

- We need to focus on mentoring and helping inactive Hams to get on the air and become active
- We need to be open to activities and projects that interest less experienced Hams
- The ARRL needs to expand its content and programs to include a stronger focus on new Hams
- Several Clubs are experiencing strong growth by doing these things

You Can Make a Big Positive Difference through  
Mentoring and New Ham Outreach

# RFI Teams

Contact Rob Leiden,  
K1UI for Assistance  
[k1ui@arrl.net](mailto:k1ui@arrl.net)



- September 2022 - ARDC Grant Awarded (\$23.6K)
- Teams trained and equipment is deployed in all New England Sections
  - Currently, 50 RFI team members.
- New initiatives for club training and video production are being developed.
- Lessons learned so far being folded into division web site.
- groups.io - [spectrum-protection-and-use](https://groups.io/g/spectrum-protection-and-use)
- Website - [nediv.arrl.org/rfi-troubleshooting-guide](https://nediv.arrl.org/rfi-troubleshooting-guide)



# NTS 2.0 And The NTS Letter



## The NTS™ Letter

National Traffic System®

[ARRL Home Page](#)

[The NTS Letter Archive](#)

- [Welcome to the ARRL NTS Letter](#)
- [NTS 2.0 Project](#)
- [ARRL West Gulf Division Exercise Prepares for Welfare Traffic Ahead of Hurricane Season](#)
- [Spotlight: Frank Hobbs, KN4QJ](#)
- [NTS Shorts](#)
- [NTS Resources](#)
- [Sign up to receive The NTS Letter](#)

### Welcome to the ARRL NTS Letter

*Marcia Forde, KW1U, Section Traffic Manager – Eastern Massachusetts, Western Massachusetts, and Rhode Island*

Welcome to the premiere issue of *The NTS Letter*! It has been a long time since ARRL sponsored a regular column or publication about the National Traffic System®. Now, thanks to the NTS 2.0 project and all the hard work of the NTS 2.0 teams, this is changing, and we are excited to bring you this monthly



- NTS 2.0 program goals include modernizing and improving support for the National Traffic System
- We've launched a new NTS Letter!
  - Opt In via your profile page on [arrl.org](http://arrl.org) (use the "edit" link)
- More information on the NTS 2.0 website – [nts2.arrl.org](http://nts2.arrl.org)
- Ongoing work includes:
  - Training development
  - Updating standards and procedures
  - Modernizing recognition and awards
  - Improving NTS Reliability, Coverage, and Performance
  - And more

What to contribute or volunteer to help? Reach out to us at [ntsletter@arrl.org](mailto:ntsletter@arrl.org)

# National Preparedness Month



## Resilience Through Amateur Radio for National Preparedness Month

08/30/2024

Amateur radio is an excellent tool for community resilience in times of crisis. The utility value of the critical communications it provides is enhanced by having well trained local Amateur Radio Emergency Service® (ARES®) groups and other teams. However, to maximize the value to yourself, your family, and your community; an operator must be prepared. September is National Preparedness Month. ARRL's partners at the Federal Emergency Management Agency (FEMA) are sharing tips to help you be prepared. They are centered around the theme of "Start a Conversation".

ARRL Director of Emergency Management Josh Johnston, KE5MHV, is starting the conversation with radio amateurs to help make sure you, your station, and your family are ready for whatever may come your way. "It's important that we take steps to ensure that not only are we ready to provide assistance to our served agencies, but that we have a plan for our families as well," he said.

Over the month of September, ARRL will share best practices to help prepare you, your station, your family, and your local ARES® group to thrive in times of emergency. "There are times when hams may be activated to serve when all aspects of your life, your station, and your environment are under stress. That's not the time to start planning or to discover shortcomings," said Johnston.

Johnston encourages any radio amateur who is interested in participating in ARES® to check out the "Join ARES" flyer, then reach out to their local ARRL Emergency Coordinator. If you don't know who that is, find your local ARRL Affiliated Club, or reach out to your ARRL Section Manager or Section Emergency Coordinator, whose contact details you can find on page 16 of QST or on [www.arrl.org/sections](http://www.arrl.org/sections).

- Josh Johnston KE5MHV will be sharing tips and helpful information via the ARRL Letter
  - Opt In via your profile page on [arrl.org](http://arrl.org) (use the "edit" link)
- Interested in Emergency Communications and Public Service?
  - Learn more about ARES at - [www.arrl.org/ares](http://www.arrl.org/ares)
  - Learn more about the National Traffic System at - [nts2.arrl.org](http://nts2.arrl.org)



**Amateur Radio  
Emergency Service®  
[ARES®]**

# NE Division Communications



- **Town Hall Meetings** – *two so far in 2024, a third is being held tonight*
- **Cabinet Meetings** – *one held in 2024, a second planned for later this year*
- **Club Meeting Attendance**
  - Director, Vice Director, and Asst. Directors Regularly attend club Meetings
- **2024 Hamfests**
  - ✓ HAM-CON in VT – February 24<sup>th</sup>
  - ✓ Contoocook Valley Radio Club Hamfest – March 17<sup>th</sup>
  - ✓ Spring NEAR-Fest in NH – April 25<sup>th</sup> and 26<sup>th</sup>
  - ✓ HamXposition in MA – August 22<sup>nd</sup> - 25<sup>th</sup>
    - Windsor Hamfest in ME – September 7<sup>th</sup>
    - Fall NEAR-Fest in NH – October 4<sup>th</sup> and 5<sup>th</sup>
    - Nutmeg Hamfest, CT State Convention – October 13<sup>th</sup>
- **Important: Please register your Hamfest for ARRL Sanctioning and Scheduling.**







# Questions and Feedback?